

# **PDC ENERGY**

**WELD COUNTY, COLORADO  
SW SW SEC. 28 T5N R67W 6th P.M.  
KINZER 28I-202**

**ORIGINAL WELLBORE  
PROPOSAL #1**

## **Anticollision Report**

**25 March, 2016**



# Anticollision Report



<b>Company:</b>	PDC ENERGY	<b>Local Co-ordinate Reference:</b>	Well KINZER 281-202
<b>Project:</b>	WELD COUNTY, COLORADO	<b>TVD Reference:</b>	KB-EST @ 4797.5usft
<b>Reference Site:</b>	SW SW SEC. 28 T5N R67W 6th P.M.	<b>MD Reference:</b>	KB-EST @ 4797.5usft
<b>Site Error:</b>	0.0 usft	<b>North Reference:</b>	True
<b>Reference Well:</b>	KINZER 281-202	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Well Error:</b>	0.0 usft	<b>Output errors are at</b>	2.00 sigma
<b>Reference Wellbore</b>	ORIGINAL WELLBORE	<b>Database:</b>	EDM 5000.1 Single User Db
<b>Reference Design:</b>	PROPOSAL #1	<b>Offset TVD Reference:</b>	Offset Datum

<b>Reference</b>	PROPOSAL #1		
<b>Filter type:</b>	NO GLOBAL FILTER: Using user defined selection & filtering criteria		
<b>Interpolation Method:</b>	MD + Stations Interval 100.0usft	<b>Error Model:</b>	ISCWSA
<b>Depth Range:</b>	Unlimited	<b>Scan Method:</b>	Closest Approach 3D
<b>Results Limited by:</b>	Maximum center-center distance of 10,000.0 us	<b>Error Surface:</b>	Elliptical Conic
<b>Warning Levels Evaluated at:</b>	2.00 Sigma	<b>Casing Method:</b>	Not applied

<b>Survey Tool Program</b>	<b>Date</b> 25/03/2016			
<b>From (usft)</b>	<b>To (usft)</b>	<b>Survey (Wellbore)</b>	<b>Tool Name</b>	<b>Description</b>
0.0	11,837.2	PROPOSAL #1 (ORIGINAL WELLBORE)	MWD	MWD - Standard

Summary						
Site Name	Reference Measured Depth (usft)	Offset Measured Depth (usft)	Distance Between Centres (usft)	Distance Between Ellipses (usft)	Separation Factor	Warning
Offet Well - Wellbore - Design						
SW SW SEC. 28 T5N R67W 6th P.M.						
ABDN VERT OSTER POOLING UNIT #1 - Wellbore #1 -	11,277.0	6,847.3	445.8	181.5	1.687	CC
ABDN VERT OSTER POOLING UNIT #1 - Wellbore #1 -	11,300.0	6,847.2	446.4	181.5	1.685	ES, SF
EXIST DD BINDER 20-28 - Wellbore #1 - Wellbore #1	10,599.6	6,865.2	1,137.5	1,012.7	9.117	CC
EXIST DD BINDER 20-28 - Wellbore #1 - Wellbore #1	10,600.0	6,865.2	1,137.5	1,012.7	9.116	ES
EXIST DD BINDER 20-28 - Wellbore #1 - Wellbore #1	10,900.0	6,862.2	1,176.5	1,043.3	8.838	SF
EXIST DD KINZER 28KD - Wellbore #1 - Wellbore #1	7,843.2	6,956.4	2,542.6	2,491.4	49.646	CC
EXIST DD KINZER 28KD - Wellbore #1 - Wellbore #1	7,900.0	6,956.3	2,543.2	2,490.6	48.315	ES
EXIST DD KINZER 28KD - Wellbore #1 - Wellbore #1	11,500.0	6,952.1	4,453.8	4,302.8	29.490	SF
EXIST DD KINZER 28LD - Wellbore #1 - Wellbore #1	7,828.6	6,848.2	88.3	35.0	1.655	CC, ES, SF
EXIST VERT BINDER 10-28 - Wellbore #1 - Design #1	9,838.9	6,869.1	1,981.5	1,756.9	8.820	CC
EXIST VERT BINDER 10-28 - Wellbore #1 - Design #1	9,900.0	6,868.6	1,982.5	1,756.1	8.759	ES
EXIST VERT BINDER 10-28 - Wellbore #1 - Design #1	10,300.0	6,865.9	2,034.5	1,797.1	8.571	SF
EXIST VERT BINDER 15-28 - Wellbore #1 - Design #1	9,736.0	6,819.7	287.5	65.1	1.293	Level 3, CC, ES, SF
EXIST VERT BINDER 16-28 - Wellbore #1 - Design #1	11,307.7	6,789.1	473.5	207.9	1.783	CC, ES, SF
EXIST VERT BINDER 9-28 - Wellbore #1 - Design #1	11,421.7	6,848.3	1,981.8	1,713.4	7.386	CC
EXIST VERT BINDER 9-28 - Wellbore #1 - Design #1	11,500.0	6,847.8	1,983.3	1,712.8	7.332	ES
EXIST VERT BINDER 9-28 - Wellbore #1 - Design #1	11,837.2	6,845.5	2,024.9	1,745.0	7.235	SF
EXIST VERT HELEN 1 - Wellbore #1 - Design #1	11,262.6	6,874.4	3,114.7	2,850.6	11.791	CC
EXIST VERT HELEN 1 - Wellbore #1 - Design #1	11,300.0	6,874.2	3,115.0	2,849.8	11.746	ES
EXIST VERT HELEN 1 - Wellbore #1 - Design #1	11,837.2	6,870.5	3,167.3	2,887.2	11.307	SF
EXIST VERT KINZER 13-28 - Wellbore #1 - Design #1	1,000.0	1,035.5	1,834.1	1,812.0	82.716	CC
EXIST VERT KINZER 13-28 - Wellbore #1 - Design #1	1,100.0	1,135.5	1,835.2	1,810.9	75.261	ES
EXIST VERT KINZER 13-28 - Wellbore #1 - Design #1	7,800.0	6,813.7	2,178.9	2,008.4	12.782	SF
EXIST VERT KINZER 28-2 - Wellbore #1 - Design #1	7,188.9	6,773.4	280.0	123.5	1.789	CC, ES
EXIST VERT KINZER 28-2 - Wellbore #1 - Design #1	7,200.0	6,774.0	280.2	123.5	1.788	SF
EXIST VERT KINZER 28A - Wellbore #1 - Design #1	1,000.0	1,078.5	3,531.8	3,509.1	156.147	CC
EXIST VERT KINZER 28A - Wellbore #1 - Design #1	1,100.0	1,178.5	3,533.0	3,508.2	142.308	ES
EXIST VERT KINZER 28A - Wellbore #1 - Design #1	9,900.0	6,842.6	4,281.5	4,054.5	18.855	SF
EXIST VERT KINZER 28B - Wellbore #1 - Wellbore #1	7,648.8	6,802.4	1,519.7	1,484.7	43.372	CC
EXIST VERT KINZER 28B - Wellbore #1 - Wellbore #1	7,700.0	6,801.0	1,520.6	1,484.3	41.929	ES
EXIST VERT KINZER 28B - Wellbore #1 - Wellbore #1	9,600.0	6,747.7	2,472.6	2,385.8	28.484	SF
EXIST VERT KINZER 28-1 - Wellbore #1 - Design #1	1,000.0	1,077.5	2,865.3	2,842.7	126.741	CC
EXIST VERT KIZNER 28-1 - Wellbore #1 - Design #1	1,100.0	1,177.5	2,866.4	2,841.6	115.496	ES
EXIST VERT KIZNER 28-1 - Wellbore #1 - Design #1	8,900.0	6,848.4	3,551.1	3,351.3	17.778	SF
EXIST VERT MELLON 28-1 - Wellbore #1 - Design #1	8,738.2	6,841.4	1,755.5	1,560.2	8.989	CC
EXIST VERT MELLON 28-1 - Wellbore #1 - Design #1	8,800.0	6,841.0	1,756.6	1,559.7	8.919	ES
EXIST VERT MELLON 28-1 - Wellbore #1 - Design #1	9,200.0	6,838.4	1,815.3	1,607.4	8.735	SF

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

# Anticollision Report



<b>Company:</b>	PDC ENERGY	<b>Local Co-ordinate Reference:</b>	Well KINZER 28I-202
<b>Project:</b>	WELD COUNTY, COLORADO	<b>TVD Reference:</b>	KB-EST @ 4797.5usft
<b>Reference Site:</b>	SW SW SEC. 28 T5N R67W 6th P.M.	<b>MD Reference:</b>	KB-EST @ 4797.5usft
<b>Site Error:</b>	0.0 usft	<b>North Reference:</b>	True
<b>Reference Well:</b>	KINZER 28I-202	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Well Error:</b>	0.0 usft	<b>Output errors are at</b>	2.00 sigma
<b>Reference Wellbore</b>	ORIGINAL WELLBORE	<b>Database:</b>	EDM 5000.1 Single User Db
<b>Reference Design:</b>	PROPOSAL #1	<b>Offset TVD Reference:</b>	Offset Datum

## Summary

Site Name	Reference Measured Depth (usft)	Offset Measured Depth (usft)	Distance Between Centres (usft)	Distance Between Ellipses (usft)	Separation Factor	Warning
Offset Well - Wellbore - Design						
SW SW SEC. 28 T5N R67W 6th P.M.						
EXIST VERT MELLON 28-2 - Wellbore #1 - Design #1	8,495.9	6,800.1	371.2	182.8	1.970	CC
EXIST VERT MELLON 28-2 - Wellbore #1 - Design #1	8,500.0	6,800.0	371.2	182.7	1.969	ES, SF
EXIST VERT MELLON 28-4 - Wellbore #1 - Design #1	8,571.0	6,873.6	2,914.0	2,723.9	15.327	CC
EXIST VERT MELLON 28-4 - Wellbore #1 - Design #1	8,600.0	6,873.4	2,914.2	2,723.3	15.266	ES
EXIST VERT MELLON 28-4 - Wellbore #1 - Design #1	9,800.0	6,865.3	3,162.6	2,939.1	14.148	SF
EXIST VERT ROGER 1 - Wellbore #1 - Design #1	9,919.6	6,878.5	3,107.2	3,001.0	29.234	CC
EXIST VERT ROGER 1 - Wellbore #1 - Design #1	10,000.0	6,878.0	3,108.3	2,999.8	28.645	ES
EXIST VERT ROGER 1 - Wellbore #1 - Design #1	11,837.2	6,865.5	3,651.3	3,491.7	22.878	SF
KINZER 28G-232 - ORIGINAL WELLBORE - PROPOSA	300.0	300.0	105.9	104.8	96.840	CC
KINZER 28G-232 - ORIGINAL WELLBORE - PROPOSA	400.0	399.5	106.1	104.6	68.796	ES
KINZER 28G-232 - ORIGINAL WELLBORE - PROPOSA	11,837.2	12,140.7	2,134.7	1,844.6	7.359	SF
KINZER 28G-332 - ORIGINAL WELLBORE - PROPOSA	400.0	400.0	89.2	87.6	57.792	CC
KINZER 28G-332 - ORIGINAL WELLBORE - PROPOSA	500.0	499.4	89.5	87.5	44.928	ES
KINZER 28G-332 - ORIGINAL WELLBORE - PROPOSA	11,837.2	12,133.9	1,830.2	1,540.8	6.325	SF
KINZER 28H-202 - ORIGINAL WELLBORE - PROPOSA	700.0	700.0	44.6	41.7	15.419	CC, ES
KINZER 28H-202 - ORIGINAL WELLBORE - PROPOSA	11,837.2	11,880.9	1,001.9	713.3	3.472	SF
KINZER 28H-212 - ORIGINAL WELLBORE - PROPOSA	500.0	500.0	75.2	73.2	37.761	CC
KINZER 28H-212 - ORIGINAL WELLBORE - PROPOSA	600.0	599.4	75.6	73.2	30.988	ES
KINZER 28H-212 - ORIGINAL WELLBORE - PROPOSA	11,837.2	11,971.6	1,552.8	1,263.1	5.361	SF
KINZER 28H-302 - ORIGINAL WELLBORE - PROPOSA	600.0	600.0	58.5	56.1	23.963	CC, ES
KINZER 28H-302 - ORIGINAL WELLBORE - PROPOSA	11,837.2	11,999.0	1,292.6	1,003.8	4.475	SF
KINZER 28H-432 - ORIGINAL WELLBORE - PROPOSA	800.0	800.0	30.7	27.3	9.175	CC, ES
KINZER 28H-432 - ORIGINAL WELLBORE - PROPOSA	11,837.2	12,053.8	716.9	442.4	2.612	SF
KINZER 28I-312 - ORIGINAL WELLBORE - PROPOSAL	900.0	900.0	13.9	10.1	3.676	CC, ES
KINZER 28I-312 - ORIGINAL WELLBORE - PROPOSAL	11,837.2	11,929.0	344.0	62.1	1.220	Level 2, SF

Offset Design										SW SW SEC. 28 T5N R67W 6th P.M. - ABDN VERT OSTER POOLING UNIT #1 - Wellbore #1 - Design			Offset Site Error:		0.0 usft
Survey Program: 0-INC												Offset Well Error:		0.0 usft	
Reference		Offset		Semi Major Axis			Distance						Warning		
Measured Depth (usft)	Vertical Depth (usft)	Measured Depth (usft)	Vertical Depth (usft)	Reference (usft)	Offset (usft)	Highside Toolface (°)	Offset Wellbore +N/-S (usft)	Centre +E/-W (usft)	Between Centres (usft)	Between Ellipses (usft)	Minimum Separation (usft)	Separation Factor			
0.0	0.0	92.5	92.5	0.0	0.0	87.36	202.2	4,386.2	4,390.8						
100.0	100.0	192.5	192.5	0.1	1.2	87.36	202.2	4,386.2	4,390.8	4,389.6	1.25	3,499.163			
200.0	200.0	292.5	292.5	0.3	3.4	87.36	202.2	4,386.2	4,390.8	4,387.2	3.68	1,192.957			
300.0	300.0	392.5	392.5	0.5	5.5	87.36	202.2	4,386.2	4,390.8	4,384.8	6.00	732.080			
400.0	400.0	492.5	492.5	0.8	7.5	87.36	202.2	4,386.2	4,390.8	4,382.6	8.27	531.122			
500.0	500.0	592.5	592.5	1.0	9.5	87.36	202.2	4,386.2	4,390.8	4,380.3	10.52	417.310			
600.0	600.0	692.5	692.5	1.2	11.5	87.36	202.2	4,386.2	4,390.8	4,378.1	12.77	343.847			
700.0	700.0	792.5	792.5	1.4	13.6	87.36	202.2	4,386.2	4,390.8	4,375.8	15.01	292.449			
800.0	800.0	892.5	892.5	1.7	15.6	87.36	202.2	4,386.2	4,390.8	4,373.6	17.26	254.452			
900.0	900.0	992.5	992.5	1.9	17.6	87.36	202.2	4,386.2	4,390.8	4,371.3	19.50	225.210			
1,000.0	1,000.0	1,092.5	1,092.5	2.1	19.6	87.36	202.2	4,386.2	4,390.8	4,369.1	21.74	202.005			
1,100.0	1,100.0	1,192.5	1,192.5	2.3	21.6	-149.91	202.2	4,386.2	4,392.4	4,368.4	23.94	183.455			
1,200.0	1,199.8	1,292.3	1,292.3	2.5	23.6	-149.90	202.2	4,386.2	4,396.9	4,370.8	26.10	168.432			
1,300.0	1,299.5	1,392.0	1,392.0	2.7	25.6	-149.88	202.2	4,386.2	4,404.4	4,376.2	28.24	155.965			
1,400.0	1,398.7	1,491.2	1,491.2	3.0	27.6	-149.85	202.2	4,386.2	4,415.0	4,384.6	30.34	145.504			
1,500.0	1,497.5	1,590.0	1,590.0	3.2	29.6	-149.82	202.2	4,386.2	4,428.6	4,396.1	32.41	136.645			
1,502.5	1,500.0	1,592.5	1,592.5	3.2	29.7	-149.82	202.2	4,386.2	4,428.9	4,396.5	32.46	136.441			
1,600.0	1,595.9	1,688.4	1,688.4	3.5	31.6	-149.93	202.2	4,386.2	4,443.7	4,409.1	34.60	128.435			
1,700.0	1,694.4	1,786.9	1,786.9	3.8	33.6	-150.04	202.2	4,386.2	4,458.9	4,422.1	36.80	121.158			

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

# Anticollision Report



<b>Company:</b>	PDC ENERGY	<b>Local Co-ordinate Reference:</b>	Well KINZER 281-202
<b>Project:</b>	WELD COUNTY, COLORADO	<b>TVD Reference:</b>	KB-EST @ 4797.5usft
<b>Reference Site:</b>	SW SW SEC. 28 T5N R67W 6th P.M.	<b>MD Reference:</b>	KB-EST @ 4797.5usft
<b>Site Error:</b>	0.0 usft	<b>North Reference:</b>	True
<b>Reference Well:</b>	KINZER 281-202	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Well Error:</b>	0.0 usft	<b>Output errors are at</b>	2.00 sigma
<b>Reference Wellbore</b>	ORIGINAL WELLBORE	<b>Database:</b>	EDM 5000.1 Single User Db
<b>Reference Design:</b>	PROPOSAL #1	<b>Offset TVD Reference:</b>	Offset Datum

Offset Design												Offset Site Error:	0.0 usft
Survey Program: 0-INC												Offset Well Error:	0.0 usft
Reference		Offset		Semi Major Axis			Distance						Warning
Measured Depth (usft)	Vertical Depth (usft)	Measured Depth (usft)	Vertical Depth (usft)	Reference (usft)	Offset (usft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (usft)	+E/-W (usft)	Between Centres (usft)	Between Ellipses (usft)	Minimum Separation (usft)	Separation Factor	
1,800.0	1,792.9	1,885.4	1,885.4	4.2	35.6	-150.15	202.2	4,386.2	4,474.1	4,435.0	39.01	114.679	
1,900.0	1,891.3	1,983.8	1,983.8	4.5	37.6	-150.26	202.2	4,386.2	4,489.3	4,448.0	41.23	108.880	
2,000.0	1,989.8	2,082.3	2,082.3	4.9	39.5	-150.37	202.2	4,386.2	4,504.5	4,461.0	43.45	103.661	
2,100.0	2,088.3	2,180.8	2,180.8	5.2	41.5	-150.48	202.2	4,386.2	4,519.7	4,474.0	45.68	98.942	
2,200.0	2,186.7	2,279.2	2,279.2	5.6	43.5	-150.59	202.2	4,386.2	4,535.0	4,487.1	47.91	94.655	
2,300.0	2,285.2	2,377.7	2,377.7	6.0	45.5	-150.70	202.2	4,386.2	4,550.2	4,500.1	50.14	90.745	
2,400.0	2,383.7	2,476.2	2,476.2	6.4	47.5	-150.80	202.2	4,386.2	4,565.5	4,513.1	52.38	87.165	
2,500.0	2,482.1	2,574.6	2,574.6	6.7	49.4	-150.91	202.2	4,386.2	4,580.8	4,526.2	54.61	83.875	
2,600.0	2,580.6	2,673.1	2,673.1	7.1	51.4	-151.01	202.2	4,386.2	4,596.1	4,539.3	56.85	80.843	
2,700.0	2,679.1	2,771.6	2,771.6	7.5	53.4	-151.12	202.2	4,386.2	4,611.5	4,552.4	59.09	78.039	
2,800.0	2,777.5	2,870.0	2,870.0	7.9	55.4	-151.22	202.2	4,386.2	4,626.8	4,565.5	61.33	75.439	
2,900.0	2,876.0	2,968.5	2,968.5	8.3	57.4	-151.33	202.2	4,386.2	4,642.2	4,578.6	63.57	73.022	
3,000.0	2,974.4	3,066.9	3,066.9	8.7	59.3	-151.43	202.2	4,386.2	4,657.5	4,591.7	65.81	70.768	
3,100.0	3,072.9	3,165.4	3,165.4	9.1	61.3	-151.53	202.2	4,386.2	4,672.9	4,604.9	68.06	68.663	
3,200.0	3,171.4	3,263.9	3,263.9	9.5	63.3	-151.63	202.2	4,386.2	4,688.3	4,618.0	70.30	66.692	
3,300.0	3,269.8	3,362.3	3,362.3	9.9	65.3	-151.73	202.2	4,386.2	4,703.7	4,631.2	72.54	64.843	
3,400.0	3,368.3	3,460.8	3,460.8	10.3	67.3	-151.83	202.2	4,386.2	4,719.2	4,644.4	74.78	63.105	
3,500.0	3,466.8	3,559.3	3,559.3	10.7	69.2	-151.93	202.2	4,386.2	4,734.6	4,657.6	77.03	61.468	
3,580.8	3,546.3	3,638.8	3,638.8	11.0	70.8	-152.01	202.2	4,386.2	4,747.1	4,668.3	78.84	60.213	
3,600.0	3,565.3	3,657.8	3,657.8	11.1	71.2	-152.06	202.2	4,386.2	4,750.0	4,670.7	79.33	59.880	
3,700.0	3,664.1	3,756.6	3,756.6	11.3	73.2	-152.27	202.2	4,386.2	4,763.4	4,681.6	81.81	58.225	
3,800.0	3,763.4	3,855.9	3,855.9	11.6	75.2	-152.43	202.2	4,386.2	4,773.7	4,689.4	84.23	56.673	
3,900.0	3,863.1	3,955.6	3,955.6	11.8	77.2	-152.54	202.2	4,386.2	4,780.9	4,694.3	86.58	55.217	
4,000.0	3,963.0	4,055.5	4,055.5	12.0	79.2	-152.60	202.2	4,386.2	4,785.0	4,696.2	88.86	53.851	
4,083.3	4,046.3	4,138.8	4,138.8	12.1	80.9	84.66	202.2	4,386.2	4,786.1	4,693.7	92.41	51.793	
4,100.0	4,063.0	4,155.5	4,155.5	12.1	81.2	84.66	202.2	4,386.2	4,786.1	4,693.3	92.77	51.591	
4,200.0	4,163.0	4,255.5	4,255.5	12.3	83.2	84.66	202.2	4,386.2	4,786.1	4,691.2	94.94	50.414	
4,300.0	4,263.0	4,355.5	4,355.5	12.4	85.3	84.66	202.2	4,386.2	4,786.1	4,689.0	97.10	49.288	
4,400.0	4,363.0	4,455.5	4,455.5	12.6	87.3	84.66	202.2	4,386.2	4,786.1	4,686.8	99.28	48.210	
4,500.0	4,463.0	4,555.5	4,555.5	12.7	89.3	84.66	202.2	4,386.2	4,786.1	4,684.6	101.45	47.178	
4,600.0	4,563.0	4,655.5	4,655.5	12.9	91.3	84.66	202.2	4,386.2	4,786.1	4,682.5	103.62	46.188	
4,700.0	4,663.0	4,755.5	4,755.5	13.0	93.3	84.66	202.2	4,386.2	4,786.1	4,680.3	105.80	45.237	
4,800.0	4,763.0	4,855.5	4,855.5	13.2	95.3	84.66	202.2	4,386.2	4,786.1	4,678.1	107.98	44.325	
4,900.0	4,863.0	4,955.5	4,955.5	13.4	97.3	84.66	202.2	4,386.2	4,786.1	4,675.9	110.16	43.447	
5,000.0	4,963.0	5,055.5	5,055.5	13.5	99.3	84.66	202.2	4,386.2	4,786.1	4,673.8	112.34	42.604	
5,100.0	5,063.0	5,155.5	5,155.5	13.7	101.3	84.66	202.2	4,386.2	4,786.1	4,671.6	114.52	41.791	
5,200.0	5,163.0	5,255.5	5,255.5	13.9	103.4	84.66	202.2	4,386.2	4,786.1	4,669.4	116.71	41.009	
5,300.0	5,263.0	5,355.5	5,355.5	14.0	105.4	84.66	202.2	4,386.2	4,786.1	4,667.2	118.90	40.255	
5,400.0	5,363.0	5,455.5	5,455.5	14.2	107.4	84.66	202.2	4,386.2	4,786.1	4,665.0	121.08	39.527	
5,500.0	5,463.0	5,555.5	5,555.5	14.4	109.4	84.66	202.2	4,386.2	4,786.1	4,662.8	123.27	38.825	
5,600.0	5,563.0	5,655.5	5,655.5	14.5	111.4	84.66	202.2	4,386.2	4,786.1	4,660.6	125.46	38.147	
5,700.0	5,663.0	5,755.5	5,755.5	14.7	113.4	84.66	202.2	4,386.2	4,786.1	4,658.4	127.66	37.492	
5,800.0	5,763.0	5,855.5	5,855.5	14.9	115.4	84.66	202.2	4,386.2	4,786.1	4,656.2	129.85	36.859	
5,900.0	5,863.0	5,955.5	5,955.5	15.1	117.4	84.66	202.2	4,386.2	4,786.1	4,654.1	132.04	36.246	
6,000.0	5,963.0	6,055.5	6,055.5	15.2	119.4	84.66	202.2	4,386.2	4,786.1	4,651.9	134.24	35.653	
6,100.0	6,063.0	6,155.5	6,155.5	15.4	121.5	84.66	202.2	4,386.2	4,786.1	4,649.7	136.44	35.079	
6,102.8	6,065.8	6,158.3	6,158.3	15.4	121.5	84.66	202.2	4,386.2	4,786.1	4,649.6	136.50	35.063	
6,150.0	6,112.9	6,205.4	6,205.4	15.5	122.5	-5.36	202.2	4,386.2	4,784.5	4,648.7	135.83	35.225	
6,200.0	6,162.7	6,255.2	6,255.2	15.5	123.5	-5.40	202.2	4,386.2	4,779.5	4,643.6	135.92	35.164	
6,250.0	6,211.9	6,304.4	6,304.4	15.6	124.5	-5.48	202.2	4,386.2	4,771.1	4,635.8	135.34	35.252	
6,300.0	6,260.5	6,353.0	6,353.0	15.6	125.4	-5.58	202.2	4,386.2	4,759.2	4,625.2	134.08	35.496	
6,350.0	6,308.1	6,400.6	6,400.6	15.6	126.4	-5.73	202.2	4,386.2	4,744.1	4,611.9	132.13	35.905	

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

# Anticollision Report



<b>Company:</b>	PDC ENERGY	<b>Local Co-ordinate Reference:</b>	Well KINZER 281-202
<b>Project:</b>	WELD COUNTY, COLORADO	<b>TVD Reference:</b>	KB-EST @ 4797.5usft
<b>Reference Site:</b>	SW SW SEC. 28 T5N R67W 6th P.M.	<b>MD Reference:</b>	KB-EST @ 4797.5usft
<b>Site Error:</b>	0.0 usft	<b>North Reference:</b>	True
<b>Reference Well:</b>	KINZER 281-202	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Well Error:</b>	0.0 usft	<b>Output errors are at</b>	2.00 sigma
<b>Reference Wellbore</b>	ORIGINAL WELLBORE	<b>Database:</b>	EDM 5000.1 Single User Db
<b>Reference Design:</b>	PROPOSAL #1	<b>Offset TVD Reference:</b>	Offset Datum

<b>Offset Design</b>												<b>Offset Site Error:</b>	0.0 usft
Survey Program: 0-INC												<b>Offset Well Error:</b>	0.0 usft
Reference		Offset		Semi Major Axis			Distance						Warning
Measured Depth (usft)	Vertical Depth (usft)	Measured Depth (usft)	Vertical Depth (usft)	Reference (usft)	Offset (usft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (usft)	+E/-W (usft)	Between Centres (usft)	Between Ellipses (usft)	Minimum Separation (usft)	Separation Factor	
6,400.0	6,354.5	6,447.0	6,447.0	15.6	127.3	-5.91	202.2	4,386.2	4,725.6	4,596.1	129.50	36.492	
6,450.0	6,399.5	6,492.0	6,492.0	15.6	128.2	-6.14	202.2	4,386.2	4,704.0	4,577.8	126.19	37.277	
6,500.0	6,442.9	6,535.4	6,535.4	15.5	129.1	-6.42	202.2	4,386.2	4,679.2	4,557.0	122.23	38.282	
6,550.0	6,484.5	6,577.0	6,577.0	15.5	129.9	-6.77	202.2	4,386.2	4,651.6	4,533.9	117.64	39.540	
6,600.0	6,524.0	6,616.5	6,616.5	15.5	130.7	-7.19	202.2	4,386.2	4,621.1	4,508.6	112.46	41.089	
6,650.0	6,561.3	6,653.8	6,653.8	15.6	131.5	-7.70	202.2	4,386.2	4,588.0	4,481.2	106.75	42.977	
6,700.0	6,596.1	6,688.6	6,688.6	15.6	132.2	-8.33	202.2	4,386.2	4,552.3	4,451.7	100.58	45.259	
6,750.0	6,628.4	6,720.9	6,720.9	15.7	132.8	-9.11	202.2	4,386.2	4,514.3	4,420.3	94.07	47.990	
6,800.0	6,658.0	6,750.5	6,750.5	15.9	133.4	-10.09	202.2	4,386.2	4,474.2	4,386.8	87.37	51.207	
6,850.0	6,684.6	6,777.1	6,777.1	16.2	134.0	-11.36	202.2	4,386.2	4,432.1	4,351.3	80.77	54.870	
6,900.0	6,708.3	6,800.8	6,800.8	16.5	134.4	-13.01	202.2	4,386.2	4,388.3	4,313.6	74.73	58.720	
6,950.0	6,728.8	6,821.3	6,821.3	17.0	134.8	-15.26	202.2	4,386.2	4,343.0	4,272.9	70.08	61.973	
7,000.0	6,746.1	6,838.6	6,838.6	17.6	135.2	-18.45	202.2	4,386.2	4,296.3	4,228.0	68.30	62.899	
7,050.0	6,760.0	6,852.5	6,852.5	18.3	135.5	-23.24	202.2	4,386.2	4,248.6	4,176.6	71.95	59.051	
7,100.0	6,770.6	6,863.1	6,863.1	19.1	135.7	-31.02	202.2	4,386.2	4,200.0	4,115.2	84.80	49.529	
7,150.0	6,777.8	6,870.3	6,870.3	19.9	135.8	-44.88	202.2	4,386.2	4,150.8	4,039.4	111.39	37.263	
7,200.0	6,781.5	6,874.0	6,874.0	20.8	135.9	-70.44	202.2	4,386.2	4,101.2	3,953.5	147.72	27.764	
7,232.6	6,782.0	6,874.5	6,874.5	21.4	135.9	-93.44	202.2	4,386.2	4,068.8	3,911.8	157.08	25.902	
7,300.0	6,781.5	6,874.0	6,874.0	22.7	135.9	-93.39	202.2	4,386.2	4,001.8	3,843.4	158.39	25.266	
7,400.0	6,780.9	6,873.4	6,873.4	24.8	135.9	-93.30	202.2	4,386.2	3,902.5	3,742.0	160.47	24.319	
7,500.0	6,780.2	6,872.7	6,872.7	27.0	135.9	-93.22	202.2	4,386.2	3,803.2	3,640.5	162.68	23.378	
7,600.0	6,779.5	6,872.0	6,872.0	29.4	135.9	-93.14	202.2	4,386.2	3,703.9	3,538.9	164.99	22.449	
7,700.0	6,778.9	6,871.4	6,871.4	31.8	135.9	-93.05	202.2	4,386.2	3,604.6	3,437.2	167.38	21.535	
7,800.0	6,778.2	6,870.7	6,870.7	34.2	135.8	-92.97	202.2	4,386.2	3,505.4	3,335.6	169.83	20.640	
7,900.0	6,777.5	6,870.0	6,870.0	36.7	135.8	-92.89	202.2	4,386.2	3,406.2	3,233.9	172.34	19.765	
8,000.0	6,776.9	6,869.4	6,869.4	39.3	135.8	-92.80	202.2	4,386.2	3,307.1	3,132.2	174.88	18.911	
8,100.0	6,776.2	6,868.7	6,868.7	41.9	135.8	-92.72	202.2	4,386.2	3,208.1	3,030.6	177.46	18.078	
8,200.0	6,775.5	6,868.0	6,868.0	44.5	135.8	-92.64	202.2	4,386.2	3,109.1	2,929.0	180.07	17.266	
8,300.0	6,774.9	6,867.4	6,867.4	47.1	135.8	-92.55	202.2	4,386.2	3,010.1	2,827.5	182.69	16.476	
8,400.0	6,774.2	6,866.7	6,866.7	49.8	135.8	-92.47	202.2	4,386.2	2,911.3	2,725.9	185.34	15.708	
8,500.0	6,773.5	6,866.0	6,866.0	52.4	135.7	-92.38	202.2	4,386.2	2,812.5	2,624.5	188.00	14.960	
8,600.0	6,772.9	6,865.4	6,865.4	55.1	135.7	-92.30	202.2	4,386.2	2,713.8	2,523.1	190.68	14.232	
8,700.0	6,772.2	6,864.7	6,864.7	57.8	135.7	-92.22	202.2	4,386.2	2,615.2	2,421.9	193.37	13.524	
8,800.0	6,771.5	6,864.0	6,864.0	60.5	135.7	-92.13	202.2	4,386.2	2,516.8	2,320.7	196.07	12.836	
8,900.0	6,770.9	6,863.4	6,863.4	63.2	135.7	-92.05	202.2	4,386.2	2,418.4	2,219.6	198.78	12.166	
9,000.0	6,770.2	6,862.7	6,862.7	65.9	135.7	-91.96	202.2	4,386.2	2,320.2	2,118.7	201.50	11.515	
9,100.0	6,769.5	6,862.0	6,862.0	68.7	135.7	-91.88	202.2	4,386.2	2,222.1	2,017.9	204.22	10.881	
9,200.0	6,768.9	6,861.4	6,861.4	71.4	135.7	-91.79	202.2	4,386.2	2,124.3	1,917.3	206.95	10.265	
9,300.0	6,768.2	6,860.7	6,860.7	74.1	135.6	-91.71	202.2	4,386.2	2,026.6	1,816.9	209.68	9.665	
9,400.0	6,767.5	6,860.0	6,860.0	76.9	135.6	-91.62	202.2	4,386.2	1,929.2	1,716.8	212.42	9.082	
9,500.0	6,766.8	6,859.3	6,859.3	79.6	135.6	-91.54	202.2	4,386.2	1,832.0	1,616.9	215.17	8.515	
9,600.0	6,766.2	6,858.7	6,858.7	82.4	135.6	-91.45	202.2	4,386.2	1,735.2	1,517.3	217.91	7.963	
9,700.0	6,765.5	6,858.0	6,858.0	85.2	135.6	-91.36	202.2	4,386.2	1,638.8	1,418.1	220.66	7.427	
9,800.0	6,764.8	6,857.3	6,857.3	87.9	135.6	-91.28	202.2	4,386.2	1,542.8	1,319.4	223.42	6.905	
9,900.0	6,764.1	6,856.6	6,856.6	90.7	135.6	-91.19	202.2	4,386.2	1,447.4	1,221.2	226.17	6.399	
10,000.0	6,763.5	6,856.0	6,856.0	93.4	135.5	-91.11	202.2	4,386.2	1,352.6	1,123.6	228.93	5.908	
10,100.0	6,762.8	6,855.3	6,855.3	96.2	135.5	-91.02	202.2	4,386.2	1,258.6	1,026.9	231.69	5.432	
10,200.0	6,762.1	6,854.6	6,854.6	99.0	135.5	-90.94	202.2	4,386.2	1,165.6	931.2	234.46	4.972	
10,300.0	6,761.4	6,853.9	6,853.9	101.8	135.5	-90.85	202.2	4,386.2	1,073.9	836.7	237.22	4.527	
10,400.0	6,760.8	6,853.3	6,853.3	104.5	135.5	-90.76	202.2	4,386.2	983.8	743.8	239.99	4.099	
10,500.0	6,760.1	6,852.6	6,852.6	107.3	135.5	-90.68	202.2	4,386.2	895.8	653.1	242.75	3.690	
10,600.0	6,759.4	6,851.9	6,851.9	110.1	135.5	-90.59	202.2	4,386.2	810.6	565.1	245.52	3.302	

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

# Anticollision Report



<b>Company:</b>	PDC ENERGY	<b>Local Co-ordinate Reference:</b>	Well KINZER 28I-202
<b>Project:</b>	WELD COUNTY, COLORADO	<b>TVD Reference:</b>	KB-EST @ 4797.5usft
<b>Reference Site:</b>	SW SW SEC. 28 T5N R67W 6th P.M.	<b>MD Reference:</b>	KB-EST @ 4797.5usft
<b>Site Error:</b>	0.0 usft	<b>North Reference:</b>	True
<b>Reference Well:</b>	KINZER 28I-202	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Well Error:</b>	0.0 usft	<b>Output errors are at</b>	2.00 sigma
<b>Reference Wellbore</b>	ORIGINAL WELLBORE	<b>Database:</b>	EDM 5000.1 Single User Db
<b>Reference Design:</b>	PROPOSAL #1	<b>Offset TVD Reference:</b>	Offset Datum

<b>Offset Design</b> SW SW SEC. 28 T5N R67W 6th P.M. - ABDN VERT OSTER POOLING UNIT #1 - Wellbore #1 - Desig												<b>Offset Site Error:</b>	0.0 usft
Survey Program: 0-INC												<b>Offset Well Error:</b>	0.0 usft
Reference		Offset		Semi Major Axis			Distance						Warning
Measured Depth (usft)	Vertical Depth (usft)	Measured Depth (usft)	Vertical Depth (usft)	Reference (usft)	Offset (usft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (usft)	+E/-W (usft)	Between Centres (usft)	Between Ellipses (usft)	Minimum Separation (usft)	Separation Factor	
10,700.0	6,758.7	6,851.2	6,851.2	112.9	135.4	-90.50	202.2	4,386.2	729.2	480.9	248.29	2.937	
10,800.0	6,758.1	6,850.6	6,850.6	115.6	135.4	-90.42	202.2	4,386.2	652.9	401.8	251.06	2.601	
10,900.0	6,757.4	6,849.9	6,849.9	118.4	135.4	-90.33	202.2	4,386.2	583.8	330.0	253.83	2.300	
11,000.0	6,756.7	6,849.2	6,849.2	121.2	135.4	-90.24	202.2	4,386.2	524.9	268.3	256.60	2.045	
11,100.0	6,756.0	6,848.5	6,848.5	124.0	135.4	-90.15	202.2	4,386.2	479.7	220.3	259.38	1.849	
11,200.0	6,755.3	6,847.8	6,847.8	126.8	135.4	-90.07	202.2	4,386.2	452.4	190.3	262.15	1.726	
11,277.0	6,754.8	6,847.3	6,847.3	128.9	135.4	-90.00	202.2	4,386.2	445.8	181.5	264.28	1.687 CC	
11,300.0	6,754.7	6,847.2	6,847.2	129.6	135.4	-89.98	202.2	4,386.2	446.4	181.5	264.92	1.685 ES, SF	
11,400.0	6,754.0	6,846.5	6,846.5	132.4	135.4	-89.89	202.2	4,386.2	462.5	194.8	267.70	1.728	
11,500.0	6,753.3	6,845.8	6,845.8	135.1	135.3	-89.80	202.2	4,386.2	498.5	228.0	270.47	1.843	
11,600.0	6,752.6	6,845.1	6,845.1	137.9	135.3	-89.72	202.2	4,386.2	550.5	277.3	273.24	2.015	
11,700.0	6,751.9	6,844.4	6,844.4	140.7	135.3	-89.63	202.2	4,386.2	614.5	338.5	276.02	2.226	
11,800.0	6,751.3	6,843.8	6,843.8	143.5	135.3	-89.54	202.2	4,386.2	687.2	408.4	278.79	2.465	
11,837.2	6,751.0	6,843.5	6,843.5	144.6	135.3	-89.51	202.2	4,386.2	715.9	436.1	279.83	2.559	



# Anticollision Report



<b>Company:</b>	PDC ENERGY	<b>Local Co-ordinate Reference:</b>	Well KINZER 281-202
<b>Project:</b>	WELD COUNTY, COLORADO	<b>TVD Reference:</b>	KB-EST @ 4797.5usft
<b>Reference Site:</b>	SW SW SEC. 28 T5N R67W 6th P.M.	<b>MD Reference:</b>	KB-EST @ 4797.5usft
<b>Site Error:</b>	0.0 usft	<b>North Reference:</b>	True
<b>Reference Well:</b>	KINZER 281-202	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Well Error:</b>	0.0 usft	<b>Output errors are at</b>	2.00 sigma
<b>Reference Wellbore</b>	ORIGINAL WELLBORE	<b>Database:</b>	EDM 5000.1 Single User Db
<b>Reference Design:</b>	PROPOSAL #1	<b>Offset TVD Reference:</b>	Offset Datum

Offset Design												Offset Site Error:	0.0 usft
Survey Program: 782-MWD												Offset Well Error:	0.0 usft
Reference		Offset		Semi Major Axis			Distance						Warning
Measured Depth (usft)	Vertical Depth (usft)	Measured Depth (usft)	Vertical Depth (usft)	Reference (usft)	Offset (usft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (usft)	+E/-W (usft)	Between Centres (usft)	Between Ellipses (usft)	Minimum Separation (usft)	Separation Factor	
0.0	0.0	91.5	91.5	0.0	0.1	74.36	943.8	3,371.7	3,501.3				
100.0	100.0	192.6	192.6	0.1	0.2	74.36	943.9	3,371.7	3,501.3	3,501.0	0.28	N/A	
200.0	200.0	293.7	293.7	0.3	0.3	74.36	944.0	3,371.5	3,501.2	3,500.6	0.61	5,755.484	
300.0	300.0	394.8	394.8	0.5	0.4	74.36	944.2	3,371.4	3,501.1	3,500.2	0.93	3,757.909	
400.0	400.0	495.9	495.9	0.8	0.5	74.35	944.4	3,371.2	3,501.0	3,499.7	1.25	2,789.615	
500.0	500.0	597.0	597.0	1.0	0.6	74.35	944.6	3,370.9	3,500.8	3,499.2	1.58	2,218.030	
600.0	600.0	698.1	698.1	1.2	0.7	74.34	945.0	3,370.6	3,500.6	3,498.7	1.90	1,840.799	
700.0	700.0	799.0	799.0	1.4	0.8	74.33	945.3	3,370.3	3,500.4	3,498.1	2.24	1,559.719	
800.0	800.0	899.7	899.7	1.7	1.0	74.32	945.7	3,369.9	3,500.1	3,497.4	2.68	1,306.416	
900.0	900.0	1,002.2	1,002.2	1.9	1.2	74.32	946.1	3,369.5	3,499.8	3,496.7	3.11	1,124.915	
1,000.0	1,000.0	1,100.6	1,100.6	2.1	1.4	74.31	946.5	3,369.0	3,499.5	3,495.9	3.54	987.545	
1,008.3	1,008.3	1,108.4	1,108.4	2.1	1.4	-162.97	946.5	3,369.0	3,499.5	3,495.9	3.58	978.523	
1,100.0	1,100.0	1,200.7	1,200.7	2.3	1.6	-162.98	947.1	3,368.6	3,500.9	3,496.9	3.96	885.116	
1,200.0	1,199.8	1,305.0	1,305.0	2.5	1.8	-162.99	947.5	3,368.1	3,505.5	3,501.2	4.35	805.899	
1,300.0	1,299.5	1,408.2	1,408.2	2.7	2.0	-162.99	947.7	3,367.5	3,513.4	3,508.7	4.75	740.397	
1,400.0	1,398.7	1,511.0	1,510.9	3.0	2.3	-162.99	947.9	3,366.9	3,524.5	3,519.3	5.15	684.069	
1,500.0	1,497.5	1,607.4	1,607.4	3.2	2.5	-162.98	948.0	3,366.2	3,538.9	3,533.3	5.55	637.565	
1,502.5	1,500.0	1,609.8	1,609.8	3.2	2.5	-162.98	948.0	3,366.2	3,539.3	3,533.7	5.56	636.517	
1,600.0	1,595.9	1,708.4	1,708.4	3.5	2.7	-163.06	947.7	3,365.7	3,555.0	3,549.1	5.97	595.253	
1,700.0	1,694.4	1,808.9	1,808.9	3.8	2.9	-163.14	947.3	3,365.2	3,571.1	3,564.7	6.41	557.391	
1,800.0	1,792.9	1,903.1	1,903.1	4.2	3.1	-163.22	947.1	3,364.6	3,587.2	3,580.4	6.84	524.529	
1,900.0	1,891.3	2,032.7	2,032.7	4.5	3.4	-163.32	946.8	3,363.4	3,603.0	3,595.7	7.35	490.350	
2,000.0	1,989.8	2,135.7	2,135.7	4.9	3.6	-163.40	946.3	3,362.0	3,618.3	3,610.5	7.80	463.756	
2,100.0	2,088.3	2,222.4	2,222.4	5.2	3.7	-163.47	945.7	3,360.9	3,633.7	3,625.5	8.22	441.873	
2,200.0	2,186.7	2,337.0	2,336.9	5.6	4.0	-163.55	944.5	3,359.6	3,649.1	3,640.4	8.71	419.138	
2,300.0	2,285.2	2,431.0	2,430.9	6.0	4.2	-163.61	943.4	3,358.4	3,664.3	3,655.1	9.15	400.430	
2,400.0	2,383.7	2,519.4	2,519.3	6.4	4.4	-163.67	942.5	3,357.5	3,679.8	3,670.2	9.59	383.905	
2,500.0	2,482.1	2,595.5	2,595.4	6.7	4.5	-163.72	942.0	3,356.8	3,695.6	3,685.6	10.00	369.607	
2,600.0	2,580.6	2,654.4	2,654.3	7.1	4.6	-163.77	942.2	3,356.7	3,712.2	3,701.9	10.38	357.675	
2,700.0	2,679.1	2,717.0	2,716.9	7.5	4.8	-163.82	942.6	3,357.4	3,730.1	3,719.4	10.77	346.386	
2,800.0	2,777.5	2,765.1	2,765.0	7.9	4.9	-163.86	943.1	3,358.4	3,749.1	3,738.0	11.13	336.896	
2,900.0	2,876.0	2,829.3	2,829.1	8.3	5.0	-163.91	943.4	3,360.5	3,769.1	3,757.5	11.52	327.126	
3,000.0	2,974.4	2,908.0	2,907.8	8.7	5.2	-163.95	943.5	3,363.9	3,789.9	3,777.9	11.94	317.284	
3,100.0	3,072.9	2,957.5	2,957.2	9.1	5.3	-163.97	943.2	3,366.5	3,811.5	3,799.2	12.31	309.638	
3,200.0	3,171.4	3,003.0	3,002.6	9.5	5.4	-163.98	942.8	3,369.4	3,834.1	3,821.4	12.67	302.689	
3,300.0	3,269.8	3,069.3	3,068.7	9.9	5.5	-164.00	941.8	3,374.5	3,857.7	3,844.6	13.07	295.172	
3,400.0	3,368.3	3,129.9	3,129.1	10.3	5.6	-164.00	940.6	3,380.0	3,882.4	3,869.0	13.46	288.414	
3,500.0	3,466.8	3,193.0	3,191.8	10.7	5.8	-163.99	938.8	3,386.3	3,907.9	3,894.0	13.86	281.958	
3,580.8	3,546.3	3,235.2	3,233.7	11.0	5.9	-163.98	937.6	3,391.0	3,929.2	3,915.0	14.16	277.388	
3,600.0	3,565.3	3,244.2	3,242.6	11.1	5.9	-164.01	937.4	3,392.0	3,934.3	3,920.0	14.24	276.361	
3,700.0	3,664.1	3,306.8	3,304.8	11.3	6.0	-164.14	936.3	3,399.7	3,959.7	3,945.1	14.61	271.092	
3,800.0	3,763.4	3,416.0	3,413.3	11.6	6.3	-164.25	935.3	3,412.3	3,981.5	3,966.4	15.05	264.478	
3,900.0	3,863.1	3,475.0	3,471.8	11.8	6.4	-164.33	934.5	3,419.8	4,000.9	3,985.5	15.38	260.206	
4,000.0	3,963.0	3,553.9	3,549.9	12.0	6.6	-164.38	933.3	3,430.5	4,017.8	4,002.0	15.72	255.516	
4,083.3	4,046.3	3,621.7	3,617.0	12.1	6.8	72.89	932.1	3,439.9	4,029.5	4,010.8	18.66	215.911	
4,100.0	4,063.0	3,634.7	3,629.9	12.1	6.8	72.90	931.9	3,441.7	4,031.6	4,012.9	18.72	215.373	
4,200.0	4,163.0	3,733.0	3,727.2	12.3	7.1	72.98	930.1	3,455.6	4,044.7	4,025.6	19.11	211.629	
4,300.0	4,263.0	3,849.4	3,842.5	12.4	7.4	73.07	928.6	3,471.7	4,057.6	4,038.0	19.55	207.542	
4,400.0	4,363.0	3,962.2	3,954.3	12.6	7.7	73.14	927.8	3,486.6	4,070.0	4,050.0	19.99	203.633	
4,500.0	4,463.0	4,072.3	4,063.5	12.7	7.9	73.22	926.3	3,501.0	4,082.1	4,061.7	20.42	199.881	
4,600.0	4,563.0	4,204.4	4,194.5	12.9	8.3	73.32	924.0	3,517.8	4,093.8	4,072.9	20.92	195.710	
4,700.0	4,663.0	4,348.5	4,337.5	13.0	8.7	73.42	921.9	3,534.5	4,104.6	4,083.1	21.44	191.407	

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

# Anticollision Report



<b>Company:</b>	PDC ENERGY	<b>Local Co-ordinate Reference:</b>	Well KINZER 281-202
<b>Project:</b>	WELD COUNTY, COLORADO	<b>TVD Reference:</b>	KB-EST @ 4797.5usft
<b>Reference Site:</b>	SW SW SEC. 28 T5N R67W 6th P.M.	<b>MD Reference:</b>	KB-EST @ 4797.5usft
<b>Site Error:</b>	0.0 usft	<b>North Reference:</b>	True
<b>Reference Well:</b>	KINZER 281-202	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Well Error:</b>	0.0 usft	<b>Output errors are at</b>	2.00 sigma
<b>Reference Wellbore</b>	ORIGINAL WELLBORE	<b>Database:</b>	EDM 5000.1 Single User Db
<b>Reference Design:</b>	PROPOSAL #1	<b>Offset TVD Reference:</b>	Offset Datum

Offset Design													Offset Site Error:	0.0 usft
Survey Program: 782-MWD													Offset Well Error:	0.0 usft
Reference		Offset		Semi Major Axis			Distance						Warning	
Measured Depth (usft)	Vertical Depth (usft)	Measured Depth (usft)	Vertical Depth (usft)	Reference (usft)	Offset (usft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (usft)	+E/-W (usft)	Between Centres (usft)	Between Ellipses (usft)	Minimum Separation (usft)	Separation Factor		
4,800.0	4,763.0	4,521.9	4,510.1	13.2	9.1	73.52	918.9	3,551.7	4,113.5	4,091.5	22.04	186.645		
4,900.0	4,863.0	4,616.0	4,603.8	13.4	9.4	73.58	917.6	3,560.1	4,121.7	4,099.2	22.44	183.715		
5,000.0	4,963.0	4,686.4	4,673.8	13.5	9.5	73.62	916.4	3,566.8	4,130.3	4,107.6	22.78	181.339		
5,100.0	5,063.0	4,820.9	4,807.7	13.7	9.9	73.71	913.8	3,580.2	4,139.5	4,116.2	23.28	177.797		
5,200.0	5,163.0	4,948.7	4,935.0	13.9	10.2	73.78	911.7	3,591.1	4,147.1	4,123.3	23.77	174.497		
5,300.0	5,263.0	5,017.5	5,003.5	14.0	10.4	73.81	910.5	3,597.2	4,155.1	4,131.0	24.11	172.366		
5,400.0	5,363.0	5,090.0	5,075.6	14.2	10.6	73.86	909.1	3,604.3	4,164.0	4,139.6	24.46	170.236		
5,500.0	5,463.0	5,221.6	5,206.5	14.4	10.9	73.95	906.0	3,617.4	4,173.0	4,148.0	24.97	167.139		
5,600.0	5,563.0	5,374.0	5,358.3	14.5	11.3	74.05	902.1	3,630.5	4,180.5	4,155.0	25.52	163.819		
5,700.0	5,663.0	5,444.4	5,428.5	14.7	11.5	74.10	900.2	3,636.2	4,187.7	4,161.8	25.87	161.891		
5,800.0	5,763.0	5,564.0	5,547.6	14.9	11.8	74.18	897.1	3,646.3	4,195.1	4,168.8	26.34	159.289		
5,900.0	5,863.0	5,635.7	5,619.0	15.1	12.0	74.22	895.5	3,652.1	4,202.4	4,175.7	26.69	157.445		
6,000.0	5,963.0	5,798.1	5,780.9	15.2	12.4	74.32	891.9	3,665.2	4,209.5	4,182.3	27.27	154.390		
6,100.0	6,063.0	5,867.4	5,850.0	15.4	12.6	74.37	889.8	3,670.7	4,216.3	4,188.7	27.61	152.689		
6,102.8	6,065.8	5,869.2	5,851.7	15.4	12.6	74.37	889.7	3,670.9	4,216.6	4,188.9	27.62	152.644		
6,150.0	6,112.9	5,898.4	5,880.8	15.5	12.6	-15.57	888.9	3,673.3	4,218.6	4,193.4	25.14	167.825		
6,200.0	6,162.7	5,943.0	5,925.2	15.5	12.8	-15.59	888.0	3,677.3	4,217.7	4,192.5	25.17	167.573		
6,250.0	6,211.9	5,961.6	5,943.7	15.6	12.8	-15.68	887.8	3,679.0	4,213.6	4,188.6	25.05	168.205		
6,300.0	6,260.5	5,994.6	5,976.6	15.6	12.9	-15.85	887.5	3,682.0	4,206.4	4,181.5	24.87	169.109		
6,350.0	6,308.1	6,039.0	6,020.8	15.6	13.0	-16.12	887.6	3,686.2	4,196.1	4,171.5	24.64	170.318		
6,400.0	6,354.5	6,096.4	6,078.0	15.6	13.1	-16.51	888.2	3,691.5	4,182.6	4,158.3	24.35	171.785		
6,450.0	6,399.5	6,489.3	6,470.2	15.6	14.0	-17.72	892.1	3,710.5	4,164.9	4,140.2	24.69	168.683		
6,500.0	6,442.9	6,560.5	6,541.4	15.5	14.2	-18.57	892.4	3,710.4	4,141.0	4,116.7	24.30	170.422		
6,550.0	6,484.5	6,610.0	6,590.9	15.5	14.3	-19.56	892.7	3,710.1	4,114.2	4,090.4	23.83	172.664		
6,600.0	6,524.0	6,650.4	6,631.3	15.5	14.3	-20.72	893.0	3,709.9	4,084.6	4,061.3	23.33	175.093		
6,650.0	6,561.3	6,688.5	6,669.4	15.6	14.4	-22.12	893.1	3,709.7	4,052.5	4,029.6	22.85	177.358		
6,700.0	6,596.1	6,723.1	6,704.0	15.6	14.5	-23.80	893.3	3,709.5	4,018.0	3,995.5	22.43	179.115		
6,750.0	6,628.4	6,754.5	6,735.4	15.7	14.5	-25.84	893.4	3,709.3	3,981.2	3,959.1	22.14	179.849		
6,800.0	6,658.0	6,783.1	6,764.1	15.9	14.6	-28.32	893.5	3,709.2	3,942.5	3,920.4	22.04	178.889		
6,850.0	6,684.6	6,808.1	6,789.1	16.2	14.6	-31.35	893.6	3,709.0	3,901.9	3,879.7	22.23	175.544		
6,900.0	6,708.3	6,829.1	6,810.1	16.5	14.7	-35.07	893.7	3,708.9	3,859.7	3,836.9	22.81	169.245		
6,950.0	6,728.8	6,847.4	6,828.3	17.0	14.7	-39.71	893.8	3,708.9	3,816.1	3,792.2	23.88	159.782		
7,000.0	6,746.1	6,862.8	6,843.7	17.6	14.7	-45.50	893.9	3,708.8	3,771.3	3,745.8	25.54	147.654		
7,050.0	6,760.0	6,875.2	6,856.1	18.3	14.8	-52.70	893.9	3,708.8	3,725.6	3,697.8	27.78	134.088		
7,100.0	6,770.6	6,884.6	6,865.6	19.1	14.8	-61.53	893.9	3,708.7	3,679.1	3,648.6	30.46	120.793		
7,150.0	6,777.8	6,891.0	6,871.9	19.9	14.8	-71.96	893.9	3,708.7	3,632.1	3,598.9	33.17	109.504		
7,200.0	6,781.5	6,891.0	6,871.9	20.8	14.8	-83.37	893.9	3,708.7	3,584.7	3,549.4	35.31	101.522		
7,232.6	6,782.0	6,891.0	6,871.9	21.4	14.8	-91.10	893.9	3,708.7	3,553.9	3,517.7	36.18	98.232		
7,300.0	6,781.5	6,891.0	6,871.9	22.7	14.8	-91.10	893.9	3,708.7	3,490.1	3,452.6	37.49	93.098		
7,400.0	6,780.9	6,891.0	6,871.9	24.8	14.8	-91.10	893.9	3,708.7	3,395.7	3,356.1	39.57	85.815		
7,500.0	6,780.2	6,891.0	6,871.9	27.0	14.8	-91.10	893.9	3,708.7	3,301.6	3,259.8	41.78	79.017		
7,600.0	6,779.5	6,891.0	6,871.9	29.4	14.8	-91.10	893.9	3,708.7	3,207.9	3,163.8	44.10	72.743		
7,700.0	6,778.9	6,891.0	6,871.9	31.8	14.8	-91.10	893.9	3,708.7	3,114.6	3,068.1	46.49	66.989		
7,800.0	6,778.2	6,891.0	6,871.9	34.2	14.8	-91.10	893.9	3,708.7	3,021.8	2,972.8	48.95	61.728		
7,900.0	6,777.5	6,891.0	6,871.9	36.7	14.8	-91.10	893.9	3,708.7	2,929.4	2,877.9	51.46	56.923		
8,000.0	6,776.9	6,891.0	6,871.9	39.3	14.8	-91.10	893.9	3,708.7	2,837.5	2,783.5	54.01	52.535		
8,100.0	6,776.2	6,887.8	6,868.7	41.9	14.8	-90.94	893.9	3,708.7	2,746.2	2,689.6	56.59	48.529		
8,200.0	6,775.5	6,886.9	6,867.9	44.5	14.8	-90.90	893.9	3,708.7	2,655.5	2,596.3	59.20	44.858		
8,300.0	6,774.9	6,886.1	6,867.0	47.1	14.8	-90.86	893.9	3,708.7	2,565.5	2,503.7	61.83	41.493		
8,400.0	6,774.2	6,885.3	6,866.2	49.8	14.8	-90.82	893.9	3,708.7	2,476.2	2,411.8	64.48	38.404		
8,500.0	6,773.5	6,884.4	6,865.4	52.4	14.8	-90.77	893.9	3,708.7	2,387.9	2,320.7	67.15	35.562		
8,600.0	6,772.9	6,883.6	6,864.5	55.1	14.8	-90.73	893.9	3,708.7	2,300.4	2,230.6	69.83	32.944		

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



# Anticollision Report



<b>Company:</b>	PDC ENERGY	<b>Local Co-ordinate Reference:</b>	Well KINZER 28I-202
<b>Project:</b>	WELD COUNTY, COLORADO	<b>TVD Reference:</b>	KB-EST @ 4797.5usft
<b>Reference Site:</b>	SW SW SEC. 28 T5N R67W 6th P.M.	<b>MD Reference:</b>	KB-EST @ 4797.5usft
<b>Site Error:</b>	0.0 usft	<b>North Reference:</b>	True
<b>Reference Well:</b>	KINZER 28I-202	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Well Error:</b>	0.0 usft	<b>Output errors are at</b>	2.00 sigma
<b>Reference Wellbore</b>	ORIGINAL WELLBORE	<b>Database:</b>	EDM 5000.1 Single User Db
<b>Reference Design:</b>	PROPOSAL #1	<b>Offset TVD Reference:</b>	Offset Datum

<b>Offset Design</b> SW SW SEC. 28 T5N R67W 6th P.M. - EXIST DD BINDER 20-28 - Wellbore #1 - Wellbore #1												<b>Offset Site Error:</b>	0.0 usft
Survey Program: 782-MWD												<b>Offset Well Error:</b>	0.0 usft
Reference		Offset		Semi Major Axis			Distance						Warning
Measured Depth (usft)	Vertical Depth (usft)	Measured Depth (usft)	Vertical Depth (usft)	Reference (usft)	Offset (usft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (usft)	+E/-W (usft)	Between Centres (usft)	Between Ellipses (usft)	Minimum Separation (usft)	Separation Factor	
8,700.0	6,772.2	6,882.7	6,863.7	57.8	14.8	-90.69	893.9	3,708.7	2,214.1	2,141.6	72.52	30.530	
8,800.0	6,771.5	6,881.9	6,862.8	60.5	14.8	-90.65	893.9	3,708.7	2,128.9	2,053.7	75.22	28.301	
8,900.0	6,770.9	6,881.0	6,861.9	63.2	14.8	-90.60	893.9	3,708.8	2,045.1	1,967.1	77.94	26.240	
9,000.0	6,770.2	6,880.1	6,861.1	65.9	14.8	-90.56	893.9	3,708.8	1,962.8	1,882.1	80.66	24.334	
9,100.0	6,769.5	6,879.3	6,860.2	68.7	14.8	-90.52	893.9	3,708.8	1,882.2	1,798.8	83.39	22.572	
9,200.0	6,768.9	6,878.4	6,859.3	71.4	14.8	-90.47	893.9	3,708.8	1,803.5	1,717.4	86.12	20.942	
9,300.0	6,768.2	6,877.5	6,858.4	74.1	14.8	-90.43	893.9	3,708.8	1,727.1	1,638.2	88.86	19.436	
9,400.0	6,767.5	6,876.6	6,857.5	76.9	14.8	-90.38	893.9	3,708.8	1,653.1	1,561.5	91.60	18.047	
9,500.0	6,766.8	6,875.7	6,856.6	79.6	14.8	-90.34	893.9	3,708.8	1,582.1	1,487.7	94.35	16.768	
9,600.0	6,766.2	6,874.8	6,855.7	82.4	14.8	-90.29	893.9	3,708.8	1,514.3	1,417.2	97.10	15.594	
9,700.0	6,765.5	6,873.8	6,854.8	85.2	14.8	-90.24	893.9	3,708.8	1,450.2	1,350.3	99.86	14.523	
9,800.0	6,764.8	6,872.9	6,853.8	87.9	14.8	-90.20	893.9	3,708.8	1,390.4	1,287.8	102.62	13.549	
9,900.0	6,764.1	6,872.0	6,852.9	90.7	14.7	-90.15	893.9	3,708.8	1,335.4	1,230.0	105.38	12.672	
10,000.0	6,763.5	6,871.0	6,852.0	93.4	14.7	-90.10	893.9	3,708.8	1,285.8	1,177.7	108.15	11.890	
10,100.0	6,762.8	6,870.1	6,851.0	96.2	14.7	-90.06	893.9	3,708.8	1,242.4	1,131.4	110.91	11.201	
10,200.0	6,762.1	6,869.1	6,850.1	99.0	14.7	-90.01	893.9	3,708.8	1,205.6	1,091.9	113.68	10.605	
10,300.0	6,761.4	6,868.2	6,849.1	101.8	14.7	-89.96	893.9	3,708.8	1,176.3	1,059.8	116.45	10.101	
10,400.0	6,760.8	6,867.2	6,848.1	104.5	14.7	-89.91	893.9	3,708.8	1,154.9	1,035.6	119.23	9.686	
10,500.0	6,760.1	6,866.2	6,847.1	107.3	14.7	-89.86	893.9	3,708.8	1,141.8	1,019.8	122.00	9.359	
10,599.6	6,759.4	6,865.2	6,846.2	110.1	14.7	-89.81	893.9	3,708.8	1,137.5	1,012.7	124.77	9.117 CC	
10,600.0	6,759.4	6,865.2	6,846.2	110.1	14.7	-89.81	893.9	3,708.8	1,137.5	1,012.7	124.78	9.116 ES	
10,700.0	6,758.7	6,864.2	6,845.2	112.9	14.7	-89.76	893.9	3,708.8	1,141.9	1,014.3	127.55	8.952	
10,800.0	6,758.1	6,863.2	6,844.2	115.6	14.7	-89.71	893.9	3,708.8	1,155.0	1,024.6	130.33	8.862	
10,900.0	6,757.4	6,862.2	6,843.1	118.4	14.7	-89.66	893.9	3,708.8	1,176.5	1,043.3	133.11	8.838 SF	
11,000.0	6,756.7	6,861.2	6,842.1	121.2	14.7	-89.61	893.9	3,708.8	1,205.9	1,070.0	135.89	8.873	
11,100.0	6,756.0	6,860.2	6,841.1	124.0	14.7	-89.56	893.8	3,708.8	1,242.6	1,104.0	138.68	8.961	
11,200.0	6,755.3	6,859.1	6,840.1	126.8	14.7	-89.50	893.8	3,708.8	1,286.2	1,144.7	141.46	9.092	
11,300.0	6,754.7	6,858.1	6,839.0	129.6	14.7	-89.45	893.8	3,708.8	1,335.8	1,191.5	144.24	9.261	
11,400.0	6,754.0	6,857.0	6,838.0	132.4	14.7	-89.40	893.8	3,708.8	1,390.8	1,243.8	147.03	9.459	
11,500.0	6,753.3	6,856.0	6,836.9	135.1	14.7	-89.34	893.8	3,708.8	1,450.7	1,300.8	149.81	9.683	
11,600.0	6,752.6	6,854.9	6,835.8	137.9	14.7	-89.29	893.8	3,708.8	1,514.7	1,362.1	152.60	9.926	
11,700.0	6,751.9	6,853.8	6,834.7	140.7	14.7	-89.23	893.8	3,708.8	1,582.6	1,427.2	155.39	10.185	
11,800.0	6,751.3	6,852.7	6,833.7	143.5	14.7	-89.18	893.8	3,708.8	1,653.6	1,495.5	158.17	10.455	
11,837.2	6,751.0	6,852.3	6,833.3	144.6	14.7	-89.16	893.8	3,708.8	1,680.9	1,521.7	159.21	10.558	

# Anticollision Report



<b>Company:</b>	PDC ENERGY	<b>Local Co-ordinate Reference:</b>	Well KINZER 281-202
<b>Project:</b>	WELD COUNTY, COLORADO	<b>TVD Reference:</b>	KB-EST @ 4797.5usft
<b>Reference Site:</b>	SW SW SEC. 28 T5N R67W 6th P.M.	<b>MD Reference:</b>	KB-EST @ 4797.5usft
<b>Site Error:</b>	0.0 usft	<b>North Reference:</b>	True
<b>Reference Well:</b>	KINZER 281-202	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Well Error:</b>	0.0 usft	<b>Output errors are at</b>	2.00 sigma
<b>Reference Wellbore</b>	ORIGINAL WELLBORE	<b>Database:</b>	EDM 5000.1 Single User Db
<b>Reference Design:</b>	PROPOSAL #1	<b>Offset TVD Reference:</b>	Offset Datum

Offset Design												Offset Site Error:	0.0 usft
Survey Program: 40-MWD												Offset Well Error:	0.0 usft
Reference		Offset		Semi Major Axis			Distance						Warning
Measured Depth (usft)	Vertical Depth (usft)	Measured Depth (usft)	Vertical Depth (usft)	Reference (usft)	Offset (usft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (usft)	+E/-W (usft)	Between Centres (usft)	Between Ellipses (usft)	Minimum Separation (usft)	Separation Factor	
0.0	0.0	81.3	81.3	0.0	0.0	13.45	3,413.6	816.4	3,509.8				
100.0	100.0	183.5	183.5	0.1	0.2	13.45	3,413.4	816.5	3,509.7	3,509.5	0.27	N/A	
200.0	200.0	286.1	286.1	0.3	0.4	13.46	3,413.2	816.8	3,509.6	3,508.9	0.73	4,836.256	
300.0	300.0	388.3	388.3	0.5	0.6	13.46	3,412.9	817.1	3,509.4	3,508.2	1.18	2,973.353	
400.0	400.0	490.6	490.6	0.8	0.9	13.47	3,412.5	817.6	3,509.1	3,507.5	1.63	2,146.404	
500.0	500.0	592.8	592.8	1.0	1.1	13.48	3,412.0	818.1	3,508.7	3,506.7	2.09	1,679.249	
600.0	600.0	699.9	699.9	1.2	1.3	13.50	3,411.4	818.7	3,508.3	3,505.8	2.54	1,382.928	
700.0	700.0	813.0	813.0	1.4	1.5	13.50	3,410.5	818.6	3,507.5	3,504.5	2.99	1,174.572	
800.0	800.0	929.0	928.9	1.7	1.8	13.50	3,409.1	818.5	3,506.3	3,502.9	3.47	1,011.112	
900.0	900.0	1,009.9	1,009.9	1.9	2.0	13.50	3,408.1	818.4	3,505.2	3,501.3	3.85	911.416	
1,000.0	1,000.0	1,107.1	1,107.1	2.1	2.1	13.50	3,407.5	818.1	3,504.4	3,500.1	4.26	822.831	
1,100.0	1,100.0	2,189.5	2,170.6	2.3	5.7	137.55	3,237.7	832.6	3,488.1	3,480.9	7.12	489.642	
1,200.0	1,199.8	2,408.0	2,377.8	2.5	6.8	138.49	3,168.8	841.2	3,462.6	3,454.6	7.99	433.409	
1,300.0	1,299.5	2,520.0	2,482.9	2.7	7.5	139.21	3,130.7	846.0	3,436.7	3,428.2	8.57	401.154	
1,400.0	1,398.7	2,580.4	2,539.7	3.0	7.7	139.73	3,110.2	848.5	3,413.9	3,404.9	8.96	381.031	
1,500.0	1,497.5	2,625.2	2,582.1	3.2	8.0	140.15	3,095.7	850.3	3,395.1	3,385.8	9.32	364.343	
1,502.5	1,500.0	2,626.3	2,583.1	3.2	8.0	140.16	3,095.4	850.4	3,394.7	3,385.3	9.33	363.950	
1,600.0	1,595.9	2,729.4	2,680.9	3.5	8.5	140.59	3,063.0	854.3	3,378.7	3,368.8	9.92	340.495	
1,700.0	1,694.4	2,818.1	2,764.9	3.8	9.0	140.96	3,034.7	857.8	3,362.1	3,351.6	10.49	320.443	
1,800.0	1,792.9	2,880.0	2,823.6	4.2	9.3	141.22	3,015.3	860.3	3,346.3	3,335.4	10.96	305.278	
1,900.0	1,891.3	2,920.0	2,861.8	4.5	9.5	141.38	3,003.5	862.0	3,332.2	3,320.8	11.37	293.164	
2,000.0	1,989.8	3,013.0	2,950.8	4.9	10.0	141.76	2,976.8	865.7	3,319.1	3,307.2	11.96	277.599	
2,100.0	2,088.3	3,101.3	3,035.3	5.2	10.4	142.12	2,951.5	868.5	3,306.1	3,293.5	12.54	263.651	
2,200.0	2,186.7	3,186.2	3,116.7	5.6	10.9	142.46	2,927.4	871.6	3,293.5	3,280.4	13.12	251.082	
2,300.0	2,285.2	3,296.4	3,222.2	6.0	11.5	142.93	2,895.9	876.4	3,281.3	3,267.5	13.81	237.541	
2,400.0	2,383.7	3,445.6	3,364.4	6.4	12.3	143.58	2,851.3	883.0	3,267.8	3,253.1	14.69	222.494	
2,500.0	2,482.1	3,605.6	3,516.0	6.7	13.3	144.33	2,801.0	892.1	3,253.9	3,238.2	15.64	207.996	
2,600.0	2,580.6	3,800.0	3,697.8	7.1	14.6	145.31	2,733.1	903.6	3,236.2	3,219.4	16.82	192.360	
2,700.0	2,679.1	3,864.3	3,758.0	7.5	15.0	145.63	2,710.4	906.7	3,218.5	3,201.1	17.39	185.087	
2,800.0	2,777.5	3,920.0	3,810.4	7.9	15.3	145.89	2,691.8	908.7	3,202.2	3,184.3	17.90	178.847	
2,900.0	2,876.0	3,944.5	3,833.7	8.3	15.4	146.00	2,684.1	909.5	3,187.7	3,169.4	18.29	174.265	
3,000.0	2,974.4	3,989.1	3,876.2	8.7	15.7	146.19	2,670.9	910.9	3,175.2	3,156.5	18.75	169.317	
3,100.0	3,072.9	4,077.5	3,960.8	9.1	16.1	146.57	2,645.5	913.5	3,163.9	3,144.5	19.39	163.158	
3,200.0	3,171.4	4,151.4	4,031.6	9.5	16.5	146.90	2,624.4	916.3	3,153.1	3,133.1	19.98	157.794	
3,300.0	3,269.8	4,244.1	4,120.3	9.9	17.0	147.33	2,597.9	920.9	3,142.9	3,122.3	20.66	152.100	
3,400.0	3,368.3	4,434.4	4,301.4	10.3	18.1	148.22	2,539.9	928.4	3,130.2	3,108.5	21.77	143.809	
3,500.0	3,466.8	4,600.0	4,458.2	10.7	19.1	148.96	2,486.9	930.9	3,115.7	3,092.9	22.76	136.918	
3,580.8	3,546.3	4,640.0	4,496.1	11.0	19.3	149.15	2,474.1	931.8	3,104.4	3,081.3	23.16	134.052	
3,600.0	3,565.3	4,647.7	4,503.4	11.1	19.4	149.16	2,471.7	932.0	3,101.8	3,078.6	23.25	133.429	
3,700.0	3,664.1	4,732.5	4,583.8	11.3	19.9	149.39	2,445.0	934.5	3,087.0	3,063.1	23.86	129.380	
3,800.0	3,763.4	4,780.4	4,629.5	11.6	20.1	149.41	2,430.3	935.9	3,070.2	3,046.0	24.27	126.521	
3,900.0	3,863.1	4,818.5	4,666.0	11.8	20.3	149.36	2,419.6	936.7	3,052.4	3,027.8	24.58	124.188	
4,000.0	3,963.0	4,862.5	4,708.5	12.0	20.5	149.30	2,408.1	937.4	3,033.5	3,008.7	24.86	122.015	
4,083.3	4,046.3	4,905.1	4,749.8	12.1	20.7	26.50	2,397.8	938.0	3,016.8	2,986.8	29.94	100.765	
4,100.0	4,063.0	4,920.0	4,764.3	12.1	20.8	26.54	2,394.3	938.2	3,013.4	2,983.4	30.02	100.374	
4,200.0	4,163.0	4,969.8	4,812.8	12.3	21.0	26.65	2,383.1	938.9	2,993.6	2,963.3	30.36	98.613	
4,300.0	4,263.0	5,029.9	4,871.5	12.4	21.3	26.78	2,370.1	940.3	2,975.2	2,944.5	30.73	96.827	
4,400.0	4,363.0	5,095.0	4,935.1	12.6	21.5	26.94	2,356.6	942.3	2,958.0	2,926.9	31.11	95.091	
4,500.0	4,463.0	5,160.0	4,998.8	12.7	21.8	27.09	2,343.9	944.7	2,942.0	2,910.5	31.48	93.468	
4,600.0	4,563.0	5,200.0	5,038.1	12.9	21.9	27.18	2,336.7	946.0	2,927.6	2,895.8	31.76	92.189	
4,700.0	4,663.0	5,256.4	5,093.8	13.0	22.1	27.30	2,327.7	947.9	2,914.7	2,882.7	32.07	90.873	
4,800.0	4,763.0	5,320.0	5,156.7	13.2	22.3	27.41	2,318.7	949.9	2,903.5	2,871.1	32.40	89.604	

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

# Anticollision Report



<b>Company:</b>	PDC ENERGY	<b>Local Co-ordinate Reference:</b>	Well KINZER 281-202
<b>Project:</b>	WELD COUNTY, COLORADO	<b>TVD Reference:</b>	KB-EST @ 4797.5usft
<b>Reference Site:</b>	SW SW SEC. 28 T5N R67W 6th P.M.	<b>MD Reference:</b>	KB-EST @ 4797.5usft
<b>Site Error:</b>	0.0 usft	<b>North Reference:</b>	True
<b>Reference Well:</b>	KINZER 281-202	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Well Error:</b>	0.0 usft	<b>Output errors are at</b>	2.00 sigma
<b>Reference Wellbore</b>	ORIGINAL WELLBORE	<b>Database:</b>	EDM 5000.1 Single User Db
<b>Reference Design:</b>	PROPOSAL #1	<b>Offset TVD Reference:</b>	Offset Datum

<b>Offset Design</b> SW SW SEC. 28 T5N R67W 6th P.M. - EXIST DD KINZER 28KD - Wellbore #1 - Wellbore #1												<b>Offset Site Error:</b>	0.0 usft
Survey Program: 40-MWD												<b>Offset Well Error:</b>	0.0 usft
Reference		Offset		Semi Major Axis			Distance						Warning
Measured Depth (usft)	Vertical Depth (usft)	Measured Depth (usft)	Vertical Depth (usft)	Reference (usft)	Offset (usft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (usft)	+E/-W (usft)	Between Centres (usft)	Between Ellipses (usft)	Minimum Separation (usft)	Separation Factor	
4,900.0	4,863.0	5,370.7	5,207.0	13.4	22.4	27.50	2,312.3	951.4	2,893.6	2,860.9	32.69	88.518	
5,000.0	4,963.0	5,433.1	5,269.0	13.5	22.6	27.59	2,305.5	953.1	2,885.1	2,852.1	32.99	87.442	
5,100.0	5,063.0	5,501.8	5,337.3	13.7	22.8	27.67	2,299.3	954.2	2,877.8	2,844.5	33.31	86.407	
5,200.0	5,163.0	5,570.4	5,405.8	13.9	22.9	27.72	2,294.2	954.6	2,871.6	2,838.0	33.61	85.441	
5,300.0	5,263.0	5,640.0	5,475.3	14.0	23.0	27.76	2,290.3	954.5	2,866.5	2,832.6	33.91	84.543	
5,400.0	5,363.0	5,696.3	5,531.5	14.2	23.1	27.77	2,288.1	954.3	2,862.8	2,828.6	34.17	83.780	
5,500.0	5,463.0	5,768.3	5,603.6	14.4	23.2	27.78	2,286.2	953.9	2,860.1	2,825.7	34.45	83.019	
5,600.0	5,563.0	5,829.1	5,664.3	14.5	23.3	27.79	2,285.3	953.6	2,858.6	2,823.9	34.71	82.357	
5,647.5	5,610.4	5,854.7	5,689.9	14.6	23.3	27.79	2,285.1	953.6	2,858.5	2,823.6	34.83	82.079	
5,700.0	5,663.0	5,884.5	5,719.7	14.7	23.4	27.79	2,285.2	953.8	2,858.7	2,823.7	34.95	81.787	
5,800.0	5,763.0	5,969.9	5,805.1	14.9	23.4	27.80	2,285.9	954.4	2,859.8	2,824.5	35.22	81.202	
5,900.0	5,863.0	6,072.4	5,907.6	15.1	23.5	27.80	2,287.2	955.0	2,861.1	2,825.6	35.50	80.590	
6,000.0	5,963.0	6,179.6	6,014.8	15.2	23.6	27.79	2,288.4	955.1	2,862.1	2,826.3	35.80	79.955	
6,100.0	6,063.0	6,277.9	6,113.1	15.4	23.7	27.77	2,289.6	954.9	2,863.1	2,827.0	36.09	79.340	
6,102.8	6,065.8	6,280.8	6,116.0	15.4	23.7	27.77	2,289.6	954.9	2,863.2	2,827.1	36.10	79.322	
6,150.0	6,112.9	6,330.2	6,165.4	15.5	23.8	-62.28	2,290.3	954.8	2,862.9	2,831.0	31.91	89.719	
6,200.0	6,162.7	6,378.0	6,213.2	15.5	23.8	-62.51	2,290.9	954.5	2,861.0	2,829.2	31.87	89.763	
6,250.0	6,211.9	6,419.3	6,254.5	15.6	23.8	-62.88	2,291.5	954.4	2,857.7	2,825.9	31.76	89.970	
6,300.0	6,260.5	6,467.4	6,302.6	15.6	23.9	-63.45	2,292.3	954.2	2,852.9	2,821.3	31.60	90.280	
6,350.0	6,308.1	6,546.9	6,382.1	15.6	24.0	-64.39	2,293.4	953.4	2,846.3	2,814.9	31.42	90.592	
6,400.0	6,354.5	6,590.0	6,425.2	15.6	24.0	-65.30	2,293.8	952.8	2,838.0	2,806.8	31.18	91.013	
6,450.0	6,399.5	6,625.1	6,460.2	15.6	24.0	-66.30	2,294.2	952.4	2,828.6	2,797.6	30.94	91.434	
6,500.0	6,442.9	6,668.0	6,503.1	15.5	24.1	-67.51	2,294.7	952.1	2,818.0	2,787.3	30.72	91.747	
6,550.0	6,484.5	6,723.1	6,558.3	15.5	24.1	-69.02	2,295.1	951.9	2,806.3	2,775.7	30.56	91.835	
6,600.0	6,524.0	6,760.0	6,595.1	15.5	24.2	-70.46	2,295.2	951.7	2,793.4	2,763.0	30.44	91.756	
6,650.0	6,561.3	6,791.9	6,627.1	15.6	24.2	-71.96	2,295.4	951.7	2,779.8	2,749.4	30.41	91.419	
6,700.0	6,596.1	6,817.8	6,652.9	15.6	24.2	-73.48	2,295.6	951.6	2,765.6	2,735.2	30.46	90.798	
6,750.0	6,628.4	6,840.0	6,675.1	15.7	24.3	-75.00	2,295.8	951.6	2,751.1	2,720.4	30.62	89.856	
6,800.0	6,658.0	6,862.1	6,697.2	15.9	24.3	-76.59	2,296.1	951.7	2,736.2	2,705.3	30.89	88.565	
6,850.0	6,684.6	6,880.0	6,715.1	16.2	24.3	-78.14	2,296.4	951.7	2,721.2	2,689.9	31.29	86.978	
6,900.0	6,708.3	6,896.9	6,732.0	16.5	24.3	-79.70	2,296.7	951.8	2,706.2	2,674.4	31.80	85.111	
6,950.0	6,728.8	6,911.1	6,746.2	17.0	24.3	-81.22	2,297.0	951.8	2,691.3	2,658.9	32.41	83.033	
7,000.0	6,746.1	6,924.1	6,759.2	17.6	24.3	-82.70	2,297.3	951.9	2,676.6	2,643.5	33.13	80.794	
7,050.0	6,760.0	6,936.7	6,771.8	18.3	24.4	-84.16	2,297.6	951.9	2,662.3	2,628.4	33.94	78.449	
7,100.0	6,770.6	6,946.3	6,781.4	19.1	24.4	-85.51	2,297.9	952.0	2,648.5	2,613.7	34.81	76.078	
7,150.0	6,777.8	6,952.8	6,787.9	19.9	24.4	-86.76	2,298.0	952.0	2,635.2	2,599.5	35.74	73.730	
7,200.0	6,781.5	6,956.3	6,791.4	20.8	24.4	-87.87	2,298.1	952.0	2,622.7	2,586.0	36.71	71.443	
7,232.6	6,782.0	6,957.0	6,792.1	21.4	24.4	-88.53	2,298.2	952.0	2,614.9	2,577.5	37.36	69.998	
7,300.0	6,781.5	6,956.9	6,792.0	22.7	24.4	-88.53	2,298.2	952.0	2,600.0	2,561.3	38.67	67.242	
7,400.0	6,780.9	6,956.8	6,791.9	24.8	24.4	-88.52	2,298.2	952.0	2,580.9	2,540.2	40.75	63.340	
7,500.0	6,780.2	6,956.7	6,791.8	27.0	24.4	-88.52	2,298.1	952.0	2,565.7	2,522.7	42.96	59.721	
7,600.0	6,779.5	6,956.6	6,791.7	29.4	24.4	-88.52	2,298.1	952.0	2,554.2	2,508.9	45.28	56.413	
7,700.0	6,778.9	6,956.5	6,791.6	31.8	24.4	-88.52	2,298.1	952.0	2,546.6	2,499.0	47.67	53.420	
7,800.0	6,778.2	6,956.4	6,791.5	34.2	24.4	-88.51	2,298.1	952.0	2,543.0	2,492.8	50.13	50.728	
7,843.2	6,777.9	6,956.4	6,791.5	35.3	24.4	-88.51	2,298.1	952.0	2,542.6	2,491.4	51.21	49.646 CC	
7,900.0	6,777.5	6,956.3	6,791.4	36.7	24.4	-88.51	2,298.1	952.0	2,543.2	2,490.6	52.64	48.315 ES	
8,000.0	6,776.9	6,956.2	6,791.3	39.3	24.4	-88.51	2,298.1	952.0	2,547.4	2,492.2	55.19	46.160	
8,100.0	6,776.2	6,956.1	6,791.2	41.9	24.4	-88.51	2,298.1	952.0	2,555.5	2,497.8	57.77	44.237	
8,200.0	6,775.5	6,956.0	6,791.1	44.5	24.4	-88.50	2,298.1	952.0	2,567.5	2,507.1	60.38	42.523	
8,300.0	6,774.9	6,955.9	6,791.0	47.1	24.4	-88.50	2,298.1	952.0	2,583.3	2,520.3	63.01	40.998	
8,400.0	6,774.2	6,955.8	6,790.9	49.8	24.4	-88.50	2,298.1	952.0	2,602.8	2,537.2	65.66	39.640	
8,500.0	6,773.5	6,955.7	6,790.8	52.4	24.4	-88.50	2,298.1	952.0	2,626.0	2,557.7	68.33	38.432	

