

# **PDC ENERGY**

**WELD COUNTY, COLORADO  
SW NW SEC. 17 T5N R64W 6th P.M.  
SCHAUMBERG 17G-314**

**ORIGINAL WELLBORE  
PROPOSAL #1**

## **Anticollision Report**

**18 December, 2015**



# Anticollision Report



<b>Company:</b>	PDC ENERGY	<b>Local Co-ordinate Reference:</b>	Well SCHAUMBERG 17G-314
<b>Project:</b>	WELD COUNTY, COLORADO	<b>TVD Reference:</b>	KB-EST @ 4633.0usft (Original Well Elev)
<b>Reference Site:</b>	SW NW SEC. 17 T5N R64W 6th P.M.	<b>MD Reference:</b>	KB-EST @ 4633.0usft (Original Well Elev)
<b>Site Error:</b>	0.0 usft	<b>North Reference:</b>	True
<b>Reference Well:</b>	SCHAUMBERG 17G-314	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Well Error:</b>	0.0 usft	<b>Output errors are at</b>	2.00 sigma
<b>Reference Wellbore</b>	ORIGINAL WELLBORE	<b>Database:</b>	EDM 5000.1 Single User Db
<b>Reference Design:</b>	PROPOSAL #1	<b>Offset TVD Reference:</b>	Offset Datum

<b>Reference</b>	PROPOSAL #1		
<b>Filter type:</b>	NO GLOBAL FILTER: Using user defined selection & filtering criteria		
<b>Interpolation Method:</b>	MD + Stations Interval 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>	18/12/2015		
<b>From (usft)</b>	<b>To (usft)</b>	<b>Survey (Wellbore)</b>	<b>Tool Name</b>	<b>Description</b>
0.0	12,361.7	PROPOSAL #1 (ORIGINAL WELLBORE)	MWD	MWD - Standard

Summary						
Site Name	Reference Measured Depth (usft)	Offset Measured Depth (usft)	Distance Between Centres (usft)	Distance Between Ellipses (usft)	Separation Factor	Warning
NW SW SEC. 17 T5N R64W 6th P.M.						
CECIL'S KERSEY FARM 17B-212 - ORIGINAL WELLBC	6,823.8	6,976.6	1,575.7	1,537.4	41.161	CC
CECIL'S KERSEY FARM 17B-212 - ORIGINAL WELLBC	6,850.0	6,960.3	1,575.8	1,537.3	40.969	ES
CECIL'S KERSEY FARM 17B-212 - ORIGINAL WELLBC	8,661.4	6,350.0	2,149.0	2,071.1	27.582	SF
CECIL'S KERSEY FARM 17B-214 - ORIGINAL WELLBC	6,905.3	7,429.4	1,488.2	1,442.8	32.790	CC
CECIL'S KERSEY FARM 17B-214 - ORIGINAL WELLBC	12,361.7	12,872.6	1,489.7	1,152.0	4.412	ES, SF
CECIL'S KERSEY FARM 17B-302 - ORIGINAL WELLBC	6,923.2	6,974.2	1,794.6	1,755.5	45.863	CC
CECIL'S KERSEY FARM 17B-302 - ORIGINAL WELLBC	6,950.0	6,957.2	1,794.8	1,755.3	45.502	ES
CECIL'S KERSEY FARM 17B-302 - ORIGINAL WELLBC	9,400.0	6,350.0	2,788.1	2,689.6	28.295	SF
CECIL'S KERSEY FARM 17B-304 - ORIGINAL WELLBC	12,361.7	12,957.9	1,698.1	1,360.1	5.024	CC, ES, SF
CECIL'S KERSEY FARM 17K-204 - ORIGINAL WELLBC	6,905.3	7,468.1	713.0	668.0	15.842	CC
CECIL'S KERSEY FARM 17K-204 - ORIGINAL WELLBC	12,361.7	12,911.3	716.0	380.3	2.133	ES, SF
CECIL'S KERSEY FARM 17K-232 - ORIGINAL WELLBC	6,826.6	7,032.8	816.8	777.8	20.926	CC, ES
CECIL'S KERSEY FARM 17K-232 - ORIGINAL WELLBC	7,480.3	6,666.7	930.3	882.5	19.457	SF
CECIL'S KERSEY FARM 17K-332 - ORIGINAL WELLBC	6,926.1	6,997.6	1,072.6	1,032.9	27.014	CC
CECIL'S KERSEY FARM 17K-332 - ORIGINAL WELLBC	6,950.0	6,982.3	1,072.7	1,032.7	26.822	ES
CECIL'S KERSEY FARM 17K-332 - ORIGINAL WELLBC	7,900.0	6,550.0	1,297.7	1,239.0	22.112	SF
CECIL'S KERSEY FARM 17K-334 - ORIGINAL WELLBC	10,205.2	10,813.8	963.2	746.1	4.436	CC
CECIL'S KERSEY FARM 17K-334 - ORIGINAL WELLBC	12,361.7	12,970.4	963.2	625.9	2.855	ES, SF
CECIL'S KERSEY FARM 17K-402 - ORIGINAL WELLBC	7,010.7	7,033.1	589.8	548.4	14.243	CC, ES
CECIL'S KERSEY FARM 17K-402 - ORIGINAL WELLBC	7,283.4	6,866.6	621.5	576.0	13.652	SF
CECIL'S KERSEY FARM 17K-404 - ORIGINAL WELLBC	7,245.7	7,961.6	477.8	419.1	8.150	CC
CECIL'S KERSEY FARM 17K-404 - ORIGINAL WELLBC	12,361.7	13,077.4	486.8	158.0	1.481	Level 3, ES, SF
EXIST VERT B&H #1 - Wellbore #1 - Design #1	12,001.3	6,775.5	1,453.0	1,163.0	5.011	CC
EXIST VERT B&H #1 - Wellbore #1 - Design #1	12,007.8	6,775.4	1,453.0	1,162.8	5.008	ES
EXIST VERT B&H #1 - Wellbore #1 - Design #1	12,204.7	6,774.6	1,467.1	1,171.5	4.963	SF
EXIST VERT BRIGHT #2 - Wellbore #1 - Design #1	11,831.1	6,776.1	45.4	-239.8	0.159	Level 1, CC, ES, SF
EXIST VERT DUNN #22-18 - Wellbore #1 - Design #1	10,647.4	6,777.9	263.8	11.5	1.046	Level 2, CC, ES, SF
EXIST VERT DUNN/MILLER #1 - Wellbore #1 - Wellbore	6,684.7	6,585.1	1,197.0	1,179.1	67.097	CC
EXIST VERT DUNN/MILLER #1 - Wellbore #1 - Wellbore	6,700.0	6,596.5	1,197.0	1,179.0	66.546	ES
EXIST VERT DUNN/MILLER #1 - Wellbore #1 - Wellbore	11,220.4	6,800.0	4,640.4	4,506.3	34.623	SF
EXIST VERT DUNN/MILLER #17B - Wellbore #1 - Wellb	6,124.6	6,087.1	1,763.9	1,747.4	106.736	ES
EXIST VERT DUNN/MILLER #17B - Wellbore #1 - Wellb	6,154.9	6,116.9	1,763.7	1,747.9	111.880	CC
EXIST VERT DUNN/MILLER #17B - Wellbore #1 - Wellb	12,361.7	6,709.9	6,507.8	6,342.1	39.276	SF
EXIST VERT DUNN/MILLER #23-17 - Wellbore #1 - Des	6,124.6	6,064.8	1,539.0	1,403.7	11.379	CC
EXIST VERT DUNN/MILLER #23-17 - Wellbore #1 - Des	6,150.0	6,090.2	1,539.3	1,401.5	11.172	ES
EXIST VERT DUNN/MILLER #23-17 - Wellbore #1 - Des	6,200.8	6,140.8	1,541.9	1,403.4	11.130	SF
EXIST VERT GUNTHER #18-2 - Wellbore #1 - Design #	8,061.3	6,783.9	156.7	-24.8	0.863	Level 1, CC, ES, SF

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

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<b>Project:</b>	WELD COUNTY, COLORADO	<b>TVD Reference:</b>	KB-EST @ 4633.0usft (Original Well Elev)
<b>Reference Site:</b>	SW NW SEC. 17 T5N R64W 6th P.M.	<b>MD Reference:</b>	KB-EST @ 4633.0usft (Original Well Elev)
<b>Site Error:</b>	0.0 usft	<b>North Reference:</b>	True
<b>Reference Well:</b>	SCHAUMBERG 17G-314	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Well Error:</b>	0.0 usft	<b>Output errors are at</b>	2.00 sigma
<b>Reference Wellbore</b>	ORIGINAL WELLBORE	<b>Database:</b>	EDM 5000.1 Single User Db
<b>Reference Design:</b>	PROPOSAL #1	<b>Offset TVD Reference:</b>	Offset Datum

## Summary

Site Name Offset Well - Wellbore - Design	Reference Measured Depth (usft)	Offset Measured Depth (usft)	Distance Between Centres (usft)	Distance Between Ellipses (usft)	Separation Factor	Warning
NW SW SEC. 17 T5N R64W 6th P.M.						
EXIST VERT GUNTHER-PM B #18-7 - Wellbore #1 - We	9,379.8	6,750.0	243.4	160.9	2.951	CC, ES
EXIST VERT GUNTHER-PM B #18-7 - Wellbore #1 - We	9,400.0	6,750.0	244.3	161.2	2.941	SF
EXIST VERT H&S #1 - Wellbore #1 - Wellbore #1	4,591.1	4,500.0	3,006.4	2,991.6	203.159	CC
EXIST VERT H&S #1 - Wellbore #1 - Wellbore #1	4,626.0	4,528.8	3,006.4	2,991.6	201.889	ES
EXIST VERT H&S #1 - Wellbore #1 - Wellbore #1	12,361.7	6,624.5	8,638.6	8,473.4	52.294	SF
EXIST VERT HETTINGER #1 - Wellbore #1 - Design #1	8,048.9	6,788.0	1,171.9	990.7	6.467	CC
EXIST VERT HETTINGER #1 - Wellbore #1 - Design #1	8,070.8	6,787.9	1,172.1	990.3	6.447	ES
EXIST VERT HETTINGER #1 - Wellbore #1 - Design #1	8,267.7	6,787.1	1,192.2	1,005.2	6.375	SF
EXIST VERT HETTINGER #33-18 - Wellbore #1 - Wellb	9,479.1	6,772.9	1,285.5	1,199.8	15.011	CC
EXIST VERT HETTINGER #33-18 - Wellbore #1 - Wellb	9,500.0	6,772.8	1,285.6	1,199.4	14.912	ES
EXIST VERT HETTINGER #33-18 - Wellbore #1 - Wellb	10,000.0	6,769.0	1,387.0	1,286.9	13.862	SF
EXIST VERT HETTINGER #34-18 - Wellbore #1 - Desig	9,355.4	6,782.0	2,516.1	2,299.6	11.620	CC
EXIST VERT HETTINGER #34-18 - Wellbore #1 - Desig	9,448.8	6,781.6	2,517.8	2,298.8	11.492	ES
EXIST VERT HETTINGER #34-18 - Wellbore #1 - Desig	10,137.8	6,778.9	2,634.9	2,396.8	11.066	SF
EXIST VERT HETTINGER #44-18 - Wellbore #1 - Wellb	8,083.5	6,797.0	2,407.4	2,359.3	49.975	CC
EXIST VERT HETTINGER #44-18 - Wellbore #1 - Wellb	8,169.3	6,796.9	2,409.0	2,358.5	47.754	ES
EXIST VERT HETTINGER #44-18 - Wellbore #1 - Wellb	11,515.7	6,790.1	4,192.4	4,049.7	29.375	SF
EXIST VERT HOSHIKO #32-17 - Wellbore #1 - Design #	1,800.0	1,793.0	2,281.2	2,241.5	57.492	CC
EXIST VERT HOSHIKO #32-17 - Wellbore #1 - Design #	2,066.9	2,059.5	2,284.0	2,238.5	50.178	ES
EXIST VERT HOSHIKO #32-17 - Wellbore #1 - Design #	6,200.0	6,142.0	2,457.5	2,319.3	17.794	SF
EXIST VERT HOSHIKO #42-17 - Wellbore #1 - Design #	1,800.0	1,793.0	3,600.2	3,560.5	90.734	CC
EXIST VERT HOSHIKO #42-17 - Wellbore #1 - Design #	2,000.0	1,992.8	3,602.1	3,558.1	81.759	ES
EXIST VERT HOSHIKO #42-17 - Wellbore #1 - Design #	6,200.0	6,142.0	3,784.5	3,646.4	27.395	SF
EXIST VERT HOSHIKO/SOLIS #1 - Wellbore #1 - Wellb	4,798.0	4,669.8	3,634.9	3,620.1	245.365	CC
EXIST VERT HOSHIKO/SOLIS #1 - Wellbore #1 - Wellb	4,800.0	4,671.6	3,634.9	3,620.0	245.290	ES
EXIST VERT HOSHIKO/SOLIS #1 - Wellbore #1 - Wellb	12,361.7	6,600.0	8,721.3	8,555.4	52.569	SF
EXIST VERT HOWARD #14-18 - Wellbore #1 - Wellbore	12,072.6	6,764.5	2,560.3	2,402.5	16.226	CC
EXIST VERT HOWARD #14-18 - Wellbore #1 - Wellbore	12,106.3	6,763.9	2,560.5	2,401.8	16.131	ES
EXIST VERT HOWARD #14-18 - Wellbore #1 - Wellbore	12,361.7	6,759.1	2,576.6	2,410.7	15.533	SF
EXIST VERT MASON #1 - Wellbore #1 - Design #1	10,678.3	6,777.8	1,401.1	1,148.0	5.536	CC
EXIST VERT MASON #1 - Wellbore #1 - Design #1	10,728.3	6,777.6	1,402.0	1,147.5	5.509	ES
EXIST VERT MASON #1 - Wellbore #1 - Design #1	10,900.0	6,776.9	1,418.6	1,159.3	5.471	SF
EXIST VERT MILLER #1 - Wellbore #1 - Wellbore #1	6,723.2	6,611.6	2,539.1	2,520.9	139.858	CC
EXIST VERT MILLER #1 - Wellbore #1 - Wellbore #1	6,750.0	6,625.7	2,539.2	2,520.7	137.784	ES
EXIST VERT MILLER #1 - Wellbore #1 - Wellbore #1	12,361.7	6,734.9	6,146.7	5,980.9	37.066	SF
EXIST VERT MILLER #2 - Wellbore #1 - Wellbore #1	4,856.4	4,755.9	2,777.9	2,764.1	200.323	CC, ES
EXIST VERT MILLER #2 - Wellbore #1 - Wellbore #1	12,361.7	6,700.0	7,416.1	7,250.1	44.690	SF
EXIST VERT SCHAUMBERG #12-17 - Wellbore #1 - De	4,144.2	4,096.7	86.9	-6.9	0.926	Level 1, CC
EXIST VERT SCHAUMBERG #12-17 - Wellbore #1 - De	6,397.6	6,335.2	125.1	-16.2	0.885	Level 1, ES, SF
EXIST VERT SOLIS #43-17 - Wellbore #1 - Design #1	3,993.6	3,959.4	3,993.6	3,903.3	44.203	CC
EXIST VERT SOLIS #43-17 - Wellbore #1 - Design #1	6,150.0	6,104.2	3,996.2	3,858.0	28.905	ES
EXIST VERT SOLIS #43-17 - Wellbore #1 - Design #1	6,200.8	6,154.8	3,999.6	3,860.9	28.823	SF
EXIST VERT SOLIS #44-17 - Wellbore #1 - Wellbore #1	4,254.0	4,066.5	4,548.3	4,534.6	331.032	CC
EXIST VERT SOLIS #44-17 - Wellbore #1 - Wellbore #1	4,300.0	4,100.0	4,548.5	4,534.5	326.352	ES
EXIST VERT SOLIS #44-17 - Wellbore #1 - Wellbore #1	12,204.7	6,516.1	9,933.9	9,773.4	61.905	SF
EXIST VERT STEINMETZ #1 - Wellbore #1 - Design #1	1,800.0	1,796.0	989.5	949.8	24.920	CC
EXIST VERT STEINMETZ #1 - Wellbore #1 - Design #1	2,559.0	2,547.2	995.3	938.8	17.623	ES
EXIST VERT STEINMETZ #1 - Wellbore #1 - Design #1	6,200.0	6,145.0	1,130.0	992.0	8.187	SF

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

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<b>Project:</b>	WELD COUNTY, COLORADO	<b>TVD Reference:</b>	KB-EST @ 4633.0usft (Original Well Elev)
<b>Reference Site:</b>	SW NW SEC. 17 T5N R64W 6th P.M.	<b>MD Reference:</b>	KB-EST @ 4633.0usft (Original Well Elev)
<b>Site Error:</b>	0.0 usft	<b>North Reference:</b>	True
<b>Reference Well:</b>	SCHAUMBERG 17G-314	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Well Error:</b>	0.0 usft	<b>Output errors are at</b>	2.00 sigma
<b>Reference Wellbore</b>	ORIGINAL WELLBORE	<b>Database:</b>	EDM 5000.1 Single User Db
<b>Reference Design:</b>	PROPOSAL #1	<b>Offset TVD Reference:</b>	Offset Datum

## Summary

Site Name Offset Well - Wellbore - Design	Reference Measured Depth (usft)	Offset Measured Depth (usft)	Distance Between Centres (usft)	Between Ellipses (usft)	Separation Factor	Warning
SW NW SEC. 17 T5N R64W 6th P.M.						
EXIST VERT BRIGHT #1 - Wellbore #1 - Design #1	11,947.8	6,763.7	1,469.9	1,181.6	5.098	CC
EXIST VERT BRIGHT #1 - Wellbore #1 - Design #1	12,000.0	6,763.5	1,470.8	1,181.0	5.076	ES
EXIST VERT BRIGHT #1 - Wellbore #1 - Design #1	12,200.0	6,762.7	1,491.4	1,196.0	5.050	SF
EXIST VERT BRIGHT DUNN #18D - Wellbore #1 - Design #1	11,182.0	6,774.8	843.1	576.2	3.159	CC
EXIST VERT BRIGHT DUNN #18D - Wellbore #1 - Design #1	11,200.0	6,774.7	843.3	575.9	3.154	ES
EXIST VERT BRIGHT DUNN #18D - Wellbore #1 - Design #1	11,220.4	6,774.6	844.0	576.1	3.150	SF
EXIST VERT DUNN #1 - Wellbore #1 - Wellbore #1	10,712.5	6,766.6	1,487.1	1,367.2	12.405	CC
EXIST VERT DUNN #1 - Wellbore #1 - Wellbore #1	10,728.3	6,766.6	1,487.2	1,366.9	12.360	ES
EXIST VERT DUNN #1 - Wellbore #1 - Wellbore #1	11,220.4	6,766.9	1,571.4	1,437.4	11.724	SF
EXIST VERT GUNTHER #18-1 - Wellbore #1 - Design #1	9,385.5	6,769.8	1,407.5	1,190.3	6.480	CC
EXIST VERT GUNTHER #18-1 - Wellbore #1 - Design #1	9,400.0	6,769.8	1,407.6	1,190.0	6.469	ES
EXIST VERT GUNTHER #18-1 - Wellbore #1 - Design #1	9,645.6	6,768.8	1,431.4	1,207.0	6.380	SF
EXIST VERT GUNTHER B18-1 - Wellbore #1 - Design #1	8,069.9	6,772.9	1,439.1	1,257.7	7.934	CC
EXIST VERT GUNTHER B18-1 - Wellbore #1 - Design #1	8,100.0	6,772.8	1,439.4	1,257.2	7.901	ES
EXIST VERT GUNTHER B18-1 - Wellbore #1 - Design #1	8,366.1	6,771.8	1,469.3	1,280.0	7.764	SF
EXIST VERT HOSHIKO #31-17 - Wellbore #1 - Design #1	1,800.0	1,790.0	2,519.9	2,480.4	63.928	CC
EXIST VERT HOSHIKO #31-17 - Wellbore #1 - Design #1	1,900.0	1,890.0	2,521.0	2,479.4	60.582	ES
EXIST VERT HOSHIKO #31-17 - Wellbore #1 - Design #1	6,200.8	6,139.8	2,900.5	2,763.6	21.181	SF
EXIST VERT HOSHIKO #41-17 - Wellbore #1 - Design #1	1,800.0	1,787.0	3,597.5	3,558.1	91.337	CC
EXIST VERT HOSHIKO #41-17 - Wellbore #1 - Design #1	1,900.0	1,887.0	3,598.5	3,556.9	86.531	ES
EXIST VERT HOSHIKO #41-17 - Wellbore #1 - Design #1	7,252.3	6,777.0	4,606.0	4,444.8	28.577	SF
EXIST VERT PUYPE B #18-17 - Wellbore #1 - Design #1	8,700.0	6,785.5	795.8	597.4	4.011	CC, ES
EXIST VERT PUYPE B #18-17 - Wellbore #1 - Design #1	8,800.0	6,785.1	802.0	600.9	3.988	SF
EXIST VERT SCHAUMBERG #1 - Wellbore #1 - Wellbore #1	653.1	638.1	936.0	934.2	512.136	CC
EXIST VERT SCHAUMBERG #1 - Wellbore #1 - Wellbore #1	1,181.1	1,163.6	936.8	933.6	294.574	ES
EXIST VERT SCHAUMBERG #1 - Wellbore #1 - Wellbore #1	12,361.7	6,700.0	5,842.4	5,676.7	35.277	SF
EXIST VERT STEINMETZ #21-17 - Wellbore #1 - Wellbore #1	1,894.5	1,919.1	1,310.9	1,305.8	255.845	CC
EXIST VERT STEINMETZ #21-17 - Wellbore #1 - Wellbore #1	1,900.0	1,924.7	1,310.9	1,305.8	255.212	ES
EXIST VERT STEINMETZ #21-17 - Wellbore #1 - Wellbore #1	12,361.7	6,520.0	7,192.0	7,028.7	44.051	SF
SCHAUMBERG 17F-202 - ORIGINAL WELLBORE - PR	1,000.0	1,000.0	120.0	115.8	28.303	CC, ES
SCHAUMBERG 17F-202 - ORIGINAL WELLBORE - PR	7,677.1	7,000.0	665.9	601.7	10.374	SF
SCHAUMBERG 17F-204 - ORIGINAL WELLBORE - PR	1,600.0	1,600.0	29.8	22.9	4.295	CC, ES
SCHAUMBERG 17F-204 - ORIGINAL WELLBORE - PR	12,361.7	12,253.4	740.3	413.7	2.266	SF
SCHAUMBERG 17F-232 - ORIGINAL WELLBORE - PR	1,200.0	1,200.0	90.0	84.8	17.501	CC, ES
SCHAUMBERG 17F-232 - ORIGINAL WELLBORE - PR	6,889.7	7,712.6	198.5	142.9	3.569	SF
SCHAUMBERG 17F-234 - ORIGINAL WELLBORE - PR	1,700.0	1,700.0	15.0	7.7	2.036	CC
SCHAUMBERG 17F-234 - ORIGINAL WELLBORE - PR	12,361.7	12,260.1	307.9	-11.6	0.964	Level 1, ES, SF
SCHAUMBERG 17F-332 - ORIGINAL WELLBORE - PR	1,100.0	1,100.0	105.0	100.3	22.384	CC, ES
SCHAUMBERG 17F-332 - ORIGINAL WELLBORE - PR	7,578.7	7,117.0	417.3	354.3	6.620	SF
SCHAUMBERG 17F-334 - ORIGINAL WELLBORE - PR	1,500.0	1,500.0	44.8	38.4	6.910	CC, ES
SCHAUMBERG 17F-334 - ORIGINAL WELLBORE - PR	12,361.7	12,316.4	514.0	186.1	1.567	SF
SCHAUMBERG 17G-202 - ORIGINAL WELLBORE - PR	1,400.0	1,400.0	59.9	53.8	9.915	CC, ES
SCHAUMBERG 17G-202 - ORIGINAL WELLBORE - PR	7,381.9	7,368.4	371.0	311.1	6.195	SF
SCHAUMBERG 17G-214 - ORIGINAL WELLBORE - PR	1,800.0	1,800.0	15.0	7.2	1.919	CC
SCHAUMBERG 17G-214 - ORIGINAL WELLBORE - PR	12,361.7	12,320.0	251.8	-65.2	0.794	Level 1, ES, SF
SCHAUMBERG 17G-312 - ORIGINAL WELLBORE - PR	1,300.0	1,300.0	74.9	69.3	13.403	CC
SCHAUMBERG 17G-312 - ORIGINAL WELLBORE - PR	7,283.4	7,450.8	118.7	59.7	2.012	ES
SCHAUMBERG 17G-312 - ORIGINAL WELLBORE - PR	7,300.0	7,434.7	118.9	59.7	2.010	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 SCHAUMBERG 17G-314
<b>Project:</b>	WELD COUNTY, COLORADO	<b>TVD Reference:</b>	KB-EST @ 4633.0usft (Original Well Elev)
<b>Reference Site:</b>	SW NW SEC. 17 T5N R64W 6th P.M.	<b>MD Reference:</b>	KB-EST @ 4633.0usft (Original Well Elev)
<b>Site Error:</b>	0.0 usft	<b>North Reference:</b>	True
<b>Reference Well:</b>	SCHAUMBERG 17G-314	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Well Error:</b>	0.0 usft	<b>Output errors are at</b>	2.00 sigma
<b>Reference Wellbore</b>	ORIGINAL WELLBORE	<b>Database:</b>	EDM 5000.1 Single User Db
<b>Reference Design:</b>	PROPOSAL #1	<b>Offset TVD Reference:</b>	Offset Datum

