

# **PDC ENERGY**

**WELD COUNTY, COLORADO  
NW NE SEC 30 T4N R67W 6th P.M.  
OLSON 30R-243**

**ORIGINAL WELLBORE  
PROPOSAL #2**

## **Anticollision Report**

**26 February, 2016**



# Anticollision Report



<b>Company:</b>	PDC ENERGY	<b>Local Co-ordinate Reference:</b>	Well OLSON 30R-243
<b>Project:</b>	WELD COUNTY, COLORADO	<b>TVD Reference:</b>	KB-EST @ 4990.0usft (Original Well Elev)
<b>Reference Site:</b>	NW NE SEC 30 T4N R67W 6th P.M.	<b>MD Reference:</b>	KB-EST @ 4990.0usft (Original Well Elev)
<b>Site Error:</b>	0.0 usft	<b>North Reference:</b>	True
<b>Reference Well:</b>	OLSON 30R-243	<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 #2	<b>Offset TVD Reference:</b>	Offset Datum

<b>Reference</b>	PROPOSAL #2		
<b>Filter type:</b>	NO GLOBAL FILTER: Using user defined selection & filtering criteria		
<b>Interpolation Method:</b>	MD + Stations Interval 98.4usft	<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> 26/02/2016			
<b>From (usft)</b>	<b>To (usft)</b>	<b>Survey (Wellbore)</b>	<b>Tool Name</b>	<b>Description</b>
0.0	11,668.5	PROPOSAL #2 (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
Offset Well - Wellbore - Design						
NW NE SEC 30 T4N R67W 6th P.M.						
ABDN VERT MCCARTY 30-3 - Wellbore #1 - Wellbore #	11,597.1	6,330.0	829.9	782.1	17.347	CC
ABDN VERT MCCARTY 30-3 - Wellbore #1 - Wellbore #	11,600.0	6,330.0	829.9	782.1	17.338	ES
ABDN VERT MCCARTY 30-3 - Wellbore #1 - Wellbore #	11,668.5	6,330.0	833.0	784.5	17.176	SF
EXIST VERT BROWN 30-2 - Wellbore #1 - Wellbore #1	7,638.6	7,089.5	1,145.8	1,125.3	55.791	CC, ES
EXIST VERT BROWN 30-2 - Wellbore #1 - Wellbore #1	11,023.6	7,092.6	3,574.0	3,504.2	51.215	SF
EXIST VERT BROWN 30-31 - Wellbore #1 - Wellbore #1	7,492.4	7,072.0	89.2	68.4	4.303	CC, ES, SF
EXIST VERT BROWN MCCARTY 30-43 - Wellbore #1 -	10,198.5	7,106.3	1,159.5	1,105.0	21.303	CC
EXIST VERT BROWN MCCARTY 30-43 - Wellbore #1 -	10,236.2	7,106.7	1,160.1	1,105.0	21.051	ES
EXIST VERT BROWN MCCARTY 30-43 - Wellbore #1 -	10,629.9	7,110.6	1,237.1	1,174.9	19.871	SF
EXIST VERT BROWN-MCCARTY 30-5 - Wellbore #1 - V	8,865.4	7,075.2	1,157.7	1,125.5	35.887	CC
EXIST VERT BROWN-MCCARTY 30-5 - Wellbore #1 - V	8,900.0	7,075.3	1,158.2	1,125.5	35.331	ES
EXIST VERT BROWN-MCCARTY 30-5 - Wellbore #1 - V	9,600.0	7,076.5	1,371.1	1,326.8	30.946	SF
EXIST VERT MCCART 30-2 - Wellbore #1 - Wellbore #1	11,504.9	7,136.0	1,172.3	1,094.2	15.021	CC
EXIST VERT MCCART 30-2 - Wellbore #1 - Wellbore #1	11,515.7	7,136.0	1,172.3	1,094.1	14.983	ES
EXIST VERT MCCART 30-2 - Wellbore #1 - Wellbore #1	11,668.5	7,134.9	1,183.6	1,102.5	14.595	SF
EXIST VERT NYGREN 21-30 - Wellbore #1 - Design #1	1,950.0	1,950.0	1,163.9	1,121.6	27.519	CC
EXIST VERT NYGREN 21-30 - Wellbore #1 - Design #1	2,165.3	2,165.1	1,166.2	1,119.2	24.768	ES
EXIST VERT NYGREN 21-30 - Wellbore #1 - Design #1	7,612.3	7,118.5	1,614.8	1,454.6	10.077	SF
EXIST VERT SHULTZ 22-30 - Wellbore #1 - Design #1	1,950.0	1,945.0	1,089.2	1,046.9	25.783	CC
EXIST VERT SHULTZ 22-30 - Wellbore #1 - Design #1	2,000.0	1,995.0	1,089.6	1,046.2	25.132	ES
EXIST VERT SHULTZ 22-30 - Wellbore #1 - Design #1	8,759.8	7,112.3	1,239.2	1,069.1	7.284	SF
EXIST VERT SHULTZ 23-30 - Wellbore #1 - Design #1	9,957.4	7,111.3	1,261.1	1,071.1	6.638	CC
EXIST VERT SHULTZ 23-30 - Wellbore #1 - Design #1	10,000.0	7,111.2	1,261.9	1,071.1	6.615	ES
EXIST VERT SHULTZ 23-30 - Wellbore #1 - Design #1	10,100.0	7,111.0	1,269.2	1,076.6	6.592	SF
EXIST VERT SHULTZ FARM 30-32 - Wellbore #1 - Well	9,106.4	7,085.5	468.8	432.9	13.054	CC, ES
EXIST VERT SHULTZ FARM 30-32 - Wellbore #1 - Well	9,200.0	7,086.0	478.0	440.6	12.770	SF
EXIST VERT SHULTZ FARM 30-33 - Wellbore #1 - Well	10,232.4	7,095.8	135.2	79.8	2.438	CC
EXIST VERT SHULTZ FARM 30-33 - Wellbore #1 - Well	10,236.2	7,095.8	135.3	79.7	2.436	ES, SF
OLSON 30M-223 - ORIGINAL WELLBORE - PROPOSA	1,950.0	1,950.0	30.1	21.7	3.551	CC
OLSON 30M-223 - ORIGINAL WELLBORE - PROPOSA	1,968.5	1,968.5	30.2	21.6	3.520	ES
OLSON 30M-223 - ORIGINAL WELLBORE - PROPOSA	11,668.5	11,655.0	500.2	341.0	3.141	SF
OLSON 30M-323 - ORIGINAL WELLBORE - PROPOSA	1,950.0	1,950.0	15.1	6.6	1.777	CC
OLSON 30M-323 - ORIGINAL WELLBORE - PROPOSA	1,968.5	1,968.5	15.1	6.5	1.762	ES
OLSON 30M-323 - ORIGINAL WELLBORE - PROPOSA	11,668.5	11,747.1	252.6	96.4	1.617	SF
OLSON 30M-403 - ORIGINAL WELLBORE - PROPOSA	1,437.6	1,437.6	44.9	38.8	7.265	CC
OLSON 30M-403 - ORIGINAL WELLBORE - PROPOSA	1,500.0	1,499.8	45.1	38.6	6.970	ES
OLSON 30M-403 - ORIGINAL WELLBORE - PROPOSA	11,668.5	11,849.6	784.0	629.0	5.060	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 OLSON 30R-243
<b>Project:</b>	WELD COUNTY, COLORADO	<b>TVD Reference:</b>	KB-EST @ 4990.0usft (Original Well Elev)
<b>Reference Site:</b>	NW NE SEC 30 T4N R67W 6th P.M.	<b>MD Reference:</b>	KB-EST @ 4990.0usft (Original Well Elev)
<b>Site Error:</b>	0.0 usft	<b>North Reference:</b>	True
<b>Reference Well:</b>	OLSON 30R-243	<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 #2	<b>Offset TVD Reference:</b>	Offset Datum

Summary						
Site Name	Reference Measured Depth (usft)	Offset Measured Depth (usft)	Distance Between Centres (usft)	Between Ellipses (usft)	Separation Factor	Warning
Offset Well - Wellbore - Design						
NW NE SEC 30 T4N R67W 6th P.M.						
OLSON 30R-203 - ORIGINAL WELLBORE - PROPOSA	1,738.1	1,737.1	29.9	22.3	3.963	CC
OLSON 30R-203 - ORIGINAL WELLBORE - PROPOSA	1,771.6	1,770.5	29.9	22.2	3.892	ES
OLSON 30R-203 - ORIGINAL WELLBORE - PROPOSA	11,668.5	11,734.4	490.0	337.5	3.214	SF
OLSON 30R-223 - ORIGINAL WELLBORE - PROPOSA	1,538.2	1,537.2	60.0	53.4	9.041	CC
OLSON 30R-223 - ORIGINAL WELLBORE - PROPOSA	1,574.8	1,573.4	60.1	53.3	8.838	ES
OLSON 30R-223 - ORIGINAL WELLBORE - PROPOSA	11,668.5	11,833.1	979.9	821.9	6.200	SF
OLSON 30R-303 - ORIGINAL WELLBORE - PROPOSA	1,638.2	1,637.2	44.9	37.8	6.341	CC
OLSON 30R-303 - ORIGINAL WELLBORE - PROPOSA	1,673.2	1,672.0	45.0	37.8	6.214	ES
OLSON 30R-303 - ORIGINAL WELLBORE - PROPOSA	11,668.5	11,864.0	737.5	580.1	4.686	SF
OLSON 30R-343 - ORIGINAL WELLBORE - PROPOSA	1,837.4	1,837.4	15.1	7.1	1.888	CC
OLSON 30R-343 - ORIGINAL WELLBORE - PROPOSA	1,870.1	1,870.0	15.1	7.0	1.859	ES
OLSON 30R-343 - ORIGINAL WELLBORE - PROPOSA	11,668.5	11,785.2	252.2	98.1	1.636	SF
OLSON 30U-343 - ORIGINAL WELLBORE - PROPOSA	1,438.3	1,437.3	75.1	68.9	12.134	CC
OLSON 30U-343 - ORIGINAL WELLBORE - PROPOSA	1,476.4	1,474.8	75.2	68.8	11.828	ES
OLSON 30U-343 - ORIGINAL WELLBORE - PROPOSA	11,668.5	12,006.4	1,296.4	1,138.9	8.230	SF
PROP HZ CHANDLER FARMS HD 20-389HN - Wellbore	7,000.0	7,938.3	440.7	403.7	11.904	SF
PROP HZ CHANDLER FARMS HD 20-389HN - Wellbore	7,100.0	7,940.3	418.1	384.4	12.416	ES
PROP HZ CHANDLER FARMS HD 20-389HN - Wellbore	7,111.7	7,940.5	417.8	384.5	12.562	CC

Offset Design		NW NE SEC 30 T4N R67W 6th P.M. - ABDN VERT MCCARTY 30-3 - Wellbore #1 - Wellbore #1										Offset Site Error:		0.0 usft
Survey Program: 100-GYD_CT												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	174.99	-3,762.5	329.8	3,777.0					
98.4	98.4	127.8	127.8	0.1	0.1	175.00	-3,761.9	329.3	3,776.4	3,776.2	0.16	N/A		
100.0	100.0	129.2	129.2	0.1	0.1	175.00	-3,761.9	329.3	3,776.4	3,776.2	0.16	N/A		
196.8	196.8	224.7	224.7	0.3	0.2	175.01	-3,761.4	328.3	3,775.8	3,775.2	0.53	7,099.260		
200.0	200.0	230.1	230.0	0.3	0.2	175.01	-3,761.3	328.2	3,775.8	3,775.2	0.54	6,941.080		
295.3	295.3	358.4	358.3	0.5	0.3	175.05	-3,759.8	325.6	3,774.4	3,773.5	0.87	4,349.686		
300.0	300.0	363.4	363.4	0.5	0.3	175.05	-3,759.7	325.5	3,774.3	3,773.4	0.88	4,278.301		
393.7	393.7	454.5	454.4	0.7	0.4	175.09	-3,758.4	323.1	3,772.7	3,771.6	1.15	3,268.617		
400.0	400.0	460.2	460.1	0.8	0.4	175.09	-3,758.3	323.0	3,772.6	3,771.5	1.17	3,219.100		
492.1	492.1	550.1	550.0	1.0	0.5	175.12	-3,757.1	320.7	3,771.2	3,769.8	1.43	2,634.644		
500.0	500.0	558.2	558.1	1.0	0.5	175.12	-3,757.0	320.5	3,771.1	3,769.6	1.45	2,594.323		
590.5	590.5	645.6	645.5	1.2	0.5	175.15	-3,755.8	318.6	3,769.7	3,768.0	1.70	2,212.669		
600.0	600.0	654.2	654.1	1.2	0.5	175.15	-3,755.7	318.4	3,769.6	3,767.8	1.73	2,179.751		
689.0	689.0	744.4	744.3	1.4	0.6	175.18	-3,754.6	316.4	3,768.3	3,766.4	1.97	1,908.420		
700.0	700.0	757.1	756.9	1.4	0.6	175.19	-3,754.5	316.2	3,768.2	3,766.2	2.01	1,878.874		
787.4	787.4	845.0	844.8	1.6	0.6	175.21	-3,753.2	314.2	3,766.8	3,764.5	2.24	1,678.670		
800.0	800.0	856.4	856.2	1.7	0.6	175.22	-3,753.1	314.0	3,766.6	3,764.3	2.28	1,653.822		
885.8	885.8	934.2	934.0	1.9	0.7	175.24	-3,752.1	312.2	3,765.4	3,762.9	2.51	1,502.733		
900.0	900.0	947.2	947.0	1.9	0.7	175.25	-3,752.0	312.0	3,765.2	3,762.7	2.54	1,480.478		
984.2	984.2	1,025.8	1,025.5	2.1	0.7	175.27	-3,751.2	310.4	3,764.3	3,761.5	2.77	1,360.609		
1,000.0	1,000.0	1,041.0	1,040.7	2.1	0.7	175.27	-3,751.1	310.1	3,764.1	3,761.3	2.81	1,340.286		
1,082.7	1,082.7	1,120.5	1,120.2	2.3	0.7	175.30	-3,750.4	308.5	3,763.2	3,760.2	3.03	1,243.010		
1,100.0	1,100.0	1,136.8	1,136.5	2.3	0.8	175.30	-3,750.2	308.2	3,763.1	3,760.0	3.07	1,224.497		
1,181.1	1,181.1	1,212.5	1,212.2	2.5	0.8	175.32	-3,749.6	307.2	3,762.3	3,759.0	3.29	1,144.877		
1,200.0	1,200.0	1,229.3	1,229.0	2.6	0.8	175.32	-3,749.5	307.0	3,762.2	3,758.8	3.34	1,128.003		
1,279.5	1,279.5	1,300.0	1,299.7	2.7	0.8	175.33	-3,749.1	306.0	3,761.7	3,758.1	3.54	1,062.149		

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 OLSON 30R-243
<b>Project:</b>	WELD COUNTY, COLORADO	<b>TVD Reference:</b>	KB-EST @ 4990.0usft (Original Well Elev)
<b>Reference Site:</b>	NW NE SEC 30 T4N R67W 6th P.M.	<b>MD Reference:</b>	KB-EST @ 4990.0usft (Original Well Elev)
<b>Site Error:</b>	0.0 usft	<b>North Reference:</b>	True
<b>Reference Well:</b>	OLSON 30R-243	<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 #2	<b>Offset TVD Reference:</b>	Offset Datum

Offset Design												Offset Site Error:	0.0 usft
Survey Program: 100-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	
1,300.0	1,300.0	1,321.6	1,321.3	2.8	0.8	175.34	-3,749.0	305.7	3,761.5	3,757.9	3.60	1,046.114	
1,377.9	1,377.9	1,403.9	1,403.5	3.0	0.9	175.36	-3,748.6	304.4	3,761.1	3,757.3	3.80	989.216	
1,400.0	1,400.0	1,428.2	1,427.9	3.0	0.9	175.36	-3,748.5	304.0	3,760.9	3,757.0	3.86	974.128	
1,476.4	1,476.4	1,509.2	1,508.9	3.2	0.9	175.38	-3,747.9	302.7	3,760.3	3,756.2	4.06	925.520	
1,500.0	1,500.0	1,528.6	1,528.3	3.2	0.9	175.39	-3,747.8	302.4	3,760.1	3,755.9	4.12	911.991	
1,574.8	1,574.8	1,590.0	1,589.7	3.4	0.9	175.40	-3,747.5	301.6	3,759.6	3,755.3	4.31	871.681	
1,600.0	1,600.0	1,614.7	1,614.3	3.5	1.0	175.40	-3,747.4	301.3	3,759.5	3,755.2	4.38	858.643	
1,673.2	1,673.2	1,696.9	1,696.6	3.6	1.0	175.42	-3,747.1	300.4	3,759.2	3,754.6	4.57	822.214	
1,700.0	1,700.0	1,724.3	1,723.9	3.7	1.0	175.42	-3,746.9	300.1	3,759.0	3,754.4	4.64	809.777	
1,771.6	1,771.6	1,796.6	1,796.2	3.8	1.0	175.43	-3,746.5	299.2	3,758.5	3,753.7	4.83	778.300	
1,800.0	1,800.0	1,821.0	1,820.6	3.9	1.0	175.44	-3,746.4	298.8	3,758.4	3,753.5	4.90	766.869	
1,870.1	1,870.1	1,880.1	1,879.7	4.1	1.1	175.45	-3,746.2	298.0	3,758.1	3,753.0	5.08	740.139	
1,900.0	1,900.0	1,906.4	1,906.0	4.1	1.1	175.46	-3,746.2	297.7	3,758.0	3,752.9	5.15	729.260	
1,950.0	1,950.0	1,956.8	1,956.4	4.2	1.1	175.47	-3,746.2	297.0	3,758.0	3,752.7	5.28	711.578	
1,955.8	1,955.8	1,962.6	1,962.2	4.3	1.1	147.70	-3,746.2	297.0	3,757.9	3,752.7	5.21	721.513	
1,968.5	1,968.5	1,975.4	1,975.0	4.3	1.1	147.70	-3,746.2	296.8	3,758.0	3,752.7	5.24	717.179	
2,000.0	2,000.0	2,007.3	2,006.9	4.4	1.1	147.71	-3,746.1	296.5	3,758.2	3,752.9	5.32	706.668	
2,066.9	2,066.9	2,075.3	2,074.9	4.5	1.1	147.72	-3,746.1	295.9	3,759.7	3,754.3	5.48	685.481	
2,100.0	2,099.9	2,109.5	2,109.1	4.6	1.1	147.72	-3,746.0	295.7	3,761.0	3,755.4	5.57	675.534	
2,165.3	2,165.1	2,180.4	2,180.0	4.7	1.2	147.73	-3,745.8	295.1	3,764.3	3,758.6	5.73	656.560	
2,200.0	2,199.7	2,216.8	2,216.4	4.8	1.2	147.73	-3,745.7	294.9	3,766.5	3,760.7	5.82	647.055	
2,263.8	2,263.1	2,281.3	2,280.9	4.9	1.2	147.74	-3,745.4	294.3	3,771.5	3,765.6	5.98	630.243	
2,300.0	2,299.1	2,313.7	2,313.3	5.0	1.2	147.74	-3,745.3	294.0	3,774.9	3,768.8	6.08	621.344	
2,362.2	2,360.8	2,361.7	2,361.3	5.2	1.2	147.72	-3,745.2	293.5	3,781.8	3,775.6	6.23	606.791	
2,400.0	2,398.2	2,400.0	2,399.6	5.3	1.2	147.73	-3,745.3	293.1	3,786.7	3,780.3	6.33	598.227	
2,460.6	2,457.9	2,450.6	2,450.2	5.4	1.3	147.71	-3,745.5	292.6	3,795.4	3,788.9	6.49	584.992	
2,500.0	2,496.6	2,491.5	2,491.1	5.5	1.3	147.71	-3,745.6	292.3	3,801.6	3,795.0	6.59	576.607	
2,559.0	2,554.5	2,554.1	2,553.6	5.7	1.3	147.71	-3,745.7	291.8	3,811.7	3,805.0	6.76	564.199	
2,600.0	2,594.4	2,597.4	2,597.0	5.8	1.3	147.71	-3,745.7	291.3	3,819.3	3,812.5	6.87	556.038	
2,657.5	2,650.3	2,643.9	2,643.4	6.0	1.3	147.68	-3,745.7	290.7	3,830.8	3,823.8	7.03	544.551	
2,700.0	2,691.5	2,677.6	2,677.1	6.1	1.3	147.66	-3,745.9	290.3	3,840.1	3,832.9	7.16	536.676	
2,730.9	2,721.3	2,703.2	2,702.8	6.2	1.4	147.64	-3,746.0	289.9	3,847.2	3,839.9	7.25	530.819	
2,755.9	2,745.3	2,735.3	2,734.8	6.3	1.4	147.72	-3,746.2	289.5	3,853.0	3,845.7	7.32	526.147	
2,800.0	2,787.8	2,792.0	2,791.5	6.5	1.4	147.85	-3,746.3	288.6	3,863.2	3,855.7	7.46	517.930	
2,854.3	2,840.1	2,850.7	2,850.3	6.7	1.4	148.00	-3,746.2	287.7	3,875.6	3,868.0	7.63	508.167	
2,900.0	2,884.1	2,898.9	2,898.5	6.9	1.4	148.11	-3,746.1	286.8	3,886.0	3,878.3	7.77	500.236	
2,952.7	2,934.9	2,966.3	2,965.8	7.1	1.4	148.28	-3,745.8	285.4	3,897.9	3,890.0	7.94	491.010	
3,000.0	2,980.4	3,026.6	3,026.1	7.3	1.5	148.42	-3,745.2	284.3	3,908.4	3,900.3	8.09	483.015	
3,051.2	3,029.7	3,091.4	3,090.9	7.5	1.5	148.57	-3,744.4	283.3	3,919.6	3,911.3	8.26	474.481	
3,100.0	3,076.7	3,138.0	3,137.5	7.7	1.5	148.68	-3,743.7	282.7	3,930.2	3,921.7	8.42	466.662	
3,149.6	3,124.5	3,182.8	3,182.3	7.9	1.5	148.78	-3,743.0	282.3	3,940.9	3,932.4	8.59	458.882	
3,200.0	3,173.0	3,222.8	3,222.3	8.1	1.5	148.87	-3,742.5	282.0	3,952.0	3,943.2	8.76	451.266	
3,248.0	3,219.3	3,257.6	3,257.1	8.4	1.5	148.94	-3,742.1	281.8	3,962.6	3,953.7	8.92	444.175	
3,300.0	3,269.4	3,300.0	3,299.5	8.6	1.6	149.03	-3,741.8	281.6	3,974.4	3,965.3	9.10	436.739	
3,346.4	3,314.1	3,325.3	3,324.7	8.8	1.6	149.08	-3,741.7	281.5	3,985.0	3,975.7	9.26	430.519	
3,400.0	3,365.7	3,359.1	3,358.6	9.1	1.6	149.16	-3,741.7	281.3	3,997.4	3,988.0	9.44	423.616	
3,444.9	3,408.9	3,400.0	3,399.5	9.3	1.6	149.24	-3,741.9	281.1	4,008.1	3,998.5	9.59	417.935	
3,500.0	3,462.0	3,427.2	3,426.7	9.5	1.6	149.30	-3,742.1	280.8	4,021.3	4,011.6	9.78	411.356	
3,543.3	3,503.7	3,460.6	3,460.1	9.7	1.6	149.37	-3,742.4	280.4	4,031.9	4,022.0	9.92	406.248	
3,600.0	3,558.3	3,506.0	3,505.5	10.0	1.6	149.48	-3,743.0	279.7	4,045.8	4,035.7	10.12	399.644	
3,641.7	3,598.5	3,551.8	3,551.2	10.2	1.6	149.58	-3,743.6	278.8	4,056.1	4,045.8	10.27	394.967	
3,700.0	3,654.6	3,619.0	3,618.4	10.5	1.6	149.74	-3,744.4	277.0	4,070.4	4,059.9	10.47	388.669	

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 OLSON 30R-243
<b>Project:</b>	WELD COUNTY, COLORADO	<b>TVD Reference:</b>	KB-EST @ 4990.0usft (Original Well Elev)
<b>Reference Site:</b>	NW NE SEC 30 T4N R67W 6th P.M.	<b>MD Reference:</b>	KB-EST @ 4990.0usft (Original Well Elev)
<b>Site Error:</b>	0.0 usft	<b>North Reference:</b>	True
<b>Reference Well:</b>	OLSON 30R-243	<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 #2	<b>Offset TVD Reference:</b>	Offset Datum

Offset Design												Offset Site Error:	0.0 usft
Survey Program: 100-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	
3,740.1	3,693.2	3,672.5	3,671.9	10.7	1.6	149.87	-3,744.8	275.5	4,080.1	4,069.5	10.61	384.437	
3,800.0	3,750.9	3,738.2	3,737.6	11.0	1.7	150.02	-3,745.1	273.5	4,094.4	4,083.6	10.82	378.338	
3,838.6	3,788.0	3,775.7	3,775.1	11.2	1.7	150.11	-3,745.2	272.4	4,103.6	4,092.6	10.96	374.504	
3,900.0	3,847.2	3,833.0	3,832.3	11.5	1.7	150.25	-3,745.4	270.6	4,118.3	4,107.1	11.17	368.572	
3,937.0	3,882.8	3,866.5	3,865.8	11.7	1.7	150.33	-3,745.6	269.5	4,127.1	4,115.8	11.30	365.081	
4,000.0	3,943.5	3,920.2	3,919.5	12.0	1.7	150.45	-3,745.9	267.8	4,142.3	4,130.8	11.53	359.339	
4,035.4	3,977.6	3,947.8	3,947.0	12.2	1.7	150.52	-3,746.1	266.8	4,150.9	4,139.2	11.65	356.197	
4,100.0	4,039.8	4,000.0	3,999.2	12.5	1.8	150.64	-3,746.5	265.0	4,166.7	4,154.8	11.88	350.649	
4,133.8	4,072.4	4,029.7	4,028.9	12.7	1.8	150.71	-3,746.9	263.9	4,175.1	4,163.1	12.00	347.814	
4,200.0	4,136.1	4,092.5	4,091.6	13.0	1.8	150.86	-3,747.5	261.6	4,191.5	4,179.2	12.24	342.429	
4,232.3	4,167.2	4,128.5	4,127.6	13.2	1.8	150.95	-3,747.9	260.2	4,199.4	4,187.1	12.36	339.874	
4,300.0	4,232.4	4,206.7	4,205.7	13.5	1.8	151.14	-3,748.5	257.0	4,216.0	4,203.4	12.60	334.675	
4,330.7	4,262.0	4,237.7	4,236.8	13.7	1.8	151.21	-3,748.7	255.7	4,223.5	4,210.8	12.71	332.384	
4,400.0	4,328.7	4,307.7	4,306.6	14.0	1.9	151.38	-3,749.1	252.6	4,240.4	4,227.5	12.95	327.358	
4,429.1	4,356.8	4,336.4	4,335.4	14.2	1.9	151.45	-3,749.3	251.4	4,247.5	4,234.4	13.06	325.287	
4,500.0	4,425.0	4,406.4	4,405.2	14.6	1.9	151.61	-3,749.6	248.3	4,264.7	4,251.4	13.31	320.393	
4,527.5	4,451.6	4,433.5	4,432.4	14.7	1.9	151.68	-3,749.7	247.2	4,271.4	4,258.0	13.41	318.532	
4,600.0	4,521.4	4,504.8	4,503.5	15.1	1.9	151.84	-3,750.0	244.1	4,289.1	4,275.4	13.67	313.777	
4,626.0	4,546.4	4,529.4	4,528.1	15.2	1.9	151.90	-3,750.1	243.1	4,295.4	4,281.6	13.76	312.111	
4,700.0	4,617.7	4,599.5	4,598.2	15.6	2.0	152.06	-3,750.4	240.1	4,313.5	4,299.4	14.03	307.498	
4,724.4	4,641.2	4,621.8	4,620.5	15.7	2.0	152.11	-3,750.5	239.2	4,319.4	4,305.3	14.12	306.011	
4,800.0	4,714.0	4,691.0	4,689.6	16.1	2.0	152.27	-3,750.8	236.2	4,338.0	4,323.6	14.39	301.534	
4,822.8	4,735.9	4,711.2	4,709.8	16.3	2.0	152.32	-3,750.9	235.3	4,343.6	4,329.1	14.47	300.213	
4,900.0	4,810.3	4,777.8	4,776.3	16.7	2.0	152.47	-3,751.3	232.4	4,362.6	4,347.9	14.75	295.871	
4,921.2	4,830.7	4,800.0	4,798.5	16.8	2.0	152.52	-3,751.4	231.5	4,367.9	4,353.1	14.82	294.696	
5,000.0	4,906.6	4,865.8	4,864.2	17.2	2.1	152.67	-3,752.0	228.5	4,387.6	4,372.5	15.10	290.489	
5,019.7	4,925.5	4,883.2	4,881.6	17.3	2.1	152.71	-3,752.1	227.7	4,392.5	4,377.3	15.17	289.461	
5,100.0	5,002.9	4,963.7	4,962.0	17.7	2.1	152.89	-3,752.8	223.9	4,412.7	4,397.2	15.46	285.365	
5,118.1	5,020.3	4,982.5	4,980.8	17.8	2.1	152.94	-3,752.9	223.0	4,417.2	4,401.7	15.53	284.461	
5,200.0	5,099.2	5,055.4	5,053.6	18.3	2.1	153.10	-3,753.5	219.8	4,437.7	4,421.9	15.82	280.486	
5,216.5	5,115.1	5,069.4	5,067.6	18.3	2.1	153.13	-3,753.7	219.3	4,441.9	4,426.0	15.88	279.702	
5,300.0	5,195.5	5,151.5	5,149.6	18.8	2.1	153.30	-3,754.5	216.3	4,463.0	4,446.8	16.18	275.814	
5,314.9	5,209.9	5,167.7	5,165.8	18.9	2.2	153.33	-3,754.6	215.7	4,466.8	4,450.6	16.24	275.128	
5,400.0	5,291.8	5,263.4	5,261.4	19.3	2.2	153.52	-3,755.3	212.7	4,488.1	4,471.6	16.54	271.322	
5,413.4	5,304.7	5,278.7	5,276.8	19.4	2.2	153.55	-3,755.4	212.2	4,491.5	4,474.9	16.59	270.735	
5,500.0	5,388.1	5,366.5	5,364.6	19.9	2.2	153.72	-3,755.8	209.9	4,513.0	4,496.1	16.90	267.017	
5,511.8	5,399.5	5,378.0	5,376.1	19.9	2.2	153.74	-3,755.8	209.6	4,515.9	4,498.9	16.94	266.521	
5,600.0	5,484.4	5,461.3	5,459.3	20.4	2.3	153.94	-3,756.1	207.1	4,537.7	4,520.4	17.26	262.857	
5,610.2	5,494.3	5,473.9	5,472.0	20.4	2.3	153.96	-3,756.1	206.9	4,540.2	4,522.9	17.30	262.437	
5,700.0	5,580.7	5,560.5	5,560.4	20.9	2.3	154.16	-3,755.7	204.8	4,561.9	4,544.2	17.62	258.830	
5,708.6	5,589.1	5,561.7	5,561.5	21.0	2.3	154.18	-3,755.6	204.6	4,563.9	4,546.3	17.66	258.492	
5,722.6	5,602.5	5,583.7	5,583.6	21.0	2.3	154.21	-3,755.5	204.3	4,567.2	4,549.5	17.71	257.942	
5,800.0	5,677.3	5,656.5	5,656.6	21.4	2.3	154.53	-3,754.5	202.6	4,584.5	4,566.6	17.88	256.421	
5,807.1	5,684.2	5,663.8	5,663.8	21.4	2.3	154.55	-3,754.4	202.5	4,586.0	4,568.1	17.89	256.331	
5,900.0	5,774.7	5,753.0	5,752.9	21.8	2.4	154.84	-3,753.1	200.8	4,603.7	4,585.6	18.04	255.166	
5,905.5	5,780.1	5,759.3	5,759.3	21.8	2.4	154.85	-3,753.0	200.7	4,604.6	4,586.6	18.05	255.109	
6,000.0	5,872.9	5,851.0	5,850.9	22.1	2.4	155.06	-3,752.5	199.7	4,620.4	4,602.2	18.18	254.078	
6,003.9	5,876.7	5,855.0	5,854.9	22.1	2.4	155.07	-3,752.5	199.7	4,621.0	4,602.8	18.19	254.047	
6,100.0	5,971.6	5,949.7	5,949.7	22.4	2.4	155.26	-3,752.3	198.8	4,634.5	4,616.2	18.31	253.065	
6,102.3	5,973.9	5,951.9	5,951.9	22.4	2.4	155.26	-3,752.3	198.8	4,634.8	4,616.4	18.32	253.045	
6,200.0	6,070.8	6,048.0	6,048.0	22.7	2.4	155.42	-3,752.2	198.0	4,645.6	4,627.2	18.43	252.132	
6,200.8	6,071.6	6,049.7	6,049.7	22.7	2.4	155.42	-3,752.2	198.0	4,645.7	4,627.3	18.43	252.126	

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 OLSON 30R-243
<b>Project:</b>	WELD COUNTY, COLORADO	<b>TVD Reference:</b>	KB-EST @ 4990.0usft (Original Well Elev)
<b>Reference Site:</b>	NW NE SEC 30 T4N R67W 6th P.M.	<b>MD Reference:</b>	KB-EST @ 4990.0usft (Original Well Elev)
<b>Site Error:</b>	0.0 usft	<b>North Reference:</b>	True
<b>Reference Well:</b>	OLSON 30R-243	<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 #2	<b>Offset TVD Reference:</b>	Offset Datum

Offset Design NW NE SEC 30 T4N R67W 6th P.M. - ABDN VERT MCCARTY 30-3 - Wellbore #1 - Wellbore #1													Offset Site Error:	0.0 usft
Survey Program: 100-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		
6,299.2	6,169.6	6,154.0	6,152.0	22.9	2.5	155.54	-3,752.4	197.3	4,653.9	4,635.4	18.52	251.239		
6,300.0	6,170.4	6,154.7	6,152.7	22.9	2.5	155.54	-3,752.4	197.3	4,653.9	4,635.4	18.52	251.231		
6,397.6	6,267.9	6,257.4	6,255.4	23.1	2.5	155.61	-3,752.8	196.8	4,659.2	4,640.5	18.62	250.289		
6,400.0	6,270.3	6,260.5	6,258.4	23.1	2.5	155.61	-3,752.8	196.8	4,659.2	4,640.6	18.62	250.261		
6,496.0	6,366.3	6,330.0	6,327.9	23.2	2.5	155.64	-3,752.9	196.6	4,661.2	4,642.5	18.70	249.293		
6,503.5	6,373.8	6,330.0	6,327.9	23.2	2.5	-176.59	-3,752.9	196.6	4,661.2	4,642.5	18.70	249.210		
6,533.5	6,403.8	6,330.0	6,327.9	23.2	2.5	-176.59	-3,752.9	196.6	4,661.6	4,642.9	18.75	248.594		
6,550.0	6,420.3	6,330.0	6,327.9	23.2	2.5	3.41	-3,752.9	196.6	4,661.7	4,643.0	18.74	248.817		
6,594.5	6,464.7	6,330.0	6,327.9	23.3	2.5	3.42	-3,752.9	196.6	4,660.4	4,641.7	18.70	249.201		
6,600.0	6,470.2	6,330.0	6,327.9	23.3	2.5	3.42	-3,752.9	196.6	4,660.1	4,641.4	18.70	249.214		
6,650.0	6,519.8	6,330.0	6,327.9	23.3	2.5	3.44	-3,752.9	196.6	4,655.5	4,636.9	18.68	249.216		
6,692.9	6,561.9	6,330.0	6,327.9	23.2	2.5	3.47	-3,752.9	196.6	4,649.3	4,630.6	18.66	249.176		
6,700.0	6,568.8	6,330.0	6,327.9	23.2	2.5	3.48	-3,752.9	196.6	4,648.0	4,629.4	18.65	249.174		
6,750.0	6,617.0	6,330.0	6,327.9	23.1	2.5	3.53	-3,752.9	196.6	4,637.6	4,619.0	18.60	249.392		
6,791.3	6,656.1	6,330.0	6,327.9	23.0	2.5	3.58	-3,752.9	196.6	4,626.8	4,608.3	18.51	249.922		
6,800.0	6,664.2	6,330.0	6,327.9	23.0	2.5	3.60	-3,752.9	196.6	4,624.3	4,605.8	18.49	250.073		
6,850.0	6,710.1	6,330.0	6,327.9	22.9	2.5	3.68	-3,752.9	196.6	4,608.2	4,589.9	18.33	251.340		
6,889.7	6,745.5	6,330.0	6,327.9	22.7	2.5	3.77	-3,752.9	196.6	4,593.4	4,575.2	18.17	252.816		
6,900.0	6,754.5	6,330.0	6,327.9	22.7	2.5	3.79	-3,752.9	196.6	4,589.3	4,571.2	18.12	253.258		
6,950.0	6,797.2	6,330.0	6,327.9	22.5	2.5	3.92	-3,752.9	196.6	4,567.7	4,549.8	17.85	255.856		
6,988.2	6,828.5	6,330.0	6,327.9	22.3	2.5	4.03	-3,752.9	196.6	4,549.4	4,531.8	17.61	258.297		
7,000.0	6,838.0	6,330.0	6,327.9	22.3	2.5	4.07	-3,752.9	196.6	4,543.4	4,525.9	17.53	259.126		
7,050.0	6,876.7	6,330.0	6,327.9	22.0	2.5	4.26	-3,752.9	196.6	4,516.5	4,499.3	17.17	263.028		
7,086.6	6,903.5	6,330.0	6,327.9	21.8	2.5	4.42	-3,752.9	196.6	4,495.2	4,478.4	16.88	266.235		
7,100.0	6,913.0	6,330.0	6,327.9	21.8	2.5	4.48	-3,752.9	196.6	4,487.1	4,470.4	16.78	267.473		
7,150.0	6,946.9	6,330.0	6,327.9	21.5	2.5	4.74	-3,752.9	196.6	4,455.4	4,439.0	16.36	272.305		
7,185.0	6,969.1	6,330.0	6,327.9	21.3	2.5	4.96	-3,752.9	196.6	4,431.7	4,415.7	16.07	275.786		
7,200.0	6,978.2	6,330.0	6,327.9	21.2	2.5	5.06	-3,752.9	196.6	4,421.3	4,405.3	15.95	277.279		
7,250.0	7,006.6	6,330.0	6,327.9	21.0	2.5	5.45	-3,752.9	196.6	4,385.0	4,369.5	15.55	282.022		
7,283.4	7,024.0	6,330.0	6,327.9	20.8	2.5	5.75	-3,752.9	196.6	4,359.6	4,344.3	15.31	284.802		
7,300.0	7,032.1	6,330.0	6,327.9	20.7	2.5	5.92	-3,752.9	196.6	4,346.7	4,331.5	15.20	286.023		
7,350.0	7,054.6	6,330.0	6,327.9	20.4	2.5	6.51	-3,752.9	196.6	4,306.5	4,291.5	14.92	288.635		
7,381.9	7,067.2	6,330.0	6,327.9	20.3	2.5	6.96	-3,752.9	196.6	4,279.9	4,265.1	14.80	289.221		
7,400.0	7,073.8	6,330.0	6,327.9	20.2	2.5	7.25	-3,752.9	196.6	4,264.4	4,249.7	14.75	289.150		
7,450.0	7,089.9	6,330.0	6,327.9	19.9	2.5	8.22	-3,752.9	196.6	4,220.8	4,206.1	14.71	286.952		
7,480.3	7,097.9	6,330.0	6,327.9	19.8	2.5	8.95	-3,752.9	196.6	4,193.6	4,178.8	14.76	284.107		
7,500.0	7,102.5	6,330.0	6,327.9	19.7	2.5	9.51	-3,752.9	196.6	4,175.7	4,160.8	14.82	281.703		
7,550.0	7,111.8	6,330.0	6,327.9	19.5	2.5	11.31	-3,752.9	196.6	4,129.3	4,114.2	15.10	273.449		
7,578.7	7,115.6	6,330.0	6,327.9	19.4	2.5	12.71	-3,752.9	196.6	4,102.1	4,086.8	15.34	267.435		
7,600.0	7,117.6	6,330.0	6,327.9	19.3	2.5	13.98	-3,752.9	196.6	4,081.8	4,066.2	15.55	262.507		
7,650.0	7,119.9	6,330.0	6,327.9	19.1	2.5	18.28	-3,752.9	196.6	4,033.4	4,017.2	16.20	249.038		
7,660.3	7,120.0	6,330.0	6,327.9	19.1	2.5	19.51	-3,752.9	196.6	4,023.3	4,006.9	16.36	245.907		
7,677.1	7,120.0	6,330.0	6,327.9	19.0	2.5	19.51	-3,752.9	196.6	4,006.8	3,990.4	16.42	244.064		
7,700.0	7,119.9	6,330.0	6,327.9	19.0	2.5	19.51	-3,752.9	196.6	3,984.5	3,968.0	16.49	241.583		
7,775.6	7,119.7	6,330.0	6,327.9	18.8	2.5	19.51	-3,752.9	196.6	3,910.6	3,893.8	16.78	233.012		
7,800.0	7,119.7	6,330.0	6,327.9	18.8	2.5	19.51	-3,752.9	196.6	3,886.7	3,869.8	16.88	230.300		
7,874.0	7,119.5	6,330.0	6,327.9	18.9	2.5	19.51	-3,752.9	196.6	3,814.4	3,797.2	17.21	221.644		
7,900.0	7,119.4	6,330.0	6,327.9	19.0	2.5	19.51	-3,752.9	196.6	3,789.1	3,771.7	17.33	218.679		
7,972.4	7,119.2	6,330.0	6,327.9	19.4	2.5	19.51	-3,752.9	196.6	3,718.4	3,700.7	17.70	210.126		
8,000.0	7,119.2	6,330.0	6,327.9	19.5	2.5	19.51	-3,752.9	196.6	3,691.6	3,673.7	17.84	206.964		
8,070.8	7,119.0	6,330.0	6,327.9	20.1	2.5	19.51	-3,752.9	196.6	3,622.6	3,604.3	18.23	198.666		
8,100.0	7,118.9	6,330.0	6,327.9	20.4	2.5	19.51	-3,752.9	196.6	3,594.2	3,575.8	18.40	195.358		

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 OLSON 30R-243
<b>Project:</b>	WELD COUNTY, COLORADO	<b>TVD Reference:</b>	KB-EST @ 4990.0usft (Original Well Elev)
<b>Reference Site:</b>	NW NE SEC 30 T4N R67W 6th P.M.	<b>MD Reference:</b>	KB-EST @ 4990.0usft (Original Well Elev)
<b>Site Error:</b>	0.0 usft	<b>North Reference:</b>	True
<b>Reference Well:</b>	OLSON 30R-243	<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 #2	<b>Offset TVD Reference:</b>	Offset Datum

Offset Design												Offset Site Error:	0.0 usft
Survey Program: 100-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	
8,169.3	7,118.7	6,330.0	6,327.9	21.1	2.5	19.51	-3,752.9	196.6	3,526.8	3,508.0	18.82	187.418	
8,200.0	7,118.7	6,330.0	6,327.9	21.4	2.5	19.51	-3,752.9	196.6	3,497.0	3,478.0	19.00	184.011	
8,267.7	7,118.5	6,330.0	6,327.9	22.1	2.5	19.51	-3,752.9	196.6	3,431.2	3,411.8	19.44	176.496	
8,300.0	7,118.4	6,330.0	6,327.9	22.5	2.5	19.51	-3,752.9	196.6	3,399.9	3,380.3	19.65	173.031	
8,366.1	7,118.3	6,330.0	6,327.9	23.3	2.5	19.51	-3,752.9	196.6	3,335.8	3,315.7	20.10	165.979	
8,400.0	7,118.2	6,330.0	6,327.9	23.7	2.5	19.51	-3,752.9	196.6	3,303.0	3,282.7	20.33	162.489	
8,464.5	7,118.0	6,330.0	6,327.9	24.5	2.5	19.51	-3,752.9	196.6	3,240.6	3,219.8	20.78	155.915	
8,500.0	7,117.9	6,330.0	6,327.9	25.0	2.5	19.51	-3,752.9	196.6	3,206.3	3,185.3	21.04	152.428	
8,563.0	7,117.8	6,330.0	6,327.9	25.8	2.5	19.51	-3,752.9	196.6	3,145.6	3,124.1	21.50	146.330	
8,600.0	7,117.7	6,330.0	6,327.9	26.3	2.5	19.51	-3,752.9	196.6	3,109.9	3,088.1	21.77	142.867	
8,661.4	7,117.5	6,330.0	6,327.9	27.2	2.5	19.51	-3,752.9	196.6	3,050.7	3,028.5	22.23	137.232	
8,700.0	7,117.4	6,330.0	6,327.9	27.7	2.5	19.51	-3,752.9	196.6	3,013.6	2,991.1	22.52	133.811	
8,759.8	7,117.3	6,330.0	6,327.9	28.6	2.5	19.51	-3,752.9	196.6	2,956.1	2,933.2	22.98	128.619	
8,800.0	7,117.2	6,330.0	6,327.9	29.2	2.5	19.51	-3,752.9	196.6	2,917.6	2,894.3	23.29	125.251	
8,858.2	7,117.0	6,330.0	6,327.9	30.1	2.5	19.51	-3,752.9	196.6	2,861.8	2,838.1	23.75	120.479	
8,900.0	7,116.9	6,330.0	6,327.9	30.7	2.5	19.51	-3,752.9	196.6	2,821.9	2,797.8	24.08	117.173	
8,956.7	7,116.8	6,330.0	6,327.9	31.6	2.5	19.51	-3,752.9	196.6	2,767.8	2,743.2	24.54	112.794	
9,000.0	7,116.7	6,330.0	6,327.9	32.3	2.5	19.51	-3,752.9	196.6	2,726.5	2,701.6	24.89	109.557	
9,055.1	7,116.6	6,330.0	6,327.9	33.2	2.5	19.51	-3,752.9	196.6	2,674.0	2,648.7	25.34	105.544	
9,100.0	7,116.5	6,330.0	6,327.9	33.9	2.5	19.51	-3,752.9	196.6	2,631.4	2,605.7	25.70	102.381	
9,153.5	7,116.3	6,330.0	6,327.9	34.7	2.5	19.51	-3,752.9	196.6	2,580.6	2,554.5	26.14	98.708	
9,200.0	7,116.2	6,330.0	6,327.9	35.5	2.5	19.51	-3,752.9	196.6	2,536.7	2,510.2	26.53	95.621	
9,251.9	7,116.1	6,330.0	6,327.9	36.4	2.5	19.51	-3,752.9	196.6	2,487.6	2,460.7	26.96	92.262	
9,300.0	7,116.0	6,330.0	6,327.9	37.2	2.5	19.51	-3,752.9	196.6	2,442.4	2,415.0	27.36	89.254	
9,350.4	7,115.8	6,330.0	6,327.9	38.0	2.5	19.51	-3,752.9	196.6	2,395.1	2,367.3	27.79	86.184	
9,400.0	7,115.7	6,330.0	6,327.9	38.8	2.5	19.51	-3,752.9	196.6	2,348.6	2,320.4	28.21	83.256	
9,448.8	7,115.6	6,330.0	6,327.9	39.7	2.5	19.51	-3,752.9	196.6	2,303.0	2,274.4	28.63	80.453	
9,500.0	7,115.5	6,330.0	6,327.9	40.5	2.5	19.51	-3,752.9	196.6	2,255.3	2,226.3	29.06	77.604	
9,547.2	7,115.3	6,330.0	6,327.9	41.3	2.5	19.51	-3,752.9	196.6	2,211.5	2,182.0	29.47	75.047	
9,600.0	7,115.2	6,330.0	6,327.9	42.2	2.5	19.51	-3,752.9	196.6	2,162.7	2,132.7	29.92	72.278	
9,645.6	7,115.1	6,330.0	6,327.9	43.0	2.5	19.51	-3,752.9	196.6	2,120.6	2,090.3	30.32	69.948	
9,700.0	7,115.0	6,330.0	6,327.9	44.0	2.5	19.51	-3,752.9	196.6	2,070.7	2,039.9	30.79	67.259	
9,744.1	7,114.8	6,330.0	6,327.9	44.7	2.5	19.51	-3,752.9	196.6	2,030.4	1,999.2	31.17	65.137	
9,800.0	7,114.7	6,330.0	6,327.9	45.7	2.5	19.51	-3,752.9	196.6	1,979.5	1,947.8	31.66	62.527	
9,842.5	7,114.6	6,330.0	6,327.9	46.5	2.5	19.51	-3,752.9	196.6	1,941.0	1,908.9	32.03	60.599	
9,900.0	7,114.5	6,330.0	6,327.9	47.5	2.5	19.51	-3,752.9	196.6	1,889.1	1,856.6	32.53	58.068	
9,940.9	7,114.4	6,330.0	6,327.9	48.2	2.5	19.51	-3,752.9	196.6	1,852.5	1,819.6	32.89	56.317	
10,000.0	7,114.2	6,330.0	6,327.9	49.2	2.5	19.51	-3,752.9	196.6	1,799.8	1,766.4	33.41	53.866	
10,039.3	7,114.1	6,330.0	6,327.9	49.9	2.5	19.51	-3,752.9	196.6	1,765.0	1,731.3	33.76	52.279	
10,100.0	7,114.0	6,330.0	6,327.9	51.0	2.5	19.51	-3,752.9	196.6	1,711.7	1,677.4	34.30	49.908	
10,137.8	7,113.9	6,330.0	6,327.9	51.7	2.5	19.51	-3,752.9	196.6	1,678.8	1,644.2	34.63	48.473	
10,200.0	7,113.7	6,330.0	6,327.9	52.8	2.5	19.51	-3,752.9	196.6	1,625.0	1,589.8	35.19	46.183	
10,236.2	7,113.6	6,330.0	6,327.9	53.4	2.5	19.51	-3,752.9	196.6	1,594.0	1,558.5	35.51	44.890	
10,300.0	7,113.5	6,330.0	6,327.9	54.6	2.5	19.51	-3,752.9	196.6	1,539.9	1,503.8	36.08	42.683	
10,334.6	7,113.4	6,330.0	6,327.9	55.2	2.5	19.51	-3,752.9	196.6	1,510.8	1,474.4	36.39	41.521	
10,400.0	7,113.2	6,330.0	6,327.9	56.4	2.5	19.51	-3,752.9	196.6	1,456.6	1,419.7	36.97	39.399	
10,433.0	7,113.1	6,330.0	6,327.9	57.0	2.5	19.51	-3,752.9	196.6	1,429.6	1,392.3	37.27	38.360	
10,500.0	7,113.0	6,330.0	6,327.9	58.2	2.5	19.51	-3,752.9	196.6	1,375.6	1,337.8	37.87	36.327	
10,531.5	7,112.9	6,330.0	6,327.9	58.8	2.5	19.51	-3,752.9	196.6	1,350.7	1,312.5	38.15	35.403	
10,600.0	7,112.7	6,330.0	6,327.9	60.0	2.5	19.51	-3,752.9	196.6	1,297.3	1,258.5	38.77	33.463	
10,629.9	7,112.6	6,330.0	6,327.9	60.6	2.5	19.51	-3,752.9	196.6	1,274.5	1,235.4	39.04	32.647	
10,700.0	7,112.5	6,330.0	6,327.9	61.9	2.5	19.51	-3,752.9	196.6	1,222.1	1,182.4	39.67	30.807	

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 OLSON 30R-243
<b>Project:</b>	WELD COUNTY, COLORADO	<b>TVD Reference:</b>	KB-EST @ 4990.0usft (Original Well Elev)
<b>Reference Site:</b>	NW NE SEC 30 T4N R67W 6th P.M.	<b>MD Reference:</b>	KB-EST @ 4990.0usft (Original Well Elev)
<b>Site Error:</b>	0.0 usft	<b>North Reference:</b>	True
<b>Reference Well:</b>	OLSON 30R-243	<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 #2	<b>Offset TVD Reference:</b>	Offset Datum

<b>Offset Design</b> NW NE SEC 30 T4N R67W 6th P.M. - ABDN VERT MCCARTY 30-3 - Wellbore #1 - Wellbore #1												<b>Offset Site Error:</b>	0.0 usft
Survey Program: 100-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
10,728.3	7,112.4	6,330.0	6,327.9	62.4	2.5	19.51	-3,752.9	196.6	1,201.5	1,161.5	39.93	30.092	
10,800.0	7,112.2	6,330.0	6,327.9	63.7	2.5	19.51	-3,752.9	196.6	1,150.7	1,110.1	40.57	28.361	
10,826.7	7,112.1	6,330.0	6,327.9	64.2	2.5	19.51	-3,752.9	196.6	1,132.3	1,091.5	40.82	27.742	
10,900.0	7,111.9	6,330.0	6,327.9	65.5	2.5	19.51	-3,752.9	196.6	1,083.8	1,042.4	41.48	26.129	
10,925.2	7,111.9	6,330.0	6,327.9	66.0	2.5	19.51	-3,752.9	196.6	1,067.8	1,026.1	41.71	25.602	
11,000.0	7,111.7	6,330.0	6,327.9	67.4	2.5	19.51	-3,752.9	196.6	1,022.4	980.0	42.39	24.120	
11,023.6	7,111.6	6,330.0	6,327.9	67.8	2.5	19.51	-3,752.9	196.6	1,008.8	966.2	42.60	23.679	
11,100.0	7,111.4	6,330.0	6,327.9	69.2	2.5	19.51	-3,752.9	196.6	967.4	924.1	43.30	22.343	
11,122.0	7,111.4	6,330.0	6,327.9	69.6	2.5	19.51	-3,752.9	196.6	956.3	912.8	43.50	21.984	
11,200.0	7,111.2	6,330.0	6,327.9	71.1	2.5	19.51	-3,752.9	196.6	920.0	875.8	44.21	20.811	
11,220.4	7,111.1	6,330.0	6,327.9	71.4	2.5	19.51	-3,752.9	196.6	911.4	867.0	44.40	20.529	
11,300.0	7,110.9	6,330.0	6,327.9	72.9	2.5	19.51	-3,752.9	196.6	881.5	836.4	45.12	19.536	
11,318.9	7,110.9	6,330.0	6,327.9	73.3	2.5	19.51	-3,752.9	196.6	875.3	830.0	45.29	19.325	
11,400.0	7,110.7	6,330.0	6,327.9	74.8	2.5	19.51	-3,752.9	196.6	853.0	807.0	46.04	18.529	
11,417.3	7,110.6	6,330.0	6,327.9	75.1	2.5	19.51	-3,752.9	196.6	849.2	803.0	46.19	18.383	
11,500.0	7,110.4	6,330.0	6,327.9	76.6	2.5	19.51	-3,752.9	196.6	835.6	788.6	46.95	17.797	
11,515.7	7,110.4	6,330.0	6,327.9	76.9	2.5	19.51	-3,752.9	196.6	833.9	786.8	47.10	17.706	
11,597.1	7,110.2	6,330.0	6,327.9	78.4	2.5	19.51	-3,752.9	196.6	829.9	782.1	47.84	17.347 CC	
11,600.0	7,110.2	6,330.0	6,327.9	78.5	2.5	19.51	-3,752.9	196.6	829.9	782.1	47.87	17.338 ES	
11,614.1	7,110.1	6,330.0	6,327.9	78.7	2.5	19.51	-3,752.9	196.6	830.1	782.1	48.00	17.294	
11,668.5	7,110.0	6,330.0	6,327.9	79.8	2.5	19.51	-3,752.9	196.6	833.0	784.5	48.50	17.176 SF	

# Anticollision Report



<b>Company:</b>	PDC ENERGY	<b>Local Co-ordinate Reference:</b>	Well OLSON 30R-243
<b>Project:</b>	WELD COUNTY, COLORADO	<b>TVD Reference:</b>	KB-EST @ 4990.0usft (Original Well Elev)
<b>Reference Site:</b>	NW NE SEC 30 T4N R67W 6th P.M.	<b>MD Reference:</b>	KB-EST @ 4990.0usft (Original Well Elev)
<b>Site Error:</b>	0.0 usft	<b>North Reference:</b>	True
<b>Reference Well:</b>	OLSON 30R-243	<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 #2	<b>Offset TVD Reference:</b>	Offset Datum

Offset Design												Offset Site Error:	0.0 usft
Survey Program: 100-GYD_CT												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	84.77	155.3	1,697.0	1,704.7				
98.4	98.4	54.7	54.7	0.1	0.0	84.77	155.2	1,697.0	1,704.1	1,704.0	0.12	N/A	
100.0	100.0	56.3	56.3	0.1	0.0	84.77	155.2	1,697.0	1,704.1	1,704.0	0.12	N/A	
171.7	171.7	126.7	126.7	0.2	0.1	84.77	155.2	1,696.9	1,704.0	1,703.7	0.31	5,558.354	
196.8	196.8	149.8	149.8	0.3	0.1	84.77	155.2	1,696.9	1,704.0	1,703.7	0.36	4,686.000	
200.0	200.0	152.7	152.7	0.3	0.1	84.77	155.2	1,696.9	1,704.0	1,703.7	0.37	4,595.745	
295.3	295.3	250.4	250.4	0.5	0.1	84.77	155.5	1,697.1	1,704.2	1,703.6	0.64	2,680.890	
300.0	300.0	255.8	255.8	0.5	0.1	84.76	155.5	1,697.1	1,704.2	1,703.6	0.65	2,615.147	
393.7	393.7	357.7	357.7	0.7	0.2	84.73	156.4	1,696.7	1,703.9	1,702.9	0.99	1,763.766	
400.0	400.0	364.3	364.3	0.8	0.2	84.73	156.5	1,696.7	1,703.9	1,702.9	0.99	1,726.207	
492.1	492.1	455.1	455.1	1.0	0.3	84.69	157.6	1,696.0	1,703.4	1,702.1	1.27	1,340.066	
500.0	500.0	462.6	462.6	1.0	0.3	84.69	157.7	1,696.0	1,703.3	1,702.0	1.29	1,316.094	
590.5	590.5	555.5	555.4	1.2	0.4	84.64	159.2	1,695.4	1,702.9	1,701.4	1.56	1,093.024	
600.0	600.0	565.7	565.7	1.2	0.4	84.63	159.4	1,695.4	1,702.9	1,701.3	1.59	1,074.128	
689.0	689.0	657.1	657.0	1.4	0.4	84.58	160.8	1,694.5	1,702.2	1,700.4	1.84	927.274	
700.0	700.0	668.0	668.0	1.4	0.5	84.57	161.0	1,694.4	1,702.1	1,700.3	1.87	912.064	
787.4	787.4	754.8	754.8	1.6	0.5	84.53	162.3	1,693.7	1,701.5	1,699.4	2.11	808.277	
800.0	800.0	767.3	767.2	1.7	0.5	84.52	162.5	1,693.6	1,701.4	1,699.2	2.14	795.327	
885.8	885.8	853.0	852.9	1.9	0.6	84.46	164.2	1,692.8	1,700.8	1,698.4	2.37	717.526	
900.0	900.0	867.2	867.1	1.9	0.6	84.45	164.5	1,692.7	1,700.7	1,698.3	2.41	706.161	
984.2	984.2	954.8	954.7	2.1	0.6	84.38	166.6	1,691.8	1,700.0	1,697.4	2.63	645.436	
1,000.0	1,000.0	971.6	971.5	2.1	0.6	84.36	167.0	1,691.6	1,699.9	1,697.2	2.68	635.220	
1,082.7	1,082.7	1,060.0	1,059.8	2.3	0.7	84.27	169.5	1,690.3	1,698.9	1,696.0	2.90	586.688	
1,100.0	1,100.0	1,078.5	1,078.4	2.3	0.7	84.25	170.1	1,690.0	1,698.7	1,695.8	2.94	577.454	
1,181.1	1,181.1	1,165.2	1,164.9	2.5	0.7	84.16	172.8	1,688.4	1,697.5	1,694.3	3.16	537.991	
1,200.0	1,200.0	1,185.4	1,185.1	2.6	0.7	84.13	173.4	1,688.0	1,697.1	1,693.9	3.20	529.558	
1,279.5	1,279.5	1,263.5	1,263.2	2.7	0.8	84.04	175.9	1,686.3	1,695.7	1,692.3	3.41	497.262	
1,300.0	1,300.0	1,283.2	1,282.9	2.8	0.8	84.02	176.5	1,685.9	1,695.4	1,691.9	3.46	489.600	
1,377.9	1,377.9	1,359.4	1,359.0	3.0	0.8	83.93	179.0	1,684.5	1,694.1	1,690.5	3.66	462.532	
1,400.0	1,400.0	1,381.0	1,380.6	3.0	0.8	83.91	179.7	1,684.1	1,693.8	1,690.1	3.72	455.413	
1,476.4	1,476.4	1,457.9	1,457.4	3.2	0.8	83.82	182.3	1,682.6	1,692.7	1,688.7	3.91	432.353	
1,500.0	1,500.0	1,481.9	1,481.4	3.2	0.8	83.79	183.1	1,682.1	1,692.3	1,688.3	3.98	425.678	
1,574.8	1,574.8	1,560.3	1,559.7	3.4	0.9	83.69	185.8	1,680.6	1,691.1	1,686.9	4.17	405.817	
1,600.0	1,600.0	1,586.9	1,586.4	3.5	0.9	83.66	186.7	1,680.0	1,690.6	1,686.4	4.23	399.523	
1,673.2	1,673.2	1,663.1	1,662.5	3.6	0.9	83.58	189.0	1,678.2	1,689.2	1,684.8	4.42	382.363	
1,700.0	1,700.0	1,690.8	1,690.2	3.7	0.9	83.55	189.7	1,677.6	1,688.6	1,684.1	4.49	376.446	
1,771.6	1,771.6	1,761.7	1,761.0	3.8	1.0	83.48	191.4	1,675.9	1,687.1	1,682.5	4.67	361.580	
1,800.0	1,800.0	1,789.5	1,788.8	3.9	1.0	83.46	192.1	1,675.2	1,686.6	1,681.8	4.74	356.022	
1,870.1	1,870.1	1,857.0	1,856.3	4.1	1.0	83.40	193.7	1,673.8	1,685.2	1,680.3	4.91	343.047	
1,900.0	1,900.0	1,885.7	1,885.0	4.1	1.0	83.37	194.4	1,673.2	1,684.7	1,679.7	4.99	337.797	
1,950.0	1,950.0	1,934.5	1,933.7	4.2	1.0	83.33	195.5	1,672.2	1,683.8	1,678.7	5.11	329.376	
1,968.5	1,968.5	1,952.6	1,951.9	4.3	1.0	55.56	195.9	1,671.8	1,683.5	1,678.3	5.19	324.572	
2,000.0	2,000.0	1,983.6	1,982.8	4.4	1.1	55.55	196.7	1,671.2	1,682.7	1,677.4	5.27	319.512	
2,066.9	2,066.9	2,049.6	2,048.8	4.5	1.1	55.58	198.3	1,669.9	1,680.5	1,675.1	5.43	309.236	
2,100.0	2,099.9	2,082.2	2,081.4	4.6	1.1	55.62	199.1	1,669.3	1,679.1	1,673.6	5.52	304.330	
2,165.3	2,165.1	2,147.8	2,147.0	4.7	1.1	55.73	200.8	1,668.1	1,675.7	1,670.1	5.68	294.908	
2,200.0	2,199.7	2,182.8	2,182.0	4.8	1.1	55.81	201.8	1,667.4	1,673.6	1,667.8	5.77	290.066	
2,263.8	2,263.1	2,248.1	2,247.2	4.9	1.2	56.00	203.5	1,666.1	1,669.0	1,663.1	5.93	281.264	
2,300.0	2,299.1	2,285.2	2,284.3	5.0	1.2	56.14	204.5	1,665.3	1,666.0	1,660.0	6.03	276.415	
2,362.2	2,360.8	2,348.2	2,347.3	5.2	1.2	56.42	206.1	1,664.0	1,660.2	1,654.1	6.19	268.082	
2,400.0	2,398.2	2,386.3	2,385.3	5.3	1.2	56.61	207.1	1,663.1	1,656.4	1,650.1	6.29	263.174	
2,460.6	2,457.9	2,448.4	2,447.4	5.4	1.2	56.97	208.6	1,661.7	1,649.5	1,643.1	6.47	255.149	

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 OLSON 30R-243
<b>Project:</b>	WELD COUNTY, COLORADO	<b>TVD Reference:</b>	KB-EST @ 4990.0usft (Original Well Elev)
<b>Reference Site:</b>	NW NE SEC 30 T4N R67W 6th P.M.	<b>MD Reference:</b>	KB-EST @ 4990.0usft (Original Well Elev)
<b>Site Error:</b>	0.0 usft	<b>North Reference:</b>	True
<b>Reference Well:</b>	OLSON 30R-243	<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 #2	<b>Offset TVD Reference:</b>	Offset Datum

Offset Design												Offset Site Error:	0.0 usft
Survey Program: 100-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	
2,500.0	2,496.6	2,488.8	2,487.7	5.5	1.2	57.24	209.5	1,660.7	1,644.7	1,638.1	6.58	250.093	
2,559.0	2,554.5	2,546.3	2,545.3	5.7	1.3	57.66	210.7	1,659.4	1,636.9	1,630.2	6.76	242.319	
2,600.0	2,594.4	2,585.7	2,584.6	5.8	1.3	57.99	211.6	1,658.4	1,631.2	1,624.3	6.88	237.117	
2,657.5	2,650.3	2,641.5	2,640.4	6.0	1.3	58.49	212.7	1,657.1	1,622.7	1,615.6	7.07	229.521	
2,700.0	2,691.5	2,682.9	2,681.7	6.1	1.3	58.88	213.6	1,656.1	1,616.1	1,608.9	7.21	224.104	
2,730.9	2,721.3	2,712.3	2,711.1	6.2	1.3	59.19	214.3	1,655.4	1,611.1	1,603.7	7.32	220.066	
2,755.9	2,745.3	2,735.3	2,734.2	6.3	1.3	59.36	214.8	1,654.9	1,607.0	1,599.6	7.41	216.834	
2,800.0	2,787.8	2,776.1	2,774.9	6.5	1.4	59.67	215.6	1,654.0	1,599.9	1,592.3	7.57	211.333	
2,854.3	2,840.1	2,827.0	2,825.8	6.7	1.4	60.07	216.5	1,653.0	1,591.3	1,583.5	7.78	204.604	
2,900.0	2,884.1	2,870.4	2,869.2	6.9	1.4	60.41	217.3	1,652.1	1,584.1	1,576.1	7.95	199.191	
2,952.7	2,934.9	2,921.0	2,919.8	7.1	1.4	60.81	218.2	1,651.1	1,575.9	1,567.7	8.17	192.991	
3,000.0	2,980.4	2,967.0	2,965.7	7.3	1.4	61.18	218.9	1,650.2	1,568.6	1,560.3	8.36	187.674	
3,051.2	3,029.7	3,015.9	3,014.7	7.5	1.4	61.58	219.7	1,649.2	1,560.8	1,552.3	8.58	182.010	
3,100.0	3,076.7	3,061.1	3,059.8	7.7	1.5	61.96	220.2	1,648.3	1,553.5	1,544.7	8.78	176.868	
3,149.6	3,124.5	3,106.6	3,105.3	7.9	1.5	62.36	220.5	1,647.5	1,546.2	1,537.2	9.00	171.761	
3,200.0	3,173.0	3,151.2	3,149.9	8.1	1.5	62.75	220.7	1,646.9	1,539.0	1,529.7	9.22	166.830	
3,248.0	3,219.3	3,193.7	3,192.4	8.4	1.5	63.13	220.8	1,646.3	1,532.3	1,522.8	9.44	162.256	
3,300.0	3,269.4	3,241.4	3,240.1	8.6	1.5	63.56	220.9	1,645.8	1,525.2	1,515.5	9.68	157.520	
3,346.4	3,314.1	3,284.3	3,283.0	8.8	1.5	63.95	221.0	1,645.4	1,519.1	1,509.2	9.90	153.407	
3,400.0	3,365.7	3,335.4	3,334.1	9.1	1.5	64.42	221.1	1,644.9	1,512.1	1,501.9	10.16	148.857	
3,444.9	3,408.9	3,379.0	3,377.7	9.3	1.6	64.82	221.2	1,644.5	1,506.4	1,496.0	10.38	145.150	
3,500.0	3,462.0	3,432.9	3,431.5	9.5	1.6	65.32	221.3	1,644.0	1,499.4	1,488.7	10.65	140.785	
3,543.3	3,503.7	3,475.4	3,474.1	9.7	1.6	65.73	221.3	1,643.6	1,493.9	1,483.1	10.87	137.459	
3,600.0	3,558.3	3,528.4	3,527.1	10.0	1.6	66.23	221.4	1,643.1	1,486.9	1,475.8	11.15	133.328	
3,641.7	3,598.5	3,565.8	3,564.5	10.2	1.6	66.59	221.3	1,642.7	1,481.9	1,470.6	11.36	130.414	
3,700.0	3,654.6	3,617.1	3,615.8	10.5	1.6	67.10	221.1	1,642.4	1,475.2	1,463.6	11.66	126.559	
3,740.1	3,693.2	3,651.3	3,650.0	10.7	1.6	67.44	220.8	1,642.3	1,470.8	1,458.9	11.86	124.042	
3,800.0	3,750.9	3,702.4	3,701.1	11.0	1.6	67.96	220.3	1,642.3	1,464.6	1,452.4	12.16	120.459	
3,838.6	3,788.0	3,738.3	3,736.9	11.2	1.6	68.33	219.9	1,642.4	1,460.7	1,448.4	12.35	118.244	
3,900.0	3,847.2	3,795.3	3,794.0	11.5	1.6	68.91	219.3	1,642.6	1,454.8	1,442.1	12.67	114.862	
3,937.0	3,882.8	3,832.2	3,830.8	11.7	1.6	69.29	218.9	1,642.8	1,451.3	1,438.5	12.86	112.880	
4,000.0	3,943.5	3,895.6	3,894.2	12.0	1.6	69.95	218.3	1,643.0	1,445.5	1,432.3	13.19	109.628	
4,035.4	3,977.6	3,930.8	3,929.4	12.2	1.6	70.32	218.0	1,643.0	1,442.2	1,428.8	13.37	107.847	
4,100.0	4,039.8	3,994.8	3,993.4	12.5	1.6	70.99	217.4	1,643.0	1,436.4	1,422.6	13.72	104.721	
4,133.8	4,072.4	4,028.1	4,026.8	12.7	1.6	71.34	217.1	1,643.0	1,433.3	1,419.4	13.90	103.131	
4,200.0	4,136.1	4,093.1	4,091.8	13.0	1.6	72.04	216.4	1,642.9	1,427.6	1,413.3	14.26	100.139	
4,232.3	4,167.2	4,124.1	4,122.7	13.2	1.6	72.37	216.1	1,642.8	1,424.8	1,410.4	14.43	98.729	
4,300.0	4,232.4	4,188.6	4,187.2	13.5	1.6	73.07	215.4	1,642.7	1,419.2	1,404.4	14.80	95.889	
4,330.7	4,262.0	4,218.3	4,217.0	13.7	1.6	73.39	215.0	1,642.7	1,416.7	1,401.8	14.97	94.643	
4,400.0	4,328.7	4,286.3	4,284.9	14.0	1.6	74.14	214.3	1,642.5	1,411.3	1,395.9	15.35	91.934	
4,429.1	4,356.8	4,314.7	4,313.4	14.2	1.6	74.45	214.0	1,642.4	1,409.1	1,393.6	15.51	90.832	
4,500.0	4,425.0	4,383.7	4,382.3	14.6	1.6	75.21	213.4	1,642.2	1,403.8	1,387.9	15.91	88.246	
4,527.5	4,451.6	4,410.6	4,409.2	14.7	1.6	75.50	213.2	1,642.1	1,401.8	1,385.7	16.06	87.273	
4,600.0	4,521.4	4,481.8	4,480.4	15.1	1.6	76.28	212.8	1,641.8	1,396.7	1,380.2	16.47	84.799	
4,626.0	4,546.4	4,507.2	4,505.9	15.2	1.6	76.56	212.7	1,641.7	1,394.9	1,378.3	16.62	83.939	
4,700.0	4,617.7	4,579.4	4,578.0	15.6	1.6	77.36	212.4	1,641.4	1,390.0	1,372.9	17.04	81.571	
4,724.4	4,641.2	4,603.2	4,601.8	15.7	1.7	77.62	212.3	1,641.3	1,388.4	1,371.2	17.18	80.816	
4,800.0	4,714.0	4,677.1	4,675.7	16.1	1.7	78.44	212.1	1,640.9	1,383.7	1,366.1	17.62	78.550	
4,822.8	4,735.9	4,699.4	4,698.1	16.3	1.7	78.69	212.1	1,640.7	1,382.3	1,364.6	17.75	77.889	
4,900.0	4,810.3	4,773.9	4,772.5	16.7	1.7	79.52	211.9	1,640.3	1,377.8	1,359.6	18.19	75.732	
4,921.2	4,830.7	4,794.4	4,793.0	16.8	1.7	79.74	211.9	1,640.2	1,376.6	1,358.3	18.32	75.159	
5,000.0	4,906.6	4,869.0	4,867.6	17.2	1.7	80.58	211.7	1,639.7	1,372.5	1,353.7	18.77	73.122	

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 OLSON 30R-243
<b>Project:</b>	WELD COUNTY, COLORADO	<b>TVD Reference:</b>	KB-EST @ 4990.0usft (Original Well Elev)
<b>Reference Site:</b>	NW NE SEC 30 T4N R67W 6th P.M.	<b>MD Reference:</b>	KB-EST @ 4990.0usft (Original Well Elev)
<b>Site Error:</b>	0.0 usft	<b>North Reference:</b>	True
<b>Reference Well:</b>	OLSON 30R-243	<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 #2	<b>Offset TVD Reference:</b>	Offset Datum

Offset Design												Offset Site Error:	0.0 usft
Survey Program: 100-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	
5,019.7	4,925.5	4,887.6	4,886.2	17.3	1.7	80.79	211.6	1,639.6	1,371.5	1,352.6	18.88	72.631	
5,100.0	5,002.9	4,963.5	4,962.1	17.7	1.7	81.66	211.3	1,639.2	1,367.8	1,348.4	19.34	70.707	
5,118.1	5,020.3	4,980.6	4,979.2	17.8	1.7	81.85	211.3	1,639.1	1,367.0	1,347.5	19.45	70.290	
5,200.0	5,099.2	5,059.6	5,058.2	18.3	1.8	82.75	211.0	1,638.8	1,363.7	1,343.8	19.92	68.463	
5,216.5	5,115.1	5,075.6	5,074.2	18.3	1.8	82.93	211.0	1,638.7	1,363.1	1,343.1	20.01	68.106	
5,300.0	5,195.5	5,158.1	5,156.7	18.8	1.8	83.87	210.8	1,638.4	1,360.1	1,339.6	20.50	66.357	
5,314.9	5,209.9	5,172.9	5,171.6	18.9	1.8	84.04	210.8	1,638.3	1,359.6	1,339.0	20.58	66.053	
5,400.0	5,291.8	5,257.2	5,255.8	19.3	1.8	85.01	210.7	1,637.7	1,356.8	1,335.7	21.08	64.375	
5,413.4	5,304.7	5,270.4	5,269.0	19.4	1.8	85.16	210.7	1,637.6	1,356.4	1,335.2	21.15	64.119	
5,500.0	5,388.1	5,356.1	5,354.7	19.9	1.8	86.14	210.8	1,637.0	1,353.8	1,332.2	21.66	62.514	
5,511.8	5,399.5	5,367.8	5,366.4	19.9	1.8	86.27	210.8	1,636.8	1,353.5	1,331.8	21.72	62.303	
5,600.0	5,484.4	5,456.9	5,455.5	20.4	1.9	87.30	210.9	1,635.9	1,351.2	1,329.0	22.24	60.769	
5,610.2	5,494.3	5,467.3	5,466.0	20.4	1.9	87.42	210.9	1,635.7	1,350.9	1,328.6	22.29	60.596	
5,700.0	5,580.7	5,556.3	5,554.9	20.9	1.9	88.47	210.8	1,634.4	1,348.8	1,326.0	22.81	59.133	
5,708.6	5,589.1	5,564.7	5,563.3	21.0	1.9	88.57	210.8	1,634.2	1,348.6	1,325.7	22.86	58.997	
5,722.6	5,602.5	5,578.3	5,576.9	21.0	1.9	88.73	210.8	1,634.0	1,348.3	1,325.3	22.94	58.779	
5,800.0	5,677.3	5,651.8	5,650.3	21.4	1.9	89.53	210.5	1,632.7	1,346.8	1,323.5	23.32	57.754	
5,807.1	5,684.2	5,658.4	5,657.0	21.4	1.9	89.60	210.5	1,632.6	1,346.7	1,323.4	23.35	57.679	
5,900.0	5,774.7	5,745.1	5,743.6	21.8	2.0	90.46	210.0	1,631.1	1,345.6	1,321.9	23.72	56.734	
5,905.5	5,780.1	5,750.2	5,748.7	21.8	2.0	90.50	209.9	1,631.1	1,345.5	1,321.8	23.74	56.686	
6,000.0	5,872.9	5,838.8	5,837.4	22.1	2.0	91.27	209.2	1,629.8	1,345.0	1,320.9	24.07	55.876	
6,003.9	5,876.7	5,842.6	5,841.1	22.1	2.0	91.30	209.1	1,629.7	1,345.0	1,320.9	24.08	55.847	
6,100.0	5,971.6	5,934.8	5,933.4	22.4	2.0	91.96	208.3	1,628.7	1,344.9	1,320.5	24.38	55.156	
6,102.3	5,973.9	5,937.1	5,935.6	22.4	2.0	91.98	208.3	1,628.6	1,344.9	1,320.5	24.39	55.142	
6,111.3	5,982.8	5,945.7	5,944.3	22.4	2.0	92.03	208.2	1,628.6	1,344.9	1,320.4	24.41	55.087	
6,200.0	6,070.8	6,032.2	6,030.8	22.7	2.0	92.52	207.6	1,627.8	1,344.9	1,320.3	24.65	54.554	
6,200.8	6,071.6	6,033.0	6,031.5	22.7	2.0	92.52	207.6	1,627.8	1,344.9	1,320.3	24.65	54.550	
6,299.2	6,169.6	6,131.2	6,129.8	22.9	2.0	92.92	207.3	1,627.2	1,345.0	1,320.1	24.88	54.052	
6,300.0	6,170.4	6,132.1	6,130.6	22.9	2.0	92.92	207.3	1,627.2	1,345.0	1,320.1	24.89	54.048	
6,397.6	6,267.9	6,231.0	6,229.5	23.1	2.1	93.16	207.1	1,626.6	1,344.8	1,319.7	25.08	53.630	
6,400.0	6,270.3	6,233.3	6,231.9	23.1	2.1	93.17	207.1	1,626.5	1,344.8	1,319.7	25.08	53.620	
6,496.0	6,366.3	6,330.1	6,328.6	23.2	2.1	93.26	207.0	1,625.9	1,344.4	1,319.2	25.23	53.287	
6,503.5	6,373.8	6,337.7	6,336.2	23.2	2.1	121.03	206.9	1,625.8	1,344.4	1,319.2	25.24	53.260	
6,533.5	6,403.8	6,368.2	6,366.7	23.2	2.1	121.04	206.9	1,625.6	1,344.2	1,318.9	25.29	53.162	
6,550.0	6,420.3	6,385.0	6,383.5	23.2	2.1	-58.98	206.8	1,625.4	1,344.0	1,318.7	25.31	53.107	
6,594.5	6,464.7	6,429.3	6,427.9	23.3	2.1	-59.16	206.7	1,625.0	1,342.5	1,317.2	25.35	52.969	
6,600.0	6,470.2	6,434.8	6,433.3	23.3	2.1	-59.20	206.7	1,625.0	1,342.2	1,316.9	25.35	52.948	
6,650.0	6,519.8	6,483.9	6,482.4	23.3	2.1	-59.66	206.5	1,624.6	1,338.7	1,313.3	25.36	52.788	
6,692.9	6,561.9	6,525.6	6,524.1	23.2	2.2	-60.25	206.4	1,624.2	1,334.3	1,308.9	25.34	52.662	
6,700.0	6,568.8	6,532.5	6,531.0	23.2	2.2	-60.36	206.3	1,624.1	1,333.4	1,308.1	25.33	52.637	
6,750.0	6,617.0	6,580.2	6,578.8	23.1	2.2	-61.31	206.1	1,623.7	1,326.5	1,301.3	25.27	52.501	
6,791.3	6,656.1	6,618.4	6,616.9	23.0	2.2	-62.26	205.8	1,623.3	1,319.7	1,294.5	25.18	52.416	
6,800.0	6,664.2	6,626.2	6,624.7	23.0	2.2	-62.48	205.8	1,623.2	1,318.1	1,293.0	25.16	52.395	
6,850.0	6,710.1	6,670.3	6,668.8	22.9	2.2	-63.86	205.5	1,622.9	1,308.4	1,283.4	25.00	52.333	
6,889.7	6,745.5	6,704.8	6,703.3	22.7	2.2	-65.12	205.4	1,622.8	1,299.8	1,275.0	24.84	52.325	
6,900.0	6,754.5	6,714.1	6,712.6	22.7	2.2	-65.48	205.3	1,622.7	1,297.5	1,272.7	24.80	52.322	
6,950.0	6,797.2	6,758.8	6,757.3	22.5	2.2	-67.35	205.2	1,622.5	1,285.5	1,260.9	24.54	52.372	
6,988.2	6,828.5	6,791.5	6,790.0	22.3	2.2	-68.89	205.1	1,622.3	1,275.7	1,251.4	24.32	52.460	
7,000.0	6,838.0	6,801.3	6,799.8	22.3	2.2	-69.39	205.0	1,622.2	1,272.6	1,248.3	24.24	52.491	
7,050.0	6,876.7	6,840.4	6,838.9	22.0	2.2	-71.54	204.9	1,621.9	1,259.0	1,235.1	23.90	52.679	
7,086.6	6,903.5	6,867.6	6,866.1	21.8	2.2	-73.18	204.8	1,621.7	1,248.9	1,225.2	23.62	52.866	
7,100.0	6,913.0	6,877.2	6,875.7	21.8	2.3	-73.78	204.8	1,621.6	1,245.1	1,221.6	23.52	52.941	

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 OLSON 30R-243
<b>Project:</b>	WELD COUNTY, COLORADO	<b>TVD Reference:</b>	KB-EST @ 4990.0usft (Original Well Elev)
<b>Reference Site:</b>	NW NE SEC 30 T4N R67W 6th P.M.	<b>MD Reference:</b>	KB-EST @ 4990.0usft (Original Well Elev)
<b>Site Error:</b>	0.0 usft	<b>North Reference:</b>	True
<b>Reference Well:</b>	OLSON 30R-243	<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 #2	<b>Offset TVD Reference:</b>	Offset Datum

Offset Design												Offset Site Error:	0.0 usft
Survey Program: 100-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	
7,150.0	6,946.9	6,911.6	6,910.1	21.5	2.3	-76.08	204.7	1,621.3	1,231.1	1,208.0	23.11	53.267	
7,185.0	6,969.1	6,934.1	6,932.6	21.3	2.3	-77.68	204.6	1,621.1	1,221.4	1,198.6	22.82	53.527	
7,200.0	6,978.2	6,943.3	6,941.8	21.2	2.3	-78.37	204.5	1,621.0	1,217.3	1,194.6	22.69	53.644	
7,250.0	7,006.6	6,972.2	6,970.7	21.0	2.3	-80.59	204.4	1,620.8	1,204.0	1,181.7	22.28	54.049	
7,283.4	7,024.0	6,989.9	6,988.4	20.8	2.3	-82.02	204.3	1,620.6	1,195.5	1,173.5	22.01	54.319	
7,300.0	7,032.1	6,998.1	6,996.6	20.7	2.3	-82.71	204.3	1,620.5	1,191.4	1,169.5	21.88	54.455	
7,350.0	7,054.6	7,021.4	7,019.9	20.4	2.3	-84.67	204.2	1,620.3	1,179.9	1,158.4	21.52	54.836	
7,381.9	7,067.2	7,034.6	7,033.1	20.3	2.3	-85.81	204.2	1,620.2	1,173.2	1,151.9	21.31	55.045	
7,400.0	7,073.8	7,041.4	7,039.9	20.2	2.3	-86.42	204.1	1,620.1	1,169.7	1,148.5	21.20	55.165	
7,450.0	7,089.9	7,058.1	7,056.6	19.9	2.3	-87.91	204.1	1,619.9	1,161.0	1,140.1	20.95	55.426	
7,480.3	7,097.9	7,066.5	7,065.0	19.8	2.3	-88.66	204.0	1,619.8	1,156.7	1,135.8	20.83	55.536	
7,500.0	7,102.5	7,071.3	7,069.8	19.7	2.3	-89.10	204.0	1,619.8	1,154.2	1,133.4	20.75	55.613	
7,550.0	7,111.8	7,081.0	7,079.5	19.5	2.3	-89.97	204.0	1,619.7	1,149.3	1,128.7	20.62	55.731	
7,578.7	7,115.6	7,085.0	7,083.5	19.4	2.3	-90.31	204.0	1,619.6	1,147.4	1,126.8	20.58	55.757	
7,600.0	7,117.6	7,087.2	7,085.7	19.3	2.3	-90.49	204.0	1,619.6	1,146.5	1,126.0	20.55	55.790	
7,638.6	7,119.7	7,089.5	7,088.0	19.1	2.3	-90.66	204.0	1,619.6	1,145.8	1,125.3	20.54	55.791 CC, ES	
7,650.0	7,119.9	7,089.7	7,088.2	19.1	2.3	-90.67	204.0	1,619.6	1,145.9	1,125.4	20.54	55.800	
7,660.3	7,120.0	7,089.8	7,088.3	19.1	2.3	-90.66	204.0	1,619.6	1,146.0	1,125.5	20.54	55.797	
7,677.1	7,120.0	7,089.8	7,088.3	19.0	2.3	-90.66	204.0	1,619.6	1,146.5	1,125.9	20.55	55.782	
7,700.0	7,119.9	7,089.8	7,088.3	19.0	2.3	-90.66	204.0	1,619.6	1,147.5	1,126.9	20.57	55.780	
7,775.6	7,119.7	7,089.9	7,088.4	18.8	2.3	-90.67	204.0	1,619.6	1,154.0	1,133.3	20.74	55.648	
7,800.0	7,119.7	7,089.9	7,088.4	18.8	2.3	-90.67	204.0	1,619.6	1,157.2	1,136.4	20.79	55.656	
7,874.0	7,119.5	7,090.0	7,088.5	18.9	2.3	-90.67	204.0	1,619.6	1,169.8	1,148.7	21.10	55.447	
7,900.0	7,119.4	7,090.0	7,088.5	19.0	2.3	-90.67	204.0	1,619.6	1,175.4	1,154.1	21.21	55.426	
7,972.4	7,119.2	7,090.1	7,088.6	19.4	2.3	-90.68	204.0	1,619.6	1,193.6	1,171.9	21.64	55.164	
8,000.0	7,119.2	7,090.1	7,088.6	19.5	2.3	-90.68	204.0	1,619.6	1,201.6	1,179.8	21.80	55.116	
8,070.8	7,119.0	7,090.2	7,088.7	20.1	2.3	-90.68	204.0	1,619.6	1,224.8	1,202.4	22.34	54.825	
8,100.0	7,118.9	7,090.2	7,088.7	20.4	2.3	-90.68	204.0	1,619.6	1,235.4	1,212.8	22.56	54.756	
8,169.3	7,118.7	7,090.3	7,088.8	21.1	2.3	-90.69	204.0	1,619.6	1,262.9	1,239.7	23.19	54.459	
8,200.0	7,118.7	7,090.3	7,088.8	21.4	2.3	-90.69	204.0	1,619.6	1,276.1	1,252.7	23.47	54.375	
8,267.7	7,118.5	7,090.4	7,088.9	22.1	2.3	-90.69	204.0	1,619.6	1,307.3	1,283.2	24.17	54.087	
8,300.0	7,118.4	7,090.4	7,088.9	22.5	2.3	-90.69	204.0	1,619.6	1,323.2	1,298.7	24.51	53.995	
8,366.1	7,118.3	7,090.4	7,088.9	23.3	2.3	-90.69	204.0	1,619.6	1,357.5	1,332.2	25.27	53.727	
8,400.0	7,118.2	7,090.5	7,089.0	23.7	2.3	-90.70	204.0	1,619.6	1,375.9	1,350.3	25.66	53.632	
8,464.5	7,118.0	7,090.5	7,089.0	24.5	2.3	-90.70	204.0	1,619.6	1,412.7	1,386.2	26.46	53.391	
8,500.0	7,117.9	7,090.6	7,089.1	25.0	2.3	-90.70	204.0	1,619.6	1,433.7	1,406.8	26.90	53.296	
8,563.0	7,117.8	7,090.6	7,089.1	25.8	2.3	-90.70	204.0	1,619.6	1,472.4	1,444.7	27.74	53.085	
8,600.0	7,117.7	7,090.6	7,089.1	26.3	2.3	-90.70	204.0	1,619.6	1,496.0	1,467.7	28.23	52.994	
8,661.4	7,117.5	7,090.7	7,089.2	27.2	2.3	-90.71	204.0	1,619.6	1,536.2	1,507.1	29.09	52.811	
8,700.0	7,117.4	7,090.7	7,089.2	27.7	2.3	-90.71	204.0	1,619.5	1,562.1	1,532.5	29.63	52.725	
8,759.8	7,117.3	7,090.8	7,089.3	28.6	2.3	-90.71	204.0	1,619.5	1,603.4	1,572.9	30.50	52.570	
8,800.0	7,117.2	7,090.8	7,089.3	29.2	2.3	-90.71	204.0	1,619.5	1,631.8	1,600.7	31.09	52.491	
8,858.2	7,117.0	7,090.9	7,089.4	30.1	2.3	-90.72	204.0	1,619.5	1,673.7	1,641.8	31.97	52.359	
8,900.0	7,116.9	7,090.9	7,089.4	30.7	2.3	-90.72	204.0	1,619.5	1,704.4	1,671.8	32.60	52.287	
8,956.7	7,116.8	7,091.0	7,089.5	31.6	2.3	-90.72	204.0	1,619.5	1,746.8	1,713.3	33.48	52.177	
9,000.0	7,116.7	7,091.0	7,089.5	32.3	2.3	-90.72	204.0	1,619.5	1,779.7	1,745.5	34.15	52.112	
9,055.1	7,116.6	7,091.0	7,089.5	33.2	2.3	-90.72	204.0	1,619.5	1,822.2	1,787.2	35.03	52.020	
9,100.0	7,116.5	7,091.1	7,089.6	33.9	2.3	-90.73	204.0	1,619.5	1,857.3	1,821.6	35.74	51.962	
9,153.5	7,116.3	7,091.1	7,089.6	34.7	2.3	-90.73	204.0	1,619.5	1,899.7	1,863.1	36.61	51.886	
9,200.0	7,116.2	7,091.2	7,089.7	35.5	2.3	-90.73	204.0	1,619.5	1,937.0	1,899.6	37.37	51.834	
9,251.9	7,116.1	7,091.2	7,089.7	36.4	2.3	-90.73	204.0	1,619.5	1,979.1	1,940.9	38.23	51.771	
9,300.0	7,116.0	7,091.2	7,089.7	37.2	2.3	-90.73	204.0	1,619.5	2,018.5	1,979.5	39.02	51.726	

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 OLSON 30R-243
<b>Project:</b>	WELD COUNTY, COLORADO	<b>TVD Reference:</b>	KB-EST @ 4990.0usft (Original Well Elev)
<b>Reference Site:</b>	NW NE SEC 30 T4N R67W 6th P.M.	<b>MD Reference:</b>	KB-EST @ 4990.0usft (Original Well Elev)
<b>Site Error:</b>	0.0 usft	<b>North Reference:</b>	True
<b>Reference Well:</b>	OLSON 30R-243	<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 #2	<b>Offset TVD Reference:</b>	Offset Datum

<b>Offset Design</b> NW NE SEC 30 T4N R67W 6th P.M. - EXIST VERT BROWN 30-2 - Wellbore #1 - Wellbore #1												<b>Offset Site Error:</b>	0.0 usft
Survey Program: 100-GYD_CT												<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	
9,350.4	7,115.8	7,091.3	7,089.8	38.0	2.3	-90.74	204.0	1,619.5	2,060.2	2,020.3	39.87	51.674	
9,400.0	7,115.7	7,091.3	7,089.8	38.8	2.3	-90.74	204.0	1,619.5	2,101.6	2,060.9	40.70	51.634	
9,448.8	7,115.6	7,091.4	7,089.9	39.7	2.3	-90.74	204.0	1,619.5	2,142.7	2,101.1	41.53	51.591	
9,500.0	7,115.5	7,091.4	7,089.9	40.5	2.3	-90.74	204.0	1,619.5	2,186.1	2,143.7	42.40	51.556	
9,547.2	7,115.3	7,091.5	7,089.9	41.3	2.3	-90.74	204.0	1,619.5	2,226.5	2,183.3	43.21	51.521	
9,600.0	7,115.2	7,091.5	7,090.0	42.2	2.3	-90.74	204.0	1,619.5	2,271.9	2,227.8	44.12	51.491	
9,645.6	7,115.1	7,091.5	7,090.0	43.0	2.3	-90.75	204.0	1,619.5	2,311.4	2,266.5	44.91	51.462	
9,700.0	7,115.0	7,091.6	7,090.1	44.0	2.3	-90.75	204.0	1,619.5	2,358.8	2,312.9	45.86	51.436	
9,744.1	7,114.8	7,091.6	7,090.1	44.7	2.3	-90.75	204.0	1,619.5	2,397.4	2,350.8	46.63	51.413	
9,800.0	7,114.7	7,091.7	7,090.2	45.7	2.3	-90.75	204.0	1,619.5	2,446.7	2,399.0	47.61	51.390	
9,842.5	7,114.6	7,091.7	7,090.2	46.5	2.3	-90.75	204.0	1,619.5	2,484.3	2,435.9	48.36	51.372	
9,900.0	7,114.5	7,091.7	7,090.2	47.5	2.3	-90.76	204.0	1,619.5	2,535.4	2,486.1	49.37	51.352	
9,940.9	7,114.4	7,091.8	7,090.3	48.2	2.3	-90.76	204.0	1,619.5	2,572.0	2,521.9	50.10	51.337	
10,000.0	7,114.2	7,091.8	7,090.3	49.2	2.3	-90.76	204.0	1,619.5	2,625.0	2,573.9	51.15	51.321	
10,039.3	7,114.1	7,091.9	7,090.3	49.9	2.3	-90.76	204.0	1,619.5	2,660.5	2,608.6	51.85	51.309	
10,100.0	7,114.0	7,091.9	7,090.4	51.0	2.3	-90.76	204.0	1,619.5	2,715.4	2,662.4	52.94	51.295	
10,137.8	7,113.9	7,091.9	7,090.4	51.7	2.3	-90.77	204.0	1,619.5	2,749.7	2,696.0	53.61	51.286	
10,200.0	7,113.7	7,092.0	7,090.5	52.8	2.3	-90.77	204.0	1,619.5	2,806.3	2,751.6	54.73	51.274	
10,236.2	7,113.6	7,092.0	7,090.5	53.4	2.3	-90.77	204.0	1,619.5	2,839.4	2,784.0	55.39	51.267	
10,300.0	7,113.5	7,092.1	7,090.6	54.6	2.3	-90.77	204.0	1,619.5	2,897.9	2,841.4	56.54	51.257	
10,334.6	7,113.4	7,092.1	7,090.6	55.2	2.3	-90.77	204.0	1,619.5	2,929.7	2,872.6	57.16	51.251	
10,400.0	7,113.2	7,092.1	7,090.6	56.4	2.3	-90.77	204.0	1,619.5	2,990.0	2,931.7	58.35	51.244	
10,433.0	7,113.1	7,092.2	7,090.7	57.0	2.3	-90.78	204.0	1,619.5	3,020.6	2,961.6	58.95	51.240	
10,500.0	7,113.0	7,092.2	7,090.7	58.2	2.3	-90.78	204.0	1,619.5	3,082.6	3,022.5	60.17	51.234	
10,531.5	7,112.9	7,092.2	7,090.7	58.8	2.3	-90.78	204.0	1,619.5	3,111.9	3,051.1	60.74	51.230	
10,600.0	7,112.7	7,092.3	7,090.8	60.0	2.3	-90.78	204.0	1,619.5	3,175.7	3,113.7	61.99	51.226	
10,629.9	7,112.6	7,092.3	7,090.8	60.6	2.3	-90.78	204.0	1,619.5	3,203.6	3,141.0	62.54	51.224	
10,700.0	7,112.5	7,092.4	7,090.9	61.9	2.3	-90.79	204.0	1,619.5	3,269.1	3,205.3	63.82	51.221	
10,728.3	7,112.4	7,092.4	7,090.9	62.4	2.3	-90.79	204.0	1,619.5	3,295.7	3,231.3	64.35	51.219	
10,800.0	7,112.2	7,092.5	7,090.9	63.7	2.3	-90.79	204.0	1,619.5	3,363.0	3,297.3	65.66	51.217	
10,826.7	7,112.1	7,092.5	7,091.0	64.2	2.3	-90.79	204.0	1,619.5	3,388.1	3,322.0	66.15	51.216	
10,900.0	7,111.9	7,092.5	7,091.0	65.5	2.3	-90.79	204.0	1,619.5	3,457.2	3,389.7	67.50	51.215	
10,925.2	7,111.9	7,092.5	7,091.0	66.0	2.3	-90.79	204.0	1,619.5	3,480.9	3,413.0	67.97	51.215	
11,000.0	7,111.7	7,092.6	7,091.1	67.4	2.3	-90.80	204.0	1,619.5	3,551.7	3,482.3	69.35	51.215	
11,023.6	7,111.6	7,092.6	7,091.1	67.8	2.3	-90.80	204.0	1,619.5	3,574.0	3,504.2	69.79	51.215 SF	
11,100.0	7,111.4	7,092.7	7,091.2	69.2	2.3	-90.80	203.9	1,619.5	3,646.5	3,575.3	71.20	51.215	
11,122.0	7,111.4	7,092.7	7,091.2	69.6	2.3	-90.80	203.9	1,619.5	3,667.4	3,595.8	71.61	51.216	
11,200.0	7,111.2	7,092.8	7,091.3	71.1	2.3	-90.80	203.9	1,619.5	3,741.5	3,668.5	73.05	51.217	
11,220.4	7,111.1	7,092.8	7,091.3	71.4	2.3	-90.80	203.9	1,619.5	3,761.0	3,687.6	73.43	51.218	
11,300.0	7,110.9	7,092.8	7,091.3	72.9	2.3	-90.81	203.9	1,619.5	3,836.9	3,761.9	74.91	51.220	
11,318.9	7,110.9	7,092.8	7,091.3	73.3	2.3	-90.81	203.9	1,619.5	3,854.9	3,779.6	75.26	51.220	
11,400.0	7,110.7	7,092.9	7,091.4	74.8	2.3	-90.81	203.9	1,619.5	3,932.4	3,855.6	76.77	51.223	
11,417.3	7,110.6	7,092.9	7,091.4	75.1	2.3	-90.81	203.9	1,619.5	3,949.0	3,871.9	77.09	51.224	
11,500.0	7,110.4	7,093.0	7,091.5	76.6	2.3	-90.81	203.9	1,619.5	4,028.2	3,949.5	78.63	51.228	
11,515.7	7,110.4	7,093.0	7,091.5	76.9	2.3	-90.81	203.9	1,619.5	4,043.2	3,964.3	78.93	51.228	
11,600.0	7,110.2	7,093.1	7,091.6	78.5	2.3	-90.82	203.9	1,619.5	4,124.1	4,043.6	80.50	51.232	
11,614.1	7,110.1	7,093.1	7,091.6	78.7	2.3	-90.82	203.9	1,619.5	4,137.7	4,057.0	80.76	51.233	
11,668.5	7,110.0	7,093.1	7,091.6	79.8	2.3	-90.82	203.9	1,619.5	4,190.0	4,108.2	81.78	51.236	

# Anticollision Report



<b>Company:</b>	PDC ENERGY	<b>Local Co-ordinate Reference:</b>	Well OLSON 30R-243
<b>Project:</b>	WELD COUNTY, COLORADO	<b>TVD Reference:</b>	KB-EST @ 4990.0usft (Original Well Elev)
<b>Reference Site:</b>	NW NE SEC 30 T4N R67W 6th P.M.	<b>MD Reference:</b>	KB-EST @ 4990.0usft (Original Well Elev)
<b>Site Error:</b>	0.0 usft	<b>North Reference:</b>	True
<b>Reference Well:</b>	OLSON 30R-243	<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 #2	<b>Offset TVD Reference:</b>	Offset Datum

Offset Design												Offset Site Error:	0.0 usft
Survey Program: 100-GYD_CT												Offset Well Error:	0.0 usft
Measured Depth (usft)	Vertical Depth (usft)	Measured Depth (usft)	Vertical Depth (usft)	Reference (usft)	Offset (usft)	Semi Major Axis 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	49.67	407.3	479.8	630.1				
98.4	98.4	75.9	75.9	0.1	0.0	49.70	406.8	479.7	629.0	628.9	0.13	4,850.829	
100.0	100.0	77.6	77.6	0.1	0.0	49.70	406.8	479.6	629.0	628.8	0.13	4,748.030	
196.8	196.8	178.4	178.4	0.3	0.2	49.78	405.1	478.9	627.4	626.9	0.49	1,279.241	
200.0	200.0	181.7	181.6	0.3	0.2	49.78	405.0	478.9	627.3	626.8	0.50	1,247.700	
295.3	295.3	281.1	281.1	0.5	0.3	49.87	402.9	477.9	625.3	624.4	0.82	761.076	
300.0	300.0	286.1	286.0	0.5	0.3	49.88	402.7	477.9	625.1	624.3	0.84	747.127	
393.7	393.7	383.1	383.0	0.7	0.4	50.01	399.9	476.7	622.5	621.4	1.12	554.630	
400.0	400.0	389.6	389.5	0.8	0.4	50.02	399.7	476.6	622.3	621.1	1.14	545.209	
492.1	492.1	480.8	480.7	1.0	0.4	50.18	396.5	475.5	619.4	618.0	1.41	440.132	
500.0	500.0	488.6	488.4	1.0	0.4	50.19	396.2	475.5	619.2	617.8	1.43	433.009	
590.5	590.5	579.4	579.2	1.2	0.5	50.38	392.9	474.7	616.5	614.8	1.69	365.707	
600.0	600.0	588.9	588.7	1.2	0.5	50.40	392.6	474.6	616.2	614.5	1.71	359.853	
689.0	689.0	677.3	677.0	1.4	0.5	50.58	389.4	473.8	613.5	611.6	1.96	313.125	
700.0	700.0	688.2	687.9	1.4	0.6	50.61	389.0	473.7	613.2	611.2	1.99	308.156	
787.4	787.4	774.2	773.9	1.6	0.6	50.79	386.0	473.1	610.8	608.5	2.23	273.966	
800.0	800.0	786.6	786.3	1.7	0.6	50.81	385.6	473.0	610.4	608.2	2.26	269.648	
885.8	885.8	871.9	871.5	1.9	0.6	50.97	382.9	472.3	608.2	605.7	2.50	243.532	
900.0	900.0	886.0	885.6	1.9	0.7	50.99	382.4	472.2	607.8	605.3	2.54	239.687	
984.2	984.2	969.7	969.2	2.1	0.7	51.14	379.9	471.5	605.7	602.9	2.76	219.140	
1,000.0	1,000.0	985.3	984.8	2.1	0.7	51.17	379.4	471.4	605.3	602.5	2.81	215.676	
1,082.7	1,082.7	1,067.9	1,067.4	2.3	0.7	51.32	377.0	470.8	603.3	600.3	3.03	199.135	
1,100.0	1,100.0	1,085.3	1,084.7	2.3	0.7	51.35	376.4	470.7	602.9	599.8	3.08	195.974	
1,181.1	1,181.1	1,165.7	1,165.1	2.5	0.8	51.48	374.1	470.0	600.9	597.6	3.29	182.443	
1,200.0	1,200.0	1,184.4	1,183.8	2.6	0.8	51.51	373.6	469.9	600.5	597.1	3.34	179.550	
1,279.5	1,279.5	1,261.6	1,261.0	2.7	0.8	51.62	371.7	469.3	598.8	595.2	3.56	168.398	
1,300.0	1,300.0	1,281.3	1,280.7	2.8	0.8	51.65	371.2	469.2	598.4	594.8	3.61	165.759	
1,377.9	1,377.9	1,358.5	1,357.9	3.0	0.9	51.73	369.8	468.7	597.1	593.3	3.82	156.426	
1,400.0	1,400.0	1,380.5	1,379.9	3.0	0.9	51.74	369.4	468.5	596.7	592.9	3.88	153.967	
1,476.4	1,476.4	1,457.1	1,456.5	3.2	0.9	51.79	368.3	467.8	595.5	591.4	4.08	145.999	
1,500.0	1,500.0	1,480.8	1,480.2	3.2	0.9	51.80	368.0	467.5	595.1	590.9	4.14	143.690	
1,574.8	1,574.8	1,556.1	1,555.5	3.4	0.9	51.81	367.0	466.6	593.7	589.4	4.34	136.856	
1,600.0	1,600.0	1,581.5	1,580.8	3.5	0.9	51.81	366.7	466.2	593.3	588.9	4.40	134.693	
1,673.2	1,673.2	1,655.2	1,654.6	3.6	1.0	51.78	366.1	465.0	591.9	587.3	4.60	128.811	
1,700.0	1,700.0	1,682.2	1,681.6	3.7	1.0	51.76	366.0	464.4	591.4	586.7	4.66	126.784	
1,771.6	1,771.6	1,754.0	1,753.3	3.8	1.0	51.68	365.7	462.8	590.0	585.1	4.85	121.697	
1,800.0	1,800.0	1,782.4	1,781.7	3.9	1.0	51.64	365.7	462.1	589.4	584.5	4.92	119.796	
1,870.1	1,870.1	1,851.9	1,851.1	4.1	1.0	51.53	365.8	460.3	588.1	583.0	5.10	115.368	
1,900.0	1,900.0	1,881.4	1,880.7	4.1	1.0	51.48	365.8	459.6	587.5	582.3	5.17	113.579	
1,950.0	1,950.0	1,930.6	1,929.9	4.2	1.1	51.40	365.9	458.4	586.6	581.3	5.30	110.721	
1,968.5	1,968.5	1,948.8	1,948.0	4.3	1.1	23.61	365.9	458.0	586.3	580.9	5.33	109.976	
2,000.0	2,000.0	1,979.6	1,978.9	4.4	1.1	23.59	366.0	457.3	585.4	580.0	5.41	108.166	
2,066.9	2,066.9	2,045.5	2,044.7	4.5	1.1	23.60	366.1	456.1	582.7	577.1	5.58	104.351	
2,100.0	2,099.9	2,078.0	2,077.2	4.6	1.1	23.64	366.1	455.5	580.8	575.2	5.67	102.469	
2,165.3	2,165.1	2,142.9	2,142.2	4.7	1.1	23.78	366.1	454.5	576.2	570.4	5.84	98.739	
2,200.0	2,199.7	2,177.5	2,176.7	4.8	1.1	23.87	366.2	453.9	573.2	567.3	5.92	96.757	
2,263.8	2,263.1	2,241.4	2,240.6	4.9	1.1	24.11	366.3	452.8	566.7	560.6	6.09	93.060	
2,300.0	2,299.1	2,277.8	2,277.0	5.0	1.2	24.29	366.2	452.2	562.4	556.2	6.18	90.968	
2,362.2	2,360.8	2,339.8	2,339.0	5.2	1.2	24.66	366.1	451.1	554.0	547.6	6.35	87.303	
2,400.0	2,398.2	2,377.4	2,376.6	5.3	1.2	24.92	366.0	450.5	548.3	541.8	6.44	85.084	
2,460.6	2,457.9	2,437.2	2,436.3	5.4	1.2	25.41	365.8	449.5	538.1	531.5	6.61	81.467	
2,500.0	2,496.6	2,475.8	2,474.9	5.5	1.2	25.77	365.7	448.8	531.0	524.3	6.71	79.142	

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 OLSON 30R-243
<b>Project:</b>	WELD COUNTY, COLORADO	<b>TVD Reference:</b>	KB-EST @ 4990.0usft (Original Well Elev)
<b>Reference Site:</b>	NW NE SEC 30 T4N R67W 6th P.M.	<b>MD Reference:</b>	KB-EST @ 4990.0usft (Original Well Elev)
<b>Site Error:</b>	0.0 usft	<b>North Reference:</b>	True
<b>Reference Well:</b>	OLSON 30R-243	<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 #2	<b>Offset TVD Reference:</b>	Offset Datum