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

# Anticollision Report



<b>Company:</b>	PDC ENERGY	<b>Local Co-ordinate Reference:</b>	Well KINZER 28I-202
<b>Project:</b>	WELD COUNTY, COLORADO	<b>TVD Reference:</b>	KB-EST @ 4797.5usft
<b>Reference Site:</b>	SW SW SEC. 28 T5N R67W 6th P.M.	<b>MD Reference:</b>	KB-EST @ 4797.5usft
<b>Site Error:</b>	0.0 usft	<b>North Reference:</b>	True
<b>Reference Well:</b>	KINZER 28I-202	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Well Error:</b>	0.0 usft	<b>Output errors are at</b>	2.00 sigma
<b>Reference Wellbore</b>	ORIGINAL WELLBORE	<b>Database:</b>	EDM 5000.1 Single User Db
<b>Reference Design:</b>	PROPOSAL #1	<b>Offset TVD Reference:</b>	Offset Datum

<b>Offset Design</b> SW SW SEC. 28 T5N R67W 6th P.M. - EXIST DD KINZER 28KD - Wellbore #1 - Wellbore #1												<b>Offset Site Error:</b>	0.0 usft
Survey Program: 40-MWD												<b>Offset Well Error:</b>	0.0 usft
Reference		Offset		Semi Major Axis			Distance						
Measured Depth (usft)	Vertical Depth (usft)	Measured Depth (usft)	Vertical Depth (usft)	Reference (usft)	Offset (usft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (usft)	+E/-W (usft)	Between Centres (usft)	Between Ellipses (usft)	Minimum Separation (usft)	Separation Factor	Warning
8,600.0	6,772.9	6,955.6	6,790.7	55.1	24.4	-88.50	2,298.1	952.0	2,652.8	2,581.8	71.01	37.357	
8,700.0	6,772.2	6,955.4	6,790.5	57.8	24.4	-88.49	2,298.1	952.0	2,683.1	2,609.4	73.71	36.402	
8,800.0	6,771.5	6,955.3	6,790.4	60.5	24.4	-88.49	2,298.1	952.0	2,716.6	2,640.2	76.41	35.554	
8,900.0	6,770.9	6,955.2	6,790.3	63.2	24.4	-88.49	2,298.1	952.0	2,753.5	2,674.3	79.12	34.800	
9,000.0	6,770.2	6,955.1	6,790.2	65.9	24.4	-88.48	2,298.1	952.0	2,793.4	2,711.5	81.84	34.130	
9,100.0	6,769.5	6,955.0	6,790.1	68.7	24.4	-88.48	2,298.1	952.0	2,836.2	2,751.7	84.57	33.536	
9,200.0	6,768.9	6,954.9	6,790.0	71.4	24.4	-88.48	2,298.1	952.0	2,881.9	2,794.6	87.31	33.009	
9,300.0	6,768.2	6,954.8	6,789.9	74.1	24.4	-88.48	2,298.1	952.0	2,930.3	2,840.3	90.05	32.543	
9,400.0	6,767.5	6,954.7	6,789.8	76.9	24.4	-88.47	2,298.1	952.0	2,981.3	2,888.5	92.79	32.129	
9,500.0	6,766.8	6,954.6	6,789.7	79.6	24.4	-88.47	2,298.1	952.0	3,034.7	2,939.2	95.54	31.764	
9,600.0	6,766.2	6,954.4	6,789.5	82.4	24.4	-88.47	2,298.1	952.0	3,090.5	2,992.2	98.29	31.441	
9,700.0	6,765.5	6,954.3	6,789.4	85.2	24.4	-88.47	2,298.1	952.0	3,148.4	3,047.3	101.05	31.157	
9,800.0	6,764.8	6,954.2	6,789.3	87.9	24.4	-88.46	2,298.1	952.0	3,208.4	3,104.6	103.81	30.906	
9,900.0	6,764.1	6,954.1	6,789.2	90.7	24.4	-88.46	2,298.1	952.0	3,270.3	3,163.8	106.57	30.686	
10,000.0	6,763.5	6,954.0	6,789.1	93.4	24.4	-88.46	2,298.1	952.0	3,334.1	3,224.8	109.34	30.494	
10,100.0	6,762.8	6,953.9	6,789.0	96.2	24.4	-88.45	2,298.1	952.0	3,399.7	3,287.6	112.11	30.326	
10,200.0	6,762.1	6,953.7	6,788.8	99.0	24.4	-88.45	2,298.1	952.0	3,466.9	3,352.0	114.88	30.179	
10,300.0	6,761.4	6,953.6	6,788.7	101.8	24.4	-88.45	2,298.1	952.0	3,535.6	3,417.9	117.65	30.052	
10,400.0	6,760.8	6,953.5	6,788.6	104.5	24.4	-88.45	2,298.1	952.0	3,605.8	3,485.4	120.42	29.943	
10,500.0	6,760.1	6,953.4	6,788.5	107.3	24.4	-88.44	2,298.1	952.0	3,677.4	3,554.2	123.20	29.849	
10,600.0	6,759.4	6,953.2	6,788.3	110.1	24.4	-88.44	2,298.1	952.0	3,750.3	3,624.3	125.98	29.770	
10,700.0	6,758.7	6,953.1	6,788.2	112.9	24.4	-88.44	2,298.1	952.0	3,824.4	3,695.6	128.75	29.703	
10,800.0	6,758.1	6,953.0	6,788.1	115.6	24.4	-88.43	2,298.1	952.0	3,899.6	3,768.1	131.53	29.647	
10,900.0	6,757.4	6,952.9	6,788.0	118.4	24.4	-88.43	2,298.0	952.0	3,976.0	3,841.7	134.32	29.602	
11,000.0	6,756.7	6,952.7	6,787.8	121.2	24.4	-88.43	2,298.0	952.0	4,053.4	3,916.3	137.10	29.565	
11,100.0	6,756.0	6,952.6	6,787.7	124.0	24.4	-88.42	2,298.0	952.0	4,131.7	3,991.9	139.88	29.537	
11,200.0	6,755.3	6,952.5	6,787.6	126.8	24.4	-88.42	2,298.0	952.0	4,211.0	4,068.3	142.67	29.516	
11,300.0	6,754.7	6,952.4	6,787.5	129.6	24.4	-88.42	2,298.0	952.0	4,291.1	4,145.7	145.45	29.502	
11,400.0	6,754.0	6,952.2	6,787.3	132.4	24.4	-88.41	2,298.0	952.0	4,372.1	4,223.9	148.24	29.493	
11,500.0	6,753.3	6,952.1	6,787.2	135.1	24.4	-88.41	2,298.0	952.0	4,453.8	4,302.8	151.03	29.490 SF	
11,600.0	6,752.6	6,952.0	6,787.1	137.9	24.4	-88.41	2,298.0	952.0	4,536.3	4,382.5	153.82	29.492	
11,700.0	6,751.9	6,951.8	6,786.9	140.7	24.4	-88.40	2,298.0	952.0	4,619.5	4,462.8	156.61	29.497	
11,800.0	6,751.3	6,951.7	6,786.8	143.5	24.4	-88.40	2,298.0	952.0	4,703.3	4,543.9	159.39	29.507	
11,837.2	6,751.0	6,951.7	6,786.8	144.6	24.4	-88.40	2,298.0	952.0	4,734.6	4,574.2	160.43	29.511	

# Anticollision Report



<b>Company:</b>	PDC ENERGY	<b>Local Co-ordinate Reference:</b>	Well KINZER 281-202
<b>Project:</b>	WELD COUNTY, COLORADO	<b>TVD Reference:</b>	KB-EST @ 4797.5usft
<b>Reference Site:</b>	SW SW SEC. 28 T5N R67W 6th P.M.	<b>MD Reference:</b>	KB-EST @ 4797.5usft
<b>Site Error:</b>	0.0 usft	<b>North Reference:</b>	True
<b>Reference Well:</b>	KINZER 281-202	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Well Error:</b>	0.0 usft	<b>Output errors are at</b>	2.00 sigma
<b>Reference Wellbore</b>	ORIGINAL WELLBORE	<b>Database:</b>	EDM 5000.1 Single User Db
<b>Reference Design:</b>	PROPOSAL #1	<b>Offset TVD Reference:</b>	Offset Datum

Offset Design												Offset Site Error:	0.0 usft
Survey Program: 80-MWD												Offset Well Error:	0.0 usft
Reference		Offset		Semi Major Axis			Distance						Warning
Measured Depth (usft)	Vertical Depth (usft)	Measured Depth (usft)	Vertical Depth (usft)	Reference (usft)	Offset (usft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (usft)	+E/-W (usft)	Between Centres (usft)	Between Ellipses (usft)	Minimum Separation (usft)	Separation Factor	
0.0	0.0	0.0	0.0	0.0	0.0	92.83	-14.6	295.4	295.8				
100.0	100.0	96.9	96.9	0.1	0.1	92.84	-14.6	295.3	295.7	295.5	0.21	1,382.300	
200.0	200.0	197.2	197.2	0.3	0.3	92.86	-14.8	295.1	295.5	294.9	0.66	444.916	
300.0	300.0	297.7	297.7	0.5	0.6	92.92	-15.0	294.8	295.2	294.1	1.11	264.828	
400.0	400.0	397.7	397.7	0.8	0.8	92.99	-15.4	294.4	294.8	293.3	1.56	188.475	
500.0	500.0	498.2	498.2	1.0	1.0	93.07	-15.8	293.9	294.3	292.3	2.02	146.059	
600.0	600.0	598.4	598.4	1.2	1.2	93.18	-16.3	293.2	293.7	291.2	2.47	119.133	
700.0	700.0	699.3	699.2	1.4	1.5	93.32	-16.9	292.4	292.9	290.0	2.91	100.475	
800.0	800.0	800.1	800.1	1.7	1.7	93.46	-17.6	291.2	291.8	288.4	3.36	86.923	
900.0	900.0	899.7	899.6	1.9	1.9	93.54	-18.0	290.0	290.6	286.8	3.77	77.165	
1,000.0	1,000.0	999.6	999.5	2.1	2.1	93.62	-18.3	289.0	289.6	285.4	4.19	69.090	
1,040.3	1,040.3	1,040.2	1,040.1	2.2	2.2	-143.65	-18.4	288.6	289.4	285.0	4.36	66.327	
1,100.0	1,100.0	1,099.8	1,099.7	2.3	2.3	-143.76	-18.7	287.9	289.9	285.3	4.61	62.884	
1,200.0	1,199.8	1,199.9	1,199.9	2.5	2.5	-144.21	-19.2	286.7	293.0	287.9	5.01	58.484	
1,300.0	1,299.5	1,299.8	1,299.8	2.7	2.7	-145.00	-19.8	285.4	298.8	293.4	5.40	55.315	
1,400.0	1,398.7	1,399.0	1,398.9	3.0	2.9	-146.13	-20.1	284.1	307.6	301.8	5.80	53.069	
1,500.0	1,497.5	1,497.9	1,497.9	3.2	3.1	-147.54	-20.2	282.9	319.5	313.3	6.20	51.546	
1,502.5	1,500.0	1,500.4	1,500.4	3.2	3.1	-147.58	-20.2	282.8	319.9	313.7	6.21	51.517	
1,600.0	1,595.9	1,596.0	1,595.9	3.5	3.3	-149.14	-20.2	281.8	333.3	326.7	6.62	50.327	
1,700.0	1,694.4	1,689.3	1,689.2	3.8	3.5	-150.53	-20.2	281.3	348.0	341.0	7.05	49.375	
1,800.0	1,792.9	1,779.5	1,779.4	4.2	3.7	-151.67	-20.7	282.8	364.9	357.4	7.48	48.802	
1,900.0	1,891.3	1,868.9	1,868.7	4.5	3.8	-152.56	-22.0	286.4	384.2	376.3	7.91	48.558	
2,000.0	1,989.8	1,962.5	1,962.1	4.9	4.0	-153.17	-24.8	291.9	405.3	396.9	8.36	48.462	
2,100.0	2,088.3	2,055.0	2,054.3	5.2	4.2	-153.45	-29.4	298.2	427.0	418.2	8.82	48.400	
2,200.0	2,186.7	2,139.6	2,138.3	5.6	4.4	-153.44	-35.1	306.2	451.1	441.8	9.28	48.621	
2,300.0	2,285.2	2,223.7	2,221.4	6.0	4.6	-153.23	-42.2	316.5	477.8	468.1	9.74	49.036	
2,400.0	2,383.7	2,305.9	2,302.2	6.4	4.8	-152.84	-50.5	329.0	507.1	496.9	10.22	49.598	
2,500.0	2,482.1	2,385.2	2,379.8	6.7	5.1	-152.40	-59.2	343.3	539.2	528.5	10.71	50.349	
2,600.0	2,580.6	2,480.0	2,472.2	7.1	5.3	-151.96	-69.2	361.9	572.7	561.5	11.22	51.045	
2,700.0	2,679.1	2,572.1	2,562.1	7.5	5.6	-151.70	-77.7	379.8	606.2	594.5	11.72	51.710	
2,800.0	2,777.5	2,664.0	2,651.9	7.9	5.9	-151.50	-85.7	398.0	640.1	627.9	12.24	52.295	
2,900.0	2,876.0	2,762.6	2,748.1	8.3	6.3	-151.25	-94.9	417.4	673.9	661.1	12.78	52.748	
3,000.0	2,974.4	2,856.3	2,839.7	8.7	6.6	-151.07	-103.5	435.4	707.3	694.0	13.30	53.165	
3,100.0	3,072.9	2,949.5	2,930.7	9.1	6.9	-150.92	-111.7	453.5	740.9	727.0	13.84	53.551	
3,200.0	3,171.4	3,044.8	3,023.9	9.5	7.3	-150.80	-119.9	472.0	774.4	760.0	14.37	53.874	
3,300.0	3,269.8	3,137.6	3,114.5	9.9	7.6	-150.66	-128.3	490.0	807.9	793.0	14.92	54.165	
3,400.0	3,368.3	3,231.0	3,205.7	10.3	8.0	-150.54	-136.6	508.2	841.6	826.2	15.46	54.443	
3,500.0	3,466.8	3,324.7	3,297.2	10.7	8.4	-150.43	-144.9	526.6	875.4	859.3	16.01	54.678	
3,580.8	3,546.3	3,393.9	3,364.7	11.0	8.7	-150.33	-151.5	540.3	902.8	886.4	16.44	54.906	
3,600.0	3,565.3	3,409.1	3,379.5	11.1	8.7	-150.37	-153.0	543.4	909.4	892.9	16.55	54.962	
3,700.0	3,664.1	3,489.0	3,457.1	11.3	9.1	-150.49	-161.3	560.6	943.0	925.9	17.05	55.307	
3,800.0	3,763.4	3,575.0	3,540.3	11.6	9.5	-150.46	-170.5	580.3	974.9	957.4	17.56	55.522	
3,900.0	3,863.1	3,672.7	3,634.7	11.8	9.9	-150.27	-181.2	602.9	1,004.3	986.3	18.08	55.545	
4,000.0	3,963.0	3,783.3	3,742.0	12.0	10.4	-149.96	-192.4	627.5	1,030.1	1,011.5	18.59	55.402	
4,083.3	4,046.3	3,877.7	3,833.9	12.1	10.8	87.62	-201.0	647.2	1,048.2	1,026.6	21.63	48.458	
4,100.0	4,063.0	3,896.5	3,852.3	12.1	10.9	87.73	-202.8	651.0	1,051.5	1,029.8	21.73	48.395	
4,200.0	4,163.0	3,993.2	3,946.5	12.3	11.3	88.30	-212.4	670.2	1,071.1	1,048.9	22.26	48.130	
4,300.0	4,263.0	4,096.2	4,047.0	12.4	11.7	88.86	-222.2	690.7	1,090.9	1,068.1	22.81	47.824	
4,400.0	4,363.0	4,191.1	4,139.6	12.6	12.1	89.34	-231.1	709.4	1,110.5	1,087.2	23.34	47.575	
4,500.0	4,463.0	4,302.2	4,248.2	12.7	12.6	89.86	-240.9	730.9	1,130.0	1,106.0	23.94	47.201	
4,600.0	4,563.0	4,405.1	4,348.9	12.9	13.0	90.32	-250.0	749.7	1,148.3	1,123.8	24.49	46.882	
4,700.0	4,663.0	4,485.4	4,427.4	13.0	13.4	90.70	-257.6	765.0	1,167.5	1,142.5	24.98	46.734	

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

# Anticollision Report



<b>Company:</b>	PDC ENERGY	<b>Local Co-ordinate Reference:</b>	Well KINZER 281-202
<b>Project:</b>	WELD COUNTY, COLORADO	<b>TVD Reference:</b>	KB-EST @ 4797.5usft
<b>Reference Site:</b>	SW SW SEC. 28 T5N R67W 6th P.M.	<b>MD Reference:</b>	KB-EST @ 4797.5usft
<b>Site Error:</b>	0.0 usft	<b>North Reference:</b>	True
<b>Reference Well:</b>	KINZER 281-202	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Well Error:</b>	0.0 usft	<b>Output errors are at</b>	2.00 sigma
<b>Reference Wellbore</b>	ORIGINAL WELLBORE	<b>Database:</b>	EDM 5000.1 Single User Db
<b>Reference Design:</b>	PROPOSAL #1	<b>Offset TVD Reference:</b>	Offset Datum

Offset Design												Offset Site Error:	0.0 usft
Survey Program: 80-MWD												Offset Well Error:	0.0 usft
Reference		Offset		Semi Major Axis			Distance						Warning
Measured Depth (usft)	Vertical Depth (usft)	Measured Depth (usft)	Vertical Depth (usft)	Reference (usft)	Offset (usft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (usft)	+E/-W (usft)	Between Centres (usft)	Between Ellipses (usft)	Minimum Separation (usft)	Separation Factor	
4,800.0	4,763.0	4,578.2	4,517.9	13.2	13.8	91.11	-266.1	783.5	1,187.6	1,162.1	25.53	46.512	
4,900.0	4,863.0	4,671.9	4,609.4	13.4	14.2	91.48	-274.1	802.5	1,208.1	1,182.0	26.09	46.297	
5,000.0	4,963.0	4,809.0	4,743.5	13.5	14.7	91.94	-284.5	828.4	1,227.3	1,200.5	26.81	45.782	
5,100.0	5,063.0	4,913.0	4,845.9	13.7	15.1	92.26	-291.8	845.8	1,244.3	1,216.9	27.36	45.473	
5,200.0	5,163.0	5,008.6	4,939.8	13.9	15.5	92.51	-298.0	862.3	1,261.8	1,233.9	27.90	45.226	
5,300.0	5,263.0	5,116.9	5,046.2	14.0	15.9	92.82	-305.7	880.3	1,278.8	1,250.4	28.47	44.913	
5,400.0	5,363.0	5,255.1	5,182.6	14.2	16.4	93.19	-315.0	901.0	1,294.2	1,265.1	29.13	44.429	
5,500.0	5,463.0	5,450.7	5,376.9	14.4	16.9	93.55	-324.2	921.0	1,305.2	1,275.3	29.86	43.707	
5,600.0	5,563.0	5,597.3	5,523.4	14.5	17.2	93.65	-327.0	927.0	1,309.3	1,278.9	30.34	43.154	
5,700.0	5,663.0	5,716.5	5,642.6	14.7	17.4	93.70	-328.2	929.4	1,311.3	1,280.6	30.73	42.671	
5,800.0	5,763.0	5,825.0	5,751.0	14.9	17.6	93.70	-328.3	930.3	1,312.2	1,281.1	31.09	42.207	
5,900.0	5,863.0	5,923.9	5,849.9	15.1	17.7	93.69	-328.0	931.0	1,312.8	1,281.4	31.43	41.771	
6,000.0	5,963.0	6,016.6	5,942.6	15.2	17.9	93.69	-328.1	932.0	1,313.9	1,282.1	31.77	41.361	
6,100.0	6,063.0	6,116.7	6,042.7	15.4	18.1	93.70	-328.6	933.3	1,315.2	1,283.1	32.12	40.944	
6,102.8	6,065.8	6,119.6	6,045.6	15.4	18.1	93.70	-328.6	933.3	1,315.2	1,283.1	32.13	40.933	
6,150.0	6,112.9	6,166.8	6,092.8	15.5	18.1	3.73	-328.9	933.9	1,314.3	1,285.9	28.36	46.351	
6,200.0	6,162.7	6,216.8	6,142.8	15.5	18.2	3.78	-329.2	934.5	1,309.9	1,281.5	28.41	46.112	
6,250.0	6,211.9	6,267.9	6,193.9	15.6	18.3	3.86	-329.6	935.1	1,302.0	1,273.7	28.34	45.939	
6,300.0	6,260.5	6,318.9	6,244.9	15.6	18.4	3.97	-329.9	935.6	1,290.6	1,262.5	28.16	45.831	
6,350.0	6,308.1	6,366.1	6,292.1	15.6	18.5	4.12	-330.1	936.0	1,275.9	1,248.0	27.86	45.801	
6,400.0	6,354.5	6,414.9	6,340.9	15.6	18.5	4.30	-330.2	936.4	1,257.8	1,230.4	27.45	45.826	
6,450.0	6,399.5	6,462.8	6,388.7	15.6	18.6	4.53	-330.3	936.8	1,236.4	1,209.5	26.93	45.907	
6,500.0	6,442.9	6,508.9	6,434.9	15.5	18.7	4.82	-330.4	937.0	1,211.9	1,185.6	26.32	46.041	
6,550.0	6,484.5	6,553.1	6,479.1	15.5	18.8	5.18	-330.6	937.1	1,184.3	1,158.7	25.62	46.221	
6,600.0	6,524.0	6,594.3	6,520.3	15.5	18.8	5.63	-330.8	937.1	1,153.8	1,128.9	24.85	46.436	
6,650.0	6,561.3	6,631.1	6,557.1	15.6	18.9	6.18	-330.9	937.1	1,120.6	1,096.6	24.01	46.675	
6,700.0	6,596.1	6,665.2	6,591.2	15.6	18.9	6.85	-331.0	937.1	1,084.9	1,061.8	23.13	46.899	
6,750.0	6,628.4	6,696.4	6,622.4	15.7	19.0	7.69	-331.1	937.2	1,046.9	1,024.7	22.25	47.055	
6,800.0	6,658.0	6,724.7	6,650.7	15.9	19.0	8.77	-331.2	937.3	1,006.8	985.4	21.40	47.054	
6,850.0	6,684.6	6,750.5	6,676.5	16.2	19.1	10.20	-331.3	937.4	964.8	944.2	20.64	46.744	
6,900.0	6,708.3	6,773.8	6,699.8	16.5	19.1	12.11	-331.5	937.5	921.1	901.0	20.07	45.888	
6,950.0	6,728.8	6,794.3	6,720.3	17.0	19.1	14.76	-331.6	937.6	875.8	856.0	19.85	44.125	
7,000.0	6,746.1	6,811.7	6,737.7	17.6	19.2	18.56	-331.7	937.7	829.3	809.0	20.24	40.968	
7,050.0	6,760.0	6,825.9	6,751.9	18.3	19.2	24.30	-331.8	937.7	781.7	759.9	21.73	35.968	
7,100.0	6,770.6	6,836.7	6,762.7	19.1	19.2	33.45	-331.9	937.8	733.2	708.1	25.10	29.212	
7,150.0	6,777.8	6,844.2	6,770.2	19.9	19.2	48.66	-331.9	937.8	684.2	653.1	31.10	21.996	
7,200.0	6,781.5	6,848.2	6,774.2	20.8	19.2	72.29	-331.9	937.9	634.8	596.8	37.98	16.713	
7,232.6	6,782.0	6,848.9	6,774.9	21.4	19.2	90.23	-331.9	937.9	602.5	562.7	39.86	15.116	
7,300.0	6,781.5	6,848.8	6,774.8	22.7	19.2	90.19	-331.9	937.9	535.9	494.8	41.17	13.017	
7,400.0	6,780.9	6,848.7	6,774.7	24.8	19.2	90.11	-331.9	937.9	437.6	394.4	43.26	10.117	
7,500.0	6,780.2	6,848.6	6,774.6	27.0	19.2	90.04	-331.9	937.9	340.3	294.8	45.47	7.483	
7,600.0	6,779.5	6,848.5	6,774.5	29.4	19.2	89.97	-331.9	937.9	245.1	197.3	47.79	5.128	
7,700.0	6,778.9	6,848.4	6,774.4	31.8	19.2	89.89	-331.9	937.9	156.0	105.8	50.19	3.109	
7,800.0	6,778.2	6,848.3	6,774.2	34.2	19.2	89.82	-331.9	937.9	92.8	40.2	52.65	1.764	
7,828.6	6,778.0	6,848.2	6,774.2	34.9	19.2	89.80	-331.9	937.9	88.3	35.0	53.36	1.655 CC, ES, SF	
7,900.0	6,777.5	6,848.2	6,774.1	36.7	19.2	89.75	-331.9	937.9	113.6	58.4	55.16	2.059	
8,000.0	6,776.9	6,848.0	6,774.0	39.3	19.2	89.67	-331.9	937.9	192.8	135.1	57.71	3.341	
8,100.0	6,776.2	6,847.9	6,773.9	41.9	19.2	89.60	-331.9	937.9	285.4	225.1	60.29	4.734	
8,200.0	6,775.5	6,847.8	6,773.8	44.5	19.2	89.52	-331.9	937.9	381.7	318.8	62.90	6.069	
8,300.0	6,774.9	6,847.7	6,773.7	47.1	19.2	89.45	-331.9	937.9	479.6	414.1	65.53	7.318	
8,400.0	6,774.2	6,847.6	6,773.6	49.8	19.2	89.37	-331.9	937.9	578.2	510.0	68.19	8.479	
8,500.0	6,773.5	6,847.5	6,773.4	52.4	19.2	89.30	-331.9	937.8	677.2	606.3	70.86	9.557	

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



# Anticollision Report



<b>Company:</b>	PDC ENERGY	<b>Local Co-ordinate Reference:</b>	Well KINZER 28I-202
<b>Project:</b>	WELD COUNTY, COLORADO	<b>TVD Reference:</b>	KB-EST @ 4797.5usft
<b>Reference Site:</b>	SW SW SEC. 28 T5N R67W 6th P.M.	<b>MD Reference:</b>	KB-EST @ 4797.5usft
<b>Site Error:</b>	0.0 usft	<b>North Reference:</b>	True
<b>Reference Well:</b>	KINZER 28I-202	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Well Error:</b>	0.0 usft	<b>Output errors are at</b>	2.00 sigma
<b>Reference Wellbore</b>	ORIGINAL WELLBORE	<b>Database:</b>	EDM 5000.1 Single User Db
<b>Reference Design:</b>	PROPOSAL #1	<b>Offset TVD Reference:</b>	Offset Datum

<b>Offset Design</b> SW SW SEC. 28 T5N R67W 6th P.M. - EXIST DD KINZER 28LD - Wellbore #1 - Wellbore #1												<b>Offset Site Error:</b>	0.0 usft
Survey Program: 80-MWD												<b>Offset Well Error:</b>	0.0 usft
Reference		Offset		Semi Major Axis			Distance						
Measured Depth (usft)	Vertical Depth (usft)	Measured Depth (usft)	Vertical Depth (usft)	Reference (usft)	Offset (usft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (usft)	+E/-W (usft)	Between Centres (usft)	Between Ellipses (usft)	Minimum Separation (usft)	Separation Factor	Warning
8,600.0	6,772.9	6,847.4	6,773.3	55.1	19.2	89.22	-331.9	937.8	776.4	702.9	73.54	10.558	
8,700.0	6,772.2	6,847.2	6,773.2	57.8	19.2	89.14	-331.9	937.8	875.9	799.6	76.23	11.489	
8,800.0	6,771.5	6,847.1	6,773.1	60.5	19.2	89.07	-331.9	937.8	975.4	896.5	78.94	12.357	
8,900.0	6,770.9	6,847.0	6,773.0	63.2	19.2	88.99	-331.9	937.8	1,075.0	993.4	81.65	13.166	
9,000.0	6,770.2	6,846.9	6,772.9	65.9	19.2	88.91	-331.9	937.8	1,174.7	1,090.3	84.37	13.923	
9,100.0	6,769.5	6,846.8	6,772.8	68.7	19.2	88.83	-331.9	937.8	1,274.5	1,187.4	87.10	14.632	
9,200.0	6,768.9	6,846.7	6,772.6	71.4	19.2	88.75	-331.9	937.8	1,374.2	1,284.4	89.83	15.298	
9,300.0	6,768.2	6,846.5	6,772.5	74.1	19.2	88.67	-331.9	937.8	1,474.0	1,381.5	92.57	15.923	
9,400.0	6,767.5	6,846.4	6,772.4	76.9	19.2	88.59	-331.9	937.8	1,573.9	1,478.6	95.31	16.512	
9,500.0	6,766.8	6,846.3	6,772.3	79.6	19.2	88.52	-331.9	937.8	1,673.7	1,575.7	98.06	17.068	
9,600.0	6,766.2	6,846.2	6,772.2	82.4	19.2	88.44	-331.9	937.8	1,773.6	1,672.8	100.81	17.593	
9,700.0	6,765.5	6,846.1	6,772.1	85.2	19.2	88.35	-331.9	937.8	1,873.5	1,769.9	103.57	18.090	
9,800.0	6,764.8	6,846.0	6,771.9	87.9	19.2	88.27	-331.9	937.8	1,973.4	1,867.0	106.32	18.560	
9,900.0	6,764.1	6,845.8	6,771.8	90.7	19.2	88.19	-331.9	937.8	2,073.3	1,964.2	109.08	19.007	
10,000.0	6,763.5	6,845.7	6,771.7	93.4	19.2	88.11	-331.9	937.8	2,173.2	2,061.3	111.84	19.431	
10,100.0	6,762.8	6,845.6	6,771.6	96.2	19.2	88.03	-331.9	937.8	2,273.1	2,158.5	114.61	19.834	
10,200.0	6,762.1	6,845.5	6,771.5	99.0	19.2	87.95	-331.9	937.8	2,373.0	2,255.7	117.37	20.218	
10,300.0	6,761.4	6,845.4	6,771.4	101.8	19.2	87.87	-331.9	937.8	2,473.0	2,352.8	120.14	20.584	
10,400.0	6,760.8	6,845.3	6,771.2	104.5	19.2	87.78	-331.9	937.8	2,572.9	2,450.0	122.91	20.934	
10,500.0	6,760.1	6,845.1	6,771.1	107.3	19.2	87.70	-331.9	937.8	2,672.8	2,547.2	125.68	21.268	
10,600.0	6,759.4	6,845.0	6,771.0	110.1	19.2	87.62	-331.9	937.8	2,772.8	2,644.3	128.45	21.587	
10,700.0	6,758.7	6,844.9	6,770.9	112.9	19.2	87.53	-331.9	937.8	2,872.7	2,741.5	131.22	21.893	
10,800.0	6,758.1	6,844.8	6,770.8	115.6	19.2	87.45	-331.9	937.8	2,972.7	2,838.7	133.99	22.186	
10,900.0	6,757.4	6,844.7	6,770.7	118.4	19.2	87.36	-331.9	937.8	3,072.7	2,935.9	136.76	22.467	
11,000.0	6,756.7	6,844.6	6,770.5	121.2	19.2	87.28	-331.9	937.8	3,172.6	3,033.1	139.54	22.737	
11,100.0	6,756.0	6,844.4	6,770.4	124.0	19.2	87.19	-331.9	937.8	3,272.6	3,130.3	142.31	22.996	
11,200.0	6,755.3	6,844.3	6,770.3	126.8	19.2	87.11	-331.9	937.8	3,372.5	3,227.5	145.08	23.246	
11,300.0	6,754.7	6,844.2	6,770.2	129.6	19.2	87.02	-331.9	937.8	3,472.5	3,324.7	147.86	23.485	
11,400.0	6,754.0	6,844.1	6,770.1	132.4	19.2	86.94	-331.9	937.8	3,572.5	3,421.8	150.63	23.717	
11,500.0	6,753.3	6,844.0	6,769.9	135.1	19.2	86.85	-331.9	937.8	3,672.4	3,519.0	153.41	23.939	
11,600.0	6,752.6	6,843.8	6,769.8	137.9	19.2	86.76	-331.9	937.8	3,772.4	3,616.2	156.18	24.154	
11,700.0	6,751.9	6,843.7	6,769.7	140.7	19.2	86.67	-331.9	937.8	3,872.4	3,713.4	158.96	24.362	
11,800.0	6,751.3	6,843.6	6,769.6	143.5	19.2	86.59	-331.9	937.8	3,972.4	3,810.6	161.73	24.562	
11,837.2	6,751.0	6,843.6	6,769.5	144.6	19.2	86.55	-331.9	937.8	4,009.6	3,846.8	162.76	24.635	

# Anticollision Report



<b>Company:</b>	PDC ENERGY	<b>Local Co-ordinate Reference:</b>	Well KINZER 281-202
<b>Project:</b>	WELD COUNTY, COLORADO	<b>TVD Reference:</b>	KB-EST @ 4797.5usft
<b>Reference Site:</b>	SW SW SEC. 28 T5N R67W 6th P.M.	<b>MD Reference:</b>	KB-EST @ 4797.5usft
<b>Site Error:</b>	0.0 usft	<b>North Reference:</b>	True
<b>Reference Well:</b>	KINZER 281-202	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Well Error:</b>	0.0 usft	<b>Output errors are at</b>	2.00 sigma
<b>Reference Wellbore</b>	ORIGINAL WELLBORE	<b>Database:</b>	EDM 5000.1 Single User Db
<b>Reference Design:</b>	PROPOSAL #1	<b>Offset TVD Reference:</b>	Offset Datum

Offset Design SW SW SEC. 28 T5N R67W 6th P.M. - EXIST VERT BINDER 10-28 - Wellbore #1 - Design #1												Offset Site Error:	0.0 usft
Survey Program: 0-INC												Offset Well Error:	0.0 usft
Reference		Offset		Semi Major Axis			Distance						Warning
Measured Depth (usft)	Vertical Depth (usft)	Measured Depth (usft)	Vertical Depth (usft)	Reference (usft)	Offset (usft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (usft)	+E/-W (usft)	Between Centres (usft)	Between Ellipses (usft)	Minimum Separation (usft)	Separation Factor	
0.0	0.0	104.5	104.5	0.0	0.0	59.48	1,737.9	2,948.1	3,422.2				
100.0	100.0	204.5	204.5	0.1	1.2	59.48	1,737.9	2,948.1	3,422.2	3,420.9	1.29	2,646.634	
200.0	200.0	304.5	304.5	0.3	3.5	59.48	1,737.9	2,948.1	3,422.2	3,418.4	3.82	895.603	
300.0	300.0	404.5	404.5	0.5	5.6	59.48	1,737.9	2,948.1	3,422.2	3,416.1	6.12	558.800	
400.0	400.0	504.5	504.5	0.8	7.6	59.48	1,737.9	2,948.1	3,422.2	3,413.8	8.39	407.846	
500.0	500.0	604.5	604.5	1.0	9.6	59.48	1,737.9	2,948.1	3,422.2	3,411.6	10.64	321.498	
600.0	600.0	704.5	704.5	1.2	11.7	59.48	1,737.9	2,948.1	3,422.2	3,409.3	12.89	265.453	
700.0	700.0	804.5	804.5	1.4	13.7	59.48	1,737.9	2,948.1	3,422.2	3,407.1	15.14	226.099	
800.0	800.0	904.5	904.5	1.7	15.7	59.48	1,737.9	2,948.1	3,422.2	3,404.8	17.38	196.931	
900.0	900.0	1,004.5	1,004.5	1.9	17.7	59.48	1,737.9	2,948.1	3,422.2	3,402.6	19.62	174.441	
1,000.0	1,000.0	1,104.5	1,104.5	2.1	19.7	59.48	1,737.9	2,948.1	3,422.2	3,400.4	21.86	156.568	
1,100.0	1,100.0	1,204.5	1,204.5	2.3	21.8	-177.80	1,737.9	2,948.1	3,424.0	3,399.9	24.06	142.306	
1,200.0	1,199.8	1,304.3	1,304.3	2.5	23.8	-177.80	1,737.9	2,948.1	3,429.2	3,403.0	26.21	130.831	
1,300.0	1,299.5	1,404.0	1,404.0	2.7	25.8	-177.79	1,737.9	2,948.1	3,437.9	3,409.6	28.32	121.389	
1,400.0	1,398.7	1,503.2	1,503.2	3.0	27.8	-177.79	1,737.9	2,948.1	3,450.1	3,419.7	30.38	113.555	
1,500.0	1,497.5	1,602.0	1,602.0	3.2	29.8	-177.79	1,737.9	2,948.1	3,465.7	3,433.3	32.39	107.015	
1,502.5	1,500.0	1,604.5	1,604.5	3.2	29.8	-177.79	1,737.9	2,948.1	3,466.2	3,433.7	32.43	106.865	
1,600.0	1,595.9	1,700.4	1,700.4	3.5	31.7	-177.80	1,737.9	2,948.1	3,483.2	3,448.6	34.55	100.827	
1,700.0	1,694.4	1,798.9	1,798.9	3.8	33.7	-177.81	1,737.9	2,948.1	3,500.6	3,463.9	36.72	95.339	
1,800.0	1,792.9	1,897.4	1,897.4	4.2	35.7	-177.82	1,737.9	2,948.1	3,518.0	3,479.1	38.89	90.454	
1,900.0	1,891.3	1,995.8	1,995.8	4.5	37.7	-177.83	1,737.9	2,948.1	3,535.5	3,494.4	41.07	86.078	
2,000.0	1,989.8	2,094.3	2,094.3	4.9	39.7	-177.84	1,737.9	2,948.1	3,552.9	3,509.7	43.26	82.137	
2,100.0	2,088.3	2,192.8	2,192.8	5.2	41.6	-177.85	1,737.9	2,948.1	3,570.4	3,524.9	45.44	78.570	
2,200.0	2,186.7	2,291.2	2,291.2	5.6	43.6	-177.86	1,737.9	2,948.1	3,587.8	3,540.2	47.63	75.327	
2,300.0	2,285.2	2,389.7	2,389.7	6.0	45.6	-177.88	1,737.9	2,948.1	3,605.2	3,555.4	49.82	72.366	
2,400.0	2,383.7	2,488.2	2,488.2	6.4	47.6	-177.89	1,737.9	2,948.1	3,622.7	3,570.7	52.01	69.652	
2,500.0	2,482.1	2,586.6	2,586.6	6.7	49.6	-177.90	1,737.9	2,948.1	3,640.1	3,585.9	54.20	67.156	
2,600.0	2,580.6	2,685.1	2,685.1	7.1	51.5	-177.91	1,737.9	2,948.1	3,657.6	3,601.2	56.40	64.852	
2,700.0	2,679.1	2,783.6	2,783.6	7.5	53.5	-177.92	1,737.9	2,948.1	3,675.0	3,616.4	58.59	62.720	
2,800.0	2,777.5	2,882.0	2,882.0	7.9	55.5	-177.93	1,737.9	2,948.1	3,692.4	3,631.6	60.79	60.741	
2,900.0	2,876.0	2,980.5	2,980.5	8.3	57.5	-177.94	1,737.9	2,948.1	3,709.9	3,646.9	62.99	58.899	
3,000.0	2,974.4	3,078.9	3,078.9	8.7	59.5	-177.94	1,737.9	2,948.1	3,727.3	3,662.1	65.18	57.181	
3,100.0	3,072.9	3,177.4	3,177.4	9.1	61.4	-177.95	1,737.9	2,948.1	3,744.8	3,677.4	67.38	55.574	
3,200.0	3,171.4	3,275.9	3,275.9	9.5	63.4	-177.96	1,737.9	2,948.1	3,762.2	3,692.6	69.58	54.068	
3,300.0	3,269.8	3,374.3	3,374.3	9.9	65.4	-177.97	1,737.9	2,948.1	3,779.6	3,707.9	71.78	52.654	
3,400.0	3,368.3	3,472.8	3,472.8	10.3	67.4	-177.98	1,737.9	2,948.1	3,797.1	3,723.1	73.98	51.324	
3,500.0	3,466.8	3,571.3	3,571.3	10.7	69.4	-177.99	1,737.9	2,948.1	3,814.5	3,738.3	76.18	50.070	
3,580.8	3,546.3	3,650.8	3,650.8	11.0	71.0	-178.00	1,737.9	2,948.1	3,828.6	3,750.7	77.96	49.109	
3,600.0	3,565.3	3,669.8	3,669.8	11.1	71.3	-178.00	1,737.9	2,948.1	3,831.9	3,753.4	78.46	48.836	
3,700.0	3,664.1	3,768.6	3,768.6	11.3	73.3	-178.02	1,737.9	2,948.1	3,847.0	3,765.9	81.03	47.476	
3,800.0	3,763.4	3,867.9	3,867.9	11.6	75.3	-178.04	1,737.9	2,948.1	3,858.6	3,775.0	83.52	46.200	
3,900.0	3,863.1	3,967.6	3,967.6	11.8	77.3	-178.05	1,737.9	2,948.1	3,866.7	3,780.8	85.92	45.004	
4,000.0	3,963.0	4,067.5	4,067.5	12.0	79.3	-178.05	1,737.9	2,948.1	3,871.3	3,783.1	88.22	43.881	
4,083.3	4,046.3	4,150.8	4,150.8	12.1	81.0	59.22	1,737.9	2,948.1	3,872.5	3,779.4	93.12	41.586	
4,100.0	4,063.0	4,167.5	4,167.5	12.1	81.4	59.22	1,737.9	2,948.1	3,872.5	3,779.1	93.48	41.426	
4,200.0	4,163.0	4,267.5	4,267.5	12.3	83.4	59.22	1,737.9	2,948.1	3,872.5	3,776.9	95.64	40.491	
4,300.0	4,263.0	4,367.5	4,367.5	12.4	85.4	59.22	1,737.9	2,948.1	3,872.5	3,774.8	97.80	39.597	
4,400.0	4,363.0	4,467.5	4,467.5	12.6	87.4	59.22	1,737.9	2,948.1	3,872.5	3,772.6	99.96	38.740	
4,500.0	4,463.0	4,567.5	4,567.5	12.7	89.4	59.22	1,737.9	2,948.1	3,872.5	3,770.4	102.13	37.919	
4,600.0	4,563.0	4,667.5	4,667.5	12.9	91.4	59.22	1,737.9	2,948.1	3,872.5	3,768.3	104.29	37.132	
4,700.0	4,663.0	4,767.5	4,767.5	13.0	93.4	59.22	1,737.9	2,948.1	3,872.5	3,766.1	106.46	36.375	
4,800.0	4,763.0	4,867.5	4,867.5	13.2	95.4	59.22	1,737.9	2,948.1	3,872.5	3,763.9	108.63	35.648	

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

# Anticollision Report



<b>Company:</b>	PDC ENERGY	<b>Local Co-ordinate Reference:</b>	Well KINZER 281-202
<b>Project:</b>	WELD COUNTY, COLORADO	<b>TVD Reference:</b>	KB-EST @ 4797.5usft
<b>Reference Site:</b>	SW SW SEC. 28 T5N R67W 6th P.M.	<b>MD Reference:</b>	KB-EST @ 4797.5usft
<b>Site Error:</b>	0.0 usft	<b>North Reference:</b>	True
<b>Reference Well:</b>	KINZER 281-202	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Well Error:</b>	0.0 usft	<b>Output errors are at</b>	2.00 sigma
<b>Reference Wellbore</b>	ORIGINAL WELLBORE	<b>Database:</b>	EDM 5000.1 Single User Db
<b>Reference Design:</b>	PROPOSAL #1	<b>Offset TVD Reference:</b>	Offset Datum

<b>Offset Design</b> SW SW SEC. 28 T5N R67W 6th P.M. - EXIST VERT BINDER 10-28 - Wellbore #1 - Design #1												<b>Offset Site Error:</b>	0.0 usft
Survey Program: 0-INC												<b>Offset Well Error:</b>	0.0 usft
Reference		Offset		Semi Major Axis			Distance						Warning
Measured Depth (usft)	Vertical Depth (usft)	Measured Depth (usft)	Vertical Depth (usft)	Reference (usft)	Offset (usft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (usft)	+E/-W (usft)	Between Centres (usft)	Between Ellipses (usft)	Minimum Separation (usft)	Separation Factor	
4,900.0	4,863.0	4,967.5	4,967.5	13.4	97.4	59.22	1,737.9	2,948.1	3,872.5	3,761.7	110.80	34.949	
5,000.0	4,963.0	5,067.5	5,067.5	13.5	99.5	59.22	1,737.9	2,948.1	3,872.5	3,759.6	112.98	34.277	
5,100.0	5,063.0	5,167.5	5,167.5	13.7	101.5	59.22	1,737.9	2,948.1	3,872.5	3,757.4	115.15	33.629	
5,200.0	5,163.0	5,267.5	5,267.5	13.9	103.5	59.22	1,737.9	2,948.1	3,872.5	3,755.2	117.33	33.005	
5,300.0	5,263.0	5,367.5	5,367.5	14.0	105.5	59.22	1,737.9	2,948.1	3,872.5	3,753.0	119.51	32.403	
5,400.0	5,363.0	5,467.5	5,467.5	14.2	107.5	59.22	1,737.9	2,948.1	3,872.5	3,750.9	121.69	31.822	
5,500.0	5,463.0	5,567.5	5,567.5	14.4	109.5	59.22	1,737.9	2,948.1	3,872.5	3,748.7	123.87	31.262	
5,600.0	5,563.0	5,667.5	5,667.5	14.5	111.5	59.22	1,737.9	2,948.1	3,872.5	3,746.5	126.06	30.720	
5,700.0	5,663.0	5,767.5	5,767.5	14.7	113.5	59.22	1,737.9	2,948.1	3,872.5	3,744.3	128.24	30.197	
5,800.0	5,763.0	5,867.5	5,867.5	14.9	115.5	59.22	1,737.9	2,948.1	3,872.5	3,742.1	130.43	29.691	
5,900.0	5,863.0	5,967.5	5,967.5	15.1	117.6	59.22	1,737.9	2,948.1	3,872.5	3,739.9	132.62	29.201	
6,000.0	5,963.0	6,067.5	6,067.5	15.2	119.6	59.22	1,737.9	2,948.1	3,872.5	3,737.7	134.81	28.727	
6,100.0	6,063.0	6,167.5	6,167.5	15.4	121.6	59.22	1,737.9	2,948.1	3,872.5	3,735.6	137.00	28.267	
6,102.8	6,065.8	6,170.3	6,170.3	15.4	121.6	59.22	1,737.9	2,948.1	3,872.5	3,735.5	137.06	28.254	
6,150.0	6,112.9	6,217.4	6,217.4	15.5	122.6	-30.84	1,737.9	2,948.1	3,871.2	3,735.7	135.53	28.564	
6,200.0	6,162.7	6,267.2	6,267.2	15.5	123.6	-31.06	1,737.9	2,948.1	3,866.9	3,731.0	135.87	28.460	
6,250.0	6,211.9	6,316.4	6,316.4	15.6	124.6	-31.43	1,737.9	2,948.1	3,859.6	3,723.9	135.74	28.434	
6,300.0	6,260.5	6,365.0	6,365.0	15.6	125.6	-31.96	1,737.9	2,948.1	3,849.4	3,714.3	135.15	28.483	
6,350.0	6,308.1	6,412.6	6,412.6	15.6	126.5	-32.66	1,737.9	2,948.1	3,836.3	3,702.2	134.13	28.601	
6,400.0	6,354.5	6,459.0	6,459.0	15.6	127.4	-33.54	1,737.9	2,948.1	3,820.5	3,687.7	132.76	28.778	
6,450.0	6,399.5	6,504.0	6,504.0	15.6	128.3	-34.61	1,737.9	2,948.1	3,801.9	3,670.8	131.12	28.997	
6,500.0	6,442.9	6,547.4	6,547.4	15.5	129.2	-35.90	1,737.9	2,948.1	3,780.7	3,651.4	129.32	29.236	
6,550.0	6,484.5	6,589.0	6,589.0	15.5	130.1	-37.42	1,737.9	2,948.1	3,757.1	3,629.6	127.52	29.463	
6,600.0	6,524.0	6,628.5	6,628.5	15.5	130.8	-39.20	1,737.9	2,948.1	3,731.1	3,605.2	125.90	29.636	
6,650.0	6,561.3	6,665.8	6,665.8	15.6	131.6	-41.26	1,737.9	2,948.1	3,702.9	3,578.3	124.67	29.701	
6,700.0	6,596.1	6,700.6	6,700.6	15.6	132.3	-43.63	1,737.9	2,948.1	3,672.7	3,548.7	124.07	29.601	
6,750.0	6,628.4	6,732.9	6,732.9	15.7	132.9	-46.36	1,737.9	2,948.1	3,640.7	3,516.3	124.33	29.283	
6,800.0	6,658.0	6,762.5	6,762.5	15.9	133.5	-49.45	1,737.9	2,948.1	3,606.9	3,481.3	125.61	28.714	
6,850.0	6,684.6	6,789.1	6,789.1	16.2	134.1	-52.95	1,737.9	2,948.1	3,571.6	3,443.6	128.04	27.895	
6,900.0	6,708.3	6,812.8	6,812.8	16.5	134.6	-56.86	1,737.9	2,948.1	3,535.1	3,403.5	131.56	26.871	
6,950.0	6,728.8	6,833.3	6,833.3	17.0	135.0	-61.18	1,737.9	2,948.1	3,497.4	3,361.4	135.98	25.721	
7,000.0	6,746.1	6,850.6	6,850.6	17.6	135.3	-65.89	1,737.9	2,948.1	3,458.9	3,317.9	140.94	24.541	
7,050.0	6,760.0	6,864.5	6,864.5	18.3	135.6	-70.93	1,737.9	2,948.1	3,419.6	3,273.7	145.97	23.427	
7,100.0	6,770.6	6,875.1	6,875.1	19.1	135.8	-76.21	1,737.9	2,948.1	3,379.9	3,229.4	150.54	22.452	
7,150.0	6,777.8	6,882.3	6,882.3	19.9	136.0	-81.63	1,737.9	2,948.1	3,340.0	3,185.8	154.19	21.661	
7,200.0	6,781.5	6,886.0	6,886.0	20.8	136.0	-87.04	1,737.9	2,948.1	3,300.0	3,143.4	156.60	21.072	
7,232.6	6,782.0	6,886.5	6,886.5	21.4	136.0	-90.50	1,737.9	2,948.1	3,274.0	3,116.5	157.45	20.794	
7,300.0	6,781.5	6,886.0	6,886.0	22.7	136.0	-90.49	1,737.9	2,948.1	3,220.6	3,061.8	158.75	20.287	
7,400.0	6,780.9	6,885.4	6,885.4	24.8	136.0	-90.47	1,737.9	2,948.1	3,142.3	2,981.5	160.82	19.540	
7,500.0	6,780.2	6,884.7	6,884.7	27.0	136.0	-90.45	1,737.9	2,948.1	3,065.4	2,902.4	163.02	18.804	
7,600.0	6,779.5	6,884.0	6,884.0	29.4	136.0	-90.43	1,737.9	2,948.1	2,989.8	2,824.5	165.32	18.085	
7,700.0	6,778.9	6,883.4	6,883.4	31.8	136.0	-90.41	1,737.9	2,948.1	2,915.7	2,748.0	167.71	17.386	
7,800.0	6,778.2	6,882.7	6,882.7	34.2	136.0	-90.39	1,737.9	2,948.1	2,843.1	2,673.0	170.15	16.709	
7,900.0	6,777.5	6,882.0	6,882.0	36.7	135.9	-90.37	1,737.9	2,948.1	2,772.3	2,599.6	172.65	16.058	
8,000.0	6,776.9	6,881.4	6,881.4	39.3	135.9	-90.35	1,737.9	2,948.1	2,703.3	2,528.1	175.18	15.431	
8,100.0	6,776.2	6,880.7	6,880.7	41.9	135.9	-90.34	1,737.9	2,948.1	2,636.3	2,458.5	177.75	14.831	
8,200.0	6,775.5	6,880.0	6,880.0	44.5	135.9	-90.32	1,737.9	2,948.1	2,571.4	2,391.1	180.35	14.258	
8,300.0	6,774.9	6,879.4	6,879.4	47.1	135.9	-90.30	1,737.9	2,948.1	2,508.9	2,325.9	182.97	13.712	
8,400.0	6,774.2	6,878.7	6,878.7	49.8	135.9	-90.28	1,737.9	2,948.1	2,448.8	2,263.2	185.61	13.193	
8,500.0	6,773.5	6,878.0	6,878.0	52.4	135.9	-90.26	1,737.9	2,948.1	2,391.4	2,203.2	188.27	12.702	
8,600.0	6,772.9	6,877.4	6,877.4	55.1	135.9	-90.24	1,737.9	2,948.1	2,336.9	2,146.0	190.94	12.239	
8,700.0	6,772.2	6,876.7	6,876.7	57.8	135.8	-90.22	1,737.9	2,948.1	2,285.5	2,091.9	193.62	11.804	

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

# Anticollision Report



<b>Company:</b>	PDC ENERGY	<b>Local Co-ordinate Reference:</b>	Well KINZER 28I-202
<b>Project:</b>	WELD COUNTY, COLORADO	<b>TVD Reference:</b>	KB-EST @ 4797.5usft
<b>Reference Site:</b>	SW SW SEC. 28 T5N R67W 6th P.M.	<b>MD Reference:</b>	KB-EST @ 4797.5usft
<b>Site Error:</b>	0.0 usft	<b>North Reference:</b>	True
<b>Reference Well:</b>	KINZER 28I-202	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Well Error:</b>	0.0 usft	<b>Output errors are at</b>	2.00 sigma
<b>Reference Wellbore</b>	ORIGINAL WELLBORE	<b>Database:</b>	EDM 5000.1 Single User Db
<b>Reference Design:</b>	PROPOSAL #1	<b>Offset TVD Reference:</b>	Offset Datum

<b>Offset Design</b> SW SW SEC. 28 T5N R67W 6th P.M. - EXIST VERT BINDER 10-28 - Wellbore #1 - Design #1												<b>Offset Site Error:</b>	0.0 usft
Survey Program: 0-INC												<b>Offset Well Error:</b>	0.0 usft
Reference		Offset		Semi Major Axis			Distance						Warning
Measured Depth (usft)	Vertical Depth (usft)	Measured Depth (usft)	Vertical Depth (usft)	Reference (usft)	Offset (usft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (usft)	+E/-W (usft)	Between Centres (usft)	Between Ellipses (usft)	Minimum Separation (usft)	Separation Factor	
8,800.0	6,771.5	6,876.0	6,876.0	60.5	135.8	-90.20	1,737.9	2,948.1	2,237.3	2,041.0	196.31	11.397	
8,900.0	6,770.9	6,875.4	6,875.4	63.2	135.8	-90.18	1,737.9	2,948.1	2,192.7	1,993.7	199.01	11.018	
9,000.0	6,770.2	6,874.7	6,874.7	65.9	135.8	-90.16	1,737.9	2,948.1	2,151.8	1,950.1	201.72	10.667	
9,100.0	6,769.5	6,874.0	6,874.0	68.7	135.8	-90.14	1,737.9	2,948.1	2,114.8	1,910.4	204.43	10.345	
9,200.0	6,768.9	6,873.4	6,873.4	71.4	135.8	-90.12	1,737.9	2,948.1	2,082.0	1,874.8	207.16	10.050	
9,300.0	6,768.2	6,872.7	6,872.7	74.1	135.8	-90.10	1,737.9	2,948.1	2,053.5	1,843.6	209.88	9.784	
9,400.0	6,767.5	6,872.0	6,872.0	76.9	135.7	-90.09	1,737.9	2,948.1	2,029.5	1,816.9	212.62	9.546	
9,500.0	6,766.8	6,871.3	6,871.3	79.6	135.7	-90.07	1,737.9	2,948.1	2,010.3	1,794.9	215.35	9.335	
9,600.0	6,766.2	6,870.7	6,870.7	82.4	135.7	-90.05	1,737.9	2,948.1	1,995.9	1,777.8	218.09	9.151	
9,700.0	6,765.5	6,870.0	6,870.0	85.2	135.7	-90.03	1,737.9	2,948.1	1,986.4	1,765.5	220.84	8.995	
9,800.0	6,764.8	6,869.3	6,869.3	87.9	135.7	-90.01	1,737.9	2,948.1	1,981.9	1,758.3	223.58	8.864	
9,838.9	6,764.6	6,869.1	6,869.1	89.0	135.7	-90.00	1,737.9	2,948.1	1,981.5	1,756.9	224.65	8.820 CC	
9,900.0	6,764.1	6,868.6	6,868.6	90.7	135.7	-89.99	1,737.9	2,948.1	1,982.5	1,756.1	226.33	8.759 ES	
10,000.0	6,763.5	6,868.0	6,868.0	93.4	135.7	-89.97	1,737.9	2,948.1	1,988.1	1,759.0	229.09	8.678	
10,100.0	6,762.8	6,867.3	6,867.3	96.2	135.7	-89.95	1,737.9	2,948.1	1,998.6	1,766.8	231.84	8.621	
10,200.0	6,762.1	6,866.6	6,866.6	99.0	135.6	-89.93	1,737.9	2,948.1	2,014.2	1,779.6	234.60	8.585	
10,300.0	6,761.4	6,865.9	6,865.9	101.8	135.6	-89.91	1,737.9	2,948.1	2,034.5	1,797.1	237.36	8.571 SF	
10,400.0	6,760.8	6,865.3	6,865.3	104.5	135.6	-89.89	1,737.9	2,948.1	2,059.4	1,819.3	240.12	8.577	
10,500.0	6,760.1	6,864.6	6,864.6	107.3	135.6	-89.87	1,737.9	2,948.1	2,088.9	1,846.0	242.88	8.600	
10,600.0	6,759.4	6,863.9	6,863.9	110.1	135.6	-89.85	1,737.9	2,948.1	2,122.7	1,877.0	245.65	8.641	
10,700.0	6,758.7	6,863.2	6,863.2	112.9	135.6	-89.83	1,737.9	2,948.1	2,160.5	1,912.1	248.42	8.697	
10,800.0	6,758.1	6,862.6	6,862.6	115.6	135.6	-89.81	1,737.9	2,948.1	2,202.3	1,951.1	251.18	8.768	
10,900.0	6,757.4	6,861.9	6,861.9	118.4	135.5	-89.79	1,737.9	2,948.1	2,247.7	1,993.8	253.95	8.851	
11,000.0	6,756.7	6,861.2	6,861.2	121.2	135.5	-89.77	1,737.9	2,948.1	2,296.6	2,039.9	256.72	8.946	
11,100.0	6,756.0	6,860.5	6,860.5	124.0	135.5	-89.75	1,737.9	2,948.1	2,348.8	2,089.3	259.49	9.051	
11,200.0	6,755.3	6,859.8	6,859.8	126.8	135.5	-89.73	1,737.9	2,948.1	2,403.9	2,141.7	262.27	9.166	
11,300.0	6,754.7	6,859.2	6,859.2	129.6	135.5	-89.71	1,737.9	2,948.1	2,461.9	2,196.9	265.04	9.289	
11,400.0	6,754.0	6,858.5	6,858.5	132.4	135.5	-89.69	1,737.9	2,948.1	2,522.6	2,254.8	267.81	9.419	
11,500.0	6,753.3	6,857.8	6,857.8	135.1	135.5	-89.67	1,737.9	2,948.1	2,585.6	2,315.1	270.59	9.556	
11,600.0	6,752.6	6,857.1	6,857.1	137.9	135.4	-89.65	1,737.9	2,948.1	2,651.0	2,377.6	273.36	9.698	
11,700.0	6,751.9	6,856.4	6,856.4	140.7	135.4	-89.63	1,737.9	2,948.1	2,718.4	2,442.3	276.14	9.845	
11,800.0	6,751.3	6,855.8	6,855.8	143.5	135.4	-89.61	1,737.9	2,948.1	2,787.9	2,508.9	278.92	9.995	
11,837.2	6,751.0	6,855.5	6,855.5	144.6	135.4	-89.61	1,737.9	2,948.1	2,814.2	2,534.2	279.95	10.052	

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

# Anticollision Report



<b>Company:</b>	PDC ENERGY	<b>Local Co-ordinate Reference:</b>	Well KINZER 281-202
<b>Project:</b>	WELD COUNTY, COLORADO	<b>TVD Reference:</b>	KB-EST @ 4797.5usft
<b>Reference Site:</b>	SW SW SEC. 28 T5N R67W 6th P.M.	<b>MD Reference:</b>	KB-EST @ 4797.5usft
<b>Site Error:</b>	0.0 usft	<b>North Reference:</b>	True
<b>Reference Well:</b>	KINZER 281-202	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Well Error:</b>	0.0 usft	<b>Output errors are at</b>	2.00 sigma
<b>Reference Wellbore</b>	ORIGINAL WELLBORE	<b>Database:</b>	EDM 5000.1 Single User Db
<b>Reference Design:</b>	PROPOSAL #1	<b>Offset TVD Reference:</b>	Offset Datum

Offset Design												Offset Site Error:	0.0 usft
Survey Program: 0-INC												Offset Well Error:	0.0 usft
Reference		Offset		Semi Major Axis			Distance						Warning
Measured Depth (usft)	Vertical Depth (usft)	Measured Depth (usft)	Vertical Depth (usft)	Reference (usft)	Offset (usft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (usft)	+E/-W (usft)	Between Centres (usft)	Between Ellipses (usft)	Minimum Separation (usft)	Separation Factor	
0.0	0.0	54.5	54.5	0.0	0.2	89.12	43.9	2,845.2	2,845.5				
100.0	100.0	154.5	154.5	0.1	1.8	89.12	43.9	2,845.2	2,845.5	2,843.6	1.89	1,508.674	
200.0	200.0	254.5	254.5	0.3	4.1	89.12	43.9	2,845.2	2,845.5	2,841.1	4.38	649.565	
300.0	300.0	354.5	354.5	0.5	6.1	89.12	43.9	2,845.2	2,845.5	2,838.9	6.66	427.153	
400.0	400.0	454.5	454.5	0.8	8.1	89.12	43.9	2,845.2	2,845.5	2,836.6	8.92	319.063	
500.0	500.0	554.5	554.5	1.0	10.2	89.12	43.9	2,845.2	2,845.5	2,834.4	11.17	254.828	
600.0	600.0	654.5	654.5	1.2	12.2	89.12	43.9	2,845.2	2,845.5	2,832.1	13.41	212.190	
700.0	700.0	754.5	754.5	1.4	14.2	89.12	43.9	2,845.2	2,845.5	2,829.9	15.65	181.802	
800.0	800.0	854.5	854.5	1.7	16.2	89.12	43.9	2,845.2	2,845.5	2,827.6	17.89	159.040	
900.0	900.0	954.5	954.5	1.9	18.2	89.12	43.9	2,845.2	2,845.5	2,825.4	20.13	141.351	
1,000.0	1,000.0	1,054.5	1,054.5	2.1	20.2	89.12	43.9	2,845.2	2,845.5	2,823.2	22.37	127.207	
1,100.0	1,100.0	1,154.5	1,154.5	2.3	22.3	-148.16	43.9	2,845.2	2,847.0	2,822.4	24.57	115.852	
1,200.0	1,199.8	1,254.3	1,254.3	2.5	24.3	-148.17	43.9	2,845.2	2,851.5	2,824.7	26.74	106.650	
1,300.0	1,299.5	1,354.0	1,354.0	2.7	26.3	-148.18	43.9	2,845.2	2,858.9	2,830.0	28.87	99.018	
1,400.0	1,398.7	1,453.2	1,453.2	3.0	28.3	-148.20	43.9	2,845.2	2,869.2	2,838.3	30.98	92.626	
1,500.0	1,497.5	1,552.0	1,552.0	3.2	30.3	-148.22	43.9	2,845.2	2,882.6	2,849.5	33.05	87.229	
1,502.5	1,500.0	1,554.5	1,554.5	3.2	30.3	-148.23	43.9	2,845.2	2,883.0	2,849.9	33.10	87.105	
1,600.0	1,595.9	1,650.4	1,650.4	3.5	32.2	-148.40	43.9	2,845.2	2,897.5	2,862.3	35.24	82.228	
1,700.0	1,694.4	1,748.9	1,748.9	3.8	34.2	-148.58	43.9	2,845.2	2,912.4	2,875.0	37.44	77.784	
1,800.0	1,792.9	1,847.4	1,847.4	4.2	36.2	-148.76	43.9	2,845.2	2,927.4	2,887.8	39.66	73.820	
1,900.0	1,891.3	1,945.8	1,945.8	4.5	38.2	-148.93	43.9	2,845.2	2,942.4	2,900.5	41.88	70.266	
2,000.0	1,989.8	2,044.3	2,044.3	4.9	40.2	-149.11	43.9	2,845.2	2,957.4	2,913.3	44.10	67.062	
2,100.0	2,088.3	2,142.8	2,142.8	5.2	42.1	-149.28	43.9	2,845.2	2,972.5	2,926.2	46.33	64.162	
2,200.0	2,186.7	2,241.2	2,241.2	5.6	44.1	-149.45	43.9	2,845.2	2,987.6	2,939.0	48.56	61.524	
2,300.0	2,285.2	2,339.7	2,339.7	6.0	46.1	-149.62	43.9	2,845.2	3,002.7	2,951.9	50.79	59.116	
2,400.0	2,383.7	2,438.2	2,438.2	6.4	48.1	-149.79	43.9	2,845.2	3,017.8	2,964.8	53.03	56.909	
2,500.0	2,482.1	2,536.6	2,536.6	6.7	50.1	-149.95	43.9	2,845.2	3,032.9	2,977.7	55.27	54.879	
2,600.0	2,580.6	2,635.1	2,635.1	7.1	52.0	-150.11	43.9	2,845.2	3,048.1	2,990.6	57.50	53.007	
2,700.0	2,679.1	2,733.6	2,733.6	7.5	54.0	-150.28	43.9	2,845.2	3,063.3	3,003.6	59.74	51.275	
2,800.0	2,777.5	2,832.0	2,832.0	7.9	56.0	-150.44	43.9	2,845.2	3,078.5	3,016.6	61.98	49.667	
2,900.0	2,876.0	2,930.5	2,930.5	8.3	58.0	-150.60	43.9	2,845.2	3,093.8	3,029.6	64.22	48.172	
3,000.0	2,974.4	3,028.9	3,028.9	8.7	60.0	-150.75	43.9	2,845.2	3,109.1	3,042.6	66.46	46.778	
3,100.0	3,072.9	3,127.4	3,127.4	9.1	62.0	-150.91	43.9	2,845.2	3,124.3	3,055.6	68.71	45.475	
3,200.0	3,171.4	3,225.9	3,225.9	9.5	63.9	-151.06	43.9	2,845.2	3,139.7	3,068.7	70.95	44.254	
3,300.0	3,269.8	3,324.3	3,324.3	9.9	65.9	-151.22	43.9	2,845.2	3,155.0	3,081.8	73.19	43.109	
3,400.0	3,368.3	3,422.8	3,422.8	10.3	67.9	-151.37	43.9	2,845.2	3,170.4	3,094.9	75.43	42.032	
3,500.0	3,466.8	3,521.3	3,521.3	10.7	69.9	-151.52	43.9	2,845.2	3,185.7	3,108.1	77.67	41.017	
3,580.8	3,546.3	3,600.8	3,600.8	11.0	71.5	-151.64	43.9	2,845.2	3,198.2	3,118.7	79.48	40.239	
3,600.0	3,565.3	3,619.8	3,619.8	11.1	71.9	-151.69	43.9	2,845.2	3,201.1	3,121.1	79.97	40.030	
3,700.0	3,664.1	3,718.6	3,718.6	11.3	73.8	-151.95	43.9	2,845.2	3,214.4	3,132.0	82.45	38.987	
3,800.0	3,763.4	3,817.9	3,817.9	11.6	75.8	-152.14	43.9	2,845.2	3,224.7	3,139.8	84.87	37.995	
3,900.0	3,863.1	3,917.6	3,917.6	11.8	77.8	-152.27	43.9	2,845.2	3,231.9	3,144.7	87.22	37.053	
4,000.0	3,963.0	4,017.5	4,017.5	12.0	79.9	-152.35	43.9	2,845.2	3,236.0	3,146.5	89.49	36.159	
4,083.3	4,046.3	4,100.8	4,100.8	12.1	81.5	84.91	43.9	2,845.2	3,237.1	3,144.1	93.02	34.798	
4,100.0	4,063.0	4,117.5	4,117.5	12.1	81.9	84.91	43.9	2,845.2	3,237.1	3,143.7	93.38	34.664	
4,200.0	4,163.0	4,217.5	4,217.5	12.3	83.9	84.91	43.9	2,845.2	3,237.1	3,141.5	95.55	33.878	
4,300.0	4,263.0	4,317.5	4,317.5	12.4	85.9	84.91	43.9	2,845.2	3,237.1	3,139.4	97.72	33.126	
4,400.0	4,363.0	4,417.5	4,417.5	12.6	87.9	84.91	43.9	2,845.2	3,237.1	3,137.2	99.89	32.406	
4,500.0	4,463.0	4,517.5	4,517.5	12.7	89.9	84.91	43.9	2,845.2	3,237.1	3,135.0	102.06	31.716	
4,600.0	4,563.0	4,617.5	4,617.5	12.9	91.9	84.91	43.9	2,845.2	3,237.1	3,132.8	104.24	31.054	
4,700.0	4,663.0	4,717.5	4,717.5	13.0	93.9	84.91	43.9	2,845.2	3,237.1	3,130.7	106.42	30.419	
4,800.0	4,763.0	4,817.5	4,817.5	13.2	95.9	84.91	43.9	2,845.2	3,237.1	3,128.5	108.59	29.809	

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

# Anticollision Report



<b>Company:</b>	PDC ENERGY	<b>Local Co-ordinate Reference:</b>	Well KINZER 281-202
<b>Project:</b>	WELD COUNTY, COLORADO	<b>TVD Reference:</b>	KB-EST @ 4797.5usft
<b>Reference Site:</b>	SW SW SEC. 28 T5N R67W 6th P.M.	<b>MD Reference:</b>	KB-EST @ 4797.5usft
<b>Site Error:</b>	0.0 usft	<b>North Reference:</b>	True
<b>Reference Well:</b>	KINZER 281-202	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Well Error:</b>	0.0 usft	<b>Output errors are at</b>	2.00 sigma
<b>Reference Wellbore</b>	ORIGINAL WELLBORE	<b>Database:</b>	EDM 5000.1 Single User Db
<b>Reference Design:</b>	PROPOSAL #1	<b>Offset TVD Reference:</b>	Offset Datum

Offset Design												Offset Site Error:	0.0 usft
Survey Program: 0-INC												Offset Well Error:	0.0 usft
Reference		Offset		Semi Major Axis			Distance						Warning
Measured Depth (usft)	Vertical Depth (usft)	Measured Depth (usft)	Vertical Depth (usft)	Reference (usft)	Offset (usft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (usft)	+E/-W (usft)	Between Centres (usft)	Between Ellipses (usft)	Minimum Separation (usft)	Separation Factor	
4,900.0	4,863.0	4,917.5	4,917.5	13.4	98.0	84.91	43.9	2,845.2	3,237.1	3,126.3	110.77	29.222	
5,000.0	4,963.0	5,017.5	5,017.5	13.5	100.0	84.91	43.9	2,845.2	3,237.1	3,124.1	112.96	28.658	
5,100.0	5,063.0	5,117.5	5,117.5	13.7	102.0	84.91	43.9	2,845.2	3,237.1	3,121.9	115.14	28.114	
5,200.0	5,163.0	5,217.5	5,217.5	13.9	104.0	84.91	43.9	2,845.2	3,237.1	3,119.8	117.33	27.591	
5,300.0	5,263.0	5,317.5	5,317.5	14.0	106.0	84.91	43.9	2,845.2	3,237.1	3,117.6	119.51	27.086	
5,400.0	5,363.0	5,417.5	5,417.5	14.2	108.0	84.91	43.9	2,845.2	3,237.1	3,115.4	121.70	26.599	
5,500.0	5,463.0	5,517.5	5,517.5	14.4	110.0	84.91	43.9	2,845.2	3,237.1	3,113.2	123.89	26.129	
5,600.0	5,563.0	5,617.5	5,617.5	14.5	112.0	84.91	43.9	2,845.2	3,237.1	3,111.0	126.08	25.675	
5,700.0	5,663.0	5,717.5	5,717.5	14.7	114.0	84.91	43.9	2,845.2	3,237.1	3,108.8	128.27	25.236	
5,800.0	5,763.0	5,817.5	5,817.5	14.9	116.0	84.91	43.9	2,845.2	3,237.1	3,106.6	130.47	24.812	
5,900.0	5,863.0	5,917.5	5,917.5	15.1	118.1	84.91	43.9	2,845.2	3,237.1	3,104.4	132.66	24.401	
6,000.0	5,963.0	6,017.5	6,017.5	15.2	120.1	84.91	43.9	2,845.2	3,237.1	3,102.2	134.86	24.004	
6,100.0	6,063.0	6,117.5	6,117.5	15.4	122.1	84.91	43.9	2,845.2	3,237.1	3,100.0	137.05	23.619	
6,102.8	6,065.8	6,120.3	6,120.3	15.4	122.1	84.91	43.9	2,845.2	3,237.1	3,100.0	137.12	23.608	
6,150.0	6,112.9	6,167.4	6,167.4	15.5	123.1	-5.11	43.9	2,845.2	3,235.5	3,099.1	136.46	23.711	
6,200.0	6,162.7	6,217.2	6,217.2	15.5	124.1	-5.15	43.9	2,845.2	3,230.5	3,094.0	136.55	23.659	
6,250.0	6,211.9	6,266.4	6,266.4	15.6	125.1	-5.23	43.9	2,845.2	3,222.1	3,086.1	135.96	23.699	
6,300.0	6,260.5	6,315.0	6,315.0	15.6	126.1	-5.34	43.9	2,845.2	3,210.2	3,075.5	134.68	23.835	
6,350.0	6,308.1	6,362.6	6,362.6	15.6	127.0	-5.48	43.9	2,845.2	3,195.0	3,062.3	132.72	24.074	
6,400.0	6,354.5	6,409.0	6,409.0	15.6	127.9	-5.67	43.9	2,845.2	3,176.6	3,046.5	130.06	24.423	
6,450.0	6,399.5	6,454.0	6,454.0	15.6	128.9	-5.90	43.9	2,845.2	3,154.9	3,028.2	126.74	24.894	
6,500.0	6,442.9	6,497.4	6,497.4	15.5	129.7	-6.19	43.9	2,845.2	3,130.2	3,007.4	122.75	25.501	
6,550.0	6,484.5	6,539.0	6,539.0	15.5	130.6	-6.54	43.9	2,845.2	3,102.5	2,984.4	118.13	26.264	
6,600.0	6,524.0	6,578.5	6,578.5	15.5	131.4	-6.97	43.9	2,845.2	3,072.0	2,959.1	112.92	27.206	
6,650.0	6,561.3	6,615.8	6,615.8	15.6	132.1	-7.50	43.9	2,845.2	3,038.9	2,931.7	107.17	28.357	
6,700.0	6,596.1	6,650.6	6,650.6	15.6	132.8	-8.14	43.9	2,845.2	3,003.2	2,902.3	100.96	29.748	
6,750.0	6,628.4	6,682.9	6,682.9	15.7	133.5	-8.95	43.9	2,845.2	2,965.2	2,870.8	94.40	31.412	
6,800.0	6,658.0	6,712.5	6,712.5	15.9	134.0	-9.96	43.9	2,845.2	2,925.1	2,837.4	87.66	33.367	
6,850.0	6,684.6	6,739.1	6,739.1	16.2	134.6	-11.26	43.9	2,845.2	2,883.0	2,802.0	81.04	35.577	
6,900.0	6,708.3	6,762.8	6,762.8	16.5	135.1	-12.97	43.9	2,845.2	2,839.2	2,764.2	74.99	37.860	
6,950.0	6,728.8	6,783.3	6,783.3	17.0	135.5	-15.29	43.9	2,845.2	2,793.8	2,723.4	70.39	39.689	
7,000.0	6,746.1	6,800.6	6,800.6	17.6	135.8	-18.59	43.9	2,845.2	2,747.2	2,678.4	68.80	39.930	
7,050.0	6,760.0	6,814.5	6,814.5	18.3	136.1	-23.55	43.9	2,845.2	2,699.5	2,626.6	72.82	37.069	
7,100.0	6,770.6	6,825.1	6,825.1	19.1	136.3	-31.57	43.9	2,845.2	2,650.9	2,564.6	86.27	30.729	
7,150.0	6,777.8	6,832.3	6,832.3	19.9	136.5	-45.71	43.9	2,845.2	2,601.7	2,488.4	113.34	22.955	
7,200.0	6,781.5	6,836.0	6,836.0	20.8	136.5	-71.08	43.9	2,845.2	2,552.2	2,403.3	148.88	17.142	
7,232.6	6,782.0	6,836.5	6,836.5	21.4	136.5	-93.31	43.9	2,845.2	2,519.8	2,362.1	157.73	15.976	
7,300.0	6,781.5	6,836.0	6,836.0	22.7	136.5	-93.22	43.9	2,845.2	2,452.8	2,293.8	159.04	15.423	
7,400.0	6,780.9	6,835.4	6,835.4	24.8	136.5	-93.09	43.9	2,845.2	2,353.6	2,192.4	161.12	14.607	
7,500.0	6,780.2	6,834.7	6,834.7	27.0	136.5	-92.96	43.9	2,845.2	2,254.3	2,091.0	163.34	13.802	
7,600.0	6,779.5	6,834.0	6,834.0	29.4	136.5	-92.83	43.9	2,845.2	2,155.2	1,989.5	165.66	13.010	
7,700.0	6,778.9	6,833.4	6,833.4	31.8	136.5	-92.70	43.9	2,845.2	2,056.1	1,888.1	168.05	12.235	
7,800.0	6,778.2	6,832.7	6,832.7	34.2	136.5	-92.57	43.9	2,845.2	1,957.2	1,786.7	170.51	11.478	
7,900.0	6,777.5	6,832.0	6,832.0	36.7	136.5	-92.44	43.9	2,845.2	1,858.3	1,685.3	173.02	10.740	
8,000.0	6,776.9	6,831.4	6,831.4	39.3	136.4	-92.30	43.9	2,845.2	1,759.6	1,584.0	175.57	10.022	
8,100.0	6,776.2	6,830.7	6,830.7	41.9	136.4	-92.17	43.9	2,845.2	1,661.0	1,482.9	178.15	9.324	
8,200.0	6,775.5	6,830.0	6,830.0	44.5	136.4	-92.04	43.9	2,845.2	1,562.6	1,381.9	180.76	8.645	
8,300.0	6,774.9	6,829.4	6,829.4	47.1	136.4	-91.91	43.9	2,845.2	1,464.4	1,281.1	183.39	7.985	
8,400.0	6,774.2	6,828.7	6,828.7	49.8	136.4	-91.78	43.9	2,845.2	1,366.5	1,180.5	186.04	7.345	
8,500.0	6,773.5	6,828.0	6,828.0	52.4	136.4	-91.65	43.9	2,845.2	1,268.9	1,080.2	188.71	6.724	
8,600.0	6,772.9	6,827.4	6,827.4	55.1	136.4	-91.51	43.9	2,845.2	1,171.8	980.4	191.39	6.123	
8,700.0	6,772.2	6,826.7	6,826.7	57.8	136.3	-91.38	43.9	2,845.2	1,075.1	881.0	194.08	5.540	

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



# Anticollision Report



<b>Company:</b>	PDC ENERGY	<b>Local Co-ordinate Reference:</b>	Well KINZER 281-202
<b>Project:</b>	WELD COUNTY, COLORADO	<b>TVD Reference:</b>	KB-EST @ 4797.5usft
<b>Reference Site:</b>	SW SW SEC. 28 T5N R67W 6th P.M.	<b>MD Reference:</b>	KB-EST @ 4797.5usft
<b>Site Error:</b>	0.0 usft	<b>North Reference:</b>	True
<b>Reference Well:</b>	KINZER 281-202	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Well Error:</b>	0.0 usft	<b>Output errors are at</b>	2.00 sigma
<b>Reference Wellbore</b>	ORIGINAL WELLBORE	<b>Database:</b>	EDM 5000.1 Single User Db
<b>Reference Design:</b>	PROPOSAL #1	<b>Offset TVD Reference:</b>	Offset Datum

<b>Offset Design</b> SW SW SEC. 28 T5N R67W 6th P.M. - EXIST VERT BINDER 15-28 - Wellbore #1 - Design #1												<b>Offset Site Error:</b>	0.0 usft
Survey Program: 0-INC												<b>Offset Well Error:</b>	0.0 usft
Reference		Offset		Semi Major Axis			Distance						
Measured Depth (usft)	Vertical Depth (usft)	Measured Depth (usft)	Vertical Depth (usft)	Reference (usft)	Offset (usft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (usft)	+E/-W (usft)	Between Centres (usft)	Between Ellipses (usft)	Minimum Separation (usft)	Separation Factor	Warning
8,800.0	6,771.5	6,826.0	6,826.0	60.5	136.3	-91.25	43.9	2,845.2	979.1	782.3	196.78	4.976	
8,900.0	6,770.9	6,825.4	6,825.4	63.2	136.3	-91.12	43.9	2,845.2	884.0	684.5	199.48	4.431	
9,000.0	6,770.2	6,824.7	6,824.7	65.9	136.3	-90.98	43.9	2,845.2	790.1	587.9	202.20	3.908	
9,100.0	6,769.5	6,824.0	6,824.0	68.7	136.3	-90.85	43.9	2,845.2	697.9	493.0	204.92	3.406	
9,200.0	6,768.9	6,823.4	6,823.4	71.4	136.3	-90.72	43.9	2,845.2	608.2	400.6	207.65	2.929	
9,300.0	6,768.2	6,822.7	6,822.7	74.1	136.3	-90.58	43.9	2,845.2	522.2	311.8	210.38	2.482	
9,400.0	6,767.5	6,822.0	6,822.0	76.9	136.3	-90.45	43.9	2,845.2	442.2	229.1	213.12	2.075	
9,500.0	6,766.8	6,821.3	6,821.3	79.6	136.2	-90.32	43.9	2,845.2	371.9	156.1	215.85	1.723	
9,600.0	6,766.2	6,820.7	6,820.7	82.4	136.2	-90.18	43.9	2,845.2	318.0	99.4	218.60	1.455 Level 3	
9,700.0	6,765.5	6,820.0	6,820.0	85.2	136.2	-90.05	43.9	2,845.2	289.7	68.4	221.34	1.309 Level 3	
9,736.0	6,765.2	6,819.7	6,819.7	86.1	136.2	-90.00	43.9	2,845.2	287.5	65.1	222.33	1.293 Level 3, CC, ES, SF	
9,800.0	6,764.8	6,819.3	6,819.3	87.9	136.2	-89.91	43.9	2,845.2	294.5	70.4	224.09	1.314 Level 3	
9,900.0	6,764.1	6,818.6	6,818.6	90.7	136.2	-89.78	43.9	2,845.2	331.0	104.1	226.84	1.459 Level 3	
10,000.0	6,763.5	6,818.0	6,818.0	93.4	136.2	-89.64	43.9	2,845.2	390.3	160.7	229.58	1.700	
10,100.0	6,762.8	6,817.3	6,817.3	96.2	136.2	-89.51	43.9	2,845.2	463.8	231.5	232.34	1.996	
10,200.0	6,762.1	6,816.6	6,816.6	99.0	136.1	-89.38	43.9	2,845.2	545.8	310.7	235.09	2.322	
10,300.0	6,761.4	6,815.9	6,815.9	101.8	136.1	-89.24	43.9	2,845.2	633.0	395.2	237.84	2.662	
10,400.0	6,760.8	6,815.3	6,815.3	104.5	136.1	-89.10	43.9	2,845.2	723.6	483.0	240.59	3.007	
10,500.0	6,760.1	6,814.6	6,814.6	107.3	136.1	-88.97	43.9	2,845.2	816.3	572.9	243.35	3.354	
10,600.0	6,759.4	6,813.9	6,813.9	110.1	136.1	-88.83	43.9	2,845.2	910.6	664.5	246.10	3.700	
10,700.0	6,758.7	6,813.2	6,813.2	112.9	136.1	-88.70	43.9	2,845.2	1,005.9	757.1	248.85	4.042	
10,800.0	6,758.1	6,812.6	6,812.6	115.6	136.1	-88.56	43.9	2,845.2	1,102.1	850.5	251.61	4.380	
10,900.0	6,757.4	6,811.9	6,811.9	118.4	136.0	-88.43	43.9	2,845.2	1,199.0	944.6	254.36	4.714	
11,000.0	6,756.7	6,811.2	6,811.2	121.2	136.0	-88.29	43.9	2,845.2	1,296.3	1,039.2	257.11	5.042	
11,100.0	6,756.0	6,810.5	6,810.5	124.0	136.0	-88.15	43.9	2,845.2	1,393.9	1,134.1	259.86	5.364	
11,200.0	6,755.3	6,809.8	6,809.8	126.8	136.0	-88.02	43.9	2,845.2	1,491.9	1,229.3	262.61	5.681	
11,300.0	6,754.7	6,809.2	6,809.2	129.6	136.0	-87.88	43.9	2,845.2	1,590.2	1,324.8	265.36	5.992	
11,400.0	6,754.0	6,808.5	6,808.5	132.4	136.0	-87.74	43.9	2,845.2	1,688.6	1,420.5	268.11	6.298	
11,500.0	6,753.3	6,807.8	6,807.8	135.1	136.0	-87.61	43.9	2,845.2	1,787.2	1,516.4	270.86	6.598	
11,600.0	6,752.6	6,807.1	6,807.1	137.9	136.0	-87.47	43.9	2,845.2	1,886.0	1,612.4	273.61	6.893	
11,700.0	6,751.9	6,806.4	6,806.4	140.7	135.9	-87.33	43.9	2,845.2	1,984.9	1,708.5	276.35	7.183	
11,800.0	6,751.3	6,805.8	6,805.8	143.5	135.9	-87.20	43.9	2,845.2	2,083.9	1,804.8	279.09	7.467	
11,837.2	6,751.0	6,805.5	6,805.5	144.6	135.9	-87.14	43.9	2,845.2	2,120.8	1,840.7	280.12	7.571	