Offset Design NW SW SEC. 17 T5N R64W 6th P.M. - CECIL'S KERSEY FARM 17B-212 - ORIGINAL WELLBORE - P													Offset Site Error:	0.0 usft
Survey Program: 0-MW/D													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	3.0	3.0	0.0	0.0	-174.22	-2,020.5	-204.4	2,030.8					
98.4	98.4	101.4	101.4	0.1	0.1	-174.22	-2,020.5	-204.4	2,030.8	2,030.6	0.20	N/A		
100.0	100.0	103.0	103.0	0.1	0.1	-174.22	-2,020.5	-204.4	2,030.8	2,030.6	0.20	N/A		
196.8	196.8	199.8	199.8	0.3	0.3	-174.22	-2,020.5	-204.4	2,030.8	2,030.1	0.64	3,184.729		
200.0	200.0	203.0	203.0	0.3	0.3	-174.22	-2,020.5	-204.4	2,030.8	2,030.1	0.65	3,115.543		
295.3	295.3	298.3	298.3	0.5	0.5	-174.22	-2,020.5	-204.4	2,030.8	2,029.7	1.08	1,880.153		
300.0	300.0	303.0	303.0	0.5	0.6	-174.22	-2,020.5	-204.4	2,030.8	2,029.7	1.10	1,843.893		
393.7	393.7	396.7	396.7	0.8	0.8	-174.22	-2,020.5	-204.4	2,030.8	2,029.3	1.52	1,333.788		
400.0	400.0	403.0	403.0	0.8	0.8	-174.22	-2,020.5	-204.4	2,030.8	2,029.2	1.55	1,309.431		
492.1	492.1	495.1	495.1	1.0	1.0	-174.22	-2,020.5	-204.4	2,030.8	2,028.8	1.97	1,033.466		
500.0	500.0	503.0	503.0	1.0	1.0	-174.22	-2,020.5	-204.4	2,030.8	2,028.8	2.00	1,015.177		
590.5	590.5	593.5	593.5	1.2	1.2	-174.22	-2,020.5	-204.4	2,030.8	2,028.4	2.41	843.533		
600.0	600.0	603.0	603.0	1.2	1.2	-174.22	-2,020.5	-204.4	2,030.8	2,028.3	2.45	828.906		
689.0	689.0	692.0	692.0	1.4	1.4	-174.22	-2,020.5	-204.4	2,030.8	2,027.9	2.85	712.574		
700.0	700.0	703.0	703.0	1.4	1.5	-174.22	-2,020.5	-204.4	2,030.8	2,027.9	2.90	700.394		
787.4	787.4	790.4	790.4	1.6	1.6	-174.22	-2,020.5	-204.4	2,030.8	2,027.5	3.29	616.813		
800.0	800.0	803.0	803.0	1.7	1.7	-174.22	-2,020.5	-204.4	2,030.8	2,027.4	3.35	606.381		
885.8	885.8	888.8	888.8	1.9	1.9	-174.22	-2,020.5	-204.4	2,030.8	2,027.0	3.73	543.741		
900.0	900.0	903.0	903.0	1.9	1.9	-174.22	-2,020.5	-204.4	2,030.8	2,027.0	3.80	534.620		
984.2	984.2	987.2	987.2	2.1	2.1	-174.22	-2,020.5	-204.4	2,030.8	2,026.6	4.18	486.149		
1,000.0	1,000.0	1,003.0	1,003.0	2.1	2.1	-174.22	-2,020.5	-204.4	2,030.8	2,026.5	4.25	478.046		
1,082.7	1,082.7	1,085.7	1,085.7	2.3	2.3	-174.22	-2,020.5	-204.4	2,030.8	2,026.2	4.62	439.588		
1,100.0	1,100.0	1,103.0	1,103.0	2.3	2.4	-174.22	-2,020.5	-204.4	2,030.8	2,026.1	4.70	432.300		
1,181.1	1,181.1	1,184.1	1,184.1	2.5	2.5	-174.22	-2,020.5	-204.4	2,030.8	2,025.7	5.06	401.167		
1,200.0	1,200.0	1,203.0	1,203.0	2.6	2.6	-174.22	-2,020.5	-204.4	2,030.8	2,025.6	5.15	394.545		
1,234.7	1,234.7	1,237.7	1,237.7	2.6	2.7	-174.22	-2,020.5	-204.4	2,030.8	2,025.5	5.30	382.946		
1,279.5	1,279.5	1,279.3	1,279.3	2.7	2.7	-174.22	-2,020.5	-204.6	2,030.8	2,025.3	5.49	369.707		
1,300.0	1,300.0	1,300.0	1,300.0	2.8	2.8	-174.21	-2,020.5	-204.9	2,030.8	2,025.3	5.58	363.786		
1,377.9	1,377.9	1,367.8	1,367.8	3.0	2.9	-174.15	-2,020.6	-206.9	2,031.2	2,025.3	5.89	344.674		
1,400.0	1,400.0	1,387.6	1,387.6	3.0	3.0	-174.13	-2,020.6	-207.7	2,031.4	2,025.4	5.98	339.566		
1,476.4	1,476.4	1,456.1	1,456.0	3.2	3.1	-174.02	-2,020.9	-211.8	2,032.1	2,025.8	6.30	322.747		
1,500.0	1,500.0	1,477.3	1,477.1	3.2	3.1	-173.97	-2,021.0	-213.4	2,032.4	2,026.0	6.39	317.875		
1,574.8	1,574.8	1,544.1	1,543.6	3.4	3.3	-173.80	-2,021.3	-219.5	2,033.5	2,026.8	6.71	303.120		
1,600.0	1,600.0	1,566.5	1,565.9	3.5	3.3	-173.74	-2,021.4	-221.9	2,033.9	2,027.1	6.82	298.419		
1,673.2	1,673.2	1,631.5	1,630.3	3.6	3.5	-173.52	-2,021.9	-229.8	2,035.4	2,028.3	7.13	285.322		
1,700.0	1,700.0	1,655.1	1,653.8	3.7	3.6	-173.43	-2,022.1	-233.0	2,036.0	2,028.8	7.25	280.729		
1,771.6	1,771.6	1,718.1	1,716.0	3.9	3.7	-173.16	-2,022.6	-242.5	2,037.9	2,030.4	7.58	268.993		
1,800.0	1,800.0	1,742.9	1,740.5	3.9	3.8	-173.05	-2,022.8	-246.7	2,038.8	2,031.1	7.71	264.449		
1,870.1	1,870.1	1,804.0	1,800.5	4.1	4.0	-13.93	-2,023.5	-257.8	2,040.3	2,032.2	8.02	254.496		
1,900.0	1,900.0	1,829.9	1,826.0	4.1	4.0	-13.80	-2,023.7	-262.9	2,040.5	2,032.3	8.15	250.250		
1,968.5	1,968.4	1,894.5	1,889.1	4.2	4.3	-13.45	-2,024.5	-276.2	2,040.1	2,031.6	8.47	240.798		
2,000.0	1,999.8	1,925.4	1,919.4	4.3	4.4	-13.29	-2,024.8	-282.6	2,039.4	2,030.8	8.63	236.406		
2,066.9	2,066.5	1,991.1	1,983.7	4.4	4.6	-12.96	-2,025.6	-296.2	2,036.9	2,027.9	8.96	227.385		
2,100.0	2,099.5	2,023.6	2,015.4	4.5	4.7	-12.80	-2,026.0	-303.0	2,035.1	2,026.0	9.12	223.054		
2,165.3	2,164.4	2,087.7	2,078.2	4.6	4.9	-12.49	-2,026.7	-316.3	2,030.5	2,021.1	9.45	214.755		
2,200.0	2,198.7	2,121.7	2,111.4	4.7	5.1	-12.34	-2,027.1	-323.3	2,027.5	2,017.9	9.63	210.520		
2,263.8	2,261.8	2,184.2	2,172.5	4.8	5.3	-12.06	-2,027.9	-336.3	2,021.0	2,011.1	9.96	202.930		
2,300.0	2,297.5	2,219.7	2,207.2	4.9	5.5	-11.91	-2,028.3	-343.7	2,016.7	2,006.6	10.14	198.797		
2,362.2	2,358.6	2,280.4	2,266.7	5.0	5.7	-11.65	-2,029.0	-356.3	2,008.4	1,997.9	10.47	191.879		
2,400.0	2,395.6	2,317.3	2,302.7	5.1	5.8	-11.50	-2,029.4	-363.9	2,002.7	1,992.0	10.66	187.865		
2,460.6	2,454.9	2,376.4	2,360.5	5.3	6.1	-11.22	-2,030.1	-376.2	1,993.2	1,982.2	11.01	180.985		
2,500.0	2,493.4	2,414.8	2,398.1	5.4	6.2	-11.04	-2,030.5	-384.2	1,987.1	1,975.8	11.24	176.753		

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 SCHAUMBERG 17G-314
<b>Project:</b>	WELD COUNTY, COLORADO	<b>TVD Reference:</b>	KB-EST @ 4633.0usft (Original Well Elev)
<b>Reference Site:</b>	SW NW SEC. 17 T5N R64W 6th P.M.	<b>MD Reference:</b>	KB-EST @ 4633.0usft (Original Well Elev)
<b>Site Error:</b>	0.0 usft	<b>North Reference:</b>	True
<b>Reference Well:</b>	SCHAUMBERG 17G-314	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Well Error:</b>	0.0 usft	<b>Output errors are at</b>	2.00 sigma
<b>Reference Wellbore</b>	ORIGINAL WELLBORE	<b>Database:</b>	EDM 5000.1 Single User Db
<b>Reference Design:</b>	PROPOSAL #1	<b>Offset TVD Reference:</b>	Offset Datum

Offset Design												Offset Site Error:	0.0 usft
Survey Program: 0-MW/D												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	2,551.2	2,472.3	2,454.4	5.6	6.5	-10.77	-2,031.2	-396.1	1,977.9	1,966.3	11.59	170.603	
2,600.0	2,591.3	2,512.2	2,493.4	5.7	6.6	-10.57	-2,031.7	-404.4	1,971.6	1,959.7	11.84	166.583	
2,657.5	2,647.5	2,568.3	2,548.2	5.9	6.9	-10.30	-2,032.3	-416.0	1,962.7	1,950.6	12.18	161.152	
2,700.0	2,689.1	2,609.7	2,588.7	6.0	7.0	-10.10	-2,032.8	-424.6	1,956.2	1,943.8	12.44	157.273	
2,755.9	2,743.7	2,664.2	2,642.0	6.2	7.3	-9.83	-2,033.5	-435.9	1,947.7	1,934.9	12.78	152.405	
2,800.0	2,786.9	2,707.2	2,684.1	6.4	7.5	-9.62	-2,034.0	-444.9	1,941.0	1,928.0	13.05	148.745	
2,854.3	2,840.0	2,760.1	2,735.9	6.6	7.7	-9.35	-2,034.6	-455.8	1,932.8	1,919.4	13.38	144.404	
2,900.0	2,884.7	2,804.6	2,779.4	6.7	7.9	-9.13	-2,035.1	-465.1	1,926.0	1,912.3	13.67	140.925	
2,952.7	2,936.3	2,856.1	2,829.7	6.9	8.1	-8.87	-2,035.7	-475.8	1,918.1	1,904.1	14.00	137.053	
3,000.0	2,982.5	2,902.1	2,874.7	7.1	8.3	-8.63	-2,036.2	-485.3	1,911.0	1,896.7	14.29	133.744	
3,051.2	3,032.6	2,952.0	2,923.5	7.3	8.5	-8.38	-2,036.8	-495.7	1,903.4	1,888.8	14.61	130.287	
3,100.0	3,080.3	2,999.6	2,970.1	7.5	8.7	-8.13	-2,037.4	-505.5	1,896.2	1,881.3	14.91	127.137	
3,149.6	3,128.8	3,047.9	3,017.4	7.7	8.9	-7.88	-2,037.9	-515.6	1,889.0	1,873.7	15.23	124.050	
3,200.0	3,178.1	3,097.0	3,065.4	7.9	9.2	-7.62	-2,038.5	-525.8	1,881.6	1,866.1	15.54	121.048	
3,248.0	3,225.1	3,143.8	3,111.2	8.1	9.4	-7.37	-2,039.0	-535.5	1,874.6	1,858.8	15.85	118.288	
3,300.0	3,276.0	3,194.5	3,160.7	8.3	9.6	-7.10	-2,039.6	-546.0	1,867.1	1,851.0	16.18	115.426	
3,346.4	3,321.4	3,239.8	3,205.0	8.5	9.8	-6.85	-2,040.2	-555.4	1,860.5	1,844.0	16.47	112.957	
3,400.0	3,373.8	3,292.0	3,256.1	8.7	10.0	-6.57	-2,040.8	-566.2	1,852.8	1,836.0	16.81	110.225	
3,444.9	3,417.7	3,335.7	3,298.9	8.8	10.2	-6.33	-2,041.3	-575.3	1,846.4	1,829.3	17.09	108.014	
3,500.0	3,471.6	3,389.4	3,351.4	9.1	10.5	-6.04	-2,041.9	-586.5	1,838.7	1,821.2	17.44	105.404	
3,543.3	3,513.9	3,431.6	3,392.7	9.2	10.6	-5.80	-2,042.4	-595.2	1,832.6	1,814.9	17.72	103.423	
3,600.0	3,569.4	3,486.9	3,446.8	9.5	10.9	-5.49	-2,043.0	-606.7	1,824.7	1,806.6	18.08	100.926	
3,641.7	3,610.2	3,527.6	3,486.5	9.7	11.1	-5.26	-2,043.5	-615.1	1,818.9	1,800.5	18.34	99.150	
3,700.0	3,667.2	3,584.4	3,542.1	9.9	11.3	-4.94	-2,044.2	-626.9	1,810.8	1,792.1	18.71	96.760	
3,740.1	3,706.5	3,623.5	3,580.4	10.1	11.5	-4.72	-2,044.6	-635.0	1,805.3	1,786.4	18.97	95.168	
3,800.0	3,765.0	3,681.8	3,637.4	10.3	11.8	-4.38	-2,045.3	-647.1	1,797.2	1,777.8	19.35	92.878	
3,838.6	3,802.8	3,719.4	3,674.2	10.5	11.9	-4.16	-2,045.7	-655.0	1,792.0	1,772.4	19.60	91.449	
3,900.0	3,862.8	3,779.3	3,732.8	10.7	12.2	-3.82	-2,046.4	-667.4	1,783.7	1,763.7	19.99	89.252	
3,937.0	3,899.0	3,815.3	3,768.0	10.9	12.4	-3.60	-2,046.9	-674.9	1,778.8	1,758.5	20.22	87.970	
4,000.0	3,960.7	3,876.7	3,828.1	11.2	12.6	-3.24	-2,047.6	-687.6	1,770.4	1,749.8	20.62	85.861	
4,035.4	3,995.3	3,911.3	3,861.9	11.3	12.8	-3.03	-2,048.0	-694.8	1,765.7	1,744.9	20.84	84.712	
4,100.0	4,058.5	3,974.2	3,923.4	11.6	13.1	-2.66	-2,048.7	-707.8	1,757.3	1,736.0	21.25	82.685	
4,133.8	4,091.6	4,007.2	3,955.7	11.7	13.2	-2.46	-2,049.1	-714.7	1,752.9	1,731.4	21.47	81.654	
4,200.0	4,156.3	4,071.7	4,018.8	12.0	13.5	-2.06	-2,049.8	-728.1	1,744.4	1,722.5	21.89	79.704	
4,232.3	4,187.9	4,103.1	4,049.5	12.2	13.7	-1.87	-2,050.2	-734.6	1,740.2	1,718.2	22.09	78.781	
4,300.0	4,254.1	4,169.1	4,114.1	12.5	14.0	-1.46	-2,051.0	-748.3	1,731.6	1,709.1	22.52	76.904	
4,325.7	4,279.2	4,194.1	4,138.6	12.6	14.1	-1.31	-2,051.3	-753.5	1,728.4	1,705.7	22.68	76.213	
4,330.7	4,284.1	4,199.1	4,143.4	12.6	14.1	-1.28	-2,051.3	-754.5	1,727.8	1,705.1	22.72	76.062	
4,400.0	4,352.1	4,266.7	4,209.5	12.8	14.4	-0.85	-2,052.1	-768.5	1,720.1	1,696.8	23.21	74.098	
4,429.1	4,380.8	4,295.2	4,237.4	12.9	14.5	-0.67	-2,052.4	-774.5	1,717.3	1,693.9	23.42	73.341	
4,500.0	4,450.7	4,364.6	4,305.3	13.1	14.9	-0.23	-2,053.3	-788.9	1,712.0	1,688.1	23.90	71.630	
4,527.5	4,478.0	4,391.6	4,331.7	13.2	15.0	-0.06	-2,053.6	-794.5	1,710.5	1,686.4	24.08	71.021	
4,600.0	4,549.9	4,462.7	4,401.2	13.4	15.3	0.39	-2,054.4	-809.2	1,707.7	1,683.2	24.56	69.542	
4,626.0	4,575.7	4,488.2	4,426.2	13.5	15.4	0.56	-2,054.7	-814.5	1,707.2	1,682.5	24.72	69.060	
4,666.9	4,616.4	4,528.3	4,465.5	13.6	15.6	0.81	-2,055.2	-822.8	1,706.9	1,681.9	24.98	68.344	
4,700.0	4,649.4	4,560.9	4,497.3	13.6	15.8	1.02	-2,055.5	-829.6	1,707.1	1,681.9	25.18	67.803	
4,724.4	4,673.7	4,584.8	4,520.7	13.7	15.9	1.17	-2,055.8	-834.6	1,707.5	1,682.2	25.32	67.430	
4,800.0	4,749.2	4,659.0	4,593.3	13.8	16.2	1.64	-2,056.7	-850.0	1,710.2	1,684.4	25.76	66.386	
4,822.8	4,772.0	4,681.4	4,615.2	13.9	16.3	1.78	-2,056.9	-854.6	1,711.4	1,685.5	25.89	66.108	
4,900.0	4,849.2	4,757.0	4,689.1	14.0	16.7	2.26	-2,057.8	-870.3	1,716.9	1,690.6	26.30	65.271	
4,921.2	4,870.4	4,777.8	4,709.5	14.1	16.7	2.39	-2,058.1	-874.6	1,718.9	1,692.4	26.42	65.070	
4,925.6	4,874.8	4,782.1	4,713.7	14.1	16.8	-156.39	-2,058.1	-875.5	1,719.3	1,692.6	26.70	64.387	

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 SCHAUMBERG 17G-314
<b>Project:</b>	WELD COUNTY, COLORADO	<b>TVD Reference:</b>	KB-EST @ 4633.0usft (Original Well Elev)
<b>Reference Site:</b>	SW NW SEC. 17 T5N R64W 6th P.M.	<b>MD Reference:</b>	KB-EST @ 4633.0usft (Original Well Elev)
<b>Site Error:</b>	0.0 usft	<b>North Reference:</b>	True
<b>Reference Well:</b>	SCHAUMBERG 17G-314	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Well Error:</b>	0.0 usft	<b>Output errors are at</b>	2.00 sigma
<b>Reference Wellbore</b>	ORIGINAL WELLBORE	<b>Database:</b>	EDM 5000.1 Single User Db
<b>Reference Design:</b>	PROPOSAL #1	<b>Offset TVD Reference:</b>	Offset Datum

Offset Design												Offset Site Error:	0.0 usft
Survey Program: 0-MWDD												Offset Well Error:	0.0 usft
Reference		Offset		Semi Major Axis			Distance						Warning
Measured Depth (usft)	Vertical Depth (usft)	Measured Depth (usft)	Vertical Depth (usft)	Reference (usft)	Offset (usft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (usft)	+E/-W (usft)	Between Centres (usft)	Between Ellipses (usft)	Minimum Separation (usft)	Separation Factor	
5,000.0	4,949.2	4,854.8	4,784.8	14.2	17.1	-155.94	-2,059.0	-890.6	1,726.4	1,699.3	27.08	63.749	
5,019.7	4,968.8	4,874.1	4,803.7	14.2	17.2	-155.82	-2,059.2	-894.6	1,728.3	1,701.1	27.18	63.584	
5,100.0	5,049.2	4,952.7	4,880.5	14.3	17.5	-155.34	-2,060.1	-910.9	1,736.2	1,708.6	27.59	62.922	
5,118.1	5,067.3	4,970.4	4,897.8	14.3	17.6	-155.23	-2,060.3	-914.6	1,738.0	1,710.3	27.69	62.775	
5,200.0	5,149.2	5,050.5	4,976.2	14.5	18.0	-154.74	-2,061.2	-931.2	1,746.2	1,718.1	28.11	62.119	
5,216.5	5,165.7	5,066.6	4,992.0	14.5	18.1	-154.65	-2,061.4	-934.6	1,747.9	1,719.7	28.20	61.989	
5,300.0	5,249.2	5,157.0	5,080.4	14.6	18.5	-154.11	-2,062.5	-953.2	1,756.3	1,727.7	28.65	61.297	
5,314.9	5,264.1	5,178.0	5,101.0	14.6	18.5	-153.99	-2,062.7	-957.3	1,757.8	1,729.0	28.75	61.149	
5,400.0	5,349.2	5,298.9	5,220.1	14.8	18.9	-153.41	-2,063.9	-977.8	1,765.0	1,735.7	29.22	60.404	
5,413.4	5,362.5	5,318.0	5,239.0	14.8	19.0	-153.33	-2,064.0	-980.6	1,765.9	1,736.7	29.29	60.295	
5,500.0	5,449.2	5,442.9	5,363.0	14.9	19.3	-152.91	-2,064.9	-995.7	1,771.2	1,741.5	29.72	59.596	
5,511.8	5,461.0	5,460.0	5,380.0	14.9	19.3	-152.86	-2,065.0	-997.3	1,771.8	1,742.0	29.78	59.503	
5,600.0	5,549.2	5,588.4	5,508.0	15.1	19.6	-152.61	-2,065.5	-1,006.4	1,775.0	1,744.8	30.17	58.829	
5,610.2	5,559.4	5,603.3	5,523.0	15.1	19.6	-152.59	-2,065.5	-1,007.1	1,775.2	1,745.0	30.22	58.753	
5,700.0	5,649.2	5,732.5	5,652.2	15.2	19.8	-152.51	-2,065.7	-1,009.8	1,776.2	1,745.6	30.57	58.110	
5,708.6	5,657.8	5,741.2	5,660.8	15.3	19.8	-152.51	-2,065.7	-1,009.8	1,776.2	1,745.6	30.59	58.057	
5,800.0	5,749.2	5,832.5	5,752.2	15.4	19.9	-152.51	-2,065.7	-1,009.8	1,776.2	1,745.3	30.89	57.503	
5,807.1	5,756.2	5,839.6	5,759.2	15.4	19.9	-152.51	-2,065.7	-1,009.8	1,776.2	1,745.3	30.91	57.460	
5,900.0	5,849.2	5,932.5	5,852.2	15.6	20.0	-152.51	-2,065.7	-1,009.8	1,776.2	1,745.0	31.22	56.897	
5,905.5	5,854.7	5,938.0	5,857.7	15.6	20.0	-152.51	-2,065.7	-1,009.8	1,776.2	1,745.0	31.24	56.864	
6,000.0	5,949.2	7,297.5	6,701.6	15.7	24.7	179.90	-2,065.7	-187.3	1,744.8	1,715.2	29.64	58.861	
6,003.9	5,953.1	7,297.5	6,701.6	15.7	24.7	179.90	-2,065.7	-187.3	1,743.1	1,713.5	29.65	58.791	
6,100.0	6,049.2	7,297.2	6,701.6	15.9	24.7	179.91	-2,065.7	-187.7	1,704.3	1,674.5	29.81	57.166	
6,102.3	6,051.5	7,297.2	6,701.6	15.9	24.7	179.92	-2,065.7	-187.7	1,703.4	1,673.6	29.82	57.128	
6,124.6	6,073.8	7,297.1	6,701.6	15.9	24.7	179.92	-2,065.7	-187.7	1,695.0	1,665.2	29.85	56.776	
6,150.0	6,099.2	7,296.5	6,701.6	16.0	24.7	-90.85	-2,065.7	-188.3	1,685.8	1,647.5	38.32	43.998	
6,200.0	6,149.0	7,292.8	6,701.6	16.1	24.6	-92.17	-2,065.7	-192.0	1,668.8	1,630.3	38.42	43.431	
6,200.8	6,149.8	7,292.8	6,701.6	16.1	24.6	-92.19	-2,065.7	-192.1	1,668.5	1,630.1	38.42	43.423	
6,250.0	6,198.5	7,285.7	6,701.7	16.2	24.5	-93.23	-2,065.7	-199.1	1,653.1	1,614.7	38.48	42.963	
6,299.2	6,246.6	7,275.3	6,701.7	16.3	24.4	-94.02	-2,065.7	-209.5	1,639.2	1,600.7	38.49	42.592	
6,300.0	6,247.4	7,275.1	6,701.7	16.3	24.4	-94.03	-2,065.7	-209.7	1,639.0	1,600.5	38.49	42.587	
6,350.0	6,295.5	7,261.1	6,701.8	16.5	24.1	-94.58	-2,065.7	-223.7	1,626.5	1,588.0	38.45	42.295	
6,397.6	6,340.2	7,244.7	6,701.8	16.6	23.9	-94.88	-2,065.7	-240.1	1,616.0	1,577.6	38.39	42.090	
6,400.0	6,342.4	7,243.8	6,701.8	16.6	23.9	-94.89	-2,065.7	-241.0	1,615.5	1,577.1	38.39	42.083	
6,450.0	6,388.1	7,223.3	6,701.9	16.8	23.6	-94.98	-2,065.7	-261.5	1,606.0	1,567.7	38.29	41.941	
6,496.0	6,428.8	7,201.6	6,702.0	17.0	23.2	-94.89	-2,065.7	-283.2	1,598.7	1,560.5	38.19	41.864	
6,500.0	6,432.2	7,199.6	6,702.0	17.0	23.2	-94.87	-2,065.7	-285.2	1,598.1	1,559.9	38.18	41.860	
6,550.0	6,474.6	7,163.5	6,701.5	17.3	22.7	-94.29	-2,065.7	-321.3	1,591.5	1,553.6	37.96	41.929	
6,594.5	6,510.7	7,130.2	6,699.4	17.5	22.3	-93.66	-2,065.7	-354.5	1,586.7	1,548.8	37.80	41.970	
6,600.0	6,515.0	7,126.2	6,699.1	17.6	22.2	-93.58	-2,065.7	-358.5	1,586.1	1,548.3	37.79	41.974	
6,650.0	6,553.3	7,090.7	6,695.0	17.9	21.8	-92.84	-2,065.7	-393.8	1,581.9	1,544.2	37.71	41.944	
6,692.9	6,584.3	7,061.4	6,690.3	18.2	21.5	-92.19	-2,065.7	-422.8	1,579.1	1,541.4	37.74	41.846	
6,700.0	6,589.2	7,056.6	6,689.4	18.2	21.4	-92.07	-2,065.7	-427.4	1,578.8	1,541.0	37.74	41.830	
6,750.0	6,622.7	7,023.6	6,682.5	18.6	21.1	-91.27	-2,065.7	-459.7	1,576.7	1,538.9	37.88	41.624	
6,791.3	6,648.3	6,997.1	6,675.9	19.0	20.8	-90.57	-2,065.7	-485.4	1,575.9	1,537.8	38.07	41.396	
6,800.0	6,653.4	6,991.6	6,674.4	19.1	20.8	-90.42	-2,065.7	-490.7	1,575.8	1,537.7	38.12	41.342	
6,823.8	6,667.1	6,976.6	6,670.1	19.3	20.7	-90.00	-2,065.7	-505.0	1,575.7	1,537.4	38.28	41.161 CC	
6,850.0	6,681.4	6,960.3	6,665.1	19.6	20.5	-89.53	-2,065.7	-520.6	1,575.8	1,537.3	38.46	40.969 ES	
6,889.7	6,701.5	6,935.9	6,657.0	20.1	20.4	-88.80	-2,065.7	-543.6	1,576.5	1,537.7	38.82	40.609	
6,900.0	6,706.3	6,929.6	6,654.8	20.2	20.3	-88.60	-2,065.7	-549.4	1,576.7	1,537.8	38.92	40.515	
6,950.0	6,728.2	6,900.0	6,643.6	20.9	20.1	-87.66	-2,065.7	-576.9	1,578.6	1,539.1	39.47	39.997	
6,988.2	6,742.8	6,876.8	6,634.1	21.5	20.0	-86.89	-2,065.7	-598.1	1,580.5	1,540.5	39.97	39.543	