<b>Offset Design</b> NW NE SEC 30 T4N R67W 6th P.M. - EXIST VERT BROWN 30-31 - Wellbore #1 - Wellbore #1												<b>Offset Site Error:</b>	0.0 usft
Survey Program: 100-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
2,559.0	2,554.5	2,533.7	2,532.8	5.7	1.2	26.39	365.5	447.8	519.4	512.5	6.87	75.585	
2,600.0	2,594.4	2,573.8	2,572.9	5.8	1.3	26.88	365.4	447.1	510.7	503.7	6.98	73.145	
2,657.5	2,650.3	2,629.7	2,628.8	6.0	1.3	27.65	365.2	446.0	497.7	490.5	7.15	69.628	
2,700.0	2,691.5	2,670.8	2,669.9	6.1	1.3	28.30	365.1	445.3	487.4	480.2	7.27	67.078	
2,730.9	2,721.3	2,700.6	2,699.7	6.2	1.3	28.80	365.0	444.7	479.7	472.3	7.36	65.190	
2,755.9	2,745.3	2,725.4	2,724.6	6.3	1.3	29.18	364.9	444.2	473.3	465.8	7.44	63.652	
2,800.0	2,787.8	2,769.3	2,768.5	6.5	1.3	29.88	364.6	443.3	461.9	454.4	7.57	61.004	
2,854.3	2,840.1	2,822.6	2,821.7	6.7	1.3	30.78	364.2	442.0	447.9	440.1	7.75	57.806	
2,900.0	2,884.1	2,866.5	2,865.6	6.9	1.4	31.56	363.9	440.8	436.1	428.2	7.90	55.221	
2,952.7	2,934.9	2,917.4	2,916.4	7.1	1.4	32.52	363.4	439.5	422.5	414.5	8.08	52.312	
3,000.0	2,980.4	2,963.1	2,962.2	7.3	1.4	33.43	363.1	438.2	410.5	402.2	8.24	49.813	
3,051.2	3,029.7	3,012.6	3,011.7	7.5	1.4	34.48	362.6	436.8	397.4	389.0	8.43	47.172	
3,100.0	3,076.7	3,059.8	3,058.8	7.7	1.4	35.54	362.1	435.4	385.1	376.4	8.60	44.749	
3,149.6	3,124.5	3,107.7	3,106.7	7.9	1.4	36.70	361.6	434.0	372.6	363.8	8.80	42.355	
3,200.0	3,173.0	3,156.5	3,155.5	8.1	1.5	37.96	361.1	432.4	360.0	351.0	9.00	40.016	
3,248.0	3,219.3	3,203.1	3,202.0	8.4	1.5	39.24	360.5	430.9	348.0	338.8	9.19	37.852	
3,300.0	3,269.4	3,254.3	3,253.2	8.6	1.5	40.75	359.8	429.0	335.1	325.7	9.42	35.586	
3,346.4	3,314.1	3,300.0	3,298.8	8.8	1.5	42.18	359.3	427.0	323.6	314.0	9.63	33.615	
3,400.0	3,365.7	3,350.0	3,348.8	9.1	1.5	43.88	358.6	425.0	310.5	300.7	9.87	31.461	
3,444.9	3,408.9	3,391.9	3,390.6	9.3	1.5	45.43	357.9	423.4	300.0	289.9	10.09	29.742	
3,500.0	3,462.0	3,443.5	3,442.2	9.5	1.6	47.52	357.0	421.6	287.5	277.1	10.36	27.758	
3,543.3	3,503.7	3,484.1	3,482.8	9.7	1.6	49.29	356.3	420.4	278.1	267.5	10.58	26.284	
3,600.0	3,558.3	3,537.3	3,536.0	10.0	1.6	51.79	355.3	418.9	266.4	255.5	10.88	24.479	
3,641.7	3,598.5	3,576.5	3,575.1	10.2	1.6	53.75	354.8	417.9	258.3	247.2	11.12	23.236	
3,700.0	3,654.6	3,632.0	3,630.6	10.5	1.6	56.70	354.0	416.7	247.7	236.2	11.45	21.625	
3,740.1	3,693.2	3,670.5	3,669.1	10.7	1.6	58.89	353.5	415.8	240.8	229.1	11.70	20.587	
3,800.0	3,750.9	3,727.9	3,726.5	11.0	1.7	62.37	352.7	414.4	231.2	219.1	12.06	19.160	
3,838.6	3,788.0	3,764.8	3,763.4	11.2	1.7	64.75	352.2	413.5	225.4	213.1	12.31	18.317	
3,900.0	3,847.2	3,823.7	3,822.2	11.5	1.7	68.77	351.5	412.1	217.2	204.5	12.70	17.106	
3,937.0	3,882.8	3,859.1	3,857.6	11.7	1.7	71.32	351.0	411.2	212.8	199.9	12.93	16.455	
4,000.0	3,943.5	3,919.3	3,917.8	12.0	1.7	75.87	350.2	409.7	206.5	193.1	13.33	15.489	
4,035.4	3,977.6	3,953.0	3,951.6	12.2	1.7	78.51	349.8	408.9	203.5	190.0	13.55	15.026	
4,100.0	4,039.8	4,014.5	4,013.0	12.5	1.7	83.47	349.1	407.6	199.5	185.6	13.92	14.331	
4,133.8	4,072.4	4,046.6	4,045.1	12.7	1.8	86.09	348.8	406.9	198.1	184.0	14.11	14.044	
4,200.0	4,136.1	4,109.7	4,108.2	13.0	1.8	91.26	348.4	405.9	196.9	182.5	14.45	13.631	
4,212.2	4,147.8	4,121.4	4,119.9	13.1	1.8	92.22	348.3	405.7	196.9	182.4	14.50	13.574	
4,232.3	4,167.2	4,140.8	4,139.3	13.2	1.8	93.81	348.2	405.4	196.9	182.4	14.60	13.493	
4,300.0	4,232.4	4,206.2	4,204.7	13.5	1.8	99.11	348.0	404.4	198.3	183.4	14.88	13.325	
4,330.7	4,262.0	4,235.7	4,234.2	13.7	1.8	101.46	347.9	403.9	199.5	184.5	15.00	13.301	
4,400.0	4,328.7	4,302.4	4,300.9	14.0	1.8	106.64	347.8	402.8	203.4	188.2	15.23	13.360	
4,429.1	4,356.8	4,330.5	4,328.9	14.2	1.9	108.75	347.8	402.4	205.6	190.3	15.31	13.426	
4,500.0	4,425.0	4,398.9	4,397.3	14.6	1.9	113.68	347.8	401.4	211.9	196.4	15.49	13.684	
4,527.5	4,451.6	4,425.4	4,423.9	14.7	1.9	115.52	347.9	401.0	214.8	199.3	15.55	13.816	
4,600.0	4,521.4	4,495.4	4,493.9	15.1	1.9	120.08	348.1	400.0	223.4	207.7	15.69	14.239	
4,626.0	4,546.4	4,520.5	4,519.0	15.2	1.9	121.63	348.3	399.6	226.8	211.0	15.73	14.414	
4,700.0	4,617.7	4,592.1	4,590.5	15.6	1.9	125.78	348.7	398.7	237.2	221.4	15.85	14.971	
4,724.4	4,641.2	4,615.6	4,614.0	15.7	1.9	127.07	348.9	398.4	240.9	225.1	15.88	15.170	
4,800.0	4,714.0	4,688.6	4,687.0	16.1	1.9	130.78	349.5	397.5	253.1	237.1	15.99	15.833	
4,822.8	4,735.9	4,710.7	4,709.1	16.3	1.9	131.83	349.7	397.3	257.0	241.0	16.02	16.043	
4,900.0	4,810.3	4,785.0	4,783.4	16.7	2.0	135.13	350.4	396.6	270.7	254.5	16.12	16.788	
4,921.2	4,830.7	4,805.4	4,803.8	16.8	2.0	135.99	350.6	396.4	274.6	258.4	16.15	17.001	
5,000.0	4,906.6	4,881.1	4,879.5	17.2	2.0	138.94	351.2	395.7	289.6	273.4	16.26	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 OLSON 30R-243
<b>Project:</b>	WELD COUNTY, COLORADO	<b>TVD Reference:</b>	KB-EST @ 4990.0usft (Original Well Elev)
<b>Reference Site:</b>	NW NE SEC 30 T4N R67W 6th P.M.	<b>MD Reference:</b>	KB-EST @ 4990.0usft (Original Well Elev)
<b>Site Error:</b>	0.0 usft	<b>North Reference:</b>	True
<b>Reference Well:</b>	OLSON 30R-243	<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 #2	<b>Offset TVD Reference:</b>	Offset Datum

<b>Offset Design</b> NW NE SEC 30 T4N R67W 6th P.M. - EXIST VERT BROWN 30-31 - Wellbore #1 - Wellbore #1												<b>Offset Site Error:</b>	0.0 usft
Survey Program: 100-GYD_CT												<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	
5,019.7	4,925.5	4,900.0	4,898.4	17.3	2.0	139.63	351.4	395.6	293.5	277.2	16.29	18.020	
5,100.0	5,002.9	4,977.2	4,975.6	17.7	2.0	142.26	352.0	395.0	309.8	293.4	16.41	18.884	
5,118.1	5,020.3	4,994.6	4,993.0	17.8	2.0	142.82	352.1	394.8	313.6	297.1	16.43	19.081	
5,200.0	5,099.2	5,072.6	5,071.0	18.3	2.0	145.15	352.6	394.3	331.1	314.5	16.57	19.984	
5,216.5	5,115.1	5,088.3	5,086.7	18.3	2.0	145.60	352.7	394.2	334.7	318.1	16.60	20.168	
5,300.0	5,195.5	5,168.5	5,166.9	18.8	2.0	147.71	353.0	393.6	353.3	336.6	16.74	21.106	
5,314.9	5,209.9	5,182.9	5,181.3	18.9	2.0	148.07	353.0	393.5	356.7	340.0	16.77	21.274	
5,400.0	5,291.8	5,264.5	5,262.8	19.3	2.1	149.98	353.3	392.9	376.3	359.3	16.93	22.228	
5,413.4	5,304.7	5,277.3	5,275.7	19.4	2.1	150.27	353.3	392.8	379.4	362.4	16.95	22.378	
5,500.0	5,388.1	5,359.8	5,358.1	19.9	2.1	151.99	353.4	392.1	399.9	382.7	17.13	23.343	
5,511.8	5,399.5	5,371.0	5,369.3	19.9	2.1	152.21	353.4	392.0	402.7	385.5	17.15	23.474	
5,600.0	5,484.4	5,454.6	5,453.0	20.4	2.1	153.78	353.3	391.2	424.2	406.8	17.35	24.453	
5,610.2	5,494.3	5,464.3	5,462.7	20.4	2.1	153.96	353.3	391.2	426.7	409.3	17.37	24.566	
5,700.0	5,580.7	5,548.6	5,547.0	20.9	2.2	155.38	352.8	390.3	449.2	431.6	17.58	25.553	
5,708.6	5,589.1	5,556.7	5,555.1	21.0	2.2	155.51	352.8	390.2	451.4	433.8	17.60	25.648	
5,722.6	5,602.5	5,569.7	5,568.1	21.0	2.2	155.72	352.7	390.0	455.0	437.3	17.63	25.802	
5,800.0	5,677.3	5,641.8	5,640.1	21.4	2.2	156.94	351.8	389.0	474.2	456.4	17.73	26.749	
5,807.1	5,684.2	5,648.4	5,646.7	21.4	2.2	157.04	351.8	388.9	475.9	458.1	17.73	26.836	
5,900.0	5,774.7	5,738.2	5,736.5	21.8	2.2	158.29	350.3	387.5	496.9	479.1	17.81	27.896	
5,905.5	5,780.1	5,743.8	5,742.1	21.8	2.2	158.35	350.2	387.4	498.0	480.2	17.82	27.955	
6,000.0	5,872.9	5,840.3	5,838.6	22.1	2.2	159.35	349.2	386.5	516.0	498.1	17.90	28.832	
6,003.9	5,876.7	5,844.4	5,842.7	22.1	2.2	159.38	349.1	386.5	516.7	498.8	17.90	28.864	
6,100.0	5,971.6	5,941.8	5,940.1	22.4	2.3	160.10	348.7	386.1	531.3	513.3	17.99	29.537	
6,102.3	5,973.9	5,944.2	5,942.5	22.4	2.3	160.11	348.7	386.1	531.6	513.6	17.99	29.552	
6,200.0	6,070.8	6,042.1	6,040.4	22.7	2.3	160.62	348.5	386.2	543.1	525.0	18.08	30.043	
6,200.8	6,071.6	6,042.9	6,041.2	22.7	2.3	160.62	348.5	386.2	543.2	525.1	18.08	30.047	
6,299.2	6,169.6	6,141.2	6,139.5	22.9	2.3	160.96	348.5	386.3	551.4	533.2	18.16	30.364	
6,300.0	6,170.4	6,142.0	6,140.3	22.9	2.3	160.96	348.5	386.3	551.5	533.3	18.16	30.365	
6,397.6	6,267.9	6,239.3	6,237.6	23.1	2.3	161.15	348.4	386.5	556.5	538.3	18.24	30.504	
6,400.0	6,270.3	6,241.7	6,240.0	23.1	2.3	161.16	348.4	386.5	556.6	538.3	18.25	30.505	
6,496.0	6,366.3	6,338.1	6,336.4	23.2	2.3	161.21	348.3	386.7	558.4	540.1	18.32	30.473	
6,503.5	6,373.8	6,345.6	6,343.9	23.2	2.3	-171.03	348.3	386.7	558.4	540.1	18.33	30.464	
6,533.5	6,403.8	6,375.9	6,374.2	23.2	2.3	-171.03	348.4	386.7	558.4	540.0	18.38	30.381	
6,550.0	6,420.3	6,392.5	6,390.8	23.2	2.3	8.98	348.4	386.7	558.2	539.8	18.36	30.406	
6,594.5	6,464.7	6,437.0	6,435.3	23.3	2.3	9.05	348.4	386.7	555.8	537.5	18.30	30.369	
6,600.0	6,470.2	6,442.5	6,440.8	23.3	2.3	9.06	348.4	386.7	555.3	537.0	18.29	30.351	
6,650.0	6,519.8	6,492.2	6,490.5	23.3	2.3	9.25	348.5	386.8	548.9	530.7	18.25	30.084	
6,692.9	6,561.9	6,533.9	6,532.2	23.2	2.3	9.49	348.5	386.8	540.8	522.6	18.20	29.708	
6,700.0	6,568.8	6,540.8	6,539.1	23.2	2.3	9.54	348.5	386.8	539.2	521.0	18.19	29.633	
6,750.0	6,617.0	6,588.4	6,586.7	23.1	2.3	9.97	348.5	386.7	526.1	508.0	18.12	29.034	
6,791.3	6,656.1	6,627.6	6,625.9	23.0	2.3	10.44	348.5	386.6	512.9	494.9	18.04	28.439	
6,800.0	6,664.2	6,635.8	6,634.1	23.0	2.3	10.55	348.5	386.6	509.9	491.9	18.01	28.303	
6,850.0	6,710.1	6,682.1	6,680.4	22.9	2.3	11.33	348.6	386.5	490.4	472.5	17.86	27.454	
6,889.7	6,745.5	6,717.4	6,715.7	22.7	2.3	12.10	348.6	386.3	472.7	455.0	17.70	26.697	
6,900.0	6,754.5	6,726.2	6,724.5	22.7	2.3	12.32	348.6	386.3	467.8	450.1	17.66	26.489	
6,950.0	6,797.2	6,768.3	6,766.6	22.5	2.3	13.59	348.6	386.1	442.3	424.9	17.41	25.401	
6,988.2	6,828.5	6,799.2	6,797.5	22.3	2.3	14.81	348.6	386.0	421.0	403.8	17.20	24.475	
7,000.0	6,838.0	6,808.7	6,807.0	22.3	2.3	15.24	348.6	386.0	414.1	397.0	17.14	24.167	
7,050.0	6,876.7	6,847.3	6,845.6	22.0	2.3	17.40	348.5	385.8	383.3	366.5	16.85	22.745	
7,086.6	6,903.5	6,874.2	6,872.5	21.8	2.3	19.41	348.5	385.6	359.3	342.6	16.67	21.549	
7,100.0	6,913.0	6,883.7	6,882.0	21.8	2.3	20.26	348.5	385.6	350.1	333.5	16.62	21.072	
7,150.0	6,946.9	6,917.6	6,915.9	21.5	2.3	24.10	348.4	385.4	314.8	298.3	16.52	19.062	

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 OLSON 30R-243
<b>Project:</b>	WELD COUNTY, COLORADO	<b>TVD Reference:</b>	KB-EST @ 4990.0usft (Original Well Elev)
<b>Reference Site:</b>	NW NE SEC 30 T4N R67W 6th P.M.	<b>MD Reference:</b>	KB-EST @ 4990.0usft (Original Well Elev)
<b>Site Error:</b>	0.0 usft	<b>North Reference:</b>	True
<b>Reference Well:</b>	OLSON 30R-243	<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 #2	<b>Offset TVD Reference:</b>	Offset Datum

<b>Offset Design</b> NW NE SEC 30 T4N R67W 6th P.M. - EXIST VERT BROWN 30-31 - Wellbore #1 - Wellbore #1												<b>Offset Site Error:</b>	0.0 usft
Survey Program: 100-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
7,185.0	6,969.1	6,939.9	6,938.2	21.3	2.4	27.56	348.4	385.3	289.0	272.4	16.60	17.409	
7,200.0	6,978.2	6,949.0	6,947.3	21.2	2.4	29.29	348.4	385.2	277.7	261.0	16.69	16.641	
7,250.0	7,006.6	6,977.5	6,975.8	21.0	2.4	36.34	348.3	385.1	239.2	221.9	17.28	13.844	
7,283.4	7,024.0	6,995.0	6,993.3	20.8	2.4	42.35	348.3	385.0	213.0	195.0	17.93	11.880	
7,300.0	7,032.1	7,003.1	7,001.4	20.7	2.4	45.73	348.3	385.0	200.0	181.7	18.30	10.926	
7,350.0	7,054.6	7,025.7	7,024.0	20.4	2.4	57.49	348.3	384.9	161.3	141.8	19.47	8.282	
7,381.9	7,067.2	7,038.4	7,036.7	20.3	2.4	65.72	348.2	384.8	137.9	117.8	20.05	6.875	
7,400.0	7,073.8	7,045.1	7,043.4	20.2	2.4	70.41	348.2	384.8	125.5	105.2	20.27	6.190	
7,450.0	7,089.9	7,061.1	7,059.4	19.9	2.4	82.17	348.2	384.7	98.1	77.5	20.57	4.769	
7,480.3	7,097.9	7,069.1	7,067.4	19.8	2.4	87.81	348.2	384.7	89.9	69.3	20.68	4.348	
7,492.4	7,100.8	7,072.0	7,070.3	19.7	2.4	89.67	348.2	384.6	89.2	68.4	20.72	4.303 CC, ES, SF	
7,500.0	7,102.5	7,073.7	7,072.0	19.7	2.4	90.71	348.2	384.6	89.5	68.7	20.75	4.313	
7,550.0	7,111.8	7,082.9	7,081.2	19.5	2.4	95.09	348.2	384.6	105.6	84.7	20.85	5.063	
7,578.7	7,115.6	7,086.6	7,084.9	19.4	2.4	95.65	348.2	384.6	123.2	102.3	20.84	5.910	
7,600.0	7,117.6	7,088.7	7,087.0	19.3	2.4	95.13	348.2	384.5	138.6	117.8	20.79	6.668	
7,650.0	7,119.9	7,090.9	7,089.2	19.1	2.4	90.74	348.2	384.5	179.7	159.2	20.58	8.732	
7,660.3	7,120.0	7,091.0	7,089.3	19.1	2.4	89.28	348.2	384.5	188.7	168.2	20.54	9.190	
7,677.1	7,120.0	7,090.9	7,089.2	19.0	2.4	89.24	348.2	384.5	203.8	183.2	20.55	9.915	
7,700.0	7,119.9	7,090.8	7,089.1	19.0	2.4	89.19	348.2	384.5	224.5	204.0	20.57	10.917	
7,775.6	7,119.7	7,090.6	7,088.9	18.8	2.4	89.02	348.2	384.5	295.4	274.7	20.73	14.251	
7,800.0	7,119.7	7,090.5	7,088.8	18.8	2.4	88.97	348.2	384.5	318.8	298.0	20.78	15.340	
7,874.0	7,119.5	7,090.2	7,088.5	18.9	2.4	88.81	348.2	384.5	390.4	369.3	21.08	18.518	
7,900.0	7,119.4	7,090.2	7,088.5	19.0	2.4	88.75	348.2	384.5	415.7	394.5	21.19	19.622	
7,972.4	7,119.2	7,089.9	7,088.2	19.4	2.4	88.59	348.2	384.5	486.7	465.1	21.61	22.521	
8,000.0	7,119.2	7,089.8	7,088.1	19.5	2.4	88.53	348.2	384.5	513.8	492.1	21.77	23.600	
8,070.8	7,119.0	7,089.6	7,087.9	20.1	2.4	88.38	348.2	384.5	583.7	561.4	22.30	26.170	
8,100.0	7,118.9	7,089.5	7,087.8	20.4	2.4	88.31	348.2	384.5	612.5	590.0	22.52	27.195	
8,169.3	7,118.7	7,089.3	7,087.5	21.1	2.4	88.17	348.2	384.5	681.2	658.0	23.15	29.428	
8,200.0	7,118.7	7,089.1	7,087.4	21.4	2.4	88.10	348.2	384.5	711.6	688.2	23.42	30.381	
8,267.7	7,118.5	7,088.9	7,087.2	22.1	2.4	87.95	348.2	384.5	778.8	754.7	24.12	32.290	
8,300.0	7,118.4	7,088.8	7,087.1	22.5	2.4	87.88	348.2	384.5	810.9	786.5	24.45	33.164	
8,366.1	7,118.3	7,088.6	7,086.9	23.3	2.4	87.74	348.2	384.5	876.7	851.5	25.21	34.780	
8,400.0	7,118.2	7,088.5	7,086.8	23.7	2.4	87.67	348.2	384.5	910.4	884.8	25.59	35.572	
8,464.5	7,118.0	7,088.3	7,086.6	24.5	2.4	87.53	348.2	384.5	974.7	948.3	26.39	36.930	
8,500.0	7,117.9	7,088.2	7,086.4	25.0	2.4	87.46	348.2	384.5	1,010.0	983.1	26.83	37.642	
8,563.0	7,117.8	7,087.9	7,086.2	25.8	2.4	87.32	348.2	384.5	1,072.7	1,045.0	27.66	38.779	
8,600.0	7,117.7	7,087.8	7,086.1	26.3	2.4	87.24	348.2	384.5	1,109.6	1,081.5	28.15	39.417	
8,661.4	7,117.5	7,087.6	7,085.9	27.2	2.4	87.11	348.2	384.5	1,170.8	1,141.8	29.00	40.367	
8,700.0	7,117.4	7,087.5	7,085.8	27.7	2.4	87.03	348.2	384.5	1,209.3	1,179.8	29.54	40.936	
8,759.8	7,117.3	7,087.3	7,085.6	28.6	2.4	86.91	348.2	384.5	1,269.0	1,238.6	30.41	41.730	
8,800.0	7,117.2	7,087.2	7,085.5	29.2	2.4	86.82	348.2	384.5	1,309.1	1,278.1	30.99	42.239	
8,858.2	7,117.0	7,087.0	7,085.3	30.1	2.4	86.70	348.2	384.5	1,367.2	1,335.3	31.87	42.903	
8,900.0	7,116.9	7,086.8	7,085.1	30.7	2.4	86.61	348.2	384.6	1,408.8	1,376.3	32.49	43.358	
8,956.7	7,116.8	7,086.7	7,085.0	31.6	2.4	86.50	348.2	384.6	1,465.4	1,432.0	33.37	43.915	
9,000.0	7,116.7	7,086.5	7,084.8	32.3	2.4	86.41	348.2	384.6	1,508.6	1,474.6	34.04	44.322	
9,055.1	7,116.6	7,086.4	7,084.6	33.2	2.4	86.29	348.2	384.6	1,563.7	1,528.7	34.91	44.790	
9,100.0	7,116.5	7,086.2	7,084.5	33.9	2.4	86.20	348.2	384.6	1,608.5	1,572.9	35.62	45.155	
9,153.5	7,116.3	7,086.0	7,084.3	34.7	2.4	86.09	348.2	384.6	1,661.9	1,625.4	36.49	45.549	
9,200.0	7,116.2	7,085.9	7,084.2	35.5	2.4	85.99	348.2	384.6	1,708.3	1,671.1	37.24	45.877	
9,251.9	7,116.1	7,085.7	7,084.0	36.4	2.4	85.89	348.2	384.6	1,760.2	1,722.1	38.09	46.211	
9,300.0	7,116.0	7,085.6	7,083.9	37.2	2.4	85.79	348.2	384.6	1,808.2	1,769.3	38.88	46.507	
9,350.4	7,115.8	7,085.4	7,083.7	38.0	2.4	85.69	348.2	384.6	1,858.5	1,818.8	39.72	46.790	

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 OLSON 30R-243
<b>Project:</b>	WELD COUNTY, COLORADO	<b>TVD Reference:</b>	KB-EST @ 4990.0usft (Original Well Elev)
<b>Reference Site:</b>	NW NE SEC 30 T4N R67W 6th P.M.	<b>MD Reference:</b>	KB-EST @ 4990.0usft (Original Well Elev)
<b>Site Error:</b>	0.0 usft	<b>North Reference:</b>	True
<b>Reference Well:</b>	OLSON 30R-243	<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 #2	<b>Offset TVD Reference:</b>	Offset Datum

<b>Offset Design</b> NW NE SEC 30 T4N R67W 6th P.M. - EXIST VERT BROWN 30-31 - Wellbore #1 - Wellbore #1												<b>Offset Site Error:</b>	0.0 usft
Survey Program: 100-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
9,400.0	7,115.7	7,085.3	7,083.6	38.8	2.4	85.58	348.2	384.6	1,908.1	1,867.5	40.55	47.058	
9,448.8	7,115.6	7,085.1	7,083.4	39.7	2.4	85.49	348.2	384.6	1,956.8	1,915.5	41.37	47.299	
9,500.0	7,115.5	7,084.9	7,083.2	40.5	2.4	85.38	348.2	384.6	2,008.0	1,965.7	42.24	47.542	
9,547.2	7,115.3	7,084.8	7,083.1	41.3	2.4	85.29	348.2	384.6	2,055.2	2,012.1	43.04	47.748	
9,600.0	7,115.2	7,084.6	7,082.9	42.2	2.4	85.18	348.2	384.6	2,107.9	2,063.9	43.94	47.970	
9,645.6	7,115.1	7,084.5	7,082.8	43.0	2.4	85.09	348.2	384.6	2,153.5	2,108.8	44.73	48.146	
9,700.0	7,115.0	7,084.3	7,082.6	44.0	2.4	84.98	348.2	384.6	2,207.8	2,162.1	45.66	48.348	
9,744.1	7,114.8	7,084.2	7,082.5	44.7	2.4	84.89	348.2	384.6	2,251.8	2,205.4	46.43	48.500	
9,800.0	7,114.7	7,084.0	7,082.3	45.7	2.4	84.78	348.2	384.6	2,307.7	2,260.3	47.40	48.686	
9,842.5	7,114.6	7,083.9	7,082.2	46.5	2.4	84.70	348.2	384.6	2,350.2	2,302.0	48.14	48.816	
9,900.0	7,114.5	7,083.7	7,082.0	47.5	2.4	84.58	348.2	384.6	2,407.7	2,358.5	49.15	48.987	
9,940.9	7,114.4	7,083.6	7,081.9	48.2	2.4	84.50	348.2	384.6	2,448.5	2,398.7	49.87	49.100	
10,000.0	7,114.2	7,083.4	7,081.7	49.2	2.4	84.38	348.2	384.6	2,507.6	2,456.7	50.91	49.257	
10,039.3	7,114.1	7,083.3	7,081.6	49.9	2.4	84.31	348.2	384.6	2,546.9	2,495.3	51.60	49.355	
10,100.0	7,114.0	7,083.1	7,081.4	51.0	2.4	84.19	348.2	384.6	2,607.5	2,554.8	52.68	49.501	
10,137.8	7,113.9	7,083.0	7,081.3	51.7	2.4	84.11	348.2	384.6	2,645.3	2,591.9	53.35	49.586	
10,200.0	7,113.7	7,082.8	7,081.1	52.8	2.4	83.99	348.2	384.6	2,707.5	2,653.0	54.45	49.721	
10,236.2	7,113.6	7,082.7	7,081.0	53.4	2.4	83.92	348.2	384.6	2,743.6	2,688.5	55.10	49.795	
10,300.0	7,113.5	7,082.5	7,080.8	54.6	2.4	83.79	348.2	384.6	2,807.4	2,751.2	56.24	49.921	
10,334.6	7,113.4	7,082.4	7,080.7	55.2	2.4	83.73	348.2	384.6	2,842.0	2,785.2	56.86	49.986	
10,400.0	7,113.2	7,082.2	7,080.5	56.4	2.4	83.60	348.2	384.6	2,907.4	2,849.3	58.03	50.104	
10,433.0	7,113.1	7,082.1	7,080.4	57.0	2.4	83.54	348.2	384.6	2,940.4	2,881.8	58.62	50.160	
10,500.0	7,113.0	7,081.9	7,080.2	58.2	2.4	83.41	348.2	384.6	3,007.3	2,947.5	59.82	50.270	
10,531.5	7,112.9	7,081.8	7,080.1	58.8	2.4	83.35	348.2	384.6	3,038.8	2,978.4	60.39	50.319	
10,600.0	7,112.7	7,081.6	7,079.9	60.0	2.4	83.21	348.2	384.6	3,107.3	3,045.7	61.62	50.423	
10,629.9	7,112.6	7,081.5	7,079.8	60.6	2.4	83.16	348.2	384.6	3,137.2	3,075.0	62.16	50.466	
10,700.0	7,112.5	7,081.3	7,079.6	61.9	2.4	83.02	348.2	384.6	3,207.2	3,143.8	63.43	50.564	
10,728.3	7,112.4	7,081.2	7,079.5	62.4	2.4	82.97	348.2	384.6	3,235.5	3,171.6	63.94	50.602	
10,800.0	7,112.2	7,081.0	7,079.3	63.7	2.4	82.83	348.2	384.6	3,307.2	3,242.0	65.24	50.695	
10,826.7	7,112.1	7,080.9	7,079.2	64.2	2.4	82.78	348.2	384.6	3,333.9	3,268.2	65.72	50.728	
10,900.0	7,111.9	7,080.7	7,079.0	65.5	2.4	82.64	348.2	384.6	3,407.2	3,340.1	67.05	50.816	
10,925.2	7,111.9	7,080.7	7,079.0	66.0	2.4	82.60	348.2	384.6	3,432.3	3,364.8	67.51	50.844	
11,000.0	7,111.7	7,080.4	7,078.7	67.4	2.4	82.46	348.2	384.6	3,507.1	3,438.3	68.86	50.928	
11,023.6	7,111.6	7,080.4	7,078.7	67.8	2.4	82.41	348.2	384.6	3,530.7	3,461.4	69.29	50.953	
11,100.0	7,111.4	7,080.2	7,078.4	69.2	2.4	82.27	348.2	384.6	3,607.1	3,536.4	70.68	51.033	
11,122.0	7,111.4	7,080.1	7,078.4	69.6	2.4	82.23	348.2	384.6	3,629.1	3,558.0	71.08	51.055	
11,200.0	7,111.2	7,079.9	7,078.2	71.1	2.4	82.08	348.2	384.6	3,707.1	3,634.6	72.50	51.131	
11,220.4	7,111.1	7,079.8	7,078.1	71.4	2.4	82.04	348.2	384.6	3,727.5	3,654.6	72.87	51.150	
11,300.0	7,110.9	7,079.6	7,077.9	72.9	2.4	81.90	348.2	384.6	3,807.0	3,732.7	74.32	51.223	
11,318.9	7,110.9	7,079.5	7,077.8	73.3	2.4	81.86	348.2	384.6	3,825.9	3,751.2	74.67	51.240	
11,400.0	7,110.7	7,079.3	7,077.6	74.8	2.4	81.71	348.2	384.6	3,907.0	3,830.9	76.14	51.310	
11,417.3	7,110.6	7,079.2	7,077.5	75.1	2.4	81.68	348.2	384.6	3,924.3	3,847.8	76.46	51.325	
11,500.0	7,110.4	7,079.0	7,077.3	76.6	2.4	81.53	348.2	384.6	4,007.0	3,929.0	77.97	51.392	
11,515.7	7,110.4	7,079.0	7,077.3	76.9	2.4	81.50	348.2	384.6	4,022.7	3,944.4	78.26	51.405	
11,600.0	7,110.2	7,078.7	7,077.0	78.5	2.4	81.34	348.2	384.6	4,107.0	4,027.2	79.79	51.470	
11,614.1	7,110.1	7,078.7	7,077.0	78.7	2.4	81.32	348.2	384.6	4,121.1	4,041.1	80.05	51.481	
11,668.5	7,110.0	7,078.5	7,076.8	79.8	2.4	81.22	348.2	384.6	4,175.5	4,094.4	81.04	51.521	

# Anticollision Report



<b>Company:</b>	PDC ENERGY	<b>Local Co-ordinate Reference:</b>	Well OLSON 30R-243
<b>Project:</b>	WELD COUNTY, COLORADO	<b>TVD Reference:</b>	KB-EST @ 4990.0usft (Original Well Elev)
<b>Reference Site:</b>	NW NE SEC 30 T4N R67W 6th P.M.	<b>MD Reference:</b>	KB-EST @ 4990.0usft (Original Well Elev)
<b>Site Error:</b>	0.0 usft	<b>North Reference:</b>	True
<b>Reference Well:</b>	OLSON 30R-243	<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 #2	<b>Offset TVD Reference:</b>	Offset Datum

<b>Offset Design</b> NW NE SEC 30 T4N R67W 6th P.M. - EXIST VERT BROWN MCCARTY 30-43 - Wellbore #1 - Wellbor												<b>Offset Site Error:</b>	0.0 usft
Survey Program: 100-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
0.0	0.0	0.0	0.0	0.0	0.0	144.55	-2,380.7	1,695.2	2,922.6				
98.4	98.4	148.7	148.7	0.1	0.1	144.56	-2,379.2	1,693.6	2,921.2	2,921.0	0.22	N/A	
100.0	100.0	150.6	150.5	0.1	0.1	144.56	-2,379.2	1,693.5	2,921.2	2,921.0	0.23	N/A	
196.8	196.8	256.2	256.1	0.3	0.3	144.57	-2,377.2	1,691.6	2,918.7	2,918.1	0.58	5,067.597	
200.0	200.0	259.4	259.4	0.3	0.3	144.57	-2,377.2	1,691.5	2,918.6	2,918.0	0.59	4,980.930	
295.3	295.3	354.9	354.8	0.5	0.4	144.58	-2,375.4	1,689.5	2,916.0	2,915.1	0.88	3,329.681	
300.0	300.0	359.6	359.5	0.5	0.4	144.58	-2,375.3	1,689.4	2,915.9	2,915.0	0.89	3,277.419	
393.7	393.7	447.0	446.9	0.7	0.4	144.59	-2,373.7	1,687.7	2,913.4	2,912.3	1.16	2,515.953	
400.0	400.0	452.7	452.6	0.8	0.4	144.59	-2,373.6	1,687.6	2,913.3	2,912.1	1.18	2,478.100	
492.1	492.1	538.7	538.6	1.0	0.5	144.60	-2,372.3	1,686.1	2,911.1	2,909.7	1.43	2,030.659	
500.0	500.0	546.5	546.3	1.0	0.5	144.60	-2,372.1	1,685.9	2,911.0	2,909.5	1.46	1,999.733	
590.5	590.5	634.2	634.0	1.2	0.5	144.61	-2,370.9	1,684.3	2,909.0	2,907.3	1.71	1,703.758	
600.0	600.0	643.1	642.9	1.2	0.5	144.61	-2,370.8	1,684.2	2,908.8	2,907.0	1.73	1,678.161	
689.0	689.0	727.3	727.1	1.4	0.6	144.63	-2,369.9	1,682.4	2,906.9	2,905.0	1.98	1,470.487	
700.0	700.0	737.8	737.6	1.4	0.6	144.63	-2,369.8	1,682.2	2,906.7	2,904.7	2.01	1,448.368	
787.4	787.4	823.1	822.9	1.6	0.6	144.65	-2,369.0	1,680.6	2,905.1	2,902.8	2.25	1,293.704	
800.0	800.0	836.2	835.9	1.7	0.6	144.65	-2,368.8	1,680.4	2,904.8	2,902.6	2.28	1,273.963	
885.8	885.8	924.8	924.6	1.9	0.7	144.67	-2,367.9	1,678.7	2,903.2	2,900.7	2.52	1,154.185	
900.0	900.0	939.3	939.0	1.9	0.7	144.67	-2,367.8	1,678.4	2,902.9	2,900.3	2.55	1,136.632	
984.2	984.2	1,025.1	1,024.8	2.1	0.7	144.69	-2,367.0	1,676.5	2,901.2	2,898.4	2.78	1,042.471	
1,000.0	1,000.0	1,041.1	1,040.8	2.1	0.7	144.69	-2,366.8	1,676.2	2,900.9	2,898.0	2.83	1,026.622	
1,082.7	1,082.7	1,123.4	1,123.1	2.3	0.8	144.71	-2,366.0	1,674.4	2,899.1	2,896.1	3.05	951.066	
1,100.0	1,100.0	1,139.7	1,139.4	2.3	0.8	144.72	-2,365.9	1,674.0	2,898.8	2,895.7	3.09	936.794	
1,181.1	1,181.1	1,215.3	1,214.9	2.5	0.8	144.74	-2,365.2	1,672.4	2,897.2	2,893.9	3.31	875.446	
1,200.0	1,200.0	1,232.2	1,231.9	2.6	0.8	144.74	-2,365.1	1,672.0	2,896.9	2,893.5	3.36	862.418	
1,279.5	1,279.5	1,303.9	1,303.6	2.7	0.8	144.76	-2,364.8	1,670.5	2,895.6	2,892.0	3.57	811.571	
1,300.0	1,300.0	1,324.5	1,324.2	2.8	0.8	144.77	-2,364.7	1,670.1	2,895.3	2,891.7	3.62	799.272	
1,377.9	1,377.9	1,403.2	1,402.8	3.0	0.9	144.79	-2,364.4	1,668.5	2,894.1	2,890.3	3.83	755.637	
1,400.0	1,400.0	1,426.7	1,426.3	3.0	0.9	144.80	-2,364.2	1,668.0	2,893.8	2,889.9	3.89	744.039	
1,476.4	1,476.4	1,508.0	1,507.6	3.2	0.9	144.82	-2,363.7	1,666.4	2,892.5	2,888.4	4.09	706.470	
1,500.0	1,500.0	1,532.3	1,531.9	3.2	0.9	144.82	-2,363.6	1,665.9	2,892.1	2,888.0	4.16	695.673	
1,574.8	1,574.8	1,609.8	1,609.4	3.4	1.0	144.85	-2,363.1	1,664.1	2,890.8	2,886.4	4.36	663.513	
1,600.0	1,600.0	1,637.1	1,636.7	3.5	1.0	144.86	-2,363.0	1,663.4	2,890.3	2,885.9	4.42	653.271	
1,673.2	1,673.2	1,715.5	1,715.0	3.6	1.0	144.89	-2,362.6	1,661.3	2,888.8	2,884.2	4.62	625.255	
1,700.0	1,700.0	1,742.7	1,742.2	3.7	1.0	144.90	-2,362.4	1,660.5	2,888.2	2,883.5	4.69	615.684	
1,771.6	1,771.6	1,813.6	1,813.1	3.8	1.0	144.92	-2,361.9	1,658.6	2,886.7	2,881.8	4.88	591.539	
1,800.0	1,800.0	1,839.0	1,838.4	3.9	1.0	144.93	-2,361.7	1,657.9	2,886.1	2,881.2	4.95	582.648	
1,870.1	1,870.1	1,902.0	1,901.5	4.1	1.1	144.95	-2,361.4	1,656.3	2,884.8	2,879.7	5.14	561.773	
1,900.0	1,900.0	1,933.9	1,933.4	4.1	1.1	144.96	-2,361.2	1,655.6	2,884.3	2,879.1	5.21	553.112	
1,950.0	1,950.0	1,987.3	1,986.7	4.2	1.1	144.98	-2,360.9	1,654.3	2,883.4	2,878.0	5.35	539.206	
1,968.5	1,968.5	2,000.0	1,999.4	4.3	1.1	117.22	-2,360.8	1,654.0	2,883.0	2,877.7	5.35	538.947	
2,000.0	2,000.0	2,032.3	2,031.7	4.4	1.1	117.25	-2,360.6	1,653.2	2,882.6	2,877.2	5.43	530.895	
2,045.1	2,045.1	2,070.6	2,070.0	4.5	1.1	117.28	-2,360.4	1,652.4	2,882.4	2,876.9	5.54	520.128	
2,066.9	2,066.9	2,089.0	2,088.4	4.5	1.1	117.30	-2,360.4	1,652.0	2,882.4	2,876.9	5.60	515.109	
2,100.0	2,099.9	2,121.6	2,121.0	4.6	1.2	117.33	-2,360.3	1,651.4	2,882.7	2,877.0	5.68	507.584	
2,165.3	2,165.1	2,191.7	2,191.1	4.7	1.2	117.41	-2,359.9	1,650.1	2,883.7	2,877.8	5.85	493.148	
2,200.0	2,199.7	2,224.3	2,223.7	4.8	1.2	117.45	-2,359.8	1,649.4	2,884.4	2,878.5	5.93	486.014	
2,263.8	2,263.1	2,281.7	2,281.1	4.9	1.2	117.53	-2,359.6	1,648.3	2,886.4	2,880.3	6.10	473.360	
2,300.0	2,299.1	2,317.2	2,316.6	5.0	1.2	117.58	-2,359.5	1,647.7	2,887.9	2,881.7	6.19	466.400	
2,362.2	2,360.8	2,384.5	2,383.8	5.2	1.3	117.71	-2,359.3	1,646.4	2,890.9	2,884.6	6.36	454.524	
2,400.0	2,398.2	2,421.1	2,420.5	5.3	1.3	117.78	-2,359.1	1,645.7	2,893.0	2,886.6	6.46	447.693	
2,460.6	2,457.9	2,475.5	2,474.9	5.4	1.3	117.88	-2,358.9	1,644.6	2,897.0	2,890.4	6.63	436.808	

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 OLSON 30R-243
<b>Project:</b>	WELD COUNTY, COLORADO	<b>TVD Reference:</b>	KB-EST @ 4990.0usft (Original Well Elev)
<b>Reference Site:</b>	NW NE SEC 30 T4N R67W 6th P.M.	<b>MD Reference:</b>	KB-EST @ 4990.0usft (Original Well Elev)
<b>Site Error:</b>	0.0 usft	<b>North Reference:</b>	True
<b>Reference Well:</b>	OLSON 30R-243	<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 #2	<b>Offset TVD Reference:</b>	Offset Datum

<b>Offset Design</b> NW NE SEC 30 T4N R67W 6th P.M. - EXIST VERT BROWN MCCARTY 30-43 - Wellbore #1 - Wellbor												<b>Offset Site Error:</b>	0.0 usft
Survey Program: 100-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
2,500.0	2,496.6	2,513.0	2,512.3	5.5	1.3	117.96	-2,358.9	1,643.9	2,900.0	2,893.2	6.74	429.992	
2,559.0	2,554.5	2,576.4	2,575.7	5.7	1.3	118.11	-2,358.7	1,642.7	2,904.9	2,897.9	6.93	419.445	
2,600.0	2,594.4	2,617.5	2,616.8	5.8	1.3	118.22	-2,358.6	1,641.9	2,908.6	2,901.5	7.05	412.471	
2,657.5	2,650.3	2,670.4	2,669.7	6.0	1.4	118.35	-2,358.4	1,640.8	2,914.3	2,907.0	7.24	402.404	
2,700.0	2,691.5	2,708.7	2,707.9	6.1	1.4	118.44	-2,358.3	1,640.0	2,919.0	2,911.6	7.38	395.335	
2,730.9	2,721.3	2,734.6	2,733.9	6.2	1.4	118.50	-2,358.3	1,639.5	2,922.6	2,915.1	7.49	390.070	
2,755.9	2,745.3	2,755.5	2,754.8	6.3	1.4	118.61	-2,358.3	1,639.2	2,925.6	2,918.1	7.58	385.851	
2,800.0	2,787.8	2,792.5	2,791.8	6.5	1.4	118.79	-2,358.2	1,638.6	2,931.1	2,923.4	7.74	378.525	
2,854.3	2,840.1	2,845.9	2,845.2	6.7	1.4	119.05	-2,358.2	1,637.9	2,938.0	2,930.0	7.95	369.539	
2,900.0	2,884.1	2,892.1	2,891.4	6.9	1.4	119.27	-2,358.1	1,637.2	2,943.7	2,935.6	8.13	362.251	
2,952.7	2,934.9	2,943.2	2,942.5	7.1	1.5	119.52	-2,358.0	1,636.5	2,950.4	2,942.1	8.33	353.992	
3,000.0	2,980.4	2,988.5	2,987.8	7.3	1.5	119.73	-2,358.0	1,635.8	2,956.4	2,947.9	8.52	346.900	
3,051.2	3,029.7	3,036.9	3,036.2	7.5	1.5	119.97	-2,357.9	1,635.1	2,963.0	2,954.3	8.73	339.366	
3,100.0	3,076.7	3,082.9	3,082.2	7.7	1.5	120.18	-2,357.9	1,634.4	2,969.4	2,960.5	8.93	332.481	
3,149.6	3,124.5	3,133.9	3,133.1	7.9	1.5	120.42	-2,357.8	1,633.8	2,975.9	2,966.8	9.14	325.598	
3,200.0	3,173.0	3,188.2	3,187.4	8.1	1.5	120.67	-2,357.4	1,633.3	2,982.5	2,973.1	9.35	318.875	
3,248.0	3,219.3	3,236.0	3,235.3	8.4	1.6	120.89	-2,357.0	1,632.9	2,988.7	2,979.1	9.56	312.603	
3,300.0	3,269.4	3,286.5	3,285.7	8.6	1.6	121.12	-2,356.5	1,632.6	2,995.5	2,985.7	9.79	306.100	
3,346.4	3,314.1	3,336.6	3,335.8	8.8	1.6	121.34	-2,355.9	1,632.3	3,001.6	2,991.6	9.99	300.421	
3,400.0	3,365.7	3,396.9	3,396.2	9.1	1.6	121.60	-2,355.0	1,632.1	3,008.5	2,998.2	10.23	294.129	
3,444.9	3,408.9	3,446.3	3,445.5	9.3	1.6	121.81	-2,354.1	1,632.0	3,014.2	3,003.8	10.43	289.045	
3,500.0	3,462.0	3,506.5	3,505.7	9.5	1.6	122.06	-2,352.7	1,632.1	3,021.2	3,010.5	10.67	283.061	
3,543.3	3,503.7	3,550.1	3,549.3	9.7	1.6	122.23	-2,351.5	1,632.3	3,026.6	3,015.7	10.87	278.520	
3,600.0	3,558.3	3,606.2	3,605.4	10.0	1.6	122.46	-2,349.9	1,632.6	3,033.7	3,022.6	11.12	272.818	
3,641.7	3,598.5	3,641.7	3,640.8	10.2	1.6	122.60	-2,349.0	1,632.8	3,039.0	3,027.7	11.31	268.761	
3,700.0	3,654.6	3,691.2	3,690.3	10.5	1.7	122.80	-2,347.8	1,633.0	3,046.6	3,035.0	11.57	263.332	
3,740.1	3,693.2	3,727.4	3,726.6	10.7	1.7	122.95	-2,347.0	1,633.0	3,051.9	3,040.2	11.75	259.692	
3,800.0	3,750.9	3,782.6	3,781.7	11.0	1.7	123.17	-2,346.0	1,633.1	3,059.9	3,047.9	12.02	254.475	
3,838.6	3,788.0	3,816.4	3,815.5	11.2	1.7	123.31	-2,345.4	1,633.0	3,065.1	3,052.9	12.20	251.228	
3,900.0	3,847.2	3,867.4	3,866.5	11.5	1.7	123.52	-2,344.6	1,633.1	3,073.6	3,061.2	12.48	246.272	
3,937.0	3,882.8	3,900.0	3,899.1	11.7	1.7	123.65	-2,344.1	1,633.1	3,078.8	3,066.2	12.65	243.380	
4,000.0	3,943.5	3,958.3	3,957.3	12.0	1.7	123.89	-2,343.4	1,633.2	3,087.8	3,074.9	12.94	238.641	
4,035.4	3,977.6	3,992.2	3,991.3	12.2	1.7	124.03	-2,343.0	1,633.2	3,092.9	3,079.8	13.10	236.056	
4,100.0	4,039.8	4,052.8	4,051.8	12.5	1.7	124.27	-2,342.3	1,633.2	3,102.3	3,088.9	13.40	231.520	
4,133.8	4,072.4	4,084.4	4,083.5	12.7	1.8	124.40	-2,342.0	1,633.1	3,107.2	3,093.6	13.56	229.218	
4,200.0	4,136.1	4,154.4	4,153.5	13.0	1.8	124.69	-2,341.2	1,633.0	3,116.9	3,103.0	13.86	224.861	
4,232.3	4,167.2	4,189.9	4,189.0	13.2	1.8	124.83	-2,340.8	1,632.9	3,121.5	3,107.5	14.01	222.792	
4,300.0	4,232.4	4,251.0	4,250.0	13.5	1.8	125.08	-2,340.0	1,632.7	3,131.4	3,117.0	14.32	218.633	
4,330.7	4,262.0	4,277.6	4,276.7	13.7	1.8	125.19	-2,339.7	1,632.6	3,135.9	3,121.4	14.46	216.810	
4,400.0	4,328.7	4,336.4	4,335.5	14.0	1.8	125.43	-2,339.3	1,632.2	3,146.3	3,131.5	14.78	212.847	
4,429.1	4,356.8	4,360.8	4,359.9	14.2	1.8	125.53	-2,339.2	1,632.0	3,150.7	3,135.8	14.92	211.236	
4,500.0	4,425.0	4,420.2	4,419.3	14.6	1.9	125.77	-2,339.0	1,631.6	3,161.7	3,146.5	15.24	207.477	
4,527.5	4,451.6	4,443.4	4,442.5	14.7	1.9	125.87	-2,339.0	1,631.4	3,166.1	3,150.7	15.36	206.077	
4,600.0	4,521.4	4,500.0	4,499.1	15.1	1.9	126.10	-2,339.0	1,631.1	3,177.7	3,162.0	15.69	202.522	
4,626.0	4,546.4	4,519.6	4,518.7	15.2	1.9	126.18	-2,339.1	1,631.0	3,181.9	3,166.1	15.81	201.323	
4,700.0	4,617.7	4,566.1	4,565.2	15.6	1.9	126.37	-2,339.5	1,630.9	3,194.5	3,178.4	16.13	198.018	
4,724.4	4,641.2	4,581.4	4,580.5	15.7	1.9	126.43	-2,339.7	1,630.9	3,198.8	3,182.6	16.24	196.967	
4,800.0	4,714.0	4,645.6	4,644.6	16.1	1.9	126.69	-2,340.8	1,630.9	3,212.4	3,195.8	16.57	193.887	
4,822.8	4,735.9	4,668.2	4,667.3	16.3	1.9	126.78	-2,341.1	1,631.0	3,216.5	3,199.8	16.67	193.001	
4,900.0	4,810.3	4,751.1	4,750.1	16.7	1.9	127.11	-2,342.4	1,631.1	3,230.4	3,213.4	16.99	190.108	
4,921.2	4,830.7	4,775.1	4,774.1	16.8	1.9	127.21	-2,342.7	1,631.1	3,234.2	3,217.1	17.08	189.338	
5,000.0	4,906.6	4,857.9	4,857.0	17.2	1.9	127.54	-2,343.8	1,630.8	3,248.2	3,230.8	17.42	186.518	

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 OLSON 30R-243
<b>Project:</b>	WELD COUNTY, COLORADO	<b>TVD Reference:</b>	KB-EST @ 4990.0usft (Original Well Elev)
<b>Reference Site:</b>	NW NE SEC 30 T4N R67W 6th P.M.	<b>MD Reference:</b>	KB-EST @ 4990.0usft (Original Well Elev)
<b>Site Error:</b>	0.0 usft	<b>North Reference:</b>	True
<b>Reference Well:</b>	OLSON 30R-243	<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 #2	<b>Offset TVD Reference:</b>	Offset Datum

Offset Design												Offset Site Error:	0.0 usft
Survey Program: 100-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	
5,019.7	4,925.5	4,878.1	4,877.1	17.3	1.9	127.62	-2,344.0	1,630.7	3,251.7	3,234.2	17.50	185.826	
5,100.0	5,002.9	4,959.9	4,958.9	17.7	1.9	127.94	-2,344.9	1,630.3	3,265.9	3,248.1	17.84	183.058	
5,118.1	5,020.3	4,978.3	4,977.3	17.8	1.9	128.01	-2,345.1	1,630.2	3,269.1	3,251.2	17.92	182.448	
5,200.0	5,099.2	5,060.5	5,059.5	18.3	1.9	128.34	-2,345.9	1,629.7	3,283.6	3,265.4	18.27	179.748	
5,216.5	5,115.1	5,077.0	5,076.0	18.3	1.9	128.40	-2,346.1	1,629.6	3,286.6	3,268.2	18.34	179.216	
5,300.0	5,195.5	5,164.8	5,163.8	18.8	1.9	128.74	-2,346.8	1,629.1	3,301.3	3,282.6	18.69	176.595	
5,314.9	5,209.9	5,180.8	5,179.8	18.9	1.9	128.80	-2,346.9	1,629.0	3,304.0	3,285.2	18.76	176.136	
5,400.0	5,291.8	5,261.5	5,260.5	19.3	1.9	129.10	-2,347.3	1,628.6	3,319.0	3,299.8	19.12	173.561	
5,413.4	5,304.7	5,273.8	5,272.8	19.4	1.9	129.15	-2,347.4	1,628.6	3,321.3	3,302.2	19.18	173.165	
5,500.0	5,388.1	5,354.3	5,353.3	19.9	2.0	129.45	-2,347.9	1,628.3	3,336.8	3,317.3	19.55	170.680	
5,511.8	5,399.5	5,365.4	5,364.4	19.9	2.0	129.49	-2,347.9	1,628.3	3,339.0	3,319.4	19.60	170.351	
5,600.0	5,484.4	5,456.1	5,455.1	20.4	2.0	129.83	-2,348.4	1,628.1	3,354.8	3,334.9	19.97	167.981	
5,610.2	5,494.3	5,467.3	5,466.3	20.4	2.0	129.87	-2,348.5	1,628.1	3,356.7	3,336.7	20.01	167.714	
5,700.0	5,580.7	5,566.2	5,565.2	20.9	2.0	130.22	-2,348.6	1,628.1	3,372.6	3,352.2	20.39	165.419	
5,708.6	5,589.1	5,575.7	5,574.7	21.0	2.0	130.25	-2,348.5	1,628.1	3,374.2	3,353.7	20.42	165.202	
5,722.6	5,602.5	5,591.2	5,590.2	21.0	2.0	130.31	-2,348.5	1,628.1	3,376.6	3,356.1	20.48	164.854	
5,800.0	5,677.3	5,658.9	5,657.9	21.4	2.0	130.74	-2,348.5	1,628.0	3,389.7	3,369.0	20.71	163.649	
5,807.1	5,684.2	5,664.9	5,663.9	21.4	2.0	130.77	-2,348.5	1,628.0	3,390.8	3,370.1	20.73	163.578	
5,900.0	5,774.7	5,743.7	5,742.7	21.8	2.0	131.23	-2,348.8	1,627.6	3,404.9	3,384.0	20.94	162.613	
5,905.5	5,780.1	5,748.4	5,747.4	21.8	2.0	131.25	-2,348.8	1,627.5	3,405.7	3,384.7	20.95	162.565	
6,000.0	5,872.9	5,833.7	5,832.7	22.1	2.0	131.66	-2,349.5	1,627.1	3,418.3	3,397.2	21.14	161.728	
6,003.9	5,876.7	5,837.6	5,836.6	22.1	2.0	131.68	-2,349.5	1,627.1	3,418.8	3,397.6	21.14	161.701	
6,100.0	5,971.6	5,935.2	5,934.2	22.4	2.0	132.03	-2,350.2	1,627.1	3,429.5	3,408.2	21.30	160.975	
6,102.3	5,973.9	5,937.7	5,936.7	22.4	2.0	132.04	-2,350.2	1,627.1	3,429.7	3,408.4	21.31	160.961	
6,200.0	6,070.8	6,037.6	6,036.6	22.7	2.0	132.32	-2,350.5	1,627.4	3,438.3	3,416.8	21.45	160.270	
6,200.8	6,071.6	6,038.4	6,037.4	22.7	2.0	132.32	-2,350.5	1,627.4	3,438.3	3,416.9	21.45	160.266	
6,299.2	6,169.6	6,135.8	6,134.8	22.9	2.0	132.51	-2,350.7	1,628.2	3,444.6	3,423.0	21.59	159.566	
6,300.0	6,170.4	6,136.6	6,135.6	22.9	2.0	132.51	-2,350.7	1,628.2	3,444.7	3,423.1	21.59	159.559	
6,397.6	6,267.9	6,231.1	6,230.1	23.1	2.0	132.61	-2,350.8	1,629.3	3,448.7	3,427.0	21.71	158.860	
6,400.0	6,270.3	6,233.3	6,232.3	23.1	2.0	132.62	-2,350.8	1,629.3	3,448.8	3,427.1	21.71	158.840	
6,496.0	6,366.3	6,325.4	6,324.3	23.2	2.0	132.64	-2,351.0	1,630.7	3,450.7	3,428.9	21.82	158.161	
6,503.5	6,373.8	6,333.5	6,332.5	23.2	2.0	160.41	-2,351.0	1,630.8	3,450.7	3,428.9	21.83	158.097	
6,533.5	6,403.8	6,366.2	6,365.2	23.2	2.0	160.40	-2,351.0	1,631.5	3,450.9	3,429.0	21.87	157.780	
6,550.0	6,420.3	6,384.2	6,383.1	23.2	2.0	-19.61	-2,350.9	1,631.9	3,450.8	3,428.9	21.87	157.769	
6,594.5	6,464.7	6,430.7	6,429.7	23.3	2.0	-19.70	-2,350.8	1,633.0	3,448.8	3,426.9	21.89	157.570	
6,600.0	6,470.2	6,436.4	6,435.3	23.3	2.0	-19.72	-2,350.8	1,633.1	3,448.3	3,426.4	21.89	157.517	
6,650.0	6,519.8	6,487.4	6,486.3	23.3	2.0	-19.94	-2,350.5	1,634.6	3,442.6	3,420.6	21.94	156.912	
6,692.9	6,561.9	6,524.9	6,523.8	23.2	2.0	-20.21	-2,350.2	1,635.7	3,435.0	3,413.0	21.98	156.250	
6,700.0	6,568.8	6,530.6	6,529.5	23.2	2.0	-20.26	-2,350.2	1,635.9	3,433.6	3,411.6	21.99	156.127	
6,750.0	6,617.0	6,570.9	6,569.8	23.1	2.0	-20.69	-2,350.2	1,636.9	3,421.5	3,399.4	22.03	155.290	
6,791.3	6,656.1	6,600.0	6,598.9	23.0	2.0	-21.12	-2,350.3	1,637.4	3,409.2	3,387.2	22.05	154.641	
6,800.0	6,664.2	6,610.2	6,609.1	23.0	2.0	-21.23	-2,350.3	1,637.5	3,406.4	3,384.3	22.05	154.485	
6,850.0	6,710.1	6,648.0	6,646.9	22.9	2.0	-21.91	-2,350.6	1,637.9	3,388.3	3,366.3	22.04	153.762	
6,889.7	6,745.5	6,677.4	6,676.2	22.7	2.0	-22.54	-2,351.0	1,638.1	3,371.9	3,349.9	22.00	153.236	
6,900.0	6,754.5	6,684.8	6,683.7	22.7	2.0	-22.73	-2,351.1	1,638.2	3,367.4	3,345.4	22.00	153.095	
6,950.0	6,797.2	6,744.2	6,743.0	22.5	2.0	-23.81	-2,352.0	1,638.1	3,343.7	3,321.7	21.96	152.239	
6,988.2	6,828.5	6,800.0	6,798.9	22.3	2.0	-24.85	-2,352.7	1,637.5	3,323.5	3,301.5	21.95	151.426	
7,000.0	6,838.0	6,809.4	6,808.2	22.3	2.0	-25.16	-2,352.8	1,637.3	3,316.8	3,294.9	21.93	151.229	
7,050.0	6,876.7	6,846.5	6,845.4	22.0	2.0	-26.65	-2,353.1	1,636.7	3,287.3	3,265.5	21.86	150.394	
7,086.6	6,903.5	6,872.4	6,871.3	21.8	2.0	-27.91	-2,353.4	1,636.3	3,264.2	3,242.4	21.80	149.709	
7,100.0	6,913.0	6,881.6	6,880.5	21.8	2.0	-28.42	-2,353.5	1,636.2	3,255.4	3,233.6	21.79	149.427	
7,150.0	6,946.9	6,913.9	6,912.7	21.5	2.0	-30.53	-2,353.9	1,635.6	3,221.3	3,199.5	21.73	148.259	

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 OLSON 30R-243
<b>Project:</b>	WELD COUNTY, COLORADO	<b>TVD Reference:</b>	KB-EST @ 4990.0usft (Original Well Elev)
<b>Reference Site:</b>	NW NE SEC 30 T4N R67W 6th P.M.	<b>MD Reference:</b>	KB-EST @ 4990.0usft (Original Well Elev)
<b>Site Error:</b>	0.0 usft	<b>North Reference:</b>	True
<b>Reference Well:</b>	OLSON 30R-243	<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 #2	<b>Offset TVD Reference:</b>	Offset Datum

Offset Design													Offset Site Error:	0.0 usft
Survey Program: 100-GYD_CT													Offset Well Error:	0.0 usft
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	
7,185.0	6,969.1	6,934.5	6,933.4	21.3	2.0	-32.24	-2,354.1	1,635.2	3,196.1	3,174.4	21.70	147.286		
7,200.0	6,978.2	6,943.0	6,941.8	21.2	2.0	-33.04	-2,354.2	1,635.1	3,185.1	3,163.4	21.69	146.817		
7,250.0	7,006.6	6,969.6	6,968.5	21.0	2.0	-36.04	-2,354.5	1,634.7	3,147.0	3,125.3	21.70	145.032		
7,283.4	7,024.0	6,986.0	6,984.8	20.8	2.0	-38.37	-2,354.7	1,634.5	3,120.6	3,098.8	21.72	143.640		
7,300.0	7,032.1	6,993.6	6,992.4	20.7	2.0	-39.63	-2,354.8	1,634.4	3,107.2	3,085.5	21.74	142.904		
7,350.0	7,054.6	7,015.0	7,013.8	20.4	2.0	-43.92	-2,355.1	1,634.2	3,066.0	3,044.2	21.82	140.526		
7,381.9	7,067.2	7,027.1	7,026.0	20.3	2.0	-47.08	-2,355.2	1,634.0	3,039.0	3,017.2	21.87	138.967		
7,400.0	7,073.8	7,033.5	7,032.3	20.2	2.0	-49.04	-2,355.3	1,634.0	3,023.5	3,001.6	21.89	138.126		
7,450.0	7,089.9	7,049.1	7,047.9	19.9	2.0	-55.07	-2,355.5	1,633.8	2,979.9	2,958.0	21.90	136.077		
7,480.3	7,097.9	7,057.0	7,055.8	19.8	2.0	-59.20	-2,355.6	1,633.7	2,953.1	2,931.3	21.84	135.188		
7,500.0	7,102.5	7,061.5	7,060.3	19.7	2.0	-62.08	-2,355.7	1,633.7	2,935.6	2,913.8	21.77	134.862		
7,550.0	7,111.8	7,070.8	7,069.6	19.5	2.0	-69.98	-2,355.8	1,633.6	2,890.6	2,869.2	21.42	134.924		
7,578.7	7,115.6	7,074.7	7,073.5	19.4	2.0	-74.84	-2,355.8	1,633.5	2,864.5	2,843.4	21.13	135.543		
7,600.0	7,117.6	7,076.8	7,075.7	19.3	2.0	-78.55	-2,355.9	1,633.5	2,845.2	2,824.3	20.88	136.246		
7,650.0	7,119.9	7,079.7	7,078.5	19.1	2.0	-87.39	-2,355.9	1,633.5	2,799.7	2,779.3	20.36	137.486		
7,660.3	7,120.0	7,079.8	7,078.6	19.1	2.0	-89.20	-2,355.9	1,633.5	2,790.4	2,770.1	20.29	137.493		
7,677.1	7,120.0	7,080.0	7,078.8	19.0	2.0	-89.21	-2,355.9	1,633.5	2,775.0	2,754.7	20.31	136.644		
7,700.0	7,119.9	7,080.2	7,079.0	19.0	2.0	-89.22	-2,355.9	1,633.5	2,754.3	2,734.0	20.33	135.497		
7,775.6	7,119.7	7,081.0	7,079.8	18.8	2.0	-89.26	-2,355.9	1,633.5	2,685.9	2,665.4	20.49	131.054		
7,800.0	7,119.7	7,081.3	7,080.1	18.8	2.0	-89.27	-2,355.9	1,633.5	2,663.9	2,643.4	20.55	129.637		
7,874.0	7,119.5	7,082.0	7,080.8	18.9	2.0	-89.31	-2,355.9	1,633.4	2,597.5	2,576.6	20.86	124.546		
7,900.0	7,119.4	7,082.3	7,081.1	19.0	2.0	-89.32	-2,355.9	1,633.4	2,574.3	2,553.3	20.96	122.797		
7,972.4	7,119.2	7,083.0	7,081.8	19.4	2.0	-89.36	-2,356.0	1,633.4	2,509.8	2,488.4	21.39	117.312		
8,000.0	7,119.2	7,083.3	7,082.1	19.5	2.0	-89.37	-2,356.0	1,633.4	2,485.4	2,463.8	21.56	115.286		
8,070.8	7,119.0	7,084.0	7,082.8	20.1	2.0	-89.41	-2,356.0	1,633.4	2,422.9	2,400.8	22.10	109.652		
8,100.0	7,118.9	7,084.3	7,083.1	20.4	2.0	-89.43	-2,356.0	1,633.4	2,397.4	2,375.1	22.32	107.419		
8,169.3	7,118.7	7,085.0	7,083.8	21.1	2.0	-89.46	-2,356.0	1,633.4	2,337.0	2,314.1	22.95	101.847		
8,200.0	7,118.7	7,085.3	7,084.2	21.4	2.0	-89.48	-2,356.0	1,633.4	2,310.4	2,287.2	23.22	99.479		
8,267.7	7,118.5	7,086.0	7,084.9	22.1	2.0	-89.51	-2,356.0	1,633.4	2,252.1	2,228.2	23.93	94.127		
8,300.0	7,118.4	7,086.4	7,085.2	22.5	2.0	-89.53	-2,356.0	1,633.4	2,224.5	2,200.2	24.26	91.690		
8,366.1	7,118.3	7,087.1	7,085.9	23.3	2.0	-89.56	-2,356.0	1,633.4	2,168.3	2,143.3	25.02	86.665		
8,400.0	7,118.2	7,087.4	7,086.2	23.7	2.0	-89.58	-2,356.0	1,633.4	2,139.8	2,114.3	25.41	84.215		
8,464.5	7,118.0	7,088.1	7,086.9	24.5	2.0	-89.61	-2,356.0	1,633.4	2,085.8	2,059.6	26.21	79.577		
8,500.0	7,117.9	7,088.4	7,087.3	25.0	2.0	-89.63	-2,356.0	1,633.4	2,056.4	2,029.8	26.65	77.159		
8,563.0	7,117.8	7,089.1	7,087.9	25.8	2.0	-89.66	-2,356.0	1,633.4	2,004.7	1,977.2	27.49	72.933		
8,600.0	7,117.7	7,089.5	7,088.3	26.3	2.0	-89.68	-2,356.0	1,633.4	1,974.6	1,946.7	27.98	70.578		
8,661.4	7,117.5	7,090.1	7,088.9	27.2	2.0	-89.71	-2,356.0	1,633.4	1,925.3	1,896.4	28.84	66.767		
8,700.0	7,117.4	7,090.5	7,089.3	27.7	2.0	-89.73	-2,356.1	1,633.4	1,894.6	1,865.2	29.38	64.497		
8,759.8	7,117.3	7,091.2	7,090.0	28.6	2.0	-89.76	-2,356.1	1,633.4	1,847.7	1,817.4	30.25	61.087		
8,800.0	7,117.2	7,091.6	7,090.4	29.2	2.0	-89.78	-2,356.1	1,633.4	1,816.6	1,785.7	30.83	58.918		
8,858.2	7,117.0	7,092.2	7,091.0	30.1	2.0	-89.81	-2,356.1	1,633.3	1,772.1	1,740.4	31.71	55.884		
8,900.0	7,116.9	7,092.6	7,091.4	30.7	2.0	-89.84	-2,356.1	1,633.3	1,740.8	1,708.4	32.34	53.826		
8,956.7	7,116.8	7,093.2	7,092.0	31.6	2.0	-89.87	-2,356.1	1,633.3	1,698.9	1,665.7	33.22	51.140		
9,000.0	7,116.7	7,093.7	7,092.5	32.3	2.0	-89.89	-2,356.1	1,633.3	1,667.5	1,633.6	33.89	49.199		
9,055.1	7,116.6	7,094.2	7,093.1	33.2	2.0	-89.92	-2,356.1	1,633.3	1,628.4	1,593.6	34.77	46.833		
9,100.0	7,116.5	7,094.7	7,093.5	33.9	2.0	-89.94	-2,356.1	1,633.3	1,597.2	1,561.7	35.48	45.010		
9,153.5	7,116.3	7,095.3	7,094.1	34.7	2.0	-89.97	-2,356.1	1,633.3	1,560.8	1,524.5	36.35	42.935		
9,200.0	7,116.2	7,095.8	7,094.6	35.5	2.0	-89.99	-2,356.1	1,633.3	1,530.1	1,493.0	37.11	41.234		
9,251.9	7,116.1	7,096.3	7,095.1	36.4	2.0	-90.02	-2,356.1	1,633.3	1,496.7	1,458.8	37.97	39.423		
9,300.0	7,116.0	7,096.8	7,095.6	37.2	2.0	-90.04	-2,356.1	1,633.3	1,466.8	1,428.1	38.76	37.844		
9,350.4	7,115.8	7,097.4	7,096.2	38.0	2.0	-90.07	-2,356.1	1,633.3	1,436.5	1,396.9	39.60	36.271		
9,400.0	7,115.7	7,097.9	7,096.7	38.8	2.0	-90.10	-2,356.2	1,633.3	1,407.8	1,367.4	40.44	34.814		

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 OLSON 30R-243
<b>Project:</b>	WELD COUNTY, COLORADO	<b>TVD Reference:</b>	KB-EST @ 4990.0usft (Original Well Elev)
<b>Reference Site:</b>	NW NE SEC 30 T4N R67W 6th P.M.	<b>MD Reference:</b>	KB-EST @ 4990.0usft (Original Well Elev)
<b>Site Error:</b>	0.0 usft	<b>North Reference:</b>	True
<b>Reference Well:</b>	OLSON 30R-243	<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 #2	<b>Offset TVD Reference:</b>	Offset Datum

<b>Offset Design</b> NW NE SEC 30 T4N R67W 6th P.M. - EXIST VERT BROWN MCCARTY 30-43 - Wellbore #1 - Wellbor												<b>Offset Site Error:</b>	0.0 usft
Survey Program: 100-GYD_CT												<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	
9,448.8	7,115.6	7,100.0	7,098.8	39.7	2.0	-90.20	-2,356.2	1,633.3	1,380.7	1,339.4	41.26	33.461	
9,500.0	7,115.5	7,100.0	7,098.8	40.5	2.0	-90.20	-2,356.2	1,633.3	1,353.6	1,311.5	42.13	32.126	
9,547.2	7,115.3	7,100.0	7,098.8	41.3	2.0	-90.20	-2,356.2	1,633.3	1,329.8	1,286.9	42.95	30.965	
9,600.0	7,115.2	7,100.0	7,098.8	42.2	2.0	-90.20	-2,356.2	1,633.3	1,304.8	1,261.0	43.85	29.754	
9,645.6	7,115.1	7,100.0	7,098.8	43.0	2.0	-90.20	-2,356.2	1,633.3	1,284.5	1,239.9	44.65	28.771	
9,700.0	7,115.0	7,100.0	7,098.8	44.0	2.0	-90.20	-2,356.2	1,633.3	1,262.1	1,216.5	45.59	27.683	
9,744.1	7,114.8	7,101.6	7,100.4	44.7	2.0	-90.28	-2,356.2	1,633.3	1,245.3	1,199.0	46.36	26.863	
9,800.0	7,114.7	7,102.1	7,101.0	45.7	2.0	-90.31	-2,356.2	1,633.3	1,226.0	1,178.7	47.34	25.900	
9,842.5	7,114.6	7,102.6	7,101.4	46.5	2.0	-90.33	-2,356.2	1,633.3	1,212.9	1,164.8	48.09	25.223	
9,900.0	7,114.5	7,103.2	7,102.0	47.5	2.0	-90.36	-2,356.2	1,633.2	1,197.3	1,148.2	49.10	24.384	
9,940.9	7,114.4	7,103.6	7,102.4	48.2	2.0	-90.38	-2,356.2	1,633.2	1,187.7	1,137.9	49.83	23.837	
10,000.0	7,114.2	7,104.3	7,103.1	49.2	2.0	-90.41	-2,356.2	1,633.2	1,176.3	1,125.5	50.87	23.122	
10,039.3	7,114.1	7,104.7	7,103.5	49.9	2.0	-90.43	-2,356.2	1,633.2	1,170.3	1,118.8	51.58	22.691	
10,100.0	7,114.0	7,105.3	7,104.1	51.0	2.0	-90.46	-2,356.3	1,633.2	1,163.6	1,111.0	52.66	22.097	
10,137.8	7,113.9	7,105.7	7,104.5	51.7	2.0	-90.48	-2,356.3	1,633.2	1,161.1	1,107.7	53.34	21.768	
10,198.5	7,113.7	7,106.3	7,105.1	52.8	2.0	-90.51	-2,356.3	1,633.2	1,159.5	1,105.0	54.43	21.303 CC	
10,200.0	7,113.7	7,106.3	7,105.1	52.8	2.0	-90.51	-2,356.3	1,633.2	1,159.5	1,105.0	54.45	21.293	
10,236.2	7,113.6	7,106.7	7,105.5	53.4	2.0	-90.53	-2,356.3	1,633.2	1,160.1	1,105.0	55.11	21.051 ES	
10,300.0	7,113.5	7,107.3	7,106.1	54.6	2.0	-90.56	-2,356.3	1,633.2	1,163.9	1,107.7	56.26	20.689	
10,334.6	7,113.4	7,107.7	7,106.5	55.2	2.0	-90.58	-2,356.3	1,633.2	1,167.4	1,110.6	56.88	20.523	
10,400.0	7,113.2	7,108.3	7,107.2	56.4	2.0	-90.61	-2,356.3	1,633.2	1,176.9	1,118.8	58.07	20.267	
10,433.0	7,113.1	7,108.7	7,107.5	57.0	2.0	-90.63	-2,356.3	1,633.2	1,183.0	1,124.3	58.67	20.163	
10,500.0	7,113.0	7,109.3	7,108.1	58.2	2.0	-90.66	-2,356.3	1,633.2	1,198.0	1,138.1	59.89	20.005	
10,531.5	7,112.9	7,109.6	7,108.5	58.8	2.0	-90.68	-2,356.3	1,633.2	1,206.3	1,145.9	60.46	19.953	
10,600.0	7,112.7	7,110.3	7,109.1	60.0	2.0	-90.71	-2,356.3	1,633.2	1,227.0	1,165.3	61.71	19.884	
10,629.9	7,112.6	7,110.6	7,109.4	60.6	2.0	-90.73	-2,356.3	1,633.2	1,237.1	1,174.9	62.26	19.871 SF	
10,700.0	7,112.5	7,111.3	7,110.1	61.9	2.0	-90.76	-2,356.3	1,633.2	1,263.3	1,199.7	63.54	19.882	
10,728.3	7,112.4	7,111.6	7,110.4	62.4	2.0	-90.77	-2,356.3	1,633.2	1,274.8	1,210.7	64.06	19.900	
10,800.0	7,112.2	7,112.3	7,111.1	63.7	2.0	-90.81	-2,356.3	1,633.2	1,306.2	1,240.8	65.38	19.980	
10,826.7	7,112.1	7,112.5	7,111.3	64.2	2.0	-90.82	-2,356.3	1,633.2	1,318.7	1,252.9	65.87	20.021	
10,900.0	7,111.9	7,113.2	7,112.0	65.5	2.0	-90.86	-2,356.4	1,633.2	1,355.2	1,287.9	67.22	20.162	
10,925.2	7,111.9	7,113.5	7,112.3	66.0	2.0	-90.87	-2,356.4	1,633.2	1,368.4	1,300.7	67.68	20.218	
11,000.0	7,111.7	7,114.2	7,113.0	67.4	2.0	-90.90	-2,356.4	1,633.2	1,409.5	1,340.5	69.06	20.410	
11,023.6	7,111.6	7,114.4	7,113.2	67.8	2.0	-90.91	-2,356.4	1,633.1	1,423.1	1,353.6	69.50	20.477	
11,100.0	7,111.4	7,115.1	7,113.9	69.2	2.0	-90.95	-2,356.4	1,633.1	1,468.7	1,397.8	70.91	20.713	
11,122.0	7,111.4	7,115.3	7,114.1	69.6	2.0	-90.96	-2,356.4	1,633.1	1,482.3	1,411.0	71.32	20.785	
11,200.0	7,111.2	7,116.0	7,114.9	71.1	2.0	-90.99	-2,356.4	1,633.1	1,532.1	1,459.3	72.76	21.057	
11,220.4	7,111.1	7,116.2	7,115.0	71.4	2.0	-91.00	-2,356.4	1,633.1	1,545.5	1,472.4	73.14	21.132	
11,300.0	7,110.9	7,117.0	7,115.8	72.9	2.0	-91.04	-2,356.4	1,633.1	1,599.3	1,524.6	74.62	21.433	
11,318.9	7,110.9	7,117.1	7,116.0	73.3	2.0	-91.05	-2,356.4	1,633.1	1,612.3	1,537.3	74.97	21.507	
11,400.0	7,110.7	7,117.9	7,116.7	74.8	2.0	-91.09	-2,356.4	1,633.1	1,669.7	1,593.2	76.47	21.834	
11,417.3	7,110.6	7,118.0	7,116.8	75.1	2.0	-91.09	-2,356.4	1,633.1	1,682.2	1,605.4	76.80	21.905	
11,500.0	7,110.4	7,118.8	7,117.6	76.6	2.0	-91.13	-2,356.4	1,633.1	1,743.0	1,664.7	78.34	22.251	
11,515.7	7,110.4	7,118.9	7,117.7	76.9	2.0	-91.14	-2,356.4	1,633.1	1,754.8	1,676.2	78.63	22.318	
11,600.0	7,110.2	7,119.7	7,118.5	78.5	2.0	-91.17	-2,356.4	1,633.1	1,818.9	1,738.7	80.20	22.680	
11,614.1	7,110.1	7,119.8	7,118.6	78.7	2.0	-91.18	-2,356.4	1,633.1	1,829.8	1,749.4	80.46	22.741	
11,668.5	7,110.0	7,120.3	7,119.1	79.8	2.0	-91.20	-2,356.4	1,633.1	1,872.2	1,790.7	81.48	22.978	

# Anticollision Report



<b>Company:</b>	PDC ENERGY	<b>Local Co-ordinate Reference:</b>	Well OLSON 30R-243
<b>Project:</b>	WELD COUNTY, COLORADO	<b>TVD Reference:</b>	KB-EST @ 4990.0usft (Original Well Elev)
<b>Reference Site:</b>	NW NE SEC 30 T4N R67W 6th P.M.	<b>MD Reference:</b>	KB-EST @ 4990.0usft (Original Well Elev)
<b>Site Error:</b>	0.0 usft	<b>North Reference:</b>	True
<b>Reference Well:</b>	OLSON 30R-243	<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 #2	<b>Offset TVD Reference:</b>	Offset Datum

Offset Design												Offset Site Error:	0.0 usft
Survey Program: 100-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	0.0	0.0	0.0	0.0	121.06	-1,016.3	1,687.3	1,970.3				
98.4	98.4	53.5	53.5	0.1	0.0	121.06	-1,016.3	1,687.4	1,969.8	1,969.7	0.12	N/A	
100.0	100.0	55.0	55.0	0.1	0.0	121.06	-1,016.3	1,687.4	1,969.8	1,969.7	0.12	N/A	
196.8	196.8	153.2	153.2	0.3	0.1	121.05	-1,016.0	1,687.5	1,969.8	1,969.3	0.44	4,430.284	
200.0	200.0	156.4	156.4	0.3	0.1	121.05	-1,016.0	1,687.5	1,969.8	1,969.3	0.46	4,313.066	
295.3	295.3	255.8	255.8	0.5	0.3	121.04	-1,015.7	1,687.5	1,969.6	1,968.8	0.78	2,527.622	
300.0	300.0	260.8	260.8	0.5	0.3	121.04	-1,015.6	1,687.5	1,969.6	1,968.8	0.79	2,482.117	
393.7	393.7	356.5	356.5	0.7	0.3	121.04	-1,015.4	1,687.3	1,969.2	1,968.2	1.07	1,848.348	
400.0	400.0	362.7	362.7	0.8	0.3	121.04	-1,015.4	1,687.2	1,969.2	1,968.1	1.08	1,817.962	
492.1	492.1	451.5	451.5	1.0	0.4	121.05	-1,015.4	1,686.9	1,968.9	1,967.6	1.34	1,470.493	
500.0	500.0	458.9	458.9	1.0	0.4	121.05	-1,015.4	1,686.8	1,968.9	1,967.5	1.36	1,447.147	
590.5	590.5	550.3	550.2	1.2	0.4	121.06	-1,015.7	1,686.5	1,968.8	1,967.2	1.61	1,222.925	
600.0	600.0	560.4	560.4	1.2	0.4	121.06	-1,015.7	1,686.5	1,968.7	1,967.1	1.64	1,203.377	
689.0	689.0	652.8	652.8	1.4	0.5	121.07	-1,015.7	1,686.0	1,968.4	1,966.5	1.88	1,045.507	
700.0	700.0	664.0	664.0	1.4	0.5	121.07	-1,015.7	1,686.0	1,968.3	1,966.4	1.91	1,028.745	
787.4	787.4	754.5	754.5	1.6	0.5	121.07	-1,015.6	1,685.5	1,967.9	1,965.7	2.16	912.979	
800.0	800.0	767.8	767.8	1.7	0.5	121.07	-1,015.6	1,685.4	1,967.8	1,965.6	2.19	898.421	
885.8	885.8	853.2	853.2	1.9	0.6	121.07	-1,015.3	1,684.9	1,967.2	1,964.8	2.42	811.598	
900.0	900.0	866.9	866.9	1.9	0.6	121.07	-1,015.3	1,684.8	1,967.1	1,964.7	2.46	798.957	
984.2	984.2	951.8	951.8	2.1	0.6	121.07	-1,015.0	1,684.4	1,966.6	1,964.0	2.69	731.065	
1,000.0	1,000.0	968.2	968.2	2.1	0.6	121.07	-1,015.0	1,684.3	1,966.5	1,963.8	2.73	719.602	
1,082.7	1,082.7	1,052.8	1,052.8	2.3	0.7	121.07	-1,014.7	1,683.8	1,965.9	1,963.0	2.96	665.127	
1,100.0	1,100.0	1,070.3	1,070.3	2.3	0.7	121.07	-1,014.6	1,683.7	1,965.8	1,962.8	3.00	654.769	
1,181.1	1,181.1	1,152.8	1,152.8	2.5	0.7	121.08	-1,014.3	1,683.1	1,965.1	1,961.9	3.22	610.391	
1,200.0	1,200.0	1,172.0	1,172.0	2.6	0.7	121.08	-1,014.2	1,682.9	1,965.0	1,961.7	3.27	600.911	
1,279.5	1,279.5	1,247.9	1,247.9	2.7	0.8	121.08	-1,013.9	1,682.4	1,964.3	1,960.8	3.48	564.533	
1,300.0	1,300.0	1,266.7	1,266.7	2.8	0.8	121.08	-1,013.9	1,682.3	1,964.2	1,960.7	3.53	555.940	
1,377.9	1,377.9	1,342.5	1,342.5	3.0	0.8	121.08	-1,013.7	1,681.9	1,963.8	1,960.1	3.74	525.618	
1,400.0	1,400.0	1,364.9	1,364.8	3.0	0.8	121.08	-1,013.7	1,681.8	1,963.7	1,959.9	3.79	517.655	
1,476.4	1,476.4	1,444.5	1,444.4	3.2	0.8	121.08	-1,013.4	1,681.5	1,963.3	1,959.3	3.99	491.693	
1,500.0	1,500.0	1,469.6	1,469.6	3.2	0.8	121.08	-1,013.3	1,681.3	1,963.1	1,959.1	4.05	484.136	
1,574.8	1,574.8	1,545.8	1,545.7	3.4	0.9	121.08	-1,013.0	1,680.7	1,962.5	1,958.3	4.25	461.594	
1,600.0	1,600.0	1,570.7	1,570.7	3.5	0.9	121.08	-1,013.0	1,680.6	1,962.3	1,958.0	4.32	454.452	
1,673.2	1,673.2	1,641.8	1,641.8	3.6	0.9	121.08	-1,012.7	1,680.1	1,961.7	1,957.2	4.51	435.005	
1,700.0	1,700.0	1,667.5	1,667.5	3.7	0.9	121.08	-1,012.7	1,679.9	1,961.6	1,957.0	4.58	428.332	
1,771.6	1,771.6	1,740.3	1,740.2	3.8	0.9	121.09	-1,012.7	1,679.4	1,961.1	1,956.4	4.77	411.268	
1,800.0	1,800.0	1,770.5	1,770.4	3.9	1.0	121.09	-1,012.7	1,679.1	1,960.9	1,956.1	4.84	404.815	
1,870.1	1,870.1	1,841.5	1,841.5	4.1	1.0	121.10	-1,012.6	1,678.4	1,960.3	1,955.3	5.03	389.848	
1,900.0	1,900.0	1,870.8	1,870.8	4.1	1.0	121.11	-1,012.6	1,678.2	1,960.1	1,955.0	5.11	383.833	
1,950.0	1,950.0	1,920.8	1,920.7	4.2	1.0	121.11	-1,012.5	1,677.8	1,959.7	1,954.4	5.24	374.165	
1,968.5	1,968.5	1,939.7	1,939.7	4.3	1.0	93.35	-1,012.4	1,677.7	1,959.5	1,954.2	5.30	369.812	
2,000.0	2,000.0	1,972.0	1,972.0	4.4	1.0	93.37	-1,012.4	1,677.4	1,959.3	1,953.9	5.38	364.138	
2,066.9	2,066.9	2,039.4	2,039.4	4.5	1.1	93.44	-1,012.3	1,676.7	1,958.8	1,953.3	5.55	352.784	
2,100.0	2,099.9	2,072.2	2,072.2	4.6	1.1	93.50	-1,012.3	1,676.3	1,958.6	1,953.0	5.64	347.453	
2,165.3	2,165.1	2,135.9	2,135.9	4.7	1.1	93.63	-1,012.3	1,675.7	1,958.3	1,952.5	5.80	337.362	
2,200.0	2,199.7	2,169.2	2,169.1	4.8	1.1	93.71	-1,012.2	1,675.5	1,958.2	1,952.3	5.89	332.268	
2,263.8	2,263.1	2,233.8	2,233.7	4.9	1.1	93.90	-1,012.0	1,675.0	1,958.2	1,952.1	6.06	323.043	
2,300.0	2,299.1	2,272.4	2,272.3	5.0	1.1	94.03	-1,011.9	1,674.7	1,958.2	1,952.0	6.16	317.933	
2,339.9	2,338.7	2,313.1	2,313.1	5.1	1.2	94.18	-1,011.6	1,674.4	1,958.1	1,951.9	6.27	312.352	
2,362.2	2,360.8	2,334.0	2,334.0	5.2	1.2	94.27	-1,011.5	1,674.2	1,958.1	1,951.8	6.33	309.341	
2,400.0	2,398.2	2,369.4	2,369.4	5.3	1.2	94.42	-1,011.4	1,674.0	1,958.2	1,951.8	6.43	304.364	
2,460.6	2,457.9	2,429.3	2,429.3	5.4	1.2	94.71	-1,011.2	1,673.5	1,958.6	1,952.0	6.61	296.231	

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 OLSON 30R-243
<b>Project:</b>	WELD COUNTY, COLORADO	<b>TVD Reference:</b>	KB-EST @ 4990.0usft (Original Well Elev)
<b>Reference Site:</b>	NW NE SEC 30 T4N R67W 6th P.M.	<b>MD Reference:</b>	KB-EST @ 4990.0usft (Original Well Elev)
<b>Site Error:</b>	0.0 usft	<b>North Reference:</b>	True
<b>Reference Well:</b>	OLSON 30R-243	<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 #2	<b>Offset TVD Reference:</b>	Offset Datum

Offset Design												Offset Site Error:	0.0 usft
Survey Program: 100-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	
2,500.0	2,496.6	2,470.6	2,470.6	5.5	1.2	94.93	-1,011.1	1,673.2	1,958.8	1,952.1	6.73	291.101	
2,559.0	2,554.5	2,528.7	2,528.7	5.7	1.2	95.26	-1,010.8	1,672.7	1,959.3	1,952.4	6.92	283.237	
2,600.0	2,594.4	2,566.5	2,566.5	5.8	1.2	95.49	-1,010.5	1,672.4	1,959.8	1,952.7	7.05	278.037	
2,657.5	2,650.3	2,620.9	2,620.8	6.0	1.3	95.84	-1,010.2	1,672.1	1,960.7	1,953.4	7.25	270.399	
2,700.0	2,691.5	2,662.7	2,662.7	6.1	1.3	96.13	-1,010.0	1,671.8	1,961.5	1,954.1	7.40	264.959	
2,730.9	2,721.3	2,693.0	2,693.0	6.2	1.3	96.35	-1,009.8	1,671.6	1,962.1	1,954.6	7.52	260.888	
2,755.9	2,745.3	2,716.1	2,716.0	6.3	1.3	96.53	-1,009.7	1,671.5	1,962.7	1,955.1	7.62	257.595	
2,800.0	2,787.8	2,755.8	2,755.7	6.5	1.3	96.84	-1,009.5	1,671.2	1,963.8	1,956.0	7.79	251.952	
2,854.3	2,840.1	2,805.2	2,805.1	6.7	1.3	97.22	-1,009.4	1,671.0	1,965.3	1,957.3	8.02	245.075	
2,900.0	2,884.1	2,850.0	2,849.9	6.9	1.3	97.57	-1,009.3	1,670.8	1,966.7	1,958.5	8.21	239.540	
2,952.7	2,934.9	2,901.7	2,901.7	7.1	1.4	97.97	-1,009.0	1,670.6	1,968.4	1,959.9	8.44	233.224	
3,000.0	2,980.4	2,946.2	2,946.1	7.3	1.4	98.32	-1,008.8	1,670.4	1,970.0	1,961.3	8.65	227.860	
3,051.2	3,029.7	2,994.3	2,994.3	7.5	1.4	98.69	-1,008.7	1,670.2	1,971.8	1,962.9	8.88	222.165	
3,100.0	3,076.7	3,041.0	3,041.0	7.7	1.4	99.05	-1,008.6	1,670.0	1,973.7	1,964.6	9.09	217.012	
3,149.6	3,124.5	3,088.6	3,088.5	7.9	1.4	99.43	-1,008.7	1,669.7	1,975.7	1,966.3	9.32	211.912	
3,200.0	3,173.0	3,136.6	3,136.6	8.1	1.4	99.81	-1,008.8	1,669.3	1,977.8	1,968.2	9.55	207.002	
3,248.0	3,219.3	3,182.4	3,182.3	8.4	1.5	100.17	-1,008.9	1,669.0	1,979.9	1,970.1	9.78	202.460	
3,300.0	3,269.4	3,234.7	3,234.7	8.6	1.5	100.58	-1,009.1	1,668.6	1,982.3	1,972.2	10.02	197.763	
3,346.4	3,314.1	3,282.8	3,282.8	8.8	1.5	100.96	-1,009.2	1,668.1	1,984.4	1,974.2	10.25	193.683	
3,400.0	3,365.7	3,337.6	3,337.5	9.1	1.5	101.39	-1,009.4	1,667.4	1,986.9	1,976.4	10.50	189.185	
3,444.9	3,408.9	3,383.1	3,383.0	9.3	1.5	101.75	-1,009.5	1,666.8	1,989.0	1,978.2	10.72	185.531	
3,500.0	3,462.0	3,436.0	3,435.9	9.5	1.5	102.17	-1,009.6	1,666.0	1,991.6	1,980.6	10.99	181.255	
3,543.3	3,503.7	3,476.5	3,476.4	9.7	1.5	102.48	-1,009.6	1,665.5	1,993.8	1,982.6	11.20	178.013	
3,600.0	3,558.3	3,529.2	3,529.1	10.0	1.6	102.90	-1,009.8	1,664.8	1,996.7	1,985.3	11.48	173.971	
3,641.7	3,598.5	3,567.9	3,567.8	10.2	1.6	103.20	-1,009.9	1,664.3	1,999.0	1,987.4	11.68	171.104	
3,700.0	3,654.6	3,620.6	3,620.5	10.5	1.6	103.61	-1,010.1	1,663.7	2,002.4	1,990.4	11.97	167.299	
3,740.1	3,693.2	3,655.7	3,655.6	10.7	1.6	103.88	-1,010.2	1,663.3	2,004.9	1,992.7	12.17	164.789	
3,800.0	3,750.9	3,708.9	3,708.8	11.0	1.6	104.30	-1,010.5	1,662.9	2,008.8	1,996.3	12.46	161.219	
3,838.6	3,788.0	3,746.6	3,746.5	11.2	1.6	104.58	-1,010.7	1,662.6	2,011.4	1,998.8	12.65	159.003	
3,900.0	3,847.2	3,806.2	3,806.1	11.5	1.6	105.04	-1,010.9	1,662.3	2,015.7	2,002.7	12.95	155.623	
3,937.0	3,882.8	3,839.8	3,839.7	11.7	1.6	105.29	-1,011.0	1,662.1	2,018.3	2,005.2	13.13	153.670	
4,000.0	3,943.5	3,896.9	3,896.8	12.0	1.7	105.73	-1,011.4	1,661.7	2,023.0	2,009.6	13.44	150.487	
4,035.4	3,977.6	3,932.2	3,932.1	12.2	1.7	106.00	-1,011.7	1,661.4	2,025.7	2,012.1	13.62	148.768	
4,100.0	4,039.8	3,997.3	3,997.1	12.5	1.7	106.49	-1,012.2	1,661.0	2,030.8	2,016.8	13.93	145.757	
4,133.8	4,072.4	4,027.9	4,027.8	12.7	1.7	106.73	-1,012.4	1,660.7	2,033.4	2,019.3	14.10	144.231	
4,200.0	4,136.1	4,087.1	4,087.0	13.0	1.7	107.18	-1,013.0	1,660.2	2,038.9	2,024.4	14.42	141.375	
4,232.3	4,167.2	4,117.9	4,117.7	13.2	1.7	107.42	-1,013.4	1,659.8	2,041.6	2,027.0	14.58	140.035	
4,300.0	4,232.4	4,185.4	4,185.3	13.5	1.7	107.94	-1,014.4	1,659.0	2,047.5	2,032.5	14.91	137.336	
4,330.7	4,262.0	4,214.7	4,214.5	13.7	1.7	108.17	-1,014.8	1,658.6	2,050.1	2,035.1	15.06	136.151	
4,400.0	4,328.7	4,278.0	4,277.8	14.0	1.8	108.66	-1,015.9	1,657.6	2,056.4	2,041.0	15.39	133.580	
4,429.1	4,356.8	4,305.4	4,305.2	14.2	1.8	108.87	-1,016.4	1,657.2	2,059.1	2,043.5	15.54	132.538	
4,500.0	4,425.0	4,382.5	4,382.3	14.6	1.8	109.46	-1,017.6	1,656.0	2,065.6	2,049.8	15.88	130.099	
4,527.5	4,451.6	4,411.3	4,411.1	14.7	1.8	109.68	-1,018.0	1,655.5	2,068.1	2,052.1	16.01	129.174	
4,600.0	4,521.4	4,482.9	4,482.7	15.1	1.8	110.23	-1,018.9	1,654.2	2,074.8	2,058.5	16.36	126.815	
4,626.0	4,546.4	4,508.6	4,508.3	15.2	1.8	110.43	-1,019.3	1,653.7	2,077.3	2,060.8	16.49	125.994	
4,700.0	4,617.7	4,581.7	4,581.4	15.6	1.8	110.98	-1,020.1	1,652.3	2,084.3	2,067.4	16.84	123.733	
4,724.4	4,641.2	4,605.8	4,605.5	15.7	1.8	111.16	-1,020.4	1,651.8	2,086.6	2,069.6	16.96	123.011	
4,800.0	4,714.0	4,680.2	4,679.9	16.1	1.9	111.72	-1,021.2	1,650.3	2,093.9	2,076.6	17.33	120.848	
4,822.8	4,735.9	4,700.0	4,699.7	16.3	1.9	111.87	-1,021.4	1,649.8	2,096.1	2,078.7	17.44	120.212	
4,900.0	4,810.3	4,767.0	4,766.7	16.7	1.9	112.36	-1,022.2	1,648.6	2,104.0	2,086.2	17.81	118.150	
4,921.2	4,830.7	4,784.8	4,784.5	16.8	1.9	112.49	-1,022.3	1,648.4	2,106.2	2,088.3	17.91	117.601	
5,000.0	4,906.6	4,858.7	4,858.4	17.2	1.9	113.02	-1,023.1	1,647.6	2,114.8	2,096.5	18.28	115.660	

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 OLSON 30R-243
<b>Project:</b>	WELD COUNTY, COLORADO	<b>TVD Reference:</b>	KB-EST @ 4990.0usft (Original Well Elev)
<b>Reference Site:</b>	NW NE SEC 30 T4N R67W 6th P.M.	<b>MD Reference:</b>	KB-EST @ 4990.0usft (Original Well Elev)
<b>Site Error:</b>	0.0 usft	<b>North Reference:</b>	True
<b>Reference Well:</b>	OLSON 30R-243	<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 #2	<b>Offset TVD Reference:</b>	Offset Datum

<b>Offset Design</b> NW NE SEC 30 T4N R67W 6th P.M. - EXIST VERT BROWN-MCCARTY 30-5 - Wellbore #1 - Wellbore												<b>Offset Site Error:</b>	0.0 usft
Survey Program: 100-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
5,019.7	4,925.5	4,877.7	4,877.4	17.3	1.9	113.16	-1,023.3	1,647.4	2,117.0	2,098.6	18.38	115.191	
5,100.0	5,002.9	4,958.5	4,958.2	17.7	1.9	113.73	-1,024.1	1,646.4	2,125.9	2,107.2	18.76	113.345	
5,118.1	5,020.3	4,977.0	4,976.7	17.8	2.0	113.86	-1,024.3	1,646.2	2,128.0	2,109.1	18.84	112.941	
5,200.0	5,099.2	5,055.7	5,055.3	18.3	2.0	114.41	-1,024.9	1,645.3	2,137.2	2,118.0	19.23	111.156	
5,216.5	5,115.1	5,071.1	5,070.8	18.3	2.0	114.52	-1,025.0	1,645.2	2,139.1	2,119.8	19.30	110.806	
5,300.0	5,195.5	5,152.0	5,151.6	18.8	2.0	115.07	-1,025.4	1,644.6	2,148.8	2,129.1	19.70	109.100	
5,314.9	5,209.9	5,166.7	5,166.4	18.9	2.0	115.17	-1,025.5	1,644.4	2,150.5	2,130.8	19.77	108.802	
5,400.0	5,291.8	5,247.0	5,246.6	19.3	2.0	115.71	-1,025.9	1,643.8	2,160.6	2,140.4	20.17	107.142	
5,413.4	5,304.7	5,259.2	5,258.9	19.4	2.0	115.80	-1,026.0	1,643.7	2,162.2	2,142.0	20.23	106.891	
5,500.0	5,388.1	5,349.9	5,349.6	19.9	2.1	116.41	-1,026.7	1,642.7	2,172.8	2,152.2	20.62	105.350	
5,511.8	5,399.5	5,364.0	5,363.6	19.9	2.1	116.51	-1,026.7	1,642.5	2,174.2	2,153.5	20.68	105.146	
5,600.0	5,484.4	5,456.6	5,456.2	20.4	2.1	117.13	-1,026.9	1,641.1	2,184.6	2,163.6	21.08	103.618	
5,610.2	5,494.3	5,466.5	5,466.2	20.4	2.1	117.19	-1,026.9	1,641.0	2,185.9	2,164.7	21.13	103.443	
5,700.0	5,580.7	5,564.7	5,564.3	20.9	2.1	117.83	-1,026.7	1,639.7	2,196.5	2,174.9	21.54	101.950	
5,708.6	5,589.1	5,574.8	5,574.4	21.0	2.1	117.90	-1,026.6	1,639.6	2,197.5	2,175.9	21.58	101.810	
5,722.6	5,602.5	5,591.1	5,590.7	21.0	2.1	118.00	-1,026.5	1,639.4	2,199.1	2,177.4	21.65	101.584	
5,800.0	5,677.3	5,682.9	5,682.5	21.4	2.2	118.71	-1,025.4	1,637.8	2,207.3	2,185.3	21.92	100.705	
5,807.1	5,684.2	5,691.3	5,690.9	21.4	2.2	118.77	-1,025.3	1,637.6	2,207.9	2,186.0	21.94	100.650	
5,900.0	5,774.7	5,763.6	5,763.2	21.8	2.2	119.31	-1,024.6	1,636.0	2,216.4	2,194.2	22.20	99.858	
5,905.5	5,780.1	5,767.7	5,767.3	21.8	2.2	119.34	-1,024.6	1,636.0	2,216.9	2,194.7	22.21	99.818	
6,000.0	5,872.9	5,848.6	5,848.2	22.1	2.2	119.85	-1,024.3	1,634.8	2,224.9	2,202.5	22.45	99.125	
6,003.9	5,876.7	5,852.4	5,851.9	22.1	2.2	119.87	-1,024.3	1,634.7	2,225.2	2,202.8	22.45	99.101	
6,100.0	5,971.6	5,941.1	5,940.6	22.4	2.2	120.30	-1,023.7	1,634.4	2,232.1	2,209.4	22.67	98.469	
6,102.3	5,973.9	5,943.2	5,942.7	22.4	2.2	120.31	-1,023.6	1,634.4	2,232.2	2,209.6	22.67	98.457	
6,200.0	6,070.8	6,031.6	6,031.2	22.7	2.2	120.63	-1,023.0	1,634.7	2,237.9	2,215.1	22.86	97.892	
6,200.8	6,071.6	6,032.4	6,031.9	22.7	2.2	120.64	-1,023.0	1,634.7	2,238.0	2,215.1	22.86	97.889	
6,299.2	6,169.6	6,124.1	6,123.7	22.9	2.2	120.89	-1,023.0	1,634.6	2,242.3	2,219.3	23.02	97.415	
6,300.0	6,170.4	6,124.8	6,124.4	22.9	2.2	120.89	-1,023.0	1,634.6	2,242.4	2,219.3	23.02	97.411	
6,397.6	6,267.9	6,226.1	6,225.7	23.1	2.3	121.06	-1,023.3	1,634.4	2,245.2	2,222.1	23.15	96.981	
6,400.0	6,270.3	6,229.9	6,229.5	23.1	2.3	121.07	-1,023.3	1,634.4	2,245.3	2,222.1	23.15	96.970	
6,496.0	6,366.3	6,342.6	6,342.2	23.2	2.3	121.12	-1,022.3	1,634.0	2,245.3	2,222.0	23.27	96.478	
6,503.5	6,373.8	6,348.8	6,348.3	23.2	2.3	148.89	-1,022.3	1,634.0	2,245.2	2,222.0	23.28	96.432	
6,533.5	6,403.8	6,373.3	6,372.9	23.2	2.3	148.89	-1,022.1	1,633.8	2,245.0	2,221.7	23.33	96.240	
6,550.0	6,420.3	6,386.8	6,386.4	23.2	2.3	-31.12	-1,022.1	1,633.8	2,244.8	2,221.4	23.34	96.188	
6,594.5	6,464.7	6,426.8	6,426.4	23.3	2.3	-31.24	-1,022.0	1,633.6	2,242.5	2,219.2	23.37	95.966	
6,600.0	6,470.2	6,432.0	6,431.6	23.3	2.3	-31.27	-1,022.0	1,633.6	2,242.1	2,218.7	23.37	95.922	
6,650.0	6,519.8	6,478.9	6,478.5	23.3	2.3	-31.57	-1,022.0	1,633.3	2,236.6	2,213.1	23.43	95.467	
6,692.9	6,561.9	6,519.8	6,519.3	23.2	2.3	-31.98	-1,022.1	1,633.2	2,229.5	2,206.0	23.48	94.965	
6,700.0	6,568.8	6,526.6	6,526.2	23.2	2.3	-32.06	-1,022.1	1,633.1	2,228.1	2,204.6	23.49	94.866	
6,750.0	6,617.0	6,574.7	6,574.3	23.1	2.3	-32.73	-1,022.2	1,632.9	2,216.8	2,193.3	23.54	94.168	
6,791.3	6,656.1	6,613.1	6,612.7	23.0	2.4	-33.43	-1,022.2	1,632.8	2,205.3	2,181.7	23.57	93.558	
6,800.0	6,664.2	6,620.9	6,620.4	23.0	2.4	-33.60	-1,022.2	1,632.8	2,202.7	2,179.1	23.58	93.421	
6,850.0	6,710.1	6,664.8	6,664.4	22.9	2.4	-34.67	-1,022.3	1,632.6	2,185.9	2,162.3	23.59	92.656	
6,889.7	6,745.5	6,700.0	6,699.6	22.7	2.4	-35.68	-1,022.4	1,632.5	2,170.7	2,147.1	23.58	92.039	
6,900.0	6,754.5	6,707.6	6,707.2	22.7	2.4	-35.96	-1,022.4	1,632.5	2,166.5	2,142.9	23.58	91.880	
6,950.0	6,797.2	6,749.6	6,749.2	22.5	2.4	-37.50	-1,022.6	1,632.3	2,144.6	2,121.1	23.54	91.095	
6,988.2	6,828.5	6,780.4	6,779.9	22.3	2.4	-38.86	-1,022.7	1,632.3	2,126.3	2,102.8	23.50	90.488	
7,000.0	6,838.0	6,789.7	6,789.2	22.3	2.4	-39.31	-1,022.7	1,632.3	2,120.4	2,096.9	23.48	90.290	
7,050.0	6,876.7	6,829.6	6,829.1	22.0	2.4	-41.45	-1,022.8	1,632.3	2,094.0	2,070.6	23.41	89.443	
7,086.6	6,903.5	6,857.8	6,857.3	21.8	2.4	-43.22	-1,022.8	1,632.2	2,073.4	2,050.0	23.35	88.805	
7,100.0	6,913.0	6,867.7	6,867.3	21.8	2.4	-43.92	-1,022.8	1,632.2	2,065.6	2,042.2	23.32	88.563	
7,150.0	6,946.9	6,903.2	6,902.8	21.5	2.4	-46.74	-1,022.9	1,632.2	2,035.3	2,012.0	23.22	87.663	

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 OLSON 30R-243
<b>Project:</b>	WELD COUNTY, COLORADO	<b>TVD Reference:</b>	KB-EST @ 4990.0usft (Original Well Elev)
<b>Reference Site:</b>	NW NE SEC 30 T4N R67W 6th P.M.	<b>MD Reference:</b>	KB-EST @ 4990.0usft (Original Well Elev)
<b>Site Error:</b>	0.0 usft	<b>North Reference:</b>	True
<b>Reference Well:</b>	OLSON 30R-243	<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 #2	<b>Offset TVD Reference:</b>	Offset Datum

Offset Design												Offset Site Error:	0.0 usft
Survey Program: 100-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	
7,185.0	6,969.1	6,926.2	6,925.7	21.3	2.4	-48.93	-1,022.9	1,632.1	2,013.0	1,989.9	23.13	87.019	
7,200.0	6,978.2	6,935.6	6,935.2	21.2	2.4	-49.92	-1,022.9	1,632.1	2,003.3	1,980.2	23.09	86.743	
7,250.0	7,006.6	6,965.1	6,964.7	21.0	2.4	-53.47	-1,022.9	1,632.0	1,969.8	1,946.9	22.95	85.843	
7,283.4	7,024.0	6,983.2	6,982.7	20.8	2.4	-56.06	-1,022.9	1,631.9	1,946.8	1,923.9	22.83	85.268	
7,300.0	7,032.1	6,991.6	6,991.2	20.7	2.4	-57.40	-1,023.0	1,631.9	1,935.2	1,912.4	22.77	85.004	
7,350.0	7,054.6	7,013.0	7,012.6	20.4	2.5	-61.60	-1,023.0	1,631.7	1,899.5	1,877.0	22.54	84.282	
7,381.9	7,067.2	7,024.5	7,024.1	20.3	2.5	-64.41	-1,023.0	1,631.7	1,876.4	1,854.0	22.37	83.885	
7,400.0	7,073.8	7,030.6	7,030.1	20.2	2.5	-66.05	-1,023.0	1,631.7	1,863.2	1,840.9	22.26	83.699	
7,450.0	7,089.9	7,045.2	7,044.7	19.9	2.5	-70.70	-1,023.1	1,631.6	1,826.3	1,804.4	21.94	83.252	
7,480.3	7,097.9	7,052.6	7,052.2	19.8	2.5	-73.57	-1,023.1	1,631.6	1,803.8	1,782.1	21.73	83.015	
7,500.0	7,102.5	7,056.8	7,056.4	19.7	2.5	-75.45	-1,023.1	1,631.6	1,789.2	1,767.6	21.58	82.892	
7,550.0	7,111.8	7,065.4	7,065.0	19.5	2.5	-80.18	-1,023.1	1,631.5	1,752.0	1,730.8	21.24	82.497	
7,578.7	7,115.6	7,068.9	7,068.5	19.4	2.5	-82.86	-1,023.2	1,631.5	1,730.7	1,709.7	21.06	82.165	
7,600.0	7,117.6	7,070.9	7,070.4	19.3	2.5	-84.79	-1,023.2	1,631.5	1,715.1	1,694.1	20.94	81.888	
7,650.0	7,119.9	7,073.2	7,072.8	19.1	2.5	-89.17	-1,023.2	1,631.5	1,678.6	1,657.8	20.75	80.901	
7,660.3	7,120.0	7,073.3	7,072.8	19.1	2.5	-90.04	-1,023.2	1,631.5	1,671.1	1,650.4	20.72	80.644	
7,677.1	7,120.0	7,073.3	7,072.9	19.0	2.5	-90.04	-1,023.2	1,631.5	1,659.0	1,638.3	20.74	80.006	
7,700.0	7,119.9	7,073.3	7,072.9	19.0	2.5	-90.04	-1,023.2	1,631.5	1,642.7	1,622.0	20.75	79.149	
7,775.6	7,119.7	7,073.5	7,073.0	18.8	2.5	-90.05	-1,023.2	1,631.5	1,590.0	1,569.1	20.92	75.995	
7,800.0	7,119.7	7,073.5	7,073.1	18.8	2.5	-90.05	-1,023.2	1,631.5	1,573.3	1,552.4	20.98	75.006	
7,874.0	7,119.5	7,073.6	7,073.2	18.9	2.5	-90.06	-1,023.2	1,631.5	1,524.2	1,502.9	21.28	71.616	
7,900.0	7,119.4	7,073.7	7,073.2	19.0	2.5	-90.06	-1,023.2	1,631.5	1,507.4	1,486.0	21.39	70.470	
7,972.4	7,119.2	7,073.8	7,073.3	19.4	2.5	-90.06	-1,023.2	1,631.5	1,462.1	1,440.3	21.82	67.000	
8,000.0	7,119.2	7,073.8	7,073.4	19.5	2.5	-90.07	-1,023.2	1,631.5	1,445.4	1,423.4	21.99	65.741	
8,070.8	7,119.0	7,073.9	7,073.5	20.1	2.5	-90.07	-1,023.2	1,631.5	1,404.2	1,381.6	22.53	62.336	
8,100.0	7,118.9	7,074.0	7,073.5	20.4	2.5	-90.07	-1,023.2	1,631.5	1,387.9	1,365.1	22.75	61.012	
8,169.3	7,118.7	7,074.1	7,073.6	21.1	2.5	-90.08	-1,023.2	1,631.5	1,350.9	1,327.5	23.38	57.789	
8,200.0	7,118.7	7,074.1	7,073.7	21.4	2.5	-90.08	-1,023.2	1,631.5	1,335.3	1,311.7	23.66	56.449	
8,267.7	7,118.5	7,074.3	7,073.8	22.1	2.5	-90.09	-1,023.2	1,631.5	1,302.9	1,278.6	24.36	53.491	
8,300.0	7,118.4	7,074.3	7,073.9	22.5	2.5	-90.09	-1,023.2	1,631.5	1,288.4	1,263.7	24.69	52.178	
8,366.1	7,118.3	7,074.4	7,074.0	23.3	2.5	-90.10	-1,023.2	1,631.5	1,260.8	1,235.3	25.45	49.535	
8,400.0	7,118.2	7,074.5	7,074.0	23.7	2.5	-90.10	-1,023.2	1,631.5	1,247.8	1,221.9	25.84	48.285	
8,464.5	7,118.0	7,074.6	7,074.1	24.5	2.5	-90.10	-1,023.2	1,631.5	1,225.2	1,198.5	26.65	45.980	
8,500.0	7,117.9	7,074.6	7,074.2	25.0	2.5	-90.11	-1,023.2	1,631.5	1,214.0	1,186.9	27.09	44.819	
8,563.0	7,117.8	7,074.7	7,074.3	25.8	2.5	-90.11	-1,023.2	1,631.5	1,196.6	1,168.6	27.92	42.852	
8,600.0	7,117.7	7,074.8	7,074.3	26.3	2.5	-90.11	-1,023.2	1,631.5	1,187.8	1,159.3	28.42	41.800	
8,661.4	7,117.5	7,074.9	7,074.4	27.2	2.5	-90.12	-1,023.2	1,631.5	1,175.6	1,146.3	29.27	40.157	
8,700.0	7,117.4	7,075.0	7,074.5	27.7	2.5	-90.12	-1,023.2	1,631.5	1,169.5	1,139.7	29.81	39.226	
8,759.8	7,117.3	7,075.1	7,074.6	28.6	2.5	-90.13	-1,023.2	1,631.5	1,162.5	1,131.8	30.69	37.884	
8,800.0	7,117.2	7,075.1	7,074.7	29.2	2.5	-90.13	-1,023.2	1,631.5	1,159.6	1,128.3	31.27	37.080	
8,858.2	7,117.0	7,075.2	7,074.8	30.1	2.5	-90.14	-1,023.2	1,631.5	1,157.7	1,125.6	32.15	36.008	
8,865.4	7,117.0	7,075.2	7,074.8	30.2	2.5	-90.14	-1,023.2	1,631.5	1,157.7	1,125.5	32.26	35.887 CC	
8,900.0	7,116.9	7,075.3	7,074.8	30.7	2.5	-90.14	-1,023.2	1,631.5	1,158.2	1,125.5	32.78	35.331 ES	
8,956.7	7,116.8	7,075.4	7,074.9	31.6	2.5	-90.14	-1,023.2	1,631.5	1,161.3	1,127.6	33.66	34.498	
9,000.0	7,116.7	7,075.5	7,075.0	32.3	2.5	-90.15	-1,023.2	1,631.5	1,165.5	1,131.2	34.34	33.944	
9,055.1	7,116.6	7,075.5	7,075.1	33.2	2.5	-90.15	-1,023.2	1,631.5	1,173.2	1,137.9	35.21	33.315	
9,100.0	7,116.5	7,075.6	7,075.2	33.9	2.5	-90.16	-1,023.2	1,631.5	1,181.2	1,145.3	35.93	32.877	
9,153.5	7,116.3	7,075.7	7,075.3	34.7	2.5	-90.16	-1,023.2	1,631.5	1,193.0	1,156.2	36.80	32.420	
9,200.0	7,116.2	7,075.8	7,075.3	35.5	2.5	-90.16	-1,023.2	1,631.5	1,205.1	1,167.5	37.55	32.090	
9,251.9	7,116.1	7,075.9	7,075.4	36.4	2.5	-90.17	-1,023.2	1,631.5	1,220.5	1,182.1	38.41	31.774	
9,300.0	7,116.0	7,076.0	7,075.5	37.2	2.5	-90.17	-1,023.2	1,631.5	1,236.6	1,197.4	39.21	31.540	
9,350.4	7,115.8	7,076.0	7,075.6	38.0	2.5	-90.18	-1,023.2	1,631.5	1,255.2	1,215.1	40.05	31.338	