# Anticollision Report



<b>Company:</b>	PDC ENERGY	<b>Local Co-ordinate Reference:</b>	Well KINZER 281-202
<b>Project:</b>	WELD COUNTY, COLORADO	<b>TVD Reference:</b>	KB-EST @ 4797.5usft
<b>Reference Site:</b>	SW SW SEC. 28 T5N R67W 6th P.M.	<b>MD Reference:</b>	KB-EST @ 4797.5usft
<b>Site Error:</b>	0.0 usft	<b>North Reference:</b>	True
<b>Reference Well:</b>	KINZER 281-202	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Well Error:</b>	0.0 usft	<b>Output errors are at</b>	2.00 sigma
<b>Reference Wellbore</b>	ORIGINAL WELLBORE	<b>Database:</b>	EDM 5000.1 Single User Db
<b>Reference Design:</b>	PROPOSAL #1	<b>Offset TVD Reference:</b>	Offset Datum

Offset Design												Offset Site Error:	0.0 usft
Survey Program: 0-INC												Offset Well Error:	0.0 usft
Reference		Offset		Semi Major Axis			Distance						Warning
Measured Depth (usft)	Vertical Depth (usft)	Measured Depth (usft)	Vertical Depth (usft)	Reference (usft)	Offset (usft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (usft)	+E/-W (usft)	Between Centres (usft)	Between Ellipses (usft)	Minimum Separation (usft)	Separation Factor	
0.0	0.0	34.5	34.5	0.0	0.2	87.02	229.9	4,416.8	4,422.8				
100.0	100.0	134.5	134.5	0.1	1.5	87.02	229.9	4,416.8	4,422.8	4,421.2	1.62	2,724.037	
200.0	200.0	234.5	234.5	0.3	3.8	87.02	229.9	4,416.8	4,422.8	4,418.7	4.15	1,065.704	
300.0	300.0	334.5	334.5	0.5	5.9	87.02	229.9	4,416.8	4,422.8	4,416.4	6.44	686.480	
400.0	400.0	434.5	434.5	0.8	7.9	87.02	229.9	4,416.8	4,422.8	4,414.1	8.70	508.101	
500.0	500.0	534.5	534.5	1.0	10.0	87.02	229.9	4,416.8	4,422.8	4,411.9	10.96	403.708	
600.0	600.0	634.5	634.5	1.2	12.0	87.02	229.9	4,416.8	4,422.8	4,409.6	13.20	335.033	
700.0	700.0	734.5	734.5	1.4	14.0	87.02	229.9	4,416.8	4,422.8	4,407.4	15.44	286.379	
800.0	800.0	834.5	834.5	1.7	16.0	87.02	229.9	4,416.8	4,422.8	4,405.1	17.68	250.090	
900.0	900.0	934.5	934.5	1.9	18.0	87.02	229.9	4,416.8	4,422.8	4,402.9	19.92	221.977	
1,000.0	1,000.0	1,034.5	1,034.5	2.1	20.0	87.02	229.9	4,416.8	4,422.8	4,400.7	22.16	199.553	
1,100.0	1,100.0	1,134.5	1,134.5	2.3	22.1	-150.25	229.9	4,416.8	4,424.3	4,400.0	24.37	181.556	
1,200.0	1,199.8	1,234.3	1,234.3	2.5	24.1	-150.24	229.9	4,416.8	4,428.9	4,402.3	26.53	166.938	
1,300.0	1,299.5	1,334.0	1,334.0	2.7	26.1	-150.22	229.9	4,416.8	4,436.4	4,407.8	28.66	154.778	
1,400.0	1,398.7	1,433.2	1,433.2	3.0	28.1	-150.19	229.9	4,416.8	4,447.0	4,416.3	30.76	144.555	
1,500.0	1,497.5	1,532.0	1,532.0	3.2	30.1	-150.16	229.9	4,416.8	4,460.7	4,427.8	32.83	135.885	
1,502.5	1,500.0	1,534.5	1,534.5	3.2	30.1	-150.16	229.9	4,416.8	4,461.0	4,428.2	32.88	135.684	
1,600.0	1,595.9	1,630.4	1,630.4	3.5	32.0	-150.26	229.9	4,416.8	4,475.9	4,440.8	35.02	127.825	
1,700.0	1,694.4	1,728.9	1,728.9	3.8	34.0	-150.37	229.9	4,416.8	4,491.1	4,453.9	37.22	120.669	
1,800.0	1,792.9	1,827.4	1,827.4	4.2	36.0	-150.48	229.9	4,416.8	4,506.3	4,466.9	39.43	114.290	
1,900.0	1,891.3	1,925.8	1,925.8	4.5	38.0	-150.59	229.9	4,416.8	4,521.6	4,479.9	41.65	108.573	
2,000.0	1,989.8	2,024.3	2,024.3	4.9	40.0	-150.70	229.9	4,416.8	4,536.8	4,493.0	43.87	103.422	
2,100.0	2,088.3	2,122.8	2,122.8	5.2	41.9	-150.81	229.9	4,416.8	4,552.1	4,506.0	46.09	98.759	
2,200.0	2,186.7	2,221.2	2,221.2	5.6	43.9	-150.91	229.9	4,416.8	4,567.4	4,519.1	48.32	94.520	
2,300.0	2,285.2	2,319.7	2,319.7	6.0	45.9	-151.02	229.9	4,416.8	4,582.7	4,532.2	50.55	90.650	
2,400.0	2,383.7	2,418.2	2,418.2	6.4	47.9	-151.12	229.9	4,416.8	4,598.0	4,545.3	52.79	87.105	
2,500.0	2,482.1	2,516.6	2,516.6	6.7	49.9	-151.23	229.9	4,416.8	4,613.4	4,558.4	55.02	83.844	
2,600.0	2,580.6	2,615.1	2,615.1	7.1	51.8	-151.33	229.9	4,416.8	4,628.8	4,571.5	57.26	80.837	
2,700.0	2,679.1	2,713.6	2,713.6	7.5	53.8	-151.43	229.9	4,416.8	4,644.1	4,584.6	59.50	78.054	
2,800.0	2,777.5	2,812.0	2,812.0	7.9	55.8	-151.54	229.9	4,416.8	4,659.5	4,597.8	61.74	75.473	
2,900.0	2,876.0	2,910.5	2,910.5	8.3	57.8	-151.64	229.9	4,416.8	4,674.9	4,610.9	63.98	73.071	
3,000.0	2,974.4	3,008.9	3,008.9	8.7	59.8	-151.74	229.9	4,416.8	4,690.3	4,624.1	66.22	70.831	
3,100.0	3,072.9	3,107.4	3,107.4	9.1	61.7	-151.84	229.9	4,416.8	4,705.8	4,637.3	68.46	68.738	
3,200.0	3,171.4	3,205.9	3,205.9	9.5	63.7	-151.94	229.9	4,416.8	4,721.2	4,650.5	70.70	66.778	
3,300.0	3,269.8	3,304.3	3,304.3	9.9	65.7	-152.04	229.9	4,416.8	4,736.7	4,663.7	72.94	64.937	
3,400.0	3,368.3	3,402.8	3,402.8	10.3	67.7	-152.14	229.9	4,416.8	4,752.1	4,677.0	75.18	63.207	
3,500.0	3,466.8	3,501.3	3,501.3	10.7	69.7	-152.23	229.9	4,416.8	4,767.6	4,690.2	77.43	61.577	
3,580.8	3,546.3	3,580.8	3,580.8	11.0	71.3	-152.31	229.9	4,416.8	4,780.2	4,700.9	79.24	60.327	
3,600.0	3,565.3	3,599.8	3,599.8	11.1	71.6	-152.36	229.9	4,416.8	4,783.1	4,703.3	79.73	59.994	
3,700.0	3,664.1	3,698.6	3,698.6	11.3	73.6	-152.57	229.9	4,416.8	4,796.5	4,714.3	82.21	58.342	
3,800.0	3,763.4	3,797.9	3,797.9	11.6	75.6	-152.72	229.9	4,416.8	4,806.8	4,722.2	84.64	56.792	
3,900.0	3,863.1	3,897.6	3,897.6	11.8	77.6	-152.84	229.9	4,416.8	4,814.0	4,727.0	86.99	55.339	
4,000.0	3,963.0	3,997.5	3,997.5	12.0	79.6	-152.90	229.9	4,416.8	4,818.2	4,728.9	89.27	53.976	
4,083.3	4,046.3	4,080.8	4,080.8	12.1	81.3	84.36	229.9	4,416.8	4,819.3	4,726.4	92.84	51.907	
4,100.0	4,063.0	4,097.5	4,097.5	12.1	81.7	84.36	229.9	4,416.8	4,819.3	4,726.0	93.20	51.706	
4,200.0	4,163.0	4,197.5	4,197.5	12.3	83.7	84.36	229.9	4,416.8	4,819.3	4,723.9	95.37	50.532	
4,300.0	4,263.0	4,297.5	4,297.5	12.4	85.7	84.36	229.9	4,416.8	4,819.3	4,721.7	97.54	49.408	
4,400.0	4,363.0	4,397.5	4,397.5	12.6	87.7	84.36	229.9	4,416.8	4,819.3	4,719.5	99.71	48.333	
4,500.0	4,463.0	4,497.5	4,497.5	12.7	89.7	84.36	229.9	4,416.8	4,819.3	4,717.4	101.88	47.302	
4,600.0	4,563.0	4,597.5	4,597.5	12.9	91.7	84.36	229.9	4,416.8	4,819.3	4,715.2	104.06	46.314	
4,700.0	4,663.0	4,697.5	4,697.5	13.0	93.7	84.36	229.9	4,416.8	4,819.3	4,713.0	106.23	45.365	
4,800.0	4,763.0	4,797.5	4,797.5	13.2	95.7	84.36	229.9	4,416.8	4,819.3	4,710.8	108.41	44.453	

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

# Anticollision Report



<b>Company:</b>	PDC ENERGY	<b>Local Co-ordinate Reference:</b>	Well KINZER 281-202
<b>Project:</b>	WELD COUNTY, COLORADO	<b>TVD Reference:</b>	KB-EST @ 4797.5usft
<b>Reference Site:</b>	SW SW SEC. 28 T5N R67W 6th P.M.	<b>MD Reference:</b>	KB-EST @ 4797.5usft
<b>Site Error:</b>	0.0 usft	<b>North Reference:</b>	True
<b>Reference Well:</b>	KINZER 281-202	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Well Error:</b>	0.0 usft	<b>Output errors are at</b>	2.00 sigma
<b>Reference Wellbore</b>	ORIGINAL WELLBORE	<b>Database:</b>	EDM 5000.1 Single User Db
<b>Reference Design:</b>	PROPOSAL #1	<b>Offset TVD Reference:</b>	Offset Datum

Offset Design												Offset Site Error:	0.0 usft
Survey Program: 0-INC												Offset Well Error:	0.0 usft
Reference		Offset		Semi Major Axis			Distance						Warning
Measured Depth (usft)	Vertical Depth (usft)	Measured Depth (usft)	Vertical Depth (usft)	Reference (usft)	Offset (usft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (usft)	+E/-W (usft)	Between Centres (usft)	Between Ellipses (usft)	Minimum Separation (usft)	Separation Factor	
4,900.0	4,863.0	4,897.5	4,897.5	13.4	97.7	84.36	229.9	4,416.8	4,819.3	4,708.7	110.59	43.577	
5,000.0	4,963.0	4,997.5	4,997.5	13.5	99.8	84.36	229.9	4,416.8	4,819.3	4,706.5	112.77	42.734	
5,100.0	5,063.0	5,097.5	5,097.5	13.7	101.8	84.36	229.9	4,416.8	4,819.3	4,704.3	114.96	41.922	
5,200.0	5,163.0	5,197.5	5,197.5	13.9	103.8	84.36	229.9	4,416.8	4,819.3	4,702.1	117.14	41.140	
5,300.0	5,263.0	5,297.5	5,297.5	14.0	105.8	84.36	229.9	4,416.8	4,819.3	4,699.9	119.33	40.386	
5,400.0	5,363.0	5,397.5	5,397.5	14.2	107.8	84.36	229.9	4,416.8	4,819.3	4,697.7	121.52	39.659	
5,500.0	5,463.0	5,497.5	5,497.5	14.4	109.8	84.36	229.9	4,416.8	4,819.3	4,695.5	123.71	38.957	
5,600.0	5,563.0	5,597.5	5,597.5	14.5	111.8	84.36	229.9	4,416.8	4,819.3	4,693.4	125.90	38.279	
5,700.0	5,663.0	5,697.5	5,697.5	14.7	113.8	84.36	229.9	4,416.8	4,819.3	4,691.2	128.09	37.624	
5,800.0	5,763.0	5,797.5	5,797.5	14.9	115.8	84.36	229.9	4,416.8	4,819.3	4,689.0	130.28	36.991	
5,900.0	5,863.0	5,897.5	5,897.5	15.1	117.9	84.36	229.9	4,416.8	4,819.3	4,686.8	132.48	36.378	
6,000.0	5,963.0	5,997.5	5,997.5	15.2	119.9	84.36	229.9	4,416.8	4,819.3	4,684.6	134.67	35.785	
6,100.0	6,063.0	6,097.5	6,097.5	15.4	121.9	84.36	229.9	4,416.8	4,819.3	4,682.4	136.87	35.211	
6,102.8	6,065.8	6,100.3	6,100.3	15.4	121.9	84.36	229.9	4,416.8	4,819.3	4,682.3	136.93	35.195	
6,150.0	6,112.9	6,147.4	6,147.4	15.5	122.9	-5.65	229.9	4,416.8	4,817.7	4,681.5	136.24	35.362	
6,200.0	6,162.7	6,197.2	6,197.2	15.5	123.9	-5.70	229.9	4,416.8	4,812.7	4,676.4	136.33	35.301	
6,250.0	6,211.9	6,246.4	6,246.4	15.6	124.9	-5.78	229.9	4,416.8	4,804.3	4,668.5	135.75	35.391	
6,300.0	6,260.5	6,295.0	6,295.0	15.6	125.9	-5.89	229.9	4,416.8	4,792.4	4,657.9	134.48	35.637	
6,350.0	6,308.1	6,342.6	6,342.6	15.6	126.8	-6.04	229.9	4,416.8	4,777.2	4,644.7	132.52	36.048	
6,400.0	6,354.5	6,389.0	6,389.0	15.6	127.7	-6.24	229.9	4,416.8	4,758.8	4,628.9	129.89	36.638	
6,450.0	6,399.5	6,434.0	6,434.0	15.6	128.6	-6.48	229.9	4,416.8	4,737.2	4,610.6	126.58	37.425	
6,500.0	6,442.9	6,477.4	6,477.4	15.5	129.5	-6.77	229.9	4,416.8	4,712.5	4,589.8	122.61	38.434	
6,550.0	6,484.5	6,519.0	6,519.0	15.5	130.4	-7.14	229.9	4,416.8	4,684.8	4,566.8	118.02	39.695	
6,600.0	6,524.0	6,558.5	6,558.5	15.5	131.2	-7.58	229.9	4,416.8	4,654.3	4,541.5	112.84	41.246	
6,650.0	6,561.3	6,595.8	6,595.8	15.6	131.9	-8.12	229.9	4,416.8	4,621.2	4,514.1	107.14	43.133	
6,700.0	6,596.1	6,630.6	6,630.6	15.6	132.6	-8.78	229.9	4,416.8	4,585.6	4,484.6	100.99	45.406	
6,750.0	6,628.4	6,662.9	6,662.9	15.7	133.3	-9.60	229.9	4,416.8	4,547.6	4,453.1	94.51	48.117	
6,800.0	6,658.0	6,692.5	6,692.5	15.9	133.8	-10.64	229.9	4,416.8	4,507.5	4,419.6	87.89	51.287	
6,850.0	6,684.6	6,719.1	6,719.1	16.2	134.4	-11.96	229.9	4,416.8	4,465.5	4,384.1	81.41	54.854	
6,900.0	6,708.3	6,742.8	6,742.8	16.5	134.9	-13.70	229.9	4,416.8	4,421.7	4,346.1	75.57	58.515	
6,950.0	6,728.8	6,763.3	6,763.3	17.0	135.3	-16.05	229.9	4,416.8	4,376.4	4,305.1	71.24	61.432	
7,000.0	6,746.1	6,780.6	6,780.6	17.6	135.6	-19.38	229.9	4,416.8	4,329.7	4,259.8	69.97	61.879	
7,050.0	6,760.0	6,794.5	6,794.5	18.3	135.9	-24.36	229.9	4,416.8	4,282.0	4,207.7	74.29	57.640	
7,100.0	6,770.6	6,805.1	6,805.1	19.1	136.1	-32.37	229.9	4,416.8	4,233.5	4,145.6	87.81	48.210	
7,150.0	6,777.8	6,812.3	6,812.3	19.9	136.3	-46.40	229.9	4,416.8	4,184.3	4,069.9	114.44	36.562	
7,200.0	6,781.5	6,816.0	6,816.0	20.8	136.3	-71.37	229.9	4,416.8	4,134.8	3,985.8	148.94	27.761	
7,232.6	6,782.0	6,816.5	6,816.5	21.4	136.3	-93.27	229.9	4,416.8	4,102.4	3,944.9	157.53	26.042	
7,300.0	6,781.5	6,816.0	6,816.0	22.7	136.3	-93.21	229.9	4,416.8	4,035.5	3,876.6	158.84	25.406	
7,400.0	6,780.9	6,815.4	6,815.4	24.8	136.3	-93.14	229.9	4,416.8	3,936.2	3,775.2	160.92	24.461	
7,500.0	6,780.2	6,814.7	6,814.7	27.0	136.3	-93.06	229.9	4,416.8	3,836.9	3,673.8	163.12	23.521	
7,600.0	6,779.5	6,814.0	6,814.0	29.4	136.3	-92.98	229.9	4,416.8	3,737.7	3,572.3	165.43	22.593	
7,700.0	6,778.9	6,813.4	6,813.4	31.8	136.3	-92.90	229.9	4,416.8	3,638.5	3,470.7	167.82	21.681	
7,800.0	6,778.2	6,812.7	6,812.7	34.2	136.3	-92.82	229.9	4,416.8	3,539.4	3,369.1	170.28	20.786	
7,900.0	6,777.5	6,812.0	6,812.0	36.7	136.3	-92.74	229.9	4,416.8	3,440.3	3,267.6	172.78	19.912	
8,000.0	6,776.9	6,811.4	6,811.4	39.3	136.2	-92.67	229.9	4,416.8	3,341.3	3,166.0	175.32	19.058	
8,100.0	6,776.2	6,810.7	6,810.7	41.9	136.2	-92.59	229.9	4,416.8	3,242.4	3,064.5	177.90	18.226	
8,200.0	6,775.5	6,810.0	6,810.0	44.5	136.2	-92.51	229.9	4,416.8	3,143.5	2,963.0	180.51	17.415	
8,300.0	6,774.9	6,809.4	6,809.4	47.1	136.2	-92.43	229.9	4,416.8	3,044.6	2,861.5	183.13	16.625	
8,400.0	6,774.2	6,808.7	6,808.7	49.8	136.2	-92.35	229.9	4,416.8	2,945.9	2,760.1	185.78	15.857	
8,500.0	6,773.5	6,808.0	6,808.0	52.4	136.2	-92.27	229.9	4,416.8	2,847.3	2,658.8	188.44	15.109	
8,600.0	6,772.9	6,807.4	6,807.4	55.1	136.2	-92.19	229.9	4,416.8	2,748.7	2,557.6	191.12	14.382	
8,700.0	6,772.2	6,806.7	6,806.7	57.8	136.1	-92.11	229.9	4,416.8	2,650.3	2,456.4	193.81	13.675	

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

# Anticollision Report



<b>Company:</b>	PDC ENERGY	<b>Local Co-ordinate Reference:</b>	Well KINZER 28I-202
<b>Project:</b>	WELD COUNTY, COLORADO	<b>TVD Reference:</b>	KB-EST @ 4797.5usft
<b>Reference Site:</b>	SW SW SEC. 28 T5N R67W 6th P.M.	<b>MD Reference:</b>	KB-EST @ 4797.5usft
<b>Site Error:</b>	0.0 usft	<b>North Reference:</b>	True
<b>Reference Well:</b>	KINZER 28I-202	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Well Error:</b>	0.0 usft	<b>Output errors are at</b>	2.00 sigma
<b>Reference Wellbore</b>	ORIGINAL WELLBORE	<b>Database:</b>	EDM 5000.1 Single User Db
<b>Reference Design:</b>	PROPOSAL #1	<b>Offset TVD Reference:</b>	Offset Datum

<b>Offset Design</b> SW SW SEC. 28 T5N R67W 6th P.M. - EXIST VERT BINDER 16-28 - Wellbore #1 - Design #1												<b>Offset Site Error:</b>	0.0 usft
Survey Program: 0-INC												<b>Offset Well Error:</b>	0.0 usft
Reference		Offset		Semi Major Axis			Distance						Warning
Measured Depth (usft)	Vertical Depth (usft)	Measured Depth (usft)	Vertical Depth (usft)	Reference (usft)	Offset (usft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (usft)	+E/-W (usft)	Between Centres (usft)	Between Ellipses (usft)	Minimum Separation (usft)	Separation Factor	
8,800.0	6,771.5	6,806.0	6,806.0	60.5	136.1	-92.03	229.9	4,416.8	2,551.9	2,355.4	196.51	12.987	
8,900.0	6,770.9	6,805.4	6,805.4	63.2	136.1	-91.95	229.9	4,416.8	2,453.7	2,254.5	199.21	12.317	
9,000.0	6,770.2	6,804.7	6,804.7	65.9	136.1	-91.87	229.9	4,416.8	2,355.7	2,153.8	201.93	11.666	
9,100.0	6,769.5	6,804.0	6,804.0	68.7	136.1	-91.79	229.9	4,416.8	2,257.8	2,053.2	204.65	11.033	
9,200.0	6,768.9	6,803.4	6,803.4	71.4	136.1	-91.71	229.9	4,416.8	2,160.2	1,952.8	207.38	10.416	
9,300.0	6,768.2	6,802.7	6,802.7	74.1	136.1	-91.63	229.9	4,416.8	2,062.7	1,852.6	210.11	9.817	
9,400.0	6,767.5	6,802.0	6,802.0	76.9	136.0	-91.55	229.9	4,416.8	1,965.5	1,752.7	212.85	9.234	
9,500.0	6,766.8	6,801.3	6,801.3	79.6	136.0	-91.47	229.9	4,416.8	1,868.6	1,653.0	215.59	8.667	
9,600.0	6,766.2	6,800.7	6,800.7	82.4	136.0	-91.39	229.9	4,416.8	1,772.1	1,553.7	218.34	8.116	
9,700.0	6,765.5	6,800.0	6,800.0	85.2	136.0	-91.31	229.9	4,416.8	1,675.9	1,454.8	221.09	7.580	
9,800.0	6,764.8	6,799.3	6,799.3	87.9	136.0	-91.23	229.9	4,416.8	1,580.2	1,356.4	223.84	7.060	
9,900.0	6,764.1	6,798.6	6,798.6	90.7	136.0	-91.15	229.9	4,416.8	1,485.1	1,258.5	226.60	6.554	
10,000.0	6,763.5	6,798.0	6,798.0	93.4	136.0	-91.07	229.9	4,416.8	1,390.7	1,161.4	229.36	6.064	
10,100.0	6,762.8	6,797.3	6,797.3	96.2	136.0	-90.99	229.9	4,416.8	1,297.1	1,065.0	232.12	5.588	
10,200.0	6,762.1	6,796.6	6,796.6	99.0	135.9	-90.91	229.9	4,416.8	1,204.6	969.7	234.88	5.129	
10,300.0	6,761.4	6,795.9	6,795.9	101.8	135.9	-90.82	229.9	4,416.8	1,113.4	875.7	237.64	4.685	
10,400.0	6,760.8	6,795.3	6,795.3	104.5	135.9	-90.74	229.9	4,416.8	1,023.7	783.3	240.41	4.258	
10,500.0	6,760.1	6,794.6	6,794.6	107.3	135.9	-90.66	229.9	4,416.8	936.2	693.0	243.18	3.850	
10,600.0	6,759.4	6,793.9	6,793.9	110.1	135.9	-90.58	229.9	4,416.8	851.5	605.5	245.94	3.462	
10,700.0	6,758.7	6,793.2	6,793.2	112.9	135.9	-90.50	229.9	4,416.8	770.4	521.6	248.71	3.097	
10,800.0	6,758.1	6,792.6	6,792.6	115.6	135.9	-90.42	229.9	4,416.8	694.2	442.7	251.48	2.760	
10,900.0	6,757.4	6,791.9	6,791.9	118.4	135.8	-90.33	229.9	4,416.8	624.8	370.6	254.25	2.457	
11,000.0	6,756.7	6,791.2	6,791.2	121.2	135.8	-90.25	229.9	4,416.8	564.7	307.6	257.03	2.197	
11,100.0	6,756.0	6,790.5	6,790.5	124.0	135.8	-90.17	229.9	4,416.8	517.0	257.2	259.80	1.990	
11,200.0	6,755.3	6,789.8	6,789.8	126.8	135.8	-90.09	229.9	4,416.8	485.6	223.0	262.57	1.849	
11,300.0	6,754.7	6,789.2	6,789.2	129.6	135.8	-90.01	229.9	4,416.8	473.6	208.2	265.34	1.785	
11,307.7	6,754.6	6,789.1	6,789.1	129.8	135.8	-90.00	229.9	4,416.8	473.5	207.9	265.56	1.783 CC, ES, SF	
11,400.0	6,754.0	6,788.5	6,788.5	132.4	135.8	-89.92	229.9	4,416.8	482.4	214.3	268.12	1.799	
11,500.0	6,753.3	6,787.8	6,787.8	135.1	135.8	-89.84	229.9	4,416.8	511.1	240.2	270.89	1.887	
11,600.0	6,752.6	6,787.1	6,787.1	137.9	135.7	-89.76	229.9	4,416.8	556.5	282.8	273.67	2.033	
11,700.0	6,751.9	6,786.4	6,786.4	140.7	135.7	-89.68	229.9	4,416.8	614.9	338.5	276.44	2.224	
11,800.0	6,751.3	6,785.8	6,785.8	143.5	135.7	-89.59	229.9	4,416.8	683.1	403.8	279.22	2.446	
11,837.2	6,751.0	6,785.5	6,785.5	144.6	135.7	-89.56	229.9	4,416.8	710.4	430.1	280.25	2.535	

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

# Anticollision Report



<b>Company:</b>	PDC ENERGY	<b>Local Co-ordinate Reference:</b>	Well KINZER 281-202
<b>Project:</b>	WELD COUNTY, COLORADO	<b>TVD Reference:</b>	KB-EST @ 4797.5usft
<b>Reference Site:</b>	SW SW SEC. 28 T5N R67W 6th P.M.	<b>MD Reference:</b>	KB-EST @ 4797.5usft
<b>Site Error:</b>	0.0 usft	<b>North Reference:</b>	True
<b>Reference Well:</b>	KINZER 281-202	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Well Error:</b>	0.0 usft	<b>Output errors are at</b>	2.00 sigma
<b>Reference Wellbore</b>	ORIGINAL WELLBORE	<b>Database:</b>	EDM 5000.1 Single User Db
<b>Reference Design:</b>	PROPOSAL #1	<b>Offset TVD Reference:</b>	Offset Datum

Offset Design												Offset Site Error:	0.0 usft
Survey Program: 0-INC												Offset Well Error:	0.0 usft
Reference		Offset		Semi Major Axis			Distance						Warning
Measured Depth (usft)	Vertical Depth (usft)	Measured Depth (usft)	Vertical Depth (usft)	Reference (usft)	Offset (usft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (usft)	+E/-W (usft)	Between Centres (usft)	Between Ellipses (usft)	Minimum Separation (usft)	Separation Factor	
0.0	0.0	94.5	94.5	0.0	0.0	69.01	1,738.2	4,530.8	4,852.8				
100.0	100.0	194.5	194.5	0.1	1.2	69.01	1,738.2	4,530.8	4,852.8	4,851.5	1.25	3,867.698	
200.0	200.0	294.5	294.5	0.3	3.4	69.01	1,738.2	4,530.8	4,852.8	4,849.1	3.71	1,309.784	
300.0	300.0	394.5	394.5	0.5	5.5	69.01	1,738.2	4,530.8	4,852.8	4,846.8	6.02	806.251	
400.0	400.0	494.5	494.5	0.8	7.5	69.01	1,738.2	4,530.8	4,852.8	4,844.5	8.29	585.537	
500.0	500.0	594.5	594.5	1.0	9.5	69.01	1,738.2	4,530.8	4,852.8	4,842.2	10.54	460.318	
600.0	600.0	694.5	694.5	1.2	11.6	69.01	1,738.2	4,530.8	4,852.8	4,840.0	12.79	379.417	
700.0	700.0	794.5	794.5	1.4	13.6	69.01	1,738.2	4,530.8	4,852.8	4,837.7	15.03	322.780	
800.0	800.0	894.5	894.5	1.7	15.6	69.01	1,738.2	4,530.8	4,852.8	4,835.5	17.28	280.891	
900.0	900.0	994.5	994.5	1.9	17.6	69.01	1,738.2	4,530.8	4,852.8	4,833.3	19.52	248.645	
1,000.0	1,000.0	1,094.5	1,094.5	2.1	19.6	69.01	1,738.2	4,530.8	4,852.8	4,831.0	21.76	223.050	
1,100.0	1,100.0	1,194.5	1,194.5	2.3	21.7	-168.26	1,738.2	4,530.8	4,854.5	4,830.5	23.96	202.609	
1,200.0	1,199.8	1,294.3	1,294.3	2.5	23.7	-168.25	1,738.2	4,530.8	4,859.6	4,833.5	26.11	186.106	
1,300.0	1,299.5	1,394.0	1,394.0	2.7	25.7	-168.24	1,738.2	4,530.8	4,868.1	4,839.9	28.23	172.467	
1,400.0	1,398.7	1,493.2	1,493.2	3.0	27.7	-168.22	1,738.2	4,530.8	4,880.1	4,849.8	30.29	161.089	
1,500.0	1,497.5	1,592.0	1,592.0	3.2	29.7	-168.19	1,738.2	4,530.8	4,895.4	4,863.1	32.31	151.524	
1,502.5	1,500.0	1,594.5	1,594.5	3.2	29.7	-168.19	1,738.2	4,530.8	4,895.8	4,863.5	32.36	151.304	
1,600.0	1,595.9	1,690.4	1,690.4	3.5	31.6	-168.23	1,738.2	4,530.8	4,912.5	4,878.0	34.47	142.503	
1,700.0	1,694.4	1,788.9	1,788.9	3.8	33.6	-168.27	1,738.2	4,530.8	4,929.6	4,892.9	36.65	134.506	
1,800.0	1,792.9	1,887.4	1,887.4	4.2	35.6	-168.32	1,738.2	4,530.8	4,946.7	4,907.9	38.83	127.389	
1,900.0	1,891.3	1,985.8	1,985.8	4.5	37.6	-168.36	1,738.2	4,530.8	4,963.8	4,922.8	41.02	121.016	
2,000.0	1,989.8	2,084.3	2,084.3	4.9	39.6	-168.40	1,738.2	4,530.8	4,980.9	4,937.7	43.21	115.279	
2,100.0	2,088.3	2,182.8	2,182.8	5.2	41.5	-168.44	1,738.2	4,530.8	4,998.0	4,952.6	45.40	110.088	
2,200.0	2,186.7	2,281.2	2,281.2	5.6	43.5	-168.48	1,738.2	4,530.8	5,015.1	4,967.5	47.60	105.369	
2,300.0	2,285.2	2,379.7	2,379.7	6.0	45.5	-168.52	1,738.2	4,530.8	5,032.2	4,982.4	49.79	101.063	
2,400.0	2,383.7	2,478.2	2,478.2	6.4	47.5	-168.56	1,738.2	4,530.8	5,049.3	4,997.3	51.99	97.117	
2,500.0	2,482.1	2,576.6	2,576.6	6.7	49.5	-168.60	1,738.2	4,530.8	5,066.5	5,012.3	54.19	93.489	
2,600.0	2,580.6	2,675.1	2,675.1	7.1	51.4	-168.63	1,738.2	4,530.8	5,083.6	5,027.2	56.39	90.142	
2,700.0	2,679.1	2,773.6	2,773.6	7.5	53.4	-168.67	1,738.2	4,530.8	5,100.7	5,042.1	58.60	87.045	
2,800.0	2,777.5	2,872.0	2,872.0	7.9	55.4	-168.71	1,738.2	4,530.8	5,117.8	5,057.0	60.80	84.171	
2,900.0	2,876.0	2,970.5	2,970.5	8.3	57.4	-168.75	1,738.2	4,530.8	5,134.9	5,071.9	63.01	81.498	
3,000.0	2,974.4	3,068.9	3,068.9	8.7	59.4	-168.79	1,738.2	4,530.8	5,152.1	5,086.9	65.21	79.004	
3,100.0	3,072.9	3,167.4	3,167.4	9.1	61.3	-168.82	1,738.2	4,530.8	5,169.2	5,101.8	67.42	76.672	
3,200.0	3,171.4	3,265.9	3,265.9	9.5	63.3	-168.86	1,738.2	4,530.8	5,186.3	5,116.7	69.63	74.488	
3,300.0	3,269.8	3,364.3	3,364.3	9.9	65.3	-168.90	1,738.2	4,530.8	5,203.5	5,131.6	71.83	72.437	
3,400.0	3,368.3	3,462.8	3,462.8	10.3	67.3	-168.94	1,738.2	4,530.8	5,220.6	5,146.6	74.04	70.509	
3,500.0	3,466.8	3,561.3	3,561.3	10.7	69.3	-168.97	1,738.2	4,530.8	5,237.7	5,161.5	76.25	68.691	
3,580.8	3,546.3	3,640.8	3,640.8	11.0	70.9	-169.00	1,738.2	4,530.8	5,251.6	5,173.6	78.04	67.298	
3,600.0	3,565.3	3,659.8	3,659.8	11.1	71.2	-169.02	1,738.2	4,530.8	5,254.8	5,176.3	78.54	66.910	
3,700.0	3,664.1	3,758.6	3,758.6	11.3	73.2	-169.11	1,738.2	4,530.8	5,269.6	5,188.5	81.09	64.988	
3,800.0	3,763.4	3,857.9	3,857.9	11.6	75.2	-169.18	1,738.2	4,530.8	5,281.0	5,197.5	83.56	63.199	
3,900.0	3,863.1	3,957.6	3,957.6	11.8	77.2	-169.22	1,738.2	4,530.8	5,289.0	5,203.1	85.95	61.533	
4,000.0	3,963.0	4,057.5	4,057.5	12.0	79.2	-169.25	1,738.2	4,530.8	5,293.6	5,205.3	88.25	59.983	
4,083.3	4,046.3	4,140.8	4,140.8	12.1	80.9	68.02	1,738.2	4,530.8	5,294.8	5,201.8	92.93	56.979	
4,100.0	4,063.0	4,157.5	4,157.5	12.1	81.3	68.02	1,738.2	4,530.8	5,294.8	5,201.5	93.28	56.759	
4,200.0	4,163.0	4,257.5	4,257.5	12.3	83.3	68.02	1,738.2	4,530.8	5,294.8	5,199.3	95.44	55.475	
4,300.0	4,263.0	4,357.5	4,357.5	12.4	85.3	68.02	1,738.2	4,530.8	5,294.8	5,197.2	97.61	54.246	
4,400.0	4,363.0	4,457.5	4,457.5	12.6	87.3	68.02	1,738.2	4,530.8	5,294.8	5,195.0	99.77	53.070	
4,500.0	4,463.0	4,557.5	4,557.5	12.7	89.3	68.02	1,738.2	4,530.8	5,294.8	5,192.8	101.94	51.942	
4,600.0	4,563.0	4,657.5	4,657.5	12.9	91.3	68.02	1,738.2	4,530.8	5,294.8	5,190.7	104.10	50.860	
4,700.0	4,663.0	4,757.5	4,757.5	13.0	93.3	68.02	1,738.2	4,530.8	5,294.8	5,188.5	106.27	49.821	
4,800.0	4,763.0	4,857.5	4,857.5	13.2	95.3	68.02	1,738.2	4,530.8	5,294.8	5,186.3	108.45	48.824	

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

# Anticollision Report



<b>Company:</b>	PDC ENERGY	<b>Local Co-ordinate Reference:</b>	Well KINZER 281-202
<b>Project:</b>	WELD COUNTY, COLORADO	<b>TVD Reference:</b>	KB-EST @ 4797.5usft
<b>Reference Site:</b>	SW SW SEC. 28 T5N R67W 6th P.M.	<b>MD Reference:</b>	KB-EST @ 4797.5usft
<b>Site Error:</b>	0.0 usft	<b>North Reference:</b>	True
<b>Reference Well:</b>	KINZER 281-202	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Well Error:</b>	0.0 usft	<b>Output errors are at</b>	2.00 sigma
<b>Reference Wellbore</b>	ORIGINAL WELLBORE	<b>Database:</b>	EDM 5000.1 Single User Db
<b>Reference Design:</b>	PROPOSAL #1	<b>Offset TVD Reference:</b>	Offset Datum

Offset Design												Offset Site Error:	0.0 usft
Survey Program: 0-INC												Offset Well Error:	0.0 usft
Reference		Offset		Semi Major Axis			Distance						Warning
Measured Depth (usft)	Vertical Depth (usft)	Measured Depth (usft)	Vertical Depth (usft)	Reference (usft)	Offset (usft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (usft)	+E/-W (usft)	Between Centres (usft)	Between Ellipses (usft)	Minimum Separation (usft)	Separation Factor	
4,900.0	4,863.0	4,957.5	4,957.5	13.4	97.3	68.02	1,738.2	4,530.8	5,294.8	5,184.2	110.62	47.864	
5,000.0	4,963.0	5,057.5	5,057.5	13.5	99.4	68.02	1,738.2	4,530.8	5,294.8	5,182.0	112.80	46.941	
5,100.0	5,063.0	5,157.5	5,157.5	13.7	101.4	68.02	1,738.2	4,530.8	5,294.8	5,179.8	114.97	46.052	
5,200.0	5,163.0	5,257.5	5,257.5	13.9	103.4	68.02	1,738.2	4,530.8	5,294.8	5,177.6	117.15	45.195	
5,300.0	5,263.0	5,357.5	5,357.5	14.0	105.4	68.02	1,738.2	4,530.8	5,294.8	5,175.4	119.33	44.369	
5,400.0	5,363.0	5,457.5	5,457.5	14.2	107.4	68.02	1,738.2	4,530.8	5,294.8	5,173.3	121.52	43.572	
5,500.0	5,463.0	5,557.5	5,557.5	14.4	109.4	68.02	1,738.2	4,530.8	5,294.8	5,171.1	123.70	42.803	
5,600.0	5,563.0	5,657.5	5,657.5	14.5	111.4	68.02	1,738.2	4,530.8	5,294.8	5,168.9	125.89	42.060	
5,700.0	5,663.0	5,757.5	5,757.5	14.7	113.4	68.02	1,738.2	4,530.8	5,294.8	5,166.7	128.07	41.342	
5,800.0	5,763.0	5,857.5	5,857.5	14.9	115.4	68.02	1,738.2	4,530.8	5,294.8	5,164.5	130.26	40.648	
5,900.0	5,863.0	5,957.5	5,957.5	15.1	117.5	68.02	1,738.2	4,530.8	5,294.8	5,162.3	132.45	39.976	
6,000.0	5,963.0	6,057.5	6,057.5	15.2	119.5	68.02	1,738.2	4,530.8	5,294.8	5,160.1	134.64	39.325	
6,100.0	6,063.0	6,157.5	6,157.5	15.4	121.5	68.02	1,738.2	4,530.8	5,294.8	5,157.9	136.83	38.696	
6,102.8	6,065.8	6,160.3	6,160.3	15.4	121.5	68.02	1,738.2	4,530.8	5,294.8	5,157.9	136.89	38.678	
6,150.0	6,112.9	6,207.4	6,207.4	15.5	122.5	-22.03	1,738.2	4,530.8	5,293.3	5,157.9	135.46	39.076	
6,200.0	6,162.7	6,257.2	6,257.2	15.5	123.5	-22.19	1,738.2	4,530.8	5,288.7	5,153.0	135.69	38.977	
6,250.0	6,211.9	6,306.4	6,306.4	15.6	124.5	-22.47	1,738.2	4,530.8	5,280.8	5,145.5	135.34	39.019	
6,300.0	6,260.5	6,355.0	6,355.0	15.6	125.4	-22.87	1,738.2	4,530.8	5,269.8	5,135.3	134.43	39.202	
6,350.0	6,308.1	6,402.6	6,402.6	15.6	126.4	-23.39	1,738.2	4,530.8	5,255.6	5,122.7	132.97	39.524	
6,400.0	6,354.5	6,449.0	6,449.0	15.6	127.3	-24.06	1,738.2	4,530.8	5,238.5	5,107.5	131.02	39.983	
6,450.0	6,399.5	6,494.0	6,494.0	15.6	128.2	-24.89	1,738.2	4,530.8	5,218.4	5,089.7	128.62	40.570	
6,500.0	6,442.9	6,537.4	6,537.4	15.5	129.1	-25.89	1,738.2	4,530.8	5,195.4	5,069.5	125.88	41.272	
6,550.0	6,484.5	6,579.0	6,579.0	15.5	130.0	-27.09	1,738.2	4,530.8	5,169.7	5,046.8	122.91	42.061	
6,600.0	6,524.0	6,618.5	6,618.5	15.5	130.7	-28.52	1,738.2	4,530.8	5,141.5	5,021.6	119.88	42.889	
6,650.0	6,561.3	6,655.8	6,655.8	15.6	131.5	-30.22	1,738.2	4,530.8	5,110.7	4,993.7	117.00	43.680	
6,700.0	6,596.1	6,690.6	6,690.6	15.6	132.2	-32.24	1,738.2	4,530.8	5,077.7	4,963.2	114.57	44.319	
6,750.0	6,628.4	6,722.9	6,722.9	15.7	132.8	-34.63	1,738.2	4,530.8	5,042.6	4,929.7	112.93	44.654	
6,800.0	6,658.0	6,752.5	6,752.5	15.9	133.4	-37.47	1,738.2	4,530.8	5,005.6	4,893.1	112.46	44.509	
6,850.0	6,684.6	6,779.1	6,779.1	16.2	134.0	-40.84	1,738.2	4,530.8	4,966.8	4,853.2	113.57	43.731	
6,900.0	6,708.3	6,802.8	6,802.8	16.5	134.5	-44.84	1,738.2	4,530.8	4,926.4	4,809.8	116.58	42.257	
6,950.0	6,728.8	6,823.3	6,823.3	17.0	134.9	-49.56	1,738.2	4,530.8	4,884.7	4,763.1	121.61	40.166	
7,000.0	6,746.1	6,840.6	6,840.6	17.6	135.2	-55.11	1,738.2	4,530.8	4,841.9	4,713.4	128.47	37.689	
7,050.0	6,760.0	6,854.5	6,854.5	18.3	135.5	-61.55	1,738.2	4,530.8	4,798.1	4,661.6	136.53	35.144	
7,100.0	6,770.6	6,865.1	6,865.1	19.1	135.7	-68.84	1,738.2	4,530.8	4,753.7	4,608.9	144.72	32.847	
7,150.0	6,777.8	6,872.3	6,872.3	19.9	135.9	-76.84	1,738.2	4,530.8	4,708.7	4,557.0	151.70	31.039	
7,200.0	6,781.5	6,876.0	6,876.0	20.8	135.9	-85.27	1,738.2	4,530.8	4,663.6	4,507.4	156.17	29.862	
7,232.6	6,782.0	6,876.5	6,876.5	21.4	135.9	-90.80	1,738.2	4,530.8	4,634.1	4,476.7	157.34	29.452	
7,300.0	6,781.5	6,876.0	6,876.0	22.7	135.9	-90.79	1,738.2	4,530.8	4,573.2	4,414.6	158.64	28.827	
7,400.0	6,780.9	6,875.4	6,875.4	24.8	135.9	-90.77	1,738.2	4,530.8	4,483.3	4,322.6	160.71	27.897	
7,500.0	6,780.2	6,874.7	6,874.7	27.0	135.9	-90.75	1,738.2	4,530.8	4,393.9	4,230.9	162.91	26.971	
7,600.0	6,779.5	6,874.0	6,874.0	29.4	135.9	-90.73	1,738.2	4,530.8	4,304.8	4,139.6	165.22	26.056	
7,700.0	6,778.9	6,873.4	6,873.4	31.8	135.9	-90.72	1,738.2	4,530.8	4,216.3	4,048.7	167.60	25.157	
7,800.0	6,778.2	6,872.7	6,872.7	34.2	135.9	-90.70	1,738.2	4,530.8	4,128.3	3,958.3	170.05	24.278	
7,900.0	6,777.5	6,872.0	6,872.0	36.7	135.8	-90.68	1,738.2	4,530.8	4,040.9	3,868.4	172.54	23.420	
8,000.0	6,776.9	6,871.4	6,871.4	39.3	135.8	-90.66	1,738.2	4,530.8	3,954.1	3,779.0	175.08	22.585	
8,100.0	6,776.2	6,870.7	6,870.7	41.9	135.8	-90.64	1,738.2	4,530.8	3,867.8	3,690.2	177.65	21.773	
8,200.0	6,775.5	6,870.0	6,870.0	44.5	135.8	-90.62	1,738.2	4,530.8	3,782.3	3,602.1	180.25	20.984	
8,300.0	6,774.9	6,869.4	6,869.4	47.1	135.8	-90.60	1,738.2	4,530.8	3,697.5	3,514.6	182.87	20.220	
8,400.0	6,774.2	6,868.7	6,868.7	49.8	135.8	-90.58	1,738.2	4,530.8	3,613.5	3,428.0	185.50	19.479	
8,500.0	6,773.5	6,868.0	6,868.0	52.4	135.8	-90.56	1,738.2	4,530.8	3,530.3	3,342.1	188.16	18.762	
8,600.0	6,772.9	6,867.4	6,867.4	55.1	135.8	-90.55	1,738.2	4,530.8	3,448.0	3,257.2	190.83	18.068	
8,700.0	6,772.2	6,866.7	6,866.7	57.8	135.7	-90.53	1,738.2	4,530.8	3,366.7	3,173.1	193.51	17.398	

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



# Anticollision Report



<b>Company:</b>	PDC ENERGY	<b>Local Co-ordinate Reference:</b>	Well KINZER 28I-202
<b>Project:</b>	WELD COUNTY, COLORADO	<b>TVD Reference:</b>	KB-EST @ 4797.5usft
<b>Reference Site:</b>	SW SW SEC. 28 T5N R67W 6th P.M.	<b>MD Reference:</b>	KB-EST @ 4797.5usft
<b>Site Error:</b>	0.0 usft	<b>North Reference:</b>	True
<b>Reference Well:</b>	KINZER 28I-202	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Well Error:</b>	0.0 usft	<b>Output errors are at</b>	2.00 sigma
<b>Reference Wellbore</b>	ORIGINAL WELLBORE	<b>Database:</b>	EDM 5000.1 Single User Db
<b>Reference Design:</b>	PROPOSAL #1	<b>Offset TVD Reference:</b>	Offset Datum

<b>Offset Design</b> SW SW SEC. 28 T5N R67W 6th P.M. - EXIST VERT BINDER 9-28 - Wellbore #1 - Design #1												<b>Offset Site Error:</b>	0.0 usft
Survey Program: 0-INC												<b>Offset Well Error:</b>	0.0 usft
Reference		Offset		Semi Major Axis			Distance						Warning
Measured Depth (usft)	Vertical Depth (usft)	Measured Depth (usft)	Vertical Depth (usft)	Reference (usft)	Offset (usft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (usft)	+E/-W (usft)	Between Centres (usft)	Between Ellipses (usft)	Minimum Separation (usft)	Separation Factor	
8,800.0	6,771.5	6,866.0	6,866.0	60.5	135.7	-90.51	1,738.2	4,530.8	3,286.4	3,090.1	196.20	16.750	
8,900.0	6,770.9	6,865.4	6,865.4	63.2	135.7	-90.49	1,738.2	4,530.8	3,207.1	3,008.2	198.90	16.124	
9,000.0	6,770.2	6,864.7	6,864.7	65.9	135.7	-90.47	1,738.2	4,530.8	3,129.1	2,927.5	201.61	15.520	
9,100.0	6,769.5	6,864.0	6,864.0	68.7	135.7	-90.45	1,738.2	4,530.8	3,052.4	2,848.1	204.33	14.939	
9,200.0	6,768.9	6,863.4	6,863.4	71.4	135.7	-90.43	1,738.2	4,530.8	2,977.1	2,770.0	207.05	14.378	
9,300.0	6,768.2	6,862.7	6,862.7	74.1	135.7	-90.41	1,738.2	4,530.8	2,903.2	2,693.4	209.78	13.839	
9,400.0	6,767.5	6,862.0	6,862.0	76.9	135.6	-90.39	1,738.2	4,530.8	2,830.9	2,618.4	212.51	13.321	
9,500.0	6,766.8	6,861.3	6,861.3	79.6	135.6	-90.37	1,738.2	4,530.8	2,760.4	2,545.2	215.25	12.824	
9,600.0	6,766.2	6,860.7	6,860.7	82.4	135.6	-90.35	1,738.2	4,530.8	2,691.8	2,473.8	217.99	12.348	
9,700.0	6,765.5	6,860.0	6,860.0	85.2	135.6	-90.34	1,738.2	4,530.8	2,625.1	2,404.4	220.73	11.893	
9,800.0	6,764.8	6,859.3	6,859.3	87.9	135.6	-90.32	1,738.2	4,530.8	2,560.7	2,337.2	223.48	11.458	
9,900.0	6,764.1	6,858.6	6,858.6	90.7	135.6	-90.30	1,738.2	4,530.8	2,498.5	2,272.3	226.23	11.044	
10,000.0	6,763.5	6,858.0	6,858.0	93.4	135.6	-90.28	1,738.2	4,530.8	2,438.9	2,209.9	228.99	10.651	
10,100.0	6,762.8	6,857.3	6,857.3	96.2	135.6	-90.26	1,738.2	4,530.8	2,382.0	2,150.3	231.74	10.279	
10,200.0	6,762.1	6,856.6	6,856.6	99.0	135.5	-90.24	1,738.2	4,530.8	2,328.0	2,093.5	234.50	9.928	
10,300.0	6,761.4	6,855.9	6,855.9	101.8	135.5	-90.22	1,738.2	4,530.8	2,277.1	2,039.9	237.26	9.598	
10,400.0	6,760.8	6,855.3	6,855.3	104.5	135.5	-90.20	1,738.2	4,530.8	2,229.6	1,989.6	240.02	9.289	
10,500.0	6,760.1	6,854.6	6,854.6	107.3	135.5	-90.18	1,738.2	4,530.8	2,185.6	1,942.8	242.78	9.002	
10,600.0	6,759.4	6,853.9	6,853.9	110.1	135.5	-90.16	1,738.2	4,530.8	2,145.3	1,899.8	245.55	8.737	
10,700.0	6,758.7	6,853.2	6,853.2	112.9	135.5	-90.14	1,738.2	4,530.8	2,109.1	1,860.7	248.32	8.493	
10,800.0	6,758.1	6,852.6	6,852.6	115.6	135.5	-90.12	1,738.2	4,530.8	2,077.0	1,825.9	251.08	8.272	
10,900.0	6,757.4	6,851.9	6,851.9	118.4	135.4	-90.10	1,738.2	4,530.8	2,049.3	1,795.4	253.85	8.073	
11,000.0	6,756.7	6,851.2	6,851.2	121.2	135.4	-90.08	1,738.2	4,530.8	2,026.1	1,769.5	256.62	7.895	
11,100.0	6,756.0	6,850.5	6,850.5	124.0	135.4	-90.06	1,738.2	4,530.8	2,007.7	1,748.3	259.40	7.740	
11,200.0	6,755.3	6,849.8	6,849.8	126.8	135.4	-90.04	1,738.2	4,530.8	1,994.1	1,731.9	262.17	7.606	
11,300.0	6,754.7	6,849.2	6,849.2	129.6	135.4	-90.02	1,738.2	4,530.8	1,985.5	1,720.5	264.94	7.494	
11,400.0	6,754.0	6,848.5	6,848.5	132.4	135.4	-90.00	1,738.2	4,530.8	1,981.9	1,714.2	267.72	7.403	
11,421.7	6,753.8	6,848.3	6,848.3	133.0	135.4	-90.00	1,738.2	4,530.8	1,981.8	1,713.4	268.32	7.386 CC	
11,500.0	6,753.3	6,847.8	6,847.8	135.1	135.4	-89.98	1,738.2	4,530.8	1,983.3	1,712.8	270.49	7.332 ES	
11,600.0	6,752.6	6,847.1	6,847.1	137.9	135.3	-89.96	1,738.2	4,530.8	1,989.8	1,716.5	273.27	7.281	
11,700.0	6,751.9	6,846.4	6,846.4	140.7	135.3	-89.95	1,738.2	4,530.8	2,001.2	1,725.2	276.04	7.250	
11,800.0	6,751.3	6,845.8	6,845.8	143.5	135.3	-89.93	1,738.2	4,530.8	2,017.5	1,738.7	278.82	7.236	
11,837.2	6,751.0	6,845.5	6,845.5	144.6	135.3	-89.92	1,738.2	4,530.8	2,024.9	1,745.0	279.86	7.235 SF	

# Anticollision Report



<b>Company:</b>	PDC ENERGY	<b>Local Co-ordinate Reference:</b>	Well KINZER 281-202
<b>Project:</b>	WELD COUNTY, COLORADO	<b>TVD Reference:</b>	KB-EST @ 4797.5usft
<b>Reference Site:</b>	SW SW SEC. 28 T5N R67W 6th P.M.	<b>MD Reference:</b>	KB-EST @ 4797.5usft
<b>Site Error:</b>	0.0 usft	<b>North Reference:</b>	True
<b>Reference Well:</b>	KINZER 281-202	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Well Error:</b>	0.0 usft	<b>Output errors are at</b>	2.00 sigma
<b>Reference Wellbore</b>	ORIGINAL WELLBORE	<b>Database:</b>	EDM 5000.1 Single User Db
<b>Reference Design:</b>	PROPOSAL #1	<b>Offset TVD Reference:</b>	Offset Datum

Offset Design												Offset Site Error:	0.0 usft
Survey Program: 0-INC												Offset Well Error:	0.0 usft
Reference		Offset		Semi Major Axis			Distance						Warning
Measured Depth (usft)	Vertical Depth (usft)	Measured Depth (usft)	Vertical Depth (usft)	Reference (usft)	Offset (usft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (usft)	+E/-W (usft)	Between Centres (usft)	Between Ellipses (usft)	Minimum Separation (usft)	Separation Factor	
0.0	0.0	119.5	119.5	0.0	0.2	56.71	2,871.1	4,371.8	5,230.3				
100.0	100.0	219.5	219.5	0.1	1.4	56.71	2,871.1	4,371.8	5,230.3	5,228.8	1.45	3,607.076	
200.0	200.0	319.5	319.5	0.3	3.7	56.71	2,871.1	4,371.8	5,230.3	5,226.3	3.98	1,313.167	
300.0	300.0	419.5	419.5	0.5	5.7	56.71	2,871.1	4,371.8	5,230.3	5,224.0	6.28	832.591	
400.0	400.0	519.5	519.5	0.8	7.8	56.71	2,871.1	4,371.8	5,230.3	5,221.7	8.55	611.968	
500.0	500.0	619.5	619.5	1.0	9.8	56.71	2,871.1	4,371.8	5,230.3	5,219.5	10.80	484.323	
600.0	600.0	719.5	719.5	1.2	11.8	56.71	2,871.1	4,371.8	5,230.3	5,217.2	13.05	400.915	
700.0	700.0	819.5	819.5	1.4	13.8	56.71	2,871.1	4,371.8	5,230.3	5,215.0	15.29	342.087	
800.0	800.0	919.5	919.5	1.7	15.9	56.71	2,871.1	4,371.8	5,230.3	5,212.8	17.53	298.348	
900.0	900.0	1,019.5	1,019.5	1.9	17.9	56.71	2,871.1	4,371.8	5,230.3	5,210.5	19.77	264.544	
1,000.0	1,000.0	1,119.5	1,119.5	2.1	19.9	56.71	2,871.1	4,371.8	5,230.3	5,208.3	22.01	237.630	
1,100.0	1,100.0	1,219.5	1,219.5	2.3	21.9	179.43	2,871.1	4,371.8	5,232.0	5,207.8	24.21	216.085	
1,200.0	1,199.8	1,319.3	1,319.3	2.5	23.9	179.43	2,871.1	4,371.8	5,237.3	5,210.9	26.36	198.661	
1,300.0	1,299.5	1,419.0	1,419.0	2.7	25.9	179.43	2,871.1	4,371.8	5,246.0	5,217.5	28.47	184.246	
1,400.0	1,398.7	1,518.2	1,518.2	3.0	27.9	179.43	2,871.1	4,371.8	5,258.2	5,227.6	30.53	172.213	
1,500.0	1,497.5	1,617.0	1,617.0	3.2	29.9	179.43	2,871.1	4,371.8	5,273.8	5,241.3	32.53	162.098	
1,502.5	1,500.0	1,619.5	1,619.5	3.2	30.0	179.43	2,871.1	4,371.8	5,274.2	5,241.7	32.58	161.866	
1,600.0	1,595.9	1,715.4	1,715.4	3.5	31.9	179.43	2,871.1	4,371.8	5,291.3	5,256.6	34.70	152.507	
1,700.0	1,694.4	1,813.9	1,813.9	3.8	33.9	179.43	2,871.1	4,371.8	5,308.7	5,271.8	36.87	143.999	
1,800.0	1,792.9	1,912.4	1,912.4	4.2	35.8	179.43	2,871.1	4,371.8	5,326.2	5,287.1	39.04	136.422	
1,900.0	1,891.3	2,010.8	2,010.8	4.5	37.8	179.43	2,871.1	4,371.8	5,343.6	5,302.4	41.22	129.632	
2,000.0	1,989.8	2,109.3	2,109.3	4.9	39.8	179.43	2,871.1	4,371.8	5,361.1	5,317.7	43.40	123.516	
2,100.0	2,088.3	2,207.8	2,207.8	5.2	41.8	179.44	2,871.1	4,371.8	5,378.5	5,332.9	45.59	117.978	
2,200.0	2,186.7	2,306.2	2,306.2	5.6	43.8	179.44	2,871.1	4,371.8	5,396.0	5,348.2	47.78	112.942	
2,300.0	2,285.2	2,404.7	2,404.7	6.0	45.8	179.44	2,871.1	4,371.8	5,413.4	5,363.4	49.97	108.342	
2,400.0	2,383.7	2,503.2	2,503.2	6.4	47.7	179.44	2,871.1	4,371.8	5,430.9	5,378.7	52.16	104.126	
2,500.0	2,482.1	2,601.6	2,601.6	6.7	49.7	179.44	2,871.1	4,371.8	5,448.3	5,394.0	54.35	100.246	
2,600.0	2,580.6	2,700.1	2,700.1	7.1	51.7	179.45	2,871.1	4,371.8	5,465.8	5,409.2	56.54	96.666	
2,700.0	2,679.1	2,798.6	2,798.6	7.5	53.7	179.45	2,871.1	4,371.8	5,483.2	5,424.5	58.74	93.351	
2,800.0	2,777.5	2,897.0	2,897.0	7.9	55.7	179.45	2,871.1	4,371.8	5,500.7	5,439.7	60.93	90.273	
2,900.0	2,876.0	2,995.5	2,995.5	8.3	57.6	179.45	2,871.1	4,371.8	5,518.1	5,455.0	63.13	87.409	
3,000.0	2,974.4	3,093.9	3,093.9	8.7	59.6	179.45	2,871.1	4,371.8	5,535.6	5,470.2	65.33	84.736	
3,100.0	3,072.9	3,192.4	3,192.4	9.1	61.6	179.45	2,871.1	4,371.8	5,553.0	5,485.5	67.53	82.236	
3,200.0	3,171.4	3,290.9	3,290.9	9.5	63.6	179.46	2,871.1	4,371.8	5,570.5	5,500.7	69.72	79.893	
3,300.0	3,269.8	3,389.3	3,389.3	9.9	65.6	179.46	2,871.1	4,371.8	5,587.9	5,516.0	71.92	77.693	
3,400.0	3,368.3	3,487.8	3,487.8	10.3	67.5	179.46	2,871.1	4,371.8	5,605.4	5,531.2	74.12	75.622	
3,500.0	3,466.8	3,586.3	3,586.3	10.7	69.5	179.46	2,871.1	4,371.8	5,622.8	5,546.5	76.32	73.671	
3,580.8	3,546.3	3,665.8	3,665.8	11.0	71.1	179.46	2,871.1	4,371.8	5,636.9	5,558.8	78.10	72.174	
3,600.0	3,565.3	3,684.8	3,684.8	11.1	71.5	179.46	2,871.1	4,371.8	5,640.2	5,561.6	78.60	71.754	
3,700.0	3,664.1	3,783.6	3,783.6	11.3	73.5	179.47	2,871.1	4,371.8	5,655.3	5,574.1	81.17	69.671	
3,800.0	3,763.4	3,882.9	3,882.9	11.6	75.5	179.47	2,871.1	4,371.8	5,666.9	5,583.2	83.66	67.736	
3,900.0	3,863.1	3,982.6	3,982.6	11.8	77.5	179.47	2,871.1	4,371.8	5,675.0	5,589.0	86.06	65.940	
4,000.0	3,963.0	4,082.5	4,082.5	12.0	79.5	179.47	2,871.1	4,371.8	5,679.7	5,591.3	88.37	64.273	
4,083.3	4,046.3	4,165.8	4,165.8	12.1	81.2	56.75	2,871.1	4,371.8	5,680.9	5,587.6	93.28	60.903	
4,100.0	4,063.0	4,182.5	4,182.5	12.1	81.5	56.75	2,871.1	4,371.8	5,680.9	5,587.2	93.64	60.669	
4,200.0	4,163.0	4,282.5	4,282.5	12.3	83.5	56.75	2,871.1	4,371.8	5,680.9	5,585.1	95.79	59.303	
4,300.0	4,263.0	4,382.5	4,382.5	12.4	85.5	56.75	2,871.1	4,371.8	5,680.9	5,582.9	97.95	57.995	
4,400.0	4,363.0	4,482.5	4,482.5	12.6	87.5	56.75	2,871.1	4,371.8	5,680.9	5,580.8	100.12	56.743	
4,500.0	4,463.0	4,582.5	4,582.5	12.7	89.6	56.75	2,871.1	4,371.8	5,680.9	5,578.6	102.28	55.542	
4,600.0	4,563.0	4,682.5	4,682.5	12.9	91.6	56.75	2,871.1	4,371.8	5,680.9	5,576.4	104.45	54.390	
4,700.0	4,663.0	4,782.5	4,782.5	13.0	93.6	56.75	2,871.1	4,371.8	5,680.9	5,574.3	106.62	53.284	
4,800.0	4,763.0	4,882.5	4,882.5	13.2	95.6	56.75	2,871.1	4,371.8	5,680.9	5,572.1	108.79	52.221	

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

# Anticollision Report



<b>Company:</b>	PDC ENERGY	<b>Local Co-ordinate Reference:</b>	Well KINZER 281-202
<b>Project:</b>	WELD COUNTY, COLORADO	<b>TVD Reference:</b>	KB-EST @ 4797.5usft
<b>Reference Site:</b>	SW SW SEC. 28 T5N R67W 6th P.M.	<b>MD Reference:</b>	KB-EST @ 4797.5usft
<b>Site Error:</b>	0.0 usft	<b>North Reference:</b>	True
<b>Reference Well:</b>	KINZER 281-202	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Well Error:</b>	0.0 usft	<b>Output errors are at</b>	2.00 sigma
<b>Reference Wellbore</b>	ORIGINAL WELLBORE	<b>Database:</b>	EDM 5000.1 Single User Db
<b>Reference Design:</b>	PROPOSAL #1	<b>Offset TVD Reference:</b>	Offset Datum

Offset Design													SW SW SEC. 28 T5N R67W 6th P.M. - EXIST VERT HELEN 1 - Wellbore #1 - Design #1		Offset Site Error:		0.0 usft
Survey Program: 0-INC													Offset Well Error:		0.0 usft		
Reference		Offset		Semi Major Axis			Distance							Warning			
Measured Depth (usft)	Vertical Depth (usft)	Measured Depth (usft)	Vertical Depth (usft)	Reference (usft)	Offset (usft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (usft)	+E/-W (usft)	Between Centres (usft)	Between Ellipses (usft)	Minimum Separation (usft)	Separation Factor					
4,900.0	4,863.0	4,982.5	4,982.5	13.4	97.6	56.75	2,871.1	4,371.8	5,680.9	5,569.9	110.96	51.198					
5,000.0	4,963.0	5,082.5	5,082.5	13.5	99.6	56.75	2,871.1	4,371.8	5,680.9	5,567.8	113.13	50.215					
5,100.0	5,063.0	5,182.5	5,182.5	13.7	101.6	56.75	2,871.1	4,371.8	5,680.9	5,565.6	115.31	49.267					
5,200.0	5,163.0	5,282.5	5,282.5	13.9	103.6	56.75	2,871.1	4,371.8	5,680.9	5,563.4	117.49	48.354					
5,300.0	5,263.0	5,382.5	5,382.5	14.0	105.6	56.75	2,871.1	4,371.8	5,680.9	5,561.2	119.66	47.473					
5,400.0	5,363.0	5,482.5	5,482.5	14.2	107.7	56.75	2,871.1	4,371.8	5,680.9	5,559.0	121.85	46.624					
5,500.0	5,463.0	5,582.5	5,582.5	14.4	109.7	56.75	2,871.1	4,371.8	5,680.9	5,556.9	124.03	45.803					
5,600.0	5,563.0	5,682.5	5,682.5	14.5	111.7	56.75	2,871.1	4,371.8	5,680.9	5,554.7	126.21	45.011					
5,700.0	5,663.0	5,782.5	5,782.5	14.7	113.7	56.75	2,871.1	4,371.8	5,680.9	5,552.5	128.40	44.245					
5,800.0	5,763.0	5,882.5	5,882.5	14.9	115.7	56.75	2,871.1	4,371.8	5,680.9	5,550.3	130.58	43.504					
5,900.0	5,863.0	5,982.5	5,982.5	15.1	117.7	56.75	2,871.1	4,371.8	5,680.9	5,548.1	132.77	42.787					
6,000.0	5,963.0	6,082.5	6,082.5	15.2	119.7	56.75	2,871.1	4,371.8	5,680.9	5,545.9	134.96	42.093					
6,100.0	6,063.0	6,182.5	6,182.5	15.4	121.7	56.75	2,871.1	4,371.8	5,680.9	5,543.7	137.15	41.421					
6,102.8	6,065.8	6,185.3	6,185.3	15.4	121.8	56.75	2,871.1	4,371.8	5,680.9	5,543.7	137.21	41.402					
6,150.0	6,112.9	6,232.4	6,232.4	15.5	122.7	-33.31	2,871.1	4,371.8	5,679.6	5,543.9	135.69	41.857					
6,200.0	6,162.7	6,282.2	6,282.2	15.5	123.7	-33.53	2,871.1	4,371.8	5,675.4	5,539.3	136.08	41.708					
6,250.0	6,211.9	6,331.4	6,331.4	15.6	124.7	-33.89	2,871.1	4,371.8	5,668.3	5,532.3	136.01	41.677					
6,300.0	6,260.5	6,380.0	6,380.0	15.6	125.7	-34.42	2,871.1	4,371.8	5,658.4	5,522.8	135.50	41.758					
6,350.0	6,308.1	6,427.6	6,427.6	15.6	126.7	-35.10	2,871.1	4,371.8	5,645.6	5,511.0	134.61	41.940					
6,400.0	6,354.5	6,474.0	6,474.0	15.6	127.6	-35.97	2,871.1	4,371.8	5,630.2	5,496.8	133.39	42.208					
6,450.0	6,399.5	6,519.0	6,519.0	15.6	128.5	-37.02	2,871.1	4,371.8	5,612.1	5,480.1	131.93	42.540					
6,500.0	6,442.9	6,562.4	6,562.4	15.5	129.4	-38.27	2,871.1	4,371.8	5,591.4	5,461.1	130.33	42.901					
6,550.0	6,484.5	6,604.0	6,604.0	15.5	130.2	-39.75	2,871.1	4,371.8	5,568.4	5,439.6	128.76	43.247					
6,600.0	6,524.0	6,643.5	6,643.5	15.5	131.0	-41.47	2,871.1	4,371.8	5,543.0	5,415.7	127.37	43.520					
6,650.0	6,561.3	6,680.8	6,680.8	15.6	131.8	-43.46	2,871.1	4,371.8	5,515.5	5,389.1	126.36	43.649					
6,700.0	6,596.1	6,715.6	6,715.6	15.6	132.5	-45.74	2,871.1	4,371.8	5,486.0	5,360.0	125.94	43.559					
6,750.0	6,628.4	6,747.9	6,747.9	15.7	133.1	-48.34	2,871.1	4,371.8	5,454.6	5,328.3	126.31	43.183					
6,800.0	6,658.0	6,777.5	6,777.5	15.9	133.7	-51.29	2,871.1	4,371.8	5,421.6	5,293.9	127.62	42.480					
6,850.0	6,684.6	6,804.1	6,804.1	16.2	134.2	-54.61	2,871.1	4,371.8	5,387.0	5,257.0	129.95	41.453					
6,900.0	6,708.3	6,827.8	6,827.8	16.5	134.7	-58.31	2,871.1	4,371.8	5,351.1	5,217.9	133.26	40.154					
6,950.0	6,728.8	6,848.3	6,848.3	17.0	135.1	-62.39	2,871.1	4,371.8	5,314.1	5,176.7	137.38	38.683					
7,000.0	6,746.1	6,865.6	6,865.6	17.6	135.5	-66.85	2,871.1	4,371.8	5,276.2	5,134.2	141.98	37.161					
7,050.0	6,760.0	6,879.5	6,879.5	18.3	135.7	-71.62	2,871.1	4,371.8	5,237.5	5,090.9	146.66	35.711					
7,100.0	6,770.6	6,890.1	6,890.1	19.1	136.0	-76.65	2,871.1	4,371.8	5,198.3	5,047.4	150.95	34.436					
7,150.0	6,777.8	6,897.3	6,897.3	19.9	136.1	-81.85	2,871.1	4,371.8	5,158.8	5,004.4	154.43	33.406					
7,200.0	6,781.5	6,901.0	6,901.0	20.8	136.2	-87.10	2,871.1	4,371.8	5,119.1	4,962.4	156.76	32.655					
7,232.6	6,782.0	6,901.5	6,901.5	21.4	136.2	-90.49	2,871.1	4,371.8	5,093.3	4,935.7	157.60	32.318					
7,300.0	6,781.5	6,901.0	6,901.0	22.7	136.2	-90.48	2,871.1	4,371.8	5,040.2	4,881.3	158.90	31.719					
7,400.0	6,780.9	6,900.4	6,900.4	24.8	136.2	-90.47	2,871.1	4,371.8	4,961.9	4,801.0	160.97	30.825					
7,500.0	6,780.2	6,899.7	6,899.7	27.0	136.2	-90.46	2,871.1	4,371.8	4,884.5	4,721.3	163.17	29.935					
7,600.0	6,779.5	6,899.0	6,899.0	29.4	136.1	-90.45	2,871.1	4,371.8	4,807.9	4,642.4	165.47	29.055					
7,700.0	6,778.9	6,898.4	6,898.4	31.8	136.1	-90.44	2,871.1	4,371.8	4,732.1	4,564.3	167.86	28.192					
7,800.0	6,778.2	6,897.7	6,897.7	34.2	136.1	-90.42	2,871.1	4,371.8	4,657.3	4,487.0	170.30	27.347					
7,900.0	6,777.5	6,897.0	6,897.0	36.7	136.1	-90.41	2,871.1	4,371.8	4,583.5	4,410.7	172.80	26.525					
8,000.0	6,776.9	6,896.4	6,896.4	39.3	136.1	-90.40	2,871.1	4,371.8	4,510.6	4,335.3	175.33	25.726					
8,100.0	6,776.2	6,895.7	6,895.7	41.9	136.1	-90.39	2,871.1	4,371.8	4,438.8	4,260.9	177.90	24.951					
8,200.0	6,775.5	6,895.0	6,895.0	44.5	136.1	-90.38	2,871.1	4,371.8	4,368.2	4,187.7	180.50	24.200					
8,300.0	6,774.9	6,894.4	6,894.4	47.1	136.0	-90.36	2,871.1	4,371.8	4,298.6	4,115.5	183.12	23.474					
8,400.0	6,774.2	6,893.7	6,893.7	49.8	136.0	-90.35	2,871.1	4,371.8	4,230.3	4,044.6	185.76	22.773					
8,500.0	6,773.5	6,893.0	6,893.0	52.4	136.0	-90.34	2,871.1	4,371.8	4,163.3	3,974.9	188.42	22.096					
8,600.0	6,772.9	6,892.4	6,892.4	55.1	136.0	-90.33	2,871.1	4,371.8	4,097.7	3,906.6	191.09	21.444					
8,700.0	6,772.2	6,891.7	6,891.7	57.8	136.0	-90.32	2,871.1	4,371.8	4,033.4	3,839.6	193.77	20.816					

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

# Anticollision Report



<b>Company:</b>	PDC ENERGY	<b>Local Co-ordinate Reference:</b>	Well KINZER 28I-202
<b>Project:</b>	WELD COUNTY, COLORADO	<b>TVD Reference:</b>	KB-EST @ 4797.5usft
<b>Reference Site:</b>	SW SW SEC. 28 T5N R67W 6th P.M.	<b>MD Reference:</b>	KB-EST @ 4797.5usft
<b>Site Error:</b>	0.0 usft	<b>North Reference:</b>	True
<b>Reference Well:</b>	KINZER 28I-202	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Well Error:</b>	0.0 usft	<b>Output errors are at</b>	2.00 sigma
<b>Reference Wellbore</b>	ORIGINAL WELLBORE	<b>Database:</b>	EDM 5000.1 Single User Db
<b>Reference Design:</b>	PROPOSAL #1	<b>Offset TVD Reference:</b>	Offset Datum

<b>Offset Design</b> SW SW SEC. 28 T5N R67W 6th P.M. - EXIST VERT HELEN 1 - Wellbore #1 - Design #1												<b>Offset Site Error:</b>	0.0 usft
Survey Program: 0-INC												<b>Offset Well Error:</b>	0.0 usft
Reference		Offset		Semi Major Axis			Distance						Warning
Measured Depth (usft)	Vertical Depth (usft)	Measured Depth (usft)	Vertical Depth (usft)	Reference (usft)	Offset (usft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (usft)	+E/-W (usft)	Between Centres (usft)	Between Ellipses (usft)	Minimum Separation (usft)	Separation Factor	
8,800.0	6,771.5	6,891.0	6,891.0	60.5	136.0	-90.30	2,871.1	4,371.8	3,970.6	3,774.2	196.46	20.211	
8,900.0	6,770.9	6,890.4	6,890.4	63.2	136.0	-90.29	2,871.1	4,371.8	3,909.4	3,710.2	199.16	19.629	
9,000.0	6,770.2	6,889.7	6,889.7	65.9	136.0	-90.28	2,871.1	4,371.8	3,849.8	3,647.9	201.87	19.071	
9,100.0	6,769.5	6,889.0	6,889.0	68.7	135.9	-90.27	2,871.1	4,371.8	3,791.9	3,587.3	204.58	18.535	
9,200.0	6,768.9	6,888.4	6,888.4	71.4	135.9	-90.25	2,871.1	4,371.8	3,735.7	3,528.4	207.31	18.020	
9,300.0	6,768.2	6,887.7	6,887.7	74.1	135.9	-90.24	2,871.1	4,371.8	3,681.5	3,471.4	210.03	17.528	
9,400.0	6,767.5	6,887.0	6,887.0	76.9	135.9	-90.23	2,871.1	4,371.8	3,629.2	3,416.4	212.77	17.057	
9,500.0	6,766.8	6,886.3	6,886.3	79.6	135.9	-90.22	2,871.1	4,371.8	3,578.9	3,363.4	215.50	16.607	
9,600.0	6,766.2	6,885.7	6,885.7	82.4	135.9	-90.21	2,871.1	4,371.8	3,530.7	3,312.4	218.24	16.178	
9,700.0	6,765.5	6,885.0	6,885.0	85.2	135.9	-90.19	2,871.1	4,371.8	3,484.7	3,263.7	220.99	15.769	
9,800.0	6,764.8	6,884.3	6,884.3	87.9	135.8	-90.18	2,871.1	4,371.8	3,441.0	3,217.3	223.73	15.380	
9,900.0	6,764.1	6,883.6	6,883.6	90.7	135.8	-90.17	2,871.1	4,371.8	3,399.7	3,173.2	226.49	15.011	
10,000.0	6,763.5	6,883.0	6,883.0	93.4	135.8	-90.16	2,871.1	4,371.8	3,360.9	3,131.7	229.24	14.661	
10,100.0	6,762.8	6,882.3	6,882.3	96.2	135.8	-90.14	2,871.1	4,371.8	3,324.6	3,092.6	231.99	14.331	
10,200.0	6,762.1	6,881.6	6,881.6	99.0	135.8	-90.13	2,871.1	4,371.8	3,291.0	3,056.2	234.75	14.019	
10,300.0	6,761.4	6,880.9	6,880.9	101.8	135.8	-90.12	2,871.1	4,371.8	3,260.1	3,022.6	237.51	13.726	
10,400.0	6,760.8	6,880.3	6,880.3	104.5	135.8	-90.11	2,871.1	4,371.8	3,232.0	2,991.7	240.27	13.451	
10,500.0	6,760.1	6,879.6	6,879.6	107.3	135.7	-90.09	2,871.1	4,371.8	3,206.7	2,963.7	243.04	13.194	
10,600.0	6,759.4	6,878.9	6,878.9	110.1	135.7	-90.08	2,871.1	4,371.8	3,184.4	2,938.6	245.80	12.955	
10,700.0	6,758.7	6,878.2	6,878.2	112.9	135.7	-90.07	2,871.1	4,371.8	3,165.1	2,916.6	248.57	12.733	
10,800.0	6,758.1	6,877.6	6,877.6	115.6	135.7	-90.06	2,871.1	4,371.8	3,148.9	2,897.6	251.34	12.529	
10,900.0	6,757.4	6,876.9	6,876.9	118.4	135.7	-90.05	2,871.1	4,371.8	3,135.8	2,881.7	254.11	12.340	
11,000.0	6,756.7	6,876.2	6,876.2	121.2	135.7	-90.03	2,871.1	4,371.8	3,125.8	2,868.9	256.88	12.168	
11,100.0	6,756.0	6,875.5	6,875.5	124.0	135.7	-90.02	2,871.1	4,371.8	3,119.0	2,859.3	259.65	12.012	
11,200.0	6,755.3	6,874.8	6,874.8	126.8	135.7	-90.01	2,871.1	4,371.8	3,115.4	2,852.9	262.42	11.872	
11,262.6	6,754.9	6,874.4	6,874.4	128.5	135.6	-90.00	2,871.1	4,371.8	3,114.7	2,850.6	264.16	11.791 CC	
11,300.0	6,754.7	6,874.2	6,874.2	129.6	135.6	-90.00	2,871.1	4,371.8	3,115.0	2,849.8	265.19	11.746 ES	
11,400.0	6,754.0	6,873.5	6,873.5	132.4	135.6	-89.98	2,871.1	4,371.8	3,117.8	2,849.8	267.97	11.635	
11,500.0	6,753.3	6,872.8	6,872.8	135.1	135.6	-89.97	2,871.1	4,371.8	3,123.8	2,853.0	270.74	11.538	
11,600.0	6,752.6	6,872.1	6,872.1	137.9	135.6	-89.96	2,871.1	4,371.8	3,132.9	2,859.4	273.52	11.454	
11,700.0	6,751.9	6,871.4	6,871.4	140.7	135.6	-89.95	2,871.1	4,371.8	3,145.3	2,869.0	276.30	11.384	
11,800.0	6,751.3	6,870.8	6,870.8	143.5	135.6	-89.93	2,871.1	4,371.8	3,160.7	2,881.7	279.07	11.326	
11,837.2	6,751.0	6,870.5	6,870.5	144.6	135.6	-89.93	2,871.1	4,371.8	3,167.3	2,887.2	280.11	11.307 SF	

# Anticollision Report



<b>Company:</b>	PDC ENERGY	<b>Local Co-ordinate Reference:</b>	Well KINZER 281-202
<b>Project:</b>	WELD COUNTY, COLORADO	<b>TVD Reference:</b>	KB-EST @ 4797.5usft
<b>Reference Site:</b>	SW SW SEC. 28 T5N R67W 6th P.M.	<b>MD Reference:</b>	KB-EST @ 4797.5usft
<b>Site Error:</b>	0.0 usft	<b>North Reference:</b>	True
<b>Reference Well:</b>	KINZER 281-202	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Well Error:</b>	0.0 usft	<b>Output errors are at</b>	2.00 sigma
<b>Reference Wellbore</b>	ORIGINAL WELLBORE	<b>Database:</b>	EDM 5000.1 Single User Db
<b>Reference Design:</b>	PROPOSAL #1	<b>Offset TVD Reference:</b>	Offset Datum