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 SCHAUMBERG 17G-314
<b>Project:</b>	WELD COUNTY, COLORADO	<b>TVD Reference:</b>	KB-EST @ 4633.0usft (Original Well Elev)
<b>Reference Site:</b>	SW NW SEC. 17 T5N R64W 6th P.M.	<b>MD Reference:</b>	KB-EST @ 4633.0usft (Original Well Elev)
<b>Site Error:</b>	0.0 usft	<b>North Reference:</b>	True
<b>Reference Well:</b>	SCHAUMBERG 17G-314	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Well Error:</b>	0.0 usft	<b>Output errors are at</b>	2.00 sigma
<b>Reference Wellbore</b>	ORIGINAL WELLBORE	<b>Database:</b>	EDM 5000.1 Single User Db
<b>Reference Design:</b>	PROPOSAL #1	<b>Offset TVD Reference:</b>	Offset Datum

Offset Design												Offset Site Error:	0.0 usft
Survey Program: 0-MWDD												Offset Well Error:	0.0 usft
Reference		Offset		Semi Major Axis			Distance						Warning
Measured Depth (usft)	Vertical Depth (usft)	Measured Depth (usft)	Vertical Depth (usft)	Reference (usft)	Offset (usft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (usft)	+E/-W (usft)	Between Centres (usft)	Between Ellipses (usft)	Minimum Separation (usft)	Separation Factor	
7,000.0	6,746.9	6,869.8	6,631.1	21.6	20.0	-86.65	-2,065.7	-604.4	1,581.2	1,541.0	40.13	39.406	
7,050.0	6,762.4	6,840.5	6,617.8	22.5	19.8	-85.64	-2,065.7	-630.5	1,584.5	1,543.6	40.87	38.773	
7,086.6	6,771.5	6,819.2	6,607.6	23.1	19.8	-84.88	-2,065.7	-649.1	1,587.4	1,545.9	41.47	38.276	
7,100.0	6,774.4	6,811.5	6,603.7	23.3	19.7	-84.60	-2,065.7	-655.8	1,588.5	1,546.8	41.69	38.099	
7,150.0	6,783.1	6,782.8	6,588.7	24.3	19.6	-83.56	-2,065.7	-680.3	1,593.0	1,550.4	42.59	37.402	
7,185.0	6,787.1	6,762.8	6,577.7	25.0	19.6	-82.82	-2,065.7	-696.9	1,596.5	1,553.2	43.26	36.904	
7,200.0	6,788.3	6,750.0	6,570.4	25.3	19.6	-82.41	-2,065.7	-707.4	1,598.0	1,554.5	43.53	36.713	
7,252.3	6,790.0	6,724.7	6,555.4	26.3	19.5	-81.40	-2,065.7	-727.8	1,603.7	1,559.1	44.60	35.954	
7,283.4	6,789.9	6,700.0	6,540.1	27.0	19.5	-80.86	-2,065.7	-747.2	1,607.4	1,562.2	45.22	35.550	
7,300.0	6,789.8	6,700.0	6,540.1	27.3	19.5	-80.86	-2,065.7	-747.2	1,609.5	1,563.9	45.58	35.312	
7,381.9	6,789.5	6,650.0	6,507.1	29.1	19.5	-79.70	-2,065.7	-784.8	1,621.3	1,574.0	47.31	34.266	
7,400.0	6,789.4	6,650.0	6,507.1	29.5	19.5	-79.70	-2,065.7	-784.8	1,624.2	1,576.5	47.72	34.033	
7,480.3	6,789.1	6,612.7	6,480.8	31.4	19.6	-78.78	-2,065.7	-811.3	1,638.8	1,589.3	49.52	33.093	
7,500.0	6,789.1	6,600.0	6,471.6	31.8	19.6	-78.46	-2,065.7	-819.9	1,642.8	1,592.8	49.95	32.890	
7,578.7	6,788.8	6,573.2	6,451.5	33.7	19.6	-77.76	-2,065.7	-837.8	1,660.3	1,608.5	51.77	32.070	
7,600.0	6,788.7	6,565.3	6,445.5	34.2	19.6	-77.55	-2,065.7	-842.9	1,665.4	1,613.2	52.26	31.870	
7,677.1	6,788.4	6,538.2	6,424.4	36.1	19.7	-76.83	-2,065.7	-859.9	1,685.8	1,631.7	54.06	31.184	
7,700.0	6,788.3	6,530.6	6,418.4	36.7	19.7	-76.62	-2,065.7	-864.5	1,692.3	1,637.7	54.59	30.999	
7,775.6	6,788.0	6,500.0	6,393.6	38.6	19.7	-75.77	-2,065.7	-882.4	1,715.5	1,659.1	56.35	30.442	
7,800.0	6,787.9	6,500.0	6,393.6	39.2	19.7	-75.77	-2,065.7	-882.4	1,723.4	1,666.5	56.95	30.260	
7,874.0	6,787.6	6,479.3	6,376.4	41.0	19.8	-75.19	-2,065.7	-894.0	1,749.2	1,690.4	58.72	29.789	
7,900.0	6,787.6	6,472.5	6,370.7	41.7	19.8	-74.99	-2,065.7	-897.6	1,758.7	1,699.4	59.34	29.640	
7,972.4	6,787.3	6,450.0	6,351.5	43.6	19.8	-74.35	-2,065.7	-909.4	1,786.9	1,725.8	61.05	29.270	
8,000.0	6,787.2	6,450.0	6,351.5	44.3	19.8	-74.35	-2,065.7	-909.4	1,798.1	1,736.4	61.74	29.124	
8,070.8	6,786.9	6,432.2	6,336.1	46.1	19.9	-73.83	-2,065.7	-918.3	1,828.5	1,765.0	63.44	28.824	
8,100.0	6,786.8	6,426.1	6,330.7	46.9	19.9	-73.65	-2,065.7	-921.3	1,841.5	1,777.4	64.14	28.723	
8,169.3	6,786.5	6,400.0	6,307.7	48.7	19.9	-72.88	-2,065.7	-933.4	1,873.8	1,808.1	65.73	28.510	
8,200.0	6,786.4	6,400.0	6,307.7	49.5	19.9	-72.88	-2,065.7	-933.4	1,888.6	1,822.1	66.51	28.398	
8,267.7	6,786.1	6,400.0	6,307.7	51.3	19.9	-72.88	-2,065.7	-933.4	1,922.6	1,854.3	68.23	28.176	
8,300.0	6,786.0	6,400.0	6,307.7	52.1	19.9	-72.88	-2,065.7	-933.4	1,939.4	1,870.3	69.06	28.083	
8,366.1	6,785.8	6,377.5	6,287.5	53.9	20.0	-72.21	-2,065.7	-943.2	1,974.7	1,904.1	70.58	27.979	
8,400.0	6,785.6	6,372.2	6,282.6	54.8	20.0	-72.06	-2,065.7	-945.4	1,993.3	1,921.9	71.40	27.919	
8,464.5	6,785.4	6,350.0	6,262.3	56.5	20.0	-71.39	-2,065.7	-954.3	2,030.0	1,957.1	72.85	27.864	
8,500.0	6,785.3	6,350.0	6,262.3	57.5	20.0	-71.39	-2,065.7	-954.3	2,050.5	1,976.8	73.76	27.800	
8,563.0	6,785.0	6,350.0	6,262.3	59.2	20.0	-71.39	-2,065.7	-954.3	2,088.0	2,012.6	75.38	27.700	
8,600.0	6,784.9	6,350.0	6,262.3	60.2	20.0	-71.39	-2,065.7	-954.3	2,110.6	2,034.3	76.33	27.651	
8,661.4	6,784.6	6,350.0	6,262.3	61.8	20.0	-71.39	-2,065.7	-954.3	2,149.0	2,071.1	77.91	27.582 SF	
8,700.0	6,784.5	6,331.6	6,245.2	62.9	20.1	-70.83	-2,065.7	-961.2	2,173.4	2,094.7	78.71	27.613	
8,759.8	6,784.3	6,324.7	6,238.8	64.5	20.1	-70.63	-2,065.7	-963.7	2,212.2	2,132.0	80.17	27.592	
8,800.0	6,784.1	6,320.3	6,234.6	65.6	20.1	-70.49	-2,065.7	-965.2	2,238.7	2,157.6	81.16	27.585	
8,858.2	6,783.9	6,300.0	6,215.5	67.1	20.1	-69.88	-2,065.7	-972.0	2,278.0	2,195.6	82.41	27.642	
8,900.0	6,783.7	6,300.0	6,215.5	68.3	20.1	-69.88	-2,065.7	-972.0	2,306.5	2,223.0	83.49	27.627	
8,956.7	6,783.5	6,300.0	6,215.5	69.8	20.1	-69.88	-2,065.7	-972.0	2,345.7	2,260.8	84.95	27.614	
9,000.0	6,783.3	6,300.0	6,215.5	71.0	20.1	-69.88	-2,065.7	-972.0	2,376.2	2,290.1	86.06	27.610	
9,055.1	6,783.1	6,300.0	6,215.5	72.5	20.1	-69.88	-2,065.7	-972.0	2,415.5	2,328.0	87.49	27.610	
9,100.0	6,782.9	6,300.0	6,215.5	73.7	20.1	-69.88	-2,065.7	-972.0	2,448.0	2,359.4	88.64	27.616	
9,153.5	6,782.7	6,300.0	6,215.5	75.2	20.1	-69.88	-2,065.7	-972.0	2,487.2	2,397.2	90.03	27.627	
9,200.0	6,782.6	6,300.0	6,215.5	76.5	20.1	-69.88	-2,065.7	-972.0	2,521.7	2,430.5	91.23	27.641	
9,251.9	6,782.4	6,278.7	6,195.2	77.9	20.2	-69.23	-2,065.7	-978.5	2,560.4	2,468.2	92.26	27.752	
9,300.0	6,782.2	6,275.0	6,191.7	79.2	20.2	-69.12	-2,065.7	-979.6	2,596.8	2,503.3	93.44	27.790	
9,350.4	6,782.0	6,271.3	6,188.2	80.6	20.2	-69.00	-2,065.7	-980.7	2,635.3	2,540.6	94.69	27.832	
9,400.0	6,781.8	6,250.0	6,167.6	82.0	20.2	-68.36	-2,065.7	-986.4	2,673.8	2,578.2	95.62	27.963	

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 SCHAUMBERG 17G-314
<b>Project:</b>	WELD COUNTY, COLORADO	<b>TVD Reference:</b>	KB-EST @ 4633.0usft (Original Well Elev)
<b>Reference Site:</b>	SW NW SEC. 17 T5N R64W 6th P.M.	<b>MD Reference:</b>	KB-EST @ 4633.0usft (Original Well Elev)
<b>Site Error:</b>	0.0 usft	<b>North Reference:</b>	True
<b>Reference Well:</b>	SCHAUMBERG 17G-314	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Well Error:</b>	0.0 usft	<b>Output errors are at</b>	2.00 sigma
<b>Reference Wellbore</b>	ORIGINAL WELLBORE	<b>Database:</b>	EDM 5000.1 Single User Db
<b>Reference Design:</b>	PROPOSAL #1	<b>Offset TVD Reference:</b>	Offset Datum

Offset Design												Offset Site Error:	0.0 usft
Survey Program: 0-MWMD												Offset Well Error:	0.0 usft
Reference		Offset		Semi Major Axis			Distance						Warning
Measured Depth (usft)	Vertical Depth (usft)	Measured Depth (usft)	Vertical Depth (usft)	Reference (usft)	Offset (usft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (usft)	+E/-W (usft)	Between Centres (usft)	Between Ellipses (usft)	Minimum Separation (usft)	Separation Factor	
9,448.8	6,781.6	6,250.0	6,167.6	83.3	20.2	-68.36	-2,065.7	-986.4	2,711.7	2,614.8	96.87	27.992	
9,500.0	6,781.4	6,250.0	6,167.6	84.7	20.2	-68.36	-2,065.7	-986.4	2,751.9	2,653.7	98.19	28.025	
9,547.2	6,781.2	6,250.0	6,167.6	86.0	20.2	-68.36	-2,065.7	-986.4	2,789.2	2,689.8	99.41	28.058	
9,600.0	6,781.0	6,250.0	6,167.6	87.5	20.2	-68.36	-2,065.7	-986.4	2,831.3	2,730.5	100.77	28.097	
9,645.6	6,780.8	6,250.0	6,167.6	88.7	20.2	-68.36	-2,065.7	-986.4	2,868.0	2,766.1	101.95	28.132	
9,700.0	6,780.6	6,250.0	6,167.6	90.2	20.2	-68.36	-2,065.7	-986.4	2,912.0	2,808.7	103.35	28.176	
9,744.1	6,780.4	6,250.0	6,167.6	91.4	20.2	-68.36	-2,065.7	-986.4	2,948.0	2,843.5	104.49	28.214	
9,800.0	6,780.2	6,250.0	6,167.6	93.0	20.2	-68.36	-2,065.7	-986.4	2,993.9	2,888.0	105.93	28.262	
9,842.5	6,780.1	6,250.0	6,167.6	94.2	20.2	-68.36	-2,065.7	-986.4	3,029.0	2,922.0	107.03	28.300	
9,900.0	6,779.8	6,250.0	6,167.6	95.7	20.2	-68.35	-2,065.7	-986.4	3,076.8	2,968.3	108.52	28.354	
9,940.9	6,779.7	6,250.0	6,167.6	96.9	20.2	-68.35	-2,065.7	-986.4	3,111.1	3,001.5	109.58	28.392	
10,000.0	6,779.4	6,250.0	6,167.6	98.5	20.2	-68.35	-2,065.7	-986.4	3,160.8	3,049.7	111.10	28.449	
10,039.3	6,779.3	6,250.0	6,167.6	99.6	20.2	-68.35	-2,065.7	-986.4	3,194.1	3,081.9	112.12	28.487	
10,100.0	6,779.0	6,228.0	6,146.3	101.3	20.2	-67.69	-2,065.7	-991.6	3,245.2	3,132.0	113.23	28.660	
10,137.8	6,778.9	6,226.3	6,144.6	102.3	20.2	-67.64	-2,065.7	-992.0	3,277.5	3,163.3	114.17	28.706	
10,200.0	6,778.7	6,223.6	6,141.9	104.1	20.2	-67.55	-2,065.7	-992.6	3,330.8	3,215.1	115.72	28.784	
10,236.2	6,778.5	6,222.0	6,140.4	105.1	20.2	-67.50	-2,065.7	-993.0	3,361.9	3,245.3	116.62	28.829	
10,300.0	6,778.3	6,200.0	6,118.9	106.8	20.2	-66.84	-2,065.7	-997.4	3,417.3	3,299.6	117.76	29.020	
10,334.6	6,778.1	6,200.0	6,118.9	107.8	20.2	-66.84	-2,065.7	-997.4	3,447.3	3,328.7	118.65	29.055	
10,400.0	6,777.9	6,200.0	6,118.9	109.6	20.2	-66.84	-2,065.7	-997.4	3,504.2	3,383.9	120.33	29.122	
10,433.0	6,777.7	6,200.0	6,118.9	110.5	20.2	-66.84	-2,065.7	-997.4	3,533.1	3,411.9	121.18	29.156	
10,500.0	6,777.5	6,200.0	6,118.9	112.4	20.2	-66.84	-2,065.7	-997.4	3,591.8	3,468.9	122.90	29.226	
10,531.5	6,777.3	6,200.0	6,118.9	113.3	20.2	-66.84	-2,065.7	-997.4	3,619.5	3,495.7	123.71	29.258	
10,600.0	6,777.1	6,200.0	6,118.9	115.2	20.2	-66.84	-2,065.7	-997.4	3,680.0	3,554.5	125.47	29.330	
10,629.9	6,777.0	6,200.0	6,118.9	116.0	20.2	-66.84	-2,065.7	-997.4	3,706.4	3,580.2	126.24	29.361	
10,700.0	6,776.7	6,200.0	6,118.9	117.9	20.2	-66.84	-2,065.7	-997.4	3,768.7	3,640.7	128.04	29.434	
10,728.3	6,776.6	6,200.0	6,118.9	118.7	20.2	-66.84	-2,065.7	-997.4	3,794.0	3,665.2	128.77	29.463	
10,800.0	6,776.3	6,200.0	6,118.9	120.7	20.2	-66.84	-2,065.7	-997.4	3,858.1	3,727.5	130.61	29.538	
10,826.7	6,776.2	6,200.0	6,118.9	121.5	20.2	-66.84	-2,065.7	-997.4	3,882.0	3,750.7	131.30	29.566	
10,900.0	6,775.9	6,200.0	6,118.9	123.5	20.2	-66.84	-2,065.7	-997.4	3,947.9	3,814.7	133.19	29.642	
10,925.2	6,775.8	6,200.0	6,118.9	124.2	20.2	-66.84	-2,065.7	-997.4	3,970.6	3,836.8	133.84	29.668	
11,000.0	6,775.5	6,200.0	6,118.9	126.3	20.2	-66.83	-2,065.7	-997.4	4,038.2	3,902.5	135.76	29.745	
11,023.6	6,775.4	6,200.0	6,118.9	126.9	20.2	-66.83	-2,065.7	-997.4	4,059.6	3,923.2	136.37	29.769	
11,100.0	6,775.1	6,200.0	6,118.9	129.1	20.2	-66.83	-2,065.7	-997.4	4,129.0	3,990.7	138.34	29.847	
11,122.0	6,775.0	6,200.0	6,118.9	129.7	20.2	-66.83	-2,065.7	-997.4	4,149.0	4,010.1	138.91	29.869	
11,200.0	6,774.7	6,200.0	6,118.9	131.9	20.2	-66.83	-2,065.7	-997.4	4,220.2	4,079.3	140.92	29.948	
11,220.4	6,774.6	6,200.0	6,118.9	132.4	20.2	-66.83	-2,065.7	-997.4	4,238.9	4,097.4	141.44	29.969	
11,300.0	6,774.3	6,200.0	6,118.9	134.6	20.2	-66.83	-2,065.7	-997.4	4,311.7	4,168.3	143.49	30.048	
11,318.9	6,774.2	6,200.0	6,118.9	135.2	20.2	-66.83	-2,065.7	-997.4	4,329.1	4,185.1	143.98	30.067	
11,400.0	6,773.9	6,200.0	6,118.9	137.4	20.2	-66.83	-2,065.7	-997.4	4,403.7	4,257.6	146.07	30.147	
11,417.3	6,773.8	6,200.0	6,118.9	137.9	20.2	-66.83	-2,065.7	-997.4	4,419.6	4,273.1	146.52	30.164	
11,500.0	6,773.5	6,200.0	6,118.9	140.2	20.2	-66.83	-2,065.7	-997.4	4,496.0	4,347.3	148.65	30.245	
11,515.7	6,773.4	6,200.0	6,118.9	140.7	20.2	-66.83	-2,065.7	-997.4	4,510.5	4,361.5	149.06	30.260	
11,600.0	6,773.1	6,200.0	6,118.9	143.0	20.2	-66.83	-2,065.7	-997.4	4,588.6	4,437.3	151.23	30.341	
11,614.1	6,773.0	6,200.0	6,118.9	143.4	20.2	-66.83	-2,065.7	-997.4	4,601.7	4,450.1	151.60	30.355	
11,700.0	6,772.7	6,177.0	6,096.2	145.8	20.2	-66.14	-2,065.7	-1,001.3	4,681.1	4,528.0	153.09	30.578	
11,712.6	6,772.6	6,176.7	6,095.9	146.2	20.2	-66.13	-2,065.7	-1,001.3	4,692.8	4,539.4	153.40	30.591	
11,800.0	6,772.3	6,174.8	6,094.1	148.6	20.2	-66.07	-2,065.7	-1,001.6	4,774.2	4,618.6	155.59	30.685	
11,811.0	6,772.2	6,174.6	6,093.8	148.9	20.2	-66.06	-2,065.7	-1,001.7	4,784.5	4,628.6	155.86	30.697	
11,900.0	6,771.9	6,172.8	6,092.0	151.4	20.2	-66.01	-2,065.7	-1,001.9	4,867.6	4,709.5	158.09	30.791	
11,909.4	6,771.8	6,172.6	6,091.8	151.7	20.2	-66.00	-2,065.7	-1,002.0	4,876.4	4,718.1	158.32	30.801	
12,000.0	6,771.5	6,150.0	6,069.4	154.2	20.3	-65.33	-2,065.7	-1,004.9	4,961.6	4,801.7	159.88	31.033	

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 SCHAUMBERG 17G-314
<b>Project:</b>	WELD COUNTY, COLORADO	<b>TVD Reference:</b>	KB-EST @ 4633.0usft (Original Well Elev)
<b>Reference Site:</b>	SW NW SEC. 17 T5N R64W 6th P.M.	<b>MD Reference:</b>	KB-EST @ 4633.0usft (Original Well Elev)
<b>Site Error:</b>	0.0 usft	<b>North Reference:</b>	True
<b>Reference Well:</b>	SCHAUMBERG 17G-314	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Well Error:</b>	0.0 usft	<b>Output errors are at</b>	2.00 sigma
<b>Reference Wellbore</b>	ORIGINAL WELLBORE	<b>Database:</b>	EDM 5000.1 Single User Db
<b>Reference Design:</b>	PROPOSAL #1	<b>Offset TVD Reference:</b>	Offset Datum