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 OLSON 30R-243
<b>Project:</b>	WELD COUNTY, COLORADO	<b>TVD Reference:</b>	KB-EST @ 4990.0usft (Original Well Elev)
<b>Reference Site:</b>	NW NE SEC 30 T4N R67W 6th P.M.	<b>MD Reference:</b>	KB-EST @ 4990.0usft (Original Well Elev)
<b>Site Error:</b>	0.0 usft	<b>North Reference:</b>	True
<b>Reference Well:</b>	OLSON 30R-243	<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 #2	<b>Offset TVD Reference:</b>	Offset Datum

<b>Offset Design</b> NW NE SEC 30 T4N R67W 6th P.M. - EXIST VERT BROWN-MCCARTY 30-5 - Wellbore #1 - Wellbore												<b>Offset Site Error:</b>	0.0 usft
Survey Program: 100-GYD_CT												<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	
9,400.0	7,115.7	7,076.1	7,075.7	38.8	2.5	-90.18	-1,023.2	1,631.5	1,275.2	1,234.3	40.89	31.188	
9,448.8	7,115.6	7,076.2	7,075.8	39.7	2.5	-90.18	-1,023.2	1,631.5	1,296.4	1,254.7	41.72	31.077	
9,500.0	7,115.5	7,076.3	7,075.9	40.5	2.5	-90.19	-1,023.2	1,631.5	1,320.2	1,277.6	42.59	31.001	
9,547.2	7,115.3	7,076.4	7,075.9	41.3	2.5	-90.19	-1,023.2	1,631.5	1,343.6	1,300.2	43.40	30.959	
9,600.0	7,115.2	7,076.5	7,076.0	42.2	2.5	-90.20	-1,023.2	1,631.5	1,371.1	1,326.8	44.31	30.946 SF	
9,645.6	7,115.1	7,076.6	7,076.1	43.0	2.5	-90.20	-1,023.2	1,631.5	1,396.1	1,351.0	45.10	30.957	
9,700.0	7,115.0	7,076.6	7,076.2	44.0	2.5	-90.21	-1,023.2	1,631.5	1,427.2	1,381.1	46.04	30.997	
9,744.1	7,114.8	7,076.7	7,076.3	44.7	2.5	-90.21	-1,023.2	1,631.5	1,453.4	1,406.6	46.81	31.046	
9,800.0	7,114.7	7,076.8	7,076.4	45.7	2.5	-90.21	-1,023.2	1,631.5	1,487.9	1,440.1	47.79	31.132	
9,842.5	7,114.6	7,076.9	7,076.4	46.5	2.5	-90.22	-1,023.2	1,631.5	1,514.9	1,466.4	48.54	31.208	
9,900.0	7,114.5	7,077.0	7,076.5	47.5	2.5	-90.22	-1,023.2	1,631.5	1,552.6	1,503.1	49.56	31.330	
9,940.9	7,114.4	7,077.1	7,076.6	48.2	2.5	-90.23	-1,023.2	1,631.5	1,580.2	1,529.9	50.28	31.426	
10,000.0	7,114.2	7,077.2	7,076.7	49.2	2.5	-90.23	-1,023.2	1,631.5	1,621.0	1,569.6	51.33	31.578	
10,039.3	7,114.1	7,077.2	7,076.8	49.9	2.5	-90.23	-1,023.2	1,631.5	1,648.8	1,596.7	52.04	31.685	
10,100.0	7,114.0	7,077.4	7,076.9	51.0	2.5	-90.24	-1,023.2	1,631.5	1,692.5	1,639.4	53.12	31.862	
10,137.8	7,113.9	7,077.4	7,077.0	51.7	2.5	-90.24	-1,023.2	1,631.5	1,720.2	1,666.4	53.80	31.976	
10,200.0	7,113.7	7,077.5	7,077.1	52.8	2.5	-90.25	-1,023.2	1,631.5	1,766.8	1,711.8	54.91	32.173	
10,236.2	7,113.6	7,077.6	7,077.1	53.4	2.5	-90.25	-1,023.2	1,631.5	1,794.3	1,738.7	55.57	32.289	
10,300.0	7,113.5	7,077.7	7,077.3	54.6	2.5	-90.26	-1,023.2	1,631.5	1,843.5	1,786.7	56.72	32.501	
10,334.6	7,113.4	7,077.8	7,077.3	55.2	2.5	-90.26	-1,023.2	1,631.5	1,870.5	1,813.2	57.35	32.618	
10,400.0	7,113.2	7,077.9	7,077.4	56.4	2.5	-90.27	-1,023.2	1,631.5	1,922.3	1,863.8	58.53	32.842	
10,433.0	7,113.1	7,078.0	7,077.5	57.0	2.5	-90.27	-1,023.2	1,631.5	1,948.8	1,889.7	59.13	32.956	
10,500.0	7,113.0	7,078.1	7,077.6	58.2	2.5	-90.27	-1,023.2	1,631.5	2,003.0	1,942.7	60.35	33.190	
10,531.5	7,112.9	7,078.1	7,077.7	58.8	2.5	-90.28	-1,023.2	1,631.5	2,028.8	1,967.9	60.92	33.300	
10,600.0	7,112.7	7,078.3	7,077.8	60.0	2.5	-90.28	-1,023.2	1,631.5	2,085.4	2,023.3	62.18	33.541	
10,629.9	7,112.6	7,078.3	7,077.9	60.6	2.5	-90.29	-1,023.2	1,631.5	2,110.4	2,047.7	62.72	33.646	
10,700.0	7,112.5	7,078.4	7,078.0	61.9	2.5	-90.29	-1,023.2	1,631.5	2,169.3	2,105.3	64.01	33.892	
10,728.3	7,112.4	7,078.5	7,078.0	62.4	2.5	-90.30	-1,023.2	1,631.5	2,193.3	2,128.8	64.53	33.991	
10,800.0	7,112.2	7,078.6	7,078.2	63.7	2.5	-90.30	-1,023.2	1,631.5	2,254.5	2,188.7	65.84	34.241	
10,826.7	7,112.1	7,078.7	7,078.2	64.2	2.5	-90.30	-1,023.2	1,631.5	2,277.5	2,211.2	66.34	34.333	
10,900.0	7,111.9	7,078.8	7,078.4	65.5	2.5	-90.31	-1,023.2	1,631.5	2,340.9	2,273.2	67.68	34.585	
10,925.2	7,111.9	7,078.9	7,078.4	66.0	2.5	-90.31	-1,023.2	1,631.5	2,362.8	2,294.7	68.15	34.671	
11,000.0	7,111.7	7,079.0	7,078.5	67.4	2.5	-90.32	-1,023.2	1,631.5	2,428.3	2,358.8	69.53	34.925	
11,023.6	7,111.6	7,079.0	7,078.6	67.8	2.5	-90.32	-1,023.2	1,631.5	2,449.1	2,379.1	69.97	35.004	
11,100.0	7,111.4	7,079.2	7,078.7	69.2	2.5	-90.33	-1,023.2	1,631.5	2,516.7	2,445.3	71.38	35.257	
11,122.0	7,111.4	7,079.2	7,078.8	69.6	2.5	-90.33	-1,023.2	1,631.5	2,536.3	2,464.5	71.79	35.330	
11,200.0	7,111.2	7,079.4	7,078.9	71.1	2.5	-90.34	-1,023.2	1,631.5	2,605.9	2,532.6	73.23	35.583	
11,220.4	7,111.1	7,079.4	7,079.0	71.4	2.5	-90.34	-1,023.2	1,631.5	2,624.2	2,550.6	73.61	35.649	
11,300.0	7,110.9	7,079.6	7,079.1	72.9	2.5	-90.35	-1,023.2	1,631.5	2,695.8	2,620.7	75.09	35.901	
11,318.9	7,110.9	7,079.6	7,079.1	73.3	2.5	-90.35	-1,023.2	1,631.5	2,712.9	2,637.4	75.44	35.960	
11,400.0	7,110.7	7,079.8	7,079.3	74.8	2.5	-90.36	-1,023.2	1,631.5	2,786.5	2,709.5	76.95	36.211	
11,417.3	7,110.6	7,079.8	7,079.3	75.1	2.5	-90.36	-1,023.2	1,631.5	2,802.2	2,724.9	77.27	36.264	
11,500.0	7,110.4	7,079.9	7,079.5	76.6	2.5	-90.36	-1,023.2	1,631.5	2,877.7	2,798.9	78.81	36.513	
11,515.7	7,110.4	7,080.0	7,079.5	76.9	2.5	-90.37	-1,023.2	1,631.5	2,892.1	2,813.0	79.11	36.560	
11,600.0	7,110.2	7,080.1	7,079.7	78.5	2.5	-90.37	-1,023.2	1,631.5	2,969.6	2,888.9	80.68	36.807	
11,614.1	7,110.1	7,080.2	7,079.7	78.7	2.5	-90.38	-1,023.2	1,631.5	2,982.6	2,901.6	80.94	36.847	
11,668.5	7,110.0	7,080.3	7,079.8	79.8	2.5	-90.38	-1,023.2	1,631.5	3,032.8	2,950.8	81.96	37.003	

# Anticollision Report



<b>Company:</b>	PDC ENERGY	<b>Local Co-ordinate Reference:</b>	Well OLSON 30R-243
<b>Project:</b>	WELD COUNTY, COLORADO	<b>TVD Reference:</b>	KB-EST @ 4990.0usft (Original Well Elev)
<b>Reference Site:</b>	NW NE SEC 30 T4N R67W 6th P.M.	<b>MD Reference:</b>	KB-EST @ 4990.0usft (Original Well Elev)
<b>Site Error:</b>	0.0 usft	<b>North Reference:</b>	True
<b>Reference Well:</b>	OLSON 30R-243	<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 #2	<b>Offset TVD Reference:</b>	Offset Datum

Offset Design												Offset Site Error:	0.0 usft
Survey Program: 100-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	8.5	8.5	0.0	0.0	155.83	-3,684.5	1,653.2	4,038.4				
98.4	98.4	131.3	131.3	0.1	0.1	155.83	-3,684.0	1,653.0	4,037.9	4,037.7	0.16	N/A	
100.0	100.0	132.8	132.8	0.1	0.1	155.83	-3,684.0	1,653.0	4,037.9	4,037.7	0.16	N/A	
196.8	196.8	220.9	220.9	0.3	0.2	155.83	-3,683.4	1,652.9	4,037.3	4,036.8	0.53	7,614.618	
200.0	200.0	223.6	223.6	0.3	0.2	155.83	-3,683.4	1,652.9	4,037.3	4,036.8	0.54	7,481.458	
295.3	295.3	308.6	308.6	0.5	0.3	155.83	-3,683.1	1,652.9	4,037.1	4,036.2	0.82	4,893.572	
300.0	300.0	313.7	313.7	0.5	0.3	155.83	-3,683.1	1,652.9	4,037.0	4,036.2	0.84	4,811.520	
393.7	393.7	411.6	411.6	0.7	0.4	155.83	-3,682.8	1,653.0	4,036.8	4,035.7	1.11	3,621.719	
400.0	400.0	417.3	417.3	0.8	0.4	155.83	-3,682.8	1,653.0	4,036.8	4,035.6	1.13	3,566.657	
492.1	492.1	501.2	501.2	1.0	0.4	155.82	-3,682.6	1,653.1	4,036.6	4,035.2	1.38	2,919.195	
500.0	500.0	509.4	509.3	1.0	0.4	155.82	-3,682.6	1,653.2	4,036.6	4,035.2	1.40	2,877.047	
590.5	590.5	600.0	600.0	1.2	0.5	155.82	-3,682.4	1,653.2	4,036.5	4,034.9	1.63	2,469.067	
600.0	600.0	611.4	611.4	1.2	0.5	155.82	-3,682.4	1,653.1	4,036.5	4,034.8	1.66	2,436.857	
648.4	648.4	654.4	654.4	1.3	0.5	155.82	-3,682.4	1,653.1	4,036.5	4,034.7	1.77	2,285.029	
689.0	689.0	690.4	690.4	1.4	0.5	155.82	-3,682.4	1,653.2	4,036.5	4,034.6	1.86	2,171.457	
700.0	700.0	700.2	700.2	1.4	0.5	155.82	-3,682.4	1,653.2	4,036.5	4,034.6	1.88	2,142.449	
787.4	787.4	789.9	789.9	1.6	0.5	155.82	-3,682.5	1,653.4	4,036.6	4,034.5	2.12	1,905.977	
800.0	800.0	803.0	803.0	1.7	0.5	155.82	-3,682.5	1,653.4	4,036.6	4,034.4	2.15	1,877.017	
885.8	885.8	897.5	897.5	1.9	0.5	155.82	-3,682.4	1,653.4	4,036.6	4,034.2	2.35	1,718.401	
900.0	900.0	911.8	911.8	1.9	0.5	155.82	-3,682.4	1,653.4	4,036.5	4,034.2	2.38	1,693.082	
984.2	984.2	994.8	994.8	2.1	0.6	155.82	-3,682.3	1,653.4	4,036.4	4,033.8	2.60	1,555.195	
1,000.0	1,000.0	1,010.4	1,010.4	2.1	0.6	155.82	-3,682.2	1,653.4	4,036.4	4,033.8	2.63	1,532.686	
1,082.7	1,082.7	1,092.8	1,092.8	2.3	0.6	155.82	-3,682.2	1,653.4	4,036.3	4,033.5	2.83	1,426.344	
1,100.0	1,100.0	1,110.9	1,110.9	2.3	0.6	155.82	-3,682.1	1,653.4	4,036.3	4,033.4	2.87	1,404.896	
1,181.1	1,181.1	1,197.9	1,197.9	2.5	0.6	155.82	-3,682.0	1,653.3	4,036.2	4,033.1	3.08	1,309.721	
1,200.0	1,200.0	1,216.8	1,216.8	2.6	0.6	155.82	-3,682.0	1,653.3	4,036.1	4,033.0	3.13	1,288.702	
1,279.5	1,279.5	1,295.8	1,295.8	2.7	0.6	155.82	-3,681.7	1,653.2	4,035.9	4,032.6	3.34	1,206.893	
1,300.0	1,300.0	1,317.0	1,317.0	2.8	0.7	155.82	-3,681.7	1,653.2	4,035.8	4,032.4	3.40	1,187.451	
1,377.9	1,377.9	1,398.5	1,398.5	3.0	0.7	155.82	-3,681.4	1,653.2	4,035.6	4,032.0	3.61	1,118.813	
1,400.0	1,400.0	1,419.7	1,419.7	3.0	0.7	155.82	-3,681.4	1,653.1	4,035.5	4,031.9	3.66	1,101.321	
1,476.4	1,476.4	1,492.9	1,492.9	3.2	0.7	155.82	-3,681.2	1,653.0	4,035.3	4,031.4	3.86	1,045.112	
1,500.0	1,500.0	1,515.0	1,514.9	3.2	0.7	155.82	-3,681.2	1,652.9	4,035.2	4,031.3	3.92	1,029.653	
1,574.8	1,574.8	1,583.8	1,583.7	3.4	0.7	155.82	-3,681.1	1,652.8	4,035.1	4,031.0	4.10	984.574	
1,600.0	1,600.0	1,608.9	1,608.9	3.5	0.7	155.82	-3,681.1	1,652.8	4,035.1	4,031.0	4.16	969.997	
1,673.2	1,673.2	1,695.4	1,695.4	3.6	0.8	155.82	-3,680.9	1,652.8	4,034.9	4,030.6	4.35	928.236	
1,700.0	1,700.0	1,721.9	1,721.9	3.7	0.8	155.82	-3,680.8	1,652.7	4,034.8	4,030.4	4.42	913.863	
1,771.6	1,771.6	1,790.4	1,790.4	3.8	0.8	155.82	-3,680.5	1,652.7	4,034.6	4,030.0	4.60	877.516	
1,800.0	1,800.0	1,818.2	1,818.1	3.9	0.8	155.82	-3,680.4	1,652.8	4,034.5	4,029.8	4.67	863.852	
1,870.1	1,870.1	1,887.5	1,887.5	4.1	0.9	155.81	-3,680.2	1,652.8	4,034.3	4,029.4	4.85	831.761	
1,900.0	1,900.0	1,917.7	1,917.7	4.1	0.9	155.81	-3,680.1	1,652.8	4,034.2	4,029.3	4.93	818.837	
1,950.0	1,950.0	1,968.6	1,968.6	4.2	0.9	155.81	-3,679.9	1,652.9	4,034.0	4,029.0	5.05	798.196	
1,964.8	1,964.8	1,983.6	1,983.6	4.3	0.9	128.05	-3,679.8	1,652.9	4,034.0	4,028.9	5.14	784.116	
1,968.5	1,968.5	1,987.4	1,987.4	4.3	0.9	128.05	-3,679.8	1,652.9	4,034.0	4,028.9	5.15	782.657	
2,000.0	2,000.0	2,017.8	2,017.8	4.4	0.9	128.05	-3,679.6	1,653.0	4,034.2	4,028.9	5.23	770.687	
2,066.9	2,066.9	2,079.9	2,079.9	4.5	0.9	128.05	-3,679.4	1,653.2	4,035.2	4,029.8	5.40	746.897	
2,100.0	2,099.9	2,111.8	2,111.8	4.6	0.9	128.05	-3,679.3	1,653.3	4,036.1	4,030.6	5.49	735.720	
2,165.3	2,165.1	2,179.9	2,179.9	4.7	1.0	128.05	-3,679.1	1,653.5	4,038.6	4,032.9	5.65	714.377	
2,200.0	2,199.7	2,213.3	2,213.3	4.8	1.0	128.05	-3,678.9	1,653.6	4,040.2	4,034.5	5.74	703.915	
2,263.8	2,263.1	2,268.9	2,268.9	4.9	1.0	128.05	-3,678.8	1,653.8	4,044.0	4,038.1	5.90	685.865	
2,300.0	2,299.1	2,300.0	2,300.0	5.0	1.0	128.05	-3,678.8	1,653.8	4,046.6	4,040.7	5.99	676.042	
2,362.2	2,360.8	2,357.7	2,357.7	5.2	1.0	128.05	-3,678.9	1,653.9	4,051.9	4,045.7	6.14	660.302	
2,400.0	2,398.2	2,392.4	2,392.4	5.3	1.0	128.05	-3,679.0	1,653.9	4,055.5	4,049.3	6.23	651.087	

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 OLSON 30R-243
<b>Project:</b>	WELD COUNTY, COLORADO	<b>TVD Reference:</b>	KB-EST @ 4990.0usft (Original Well Elev)
<b>Reference Site:</b>	NW NE SEC 30 T4N R67W 6th P.M.	<b>MD Reference:</b>	KB-EST @ 4990.0usft (Original Well Elev)
<b>Site Error:</b>	0.0 usft	<b>North Reference:</b>	True
<b>Reference Well:</b>	OLSON 30R-243	<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 #2	<b>Offset TVD Reference:</b>	Offset Datum

Offset Design												Offset Site Error:	0.0 usft
Survey Program: 100-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	
2,460.6	2,457.9	2,449.7	2,449.7	5.4	1.0	128.06	-3,679.2	1,653.9	4,062.0	4,055.6	6.39	635.676	
2,500.0	2,496.6	2,487.0	2,487.0	5.5	1.0	128.06	-3,679.4	1,653.8	4,066.6	4,060.1	6.50	626.007	
2,559.0	2,554.5	2,542.0	2,542.0	5.7	1.0	128.07	-3,679.7	1,653.6	4,074.3	4,067.6	6.67	611.163	
2,600.0	2,594.4	2,579.8	2,579.8	5.8	1.0	128.07	-3,680.0	1,653.4	4,080.1	4,073.3	6.79	601.258	
2,657.5	2,650.3	2,637.2	2,637.1	6.0	1.0	128.09	-3,680.5	1,653.0	4,088.8	4,081.9	6.97	586.777	
2,700.0	2,691.5	2,681.5	2,681.5	6.1	1.0	128.11	-3,680.8	1,652.7	4,095.8	4,088.7	7.10	576.592	
2,730.9	2,721.3	2,711.5	2,711.5	6.2	1.0	128.12	-3,681.0	1,652.5	4,101.0	4,093.8	7.21	569.003	
2,755.9	2,745.3	2,733.5	2,733.5	6.3	1.0	128.19	-3,681.2	1,652.4	4,105.4	4,098.1	7.29	563.047	
2,800.0	2,787.8	2,772.3	2,772.3	6.5	1.0	128.31	-3,681.5	1,652.1	4,113.1	4,105.7	7.44	552.658	
2,854.3	2,840.1	2,823.5	2,823.5	6.7	1.0	128.47	-3,682.0	1,651.7	4,122.7	4,115.1	7.63	540.016	
2,900.0	2,884.1	2,870.5	2,870.5	6.9	1.0	128.62	-3,682.4	1,651.3	4,130.8	4,123.0	7.80	529.704	
2,952.7	2,934.9	2,931.0	2,931.0	7.1	1.0	128.80	-3,682.8	1,650.9	4,140.1	4,132.1	7.99	517.977	
3,000.0	2,980.4	2,991.9	2,991.8	7.3	1.1	128.99	-3,683.1	1,650.3	4,148.3	4,140.1	8.17	507.797	
3,051.2	3,029.7	3,052.7	3,052.7	7.5	1.1	129.18	-3,683.2	1,649.6	4,157.0	4,148.6	8.37	496.897	
3,100.0	3,076.7	3,110.2	3,110.1	7.7	1.1	129.36	-3,683.2	1,648.8	4,165.3	4,156.7	8.56	486.864	
3,149.6	3,124.5	3,168.8	3,168.8	7.9	1.1	129.54	-3,683.1	1,647.9	4,173.5	4,164.8	8.75	476.804	
3,200.0	3,173.0	3,237.5	3,237.4	8.1	1.1	129.75	-3,682.7	1,646.8	4,181.8	4,172.9	8.96	466.937	
3,248.0	3,219.3	3,309.8	3,309.7	8.4	1.1	129.97	-3,681.8	1,645.6	4,189.5	4,180.3	9.15	457.690	
3,300.0	3,269.4	3,373.0	3,372.9	8.6	1.1	130.15	-3,680.7	1,644.7	4,197.5	4,188.2	9.37	448.152	
3,346.4	3,314.1	3,419.8	3,419.7	8.8	1.2	130.29	-3,679.7	1,644.2	4,204.7	4,195.1	9.56	439.919	
3,400.0	3,365.7	3,463.5	3,463.4	9.1	1.2	130.41	-3,678.7	1,644.0	4,213.0	4,203.2	9.78	430.862	
3,444.9	3,408.9	3,500.0	3,499.9	9.3	1.2	130.51	-3,677.9	1,643.9	4,220.0	4,210.1	9.96	423.501	
3,500.0	3,462.0	3,547.1	3,546.9	9.5	1.2	130.64	-3,676.9	1,643.9	4,228.8	4,218.6	10.20	414.741	
3,543.3	3,503.7	3,583.9	3,583.8	9.7	1.2	130.74	-3,676.2	1,643.9	4,235.8	4,225.4	10.38	408.078	
3,600.0	3,558.3	3,634.7	3,634.6	10.0	1.2	130.87	-3,675.3	1,644.0	4,245.0	4,234.4	10.62	399.688	
3,641.7	3,598.5	3,673.1	3,672.9	10.2	1.2	130.97	-3,674.6	1,644.0	4,251.8	4,241.0	10.80	393.698	
3,700.0	3,654.6	3,726.3	3,726.2	10.5	1.3	131.12	-3,673.7	1,644.1	4,261.4	4,250.4	11.05	385.670	
3,740.1	3,693.2	3,762.8	3,762.6	10.7	1.3	131.21	-3,673.1	1,644.1	4,268.1	4,256.9	11.22	380.316	
3,800.0	3,750.9	3,815.8	3,815.6	11.0	1.3	131.35	-3,672.2	1,644.3	4,278.1	4,266.6	11.48	372.647	
3,838.6	3,788.0	3,848.0	3,847.8	11.2	1.3	131.44	-3,671.7	1,644.4	4,284.6	4,272.9	11.65	367.868	
3,900.0	3,847.2	3,900.0	3,899.8	11.5	1.3	131.58	-3,671.0	1,644.6	4,295.1	4,283.1	11.91	360.547	
3,937.0	3,882.8	3,937.2	3,937.0	11.7	1.3	131.67	-3,670.5	1,644.7	4,301.4	4,289.3	12.07	356.241	
4,000.0	3,943.5	4,000.0	3,999.8	12.0	1.3	131.84	-3,669.7	1,645.0	4,312.2	4,299.8	12.35	349.176	
4,035.4	3,977.6	4,034.9	4,034.7	12.2	1.3	131.93	-3,669.2	1,645.1	4,318.3	4,305.8	12.50	345.334	
4,100.0	4,039.8	4,094.7	4,094.5	12.5	1.4	132.08	-3,668.3	1,645.4	4,329.4	4,316.6	12.79	338.599	
4,133.8	4,072.4	4,123.3	4,123.1	12.7	1.4	132.15	-3,668.0	1,645.5	4,335.3	4,322.3	12.93	335.190	
4,200.0	4,136.1	4,178.0	4,177.8	13.0	1.4	132.29	-3,667.3	1,645.8	4,346.9	4,333.6	13.22	328.767	
4,232.3	4,167.2	4,200.0	4,199.8	13.2	1.4	132.35	-3,667.1	1,646.0	4,352.6	4,339.2	13.36	325.748	
4,300.0	4,232.4	4,263.7	4,263.5	13.5	1.4	132.51	-3,666.5	1,646.4	4,364.7	4,351.0	13.66	319.577	
4,330.7	4,262.0	4,290.4	4,290.2	13.7	1.4	132.58	-3,666.3	1,646.7	4,370.2	4,356.4	13.79	316.870	
4,400.0	4,328.7	4,359.2	4,359.0	14.0	1.4	132.75	-3,665.7	1,647.2	4,382.8	4,368.7	14.09	310.958	
4,429.1	4,356.8	4,388.8	4,388.6	14.2	1.4	132.82	-3,665.4	1,647.5	4,388.0	4,373.8	14.22	308.540	
4,500.0	4,425.0	4,456.1	4,455.9	14.6	1.5	132.99	-3,664.8	1,648.0	4,400.9	4,386.3	14.53	302.861	
4,527.5	4,451.6	4,481.9	4,481.7	14.7	1.5	133.05	-3,664.6	1,648.2	4,405.9	4,391.2	14.65	300.714	
4,600.0	4,521.4	4,549.0	4,548.8	15.1	1.5	133.22	-3,664.1	1,648.7	4,419.1	4,404.1	14.97	295.249	
4,626.0	4,546.4	4,573.0	4,572.7	15.2	1.5	133.28	-3,663.9	1,648.9	4,423.9	4,408.8	15.08	293.340	
4,700.0	4,617.7	4,641.5	4,641.3	15.6	1.5	133.45	-3,663.5	1,649.3	4,437.5	4,422.1	15.41	288.053	
4,724.4	4,641.2	4,664.2	4,663.9	15.7	1.5	133.50	-3,663.3	1,649.4	4,442.0	4,426.5	15.51	286.359	
4,800.0	4,714.0	4,733.3	4,733.0	16.1	1.5	133.68	-3,663.0	1,649.8	4,456.1	4,440.2	15.84	281.303	
4,822.8	4,735.9	4,753.8	4,753.6	16.3	1.5	133.73	-3,662.9	1,649.8	4,460.3	4,444.4	15.94	279.816	
4,900.0	4,810.3	4,828.7	4,828.4	16.7	1.6	133.92	-3,662.7	1,649.8	4,474.8	4,458.6	16.28	274.890	
4,921.2	4,830.7	4,852.4	4,852.1	16.8	1.6	133.98	-3,662.7	1,649.8	4,478.8	4,462.4	16.37	273.543	

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 OLSON 30R-243
<b>Project:</b>	WELD COUNTY, COLORADO	<b>TVD Reference:</b>	KB-EST @ 4990.0usft (Original Well Elev)
<b>Reference Site:</b>	NW NE SEC 30 T4N R67W 6th P.M.	<b>MD Reference:</b>	KB-EST @ 4990.0usft (Original Well Elev)
<b>Site Error:</b>	0.0 usft	<b>North Reference:</b>	True
<b>Reference Well:</b>	OLSON 30R-243	<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 #2	<b>Offset TVD Reference:</b>	Offset Datum

<b>Offset Design</b> NW NE SEC 30 T4N R67W 6th P.M. - EXIST VERT MCCART 30-2 - Wellbore #1 - Wellbore #1												<b>Offset Site Error:</b>	0.0 usft
Survey Program: 100-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
5,000.0	4,906.6	4,935.8	4,935.6	17.2	1.6	134.19	-3,662.3	1,649.7	4,493.5	4,476.8	16.72	268.703	
5,019.7	4,925.5	4,955.4	4,955.2	17.3	1.6	134.23	-3,662.2	1,649.7	4,497.2	4,480.3	16.81	267.528	
5,100.0	5,002.9	5,029.9	5,029.7	17.7	1.6	134.42	-3,661.8	1,649.5	4,512.1	4,495.0	17.16	262.883	
5,118.1	5,020.3	5,045.1	5,044.9	17.8	1.6	134.46	-3,661.8	1,649.5	4,515.5	4,498.3	17.24	261.865	
5,200.0	5,099.2	5,115.5	5,115.2	18.3	1.6	134.63	-3,661.6	1,649.5	4,531.0	4,513.4	17.60	257.382	
5,216.5	5,115.1	5,130.8	5,130.6	18.3	1.6	134.67	-3,661.5	1,649.5	4,534.2	4,516.5	17.68	256.497	
5,300.0	5,195.5	5,208.6	5,208.4	18.8	1.7	134.86	-3,661.4	1,649.5	4,550.2	4,532.1	18.05	252.141	
5,314.9	5,209.9	5,223.2	5,222.9	18.9	1.7	134.90	-3,661.3	1,649.5	4,553.0	4,534.9	18.11	251.380	
5,400.0	5,291.8	5,306.5	5,306.3	19.3	1.7	135.10	-3,661.2	1,649.6	4,569.4	4,550.9	18.49	247.166	
5,413.4	5,304.7	5,320.5	5,320.2	19.4	1.7	135.13	-3,661.2	1,649.6	4,572.0	4,553.4	18.55	246.522	
5,500.0	5,388.1	5,410.4	5,410.2	19.9	1.7	135.35	-3,660.9	1,649.4	4,588.6	4,569.7	18.93	242.457	
5,511.8	5,399.5	5,422.4	5,422.1	19.9	1.7	135.38	-3,660.9	1,649.4	4,590.8	4,571.9	18.98	241.914	
5,600.0	5,484.4	5,512.0	5,511.8	20.4	1.8	135.60	-3,660.6	1,649.1	4,607.7	4,588.4	19.36	237.944	
5,610.2	5,494.3	5,522.5	5,522.3	20.4	1.8	135.62	-3,660.5	1,649.1	4,609.7	4,590.3	19.41	237.495	
5,700.0	5,580.7	5,611.4	5,611.2	20.9	1.8	135.83	-3,660.1	1,649.1	4,626.8	4,607.0	19.80	233.657	
5,708.6	5,589.1	5,618.3	5,618.0	21.0	1.8	135.85	-3,660.0	1,649.1	4,628.5	4,608.6	19.84	233.300	
5,722.6	5,602.5	5,629.4	5,629.1	21.0	1.8	135.87	-3,660.0	1,649.1	4,631.2	4,611.3	19.90	232.727	
5,800.0	5,677.3	5,691.0	5,690.8	21.4	1.8	136.21	-3,659.7	1,649.3	4,645.4	4,625.3	20.13	230.764	
5,807.1	5,684.2	5,700.0	5,699.7	21.4	1.8	136.24	-3,659.7	1,649.3	4,646.7	4,626.5	20.15	230.636	
5,900.0	5,774.7	5,787.2	5,786.9	21.8	1.8	136.62	-3,659.5	1,649.5	4,661.9	4,641.5	20.36	228.944	
5,905.5	5,780.1	5,792.6	5,792.4	21.8	1.8	136.64	-3,659.5	1,649.5	4,662.7	4,642.3	20.37	228.856	
6,000.0	5,872.9	5,890.1	5,889.8	22.1	1.9	136.98	-3,659.4	1,649.5	4,675.8	4,655.2	20.58	227.214	
6,003.9	5,876.7	5,894.2	5,893.9	22.1	1.9	136.99	-3,659.3	1,649.5	4,676.3	4,655.7	20.59	227.154	
6,100.0	5,971.6	5,977.7	5,977.5	22.4	1.9	137.25	-3,659.2	1,649.6	4,687.3	4,666.6	20.76	225.812	
6,102.3	5,973.9	5,979.7	5,979.5	22.4	1.9	137.26	-3,659.2	1,649.6	4,687.6	4,666.8	20.76	225.785	
6,200.0	6,070.8	6,061.3	6,061.1	22.7	1.9	137.46	-3,659.3	1,649.7	4,696.6	4,675.7	20.91	224.656	
6,200.8	6,071.6	6,062.0	6,061.7	22.7	1.9	137.47	-3,659.3	1,649.7	4,696.6	4,675.7	20.91	224.649	
6,299.2	6,169.6	6,161.8	6,161.5	22.9	1.9	137.63	-3,659.7	1,650.0	4,703.5	4,682.4	21.03	223.669	
6,300.0	6,170.4	6,162.7	6,162.5	22.9	1.9	137.63	-3,659.7	1,650.0	4,703.5	4,682.5	21.03	223.661	
6,397.6	6,267.9	6,260.9	6,260.7	23.1	1.9	137.73	-3,659.9	1,650.1	4,707.6	4,686.5	21.13	222.765	
6,400.0	6,270.3	6,263.1	6,262.9	23.1	1.9	137.73	-3,659.9	1,650.1	4,707.7	4,686.6	21.14	222.740	
6,496.0	6,366.3	6,355.9	6,355.7	23.2	1.9	137.77	-3,660.2	1,649.9	4,709.4	4,688.2	21.22	221.909	
6,503.5	6,373.8	6,363.4	6,363.1	23.2	1.9	165.54	-3,660.3	1,649.9	4,709.4	4,688.2	21.23	221.834	
6,533.5	6,403.8	6,393.3	6,393.0	23.2	1.9	165.54	-3,660.4	1,650.0	4,709.5	4,688.3	21.27	221.416	
6,550.0	6,420.3	6,410.4	6,410.1	23.2	1.9	-14.47	-3,660.4	1,650.0	4,709.4	4,688.2	21.26	221.468	
6,594.5	6,464.7	6,457.7	6,457.4	23.3	1.8	-14.52	-3,660.6	1,650.0	4,707.2	4,686.0	21.26	221.420	
6,600.0	6,470.2	6,463.6	6,463.3	23.3	1.8	-14.53	-3,660.6	1,650.0	4,706.8	4,685.5	21.26	221.379	
6,650.0	6,519.8	6,517.7	6,517.4	23.3	1.8	-14.67	-3,660.8	1,649.9	4,700.7	4,679.4	21.29	220.838	
6,692.9	6,561.9	6,566.0	6,565.8	23.2	1.8	-14.86	-3,660.8	1,649.8	4,692.8	4,671.5	21.32	220.125	
6,700.0	6,568.8	6,574.0	6,573.7	23.2	1.8	-14.90	-3,660.9	1,649.7	4,691.3	4,669.9	21.33	219.986	
6,750.0	6,617.0	6,621.0	6,620.7	23.1	1.8	-15.21	-3,660.9	1,649.6	4,678.5	4,657.1	21.35	219.108	
6,791.3	6,656.1	6,653.2	6,652.9	23.0	1.8	-15.54	-3,660.9	1,649.6	4,665.5	4,644.2	21.35	218.494	
6,800.0	6,664.2	6,659.9	6,659.6	23.0	1.8	-15.61	-3,661.0	1,649.5	4,662.5	4,641.2	21.35	218.367	
6,850.0	6,710.1	6,700.0	6,699.7	22.9	1.8	-16.12	-3,661.1	1,649.5	4,643.5	4,622.2	21.32	217.778	
6,889.7	6,745.5	6,738.5	6,738.3	22.7	1.8	-16.62	-3,661.3	1,649.3	4,626.3	4,605.0	21.28	217.370	
6,900.0	6,754.5	6,749.1	6,748.9	22.7	1.8	-16.76	-3,661.3	1,649.3	4,621.5	4,600.2	21.27	217.260	
6,950.0	6,797.2	6,799.4	6,799.2	22.5	1.8	-17.55	-3,661.5	1,649.1	4,596.5	4,575.3	21.20	216.837	
6,988.2	6,828.5	6,826.0	6,825.7	22.3	1.8	-18.24	-3,661.5	1,648.9	4,575.4	4,554.3	21.11	216.704	
7,000.0	6,838.0	6,834.0	6,833.7	22.3	1.8	-18.47	-3,661.6	1,648.9	4,568.6	4,547.5	21.09	216.658	
7,050.0	6,876.7	6,866.7	6,866.4	22.0	1.8	-19.58	-3,661.7	1,648.7	4,538.1	4,517.1	20.96	216.496	
7,086.6	6,903.5	6,889.4	6,889.2	21.8	1.8	-20.53	-3,661.8	1,648.7	4,514.2	4,493.3	20.87	216.320	
7,100.0	6,913.0	6,900.0	6,899.7	21.8	1.8	-20.93	-3,661.9	1,648.6	4,505.1	4,484.3	20.84	216.174	

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 OLSON 30R-243
<b>Project:</b>	WELD COUNTY, COLORADO	<b>TVD Reference:</b>	KB-EST @ 4990.0usft (Original Well Elev)
<b>Reference Site:</b>	NW NE SEC 30 T4N R67W 6th P.M.	<b>MD Reference:</b>	KB-EST @ 4990.0usft (Original Well Elev)
<b>Site Error:</b>	0.0 usft	<b>North Reference:</b>	True
<b>Reference Well:</b>	OLSON 30R-243	<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 #2	<b>Offset TVD Reference:</b>	Offset Datum

Offset Design												Offset Site Error:	0.0 usft
Survey Program: 100-GYD_CT												Offset Well Error:	0.0 usft
Measured Depth (usft)	Vertical Depth (usft)	Measured Depth (usft)	Vertical Depth (usft)	Reference (usft)	Offset (usft)	Semi Major Axis Highside Toolface (°)	Offset Wellbore Centre +N/-S (usft)	+E/-W (usft)	Between Centres (usft)	Between Ellipses (usft)	Minimum Separation (usft)	Separation Factor	Warning
7,150.0	6,946.9	6,934.1	6,933.8	21.5	1.8	-22.57	-3,662.1	1,648.4	4,469.8	4,449.1	20.74	215.498	
7,185.0	6,969.1	6,958.5	6,958.2	21.3	1.8	-23.94	-3,662.3	1,648.3	4,443.8	4,423.1	20.70	214.698	
7,200.0	6,978.2	6,968.5	6,968.2	21.2	1.8	-24.59	-3,662.3	1,648.2	4,432.3	4,411.6	20.69	214.258	
7,250.0	7,006.6	6,999.9	6,999.6	21.0	1.8	-27.08	-3,662.5	1,647.8	4,392.8	4,372.1	20.69	212.306	
7,283.4	7,024.0	7,026.6	7,026.3	20.8	1.9	-29.13	-3,662.7	1,647.5	4,365.3	4,344.5	20.76	210.306	
7,300.0	7,032.1	7,039.0	7,038.7	20.7	1.9	-30.27	-3,662.7	1,647.3	4,351.4	4,330.6	20.80	209.166	
7,350.0	7,054.6	7,073.1	7,072.9	20.4	1.9	-34.29	-3,662.8	1,646.9	4,308.4	4,287.4	21.00	205.112	
7,381.9	7,067.2	7,092.2	7,092.0	20.3	1.9	-37.41	-3,662.8	1,646.6	4,280.2	4,259.0	21.18	202.127	
7,400.0	7,073.8	7,102.6	7,102.3	20.2	1.9	-39.41	-3,662.8	1,646.4	4,263.9	4,242.6	21.28	200.360	
7,450.0	7,089.9	7,131.0	7,130.7	19.9	1.9	-46.05	-3,662.7	1,646.0	4,218.3	4,196.7	21.58	195.481	
7,480.3	7,097.9	7,145.1	7,144.8	19.8	1.9	-50.93	-3,662.7	1,645.7	4,190.2	4,168.5	21.71	193.034	
7,500.0	7,102.5	7,153.0	7,152.7	19.7	1.9	-54.50	-3,662.6	1,645.6	4,171.8	4,150.0	21.73	191.938	
7,550.0	7,111.8	7,168.6	7,168.3	19.5	1.9	-64.97	-3,662.5	1,645.3	4,124.5	4,103.0	21.51	191.743	
7,578.7	7,115.6	7,174.8	7,174.5	19.4	1.9	-71.85	-3,662.5	1,645.2	4,097.2	4,076.1	21.13	193.923	
7,600.0	7,117.6	7,178.1	7,177.8	19.3	1.9	-77.26	-3,662.4	1,645.2	4,076.9	4,056.2	20.72	196.750	
7,650.0	7,119.9	7,181.3	7,181.0	19.1	1.9	-90.45	-3,662.4	1,645.1	4,029.1	4,009.2	19.87	202.755	
7,660.3	7,120.0	7,181.3	7,181.0	19.1	1.9	-93.14	-3,662.4	1,645.1	4,019.2	3,999.4	19.83	202.716	
7,677.1	7,120.0	7,180.9	7,180.6	19.0	1.9	-93.13	-3,662.4	1,645.1	4,003.1	3,983.2	19.84	201.772	
7,700.0	7,119.9	7,180.5	7,180.2	19.0	1.9	-93.11	-3,662.4	1,645.1	3,981.2	3,961.4	19.86	200.494	
7,775.6	7,119.7	7,179.0	7,178.7	18.8	1.9	-93.04	-3,662.4	1,645.1	3,909.1	3,889.1	20.02	195.251	
7,800.0	7,119.7	7,178.6	7,178.3	18.8	1.9	-93.02	-3,662.4	1,645.2	3,885.8	3,865.7	20.07	193.575	
7,874.0	7,119.5	7,177.2	7,176.9	18.9	1.9	-92.95	-3,662.4	1,645.2	3,815.3	3,794.9	20.38	187.227	
7,900.0	7,119.4	7,176.8	7,176.5	19.0	1.9	-92.93	-3,662.4	1,645.2	3,790.6	3,770.1	20.48	185.042	
7,972.4	7,119.2	7,175.5	7,175.2	19.4	1.9	-92.86	-3,662.5	1,645.2	3,721.8	3,700.9	20.91	177.951	
8,000.0	7,119.2	7,175.0	7,174.7	19.5	1.9	-92.84	-3,662.5	1,645.2	3,695.6	3,674.5	21.08	175.328	
8,070.8	7,119.0	7,173.8	7,173.5	20.1	1.9	-92.78	-3,662.5	1,645.2	3,628.5	3,606.9	21.62	167.860	
8,100.0	7,118.9	7,173.3	7,173.0	20.4	1.9	-92.76	-3,662.5	1,645.2	3,600.9	3,579.1	21.84	164.895	
8,169.3	7,118.7	7,172.1	7,171.8	21.1	1.9	-92.70	-3,662.5	1,645.3	3,535.5	3,513.0	22.47	157.369	
8,200.0	7,118.7	7,171.6	7,171.3	21.4	1.9	-92.68	-3,662.5	1,645.3	3,506.5	3,483.8	22.75	154.167	
8,267.7	7,118.5	7,170.5	7,170.2	22.1	1.9	-92.62	-3,662.5	1,645.3	3,442.8	3,419.4	23.45	146.831	
8,300.0	7,118.4	7,170.0	7,169.7	22.5	1.9	-92.60	-3,662.5	1,645.3	3,412.5	3,388.7	23.78	143.487	
8,366.1	7,118.3	7,169.0	7,168.7	23.3	1.9	-92.55	-3,662.5	1,645.3	3,350.4	3,325.9	24.54	136.515	
8,400.0	7,118.2	7,168.4	7,168.1	23.7	1.9	-92.52	-3,662.5	1,645.3	3,318.7	3,293.8	24.93	133.110	
8,464.5	7,118.0	7,167.5	7,167.2	24.5	1.9	-92.47	-3,662.5	1,645.3	3,258.4	3,232.7	25.74	126.605	
8,500.0	7,117.9	7,166.9	7,166.6	25.0	1.9	-92.45	-3,662.5	1,645.4	3,225.4	3,199.2	26.18	123.206	
8,563.0	7,117.8	7,166.0	7,165.7	25.8	1.9	-92.40	-3,662.5	1,645.4	3,166.8	3,139.8	27.02	117.220	
8,600.0	7,117.7	7,165.5	7,165.2	26.3	1.9	-92.38	-3,662.5	1,645.4	3,132.4	3,104.9	27.51	113.874	
8,661.4	7,117.5	7,164.6	7,164.3	27.2	1.9	-92.33	-3,662.5	1,645.4	3,075.6	3,047.2	28.37	108.419	
8,700.0	7,117.4	7,164.0	7,163.7	27.7	1.9	-92.31	-3,662.5	1,645.4	3,039.9	3,011.0	28.91	105.160	
8,759.8	7,117.3	7,163.2	7,162.9	28.6	1.9	-92.27	-3,662.6	1,645.4	2,984.8	2,955.0	29.78	100.225	
8,800.0	7,117.2	7,162.6	7,162.3	29.2	1.9	-92.24	-3,662.6	1,645.4	2,947.9	2,917.5	30.37	97.074	
8,858.2	7,117.0	7,161.9	7,161.6	30.1	1.9	-92.20	-3,662.6	1,645.4	2,894.6	2,863.3	31.25	92.631	
8,900.0	7,116.9	7,161.3	7,161.0	30.7	1.9	-92.17	-3,662.6	1,645.5	2,856.4	2,824.6	31.88	89.601	
8,956.7	7,116.8	7,160.5	7,160.3	31.6	1.9	-92.14	-3,662.6	1,645.5	2,804.9	2,772.1	32.76	85.615	
9,000.0	7,116.7	7,160.0	7,159.7	32.3	1.9	-92.11	-3,662.6	1,645.5	2,765.6	2,732.1	33.44	82.714	
9,055.1	7,116.6	7,159.3	7,159.0	33.2	1.9	-92.08	-3,662.6	1,645.5	2,715.8	2,681.4	34.31	79.145	
9,100.0	7,116.5	7,158.7	7,158.4	33.9	1.9	-92.05	-3,662.6	1,645.5	2,675.3	2,640.3	35.03	76.374	
9,153.5	7,116.3	7,158.0	7,157.8	34.7	1.9	-92.02	-3,662.6	1,645.5	2,627.3	2,591.4	35.90	73.184	
9,200.0	7,116.2	7,157.5	7,157.2	35.5	1.9	-91.99	-3,662.6	1,645.5	2,585.8	2,549.2	36.66	70.543	
9,251.9	7,116.1	7,156.8	7,156.6	36.4	1.9	-91.96	-3,662.6	1,645.5	2,539.6	2,502.1	37.52	67.694	
9,300.0	7,116.0	7,156.3	7,156.0	37.2	1.9	-91.93	-3,662.6	1,645.5	2,497.1	2,458.8	38.31	65.179	
9,350.4	7,115.8	7,155.7	7,155.4	38.0	1.9	-91.90	-3,662.6	1,645.5	2,452.7	2,413.6	39.16	62.637	

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 OLSON 30R-243
<b>Project:</b>	WELD COUNTY, COLORADO	<b>TVD Reference:</b>	KB-EST @ 4990.0usft (Original Well Elev)
<b>Reference Site:</b>	NW NE SEC 30 T4N R67W 6th P.M.	<b>MD Reference:</b>	KB-EST @ 4990.0usft (Original Well Elev)
<b>Site Error:</b>	0.0 usft	<b>North Reference:</b>	True
<b>Reference Well:</b>	OLSON 30R-243	<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 #2	<b>Offset TVD Reference:</b>	Offset Datum

<b>Offset Design</b> NW NE SEC 30 T4N R67W 6th P.M. - EXIST VERT MCCART 30-2 - Wellbore #1 - Wellbore #1												<b>Offset Site Error:</b>	0.0 usft
Survey Program: 100-GYD_CT												<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	
9,400.0	7,115.7	7,155.1	7,154.8	38.8	1.9	-91.87	-3,662.6	1,645.6	2,409.3	2,369.3	39.99	60.244	
9,448.8	7,115.6	7,154.5	7,154.2	39.7	1.9	-91.85	-3,662.6	1,645.6	2,366.7	2,325.9	40.82	57.977	
9,500.0	7,115.5	7,154.0	7,153.7	40.5	1.9	-91.82	-3,662.6	1,645.6	2,322.4	2,280.7	41.69	55.702	
9,547.2	7,115.3	7,153.4	7,153.1	41.3	1.9	-91.79	-3,662.6	1,645.6	2,281.8	2,239.3	42.51	53.681	
9,600.0	7,115.2	7,152.8	7,152.6	42.2	1.9	-91.76	-3,662.6	1,645.6	2,236.7	2,193.2	43.41	51.519	
9,645.6	7,115.1	7,152.3	7,152.1	43.0	1.9	-91.74	-3,662.6	1,645.6	2,197.9	2,153.7	44.21	49.718	
9,700.0	7,115.0	7,151.8	7,151.5	44.0	1.9	-91.71	-3,662.6	1,645.6	2,152.1	2,107.0	45.15	47.664	
9,744.1	7,114.8	7,151.3	7,151.0	44.7	1.9	-91.69	-3,662.6	1,645.6	2,115.3	2,069.4	45.92	46.061	
9,800.0	7,114.7	7,150.7	7,150.4	45.7	1.9	-91.66	-3,662.6	1,645.6	2,069.0	2,022.1	46.90	44.111	
9,842.5	7,114.6	7,150.3	7,150.0	46.5	1.9	-91.64	-3,662.6	1,645.6	2,034.1	1,986.5	47.65	42.684	
9,900.0	7,114.5	7,149.7	7,149.4	47.5	1.9	-91.61	-3,662.6	1,645.7	1,987.4	1,938.7	48.67	40.834	
9,940.9	7,114.4	7,149.3	7,149.0	48.2	1.9	-91.59	-3,662.6	1,645.7	1,954.5	1,905.1	49.40	39.567	
10,000.0	7,114.2	7,148.7	7,148.4	49.2	1.9	-91.56	-3,662.6	1,645.7	1,907.6	1,857.1	50.45	37.813	
10,039.3	7,114.1	7,148.3	7,148.0	49.9	1.9	-91.54	-3,662.6	1,645.7	1,876.7	1,825.5	51.15	36.689	
10,100.0	7,114.0	7,147.7	7,147.4	51.0	1.9	-91.51	-3,662.7	1,645.7	1,829.7	1,777.5	52.24	35.028	
10,137.8	7,113.9	7,147.3	7,147.0	51.7	1.9	-91.50	-3,662.7	1,645.7	1,800.9	1,747.9	52.91	34.034	
10,200.0	7,113.7	7,146.7	7,146.4	52.8	1.9	-91.47	-3,662.7	1,645.7	1,754.1	1,700.1	54.03	32.464	
10,236.2	7,113.6	7,146.4	7,146.1	53.4	1.9	-91.45	-3,662.7	1,645.7	1,727.3	1,672.7	54.69	31.586	
10,300.0	7,113.5	7,145.8	7,145.5	54.6	1.9	-91.42	-3,662.7	1,645.7	1,681.0	1,625.2	55.84	30.105	
10,334.6	7,113.4	7,145.5	7,145.2	55.2	1.9	-91.41	-3,662.7	1,645.7	1,656.4	1,599.9	56.47	29.334	
10,400.0	7,113.2	7,144.9	7,144.6	56.4	1.9	-91.38	-3,662.7	1,645.7	1,610.9	1,553.2	57.65	27.941	
10,433.0	7,113.1	7,144.6	7,144.3	57.0	1.9	-91.36	-3,662.7	1,645.7	1,588.4	1,530.1	58.25	27.267	
10,500.0	7,113.0	7,144.0	7,143.7	58.2	1.9	-91.33	-3,662.7	1,645.7	1,544.0	1,484.5	59.47	25.962	
10,531.5	7,112.9	7,143.7	7,143.4	58.8	1.9	-91.32	-3,662.7	1,645.8	1,523.7	1,463.7	60.05	25.375	
10,600.0	7,112.7	7,143.1	7,142.8	60.0	1.9	-91.29	-3,662.7	1,645.8	1,480.9	1,419.6	61.30	24.158	
10,629.9	7,112.6	7,142.9	7,142.6	60.6	1.9	-91.28	-3,662.7	1,645.8	1,462.8	1,400.9	61.85	23.652	
10,700.0	7,112.5	7,142.3	7,142.0	61.9	1.9	-91.25	-3,662.7	1,645.8	1,422.0	1,358.8	63.13	22.524	
10,728.3	7,112.4	7,142.0	7,141.7	62.4	1.9	-91.24	-3,662.7	1,645.8	1,406.1	1,342.5	63.65	22.091	
10,800.0	7,112.2	7,141.4	7,141.1	63.7	1.9	-91.21	-3,662.7	1,645.8	1,367.9	1,302.9	64.97	21.054	
10,826.7	7,112.1	7,141.2	7,140.9	64.2	1.9	-91.20	-3,662.7	1,645.8	1,354.3	1,288.8	65.46	20.688	
10,900.0	7,111.9	7,140.6	7,140.3	65.5	1.9	-91.17	-3,662.7	1,645.8	1,319.1	1,252.3	66.81	19.743	
10,925.2	7,111.9	7,140.4	7,140.1	66.0	1.9	-91.16	-3,662.7	1,645.8	1,307.8	1,240.5	67.28	19.438	
11,000.0	7,111.7	7,139.8	7,139.5	67.4	1.9	-91.13	-3,662.7	1,645.8	1,276.4	1,207.7	68.66	18.590	
11,023.6	7,111.6	7,139.6	7,139.3	67.8	1.9	-91.12	-3,662.7	1,645.8	1,267.2	1,198.1	69.10	18.340	
11,100.0	7,111.4	7,139.0	7,138.7	69.2	1.9	-91.09	-3,662.7	1,645.8	1,240.2	1,169.7	70.51	17.589	
11,122.0	7,111.4	7,138.9	7,138.6	69.6	1.9	-91.08	-3,662.7	1,645.8	1,233.2	1,162.3	70.92	17.389	
11,200.0	7,111.2	7,138.3	7,138.0	71.1	1.9	-91.05	-3,662.7	1,645.8	1,211.3	1,138.9	72.37	16.738	
11,220.4	7,111.1	7,138.1	7,137.8	71.4	1.9	-91.05	-3,662.7	1,645.8	1,206.3	1,133.5	72.75	16.582	
11,300.0	7,110.9	7,137.5	7,137.2	72.9	1.9	-91.02	-3,662.7	1,645.9	1,190.0	1,115.8	74.22	16.033	
11,318.9	7,110.9	7,137.4	7,137.1	73.3	1.9	-91.01	-3,662.7	1,645.9	1,186.9	1,112.3	74.58	15.916	
11,400.0	7,110.7	7,136.8	7,136.5	74.8	1.9	-90.98	-3,662.7	1,645.9	1,176.9	1,100.9	76.09	15.469	
11,417.3	7,110.6	7,136.7	7,136.4	75.1	1.9	-90.98	-3,662.7	1,645.9	1,175.5	1,099.1	76.41	15.385	
11,500.0	7,110.4	7,136.1	7,135.8	76.6	1.9	-90.95	-3,662.7	1,645.9	1,172.3	1,094.3	77.95	15.039	
11,504.9	7,110.4	7,136.0	7,135.7	76.7	1.9	-90.94	-3,662.7	1,645.9	1,172.3	1,094.2	78.04	15.021 CC	
11,515.7	7,110.4	7,136.0	7,135.7	76.9	1.9	-90.94	-3,662.7	1,645.9	1,172.3	1,094.1	78.24	14.983 ES	
11,600.0	7,110.2	7,135.4	7,135.1	78.5	1.9	-90.91	-3,662.7	1,645.9	1,176.1	1,096.3	79.82	14.735	
11,614.1	7,110.1	7,135.3	7,135.0	78.7	1.9	-90.91	-3,662.7	1,645.9	1,177.3	1,097.3	80.08	14.702	
11,668.5	7,110.0	7,134.9	7,134.6	79.8	1.9	-90.89	-3,662.7	1,645.9	1,183.6	1,102.5	81.10	14.595 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 OLSON 30R-243
<b>Project:</b>	WELD COUNTY, COLORADO	<b>TVD Reference:</b>	KB-EST @ 4990.0usft (Original Well Elev)
<b>Reference Site:</b>	NW NE SEC 30 T4N R67W 6th P.M.	<b>MD Reference:</b>	KB-EST @ 4990.0usft (Original Well Elev)
<b>Site Error:</b>	0.0 usft	<b>North Reference:</b>	True
<b>Reference Well:</b>	OLSON 30R-243	<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 #2	<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	-78.61	229.9	-1,141.0	1,163.9				
98.4	98.4	98.4	98.4	0.1	0.1	-78.61	229.9	-1,141.0	1,163.9	1,163.7	0.22	5,393.490	
100.0	100.0	100.0	100.0	0.1	0.1	-78.61	229.9	-1,141.0	1,163.9	1,163.7	0.22	5,298.547	
196.8	196.8	196.8	196.8	0.3	2.7	-78.61	229.9	-1,141.0	1,163.9	1,161.0	2.96	392.838	
200.0	200.0	200.0	200.0	0.3	2.7	-78.61	229.9	-1,141.0	1,163.9	1,160.9	3.05	381.354	
295.3	295.3	295.3	295.3	0.5	4.7	-78.61	229.9	-1,141.0	1,163.9	1,158.7	5.23	222.401	
300.0	300.0	300.0	300.0	0.5	4.8	-78.61	229.9	-1,141.0	1,163.9	1,158.6	5.34	217.896	
393.7	393.7	393.7	393.7	0.7	6.7	-78.61	229.9	-1,141.0	1,163.9	1,156.5	7.46	156.086	
400.0	400.0	400.0	400.0	0.8	6.8	-78.61	229.9	-1,141.0	1,163.9	1,156.3	7.60	153.165	
492.1	492.1	492.1	492.1	1.0	8.7	-78.61	229.9	-1,141.0	1,163.9	1,154.3	9.67	120.368	
500.0	500.0	500.0	500.0	1.0	8.9	-78.61	229.9	-1,141.0	1,163.9	1,154.1	9.85	118.205	
590.5	590.5	590.5	590.5	1.2	10.7	-78.61	229.9	-1,141.0	1,163.9	1,152.1	11.88	97.991	
600.0	600.0	600.0	600.0	1.2	10.9	-78.61	229.9	-1,141.0	1,163.9	1,151.9	12.09	96.273	
689.0	689.0	689.0	689.0	1.4	12.7	-78.61	229.9	-1,141.0	1,163.9	1,149.9	14.08	82.644	
700.0	700.0	700.0	700.0	1.4	12.9	-78.61	229.9	-1,141.0	1,163.9	1,149.6	14.33	81.219	
787.4	787.4	787.4	787.4	1.6	14.7	-78.61	229.9	-1,141.0	1,163.9	1,147.7	16.29	71.459	
800.0	800.0	800.0	800.0	1.7	14.9	-78.61	229.9	-1,141.0	1,163.9	1,147.4	16.57	70.243	
885.8	885.8	885.8	885.8	1.9	16.6	-78.61	229.9	-1,141.0	1,163.9	1,145.5	18.49	62.944	
900.0	900.0	900.0	900.0	1.9	16.9	-78.61	229.9	-1,141.0	1,163.9	1,145.1	18.81	61.883	
984.2	984.2	984.2	984.2	2.1	18.6	-78.61	229.9	-1,141.0	1,163.9	1,143.2	20.69	56.244	
1,000.0	1,000.0	1,000.0	1,000.0	2.1	18.9	-78.61	229.9	-1,141.0	1,163.9	1,142.9	21.05	55.302	
1,082.7	1,082.7	1,082.7	1,082.7	2.3	20.6	-78.61	229.9	-1,141.0	1,163.9	1,141.0	22.90	50.834	
1,100.0	1,100.0	1,100.0	1,100.0	2.3	21.0	-78.61	229.9	-1,141.0	1,163.9	1,140.7	23.28	49.988	
1,181.1	1,181.1	1,181.1	1,181.1	2.5	22.6	-78.61	229.9	-1,141.0	1,163.9	1,138.8	25.10	46.375	
1,200.0	1,200.0	1,200.0	1,200.0	2.6	23.0	-78.61	229.9	-1,141.0	1,163.9	1,138.4	25.52	45.606	
1,279.5	1,279.5	1,279.5	1,279.5	2.7	24.6	-78.61	229.9	-1,141.0	1,163.9	1,136.6	27.30	42.634	
1,300.0	1,300.0	1,300.0	1,300.0	2.8	25.0	-78.61	229.9	-1,141.0	1,163.9	1,136.2	27.76	41.931	
1,377.9	1,377.9	1,377.9	1,377.9	3.0	26.5	-78.61	229.9	-1,141.0	1,163.9	1,134.4	29.50	39.453	
1,400.0	1,400.0	1,400.0	1,400.0	3.0	27.0	-78.61	229.9	-1,141.0	1,163.9	1,133.9	30.00	38.804	
1,476.4	1,476.4	1,476.4	1,476.4	3.2	28.5	-78.61	229.9	-1,141.0	1,163.9	1,132.2	31.70	36.713	
1,500.0	1,500.0	1,500.0	1,500.0	3.2	29.0	-78.61	229.9	-1,141.0	1,163.9	1,131.7	32.23	36.111	
1,574.8	1,574.8	1,574.8	1,574.8	3.4	30.5	-78.61	229.9	-1,141.0	1,163.9	1,130.0	33.90	34.330	
1,600.0	1,600.0	1,600.0	1,600.0	3.5	31.0	-78.61	229.9	-1,141.0	1,163.9	1,129.5	34.47	33.768	
1,673.2	1,673.2	1,673.2	1,673.2	3.6	32.5	-78.61	229.9	-1,141.0	1,163.9	1,127.8	36.11	32.237	
1,700.0	1,700.0	1,700.0	1,700.0	3.7	33.0	-78.61	229.9	-1,141.0	1,163.9	1,127.2	36.70	31.711	
1,771.6	1,771.6	1,771.6	1,771.6	3.8	34.5	-78.61	229.9	-1,141.0	1,163.9	1,125.6	38.31	30.384	
1,800.0	1,800.0	1,800.0	1,800.0	3.9	35.0	-78.61	229.9	-1,141.0	1,163.9	1,125.0	38.94	29.890	
1,870.1	1,870.1	1,870.1	1,870.1	4.1	36.4	-78.61	229.9	-1,141.0	1,163.9	1,123.4	40.51	28.733	
1,900.0	1,900.0	1,900.0	1,900.0	4.1	37.0	-78.61	229.9	-1,141.0	1,163.9	1,122.8	41.18	28.267	
1,950.0	1,950.0	1,950.0	1,950.0	4.2	38.1	-78.61	229.9	-1,141.0	1,163.9	1,121.6	42.30	27.519 CC	
1,968.5	1,968.5	1,968.5	1,968.5	4.3	38.4	-106.38	229.9	-1,141.0	1,164.0	1,121.3	42.71	27.253	
2,000.0	2,000.0	2,000.0	2,000.0	4.4	39.1	-106.39	229.9	-1,141.0	1,164.1	1,120.7	43.41	26.814	
2,066.9	2,066.9	2,066.9	2,066.9	4.5	40.4	-106.47	229.9	-1,141.0	1,164.6	1,119.7	44.90	25.937	
2,100.0	2,099.9	2,099.9	2,099.9	4.6	41.1	-106.54	229.9	-1,141.0	1,165.1	1,119.4	45.64	25.528	
2,165.3	2,165.1	2,165.1	2,165.1	4.7	42.4	-106.71	229.9	-1,141.0	1,166.2	1,119.2	47.09	24.768 ES	
2,200.0	2,199.7	2,199.7	2,199.7	4.8	43.1	-106.83	229.9	-1,141.0	1,167.1	1,119.2	47.85	24.388	
2,263.8	2,263.1	2,263.1	2,263.1	4.9	44.3	-107.09	229.9	-1,141.0	1,168.9	1,119.6	49.27	23.727	
2,300.0	2,299.1	2,299.1	2,299.1	5.0	45.1	-107.26	229.9	-1,141.0	1,170.1	1,120.1	50.06	23.373	
2,362.2	2,360.8	2,360.8	2,360.8	5.2	46.3	-107.59	229.9	-1,141.0	1,172.6	1,121.2	51.44	22.798	
2,400.0	2,398.2	2,398.2	2,398.2	5.3	47.1	-107.82	229.9	-1,141.0	1,174.4	1,122.1	52.26	22.470	
2,460.6	2,457.9	2,457.9	2,457.9	5.4	48.3	-108.22	229.9	-1,141.0	1,177.5	1,123.9	53.60	21.970	
2,500.0	2,496.6	2,496.6	2,496.6	5.5	49.0	-108.51	229.9	-1,141.0	1,179.9	1,125.4	54.46	21.665	

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 OLSON 30R-243
<b>Project:</b>	WELD COUNTY, COLORADO	<b>TVD Reference:</b>	KB-EST @ 4990.0usft (Original Well Elev)
<b>Reference Site:</b>	NW NE SEC 30 T4N R67W 6th P.M.	<b>MD Reference:</b>	KB-EST @ 4990.0usft (Original Well Elev)
<b>Site Error:</b>	0.0 usft	<b>North Reference:</b>	True
<b>Reference Well:</b>	OLSON 30R-243	<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 #2	<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	
2,559.0	2,554.5	2,554.5	2,554.5	5.7	50.2	-108.97	229.9	-1,141.0	1,183.7	1,128.0	55.76	21.231	
2,600.0	2,594.4	2,594.4	2,594.4	5.8	51.0	-109.31	229.9	-1,141.0	1,186.7	1,130.1	56.65	20.949	
2,657.5	2,650.3	2,650.3	2,650.3	6.0	52.1	-109.82	229.9	-1,141.0	1,191.4	1,133.5	57.91	20.574	
2,700.0	2,691.5	2,691.5	2,691.5	6.1	53.0	-110.22	229.9	-1,141.0	1,195.1	1,136.3	58.83	20.315	
2,730.9	2,721.3	2,721.3	2,721.3	6.2	53.6	-110.52	229.9	-1,141.0	1,198.1	1,138.6	59.50	20.135	
2,755.9	2,745.3	2,745.3	2,745.3	6.3	54.0	-110.81	229.9	-1,141.0	1,200.5	1,140.5	60.06	19.988	
2,800.0	2,787.8	2,787.8	2,787.8	6.5	54.9	-111.32	229.9	-1,141.0	1,204.9	1,143.9	61.05	19.737	
2,854.3	2,840.1	2,840.1	2,840.1	6.7	56.0	-111.94	229.9	-1,141.0	1,210.5	1,148.2	62.28	19.438	
2,900.0	2,884.1	2,884.1	2,884.1	6.9	56.8	-112.46	229.9	-1,141.0	1,215.3	1,152.0	63.31	19.197	
2,952.7	2,934.9	2,934.9	2,934.9	7.1	57.9	-113.06	229.9	-1,141.0	1,221.0	1,156.5	64.50	18.929	
3,000.0	2,980.4	2,980.4	2,980.4	7.3	58.8	-113.59	229.9	-1,141.0	1,226.2	1,160.6	65.57	18.699	
3,051.2	3,029.7	3,029.7	3,029.7	7.5	59.8	-114.16	229.9	-1,141.0	1,231.9	1,165.2	66.74	18.459	
3,100.0	3,076.7	3,076.7	3,076.7	7.7	60.7	-114.70	229.9	-1,141.0	1,237.5	1,169.7	67.85	18.239	
3,149.6	3,124.5	3,124.5	3,124.5	7.9	61.7	-115.24	229.9	-1,141.0	1,243.3	1,174.4	68.98	18.024	
3,200.0	3,173.0	3,173.0	3,173.0	8.1	62.6	-115.79	229.9	-1,141.0	1,249.4	1,179.2	70.13	17.815	
3,248.0	3,219.3	3,219.3	3,219.3	8.4	63.6	-116.30	229.9	-1,141.0	1,255.2	1,184.0	71.23	17.622	
3,300.0	3,269.4	3,269.4	3,269.4	8.6	64.6	-116.86	229.9	-1,141.0	1,261.7	1,189.3	72.42	17.422	
3,346.4	3,314.1	3,314.1	3,314.1	8.8	65.5	-117.34	229.9	-1,141.0	1,267.5	1,194.1	73.48	17.250	
3,400.0	3,365.7	3,365.7	3,365.7	9.1	66.5	-117.90	229.9	-1,141.0	1,274.4	1,199.7	74.70	17.059	
3,444.9	3,408.9	3,408.9	3,408.9	9.3	67.4	-118.37	229.9	-1,141.0	1,280.3	1,204.6	75.73	16.905	
3,500.0	3,462.0	3,462.0	3,462.0	9.5	68.5	-118.93	229.9	-1,141.0	1,287.6	1,210.6	76.99	16.724	
3,543.3	3,503.7	3,503.7	3,503.7	9.7	69.3	-119.37	229.9	-1,141.0	1,293.5	1,215.5	77.98	16.586	
3,600.0	3,558.3	3,558.3	3,558.3	10.0	70.4	-119.94	229.9	-1,141.0	1,301.2	1,221.9	79.28	16.413	
3,641.7	3,598.5	3,598.5	3,598.5	10.2	71.2	-120.36	229.9	-1,141.0	1,307.0	1,226.8	80.23	16.290	
3,700.0	3,654.6	3,654.6	3,654.6	10.5	72.3	-120.93	229.9	-1,141.0	1,315.2	1,233.7	81.56	16.125	
3,740.1	3,693.2	3,693.2	3,693.2	10.7	73.1	-121.32	229.9	-1,141.0	1,321.0	1,238.5	82.48	16.016	
3,800.0	3,750.9	3,750.9	3,750.9	11.0	74.3	-121.90	229.9	-1,141.0	1,329.7	1,245.8	83.85	15.858	
3,838.6	3,788.0	3,788.0	3,788.0	11.2	75.0	-122.27	229.9	-1,141.0	1,335.3	1,250.6	84.73	15.761	
3,900.0	3,847.2	3,847.2	3,847.2	11.5	76.2	-122.85	229.9	-1,141.0	1,344.5	1,258.3	86.12	15.611	
3,937.0	3,882.8	3,882.8	3,882.8	11.7	76.9	-123.19	229.9	-1,141.0	1,350.0	1,263.1	86.97	15.524	
4,000.0	3,943.5	3,943.5	3,943.5	12.0	78.1	-123.78	229.9	-1,141.0	1,359.6	1,271.2	88.40	15.381	
4,035.4	3,977.6	3,977.6	3,977.6	12.2	78.8	-124.10	229.9	-1,141.0	1,365.1	1,275.9	89.20	15.303	
4,100.0	4,039.8	4,039.8	4,039.8	12.5	80.1	-124.69	229.9	-1,141.0	1,375.2	1,284.5	90.67	15.167	
4,133.8	4,072.4	4,072.4	4,072.4	12.7	80.7	-124.99	229.9	-1,141.0	1,380.5	1,289.1	91.44	15.098	
4,200.0	4,136.1	4,136.1	4,136.1	13.0	82.0	-125.58	229.9	-1,141.0	1,391.1	1,298.1	92.94	14.968	
4,232.3	4,167.2	4,167.2	4,167.2	13.2	82.6	-125.86	229.9	-1,141.0	1,396.3	1,302.6	93.67	14.907	
4,300.0	4,232.4	4,232.4	4,232.4	13.5	84.0	-126.45	229.9	-1,141.0	1,407.3	1,312.1	95.20	14.783	
4,330.7	4,262.0	4,262.0	4,262.0	13.7	84.5	-126.71	229.9	-1,141.0	1,412.3	1,316.4	95.89	14.728	
4,400.0	4,328.7	4,328.7	4,328.7	14.0	85.9	-127.30	229.9	-1,141.0	1,423.8	1,326.4	97.45	14.610	
4,429.1	4,356.8	4,356.8	4,356.8	14.2	86.5	-127.54	229.9	-1,141.0	1,428.7	1,330.6	98.11	14.562	
4,500.0	4,425.0	4,425.0	4,425.0	14.6	87.8	-128.13	229.9	-1,141.0	1,440.7	1,341.0	99.71	14.449	
4,527.5	4,451.6	4,451.6	4,451.6	14.7	88.4	-128.36	229.9	-1,141.0	1,445.4	1,345.1	100.32	14.407	
4,600.0	4,521.4	4,521.4	4,521.4	15.1	89.8	-128.94	229.9	-1,141.0	1,457.8	1,355.9	101.95	14.299	
4,626.0	4,546.4	4,546.4	4,546.4	15.2	90.3	-129.15	229.9	-1,141.0	1,462.3	1,359.8	102.54	14.262	
4,700.0	4,617.7	4,617.7	4,617.7	15.6	91.7	-129.74	229.9	-1,141.0	1,475.3	1,371.1	104.19	14.159	
4,724.4	4,641.2	4,641.2	4,641.2	15.7	92.2	-129.93	229.9	-1,141.0	1,479.6	1,374.8	104.74	14.126	
4,800.0	4,714.0	4,714.0	4,714.0	16.1	93.6	-130.52	229.9	-1,141.0	1,493.0	1,386.6	106.43	14.028	
4,822.8	4,735.9	4,735.9	4,735.9	16.3	94.1	-130.69	229.9	-1,141.0	1,497.1	1,390.2	106.94	13.999	
4,900.0	4,810.3	4,810.3	4,810.3	16.7	95.6	-131.28	229.9	-1,141.0	1,511.0	1,402.4	108.66	13.906	
4,921.2	4,830.7	4,830.7	4,830.7	16.8	96.0	-131.44	229.9	-1,141.0	1,514.9	1,405.7	109.14	13.881	
5,000.0	4,906.6	4,906.6	4,906.6	17.2	97.5	-132.02	229.9	-1,141.0	1,529.3	1,418.4	110.89	13.791	
5,019.7	4,925.5	4,925.5	4,925.5	17.3	97.9	-132.16	229.9	-1,141.0	1,532.9	1,421.6	111.33	13.769	

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 OLSON 30R-243
<b>Project:</b>	WELD COUNTY, COLORADO	<b>TVD Reference:</b>	KB-EST @ 4990.0usft (Original Well Elev)
<b>Reference Site:</b>	NW NE SEC 30 T4N R67W 6th P.M.	<b>MD Reference:</b>	KB-EST @ 4990.0usft (Original Well Elev)
<b>Site Error:</b>	0.0 usft	<b>North Reference:</b>	True
<b>Reference Well:</b>	OLSON 30R-243	<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 #2	<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	
5,100.0	5,002.9	5,002.9	5,002.9	17.7	99.4	-132.75	229.9	-1,141.0	1,547.8	1,434.7	113.11	13.684	
5,118.1	5,020.3	5,020.3	5,020.3	17.8	99.8	-132.88	229.9	-1,141.0	1,551.2	1,437.7	113.52	13.665	
5,200.0	5,099.2	5,099.2	5,099.2	18.3	101.4	-133.46	229.9	-1,141.0	1,566.6	1,451.2	115.33	13.583	
5,216.5	5,115.1	5,115.1	5,115.1	18.3	101.7	-133.57	229.9	-1,141.0	1,569.7	1,454.0	115.70	13.567	
5,300.0	5,195.5	5,195.5	5,195.5	18.8	103.3	-134.15	229.9	-1,141.0	1,585.6	1,468.0	117.55	13.489	
5,314.9	5,209.9	5,209.9	5,209.9	18.9	103.6	-134.25	229.9	-1,141.0	1,588.4	1,470.6	117.88	13.475	
5,400.0	5,291.8	5,291.8	5,291.8	19.3	105.3	-134.83	229.9	-1,141.0	1,604.8	1,485.0	119.76	13.400	
5,413.4	5,304.7	5,304.7	5,304.7	19.4	105.5	-134.91	229.9	-1,141.0	1,607.4	1,487.3	120.05	13.389	
5,500.0	5,388.1	5,388.1	5,388.1	19.9	107.2	-135.49	229.9	-1,141.0	1,624.2	1,502.3	121.96	13.317	
5,511.8	5,399.5	5,399.5	5,399.5	19.9	107.4	-135.56	229.9	-1,141.0	1,626.5	1,504.3	122.22	13.308	
5,600.0	5,484.4	5,484.4	5,484.4	20.4	109.1	-136.13	229.9	-1,141.0	1,643.9	1,519.7	124.17	13.239	
5,610.2	5,494.3	5,494.3	5,494.3	20.4	109.3	-136.20	229.9	-1,141.0	1,645.9	1,521.5	124.39	13.232	
5,700.0	5,580.7	5,580.7	5,580.7	20.9	111.1	-136.76	229.9	-1,141.0	1,663.7	1,537.4	126.37	13.166	
5,708.6	5,589.1	5,589.1	5,589.1	21.0	111.2	-136.82	229.9	-1,141.0	1,665.5	1,538.9	126.56	13.160	
5,722.6	5,602.5	5,602.5	5,602.5	21.0	111.5	-136.91	229.9	-1,141.0	1,668.3	1,541.4	126.86	13.150	
5,800.0	5,677.3	5,677.3	5,677.3	21.4	113.0	-137.56	229.9	-1,141.0	1,683.0	1,554.1	128.92	13.055	
5,807.1	5,684.2	5,684.2	5,684.2	21.4	113.1	-137.62	229.9	-1,141.0	1,684.3	1,555.2	129.11	13.046	
5,900.0	5,774.7	5,774.7	5,774.7	21.8	115.0	-138.30	229.9	-1,141.0	1,700.0	1,568.5	131.53	12.925	
5,905.5	5,780.1	5,780.1	5,780.1	21.8	115.1	-138.34	229.9	-1,141.0	1,700.9	1,569.2	131.67	12.918	
6,000.0	5,872.9	5,872.9	5,872.9	22.1	116.9	-138.92	229.9	-1,141.0	1,714.6	1,580.5	134.09	12.786	
6,003.9	5,876.7	5,876.7	5,876.7	22.1	117.0	-138.94	229.9	-1,141.0	1,715.1	1,580.9	134.19	12.781	
6,100.0	5,971.6	5,971.6	5,971.6	22.4	118.9	-139.42	229.9	-1,141.0	1,726.5	1,589.9	136.60	12.639	
6,102.3	5,973.9	5,973.9	5,973.9	22.4	119.0	-139.43	229.9	-1,141.0	1,726.8	1,590.1	136.66	12.636	
6,200.0	6,070.8	6,070.8	6,070.8	22.7	120.9	-139.80	229.9	-1,141.0	1,736.0	1,596.9	139.04	12.485	
6,200.8	6,071.6	6,071.6	6,071.6	22.7	120.9	-139.81	229.9	-1,141.0	1,736.0	1,597.0	139.06	12.484	
6,299.2	6,169.6	6,169.6	6,169.6	22.9	122.9	-140.08	229.9	-1,141.0	1,742.7	1,601.3	141.38	12.326	
6,300.0	6,170.4	6,170.4	6,170.4	22.9	122.9	-140.08	229.9	-1,141.0	1,742.7	1,601.3	141.40	12.325	
6,397.6	6,267.9	6,267.9	6,267.9	23.1	124.9	-140.24	229.9	-1,141.0	1,746.8	1,603.2	143.61	12.163	
6,400.0	6,270.3	6,270.3	6,270.3	23.1	124.9	-140.24	229.9	-1,141.0	1,746.8	1,603.2	143.67	12.159	
6,496.0	6,366.3	6,366.3	6,366.3	23.2	126.9	-140.30	229.9	-1,141.0	1,748.3	1,602.5	145.75	11.995	
6,503.5	6,373.8	6,373.8	6,373.8	23.2	127.0	-112.53	229.9	-1,141.0	1,748.3	1,602.4	145.90	11.982	
6,533.5	6,403.8	6,403.8	6,403.8	23.2	127.6	-112.53	229.9	-1,141.0	1,748.3	1,601.7	146.55	11.929	
6,550.0	6,420.3	6,420.3	6,420.3	23.2	128.0	67.48	229.9	-1,141.0	1,748.2	1,601.3	146.89	11.902	
6,594.5	6,464.7	6,464.7	6,464.7	23.3	128.8	67.62	229.9	-1,141.0	1,747.3	1,599.6	147.74	11.827	
6,600.0	6,470.2	6,470.2	6,470.2	23.3	129.0	67.65	229.9	-1,141.0	1,747.1	1,599.3	147.84	11.817	
6,650.0	6,519.8	6,519.8	6,519.8	23.3	130.0	68.02	229.9	-1,141.0	1,744.7	1,596.0	148.71	11.732	
6,692.9	6,561.9	6,561.9	6,561.9	23.2	130.8	68.50	229.9	-1,141.0	1,741.6	1,592.2	149.38	11.659	
6,700.0	6,568.8	6,568.8	6,568.8	23.2	130.9	68.59	229.9	-1,141.0	1,741.0	1,591.5	149.49	11.646	
6,750.0	6,617.0	6,617.0	6,617.0	23.1	131.9	69.35	229.9	-1,141.0	1,736.1	1,585.9	150.22	11.557	
6,791.3	6,656.1	6,656.1	6,656.1	23.0	132.7	70.11	229.9	-1,141.0	1,731.2	1,580.4	150.80	11.481	
6,800.0	6,664.2	6,664.2	6,664.2	23.0	132.9	70.29	229.9	-1,141.0	1,730.1	1,579.2	150.92	11.464	
6,850.0	6,710.1	6,710.1	6,710.1	22.9	133.8	71.40	229.9	-1,141.0	1,723.1	1,571.5	151.62	11.365	
6,889.7	6,745.5	6,745.5	6,745.5	22.7	134.5	72.39	229.9	-1,141.0	1,716.9	1,564.7	152.19	11.281	
6,900.0	6,754.5	6,754.5	6,754.5	22.7	134.7	72.66	229.9	-1,141.0	1,715.2	1,562.9	152.34	11.259	
6,950.0	6,797.2	6,797.2	6,797.2	22.5	135.5	74.05	229.9	-1,141.0	1,706.6	1,553.5	153.11	11.147	
6,988.2	6,828.5	6,828.5	6,828.5	22.3	136.2	75.18	229.9	-1,141.0	1,699.7	1,546.0	153.72	11.057	
7,000.0	6,838.0	6,838.0	6,838.0	22.3	136.4	75.55	229.9	-1,141.0	1,697.5	1,543.6	153.92	11.029	
7,050.0	6,876.7	6,876.7	6,876.7	22.0	137.1	77.12	229.9	-1,141.0	1,688.0	1,533.2	154.77	10.907	
7,086.6	6,903.5	6,903.5	6,903.5	21.8	137.7	78.30	229.9	-1,141.0	1,680.9	1,525.5	155.40	10.817	
7,100.0	6,913.0	6,913.0	6,913.0	21.8	137.9	78.74	229.9	-1,141.0	1,678.3	1,522.7	155.64	10.784	
7,150.0	6,946.9	6,946.9	6,946.9	21.5	138.5	80.36	229.9	-1,141.0	1,668.7	1,512.2	156.49	10.663	
7,185.0	6,969.1	6,969.1	6,969.1	21.3	139.0	81.49	229.9	-1,141.0	1,662.1	1,505.0	157.07	10.582	

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 OLSON 30R-243
<b>Project:</b>	WELD COUNTY, COLORADO	<b>TVD Reference:</b>	KB-EST @ 4990.0usft (Original Well Elev)
<b>Reference Site:</b>	NW NE SEC 30 T4N R67W 6th P.M.	<b>MD Reference:</b>	KB-EST @ 4990.0usft (Original Well Elev)
<b>Site Error:</b>	0.0 usft	<b>North Reference:</b>	True
<b>Reference Well:</b>	OLSON 30R-243	<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 #2	<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	
7,200.0	6,978.2	6,978.2	6,978.2	21.2	139.2	81.96	229.9	-1,141.0	1,659.3	1,502.0	157.30	10.549	
7,250.0	7,006.6	7,006.6	7,006.6	21.0	139.7	83.50	229.9	-1,141.0	1,650.3	1,492.3	158.03	10.443	
7,283.4	7,024.0	7,024.0	7,024.0	20.8	140.1	84.48	229.9	-1,141.0	1,644.7	1,486.2	158.47	10.379	
7,300.0	7,032.1	7,032.1	7,032.1	20.7	140.3	84.95	229.9	-1,141.0	1,642.0	1,483.3	158.66	10.349	
7,350.0	7,054.6	7,054.6	7,054.6	20.4	140.7	86.26	229.9	-1,141.0	1,634.5	1,475.3	159.17	10.269	
7,381.9	7,067.2	7,067.2	7,067.2	20.3	141.0	87.01	229.9	-1,141.0	1,630.2	1,470.8	159.44	10.225	
7,400.0	7,073.8	7,073.8	7,073.8	20.2	141.1	87.41	229.9	-1,141.0	1,628.0	1,468.4	159.56	10.203	
7,450.0	7,089.9	7,089.9	7,089.9	19.9	141.4	88.38	229.9	-1,141.0	1,622.7	1,462.8	159.84	10.151	
7,480.3	7,097.9	7,097.9	7,097.9	19.8	141.6	88.86	229.9	-1,141.0	1,620.1	1,460.1	159.98	10.127	
7,500.0	7,102.5	7,102.5	7,102.5	19.7	141.7	89.14	229.9	-1,141.0	1,618.6	1,458.6	160.04	10.114	
7,550.0	7,111.8	7,111.8	7,111.8	19.5	141.9	89.67	229.9	-1,141.0	1,616.0	1,455.8	160.16	10.090	
7,578.7	7,115.6	7,115.6	7,115.6	19.4	141.9	89.87	229.9	-1,141.0	1,615.2	1,454.9	160.22	10.081	
7,600.0	7,117.6	7,117.6	7,117.6	19.3	142.0	89.96	229.9	-1,141.0	1,614.9	1,454.6	160.24	10.078	
7,612.3	7,118.5	7,118.5	7,118.5	19.2	142.0	90.00	229.9	-1,141.0	1,614.8	1,454.6	160.25	10.077 SF	
7,650.0	7,119.9	7,119.9	7,119.9	19.1	142.0	90.02	229.9	-1,141.0	1,615.2	1,455.0	160.28	10.078	
7,660.3	7,120.0	7,120.0	7,120.0	19.1	142.0	90.00	229.9	-1,141.0	1,615.5	1,455.2	160.28	10.079	
7,677.1	7,120.0	7,120.0	7,120.0	19.0	142.0	89.99	229.9	-1,141.0	1,616.1	1,455.8	160.29	10.082	
7,700.0	7,119.9	7,119.9	7,119.9	19.0	142.0	89.99	229.9	-1,141.0	1,617.2	1,456.9	160.31	10.088	
7,775.6	7,119.7	7,119.7	7,119.7	18.8	142.0	89.99	229.9	-1,141.0	1,623.0	1,462.6	160.47	10.114	
7,800.0	7,119.7	7,119.7	7,119.7	18.8	142.0	89.98	229.9	-1,141.0	1,625.7	1,465.2	160.53	10.127	
7,874.0	7,119.5	7,119.5	7,119.5	18.9	142.0	89.98	229.9	-1,141.0	1,635.9	1,475.0	160.83	10.171	
7,900.0	7,119.4	7,119.4	7,119.4	19.0	142.0	89.98	229.9	-1,141.0	1,640.2	1,479.3	160.94	10.192	
7,972.4	7,119.2	7,119.2	7,119.2	19.4	142.0	89.97	229.9	-1,141.0	1,654.5	1,493.1	161.36	10.253	
8,000.0	7,119.2	7,119.2	7,119.2	19.5	142.0	89.97	229.9	-1,141.0	1,660.7	1,499.2	161.53	10.281	
8,070.8	7,119.0	7,119.0	7,119.0	20.1	142.0	89.96	229.9	-1,141.0	1,678.6	1,516.6	162.06	10.358	
8,100.0	7,118.9	7,118.9	7,118.9	20.4	142.0	89.96	229.9	-1,141.0	1,686.8	1,524.6	162.28	10.394	
8,169.3	7,118.7	7,118.7	7,118.7	21.1	142.0	89.95	229.9	-1,141.0	1,708.2	1,545.2	162.91	10.485	
8,200.0	7,118.7	7,118.7	7,118.7	21.4	142.0	89.95	229.9	-1,141.0	1,718.4	1,555.2	163.19	10.530	
8,267.7	7,118.5	7,118.5	7,118.5	22.1	142.0	89.94	229.9	-1,141.0	1,742.7	1,578.8	163.88	10.634	
8,300.0	7,118.4	7,118.4	7,118.4	22.5	142.0	89.94	229.9	-1,141.0	1,755.1	1,590.9	164.22	10.688	
8,366.1	7,118.3	7,118.3	7,118.3	23.3	142.0	89.93	229.9	-1,141.0	1,782.1	1,617.1	164.97	10.802	
8,400.0	7,118.2	7,118.2	7,118.2	23.7	142.0	89.93	229.9	-1,141.0	1,796.7	1,631.3	165.36	10.865	
8,464.5	7,118.0	7,118.0	7,118.0	24.5	142.0	89.93	229.9	-1,141.0	1,825.9	1,659.7	166.16	10.989	
8,500.0	7,117.9	7,117.9	7,117.9	25.0	142.0	89.92	229.9	-1,141.0	1,842.7	1,676.1	166.60	11.060	
8,563.0	7,117.8	7,117.8	7,117.8	25.8	142.0	89.92	229.9	-1,141.0	1,873.9	1,706.4	167.44	11.191	
8,600.0	7,117.7	7,117.7	7,117.7	26.3	142.0	89.91	229.9	-1,141.0	1,892.9	1,725.0	167.93	11.272	
8,661.4	7,117.5	7,117.5	7,117.5	27.2	142.0	89.91	229.9	-1,141.0	1,925.7	1,756.9	168.78	11.409	
8,700.0	7,117.4	7,117.4	7,117.4	27.7	142.0	89.90	229.9	-1,141.0	1,947.0	1,777.6	169.32	11.499	
8,759.8	7,117.3	7,117.3	7,117.3	28.6	142.0	89.90	229.9	-1,141.0	1,981.0	1,810.8	170.19	11.640	
8,800.0	7,117.2	7,117.2	7,117.2	29.2	142.0	89.90	229.9	-1,141.0	2,004.5	1,833.8	170.77	11.738	
8,858.2	7,117.0	7,117.0	7,117.0	30.1	142.0	89.89	229.9	-1,141.0	2,039.6	1,867.9	171.65	11.882	
8,900.0	7,116.9	7,116.9	7,116.9	30.7	142.0	89.89	229.9	-1,141.0	2,065.4	1,893.1	172.28	11.989	
8,956.7	7,116.8	7,116.8	7,116.8	31.6	142.0	89.88	229.9	-1,141.0	2,101.2	1,928.0	173.16	12.134	
9,000.0	7,116.7	7,116.7	7,116.7	32.3	142.0	89.88	229.9	-1,141.0	2,129.1	1,955.3	173.83	12.249	
9,055.1	7,116.6	7,116.6	7,116.6	33.2	142.0	89.87	229.9	-1,141.0	2,165.4	1,990.7	174.70	12.395	
9,100.0	7,116.5	7,116.5	7,116.5	33.9	142.0	89.87	229.9	-1,141.0	2,195.6	2,020.2	175.41	12.517	
9,153.5	7,116.3	7,116.3	7,116.3	34.7	141.9	89.86	229.9	-1,141.0	2,232.2	2,056.0	176.28	12.663	
9,200.0	7,116.2	7,116.2	7,116.2	35.5	141.9	89.86	229.9	-1,141.0	2,264.6	2,087.5	177.03	12.792	
9,251.9	7,116.1	7,116.1	7,116.1	36.4	141.9	89.86	229.9	-1,141.0	2,301.3	2,123.4	177.89	12.937	
9,300.0	7,116.0	7,116.0	7,116.0	37.2	141.9	89.85	229.9	-1,141.0	2,335.8	2,157.1	178.68	13.072	
9,350.4	7,115.8	7,115.8	7,115.8	38.0	141.9	89.85	229.9	-1,141.0	2,372.4	2,192.9	179.53	13.215	
9,400.0	7,115.7	7,115.7	7,115.7	38.8	141.9	89.84	229.9	-1,141.0	2,409.0	2,228.7	180.36	13.357	

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 OLSON 30R-243
<b>Project:</b>	WELD COUNTY, COLORADO	<b>TVD Reference:</b>	KB-EST @ 4990.0usft (Original Well Elev)
<b>Reference Site:</b>	NW NE SEC 30 T4N R67W 6th P.M.	<b>MD Reference:</b>	KB-EST @ 4990.0usft (Original Well Elev)
<b>Site Error:</b>	0.0 usft	<b>North Reference:</b>	True
<b>Reference Well:</b>	OLSON 30R-243	<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 #2	<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	
9,448.8	7,115.6	7,115.6	7,115.6	39.7	141.9	89.84	229.9	-1,141.0	2,445.4	2,264.3	181.18	13.497	
9,500.0	7,115.5	7,115.5	7,115.5	40.5	141.9	89.83	229.9	-1,141.0	2,484.1	2,302.1	182.05	13.645	
9,547.2	7,115.3	7,115.3	7,115.3	41.3	141.9	89.83	229.9	-1,141.0	2,520.2	2,337.3	182.86	13.782	
9,600.0	7,115.2	7,115.2	7,115.2	42.2	141.9	89.82	229.9	-1,141.0	2,560.9	2,377.2	183.77	13.936	
9,645.6	7,115.1	7,115.1	7,115.1	43.0	141.9	89.82	229.9	-1,141.0	2,596.5	2,412.0	184.56	14.069	
9,700.0	7,115.0	7,115.0	7,115.0	44.0	141.9	89.82	229.9	-1,141.0	2,639.3	2,453.8	185.50	14.228	
9,744.1	7,114.8	7,114.8	7,114.8	44.7	141.9	89.81	229.9	-1,141.0	2,674.3	2,488.0	186.27	14.357	
9,800.0	7,114.7	7,114.7	7,114.7	45.7	141.9	89.81	229.9	-1,141.0	2,719.1	2,531.8	187.24	14.522	
9,842.5	7,114.6	7,114.6	7,114.6	46.5	141.9	89.80	229.9	-1,141.0	2,753.4	2,565.4	187.99	14.647	
9,900.0	7,114.5	7,114.5	7,114.5	47.5	141.9	89.80	229.9	-1,141.0	2,800.2	2,611.2	189.00	14.816	
9,940.9	7,114.4	7,114.4	7,114.4	48.2	141.9	89.79	229.9	-1,141.0	2,833.7	2,644.0	189.73	14.936	
10,000.0	7,114.2	7,114.2	7,114.2	49.2	141.9	89.79	229.9	-1,141.0	2,882.4	2,691.7	190.77	15.109	
10,039.3	7,114.1	7,114.1	7,114.1	49.9	141.9	89.78	229.9	-1,141.0	2,915.1	2,723.7	191.47	15.225	
10,100.0	7,114.0	7,114.0	7,114.0	51.0	141.9	89.78	229.9	-1,141.0	2,965.8	2,773.3	192.55	15.403	
10,137.8	7,113.9	7,113.9	7,113.9	51.7	141.9	89.78	229.9	-1,141.0	2,997.6	2,804.3	193.23	15.513	
10,200.0	7,113.7	7,113.7	7,113.7	52.8	141.9	89.77	229.9	-1,141.0	3,050.2	2,855.8	194.34	15.695	
10,236.2	7,113.6	7,113.6	7,113.6	53.4	141.9	89.77	229.9	-1,141.0	3,080.9	2,886.0	194.99	15.800	
10,300.0	7,113.5	7,113.5	7,113.5	54.6	141.9	89.76	229.9	-1,141.0	3,135.5	2,939.3	196.14	15.986	
10,334.6	7,113.4	7,113.4	7,113.4	55.2	141.9	89.76	229.9	-1,141.0	3,165.2	2,968.4	196.77	16.086	
10,400.0	7,113.2	7,113.2	7,113.2	56.4	141.9	89.75	229.9	-1,141.0	3,221.6	3,023.6	197.95	16.275	
10,433.0	7,113.1	7,113.1	7,113.1	57.0	141.9	89.75	229.9	-1,141.0	3,250.2	3,051.7	198.55	16.370	
10,500.0	7,113.0	7,113.0	7,113.0	58.2	141.9	89.74	229.9	-1,141.0	3,308.5	3,108.7	199.76	16.562	
10,531.5	7,112.9	7,112.9	7,112.9	58.8	141.9	89.74	229.9	-1,141.0	3,336.0	3,135.7	200.34	16.652	
10,600.0	7,112.7	7,112.7	7,112.7	60.0	141.9	89.73	229.9	-1,141.0	3,396.1	3,194.5	201.58	16.847	
10,629.9	7,112.6	7,112.6	7,112.6	60.6	141.9	89.73	229.9	-1,141.0	3,422.5	3,220.3	202.13	16.932	
10,700.0	7,112.5	7,112.5	7,112.5	61.9	141.9	89.72	229.9	-1,141.0	3,484.4	3,281.0	203.41	17.130	
10,728.3	7,112.4	7,112.4	7,112.4	62.4	141.9	89.72	229.9	-1,141.0	3,509.5	3,305.6	203.93	17.210	
10,800.0	7,112.2	7,112.2	7,112.2	63.7	141.9	89.71	229.9	-1,141.0	3,573.3	3,368.1	205.24	17.410	
10,826.7	7,112.1	7,112.1	7,112.1	64.2	141.9	89.71	229.9	-1,141.0	3,597.2	3,391.5	205.73	17.485	
10,900.0	7,111.9	7,111.9	7,111.9	65.5	141.9	89.71	229.9	-1,141.0	3,662.8	3,455.7	207.08	17.688	
10,925.2	7,111.9	7,111.9	7,111.9	66.0	141.9	89.70	229.9	-1,141.0	3,685.4	3,477.9	207.54	17.758	
11,000.0	7,111.7	7,111.7	7,111.7	67.4	141.9	89.70	229.9	-1,141.0	3,752.8	3,543.9	208.92	17.963	
11,023.6	7,111.6	7,111.6	7,111.6	67.8	141.9	89.69	229.9	-1,141.0	3,774.2	3,564.8	209.35	18.028	
11,100.0	7,111.4	7,111.4	7,111.4	69.2	141.9	89.69	229.9	-1,141.0	3,843.3	3,632.6	210.76	18.235	
11,122.0	7,111.4	7,111.4	7,111.4	69.6	141.8	89.69	229.9	-1,141.0	3,863.3	3,652.2	211.17	18.295	
11,200.0	7,111.2	7,111.2	7,111.2	71.1	141.8	89.68	229.9	-1,141.0	3,934.3	3,721.7	212.61	18.505	
11,220.4	7,111.1	7,111.1	7,111.1	71.4	141.8	89.68	229.9	-1,141.0	3,953.0	3,740.0	212.99	18.560	
11,300.0	7,110.9	7,110.9	7,110.9	72.9	141.8	89.67	229.9	-1,141.0	4,025.7	3,811.3	214.46	18.771	
11,318.9	7,110.9	7,110.9	7,110.9	73.3	141.8	89.67	229.9	-1,141.0	4,043.0	3,828.2	214.81	18.821	
11,400.0	7,110.7	7,110.7	7,110.7	74.8	141.8	89.66	229.9	-1,141.0	4,117.5	3,901.2	216.32	19.035	
11,417.3	7,110.6	7,110.6	7,110.6	75.1	141.8	89.66	229.9	-1,141.0	4,133.4	3,916.8	216.64	19.080	
11,500.0	7,110.4	7,110.4	7,110.4	76.6	141.8	89.65	229.9	-1,141.0	4,209.7	3,991.5	218.17	19.295	
11,515.7	7,110.4	7,110.4	7,110.4	76.9	141.8	89.65	229.9	-1,141.0	4,224.2	4,005.7	218.47	19.336	
11,600.0	7,110.2	7,110.2	7,110.2	78.5	141.8	89.64	229.9	-1,141.0	4,302.2	4,082.2	220.04	19.552	
11,614.1	7,110.1	7,110.1	7,110.1	78.7	141.8	89.64	229.9	-1,141.0	4,315.3	4,095.0	220.30	19.588	
11,668.5	7,110.0	7,110.0	7,110.0	79.8	141.8	89.63	229.9	-1,141.0	4,365.8	4,144.5	221.31	19.727	

# Anticollision Report



<b>Company:</b>	PDC ENERGY	<b>Local Co-ordinate Reference:</b>	Well OLSON 30R-243
<b>Project:</b>	WELD COUNTY, COLORADO	<b>TVD Reference:</b>	KB-EST @ 4990.0usft (Original Well Elev)
<b>Reference Site:</b>	NW NE SEC 30 T4N R67W 6th P.M.	<b>MD Reference:</b>	KB-EST @ 4990.0usft (Original Well Elev)
<b>Site Error:</b>	0.0 usft	<b>North Reference:</b>	True
<b>Reference Well:</b>	OLSON 30R-243	<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 #2	<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	-135.90	-782.1	-758.0	1,089.2				
98.4	98.4	93.4	93.4	0.1	0.2	-135.90	-782.1	-758.0	1,089.2	1,088.9	0.27	4,014.115	
100.0	100.0	95.0	95.0	0.1	0.2	-135.90	-782.1	-758.0	1,089.2	1,088.9	0.28	3,942.692	
196.8	196.8	191.8	191.8	0.3	2.6	-135.90	-782.1	-758.0	1,089.2	1,086.3	2.88	378.813	
200.0	200.0	195.0	195.0	0.3	2.7	-135.90	-782.1	-758.0	1,089.2	1,086.2	2.96	367.513	
295.3	295.3	290.3	290.3	0.5	4.6	-135.90	-782.1	-758.0	1,089.2	1,084.0	5.17	210.506	
300.0	300.0	295.0	295.0	0.5	4.7	-135.90	-782.1	-758.0	1,089.2	1,083.9	5.28	206.189	
393.7	393.7	388.7	388.7	0.7	6.7	-135.90	-782.1	-758.0	1,089.2	1,081.8	7.40	147.167	
400.0	400.0	395.0	395.0	0.8	6.8	-135.90	-782.1	-758.0	1,089.2	1,081.6	7.54	144.390	
492.1	492.1	487.1	487.1	1.0	8.6	-135.90	-782.1	-758.0	1,089.2	1,079.6	9.62	113.276	
500.0	500.0	495.0	495.0	1.0	8.8	-135.90	-782.1	-758.0	1,089.2	1,079.4	9.79	111.227	
590.5	590.5	585.5	585.5	1.2	10.6	-135.90	-782.1	-758.0	1,089.2	1,077.4	11.82	92.113	
600.0	600.0	595.0	595.0	1.2	10.8	-135.90	-782.1	-758.0	1,089.2	1,077.2	12.04	90.491	
689.0	689.0	684.0	684.0	1.4	12.6	-135.90	-782.1	-758.0	1,089.2	1,075.2	14.03	77.628	
700.0	700.0	695.0	695.0	1.4	12.8	-135.90	-782.1	-758.0	1,089.2	1,074.9	14.28	76.285	
787.4	787.4	782.4	782.4	1.6	14.6	-135.90	-782.1	-758.0	1,089.2	1,073.0	16.24	67.087	
800.0	800.0	795.0	795.0	1.7	14.9	-135.90	-782.1	-758.0	1,089.2	1,072.7	16.52	65.941	
885.8	885.8	880.8	880.8	1.9	16.6	-135.90	-782.1	-758.0	1,089.2	1,070.7	18.44	59.069	
900.0	900.0	895.0	895.0	1.9	16.9	-135.90	-782.1	-758.0	1,089.2	1,070.4	18.76	58.070	
984.2	984.2	979.2	979.2	2.1	18.6	-135.90	-782.1	-758.0	1,089.2	1,068.5	20.64	52.765	
1,000.0	1,000.0	995.0	995.0	2.1	18.9	-135.90	-782.1	-758.0	1,089.2	1,068.2	20.99	51.879	
1,082.7	1,082.7	1,077.7	1,077.7	2.3	20.5	-135.90	-782.1	-758.0	1,089.2	1,066.3	22.84	47.678	
1,100.0	1,100.0	1,095.0	1,095.0	2.3	20.9	-135.90	-782.1	-758.0	1,089.2	1,066.0	23.23	46.882	
1,181.1	1,181.1	1,176.1	1,176.1	2.5	22.5	-135.90	-782.1	-758.0	1,089.2	1,064.1	25.05	43.486	
1,200.0	1,200.0	1,195.0	1,195.0	2.6	22.9	-135.90	-782.1	-758.0	1,089.2	1,063.7	25.47	42.764	
1,279.5	1,279.5	1,274.5	1,274.5	2.7	24.5	-135.90	-782.1	-758.0	1,089.2	1,061.9	27.25	39.972	
1,300.0	1,300.0	1,295.0	1,295.0	2.8	24.9	-135.90	-782.1	-758.0	1,089.2	1,061.5	27.71	39.311	
1,377.9	1,377.9	1,372.9	1,372.9	3.0	26.5	-135.90	-782.1	-758.0	1,089.2	1,059.7	29.45	36.984	
1,400.0	1,400.0	1,395.0	1,395.0	3.0	26.9	-135.90	-782.1	-758.0	1,089.2	1,059.2	29.94	36.374	
1,476.4	1,476.4	1,471.4	1,471.4	3.2	28.5	-135.90	-782.1	-758.0	1,089.2	1,057.5	31.65	34.411	
1,500.0	1,500.0	1,495.0	1,495.0	3.2	28.9	-135.90	-782.1	-758.0	1,089.2	1,057.0	32.18	33.846	
1,574.8	1,574.8	1,569.8	1,569.8	3.4	30.5	-135.90	-782.1	-758.0	1,089.2	1,055.3	33.85	32.174	
1,600.0	1,600.0	1,595.0	1,595.0	3.5	31.0	-135.90	-782.1	-758.0	1,089.2	1,054.8	34.42	31.647	
1,673.2	1,673.2	1,668.2	1,668.2	3.6	32.4	-135.90	-782.1	-758.0	1,089.2	1,053.1	36.05	30.209	
1,700.0	1,700.0	1,695.0	1,695.0	3.7	33.0	-135.90	-782.1	-758.0	1,089.2	1,052.5	36.65	29.716	
1,771.6	1,771.6	1,766.6	1,766.6	3.8	34.4	-135.90	-782.1	-758.0	1,089.2	1,050.9	38.26	28.471	
1,800.0	1,800.0	1,795.0	1,795.0	3.9	35.0	-135.90	-782.1	-758.0	1,089.2	1,050.3	38.89	28.007	
1,870.1	1,870.1	1,865.1	1,865.1	4.1	36.4	-135.90	-782.1	-758.0	1,089.2	1,048.7	40.46	26.922	
1,900.0	1,900.0	1,895.0	1,895.0	4.1	37.0	-135.90	-782.1	-758.0	1,089.2	1,048.1	41.13	26.484	
1,950.0	1,950.0	1,945.0	1,945.0	4.2	38.0	-135.90	-782.1	-758.0	1,089.2	1,046.9	42.24	25.783 CC	
1,968.5	1,968.5	1,963.5	1,963.5	4.3	38.4	-163.67	-782.1	-758.0	1,089.2	1,046.6	42.66	25.535	
2,000.0	2,000.0	1,995.0	1,995.0	4.4	39.0	-163.67	-782.1	-758.0	1,089.6	1,046.2	43.36	25.132 ES	
2,066.9	2,066.9	2,061.9	2,061.9	4.5	40.4	-163.69	-782.1	-758.0	1,091.5	1,046.7	44.82	24.352	
2,100.0	2,099.9	2,094.9	2,094.9	4.6	41.0	-163.70	-782.1	-758.0	1,093.0	1,047.4	45.54	24.002	
2,165.3	2,165.1	2,160.1	2,160.1	4.7	42.3	-163.74	-782.1	-758.0	1,097.0	1,050.0	46.93	23.375	
2,200.0	2,199.7	2,194.7	2,194.7	4.8	43.0	-163.77	-782.1	-758.0	1,099.7	1,052.0	47.66	23.075	
2,263.8	2,263.1	2,258.1	2,258.1	4.9	44.3	-163.82	-782.1	-758.0	1,105.7	1,056.7	48.97	22.577	
2,300.0	2,299.1	2,294.1	2,294.1	5.0	45.0	-163.86	-782.1	-758.0	1,109.7	1,060.0	49.71	22.325	
2,362.2	2,360.8	2,355.8	2,355.8	5.2	46.3	-163.93	-782.1	-758.0	1,117.6	1,066.7	50.94	21.939	
2,400.0	2,398.2	2,393.2	2,393.2	5.3	47.0	-163.98	-782.1	-758.0	1,123.1	1,071.4	51.68	21.732	
2,460.6	2,457.9	2,452.9	2,452.9	5.4	48.2	-164.07	-782.1	-758.0	1,132.8	1,080.0	52.83	21.441	
2,500.0	2,496.6	2,491.6	2,491.6	5.5	49.0	-164.13	-782.1	-758.0	1,139.8	1,086.2	53.56	21.279	