Offset Design												Offset Site Error:	0.0 usft
Survey Program: 0-INC												Offset Well Error:	0.0 usft
Reference		Offset		Semi Major Axis			Distance						Warning
Measured Depth (usft)	Vertical Depth (usft)	Measured Depth (usft)	Vertical Depth (usft)	Reference (usft)	Offset (usft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (usft)	+E/-W (usft)	Between Centres (usft)	Between Ellipses (usft)	Minimum Separation (usft)	Separation Factor	
0.0	0.0	35.5	35.5	0.0	0.2	6.72	1,821.5	214.6	1,834.1				
100.0	100.0	135.5	135.5	0.1	1.5	6.72	1,821.5	214.6	1,834.1	1,832.5	1.64	1,121.204	
200.0	200.0	235.5	235.5	0.3	3.8	6.72	1,821.5	214.6	1,834.1	1,830.0	4.16	440.742	
300.0	300.0	335.5	335.5	0.5	5.9	6.72	1,821.5	214.6	1,834.1	1,827.7	6.45	284.204	
400.0	400.0	435.5	435.5	0.8	7.9	6.72	1,821.5	214.6	1,834.1	1,825.4	8.72	210.452	
500.0	500.0	535.5	535.5	1.0	10.0	6.72	1,821.5	214.6	1,834.1	1,823.2	10.97	167.257	
600.0	600.0	635.5	635.5	1.2	12.0	6.72	1,821.5	214.6	1,834.1	1,820.9	13.21	138.828	
700.0	700.0	735.5	735.5	1.4	14.0	6.72	1,821.5	214.6	1,834.1	1,818.7	15.45	118.681	
800.0	800.0	835.5	835.5	1.7	16.0	6.72	1,821.5	214.6	1,834.1	1,816.4	17.70	103.652	
900.0	900.0	935.5	935.5	1.9	18.0	6.72	1,821.5	214.6	1,834.1	1,814.2	19.93	92.006	
1,000.0	1,000.0	1,035.5	1,035.5	2.1	20.1	6.72	1,821.5	214.6	1,834.1	1,812.0	22.17	82.716 CC	
1,100.0	1,100.0	1,135.5	1,135.5	2.3	22.1	129.47	1,821.5	214.6	1,835.2	1,810.9	24.39	75.261 ES	
1,200.0	1,199.8	1,235.3	1,235.3	2.5	24.1	129.54	1,821.5	214.6	1,838.6	1,812.0	26.57	69.207	
1,300.0	1,299.5	1,335.0	1,335.0	2.7	26.1	129.66	1,821.5	214.6	1,844.1	1,815.4	28.74	64.171	
1,400.0	1,398.7	1,434.2	1,434.2	3.0	28.1	129.83	1,821.5	214.6	1,852.0	1,821.1	30.90	59.937	
1,500.0	1,497.5	1,533.0	1,533.0	3.2	30.1	130.04	1,821.5	214.6	1,862.1	1,829.0	33.05	56.345	
1,502.5	1,500.0	1,535.5	1,535.5	3.2	30.1	130.05	1,821.5	214.6	1,862.4	1,829.3	33.10	56.262	
1,600.0	1,595.9	1,631.4	1,631.4	3.5	32.0	130.44	1,821.5	214.6	1,873.5	1,838.2	35.27	53.111	
1,700.0	1,694.4	1,729.9	1,729.9	3.8	34.0	130.84	1,821.5	214.6	1,884.9	1,847.4	37.52	50.244	
1,800.0	1,792.9	1,828.4	1,828.4	4.2	36.0	131.24	1,821.5	214.6	1,896.5	1,856.7	39.77	47.691	
1,900.0	1,891.3	1,926.8	1,926.8	4.5	38.0	131.63	1,821.5	214.6	1,908.1	1,866.1	42.02	45.406	
2,000.0	1,989.8	2,025.3	2,025.3	4.9	40.0	132.02	1,821.5	214.6	1,919.9	1,875.6	44.29	43.351	
2,100.0	2,088.3	2,123.8	2,123.8	5.2	42.0	132.40	1,821.5	214.6	1,931.7	1,885.1	46.55	41.495	
2,200.0	2,186.7	2,222.2	2,222.2	5.6	43.9	132.77	1,821.5	214.6	1,943.6	1,894.8	48.82	39.811	
2,300.0	2,285.2	2,320.7	2,320.7	6.0	45.9	133.15	1,821.5	214.6	1,955.6	1,904.5	51.09	38.276	
2,400.0	2,383.7	2,419.2	2,419.2	6.4	47.9	133.51	1,821.5	214.6	1,967.7	1,914.3	53.36	36.873	
2,500.0	2,482.1	2,517.6	2,517.6	6.7	49.9	133.88	1,821.5	214.6	1,979.8	1,924.2	55.64	35.585	
2,600.0	2,580.6	2,616.1	2,616.1	7.1	51.9	134.24	1,821.5	214.6	1,992.1	1,934.1	57.91	34.400	
2,700.0	2,679.1	2,714.6	2,714.6	7.5	53.8	134.59	1,821.5	214.6	2,004.4	1,944.2	60.18	33.305	
2,800.0	2,777.5	2,813.0	2,813.0	7.9	55.8	134.94	1,821.5	214.6	2,016.8	1,954.3	62.45	32.292	
2,900.0	2,876.0	2,911.5	2,911.5	8.3	57.8	135.29	1,821.5	214.6	2,029.2	1,964.5	64.73	31.351	
3,000.0	2,974.4	3,009.9	3,009.9	8.7	59.8	135.63	1,821.5	214.6	2,041.7	1,974.7	67.00	30.475	
3,100.0	3,072.9	3,108.4	3,108.4	9.1	61.8	135.97	1,821.5	214.6	2,054.3	1,985.1	69.27	29.658	
3,200.0	3,171.4	3,206.9	3,206.9	9.5	63.7	136.30	1,821.5	214.6	2,067.0	1,995.5	71.54	28.895	
3,300.0	3,269.8	3,305.3	3,305.3	9.9	65.7	136.63	1,821.5	214.6	2,079.8	2,006.0	73.81	28.179	
3,400.0	3,368.3	3,403.8	3,403.8	10.3	67.7	136.96	1,821.5	214.6	2,092.6	2,016.5	76.07	27.508	
3,500.0	3,466.8	3,502.3	3,502.3	10.7	69.7	137.28	1,821.5	214.6	2,105.5	2,027.1	78.34	26.876	
3,580.8	3,546.3	3,581.8	3,581.8	11.0	71.3	137.54	1,821.5	214.6	2,115.9	2,035.7	80.17	26.393	
3,600.0	3,565.3	3,600.8	3,600.8	11.1	71.7	137.63	1,821.5	214.6	2,118.4	2,037.7	80.64	26.269	
3,700.0	3,664.1	3,699.6	3,699.6	11.3	73.6	138.05	1,821.5	214.6	2,129.6	2,046.5	83.05	25.642	
3,800.0	3,763.4	3,798.9	3,798.9	11.6	75.6	138.38	1,821.5	214.6	2,138.3	2,052.9	85.41	25.034	
3,900.0	3,863.1	3,898.6	3,898.6	11.8	77.6	138.60	1,821.5	214.6	2,144.4	2,056.6	87.72	24.445	
4,000.0	3,963.0	3,998.5	3,998.5	12.0	79.7	138.73	1,821.5	214.6	2,147.9	2,057.9	89.97	23.873	
4,083.3	4,046.3	4,081.8	4,081.8	12.1	81.3	16.04	1,821.5	214.6	2,148.8	2,056.5	92.23	23.297	
4,100.0	4,063.0	4,098.5	4,098.5	12.1	81.7	16.04	1,821.5	214.6	2,148.8	2,056.2	92.60	23.206	
4,200.0	4,163.0	4,198.5	4,198.5	12.3	83.7	16.04	1,821.5	214.6	2,148.8	2,054.0	94.77	22.674	
4,300.0	4,263.0	4,298.5	4,298.5	12.4	85.7	16.04	1,821.5	214.6	2,148.8	2,051.8	96.94	22.166	
4,400.0	4,363.0	4,398.5	4,398.5	12.6	87.7	16.04	1,821.5	214.6	2,148.8	2,049.7	99.11	21.680	
4,500.0	4,463.0	4,498.5	4,498.5	12.7	89.7	16.04	1,821.5	214.6	2,148.8	2,047.5	101.29	21.214	
4,600.0	4,563.0	4,598.5	4,598.5	12.9	91.7	16.04	1,821.5	214.6	2,148.8	2,045.3	103.47	20.768	
4,700.0	4,663.0	4,698.5	4,698.5	13.0	93.7	16.04	1,821.5	214.6	2,148.8	2,043.1	105.65	20.339	
4,800.0	4,763.0	4,798.5	4,798.5	13.2	95.7	16.04	1,821.5	214.6	2,148.8	2,040.9	107.83	19.928	

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

# Anticollision Report



<b>Company:</b>	PDC ENERGY	<b>Local Co-ordinate Reference:</b>	Well KINZER 281-202
<b>Project:</b>	WELD COUNTY, COLORADO	<b>TVD Reference:</b>	KB-EST @ 4797.5usft
<b>Reference Site:</b>	SW SW SEC. 28 T5N R67W 6th P.M.	<b>MD Reference:</b>	KB-EST @ 4797.5usft
<b>Site Error:</b>	0.0 usft	<b>North Reference:</b>	True
<b>Reference Well:</b>	KINZER 281-202	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Well Error:</b>	0.0 usft	<b>Output errors are at</b>	2.00 sigma
<b>Reference Wellbore</b>	ORIGINAL WELLBORE	<b>Database:</b>	EDM 5000.1 Single User Db
<b>Reference Design:</b>	PROPOSAL #1	<b>Offset TVD Reference:</b>	Offset Datum

Offset Design												Offset Site Error:	0.0 usft
Survey Program: 0-INC												Offset Well Error:	0.0 usft
Reference		Offset		Semi Major Axis			Distance						Warning
Measured Depth (usft)	Vertical Depth (usft)	Measured Depth (usft)	Vertical Depth (usft)	Reference (usft)	Offset (usft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (usft)	+E/-W (usft)	Between Centres (usft)	Between Ellipses (usft)	Minimum Separation (usft)	Separation Factor	
4,900.0	4,863.0	4,898.5	4,898.5	13.4	97.8	16.04	1,821.5	214.6	2,148.8	2,038.8	110.01	19.532	
5,000.0	4,963.0	4,998.5	4,998.5	13.5	99.8	16.04	1,821.5	214.6	2,148.8	2,036.6	112.20	19.152	
5,100.0	5,063.0	5,098.5	5,098.5	13.7	101.8	16.04	1,821.5	214.6	2,148.8	2,034.4	114.38	18.785	
5,200.0	5,163.0	5,198.5	5,198.5	13.9	103.8	16.04	1,821.5	214.6	2,148.8	2,032.2	116.57	18.433	
5,300.0	5,263.0	5,298.5	5,298.5	14.0	105.8	16.04	1,821.5	214.6	2,148.8	2,030.0	118.76	18.093	
5,400.0	5,363.0	5,398.5	5,398.5	14.2	107.8	16.04	1,821.5	214.6	2,148.8	2,027.8	120.95	17.765	
5,500.0	5,463.0	5,498.5	5,498.5	14.4	109.8	16.04	1,821.5	214.6	2,148.8	2,025.6	123.15	17.449	
5,600.0	5,563.0	5,598.5	5,598.5	14.5	111.8	16.04	1,821.5	214.6	2,148.8	2,023.4	125.34	17.143	
5,700.0	5,663.0	5,698.5	5,698.5	14.7	113.8	16.04	1,821.5	214.6	2,148.8	2,021.2	127.54	16.848	
5,800.0	5,763.0	5,798.5	5,798.5	14.9	115.9	16.04	1,821.5	214.6	2,148.8	2,019.0	129.73	16.563	
5,900.0	5,863.0	5,898.5	5,898.5	15.1	117.9	16.04	1,821.5	214.6	2,148.8	2,016.8	131.93	16.287	
6,000.0	5,963.0	5,998.5	5,998.5	15.2	119.9	16.04	1,821.5	214.6	2,148.8	2,014.6	134.13	16.020	
6,100.0	6,063.0	6,098.5	6,098.5	15.4	121.9	16.04	1,821.5	214.6	2,148.8	2,012.4	136.33	15.762	
6,102.8	6,065.8	6,101.3	6,101.3	15.4	121.9	16.04	1,821.5	214.6	2,148.8	2,012.4	136.39	15.755	
6,150.0	6,112.9	6,148.4	6,148.4	15.5	122.9	-74.03	1,821.5	214.6	2,148.3	2,011.2	137.13	15.666	
6,200.0	6,162.7	6,198.2	6,198.2	15.5	123.9	-74.27	1,821.5	214.6	2,147.0	2,008.8	138.13	15.543	
6,250.0	6,211.9	6,247.4	6,247.4	15.6	124.9	-74.66	1,821.5	214.6	2,144.7	2,005.6	139.07	15.422	
6,300.0	6,260.5	6,296.0	6,296.0	15.6	125.9	-75.21	1,821.5	214.6	2,141.5	2,001.5	139.96	15.301	
6,350.0	6,308.1	6,343.6	6,343.6	15.6	126.8	-75.89	1,821.5	214.6	2,137.5	1,996.7	140.82	15.179	
6,400.0	6,354.5	6,390.0	6,390.0	15.6	127.8	-76.71	1,821.5	214.6	2,132.8	1,991.1	141.67	15.055	
6,450.0	6,399.5	6,435.0	6,435.0	15.6	128.7	-77.65	1,821.5	214.6	2,127.5	1,984.9	142.52	14.927	
6,500.0	6,442.9	6,478.4	6,478.4	15.5	129.5	-78.68	1,821.5	214.6	2,121.6	1,978.2	143.39	14.796	
6,550.0	6,484.5	6,520.0	6,520.0	15.5	130.4	-79.79	1,821.5	214.6	2,115.4	1,971.1	144.29	14.661	
6,600.0	6,524.0	6,559.5	6,559.5	15.5	131.2	-80.95	1,821.5	214.6	2,109.0	1,963.8	145.22	14.523	
6,650.0	6,561.3	6,596.8	6,596.8	15.6	131.9	-82.14	1,821.5	214.6	2,102.5	1,956.3	146.18	14.383	
6,700.0	6,596.1	6,631.6	6,631.6	15.6	132.6	-83.34	1,821.5	214.6	2,096.1	1,948.9	147.17	14.242	
6,750.0	6,628.4	6,663.9	6,663.9	15.7	133.3	-84.51	1,821.5	214.6	2,089.9	1,941.7	148.18	14.104	
6,800.0	6,658.0	6,693.5	6,693.5	15.9	133.9	-85.63	1,821.5	214.6	2,084.1	1,934.9	149.19	13.969	
6,850.0	6,684.6	6,720.1	6,720.1	16.2	134.4	-86.68	1,821.5	214.6	2,078.8	1,928.6	150.21	13.840	
6,900.0	6,708.3	6,743.8	6,743.8	16.5	134.9	-87.62	1,821.5	214.6	2,074.2	1,923.0	151.22	13.717	
6,950.0	6,728.8	6,764.3	6,764.3	17.0	135.3	-88.44	1,821.5	214.6	2,070.5	1,918.2	152.22	13.601	
7,000.0	6,746.1	6,781.6	6,781.6	17.6	135.6	-89.12	1,821.5	214.6	2,067.6	1,914.4	153.22	13.494	
7,050.0	6,760.0	6,795.5	6,795.5	18.3	135.9	-89.64	1,821.5	214.6	2,065.8	1,911.6	154.22	13.396	
7,100.0	6,770.6	6,806.1	6,806.1	19.1	136.1	-89.98	1,821.5	214.6	2,065.1	1,909.9	155.21	13.306	
7,104.7	6,771.4	6,806.9	6,806.9	19.2	136.1	-90.00	1,821.5	214.6	2,065.1	1,909.8	155.30	13.298	
7,150.0	6,777.8	6,813.3	6,813.3	19.9	136.3	-90.13	1,821.5	214.6	2,065.6	1,909.4	156.18	13.226	
7,200.0	6,781.5	6,817.0	6,817.0	20.8	136.3	-90.10	1,821.5	214.6	2,067.3	1,910.2	157.15	13.155	
7,232.6	6,782.0	6,817.5	6,817.5	21.4	136.4	-89.98	1,821.5	214.6	2,069.1	1,911.3	157.76	13.115	
7,300.0	6,781.5	6,817.0	6,817.0	22.7	136.3	-89.96	1,821.5	214.6	2,074.3	1,915.2	159.06	13.041	
7,400.0	6,780.9	6,816.4	6,816.4	24.8	136.3	-89.95	1,821.5	214.6	2,086.1	1,924.9	161.13	12.946	
7,500.0	6,780.2	6,815.7	6,815.7	27.0	136.3	-89.93	1,821.5	214.6	2,102.5	1,939.2	163.33	12.873	
7,600.0	6,779.5	6,815.0	6,815.0	29.4	136.3	-89.91	1,821.5	214.6	2,123.6	1,957.9	165.63	12.821	
7,700.0	6,778.9	6,814.4	6,814.4	31.8	136.3	-89.89	1,821.5	214.6	2,149.1	1,981.0	168.02	12.791	
7,800.0	6,778.2	6,813.7	6,813.7	34.2	136.3	-89.87	1,821.5	214.6	2,178.9	2,008.4	170.46	12.782 SF	
7,900.0	6,777.5	6,813.0	6,813.0	36.7	136.3	-89.85	1,821.5	214.6	2,212.8	2,039.8	172.96	12.794	
8,000.0	6,776.9	6,812.4	6,812.4	39.3	136.2	-89.83	1,821.5	214.6	2,250.6	2,075.1	175.49	12.824	
8,100.0	6,776.2	6,811.7	6,811.7	41.9	136.2	-89.82	1,821.5	214.6	2,292.2	2,114.1	178.06	12.873	
8,200.0	6,775.5	6,811.0	6,811.0	44.5	136.2	-89.80	1,821.5	214.6	2,337.3	2,156.7	180.66	12.938	
8,300.0	6,774.9	6,810.4	6,810.4	47.1	136.2	-89.78	1,821.5	214.6	2,385.8	2,202.5	183.28	13.017	
8,400.0	6,774.2	6,809.7	6,809.7	49.8	136.2	-89.76	1,821.5	214.6	2,437.4	2,251.5	185.92	13.110	
8,500.0	6,773.5	6,809.0	6,809.0	52.4	136.2	-89.74	1,821.5	214.6	2,492.0	2,303.4	188.57	13.215	
8,600.0	6,772.9	6,808.4	6,808.4	55.1	136.2	-89.72	1,821.5	214.6	2,549.3	2,358.0	191.24	13.330	

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



# Anticollision Report



<b>Company:</b>	PDC ENERGY	<b>Local Co-ordinate Reference:</b>	Well KINZER 28I-202
<b>Project:</b>	WELD COUNTY, COLORADO	<b>TVD Reference:</b>	KB-EST @ 4797.5usft
<b>Reference Site:</b>	SW SW SEC. 28 T5N R67W 6th P.M.	<b>MD Reference:</b>	KB-EST @ 4797.5usft
<b>Site Error:</b>	0.0 usft	<b>North Reference:</b>	True
<b>Reference Well:</b>	KINZER 28I-202	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Well Error:</b>	0.0 usft	<b>Output errors are at</b>	2.00 sigma
<b>Reference Wellbore</b>	ORIGINAL WELLBORE	<b>Database:</b>	EDM 5000.1 Single User Db
<b>Reference Design:</b>	PROPOSAL #1	<b>Offset TVD Reference:</b>	Offset Datum

<b>Offset Design</b> SW SW SEC. 28 T5N R67W 6th P.M. - EXIST VERT KINZER 13-28 - Wellbore #1 - Design #1												<b>Offset Site Error:</b>	0.0 usft
Survey Program: 0-INC												<b>Offset Well Error:</b>	0.0 usft
Reference		Offset		Semi Major Axis			Distance						Warning
Measured Depth (usft)	Vertical Depth (usft)	Measured Depth (usft)	Vertical Depth (usft)	Reference (usft)	Offset (usft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (usft)	+E/-W (usft)	Between Centres (usft)	Between Ellipses (usft)	Minimum Separation (usft)	Separation Factor	
8,700.0	6,772.2	6,807.7	6,807.7	57.8	136.2	-89.70	1,821.5	214.6	2,609.2	2,415.2	193.92	13.455	
8,800.0	6,771.5	6,807.0	6,807.0	60.5	136.1	-89.69	1,821.5	214.6	2,671.5	2,474.8	196.61	13.587	
8,900.0	6,770.9	6,806.4	6,806.4	63.2	136.1	-89.67	1,821.5	214.6	2,736.0	2,536.7	199.32	13.727	
9,000.0	6,770.2	6,805.7	6,805.7	65.9	136.1	-89.65	1,821.5	214.6	2,802.6	2,600.6	202.02	13.873	
9,100.0	6,769.5	6,805.0	6,805.0	68.7	136.1	-89.63	1,821.5	214.6	2,871.1	2,666.4	204.74	14.023	
9,200.0	6,768.9	6,804.4	6,804.4	71.4	136.1	-89.61	1,821.5	214.6	2,941.5	2,734.0	207.46	14.179	
9,300.0	6,768.2	6,803.7	6,803.7	74.1	136.1	-89.59	1,821.5	214.6	3,013.5	2,803.3	210.19	14.337	
9,400.0	6,767.5	6,803.0	6,803.0	76.9	136.1	-89.57	1,821.5	214.6	3,087.1	2,874.2	212.92	14.499	
9,500.0	6,766.8	6,802.3	6,802.3	79.6	136.0	-89.55	1,821.5	214.6	3,162.1	2,946.5	215.65	14.663	
9,600.0	6,766.2	6,801.7	6,801.7	82.4	136.0	-89.53	1,821.5	214.6	3,238.5	3,020.1	218.39	14.829	
9,700.0	6,765.5	6,801.0	6,801.0	85.2	136.0	-89.52	1,821.5	214.6	3,316.2	3,095.0	221.14	14.996	
9,800.0	6,764.8	6,800.3	6,800.3	87.9	136.0	-89.50	1,821.5	214.6	3,395.0	3,171.1	223.88	15.164	
9,900.0	6,764.1	6,799.6	6,799.6	90.7	136.0	-89.48	1,821.5	214.6	3,474.9	3,248.2	226.63	15.333	
10,000.0	6,763.5	6,799.0	6,799.0	93.4	136.0	-89.46	1,821.5	214.6	3,555.8	3,326.4	229.39	15.501	
10,100.0	6,762.8	6,798.3	6,798.3	96.2	136.0	-89.44	1,821.5	214.6	3,637.7	3,405.5	232.14	15.670	
10,200.0	6,762.1	6,797.6	6,797.6	99.0	136.0	-89.42	1,821.5	214.6	3,720.4	3,485.5	234.90	15.838	
10,300.0	6,761.4	6,796.9	6,796.9	101.8	135.9	-89.40	1,821.5	214.6	3,804.0	3,566.3	237.66	16.006	
10,400.0	6,760.8	6,796.3	6,796.3	104.5	135.9	-89.38	1,821.5	214.6	3,888.4	3,647.9	240.42	16.173	
10,500.0	6,760.1	6,795.6	6,795.6	107.3	135.9	-89.36	1,821.5	214.6	3,973.4	3,730.3	243.18	16.340	
10,600.0	6,759.4	6,794.9	6,794.9	110.1	135.9	-89.34	1,821.5	214.6	4,059.2	3,813.3	245.94	16.505	
10,700.0	6,758.7	6,794.2	6,794.2	112.9	135.9	-89.32	1,821.5	214.6	4,145.6	3,896.9	248.71	16.668	
10,800.0	6,758.1	6,793.6	6,793.6	115.6	135.9	-89.30	1,821.5	214.6	4,232.6	3,981.1	251.48	16.831	
10,900.0	6,757.4	6,792.9	6,792.9	118.4	135.9	-89.29	1,821.5	214.6	4,320.2	4,065.9	254.24	16.992	
11,000.0	6,756.7	6,792.2	6,792.2	121.2	135.8	-89.27	1,821.5	214.6	4,408.3	4,151.3	257.01	17.152	
11,100.0	6,756.0	6,791.5	6,791.5	124.0	135.8	-89.25	1,821.5	214.6	4,496.9	4,237.1	259.78	17.310	
11,200.0	6,755.3	6,790.8	6,790.8	126.8	135.8	-89.23	1,821.5	214.6	4,585.9	4,323.4	262.55	17.466	
11,300.0	6,754.7	6,790.2	6,790.2	129.6	135.8	-89.21	1,821.5	214.6	4,675.4	4,410.1	265.33	17.621	
11,400.0	6,754.0	6,789.5	6,789.5	132.4	135.8	-89.19	1,821.5	214.6	4,765.3	4,497.2	268.10	17.774	
11,500.0	6,753.3	6,788.8	6,788.8	135.1	135.8	-89.17	1,821.5	214.6	4,855.6	4,584.8	270.87	17.926	
11,600.0	6,752.6	6,788.1	6,788.1	137.9	135.8	-89.15	1,821.5	214.6	4,946.3	4,672.7	273.65	18.075	
11,700.0	6,751.9	6,787.4	6,787.4	140.7	135.7	-89.13	1,821.5	214.6	5,037.4	4,760.9	276.42	18.223	
11,800.0	6,751.3	6,786.8	6,786.8	143.5	135.7	-89.11	1,821.5	214.6	5,128.7	4,849.5	279.20	18.369	
11,837.2	6,751.0	6,786.5	6,786.5	144.6	135.7	-89.10	1,821.5	214.6	5,162.9	4,882.6	280.23	18.423	

# Anticollision Report



<b>Company:</b>	PDC ENERGY	<b>Local Co-ordinate Reference:</b>	Well KINZER 281-202
<b>Project:</b>	WELD COUNTY, COLORADO	<b>TVD Reference:</b>	KB-EST @ 4797.5usft
<b>Reference Site:</b>	SW SW SEC. 28 T5N R67W 6th P.M.	<b>MD Reference:</b>	KB-EST @ 4797.5usft
<b>Site Error:</b>	0.0 usft	<b>North Reference:</b>	True
<b>Reference Well:</b>	KINZER 281-202	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Well Error:</b>	0.0 usft	<b>Output errors are at</b>	2.00 sigma
<b>Reference Wellbore</b>	ORIGINAL WELLBORE	<b>Database:</b>	EDM 5000.1 Single User Db
<b>Reference Design:</b>	PROPOSAL #1	<b>Offset TVD Reference:</b>	Offset Datum

Offset Design												Offset Site Error:	0.0 usft
Survey Program: 0-INC												Offset Well Error:	0.0 usft
Reference		Offset		Semi Major Axis			Distance						Warning
Measured Depth (usft)	Vertical Depth (usft)	Measured Depth (usft)	Vertical Depth (usft)	Reference (usft)	Offset (usft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (usft)	+E/-W (usft)	Between Centres (usft)	Between Ellipses (usft)	Minimum Separation (usft)	Separation Factor	
0.0	0.0	0.0	0.0	0.0	0.0	83.04	36.4	298.2	300.5				
100.0	100.0	92.5	92.5	0.1	1.2	83.04	36.4	298.2	300.4	299.1	1.25	239.388	
200.0	200.0	192.5	192.5	0.3	3.4	83.04	36.4	298.2	300.4	296.7	3.68	81.614	
300.0	300.0	292.5	292.5	0.5	5.5	83.04	36.4	298.2	300.4	294.4	6.00	50.084	
400.0	400.0	392.5	392.5	0.8	7.5	83.04	36.4	298.2	300.4	292.1	8.27	36.336	
500.0	500.0	492.5	492.5	1.0	9.5	83.04	36.4	298.2	300.4	289.9	10.52	28.549	
600.0	600.0	592.5	592.5	1.2	11.5	83.04	36.4	298.2	300.4	287.6	12.77	23.524	
700.0	700.0	692.5	692.5	1.4	13.6	83.04	36.4	298.2	300.4	285.4	15.01	20.007	
800.0	800.0	792.5	792.5	1.7	15.6	83.04	36.4	298.2	300.4	283.1	17.26	17.408	
900.0	900.0	892.5	892.5	1.9	17.6	83.04	36.4	298.2	300.4	280.9	19.50	15.407	
1,000.0	1,000.0	992.5	992.5	2.1	19.6	83.04	36.4	298.2	300.4	278.7	21.74	13.820	
1,100.0	1,100.0	1,092.5	1,092.5	2.3	21.6	-154.37	36.4	298.2	302.0	278.0	23.94	12.613	
1,200.0	1,199.8	1,192.3	1,192.3	2.5	23.6	-154.75	36.4	298.2	306.7	280.6	26.10	11.750	
1,300.0	1,299.5	1,292.0	1,292.0	2.7	25.6	-155.36	36.4	298.2	314.6	286.4	28.23	11.145	
1,400.0	1,398.7	1,391.2	1,391.2	3.0	27.6	-156.17	36.4	298.2	325.7	295.4	30.31	10.745	
1,500.0	1,497.5	1,490.0	1,490.0	3.2	29.6	-157.12	36.4	298.2	340.1	307.8	32.35	10.513	
1,502.5	1,500.0	1,492.5	1,492.5	3.2	29.7	-157.14	36.4	298.2	340.5	308.1	32.40	10.510	
1,600.0	1,595.9	1,588.4	1,588.4	3.5	31.6	-158.20	36.4	298.2	356.3	321.8	34.52	10.321	
1,700.0	1,694.4	1,686.9	1,686.9	3.8	33.6	-159.20	36.4	298.2	372.6	335.9	36.70	10.152	
1,800.0	1,792.9	1,785.4	1,785.4	4.2	35.6	-160.11	36.4	298.2	389.0	350.1	38.88	10.003	
1,900.0	1,891.3	1,883.8	1,883.8	4.5	37.6	-160.95	36.4	298.2	405.5	364.4	41.07	9.872	
2,000.0	1,989.8	1,982.3	1,982.3	4.9	39.5	-161.72	36.4	298.2	422.0	378.8	43.26	9.755	
2,100.0	2,088.3	2,080.8	2,080.8	5.2	41.5	-162.43	36.4	298.2	438.6	393.2	45.46	9.650	
2,200.0	2,186.7	2,179.2	2,179.2	5.6	43.5	-163.09	36.4	298.2	455.3	407.7	47.65	9.556	
2,300.0	2,285.2	2,277.7	2,277.7	6.0	45.5	-163.71	36.4	298.2	472.1	422.2	49.85	9.471	
2,400.0	2,383.7	2,376.2	2,376.2	6.4	47.5	-164.28	36.4	298.2	488.9	436.8	52.04	9.394	
2,500.0	2,482.1	2,474.6	2,474.6	6.7	49.4	-164.82	36.4	298.2	505.7	451.5	54.24	9.324	
2,600.0	2,580.6	2,573.1	2,573.1	7.1	51.4	-165.32	36.4	298.2	522.6	466.2	56.44	9.260	
2,700.0	2,679.1	2,671.6	2,671.6	7.5	53.4	-165.79	36.4	298.2	539.5	480.9	58.64	9.201	
2,800.0	2,777.5	2,770.0	2,770.0	7.9	55.4	-166.23	36.4	298.2	556.5	495.6	60.84	9.147	
2,900.0	2,876.0	2,868.5	2,868.5	8.3	57.4	-166.64	36.4	298.2	573.4	510.4	63.04	9.097	
3,000.0	2,974.4	2,966.9	2,966.9	8.7	59.3	-167.03	36.4	298.2	590.4	525.2	65.24	9.051	
3,100.0	3,072.9	3,065.4	3,065.4	9.1	61.3	-167.40	36.4	298.2	607.5	540.0	67.44	9.008	
3,200.0	3,171.4	3,163.9	3,163.9	9.5	63.3	-167.75	36.4	298.2	624.5	554.9	69.64	8.969	
3,300.0	3,269.8	3,262.3	3,262.3	9.9	65.3	-168.08	36.4	298.2	641.6	569.8	71.84	8.932	
3,400.0	3,368.3	3,360.8	3,360.8	10.3	67.3	-168.40	36.4	298.2	658.7	584.7	74.04	8.897	
3,500.0	3,466.8	3,459.3	3,459.3	10.7	69.2	-168.69	36.4	298.2	675.8	599.6	76.24	8.865	
3,580.8	3,546.3	3,538.8	3,538.8	11.0	70.8	-168.92	36.4	298.2	689.7	611.6	78.02	8.840	
3,600.0	3,565.3	3,557.8	3,557.8	11.1	71.2	-168.99	36.4	298.2	692.9	614.4	78.52	8.825	
3,700.0	3,664.1	3,656.6	3,656.6	11.3	73.2	-169.28	36.4	298.2	707.7	626.6	81.06	8.730	
3,800.0	3,763.4	3,755.9	3,755.9	11.6	75.2	-169.49	36.4	298.2	719.1	635.6	83.53	8.609	
3,900.0	3,863.1	3,855.6	3,855.6	11.8	77.2	-169.64	36.4	298.2	727.1	641.2	85.92	8.462	
4,000.0	3,963.0	3,955.5	3,955.5	12.0	79.2	-169.72	36.4	298.2	731.7	643.5	88.22	8.294	
4,083.3	4,046.3	4,038.8	4,038.8	12.1	80.9	67.54	36.4	298.2	732.9	640.0	92.91	7.888	
4,100.0	4,063.0	4,055.5	4,055.5	12.1	81.2	67.54	36.4	298.2	732.9	639.6	93.27	7.857	
4,200.0	4,163.0	4,155.5	4,155.5	12.3	83.2	67.54	36.4	298.2	732.9	637.4	95.43	7.680	
4,300.0	4,263.0	4,255.5	4,255.5	12.4	85.3	67.54	36.4	298.2	732.9	635.3	97.59	7.509	
4,400.0	4,363.0	4,355.5	4,355.5	12.6	87.3	67.54	36.4	298.2	732.9	633.1	99.76	7.347	
4,500.0	4,463.0	4,455.5	4,455.5	12.7	89.3	67.54	36.4	298.2	732.9	631.0	101.92	7.190	
4,600.0	4,563.0	4,555.5	4,555.5	12.9	91.3	67.54	36.4	298.2	732.9	628.8	104.09	7.041	
4,700.0	4,663.0	4,655.5	4,655.5	13.0	93.3	67.54	36.4	298.2	732.9	626.6	106.26	6.897	
4,800.0	4,763.0	4,755.5	4,755.5	13.2	95.3	67.54	36.4	298.2	732.9	624.4	108.43	6.759	

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

# Anticollision Report



<b>Company:</b>	PDC ENERGY	<b>Local Co-ordinate Reference:</b>	Well KINZER 281-202
<b>Project:</b>	WELD COUNTY, COLORADO	<b>TVD Reference:</b>	KB-EST @ 4797.5usft
<b>Reference Site:</b>	SW SW SEC. 28 T5N R67W 6th P.M.	<b>MD Reference:</b>	KB-EST @ 4797.5usft
<b>Site Error:</b>	0.0 usft	<b>North Reference:</b>	True
<b>Reference Well:</b>	KINZER 281-202	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Well Error:</b>	0.0 usft	<b>Output errors are at</b>	2.00 sigma
<b>Reference Wellbore</b>	ORIGINAL WELLBORE	<b>Database:</b>	EDM 5000.1 Single User Db
<b>Reference Design:</b>	PROPOSAL #1	<b>Offset TVD Reference:</b>	Offset Datum

Offset Design												Offset Site Error:	0.0 usft
Survey Program: 0-INC												Offset Well Error:	0.0 usft
Reference		Offset		Semi Major Axis			Distance						Warning
Measured Depth (usft)	Vertical Depth (usft)	Measured Depth (usft)	Vertical Depth (usft)	Reference (usft)	Offset (usft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (usft)	+E/-W (usft)	Between Centres (usft)	Between Ellipses (usft)	Minimum Separation (usft)	Separation Factor	
4,900.0	4,863.0	4,855.5	4,855.5	13.4	97.3	67.54	36.4	298.2	732.9	622.3	110.61	6.626	
5,000.0	4,963.0	4,955.5	4,955.5	13.5	99.3	67.54	36.4	298.2	732.9	620.1	112.78	6.498	
5,100.0	5,063.0	5,055.5	5,055.5	13.7	101.3	67.54	36.4	298.2	732.9	617.9	114.96	6.375	
5,200.0	5,163.0	5,155.5	5,155.5	13.9	103.4	67.54	36.4	298.2	732.9	615.7	117.14	6.256	
5,300.0	5,263.0	5,255.5	5,255.5	14.0	105.4	67.54	36.4	298.2	732.9	613.6	119.32	6.142	
5,400.0	5,363.0	5,355.5	5,355.5	14.2	107.4	67.54	36.4	298.2	732.9	611.4	121.50	6.032	
5,500.0	5,463.0	5,455.5	5,455.5	14.4	109.4	67.54	36.4	298.2	732.9	609.2	123.69	5.925	
5,600.0	5,563.0	5,555.5	5,555.5	14.5	111.4	67.54	36.4	298.2	732.9	607.0	125.87	5.822	
5,700.0	5,663.0	5,655.5	5,655.5	14.7	113.4	67.54	36.4	298.2	732.9	604.8	128.06	5.723	
5,800.0	5,763.0	5,755.5	5,755.5	14.9	115.4	67.54	36.4	298.2	732.9	602.6	130.25	5.627	
5,900.0	5,863.0	5,855.5	5,855.5	15.1	117.4	67.54	36.4	298.2	732.9	600.4	132.44	5.534	
6,000.0	5,963.0	5,955.5	5,955.5	15.2	119.4	67.54	36.4	298.2	732.9	598.3	134.63	5.444	
6,100.0	6,063.0	6,055.5	6,055.5	15.4	121.5	67.54	36.4	298.2	732.9	596.1	136.82	5.357	
6,102.8	6,065.8	6,058.3	6,058.3	15.4	121.5	67.54	36.4	298.2	732.9	596.0	136.88	5.354	
6,150.0	6,112.9	6,105.4	6,105.4	15.5	122.5	-22.55	36.4	298.2	731.4	596.0	135.44	5.401	
6,200.0	6,162.7	6,155.2	6,155.2	15.5	123.5	-22.85	36.4	298.2	726.8	591.1	135.67	5.357	
6,250.0	6,211.9	6,204.4	6,204.4	15.6	124.5	-23.36	36.4	298.2	719.0	583.6	135.34	5.312	
6,300.0	6,260.5	6,253.0	6,253.0	15.6	125.4	-24.11	36.4	298.2	708.0	573.6	134.47	5.265	
6,350.0	6,308.1	6,300.6	6,300.6	15.6	126.4	-25.11	36.4	298.2	694.0	560.9	133.12	5.214	
6,400.0	6,354.5	6,347.0	6,347.0	15.6	127.3	-26.40	36.4	298.2	677.1	545.8	131.36	5.155	
6,450.0	6,399.5	6,392.0	6,392.0	15.6	128.2	-28.02	36.4	298.2	657.4	528.1	129.31	5.084	
6,500.0	6,442.9	6,435.4	6,435.4	15.5	129.1	-30.02	36.4	298.2	635.0	507.9	127.16	4.994	
6,550.0	6,484.5	6,477.0	6,477.0	15.5	129.9	-32.48	36.4	298.2	610.2	485.0	125.16	4.876	
6,600.0	6,524.0	6,516.5	6,516.5	15.5	130.7	-35.46	36.4	298.2	583.2	459.5	123.63	4.717	
6,650.0	6,561.3	6,553.8	6,553.8	15.6	131.5	-39.04	36.4	298.2	554.2	431.2	123.00	4.506	
6,700.0	6,596.1	6,588.6	6,588.6	15.6	132.2	-43.28	36.4	298.2	523.6	399.9	123.68	4.234	
6,750.0	6,628.4	6,620.9	6,620.9	15.7	132.8	-48.23	36.4	298.2	491.8	365.8	125.97	3.904	
6,800.0	6,658.0	6,650.5	6,650.5	15.9	133.4	-53.83	36.4	298.2	459.2	329.3	129.90	3.535	
6,850.0	6,684.6	6,677.1	6,677.1	16.2	134.0	-59.96	36.4	298.2	426.5	291.4	135.06	3.157	
6,900.0	6,708.3	6,700.8	6,700.8	16.5	134.4	-66.34	36.4	298.2	394.3	253.6	140.67	2.803	
6,950.0	6,728.8	6,721.3	6,721.3	17.0	134.8	-72.60	36.4	298.2	363.6	217.8	145.82	2.494	
7,000.0	6,746.1	6,738.6	6,738.6	17.6	135.2	-78.32	36.4	298.2	335.7	185.8	149.89	2.239	
7,050.0	6,760.0	6,752.5	6,752.5	18.3	135.5	-83.14	36.4	298.2	311.8	159.1	152.71	2.042	
7,100.0	6,770.6	6,763.1	6,763.1	19.1	135.7	-86.80	36.4	298.2	293.6	139.1	154.51	1.900	
7,150.0	6,777.8	6,770.3	6,770.3	19.9	135.8	-89.14	36.4	298.2	282.7	127.0	155.73	1.815	
7,188.9	6,780.9	6,773.4	6,773.4	20.6	135.9	-90.00	36.4	298.2	280.0	123.5	156.51	1.789 CC, ES	
7,200.0	6,781.5	6,774.0	6,774.0	20.8	135.9	-90.09	36.4	298.2	280.2	123.5	156.72	1.788 SF	
7,232.6	6,782.0	6,774.5	6,774.5	21.4	135.9	-89.94	36.4	298.2	283.4	126.1	157.33	1.801	
7,300.0	6,781.5	6,774.0	6,774.0	22.7	135.9	-89.85	36.4	298.2	301.3	142.6	158.63	1.899	
7,400.0	6,780.9	6,773.4	6,773.4	24.8	135.9	-89.71	36.4	298.2	350.7	190.0	160.69	2.182	
7,500.0	6,780.2	6,772.7	6,772.7	27.0	135.9	-89.58	36.4	298.2	418.5	255.7	162.89	2.569	
7,600.0	6,779.5	6,772.0	6,772.0	29.4	135.9	-89.44	36.4	298.2	497.4	332.2	165.19	3.011	
7,700.0	6,778.9	6,771.4	6,771.4	31.8	135.9	-89.30	36.4	298.2	582.8	415.2	167.57	3.478	
7,800.0	6,778.2	6,770.7	6,770.7	34.2	135.8	-89.17	36.4	298.2	672.2	502.2	170.01	3.954	
7,900.0	6,777.5	6,770.0	6,770.0	36.7	135.8	-89.03	36.4	298.2	764.2	591.7	172.49	4.430	
8,000.0	6,776.9	6,769.4	6,769.4	39.3	135.8	-88.89	36.4	298.2	858.0	683.0	175.02	4.903	
8,100.0	6,776.2	6,768.7	6,768.7	41.9	135.8	-88.76	36.4	298.2	953.1	775.5	177.58	5.367	
8,200.0	6,775.5	6,768.0	6,768.0	44.5	135.8	-88.62	36.4	298.2	1,049.1	869.0	180.17	5.823	
8,300.0	6,774.9	6,767.4	6,767.4	47.1	135.8	-88.48	36.4	298.2	1,145.8	963.0	182.78	6.269	
8,400.0	6,774.2	6,766.7	6,766.7	49.8	135.8	-88.34	36.4	298.2	1,243.0	1,057.6	185.40	6.704	
8,500.0	6,773.5	6,766.0	6,766.0	52.4	135.7	-88.21	36.4	298.2	1,340.6	1,152.6	188.04	7.129	
8,600.0	6,772.9	6,765.4	6,765.4	55.1	135.7	-88.07	36.4	298.2	1,438.6	1,247.9	190.69	7.544	

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

# Anticollision Report



<b>Company:</b>	PDC ENERGY	<b>Local Co-ordinate Reference:</b>	Well KINZER 28I-202
<b>Project:</b>	WELD COUNTY, COLORADO	<b>TVD Reference:</b>	KB-EST @ 4797.5usft
<b>Reference Site:</b>	SW SW SEC. 28 T5N R67W 6th P.M.	<b>MD Reference:</b>	KB-EST @ 4797.5usft
<b>Site Error:</b>	0.0 usft	<b>North Reference:</b>	True
<b>Reference Well:</b>	KINZER 28I-202	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Well Error:</b>	0.0 usft	<b>Output errors are at</b>	2.00 sigma
<b>Reference Wellbore</b>	ORIGINAL WELLBORE	<b>Database:</b>	EDM 5000.1 Single User Db
<b>Reference Design:</b>	PROPOSAL #1	<b>Offset TVD Reference:</b>	Offset Datum

<b>Offset Design</b> SW SW SEC. 28 T5N R67W 6th P.M. - EXIST VERT KINZER 28-2 - Wellbore #1 - Design #1												<b>Offset Site Error:</b>	0.0 usft
Survey Program: 0-INC												<b>Offset Well Error:</b>	0.0 usft
Reference	Offset	Semi Major Axis		Distance									
Measured Depth (usft)	Vertical Depth (usft)	Measured Depth (usft)	Vertical Depth (usft)	Reference (usft)	Offset (usft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (usft)	+E/-W (usft)	Between Centres (usft)	Between Ellipses (usft)	Minimum Separation (usft)	Separation Factor	Warning
8,700.0	6,772.2	6,764.7	6,764.7	57.8	135.7	-87.93	36.4	298.2	1,536.8	1,343.4	193.36	7.948	
8,800.0	6,771.5	6,764.0	6,764.0	60.5	135.7	-87.79	36.4	298.2	1,635.2	1,439.2	196.03	8.342	
8,900.0	6,770.9	6,763.4	6,763.4	63.2	135.7	-87.66	36.4	298.2	1,733.8	1,535.1	198.71	8.725	
9,000.0	6,770.2	6,762.7	6,762.7	65.9	135.7	-87.52	36.4	298.2	1,832.6	1,631.2	201.40	9.099	
9,100.0	6,769.5	6,762.0	6,762.0	68.7	135.7	-87.38	36.4	298.2	1,931.4	1,727.4	204.09	9.464	
9,200.0	6,768.9	6,761.4	6,761.4	71.4	135.7	-87.24	36.4	298.2	2,030.4	1,823.7	206.78	9.819	
9,300.0	6,768.2	6,760.7	6,760.7	74.1	135.6	-87.10	36.4	298.2	2,129.5	1,920.0	209.48	10.166	
9,400.0	6,767.5	6,760.0	6,760.0	76.9	135.6	-86.96	36.4	298.2	2,228.7	2,016.5	212.18	10.504	
9,500.0	6,766.8	6,759.3	6,759.3	79.6	135.6	-86.82	36.4	298.2	2,327.9	2,113.0	214.89	10.833	
9,600.0	6,766.2	6,758.7	6,758.7	82.4	135.6	-86.68	36.4	298.2	2,427.2	2,209.6	217.60	11.155	
9,700.0	6,765.5	6,758.0	6,758.0	85.2	135.6	-86.54	36.4	298.2	2,526.6	2,306.3	220.31	11.469	
9,800.0	6,764.8	6,757.3	6,757.3	87.9	135.6	-86.40	36.4	298.2	2,626.0	2,403.0	223.02	11.775	
9,900.0	6,764.1	6,756.6	6,756.6	90.7	135.6	-86.26	36.4	298.2	2,725.4	2,499.7	225.73	12.074	
10,000.0	6,763.5	6,756.0	6,756.0	93.4	135.5	-86.12	36.4	298.2	2,824.9	2,596.5	228.44	12.366	
10,100.0	6,762.8	6,755.3	6,755.3	96.2	135.5	-85.99	36.4	298.2	2,924.5	2,693.3	231.15	12.652	
10,200.0	6,762.1	6,754.6	6,754.6	99.0	135.5	-85.85	36.4	298.2	3,024.0	2,790.1	233.86	12.931	
10,300.0	6,761.4	6,753.9	6,753.9	101.8	135.5	-85.70	36.4	298.2	3,123.6	2,887.0	236.57	13.204	
10,400.0	6,760.8	6,753.3	6,753.3	104.5	135.5	-85.56	36.4	298.2	3,223.2	2,983.9	239.28	13.470	
10,500.0	6,760.1	6,752.6	6,752.6	107.3	135.5	-85.42	36.4	298.2	3,322.8	3,080.8	241.99	13.731	
10,600.0	6,759.4	6,751.9	6,751.9	110.1	135.5	-85.28	36.4	298.2	3,422.5	3,177.8	244.70	13.986	
10,700.0	6,758.7	6,751.2	6,751.2	112.9	135.4	-85.14	36.4	298.2	3,522.2	3,274.7	247.41	14.236	
10,800.0	6,758.1	6,750.6	6,750.6	115.6	135.4	-85.00	36.4	298.2	3,621.8	3,371.7	250.12	14.480	
10,900.0	6,757.4	6,749.9	6,749.9	118.4	135.4	-84.86	36.4	298.2	3,721.6	3,468.7	252.83	14.720	
11,000.0	6,756.7	6,749.2	6,749.2	121.2	135.4	-84.72	36.4	298.2	3,821.3	3,565.7	255.53	14.954	
11,100.0	6,756.0	6,748.5	6,748.5	124.0	135.4	-84.58	36.4	298.2	3,921.0	3,662.8	258.23	15.184	
11,200.0	6,755.3	6,747.8	6,747.8	126.8	135.4	-84.44	36.4	298.2	4,020.8	3,759.8	260.94	15.409	
11,300.0	6,754.7	6,747.2	6,747.2	129.6	135.4	-84.30	36.4	298.2	4,120.5	3,856.9	263.64	15.630	
11,400.0	6,754.0	6,746.5	6,746.5	132.4	135.4	-84.16	36.4	298.2	4,220.3	3,954.0	266.33	15.846	
11,500.0	6,753.3	6,745.8	6,745.8	135.1	135.3	-84.01	36.4	298.2	4,320.1	4,051.0	269.03	16.058	
11,600.0	6,752.6	6,745.1	6,745.1	137.9	135.3	-83.87	36.4	298.2	4,419.9	4,148.1	271.72	16.266	
11,700.0	6,751.9	6,744.4	6,744.4	140.7	135.3	-83.73	36.4	298.2	4,519.7	4,245.3	274.41	16.470	
11,800.0	6,751.3	6,743.8	6,743.8	143.5	135.3	-83.59	36.4	298.2	4,619.5	4,342.4	277.10	16.671	
11,837.2	6,751.0	6,743.5	6,743.5	144.6	135.3	-83.54	36.4	298.2	4,656.6	4,378.5	278.10	16.744	

# Anticollision Report



<b>Company:</b>	PDC ENERGY	<b>Local Co-ordinate Reference:</b>	Well KINZER 281-202
<b>Project:</b>	WELD COUNTY, COLORADO	<b>TVD Reference:</b>	KB-EST @ 4797.5usft
<b>Reference Site:</b>	SW SW SEC. 28 T5N R67W 6th P.M.	<b>MD Reference:</b>	KB-EST @ 4797.5usft
<b>Site Error:</b>	0.0 usft	<b>North Reference:</b>	True
<b>Reference Well:</b>	KINZER 281-202	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Well Error:</b>	0.0 usft	<b>Output errors are at</b>	2.00 sigma
<b>Reference Wellbore</b>	ORIGINAL WELLBORE	<b>Database:</b>	EDM 5000.1 Single User Db
<b>Reference Design:</b>	PROPOSAL #1	<b>Offset TVD Reference:</b>	Offset Datum

Offset Design												Offset Site Error:	0.0 usft
Survey Program: 0-INC												Offset Well Error:	0.0 usft
Reference		Offset		Semi Major Axis			Distance						Warning
Measured Depth (usft)	Vertical Depth (usft)	Measured Depth (usft)	Vertical Depth (usft)	Reference (usft)	Offset (usft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (usft)	+E/-W (usft)	Between Centres (usft)	Between Ellipses (usft)	Minimum Separation (usft)	Separation Factor	
0.0	0.0	78.5	78.5	0.0	0.1	13.41	3,435.4	819.2	3,531.8				
100.0	100.0	178.5	178.5	0.1	2.2	13.41	3,435.4	819.2	3,531.8	3,529.5	2.26	1,563.326	
200.0	200.0	278.5	278.5	0.3	4.3	13.41	3,435.4	819.2	3,531.8	3,527.1	4.67	756.831	
300.0	300.0	378.5	378.5	0.5	6.4	13.41	3,435.4	819.2	3,531.8	3,524.8	6.93	509.629	
400.0	400.0	478.5	478.5	0.8	8.4	13.41	3,435.4	819.2	3,531.8	3,522.6	9.18	384.752	
500.0	500.0	578.5	578.5	1.0	10.4	13.41	3,435.4	819.2	3,531.8	3,520.3	11.42	309.176	
600.0	600.0	678.5	678.5	1.2	12.4	13.41	3,435.4	819.2	3,531.8	3,518.1	13.66	258.466	
700.0	700.0	778.5	778.5	1.4	14.5	13.41	3,435.4	819.2	3,531.8	3,515.9	15.90	222.069	
800.0	800.0	878.5	878.5	1.7	16.5	13.41	3,435.4	819.2	3,531.8	3,513.6	18.14	194.667	
900.0	900.0	978.5	978.5	1.9	18.5	13.41	3,435.4	819.2	3,531.8	3,511.4	20.38	173.291	
1,000.0	1,000.0	1,078.5	1,078.5	2.1	20.5	13.41	3,435.4	819.2	3,531.8	3,509.1	22.62	156.147	CC
1,100.0	1,100.0	1,178.5	1,178.5	2.3	22.5	136.14	3,435.4	819.2	3,533.0	3,508.2	24.83	142.308	ES
1,200.0	1,199.8	1,278.3	1,278.3	2.5	24.5	136.14	3,435.4	819.2	3,536.8	3,509.8	27.00	130.989	
1,300.0	1,299.5	1,378.0	1,378.0	2.7	26.5	136.15	3,435.4	819.2	3,543.1	3,513.9	29.16	121.508	
1,400.0	1,398.7	1,477.2	1,477.2	3.0	28.5	136.17	3,435.4	819.2	3,551.9	3,520.6	31.30	113.480	
1,500.0	1,497.5	1,576.0	1,576.0	3.2	30.5	136.18	3,435.4	819.2	3,563.3	3,529.8	33.42	106.615	
1,502.5	1,500.0	1,578.5	1,578.5	3.2	30.6	136.18	3,435.4	819.2	3,563.6	3,530.1	33.47	106.456	
1,600.0	1,595.9	1,674.4	1,674.4	3.5	32.5	136.37	3,435.4	819.2	3,576.0	3,540.3	35.64	100.342	
1,700.0	1,694.4	1,772.9	1,772.9	3.8	34.5	136.56	3,435.4	819.2	3,588.7	3,550.8	37.87	94.768	
1,800.0	1,792.9	1,871.4	1,871.4	4.2	36.4	136.75	3,435.4	819.2	3,601.5	3,561.4	40.11	89.795	
1,900.0	1,891.3	1,969.8	1,969.8	4.5	38.4	136.94	3,435.4	819.2	3,614.3	3,572.0	42.35	85.334	
2,000.0	1,989.8	2,068.3	2,068.3	4.9	40.4	137.13	3,435.4	819.2	3,627.2	3,582.6	44.61	81.314	
2,100.0	2,088.3	2,166.8	2,166.8	5.2	42.4	137.31	3,435.4	819.2	3,640.1	3,593.2	46.86	77.674	
2,200.0	2,186.7	2,265.2	2,265.2	5.6	44.4	137.50	3,435.4	819.2	3,653.0	3,603.9	49.12	74.364	
2,300.0	2,285.2	2,363.7	2,363.7	6.0	46.4	137.68	3,435.4	819.2	3,666.0	3,614.6	51.39	71.342	
2,400.0	2,383.7	2,462.2	2,462.2	6.4	48.3	137.86	3,435.4	819.2	3,679.0	3,625.4	53.65	68.573	
2,500.0	2,482.1	2,560.6	2,560.6	6.7	50.3	138.04	3,435.4	819.2	3,692.1	3,636.1	55.92	66.028	
2,600.0	2,580.6	2,659.1	2,659.1	7.1	52.3	138.22	3,435.4	819.2	3,705.1	3,647.0	58.18	63.680	
2,700.0	2,679.1	2,757.6	2,757.6	7.5	54.3	138.40	3,435.4	819.2	3,718.3	3,657.8	60.45	61.508	
2,800.0	2,777.5	2,856.0	2,856.0	7.9	56.3	138.57	3,435.4	819.2	3,731.4	3,668.7	62.72	59.493	
2,900.0	2,876.0	2,954.5	2,954.5	8.3	58.2	138.75	3,435.4	819.2	3,744.6	3,679.6	64.99	57.619	
3,000.0	2,974.4	3,052.9	3,052.9	8.7	60.2	138.92	3,435.4	819.2	3,757.8	3,690.6	67.26	55.872	
3,100.0	3,072.9	3,151.4	3,151.4	9.1	62.2	139.10	3,435.4	819.2	3,771.1	3,701.6	69.53	54.239	
3,200.0	3,171.4	3,249.9	3,249.9	9.5	64.2	139.27	3,435.4	819.2	3,784.4	3,712.6	71.80	52.710	
3,300.0	3,269.8	3,348.3	3,348.3	9.9	66.2	139.44	3,435.4	819.2	3,797.7	3,723.6	74.07	51.275	
3,400.0	3,368.3	3,446.8	3,446.8	10.3	68.1	139.61	3,435.4	819.2	3,811.1	3,734.7	76.33	49.926	
3,500.0	3,466.8	3,545.3	3,545.3	10.7	70.1	139.78	3,435.4	819.2	3,824.5	3,745.9	78.60	48.656	
3,580.8	3,546.3	3,624.8	3,624.8	11.0	71.7	139.91	3,435.4	819.2	3,835.3	3,754.9	80.44	47.682	
3,600.0	3,565.3	3,643.8	3,643.8	11.1	72.1	139.98	3,435.4	819.2	3,837.8	3,756.9	80.91	47.432	
3,700.0	3,664.1	3,742.6	3,742.6	11.3	74.1	140.27	3,435.4	819.2	3,849.5	3,766.1	83.34	46.189	
3,800.0	3,763.4	3,841.9	3,841.9	11.6	76.1	140.50	3,435.4	819.2	3,858.4	3,772.7	85.72	45.011	
3,900.0	3,863.1	3,941.6	3,941.6	11.8	78.1	140.65	3,435.4	819.2	3,864.7	3,776.7	88.04	43.896	
4,000.0	3,963.0	4,041.5	4,041.5	12.0	80.1	140.74	3,435.4	819.2	3,868.3	3,778.0	90.30	42.840	
4,083.3	4,046.3	4,124.8	4,124.8	12.1	81.8	18.04	3,435.4	819.2	3,869.3	3,776.5	92.77	41.707	
4,100.0	4,063.0	4,141.5	4,141.5	12.1	82.1	18.04	3,435.4	819.2	3,869.3	3,776.1	93.13	41.545	
4,200.0	4,163.0	4,241.5	4,241.5	12.3	84.1	18.04	3,435.4	819.2	3,869.3	3,774.0	95.30	40.600	
4,300.0	4,263.0	4,341.5	4,341.5	12.4	86.1	18.04	3,435.4	819.2	3,869.3	3,771.8	97.47	39.696	
4,400.0	4,363.0	4,441.5	4,441.5	12.6	88.1	18.04	3,435.4	819.2	3,869.3	3,769.6	99.65	38.830	
4,500.0	4,463.0	4,541.5	4,541.5	12.7	90.1	18.04	3,435.4	819.2	3,869.3	3,767.4	101.82	38.001	
4,600.0	4,563.0	4,641.5	4,641.5	12.9	92.2	18.04	3,435.4	819.2	3,869.3	3,765.3	104.00	37.206	
4,700.0	4,663.0	4,741.5	4,741.5	13.0	94.2	18.04	3,435.4	819.2	3,869.3	3,763.1	106.18	36.442	
4,800.0	4,763.0	4,841.5	4,841.5	13.2	96.2	18.04	3,435.4	819.2	3,869.3	3,760.9	108.36	35.709	

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

# Anticollision Report



<b>Company:</b>	PDC ENERGY	<b>Local Co-ordinate Reference:</b>	Well KINZER 281-202
<b>Project:</b>	WELD COUNTY, COLORADO	<b>TVD Reference:</b>	KB-EST @ 4797.5usft
<b>Reference Site:</b>	SW SW SEC. 28 T5N R67W 6th P.M.	<b>MD Reference:</b>	KB-EST @ 4797.5usft
<b>Site Error:</b>	0.0 usft	<b>North Reference:</b>	True
<b>Reference Well:</b>	KINZER 281-202	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Well Error:</b>	0.0 usft	<b>Output errors are at</b>	2.00 sigma
<b>Reference Wellbore</b>	ORIGINAL WELLBORE	<b>Database:</b>	EDM 5000.1 Single User Db
<b>Reference Design:</b>	PROPOSAL #1	<b>Offset TVD Reference:</b>	Offset Datum

Offset Design												Offset Site Error:	0.0 usft
Survey Program: 0-INC												Offset Well Error:	0.0 usft
Reference		Offset		Semi Major Axis			Distance						Warning
Measured Depth (usft)	Vertical Depth (usft)	Measured Depth (usft)	Vertical Depth (usft)	Reference (usft)	Offset (usft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (usft)	+E/-W (usft)	Between Centres (usft)	Between Ellipses (usft)	Minimum Separation (usft)	Separation Factor	
4,900.0	4,863.0	4,941.5	4,941.5	13.4	98.2	18.04	3,435.4	819.2	3,869.3	3,758.7	110.54	35.004	
5,000.0	4,963.0	5,041.5	5,041.5	13.5	100.2	18.04	3,435.4	819.2	3,869.3	3,756.5	112.72	34.325	
5,100.0	5,063.0	5,141.5	5,141.5	13.7	102.2	18.04	3,435.4	819.2	3,869.3	3,754.4	114.91	33.673	
5,200.0	5,163.0	5,241.5	5,241.5	13.9	104.2	18.04	3,435.4	819.2	3,869.3	3,752.2	117.10	33.044	
5,300.0	5,263.0	5,341.5	5,341.5	14.0	106.2	18.04	3,435.4	819.2	3,869.3	3,750.0	119.28	32.437	
5,400.0	5,363.0	5,441.5	5,441.5	14.2	108.2	18.04	3,435.4	819.2	3,869.3	3,747.8	121.47	31.852	
5,500.0	5,463.0	5,541.5	5,541.5	14.4	110.3	18.04	3,435.4	819.2	3,869.3	3,745.6	123.67	31.288	
5,600.0	5,563.0	5,641.5	5,641.5	14.5	112.3	18.04	3,435.4	819.2	3,869.3	3,743.4	125.86	30.743	
5,700.0	5,663.0	5,741.5	5,741.5	14.7	114.3	18.04	3,435.4	819.2	3,869.3	3,741.2	128.05	30.216	
5,800.0	5,763.0	5,841.5	5,841.5	14.9	116.3	18.04	3,435.4	819.2	3,869.3	3,739.0	130.25	29.707	
5,900.0	5,863.0	5,941.5	5,941.5	15.1	118.3	18.04	3,435.4	819.2	3,869.3	3,736.8	132.45	29.214	
6,000.0	5,963.0	6,041.5	6,041.5	15.2	120.3	18.04	3,435.4	819.2	3,869.3	3,734.6	134.64	28.737	
6,100.0	6,063.0	6,141.5	6,141.5	15.4	122.3	18.04	3,435.4	819.2	3,869.3	3,732.4	136.84	28.276	
6,102.8	6,065.8	6,144.3	6,144.3	15.4	122.4	18.04	3,435.4	819.2	3,869.3	3,732.4	136.90	28.263	
6,150.0	6,112.9	6,191.4	6,191.4	15.5	123.3	-72.02	3,435.4	819.2	3,868.8	3,731.3	137.48	28.141	
6,200.0	6,162.7	6,241.2	6,241.2	15.5	124.3	-72.21	3,435.4	819.2	3,867.2	3,728.8	138.45	27.932	
6,250.0	6,211.9	6,290.4	6,290.4	15.6	125.3	-72.52	3,435.4	819.2	3,864.6	3,725.3	139.36	27.732	
6,300.0	6,260.5	6,339.0	6,339.0	15.6	126.3	-72.97	3,435.4	819.2	3,861.0	3,720.8	140.20	27.540	
6,350.0	6,308.1	6,386.6	6,386.6	15.6	127.3	-73.53	3,435.4	819.2	3,856.4	3,715.4	141.00	27.351	
6,400.0	6,354.5	6,433.0	6,433.0	15.6	128.2	-74.20	3,435.4	819.2	3,850.9	3,709.1	141.77	27.163	
6,450.0	6,399.5	6,478.0	6,478.0	15.6	129.1	-74.98	3,435.4	819.2	3,844.5	3,702.0	142.53	26.973	
6,500.0	6,442.9	6,521.4	6,521.4	15.5	130.0	-75.85	3,435.4	819.2	3,837.4	3,694.1	143.32	26.776	
6,550.0	6,484.5	6,563.0	6,563.0	15.5	130.8	-76.80	3,435.4	819.2	3,829.6	3,685.4	144.13	26.571	
6,600.0	6,524.0	6,602.5	6,602.5	15.5	131.6	-77.83	3,435.4	819.2	3,821.2	3,676.2	144.99	26.356	
6,650.0	6,561.3	6,639.8	6,639.8	15.6	132.3	-78.90	3,435.4	819.2	3,812.3	3,666.4	145.90	26.130	
6,700.0	6,596.1	6,674.6	6,674.6	15.6	133.0	-80.02	3,435.4	819.2	3,803.1	3,656.2	146.87	25.895	
6,750.0	6,628.4	6,706.9	6,706.9	15.7	133.7	-81.15	3,435.4	819.2	3,793.6	3,645.7	147.89	25.652	
6,800.0	6,658.0	6,736.5	6,736.5	15.9	134.3	-82.30	3,435.4	819.2	3,784.0	3,635.0	148.95	25.404	
6,850.0	6,684.6	6,763.1	6,763.1	16.2	134.8	-83.42	3,435.4	819.2	3,774.3	3,624.3	150.05	25.154	
6,900.0	6,708.3	6,786.8	6,786.8	16.5	135.3	-84.52	3,435.4	819.2	3,764.7	3,613.6	151.17	24.904	
6,950.0	6,728.8	6,807.3	6,807.3	17.0	135.7	-85.57	3,435.4	819.2	3,755.3	3,603.0	152.29	24.659	
7,000.0	6,746.1	6,824.6	6,824.6	17.6	136.1	-86.56	3,435.4	819.2	3,746.2	3,592.8	153.40	24.421	
7,050.0	6,760.0	6,838.5	6,838.5	18.3	136.3	-87.48	3,435.4	819.2	3,737.4	3,582.9	154.50	24.191	
7,100.0	6,770.6	6,849.1	6,849.1	19.1	136.6	-88.32	3,435.4	819.2	3,729.1	3,573.6	155.56	23.972	
7,150.0	6,777.8	6,856.3	6,856.3	19.9	136.7	-89.05	3,435.4	819.2	3,721.4	3,564.8	156.59	23.765	
7,200.0	6,781.5	6,860.0	6,860.0	20.8	136.8	-89.69	3,435.4	819.2	3,714.2	3,556.6	157.58	23.571	
7,232.6	6,782.0	6,860.5	6,860.5	21.4	136.8	-90.05	3,435.4	819.2	3,709.9	3,551.7	158.20	23.451	
7,300.0	6,781.5	6,860.0	6,860.0	22.7	136.8	-90.04	3,435.4	819.2	3,701.8	3,542.3	159.50	23.209	
7,400.0	6,780.9	6,859.4	6,859.4	24.8	136.8	-90.03	3,435.4	819.2	3,692.1	3,530.5	161.57	22.852	
7,500.0	6,780.2	6,858.7	6,858.7	27.0	136.7	-90.02	3,435.4	819.2	3,685.0	3,521.3	163.77	22.502	
7,600.0	6,779.5	6,858.0	6,858.0	29.4	136.7	-90.01	3,435.4	819.2	3,680.7	3,514.6	166.07	22.163	
7,700.0	6,778.9	6,857.4	6,857.4	31.8	136.7	-90.00	3,435.4	819.2	3,679.1	3,510.6	168.45	21.840	
7,709.9	6,778.8	6,857.3	6,857.3	32.0	136.7	-90.00	3,435.4	819.2	3,679.0	3,510.3	168.70	21.809	
7,800.0	6,778.2	6,856.7	6,856.7	34.2	136.7	-89.99	3,435.4	819.2	3,680.1	3,509.2	170.90	21.534	
7,900.0	6,777.5	6,856.0	6,856.0	36.7	136.7	-89.98	3,435.4	819.2	3,684.0	3,510.6	173.39	21.246	
8,000.0	6,776.9	6,855.4	6,855.4	39.3	136.7	-89.97	3,435.4	819.2	3,690.5	3,514.5	175.93	20.977	
8,100.0	6,776.2	6,854.7	6,854.7	41.9	136.7	-89.96	3,435.4	819.2	3,699.7	3,521.2	178.50	20.726	
8,200.0	6,775.5	6,854.0	6,854.0	44.5	136.7	-89.95	3,435.4	819.2	3,711.5	3,530.4	181.10	20.495	
8,300.0	6,774.9	6,853.4	6,853.4	47.1	136.6	-89.94	3,435.4	819.2	3,726.1	3,542.3	183.72	20.282	
8,400.0	6,774.2	6,852.7	6,852.7	49.8	136.6	-89.93	3,435.4	819.2	3,743.2	3,556.8	186.36	20.086	
8,500.0	6,773.5	6,852.0	6,852.0	52.4	136.6	-89.92	3,435.4	819.2	3,762.9	3,573.9	189.01	19.908	
8,600.0	6,772.9	6,851.4	6,851.4	55.1	136.6	-89.91	3,435.4	819.2	3,785.2	3,593.5	191.68	19.747	

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



# Anticollision Report



<b>Company:</b>	PDC ENERGY	<b>Local Co-ordinate Reference:</b>	Well KINZER 28I-202
<b>Project:</b>	WELD COUNTY, COLORADO	<b>TVD Reference:</b>	KB-EST @ 4797.5usft
<b>Reference Site:</b>	SW SW SEC. 28 T5N R67W 6th P.M.	<b>MD Reference:</b>	KB-EST @ 4797.5usft
<b>Site Error:</b>	0.0 usft	<b>North Reference:</b>	True
<b>Reference Well:</b>	KINZER 28I-202	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Well Error:</b>	0.0 usft	<b>Output errors are at</b>	2.00 sigma
<b>Reference Wellbore</b>	ORIGINAL WELLBORE	<b>Database:</b>	EDM 5000.1 Single User Db
<b>Reference Design:</b>	PROPOSAL #1	<b>Offset TVD Reference:</b>	Offset Datum

<b>Offset Design</b> SW SW SEC. 28 T5N R67W 6th P.M. - EXIST VERT KINZER 28A - Wellbore #1 - Design #1												<b>Offset Site Error:</b>	0.0 usft
Survey Program: 0-INC												<b>Offset Well Error:</b>	0.0 usft
Reference		Offset		Semi Major Axis			Distance						Warning
Measured Depth (usft)	Vertical Depth (usft)	Measured Depth (usft)	Vertical Depth (usft)	Reference (usft)	Offset (usft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (usft)	+E/-W (usft)	Between Centres (usft)	Between Ellipses (usft)	Minimum Separation (usft)	Separation Factor	
8,700.0	6,772.2	6,850.7	6,850.7	57.8	136.6	-89.90	3,435.4	819.2	3,809.9	3,615.6	194.36	19.602	
8,800.0	6,771.5	6,850.0	6,850.0	60.5	136.6	-89.89	3,435.4	819.2	3,837.1	3,640.1	197.05	19.473	
8,900.0	6,770.9	6,849.4	6,849.4	63.2	136.6	-89.88	3,435.4	819.2	3,866.7	3,667.0	199.75	19.357	
9,000.0	6,770.2	6,848.7	6,848.7	65.9	136.5	-89.87	3,435.4	819.2	3,898.7	3,696.2	202.46	19.256	
9,100.0	6,769.5	6,848.0	6,848.0	68.7	136.5	-89.85	3,435.4	819.2	3,932.9	3,727.7	205.18	19.168	
9,200.0	6,768.9	6,847.4	6,847.4	71.4	136.5	-89.84	3,435.4	819.2	3,969.3	3,761.4	207.90	19.093	
9,300.0	6,768.2	6,846.7	6,846.7	74.1	136.5	-89.83	3,435.4	819.2	4,007.9	3,797.3	210.63	19.029	
9,400.0	6,767.5	6,846.0	6,846.0	76.9	136.5	-89.82	3,435.4	819.2	4,048.7	3,835.3	213.36	18.976	
9,500.0	6,766.8	6,845.3	6,845.3	79.6	136.5	-89.81	3,435.4	819.2	4,091.4	3,875.3	216.10	18.933	
9,600.0	6,766.2	6,844.7	6,844.7	82.4	136.5	-89.80	3,435.4	819.2	4,136.1	3,917.3	218.84	18.901	
9,700.0	6,765.5	6,844.0	6,844.0	85.2	136.5	-89.79	3,435.4	819.2	4,182.8	3,961.2	221.58	18.877	
9,800.0	6,764.8	6,843.3	6,843.3	87.9	136.4	-89.78	3,435.4	819.2	4,231.3	4,006.9	224.33	18.862	
9,900.0	6,764.1	6,842.6	6,842.6	90.7	136.4	-89.77	3,435.4	819.2	4,281.5	4,054.5	227.08	18.855 SF	
10,000.0	6,763.5	6,842.0	6,842.0	93.4	136.4	-89.76	3,435.4	819.2	4,333.5	4,103.7	229.83	18.855	
10,100.0	6,762.8	6,841.3	6,841.3	96.2	136.4	-89.75	3,435.4	819.2	4,387.2	4,154.6	232.59	18.863	
10,200.0	6,762.1	6,840.6	6,840.6	99.0	136.4	-89.74	3,435.4	819.2	4,442.5	4,207.1	235.34	18.877	
10,300.0	6,761.4	6,839.9	6,839.9	101.8	136.4	-89.73	3,435.4	819.2	4,499.3	4,261.2	238.10	18.896	
10,400.0	6,760.8	6,839.3	6,839.3	104.5	136.4	-89.72	3,435.4	819.2	4,557.6	4,316.7	240.86	18.922	
10,500.0	6,760.1	6,838.6	6,838.6	107.3	136.3	-89.71	3,435.4	819.2	4,617.3	4,373.7	243.63	18.952	
10,600.0	6,759.4	6,837.9	6,837.9	110.1	136.3	-89.70	3,435.4	819.2	4,678.4	4,432.0	246.39	18.988	
10,700.0	6,758.7	6,837.2	6,837.2	112.9	136.3	-89.68	3,435.4	819.2	4,740.8	4,491.7	249.16	19.027	
10,800.0	6,758.1	6,836.6	6,836.6	115.6	136.3	-89.67	3,435.4	819.2	4,804.5	4,552.6	251.93	19.071	
10,900.0	6,757.4	6,835.9	6,835.9	118.4	136.3	-89.66	3,435.4	819.2	4,869.4	4,614.7	254.69	19.119	
11,000.0	6,756.7	6,835.2	6,835.2	121.2	136.3	-89.65	3,435.4	819.2	4,935.5	4,678.1	257.47	19.170	
11,100.0	6,756.0	6,834.5	6,834.5	124.0	136.3	-89.64	3,435.4	819.2	5,002.7	4,742.5	260.24	19.224	
11,200.0	6,755.3	6,833.8	6,833.8	126.8	136.2	-89.63	3,435.4	819.2	5,071.0	4,808.0	263.01	19.281	
11,300.0	6,754.7	6,833.2	6,833.2	129.6	136.2	-89.62	3,435.4	819.2	5,140.4	4,874.6	265.78	19.341	
11,400.0	6,754.0	6,832.5	6,832.5	132.4	136.2	-89.61	3,435.4	819.2	5,210.7	4,942.1	268.56	19.403	
11,500.0	6,753.3	6,831.8	6,831.8	135.1	136.2	-89.60	3,435.4	819.2	5,282.0	5,010.7	271.33	19.467	
11,600.0	6,752.6	6,831.1	6,831.1	137.9	136.2	-89.59	3,435.4	819.2	5,354.2	5,080.1	274.11	19.533	
11,700.0	6,751.9	6,830.4	6,830.4	140.7	136.2	-89.58	3,435.4	819.2	5,427.3	5,150.4	276.88	19.601	
11,800.0	6,751.3	6,829.8	6,829.8	143.5	136.2	-89.57	3,435.4	819.2	5,501.2	5,221.5	279.66	19.671	
11,837.2	6,751.0	6,829.5	6,829.5	144.6	136.2	-89.56	3,435.4	819.2	5,528.9	5,248.3	280.69	19.697	

# Anticollision Report



<b>Company:</b>	PDC ENERGY	<b>Local Co-ordinate Reference:</b>	Well KINZER 281-202
<b>Project:</b>	WELD COUNTY, COLORADO	<b>TVD Reference:</b>	KB-EST @ 4797.5usft
<b>Reference Site:</b>	SW SW SEC. 28 T5N R67W 6th P.M.	<b>MD Reference:</b>	KB-EST @ 4797.5usft
<b>Site Error:</b>	0.0 usft	<b>North Reference:</b>	True
<b>Reference Well:</b>	KINZER 281-202	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Well Error:</b>	0.0 usft	<b>Output errors are at</b>	2.00 sigma
<b>Reference Wellbore</b>	ORIGINAL WELLBORE	<b>Database:</b>	EDM 5000.1 Single User Db
<b>Reference Design:</b>	PROPOSAL #1	<b>Offset TVD Reference:</b>	Offset Datum

Offset Design												Offset Site Error:	0.0 usft
Survey Program: 650-GYD_CT												Offset Well Error:	0.0 usft
Reference		Offset		Semi Major Axis			Distance						Warning
Measured Depth (usft)	Vertical Depth (usft)	Measured Depth (usft)	Vertical Depth (usft)	Reference (usft)	Offset (usft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (usft)	+E/-W (usft)	Between Centres (usft)	Between Ellipses (usft)	Minimum Separation (usft)	Separation Factor	
0.0	0.0	41.4	41.4	0.0	0.0	32.87	1,289.6	833.2	1,535.4				
100.0	100.0	141.3	141.3	0.1	0.1	32.88	1,289.5	833.5	1,535.4	1,535.2	0.23	6,552.078	
200.0	200.0	241.1	241.1	0.3	0.2	32.90	1,289.1	834.1	1,535.4	1,534.9	0.56	2,761.500	
300.0	300.0	341.0	341.0	0.5	0.3	32.94	1,288.6	835.0	1,535.4	1,534.6	0.88	1,749.454	
400.0	400.0	440.8	440.8	0.8	0.4	32.99	1,287.8	836.2	1,535.5	1,534.3	1.20	1,280.293	
500.0	500.0	540.6	540.6	1.0	0.5	33.06	1,286.9	837.7	1,535.5	1,534.0	1.52	1,009.583	
600.0	600.0	640.5	640.4	1.2	0.6	33.14	1,285.8	839.5	1,535.6	1,533.8	1.84	833.397	
700.0	700.0	742.2	742.1	1.4	0.7	33.22	1,284.6	841.4	1,535.6	1,533.4	2.17	708.436	
800.0	800.0	844.1	844.0	1.7	0.8	33.30	1,283.4	843.1	1,535.5	1,533.0	2.49	615.899	
900.0	900.0	946.1	945.9	1.9	0.9	33.37	1,282.2	844.5	1,535.3	1,532.5	2.82	544.676	
1,000.0	1,000.0	1,047.1	1,046.9	2.1	1.0	33.43	1,281.0	845.6	1,535.0	1,531.8	3.14	488.620	
1,011.1	1,011.1	1,058.2	1,058.0	2.1	1.0	156.16	1,280.9	845.8	1,534.9	1,531.8	3.16	486.292	
1,100.0	1,100.0	1,147.0	1,146.9	2.3	1.1	156.22	1,279.9	846.6	1,536.2	1,532.8	3.42	449.333	
1,200.0	1,199.8	1,246.9	1,246.7	2.5	1.2	156.31	1,279.0	847.4	1,540.6	1,536.9	3.70	416.391	
1,300.0	1,299.5	1,346.5	1,346.3	2.7	1.3	156.41	1,278.2	848.0	1,548.3	1,544.3	3.99	388.136	
1,400.0	1,398.7	1,445.7	1,445.6	3.0	1.4	156.53	1,277.4	848.5	1,559.1	1,554.8	4.29	363.777	
1,500.0	1,497.5	1,545.6	1,545.4	3.2	1.5	156.67	1,276.8	848.7	1,573.1	1,568.6	4.59	342.471	
1,502.5	1,500.0	1,548.1	1,548.0	3.2	1.5	156.68	1,276.8	848.7	1,573.5	1,568.9	4.60	341.988	
1,600.0	1,595.9	1,646.4	1,646.2	3.5	1.6	156.94	1,276.1	848.9	1,588.8	1,583.8	4.91	323.540	
1,700.0	1,694.4	1,747.3	1,747.1	3.8	1.7	157.21	1,275.3	848.9	1,604.2	1,599.0	5.24	306.435	
1,800.0	1,792.9	1,848.2	1,848.1	4.2	1.8	157.47	1,274.5	848.8	1,619.6	1,614.1	5.57	291.003	
1,900.0	1,891.3	1,949.2	1,949.0	4.5	1.9	157.72	1,273.5	848.6	1,634.9	1,629.0	5.90	277.065	
2,000.0	1,989.8	2,050.3	2,050.1	4.9	2.0	157.96	1,272.5	848.2	1,650.0	1,643.8	6.24	264.453	
2,100.0	2,088.3	2,151.4	2,151.2	5.2	2.1	158.20	1,271.3	847.7	1,665.0	1,658.5	6.58	253.016	
2,200.0	2,186.7	2,252.5	2,252.3	5.6	2.2	158.44	1,270.1	847.0	1,680.0	1,673.0	6.92	242.614	
2,300.0	2,285.2	2,353.7	2,353.5	6.0	2.2	158.66	1,268.8	846.3	1,694.7	1,687.5	7.27	233.121	
2,400.0	2,383.7	2,455.0	2,454.7	6.4	2.3	158.88	1,267.3	845.3	1,709.4	1,701.8	7.62	224.433	
2,500.0	2,482.1	2,554.1	2,553.9	6.7	2.4	159.10	1,265.9	844.4	1,724.0	1,716.0	7.96	216.567	
2,600.0	2,580.6	2,651.6	2,651.4	7.1	2.5	159.30	1,264.5	843.4	1,738.6	1,730.3	8.30	209.429	
2,700.0	2,679.1	2,749.1	2,748.8	7.5	2.6	159.50	1,263.2	842.4	1,753.3	1,744.7	8.64	202.858	
2,800.0	2,777.5	2,846.5	2,846.2	7.9	2.7	159.69	1,262.0	841.5	1,768.2	1,759.2	8.98	196.792	
2,900.0	2,876.0	2,943.9	2,943.6	8.3	2.7	159.88	1,260.9	840.6	1,783.1	1,773.8	9.33	191.179	
3,000.0	2,974.4	3,041.3	3,041.0	8.7	2.8	160.07	1,259.8	839.7	1,798.1	1,788.4	9.67	185.970	
3,100.0	3,072.9	3,138.7	3,138.4	9.1	2.9	160.25	1,258.8	838.8	1,813.2	1,803.2	10.01	181.127	
3,200.0	3,171.4	3,236.1	3,235.8	9.5	3.0	160.43	1,257.9	837.9	1,828.4	1,818.0	10.35	176.612	
3,300.0	3,269.8	3,333.4	3,333.1	9.9	3.1	160.60	1,257.1	837.1	1,843.7	1,833.0	10.69	172.396	
3,400.0	3,368.3	3,430.8	3,430.4	10.3	3.1	160.77	1,256.3	836.2	1,859.0	1,848.0	11.04	168.451	
3,500.0	3,466.8	3,529.9	3,529.6	10.7	3.2	160.94	1,255.6	835.4	1,874.5	1,863.1	11.37	164.808	
3,580.8	3,546.3	3,613.6	3,613.3	11.0	3.3	161.08	1,255.0	834.4	1,886.8	1,875.2	11.64	162.123	
3,600.0	3,565.3	3,633.5	3,633.2	11.1	3.3	161.13	1,254.9	834.2	1,889.7	1,878.0	11.70	161.534	
3,700.0	3,664.1	3,737.6	3,737.3	11.3	3.3	161.34	1,254.2	832.5	1,902.5	1,890.5	11.98	158.752	
3,800.0	3,763.4	3,842.2	3,841.8	11.6	3.4	161.48	1,253.5	830.4	1,911.7	1,899.4	12.25	156.009	
3,900.0	3,863.1	3,947.2	3,946.7	11.8	3.5	161.54	1,252.8	827.8	1,917.3	1,904.8	12.51	153.283	
4,000.0	3,963.0	4,052.3	4,051.8	12.0	3.5	161.55	1,252.1	824.7	1,919.4	1,906.7	12.75	150.566	
4,083.3	4,046.3	4,139.8	4,139.3	12.1	3.6	38.77	1,251.6	821.8	1,918.4	1,903.1	15.37	124.855	
4,100.0	4,063.0	4,157.4	4,156.8	12.1	3.6	38.76	1,251.5	821.2	1,918.0	1,902.6	15.40	124.549	
4,200.0	4,163.0	4,262.4	4,261.8	12.3	3.7	38.68	1,250.8	817.2	1,915.1	1,899.5	15.60	122.736	
4,300.0	4,263.0	4,367.4	4,366.7	12.4	3.7	38.59	1,250.2	812.7	1,912.0	1,896.2	15.81	120.944	
4,400.0	4,363.0	4,472.3	4,471.5	12.6	3.8	38.48	1,249.5	807.8	1,908.6	1,892.6	16.02	119.176	
4,500.0	4,463.0	4,567.8	4,566.8	12.7	3.8	38.38	1,249.0	803.2	1,905.1	1,888.9	16.20	117.585	
4,600.0	4,563.0	4,659.9	4,658.8	12.9	3.9	38.29	1,248.7	799.1	1,902.1	1,885.7	16.38	116.090	
4,700.0	4,663.0	4,752.0	4,750.9	13.0	3.9	38.21	1,248.5	795.3	1,899.4	1,882.9	16.57	114.638	

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

# Anticollision Report



<b>Company:</b>	PDC ENERGY	<b>Local Co-ordinate Reference:</b>	Well KINZER 281-202
<b>Project:</b>	WELD COUNTY, COLORADO	<b>TVD Reference:</b>	KB-EST @ 4797.5usft
<b>Reference Site:</b>	SW SW SEC. 28 T5N R67W 6th P.M.	<b>MD Reference:</b>	KB-EST @ 4797.5usft
<b>Site Error:</b>	0.0 usft	<b>North Reference:</b>	True
<b>Reference Well:</b>	KINZER 281-202	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Well Error:</b>	0.0 usft	<b>Output errors are at</b>	2.00 sigma
<b>Reference Wellbore</b>	ORIGINAL WELLBORE	<b>Database:</b>	EDM 5000.1 Single User Db
<b>Reference Design:</b>	PROPOSAL #1	<b>Offset TVD Reference:</b>	Offset Datum