Offset Design NW SW SEC. 17 T5N R64W 6th P.M. - CECIL'S KERSEY FARM 17B-212 - ORIGINAL WELLBORE - P													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		
12,007.8	6,771.4	6,150.0	6,069.4	154.4	20.3	-65.33	-2,065.7	-1,004.9	4,968.9	4,808.8	160.08	31.040		
12,100.0	6,771.1	6,150.0	6,069.4	157.0	20.3	-65.33	-2,065.7	-1,004.9	5,055.4	4,892.9	162.43	31.123		
12,106.3	6,771.0	6,150.0	6,069.4	157.2	20.3	-65.33	-2,065.7	-1,004.9	5,061.3	4,898.7	162.59	31.128		
12,200.0	6,770.7	6,150.0	6,069.4	159.8	20.3	-65.32	-2,065.7	-1,004.9	5,149.4	4,984.4	164.99	31.211		
12,204.7	6,770.6	6,150.0	6,069.4	159.9	20.3	-65.32	-2,065.7	-1,004.9	5,153.8	4,988.7	165.11	31.215		
12,300.0	6,770.3	6,150.0	6,069.4	162.6	20.3	-65.32	-2,065.7	-1,004.9	5,243.7	5,076.1	167.54	31.297		
12,303.1	6,770.2	6,150.0	6,069.4	162.7	20.3	-65.32	-2,065.7	-1,004.9	5,246.6	5,079.0	167.62	31.300		
12,361.7	6,770.0	6,150.0	6,069.4	164.3	20.3	-65.32	-2,065.7	-1,004.9	5,302.0	5,132.8	169.12	31.350		

# Anticollision Report



<b>Company:</b>	PDC ENERGY	<b>Local Co-ordinate Reference:</b>	Well SCHAUMBERG 17G-314
<b>Project:</b>	WELD COUNTY, COLORADO	<b>TVD Reference:</b>	KB-EST @ 4633.0usft (Original Well Elev)
<b>Reference Site:</b>	SW NW SEC. 17 T5N R64W 6th P.M.	<b>MD Reference:</b>	KB-EST @ 4633.0usft (Original Well Elev)
<b>Site Error:</b>	0.0 usft	<b>North Reference:</b>	True
<b>Reference Well:</b>	SCHAUMBERG 17G-314	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Well Error:</b>	0.0 usft	<b>Output errors are at</b>	2.00 sigma
<b>Reference Wellbore</b>	ORIGINAL WELLBORE	<b>Database:</b>	EDM 5000.1 Single User Db
<b>Reference Design:</b>	PROPOSAL #1	<b>Offset TVD Reference:</b>	Offset Datum

Offset Design												Offset Site Error:	0.0 usft
Survey Program: 0-MWD												Offset Well Error:	0.0 usft
Reference		Offset		Semi Major Axis			Distance						Warning
Measured Depth (usft)	Vertical Depth (usft)	Measured Depth (usft)	Vertical Depth (usft)	Reference (usft)	Offset (usft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (usft)	+E/-W (usft)	Between Centres (usft)	Between Ellipses (usft)	Minimum Separation (usft)	Separation Factor	
0.0	0.0	3.0	3.0	0.0	0.0	-174.22	-2,005.5	-203.1	2,015.8				
98.4	98.4	101.4	101.4	0.1	0.1	-174.22	-2,005.5	-203.1	2,015.8	2,015.6	0.20	N/A	
100.0	100.0	103.0	103.0	0.1	0.1	-174.22	-2,005.5	-203.1	2,015.8	2,015.6	0.20	9,964.808	
196.8	196.8	199.8	199.8	0.3	0.3	-174.22	-2,005.5	-203.1	2,015.8	2,015.1	0.64	3,161.203	
200.0	200.0	203.0	203.0	0.3	0.3	-174.22	-2,005.5	-203.1	2,015.8	2,015.1	0.65	3,092.529	
295.3	295.3	298.3	298.3	0.5	0.5	-174.22	-2,005.5	-203.1	2,015.8	2,014.7	1.08	1,866.265	
300.0	300.0	303.0	303.0	0.5	0.6	-174.22	-2,005.5	-203.1	2,015.8	2,014.7	1.10	1,830.273	
393.7	393.7	396.7	396.7	0.8	0.8	-174.22	-2,005.5	-203.1	2,015.8	2,014.3	1.52	1,323.935	
400.0	400.0	403.0	403.0	0.8	0.8	-174.22	-2,005.5	-203.1	2,015.8	2,014.2	1.55	1,299.759	
492.1	492.1	495.1	495.1	1.0	1.0	-174.22	-2,005.5	-203.1	2,015.8	2,013.8	1.97	1,025.832	
500.0	500.0	503.0	503.0	1.0	1.0	-174.22	-2,005.5	-203.1	2,015.8	2,013.8	2.00	1,007.678	
590.5	590.5	593.5	593.5	1.2	1.2	-174.22	-2,005.5	-203.1	2,015.8	2,013.4	2.41	837.302	
600.0	600.0	603.0	603.0	1.2	1.2	-174.22	-2,005.5	-203.1	2,015.8	2,013.3	2.45	822.783	
689.0	689.0	692.0	692.0	1.4	1.4	-174.22	-2,005.5	-203.1	2,015.8	2,012.9	2.85	707.310	
700.0	700.0	703.0	703.0	1.4	1.5	-174.22	-2,005.5	-203.1	2,015.8	2,012.9	2.90	695.220	
787.4	787.4	790.4	790.4	1.6	1.6	-174.22	-2,005.5	-203.1	2,015.8	2,012.5	3.29	612.257	
800.0	800.0	803.0	803.0	1.7	1.7	-174.22	-2,005.5	-203.1	2,015.8	2,012.4	3.35	601.902	
885.8	885.8	888.8	888.8	1.9	1.9	-174.22	-2,005.5	-203.1	2,015.8	2,012.0	3.73	539.725	
900.0	900.0	903.0	903.0	1.9	1.9	-174.22	-2,005.5	-203.1	2,015.8	2,012.0	3.80	530.671	
984.2	984.2	987.2	987.2	2.1	2.1	-174.22	-2,005.5	-203.1	2,015.8	2,011.6	4.18	482.558	
1,000.0	1,000.0	1,003.0	1,003.0	2.1	2.1	-174.22	-2,005.5	-203.1	2,015.8	2,011.5	4.25	474.515	
1,082.7	1,082.7	1,085.7	1,085.7	2.3	2.3	-174.22	-2,005.5	-203.1	2,015.8	2,011.2	4.62	436.341	
1,100.0	1,100.0	1,103.0	1,103.0	2.3	2.4	-174.22	-2,005.5	-203.1	2,015.8	2,011.1	4.70	429.107	
1,181.1	1,181.1	1,184.1	1,184.1	2.5	2.5	-174.22	-2,005.5	-203.1	2,015.8	2,010.7	5.06	398.203	
1,200.0	1,200.0	1,203.0	1,203.0	2.6	2.6	-174.22	-2,005.5	-203.1	2,015.8	2,010.6	5.15	391.630	
1,279.5	1,279.5	1,282.5	1,282.5	2.7	2.8	-174.22	-2,005.5	-203.1	2,015.8	2,010.3	5.50	366.197	
1,300.0	1,300.0	1,303.0	1,303.0	2.8	2.8	-174.22	-2,005.5	-203.1	2,015.8	2,010.2	5.60	360.174	
1,377.9	1,377.9	1,380.9	1,380.9	3.0	3.0	-174.22	-2,005.5	-203.1	2,015.8	2,009.8	5.95	338.952	
1,400.0	1,400.0	1,403.0	1,403.0	3.0	3.0	-174.22	-2,005.5	-203.1	2,015.8	2,009.7	6.05	333.395	
1,476.4	1,476.4	1,479.4	1,479.4	3.2	3.2	-174.22	-2,005.5	-203.1	2,015.8	2,009.4	6.39	315.481	
1,500.0	1,500.0	1,503.0	1,503.0	3.2	3.3	-174.22	-2,005.5	-203.1	2,015.8	2,009.3	6.50	310.323	
1,574.8	1,574.8	1,577.8	1,577.8	3.4	3.4	-174.22	-2,005.5	-203.1	2,015.8	2,008.9	6.83	295.050	
1,600.0	1,600.0	1,603.0	1,603.0	3.5	3.5	-174.22	-2,005.5	-203.1	2,015.8	2,008.8	6.95	290.237	
1,673.2	1,673.2	1,679.2	1,679.2	3.6	3.6	-174.22	-2,005.5	-202.9	2,015.8	2,008.5	7.28	276.993	
1,700.0	1,700.0	1,709.1	1,709.1	3.7	3.7	-174.24	-2,005.5	-202.4	2,015.7	2,008.3	7.40	272.405	
1,771.6	1,771.6	1,788.8	1,788.8	3.9	3.9	-174.31	-2,005.4	-199.7	2,015.3	2,007.6	7.72	261.013	
1,800.0	1,800.0	1,820.3	1,820.2	3.9	3.9	-174.36	-2,005.3	-198.0	2,015.1	2,007.3	7.85	256.706	
1,870.1	1,870.1	1,898.0	1,897.7	4.1	4.1	-15.73	-2,005.0	-192.3	2,013.6	2,005.4	8.15	247.068	
1,900.0	1,900.0	1,931.0	1,930.6	4.1	4.2	-15.83	-2,004.9	-189.3	2,012.3	2,004.0	8.28	243.032	
1,968.5	1,968.4	2,006.1	2,005.2	4.2	4.3	-16.12	-2,004.5	-181.0	2,008.2	1,999.6	8.56	234.587	
2,000.0	1,999.8	2,040.4	2,039.2	4.3	4.4	-16.27	-2,004.3	-176.5	2,005.7	1,997.0	8.69	230.720	
2,066.9	2,066.5	2,112.7	2,110.7	4.4	4.6	-16.66	-2,003.8	-165.8	1,999.2	1,990.2	8.98	222.665	
2,100.0	2,099.5	2,148.0	2,145.5	4.5	4.7	-16.88	-2,003.5	-159.9	1,995.3	1,986.2	9.12	218.685	
2,165.3	2,164.4	2,217.1	2,213.4	4.6	4.9	-17.37	-2,003.0	-147.2	1,986.7	1,977.2	9.42	210.978	
2,200.0	2,198.7	2,253.0	2,248.5	4.7	5.0	-17.65	-2,002.6	-139.9	1,981.4	1,971.9	9.57	206.949	
2,263.8	2,261.8	2,313.8	2,308.1	4.8	5.2	-18.17	-2,002.0	-127.3	1,970.9	1,961.0	9.86	199.827	
2,300.0	2,297.5	2,348.2	2,341.7	4.9	5.3	-18.48	-2,001.7	-120.1	1,964.3	1,954.3	10.03	195.882	
2,362.2	2,358.6	2,407.1	2,399.3	5.0	5.5	-19.02	-2,001.2	-107.9	1,952.2	1,941.9	10.32	189.254	
2,400.0	2,395.6	2,442.6	2,434.0	5.1	5.6	-19.36	-2,000.8	-100.5	1,944.3	1,933.8	10.49	185.307	
2,460.6	2,454.9	2,499.6	2,489.8	5.3	5.8	-19.84	-2,000.3	-88.7	1,931.4	1,920.6	10.81	178.586	
2,500.0	2,493.4	2,536.6	2,526.0	5.4	5.9	-20.15	-1,999.9	-81.0	1,923.1	1,912.0	11.03	174.353	
2,559.0	2,551.2	2,592.1	2,580.2	5.6	6.1	-20.62	-1,999.4	-69.5	1,910.7	1,899.3	11.36	168.213	

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 SCHAUMBERG 17G-314
<b>Project:</b>	WELD COUNTY, COLORADO	<b>TVD Reference:</b>	KB-EST @ 4633.0usft (Original Well Elev)
<b>Reference Site:</b>	SW NW SEC. 17 T5N R64W 6th P.M.	<b>MD Reference:</b>	KB-EST @ 4633.0usft (Original Well Elev)
<b>Site Error:</b>	0.0 usft	<b>North Reference:</b>	True
<b>Reference Well:</b>	SCHAUMBERG 17G-314	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Well Error:</b>	0.0 usft	<b>Output errors are at</b>	2.00 sigma
<b>Reference Wellbore</b>	ORIGINAL WELLBORE	<b>Database:</b>	EDM 5000.1 Single User Db
<b>Reference Design:</b>	PROPOSAL #1	<b>Offset TVD Reference:</b>	Offset Datum

Offset Design NW SW SEC. 17 T5N R64W 6th P.M. - CECIL'S KERSEY FARM 17B-214 - ORIGINAL WELLBORE - P													Offset Site Error:	0.0 usft
Survey Program: 0-MWDD													Offset Well Error:	0.0 usft
Reference		Offset		Semi Major Axis			Distance							Warning
Measured Depth (usft)	Vertical Depth (usft)	Measured Depth (usft)	Vertical Depth (usft)	Reference (usft)	Offset (usft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (usft)	+E/-W (usft)	Between Centres (usft)	Between Ellipses (usft)	Minimum Separation (usft)	Separation Factor		
2,600.0	2,591.3	2,630.5	2,617.8	5.7	6.3	-20.95	-1,999.0	-61.5	1,902.2	1,890.6	11.59	164.131		
2,657.5	2,647.5	2,684.5	2,670.7	5.9	6.5	-21.42	-1,998.5	-50.3	1,890.4	1,878.4	11.92	158.609		
2,700.0	2,689.1	2,724.5	2,709.7	6.0	6.6	-21.76	-1,998.1	-42.0	1,881.7	1,869.5	12.17	154.624		
2,755.9	2,743.7	2,777.0	2,761.1	6.2	6.8	-22.23	-1,997.6	-31.1	1,870.4	1,857.9	12.50	149.607		
2,800.0	2,786.9	2,818.4	2,801.6	6.4	7.0	-22.60	-1,997.2	-22.5	1,861.6	1,848.8	12.77	145.805		
2,854.3	2,840.0	2,869.4	2,851.5	6.6	7.2	-23.06	-1,996.8	-11.9	1,850.9	1,837.8	13.10	141.280		
2,900.0	2,884.7	2,912.3	2,893.5	6.7	7.4	-23.45	-1,996.3	-3.0	1,842.0	1,828.6	13.38	137.635		
2,952.7	2,936.3	2,961.9	2,942.0	6.9	7.6	-23.90	-1,995.9	7.3	1,831.8	1,818.0	13.71	133.563		
3,000.0	2,982.5	3,006.3	2,985.4	7.1	7.7	-24.31	-1,995.4	16.5	1,822.7	1,808.7	14.01	130.073		
3,051.2	3,032.6	3,054.3	3,032.4	7.3	7.9	-24.76	-1,995.0	26.5	1,813.1	1,798.7	14.34	126.414		
3,100.0	3,080.3	3,100.2	3,077.3	7.5	8.1	-25.20	-1,994.6	36.0	1,803.9	1,789.3	14.66	123.073		
3,149.6	3,128.8	3,146.8	3,122.8	7.7	8.3	-25.64	-1,994.1	45.7	1,794.8	1,779.8	14.98	119.789		
3,200.0	3,178.1	3,194.1	3,169.1	7.9	8.5	-26.10	-1,993.7	55.5	1,785.6	1,770.3	15.32	116.593		
3,248.0	3,225.1	3,239.2	3,213.3	8.1	8.7	-26.53	-1,993.2	64.9	1,777.0	1,761.4	15.64	113.648		
3,300.0	3,276.0	3,288.1	3,261.0	8.3	8.9	-27.01	-1,992.8	75.0	1,767.8	1,751.8	15.98	110.591		
3,346.4	3,321.4	3,331.7	3,303.7	8.5	9.1	-27.44	-1,992.3	84.1	1,759.7	1,743.4	16.30	107.953		
3,400.0	3,373.8	3,382.0	3,352.9	8.7	9.3	-27.95	-1,991.9	94.5	1,750.4	1,733.8	16.67	105.031		
3,444.9	3,417.7	3,424.2	3,394.1	8.8	9.5	-28.37	-1,991.5	103.3	1,742.8	1,725.8	16.98	102.667		
3,500.0	3,471.6	3,475.9	3,444.8	9.1	9.7	-28.90	-1,991.0	114.0	1,733.6	1,716.2	17.36	99.875		
3,543.3	3,513.9	3,516.6	3,484.6	9.2	9.9	-29.31	-1,990.6	122.5	1,726.4	1,708.8	17.66	97.758		
3,600.0	3,569.4	3,569.9	3,536.7	9.5	10.1	-29.86	-1,990.1	133.5	1,717.2	1,699.2	18.06	95.090		
3,641.7	3,610.2	3,609.1	3,575.0	9.7	10.3	-30.27	-1,989.7	141.7	1,710.6	1,692.2	18.35	93.196		
3,700.0	3,667.2	3,663.8	3,628.6	9.9	10.5	-30.85	-1,989.2	153.0	1,701.4	1,682.7	18.77	90.646		
3,740.1	3,706.5	3,701.5	3,665.4	10.1	10.7	-31.25	-1,988.8	160.8	1,695.3	1,676.2	19.06	88.951		
3,800.0	3,765.0	3,757.7	3,720.4	10.3	10.9	-31.85	-1,988.3	172.5	1,686.2	1,666.7	19.49	86.514		
3,838.6	3,802.8	3,794.0	3,755.9	10.5	11.1	-32.24	-1,987.9	180.0	1,680.5	1,660.7	19.77	84.999		
3,900.0	3,862.8	3,851.7	3,812.3	10.7	11.3	-32.86	-1,987.4	192.0	1,671.5	1,651.3	20.22	82.670		
3,937.0	3,899.0	3,886.4	3,846.3	10.9	11.5	-33.24	-1,987.1	199.2	1,666.2	1,645.7	20.49	81.316		
4,000.0	3,960.7	3,945.6	3,904.2	11.2	11.7	-33.89	-1,986.5	211.5	1,657.4	1,636.5	20.96	79.092		
4,035.4	3,995.3	3,978.9	3,936.7	11.3	11.9	-34.26	-1,986.2	218.4	1,652.6	1,631.3	21.22	77.883		
4,100.0	4,058.5	4,039.5	3,996.1	11.6	12.1	-34.94	-1,985.6	231.0	1,643.9	1,622.2	21.70	75.757		
4,133.8	4,091.6	4,071.3	4,027.2	11.7	12.3	-35.30	-1,985.3	237.6	1,639.5	1,617.5	21.95	74.680		
4,200.0	4,156.3	4,133.5	4,088.0	12.0	12.5	-36.00	-1,984.7	250.5	1,631.0	1,608.6	22.45	72.648		
4,232.3	4,187.9	4,163.8	4,117.6	12.2	12.7	-36.35	-1,984.4	256.8	1,627.0	1,604.3	22.69	71.690		
4,300.0	4,254.1	4,227.4	4,179.8	12.5	12.9	-37.08	-1,983.8	270.0	1,618.7	1,595.5	23.21	69.748		
4,325.7	4,279.2	4,251.5	4,203.4	12.6	13.1	-37.36	-1,983.6	275.0	1,615.7	1,592.3	23.40	69.035		
4,330.7	4,284.1	4,256.2	4,208.1	12.6	13.1	-37.41	-1,983.5	276.0	1,615.1	1,591.7	23.44	68.892		
4,400.0	4,352.1	4,321.6	4,272.0	12.8	13.4	-38.06	-1,982.9	289.6	1,607.9	1,583.9	23.99	67.012		
4,429.1	4,380.8	4,349.2	4,299.0	12.9	13.5	-38.33	-1,982.7	295.3	1,605.3	1,581.1	24.21	66.302		
4,500.0	4,450.7	4,416.7	4,365.0	13.1	13.8	-38.99	-1,982.0	309.3	1,600.2	1,575.5	24.74	64.687		
4,527.5	4,478.0	4,443.0	4,390.8	13.2	13.9	-39.24	-1,981.8	314.8	1,598.7	1,573.8	24.94	64.112		
4,600.0	4,549.9	4,512.6	4,458.8	13.4	14.2	-39.90	-1,981.1	329.3	1,595.8	1,570.4	25.45	62.701		
4,626.0	4,575.7	4,542.4	4,488.0	13.5	14.3	-40.17	-1,980.8	335.3	1,595.2	1,569.5	25.63	62.232		
4,700.0	4,649.4	4,628.4	4,572.6	13.6	14.6	-40.88	-1,980.1	351.0	1,594.0	1,567.8	26.12	61.021		
4,724.4	4,673.7	4,657.1	4,600.9	13.7	14.7	-41.08	-1,979.9	355.7	1,593.8	1,567.5	26.26	60.689		
4,757.2	4,706.5	4,695.8	4,639.2	13.8	14.8	-41.34	-1,979.6	361.5	1,593.7	1,567.2	26.45	60.257		
4,800.0	4,749.2	4,746.8	4,689.6	13.8	15.0	-41.64	-1,979.3	368.4	1,593.8	1,567.2	26.67	59.754		
4,822.8	4,772.0	4,774.1	4,716.7	13.9	15.0	-41.79	-1,979.1	371.8	1,594.0	1,567.2	26.79	59.508		
4,900.0	4,849.2	4,867.0	4,809.1	14.0	15.2	-42.17	-1,978.7	381.2	1,595.2	1,568.1	27.14	58.777		
4,921.2	4,870.4	4,892.7	4,834.7	14.1	15.3	-42.25	-1,978.6	383.3	1,595.7	1,568.4	27.23	58.599		
4,925.6	4,874.8	4,898.0	4,840.0	14.1	15.3	158.92	-1,978.6	383.7	1,595.8	1,571.5	24.29	65.702		
5,000.0	4,949.2	4,988.2	4,930.1	14.2	15.5	158.74	-1,978.4	389.0	1,597.2	1,572.6	24.58	64.985		

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 SCHAUMBERG 17G-314
<b>Project:</b>	WELD COUNTY, COLORADO	<b>TVD Reference:</b>	KB-EST @ 4633.0usft (Original Well Elev)
<b>Reference Site:</b>	SW NW SEC. 17 T5N R64W 6th P.M.	<b>MD Reference:</b>	KB-EST @ 4633.0usft (Original Well Elev)
<b>Site Error:</b>	0.0 usft	<b>North Reference:</b>	True
<b>Reference Well:</b>	SCHAUMBERG 17G-314	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Well Error:</b>	0.0 usft	<b>Output errors are at</b>	2.00 sigma
<b>Reference Wellbore</b>	ORIGINAL WELLBORE	<b>Database:</b>	EDM 5000.1 Single User Db
<b>Reference Design:</b>	PROPOSAL #1	<b>Offset TVD Reference:</b>	Offset Datum