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 OLSON 30R-243
<b>Project:</b>	WELD COUNTY, COLORADO	<b>TVD Reference:</b>	KB-EST @ 4990.0usft (Original Well Elev)
<b>Reference Site:</b>	NW NE SEC 30 T4N R67W 6th P.M.	<b>MD Reference:</b>	KB-EST @ 4990.0usft (Original Well Elev)
<b>Site Error:</b>	0.0 usft	<b>North Reference:</b>	True
<b>Reference Well:</b>	OLSON 30R-243	<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 #2	<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						
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
2,559.0	2,554.5	2,549.5	2,549.5	5.7	50.2	-164.23	-782.1	-758.0	1,151.2	1,096.6	54.64	21.071	
2,600.0	2,594.4	2,589.4	2,589.4	5.8	51.0	-164.30	-782.1	-758.0	1,159.8	1,104.5	55.36	20.952	
2,657.5	2,650.3	2,645.3	2,645.3	6.0	52.1	-164.41	-782.1	-758.0	1,172.8	1,116.5	56.35	20.815	
2,700.0	2,691.5	2,686.5	2,686.5	6.1	52.9	-164.49	-782.1	-758.0	1,183.2	1,126.1	57.05	20.740	
2,730.9	2,721.3	2,716.3	2,716.3	6.2	53.5	-164.55	-782.1	-758.0	1,191.1	1,133.5	57.55	20.696	
2,755.9	2,745.3	2,740.3	2,740.3	6.3	54.0	-164.64	-782.1	-758.0	1,197.6	1,139.5	58.08	20.620	
2,800.0	2,787.8	2,782.8	2,782.8	6.5	54.9	-164.79	-782.1	-758.0	1,209.0	1,150.0	59.01	20.489	
2,854.3	2,840.1	2,835.1	2,835.1	6.7	55.9	-164.97	-782.1	-758.0	1,223.2	1,163.0	60.16	20.333	
2,900.0	2,884.1	2,879.1	2,879.1	6.9	56.8	-165.11	-782.1	-758.0	1,235.1	1,174.0	61.12	20.207	
2,952.7	2,934.9	2,929.9	2,929.9	7.1	57.8	-165.28	-782.1	-758.0	1,248.9	1,186.6	62.24	20.064	
3,000.0	2,980.4	2,975.4	2,975.4	7.3	58.7	-165.43	-782.1	-758.0	1,261.2	1,198.0	63.24	19.942	
3,051.2	3,029.7	3,024.7	3,024.7	7.5	59.7	-165.58	-782.1	-758.0	1,274.6	1,210.2	64.33	19.812	
3,100.0	3,076.7	3,071.7	3,071.7	7.7	60.7	-165.73	-782.1	-758.0	1,287.3	1,222.0	65.37	19.693	
3,149.6	3,124.5	3,119.5	3,119.5	7.9	61.6	-165.87	-782.1	-758.0	1,300.3	1,233.9	66.43	19.576	
3,200.0	3,173.0	3,168.0	3,168.0	8.1	62.6	-166.02	-782.1	-758.0	1,313.5	1,246.0	67.50	19.460	
3,248.0	3,219.3	3,214.3	3,214.3	8.4	63.5	-166.15	-782.1	-758.0	1,326.1	1,257.6	68.52	19.353	
3,300.0	3,269.4	3,264.4	3,264.4	8.6	64.5	-166.29	-782.1	-758.0	1,339.7	1,270.1	69.63	19.241	
3,346.4	3,314.1	3,309.1	3,309.1	8.8	65.4	-166.42	-782.1	-758.0	1,351.9	1,281.3	70.62	19.143	
3,400.0	3,365.7	3,360.7	3,360.7	9.1	66.5	-166.56	-782.1	-758.0	1,365.9	1,294.2	71.76	19.034	
3,444.9	3,408.9	3,403.9	3,403.9	9.3	67.3	-166.68	-782.1	-758.0	1,377.7	1,305.0	72.72	18.945	
3,500.0	3,462.0	3,457.0	3,457.0	9.5	68.4	-166.82	-782.1	-758.0	1,392.2	1,318.3	73.90	18.839	
3,543.3	3,503.7	3,498.7	3,498.7	9.7	69.2	-166.93	-782.1	-758.0	1,403.6	1,328.7	74.83	18.758	
3,600.0	3,558.3	3,553.3	3,553.3	10.0	70.3	-167.07	-782.1	-758.0	1,418.5	1,342.4	76.04	18.655	
3,641.7	3,598.5	3,593.5	3,593.5	10.2	71.2	-167.17	-782.1	-758.0	1,429.4	1,352.5	76.93	18.581	
3,700.0	3,654.6	3,649.6	3,649.6	10.5	72.3	-167.30	-782.1	-758.0	1,444.8	1,366.6	78.18	18.481	
3,740.1	3,693.2	3,688.2	3,688.2	10.7	73.1	-167.40	-782.1	-758.0	1,455.3	1,376.3	79.04	18.413	
3,800.0	3,750.9	3,745.9	3,745.9	11.0	74.2	-167.53	-782.1	-758.0	1,471.1	1,390.8	80.32	18.316	
3,838.6	3,788.0	3,783.0	3,783.0	11.2	75.0	-167.62	-782.1	-758.0	1,481.2	1,400.1	81.15	18.254	
3,900.0	3,847.2	3,842.2	3,842.2	11.5	76.2	-167.76	-782.1	-758.0	1,497.4	1,415.0	82.46	18.159	
3,937.0	3,882.8	3,877.8	3,877.8	11.7	76.9	-167.84	-782.1	-758.0	1,507.2	1,423.9	83.25	18.103	
4,000.0	3,943.5	3,938.5	3,938.5	12.0	78.1	-167.97	-782.1	-758.0	1,523.8	1,439.2	84.61	18.010	
4,035.4	3,977.6	3,972.6	3,972.6	12.2	78.8	-168.04	-782.1	-758.0	1,533.1	1,447.8	85.37	17.960	
4,100.0	4,039.8	4,034.8	4,034.8	12.5	80.0	-168.18	-782.1	-758.0	1,550.2	1,463.4	86.75	17.869	
4,133.8	4,072.4	4,067.4	4,067.4	12.7	80.7	-168.25	-782.1	-758.0	1,559.1	1,471.6	87.48	17.823	
4,200.0	4,136.1	4,131.1	4,131.1	13.0	82.0	-168.38	-782.1	-758.0	1,576.6	1,487.7	88.90	17.735	
4,232.3	4,167.2	4,162.2	4,162.2	13.2	82.6	-168.44	-782.1	-758.0	1,585.1	1,495.5	89.59	17.693	
4,300.0	4,232.4	4,227.4	4,227.4	13.5	83.9	-168.57	-782.1	-758.0	1,603.0	1,511.9	91.04	17.607	
4,330.7	4,262.0	4,257.0	4,257.0	13.7	84.5	-168.63	-782.1	-758.0	1,611.1	1,519.4	91.70	17.569	
4,400.0	4,328.7	4,323.7	4,323.7	14.0	85.8	-168.76	-782.1	-758.0	1,629.4	1,536.2	93.19	17.485	
4,429.1	4,356.8	4,351.8	4,351.8	14.2	86.4	-168.81	-782.1	-758.0	1,637.1	1,543.3	93.82	17.450	
4,500.0	4,425.0	4,420.0	4,420.0	14.6	87.8	-168.94	-782.1	-758.0	1,655.9	1,560.5	95.34	17.368	
4,527.5	4,451.6	4,446.6	4,446.6	14.7	88.3	-168.99	-782.1	-758.0	1,663.2	1,567.2	95.93	17.337	
4,600.0	4,521.4	4,516.4	4,516.4	15.1	89.7	-169.12	-782.1	-758.0	1,682.3	1,584.8	97.49	17.257	
4,626.0	4,546.4	4,541.4	4,541.4	15.2	90.2	-169.16	-782.1	-758.0	1,689.2	1,591.2	98.05	17.229	
4,700.0	4,617.7	4,612.7	4,612.7	15.6	91.7	-169.29	-782.1	-758.0	1,708.8	1,609.2	99.64	17.150	
4,724.4	4,641.2	4,636.2	4,636.2	15.7	92.1	-169.33	-782.1	-758.0	1,715.3	1,615.1	100.16	17.125	
4,800.0	4,714.0	4,709.0	4,709.0	16.1	93.6	-169.45	-782.1	-758.0	1,735.3	1,633.5	101.79	17.048	
4,822.8	4,735.9	4,730.9	4,730.9	16.3	94.0	-169.49	-782.1	-758.0	1,741.4	1,639.1	102.28	17.026	
4,900.0	4,810.3	4,805.3	4,805.3	16.7	95.5	-169.61	-782.1	-758.0	1,761.8	1,657.9	103.94	16.951	
4,921.2	4,830.7	4,825.7	4,825.7	16.8	95.9	-169.64	-782.1	-758.0	1,767.4	1,663.1	104.39	16.931	
5,000.0	4,906.6	4,901.6	4,901.6	17.2	97.5	-169.77	-782.1	-758.0	1,788.3	1,682.2	106.09	16.857	
5,019.7	4,925.5	4,920.5	4,920.5	17.3	97.8	-169.80	-782.1	-758.0	1,793.6	1,687.0	106.51	16.839	

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 OLSON 30R-243
<b>Project:</b>	WELD COUNTY, COLORADO	<b>TVD Reference:</b>	KB-EST @ 4990.0usft (Original Well Elev)
<b>Reference Site:</b>	NW NE SEC 30 T4N R67W 6th P.M.	<b>MD Reference:</b>	KB-EST @ 4990.0usft (Original Well Elev)
<b>Site Error:</b>	0.0 usft	<b>North Reference:</b>	True
<b>Reference Well:</b>	OLSON 30R-243	<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 #2	<b>Offset TVD Reference:</b>	Offset Datum

Offset Design NW NE SEC 30 T4N R67W 6th P.M. - EXIST VERT SHULTZ 22-30 - 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		
5,100.0	5,002.9	4,997.9	4,997.9	17.7	99.4	-169.92	-782.1	-758.0	1,814.9	1,706.6	108.24	16.767		
5,118.1	5,020.3	5,015.3	5,015.3	17.8	99.7	-169.94	-782.1	-758.0	1,819.7	1,711.0	108.63	16.751		
5,200.0	5,099.2	5,094.2	5,094.2	18.3	101.3	-170.06	-782.1	-758.0	1,841.4	1,731.0	110.39	16.681		
5,216.5	5,115.1	5,110.1	5,110.1	18.3	101.7	-170.09	-782.1	-758.0	1,845.8	1,735.0	110.75	16.667		
5,300.0	5,195.5	5,190.5	5,190.5	18.8	103.3	-170.21	-782.1	-758.0	1,868.0	1,755.4	112.54	16.598		
5,314.9	5,209.9	5,204.9	5,204.9	18.9	103.6	-170.23	-782.1	-758.0	1,871.9	1,759.1	112.86	16.586		
5,400.0	5,291.8	5,286.8	5,286.8	19.3	105.2	-170.34	-782.1	-758.0	1,894.5	1,779.8	114.69	16.518		
5,413.4	5,304.7	5,299.7	5,299.7	19.4	105.5	-170.36	-782.1	-758.0	1,898.1	1,783.1	114.98	16.508		
5,500.0	5,388.1	5,383.1	5,383.1	19.9	107.1	-170.48	-782.1	-758.0	1,921.1	1,804.2	116.85	16.441		
5,511.8	5,399.5	5,394.5	5,394.5	19.9	107.4	-170.49	-782.1	-758.0	1,924.2	1,807.1	117.10	16.432		
5,600.0	5,484.4	5,479.4	5,479.4	20.4	109.1	-170.61	-782.1	-758.0	1,947.7	1,828.7	119.00	16.367		
5,610.2	5,494.3	5,489.3	5,489.3	20.4	109.3	-170.62	-782.1	-758.0	1,950.4	1,831.2	119.22	16.360		
5,700.0	5,580.7	5,575.7	5,575.7	20.9	111.0	-170.74	-782.1	-758.0	1,974.3	1,853.1	121.15	16.296		
5,708.6	5,589.1	5,584.1	5,584.1	21.0	111.2	-170.75	-782.1	-758.0	1,976.6	1,855.2	121.34	16.290		
5,722.6	5,602.5	5,597.5	5,597.5	21.0	111.5	-170.77	-782.1	-758.0	1,980.3	1,858.6	121.64	16.280		
5,800.0	5,677.3	5,672.3	5,672.3	21.4	113.0	-170.92	-782.1	-758.0	1,999.9	1,875.8	124.07	16.119		
5,807.1	5,684.2	5,679.2	5,679.2	21.4	113.1	-170.93	-782.1	-758.0	2,001.6	1,877.3	124.29	16.105		
5,900.0	5,774.7	5,769.7	5,769.7	21.8	114.9	-171.09	-782.1	-758.0	2,022.2	1,895.1	127.09	15.911		
5,905.5	5,780.1	5,775.1	5,775.1	21.8	115.0	-171.10	-782.1	-758.0	2,023.4	1,896.1	127.26	15.900		
6,000.0	5,872.9	5,867.9	5,867.9	22.1	116.9	-171.24	-782.1	-758.0	2,041.2	1,911.2	130.01	15.701		
6,003.9	5,876.7	5,871.7	5,871.7	22.1	117.0	-171.24	-782.1	-758.0	2,041.9	1,911.8	130.12	15.693		
6,100.0	5,971.6	5,966.6	5,966.6	22.4	118.9	-171.35	-782.1	-758.0	2,056.8	1,924.0	132.79	15.489		
6,102.3	5,973.9	5,968.9	5,968.9	22.4	118.9	-171.35	-782.1	-758.0	2,057.1	1,924.3	132.86	15.484		
6,200.0	6,070.8	6,065.8	6,065.8	22.7	120.9	-171.44	-782.1	-758.0	2,069.0	1,933.5	135.44	15.275		
6,200.8	6,071.6	6,066.6	6,066.6	22.7	120.9	-171.44	-782.1	-758.0	2,069.0	1,933.6	135.46	15.274		
6,299.2	6,169.6	6,164.6	6,164.6	22.9	122.9	-171.50	-782.1	-758.0	2,077.7	1,939.7	137.93	15.063		
6,300.0	6,170.4	6,165.4	6,165.4	22.9	122.9	-171.50	-782.1	-758.0	2,077.7	1,939.8	137.95	15.061		
6,397.6	6,267.9	6,262.9	6,262.9	23.1	124.8	-171.54	-782.1	-758.0	2,082.9	1,942.7	140.24	14.852		
6,400.0	6,270.3	6,265.3	6,265.3	23.1	124.9	-171.54	-782.1	-758.0	2,083.0	1,942.7	140.30	14.847		
6,496.0	6,366.3	6,361.3	6,361.3	23.2	126.8	-171.55	-782.1	-758.0	2,084.8	1,942.5	142.40	14.641		
6,503.5	6,373.8	6,368.8	6,368.8	23.2	127.0	-143.78	-782.1	-758.0	2,084.9	1,942.3	142.55	14.625		
6,533.5	6,403.8	6,398.8	6,398.8	23.2	127.6	-143.78	-782.1	-758.0	2,084.9	1,941.6	143.21	14.558		
6,550.0	6,420.3	6,415.3	6,415.3	23.2	127.9	36.23	-782.1	-758.0	2,084.7	1,941.2	143.50	14.527		
6,594.5	6,464.7	6,459.7	6,459.7	23.3	128.8	36.36	-782.1	-758.0	2,082.8	1,938.7	144.05	14.459		
6,600.0	6,470.2	6,465.2	6,465.2	23.3	128.9	36.38	-782.1	-758.0	2,082.4	1,938.3	144.09	14.452		
6,650.0	6,519.8	6,514.8	6,514.8	23.3	129.9	36.73	-782.1	-758.0	2,077.2	1,933.0	144.23	14.402		
6,692.9	6,561.9	6,556.9	6,556.9	23.2	130.7	37.19	-782.1	-758.0	2,070.6	1,926.6	144.02	14.377		
6,700.0	6,568.8	6,563.8	6,563.8	23.2	130.9	37.28	-782.1	-758.0	2,069.4	1,925.4	143.96	14.374		
6,750.0	6,617.0	6,612.0	6,612.0	23.1	131.9	38.03	-782.1	-758.0	2,058.8	1,915.4	143.31	14.365		
6,791.3	6,656.1	6,651.1	6,651.1	23.0	132.6	38.81	-782.1	-758.0	2,048.0	1,905.5	142.55	14.367		
6,800.0	6,664.2	6,659.2	6,659.2	23.0	132.8	39.00	-782.1	-758.0	2,045.5	1,903.2	142.37	14.368		
6,850.0	6,710.1	6,705.1	6,705.1	22.9	133.7	40.19	-782.1	-758.0	2,029.8	1,888.6	141.21	14.374		
6,889.7	6,745.5	6,740.5	6,740.5	22.7	134.4	41.30	-782.1	-758.0	2,015.5	1,875.3	140.23	14.373		
6,900.0	6,754.5	6,749.5	6,749.5	22.7	134.6	41.62	-782.1	-758.0	2,011.6	1,871.6	139.98	14.371		
6,950.0	6,797.2	6,792.2	6,792.2	22.5	135.5	43.30	-782.1	-758.0	1,991.1	1,852.3	138.81	14.344		
6,988.2	6,828.5	6,823.5	6,823.5	22.3	136.1	44.76	-782.1	-758.0	1,974.0	1,835.9	138.07	14.297		
7,000.0	6,838.0	6,833.0	6,833.0	22.3	136.3	45.25	-782.1	-758.0	1,968.5	1,830.6	137.88	14.276		
7,050.0	6,876.7	6,871.7	6,871.7	22.0	137.1	47.48	-782.1	-758.0	1,943.9	1,806.5	137.37	14.151		
7,086.6	6,903.5	6,898.5	6,898.5	21.8	137.6	49.30	-782.1	-758.0	1,924.7	1,787.4	137.35	14.013		
7,100.0	6,913.0	6,908.0	6,908.0	21.8	137.8	50.01	-782.1	-758.0	1,917.5	1,780.0	137.43	13.952		
7,150.0	6,946.9	6,941.9	6,941.9	21.5	138.5	52.83	-782.1	-758.0	1,889.5	1,751.2	138.20	13.672		
7,185.0	6,969.1	6,964.1	6,964.1	21.3	138.9	54.98	-782.1	-758.0	1,869.0	1,729.8	139.20	13.427		

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 OLSON 30R-243
<b>Project:</b>	WELD COUNTY, COLORADO	<b>TVD Reference:</b>	KB-EST @ 4990.0usft (Original Well Elev)
<b>Reference Site:</b>	NW NE SEC 30 T4N R67W 6th P.M.	<b>MD Reference:</b>	KB-EST @ 4990.0usft (Original Well Elev)
<b>Site Error:</b>	0.0 usft	<b>North Reference:</b>	True
<b>Reference Well:</b>	OLSON 30R-243	<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 #2	<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	
7,200.0	6,978.2	6,973.2	6,973.2	21.2	139.1	55.95	-782.1	-758.0	1,860.0	1,720.3	139.74	13.311	
7,250.0	7,006.6	7,001.6	7,001.6	21.0	139.7	59.33	-782.1	-758.0	1,829.4	1,687.4	141.99	12.884	
7,283.4	7,024.0	7,019.0	7,019.0	20.8	140.0	61.74	-782.1	-758.0	1,808.4	1,664.6	143.84	12.572	
7,300.0	7,032.1	7,027.1	7,027.1	20.7	140.2	62.97	-782.1	-758.0	1,797.9	1,653.1	144.83	12.414	
7,350.0	7,054.6	7,049.6	7,049.6	20.4	140.7	66.79	-782.1	-758.0	1,765.6	1,617.6	148.01	11.929	
7,381.9	7,067.2	7,062.2	7,062.2	20.3	140.9	69.30	-782.1	-758.0	1,744.8	1,594.7	150.09	11.625	
7,400.0	7,073.8	7,068.8	7,068.8	20.2	141.0	70.74	-782.1	-758.0	1,732.9	1,581.6	151.24	11.458	
7,450.0	7,089.9	7,084.9	7,084.9	19.9	141.4	74.73	-782.1	-758.0	1,699.9	1,545.7	154.23	11.022	
7,480.3	7,097.9	7,092.9	7,092.9	19.8	141.5	77.13	-782.1	-758.0	1,679.9	1,524.1	155.82	10.781	
7,500.0	7,102.5	7,097.5	7,097.5	19.7	141.6	78.68	-782.1	-758.0	1,666.9	1,510.2	156.72	10.636	
7,550.0	7,111.8	7,106.8	7,106.8	19.5	141.8	82.50	-782.1	-758.0	1,634.2	1,475.7	158.57	10.306	
7,578.7	7,115.6	7,110.6	7,110.6	19.4	141.9	84.61	-782.1	-758.0	1,615.7	1,456.4	159.31	10.141	
7,600.0	7,117.6	7,112.6	7,112.6	19.3	141.9	86.12	-782.1	-758.0	1,602.1	1,442.3	159.71	10.031	
7,650.0	7,119.9	7,114.9	7,114.9	19.1	142.0	89.46	-782.1	-758.0	1,570.6	1,410.4	160.20	9.804	
7,660.3	7,120.0	7,115.0	7,115.0	19.1	142.0	90.11	-782.1	-758.0	1,564.2	1,404.0	160.23	9.762	
7,677.1	7,120.0	7,115.0	7,115.0	19.0	142.0	90.11	-782.1	-758.0	1,553.9	1,393.7	160.24	9.697	
7,700.0	7,119.9	7,114.9	7,114.9	19.0	142.0	90.11	-782.1	-758.0	1,540.1	1,379.8	160.26	9.610	
7,775.6	7,119.7	7,114.7	7,114.7	18.8	142.0	90.10	-782.1	-758.0	1,495.9	1,335.5	160.43	9.325	
7,800.0	7,119.7	7,114.7	7,114.7	18.8	142.0	90.09	-782.1	-758.0	1,482.2	1,321.7	160.48	9.236	
7,874.0	7,119.5	7,114.5	7,114.5	18.9	142.0	90.09	-782.1	-758.0	1,442.4	1,281.6	160.78	8.971	
7,900.0	7,119.4	7,114.4	7,114.4	19.0	142.0	90.08	-782.1	-758.0	1,429.0	1,268.1	160.89	8.882	
7,972.4	7,119.2	7,114.2	7,114.2	19.4	142.0	90.07	-782.1	-758.0	1,393.7	1,232.4	161.32	8.639	
8,000.0	7,119.2	7,114.2	7,114.2	19.5	142.0	90.07	-782.1	-758.0	1,381.0	1,219.5	161.48	8.552	
8,070.8	7,119.0	7,114.0	7,114.0	20.1	142.0	90.06	-782.1	-758.0	1,350.5	1,188.4	162.02	8.335	
8,100.0	7,118.9	7,113.9	7,113.9	20.4	142.0	90.06	-782.1	-758.0	1,338.8	1,176.5	162.24	8.252	
8,169.3	7,118.7	7,113.7	7,113.7	21.1	141.9	90.05	-782.1	-758.0	1,313.2	1,150.3	162.86	8.063	
8,200.0	7,118.7	7,113.7	7,113.7	21.4	141.9	90.05	-782.1	-758.0	1,302.9	1,139.7	163.14	7.986	
8,267.7	7,118.5	7,113.5	7,113.5	22.1	141.9	90.04	-782.1	-758.0	1,282.4	1,118.6	163.84	7.827	
8,300.0	7,118.4	7,113.4	7,113.4	22.5	141.9	90.04	-782.1	-758.0	1,273.8	1,109.6	164.17	7.759	
8,366.1	7,118.3	7,113.3	7,113.3	23.3	141.9	90.03	-782.1	-758.0	1,258.6	1,093.7	164.93	7.631	
8,400.0	7,118.2	7,113.2	7,113.2	23.7	141.9	90.03	-782.1	-758.0	1,252.1	1,086.8	165.32	7.574	
8,464.5	7,118.0	7,113.0	7,113.0	24.5	141.9	90.02	-782.1	-758.0	1,242.1	1,076.0	166.12	7.478	
8,500.0	7,117.9	7,112.9	7,112.9	25.0	141.9	90.01	-782.1	-758.0	1,238.1	1,071.5	166.56	7.433	
8,563.0	7,117.8	7,112.8	7,112.8	25.8	141.9	90.01	-782.1	-758.0	1,233.3	1,065.9	167.39	7.368	
8,600.0	7,117.7	7,112.7	7,112.7	26.3	141.9	90.00	-782.1	-758.0	1,232.0	1,064.2	167.88	7.339	
8,624.4	7,117.6	7,112.6	7,112.6	26.7	141.9	90.00	-782.1	-758.0	1,231.8	1,063.6	168.22	7.323	
8,661.4	7,117.5	7,112.5	7,112.5	27.2	141.9	90.00	-782.1	-758.0	1,232.4	1,063.6	168.73	7.304	
8,700.0	7,117.4	7,112.4	7,112.4	27.7	141.9	89.99	-782.1	-758.0	1,234.1	1,064.9	169.27	7.291	
8,759.8	7,117.3	7,112.3	7,112.3	28.6	141.9	89.98	-782.1	-758.0	1,239.2	1,069.1	170.14	7.284 SF	
8,800.0	7,117.2	7,112.2	7,112.2	29.2	141.9	89.98	-782.1	-758.0	1,244.3	1,073.5	170.73	7.288	
8,858.2	7,117.0	7,112.0	7,112.0	30.1	141.9	89.97	-782.1	-758.0	1,253.8	1,082.2	171.60	7.306	
8,900.0	7,116.9	7,111.9	7,111.9	30.7	141.9	89.97	-782.1	-758.0	1,262.3	1,090.0	172.23	7.329	
8,956.7	7,116.8	7,111.8	7,111.8	31.6	141.9	89.96	-782.1	-758.0	1,275.8	1,102.7	173.11	7.370	
9,000.0	7,116.7	7,111.7	7,111.7	32.3	141.9	89.96	-782.1	-758.0	1,287.8	1,114.0	173.78	7.411	
9,055.1	7,116.6	7,111.6	7,111.6	33.2	141.9	89.95	-782.1	-758.0	1,304.9	1,130.3	174.65	7.472	
9,100.0	7,116.5	7,111.5	7,111.5	33.9	141.9	89.95	-782.1	-758.0	1,320.4	1,145.1	175.37	7.530	
9,153.5	7,116.3	7,111.3	7,111.3	34.7	141.9	89.94	-782.1	-758.0	1,340.6	1,164.4	176.23	7.607	
9,200.0	7,116.2	7,111.2	7,111.2	35.5	141.9	89.93	-782.1	-758.0	1,359.7	1,182.7	176.99	7.682	
9,251.9	7,116.1	7,111.1	7,111.1	36.4	141.9	89.93	-782.1	-758.0	1,382.5	1,204.6	177.84	7.773	
9,300.0	7,116.0	7,111.0	7,111.0	37.2	141.9	89.92	-782.1	-758.0	1,404.9	1,226.3	178.64	7.865	
9,350.4	7,115.8	7,110.8	7,110.8	38.0	141.9	89.92	-782.1	-758.0	1,429.8	1,250.3	179.48	7.967	
9,400.0	7,115.7	7,110.7	7,110.7	38.8	141.9	89.91	-782.1	-758.0	1,455.6	1,275.3	180.31	8.073	

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 OLSON 30R-243
<b>Project:</b>	WELD COUNTY, COLORADO	<b>TVD Reference:</b>	KB-EST @ 4990.0usft (Original Well Elev)
<b>Reference Site:</b>	NW NE SEC 30 T4N R67W 6th P.M.	<b>MD Reference:</b>	KB-EST @ 4990.0usft (Original Well Elev)
<b>Site Error:</b>	0.0 usft	<b>North Reference:</b>	True
<b>Reference Well:</b>	OLSON 30R-243	<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 #2	<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	
9,448.8	7,115.6	7,110.6	7,110.6	39.7	141.9	89.90	-782.1	-758.0	1,482.2	1,301.1	181.14	8.183	
9,500.0	7,115.5	7,110.5	7,110.5	40.5	141.9	89.90	-782.1	-758.0	1,511.3	1,329.3	182.00	8.304	
9,547.2	7,115.3	7,110.3	7,110.3	41.3	141.9	89.89	-782.1	-758.0	1,539.1	1,356.3	182.81	8.419	
9,600.0	7,115.2	7,110.2	7,110.2	42.2	141.9	89.89	-782.1	-758.0	1,571.4	1,387.6	183.72	8.553	
9,645.6	7,115.1	7,110.1	7,110.1	43.0	141.9	89.88	-782.1	-758.0	1,600.1	1,415.6	184.51	8.672	
9,700.0	7,115.0	7,110.0	7,110.0	44.0	141.9	89.88	-782.1	-758.0	1,635.3	1,449.9	185.45	8.818	
9,744.1	7,114.8	7,109.8	7,109.8	44.7	141.9	89.87	-782.1	-758.0	1,664.6	1,478.4	186.22	8.939	
9,800.0	7,114.7	7,109.7	7,109.7	45.7	141.9	89.86	-782.1	-758.0	1,702.8	1,515.6	187.19	9.096	
9,842.5	7,114.6	7,109.6	7,109.6	46.5	141.9	89.86	-782.1	-758.0	1,732.4	1,544.4	187.94	9.218	
9,900.0	7,114.5	7,109.5	7,109.5	47.5	141.9	89.85	-782.1	-758.0	1,773.3	1,584.3	188.95	9.385	
9,940.9	7,114.4	7,109.4	7,109.4	48.2	141.9	89.85	-782.1	-758.0	1,802.9	1,613.3	189.68	9.505	
10,000.0	7,114.2	7,109.2	7,109.2	49.2	141.9	89.84	-782.1	-758.0	1,846.5	1,655.8	190.72	9.682	
10,039.3	7,114.1	7,109.1	7,109.1	49.9	141.9	89.84	-782.1	-758.0	1,876.0	1,684.6	191.42	9.800	
10,100.0	7,114.0	7,109.0	7,109.0	51.0	141.9	89.83	-782.1	-758.0	1,922.2	1,729.7	192.50	9.985	
10,137.8	7,113.9	7,108.9	7,108.9	51.7	141.8	89.82	-782.1	-758.0	1,951.3	1,758.1	193.18	10.101	
10,200.0	7,113.7	7,108.7	7,108.7	52.8	141.8	89.82	-782.1	-758.0	2,000.0	1,805.7	194.30	10.293	
10,236.2	7,113.6	7,108.6	7,108.6	53.4	141.8	89.81	-782.1	-758.0	2,028.6	1,833.7	194.95	10.406	
10,300.0	7,113.5	7,108.5	7,108.5	54.6	141.8	89.80	-782.1	-758.0	2,079.7	1,883.6	196.09	10.605	
10,334.6	7,113.4	7,108.4	7,108.4	55.2	141.8	89.80	-782.1	-758.0	2,107.7	1,910.9	196.72	10.714	
10,400.0	7,113.2	7,108.2	7,108.2	56.4	141.8	89.79	-782.1	-758.0	2,161.0	1,963.1	197.90	10.920	
10,433.0	7,113.1	7,108.1	7,108.1	57.0	141.8	89.79	-782.1	-758.0	2,188.3	1,989.8	198.50	11.024	
10,500.0	7,113.0	7,108.0	7,108.0	58.2	141.8	89.78	-782.1	-758.0	2,243.9	2,044.2	199.71	11.236	
10,531.5	7,112.9	7,107.9	7,107.9	58.8	141.8	89.78	-782.1	-758.0	2,270.3	2,070.0	200.29	11.335	
10,600.0	7,112.7	7,107.7	7,107.7	60.0	141.8	89.77	-782.1	-758.0	2,328.2	2,126.6	201.53	11.552	
10,629.9	7,112.6	7,107.6	7,107.6	60.6	141.8	89.77	-782.1	-758.0	2,353.6	2,151.5	202.08	11.647	
10,700.0	7,112.5	7,107.5	7,107.5	61.9	141.8	89.76	-782.1	-758.0	2,413.6	2,210.2	203.36	11.869	
10,728.3	7,112.4	7,107.4	7,107.4	62.4	141.8	89.75	-782.1	-758.0	2,438.0	2,234.1	203.88	11.958	
10,800.0	7,112.2	7,107.2	7,107.2	63.7	141.8	89.74	-782.1	-758.0	2,500.1	2,294.9	205.19	12.184	
10,826.7	7,112.1	7,107.1	7,107.1	64.2	141.8	89.74	-782.1	-758.0	2,523.4	2,317.7	205.68	12.269	
10,900.0	7,111.9	7,106.9	7,106.9	65.5	141.8	89.73	-782.1	-758.0	2,587.6	2,380.6	207.03	12.499	
10,925.2	7,111.9	7,106.9	7,106.9	66.0	141.8	89.73	-782.1	-758.0	2,609.8	2,402.3	207.49	12.578	
11,000.0	7,111.7	7,106.7	7,106.7	67.4	141.8	89.72	-782.1	-758.0	2,676.0	2,467.1	208.87	12.812	
11,023.6	7,111.6	7,106.6	7,106.6	67.8	141.8	89.72	-782.1	-758.0	2,696.9	2,487.6	209.30	12.885	
11,100.0	7,111.4	7,106.4	7,106.4	69.2	141.8	89.71	-782.1	-758.0	2,765.1	2,554.4	210.71	13.123	
11,122.0	7,111.4	7,106.4	7,106.4	69.6	141.8	89.71	-782.1	-758.0	2,784.9	2,573.7	211.12	13.191	
11,200.0	7,111.2	7,106.2	7,106.2	71.1	141.8	89.70	-782.1	-758.0	2,855.0	2,642.4	212.56	13.431	
11,220.4	7,111.1	7,106.1	7,106.1	71.4	141.8	89.69	-782.1	-758.0	2,873.5	2,660.5	212.94	13.494	
11,300.0	7,110.9	7,105.9	7,105.9	72.9	141.8	89.68	-782.1	-758.0	2,945.5	2,731.1	214.41	13.738	
11,318.9	7,110.9	7,105.9	7,105.9	73.3	141.8	89.68	-782.1	-758.0	2,962.7	2,747.9	214.76	13.795	
11,400.0	7,110.7	7,105.7	7,105.7	74.8	141.8	89.67	-782.1	-758.0	3,036.7	2,820.4	216.27	14.041	
11,417.3	7,110.6	7,105.6	7,105.6	75.1	141.8	89.67	-782.1	-758.0	3,052.5	2,835.9	216.59	14.093	
11,500.0	7,110.4	7,105.4	7,105.4	76.6	141.8	89.66	-782.1	-758.0	3,128.3	2,910.2	218.12	14.342	
11,515.7	7,110.4	7,105.4	7,105.4	76.9	141.8	89.66	-782.1	-758.0	3,142.8	2,924.4	218.42	14.389	
11,600.0	7,110.2	7,105.2	7,105.2	78.5	141.8	89.65	-782.1	-758.0	3,220.5	3,000.5	219.99	14.640	
11,614.1	7,110.1	7,105.1	7,105.1	78.7	141.8	89.65	-782.1	-758.0	3,233.6	3,013.3	220.25	14.681	
11,668.5	7,110.0	7,105.0	7,105.0	79.8	141.8	89.64	-782.1	-758.0	3,283.9	3,062.6	221.26	14.842	

# Anticollision Report



<b>Company:</b>	PDC ENERGY	<b>Local Co-ordinate Reference:</b>	Well OLSON 30R-243
<b>Project:</b>	WELD COUNTY, COLORADO	<b>TVD Reference:</b>	KB-EST @ 4990.0usft (Original Well Elev)
<b>Reference Site:</b>	NW NE SEC 30 T4N R67W 6th P.M.	<b>MD Reference:</b>	KB-EST @ 4990.0usft (Original Well Elev)
<b>Site Error:</b>	0.0 usft	<b>North Reference:</b>	True
<b>Reference Well:</b>	OLSON 30R-243	<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 #2	<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	-159.58	-2,115.1	-787.3	2,256.9				
98.4	98.4	95.4	95.4	0.1	0.2	-159.58	-2,115.1	-787.3	2,256.9	2,256.7	0.25	9,030.422	
100.0	100.0	97.0	97.0	0.1	0.2	-159.58	-2,115.1	-787.3	2,256.9	2,256.7	0.25	8,870.841	
196.8	196.8	193.8	193.8	0.3	2.6	-159.58	-2,115.1	-787.3	2,256.9	2,254.0	2.91	775.602	
200.0	200.0	197.0	197.0	0.3	2.7	-159.58	-2,115.1	-787.3	2,256.9	2,253.9	3.00	752.652	
295.3	295.3	292.3	292.3	0.5	4.7	-159.58	-2,115.1	-787.3	2,256.9	2,251.7	5.20	434.202	
300.0	300.0	297.0	297.0	0.5	4.8	-159.58	-2,115.1	-787.3	2,256.9	2,251.6	5.31	425.340	
393.7	393.7	390.7	390.7	0.7	6.7	-159.58	-2,115.1	-787.3	2,256.9	2,249.5	7.42	304.027	
400.0	400.0	397.0	397.0	0.8	6.8	-159.58	-2,115.1	-787.3	2,256.9	2,249.4	7.57	298.310	
492.1	492.1	489.1	489.1	1.0	8.7	-159.58	-2,115.1	-787.3	2,256.9	2,247.3	9.64	234.190	
500.0	500.0	497.0	497.0	1.0	8.8	-159.58	-2,115.1	-787.3	2,256.9	2,247.1	9.81	229.966	
590.5	590.5	587.5	587.5	1.2	10.7	-159.58	-2,115.1	-787.3	2,256.9	2,245.1	11.85	190.524	
600.0	600.0	597.0	597.0	1.2	10.8	-159.58	-2,115.1	-787.3	2,256.9	2,244.9	12.06	187.174	
689.0	689.0	686.0	686.0	1.4	12.6	-159.58	-2,115.1	-787.3	2,256.9	2,242.9	14.05	160.613	
700.0	700.0	697.0	697.0	1.4	12.9	-159.58	-2,115.1	-787.3	2,256.9	2,242.6	14.30	157.837	
787.4	787.4	784.4	784.4	1.6	14.6	-159.58	-2,115.1	-787.3	2,256.9	2,240.7	16.26	138.832	
800.0	800.0	797.0	797.0	1.7	14.9	-159.58	-2,115.1	-787.3	2,256.9	2,240.4	16.54	136.463	
885.8	885.8	882.8	882.8	1.9	16.6	-159.58	-2,115.1	-787.3	2,256.9	2,238.5	18.46	122.259	
900.0	900.0	897.0	897.0	1.9	16.9	-159.58	-2,115.1	-787.3	2,256.9	2,238.1	18.78	120.193	
984.2	984.2	981.2	981.2	2.1	18.6	-159.58	-2,115.1	-787.3	2,256.9	2,236.3	20.66	109.225	
1,000.0	1,000.0	997.0	997.0	2.1	18.9	-159.58	-2,115.1	-787.3	2,256.9	2,235.9	21.02	107.393	
1,082.7	1,082.7	1,079.7	1,079.7	2.3	20.6	-159.58	-2,115.1	-787.3	2,256.9	2,234.1	22.87	98.704	
1,100.0	1,100.0	1,097.0	1,097.0	2.3	20.9	-159.58	-2,115.1	-787.3	2,256.9	2,233.7	23.25	97.059	
1,181.1	1,181.1	1,178.1	1,178.1	2.5	22.6	-159.58	-2,115.1	-787.3	2,256.9	2,231.9	25.07	90.033	
1,200.0	1,200.0	1,197.0	1,197.0	2.6	22.9	-159.58	-2,115.1	-787.3	2,256.9	2,231.4	25.49	88.540	
1,279.5	1,279.5	1,276.5	1,276.5	2.7	24.5	-159.58	-2,115.1	-787.3	2,256.9	2,229.7	27.27	82.764	
1,300.0	1,300.0	1,297.0	1,297.0	2.8	24.9	-159.58	-2,115.1	-787.3	2,256.9	2,229.2	27.73	81.396	
1,377.9	1,377.9	1,374.9	1,374.9	3.0	26.5	-159.58	-2,115.1	-787.3	2,256.9	2,227.5	29.47	76.581	
1,400.0	1,400.0	1,397.0	1,397.0	3.0	27.0	-159.58	-2,115.1	-787.3	2,256.9	2,227.0	29.96	75.320	
1,476.4	1,476.4	1,473.4	1,473.4	3.2	28.5	-159.58	-2,115.1	-787.3	2,256.9	2,225.2	31.67	71.258	
1,500.0	1,500.0	1,497.0	1,497.0	3.2	29.0	-159.58	-2,115.1	-787.3	2,256.9	2,224.7	32.20	70.088	
1,574.8	1,574.8	1,571.8	1,571.8	3.4	30.5	-159.58	-2,115.1	-787.3	2,256.9	2,223.0	33.87	66.627	
1,600.0	1,600.0	1,597.0	1,597.0	3.5	31.0	-159.58	-2,115.1	-787.3	2,256.9	2,222.5	34.44	65.537	
1,673.2	1,673.2	1,670.2	1,670.2	3.6	32.5	-159.58	-2,115.1	-787.3	2,256.9	2,220.8	36.08	62.562	
1,700.0	1,700.0	1,697.0	1,697.0	3.7	33.0	-159.58	-2,115.1	-787.3	2,256.9	2,220.2	36.67	61.540	
1,771.6	1,771.6	1,768.6	1,768.6	3.8	34.4	-159.58	-2,115.1	-787.3	2,256.9	2,218.6	38.28	58.964	
1,800.0	1,800.0	1,797.0	1,797.0	3.9	35.0	-159.58	-2,115.1	-787.3	2,256.9	2,218.0	38.91	58.003	
1,870.1	1,870.1	1,867.1	1,867.1	4.1	36.4	-159.58	-2,115.1	-787.3	2,256.9	2,216.4	40.48	55.757	
1,900.0	1,900.0	1,897.0	1,897.0	4.1	37.0	-159.58	-2,115.1	-787.3	2,256.9	2,215.8	41.15	54.851	
1,950.0	1,950.0	1,947.0	1,947.0	4.2	38.0	-159.58	-2,115.1	-787.3	2,256.9	2,214.7	42.26	53.400	
1,968.5	1,968.5	1,965.5	1,965.5	4.3	38.4	172.65	-2,115.1	-787.3	2,257.0	2,214.3	42.68	52.885	
2,000.0	2,000.0	1,997.0	1,997.0	4.4	39.0	172.65	-2,115.1	-787.3	2,257.4	2,214.0	43.38	52.042	
2,066.9	2,066.9	2,063.9	2,063.9	4.5	40.4	172.65	-2,115.1	-787.3	2,259.3	2,214.4	44.84	50.385	
2,100.0	2,099.9	2,096.9	2,096.9	4.6	41.0	172.65	-2,115.1	-787.3	2,260.8	2,215.3	45.55	49.630	
2,165.3	2,165.1	2,162.1	2,162.1	4.7	42.3	172.66	-2,115.1	-787.3	2,264.9	2,218.0	46.94	48.248	
2,200.0	2,199.7	2,196.7	2,196.7	4.8	43.0	172.66	-2,115.1	-787.3	2,267.7	2,220.1	47.67	47.574	
2,263.8	2,263.1	2,260.1	2,260.1	4.9	44.3	172.66	-2,115.1	-787.3	2,273.9	2,225.0	48.98	46.427	
2,300.0	2,299.1	2,296.1	2,296.1	5.0	45.0	172.67	-2,115.1	-787.3	2,278.1	2,228.4	49.71	45.830	
2,362.2	2,360.8	2,357.8	2,357.8	5.2	46.3	172.67	-2,115.1	-787.3	2,286.3	2,235.3	50.94	44.885	
2,400.0	2,398.2	2,395.2	2,395.2	5.3	47.0	172.67	-2,115.1	-787.3	2,291.9	2,240.2	51.67	44.360	
2,460.6	2,457.9	2,454.9	2,454.9	5.4	48.2	172.68	-2,115.1	-787.3	2,301.9	2,249.1	52.81	43.589	
2,500.0	2,496.6	2,493.6	2,493.6	5.5	49.0	172.68	-2,115.1	-787.3	2,309.1	2,255.6	53.53	43.135	

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 OLSON 30R-243
<b>Project:</b>	WELD COUNTY, COLORADO	<b>TVD Reference:</b>	KB-EST @ 4990.0usft (Original Well Elev)
<b>Reference Site:</b>	NW NE SEC 30 T4N R67W 6th P.M.	<b>MD Reference:</b>	KB-EST @ 4990.0usft (Original Well Elev)
<b>Site Error:</b>	0.0 usft	<b>North Reference:</b>	True
<b>Reference Well:</b>	OLSON 30R-243	<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 #2	<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	
2,559.0	2,554.5	2,551.5	2,551.5	5.7	50.2	172.69	-2,115.1	-787.3	2,320.9	2,266.3	54.59	42.514	
2,600.0	2,594.4	2,591.4	2,591.4	5.8	51.0	172.70	-2,115.1	-787.3	2,329.8	2,274.5	55.30	42.128	
2,657.5	2,650.3	2,647.3	2,647.3	6.0	52.1	172.70	-2,115.1	-787.3	2,343.1	2,286.9	56.27	41.638	
2,700.0	2,691.5	2,688.5	2,688.5	6.1	52.9	172.71	-2,115.1	-787.3	2,353.8	2,296.8	56.96	41.320	
2,730.9	2,721.3	2,718.3	2,718.3	6.2	53.5	172.71	-2,115.1	-787.3	2,361.9	2,304.4	57.46	41.107	
2,755.9	2,745.3	2,742.3	2,742.3	6.3	54.0	172.73	-2,115.1	-787.3	2,368.5	2,310.6	57.98	40.849	
2,800.0	2,787.8	2,784.8	2,784.8	6.5	54.9	172.77	-2,115.1	-787.3	2,380.3	2,321.4	58.91	40.403	
2,854.3	2,840.1	2,837.1	2,837.1	6.7	55.9	172.81	-2,115.1	-787.3	2,394.8	2,334.8	60.06	39.873	
2,900.0	2,884.1	2,881.1	2,881.1	6.9	56.8	172.85	-2,115.1	-787.3	2,407.1	2,346.0	61.03	39.442	
2,952.7	2,934.9	2,931.9	2,931.9	7.1	57.8	172.89	-2,115.1	-787.3	2,421.2	2,359.0	62.15	38.959	
3,000.0	2,980.4	2,977.4	2,977.4	7.3	58.7	172.93	-2,115.1	-787.3	2,433.8	2,370.6	63.15	38.542	
3,051.2	3,029.7	3,026.7	3,026.7	7.5	59.7	172.97	-2,115.1	-787.3	2,447.5	2,383.2	64.23	38.103	
3,100.0	3,076.7	3,073.7	3,073.7	7.7	60.7	173.01	-2,115.1	-787.3	2,460.5	2,395.3	65.27	37.698	
3,149.6	3,124.5	3,121.5	3,121.5	7.9	61.6	173.04	-2,115.1	-787.3	2,473.8	2,407.5	66.32	37.299	
3,200.0	3,173.0	3,170.0	3,170.0	8.1	62.6	173.08	-2,115.1	-787.3	2,487.3	2,419.9	67.39	36.906	
3,248.0	3,219.3	3,216.3	3,216.3	8.4	63.5	173.12	-2,115.1	-787.3	2,500.1	2,431.7	68.42	36.542	
3,300.0	3,269.4	3,266.4	3,266.4	8.6	64.6	173.16	-2,115.1	-787.3	2,514.0	2,444.5	69.52	36.161	
3,346.4	3,314.1	3,311.1	3,311.1	8.8	65.5	173.19	-2,115.1	-787.3	2,526.4	2,455.9	70.51	35.829	
3,400.0	3,365.7	3,362.7	3,362.7	9.1	66.5	173.23	-2,115.1	-787.3	2,540.8	2,469.1	71.65	35.459	
3,444.9	3,408.9	3,405.9	3,405.9	9.3	67.4	173.26	-2,115.1	-787.3	2,552.8	2,480.1	72.61	35.156	
3,500.0	3,462.0	3,459.0	3,459.0	9.5	68.4	173.30	-2,115.1	-787.3	2,567.5	2,493.7	73.79	34.796	
3,543.3	3,503.7	3,500.7	3,500.7	9.7	69.3	173.33	-2,115.1	-787.3	2,579.1	2,504.4	74.71	34.520	
3,600.0	3,558.3	3,555.3	3,555.3	10.0	70.4	173.37	-2,115.1	-787.3	2,594.3	2,518.3	75.92	34.169	
3,641.7	3,598.5	3,595.5	3,595.5	10.2	71.2	173.40	-2,115.1	-787.3	2,605.4	2,528.6	76.82	33.918	
3,700.0	3,654.6	3,651.6	3,651.6	10.5	72.3	173.44	-2,115.1	-787.3	2,621.0	2,543.0	78.06	33.577	
3,740.1	3,693.2	3,690.2	3,690.2	10.7	73.1	173.46	-2,115.1	-787.3	2,631.8	2,552.8	78.92	33.347	
3,800.0	3,750.9	3,747.9	3,747.9	11.0	74.2	173.50	-2,115.1	-787.3	2,647.8	2,567.6	80.20	33.015	
3,838.6	3,788.0	3,785.0	3,785.0	11.2	75.0	173.53	-2,115.1	-787.3	2,658.1	2,577.1	81.03	32.805	
3,900.0	3,847.2	3,844.2	3,844.2	11.5	76.2	173.57	-2,115.1	-787.3	2,674.5	2,592.2	82.34	32.481	
3,937.0	3,882.8	3,879.8	3,879.8	11.7	76.9	173.59	-2,115.1	-787.3	2,684.4	2,601.3	83.13	32.291	
4,000.0	3,943.5	3,940.5	3,940.5	12.0	78.1	173.63	-2,115.1	-787.3	2,701.3	2,616.8	84.48	31.975	
4,035.4	3,977.6	3,974.6	3,974.6	12.2	78.8	173.65	-2,115.1	-787.3	2,710.8	2,625.5	85.24	31.801	
4,100.0	4,039.8	4,036.8	4,036.8	12.5	80.1	173.69	-2,115.1	-787.3	2,728.1	2,641.4	86.63	31.492	
4,133.8	4,072.4	4,069.4	4,069.4	12.7	80.7	173.71	-2,115.1	-787.3	2,737.1	2,649.8	87.35	31.334	
4,200.0	4,136.1	4,133.1	4,133.1	13.0	82.0	173.76	-2,115.1	-787.3	2,754.8	2,666.1	88.77	31.033	
4,232.3	4,167.2	4,164.2	4,164.2	13.2	82.6	173.78	-2,115.1	-787.3	2,763.5	2,674.0	89.46	30.890	
4,300.0	4,232.4	4,229.4	4,229.4	13.5	83.9	173.82	-2,115.1	-787.3	2,781.6	2,690.7	90.92	30.595	
4,330.7	4,262.0	4,259.0	4,259.0	13.7	84.5	173.83	-2,115.1	-787.3	2,789.8	2,698.3	91.58	30.465	
4,400.0	4,328.7	4,325.7	4,325.7	14.0	85.9	173.87	-2,115.1	-787.3	2,808.4	2,715.3	93.06	30.177	
4,429.1	4,356.8	4,353.8	4,353.8	14.2	86.4	173.89	-2,115.1	-787.3	2,816.2	2,722.5	93.69	30.059	
4,500.0	4,425.0	4,422.0	4,422.0	14.6	87.8	173.93	-2,115.1	-787.3	2,835.2	2,740.0	95.21	29.778	
4,527.5	4,451.6	4,448.6	4,448.6	14.7	88.3	173.95	-2,115.1	-787.3	2,842.6	2,746.8	95.80	29.671	
4,600.0	4,521.4	4,518.4	4,518.4	15.1	89.7	173.99	-2,115.1	-787.3	2,862.0	2,764.6	97.36	29.396	
4,626.0	4,546.4	4,543.4	4,543.4	15.2	90.2	174.00	-2,115.1	-787.3	2,868.9	2,771.0	97.92	29.300	
4,700.0	4,617.7	4,614.7	4,614.7	15.6	91.7	174.05	-2,115.1	-787.3	2,888.8	2,789.2	99.51	29.030	
4,724.4	4,641.2	4,638.2	4,638.2	15.7	92.1	174.06	-2,115.1	-787.3	2,895.3	2,795.3	100.03	28.944	
4,800.0	4,714.0	4,711.0	4,711.0	16.1	93.6	174.10	-2,115.1	-787.3	2,915.5	2,813.9	101.66	28.680	
4,822.8	4,735.9	4,732.9	4,732.9	16.3	94.0	174.11	-2,115.1	-787.3	2,921.7	2,819.5	102.15	28.602	
4,900.0	4,810.3	4,807.3	4,807.3	16.7	95.5	174.15	-2,115.1	-787.3	2,942.3	2,838.5	103.81	28.344	
4,921.2	4,830.7	4,827.7	4,827.7	16.8	96.0	174.17	-2,115.1	-787.3	2,948.0	2,843.8	104.26	28.274	
5,000.0	4,906.6	4,903.6	4,903.6	17.2	97.5	174.21	-2,115.1	-787.3	2,969.1	2,863.2	105.96	28.022	
5,019.7	4,925.5	4,922.5	4,922.5	17.3	97.9	174.22	-2,115.1	-787.3	2,974.4	2,868.0	106.38	27.960	

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 OLSON 30R-243
<b>Project:</b>	WELD COUNTY, COLORADO	<b>TVD Reference:</b>	KB-EST @ 4990.0usft (Original Well Elev)
<b>Reference Site:</b>	NW NE SEC 30 T4N R67W 6th P.M.	<b>MD Reference:</b>	KB-EST @ 4990.0usft (Original Well Elev)
<b>Site Error:</b>	0.0 usft	<b>North Reference:</b>	True
<b>Reference Well:</b>	OLSON 30R-243	<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 #2	<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	
5,100.0	5,002.9	4,999.9	4,999.9	17.7	99.4	174.26	-2,115.1	-787.3	2,995.9	2,887.8	108.11	27.712	
5,118.1	5,020.3	5,017.3	5,017.3	17.8	99.8	174.27	-2,115.1	-787.3	3,000.8	2,892.3	108.50	27.657	
5,200.0	5,099.2	5,096.2	5,096.2	18.3	101.4	174.31	-2,115.1	-787.3	3,022.7	2,912.5	110.26	27.414	
5,216.5	5,115.1	5,112.1	5,112.1	18.3	101.7	174.32	-2,115.1	-787.3	3,027.2	2,916.5	110.62	27.366	
5,300.0	5,195.5	5,192.5	5,192.5	18.8	103.3	174.36	-2,115.1	-787.3	3,049.5	2,937.1	112.41	27.128	
5,314.9	5,209.9	5,206.9	5,206.9	18.9	103.6	174.37	-2,115.1	-787.3	3,053.5	2,940.8	112.74	27.086	
5,400.0	5,291.8	5,288.8	5,288.8	19.3	105.2	174.41	-2,115.1	-787.3	3,076.3	2,961.8	114.57	26.852	
5,413.4	5,304.7	5,301.7	5,301.7	19.4	105.5	174.42	-2,115.1	-787.3	3,079.9	2,965.1	114.85	26.816	
5,500.0	5,388.1	5,385.1	5,385.1	19.9	107.2	174.46	-2,115.1	-787.3	3,103.1	2,986.4	116.72	26.586	
5,511.8	5,399.5	5,396.5	5,396.5	19.9	107.4	174.46	-2,115.1	-787.3	3,106.3	2,989.3	116.97	26.556	
5,600.0	5,484.4	5,481.4	5,481.4	20.4	109.1	174.51	-2,115.1	-787.3	3,129.9	3,011.1	118.87	26.330	
5,610.2	5,494.3	5,491.3	5,491.3	20.4	109.3	174.51	-2,115.1	-787.3	3,132.7	3,013.6	119.09	26.305	
5,700.0	5,580.7	5,577.7	5,577.7	20.9	111.0	174.55	-2,115.1	-787.3	3,156.8	3,035.7	121.03	26.083	
5,708.6	5,589.1	5,586.1	5,586.1	21.0	111.2	174.56	-2,115.1	-787.3	3,159.1	3,037.9	121.21	26.062	
5,722.6	5,602.5	5,599.5	5,599.5	21.0	111.5	174.56	-2,115.1	-787.3	3,162.8	3,041.3	121.51	26.028	
5,800.0	5,677.3	5,674.3	5,674.3	21.4	113.0	174.64	-2,115.1	-787.3	3,182.6	3,058.6	123.96	25.674	
5,807.1	5,684.2	5,681.2	5,681.2	21.4	113.1	174.64	-2,115.1	-787.3	3,184.3	3,060.1	124.18	25.643	
5,900.0	5,774.7	5,771.7	5,771.7	21.8	114.9	174.72	-2,115.1	-787.3	3,205.1	3,078.1	127.00	25.237	
5,905.5	5,780.1	5,777.1	5,777.1	21.8	115.0	174.72	-2,115.1	-787.3	3,206.2	3,079.1	127.16	25.213	
6,000.0	5,872.9	5,869.9	5,869.9	22.1	116.9	174.78	-2,115.1	-787.3	3,224.2	3,094.3	129.92	24.816	
6,003.9	5,876.7	5,873.7	5,873.7	22.1	117.0	174.79	-2,115.1	-787.3	3,224.9	3,094.8	130.03	24.800	
6,100.0	5,971.6	5,968.6	5,968.6	22.4	118.9	174.84	-2,115.1	-787.3	3,239.9	3,107.2	132.72	24.412	
6,102.3	5,973.9	5,970.9	5,970.9	22.4	118.9	174.84	-2,115.1	-787.3	3,240.2	3,107.4	132.78	24.403	
6,200.0	6,070.8	6,067.8	6,067.8	22.7	120.9	174.88	-2,115.1	-787.3	3,252.2	3,116.8	135.38	24.023	
6,200.8	6,071.6	6,068.6	6,068.6	22.7	120.9	174.88	-2,115.1	-787.3	3,252.2	3,116.8	135.40	24.020	
6,299.2	6,169.6	6,166.6	6,166.6	22.9	122.9	174.91	-2,115.1	-787.3	3,260.9	3,123.0	137.87	23.653	
6,300.0	6,170.4	6,167.4	6,167.4	22.9	122.9	174.91	-2,115.1	-787.3	3,261.0	3,123.1	137.88	23.650	
6,397.6	6,267.9	6,264.9	6,264.9	23.1	124.9	174.93	-2,115.1	-787.3	3,266.2	3,126.0	140.18	23.300	
6,400.0	6,270.3	6,267.3	6,267.3	23.1	124.9	174.93	-2,115.1	-787.3	3,266.3	3,126.1	140.23	23.292	
6,496.0	6,366.3	6,363.3	6,363.3	23.2	126.8	174.93	-2,115.1	-787.3	3,268.2	3,125.8	142.33	22.961	
6,503.5	6,373.8	6,370.8	6,370.8	23.2	127.0	-157.30	-2,115.1	-787.3	3,268.2	3,125.7	142.49	22.936	
6,533.5	6,403.8	6,400.8	6,400.8	23.2	127.6	-157.30	-2,115.1	-787.3	3,268.2	3,125.0	143.15	22.831	
6,550.0	6,420.3	6,417.3	6,417.3	23.2	127.9	22.71	-2,115.1	-787.3	3,268.0	3,124.6	143.42	22.785	
6,594.5	6,464.7	6,461.7	6,461.7	23.3	128.8	22.79	-2,115.1	-787.3	3,265.8	3,121.9	143.84	22.704	
6,600.0	6,470.2	6,467.2	6,467.2	23.3	128.9	22.81	-2,115.1	-787.3	3,265.3	3,121.5	143.86	22.698	
6,650.0	6,519.8	6,516.8	6,516.8	23.3	129.9	23.04	-2,115.1	-787.3	3,259.5	3,115.8	143.69	22.683	
6,692.9	6,561.9	6,558.9	6,558.9	23.2	130.8	23.33	-2,115.1	-787.3	3,251.9	3,108.8	143.07	22.730	
6,700.0	6,568.8	6,565.8	6,565.8	23.2	130.9	23.39	-2,115.1	-787.3	3,250.4	3,107.5	142.92	22.742	
6,750.0	6,617.0	6,614.0	6,614.0	23.1	131.9	23.89	-2,115.1	-787.3	3,238.2	3,096.7	141.57	22.873	
6,791.3	6,656.1	6,653.1	6,653.1	23.0	132.7	24.41	-2,115.1	-787.3	3,225.9	3,085.8	140.05	23.034	
6,800.0	6,664.2	6,661.2	6,661.2	23.0	132.8	24.53	-2,115.1	-787.3	3,223.0	3,083.3	139.69	23.073	
6,850.0	6,710.1	6,707.1	6,707.1	22.9	133.7	25.34	-2,115.1	-787.3	3,204.8	3,067.5	137.32	23.339	
6,889.7	6,745.5	6,742.5	6,742.5	22.7	134.5	26.11	-2,115.1	-787.3	3,188.3	3,053.1	135.15	23.590	
6,900.0	6,754.5	6,751.5	6,751.5	22.7	134.6	26.33	-2,115.1	-787.3	3,183.7	3,049.2	134.56	23.660	
6,950.0	6,797.2	6,794.2	6,794.2	22.5	135.5	27.51	-2,115.1	-787.3	3,159.9	3,028.4	131.53	24.023	
6,988.2	6,828.5	6,825.5	6,825.5	22.3	136.1	28.58	-2,115.1	-787.3	3,139.9	3,010.8	129.14	24.313	
7,000.0	6,838.0	6,835.0	6,835.0	22.3	136.3	28.94	-2,115.1	-787.3	3,133.4	3,005.0	128.41	24.403	
7,050.0	6,876.7	6,873.7	6,873.7	22.0	137.1	30.62	-2,115.1	-787.3	3,104.5	2,979.1	125.39	24.759	
7,086.6	6,903.5	6,900.5	6,900.5	21.8	137.6	32.05	-2,115.1	-787.3	3,081.8	2,958.3	123.41	24.972	
7,100.0	6,913.0	6,910.0	6,910.0	21.8	137.8	32.62	-2,115.1	-787.3	3,073.1	2,950.4	122.76	25.034	
7,150.0	6,946.9	6,943.9	6,943.9	21.5	138.5	34.97	-2,115.1	-787.3	3,039.7	2,918.8	120.85	25.153	
7,185.0	6,969.1	6,966.1	6,966.1	21.3	139.0	36.87	-2,115.1	-787.3	3,015.0	2,894.9	120.13	25.098	

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 OLSON 30R-243
<b>Project:</b>	WELD COUNTY, COLORADO	<b>TVD Reference:</b>	KB-EST @ 4990.0usft (Original Well Elev)
<b>Reference Site:</b>	NW NE SEC 30 T4N R67W 6th P.M.	<b>MD Reference:</b>	KB-EST @ 4990.0usft (Original Well Elev)
<b>Site Error:</b>	0.0 usft	<b>North Reference:</b>	True
<b>Reference Well:</b>	OLSON 30R-243	<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 #2	<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	
7,200.0	6,978.2	6,975.2	6,975.2	21.2	139.1	37.75	-2,115.1	-787.3	3,004.2	2,884.2	120.02	25.031	
7,250.0	7,006.6	7,003.6	7,003.6	21.0	139.7	41.01	-2,115.1	-787.3	2,967.0	2,846.3	120.64	24.593	
7,283.4	7,024.0	7,021.0	7,021.0	20.8	140.1	43.50	-2,115.1	-787.3	2,941.1	2,819.1	122.02	24.103	
7,300.0	7,032.1	7,029.1	7,029.1	20.7	140.2	44.84	-2,115.1	-787.3	2,928.1	2,805.1	123.00	23.805	
7,350.0	7,054.6	7,051.6	7,051.6	20.4	140.7	49.30	-2,115.1	-787.3	2,887.8	2,760.6	127.21	22.702	
7,381.9	7,067.2	7,064.2	7,064.2	20.3	140.9	52.50	-2,115.1	-787.3	2,861.6	2,730.8	130.78	21.880	
7,400.0	7,073.8	7,070.8	7,070.8	20.2	141.1	54.45	-2,115.1	-787.3	2,846.4	2,713.4	133.07	21.390	
7,450.0	7,089.9	7,086.9	7,086.9	19.9	141.4	60.31	-2,115.1	-787.3	2,804.0	2,664.0	140.05	20.021	
7,480.3	7,097.9	7,094.9	7,094.9	19.8	141.5	64.20	-2,115.1	-787.3	2,778.0	2,633.5	144.48	19.228	
7,500.0	7,102.5	7,099.5	7,099.5	19.7	141.6	66.85	-2,115.1	-787.3	2,760.9	2,613.7	147.28	18.746	
7,550.0	7,111.8	7,108.8	7,108.8	19.5	141.8	73.93	-2,115.1	-787.3	2,717.3	2,563.7	153.66	17.684	
7,578.7	7,115.6	7,112.6	7,112.6	19.4	141.9	78.15	-2,115.1	-787.3	2,692.1	2,535.6	156.54	17.198	
7,600.0	7,117.6	7,114.6	7,114.6	19.3	141.9	81.32	-2,115.1	-787.3	2,673.5	2,515.3	158.17	16.903	
7,650.0	7,119.9	7,116.9	7,116.9	19.1	142.0	88.75	-2,115.1	-787.3	2,629.5	2,469.4	160.17	16.417	
7,660.3	7,120.0	7,117.0	7,117.0	19.1	142.0	90.26	-2,115.1	-787.3	2,620.5	2,460.3	160.26	16.352	
7,677.1	7,120.0	7,117.0	7,117.0	19.0	142.0	90.25	-2,115.1	-787.3	2,605.7	2,445.5	160.27	16.259	
7,700.0	7,119.9	7,116.9	7,116.9	19.0	142.0	90.25	-2,115.1	-787.3	2,585.8	2,425.5	160.29	16.132	
7,775.6	7,119.7	7,116.7	7,116.7	18.8	142.0	90.24	-2,115.1	-787.3	2,520.1	2,359.6	160.45	15.706	
7,800.0	7,119.7	7,116.7	7,116.7	18.8	142.0	90.24	-2,115.1	-787.3	2,498.9	2,338.4	160.50	15.569	
7,874.0	7,119.5	7,116.5	7,116.5	18.9	142.0	90.23	-2,115.1	-787.3	2,435.3	2,274.5	160.81	15.145	
7,900.0	7,119.4	7,116.4	7,116.4	19.0	142.0	90.23	-2,115.1	-787.3	2,413.1	2,252.2	160.91	14.997	
7,972.4	7,119.2	7,116.2	7,116.2	19.4	142.0	90.22	-2,115.1	-787.3	2,351.7	2,190.4	161.34	14.576	
8,000.0	7,119.2	7,116.2	7,116.2	19.5	142.0	90.22	-2,115.1	-787.3	2,328.5	2,167.0	161.50	14.417	
8,070.8	7,119.0	7,116.0	7,116.0	20.1	142.0	90.21	-2,115.1	-787.3	2,269.2	2,107.2	162.04	14.004	
8,100.0	7,118.9	7,115.9	7,115.9	20.4	142.0	90.21	-2,115.1	-787.3	2,245.1	2,082.8	162.26	13.836	
8,169.3	7,118.7	7,115.7	7,115.7	21.1	142.0	90.20	-2,115.1	-787.3	2,188.1	2,025.2	162.89	13.433	
8,200.0	7,118.7	7,115.7	7,115.7	21.4	142.0	90.20	-2,115.1	-787.3	2,163.1	1,999.9	163.16	13.257	
8,267.7	7,118.5	7,115.5	7,115.5	22.1	142.0	90.19	-2,115.1	-787.3	2,108.4	1,944.6	163.86	12.867	
8,300.0	7,118.4	7,115.4	7,115.4	22.5	142.0	90.19	-2,115.1	-787.3	2,082.6	1,918.4	164.20	12.684	
8,366.1	7,118.3	7,115.3	7,115.3	23.3	142.0	90.18	-2,115.1	-787.3	2,030.4	1,865.5	164.95	12.309	
8,400.0	7,118.2	7,115.2	7,115.2	23.7	142.0	90.17	-2,115.1	-787.3	2,004.0	1,838.6	165.34	12.120	
8,464.5	7,118.0	7,115.0	7,115.0	24.5	142.0	90.17	-2,115.1	-787.3	1,954.2	1,788.1	166.14	11.762	
8,500.0	7,117.9	7,114.9	7,114.9	25.0	142.0	90.16	-2,115.1	-787.3	1,927.3	1,760.7	166.58	11.570	
8,563.0	7,117.8	7,114.8	7,114.8	25.8	141.9	90.16	-2,115.1	-787.3	1,880.1	1,712.7	167.41	11.230	
8,600.0	7,117.7	7,114.7	7,114.7	26.3	141.9	90.15	-2,115.1	-787.3	1,852.8	1,684.9	167.90	11.035	
8,661.4	7,117.5	7,114.5	7,114.5	27.2	141.9	90.15	-2,115.1	-787.3	1,808.3	1,639.6	168.76	10.715	
8,700.0	7,117.4	7,114.4	7,114.4	27.7	141.9	90.14	-2,115.1	-787.3	1,780.9	1,611.6	169.30	10.519	
8,759.8	7,117.3	7,114.3	7,114.3	28.6	141.9	90.13	-2,115.1	-787.3	1,739.1	1,569.0	170.17	10.220	
8,800.0	7,117.2	7,114.2	7,114.2	29.2	141.9	90.13	-2,115.1	-787.3	1,711.7	1,541.0	170.75	10.025	
8,858.2	7,117.0	7,114.0	7,114.0	30.1	141.9	90.12	-2,115.1	-787.3	1,672.9	1,501.3	171.63	9.747	
8,900.0	7,116.9	7,113.9	7,113.9	30.7	141.9	90.12	-2,115.1	-787.3	1,645.8	1,473.5	172.26	9.554	
8,956.7	7,116.8	7,113.8	7,113.8	31.6	141.9	90.11	-2,115.1	-787.3	1,609.9	1,436.8	173.13	9.299	
9,000.0	7,116.7	7,113.7	7,113.7	32.3	141.9	90.11	-2,115.1	-787.3	1,583.4	1,409.6	173.80	9.110	
9,055.1	7,116.6	7,113.6	7,113.6	33.2	141.9	90.10	-2,115.1	-787.3	1,550.7	1,376.0	174.68	8.877	
9,100.0	7,116.5	7,113.5	7,113.5	33.9	141.9	90.10	-2,115.1	-787.3	1,525.0	1,349.6	175.39	8.695	
9,153.5	7,116.3	7,113.3	7,113.3	34.7	141.9	90.09	-2,115.1	-787.3	1,495.5	1,319.3	176.26	8.485	
9,200.0	7,116.2	7,113.2	7,113.2	35.5	141.9	90.09	-2,115.1	-787.3	1,471.1	1,294.1	177.01	8.311	
9,251.9	7,116.1	7,113.1	7,113.1	36.4	141.9	90.08	-2,115.1	-787.3	1,445.0	1,267.2	177.87	8.124	
9,300.0	7,116.0	7,113.0	7,113.0	37.2	141.9	90.07	-2,115.1	-787.3	1,422.2	1,243.5	178.66	7.960	
9,350.4	7,115.8	7,112.8	7,112.8	38.0	141.9	90.07	-2,115.1	-787.3	1,399.6	1,220.1	179.50	7.797	
9,400.0	7,115.7	7,112.7	7,112.7	38.8	141.9	90.06	-2,115.1	-787.3	1,378.8	1,198.5	180.33	7.646	
9,448.8	7,115.6	7,112.6	7,112.6	39.7	141.9	90.06	-2,115.1	-787.3	1,359.8	1,178.7	181.16	7.506	

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 OLSON 30R-243
<b>Project:</b>	WELD COUNTY, COLORADO	<b>TVD Reference:</b>	KB-EST @ 4990.0usft (Original Well Elev)
<b>Reference Site:</b>	NW NE SEC 30 T4N R67W 6th P.M.	<b>MD Reference:</b>	KB-EST @ 4990.0usft (Original Well Elev)
<b>Site Error:</b>	0.0 usft	<b>North Reference:</b>	True
<b>Reference Well:</b>	OLSON 30R-243	<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 #2	<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	
9,500.0	7,115.5	7,112.5	7,112.5	40.5	141.9	90.05	-2,115.1	-787.3	1,341.5	1,159.5	182.03	7.370	
9,547.2	7,115.3	7,112.3	7,112.3	41.3	141.9	90.05	-2,115.1	-787.3	1,326.2	1,143.3	182.84	7.253	
9,600.0	7,115.2	7,112.2	7,112.2	42.2	141.9	90.04	-2,115.1	-787.3	1,310.8	1,127.1	183.74	7.134	
9,645.6	7,115.1	7,112.1	7,112.1	43.0	141.9	90.04	-2,115.1	-787.3	1,299.1	1,114.6	184.53	7.040	
9,700.0	7,115.0	7,112.0	7,112.0	44.0	141.9	90.03	-2,115.1	-787.3	1,287.1	1,101.7	185.47	6.940	
9,744.1	7,114.8	7,111.8	7,111.8	44.7	141.9	90.02	-2,115.1	-787.3	1,279.0	1,092.8	186.24	6.868	
9,800.0	7,114.7	7,111.7	7,111.7	45.7	141.9	90.02	-2,115.1	-787.3	1,270.9	1,083.7	187.22	6.788	
9,842.5	7,114.6	7,111.6	7,111.6	46.5	141.9	90.01	-2,115.1	-787.3	1,266.4	1,078.4	187.97	6.737	
9,900.0	7,114.5	7,111.5	7,111.5	47.5	141.9	90.01	-2,115.1	-787.3	1,262.4	1,073.5	188.98	6.680	
9,940.9	7,114.4	7,111.4	7,111.4	48.2	141.9	90.00	-2,115.1	-787.3	1,261.2	1,071.5	189.70	6.649	
9,957.4	7,114.3	7,111.3	7,111.3	48.5	141.9	90.00	-2,115.1	-787.3	1,261.1	1,071.1	189.99	6.638 CC	
10,000.0	7,114.2	7,111.2	7,111.2	49.2	141.9	90.00	-2,115.1	-787.3	1,261.9	1,071.1	190.75	6.615 ES	
10,039.3	7,114.1	7,111.1	7,111.1	49.9	141.9	89.99	-2,115.1	-787.3	1,263.8	1,072.3	191.45	6.601	
10,100.0	7,114.0	7,111.0	7,111.0	51.0	141.9	89.98	-2,115.1	-787.3	1,269.2	1,076.6	192.53	6.592 SF	
10,137.8	7,113.9	7,110.9	7,110.9	51.7	141.9	89.98	-2,115.1	-787.3	1,274.0	1,080.8	193.21	6.594	
10,200.0	7,113.7	7,110.7	7,110.7	52.8	141.9	89.97	-2,115.1	-787.3	1,284.3	1,089.9	194.32	6.609	
10,236.2	7,113.6	7,110.6	7,110.6	53.4	141.9	89.97	-2,115.1	-787.3	1,291.6	1,096.6	194.97	6.624	
10,300.0	7,113.5	7,110.5	7,110.5	54.6	141.9	89.96	-2,115.1	-787.3	1,306.8	1,110.7	196.12	6.663	
10,334.6	7,113.4	7,110.4	7,110.4	55.2	141.9	89.96	-2,115.1	-787.3	1,316.3	1,119.6	196.75	6.691	
10,400.0	7,113.2	7,110.2	7,110.2	56.4	141.9	89.95	-2,115.1	-787.3	1,336.6	1,138.6	197.93	6.753	
10,433.0	7,113.1	7,110.1	7,110.1	57.0	141.9	89.95	-2,115.1	-787.3	1,347.9	1,149.3	198.53	6.789	
10,500.0	7,113.0	7,110.0	7,110.0	58.2	141.9	89.94	-2,115.1	-787.3	1,372.9	1,173.2	199.74	6.873	
10,531.5	7,112.9	7,109.9	7,109.9	58.8	141.8	89.93	-2,115.1	-787.3	1,385.7	1,185.3	200.31	6.917	
10,600.0	7,112.7	7,109.7	7,109.7	60.0	141.8	89.93	-2,115.1	-787.3	1,415.4	1,213.9	201.56	7.022	
10,629.9	7,112.6	7,109.6	7,109.6	60.6	141.8	89.92	-2,115.1	-787.3	1,429.2	1,227.1	202.11	7.072	
10,700.0	7,112.5	7,109.5	7,109.5	61.9	141.8	89.91	-2,115.1	-787.3	1,463.5	1,260.1	203.39	7.196	
10,728.3	7,112.4	7,109.4	7,109.4	62.4	141.8	89.91	-2,115.1	-787.3	1,478.1	1,274.2	203.91	7.249	
10,800.0	7,112.2	7,109.2	7,109.2	63.7	141.8	89.90	-2,115.1	-787.3	1,516.7	1,311.5	205.22	7.391	
10,826.7	7,112.1	7,109.1	7,109.1	64.2	141.8	89.90	-2,115.1	-787.3	1,531.7	1,326.0	205.71	7.446	
10,900.0	7,111.9	7,108.9	7,108.9	65.5	141.8	89.89	-2,115.1	-787.3	1,574.5	1,367.4	207.05	7.604	
10,925.2	7,111.9	7,108.9	7,108.9	66.0	141.8	89.89	-2,115.1	-787.3	1,589.7	1,382.2	207.52	7.660	
11,000.0	7,111.7	7,108.7	7,108.7	67.4	141.8	89.88	-2,115.1	-787.3	1,636.3	1,427.4	208.90	7.833	
11,023.6	7,111.6	7,108.6	7,108.6	67.8	141.8	89.88	-2,115.1	-787.3	1,651.4	1,442.1	209.33	7.889	
11,100.0	7,111.4	7,108.4	7,108.4	69.2	141.8	89.87	-2,115.1	-787.3	1,701.8	1,491.0	210.74	8.075	
11,122.0	7,111.4	7,108.4	7,108.4	69.6	141.8	89.87	-2,115.1	-787.3	1,716.6	1,505.5	211.15	8.130	
11,200.0	7,111.2	7,108.2	7,108.2	71.1	141.8	89.86	-2,115.1	-787.3	1,770.5	1,557.9	212.59	8.328	
11,220.4	7,111.1	7,108.1	7,108.1	71.4	141.8	89.85	-2,115.1	-787.3	1,784.9	1,571.9	212.97	8.381	
11,300.0	7,110.9	7,107.9	7,107.9	72.9	141.8	89.85	-2,115.1	-787.3	1,842.0	1,627.6	214.44	8.590	
11,318.9	7,110.9	7,107.9	7,107.9	73.3	141.8	89.84	-2,115.1	-787.3	1,855.8	1,641.0	214.79	8.640	
11,400.0	7,110.7	7,107.7	7,107.7	74.8	141.8	89.83	-2,115.1	-787.3	1,916.1	1,699.8	216.29	8.859	
11,417.3	7,110.6	7,107.6	7,107.6	75.1	141.8	89.83	-2,115.1	-787.3	1,929.2	1,712.6	216.62	8.906	
11,500.0	7,110.4	7,107.4	7,107.4	76.6	141.8	89.82	-2,115.1	-787.3	1,992.5	1,774.4	218.15	9.134	
11,515.7	7,110.4	7,107.4	7,107.4	76.9	141.8	89.82	-2,115.1	-787.3	2,004.7	1,786.3	218.44	9.177	
11,600.0	7,110.2	7,107.2	7,107.2	78.5	141.8	89.81	-2,115.1	-787.3	2,070.9	1,850.9	220.01	9.413	
11,614.1	7,110.1	7,107.1	7,107.1	78.7	141.8	89.81	-2,115.1	-787.3	2,082.1	1,861.9	220.28	9.452	
11,668.5	7,110.0	7,107.0	7,107.0	79.8	141.8	89.80	-2,115.1	-787.3	2,125.7	1,904.4	221.29	9.606	

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 OLSON 30R-243
<b>Project:</b>	WELD COUNTY, COLORADO	<b>TVD Reference:</b>	KB-EST @ 4990.0usft (Original Well Elev)
<b>Reference Site:</b>	NW NE SEC 30 T4N R67W 6th P.M.	<b>MD Reference:</b>	KB-EST @ 4990.0usft (Original Well Elev)
<b>Site Error:</b>	0.0 usft	<b>North Reference:</b>	True
<b>Reference Well:</b>	OLSON 30R-243	<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 #2	<b>Offset TVD Reference:</b>	Offset Datum

<b>Offset Design</b> NW NE SEC 30 T4N R67W 6th P.M. - EXIST VERT SHULTZ FARM 30-32 - Wellbore #1 - Wellbore #1												<b>Offset Site Error:</b>	0.0 usft
Survey Program: 100-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
0.0	0.0	0.0	0.0	0.0	0.0	174.63	-1,233.9	116.1	1,239.7				
98.4	98.4	67.7	67.7	0.1	0.0	174.63	-1,233.9	116.1	1,239.4	1,239.3	0.11	N/A	
100.0	100.0	69.2	69.2	0.1	0.0	174.63	-1,233.9	116.1	1,239.4	1,239.3	0.12	N/A	
196.8	196.8	163.9	163.9	0.3	0.1	174.63	-1,234.2	116.1	1,239.6	1,239.2	0.45	2,737.977	
200.0	200.0	167.0	167.0	0.3	0.2	174.63	-1,234.2	116.1	1,239.6	1,239.2	0.46	2,665.922	
295.3	295.3	262.7	262.7	0.5	0.3	174.63	-1,234.5	116.0	1,240.0	1,239.2	0.79	1,575.038	
300.0	300.0	267.5	267.5	0.5	0.3	174.63	-1,234.5	116.0	1,240.0	1,239.2	0.80	1,546.318	
393.7	393.7	360.9	360.9	0.7	0.3	174.65	-1,234.8	115.7	1,240.2	1,239.1	1.08	1,147.146	
400.0	400.0	367.1	367.1	0.8	0.3	174.65	-1,234.8	115.7	1,240.2	1,239.1	1.10	1,127.967	
492.1	492.1	458.5	458.5	1.0	0.4	174.66	-1,235.2	115.4	1,240.6	1,239.2	1.36	911.314	
500.0	500.0	466.4	466.4	1.0	0.4	174.67	-1,235.2	115.3	1,240.6	1,239.2	1.38	896.835	
590.5	590.5	554.3	554.3	1.2	0.5	174.70	-1,235.7	114.6	1,241.0	1,239.4	1.63	760.287	
600.0	600.0	563.3	563.3	1.2	0.5	174.71	-1,235.7	114.5	1,241.1	1,239.4	1.66	748.527	
689.0	689.0	651.7	651.7	1.4	0.5	174.75	-1,236.4	113.6	1,241.7	1,239.8	1.90	653.704	
700.0	700.0	663.0	662.9	1.4	0.5	174.76	-1,236.5	113.4	1,241.7	1,239.8	1.93	643.628	
787.4	787.4	750.1	750.1	1.6	0.6	174.80	-1,237.2	112.5	1,242.3	1,240.1	2.16	574.317	
800.0	800.0	762.5	762.4	1.7	0.6	174.81	-1,237.3	112.4	1,242.4	1,240.2	2.20	565.620	
885.8	885.8	846.4	846.4	1.9	0.6	174.85	-1,238.0	111.6	1,243.0	1,240.6	2.42	513.040	
900.0	900.0	860.2	860.2	1.9	0.6	174.86	-1,238.1	111.4	1,243.2	1,240.7	2.46	505.326	
984.2	984.2	942.2	942.2	2.1	0.7	174.92	-1,239.0	110.2	1,244.0	1,241.3	2.68	464.109	
1,000.0	1,000.0	957.5	957.5	2.1	0.7	174.93	-1,239.2	109.9	1,244.1	1,241.4	2.72	457.181	
1,082.7	1,082.7	1,037.9	1,037.8	2.3	0.7	175.00	-1,240.3	108.5	1,245.1	1,242.2	2.94	424.114	
1,100.0	1,100.0	1,054.7	1,054.6	2.3	0.7	175.02	-1,240.5	108.2	1,245.3	1,242.3	2.98	417.815	
1,181.1	1,181.1	1,134.0	1,133.9	2.5	0.7	175.08	-1,241.7	106.9	1,246.5	1,243.3	3.19	390.742	
1,200.0	1,200.0	1,152.5	1,152.4	2.6	0.8	175.10	-1,242.0	106.6	1,246.7	1,243.5	3.24	384.951	
1,279.5	1,279.5	1,229.7	1,229.6	2.7	0.8	175.16	-1,243.4	105.3	1,248.0	1,244.5	3.44	362.471	
1,300.0	1,300.0	1,249.2	1,249.1	2.8	0.8	175.18	-1,243.7	105.0	1,248.3	1,244.8	3.50	357.145	
1,377.9	1,377.9	1,325.1	1,324.9	3.0	0.8	175.25	-1,245.3	103.6	1,249.8	1,246.1	3.69	338.268	
1,400.0	1,400.0	1,347.5	1,347.3	3.0	0.8	175.27	-1,245.7	103.1	1,250.2	1,246.5	3.75	333.283	
1,476.4	1,476.4	1,425.0	1,424.8	3.2	0.9	175.34	-1,247.3	101.6	1,251.6	1,247.7	3.95	317.137	
1,500.0	1,500.0	1,448.8	1,448.6	3.2	0.9	175.36	-1,247.8	101.2	1,252.1	1,248.0	4.01	312.476	
1,574.8	1,574.8	1,522.7	1,522.5	3.4	0.9	175.42	-1,249.2	100.0	1,253.4	1,249.2	4.20	298.641	
1,600.0	1,600.0	1,546.6	1,546.4	3.5	0.9	175.44	-1,249.7	99.6	1,253.9	1,249.6	4.26	294.292	
1,673.2	1,673.2	1,619.8	1,619.6	3.6	1.0	175.51	-1,251.3	98.2	1,255.4	1,250.9	4.45	282.364	
1,700.0	1,700.0	1,651.2	1,650.9	3.7	1.0	175.55	-1,251.9	97.5	1,255.9	1,251.4	4.51	278.195	
1,771.6	1,771.6	1,731.3	1,731.0	3.8	1.0	175.65	-1,253.0	95.4	1,256.7	1,252.0	4.70	267.611	
1,800.0	1,800.0	1,760.8	1,760.5	3.9	1.0	175.69	-1,253.4	94.5	1,257.0	1,252.2	4.77	263.665	
1,870.1	1,870.1	1,838.7	1,838.3	4.1	1.0	175.80	-1,254.0	92.0	1,257.4	1,252.5	4.94	254.334	
1,900.0	1,900.0	1,874.3	1,873.9	4.1	1.0	175.86	-1,254.1	90.7	1,257.4	1,252.4	5.02	250.498	
1,950.0	1,950.0	1,927.6	1,927.2	4.2	1.1	175.95	-1,254.0	88.7	1,257.2	1,252.0	5.14	244.370	
1,965.2	1,965.2	1,942.4	1,941.9	4.3	1.1	148.21	-1,254.0	88.1	1,257.1	1,251.9	5.24	239.754	
1,968.5	1,968.5	1,945.5	1,945.1	4.3	1.1	148.22	-1,254.0	88.0	1,257.1	1,251.9	5.25	239.389	
2,000.0	2,000.0	1,976.1	1,975.6	4.4	1.1	148.28	-1,253.9	86.8	1,257.3	1,252.0	5.33	235.959	
2,066.9	2,066.9	2,041.7	2,041.2	4.5	1.1	148.42	-1,253.9	84.4	1,258.8	1,253.3	5.49	229.177	
2,100.0	2,099.9	2,074.4	2,073.8	4.6	1.1	148.50	-1,253.9	83.1	1,260.0	1,254.4	5.57	226.055	
2,165.3	2,165.1	2,140.2	2,139.6	4.7	1.1	148.69	-1,253.9	80.4	1,263.4	1,257.7	5.74	220.252	
2,200.0	2,199.7	2,175.5	2,174.9	4.8	1.1	148.80	-1,253.9	79.0	1,265.7	1,259.9	5.82	217.395	
2,263.8	2,263.1	2,234.8	2,234.2	4.9	1.2	148.98	-1,253.9	76.8	1,270.9	1,265.0	5.98	212.458	
2,300.0	2,299.1	2,266.5	2,265.8	5.0	1.2	149.08	-1,254.0	75.7	1,274.6	1,268.5	6.07	209.883	
2,362.2	2,360.8	2,322.9	2,322.1	5.2	1.2	149.25	-1,254.4	74.0	1,282.1	1,275.8	6.23	205.640	
2,400.0	2,398.2	2,359.0	2,358.3	5.3	1.2	149.37	-1,254.8	73.0	1,287.2	1,280.9	6.33	203.231	
2,460.6	2,457.9	2,416.4	2,415.6	5.4	1.2	149.56	-1,255.3	71.4	1,296.5	1,290.1	6.50	199.523	

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 OLSON 30R-243
<b>Project:</b>	WELD COUNTY, COLORADO	<b>TVD Reference:</b>	KB-EST @ 4990.0usft (Original Well Elev)
<b>Reference Site:</b>	NW NE SEC 30 T4N R67W 6th P.M.	<b>MD Reference:</b>	KB-EST @ 4990.0usft (Original Well Elev)
<b>Site Error:</b>	0.0 usft	<b>North Reference:</b>	True
<b>Reference Well:</b>	OLSON 30R-243	<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 #2	<b>Offset TVD Reference:</b>	Offset Datum

<b>Offset Design</b> NW NE SEC 30 T4N R67W 6th P.M. - EXIST VERT SHULTZ FARM 30-32 - Wellbore #1 - Wellbore #1												<b>Offset Site Error:</b>	0.0 usft
Survey Program: 100-GYD_CT												<b>Offset Well Error:</b>	0.0 usft
Measured Depth (usft)	Vertical Depth (usft)	Measured Depth (usft)	Vertical Depth (usft)	Reference (usft)	Offset (usft)	Semi Major Axis Highside Toolface (°)	Offset Wellbore Centre +N/-S (usft)	+E/-W (usft)	Between Centres (usft)	Between Ellipses (usft)	Minimum Separation (usft)	Separation Factor	Warning
2,500.0	2,496.6	2,452.7	2,452.0	5.5	1.2	149.68	-1,255.8	70.5	1,303.3	1,296.7	6.60	197.338	
2,559.0	2,554.5	2,507.2	2,506.4	5.7	1.3	149.88	-1,256.6	69.0	1,314.3	1,307.6	6.77	194.158	
2,600.0	2,594.4	2,545.3	2,544.5	5.8	1.3	150.03	-1,257.2	68.0	1,322.7	1,315.8	6.88	192.139	
2,657.5	2,650.3	2,600.0	2,599.2	6.0	1.3	150.24	-1,258.1	66.6	1,335.5	1,328.4	7.05	189.295	
2,700.0	2,691.5	2,638.7	2,637.8	6.1	1.3	150.40	-1,258.8	65.6	1,345.6	1,338.4	7.18	187.485	
2,730.9	2,721.3	2,667.8	2,666.9	6.2	1.3	150.52	-1,259.4	64.8	1,353.3	1,346.0	7.27	186.146	
2,755.9	2,745.3	2,691.3	2,690.4	6.3	1.3	150.68	-1,259.8	64.2	1,359.7	1,352.3	7.35	185.109	
2,800.0	2,787.8	2,731.8	2,730.9	6.5	1.4	150.96	-1,260.6	63.0	1,371.0	1,363.5	7.48	183.285	
2,854.3	2,840.1	2,781.5	2,780.5	6.7	1.4	151.30	-1,261.7	61.6	1,385.0	1,377.4	7.65	181.096	
2,900.0	2,884.1	2,823.8	2,822.8	6.9	1.4	151.59	-1,262.6	60.3	1,396.9	1,389.1	7.79	179.316	
2,952.7	2,934.9	2,873.2	2,872.1	7.1	1.4	151.91	-1,263.8	58.8	1,410.8	1,402.8	7.96	177.285	
3,000.0	2,980.4	2,919.2	2,918.1	7.3	1.4	152.22	-1,264.9	57.4	1,423.2	1,415.1	8.11	175.548	
3,051.2	3,029.7	2,972.2	2,971.1	7.5	1.4	152.55	-1,266.0	55.8	1,436.6	1,428.3	8.27	173.688	
3,100.0	3,076.7	3,022.4	3,021.2	7.7	1.5	152.87	-1,266.9	54.4	1,449.3	1,440.9	8.43	171.994	
3,149.6	3,124.5	3,072.8	3,071.6	7.9	1.5	153.18	-1,267.8	52.9	1,462.1	1,453.5	8.59	170.309	
3,200.0	3,173.0	3,126.6	3,125.4	8.1	1.5	153.50	-1,268.5	51.3	1,475.1	1,466.3	8.75	168.672	
3,248.0	3,219.3	3,180.8	3,179.6	8.4	1.5	153.82	-1,269.0	49.7	1,487.2	1,478.3	8.90	167.123	
3,300.0	3,269.4	3,242.4	3,241.2	8.6	1.5	154.17	-1,269.1	48.1	1,500.0	1,491.0	9.06	165.571	
3,346.4	3,314.1	3,298.9	3,297.7	8.8	1.5	154.48	-1,268.8	46.8	1,511.2	1,502.0	9.21	164.157	
3,400.0	3,365.7	3,353.8	3,352.6	9.1	1.6	154.77	-1,268.2	45.7	1,523.8	1,514.4	9.37	162.565	
3,444.9	3,408.9	3,399.8	3,398.5	9.3	1.6	155.01	-1,267.7	44.8	1,534.3	1,524.8	9.51	161.317	
3,500.0	3,462.0	3,451.6	3,450.3	9.5	1.6	155.27	-1,267.0	43.9	1,547.3	1,537.6	9.69	159.742	
3,543.3	3,503.7	3,492.2	3,490.9	9.7	1.6	155.47	-1,266.5	43.3	1,557.5	1,547.6	9.82	158.537	
3,600.0	3,558.3	3,545.1	3,543.8	10.0	1.6	155.72	-1,265.9	42.4	1,570.9	1,560.9	10.01	157.003	
3,641.7	3,598.5	3,583.9	3,582.6	10.2	1.6	155.91	-1,265.5	41.8	1,580.9	1,570.7	10.14	155.900	
3,700.0	3,654.6	3,637.4	3,636.1	10.5	1.6	156.16	-1,265.1	40.9	1,594.9	1,584.5	10.33	154.412	
3,740.1	3,693.2	3,674.0	3,672.7	10.7	1.6	156.33	-1,264.8	40.3	1,604.6	1,594.1	10.46	153.412	
3,800.0	3,750.9	3,729.1	3,727.8	11.0	1.7	156.58	-1,264.5	39.5	1,619.2	1,608.5	10.65	151.973	
3,838.6	3,788.0	3,765.0	3,763.7	11.2	1.7	156.74	-1,264.3	38.9	1,628.6	1,617.9	10.78	151.068	
3,900.0	3,847.2	3,822.4	3,821.0	11.5	1.7	156.99	-1,264.1	38.0	1,643.8	1,632.8	10.98	149.696	
3,937.0	3,882.8	3,857.2	3,855.8	11.7	1.7	157.15	-1,264.0	37.4	1,653.0	1,641.9	11.10	148.885	
4,000.0	3,943.5	3,916.7	3,915.4	12.0	1.7	157.41	-1,263.8	36.2	1,668.7	1,657.3	11.31	147.550	
4,035.4	3,977.6	3,950.7	3,949.4	12.2	1.7	157.55	-1,263.7	35.6	1,677.5	1,666.1	11.43	146.821	
4,100.0	4,039.8	4,014.9	4,013.5	12.5	1.7	157.83	-1,263.6	34.3	1,693.6	1,682.0	11.64	145.551	
4,133.8	4,072.4	4,052.9	4,051.5	12.7	1.8	157.99	-1,263.3	33.5	1,702.0	1,690.3	11.75	144.902	
4,200.0	4,136.1	4,125.6	4,124.2	13.0	1.8	158.31	-1,262.6	31.7	1,718.1	1,706.2	11.96	143.674	
4,232.3	4,167.2	4,159.9	4,158.5	13.2	1.8	158.46	-1,262.1	30.8	1,725.9	1,713.9	12.06	143.092	
4,300.0	4,232.4	4,229.2	4,227.8	13.5	1.8	158.75	-1,261.0	29.0	1,742.1	1,729.8	12.28	141.901	
4,330.7	4,262.0	4,259.2	4,257.7	13.7	1.8	158.88	-1,260.4	28.2	1,749.4	1,737.0	12.38	141.364	
4,400.0	4,328.7	4,328.4	4,326.9	14.0	1.8	159.16	-1,259.2	26.6	1,765.9	1,753.4	12.60	140.190	
4,429.1	4,356.8	4,358.6	4,357.1	14.2	1.8	159.28	-1,258.6	25.9	1,772.9	1,760.2	12.69	139.703	
4,500.0	4,425.0	4,426.5	4,424.9	14.6	1.8	159.54	-1,257.3	24.7	1,789.6	1,776.7	12.92	138.540	
4,527.5	4,451.6	4,450.0	4,448.5	14.7	1.9	159.63	-1,256.9	24.4	1,796.2	1,783.2	13.01	138.097	
4,600.0	4,521.4	4,514.0	4,512.5	15.1	1.9	159.86	-1,255.9	23.4	1,813.7	1,800.5	13.24	136.980	
4,626.0	4,546.4	4,540.2	4,538.6	15.2	1.9	159.95	-1,255.6	23.0	1,820.0	1,806.7	13.33	136.585	
4,700.0	4,617.7	4,617.6	4,616.0	15.6	1.9	160.22	-1,254.4	21.9	1,837.9	1,824.3	13.56	135.500	
4,724.4	4,641.2	4,646.8	4,645.3	15.7	1.9	160.32	-1,253.9	21.6	1,843.7	1,830.1	13.64	135.160	
4,800.0	4,714.0	4,729.5	4,727.8	16.1	1.9	160.57	-1,252.1	21.5	1,861.4	1,847.5	13.88	134.095	
4,822.8	4,735.9	4,750.9	4,749.3	16.3	1.9	160.63	-1,251.6	21.5	1,866.7	1,852.7	13.95	133.774	
4,900.0	4,810.3	4,823.3	4,821.7	16.7	1.9	160.84	-1,250.0	21.6	1,884.7	1,870.5	14.20	132.714	
4,921.2	4,830.7	4,843.3	4,841.7	16.8	1.9	160.90	-1,249.5	21.6	1,889.7	1,875.4	14.27	132.423	
5,000.0	4,906.6	4,914.4	4,912.8	17.2	1.9	161.09	-1,248.1	21.6	1,908.3	1,893.8	14.53	131.374	

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 OLSON 30R-243
<b>Project:</b>	WELD COUNTY, COLORADO	<b>TVD Reference:</b>	KB-EST @ 4990.0usft (Original Well Elev)
<b>Reference Site:</b>	NW NE SEC 30 T4N R67W 6th P.M.	<b>MD Reference:</b>	KB-EST @ 4990.0usft (Original Well Elev)
<b>Site Error:</b>	0.0 usft	<b>North Reference:</b>	True
<b>Reference Well:</b>	OLSON 30R-243	<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 #2	<b>Offset TVD Reference:</b>	Offset Datum

<b>Offset Design</b>												<b>Offset Site Error:</b>	0.0 usft
Survey Program: 100-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
5,019.7	4,925.5	4,929.6	4,928.0	17.3	1.9	161.14	-1,247.8	21.6	1,913.0	1,898.4	14.59	131.118	
5,100.0	5,002.9	5,000.0	4,998.3	17.7	1.9	161.33	-1,246.9	21.4	1,932.6	1,917.7	14.85	130.123	
5,118.1	5,020.3	5,006.4	5,004.8	17.8	1.9	161.35	-1,246.9	21.4	1,937.1	1,922.2	14.91	129.912	
5,200.0	5,099.2	5,079.9	5,078.2	18.3	1.9	161.56	-1,246.4	21.0	1,957.6	1,942.4	15.18	128.949	
5,216.5	5,115.1	5,094.7	5,093.0	18.3	1.9	161.60	-1,246.3	21.0	1,961.8	1,946.5	15.24	128.761	
5,300.0	5,195.5	5,170.3	5,168.6	18.8	2.0	161.80	-1,246.1	20.7	1,983.0	1,967.5	15.51	127.851	
5,314.9	5,209.9	5,183.8	5,182.2	18.9	2.0	161.83	-1,246.1	20.6	1,986.8	1,971.3	15.56	127.692	
5,400.0	5,291.8	5,261.9	5,260.2	19.3	2.0	162.04	-1,246.0	20.1	2,008.7	1,992.9	15.84	126.804	
5,413.4	5,304.7	5,274.2	5,272.5	19.4	2.0	162.08	-1,246.0	20.0	2,012.2	1,996.3	15.89	126.667	
5,500.0	5,388.1	5,349.6	5,347.9	19.9	2.0	162.28	-1,246.1	19.3	2,034.7	2,018.5	16.17	125.804	
5,511.8	5,399.5	5,359.5	5,357.9	19.9	2.0	162.30	-1,246.2	19.2	2,037.8	2,021.6	16.21	125.691	
5,600.0	5,484.4	5,439.5	5,437.8	20.4	2.0	162.51	-1,246.7	18.4	2,061.2	2,044.7	16.51	124.860	
5,610.2	5,494.3	5,449.5	5,447.8	20.4	2.0	162.54	-1,246.7	18.3	2,063.9	2,047.4	16.54	124.766	
5,700.0	5,580.7	5,527.6	5,526.0	20.9	2.1	162.74	-1,247.3	17.3	2,087.9	2,071.0	16.84	123.962	
5,708.6	5,589.1	5,533.9	5,532.2	21.0	2.1	162.76	-1,247.3	17.3	2,090.2	2,073.3	16.87	123.889	
5,722.6	5,602.5	5,543.9	5,542.3	21.0	2.1	162.78	-1,247.5	17.1	2,094.0	2,077.1	16.92	123.772	
5,800.0	5,677.3	5,600.0	5,598.3	21.4	2.1	163.04	-1,248.4	16.3	2,114.5	2,097.4	17.08	123.793	
5,807.1	5,684.2	5,600.0	5,598.3	21.4	2.1	163.06	-1,248.4	16.3	2,116.3	2,099.2	17.09	123.823	
5,900.0	5,774.7	5,675.8	5,674.1	21.8	2.1	163.36	-1,250.3	14.6	2,138.9	2,121.7	17.25	124.028	
5,905.5	5,780.1	5,680.0	5,678.2	21.8	2.1	163.38	-1,250.4	14.5	2,140.2	2,123.0	17.25	124.043	
6,000.0	5,872.9	5,792.5	5,790.7	22.1	2.2	163.74	-1,253.3	11.0	2,160.5	2,143.1	17.39	124.219	
6,003.9	5,876.7	5,797.9	5,796.1	22.1	2.2	163.76	-1,253.4	10.8	2,161.3	2,143.9	17.40	124.225	
6,100.0	5,971.6	5,936.5	5,934.6	22.4	2.2	164.06	-1,254.6	8.6	2,176.8	2,159.3	17.52	124.280	
6,102.3	5,973.9	5,939.0	5,937.1	22.4	2.2	164.06	-1,254.6	8.6	2,177.2	2,159.6	17.52	124.281	
6,200.0	6,070.8	6,037.2	6,035.3	22.7	2.2	164.23	-1,254.7	8.1	2,188.9	2,171.4	17.62	124.201	
6,200.8	6,071.6	6,037.9	6,036.0	22.7	2.2	164.23	-1,254.7	8.1	2,189.0	2,171.4	17.62	124.200	
6,299.2	6,169.6	6,129.4	6,127.5	22.9	2.2	164.34	-1,255.1	7.8	2,197.8	2,180.1	17.72	124.000	
6,300.0	6,170.4	6,130.2	6,128.3	22.9	2.2	164.34	-1,255.1	7.8	2,197.9	2,180.2	17.73	123.997	
6,397.6	6,267.9	6,227.3	6,225.4	23.1	2.3	164.41	-1,255.7	7.7	2,203.6	2,185.8	17.82	123.636	
6,400.0	6,270.3	6,229.7	6,227.8	23.1	2.3	164.41	-1,255.7	7.7	2,203.7	2,185.9	17.83	123.624	
6,496.0	6,366.3	6,324.4	6,322.5	23.2	2.3	164.42	-1,256.4	8.0	2,206.0	2,188.1	17.92	123.116	
6,503.5	6,373.8	6,331.2	6,329.3	23.2	2.3	-167.81	-1,256.4	8.0	2,206.1	2,188.2	17.93	123.066	
6,533.5	6,403.8	6,358.6	6,356.8	23.2	2.3	-167.81	-1,256.6	8.0	2,206.3	2,188.4	17.98	122.689	
6,550.0	6,420.3	6,373.7	6,371.8	23.2	2.3	12.19	-1,256.8	8.1	2,206.3	2,188.3	17.97	122.804	
6,594.5	6,464.7	6,415.9	6,414.0	23.3	2.3	12.23	-1,257.2	8.1	2,204.4	2,186.4	17.93	122.974	
6,600.0	6,470.2	6,421.5	6,419.6	23.3	2.3	12.24	-1,257.3	8.1	2,203.9	2,186.0	17.92	122.972	
6,650.0	6,519.8	6,471.8	6,469.9	23.3	2.3	12.37	-1,257.8	8.2	2,198.2	2,180.3	17.90	122.820	
6,692.9	6,561.9	6,515.9	6,514.1	23.2	2.3	12.55	-1,258.2	8.2	2,190.6	2,172.7	17.88	122.531	
6,700.0	6,568.8	6,523.6	6,521.7	23.2	2.3	12.58	-1,258.3	8.3	2,189.1	2,171.2	17.87	122.471	
6,750.0	6,617.0	6,577.1	6,575.2	23.1	2.3	12.89	-1,258.7	8.3	2,176.5	2,158.7	17.83	122.044	
6,791.3	6,656.1	6,615.8	6,613.9	23.0	2.3	13.22	-1,258.9	8.3	2,163.6	2,145.8	17.77	121.726	
6,800.0	6,664.2	6,622.8	6,620.9	23.0	2.3	13.29	-1,258.9	8.3	2,160.6	2,142.8	17.76	121.667	
6,850.0	6,710.1	6,662.4	6,660.5	22.9	2.3	13.78	-1,259.2	8.2	2,141.7	2,124.0	17.64	121.406	
6,889.7	6,745.5	6,693.0	6,691.1	22.7	2.3	14.25	-1,259.5	8.1	2,124.5	2,107.0	17.52	121.284	
6,900.0	6,754.5	6,700.0	6,698.1	22.7	2.3	14.38	-1,259.6	8.0	2,119.8	2,102.3	17.48	121.266	
6,950.0	6,797.2	6,738.6	6,736.7	22.5	2.3	15.13	-1,260.1	7.8	2,095.0	2,077.7	17.28	121.225	
6,988.2	6,828.5	6,766.4	6,764.5	22.3	2.3	15.80	-1,260.5	7.5	2,074.3	2,057.2	17.11	121.235	
7,000.0	6,838.0	6,774.9	6,773.0	22.3	2.3	16.03	-1,260.6	7.4	2,067.5	2,050.5	17.05	121.239	
7,050.0	6,876.7	6,811.8	6,809.9	22.0	2.4	17.13	-1,261.2	7.0	2,037.4	2,020.6	16.81	121.195	
7,086.6	6,903.5	6,842.2	6,840.2	21.8	2.4	18.13	-1,261.7	6.7	2,013.7	1,997.0	16.64	121.005	
7,100.0	6,913.0	6,852.9	6,851.0	21.8	2.4	18.53	-1,261.9	6.6	2,004.7	1,988.1	16.58	120.896	
7,150.0	6,946.9	6,891.1	6,889.2	21.5	2.4	20.23	-1,262.4	6.3	1,969.5	1,953.1	16.39	120.169	

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 OLSON 30R-243
<b>Project:</b>	WELD COUNTY, COLORADO	<b>TVD Reference:</b>	KB-EST @ 4990.0usft (Original Well Elev)
<b>Reference Site:</b>	NW NE SEC 30 T4N R67W 6th P.M.	<b>MD Reference:</b>	KB-EST @ 4990.0usft (Original Well Elev)
<b>Site Error:</b>	0.0 usft	<b>North Reference:</b>	True
<b>Reference Well:</b>	OLSON 30R-243	<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 #2	<b>Offset TVD Reference:</b>	Offset Datum