Offset Design												Offset Site Error:	0.0 usft
Survey Program: 650-GYD_CT												Offset Well Error:	0.0 usft
Reference		Offset		Semi Major Axis			Distance						Warning
Measured Depth (usft)	Vertical Depth (usft)	Measured Depth (usft)	Vertical Depth (usft)	Reference (usft)	Offset (usft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (usft)	+E/-W (usft)	Between Centres (usft)	Between Ellipses (usft)	Minimum Separation (usft)	Separation Factor	
4,800.0	4,763.0	4,844.1	4,843.0	13.2	3.9	38.13	1,248.5	792.0	1,897.2	1,880.4	16.76	113.228	
4,900.0	4,863.0	4,936.3	4,935.1	13.4	4.0	38.05	1,248.7	789.1	1,895.4	1,878.4	16.94	111.859	
5,000.0	4,963.0	5,028.5	5,027.3	13.5	4.0	37.99	1,249.0	786.5	1,894.0	1,876.8	17.13	110.532	
5,100.0	5,063.0	5,120.8	5,119.5	13.7	4.0	37.93	1,249.5	784.4	1,893.0	1,875.6	17.33	109.245	
5,200.0	5,163.0	5,213.0	5,211.7	13.9	4.0	37.87	1,250.1	782.7	1,892.4	1,874.8	17.52	107.999	
5,293.1	5,256.1	5,298.9	5,297.6	14.0	4.1	37.83	1,250.9	781.4	1,892.2	1,874.5	17.70	106.873	
5,300.0	5,263.0	5,305.2	5,303.9	14.0	4.1	37.83	1,251.0	781.3	1,892.2	1,874.5	17.72	106.792	
5,400.0	5,363.0	5,397.5	5,396.2	14.2	4.1	37.79	1,252.0	780.4	1,892.4	1,874.5	17.92	105.624	
5,500.0	5,463.0	5,500.0	5,498.7	14.4	4.1	37.75	1,253.3	779.8	1,893.1	1,875.0	18.12	104.479	
5,600.0	5,563.0	5,590.3	5,589.0	14.5	4.2	37.71	1,254.6	779.4	1,893.9	1,875.6	18.33	103.296	
5,700.0	5,663.0	5,692.0	5,690.6	14.7	4.2	37.67	1,256.1	778.8	1,894.7	1,876.1	18.56	102.103	
5,800.0	5,763.0	5,793.6	5,792.2	14.9	4.2	37.62	1,257.7	777.9	1,895.4	1,876.6	18.78	100.927	
5,900.0	5,863.0	5,895.2	5,893.9	15.1	4.3	37.56	1,259.3	776.7	1,896.0	1,877.0	19.00	99.769	
6,000.0	5,963.0	5,996.9	5,995.4	15.2	4.3	37.50	1,261.0	775.3	1,896.5	1,877.3	19.23	98.627	
6,100.0	6,063.0	6,098.5	6,097.0	15.4	4.4	37.42	1,262.9	773.7	1,896.9	1,877.5	19.46	97.503	
6,102.8	6,065.8	6,101.3	6,099.9	15.4	4.4	37.42	1,262.9	773.6	1,896.9	1,877.5	19.46	97.471	
6,150.0	6,112.9	6,149.2	6,147.7	15.5	4.4	-52.70	1,263.8	772.8	1,896.2	1,878.3	17.87	106.095	
6,200.0	6,162.7	6,199.6	6,198.1	15.5	4.4	-53.05	1,264.7	771.8	1,893.3	1,875.4	17.94	105.536	
6,250.0	6,211.9	6,249.5	6,248.0	15.6	4.4	-53.62	1,265.7	770.8	1,888.3	1,870.3	18.00	104.915	
6,300.0	6,260.5	6,298.5	6,297.0	15.6	4.5	-54.41	1,266.7	769.7	1,881.3	1,863.3	18.05	104.216	
6,350.0	6,308.1	6,346.5	6,344.9	15.6	4.5	-55.42	1,267.6	768.6	1,872.4	1,854.3	18.11	103.415	
6,400.0	6,354.5	6,393.1	6,391.6	15.6	4.5	-56.64	1,268.5	767.5	1,861.6	1,843.5	18.16	102.488	
6,450.0	6,399.5	6,438.2	6,436.6	15.6	4.5	-58.08	1,269.5	766.4	1,849.2	1,830.9	18.24	101.405	
6,500.0	6,442.9	6,481.5	6,479.9	15.5	4.5	-59.72	1,270.4	765.3	1,835.1	1,816.8	18.33	100.136	
6,550.0	6,484.5	6,522.9	6,521.2	15.5	4.6	-61.55	1,271.2	764.2	1,819.7	1,801.2	18.44	98.679	
6,600.0	6,524.0	6,562.1	6,560.4	15.5	4.6	-63.56	1,272.0	763.2	1,803.0	1,784.4	18.59	96.994	
6,650.0	6,561.3	6,599.1	6,597.4	15.6	4.6	-65.72	1,272.7	762.3	1,785.3	1,766.5	18.78	95.039	
6,700.0	6,596.1	6,633.6	6,631.9	15.6	4.6	-68.00	1,273.4	761.4	1,766.8	1,747.7	19.04	92.807	
6,750.0	6,628.4	6,665.5	6,663.8	15.7	4.6	-70.37	1,273.9	760.7	1,747.6	1,728.3	19.35	90.306	
6,800.0	6,658.0	6,694.7	6,693.0	15.9	4.6	-72.80	1,274.4	760.1	1,728.1	1,708.4	19.74	87.558	
6,850.0	6,684.6	6,720.9	6,719.2	16.2	4.6	-75.24	1,274.8	759.5	1,708.4	1,688.2	20.19	84.600	
6,900.0	6,708.3	6,744.1	6,742.4	16.5	4.6	-77.63	1,275.2	759.0	1,688.8	1,668.1	20.73	81.481	
6,950.0	6,728.8	6,764.1	6,762.4	17.0	4.6	-79.95	1,275.4	758.6	1,669.5	1,648.1	21.33	78.258	
7,000.0	6,746.1	6,780.8	6,779.1	17.6	4.6	-82.14	1,275.7	758.3	1,650.6	1,628.6	22.01	74.989	
7,050.0	6,760.0	6,794.2	6,792.5	18.3	4.6	-84.16	1,275.9	758.1	1,632.6	1,609.8	22.76	71.732	
7,100.0	6,770.6	6,804.1	6,802.4	19.1	4.6	-85.98	1,276.0	757.9	1,615.4	1,591.8	23.57	68.541	
7,150.0	6,777.8	6,810.5	6,808.8	19.9	4.6	-87.57	1,276.1	757.8	1,599.3	1,574.9	24.43	65.461	
7,200.0	6,781.5	6,813.3	6,811.6	20.8	4.6	-88.92	1,276.1	757.7	1,584.5	1,559.2	25.34	62.529	
7,232.6	6,782.0	6,813.3	6,811.5	21.4	4.6	-89.65	1,276.1	757.7	1,575.6	1,549.7	25.95	60.710	
7,300.0	6,781.5	6,811.5	6,809.8	22.7	4.6	-89.59	1,276.1	757.7	1,559.2	1,531.9	27.26	57.192	
7,400.0	6,780.9	6,808.9	6,807.2	24.8	4.6	-89.49	1,276.1	757.8	1,539.9	1,510.6	29.34	52.479	
7,500.0	6,780.2	6,806.3	6,804.6	27.0	4.6	-89.39	1,276.0	757.8	1,527.0	1,495.4	31.56	48.389	
7,600.0	6,779.5	6,803.7	6,801.9	29.4	4.6	-89.29	1,276.0	757.9	1,520.5	1,486.6	33.87	44.891	
7,648.8	6,779.2	6,802.4	6,800.6	30.5	4.6	-89.24	1,276.0	757.9	1,519.7	1,484.7	35.04	43.372 CC	
7,700.0	6,778.9	6,801.0	6,799.3	31.8	4.6	-89.19	1,276.0	757.9	1,520.6	1,484.3	36.27	41.929 ES	
7,800.0	6,778.2	6,798.4	6,796.6	34.2	4.6	-89.09	1,275.9	758.0	1,527.2	1,488.5	38.72	39.440	
7,900.0	6,777.5	6,795.7	6,794.0	36.7	4.6	-88.99	1,275.9	758.0	1,540.3	1,499.1	41.23	37.360	
8,000.0	6,776.9	6,793.0	6,791.3	39.3	4.6	-88.89	1,275.8	758.1	1,559.7	1,516.0	43.78	35.629	
8,100.0	6,776.2	6,790.3	6,788.6	41.9	4.6	-88.79	1,275.8	758.1	1,585.2	1,538.9	46.36	34.196	
8,200.0	6,775.5	6,787.6	6,785.8	44.5	4.6	-88.68	1,275.8	758.2	1,616.5	1,567.6	48.96	33.014	
8,300.0	6,774.9	6,784.8	6,783.1	47.1	4.6	-88.58	1,275.7	758.2	1,653.3	1,601.7	51.59	32.043	
8,400.0	6,774.2	6,782.1	6,780.4	49.8	4.6	-88.48	1,275.7	758.3	1,695.1	1,640.9	54.24	31.250	

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

# Anticollision Report



<b>Company:</b>	PDC ENERGY	<b>Local Co-ordinate Reference:</b>	Well KINZER 28I-202
<b>Project:</b>	WELD COUNTY, COLORADO	<b>TVD Reference:</b>	KB-EST @ 4797.5usft
<b>Reference Site:</b>	SW SW SEC. 28 T5N R67W 6th P.M.	<b>MD Reference:</b>	KB-EST @ 4797.5usft
<b>Site Error:</b>	0.0 usft	<b>North Reference:</b>	True
<b>Reference Well:</b>	KINZER 28I-202	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Well Error:</b>	0.0 usft	<b>Output errors are at</b>	2.00 sigma
<b>Reference Wellbore</b>	ORIGINAL WELLBORE	<b>Database:</b>	EDM 5000.1 Single User Db
<b>Reference Design:</b>	PROPOSAL #1	<b>Offset TVD Reference:</b>	Offset Datum

<b>Offset Design</b> SW SW SEC. 28 T5N R67W 6th P.M. - EXIST VERT KINZER 28B - Wellbore #1 - Wellbore #1												<b>Offset Site Error:</b>	0.0 usft
Survey Program: 650-GYD_CT												<b>Offset Well Error:</b>	0.0 usft
Reference	Offset	Semi Major Axis		Distance									
Measured Depth (usft)	Vertical Depth (usft)	Measured Depth (usft)	Vertical Depth (usft)	Reference (usft)	Offset (usft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (usft)	+E/-W (usft)	Between Centres (usft)	Between Ellipses (usft)	Minimum Separation (usft)	Separation Factor	Warning
8,500.0	6,773.5	6,779.3	6,777.6	52.4	4.6	-88.37	1,275.7	758.3	1,741.7	1,684.8	56.91	30.605	
8,600.0	6,772.9	6,776.5	6,774.8	55.1	4.6	-88.27	1,275.6	758.4	1,792.7	1,733.1	59.59	30.085	
8,700.0	6,772.2	6,773.7	6,772.0	57.8	4.6	-88.16	1,275.6	758.5	1,847.6	1,785.4	62.28	29.668	
8,800.0	6,771.5	6,770.9	6,769.2	60.5	4.6	-88.06	1,275.5	758.5	1,906.3	1,841.3	64.98	29.337	
8,900.0	6,770.9	6,768.1	6,766.3	63.2	4.6	-87.95	1,275.5	758.6	1,968.2	1,900.5	67.69	29.079	
9,000.0	6,770.2	6,765.2	6,763.5	65.9	4.6	-87.84	1,275.5	758.6	2,033.2	1,962.8	70.40	28.880	
9,100.0	6,769.5	6,762.4	6,760.6	68.7	4.6	-87.73	1,275.4	758.7	2,101.0	2,027.8	73.13	28.731	
9,200.0	6,768.9	6,759.5	6,757.7	71.4	4.6	-87.62	1,275.4	758.7	2,171.2	2,095.3	75.85	28.624	
9,300.0	6,768.2	6,756.6	6,754.8	74.1	4.6	-87.51	1,275.3	758.8	2,243.7	2,165.1	78.59	28.550	
9,400.0	6,767.5	6,753.6	6,751.9	76.9	4.6	-87.40	1,275.3	758.9	2,318.2	2,236.9	81.32	28.506	
9,500.0	6,766.8	6,750.7	6,749.0	79.6	4.6	-87.29	1,275.3	758.9	2,394.6	2,310.5	84.06	28.485	
9,600.0	6,766.2	6,747.7	6,746.0	82.4	4.6	-87.18	1,275.2	759.0	2,472.6	2,385.8	86.81	28.484 SF	
9,700.0	6,765.5	6,744.8	6,743.0	85.2	4.6	-87.07	1,275.2	759.0	2,552.2	2,462.7	89.56	28.499	
9,800.0	6,764.8	6,741.8	6,740.0	87.9	4.6	-86.96	1,275.1	759.1	2,633.2	2,540.9	92.30	28.528	
9,900.0	6,764.1	6,738.8	6,737.0	90.7	4.6	-86.84	1,275.1	759.2	2,715.5	2,620.4	95.06	28.567	
10,000.0	6,763.5	6,735.7	6,734.0	93.4	4.6	-86.73	1,275.0	759.2	2,798.9	2,701.1	97.81	28.616	
10,100.0	6,762.8	6,732.7	6,730.9	96.2	4.6	-86.61	1,275.0	759.3	2,883.3	2,782.8	100.56	28.672	
10,200.0	6,762.1	6,729.6	6,727.9	99.0	4.6	-86.50	1,274.9	759.3	2,968.7	2,865.4	103.32	28.734	
10,300.0	6,761.4	6,726.5	6,724.8	101.8	4.6	-86.38	1,274.9	759.4	3,055.0	2,949.0	106.08	28.800	
10,400.0	6,760.8	6,723.4	6,721.7	104.5	4.6	-86.26	1,274.8	759.5	3,142.2	3,033.3	108.83	28.871	
10,500.0	6,760.1	6,720.3	6,718.6	107.3	4.6	-86.15	1,274.8	759.5	3,230.0	3,118.4	111.59	28.945	
10,600.0	6,759.4	6,717.1	6,715.4	110.1	4.6	-86.03	1,274.7	759.6	3,318.5	3,204.2	114.35	29.021	
10,700.0	6,758.7	6,714.0	6,712.3	112.9	4.6	-85.91	1,274.7	759.7	3,407.7	3,290.6	117.11	29.098	
10,800.0	6,758.1	6,710.8	6,709.1	115.6	4.6	-85.79	1,274.7	759.7	3,497.5	3,377.6	119.87	29.177	
10,900.0	6,757.4	6,707.6	6,705.9	118.4	4.6	-85.67	1,274.6	759.8	3,587.8	3,465.1	122.63	29.257	
11,000.0	6,756.7	6,704.4	6,702.6	121.2	4.6	-85.54	1,274.5	759.9	3,678.5	3,553.2	125.39	29.337	
11,100.0	6,756.0	6,701.1	6,699.4	124.0	4.6	-85.42	1,274.5	759.9	3,769.8	3,641.7	128.15	29.418	
11,200.0	6,755.3	6,697.8	6,696.1	126.8	4.6	-85.30	1,274.4	760.0	3,861.5	3,730.6	130.91	29.498	
11,300.0	6,754.7	6,694.6	6,692.8	129.6	4.6	-85.18	1,274.4	760.1	3,953.6	3,819.9	133.66	29.579	
11,400.0	6,754.0	6,691.2	6,689.5	132.4	4.6	-85.05	1,274.3	760.2	4,046.0	3,909.6	136.42	29.659	
11,500.0	6,753.3	6,687.9	6,686.2	135.1	4.6	-84.92	1,274.3	760.2	4,138.8	3,999.7	139.18	29.738	
11,600.0	6,752.6	6,684.6	6,682.9	137.9	4.6	-84.80	1,274.2	760.3	4,232.0	4,090.1	141.93	29.817	
11,700.0	6,751.9	6,681.2	6,679.5	140.7	4.6	-84.67	1,274.2	760.4	4,325.4	4,180.7	144.69	29.895	
11,800.0	6,751.3	6,677.8	6,676.1	143.5	4.6	-84.54	1,274.1	760.4	4,419.1	4,271.7	147.44	29.973	
11,837.2	6,751.0	6,676.5	6,674.8	144.6	4.6	-84.50	1,274.1	760.5	4,454.1	4,305.7	148.46	30.001	

# Anticollision Report



<b>Company:</b>	PDC ENERGY	<b>Local Co-ordinate Reference:</b>	Well KINZER 281-202
<b>Project:</b>	WELD COUNTY, COLORADO	<b>TVD Reference:</b>	KB-EST @ 4797.5usft
<b>Reference Site:</b>	SW SW SEC. 28 T5N R67W 6th P.M.	<b>MD Reference:</b>	KB-EST @ 4797.5usft
<b>Site Error:</b>	0.0 usft	<b>North Reference:</b>	True
<b>Reference Well:</b>	KINZER 281-202	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Well Error:</b>	0.0 usft	<b>Output errors are at</b>	2.00 sigma
<b>Reference Wellbore</b>	ORIGINAL WELLBORE	<b>Database:</b>	EDM 5000.1 Single User Db
<b>Reference Design:</b>	PROPOSAL #1	<b>Offset TVD Reference:</b>	Offset Datum

Offset Design												Offset Site Error:	0.0 usft
Survey Program: 0-INC												Offset Well Error:	0.0 usft
Reference		Offset		Semi Major Axis			Distance						Warning
Measured Depth (usft)	Vertical Depth (usft)	Measured Depth (usft)	Vertical Depth (usft)	Reference (usft)	Offset (usft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (usft)	+E/-W (usft)	Between Centres (usft)	Between Ellipses (usft)	Minimum Separation (usft)	Separation Factor	
0.0	0.0	77.5	77.5	0.0	0.1	5.41	2,852.5	270.3	2,865.3				
100.0	100.0	177.5	177.5	0.1	2.1	5.41	2,852.5	270.3	2,865.3	2,863.1	2.24	1,277.951	
200.0	200.0	277.5	277.5	0.3	4.3	5.41	2,852.5	270.3	2,865.3	2,860.7	4.65	615.607	
300.0	300.0	377.5	377.5	0.5	6.4	5.41	2,852.5	270.3	2,865.3	2,858.4	6.92	414.137	
400.0	400.0	477.5	477.5	0.8	8.4	5.41	2,852.5	270.3	2,865.3	2,856.1	9.17	312.522	
500.0	500.0	577.5	577.5	1.0	10.4	5.41	2,852.5	270.3	2,865.3	2,853.9	11.41	251.071	
600.0	600.0	677.5	677.5	1.2	12.4	5.41	2,852.5	270.3	2,865.3	2,851.7	13.65	209.857	
700.0	700.0	777.5	777.5	1.4	14.4	5.41	2,852.5	270.3	2,865.3	2,849.4	15.89	180.284	
800.0	800.0	877.5	877.5	1.7	16.5	5.41	2,852.5	270.3	2,865.3	2,847.2	18.13	158.025	
900.0	900.0	977.5	977.5	1.9	18.5	5.41	2,852.5	270.3	2,865.3	2,844.9	20.37	140.663	
1,000.0	1,000.0	1,077.5	1,077.5	2.1	20.5	5.41	2,852.5	270.3	2,865.3	2,842.7	22.61	126.741 CC	
1,100.0	1,100.0	1,177.5	1,177.5	2.3	22.5	128.15	2,852.5	270.3	2,866.4	2,841.6	24.82	115.496 ES	
1,200.0	1,199.8	1,277.3	1,277.3	2.5	24.5	128.18	2,852.5	270.3	2,869.6	2,842.6	27.00	106.285	
1,300.0	1,299.5	1,377.0	1,377.0	2.7	26.5	128.23	2,852.5	270.3	2,875.0	2,845.9	29.17	98.553	
1,400.0	1,398.7	1,476.2	1,476.2	3.0	28.5	128.30	2,852.5	270.3	2,882.6	2,851.3	31.34	91.990	
1,500.0	1,497.5	1,575.0	1,575.0	3.2	30.5	128.39	2,852.5	270.3	2,892.4	2,858.9	33.49	86.361	
1,502.5	1,500.0	1,577.5	1,577.5	3.2	30.5	128.39	2,852.5	270.3	2,892.7	2,859.1	33.55	86.230	
1,600.0	1,595.9	1,673.4	1,673.4	3.5	32.5	128.65	2,852.5	270.3	2,903.4	2,867.6	35.72	81.274	
1,700.0	1,694.4	1,771.9	1,771.9	3.8	34.5	128.92	2,852.5	270.3	2,914.4	2,876.4	37.97	76.756	
1,800.0	1,792.9	1,870.4	1,870.4	4.2	36.4	129.18	2,852.5	270.3	2,925.5	2,885.3	40.23	72.725	
1,900.0	1,891.3	1,968.8	1,968.8	4.5	38.4	129.44	2,852.5	270.3	2,936.6	2,894.2	42.49	69.111	
2,000.0	1,989.8	2,067.3	2,067.3	4.9	40.4	129.70	2,852.5	270.3	2,947.9	2,903.1	44.76	65.856	
2,100.0	2,088.3	2,165.8	2,165.8	5.2	42.4	129.96	2,852.5	270.3	2,959.1	2,912.1	47.04	62.910	
2,200.0	2,186.7	2,264.2	2,264.2	5.6	44.4	130.21	2,852.5	270.3	2,970.5	2,921.2	49.32	60.233	
2,300.0	2,285.2	2,362.7	2,362.7	6.0	46.3	130.47	2,852.5	270.3	2,981.9	2,930.3	51.60	57.791	
2,400.0	2,383.7	2,461.2	2,461.2	6.4	48.3	130.72	2,852.5	270.3	2,993.3	2,939.5	53.88	55.555	
2,500.0	2,482.1	2,559.6	2,559.6	6.7	50.3	130.97	2,852.5	270.3	3,004.9	2,948.7	56.17	53.500	
2,600.0	2,580.6	2,658.1	2,658.1	7.1	52.3	131.22	2,852.5	270.3	3,016.4	2,958.0	58.45	51.606	
2,700.0	2,679.1	2,756.6	2,756.6	7.5	54.3	131.46	2,852.5	270.3	3,028.1	2,967.3	60.74	49.855	
2,800.0	2,777.5	2,855.0	2,855.0	7.9	56.2	131.71	2,852.5	270.3	3,039.7	2,976.7	63.02	48.231	
2,900.0	2,876.0	2,953.5	2,953.5	8.3	58.2	131.95	2,852.5	270.3	3,051.5	2,986.2	65.31	46.722	
3,000.0	2,974.4	3,051.9	3,051.9	8.7	60.2	132.19	2,852.5	270.3	3,063.3	2,995.7	67.60	45.316	
3,100.0	3,072.9	3,150.4	3,150.4	9.1	62.2	132.43	2,852.5	270.3	3,075.1	3,005.2	69.88	44.003	
3,200.0	3,171.4	3,248.9	3,248.9	9.5	64.2	132.67	2,852.5	270.3	3,087.0	3,014.8	72.17	42.774	
3,300.0	3,269.8	3,347.3	3,347.3	9.9	66.1	132.90	2,852.5	270.3	3,099.0	3,024.5	74.46	41.622	
3,400.0	3,368.3	3,445.8	3,445.8	10.3	68.1	133.14	2,852.5	270.3	3,111.0	3,034.2	76.74	40.539	
3,500.0	3,466.8	3,544.3	3,544.3	10.7	70.1	133.37	2,852.5	270.3	3,123.0	3,044.0	79.02	39.520	
3,580.8	3,546.3	3,623.8	3,623.8	11.0	71.7	133.55	2,852.5	270.3	3,132.8	3,051.9	80.87	38.739	
3,600.0	3,565.3	3,642.8	3,642.8	11.1	72.1	133.63	2,852.5	270.3	3,135.1	3,053.8	81.34	38.543	
3,700.0	3,664.1	3,741.6	3,741.6	11.3	74.1	133.98	2,852.5	270.3	3,145.6	3,061.9	83.73	37.567	
3,800.0	3,763.4	3,840.9	3,840.9	11.6	76.1	134.25	2,852.5	270.3	3,153.7	3,067.6	86.08	36.636	
3,900.0	3,863.1	3,940.6	3,940.6	11.8	78.1	134.43	2,852.5	270.3	3,159.4	3,071.0	88.38	35.747	
4,000.0	3,963.0	4,040.5	4,040.5	12.0	80.1	134.54	2,852.5	270.3	3,162.7	3,072.0	90.62	34.899	
4,083.3	4,046.3	4,123.8	4,123.8	12.1	81.8	11.85	2,852.5	270.3	3,163.5	3,071.1	92.44	34.222	
4,100.0	4,063.0	4,140.5	4,140.5	12.1	82.1	11.85	2,852.5	270.3	3,163.5	3,070.7	92.80	34.088	
4,200.0	4,163.0	4,240.5	4,240.5	12.3	84.1	11.85	2,852.5	270.3	3,163.5	3,068.5	94.98	33.309	
4,300.0	4,263.0	4,340.5	4,340.5	12.4	86.1	11.85	2,852.5	270.3	3,163.5	3,066.4	97.15	32.563	
4,400.0	4,363.0	4,440.5	4,440.5	12.6	88.1	11.85	2,852.5	270.3	3,163.5	3,064.2	99.33	31.849	
4,500.0	4,463.0	4,540.5	4,540.5	12.7	90.1	11.85	2,852.5	270.3	3,163.5	3,062.0	101.51	31.165	
4,600.0	4,563.0	4,640.5	4,640.5	12.9	92.1	11.85	2,852.5	270.3	3,163.5	3,059.8	103.69	30.510	
4,700.0	4,663.0	4,740.5	4,740.5	13.0	94.2	11.85	2,852.5	270.3	3,163.5	3,057.6	105.87	29.881	
4,800.0	4,763.0	4,840.5	4,840.5	13.2	96.2	11.85	2,852.5	270.3	3,163.5	3,055.4	108.05	29.277	

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

# Anticollision Report



<b>Company:</b>	PDC ENERGY	<b>Local Co-ordinate Reference:</b>	Well KINZER 281-202
<b>Project:</b>	WELD COUNTY, COLORADO	<b>TVD Reference:</b>	KB-EST @ 4797.5usft
<b>Reference Site:</b>	SW SW SEC. 28 T5N R67W 6th P.M.	<b>MD Reference:</b>	KB-EST @ 4797.5usft
<b>Site Error:</b>	0.0 usft	<b>North Reference:</b>	True
<b>Reference Well:</b>	KINZER 281-202	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Well Error:</b>	0.0 usft	<b>Output errors are at</b>	2.00 sigma
<b>Reference Wellbore</b>	ORIGINAL WELLBORE	<b>Database:</b>	EDM 5000.1 Single User Db
<b>Reference Design:</b>	PROPOSAL #1	<b>Offset TVD Reference:</b>	Offset Datum

Offset Design												Offset Site Error:	0.0 usft
Survey Program: 0-INC												Offset Well Error:	0.0 usft
Reference		Offset		Semi Major Axis			Distance						Warning
Measured Depth (usft)	Vertical Depth (usft)	Measured Depth (usft)	Vertical Depth (usft)	Reference (usft)	Offset (usft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (usft)	+E/-W (usft)	Between Centres (usft)	Between Ellipses (usft)	Minimum Separation (usft)	Separation Factor	
4,900.0	4,863.0	4,940.5	4,940.5	13.4	98.2	11.85	2,852.5	270.3	3,163.5	3,053.3	110.24	28.696	
5,000.0	4,963.0	5,040.5	5,040.5	13.5	100.2	11.85	2,852.5	270.3	3,163.5	3,051.1	112.43	28.138	
5,100.0	5,063.0	5,140.5	5,140.5	13.7	102.2	11.85	2,852.5	270.3	3,163.5	3,048.9	114.62	27.600	
5,200.0	5,163.0	5,240.5	5,240.5	13.9	104.2	11.85	2,852.5	270.3	3,163.5	3,046.7	116.81	27.083	
5,300.0	5,263.0	5,340.5	5,340.5	14.0	106.2	11.85	2,852.5	270.3	3,163.5	3,044.5	119.00	26.584	
5,400.0	5,363.0	5,440.5	5,440.5	14.2	108.2	11.85	2,852.5	270.3	3,163.5	3,042.3	121.20	26.103	
5,500.0	5,463.0	5,540.5	5,540.5	14.4	110.2	11.85	2,852.5	270.3	3,163.5	3,040.1	123.39	25.638	
5,600.0	5,563.0	5,640.5	5,640.5	14.5	112.3	11.85	2,852.5	270.3	3,163.5	3,037.9	125.59	25.190	
5,700.0	5,663.0	5,740.5	5,740.5	14.7	114.3	11.85	2,852.5	270.3	3,163.5	3,035.7	127.78	24.757	
5,800.0	5,763.0	5,840.5	5,840.5	14.9	116.3	11.85	2,852.5	270.3	3,163.5	3,033.5	129.98	24.338	
5,900.0	5,863.0	5,940.5	5,940.5	15.1	118.3	11.85	2,852.5	270.3	3,163.5	3,031.3	132.18	23.933	
6,000.0	5,963.0	6,040.5	6,040.5	15.2	120.3	11.85	2,852.5	270.3	3,163.5	3,029.1	134.38	23.541	
6,100.0	6,063.0	6,140.5	6,140.5	15.4	122.3	11.85	2,852.5	270.3	3,163.5	3,026.9	136.58	23.162	
6,102.8	6,065.8	6,143.3	6,143.3	15.4	122.4	11.85	2,852.5	270.3	3,163.5	3,026.9	136.65	23.151	
6,150.0	6,112.9	6,190.4	6,190.4	15.5	123.3	-78.21	2,852.5	270.3	3,163.2	3,025.4	137.74	22.966	
6,200.0	6,162.7	6,240.2	6,240.2	15.5	124.3	-78.38	2,852.5	270.3	3,162.2	3,023.4	138.76	22.789	
6,250.0	6,211.9	6,289.4	6,289.4	15.6	125.3	-78.66	2,852.5	270.3	3,160.4	3,020.7	139.74	22.617	
6,300.0	6,260.5	6,338.0	6,338.0	15.6	126.3	-79.05	2,852.5	270.3	3,158.1	3,017.4	140.68	22.449	
6,350.0	6,308.1	6,385.6	6,385.6	15.6	127.2	-79.54	2,852.5	270.3	3,155.1	3,013.5	141.59	22.283	
6,400.0	6,354.5	6,432.0	6,432.0	15.6	128.2	-80.13	2,852.5	270.3	3,151.6	3,009.1	142.48	22.119	
6,450.0	6,399.5	6,477.0	6,477.0	15.6	129.1	-80.80	2,852.5	270.3	3,147.6	3,004.2	143.36	21.956	
6,500.0	6,442.9	6,520.4	6,520.4	15.5	130.0	-81.53	2,852.5	270.3	3,143.2	2,999.0	144.24	21.792	
6,550.0	6,484.5	6,562.0	6,562.0	15.5	130.8	-82.32	2,852.5	270.3	3,138.6	2,993.4	145.12	21.627	
6,600.0	6,524.0	6,601.5	6,601.5	15.5	131.6	-83.15	2,852.5	270.3	3,133.7	2,987.7	146.01	21.461	
6,650.0	6,561.3	6,638.8	6,638.8	15.6	132.3	-84.00	2,852.5	270.3	3,128.7	2,981.8	146.92	21.295	
6,700.0	6,596.1	6,673.6	6,673.6	15.6	133.0	-84.86	2,852.5	270.3	3,123.8	2,975.9	147.84	21.129	
6,750.0	6,628.4	6,705.9	6,705.9	15.7	133.7	-85.70	2,852.5	270.3	3,118.9	2,970.1	148.78	20.963	
6,800.0	6,658.0	6,735.5	6,735.5	15.9	134.3	-86.51	2,852.5	270.3	3,114.3	2,964.6	149.73	20.799	
6,850.0	6,684.6	6,762.1	6,762.1	16.2	134.8	-87.27	2,852.5	270.3	3,110.0	2,959.3	150.70	20.637	
6,900.0	6,708.3	6,785.8	6,785.8	16.5	135.3	-87.96	2,852.5	270.3	3,106.2	2,954.5	151.67	20.479	
6,950.0	6,728.8	6,806.3	6,806.3	17.0	135.7	-88.57	2,852.5	270.3	3,102.9	2,950.2	152.66	20.326	
7,000.0	6,746.1	6,823.6	6,823.6	17.6	136.1	-89.09	2,852.5	270.3	3,100.1	2,946.5	153.65	20.177	
7,050.0	6,760.0	6,837.5	6,837.5	18.3	136.3	-89.50	2,852.5	270.3	3,098.1	2,943.4	154.64	20.034	
7,100.0	6,770.6	6,848.1	6,848.1	19.1	136.5	-89.80	2,852.5	270.3	3,096.7	2,941.1	155.63	19.898	
7,150.0	6,777.8	6,855.3	6,855.3	19.9	136.7	-89.98	2,852.5	270.3	3,096.2	2,939.5	156.61	19.770	
7,160.9	6,778.9	6,856.4	6,856.4	20.1	136.7	-90.00	2,852.5	270.3	3,096.1	2,939.3	156.82	19.743	
7,200.0	6,781.5	6,859.0	6,859.0	20.8	136.8	-90.03	2,852.5	270.3	3,096.4	2,938.8	157.57	19.651	
7,232.6	6,782.0	6,859.5	6,859.5	21.4	136.8	-89.99	2,852.5	270.3	3,097.0	2,938.8	158.19	19.578	
7,300.0	6,781.5	6,859.0	6,859.0	22.7	136.8	-89.98	2,852.5	270.3	3,099.3	2,939.8	159.49	19.433	
7,400.0	6,780.9	6,858.4	6,858.4	24.8	136.8	-89.97	2,852.5	270.3	3,105.3	2,943.8	161.56	19.222	
7,500.0	6,780.2	6,857.7	6,857.7	27.0	136.7	-89.96	2,852.5	270.3	3,114.6	2,950.9	163.76	19.020	
7,600.0	6,779.5	6,857.0	6,857.0	29.4	136.7	-89.95	2,852.5	270.3	3,127.1	2,961.0	166.06	18.831	
7,700.0	6,778.9	6,856.4	6,856.4	31.8	136.7	-89.93	2,852.5	270.3	3,142.7	2,974.3	168.44	18.657	
7,800.0	6,778.2	6,855.7	6,855.7	34.2	136.7	-89.92	2,852.5	270.3	3,161.4	2,990.5	170.89	18.500	
7,900.0	6,777.5	6,855.0	6,855.0	36.7	136.7	-89.91	2,852.5	270.3	3,183.1	3,009.7	173.38	18.359	
8,000.0	6,776.9	6,854.4	6,854.4	39.3	136.7	-89.90	2,852.5	270.3	3,207.8	3,031.9	175.92	18.234	
8,100.0	6,776.2	6,853.7	6,853.7	41.9	136.7	-89.88	2,852.5	270.3	3,235.4	3,056.9	178.49	18.127	
8,200.0	6,775.5	6,853.0	6,853.0	44.5	136.6	-89.87	2,852.5	270.3	3,265.8	3,084.7	181.09	18.035	
8,300.0	6,774.9	6,852.4	6,852.4	47.1	136.6	-89.86	2,852.5	270.3	3,299.0	3,115.3	183.71	17.958	
8,400.0	6,774.2	6,851.7	6,851.7	49.8	136.6	-89.85	2,852.5	270.3	3,334.8	3,148.5	186.34	17.896	
8,500.0	6,773.5	6,851.0	6,851.0	52.4	136.6	-89.83	2,852.5	270.3	3,373.3	3,184.3	189.00	17.848	
8,600.0	6,772.9	6,850.4	6,850.4	55.1	136.6	-89.82	2,852.5	270.3	3,414.2	3,222.5	191.67	17.813	

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



# Anticollision Report



<b>Company:</b>	PDC ENERGY	<b>Local Co-ordinate Reference:</b>	Well KINZER 28I-202
<b>Project:</b>	WELD COUNTY, COLORADO	<b>TVD Reference:</b>	KB-EST @ 4797.5usft
<b>Reference Site:</b>	SW SW SEC. 28 T5N R67W 6th P.M.	<b>MD Reference:</b>	KB-EST @ 4797.5usft
<b>Site Error:</b>	0.0 usft	<b>North Reference:</b>	True
<b>Reference Well:</b>	KINZER 28I-202	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Well Error:</b>	0.0 usft	<b>Output errors are at</b>	2.00 sigma
<b>Reference Wellbore</b>	ORIGINAL WELLBORE	<b>Database:</b>	EDM 5000.1 Single User Db
<b>Reference Design:</b>	PROPOSAL #1	<b>Offset TVD Reference:</b>	Offset Datum

<b>Offset Design</b> SW SW SEC. 28 T5N R67W 6th P.M. - EXIST VERT KIZNER 28-1 - Wellbore #1 - Design #1												<b>Offset Site Error:</b>	0.0 usft
Survey Program: 0-INC												<b>Offset Well Error:</b>	0.0 usft
Reference		Offset		Semi Major Axis			Distance						Warning
Measured Depth (usft)	Vertical Depth (usft)	Measured Depth (usft)	Vertical Depth (usft)	Reference (usft)	Offset (usft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (usft)	+E/-W (usft)	Between Centres (usft)	Between Ellipses (usft)	Minimum Separation (usft)	Separation Factor	
8,700.0	6,772.2	6,849.7	6,849.7	57.8	136.6	-89.81	2,852.5	270.3	3,457.5	3,263.2	194.35	17.790	
8,800.0	6,771.5	6,849.0	6,849.0	60.5	136.6	-89.80	2,852.5	270.3	3,503.2	3,306.1	197.04	17.779	
8,900.0	6,770.9	6,848.4	6,848.4	63.2	136.6	-89.78	2,852.5	270.3	3,551.1	3,351.3	199.74	17.778 SF	
9,000.0	6,770.2	6,847.7	6,847.7	65.9	136.5	-89.77	2,852.5	270.3	3,601.1	3,398.6	202.45	17.787	
9,100.0	6,769.5	6,847.0	6,847.0	68.7	136.5	-89.76	2,852.5	270.3	3,653.2	3,448.0	205.17	17.806	
9,200.0	6,768.9	6,846.4	6,846.4	71.4	136.5	-89.75	2,852.5	270.3	3,707.2	3,499.3	207.89	17.833	
9,300.0	6,768.2	6,845.7	6,845.7	74.1	136.5	-89.73	2,852.5	270.3	3,763.1	3,552.5	210.61	17.867	
9,400.0	6,767.5	6,845.0	6,845.0	76.9	136.5	-89.72	2,852.5	270.3	3,820.8	3,607.5	213.35	17.909	
9,500.0	6,766.8	6,844.3	6,844.3	79.6	136.5	-89.71	2,852.5	270.3	3,880.3	3,664.2	216.08	17.957	
9,600.0	6,766.2	6,843.7	6,843.7	82.4	136.5	-89.70	2,852.5	270.3	3,941.4	3,722.5	218.82	18.012	
9,700.0	6,765.5	6,843.0	6,843.0	85.2	136.4	-89.68	2,852.5	270.3	4,004.0	3,782.5	221.57	18.071	
9,800.0	6,764.8	6,842.3	6,842.3	87.9	136.4	-89.67	2,852.5	270.3	4,068.2	3,843.9	224.31	18.136	
9,900.0	6,764.1	6,841.6	6,841.6	90.7	136.4	-89.66	2,852.5	270.3	4,133.7	3,906.7	227.06	18.205	
10,000.0	6,763.5	6,841.0	6,841.0	93.4	136.4	-89.65	2,852.5	270.3	4,200.7	3,970.8	229.82	18.278	
10,100.0	6,762.8	6,840.3	6,840.3	96.2	136.4	-89.63	2,852.5	270.3	4,268.9	4,036.3	232.57	18.355	
10,200.0	6,762.1	6,839.6	6,839.6	99.0	136.4	-89.62	2,852.5	270.3	4,338.3	4,103.0	235.33	18.435	
10,300.0	6,761.4	6,838.9	6,838.9	101.8	136.4	-89.61	2,852.5	270.3	4,408.9	4,170.9	238.09	18.518	
10,400.0	6,760.8	6,838.3	6,838.3	104.5	136.3	-89.59	2,852.5	270.3	4,480.7	4,239.8	240.85	18.604	
10,500.0	6,760.1	6,837.6	6,837.6	107.3	136.3	-89.58	2,852.5	270.3	4,553.5	4,309.9	243.61	18.691	
10,600.0	6,759.4	6,836.9	6,836.9	110.1	136.3	-89.57	2,852.5	270.3	4,627.3	4,380.9	246.38	18.781	
10,700.0	6,758.7	6,836.2	6,836.2	112.9	136.3	-89.56	2,852.5	270.3	4,702.1	4,453.0	249.14	18.873	
10,800.0	6,758.1	6,835.6	6,835.6	115.6	136.3	-89.54	2,852.5	270.3	4,777.8	4,525.9	251.91	18.966	
10,900.0	6,757.4	6,834.9	6,834.9	118.4	136.3	-89.53	2,852.5	270.3	4,854.4	4,599.7	254.68	19.061	
11,000.0	6,756.7	6,834.2	6,834.2	121.2	136.3	-89.52	2,852.5	270.3	4,931.9	4,674.4	257.45	19.157	
11,100.0	6,756.0	6,833.5	6,833.5	124.0	136.3	-89.50	2,852.5	270.3	5,010.1	4,749.9	260.22	19.253	
11,200.0	6,755.3	6,832.8	6,832.8	126.8	136.2	-89.49	2,852.5	270.3	5,089.1	4,826.1	262.99	19.351	
11,300.0	6,754.7	6,832.2	6,832.2	129.6	136.2	-89.48	2,852.5	270.3	5,168.8	4,903.0	265.77	19.449	
11,400.0	6,754.0	6,831.5	6,831.5	132.4	136.2	-89.47	2,852.5	270.3	5,249.2	4,980.7	268.54	19.547	
11,500.0	6,753.3	6,830.8	6,830.8	135.1	136.2	-89.45	2,852.5	270.3	5,330.3	5,059.0	271.31	19.646	
11,600.0	6,752.6	6,830.1	6,830.1	137.9	136.2	-89.44	2,852.5	270.3	5,412.0	5,137.9	274.09	19.745	
11,700.0	6,751.9	6,829.4	6,829.4	140.7	136.2	-89.43	2,852.5	270.3	5,494.3	5,217.4	276.87	19.845	
11,800.0	6,751.3	6,828.8	6,828.8	143.5	136.2	-89.41	2,852.5	270.3	5,577.2	5,297.6	279.64	19.944	
11,837.2	6,751.0	6,828.5	6,828.5	144.6	136.2	-89.41	2,852.5	270.3	5,608.2	5,327.5	280.68	19.981	

# Anticollision Report



<b>Company:</b>	PDC ENERGY	<b>Local Co-ordinate Reference:</b>	Well KINZER 281-202
<b>Project:</b>	WELD COUNTY, COLORADO	<b>TVD Reference:</b>	KB-EST @ 4797.5usft
<b>Reference Site:</b>	SW SW SEC. 28 T5N R67W 6th P.M.	<b>MD Reference:</b>	KB-EST @ 4797.5usft
<b>Site Error:</b>	0.0 usft	<b>North Reference:</b>	True
<b>Reference Well:</b>	KINZER 281-202	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Well Error:</b>	0.0 usft	<b>Output errors are at</b>	2.00 sigma
<b>Reference Wellbore</b>	ORIGINAL WELLBORE	<b>Database:</b>	EDM 5000.1 Single User Db
<b>Reference Design:</b>	PROPOSAL #1	<b>Offset TVD Reference:</b>	Offset Datum

Offset Design												Offset Site Error:	0.0 usft
Survey Program: 0-INC												Offset Well Error:	0.0 usft
Reference		Offset		Semi Major Axis			Distance						Warning
Measured Depth (usft)	Vertical Depth (usft)	Measured Depth (usft)	Vertical Depth (usft)	Reference (usft)	Offset (usft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (usft)	+E/-W (usft)	Between Centres (usft)	Between Ellipses (usft)	Minimum Separation (usft)	Separation Factor	
0.0	0.0	69.5	69.5	0.0	0.2	50.70	1,511.9	1,847.5	2,387.3				
100.0	100.0	169.5	169.5	0.1	2.0	50.70	1,511.9	1,847.5	2,387.3	2,385.2	2.11	1,130.955	
200.0	200.0	269.5	269.5	0.3	4.2	50.70	1,511.9	1,847.5	2,387.3	2,382.7	4.56	523.710	
300.0	300.0	369.5	369.5	0.5	6.3	50.70	1,511.9	1,847.5	2,387.3	2,380.4	6.83	349.592	
400.0	400.0	469.5	469.5	0.8	8.3	50.70	1,511.9	1,847.5	2,387.3	2,378.2	9.08	262.888	
500.0	500.0	569.5	569.5	1.0	10.3	50.70	1,511.9	1,847.5	2,387.3	2,375.9	11.33	210.769	
600.0	600.0	669.5	669.5	1.2	12.3	50.70	1,511.9	1,847.5	2,387.3	2,373.7	13.57	175.940	
700.0	700.0	769.5	769.5	1.4	14.4	50.70	1,511.9	1,847.5	2,387.3	2,371.5	15.81	151.006	
800.0	800.0	869.5	869.5	1.7	16.4	50.70	1,511.9	1,847.5	2,387.3	2,369.2	18.05	132.271	
900.0	900.0	969.5	969.5	1.9	18.4	50.70	1,511.9	1,847.5	2,387.3	2,367.0	20.29	117.677	
1,000.0	1,000.0	1,069.5	1,069.5	2.1	20.4	50.70	1,511.9	1,847.5	2,387.3	2,364.7	22.52	105.985	
1,100.0	1,100.0	1,169.5	1,169.5	2.3	22.4	173.43	1,511.9	1,847.5	2,389.0	2,364.3	24.73	96.619	
1,200.0	1,199.8	1,269.3	1,269.3	2.5	24.4	173.43	1,511.9	1,847.5	2,394.2	2,367.3	26.88	89.086	
1,300.0	1,299.5	1,369.0	1,369.0	2.7	26.4	173.43	1,511.9	1,847.5	2,402.9	2,373.9	28.98	82.902	
1,400.0	1,398.7	1,468.2	1,468.2	3.0	28.4	173.44	1,511.9	1,847.5	2,415.0	2,383.9	31.04	77.791	
1,500.0	1,497.5	1,567.0	1,567.0	3.2	30.4	173.45	1,511.9	1,847.5	2,430.5	2,397.5	33.05	73.549	
1,502.5	1,500.0	1,569.5	1,569.5	3.2	30.5	173.45	1,511.9	1,847.5	2,430.9	2,397.9	33.10	73.452	
1,600.0	1,595.9	1,665.4	1,665.4	3.5	32.4	173.49	1,511.9	1,847.5	2,447.9	2,412.6	35.21	69.526	
1,700.0	1,694.4	1,763.9	1,763.9	3.8	34.4	173.54	1,511.9	1,847.5	2,465.2	2,427.8	37.38	65.950	
1,800.0	1,792.9	1,862.4	1,862.4	4.2	36.4	173.58	1,511.9	1,847.5	2,482.5	2,443.0	39.56	62.759	
1,900.0	1,891.3	1,960.8	1,960.8	4.5	38.3	173.63	1,511.9	1,847.5	2,499.9	2,458.1	41.74	59.896	
2,000.0	1,989.8	2,059.3	2,059.3	4.9	40.3	173.67	1,511.9	1,847.5	2,517.2	2,473.3	43.92	57.312	
2,100.0	2,088.3	2,157.8	2,157.8	5.2	42.3	173.71	1,511.9	1,847.5	2,534.6	2,488.5	46.11	54.971	
2,200.0	2,186.7	2,256.2	2,256.2	5.6	44.3	173.76	1,511.9	1,847.5	2,551.9	2,503.6	48.30	52.839	
2,300.0	2,285.2	2,354.7	2,354.7	6.0	46.3	173.80	1,511.9	1,847.5	2,569.3	2,518.8	50.49	50.890	
2,400.0	2,383.7	2,453.2	2,453.2	6.4	48.2	173.84	1,511.9	1,847.5	2,586.6	2,534.0	52.68	49.102	
2,500.0	2,482.1	2,551.6	2,551.6	6.7	50.2	173.88	1,511.9	1,847.5	2,604.0	2,549.1	54.87	47.455	
2,600.0	2,580.6	2,650.1	2,650.1	7.1	52.2	173.92	1,511.9	1,847.5	2,621.3	2,564.3	57.07	45.934	
2,700.0	2,679.1	2,748.6	2,748.6	7.5	54.2	173.96	1,511.9	1,847.5	2,638.7	2,579.4	59.26	44.525	
2,800.0	2,777.5	2,847.0	2,847.0	7.9	56.2	174.00	1,511.9	1,847.5	2,656.1	2,594.6	61.46	43.216	
2,900.0	2,876.0	2,945.5	2,945.5	8.3	58.1	174.04	1,511.9	1,847.5	2,673.4	2,609.8	63.66	41.996	
3,000.0	2,974.4	3,043.9	3,043.9	8.7	60.1	174.08	1,511.9	1,847.5	2,690.8	2,624.9	65.86	40.858	
3,100.0	3,072.9	3,142.4	3,142.4	9.1	62.1	174.12	1,511.9	1,847.5	2,708.1	2,640.1	68.06	39.793	
3,200.0	3,171.4	3,240.9	3,240.9	9.5	64.1	174.16	1,511.9	1,847.5	2,725.5	2,655.3	70.26	38.794	
3,300.0	3,269.8	3,339.3	3,339.3	9.9	66.1	174.19	1,511.9	1,847.5	2,742.9	2,670.4	72.46	37.856	
3,400.0	3,368.3	3,437.8	3,437.8	10.3	68.0	174.23	1,511.9	1,847.5	2,760.2	2,685.6	74.66	36.973	
3,500.0	3,466.8	3,536.3	3,536.3	10.7	70.0	174.27	1,511.9	1,847.5	2,777.6	2,700.7	76.86	36.140	
3,580.8	3,546.3	3,615.8	3,615.8	11.0	71.6	174.30	1,511.9	1,847.5	2,791.6	2,713.0	78.64	35.501	
3,600.0	3,565.3	3,634.8	3,634.8	11.1	72.0	174.31	1,511.9	1,847.5	2,794.9	2,715.8	79.14	35.316	
3,700.0	3,664.1	3,733.6	3,733.6	11.3	74.0	174.37	1,511.9	1,847.5	2,809.9	2,728.2	81.71	34.391	
3,800.0	3,763.4	3,832.9	3,832.9	11.6	76.0	174.41	1,511.9	1,847.5	2,821.5	2,737.3	84.20	33.511	
3,900.0	3,863.1	3,932.6	3,932.6	11.8	78.0	174.45	1,511.9	1,847.5	2,829.6	2,743.0	86.60	32.675	
4,000.0	3,963.0	4,032.5	4,032.5	12.0	80.0	174.46	1,511.9	1,847.5	2,834.2	2,745.3	88.90	31.880	
4,083.3	4,046.3	4,115.8	4,115.8	12.1	81.7	51.75	1,511.9	1,847.5	2,835.4	2,741.6	93.76	30.240	
4,100.0	4,063.0	4,132.5	4,132.5	12.1	82.0	51.75	1,511.9	1,847.5	2,835.4	2,741.3	94.12	30.125	
4,200.0	4,163.0	4,232.5	4,232.5	12.3	84.0	51.75	1,511.9	1,847.5	2,835.4	2,739.1	96.28	29.450	
4,300.0	4,263.0	4,332.5	4,332.5	12.4	86.0	51.75	1,511.9	1,847.5	2,835.4	2,737.0	98.44	28.804	
4,400.0	4,363.0	4,432.5	4,432.5	12.6	88.0	51.75	1,511.9	1,847.5	2,835.4	2,734.8	100.60	28.185	
4,500.0	4,463.0	4,532.5	4,532.5	12.7	90.1	51.75	1,511.9	1,847.5	2,835.4	2,732.6	102.76	27.591	
4,600.0	4,563.0	4,632.5	4,632.5	12.9	92.1	51.75	1,511.9	1,847.5	2,835.4	2,730.5	104.93	27.022	
4,700.0	4,663.0	4,732.5	4,732.5	13.0	94.1	51.75	1,511.9	1,847.5	2,835.4	2,728.3	107.10	26.475	
4,800.0	4,763.0	4,832.5	4,832.5	13.2	96.1	51.75	1,511.9	1,847.5	2,835.4	2,726.1	109.27	25.949	

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

# Anticollision Report



<b>Company:</b>	PDC ENERGY	<b>Local Co-ordinate Reference:</b>	Well KINZER 281-202
<b>Project:</b>	WELD COUNTY, COLORADO	<b>TVD Reference:</b>	KB-EST @ 4797.5usft
<b>Reference Site:</b>	SW SW SEC. 28 T5N R67W 6th P.M.	<b>MD Reference:</b>	KB-EST @ 4797.5usft
<b>Site Error:</b>	0.0 usft	<b>North Reference:</b>	True
<b>Reference Well:</b>	KINZER 281-202	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Well Error:</b>	0.0 usft	<b>Output errors are at</b>	2.00 sigma
<b>Reference Wellbore</b>	ORIGINAL WELLBORE	<b>Database:</b>	EDM 5000.1 Single User Db
<b>Reference Design:</b>	PROPOSAL #1	<b>Offset TVD Reference:</b>	Offset Datum

<b>Offset Design</b> SW SW SEC. 28 T5N R67W 6th P.M. - EXIST VERT MELLON 28-1 - Wellbore #1 - Design #1												<b>Offset Site Error:</b>	0.0 usft
Survey Program: 0-INC												<b>Offset Well Error:</b>	0.0 usft
Reference		Offset		Semi Major Axis			Distance						
Measured Depth (usft)	Vertical Depth (usft)	Measured Depth (usft)	Vertical Depth (usft)	Reference (usft)	Offset (usft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (usft)	+E/-W (usft)	Between Centres (usft)	Between Ellipses (usft)	Minimum Separation (usft)	Separation Factor	Warning
4,900.0	4,863.0	4,932.5	4,932.5	13.4	98.1	51.75	1,511.9	1,847.5	2,835.4	2,724.0	111.44	25.443	
5,000.0	4,963.0	5,032.5	5,032.5	13.5	100.1	51.75	1,511.9	1,847.5	2,835.4	2,721.8	113.61	24.956	
5,100.0	5,063.0	5,132.5	5,132.5	13.7	102.1	51.75	1,511.9	1,847.5	2,835.4	2,719.6	115.79	24.487	
5,200.0	5,163.0	5,232.5	5,232.5	13.9	104.1	51.75	1,511.9	1,847.5	2,835.4	2,717.4	117.97	24.035	
5,300.0	5,263.0	5,332.5	5,332.5	14.0	106.1	51.75	1,511.9	1,847.5	2,835.4	2,715.2	120.15	23.599	
5,400.0	5,363.0	5,432.5	5,432.5	14.2	108.2	51.75	1,511.9	1,847.5	2,835.4	2,713.1	122.33	23.179	
5,500.0	5,463.0	5,532.5	5,532.5	14.4	110.2	51.75	1,511.9	1,847.5	2,835.4	2,710.9	124.51	22.773	
5,600.0	5,563.0	5,632.5	5,632.5	14.5	112.2	51.75	1,511.9	1,847.5	2,835.4	2,708.7	126.69	22.380	
5,700.0	5,663.0	5,732.5	5,732.5	14.7	114.2	51.75	1,511.9	1,847.5	2,835.4	2,706.5	128.88	22.001	
5,800.0	5,763.0	5,832.5	5,832.5	14.9	116.2	51.75	1,511.9	1,847.5	2,835.4	2,704.3	131.06	21.634	
5,900.0	5,863.0	5,932.5	5,932.5	15.1	118.2	51.75	1,511.9	1,847.5	2,835.4	2,702.1	133.25	21.279	
6,000.0	5,963.0	6,032.5	6,032.5	15.2	120.2	51.75	1,511.9	1,847.5	2,835.4	2,700.0	135.44	20.935	
6,100.0	6,063.0	6,132.5	6,132.5	15.4	122.2	51.75	1,511.9	1,847.5	2,835.4	2,697.8	137.63	20.602	
6,102.8	6,065.8	6,135.3	6,135.3	15.4	122.3	51.75	1,511.9	1,847.5	2,835.4	2,697.7	137.69	20.592	
6,150.0	6,112.9	6,182.4	6,182.4	15.5	123.2	-38.33	1,511.9	1,847.5	2,834.2	2,697.9	136.25	20.802	
6,200.0	6,162.7	6,232.2	6,232.2	15.5	124.2	-38.59	1,511.9	1,847.5	2,830.2	2,693.5	136.72	20.701	
6,250.0	6,211.9	6,281.4	6,281.4	15.6	125.2	-39.04	1,511.9	1,847.5	2,823.6	2,686.8	136.79	20.642	
6,300.0	6,260.5	6,330.0	6,330.0	15.6	126.2	-39.67	1,511.9	1,847.5	2,814.3	2,677.8	136.50	20.617	
6,350.0	6,308.1	6,377.6	6,377.6	15.6	127.2	-40.50	1,511.9	1,847.5	2,802.4	2,666.5	135.90	20.621	
6,400.0	6,354.5	6,424.0	6,424.0	15.6	128.1	-41.53	1,511.9	1,847.5	2,787.9	2,652.9	135.06	20.642	
6,450.0	6,399.5	6,469.0	6,469.0	15.6	129.0	-42.78	1,511.9	1,847.5	2,771.1	2,637.0	134.08	20.668	
6,500.0	6,442.9	6,512.4	6,512.4	15.5	129.9	-44.26	1,511.9	1,847.5	2,751.9	2,618.8	133.08	20.679	
6,550.0	6,484.5	6,554.0	6,554.0	15.5	130.7	-45.97	1,511.9	1,847.5	2,730.6	2,598.4	132.21	20.654	
6,600.0	6,524.0	6,593.5	6,593.5	15.5	131.5	-47.94	1,511.9	1,847.5	2,707.2	2,575.6	131.62	20.568	
6,650.0	6,561.3	6,630.8	6,630.8	15.6	132.3	-50.17	1,511.9	1,847.5	2,681.9	2,550.5	131.48	20.399	
6,700.0	6,596.1	6,665.6	6,665.6	15.6	133.0	-52.68	1,511.9	1,847.5	2,655.0	2,523.0	131.92	20.126	
6,750.0	6,628.4	6,697.9	6,697.9	15.7	133.6	-55.45	1,511.9	1,847.5	2,626.4	2,493.4	133.05	19.740	
6,800.0	6,658.0	6,727.5	6,727.5	15.9	134.2	-58.49	1,511.9	1,847.5	2,596.6	2,461.7	134.90	19.248	
6,850.0	6,684.6	6,754.1	6,754.1	16.2	134.7	-61.79	1,511.9	1,847.5	2,565.6	2,428.2	137.44	18.668	
6,900.0	6,708.3	6,777.8	6,777.8	16.5	135.2	-65.30	1,511.9	1,847.5	2,533.6	2,393.1	140.51	18.032	
6,950.0	6,728.8	6,798.3	6,798.3	17.0	135.6	-69.00	1,511.9	1,847.5	2,501.0	2,357.1	143.90	17.380	
7,000.0	6,746.1	6,815.6	6,815.6	17.6	136.0	-72.83	1,511.9	1,847.5	2,467.8	2,320.4	147.36	16.746	
7,050.0	6,760.0	6,829.5	6,829.5	18.3	136.3	-76.72	1,511.9	1,847.5	2,434.3	2,283.7	150.63	16.160	
7,100.0	6,770.6	6,840.1	6,840.1	19.1	136.5	-80.60	1,511.9	1,847.5	2,400.7	2,247.2	153.48	15.642	
7,150.0	6,777.8	6,847.3	6,847.3	19.9	136.6	-84.40	1,511.9	1,847.5	2,367.2	2,211.5	155.75	15.199	
7,200.0	6,781.5	6,851.0	6,851.0	20.8	136.7	-88.05	1,511.9	1,847.5	2,334.1	2,176.7	157.38	14.831	
7,232.6	6,782.0	6,851.5	6,851.5	21.4	136.7	-90.33	1,511.9	1,847.5	2,312.7	2,154.6	158.11	14.628	
7,300.0	6,781.5	6,851.0	6,851.0	22.7	136.7	-90.31	1,511.9	1,847.5	2,269.4	2,110.0	159.41	14.237	
7,400.0	6,780.9	6,850.4	6,850.4	24.8	136.7	-90.29	1,511.9	1,847.5	2,207.4	2,045.9	161.48	13.670	
7,500.0	6,780.2	6,849.7	6,849.7	27.0	136.7	-90.27	1,511.9	1,847.5	2,148.3	1,984.6	163.68	13.125	
7,600.0	6,779.5	6,849.0	6,849.0	29.4	136.6	-90.25	1,511.9	1,847.5	2,092.2	1,926.3	165.98	12.605	
7,700.0	6,778.9	6,848.4	6,848.4	31.8	136.6	-90.23	1,511.9	1,847.5	2,039.6	1,871.2	168.36	12.114	
7,800.0	6,778.2	6,847.7	6,847.7	34.2	136.6	-90.20	1,511.9	1,847.5	1,990.5	1,819.7	170.81	11.654	
7,900.0	6,777.5	6,847.0	6,847.0	36.7	136.6	-90.18	1,511.9	1,847.5	1,945.4	1,772.1	173.30	11.225	
8,000.0	6,776.9	6,846.4	6,846.4	39.3	136.6	-90.16	1,511.9	1,847.5	1,904.4	1,728.6	175.84	10.831	
8,100.0	6,776.2	6,845.7	6,845.7	41.9	136.6	-90.14	1,511.9	1,847.5	1,868.0	1,689.5	178.41	10.470	
8,200.0	6,775.5	6,845.0	6,845.0	44.5	136.6	-90.12	1,511.9	1,847.5	1,836.2	1,655.2	181.01	10.144	
8,300.0	6,774.9	6,844.4	6,844.4	47.1	136.6	-90.10	1,511.9	1,847.5	1,809.4	1,625.8	183.63	9.854	
8,400.0	6,774.2	6,843.7	6,843.7	49.8	136.5	-90.07	1,511.9	1,847.5	1,787.8	1,601.6	186.27	9.598	
8,500.0	6,773.5	6,843.0	6,843.0	52.4	136.5	-90.05	1,511.9	1,847.5	1,771.6	1,582.7	188.92	9.378	
8,600.0	6,772.9	6,842.4	6,842.4	55.1	136.5	-90.03	1,511.9	1,847.5	1,761.0	1,569.4	191.59	9.191	
8,700.0	6,772.2	6,841.7	6,841.7	57.8	136.5	-90.01	1,511.9	1,847.5	1,756.0	1,561.7	194.27	9.039	

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

# Anticollision Report



<b>Company:</b>	PDC ENERGY	<b>Local Co-ordinate Reference:</b>	Well KINZER 28I-202
<b>Project:</b>	WELD COUNTY, COLORADO	<b>TVD Reference:</b>	KB-EST @ 4797.5usft
<b>Reference Site:</b>	SW SW SEC. 28 T5N R67W 6th P.M.	<b>MD Reference:</b>	KB-EST @ 4797.5usft
<b>Site Error:</b>	0.0 usft	<b>North Reference:</b>	True
<b>Reference Well:</b>	KINZER 28I-202	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Well Error:</b>	0.0 usft	<b>Output errors are at</b>	2.00 sigma
<b>Reference Wellbore</b>	ORIGINAL WELLBORE	<b>Database:</b>	EDM 5000.1 Single User Db
<b>Reference Design:</b>	PROPOSAL #1	<b>Offset TVD Reference:</b>	Offset Datum

<b>Offset Design</b> SW SW SEC. 28 T5N R67W 6th P.M. - EXIST VERT MELLON 28-1 - Wellbore #1 - Design #1												<b>Offset Site Error:</b>	0.0 usft
Survey Program: 0-INC												<b>Offset Well Error:</b>	0.0 usft
Reference		Offset		Semi Major Axis			Distance						Warning
Measured Depth (usft)	Vertical Depth (usft)	Measured Depth (usft)	Vertical Depth (usft)	Reference (usft)	Offset (usft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (usft)	+E/-W (usft)	Between Centres (usft)	Between Ellipses (usft)	Minimum Separation (usft)	Separation Factor	
8,738.2	6,771.9	6,841.4	6,841.4	58.8	136.5	-90.00	1,511.9	1,847.5	1,755.5	1,560.2	195.30	8.989	CC
8,800.0	6,771.5	6,841.0	6,841.0	60.5	136.5	-89.99	1,511.9	1,847.5	1,756.6	1,559.7	196.96	8.919	ES
8,900.0	6,770.9	6,840.4	6,840.4	63.2	136.5	-89.96	1,511.9	1,847.5	1,763.0	1,563.3	199.66	8.830	
9,000.0	6,770.2	6,839.7	6,839.7	65.9	136.5	-89.94	1,511.9	1,847.5	1,775.0	1,572.6	202.37	8.771	
9,100.0	6,769.5	6,839.0	6,839.0	68.7	136.4	-89.92	1,511.9	1,847.5	1,792.4	1,587.3	205.09	8.740	
9,200.0	6,768.9	6,838.4	6,838.4	71.4	136.4	-89.90	1,511.9	1,847.5	1,815.3	1,607.4	207.81	8.735	SF
9,300.0	6,768.2	6,837.7	6,837.7	74.1	136.4	-89.88	1,511.9	1,847.5	1,843.2	1,632.7	210.54	8.755	
9,400.0	6,767.5	6,837.0	6,837.0	76.9	136.4	-89.85	1,511.9	1,847.5	1,876.1	1,662.9	213.27	8.797	
9,500.0	6,766.8	6,836.3	6,836.3	79.6	136.4	-89.83	1,511.9	1,847.5	1,913.7	1,697.7	216.00	8.859	
9,600.0	6,766.2	6,835.7	6,835.7	82.4	136.4	-89.81	1,511.9	1,847.5	1,955.6	1,736.9	218.75	8.940	
9,700.0	6,765.5	6,835.0	6,835.0	85.2	136.4	-89.79	1,511.9	1,847.5	2,001.7	1,780.2	221.49	9.038	
9,800.0	6,764.8	6,834.3	6,834.3	87.9	136.3	-89.77	1,511.9	1,847.5	2,051.6	1,827.4	224.24	9.149	
9,900.0	6,764.1	6,833.6	6,833.6	90.7	136.3	-89.74	1,511.9	1,847.5	2,105.1	1,878.1	226.99	9.274	
10,000.0	6,763.5	6,833.0	6,833.0	93.4	136.3	-89.72	1,511.9	1,847.5	2,161.9	1,932.2	229.74	9.410	
10,100.0	6,762.8	6,832.3	6,832.3	96.2	136.3	-89.70	1,511.9	1,847.5	2,221.8	1,989.3	232.49	9.556	
10,200.0	6,762.1	6,831.6	6,831.6	99.0	136.3	-89.68	1,511.9	1,847.5	2,284.4	2,049.2	235.25	9.711	
10,300.0	6,761.4	6,830.9	6,830.9	101.8	136.3	-89.66	1,511.9	1,847.5	2,349.7	2,111.7	238.01	9.872	
10,400.0	6,760.8	6,830.3	6,830.3	104.5	136.3	-89.63	1,511.9	1,847.5	2,417.3	2,176.5	240.77	10.040	
10,500.0	6,760.1	6,829.6	6,829.6	107.3	136.3	-89.61	1,511.9	1,847.5	2,487.1	2,243.6	243.53	10.213	
10,600.0	6,759.4	6,828.9	6,828.9	110.1	136.2	-89.59	1,511.9	1,847.5	2,558.9	2,312.6	246.30	10.389	
10,700.0	6,758.7	6,828.2	6,828.2	112.9	136.2	-89.57	1,511.9	1,847.5	2,632.5	2,383.5	249.06	10.570	
10,800.0	6,758.1	6,827.6	6,827.6	115.6	136.2	-89.54	1,511.9	1,847.5	2,707.9	2,456.1	251.83	10.753	
10,900.0	6,757.4	6,826.9	6,826.9	118.4	136.2	-89.52	1,511.9	1,847.5	2,784.8	2,530.2	254.60	10.938	
11,000.0	6,756.7	6,826.2	6,826.2	121.2	136.2	-89.50	1,511.9	1,847.5	2,863.1	2,605.7	257.37	11.124	
11,100.0	6,756.0	6,825.5	6,825.5	124.0	136.2	-89.48	1,511.9	1,847.5	2,942.7	2,682.6	260.14	11.312	
11,200.0	6,755.3	6,824.8	6,824.8	126.8	136.2	-89.45	1,511.9	1,847.5	3,023.6	2,760.7	262.91	11.500	
11,300.0	6,754.7	6,824.2	6,824.2	129.6	136.1	-89.43	1,511.9	1,847.5	3,105.5	2,839.8	265.68	11.689	
11,400.0	6,754.0	6,823.5	6,823.5	132.4	136.1	-89.41	1,511.9	1,847.5	3,188.5	2,920.1	268.46	11.877	
11,500.0	6,753.3	6,822.8	6,822.8	135.1	136.1	-89.39	1,511.9	1,847.5	3,272.5	3,001.2	271.23	12.065	
11,600.0	6,752.6	6,822.1	6,822.1	137.9	136.1	-89.36	1,511.9	1,847.5	3,357.3	3,083.3	274.01	12.253	
11,700.0	6,751.9	6,821.4	6,821.4	140.7	136.1	-89.34	1,511.9	1,847.5	3,442.9	3,166.1	276.78	12.439	
11,800.0	6,751.3	6,820.8	6,820.8	143.5	136.1	-89.32	1,511.9	1,847.5	3,529.3	3,249.7	279.56	12.625	
11,837.2	6,751.0	6,820.5	6,820.5	144.6	136.1	-89.31	1,511.9	1,847.5	3,561.6	3,281.1	280.59	12.693	

# Anticollision Report



<b>Company:</b>	PDC ENERGY	<b>Local Co-ordinate Reference:</b>	Well KINZER 281-202
<b>Project:</b>	WELD COUNTY, COLORADO	<b>TVD Reference:</b>	KB-EST @ 4797.5usft
<b>Reference Site:</b>	SW SW SEC. 28 T5N R67W 6th P.M.	<b>MD Reference:</b>	KB-EST @ 4797.5usft
<b>Site Error:</b>	0.0 usft	<b>North Reference:</b>	True
<b>Reference Well:</b>	KINZER 281-202	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Well Error:</b>	0.0 usft	<b>Output errors are at</b>	2.00 sigma
<b>Reference Wellbore</b>	ORIGINAL WELLBORE	<b>Database:</b>	EDM 5000.1 Single User Db
<b>Reference Design:</b>	PROPOSAL #1	<b>Offset TVD Reference:</b>	Offset Datum

<b>Offset Design</b> SW SW SEC. 28 T5N R67W 6th P.M. - EXIST VERT MELLON 28-2 - Wellbore #1 - Design #1												<b>Offset Site Error:</b>	0.0 usft
Survey Program: 0-INC												<b>Offset Well Error:</b>	0.0 usft
Reference		Offset		Semi Major Axis			Distance						Warning
Measured Depth (usft)	Vertical Depth (usft)	Measured Depth (usft)	Vertical Depth (usft)	Reference (usft)	Offset (usft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (usft)	+E/-W (usft)	Between Centres (usft)	Between Ellipses (usft)	Minimum Separation (usft)	Separation Factor	
0.0	0.0	26.5	26.5	0.0	0.2	85.46	127.6	1,605.1	1,610.2				
100.0	100.0	126.5	126.5	0.1	1.4	85.46	127.6	1,605.1	1,610.2	1,608.6	1.53	1,053.234	
200.0	200.0	226.5	226.5	0.3	3.7	85.46	127.6	1,605.1	1,610.2	1,606.1	4.06	396.563	
300.0	300.0	326.5	326.5	0.5	5.8	85.46	127.6	1,605.1	1,610.2	1,603.8	6.36	253.307	
400.0	400.0	426.5	426.5	0.8	7.8	85.46	127.6	1,605.1	1,610.2	1,601.6	8.62	186.793	
500.0	500.0	526.5	526.5	1.0	9.9	85.46	127.6	1,605.1	1,610.2	1,599.3	10.87	148.104	
600.0	600.0	626.5	626.5	1.2	11.9	85.46	127.6	1,605.1	1,610.2	1,597.1	13.12	122.744	
700.0	700.0	726.5	726.5	1.4	13.9	85.46	127.6	1,605.1	1,610.2	1,594.8	15.36	104.820	
800.0	800.0	826.5	826.5	1.7	15.9	85.46	127.6	1,605.1	1,610.2	1,592.6	17.60	91.474	
900.0	900.0	926.5	926.5	1.9	17.9	85.46	127.6	1,605.1	1,610.2	1,590.3	19.84	81.148	
1,000.0	1,000.0	1,026.5	1,026.5	2.1	20.0	85.46	127.6	1,605.1	1,610.2	1,588.1	22.08	72.919	
1,100.0	1,100.0	1,126.5	1,126.5	2.3	22.0	-151.83	127.6	1,605.1	1,611.7	1,587.4	24.29	66.361	
1,200.0	1,199.8	1,226.3	1,226.3	2.5	24.0	-151.88	127.6	1,605.1	1,616.3	1,589.9	26.45	61.116	
1,300.0	1,299.5	1,326.0	1,326.0	2.7	26.0	-151.95	127.6	1,605.1	1,624.0	1,595.4	28.58	56.828	
1,400.0	1,398.7	1,425.2	1,425.2	3.0	28.0	-152.05	127.6	1,605.1	1,634.8	1,604.1	30.67	53.297	
1,500.0	1,497.5	1,524.0	1,524.0	3.2	30.0	-152.17	127.6	1,605.1	1,648.7	1,615.9	32.73	50.373	
1,502.5	1,500.0	1,526.5	1,526.5	3.2	30.0	-152.18	127.6	1,605.1	1,649.1	1,616.3	32.78	50.307	
1,600.0	1,595.9	1,622.4	1,622.4	3.5	32.0	-152.45	127.6	1,605.1	1,664.2	1,629.3	34.91	47.667	
1,700.0	1,694.4	1,720.9	1,720.9	3.8	33.9	-152.72	127.6	1,605.1	1,679.7	1,642.6	37.11	45.264	
1,800.0	1,792.9	1,819.4	1,819.4	4.2	35.9	-152.99	127.6	1,605.1	1,695.3	1,656.0	39.31	43.123	
1,900.0	1,891.3	1,917.8	1,917.8	4.5	37.9	-153.26	127.6	1,605.1	1,710.9	1,669.4	41.52	41.206	
2,000.0	1,989.8	2,016.3	2,016.3	4.9	39.9	-153.52	127.6	1,605.1	1,726.6	1,682.8	43.73	39.479	
2,100.0	2,088.3	2,114.8	2,114.8	5.2	41.9	-153.77	127.6	1,605.1	1,742.2	1,696.3	45.95	37.916	
2,200.0	2,186.7	2,213.2	2,213.2	5.6	43.8	-154.02	127.6	1,605.1	1,758.0	1,709.8	48.17	36.496	
2,300.0	2,285.2	2,311.7	2,311.7	6.0	45.8	-154.27	127.6	1,605.1	1,773.7	1,723.3	50.39	35.201	
2,400.0	2,383.7	2,410.2	2,410.2	6.4	47.8	-154.51	127.6	1,605.1	1,789.5	1,736.9	52.61	34.014	
2,500.0	2,482.1	2,508.6	2,508.6	6.7	49.8	-154.75	127.6	1,605.1	1,805.3	1,750.5	54.83	32.923	
2,600.0	2,580.6	2,607.1	2,607.1	7.1	51.8	-154.98	127.6	1,605.1	1,821.1	1,764.1	57.06	31.918	
2,700.0	2,679.1	2,705.6	2,705.6	7.5	53.7	-155.21	127.6	1,605.1	1,837.0	1,777.7	59.28	30.988	
2,800.0	2,777.5	2,804.0	2,804.0	7.9	55.7	-155.44	127.6	1,605.1	1,852.9	1,791.4	61.51	30.126	
2,900.0	2,876.0	2,902.5	2,902.5	8.3	57.7	-155.66	127.6	1,605.1	1,868.9	1,805.1	63.73	29.324	
3,000.0	2,974.4	3,000.9	3,000.9	8.7	59.7	-155.88	127.6	1,605.1	1,884.8	1,818.8	65.96	28.577	
3,100.0	3,072.9	3,099.4	3,099.4	9.1	61.7	-156.09	127.6	1,605.1	1,900.8	1,832.6	68.18	27.878	
3,200.0	3,171.4	3,197.9	3,197.9	9.5	63.6	-156.30	127.6	1,605.1	1,916.8	1,846.4	70.41	27.225	
3,300.0	3,269.8	3,296.3	3,296.3	9.9	65.6	-156.51	127.6	1,605.1	1,932.8	1,860.2	72.63	26.612	
3,400.0	3,368.3	3,394.8	3,394.8	10.3	67.6	-156.71	127.6	1,605.1	1,948.9	1,874.0	74.86	26.035	
3,500.0	3,466.8	3,493.3	3,493.3	10.7	69.6	-156.92	127.6	1,605.1	1,965.0	1,887.9	77.08	25.493	
3,580.8	3,546.3	3,572.8	3,572.8	11.0	71.2	-157.08	127.6	1,605.1	1,978.0	1,899.1	78.88	25.077	
3,600.0	3,565.3	3,591.8	3,591.8	11.1	71.6	-157.14	127.6	1,605.1	1,981.0	1,901.6	79.37	24.959	
3,700.0	3,664.1	3,690.6	3,690.6	11.3	73.6	-157.41	127.6	1,605.1	1,994.9	1,913.1	81.87	24.366	
3,800.0	3,763.4	3,789.9	3,789.9	11.6	75.6	-157.62	127.6	1,605.1	2,005.7	1,921.4	84.31	23.788	
3,900.0	3,863.1	3,889.6	3,889.6	11.8	77.6	-157.77	127.6	1,605.1	2,013.2	1,926.5	86.68	23.226	
4,000.0	3,963.0	3,989.5	3,989.5	12.0	79.6	-157.85	127.6	1,605.1	2,017.5	1,928.5	88.96	22.679	
4,083.3	4,046.3	4,072.8	4,072.8	12.1	81.2	79.41	127.6	1,605.1	2,018.6	1,925.7	92.95	21.718	
4,100.0	4,063.0	4,089.5	4,089.5	12.1	81.6	79.41	127.6	1,605.1	2,018.6	1,925.3	93.31	21.634	
4,200.0	4,163.0	4,189.5	4,189.5	12.3	83.6	79.41	127.6	1,605.1	2,018.6	1,923.2	95.47	21.144	
4,300.0	4,263.0	4,289.5	4,289.5	12.4	85.6	79.41	127.6	1,605.1	2,018.6	1,921.0	97.64	20.675	
4,400.0	4,363.0	4,389.5	4,389.5	12.6	87.6	79.41	127.6	1,605.1	2,018.6	1,918.8	99.81	20.225	
4,500.0	4,463.0	4,489.5	4,489.5	12.7	89.6	79.41	127.6	1,605.1	2,018.6	1,916.7	101.98	19.795	
4,600.0	4,563.0	4,589.5	4,589.5	12.9	91.6	79.41	127.6	1,605.1	2,018.6	1,914.5	104.15	19.382	
4,700.0	4,663.0	4,689.5	4,689.5	13.0	93.6	79.41	127.6	1,605.1	2,018.6	1,912.3	106.32	18.986	
4,800.0	4,763.0	4,789.5	4,789.5	13.2	95.7	79.41	127.6	1,605.1	2,018.6	1,910.1	108.50	18.605	

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

# Anticollision Report



<b>Company:</b>	PDC ENERGY	<b>Local Co-ordinate Reference:</b>	Well KINZER 281-202
<b>Project:</b>	WELD COUNTY, COLORADO	<b>TVD Reference:</b>	KB-EST @ 4797.5usft
<b>Reference Site:</b>	SW SW SEC. 28 T5N R67W 6th P.M.	<b>MD Reference:</b>	KB-EST @ 4797.5usft
<b>Site Error:</b>	0.0 usft	<b>North Reference:</b>	True
<b>Reference Well:</b>	KINZER 281-202	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Well Error:</b>	0.0 usft	<b>Output errors are at</b>	2.00 sigma
<b>Reference Wellbore</b>	ORIGINAL WELLBORE	<b>Database:</b>	EDM 5000.1 Single User Db
<b>Reference Design:</b>	PROPOSAL #1	<b>Offset TVD Reference:</b>	Offset Datum

<b>Offset Design</b> SW SW SEC. 28 T5N R67W 6th P.M. - EXIST VERT MELLON 28-2 - Wellbore #1 - Design #1												<b>Offset Site Error:</b>	0.0 usft
Survey Program: 0-INC												<b>Offset Well Error:</b>	0.0 usft
Reference		Offset		Semi Major Axis			Distance						Warning
Measured Depth (usft)	Vertical Depth (usft)	Measured Depth (usft)	Vertical Depth (usft)	Reference (usft)	Offset (usft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (usft)	+E/-W (usft)	Between Centres (usft)	Between Ellipses (usft)	Minimum Separation (usft)	Separation Factor	
4,900.0	4,863.0	4,889.5	4,889.5	13.4	97.7	79.41	127.6	1,605.1	2,018.6	1,908.0	110.68	18.239	
5,000.0	4,963.0	4,989.5	4,989.5	13.5	99.7	79.41	127.6	1,605.1	2,018.6	1,905.8	112.86	17.887	
5,100.0	5,063.0	5,089.5	5,089.5	13.7	101.7	79.41	127.6	1,605.1	2,018.6	1,903.6	115.04	17.548	
5,200.0	5,163.0	5,189.5	5,189.5	13.9	103.7	79.41	127.6	1,605.1	2,018.6	1,901.4	117.22	17.221	
5,300.0	5,263.0	5,289.5	5,289.5	14.0	105.7	79.41	127.6	1,605.1	2,018.6	1,899.2	119.40	16.906	
5,400.0	5,363.0	5,389.5	5,389.5	14.2	107.7	79.41	127.6	1,605.1	2,018.6	1,897.0	121.59	16.602	
5,500.0	5,463.0	5,489.5	5,489.5	14.4	109.7	79.41	127.6	1,605.1	2,018.6	1,894.9	123.78	16.308	
5,600.0	5,563.0	5,589.5	5,589.5	14.5	111.7	79.41	127.6	1,605.1	2,018.6	1,892.7	125.97	16.025	
5,700.0	5,663.0	5,689.5	5,689.5	14.7	113.8	79.41	127.6	1,605.1	2,018.6	1,890.5	128.16	15.751	
5,800.0	5,763.0	5,789.5	5,789.5	14.9	115.8	79.41	127.6	1,605.1	2,018.6	1,888.3	130.35	15.486	
5,900.0	5,863.0	5,889.5	5,889.5	15.1	117.8	79.41	127.6	1,605.1	2,018.6	1,886.1	132.54	15.230	
6,000.0	5,963.0	5,989.5	5,989.5	15.2	119.8	79.41	127.6	1,605.1	2,018.6	1,883.9	134.73	14.982	
6,100.0	6,063.0	6,089.5	6,089.5	15.4	121.8	79.41	127.6	1,605.1	2,018.6	1,881.7	136.93	14.742	
6,102.8	6,065.8	6,092.3	6,092.3	15.4	121.9	79.41	127.6	1,605.1	2,018.6	1,881.6	136.99	14.736	
6,150.0	6,112.9	6,139.4	6,139.4	15.5	122.8	-10.63	127.6	1,605.1	2,017.1	1,881.1	136.01	14.831	
6,200.0	6,162.7	6,189.2	6,189.2	15.5	123.8	-10.73	127.6	1,605.1	2,012.2	1,876.0	136.12	14.782	
6,250.0	6,211.9	6,238.4	6,238.4	15.6	124.8	-10.90	127.6	1,605.1	2,003.8	1,868.2	135.58	14.779	
6,300.0	6,260.5	6,287.0	6,287.0	15.6	125.8	-11.15	127.6	1,605.1	1,992.1	1,857.7	134.38	14.824	
6,350.0	6,308.1	6,334.6	6,334.6	15.6	126.7	-11.48	127.6	1,605.1	1,977.1	1,844.6	132.53	14.919	
6,400.0	6,354.5	6,381.0	6,381.0	15.6	127.7	-11.91	127.6	1,605.1	1,958.9	1,828.9	130.03	15.065	
6,450.0	6,399.5	6,426.0	6,426.0	15.6	128.6	-12.44	127.6	1,605.1	1,937.6	1,810.7	126.91	15.267	
6,500.0	6,442.9	6,469.4	6,469.4	15.5	129.4	-13.09	127.6	1,605.1	1,913.2	1,790.0	123.23	15.526	
6,550.0	6,484.5	6,511.0	6,511.0	15.5	130.3	-13.90	127.6	1,605.1	1,886.0	1,766.9	119.03	15.844	
6,600.0	6,524.0	6,550.5	6,550.5	15.5	131.1	-14.87	127.6	1,605.1	1,856.0	1,741.5	114.42	16.220	
6,650.0	6,561.3	6,587.8	6,587.8	15.6	131.8	-16.06	127.6	1,605.1	1,823.3	1,713.8	109.54	16.645	
6,700.0	6,596.1	6,622.6	6,622.6	15.6	132.5	-17.52	127.6	1,605.1	1,788.3	1,683.7	104.59	17.098	
6,750.0	6,628.4	6,654.9	6,654.9	15.7	133.2	-19.32	127.6	1,605.1	1,751.0	1,651.1	99.89	17.530	
6,800.0	6,658.0	6,684.5	6,684.5	15.9	133.8	-21.55	127.6	1,605.1	1,711.6	1,615.7	95.88	17.850	
6,850.0	6,684.6	6,711.1	6,711.1	16.2	134.3	-24.36	127.6	1,605.1	1,670.3	1,577.1	93.25	17.912	
6,900.0	6,708.3	6,734.8	6,734.8	16.5	134.8	-27.92	127.6	1,605.1	1,627.4	1,534.5	92.89	17.519	
6,950.0	6,728.8	6,755.3	6,755.3	17.0	135.2	-32.52	127.6	1,605.1	1,583.1	1,487.2	95.87	16.512	
7,000.0	6,746.1	6,772.6	6,772.6	17.6	135.5	-38.50	127.6	1,605.1	1,537.5	1,434.4	103.13	14.908	
7,050.0	6,760.0	6,786.5	6,786.5	18.3	135.8	-46.28	127.6	1,605.1	1,491.0	1,376.0	114.97	12.969	
7,100.0	6,770.6	6,797.1	6,797.1	19.1	136.0	-56.28	127.6	1,605.1	1,443.7	1,313.5	130.21	11.088	
7,150.0	6,777.8	6,804.3	6,804.3	19.9	136.2	-68.53	127.6	1,605.1	1,395.9	1,250.5	145.45	9.597	
7,200.0	6,781.5	6,808.0	6,808.0	20.8	136.2	-82.27	127.6	1,605.1	1,348.0	1,192.4	155.59	8.663	
7,232.6	6,782.0	6,808.5	6,808.5	21.4	136.3	-91.29	127.6	1,605.1	1,316.7	1,159.0	157.64	8.352	
7,300.0	6,781.5	6,808.0	6,808.0	22.7	136.3	-91.22	127.6	1,605.1	1,252.1	1,093.2	158.95	7.878	
7,400.0	6,780.9	6,807.4	6,807.4	24.8	136.2	-91.12	127.6	1,605.1	1,157.0	996.0	161.02	7.185	
7,500.0	6,780.2	6,806.7	6,806.7	27.0	136.2	-91.02	127.6	1,605.1	1,062.8	899.6	163.23	6.511	
7,600.0	6,779.5	6,806.0	6,806.0	29.4	136.2	-90.92	127.6	1,605.1	969.7	804.2	165.53	5.858	
7,700.0	6,778.9	6,805.4	6,805.4	31.8	136.2	-90.82	127.6	1,605.1	878.2	710.2	167.92	5.230	
7,800.0	6,778.2	6,804.7	6,804.7	34.2	136.2	-90.71	127.6	1,605.1	788.7	618.3	170.37	4.629	
7,900.0	6,777.5	6,804.0	6,804.0	36.7	136.2	-90.61	127.6	1,605.1	702.0	529.1	172.86	4.061	
8,000.0	6,776.9	6,803.4	6,803.4	39.3	136.2	-90.51	127.6	1,605.1	619.4	444.0	175.40	3.531	
8,100.0	6,776.2	6,802.7	6,802.7	41.9	136.1	-90.41	127.6	1,605.1	542.7	364.7	177.97	3.049	
8,200.0	6,775.5	6,802.0	6,802.0	44.5	136.1	-90.30	127.6	1,605.1	474.7	294.1	180.57	2.629	
8,300.0	6,774.9	6,801.4	6,801.4	47.1	136.1	-90.20	127.6	1,605.1	419.7	236.5	183.19	2.291	
8,400.0	6,774.2	6,800.7	6,800.7	49.8	136.1	-90.10	127.6	1,605.1	383.3	197.5	185.83	2.063	
8,495.9	6,773.6	6,800.1	6,800.1	52.3	136.1	-90.00	127.6	1,605.1	371.2	182.8	188.38	1.970 CC	
8,500.0	6,773.5	6,800.0	6,800.0	52.4	136.1	-90.00	127.6	1,605.1	371.2	182.7	188.49	1.969 ES, SF	
8,600.0	6,772.9	6,799.4	6,799.4	55.1	136.1	-89.89	127.6	1,605.1	385.5	194.3	191.16	2.017	