Offset Design												Offset Site Error:	0.0 usft
Survey Program: 0-MWDD												Offset Well Error:	0.0 usft
Reference		Offset		Semi Major Axis			Distance						Warning
Measured Depth (usft)	Vertical Depth (usft)	Measured Depth (usft)	Vertical Depth (usft)	Reference (usft)	Offset (usft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (usft)	+E/-W (usft)	Between Centres (usft)	Between Ellipses (usft)	Minimum Separation (usft)	Separation Factor	
5,019.7	4,968.8	5,012.2	4,954.0	14.2	15.5	158.71	-1,978.3	389.9	1,597.4	1,572.7	24.65	64.798	
5,100.0	5,049.2	5,110.0	5,051.8	14.3	15.7	158.65	-1,978.2	391.6	1,597.9	1,572.9	24.95	64.036	
5,118.1	5,067.3	5,128.4	5,070.3	14.3	15.7	158.65	-1,978.2	391.6	1,597.9	1,572.8	25.02	63.874	
5,200.0	5,149.2	5,210.3	5,152.2	14.5	15.8	158.65	-1,978.2	391.6	1,597.9	1,572.6	25.30	63.154	
5,216.5	5,165.7	5,226.8	5,168.7	14.5	15.8	158.65	-1,978.2	391.6	1,597.9	1,572.5	25.36	63.006	
5,300.0	5,249.2	5,310.3	5,252.2	14.6	16.0	158.65	-1,978.2	391.6	1,597.9	1,572.2	25.66	62.267	
5,314.9	5,264.1	5,325.3	5,267.1	14.6	16.0	158.65	-1,978.2	391.6	1,597.9	1,572.1	25.72	62.136	
5,400.0	5,349.2	5,410.3	5,352.2	14.8	16.1	158.65	-1,978.2	391.6	1,597.9	1,571.8	26.02	61.399	
5,413.4	5,362.5	5,423.7	5,365.5	14.8	16.1	158.65	-1,978.2	391.6	1,597.9	1,571.8	26.07	61.283	
5,500.0	5,449.2	5,510.3	5,452.2	14.9	16.3	158.65	-1,978.2	391.6	1,597.9	1,571.5	26.39	60.548	
5,511.8	5,461.0	5,522.1	5,464.0	14.9	16.3	158.65	-1,978.2	391.6	1,597.9	1,571.4	26.43	60.448	
5,600.0	5,549.2	5,610.3	5,552.2	15.1	16.4	158.65	-1,978.2	391.6	1,597.9	1,571.1	26.76	59.715	
5,610.2	5,559.4	5,620.5	5,562.4	15.1	16.4	158.65	-1,978.2	391.6	1,597.9	1,571.1	26.80	59.630	
5,700.0	5,649.2	5,710.3	5,652.2	15.2	16.6	158.65	-1,978.2	391.6	1,597.9	1,570.7	27.13	58.899	
5,708.6	5,657.8	5,719.0	5,660.8	15.3	16.6	158.65	-1,978.2	391.6	1,597.9	1,570.7	27.16	58.829	
5,800.0	5,749.2	5,810.3	5,752.2	15.4	16.8	158.65	-1,978.2	391.6	1,597.9	1,570.4	27.50	58.100	
5,807.1	5,756.2	5,817.4	5,759.2	15.4	16.8	158.65	-1,978.2	391.6	1,597.9	1,570.3	27.53	58.044	
5,900.0	5,849.2	5,910.3	5,852.2	15.6	16.9	158.65	-1,978.2	391.6	1,597.9	1,570.0	27.88	57.318	
5,905.5	5,854.7	5,915.8	5,857.7	15.6	16.9	158.65	-1,978.2	391.6	1,597.9	1,570.0	27.90	57.276	
6,000.0	5,949.2	6,010.3	5,952.2	15.7	17.1	158.65	-1,978.2	391.6	1,597.9	1,569.6	28.25	56.553	
6,003.9	5,953.1	6,014.2	5,956.1	15.7	17.1	158.65	-1,978.2	391.6	1,597.9	1,569.6	28.27	56.523	
6,100.0	6,049.2	6,338.1	6,272.6	15.9	17.1	160.53	-1,978.2	336.0	1,593.8	1,564.9	28.88	55.179	
6,102.3	6,051.5	6,348.7	6,282.3	15.9	17.1	160.68	-1,978.2	331.9	1,593.4	1,564.5	28.90	55.141	
6,124.6	6,073.8	6,442.1	6,365.2	15.9	17.0	162.16	-1,978.2	289.0	1,589.8	1,560.8	29.02	54.786	
6,150.0	6,099.2	6,534.2	6,440.9	16.0	17.0	-106.43	-1,978.2	236.6	1,584.9	1,553.8	31.07	51.010	
6,200.0	6,149.0	6,680.3	6,545.3	16.1	17.0	-103.90	-1,978.2	134.7	1,574.0	1,542.8	31.19	50.463	
6,200.8	6,149.8	6,682.3	6,546.6	16.1	17.1	-103.86	-1,978.2	133.2	1,573.9	1,542.7	31.20	50.450	
6,250.0	6,198.5	6,791.5	6,609.7	16.2	17.4	-101.86	-1,978.2	44.3	1,562.6	1,530.9	31.64	49.388	
6,299.2	6,246.6	6,878.1	6,649.7	16.3	18.0	-100.28	-1,978.2	-32.5	1,551.4	1,519.1	32.30	48.025	
6,300.0	6,247.4	6,879.4	6,650.3	16.3	18.0	-100.26	-1,978.2	-33.7	1,551.2	1,518.9	32.32	48.002	
6,350.0	6,295.5	6,951.8	6,676.3	16.5	18.7	-98.97	-1,978.2	-101.1	1,540.4	1,507.3	33.11	46.529	
6,397.6	6,340.2	7,010.7	6,692.3	16.6	19.4	-97.93	-1,978.2	-157.9	1,530.9	1,497.0	33.94	45.104	
6,400.0	6,342.4	7,013.5	6,693.0	16.6	19.4	-97.89	-1,978.2	-160.5	1,530.5	1,496.5	33.98	45.034	
6,450.0	6,388.1	7,067.7	6,703.4	16.8	20.2	-96.93	-1,978.2	-213.8	1,521.4	1,486.5	34.90	43.594	
6,496.0	6,428.8	7,112.8	6,708.9	17.0	20.8	-96.12	-1,978.2	-258.5	1,514.0	1,478.3	35.77	42.329	
6,500.0	6,432.2	7,116.5	6,709.3	17.0	20.9	-96.06	-1,978.2	-262.2	1,513.4	1,477.6	35.84	42.223	
6,550.0	6,474.6	7,161.3	6,711.8	17.3	21.6	-95.21	-1,978.2	-306.9	1,506.6	1,469.7	36.81	40.925	
6,594.5	6,510.7	7,193.2	6,712.0	17.5	22.1	-94.64	-1,978.2	-338.8	1,501.4	1,463.8	37.62	39.910	
6,600.0	6,515.0	7,196.6	6,712.0	17.6	22.2	-94.59	-1,978.2	-342.2	1,500.8	1,463.1	37.71	39.798	
6,650.0	6,553.3	7,228.7	6,712.0	17.9	22.7	-94.00	-1,978.2	-374.3	1,496.3	1,457.7	38.65	38.713	
6,692.9	6,584.3	7,258.4	6,711.9	18.2	23.3	-93.41	-1,978.2	-404.0	1,493.4	1,453.9	39.55	37.762	
6,700.0	6,589.2	7,263.5	6,711.9	18.2	23.4	-93.31	-1,978.2	-409.1	1,493.0	1,453.3	39.70	37.608	
6,750.0	6,622.7	7,300.6	6,711.9	18.6	24.0	-92.54	-1,978.2	-446.2	1,490.7	1,449.9	40.85	36.489	
6,791.3	6,648.3	7,333.0	6,711.9	19.0	24.7	-91.87	-1,978.2	-478.6	1,489.5	1,447.5	41.95	35.506	
6,800.0	6,653.4	7,340.0	6,711.9	19.1	24.8	-91.73	-1,978.2	-485.6	1,489.3	1,447.1	42.18	35.304	
6,850.0	6,681.4	7,381.4	6,711.8	19.6	25.6	-90.90	-1,978.2	-527.0	1,488.5	1,444.9	43.62	34.121	
6,889.7	6,701.5	7,415.7	6,711.8	20.1	26.3	-90.25	-1,978.2	-561.3	1,488.2	1,443.4	44.87	33.166	
6,900.0	6,706.3	7,424.7	6,711.8	20.2	26.5	-90.08	-1,978.2	-570.3	1,488.2	1,443.0	45.21	32.921	
6,905.3	6,708.8	7,429.4	6,711.8	20.3	26.6	-90.00	-1,978.2	-575.0	1,488.2	1,442.8	45.39	32.790 CC	
6,950.0	6,728.2	7,469.6	6,711.8	20.9	27.5	-89.31	-1,978.2	-615.2	1,488.4	1,441.4	46.92	31.721	
6,988.2	6,742.8	7,504.9	6,711.7	21.5	28.2	-88.77	-1,978.2	-650.5	1,488.6	1,440.3	48.31	30.814	
7,000.0	6,746.9	7,516.0	6,711.7	21.6	28.5	-88.62	-1,978.2	-661.6	1,488.7	1,440.0	48.75	30.536	

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 SCHAUMBERG 17G-314
<b>Project:</b>	WELD COUNTY, COLORADO	<b>TVD Reference:</b>	KB-EST @ 4633.0usft (Original Well Elev)
<b>Reference Site:</b>	SW NW SEC. 17 T5N R64W 6th P.M.	<b>MD Reference:</b>	KB-EST @ 4633.0usft (Original Well Elev)
<b>Site Error:</b>	0.0 usft	<b>North Reference:</b>	True
<b>Reference Well:</b>	SCHAUMBERG 17G-314	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Well Error:</b>	0.0 usft	<b>Output errors are at</b>	2.00 sigma
<b>Reference Wellbore</b>	ORIGINAL WELLBORE	<b>Database:</b>	EDM 5000.1 Single User Db
<b>Reference Design:</b>	PROPOSAL #1	<b>Offset TVD Reference:</b>	Offset Datum

Offset Design												Offset Site Error:	0.0 usft
Survey Program: 0-MWMD												Offset Well Error:	0.0 usft
Reference		Offset		Semi Major Axis			Distance						Warning
Measured Depth (usft)	Vertical Depth (usft)	Measured Depth (usft)	Vertical Depth (usft)	Reference (usft)	Offset (usft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (usft)	+E/-W (usft)	Between Centres (usft)	Between Ellipses (usft)	Minimum Separation (usft)	Separation Factor	
7,050.0	6,762.4	7,563.5	6,711.7	22.5	29.6	-88.01	-1,978.2	-709.1	1,489.2	1,438.5	50.71	29.365	
7,086.6	6,771.5	7,598.9	6,711.6	23.1	30.3	-87.64	-1,978.2	-744.5	1,489.6	1,437.3	52.21	28.532	
7,100.0	6,774.4	7,612.0	6,711.6	23.3	30.7	-87.52	-1,978.2	-757.6	1,489.7	1,436.9	52.77	28.231	
7,150.0	6,783.1	7,661.2	6,711.6	24.3	31.8	-87.16	-1,978.2	-806.8	1,490.1	1,435.2	54.92	27.130	
7,185.0	6,787.1	7,696.0	6,711.6	25.0	32.6	-86.99	-1,978.2	-841.6	1,490.3	1,433.8	56.48	26.388	
7,200.0	6,788.3	7,710.9	6,711.6	25.3	33.0	-86.94	-1,978.2	-856.5	1,490.4	1,433.2	57.15	26.078	
7,252.3	6,790.0	7,763.2	6,711.5	26.3	34.2	-86.87	-1,978.2	-908.8	1,490.5	1,430.9	59.55	25.028	
7,283.4	6,789.9	7,794.4	6,711.5	27.0	35.0	-86.87	-1,978.2	-940.0	1,490.4	1,429.5	60.99	24.439	
7,300.0	6,789.8	7,810.9	6,711.5	27.3	35.4	-86.87	-1,978.2	-956.5	1,490.4	1,428.7	61.76	24.134	
7,381.9	6,789.5	7,892.8	6,711.4	29.1	37.4	-86.88	-1,978.2	-1,038.4	1,490.4	1,424.8	65.64	22.705	
7,400.0	6,789.4	7,910.9	6,711.4	29.5	37.8	-86.88	-1,978.2	-1,056.5	1,490.4	1,423.9	66.51	22.410	
7,480.3	6,789.1	7,991.2	6,711.3	31.4	39.8	-86.89	-1,978.2	-1,136.8	1,490.4	1,420.0	70.42	21.164	
7,500.0	6,789.1	8,010.9	6,711.3	31.8	40.3	-86.89	-1,978.2	-1,156.5	1,490.4	1,419.0	71.39	20.877	
7,578.7	6,788.8	8,089.6	6,711.2	33.7	42.3	-86.90	-1,978.2	-1,235.2	1,490.4	1,415.1	75.31	19.790	
7,600.0	6,788.7	8,110.9	6,711.2	34.2	42.9	-86.90	-1,978.2	-1,256.5	1,490.4	1,414.0	76.37	19.515	
7,677.1	6,788.4	8,188.1	6,711.1	36.1	44.9	-86.91	-1,978.2	-1,333.7	1,490.4	1,410.1	80.28	18.564	
7,700.0	6,788.3	8,210.9	6,711.1	36.7	45.4	-86.92	-1,978.2	-1,356.5	1,490.4	1,408.9	81.44	18.300	
7,775.6	6,788.0	8,286.5	6,711.1	38.6	47.4	-86.92	-1,978.2	-1,432.1	1,490.4	1,405.0	85.32	17.467	
7,800.0	6,787.9	8,310.9	6,711.0	39.2	48.0	-86.93	-1,978.2	-1,456.5	1,490.4	1,403.8	86.58	17.214	
7,874.0	6,787.6	8,384.9	6,711.0	41.0	50.0	-86.94	-1,978.2	-1,530.5	1,490.3	1,399.9	90.42	16.482	
7,900.0	6,787.6	8,410.9	6,711.0	41.7	50.7	-86.94	-1,978.2	-1,556.5	1,490.3	1,398.6	91.78	16.239	
7,972.4	6,787.3	8,483.3	6,710.9	43.6	52.6	-86.95	-1,978.2	-1,628.9	1,490.3	1,394.8	95.57	15.594	
8,000.0	6,787.2	8,510.9	6,710.9	44.3	53.3	-86.95	-1,978.2	-1,656.5	1,490.3	1,393.3	97.02	15.361	
8,070.8	6,786.9	8,581.8	6,710.8	46.1	55.2	-86.96	-1,978.2	-1,727.4	1,490.3	1,389.6	100.76	14.791	
8,100.0	6,786.8	8,610.9	6,710.8	46.9	56.0	-86.96	-1,978.2	-1,756.5	1,490.3	1,388.0	102.30	14.568	
8,169.3	6,786.5	8,680.2	6,710.7	48.7	57.8	-86.97	-1,978.2	-1,825.8	1,490.3	1,384.3	105.98	14.062	
8,200.0	6,786.4	8,710.9	6,710.7	49.5	58.6	-86.97	-1,978.2	-1,856.5	1,490.3	1,382.7	107.62	13.848	
8,267.7	6,786.1	8,778.6	6,710.6	51.3	60.5	-86.98	-1,978.2	-1,924.2	1,490.3	1,379.0	111.24	13.397	
8,300.0	6,786.0	8,810.9	6,710.6	52.1	61.3	-86.98	-1,978.2	-1,956.5	1,490.3	1,377.3	112.96	13.192	
8,366.1	6,785.8	8,877.0	6,710.6	53.9	63.1	-86.99	-1,978.2	-2,022.6	1,490.3	1,373.8	116.52	12.790	
8,400.0	6,785.6	8,910.9	6,710.5	54.8	64.0	-87.00	-1,978.2	-2,056.5	1,490.3	1,371.9	118.34	12.593	
8,464.5	6,785.4	8,975.4	6,710.5	56.5	65.8	-87.00	-1,978.2	-2,121.0	1,490.3	1,368.4	121.82	12.234	
8,500.0	6,785.3	9,010.9	6,710.4	57.5	66.7	-87.01	-1,978.2	-2,156.5	1,490.2	1,366.5	123.73	12.044	
8,563.0	6,785.0	9,073.9	6,710.4	59.2	68.4	-87.01	-1,978.2	-2,219.5	1,490.2	1,363.1	127.14	11.721	
8,600.0	6,784.9	9,110.9	6,710.4	60.2	69.4	-87.02	-1,978.2	-2,256.5	1,490.2	1,361.1	129.14	11.539	
8,661.4	6,784.6	9,172.3	6,710.3	61.8	71.1	-87.03	-1,978.2	-2,317.9	1,490.2	1,357.7	132.47	11.249	
8,700.0	6,784.5	9,210.9	6,710.3	62.9	72.2	-87.03	-1,978.2	-2,356.5	1,490.2	1,355.6	134.57	11.074	
8,759.8	6,784.3	9,270.7	6,710.2	64.5	73.8	-87.04	-1,978.2	-2,416.3	1,490.2	1,352.4	137.83	10.812	
8,800.0	6,784.1	9,310.9	6,710.2	65.6	74.9	-87.04	-1,978.2	-2,456.5	1,490.2	1,350.2	140.02	10.643	
8,858.2	6,783.9	9,369.1	6,710.1	67.1	76.5	-87.05	-1,978.2	-2,514.7	1,490.2	1,347.0	143.19	10.407	
8,900.0	6,783.7	9,410.9	6,710.1	68.3	77.6	-87.05	-1,978.2	-2,556.5	1,490.2	1,344.7	145.47	10.244	
8,956.7	6,783.5	9,467.6	6,710.0	69.8	79.2	-87.06	-1,978.2	-2,613.2	1,490.2	1,341.6	148.57	10.030	
9,000.0	6,783.3	9,510.9	6,710.0	71.0	80.4	-87.06	-1,978.2	-2,656.5	1,490.2	1,339.2	150.94	9.873	
9,055.1	6,783.1	9,566.0	6,710.0	72.5	81.9	-87.07	-1,978.2	-2,711.6	1,490.2	1,336.2	153.96	9.679	
9,100.0	6,782.9	9,610.9	6,709.9	73.7	83.1	-87.08	-1,978.2	-2,756.5	1,490.2	1,333.7	156.42	9.527	
9,153.5	6,782.7	9,664.4	6,709.9	75.2	84.6	-87.08	-1,978.2	-2,810.0	1,490.1	1,330.8	159.36	9.351	
9,200.0	6,782.6	9,710.9	6,709.8	76.5	85.9	-87.09	-1,978.2	-2,856.5	1,490.1	1,328.2	161.91	9.204	
9,251.9	6,782.4	9,762.8	6,709.8	77.9	87.3	-87.09	-1,978.2	-2,908.4	1,490.1	1,325.4	164.76	9.044	
9,300.0	6,782.2	9,810.9	6,709.7	79.2	88.6	-87.10	-1,978.2	-2,956.5	1,490.1	1,322.7	167.41	8.901	
9,350.4	6,782.0	9,861.3	6,709.7	80.6	90.0	-87.10	-1,978.2	-3,006.9	1,490.1	1,319.9	170.18	8.756	
9,400.0	6,781.8	9,910.9	6,709.7	82.0	91.4	-87.11	-1,978.2	-3,056.5	1,490.1	1,317.2	172.91	8.618	
9,448.8	6,781.6	9,959.7	6,709.6	83.3	92.7	-87.12	-1,978.2	-3,105.3	1,490.1	1,314.5	175.60	8.486	

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 SCHAUMBERG 17G-314
<b>Project:</b>	WELD COUNTY, COLORADO	<b>TVD Reference:</b>	KB-EST @ 4633.0usft (Original Well Elev)
<b>Reference Site:</b>	SW NW SEC. 17 T5N R64W 6th P.M.	<b>MD Reference:</b>	KB-EST @ 4633.0usft (Original Well Elev)
<b>Site Error:</b>	0.0 usft	<b>North Reference:</b>	True
<b>Reference Well:</b>	SCHAUMBERG 17G-314	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Well Error:</b>	0.0 usft	<b>Output errors are at</b>	2.00 sigma
<b>Reference Wellbore</b>	ORIGINAL WELLBORE	<b>Database:</b>	EDM 5000.1 Single User Db
<b>Reference Design:</b>	PROPOSAL #1	<b>Offset TVD Reference:</b>	Offset Datum

Offset Design												Offset Site Error:	0.0 usft
Survey Program: 0-MWMD												Offset Well Error:	0.0 usft
Reference		Offset		Semi Major Axis			Distance						Warning
Measured Depth (usft)	Vertical Depth (usft)	Measured Depth (usft)	Vertical Depth (usft)	Reference (usft)	Offset (usft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (usft)	+E/-W (usft)	Between Centres (usft)	Between Ellipses (usft)	Minimum Separation (usft)	Separation Factor	
9,500.0	6,781.4	10,010.9	6,709.6	84.7	94.1	-87.12	-1,978.2	-3,156.5	1,490.1	1,311.7	178.42	8.351	
9,547.2	6,781.2	10,058.1	6,709.5	86.0	95.4	-87.13	-1,978.2	-3,203.7	1,490.1	1,309.1	181.03	8.231	
9,600.0	6,781.0	10,110.9	6,709.5	87.5	96.9	-87.13	-1,978.2	-3,256.5	1,490.1	1,306.1	183.94	8.101	
9,645.6	6,780.8	10,156.5	6,709.4	88.7	98.1	-87.14	-1,978.2	-3,302.1	1,490.1	1,303.6	186.46	7.991	
9,700.0	6,780.6	10,210.9	6,709.4	90.2	99.6	-87.15	-1,978.2	-3,356.5	1,490.1	1,300.6	189.47	7.865	
9,744.1	6,780.4	10,255.0	6,709.4	91.4	100.9	-87.15	-1,978.2	-3,400.6	1,490.1	1,298.1	191.90	7.765	
9,800.0	6,780.2	10,310.9	6,709.3	93.0	102.4	-87.16	-1,978.2	-3,456.5	1,490.0	1,295.0	195.00	7.641	
9,842.5	6,780.1	10,353.4	6,709.3	94.2	103.6	-87.16	-1,978.2	-3,499.0	1,490.0	1,292.7	197.35	7.550	
9,900.0	6,779.8	10,410.9	6,709.2	95.7	105.2	-87.17	-1,978.2	-3,556.5	1,490.0	1,289.5	200.53	7.430	
9,940.9	6,779.7	10,451.8	6,709.2	96.9	106.3	-87.17	-1,978.2	-3,597.4	1,490.0	1,287.2	202.80	7.347	
10,000.0	6,779.4	10,510.9	6,709.1	98.5	108.0	-87.18	-1,978.2	-3,656.5	1,490.0	1,283.9	206.07	7.231	
10,039.3	6,779.3	10,550.2	6,709.1	99.6	109.0	-87.18	-1,978.2	-3,695.8	1,490.0	1,281.8	208.25	7.155	
10,100.0	6,779.0	10,610.9	6,709.0	101.3	110.7	-87.19	-1,978.2	-3,756.5	1,490.0	1,278.4	211.61	7.041	
10,137.8	6,778.9	10,648.7	6,709.0	102.3	111.8	-87.20	-1,978.2	-3,794.3	1,490.0	1,276.3	213.71	6.972	
10,200.0	6,778.7	10,710.9	6,709.0	104.1	113.5	-87.20	-1,978.2	-3,856.5	1,490.0	1,272.8	217.16	6.861	
10,236.2	6,778.5	10,747.1	6,708.9	105.1	114.5	-87.21	-1,978.2	-3,892.7	1,490.0	1,270.8	219.17	6.798	
10,300.0	6,778.3	10,810.9	6,708.9	106.8	116.3	-87.22	-1,978.2	-3,956.5	1,490.0	1,267.3	222.71	6.690	
10,334.6	6,778.1	10,845.5	6,708.8	107.8	117.2	-87.22	-1,978.2	-3,991.1	1,490.0	1,265.3	224.63	6.633	
10,400.0	6,777.9	10,910.9	6,708.8	109.6	119.1	-87.23	-1,978.2	-4,056.5	1,490.0	1,261.7	228.26	6.527	
10,433.0	6,777.7	10,943.9	6,708.7	110.5	120.0	-87.23	-1,978.2	-4,089.5	1,489.9	1,259.8	230.10	6.475	
10,500.0	6,777.5	11,010.9	6,708.7	112.4	121.8	-87.24	-1,978.2	-4,156.5	1,489.9	1,256.1	233.82	6.372	
10,531.5	6,777.3	11,042.4	6,708.7	113.3	122.7	-87.24	-1,978.2	-4,188.0	1,489.9	1,254.4	235.57	6.325	
10,600.0	6,777.1	11,110.9	6,708.6	115.2	124.6	-87.25	-1,978.2	-4,256.5	1,489.9	1,250.5	239.38	6.224	
10,629.9	6,777.0	11,140.8	6,708.6	116.0	125.4	-87.25	-1,978.2	-4,286.4	1,489.9	1,248.9	241.04	6.181	
10,700.0	6,776.7	11,210.9	6,708.5	117.9	127.4	-87.26	-1,978.2	-4,356.5	1,489.9	1,245.0	244.94	6.083	
10,728.3	6,776.6	11,239.2	6,708.5	118.7	128.2	-87.27	-1,978.2	-4,384.8	1,489.9	1,243.4	246.52	6.044	
10,800.0	6,776.3	11,310.9	6,708.4	120.7	130.2	-87.27	-1,978.2	-4,456.5	1,489.9	1,239.4	250.51	5.948	
10,826.7	6,776.2	11,337.6	6,708.4	121.5	130.9	-87.28	-1,978.2	-4,483.2	1,489.9	1,237.9	252.00	5.912	
10,900.0	6,775.9	11,410.9	6,708.3	123.5	133.0	-87.29	-1,978.2	-4,556.5	1,489.9	1,233.8	256.07	5.818	
10,925.2	6,775.8	11,436.1	6,708.3	124.2	133.7	-87.29	-1,978.2	-4,581.7	1,489.9	1,232.4	257.48	5.786	
11,000.0	6,775.5	11,510.9	6,708.2	126.3	135.8	-87.30	-1,978.2	-4,656.5	1,489.9	1,228.2	261.64	5.694	
11,023.6	6,775.4	11,534.5	6,708.2	126.9	136.4	-87.30	-1,978.2	-4,680.1	1,489.9	1,226.9	262.96	5.666	
11,100.0	6,775.1	11,610.9	6,708.2	129.1	138.5	-87.31	-1,978.2	-4,756.5	1,489.9	1,222.6	267.22	5.575	
11,122.0	6,775.0	11,632.9	6,708.1	129.7	139.2	-87.31	-1,978.2	-4,778.5	1,489.8	1,221.4	268.44	5.550	
11,200.0	6,774.7	11,710.9	6,708.1	131.9	141.3	-87.32	-1,978.2	-4,856.5	1,489.8	1,217.0	272.79	5.461	
11,220.4	6,774.6	11,731.3	6,708.0	132.4	141.9	-87.32	-1,978.2	-4,876.9	1,489.8	1,215.9	273.93	5.439	
11,300.0	6,774.3	11,810.9	6,708.0	134.6	144.1	-87.33	-1,978.2	-4,956.5	1,489.8	1,211.5	278.36	5.352	
11,318.9	6,774.2	11,829.8	6,708.0	135.2	144.6	-87.34	-1,978.2	-4,975.4	1,489.8	1,210.4	279.42	5.332	
11,400.0	6,773.9	11,910.9	6,707.9	137.4	146.9	-87.35	-1,978.2	-5,056.5	1,489.8	1,205.9	283.94	5.247	
11,417.3	6,773.8	11,928.2	6,707.9	137.9	147.4	-87.35	-1,978.2	-5,073.8	1,489.8	1,204.9	284.91	5.229	
11,500.0	6,773.5	12,010.9	6,707.8	140.2	149.7	-87.36	-1,978.2	-5,156.5	1,489.8	1,200.3	289.52	5.146	
11,515.7	6,773.4	12,026.6	6,707.8	140.7	150.1	-87.36	-1,978.2	-5,172.2	1,489.8	1,199.4	290.40	5.130	
11,600.0	6,773.1	12,110.9	6,707.7	143.0	152.5	-87.37	-1,978.2	-5,256.5	1,489.8	1,194.7	295.10	5.048	
11,614.1	6,773.0	12,125.0	6,707.7	143.4	152.9	-87.37	-1,978.2	-5,270.6	1,489.8	1,193.9	295.89	5.035	
11,700.0	6,772.7	12,210.9	6,707.6	145.8	155.3	-87.38	-1,978.2	-5,356.5	1,489.8	1,189.1	300.68	4.955	
11,712.6	6,772.6	12,223.5	6,707.6	146.2	155.6	-87.38	-1,978.2	-5,369.1	1,489.8	1,188.4	301.38	4.943	
11,800.0	6,772.3	12,310.9	6,707.5	148.6	158.1	-87.39	-1,978.2	-5,456.5	1,489.8	1,183.5	306.27	4.864	
11,811.0	6,772.2	12,321.9	6,707.5	148.9	158.4	-87.39	-1,978.2	-5,467.5	1,489.7	1,182.9	306.88	4.855	
11,900.0	6,771.9	12,410.9	6,707.4	151.4	160.9	-87.41	-1,978.2	-5,556.5	1,489.7	1,177.9	311.85	4.777	
11,909.4	6,771.8	12,420.3	6,707.4	151.7	161.1	-87.41	-1,978.2	-5,565.9	1,489.7	1,177.4	312.38	4.769	
12,000.0	6,771.5	12,510.9	6,707.3	154.2	163.7	-87.42	-1,978.2	-5,656.5	1,489.7	1,172.3	317.44	4.693	
12,007.8	6,771.4	12,518.7	6,707.3	154.4	163.9	-87.42	-1,978.2	-5,664.3	1,489.7	1,171.8	317.87	4.687	