<b>Offset Design</b> NW NE SEC 30 T4N R67W 6th P.M. - EXIST VERT SHULTZ FARM 30-32 - Wellbore #1 - Wellbore #1												<b>Offset Site Error:</b>	0.0 usft
Survey Program: 100-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
7,185.0	6,969.1	6,916.3	6,914.4	21.3	2.4	21.65	-1,262.7	6.1	1,943.5	1,927.2	16.30	119.233	
7,200.0	6,978.2	6,926.6	6,924.7	21.2	2.4	22.32	-1,262.8	6.1	1,932.0	1,915.7	16.28	118.704	
7,250.0	7,006.6	6,959.0	6,957.1	21.0	2.4	24.91	-1,263.2	5.9	1,892.5	1,876.2	16.29	116.176	
7,283.4	7,024.0	6,978.7	6,976.8	20.8	2.4	27.00	-1,263.4	5.8	1,865.0	1,848.6	16.40	113.730	
7,300.0	7,032.1	6,987.9	6,986.0	20.7	2.4	28.16	-1,263.4	5.7	1,851.1	1,834.7	16.48	112.301	
7,350.0	7,054.6	7,011.8	7,009.8	20.4	2.4	32.20	-1,263.6	5.6	1,808.2	1,791.3	16.89	107.039	
7,381.9	7,067.2	7,024.4	7,022.5	20.3	2.4	35.29	-1,263.7	5.5	1,780.0	1,762.8	17.27	103.052	
7,400.0	7,073.8	7,031.1	7,029.2	20.2	2.4	37.28	-1,263.8	5.5	1,763.8	1,746.3	17.52	100.653	
7,450.0	7,089.9	7,047.2	7,045.3	19.9	2.4	43.74	-1,263.9	5.3	1,718.4	1,700.0	18.34	93.709	
7,480.3	7,097.9	7,055.4	7,053.4	19.8	2.4	48.46	-1,263.9	5.3	1,690.4	1,671.5	18.87	89.558	
7,500.0	7,102.5	7,060.0	7,058.1	19.7	2.4	51.90	-1,264.0	5.2	1,672.0	1,652.8	19.21	87.045	
7,550.0	7,111.8	7,069.5	7,067.6	19.5	2.4	61.93	-1,264.1	5.2	1,625.0	1,605.1	19.93	81.539	
7,578.7	7,115.6	7,073.4	7,071.5	19.4	2.4	68.48	-1,264.1	5.1	1,597.8	1,577.6	20.20	79.112	
7,600.0	7,117.6	7,075.6	7,073.7	19.3	2.4	73.61	-1,264.1	5.1	1,577.6	1,557.3	20.31	77.690	
7,650.0	7,119.9	7,078.3	7,076.4	19.1	2.4	86.10	-1,264.1	5.1	1,530.0	1,509.5	20.50	74.646	
7,660.3	7,120.0	7,078.4	7,076.5	19.1	2.4	88.66	-1,264.1	5.1	1,520.2	1,499.6	20.57	73.911	
7,677.1	7,120.0	7,078.5	7,076.6	19.0	2.4	88.67	-1,264.1	5.1	1,504.2	1,483.6	20.58	73.083	
7,700.0	7,119.9	7,078.6	7,076.7	19.0	2.4	88.68	-1,264.1	5.1	1,482.5	1,461.9	20.60	71.963	
7,775.6	7,119.7	7,079.0	7,077.1	18.8	2.4	88.73	-1,264.1	5.1	1,411.0	1,390.2	20.77	67.941	
7,800.0	7,119.7	7,079.1	7,077.2	18.8	2.4	88.74	-1,264.1	5.1	1,388.0	1,367.1	20.82	66.659	
7,874.0	7,119.5	7,079.5	7,077.5	18.9	2.4	88.79	-1,264.1	5.1	1,318.6	1,297.4	21.13	62.405	
7,900.0	7,119.4	7,079.6	7,077.7	19.0	2.4	88.80	-1,264.1	5.1	1,294.3	1,273.0	21.24	60.945	
7,972.4	7,119.2	7,079.9	7,078.0	19.4	2.4	88.85	-1,264.1	5.1	1,227.1	1,205.4	21.67	56.626	
8,000.0	7,119.2	7,080.1	7,078.2	19.5	2.4	88.86	-1,264.1	5.1	1,201.6	1,179.8	21.83	55.034	
8,070.8	7,119.0	7,080.4	7,078.5	20.1	2.4	88.91	-1,264.1	5.1	1,136.7	1,114.3	22.37	50.805	
8,100.0	7,118.9	7,080.6	7,078.7	20.4	2.4	88.92	-1,264.1	5.1	1,110.2	1,087.6	22.60	49.133	
8,169.3	7,118.7	7,080.9	7,079.0	21.1	2.4	88.97	-1,264.1	5.1	1,047.8	1,024.6	23.23	45.113	
8,200.0	7,118.7	7,081.1	7,079.1	21.4	2.4	88.99	-1,264.1	5.1	1,020.5	996.9	23.51	43.412	
8,267.7	7,118.5	7,081.4	7,079.5	22.1	2.4	89.03	-1,264.1	5.1	960.8	936.6	24.21	39.687	
8,300.0	7,118.4	7,081.6	7,079.6	22.5	2.4	89.05	-1,264.1	5.1	932.8	908.2	24.55	38.001	
8,366.1	7,118.3	7,081.9	7,080.0	23.3	2.4	89.09	-1,264.1	5.1	876.2	850.9	25.31	34.623	
8,400.0	7,118.2	7,082.1	7,080.1	23.7	2.4	89.11	-1,264.1	5.1	847.8	822.1	25.70	32.991	
8,464.5	7,118.0	7,082.4	7,080.5	24.5	2.4	89.15	-1,264.2	5.1	794.8	768.3	26.50	29.989	
8,500.0	7,117.9	7,082.6	7,080.6	25.0	2.4	89.17	-1,264.2	5.1	766.5	739.5	26.95	28.445	
8,563.0	7,117.8	7,082.9	7,080.9	25.8	2.4	89.21	-1,264.2	5.1	717.7	689.9	27.78	25.831	
8,600.0	7,117.7	7,083.0	7,081.1	26.3	2.4	89.23	-1,264.2	5.1	690.1	661.8	28.28	24.404	
8,661.4	7,117.5	7,083.4	7,081.4	27.2	2.4	89.26	-1,264.2	5.1	646.4	617.2	29.14	22.183	
8,700.0	7,117.4	7,083.5	7,081.6	27.7	2.4	89.29	-1,264.2	5.1	620.4	590.7	29.68	20.905	
8,759.8	7,117.3	7,083.8	7,081.9	28.6	2.4	89.32	-1,264.2	5.1	583.0	552.4	30.55	19.081	
8,800.0	7,117.2	7,084.0	7,082.1	29.2	2.4	89.35	-1,264.2	5.1	560.0	528.9	31.14	17.984	
8,858.2	7,117.0	7,084.3	7,082.4	30.1	2.4	89.38	-1,264.2	5.1	530.4	498.4	32.02	16.564	
8,900.0	7,116.9	7,084.5	7,082.6	30.7	2.4	89.41	-1,264.2	5.1	512.2	479.5	32.65	15.686	
8,956.7	7,116.8	7,084.8	7,082.9	31.6	2.4	89.44	-1,264.2	5.1	492.1	458.6	33.54	14.674	
9,000.0	7,116.7	7,085.0	7,083.1	32.3	2.4	89.47	-1,264.2	5.1	480.7	446.5	34.21	14.051	
9,055.1	7,116.6	7,085.3	7,083.4	33.2	2.4	89.50	-1,264.2	5.1	471.6	436.5	35.09	13.439	
9,100.0	7,116.5	7,085.5	7,083.6	33.9	2.4	89.53	-1,264.2	5.0	468.8	433.0	35.81	13.093	
9,106.4	7,116.4	7,085.5	7,083.6	34.0	2.4	89.53	-1,264.2	5.0	468.8	432.9	35.91	13.054 CC, ES	
9,153.5	7,116.3	7,085.8	7,083.9	34.7	2.4	89.56	-1,264.2	5.0	471.1	434.4	36.68	12.845	
9,200.0	7,116.2	7,086.0	7,084.1	35.5	2.4	89.59	-1,264.2	5.0	478.0	440.6	37.43	12.770 SF	
9,251.9	7,116.1	7,086.3	7,084.3	36.4	2.4	89.62	-1,264.2	5.0	490.8	452.5	38.29	12.817	
9,300.0	7,116.0	7,086.5	7,084.6	37.2	2.4	89.65	-1,264.2	5.0	507.2	468.1	39.09	12.974	
9,350.4	7,115.8	7,086.7	7,084.8	38.0	2.4	89.68	-1,264.2	5.0	528.4	488.5	39.94	13.232	

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 OLSON 30R-243
<b>Project:</b>	WELD COUNTY, COLORADO	<b>TVD Reference:</b>	KB-EST @ 4990.0usft (Original Well Elev)
<b>Reference Site:</b>	NW NE SEC 30 T4N R67W 6th P.M.	<b>MD Reference:</b>	KB-EST @ 4990.0usft (Original Well Elev)
<b>Site Error:</b>	0.0 usft	<b>North Reference:</b>	True
<b>Reference Well:</b>	OLSON 30R-243	<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 #2	<b>Offset TVD Reference:</b>	Offset Datum

<b>Offset Design</b> NW NE SEC 30 T4N R67W 6th P.M. - EXIST VERT SHULTZ FARM 30-32 - Wellbore #1 - Wellbore #1												<b>Offset Site Error:</b>	0.0 usft
Survey Program: 100-GYD_CT												<b>Offset Well Error:</b>	0.0 usft
Measured Depth (usft)	Vertical Depth (usft)	Measured Depth (usft)	Vertical Depth (usft)	Reference (usft)	Offset (usft)	Semi Major Axis Highside Toolface (°)	Offset Wellbore Centre +N/-S (usft)	+E/-W (usft)	Between Centres (usft)	Between Ellipses (usft)	Minimum Separation (usft)	Separation Factor	Warning
9,400.0	7,115.7	7,087.0	7,085.1	38.8	2.4	89.71	-1,264.2	5.0	553.1	512.3	40.77	13.566	
9,448.8	7,115.6	7,087.2	7,085.3	39.7	2.4	89.74	-1,264.2	5.0	580.5	538.9	41.60	13.953	
9,500.0	7,115.5	7,087.5	7,085.6	40.5	2.4	89.77	-1,264.2	5.0	612.1	569.6	42.47	14.410	
9,547.2	7,115.3	7,087.7	7,085.8	41.3	2.4	89.80	-1,264.2	5.0	643.5	600.2	43.29	14.865	
9,600.0	7,115.2	7,088.0	7,086.1	42.2	2.4	89.83	-1,264.2	5.0	680.7	636.5	44.20	15.402	
9,645.6	7,115.1	7,088.2	7,086.3	43.0	2.4	89.86	-1,264.2	5.0	714.5	669.5	44.99	15.881	
9,700.0	7,115.0	7,088.5	7,086.5	44.0	2.4	89.89	-1,264.2	5.0	756.3	710.4	45.94	16.466	
9,744.1	7,114.8	7,088.7	7,086.8	44.7	2.4	89.92	-1,264.2	5.0	791.4	744.7	46.71	16.944	
9,800.0	7,114.7	7,089.0	7,087.0	45.7	2.4	89.95	-1,264.2	5.0	837.1	789.4	47.69	17.554	
9,842.5	7,114.6	7,089.2	7,087.2	46.5	2.4	89.98	-1,264.2	5.0	872.7	824.2	48.44	18.015	
9,900.0	7,114.5	7,089.5	7,087.5	47.5	2.4	90.01	-1,264.2	5.0	921.7	872.2	49.46	18.636	
9,940.9	7,114.4	7,089.7	7,087.7	48.2	2.4	90.04	-1,264.2	5.0	957.1	907.0	50.18	19.073	
10,000.0	7,114.2	7,090.0	7,088.0	49.2	2.4	90.07	-1,264.2	5.0	1,009.1	957.8	51.23	19.695	
10,039.3	7,114.1	7,090.1	7,088.2	49.9	2.4	90.09	-1,264.2	5.0	1,044.1	992.1	51.94	20.102	
10,100.0	7,114.0	7,090.4	7,088.5	51.0	2.4	90.13	-1,264.2	5.0	1,098.6	1,045.6	53.02	20.719	
10,137.8	7,113.9	7,090.6	7,088.7	51.7	2.4	90.15	-1,264.2	5.0	1,132.9	1,079.2	53.70	21.095	
10,200.0	7,113.7	7,090.9	7,089.0	52.8	2.4	90.19	-1,264.2	5.0	1,189.8	1,135.0	54.82	21.703	
10,236.2	7,113.6	7,091.1	7,089.2	53.4	2.4	90.21	-1,264.2	5.0	1,223.1	1,167.7	55.48	22.049	
10,300.0	7,113.5	7,091.4	7,089.5	54.6	2.4	90.25	-1,264.2	5.0	1,282.3	1,225.7	56.63	22.644	
10,334.6	7,113.4	7,091.6	7,089.7	55.2	2.4	90.27	-1,264.2	5.0	1,314.6	1,257.3	57.26	22.960	
10,400.0	7,113.2	7,091.9	7,090.0	56.4	2.4	90.31	-1,264.2	5.0	1,375.9	1,317.4	58.44	23.542	
10,433.0	7,113.1	7,092.1	7,090.2	57.0	2.4	90.33	-1,264.2	5.0	1,407.0	1,347.9	59.04	23.829	
10,500.0	7,113.0	7,092.4	7,090.5	58.2	2.4	90.37	-1,264.2	5.0	1,470.3	1,410.0	60.26	24.397	
10,531.5	7,112.9	7,092.6	7,090.6	58.8	2.4	90.39	-1,264.2	5.0	1,500.1	1,439.3	60.84	24.658	
10,600.0	7,112.7	7,092.9	7,091.0	60.0	2.4	90.43	-1,264.2	5.0	1,565.4	1,503.3	62.09	25.211	
10,629.9	7,112.6	7,093.1	7,091.1	60.6	2.4	90.45	-1,264.2	5.0	1,593.9	1,531.3	62.64	25.446	
10,700.0	7,112.5	7,093.4	7,091.5	61.9	2.4	90.49	-1,264.2	5.0	1,661.1	1,597.1	63.93	25.985	
10,728.3	7,112.4	7,093.5	7,091.6	62.4	2.4	90.51	-1,264.2	5.0	1,688.3	1,623.8	64.45	26.197	
10,800.0	7,112.2	7,093.9	7,092.0	63.7	2.4	90.55	-1,264.2	5.0	1,757.2	1,691.5	65.76	26.720	
10,826.7	7,112.1	7,094.0	7,092.1	64.2	2.4	90.56	-1,264.2	5.0	1,783.0	1,716.8	66.26	26.911	
10,900.0	7,111.9	7,094.4	7,092.5	65.5	2.4	90.61	-1,264.2	5.0	1,853.8	1,786.2	67.61	27.420	
10,925.2	7,111.9	7,094.5	7,092.6	66.0	2.4	90.62	-1,264.2	5.0	1,878.2	1,810.1	68.07	27.591	
11,000.0	7,111.7	7,094.9	7,092.9	67.4	2.4	90.67	-1,264.2	5.0	1,950.7	1,881.3	69.45	28.086	
11,023.6	7,111.6	7,095.0	7,093.1	67.8	2.4	90.68	-1,264.2	5.0	1,973.6	1,903.7	69.89	28.238	
11,100.0	7,111.4	7,095.4	7,093.4	69.2	2.4	90.73	-1,264.2	5.0	2,047.9	1,976.6	71.31	28.720	
11,122.0	7,111.4	7,095.5	7,093.5	69.6	2.4	90.74	-1,264.2	5.0	2,069.4	1,997.6	71.72	28.855	
11,200.0	7,111.2	7,095.9	7,093.9	71.1	2.4	90.79	-1,264.3	5.0	2,145.4	2,072.2	73.16	29.324	
11,220.4	7,111.1	7,096.0	7,094.0	71.4	2.4	90.80	-1,264.3	5.0	2,165.3	2,091.8	73.54	29.444	
11,300.0	7,110.9	7,096.4	7,094.4	72.9	2.4	90.85	-1,264.3	5.0	2,243.1	2,168.1	75.02	29.899	
11,318.9	7,110.9	7,096.4	7,094.5	73.3	2.4	90.86	-1,264.3	5.0	2,261.5	2,186.2	75.37	30.005	
11,400.0	7,110.7	7,096.8	7,094.9	74.8	2.4	90.91	-1,264.3	5.0	2,341.0	2,264.1	76.88	30.449	
11,417.3	7,110.6	7,096.9	7,095.0	75.1	2.4	90.92	-1,264.3	5.0	2,357.9	2,280.7	77.20	30.541	
11,500.0	7,110.4	7,097.3	7,095.4	76.6	2.4	90.97	-1,264.3	5.0	2,439.0	2,360.3	78.75	30.973	
11,515.7	7,110.4	7,097.4	7,095.5	76.9	2.4	90.97	-1,264.3	5.0	2,454.4	2,375.4	79.04	31.053	
11,600.0	7,110.2	7,097.8	7,095.9	78.5	2.4	91.02	-1,264.3	4.9	2,537.2	2,456.6	80.61	31.473	
11,614.1	7,110.1	7,097.9	7,096.0	78.7	2.4	91.03	-1,264.3	4.9	2,551.1	2,470.2	80.88	31.542	
11,668.5	7,110.0	7,098.2	7,096.2	79.8	2.4	91.07	-1,264.3	4.9	2,604.6	2,522.7	81.90	31.804	

# Anticollision Report



<b>Company:</b>	PDC ENERGY	<b>Local Co-ordinate Reference:</b>	Well OLSON 30R-243
<b>Project:</b>	WELD COUNTY, COLORADO	<b>TVD Reference:</b>	KB-EST @ 4990.0usft (Original Well Elev)
<b>Reference Site:</b>	NW NE SEC 30 T4N R67W 6th P.M.	<b>MD Reference:</b>	KB-EST @ 4990.0usft (Original Well Elev)
<b>Site Error:</b>	0.0 usft	<b>North Reference:</b>	True
<b>Reference Well:</b>	OLSON 30R-243	<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 #2	<b>Offset TVD Reference:</b>	Offset Datum

Offset Design												Offset Site Error:	0.0 usft
Survey Program: 100-GYD_CT												Offset Well Error:	0.0 usft
Measured Depth (usft)	Vertical Depth (usft)	Measured Depth (usft)	Vertical Depth (usft)	Reference (usft)	Offset (usft)	Semi Major Axis 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	169.29	-2,370.2	448.4	2,412.2				
98.4	98.4	73.2	73.2	0.1	0.0	169.29	-2,370.3	448.3	2,412.3	2,412.2	0.11	N/A	
100.0	100.0	74.6	74.6	0.1	0.0	169.29	-2,370.3	448.3	2,412.3	2,412.2	0.11	N/A	
196.8	196.8	176.9	176.9	0.3	0.2	169.30	-2,370.7	448.1	2,412.6	2,412.2	0.45	5,335.965	
200.0	200.0	180.4	180.4	0.3	0.2	169.30	-2,370.7	448.0	2,412.7	2,412.2	0.46	5,192.175	
295.3	295.3	275.5	275.5	0.5	0.3	169.31	-2,370.8	447.6	2,412.7	2,411.9	0.78	3,100.182	
300.0	300.0	280.1	280.1	0.5	0.3	169.31	-2,370.8	447.6	2,412.7	2,411.9	0.79	3,042.252	
393.7	393.7	369.8	369.8	0.7	0.3	169.31	-2,371.0	447.5	2,412.9	2,411.8	1.06	2,275.109	
400.0	400.0	375.8	375.8	0.8	0.3	169.31	-2,371.1	447.4	2,412.9	2,411.8	1.08	2,238.232	
492.1	492.1	463.5	463.5	1.0	0.4	169.31	-2,371.4	447.5	2,413.3	2,411.9	1.34	1,803.572	
500.0	500.0	471.0	471.0	1.0	0.4	169.31	-2,371.4	447.5	2,413.3	2,412.0	1.36	1,773.944	
590.5	590.5	563.1	563.1	1.2	0.4	169.31	-2,371.9	447.6	2,413.8	2,412.2	1.62	1,494.154	
600.0	600.0	573.0	573.0	1.2	0.4	169.31	-2,371.9	447.6	2,413.8	2,412.2	1.64	1,470.060	
689.0	689.0	665.9	665.9	1.4	0.5	169.32	-2,372.3	447.5	2,414.1	2,412.2	1.88	1,281.046	
700.0	700.0	677.3	677.3	1.4	0.5	169.32	-2,372.3	447.5	2,414.1	2,412.2	1.91	1,261.197	
787.4	787.4	762.2	762.2	1.6	0.5	169.32	-2,372.6	447.3	2,414.4	2,412.2	2.14	1,128.590	
800.0	800.0	774.1	774.1	1.7	0.5	169.32	-2,372.6	447.3	2,414.4	2,412.2	2.17	1,111.995	
885.8	885.8	861.7	861.7	1.9	0.6	169.32	-2,372.9	447.4	2,414.7	2,412.3	2.40	1,006.621	
900.0	900.0	876.7	876.6	1.9	0.6	169.32	-2,372.9	447.5	2,414.8	2,412.3	2.44	990.812	
984.2	984.2	960.7	960.7	2.1	0.6	169.32	-2,373.1	447.7	2,415.0	2,412.3	2.66	907.180	
1,000.0	1,000.0	976.1	976.1	2.1	0.6	169.32	-2,373.1	447.7	2,415.0	2,412.3	2.70	893.169	
1,082.7	1,082.7	1,057.1	1,057.1	2.3	0.6	169.32	-2,373.4	447.7	2,415.3	2,412.4	2.92	828.206	
1,100.0	1,100.0	1,074.0	1,074.0	2.3	0.7	169.32	-2,373.5	447.6	2,415.3	2,412.4	2.96	815.945	
1,181.1	1,181.1	1,159.7	1,159.7	2.5	0.7	169.33	-2,373.8	447.3	2,415.6	2,412.4	3.17	762.387	
1,200.0	1,200.0	1,180.3	1,180.3	2.6	0.7	169.33	-2,373.9	447.2	2,415.6	2,412.4	3.22	750.840	
1,279.5	1,279.5	1,256.7	1,256.7	2.7	0.7	169.34	-2,374.0	446.9	2,415.7	2,412.3	3.42	707.017	
1,300.0	1,300.0	1,275.5	1,275.5	2.8	0.7	169.34	-2,374.1	446.9	2,415.8	2,412.3	3.47	696.648	
1,377.9	1,377.9	1,353.2	1,353.2	3.0	0.8	169.34	-2,374.4	446.7	2,416.1	2,412.4	3.67	659.002	
1,400.0	1,400.0	1,376.1	1,376.1	3.0	0.8	169.35	-2,374.5	446.7	2,416.1	2,412.4	3.72	648.962	
1,476.4	1,476.4	1,452.7	1,452.7	3.2	0.8	169.35	-2,374.7	446.4	2,416.3	2,412.4	3.92	616.700	
1,500.0	1,500.0	1,476.1	1,476.1	3.2	0.8	169.36	-2,374.8	446.3	2,416.4	2,412.4	3.98	607.402	
1,574.8	1,574.8	1,553.2	1,553.2	3.4	0.8	169.37	-2,375.1	445.9	2,416.6	2,412.4	4.17	579.822	
1,600.0	1,600.0	1,579.7	1,579.7	3.5	0.8	169.37	-2,375.2	445.7	2,416.6	2,412.4	4.23	571.101	
1,673.2	1,673.2	1,657.8	1,657.7	3.6	0.9	169.38	-2,375.3	445.3	2,416.7	2,412.3	4.42	547.362	
1,700.0	1,700.0	1,686.5	1,686.5	3.7	0.9	169.39	-2,375.3	445.0	2,416.6	2,412.2	4.48	539.187	
1,759.3	1,759.3	1,742.3	1,742.3	3.8	0.9	169.40	-2,375.3	444.5	2,416.6	2,412.0	4.63	522.141	
1,771.6	1,771.6	1,753.5	1,753.5	3.8	0.9	169.40	-2,375.4	444.4	2,416.6	2,411.9	4.66	518.737	
1,800.0	1,800.0	1,779.2	1,779.2	3.9	0.9	169.41	-2,375.5	444.1	2,416.6	2,411.9	4.73	511.102	
1,870.1	1,870.1	1,853.4	1,853.4	4.1	0.9	169.43	-2,375.7	443.1	2,416.7	2,411.8	4.90	492.917	
1,900.0	1,900.0	1,887.3	1,887.3	4.1	0.9	169.45	-2,375.8	442.6	2,416.7	2,411.7	4.98	485.477	
1,950.0	1,950.0	1,933.7	1,933.6	4.2	1.0	169.46	-2,375.9	441.9	2,416.6	2,411.5	5.10	473.762	
1,950.8	1,950.8	1,934.4	1,934.3	4.2	1.0	141.70	-2,375.9	441.9	2,416.6	2,411.5	5.15	469.075	
1,968.5	1,968.5	1,949.7	1,949.7	4.3	1.0	141.70	-2,375.9	441.7	2,416.7	2,411.5	5.20	465.186	
2,000.0	2,000.0	1,977.1	1,977.0	4.4	1.0	141.71	-2,376.0	441.2	2,417.0	2,411.7	5.27	458.458	
2,066.9	2,066.9	2,045.2	2,045.2	4.5	1.0	141.75	-2,376.5	440.1	2,418.7	2,413.3	5.44	444.756	
2,100.0	2,099.9	2,082.2	2,082.1	4.6	1.0	141.78	-2,376.6	439.4	2,420.0	2,414.5	5.52	438.280	
2,165.3	2,165.1	2,146.3	2,146.2	4.7	1.0	141.82	-2,376.9	438.2	2,423.3	2,417.6	5.68	426.266	
2,200.0	2,199.7	2,178.7	2,178.6	4.8	1.0	141.85	-2,377.0	437.7	2,425.5	2,419.8	5.77	420.300	
2,263.8	2,263.1	2,236.0	2,235.9	4.9	1.1	141.89	-2,377.3	436.7	2,430.6	2,424.7	5.93	409.716	
2,300.0	2,299.1	2,267.7	2,267.6	5.0	1.1	141.91	-2,377.6	436.2	2,434.1	2,428.1	6.02	404.006	
2,362.2	2,360.8	2,325.9	2,325.8	5.2	1.1	141.97	-2,378.2	435.1	2,441.1	2,434.9	6.19	394.455	
2,400.0	2,398.2	2,364.8	2,364.7	5.3	1.1	142.01	-2,378.6	434.4	2,445.8	2,439.6	6.29	388.911	

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 OLSON 30R-243
<b>Project:</b>	WELD COUNTY, COLORADO	<b>TVD Reference:</b>	KB-EST @ 4990.0usft (Original Well Elev)
<b>Reference Site:</b>	NW NE SEC 30 T4N R67W 6th P.M.	<b>MD Reference:</b>	KB-EST @ 4990.0usft (Original Well Elev)
<b>Site Error:</b>	0.0 usft	<b>North Reference:</b>	True
<b>Reference Well:</b>	OLSON 30R-243	<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 #2	<b>Offset TVD Reference:</b>	Offset Datum

Offset Design													Offset Site Error:	0.0 usft
Survey Program: 100-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		
2,460.6	2,457.9	2,426.6	2,426.4	5.4	1.1	142.09	-2,379.2	432.9	2,454.2	2,447.8	6.45	380.236		
2,500.0	2,496.6	2,466.2	2,466.1	5.5	1.2	142.15	-2,379.6	432.1	2,460.2	2,453.7	6.56	374.952		
2,559.0	2,554.5	2,522.0	2,521.8	5.7	1.2	142.22	-2,380.1	430.9	2,470.0	2,463.3	6.73	367.078		
2,600.0	2,594.4	2,557.3	2,557.2	5.8	1.2	142.25	-2,380.5	430.1	2,477.4	2,470.6	6.84	361.936		
2,657.5	2,650.3	2,608.5	2,608.3	6.0	1.2	142.31	-2,381.2	429.0	2,488.7	2,481.7	7.02	354.582		
2,700.0	2,691.5	2,654.9	2,654.7	6.1	1.2	142.39	-2,381.8	428.0	2,497.7	2,490.5	7.15	349.476		
2,730.9	2,721.3	2,688.5	2,688.3	6.2	1.2	142.46	-2,382.1	427.2	2,504.5	2,497.2	7.24	345.687		
2,755.9	2,745.3	2,711.7	2,711.5	6.3	1.2	142.56	-2,382.3	426.7	2,510.0	2,502.7	7.32	342.759		
2,800.0	2,787.8	2,747.4	2,747.2	6.5	1.3	142.71	-2,382.8	425.9	2,519.9	2,512.5	7.46	337.678		
2,854.3	2,840.1	2,791.4	2,791.1	6.7	1.3	142.91	-2,383.4	424.9	2,532.3	2,524.7	7.64	331.562		
2,900.0	2,884.1	2,833.1	2,832.9	6.9	1.3	143.09	-2,384.1	423.9	2,542.9	2,535.1	7.79	326.493		
2,952.7	2,934.9	2,883.1	2,882.8	7.1	1.3	143.30	-2,384.9	422.8	2,555.1	2,547.1	7.97	320.699		
3,000.0	2,980.4	2,930.4	2,930.1	7.3	1.3	143.50	-2,385.7	421.6	2,566.1	2,558.0	8.13	315.740		
3,051.2	3,029.7	2,983.3	2,983.0	7.5	1.3	143.73	-2,386.6	420.2	2,578.0	2,569.6	8.30	310.485		
3,100.0	3,076.7	3,040.5	3,040.1	7.7	1.4	143.98	-2,387.3	418.6	2,589.2	2,580.7	8.47	305.696		
3,149.6	3,124.5	3,102.0	3,101.6	7.9	1.4	144.23	-2,387.9	417.0	2,600.4	2,591.7	8.64	300.919		
3,200.0	3,173.0	3,161.3	3,160.9	8.1	1.4	144.48	-2,388.1	415.4	2,611.6	2,602.7	8.81	296.342		
3,248.0	3,219.3	3,216.6	3,216.2	8.4	1.4	144.71	-2,388.0	413.8	2,622.0	2,613.1	8.98	292.068		
3,300.0	3,269.4	3,273.5	3,273.0	8.6	1.4	144.94	-2,387.8	412.2	2,633.3	2,624.1	9.16	287.582		
3,346.4	3,314.1	3,323.9	3,323.5	8.8	1.4	145.14	-2,387.5	411.0	2,643.2	2,633.9	9.32	283.659		
3,400.0	3,365.7	3,381.6	3,381.1	9.1	1.5	145.37	-2,387.0	409.5	2,654.6	2,645.1	9.50	279.318		
3,444.9	3,408.9	3,438.5	3,438.0	9.3	1.5	145.59	-2,386.4	408.0	2,664.1	2,654.4	9.66	275.774		
3,500.0	3,462.0	3,511.4	3,510.9	9.5	1.5	145.88	-2,385.1	405.5	2,675.3	2,665.5	9.85	271.585		
3,543.3	3,503.7	3,556.9	3,556.3	9.7	1.5	146.06	-2,384.1	403.9	2,684.0	2,674.0	10.00	268.364		
3,600.0	3,558.3	3,612.4	3,611.7	10.0	1.5	146.28	-2,382.8	401.9	2,695.4	2,685.2	10.20	264.282		
3,641.7	3,598.5	3,645.2	3,644.5	10.2	1.5	146.41	-2,382.1	400.7	2,703.8	2,693.4	10.35	261.314		
3,700.0	3,654.6	3,700.0	3,699.3	10.5	1.5	146.63	-2,381.1	398.8	2,715.8	2,705.3	10.55	257.320		
3,740.1	3,693.2	3,726.4	3,725.6	10.7	1.5	146.73	-2,380.7	397.9	2,724.2	2,713.5	10.70	254.650		
3,800.0	3,750.9	3,781.4	3,780.6	11.0	1.6	146.95	-2,379.8	395.9	2,736.8	2,725.9	10.91	250.781		
3,838.6	3,788.0	3,815.9	3,815.1	11.2	1.6	147.08	-2,379.4	394.7	2,745.0	2,733.9	11.05	248.363		
3,900.0	3,847.2	3,868.9	3,868.0	11.5	1.6	147.28	-2,378.7	392.8	2,758.1	2,746.8	11.27	244.666		
3,937.0	3,882.8	3,900.9	3,900.1	11.7	1.6	147.40	-2,378.4	391.8	2,766.1	2,754.7	11.41	242.502		
4,000.0	3,943.5	3,962.0	3,961.1	12.0	1.6	147.63	-2,377.7	389.8	2,779.8	2,768.2	11.63	238.940		
4,035.4	3,977.6	3,996.4	3,995.5	12.2	1.6	147.76	-2,377.4	388.7	2,787.5	2,775.7	11.76	236.991		
4,100.0	4,039.8	4,059.8	4,058.8	12.5	1.6	147.98	-2,376.7	387.0	2,801.6	2,789.6	11.99	233.580		
4,133.8	4,072.4	4,093.1	4,092.2	12.7	1.6	148.10	-2,376.3	386.2	2,809.0	2,796.8	12.12	231.836		
4,200.0	4,136.1	4,158.6	4,157.6	13.0	1.7	148.31	-2,375.5	385.1	2,823.4	2,811.0	12.35	228.549		
4,232.3	4,167.2	4,190.6	4,189.6	13.2	1.7	148.41	-2,375.1	384.7	2,830.4	2,817.9	12.47	226.984		
4,300.0	4,232.4	4,267.9	4,266.9	13.5	1.7	148.65	-2,373.9	383.9	2,845.1	2,832.4	12.71	223.812		
4,330.7	4,262.0	4,300.0	4,299.0	13.7	1.7	148.75	-2,373.3	383.5	2,851.6	2,838.8	12.82	222.408		
4,400.0	4,328.7	4,364.9	4,363.9	14.0	1.7	148.95	-2,372.1	382.7	2,866.5	2,853.4	13.07	219.315		
4,429.1	4,356.8	4,390.9	4,389.9	14.2	1.7	149.03	-2,371.6	382.4	2,872.7	2,859.6	13.17	218.052		
4,500.0	4,425.0	4,447.7	4,446.7	14.6	1.7	149.21	-2,370.8	381.6	2,888.2	2,874.7	13.43	215.036		
4,527.5	4,451.6	4,469.3	4,468.3	14.7	1.7	149.28	-2,370.5	381.2	2,894.3	2,880.7	13.53	213.897		
4,600.0	4,521.4	4,523.6	4,522.5	15.1	1.7	149.44	-2,370.0	380.4	2,910.6	2,896.8	13.80	210.986		
4,626.0	4,546.4	4,541.9	4,540.9	15.2	1.7	149.50	-2,370.0	380.2	2,916.5	2,902.6	13.89	209.968		
4,700.0	4,617.7	4,600.0	4,598.9	15.6	1.8	149.67	-2,370.0	379.6	2,933.8	2,919.7	14.16	207.169		
4,724.4	4,641.2	4,614.2	4,613.1	15.7	1.8	149.71	-2,370.0	379.4	2,939.6	2,925.4	14.25	206.268		
4,800.0	4,714.0	4,680.9	4,679.8	16.1	1.8	149.90	-2,370.3	378.9	2,957.7	2,943.2	14.53	203.528		
4,822.8	4,735.9	4,701.2	4,700.1	16.3	1.8	149.96	-2,370.5	378.8	2,963.2	2,948.6	14.62	202.728		
4,900.0	4,810.3	4,779.1	4,778.1	16.7	1.8	150.18	-2,370.9	378.2	2,981.8	2,966.9	14.90	200.102		
4,921.2	4,830.7	4,800.6	4,799.5	16.8	1.8	150.24	-2,371.0	378.1	2,986.9	2,972.0	14.98	199.396		

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 OLSON 30R-243
<b>Project:</b>	WELD COUNTY, COLORADO	<b>TVD Reference:</b>	KB-EST @ 4990.0usft (Original Well Elev)
<b>Reference Site:</b>	NW NE SEC 30 T4N R67W 6th P.M.	<b>MD Reference:</b>	KB-EST @ 4990.0usft (Original Well Elev)
<b>Site Error:</b>	0.0 usft	<b>North Reference:</b>	True
<b>Reference Well:</b>	OLSON 30R-243	<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 #2	<b>Offset TVD Reference:</b>	Offset Datum

Offset Design													Offset Site Error:	0.0 usft
Survey Program: 100-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		
5,000.0	4,906.6	4,878.5	4,877.4	17.2	1.8	150.45	-2,371.4	377.5	3,005.9	2,990.6	15.27	196.863		
5,019.7	4,925.5	4,897.9	4,896.9	17.3	1.8	150.51	-2,371.5	377.4	3,010.6	2,995.3	15.34	196.245		
5,100.0	5,002.9	4,976.6	4,975.5	17.7	1.9	150.72	-2,371.8	376.8	3,029.9	3,014.3	15.64	193.786		
5,118.1	5,020.3	4,994.3	4,993.2	17.8	1.9	150.77	-2,371.8	376.7	3,034.3	3,018.6	15.70	193.244		
5,200.0	5,099.2	5,077.1	5,076.1	18.3	1.9	150.99	-2,372.0	376.0	3,053.9	3,037.9	16.00	190.861		
5,216.5	5,115.1	5,093.9	5,092.8	18.3	1.9	151.04	-2,372.1	375.9	3,057.9	3,041.8	16.06	190.390		
5,300.0	5,195.5	5,173.8	5,172.7	18.8	1.9	151.25	-2,372.2	375.3	3,077.8	3,061.5	16.37	188.073		
5,314.9	5,209.9	5,188.1	5,187.0	18.9	1.9	151.29	-2,372.2	375.2	3,081.4	3,065.0	16.42	187.667		
5,400.0	5,291.8	5,272.9	5,271.9	19.3	2.0	151.51	-2,372.4	374.5	3,101.8	3,085.1	16.73	185.414		
5,413.4	5,304.7	5,286.4	5,285.3	19.4	2.0	151.54	-2,372.4	374.4	3,105.0	3,088.3	16.78	185.067		
5,500.0	5,388.1	5,376.2	5,375.1	19.9	2.0	151.77	-2,372.4	373.7	3,125.7	3,108.6	17.09	182.885		
5,511.8	5,399.5	5,388.5	5,387.4	19.9	2.0	151.80	-2,372.3	373.6	3,128.5	3,111.4	17.13	182.594		
5,600.0	5,484.4	5,462.6	5,461.5	20.4	2.0	151.99	-2,372.3	373.0	3,149.6	3,132.2	17.45	180.465		
5,610.2	5,494.3	5,470.8	5,469.8	20.4	2.0	152.01	-2,372.3	372.9	3,152.1	3,134.6	17.49	180.225		
5,700.0	5,580.7	5,552.4	5,551.3	20.9	2.1	152.22	-2,372.6	372.1	3,174.0	3,156.1	17.82	178.148		
5,708.6	5,589.1	5,560.8	5,559.8	21.0	2.1	152.24	-2,372.7	372.0	3,176.1	3,158.2	17.85	177.952		
5,722.6	5,602.5	5,574.5	5,573.4	21.0	2.1	152.28	-2,372.7	371.8	3,179.5	3,161.6	17.90	177.636		
5,800.0	5,677.3	5,639.6	5,638.5	21.4	2.1	152.61	-2,373.0	370.7	3,197.5	3,179.5	18.07	176.921		
5,807.1	5,684.2	5,645.1	5,644.0	21.4	2.1	152.64	-2,373.0	370.7	3,199.1	3,181.0	18.09	176.891		
5,900.0	5,774.7	5,724.8	5,723.7	21.8	2.1	153.00	-2,373.8	369.1	3,218.7	3,200.5	18.24	176.440		
5,905.5	5,780.1	5,731.0	5,729.9	21.8	2.1	153.02	-2,373.9	369.0	3,219.8	3,201.5	18.25	176.418		
6,000.0	5,872.9	5,829.3	5,828.2	22.1	2.2	153.37	-2,374.7	367.0	3,236.8	3,218.4	18.39	175.971		
6,003.9	5,876.7	5,832.8	5,831.7	22.1	2.2	153.38	-2,374.7	366.9	3,237.4	3,219.0	18.40	175.956		
6,100.0	5,971.6	5,919.4	5,918.2	22.4	2.2	153.65	-2,375.5	365.3	3,251.9	3,233.4	18.53	175.529		
6,102.3	5,973.9	5,921.6	5,920.4	22.4	2.2	153.65	-2,375.5	365.3	3,252.2	3,233.7	18.53	175.520		
6,200.0	6,070.8	6,011.8	6,010.7	22.7	2.2	153.88	-2,376.5	363.4	3,264.1	3,245.5	18.65	175.064		
6,200.8	6,071.6	6,012.4	6,011.2	22.7	2.2	153.88	-2,376.6	363.4	3,264.2	3,245.6	18.65	175.061		
6,299.2	6,169.6	6,088.7	6,087.5	22.9	2.2	154.04	-2,377.8	362.1	3,273.7	3,254.9	18.75	174.583		
6,300.0	6,170.4	6,100.0	6,098.8	22.9	2.2	154.05	-2,378.0	362.0	3,273.8	3,255.0	18.75	174.565		
6,397.6	6,267.9	6,193.7	6,192.5	23.1	2.3	154.16	-2,379.8	360.7	3,280.4	3,261.5	18.85	173.987		
6,400.0	6,270.3	6,196.4	6,195.2	23.1	2.3	154.16	-2,379.8	360.7	3,280.5	3,261.6	18.86	173.969		
6,496.0	6,366.3	6,298.7	6,297.5	23.2	2.3	154.24	-2,381.5	358.7	3,283.8	3,264.8	18.95	173.302		
6,503.5	6,373.8	6,307.1	6,305.8	23.2	2.3	-177.99	-2,381.6	358.5	3,283.9	3,265.0	18.96	173.239		
6,533.5	6,403.8	6,340.8	6,339.5	23.2	2.3	-177.97	-2,382.1	357.7	3,284.4	3,265.4	19.01	172.786		
6,550.0	6,420.3	6,359.3	6,358.0	23.2	2.3	2.03	-2,382.3	357.3	3,284.4	3,265.4	18.99	172.920		
6,594.5	6,464.7	6,407.3	6,406.0	23.3	2.3	2.06	-2,382.9	356.1	3,282.6	3,263.6	18.96	173.101		
6,600.0	6,470.2	6,412.2	6,410.9	23.3	2.3	2.06	-2,383.0	356.0	3,282.2	3,263.2	18.96	173.097		
6,650.0	6,519.8	6,456.0	6,454.7	23.3	2.4	2.10	-2,383.5	354.9	3,276.5	3,257.5	18.95	172.910		
6,692.9	6,561.9	6,493.3	6,491.9	23.2	2.4	2.15	-2,384.1	353.9	3,268.9	3,250.0	18.94	172.605		
6,700.0	6,568.8	6,500.0	6,498.6	23.2	2.4	2.16	-2,384.2	353.7	3,267.4	3,248.5	18.94	172.545		
6,750.0	6,617.0	6,550.1	6,548.8	23.1	2.4	2.23	-2,384.9	352.4	3,255.0	3,236.1	18.91	172.164		
6,791.3	6,656.1	6,591.4	6,590.0	23.0	2.4	2.30	-2,385.5	351.2	3,242.2	3,223.4	18.86	171.947		
6,800.0	6,664.2	6,599.9	6,598.5	23.0	2.4	2.32	-2,385.6	350.9	3,239.2	3,220.4	18.84	171.913		
6,850.0	6,710.1	6,647.7	6,646.3	22.9	2.4	2.43	-2,386.3	349.6	3,220.1	3,201.4	18.74	171.874		
6,889.7	6,745.5	6,684.7	6,683.2	22.7	2.4	2.53	-2,386.8	348.5	3,202.7	3,184.1	18.62	172.036		
6,900.0	6,754.5	6,694.0	6,692.6	22.7	2.4	2.56	-2,386.9	348.2	3,197.8	3,179.3	18.58	172.101		
6,950.0	6,797.2	6,735.9	6,734.4	22.5	2.4	2.72	-2,387.4	346.9	3,172.5	3,154.1	18.38	172.635		
6,988.2	6,828.5	6,766.3	6,764.8	22.3	2.5	2.86	-2,387.8	346.0	3,151.2	3,133.0	18.19	173.245		
7,000.0	6,838.0	6,775.5	6,774.0	22.3	2.5	2.90	-2,388.0	345.7	3,144.2	3,126.1	18.13	173.464		
7,050.0	6,876.7	6,816.2	6,814.7	22.0	2.5	3.13	-2,388.5	344.3	3,113.2	3,095.3	17.84	174.523		
7,086.6	6,903.5	6,848.6	6,847.0	21.8	2.5	3.34	-2,388.9	343.3	3,088.7	3,071.1	17.61	175.384		
7,100.0	6,913.0	6,860.0	6,858.5	21.8	2.5	3.42	-2,389.1	343.0	3,079.4	3,061.9	17.52	175.719		

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 OLSON 30R-243
<b>Project:</b>	WELD COUNTY, COLORADO	<b>TVD Reference:</b>	KB-EST @ 4990.0usft (Original Well Elev)
<b>Reference Site:</b>	NW NE SEC 30 T4N R67W 6th P.M.	<b>MD Reference:</b>	KB-EST @ 4990.0usft (Original Well Elev)
<b>Site Error:</b>	0.0 usft	<b>North Reference:</b>	True
<b>Reference Well:</b>	OLSON 30R-243	<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 #2	<b>Offset TVD Reference:</b>	Offset Datum

<b>Offset Design</b> NW NE SEC 30 T4N R67W 6th P.M. - EXIST VERT SHULTZ FARM 30-33 - Wellbore #1 - Wellbore #1												<b>Offset Site Error:</b>	0.0 usft
Survey Program: 100-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
7,150.0	6,946.9	6,900.8	6,899.2	21.5	2.5	3.76	-2,389.5	341.9	3,043.0	3,025.9	17.19	177.020	
7,185.0	6,969.1	6,930.3	6,928.7	21.3	2.5	4.06	-2,389.7	341.2	3,016.2	2,999.2	16.96	177.871	
7,200.0	6,978.2	6,942.3	6,940.7	21.2	2.5	4.20	-2,389.8	341.0	3,004.3	2,987.5	16.86	178.222	
7,250.0	7,006.6	6,979.8	6,978.2	21.0	2.5	4.74	-2,389.9	340.3	2,963.4	2,946.9	16.54	179.204	
7,283.4	7,024.0	7,002.0	7,000.4	20.8	2.5	5.19	-2,390.0	340.0	2,934.9	2,918.6	16.34	179.612	
7,300.0	7,032.1	7,010.0	7,008.4	20.7	2.5	5.44	-2,390.0	339.9	2,920.5	2,904.3	16.25	179.753	
7,350.0	7,054.6	7,032.2	7,030.6	20.4	2.5	6.35	-2,390.0	339.6	2,876.0	2,860.0	16.02	179.560	
7,381.9	7,067.2	7,044.8	7,043.2	20.3	2.5	7.11	-2,390.1	339.4	2,846.8	2,830.9	15.92	178.826	
7,400.0	7,073.8	7,051.3	7,049.7	20.2	2.6	7.62	-2,390.1	339.3	2,829.9	2,814.1	15.88	178.179	
7,450.0	7,089.9	7,067.2	7,065.6	19.9	2.6	9.50	-2,390.1	339.1	2,782.7	2,766.8	15.88	175.212	
7,480.3	7,097.9	7,075.2	7,073.6	19.8	2.6	11.15	-2,390.1	338.9	2,753.5	2,737.6	15.97	172.440	
7,500.0	7,102.5	7,079.8	7,078.2	19.7	2.6	12.54	-2,390.1	338.9	2,734.4	2,718.4	16.07	170.206	
7,550.0	7,111.8	7,089.0	7,087.4	19.5	2.6	18.15	-2,390.1	338.7	2,685.4	2,668.8	16.56	162.164	
7,578.7	7,115.6	7,092.8	7,091.2	19.4	2.6	24.08	-2,390.2	338.6	2,657.0	2,639.8	17.15	154.961	
7,600.0	7,117.6	7,094.8	7,093.2	19.3	2.6	31.31	-2,390.2	338.6	2,635.8	2,617.9	17.88	147.447	
7,650.0	7,119.9	7,097.2	7,095.6	19.1	2.6	74.27	-2,390.2	338.5	2,585.9	2,565.5	20.43	126.587	
7,660.3	7,120.0	7,097.3	7,095.7	19.1	2.6	89.57	-2,390.2	338.5	2,575.7	2,555.0	20.72	124.296	
7,677.1	7,120.0	7,097.3	7,095.7	19.0	2.6	89.56	-2,390.2	338.5	2,558.8	2,538.1	20.74	123.403	
7,700.0	7,119.9	7,097.3	7,095.7	19.0	2.6	89.56	-2,390.2	338.5	2,536.0	2,515.3	20.75	122.194	
7,775.6	7,119.7	7,097.2	7,095.6	18.8	2.6	89.54	-2,390.2	338.5	2,460.6	2,439.6	20.92	117.615	
7,800.0	7,119.7	7,097.2	7,095.6	18.8	2.6	89.54	-2,390.2	338.5	2,436.2	2,415.2	20.97	116.151	
7,874.0	7,119.5	7,097.2	7,095.6	18.9	2.6	89.52	-2,390.2	338.6	2,362.3	2,341.0	21.28	111.009	
7,900.0	7,119.4	7,097.2	7,095.6	19.0	2.6	89.52	-2,390.2	338.6	2,336.3	2,314.9	21.39	109.237	
7,972.4	7,119.2	7,097.1	7,095.5	19.4	2.6	89.50	-2,390.2	338.6	2,264.0	2,242.2	21.82	103.768	
8,000.0	7,119.2	7,097.1	7,095.5	19.5	2.6	89.50	-2,390.2	338.6	2,236.5	2,214.5	21.98	101.741	
8,070.8	7,119.0	7,097.1	7,095.5	20.1	2.6	89.48	-2,390.2	338.6	2,165.8	2,143.3	22.52	96.170	
8,100.0	7,118.9	7,097.0	7,095.4	20.4	2.6	89.47	-2,390.2	338.6	2,136.7	2,114.0	22.74	93.954	
8,169.3	7,118.7	7,097.0	7,095.4	21.1	2.6	89.46	-2,390.2	338.6	2,067.6	2,044.2	23.37	88.470	
8,200.0	7,118.7	7,097.0	7,095.4	21.4	2.6	89.45	-2,390.2	338.6	2,036.9	2,013.3	23.65	86.131	
8,267.7	7,118.5	7,096.9	7,095.3	22.1	2.6	89.44	-2,390.2	338.6	1,969.4	1,945.0	24.35	80.876	
8,300.0	7,118.4	7,096.9	7,095.3	22.5	2.6	89.43	-2,390.2	338.6	1,937.1	1,912.5	24.69	78.473	
8,366.1	7,118.3	7,096.9	7,095.3	23.3	2.6	89.41	-2,390.2	338.6	1,871.2	1,845.7	25.44	73.539	
8,400.0	7,118.2	7,096.9	7,095.3	23.7	2.6	89.41	-2,390.2	338.6	1,837.4	1,811.6	25.83	71.124	
8,464.5	7,118.0	7,096.8	7,095.2	24.5	2.6	89.39	-2,390.2	338.6	1,773.0	1,746.4	26.64	66.562	
8,500.0	7,117.9	7,096.8	7,095.2	25.0	2.6	89.39	-2,390.2	338.6	1,737.7	1,710.6	27.08	64.172	
8,563.0	7,117.8	7,096.8	7,095.2	25.8	2.6	89.37	-2,390.2	338.6	1,674.9	1,647.0	27.91	60.002	
8,600.0	7,117.7	7,096.8	7,095.2	26.3	2.6	89.36	-2,390.2	338.6	1,638.0	1,609.6	28.41	57.665	
8,661.4	7,117.5	7,096.7	7,095.1	27.2	2.6	89.35	-2,390.2	338.6	1,576.8	1,547.6	29.26	53.883	
8,700.0	7,117.4	7,096.7	7,095.1	27.7	2.6	89.34	-2,390.2	338.6	1,538.4	1,508.6	29.80	51.617	
8,759.8	7,117.3	7,096.7	7,095.1	28.6	2.6	89.32	-2,390.2	338.6	1,478.8	1,448.1	30.68	48.207	
8,800.0	7,117.2	7,096.6	7,095.0	29.2	2.6	89.32	-2,390.2	338.6	1,438.8	1,407.5	31.26	46.024	
8,858.2	7,117.0	7,096.6	7,095.0	30.1	2.6	89.30	-2,390.2	338.6	1,380.8	1,348.7	32.14	42.961	
8,900.0	7,116.9	7,096.6	7,095.0	30.7	2.6	89.29	-2,390.2	338.6	1,339.3	1,306.5	32.77	40.867	
8,956.7	7,116.8	7,096.5	7,094.9	31.6	2.6	89.28	-2,390.2	338.6	1,282.9	1,249.2	33.65	38.123	
9,000.0	7,116.7	7,096.5	7,094.9	32.3	2.6	89.27	-2,390.2	338.6	1,239.8	1,205.5	34.32	36.120	
9,055.1	7,116.6	7,096.5	7,094.9	33.2	2.6	89.26	-2,390.2	338.6	1,185.1	1,149.9	35.20	33.665	
9,100.0	7,116.5	7,096.5	7,094.9	33.9	2.6	89.25	-2,390.2	338.6	1,140.5	1,104.5	35.92	31.753	
9,153.5	7,116.3	7,096.4	7,094.8	34.7	2.6	89.23	-2,390.2	338.6	1,087.3	1,050.5	36.79	29.558	
9,200.0	7,116.2	7,096.4	7,094.8	35.5	2.6	89.22	-2,390.2	338.6	1,041.2	1,003.7	37.54	27.736	
9,251.9	7,116.1	7,096.4	7,094.8	36.4	2.6	89.21	-2,390.2	338.6	989.7	951.3	38.40	25.775	
9,300.0	7,116.0	7,096.3	7,094.7	37.2	2.6	89.20	-2,390.2	338.6	942.2	903.0	39.19	24.039	
9,350.4	7,115.8	7,096.3	7,094.7	38.0	2.6	89.18	-2,390.2	338.6	892.3	852.3	40.04	22.287	

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 OLSON 30R-243
<b>Project:</b>	WELD COUNTY, COLORADO	<b>TVD Reference:</b>	KB-EST @ 4990.0usft (Original Well Elev)
<b>Reference Site:</b>	NW NE SEC 30 T4N R67W 6th P.M.	<b>MD Reference:</b>	KB-EST @ 4990.0usft (Original Well Elev)
<b>Site Error:</b>	0.0 usft	<b>North Reference:</b>	True
<b>Reference Well:</b>	OLSON 30R-243	<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 #2	<b>Offset TVD Reference:</b>	Offset Datum

Offset Design												Offset Site Error:	0.0 usft
Survey Program: 100-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	
9,400.0	7,115.7	7,096.3	7,094.7	38.8	2.6	89.17	-2,390.2	338.6	843.3	802.5	40.87	20.634	
9,448.8	7,115.6	7,096.3	7,094.7	39.7	2.6	89.16	-2,390.2	338.6	795.2	753.5	41.70	19.069	
9,500.0	7,115.5	7,096.2	7,094.6	40.5	2.6	89.15	-2,390.2	338.6	744.8	702.2	42.57	17.495	
9,547.2	7,115.3	7,096.2	7,094.6	41.3	2.6	89.14	-2,390.2	338.6	698.4	655.0	43.38	16.099	
9,600.0	7,115.2	7,096.2	7,094.6	42.2	2.6	89.12	-2,390.2	338.6	646.7	602.4	44.29	14.602	
9,645.6	7,115.1	7,096.1	7,094.5	43.0	2.6	89.11	-2,390.2	338.6	602.1	557.1	45.08	13.357	
9,700.0	7,115.0	7,096.1	7,094.5	44.0	2.6	89.10	-2,390.2	338.6	549.3	503.3	46.02	11.935	
9,744.1	7,114.8	7,096.1	7,094.5	44.7	2.6	89.09	-2,390.2	338.6	506.7	459.9	46.80	10.828	
9,800.0	7,114.7	7,096.0	7,094.4	45.7	2.6	89.07	-2,390.2	338.6	453.1	405.3	47.77	9.483	
9,842.5	7,114.6	7,096.0	7,094.4	46.5	2.6	89.06	-2,390.2	338.6	412.7	364.2	48.52	8.505	
9,900.0	7,114.5	7,096.0	7,094.4	47.5	2.6	89.05	-2,390.2	338.6	358.9	309.3	49.54	7.244	
9,940.9	7,114.4	7,095.9	7,094.4	48.2	2.6	89.04	-2,390.2	338.6	321.3	271.1	50.26	6.393	
10,000.0	7,114.2	7,095.9	7,094.3	49.2	2.6	89.02	-2,390.2	338.6	268.9	217.6	51.31	5.240	
10,039.3	7,114.1	7,095.9	7,094.3	49.9	2.6	89.01	-2,390.2	338.6	235.7	183.7	52.02	4.532	
10,100.0	7,114.0	7,095.9	7,094.3	51.0	2.6	88.99	-2,390.2	338.6	189.3	136.2	53.10	3.564	
10,137.8	7,113.9	7,095.8	7,094.2	51.7	2.6	88.98	-2,390.2	338.6	165.1	111.3	53.78	3.069	
10,200.0	7,113.7	7,095.8	7,094.2	52.8	2.6	88.97	-2,390.2	338.6	139.1	84.2	54.89	2.533	
10,232.4	7,113.6	7,095.8	7,094.2	53.4	2.6	88.96	-2,390.2	338.6	135.2	79.8	55.48	2.438 CC	
10,236.2	7,113.6	7,095.8	7,094.2	53.4	2.6	88.96	-2,390.2	338.6	135.3	79.7	55.55	2.436 ES, SF	
10,300.0	7,113.5	7,095.7	7,094.1	54.6	2.6	88.94	-2,390.2	338.6	151.2	94.5	56.70	2.667	
10,334.6	7,113.4	7,095.7	7,094.1	55.2	2.6	88.93	-2,390.2	338.6	169.5	112.2	57.32	2.957	
10,400.0	7,113.2	7,095.7	7,094.1	56.4	2.6	88.91	-2,390.2	338.6	215.3	156.8	58.51	3.681	
10,433.0	7,113.1	7,095.6	7,094.0	57.0	2.6	88.91	-2,390.2	338.6	242.0	182.9	59.11	4.093	
10,500.0	7,113.0	7,095.6	7,094.0	58.2	2.6	88.89	-2,390.2	338.6	299.8	239.5	60.33	4.970	
10,531.5	7,112.9	7,095.6	7,094.0	58.8	2.6	88.88	-2,390.2	338.6	328.2	267.3	60.90	5.389	
10,600.0	7,112.7	7,095.5	7,093.9	60.0	2.6	88.86	-2,390.2	338.6	391.7	329.5	62.15	6.302	
10,629.9	7,112.6	7,095.5	7,093.9	60.6	2.6	88.85	-2,390.2	338.6	419.9	357.2	62.70	6.697	
10,700.0	7,112.5	7,095.5	7,093.9	61.9	2.6	88.83	-2,390.2	338.6	486.8	422.8	63.98	7.608	
10,728.3	7,112.4	7,095.5	7,093.9	62.4	2.6	88.83	-2,390.2	338.6	514.0	449.5	64.50	7.969	
10,800.0	7,112.2	7,095.4	7,093.8	63.7	2.6	88.81	-2,390.2	338.6	583.5	517.7	65.82	8.865	
10,826.7	7,112.1	7,095.4	7,093.8	64.2	2.6	88.80	-2,390.2	338.6	609.5	543.2	66.31	9.192	
10,900.0	7,111.9	7,095.3	7,093.7	65.5	2.6	88.78	-2,390.2	338.6	681.1	613.5	67.66	10.068	
10,925.2	7,111.9	7,095.3	7,093.7	66.0	2.6	88.77	-2,390.2	338.6	705.8	637.7	68.12	10.362	
11,000.0	7,111.7	7,095.3	7,093.7	67.4	2.6	88.75	-2,390.2	338.6	779.4	709.9	69.50	11.215	
11,023.6	7,111.6	7,095.3	7,093.7	67.8	2.6	88.74	-2,390.2	338.6	802.7	732.7	69.94	11.477	
11,100.0	7,111.4	7,095.2	7,093.6	69.2	2.6	88.72	-2,390.2	338.6	878.1	806.7	71.35	12.307	
11,122.0	7,111.4	7,095.2	7,093.6	69.6	2.6	88.72	-2,390.2	338.6	899.8	828.1	71.76	12.540	
11,200.0	7,111.2	7,095.1	7,093.5	71.1	2.6	88.69	-2,390.2	338.6	977.0	903.8	73.20	13.347	
11,220.4	7,111.1	7,095.1	7,093.5	71.4	2.6	88.69	-2,390.2	338.6	997.2	923.7	73.58	13.553	
11,300.0	7,110.9	7,095.1	7,093.5	72.9	2.6	88.66	-2,390.2	338.6	1,076.1	1,001.1	75.06	14.338	
11,318.9	7,110.9	7,095.1	7,093.5	73.3	2.6	88.66	-2,390.2	338.6	1,094.8	1,019.4	75.41	14.519	
11,400.0	7,110.7	7,095.0	7,093.4	74.8	2.6	88.63	-2,390.2	338.6	1,175.4	1,098.5	76.91	15.282	
11,417.3	7,110.6	7,095.0	7,093.4	75.1	2.6	88.63	-2,390.2	338.6	1,192.6	1,115.3	77.24	15.441	
11,500.0	7,110.4	7,095.0	7,093.4	76.6	2.6	88.61	-2,390.2	338.6	1,274.8	1,196.0	78.78	16.182	
11,515.7	7,110.4	7,094.9	7,093.3	76.9	2.6	88.60	-2,390.2	338.6	1,290.4	1,211.3	79.07	16.320	
11,600.0	7,110.2	7,094.9	7,093.3	78.5	2.6	88.58	-2,390.2	338.6	1,374.3	1,293.6	80.64	17.042	
11,614.1	7,110.1	7,094.9	7,093.3	78.7	2.6	88.57	-2,390.2	338.6	1,388.3	1,307.4	80.90	17.160	
11,668.5	7,110.0	7,094.8	7,093.2	79.8	2.6	88.56	-2,390.2	338.6	1,442.5	1,360.5	81.92	17.608	

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 OLSON 30R-243
<b>Project:</b>	WELD COUNTY, COLORADO	<b>TVD Reference:</b>	KB-EST @ 4990.0usft (Original Well Elev)
<b>Reference Site:</b>	NW NE SEC 30 T4N R67W 6th P.M.	<b>MD Reference:</b>	KB-EST @ 4990.0usft (Original Well Elev)
<b>Site Error:</b>	0.0 usft	<b>North Reference:</b>	True
<b>Reference Well:</b>	OLSON 30R-243	<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 #2	<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	-87.91	1.1	-30.1	30.1				
98.4	98.4	98.4	98.4	0.1	0.1	-87.91	1.1	-30.1	30.1	30.0	0.17	177.416	
100.0	100.0	100.0	100.0	0.1	0.1	-87.91	1.1	-30.1	30.1	30.0	0.17	174.205	
196.8	196.8	196.8	196.8	0.3	0.3	-87.91	1.1	-30.1	30.1	29.5	0.61	49.552	
200.0	200.0	200.0	200.0	0.3	0.3	-87.91	1.1	-30.1	30.1	29.5	0.62	48.425	
295.3	295.3	295.3	295.3	0.5	0.5	-87.91	1.1	-30.1	30.1	29.1	1.05	28.689	
300.0	300.0	300.0	300.0	0.5	0.5	-87.91	1.1	-30.1	30.1	29.1	1.07	28.121	
393.7	393.7	393.7	393.7	0.7	0.7	-87.91	1.1	-30.1	30.1	28.7	1.49	20.189	
400.0	400.0	400.0	400.0	0.8	0.8	-87.91	1.1	-30.1	30.1	28.6	1.52	19.814	
492.1	492.1	492.1	492.1	1.0	1.0	-87.91	1.1	-30.1	30.1	28.2	1.94	15.575	
500.0	500.0	500.0	500.0	1.0	1.0	-87.91	1.1	-30.1	30.1	28.2	1.97	15.295	
590.5	590.5	590.5	590.5	1.2	1.2	-87.91	1.1	-30.1	30.1	27.8	2.38	12.677	
600.0	600.0	600.0	600.0	1.2	1.2	-87.91	1.1	-30.1	30.1	27.7	2.42	12.455	
689.0	689.0	689.0	689.0	1.4	1.4	-87.91	1.1	-30.1	30.1	27.3	2.82	10.689	
700.0	700.0	700.0	700.0	1.4	1.4	-87.91	1.1	-30.1	30.1	27.3	2.87	10.504	
787.4	787.4	787.4	787.4	1.6	1.6	-87.91	1.1	-30.1	30.1	26.9	3.26	9.239	
800.0	800.0	800.0	800.0	1.7	1.7	-87.91	1.1	-30.1	30.1	26.8	3.32	9.082	
885.8	885.8	885.8	885.8	1.9	1.9	-87.91	1.1	-30.1	30.1	26.4	3.71	8.136	
900.0	900.0	900.0	900.0	1.9	1.9	-87.91	1.1	-30.1	30.1	26.4	3.77	7.999	
984.2	984.2	984.2	984.2	2.1	2.1	-87.91	1.1	-30.1	30.1	26.0	4.15	7.268	
1,000.0	1,000.0	1,000.0	1,000.0	2.1	2.1	-87.91	1.1	-30.1	30.1	25.9	4.22	7.146	
1,082.7	1,082.7	1,082.7	1,082.7	2.3	2.3	-87.91	1.1	-30.1	30.1	25.6	4.59	6.568	
1,100.0	1,100.0	1,100.0	1,100.0	2.3	2.3	-87.91	1.1	-30.1	30.1	25.5	4.67	6.458	
1,181.1	1,181.1	1,181.1	1,181.1	2.5	2.5	-87.91	1.1	-30.1	30.1	25.1	5.03	5.990	
1,200.0	1,200.0	1,200.0	1,200.0	2.6	2.6	-87.91	1.1	-30.1	30.1	25.0	5.12	5.891	
1,279.5	1,279.5	1,279.5	1,279.5	2.7	2.7	-87.91	1.1	-30.1	30.1	24.7	5.48	5.506	
1,300.0	1,300.0	1,300.0	1,300.0	2.8	2.8	-87.91	1.1	-30.1	30.1	24.6	5.57	5.415	
1,377.9	1,377.9	1,377.9	1,377.9	3.0	3.0	-87.91	1.1	-30.1	30.1	24.2	5.92	5.095	
1,400.0	1,400.0	1,400.0	1,400.0	3.0	3.0	-87.91	1.1	-30.1	30.1	24.1	6.02	5.011	
1,476.4	1,476.4	1,476.4	1,476.4	3.2	3.2	-87.91	1.1	-30.1	30.1	23.8	6.36	4.740	
1,500.0	1,500.0	1,500.0	1,500.0	3.2	3.2	-87.91	1.1	-30.1	30.1	23.7	6.47	4.662	
1,574.8	1,574.8	1,574.8	1,574.8	3.4	3.4	-87.91	1.1	-30.1	30.1	23.3	6.80	4.432	
1,600.0	1,600.0	1,600.0	1,600.0	3.5	3.5	-87.91	1.1	-30.1	30.1	23.2	6.92	4.359	
1,673.2	1,673.2	1,673.2	1,673.2	3.6	3.6	-87.91	1.1	-30.1	30.1	22.9	7.25	4.161	
1,700.0	1,700.0	1,700.0	1,700.0	3.7	3.7	-87.91	1.1	-30.1	30.1	22.8	7.37	4.093	
1,771.6	1,771.6	1,771.6	1,771.6	3.8	3.8	-87.91	1.1	-30.1	30.1	22.5	7.69	3.922	
1,800.0	1,800.0	1,800.0	1,800.0	3.9	3.9	-87.91	1.1	-30.1	30.1	22.3	7.82	3.858	
1,870.1	1,870.1	1,870.1	1,870.1	4.1	4.1	-87.91	1.1	-30.1	30.1	22.0	8.13	3.708	
1,900.0	1,900.0	1,900.0	1,900.0	4.1	4.1	-87.91	1.1	-30.1	30.1	21.9	8.26	3.648	
1,950.0	1,950.0	1,950.0	1,950.0	4.2	4.2	-87.91	1.1	-30.1	30.1	21.7	8.49	3.551 CC	
1,968.5	1,968.5	1,968.5	1,968.5	4.3	4.3	-115.78	1.1	-30.1	30.2	21.6	8.57	3.520 ES	
2,000.0	2,000.0	2,000.0	2,000.0	4.4	4.4	-116.42	1.1	-30.1	30.3	21.6	8.71	3.482	
2,066.9	2,066.9	2,066.9	2,066.9	4.5	4.5	-119.61	1.1	-30.1	31.3	22.2	9.01	3.469	
2,100.0	2,099.9	2,099.9	2,099.9	4.6	4.6	-121.99	1.1	-30.1	32.0	22.9	9.16	3.500	
2,165.3	2,165.1	2,165.2	2,165.2	4.7	4.7	-127.76	1.1	-30.1	34.4	25.0	9.44	3.647	
2,200.0	2,199.7	2,199.8	2,199.8	4.8	4.8	-130.65	1.5	-30.1	36.1	26.5	9.59	3.767	
2,263.8	2,263.1	2,263.7	2,263.6	4.9	5.0	-134.90	3.4	-30.1	39.9	30.1	9.86	4.047	
2,300.0	2,299.1	2,299.9	2,299.9	5.0	5.0	-136.74	5.0	-30.1	42.4	32.4	10.02	4.233	
2,362.2	2,360.8	2,362.3	2,362.1	5.2	5.2	-139.06	9.0	-30.1	47.2	36.9	10.28	4.588	
2,400.0	2,398.2	2,400.2	2,399.8	5.3	5.3	-140.04	12.0	-30.1	50.3	39.9	10.44	4.823	
2,460.6	2,457.9	2,461.0	2,460.4	5.4	5.4	-141.04	18.0	-30.1	55.9	45.2	10.70	5.221	
2,500.0	2,496.6	2,500.5	2,499.6	5.5	5.5	-141.39	22.5	-30.0	59.7	48.8	10.87	5.494	

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 OLSON 30R-243
<b>Project:</b>	WELD COUNTY, COLORADO	<b>TVD Reference:</b>	KB-EST @ 4990.0usft (Original Well Elev)
<b>Reference Site:</b>	NW NE SEC 30 T4N R67W 6th P.M.	<b>MD Reference:</b>	KB-EST @ 4990.0usft (Original Well Elev)
<b>Site Error:</b>	0.0 usft	<b>North Reference:</b>	True
<b>Reference Well:</b>	OLSON 30R-243	<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 #2	<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	
2,559.0	2,554.5	2,559.8	2,558.4	5.7	5.6	-141.57	30.4	-30.0	65.8	54.7	11.13	5.916	
2,600.0	2,594.4	2,600.9	2,599.0	5.8	5.7	-141.49	36.5	-30.0	70.4	59.1	11.31	6.222	
2,657.5	2,650.3	2,658.5	2,655.9	6.0	5.9	-141.17	46.1	-29.9	77.1	65.5	11.58	6.654	
2,700.0	2,691.5	2,701.2	2,697.8	6.1	6.0	-140.80	54.0	-29.9	82.3	70.5	11.78	6.986	
2,730.9	2,721.3	2,732.3	2,728.3	6.2	6.1	-140.48	60.1	-29.9	86.3	74.3	11.94	7.225	
2,755.9	2,745.3	2,757.3	2,752.8	6.3	6.1	-140.19	65.2	-29.9	89.5	77.4	12.08	7.405	
2,800.0	2,787.8	2,801.6	2,796.0	6.5	6.3	-139.43	74.9	-29.8	94.9	82.6	12.34	7.693	
2,854.3	2,840.1	2,856.2	2,849.1	6.7	6.4	-138.10	87.7	-29.8	101.3	88.6	12.68	7.988	
2,900.0	2,884.1	2,902.0	2,893.4	6.9	6.6	-136.72	99.2	-29.7	106.4	93.5	12.98	8.201	
2,952.7	2,934.9	2,954.3	2,944.0	7.1	6.7	-135.20	112.5	-29.7	112.4	99.0	13.35	8.420	
3,000.0	2,980.4	3,001.2	2,989.3	7.3	6.9	-133.97	124.5	-29.6	117.8	104.1	13.68	8.609	
3,051.2	3,029.7	3,052.0	3,038.4	7.5	7.1	-132.76	137.4	-29.6	123.6	109.6	14.06	8.796	
3,100.0	3,076.7	3,100.4	3,085.2	7.7	7.3	-131.70	149.8	-29.5	129.3	114.9	14.42	8.968	
3,149.6	3,124.5	3,149.6	3,132.8	7.9	7.5	-130.72	162.3	-29.4	135.1	120.3	14.80	9.126	
3,200.0	3,173.0	3,199.6	3,181.2	8.1	7.6	-129.81	175.1	-29.4	141.0	125.8	15.20	9.280	
3,248.0	3,219.3	3,247.3	3,227.2	8.4	7.8	-129.01	187.3	-29.3	146.7	131.1	15.58	9.413	
3,300.0	3,269.4	3,298.8	3,277.1	8.6	8.0	-128.20	200.4	-29.3	152.9	136.9	16.00	9.552	
3,346.4	3,314.1	3,344.9	3,321.7	8.8	8.2	-127.54	212.2	-29.2	158.4	142.0	16.39	9.664	
3,400.0	3,365.7	3,398.0	3,373.0	9.1	8.4	-126.83	225.7	-29.2	164.8	148.0	16.84	9.788	
3,444.9	3,408.9	3,442.6	3,416.1	9.3	8.6	-126.28	237.1	-29.1	170.2	153.0	17.22	9.883	
3,500.0	3,462.0	3,497.3	3,469.0	9.5	8.9	-125.65	251.0	-29.1	176.8	159.1	17.69	9.994	
3,543.3	3,503.7	3,540.2	3,510.5	9.7	9.0	-125.18	262.0	-29.0	182.1	164.0	18.07	10.074	
3,600.0	3,558.3	3,596.5	3,564.9	10.0	9.3	-124.61	276.3	-29.0	188.9	170.4	18.57	10.174	
3,641.7	3,598.5	3,637.9	3,604.9	10.2	9.5	-124.22	286.9	-28.9	194.0	175.1	18.94	10.242	
3,700.0	3,654.6	3,695.7	3,660.8	10.5	9.7	-123.70	301.6	-28.9	201.1	181.6	19.46	10.332	
3,740.1	3,693.2	3,735.5	3,699.3	10.7	9.9	-123.37	311.8	-28.8	206.0	186.1	19.83	10.389	
3,800.0	3,750.9	3,794.9	3,756.8	11.0	10.2	-122.89	326.9	-28.7	213.3	192.9	20.37	10.470	
3,838.6	3,788.0	3,833.2	3,793.8	11.2	10.3	-122.61	336.7	-28.7	218.0	197.3	20.72	10.519	
3,900.0	3,847.2	3,894.1	3,852.7	11.5	10.6	-122.18	352.2	-28.6	225.5	204.2	21.29	10.593	
3,937.0	3,882.8	3,930.8	3,888.2	11.7	10.8	-121.93	361.6	-28.6	230.0	208.4	21.63	10.634	
4,000.0	3,943.5	3,993.3	3,948.6	12.0	11.1	-121.53	377.5	-28.5	237.8	215.5	22.22	10.701	
4,035.4	3,977.6	4,028.5	3,982.6	12.2	11.2	-121.32	386.5	-28.5	242.1	219.6	22.55	10.736	
4,100.0	4,039.8	4,092.5	4,044.6	12.5	11.5	-120.95	402.8	-28.4	250.0	226.9	23.16	10.797	
4,133.8	4,072.4	4,126.1	4,077.0	12.7	11.7	-120.76	411.4	-28.4	254.2	230.7	23.48	10.827	
4,200.0	4,136.1	4,191.7	4,140.5	13.0	12.0	-120.42	428.1	-28.3	262.3	238.2	24.11	10.883	
4,232.3	4,167.2	4,223.8	4,171.5	13.2	12.2	-120.26	436.3	-28.3	266.3	241.9	24.41	10.909	
4,300.0	4,232.4	4,290.9	4,236.4	13.5	12.5	-119.94	453.4	-28.2	274.7	249.6	25.06	10.960	
4,330.7	4,262.0	4,321.4	4,265.9	13.7	12.6	-119.80	461.2	-28.2	278.5	253.1	25.36	10.982	
4,400.0	4,328.7	4,390.2	4,332.4	14.0	13.0	-119.50	478.7	-28.1	287.0	261.0	26.02	11.030	
4,429.1	4,356.8	4,419.1	4,360.3	14.2	13.1	-119.38	486.1	-28.1	290.6	264.3	26.30	11.048	
4,500.0	4,425.0	4,489.4	4,428.3	14.6	13.4	-119.10	504.0	-28.0	299.4	272.4	26.99	11.092	
4,527.5	4,451.6	4,516.7	4,454.7	14.7	13.6	-118.99	511.0	-28.0	302.8	275.5	27.26	11.108	
4,600.0	4,521.4	4,588.6	4,524.2	15.1	13.9	-118.73	529.3	-27.9	311.8	283.8	27.96	11.149	
4,626.0	4,546.4	4,614.4	4,549.1	15.2	14.0	-118.64	535.9	-27.9	315.0	286.8	28.22	11.162	
4,700.0	4,617.7	4,687.8	4,620.1	15.6	14.4	-118.39	554.6	-27.8	324.1	295.2	28.94	11.200	
4,724.4	4,641.2	4,712.0	4,643.6	15.7	14.5	-118.31	560.8	-27.8	327.2	298.0	29.18	11.212	
4,800.0	4,714.0	4,787.0	4,716.1	16.1	14.9	-118.07	579.9	-27.7	336.5	306.6	29.92	11.247	
4,822.8	4,735.9	4,809.7	4,738.0	16.3	15.0	-118.00	585.7	-27.6	339.4	309.2	30.15	11.257	
4,900.0	4,810.3	4,886.2	4,812.0	16.7	15.4	-117.77	605.2	-27.6	348.9	318.0	30.91	11.289	
4,921.2	4,830.7	4,907.3	4,832.4	16.8	15.5	-117.71	610.6	-27.5	351.6	320.5	31.12	11.298	
5,000.0	4,906.6	4,985.4	4,907.9	17.2	15.9	-117.50	630.5	-27.5	361.4	329.5	31.90	11.328	
5,019.7	4,925.5	5,005.0	4,926.8	17.3	16.0	-117.45	635.5	-27.4	363.8	331.7	32.09	11.336	

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 OLSON 30R-243
<b>Project:</b>	WELD COUNTY, COLORADO	<b>TVD Reference:</b>	KB-EST @ 4990.0usft (Original Well Elev)
<b>Reference Site:</b>	NW NE SEC 30 T4N R67W 6th P.M.	<b>MD Reference:</b>	KB-EST @ 4990.0usft (Original Well Elev)
<b>Site Error:</b>	0.0 usft	<b>North Reference:</b>	True
<b>Reference Well:</b>	OLSON 30R-243	<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 #2	<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	
5,100.0	5,002.9	5,084.6	5,003.9	17.7	16.4	-117.24	655.8	-27.3	373.8	340.9	32.89	11.364	
5,118.1	5,020.3	5,102.6	5,021.2	17.8	16.5	-117.20	660.4	-27.3	376.0	343.0	33.07	11.370	
5,200.0	5,099.2	5,183.9	5,099.8	18.3	16.9	-117.00	681.1	-27.2	386.2	352.3	33.89	11.397	
5,216.5	5,115.1	5,200.3	5,115.7	18.3	16.9	-116.97	685.3	-27.2	388.3	354.2	34.05	11.402	
5,300.0	5,195.5	5,283.1	5,195.7	18.8	17.4	-116.78	706.4	-27.1	398.6	363.8	34.88	11.428	
5,314.9	5,209.9	5,297.9	5,210.1	18.9	17.4	-116.75	710.2	-27.1	400.5	365.5	35.03	11.432	
5,400.0	5,291.8	5,382.3	5,291.7	19.3	17.8	-116.57	731.8	-27.0	411.1	375.2	35.89	11.456	
5,413.4	5,304.7	5,395.6	5,304.5	19.4	17.9	-116.54	735.1	-27.0	412.8	376.7	36.02	11.459	
5,500.0	5,388.1	5,481.5	5,387.6	19.9	18.3	-116.37	757.1	-26.9	423.5	386.6	36.89	11.482	
5,511.8	5,399.5	5,493.2	5,398.9	19.9	18.4	-116.35	760.0	-26.9	425.0	388.0	37.01	11.485	
5,600.0	5,484.4	5,580.7	5,483.5	20.4	18.8	-116.18	782.4	-26.8	436.0	398.1	37.89	11.506	
5,610.2	5,494.3	5,590.8	5,493.3	20.4	18.9	-116.16	784.9	-26.8	437.3	399.3	38.00	11.508	
5,700.0	5,580.7	5,679.9	5,579.5	20.9	19.3	-116.01	807.7	-26.7	448.4	409.5	38.90	11.528	
5,708.6	5,589.1	5,688.5	5,587.8	21.0	19.4	-115.99	809.8	-26.7	449.5	410.5	38.99	11.530	
5,722.6	5,602.5	5,702.4	5,601.2	21.0	19.5	-115.97	813.4	-26.7	451.3	412.1	39.13	11.533	
5,800.0	5,677.3	5,779.2	5,675.6	21.4	19.8	-115.91	832.8	-26.6	460.4	420.6	39.86	11.552	
5,807.1	5,684.2	5,786.3	5,682.4	21.4	19.9	-115.90	834.5	-26.6	461.2	421.3	39.92	11.554	
5,900.0	5,774.7	5,879.0	5,772.7	21.8	20.2	-115.81	855.4	-26.5	470.9	430.3	40.63	11.591	
5,905.5	5,780.1	5,884.5	5,778.0	21.8	20.2	-115.80	856.6	-26.5	471.5	430.8	40.67	11.593	
6,000.0	5,872.9	5,978.9	5,870.7	22.1	20.5	-115.72	874.7	-26.4	479.9	438.5	41.32	11.614	
6,003.9	5,876.7	5,982.9	5,874.6	22.1	20.6	-115.72	875.4	-26.4	480.2	438.8	41.34	11.615	
6,100.0	5,971.6	6,079.1	5,969.6	22.4	20.8	-115.66	890.5	-26.4	487.2	445.3	41.92	11.621	
6,102.3	5,973.9	6,081.5	5,972.0	22.4	20.8	-115.66	890.9	-26.3	487.3	445.4	41.94	11.621	
6,200.0	6,070.8	6,179.4	6,069.2	22.7	21.1	-115.61	903.0	-26.3	492.9	450.5	42.45	11.612	
6,200.8	6,071.6	6,180.2	6,070.0	22.7	21.1	-115.61	903.0	-26.3	493.0	450.5	42.45	11.612	
6,299.2	6,169.6	6,279.1	6,168.5	22.9	21.3	-115.58	911.8	-26.3	497.0	454.1	42.89	11.589	
6,300.0	6,170.4	6,279.9	6,169.3	22.9	21.3	-115.58	911.9	-26.3	497.0	454.1	42.89	11.588	
6,397.6	6,267.9	6,378.1	6,267.3	23.1	21.5	-115.56	917.2	-26.2	499.5	456.2	43.24	11.552	
6,400.0	6,270.3	6,380.4	6,269.7	23.1	21.5	-115.56	917.3	-26.2	499.5	456.3	43.25	11.550	
6,496.0	6,366.3	6,477.1	6,366.3	23.2	21.6	-115.56	919.2	-26.2	500.4	456.9	43.51	11.500	
6,503.5	6,373.8	6,484.6	6,373.8	23.2	21.6	-87.79	919.2	-26.2	500.4	456.9	43.53	11.495	
6,533.5	6,403.8	6,514.6	6,403.8	23.2	21.7	-87.79	919.2	-26.2	500.4	456.8	43.61	11.475	
6,550.0	6,420.3	6,531.5	6,420.7	23.2	21.7	92.21	919.0	-26.2	500.4	456.8	43.64	11.465	
6,594.5	6,464.7	6,577.2	6,466.3	23.3	21.7	92.20	916.5	-26.2	500.4	456.7	43.69	11.453	
6,600.0	6,470.2	6,582.9	6,472.0	23.3	21.7	92.20	915.9	-26.2	500.4	456.7	43.70	11.452	
6,650.0	6,519.8	6,634.3	6,522.9	23.3	21.7	92.18	909.2	-26.2	500.4	456.7	43.66	11.461	
6,692.9	6,561.9	6,678.3	6,566.1	23.2	21.7	92.15	900.6	-26.2	500.4	456.8	43.57	11.486	
6,700.0	6,568.8	6,685.6	6,573.2	23.2	21.7	92.15	898.9	-26.2	500.4	456.8	43.55	11.491	
6,750.0	6,617.0	6,737.0	6,622.6	23.1	21.6	92.11	885.0	-26.2	500.4	457.0	43.35	11.541	
6,791.3	6,656.1	6,779.4	6,662.6	23.0	21.4	92.06	870.8	-26.2	500.4	457.2	43.14	11.600	
6,800.0	6,664.2	6,788.3	6,670.8	23.0	21.4	92.05	867.5	-26.2	500.4	457.3	43.09	11.612	
6,850.0	6,710.1	6,839.5	6,717.7	22.9	21.3	91.99	846.7	-26.2	500.3	457.6	42.75	11.702	
6,889.7	6,745.5	6,880.2	6,753.8	22.7	21.1	91.94	827.9	-26.2	500.3	457.9	42.44	11.788	
6,900.0	6,754.5	6,890.7	6,762.9	22.7	21.1	91.92	822.7	-26.2	500.3	457.9	42.36	11.810	
6,950.0	6,797.2	6,941.9	6,806.2	22.5	20.8	91.84	795.5	-26.2	500.3	458.4	41.92	11.935	
6,988.2	6,828.5	6,980.9	6,837.9	22.3	20.7	91.77	772.7	-26.2	500.3	458.7	41.55	12.041	
7,000.0	6,838.0	6,993.0	6,847.4	22.3	20.6	91.75	765.3	-26.2	500.3	458.8	41.43	12.075	
7,050.0	6,876.7	7,044.1	6,886.3	22.0	20.3	91.65	732.2	-26.2	500.2	459.3	40.91	12.227	
7,086.6	6,903.5	7,081.4	6,913.3	21.8	20.2	91.57	706.4	-26.2	500.2	459.7	40.52	12.345	
7,100.0	6,913.0	7,095.0	6,922.8	21.8	20.1	91.54	696.6	-26.2	500.2	459.8	40.38	12.389	
7,150.0	6,946.9	7,146.0	6,956.5	21.5	19.8	91.42	658.5	-26.2	500.2	460.4	39.83	12.558	
7,185.0	6,969.1	7,181.6	6,978.5	21.3	19.6	91.34	630.4	-26.2	500.2	460.7	39.45	12.679	

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 OLSON 30R-243
<b>Project:</b>	WELD COUNTY, COLORADO	<b>TVD Reference:</b>	KB-EST @ 4990.0usft (Original Well Elev)
<b>Reference Site:</b>	NW NE SEC 30 T4N R67W 6th P.M.	<b>MD Reference:</b>	KB-EST @ 4990.0usft (Original Well Elev)
<b>Site Error:</b>	0.0 usft	<b>North Reference:</b>	True
<b>Reference Well:</b>	OLSON 30R-243	<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 #2	<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
7,200.0	6,978.2	7,196.8	6,987.4	21.2	19.6	91.30	618.1	-26.2	500.2	460.9	39.29	12.731	
7,250.0	7,006.6	7,247.5	7,015.3	21.0	19.3	91.17	575.8	-26.2	500.1	461.4	38.76	12.902	
7,283.4	7,024.0	7,281.4	7,032.3	20.8	19.1	91.08	546.4	-26.2	500.1	461.7	38.43	13.013	
7,300.0	7,032.1	7,298.2	7,040.2	20.7	19.1	91.04	531.6	-26.2	500.1	461.8	38.27	13.069	
7,350.0	7,054.6	7,348.8	7,061.8	20.4	18.8	90.90	485.9	-26.2	500.1	462.3	37.82	13.224	
7,381.9	7,067.2	7,381.0	7,073.8	20.3	18.7	90.81	456.0	-26.2	500.1	462.5	37.56	13.313	
7,400.0	7,073.8	7,399.3	7,080.1	20.2	18.7	90.75	438.8	-26.2	500.1	462.7	37.42	13.365	
7,450.0	7,089.9	7,449.7	7,095.0	19.9	18.5	90.61	390.7	-26.2	500.1	463.0	37.08	13.484	
7,480.3	7,097.9	7,480.2	7,102.3	19.8	18.4	90.52	361.1	-26.2	500.0	463.1	36.93	13.541	
7,500.0	7,102.5	7,500.0	7,106.4	19.7	18.4	90.46	341.7	-26.2	500.0	463.2	36.83	13.579	
7,550.0	7,111.8	7,550.2	7,114.4	19.5	18.3	90.30	292.2	-26.2	500.0	463.4	36.65	13.644	
7,578.7	7,115.6	7,579.0	7,117.4	19.4	18.3	90.22	263.5	-26.2	500.0	463.4	36.60	13.664	
7,600.0	7,117.6	7,600.3	7,118.9	19.3	18.3	90.15	242.2	-26.2	500.0	463.5	36.56	13.678	
7,649.2	7,119.9	7,649.5	7,120.0	19.1	18.3	90.00	193.1	-26.2	500.0	463.5	36.56	13.678	
7,650.0	7,119.9	7,650.4	7,120.0	19.1	18.3	90.00	192.2	-26.2	500.0	463.5	36.56	13.677	
7,660.3	7,120.0	7,660.6	7,119.9	19.1	18.3	89.99	182.0	-26.2	500.0	463.5	36.57	13.672	
7,677.1	7,120.0	7,677.5	7,119.9	19.0	18.3	89.99	165.1	-26.2	500.0	463.4	36.61	13.660	
7,700.0	7,119.9	7,700.4	7,119.9	19.0	18.4	89.99	142.2	-26.2	500.0	463.4	36.65	13.643	
7,775.6	7,119.7	7,775.9	7,119.7	18.8	18.6	89.99	66.7	-26.2	500.0	463.0	37.02	13.505	
7,800.0	7,119.7	7,800.4	7,119.6	18.8	18.6	89.99	42.2	-26.2	500.0	462.9	37.15	13.461	
7,874.0	7,119.5	7,874.4	7,119.4	18.9	19.0	89.99	-31.8	-26.2	500.0	462.2	37.79	13.230	
7,900.0	7,119.4	7,900.4	7,119.4	19.0	19.1	89.99	-57.8	-26.2	500.0	462.0	38.02	13.151	
7,972.4	7,119.2	7,972.8	7,119.2	19.4	19.6	89.99	-130.2	-26.2	500.0	461.1	38.92	12.849	
8,000.0	7,119.2	8,000.4	7,119.1	19.5	19.7	89.99	-157.8	-26.2	500.0	460.8	39.26	12.737	
8,070.8	7,119.0	8,071.2	7,118.9	20.1	20.3	89.99	-228.6	-26.2	500.0	459.7	40.36	12.388	
8,100.0	7,118.9	8,100.4	7,118.9	20.4	20.5	89.99	-257.8	-26.2	500.0	459.2	40.82	12.250	
8,169.3	7,118.7	8,169.6	7,118.7	21.1	21.2	89.99	-327.0	-26.2	500.0	457.9	42.10	11.877	
8,200.0	7,118.7	8,200.4	7,118.6	21.4	21.5	89.99	-357.8	-26.2	500.0	457.4	42.67	11.719	
8,267.7	7,118.5	8,268.1	7,118.5	22.1	22.2	89.99	-425.5	-26.2	500.0	455.9	44.09	11.341	
8,300.0	7,118.4	8,300.4	7,118.4	22.5	22.5	89.99	-457.8	-26.2	500.0	455.3	44.77	11.168	
8,366.1	7,118.3	8,366.5	7,118.2	23.3	23.3	89.99	-523.9	-26.2	500.0	453.7	46.31	10.798	
8,400.0	7,118.2	8,400.4	7,118.1	23.7	23.7	89.99	-557.8	-26.2	500.0	452.9	47.10	10.617	
8,464.5	7,118.0	8,464.9	7,118.0	24.5	24.5	89.99	-622.3	-26.2	500.0	451.3	48.72	10.264	
8,500.0	7,117.9	8,500.4	7,117.9	25.0	25.0	89.99	-657.8	-26.2	500.0	450.4	49.61	10.080	
8,563.0	7,117.8	8,563.3	7,117.7	25.8	25.8	89.99	-720.7	-26.2	500.0	448.7	51.29	9.749	
8,600.0	7,117.7	8,600.4	7,117.6	26.3	26.3	89.99	-757.8	-26.2	500.0	447.7	52.28	9.564	
8,661.4	7,117.5	8,661.8	7,117.5	27.2	27.2	89.99	-819.2	-26.2	500.0	446.0	54.01	9.258	
8,700.0	7,117.4	8,700.4	7,117.4	27.7	27.7	89.99	-857.8	-26.2	500.0	444.9	55.09	9.076	
8,759.8	7,117.3	8,760.2	7,117.2	28.6	28.6	89.99	-917.6	-26.2	500.0	443.2	56.85	8.796	
8,800.0	7,117.2	8,800.4	7,117.1	29.2	29.2	89.99	-957.8	-26.2	500.0	442.0	58.03	8.617	
8,858.2	7,117.0	8,858.6	7,117.0	30.1	30.1	89.99	-1,016.0	-26.2	500.0	440.2	59.79	8.363	
8,900.0	7,116.9	8,900.4	7,116.9	30.7	30.7	89.99	-1,057.8	-26.2	500.0	439.0	61.06	8.190	
8,956.7	7,116.8	8,957.0	7,116.8	31.6	31.6	89.99	-1,114.4	-26.2	500.0	437.2	62.82	7.959	
9,000.0	7,116.7	9,000.4	7,116.7	32.3	32.3	89.99	-1,157.8	-26.2	500.0	435.9	64.18	7.792	
9,055.1	7,116.6	9,055.5	7,116.5	33.2	33.2	89.99	-1,212.9	-26.2	500.0	434.1	65.93	7.584	
9,100.0	7,116.5	9,100.4	7,116.4	33.9	33.9	89.99	-1,257.8	-26.2	500.0	432.7	67.37	7.422	
9,153.5	7,116.3	9,153.9	7,116.3	34.7	34.8	89.99	-1,311.3	-26.2	500.0	430.9	69.11	7.235	
9,200.0	7,116.2	9,200.4	7,116.2	35.5	35.5	89.99	-1,357.8	-26.2	500.0	429.4	70.63	7.080	
9,251.9	7,116.1	9,252.3	7,116.0	36.4	36.4	89.99	-1,409.7	-26.2	500.0	427.7	72.35	6.911	
9,300.0	7,116.0	9,300.4	7,115.9	37.2	37.2	89.99	-1,457.8	-26.2	500.0	426.1	73.94	6.763	
9,350.4	7,115.8	9,350.7	7,115.8	38.0	38.0	89.99	-1,508.1	-26.2	500.0	424.4	75.63	6.611	
9,400.0	7,115.7	9,400.4	7,115.7	38.8	38.9	89.99	-1,557.8	-26.2	500.0	422.7	77.30	6.468	

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 OLSON 30R-243
<b>Project:</b>	WELD COUNTY, COLORADO	<b>TVD Reference:</b>	KB-EST @ 4990.0usft (Original Well Elev)
<b>Reference Site:</b>	NW NE SEC 30 T4N R67W 6th P.M.	<b>MD Reference:</b>	KB-EST @ 4990.0usft (Original Well Elev)
<b>Site Error:</b>	0.0 usft	<b>North Reference:</b>	True
<b>Reference Well:</b>	OLSON 30R-243	<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 #2	<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
9,448.8	7,115.6	9,449.2	7,115.5	39.7	39.7	89.99	-1,606.6	-26.2	500.0	421.1	78.96	6.332	
9,500.0	7,115.5	9,500.4	7,115.4	40.5	40.6	89.99	-1,657.8	-26.2	500.0	419.3	80.71	6.196	
9,547.2	7,115.3	9,547.6	7,115.3	41.3	41.4	89.99	-1,705.0	-26.2	500.0	417.7	82.33	6.073	
9,600.0	7,115.2	9,600.4	7,115.2	42.2	42.3	89.99	-1,757.8	-26.2	500.0	415.9	84.15	5.942	
9,645.6	7,115.1	9,646.0	7,115.0	43.0	43.1	89.99	-1,803.4	-26.2	500.0	414.3	85.74	5.832	
9,700.0	7,115.0	9,700.4	7,114.9	44.0	44.0	89.99	-1,857.8	-26.2	500.0	412.4	87.63	5.706	
9,744.1	7,114.8	9,744.4	7,114.8	44.7	44.8	89.99	-1,901.8	-26.2	500.0	410.9	89.17	5.607	
9,800.0	7,114.7	9,800.4	7,114.7	45.7	45.8	89.99	-1,957.8	-26.2	500.0	408.9	91.13	5.487	
9,842.5	7,114.6	9,842.9	7,114.6	46.5	46.6	89.99	-2,000.3	-26.2	500.0	407.4	92.63	5.398	
9,900.0	7,114.5	9,900.4	7,114.4	47.5	47.6	89.99	-2,057.8	-26.2	500.0	405.4	94.66	5.282	
9,940.9	7,114.4	9,941.3	7,114.3	48.2	48.3	89.99	-2,098.7	-26.2	500.0	403.9	96.12	5.202	
10,000.0	7,114.2	10,000.4	7,114.2	49.2	49.3	90.00	-2,157.8	-26.2	500.0	401.8	98.22	5.091	
10,039.3	7,114.1	10,039.7	7,114.1	49.9	50.0	90.00	-2,197.1	-26.2	500.0	400.4	99.62	5.019	
10,100.0	7,114.0	10,100.4	7,113.9	51.0	51.1	90.00	-2,257.8	-26.2	500.0	398.2	101.79	4.912	
10,137.8	7,113.9	10,138.1	7,113.8	51.7	51.8	90.00	-2,295.5	-26.2	500.0	396.9	103.15	4.848	
10,200.0	7,113.7	10,200.4	7,113.7	52.8	52.9	90.00	-2,357.8	-26.2	500.0	394.6	105.39	4.745	
10,236.2	7,113.6	10,236.6	7,113.6	53.4	53.6	90.00	-2,394.0	-26.2	500.0	393.3	106.69	4.687	
10,300.0	7,113.5	10,300.4	7,113.4	54.6	54.7	90.00	-2,457.8	-26.2	500.0	391.0	109.00	4.587	
10,334.6	7,113.4	10,335.0	7,113.3	55.2	55.4	90.00	-2,492.4	-26.2	500.0	389.8	110.25	4.535	
10,400.0	7,113.2	10,400.4	7,113.2	56.4	56.6	90.00	-2,557.8	-26.2	500.0	387.4	112.62	4.440	
10,433.0	7,113.1	10,433.4	7,113.1	57.0	57.2	90.00	-2,590.8	-26.2	500.0	386.2	113.83	4.393	
10,500.0	7,113.0	10,500.4	7,112.9	58.2	58.4	90.00	-2,657.8	-26.2	500.0	383.8	116.26	4.301	
10,531.5	7,112.9	10,531.8	7,112.8	58.8	58.9	90.00	-2,689.2	-26.2	500.0	382.6	117.41	4.259	
10,600.0	7,112.7	10,600.4	7,112.7	60.0	60.2	90.00	-2,757.8	-26.2	500.0	380.1	119.92	4.170	
10,629.9	7,112.6	10,630.3	7,112.6	60.6	60.7	90.00	-2,787.7	-26.2	500.0	379.0	121.01	4.132	
10,700.0	7,112.5	10,700.4	7,112.4	61.9	62.0	90.00	-2,857.8	-26.2	500.0	376.4	123.58	4.046	
10,728.3	7,112.4	10,728.7	7,112.3	62.4	62.6	90.00	-2,886.1	-26.2	500.0	375.4	124.62	4.012	
10,800.0	7,112.2	10,800.4	7,112.2	63.7	63.9	90.00	-2,957.8	-26.2	500.0	372.8	127.25	3.929	
10,826.7	7,112.1	10,827.1	7,112.1	64.2	64.4	90.00	-2,984.5	-26.2	500.0	371.8	128.24	3.899	
10,900.0	7,111.9	10,900.4	7,111.9	65.5	65.7	90.00	-3,057.8	-26.2	500.0	369.1	130.94	3.819	
10,925.2	7,111.9	10,925.5	7,111.8	66.0	66.2	90.00	-3,082.9	-26.2	500.0	368.1	131.87	3.792	
11,000.0	7,111.7	11,000.4	7,111.7	67.4	67.6	90.00	-3,157.8	-26.2	500.0	365.4	134.63	3.714	
11,023.6	7,111.6	11,024.0	7,111.6	67.8	68.0	90.00	-3,181.4	-26.2	500.0	364.5	135.50	3.690	
11,100.0	7,111.4	11,100.4	7,111.4	69.2	69.4	90.00	-3,257.8	-26.2	500.0	361.7	138.33	3.615	
11,122.0	7,111.4	11,122.4	7,111.3	69.6	69.8	90.00	-3,279.8	-26.2	500.0	360.9	139.15	3.593	
11,200.0	7,111.2	11,200.4	7,111.2	71.1	71.3	90.00	-3,357.8	-26.2	500.0	358.0	142.04	3.520	
11,220.4	7,111.1	11,220.8	7,111.1	71.4	71.6	90.00	-3,378.2	-26.2	500.0	357.2	142.80	3.501	
11,300.0	7,110.9	11,300.4	7,110.9	72.9	73.1	90.00	-3,457.8	-26.2	500.0	354.3	145.76	3.430	
11,318.9	7,110.9	11,319.2	7,110.9	73.3	73.5	90.00	-3,476.6	-26.2	500.0	353.6	146.46	3.414	
11,400.0	7,110.7	11,400.4	7,110.6	74.8	75.0	90.00	-3,557.8	-26.2	500.0	350.5	149.48	3.345	
11,417.3	7,110.6	11,417.7	7,110.6	75.1	75.3	90.00	-3,575.1	-26.2	500.0	349.9	150.12	3.331	
11,500.0	7,110.4	11,500.4	7,110.4	76.6	76.8	90.00	-3,657.8	-26.2	500.0	346.8	153.20	3.264	
11,515.7	7,110.4	11,516.1	7,110.4	76.9	77.1	90.00	-3,673.5	-26.2	500.0	346.2	153.79	3.251	
11,600.0	7,110.2	11,600.4	7,110.1	78.5	78.7	90.00	-3,757.8	-26.2	500.0	343.1	156.94	3.186	
11,614.1	7,110.1	11,614.5	7,110.1	78.7	79.0	90.00	-3,771.9	-26.2	500.0	342.5	157.47	3.175	
11,649.2	7,110.0	11,649.6	7,110.0	79.4	79.6	90.00	-3,807.0	-26.2	500.0	341.2	158.78	3.149	
11,668.5	7,110.0	11,655.0	7,110.0	79.8	79.7	90.00	-3,812.4	-26.2	500.2	341.0	159.24	3.141 SF	

# Anticollision Report



<b>Company:</b>	PDC ENERGY	<b>Local Co-ordinate Reference:</b>	Well OLSON 30R-243
<b>Project:</b>	WELD COUNTY, COLORADO	<b>TVD Reference:</b>	KB-EST @ 4990.0usft (Original Well Elev)
<b>Reference Site:</b>	NW NE SEC 30 T4N R67W 6th P.M.	<b>MD Reference:</b>	KB-EST @ 4990.0usft (Original Well Elev)
<b>Site Error:</b>	0.0 usft	<b>North Reference:</b>	True
<b>Reference Well:</b>	OLSON 30R-243	<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 #2	<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	-87.22	0.7	-15.1	15.1				
98.4	98.4	98.4	98.4	0.1	0.1	-87.22	0.7	-15.1	15.1	14.9	0.17	88.754	
100.0	100.0	100.0	100.0	0.1	0.1	-87.22	0.7	-15.1	15.1	14.9	0.17	87.148	
196.8	196.8	196.8	196.8	0.3	0.3	-87.22	0.7	-15.1	15.1	14.5	0.61	24.789	
200.0	200.0	200.0	200.0	0.3	0.3	-87.22	0.7	-15.1	15.1	14.5	0.62	24.225	
295.3	295.3	295.3	295.3	0.5	0.5	-87.22	0.7	-15.1	15.1	14.0	1.05	14.352	
300.0	300.0	300.0	300.0	0.5	0.5	-87.22	0.7	-15.1	15.1	14.0	1.07	14.068	
393.7	393.7	393.7	393.7	0.7	0.7	-87.22	0.7	-15.1	15.1	13.6	1.49	10.100	
400.0	400.0	400.0	400.0	0.8	0.8	-87.22	0.7	-15.1	15.1	13.6	1.52	9.912	
492.1	492.1	492.1	492.1	1.0	1.0	-87.22	0.7	-15.1	15.1	13.1	1.94	7.791	
500.0	500.0	500.0	500.0	1.0	1.0	-87.22	0.7	-15.1	15.1	13.1	1.97	7.652	
590.5	590.5	590.5	590.5	1.2	1.2	-87.22	0.7	-15.1	15.1	12.7	2.38	6.342	
600.0	600.0	600.0	600.0	1.2	1.2	-87.22	0.7	-15.1	15.1	12.7	2.42	6.231	
689.0	689.0	689.0	689.0	1.4	1.4	-87.22	0.7	-15.1	15.1	12.3	2.82	5.347	
700.0	700.0	700.0	700.0	1.4	1.4	-87.22	0.7	-15.1	15.1	12.2	2.87	5.255	
787.4	787.4	787.4	787.4	1.6	1.6	-87.22	0.7	-15.1	15.1	11.8	3.26	4.622	
800.0	800.0	800.0	800.0	1.7	1.7	-87.22	0.7	-15.1	15.1	11.8	3.32	4.543	
885.8	885.8	885.8	885.8	1.9	1.9	-87.22	0.7	-15.1	15.1	11.4	3.71	4.070	
900.0	900.0	900.0	900.0	1.9	1.9	-87.22	0.7	-15.1	15.1	11.3	3.77	4.001	
984.2	984.2	984.2	984.2	2.1	2.1	-87.22	0.7	-15.1	15.1	10.9	4.15	3.636	
1,000.0	1,000.0	1,000.0	1,000.0	2.1	2.1	-87.22	0.7	-15.1	15.1	10.9	4.22	3.575	
1,082.7	1,082.7	1,082.7	1,082.7	2.3	2.3	-87.22	0.7	-15.1	15.1	10.5	4.59	3.286	
1,100.0	1,100.0	1,100.0	1,100.0	2.3	2.3	-87.22	0.7	-15.1	15.1	10.4	4.67	3.231	
1,181.1	1,181.1	1,181.1	1,181.1	2.5	2.5	-87.22	0.7	-15.1	15.1	10.0	5.03	2.997	
1,200.0	1,200.0	1,200.0	1,200.0	2.6	2.6	-87.22	0.7	-15.1	15.1	10.0	5.12	2.947	
1,279.5	1,279.5	1,279.5	1,279.5	2.7	2.7	-87.22	0.7	-15.1	15.1	9.6	5.48	2.755	
1,300.0	1,300.0	1,300.0	1,300.0	2.8	2.8	-87.22	0.7	-15.1	15.1	9.5	5.57	2.709	
1,377.9	1,377.9	1,377.9	1,377.9	3.0	3.0	-87.22	0.7	-15.1	15.1	9.2	5.92	2.549	
1,400.0	1,400.0	1,400.0	1,400.0	3.0	3.0	-87.22	0.7	-15.1	15.1	9.1	6.02	2.507	
1,476.4	1,476.4	1,476.4	1,476.4	3.2	3.2	-87.22	0.7	-15.1	15.1	8.7	6.36	2.371	
1,500.0	1,500.0	1,500.0	1,500.0	3.2	3.2	-87.22	0.7	-15.1	15.1	8.6	6.47	2.332	
1,574.8	1,574.8	1,574.8	1,574.8	3.4	3.4	-87.22	0.7	-15.1	15.1	8.3	6.80	2.217	
1,600.0	1,600.0	1,600.0	1,600.0	3.5	3.5	-87.22	0.7	-15.1	15.1	8.2	6.92	2.181	
1,673.2	1,673.2	1,673.2	1,673.2	3.6	3.6	-87.22	0.7	-15.1	15.1	7.8	7.25	2.082	
1,700.0	1,700.0	1,700.0	1,700.0	3.7	3.7	-87.22	0.7	-15.1	15.1	7.7	7.37	2.048	
1,771.6	1,771.6	1,771.6	1,771.6	3.8	3.8	-87.22	0.7	-15.1	15.1	7.4	7.69	1.962	
1,800.0	1,800.0	1,800.0	1,800.0	3.9	3.9	-87.22	0.7	-15.1	15.1	7.3	7.82	1.930	
1,870.1	1,870.1	1,870.1	1,870.1	4.1	4.1	-87.22	0.7	-15.1	15.1	7.0	8.13	1.855	
1,900.0	1,900.0	1,900.0	1,900.0	4.1	4.1	-87.22	0.7	-15.1	15.1	6.8	8.26	1.825	
1,950.0	1,950.0	1,950.0	1,950.0	4.2	4.2	-87.22	0.7	-15.1	15.1	6.6	8.49	1.777 CC	
1,968.5	1,968.5	1,968.5	1,968.5	4.3	4.3	-115.19	0.7	-15.1	15.1	6.5	8.57	1.762 ES	
2,000.0	2,000.0	2,000.0	2,000.0	4.4	4.4	-116.46	0.7	-15.1	15.3	6.6	8.71	1.753	
2,066.9	2,066.9	2,066.9	2,066.9	4.5	4.5	-122.45	0.8	-15.1	16.2	7.2	9.01	1.800	
2,100.0	2,099.9	2,100.0	2,100.0	4.6	4.6	-125.61	1.2	-15.0	16.9	7.8	9.15	1.851	
2,165.3	2,165.1	2,165.5	2,165.5	4.7	4.7	-130.65	3.0	-14.5	18.7	9.3	9.44	1.982	
2,200.0	2,199.7	2,200.3	2,200.2	4.8	4.8	-132.71	4.5	-14.0	19.8	10.2	9.59	2.065	
2,263.8	2,263.1	2,264.2	2,264.0	4.9	5.0	-135.53	8.5	-13.0	22.1	12.2	9.86	2.237	
2,300.0	2,299.1	2,300.6	2,300.3	5.0	5.0	-136.66	11.3	-12.2	23.5	13.5	10.01	2.343	
2,362.2	2,360.8	2,363.0	2,362.4	5.2	5.2	-137.96	17.2	-10.6	26.1	15.8	10.28	2.536	
2,400.0	2,398.2	2,401.0	2,400.1	5.3	5.3	-138.41	21.5	-9.5	27.8	17.3	10.44	2.659	
2,460.6	2,457.9	2,461.9	2,460.5	5.4	5.4	-138.73	29.3	-7.4	30.7	20.0	10.71	2.863	
2,500.0	2,496.6	2,501.5	2,499.7	5.5	5.5	-138.72	35.0	-5.9	32.6	21.8	10.88	3.000	