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



# Anticollision Report



<b>Company:</b>	PDC ENERGY	<b>Local Co-ordinate Reference:</b>	Well KINZER 28I-202
<b>Project:</b>	WELD COUNTY, COLORADO	<b>TVD Reference:</b>	KB-EST @ 4797.5usft
<b>Reference Site:</b>	SW SW SEC. 28 T5N R67W 6th P.M.	<b>MD Reference:</b>	KB-EST @ 4797.5usft
<b>Site Error:</b>	0.0 usft	<b>North Reference:</b>	True
<b>Reference Well:</b>	KINZER 28I-202	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Well Error:</b>	0.0 usft	<b>Output errors are at</b>	2.00 sigma
<b>Reference Wellbore</b>	ORIGINAL WELLBORE	<b>Database:</b>	EDM 5000.1 Single User Db
<b>Reference Design:</b>	PROPOSAL #1	<b>Offset TVD Reference:</b>	Offset Datum

<b>Offset Design</b> SW SW SEC. 28 T5N R67W 6th P.M. - EXIST VERT MELLON 28-2 - Wellbore #1 - Design #1												<b>Offset Site Error:</b>	0.0 usft
Survey Program: 0-INC												<b>Offset Well Error:</b>	0.0 usft
Reference		Offset		Semi Major Axis			Distance						Warning
Measured Depth (usft)	Vertical Depth (usft)	Measured Depth (usft)	Vertical Depth (usft)	Reference (usft)	Offset (usft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (usft)	+E/-W (usft)	Between Centres (usft)	Between Ellipses (usft)	Minimum Separation (usft)	Separation Factor	
8,700.0	6,772.2	6,798.7	6,798.7	57.8	136.1	-89.79	127.6	1,605.1	423.6	229.7	193.83	2.185	
8,800.0	6,771.5	6,798.0	6,798.0	60.5	136.0	-89.69	127.6	1,605.1	479.8	283.3	196.52	2.442	
8,900.0	6,770.9	6,797.4	6,797.4	63.2	136.0	-89.58	127.6	1,605.1	548.7	349.5	199.22	2.754	
9,000.0	6,770.2	6,796.7	6,796.7	65.9	136.0	-89.48	127.6	1,605.1	626.0	424.1	201.93	3.100	
9,100.0	6,769.5	6,796.0	6,796.0	68.7	136.0	-89.37	127.6	1,605.1	709.0	504.4	204.64	3.465	
9,200.0	6,768.9	6,795.4	6,795.4	71.4	136.0	-89.27	127.6	1,605.1	795.9	588.6	207.36	3.838	
9,300.0	6,768.2	6,794.7	6,794.7	74.1	136.0	-89.17	127.6	1,605.1	885.6	675.5	210.08	4.216	
9,400.0	6,767.5	6,794.0	6,794.0	76.9	136.0	-89.06	127.6	1,605.1	977.3	764.5	212.80	4.593	
9,500.0	6,766.8	6,793.3	6,793.3	79.6	136.0	-88.96	127.6	1,605.1	1,070.5	855.0	215.53	4.967	
9,600.0	6,766.2	6,792.7	6,792.7	82.4	135.9	-88.85	127.6	1,605.1	1,164.8	946.5	218.26	5.337	
9,700.0	6,765.5	6,792.0	6,792.0	85.2	135.9	-88.75	127.6	1,605.1	1,260.0	1,039.0	221.00	5.701	
9,800.0	6,764.8	6,791.3	6,791.3	87.9	135.9	-88.64	127.6	1,605.1	1,355.9	1,132.1	223.74	6.060	
9,900.0	6,764.1	6,790.6	6,790.6	90.7	135.9	-88.54	127.6	1,605.1	1,452.3	1,225.8	226.48	6.413	
10,000.0	6,763.5	6,790.0	6,790.0	93.4	135.9	-88.43	127.6	1,605.1	1,549.2	1,320.0	229.22	6.759	
10,100.0	6,762.8	6,789.3	6,789.3	96.2	135.9	-88.33	127.6	1,605.1	1,646.5	1,414.5	231.96	7.098	
10,200.0	6,762.1	6,788.6	6,788.6	99.0	135.9	-88.22	127.6	1,605.1	1,744.0	1,509.3	234.70	7.431	
10,300.0	6,761.4	6,787.9	6,787.9	101.8	135.8	-88.12	127.6	1,605.1	1,841.9	1,604.4	237.45	7.757	
10,400.0	6,760.8	6,787.3	6,787.3	104.5	135.8	-88.01	127.6	1,605.1	1,939.9	1,699.7	240.19	8.076	
10,500.0	6,760.1	6,786.6	6,786.6	107.3	135.8	-87.91	127.6	1,605.1	2,038.1	1,795.2	242.94	8.390	
10,600.0	6,759.4	6,785.9	6,785.9	110.1	135.8	-87.80	127.6	1,605.1	2,136.6	1,890.9	245.69	8.696	
10,700.0	6,758.7	6,785.2	6,785.2	112.9	135.8	-87.70	127.6	1,605.1	2,235.1	1,986.7	248.43	8.997	
10,800.0	6,758.1	6,784.6	6,784.6	115.6	135.8	-87.59	127.6	1,605.1	2,333.8	2,082.6	251.18	9.291	
10,900.0	6,757.4	6,783.9	6,783.9	118.4	135.8	-87.48	127.6	1,605.1	2,432.5	2,178.6	253.93	9.580	
11,000.0	6,756.7	6,783.2	6,783.2	121.2	135.8	-87.38	127.6	1,605.1	2,531.4	2,274.7	256.67	9.862	
11,100.0	6,756.0	6,782.5	6,782.5	124.0	135.7	-87.27	127.6	1,605.1	2,630.4	2,371.0	259.42	10.139	
11,200.0	6,755.3	6,781.8	6,781.8	126.8	135.7	-87.16	127.6	1,605.1	2,729.4	2,467.2	262.17	10.411	
11,300.0	6,754.7	6,781.2	6,781.2	129.6	135.7	-87.06	127.6	1,605.1	2,828.5	2,563.6	264.91	10.677	
11,400.0	6,754.0	6,780.5	6,780.5	132.4	135.7	-86.95	127.6	1,605.1	2,927.7	2,660.0	267.66	10.938	
11,500.0	6,753.3	6,779.8	6,779.8	135.1	135.7	-86.84	127.6	1,605.1	3,026.9	2,756.5	270.41	11.194	
11,600.0	6,752.6	6,779.1	6,779.1	137.9	135.7	-86.74	127.6	1,605.1	3,126.2	2,853.0	273.15	11.445	
11,700.0	6,751.9	6,778.4	6,778.4	140.7	135.7	-86.63	127.6	1,605.1	3,225.5	2,949.6	275.89	11.691	
11,800.0	6,751.3	6,777.8	6,777.8	143.5	135.6	-86.52	127.6	1,605.1	3,324.8	3,046.2	278.64	11.932	
11,837.2	6,751.0	6,777.5	6,777.5	144.6	135.6	-86.48	127.6	1,605.1	3,361.8	3,082.2	279.66	12.021	

# Anticollision Report



<b>Company:</b>	PDC ENERGY	<b>Local Co-ordinate Reference:</b>	Well KINZER 281-202
<b>Project:</b>	WELD COUNTY, COLORADO	<b>TVD Reference:</b>	KB-EST @ 4797.5usft
<b>Reference Site:</b>	SW SW SEC. 28 T5N R67W 6th P.M.	<b>MD Reference:</b>	KB-EST @ 4797.5usft
<b>Site Error:</b>	0.0 usft	<b>North Reference:</b>	True
<b>Reference Well:</b>	KINZER 281-202	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Well Error:</b>	0.0 usft	<b>Output errors are at</b>	2.00 sigma
<b>Reference Wellbore</b>	ORIGINAL WELLBORE	<b>Database:</b>	EDM 5000.1 Single User Db
<b>Reference Design:</b>	PROPOSAL #1	<b>Offset TVD Reference:</b>	Offset Datum

Offset Design												Offset Site Error:	0.0 usft
Survey Program: 0-INC												Offset Well Error:	0.0 usft
Reference		Offset		Semi Major Axis			Distance						Warning
Measured Depth (usft)	Vertical Depth (usft)	Measured Depth (usft)	Vertical Depth (usft)	Reference (usft)	Offset (usft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (usft)	+E/-W (usft)	Between Centres (usft)	Between Ellipses (usft)	Minimum Separation (usft)	Separation Factor	
0.0	0.0	100.5	100.5	0.0	0.0	32.18	2,670.4	1,680.2	3,155.0				
100.0	100.0	200.5	200.5	0.1	1.2	32.18	2,670.4	1,680.2	3,155.0	3,153.8	1.25	2,516.604	
200.0	200.0	300.5	300.5	0.3	3.5	32.18	2,670.4	1,680.2	3,155.0	3,151.3	3.78	834.903	
300.0	300.0	400.5	400.5	0.5	5.5	32.18	2,670.4	1,680.2	3,155.0	3,149.0	6.08	518.687	
400.0	400.0	500.5	500.5	0.8	7.6	32.18	2,670.4	1,680.2	3,155.0	3,146.7	8.35	377.856	
500.0	500.0	600.5	600.5	1.0	9.6	32.18	2,670.4	1,680.2	3,155.0	3,144.4	10.60	297.541	
600.0	600.0	700.5	700.5	1.2	11.6	32.18	2,670.4	1,680.2	3,155.0	3,142.2	12.85	245.504	
700.0	700.0	800.5	800.5	1.4	13.6	32.18	2,670.4	1,680.2	3,155.0	3,139.9	15.10	209.008	
800.0	800.0	900.5	900.5	1.7	15.7	32.18	2,670.4	1,680.2	3,155.0	3,137.7	17.34	181.981	
900.0	900.0	1,000.5	1,000.5	1.9	17.7	32.18	2,670.4	1,680.2	3,155.0	3,135.5	19.58	161.155	
1,000.0	1,000.0	1,100.5	1,100.5	2.1	19.7	32.18	2,670.4	1,680.2	3,155.0	3,133.2	21.82	144.612	
1,100.0	1,100.0	1,200.5	1,200.5	2.3	21.7	154.90	2,670.4	1,680.2	3,156.6	3,132.6	24.02	131.399	
1,200.0	1,199.8	1,300.3	1,300.3	2.5	23.7	154.90	2,670.4	1,680.2	3,161.4	3,135.2	26.18	120.738	
1,300.0	1,299.5	1,400.0	1,400.0	2.7	25.7	154.90	2,670.4	1,680.2	3,169.3	3,140.9	28.31	111.933	
1,400.0	1,398.7	1,499.2	1,499.2	3.0	27.7	154.90	2,670.4	1,680.2	3,180.3	3,149.9	30.41	104.593	
1,500.0	1,497.5	1,598.0	1,598.0	3.2	29.7	154.90	2,670.4	1,680.2	3,194.5	3,162.0	32.46	98.426	
1,502.5	1,500.0	1,600.5	1,600.5	3.2	29.8	154.90	2,670.4	1,680.2	3,194.9	3,162.4	32.51	98.284	
1,600.0	1,595.9	1,696.4	1,696.4	3.5	31.7	155.03	2,670.4	1,680.2	3,210.4	3,175.7	34.64	92.684	
1,700.0	1,694.4	1,794.9	1,794.9	3.8	33.7	155.16	2,670.4	1,680.2	3,226.2	3,189.4	36.83	87.595	
1,800.0	1,792.9	1,893.4	1,893.4	4.2	35.7	155.28	2,670.4	1,680.2	3,242.1	3,203.1	39.03	83.065	
1,900.0	1,891.3	1,991.8	1,991.8	4.5	37.6	155.41	2,670.4	1,680.2	3,258.0	3,216.8	41.24	79.010	
2,000.0	1,989.8	2,090.3	2,090.3	4.9	39.6	155.54	2,670.4	1,680.2	3,273.9	3,230.5	43.44	75.360	
2,100.0	2,088.3	2,188.8	2,188.8	5.2	41.6	155.67	2,670.4	1,680.2	3,289.9	3,244.2	45.66	72.059	
2,200.0	2,186.7	2,287.2	2,287.2	5.6	43.6	155.79	2,670.4	1,680.2	3,305.8	3,258.0	47.87	69.060	
2,300.0	2,285.2	2,385.7	2,385.7	6.0	45.6	155.91	2,670.4	1,680.2	3,321.8	3,271.7	50.08	66.323	
2,400.0	2,383.7	2,484.2	2,484.2	6.4	47.5	156.03	2,670.4	1,680.2	3,337.8	3,285.5	52.30	63.817	
2,500.0	2,482.1	2,582.6	2,582.6	6.7	49.5	156.16	2,670.4	1,680.2	3,353.8	3,299.2	54.52	61.513	
2,600.0	2,580.6	2,681.1	2,681.1	7.1	51.5	156.28	2,670.4	1,680.2	3,369.8	3,313.0	56.74	59.388	
2,700.0	2,679.1	2,779.6	2,779.6	7.5	53.5	156.39	2,670.4	1,680.2	3,385.8	3,326.8	58.96	57.423	
2,800.0	2,777.5	2,878.0	2,878.0	7.9	55.5	156.51	2,670.4	1,680.2	3,401.8	3,340.6	61.18	55.600	
2,900.0	2,876.0	2,976.5	2,976.5	8.3	57.4	156.63	2,670.4	1,680.2	3,417.9	3,354.5	63.41	53.905	
3,000.0	2,974.4	3,074.9	3,074.9	8.7	59.4	156.74	2,670.4	1,680.2	3,433.9	3,368.3	65.63	52.324	
3,100.0	3,072.9	3,173.4	3,173.4	9.1	61.4	156.86	2,670.4	1,680.2	3,450.0	3,382.2	67.85	50.847	
3,200.0	3,171.4	3,271.9	3,271.9	9.5	63.4	156.97	2,670.4	1,680.2	3,466.1	3,396.0	70.07	49.464	
3,300.0	3,269.8	3,370.3	3,370.3	9.9	65.4	157.08	2,670.4	1,680.2	3,482.2	3,409.9	72.30	48.165	
3,400.0	3,368.3	3,468.8	3,468.8	10.3	67.3	157.19	2,670.4	1,680.2	3,498.3	3,423.8	74.52	46.945	
3,500.0	3,466.8	3,567.3	3,567.3	10.7	69.3	157.30	2,670.4	1,680.2	3,514.5	3,437.7	76.74	45.795	
3,580.8	3,546.3	3,646.8	3,646.8	11.0	70.9	157.39	2,670.4	1,680.2	3,527.5	3,449.0	78.54	44.913	
3,600.0	3,565.3	3,665.8	3,665.8	11.1	71.3	157.44	2,670.4	1,680.2	3,530.6	3,451.5	79.03	44.671	
3,700.0	3,664.1	3,764.6	3,764.6	11.3	73.3	157.64	2,670.4	1,680.2	3,544.5	3,463.0	81.55	43.465	
3,800.0	3,763.4	3,863.9	3,863.9	11.6	75.3	157.79	2,670.4	1,680.2	3,555.3	3,471.3	84.00	42.325	
3,900.0	3,863.1	3,963.6	3,963.6	11.8	77.3	157.90	2,670.4	1,680.2	3,562.8	3,476.4	86.37	41.250	
4,000.0	3,963.0	4,063.5	4,063.5	12.0	79.3	157.96	2,670.4	1,680.2	3,567.1	3,478.4	88.66	40.235	
4,083.3	4,046.3	4,146.8	4,146.8	12.1	81.0	35.25	2,670.4	1,680.2	3,568.2	3,475.5	92.72	38.485	
4,100.0	4,063.0	4,163.5	4,163.5	12.1	81.3	35.25	2,670.4	1,680.2	3,568.2	3,475.2	93.08	38.336	
4,200.0	4,163.0	4,263.5	4,263.5	12.3	83.3	35.25	2,670.4	1,680.2	3,568.2	3,473.0	95.24	37.467	
4,300.0	4,263.0	4,363.5	4,363.5	12.4	85.3	35.25	2,670.4	1,680.2	3,568.2	3,470.8	97.40	36.635	
4,400.0	4,363.0	4,463.5	4,463.5	12.6	87.4	35.25	2,670.4	1,680.2	3,568.2	3,468.7	99.56	35.838	
4,500.0	4,463.0	4,563.5	4,563.5	12.7	89.4	35.25	2,670.4	1,680.2	3,568.2	3,466.5	101.73	35.075	
4,600.0	4,563.0	4,663.5	4,663.5	12.9	91.4	35.25	2,670.4	1,680.2	3,568.2	3,464.3	103.90	34.343	
4,700.0	4,663.0	4,763.5	4,763.5	13.0	93.4	35.25	2,670.4	1,680.2	3,568.2	3,462.2	106.07	33.640	
4,800.0	4,763.0	4,863.5	4,863.5	13.2	95.4	35.25	2,670.4	1,680.2	3,568.2	3,460.0	108.24	32.965	

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

# Anticollision Report



<b>Company:</b>	PDC ENERGY	<b>Local Co-ordinate Reference:</b>	Well KINZER 281-202
<b>Project:</b>	WELD COUNTY, COLORADO	<b>TVD Reference:</b>	KB-EST @ 4797.5usft
<b>Reference Site:</b>	SW SW SEC. 28 T5N R67W 6th P.M.	<b>MD Reference:</b>	KB-EST @ 4797.5usft
<b>Site Error:</b>	0.0 usft	<b>North Reference:</b>	True
<b>Reference Well:</b>	KINZER 281-202	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Well Error:</b>	0.0 usft	<b>Output errors are at</b>	2.00 sigma
<b>Reference Wellbore</b>	ORIGINAL WELLBORE	<b>Database:</b>	EDM 5000.1 Single User Db
<b>Reference Design:</b>	PROPOSAL #1	<b>Offset TVD Reference:</b>	Offset Datum

<b>Offset Design</b> SW SW SEC. 28 T5N R67W 6th P.M. - EXIST VERT MELLON 28-4 - Wellbore #1 - Design #1												<b>Offset Site Error:</b>	0.0 usft
Survey Program: 0-INC												<b>Offset Well Error:</b>	0.0 usft
Reference		Offset		Semi Major Axis			Distance						Warning
Measured Depth (usft)	Vertical Depth (usft)	Measured Depth (usft)	Vertical Depth (usft)	Reference (usft)	Offset (usft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (usft)	+E/-W (usft)	Between Centres (usft)	Between Ellipses (usft)	Minimum Separation (usft)	Separation Factor	
4,900.0	4,863.0	4,963.5	4,963.5	13.4	97.4	35.25	2,670.4	1,680.2	3,568.2	3,457.8	110.42	32.315	
5,000.0	4,963.0	5,063.5	5,063.5	13.5	99.4	35.25	2,670.4	1,680.2	3,568.2	3,455.6	112.60	31.691	
5,100.0	5,063.0	5,163.5	5,163.5	13.7	101.4	35.25	2,670.4	1,680.2	3,568.2	3,453.5	114.77	31.089	
5,200.0	5,163.0	5,263.5	5,263.5	13.9	103.4	35.25	2,670.4	1,680.2	3,568.2	3,451.3	116.95	30.510	
5,300.0	5,263.0	5,363.5	5,363.5	14.0	105.4	35.25	2,670.4	1,680.2	3,568.2	3,449.1	119.14	29.951	
5,400.0	5,363.0	5,463.5	5,463.5	14.2	107.5	35.25	2,670.4	1,680.2	3,568.2	3,446.9	121.32	29.412	
5,500.0	5,463.0	5,563.5	5,563.5	14.4	109.5	35.25	2,670.4	1,680.2	3,568.2	3,444.7	123.50	28.892	
5,600.0	5,563.0	5,663.5	5,663.5	14.5	111.5	35.25	2,670.4	1,680.2	3,568.2	3,442.5	125.69	28.389	
5,700.0	5,663.0	5,763.5	5,763.5	14.7	113.5	35.25	2,670.4	1,680.2	3,568.2	3,440.4	127.88	27.904	
5,800.0	5,763.0	5,863.5	5,863.5	14.9	115.5	35.25	2,670.4	1,680.2	3,568.2	3,438.2	130.07	27.434	
5,900.0	5,863.0	5,963.5	5,963.5	15.1	117.5	35.25	2,670.4	1,680.2	3,568.2	3,436.0	132.26	26.980	
6,000.0	5,963.0	6,063.5	6,063.5	15.2	119.5	35.25	2,670.4	1,680.2	3,568.2	3,433.8	134.45	26.540	
6,100.0	6,063.0	6,163.5	6,163.5	15.4	121.5	35.25	2,670.4	1,680.2	3,568.2	3,431.6	136.64	26.114	
6,102.8	6,065.8	6,166.3	6,166.3	15.4	121.6	35.25	2,670.4	1,680.2	3,568.2	3,431.5	136.70	26.102	
6,150.0	6,112.9	6,213.4	6,213.4	15.5	122.5	-54.83	2,670.4	1,680.2	3,567.3	3,431.3	135.99	26.233	
6,200.0	6,162.7	6,263.2	6,263.2	15.5	123.5	-55.09	2,670.4	1,680.2	3,564.4	3,427.7	136.74	26.068	
6,250.0	6,211.9	6,312.4	6,312.4	15.6	124.5	-55.52	2,670.4	1,680.2	3,559.6	3,422.3	137.28	25.928	
6,300.0	6,260.5	6,361.0	6,361.0	15.6	125.5	-56.13	2,670.4	1,680.2	3,552.7	3,415.1	137.65	25.810	
6,350.0	6,308.1	6,408.6	6,408.6	15.6	126.5	-56.92	2,670.4	1,680.2	3,544.0	3,406.1	137.88	25.703	
6,400.0	6,354.5	6,455.0	6,455.0	15.6	127.4	-57.89	2,670.4	1,680.2	3,533.5	3,395.5	138.03	25.599	
6,450.0	6,399.5	6,500.0	6,500.0	15.6	128.3	-59.03	2,670.4	1,680.2	3,521.3	3,383.1	138.17	25.486	
6,500.0	6,442.9	6,543.4	6,543.4	15.5	129.2	-60.34	2,670.4	1,680.2	3,507.4	3,369.0	138.35	25.351	
6,550.0	6,484.5	6,585.0	6,585.0	15.5	130.0	-61.82	2,670.4	1,680.2	3,492.0	3,353.3	138.66	25.183	
6,600.0	6,524.0	6,624.5	6,624.5	15.5	130.8	-63.46	2,670.4	1,680.2	3,475.2	3,336.1	139.16	24.973	
6,650.0	6,561.3	6,661.8	6,661.8	15.6	131.6	-65.25	2,670.4	1,680.2	3,457.2	3,317.3	139.90	24.713	
6,700.0	6,596.1	6,696.6	6,696.6	15.6	132.3	-67.18	2,670.4	1,680.2	3,438.0	3,297.1	140.90	24.401	
6,750.0	6,628.4	6,728.9	6,728.9	15.7	132.9	-69.23	2,670.4	1,680.2	3,417.9	3,275.8	142.17	24.042	
6,800.0	6,658.0	6,758.5	6,758.5	15.9	133.5	-71.38	2,670.4	1,680.2	3,397.0	3,253.4	143.68	23.643	
6,850.0	6,684.6	6,785.1	6,785.1	16.2	134.0	-73.60	2,670.4	1,680.2	3,375.5	3,230.1	145.38	23.218	
6,900.0	6,708.3	6,808.8	6,808.8	16.5	134.5	-75.87	2,670.4	1,680.2	3,353.5	3,206.3	147.21	22.780	
6,950.0	6,728.8	6,829.3	6,829.3	17.0	134.9	-78.17	2,670.4	1,680.2	3,331.2	3,182.1	149.08	22.344	
7,000.0	6,746.1	6,846.6	6,846.6	17.6	135.3	-80.45	2,670.4	1,680.2	3,308.7	3,157.8	150.92	21.923	
7,050.0	6,760.0	6,860.5	6,860.5	18.3	135.6	-82.70	2,670.4	1,680.2	3,286.2	3,133.6	152.65	21.528	
7,100.0	6,770.6	6,871.1	6,871.1	19.1	135.8	-84.88	2,670.4	1,680.2	3,263.9	3,109.7	154.22	21.164	
7,150.0	6,777.8	6,878.3	6,878.3	19.9	135.9	-86.97	2,670.4	1,680.2	3,241.9	3,086.4	155.59	20.836	
7,200.0	6,781.5	6,882.0	6,882.0	20.8	136.0	-88.95	2,670.4	1,680.2	3,220.4	3,063.6	156.76	20.544	
7,232.6	6,782.0	6,882.5	6,882.5	21.4	136.0	-90.17	2,670.4	1,680.2	3,206.7	3,049.3	157.41	20.371	
7,300.0	6,781.5	6,882.0	6,882.0	22.7	136.0	-90.17	2,670.4	1,680.2	3,179.1	3,020.4	158.71	20.031	
7,400.0	6,780.9	6,881.4	6,881.4	24.8	136.0	-90.15	2,670.4	1,680.2	3,140.5	2,979.7	160.78	19.533	
7,500.0	6,780.2	6,880.7	6,880.7	27.0	136.0	-90.14	2,670.4	1,680.2	3,104.6	2,941.6	162.98	19.049	
7,600.0	6,779.5	6,880.0	6,880.0	29.4	135.9	-90.13	2,670.4	1,680.2	3,071.5	2,906.2	165.28	18.583	
7,700.0	6,778.9	6,879.4	6,879.4	31.8	135.9	-90.11	2,670.4	1,680.2	3,041.4	2,873.7	167.67	18.140	
7,800.0	6,778.2	6,878.7	6,878.7	34.2	135.9	-90.10	2,670.4	1,680.2	3,014.3	2,844.2	170.11	17.719	
7,900.0	6,777.5	6,878.0	6,878.0	36.7	135.9	-90.09	2,670.4	1,680.2	2,990.3	2,817.7	172.61	17.324	
8,000.0	6,776.9	6,877.4	6,877.4	39.3	135.9	-90.07	2,670.4	1,680.2	2,969.4	2,794.3	175.14	16.954	
8,100.0	6,776.2	6,876.7	6,876.7	41.9	135.9	-90.06	2,670.4	1,680.2	2,951.8	2,774.1	177.71	16.610	
8,200.0	6,775.5	6,876.0	6,876.0	44.5	135.9	-90.05	2,670.4	1,680.2	2,937.6	2,757.2	180.31	16.292	
8,300.0	6,774.9	6,875.4	6,875.4	47.1	135.9	-90.04	2,670.4	1,680.2	2,926.6	2,743.7	182.93	15.998	
8,400.0	6,774.2	6,874.7	6,874.7	49.8	135.8	-90.02	2,670.4	1,680.2	2,919.0	2,733.5	185.57	15.730	
8,500.0	6,773.5	6,874.0	6,874.0	52.4	135.8	-90.01	2,670.4	1,680.2	2,914.9	2,726.7	188.23	15.486	
8,571.0	6,773.1	6,873.6	6,873.6	54.3	135.8	-90.00	2,670.4	1,680.2	2,914.0	2,723.9	190.12	15.327 CC	
8,600.0	6,772.9	6,873.4	6,873.4	55.1	135.8	-90.00	2,670.4	1,680.2	2,914.2	2,723.3	190.89	15.266 ES	

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

# Anticollision Report



<b>Company:</b>	PDC ENERGY	<b>Local Co-ordinate Reference:</b>	Well KINZER 28I-202
<b>Project:</b>	WELD COUNTY, COLORADO	<b>TVD Reference:</b>	KB-EST @ 4797.5usft
<b>Reference Site:</b>	SW SW SEC. 28 T5N R67W 6th P.M.	<b>MD Reference:</b>	KB-EST @ 4797.5usft
<b>Site Error:</b>	0.0 usft	<b>North Reference:</b>	True
<b>Reference Well:</b>	KINZER 28I-202	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Well Error:</b>	0.0 usft	<b>Output errors are at</b>	2.00 sigma
<b>Reference Wellbore</b>	ORIGINAL WELLBORE	<b>Database:</b>	EDM 5000.1 Single User Db
<b>Reference Design:</b>	PROPOSAL #1	<b>Offset TVD Reference:</b>	Offset Datum

<b>Offset Design</b> SW SW SEC. 28 T5N R67W 6th P.M. - EXIST VERT MELLON 28-4 - Wellbore #1 - Design #1												<b>Offset Site Error:</b>	0.0 usft
Survey Program: 0-INC												<b>Offset Well Error:</b>	0.0 usft
Reference		Offset		Semi Major Axis			Distance						Warning
Measured Depth (usft)	Vertical Depth (usft)	Measured Depth (usft)	Vertical Depth (usft)	Reference (usft)	Offset (usft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (usft)	+E/-W (usft)	Between Centres (usft)	Between Ellipses (usft)	Minimum Separation (usft)	Separation Factor	
8,700.0	6,772.2	6,872.7	6,872.7	57.8	135.8	-89.98	2,670.4	1,680.2	2,916.9	2,723.3	193.58	15.068	
8,800.0	6,771.5	6,872.0	6,872.0	60.5	135.8	-89.97	2,670.4	1,680.2	2,923.0	2,726.8	196.27	14.893	
8,900.0	6,770.9	6,871.4	6,871.4	63.2	135.8	-89.96	2,670.4	1,680.2	2,932.6	2,733.6	198.97	14.739	
9,000.0	6,770.2	6,870.7	6,870.7	65.9	135.8	-89.94	2,670.4	1,680.2	2,945.5	2,743.8	201.68	14.605	
9,100.0	6,769.5	6,870.0	6,870.0	68.7	135.7	-89.93	2,670.4	1,680.2	2,961.7	2,757.3	204.39	14.490	
9,200.0	6,768.9	6,869.4	6,869.4	71.4	135.7	-89.92	2,670.4	1,680.2	2,981.2	2,774.0	207.11	14.394	
9,300.0	6,768.2	6,868.7	6,868.7	74.1	135.7	-89.90	2,670.4	1,680.2	3,003.8	2,794.0	209.84	14.315	
9,400.0	6,767.5	6,868.0	6,868.0	76.9	135.7	-89.89	2,670.4	1,680.2	3,029.7	2,817.1	212.57	14.252	
9,500.0	6,766.8	6,867.3	6,867.3	79.6	135.7	-89.88	2,670.4	1,680.2	3,058.5	2,843.2	215.31	14.205	
9,600.0	6,766.2	6,866.7	6,866.7	82.4	135.7	-89.86	2,670.4	1,680.2	3,090.4	2,872.3	218.05	14.173	
9,700.0	6,765.5	6,866.0	6,866.0	85.2	135.7	-89.85	2,670.4	1,680.2	3,125.1	2,904.3	220.79	14.154	
9,800.0	6,764.8	6,865.3	6,865.3	87.9	135.7	-89.84	2,670.4	1,680.2	3,162.6	2,939.1	223.54	14.148 SF	
9,900.0	6,764.1	6,864.6	6,864.6	90.7	135.6	-89.82	2,670.4	1,680.2	3,202.8	2,976.5	226.29	14.153	
10,000.0	6,763.5	6,864.0	6,864.0	93.4	135.6	-89.81	2,670.4	1,680.2	3,245.6	3,016.5	229.04	14.170	
10,100.0	6,762.8	6,863.3	6,863.3	96.2	135.6	-89.80	2,670.4	1,680.2	3,290.8	3,059.0	231.80	14.197	
10,200.0	6,762.1	6,862.6	6,862.6	99.0	135.6	-89.78	2,670.4	1,680.2	3,338.5	3,103.9	234.56	14.233	
10,300.0	6,761.4	6,861.9	6,861.9	101.8	135.6	-89.77	2,670.4	1,680.2	3,388.4	3,151.1	237.32	14.278	
10,400.0	6,760.8	6,861.3	6,861.3	104.5	135.6	-89.76	2,670.4	1,680.2	3,440.5	3,200.4	240.08	14.331	
10,500.0	6,760.1	6,860.6	6,860.6	107.3	135.6	-89.74	2,670.4	1,680.2	3,494.7	3,251.8	242.84	14.391	
10,600.0	6,759.4	6,859.9	6,859.9	110.1	135.5	-89.73	2,670.4	1,680.2	3,550.8	3,305.2	245.61	14.457	
10,700.0	6,758.7	6,859.2	6,859.2	112.9	135.5	-89.72	2,670.4	1,680.2	3,608.9	3,360.5	248.37	14.530	
10,800.0	6,758.1	6,858.6	6,858.6	115.6	135.5	-89.70	2,670.4	1,680.2	3,668.8	3,417.6	251.14	14.609	
10,900.0	6,757.4	6,857.9	6,857.9	118.4	135.5	-89.69	2,670.4	1,680.2	3,730.4	3,476.5	253.91	14.692	
11,000.0	6,756.7	6,857.2	6,857.2	121.2	135.5	-89.68	2,670.4	1,680.2	3,793.6	3,536.9	256.68	14.780	
11,100.0	6,756.0	6,856.5	6,856.5	124.0	135.5	-89.66	2,670.4	1,680.2	3,858.4	3,599.0	259.45	14.871	
11,200.0	6,755.3	6,855.8	6,855.8	126.8	135.5	-89.65	2,670.4	1,680.2	3,924.7	3,662.5	262.22	14.967	
11,300.0	6,754.7	6,855.2	6,855.2	129.6	135.4	-89.64	2,670.4	1,680.2	3,992.4	3,727.4	265.00	15.066	
11,400.0	6,754.0	6,854.5	6,854.5	132.4	135.4	-89.62	2,670.4	1,680.2	4,061.4	3,793.6	267.77	15.167	
11,500.0	6,753.3	6,853.8	6,853.8	135.1	135.4	-89.61	2,670.4	1,680.2	4,131.6	3,861.1	270.54	15.272	
11,600.0	6,752.6	6,853.1	6,853.1	137.9	135.4	-89.59	2,670.4	1,680.2	4,203.1	3,929.8	273.32	15.378	
11,700.0	6,751.9	6,852.4	6,852.4	140.7	135.4	-89.58	2,670.4	1,680.2	4,275.8	3,999.7	276.10	15.486	
11,800.0	6,751.3	6,851.8	6,851.8	143.5	135.4	-89.57	2,670.4	1,680.2	4,349.5	4,070.6	278.87	15.597	
11,837.2	6,751.0	6,851.5	6,851.5	144.6	135.4	-89.56	2,670.4	1,680.2	4,377.2	4,097.3	279.91	15.638	

# Anticollision Report



<b>Company:</b>	PDC ENERGY	<b>Local Co-ordinate Reference:</b>	Well KINZER 281-202
<b>Project:</b>	WELD COUNTY, COLORADO	<b>TVD Reference:</b>	KB-EST @ 4797.5usft
<b>Reference Site:</b>	SW SW SEC. 28 T5N R67W 6th P.M.	<b>MD Reference:</b>	KB-EST @ 4797.5usft
<b>Site Error:</b>	0.0 usft	<b>North Reference:</b>	True
<b>Reference Well:</b>	KINZER 281-202	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Well Error:</b>	0.0 usft	<b>Output errors are at</b>	2.00 sigma
<b>Reference Wellbore</b>	ORIGINAL WELLBORE	<b>Database:</b>	EDM 5000.1 Single User Db
<b>Reference Design:</b>	PROPOSAL #1	<b>Offset TVD Reference:</b>	Offset Datum

<b>Offset Design</b> SW SW SEC. 28 T5N R67W 6th P.M. - EXIST VERT ROGER 1 - Wellbore #1 - Design #1												<b>Offset Site Error:</b>	0.0 usft
Survey Program: 0-MWMD												<b>Offset Well Error:</b>	0.0 usft
Reference		Offset		Semi Major Axis			Distance						Warning
Measured Depth (usft)	Vertical Depth (usft)	Measured Depth (usft)	Vertical Depth (usft)	Reference (usft)	Offset (usft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (usft)	+E/-W (usft)	Between Centres (usft)	Between Ellipses (usft)	Minimum Separation (usft)	Separation Factor	
0.0	0.0	114.5	114.5	0.0	0.0	46.61	2,863.6	3,028.8	4,168.2				
100.0	100.0	214.5	214.5	0.1	0.1	46.61	2,863.6	3,028.8	4,168.2	4,168.0	0.21	N/A	
200.0	200.0	314.5	314.5	0.3	0.3	46.61	2,863.6	3,028.8	4,168.2	4,167.5	0.66	6,313.058	
300.0	300.0	414.5	414.5	0.5	0.6	46.61	2,863.6	3,028.8	4,168.2	4,167.1	1.11	3,755.871	
400.0	400.0	514.5	514.5	0.8	0.8	46.61	2,863.6	3,028.8	4,168.2	4,166.6	1.56	2,673.097	
500.0	500.0	614.5	614.5	1.0	1.0	46.61	2,863.6	3,028.8	4,168.2	4,166.2	2.01	2,074.922	
600.0	600.0	714.5	714.5	1.2	1.2	46.61	2,863.6	3,028.8	4,168.2	4,165.7	2.46	1,695.507	
700.0	700.0	814.5	814.5	1.4	1.5	46.61	2,863.6	3,028.8	4,168.2	4,165.3	2.91	1,433.400	
800.0	800.0	914.5	914.5	1.7	1.7	46.61	2,863.6	3,028.8	4,168.2	4,164.8	3.36	1,241.480	
900.0	900.0	1,014.5	1,014.5	1.9	1.9	46.61	2,863.6	3,028.8	4,168.2	4,164.4	3.81	1,094.885	
1,000.0	1,000.0	1,114.5	1,114.5	2.1	2.1	46.61	2,863.6	3,028.8	4,168.2	4,163.9	4.26	979.254	
1,100.0	1,100.0	1,214.5	1,214.5	2.3	2.4	169.33	2,863.6	3,028.8	4,169.9	4,165.2	4.68	890.281	
1,200.0	1,199.8	1,314.3	1,314.3	2.5	2.6	169.32	2,863.6	3,028.8	4,175.1	4,170.0	5.09	819.927	
1,300.0	1,299.5	1,414.0	1,414.0	2.7	2.8	169.31	2,863.6	3,028.8	4,183.6	4,178.1	5.50	760.408	
1,400.0	1,398.7	1,513.2	1,513.2	3.0	3.0	169.30	2,863.6	3,028.8	4,195.6	4,189.7	5.91	709.675	
1,500.0	1,497.5	1,612.0	1,612.0	3.2	3.3	169.28	2,863.6	3,028.8	4,211.0	4,204.7	6.32	666.056	
1,502.5	1,500.0	1,614.5	1,614.5	3.2	3.3	169.28	2,863.6	3,028.8	4,211.4	4,205.1	6.33	665.062	
1,600.0	1,595.9	1,710.4	1,710.4	3.5	3.5	169.32	2,863.6	3,028.8	4,228.1	4,221.4	6.76	625.817	
1,700.0	1,694.4	1,808.9	1,808.9	3.8	3.7	169.37	2,863.6	3,028.8	4,245.3	4,238.1	7.20	589.869	
1,800.0	1,792.9	1,907.4	1,907.4	4.2	3.9	169.41	2,863.6	3,028.8	4,262.5	4,254.8	7.64	557.704	
1,900.0	1,891.3	2,005.8	2,005.8	4.5	4.1	169.45	2,863.6	3,028.8	4,279.6	4,271.5	8.09	528.815	
2,000.0	1,989.8	2,104.3	2,104.3	4.9	4.4	169.49	2,863.6	3,028.8	4,296.8	4,288.2	8.55	502.767	
2,100.0	2,088.3	2,202.8	2,202.8	5.2	4.6	169.54	2,863.6	3,028.8	4,314.0	4,305.0	9.00	479.191	
2,200.0	2,186.7	2,301.2	2,301.2	5.6	4.8	169.58	2,863.6	3,028.8	4,331.1	4,321.7	9.46	457.771	
2,300.0	2,285.2	2,399.7	2,399.7	6.0	5.0	169.62	2,863.6	3,028.8	4,348.3	4,338.4	9.92	438.241	
2,400.0	2,383.7	2,498.2	2,498.2	6.4	5.2	169.66	2,863.6	3,028.8	4,365.5	4,355.1	10.38	420.373	
2,500.0	2,482.1	2,596.6	2,596.6	6.7	5.5	169.70	2,863.6	3,028.8	4,382.7	4,371.8	10.85	403.972	
2,600.0	2,580.6	2,695.1	2,695.1	7.1	5.7	169.74	2,863.6	3,028.8	4,399.8	4,388.5	11.31	388.872	
2,700.0	2,679.1	2,793.6	2,793.6	7.5	5.9	169.78	2,863.6	3,028.8	4,417.0	4,405.2	11.78	374.929	
2,800.0	2,777.5	2,892.0	2,892.0	7.9	6.1	169.82	2,863.6	3,028.8	4,434.2	4,421.9	12.25	362.018	
2,900.0	2,876.0	2,990.5	2,990.5	8.3	6.4	169.86	2,863.6	3,028.8	4,451.4	4,438.7	12.72	350.033	
3,000.0	2,974.4	3,088.9	3,088.9	8.7	6.6	169.90	2,863.6	3,028.8	4,468.6	4,455.4	13.19	338.880	
3,100.0	3,072.9	3,187.4	3,187.4	9.1	6.8	169.94	2,863.6	3,028.8	4,485.8	4,472.1	13.66	328.476	
3,200.0	3,171.4	3,285.9	3,285.9	9.5	7.0	169.98	2,863.6	3,028.8	4,503.0	4,488.8	14.13	318.751	
3,300.0	3,269.8	3,384.3	3,384.3	9.9	7.2	170.02	2,863.6	3,028.8	4,520.1	4,505.6	14.60	309.642	
3,400.0	3,368.3	3,482.8	3,482.8	10.3	7.5	170.06	2,863.6	3,028.8	4,537.3	4,522.3	15.07	301.092	
3,500.0	3,466.8	3,581.3	3,581.3	10.7	7.7	170.09	2,863.6	3,028.8	4,554.5	4,539.0	15.54	293.053	
3,580.8	3,546.3	3,660.8	3,660.8	11.0	7.9	170.12	2,863.6	3,028.8	4,568.4	4,552.5	15.92	286.900	
3,600.0	3,565.3	3,679.8	3,679.8	11.1	7.9	170.14	2,863.6	3,028.8	4,571.7	4,555.7	16.02	285.371	
3,700.0	3,664.1	3,778.6	3,778.6	11.3	8.1	170.23	2,863.6	3,028.8	4,586.5	4,570.0	16.50	278.037	
3,800.0	3,763.4	3,877.9	3,877.9	11.6	8.3	170.29	2,863.6	3,028.8	4,598.0	4,581.0	16.95	271.255	
3,900.0	3,863.1	3,977.6	3,977.6	11.8	8.6	170.33	2,863.6	3,028.8	4,606.0	4,588.6	17.38	264.985	
4,000.0	3,963.0	4,077.5	4,077.5	12.0	8.8	170.36	2,863.6	3,028.8	4,610.6	4,592.8	17.79	259.181	
4,083.3	4,046.3	4,160.8	4,160.8	12.1	9.0	47.64	2,863.6	3,028.8	4,611.8	4,590.8	21.02	219.406	
4,100.0	4,063.0	4,177.5	4,177.5	12.1	9.0	47.64	2,863.6	3,028.8	4,611.8	4,590.7	21.08	218.764	
4,200.0	4,163.0	4,277.5	4,277.5	12.3	9.2	47.64	2,863.6	3,028.8	4,611.8	4,590.3	21.45	214.979	
4,300.0	4,263.0	4,377.5	4,377.5	12.4	9.5	47.64	2,863.6	3,028.8	4,611.8	4,590.0	21.83	211.299	
4,400.0	4,363.0	4,477.5	4,477.5	12.6	9.7	47.64	2,863.6	3,028.8	4,611.8	4,589.6	22.20	207.722	
4,500.0	4,463.0	4,577.5	4,577.5	12.7	9.9	47.64	2,863.6	3,028.8	4,611.8	4,589.2	22.58	204.244	
4,600.0	4,563.0	4,677.5	4,677.5	12.9	10.1	47.64	2,863.6	3,028.8	4,611.8	4,588.8	22.96	200.863	
4,700.0	4,663.0	4,777.5	4,777.5	13.0	10.4	47.64	2,863.6	3,028.8	4,611.8	4,588.4	23.34	197.574	
4,800.0	4,763.0	4,877.5	4,877.5	13.2	10.6	47.64	2,863.6	3,028.8	4,611.8	4,588.1	23.73	194.375	

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

# Anticollision Report



<b>Company:</b>	PDC ENERGY	<b>Local Co-ordinate Reference:</b>	Well KINZER 281-202
<b>Project:</b>	WELD COUNTY, COLORADO	<b>TVD Reference:</b>	KB-EST @ 4797.5usft
<b>Reference Site:</b>	SW SW SEC. 28 T5N R67W 6th P.M.	<b>MD Reference:</b>	KB-EST @ 4797.5usft
<b>Site Error:</b>	0.0 usft	<b>North Reference:</b>	True
<b>Reference Well:</b>	KINZER 281-202	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Well Error:</b>	0.0 usft	<b>Output errors are at</b>	2.00 sigma
<b>Reference Wellbore</b>	ORIGINAL WELLBORE	<b>Database:</b>	EDM 5000.1 Single User Db
<b>Reference Design:</b>	PROPOSAL #1	<b>Offset TVD Reference:</b>	Offset Datum

Offset Design												Offset Site Error:	0.0 usft
Survey Program: 0-MWDD												Offset Well Error:	0.0 usft
Reference		Offset		Semi Major Axis			Distance						Warning
Measured Depth (usft)	Vertical Depth (usft)	Measured Depth (usft)	Vertical Depth (usft)	Reference (usft)	Offset (usft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (usft)	+E/-W (usft)	Between Centres (usft)	Between Ellipses (usft)	Minimum Separation (usft)	Separation Factor	
4,900.0	4,863.0	4,977.5	4,977.5	13.4	10.8	47.64	2,863.6	3,028.8	4,611.8	4,587.7	24.11	191.263	
5,000.0	4,963.0	5,077.5	5,077.5	13.5	11.0	47.64	2,863.6	3,028.8	4,611.8	4,587.3	24.50	188.235	
5,100.0	5,063.0	5,177.5	5,177.5	13.7	11.3	47.64	2,863.6	3,028.8	4,611.8	4,586.9	24.89	185.289	
5,200.0	5,163.0	5,277.5	5,277.5	13.9	11.5	47.64	2,863.6	3,028.8	4,611.8	4,586.5	25.28	182.421	
5,300.0	5,263.0	5,377.5	5,377.5	14.0	11.7	47.64	2,863.6	3,028.8	4,611.8	4,586.1	25.67	179.629	
5,400.0	5,363.0	5,477.5	5,477.5	14.2	11.9	47.64	2,863.6	3,028.8	4,611.8	4,585.7	26.07	176.911	
5,500.0	5,463.0	5,577.5	5,577.5	14.4	12.2	47.64	2,863.6	3,028.8	4,611.8	4,585.3	26.46	174.263	
5,600.0	5,563.0	5,677.5	5,677.5	14.5	12.4	47.64	2,863.6	3,028.8	4,611.8	4,584.9	26.86	171.685	
5,700.0	5,663.0	5,777.5	5,777.5	14.7	12.6	47.64	2,863.6	3,028.8	4,611.8	4,584.5	27.26	169.172	
5,800.0	5,763.0	5,877.5	5,877.5	14.9	12.8	47.64	2,863.6	3,028.8	4,611.8	4,584.1	27.66	166.725	
5,900.0	5,863.0	5,977.5	5,977.5	15.1	13.1	47.64	2,863.6	3,028.8	4,611.8	4,583.7	28.06	164.339	
6,000.0	5,963.0	6,077.5	6,077.5	15.2	13.3	47.64	2,863.6	3,028.8	4,611.8	4,583.3	28.47	162.013	
6,100.0	6,063.0	6,177.5	6,177.5	15.4	13.5	47.64	2,863.6	3,028.8	4,611.8	4,582.9	28.87	159.745	
6,102.8	6,065.8	6,180.3	6,180.3	15.4	13.5	47.64	2,863.6	3,028.8	4,611.8	4,582.9	28.88	159.682	
6,150.0	6,112.9	6,227.4	6,227.4	15.5	13.6	-42.43	2,863.6	3,028.8	4,610.6	4,583.8	26.84	171.753	
6,200.0	6,162.7	6,277.2	6,277.2	15.5	13.7	-42.68	2,863.6	3,028.8	4,606.9	4,580.0	26.92	171.112	
6,250.0	6,211.9	6,326.4	6,326.4	15.6	13.9	-43.09	2,863.6	3,028.8	4,600.7	4,573.7	26.95	170.726	
6,300.0	6,260.5	6,375.0	6,375.0	15.6	14.0	-43.68	2,863.6	3,028.8	4,591.9	4,565.0	26.92	170.551	
6,350.0	6,308.1	6,422.6	6,422.6	15.6	14.1	-44.45	2,863.6	3,028.8	4,580.7	4,553.8	26.86	170.520	
6,400.0	6,354.5	6,469.0	6,469.0	15.6	14.2	-45.41	2,863.6	3,028.8	4,567.1	4,540.3	26.78	170.548	
6,450.0	6,399.5	6,514.0	6,514.0	15.6	14.3	-46.56	2,863.6	3,028.8	4,551.2	4,524.5	26.69	170.522	
6,500.0	6,442.9	6,557.4	6,557.4	15.5	14.4	-47.92	2,863.6	3,028.8	4,533.0	4,506.4	26.62	170.308	
6,550.0	6,484.5	6,599.0	6,599.0	15.5	14.5	-49.48	2,863.6	3,028.8	4,512.9	4,486.3	26.59	169.751	
6,600.0	6,524.0	6,638.5	6,638.5	15.5	14.6	-51.27	2,863.6	3,028.8	4,490.7	4,464.1	26.62	168.684	
6,650.0	6,561.3	6,675.8	6,675.8	15.6	14.6	-53.29	2,863.6	3,028.8	4,466.7	4,440.0	26.75	166.952	
6,700.0	6,596.1	6,710.6	6,710.6	15.6	14.7	-55.54	2,863.6	3,028.8	4,441.1	4,414.0	27.01	164.432	
6,750.0	6,628.4	6,742.9	6,742.9	15.7	14.8	-58.02	2,863.6	3,028.8	4,413.9	4,386.5	27.40	161.065	
6,800.0	6,658.0	6,772.5	6,772.5	15.9	14.9	-60.74	2,863.6	3,028.8	4,385.3	4,357.4	27.95	156.877	
6,850.0	6,684.6	6,799.1	6,799.1	16.2	14.9	-63.69	2,863.6	3,028.8	4,355.6	4,326.9	28.66	151.980	
6,900.0	6,708.3	6,822.8	6,822.8	16.5	15.0	-66.84	2,863.6	3,028.8	4,324.8	4,295.3	29.51	146.564	
6,950.0	6,728.8	6,843.3	6,843.3	17.0	15.0	-70.17	2,863.6	3,028.8	4,293.2	4,262.8	30.48	140.862	
7,000.0	6,746.1	6,860.6	6,860.6	17.6	15.1	-73.64	2,863.6	3,028.8	4,261.0	4,229.5	31.54	135.110	
7,050.0	6,760.0	6,874.5	6,874.5	18.3	15.1	-77.22	2,863.6	3,028.8	4,228.3	4,195.7	32.65	129.519	
7,100.0	6,770.6	6,885.1	6,885.1	19.1	15.1	-80.85	2,863.6	3,028.8	4,195.3	4,161.6	33.77	124.246	
7,150.0	6,777.8	6,892.3	6,892.3	19.9	15.1	-84.48	2,863.6	3,028.8	4,162.2	4,127.4	34.86	119.393	
7,200.0	6,781.5	6,896.0	6,896.0	20.8	15.1	-88.05	2,863.6	3,028.8	4,129.2	4,093.3	35.90	115.007	
7,232.6	6,782.0	6,896.5	6,896.5	21.4	15.1	-90.33	2,863.6	3,028.8	4,107.9	4,071.3	36.55	112.401	
7,300.0	6,781.5	6,896.0	6,896.0	22.7	15.1	-90.32	2,863.6	3,028.8	4,064.1	4,026.2	37.86	107.358	
7,400.0	6,780.9	6,895.4	6,895.4	24.8	15.1	-90.31	2,863.6	3,028.8	4,000.4	3,960.4	39.94	100.168	
7,500.0	6,780.2	6,894.7	6,894.7	27.0	15.1	-90.30	2,863.6	3,028.8	3,938.2	3,896.0	42.15	93.434	
7,600.0	6,779.5	6,894.0	6,894.0	29.4	15.1	-90.28	2,863.6	3,028.8	3,877.5	3,833.1	44.46	87.206	
7,700.0	6,778.9	6,893.4	6,893.4	31.8	15.1	-90.27	2,863.6	3,028.8	3,818.5	3,771.7	46.86	81.492	
7,800.0	6,778.2	6,892.7	6,892.7	34.2	15.1	-90.26	2,863.6	3,028.8	3,761.3	3,712.0	49.32	76.270	
7,900.0	6,777.5	6,892.0	6,892.0	36.7	15.1	-90.25	2,863.6	3,028.8	3,705.9	3,654.0	51.82	71.510	
8,000.0	6,776.9	6,891.4	6,891.4	39.3	15.1	-90.24	2,863.6	3,028.8	3,652.3	3,598.0	54.37	67.174	
8,100.0	6,776.2	6,890.7	6,890.7	41.9	15.1	-90.22	2,863.6	3,028.8	3,600.8	3,543.8	56.95	63.224	
8,200.0	6,775.5	6,890.0	6,890.0	44.5	15.1	-90.21	2,863.6	3,028.8	3,551.3	3,491.7	59.56	59.624	
8,300.0	6,774.9	6,889.4	6,889.4	47.1	15.1	-90.20	2,863.6	3,028.8	3,504.0	3,441.8	62.19	56.340	
8,400.0	6,774.2	6,888.7	6,888.7	49.8	15.1	-90.19	2,863.6	3,028.8	3,458.9	3,394.1	64.84	53.342	
8,500.0	6,773.5	6,888.0	6,888.0	52.4	15.1	-90.17	2,863.6	3,028.8	3,416.1	3,348.6	67.51	50.601	
8,600.0	6,772.9	6,887.4	6,887.4	55.1	15.1	-90.16	2,863.6	3,028.8	3,375.8	3,305.6	70.19	48.093	
8,700.0	6,772.2	6,886.7	6,886.7	57.8	15.1	-90.15	2,863.6	3,028.8	3,338.0	3,265.1	72.89	45.798	

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



# Anticollision Report



<b>Company:</b>	PDC ENERGY	<b>Local Co-ordinate Reference:</b>	Well KINZER 28I-202
<b>Project:</b>	WELD COUNTY, COLORADO	<b>TVD Reference:</b>	KB-EST @ 4797.5usft
<b>Reference Site:</b>	SW SW SEC. 28 T5N R67W 6th P.M.	<b>MD Reference:</b>	KB-EST @ 4797.5usft
<b>Site Error:</b>	0.0 usft	<b>North Reference:</b>	True
<b>Reference Well:</b>	KINZER 28I-202	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Well Error:</b>	0.0 usft	<b>Output errors are at</b>	2.00 sigma
<b>Reference Wellbore</b>	ORIGINAL WELLBORE	<b>Database:</b>	EDM 5000.1 Single User Db
<b>Reference Design:</b>	PROPOSAL #1	<b>Offset TVD Reference:</b>	Offset Datum

<b>Offset Design</b> SW SW SEC. 28 T5N R67W 6th P.M. - EXIST VERT ROGER 1 - Wellbore #1 - Design #1												<b>Offset Site Error:</b>	0.0 usft
Survey Program: 0-MWD												<b>Offset Well Error:</b>	0.0 usft
Reference		Offset		Semi Major Axis			Distance						Warning
Measured Depth (usft)	Vertical Depth (usft)	Measured Depth (usft)	Vertical Depth (usft)	Reference (usft)	Offset (usft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (usft)	+E/-W (usft)	Between Centres (usft)	Between Ellipses (usft)	Minimum Separation (usft)	Separation Factor	
8,800.0	6,771.5	6,886.0	6,886.0	60.5	15.1	-90.14	2,863.6	3,028.8	3,302.8	3,227.2	75.59	43.694	
8,900.0	6,770.9	6,885.4	6,885.4	63.2	15.1	-90.13	2,863.6	3,028.8	3,270.2	3,191.9	78.30	41.764	
9,000.0	6,770.2	6,884.7	6,884.7	65.9	15.1	-90.11	2,863.6	3,028.8	3,240.5	3,159.4	81.02	39.994	
9,100.0	6,769.5	6,884.0	6,884.0	68.7	15.1	-90.10	2,863.6	3,028.8	3,213.5	3,129.8	83.75	38.370	
9,200.0	6,768.9	6,883.4	6,883.4	71.4	15.1	-90.09	2,863.6	3,028.8	3,189.5	3,103.0	86.48	36.879	
9,300.0	6,768.2	6,882.7	6,882.7	74.1	15.1	-90.08	2,863.6	3,028.8	3,168.4	3,079.2	89.22	35.511	
9,400.0	6,767.5	6,882.0	6,882.0	76.9	15.1	-90.06	2,863.6	3,028.8	3,150.4	3,058.4	91.97	34.255	
9,500.0	6,766.8	6,881.3	6,881.3	79.6	15.1	-90.05	2,863.6	3,028.8	3,135.4	3,040.7	94.72	33.103	
9,600.0	6,766.2	6,880.7	6,880.7	82.4	15.1	-90.04	2,863.6	3,028.8	3,123.6	3,026.2	97.47	32.047	
9,700.0	6,765.5	6,880.0	6,880.0	85.2	15.1	-90.03	2,863.6	3,028.8	3,115.0	3,014.8	100.23	31.080	
9,800.0	6,764.8	6,879.3	6,879.3	87.9	15.1	-90.01	2,863.6	3,028.8	3,109.5	3,006.6	102.98	30.194	
9,900.0	6,764.1	6,878.6	6,878.6	90.7	15.1	-90.00	2,863.6	3,028.8	3,107.3	3,001.6	105.75	29.384	
9,919.6	6,764.0	6,878.5	6,878.5	91.2	15.1	-90.00	2,863.6	3,028.8	3,107.2	3,001.0	106.29	29.234 CC	
10,000.0	6,763.5	6,878.0	6,878.0	93.4	15.1	-89.99	2,863.6	3,028.8	3,108.3	2,999.8	108.51	28.645 ES	
10,100.0	6,762.8	6,877.3	6,877.3	96.2	15.1	-89.98	2,863.6	3,028.8	3,112.5	3,001.2	111.28	27.970	
10,200.0	6,762.1	6,876.6	6,876.6	99.0	15.1	-89.97	2,863.6	3,028.8	3,119.9	3,005.8	114.05	27.355	
10,300.0	6,761.4	6,875.9	6,875.9	101.8	15.1	-89.95	2,863.6	3,028.8	3,130.4	3,013.6	116.82	26.797	
10,400.0	6,760.8	6,875.3	6,875.3	104.5	15.1	-89.94	2,863.6	3,028.8	3,144.2	3,024.6	119.60	26.290	
10,500.0	6,760.1	6,874.6	6,874.6	107.3	15.1	-89.93	2,863.6	3,028.8	3,161.0	3,038.6	122.37	25.831	
10,600.0	6,759.4	6,873.9	6,873.9	110.1	15.1	-89.92	2,863.6	3,028.8	3,180.9	3,055.7	125.15	25.417	
10,700.0	6,758.7	6,873.2	6,873.2	112.9	15.1	-89.90	2,863.6	3,028.8	3,203.8	3,075.8	127.93	25.044	
10,800.0	6,758.1	6,872.6	6,872.6	115.6	15.1	-89.89	2,863.6	3,028.8	3,229.6	3,098.9	130.71	24.709	
10,900.0	6,757.4	6,871.9	6,871.9	118.4	15.1	-89.88	2,863.6	3,028.8	3,258.2	3,124.8	133.49	24.409	
11,000.0	6,756.7	6,871.2	6,871.2	121.2	15.1	-89.86	2,863.6	3,028.8	3,289.7	3,153.4	136.27	24.141	
11,100.0	6,756.0	6,870.5	6,870.5	124.0	15.1	-89.85	2,863.6	3,028.8	3,323.9	3,184.8	139.05	23.904	
11,200.0	6,755.3	6,869.8	6,869.8	126.8	15.1	-89.84	2,863.6	3,028.8	3,360.7	3,218.9	141.84	23.694	
11,300.0	6,754.7	6,869.2	6,869.2	129.6	15.1	-89.83	2,863.6	3,028.8	3,400.1	3,255.4	144.62	23.510	
11,400.0	6,754.0	6,868.5	6,868.5	132.4	15.1	-89.81	2,863.6	3,028.8	3,441.9	3,294.5	147.41	23.349	
11,500.0	6,753.3	6,867.8	6,867.8	135.1	15.1	-89.80	2,863.6	3,028.8	3,486.1	3,335.9	150.20	23.210	
11,600.0	6,752.6	6,867.1	6,867.1	137.9	15.1	-89.79	2,863.6	3,028.8	3,532.5	3,379.5	152.99	23.091	
11,700.0	6,751.9	6,866.4	6,866.4	140.7	15.1	-89.78	2,863.6	3,028.8	3,581.2	3,425.4	155.77	22.989	
11,800.0	6,751.3	6,865.8	6,865.8	143.5	15.1	-89.76	2,863.6	3,028.8	3,631.9	3,473.4	158.56	22.905	
11,837.2	6,751.0	6,865.5	6,865.5	144.6	15.1	-89.76	2,863.6	3,028.8	3,651.3	3,491.7	159.60	22.878 SF	

# Anticollision Report



<b>Company:</b>	PDC ENERGY	<b>Local Co-ordinate Reference:</b>	Well KINZER 281-202
<b>Project:</b>	WELD COUNTY, COLORADO	<b>TVD Reference:</b>	KB-EST @ 4797.5usft
<b>Reference Site:</b>	SW SW SEC. 28 T5N R67W 6th P.M.	<b>MD Reference:</b>	KB-EST @ 4797.5usft
<b>Site Error:</b>	0.0 usft	<b>North Reference:</b>	True
<b>Reference Well:</b>	KINZER 281-202	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Well Error:</b>	0.0 usft	<b>Output errors are at</b>	2.00 sigma
<b>Reference Wellbore</b>	ORIGINAL WELLBORE	<b>Database:</b>	EDM 5000.1 Single User Db
<b>Reference Design:</b>	PROPOSAL #1	<b>Offset TVD Reference:</b>	Offset Datum

Offset Design													Offset Site Error:	0.0 usft
Survey Program: 0-MWD													Offset Well Error:	0.0 usft
Reference		Offset		Semi Major Axis			Distance							Warning
Measured Depth (usft)	Vertical Depth (usft)	Measured Depth (usft)	Vertical Depth (usft)	Reference (usft)	Offset (usft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (usft)	+E/-W (usft)	Between Centres (usft)	Between Ellipses (usft)	Minimum Separation (usft)	Separation Factor		
0.0	0.0	0.0	0.0	0.0	0.0	-90.00	0.0	-105.9	105.9					
100.0	100.0	100.0	100.0	0.1	0.1	-90.00	0.0	-105.9	105.9	105.7	0.19	544.656		
200.0	200.0	200.0	200.0	0.3	0.3	-90.00	0.0	-105.9	105.9	105.2	0.64	164.442		
300.0	300.0	300.0	300.0	0.5	0.5	-90.00	0.0	-105.9	105.9	104.8	1.09	96.840 CC		
400.0	400.0	399.5	399.4	0.8	0.8	-89.08	1.7	-106.1	106.1	104.6	1.54	68.796 ES		
500.0	500.0	498.7	498.5	1.0	1.0	-86.35	6.8	-106.8	107.1	105.1	2.00	53.581		
600.0	600.0	597.4	596.9	1.2	1.2	-81.95	15.3	-108.0	109.1	106.6	2.46	44.315		
700.0	700.0	695.5	694.2	1.4	1.5	-76.16	27.0	-109.6	113.0	110.1	2.95	38.369		
800.0	800.0	792.6	790.2	1.7	1.8	-69.45	41.8	-111.6	119.6	116.2	3.46	34.546		
900.0	900.0	888.6	884.4	1.9	2.2	-62.38	59.7	-114.1	129.7	125.7	4.03	32.207		
1,000.0	1,000.0	983.2	976.8	2.1	2.5	-55.51	80.3	-116.9	143.7	139.1	4.64	30.960		
1,100.0	1,100.0	1,076.2	1,066.7	2.3	3.0	73.70	103.5	-120.1	161.5	156.5	5.00	32.293		
1,200.0	1,199.8	1,167.0	1,153.8	2.5	3.4	80.16	129.0	-123.6	183.3	177.8	5.46	33.549		
1,300.0	1,299.5	1,255.1	1,237.5	2.7	3.9	86.18	156.3	-127.3	209.8	203.9	5.92	35.450		
1,400.0	1,398.7	1,340.5	1,317.7	3.0	4.5	91.54	185.1	-131.3	241.4	235.0	6.38	37.863		
1,500.0	1,497.5	1,422.7	1,394.2	3.2	5.0	96.13	215.2	-135.4	278.2	271.4	6.85	40.594		
1,502.5	1,500.0	1,424.7	1,396.1	3.2	5.0	96.24	215.9	-135.5	279.2	272.3	6.87	40.666		
1,600.0	1,595.9	1,510.4	1,475.2	3.5	5.7	100.99	248.5	-140.0	318.8	311.5	7.34	43.419		
1,700.0	1,694.4	1,598.5	1,556.6	3.8	6.3	104.83	282.0	-144.6	361.1	353.2	7.85	45.991		
1,800.0	1,792.9	1,686.6	1,637.9	4.2	6.9	107.90	315.4	-149.1	404.4	396.1	8.38	48.260		
1,900.0	1,891.3	1,774.8	1,719.3	4.5	7.6	110.38	348.9	-153.7	448.6	439.7	8.93	50.245		
2,000.0	1,989.8	1,862.9	1,800.7	4.9	8.2	112.44	382.4	-158.3	493.3	483.8	9.49	51.976		
2,100.0	2,088.3	1,951.0	1,882.1	5.2	8.9	114.15	415.9	-162.9	538.5	528.4	10.07	53.485		
2,200.0	2,186.7	2,039.1	1,963.5	5.6	9.5	115.61	449.3	-167.5	584.0	573.3	10.66	54.803		
2,300.0	2,285.2	2,127.2	2,044.9	6.0	10.2	116.86	482.8	-172.1	629.7	618.5	11.25	55.957		
2,400.0	2,383.7	2,215.4	2,126.3	6.4	10.8	117.94	516.3	-176.7	675.7	663.8	11.86	56.972		
2,500.0	2,482.1	2,303.5	2,207.6	6.7	11.5	118.89	549.8	-181.3	721.8	709.4	12.47	57.870		
2,600.0	2,580.6	2,391.6	2,289.0	7.1	12.2	119.72	583.2	-185.9	768.1	755.0	13.09	58.665		
2,700.0	2,679.1	2,479.7	2,370.4	7.5	12.8	120.46	616.7	-190.5	814.5	800.8	13.72	59.374		
2,800.0	2,777.5	2,567.8	2,451.8	7.9	13.5	121.12	650.2	-195.0	861.0	846.6	14.35	60.009		
2,900.0	2,876.0	2,656.0	2,533.2	8.3	14.1	121.72	683.7	-199.6	907.6	892.6	14.98	60.580		
3,000.0	2,974.4	2,744.1	2,614.6	8.7	14.8	122.25	717.1	-204.2	954.2	938.6	15.62	61.096		
3,100.0	3,072.9	2,832.2	2,696.0	9.1	15.5	122.74	750.6	-208.8	1,000.9	984.6	16.26	61.563		
3,200.0	3,171.4	2,920.3	2,777.3	9.5	16.1	123.18	784.1	-213.4	1,047.6	1,030.7	16.90	61.988		
3,300.0	3,269.8	3,008.4	2,858.7	9.9	16.8	123.59	817.6	-218.0	1,094.4	1,076.9	17.55	62.376		
3,400.0	3,368.3	3,096.6	2,940.1	10.3	17.4	123.96	851.0	-222.6	1,141.3	1,123.1	18.19	62.731		
3,500.0	3,466.8	3,184.7	3,021.5	10.7	18.1	124.30	884.5	-227.2	1,188.1	1,169.3	18.84	63.057		
3,580.8	3,546.3	3,255.9	3,087.3	11.0	18.6	124.56	911.6	-230.9	1,226.0	1,206.7	19.37	63.301		
3,600.0	3,565.3	3,272.8	3,102.9	11.1	18.8	124.78	918.0	-231.8	1,235.0	1,215.5	19.51	63.313		
3,700.0	3,664.1	3,361.7	3,185.0	11.3	19.4	125.82	951.7	-236.4	1,280.7	1,260.5	20.18	63.461		
3,800.0	3,763.4	3,451.5	3,268.0	11.6	20.1	126.65	985.9	-241.1	1,324.6	1,303.7	20.84	63.560		
3,900.0	3,863.1	3,542.3	3,351.8	11.8	20.8	127.30	1,020.3	-245.8	1,366.6	1,345.1	21.47	63.636		
4,000.0	3,963.0	3,633.8	3,436.3	12.0	21.5	127.79	1,055.1	-250.6	1,406.6	1,384.6	22.08	63.708		
4,083.3	4,046.3	3,710.5	3,507.2	12.1	22.1	5.36	1,084.3	-254.6	1,438.5	1,406.6	31.92	45.060		
4,100.0	4,063.0	3,725.9	3,521.4	12.1	22.2	5.30	1,090.1	-255.4	1,444.8	1,412.7	32.07	45.055		
4,200.0	4,163.0	3,818.3	3,606.7	12.3	22.9	4.97	1,125.2	-260.2	1,482.3	1,449.4	32.92	45.027		
4,300.0	4,263.0	3,910.6	3,692.0	12.4	23.6	4.65	1,160.3	-265.0	1,519.8	1,486.1	33.78	44.998		
4,400.0	4,363.0	4,003.0	3,777.3	12.6	24.3	4.34	1,195.4	-269.8	1,557.4	1,522.8	34.64	44.966		
4,500.0	4,463.0	4,095.3	3,862.6	12.7	25.0	4.06	1,230.4	-274.6	1,595.1	1,559.6	35.50	44.934		
4,600.0	4,563.0	4,187.7	3,947.9	12.9	25.7	3.78	1,265.5	-279.4	1,632.7	1,596.4	36.36	44.900		
4,700.0	4,663.0	4,280.1	4,033.2	13.0	26.3	3.52	1,300.6	-284.2	1,670.4	1,633.2	37.23	44.866		
4,800.0	4,763.0	4,372.4	4,118.5	13.2	27.0	3.26	1,335.7	-289.0	1,708.1	1,670.0	38.10	44.831		

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

# Anticollision Report



<b>Company:</b>	PDC ENERGY	<b>Local Co-ordinate Reference:</b>	Well KINZER 281-202
<b>Project:</b>	WELD COUNTY, COLORADO	<b>TVD Reference:</b>	KB-EST @ 4797.5usft
<b>Reference Site:</b>	SW SW SEC. 28 T5N R67W 6th P.M.	<b>MD Reference:</b>	KB-EST @ 4797.5usft
<b>Site Error:</b>	0.0 usft	<b>North Reference:</b>	True
<b>Reference Well:</b>	KINZER 281-202	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Well Error:</b>	0.0 usft	<b>Output errors are at</b>	2.00 sigma
<b>Reference Wellbore</b>	ORIGINAL WELLBORE	<b>Database:</b>	EDM 5000.1 Single User Db
<b>Reference Design:</b>	PROPOSAL #1	<b>Offset TVD Reference:</b>	Offset Datum

Offset Design												Offset Site Error:	0.0 usft
Survey Program: 0-MWDD												Offset Well Error:	0.0 usft
Reference		Offset		Semi Major Axis			Distance						Warning
Measured Depth (usft)	Vertical Depth (usft)	Measured Depth (usft)	Vertical Depth (usft)	Reference (usft)	Offset (usft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (usft)	+E/-W (usft)	Between Centres (usft)	Between Ellipses (usft)	Minimum Separation (usft)	Separation Factor	
4,900.0	4,863.0	4,464.8	4,203.8	13.4	27.7	3.02	1,370.8	-293.8	1,745.9	1,706.9	38.97	44.795	
5,000.0	4,963.0	4,557.1	4,289.0	13.5	28.4	2.79	1,405.9	-298.7	1,783.6	1,743.8	39.85	44.759	
5,100.0	5,063.0	4,649.5	4,374.3	13.7	29.1	2.57	1,440.9	-303.5	1,821.4	1,780.7	40.73	44.724	
5,200.0	5,163.0	4,741.8	4,459.6	13.9	29.8	2.36	1,476.0	-308.3	1,859.2	1,817.6	41.61	44.688	
5,300.0	5,263.0	4,834.2	4,544.9	14.0	30.5	2.15	1,511.1	-313.1	1,897.1	1,854.6	42.49	44.652	
5,400.0	5,363.0	4,926.6	4,630.2	14.2	31.2	1.96	1,546.2	-317.9	1,934.9	1,891.6	43.37	44.616	
5,500.0	5,463.0	5,018.9	4,715.5	14.4	31.9	1.77	1,581.3	-322.7	1,972.8	1,928.6	44.25	44.580	
5,600.0	5,563.0	5,111.3	4,800.8	14.5	32.6	1.59	1,616.4	-327.5	2,010.7	1,965.6	45.14	44.545	
5,700.0	5,663.0	5,203.6	4,886.1	14.7	33.3	1.41	1,651.5	-332.3	2,048.6	2,002.6	46.03	44.510	
5,800.0	5,763.0	5,379.9	5,049.8	14.9	34.4	1.11	1,716.2	-341.2	2,085.9	2,038.6	47.35	44.056	
5,900.0	5,863.0	5,728.9	5,383.8	15.1	36.0	0.67	1,815.7	-354.8	2,114.4	2,065.3	49.15	43.023	
6,000.0	5,963.0	6,098.9	5,748.5	15.2	37.1	0.43	1,876.4	-363.2	2,130.9	2,080.4	50.45	42.239	
6,100.0	6,063.0	6,413.9	6,063.0	15.4	37.6	0.37	1,891.1	-365.2	2,134.7	2,083.7	51.07	41.801	
6,102.8	6,065.8	6,416.7	6,065.8	15.4	37.6	0.37	1,891.1	-365.2	2,134.7	2,083.7	51.08	41.795	
6,150.0	6,112.9	6,463.1	6,112.1	15.5	37.6	-89.63	1,891.1	-363.9	2,134.7	2,101.0	33.70	63.340	
6,200.0	6,162.7	6,512.2	6,161.0	15.5	37.6	-89.64	1,891.1	-359.4	2,134.7	2,100.9	33.80	63.152	
6,250.0	6,211.9	6,561.3	6,209.4	15.6	37.6	-89.66	1,891.1	-351.4	2,134.7	2,100.9	33.87	63.025	
6,300.0	6,260.5	6,610.4	6,257.3	15.6	37.7	-89.67	1,891.1	-340.2	2,134.7	2,100.8	33.91	62.947	
6,350.0	6,308.1	6,659.6	6,304.2	15.6	37.7	-89.68	1,891.1	-325.7	2,134.7	2,100.8	33.94	62.905	
6,400.0	6,354.5	6,708.8	6,350.1	15.6	37.7	-89.70	1,891.1	-308.0	2,134.7	2,100.8	33.95	62.883	
6,450.0	6,399.5	6,758.0	6,394.8	15.6	37.7	-89.72	1,891.1	-287.2	2,134.7	2,100.8	33.96	62.859	
6,500.0	6,442.9	6,807.3	6,437.9	15.5	37.7	-89.74	1,891.1	-263.4	2,134.7	2,100.7	33.99	62.808	
6,550.0	6,484.5	6,856.7	6,479.3	15.5	37.7	-89.76	1,891.1	-236.6	2,134.7	2,100.7	34.05	62.700	
6,600.0	6,524.0	6,906.1	6,518.8	15.5	37.7	-89.78	1,891.1	-206.9	2,134.7	2,100.6	34.15	62.501	
6,650.0	6,561.3	6,955.5	6,556.3	15.6	37.7	-89.80	1,891.1	-174.6	2,134.7	2,100.4	34.33	62.177	
6,700.0	6,596.1	7,005.0	6,591.4	15.6	37.7	-89.83	1,891.1	-139.8	2,134.7	2,100.1	34.60	61.693	
6,750.0	6,628.4	7,054.6	6,624.1	15.7	37.7	-89.85	1,891.1	-102.5	2,134.7	2,099.7	34.98	61.022	
6,800.0	6,658.0	7,104.2	6,654.2	15.9	37.7	-89.88	1,891.1	-63.1	2,134.7	2,099.2	35.49	60.143	
6,850.0	6,684.6	7,153.9	6,681.5	16.2	37.7	-89.90	1,891.1	-21.5	2,134.7	2,098.5	36.15	59.050	
6,900.0	6,708.3	7,203.7	6,705.9	16.5	37.7	-89.93	1,891.1	21.8	2,134.7	2,097.7	36.96	57.750	
6,950.0	6,728.8	7,253.5	6,727.2	17.0	37.7	-89.95	1,891.1	66.9	2,134.7	2,096.8	37.94	56.264	
7,000.0	6,746.1	7,303.4	6,745.4	17.6	37.8	-89.98	1,891.1	113.3	2,134.7	2,095.6	39.08	54.624	
7,050.0	6,760.0	7,353.4	6,760.3	18.3	37.8	-90.01	1,891.1	161.0	2,134.7	2,094.3	40.38	52.871	
7,056.3	6,761.5	7,359.7	6,762.0	18.4	37.9	-90.01	1,891.1	167.0	2,134.7	2,094.1	40.56	52.636	
7,100.0	6,770.6	7,403.5	6,771.9	19.1	37.9	-90.04	1,891.1	209.7	2,134.7	2,092.9	41.82	51.048	
7,150.0	6,777.8	7,453.6	6,780.1	19.9	38.0	-90.06	1,891.1	259.1	2,134.7	2,091.3	43.39	49.200	
7,200.0	6,781.5	7,503.8	6,784.8	20.8	38.1	-90.09	1,891.1	309.1	2,134.7	2,089.6	45.07	47.364	
7,232.6	6,782.0	7,536.5	6,785.9	21.4	38.2	-90.11	1,891.1	341.8	2,134.7	2,088.5	46.22	46.187	
7,300.0	6,781.5	7,604.0	6,785.7	22.7	38.5	-90.11	1,891.1	409.3	2,134.7	2,086.0	48.71	43.824	
7,400.0	6,780.9	7,704.0	6,785.3	24.8	38.9	-90.12	1,891.1	509.3	2,134.7	2,082.0	52.69	40.515	
7,500.0	6,780.2	7,804.0	6,784.9	27.0	39.6	-90.13	1,891.1	609.3	2,134.7	2,077.8	56.94	37.488	
7,600.0	6,779.5	7,904.0	6,784.4	29.4	40.5	-90.13	1,891.1	709.3	2,134.7	2,073.3	61.42	34.758	
7,700.0	6,778.9	8,004.0	6,784.0	31.8	41.6	-90.14	1,891.1	809.3	2,134.7	2,068.6	66.06	32.313	
7,800.0	6,778.2	8,104.0	6,783.6	34.2	43.0	-90.14	1,891.1	909.3	2,134.7	2,063.8	70.85	30.130	
7,900.0	6,777.5	8,204.0	6,783.1	36.7	44.6	-90.15	1,891.1	1,009.3	2,134.7	2,058.9	75.75	28.181	
8,000.0	6,776.9	8,304.0	6,782.7	39.3	46.4	-90.16	1,891.1	1,109.3	2,134.7	2,054.0	80.74	26.438	
8,100.0	6,776.2	8,404.0	6,782.3	41.9	48.4	-90.16	1,891.1	1,209.3	2,134.7	2,048.9	85.81	24.876	
8,200.0	6,775.5	8,504.0	6,781.8	44.5	50.5	-90.17	1,891.1	1,309.3	2,134.7	2,043.7	90.95	23.472	
8,300.0	6,774.9	8,604.0	6,781.4	47.1	52.7	-90.17	1,891.1	1,409.3	2,134.7	2,038.6	96.14	22.205	
8,400.0	6,774.2	8,704.0	6,781.0	49.8	55.0	-90.18	1,891.1	1,509.3	2,134.7	2,033.3	101.37	21.058	
8,500.0	6,773.5	8,804.0	6,780.5	52.4	57.4	-90.19	1,891.1	1,609.3	2,134.7	2,028.1	106.64	20.017	
8,600.0	6,772.9	8,904.0	6,780.1	55.1	59.8	-90.19	1,891.1	1,709.3	2,134.7	2,022.7	111.95	19.068	

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

# Anticollision Report



<b>Company:</b>	PDC ENERGY	<b>Local Co-ordinate Reference:</b>	Well KINZER 28I-202
<b>Project:</b>	WELD COUNTY, COLORADO	<b>TVD Reference:</b>	KB-EST @ 4797.5usft
<b>Reference Site:</b>	SW SW SEC. 28 T5N R67W 6th P.M.	<b>MD Reference:</b>	KB-EST @ 4797.5usft
<b>Site Error:</b>	0.0 usft	<b>North Reference:</b>	True
<b>Reference Well:</b>	KINZER 28I-202	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Well Error:</b>	0.0 usft	<b>Output errors are at</b>	2.00 sigma
<b>Reference Wellbore</b>	ORIGINAL WELLBORE	<b>Database:</b>	EDM 5000.1 Single User Db
<b>Reference Design:</b>	PROPOSAL #1	<b>Offset TVD Reference:</b>	Offset Datum