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 SCHAUMBERG 17G-314
<b>Project:</b>	WELD COUNTY, COLORADO	<b>TVD Reference:</b>	KB-EST @ 4633.0usft (Original Well Elev)
<b>Reference Site:</b>	SW NW SEC. 17 T5N R64W 6th P.M.	<b>MD Reference:</b>	KB-EST @ 4633.0usft (Original Well Elev)
<b>Site Error:</b>	0.0 usft	<b>North Reference:</b>	True
<b>Reference Well:</b>	SCHAUMBERG 17G-314	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Well Error:</b>	0.0 usft	<b>Output errors are at</b>	2.00 sigma
<b>Reference Wellbore</b>	ORIGINAL WELLBORE	<b>Database:</b>	EDM 5000.1 Single User Db
<b>Reference Design:</b>	PROPOSAL #1	<b>Offset TVD Reference:</b>	Offset Datum

<b>Offset Design</b> NW SW SEC. 17 T5N R64W 6th P.M. - CECIL'S KERSEY FARM 17B-214 - ORIGINAL WELLBORE - P												<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
12,100.0	6,771.1	12,610.9	6,707.2	157.0	166.4	-87.43	-1,978.2	-5,756.5	1,489.7	1,166.7	323.02	4.612	
12,106.3	6,771.0	12,617.1	6,707.2	157.2	166.6	-87.43	-1,978.2	-5,762.7	1,489.7	1,166.3	323.37	4.607	
12,200.0	6,770.7	12,710.9	6,707.2	159.8	169.2	-87.44	-1,978.2	-5,856.5	1,489.7	1,161.1	328.61	4.533	
12,204.7	6,770.6	12,715.6	6,707.1	159.9	169.4	-87.44	-1,978.2	-5,861.2	1,489.7	1,160.8	328.87	4.530	
12,300.0	6,770.3	12,810.9	6,707.1	162.6	172.0	-87.45	-1,978.2	-5,956.5	1,489.7	1,155.5	334.20	4.457	
12,303.1	6,770.2	12,814.0	6,707.1	162.7	172.1	-87.45	-1,978.2	-5,959.6	1,489.7	1,155.3	334.37	4.455	
12,361.7	6,770.0	12,872.6	6,707.0	164.3	173.8	-87.46	-1,978.2	-6,018.2	1,489.7	1,152.0	337.65	4.412 ES, SF	

# Anticollision Report



<b>Company:</b>	PDC ENERGY	<b>Local Co-ordinate Reference:</b>	Well SCHAUMBERG 17G-314
<b>Project:</b>	WELD COUNTY, COLORADO	<b>TVD Reference:</b>	KB-EST @ 4633.0usft (Original Well Elev)
<b>Reference Site:</b>	SW NW SEC. 17 T5N R64W 6th P.M.	<b>MD Reference:</b>	KB-EST @ 4633.0usft (Original Well Elev)
<b>Site Error:</b>	0.0 usft	<b>North Reference:</b>	True
<b>Reference Well:</b>	SCHAUMBERG 17G-314	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Well Error:</b>	0.0 usft	<b>Output errors are at</b>	2.00 sigma
<b>Reference Wellbore</b>	ORIGINAL WELLBORE	<b>Database:</b>	EDM 5000.1 Single User Db
<b>Reference Design:</b>	PROPOSAL #1	<b>Offset TVD Reference:</b>	Offset Datum

Offset Design												Offset Site Error:	0.0 usft
Survey Program: 0-MW/D												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	3.0	3.0	0.0	0.0	-174.23	-2,050.3	-207.2	2,060.8				
98.4	98.4	101.4	101.4	0.1	0.1	-174.23	-2,050.3	-207.2	2,060.8	2,060.6	0.20	N/A	
100.0	100.0	103.0	103.0	0.1	0.1	-174.23	-2,050.3	-207.2	2,060.8	2,060.6	0.20	N/A	
196.8	196.8	199.8	199.8	0.3	0.3	-174.23	-2,050.3	-207.2	2,060.8	2,060.1	0.64	3,231.779	
200.0	200.0	203.0	203.0	0.3	0.3	-174.23	-2,050.3	-207.2	2,060.8	2,060.1	0.65	3,161.571	
295.3	295.3	298.3	298.3	0.5	0.5	-174.23	-2,050.3	-207.2	2,060.8	2,059.7	1.08	1,907.930	
300.0	300.0	303.0	303.0	0.5	0.6	-174.23	-2,050.3	-207.2	2,060.8	2,059.7	1.10	1,871.134	
393.7	393.7	396.7	396.7	0.8	0.8	-174.23	-2,050.3	-207.2	2,060.8	2,059.3	1.52	1,353.493	
400.0	400.0	403.0	403.0	0.8	0.8	-174.23	-2,050.3	-207.2	2,060.8	2,059.2	1.55	1,328.777	
492.1	492.1	495.1	495.1	1.0	1.0	-174.23	-2,050.3	-207.2	2,060.8	2,058.8	1.97	1,048.734	
500.0	500.0	503.0	503.0	1.0	1.0	-174.23	-2,050.3	-207.2	2,060.8	2,058.8	2.00	1,030.175	
590.5	590.5	593.5	593.5	1.2	1.2	-174.23	-2,050.3	-207.2	2,060.8	2,058.4	2.41	855.995	
600.0	600.0	603.0	603.0	1.2	1.2	-174.23	-2,050.3	-207.2	2,060.8	2,058.3	2.45	841.152	
689.0	689.0	692.0	692.0	1.4	1.4	-174.23	-2,050.3	-207.2	2,060.8	2,057.9	2.85	723.101	
700.0	700.0	703.0	703.0	1.4	1.5	-174.23	-2,050.3	-207.2	2,060.8	2,057.9	2.90	710.741	
787.4	787.4	790.4	790.4	1.6	1.6	-174.23	-2,050.3	-207.2	2,060.8	2,057.5	3.29	625.926	
800.0	800.0	803.0	803.0	1.7	1.7	-174.23	-2,050.3	-207.2	2,060.8	2,057.4	3.35	615.340	
885.8	885.8	888.8	888.8	1.9	1.9	-174.23	-2,050.3	-207.2	2,060.8	2,057.0	3.73	551.774	
900.0	900.0	903.0	903.0	1.9	1.9	-174.23	-2,050.3	-207.2	2,060.8	2,057.0	3.80	542.518	
984.2	984.2	987.2	987.2	2.1	2.1	-174.23	-2,050.3	-207.2	2,060.8	2,056.6	4.18	493.331	
1,000.0	1,000.0	1,003.0	1,003.0	2.1	2.1	-174.23	-2,050.3	-207.2	2,060.8	2,056.5	4.25	485.109	
1,034.2	1,034.2	1,037.2	1,037.2	2.2	2.2	-174.23	-2,050.3	-207.2	2,060.8	2,056.4	4.40	468.165	
1,082.7	1,082.7	1,078.1	1,078.1	2.3	2.3	-174.23	-2,050.4	-207.4	2,060.8	2,056.2	4.60	448.236	
1,100.0	1,100.0	1,091.8	1,091.8	2.3	2.3	-174.22	-2,050.4	-207.5	2,060.9	2,056.3	4.66	441.800	
1,181.1	1,181.1	1,155.6	1,155.6	2.5	2.4	-174.18	-2,050.9	-209.1	2,061.7	2,056.7	4.97	414.644	
1,200.0	1,200.0	1,170.5	1,170.5	2.6	2.5	-174.16	-2,051.0	-209.7	2,062.0	2,056.9	5.04	408.832	
1,279.5	1,279.5	1,233.0	1,232.9	2.7	2.6	-174.08	-2,052.0	-212.8	2,063.6	2,058.2	5.35	385.875	
1,300.0	1,300.0	1,249.1	1,248.9	2.8	2.6	-174.05	-2,052.3	-213.9	2,064.1	2,058.7	5.43	380.343	
1,377.9	1,377.9	1,300.0	1,299.7	3.0	2.7	-173.95	-2,053.4	-217.7	2,066.5	2,060.8	5.71	362.082	
1,400.0	1,400.0	1,327.3	1,326.9	3.0	2.8	-173.88	-2,054.1	-220.1	2,067.2	2,061.4	5.82	355.313	
1,476.4	1,476.4	1,386.9	1,386.1	3.2	2.9	-173.72	-2,055.8	-226.2	2,070.4	2,064.2	6.12	338.092	
1,500.0	1,500.0	1,400.0	1,399.1	3.2	3.0	-173.68	-2,056.3	-227.7	2,071.5	2,065.3	6.21	333.760	
1,574.8	1,574.8	1,463.1	1,461.7	3.4	3.1	-173.47	-2,058.6	-235.8	2,075.3	2,068.8	6.53	317.650	
1,600.0	1,600.0	1,482.5	1,480.9	3.5	3.2	-173.39	-2,059.4	-238.5	2,076.8	2,070.1	6.64	312.809	
1,673.2	1,673.2	1,538.8	1,536.4	3.6	3.3	-173.16	-2,061.9	-247.2	2,081.4	2,074.4	6.96	299.068	
1,700.0	1,700.0	1,559.2	1,556.6	3.7	3.4	-173.07	-2,062.9	-250.6	2,083.2	2,076.1	7.08	294.286	
1,771.6	1,771.6	1,613.7	1,610.1	3.9	3.5	-172.82	-2,065.7	-260.3	2,088.6	2,081.2	7.40	282.147	
1,800.0	1,800.0	1,635.2	1,631.1	3.9	3.6	-172.71	-2,066.9	-264.4	2,090.8	2,083.3	7.54	277.471	
1,870.1	1,870.1	1,699.5	1,694.0	4.1	3.8	-13.55	-2,070.6	-277.2	2,095.9	2,088.1	7.85	266.956	
1,900.0	1,900.0	1,728.8	1,722.7	4.1	3.9	-13.39	-2,072.3	-283.1	2,097.6	2,089.6	8.01	261.986	
1,968.5	1,968.4	1,796.2	1,788.6	4.2	4.2	-13.05	-2,076.2	-296.5	2,100.4	2,092.1	8.34	251.729	
2,000.0	1,999.8	1,827.2	1,818.9	4.3	4.3	-12.90	-2,078.0	-302.7	2,101.2	2,092.7	8.50	247.133	
2,066.9	2,066.5	1,893.1	1,883.4	4.4	4.5	-12.59	-2,081.8	-315.9	2,101.8	2,093.0	8.84	237.733	
2,100.0	2,099.5	1,925.7	1,915.3	4.5	4.7	-12.44	-2,083.7	-322.4	2,101.6	2,092.5	9.01	233.253	
2,165.3	2,164.4	1,990.1	1,978.3	4.6	4.9	-12.16	-2,087.5	-335.3	2,100.0	2,090.7	9.35	224.700	
2,200.0	2,198.7	2,024.3	2,011.8	4.7	5.1	-12.02	-2,089.4	-342.1	2,098.6	2,089.1	9.52	220.339	
2,263.8	2,261.8	2,087.2	2,073.3	4.8	5.3	-11.76	-2,093.1	-354.7	2,095.0	2,085.2	9.85	212.586	
2,300.0	2,297.5	2,122.9	2,108.2	4.9	5.5	-11.62	-2,095.2	-361.8	2,092.4	2,082.3	10.04	208.380	
2,362.2	2,358.6	2,184.1	2,168.1	5.0	5.7	-11.39	-2,098.7	-374.0	2,088.8	2,076.5	10.36	201.345	
2,400.0	2,395.6	2,221.3	2,204.4	5.1	5.9	-11.25	-2,100.8	-381.4	2,082.8	2,072.3	10.56	197.266	
2,460.6	2,454.9	2,280.9	2,262.7	5.3	6.1	-11.01	-2,104.3	-393.3	2,076.1	2,065.2	10.91	190.302	
2,500.0	2,493.4	2,319.6	2,300.6	5.4	6.3	-10.85	-2,106.5	-401.1	2,071.7	2,060.6	11.14	186.023	

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 SCHAUMBERG 17G-314
<b>Project:</b>	WELD COUNTY, COLORADO	<b>TVD Reference:</b>	KB-EST @ 4633.0usft (Original Well Elev)
<b>Reference Site:</b>	SW NW SEC. 17 T5N R64W 6th P.M.	<b>MD Reference:</b>	KB-EST @ 4633.0usft (Original Well Elev)
<b>Site Error:</b>	0.0 usft	<b>North Reference:</b>	True
<b>Reference Well:</b>	SCHAUMBERG 17G-314	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Well Error:</b>	0.0 usft	<b>Output errors are at</b>	2.00 sigma
<b>Reference Wellbore</b>	ORIGINAL WELLBORE	<b>Database:</b>	EDM 5000.1 Single User Db
<b>Reference Design:</b>	PROPOSAL #1	<b>Offset TVD Reference:</b>	Offset Datum

Offset Design												Offset Site Error:	0.0 usft
Survey Program: 0-MWMD												Offset Well Error:	0.0 usft
Reference		Offset		Semi Major Axis			Distance						Warning
Measured Depth (usft)	Vertical Depth (usft)	Measured Depth (usft)	Vertical Depth (usft)	Reference (usft)	Offset (usft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (usft)	+E/-W (usft)	Between Centres (usft)	Between Ellipses (usft)	Minimum Separation (usft)	Separation Factor	
2,559.0	2,551.2	2,377.7	2,357.4	5.6	6.5	-10.61	-2,109.9	-412.7	2,065.2	2,053.7	11.48	179.819	
2,600.0	2,591.3	2,417.9	2,396.8	5.7	6.7	-10.45	-2,112.2	-420.7	2,060.7	2,048.9	11.72	175.766	
2,657.5	2,647.5	2,474.4	2,452.0	5.9	7.0	-10.21	-2,115.5	-432.0	2,054.4	2,042.3	12.06	170.305	
2,700.0	2,689.1	2,516.2	2,492.9	6.0	7.1	-10.04	-2,117.9	-440.3	2,049.7	2,037.4	12.32	166.399	
2,755.9	2,743.7	2,571.2	2,546.7	6.2	7.4	-9.81	-2,121.1	-451.3	2,043.7	2,031.0	12.65	161.511	
2,800.0	2,786.9	2,614.5	2,589.1	6.4	7.6	-9.62	-2,123.6	-460.0	2,038.9	2,026.0	12.92	157.833	
2,854.3	2,840.0	2,667.9	2,641.3	6.6	7.8	-9.40	-2,126.7	-470.6	2,033.1	2,019.8	13.25	153.477	
2,900.0	2,884.7	2,712.8	2,685.2	6.7	8.0	-9.21	-2,129.3	-479.6	2,028.2	2,014.7	13.52	149.984	
2,952.7	2,936.3	2,764.7	2,735.9	6.9	8.2	-8.98	-2,132.3	-490.0	2,022.6	2,008.8	13.84	146.101	
3,000.0	2,982.5	2,811.1	2,781.4	7.1	8.4	-8.78	-2,135.0	-499.2	2,017.6	2,003.5	14.13	142.780	
3,051.2	3,032.6	2,861.4	2,830.6	7.3	8.7	-8.57	-2,137.9	-509.3	2,012.2	1,997.8	14.44	139.315	
3,100.0	3,080.3	2,909.4	2,877.5	7.5	8.9	-8.36	-2,140.7	-518.9	2,007.1	1,992.4	14.74	136.154	
3,149.6	3,128.8	2,958.2	2,925.2	7.7	9.1	-8.14	-2,143.5	-528.6	2,002.0	1,986.9	15.05	133.058	
3,200.0	3,178.1	3,007.7	2,973.7	7.9	9.3	-7.93	-2,146.4	-538.5	1,996.8	1,981.4	15.35	130.046	
3,248.0	3,225.1	3,054.9	3,019.8	8.1	9.5	-7.72	-2,149.1	-547.9	1,991.8	1,976.2	15.65	127.277	
3,300.0	3,276.0	3,106.0	3,069.8	8.3	9.8	-7.49	-2,152.1	-558.1	1,986.5	1,970.5	15.97	124.405	
3,346.4	3,321.4	3,151.7	3,114.5	8.5	10.0	-7.29	-2,154.7	-567.2	1,981.8	1,965.5	16.25	121.926	
3,400.0	3,373.8	3,204.3	3,166.0	8.7	10.2	-7.05	-2,157.8	-577.8	1,976.4	1,959.8	16.58	119.183	
3,444.9	3,417.7	3,248.4	3,209.1	8.8	10.4	-6.85	-2,160.3	-586.6	1,971.8	1,955.0	16.86	116.962	
3,500.0	3,471.6	3,302.6	3,262.1	9.1	10.7	-6.61	-2,163.5	-597.4	1,966.3	1,949.1	17.20	114.339	
3,543.3	3,513.9	3,345.2	3,303.8	9.2	10.8	-6.42	-2,165.9	-605.9	1,962.0	1,944.6	17.46	112.348	
3,600.0	3,569.4	3,400.9	3,358.3	9.5	11.1	-6.16	-2,169.2	-617.0	1,956.4	1,938.6	17.81	109.838	
3,641.7	3,610.2	3,441.9	3,398.4	9.7	11.3	-5.97	-2,171.5	-625.2	1,952.3	1,934.3	18.07	108.051	
3,700.0	3,667.2	3,499.2	3,454.4	9.9	11.5	-5.71	-2,174.9	-636.6	1,946.7	1,928.2	18.43	105.646	
3,740.1	3,706.5	3,538.7	3,493.0	10.1	11.7	-5.52	-2,177.1	-644.5	1,942.8	1,924.1	18.67	104.041	
3,800.0	3,765.0	3,597.5	3,550.6	10.3	12.0	-5.25	-2,180.5	-656.3	1,937.0	1,918.0	19.04	101.735	
3,838.6	3,802.8	3,635.4	3,587.7	10.5	12.2	-5.07	-2,182.7	-663.8	1,933.3	1,914.0	19.28	100.294	
3,900.0	3,862.8	3,695.8	3,646.7	10.7	12.4	-4.79	-2,186.2	-675.9	1,927.5	1,907.8	19.65	98.079	
3,937.0	3,899.0	3,732.2	3,682.3	10.9	12.6	-4.62	-2,188.3	-683.2	1,924.0	1,904.1	19.88	96.786	
4,000.0	3,960.7	3,794.1	3,742.9	11.2	12.9	-4.32	-2,191.9	-695.5	1,918.1	1,897.8	20.26	94.657	
4,035.4	3,995.3	3,828.9	3,776.9	11.3	13.1	-4.16	-2,193.9	-702.5	1,914.8	1,894.3	20.48	93.495	
4,100.0	4,058.5	3,892.4	3,839.0	11.6	13.3	-3.85	-2,197.6	-715.2	1,908.8	1,887.9	20.87	91.447	
4,133.8	4,091.6	3,925.7	3,871.6	11.7	13.5	-3.69	-2,199.5	-721.8	1,905.7	1,884.6	21.08	90.405	
4,200.0	4,156.3	3,990.7	3,935.2	12.0	13.8	-3.38	-2,203.3	-734.8	1,899.7	1,878.2	21.48	88.432	
4,232.3	4,187.9	4,022.5	3,966.2	12.2	13.9	-3.22	-2,205.1	-741.1	1,896.8	1,875.1	21.68	87.497	
4,300.0	4,254.1	4,089.0	4,031.3	12.5	14.2	-2.90	-2,209.0	-754.4	1,890.7	1,868.6	22.09	85.595	
4,325.7	4,279.2	4,114.3	4,056.0	12.6	14.4	-2.77	-2,210.5	-759.5	1,888.4	1,866.1	22.24	84.894	
4,330.7	4,284.1	4,119.2	4,060.9	12.6	14.4	-2.75	-2,210.8	-760.5	1,887.9	1,865.7	22.28	84.742	
4,400.0	4,352.1	4,187.4	4,127.6	12.8	14.7	-2.41	-2,214.7	-774.1	1,882.8	1,860.0	22.75	82.756	
4,429.1	4,380.8	4,216.1	4,155.6	12.9	14.8	-2.26	-2,216.4	-779.8	1,881.1	1,858.2	22.94	81.993	
4,500.0	4,450.7	4,285.9	4,224.0	13.1	15.2	-1.91	-2,220.4	-793.8	1,878.4	1,855.0	23.40	80.272	
4,527.5	4,478.0	4,313.1	4,250.5	13.2	15.3	-1.78	-2,222.0	-799.2	1,877.8	1,854.2	23.57	79.660	
4,571.1	4,521.2	4,356.1	4,292.6	13.3	15.5	-1.56	-2,224.5	-807.8	1,877.4	1,853.6	23.84	78.747	
4,600.0	4,549.9	4,384.6	4,320.4	13.4	15.6	-1.42	-2,226.1	-813.4	1,877.6	1,853.6	24.02	78.179	
4,626.0	4,575.7	4,410.2	4,345.5	13.5	15.7	-1.29	-2,227.6	-818.6	1,878.0	1,853.8	24.17	77.699	
4,700.0	4,649.4	4,483.1	4,416.8	13.6	16.1	-0.92	-2,231.8	-833.1	1,880.5	1,855.9	24.60	76.449	
4,724.4	4,673.7	4,507.2	4,440.3	13.7	16.2	-0.80	-2,233.2	-837.9	1,881.7	1,857.0	24.73	76.081	
4,800.0	4,749.2	4,581.5	4,513.1	13.8	16.5	-0.42	-2,237.5	-852.8	1,887.0	1,861.8	25.14	75.056	
4,822.8	4,772.0	4,604.0	4,535.0	13.9	16.6	-0.31	-2,238.8	-857.3	1,889.0	1,863.7	25.26	74.784	
4,900.0	4,849.2	4,679.6	4,609.1	14.0	17.0	0.07	-2,243.2	-872.4	1,897.1	1,871.4	25.64	73.976	
4,921.2	4,870.4	4,700.4	4,629.4	14.1	17.1	0.18	-2,244.4	-876.5	1,899.7	1,874.0	25.75	73.785	
4,925.6	4,874.8	4,704.7	4,633.6	14.1	17.1	-158.61	-2,244.7	-877.4	1,900.3	1,872.5	27.80	68.351	

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 SCHAUMBERG 17G-314
<b>Project:</b>	WELD COUNTY, COLORADO	<b>TVD Reference:</b>	KB-EST @ 4633.0usft (Original Well Elev)
<b>Reference Site:</b>	SW NW SEC. 17 T5N R64W 6th P.M.	<b>MD Reference:</b>	KB-EST @ 4633.0usft (Original Well Elev)
<b>Site Error:</b>	0.0 usft	<b>North Reference:</b>	True
<b>Reference Well:</b>	SCHAUMBERG 17G-314	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Well Error:</b>	0.0 usft	<b>Output errors are at</b>	2.00 sigma
<b>Reference Wellbore</b>	ORIGINAL WELLBORE	<b>Database:</b>	EDM 5000.1 Single User Db
<b>Reference Design:</b>	PROPOSAL #1	<b>Offset TVD Reference:</b>	Offset Datum