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 OLSON 30R-243
<b>Project:</b>	WELD COUNTY, COLORADO	<b>TVD Reference:</b>	KB-EST @ 4990.0usft (Original Well Elev)
<b>Reference Site:</b>	NW NE SEC 30 T4N R67W 6th P.M.	<b>MD Reference:</b>	KB-EST @ 4990.0usft (Original Well Elev)
<b>Site Error:</b>	0.0 usft	<b>North Reference:</b>	True
<b>Reference Well:</b>	OLSON 30R-243	<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 #2	<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
2,559.0	2,554.5	2,560.9	2,558.2	5.7	5.6	-138.44	44.6	-3.3	35.8	24.6	11.16	3.208	
2,600.0	2,594.4	2,602.1	2,598.7	5.8	5.8	-138.11	52.0	-1.3	38.1	26.7	11.34	3.357	
2,657.5	2,650.3	2,659.9	2,655.3	6.0	5.9	-137.50	63.2	1.7	41.5	29.8	11.63	3.564	
2,700.0	2,691.5	2,702.7	2,697.1	6.1	6.0	-136.96	72.2	4.1	44.1	32.2	11.85	3.721	
2,730.9	2,721.3	2,733.9	2,727.4	6.2	6.1	-136.53	79.2	6.0	46.0	34.0	12.01	3.833	
2,755.9	2,745.3	2,759.0	2,751.8	6.3	6.2	-136.09	85.1	7.5	47.6	35.4	12.16	3.913	
2,800.0	2,787.8	2,803.1	2,794.5	6.5	6.4	-135.16	95.5	10.3	50.2	37.8	12.44	4.037	
2,854.3	2,840.1	2,857.3	2,847.1	6.7	6.5	-134.13	108.4	13.8	53.4	40.7	12.79	4.179	
2,900.0	2,884.1	2,902.9	2,891.2	6.9	6.7	-133.35	119.3	16.7	56.2	43.1	13.09	4.291	
2,952.7	2,934.9	2,955.5	2,942.3	7.1	6.9	-132.55	131.8	20.1	59.3	45.9	13.46	4.410	
3,000.0	2,980.4	3,002.7	2,988.0	7.3	7.1	-131.90	143.0	23.1	62.2	48.4	13.78	4.512	
3,051.2	3,029.7	3,053.8	3,037.5	7.5	7.2	-131.26	155.2	26.3	65.3	51.1	14.15	4.612	
3,100.0	3,076.7	3,102.5	3,084.7	7.7	7.4	-130.70	166.7	29.4	68.2	53.7	14.51	4.703	
3,149.6	3,124.5	3,152.0	3,132.7	7.9	7.6	-130.18	178.5	32.6	71.2	56.4	14.88	4.786	
3,200.0	3,173.0	3,202.3	3,181.4	8.1	7.8	-129.70	190.5	35.8	74.3	59.0	15.26	4.867	
3,248.0	3,219.3	3,250.2	3,227.9	8.4	8.0	-129.27	201.9	38.9	77.2	61.6	15.64	4.938	
3,300.0	3,269.4	3,302.1	3,278.2	8.6	8.2	-128.85	214.2	42.2	80.4	64.3	16.04	5.010	
3,346.4	3,314.1	3,348.5	3,323.1	8.8	8.4	-128.49	225.3	45.1	83.2	66.8	16.42	5.069	
3,400.0	3,365.7	3,401.9	3,374.9	9.1	8.6	-128.12	238.0	48.5	86.5	69.6	16.85	5.134	
3,444.9	3,408.9	3,446.7	3,418.3	9.3	8.8	-127.82	248.6	51.4	89.2	72.0	17.21	5.183	
3,500.0	3,462.0	3,501.7	3,471.7	9.5	9.1	-127.48	261.7	54.9	92.6	74.9	17.67	5.241	
3,543.3	3,503.7	3,545.0	3,513.5	9.7	9.3	-127.23	272.0	57.7	95.2	77.2	18.03	5.283	
3,600.0	3,558.3	3,601.5	3,568.4	10.0	9.5	-126.93	285.4	61.3	98.7	80.2	18.51	5.334	
3,641.7	3,598.5	3,643.2	3,608.7	10.2	9.7	-126.71	295.4	63.9	101.3	82.4	18.86	5.369	
3,700.0	3,654.6	3,701.4	3,665.1	10.5	9.9	-126.43	309.2	67.6	104.9	85.5	19.36	5.416	
3,740.1	3,693.2	3,741.4	3,704.0	10.7	10.1	-126.25	318.7	70.2	107.3	87.6	19.71	5.446	
3,800.0	3,750.9	3,801.2	3,761.9	11.0	10.4	-126.00	332.9	74.0	111.0	90.8	20.22	5.488	
3,838.6	3,788.0	3,839.7	3,799.2	11.2	10.6	-125.84	342.1	76.5	113.4	92.8	20.56	5.513	
3,900.0	3,847.2	3,901.0	3,858.6	11.5	10.8	-125.61	356.7	80.4	117.1	96.0	21.10	5.551	
3,937.0	3,882.8	3,937.9	3,894.4	11.7	11.0	-125.47	365.5	82.7	119.4	98.0	21.43	5.572	
4,000.0	3,943.5	4,000.8	3,955.3	12.0	11.3	-125.25	380.4	86.7	123.3	101.3	21.99	5.607	
4,035.4	3,977.6	4,036.1	3,989.6	12.2	11.5	-125.14	388.8	89.0	125.5	103.2	22.31	5.625	
4,100.0	4,039.8	4,100.6	4,052.1	12.5	11.7	-124.94	404.1	93.1	129.4	106.6	22.88	5.656	
4,133.8	4,072.4	4,134.4	4,084.8	12.7	11.9	-124.83	412.2	95.2	131.5	108.3	23.19	5.672	
4,200.0	4,136.1	4,200.4	4,148.8	13.0	12.2	-124.65	427.9	99.5	135.6	111.8	23.79	5.700	
4,232.3	4,167.2	4,232.6	4,180.0	13.2	12.4	-124.56	435.5	101.5	137.6	113.5	24.08	5.713	
4,300.0	4,232.4	4,300.2	4,245.5	13.5	12.7	-124.38	451.6	105.8	141.8	117.1	24.70	5.740	
4,330.7	4,262.0	4,330.8	4,275.2	13.7	12.8	-124.30	458.9	107.8	143.6	118.7	24.98	5.751	
4,400.0	4,328.7	4,400.0	4,342.3	14.0	13.1	-124.14	475.4	112.2	147.9	122.3	25.61	5.775	
4,429.1	4,356.8	4,429.1	4,370.4	14.2	13.3	-124.07	482.3	114.0	149.7	123.8	25.88	5.784	
4,500.0	4,425.0	4,499.8	4,439.0	14.6	13.6	-123.92	499.1	118.6	154.1	127.5	26.54	5.806	
4,527.5	4,451.6	4,527.3	4,465.6	14.7	13.8	-123.86	505.6	120.3	155.8	129.0	26.79	5.814	
4,600.0	4,521.4	4,599.6	4,535.7	15.1	14.1	-123.71	522.8	124.9	160.2	132.8	27.46	5.835	
4,626.0	4,546.4	4,625.6	4,560.9	15.2	14.2	-123.66	529.0	126.6	161.9	134.1	27.71	5.842	
4,700.0	4,617.7	4,699.4	4,632.5	15.6	14.6	-123.52	546.6	131.3	166.4	138.0	28.40	5.861	
4,724.4	4,641.2	4,723.8	4,656.1	15.7	14.7	-123.48	552.4	132.8	167.9	139.3	28.62	5.867	
4,800.0	4,714.0	4,799.2	4,729.2	16.1	15.1	-123.34	570.3	137.6	172.6	143.3	29.33	5.884	
4,822.8	4,735.9	4,822.0	4,751.3	16.3	15.2	-123.30	575.7	139.1	174.0	144.5	29.55	5.889	
4,900.0	4,810.3	4,899.1	4,825.9	16.7	15.5	-123.18	594.1	144.0	178.8	148.5	30.27	5.905	
4,921.2	4,830.7	4,920.3	4,846.5	16.8	15.6	-123.14	599.1	145.4	180.1	149.6	30.47	5.910	
5,000.0	4,906.6	4,998.9	4,922.7	17.2	16.0	-123.02	617.8	150.4	184.9	153.7	31.21	5.925	
5,019.7	4,925.5	5,018.5	4,941.7	17.3	16.1	-122.99	622.5	151.6	186.2	154.8	31.40	5.928	

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 OLSON 30R-243
<b>Project:</b>	WELD COUNTY, COLORADO	<b>TVD Reference:</b>	KB-EST @ 4990.0usft (Original Well Elev)
<b>Reference Site:</b>	NW NE SEC 30 T4N R67W 6th P.M.	<b>MD Reference:</b>	KB-EST @ 4990.0usft (Original Well Elev)
<b>Site Error:</b>	0.0 usft	<b>North Reference:</b>	True
<b>Reference Well:</b>	OLSON 30R-243	<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 #2	<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	
5,100.0	5,002.9	5,098.7	5,019.4	17.7	16.5	-122.88	641.5	156.7	191.1	159.0	32.16	5.942	
5,118.1	5,020.3	5,116.7	5,036.9	17.8	16.6	-122.86	645.8	157.9	192.2	159.9	32.33	5.945	
5,200.0	5,099.2	5,198.5	5,116.1	18.3	17.0	-122.75	665.3	163.1	197.3	164.2	33.11	5.959	
5,216.5	5,115.1	5,215.0	5,132.1	18.3	17.1	-122.72	669.2	164.2	198.3	165.0	33.27	5.961	
5,300.0	5,195.5	5,298.3	5,212.9	18.8	17.5	-122.62	689.0	169.5	203.5	169.4	34.06	5.974	
5,314.9	5,209.9	5,313.2	5,227.3	18.9	17.5	-122.60	692.6	170.4	204.4	170.2	34.20	5.976	
5,400.0	5,291.8	5,398.1	5,309.6	19.3	18.0	-122.50	712.8	175.8	209.6	174.6	35.01	5.987	
5,413.4	5,304.7	5,411.4	5,322.5	19.4	18.0	-122.48	715.9	176.7	210.5	175.3	35.14	5.989	
5,500.0	5,388.1	5,497.9	5,406.3	19.9	18.4	-122.39	736.5	182.2	215.8	179.9	35.97	6.000	
5,511.8	5,399.5	5,509.7	5,417.8	19.9	18.5	-122.37	739.3	183.0	216.6	180.5	36.08	6.001	
5,600.0	5,484.4	5,597.7	5,503.1	20.4	18.9	-122.28	760.2	188.6	222.0	185.1	36.93	6.012	
5,610.2	5,494.3	5,607.9	5,513.0	20.4	19.0	-122.27	762.7	189.2	222.6	185.6	37.03	6.013	
5,700.0	5,580.7	5,697.5	5,599.8	20.9	19.4	-122.18	784.0	194.9	228.2	190.3	37.89	6.022	
5,708.6	5,589.1	5,706.2	5,608.2	21.0	19.5	-122.17	786.0	195.5	228.7	190.7	37.97	6.023	
5,722.6	5,602.5	5,720.1	5,621.7	21.0	19.5	-122.16	789.4	196.4	229.6	191.5	38.11	6.025	
5,800.0	5,677.3	5,797.3	5,696.6	21.4	19.9	-121.94	807.7	201.3	233.8	195.0	38.85	6.018	
5,807.1	5,684.2	5,804.4	5,703.4	21.4	20.0	-121.90	809.4	201.7	234.1	195.2	38.92	6.016	
5,900.0	5,774.7	5,896.4	5,792.6	21.8	20.4	-121.06	831.1	207.6	237.7	197.9	39.81	5.971	
5,905.5	5,780.1	5,901.7	5,797.8	21.8	20.4	-121.00	832.4	207.9	237.9	198.1	39.86	5.968	
6,000.0	5,872.9	5,993.7	5,887.6	22.1	20.7	-120.08	851.8	213.1	240.8	200.1	40.64	5.923	
6,003.9	5,876.7	5,997.5	5,891.3	22.1	20.8	-120.04	852.5	213.3	240.9	200.2	40.67	5.922	
6,100.0	5,971.6	6,091.2	5,983.3	22.4	21.1	-119.16	869.3	217.8	243.1	201.7	41.39	5.874	
6,102.3	5,973.9	6,093.5	5,985.6	22.4	21.1	-119.14	869.7	217.9	243.2	201.8	41.41	5.873	
6,200.0	6,070.8	6,188.8	6,079.8	22.7	21.3	-118.29	883.7	221.7	244.8	202.8	42.05	5.822	
6,200.8	6,071.6	6,189.6	6,080.5	22.7	21.3	-118.29	883.8	221.7	244.8	202.8	42.05	5.822	
6,299.2	6,169.6	6,285.8	6,176.0	22.9	21.6	-117.48	894.8	224.7	245.8	203.2	42.62	5.768	
6,300.0	6,170.4	6,286.5	6,176.8	22.9	21.6	-117.47	894.9	224.7	245.8	203.2	42.62	5.768	
6,397.6	6,267.9	6,382.1	6,272.0	23.1	21.8	-116.71	902.8	226.8	246.2	203.1	43.10	5.711	
6,400.0	6,270.3	6,384.4	6,274.3	23.1	21.8	-116.69	902.9	226.8	246.2	203.1	43.11	5.710	
6,496.0	6,366.3	6,478.5	6,368.3	23.2	22.0	-115.96	907.6	228.1	245.8	202.3	43.50	5.651	
6,503.5	6,373.8	6,485.8	6,375.6	23.2	22.0	-88.14	907.9	228.1	245.8	202.3	43.53	5.646	
6,533.5	6,403.8	6,515.3	6,405.0	23.2	22.0	-87.96	908.6	228.4	245.6	202.0	43.64	5.628	
6,550.0	6,420.3	6,531.4	6,421.2	23.2	22.0	92.16	909.0	228.4	245.5	201.8	43.70	5.619	
6,570.1	6,440.3	6,551.1	6,440.9	23.3	22.1	92.39	909.2	228.5	245.5	201.7	43.77	5.610	
6,594.5	6,464.7	6,575.0	6,464.7	23.3	22.1	92.80	909.3	228.5	245.6	201.7	43.87	5.598	
6,600.0	6,470.2	6,580.4	6,470.2	23.3	22.1	92.91	909.3	228.5	245.6	201.7	43.89	5.595	
6,650.0	6,519.8	6,630.5	6,520.3	23.3	22.2	94.29	909.0	228.5	246.0	201.9	44.11	5.576	
6,692.9	6,561.9	6,674.4	6,564.1	23.2	22.2	95.59	906.4	228.5	246.5	202.2	44.24	5.571	
6,700.0	6,568.8	6,681.7	6,571.3	23.2	22.2	95.80	905.7	228.5	246.5	202.3	44.25	5.572	
6,750.0	6,617.0	6,733.3	6,622.4	23.1	22.2	97.29	898.6	228.5	247.3	203.0	44.28	5.585	
6,791.3	6,656.1	6,776.3	6,664.6	23.0	22.1	98.48	889.9	228.5	248.0	203.8	44.21	5.610	
6,800.0	6,664.2	6,785.4	6,673.4	23.0	22.1	98.73	887.7	228.5	248.2	204.0	44.19	5.616	
6,850.0	6,710.1	6,838.1	6,723.9	22.9	22.0	100.13	873.0	228.5	249.2	205.2	43.98	5.666	
6,889.7	6,745.5	6,880.3	6,763.6	22.7	21.9	101.20	858.6	228.5	250.1	206.4	43.74	5.718	
6,900.0	6,754.5	6,891.2	6,773.7	22.7	21.9	101.47	854.5	228.5	250.3	206.7	43.67	5.733	
6,950.0	6,797.2	6,944.8	6,822.4	22.5	21.7	102.76	832.0	228.5	251.5	208.3	43.25	5.817	
6,988.2	6,828.5	6,986.1	6,858.7	22.3	21.5	103.69	812.3	228.5	252.5	209.7	42.85	5.893	
7,000.0	6,838.0	6,999.0	6,869.8	22.3	21.5	103.97	805.8	228.5	252.8	210.1	42.73	5.917	
7,050.0	6,876.7	7,053.6	6,915.3	22.0	21.3	105.10	775.7	228.5	254.1	212.0	42.12	6.034	
7,086.6	6,903.5	7,093.9	6,947.4	21.8	21.1	105.88	751.4	228.5	255.1	213.5	41.63	6.128	
7,100.0	6,913.0	7,108.7	6,958.9	21.8	21.0	106.16	742.0	228.5	255.4	214.0	41.44	6.164	
7,150.0	6,946.9	7,164.2	7,000.0	21.5	20.7	107.12	704.7	228.5	256.7	216.0	40.72	6.305	

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 OLSON 30R-243
<b>Project:</b>	WELD COUNTY, COLORADO	<b>TVD Reference:</b>	KB-EST @ 4990.0usft (Original Well Elev)
<b>Reference Site:</b>	NW NE SEC 30 T4N R67W 6th P.M.	<b>MD Reference:</b>	KB-EST @ 4990.0usft (Original Well Elev)
<b>Site Error:</b>	0.0 usft	<b>North Reference:</b>	True
<b>Reference Well:</b>	OLSON 30R-243	<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 #2	<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	
7,185.0	6,969.1	7,203.3	7,027.2	21.3	20.5	107.75	676.6	228.5	257.6	217.4	40.19	6.409	
7,200.0	6,978.2	7,220.1	7,038.4	21.2	20.4	108.00	664.1	228.5	258.0	218.0	39.96	6.455	
7,250.0	7,006.6	7,276.4	7,073.7	21.0	20.1	108.77	620.3	228.5	259.1	219.9	39.20	6.610	
7,283.4	7,024.0	7,314.2	7,095.4	20.8	19.9	109.24	589.3	228.5	259.8	221.1	38.70	6.713	
7,300.0	7,032.1	7,333.0	7,105.6	20.7	19.8	109.45	573.5	228.5	260.2	221.7	38.46	6.764	
7,350.0	7,054.6	7,389.9	7,133.9	20.4	19.6	110.02	524.1	228.5	261.1	223.3	37.76	6.914	
7,381.9	7,067.2	7,426.4	7,149.9	20.3	19.4	110.33	491.4	228.5	261.6	224.2	37.36	7.002	
7,400.0	7,073.8	7,447.1	7,158.3	20.2	19.3	110.49	472.4	228.5	261.9	224.7	37.14	7.051	
7,450.0	7,089.9	7,504.5	7,178.5	19.9	19.1	110.85	418.7	228.5	262.5	225.9	36.61	7.170	
7,480.3	7,097.9	7,539.4	7,188.7	19.8	18.9	111.01	385.4	228.5	262.7	226.4	36.34	7.229	
7,500.0	7,102.5	7,562.1	7,194.5	19.7	18.9	111.10	363.5	228.5	262.9	226.7	36.19	7.264	
7,550.0	7,111.8	7,619.7	7,205.9	19.5	18.7	111.24	307.0	228.5	263.1	227.2	35.91	7.327	
7,578.7	7,115.6	7,652.9	7,210.4	19.4	18.6	111.27	274.1	228.5	263.2	227.4	35.82	7.348	
7,600.0	7,117.6	7,677.4	7,212.8	19.3	18.6	111.26	249.7	228.5	263.2	227.4	35.77	7.357	
7,650.0	7,119.9	7,735.1	7,215.0	19.1	18.5	111.18	192.1	228.5	263.0	227.3	35.78	7.351	
7,660.3	7,120.0	7,746.3	7,214.9	19.1	18.5	111.16	180.9	228.5	263.0	227.2	35.80	7.346	
7,677.1	7,120.0	7,763.1	7,214.7	19.0	18.5	111.13	164.0	228.5	262.9	227.1	35.86	7.333	
7,700.0	7,119.9	7,786.0	7,214.5	19.0	18.5	111.08	141.2	228.5	262.9	226.9	35.94	7.315	
7,775.6	7,119.7	7,861.6	7,213.6	18.8	18.7	110.95	65.6	228.5	262.6	226.3	36.38	7.220	
7,800.0	7,119.7	7,886.0	7,213.3	18.8	18.7	110.91	41.2	228.5	262.6	226.0	36.53	7.188	
7,874.0	7,119.5	7,960.0	7,212.5	18.9	19.0	110.78	-32.8	228.5	262.3	225.1	37.20	7.051	
7,900.0	7,119.4	7,986.0	7,212.2	19.0	19.2	110.73	-58.8	228.5	262.2	224.8	37.45	7.002	
7,972.4	7,119.2	8,058.4	7,211.4	19.4	19.6	110.60	-131.2	228.5	262.0	223.7	38.35	6.833	
8,000.0	7,119.2	8,086.0	7,211.1	19.5	19.8	110.55	-158.8	228.5	261.9	223.2	38.70	6.769	
8,070.8	7,119.0	8,156.8	7,210.3	20.1	20.3	110.42	-229.6	228.5	261.7	221.9	39.78	6.579	
8,100.0	7,118.9	8,186.0	7,210.0	20.4	20.6	110.37	-258.8	228.5	261.6	221.4	40.24	6.502	
8,169.3	7,118.7	8,255.3	7,209.2	21.1	21.2	110.25	-328.0	228.5	261.4	219.9	41.48	6.302	
8,200.0	7,118.7	8,286.0	7,208.9	21.4	21.5	110.19	-358.8	228.5	261.3	219.3	42.04	6.216	
8,267.7	7,118.5	8,353.7	7,208.1	22.1	22.2	110.07	-426.5	228.5	261.1	217.7	43.41	6.015	
8,300.0	7,118.4	8,386.0	7,207.8	22.5	22.6	110.01	-458.8	228.5	261.0	217.0	44.07	5.923	
8,366.1	7,118.3	8,452.1	7,207.0	23.3	23.4	109.89	-524.9	228.5	260.8	215.3	45.54	5.727	
8,400.0	7,118.2	8,486.0	7,206.6	23.7	23.8	109.83	-558.7	228.5	260.7	214.4	46.31	5.630	
8,464.5	7,118.0	8,550.5	7,205.9	24.5	24.6	109.72	-623.3	228.5	260.5	212.7	47.86	5.444	
8,500.0	7,117.9	8,586.0	7,205.5	25.0	25.0	109.65	-658.7	228.5	260.4	211.7	48.72	5.346	
8,563.0	7,117.8	8,648.9	7,204.8	25.8	25.9	109.54	-721.7	228.5	260.3	209.9	50.33	5.171	
8,600.0	7,117.7	8,686.0	7,204.4	26.3	26.4	109.47	-758.7	228.5	260.1	208.9	51.29	5.072	
8,661.4	7,117.5	8,747.4	7,203.7	27.2	27.2	109.36	-820.1	228.5	260.0	207.0	52.94	4.911	
8,700.0	7,117.4	8,786.0	7,203.3	27.7	27.8	109.29	-858.7	228.5	259.9	205.9	53.98	4.814	
8,759.8	7,117.3	8,845.8	7,202.6	28.6	28.7	109.18	-918.5	228.5	259.7	204.0	55.66	4.665	
8,800.0	7,117.2	8,886.0	7,202.2	29.2	29.2	109.11	-958.7	228.5	259.6	202.8	56.80	4.570	
8,858.2	7,117.0	8,944.2	7,201.5	30.1	30.1	109.00	-1,017.0	228.5	259.4	200.9	58.49	4.435	
8,900.0	7,116.9	8,985.9	7,201.0	30.7	30.8	108.93	-1,058.7	228.5	259.3	199.6	59.71	4.342	
8,956.7	7,116.8	9,042.6	7,200.4	31.6	31.6	108.82	-1,115.4	228.5	259.1	197.7	61.41	4.220	
9,000.0	7,116.7	9,085.9	7,199.9	32.3	32.3	108.74	-1,158.7	228.5	259.0	196.3	62.71	4.130	
9,055.1	7,116.6	9,141.0	7,199.3	33.2	33.2	108.64	-1,213.8	228.5	258.8	194.4	64.40	4.019	
9,100.0	7,116.5	9,185.9	7,198.8	33.9	33.9	108.56	-1,258.7	228.5	258.7	192.9	65.78	3.933	
9,153.5	7,116.3	9,239.5	7,198.2	34.7	34.8	108.46	-1,312.2	228.5	258.6	191.1	67.46	3.833	
9,200.0	7,116.2	9,285.9	7,197.7	35.5	35.5	108.38	-1,358.7	228.5	258.4	189.5	68.93	3.750	
9,251.9	7,116.1	9,337.9	7,197.1	36.4	36.4	108.28	-1,410.6	228.5	258.3	187.7	70.59	3.659	
9,300.0	7,116.0	9,385.9	7,196.6	37.2	37.2	108.19	-1,458.7	228.5	258.2	186.0	72.13	3.579	
9,350.4	7,115.8	9,436.3	7,196.0	38.0	38.0	108.10	-1,509.0	228.5	258.0	184.3	73.77	3.498	
9,400.0	7,115.7	9,485.9	7,195.4	38.8	38.9	108.01	-1,558.6	228.5	257.9	182.5	75.38	3.421	

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 OLSON 30R-243
<b>Project:</b>	WELD COUNTY, COLORADO	<b>TVD Reference:</b>	KB-EST @ 4990.0usft (Original Well Elev)
<b>Reference Site:</b>	NW NE SEC 30 T4N R67W 6th P.M.	<b>MD Reference:</b>	KB-EST @ 4990.0usft (Original Well Elev)
<b>Site Error:</b>	0.0 usft	<b>North Reference:</b>	True
<b>Reference Well:</b>	OLSON 30R-243	<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 #2	<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	
9,448.8	7,115.6	9,534.7	7,194.9	39.7	39.7	107.92	-1,607.4	228.5	257.8	180.8	76.99	3.348	
9,500.0	7,115.5	9,585.9	7,194.3	40.5	40.6	107.82	-1,658.6	228.5	257.6	178.9	78.68	3.274	
9,547.2	7,115.3	9,633.2	7,193.8	41.3	41.4	107.74	-1,705.9	228.5	257.5	177.2	80.26	3.208	
9,600.0	7,115.2	9,685.9	7,193.2	42.2	42.3	107.64	-1,758.6	228.5	257.4	175.3	82.03	3.138	
9,645.6	7,115.1	9,731.6	7,192.7	43.0	43.1	107.55	-1,804.3	228.5	257.2	173.7	83.57	3.078	
9,700.0	7,115.0	9,785.9	7,192.1	44.0	44.0	107.45	-1,858.6	228.5	257.1	171.7	85.41	3.010	
9,744.1	7,114.8	9,830.0	7,191.6	44.7	44.8	107.37	-1,902.7	228.5	257.0	170.1	86.91	2.957	
9,800.0	7,114.7	9,885.9	7,190.9	45.7	45.8	107.27	-1,958.6	228.5	256.8	168.0	88.82	2.892	
9,842.5	7,114.6	9,928.4	7,190.5	46.5	46.5	107.19	-2,001.1	228.5	256.7	166.4	90.28	2.844	
9,900.0	7,114.5	9,985.9	7,189.8	47.5	47.5	107.08	-2,058.6	228.5	256.6	164.3	92.27	2.781	
9,940.9	7,114.4	10,026.8	7,189.4	48.2	48.3	107.00	-2,099.5	228.5	256.5	162.8	93.69	2.738	
10,000.0	7,114.2	10,085.9	7,188.7	49.2	49.3	106.89	-2,158.6	228.5	256.3	160.6	95.74	2.677	
10,039.3	7,114.1	10,125.3	7,188.3	49.9	50.0	106.82	-2,197.9	228.5	256.2	159.1	97.11	2.638	
10,100.0	7,114.0	10,185.9	7,187.6	51.0	51.1	106.71	-2,258.6	228.5	256.1	156.8	99.24	2.580	
10,137.8	7,113.9	10,223.7	7,187.1	51.7	51.8	106.64	-2,296.4	228.5	256.0	155.4	100.57	2.545	
10,200.0	7,113.7	10,285.9	7,186.5	52.8	52.9	106.52	-2,358.6	228.5	255.8	153.1	102.76	2.490	
10,236.2	7,113.6	10,322.1	7,186.0	53.4	53.5	106.45	-2,394.8	228.5	255.7	151.7	104.04	2.458	
10,300.0	7,113.5	10,385.9	7,185.3	54.6	54.7	106.33	-2,458.6	228.5	255.6	149.3	106.30	2.404	
10,334.6	7,113.4	10,420.5	7,184.9	55.2	55.3	106.27	-2,493.2	228.5	255.5	148.0	107.54	2.376	
10,400.0	7,113.2	10,485.9	7,184.2	56.4	56.5	106.14	-2,558.6	228.5	255.3	145.5	109.87	2.324	
10,433.0	7,113.1	10,518.9	7,183.8	57.0	57.1	106.08	-2,591.6	228.5	255.3	144.2	111.05	2.298	
10,500.0	7,113.0	10,585.9	7,183.1	58.2	58.3	105.96	-2,658.5	228.5	255.1	141.6	113.45	2.248	
10,531.5	7,112.9	10,617.4	7,182.7	58.8	58.9	105.90	-2,690.0	228.5	255.0	140.4	114.58	2.226	
10,600.0	7,112.7	10,685.9	7,182.0	60.0	60.1	105.77	-2,758.5	228.5	254.9	137.8	117.05	2.177	
10,629.9	7,112.6	10,715.8	7,181.6	60.6	60.7	105.71	-2,788.4	228.5	254.8	136.6	118.13	2.157	
10,700.0	7,112.5	10,785.9	7,180.8	61.9	62.0	105.58	-2,858.5	228.5	254.6	133.9	120.67	2.110	
10,728.3	7,112.4	10,814.2	7,180.5	62.4	62.5	105.52	-2,886.8	228.5	254.6	132.9	121.70	2.092	
10,800.0	7,112.2	10,885.9	7,179.7	63.7	63.8	105.39	-2,958.5	228.5	254.4	130.1	124.30	2.047	
10,826.7	7,112.1	10,912.6	7,179.4	64.2	64.3	105.34	-2,985.3	228.5	254.3	129.0	125.28	2.030	
10,900.0	7,111.9	10,985.9	7,178.6	65.5	65.7	105.20	-3,058.5	228.5	254.2	126.2	127.95	1.986	
10,925.2	7,111.9	11,011.1	7,178.3	66.0	66.1	105.15	-3,083.7	228.5	254.1	125.2	128.87	1.972	
11,000.0	7,111.7	11,085.9	7,177.5	67.4	67.5	105.01	-3,158.5	228.5	253.9	122.3	131.61	1.929	
11,023.6	7,111.6	11,109.5	7,177.2	67.8	67.9	104.96	-3,182.1	228.5	253.9	121.4	132.47	1.916	
11,100.0	7,111.4	11,185.9	7,176.3	69.2	69.3	104.82	-3,258.5	228.5	253.7	118.4	135.28	1.875	
11,122.0	7,111.4	11,207.9	7,176.1	69.6	69.8	104.78	-3,280.5	228.5	253.7	117.6	136.09	1.864	
11,200.0	7,111.2	11,285.9	7,175.2	71.1	71.2	104.63	-3,358.5	228.5	253.5	114.5	138.96	1.824	
11,220.4	7,111.1	11,306.3	7,175.0	71.4	71.6	104.59	-3,378.9	228.5	253.4	113.7	139.72	1.814	
11,300.0	7,110.9	11,385.9	7,174.1	72.9	73.1	104.44	-3,458.5	228.5	253.3	110.6	142.66	1.775	
11,318.9	7,110.9	11,404.7	7,173.9	73.3	73.4	104.40	-3,477.3	228.5	253.2	109.9	143.36	1.766	
11,400.0	7,110.7	11,485.9	7,172.9	74.8	74.9	104.24	-3,558.5	228.5	253.0	106.7	146.37	1.729	
11,417.3	7,110.6	11,503.2	7,172.8	75.1	75.2	104.21	-3,575.7	228.5	253.0	106.0	147.01	1.721	
11,500.0	7,110.4	11,585.9	7,171.8	76.6	76.8	104.05	-3,658.4	228.5	252.8	102.7	150.08	1.685	
11,515.7	7,110.4	11,601.6	7,171.6	76.9	77.1	104.02	-3,674.2	228.5	252.8	102.1	150.67	1.678	
11,600.0	7,110.2	11,685.9	7,170.7	78.5	78.6	103.86	-3,758.4	228.5	252.6	98.8	153.81	1.642	
11,614.1	7,110.1	11,700.0	7,170.5	78.7	78.9	103.83	-3,772.6	228.5	252.6	98.3	154.33	1.637	
11,654.9	7,110.0	11,740.8	7,170.1	79.5	79.7	103.76	-3,813.4	228.5	252.5	96.6	155.86	1.620	
11,668.5	7,110.0	11,747.1	7,170.0	79.8	79.8	103.74	-3,819.7	228.5	252.6	96.4	156.23	1.617 SF	

# Anticollision Report



<b>Company:</b>	PDC ENERGY	<b>Local Co-ordinate Reference:</b>	Well OLSON 30R-243
<b>Project:</b>	WELD COUNTY, COLORADO	<b>TVD Reference:</b>	KB-EST @ 4990.0usft (Original Well Elev)
<b>Reference Site:</b>	NW NE SEC 30 T4N R67W 6th P.M.	<b>MD Reference:</b>	KB-EST @ 4990.0usft (Original Well Elev)
<b>Site Error:</b>	0.0 usft	<b>North Reference:</b>	True
<b>Reference Well:</b>	OLSON 30R-243	<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 #2	<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	-88.14	1.5	-44.9	44.9				
98.4	98.4	98.4	98.4	0.1	0.1	-88.14	1.5	-44.9	44.9	44.8	0.17	264.446	
100.0	100.0	100.0	100.0	0.1	0.1	-88.14	1.5	-44.9	44.9	44.8	0.17	259.659	
196.8	196.8	196.8	196.8	0.3	0.3	-88.14	1.5	-44.9	44.9	44.3	0.61	73.860	
200.0	200.0	200.0	200.0	0.3	0.3	-88.14	1.5	-44.9	44.9	44.3	0.62	72.180	
295.3	295.3	295.3	295.3	0.5	0.5	-88.14	1.5	-44.9	44.9	43.9	1.05	42.763	
300.0	300.0	300.0	300.0	0.5	0.5	-88.14	1.5	-44.9	44.9	43.9	1.07	41.916	
393.7	393.7	393.7	393.7	0.7	0.7	-88.14	1.5	-44.9	44.9	43.4	1.49	30.093	
400.0	400.0	400.0	400.0	0.8	0.8	-88.14	1.5	-44.9	44.9	43.4	1.52	29.533	
492.1	492.1	492.1	492.1	1.0	1.0	-88.14	1.5	-44.9	44.9	43.0	1.94	23.215	
500.0	500.0	500.0	500.0	1.0	1.0	-88.14	1.5	-44.9	44.9	43.0	1.97	22.798	
590.5	590.5	590.5	590.5	1.2	1.2	-88.14	1.5	-44.9	44.9	42.6	2.38	18.896	
600.0	600.0	600.0	600.0	1.2	1.2	-88.14	1.5	-44.9	44.9	42.5	2.42	18.564	
689.0	689.0	689.0	689.0	1.4	1.4	-88.14	1.5	-44.9	44.9	42.1	2.82	15.932	
700.0	700.0	700.0	700.0	1.4	1.4	-88.14	1.5	-44.9	44.9	42.1	2.87	15.657	
787.4	787.4	787.4	787.4	1.6	1.6	-88.14	1.5	-44.9	44.9	41.7	3.26	13.772	
800.0	800.0	800.0	800.0	1.7	1.7	-88.14	1.5	-44.9	44.9	41.6	3.32	13.537	
885.8	885.8	885.8	885.8	1.9	1.9	-88.14	1.5	-44.9	44.9	41.2	3.71	12.127	
900.0	900.0	900.0	900.0	1.9	1.9	-88.14	1.5	-44.9	44.9	41.2	3.77	11.922	
984.2	984.2	984.2	984.2	2.1	2.1	-88.14	1.5	-44.9	44.9	40.8	4.15	10.834	
1,000.0	1,000.0	1,000.0	1,000.0	2.1	2.1	-88.14	1.5	-44.9	44.9	40.7	4.22	10.652	
1,082.7	1,082.7	1,082.7	1,082.7	2.3	2.3	-88.14	1.5	-44.9	44.9	40.3	4.59	9.790	
1,100.0	1,100.0	1,100.0	1,100.0	2.3	2.3	-88.14	1.5	-44.9	44.9	40.3	4.67	9.626	
1,181.1	1,181.1	1,181.1	1,181.1	2.5	2.5	-88.14	1.5	-44.9	44.9	39.9	5.03	8.929	
1,200.0	1,200.0	1,200.0	1,200.0	2.6	2.6	-88.14	1.5	-44.9	44.9	39.8	5.12	8.781	
1,279.5	1,279.5	1,279.5	1,279.5	2.7	2.7	-88.14	1.5	-44.9	44.9	39.5	5.48	8.207	
1,300.0	1,300.0	1,300.0	1,300.0	2.8	2.8	-88.14	1.5	-44.9	44.9	39.4	5.57	8.072	
1,377.9	1,377.9	1,377.9	1,377.9	3.0	3.0	-88.14	1.5	-44.9	44.9	39.0	5.92	7.594	
1,400.0	1,400.0	1,400.0	1,400.0	3.0	3.0	-88.14	1.5	-44.9	44.9	38.9	6.02	7.469	
1,437.6	1,437.6	1,437.6	1,437.6	3.1	3.1	-88.14	1.5	-44.9	44.9	38.8	6.19	7.265 CC	
1,476.4	1,476.4	1,476.3	1,476.3	3.2	3.2	-87.99	1.6	-44.9	45.0	38.6	6.36	7.071	
1,500.0	1,500.0	1,499.8	1,499.8	3.2	3.2	-87.61	1.9	-45.0	45.1	38.6	6.47	6.970 ES	
1,574.8	1,574.8	1,574.2	1,574.1	3.4	3.4	-84.90	4.1	-45.6	45.8	39.0	6.80	6.731	
1,600.0	1,600.0	1,599.2	1,599.1	3.5	3.5	-83.50	5.2	-45.9	46.2	39.3	6.91	6.681	
1,673.2	1,673.2	1,671.8	1,671.6	3.6	3.6	-78.26	9.8	-47.0	48.1	40.8	7.24	6.640	
1,700.0	1,700.0	1,698.3	1,698.0	3.7	3.7	-75.98	11.9	-47.6	49.1	41.7	7.36	6.669	
1,771.6	1,771.6	1,768.9	1,768.3	3.8	3.8	-69.28	18.6	-49.3	52.8	45.1	7.68	6.874	
1,800.0	1,800.0	1,796.8	1,795.9	3.9	3.9	-66.50	21.8	-50.1	54.8	47.0	7.81	7.012	
1,870.1	1,870.1	1,865.3	1,863.9	4.1	4.1	-59.70	30.6	-52.3	60.9	52.8	8.13	7.491	
1,900.0	1,900.0	1,894.4	1,892.7	4.1	4.1	-56.91	34.8	-53.4	64.2	55.9	8.27	7.757	
1,950.0	1,950.0	1,942.9	1,940.5	4.2	4.3	-52.52	42.5	-55.4	70.4	61.9	8.51	8.274	
1,968.5	1,968.5	1,960.8	1,958.1	4.3	4.3	-78.75	45.5	-56.1	73.0	64.4	8.58	8.507	
2,000.0	2,000.0	1,991.1	1,987.9	4.4	4.4	-76.45	50.8	-57.5	77.6	68.9	8.72	8.899	
2,066.9	2,066.9	2,055.6	2,051.1	4.5	4.6	-72.67	63.2	-60.7	88.3	79.3	9.02	9.788	
2,100.0	2,099.9	2,088.1	2,082.9	4.6	4.7	-71.31	69.8	-62.3	93.8	84.7	9.18	10.226	
2,165.3	2,165.1	2,152.6	2,145.9	4.7	4.9	-69.61	82.8	-65.6	104.4	94.9	9.48	11.016	
2,200.0	2,199.7	2,186.8	2,179.4	4.8	5.0	-69.12	89.7	-67.4	109.8	100.2	9.64	11.396	
2,263.8	2,263.1	2,249.8	2,241.1	4.9	5.2	-68.82	102.4	-70.6	119.5	109.5	9.94	12.015	
2,300.0	2,299.1	2,285.7	2,276.1	5.0	5.3	-68.94	109.6	-72.5	124.7	114.6	10.12	12.325	
2,362.2	2,360.8	2,347.2	2,336.4	5.2	5.6	-69.54	122.0	-75.6	133.3	122.9	10.43	12.783	
2,400.0	2,398.2	2,384.7	2,373.0	5.3	5.7	-70.12	129.5	-77.5	138.3	127.7	10.62	13.025	
2,460.6	2,457.9	2,444.7	2,431.7	5.4	5.9	-71.35	141.6	-80.6	146.1	135.1	10.94	13.348	

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 OLSON 30R-243
<b>Project:</b>	WELD COUNTY, COLORADO	<b>TVD Reference:</b>	KB-EST @ 4990.0usft (Original Well Elev)
<b>Reference Site:</b>	NW NE SEC 30 T4N R67W 6th P.M.	<b>MD Reference:</b>	KB-EST @ 4990.0usft (Original Well Elev)
<b>Site Error:</b>	0.0 usft	<b>North Reference:</b>	True
<b>Reference Well:</b>	OLSON 30R-243	<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 #2	<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	
2,500.0	2,496.6	2,483.7	2,469.8	5.5	6.1	-72.32	149.5	-82.6	150.9	139.8	11.16	13.527	
2,559.0	2,554.5	2,542.1	2,527.0	5.7	6.3	-74.01	161.2	-85.6	158.1	146.6	11.50	13.739	
2,600.0	2,594.4	2,582.6	2,566.5	5.8	6.4	-75.33	169.4	-87.7	162.9	151.2	11.75	13.863	
2,657.5	2,650.3	2,639.3	2,622.0	6.0	6.7	-77.37	180.8	-90.6	169.6	157.5	12.12	13.993	
2,700.0	2,691.5	2,681.2	2,663.0	6.1	6.8	-79.01	189.2	-92.8	174.6	162.2	12.41	14.075	
2,730.9	2,721.3	2,711.6	2,692.8	6.2	6.9	-80.25	195.4	-94.3	178.3	165.7	12.63	14.122	
2,755.9	2,745.3	2,736.2	2,716.8	6.3	7.0	-81.32	200.3	-95.6	181.3	168.5	12.81	14.155	
2,800.0	2,787.8	2,779.6	2,759.3	6.5	7.2	-83.13	209.1	-97.8	186.7	173.6	13.13	14.219	
2,854.3	2,840.1	2,833.0	2,811.5	6.7	7.4	-85.21	219.8	-100.5	193.7	180.1	13.55	14.298	
2,900.0	2,884.1	2,877.9	2,855.5	6.9	7.6	-86.85	228.9	-102.9	199.7	185.8	13.90	14.371	
2,952.7	2,934.9	2,929.8	2,906.2	7.1	7.8	-88.62	239.3	-105.5	206.9	192.6	14.32	14.451	
3,000.0	2,980.4	2,976.3	2,951.7	7.3	8.0	-90.11	248.7	-107.9	213.4	198.7	14.69	14.528	
3,051.2	3,029.7	3,026.6	3,000.9	7.5	8.2	-91.62	258.8	-110.5	220.7	205.6	15.11	14.608	
3,100.0	3,076.7	3,074.6	3,047.9	7.7	8.4	-92.97	268.5	-112.9	227.8	212.2	15.51	14.687	
3,149.6	3,124.5	3,123.4	3,095.6	7.9	8.6	-94.26	278.3	-115.4	235.0	219.1	15.92	14.765	
3,200.0	3,173.0	3,173.0	3,144.1	8.1	8.8	-95.50	288.3	-118.0	242.6	226.2	16.34	14.846	
3,248.0	3,219.3	3,220.2	3,190.3	8.4	9.0	-96.60	297.8	-120.4	249.8	233.1	16.75	14.920	
3,300.0	3,269.4	3,271.4	3,240.3	8.6	9.2	-97.73	308.1	-123.0	257.8	240.6	17.18	15.002	
3,346.4	3,314.1	3,317.1	3,285.0	8.8	9.4	-98.68	317.3	-125.4	265.0	247.4	17.58	15.072	
3,400.0	3,365.7	3,369.7	3,336.5	9.1	9.6	-99.71	327.9	-128.1	273.4	255.3	18.04	15.154	
3,444.9	3,408.9	3,413.9	3,379.7	9.3	9.8	-100.53	336.8	-130.3	280.5	262.0	18.43	15.220	
3,500.0	3,462.0	3,468.1	3,432.7	9.5	10.0	-101.48	347.7	-133.1	289.2	270.3	18.90	15.302	
3,543.3	3,503.7	3,510.7	3,474.4	9.7	10.2	-102.19	356.3	-135.3	296.2	276.9	19.28	15.364	
3,600.0	3,558.3	3,566.4	3,529.0	10.0	10.4	-103.07	367.5	-138.2	305.3	285.6	19.77	15.445	
3,641.7	3,598.5	3,607.5	3,569.1	10.2	10.6	-103.68	375.8	-140.3	312.1	292.0	20.13	15.502	
3,700.0	3,654.6	3,664.8	3,625.2	10.5	10.9	-104.49	387.3	-143.2	321.6	301.0	20.64	15.582	
3,740.1	3,693.2	3,704.3	3,663.8	10.7	11.0	-105.03	395.3	-145.3	328.2	307.2	20.99	15.636	
3,800.0	3,750.9	3,763.2	3,721.4	11.0	11.3	-105.78	407.1	-148.3	338.1	316.6	21.52	15.714	
3,838.6	3,788.0	3,801.1	3,758.5	11.2	11.4	-106.25	414.8	-150.2	344.5	322.7	21.86	15.763	
3,900.0	3,847.2	3,861.5	3,817.6	11.5	11.7	-106.95	427.0	-153.3	354.8	332.4	22.39	15.841	
3,937.0	3,882.8	3,897.9	3,853.2	11.7	11.9	-107.36	434.3	-155.2	360.9	338.2	22.72	15.886	
4,000.0	3,943.5	3,959.9	3,913.8	12.0	12.1	-108.02	446.8	-158.4	371.5	348.2	23.28	15.962	
4,035.4	3,977.6	3,994.7	3,947.9	12.2	12.3	-108.37	453.8	-160.2	377.5	353.9	23.59	16.003	
4,100.0	4,039.8	4,058.2	4,010.0	12.5	12.5	-108.99	466.6	-163.4	388.4	364.2	24.16	16.078	
4,133.8	4,072.4	4,091.5	4,042.6	12.7	12.7	-109.30	473.3	-165.1	394.1	369.7	24.46	16.115	
4,200.0	4,136.1	4,156.6	4,106.2	13.0	13.0	-109.88	486.4	-168.5	405.4	380.3	25.04	16.188	
4,232.3	4,167.2	4,188.3	4,137.3	13.2	13.1	-110.15	492.8	-170.1	410.9	385.5	25.33	16.223	
4,300.0	4,232.4	4,255.0	4,202.4	13.5	13.4	-110.70	506.2	-173.5	422.4	396.5	25.93	16.294	
4,330.7	4,262.0	4,285.1	4,232.0	13.7	13.5	-110.94	512.3	-175.1	427.7	401.5	26.20	16.325	
4,400.0	4,328.7	4,353.3	4,298.6	14.0	13.8	-111.46	526.0	-178.6	439.6	412.8	26.81	16.395	
4,429.1	4,356.8	4,382.0	4,326.7	14.2	13.9	-111.67	531.8	-180.0	444.6	417.5	27.07	16.423	
4,500.0	4,425.0	4,451.7	4,394.9	14.6	14.2	-112.16	545.8	-183.6	456.8	429.1	27.70	16.491	
4,527.5	4,451.6	4,478.8	4,421.4	14.7	14.4	-112.34	551.3	-185.0	461.6	433.6	27.94	16.517	
4,600.0	4,521.4	4,550.0	4,491.1	15.1	14.7	-112.81	565.6	-188.6	474.1	445.5	28.59	16.584	
4,626.0	4,546.4	4,575.6	4,516.1	15.2	14.8	-112.97	570.8	-190.0	478.6	449.8	28.82	16.607	
4,700.0	4,617.7	4,648.4	4,587.3	15.6	15.1	-113.41	585.4	-193.7	491.4	461.9	29.48	16.672	
4,724.4	4,641.2	4,672.4	4,610.8	15.7	15.2	-113.55	590.3	-194.9	495.7	466.0	29.69	16.693	
4,800.0	4,714.0	4,746.7	4,683.5	16.1	15.5	-113.97	605.2	-198.7	508.8	478.4	30.36	16.756	
4,822.8	4,735.9	4,769.2	4,705.4	16.3	15.6	-114.09	609.8	-199.9	512.8	482.2	30.57	16.775	
4,900.0	4,810.3	4,845.1	4,779.7	16.7	16.0	-114.50	625.0	-203.8	526.2	495.0	31.25	16.837	
4,921.2	4,830.7	4,866.0	4,800.1	16.8	16.0	-114.60	629.3	-204.9	529.9	498.5	31.44	16.853	
5,000.0	4,906.6	4,943.5	4,875.9	17.2	16.4	-114.99	644.9	-208.8	543.7	511.5	32.14	16.914	

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 OLSON 30R-243
<b>Project:</b>	WELD COUNTY, COLORADO	<b>TVD Reference:</b>	KB-EST @ 4990.0usft (Original Well Elev)
<b>Reference Site:</b>	NW NE SEC 30 T4N R67W 6th P.M.	<b>MD Reference:</b>	KB-EST @ 4990.0usft (Original Well Elev)
<b>Site Error:</b>	0.0 usft	<b>North Reference:</b>	True
<b>Reference Well:</b>	OLSON 30R-243	<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 #2	<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	
5,019.7	4,925.5	4,962.8	4,894.8	17.3	16.5	-115.08	648.7	-209.8	547.1	514.8	32.32	16.929	
5,100.0	5,002.9	5,041.8	4,972.1	17.7	16.8	-115.45	664.7	-213.9	561.2	528.2	33.03	16.988	
5,118.1	5,020.3	5,059.6	4,989.5	17.8	16.9	-115.53	668.2	-214.8	564.4	531.2	33.20	17.001	
5,200.0	5,099.2	5,140.2	5,068.3	18.3	17.2	-115.88	684.5	-218.9	578.7	544.8	33.93	17.059	
5,216.5	5,115.1	5,156.4	5,084.2	18.3	17.3	-115.95	687.7	-219.8	581.6	547.6	34.07	17.070	
5,300.0	5,195.5	5,238.5	5,164.5	18.8	17.7	-116.29	704.3	-224.0	596.3	561.5	34.82	17.127	
5,314.9	5,209.9	5,253.2	5,178.9	18.9	17.7	-116.35	707.2	-224.7	598.9	564.0	34.95	17.137	
5,400.0	5,291.8	5,336.9	5,260.8	19.3	18.1	-116.67	724.1	-229.0	613.9	578.2	35.71	17.192	
5,413.4	5,304.7	5,350.1	5,273.6	19.4	18.2	-116.72	726.7	-229.7	616.2	580.4	35.83	17.201	
5,500.0	5,388.1	5,435.3	5,357.0	19.9	18.5	-117.04	743.9	-234.1	631.5	594.9	36.60	17.255	
5,511.8	5,399.5	5,446.9	5,368.3	19.9	18.6	-117.08	746.2	-234.7	633.6	596.9	36.70	17.262	
5,600.0	5,484.4	5,533.6	5,453.2	20.4	19.0	-117.38	763.7	-239.1	649.1	611.7	37.49	17.315	
5,610.2	5,494.3	5,543.7	5,463.0	20.4	19.0	-117.41	765.7	-239.6	650.9	613.4	37.58	17.321	
5,700.0	5,580.7	5,632.0	5,549.4	20.9	19.4	-117.71	783.5	-244.2	666.8	628.4	38.38	17.373	
5,708.6	5,589.1	5,640.5	5,557.7	21.0	19.4	-117.73	785.2	-244.6	668.3	629.9	38.46	17.378	
5,722.6	5,602.5	5,654.2	5,571.2	21.0	19.5	-117.78	788.0	-245.3	670.8	632.2	38.58	17.386	
5,800.0	5,677.3	5,730.4	5,645.7	21.4	19.8	-118.17	803.3	-249.2	684.0	644.7	39.26	17.422	
5,807.1	5,684.2	5,737.4	5,652.5	21.4	19.9	-118.20	804.8	-249.6	685.2	645.8	39.32	17.427	
5,900.0	5,774.7	5,829.2	5,742.3	21.8	20.3	-118.42	823.2	-254.3	699.6	659.6	40.07	17.461	
5,905.5	5,780.1	5,834.7	5,747.6	21.8	20.3	-118.43	824.3	-254.6	700.4	660.3	40.11	17.463	
6,000.0	5,872.9	5,928.2	5,839.1	22.1	20.7	-118.39	843.2	-259.4	713.6	672.8	40.85	17.469	
6,003.9	5,876.7	5,932.1	5,842.9	22.1	20.7	-118.39	843.9	-259.6	714.1	673.2	40.88	17.469	
6,100.0	5,971.6	6,027.2	5,936.0	22.4	21.1	-118.10	863.1	-264.4	726.0	684.4	41.61	17.449	
6,102.3	5,973.9	6,029.5	5,938.2	22.4	21.2	-118.09	863.6	-264.6	726.3	684.6	41.62	17.448	
6,200.0	6,070.8	6,131.1	6,037.8	22.7	21.5	-117.60	883.0	-269.5	736.6	694.3	42.29	17.419	
6,200.8	6,071.6	6,131.9	6,038.7	22.7	21.5	-117.60	883.2	-269.5	736.6	694.4	42.29	17.419	
6,299.2	6,169.6	6,236.6	6,141.9	22.9	21.9	-117.09	899.7	-273.8	744.7	701.9	42.84	17.382	
6,300.0	6,170.4	6,237.4	6,142.7	22.9	21.9	-117.09	899.8	-273.8	744.8	701.9	42.85	17.381	
6,397.6	6,267.9	6,341.7	6,246.2	23.1	22.1	-116.59	912.6	-277.0	750.4	707.1	43.31	17.325	
6,400.0	6,270.3	6,344.3	6,248.7	23.1	22.1	-116.58	912.9	-277.1	750.5	707.2	43.32	17.323	
6,496.0	6,366.3	6,447.4	6,351.4	23.2	22.4	-116.10	921.8	-279.4	753.7	710.0	43.70	17.248	
6,503.5	6,373.8	6,455.5	6,359.5	23.2	22.4	-88.29	922.4	-279.5	753.8	710.1	43.72	17.240	
6,533.5	6,403.8	6,487.8	6,391.7	23.2	22.4	-88.14	924.3	-280.0	754.3	710.5	43.83	17.211	
6,550.0	6,420.3	6,505.5	6,409.4	23.2	22.5	91.92	925.3	-280.3	754.6	710.7	43.88	17.195	
6,594.5	6,464.7	6,553.3	6,457.2	23.3	22.5	92.22	927.3	-280.8	755.2	711.2	43.99	17.167	
6,600.0	6,470.2	6,559.2	6,463.1	23.3	22.5	92.27	927.5	-280.8	755.3	711.3	44.01	17.164	
6,650.0	6,519.8	6,612.8	6,516.6	23.3	22.6	92.82	928.7	-281.1	755.9	711.8	44.09	17.145	
6,692.9	6,561.9	6,658.0	6,561.9	23.2	22.7	93.45	929.0	-281.2	756.5	712.3	44.12	17.147	
6,700.0	6,568.8	6,664.9	6,568.8	23.2	22.7	93.56	929.0	-281.2	756.6	712.4	44.12	17.148	
6,750.0	6,617.0	6,713.8	6,617.7	23.1	22.8	94.46	928.9	-281.2	757.5	713.4	44.10	17.176	
6,791.3	6,656.1	6,757.5	6,661.3	23.0	22.8	95.32	927.1	-281.2	758.6	714.5	44.04	17.226	
6,800.0	6,664.2	6,766.8	6,670.6	23.0	22.8	95.50	926.4	-281.2	758.8	714.8	44.02	17.240	
6,850.0	6,710.1	6,821.1	6,724.4	22.9	22.8	96.52	919.7	-281.2	760.3	716.5	43.83	17.346	
6,889.7	6,745.5	6,865.2	6,767.7	22.7	22.7	97.31	911.3	-281.2	761.7	718.1	43.62	17.461	
6,900.0	6,754.5	6,876.7	6,778.9	22.7	22.7	97.52	908.7	-281.2	762.1	718.5	43.56	17.494	
6,950.0	6,797.2	6,933.6	6,833.7	22.5	22.6	98.49	893.1	-281.2	764.0	720.8	43.20	17.684	
6,988.2	6,828.5	6,978.1	6,875.4	22.3	22.5	99.21	877.9	-281.2	765.5	722.7	42.87	17.858	
7,000.0	6,838.0	6,992.0	6,888.3	22.3	22.5	99.43	872.6	-281.2	766.0	723.3	42.76	17.915	
7,050.0	6,876.7	7,051.9	6,942.4	22.0	22.3	100.33	847.0	-281.2	768.2	725.9	42.24	18.186	
7,086.6	6,903.5	7,096.6	6,981.4	21.8	22.1	100.96	825.0	-281.2	769.8	728.0	41.82	18.409	
7,100.0	6,913.0	7,113.2	6,995.4	21.8	22.0	101.18	816.3	-281.2	770.4	728.7	41.65	18.495	
7,150.0	6,946.9	7,175.9	7,046.7	21.5	21.8	101.98	780.2	-281.2	772.5	731.5	41.02	18.835	

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 OLSON 30R-243
<b>Project:</b>	WELD COUNTY, COLORADO	<b>TVD Reference:</b>	KB-EST @ 4990.0usft (Original Well Elev)
<b>Reference Site:</b>	NW NE SEC 30 T4N R67W 6th P.M.	<b>MD Reference:</b>	KB-EST @ 4990.0usft (Original Well Elev)
<b>Site Error:</b>	0.0 usft	<b>North Reference:</b>	True
<b>Reference Well:</b>	OLSON 30R-243	<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 #2	<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		
7,185.0	6,969.1	7,220.7	7,081.4	21.3	21.6	102.50	751.8	-281.2	774.0	733.5	40.55	19.088		
7,200.0	6,978.2	7,240.1	7,095.8	21.2	21.5	102.72	738.9	-281.2	774.7	734.3	40.35	19.200		
7,250.0	7,006.6	7,305.6	7,141.8	21.0	21.1	103.38	692.3	-281.2	776.6	737.0	39.66	19.581		
7,283.4	7,024.0	7,350.1	7,170.5	20.8	20.9	103.78	658.3	-281.2	777.9	738.7	39.21	19.838		
7,300.0	7,032.1	7,372.3	7,184.1	20.7	20.8	103.96	640.7	-281.2	778.4	739.4	38.99	19.964		
7,350.0	7,054.6	7,440.2	7,222.0	20.4	20.5	104.45	584.4	-281.2	780.0	741.7	38.36	20.336		
7,381.9	7,067.2	7,483.9	7,243.6	20.3	20.3	104.72	546.4	-281.2	780.9	742.9	37.99	20.557		
7,400.0	7,073.8	7,509.0	7,254.8	20.2	20.1	104.85	524.0	-281.2	781.3	743.5	37.78	20.678		
7,450.0	7,089.9	7,578.6	7,282.0	19.9	19.9	105.14	460.0	-281.2	782.3	745.0	37.30	20.970		
7,480.3	7,097.9	7,621.0	7,295.4	19.8	19.7	105.27	419.7	-281.2	782.7	745.6	37.07	21.114		
7,500.0	7,102.5	7,648.7	7,302.9	19.7	19.6	105.33	393.1	-281.2	782.9	746.0	36.93	21.198		
7,550.0	7,111.8	7,719.1	7,317.3	19.5	19.4	105.40	324.2	-281.2	783.1	746.4	36.70	21.339		
7,578.7	7,115.6	7,759.6	7,322.4	19.4	19.4	105.40	284.0	-281.2	783.1	746.5	36.63	21.378		
7,600.0	7,117.6	7,789.5	7,324.8	19.3	19.3	105.37	254.2	-281.2	783.0	746.4	36.61	21.390		
7,650.0	7,119.9	7,851.8	7,326.0	19.1	19.3	105.26	192.0	-281.2	782.6	746.0	36.66	21.350		
7,659.5	7,120.0	7,861.3	7,326.0	19.1	19.3	105.26	182.4	-281.2	782.6	745.9	36.68	21.338		
7,660.3	7,120.0	7,862.1	7,326.0	19.1	19.3	105.26	181.7	-281.2	782.6	745.9	36.68	21.337		
7,677.1	7,120.0	7,878.9	7,325.9	19.0	19.3	105.26	164.8	-281.2	782.6	745.9	36.72	21.314		
7,700.0	7,119.9	7,901.8	7,325.9	19.0	19.3	105.26	142.0	-281.2	782.6	745.8	36.78	21.281		
7,775.6	7,119.7	7,977.3	7,325.8	18.8	19.5	105.27	66.4	-281.2	782.6	745.5	37.17	21.054		
7,800.0	7,119.7	8,001.8	7,325.8	18.8	19.5	105.27	42.0	-281.2	782.6	745.3	37.30	20.980		
7,874.0	7,119.5	8,075.8	7,325.7	18.9	19.8	105.27	-32.0	-281.2	782.7	744.7	37.96	20.620		
7,900.0	7,119.4	8,101.8	7,325.6	19.0	19.9	105.28	-58.0	-281.2	782.7	744.5	38.19	20.494		
7,972.4	7,119.2	8,174.2	7,325.5	19.4	20.4	105.28	-130.5	-281.2	782.7	743.6	39.07	20.032		
8,000.0	7,119.2	8,201.8	7,325.5	19.5	20.6	105.28	-158.1	-281.2	782.7	743.3	39.41	19.860		
8,070.8	7,119.0	8,272.6	7,325.4	20.1	21.1	105.29	-228.9	-281.2	782.7	742.2	40.49	19.332		
8,100.0	7,118.9	8,301.8	7,325.3	20.4	21.3	105.29	-258.1	-281.2	782.7	741.8	40.93	19.122		
8,169.3	7,118.7	8,371.0	7,325.2	21.1	22.0	105.30	-327.3	-281.2	782.7	740.6	42.18	18.559		
8,200.0	7,118.7	8,401.8	7,325.2	21.4	22.3	105.30	-358.1	-281.2	782.8	740.0	42.73	18.319		
8,267.7	7,118.5	8,469.5	7,325.1	22.1	23.0	105.30	-425.8	-281.2	782.8	738.7	44.10	17.748		
8,300.0	7,118.4	8,501.8	7,325.1	22.5	23.3	105.31	-458.1	-281.2	782.8	738.0	44.76	17.487		
8,366.1	7,118.3	8,567.9	7,325.0	23.3	24.1	105.31	-524.2	-281.2	782.8	736.6	46.24	16.928		
8,400.0	7,118.2	8,601.8	7,324.9	23.7	24.5	105.31	-558.1	-281.2	782.8	735.8	47.00	16.654		
8,464.5	7,118.0	8,666.3	7,324.8	24.5	25.3	105.32	-622.6	-281.2	782.8	734.3	48.57	16.119		
8,500.0	7,117.9	8,701.8	7,324.8	25.0	25.7	105.32	-658.1	-281.2	782.8	733.4	49.43	15.839		
8,563.0	7,117.8	8,764.7	7,324.7	25.8	26.6	105.32	-721.0	-281.2	782.9	731.8	51.05	15.336		
8,600.0	7,117.7	8,801.8	7,324.6	26.3	27.1	105.33	-758.1	-281.2	782.9	730.9	52.00	15.055		
8,661.4	7,117.5	8,863.2	7,324.5	27.2	27.9	105.33	-819.5	-281.2	782.9	729.2	53.66	14.589		
8,700.0	7,117.4	8,901.8	7,324.5	27.7	28.5	105.33	-858.1	-281.2	782.9	728.2	54.71	14.310		
8,759.8	7,117.3	8,961.6	7,324.4	28.6	29.3	105.34	-917.9	-281.2	782.9	726.5	56.39	13.883		
8,800.0	7,117.2	9,001.8	7,324.3	29.2	29.9	105.34	-958.1	-281.2	782.9	725.4	57.53	13.609		
8,858.2	7,117.0	9,060.0	7,324.2	30.1	30.8	105.35	-1,016.3	-281.2	782.9	723.7	59.23	13.219		
8,900.0	7,116.9	9,101.8	7,324.2	30.7	31.4	105.35	-1,058.1	-281.2	782.9	722.5	60.45	12.953		
8,956.7	7,116.8	9,158.5	7,324.1	31.6	32.3	105.35	-1,114.7	-281.2	783.0	720.8	62.15	12.598		
9,000.0	7,116.7	9,201.8	7,324.0	32.3	33.0	105.36	-1,158.1	-281.2	783.0	719.5	63.45	12.340		
9,055.1	7,116.6	9,256.9	7,324.0	33.2	33.9	105.36	-1,213.2	-281.2	783.0	717.8	65.14	12.019		
9,100.0	7,116.5	9,301.8	7,323.9	33.9	34.6	105.36	-1,258.1	-281.2	783.0	716.5	66.53	11.770		
9,153.5	7,116.3	9,355.3	7,323.8	34.7	35.4	105.37	-1,311.6	-281.2	783.0	714.8	68.21	11.480		
9,200.0	7,116.2	9,401.8	7,323.7	35.5	36.2	105.37	-1,358.1	-281.2	783.0	713.4	69.66	11.240		
9,251.9	7,116.1	9,453.7	7,323.7	36.4	37.0	105.37	-1,410.0	-281.2	783.0	711.7	71.32	10.979		
9,300.0	7,116.0	9,501.8	7,323.6	37.2	37.8	105.38	-1,458.1	-281.2	783.1	710.2	72.86	10.748		
9,350.4	7,115.8	9,552.2	7,323.5	38.0	38.7	105.38	-1,508.4	-281.2	783.1	708.6	74.49	10.512		

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 OLSON 30R-243
<b>Project:</b>	WELD COUNTY, COLORADO	<b>TVD Reference:</b>	KB-EST @ 4990.0usft (Original Well Elev)
<b>Reference Site:</b>	NW NE SEC 30 T4N R67W 6th P.M.	<b>MD Reference:</b>	KB-EST @ 4990.0usft (Original Well Elev)
<b>Site Error:</b>	0.0 usft	<b>North Reference:</b>	True
<b>Reference Well:</b>	OLSON 30R-243	<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 #2	<b>Offset TVD Reference:</b>	Offset Datum

<b>Offset Design</b> NW NE SEC 30 T4N R67W 6th P.M. - OLSON 30M-403 - 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
9,400.0	7,115.7	9,601.8	7,323.5	38.8	39.5	105.38	-1,558.1	-281.2	783.1	707.0	76.10	10.290	
9,448.8	7,115.6	9,650.6	7,323.4	39.7	40.3	105.39	-1,606.9	-281.2	783.1	705.4	77.70	10.078	
9,500.0	7,115.5	9,701.8	7,323.3	40.5	41.2	105.39	-1,658.1	-281.2	783.1	703.7	79.38	9.865	
9,547.2	7,115.3	9,749.0	7,323.2	41.3	42.0	105.39	-1,705.3	-281.2	783.1	702.2	80.95	9.674	
9,600.0	7,115.2	9,801.8	7,323.2	42.2	42.9	105.40	-1,758.1	-281.2	783.1	700.4	82.70	9.469	
9,645.6	7,115.1	9,847.4	7,323.1	43.0	43.7	105.40	-1,803.7	-281.2	783.1	698.9	84.24	9.297	
9,700.0	7,115.0	9,901.8	7,323.0	44.0	44.6	105.41	-1,858.1	-281.2	783.2	697.1	86.06	9.100	
9,744.1	7,114.8	9,945.9	7,322.9	44.7	45.4	105.41	-1,902.1	-281.2	783.2	695.6	87.55	8.946	
9,800.0	7,114.7	10,001.8	7,322.9	45.7	46.4	105.41	-1,958.1	-281.2	783.2	693.7	89.44	8.757	
9,842.5	7,114.6	10,044.3	7,322.8	46.5	47.1	105.42	-2,000.6	-281.2	783.2	692.3	90.89	8.617	
9,900.0	7,114.5	10,101.8	7,322.7	47.5	48.1	105.42	-2,058.1	-281.2	783.2	690.4	92.85	8.435	
9,940.9	7,114.4	10,142.7	7,322.6	48.2	48.8	105.42	-2,099.0	-281.2	783.2	689.0	94.25	8.310	
10,000.0	7,114.2	10,201.8	7,322.6	49.2	49.9	105.43	-2,158.1	-281.2	783.2	687.0	96.28	8.135	
10,039.3	7,114.1	10,241.1	7,322.5	49.9	50.6	105.43	-2,197.4	-281.2	783.3	685.6	97.64	8.022	
10,100.0	7,114.0	10,301.8	7,322.4	51.0	51.7	105.43	-2,258.1	-281.2	783.3	683.5	99.73	7.854	
10,137.8	7,113.9	10,339.6	7,322.3	51.7	52.3	105.44	-2,295.8	-281.2	783.3	682.2	101.04	7.752	
10,200.0	7,113.7	10,401.8	7,322.2	52.8	53.5	105.44	-2,358.1	-281.2	783.3	680.1	103.20	7.590	
10,236.2	7,113.6	10,438.0	7,322.2	53.4	54.1	105.44	-2,394.3	-281.2	783.3	678.8	104.46	7.498	
10,300.0	7,113.5	10,501.8	7,322.1	54.6	55.3	105.45	-2,458.1	-281.2	783.3	676.6	106.69	7.342	
10,334.6	7,113.4	10,536.4	7,322.0	55.2	55.9	105.45	-2,492.7	-281.2	783.3	675.4	107.90	7.260	
10,400.0	7,113.2	10,601.8	7,321.9	56.4	57.1	105.45	-2,558.1	-281.2	783.3	673.2	110.19	7.109	
10,433.0	7,113.1	10,634.8	7,321.9	57.0	57.7	105.46	-2,591.1	-281.2	783.4	672.0	111.35	7.035	
10,500.0	7,113.0	10,701.8	7,321.8	58.2	58.9	105.46	-2,658.1	-281.2	783.4	669.7	113.71	6.889	
10,531.5	7,112.9	10,733.3	7,321.7	58.8	59.4	105.46	-2,689.5	-281.2	783.4	668.6	114.82	6.823	
10,600.0	7,112.7	10,801.8	7,321.6	60.0	60.7	105.47	-2,758.1	-281.2	783.4	666.2	117.24	6.682	
10,629.9	7,112.6	10,831.7	7,321.6	60.6	61.2	105.47	-2,788.0	-281.2	783.4	665.1	118.29	6.623	
10,700.0	7,112.5	10,901.8	7,321.5	61.9	62.5	105.47	-2,858.1	-281.2	783.4	662.7	120.78	6.487	
10,728.3	7,112.4	10,930.1	7,321.4	62.4	63.0	105.48	-2,886.4	-281.2	783.4	661.7	121.78	6.433	
10,800.0	7,112.2	11,001.8	7,321.3	63.7	64.3	105.48	-2,958.1	-281.2	783.5	659.1	124.33	6.302	
10,826.7	7,112.1	11,028.5	7,321.3	64.2	64.8	105.48	-2,984.8	-281.2	783.5	658.2	125.28	6.254	
10,900.0	7,111.9	11,101.8	7,321.2	65.5	66.2	105.49	-3,058.1	-281.2	783.5	655.6	127.89	6.126	
10,925.2	7,111.9	11,127.0	7,321.1	66.0	66.6	105.49	-3,083.2	-281.2	783.5	654.7	128.78	6.084	
11,000.0	7,111.7	11,201.8	7,321.0	67.4	68.0	105.50	-3,158.1	-281.2	783.5	652.1	131.45	5.960	
11,023.6	7,111.6	11,225.4	7,321.0	67.8	68.5	105.50	-3,181.7	-281.2	783.5	651.2	132.30	5.922	
11,100.0	7,111.4	11,301.8	7,320.9	69.2	69.9	105.50	-3,258.1	-281.2	783.5	648.5	135.03	5.803	
11,122.0	7,111.4	11,323.8	7,320.8	69.6	70.3	105.50	-3,280.1	-281.2	783.5	647.7	135.82	5.769	
11,200.0	7,111.2	11,401.8	7,320.7	71.1	71.7	105.51	-3,358.1	-281.2	783.6	644.9	138.61	5.653	
11,220.4	7,111.1	11,422.2	7,320.7	71.4	72.1	105.51	-3,378.5	-281.2	783.6	644.2	139.35	5.623	
11,300.0	7,110.9	11,501.8	7,320.5	72.9	73.6	105.52	-3,458.1	-281.2	783.6	641.4	142.20	5.510	
11,318.9	7,110.9	11,520.7	7,320.5	73.3	73.9	105.52	-3,476.9	-281.2	783.6	640.7	142.88	5.484	
11,400.0	7,110.7	11,601.8	7,320.4	74.8	75.4	105.52	-3,558.1	-281.2	783.6	637.8	145.80	5.375	
11,417.3	7,110.6	11,619.1	7,320.4	75.1	75.7	105.52	-3,575.4	-281.2	783.6	637.2	146.42	5.352	
11,500.0	7,110.4	11,701.8	7,320.2	76.6	77.3	105.53	-3,658.1	-281.3	783.6	634.2	149.40	5.245	
11,515.7	7,110.4	11,717.5	7,320.2	76.9	77.6	105.53	-3,673.8	-281.3	783.6	633.7	149.97	5.225	
11,600.0	7,110.2	11,801.8	7,320.1	78.5	79.1	105.54	-3,758.1	-281.3	783.7	630.7	153.00	5.122	
11,614.1	7,110.1	11,815.9	7,320.1	78.7	79.3	105.54	-3,772.2	-281.3	783.7	630.2	153.46	5.107	
11,633.0	7,110.1	11,834.8	7,320.0	79.1	79.6	105.54	-3,791.1	-281.3	783.7	629.6	154.07	5.086	
11,668.5	7,110.0	11,849.6	7,320.0	79.8	79.8	105.54	-3,805.9	-281.3	784.0	629.0	154.92	5.060 SF	

# Anticollision Report



<b>Company:</b>	PDC ENERGY	<b>Local Co-ordinate Reference:</b>	Well OLSON 30R-243
<b>Project:</b>	WELD COUNTY, COLORADO	<b>TVD Reference:</b>	KB-EST @ 4990.0usft (Original Well Elev)
<b>Reference Site:</b>	NW NE SEC 30 T4N R67W 6th P.M.	<b>MD Reference:</b>	KB-EST @ 4990.0usft (Original Well Elev)
<b>Site Error:</b>	0.0 usft	<b>North Reference:</b>	True
<b>Reference Well:</b>	OLSON 30R-243	<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 #2	<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	91.39	-0.7	29.9	29.9				
98.4	98.4	97.4	97.4	0.1	0.1	91.39	-0.7	29.9	29.9	29.7	0.17	176.608	
100.0	100.0	99.0	99.0	0.1	0.1	91.39	-0.7	29.9	29.9	29.7	0.17	173.395	
196.8	196.8	195.8	195.8	0.3	0.3	91.39	-0.7	29.9	29.9	29.3	0.61	49.257	
200.0	200.0	199.0	199.0	0.3	0.3	91.39	-0.7	29.9	29.9	29.2	0.62	48.133	
295.3	295.3	294.3	294.3	0.5	0.5	91.39	-0.7	29.9	29.9	28.8	1.05	28.474	
300.0	300.0	299.0	299.0	0.5	0.5	91.39	-0.7	29.9	29.9	28.8	1.07	27.909	
393.7	393.7	392.7	392.7	0.7	0.7	91.39	-0.7	29.9	29.9	28.4	1.49	20.025	
400.0	400.0	399.0	399.0	0.8	0.8	91.39	-0.7	29.9	29.9	28.3	1.52	19.652	
492.1	492.1	491.1	491.1	1.0	1.0	91.39	-0.7	29.9	29.9	27.9	1.93	15.443	
500.0	500.0	499.0	499.0	1.0	1.0	91.39	-0.7	29.9	29.9	27.9	1.97	15.165	
590.5	590.5	589.5	589.5	1.2	1.2	91.39	-0.7	29.9	29.9	27.5	2.38	12.567	
600.0	600.0	599.0	599.0	1.2	1.2	91.39	-0.7	29.9	29.9	27.4	2.42	12.346	
689.0	689.0	688.0	688.0	1.4	1.4	91.39	-0.7	29.9	29.9	27.0	2.82	10.594	
700.0	700.0	699.0	699.0	1.4	1.4	91.39	-0.7	29.9	29.9	27.0	2.87	10.411	
787.4	787.4	786.4	786.4	1.6	1.6	91.39	-0.7	29.9	29.9	26.6	3.26	9.157	
800.0	800.0	799.0	799.0	1.7	1.7	91.39	-0.7	29.9	29.9	26.5	3.32	9.000	
885.8	885.8	884.8	884.8	1.9	1.9	91.39	-0.7	29.9	29.9	26.2	3.70	8.063	
900.0	900.0	899.0	899.0	1.9	1.9	91.39	-0.7	29.9	29.9	26.1	3.77	7.926	
984.2	984.2	983.2	983.2	2.1	2.1	91.39	-0.7	29.9	29.9	25.7	4.15	7.202	
1,000.0	1,000.0	999.0	999.0	2.1	2.1	91.39	-0.7	29.9	29.9	25.6	4.22	7.081	
1,082.7	1,082.7	1,081.7	1,081.7	2.3	2.3	91.39	-0.7	29.9	29.9	25.3	4.59	6.508	
1,100.0	1,100.0	1,099.0	1,099.0	2.3	2.3	91.39	-0.7	29.9	29.9	25.2	4.67	6.399	
1,181.1	1,181.1	1,180.1	1,180.1	2.5	2.5	91.39	-0.7	29.9	29.9	24.8	5.03	5.935	
1,200.0	1,200.0	1,199.0	1,199.0	2.6	2.6	91.39	-0.7	29.9	29.9	24.7	5.12	5.837	
1,279.5	1,279.5	1,278.5	1,278.5	2.7	2.7	91.39	-0.7	29.9	29.9	24.4	5.47	5.456	
1,300.0	1,300.0	1,299.0	1,299.0	2.8	2.8	91.39	-0.7	29.9	29.9	24.3	5.57	5.365	
1,377.9	1,377.9	1,376.9	1,376.9	3.0	3.0	91.39	-0.7	29.9	29.9	23.9	5.92	5.048	
1,400.0	1,400.0	1,399.0	1,399.0	3.0	3.0	91.39	-0.7	29.9	29.9	23.8	6.01	4.964	
1,476.4	1,476.4	1,475.4	1,475.4	3.2	3.2	91.39	-0.7	29.9	29.9	23.5	6.36	4.696	
1,500.0	1,500.0	1,499.0	1,499.0	3.2	3.2	91.39	-0.7	29.9	29.9	23.4	6.46	4.619	
1,574.8	1,574.8	1,573.8	1,573.8	3.4	3.4	91.39	-0.7	29.9	29.9	23.1	6.80	4.391	
1,600.0	1,600.0	1,599.0	1,599.0	3.5	3.5	91.39	-0.7	29.9	29.9	22.9	6.91	4.319	
1,673.2	1,673.2	1,672.2	1,672.2	3.6	3.6	91.39	-0.7	29.9	29.9	22.6	7.24	4.123	
1,700.0	1,700.0	1,699.0	1,699.0	3.7	3.7	91.39	-0.7	29.9	29.9	22.5	7.36	4.055	
1,738.1	1,738.1	1,737.1	1,737.1	3.8	3.8	91.39	-0.7	29.9	29.9	22.3	7.53	3.963 CC	
1,771.6	1,771.6	1,770.5	1,770.5	3.8	3.8	91.28	-0.7	29.9	29.9	22.2	7.68	3.892 ES	
1,800.0	1,800.0	1,798.7	1,798.7	3.9	3.9	90.79	-0.4	30.1	30.1	22.3	7.81	3.858	
1,870.1	1,870.1	1,868.2	1,868.2	4.1	4.1	88.02	1.1	31.5	31.5	23.4	8.12	3.881	
1,900.0	1,900.0	1,897.9	1,897.8	4.1	4.1	86.27	2.1	32.4	32.5	24.2	8.25	3.938	
1,950.0	1,950.0	1,947.3	1,947.2	4.2	4.2	82.83	4.3	34.4	34.7	26.2	8.47	4.097	
1,968.5	1,968.5	1,965.6	1,965.4	4.3	4.3	53.74	5.3	35.3	35.7	27.1	8.55	4.174	
2,000.0	2,000.0	1,996.7	1,996.4	4.4	4.3	51.73	7.2	37.0	37.5	28.8	8.69	4.311	
2,066.9	2,066.9	2,062.8	2,062.1	4.5	4.5	48.33	12.0	41.3	41.5	32.5	8.98	4.622	
2,100.0	2,099.9	2,095.4	2,094.5	4.6	4.6	47.03	14.7	43.8	43.6	34.5	9.12	4.784	
2,165.3	2,165.1	2,159.7	2,158.3	4.7	4.7	45.06	21.0	49.4	48.1	38.7	9.40	5.110	
2,200.0	2,199.7	2,193.7	2,191.9	4.8	4.8	44.30	24.8	52.8	50.5	41.0	9.55	5.287	
2,263.8	2,263.1	2,256.3	2,253.7	4.9	5.0	43.29	32.4	59.7	55.2	45.3	9.83	5.612	
2,300.0	2,299.1	2,291.8	2,288.6	5.0	5.1	42.91	37.2	64.0	57.9	47.9	9.98	5.799	
2,362.2	2,360.8	2,352.7	2,348.3	5.2	5.2	42.54	46.2	72.1	62.7	52.5	10.26	6.115	
2,400.0	2,398.2	2,389.7	2,384.4	5.3	5.3	42.45	52.1	77.4	65.7	55.3	10.42	6.307	
2,460.6	2,457.9	2,448.8	2,441.9	5.4	5.5	42.50	62.3	86.6	70.7	60.0	10.70	6.608	

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 OLSON 30R-243
<b>Project:</b>	WELD COUNTY, COLORADO	<b>TVD Reference:</b>	KB-EST @ 4990.0usft (Original Well Elev)
<b>Reference Site:</b>	NW NE SEC 30 T4N R67W 6th P.M.	<b>MD Reference:</b>	KB-EST @ 4990.0usft (Original Well Elev)
<b>Site Error:</b>	0.0 usft	<b>North Reference:</b>	True
<b>Reference Well:</b>	OLSON 30R-243	<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 #2	<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	
2,500.0	2,496.6	2,487.2	2,479.1	5.5	5.7	42.63	69.4	93.0	74.0	63.1	10.88	6.803	
2,559.0	2,554.5	2,544.7	2,534.6	5.7	5.9	42.94	80.7	103.1	79.1	67.9	11.17	7.083	
2,600.0	2,594.4	2,584.5	2,572.8	5.8	6.0	43.23	89.0	110.6	82.7	71.3	11.36	7.278	
2,657.5	2,650.3	2,640.3	2,626.0	6.0	6.3	43.72	101.3	121.7	87.9	76.2	11.67	7.535	
2,700.0	2,691.5	2,681.5	2,665.2	6.1	6.4	44.13	110.8	130.3	91.8	79.9	11.89	7.723	
2,730.9	2,721.3	2,711.5	2,693.5	6.2	6.6	44.46	118.1	136.8	94.7	82.7	12.06	7.854	
2,755.9	2,745.3	2,735.6	2,716.3	6.3	6.7	44.72	124.0	142.2	97.2	85.0	12.22	7.955	
2,800.0	2,787.8	2,779.1	2,757.1	6.5	6.9	45.05	135.1	152.1	101.8	89.4	12.50	8.151	
2,854.3	2,840.1	2,833.1	2,807.9	6.7	7.2	45.41	148.8	164.5	107.6	94.8	12.85	8.373	
2,900.0	2,884.1	2,878.5	2,850.5	6.9	7.4	45.69	160.3	174.9	112.5	99.3	13.16	8.550	
2,952.7	2,934.9	2,930.9	2,899.8	7.1	7.7	45.98	173.7	186.9	118.1	104.6	13.52	8.736	
3,000.0	2,980.4	2,977.9	2,944.0	7.3	8.0	46.21	185.6	197.6	123.1	109.3	13.85	8.892	
3,051.2	3,029.7	3,028.8	2,991.8	7.5	8.3	46.45	198.5	209.3	128.6	114.4	14.22	9.045	
3,100.0	3,076.7	3,077.3	3,037.4	7.7	8.5	46.66	210.9	220.4	133.8	119.2	14.57	9.183	
3,149.6	3,124.5	3,126.6	3,083.7	7.9	8.8	46.85	223.4	231.7	139.1	124.2	14.94	9.311	
3,200.0	3,173.0	3,176.8	3,130.8	8.1	9.1	47.03	236.1	243.1	144.5	129.2	15.32	9.432	
3,248.0	3,219.3	3,224.5	3,175.7	8.4	9.4	47.20	248.3	254.0	149.6	133.9	15.68	9.538	
3,300.0	3,269.4	3,276.2	3,224.3	8.6	9.7	47.36	261.4	265.9	155.1	139.1	16.08	9.646	
3,346.4	3,314.1	3,322.4	3,267.7	8.8	10.0	47.50	273.1	276.4	160.1	143.7	16.45	9.733	
3,400.0	3,365.7	3,375.6	3,317.7	9.1	10.3	47.64	286.7	288.6	165.8	149.0	16.87	9.828	
3,444.9	3,408.9	3,420.2	3,359.6	9.3	10.6	47.76	298.0	298.8	170.6	153.4	17.23	9.902	
3,500.0	3,462.0	3,475.0	3,411.1	9.5	10.9	47.89	311.9	311.4	176.5	158.8	17.68	9.986	
3,543.3	3,503.7	3,518.1	3,451.6	9.7	11.2	47.99	322.9	321.2	181.1	163.1	18.03	10.047	
3,600.0	3,558.3	3,574.5	3,504.6	10.0	11.6	48.11	337.2	334.1	187.2	168.7	18.49	10.122	
3,641.7	3,598.5	3,615.9	3,543.5	10.2	11.8	48.20	347.8	343.6	191.7	172.8	18.84	10.173	
3,700.0	3,654.6	3,673.9	3,598.0	10.5	12.2	48.31	362.5	356.9	197.9	178.6	19.32	10.240	
3,740.1	3,693.2	3,713.8	3,635.5	10.7	12.5	48.38	372.6	366.0	202.2	182.5	19.66	10.283	
3,800.0	3,750.9	3,772.4	3,690.6	11.0	12.8	48.51	387.5	379.5	208.6	188.5	20.16	10.349	
3,838.6	3,788.0	3,809.3	3,725.3	11.2	13.0	48.69	396.5	388.3	213.0	192.6	20.48	10.402	
3,900.0	3,847.2	3,867.9	3,780.4	11.5	13.4	49.19	410.0	403.0	220.6	199.6	21.01	10.502	
3,937.0	3,882.8	3,903.9	3,814.1	11.7	13.6	49.59	418.0	412.4	225.5	204.1	21.34	10.563	
4,000.0	3,943.5	3,966.3	3,872.8	12.0	14.0	50.28	431.7	428.7	233.8	211.9	21.94	10.655	
4,035.4	3,977.6	4,001.3	3,905.7	12.2	14.2	50.64	439.4	437.9	238.5	216.2	22.28	10.704	
4,100.0	4,039.8	4,065.3	3,965.8	12.5	14.7	51.26	453.5	454.7	247.1	224.2	22.90	10.790	
4,133.8	4,072.4	4,098.8	3,997.3	12.7	14.9	51.58	460.9	463.4	251.6	228.4	23.23	10.833	
4,200.0	4,136.1	4,164.3	4,058.9	13.0	15.3	52.15	475.3	480.6	260.5	236.6	23.87	10.912	
4,232.3	4,167.2	4,196.3	4,088.9	13.2	15.5	52.42	482.3	489.0	264.8	240.6	24.19	10.949	
4,300.0	4,232.4	4,263.3	4,151.9	13.5	16.0	52.95	497.1	506.5	273.9	249.1	24.85	11.023	
4,330.7	4,262.0	4,293.7	4,180.5	13.7	16.2	53.18	503.7	514.5	278.0	252.9	25.15	11.055	
4,400.0	4,328.7	4,362.4	4,245.0	14.0	16.6	53.68	518.8	532.5	287.4	261.6	25.83	11.125	
4,429.1	4,356.8	4,391.2	4,272.1	14.2	16.8	53.88	525.2	540.0	291.3	265.2	26.12	11.153	
4,500.0	4,425.0	4,461.4	4,338.0	14.6	17.3	54.34	540.6	558.4	300.9	274.1	26.82	11.218	
4,527.5	4,451.6	4,488.7	4,363.7	14.7	17.5	54.51	546.6	565.5	304.6	277.5	27.10	11.242	
4,600.0	4,521.4	4,560.4	4,431.1	15.1	18.0	54.94	562.4	584.3	314.5	286.6	27.82	11.303	
4,626.0	4,546.4	4,586.1	4,455.3	15.2	18.1	55.09	568.1	591.0	318.0	289.9	28.08	11.324	
4,700.0	4,617.7	4,659.4	4,524.1	15.6	18.6	55.50	584.2	610.2	328.0	299.2	28.82	11.381	
4,724.4	4,641.2	4,683.6	4,546.8	15.7	18.8	55.62	589.5	616.6	331.4	302.3	29.07	11.399	
4,800.0	4,714.0	4,758.5	4,617.2	16.1	19.3	56.00	606.0	636.2	341.7	311.8	29.83	11.453	
4,822.8	4,735.9	4,781.1	4,638.4	16.3	19.4	56.12	610.9	642.1	344.8	314.7	30.06	11.469	
4,900.0	4,810.3	4,857.5	4,710.2	16.7	20.0	56.48	627.7	662.1	355.3	324.4	30.84	11.520	
4,921.2	4,830.7	4,878.5	4,730.0	16.8	20.1	56.57	632.4	667.6	358.2	327.1	31.06	11.533	
5,000.0	4,906.6	4,956.5	4,803.3	17.2	20.6	56.91	649.5	688.0	368.9	337.1	31.86	11.582	

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 OLSON 30R-243
<b>Project:</b>	WELD COUNTY, COLORADO	<b>TVD Reference:</b>	KB-EST @ 4990.0usft (Original Well Elev)
<b>Reference Site:</b>	NW NE SEC 30 T4N R67W 6th P.M.	<b>MD Reference:</b>	KB-EST @ 4990.0usft (Original Well Elev)
<b>Site Error:</b>	0.0 usft	<b>North Reference:</b>	True
<b>Reference Well:</b>	OLSON 30R-243	<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 #2	<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	
5,019.7	4,925.5	4,976.0	4,821.6	17.3	20.8	56.99	653.8	693.1	371.6	339.6	32.06	11.593	
5,100.0	5,002.9	5,055.5	4,896.4	17.7	21.3	57.32	671.3	714.0	382.6	349.7	32.87	11.639	
5,118.1	5,020.3	5,073.5	4,913.2	17.8	21.4	57.39	675.2	718.7	385.1	352.0	33.06	11.649	
5,200.0	5,099.2	5,154.6	4,989.4	18.3	22.0	57.69	693.1	739.9	396.3	362.4	33.90	11.692	
5,216.5	5,115.1	5,170.9	5,004.8	18.3	22.1	57.75	696.7	744.2	398.6	364.5	34.06	11.701	
5,300.0	5,195.5	5,253.6	5,082.5	18.8	22.7	58.04	714.9	765.8	410.0	375.1	34.92	11.742	
5,314.9	5,209.9	5,268.4	5,096.4	18.9	22.8	58.10	718.1	769.7	412.1	377.0	35.07	11.749	
5,400.0	5,291.8	5,352.6	5,175.5	19.3	23.3	58.37	736.6	791.8	423.7	387.8	35.95	11.789	
5,413.4	5,304.7	5,365.9	5,188.0	19.4	23.4	58.42	739.6	795.2	425.6	389.5	36.08	11.795	
5,500.0	5,388.1	5,451.6	5,268.6	19.9	24.0	58.68	758.4	817.7	437.5	400.5	36.97	11.832	
5,511.8	5,399.5	5,463.3	5,279.6	19.9	24.1	58.72	761.0	820.7	439.1	402.0	37.10	11.837	
5,600.0	5,484.4	5,557.3	5,368.0	20.4	24.7	59.03	781.4	845.0	450.9	412.9	38.03	11.858	
5,610.2	5,494.3	5,568.8	5,379.0	20.4	24.8	59.08	783.8	847.8	452.1	414.0	38.14	11.855	
5,700.0	5,580.7	5,670.8	5,476.1	20.9	25.3	59.67	803.7	871.6	461.7	422.5	39.13	11.799	
5,708.6	5,589.1	5,680.6	5,485.5	21.0	25.3	59.74	805.5	873.7	462.5	423.2	39.23	11.790	
5,722.6	5,602.5	5,696.5	5,500.8	21.0	25.4	59.86	808.4	877.1	463.7	424.3	39.38	11.773	
5,800.0	5,677.3	5,784.7	5,585.8	21.4	25.8	60.62	823.3	894.9	469.9	429.7	40.21	11.687	
5,807.1	5,684.2	5,792.8	5,593.6	21.4	25.8	60.68	824.6	896.4	470.5	430.2	40.28	11.681	
5,900.0	5,774.7	5,898.9	5,697.0	21.8	26.2	61.48	840.1	914.9	476.9	435.7	41.14	11.591	
5,905.5	5,780.1	5,905.2	5,703.1	21.8	26.3	61.53	841.0	915.9	477.2	436.0	41.19	11.586	
6,000.0	5,872.9	6,013.2	5,809.2	22.1	26.6	62.23	854.1	931.6	482.5	440.5	41.97	11.495	
6,003.9	5,876.7	6,017.7	5,813.7	22.1	26.7	62.26	854.6	932.2	482.7	440.7	42.00	11.492	
6,100.0	5,971.6	6,127.8	5,922.4	22.4	27.0	62.88	865.2	944.8	486.7	444.0	42.70	11.399	
6,102.3	5,973.9	6,130.4	5,925.1	22.4	27.0	62.90	865.4	945.1	486.8	444.1	42.71	11.397	
6,200.0	6,070.8	6,242.4	6,036.3	22.7	27.2	63.43	873.4	954.6	489.5	446.2	43.32	11.301	
6,200.8	6,071.6	6,243.2	6,037.2	22.7	27.2	63.43	873.4	954.6	489.6	446.2	43.32	11.301	
6,299.2	6,169.6	6,356.1	6,149.7	22.9	27.5	63.88	878.6	960.8	491.0	447.1	43.83	11.202	
6,300.0	6,170.4	6,357.0	6,150.6	22.9	27.5	63.89	878.7	960.8	491.0	447.1	43.83	11.201	
6,397.6	6,267.9	6,468.8	6,262.4	23.1	27.6	64.24	880.9	963.5	491.0	446.7	44.23	11.099	
6,400.0	6,270.3	6,471.6	6,265.2	23.1	27.6	64.25	881.0	963.6	491.0	446.7	44.24	11.097	
6,496.0	6,366.3	6,571.7	6,365.3	23.2	27.7	64.43	881.1	963.7	490.3	445.7	44.52	11.012	
6,503.5	6,373.8	6,579.2	6,372.8	23.2	27.7	92.20	881.1	963.7	490.3	445.7	44.54	11.008	
6,533.5	6,403.8	6,609.2	6,402.8	23.2	27.7	92.20	881.1	963.7	490.3	445.7	44.61	10.990	
6,550.0	6,420.3	6,625.5	6,419.1	23.2	27.8	-87.82	881.0	963.7	490.3	445.6	44.64	10.981	
6,594.5	6,464.7	6,668.8	6,462.4	23.3	27.8	-87.89	879.3	963.7	490.2	445.6	44.68	10.973	
6,600.0	6,470.2	6,674.2	6,467.8	23.3	27.8	-87.90	878.9	963.7	490.2	445.6	44.68	10.972	
6,650.0	6,519.8	6,723.0	6,516.2	23.3	27.8	-87.99	873.4	963.7	490.2	445.6	44.63	10.984	
6,692.9	6,561.9	6,764.9	6,557.5	23.2	27.8	-88.07	866.1	963.7	490.2	445.7	44.52	11.010	
6,700.0	6,568.8	6,771.9	6,564.3	23.2	27.8	-88.09	864.7	963.7	490.2	445.7	44.50	11.015	
6,750.0	6,617.0	6,820.8	6,611.7	23.1	27.7	-88.20	852.6	963.7	490.1	445.9	44.29	11.066	
6,791.3	6,656.1	6,861.2	6,650.2	23.0	27.6	-88.29	840.2	963.7	490.1	446.1	44.06	11.123	
6,800.0	6,664.2	6,869.7	6,658.2	23.0	27.6	-88.31	837.4	963.7	490.1	446.1	44.01	11.136	
6,850.0	6,710.1	6,918.8	6,703.6	22.9	27.5	-88.44	818.9	963.7	490.1	446.4	43.66	11.224	
6,889.7	6,745.5	6,957.8	6,738.8	22.7	27.4	-88.55	802.1	963.7	490.1	446.7	43.34	11.307	
6,900.0	6,754.5	6,967.9	6,747.8	22.7	27.3	-88.57	797.4	963.7	490.1	446.8	43.25	11.330	
6,950.0	6,797.2	7,017.1	6,790.4	22.5	27.2	-88.71	772.8	963.7	490.0	447.2	42.79	11.452	
6,988.2	6,828.5	7,054.7	6,821.8	22.3	27.0	-88.83	752.1	963.7	490.0	447.6	42.41	11.555	
7,000.0	6,838.0	7,066.4	6,831.3	22.3	27.0	-88.86	745.4	963.7	490.0	447.7	42.28	11.588	
7,050.0	6,876.7	7,115.7	6,870.2	22.0	26.8	-89.01	715.1	963.7	490.0	448.2	41.74	11.738	
7,086.6	6,903.5	7,151.9	6,897.4	21.8	26.6	-89.13	691.3	963.7	490.0	448.6	41.33	11.855	
7,100.0	6,913.0	7,165.2	6,907.1	21.8	26.6	-89.17	682.2	963.7	490.0	448.8	41.18	11.899	
7,150.0	6,946.9	7,214.7	6,941.7	21.5	26.3	-89.33	646.7	963.7	489.9	449.3	40.60	12.067	

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 OLSON 30R-243
<b>Project:</b>	WELD COUNTY, COLORADO	<b>TVD Reference:</b>	KB-EST @ 4990.0usft (Original Well Elev)
<b>Reference Site:</b>	NW NE SEC 30 T4N R67W 6th P.M.	<b>MD Reference:</b>	KB-EST @ 4990.0usft (Original Well Elev)
<b>Site Error:</b>	0.0 usft	<b>North Reference:</b>	True
<b>Reference Well:</b>	OLSON 30R-243	<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 #2	<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	
7,185.0	6,969.1	7,249.4	6,964.4	21.3	26.2	-89.45	620.4	963.7	489.9	449.7	40.20	12.188	
7,200.0	6,978.2	7,264.3	6,973.8	21.2	26.1	-89.50	608.9	963.7	489.9	449.9	40.02	12.241	
7,250.0	7,006.6	7,314.1	7,003.2	21.0	25.8	-89.66	568.8	963.7	489.9	450.4	39.46	12.415	
7,283.4	7,024.0	7,347.4	7,021.4	20.8	25.7	-89.78	540.9	963.7	489.9	450.8	39.10	12.530	
7,300.0	7,032.1	7,363.9	7,029.9	20.7	25.6	-89.83	526.7	963.7	489.9	451.0	38.92	12.587	
7,348.9	7,054.1	7,412.7	7,053.1	20.4	25.3	-90.00	483.8	963.7	489.9	451.5	38.43	12.747	
7,350.0	7,054.6	7,413.8	7,053.6	20.4	25.3	-90.00	482.8	963.7	489.9	451.5	38.42	12.751	
7,381.9	7,067.2	7,445.7	7,067.1	20.3	25.2	-90.11	453.9	963.7	489.9	451.8	38.13	12.849	
7,400.0	7,073.8	7,463.8	7,074.2	20.2	25.1	-90.17	437.2	963.7	489.9	451.9	37.97	12.903	
7,450.0	7,089.9	7,514.0	7,091.6	19.9	24.8	-90.34	390.2	963.7	489.9	452.3	37.58	13.037	
7,480.3	7,097.9	7,544.4	7,100.6	19.8	24.7	-90.44	361.1	963.7	489.9	452.5	37.38	13.108	
7,500.0	7,102.5	7,564.2	7,105.7	19.7	24.6	-90.51	342.0	963.7	489.9	452.7	37.26	13.150	
7,550.0	7,111.8	7,614.5	7,116.5	19.5	24.3	-90.68	292.9	963.7	489.9	452.9	37.01	13.237	
7,578.7	7,115.6	7,643.5	7,121.1	19.4	24.2	-90.77	264.3	963.7	489.9	453.0	36.91	13.272	
7,600.0	7,117.6	7,665.0	7,123.7	19.3	24.1	-90.84	243.0	963.7	490.0	453.1	36.85	13.294	
7,650.0	7,119.9	7,715.5	7,127.5	19.1	23.9	-91.00	192.6	963.7	490.0	453.2	36.78	13.321	
7,660.3	7,120.0	7,725.9	7,127.8	19.1	23.9	-91.03	182.2	963.7	490.0	453.2	36.78	13.322	
7,677.1	7,120.0	7,743.0	7,128.0	19.0	23.8	-91.06	165.1	963.7	490.0	453.2	36.78	13.321	
7,700.0	7,119.9	7,765.9	7,127.9	19.0	23.7	-91.05	142.2	963.7	490.0	453.2	36.75	13.333	
7,775.6	7,119.7	7,841.5	7,127.6	18.8	23.5	-91.03	66.6	963.7	490.0	453.3	36.66	13.365	
7,800.0	7,119.7	7,865.9	7,127.4	18.8	23.4	-91.03	42.2	963.7	490.0	453.4	36.61	13.382	
7,874.0	7,119.5	7,939.9	7,127.1	18.9	23.3	-91.01	-31.8	963.7	490.0	453.3	36.70	13.353	
7,900.0	7,119.4	7,965.9	7,127.0	19.0	23.3	-91.00	-57.8	963.7	490.0	453.2	36.75	13.333	
7,972.4	7,119.2	8,038.3	7,126.7	19.4	23.3	-90.99	-130.2	963.7	490.0	452.9	37.10	13.205	
8,000.0	7,119.2	8,065.9	7,126.5	19.5	23.4	-90.98	-157.8	963.7	490.0	452.7	37.27	13.148	
8,070.8	7,119.0	8,136.7	7,126.2	20.1	23.5	-90.96	-228.6	963.7	490.0	452.1	37.88	12.936	
8,100.0	7,118.9	8,165.9	7,126.1	20.4	23.6	-90.96	-257.8	963.7	490.0	451.8	38.16	12.841	
8,169.3	7,118.7	8,235.2	7,125.8	21.1	23.9	-90.94	-327.1	963.7	490.0	451.0	39.00	12.564	
8,200.0	7,118.7	8,265.9	7,125.6	21.4	24.1	-90.93	-357.8	963.7	490.0	450.6	39.40	12.436	
8,267.7	7,118.5	8,333.6	7,125.3	22.1	24.4	-90.91	-425.5	963.7	490.0	449.5	40.44	12.117	
8,300.0	7,118.4	8,365.9	7,125.2	22.5	24.6	-90.91	-457.8	963.7	490.0	449.0	40.96	11.962	
8,366.1	7,118.3	8,432.0	7,124.9	23.3	25.1	-90.89	-523.9	963.7	490.0	447.8	42.16	11.621	
8,400.0	7,118.2	8,465.9	7,124.7	23.7	25.3	-90.88	-557.8	963.7	490.0	447.2	42.81	11.445	
8,464.5	7,118.0	8,530.4	7,124.4	24.5	25.8	-90.87	-622.3	963.7	490.0	445.8	44.15	11.098	
8,500.0	7,117.9	8,565.9	7,124.3	25.0	26.1	-90.86	-657.8	963.7	490.0	445.0	44.91	10.909	
8,563.0	7,117.8	8,628.9	7,124.0	25.8	26.6	-90.84	-720.8	963.7	490.0	443.6	46.36	10.568	
8,600.0	7,117.7	8,665.9	7,123.8	26.3	27.0	-90.83	-757.8	963.7	490.0	442.7	47.24	10.372	
8,661.4	7,117.5	8,727.3	7,123.5	27.2	27.6	-90.82	-819.2	963.7	490.0	441.2	48.77	10.046	
8,700.0	7,117.4	8,765.9	7,123.4	27.7	27.9	-90.81	-857.8	963.7	490.0	440.2	49.76	9.847	
8,759.8	7,117.3	8,825.7	7,123.1	28.6	28.6	-90.80	-917.6	963.7	490.0	438.6	51.35	9.542	
8,800.0	7,117.2	8,865.9	7,122.9	29.2	29.0	-90.79	-957.8	963.7	490.0	437.5	52.44	9.344	
8,858.2	7,117.0	8,924.1	7,122.7	30.1	29.6	-90.77	-1,016.0	963.7	490.0	435.9	54.07	9.062	
8,900.0	7,116.9	8,965.9	7,122.5	30.7	30.1	-90.76	-1,057.8	963.7	490.0	434.7	55.26	8.867	
8,956.7	7,116.8	9,022.6	7,122.2	31.6	30.8	-90.75	-1,114.5	963.7	490.0	433.0	56.91	8.609	
9,000.0	7,116.7	9,065.9	7,122.0	32.3	31.3	-90.74	-1,157.8	963.7	490.0	431.8	58.20	8.419	
9,055.1	7,116.6	9,121.0	7,121.8	33.2	32.0	-90.73	-1,212.9	963.7	489.9	430.1	59.87	8.184	
9,100.0	7,116.5	9,165.9	7,121.6	33.9	32.6	-90.72	-1,257.8	963.7	489.9	428.7	61.24	8.000	
9,153.5	7,116.3	9,219.4	7,121.3	34.7	33.3	-90.70	-1,311.3	963.7	489.9	427.0	62.91	7.788	
9,200.0	7,116.2	9,265.9	7,121.1	35.5	33.9	-90.69	-1,357.8	963.7	489.9	425.6	64.37	7.611	
9,251.9	7,116.1	9,317.8	7,120.9	36.4	34.6	-90.68	-1,409.7	963.7	489.9	423.9	66.03	7.420	
9,300.0	7,116.0	9,365.9	7,120.7	37.2	35.3	-90.67	-1,457.8	963.7	489.9	422.4	67.57	7.250	
9,350.4	7,115.8	9,416.3	7,120.4	38.0	36.0	-90.66	-1,508.2	963.7	489.9	420.7	69.21	7.079	

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 OLSON 30R-243
<b>Project:</b>	WELD COUNTY, COLORADO	<b>TVD Reference:</b>	KB-EST @ 4990.0usft (Original Well Elev)
<b>Reference Site:</b>	NW NE SEC 30 T4N R67W 6th P.M.	<b>MD Reference:</b>	KB-EST @ 4990.0usft (Original Well Elev)
<b>Site Error:</b>	0.0 usft	<b>North Reference:</b>	True
<b>Reference Well:</b>	OLSON 30R-243	<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 #2	<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	
9,400.0	7,115.7	9,465.9	7,120.2	38.8	36.7	-90.64	-1,557.8	963.7	489.9	419.1	70.84	6.916	
9,448.8	7,115.6	9,514.7	7,120.0	39.7	37.4	-90.63	-1,606.6	963.7	489.9	417.5	72.46	6.762	
9,500.0	7,115.5	9,565.9	7,119.8	40.5	38.1	-90.62	-1,657.8	963.7	489.9	415.8	74.17	6.606	
9,547.2	7,115.3	9,613.1	7,119.6	41.3	38.8	-90.61	-1,705.0	963.7	489.9	414.2	75.76	6.467	
9,600.0	7,115.2	9,665.9	7,119.3	42.2	39.6	-90.60	-1,757.8	963.7	489.9	412.4	77.54	6.318	
9,645.6	7,115.1	9,711.5	7,119.1	43.0	40.3	-90.59	-1,803.4	963.7	489.9	410.8	79.10	6.194	
9,700.0	7,115.0	9,765.9	7,118.9	44.0	41.1	-90.57	-1,857.8	963.7	489.9	409.0	80.96	6.052	
9,744.1	7,114.8	9,810.0	7,118.7	44.7	41.8	-90.56	-1,901.8	963.7	489.9	407.5	82.48	5.940	
9,800.0	7,114.7	9,865.9	7,118.4	45.7	42.7	-90.55	-1,957.8	963.7	489.9	405.5	84.41	5.804	
9,842.5	7,114.6	9,908.4	7,118.2	46.5	43.4	-90.54	-2,000.3	963.7	489.9	404.1	85.89	5.704	
9,900.0	7,114.5	9,965.9	7,118.0	47.5	44.3	-90.53	-2,057.8	963.7	489.9	402.0	87.90	5.574	
9,940.9	7,114.4	10,006.8	7,117.8	48.2	44.9	-90.52	-2,098.7	963.7	489.9	400.6	89.33	5.484	
10,000.0	7,114.2	10,065.9	7,117.5	49.2	45.9	-90.50	-2,157.8	963.7	489.9	398.5	91.41	5.360	
10,029.8	7,114.1	10,095.7	7,117.4	49.8	46.4	-90.50	-2,187.6	963.7	489.9	397.5	92.47	5.299	
10,039.3	7,114.1	10,105.2	7,117.3	49.9	46.5	-90.50	-2,197.1	963.7	489.9	397.1	92.80	5.279	
10,100.0	7,114.0	10,165.9	7,117.1	51.0	47.5	-90.48	-2,257.8	963.7	489.9	395.0	94.95	5.160	
10,137.8	7,113.9	10,203.7	7,116.9	51.7	48.1	-90.47	-2,295.5	963.7	489.9	393.6	96.30	5.088	
10,200.0	7,113.7	10,265.9	7,116.6	52.8	49.2	-90.46	-2,357.8	963.7	489.9	391.4	98.52	4.973	
10,236.2	7,113.6	10,302.1	7,116.5	53.4	49.8	-90.45	-2,394.0	963.7	489.9	390.1	99.81	4.909	
10,300.0	7,113.5	10,365.9	7,116.2	54.6	50.8	-90.43	-2,457.8	963.7	489.9	387.8	102.10	4.799	
10,334.6	7,113.4	10,400.5	7,116.0	55.2	51.4	-90.43	-2,492.4	963.7	489.9	386.6	103.35	4.741	
10,400.0	7,113.2	10,465.9	7,115.7	56.4	52.5	-90.41	-2,557.8	963.7	489.9	384.2	105.71	4.635	
10,433.0	7,113.1	10,498.9	7,115.6	57.0	53.1	-90.40	-2,590.8	963.7	489.9	383.0	106.90	4.583	
10,500.0	7,113.0	10,565.9	7,115.3	58.2	54.2	-90.39	-2,657.8	963.7	489.9	380.6	109.32	4.482	
10,531.5	7,112.9	10,597.4	7,115.1	58.8	54.8	-90.38	-2,689.2	963.7	489.9	379.5	110.47	4.435	
10,600.0	7,112.7	10,665.9	7,114.8	60.0	55.9	-90.37	-2,757.8	963.7	489.9	377.0	112.96	4.337	
10,629.9	7,112.6	10,695.8	7,114.7	60.6	56.5	-90.36	-2,787.7	963.7	489.9	375.9	114.05	4.296	
10,700.0	7,112.5	10,765.9	7,114.4	61.9	57.7	-90.34	-2,857.8	963.7	489.9	373.3	116.61	4.202	
10,728.3	7,112.4	10,794.2	7,114.3	62.4	58.2	-90.34	-2,886.1	963.7	489.9	372.3	117.64	4.165	
10,800.0	7,112.2	10,865.9	7,113.9	63.7	59.4	-90.32	-2,957.8	963.7	489.9	369.7	120.27	4.074	
10,826.7	7,112.1	10,892.6	7,113.8	64.2	59.9	-90.31	-2,984.5	963.7	489.9	368.7	121.25	4.041	
10,900.0	7,111.9	10,965.9	7,113.5	65.5	61.2	-90.30	-3,057.8	963.7	489.9	366.0	123.94	3.953	
10,925.2	7,111.9	10,991.1	7,113.4	66.0	61.6	-90.29	-3,082.9	963.7	489.9	365.1	124.86	3.924	
11,000.0	7,111.7	11,065.9	7,113.0	67.4	62.9	-90.27	-3,157.8	963.7	489.9	362.3	127.62	3.839	
11,023.6	7,111.6	11,089.5	7,112.9	67.8	63.3	-90.27	-3,181.4	963.7	490.0	361.5	128.49	3.813	
11,100.0	7,111.4	11,165.9	7,112.6	69.2	64.7	-90.25	-3,257.8	963.7	490.0	358.6	131.31	3.731	
11,122.0	7,111.4	11,187.9	7,112.5	69.6	65.1	-90.25	-3,279.8	963.7	490.0	357.8	132.12	3.708	
11,200.0	7,111.2	11,265.9	7,112.1	71.1	66.5	-90.23	-3,357.8	963.7	490.0	354.9	135.01	3.629	
11,220.4	7,111.1	11,286.3	7,112.1	71.4	66.8	-90.22	-3,378.2	963.7	490.0	354.2	135.76	3.609	
11,300.0	7,110.9	11,365.9	7,111.7	72.9	68.3	-90.21	-3,457.8	963.7	490.0	351.2	138.71	3.532	
11,318.9	7,110.9	11,384.8	7,111.6	73.3	68.6	-90.20	-3,476.6	963.7	490.0	350.5	139.41	3.514	
11,400.0	7,110.7	11,465.9	7,111.3	74.8	70.1	-90.18	-3,557.7	963.7	490.0	347.5	142.43	3.440	
11,417.3	7,110.6	11,483.2	7,111.2	75.1	70.4	-90.18	-3,575.0	963.7	490.0	346.9	143.07	3.425	
11,500.0	7,110.4	11,565.9	7,110.8	76.6	71.9	-90.16	-3,657.7	963.7	490.0	343.8	146.15	3.352	
11,515.7	7,110.4	11,581.6	7,110.7	76.9	72.1	-90.16	-3,673.5	963.7	490.0	343.2	146.73	3.339	
11,600.0	7,110.2	11,665.9	7,110.4	78.5	73.7	-90.14	-3,757.7	963.7	490.0	340.1	149.88	3.269	
11,614.1	7,110.1	11,680.0	7,110.3	78.7	73.9	-90.14	-3,771.9	963.7	490.0	339.6	150.40	3.258	
11,668.5	7,110.0	11,734.4	7,110.1	79.8	74.9	-90.12	-3,826.3	963.7	490.0	337.5	152.43	3.214 SF	