<b>Offset Design</b> SW SW SEC. 28 T5N R67W 6th P.M. - KINZER 28G-232 - ORIGINAL WELLBORE - PROPOSAL #2												<b>Offset Site Error:</b>	0.0 usft
Survey Program: 0-MWD												<b>Offset Well Error:</b>	0.0 usft
Reference		Offset		Semi Major Axis			Distance						Warning
Measured Depth (usft)	Vertical Depth (usft)	Measured Depth (usft)	Vertical Depth (usft)	Reference (usft)	Offset (usft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (usft)	+E/-W (usft)	Between Centres (usft)	Between Ellipses (usft)	Minimum Separation (usft)	Separation Factor	
8,700.0	6,772.2	9,004.0	6,779.6	57.8	62.3	-90.20	1,891.1	1,809.3	2,134.7	2,017.4	117.28	18.201	
8,800.0	6,771.5	9,104.0	6,779.2	60.5	64.8	-90.21	1,891.1	1,909.3	2,134.7	2,012.1	122.64	17.406	
8,900.0	6,770.9	9,204.0	6,778.8	63.2	67.3	-90.21	1,891.1	2,009.3	2,134.7	2,006.7	128.03	16.674	
9,000.0	6,770.2	9,304.0	6,778.3	65.9	69.9	-90.22	1,891.1	2,109.3	2,134.7	2,001.3	133.43	15.999	
9,100.0	6,769.5	9,404.0	6,777.9	68.7	72.5	-90.22	1,891.1	2,209.3	2,134.7	1,995.9	138.85	15.375	
9,200.0	6,768.9	9,504.0	6,777.5	71.4	75.1	-90.23	1,891.1	2,309.3	2,134.7	1,990.4	144.28	14.795	
9,300.0	6,768.2	9,604.0	6,777.0	74.1	77.7	-90.24	1,891.1	2,409.3	2,134.7	1,985.0	149.73	14.257	
9,400.0	6,767.5	9,704.0	6,776.6	76.9	80.3	-90.24	1,891.1	2,509.3	2,134.7	1,979.5	155.19	13.756	
9,500.0	6,766.8	9,804.0	6,776.2	79.6	83.0	-90.25	1,891.1	2,609.3	2,134.7	1,974.0	160.66	13.287	
9,600.0	6,766.2	9,904.0	6,775.7	82.4	85.6	-90.26	1,891.1	2,709.3	2,134.7	1,968.6	166.14	12.849	
9,700.0	6,765.5	10,004.0	6,775.3	85.2	88.3	-90.26	1,891.1	2,809.3	2,134.7	1,963.1	171.63	12.438	
9,800.0	6,764.8	10,104.0	6,774.8	87.9	91.0	-90.27	1,891.1	2,909.3	2,134.7	1,957.6	177.12	12.052	
9,900.0	6,764.1	10,204.0	6,774.4	90.7	93.7	-90.28	1,891.1	3,009.3	2,134.7	1,952.1	182.63	11.689	
10,000.0	6,763.5	10,304.0	6,774.0	93.4	96.4	-90.28	1,891.1	3,109.3	2,134.7	1,946.6	188.14	11.346	
10,100.0	6,762.8	10,404.0	6,773.5	96.2	99.1	-90.29	1,891.1	3,209.2	2,134.7	1,941.0	193.66	11.023	
10,200.0	6,762.1	10,504.0	6,773.1	99.0	101.8	-90.29	1,891.1	3,309.2	2,134.7	1,935.5	199.18	10.718	
10,300.0	6,761.4	10,604.0	6,772.7	101.8	104.5	-90.30	1,891.1	3,409.2	2,134.7	1,930.0	204.71	10.428	
10,400.0	6,760.8	10,704.0	6,772.2	104.5	107.2	-90.31	1,891.1	3,509.2	2,134.7	1,924.5	210.24	10.154	
10,500.0	6,760.1	10,804.0	6,771.8	107.3	109.9	-90.31	1,891.1	3,609.2	2,134.7	1,918.9	215.78	9.893	
10,600.0	6,759.4	10,904.0	6,771.4	110.1	112.7	-90.32	1,891.1	3,709.2	2,134.7	1,913.4	221.32	9.645	
10,700.0	6,758.7	11,004.0	6,770.9	112.9	115.4	-90.33	1,891.1	3,809.2	2,134.7	1,907.8	226.86	9.410	
10,800.0	6,758.1	11,104.0	6,770.5	115.6	118.1	-90.33	1,891.1	3,909.2	2,134.7	1,902.3	232.41	9.185	
10,900.0	6,757.4	11,204.0	6,770.0	118.4	120.9	-90.34	1,891.1	4,009.2	2,134.7	1,896.7	237.96	8.971	
11,000.0	6,756.7	11,304.0	6,769.6	121.2	123.6	-90.35	1,891.1	4,109.2	2,134.7	1,891.2	243.52	8.766	
11,100.0	6,756.0	11,404.0	6,769.2	124.0	126.3	-90.35	1,891.1	4,209.2	2,134.7	1,885.6	249.07	8.571	
11,200.0	6,755.3	11,504.0	6,768.7	126.8	129.1	-90.36	1,891.1	4,309.2	2,134.7	1,880.1	254.63	8.384	
11,300.0	6,754.7	11,604.0	6,768.3	129.6	131.8	-90.37	1,891.1	4,409.2	2,134.7	1,874.5	260.19	8.204	
11,400.0	6,754.0	11,704.0	6,767.9	132.4	134.6	-90.37	1,891.1	4,509.2	2,134.7	1,869.0	265.76	8.033	
11,500.0	6,753.3	11,804.0	6,767.4	135.1	137.4	-90.38	1,891.1	4,609.2	2,134.7	1,863.4	271.33	7.868	
11,600.0	6,752.6	11,904.0	6,767.0	137.9	140.1	-90.39	1,891.1	4,709.2	2,134.7	1,857.8	276.89	7.709	
11,700.0	6,751.9	12,004.0	6,766.6	140.7	142.9	-90.39	1,891.1	4,809.2	2,134.7	1,852.2	282.47	7.557	
11,800.0	6,751.3	12,104.0	6,766.1	143.5	145.6	-90.40	1,891.1	4,909.2	2,134.7	1,846.7	288.04	7.411	
11,817.6	6,751.1	12,121.5	6,766.1	144.0	146.1	-90.40	1,891.1	4,926.8	2,134.7	1,845.7	289.02	7.386	
11,837.2	6,751.0	12,140.7	6,766.0	144.6	146.6	-90.40	1,891.1	4,946.0	2,134.7	1,844.6	290.10	7.359 SF	

# Anticollision Report



<b>Company:</b>	PDC ENERGY	<b>Local Co-ordinate Reference:</b>	Well KINZER 281-202
<b>Project:</b>	WELD COUNTY, COLORADO	<b>TVD Reference:</b>	KB-EST @ 4797.5usft
<b>Reference Site:</b>	SW SW SEC. 28 T5N R67W 6th P.M.	<b>MD Reference:</b>	KB-EST @ 4797.5usft
<b>Site Error:</b>	0.0 usft	<b>North Reference:</b>	True
<b>Reference Well:</b>	KINZER 281-202	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Well Error:</b>	0.0 usft	<b>Output errors are at</b>	2.00 sigma
<b>Reference Wellbore</b>	ORIGINAL WELLBORE	<b>Database:</b>	EDM 5000.1 Single User Db
<b>Reference Design:</b>	PROPOSAL #1	<b>Offset TVD Reference:</b>	Offset Datum

Offset Design													Offset Site Error:	0.0 usft
Survey Program: 0-MWD													Offset Well Error:	0.0 usft
Reference		Offset		Semi Major Axis			Distance							Warning
Measured Depth (usft)	Vertical Depth (usft)	Measured Depth (usft)	Vertical Depth (usft)	Reference (usft)	Offset (usft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (usft)	+E/-W (usft)	Between Centres (usft)	Between Ellipses (usft)	Minimum Separation (usft)	Separation Factor		
0.0	0.0	0.0	0.0	0.0	0.0	-90.01	0.0	-89.2	89.2					
100.0	100.0	100.0	100.0	0.1	0.1	-90.01	0.0	-89.2	89.2	89.0	0.19	458.658		
200.0	200.0	200.0	200.0	0.3	0.3	-90.01	0.0	-89.2	89.2	88.5	0.64	138.478		
300.0	300.0	300.0	300.0	0.5	0.5	-90.01	0.0	-89.2	89.2	88.1	1.09	81.550		
400.0	400.0	400.0	400.0	0.8	0.8	-90.01	0.0	-89.2	89.2	87.6	1.54	57.792 CC		
500.0	500.0	499.4	499.4	1.0	1.0	-88.92	1.7	-89.5	89.5	87.5	1.99	44.928 ES		
600.0	600.0	598.6	598.4	1.2	1.2	-85.72	6.8	-90.4	90.6	88.2	2.45	37.066		
700.0	700.0	697.3	696.8	1.4	1.5	-80.62	15.2	-91.8	93.1	90.2	2.91	32.046		
800.0	800.0	795.3	794.1	1.7	1.7	-74.06	26.8	-93.9	97.8	94.4	3.39	28.886		
900.0	900.0	892.4	890.0	1.9	2.0	-66.69	41.6	-96.5	105.5	101.6	3.90	27.065		
1,000.0	1,000.0	988.4	984.2	2.1	2.3	-59.24	59.3	-99.6	117.0	112.5	4.46	26.250		
1,100.0	1,100.0	1,082.8	1,076.4	2.3	2.7	70.81	79.8	-103.2	132.0	127.1	4.87	27.115		
1,200.0	1,199.8	1,175.3	1,165.9	2.5	3.1	78.25	102.7	-107.2	150.9	145.6	5.32	28.355		
1,300.0	1,299.5	1,265.4	1,252.3	2.7	3.6	85.21	127.8	-111.7	174.6	168.8	5.77	30.249		
1,400.0	1,398.7	1,354.7	1,337.1	3.0	4.1	91.49	155.1	-116.5	203.4	197.2	6.23	32.641		
1,500.0	1,497.5	1,446.4	1,424.1	3.2	4.6	97.06	183.8	-121.5	235.7	229.0	6.71	35.124		
1,502.5	1,500.0	1,448.7	1,426.3	3.2	4.6	97.19	184.5	-121.6	236.6	229.9	6.72	35.187		
1,600.0	1,595.9	1,537.6	1,510.6	3.5	5.2	102.19	212.3	-126.5	270.4	263.2	7.21	37.527		
1,700.0	1,694.4	1,628.8	1,597.1	3.8	5.7	106.19	240.9	-131.6	306.6	298.9	7.72	39.698		
1,800.0	1,792.9	1,720.0	1,683.6	4.2	6.3	109.36	269.4	-136.6	343.9	335.6	8.26	41.617		
1,900.0	1,891.3	1,811.3	1,770.1	4.5	6.8	111.93	298.0	-141.6	382.0	373.1	8.82	43.299		
2,000.0	1,989.8	1,902.5	1,856.6	4.9	7.4	114.04	326.5	-146.6	420.6	411.2	9.39	44.769		
2,100.0	2,088.3	1,993.7	1,943.0	5.2	8.0	115.79	355.1	-151.7	459.6	449.6	9.98	46.055		
2,200.0	2,186.7	2,084.9	2,029.5	5.6	8.5	117.28	383.6	-156.7	498.9	488.3	10.57	47.182		
2,300.0	2,285.2	2,176.1	2,116.0	6.0	9.1	118.55	412.2	-161.7	538.5	527.3	11.18	48.175		
2,400.0	2,383.7	2,267.3	2,202.5	6.4	9.7	119.65	440.7	-166.7	578.3	566.5	11.79	49.054		
2,500.0	2,482.1	2,358.6	2,289.0	6.7	10.2	120.61	469.3	-171.7	618.2	605.8	12.40	49.835		
2,600.0	2,580.6	2,449.8	2,375.5	7.1	10.8	121.45	497.8	-176.8	658.2	645.2	13.03	50.533		
2,700.0	2,679.1	2,541.0	2,462.0	7.5	11.4	122.20	526.4	-181.8	698.4	684.8	13.65	51.158		
2,800.0	2,777.5	2,632.2	2,548.5	7.9	12.0	122.87	554.9	-186.8	738.7	724.4	14.28	51.722		
2,900.0	2,876.0	2,723.4	2,635.0	8.3	12.5	123.47	583.4	-191.8	779.0	764.1	14.91	52.231		
3,000.0	2,974.4	2,814.7	2,721.5	8.7	13.1	124.01	612.0	-196.9	819.4	803.8	15.55	52.694		
3,100.0	3,072.9	2,905.9	2,807.9	9.1	13.7	124.49	640.5	-201.9	859.8	843.6	16.19	53.115		
3,200.0	3,171.4	2,997.1	2,894.4	9.5	14.3	124.94	669.1	-206.9	900.3	883.5	16.83	53.501		
3,300.0	3,269.8	3,088.3	2,980.9	9.9	14.8	125.35	697.6	-211.9	940.9	923.4	17.47	53.855		
3,400.0	3,368.3	3,179.5	3,067.4	10.3	15.4	125.72	726.2	-217.0	981.4	963.3	18.11	54.180		
3,500.0	3,466.8	3,270.7	3,153.9	10.7	16.0	126.06	754.7	-222.0	1,022.1	1,003.3	18.76	54.480		
3,580.8	3,546.3	3,344.5	3,223.8	11.0	16.5	126.32	777.8	-226.0	1,054.9	1,035.6	19.28	54.706		
3,600.0	3,565.3	3,362.0	3,240.4	11.1	16.6	126.52	783.3	-227.0	1,062.7	1,043.2	19.42	54.726		
3,700.0	3,664.1	3,453.9	3,327.5	11.3	17.2	127.38	812.0	-232.1	1,102.0	1,081.9	20.07	54.902		
3,800.0	3,763.4	3,546.6	3,415.5	11.6	17.7	128.04	841.1	-237.2	1,139.4	1,118.7	20.70	55.034		
3,900.0	3,863.1	3,640.1	3,504.1	11.8	18.3	128.51	870.3	-242.3	1,174.7	1,153.4	21.30	55.141		
4,000.0	3,963.0	3,734.2	3,593.4	12.0	18.9	128.81	899.8	-247.5	1,208.1	1,186.2	21.87	55.237		
4,083.3	4,046.3	3,813.1	3,668.2	12.1	19.4	6.22	924.5	-251.8	1,234.3	1,205.1	29.23	42.226		
4,100.0	4,063.0	3,828.9	3,683.1	12.1	19.5	6.15	929.4	-252.7	1,239.4	1,210.1	29.36	42.218		
4,200.0	4,163.0	3,923.7	3,773.0	12.3	20.1	5.75	959.1	-257.9	1,270.1	1,240.0	30.11	42.177		
4,300.0	4,263.0	4,018.5	3,862.9	12.4	20.7	5.37	988.8	-263.2	1,300.8	1,270.0	30.87	42.135		
4,400.0	4,363.0	4,113.3	3,952.8	12.6	21.3	5.01	1,018.4	-268.4	1,331.6	1,300.0	31.64	42.092		
4,500.0	4,463.0	4,208.2	4,042.7	12.7	21.9	4.67	1,048.1	-273.6	1,362.4	1,330.0	32.40	42.048		
4,600.0	4,563.0	4,303.0	4,132.6	12.9	22.5	4.34	1,077.8	-278.8	1,393.3	1,360.1	33.17	42.004		
4,700.0	4,663.0	4,397.8	4,222.5	13.0	23.1	4.02	1,107.5	-284.0	1,424.2	1,390.3	33.94	41.959		
4,800.0	4,763.0	4,492.6	4,312.4	13.2	23.7	3.72	1,137.1	-289.3	1,455.1	1,420.4	34.72	41.914		

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

# Anticollision Report



<b>Company:</b>	PDC ENERGY	<b>Local Co-ordinate Reference:</b>	Well KINZER 281-202
<b>Project:</b>	WELD COUNTY, COLORADO	<b>TVD Reference:</b>	KB-EST @ 4797.5usft
<b>Reference Site:</b>	SW SW SEC. 28 T5N R67W 6th P.M.	<b>MD Reference:</b>	KB-EST @ 4797.5usft
<b>Site Error:</b>	0.0 usft	<b>North Reference:</b>	True
<b>Reference Well:</b>	KINZER 281-202	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Well Error:</b>	0.0 usft	<b>Output errors are at</b>	2.00 sigma
<b>Reference Wellbore</b>	ORIGINAL WELLBORE	<b>Database:</b>	EDM 5000.1 Single User Db
<b>Reference Design:</b>	PROPOSAL #1	<b>Offset TVD Reference:</b>	Offset Datum

Offset Design												SW SW SEC. 28 T5N R67W 6th P.M. - KINZER 28G-332 - ORIGINAL WELLBORE - PROPOSAL #2		Offset Site Error: 0.0 usft	
Survey Program: 0-MWMD												Offset Well Error: 0.0 usft			
Reference		Offset		Semi Major Axis			Distance						Warning		
Measured Depth (usft)	Vertical Depth (usft)	Measured Depth (usft)	Vertical Depth (usft)	Reference (usft)	Offset (usft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (usft)	+E/-W (usft)	Between Centres (usft)	Between Ellipses (usft)	Minimum Separation (usft)	Separation Factor			
4,900.0	4,863.0	4,587.4	4,402.3	13.4	24.3	3.43	1,166.8	-294.5	1,486.1	1,450.6	35.49	41.869			
5,000.0	4,963.0	4,682.3	4,492.3	13.5	24.9	3.16	1,196.5	-299.7	1,517.1	1,480.9	36.27	41.824			
5,100.0	5,063.0	4,777.1	4,582.2	13.7	25.6	2.89	1,226.1	-304.9	1,548.2	1,511.1	37.06	41.779			
5,200.0	5,163.0	4,871.9	4,672.1	13.9	26.2	2.63	1,255.8	-310.2	1,579.2	1,541.4	37.84	41.735			
5,300.0	5,263.0	4,966.7	4,762.0	14.0	26.8	2.39	1,285.5	-315.4	1,610.3	1,571.7	38.63	41.691			
5,400.0	5,363.0	5,061.5	4,851.9	14.2	27.4	2.15	1,315.2	-320.6	1,641.5	1,602.1	39.41	41.647			
5,500.0	5,463.0	5,156.3	4,941.8	14.4	28.0	1.92	1,344.8	-325.8	1,672.6	1,632.4	40.20	41.604			
5,600.0	5,563.0	5,251.2	5,031.7	14.5	28.6	1.70	1,374.5	-331.0	1,703.8	1,662.8	40.99	41.562			
5,700.0	5,663.0	5,346.0	5,121.6	14.7	29.2	1.49	1,404.2	-336.3	1,735.0	1,693.2	41.79	41.520			
5,800.0	5,763.0	5,440.8	5,211.5	14.9	29.8	1.28	1,433.9	-341.5	1,766.2	1,723.6	42.58	41.478			
5,900.0	5,863.0	5,535.6	5,302.1	15.1	30.4	1.07	1,463.6	-346.7	1,797.4	1,755.0	43.37	41.436			
6,000.0	5,963.0	5,630.4	5,392.9	15.2	31.0	0.86	1,493.3	-351.9	1,828.6	1,785.2	44.16	41.394			
6,100.0	6,063.0	5,725.2	5,483.7	15.3	31.6	0.65	1,523.0	-357.1	1,859.8	1,815.4	44.95	41.352			
6,102.8	6,065.8	6,195.8	5,949.8	15.4	32.4	0.38	1,578.5	-366.9	1,825.8	1,780.1	45.77	39.895			
6,150.0	6,112.9	6,322.1	6,076.0	15.5	32.5	-89.62	1,583.8	-367.9	1,827.8	1,795.1	32.69	55.911			
6,200.0	6,162.7	6,408.7	6,162.7	15.5	32.6	-89.86	1,584.4	-368.0	1,828.0	1,795.2	32.84	55.665			
6,232.9	6,195.2	6,441.3	6,195.2	15.6	32.6	-90.00	1,584.4	-367.3	1,828.0	1,795.1	32.89	55.578			
6,250.0	6,211.9	6,458.2	6,212.1	15.6	32.6	-90.07	1,584.4	-366.4	1,828.0	1,795.1	32.91	55.538			
6,300.0	6,260.5	6,508.1	6,261.7	15.6	32.7	-90.29	1,584.4	-361.4	1,828.0	1,795.1	32.96	55.468			
6,350.0	6,308.1	6,558.5	6,311.4	15.6	32.7	-90.51	1,584.4	-352.8	1,828.1	1,795.1	32.97	55.440			
6,400.0	6,354.5	6,609.5	6,360.9	15.6	32.7	-90.72	1,584.4	-340.6	1,828.1	1,795.2	32.97	55.441			
6,450.0	6,399.5	6,660.9	6,409.8	15.6	32.7	-90.93	1,584.4	-324.8	1,828.2	1,795.3	32.97	55.453			
6,500.0	6,442.9	6,712.9	6,457.9	15.5	32.7	-91.14	1,584.4	-305.2	1,828.4	1,795.4	32.97	55.453			
6,550.0	6,484.5	6,765.4	6,505.0	15.5	32.7	-91.34	1,584.4	-282.0	1,828.5	1,795.5	33.00	55.416			
6,600.0	6,524.0	6,818.4	6,550.7	15.5	32.7	-91.54	1,584.4	-255.1	1,828.7	1,795.6	33.06	55.311			
6,650.0	6,561.3	6,872.0	6,594.7	15.6	32.7	-91.73	1,584.4	-224.6	1,828.8	1,795.7	33.19	55.102			
6,700.0	6,596.1	6,926.1	6,636.7	15.6	32.7	-91.92	1,584.4	-190.5	1,829.0	1,795.6	33.40	54.755			
6,750.0	6,628.4	6,980.7	6,676.3	15.7	32.7	-92.09	1,584.4	-153.0	1,829.2	1,795.5	33.73	54.237			
6,800.0	6,658.0	7,035.8	6,713.4	15.9	32.7	-92.25	1,584.4	-112.2	1,829.4	1,795.2	34.18	53.522			
6,850.0	6,684.6	7,091.3	6,747.4	16.2	32.7	-92.41	1,584.4	-68.3	1,829.6	1,794.8	34.79	52.595			
6,900.0	6,708.3	7,147.3	6,778.2	16.5	32.7	-92.55	1,584.4	-21.5	1,829.8	1,794.2	35.56	51.453			
6,950.0	6,728.8	7,203.8	6,805.4	17.0	32.7	-92.67	1,584.4	27.9	1,830.0	1,793.5	36.52	50.104			
7,000.0	6,746.1	7,260.6	6,828.7	17.6	32.7	-92.79	1,584.4	79.6	1,830.2	1,792.5	37.67	48.578			
7,050.0	6,760.0	7,317.7	6,848.0	18.3	32.8	-92.88	1,584.4	133.4	1,830.3	1,791.3	39.01	46.923			
7,100.0	6,770.6	7,375.2	6,863.0	19.1	32.9	-92.97	1,584.4	188.8	1,830.4	1,789.9	40.51	45.186			
7,150.0	6,777.8	7,432.8	6,873.6	19.9	33.0	-93.03	1,584.4	245.5	1,830.6	1,788.4	42.17	43.413			
7,200.0	6,781.5	7,490.7	6,879.6	20.8	33.2	-93.08	1,584.4	303.1	1,830.6	1,786.7	43.95	41.650			
7,232.6	6,782.0	7,528.5	6,881.0	21.4	33.3	-93.10	1,584.4	340.8	1,830.7	1,785.5	45.18	40.520			
7,300.0	6,781.5	7,597.8	6,880.5	22.7	33.6	-93.10	1,584.4	410.1	1,830.7	1,782.9	47.72	38.361			
7,400.0	6,780.9	7,697.8	6,879.6	24.8	34.3	-93.09	1,584.4	510.1	1,830.7	1,778.9	51.74	35.383			
7,500.0	6,780.2	7,797.8	6,878.7	27.0	35.2	-93.09	1,584.4	610.1	1,830.6	1,774.6	56.03	32.674			
7,600.0	6,779.5	7,897.8	6,877.9	29.4	36.4	-93.08	1,584.4	710.1	1,830.6	1,770.1	60.53	30.244			
7,700.0	6,778.9	7,997.8	6,877.0	31.8	38.0	-93.07	1,584.4	810.1	1,830.6	1,765.4	65.20	28.076			
7,800.0	6,778.2	8,097.8	6,876.1	34.2	39.8	-93.07	1,584.4	910.1	1,830.6	1,760.6	70.01	26.147			
7,900.0	6,777.5	8,197.8	6,875.3	36.7	41.8	-93.06	1,584.4	1,010.1	1,830.6	1,755.7	74.93	24.429			
8,000.0	6,776.9	8,297.8	6,874.4	39.3	44.0	-93.05	1,584.4	1,110.1	1,830.6	1,750.6	79.95	22.898			
8,100.0	6,776.2	8,397.8	6,873.5	41.9	46.2	-93.05	1,584.4	1,210.1	1,830.6	1,745.5	85.03	21.528			
8,200.0	6,775.5	8,497.8	6,872.6	44.5	48.5	-93.04	1,584.4	1,310.1	1,830.6	1,740.4	90.18	20.298			
8,300.0	6,774.9	8,597.8	6,871.8	47.1	50.9	-93.03	1,584.4	1,410.1	1,830.6	1,735.2	95.38	19.192			
8,400.0	6,774.2	8,697.8	6,870.9	49.8	53.4	-93.03	1,584.4	1,510.1	1,830.5	1,729.9	100.63	18.191			
8,500.0	6,773.5	8,797.8	6,870.0	52.4	55.9	-93.02	1,584.4	1,610.1	1,830.5	1,724.6	105.91	17.284			
8,600.0	6,772.9	8,897.8	6,869.1	55.1	58.4	-93.01	1,584.4	1,710.1	1,830.5	1,719.3	111.23	16.458			



# Anticollision Report



<b>Company:</b>	PDC ENERGY	<b>Local Co-ordinate Reference:</b>	Well KINZER 28I-202
<b>Project:</b>	WELD COUNTY, COLORADO	<b>TVD Reference:</b>	KB-EST @ 4797.5usft
<b>Reference Site:</b>	SW SW SEC. 28 T5N R67W 6th P.M.	<b>MD Reference:</b>	KB-EST @ 4797.5usft
<b>Site Error:</b>	0.0 usft	<b>North Reference:</b>	True
<b>Reference Well:</b>	KINZER 28I-202	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Well Error:</b>	0.0 usft	<b>Output errors are at</b>	2.00 sigma
<b>Reference Wellbore</b>	ORIGINAL WELLBORE	<b>Database:</b>	EDM 5000.1 Single User Db
<b>Reference Design:</b>	PROPOSAL #1	<b>Offset TVD Reference:</b>	Offset Datum

Offset Design												Offset Site Error:	0.0 usft
Survey Program: 0-MWD												Offset Well Error:	0.0 usft
Reference		Offset		Semi Major Axis			Distance						Warning
Measured Depth (usft)	Vertical Depth (usft)	Measured Depth (usft)	Vertical Depth (usft)	Reference (usft)	Offset (usft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (usft)	+E/-W (usft)	Between Centres (usft)	Between Ellipses (usft)	Minimum Separation (usft)	Separation Factor	
8,700.0	6,772.2	8,997.8	6,868.3	57.8	61.0	-93.01	1,584.4	1,810.1	1,830.5	1,713.9	116.57	15.703	
8,800.0	6,771.5	9,097.8	6,867.4	60.5	63.5	-93.00	1,584.4	1,910.1	1,830.5	1,708.6	121.93	15.012	
8,900.0	6,770.9	9,197.8	6,866.5	63.2	66.1	-93.00	1,584.4	2,010.1	1,830.5	1,703.2	127.32	14.377	
9,000.0	6,770.2	9,297.8	6,865.7	65.9	68.8	-92.99	1,584.4	2,110.1	1,830.5	1,697.7	132.73	13.791	
9,100.0	6,769.5	9,397.8	6,864.8	68.7	71.4	-92.98	1,584.4	2,210.1	1,830.5	1,692.3	138.15	13.250	
9,200.0	6,768.9	9,497.8	6,863.9	71.4	74.0	-92.98	1,584.4	2,310.0	1,830.5	1,686.9	143.59	12.748	
9,300.0	6,768.2	9,597.8	6,863.1	74.1	76.7	-92.97	1,584.4	2,410.0	1,830.4	1,681.4	149.04	12.282	
9,400.0	6,767.5	9,697.8	6,862.2	76.9	79.4	-92.96	1,584.4	2,510.0	1,830.4	1,675.9	154.50	11.848	
9,500.0	6,766.8	9,797.8	6,861.3	79.6	82.1	-92.96	1,584.4	2,610.0	1,830.4	1,670.4	159.97	11.442	
9,600.0	6,766.2	9,897.8	6,860.4	82.4	84.7	-92.95	1,584.4	2,710.0	1,830.4	1,665.0	165.45	11.063	
9,700.0	6,765.5	9,997.8	6,859.6	85.2	87.4	-92.95	1,584.4	2,810.0	1,830.4	1,659.5	170.94	10.708	
9,800.0	6,764.8	10,097.8	6,858.7	87.9	90.1	-92.94	1,584.4	2,910.0	1,830.4	1,653.9	176.44	10.374	
9,900.0	6,764.1	10,197.8	6,857.8	90.7	92.9	-92.93	1,584.4	3,010.0	1,830.4	1,648.4	181.94	10.060	
10,000.0	6,763.5	10,297.8	6,857.0	93.4	95.6	-92.93	1,584.4	3,110.0	1,830.4	1,642.9	187.46	9.764	
10,100.0	6,762.8	10,397.8	6,856.1	96.2	98.3	-92.92	1,584.4	3,210.0	1,830.4	1,637.4	192.97	9.485	
10,200.0	6,762.1	10,497.8	6,855.2	99.0	101.0	-92.92	1,584.4	3,310.0	1,830.3	1,631.9	198.50	9.221	
10,300.0	6,761.4	10,597.8	6,854.3	101.8	103.7	-92.91	1,584.4	3,410.0	1,830.3	1,626.3	204.02	8.971	
10,400.0	6,760.8	10,697.8	6,853.5	104.5	106.5	-92.90	1,584.4	3,510.0	1,830.3	1,620.8	209.55	8.734	
10,500.0	6,760.1	10,797.8	6,852.6	107.3	109.2	-92.90	1,584.4	3,610.0	1,830.3	1,615.2	215.09	8.510	
10,600.0	6,759.4	10,897.8	6,851.7	110.1	112.0	-92.89	1,584.4	3,710.0	1,830.3	1,609.7	220.63	8.296	
10,700.0	6,758.7	10,997.8	6,850.9	112.9	114.7	-92.89	1,584.4	3,810.0	1,830.3	1,604.1	226.17	8.092	
10,800.0	6,758.1	11,097.8	6,850.0	115.6	117.5	-92.88	1,584.4	3,910.0	1,830.3	1,598.6	231.72	7.899	
10,900.0	6,757.4	11,197.8	6,849.1	118.4	120.2	-92.87	1,584.4	4,010.0	1,830.3	1,593.0	237.27	7.714	
11,000.0	6,756.7	11,297.8	6,848.3	121.2	123.0	-92.87	1,584.4	4,110.0	1,830.3	1,587.4	242.82	7.537	
11,100.0	6,756.0	11,397.8	6,847.4	124.0	125.7	-92.86	1,584.4	4,210.0	1,830.3	1,581.9	248.38	7.369	
11,200.0	6,755.3	11,497.8	6,846.5	126.8	128.5	-92.86	1,584.4	4,310.0	1,830.2	1,576.3	253.94	7.207	
11,300.0	6,754.7	11,597.8	6,845.7	129.6	131.2	-92.85	1,584.4	4,410.0	1,830.2	1,570.7	259.50	7.053	
11,400.0	6,754.0	11,697.8	6,844.8	132.4	134.0	-92.84	1,584.4	4,510.0	1,830.2	1,565.2	265.06	6.905	
11,500.0	6,753.3	11,797.8	6,843.9	135.1	136.8	-92.84	1,584.4	4,610.0	1,830.2	1,559.6	270.62	6.763	
11,600.0	6,752.6	11,897.8	6,843.1	137.9	139.5	-92.83	1,584.4	4,710.0	1,830.2	1,554.0	276.19	6.627	
11,700.0	6,751.9	11,997.8	6,842.2	140.7	142.3	-92.83	1,584.4	4,809.9	1,830.2	1,548.4	281.76	6.496	
11,800.0	6,751.3	12,097.8	6,841.3	143.5	145.1	-92.82	1,584.4	4,909.9	1,830.2	1,542.9	287.33	6.370	
11,827.2	6,751.1	12,124.9	6,841.1	144.3	145.8	-92.82	1,584.4	4,937.1	1,830.2	1,541.3	288.84	6.336	
11,837.2	6,751.0	12,133.9	6,841.0	144.6	146.1	-92.82	1,584.4	4,946.0	1,830.2	1,540.8	289.37	6.325 SF	

# Anticollision Report



<b>Company:</b>	PDC ENERGY	<b>Local Co-ordinate Reference:</b>	Well KINZER 28I-202
<b>Project:</b>	WELD COUNTY, COLORADO	<b>TVD Reference:</b>	KB-EST @ 4797.5usft
<b>Reference Site:</b>	SW SW SEC. 28 T5N R67W 6th P.M.	<b>MD Reference:</b>	KB-EST @ 4797.5usft
<b>Site Error:</b>	0.0 usft	<b>North Reference:</b>	True
<b>Reference Well:</b>	KINZER 28I-202	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Well Error:</b>	0.0 usft	<b>Output errors are at</b>	2.00 sigma
<b>Reference Wellbore</b>	ORIGINAL WELLBORE	<b>Database:</b>	EDM 5000.1 Single User Db
<b>Reference Design:</b>	PROPOSAL #1	<b>Offset TVD Reference:</b>	Offset Datum

Offset Design												Offset Site Error:	0.0 usft
Survey Program: 0-MWD												Offset Well Error:	0.0 usft
Reference		Offset		Semi Major Axis			Distance						Warning
Measured Depth (usft)	Vertical Depth (usft)	Measured Depth (usft)	Vertical Depth (usft)	Reference (usft)	Offset (usft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (usft)	+E/-W (usft)	Between Centres (usft)	Between Ellipses (usft)	Minimum Separation (usft)	Separation Factor	
0.0	0.0	0.0	0.0	0.0	0.0	-90.01	0.0	-44.6	44.6				
100.0	100.0	100.0	100.0	0.1	0.1	-90.01	0.0	-44.6	44.6	44.4	0.19	229.329	
200.0	200.0	200.0	200.0	0.3	0.3	-90.01	0.0	-44.6	44.6	43.9	0.64	69.239	
300.0	300.0	300.0	300.0	0.5	0.5	-90.01	0.0	-44.6	44.6	43.5	1.09	40.775	
400.0	400.0	400.0	400.0	0.8	0.8	-90.01	0.0	-44.6	44.6	43.0	1.54	28.896	
500.0	500.0	500.0	500.0	1.0	1.0	-90.01	0.0	-44.6	44.6	42.6	1.99	22.377	
600.0	600.0	600.0	600.0	1.2	1.2	-90.01	0.0	-44.6	44.6	42.1	2.44	18.258	
700.0	700.0	700.0	700.0	1.4	1.4	-90.01	0.0	-44.6	44.6	41.7	2.89	15.419	CC, ES
800.0	800.0	799.3	799.3	1.7	1.7	-88.01	1.6	-45.3	45.3	42.0	3.34	13.569	
900.0	900.0	898.5	898.3	1.9	1.9	-82.42	6.3	-47.3	47.8	44.0	3.79	12.611	
1,000.0	1,000.0	997.1	996.6	2.1	2.1	-74.45	14.1	-50.7	52.8	48.5	4.24	12.430	
1,100.0	1,100.0	1,095.0	1,093.7	2.3	2.4	58.19	24.9	-55.4	60.1	55.5	4.67	12.871	
1,200.0	1,199.8	1,191.7	1,189.3	2.5	2.6	69.58	38.6	-61.3	70.6	65.5	5.10	13.852	
1,300.0	1,299.5	1,286.9	1,282.8	2.7	3.0	80.55	54.9	-68.4	85.7	80.2	5.54	15.487	
1,400.0	1,398.7	1,383.2	1,377.0	3.0	3.3	90.10	73.3	-76.4	105.3	99.3	6.00	17.542	
1,500.0	1,497.5	1,479.3	1,471.0	3.2	3.7	97.96	91.6	-84.3	127.4	120.9	6.50	19.616	
1,502.5	1,500.0	1,481.7	1,473.3	3.2	3.7	98.14	92.1	-84.5	128.0	121.5	6.51	19.669	
1,600.0	1,595.9	1,575.0	1,564.6	3.5	4.0	104.44	109.9	-92.3	151.8	144.8	7.02	21.623	
1,700.0	1,694.4	1,670.7	1,658.3	3.8	4.4	109.12	128.1	-100.2	177.6	170.0	7.57	23.452	
1,800.0	1,792.9	1,766.5	1,751.9	4.2	4.8	112.61	146.4	-108.1	204.2	196.1	8.14	25.088	
1,900.0	1,891.3	1,862.2	1,845.5	4.5	5.2	115.30	164.6	-116.0	231.4	222.7	8.72	26.531	
2,000.0	1,989.8	1,957.9	1,939.2	4.9	5.6	117.43	182.9	-123.9	259.0	249.6	9.31	27.801	
2,100.0	2,088.3	2,053.7	2,032.8	5.2	6.0	119.15	201.1	-131.9	286.8	276.9	9.92	28.922	
2,200.0	2,186.7	2,149.4	2,126.5	5.6	6.4	120.56	219.4	-139.8	314.8	304.3	10.52	29.912	
2,300.0	2,285.2	2,245.1	2,220.1	6.0	6.8	121.75	237.6	-147.7	342.9	331.8	11.14	30.792	
2,400.0	2,383.7	2,340.8	2,313.7	6.4	7.3	122.75	255.9	-155.6	371.2	359.5	11.76	31.577	
2,500.0	2,482.1	2,436.6	2,407.4	6.7	7.7	123.62	274.2	-163.5	399.6	387.2	12.38	32.279	
2,600.0	2,580.6	2,532.3	2,501.0	7.1	8.1	124.37	292.4	-171.5	428.0	415.0	13.01	32.911	
2,700.0	2,679.1	2,628.0	2,594.7	7.5	8.5	125.02	310.7	-179.4	456.5	442.9	13.63	33.482	
2,800.0	2,777.5	2,723.8	2,688.3	7.9	8.9	125.60	328.9	-187.3	485.1	470.8	14.27	34.000	
2,900.0	2,876.0	2,819.5	2,781.9	8.3	9.4	126.12	347.2	-195.2	513.7	498.8	14.90	34.471	
3,000.0	2,974.4	2,915.2	2,875.6	8.7	9.8	126.58	365.4	-203.1	542.3	526.7	15.54	34.901	
3,100.0	3,072.9	3,011.0	2,969.2	9.1	10.2	126.99	383.7	-211.1	570.9	554.7	16.18	35.296	
3,200.0	3,171.4	3,106.7	3,062.9	9.5	10.6	127.36	401.9	-219.0	599.6	582.8	16.81	35.659	
3,300.0	3,269.8	3,202.4	3,156.5	9.9	11.0	127.71	420.2	-226.9	628.3	610.8	17.46	35.993	
3,400.0	3,368.3	3,298.2	3,250.1	10.3	11.5	128.02	438.5	-234.8	657.0	638.9	18.10	36.303	
3,500.0	3,466.8	3,393.9	3,343.8	10.7	11.9	128.30	456.7	-242.7	685.7	667.0	18.74	36.589	
3,580.8	3,546.3	3,471.2	3,419.4	11.0	12.2	128.51	471.5	-249.1	709.0	689.7	19.26	36.806	
3,600.0	3,565.3	3,489.6	3,437.4	11.1	12.3	128.65	475.0	-250.7	714.4	695.1	19.39	36.846	
3,700.0	3,664.1	3,585.8	3,531.5	11.3	12.7	129.18	493.3	-258.6	741.7	721.7	20.00	37.081	
3,800.0	3,763.4	3,682.6	3,626.2	11.6	13.2	129.46	511.8	-266.6	766.9	746.3	20.59	37.250	
3,900.0	3,863.1	3,779.8	3,721.2	11.8	13.6	129.51	530.3	-274.7	790.0	768.8	21.14	37.367	
4,000.0	3,963.0	3,877.3	3,816.7	12.0	14.0	129.34	548.9	-282.7	810.9	789.2	21.66	37.444	
4,083.3	4,046.3	3,958.8	3,896.4	12.1	14.4	6.33	564.4	-289.5	826.7	803.0	23.70	34.884	
4,100.0	4,063.0	3,975.1	3,912.3	12.1	14.5	6.21	567.5	-290.8	829.7	805.9	23.79	34.871	
4,200.0	4,163.0	4,072.9	4,008.0	12.3	14.9	5.52	586.2	-298.9	847.9	823.6	24.37	34.797	
4,300.0	4,263.0	4,170.7	4,103.7	12.4	15.4	4.86	604.8	-307.0	866.3	841.3	24.95	34.723	
4,400.0	4,363.0	4,268.6	4,199.3	12.6	15.8	4.22	623.5	-315.1	884.7	859.2	25.53	34.650	
4,500.0	4,463.0	4,366.4	4,295.0	12.7	16.2	3.61	642.2	-323.2	903.3	877.1	26.12	34.578	
4,600.0	4,563.0	4,464.2	4,390.7	12.9	16.7	3.03	660.8	-331.3	921.9	895.2	26.72	34.507	
4,700.0	4,663.0	4,562.0	4,486.4	13.0	17.1	2.46	679.5	-339.4	940.6	913.3	27.31	34.437	
4,800.0	4,763.0	4,659.8	4,582.1	13.2	17.5	1.92	698.1	-347.5	959.4	931.5	27.92	34.368	

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

# Anticollision Report



<b>Company:</b>	PDC ENERGY	<b>Local Co-ordinate Reference:</b>	Well KINZER 28I-202
<b>Project:</b>	WELD COUNTY, COLORADO	<b>TVD Reference:</b>	KB-EST @ 4797.5usft
<b>Reference Site:</b>	SW SW SEC. 28 T5N R67W 6th P.M.	<b>MD Reference:</b>	KB-EST @ 4797.5usft
<b>Site Error:</b>	0.0 usft	<b>North Reference:</b>	True
<b>Reference Well:</b>	KINZER 28I-202	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Well Error:</b>	0.0 usft	<b>Output errors are at</b>	2.00 sigma
<b>Reference Wellbore</b>	ORIGINAL WELLBORE	<b>Database:</b>	EDM 5000.1 Single User Db
<b>Reference Design:</b>	PROPOSAL #1	<b>Offset TVD Reference:</b>	Offset Datum

Offset Design												Offset Site Error:	0.0 usft
Survey Program: 0-MWD												Offset Well Error:	0.0 usft
Reference		Offset		Semi Major Axis			Distance						Warning
Measured Depth (usft)	Vertical Depth (usft)	Measured Depth (usft)	Vertical Depth (usft)	Reference (usft)	Offset (usft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (usft)	+E/-W (usft)	Between Centres (usft)	Between Ellipses (usft)	Minimum Separation (usft)	Separation Factor	
4,900.0	4,863.0	4,795.1	4,714.9	13.4	18.0	1.27	721.6	-357.7	976.7	948.2	28.57	34.192	
5,000.0	4,963.0	4,939.2	4,857.5	13.5	18.4	0.77	740.3	-365.8	989.7	960.5	29.14	33.957	
5,100.0	5,063.0	5,085.0	5,002.7	13.7	18.7	0.46	752.6	-371.1	998.0	968.4	29.65	33.657	
5,200.0	5,163.0	5,231.8	5,149.4	13.9	18.9	0.32	758.0	-373.5	1,001.7	971.6	30.08	33.305	
5,300.0	5,263.0	5,345.4	5,263.0	14.0	19.1	0.32	758.3	-373.6	1,001.9	971.5	30.41	32.943	
5,400.0	5,363.0	5,445.4	5,363.0	14.2	19.2	0.32	758.3	-373.6	1,001.9	971.2	30.74	32.594	
5,500.0	5,463.0	5,545.4	5,463.0	14.4	19.4	0.32	758.3	-373.6	1,001.9	970.8	31.07	32.250	
5,600.0	5,563.0	5,645.4	5,563.0	14.5	19.5	0.32	758.3	-373.6	1,001.9	970.5	31.40	31.910	
5,700.0	5,663.0	5,745.4	5,663.0	14.7	19.6	0.32	758.3	-373.6	1,001.9	970.2	31.73	31.574	
5,800.0	5,763.0	5,845.4	5,763.0	14.9	19.8	0.32	758.3	-373.6	1,001.9	969.8	32.07	31.243	
5,900.0	5,863.0	5,945.4	5,863.0	15.1	19.9	0.32	758.3	-373.6	1,001.9	969.5	32.41	30.916	
6,000.0	5,963.0	6,045.4	5,963.0	15.2	20.0	0.32	758.3	-373.6	1,001.9	969.2	32.75	30.594	
6,100.0	6,063.0	6,145.4	6,063.0	15.4	20.2	0.32	758.3	-373.6	1,001.9	968.8	33.09	30.277	
6,102.8	6,065.8	6,148.3	6,065.8	15.4	20.2	0.32	758.3	-373.6	1,001.9	968.8	33.10	30.268	
6,150.0	6,112.9	6,195.1	6,112.6	15.5	20.2	-89.70	758.3	-372.3	1,001.9	971.4	30.47	32.878	
6,200.0	6,162.7	6,244.7	6,162.0	15.5	20.3	-89.72	758.3	-367.6	1,001.9	971.3	30.58	32.763	
6,250.0	6,211.9	6,294.4	6,211.0	15.6	20.3	-89.74	758.3	-359.5	1,001.9	971.3	30.65	32.689	
6,300.0	6,260.5	6,344.1	6,259.4	15.6	20.3	-89.76	758.3	-348.0	1,001.9	971.2	30.69	32.648	
6,350.0	6,308.1	6,393.8	6,306.8	15.6	20.3	-89.78	758.3	-333.2	1,001.9	971.2	30.70	32.633	
6,400.0	6,354.5	6,443.6	6,353.1	15.6	20.3	-89.80	758.3	-315.2	1,001.9	971.2	30.70	32.633	
6,450.0	6,399.5	6,493.3	6,398.1	15.6	20.3	-89.83	758.3	-293.9	1,001.9	971.2	30.70	32.635	
6,500.0	6,442.9	6,543.1	6,441.6	15.5	20.3	-89.85	758.3	-269.5	1,001.9	971.2	30.71	32.622	
6,550.0	6,484.5	6,593.0	6,483.2	15.5	20.3	-89.88	758.3	-242.2	1,001.9	971.1	30.76	32.575	
6,600.0	6,524.0	6,642.8	6,522.9	15.5	20.2	-89.90	758.3	-212.0	1,001.9	971.0	30.85	32.472	
6,650.0	6,561.3	6,692.7	6,560.4	15.6	20.2	-89.93	758.3	-179.2	1,001.9	970.9	31.03	32.293	
6,700.0	6,596.1	6,742.7	6,595.6	15.6	20.2	-89.96	758.3	-143.7	1,001.9	970.6	31.29	32.015	
6,750.0	6,628.4	6,792.6	6,628.2	15.7	20.1	-89.98	758.3	-105.9	1,001.9	970.2	31.69	31.620	
6,798.2	6,656.9	6,840.8	6,657.1	15.9	20.1	-90.01	758.3	-67.3	1,001.9	969.7	32.20	31.118	
6,800.0	6,658.0	6,842.6	6,658.1	15.9	20.1	-90.01	758.3	-65.8	1,001.9	969.7	32.22	31.099	
6,850.0	6,684.6	6,892.6	6,685.2	16.2	20.1	-90.04	758.3	-23.8	1,001.9	969.0	32.91	30.448	
6,900.0	6,708.3	6,942.7	6,709.3	16.5	20.1	-90.06	758.3	20.1	1,001.9	968.1	33.76	29.675	
6,950.0	6,728.8	6,992.8	6,730.2	17.0	20.1	-90.09	758.3	65.6	1,001.9	967.1	34.79	28.795	
7,000.0	6,746.1	7,042.9	6,748.0	17.6	20.1	-90.12	758.3	112.4	1,001.9	965.9	36.00	27.833	
7,050.0	6,760.0	7,093.1	6,762.4	18.3	20.2	-90.14	758.3	160.4	1,001.9	964.5	37.36	26.815	
7,100.0	6,770.6	7,143.3	6,773.5	19.1	20.6	-90.17	758.3	209.4	1,001.9	963.0	38.88	25.768	
7,150.0	6,777.8	7,193.5	6,781.1	19.9	21.2	-90.19	758.3	259.0	1,001.9	961.4	40.53	24.719	
7,200.0	6,781.5	7,243.7	6,785.2	20.8	22.0	-90.22	758.3	309.1	1,001.9	959.6	42.29	23.690	
7,232.6	6,782.0	7,276.5	6,786.0	21.4	22.6	-90.23	758.3	341.8	1,001.9	958.4	43.49	23.038	
7,300.0	6,781.5	7,343.9	6,785.5	22.7	23.9	-90.23	758.3	409.3	1,001.9	955.8	46.10	21.731	
7,400.0	6,780.9	7,443.9	6,784.9	24.8	25.9	-90.23	758.3	509.3	1,001.9	951.7	50.23	19.945	
7,500.0	6,780.2	7,543.9	6,784.2	27.0	28.1	-90.23	758.3	609.3	1,001.9	947.3	54.63	18.340	
7,600.0	6,779.5	7,643.9	6,783.5	29.4	30.4	-90.22	758.3	709.3	1,001.9	942.7	59.23	16.914	
7,700.0	6,778.9	7,743.9	6,782.8	31.8	32.7	-90.22	758.3	809.3	1,001.9	937.9	64.00	15.655	
7,800.0	6,778.2	7,843.9	6,782.1	34.2	35.2	-90.22	758.3	909.3	1,001.9	933.0	68.90	14.542	
7,900.0	6,777.5	7,943.9	6,781.4	36.7	37.6	-90.22	758.3	1,009.3	1,001.9	928.0	73.89	13.559	
8,000.0	6,776.9	8,043.9	6,780.7	39.3	40.1	-90.22	758.3	1,109.3	1,001.9	922.9	78.98	12.686	
8,100.0	6,776.2	8,143.9	6,780.0	41.9	42.7	-90.21	758.3	1,209.3	1,001.9	917.8	84.13	11.910	
8,200.0	6,775.5	8,243.9	6,779.3	44.5	45.3	-90.21	758.3	1,309.3	1,001.9	912.6	89.33	11.215	
8,300.0	6,774.9	8,343.9	6,778.6	47.1	47.9	-90.21	758.3	1,409.3	1,001.9	907.3	94.59	10.592	
8,400.0	6,774.2	8,443.9	6,777.9	49.8	50.5	-90.21	758.3	1,509.3	1,001.9	902.0	99.88	10.031	
8,500.0	6,773.5	8,543.9	6,777.2	52.4	53.2	-90.21	758.3	1,609.3	1,001.9	896.7	105.21	9.523	
8,600.0	6,772.9	8,643.9	6,776.5	55.1	55.8	-90.21	758.3	1,709.3	1,001.9	891.3	110.56	9.062	

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

# Anticollision Report



<b>Company:</b>	PDC ENERGY	<b>Local Co-ordinate Reference:</b>	Well KINZER 28I-202
<b>Project:</b>	WELD COUNTY, COLORADO	<b>TVD Reference:</b>	KB-EST @ 4797.5usft
<b>Reference Site:</b>	SW SW SEC. 28 T5N R67W 6th P.M.	<b>MD Reference:</b>	KB-EST @ 4797.5usft
<b>Site Error:</b>	0.0 usft	<b>North Reference:</b>	True
<b>Reference Well:</b>	KINZER 28I-202	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Well Error:</b>	0.0 usft	<b>Output errors are at</b>	2.00 sigma
<b>Reference Wellbore</b>	ORIGINAL WELLBORE	<b>Database:</b>	EDM 5000.1 Single User Db
<b>Reference Design:</b>	PROPOSAL #1	<b>Offset TVD Reference:</b>	Offset Datum

Offset Design												Offset Site Error:	0.0 usft
Survey Program: 0-MWD												Offset Well Error:	0.0 usft
Reference		Offset		Semi Major Axis			Distance						Warning
Measured Depth (usft)	Vertical Depth (usft)	Measured Depth (usft)	Vertical Depth (usft)	Reference (usft)	Offset (usft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (usft)	+E/-W (usft)	Between Centres (usft)	Between Ellipses (usft)	Minimum Separation (usft)	Separation Factor	
8,700.0	6,772.2	8,743.9	6,775.8	57.8	58.5	-90.20	758.3	1,809.3	1,001.9	885.9	115.94	8.641	
8,800.0	6,771.5	8,843.9	6,775.1	60.5	61.2	-90.20	758.3	1,909.3	1,001.9	880.5	121.34	8.257	
8,900.0	6,770.9	8,943.9	6,774.4	63.2	63.9	-90.20	758.3	2,009.3	1,001.9	875.1	126.77	7.903	
9,000.0	6,770.2	9,043.9	6,773.7	65.9	66.6	-90.20	758.3	2,109.2	1,001.9	869.7	132.20	7.578	
9,100.0	6,769.5	9,143.9	6,773.0	68.7	69.3	-90.20	758.3	2,209.2	1,001.9	864.2	137.66	7.278	
9,200.0	6,768.9	9,243.9	6,772.3	71.4	72.0	-90.20	758.3	2,309.2	1,001.9	858.8	143.12	7.000	
9,300.0	6,768.2	9,343.9	6,771.6	74.1	74.7	-90.20	758.3	2,409.2	1,001.9	853.3	148.60	6.742	
9,400.0	6,767.5	9,443.9	6,770.9	76.9	77.5	-90.19	758.3	2,509.2	1,001.9	847.8	154.08	6.502	
9,500.0	6,766.8	9,543.9	6,770.2	79.6	80.2	-90.19	758.3	2,609.2	1,001.9	842.3	159.58	6.278	
9,600.0	6,766.2	9,643.9	6,769.5	82.4	83.0	-90.19	758.3	2,709.2	1,001.9	836.8	165.08	6.069	
9,700.0	6,765.5	9,743.9	6,768.8	85.2	85.7	-90.19	758.3	2,809.2	1,001.9	831.3	170.59	5.873	
9,800.0	6,764.8	9,843.9	6,768.1	87.9	88.5	-90.19	758.3	2,909.2	1,001.9	825.8	176.11	5.689	
9,900.0	6,764.1	9,943.9	6,767.4	90.7	91.2	-90.19	758.3	3,009.2	1,001.9	820.2	181.64	5.516	
10,000.0	6,763.5	10,043.9	6,766.7	93.4	94.0	-90.19	758.3	3,109.2	1,001.9	814.7	187.17	5.353	
10,100.0	6,762.8	10,143.9	6,766.0	96.2	96.7	-90.19	758.3	3,209.2	1,001.9	809.2	192.70	5.199	
10,200.0	6,762.1	10,243.9	6,765.4	99.0	99.5	-90.19	758.3	3,309.2	1,001.9	803.6	198.24	5.054	
10,300.0	6,761.4	10,343.9	6,764.7	101.8	102.3	-90.18	758.3	3,409.2	1,001.9	798.1	203.78	4.916	
10,400.0	6,760.8	10,443.9	6,764.0	104.5	105.0	-90.18	758.3	3,509.2	1,001.9	792.5	209.33	4.786	
10,500.0	6,760.1	10,543.9	6,763.3	107.3	107.8	-90.18	758.3	3,609.2	1,001.9	787.0	214.88	4.662	
10,600.0	6,759.4	10,643.9	6,762.6	110.1	110.6	-90.18	758.3	3,709.2	1,001.9	781.4	220.44	4.545	
10,700.0	6,758.7	10,743.9	6,761.9	112.9	113.3	-90.18	758.3	3,809.2	1,001.9	775.9	226.00	4.433	
10,800.0	6,758.1	10,843.9	6,761.2	115.6	116.1	-90.18	758.3	3,909.2	1,001.9	770.3	231.56	4.327	
10,900.0	6,757.4	10,943.9	6,760.5	118.4	118.9	-90.18	758.3	4,009.2	1,001.9	764.7	237.12	4.225	
11,000.0	6,756.7	11,043.9	6,759.8	121.2	121.7	-90.18	758.3	4,109.2	1,001.9	759.2	242.69	4.128	
11,100.0	6,756.0	11,143.9	6,759.1	124.0	124.4	-90.18	758.3	4,209.2	1,001.9	753.6	248.25	4.036	
11,200.0	6,755.3	11,243.9	6,758.4	126.8	127.2	-90.18	758.3	4,309.2	1,001.9	748.0	253.82	3.947	
11,300.0	6,754.7	11,343.9	6,757.7	129.6	130.0	-90.18	758.3	4,409.2	1,001.9	742.5	259.40	3.862	
11,400.0	6,754.0	11,443.9	6,757.0	132.4	132.8	-90.17	758.3	4,509.2	1,001.9	736.9	264.97	3.781	
11,500.0	6,753.3	11,543.9	6,756.3	135.1	135.6	-90.17	758.3	4,609.2	1,001.9	731.3	270.55	3.703	
11,600.0	6,752.6	11,643.9	6,755.6	137.9	138.4	-90.17	758.3	4,709.2	1,001.9	725.7	276.13	3.628	
11,700.0	6,751.9	11,743.9	6,754.9	140.7	141.2	-90.17	758.3	4,809.2	1,001.9	720.2	281.71	3.556	
11,800.0	6,751.3	11,843.9	6,754.3	143.5	143.5	-90.17	758.3	4,909.2	1,001.9	715.0	286.85	3.493	
11,826.0	6,751.1	11,869.9	6,754.1	144.2	144.0	-90.17	758.3	4,935.2	1,001.9	713.8	288.04	3.478	
11,837.2	6,751.0	11,880.9	6,754.0	144.6	144.2	-90.17	758.3	4,946.2	1,001.9	713.3	288.55	3.472 SF	

# Anticollision Report



<b>Company:</b>	PDC ENERGY	<b>Local Co-ordinate Reference:</b>	Well KINZER 28I-202
<b>Project:</b>	WELD COUNTY, COLORADO	<b>TVD Reference:</b>	KB-EST @ 4797.5usft
<b>Reference Site:</b>	SW SW SEC. 28 T5N R67W 6th P.M.	<b>MD Reference:</b>	KB-EST @ 4797.5usft
<b>Site Error:</b>	0.0 usft	<b>North Reference:</b>	True
<b>Reference Well:</b>	KINZER 28I-202	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Well Error:</b>	0.0 usft	<b>Output errors are at</b>	2.00 sigma
<b>Reference Wellbore</b>	ORIGINAL WELLBORE	<b>Database:</b>	EDM 5000.1 Single User Db
<b>Reference Design:</b>	PROPOSAL #1	<b>Offset TVD Reference:</b>	Offset Datum

Offset Design												Offset Site Error:	0.0 usft
Survey Program: 0-MWD												Offset Well Error:	0.0 usft
Reference		Offset		Semi Major Axis			Distance						Warning
Measured Depth (usft)	Vertical Depth (usft)	Measured Depth (usft)	Vertical Depth (usft)	Reference (usft)	Offset (usft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (usft)	+E/-W (usft)	Between Centres (usft)	Between Ellipses (usft)	Minimum Separation (usft)	Separation Factor	
0.0	0.0	0.0	0.0	0.0	0.0	-90.01	0.0	-75.2	75.2				
100.0	100.0	100.0	100.0	0.1	0.1	-90.01	0.0	-75.2	75.2	75.0	0.19	386.992	
200.0	200.0	200.0	200.0	0.3	0.3	-90.01	0.0	-75.2	75.2	74.6	0.64	116.841	
300.0	300.0	300.0	300.0	0.5	0.5	-90.01	0.0	-75.2	75.2	74.1	1.09	68.808	
400.0	400.0	400.0	400.0	0.8	0.8	-90.01	0.0	-75.2	75.2	73.7	1.54	48.762	
500.0	500.0	500.0	500.0	1.0	1.0	-90.01	0.0	-75.2	75.2	73.2	1.99	37.761 CC	
600.0	600.0	599.4	599.4	1.2	1.2	-88.73	1.7	-75.6	75.6	73.2	2.44	30.988 ES	
700.0	700.0	698.5	698.4	1.4	1.4	-85.01	6.7	-76.8	77.1	74.2	2.89	26.640	
800.0	800.0	797.2	796.7	1.7	1.7	-79.19	15.0	-78.6	80.1	76.8	3.35	23.902	
900.0	900.0	895.2	893.9	1.9	1.9	-71.91	26.5	-81.2	85.7	81.8	3.83	22.372	
1,000.0	1,000.0	992.2	989.8	2.1	2.2	-64.05	41.1	-84.5	94.6	90.2	4.34	21.799	
1,100.0	1,100.0	1,088.0	1,083.9	2.3	2.5	66.86	58.7	-88.5	106.7	101.9	4.77	22.351	
1,200.0	1,199.8	1,182.1	1,175.6	2.5	2.9	75.43	78.8	-93.0	122.5	117.3	5.22	23.475	
1,300.0	1,299.5	1,274.0	1,264.6	2.7	3.3	83.55	101.4	-98.1	143.1	137.5	5.66	25.270	
1,400.0	1,398.7	1,367.6	1,354.7	3.0	3.8	90.93	126.2	-103.7	168.3	162.2	6.13	27.469	
1,500.0	1,497.5	1,461.2	1,444.8	3.2	4.2	97.21	151.0	-109.3	196.3	189.7	6.61	29.717	
1,502.5	1,500.0	1,463.6	1,447.0	3.2	4.2	97.35	151.7	-109.5	197.0	190.4	6.62	29.776	
1,600.0	1,595.9	1,554.3	1,534.4	3.5	4.7	102.79	175.8	-114.9	226.7	219.6	7.11	31.887	
1,700.0	1,694.4	1,647.5	1,624.0	3.8	5.2	107.08	200.5	-120.5	258.7	251.0	7.64	33.870	
1,800.0	1,792.9	1,740.6	1,713.6	4.2	5.7	110.44	225.2	-126.1	291.7	283.5	8.19	35.636	
1,900.0	1,891.3	1,833.7	1,803.2	4.5	6.2	113.13	249.9	-131.7	325.5	316.7	8.75	37.194	
2,000.0	1,989.8	1,926.8	1,892.8	4.9	6.7	115.31	274.6	-137.2	359.7	350.4	9.33	38.565	
2,100.0	2,088.3	2,020.0	1,982.4	5.2	7.2	117.12	299.4	-142.8	394.4	384.5	9.92	39.771	
2,200.0	2,186.7	2,113.1	2,072.0	5.6	7.7	118.64	324.1	-148.4	429.4	418.8	10.51	40.836	
2,300.0	2,285.2	2,206.2	2,161.6	6.0	8.2	119.93	348.8	-154.0	464.5	453.4	11.12	41.779	
2,400.0	2,383.7	2,299.3	2,251.2	6.4	8.7	121.04	373.5	-159.6	499.9	488.2	11.73	42.619	
2,500.0	2,482.1	2,392.4	2,340.9	6.7	9.2	122.01	398.3	-165.1	535.4	523.1	12.35	43.368	
2,600.0	2,580.6	2,485.6	2,430.5	7.1	9.7	122.86	423.0	-170.7	571.1	558.1	12.97	44.041	
2,700.0	2,679.1	2,578.7	2,520.1	7.5	10.2	123.60	447.7	-176.3	606.8	593.2	13.59	44.648	
2,800.0	2,777.5	2,671.8	2,609.7	7.9	10.7	124.27	472.4	-181.9	642.6	628.4	14.22	45.197	
2,900.0	2,876.0	2,764.9	2,699.3	8.3	11.2	124.86	497.2	-187.5	678.5	663.6	14.85	45.695	
3,000.0	2,974.4	2,858.1	2,788.9	8.7	11.7	125.40	521.9	-193.0	714.4	698.9	15.48	46.150	
3,100.0	3,072.9	2,951.2	2,878.5	9.1	12.3	125.88	546.6	-198.6	750.4	734.3	16.11	46.566	
3,200.0	3,171.4	3,044.3	2,968.1	9.5	12.8	126.32	571.3	-204.2	786.4	769.6	16.75	46.948	
3,300.0	3,269.8	3,137.4	3,057.7	9.9	13.3	126.72	596.1	-209.8	822.5	805.1	17.39	47.299	
3,400.0	3,368.3	3,230.6	3,147.3	10.3	13.8	127.09	620.8	-215.4	858.6	840.5	18.03	47.624	
3,500.0	3,466.8	3,323.7	3,236.9	10.7	14.3	127.43	645.5	-220.9	894.7	876.0	18.67	47.924	
3,580.8	3,546.3	3,398.9	3,309.4	11.0	14.7	127.68	665.5	-225.4	923.9	904.7	19.19	48.151	
3,600.0	3,565.3	3,416.8	3,326.6	11.1	14.8	127.85	670.2	-226.5	930.8	911.5	19.32	48.180	
3,700.0	3,664.1	3,510.5	3,416.7	11.3	15.3	128.60	695.1	-232.1	965.6	945.6	19.95	48.389	
3,800.0	3,763.4	3,605.0	3,507.7	11.6	15.9	129.13	720.2	-237.8	998.3	977.7	20.56	48.548	
3,900.0	3,863.1	3,700.2	3,599.2	11.8	16.4	129.46	745.5	-243.5	1,028.9	1,007.8	21.14	48.672	
4,000.0	3,963.0	3,795.9	3,691.3	12.0	16.9	129.61	770.9	-249.2	1,057.5	1,035.8	21.68	48.774	
4,083.3	4,046.3	3,875.9	3,768.3	12.1	17.4	6.89	792.1	-254.0	1,079.6	1,052.5	22.08	39.862	
4,100.0	4,063.0	3,892.0	3,783.8	12.1	17.5	6.81	796.4	-255.0	1,083.9	1,056.7	22.20	39.852	
4,200.0	4,163.0	3,988.2	3,876.3	12.3	18.0	6.34	821.9	-260.8	1,109.7	1,081.8	22.88	39.801	
4,300.0	4,263.0	4,084.4	3,968.9	12.4	18.5	5.89	847.5	-266.5	1,135.6	1,107.0	23.57	39.749	
4,400.0	4,363.0	4,180.6	4,061.5	12.6	19.1	5.46	873.0	-272.3	1,161.5	1,132.2	24.26	39.696	
4,500.0	4,463.0	4,276.9	4,154.1	12.7	19.6	5.06	898.6	-278.1	1,187.5	1,157.5	24.95	39.643	
4,600.0	4,563.0	4,373.1	4,246.7	12.9	20.1	4.66	924.1	-283.8	1,213.5	1,182.9	25.65	39.589	
4,700.0	4,663.0	4,469.3	4,339.3	13.0	20.7	4.29	949.6	-289.6	1,239.6	1,208.2	26.35	39.536	
4,800.0	4,763.0	4,565.5	4,431.9	13.2	21.2	3.93	975.2	-295.4	1,265.7	1,233.7	27.06	39.482	

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

# Anticollision Report



<b>Company:</b>	PDC ENERGY	<b>Local Co-ordinate Reference:</b>	Well KINZER 28I-202
<b>Project:</b>	WELD COUNTY, COLORADO	<b>TVD Reference:</b>	KB-EST @ 4797.5usft
<b>Reference Site:</b>	SW SW SEC. 28 T5N R67W 6th P.M.	<b>MD Reference:</b>	KB-EST @ 4797.5usft
<b>Site Error:</b>	0.0 usft	<b>North Reference:</b>	True
<b>Reference Well:</b>	KINZER 28I-202	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Well Error:</b>	0.0 usft	<b>Output errors are at</b>	2.00 sigma
<b>Reference Wellbore</b>	ORIGINAL WELLBORE	<b>Database:</b>	EDM 5000.1 Single User Db
<b>Reference Design:</b>	PROPOSAL #1	<b>Offset TVD Reference:</b>	Offset Datum

Offset Design												Offset Site Error:	0.0 usft
Survey Program: 0-MWMD												Offset Well Error:	0.0 usft
Reference		Offset		Semi Major Axis			Distance						Warning
Measured Depth (usft)	Vertical Depth (usft)	Measured Depth (usft)	Vertical Depth (usft)	Reference (usft)	Offset (usft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (usft)	+E/-W (usft)	Between Centres (usft)	Between Ellipses (usft)	Minimum Separation (usft)	Separation Factor	
4,900.0	4,863.0	4,661.8	4,524.5	13.4	21.7	3.59	1,000.7	-301.1	1,291.9	1,259.1	32.77	39.430	
5,000.0	4,963.0	4,758.0	4,617.1	13.5	22.3	3.25	1,026.3	-306.9	1,318.1	1,284.7	33.47	39.377	
5,100.0	5,063.0	4,854.2	4,709.7	13.7	22.8	2.94	1,051.8	-312.6	1,344.4	1,310.2	34.19	39.325	
5,200.0	5,163.0	4,950.4	4,802.3	13.9	23.3	2.63	1,077.4	-318.4	1,370.7	1,335.8	34.90	39.274	
5,300.0	5,263.0	5,046.7	4,894.9	14.0	23.9	2.34	1,102.9	-324.2	1,397.0	1,361.4	35.62	39.223	
5,400.0	5,363.0	5,142.9	4,987.5	14.2	24.4	2.05	1,128.5	-329.9	1,423.4	1,387.0	36.34	39.173	
5,500.0	5,463.0	5,239.1	5,080.0	14.4	24.9	1.78	1,154.0	-335.7	1,449.8	1,412.7	37.06	39.124	
5,600.0	5,563.0	5,335.3	5,172.6	14.5	25.5	1.51	1,179.6	-341.5	1,476.2	1,438.4	37.78	39.076	
5,700.0	5,663.0	5,437.1	5,270.6	14.7	26.0	1.25	1,206.6	-347.6	1,502.6	1,464.1	38.52	39.005	
5,800.0	5,763.0	5,537.3	5,465.1	14.9	26.8	0.81	1,252.4	-357.9	1,525.5	1,486.0	39.53	38.592	
5,900.0	5,863.0	5,643.3	5,668.2	15.1	27.5	0.51	1,285.6	-365.4	1,541.6	1,501.3	40.34	38.210	
6,000.0	5,963.0	6,053.2	5,877.2	15.2	27.9	0.35	1,304.7	-369.7	1,550.7	1,509.7	40.98	37.839	
6,100.0	6,063.0	6,239.0	6,063.0	15.4	28.1	0.31	1,309.2	-370.7	1,552.8	1,511.4	41.41	37.497	
6,102.8	6,065.8	6,241.9	6,065.8	15.4	28.1	0.31	1,309.2	-370.7	1,552.8	1,511.4	41.42	37.489	
6,150.0	6,112.9	6,288.6	6,112.4	15.5	28.2	-89.70	1,309.2	-369.5	1,552.8	1,521.0	31.85	48.759	
6,200.0	6,162.7	6,338.0	6,161.7	15.5	28.2	-89.71	1,309.2	-364.8	1,552.8	1,520.9	31.95	48.600	
6,250.0	6,211.9	6,387.5	6,210.5	15.6	28.2	-89.73	1,309.2	-356.8	1,552.8	1,520.8	32.02	48.495	
6,300.0	6,260.5	6,437.0	6,258.6	15.6	28.2	-89.74	1,309.2	-345.4	1,552.8	1,520.7	32.06	48.434	
6,350.0	6,308.1	6,486.5	6,305.9	15.6	28.2	-89.76	1,309.2	-330.7	1,552.8	1,520.7	32.08	48.406	
6,400.0	6,354.5	6,536.1	6,352.1	15.6	28.2	-89.78	1,309.2	-312.7	1,552.8	1,520.7	32.08	48.397	
6,450.0	6,399.5	6,585.7	6,397.0	15.6	28.2	-89.79	1,309.2	-291.6	1,552.8	1,520.7	32.09	48.388	
6,500.0	6,442.9	6,635.3	6,440.3	15.5	28.2	-89.81	1,309.2	-267.5	1,552.8	1,520.7	32.11	48.358	
6,550.0	6,484.5	6,685.0	6,481.9	15.5	28.2	-89.83	1,309.2	-240.3	1,552.8	1,520.6	32.16	48.279	
6,600.0	6,524.0	6,734.7	6,521.5	15.5	28.2	-89.86	1,309.2	-210.3	1,552.8	1,520.5	32.27	48.125	
6,650.0	6,561.3	6,784.4	6,559.0	15.6	28.2	-89.88	1,309.2	-177.6	1,552.8	1,520.4	32.44	47.864	
6,700.0	6,596.1	6,834.2	6,594.1	15.6	28.2	-89.90	1,309.2	-142.4	1,552.8	1,520.1	32.71	47.468	
6,750.0	6,628.4	6,884.0	6,626.8	15.7	28.2	-89.92	1,309.2	-104.8	1,552.8	1,519.7	33.10	46.913	
6,800.0	6,658.0	6,933.9	6,656.8	15.9	28.2	-89.95	1,309.2	-64.9	1,552.8	1,519.2	33.62	46.183	
6,850.0	6,684.6	6,983.8	6,683.9	16.2	28.2	-89.97	1,309.2	-23.0	1,552.8	1,518.5	34.30	45.274	
6,900.0	6,708.3	7,033.8	6,708.1	16.5	28.2	-89.99	1,309.2	20.7	1,552.8	1,517.7	35.14	44.194	
6,938.8	6,724.5	7,072.6	6,724.8	16.9	28.2	-90.01	1,309.2	55.7	1,552.8	1,516.9	35.91	43.240	
6,950.0	6,728.8	7,083.8	6,729.2	17.0	28.2	-90.02	1,309.2	66.0	1,552.8	1,516.6	36.14	42.964	
7,000.0	6,746.1	7,133.8	6,747.1	17.6	28.2	-90.04	1,309.2	112.7	1,552.8	1,515.5	37.32	41.612	
7,050.0	6,760.0	7,183.9	6,761.7	18.3	28.3	-90.07	1,309.2	160.6	1,552.8	1,514.1	38.65	40.175	
7,100.0	6,770.6	7,234.1	6,773.0	19.1	28.4	-90.09	1,309.2	209.5	1,552.8	1,512.7	40.13	38.690	
7,150.0	6,777.8	7,284.3	6,780.8	19.9	28.5	-90.11	1,309.2	259.1	1,552.8	1,511.0	41.75	37.195	
7,200.0	6,781.5	7,334.5	6,785.1	20.8	28.7	-90.13	1,309.2	309.1	1,552.8	1,509.3	43.47	35.719	
7,232.6	6,782.0	7,367.3	6,786.0	21.4	28.9	-90.15	1,309.2	341.8	1,552.8	1,508.2	44.64	34.782	
7,300.0	6,781.5	7,434.7	6,785.6	22.7	29.4	-90.15	1,309.2	409.3	1,552.8	1,505.6	47.21	32.890	
7,400.0	6,780.9	7,534.7	6,785.0	24.8	30.3	-90.15	1,309.2	509.3	1,552.8	1,501.5	51.27	30.284	
7,500.0	6,780.2	7,634.7	6,784.4	27.0	31.7	-90.15	1,309.2	609.3	1,552.8	1,497.2	55.61	27.925	
7,600.0	6,779.5	7,734.7	6,783.8	29.4	33.5	-90.16	1,309.2	709.3	1,552.8	1,492.6	60.15	25.816	
7,700.0	6,778.9	7,834.7	6,783.2	31.8	35.4	-90.16	1,309.2	809.3	1,552.8	1,487.9	64.86	23.941	
7,800.0	6,778.2	7,934.7	6,782.6	34.2	37.6	-90.16	1,309.2	909.3	1,552.8	1,483.1	69.70	22.277	
7,900.0	6,777.5	8,034.7	6,782.0	36.7	39.9	-90.16	1,309.2	1,009.3	1,552.8	1,478.1	74.66	20.799	
8,000.0	6,776.9	8,134.7	6,781.3	39.3	42.2	-90.16	1,309.2	1,109.3	1,552.8	1,473.1	79.70	19.483	
8,100.0	6,776.2	8,234.7	6,780.7	41.9	44.6	-90.17	1,309.2	1,209.3	1,552.8	1,468.0	84.81	18.308	
8,200.0	6,775.5	8,334.7	6,780.1	44.5	47.1	-90.17	1,309.2	1,309.3	1,552.8	1,462.8	89.99	17.255	
8,300.0	6,774.9	8,434.7	6,779.5	47.1	49.6	-90.17	1,309.2	1,409.3	1,552.8	1,457.6	95.21	16.309	
8,400.0	6,774.2	8,534.7	6,778.9	49.8	52.1	-90.17	1,309.2	1,509.3	1,552.8	1,452.3	100.48	15.454	
8,500.0	6,773.5	8,634.7	6,778.3	52.4	54.7	-90.18	1,309.2	1,609.3	1,552.8	1,447.0	105.78	14.679	
8,600.0	6,772.9	8,734.7	6,777.7	55.1	57.3	-90.18	1,309.2	1,709.3	1,552.8	1,441.7	111.12	13.974	

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



# Anticollision Report



<b>Company:</b>	PDC ENERGY	<b>Local Co-ordinate Reference:</b>	Well KINZER 28I-202
<b>Project:</b>	WELD COUNTY, COLORADO	<b>TVD Reference:</b>	KB-EST @ 4797.5usft
<b>Reference Site:</b>	SW SW SEC. 28 T5N R67W 6th P.M.	<b>MD Reference:</b>	KB-EST @ 4797.5usft
<b>Site Error:</b>	0.0 usft	<b>North Reference:</b>	True
<b>Reference Well:</b>	KINZER 28I-202	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Well Error:</b>	0.0 usft	<b>Output errors are at</b>	2.00 sigma
<b>Reference Wellbore</b>	ORIGINAL WELLBORE	<b>Database:</b>	EDM 5000.1 Single User Db
<b>Reference Design:</b>	PROPOSAL #1	<b>Offset TVD Reference:</b>	Offset Datum

<b>Offset Design</b> SW SW SEC. 28 T5N R67W 6th P.M. - KINZER 28H-212 - ORIGINAL WELLBORE - PROPOSAL #2												<b>Offset Site Error:</b>	0.0 usft
Survey Program: 0-MWD												<b>Offset Well Error:</b>	0.0 usft
Reference		Offset		Semi Major Axis			Distance						Warning
Measured Depth (usft)	Vertical Depth (usft)	Measured Depth (usft)	Vertical Depth (usft)	Reference (usft)	Offset (usft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (usft)	+E/-W (usft)	Between Centres (usft)	Between Ellipses (usft)	Minimum Separation (usft)	Separation Factor	
8,700.0	6,772.2	8,834.7	6,777.1	57.8	59.9	-90.18	1,309.2	1,809.3	1,552.8	1,436.3	116.48	13.331	
8,800.0	6,771.5	8,934.7	6,776.5	60.5	62.5	-90.18	1,309.2	1,909.3	1,552.8	1,430.9	121.86	12.742	
8,900.0	6,770.9	9,034.7	6,775.9	63.2	65.2	-90.18	1,309.2	2,009.3	1,552.8	1,425.5	127.27	12.201	
9,000.0	6,770.2	9,134.7	6,775.2	65.9	67.8	-90.19	1,309.2	2,109.3	1,552.8	1,420.1	132.69	11.703	
9,100.0	6,769.5	9,234.7	6,774.6	68.7	70.5	-90.19	1,309.2	2,209.3	1,552.8	1,414.7	138.13	11.242	
9,200.0	6,768.9	9,334.7	6,774.0	71.4	73.2	-90.19	1,309.2	2,309.3	1,552.8	1,409.2	143.58	10.815	
9,300.0	6,768.2	9,434.7	6,773.4	74.1	75.9	-90.19	1,309.2	2,409.2	1,552.8	1,403.8	149.04	10.419	
9,400.0	6,767.5	9,534.7	6,772.8	76.9	78.6	-90.20	1,309.2	2,509.2	1,552.8	1,398.3	154.52	10.049	
9,500.0	6,766.8	9,634.7	6,772.2	79.6	81.3	-90.20	1,309.2	2,609.2	1,552.8	1,392.8	160.00	9.705	
9,600.0	6,766.2	9,734.7	6,771.6	82.4	84.0	-90.20	1,309.2	2,709.2	1,552.8	1,387.3	165.49	9.383	
9,700.0	6,765.5	9,834.7	6,771.0	85.2	86.7	-90.20	1,309.2	2,809.2	1,552.8	1,381.8	171.00	9.081	
9,800.0	6,764.8	9,934.7	6,770.4	87.9	89.4	-90.21	1,309.2	2,909.2	1,552.8	1,376.3	176.50	8.797	
9,900.0	6,764.1	10,034.7	6,769.8	90.7	92.1	-90.21	1,309.2	3,009.2	1,552.8	1,370.8	182.02	8.531	
10,000.0	6,763.5	10,134.7	6,769.2	93.4	94.9	-90.21	1,309.2	3,109.2	1,552.8	1,365.2	187.54	8.280	
10,100.0	6,762.8	10,234.7	6,768.6	96.2	97.6	-90.21	1,309.2	3,209.2	1,552.8	1,359.7	193.07	8.043	
10,200.0	6,762.1	10,334.7	6,767.9	99.0	100.4	-90.22	1,309.2	3,309.2	1,552.8	1,354.2	198.60	7.819	
10,300.0	6,761.4	10,434.7	6,767.3	101.8	103.1	-90.22	1,309.2	3,409.2	1,552.8	1,348.7	204.14	7.607	
10,400.0	6,760.8	10,534.7	6,766.7	104.5	105.9	-90.22	1,309.2	3,509.2	1,552.8	1,343.1	209.68	7.406	
10,500.0	6,760.1	10,634.7	6,766.1	107.3	108.6	-90.22	1,309.2	3,609.2	1,552.8	1,337.6	215.22	7.215	
10,600.0	6,759.4	10,734.7	6,765.5	110.1	111.4	-90.23	1,309.2	3,709.2	1,552.8	1,332.0	220.77	7.033	
10,700.0	6,758.7	10,834.7	6,764.9	112.9	114.1	-90.23	1,309.2	3,809.2	1,552.8	1,326.5	226.33	6.861	
10,800.0	6,758.1	10,934.7	6,764.3	115.6	116.9	-90.23	1,309.2	3,909.2	1,552.8	1,320.9	231.88	6.696	
10,900.0	6,757.4	11,034.7	6,763.7	118.4	119.6	-90.23	1,309.2	4,009.2	1,552.8	1,315.3	237.44	6.540	
11,000.0	6,756.7	11,134.7	6,763.1	121.2	122.4	-90.24	1,309.2	4,109.2	1,552.8	1,309.8	243.00	6.390	
11,100.0	6,756.0	11,234.7	6,762.5	124.0	125.2	-90.24	1,309.2	4,209.2	1,552.8	1,304.2	248.56	6.247	
11,200.0	6,755.3	11,334.7	6,761.9	126.8	127.9	-90.24	1,309.2	4,309.2	1,552.8	1,298.7	254.13	6.110	
11,300.0	6,754.7	11,434.7	6,761.3	129.6	130.7	-90.24	1,309.2	4,409.2	1,552.8	1,293.1	259.70	5.979	
11,400.0	6,754.0	11,534.7	6,760.7	132.4	133.5	-90.25	1,309.2	4,509.2	1,552.8	1,287.5	265.27	5.854	
11,500.0	6,753.3	11,634.7	6,760.0	135.1	136.3	-90.25	1,309.2	4,609.2	1,552.8	1,281.9	270.84	5.733	
11,600.0	6,752.6	11,734.7	6,759.4	137.9	139.0	-90.25	1,309.2	4,709.2	1,552.8	1,276.4	276.42	5.618	
11,700.0	6,751.9	11,834.7	6,758.8	140.7	141.8	-90.25	1,309.2	4,809.2	1,552.8	1,270.8	281.99	5.507	
11,800.0	6,751.3	11,934.7	6,758.2	143.5	144.6	-90.26	1,309.2	4,909.2	1,552.8	1,265.2	287.57	5.400	
11,830.0	6,751.0	11,964.7	6,758.0	144.4	145.4	-90.26	1,309.2	4,939.2	1,552.8	1,263.5	289.24	5.368	
11,837.2	6,751.0	11,971.6	6,758.0	144.6	145.6	-90.26	1,309.2	4,946.1	1,552.8	1,263.1	289.64	5.361 SF	

# Anticollision Report



<b>Company:</b>	PDC ENERGY	<b>Local Co-ordinate Reference:</b>	Well KINZER 28I-202
<b>Project:</b>	WELD COUNTY, COLORADO	<b>TVD Reference:</b>	KB-EST @ 4797.5usft
<b>Reference Site:</b>	SW SW SEC. 28 T5N R67W 6th P.M.	<b>MD Reference:</b>	KB-EST @ 4797.5usft
<b>Site Error:</b>	0.0 usft	<b>North Reference:</b>	True
<b>Reference Well:</b>	KINZER 28I-202	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Well Error:</b>	0.0 usft	<b>Output errors are at</b>	2.00 sigma
<b>Reference Wellbore</b>	ORIGINAL WELLBORE	<b>Database:</b>	EDM 5000.1 Single User Db
<b>Reference Design:</b>	PROPOSAL #1	<b>Offset TVD Reference:</b>	Offset Datum