Offset Design												Offset Site Error:	0.0 usft
Survey Program: 0-MWMD												Offset Well Error:	0.0 usft
Reference		Offset		Semi Major Axis			Distance						Warning
Measured Depth (usft)	Vertical Depth (usft)	Measured Depth (usft)	Vertical Depth (usft)	Reference (usft)	Offset (usft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (usft)	+E/-W (usft)	Between Centres (usft)	Between Ellipses (usft)	Minimum Separation (usft)	Separation Factor	
5,000.0	4,949.2	4,777.5	4,704.7	14.2	17.4	-158.24	-2,248.9	-891.9	1,909.9	1,881.6	28.21	67.704	
5,019.7	4,968.8	4,796.7	4,723.6	14.2	17.5	-158.15	-2,250.0	-895.8	1,912.4	1,884.1	28.32	67.537	
5,100.0	5,049.2	4,875.3	4,800.4	14.3	17.9	-157.76	-2,254.5	-911.4	1,922.9	1,894.1	28.76	66.868	
5,118.1	5,067.3	4,893.0	4,817.7	14.3	17.9	-157.68	-2,255.6	-915.0	1,925.2	1,896.4	28.86	66.719	
5,200.0	5,149.2	4,973.1	4,896.1	14.5	18.3	-157.29	-2,260.2	-931.0	1,936.0	1,906.7	29.31	66.058	
5,216.5	5,165.7	4,989.3	4,911.9	14.5	18.4	-157.21	-2,261.1	-934.2	1,938.2	1,908.8	29.40	65.926	
5,300.0	5,249.2	5,070.9	4,991.8	14.6	18.8	-156.82	-2,265.9	-950.5	1,949.3	1,919.5	29.86	65.272	
5,314.9	5,264.1	5,085.5	5,006.1	14.6	18.8	-156.75	-2,266.7	-953.4	1,951.3	1,921.4	29.95	65.157	
5,400.0	5,349.2	5,228.5	5,146.5	14.8	19.3	-156.14	-2,274.1	-979.0	1,961.6	1,931.1	30.52	64.268	
5,413.4	5,362.5	5,252.3	5,170.0	14.8	19.4	-156.06	-2,275.2	-982.6	1,963.0	1,932.4	30.61	64.132	
5,500.0	5,449.2	5,407.5	5,324.0	14.9	19.8	-155.62	-2,280.6	-1,001.5	1,970.1	1,939.0	31.13	63.283	
5,511.8	5,461.0	5,428.8	5,345.2	14.9	19.8	-155.58	-2,281.2	-1,003.5	1,970.9	1,939.7	31.20	63.177	
5,600.0	5,549.2	5,588.8	5,504.8	15.1	20.1	-155.35	-2,284.1	-1,013.4	1,974.6	1,942.9	31.64	62.409	
5,610.2	5,559.4	5,607.4	5,523.4	15.1	20.1	-155.33	-2,284.3	-1,014.0	1,974.8	1,943.1	31.69	62.323	
5,700.0	5,649.2	5,736.2	5,652.2	15.2	20.3	-155.31	-2,284.6	-1,015.2	1,975.3	1,943.3	32.02	61.684	
5,708.6	5,657.8	5,744.8	5,660.8	15.3	20.3	-155.31	-2,284.6	-1,015.2	1,975.3	1,943.2	32.05	61.633	
5,800.0	5,749.2	5,836.2	5,752.2	15.4	20.4	-155.31	-2,284.6	-1,015.2	1,975.3	1,942.9	32.33	61.098	
5,807.1	5,756.2	5,843.3	5,759.2	15.4	20.4	-155.31	-2,284.6	-1,015.2	1,975.3	1,942.9	32.35	61.056	
5,900.0	5,849.2	5,936.2	5,852.2	15.6	20.5	-155.31	-2,284.6	-1,015.2	1,975.3	1,942.6	32.64	60.516	
5,905.5	5,854.7	5,941.7	5,857.7	15.6	20.5	-155.31	-2,284.6	-1,015.2	1,975.3	1,942.6	32.66	60.484	
6,000.0	5,949.2	6,036.2	5,952.2	15.7	20.7	-155.31	-2,284.6	-1,015.2	1,975.3	1,942.3	32.95	59.940	
6,003.9	5,953.1	7,395.1	6,780.5	15.7	24.9	179.64	-2,284.6	-178.8	1,975.0	1,944.5	30.48	64.806	
6,100.0	6,049.2	7,393.8	6,780.5	15.9	24.9	179.68	-2,284.6	-180.1	1,936.8	1,906.2	30.64	63.212	
6,102.3	6,051.5	7,393.8	6,780.5	15.9	24.9	179.69	-2,284.6	-180.1	1,935.9	1,905.3	30.64	63.175	
6,124.6	6,073.8	7,393.5	6,780.5	15.9	24.9	179.70	-2,284.6	-180.4	1,927.7	1,897.0	30.68	62.827	
6,150.0	6,099.2	7,392.7	6,780.5	16.0	24.9	-91.06	-2,284.6	-181.2	1,918.6	1,880.1	38.49	49.844	
6,200.0	6,149.0	7,388.5	6,780.6	16.1	24.8	-92.38	-2,284.6	-185.4	1,901.5	1,862.9	38.61	49.256	
6,200.8	6,149.8	7,388.4	6,780.6	16.1	24.8	-92.40	-2,284.6	-185.5	1,901.3	1,862.7	38.61	49.248	
6,250.0	6,198.5	7,380.9	6,780.7	16.2	24.7	-93.46	-2,284.6	-193.1	1,885.8	1,847.1	38.66	48.774	
6,299.2	6,246.6	7,370.0	6,780.8	16.3	24.5	-94.31	-2,284.6	-204.0	1,871.6	1,832.9	38.67	48.395	
6,300.0	6,247.4	7,369.8	6,780.8	16.3	24.5	-94.32	-2,284.6	-204.2	1,871.4	1,832.7	38.67	48.389	
6,350.0	6,295.5	7,355.3	6,781.0	16.5	24.3	-94.95	-2,284.6	-218.6	1,858.4	1,819.8	38.64	48.095	
6,397.6	6,340.2	7,338.5	6,781.3	16.6	24.1	-95.36	-2,284.6	-235.5	1,847.3	1,808.8	38.57	47.892	
6,400.0	6,342.4	7,337.6	6,781.3	16.6	24.0	-95.38	-2,284.6	-236.4	1,846.8	1,808.2	38.57	47.884	
6,450.0	6,388.1	7,316.6	6,781.6	16.8	23.7	-95.60	-2,284.6	-257.4	1,836.6	1,798.2	38.47	47.746	
6,496.0	6,428.8	7,294.5	6,781.9	17.0	23.4	-95.65	-2,284.6	-279.4	1,828.5	1,790.1	38.36	47.666	
6,500.0	6,432.2	7,292.5	6,781.9	17.0	23.4	-95.65	-2,284.6	-281.4	1,827.8	1,789.5	38.35	47.660	
6,550.0	6,474.6	7,251.2	6,781.7	17.3	22.8	-95.15	-2,284.6	-322.7	1,820.2	1,782.2	38.06	47.827	
6,594.5	6,510.7	7,211.7	6,779.3	17.5	22.4	-94.57	-2,284.6	-362.2	1,814.3	1,776.5	37.83	47.958	
6,600.0	6,515.0	7,207.0	6,778.8	17.6	22.3	-94.50	-2,284.6	-366.9	1,813.7	1,775.9	37.81	47.973	
6,650.0	6,553.3	7,166.0	6,773.8	17.9	21.8	-93.85	-2,284.6	-407.6	1,808.1	1,770.4	37.68	47.982	
6,692.9	6,584.3	7,132.8	6,768.0	18.2	21.5	-93.30	-2,284.6	-440.2	1,804.1	1,766.4	37.68	47.883	
6,700.0	6,589.2	7,127.5	6,766.9	18.2	21.5	-93.20	-2,284.6	-445.4	1,803.5	1,765.8	37.68	47.862	
6,750.0	6,622.7	7,090.9	6,758.6	18.6	21.1	-92.53	-2,284.6	-481.0	1,799.9	1,762.1	37.80	47.622	
6,791.3	6,648.3	7,061.8	6,750.6	19.0	20.9	-91.96	-2,284.6	-509.0	1,797.6	1,759.7	37.99	47.319	
6,800.0	6,653.4	7,055.8	6,748.8	19.1	20.9	-91.84	-2,284.6	-514.7	1,797.3	1,759.2	38.03	47.257	
6,850.0	6,681.4	7,022.0	6,737.9	19.6	20.7	-91.12	-2,284.6	-546.7	1,795.5	1,757.1	38.39	46.768	
6,889.7	6,701.5	6,995.8	6,728.4	20.1	20.5	-90.52	-2,284.6	-571.1	1,794.8	1,756.1	38.76	46.309	
6,900.0	6,706.3	6,989.2	6,725.8	20.2	20.5	-90.36	-2,284.6	-577.3	1,794.7	1,755.9	38.86	46.183	
6,923.2	6,716.9	6,974.2	6,719.9	20.5	20.4	-90.00	-2,284.6	-591.0	1,794.6	1,755.5	39.13	45.863 CC	
6,950.0	6,728.2	6,957.2	6,712.7	20.9	20.3	-89.57	-2,284.6	-606.5	1,794.8	1,755.3	39.44	45.502 ES	
6,988.2	6,742.8	6,933.2	6,702.1	21.5	20.3	-88.95	-2,284.6	-627.9	1,795.3	1,755.3	39.97	44.916	

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 SCHAUMBERG 17G-314
<b>Project:</b>	WELD COUNTY, COLORADO	<b>TVD Reference:</b>	KB-EST @ 4633.0usft (Original Well Elev)
<b>Reference Site:</b>	SW NW SEC. 17 T5N R64W 6th P.M.	<b>MD Reference:</b>	KB-EST @ 4633.0usft (Original Well Elev)
<b>Site Error:</b>	0.0 usft	<b>North Reference:</b>	True
<b>Reference Well:</b>	SCHAUMBERG 17G-314	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Well Error:</b>	0.0 usft	<b>Output errors are at</b>	2.00 sigma
<b>Reference Wellbore</b>	ORIGINAL WELLBORE	<b>Database:</b>	EDM 5000.1 Single User Db
<b>Reference Design:</b>	PROPOSAL #1	<b>Offset TVD Reference:</b>	Offset Datum

Offset Design NW SW SEC. 17 T5N R64W 6th P.M. - CECIL'S KERSEY FARM 17B-302 - ORIGINAL WELLBORE - P												Offset Site Error:	0.0 usft
Survey Program: 0-MWMD												Offset Well Error:	0.0 usft
Reference		Offset		Semi Major Axis			Distance						Warning
Measured Depth (usft)	Vertical Depth (usft)	Measured Depth (usft)	Vertical Depth (usft)	Reference (usft)	Offset (usft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (usft)	+E/-W (usft)	Between Centres (usft)	Between Ellipses (usft)	Minimum Separation (usft)	Separation Factor	
7,000.0	6,746.9	6,925.8	6,698.7	21.6	20.2	-88.76	-2,284.6	-634.4	1,795.6	1,755.4	40.14	44.735	
7,050.0	6,762.4	6,895.1	6,683.7	22.5	20.1	-87.92	-2,284.6	-661.3	1,797.1	1,756.2	40.92	43.917	
7,086.6	6,771.5	6,872.9	6,672.2	23.1	20.1	-87.28	-2,284.6	-680.2	1,798.7	1,757.1	41.57	43.272	
7,100.0	6,774.4	6,864.9	6,667.9	23.3	20.1	-87.05	-2,284.6	-687.0	1,799.4	1,757.6	41.80	43.042	
7,150.0	6,783.1	6,835.0	6,651.2	24.3	20.1	-86.16	-2,284.6	-711.8	1,802.2	1,759.4	42.76	42.145	
7,185.0	6,787.1	6,814.3	6,639.0	25.0	20.0	-85.53	-2,284.6	-728.5	1,804.5	1,761.1	43.48	41.505	
7,200.0	6,788.3	6,805.6	6,633.7	25.3	20.0	-85.26	-2,284.6	-735.5	1,805.6	1,761.8	43.78	41.239	
7,252.3	6,790.0	6,775.0	6,614.6	26.3	20.0	-84.31	-2,284.6	-759.3	1,809.7	1,764.8	44.92	40.287	
7,283.4	6,789.9	6,757.4	6,603.1	27.0	20.1	-83.94	-2,284.6	-772.7	1,812.4	1,766.8	45.59	39.755	
7,300.0	6,789.8	6,750.0	6,598.2	27.3	20.1	-83.79	-2,284.6	-778.2	1,813.9	1,768.0	45.95	39.480	
7,381.9	6,789.5	6,700.0	6,563.5	29.1	20.1	-82.70	-2,284.6	-814.2	1,823.0	1,775.3	47.79	38.148	
7,400.0	6,789.4	6,700.0	6,563.5	29.5	20.1	-82.70	-2,284.6	-814.2	1,825.3	1,777.1	48.20	37.869	
7,480.3	6,789.1	6,661.4	6,535.0	31.4	20.2	-81.81	-2,284.6	-840.2	1,837.1	1,787.0	50.08	36.681	
7,500.0	6,789.1	6,650.0	6,526.3	31.8	20.2	-81.54	-2,284.6	-847.6	1,840.3	1,789.8	50.54	36.413	
7,578.7	6,788.8	6,622.2	6,504.7	33.7	20.3	-80.87	-2,284.6	-865.1	1,854.8	1,802.3	52.43	35.376	
7,600.0	6,788.7	6,614.4	6,498.5	34.2	20.3	-80.68	-2,284.6	-869.8	1,859.1	1,806.2	52.94	35.118	
7,677.1	6,788.4	6,587.9	6,477.1	36.1	20.3	-80.01	-2,284.6	-885.4	1,876.3	1,821.5	54.81	34.230	
7,700.0	6,788.3	6,580.5	6,471.0	36.7	20.3	-79.83	-2,284.6	-889.6	1,881.8	1,826.5	55.37	33.987	
7,775.6	6,788.0	6,550.0	6,445.5	38.6	20.4	-79.04	-2,284.6	-906.4	1,901.7	1,844.5	57.21	33.240	
7,800.0	6,787.9	6,550.0	6,445.5	39.2	20.4	-79.04	-2,284.6	-906.4	1,908.6	1,850.8	57.82	33.008	
7,874.0	6,787.6	6,530.9	6,429.1	41.0	20.4	-78.54	-2,284.6	-916.3	1,931.0	1,871.3	59.66	32.368	
7,900.0	6,787.6	6,524.3	6,423.5	41.7	20.5	-78.37	-2,284.6	-919.6	1,939.4	1,879.1	60.30	32.163	
7,972.4	6,787.3	6,500.0	6,402.2	43.6	20.5	-77.72	-2,284.6	-931.4	1,964.2	1,902.1	62.08	31.638	
8,000.0	6,787.2	6,500.0	6,402.2	44.3	20.5	-77.72	-2,284.6	-931.4	1,974.1	1,911.3	62.78	31.443	
8,070.8	6,786.9	6,485.9	6,389.7	46.1	20.5	-77.34	-2,284.6	-937.9	2,001.1	1,936.5	64.56	30.996	
8,100.0	6,786.8	6,480.1	6,384.5	46.9	20.6	-77.18	-2,284.6	-940.5	2,012.7	1,947.4	65.29	30.829	
8,169.3	6,786.5	6,466.9	6,372.6	48.7	20.6	-76.82	-2,284.6	-946.2	2,041.6	1,974.6	67.03	30.460	
8,200.0	6,786.4	6,450.0	6,357.3	49.5	20.6	-76.36	-2,284.6	-953.3	2,055.1	1,987.3	67.75	30.335	
8,267.7	6,786.1	6,450.0	6,357.3	51.3	20.6	-76.36	-2,284.6	-953.3	2,085.7	2,016.2	69.50	30.009	
8,300.0	6,786.0	6,450.0	6,357.3	52.1	20.6	-76.36	-2,284.6	-953.3	2,100.9	2,030.5	70.34	29.867	
8,366.1	6,785.8	6,434.3	6,342.9	53.9	20.7	-75.92	-2,284.6	-959.5	2,133.0	2,061.1	71.98	29.633	
8,400.0	6,785.6	6,429.3	6,338.3	54.8	20.7	-75.79	-2,284.6	-961.4	2,150.1	2,077.3	72.84	29.520	
8,464.5	6,785.4	6,420.3	6,329.9	56.5	20.7	-75.54	-2,284.6	-964.8	2,183.6	2,109.1	74.47	29.322	
8,500.0	6,785.3	6,400.0	6,310.9	57.5	20.7	-74.97	-2,284.6	-972.0	2,202.7	2,127.4	75.27	29.265	
8,563.0	6,785.0	6,400.0	6,310.9	59.2	20.7	-74.97	-2,284.6	-972.0	2,237.1	2,160.2	76.91	29.086	
8,600.0	6,784.9	6,400.0	6,310.9	60.2	20.7	-74.97	-2,284.6	-972.0	2,257.9	2,180.0	77.88	28.992	
8,661.4	6,784.6	6,400.0	6,310.9	61.8	20.7	-74.97	-2,284.6	-972.0	2,293.4	2,213.9	79.49	28.850	
8,700.0	6,784.5	6,400.0	6,310.9	62.9	20.7	-74.97	-2,284.6	-972.0	2,316.2	2,235.7	80.51	28.770	
8,759.8	6,784.3	6,400.0	6,310.9	64.5	20.7	-74.97	-2,284.6	-972.0	2,352.4	2,270.3	82.08	28.659	
8,800.0	6,784.1	6,381.0	6,292.9	65.6	20.7	-74.44	-2,284.6	-978.3	2,377.0	2,294.0	82.99	28.643	
8,858.2	6,783.9	6,375.2	6,287.5	67.1	20.8	-74.27	-2,284.6	-980.1	2,413.6	2,329.1	84.47	28.573	
8,900.0	6,783.7	6,371.3	6,283.7	68.3	20.8	-74.16	-2,284.6	-981.3	2,440.3	2,354.8	85.54	28.530	
8,956.7	6,783.5	6,350.0	6,263.4	69.8	20.8	-73.56	-2,284.6	-987.5	2,477.4	2,390.6	86.83	28.531	
9,000.0	6,783.3	6,350.0	6,263.4	71.0	20.8	-73.56	-2,284.6	-987.5	2,506.0	2,418.0	87.97	28.486	
9,055.1	6,783.1	6,350.0	6,263.4	72.5	20.8	-73.56	-2,284.6	-987.5	2,543.0	2,453.6	89.42	28.438	
9,100.0	6,782.9	6,350.0	6,263.4	73.7	20.8	-73.56	-2,284.6	-987.5	2,573.6	2,483.0	90.61	28.404	
9,153.5	6,782.7	6,350.0	6,263.4	75.2	20.8	-73.56	-2,284.6	-987.5	2,610.6	2,518.6	92.02	28.371	
9,200.0	6,782.6	6,350.0	6,263.4	76.5	20.8	-73.56	-2,284.6	-987.5	2,643.3	2,550.0	93.25	28.347	
9,251.9	6,782.4	6,350.0	6,263.4	77.9	20.8	-73.56	-2,284.6	-987.5	2,680.2	2,585.6	94.62	28.326	
9,300.0	6,782.2	6,350.0	6,263.4	79.2	20.8	-73.56	-2,284.6	-987.5	2,714.8	2,618.9	95.89	28.312	
9,350.4	6,782.0	6,350.0	6,263.4	80.6	20.8	-73.56	-2,284.6	-987.5	2,751.5	2,654.3	97.22	28.301	
9,400.0	6,781.8	6,350.0	6,263.4	82.0	20.8	-73.56	-2,284.6	-987.5	2,788.1	2,689.6	98.54	28.295 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 SCHAUMBERG 17G-314
<b>Project:</b>	WELD COUNTY, COLORADO	<b>TVD Reference:</b>	KB-EST @ 4633.0usft (Original Well Elev)
<b>Reference Site:</b>	SW NW SEC. 17 T5N R64W 6th P.M.	<b>MD Reference:</b>	KB-EST @ 4633.0usft (Original Well Elev)
<b>Site Error:</b>	0.0 usft	<b>North Reference:</b>	True
<b>Reference Well:</b>	SCHAUMBERG 17G-314	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Well Error:</b>	0.0 usft	<b>Output errors are at</b>	2.00 sigma
<b>Reference Wellbore</b>	ORIGINAL WELLBORE	<b>Database:</b>	EDM 5000.1 Single User Db
<b>Reference Design:</b>	PROPOSAL #1	<b>Offset TVD Reference:</b>	Offset Datum