# Anticollision Report



<b>Company:</b>	PDC ENERGY	<b>Local Co-ordinate Reference:</b>	Well OLSON 30R-243
<b>Project:</b>	WELD COUNTY, COLORADO	<b>TVD Reference:</b>	KB-EST @ 4990.0usft (Original Well Elev)
<b>Reference Site:</b>	NW NE SEC 30 T4N R67W 6th P.M.	<b>MD Reference:</b>	KB-EST @ 4990.0usft (Original Well Elev)
<b>Site Error:</b>	0.0 usft	<b>North Reference:</b>	True
<b>Reference Well:</b>	OLSON 30R-243	<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 #2	<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	91.39	-1.5	60.0	60.0				
98.4	98.4	97.4	97.4	0.1	0.1	91.39	-1.5	60.0	60.0	59.8	0.17	354.867	
100.0	100.0	99.0	99.0	0.1	0.1	91.39	-1.5	60.0	60.0	59.8	0.17	348.410	
196.8	196.8	195.8	195.8	0.3	0.3	91.39	-1.5	60.0	60.0	59.4	0.61	98.975	
200.0	200.0	199.0	199.0	0.3	0.3	91.39	-1.5	60.0	60.0	59.4	0.62	96.716	
295.3	295.3	294.3	294.3	0.5	0.5	91.39	-1.5	60.0	60.0	58.9	1.05	57.215	
300.0	300.0	299.0	299.0	0.5	0.5	91.39	-1.5	60.0	60.0	58.9	1.07	56.079	
393.7	393.7	392.7	392.7	0.7	0.7	91.39	-1.5	60.0	60.0	58.5	1.49	40.237	
400.0	400.0	399.0	399.0	0.8	0.8	91.39	-1.5	60.0	60.0	58.5	1.52	39.487	
492.1	492.1	491.1	491.1	1.0	1.0	91.39	-1.5	60.0	60.0	58.1	1.93	31.030	
500.0	500.0	499.0	499.0	1.0	1.0	91.39	-1.5	60.0	60.0	58.0	1.97	30.472	
590.5	590.5	589.5	589.5	1.2	1.2	91.39	-1.5	60.0	60.0	57.6	2.38	25.252	
600.0	600.0	599.0	599.0	1.2	1.2	91.39	-1.5	60.0	60.0	57.6	2.42	24.808	
689.0	689.0	688.0	688.0	1.4	1.4	91.39	-1.5	60.0	60.0	57.2	2.82	21.288	
700.0	700.0	699.0	699.0	1.4	1.4	91.39	-1.5	60.0	60.0	57.1	2.87	20.920	
787.4	787.4	786.4	786.4	1.6	1.6	91.39	-1.5	60.0	60.0	56.7	3.26	18.399	
800.0	800.0	799.0	799.0	1.7	1.7	91.39	-1.5	60.0	60.0	56.7	3.32	18.085	
885.8	885.8	884.8	884.8	1.9	1.9	91.39	-1.5	60.0	60.0	56.3	3.70	16.201	
900.0	900.0	899.0	899.0	1.9	1.9	91.39	-1.5	60.0	60.0	56.2	3.77	15.927	
984.2	984.2	983.2	983.2	2.1	2.1	91.39	-1.5	60.0	60.0	55.9	4.15	14.472	
1,000.0	1,000.0	999.0	999.0	2.1	2.1	91.39	-1.5	60.0	60.0	55.8	4.22	14.229	
1,082.7	1,082.7	1,081.7	1,081.7	2.3	2.3	91.39	-1.5	60.0	60.0	55.4	4.59	13.076	
1,100.0	1,100.0	1,099.0	1,099.0	2.3	2.3	91.39	-1.5	60.0	60.0	55.3	4.67	12.858	
1,181.1	1,181.1	1,180.1	1,180.1	2.5	2.5	91.39	-1.5	60.0	60.0	55.0	5.03	11.926	
1,200.0	1,200.0	1,199.0	1,199.0	2.6	2.6	91.39	-1.5	60.0	60.0	54.9	5.12	11.728	
1,279.5	1,279.5	1,278.5	1,278.5	2.7	2.7	91.39	-1.5	60.0	60.0	54.5	5.47	10.962	
1,300.0	1,300.0	1,299.0	1,299.0	2.8	2.8	91.39	-1.5	60.0	60.0	54.4	5.57	10.781	
1,377.9	1,377.9	1,376.9	1,376.9	3.0	3.0	91.39	-1.5	60.0	60.0	54.1	5.92	10.142	
1,400.0	1,400.0	1,399.0	1,399.0	3.0	3.0	91.39	-1.5	60.0	60.0	54.0	6.01	9.975	
1,476.4	1,476.4	1,475.4	1,475.4	3.2	3.2	91.39	-1.5	60.0	60.0	53.6	6.36	9.437	
1,500.0	1,500.0	1,499.0	1,499.0	3.2	3.2	91.39	-1.5	60.0	60.0	53.5	6.46	9.281	
1,538.2	1,538.2	1,537.2	1,537.2	3.3	3.3	91.39	-1.5	60.0	60.0	53.4	6.64	9.041 CC	
1,574.8	1,574.8	1,573.4	1,573.4	3.4	3.4	91.34	-1.4	60.1	60.1	53.3	6.80	8.838 ES	
1,600.0	1,600.0	1,598.2	1,598.1	3.5	3.5	91.18	-1.2	60.3	60.3	53.4	6.91	8.734	
1,673.2	1,673.2	1,670.0	1,670.0	3.6	3.6	90.12	-0.1	62.1	62.2	54.9	7.23	8.601	
1,700.0	1,700.0	1,696.3	1,696.2	3.7	3.7	89.53	0.5	63.2	63.2	55.9	7.34	8.610	
1,771.6	1,771.6	1,766.4	1,766.2	3.8	3.8	87.56	2.9	66.9	67.1	59.5	7.66	8.770	
1,800.0	1,800.0	1,794.1	1,793.8	3.9	3.9	86.66	4.0	68.8	69.1	61.3	7.78	8.887	
1,870.1	1,870.1	1,862.3	1,861.7	4.1	4.0	84.24	7.5	74.4	75.2	67.1	8.09	9.297	
1,900.0	1,900.0	1,891.4	1,890.6	4.1	4.1	83.17	9.2	77.2	78.3	70.0	8.22	9.523	
1,950.0	1,950.0	1,939.7	1,938.5	4.2	4.2	81.39	12.5	82.5	84.1	75.6	8.44	9.964	
1,968.5	1,968.5	1,957.5	1,956.2	4.3	4.3	52.97	13.8	84.6	86.4	77.9	8.51	10.149	
2,000.0	2,000.0	1,987.9	1,986.2	4.4	4.3	52.00	16.1	88.4	90.5	81.8	8.65	10.460	
2,066.9	2,066.9	2,052.2	2,049.6	4.5	4.5	50.46	21.7	97.3	99.5	90.6	8.94	11.130	
2,100.0	2,099.9	2,083.8	2,080.8	4.6	4.6	49.93	24.7	102.1	104.1	95.0	9.08	11.465	
2,165.3	2,165.1	2,146.3	2,142.0	4.7	4.8	49.24	31.1	112.5	113.6	104.2	9.36	12.127	
2,200.0	2,199.7	2,179.2	2,174.2	4.8	4.9	49.04	34.8	118.5	118.7	109.2	9.51	12.478	
2,263.8	2,263.1	2,239.8	2,233.2	4.9	5.1	48.90	42.1	130.2	128.5	118.7	9.79	13.118	
2,300.0	2,299.1	2,274.1	2,266.4	5.0	5.2	48.94	46.5	137.4	134.2	124.2	9.95	13.481	
2,362.2	2,360.8	2,332.8	2,323.1	5.2	5.4	49.16	54.5	150.3	144.2	134.0	10.23	14.091	
2,400.0	2,398.2	2,368.3	2,357.2	5.3	5.6	49.38	59.7	158.7	150.4	140.0	10.40	14.459	
2,460.6	2,457.9	2,425.1	2,411.6	5.4	5.8	49.83	68.4	172.7	160.7	150.0	10.69	15.034	

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 OLSON 30R-243
<b>Project:</b>	WELD COUNTY, COLORADO	<b>TVD Reference:</b>	KB-EST @ 4990.0usft (Original Well Elev)
<b>Reference Site:</b>	NW NE SEC 30 T4N R67W 6th P.M.	<b>MD Reference:</b>	KB-EST @ 4990.0usft (Original Well Elev)
<b>Site Error:</b>	0.0 usft	<b>North Reference:</b>	True
<b>Reference Well:</b>	OLSON 30R-243	<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 #2	<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	
2,500.0	2,496.6	2,461.9	2,446.6	5.5	6.0	50.18	74.3	182.3	167.6	156.7	10.88	15.403	
2,559.0	2,554.5	2,516.9	2,498.6	5.7	6.2	50.77	83.7	197.4	178.1	166.9	11.18	15.930	
2,600.0	2,594.4	2,554.9	2,534.4	5.8	6.4	51.22	90.4	208.3	185.6	174.2	11.39	16.289	
2,657.5	2,650.3	2,608.0	2,584.1	6.0	6.7	51.89	100.3	224.2	196.3	184.6	11.71	16.765	
2,700.0	2,691.5	2,647.1	2,620.5	6.1	7.0	52.40	107.9	236.4	204.5	192.5	11.95	17.105	
2,730.9	2,721.3	2,675.5	2,646.8	6.2	7.1	52.79	113.5	245.5	210.5	198.4	12.14	17.341	
2,755.9	2,745.3	2,700.0	2,669.4	6.3	7.3	53.19	118.5	253.6	215.5	203.2	12.31	17.513	
2,800.0	2,787.8	2,738.7	2,704.8	6.5	7.5	53.74	126.6	266.6	224.8	212.2	12.59	17.851	
2,854.3	2,840.1	2,788.8	2,750.6	6.7	7.9	54.32	137.4	284.1	237.0	224.0	12.97	18.276	
2,900.0	2,884.1	2,833.2	2,791.0	6.9	8.2	54.76	147.1	299.8	247.5	234.2	13.30	18.609	
2,952.7	2,934.9	2,884.5	2,837.6	7.1	8.6	55.22	158.3	317.9	259.6	245.9	13.69	18.960	
3,000.0	2,980.4	2,930.5	2,879.4	7.3	8.9	55.60	168.4	334.1	270.5	256.4	14.05	19.250	
3,051.2	3,029.7	2,980.2	2,924.7	7.5	9.3	55.98	179.3	351.7	282.3	267.8	14.45	19.533	
3,100.0	3,076.7	3,027.7	2,967.9	7.7	9.6	56.32	189.7	368.4	293.5	278.7	14.84	19.781	
3,149.6	3,124.5	3,075.9	3,011.8	7.9	10.0	56.63	200.2	385.5	305.0	289.7	15.24	20.008	
3,200.0	3,173.0	3,125.0	3,056.4	8.1	10.4	56.93	210.9	402.8	316.6	300.9	15.66	20.222	
3,248.0	3,219.3	3,171.7	3,098.9	8.4	10.7	57.19	221.1	419.3	327.7	311.6	16.06	20.404	
3,300.0	3,269.4	3,222.2	3,144.8	8.6	11.1	57.45	232.2	437.1	339.7	323.2	16.50	20.587	
3,346.4	3,314.1	3,267.4	3,185.9	8.8	11.5	57.67	242.1	453.0	350.4	333.5	16.90	20.733	
3,400.0	3,365.7	3,319.5	3,233.3	9.1	11.9	57.91	253.5	471.4	362.8	345.5	17.37	20.890	
3,444.9	3,408.9	3,363.1	3,273.0	9.3	12.2	58.10	263.0	486.8	373.2	355.5	17.77	21.007	
3,500.0	3,462.0	3,416.7	3,321.8	9.5	12.7	58.31	274.7	505.8	386.0	367.7	18.26	21.142	
3,543.3	3,503.7	3,458.8	3,360.1	9.7	13.0	58.48	283.9	520.6	396.0	377.4	18.65	21.236	
3,600.0	3,558.3	3,514.0	3,410.3	10.0	13.4	58.67	296.0	540.1	409.1	390.0	19.16	21.352	
3,641.7	3,598.5	3,554.5	3,447.2	10.2	13.8	58.81	304.9	554.4	418.8	399.3	19.55	21.428	
3,700.0	3,654.6	3,611.2	3,498.7	10.5	14.2	58.99	317.3	574.4	432.3	412.2	20.08	21.528	
3,740.1	3,693.2	3,650.3	3,534.2	10.7	14.6	59.11	325.8	588.2	441.6	421.2	20.46	21.589	
3,800.0	3,750.9	3,708.5	3,587.2	11.0	15.0	59.28	338.5	608.7	455.5	434.5	21.02	21.675	
3,838.6	3,788.0	3,746.0	3,621.3	11.2	15.3	59.38	346.7	622.0	464.5	443.1	21.38	21.725	
3,900.0	3,847.2	3,805.7	3,675.7	11.5	15.8	59.54	359.8	643.1	478.7	456.8	21.96	21.799	
3,937.0	3,882.8	3,841.7	3,708.4	11.7	16.1	59.63	367.7	655.8	487.3	465.0	22.31	21.839	
4,000.0	3,943.5	3,903.0	3,764.1	12.0	16.6	59.78	381.1	677.4	501.9	479.0	22.92	21.903	
4,035.4	3,977.6	3,937.4	3,795.5	12.2	16.9	59.85	388.6	689.5	510.1	486.9	23.26	21.936	
4,100.0	4,039.8	4,000.2	3,852.6	12.5	17.4	59.99	402.3	711.7	525.1	501.3	23.88	21.991	
4,133.8	4,072.4	4,033.1	3,882.6	12.7	17.7	60.06	409.5	723.3	533.0	508.8	24.21	22.017	
4,200.0	4,136.1	4,097.5	3,941.1	13.0	18.3	60.19	423.6	746.0	548.4	523.5	24.85	22.065	
4,232.3	4,167.2	4,128.8	3,969.6	13.2	18.5	60.25	430.5	757.1	555.9	530.7	25.17	22.086	
4,300.0	4,232.4	4,194.7	4,029.5	13.5	19.1	60.37	444.9	780.4	571.6	545.8	25.83	22.128	
4,330.7	4,262.0	4,224.6	4,056.7	13.7	19.3	60.42	451.4	790.9	578.7	552.6	26.13	22.145	
4,400.0	4,328.7	4,292.0	4,118.0	14.0	19.9	60.53	466.1	814.7	594.8	568.0	26.82	22.181	
4,429.1	4,356.8	4,320.3	4,143.8	14.2	20.1	60.58	472.3	824.7	601.6	574.5	27.10	22.195	
4,500.0	4,425.0	4,389.2	4,206.5	14.6	20.7	60.69	487.4	849.0	618.1	590.2	27.81	22.226	
4,527.5	4,451.6	4,416.0	4,230.9	14.7	20.9	60.73	493.3	858.5	624.5	596.4	28.08	22.237	
4,600.0	4,521.4	4,486.5	4,295.0	15.1	21.5	60.83	508.7	883.3	641.3	612.5	28.80	22.264	
4,626.0	4,546.4	4,511.7	4,317.9	15.2	21.7	60.87	514.2	892.3	647.3	618.3	29.06	22.273	
4,700.0	4,617.7	4,583.7	4,383.4	15.6	22.3	60.96	529.9	917.7	664.5	634.7	29.81	22.296	
4,724.4	4,641.2	4,607.4	4,405.0	15.7	22.5	61.00	535.1	926.0	670.2	640.2	30.05	22.303	
4,800.0	4,714.0	4,681.0	4,471.9	16.1	23.2	61.09	551.2	952.0	687.8	657.0	30.81	22.323	
4,822.8	4,735.9	4,703.2	4,492.1	16.3	23.4	61.12	556.1	959.8	693.1	662.1	31.04	22.329	
4,900.0	4,810.3	4,778.2	4,560.4	16.7	24.0	61.20	572.5	986.3	711.0	679.2	31.82	22.346	
4,921.2	4,830.7	4,798.9	4,579.2	16.8	24.2	61.23	577.0	993.6	716.0	683.9	32.03	22.351	
5,000.0	4,906.6	4,875.5	4,648.8	17.2	24.8	61.31	593.8	1,020.6	734.3	701.5	32.83	22.365	

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 OLSON 30R-243
<b>Project:</b>	WELD COUNTY, COLORADO	<b>TVD Reference:</b>	KB-EST @ 4990.0usft (Original Well Elev)
<b>Reference Site:</b>	NW NE SEC 30 T4N R67W 6th P.M.	<b>MD Reference:</b>	KB-EST @ 4990.0usft (Original Well Elev)
<b>Site Error:</b>	0.0 usft	<b>North Reference:</b>	True
<b>Reference Well:</b>	OLSON 30R-243	<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 #2	<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	
5,019.7	4,925.5	4,894.6	4,666.2	17.3	25.0	61.33	597.9	1,027.4	738.9	705.8	33.03	22.369	
5,100.0	5,002.9	4,972.7	4,737.3	17.7	25.6	61.41	615.0	1,055.0	757.5	723.7	33.85	22.382	
5,118.1	5,020.3	4,990.3	4,753.3	17.8	25.8	61.43	618.9	1,061.2	761.8	727.7	34.03	22.384	
5,200.0	5,099.2	5,070.0	4,825.8	18.3	26.5	61.51	636.3	1,089.3	780.8	745.9	34.87	22.395	
5,216.5	5,115.1	5,086.0	4,840.4	18.3	26.6	61.53	639.8	1,095.0	784.7	749.6	35.03	22.397	
5,300.0	5,195.5	5,167.2	4,914.2	18.8	27.3	61.60	657.6	1,123.6	804.1	768.2	35.89	22.406	
5,314.9	5,209.9	5,181.7	4,927.5	18.9	27.4	61.61	660.7	1,128.8	807.5	771.5	36.04	22.407	
5,400.0	5,291.8	5,264.5	5,002.7	19.3	28.1	61.69	678.8	1,157.9	827.3	790.4	36.91	22.415	
5,413.4	5,304.7	5,277.5	5,014.5	19.4	28.2	61.70	681.7	1,162.5	830.4	793.4	37.05	22.416	
5,500.0	5,388.1	5,361.7	5,091.2	19.9	28.9	61.77	700.1	1,192.3	850.6	812.7	37.94	22.422	
5,511.8	5,399.5	5,373.2	5,101.6	19.9	29.0	61.77	702.6	1,196.3	853.3	815.3	38.06	22.423	
5,600.0	5,484.4	5,459.0	5,179.7	20.4	29.8	61.84	721.4	1,226.6	873.9	834.9	38.96	22.428	
5,610.2	5,494.3	5,468.9	5,188.7	20.4	29.9	61.85	723.5	1,230.1	876.2	837.2	39.07	22.428	
5,700.0	5,580.7	5,583.4	5,293.6	20.9	30.7	62.00	747.7	1,269.1	896.0	855.9	40.08	22.353	
5,708.6	5,589.1	5,594.9	5,304.3	21.0	30.7	62.02	750.0	1,272.8	897.7	857.5	40.18	22.340	
5,722.6	5,602.5	5,613.4	5,321.4	21.0	30.8	62.07	753.6	1,278.7	900.5	860.1	40.34	22.319	
5,800.0	5,677.3	5,716.8	5,418.0	21.4	31.4	62.55	773.0	1,309.9	914.8	873.6	41.23	22.191	
5,807.1	5,684.2	5,726.2	5,426.9	21.4	31.5	62.59	774.7	1,312.6	916.1	874.8	41.30	22.182	
5,900.0	5,774.7	5,851.5	5,545.8	21.8	32.2	63.08	795.4	1,346.1	931.4	889.2	42.22	22.060	
5,905.5	5,780.1	5,859.0	5,553.0	21.8	32.2	63.11	796.6	1,348.0	932.3	890.0	42.27	22.054	
6,000.0	5,872.9	5,987.5	5,676.8	22.1	32.8	63.52	814.8	1,377.5	945.7	902.6	43.11	21.936	
6,003.9	5,876.7	5,992.9	5,682.0	22.1	32.8	63.54	815.5	1,378.6	946.2	903.1	43.15	21.931	
6,100.0	5,971.6	6,124.7	5,810.4	22.4	33.3	63.88	831.1	1,403.7	957.6	913.7	43.88	21.822	
6,102.3	5,973.9	6,127.9	5,813.5	22.4	33.4	63.88	831.4	1,404.2	957.9	914.0	43.90	21.819	
6,200.0	6,070.8	6,262.7	5,946.2	22.7	33.8	64.14	844.0	1,424.6	967.1	922.6	44.54	21.715	
6,200.8	6,071.6	6,263.8	5,947.2	22.7	33.8	64.15	844.1	1,424.7	967.2	922.6	44.54	21.714	
6,299.2	6,169.6	6,400.3	6,082.6	22.9	34.1	64.33	853.5	1,439.8	974.0	929.0	45.07	21.614	
6,300.0	6,170.4	6,401.4	6,083.7	22.9	34.1	64.33	853.5	1,439.9	974.1	929.0	45.07	21.613	
6,397.6	6,267.9	6,537.4	6,219.2	23.1	34.4	64.43	859.4	1,449.5	978.5	933.0	45.46	21.523	
6,400.0	6,270.3	6,540.7	6,222.5	23.1	34.4	64.43	859.5	1,449.6	978.6	933.1	45.47	21.521	
6,496.0	6,366.3	6,674.7	6,356.4	23.2	34.6	64.45	862.0	1,453.5	980.5	934.8	45.74	21.436	
6,503.5	6,373.8	6,685.1	6,366.9	23.2	34.6	92.21	862.0	1,453.6	980.6	934.8	45.76	21.428	
6,533.5	6,403.8	6,721.1	6,402.8	23.2	34.6	92.21	862.1	1,453.7	980.6	934.8	45.84	21.392	
6,550.0	6,420.3	6,737.5	6,419.2	23.2	34.6	-87.80	862.0	1,453.7	980.6	934.7	45.88	21.375	
6,594.5	6,464.7	6,779.8	6,461.4	23.3	34.6	-87.86	860.7	1,453.7	980.6	934.7	45.91	21.360	
6,600.0	6,470.2	6,785.0	6,466.7	23.3	34.6	-87.87	860.4	1,453.7	980.6	934.6	45.91	21.359	
6,650.0	6,519.8	6,832.6	6,514.0	23.3	34.6	-87.94	855.6	1,453.7	980.5	934.6	45.86	21.379	
6,692.9	6,561.9	6,873.5	6,554.4	23.2	34.6	-88.02	848.9	1,453.7	980.5	934.7	45.76	21.429	
6,700.0	6,568.8	6,880.3	6,561.0	23.2	34.6	-88.03	847.6	1,453.7	980.5	934.7	45.73	21.438	
6,750.0	6,617.0	6,928.1	6,607.5	23.1	34.6	-88.12	836.5	1,453.7	980.4	934.9	45.53	21.533	
6,791.3	6,656.1	6,967.6	6,645.3	23.0	34.5	-88.21	824.9	1,453.7	980.4	935.1	45.30	21.640	
6,800.0	6,664.2	6,975.9	6,653.2	23.0	34.5	-88.23	822.3	1,453.7	980.3	935.1	45.25	21.665	
6,850.0	6,710.1	7,023.9	6,698.0	22.9	34.4	-88.34	805.0	1,453.7	980.3	935.4	44.90	21.831	
6,889.7	6,745.5	7,062.2	6,732.7	22.7	34.3	-88.44	789.1	1,453.7	980.2	935.7	44.58	21.987	
6,900.0	6,754.5	7,072.1	6,741.6	22.7	34.3	-88.46	784.7	1,453.7	980.2	935.7	44.50	22.029	
6,950.0	6,797.2	7,120.3	6,783.8	22.5	34.2	-88.59	761.4	1,453.7	980.2	936.1	44.04	22.259	
6,988.2	6,828.5	7,157.2	6,815.1	22.3	34.1	-88.69	741.8	1,453.7	980.1	936.5	43.65	22.453	
7,000.0	6,838.0	7,168.7	6,824.6	22.3	34.0	-88.73	735.3	1,453.7	980.1	936.6	43.53	22.516	
7,050.0	6,876.7	7,217.2	6,863.6	22.0	33.9	-88.87	706.4	1,453.7	980.1	937.1	42.99	22.799	
7,086.6	6,903.5	7,252.9	6,890.9	21.8	33.8	-88.97	683.6	1,453.7	980.0	937.5	42.58	23.019	
7,100.0	6,913.0	7,265.9	6,900.6	21.8	33.7	-89.01	674.8	1,453.7	980.0	937.6	42.42	23.102	
7,150.0	6,946.9	7,314.8	6,935.6	21.5	33.5	-89.16	640.7	1,453.7	980.0	938.1	41.84	23.421	

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 OLSON 30R-243
<b>Project:</b>	WELD COUNTY, COLORADO	<b>TVD Reference:</b>	KB-EST @ 4990.0usft (Original Well Elev)
<b>Reference Site:</b>	NW NE SEC 30 T4N R67W 6th P.M.	<b>MD Reference:</b>	KB-EST @ 4990.0usft (Original Well Elev)
<b>Site Error:</b>	0.0 usft	<b>North Reference:</b>	True
<b>Reference Well:</b>	OLSON 30R-243	<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 #2	<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	
7,185.0	6,969.1	7,349.1	6,958.7	21.3	33.4	-89.27	615.3	1,453.7	980.0	938.5	41.43	23.651	
7,200.0	6,978.2	7,363.9	6,968.2	21.2	33.3	-89.32	604.1	1,453.7	979.9	938.7	41.26	23.750	
7,250.0	7,006.6	7,413.1	6,998.4	21.0	33.1	-89.48	565.2	1,453.7	979.9	939.2	40.69	24.083	
7,283.4	7,024.0	7,446.1	7,017.1	20.8	33.0	-89.59	538.0	1,453.7	979.9	939.6	40.32	24.304	
7,300.0	7,032.1	7,462.5	7,025.9	20.7	32.9	-89.64	524.2	1,453.7	979.9	939.8	40.14	24.412	
7,350.0	7,054.6	7,512.1	7,050.6	20.4	32.7	-89.81	481.2	1,453.7	979.9	940.3	39.62	24.729	
7,381.9	7,067.2	7,543.8	7,064.8	20.3	32.6	-89.91	452.9	1,453.7	979.9	940.6	39.32	24.919	
7,400.0	7,073.8	7,561.9	7,072.4	20.2	32.5	-89.97	436.5	1,453.7	979.9	940.7	39.16	25.025	
7,408.0	7,076.6	7,569.8	7,075.6	20.1	32.5	-90.00	429.2	1,453.7	979.9	940.8	39.09	25.067	
7,450.0	7,089.9	7,611.8	7,091.1	19.9	32.3	-90.14	390.1	1,453.7	979.9	941.1	38.75	25.290	
7,480.3	7,097.9	7,642.2	7,100.8	19.8	32.2	-90.24	361.3	1,453.7	979.9	941.4	38.53	25.430	
7,500.0	7,102.5	7,662.0	7,106.5	19.7	32.1	-90.30	342.4	1,453.7	979.9	941.5	38.40	25.517	
7,550.0	7,111.8	7,712.4	7,118.6	19.5	31.9	-90.47	293.5	1,453.7	979.9	941.8	38.13	25.697	
7,578.7	7,115.6	7,741.4	7,124.0	19.4	31.8	-90.56	264.9	1,453.7	979.9	941.9	38.02	25.774	
7,600.0	7,117.6	7,763.0	7,127.3	19.3	31.7	-90.63	243.6	1,453.7	979.9	942.0	37.95	25.824	
7,650.0	7,119.9	7,813.8	7,132.4	19.1	31.6	-90.79	193.1	1,453.7	980.0	942.1	37.85	25.894	
7,660.3	7,120.0	7,824.3	7,133.0	19.1	31.5	-90.82	182.7	1,453.7	980.0	942.1	37.84	25.900	
7,677.1	7,120.0	7,841.4	7,133.7	19.0	31.5	-90.86	165.5	1,453.7	980.0	942.2	37.83	25.906	
7,700.0	7,119.9	7,864.8	7,134.0	19.0	31.4	-90.88	142.2	1,453.7	980.0	942.2	37.83	25.904	
7,775.6	7,119.7	7,940.4	7,133.4	18.8	31.3	-90.86	66.6	1,453.7	980.0	941.9	38.06	25.749	
7,800.0	7,119.7	7,964.8	7,133.2	18.8	31.2	-90.85	42.1	1,453.7	980.0	941.8	38.15	25.690	
7,874.0	7,119.5	8,038.8	7,132.7	18.9	31.1	-90.83	-31.9	1,453.7	980.0	941.4	38.63	25.369	
7,900.0	7,119.4	8,064.8	7,132.5	19.0	31.1	-90.82	-57.9	1,453.7	980.0	941.2	38.82	25.244	
7,972.4	7,119.2	8,137.2	7,131.9	19.4	31.1	-90.80	-130.3	1,453.7	980.0	940.4	39.55	24.777	
8,000.0	7,119.2	8,164.8	7,131.7	19.5	31.1	-90.79	-157.9	1,453.7	980.0	940.1	39.85	24.589	
8,070.8	7,119.0	8,235.7	7,131.2	20.1	31.1	-90.77	-228.7	1,453.7	980.0	939.2	40.81	24.016	
8,100.0	7,118.9	8,264.8	7,131.0	20.4	31.2	-90.76	-257.9	1,453.7	980.0	938.7	41.22	23.774	
8,169.3	7,118.7	8,334.1	7,130.5	21.1	31.3	-90.74	-327.1	1,453.7	980.0	937.6	42.36	23.134	
8,200.0	7,118.7	8,364.8	7,130.2	21.4	31.4	-90.73	-357.9	1,453.7	980.0	937.1	42.89	22.849	
8,267.7	7,118.5	8,432.5	7,129.7	22.1	31.6	-90.71	-425.5	1,453.7	980.0	935.8	44.18	22.180	
8,300.0	7,118.4	8,464.8	7,129.5	22.5	31.7	-90.71	-457.8	1,453.7	980.0	935.1	44.82	21.863	
8,366.1	7,118.3	8,530.9	7,129.0	23.3	32.0	-90.69	-524.0	1,453.7	980.0	933.7	46.24	21.191	
8,400.0	7,118.2	8,564.8	7,128.7	23.7	32.2	-90.68	-557.8	1,453.7	980.0	933.0	46.99	20.853	
8,464.5	7,118.0	8,629.4	7,128.3	24.5	32.6	-90.66	-622.4	1,453.7	979.9	931.4	48.51	20.200	
8,500.0	7,117.9	8,664.8	7,128.0	25.0	32.8	-90.65	-657.8	1,453.7	979.9	930.6	49.37	19.850	
8,563.0	7,117.8	8,727.8	7,127.5	25.8	33.3	-90.63	-720.8	1,453.7	979.9	929.0	50.96	19.229	
8,600.0	7,117.7	8,764.8	7,127.2	26.3	33.6	-90.62	-757.8	1,453.7	979.9	928.0	51.92	18.875	
8,661.4	7,117.5	8,826.2	7,126.8	27.2	34.1	-90.60	-819.2	1,453.7	979.9	926.4	53.57	18.294	
8,700.0	7,117.4	8,864.8	7,126.5	27.7	34.5	-90.59	-857.8	1,453.7	979.9	925.3	54.62	17.942	
8,759.8	7,117.3	8,924.6	7,126.0	28.6	35.1	-90.57	-917.7	1,453.7	979.9	923.6	56.30	17.405	
8,800.0	7,117.2	8,964.8	7,125.7	29.2	35.5	-90.56	-957.8	1,453.7	979.9	922.5	57.45	17.057	
8,858.2	7,117.0	9,023.1	7,125.3	30.1	36.1	-90.54	-1,016.1	1,453.7	979.9	920.8	59.16	16.565	
8,900.0	7,116.9	9,064.8	7,125.0	30.7	36.6	-90.53	-1,057.8	1,453.7	979.9	919.5	60.39	16.226	
8,956.7	7,116.8	9,121.5	7,124.6	31.6	37.2	-90.51	-1,114.5	1,453.7	979.9	917.8	62.11	15.778	
9,000.0	7,116.7	9,164.8	7,124.2	32.3	37.8	-90.50	-1,157.8	1,453.7	979.9	916.5	63.43	15.448	
9,055.1	7,116.6	9,219.9	7,123.8	33.2	38.4	-90.48	-1,212.9	1,453.7	979.9	914.8	65.15	15.042	
9,100.0	7,116.5	9,264.8	7,123.5	33.9	39.0	-90.47	-1,257.8	1,453.7	979.9	913.4	66.56	14.723	
9,153.5	7,116.3	9,318.3	7,123.1	34.7	39.7	-90.45	-1,311.3	1,453.7	979.9	911.7	68.26	14.356	
9,200.0	7,116.2	9,364.8	7,122.7	35.5	40.3	-90.44	-1,357.8	1,453.7	979.9	910.2	69.75	14.049	
9,251.9	7,116.1	9,416.7	7,122.3	36.4	41.0	-90.42	-1,409.8	1,453.7	979.9	908.5	71.44	13.717	
9,300.0	7,116.0	9,464.8	7,122.0	37.2	41.7	-90.41	-1,457.8	1,453.7	979.9	906.9	73.01	13.422	
9,350.4	7,115.8	9,515.2	7,121.6	38.0	42.4	-90.40	-1,508.2	1,453.7	979.9	905.2	74.67	13.123	

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 OLSON 30R-243
<b>Project:</b>	WELD COUNTY, COLORADO	<b>TVD Reference:</b>	KB-EST @ 4990.0usft (Original Well Elev)
<b>Reference Site:</b>	NW NE SEC 30 T4N R67W 6th P.M.	<b>MD Reference:</b>	KB-EST @ 4990.0usft (Original Well Elev)
<b>Site Error:</b>	0.0 usft	<b>North Reference:</b>	True
<b>Reference Well:</b>	OLSON 30R-243	<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 #2	<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	
9,400.0	7,115.7	9,564.8	7,121.2	38.8	43.1	-90.38	-1,557.8	1,453.7	979.9	903.6	76.32	12.839	
9,448.8	7,115.6	9,613.6	7,120.9	39.7	43.9	-90.37	-1,606.6	1,453.7	979.9	902.0	77.96	12.570	
9,500.0	7,115.5	9,664.8	7,120.5	40.5	44.6	-90.35	-1,657.8	1,453.7	979.9	900.2	79.68	12.298	
9,547.2	7,115.3	9,712.0	7,120.1	41.3	45.3	-90.34	-1,705.0	1,453.7	979.9	898.6	81.28	12.055	
9,600.0	7,115.2	9,764.8	7,119.7	42.2	46.1	-90.32	-1,757.8	1,453.7	979.9	896.8	83.08	11.794	
9,645.6	7,115.1	9,810.4	7,119.4	43.0	46.8	-90.31	-1,803.4	1,453.7	979.9	895.3	84.65	11.576	
9,700.0	7,115.0	9,864.8	7,119.0	44.0	47.6	-90.29	-1,857.8	1,453.7	979.9	893.4	86.52	11.325	
9,744.1	7,114.8	9,908.9	7,118.6	44.7	48.3	-90.28	-1,901.9	1,453.7	979.9	891.9	88.05	11.129	
9,800.0	7,114.7	9,964.8	7,118.2	45.7	49.2	-90.26	-1,957.8	1,453.7	979.9	889.9	89.99	10.889	
9,842.5	7,114.6	10,007.3	7,117.9	46.5	49.9	-90.25	-2,000.3	1,453.7	979.9	888.4	91.48	10.712	
9,900.0	7,114.5	10,064.8	7,117.5	47.5	50.8	-90.24	-2,057.8	1,453.7	979.9	886.4	93.49	10.481	
9,940.9	7,114.4	10,105.7	7,117.2	48.2	51.5	-90.22	-2,098.7	1,453.7	979.9	885.0	94.94	10.322	
10,000.0	7,114.2	10,164.8	7,116.7	49.2	52.4	-90.21	-2,157.8	1,453.7	979.9	882.9	97.02	10.100	
10,039.3	7,114.1	10,204.1	7,116.4	49.9	53.1	-90.19	-2,197.1	1,453.7	979.9	881.5	98.42	9.957	
10,100.0	7,114.0	10,264.8	7,116.0	51.0	54.0	-90.18	-2,257.8	1,453.7	979.9	879.3	100.57	9.743	
10,137.8	7,113.9	10,302.6	7,115.7	51.7	54.7	-90.17	-2,295.5	1,453.7	979.9	878.0	101.92	9.615	
10,200.0	7,113.7	10,364.8	7,115.2	52.8	55.7	-90.15	-2,357.8	1,453.7	979.9	875.8	104.14	9.409	
10,236.2	7,113.6	10,401.0	7,115.0	53.4	56.3	-90.14	-2,394.0	1,453.7	979.9	874.5	105.44	9.293	
10,300.0	7,113.5	10,464.8	7,114.5	54.6	57.4	-90.12	-2,457.8	1,453.7	979.9	872.2	107.73	9.096	
10,329.9	7,113.4	10,494.6	7,114.3	55.1	57.9	-90.11	-2,487.6	1,453.7	979.9	871.1	108.81	9.006	
10,334.6	7,113.4	10,499.4	7,114.2	55.2	58.0	-90.11	-2,492.4	1,453.7	979.9	870.9	108.98	8.992	
10,400.0	7,113.2	10,564.8	7,113.7	56.4	59.1	-90.09	-2,557.8	1,453.7	979.9	868.6	111.34	8.801	
10,433.0	7,113.1	10,597.8	7,113.5	57.0	59.6	-90.08	-2,590.8	1,453.7	979.9	867.4	112.53	8.708	
10,500.0	7,113.0	10,664.8	7,113.0	58.2	60.8	-90.06	-2,657.8	1,453.7	979.9	864.9	114.96	8.524	
10,531.5	7,112.9	10,696.3	7,112.7	58.8	61.3	-90.05	-2,689.2	1,453.7	979.9	863.8	116.10	8.440	
10,600.0	7,112.7	10,764.8	7,112.2	60.0	62.5	-90.03	-2,757.8	1,453.7	979.9	861.3	118.60	8.262	
10,629.9	7,112.6	10,794.7	7,112.0	60.6	63.0	-90.02	-2,787.7	1,453.7	979.9	860.2	119.69	8.187	
10,700.0	7,112.5	10,864.8	7,111.5	61.9	64.2	-90.00	-2,857.8	1,453.7	979.9	857.7	122.25	8.016	
10,728.3	7,112.4	10,893.1	7,111.3	62.4	64.7	-89.99	-2,886.1	1,453.7	979.9	856.6	123.28	7.948	
10,800.0	7,112.2	10,964.8	7,110.7	63.7	65.9	-89.97	-2,957.7	1,453.7	979.9	854.0	125.91	7.783	
10,826.7	7,112.1	10,991.5	7,110.5	64.2	66.4	-89.96	-2,984.5	1,453.7	979.9	853.0	126.89	7.723	
10,900.0	7,111.9	11,064.8	7,110.0	65.5	67.7	-89.94	-3,057.7	1,453.7	979.9	850.3	129.58	7.562	
10,925.2	7,111.9	11,090.0	7,109.8	66.0	68.1	-89.94	-3,082.9	1,453.7	979.9	849.4	130.50	7.509	
11,000.0	7,111.7	11,164.8	7,109.2	67.4	69.4	-89.91	-3,157.7	1,453.7	979.9	846.6	133.26	7.353	
11,023.6	7,111.6	11,188.4	7,109.0	67.8	69.8	-89.91	-3,181.3	1,453.7	979.9	845.8	134.13	7.306	
11,100.0	7,111.4	11,264.8	7,108.5	69.2	71.2	-89.88	-3,257.7	1,453.7	979.9	843.0	136.95	7.155	
11,122.0	7,111.4	11,286.8	7,108.3	69.6	71.6	-89.88	-3,279.8	1,453.7	979.9	842.1	137.76	7.113	
11,200.0	7,111.2	11,364.8	7,107.7	71.1	72.9	-89.86	-3,357.7	1,453.7	979.9	839.3	140.64	6.967	
11,220.4	7,111.1	11,385.2	7,107.6	71.4	73.3	-89.85	-3,378.2	1,453.7	979.9	838.5	141.40	6.930	
11,300.0	7,110.9	11,464.8	7,107.0	72.9	74.7	-89.83	-3,457.7	1,453.7	979.9	835.6	144.35	6.788	
11,318.9	7,110.9	11,483.6	7,106.8	73.3	75.1	-89.82	-3,476.6	1,453.7	979.9	834.9	145.05	6.756	
11,400.0	7,110.7	11,564.8	7,106.2	74.8	76.5	-89.80	-3,557.7	1,453.7	979.9	831.9	148.06	6.618	
11,417.3	7,110.6	11,582.1	7,106.1	75.1	76.8	-89.79	-3,575.0	1,453.7	979.9	831.2	148.70	6.590	
11,500.0	7,110.4	11,664.8	7,105.5	76.6	78.3	-89.77	-3,657.7	1,453.7	979.9	828.1	151.78	6.456	
11,515.7	7,110.4	11,680.5	7,105.4	76.9	78.6	-89.76	-3,673.4	1,453.7	979.9	827.6	152.37	6.431	
11,600.0	7,110.2	11,764.8	7,104.7	78.5	80.1	-89.74	-3,757.7	1,453.7	979.9	824.4	155.51	6.302	
11,614.1	7,110.1	11,778.9	7,104.6	78.7	80.3	-89.74	-3,771.9	1,453.7	979.9	823.9	156.03	6.280	
11,668.5	7,110.0	11,833.1	7,104.2	79.8	81.3	-89.72	-3,826.0	1,453.7	979.9	821.9	158.06	6.200 SF	

# Anticollision Report



<b>Company:</b>	PDC ENERGY	<b>Local Co-ordinate Reference:</b>	Well OLSON 30R-243
<b>Project:</b>	WELD COUNTY, COLORADO	<b>TVD Reference:</b>	KB-EST @ 4990.0usft (Original Well Elev)
<b>Reference Site:</b>	NW NE SEC 30 T4N R67W 6th P.M.	<b>MD Reference:</b>	KB-EST @ 4990.0usft (Original Well Elev)
<b>Site Error:</b>	0.0 usft	<b>North Reference:</b>	True
<b>Reference Well:</b>	OLSON 30R-243	<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 #2	<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	91.39	-1.1	44.9	44.9				
98.4	98.4	97.4	97.4	0.1	0.1	91.39	-1.1	44.9	44.9	44.8	0.17	265.737	
100.0	100.0	99.0	99.0	0.1	0.1	91.39	-1.1	44.9	44.9	44.8	0.17	260.903	
196.8	196.8	195.8	195.8	0.3	0.3	91.39	-1.1	44.9	44.9	44.3	0.61	74.116	
200.0	200.0	199.0	199.0	0.3	0.3	91.39	-1.1	44.9	44.9	44.3	0.62	72.424	
295.3	295.3	294.3	294.3	0.5	0.5	91.39	-1.1	44.9	44.9	43.9	1.05	42.844	
300.0	300.0	299.0	299.0	0.5	0.5	91.39	-1.1	44.9	44.9	43.9	1.07	41.994	
393.7	393.7	392.7	392.7	0.7	0.7	91.39	-1.1	44.9	44.9	43.4	1.49	30.131	
400.0	400.0	399.0	399.0	0.8	0.8	91.39	-1.1	44.9	44.9	43.4	1.52	29.570	
492.1	492.1	491.1	491.1	1.0	1.0	91.39	-1.1	44.9	44.9	43.0	1.93	23.236	
500.0	500.0	499.0	499.0	1.0	1.0	91.39	-1.1	44.9	44.9	43.0	1.97	22.819	
590.5	590.5	589.5	589.5	1.2	1.2	91.39	-1.1	44.9	44.9	42.6	2.38	18.909	
600.0	600.0	599.0	599.0	1.2	1.2	91.39	-1.1	44.9	44.9	42.5	2.42	18.577	
689.0	689.0	688.0	688.0	1.4	1.4	91.39	-1.1	44.9	44.9	42.1	2.82	15.941	
700.0	700.0	699.0	699.0	1.4	1.4	91.39	-1.1	44.9	44.9	42.1	2.87	15.665	
787.4	787.4	786.4	786.4	1.6	1.6	91.39	-1.1	44.9	44.9	41.7	3.26	13.778	
800.0	800.0	799.0	799.0	1.7	1.7	91.39	-1.1	44.9	44.9	41.6	3.32	13.543	
885.8	885.8	884.8	884.8	1.9	1.9	91.39	-1.1	44.9	44.9	41.2	3.70	12.132	
900.0	900.0	899.0	899.0	1.9	1.9	91.39	-1.1	44.9	44.9	41.2	3.77	11.927	
984.2	984.2	983.2	983.2	2.1	2.1	91.39	-1.1	44.9	44.9	40.8	4.15	10.837	
1,000.0	1,000.0	999.0	999.0	2.1	2.1	91.39	-1.1	44.9	44.9	40.7	4.22	10.655	
1,082.7	1,082.7	1,081.7	1,081.7	2.3	2.3	91.39	-1.1	44.9	44.9	40.3	4.59	9.792	
1,100.0	1,100.0	1,099.0	1,099.0	2.3	2.3	91.39	-1.1	44.9	44.9	40.3	4.67	9.629	
1,181.1	1,181.1	1,180.1	1,180.1	2.5	2.5	91.39	-1.1	44.9	44.9	39.9	5.03	8.931	
1,200.0	1,200.0	1,199.0	1,199.0	2.6	2.6	91.39	-1.1	44.9	44.9	39.8	5.12	8.783	
1,279.5	1,279.5	1,278.5	1,278.5	2.7	2.7	91.39	-1.1	44.9	44.9	39.5	5.47	8.209	
1,300.0	1,300.0	1,299.0	1,299.0	2.8	2.8	91.39	-1.1	44.9	44.9	39.4	5.57	8.073	
1,377.9	1,377.9	1,376.9	1,376.9	3.0	3.0	91.39	-1.1	44.9	44.9	39.0	5.92	7.595	
1,400.0	1,400.0	1,399.0	1,399.0	3.0	3.0	91.39	-1.1	44.9	44.9	38.9	6.01	7.470	
1,476.4	1,476.4	1,475.4	1,475.4	3.2	3.2	91.39	-1.1	44.9	44.9	38.6	6.36	7.066	
1,500.0	1,500.0	1,499.0	1,499.0	3.2	3.2	91.39	-1.1	44.9	44.9	38.5	6.46	6.950	
1,574.8	1,574.8	1,573.8	1,573.8	3.4	3.4	91.39	-1.1	44.9	44.9	38.1	6.80	6.607	
1,600.0	1,600.0	1,599.0	1,599.0	3.5	3.5	91.39	-1.1	44.9	44.9	38.0	6.91	6.498	
1,638.2	1,638.2	1,637.2	1,637.2	3.5	3.5	91.39	-1.1	44.9	44.9	37.8	7.09	6.341 CC	
1,673.2	1,673.2	1,672.0	1,672.0	3.6	3.6	91.32	-1.0	45.0	45.0	37.8	7.24	6.214 ES	
1,700.0	1,700.0	1,698.4	1,698.4	3.7	3.7	91.07	-0.8	45.2	45.3	37.9	7.36	6.149	
1,771.6	1,771.6	1,769.1	1,769.1	3.8	3.8	89.52	0.4	46.9	46.9	39.3	7.67	6.116	
1,800.0	1,800.0	1,797.1	1,797.0	3.9	3.9	88.60	1.2	47.9	48.0	40.2	7.80	6.156	
1,870.1	1,870.1	1,866.0	1,865.8	4.1	4.0	85.78	3.8	51.4	51.7	43.6	8.10	6.377	
1,900.0	1,900.0	1,895.4	1,895.1	4.1	4.1	84.42	5.2	53.3	53.7	45.5	8.23	6.523	
1,950.0	1,950.0	1,944.3	1,943.8	4.2	4.2	82.04	8.0	57.0	57.8	49.3	8.46	6.835	
1,968.5	1,968.5	1,962.4	1,961.8	4.3	4.3	53.40	9.1	58.5	59.5	50.9	8.53	6.971	
2,000.0	2,000.0	1,993.1	1,992.3	4.4	4.3	52.10	11.2	61.3	62.4	53.8	8.67	7.203	
2,066.9	2,066.9	2,058.4	2,057.0	4.5	4.5	50.04	16.3	68.2	69.1	60.2	8.96	7.716	
2,100.0	2,099.9	2,090.5	2,088.8	4.6	4.6	49.32	19.2	72.0	72.6	63.5	9.10	7.976	
2,165.3	2,165.1	2,153.9	2,151.3	4.7	4.7	48.36	25.4	80.3	79.7	70.3	9.38	8.495	
2,200.0	2,199.7	2,187.5	2,184.3	4.8	4.8	48.06	29.1	85.1	83.6	74.1	9.53	8.774	
2,263.8	2,263.1	2,249.1	2,244.7	4.9	5.0	47.80	36.3	94.8	91.1	81.3	9.81	9.284	
2,300.0	2,299.1	2,284.0	2,278.8	5.0	5.1	47.81	40.8	100.8	95.4	85.5	9.97	9.577	
2,362.2	2,360.8	2,343.8	2,337.0	5.2	5.3	48.01	49.1	111.8	103.2	92.9	10.25	10.071	
2,400.0	2,398.2	2,380.0	2,372.2	5.3	5.4	48.23	54.4	118.9	108.0	97.6	10.41	10.373	
2,460.6	2,457.9	2,438.0	2,428.1	5.4	5.7	48.72	63.5	131.1	116.0	105.3	10.70	10.844	

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 OLSON 30R-243
<b>Project:</b>	WELD COUNTY, COLORADO	<b>TVD Reference:</b>	KB-EST @ 4990.0usft (Original Well Elev)
<b>Reference Site:</b>	NW NE SEC 30 T4N R67W 6th P.M.	<b>MD Reference:</b>	KB-EST @ 4990.0usft (Original Well Elev)
<b>Site Error:</b>	0.0 usft	<b>North Reference:</b>	True
<b>Reference Well:</b>	OLSON 30R-243	<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 #2	<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	
2,500.0	2,496.6	2,475.6	2,464.2	5.5	5.8	49.10	69.8	139.4	121.4	110.5	10.89	11.149	
2,559.0	2,554.5	2,531.8	2,518.0	5.7	6.0	49.76	79.7	152.6	129.6	118.4	11.18	11.592	
2,600.0	2,594.4	2,570.7	2,554.9	5.8	6.2	50.26	86.9	162.3	135.5	124.1	11.39	11.896	
2,657.5	2,650.3	2,625.1	2,606.4	6.0	6.5	51.02	97.5	176.4	144.0	132.3	11.71	12.297	
2,700.0	2,691.5	2,665.3	2,644.2	6.1	6.7	51.60	105.7	187.4	150.5	138.5	11.95	12.590	
2,730.9	2,721.3	2,694.4	2,671.4	6.2	6.8	52.04	111.9	195.6	155.3	143.2	12.14	12.795	
2,755.9	2,745.3	2,718.4	2,693.8	6.3	7.0	52.44	117.0	202.5	159.3	147.0	12.30	12.949	
2,800.0	2,787.8	2,761.9	2,734.4	6.5	7.2	53.11	126.5	215.0	166.4	153.8	12.60	13.206	
2,854.3	2,840.1	2,815.5	2,784.3	6.7	7.5	53.87	138.0	230.5	175.2	162.2	12.98	13.493	
2,900.0	2,884.1	2,860.5	2,826.3	6.9	7.8	54.45	147.8	243.5	182.6	169.3	13.31	13.717	
2,952.7	2,934.9	2,912.5	2,874.8	7.1	8.1	55.06	159.1	258.5	191.2	177.5	13.71	13.950	
3,000.0	2,980.4	2,959.1	2,918.3	7.3	8.4	55.56	169.1	272.0	198.9	184.8	14.07	14.141	
3,051.2	3,029.7	3,009.5	2,965.3	7.5	8.7	56.06	180.1	286.5	207.3	192.8	14.47	14.328	
3,100.0	3,076.7	3,057.7	3,010.2	7.7	9.0	56.51	190.5	300.4	215.3	200.4	14.85	14.491	
3,149.6	3,124.5	3,106.6	3,055.8	7.9	9.3	56.92	201.1	314.5	223.4	208.1	15.26	14.641	
3,200.0	3,173.0	3,156.3	3,102.2	8.1	9.6	57.32	211.8	328.9	231.7	216.0	15.67	14.780	
3,248.0	3,219.3	3,203.6	3,146.3	8.4	9.9	57.67	222.1	342.6	239.5	223.5	16.08	14.899	
3,300.0	3,269.4	3,254.9	3,194.1	8.6	10.3	58.02	233.2	357.4	248.1	231.6	16.52	15.017	
3,346.4	3,314.1	3,300.7	3,236.8	8.8	10.6	58.32	243.1	370.6	255.7	238.8	16.92	15.113	
3,400.0	3,365.7	3,353.5	3,286.1	9.1	10.9	58.64	254.5	385.8	264.6	247.2	17.39	15.213	
3,444.9	3,408.9	3,397.7	3,327.4	9.3	11.2	58.89	264.1	398.6	272.0	254.2	17.79	15.289	
3,500.0	3,462.0	3,452.1	3,378.0	9.5	11.6	59.18	275.9	414.3	281.1	262.8	18.28	15.375	
3,543.3	3,503.7	3,494.8	3,417.9	9.7	11.9	59.40	285.1	426.6	288.2	269.5	18.67	15.435	
3,600.0	3,558.3	3,550.7	3,470.0	10.0	12.3	59.67	297.2	442.8	297.6	278.4	19.19	15.508	
3,641.7	3,598.5	3,591.8	3,508.4	10.2	12.6	59.85	306.1	454.6	304.5	284.9	19.57	15.556	
3,700.0	3,654.6	3,649.3	3,561.9	10.5	13.0	60.10	318.6	471.2	314.1	294.0	20.11	15.618	
3,740.1	3,693.2	3,688.9	3,598.9	10.7	13.2	60.26	327.1	482.7	320.8	300.3	20.49	15.657	
3,800.0	3,750.9	3,747.9	3,653.9	11.0	13.7	60.49	339.9	499.7	330.7	309.6	21.05	15.709	
3,838.6	3,788.0	3,785.9	3,689.4	11.2	13.9	60.63	348.1	510.7	337.1	315.7	21.42	15.740	
3,900.0	3,847.2	3,846.5	3,745.8	11.5	14.3	60.84	361.3	528.2	347.3	325.3	22.00	15.785	
3,937.0	3,882.8	3,882.9	3,779.9	11.7	14.6	60.96	369.2	538.7	353.4	331.0	22.35	15.809	
4,000.0	3,943.5	3,945.1	3,837.8	12.0	15.0	61.16	382.6	556.6	363.8	340.9	22.96	15.848	
4,035.4	3,977.6	3,980.0	3,870.4	12.2	15.3	61.27	390.2	566.7	369.7	346.4	23.30	15.867	
4,100.0	4,039.8	4,043.6	3,929.8	12.5	15.7	61.46	403.9	585.1	380.4	356.5	23.93	15.900	
4,133.8	4,072.4	4,077.0	3,960.9	12.7	16.0	61.55	411.2	594.7	386.0	361.8	24.26	15.915	
4,200.0	4,136.1	4,142.2	4,021.7	13.0	16.4	61.72	425.3	613.6	397.0	372.1	24.90	15.943	
4,232.3	4,167.2	4,174.1	4,051.4	13.2	16.7	61.81	432.2	622.8	402.4	377.2	25.22	15.955	
4,300.0	4,232.4	4,240.8	4,113.7	13.5	17.1	61.97	446.6	642.0	413.6	387.7	25.89	15.978	
4,330.7	4,262.0	4,271.1	4,141.9	13.7	17.4	62.04	453.2	650.8	418.7	392.5	26.19	15.988	
4,400.0	4,328.7	4,339.4	4,205.6	14.0	17.9	62.20	468.0	670.5	430.2	403.4	26.88	16.008	
4,429.1	4,356.8	4,368.2	4,232.4	14.2	18.1	62.26	474.2	678.8	435.1	407.9	27.17	16.015	
4,500.0	4,425.0	4,438.0	4,297.6	14.6	18.6	62.41	489.3	699.0	446.9	419.0	27.87	16.032	
4,527.5	4,451.6	4,465.2	4,322.9	14.7	18.8	62.46	495.2	706.8	451.4	423.3	28.15	16.038	
4,600.0	4,521.4	4,536.6	4,389.5	15.1	19.3	62.60	510.7	727.5	463.5	434.6	28.87	16.052	
4,626.0	4,546.4	4,562.2	4,413.4	15.2	19.5	62.65	516.2	734.8	467.8	438.7	29.14	16.057	
4,700.0	4,617.7	4,635.2	4,481.5	15.6	20.0	62.79	532.0	755.9	480.1	450.2	29.88	16.068	
4,724.4	4,641.2	4,659.3	4,503.9	15.7	20.2	62.83	537.2	762.9	484.2	454.1	30.13	16.072	
4,800.0	4,714.0	4,733.8	4,573.4	16.1	20.7	62.96	553.4	784.4	496.8	465.9	30.89	16.081	
4,822.8	4,735.9	4,756.3	4,594.4	16.3	20.9	62.99	558.2	790.9	500.5	469.4	31.12	16.084	
4,900.0	4,810.3	4,832.4	4,665.4	16.7	21.4	63.12	574.7	812.9	513.4	481.5	31.90	16.092	
4,921.2	4,830.7	4,853.4	4,684.9	16.8	21.6	63.15	579.2	818.9	516.9	484.8	32.12	16.094	
5,000.0	4,906.6	4,931.0	4,757.3	17.2	22.1	63.26	596.1	841.3	530.0	497.1	32.92	16.100	

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 OLSON 30R-243
<b>Project:</b>	WELD COUNTY, COLORADO	<b>TVD Reference:</b>	KB-EST @ 4990.0usft (Original Well Elev)
<b>Reference Site:</b>	NW NE SEC 30 T4N R67W 6th P.M.	<b>MD Reference:</b>	KB-EST @ 4990.0usft (Original Well Elev)
<b>Site Error:</b>	0.0 usft	<b>North Reference:</b>	True
<b>Reference Well:</b>	OLSON 30R-243	<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 #2	<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	
5,019.7	4,925.5	4,950.4	4,775.4	17.3	22.3	63.29	600.3	846.9	533.3	500.2	33.12	16.101	
5,100.0	5,002.9	5,029.6	4,849.3	17.7	22.8	63.40	617.4	869.8	546.7	512.7	33.94	16.106	
5,118.1	5,020.3	5,047.5	4,865.9	17.8	23.0	63.43	621.3	875.0	549.7	515.6	34.13	16.107	
5,200.0	5,099.2	5,128.2	4,941.2	18.3	23.6	63.54	638.7	898.3	563.3	528.4	34.97	16.111	
5,216.5	5,115.1	5,144.5	4,956.4	18.3	23.7	63.56	642.3	903.0	566.1	530.9	35.13	16.112	
5,300.0	5,195.5	5,226.8	5,033.2	18.8	24.3	63.66	660.1	926.7	580.0	544.0	35.99	16.114	
5,314.9	5,209.9	5,241.5	5,046.9	18.9	24.4	63.68	663.3	931.0	582.5	546.3	36.15	16.115	
5,400.0	5,291.8	5,325.4	5,125.1	19.3	25.0	63.78	681.4	955.2	596.6	559.6	37.02	16.116	
5,413.4	5,304.7	5,338.6	5,137.4	19.4	25.1	63.79	684.3	959.0	598.9	561.7	37.16	16.117	
5,500.0	5,388.1	5,424.0	5,217.1	19.9	25.7	63.89	702.8	983.7	613.3	575.2	38.05	16.118	
5,511.8	5,399.5	5,435.6	5,227.9	19.9	25.8	63.90	705.3	987.0	615.3	577.1	38.17	16.118	
5,600.0	5,484.4	5,522.6	5,309.0	20.4	26.4	63.99	724.1	1,012.1	629.9	590.9	39.08	16.118	
5,610.2	5,494.3	5,532.7	5,318.4	20.4	26.5	64.00	726.3	1,015.1	631.6	592.5	39.19	16.118	
5,700.0	5,580.7	5,621.2	5,401.0	20.9	27.1	64.09	745.5	1,040.6	646.6	606.5	40.12	16.117	
5,708.6	5,589.1	5,629.7	5,408.9	21.0	27.2	64.10	747.3	1,043.1	648.0	607.8	40.21	16.117	
5,722.6	5,602.5	5,643.5	5,421.8	21.0	27.3	64.11	750.3	1,047.1	650.4	610.0	40.35	16.117	
5,800.0	5,677.3	5,730.8	5,503.4	21.4	27.9	64.37	768.8	1,071.7	663.3	622.1	41.14	16.121	
5,807.1	5,684.2	5,739.3	5,511.4	21.4	27.9	64.39	770.5	1,074.0	664.4	623.2	41.21	16.124	
5,900.0	5,774.7	5,851.2	5,617.5	21.8	28.5	64.63	792.0	1,102.6	678.6	636.6	42.02	16.149	
5,905.5	5,780.1	5,857.8	5,623.8	21.8	28.5	64.64	793.2	1,104.2	679.4	637.3	42.07	16.150	
6,000.0	5,872.9	5,972.5	5,733.9	22.1	29.1	64.81	812.4	1,129.8	692.2	649.4	42.81	16.171	
6,003.9	5,876.7	5,977.3	5,738.5	22.1	29.1	64.81	813.1	1,130.8	692.7	649.9	42.83	16.172	
6,100.0	5,971.6	6,094.6	5,852.4	22.4	29.6	64.91	829.9	1,153.2	704.1	660.6	43.49	16.190	
6,102.3	5,973.9	6,097.5	5,855.2	22.4	29.6	64.91	830.3	1,153.7	704.4	660.8	43.50	16.191	
6,200.0	6,070.8	6,217.4	5,972.8	22.7	30.0	64.94	844.5	1,172.7	714.2	670.1	44.06	16.208	
6,200.8	6,071.6	6,218.4	5,973.8	22.7	30.0	64.94	844.6	1,172.8	714.2	670.2	44.07	16.208	
6,299.2	6,169.6	6,339.9	6,093.8	22.9	30.4	64.90	855.9	1,187.9	722.4	677.8	44.53	16.224	
6,300.0	6,170.4	6,340.9	6,094.8	22.9	30.4	64.90	856.0	1,188.0	722.4	677.9	44.53	16.224	
6,397.6	6,267.9	6,462.0	6,215.1	23.1	30.6	64.79	864.2	1,199.0	728.7	683.8	44.88	16.237	
6,400.0	6,270.3	6,464.9	6,218.0	23.1	30.6	64.79	864.4	1,199.2	728.9	684.0	44.89	16.238	
6,496.0	6,366.3	6,584.4	6,337.2	23.2	30.9	64.61	869.4	1,205.9	733.3	688.2	45.13	16.249	
6,503.5	6,373.8	6,593.7	6,346.5	23.2	30.9	92.36	869.7	1,206.3	733.6	688.4	45.15	16.249	
6,533.5	6,403.8	6,631.2	6,383.9	23.2	30.9	92.29	870.6	1,207.5	734.5	689.3	45.21	16.246	
6,550.0	6,420.3	6,651.7	6,404.4	23.2	30.9	-87.73	870.9	1,207.9	734.9	689.6	45.25	16.239	
6,594.5	6,464.7	6,707.1	6,459.9	23.3	31.0	-87.97	871.5	1,208.7	735.3	690.1	45.27	16.243	
6,600.0	6,470.2	6,714.0	6,466.7	23.3	31.0	-88.02	871.5	1,208.7	735.3	690.1	45.26	16.246	
6,650.0	6,519.8	6,765.8	6,518.5	23.3	31.1	-88.54	871.4	1,208.7	735.2	690.0	45.13	16.290	
6,692.9	6,561.9	6,807.3	6,560.0	23.2	31.1	-89.03	869.7	1,208.7	735.0	690.1	44.94	16.355	
6,700.0	6,568.8	6,814.2	6,566.8	23.2	31.1	-89.11	869.2	1,208.7	735.0	690.1	44.91	16.368	
6,750.0	6,617.0	6,863.1	6,615.4	23.1	31.1	-89.70	863.6	1,208.7	734.9	690.3	44.61	16.476	
6,775.7	6,641.4	6,888.4	6,640.4	23.1	31.1	-90.00	859.3	1,208.7	734.9	690.5	44.42	16.544	
6,791.3	6,656.1	6,903.9	6,655.5	23.0	31.1	-90.18	856.3	1,208.7	734.9	690.6	44.31	16.587	
6,800.0	6,664.2	6,912.5	6,664.0	23.0	31.1	-90.29	854.5	1,208.7	734.9	690.7	44.24	16.613	
6,850.0	6,710.1	6,962.4	6,712.3	22.9	31.0	-90.88	842.0	1,208.7	735.0	691.2	43.81	16.777	
6,889.7	6,745.5	7,002.5	6,750.4	22.7	30.9	-91.35	829.6	1,208.7	735.1	691.7	43.43	16.927	
6,900.0	6,754.5	7,012.9	6,760.2	22.7	30.9	-91.47	826.0	1,208.7	735.2	691.8	43.32	16.969	
6,950.0	6,797.2	7,063.9	6,807.3	22.5	30.8	-92.05	806.4	1,208.7	735.4	692.6	42.79	17.184	
6,988.2	6,828.5	7,103.3	6,842.6	22.3	30.7	-92.49	789.0	1,208.7	735.6	693.3	42.36	17.364	
7,000.0	6,838.0	7,115.6	6,853.4	22.3	30.7	-92.63	783.2	1,208.7	735.7	693.5	42.23	17.423	
7,050.0	6,876.7	7,167.8	6,898.2	22.0	30.5	-93.20	756.5	1,208.7	736.1	694.5	41.63	17.681	
7,086.6	6,903.5	7,206.4	6,930.0	21.8	30.4	-93.61	734.6	1,208.7	736.4	695.2	41.19	17.880	
7,100.0	6,913.0	7,220.6	6,941.4	21.8	30.3	-93.75	726.1	1,208.7	736.5	695.5	41.02	17.955	

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 OLSON 30R-243
<b>Project:</b>	WELD COUNTY, COLORADO	<b>TVD Reference:</b>	KB-EST @ 4990.0usft (Original Well Elev)
<b>Reference Site:</b>	NW NE SEC 30 T4N R67W 6th P.M.	<b>MD Reference:</b>	KB-EST @ 4990.0usft (Original Well Elev)
<b>Site Error:</b>	0.0 usft	<b>North Reference:</b>	True
<b>Reference Well:</b>	OLSON 30R-243	<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 #2	<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	
7,150.0	6,946.9	7,274.0	6,982.8	21.5	30.1	-94.29	692.3	1,208.7	737.0	696.6	40.40	18.242	
7,185.0	6,969.1	7,311.7	7,010.4	21.3	30.0	-94.66	666.6	1,208.7	737.4	697.4	39.97	18.447	
7,200.0	6,978.2	7,328.0	7,021.9	21.2	29.9	-94.81	655.1	1,208.7	737.6	697.8	39.79	18.536	
7,250.0	7,006.6	7,382.6	7,058.4	21.0	29.7	-95.31	614.6	1,208.7	738.1	698.9	39.20	18.832	
7,283.4	7,024.0	7,419.4	7,081.3	20.8	29.5	-95.63	585.7	1,208.7	738.5	699.7	38.82	19.026	
7,300.0	7,032.1	7,437.7	7,092.2	20.7	29.4	-95.78	571.0	1,208.7	738.7	700.1	38.63	19.122	
7,350.0	7,054.6	7,493.5	7,122.7	20.4	29.1	-96.23	524.4	1,208.7	739.3	701.2	38.11	19.400	
7,381.9	7,067.2	7,529.3	7,140.4	20.3	29.0	-96.49	493.2	1,208.7	739.7	701.9	37.81	19.565	
7,400.0	7,073.8	7,549.7	7,149.8	20.2	28.9	-96.64	475.0	1,208.7	739.9	702.3	37.64	19.658	
7,450.0	7,089.9	7,606.5	7,173.1	19.9	28.6	-97.02	423.3	1,208.7	740.5	703.3	37.24	19.886	
7,480.3	7,097.9	7,641.1	7,185.3	19.8	28.5	-97.23	390.9	1,208.7	740.8	703.8	37.03	20.004	
7,500.0	7,102.5	7,663.8	7,192.4	19.7	28.4	-97.35	369.4	1,208.7	741.1	704.1	36.91	20.077	
7,550.0	7,111.8	7,721.4	7,207.4	19.5	28.1	-97.65	313.7	1,208.7	741.6	704.9	36.67	20.224	
7,578.7	7,115.6	7,754.7	7,214.0	19.4	28.0	-97.81	281.1	1,208.7	741.8	705.3	36.57	20.286	
7,600.0	7,117.6	7,779.5	7,217.9	19.3	27.9	-97.91	256.7	1,208.7	742.0	705.5	36.51	20.322	
7,650.0	7,119.9	7,837.9	7,223.8	19.1	27.7	-98.12	198.6	1,208.7	742.4	705.9	36.45	20.368	
7,660.3	7,120.0	7,849.9	7,224.4	19.1	27.7	-98.16	186.6	1,208.7	742.5	706.0	36.44	20.372	
7,677.1	7,120.0	7,869.7	7,225.0	19.0	27.6	-98.21	166.8	1,208.7	742.5	706.1	36.43	20.380	
7,700.0	7,119.9	7,895.7	7,225.0	19.0	27.5	-98.21	140.8	1,208.7	742.5	706.1	36.43	20.380	
7,775.6	7,119.7	7,971.3	7,223.9	18.8	27.3	-98.15	65.2	1,208.7	742.4	705.7	36.66	20.250	
7,800.0	7,119.7	7,995.7	7,223.6	18.8	27.3	-98.13	40.8	1,208.7	742.4	705.6	36.74	20.207	
7,874.0	7,119.5	8,069.7	7,222.6	18.9	27.2	-98.06	-33.2	1,208.7	742.3	705.0	37.24	19.929	
7,900.0	7,119.4	8,095.7	7,222.2	19.0	27.2	-98.04	-59.2	1,208.7	742.2	704.8	37.43	19.831	
7,972.4	7,119.2	8,168.1	7,221.2	19.4	27.1	-97.98	-131.6	1,208.7	742.1	703.9	38.19	19.433	
8,000.0	7,119.2	8,195.7	7,220.8	19.5	27.1	-97.95	-159.2	1,208.7	742.1	703.6	38.48	19.283	
8,070.8	7,119.0	8,266.5	7,219.9	20.1	27.2	-97.89	-230.0	1,208.7	741.9	702.5	39.47	18.799	
8,100.0	7,118.9	8,295.7	7,219.5	20.4	27.3	-97.87	-259.2	1,208.7	741.9	702.0	39.88	18.605	
8,169.3	7,118.7	8,364.9	7,218.5	21.1	27.5	-97.81	-328.4	1,208.7	741.8	700.7	41.05	18.070	
8,200.0	7,118.7	8,395.7	7,218.1	21.4	27.6	-97.78	-359.1	1,208.7	741.7	700.2	41.57	17.841	
8,267.7	7,118.5	8,463.4	7,217.1	22.1	27.9	-97.72	-426.8	1,208.7	741.6	698.7	42.90	17.286	
8,300.0	7,118.4	8,495.7	7,216.7	22.5	28.1	-97.69	-459.1	1,208.7	741.6	698.0	43.54	17.031	
8,366.1	7,118.3	8,561.8	7,215.8	23.3	28.5	-97.64	-525.2	1,208.7	741.5	696.5	45.00	16.478	
8,400.0	7,118.2	8,595.7	7,215.3	23.7	28.8	-97.61	-559.1	1,208.7	741.4	695.7	45.75	16.208	
8,464.5	7,118.0	8,660.2	7,214.4	24.5	29.3	-97.55	-623.7	1,208.7	741.3	694.0	47.30	15.674	
8,500.0	7,117.9	8,695.7	7,213.9	25.0	29.6	-97.52	-659.1	1,208.7	741.3	693.1	48.15	15.394	
8,563.0	7,117.8	8,758.6	7,213.1	25.8	30.2	-97.46	-722.1	1,208.7	741.2	691.4	49.78	14.890	
8,600.0	7,117.7	8,795.6	7,212.6	26.3	30.6	-97.43	-759.1	1,208.7	741.1	690.4	50.74	14.608	
8,661.4	7,117.5	8,857.0	7,211.7	27.2	31.2	-97.38	-820.5	1,208.7	741.1	688.6	52.41	14.139	
8,700.0	7,117.4	8,895.6	7,211.2	27.7	31.7	-97.35	-859.1	1,208.7	741.0	687.5	53.47	13.859	
8,759.8	7,117.3	8,955.5	7,210.4	28.6	32.4	-97.29	-918.9	1,208.7	740.9	685.7	55.18	13.428	
8,800.0	7,117.2	8,995.6	7,209.8	29.2	32.9	-97.26	-959.0	1,208.7	740.9	684.5	56.33	13.153	
8,858.2	7,117.0	9,053.9	7,209.0	30.1	33.6	-97.21	-1,017.3	1,208.7	740.8	682.7	58.06	12.760	
8,900.0	7,116.9	9,095.6	7,208.4	30.7	34.2	-97.17	-1,059.0	1,208.7	740.7	681.4	59.30	12.492	
8,956.7	7,116.8	9,152.3	7,207.6	31.6	34.9	-97.12	-1,115.7	1,208.7	740.6	679.6	61.03	12.135	
9,000.0	7,116.7	9,195.6	7,207.0	32.3	35.5	-97.09	-1,159.0	1,208.7	740.6	678.2	62.36	11.876	
9,055.1	7,116.6	9,250.7	7,206.3	33.2	36.3	-97.04	-1,214.1	1,208.7	740.5	676.4	64.09	11.554	
9,100.0	7,116.5	9,295.6	7,205.7	33.9	36.9	-97.00	-1,259.0	1,208.7	740.4	674.9	65.51	11.303	
9,153.5	7,116.3	9,349.1	7,204.9	34.7	37.7	-96.95	-1,312.5	1,208.7	740.4	673.1	67.23	11.013	
9,200.0	7,116.2	9,395.6	7,204.3	35.5	38.4	-96.91	-1,359.0	1,208.7	740.3	671.6	68.72	10.772	
9,251.9	7,116.1	9,447.6	7,203.6	36.4	39.1	-96.87	-1,410.9	1,208.7	740.2	669.8	70.42	10.511	
9,300.0	7,116.0	9,495.6	7,202.9	37.2	39.9	-96.82	-1,459.0	1,208.7	740.2	668.2	72.00	10.280	
9,350.4	7,115.8	9,546.0	7,202.2	38.0	40.6	-96.78	-1,509.3	1,208.7	740.1	666.4	73.68	10.045	

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 OLSON 30R-243
<b>Project:</b>	WELD COUNTY, COLORADO	<b>TVD Reference:</b>	KB-EST @ 4990.0usft (Original Well Elev)
<b>Reference Site:</b>	NW NE SEC 30 T4N R67W 6th P.M.	<b>MD Reference:</b>	KB-EST @ 4990.0usft (Original Well Elev)
<b>Site Error:</b>	0.0 usft	<b>North Reference:</b>	True
<b>Reference Well:</b>	OLSON 30R-243	<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 #2	<b>Offset TVD Reference:</b>	Offset Datum

<b>Offset Design</b> NW NE SEC 30 T4N R67W 6th P.M. - OLSON 30R-303 - 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
9,400.0	7,115.7	9,595.6	7,201.5	38.8	41.4	-96.74	-1,559.0	1,208.7	740.0	664.7	75.33	9.824	
9,448.8	7,115.6	9,644.4	7,200.9	39.7	42.2	-96.70	-1,607.7	1,208.7	740.0	663.0	76.98	9.613	
9,500.0	7,115.5	9,695.6	7,200.1	40.5	43.0	-96.65	-1,658.9	1,208.7	739.9	661.2	78.71	9.401	
9,547.2	7,115.3	9,742.8	7,199.5	41.3	43.7	-96.61	-1,706.2	1,208.7	739.8	659.5	80.32	9.211	
9,600.0	7,115.2	9,795.6	7,198.8	42.2	44.5	-96.56	-1,758.9	1,208.7	739.8	657.7	82.12	9.008	
9,645.6	7,115.1	9,841.2	7,198.1	43.0	45.3	-96.52	-1,804.6	1,208.7	739.7	656.0	83.70	8.838	
9,700.0	7,115.0	9,895.6	7,197.4	44.0	46.2	-96.48	-1,858.9	1,208.7	739.6	654.1	85.58	8.643	
9,744.1	7,114.8	9,939.6	7,196.8	44.7	46.9	-96.44	-1,903.0	1,208.7	739.6	652.5	87.11	8.490	
9,800.0	7,114.7	9,995.6	7,196.0	45.7	47.8	-96.39	-1,958.9	1,208.7	739.5	650.5	89.06	8.303	
9,842.5	7,114.6	10,038.1	7,195.4	46.5	48.5	-96.35	-2,001.4	1,208.7	739.5	648.9	90.56	8.166	
9,900.0	7,114.5	10,095.6	7,194.6	47.5	49.5	-96.30	-2,058.9	1,208.7	739.4	646.8	92.58	7.987	
9,940.9	7,114.4	10,136.5	7,194.1	48.2	50.1	-96.27	-2,099.8	1,208.7	739.3	645.3	94.03	7.863	
10,000.0	7,114.2	10,195.6	7,193.3	49.2	51.1	-96.22	-2,158.9	1,208.7	739.3	643.2	96.12	7.691	
10,039.3	7,114.1	10,234.9	7,192.7	49.9	51.8	-96.18	-2,198.2	1,208.7	739.2	641.7	97.52	7.580	
10,100.0	7,114.0	10,295.5	7,191.9	51.0	52.8	-96.13	-2,258.8	1,208.7	739.2	639.5	99.68	7.415	
10,137.8	7,113.9	10,333.3	7,191.4	51.7	53.5	-96.10	-2,296.6	1,208.7	739.1	638.1	101.04	7.315	
10,200.0	7,113.7	10,395.5	7,190.5	52.8	54.5	-96.04	-2,358.8	1,208.7	739.0	635.8	103.27	7.157	
10,236.2	7,113.6	10,431.7	7,190.0	53.4	55.1	-96.01	-2,395.0	1,208.7	739.0	634.4	104.57	7.067	
10,300.0	7,113.5	10,495.5	7,189.1	54.6	56.2	-95.96	-2,458.8	1,208.7	738.9	632.0	106.87	6.914	
10,334.6	7,113.4	10,530.2	7,188.6	55.2	56.8	-95.93	-2,493.4	1,208.7	738.9	630.8	108.12	6.834	
10,400.0	7,113.2	10,595.5	7,187.7	56.4	58.0	-95.87	-2,558.8	1,208.7	738.8	628.3	110.49	6.687	
10,433.0	7,113.1	10,628.6	7,187.3	57.0	58.5	-95.84	-2,591.8	1,208.7	738.8	627.1	111.69	6.615	
10,500.0	7,113.0	10,695.5	7,186.4	58.2	59.7	-95.78	-2,658.8	1,208.7	738.7	624.6	114.12	6.473	
10,531.5	7,112.9	10,727.0	7,185.9	58.8	60.3	-95.75	-2,690.2	1,208.7	738.7	623.4	115.27	6.408	
10,600.0	7,112.7	10,795.5	7,185.0	60.0	61.5	-95.69	-2,758.8	1,208.7	738.6	620.8	117.77	6.271	
10,629.9	7,112.6	10,825.4	7,184.6	60.6	62.0	-95.67	-2,788.7	1,208.7	738.5	619.7	118.87	6.213	
10,700.0	7,112.5	10,895.5	7,183.6	61.9	63.2	-95.61	-2,858.7	1,208.7	738.5	617.0	121.43	6.081	
10,728.3	7,112.4	10,923.8	7,183.2	62.4	63.7	-95.58	-2,887.1	1,208.7	738.4	616.0	122.47	6.029	
10,800.0	7,112.2	10,995.5	7,182.2	63.7	65.0	-95.52	-2,958.7	1,208.7	738.4	613.3	125.11	5.902	
10,826.7	7,112.1	11,022.3	7,181.9	64.2	65.5	-95.50	-2,985.5	1,208.7	738.3	612.2	126.09	5.856	
10,900.0	7,111.9	11,095.5	7,180.8	65.5	66.8	-95.43	-3,058.7	1,208.7	738.3	609.5	128.79	5.732	
10,925.2	7,111.9	11,120.7	7,180.5	66.0	67.2	-95.41	-3,083.9	1,208.7	738.2	608.5	129.72	5.691	
11,000.0	7,111.7	11,195.5	7,179.5	67.4	68.6	-95.35	-3,158.7	1,208.7	738.1	605.7	132.48	5.572	
11,023.6	7,111.6	11,219.1	7,179.1	67.8	69.0	-95.33	-3,182.3	1,208.7	738.1	604.8	133.36	5.535	
11,100.0	7,111.4	11,295.5	7,178.1	69.2	70.3	-95.26	-3,258.7	1,208.7	738.0	601.9	136.19	5.419	
11,122.0	7,111.4	11,317.5	7,177.8	69.6	70.7	-95.24	-3,280.7	1,208.7	738.0	601.0	137.00	5.387	
11,200.0	7,111.2	11,395.5	7,176.7	71.1	72.1	-95.17	-3,358.7	1,208.7	737.9	598.0	139.90	5.275	
11,220.4	7,111.1	11,415.9	7,176.4	71.4	72.5	-95.15	-3,379.1	1,208.7	737.9	597.3	140.66	5.246	
11,300.0	7,110.9	11,495.5	7,175.3	72.9	73.9	-95.09	-3,458.7	1,208.7	737.8	594.2	143.62	5.138	
11,318.9	7,110.9	11,514.3	7,175.1	73.3	74.3	-95.07	-3,477.5	1,208.7	737.8	593.5	144.32	5.112	
11,400.0	7,110.7	11,595.5	7,174.0	74.8	75.8	-95.00	-3,558.6	1,208.7	737.7	590.4	147.34	5.007	
11,417.3	7,110.6	11,612.8	7,173.7	75.1	76.1	-94.98	-3,575.9	1,208.7	737.7	589.7	147.99	4.985	
11,500.0	7,110.4	11,695.5	7,172.6	76.6	77.6	-94.91	-3,658.6	1,208.7	737.7	586.6	151.08	4.883	
11,515.7	7,110.4	11,711.2	7,172.4	76.9	77.9	-94.90	-3,674.3	1,208.7	737.6	586.0	151.66	4.864	
11,600.0	7,110.2	11,795.5	7,171.2	78.5	79.4	-94.82	-3,758.6	1,208.7	737.6	582.7	154.82	4.764	
11,614.1	7,110.1	11,809.6	7,171.0	78.7	79.6	-94.81	-3,772.7	1,208.7	737.5	582.2	155.35	4.748	
11,668.5	7,110.0	11,864.0	7,170.3	79.8	80.6	-94.77	-3,827.1	1,208.7	737.5	580.1	157.38	4.686 SF	

# Anticollision Report



<b>Company:</b>	PDC ENERGY	<b>Local Co-ordinate Reference:</b>	Well OLSON 30R-243
<b>Project:</b>	WELD COUNTY, COLORADO	<b>TVD Reference:</b>	KB-EST @ 4990.0usft (Original Well Elev)
<b>Reference Site:</b>	NW NE SEC 30 T4N R67W 6th P.M.	<b>MD Reference:</b>	KB-EST @ 4990.0usft (Original Well Elev)
<b>Site Error:</b>	0.0 usft	<b>North Reference:</b>	True
<b>Reference Well:</b>	OLSON 30R-243	<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 #2	<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	91.37	-0.4	15.1	15.1				
98.4	98.4	98.4	98.4	0.1	0.1	91.37	-0.4	15.1	15.1	14.9	0.17	88.675	
100.0	100.0	100.0	100.0	0.1	0.1	91.37	-0.4	15.1	15.1	14.9	0.17	87.070	
196.8	196.8	196.8	196.8	0.3	0.3	91.37	-0.4	15.1	15.1	14.5	0.61	24.767	
200.0	200.0	200.0	200.0	0.3	0.3	91.37	-0.4	15.1	15.1	14.4	0.62	24.203	
295.3	295.3	295.3	295.3	0.5	0.5	91.37	-0.4	15.1	15.1	14.0	1.05	14.339	
300.0	300.0	300.0	300.0	0.5	0.5	91.37	-0.4	15.1	15.1	14.0	1.07	14.055	
393.7	393.7	393.7	393.7	0.7	0.7	91.37	-0.4	15.1	15.1	13.6	1.49	10.091	
400.0	400.0	400.0	400.0	0.8	0.8	91.37	-0.4	15.1	15.1	13.5	1.52	9.903	
492.1	492.1	492.1	492.1	1.0	1.0	91.37	-0.4	15.1	15.1	13.1	1.94	7.784	
500.0	500.0	500.0	500.0	1.0	1.0	91.37	-0.4	15.1	15.1	13.1	1.97	7.645	
590.5	590.5	590.5	590.5	1.2	1.2	91.37	-0.4	15.1	15.1	12.7	2.38	6.336	
600.0	600.0	600.0	600.0	1.2	1.2	91.37	-0.4	15.1	15.1	12.6	2.42	6.225	
689.0	689.0	689.0	689.0	1.4	1.4	91.37	-0.4	15.1	15.1	12.2	2.82	5.342	
700.0	700.0	700.0	700.0	1.4	1.4	91.37	-0.4	15.1	15.1	12.2	2.87	5.250	
787.4	787.4	787.4	787.4	1.6	1.6	91.37	-0.4	15.1	15.1	11.8	3.26	4.618	
800.0	800.0	800.0	800.0	1.7	1.7	91.37	-0.4	15.1	15.1	11.7	3.32	4.539	
885.8	885.8	885.8	885.8	1.9	1.9	91.37	-0.4	15.1	15.1	11.4	3.71	4.067	
900.0	900.0	900.0	900.0	1.9	1.9	91.37	-0.4	15.1	15.1	11.3	3.77	3.998	
984.2	984.2	984.2	984.2	2.1	2.1	91.37	-0.4	15.1	15.1	10.9	4.15	3.633	
1,000.0	1,000.0	1,000.0	1,000.0	2.1	2.1	91.37	-0.4	15.1	15.1	10.9	4.22	3.572	
1,082.7	1,082.7	1,082.7	1,082.7	2.3	2.3	91.37	-0.4	15.1	15.1	10.5	4.59	3.283	
1,100.0	1,100.0	1,100.0	1,100.0	2.3	2.3	91.37	-0.4	15.1	15.1	10.4	4.67	3.228	
1,181.1	1,181.1	1,181.1	1,181.1	2.5	2.5	91.37	-0.4	15.1	15.1	10.0	5.03	2.994	
1,200.0	1,200.0	1,200.0	1,200.0	2.6	2.6	91.37	-0.4	15.1	15.1	10.0	5.12	2.944	
1,279.5	1,279.5	1,279.5	1,279.5	2.7	2.7	91.37	-0.4	15.1	15.1	9.6	5.48	2.752	
1,300.0	1,300.0	1,300.0	1,300.0	2.8	2.8	91.37	-0.4	15.1	15.1	9.5	5.57	2.707	
1,377.9	1,377.9	1,377.9	1,377.9	3.0	3.0	91.37	-0.4	15.1	15.1	9.2	5.92	2.546	
1,400.0	1,400.0	1,400.0	1,400.0	3.0	3.0	91.37	-0.4	15.1	15.1	9.1	6.02	2.504	
1,476.4	1,476.4	1,476.4	1,476.4	3.2	3.2	91.37	-0.4	15.1	15.1	8.7	6.36	2.369	
1,500.0	1,500.0	1,500.0	1,500.0	3.2	3.2	91.37	-0.4	15.1	15.1	8.6	6.47	2.330	
1,574.8	1,574.8	1,574.8	1,574.8	3.4	3.4	91.37	-0.4	15.1	15.1	8.3	6.80	2.215	
1,600.0	1,600.0	1,600.0	1,600.0	3.5	3.5	91.37	-0.4	15.1	15.1	8.2	6.92	2.179	
1,673.2	1,673.2	1,673.2	1,673.2	3.6	3.6	91.37	-0.4	15.1	15.1	7.8	7.25	2.080	
1,700.0	1,700.0	1,700.0	1,700.0	3.7	3.7	91.37	-0.4	15.1	15.1	7.7	7.37	2.046	
1,771.6	1,771.6	1,771.6	1,771.6	3.8	3.8	91.37	-0.4	15.1	15.1	7.4	7.69	1.960	
1,800.0	1,800.0	1,800.0	1,800.0	3.9	3.9	91.37	-0.4	15.1	15.1	7.3	7.82	1.928	
1,837.4	1,837.4	1,837.4	1,837.4	4.0	4.0	91.37	-0.4	15.1	15.1	7.1	7.98	1.888 CC	
1,870.1	1,870.1	1,870.0	1,870.0	4.1	4.1	91.16	-0.3	15.1	15.1	7.0	8.13	1.859 ES	
1,900.0	1,900.0	1,899.8	1,899.8	4.1	4.1	90.07	0.0	15.3	15.3	7.1	8.26	1.856	
1,950.0	1,950.0	1,949.6	1,949.6	4.2	4.2	86.46	1.0	16.1	16.2	7.7	8.48	1.906	
1,968.5	1,968.5	1,968.1	1,968.0	4.3	4.3	57.06	1.5	16.6	16.6	8.1	8.56	1.940	
2,000.0	2,000.0	1,999.4	1,999.3	4.4	4.3	54.59	2.7	17.5	17.4	8.7	8.70	2.004	
2,066.9	2,066.9	2,066.0	2,065.8	4.5	4.5	50.51	6.0	20.1	19.4	10.4	8.99	2.160	
2,100.0	2,099.9	2,098.9	2,098.5	4.6	4.6	49.01	8.1	21.8	20.5	11.4	9.14	2.245	
2,165.3	2,165.1	2,163.8	2,163.1	4.7	4.7	46.86	13.1	25.7	22.8	13.4	9.42	2.423	
2,200.0	2,199.7	2,198.2	2,197.3	4.8	4.8	46.09	16.2	28.2	24.1	14.6	9.57	2.521	
2,263.8	2,263.1	2,261.4	2,260.0	4.9	4.9	45.20	22.8	33.3	26.6	16.8	9.84	2.708	
2,300.0	2,299.1	2,297.3	2,295.5	5.0	5.0	44.95	27.0	36.7	28.2	18.2	10.00	2.817	
2,362.2	2,360.8	2,359.0	2,356.3	5.2	5.2	44.86	35.0	43.0	30.9	20.6	10.27	3.005	
2,400.0	2,398.2	2,396.4	2,393.1	5.3	5.3	44.98	40.4	47.3	32.6	22.1	10.44	3.121	
2,460.6	2,457.9	2,456.3	2,451.8	5.4	5.5	45.38	49.8	54.7	35.4	24.7	10.71	3.307	

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 OLSON 30R-243
<b>Project:</b>	WELD COUNTY, COLORADO	<b>TVD Reference:</b>	KB-EST @ 4990.0usft (Original Well Elev)
<b>Reference Site:</b>	NW NE SEC 30 T4N R67W 6th P.M.	<b>MD Reference:</b>	KB-EST @ 4990.0usft (Original Well Elev)
<b>Site Error:</b>	0.0 usft	<b>North Reference:</b>	True
<b>Reference Well:</b>	OLSON 30R-243	<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 #2	<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
2,500.0	2,496.6	2,495.3	2,489.8	5.5	5.6	45.75	56.4	59.9	37.4	26.5	10.89	3.430	
2,559.0	2,554.5	2,553.6	2,546.5	5.7	5.8	46.44	67.1	68.4	40.4	29.2	11.18	3.611	
2,600.0	2,594.4	2,594.0	2,585.7	5.8	5.9	46.99	75.0	74.6	42.6	31.2	11.39	3.738	
2,657.5	2,650.3	2,650.7	2,640.3	6.0	6.1	47.84	86.9	84.0	45.7	34.0	11.70	3.909	
2,700.0	2,691.5	2,692.7	2,680.6	6.1	6.3	48.52	96.2	91.3	48.1	36.2	11.93	4.036	
2,730.9	2,721.3	2,723.6	2,710.2	6.2	6.4	49.21	103.2	96.8	49.8	37.7	12.11	4.108	
2,755.9	2,745.3	2,748.5	2,734.1	6.3	6.5	49.87	108.8	101.3	51.0	38.7	12.28	4.153	
2,800.0	2,787.8	2,792.6	2,776.3	6.5	6.7	50.96	118.7	109.1	53.2	40.6	12.57	4.230	
2,854.3	2,840.1	2,846.8	2,828.2	6.7	6.9	52.18	131.0	118.8	55.9	43.0	12.95	4.316	
2,900.0	2,884.1	2,892.4	2,871.9	6.9	7.1	53.13	141.2	126.9	58.2	44.9	13.28	4.384	
2,952.7	2,934.9	2,945.1	2,922.3	7.1	7.3	54.12	153.1	136.3	60.9	47.2	13.67	4.453	
3,000.0	2,980.4	2,992.3	2,967.5	7.3	7.6	54.95	163.8	144.7	63.3	49.3	14.03	4.512	
3,051.2	3,029.7	3,043.4	3,016.5	7.5	7.8	55.77	175.3	153.8	65.9	51.5	14.43	4.569	
3,100.0	3,076.7	3,092.1	3,063.2	7.7	8.0	56.49	186.3	162.5	68.5	53.6	14.82	4.619	
3,149.6	3,124.5	3,141.6	3,110.6	7.9	8.3	57.18	197.5	171.3	71.0	55.8	15.23	4.665	
3,200.0	3,173.0	3,192.0	3,158.8	8.1	8.5	57.83	208.8	180.3	73.7	58.0	15.64	4.708	
3,248.0	3,219.3	3,239.9	3,204.7	8.4	8.8	58.40	219.6	188.8	76.2	60.1	16.05	4.745	
3,300.0	3,269.4	3,291.8	3,254.4	8.6	9.0	58.98	231.3	198.1	78.9	62.4	16.50	4.782	
3,346.4	3,314.1	3,338.2	3,298.9	8.8	9.2	59.47	241.8	206.4	81.3	64.4	16.90	4.811	
3,400.0	3,365.7	3,391.7	3,350.1	9.1	9.5	59.99	253.8	215.9	84.1	66.8	17.37	4.843	
3,444.9	3,408.9	3,436.5	3,393.0	9.3	9.8	60.41	264.0	223.9	86.5	68.7	17.78	4.866	
3,500.0	3,462.0	3,491.5	3,445.7	9.5	10.0	60.88	276.4	233.7	89.4	71.1	18.27	4.893	
3,543.3	3,503.7	3,534.8	3,487.1	9.7	10.3	61.24	286.1	241.4	91.7	73.0	18.67	4.912	
3,600.0	3,558.3	3,591.4	3,541.4	10.0	10.6	61.68	298.9	251.5	94.7	75.5	19.19	4.936	
3,641.7	3,598.5	3,633.0	3,581.3	10.2	10.8	61.98	308.3	258.9	96.9	77.4	19.58	4.951	
3,700.0	3,654.6	3,691.2	3,637.0	10.5	11.1	62.38	321.4	269.3	100.0	79.9	20.12	4.971	
3,740.1	3,693.2	3,731.3	3,675.4	10.7	11.3	62.65	330.5	276.4	102.2	81.7	20.50	4.983	
3,800.0	3,750.9	3,791.1	3,732.6	11.0	11.6	63.02	343.9	287.0	105.4	84.3	21.07	5.000	
3,838.6	3,788.0	3,829.6	3,769.5	11.2	11.8	63.25	352.6	293.9	107.4	86.0	21.44	5.010	
3,900.0	3,847.2	3,890.9	3,828.3	11.5	12.2	63.60	366.5	304.8	110.7	88.7	22.03	5.025	
3,937.0	3,882.8	3,927.9	3,863.6	11.7	12.4	63.80	374.8	311.4	112.7	90.3	22.39	5.032	
4,000.0	3,943.5	3,990.8	3,923.9	12.0	12.7	64.12	389.0	322.6	116.1	93.0	23.00	5.045	
4,035.4	3,977.6	4,026.2	3,957.8	12.2	12.9	64.29	397.0	328.9	117.9	94.6	23.35	5.051	
4,100.0	4,039.8	4,090.6	4,019.5	12.5	13.3	64.60	411.5	340.4	121.4	97.4	23.98	5.062	
4,133.8	4,072.4	4,124.4	4,051.9	12.7	13.4	64.75	419.1	346.4	123.2	98.9	24.32	5.067	
4,200.0	4,136.1	4,190.5	4,115.2	13.0	13.8	65.03	434.0	358.2	126.8	101.8	24.97	5.077	
4,232.3	4,167.2	4,222.7	4,146.0	13.2	14.0	65.16	441.3	364.0	128.5	103.2	25.29	5.081	
4,300.0	4,232.4	4,290.3	4,210.8	13.5	14.4	65.43	456.5	376.0	132.2	106.2	25.97	5.089	
4,330.7	4,262.0	4,321.0	4,240.2	13.7	14.5	65.55	463.5	381.5	133.8	107.5	26.27	5.092	
4,400.0	4,328.7	4,390.2	4,306.5	14.0	14.9	65.80	479.1	393.8	137.5	110.6	26.97	5.099	
4,429.1	4,356.8	4,419.3	4,334.3	14.2	15.1	65.90	485.6	399.0	139.1	111.8	27.26	5.102	
4,500.0	4,425.0	4,490.0	4,402.1	14.6	15.5	66.14	501.6	411.6	142.9	114.9	27.98	5.108	
4,527.5	4,451.6	4,517.5	4,428.4	14.7	15.6	66.23	507.8	416.5	144.4	116.1	28.26	5.110	
4,600.0	4,521.4	4,589.9	4,497.7	15.1	16.0	66.46	524.1	429.4	148.3	119.3	28.99	5.116	
4,626.0	4,546.4	4,615.8	4,522.6	15.2	16.2	66.54	530.0	434.0	149.7	120.5	29.26	5.117	
4,700.0	4,617.7	4,689.7	4,593.4	15.6	16.6	66.75	546.6	447.2	153.7	123.7	30.01	5.122	
4,724.4	4,641.2	4,714.1	4,616.7	15.7	16.7	66.82	552.1	451.5	155.0	124.8	30.26	5.123	
4,800.0	4,714.0	4,789.6	4,689.0	16.1	17.2	67.03	569.2	465.0	159.1	128.1	31.03	5.127	
4,822.8	4,735.9	4,812.4	4,710.8	16.3	17.3	67.09	574.3	469.0	160.3	129.1	31.27	5.128	
4,900.0	4,810.3	4,889.4	4,784.6	16.7	17.7	67.28	591.7	482.8	164.5	132.4	32.06	5.131	
4,921.2	4,830.7	4,910.7	4,805.0	16.8	17.9	67.34	596.5	486.5	165.6	133.4	32.28	5.132	
5,000.0	4,906.6	4,989.3	4,880.3	17.2	18.3	67.52	614.2	500.5	169.9	136.8	33.09	5.135	

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 OLSON 30R-243
<b>Project:</b>	WELD COUNTY, COLORADO	<b>TVD Reference:</b>	KB-EST @ 4990.0usft (Original Well Elev)
<b>Reference Site:</b>	NW NE SEC 30 T4N R67W 6th P.M.	<b>MD Reference:</b>	KB-EST @ 4990.0usft (Original Well Elev)
<b>Site Error:</b>	0.0 usft	<b>North Reference:</b>	True
<b>Reference Well:</b>	OLSON 30R-243	<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 #2	<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	
5,019.7	4,925.5	5,008.9	4,899.1	17.3	18.4	67.57	618.6	504.0	171.0	137.7	33.29	5.136	
5,100.0	5,002.9	5,089.1	4,975.9	17.7	18.9	67.75	636.7	518.3	175.3	141.2	34.12	5.138	
5,118.1	5,020.3	5,107.2	4,993.2	17.8	19.0	67.79	640.8	521.6	176.3	142.0	34.31	5.138	
5,200.0	5,099.2	5,189.0	5,071.6	18.3	19.4	67.96	659.2	536.1	180.7	145.6	35.16	5.140	
5,216.5	5,115.1	5,205.5	5,087.4	18.3	19.5	68.00	663.0	539.1	181.6	146.3	35.33	5.141	
5,300.0	5,195.5	5,288.9	5,167.2	18.8	20.0	68.16	681.8	553.9	186.1	149.9	36.19	5.143	
5,314.9	5,209.9	5,303.8	5,181.5	18.9	20.1	68.19	685.1	556.6	186.9	150.6	36.35	5.143	
5,400.0	5,291.8	5,388.7	5,262.8	19.3	20.6	68.35	704.3	571.7	191.5	154.3	37.23	5.144	
5,413.4	5,304.7	5,402.1	5,275.6	19.4	20.7	68.37	707.3	574.1	192.3	154.9	37.37	5.144	
5,500.0	5,388.1	5,488.6	5,358.5	19.9	21.2	68.53	726.8	589.5	197.0	158.7	38.28	5.146	
5,511.8	5,399.5	5,500.3	5,369.7	19.9	21.2	68.55	729.5	591.6	197.6	159.2	38.40	5.146	
5,600.0	5,484.4	5,588.4	5,454.1	20.4	21.7	68.70	749.3	607.3	202.4	163.1	39.32	5.147	
5,610.2	5,494.3	5,598.6	5,463.9	20.4	21.8	68.71	751.6	609.1	202.9	163.5	39.43	5.147	
5,700.0	5,580.7	5,688.3	5,549.7	20.9	22.3	68.86	771.9	625.1	207.8	167.4	40.37	5.147	
5,708.6	5,589.1	5,696.9	5,558.0	21.0	22.4	68.87	773.8	626.6	208.3	167.8	40.46	5.147	
5,722.6	5,602.5	5,710.8	5,571.4	21.0	22.4	68.89	776.9	629.1	209.0	168.4	40.61	5.147	
5,800.0	5,677.3	5,788.1	5,645.4	21.4	22.9	68.83	794.4	642.9	213.6	172.3	41.33	5.168	
5,807.1	5,684.2	5,795.2	5,652.2	21.4	22.9	68.80	796.0	644.1	214.0	172.7	41.38	5.172	
5,900.0	5,774.7	5,891.8	5,745.1	21.8	23.3	68.35	816.5	660.3	219.8	177.8	42.00	5.232	
5,905.5	5,780.1	5,897.5	5,750.7	21.8	23.4	68.33	817.6	661.2	220.1	178.1	42.04	5.236	
6,000.0	5,872.9	5,995.9	5,846.3	22.1	23.7	67.85	835.8	675.6	225.4	182.8	42.59	5.291	
6,003.9	5,876.7	6,000.0	5,850.3	22.1	23.8	67.83	836.5	676.2	225.6	183.0	42.61	5.293	
6,100.0	5,971.6	6,100.3	5,948.5	22.4	24.1	67.31	852.3	688.6	230.3	187.2	43.09	5.345	
6,102.3	5,973.9	6,102.7	5,950.9	22.4	24.1	67.30	852.7	688.9	230.4	187.3	43.10	5.346	
6,200.0	6,070.8	6,204.8	6,051.6	22.7	24.4	66.75	865.9	699.4	234.7	191.2	43.50	5.394	
6,200.8	6,071.6	6,205.6	6,052.4	22.7	24.4	66.74	866.0	699.4	234.7	191.2	43.51	5.395	
6,299.2	6,169.6	6,308.7	6,154.6	22.9	24.7	66.15	876.4	707.7	238.4	194.6	43.82	5.440	
6,300.0	6,170.4	6,309.6	6,155.5	22.9	24.7	66.15	876.5	707.8	238.4	194.6	43.82	5.440	
6,397.6	6,267.9	6,412.0	6,257.4	23.1	24.9	65.53	884.0	713.7	241.4	197.4	44.05	5.481	
6,400.0	6,270.3	6,414.5	6,259.9	23.1	24.9	65.51	884.2	713.8	241.5	197.5	44.05	5.482	
6,496.0	6,366.3	6,515.4	6,360.7	23.2	25.1	64.86	888.7	717.4	243.9	199.7	44.19	5.520	
6,503.5	6,373.8	6,523.3	6,368.6	23.2	25.1	92.58	888.9	717.6	244.1	199.9	44.19	5.523	
6,533.5	6,403.8	6,554.8	6,400.1	23.2	25.2	92.39	889.7	718.2	244.6	200.4	44.23	5.530	
6,550.0	6,420.3	6,572.2	6,417.4	23.2	25.2	-87.71	890.0	718.4	244.8	200.6	44.25	5.533	
6,594.5	6,464.7	6,618.9	6,464.2	23.3	25.3	-88.39	890.4	718.8	245.1	200.9	44.18	5.547	
6,600.0	6,470.2	6,624.7	6,470.0	23.3	25.3	-88.51	890.4	718.8	245.0	200.9	44.16	5.550	
6,650.0	6,519.8	6,674.5	6,519.7	23.3	25.3	-89.96	890.3	718.8	245.0	201.1	43.84	5.587	
6,651.3	6,521.1	6,675.8	6,521.1	23.3	25.3	-90.00	890.2	718.8	245.0	201.1	43.83	5.589	
6,692.9	6,561.9	6,717.1	6,562.3	23.2	25.3	-91.35	888.1	718.8	245.0	201.6	43.47	5.637	
6,700.0	6,568.8	6,724.2	6,569.4	23.2	25.3	-91.58	887.4	718.8	245.1	201.7	43.41	5.646	
6,750.0	6,617.0	6,774.5	6,619.2	23.1	25.3	-93.20	881.1	718.8	245.4	202.5	42.89	5.721	
6,791.3	6,656.1	6,816.4	6,660.3	23.0	25.3	-94.53	873.1	718.8	245.7	203.3	42.41	5.795	
6,800.0	6,664.2	6,825.2	6,669.0	23.0	25.3	-94.81	871.2	718.8	245.8	203.5	42.30	5.811	
6,850.0	6,710.1	6,876.5	6,718.4	22.9	25.2	-96.40	857.6	718.8	246.5	204.9	41.66	5.918	
6,889.7	6,745.5	6,917.6	6,757.2	22.7	25.1	-97.64	844.1	718.8	247.2	206.1	41.11	6.013	
6,900.0	6,754.5	6,928.2	6,767.2	22.7	25.1	-97.95	840.3	718.8	247.4	206.4	40.97	6.039	
6,950.0	6,797.2	6,980.6	6,815.1	22.5	24.9	-99.47	819.3	718.8	248.4	208.2	40.23	6.174	
6,988.2	6,828.5	7,020.9	6,850.9	22.3	24.8	-100.59	800.8	718.8	249.3	209.6	39.66	6.286	
7,000.0	6,838.0	7,033.4	6,861.8	22.3	24.8	-100.93	794.6	718.8	249.6	210.1	39.48	6.322	
7,050.0	6,876.7	7,086.8	6,907.0	22.0	24.6	-102.33	766.2	718.8	250.8	212.1	38.71	6.480	
7,086.6	6,903.5	7,126.2	6,939.0	21.8	24.4	-103.31	743.1	718.8	251.8	213.7	38.14	6.603	
7,100.0	6,913.0	7,140.7	6,950.4	21.8	24.3	-103.67	734.2	718.8	252.2	214.3	37.94	6.648	