Offset Design												Offset Site Error:	0.0 usft
Survey Program: 0-MWD												Offset Well Error:	0.0 usft
Reference		Offset		Semi Major Axis			Distance						Warning
Measured Depth (usft)	Vertical Depth (usft)	Measured Depth (usft)	Vertical Depth (usft)	Reference (usft)	Offset (usft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (usft)	+E/-W (usft)	Between Centres (usft)	Between Ellipses (usft)	Minimum Separation (usft)	Separation Factor	
0.0	0.0	0.0	0.0	0.0	0.0	-90.01	0.0	-58.5	58.5				
100.0	100.0	100.0	100.0	0.1	0.1	-90.01	0.0	-58.5	58.5	58.3	0.19	300.994	
200.0	200.0	200.0	200.0	0.3	0.3	-90.01	0.0	-58.5	58.5	57.9	0.64	90.876	
300.0	300.0	300.0	300.0	0.5	0.5	-90.01	0.0	-58.5	58.5	57.4	1.09	53.517	
400.0	400.0	400.0	400.0	0.8	0.8	-90.01	0.0	-58.5	58.5	57.0	1.54	37.926	
500.0	500.0	500.0	500.0	1.0	1.0	-90.01	0.0	-58.5	58.5	56.5	1.99	29.369	
600.0	600.0	600.0	600.0	1.2	1.2	-90.01	0.0	-58.5	58.5	56.1	2.44	23.963 CC, ES	
700.0	700.0	699.4	699.4	1.4	1.4	-88.40	1.6	-59.0	59.0	56.1	2.89	20.428	
800.0	800.0	798.5	798.4	1.7	1.7	-83.79	6.6	-60.5	60.9	57.5	3.34	18.220	
900.0	900.0	897.2	896.7	1.9	1.9	-76.81	14.8	-62.9	64.7	60.9	3.80	17.037	
1,000.0	1,000.0	995.2	993.9	2.1	2.2	-68.54	26.1	-66.3	71.5	67.2	4.27	16.730	
1,100.0	1,100.0	1,092.1	1,089.7	2.3	2.4	63.40	40.4	-70.6	81.2	76.5	4.71	17.238	
1,200.0	1,199.8	1,187.6	1,183.5	2.5	2.7	73.38	57.5	-75.7	94.3	89.2	5.14	18.342	
1,300.0	1,299.5	1,283.1	1,276.8	2.7	3.1	82.95	77.2	-81.5	111.9	106.3	5.59	20.027	
1,400.0	1,398.7	1,379.2	1,370.6	3.0	3.5	91.26	97.3	-87.5	132.3	126.3	6.04	21.894	
1,500.0	1,497.5	1,474.7	1,463.8	3.2	3.9	98.38	117.2	-93.5	155.4	148.9	6.53	23.813	
1,502.5	1,500.0	1,477.1	1,466.1	3.2	3.9	98.54	117.7	-93.6	156.1	149.5	6.54	23.863	
1,600.0	1,595.9	1,569.7	1,556.5	3.5	4.3	104.52	137.0	-99.4	181.0	173.9	7.04	25.700	
1,700.0	1,694.4	1,664.8	1,649.3	3.8	4.7	109.16	156.8	-105.3	208.0	200.4	7.58	27.449	
1,800.0	1,792.9	1,759.8	1,742.1	4.2	5.1	112.73	176.7	-111.2	236.1	227.9	8.13	29.025	
1,900.0	1,891.3	1,854.9	1,834.8	4.5	5.5	115.55	196.5	-117.1	264.8	256.1	8.70	30.430	
2,000.0	1,989.8	1,949.9	1,927.6	4.9	5.9	117.82	216.3	-123.0	294.0	284.7	9.28	31.678	
2,100.0	2,088.3	2,045.0	2,020.4	5.2	6.3	119.68	236.2	-129.0	323.5	313.7	9.87	32.786	
2,200.0	2,186.7	2,140.0	2,113.1	5.6	6.8	121.24	256.0	-134.9	353.4	342.9	10.46	33.772	
2,300.0	2,285.2	2,235.1	2,205.9	6.0	7.2	122.55	275.8	-140.8	383.4	372.3	11.06	34.653	
2,400.0	2,383.7	2,330.1	2,298.7	6.4	7.6	123.67	295.7	-146.7	413.5	401.9	11.67	35.442	
2,500.0	2,482.1	2,425.2	2,391.4	6.7	8.1	124.64	315.5	-152.6	443.8	431.6	12.28	36.152	
2,600.0	2,580.6	2,520.2	2,484.2	7.1	8.5	125.49	335.4	-158.5	474.2	461.4	12.89	36.793	
2,700.0	2,679.1	2,615.3	2,577.0	7.5	8.9	126.23	355.2	-164.4	504.7	491.2	13.50	37.374	
2,800.0	2,777.5	2,710.3	2,669.7	7.9	9.4	126.89	375.0	-170.4	535.3	521.2	14.12	37.903	
2,900.0	2,876.0	2,805.4	2,762.5	8.3	9.8	127.48	394.9	-176.3	565.9	551.1	14.74	38.386	
3,000.0	2,974.4	2,900.4	2,855.3	8.7	10.2	128.01	414.7	-182.2	596.5	581.2	15.36	38.828	
3,100.0	3,072.9	2,995.5	2,948.0	9.1	10.7	128.49	434.5	-188.1	627.2	611.3	15.99	39.235	
3,200.0	3,171.4	3,090.5	3,040.8	9.5	11.1	128.92	454.4	-194.0	658.0	641.4	16.61	39.609	
3,300.0	3,269.8	3,185.5	3,133.6	9.9	11.5	129.31	474.2	-199.9	688.7	671.5	17.24	39.955	
3,400.0	3,368.3	3,280.6	3,226.3	10.3	12.0	129.67	494.0	-205.8	719.5	701.7	17.87	40.276	
3,500.0	3,466.8	3,375.6	3,319.1	10.7	12.4	130.00	513.9	-211.8	750.4	731.9	18.49	40.574	
3,580.8	3,546.3	3,452.5	3,394.1	11.0	12.8	130.25	529.9	-216.5	775.3	756.3	19.00	40.800	
3,600.0	3,565.3	3,470.7	3,411.9	11.1	12.8	130.40	533.7	-217.7	781.2	762.0	19.13	40.838	
3,700.0	3,664.1	3,566.3	3,505.1	11.3	13.3	131.01	553.6	-223.6	810.5	790.8	19.74	41.067	
3,800.0	3,763.4	3,662.5	3,599.1	11.6	13.7	131.38	573.7	-229.6	837.7	817.3	20.32	41.229	
3,900.0	3,863.1	3,759.3	3,693.5	11.8	14.2	131.54	593.9	-235.6	862.6	841.7	20.87	41.339	
4,000.0	3,963.0	3,856.5	3,788.4	12.0	14.6	131.50	614.2	-241.7	885.3	863.9	21.38	41.407	
4,083.3	4,046.3	3,937.8	3,867.7	12.1	15.0	8.60	631.2	-246.7	902.6	877.9	24.64	36.633	
4,100.0	4,063.0	3,954.0	3,883.6	12.1	15.1	8.51	634.6	-247.8	905.9	881.1	24.74	36.620	
4,200.0	4,163.0	4,051.6	3,978.8	12.3	15.5	7.94	654.9	-253.8	925.7	900.4	25.33	36.548	
4,300.0	4,263.0	4,149.2	4,074.1	12.4	16.0	7.39	675.3	-259.9	945.6	919.7	25.93	36.475	
4,400.0	4,363.0	4,246.8	4,169.4	12.6	16.4	6.87	695.7	-266.0	965.7	939.1	26.53	36.403	
4,500.0	4,463.0	4,344.4	4,264.6	12.7	16.9	6.37	716.0	-272.0	985.7	958.6	27.13	36.331	
4,600.0	4,563.0	4,442.0	4,359.9	12.9	17.3	5.88	736.4	-278.1	1,005.9	978.2	27.74	36.260	
4,700.0	4,663.0	4,539.6	4,455.1	13.0	17.8	5.42	756.8	-284.2	1,026.1	997.8	28.35	36.190	
4,800.0	4,763.0	4,637.2	4,550.4	13.2	18.2	4.97	777.1	-290.3	1,046.4	1,017.4	28.97	36.121	

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

# Anticollision Report



<b>Company:</b>	PDC ENERGY	<b>Local Co-ordinate Reference:</b>	Well KINZER 28I-202
<b>Project:</b>	WELD COUNTY, COLORADO	<b>TVD Reference:</b>	KB-EST @ 4797.5usft
<b>Reference Site:</b>	SW SW SEC. 28 T5N R67W 6th P.M.	<b>MD Reference:</b>	KB-EST @ 4797.5usft
<b>Site Error:</b>	0.0 usft	<b>North Reference:</b>	True
<b>Reference Well:</b>	KINZER 28I-202	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Well Error:</b>	0.0 usft	<b>Output errors are at</b>	2.00 sigma
<b>Reference Wellbore</b>	ORIGINAL WELLBORE	<b>Database:</b>	EDM 5000.1 Single User Db
<b>Reference Design:</b>	PROPOSAL #1	<b>Offset TVD Reference:</b>	Offset Datum

Offset Design												Offset Site Error:	0.0 usft
Survey Program: 0-MWD												Offset Well Error:	0.0 usft
Reference		Offset		Semi Major Axis			Distance						Warning
Measured Depth (usft)	Vertical Depth (usft)	Measured Depth (usft)	Vertical Depth (usft)	Reference (usft)	Offset (usft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (usft)	+E/-W (usft)	Between Centres (usft)	Between Ellipses (usft)	Minimum Separation (usft)	Separation Factor	
4,900.0	4,863.0	4,734.8	4,645.6	13.4	18.7	4.54	797.5	-296.3	1,066.7	1,037.2	29.59	36.052	
5,000.0	4,963.0	4,832.4	4,740.9	13.5	19.1	4.13	817.9	-302.4	1,087.1	1,056.9	30.21	35.985	
5,100.0	5,063.0	4,930.0	4,836.2	13.7	19.6	3.73	838.2	-308.5	1,107.6	1,076.8	30.84	35.919	
5,200.0	5,163.0	5,027.6	4,931.4	13.9	20.0	3.35	858.6	-314.6	1,128.1	1,096.6	31.46	35.854	
5,300.0	5,263.0	5,125.2	5,026.7	14.0	20.5	2.98	879.0	-320.6	1,148.6	1,116.6	32.09	35.790	
5,400.0	5,363.0	5,222.8	5,121.9	14.2	20.9	2.62	899.3	-326.7	1,169.2	1,136.5	32.73	35.728	
5,500.0	5,463.0	5,320.4	5,217.2	14.4	21.4	2.28	919.7	-332.8	1,189.9	1,156.5	33.36	35.667	
5,600.0	5,563.0	5,418.0	5,312.4	14.5	21.8	1.95	940.1	-338.9	1,210.6	1,176.6	34.00	35.607	
5,700.0	5,663.0	5,515.6	5,407.7	14.7	22.3	1.63	960.4	-344.9	1,231.3	1,196.6	34.64	35.548	
5,800.0	5,763.0	5,613.2	5,503.0	14.9	22.7	1.31	980.8	-351.0	1,252.0	1,216.7	35.28	35.491	
5,900.0	5,863.0	5,781.8	5,668.5	15.1	23.3	0.87	1,011.4	-360.1	1,270.1	1,234.0	36.07	35.214	
6,000.0	5,963.0	5,954.5	5,839.6	15.2	23.8	0.56	1,033.0	-366.6	1,282.6	1,245.9	36.71	34.934	
6,100.0	6,063.0	6,129.3	6,014.0	15.4	24.1	0.40	1,044.7	-370.1	1,289.3	1,252.0	37.24	34.619	
6,102.8	6,065.8	6,134.2	6,018.9	15.4	24.1	0.40	1,044.9	-370.1	1,289.4	1,252.1	37.26	34.610	
6,150.0	6,112.9	6,217.0	6,101.7	15.5	24.2	-89.66	1,046.8	-370.7	1,290.4	1,259.2	31.20	41.365	
6,200.0	6,162.7	6,278.0	6,162.7	15.5	24.3	-89.92	1,046.9	-370.7	1,290.5	1,259.2	31.32	41.200	
6,214.1	6,176.7	6,292.0	6,176.7	15.6	24.3	-90.00	1,046.9	-370.5	1,290.5	1,259.1	31.35	41.167	
6,250.0	6,211.9	6,327.6	6,212.3	15.6	24.3	-90.20	1,046.9	-368.6	1,290.5	1,259.1	31.40	41.098	
6,300.0	6,260.5	6,377.8	6,262.1	15.6	24.4	-90.49	1,046.9	-363.1	1,290.5	1,259.1	31.45	41.041	
6,350.0	6,308.1	6,428.4	6,311.8	15.6	24.4	-90.77	1,046.9	-354.0	1,290.6	1,259.1	31.46	41.020	
6,400.0	6,354.5	6,479.4	6,361.3	15.6	24.4	-91.05	1,046.9	-341.2	1,290.7	1,259.3	31.46	41.024	
6,450.0	6,399.5	6,531.0	6,410.1	15.6	24.4	-91.33	1,046.9	-324.8	1,290.8	1,259.4	31.45	41.039	
6,500.0	6,442.9	6,583.0	6,458.1	15.5	24.4	-91.60	1,046.9	-304.7	1,291.0	1,259.6	31.45	41.049	
6,550.0	6,484.5	6,635.5	6,505.0	15.5	24.4	-91.86	1,046.9	-281.0	1,291.2	1,259.7	31.47	41.030	
6,600.0	6,524.0	6,688.6	6,550.3	15.5	24.4	-92.12	1,046.9	-253.6	1,291.4	1,259.9	31.53	40.959	
6,650.0	6,561.3	6,742.0	6,593.9	15.6	24.4	-92.37	1,046.9	-222.6	1,291.6	1,260.0	31.65	40.808	
6,700.0	6,596.1	6,796.0	6,635.5	15.6	24.3	-92.60	1,046.9	-188.2	1,291.8	1,260.0	31.86	40.548	
6,750.0	6,628.4	6,850.4	6,674.6	15.7	24.3	-92.83	1,046.9	-150.4	1,292.1	1,259.9	32.18	40.151	
6,800.0	6,658.0	6,905.3	6,711.0	15.9	24.3	-93.03	1,046.9	-109.4	1,292.3	1,259.7	32.64	39.590	
6,850.0	6,684.6	6,960.6	6,744.4	16.2	24.3	-93.23	1,046.9	-65.4	1,292.6	1,259.3	33.26	38.858	
6,900.0	6,708.3	7,016.2	6,774.6	16.5	24.3	-93.41	1,046.9	-18.6	1,292.8	1,258.7	34.06	37.956	
6,950.0	6,728.8	7,072.3	6,801.2	17.0	24.3	-93.56	1,046.9	30.8	1,293.0	1,258.0	35.05	36.895	
7,000.0	6,746.1	7,128.7	6,823.9	17.6	24.3	-93.70	1,046.9	82.3	1,293.2	1,257.0	36.21	35.711	
7,050.0	6,760.0	7,185.3	6,842.6	18.3	24.3	-93.82	1,046.9	135.8	1,293.4	1,255.8	37.57	34.425	
7,100.0	6,770.6	7,242.2	6,857.1	19.1	24.5	-93.92	1,046.9	190.8	1,293.5	1,254.4	39.10	33.081	
7,150.0	6,777.8	7,299.3	6,867.2	19.9	24.7	-94.00	1,046.9	247.0	1,293.6	1,252.9	40.79	31.718	
7,200.0	6,781.5	7,356.6	6,872.8	20.8	25.0	-94.05	1,046.9	304.0	1,293.7	1,251.1	42.61	30.363	
7,232.6	6,782.0	7,394.0	6,874.0	21.4	25.4	-94.08	1,046.9	341.3	1,293.8	1,249.9	43.85	29.501	
7,300.0	6,781.5	7,462.9	6,873.4	22.7	26.1	-94.07	1,046.9	410.2	1,293.8	1,247.3	46.45	27.850	
7,400.0	6,780.9	7,562.9	6,872.3	24.8	27.7	-94.05	1,046.9	510.2	1,293.7	1,243.2	50.53	25.602	
7,500.0	6,780.2	7,662.9	6,871.3	27.0	29.6	-94.04	1,046.9	610.2	1,293.7	1,238.8	54.88	23.573	
7,600.0	6,779.5	7,762.9	6,870.2	29.4	31.7	-94.02	1,046.9	710.2	1,293.7	1,234.2	59.44	21.765	
7,700.0	6,778.9	7,862.9	6,869.2	31.8	33.9	-94.00	1,046.9	810.2	1,293.6	1,229.5	64.16	20.161	
7,800.0	6,778.2	7,962.9	6,868.1	34.2	36.2	-93.99	1,046.9	910.2	1,293.6	1,224.6	69.02	18.742	
7,900.0	6,777.5	8,062.9	6,867.1	36.7	38.6	-93.97	1,046.9	1,010.2	1,293.6	1,219.6	73.99	17.484	
8,000.0	6,776.9	8,162.9	6,866.0	39.3	41.1	-93.95	1,046.9	1,110.2	1,293.6	1,214.5	79.04	16.367	
8,100.0	6,776.2	8,262.9	6,865.0	41.9	43.6	-93.94	1,046.9	1,210.2	1,293.5	1,209.4	84.16	15.371	
8,200.0	6,775.5	8,362.9	6,863.9	44.5	46.1	-93.92	1,046.9	1,310.2	1,293.5	1,204.2	89.34	14.479	
8,300.0	6,774.9	8,462.9	6,862.9	47.1	48.7	-93.90	1,046.9	1,410.2	1,293.5	1,198.9	94.56	13.678	
8,400.0	6,774.2	8,562.9	6,861.8	49.8	51.3	-93.89	1,046.9	1,510.2	1,293.5	1,193.6	99.83	12.956	
8,500.0	6,773.5	8,662.9	6,860.8	52.4	53.9	-93.87	1,046.9	1,610.1	1,293.4	1,188.3	105.14	12.302	
8,600.0	6,772.9	8,762.9	6,859.8	55.1	56.5	-93.85	1,046.9	1,710.1	1,293.4	1,182.9	110.47	11.708	

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

# Anticollision Report



<b>Company:</b>	PDC ENERGY	<b>Local Co-ordinate Reference:</b>	Well KINZER 28I-202
<b>Project:</b>	WELD COUNTY, COLORADO	<b>TVD Reference:</b>	KB-EST @ 4797.5usft
<b>Reference Site:</b>	SW SW SEC. 28 T5N R67W 6th P.M.	<b>MD Reference:</b>	KB-EST @ 4797.5usft
<b>Site Error:</b>	0.0 usft	<b>North Reference:</b>	True
<b>Reference Well:</b>	KINZER 28I-202	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Well Error:</b>	0.0 usft	<b>Output errors are at</b>	2.00 sigma
<b>Reference Wellbore</b>	ORIGINAL WELLBORE	<b>Database:</b>	EDM 5000.1 Single User Db
<b>Reference Design:</b>	PROPOSAL #1	<b>Offset TVD Reference:</b>	Offset Datum

Offset Design												Offset Site Error:	0.0 usft
Survey Program: 0-MWD												Offset Well Error:	0.0 usft
Reference		Offset		Semi Major Axis			Distance						Warning
Measured Depth (usft)	Vertical Depth (usft)	Measured Depth (usft)	Vertical Depth (usft)	Reference (usft)	Offset (usft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (usft)	+E/-W (usft)	Between Centres (usft)	Between Ellipses (usft)	Minimum Separation (usft)	Separation Factor	
8,700.0	6,772.2	8,862.9	6,858.7	57.8	59.1	-93.84	1,046.9	1,810.1	1,293.4	1,177.5	115.83	11.166	
8,800.0	6,771.5	8,962.8	6,857.7	60.5	61.8	-93.82	1,046.9	1,910.1	1,293.4	1,172.1	121.22	10.670	
8,900.0	6,770.9	9,062.8	6,856.6	63.2	64.5	-93.80	1,046.9	2,010.1	1,293.3	1,166.7	126.62	10.214	
9,000.0	6,770.2	9,162.8	6,855.6	65.9	67.2	-93.79	1,046.9	2,110.1	1,293.3	1,161.3	132.04	9.795	
9,100.0	6,769.5	9,262.8	6,854.5	68.7	69.8	-93.77	1,046.9	2,210.1	1,293.3	1,155.8	137.48	9.407	
9,200.0	6,768.9	9,362.8	6,853.5	71.4	72.5	-93.75	1,046.9	2,310.1	1,293.3	1,150.3	142.93	9.048	
9,300.0	6,768.2	9,462.8	6,852.4	74.1	75.3	-93.74	1,046.9	2,410.1	1,293.2	1,144.8	148.39	8.715	
9,400.0	6,767.5	9,562.8	6,851.4	76.9	78.0	-93.72	1,046.9	2,510.1	1,293.2	1,139.3	153.86	8.405	
9,500.0	6,766.8	9,662.8	6,850.4	79.6	80.7	-93.70	1,046.9	2,610.1	1,293.2	1,133.8	159.34	8.116	
9,600.0	6,766.2	9,762.8	6,849.3	82.4	83.4	-93.69	1,046.9	2,710.1	1,293.2	1,128.3	164.83	7.845	
9,700.0	6,765.5	9,862.8	6,848.3	85.2	86.2	-93.67	1,046.9	2,810.1	1,293.1	1,122.8	170.33	7.592	
9,800.0	6,764.8	9,962.8	6,847.2	87.9	88.9	-93.65	1,046.9	2,910.1	1,293.1	1,117.3	175.84	7.354	
9,900.0	6,764.1	10,062.8	6,846.2	90.7	91.6	-93.64	1,046.9	3,010.1	1,293.1	1,111.7	181.35	7.130	
10,000.0	6,763.5	10,162.8	6,845.1	93.4	94.4	-93.62	1,046.9	3,110.1	1,293.1	1,106.2	186.87	6.920	
10,100.0	6,762.8	10,262.8	6,844.1	96.2	97.1	-93.61	1,046.9	3,210.0	1,293.0	1,100.7	192.39	6.721	
10,200.0	6,762.1	10,362.8	6,843.0	99.0	99.9	-93.59	1,046.9	3,310.0	1,293.0	1,095.1	197.92	6.533	
10,300.0	6,761.4	10,462.8	6,842.0	101.8	102.6	-93.57	1,046.9	3,410.0	1,293.0	1,089.5	203.45	6.355	
10,400.0	6,760.8	10,562.8	6,841.0	104.5	105.4	-93.56	1,046.9	3,510.0	1,293.0	1,084.0	208.99	6.187	
10,500.0	6,760.1	10,662.8	6,839.9	107.3	108.2	-93.54	1,046.9	3,610.0	1,292.9	1,078.4	214.53	6.027	
10,600.0	6,759.4	10,762.8	6,838.9	110.1	110.9	-93.52	1,046.9	3,710.0	1,292.9	1,072.8	220.08	5.875	
10,700.0	6,758.7	10,862.8	6,837.8	112.9	113.7	-93.51	1,046.9	3,810.0	1,292.9	1,067.3	225.63	5.730	
10,800.0	6,758.1	10,962.8	6,836.8	115.6	116.5	-93.49	1,046.9	3,910.0	1,292.9	1,061.7	231.18	5.593	
10,900.0	6,757.4	11,062.8	6,835.8	118.4	119.2	-93.48	1,046.9	4,010.0	1,292.9	1,056.1	236.73	5.461	
11,000.0	6,756.7	11,162.8	6,834.7	121.2	122.0	-93.46	1,046.9	4,110.0	1,292.8	1,050.5	242.29	5.336	
11,100.0	6,756.0	11,262.8	6,833.7	124.0	124.8	-93.44	1,046.9	4,210.0	1,292.8	1,045.0	247.85	5.216	
11,200.0	6,755.3	11,362.8	6,832.6	126.8	127.5	-93.43	1,046.9	4,310.0	1,292.8	1,039.4	253.41	5.102	
11,300.0	6,754.7	11,462.8	6,831.6	129.6	130.3	-93.41	1,046.9	4,410.0	1,292.8	1,033.8	258.98	4.992	
11,400.0	6,754.0	11,562.8	6,830.5	132.4	133.1	-93.40	1,046.9	4,510.0	1,292.7	1,028.2	264.54	4.887	
11,500.0	6,753.3	11,662.8	6,829.5	135.1	135.9	-93.38	1,046.9	4,610.0	1,292.7	1,022.6	270.11	4.786	
11,600.0	6,752.6	11,762.8	6,828.5	137.9	138.7	-93.36	1,046.9	4,710.0	1,292.7	1,017.0	275.69	4.689	
11,700.0	6,751.9	11,862.8	6,827.4	140.7	141.4	-93.35	1,046.9	4,809.9	1,292.7	1,011.4	281.26	4.596	
11,800.0	6,751.3	11,962.8	6,826.4	143.5	144.2	-93.33	1,046.9	4,909.9	1,292.7	1,005.8	286.83	4.507	
11,828.9	6,751.1	11,991.7	6,826.1	144.3	145.0	-93.33	1,046.9	4,938.8	1,292.7	1,004.2	288.44	4.481	
11,837.2	6,751.0	11,999.0	6,826.0	144.6	145.2	-93.33	1,046.9	4,946.1	1,292.6	1,003.8	288.88	4.475 SF	

# Anticollision Report



<b>Company:</b>	PDC ENERGY	<b>Local Co-ordinate Reference:</b>	Well KINZER 28I-202
<b>Project:</b>	WELD COUNTY, COLORADO	<b>TVD Reference:</b>	KB-EST @ 4797.5usft
<b>Reference Site:</b>	SW SW SEC. 28 T5N R67W 6th P.M.	<b>MD Reference:</b>	KB-EST @ 4797.5usft
<b>Site Error:</b>	0.0 usft	<b>North Reference:</b>	True
<b>Reference Well:</b>	KINZER 28I-202	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Well Error:</b>	0.0 usft	<b>Output errors are at</b>	2.00 sigma
<b>Reference Wellbore</b>	ORIGINAL WELLBORE	<b>Database:</b>	EDM 5000.1 Single User Db
<b>Reference Design:</b>	PROPOSAL #1	<b>Offset TVD Reference:</b>	Offset Datum

Offset Design												Offset Site Error:	0.0 usft
Survey Program: 0-MWD												Offset Well Error:	0.0 usft
Reference		Offset		Semi Major Axis			Distance						
Measured Depth (usft)	Vertical Depth (usft)	Measured Depth (usft)	Vertical Depth (usft)	Reference (usft)	Offset (usft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (usft)	+E/-W (usft)	Between Centres (usft)	Between Ellipses (usft)	Minimum Separation (usft)	Separation Factor	Warning
0.0	0.0	0.0	0.0	0.0	0.0	-90.02	0.0	-30.7	30.7				
100.0	100.0	100.0	100.0	0.1	0.1	-90.02	0.0	-30.7	30.7	30.5	0.19	157.664	
200.0	200.0	200.0	200.0	0.3	0.3	-90.02	0.0	-30.7	30.7	30.0	0.64	47.602	
300.0	300.0	300.0	300.0	0.5	0.5	-90.02	0.0	-30.7	30.7	29.6	1.09	28.033	
400.0	400.0	400.0	400.0	0.8	0.8	-90.02	0.0	-30.7	30.7	29.1	1.54	19.866	
500.0	500.0	500.0	500.0	1.0	1.0	-90.02	0.0	-30.7	30.7	28.7	1.99	15.384	
600.0	600.0	600.0	600.0	1.2	1.2	-90.02	0.0	-30.7	30.7	28.2	2.44	12.552	
700.0	700.0	700.0	700.0	1.4	1.4	-90.02	0.0	-30.7	30.7	27.8	2.89	10.601	
800.0	800.0	800.0	800.0	1.7	1.7	-90.02	0.0	-30.7	30.7	27.3	3.34	9.175 CC, ES	
900.0	900.0	899.3	899.3	1.9	1.9	-87.59	1.3	-31.7	31.8	28.0	3.79	8.388	
1,000.0	1,000.0	998.4	998.2	2.1	2.1	-81.27	5.4	-34.9	35.4	31.2	4.23	8.361	
1,100.0	1,100.0	1,096.9	1,096.4	2.3	2.3	51.09	12.0	-40.2	41.0	36.4	4.65	8.816	
1,200.0	1,199.8	1,194.8	1,193.5	2.5	2.6	63.26	21.2	-47.6	49.0	44.0	5.07	9.677	
1,300.0	1,299.5	1,291.5	1,289.1	2.7	2.9	75.27	32.9	-56.9	61.0	55.5	5.50	11.093	
1,400.0	1,398.7	1,387.0	1,382.9	3.0	3.2	85.39	46.9	-68.0	77.9	71.9	5.97	13.048	
1,500.0	1,497.5	1,483.5	1,477.3	3.2	3.5	93.56	62.5	-80.5	98.7	92.2	6.49	15.215	
1,502.5	1,500.0	1,486.0	1,479.7	3.2	3.5	93.75	62.9	-80.8	99.2	92.7	6.50	15.269	
1,600.0	1,595.9	1,580.2	1,571.9	3.5	3.9	99.99	78.3	-93.0	121.2	114.2	7.04	17.219	
1,700.0	1,694.4	1,676.9	1,666.5	3.8	4.2	104.40	94.0	-105.5	144.7	137.1	7.62	19.000	
1,800.0	1,792.9	1,773.6	1,761.0	4.2	4.6	107.57	109.7	-118.1	168.9	160.6	8.22	20.547	
1,900.0	1,891.3	1,870.3	1,855.6	4.5	5.0	109.95	125.5	-130.6	193.4	184.5	8.83	21.886	
2,000.0	1,989.8	1,966.9	1,950.2	4.9	5.4	111.80	141.2	-143.1	218.1	208.6	9.46	23.044	
2,100.0	2,088.3	2,063.6	2,044.7	5.2	5.8	113.27	156.9	-155.7	243.0	232.9	10.10	24.049	
2,200.0	2,186.7	2,160.3	2,139.3	5.6	6.3	114.46	172.6	-168.2	268.0	257.3	10.75	24.926	
2,300.0	2,285.2	2,257.0	2,233.9	6.0	6.7	115.46	188.4	-180.7	293.1	281.7	11.41	25.696	
2,400.0	2,383.7	2,353.7	2,328.4	6.4	7.1	116.29	204.1	-193.2	318.3	306.3	12.07	26.374	
2,500.0	2,482.1	2,450.3	2,423.0	6.7	7.5	117.00	219.8	-205.8	343.6	330.8	12.74	26.976	
2,600.0	2,580.6	2,547.0	2,517.6	7.1	7.9	117.62	235.6	-218.3	368.9	355.4	13.41	27.512	
2,700.0	2,679.1	2,643.7	2,612.1	7.5	8.4	118.16	251.3	-230.8	394.2	380.1	14.08	27.993	
2,800.0	2,777.5	2,740.4	2,706.7	7.9	8.8	118.63	267.0	-243.4	419.5	404.8	14.76	28.425	
2,900.0	2,876.0	2,837.1	2,801.3	8.3	9.2	119.05	282.7	-255.9	444.9	429.5	15.44	28.816	
3,000.0	2,974.4	2,933.7	2,895.8	8.7	9.6	119.42	298.5	-268.4	470.3	454.2	16.12	29.171	
3,100.0	3,072.9	3,030.4	2,990.4	9.1	10.1	119.75	314.2	-280.9	495.7	478.9	16.81	29.495	
3,200.0	3,171.4	3,127.1	3,085.0	9.5	10.5	120.06	329.9	-293.5	521.1	503.6	17.49	29.791	
3,300.0	3,269.8	3,223.8	3,179.5	9.9	10.9	120.33	345.7	-306.0	546.5	528.4	18.18	30.062	
3,400.0	3,368.3	3,320.5	3,274.1	10.3	11.4	120.58	361.4	-318.5	572.0	553.1	18.87	30.312	
3,500.0	3,466.8	3,417.1	3,368.6	10.7	11.8	120.81	377.1	-331.1	597.4	577.9	19.56	30.543	
3,580.8	3,546.3	3,501.4	3,451.1	11.0	12.1	121.01	390.7	-341.8	617.9	597.8	20.12	30.704	
3,600.0	3,565.3	3,523.8	3,473.1	11.1	12.2	121.15	394.0	-344.5	622.5	602.2	20.25	30.741	
3,700.0	3,664.1	3,642.1	3,589.7	11.3	12.6	121.79	409.5	-356.9	643.6	622.8	20.84	30.883	
3,800.0	3,763.4	3,762.1	3,708.8	11.6	12.9	122.28	421.4	-366.3	659.7	638.3	21.38	30.863	
3,900.0	3,863.1	3,883.6	3,829.8	11.8	13.1	122.64	429.5	-372.7	670.7	648.9	21.85	30.697	
4,000.0	3,963.0	4,005.9	3,951.9	12.0	13.4	122.87	433.5	-376.0	676.5	654.3	22.26	30.397	
4,083.3	4,046.3	4,100.2	4,046.3	12.1	13.5	0.23	434.0	-376.4	677.6	655.5	22.05	30.728	
4,100.0	4,063.0	4,116.9	4,063.0	12.1	13.5	0.23	434.0	-376.4	677.6	655.5	22.11	30.651	
4,200.0	4,163.0	4,216.9	4,163.0	12.3	13.6	0.23	434.0	-376.4	677.6	655.2	22.43	30.204	
4,300.0	4,263.0	4,316.9	4,263.0	12.4	13.8	0.23	434.0	-376.4	677.6	654.8	22.77	29.764	
4,400.0	4,363.0	4,416.9	4,363.0	12.6	13.9	0.23	434.0	-376.4	677.6	654.5	23.10	29.331	
4,500.0	4,463.0	4,516.9	4,463.0	12.7	14.1	0.23	434.0	-376.4	677.6	654.2	23.44	28.906	
4,600.0	4,563.0	4,616.9	4,563.0	12.9	14.2	0.23	434.0	-376.4	677.6	653.8	23.78	28.489	
4,700.0	4,663.0	4,716.9	4,663.0	13.0	14.4	0.23	434.0	-376.4	677.6	653.5	24.13	28.080	
4,800.0	4,763.0	4,816.9	4,763.0	13.2	14.5	0.23	434.0	-376.4	677.6	653.1	24.48	27.678	

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

# Anticollision Report



<b>Company:</b>	PDC ENERGY	<b>Local Co-ordinate Reference:</b>	Well KINZER 28I-202
<b>Project:</b>	WELD COUNTY, COLORADO	<b>TVD Reference:</b>	KB-EST @ 4797.5usft
<b>Reference Site:</b>	SW SW SEC. 28 T5N R67W 6th P.M.	<b>MD Reference:</b>	KB-EST @ 4797.5usft
<b>Site Error:</b>	0.0 usft	<b>North Reference:</b>	True
<b>Reference Well:</b>	KINZER 28I-202	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Well Error:</b>	0.0 usft	<b>Output errors are at</b>	2.00 sigma
<b>Reference Wellbore</b>	ORIGINAL WELLBORE	<b>Database:</b>	EDM 5000.1 Single User Db
<b>Reference Design:</b>	PROPOSAL #1	<b>Offset TVD Reference:</b>	Offset Datum

<b>Offset Design</b> SW SW SEC. 28 T5N R67W 6th P.M. - KINZER 28H-432 - ORIGINAL WELLBORE - PROPOSAL #1												<b>Offset Site Error:</b>	0.0 usft
Survey Program: 0-MWD												<b>Offset Well Error:</b>	0.0 usft
Reference		Offset		Semi Major Axis			Distance						
Measured Depth (usft)	Vertical Depth (usft)	Measured Depth (usft)	Vertical Depth (usft)	Reference (usft)	Offset (usft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (usft)	+E/-W (usft)	Between Centres (usft)	Between Ellipses (usft)	Minimum Separation (usft)	Separation Factor	Warning
4,900.0	4,863.0	4,916.9	4,863.0	13.4	14.7	0.23	434.0	-376.4	677.6	652.8	24.83	27.285	
5,000.0	4,963.0	5,016.9	4,963.0	13.5	14.9	0.23	434.0	-376.4	677.6	652.4	25.19	26.899	
5,100.0	5,063.0	5,116.9	5,063.0	13.7	15.0	0.23	434.0	-376.4	677.6	652.0	25.55	26.521	
5,200.0	5,163.0	5,216.9	5,163.0	13.9	15.2	0.23	434.0	-376.4	677.6	651.7	25.91	26.150	
5,300.0	5,263.0	5,316.9	5,263.0	14.0	15.3	0.23	434.0	-376.4	677.6	651.3	26.28	25.787	
5,400.0	5,363.0	5,416.9	5,363.0	14.2	15.5	0.23	434.0	-376.4	677.6	651.0	26.64	25.432	
5,500.0	5,463.0	5,516.9	5,463.0	14.4	15.7	0.23	434.0	-376.4	677.6	650.6	27.01	25.084	
5,600.0	5,563.0	5,616.9	5,563.0	14.5	15.8	0.23	434.0	-376.4	677.6	650.2	27.39	24.743	
5,700.0	5,663.0	5,716.9	5,663.0	14.7	16.0	0.23	434.0	-376.4	677.6	649.8	27.76	24.409	
5,800.0	5,763.0	5,816.9	5,763.0	14.9	16.2	0.23	434.0	-376.4	677.6	649.5	28.14	24.083	
5,900.0	5,863.0	5,916.9	5,863.0	15.1	16.4	0.23	434.0	-376.4	677.6	649.1	28.52	23.763	
6,000.0	5,963.0	6,016.9	5,963.0	15.2	16.5	0.23	434.0	-376.4	677.6	648.7	28.90	23.450	
6,100.0	6,063.0	6,116.9	6,063.0	15.4	16.7	0.23	434.0	-376.4	677.6	648.3	29.28	23.143	
6,102.8	6,065.8	6,119.7	6,065.8	15.4	16.7	0.23	434.0	-376.4	677.6	648.3	29.29	23.135	
6,150.0	6,112.9	6,166.9	6,112.9	15.5	16.8	-89.90	434.0	-376.4	677.6	647.6	29.97	22.607	
6,165.6	6,128.5	6,182.4	6,128.5	15.5	16.8	-90.00	434.0	-376.4	677.6	647.6	30.02	22.573	
6,200.0	6,162.7	6,216.6	6,162.7	15.5	16.9	-90.32	434.0	-376.4	677.6	647.5	30.11	22.501	
6,250.0	6,211.9	6,265.9	6,211.9	15.6	17.0	-91.02	434.0	-376.4	677.7	647.5	30.23	22.420	
6,300.0	6,260.5	6,314.4	6,260.5	15.6	17.0	-91.97	434.0	-376.4	678.0	647.7	30.31	22.366	
6,350.0	6,308.1	6,364.3	6,310.3	15.6	17.1	-93.11	434.0	-375.1	678.7	648.3	30.37	22.348	
6,400.0	6,354.5	6,415.5	6,361.3	15.6	17.2	-94.25	434.0	-370.4	679.6	649.2	30.39	22.365	
6,450.0	6,399.5	6,467.8	6,412.9	15.6	17.2	-95.38	434.0	-361.7	680.8	650.5	30.38	22.408	
6,500.0	6,442.9	6,521.4	6,464.9	15.5	17.2	-96.50	434.0	-349.0	682.3	652.0	30.37	22.469	
6,550.0	6,484.5	6,576.2	6,517.0	15.5	17.2	-97.60	434.0	-332.0	684.1	653.7	30.35	22.540	
6,600.0	6,524.0	6,632.3	6,568.8	15.5	17.2	-98.67	434.0	-310.5	686.0	655.6	30.34	22.608	
6,650.0	6,561.3	6,689.7	6,619.9	15.6	17.2	-99.71	434.0	-284.4	688.1	657.7	30.37	22.656	
6,700.0	6,596.1	6,748.6	6,670.0	15.6	17.2	-100.70	434.0	-253.4	690.3	659.8	30.45	22.667	
6,750.0	6,628.4	6,808.8	6,718.4	15.7	17.2	-101.65	434.0	-217.6	692.6	662.0	30.63	22.614	
6,800.0	6,658.0	6,870.4	6,764.7	15.9	17.1	-102.54	434.0	-176.9	694.9	664.0	30.92	22.477	
6,850.0	6,684.6	6,933.4	6,808.1	16.2	17.1	-103.37	434.0	-131.4	697.2	665.8	31.35	22.236	
6,900.0	6,708.3	6,997.8	6,848.2	16.5	17.1	-104.12	434.0	-81.1	699.3	667.4	31.97	21.877	
6,950.0	6,728.8	7,063.3	6,884.3	17.0	17.2	-104.80	434.0	-26.4	701.3	668.5	32.80	21.380	
7,000.0	6,746.1	7,130.1	6,915.7	17.6	17.5	-105.38	434.0	32.5	703.1	669.3	33.87	20.760	
7,050.0	6,760.0	7,197.8	6,941.8	18.3	18.2	-105.86	434.0	94.9	704.7	669.5	35.17	20.039	
7,100.0	6,770.6	7,266.3	6,962.1	19.1	19.1	-106.23	434.0	160.4	705.9	669.2	36.71	19.227	
7,150.0	6,777.8	7,335.5	6,976.2	19.9	20.2	-106.50	434.0	228.1	706.7	668.3	38.47	18.369	
7,200.0	6,781.5	7,405.1	6,983.7	20.8	21.4	-106.65	434.0	297.2	707.2	666.8	40.42	17.495	
7,232.6	6,782.0	7,449.7	6,985.0	21.4	22.2	-106.68	434.0	341.8	707.4	665.6	41.77	16.935	
7,300.0	6,781.5	7,517.1	6,985.0	22.7	23.5	-106.71	434.0	409.3	707.5	663.2	44.27	15.982	
7,400.0	6,780.9	7,617.1	6,985.0	24.8	25.6	-106.76	434.0	509.3	707.7	659.4	48.22	14.675	
7,500.0	6,780.2	7,717.1	6,985.0	27.0	27.8	-106.82	434.0	609.3	707.9	655.4	52.43	13.500	
7,600.0	6,779.5	7,817.1	6,985.0	29.4	30.1	-106.87	434.0	709.3	708.1	651.2	56.84	12.457	
7,700.0	6,778.9	7,917.1	6,985.0	31.8	32.4	-106.92	434.0	809.2	708.2	646.9	61.40	11.535	
7,800.0	6,778.2	8,017.1	6,985.0	34.2	34.9	-106.97	434.0	909.2	708.4	642.4	66.08	10.721	
7,900.0	6,777.5	8,117.1	6,985.0	36.7	37.4	-107.02	434.0	1,009.2	708.6	637.8	70.85	10.002	
8,000.0	6,776.9	8,217.1	6,985.0	39.3	39.9	-107.07	434.0	1,109.2	708.8	633.1	75.71	9.363	
8,100.0	6,776.2	8,317.1	6,985.0	41.9	42.5	-107.13	434.0	1,209.2	709.0	628.4	80.62	8.795	
8,200.0	6,775.5	8,417.1	6,985.0	44.5	45.1	-107.18	434.0	1,309.2	709.2	623.6	85.59	8.286	
8,300.0	6,774.9	8,517.1	6,985.0	47.1	47.7	-107.23	434.0	1,409.2	709.4	618.8	90.60	7.830	
8,400.0	6,774.2	8,617.1	6,985.0	49.8	50.3	-107.28	434.0	1,509.2	709.6	614.0	95.64	7.419	
8,500.0	6,773.5	8,717.1	6,985.0	52.4	53.0	-107.33	434.0	1,609.2	709.8	609.1	100.72	7.048	
8,600.0	6,772.9	8,817.1	6,985.0	55.1	55.7	-107.38	434.0	1,709.2	710.0	604.2	105.82	6.710	

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



# Anticollision Report



<b>Company:</b>	PDC ENERGY	<b>Local Co-ordinate Reference:</b>	Well KINZER 28I-202
<b>Project:</b>	WELD COUNTY, COLORADO	<b>TVD Reference:</b>	KB-EST @ 4797.5usft
<b>Reference Site:</b>	SW SW SEC. 28 T5N R67W 6th P.M.	<b>MD Reference:</b>	KB-EST @ 4797.5usft
<b>Site Error:</b>	0.0 usft	<b>North Reference:</b>	True
<b>Reference Well:</b>	KINZER 28I-202	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Well Error:</b>	0.0 usft	<b>Output errors are at</b>	2.00 sigma
<b>Reference Wellbore</b>	ORIGINAL WELLBORE	<b>Database:</b>	EDM 5000.1 Single User Db
<b>Reference Design:</b>	PROPOSAL #1	<b>Offset TVD Reference:</b>	Offset Datum

Offset Design SW SW SEC. 28 T5N R67W 6th P.M. - KINZER 28H-432 - ORIGINAL WELLBORE - PROPOSAL #1													Offset Site Error:	0.0 usft
Survey Program: 0-MWD													Offset Well Error:	0.0 usft
Reference		Offset		Semi Major Axis			Distance							Warning
Measured Depth (usft)	Vertical Depth (usft)	Measured Depth (usft)	Vertical Depth (usft)	Reference (usft)	Offset (usft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (usft)	+E/-W (usft)	Between Centres (usft)	Between Ellipses (usft)	Minimum Separation (usft)	Separation Factor		
8,700.0	6,772.2	8,917.1	6,985.0	57.8	58.3	-107.43	434.0	1,809.2	710.2	599.3	110.94	6.402		
8,800.0	6,771.5	9,017.1	6,985.0	60.5	61.0	-107.49	434.0	1,909.2	710.4	594.3	116.07	6.120		
8,900.0	6,770.9	9,117.1	6,985.0	63.2	63.7	-107.54	434.0	2,009.2	710.6	589.4	121.23	5.862		
9,000.0	6,770.2	9,217.1	6,985.0	65.9	66.4	-107.59	434.0	2,109.2	710.8	584.4	126.39	5.624		
9,100.0	6,769.5	9,317.1	6,985.0	68.7	69.2	-107.64	434.0	2,209.2	711.0	579.5	131.57	5.404		
9,200.0	6,768.9	9,417.1	6,985.0	71.4	71.9	-107.69	434.0	2,309.2	711.2	574.5	136.76	5.201		
9,300.0	6,768.2	9,517.1	6,985.0	74.1	74.6	-107.74	434.0	2,409.2	711.4	569.5	141.95	5.012		
9,400.0	6,767.5	9,617.1	6,985.0	76.9	77.4	-107.79	434.0	2,509.2	711.6	564.5	147.15	4.836		
9,500.0	6,766.8	9,717.1	6,985.0	79.6	80.1	-107.85	434.0	2,609.2	711.8	559.5	152.36	4.672		
9,600.0	6,766.2	9,817.1	6,985.0	82.4	82.9	-107.90	434.0	2,709.2	712.0	554.5	157.57	4.519		
9,700.0	6,765.5	9,917.1	6,985.0	85.2	85.6	-107.95	434.0	2,809.2	712.3	549.5	162.79	4.375		
9,800.0	6,764.8	10,017.1	6,985.0	87.9	88.4	-108.00	434.0	2,909.2	712.5	544.5	168.00	4.241		
9,900.0	6,764.1	10,117.1	6,985.0	90.7	91.1	-108.05	434.0	3,009.2	712.7	539.4	173.23	4.114		
10,000.0	6,763.5	10,217.1	6,985.0	93.4	93.9	-108.10	434.0	3,109.2	712.9	534.4	178.45	3.995		
10,100.0	6,762.8	10,317.1	6,985.0	96.2	96.7	-108.16	434.0	3,209.2	713.1	529.4	183.68	3.882		
10,200.0	6,762.1	10,417.1	6,985.0	99.0	99.4	-108.21	434.0	3,309.2	713.3	524.4	188.91	3.776		
10,300.0	6,761.4	10,517.1	6,985.0	101.8	102.2	-108.26	434.0	3,409.2	713.5	519.4	194.13	3.675		
10,400.0	6,760.8	10,617.1	6,985.0	104.5	105.0	-108.31	434.0	3,509.2	713.7	514.4	199.36	3.580		
10,500.0	6,760.1	10,717.1	6,985.0	107.3	107.7	-108.36	434.0	3,609.2	713.9	509.3	204.59	3.490		
10,600.0	6,759.4	10,817.1	6,985.0	110.1	110.5	-108.41	434.0	3,709.2	714.1	504.3	209.82	3.404		
10,700.0	6,758.7	10,917.1	6,985.0	112.9	113.3	-108.47	434.0	3,809.2	714.4	499.3	215.05	3.322		
10,800.0	6,758.1	11,017.1	6,985.0	115.6	116.1	-108.52	434.0	3,909.2	714.6	494.3	220.28	3.244		
10,900.0	6,757.4	11,117.1	6,985.0	118.4	118.8	-108.57	434.0	4,009.2	714.8	489.3	225.51	3.170		
11,000.0	6,756.7	11,217.1	6,985.0	121.2	121.6	-108.62	434.0	4,109.2	715.0	484.3	230.74	3.099		
11,100.0	6,756.0	11,317.1	6,985.0	124.0	124.4	-108.67	434.0	4,209.2	715.2	479.3	235.97	3.031		
11,200.0	6,755.3	11,417.1	6,985.0	126.8	127.2	-108.72	434.0	4,309.2	715.4	474.2	241.19	2.966		
11,300.0	6,754.7	11,517.1	6,985.0	129.6	130.0	-108.77	434.0	4,409.2	715.7	469.2	246.42	2.904		
11,400.0	6,754.0	11,617.0	6,985.0	132.4	132.8	-108.83	434.0	4,509.2	715.9	464.2	251.64	2.845		
11,500.0	6,753.3	11,717.0	6,985.0	135.1	135.6	-108.88	434.0	4,609.2	716.1	459.2	256.86	2.788		
11,600.0	6,752.6	11,817.0	6,985.0	137.9	138.3	-108.93	434.0	4,709.2	716.3	454.2	262.08	2.733		
11,700.0	6,751.9	11,917.0	6,985.0	140.7	141.1	-108.98	434.0	4,809.2	716.5	449.2	267.30	2.681		
11,800.0	6,751.3	12,016.6	6,985.0	143.5	143.9	-109.03	434.0	4,908.7	716.8	444.3	272.51	2.630		
11,837.2	6,751.0	12,053.8	6,985.0	144.6	144.9	-109.05	434.0	4,945.9	716.9	442.4	274.45	2.612 SF		

# Anticollision Report



<b>Company:</b>	PDC ENERGY	<b>Local Co-ordinate Reference:</b>	Well KINZER 281-202
<b>Project:</b>	WELD COUNTY, COLORADO	<b>TVD Reference:</b>	KB-EST @ 4797.5usft
<b>Reference Site:</b>	SW SW SEC. 28 T5N R67W 6th P.M.	<b>MD Reference:</b>	KB-EST @ 4797.5usft
<b>Site Error:</b>	0.0 usft	<b>North Reference:</b>	True
<b>Reference Well:</b>	KINZER 281-202	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Well Error:</b>	0.0 usft	<b>Output errors are at</b>	2.00 sigma
<b>Reference Wellbore</b>	ORIGINAL WELLBORE	<b>Database:</b>	EDM 5000.1 Single User Db
<b>Reference Design:</b>	PROPOSAL #1	<b>Offset TVD Reference:</b>	Offset Datum

Offset Design												Offset Site Error:	0.0 usft
Survey Program: 0-MWD												Offset Well Error:	0.0 usft
Reference		Offset		Semi Major Axis			Distance						Warning
Measured Depth (usft)	Vertical Depth (usft)	Measured Depth (usft)	Vertical Depth (usft)	Reference (usft)	Offset (usft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (usft)	+E/-W (usft)	Between Centres (usft)	Between Ellipses (usft)	Minimum Separation (usft)	Separation Factor	
0.0	0.0	0.0	0.0	0.0	0.0	-90.03	0.0	-13.9	13.9				
100.0	100.0	100.0	100.0	0.1	0.1	-90.03	0.0	-13.9	13.9	13.7	0.19	71.665	
200.0	200.0	200.0	200.0	0.3	0.3	-90.03	0.0	-13.9	13.9	13.3	0.64	21.637	
300.0	300.0	300.0	300.0	0.5	0.5	-90.03	0.0	-13.9	13.9	12.8	1.09	12.742	
400.0	400.0	400.0	400.0	0.8	0.8	-90.03	0.0	-13.9	13.9	12.4	1.54	9.030	
500.0	500.0	500.0	500.0	1.0	1.0	-90.03	0.0	-13.9	13.9	11.9	1.99	6.993	
600.0	600.0	600.0	600.0	1.2	1.2	-90.03	0.0	-13.9	13.9	11.5	2.44	5.706	
700.0	700.0	700.0	700.0	1.4	1.4	-90.03	0.0	-13.9	13.9	11.0	2.89	4.819	
800.0	800.0	800.0	800.0	1.7	1.7	-90.03	0.0	-13.9	13.9	10.6	3.34	4.170	
900.0	900.0	900.0	900.0	1.9	1.9	-90.03	0.0	-13.9	13.9	10.1	3.79	3.676 CC, ES	
1,000.0	1,000.0	999.5	999.5	2.1	2.1	-88.48	0.4	-15.6	15.6	11.4	4.23	3.694	
1,100.0	1,100.0	1,098.8	1,098.6	2.3	2.3	40.46	1.7	-20.6	19.4	14.7	4.64	4.178	
1,200.0	1,199.8	1,197.8	1,197.3	2.5	2.5	50.61	3.8	-28.9	24.4	19.4	5.03	4.846	
1,300.0	1,299.5	1,296.5	1,295.2	2.7	2.8	61.25	6.7	-40.5	31.5	26.1	5.46	5.774	
1,400.0	1,398.7	1,394.7	1,392.2	3.0	3.1	70.44	10.4	-55.2	41.3	35.3	5.93	6.962	
1,500.0	1,497.5	1,492.3	1,488.1	3.2	3.4	77.69	14.9	-73.1	53.8	47.4	6.46	8.332	
1,502.5	1,500.0	1,494.7	1,490.5	3.2	3.4	77.85	15.1	-73.6	54.2	47.7	6.48	8.369	
1,600.0	1,595.9	1,591.0	1,584.6	3.5	3.7	82.93	20.0	-93.0	68.3	61.2	7.06	9.676	
1,700.0	1,694.4	1,689.7	1,681.2	3.8	4.1	86.32	25.0	-112.9	83.2	75.5	7.70	10.806	
1,800.0	1,792.9	1,788.5	1,777.9	4.2	4.5	88.69	30.0	-132.8	98.2	89.8	8.36	11.746	
1,900.0	1,891.3	1,887.3	1,874.5	4.5	4.9	90.42	35.1	-152.7	113.4	104.3	9.05	12.528	
2,000.0	1,989.8	1,986.1	1,971.1	4.9	5.3	91.74	40.1	-172.6	128.6	118.9	9.76	13.183	
2,100.0	2,088.3	2,084.9	2,067.8	5.2	5.7	92.79	45.1	-192.5	143.9	133.4	10.48	13.735	
2,200.0	2,186.7	2,183.7	2,164.4	5.6	6.1	93.63	50.2	-212.4	159.3	148.0	11.21	14.205	
2,300.0	2,285.2	2,282.5	2,261.0	6.0	6.6	94.33	55.2	-232.4	174.6	162.7	11.95	14.607	
2,400.0	2,383.7	2,381.3	2,357.7	6.4	7.0	94.91	60.2	-252.3	190.0	177.3	12.70	14.955	
2,500.0	2,482.1	2,480.1	2,454.3	6.7	7.4	95.40	65.3	-272.2	205.4	191.9	13.46	15.258	
2,600.0	2,580.6	2,578.9	2,550.9	7.1	7.9	95.83	70.3	-292.1	220.8	206.6	14.22	15.523	
2,700.0	2,679.1	2,677.7	2,647.6	7.5	8.3	96.20	75.3	-312.0	236.2	221.2	14.99	15.757	
2,800.0	2,777.5	2,781.2	2,749.1	7.9	8.7	96.76	80.3	-331.7	250.9	235.2	15.70	15.982	
2,900.0	2,876.0	2,886.2	2,852.7	8.3	9.0	97.91	84.4	-348.0	263.4	247.0	16.39	16.069	
3,000.0	2,974.4	2,991.4	2,957.1	8.7	9.2	99.60	87.6	-360.7	273.7	256.7	17.07	16.034	
3,100.0	3,072.9	3,096.5	3,061.8	9.1	9.5	101.79	89.9	-369.6	282.2	264.5	17.73	15.914	
3,200.0	3,171.4	3,201.2	3,166.3	9.5	9.7	104.48	91.2	-374.8	289.1	270.7	18.36	15.743	
3,300.0	3,269.8	3,304.7	3,269.8	9.9	9.8	107.64	91.6	-376.3	294.8	275.8	18.95	15.558	
3,400.0	3,368.3	3,403.2	3,368.3	10.3	10.0	110.76	91.6	-376.3	300.6	281.1	19.50	15.413	
3,500.0	3,466.8	3,501.7	3,466.8	10.7	10.1	113.77	91.6	-376.3	307.3	287.2	20.03	15.341	
3,580.8	3,546.3	3,581.2	3,546.3	11.0	10.3	116.10	91.6	-376.3	313.3	292.9	20.44	15.331	
3,600.0	3,565.3	3,600.1	3,565.3	11.1	10.3	116.66	91.6	-376.3	314.8	294.3	20.52	15.337	
3,700.0	3,664.1	3,699.0	3,664.1	11.3	10.5	119.16	91.6	-376.3	321.9	301.0	20.93	15.383	
3,800.0	3,763.4	3,798.3	3,763.4	11.6	10.6	121.02	91.6	-376.3	327.7	306.4	21.30	15.387	
3,900.0	3,863.1	3,898.0	3,863.1	11.8	10.8	122.30	91.6	-376.3	332.0	310.4	21.65	15.334	
4,000.0	3,963.0	3,997.9	3,963.0	12.0	11.0	123.01	91.6	-376.3	334.5	312.6	21.99	15.214	
4,083.3	4,046.3	4,081.2	4,046.3	12.1	11.1	0.47	91.6	-376.3	335.2	316.1	19.11	17.540	
4,100.0	4,063.0	4,097.8	4,063.0	12.1	11.1	0.47	91.6	-376.3	335.2	316.0	19.17	17.482	
4,200.0	4,163.0	4,197.8	4,163.0	12.3	11.3	0.47	91.6	-376.3	335.2	315.7	19.55	17.144	
4,300.0	4,263.0	4,297.8	4,263.0	12.4	11.5	0.47	91.6	-376.3	335.2	315.3	19.93	16.817	
4,400.0	4,363.0	4,397.8	4,363.0	12.6	11.7	0.47	91.6	-376.3	335.2	314.9	20.32	16.500	
4,500.0	4,463.0	4,497.8	4,463.0	12.7	11.8	0.47	91.6	-376.3	335.2	314.5	20.70	16.193	
4,600.0	4,563.0	4,597.8	4,563.0	12.9	12.0	0.47	91.6	-376.3	335.2	314.1	21.09	15.895	
4,700.0	4,663.0	4,697.8	4,663.0	13.0	12.2	0.47	91.6	-376.3	335.2	313.7	21.48	15.606	
4,800.0	4,763.0	4,797.8	4,763.0	13.2	12.4	0.47	91.6	-376.3	335.2	313.3	21.87	15.326	

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

# Anticollision Report



<b>Company:</b>	PDC ENERGY	<b>Local Co-ordinate Reference:</b>	Well KINZER 281-202
<b>Project:</b>	WELD COUNTY, COLORADO	<b>TVD Reference:</b>	KB-EST @ 4797.5usft
<b>Reference Site:</b>	SW SW SEC. 28 T5N R67W 6th P.M.	<b>MD Reference:</b>	KB-EST @ 4797.5usft
<b>Site Error:</b>	0.0 usft	<b>North Reference:</b>	True
<b>Reference Well:</b>	KINZER 281-202	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Well Error:</b>	0.0 usft	<b>Output errors are at</b>	2.00 sigma
<b>Reference Wellbore</b>	ORIGINAL WELLBORE	<b>Database:</b>	EDM 5000.1 Single User Db
<b>Reference Design:</b>	PROPOSAL #1	<b>Offset TVD Reference:</b>	Offset Datum

Offset Design												Offset Site Error:	0.0 usft
Survey Program: 0-MWD												Offset Well Error:	0.0 usft
Reference		Offset		Semi Major Axis			Distance						Warning
Measured Depth (usft)	Vertical Depth (usft)	Measured Depth (usft)	Vertical Depth (usft)	Reference (usft)	Offset (usft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (usft)	+E/-W (usft)	Between Centres (usft)	Between Ellipses (usft)	Minimum Separation (usft)	Separation Factor	
4,900.0	4,863.0	4,897.8	4,863.0	13.4	12.6	0.47	91.6	-376.3	335.2	312.9	22.27	15.054	
5,000.0	4,963.0	4,997.8	4,963.0	13.5	12.7	0.47	91.6	-376.3	335.2	312.5	22.66	14.791	
5,100.0	5,063.0	5,097.8	5,063.0	13.7	12.9	0.47	91.6	-376.3	335.2	312.1	23.06	14.535	
5,200.0	5,163.0	5,197.8	5,163.0	13.9	13.1	0.47	91.6	-376.3	335.2	311.7	23.46	14.287	
5,300.0	5,263.0	5,297.8	5,263.0	14.0	13.3	0.47	91.6	-376.3	335.2	311.3	23.86	14.047	
5,400.0	5,363.0	5,397.8	5,363.0	14.2	13.5	0.47	91.6	-376.3	335.2	310.9	24.27	13.813	
5,500.0	5,463.0	5,497.8	5,463.0	14.4	13.7	0.47	91.6	-376.3	335.2	310.5	24.67	13.586	
5,600.0	5,563.0	5,597.8	5,563.0	14.5	13.9	0.47	91.6	-376.3	335.2	310.1	25.08	13.366	
5,700.0	5,663.0	5,697.8	5,663.0	14.7	14.1	0.47	91.6	-376.3	335.2	309.7	25.49	13.152	
5,800.0	5,763.0	5,797.8	5,763.0	14.9	14.3	0.47	91.6	-376.3	335.2	309.3	25.90	12.944	
5,900.0	5,863.0	5,897.8	5,863.0	15.1	14.5	0.47	91.6	-376.3	335.2	308.9	26.31	12.742	
6,000.0	5,963.0	5,997.8	5,963.0	15.2	14.7	0.47	91.6	-376.3	335.2	308.5	26.72	12.545	
6,100.0	6,063.0	6,097.8	6,063.0	15.4	14.9	0.47	91.6	-376.3	335.2	308.1	27.13	12.354	
6,102.8	6,065.8	6,100.7	6,065.8	15.4	14.9	0.47	91.6	-376.3	335.2	308.1	27.14	12.349	
6,150.0	6,112.9	6,147.8	6,112.9	15.5	15.0	-89.79	91.6	-376.3	335.2	305.4	29.76	11.263	
6,165.8	6,128.7	6,163.6	6,128.7	15.5	15.0	-90.00	91.6	-376.3	335.2	305.4	29.81	11.243	
6,200.0	6,162.7	6,197.6	6,162.7	15.5	15.1	-90.64	91.6	-376.3	335.2	305.3	29.93	11.200	
6,250.0	6,211.9	6,247.6	6,212.7	15.6	15.1	-91.73	91.6	-374.2	335.3	305.3	30.06	11.157	
6,300.0	6,260.5	6,298.2	6,262.9	15.6	15.2	-92.82	91.6	-368.6	335.6	305.5	30.14	11.134	
6,350.0	6,308.1	6,349.2	6,313.1	15.6	15.2	-93.89	91.6	-359.3	336.0	305.8	30.19	11.128	
6,400.0	6,354.5	6,400.7	6,362.9	15.6	15.3	-94.95	91.6	-346.3	336.5	306.3	30.21	11.137	
6,450.0	6,399.5	6,452.6	6,412.1	15.6	15.3	-95.98	91.6	-329.7	337.1	306.8	30.21	11.156	
6,500.0	6,442.9	6,505.1	6,460.4	15.5	15.3	-96.99	91.6	-309.3	337.7	307.5	30.20	11.182	
6,550.0	6,484.5	6,558.0	6,507.5	15.5	15.3	-97.96	91.6	-285.2	338.5	308.3	30.21	11.206	
6,600.0	6,524.0	6,611.4	6,553.1	15.5	15.3	-98.89	91.6	-257.4	339.3	309.1	30.24	11.221	
6,650.0	6,561.3	6,665.3	6,596.9	15.6	15.4	-99.78	91.6	-226.0	340.2	309.9	30.32	11.219	
6,700.0	6,596.1	6,719.7	6,638.5	15.6	15.5	-100.62	91.6	-191.0	341.1	310.6	30.49	11.188	
6,750.0	6,628.4	6,774.5	6,677.7	15.7	15.6	-101.40	91.6	-152.7	342.0	311.2	30.76	11.119	
6,800.0	6,658.0	6,829.7	6,714.1	15.9	15.8	-102.12	91.6	-111.2	342.9	311.7	31.16	11.004	
6,850.0	6,684.6	6,885.3	6,747.4	16.2	16.1	-102.78	91.6	-66.7	343.8	312.0	31.72	10.837	
6,900.0	6,708.3	6,941.3	6,777.3	16.5	16.5	-103.37	91.6	-19.5	344.6	312.1	32.46	10.616	
6,950.0	6,728.8	6,997.6	6,803.6	17.0	17.1	-103.89	91.6	30.3	345.3	311.9	33.39	10.343	
7,000.0	6,746.1	7,054.2	6,826.1	17.6	17.7	-104.33	91.6	82.2	346.0	311.5	34.52	10.023	
7,050.0	6,760.0	7,111.0	6,844.4	18.3	18.5	-104.70	91.6	136.0	346.5	310.7	35.85	9.667	
7,100.0	6,770.6	7,168.1	6,858.4	19.1	19.3	-104.98	91.6	191.3	347.0	309.6	37.36	9.288	
7,150.0	6,777.8	7,225.3	6,868.0	19.9	20.3	-105.19	91.6	247.7	347.3	308.3	39.04	8.897	
7,200.0	6,781.5	7,282.6	6,873.1	20.8	21.3	-105.31	91.6	304.8	347.5	306.7	40.86	8.506	
7,232.6	6,782.0	7,320.0	6,874.0	21.4	22.0	-105.35	91.6	342.1	347.6	305.5	42.10	8.256	
7,300.0	6,781.5	7,388.0	6,873.3	22.7	23.3	-105.32	91.6	410.2	347.5	302.9	44.66	7.782	
7,400.0	6,780.9	7,488.0	6,872.4	24.8	25.4	-105.27	91.6	510.1	347.5	298.8	48.69	7.136	
7,500.0	6,780.2	7,588.0	6,871.4	27.0	27.6	-105.22	91.6	610.1	347.4	294.4	52.98	6.557	
7,600.0	6,779.5	7,688.0	6,870.4	29.4	29.9	-105.17	91.6	710.1	347.3	289.8	57.46	6.044	
7,700.0	6,778.9	7,788.0	6,869.4	31.8	32.3	-105.12	91.6	810.1	347.2	285.1	62.10	5.591	
7,800.0	6,778.2	7,888.0	6,868.5	34.2	34.8	-105.07	91.6	910.1	347.1	280.3	66.86	5.192	
7,900.0	6,777.5	7,988.0	6,867.5	36.7	37.3	-105.02	91.6	1,010.1	347.0	275.3	71.72	4.839	
8,000.0	6,776.9	8,088.0	6,866.5	39.3	39.8	-104.97	91.6	1,110.1	347.0	270.3	76.67	4.526	
8,100.0	6,776.2	8,188.0	6,865.5	41.9	42.4	-104.92	91.6	1,210.1	346.9	265.2	81.68	4.247	
8,200.0	6,775.5	8,288.0	6,864.5	44.5	45.0	-104.87	91.6	1,310.1	346.8	260.1	86.74	3.998	
8,300.0	6,774.9	8,388.0	6,863.6	47.1	47.6	-104.82	91.6	1,410.1	346.7	254.9	91.86	3.775	
8,400.0	6,774.2	8,488.0	6,862.6	49.8	50.3	-104.77	91.6	1,510.1	346.6	249.6	97.01	3.573	
8,500.0	6,773.5	8,588.0	6,861.6	52.4	52.9	-104.72	91.6	1,610.1	346.6	244.4	102.19	3.391	
8,513.6	6,773.5	8,601.6	6,861.5	52.8	53.3	-104.72	91.6	1,623.7	346.6	243.7	102.90	3.368	

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

# Anticollision Report



<b>Company:</b>	PDC ENERGY	<b>Local Co-ordinate Reference:</b>	Well KINZER 281-202
<b>Project:</b>	WELD COUNTY, COLORADO	<b>TVD Reference:</b>	KB-EST @ 4797.5usft
<b>Reference Site:</b>	SW SW SEC. 28 T5N R67W 6th P.M.	<b>MD Reference:</b>	KB-EST @ 4797.5usft
<b>Site Error:</b>	0.0 usft	<b>North Reference:</b>	True
<b>Reference Well:</b>	KINZER 281-202	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Well Error:</b>	0.0 usft	<b>Output errors are at</b>	2.00 sigma
<b>Reference Wellbore</b>	ORIGINAL WELLBORE	<b>Database:</b>	EDM 5000.1 Single User Db
<b>Reference Design:</b>	PROPOSAL #1	<b>Offset TVD Reference:</b>	Offset Datum

<b>Offset Design</b> SW SW SEC. 28 T5N R67W 6th P.M. - KINZER 281-312 - ORIGINAL WELLBORE - PROPOSAL #2												<b>Offset Site Error:</b>	0.0 usft
Survey Program: 0-MWD												<b>Offset Well Error:</b>	0.0 usft
Reference		Offset		Semi Major Axis			Distance						
Measured Depth (usft)	Vertical Depth (usft)	Measured Depth (usft)	Vertical Depth (usft)	Reference (usft)	Offset (usft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (usft)	+E/-W (usft)	Between Centres (usft)	Between Ellipses (usft)	Minimum Separation (usft)	Separation Factor	Warning
8,600.0	6,772.9	8,676.9	6,860.7	55.1	55.3	-104.64	92.6	1,699.0	347.7	240.5	107.13	3.245	
8,700.0	6,772.2	8,761.7	6,859.9	57.8	57.6	-104.40	97.3	1,783.7	352.9	240.9	112.03	3.150	
8,800.0	6,771.5	8,845.9	6,859.1	60.5	59.8	-104.03	105.7	1,867.5	362.5	245.5	116.98	3.099	
8,900.0	6,770.9	8,938.6	6,858.2	63.2	62.2	-103.52	118.2	1,959.2	375.6	253.3	122.24	3.072	
9,000.0	6,770.2	9,037.6	6,857.2	65.9	64.9	-102.99	132.0	2,057.3	389.0	261.4	127.69	3.047	
9,100.0	6,769.5	9,136.6	6,856.2	68.7	67.5	-102.50	145.8	2,155.4	402.6	269.4	133.14	3.023	
9,200.0	6,768.9	9,235.6	6,855.3	71.4	70.1	-102.04	159.6	2,253.4	416.1	277.5	138.61	3.002	
9,300.0	6,768.2	9,334.7	6,854.3	74.1	72.8	-101.62	173.4	2,351.5	429.7	285.6	144.08	2.982	
9,400.0	6,767.5	9,433.0	6,853.1	76.9	76.0	-101.19	188.0	2,468.8	441.8	291.7	150.10	2.943	
9,500.0	6,766.8	9,532.4	6,851.8	79.6	79.5	-100.94	195.9	2,598.0	447.8	291.4	156.38	2.863	
9,600.0	6,766.2	9,631.4	6,850.7	82.4	82.6	-100.88	196.6	2,710.0	448.3	286.1	162.15	2.764	
9,700.0	6,765.5	9,730.4	6,849.8	85.2	85.3	-100.84	196.6	2,810.0	448.2	280.6	167.59	2.674	
9,800.0	6,764.8	9,829.6	6,848.7	87.9	88.3	-100.80	196.3	2,917.2	447.9	274.7	173.23	2.586	
9,900.0	6,764.1	10,031.2	6,847.4	90.7	91.9	-100.91	189.8	3,046.6	443.0	263.5	179.41	2.469	
10,000.0	6,763.5	10,154.4	6,846.2	93.4	95.3	-101.22	175.6	3,168.9	431.5	246.2	185.29	2.329	
10,100.0	6,762.8	10,253.4	6,845.3	96.2	98.0	-101.55	161.8	3,267.0	417.8	227.3	190.48	2.193	
10,200.0	6,762.1	10,352.4	6,844.3	99.0	100.7	-101.90	148.1	3,365.0	404.1	208.4	195.65	2.065	
10,300.0	6,761.4	10,451.5	6,843.3	101.8	103.4	-102.28	134.3	3,463.1	390.4	189.6	200.78	1.944	
10,400.0	6,760.8	10,550.5	6,842.4	104.5	106.1	-102.68	120.5	3,561.2	376.7	170.9	205.87	1.830	
10,500.0	6,760.1	10,649.5	6,841.4	107.3	108.9	-103.12	106.7	3,659.2	363.1	152.2	210.92	1.721	
10,600.0	6,759.4	10,746.1	6,840.4	110.1	111.5	-103.57	93.3	3,754.8	349.5	133.7	215.85	1.619	
10,700.0	6,758.7	10,830.7	6,839.6	112.9	113.9	-103.90	84.0	3,838.9	338.8	118.2	220.56	1.536	
10,800.0	6,758.1	10,915.9	6,838.8	115.6	116.3	-104.09	78.4	3,923.9	332.3	106.9	225.39	1.474 Level 3	
10,900.0	6,757.4	11,001.9	6,838.0	118.4	118.6	-104.13	76.6	4,010.0	330.2	99.8	230.39	1.433 Level 3	
11,000.0	6,756.7	11,101.9	6,837.0	121.2	121.4	-104.08	76.6	4,109.9	330.1	94.3	235.84	1.400 Level 3	
11,100.0	6,756.0	11,201.9	6,836.0	124.0	124.2	-104.03	76.6	4,209.9	330.1	88.8	241.30	1.368 Level 3	
11,200.0	6,755.3	11,301.9	6,835.1	126.8	127.0	-103.98	76.6	4,309.9	330.0	83.2	246.76	1.337 Level 3	
11,300.0	6,754.7	11,401.9	6,834.1	129.6	129.8	-103.93	76.6	4,409.9	329.9	77.7	252.22	1.308 Level 3	
11,310.9	6,754.6	11,412.8	6,834.0	129.9	130.1	-103.93	76.6	4,420.8	329.9	77.1	252.82	1.305 Level 3	
11,400.0	6,754.0	11,491.9	6,833.2	132.4	132.3	-103.85	77.7	4,499.9	331.0	73.6	257.46	1.286 Level 3	
11,500.0	6,753.3	11,591.9	6,832.3	135.1	135.1	-103.67	80.8	4,599.8	334.0	71.0	263.05	1.270 Level 3	
11,600.0	6,752.6	11,691.9	6,831.3	137.9	137.8	-103.50	83.9	4,699.7	337.0	68.3	268.64	1.254 Level 3	
11,700.0	6,751.9	11,791.8	6,830.4	140.7	140.6	-103.34	87.0	4,799.6	339.9	65.7	274.24	1.239 Level 2	
11,800.0	6,751.3	11,891.8	6,829.4	143.5	143.4	-103.18	90.1	4,899.5	342.9	63.0	279.85	1.225 Level 2	
11,837.2	6,751.0	11,929.0	6,829.1	144.6	144.4	-103.12	91.3	4,936.7	344.0	62.1	281.93	1.220 Level 2, SF	

# Anticollision Report



<b>Company:</b>	PDC ENERGY	<b>Local Co-ordinate Reference:</b>	Well KINZER 28I-202
<b>Project:</b>	WELD COUNTY, COLORADO	<b>TVD Reference:</b>	KB-EST @ 4797.5usft
<b>Reference Site:</b>	SW SW SEC. 28 T5N R67W 6th P.M.	<b>MD Reference:</b>	KB-EST @ 4797.5usft
<b>Site Error:</b>	0.0 usft	<b>North Reference:</b>	True
<b>Reference Well:</b>	KINZER 28I-202	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Well Error:</b>	0.0 usft	<b>Output errors are at</b>	2.00 sigma
<b>Reference Wellbore</b>	ORIGINAL WELLBORE	<b>Database:</b>	EDM 5000.1 Single User Db
<b>Reference Design:</b>	PROPOSAL #1	<b>Offset TVD Reference:</b>	Offset Datum

Reference Depths are relative to KB-EST @ 4797.5usft

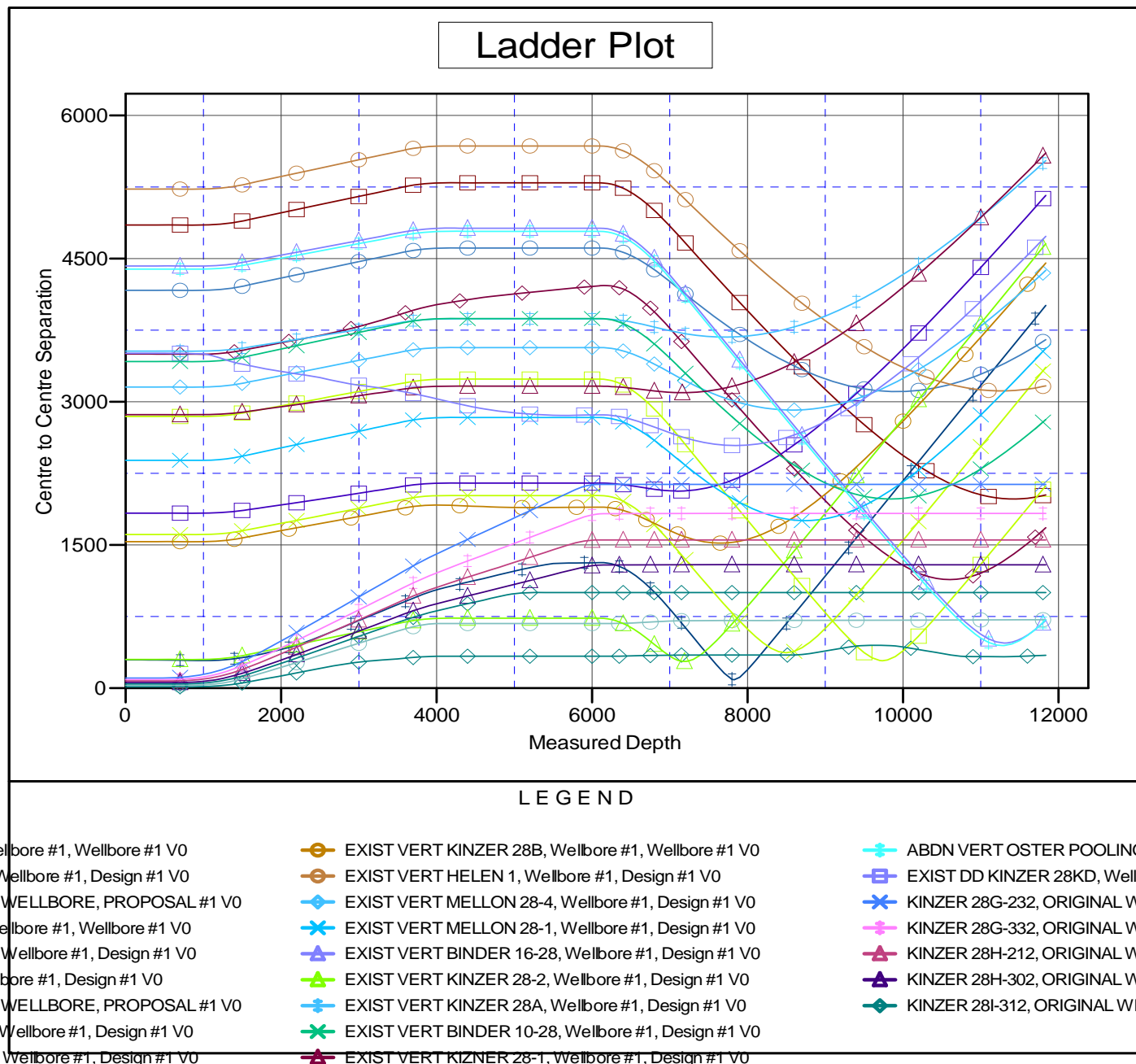
Offset Depths are relative to Offset Datum

Central Meridian is -105.500000

Coordinates are relative to: KINZER 28I-202

Coordinate System is US State Plane 1983, Colorado Northern Zone

Grid Convergence at Surface is: 0.38°



# Anticollision Report

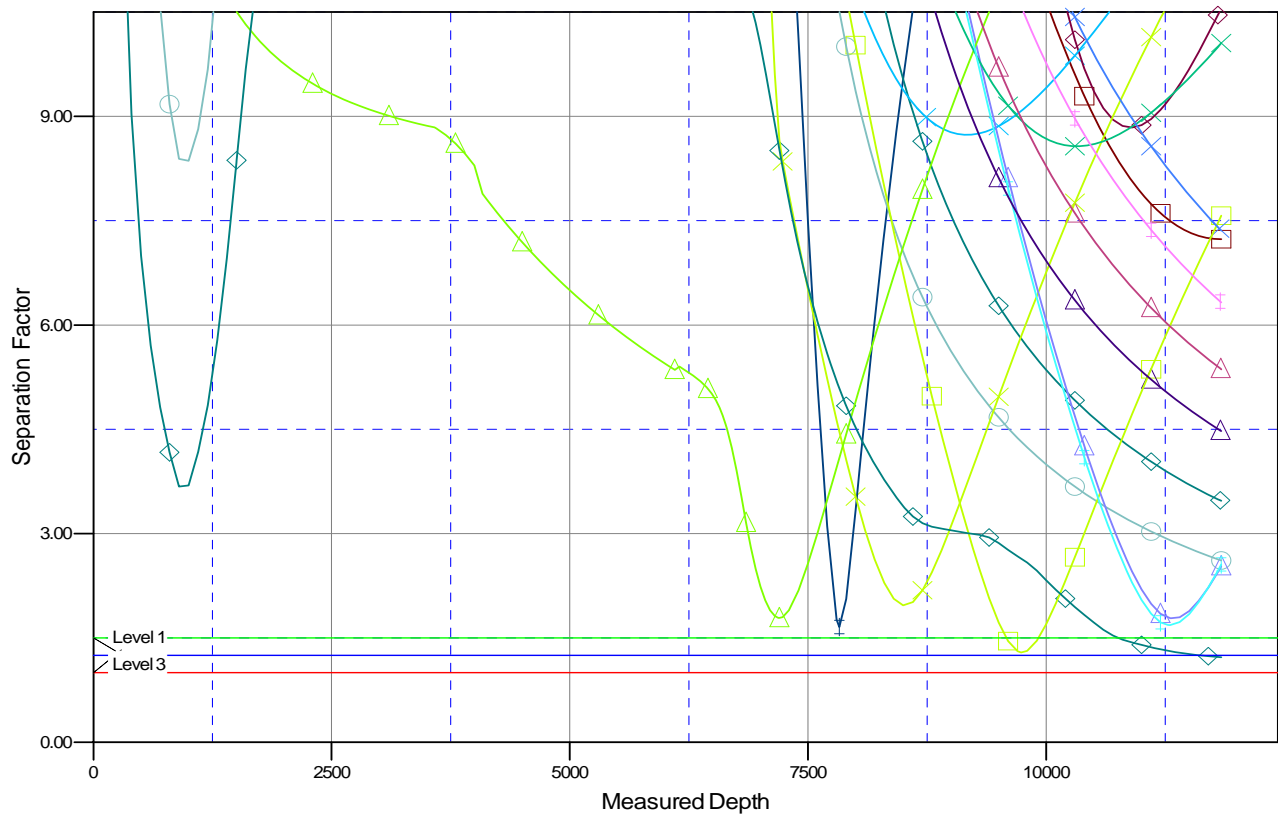


<b>Company:</b>	PDC ENERGY	<b>Local Co-ordinate Reference:</b>	Well KINZER 28I-202
<b>Project:</b>	WELD COUNTY, COLORADO	<b>TVD Reference:</b>	KB-EST @ 4797.5usft
<b>Reference Site:</b>	SW SW SEC. 28 T5N R67W 6th P.M.	<b>MD Reference:</b>	KB-EST @ 4797.5usft
<b>Site Error:</b>	0.0 usft	<b>North Reference:</b>	True
<b>Reference Well:</b>	KINZER 28I-202	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Well Error:</b>	0.0 usft	<b>Output errors are at</b>	2.00 sigma
<b>Reference Wellbore</b>	ORIGINAL WELLBORE	<b>Database:</b>	EDM 5000.1 Single User Db
<b>Reference Design:</b>	PROPOSAL #1	<b>Offset TVD Reference:</b>	Offset Datum

Reference Depths are relative to KB-EST @ 4797.5usft  
Offset Depths are relative to Offset Datum  
Central Meridian is -105.500000

Coordinates are relative to: KINZER 28I-202  
Coordinate System is US State Plane 1983, Colorado Northern Zone  
Grid Convergence at Surface is: 0.38°

## Separation Factor Plot



## LEGEND

Wellbore #1, Wellbore #1 V0	EXIST VERT KINZER 28B, Wellbore #1, Wellbore #1 V0	ABDN VERT OSTER POOLING U
Wellbore #1, Design #1 V0	EXIST VERT HELEN 1, Wellbore #1, Design #1 V0	EXIST DD KINZER 28KD, Wellbor
Wellbore #1, Wellbore #1 V0	EXIST VERT MELLON 28-4, Wellbore #1, Design #1 V0	KINZER 28G-232, ORIGINAL WEL
Wellbore #1, Design #1 V0	EXIST VERT MELLON 28-1, Wellbore #1, Design #1 V0	KINZER 28G-332, ORIGINAL WEL
Wellbore #1, Design #1 V0	EXIST VERT BINDER 16-28, Wellbore #1, Design #1 V0	KINZER 28H-212, ORIGINAL WEL
Wellbore #1, Design #1 V0	EXIST VERT KINZER 28-2, Wellbore #1, Design #1 V0	KINZER 28H-302, ORIGINAL WEL
Wellbore #1, Design #1 V0	EXIST VERT KINZER 28A, Wellbore #1, Design #1 V0	KINZER 28I-312, ORIGINAL WEL
Wellbore #1, Design #1 V0	EXIST VERT BINDER 10-28, Wellbore #1, Design #1 V0	
Wellbore #1, Design #1 V0	EXIST VERT KINZER 28-1, Wellbore #1, Design #1 V0	