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 OLSON 30R-243
<b>Project:</b>	WELD COUNTY, COLORADO	<b>TVD Reference:</b>	KB-EST @ 4990.0usft (Original Well Elev)
<b>Reference Site:</b>	NW NE SEC 30 T4N R67W 6th P.M.	<b>MD Reference:</b>	KB-EST @ 4990.0usft (Original Well Elev)
<b>Site Error:</b>	0.0 usft	<b>North Reference:</b>	True
<b>Reference Well:</b>	OLSON 30R-243	<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 #2	<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	
7,150.0	6,946.9	7,195.2	6,991.7	21.5	24.1	-104.92	698.7	718.8	253.6	216.4	37.18	6.822	
7,185.0	6,969.1	7,233.6	7,019.1	21.3	23.9	-105.76	671.8	718.8	254.6	218.0	36.66	6.946	
7,200.0	6,978.2	7,250.2	7,030.4	21.2	23.8	-106.10	659.7	718.8	255.1	218.6	36.45	6.999	
7,250.0	7,006.6	7,305.6	7,066.4	21.0	23.5	-107.19	617.6	718.8	256.5	220.8	35.76	7.174	
7,283.4	7,024.0	7,343.0	7,088.7	20.8	23.3	-107.86	587.6	718.8	257.5	222.1	35.33	7.288	
7,300.0	7,032.1	7,361.5	7,099.3	20.7	23.2	-108.18	572.3	718.8	257.9	222.8	35.12	7.344	
7,350.0	7,054.6	7,417.9	7,128.7	20.4	22.9	-109.08	524.3	718.8	259.3	224.7	34.56	7.502	
7,381.9	7,067.2	7,454.0	7,145.6	20.3	22.7	-109.59	492.4	718.8	260.1	225.9	34.25	7.594	
7,400.0	7,073.8	7,474.6	7,154.5	20.2	22.6	-109.87	473.8	718.8	260.5	226.5	34.09	7.644	
7,450.0	7,089.9	7,531.7	7,176.2	19.9	22.3	-110.56	421.0	718.8	261.7	228.0	33.71	7.764	
7,480.3	7,097.9	7,566.5	7,187.4	19.8	22.1	-110.92	388.1	718.8	262.3	228.8	33.53	7.822	
7,500.0	7,102.5	7,589.1	7,193.8	19.7	22.0	-111.13	366.4	718.8	262.7	229.2	33.43	7.857	
7,550.0	7,111.8	7,646.8	7,207.1	19.5	21.7	-111.60	310.3	718.8	263.5	230.2	33.27	7.920	
7,578.7	7,115.6	7,680.0	7,212.6	19.4	21.6	-111.81	277.5	718.8	263.9	230.6	33.24	7.939	
7,600.0	7,117.6	7,704.7	7,215.7	19.3	21.5	-111.95	253.0	718.8	264.1	230.9	33.22	7.950	
7,650.0	7,119.9	7,762.7	7,219.8	19.1	21.2	-112.18	195.2	718.8	264.5	231.3	33.30	7.946	
7,660.3	7,120.0	7,774.7	7,220.0	19.1	21.2	-112.21	183.2	718.8	264.6	231.3	33.32	7.940	
7,677.1	7,120.0	7,794.0	7,220.0	19.0	21.1	-112.22	163.8	718.8	264.6	231.3	33.33	7.940	
7,700.0	7,119.9	7,816.9	7,219.7	19.0	21.0	-112.18	141.0	718.8	264.5	231.2	33.37	7.927	
7,775.6	7,119.7	7,892.5	7,218.8	18.8	20.7	-112.02	65.4	718.8	264.3	230.6	33.64	7.855	
7,800.0	7,119.7	7,916.9	7,218.5	18.8	20.7	-111.98	41.0	718.8	264.2	230.4	33.76	7.825	
7,874.0	7,119.5	7,990.9	7,217.6	18.9	20.5	-111.83	-33.0	718.8	263.9	229.6	34.30	7.693	
7,900.0	7,119.4	8,016.9	7,217.3	19.0	20.4	-111.77	-59.0	718.8	263.8	229.3	34.52	7.641	
7,972.4	7,119.2	8,089.3	7,216.4	19.4	20.4	-111.63	-131.4	718.8	263.5	228.2	35.31	7.463	
8,000.0	7,119.2	8,116.9	7,216.0	19.5	20.5	-111.57	-159.0	718.8	263.4	227.8	35.64	7.391	
8,070.8	7,119.0	8,187.7	7,215.1	20.1	20.9	-111.43	-229.8	718.8	263.2	226.5	36.64	7.182	
8,100.0	7,118.9	8,216.9	7,214.8	20.4	21.1	-111.37	-259.0	718.8	263.1	226.0	37.08	7.094	
8,169.3	7,118.7	8,286.1	7,213.9	21.1	21.8	-111.23	-328.2	718.8	262.8	224.5	38.26	6.868	
8,200.0	7,118.7	8,316.9	7,213.5	21.4	22.1	-111.17	-358.9	718.8	262.7	223.9	38.81	6.768	
8,267.7	7,118.5	8,384.6	7,212.7	22.1	22.9	-111.03	-426.6	718.8	262.5	222.3	40.15	6.538	
8,300.0	7,118.4	8,416.9	7,212.3	22.5	23.2	-110.97	-458.9	718.8	262.3	221.5	40.80	6.430	
8,366.1	7,118.3	8,483.0	7,211.5	23.3	24.0	-110.83	-525.0	718.8	262.1	219.9	42.25	6.203	
8,400.0	7,118.2	8,516.9	7,211.1	23.7	24.4	-110.76	-558.9	718.8	262.0	219.0	43.01	6.091	
8,464.5	7,118.0	8,581.4	7,210.2	24.5	25.2	-110.63	-623.5	718.8	261.8	217.2	44.55	5.875	
8,500.0	7,117.9	8,616.8	7,209.8	25.0	25.7	-110.56	-658.9	718.8	261.6	216.2	45.41	5.761	
8,563.0	7,117.8	8,679.8	7,209.0	25.8	26.5	-110.43	-721.9	718.8	261.4	214.4	47.02	5.559	
8,600.0	7,117.7	8,716.8	7,208.6	26.3	27.0	-110.35	-758.9	718.8	261.3	213.3	47.98	5.445	
8,661.4	7,117.5	8,778.2	7,207.8	27.2	27.9	-110.23	-820.3	718.8	261.1	211.4	49.64	5.259	
8,700.0	7,117.4	8,816.8	7,207.3	27.7	28.4	-110.15	-858.9	718.8	260.9	210.2	50.69	5.147	
8,759.8	7,117.3	8,876.7	7,206.6	28.6	29.3	-110.02	-918.7	718.8	260.7	208.4	52.38	4.978	
8,800.0	7,117.2	8,916.8	7,206.1	29.2	29.8	-109.94	-958.9	718.8	260.6	207.1	53.52	4.869	
8,858.2	7,117.0	8,975.1	7,205.3	30.1	30.7	-109.82	-1,017.1	718.8	260.4	205.2	55.23	4.715	
8,900.0	7,116.9	9,016.8	7,204.8	30.7	31.3	-109.74	-1,058.9	718.8	260.3	203.8	56.46	4.610	
8,956.7	7,116.8	9,073.5	7,204.1	31.6	32.2	-109.62	-1,115.5	718.8	260.1	201.9	58.17	4.471	
9,000.0	7,116.7	9,116.8	7,203.6	32.3	32.9	-109.53	-1,158.8	718.8	259.9	200.4	59.49	4.369	
9,055.1	7,116.6	9,171.9	7,202.9	33.2	33.7	-109.41	-1,213.9	718.8	259.7	198.5	61.19	4.244	
9,100.0	7,116.5	9,216.8	7,202.3	33.9	34.4	-109.32	-1,258.8	718.8	259.6	197.0	62.59	4.147	
9,153.5	7,116.3	9,270.3	7,201.7	34.7	35.3	-109.21	-1,312.3	718.8	259.4	195.1	64.29	4.035	
9,200.0	7,116.2	9,316.8	7,201.1	35.5	36.0	-109.11	-1,358.8	718.8	259.3	193.5	65.77	3.942	
9,251.9	7,116.1	9,368.8	7,200.4	36.4	36.9	-109.00	-1,410.8	718.8	259.1	191.6	67.45	3.841	
9,300.0	7,116.0	9,416.8	7,199.8	37.2	37.6	-108.90	-1,458.8	718.8	258.9	189.9	69.00	3.752	
9,350.4	7,115.8	9,467.2	7,199.2	38.0	38.5	-108.80	-1,509.2	718.8	258.8	188.1	70.66	3.662	

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 OLSON 30R-243
<b>Project:</b>	WELD COUNTY, COLORADO	<b>TVD Reference:</b>	KB-EST @ 4990.0usft (Original Well Elev)
<b>Reference Site:</b>	NW NE SEC 30 T4N R67W 6th P.M.	<b>MD Reference:</b>	KB-EST @ 4990.0usft (Original Well Elev)
<b>Site Error:</b>	0.0 usft	<b>North Reference:</b>	True
<b>Reference Well:</b>	OLSON 30R-243	<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 #2	<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	
9,400.0	7,115.7	9,516.8	7,198.6	38.8	39.3	-108.69	-1,558.8	718.8	258.6	186.3	72.29	3.577	
9,448.8	7,115.6	9,565.6	7,198.0	39.7	40.1	-108.59	-1,607.6	718.8	258.5	184.5	73.92	3.496	
9,500.0	7,115.5	9,616.8	7,197.3	40.5	41.0	-108.48	-1,658.8	718.8	258.3	182.7	75.63	3.415	
9,547.2	7,115.3	9,664.0	7,196.7	41.3	41.8	-108.38	-1,706.0	718.8	258.1	180.9	77.22	3.343	
9,600.0	7,115.2	9,716.8	7,196.1	42.2	42.6	-108.27	-1,758.8	718.8	258.0	179.0	79.01	3.265	
9,645.6	7,115.1	9,762.4	7,195.5	43.0	43.4	-108.17	-1,804.4	718.8	257.8	177.3	80.57	3.200	
9,700.0	7,115.0	9,816.8	7,194.8	44.0	44.4	-108.06	-1,858.8	718.8	257.7	175.2	82.42	3.126	
9,744.1	7,114.8	9,860.9	7,194.3	44.7	45.1	-107.97	-1,902.8	718.8	257.5	173.6	83.94	3.068	
9,800.0	7,114.7	9,916.8	7,193.6	45.7	46.1	-107.85	-1,958.7	718.8	257.4	171.5	85.88	2.997	
9,842.5	7,114.6	9,959.3	7,193.0	46.5	46.8	-107.76	-2,001.2	718.8	257.2	169.9	87.35	2.945	
9,900.0	7,114.5	10,016.8	7,192.3	47.5	47.8	-107.63	-2,058.7	718.8	257.1	167.7	89.36	2.877	
9,940.9	7,114.4	10,057.7	7,191.8	48.2	48.5	-107.55	-2,099.7	718.8	256.9	166.1	90.79	2.830	
10,000.0	7,114.2	10,116.8	7,191.1	49.2	49.6	-107.42	-2,158.7	718.8	256.7	163.9	92.87	2.765	
10,039.3	7,114.1	10,156.1	7,190.6	49.9	50.3	-107.34	-2,198.1	718.8	256.6	162.4	94.26	2.723	
10,100.0	7,114.0	10,216.8	7,189.8	51.0	51.3	-107.21	-2,258.7	718.8	256.5	160.0	96.41	2.660	
10,137.8	7,113.9	10,254.5	7,189.3	51.7	52.0	-107.13	-2,296.5	718.8	256.3	158.6	97.75	2.622	
10,200.0	7,113.7	10,316.8	7,188.6	52.8	53.1	-106.99	-2,358.7	718.8	256.2	156.2	99.97	2.562	
10,236.2	7,113.6	10,353.0	7,188.1	53.4	53.7	-106.91	-2,394.9	718.8	256.1	154.8	101.26	2.529	
10,300.0	7,113.5	10,416.8	7,187.3	54.6	54.9	-106.78	-2,458.7	718.8	255.9	152.3	103.55	2.471	
10,334.6	7,113.4	10,451.4	7,186.9	55.2	55.5	-106.70	-2,493.3	718.8	255.8	151.0	104.80	2.441	
10,400.0	7,113.2	10,516.8	7,186.1	56.4	56.7	-106.56	-2,558.7	718.8	255.6	148.4	107.15	2.385	
10,433.0	7,113.1	10,549.8	7,185.6	57.0	57.3	-106.49	-2,591.7	718.8	255.5	147.1	108.35	2.358	
10,500.0	7,113.0	10,616.8	7,184.8	58.2	58.5	-106.35	-2,658.7	718.8	255.3	144.5	110.78	2.305	
10,531.5	7,112.9	10,648.2	7,184.4	58.8	59.0	-106.28	-2,690.1	718.8	255.2	143.3	111.92	2.280	
10,600.0	7,112.7	10,716.8	7,183.5	60.0	60.3	-106.13	-2,758.6	718.8	255.0	140.6	114.42	2.229	
10,629.9	7,112.6	10,746.7	7,183.2	60.6	60.8	-106.06	-2,788.5	718.8	254.9	139.4	115.51	2.207	
10,700.0	7,112.5	10,816.7	7,182.3	61.9	62.1	-105.91	-2,858.6	718.8	254.7	136.7	118.07	2.157	
10,728.3	7,112.4	10,845.1	7,181.9	62.4	62.6	-105.85	-2,887.0	718.8	254.7	135.5	119.11	2.138	
10,800.0	7,112.2	10,916.7	7,181.0	63.7	63.9	-105.69	-2,958.6	718.8	254.5	132.7	121.74	2.090	
10,826.7	7,112.1	10,943.5	7,180.7	64.2	64.4	-105.64	-2,985.4	718.8	254.4	131.7	122.73	2.073	
10,900.0	7,111.9	11,016.7	7,179.8	65.5	65.7	-105.48	-3,058.6	718.8	254.2	128.8	125.43	2.027	
10,925.2	7,111.9	11,041.9	7,179.5	66.0	66.2	-105.42	-3,083.8	718.8	254.1	127.8	126.36	2.011	
11,000.0	7,111.7	11,116.7	7,178.5	67.4	67.5	-105.26	-3,158.6	718.8	253.9	124.8	129.13	1.966	
11,023.6	7,111.6	11,140.3	7,178.2	67.8	68.0	-105.20	-3,182.2	718.8	253.9	123.9	130.01	1.953	
11,100.0	7,111.4	11,216.7	7,177.3	69.2	69.4	-105.04	-3,258.6	718.8	253.7	120.8	132.84	1.909	
11,122.0	7,111.4	11,238.8	7,177.0	69.6	69.8	-104.99	-3,280.6	718.8	253.6	119.9	133.66	1.897	
11,200.0	7,111.2	11,316.7	7,176.0	71.1	71.2	-104.82	-3,358.6	718.8	253.4	116.8	136.57	1.856	
11,220.4	7,111.1	11,337.2	7,175.7	71.4	71.6	-104.77	-3,379.0	718.8	253.4	116.0	137.33	1.845	
11,300.0	7,110.9	11,416.7	7,174.7	72.9	73.0	-104.60	-3,458.6	718.8	253.1	112.8	140.31	1.804	
11,318.9	7,110.9	11,435.6	7,174.5	73.3	73.4	-104.55	-3,477.4	718.8	253.1	112.1	141.01	1.795	
11,400.0	7,110.7	11,516.7	7,173.5	74.8	74.9	-104.38	-3,558.5	718.8	252.9	108.8	144.05	1.756	
11,417.3	7,110.6	11,534.0	7,173.3	75.1	75.2	-104.34	-3,575.8	718.8	252.9	108.2	144.70	1.747	
11,500.0	7,110.4	11,616.7	7,172.2	76.6	76.7	-104.15	-3,658.5	718.8	252.7	104.8	147.81	1.709	
11,515.7	7,110.4	11,632.4	7,172.0	76.9	77.0	-104.12	-3,674.3	718.8	252.6	104.2	148.40	1.702	
11,600.0	7,110.2	11,716.7	7,170.9	78.5	78.6	-103.93	-3,758.5	718.8	252.4	100.8	151.58	1.665	
11,614.1	7,110.1	11,730.9	7,170.8	78.7	78.9	-103.90	-3,772.7	718.8	252.4	100.3	152.11	1.659	
11,668.5	7,110.0	11,785.2	7,170.1	79.8	79.9	-103.78	-3,827.0	718.8	252.2	98.1	154.17	1.636 SF	

# Anticollision Report



<b>Company:</b>	PDC ENERGY	<b>Local Co-ordinate Reference:</b>	Well OLSON 30R-243
<b>Project:</b>	WELD COUNTY, COLORADO	<b>TVD Reference:</b>	KB-EST @ 4990.0usft (Original Well Elev)
<b>Reference Site:</b>	NW NE SEC 30 T4N R67W 6th P.M.	<b>MD Reference:</b>	KB-EST @ 4990.0usft (Original Well Elev)
<b>Site Error:</b>	0.0 usft	<b>North Reference:</b>	True
<b>Reference Well:</b>	OLSON 30R-243	<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 #2	<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	91.38	-1.8	75.0	75.1				
98.4	98.4	97.4	97.4	0.1	0.1	91.38	-1.8	75.0	75.1	74.9	0.17	443.995	
100.0	100.0	99.0	99.0	0.1	0.1	91.38	-1.8	75.0	75.1	74.9	0.17	435.917	
196.8	196.8	195.8	195.8	0.3	0.3	91.38	-1.8	75.0	75.1	74.5	0.61	123.833	
200.0	200.0	199.0	199.0	0.3	0.3	91.38	-1.8	75.0	75.1	74.4	0.62	121.007	
295.3	295.3	294.3	294.3	0.5	0.5	91.38	-1.8	75.0	75.1	74.0	1.05	71.585	
300.0	300.0	299.0	299.0	0.5	0.5	91.38	-1.8	75.0	75.1	74.0	1.07	70.163	
393.7	393.7	392.7	392.7	0.7	0.7	91.38	-1.8	75.0	75.1	73.6	1.49	50.343	
400.0	400.0	399.0	399.0	0.8	0.8	91.38	-1.8	75.0	75.1	73.5	1.52	49.405	
492.1	492.1	491.1	491.1	1.0	1.0	91.38	-1.8	75.0	75.1	73.1	1.93	38.823	
500.0	500.0	499.0	499.0	1.0	1.0	91.38	-1.8	75.0	75.1	73.1	1.97	38.125	
590.5	590.5	589.5	589.5	1.2	1.2	91.38	-1.8	75.0	75.1	72.7	2.38	31.594	
600.0	600.0	599.0	599.0	1.2	1.2	91.38	-1.8	75.0	75.1	72.6	2.42	31.039	
689.0	689.0	688.0	688.0	1.4	1.4	91.38	-1.8	75.0	75.1	72.2	2.82	26.634	
700.0	700.0	699.0	699.0	1.4	1.4	91.38	-1.8	75.0	75.1	72.2	2.87	26.174	
787.4	787.4	786.4	786.4	1.6	1.6	91.38	-1.8	75.0	75.1	71.8	3.26	23.020	
800.0	800.0	799.0	799.0	1.7	1.7	91.38	-1.8	75.0	75.1	71.7	3.32	22.627	
885.8	885.8	884.8	884.8	1.9	1.9	91.38	-1.8	75.0	75.1	71.4	3.70	20.270	
900.0	900.0	899.0	899.0	1.9	1.9	91.38	-1.8	75.0	75.1	71.3	3.77	19.927	
984.2	984.2	983.2	983.2	2.1	2.1	91.38	-1.8	75.0	75.1	70.9	4.15	18.107	
1,000.0	1,000.0	999.0	999.0	2.1	2.1	91.38	-1.8	75.0	75.1	70.9	4.22	17.803	
1,082.7	1,082.7	1,081.7	1,081.7	2.3	2.3	91.38	-1.8	75.0	75.1	70.5	4.59	16.361	
1,100.0	1,100.0	1,099.0	1,099.0	2.3	2.3	91.38	-1.8	75.0	75.1	70.4	4.67	16.088	
1,181.1	1,181.1	1,180.1	1,180.1	2.5	2.5	91.38	-1.8	75.0	75.1	70.0	5.03	14.922	
1,200.0	1,200.0	1,199.0	1,199.0	2.6	2.6	91.38	-1.8	75.0	75.1	70.0	5.12	14.674	
1,279.5	1,279.5	1,278.5	1,278.5	2.7	2.7	91.38	-1.8	75.0	75.1	69.6	5.47	13.715	
1,300.0	1,300.0	1,299.0	1,299.0	2.8	2.8	91.38	-1.8	75.0	75.1	69.5	5.57	13.489	
1,377.9	1,377.9	1,376.9	1,376.9	3.0	3.0	91.38	-1.8	75.0	75.1	69.2	5.92	12.690	
1,400.0	1,400.0	1,399.0	1,399.0	3.0	3.0	91.38	-1.8	75.0	75.1	69.1	6.01	12.481	
1,438.3	1,438.3	1,437.3	1,437.3	3.1	3.1	91.38	-1.8	75.0	75.1	68.9	6.19	12.134 CC	
1,476.4	1,476.4	1,474.8	1,474.8	3.2	3.2	91.34	-1.8	75.1	75.2	68.8	6.35	11.828 ES	
1,500.0	1,500.0	1,497.9	1,497.9	3.2	3.2	91.24	-1.6	75.4	75.4	69.0	6.46	11.680	
1,574.8	1,574.8	1,570.9	1,570.9	3.4	3.4	90.49	-0.7	77.3	77.4	70.6	6.78	11.412	
1,600.0	1,600.0	1,595.5	1,595.4	3.5	3.4	90.11	-0.1	78.3	78.4	71.5	6.89	11.384	
1,673.2	1,673.2	1,666.8	1,666.6	3.6	3.6	88.70	1.9	82.4	82.6	75.4	7.21	11.459	
1,700.0	1,700.0	1,692.8	1,692.5	3.7	3.6	88.09	2.8	84.2	84.5	77.2	7.32	11.543	
1,771.6	1,771.6	1,762.2	1,761.5	3.8	3.8	86.31	5.8	90.2	90.9	83.2	7.64	11.900	
1,800.0	1,800.0	1,789.5	1,788.7	3.9	3.9	85.56	7.2	93.0	93.8	86.1	7.76	12.094	
1,870.1	1,870.1	1,856.8	1,855.5	4.1	4.0	83.69	11.1	100.8	102.3	94.3	8.07	12.685	
1,900.0	1,900.0	1,885.5	1,883.8	4.1	4.1	82.90	13.0	104.6	106.5	98.3	8.20	12.985	
1,950.0	1,950.0	1,933.1	1,930.8	4.2	4.2	81.60	16.4	111.4	114.0	105.6	8.42	13.542	
1,968.5	1,968.5	1,950.7	1,948.1	4.3	4.3	53.34	17.8	114.0	117.0	108.5	8.49	13.776	
2,000.0	2,000.0	1,980.5	1,977.5	4.4	4.4	52.61	20.2	118.8	122.2	113.5	8.63	14.156	
2,066.9	2,066.9	2,043.7	2,039.5	4.5	4.5	51.49	25.7	129.8	133.5	124.6	8.92	14.968	
2,100.0	2,099.9	2,074.9	2,069.9	4.6	4.6	51.11	28.7	135.7	139.3	130.2	9.06	15.370	
2,165.3	2,165.1	2,136.2	2,129.6	4.7	4.9	50.64	34.9	148.1	151.0	141.6	9.35	16.157	
2,200.0	2,199.7	2,168.5	2,161.0	4.8	5.0	50.52	38.5	155.1	157.4	147.9	9.50	16.573	
2,263.8	2,263.1	2,227.9	2,218.4	4.9	5.2	50.49	45.3	168.8	169.4	159.6	9.78	17.326	
2,300.0	2,299.1	2,261.5	2,250.7	5.0	5.3	50.56	49.5	177.0	176.4	166.4	9.94	17.750	
2,362.2	2,360.8	2,318.9	2,305.7	5.2	5.6	50.81	56.9	191.9	188.7	178.4	10.22	18.462	
2,400.0	2,398.2	2,353.7	2,338.8	5.3	5.7	51.03	61.7	201.3	196.3	185.9	10.39	18.889	
2,460.6	2,457.9	2,409.2	2,391.4	5.4	6.0	51.47	69.6	217.2	208.8	198.1	10.68	19.550	

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 OLSON 30R-243
<b>Project:</b>	WELD COUNTY, COLORADO	<b>TVD Reference:</b>	KB-EST @ 4990.0usft (Original Well Elev)
<b>Reference Site:</b>	NW NE SEC 30 T4N R67W 6th P.M.	<b>MD Reference:</b>	KB-EST @ 4990.0usft (Original Well Elev)
<b>Site Error:</b>	0.0 usft	<b>North Reference:</b>	True
<b>Reference Well:</b>	OLSON 30R-243	<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 #2	<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
2,500.0	2,496.6	2,445.1	2,425.2	5.5	6.2	51.80	75.0	227.9	217.1	206.2	10.87	19.970	
2,559.0	2,554.5	2,500.0	2,476.6	5.7	6.5	52.37	83.7	245.0	229.9	218.7	11.18	20.567	
2,600.0	2,594.4	2,535.7	2,509.9	5.8	6.7	52.76	89.5	256.7	238.9	227.5	11.39	20.978	
2,657.5	2,650.3	2,587.4	2,557.8	6.0	7.0	53.38	98.3	274.1	251.9	240.1	11.71	21.512	
2,700.0	2,691.5	2,625.5	2,592.8	6.1	7.3	53.85	105.0	287.5	261.7	249.7	11.95	21.893	
2,730.9	2,721.3	2,653.0	2,618.0	6.2	7.5	54.20	110.0	297.4	268.9	256.8	12.14	22.153	
2,755.9	2,745.3	2,675.3	2,638.2	6.3	7.6	54.57	114.1	305.6	274.9	262.6	12.30	22.347	
2,800.0	2,787.8	2,714.3	2,673.7	6.5	7.9	55.15	121.5	320.3	285.9	273.3	12.59	22.707	
2,854.3	2,840.1	2,762.1	2,716.7	6.7	8.3	55.76	130.8	338.8	300.3	287.3	12.97	23.159	
2,900.0	2,884.1	2,802.0	2,752.3	6.9	8.6	56.18	138.8	354.8	313.0	299.7	13.28	23.568	
2,952.7	2,934.9	2,849.3	2,794.3	7.1	9.0	56.59	148.6	374.3	328.4	314.7	13.67	24.022	
3,000.0	2,980.4	2,894.4	2,834.3	7.3	9.4	56.94	158.0	393.0	342.3	328.2	14.03	24.398	
3,051.2	3,029.7	2,943.3	2,877.6	7.5	9.8	57.28	168.2	413.3	357.4	342.9	14.43	24.761	
3,100.0	3,076.7	2,989.9	2,918.9	7.7	10.2	57.59	177.9	432.6	371.8	356.9	14.82	25.085	
3,149.6	3,124.5	3,037.2	2,960.8	7.9	10.6	57.87	187.8	452.2	386.4	371.2	15.23	25.376	
3,200.0	3,173.0	3,085.3	3,003.4	8.1	11.0	58.14	197.8	472.2	401.3	385.6	15.64	25.653	
3,248.0	3,219.3	3,131.2	3,044.1	8.4	11.4	58.38	207.4	491.2	415.5	399.4	16.05	25.887	
3,300.0	3,269.4	3,180.8	3,088.0	8.6	11.9	58.62	217.7	511.7	430.8	414.3	16.49	26.122	
3,346.4	3,314.1	3,225.2	3,127.3	8.8	12.3	58.82	227.0	530.1	444.5	427.6	16.90	26.310	
3,400.0	3,365.7	3,276.3	3,172.6	9.1	12.7	59.04	237.6	551.3	460.4	443.0	17.37	26.511	
3,444.9	3,408.9	3,319.1	3,210.6	9.3	13.1	59.21	246.6	569.1	473.7	455.9	17.76	26.663	
3,500.0	3,462.0	3,371.8	3,257.2	9.5	13.6	59.41	257.5	590.9	490.0	471.7	18.26	26.834	
3,543.3	3,503.7	3,413.1	3,293.8	9.7	14.0	59.56	266.2	608.0	502.8	484.1	18.65	26.956	
3,600.0	3,558.3	3,467.3	3,341.8	10.0	14.5	59.74	277.4	630.5	519.6	500.4	19.17	27.103	
3,641.7	3,598.5	3,507.1	3,377.0	10.2	14.9	59.86	285.7	647.0	531.9	512.4	19.56	27.201	
3,700.0	3,654.6	3,562.7	3,426.3	10.5	15.4	60.03	297.3	670.1	549.2	529.1	20.10	27.327	
3,740.1	3,693.2	3,601.1	3,460.3	10.7	15.8	60.13	305.3	686.0	561.1	540.6	20.47	27.406	
3,800.0	3,750.9	3,658.2	3,510.9	11.0	16.3	60.29	317.2	709.6	578.8	557.8	21.04	27.514	
3,838.6	3,788.0	3,695.0	3,543.5	11.2	16.6	60.38	324.9	724.9	590.3	568.9	21.40	27.577	
3,900.0	3,847.2	3,753.7	3,595.5	11.5	17.2	60.52	337.1	749.2	608.5	586.5	21.99	27.671	
3,937.0	3,882.8	3,789.0	3,626.8	11.7	17.5	60.60	344.5	763.9	619.4	597.1	22.34	27.722	
4,000.0	3,943.5	3,849.2	3,680.1	12.0	18.1	60.74	357.0	788.8	638.1	615.2	22.95	27.802	
4,035.4	3,977.6	3,883.0	3,710.0	12.2	18.4	60.81	364.1	802.8	648.6	625.3	23.30	27.843	
4,100.0	4,039.8	3,944.6	3,764.6	12.5	19.0	60.93	376.9	828.4	667.8	643.9	23.92	27.912	
4,133.8	4,072.4	3,977.0	3,793.3	12.7	19.3	60.99	383.7	841.8	677.8	653.6	24.26	27.945	
4,200.0	4,136.1	4,040.1	3,849.2	13.0	19.9	61.11	396.8	868.0	697.4	672.5	24.90	28.005	
4,232.3	4,167.2	4,070.9	3,876.5	13.2	20.2	61.16	403.3	880.7	707.0	681.8	25.22	28.032	
4,300.0	4,232.4	4,135.6	3,933.8	13.5	20.8	61.27	416.7	907.5	727.1	701.2	25.89	28.084	
4,330.7	4,262.0	4,164.9	3,959.8	13.7	21.1	61.32	422.8	919.7	736.2	710.0	26.20	28.105	
4,400.0	4,328.7	4,231.1	4,018.4	14.0	21.8	61.42	436.6	947.1	756.8	729.9	26.88	28.149	
4,429.1	4,356.8	4,258.9	4,043.0	14.2	22.0	61.47	442.4	958.7	765.4	738.2	27.18	28.166	
4,500.0	4,425.0	4,326.6	4,103.0	14.6	22.7	61.56	456.5	986.7	786.5	758.6	27.88	28.205	
4,527.5	4,451.6	4,352.9	4,126.3	14.7	22.9	61.60	462.0	997.6	794.6	766.5	28.16	28.218	
4,600.0	4,521.4	4,422.0	4,187.5	15.1	23.6	61.69	476.4	1,026.3	816.1	787.3	28.89	28.252	
4,626.0	4,546.4	4,446.8	4,209.5	15.2	23.8	61.72	481.6	1,036.6	823.9	794.7	29.15	28.262	
4,700.0	4,617.7	4,517.5	4,272.1	15.6	24.5	61.81	496.3	1,065.9	845.8	815.9	29.90	28.291	
4,724.4	4,641.2	4,540.8	4,292.7	15.7	24.8	61.84	501.2	1,075.5	853.1	822.9	30.14	28.299	
4,800.0	4,714.0	4,613.0	4,356.7	16.1	25.4	61.92	516.2	1,105.5	875.5	844.6	30.91	28.324	
4,822.8	4,735.9	4,634.8	4,376.0	16.3	25.7	61.95	520.8	1,114.5	882.3	851.2	31.14	28.330	
4,900.0	4,810.3	4,708.5	4,441.3	16.7	26.4	62.03	536.1	1,145.0	905.2	873.3	31.93	28.351	
4,921.2	4,830.7	4,728.8	4,459.2	16.8	26.6	62.05	540.4	1,153.4	911.5	879.4	32.15	28.356	
5,000.0	4,906.6	4,803.9	4,525.8	17.2	27.3	62.13	556.0	1,184.6	934.9	902.0	32.95	28.374	

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 OLSON 30R-243
<b>Project:</b>	WELD COUNTY, COLORADO	<b>TVD Reference:</b>	KB-EST @ 4990.0usft (Original Well Elev)
<b>Reference Site:</b>	NW NE SEC 30 T4N R67W 6th P.M.	<b>MD Reference:</b>	KB-EST @ 4990.0usft (Original Well Elev)
<b>Site Error:</b>	0.0 usft	<b>North Reference:</b>	True
<b>Reference Well:</b>	OLSON 30R-243	<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 #2	<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	
5,019.7	4,925.5	4,822.7	4,542.5	17.3	27.5	62.15	559.9	1,192.4	940.7	907.6	33.15	28.378	
5,100.0	5,002.9	4,899.4	4,610.4	17.7	28.2	62.22	575.9	1,224.2	964.6	930.6	33.97	28.393	
5,118.1	5,020.3	4,916.7	4,625.7	17.8	28.4	62.24	579.5	1,231.4	970.0	935.8	34.16	28.396	
5,200.0	5,099.2	4,994.9	4,695.0	18.3	29.2	62.31	595.8	1,263.8	994.3	959.3	35.00	28.408	
5,216.5	5,115.1	5,010.7	4,709.0	18.3	29.3	62.32	599.1	1,270.3	999.2	964.0	35.17	28.410	
5,300.0	5,195.5	5,090.4	4,779.6	18.8	30.1	62.39	615.7	1,303.4	1,024.0	988.0	36.03	28.421	
5,314.9	5,209.9	5,104.7	4,792.2	18.9	30.2	62.40	618.7	1,309.3	1,028.4	992.3	36.18	28.422	
5,400.0	5,291.8	5,185.9	4,864.2	19.3	31.0	62.46	635.6	1,342.9	1,053.7	1,016.6	37.06	28.430	
5,413.4	5,304.7	5,198.6	4,875.5	19.4	31.1	62.47	638.3	1,348.2	1,057.7	1,020.5	37.20	28.432	
5,500.0	5,388.1	5,281.3	4,948.7	19.9	31.9	62.54	655.5	1,382.5	1,083.4	1,045.3	38.10	28.438	
5,511.8	5,399.5	5,292.6	4,958.7	19.9	32.0	62.55	657.9	1,387.2	1,086.9	1,048.7	38.22	28.439	
5,600.0	5,484.4	5,376.8	5,033.3	20.4	32.9	62.61	675.4	1,422.1	1,113.1	1,074.0	39.13	28.444	
5,610.2	5,494.3	5,386.6	5,042.0	20.4	33.0	62.61	677.5	1,426.1	1,116.2	1,076.9	39.24	28.444	
5,700.0	5,580.7	5,472.3	5,117.9	20.9	33.8	62.67	695.3	1,461.7	1,142.8	1,102.6	40.17	28.448	
5,708.6	5,589.1	5,480.5	5,125.2	21.0	33.9	62.68	697.0	1,465.1	1,145.4	1,105.1	40.26	28.448	
5,722.6	5,602.5	5,493.9	5,137.0	21.0	34.0	62.69	699.8	1,470.6	1,149.5	1,109.1	40.41	28.449	
5,800.0	5,677.3	5,600.6	5,232.2	21.4	34.9	63.14	721.5	1,513.7	1,172.1	1,130.7	41.40	28.310	
5,807.1	5,684.2	5,611.1	5,241.7	21.4	35.0	63.18	723.5	1,517.8	1,174.1	1,132.7	41.49	28.302	
5,900.0	5,774.7	5,751.2	5,369.5	21.8	36.0	63.64	749.3	1,569.0	1,198.9	1,156.4	42.54	28.181	
5,905.5	5,780.1	5,759.6	5,377.2	21.8	36.0	63.66	750.7	1,571.9	1,200.3	1,157.7	42.60	28.175	
6,000.0	5,872.9	5,904.9	5,512.7	22.1	37.0	64.03	774.3	1,618.8	1,222.7	1,179.1	43.57	28.061	
6,003.9	5,876.7	5,911.0	5,518.5	22.1	37.0	64.04	775.2	1,620.6	1,223.6	1,179.9	43.61	28.058	
6,100.0	5,971.6	6,061.4	5,661.4	22.4	37.8	64.32	796.2	1,662.3	1,243.4	1,198.9	44.47	27.959	
6,102.3	5,973.9	6,065.1	5,665.0	22.4	37.8	64.33	796.7	1,663.3	1,243.8	1,199.3	44.49	27.957	
6,200.0	6,070.8	6,220.5	5,815.1	22.7	38.5	64.52	814.7	1,699.1	1,260.8	1,215.6	45.24	27.872	
6,200.8	6,071.6	6,221.7	5,816.3	22.7	38.5	64.52	814.8	1,699.3	1,260.9	1,215.7	45.24	27.871	
6,299.2	6,169.6	6,380.4	5,971.6	22.9	39.1	64.63	829.4	1,728.3	1,274.8	1,229.0	45.85	27.802	
6,300.0	6,170.4	6,381.7	5,972.9	22.9	39.1	64.63	829.5	1,728.5	1,274.9	1,229.1	45.86	27.801	
6,397.6	6,267.9	6,540.9	6,130.2	23.1	39.5	64.65	840.1	1,749.7	1,285.4	1,239.1	46.32	27.750	
6,400.0	6,270.3	6,544.8	6,134.1	23.1	39.5	64.65	840.3	1,750.1	1,285.6	1,239.3	46.33	27.748	
6,496.0	6,366.3	6,702.6	6,291.3	23.2	39.8	64.58	846.9	1,763.2	1,292.7	1,246.0	46.65	27.710	
6,503.5	6,373.8	6,715.0	6,303.6	23.2	39.9	92.34	847.3	1,763.9	1,293.1	1,246.4	46.67	27.708	
6,533.5	6,403.8	6,764.5	6,353.0	23.2	39.9	92.28	848.5	1,766.3	1,294.5	1,247.7	46.75	27.689	
6,550.0	6,420.3	6,791.7	6,380.2	23.2	40.0	-87.71	848.9	1,767.2	1,295.0	1,248.2	46.81	27.663	
6,594.5	6,464.7	6,865.2	6,453.7	23.3	40.0	-87.86	849.6	1,768.6	1,295.8	1,248.9	46.86	27.651	
6,600.0	6,470.2	6,874.3	6,462.8	23.3	40.0	-87.90	849.7	1,768.7	1,295.8	1,248.9	46.86	27.653	
6,650.0	6,519.8	6,929.7	6,518.2	23.3	40.1	-88.21	849.6	1,768.7	1,295.6	1,248.8	46.76	27.709	
6,692.9	6,561.9	6,970.0	6,558.5	23.2	40.1	-88.50	848.0	1,768.7	1,295.4	1,248.8	46.60	27.799	
6,700.0	6,568.8	6,976.7	6,565.2	23.2	40.1	-88.55	847.5	1,768.7	1,295.4	1,248.8	46.57	27.816	
6,750.0	6,617.0	7,024.2	6,612.3	23.1	40.1	-88.89	842.2	1,768.7	1,295.2	1,248.9	46.31	27.967	
6,791.3	6,656.1	7,063.7	6,651.3	23.0	40.1	-89.17	835.4	1,768.7	1,295.1	1,249.0	46.04	28.127	
6,800.0	6,664.2	7,072.1	6,659.5	23.0	40.1	-89.23	833.7	1,768.7	1,295.1	1,249.1	45.98	28.164	
6,850.0	6,710.1	7,120.5	6,706.4	22.9	40.0	-89.58	821.9	1,768.7	1,295.0	1,249.4	45.59	28.403	
6,889.7	6,745.5	7,159.4	6,743.5	22.7	40.0	-89.86	810.2	1,768.7	1,294.9	1,249.7	45.24	28.624	
6,900.0	6,754.5	7,169.5	6,753.0	22.7	40.0	-89.94	806.8	1,768.7	1,294.9	1,249.8	45.15	28.684	
6,908.8	6,762.1	7,178.1	6,761.1	22.7	40.0	-90.00	803.8	1,768.7	1,294.9	1,249.9	45.06	28.738	
6,950.0	6,797.2	7,219.0	6,798.9	22.5	39.9	-90.29	788.3	1,768.7	1,295.0	1,250.3	44.65	29.003	
6,988.2	6,828.5	7,257.2	6,833.4	22.3	39.8	-90.57	772.0	1,768.7	1,295.0	1,250.8	44.24	29.270	
7,000.0	6,838.0	7,269.1	6,844.0	22.3	39.8	-90.65	766.5	1,768.7	1,295.0	1,250.9	44.11	29.357	
7,050.0	6,876.7	7,319.8	6,887.9	22.0	39.7	-91.01	741.2	1,768.7	1,295.1	1,251.6	43.55	29.742	
7,086.6	6,903.5	7,357.2	6,919.1	21.8	39.6	-91.27	720.6	1,768.7	1,295.3	1,252.2	43.12	30.041	
7,100.0	6,913.0	7,371.0	6,930.4	21.8	39.5	-91.36	712.5	1,768.7	1,295.3	1,252.4	42.96	30.153	

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 OLSON 30R-243
<b>Project:</b>	WELD COUNTY, COLORADO	<b>TVD Reference:</b>	KB-EST @ 4990.0usft (Original Well Elev)
<b>Reference Site:</b>	NW NE SEC 30 T4N R67W 6th P.M.	<b>MD Reference:</b>	KB-EST @ 4990.0usft (Original Well Elev)
<b>Site Error:</b>	0.0 usft	<b>North Reference:</b>	True
<b>Reference Well:</b>	OLSON 30R-243	<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 #2	<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	
7,150.0	6,946.9	7,422.9	6,971.2	21.5	39.4	-91.71	680.5	1,768.7	1,295.5	1,253.2	42.36	30.585	
7,185.0	6,969.1	7,459.7	6,998.6	21.3	39.3	-91.95	656.1	1,768.7	1,295.7	1,253.8	41.94	30.895	
7,200.0	6,978.2	7,475.5	7,010.1	21.2	39.2	-92.05	645.1	1,768.7	1,295.8	1,254.0	41.76	31.030	
7,250.0	7,006.6	7,528.7	7,046.6	21.0	39.0	-92.39	606.5	1,768.7	1,296.1	1,254.9	41.17	31.479	
7,283.4	7,024.0	7,564.6	7,069.7	20.8	38.9	-92.61	579.0	1,768.7	1,296.3	1,255.5	40.80	31.776	
7,300.0	7,032.1	7,582.5	7,080.6	20.7	38.8	-92.71	564.8	1,768.7	1,296.4	1,255.8	40.61	31.924	
7,350.0	7,054.6	7,637.0	7,111.8	20.4	38.6	-93.03	520.1	1,768.7	1,296.8	1,256.7	40.08	32.353	
7,381.9	7,067.2	7,672.1	7,130.0	20.3	38.5	-93.22	490.1	1,768.7	1,297.0	1,257.3	39.77	32.610	
7,400.0	7,073.8	7,692.1	7,139.7	20.2	38.4	-93.33	472.6	1,768.7	1,297.2	1,257.6	39.60	32.756	
7,450.0	7,089.9	7,747.9	7,164.2	19.9	38.2	-93.61	422.5	1,768.7	1,297.6	1,258.4	39.18	33.120	
7,480.3	7,097.9	7,782.0	7,177.2	19.8	38.1	-93.77	391.0	1,768.7	1,297.8	1,258.8	38.96	33.311	
7,500.0	7,102.5	7,804.2	7,184.9	19.7	38.0	-93.88	370.1	1,768.7	1,298.0	1,259.1	38.82	33.434	
7,550.0	7,111.8	7,861.2	7,201.5	19.5	37.8	-94.12	315.7	1,768.7	1,298.3	1,259.8	38.54	33.684	
7,578.7	7,115.6	7,894.1	7,209.2	19.4	37.7	-94.25	283.6	1,768.7	1,298.6	1,260.1	38.43	33.794	
7,600.0	7,117.6	7,918.7	7,213.9	19.3	37.7	-94.35	259.6	1,768.7	1,298.7	1,260.4	38.35	33.865	
7,650.0	7,119.9	7,976.7	7,221.8	19.1	37.5	-94.55	202.1	1,768.7	1,299.1	1,260.8	38.24	33.968	
7,660.3	7,120.0	7,988.6	7,222.8	19.1	37.5	-94.58	190.2	1,768.7	1,299.1	1,260.9	38.23	33.981	
7,677.1	7,120.0	8,008.4	7,224.1	19.0	37.4	-94.64	170.5	1,768.7	1,299.2	1,261.0	38.20	34.007	
7,700.0	7,119.9	8,035.1	7,225.0	19.0	37.4	-94.68	143.8	1,768.7	1,299.3	1,261.1	38.19	34.024	
7,775.6	7,119.7	8,113.7	7,224.2	18.8	37.2	-94.66	65.2	1,768.7	1,299.2	1,260.9	38.35	33.875	
7,800.0	7,119.7	8,138.1	7,223.9	18.8	37.1	-94.65	40.8	1,768.7	1,299.2	1,260.8	38.44	33.799	
7,874.0	7,119.5	8,212.1	7,222.9	18.9	37.1	-94.61	-33.2	1,768.7	1,299.1	1,260.3	38.87	33.426	
7,900.0	7,119.4	8,238.1	7,222.5	19.0	37.0	-94.60	-59.2	1,768.7	1,299.1	1,260.1	39.06	33.264	
7,972.4	7,119.2	8,310.5	7,221.5	19.4	37.0	-94.56	-131.6	1,768.7	1,299.1	1,259.3	39.73	32.696	
8,000.0	7,119.2	8,338.1	7,221.1	19.5	37.0	-94.55	-159.2	1,768.7	1,299.0	1,259.0	40.03	32.452	
8,070.8	7,119.0	8,409.0	7,220.2	20.1	37.0	-94.51	-230.0	1,768.7	1,299.0	1,258.0	40.93	31.739	
8,100.0	7,118.9	8,438.1	7,219.8	20.4	37.0	-94.50	-259.2	1,768.7	1,298.9	1,257.6	41.34	31.424	
8,169.3	7,118.7	8,507.4	7,218.8	21.1	37.1	-94.46	-328.4	1,768.7	1,298.9	1,256.5	42.42	30.617	
8,200.0	7,118.7	8,538.1	7,218.4	21.4	37.2	-94.45	-359.1	1,768.7	1,298.9	1,255.9	42.95	30.244	
8,267.7	7,118.5	8,605.8	7,217.4	22.1	37.3	-94.41	-426.8	1,768.7	1,298.8	1,254.6	44.19	29.390	
8,300.0	7,118.4	8,638.1	7,217.0	22.5	37.4	-94.40	-459.1	1,768.7	1,298.8	1,253.9	44.82	28.974	
8,366.1	7,118.3	8,704.2	7,216.1	23.3	37.6	-94.36	-525.2	1,768.7	1,298.7	1,252.5	46.20	28.110	
8,400.0	7,118.2	8,738.1	7,215.6	23.7	37.7	-94.35	-559.1	1,768.7	1,298.7	1,251.7	46.94	27.665	
8,464.5	7,118.0	8,802.6	7,214.7	24.5	38.0	-94.31	-623.7	1,768.7	1,298.6	1,250.2	48.42	26.819	
8,500.0	7,117.9	8,838.1	7,214.2	25.0	38.2	-94.30	-659.1	1,768.7	1,298.6	1,249.3	49.27	26.358	
8,563.0	7,117.8	8,901.1	7,213.4	25.8	38.5	-94.27	-722.1	1,768.7	1,298.5	1,247.7	50.83	25.549	
8,600.0	7,117.7	8,938.1	7,212.9	26.3	38.7	-94.25	-759.1	1,768.7	1,298.5	1,246.7	51.77	25.081	
8,661.4	7,117.5	8,999.5	7,212.0	27.2	39.1	-94.22	-820.5	1,768.7	1,298.5	1,245.1	53.39	24.321	
8,700.0	7,117.4	9,038.1	7,211.5	27.7	39.4	-94.20	-859.1	1,768.7	1,298.4	1,244.0	54.43	23.853	
8,759.8	7,117.3	9,097.9	7,210.6	28.6	39.8	-94.17	-918.9	1,768.7	1,298.4	1,242.3	56.09	23.148	
8,800.0	7,117.2	9,138.1	7,210.1	29.2	40.1	-94.15	-959.1	1,768.7	1,298.3	1,241.1	57.23	22.687	
8,858.2	7,117.0	9,196.3	7,209.3	30.1	40.6	-94.12	-1,017.3	1,768.7	1,298.3	1,239.4	58.91	22.038	
8,900.0	7,116.9	9,238.1	7,208.7	30.7	41.0	-94.10	-1,059.0	1,768.7	1,298.3	1,238.1	60.14	21.588	
8,956.7	7,116.8	9,294.7	7,207.9	31.6	41.5	-94.07	-1,115.7	1,768.7	1,298.2	1,236.4	61.83	20.996	
9,000.0	7,116.7	9,338.1	7,207.3	32.3	41.9	-94.05	-1,159.0	1,768.7	1,298.2	1,235.0	63.15	20.558	
9,055.1	7,116.6	9,393.2	7,206.6	33.2	42.5	-94.02	-1,214.1	1,768.7	1,298.1	1,233.3	64.84	20.019	
9,100.0	7,116.5	9,438.1	7,206.0	33.9	43.0	-94.00	-1,259.0	1,768.7	1,298.1	1,231.9	66.24	19.596	
9,153.5	7,116.3	9,491.6	7,205.2	34.7	43.6	-93.97	-1,312.5	1,768.7	1,298.1	1,230.1	67.93	19.108	
9,200.0	7,116.2	9,538.0	7,204.6	35.5	44.1	-93.95	-1,359.0	1,768.7	1,298.0	1,228.6	69.41	18.700	
9,251.9	7,116.1	9,590.0	7,203.9	36.4	44.7	-93.92	-1,410.9	1,768.7	1,298.0	1,226.9	71.09	18.259	
9,300.0	7,116.0	9,638.0	7,203.2	37.2	45.3	-93.90	-1,459.0	1,768.7	1,298.0	1,225.3	72.65	17.866	
9,350.4	7,115.8	9,688.4	7,202.5	38.0	45.9	-93.87	-1,509.3	1,768.7	1,297.9	1,223.6	74.30	17.468	

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 OLSON 30R-243
<b>Project:</b>	WELD COUNTY, COLORADO	<b>TVD Reference:</b>	KB-EST @ 4990.0usft (Original Well Elev)
<b>Reference Site:</b>	NW NE SEC 30 T4N R67W 6th P.M.	<b>MD Reference:</b>	KB-EST @ 4990.0usft (Original Well Elev)
<b>Site Error:</b>	0.0 usft	<b>North Reference:</b>	True
<b>Reference Well:</b>	OLSON 30R-243	<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 #2	<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	
9,400.0	7,115.7	9,738.0	7,201.8	38.8	46.5	-93.85	-1,559.0	1,768.7	1,297.9	1,221.9	75.94	17.091	
9,448.8	7,115.6	9,786.8	7,201.1	39.7	47.2	-93.82	-1,607.8	1,768.7	1,297.8	1,220.3	77.57	16.732	
9,500.0	7,115.5	9,838.0	7,200.4	40.5	47.8	-93.80	-1,659.0	1,768.7	1,297.8	1,218.5	79.28	16.369	
9,547.2	7,115.3	9,885.2	7,199.8	41.3	48.5	-93.78	-1,706.2	1,768.7	1,297.8	1,216.9	80.88	16.046	
9,600.0	7,115.2	9,938.0	7,199.1	42.2	49.2	-93.75	-1,758.9	1,768.7	1,297.7	1,215.1	82.67	15.698	
9,645.6	7,115.1	9,983.7	7,198.4	43.0	49.8	-93.73	-1,804.6	1,768.7	1,297.7	1,213.5	84.23	15.407	
9,700.0	7,115.0	10,038.0	7,197.7	44.0	50.6	-93.70	-1,858.9	1,768.7	1,297.7	1,211.6	86.09	15.073	
9,744.1	7,114.8	10,082.1	7,197.1	44.7	51.2	-93.68	-1,903.0	1,768.7	1,297.6	1,210.0	87.61	14.811	
9,800.0	7,114.7	10,138.0	7,196.3	45.7	52.0	-93.65	-1,958.9	1,768.7	1,297.6	1,208.0	89.55	14.490	
9,842.5	7,114.6	10,180.5	7,195.7	46.5	52.6	-93.63	-2,001.4	1,768.7	1,297.5	1,206.5	91.03	14.254	
9,900.0	7,114.5	10,238.0	7,194.9	47.5	53.5	-93.60	-2,058.9	1,768.7	1,297.5	1,204.5	93.04	13.946	
9,940.9	7,114.4	10,278.9	7,194.3	48.2	54.1	-93.58	-2,099.8	1,768.7	1,297.5	1,203.0	94.47	13.734	
10,000.0	7,114.2	10,338.0	7,193.5	49.2	55.0	-93.55	-2,158.9	1,768.7	1,297.4	1,200.9	96.55	13.438	
10,039.3	7,114.1	10,377.3	7,193.0	49.9	55.6	-93.53	-2,198.2	1,768.7	1,297.4	1,199.5	97.94	13.247	
10,100.0	7,114.0	10,438.0	7,192.2	51.0	56.5	-93.50	-2,258.9	1,768.7	1,297.4	1,197.3	100.09	12.962	
10,137.8	7,113.9	10,475.8	7,191.6	51.7	57.1	-93.48	-2,296.6	1,768.7	1,297.3	1,195.9	101.44	12.790	
10,200.0	7,113.7	10,538.0	7,190.8	52.8	58.1	-93.45	-2,358.8	1,768.7	1,297.3	1,193.6	103.65	12.516	
10,236.2	7,113.6	10,574.2	7,190.3	53.4	58.7	-93.43	-2,395.0	1,768.7	1,297.3	1,192.3	104.95	12.361	
10,300.0	7,113.5	10,638.0	7,189.4	54.6	59.7	-93.40	-2,458.8	1,768.7	1,297.2	1,190.0	107.24	12.097	
10,334.6	7,113.4	10,672.6	7,188.9	55.2	60.2	-93.38	-2,493.4	1,768.7	1,297.2	1,188.7	108.48	11.958	
10,400.0	7,113.2	10,738.0	7,188.0	56.4	61.3	-93.35	-2,558.8	1,768.7	1,297.2	1,186.3	110.84	11.704	
10,433.0	7,113.1	10,771.0	7,187.6	57.0	61.8	-93.33	-2,591.9	1,768.7	1,297.1	1,185.1	112.03	11.579	
10,500.0	7,113.0	10,838.0	7,186.6	58.2	62.9	-93.30	-2,658.8	1,768.7	1,297.1	1,182.6	114.45	11.333	
10,531.5	7,112.9	10,869.4	7,186.2	58.8	63.4	-93.28	-2,690.3	1,768.7	1,297.1	1,181.5	115.59	11.221	
10,600.0	7,112.7	10,938.0	7,185.2	60.0	64.5	-93.25	-2,758.8	1,768.7	1,297.0	1,179.0	118.08	10.984	
10,629.9	7,112.6	10,967.9	7,184.8	60.6	65.0	-93.24	-2,788.7	1,768.7	1,297.0	1,177.8	119.17	10.884	
10,700.0	7,112.5	11,038.0	7,183.9	61.9	66.2	-93.20	-2,858.8	1,768.7	1,297.0	1,175.2	121.72	10.655	
10,728.3	7,112.4	11,066.3	7,183.5	62.4	66.7	-93.19	-2,887.1	1,768.7	1,297.0	1,174.2	122.76	10.565	
10,800.0	7,112.2	11,138.0	7,182.5	63.7	67.9	-93.15	-2,958.8	1,768.7	1,296.9	1,171.5	125.38	10.344	
10,826.7	7,112.1	11,164.7	7,182.1	64.2	68.3	-93.14	-2,985.5	1,768.7	1,296.9	1,170.5	126.36	10.263	
10,900.0	7,111.9	11,237.9	7,181.1	65.5	69.6	-93.10	-3,058.7	1,768.7	1,296.8	1,167.8	129.05	10.049	
10,925.2	7,111.9	11,263.1	7,180.8	66.0	70.0	-93.09	-3,083.9	1,768.7	1,296.8	1,166.9	129.97	9.978	
11,000.0	7,111.7	11,337.9	7,179.7	67.4	71.2	-93.05	-3,158.7	1,768.7	1,296.8	1,164.1	132.72	9.770	
11,023.6	7,111.6	11,361.5	7,179.4	67.8	71.6	-93.04	-3,182.3	1,768.7	1,296.8	1,163.2	133.59	9.707	
11,100.0	7,111.4	11,437.9	7,178.3	69.2	73.0	-93.00	-3,258.7	1,768.7	1,296.7	1,160.3	136.41	9.506	
11,122.0	7,111.4	11,460.0	7,178.0	69.6	73.3	-92.99	-3,280.7	1,768.7	1,296.7	1,159.5	137.23	9.450	
11,200.0	7,111.2	11,537.9	7,177.0	71.1	74.7	-92.95	-3,358.7	1,768.7	1,296.7	1,156.6	140.11	9.255	
11,220.4	7,111.1	11,558.4	7,176.7	71.4	75.0	-92.94	-3,379.1	1,768.7	1,296.7	1,155.8	140.86	9.205	
11,300.0	7,110.9	11,637.9	7,175.6	72.9	76.4	-92.90	-3,458.7	1,768.7	1,296.6	1,152.8	143.81	9.016	
11,318.9	7,110.9	11,656.8	7,175.3	73.3	76.7	-92.89	-3,477.5	1,768.7	1,296.6	1,152.1	144.51	8.972	
11,400.0	7,110.7	11,737.9	7,174.2	74.8	78.1	-92.85	-3,558.7	1,768.7	1,296.5	1,149.0	147.52	8.789	
11,417.3	7,110.6	11,755.2	7,174.0	75.1	78.4	-92.84	-3,576.0	1,768.7	1,296.5	1,148.4	148.17	8.751	
11,500.0	7,110.4	11,837.9	7,172.8	76.6	79.9	-92.80	-3,658.6	1,768.7	1,296.5	1,145.3	151.24	8.572	
11,515.7	7,110.4	11,853.6	7,172.6	76.9	80.2	-92.79	-3,674.4	1,768.7	1,296.5	1,144.7	151.83	8.539	
11,600.0	7,110.2	11,937.9	7,171.4	78.5	81.6	-92.75	-3,758.6	1,768.7	1,296.4	1,141.5	154.96	8.366	
11,614.1	7,110.1	11,952.1	7,171.2	78.7	81.9	-92.75	-3,772.8	1,768.7	1,296.4	1,140.9	155.49	8.338	
11,668.5	7,110.0	12,006.4	7,170.5	79.8	82.8	-92.72	-3,827.1	1,768.7	1,296.4	1,138.9	157.52	8.230 SF	

# Anticollision Report



<b>Company:</b>	PDC ENERGY	<b>Local Co-ordinate Reference:</b>	Well OLSON 30R-243
<b>Project:</b>	WELD COUNTY, COLORADO	<b>TVD Reference:</b>	KB-EST @ 4990.0usft (Original Well Elev)
<b>Reference Site:</b>	NW NE SEC 30 T4N R67W 6th P.M.	<b>MD Reference:</b>	KB-EST @ 4990.0usft (Original Well Elev)
<b>Site Error:</b>	0.0 usft	<b>North Reference:</b>	True
<b>Reference Well:</b>	OLSON 30R-243	<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 #2	<b>Offset TVD Reference:</b>	Offset Datum

<b>Offset Design</b> NW NE SEC 30 T4N R67W 6th P.M. - PROP HZ CHANDLER FARMS HD 20-389HN - Wellbore #1 - W												<b>Offset Site Error:</b>	0.0 usft
Survey Program: 16-MWD												<b>Offset Well Error:</b>	0.0 usft
Measured Depth (usft)	Vertical Depth (usft)	Measured Depth (usft)	Vertical Depth (usft)	Reference (usft)	Offset (usft)	Semi Major Axis 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	-5.35	1,370.9	-128.3	1,377.5				
98.4	98.4	58.6	58.6	0.1	0.1	-5.35	1,370.9	-128.3	1,376.9	1,376.7	0.19	7,368.284	
100.0	100.0	60.2	60.2	0.1	0.1	-5.35	1,370.9	-128.3	1,376.9	1,376.7	0.19	7,164.687	
196.8	196.8	157.0	157.0	0.3	0.3	-5.35	1,370.9	-128.3	1,376.9	1,376.2	0.63	2,194.059	
200.0	200.0	160.2	160.2	0.3	0.3	-5.35	1,370.9	-128.3	1,376.9	1,376.2	0.64	2,145.644	
295.3	295.3	255.5	255.5	0.5	0.5	-5.35	1,370.9	-128.3	1,376.9	1,375.8	1.07	1,286.800	
300.0	300.0	260.2	260.2	0.5	0.6	-5.35	1,370.9	-128.3	1,376.9	1,375.8	1.09	1,261.754	
393.7	393.7	353.9	353.9	0.7	0.8	-5.35	1,370.9	-128.3	1,376.9	1,375.4	1.51	910.360	
400.0	400.0	360.2	360.2	0.8	0.8	-5.35	1,370.9	-128.3	1,376.9	1,375.3	1.54	893.627	
492.1	492.1	452.3	452.3	1.0	1.0	-5.35	1,370.9	-128.3	1,376.9	1,374.9	1.95	704.319	
500.0	500.0	460.2	460.2	1.0	1.0	-5.35	1,370.9	-128.3	1,376.9	1,374.9	1.99	691.792	
590.5	590.5	550.7	550.7	1.2	1.2	-5.35	1,370.9	-128.3	1,376.9	1,374.5	2.40	574.331	
600.0	600.0	560.2	560.2	1.2	1.2	-5.35	1,370.9	-128.3	1,376.9	1,374.4	2.44	564.331	
689.0	689.0	649.2	649.2	1.4	1.4	-5.35	1,370.9	-128.3	1,376.9	1,374.0	2.84	484.848	
700.0	700.0	660.2	660.2	1.4	1.5	-5.35	1,370.9	-128.3	1,376.9	1,374.0	2.89	476.532	
787.4	787.4	747.6	747.6	1.6	1.7	-5.35	1,370.9	-128.3	1,376.9	1,373.6	3.28	419.490	
800.0	800.0	760.2	760.2	1.7	1.7	-5.35	1,370.9	-128.3	1,376.9	1,373.5	3.34	412.374	
885.8	885.8	846.0	846.0	1.9	1.9	-5.35	1,370.9	-128.3	1,376.9	1,373.2	3.72	369.660	
900.0	900.0	860.2	860.2	1.9	1.9	-5.35	1,370.9	-128.3	1,376.9	1,373.1	3.79	363.442	
984.2	984.2	944.4	944.4	2.1	2.1	-5.35	1,370.9	-128.3	1,376.9	1,372.7	4.17	330.411	
1,000.0	1,000.0	960.2	960.2	2.1	2.1	-5.35	1,370.9	-128.3	1,376.9	1,372.6	4.24	324.891	
1,082.7	1,082.7	1,042.9	1,042.9	2.3	2.3	-5.35	1,370.9	-128.3	1,376.9	1,372.3	4.61	298.696	
1,100.0	1,100.0	1,060.2	1,060.2	2.3	2.4	-5.35	1,370.9	-128.3	1,376.9	1,372.2	4.69	293.734	
1,181.1	1,181.1	1,141.3	1,141.3	2.5	2.5	-5.35	1,370.9	-128.3	1,376.9	1,371.8	5.05	272.537	
1,200.0	1,200.0	1,160.2	1,160.2	2.6	2.6	-5.35	1,370.9	-128.3	1,376.9	1,371.7	5.14	268.030	
1,279.5	1,279.5	1,239.7	1,239.7	2.7	2.8	-5.35	1,370.9	-128.3	1,376.9	1,371.4	5.49	250.591	
1,300.0	1,300.0	1,260.2	1,260.2	2.8	2.8	-5.35	1,370.9	-128.3	1,376.9	1,371.3	5.59	246.462	
1,377.9	1,377.9	1,338.1	1,338.1	3.0	3.0	-5.35	1,370.9	-128.3	1,376.9	1,370.9	5.94	231.915	
1,400.0	1,400.0	1,360.2	1,360.2	3.0	3.0	-5.35	1,370.9	-128.3	1,376.9	1,370.8	6.04	228.107	
1,476.4	1,476.4	1,436.6	1,436.6	3.2	3.2	-5.35	1,370.9	-128.3	1,376.9	1,370.5	6.38	215.831	
1,500.0	1,500.0	1,460.2	1,460.2	3.2	3.3	-5.35	1,370.9	-128.3	1,376.9	1,370.4	6.49	212.296	
1,574.8	1,574.8	1,535.0	1,535.0	3.4	3.4	-5.35	1,370.9	-128.3	1,376.9	1,370.1	6.82	201.832	
1,600.0	1,600.0	1,560.2	1,560.2	3.5	3.5	-5.35	1,370.9	-128.3	1,376.9	1,369.9	6.94	198.536	
1,673.2	1,673.2	1,633.4	1,633.4	3.6	3.6	-5.35	1,370.9	-128.3	1,376.9	1,369.6	7.26	189.539	
1,700.0	1,700.0	1,660.2	1,660.2	3.7	3.7	-5.35	1,370.9	-128.3	1,376.9	1,369.5	7.38	186.450	
1,771.6	1,771.6	1,731.8	1,731.8	3.8	3.9	-5.35	1,370.9	-128.3	1,376.9	1,369.2	7.71	178.658	
1,800.0	1,800.0	1,760.2	1,760.2	3.9	3.9	-5.35	1,370.9	-128.3	1,376.9	1,369.0	7.83	175.751	
1,870.1	1,870.1	1,830.3	1,830.3	4.1	4.1	-5.35	1,370.9	-128.3	1,376.9	1,368.7	8.15	168.958	
1,900.0	1,900.0	1,860.2	1,860.2	4.1	4.2	-5.35	1,370.9	-128.3	1,376.9	1,368.6	8.28	166.214	
1,950.0	1,950.0	1,910.2	1,910.2	4.2	4.3	-5.35	1,370.9	-128.3	1,376.9	1,368.4	8.51	161.823	
1,968.5	1,968.5	1,928.7	1,928.7	4.3	4.3	-33.12	1,370.9	-128.3	1,376.8	1,368.2	8.59	160.258	
2,000.0	2,000.0	1,960.2	1,960.2	4.4	4.4	-33.13	1,370.9	-128.3	1,376.5	1,367.8	8.73	157.643	
2,066.9	2,066.9	2,027.1	2,027.1	4.5	4.5	-33.19	1,370.9	-128.3	1,374.9	1,365.8	9.03	152.297	
2,100.0	2,099.9	2,060.1	2,060.1	4.6	4.6	-33.24	1,370.9	-128.3	1,373.6	1,364.4	9.17	149.751	
2,165.3	2,165.1	2,125.3	2,125.3	4.7	4.7	-33.37	1,370.9	-128.3	1,370.1	1,360.6	9.46	144.866	
2,200.0	2,199.7	2,159.9	2,159.9	4.8	4.8	-33.46	1,370.9	-128.3	1,367.8	1,358.1	9.61	142.365	
2,263.8	2,263.1	2,223.3	2,223.3	4.9	5.0	-33.67	1,370.9	-128.3	1,362.5	1,352.6	9.88	137.873	
2,300.0	2,299.1	2,259.3	2,259.3	5.0	5.0	-33.80	1,370.9	-128.3	1,359.0	1,349.0	10.04	135.399	
2,362.2	2,360.8	2,321.0	2,321.0	5.2	5.2	-34.08	1,370.9	-128.3	1,352.2	1,341.9	10.30	131.232	
2,400.0	2,398.2	2,358.4	2,358.4	5.3	5.3	-34.26	1,370.9	-128.3	1,347.5	1,337.0	10.46	128.772	
2,460.6	2,457.9	2,418.1	2,418.1	5.4	5.4	-34.60	1,370.9	-128.3	1,339.1	1,328.4	10.72	124.874	
2,500.0	2,496.6	2,456.8	2,456.8	5.5	5.5	-34.85	1,370.9	-128.3	1,333.1	1,322.2	10.89	122.409	

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 OLSON 30R-243
<b>Project:</b>	WELD COUNTY, COLORADO	<b>TVD Reference:</b>	KB-EST @ 4990.0usft (Original Well Elev)
<b>Reference Site:</b>	NW NE SEC 30 T4N R67W 6th P.M.	<b>MD Reference:</b>	KB-EST @ 4990.0usft (Original Well Elev)
<b>Site Error:</b>	0.0 usft	<b>North Reference:</b>	True
<b>Reference Well:</b>	OLSON 30R-243	<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 #2	<b>Offset TVD Reference:</b>	Offset Datum

<b>Offset Design</b> NW NE SEC 30 T4N R67W 6th P.M. - PROP HZ CHANDLER FARMS HD 20-389HN - Wellbore #1 - W												<b>Offset Site Error:</b>	0.0 usft
Survey Program: 16-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	
2,559.0	2,554.5	2,514.7	2,514.7	5.7	5.6	-35.25	1,370.9	-128.3	1,323.3	1,312.2	11.15	118.730	
2,600.0	2,594.4	2,554.6	2,554.6	5.8	5.7	-35.56	1,370.9	-128.3	1,316.0	1,304.7	11.32	116.241	
2,657.5	2,650.3	2,610.5	2,610.5	6.0	5.8	-36.04	1,370.9	-128.3	1,304.9	1,293.4	11.58	112.727	
2,700.0	2,691.5	2,651.7	2,651.7	6.1	5.9	-36.42	1,370.9	-128.3	1,296.2	1,284.5	11.76	110.209	
2,730.9	2,721.3	2,681.5	2,681.5	6.2	6.0	-36.71	1,370.9	-128.3	1,289.6	1,277.7	11.90	108.364	
2,755.9	2,745.3	2,705.5	2,705.5	6.3	6.1	-36.89	1,370.9	-128.3	1,284.1	1,272.1	12.03	106.771	
2,800.0	2,787.8	2,748.0	2,748.0	6.5	6.1	-37.20	1,370.9	-128.3	1,274.5	1,262.3	12.25	104.012	
2,854.3	2,840.1	2,800.3	2,800.3	6.7	6.3	-37.60	1,370.9	-128.3	1,262.7	1,250.2	12.54	100.719	
2,900.0	2,884.1	2,844.3	2,844.3	6.9	6.4	-37.94	1,370.9	-128.3	1,252.9	1,240.1	12.78	98.046	
2,952.7	2,934.9	2,895.1	2,895.1	7.1	6.5	-38.33	1,370.9	-128.3	1,241.6	1,228.5	13.06	95.047	
3,000.0	2,980.4	2,940.6	2,940.6	7.3	6.6	-38.70	1,370.9	-128.3	1,231.5	1,218.1	13.32	92.456	
3,051.2	3,029.7	2,989.9	2,989.9	7.5	6.7	-39.10	1,370.9	-128.3	1,220.6	1,207.0	13.60	89.730	
3,100.0	3,076.7	3,036.9	3,036.9	7.7	6.8	-39.48	1,370.9	-128.3	1,210.2	1,196.4	13.88	87.223	
3,149.6	3,124.5	3,084.7	3,084.7	7.9	6.9	-39.88	1,370.9	-128.3	1,199.8	1,185.7	14.16	84.749	
3,200.0	3,173.0	3,133.2	3,133.2	8.1	7.0	-40.29	1,370.9	-128.3	1,189.3	1,174.8	14.45	82.325	
3,248.0	3,219.3	3,179.5	3,179.5	8.4	7.1	-40.69	1,370.9	-128.3	1,179.3	1,164.6	14.73	80.083	
3,300.0	3,269.4	3,229.6	3,229.6	8.6	7.2	-41.13	1,370.9	-128.3	1,168.5	1,153.5	15.03	77.743	
3,346.4	3,314.1	3,274.3	3,274.3	8.8	7.3	-41.53	1,370.9	-128.3	1,159.0	1,143.7	15.31	75.713	
3,400.0	3,365.7	3,325.9	3,325.9	9.1	7.4	-42.00	1,370.9	-128.3	1,148.1	1,132.4	15.63	73.454	
3,444.9	3,408.9	3,369.1	3,369.1	9.3	7.5	-42.40	1,370.9	-128.3	1,139.0	1,123.1	15.90	71.618	
3,500.0	3,462.0	3,422.2	3,422.2	9.5	7.7	-42.90	1,370.9	-128.3	1,127.9	1,111.6	16.24	69.440	
3,543.3	3,503.7	3,463.9	3,463.9	9.7	7.8	-43.30	1,370.9	-128.3	1,119.2	1,102.7	16.51	67.781	
3,600.0	3,558.3	3,518.5	3,518.5	10.0	7.9	-43.83	1,370.9	-128.3	1,108.0	1,091.1	16.87	65.683	
3,641.7	3,598.5	3,558.7	3,558.7	10.2	8.0	-44.23	1,370.9	-128.3	1,099.7	1,082.6	17.13	64.185	
3,700.0	3,654.6	3,614.8	3,614.8	10.5	8.1	-44.80	1,370.9	-128.3	1,088.3	1,070.8	17.51	62.163	
3,740.1	3,693.2	3,653.4	3,653.4	10.7	8.2	-45.19	1,370.9	-128.3	1,080.6	1,062.8	17.77	60.813	
3,800.0	3,750.9	3,711.1	3,711.1	11.0	8.3	-45.80	1,370.9	-128.3	1,069.0	1,050.9	18.16	58.866	
3,838.6	3,788.0	3,748.2	3,748.2	11.2	8.4	-46.19	1,370.9	-128.3	1,061.7	1,043.3	18.42	57.650	
3,900.0	3,847.2	3,807.4	3,807.4	11.5	8.5	-46.83	1,370.9	-128.3	1,050.1	1,031.3	18.83	55.777	
3,937.0	3,882.8	3,843.0	3,843.0	11.7	8.6	-47.22	1,370.9	-128.3	1,043.2	1,024.1	19.08	54.682	
4,000.0	3,943.5	3,903.7	3,903.7	12.0	8.7	-47.90	1,370.9	-128.3	1,031.5	1,012.0	19.51	52.880	
4,035.4	3,977.6	3,937.8	3,937.8	12.2	8.8	-48.29	1,370.9	-128.3	1,025.0	1,005.2	19.75	51.898	
4,100.0	4,039.8	4,000.0	4,000.0	12.5	9.0	-49.00	1,370.9	-128.3	1,013.3	993.1	20.20	50.164	
4,133.8	4,072.4	4,032.6	4,032.6	12.7	9.0	-49.39	1,370.9	-128.3	1,007.2	986.7	20.44	49.283	
4,200.0	4,136.1	4,096.3	4,096.3	13.0	9.2	-50.15	1,370.9	-128.3	995.4	974.5	20.90	47.617	
4,232.3	4,167.2	4,127.4	4,127.4	13.2	9.2	-50.53	1,370.9	-128.3	989.7	968.6	21.14	46.829	
4,300.0	4,232.4	4,192.6	4,192.6	13.5	9.4	-51.33	1,370.9	-128.3	978.0	956.4	21.62	45.229	
4,330.7	4,262.0	4,222.2	4,222.2	13.7	9.5	-51.70	1,370.9	-128.3	972.7	950.9	21.85	44.525	
4,400.0	4,328.7	4,288.9	4,288.9	14.0	9.6	-52.56	1,370.9	-128.3	961.0	938.7	22.36	42.988	
4,429.1	4,356.8	4,317.0	4,317.0	14.2	9.7	-52.92	1,370.9	-128.3	956.1	933.6	22.57	42.362	
4,500.0	4,425.0	4,385.2	4,385.2	14.6	9.8	-53.82	1,370.9	-128.3	944.5	921.4	23.10	40.887	
4,527.5	4,451.6	4,411.8	4,411.8	14.7	9.9	-54.18	1,370.9	-128.3	940.0	916.7	23.31	40.332	
4,600.0	4,521.4	4,481.6	4,481.6	15.1	10.0	-55.13	1,370.9	-128.3	928.5	904.6	23.86	38.917	
4,626.0	4,546.4	4,506.6	4,506.6	15.2	10.1	-55.48	1,370.9	-128.3	924.4	900.3	24.06	38.426	
4,700.0	4,617.7	4,577.9	4,577.9	15.6	10.3	-56.48	1,370.9	-128.3	912.9	888.3	24.63	37.071	
4,724.4	4,641.2	4,601.4	4,601.4	15.7	10.3	-56.82	1,370.9	-128.3	909.2	884.4	24.82	36.638	
4,800.0	4,714.0	4,674.2	4,674.2	16.1	10.5	-57.88	1,370.9	-128.3	898.0	872.5	25.41	35.342	
4,822.8	4,735.9	4,696.1	4,696.1	16.3	10.5	-58.20	1,370.9	-128.3	894.6	869.0	25.59	34.962	
4,900.0	4,810.3	4,770.5	4,770.5	16.7	10.7	-59.31	1,370.9	-128.3	883.5	857.3	26.20	33.722	
4,921.2	4,830.7	4,790.9	4,790.9	16.8	10.7	-59.63	1,370.9	-128.3	880.5	854.2	26.37	33.392	
5,000.0	4,906.6	4,866.8	4,866.8	17.2	10.9	-60.80	1,370.9	-128.3	869.7	842.7	27.00	32.208	
5,019.7	4,925.5	4,885.7	4,885.7	17.3	11.0	-61.09	1,370.9	-128.3	867.1	839.9	27.16	31.922	

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 OLSON 30R-243
<b>Project:</b>	WELD COUNTY, COLORADO	<b>TVD Reference:</b>	KB-EST @ 4990.0usft (Original Well Elev)
<b>Reference Site:</b>	NW NE SEC 30 T4N R67W 6th P.M.	<b>MD Reference:</b>	KB-EST @ 4990.0usft (Original Well Elev)
<b>Site Error:</b>	0.0 usft	<b>North Reference:</b>	True
<b>Reference Well:</b>	OLSON 30R-243	<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 #2	<b>Offset TVD Reference:</b>	Offset Datum

<b>Offset Design</b> NW NE SEC 30 T4N R67W 6th P.M. - PROP HZ CHANDLER FARMS HD 20-389HN - Wellbore #1 - W												<b>Offset Site Error:</b>	0.0 usft
Survey Program: 16-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
5,100.0	5,002.9	4,963.1	4,963.1	17.7	11.1	-62.32	1,370.9	-128.3	856.5	828.7	27.82	30.792	
5,118.1	5,020.3	4,980.5	4,980.5	17.8	11.2	-62.61	1,370.9	-128.3	854.2	826.2	27.96	30.546	
5,200.0	5,099.2	5,059.4	5,059.4	18.3	11.3	-63.89	1,370.9	-128.3	844.0	815.3	28.64	29.471	
5,216.5	5,115.1	5,075.3	5,075.3	18.3	11.4	-64.16	1,370.9	-128.3	842.0	813.2	28.77	29.262	
5,300.0	5,195.5	5,155.7	5,155.7	18.8	11.6	-65.51	1,370.9	-128.3	832.1	802.6	29.47	28.240	
5,314.9	5,209.9	5,170.1	5,170.1	18.9	11.6	-65.75	1,370.9	-128.3	830.4	800.8	29.59	28.063	
5,400.0	5,291.8	5,252.0	5,252.0	19.3	11.8	-67.17	1,370.9	-128.3	821.0	790.7	30.30	27.093	
5,413.4	5,304.7	5,264.9	5,264.9	19.4	11.8	-67.39	1,370.9	-128.3	819.5	789.1	30.41	26.946	
5,500.0	5,388.1	5,348.3	5,348.3	19.9	12.0	-68.86	1,370.9	-128.3	810.5	779.4	31.14	26.029	
5,511.8	5,399.5	5,359.7	5,359.7	19.9	12.0	-69.07	1,370.9	-128.3	809.4	778.1	31.24	25.908	
5,600.0	5,484.4	5,444.6	5,444.6	20.4	12.2	-70.60	1,370.9	-128.3	800.9	768.9	31.98	25.041	
5,610.2	5,494.3	5,454.5	5,454.5	20.4	12.2	-70.78	1,370.9	-128.3	800.0	767.9	32.07	24.944	
5,700.0	5,580.7	5,540.9	5,540.9	20.9	12.4	-72.38	1,370.9	-128.3	792.1	759.2	32.83	24.128	
5,708.6	5,589.1	5,549.3	5,549.3	21.0	12.4	-72.53	1,370.9	-128.3	791.3	758.4	32.90	24.052	
5,722.6	5,602.5	5,562.7	5,562.7	21.0	12.5	-72.78	1,370.9	-128.3	790.2	757.2	33.02	23.931	
5,800.0	5,677.3	5,637.5	5,637.5	21.4	12.6	-74.01	1,370.9	-128.3	784.3	750.7	33.61	23.335	
5,807.1	5,684.2	5,644.4	5,644.4	21.4	12.7	-74.12	1,370.9	-128.3	783.9	750.2	33.66	23.287	
5,900.0	5,774.7	5,729.0	5,729.0	21.8	12.8	-75.39	1,370.7	-128.6	778.4	744.1	34.26	22.722	
5,905.5	5,780.1	5,733.5	5,733.5	21.8	12.9	-75.46	1,370.7	-128.7	778.1	743.8	34.29	22.694	
5,998.4	5,871.2	5,800.0	5,799.9	22.1	13.0	-76.59	1,368.8	-132.0	775.6	740.9	34.79	22.297	
6,000.0	5,872.9	5,800.0	5,799.9	22.1	13.0	-76.59	1,368.8	-132.0	775.6	740.9	34.79	22.294	
6,003.9	5,876.7	5,800.0	5,799.9	22.1	13.0	-76.59	1,368.8	-132.0	775.7	740.9	34.80	22.287	
6,100.0	5,971.6	5,872.9	5,872.0	22.4	13.1	-78.17	1,363.7	-141.2	777.6	742.3	35.29	22.033	
6,102.3	5,973.9	5,874.4	5,873.4	22.4	13.1	-78.21	1,363.6	-141.4	777.7	742.4	35.30	22.030	
6,200.0	6,070.8	5,934.3	5,931.4	22.7	13.3	-79.92	1,356.1	-154.8	785.5	749.7	35.74	21.981	
6,200.8	6,071.6	5,934.8	5,931.8	22.7	13.3	-79.93	1,356.0	-154.9	785.6	749.8	35.74	21.981	
6,299.2	6,169.6	6,000.0	5,992.7	22.9	13.4	-82.13	1,344.7	-175.2	799.5	763.3	36.15	22.114	
6,300.0	6,170.4	6,000.0	5,992.7	22.9	13.4	-82.13	1,344.7	-175.2	799.6	763.5	36.15	22.117	
6,397.6	6,267.9	6,050.2	6,038.0	23.1	13.5	-84.10	1,334.1	-194.1	819.2	782.7	36.49	22.448	
6,400.0	6,270.3	6,051.6	6,039.2	23.1	13.5	-84.16	1,333.7	-194.7	819.7	783.2	36.50	22.458	
6,496.0	6,366.3	6,111.0	6,091.0	23.2	13.7	-86.55	1,319.6	-219.9	844.3	807.5	36.82	22.934	
6,503.5	6,373.8	6,117.4	6,096.6	23.2	13.7	-59.03	1,318.0	-222.8	846.4	809.6	36.85	22.972	
6,533.5	6,403.8	7,933.8	7,183.1	23.2	27.9	1.73	968.0	475.9	821.9	777.0	44.96	18.283	
6,550.0	6,420.3	7,933.8	7,183.1	23.2	27.9	-178.64	968.0	475.9	805.5	760.6	44.97	17.914	
6,594.5	6,464.7	7,933.9	7,183.1	23.3	27.9	-179.09	968.0	475.9	761.5	716.7	44.85	16.979	
6,600.0	6,470.2	7,933.9	7,183.1	23.3	27.9	-179.12	968.0	476.0	756.1	711.3	44.82	16.868	
6,650.0	6,519.8	7,934.1	7,183.1	23.3	27.9	-179.29	968.0	476.1	707.4	662.9	44.47	15.908	
6,692.9	6,561.9	7,934.4	7,183.1	23.2	27.9	-179.35	968.0	476.4	666.6	622.6	44.01	15.147	
6,700.0	6,568.8	7,934.4	7,183.1	23.2	27.9	-179.36	968.0	476.4	659.9	616.0	43.92	15.026	
6,750.0	6,617.0	7,934.8	7,183.1	23.1	27.9	-179.37	968.0	476.8	614.2	571.0	43.18	14.224	
6,791.3	6,656.1	7,935.2	7,183.1	23.0	28.0	-179.36	968.0	477.2	578.2	535.8	42.44	13.625	
6,800.0	6,664.2	7,935.3	7,183.1	23.0	28.0	-179.35	968.0	477.3	570.9	528.6	42.27	13.507	
6,850.0	6,710.1	7,935.9	7,183.1	22.9	28.0	-179.31	967.9	477.9	530.8	489.6	41.18	12.890	
6,889.7	6,745.5	7,936.5	7,183.1	22.7	28.0	-179.26	967.9	478.5	501.9	461.7	40.20	12.484	
6,900.0	6,754.5	7,936.6	7,183.1	22.7	28.0	-179.25	967.9	478.6	494.9	455.0	39.94	12.393	
6,950.0	6,797.2	7,937.4	7,183.1	22.5	28.0	-179.17	967.9	479.4	464.5	425.9	38.55	12.051	
6,988.2	6,828.5	7,938.0	7,183.1	22.3	28.0	-179.10	967.9	480.1	445.7	408.3	37.39	11.918	
7,000.0	6,838.0	7,938.3	7,183.1	22.3	28.0	-179.08	967.9	480.3	440.7	403.7	37.02	11.904 SF	
7,050.0	6,876.7	7,939.2	7,183.1	22.0	28.0	-178.97	967.8	481.2	424.9	389.5	35.39	12.007	
7,086.6	6,903.5	7,940.0	7,183.1	21.8	28.1	-178.88	967.8	482.0	419.0	384.9	34.14	12.273	
7,100.0	6,913.0	7,940.3	7,183.1	21.8	28.1	-178.84	967.8	482.3	418.1	384.4	33.67	12.416 ES	
7,111.7	6,921.2	7,940.5	7,183.1	21.7	28.1	-178.80	967.8	482.5	417.8	384.5	33.26	12.562 CC	

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 OLSON 30R-243
<b>Project:</b>	WELD COUNTY, COLORADO	<b>TVD Reference:</b>	KB-EST @ 4990.0usft (Original Well Elev)
<b>Reference Site:</b>	NW NE SEC 30 T4N R67W 6th P.M.	<b>MD Reference:</b>	KB-EST @ 4990.0usft (Original Well Elev)
<b>Site Error:</b>	0.0 usft	<b>North Reference:</b>	True
<b>Reference Well:</b>	OLSON 30R-243	<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 #2	<b>Offset TVD Reference:</b>	Offset Datum

Offset Design												Offset Site Error:	0.0 usft
Survey Program: 16-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	
7,150.0	6,946.9	7,941.4	7,183.1	21.5	28.1	-178.68	967.8	483.4	420.6	388.7	31.88	13.191	
7,185.0	6,969.1	7,942.2	7,183.1	21.3	28.1	-178.55	967.8	484.2	427.9	397.3	30.61	13.977	
7,200.0	6,978.2	7,942.5	7,183.1	21.2	28.1	-178.49	967.7	484.6	432.3	402.2	30.07	14.379	
7,250.0	7,006.6	7,943.8	7,183.1	21.0	28.2	-178.27	967.7	485.8	452.5	424.2	28.25	16.016	
7,283.4	7,024.0	7,944.6	7,183.1	20.8	28.2	-178.09	967.7	486.7	470.1	443.1	27.07	17.371	
7,300.0	7,032.1	7,945.1	7,183.1	20.7	28.2	-177.99	967.7	487.1	480.0	453.5	26.49	18.120	
7,350.0	7,054.6	7,946.4	7,183.1	20.4	28.2	-177.64	967.6	488.4	513.4	488.6	24.83	20.682	
7,381.9	7,067.2	7,947.3	7,183.1	20.3	28.2	-177.37	967.6	489.3	537.4	513.5	23.85	22.535	
7,400.0	7,073.8	7,947.8	7,183.1	20.2	28.2	-177.19	967.6	489.8	551.7	528.4	23.32	23.656	
7,450.0	7,089.9	7,949.3	7,183.1	19.9	28.3	-176.59	967.5	491.3	593.6	571.6	22.04	26.936	
7,480.3	7,097.9	7,950.1	7,183.1	19.8	28.3	-176.12	967.5	492.1	620.4	599.0	21.40	28.996	
7,500.0	7,102.5	7,950.7	7,183.1	19.7	28.3	-175.76	967.5	492.7	638.3	617.3	21.04	30.337	
7,550.0	7,111.8	7,952.2	7,183.1	19.5	28.3	-174.50	967.5	494.2	685.0	664.6	20.39	33.592	
7,578.7	7,115.6	7,953.1	7,183.1	19.4	28.4	-173.44	967.4	495.1	712.5	692.3	20.21	35.260	
7,600.0	7,117.6	7,953.7	7,183.1	19.3	28.4	-172.40	967.4	495.7	733.2	713.0	20.17	36.348	
7,650.0	7,119.9	7,955.2	7,183.1	19.1	28.4	-168.21	967.4	497.2	782.3	761.7	20.55	38.060	
7,660.3	7,120.0	7,955.5	7,183.1	19.1	28.4	-166.78	967.4	497.5	792.5	771.7	20.76	38.174	
7,677.1	7,120.0	7,956.0	7,183.1	19.0	28.4	-166.51	967.3	498.0	809.2	788.3	20.86	38.796	
7,700.0	7,119.9	7,956.7	7,183.1	19.0	28.4	-166.14	967.3	498.7	831.9	810.9	20.99	39.628	
7,775.6	7,119.7	7,959.0	7,183.1	18.8	28.5	-164.92	967.3	501.0	906.9	885.4	21.46	42.253	
7,800.0	7,119.7	7,959.7	7,183.1	18.8	28.5	-164.53	967.2	501.7	931.2	909.5	21.62	43.076	
7,874.0	7,119.5	7,962.0	7,183.1	18.9	28.6	-163.36	967.2	504.0	1,004.7	982.6	22.12	45.415	
7,900.0	7,119.4	7,962.8	7,183.1	19.0	28.6	-162.95	967.1	504.8	1,030.6	1,008.3	22.30	46.209	
7,972.4	7,119.2	7,964.9	7,183.1	19.4	28.6	-161.83	967.1	506.9	1,102.6	1,079.8	22.84	48.268	
8,000.0	7,119.2	7,965.8	7,183.1	19.5	28.6	-161.40	967.0	507.8	1,130.1	1,107.0	23.05	49.022	
8,070.8	7,119.0	7,967.9	7,183.1	20.1	28.7	-160.32	967.0	509.9	1,200.6	1,177.0	23.63	50.811	
8,100.0	7,118.9	7,968.8	7,183.1	20.4	28.7	-159.88	967.0	510.8	1,229.7	1,205.8	23.87	51.516	
8,169.3	7,118.7	7,970.9	7,183.1	21.1	28.8	-158.84	966.9	512.9	1,298.7	1,274.2	24.48	53.049	
8,200.0	7,118.7	7,971.8	7,183.1	21.4	28.8	-158.38	966.9	513.8	1,329.3	1,304.6	24.76	53.696	
8,267.7	7,118.5	7,973.9	7,183.1	22.1	28.8	-157.39	966.8	515.9	1,396.8	1,371.4	25.40	54.989	
8,300.0	7,118.4	7,974.8	7,183.1	22.5	28.8	-156.92	966.8	516.8	1,429.0	1,403.3	25.71	55.573	
8,366.1	7,118.3	7,976.8	7,183.1	23.3	28.9	-155.97	966.7	518.8	1,494.9	1,468.6	26.39	56.646	
8,400.0	7,118.2	7,977.8	7,183.1	23.7	28.9	-155.48	966.7	519.9	1,528.7	1,502.0	26.74	57.163	
8,464.5	7,118.0	7,979.8	7,183.1	24.5	29.0	-154.57	966.6	521.8	1,593.1	1,565.7	27.45	58.038	
8,500.0	7,117.9	7,980.9	7,183.1	25.0	29.0	-154.08	966.6	522.9	1,628.5	1,600.6	27.84	58.487	
8,563.0	7,117.8	7,982.8	7,183.1	25.8	29.0	-153.22	966.5	524.8	1,691.3	1,662.7	28.58	59.188	
8,600.0	7,117.7	7,983.9	7,183.1	26.3	29.0	-152.71	966.5	525.9	1,728.3	1,699.2	29.01	59.570	
8,661.4	7,117.5	7,985.7	7,183.1	27.2	29.1	-151.89	966.4	527.7	1,789.5	1,759.8	29.77	60.118	
8,700.0	7,117.4	7,986.9	7,183.1	27.7	29.1	-151.37	966.4	528.9	1,828.0	1,797.8	30.25	60.434	
8,759.8	7,117.3	7,988.7	7,183.1	28.6	29.2	-150.59	966.4	530.7	1,887.8	1,856.7	31.02	60.853	
8,800.0	7,117.2	7,989.9	7,183.1	29.2	29.2	-150.07	966.3	531.9	1,927.9	1,896.3	31.55	61.108	
8,858.2	7,117.0	7,991.7	7,183.1	30.1	29.2	-149.33	966.3	533.7	1,986.0	1,953.7	32.34	61.416	
8,900.0	7,116.9	7,992.9	7,183.1	30.7	29.2	-148.80	966.2	534.9	2,027.7	1,994.8	32.91	61.614	
8,956.7	7,116.8	7,994.7	7,183.1	31.6	29.3	-148.09	966.2	536.6	2,084.3	2,050.6	33.71	61.831	
9,000.0	7,116.7	7,996.0	7,183.1	32.3	29.3	-147.56	966.1	538.0	2,127.5	2,093.2	34.33	61.976	
9,055.1	7,116.6	7,997.6	7,183.1	33.2	29.4	-146.89	966.1	539.6	2,182.5	2,147.4	35.13	62.119	
9,100.0	7,116.5	7,999.0	7,183.1	33.9	29.4	-146.36	966.0	541.0	2,227.4	2,191.6	35.80	62.217	
9,153.5	7,116.3	8,000.6	7,183.1	34.7	29.4	-145.73	966.0	542.6	2,280.8	2,244.2	36.61	62.299	
9,200.0	7,116.2	8,002.0	7,183.1	35.5	29.5	-145.19	966.0	544.0	2,327.2	2,289.9	37.32	62.355	
9,251.9	7,116.1	8,003.6	7,183.1	36.4	29.5	-144.59	965.9	545.6	2,379.1	2,341.0	38.13	62.389	
9,300.0	7,116.0	8,005.0	7,183.1	37.2	29.5	-144.05	965.9	547.0	2,427.1	2,388.2	38.89	62.408	
9,350.4	7,115.8	8,006.5	7,183.1	38.0	29.6	-143.48	965.8	548.5	2,477.4	2,437.7	39.70	62.405	

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 OLSON 30R-243
<b>Project:</b>	WELD COUNTY, COLORADO	<b>TVD Reference:</b>	KB-EST @ 4990.0usft (Original Well Elev)
<b>Reference Site:</b>	NW NE SEC 30 T4N R67W 6th P.M.	<b>MD Reference:</b>	KB-EST @ 4990.0usft (Original Well Elev)
<b>Site Error:</b>	0.0 usft	<b>North Reference:</b>	True
<b>Reference Well:</b>	OLSON 30R-243	<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 #2	<b>Offset TVD Reference:</b>	Offset Datum

<b>Offset Design</b> NW NE SEC 30 T4N R67W 6th P.M. - PROP HZ CHANDLER FARMS HD 20-389HN - Wellbore #1 - W												<b>Offset Site Error:</b>	0.0 usft
Survey Program: 16-MWD												<b>Offset Well Error:</b>	0.0 usft
Measured Depth (usft)	Vertical Depth (usft)	Measured Depth (usft)	Vertical Depth (usft)	Reference (usft)	Offset (usft)	Semi Major Axis Highside Toolface (°)	Offset Wellbore Centre +N/-S (usft)	+E/-W (usft)	Between Centres (usft)	Between Ellipses (usft)	Minimum Separation (usft)	Separation Factor	Warning
9,400.0	7,115.7	8,008.0	7,183.1	38.8	29.6	-142.94	965.8	550.0	2,527.0	2,486.5	40.50	62.391	
9,448.8	7,115.6	8,009.5	7,183.1	39.7	29.6	-142.41	965.7	551.5	2,575.7	2,534.4	41.30	62.360	
9,500.0	7,115.5	8,011.1	7,183.1	40.5	29.7	-141.86	965.7	553.0	2,626.8	2,584.7	42.15	62.318	
9,547.2	7,115.3	8,012.5	7,183.1	41.3	29.7	-141.36	965.6	554.5	2,674.0	2,631.1	42.95	62.265	
9,600.0	7,115.2	8,014.1	7,183.1	42.2	29.7	-140.81	965.6	556.1	2,726.7	2,682.9	43.84	62.198	
9,645.6	7,115.1	8,015.5	7,183.1	43.0	29.8	-140.35	965.5	557.4	2,772.3	2,727.7	44.62	62.130	
9,700.0	7,115.0	8,017.1	7,183.1	44.0	29.8	-139.80	965.5	559.1	2,826.6	2,781.0	45.56	62.043	
9,744.1	7,114.8	8,018.4	7,183.1	44.7	29.8	-139.36	965.5	560.4	2,870.6	2,824.3	46.33	61.964	
9,800.0	7,114.7	8,020.1	7,183.1	45.7	29.9	-138.81	965.4	562.1	2,926.5	2,879.2	47.31	61.860	
9,842.5	7,114.6	8,021.4	7,183.1	46.5	29.9	-138.40	965.4	563.4	2,969.0	2,920.9	48.06	61.775	
9,900.0	7,114.5	8,023.1	7,183.1	47.5	29.9	-137.85	965.3	565.1	3,026.4	2,977.3	49.09	61.656	
9,940.9	7,114.4	8,024.4	7,183.1	48.2	30.0	-137.47	965.3	566.4	3,067.3	3,017.5	49.82	61.566	
10,000.0	7,114.2	8,026.2	7,183.1	49.2	30.0	-136.92	965.2	568.1	3,126.3	3,075.4	50.89	61.435	
10,039.3	7,114.1	8,027.3	7,183.1	49.9	30.0	-136.57	965.2	569.3	3,165.6	3,114.0	51.60	61.345	
10,100.0	7,114.0	8,029.2	7,183.1	51.0	30.1	-136.02	965.1	571.2	3,226.2	3,173.5	52.71	61.204	
10,137.8	7,113.9	8,030.3	7,183.1	51.7	30.1	-135.69	965.1	572.3	3,263.9	3,210.5	53.41	61.114	
10,200.0	7,113.7	8,032.2	7,183.1	52.8	30.2	-135.14	965.0	574.2	3,326.1	3,271.5	54.56	60.965	
10,236.2	7,113.6	8,033.3	7,183.1	53.4	30.2	-134.83	965.0	575.3	3,362.3	3,307.0	55.23	60.877	
10,300.0	7,113.5	8,035.2	7,183.1	54.6	30.2	-134.29	965.0	577.2	3,426.0	3,369.6	56.42	60.721	
10,334.6	7,113.4	8,036.3	7,183.1	55.2	30.2	-134.01	964.9	578.2	3,460.6	3,403.5	57.07	60.636	
10,400.0	7,113.2	8,038.2	7,183.1	56.4	30.3	-133.47	964.9	580.2	3,525.9	3,467.6	58.30	60.476	
10,433.0	7,113.1	8,039.2	7,183.1	57.0	30.3	-133.20	964.8	581.2	3,558.9	3,500.0	58.93	60.395	
10,500.0	7,113.0	8,041.2	7,183.1	58.2	30.4	-132.67	964.8	583.2	3,625.8	3,565.6	60.20	60.231	
10,531.5	7,112.9	8,042.2	7,183.1	58.8	30.4	-132.42	964.7	584.2	3,657.3	3,596.5	60.80	60.154	
10,600.0	7,112.7	8,044.3	7,183.1	60.0	30.4	-131.89	964.7	586.2	3,725.8	3,663.7	62.11	59.988	
10,629.9	7,112.6	8,045.2	7,183.1	60.6	30.5	-131.66	964.7	587.1	3,755.6	3,693.0	62.68	59.916	
10,700.0	7,112.5	8,047.3	7,183.1	61.9	30.5	-131.13	964.6	589.3	3,825.7	3,761.6	64.03	59.748	
10,728.3	7,112.4	8,048.1	7,183.1	62.4	30.5	-130.92	964.6	590.1	3,854.0	3,789.4	64.58	59.681	
10,800.0	7,112.2	8,050.3	7,183.1	63.7	30.6	-130.40	964.5	592.3	3,925.6	3,859.6	65.96	59.512	
10,826.7	7,112.1	8,051.1	7,183.1	64.2	30.6	-130.21	964.5	593.1	3,952.3	3,885.8	66.48	59.450	
10,900.0	7,111.9	8,053.3	7,183.1	65.5	30.6	-129.69	964.4	595.3	4,025.5	3,957.6	67.91	59.281	
10,925.2	7,111.9	8,054.1	7,183.1	66.0	30.7	-129.51	964.4	596.0	4,050.7	3,982.3	68.40	59.223	
11,000.0	7,111.7	8,056.3	7,183.1	67.4	30.7	-128.99	964.3	598.3	4,125.4	4,055.6	69.86	59.055	
11,023.6	7,111.6	8,057.1	7,183.1	67.8	30.7	-128.84	964.3	599.0	4,149.0	4,078.7	70.32	59.002	
11,100.0	7,111.4	8,059.4	7,183.1	69.2	30.8	-128.32	964.2	601.3	4,225.4	4,153.6	71.82	58.835	
11,122.0	7,111.4	8,060.0	7,183.1	69.6	30.8	-128.18	964.2	602.0	4,247.4	4,175.1	72.25	58.787	
11,200.0	7,111.2	8,062.4	7,183.1	71.1	30.9	-127.67	964.1	604.3	4,325.3	4,251.5	73.78	58.621	
11,220.4	7,111.1	8,063.0	7,183.1	71.4	30.9	-127.54	964.1	605.0	4,345.7	4,271.5	74.19	58.578	
11,300.0	7,110.9	8,065.4	7,183.1	72.9	30.9	-127.04	964.0	607.4	4,425.2	4,349.5	75.76	58.413	
11,318.9	7,110.9	8,066.0	7,183.1	73.3	30.9	-126.92	964.0	607.9	4,444.1	4,368.0	76.13	58.375	
11,400.0	7,110.7	8,068.4	7,183.1	74.8	31.0	-126.42	963.9	610.4	4,525.2	4,447.4	77.74	58.212	
11,417.3	7,110.6	8,068.9	7,183.1	75.1	31.0	-126.32	963.9	610.9	4,542.4	4,464.4	78.08	58.178	
11,500.0	7,110.4	8,071.4	7,183.1	76.6	31.1	-125.82	963.9	613.4	4,625.1	4,545.4	79.72	58.017	
11,515.7	7,110.4	8,071.9	7,183.1	76.9	31.1	-125.73	963.8	613.9	4,640.8	4,560.8	80.03	57.987	
11,600.0	7,110.2	8,074.4	7,183.1	78.5	31.1	-125.24	963.8	616.4	4,725.0	4,643.3	81.71	57.828	
11,614.1	7,110.1	8,074.9	7,183.1	78.7	31.1	-125.16	963.8	616.8	4,739.2	4,657.2	81.99	57.802	
11,668.5	7,110.0	8,076.5	7,183.1	79.8	31.2	-124.85	963.7	618.5	4,793.5	4,710.4	83.07	57.703	

# Anticollision Report



<b>Company:</b>	PDC ENERGY	<b>Local Co-ordinate Reference:</b>	Well OLSON 30R-243
<b>Project:</b>	WELD COUNTY, COLORADO	<b>TVD Reference:</b>	KB-EST @ 4990.0usft (Original Well Elev)
<b>Reference Site:</b>	NW NE SEC 30 T4N R67W 6th P.M.	<b>MD Reference:</b>	KB-EST @ 4990.0usft (Original Well Elev)
<b>Site Error:</b>	0.0 usft	<b>North Reference:</b>	True
<b>Reference Well:</b>	OLSON 30R-243	<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 #2	<b>Offset TVD Reference:</b>	Offset Datum

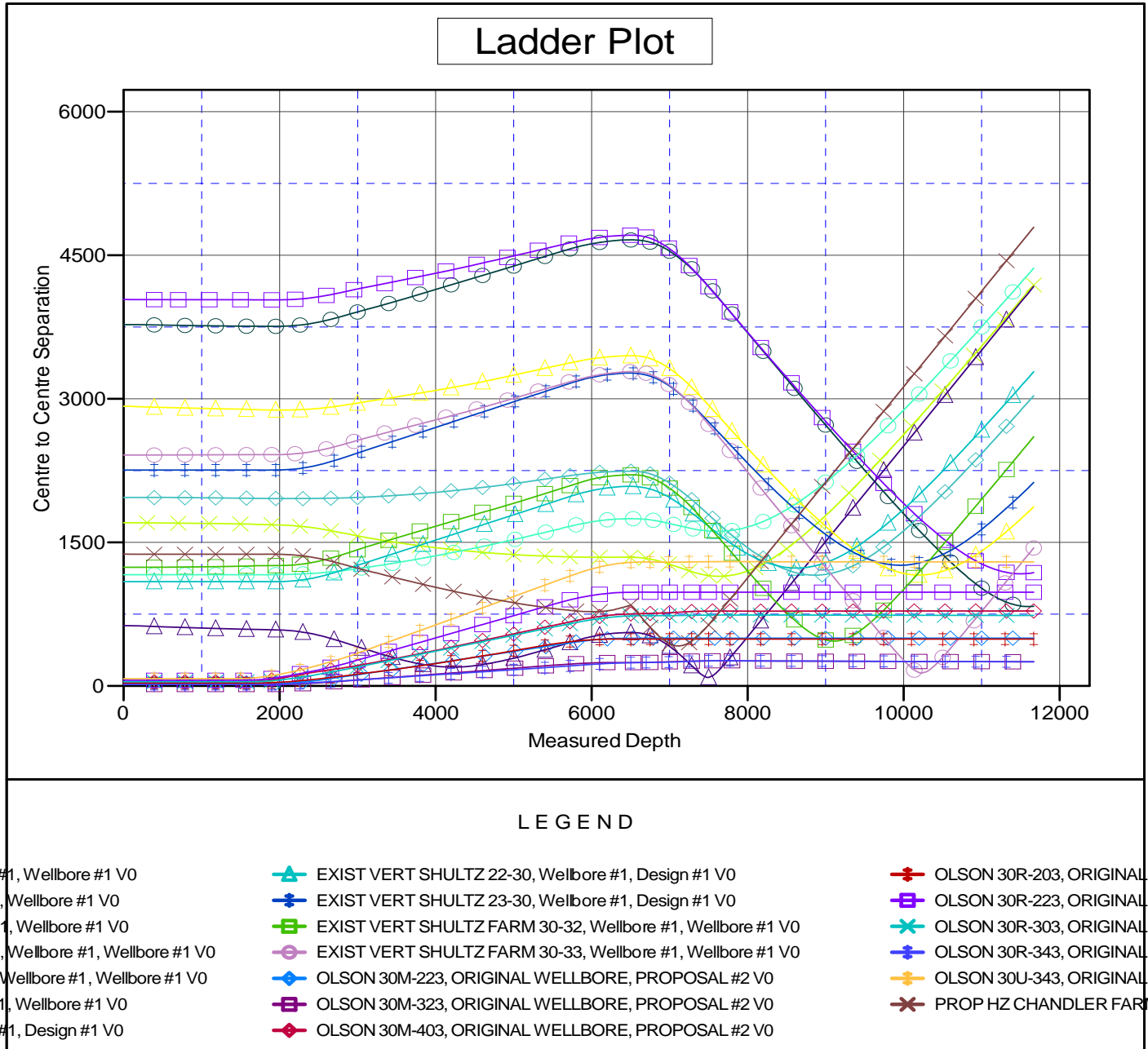
Reference Depths are relative to KB-EST @ 4990.0usft (Original Well ECoordinates are relative to: OLSON 30R-243

Offset Depths are relative to Offset Datum

Coordinate System is US State Plane 1983, Colorado Northern Zone

Central Meridian is -105.500000

Grid Convergence at Surface is: 0.37°



# Anticollision Report



<b>Company:</b>	PDC ENERGY	<b>Local Co-ordinate Reference:</b>	Well OLSON 30R-243
<b>Project:</b>	WELD COUNTY, COLORADO	<b>TVD Reference:</b>	KB-EST @ 4990.0usft (Original Well Elev)
<b>Reference Site:</b>	NW NE SEC 30 T4N R67W 6th P.M.	<b>MD Reference:</b>	KB-EST @ 4990.0usft (Original Well Elev)
<b>Site Error:</b>	0.0 usft	<b>North Reference:</b>	True
<b>Reference Well:</b>	OLSON 30R-243	<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 #2	<b>Offset TVD Reference:</b>	Offset Datum

Reference Depths are relative to KB-EST @ 4990.0usft (Original Well ECoordinates are relative to: OLSON 30R-243

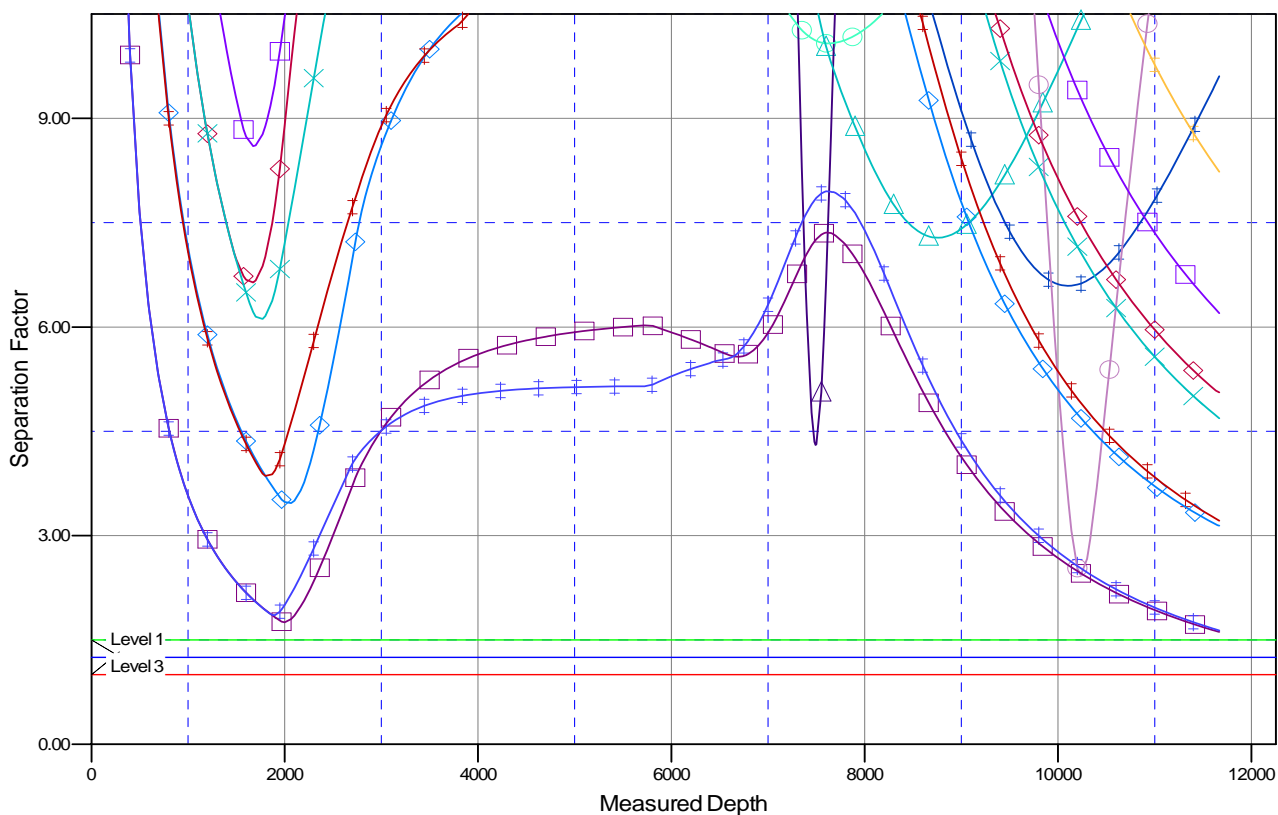
Offset Depths are relative to Offset Datum

Coordinate System is US State Plane 1983, Colorado Northern Zone

Central Meridian is -105.500000

Grid Convergence at Surface is: 0.37°

## Separation Factor Plot



## LEGEND

Wellbore #1 V0	EXIST VERT SHULTZ 22-30, Wellbore #1, Design #1 V0	OLSON 30R-203, ORIGINAL V
Wellbore #1 V0	EXIST VERT SHULTZ 23-30, Wellbore #1, Design #1 V0	OLSON 30R-223, ORIGINAL V
Wellbore #1 V0	EXIST VERT SHULTZ FARM 30-32, Wellbore #1, Wellbore #1 V0	OLSON 30R-303, ORIGINAL V
Wellbore #1, Wellbore #1 V0	EXIST VERT SHULTZ FARM 30-33, Wellbore #1, Wellbore #1 V0	OLSON 30R-343, ORIGINAL V
Wellbore #1, Wellbore #1 V0	OLSON 30M-223, ORIGINAL WELLBORE, PROPOSAL #2 V0	OLSON 30U-343, ORIGINAL V
Wellbore #1 V0	OLSON 30M-323, ORIGINAL WELLBORE, PROPOSAL #2 V0	PROP HZ CHANDLER FARM
Wellbore #1, Design #1 V0	OLSON 30M-403, ORIGINAL WELLBORE, PROPOSAL #2 V0	