Offset Design												Offset Site Error:	0.0 usft
Survey Program: 0-MWMD												Offset Well Error:	0.0 usft
Reference		Offset		Semi Major Axis			Distance						Warning
Measured Depth (usft)	Vertical Depth (usft)	Measured Depth (usft)	Vertical Depth (usft)	Reference (usft)	Offset (usft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (usft)	+E/-W (usft)	Between Centres (usft)	Between Ellipses (usft)	Minimum Separation (usft)	Separation Factor	
9,448.8	6,781.6	6,329.5	6,243.6	83.3	20.8	-72.98	-2,284.6	-992.8	2,824.2	2,724.6	99.59	28.360	
9,500.0	6,781.4	6,326.3	6,240.5	84.7	20.8	-72.89	-2,284.6	-993.6	2,862.7	2,761.8	100.90	28.371	
9,547.2	6,781.2	6,323.5	6,237.8	86.0	20.8	-72.82	-2,284.6	-994.3	2,898.5	2,796.3	102.11	28.385	
9,600.0	6,781.0	6,320.5	6,234.9	87.5	20.8	-72.73	-2,284.6	-995.0	2,938.8	2,835.4	103.47	28.403	
9,645.6	6,780.8	6,300.0	6,214.9	88.7	20.8	-72.15	-2,284.6	-999.6	2,974.3	2,869.9	104.40	28.489	
9,700.0	6,780.6	6,300.0	6,214.9	90.2	20.8	-72.15	-2,284.6	-999.6	3,016.5	2,910.7	105.84	28.502	
9,744.1	6,780.4	6,300.0	6,214.9	91.4	20.8	-72.15	-2,284.6	-999.6	3,051.1	2,944.1	107.00	28.514	
9,800.0	6,780.2	6,300.0	6,214.9	93.0	20.8	-72.15	-2,284.6	-999.6	3,095.2	2,986.8	108.48	28.533	
9,842.5	6,780.1	6,300.0	6,214.9	94.2	20.8	-72.15	-2,284.6	-999.6	3,129.0	3,019.4	109.60	28.549	
9,900.0	6,779.8	6,300.0	6,214.9	95.7	20.8	-72.15	-2,284.6	-999.6	3,175.1	3,064.0	111.12	28.573	
9,940.9	6,779.7	6,300.0	6,214.9	96.9	20.8	-72.15	-2,284.6	-999.6	3,208.1	3,095.9	112.20	28.592	
10,000.0	6,779.4	6,300.0	6,214.9	98.5	20.8	-72.15	-2,284.6	-999.6	3,256.1	3,142.4	113.77	28.621	
10,039.3	6,779.3	6,300.0	6,214.9	99.6	20.8	-72.15	-2,284.6	-999.6	3,288.3	3,173.5	114.81	28.641	
10,100.0	6,779.0	6,300.0	6,214.9	101.3	20.8	-72.15	-2,284.6	-999.6	3,338.2	3,221.7	116.41	28.675	
10,137.8	6,778.9	6,300.0	6,214.9	102.3	20.8	-72.15	-2,284.6	-999.6	3,369.4	3,252.0	117.42	28.696	
10,200.0	6,778.7	6,300.0	6,214.9	104.1	20.8	-72.15	-2,284.6	-999.6	3,421.2	3,302.1	119.06	28.734	
10,236.2	6,778.5	6,300.0	6,214.9	105.1	20.8	-72.15	-2,284.6	-999.6	3,451.4	3,331.4	120.02	28.756	
10,300.0	6,778.3	6,300.0	6,214.9	106.8	20.8	-72.15	-2,284.6	-999.6	3,505.0	3,383.3	121.72	28.797	
10,334.6	6,778.1	6,300.0	6,214.9	107.8	20.8	-72.15	-2,284.6	-999.6	3,534.3	3,411.6	122.63	28.820	
10,400.0	6,777.9	6,300.0	6,214.9	109.6	20.8	-72.15	-2,284.6	-999.6	3,589.7	3,465.4	124.37	28.864	
10,433.0	6,777.7	6,300.0	6,214.9	110.5	20.8	-72.15	-2,284.6	-999.6	3,617.9	3,492.7	125.25	28.886	
10,500.0	6,777.5	6,300.0	6,214.9	112.4	20.8	-72.15	-2,284.6	-999.6	3,675.2	3,548.2	127.02	28.933	
10,531.5	6,777.3	6,300.0	6,214.9	113.3	20.8	-72.15	-2,284.6	-999.6	3,702.3	3,574.4	127.86	28.956	
10,600.0	6,777.1	6,277.8	6,193.1	115.2	20.9	-71.52	-2,284.6	-1,003.8	3,761.0	3,631.7	129.27	29.094	
10,629.9	6,777.0	6,276.8	6,192.1	116.0	20.9	-71.49	-2,284.6	-1,004.0	3,786.9	3,656.8	130.05	29.119	
10,700.0	6,776.7	6,274.6	6,190.0	117.9	20.9	-71.43	-2,284.6	-1,004.4	3,847.8	3,715.9	131.86	29.180	
10,728.3	6,776.6	6,273.8	6,189.1	118.7	20.9	-71.40	-2,284.6	-1,004.6	3,872.4	3,739.9	132.59	29.205	
10,800.0	6,776.3	6,271.6	6,187.0	120.7	20.9	-71.34	-2,284.6	-1,004.9	3,935.1	3,800.7	134.45	29.268	
10,826.7	6,776.2	6,270.8	6,186.2	121.5	20.9	-71.32	-2,284.6	-1,005.0	3,958.6	3,823.4	135.14	29.292	
10,900.0	6,775.9	6,250.0	6,165.7	123.5	20.9	-70.73	-2,284.6	-1,008.3	4,023.3	3,886.7	136.66	29.441	
10,925.2	6,775.8	6,250.0	6,165.7	124.2	20.9	-70.73	-2,284.6	-1,008.3	4,045.5	3,908.2	137.32	29.460	
11,000.0	6,775.5	6,250.0	6,165.7	126.3	20.9	-70.73	-2,284.6	-1,008.3	4,111.7	3,972.4	139.30	29.517	
11,023.6	6,775.4	6,250.0	6,165.7	126.9	20.9	-70.73	-2,284.6	-1,008.3	4,132.7	3,992.7	139.92	29.535	
11,100.0	6,775.1	6,250.0	6,165.7	129.1	20.9	-70.73	-2,284.6	-1,008.3	4,200.6	4,058.7	141.94	29.595	
11,122.0	6,775.0	6,250.0	6,165.7	129.7	20.9	-70.73	-2,284.6	-1,008.3	4,220.3	4,077.8	142.52	29.612	
11,200.0	6,774.7	6,250.0	6,165.7	131.9	20.9	-70.73	-2,284.6	-1,008.3	4,290.1	4,145.5	144.58	29.672	
11,220.4	6,774.6	6,250.0	6,165.7	132.4	20.9	-70.73	-2,284.6	-1,008.3	4,308.4	4,163.3	145.12	29.688	
11,300.0	6,774.3	6,250.0	6,165.7	134.6	20.9	-70.73	-2,284.6	-1,008.3	4,379.9	4,232.7	147.22	29.750	
11,318.9	6,774.2	6,250.0	6,165.7	135.2	20.9	-70.73	-2,284.6	-1,008.3	4,396.9	4,249.2	147.72	29.765	
11,400.0	6,773.9	6,250.0	6,165.7	137.4	20.9	-70.73	-2,284.6	-1,008.3	4,470.2	4,320.4	149.87	29.828	
11,417.3	6,773.8	6,250.0	6,165.7	137.9	20.9	-70.73	-2,284.6	-1,008.3	4,485.9	4,335.6	150.32	29.842	
11,500.0	6,773.5	6,250.0	6,165.7	140.2	20.9	-70.73	-2,284.6	-1,008.3	4,560.9	4,408.4	152.51	29.906	
11,515.7	6,773.4	6,250.0	6,165.7	140.7	20.9	-70.73	-2,284.6	-1,008.3	4,575.2	4,422.3	152.93	29.918	
11,600.0	6,773.1	6,250.0	6,165.7	143.0	20.9	-70.73	-2,284.6	-1,008.3	4,652.0	4,496.9	155.15	29.983	
11,614.1	6,773.0	6,250.0	6,165.7	143.4	20.9	-70.73	-2,284.6	-1,008.3	4,664.9	4,509.4	155.53	29.994	
11,700.0	6,772.7	6,250.0	6,165.7	145.8	20.9	-70.73	-2,284.6	-1,008.3	4,743.5	4,585.7	157.80	30.060	
11,712.6	6,772.6	6,250.0	6,165.7	146.2	20.9	-70.73	-2,284.6	-1,008.3	4,755.0	4,596.9	158.13	30.070	
11,800.0	6,772.3	6,250.0	6,165.7	148.6	20.9	-70.73	-2,284.6	-1,008.3	4,835.2	4,674.8	160.44	30.137	
11,811.0	6,772.2	6,250.0	6,165.7	148.9	20.9	-70.73	-2,284.6	-1,008.3	4,845.4	4,684.6	160.74	30.145	
11,900.0	6,771.9	6,250.0	6,165.7	151.4	20.9	-70.73	-2,284.6	-1,008.3	4,927.3	4,764.3	163.09	30.212	
11,909.4	6,771.8	6,250.0	6,165.7	151.7	20.9	-70.73	-2,284.6	-1,008.3	4,936.0	4,772.7	163.34	30.219	
12,000.0	6,771.5	6,250.0	6,165.7	154.2	20.9	-70.72	-2,284.6	-1,008.3	5,019.7	4,854.0	165.74	30.287	

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 SCHAUMBERG 17G-314
<b>Project:</b>	WELD COUNTY, COLORADO	<b>TVD Reference:</b>	KB-EST @ 4633.0usft (Original Well Elev)
<b>Reference Site:</b>	SW NW SEC. 17 T5N R64W 6th P.M.	<b>MD Reference:</b>	KB-EST @ 4633.0usft (Original Well Elev)
<b>Site Error:</b>	0.0 usft	<b>North Reference:</b>	True
<b>Reference Well:</b>	SCHAUMBERG 17G-314	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Well Error:</b>	0.0 usft	<b>Output errors are at</b>	2.00 sigma
<b>Reference Wellbore</b>	ORIGINAL WELLBORE	<b>Database:</b>	EDM 5000.1 Single User Db
<b>Reference Design:</b>	PROPOSAL #1	<b>Offset TVD Reference:</b>	Offset Datum

<b>Offset Design</b> NW SW SEC. 17 T5N R64W 6th P.M. - CECIL'S KERSEY FARM 17B-302 - ORIGINAL WELLBORE - P												<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
12,007.8	6,771.4	6,250.0	6,165.7	154.4	20.9	-70.72	-2,284.6	-1,008.3	5,027.0	4,861.1	165.95	30.293	
12,100.0	6,771.1	6,250.0	6,165.7	157.0	20.9	-70.72	-2,284.6	-1,008.3	5,112.4	4,944.1	168.38	30.362	
12,106.3	6,771.0	6,250.0	6,165.7	157.2	20.9	-70.72	-2,284.6	-1,008.3	5,118.3	4,949.7	168.55	30.366	
12,200.0	6,770.7	6,250.0	6,165.7	159.8	20.9	-70.72	-2,284.6	-1,008.3	5,205.4	5,034.4	171.03	30.435	
12,204.7	6,770.6	6,250.0	6,165.7	159.9	20.9	-70.72	-2,284.6	-1,008.3	5,209.8	5,038.6	171.16	30.439	
12,300.0	6,770.3	6,250.0	6,165.7	162.6	20.9	-70.72	-2,284.6	-1,008.3	5,298.6	5,124.9	173.68	30.508	
12,303.1	6,770.2	6,250.0	6,165.7	162.7	20.9	-70.72	-2,284.6	-1,008.3	5,301.5	5,127.8	173.76	30.510	
12,361.7	6,770.0	6,250.0	6,165.7	164.3	20.9	-70.72	-2,284.6	-1,008.3	5,356.3	5,180.9	175.31	30.552	

# Anticollision Report



<b>Company:</b>	PDC ENERGY	<b>Local Co-ordinate Reference:</b>	Well SCHAUMBERG 17G-314
<b>Project:</b>	WELD COUNTY, COLORADO	<b>TVD Reference:</b>	KB-EST @ 4633.0usft (Original Well Elev)
<b>Reference Site:</b>	SW NW SEC. 17 T5N R64W 6th P.M.	<b>MD Reference:</b>	KB-EST @ 4633.0usft (Original Well Elev)
<b>Site Error:</b>	0.0 usft	<b>North Reference:</b>	True
<b>Reference Well:</b>	SCHAUMBERG 17G-314	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Well Error:</b>	0.0 usft	<b>Output errors are at</b>	2.00 sigma
<b>Reference Wellbore</b>	ORIGINAL WELLBORE	<b>Database:</b>	EDM 5000.1 Single User Db
<b>Reference Design:</b>	PROPOSAL #1	<b>Offset TVD Reference:</b>	Offset Datum

Offset Design												Offset Site Error:	0.0 usft
Survey Program: 0-MW/D												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	3.0	3.0	0.0	0.0	-174.23	-2,035.4	-205.8	2,045.8				
98.4	98.4	101.4	101.4	0.1	0.1	-174.23	-2,035.4	-205.8	2,045.8	2,045.6	0.20	N/A	
100.0	100.0	103.0	103.0	0.1	0.1	-174.23	-2,035.4	-205.8	2,045.8	2,045.6	0.20	N/A	
196.8	196.8	199.8	199.8	0.3	0.3	-174.23	-2,035.4	-205.8	2,045.8	2,045.1	0.64	3,208.254	
200.0	200.0	203.0	203.0	0.3	0.3	-174.23	-2,035.4	-205.8	2,045.8	2,045.1	0.65	3,138.557	
295.3	295.3	298.3	298.3	0.5	0.5	-174.23	-2,035.4	-205.8	2,045.8	2,044.7	1.08	1,894.042	
300.0	300.0	303.0	303.0	0.5	0.6	-174.23	-2,035.4	-205.8	2,045.8	2,044.7	1.10	1,857.514	
393.7	393.7	396.7	396.7	0.8	0.8	-174.23	-2,035.4	-205.8	2,045.8	2,044.3	1.52	1,343.640	
400.0	400.0	403.0	403.0	0.8	0.8	-174.23	-2,035.4	-205.8	2,045.8	2,044.2	1.55	1,319.104	
492.1	492.1	495.1	495.1	1.0	1.0	-174.23	-2,035.4	-205.8	2,045.8	2,043.8	1.97	1,041.100	
500.0	500.0	503.0	503.0	1.0	1.0	-174.23	-2,035.4	-205.8	2,045.8	2,043.8	2.00	1,022.676	
590.5	590.5	593.5	593.5	1.2	1.2	-174.23	-2,035.4	-205.8	2,045.8	2,043.4	2.41	849.764	
600.0	600.0	603.0	603.0	1.2	1.2	-174.23	-2,035.4	-205.8	2,045.8	2,043.3	2.45	835.029	
689.0	689.0	692.0	692.0	1.4	1.4	-174.23	-2,035.4	-205.8	2,045.8	2,042.9	2.85	717.837	
700.0	700.0	703.0	703.0	1.4	1.5	-174.23	-2,035.4	-205.8	2,045.8	2,042.9	2.90	705.567	
787.4	787.4	790.4	790.4	1.6	1.6	-174.23	-2,035.4	-205.8	2,045.8	2,042.5	3.29	621.369	
800.0	800.0	803.0	803.0	1.7	1.7	-174.23	-2,035.4	-205.8	2,045.8	2,042.4	3.35	610.860	
885.8	885.8	888.8	888.8	1.9	1.9	-174.23	-2,035.4	-205.8	2,045.8	2,042.0	3.73	547.758	
900.0	900.0	903.0	903.0	1.9	1.9	-174.23	-2,035.4	-205.8	2,045.8	2,042.0	3.80	538.569	
984.2	984.2	987.2	987.2	2.1	2.1	-174.23	-2,035.4	-205.8	2,045.8	2,041.6	4.18	489.740	
1,000.0	1,000.0	1,003.0	1,003.0	2.1	2.1	-174.23	-2,035.4	-205.8	2,045.8	2,041.5	4.25	481.578	
1,082.7	1,082.7	1,085.7	1,085.7	2.3	2.3	-174.23	-2,035.4	-205.8	2,045.8	2,041.2	4.62	442.835	
1,100.0	1,100.0	1,103.0	1,103.0	2.3	2.4	-174.23	-2,035.4	-205.8	2,045.8	2,041.1	4.70	435.494	
1,134.5	1,134.5	1,137.5	1,137.5	2.4	2.4	-174.23	-2,035.4	-205.8	2,045.8	2,040.9	4.85	421.590	
1,181.1	1,181.1	1,180.8	1,180.8	2.5	2.5	-174.23	-2,035.4	-205.7	2,045.8	2,040.8	5.05	405.153	
1,200.0	1,200.0	1,200.0	1,200.0	2.6	2.6	-174.24	-2,035.5	-205.4	2,045.8	2,040.7	5.13	398.672	
1,279.5	1,279.5	1,269.8	1,269.8	2.7	2.7	-174.29	-2,036.0	-203.4	2,046.2	2,040.7	5.45	375.696	
1,300.0	1,300.0	1,288.3	1,288.2	2.8	2.7	-174.32	-2,036.2	-202.6	2,046.3	2,040.8	5.53	370.147	
1,377.9	1,377.9	1,358.5	1,358.3	3.0	2.9	-174.44	-2,037.3	-198.5	2,047.0	2,041.2	5.85	350.130	
1,400.0	1,400.0	1,378.4	1,378.1	3.0	2.9	-174.48	-2,037.6	-197.0	2,047.3	2,041.4	5.94	344.854	
1,476.4	1,476.4	1,446.9	1,446.3	3.2	3.1	-174.65	-2,039.2	-190.9	2,048.4	2,042.1	6.26	327.451	
1,500.0	1,500.0	1,468.0	1,467.3	3.2	3.1	-174.71	-2,039.7	-188.8	2,048.8	2,042.4	6.35	322.394	
1,574.8	1,574.8	1,534.6	1,533.5	3.4	3.3	-174.94	-2,041.8	-180.9	2,050.2	2,043.6	6.68	307.108	
1,600.0	1,600.0	1,557.0	1,555.6	3.5	3.3	-175.02	-2,042.5	-177.9	2,050.8	2,044.0	6.79	302.211	
1,673.2	1,673.2	1,621.7	1,619.5	3.6	3.5	-175.30	-2,045.0	-168.3	2,052.6	2,045.5	7.11	288.671	
1,700.0	1,700.0	1,645.2	1,642.7	3.7	3.6	-175.40	-2,045.9	-164.5	2,053.4	2,046.2	7.23	283.880	
1,771.6	1,771.6	1,707.9	1,704.3	3.9	3.7	-175.72	-2,048.7	-153.4	2,055.7	2,048.1	7.56	271.845	
1,800.0	1,800.0	1,732.5	1,728.5	3.9	3.8	-175.85	-2,049.9	-148.6	2,056.7	2,049.0	7.70	267.198	
1,870.1	1,870.1	1,798.8	1,793.3	4.1	4.0	-17.42	-2,053.3	-135.3	2,058.5	2,050.4	8.09	254.598	
1,900.0	1,900.0	1,828.0	1,821.9	4.1	4.1	-17.59	-2,054.8	-129.5	2,058.8	2,050.6	8.24	249.766	
1,968.5	1,968.4	1,894.8	1,887.3	4.2	4.4	-18.00	-2,058.3	-116.0	2,058.5	2,049.9	8.59	239.757	
2,000.0	1,999.8	1,925.5	1,917.3	4.3	4.5	-18.19	-2,059.8	-109.8	2,057.9	2,049.2	8.75	235.290	
2,066.9	2,066.5	1,990.6	1,981.0	4.4	4.7	-18.62	-2,063.2	-96.7	2,055.6	2,046.5	9.09	226.141	
2,100.0	2,099.5	2,022.8	2,012.4	4.5	4.9	-18.84	-2,064.8	-90.2	2,053.9	2,044.6	9.26	221.792	
2,165.3	2,164.4	2,086.1	2,074.3	4.6	5.1	-19.30	-2,068.1	-77.5	2,049.6	2,040.0	9.60	213.485	
2,200.0	2,198.7	2,119.5	2,107.1	4.7	5.2	-19.55	-2,069.8	-70.7	2,046.9	2,037.1	9.78	209.272	
2,263.8	2,261.8	2,181.0	2,167.2	4.8	5.5	-20.03	-2,072.9	-58.3	2,040.8	2,030.7	10.12	201.746	
2,300.0	2,297.5	2,215.7	2,201.2	4.9	5.6	-20.31	-2,074.7	-51.3	2,036.9	2,026.6	10.30	197.671	
2,362.2	2,358.6	2,275.2	2,259.4	5.0	5.9	-20.81	-2,077.8	-39.3	2,029.2	2,018.5	10.63	190.852	
2,400.0	2,395.6	2,311.2	2,294.6	5.1	6.0	-21.13	-2,079.6	-32.1	2,023.9	2,013.1	10.83	186.898	
2,460.6	2,454.9	2,369.0	2,351.1	5.3	6.2	-21.58	-2,082.6	-20.4	2,015.3	2,004.1	11.19	180.152	
2,500.0	2,493.4	2,406.4	2,387.7	5.4	6.4	-21.88	-2,084.5	-12.9	2,009.8	1,998.3	11.42	176.003	

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 SCHAUMBERG 17G-314
<b>Project:</b>	WELD COUNTY, COLORADO	<b>TVD Reference:</b>	KB-EST @ 4633.0usft (Original Well Elev)
<b>Reference Site:</b>	SW NW SEC. 17 T5N R64W 6th P.M.	<b>MD Reference:</b>	KB-EST @ 4633.0usft (Original Well Elev)
<b>Site Error:</b>	0.0 usft	<b>North Reference:</b>	True
<b>Reference Well:</b>	SCHAUMBERG 17G-314	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Well Error:</b>	0.0 usft	<b>Output errors are at</b>	2.00 sigma
<b>Reference Wellbore</b>	ORIGINAL WELLBORE	<b>Database:</b>	EDM 5000.1 Single User Db
<b>Reference Design:</b>	PROPOSAL #1	<b>Offset TVD Reference:</b>	Offset Datum

Offset Design NW SW SEC. 17 T5N R64W 6th P.M. - CECIL'S KERSEY FARM 17B-304 - ORIGINAL WELLBORE - P													Offset Site Error:	0.0 usft
Survey Program: 0-MWMD													Offset Well Error:	0.0 usft
Reference		Offset		Semi Major Axis			Distance							Warning
Measured Depth (usft)	Vertical Depth (usft)	Measured Depth (usft)	Vertical Depth (usft)	Reference (usft)	Offset (usft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (usft)	+E/-W (usft)	Between Centres (usft)	Between Ellipses (usft)	Minimum Separation (usft)	Separation Factor		
2,559.0	2,551.2	2,462.6	2,442.7	5.6	6.6	-22.33	-2,087.4	-1.6	2,001.6	1,989.8	11.78	169.972		
2,600.0	2,591.3	2,501.6	2,480.8	5.7	6.8	-22.64	-2,089.4	6.3	1,995.9	1,983.9	12.02	166.028		
2,657.5	2,647.5	2,556.3	2,534.3	5.9	7.0	-23.08	-2,092.2	17.3	1,988.2	1,975.8	12.37	160.694		
2,700.0	2,689.1	2,596.7	2,573.9	6.0	7.2	-23.41	-2,094.2	25.4	1,982.5	1,969.9	12.64	156.887		
2,755.9	2,743.7	2,649.9	2,625.9	6.2	7.4	-23.85	-2,097.0	36.2	1,975.2	1,962.2	12.99	152.105		
2,800.0	2,786.9	2,691.9	2,666.9	6.4	7.6	-24.20	-2,099.1	44.6	1,969.5	1,956.2	13.26	148.506		
2,854.3	2,840.0	2,743.6	2,717.5	6.6	7.8	-24.62	-2,101.8	55.0	1,962.6	1,948.9	13.61	144.238		
2,900.0	2,884.7	2,787.1	2,760.0	6.7	8.0	-24.99	-2,104.0	63.8	1,956.8	1,942.9	13.90	140.812		
2,952.7	2,936.3	2,837.3	2,809.1	6.9	8.3	-25.41	-2,106.6	73.9	1,950.3	1,936.1	14.24	137.003		
3,000.0	2,982.5	2,882.2	2,853.1	7.1	8.5	-25.79	-2,108.9	83.0	1,944.6	1,930.0	14.54	133.741		
3,051.2	3,032.6	2,930.9	2,900.7	7.3	8.7	-26.20	-2,111.4	92.8	1,938.5	1,923.6	14.87	130.338		
3,100.0	3,080.3	2,977.4	2,946.2	7.5	8.9	-26.60	-2,113.8	102.1	1,932.8	1,917.6	15.19	127.231		
3,149.6	3,128.8	3,024.6	2,992.3	7.7	9.1	-27.00	-2,116.2	111.7	1,927.0	1,911.5	15.52	124.190		
3,200.0	3,178.1	3,072.5	3,039.2	7.9	9.3	-27.41	-2,118.6	121.3	1,921.3	1,905.5	15.85	121.228		
3,248.0	3,225.1	3,118.2	3,083.9	8.1	9.5	-27.81	-2,121.0	130.5	1,916.0	1,899.8	16.17	118.509		
3,300.0	3,276.0	3,167.7	3,132.3	8.3	9.7	-28.24	-2,123.5	140.5	1,910.4	1,893.8	16.51	115.685		
3,346.4	3,321.4	3,211.9	3,175.6	8.5	9.9	-28.63	-2,125.8	149.4	1,905.4	1,888.6	16.82	113.252		
3,400.0	3,373.8	3,262.8	3,225.4	8.7	10.1	-29.08	-2,128.4	159.7	1,899.8	1,882.6	17.18	110.557		
3,444.9	3,417.7	3,305.5	3,267.2	8.8	10.3	-29.46	-2,130.6	168.3	1,895.2	1,877.7	17.49	108.380		
3,500.0	3,471.6	3,358.0	3,318.5	9.1	10.6	-29.92	-2,133.3	178.8	1,889.7	1,871.8	17.86	105.808		
3,543.3	3,513.9	3,399.2	3,358.8	9.2	10.7	-30.29	-2,135.4	187.1	1,885.5	1,867.3	18.15	103.859		
3,600.0	3,569.4	3,453.2	3,411.6	9.5	11.0	-30.77	-2,138.1	198.0	1,880.0	1,861.5	18.54	101.401		
3,641.7	3,610.2	3,492.9	3,450.4	9.7	11.2	-31.13	-2,140.2	206.0	1,876.1	1,857.3	18.83	99.655		
3,700.0	3,667.2	3,548.3	3,504.6	9.9	11.4	-31.63	-2,143.0	217.2	1,870.8	1,851.6	19.23	97.306		
3,740.1	3,706.5	3,586.5	3,542.0	10.1	11.6	-31.98	-2,145.0	224.9	1,867.3	1,847.8	19.50	95.743		
3,800.0	3,765.0	3,643.5	3,597.7	10.3	11.8	-32.50	-2,147.9	236.4	1,862.1	1,842.2	19.92	93.497		
3,838.6	3,802.8	3,680.2	3,633.6	10.5	12.0	-32.84	-2,149.8	243.8	1,858.8	1,838.7	20.18	92.098		
3,900.0	3,862.8	3,738.6	3,690.8	10.7	12.3	-33.38	-2,152.8	255.5	1,853.8	1,833.2	20.61	89.949		
3,937.0	3,899.0	3,773.8	3,725.2	10.9	12.4	-33.70	-2,154.6	262.6	1,850.9	1,830.0	20.87	88.697		
4,000.0	3,960.7	3,833.8	3,783.9	11.2	12.7	-34.26	-2,157.7	274.7	1,846.0	1,824.7	21.31	86.639		
4,035.4	3,995.3	3,867.5	3,816.8	11.3	12.9	-34.57	-2,159.4	281.5	1,843.4	1,821.8	21.56	85.519		
4,100.0	4,058.5	3,928.9	3,876.9	11.6	13.1	-35.15	-2,162.5	293.9	1,838.7	1,816.7	22.01	83.548		
4,133.8	4,091.6	3,961.1	3,908.4	11.7	13.3	-35.45	-2,164.2	300.4	1,836.3	1,814.1	22.25	82.548		
4,200.0	4,156.3	4,024.1	3,970.0	12.0	13.6	-36.04	-2,167.4	313.1	1,831.9	1,809.2	22.71	80.659		
4,232.3	4,187.9	4,054.8	4,000.1	12.2	13.7	-36.33	-2,169.0	319.2	1,829.8	1,806.8	22.94	79.766		
4,300.0	4,254.1	4,119.2	4,063.1	12.5	14.0	-36.94	-2,172.3	332.2	1,825.5	1,802.1	23.42	77.956		
4,325.7	4,279.2	4,152.1	4,095.2	12.6	14.1	-37.25	-2,174.0	338.7	1,823.9	1,800.3	23.62	77.223		
4,330.7	4,284.1	4,159.2	4,102.2	12.6	14.2	-37.31	-2,174.3	340.1	1,823.6	1,800.0	23.66	77.068		
4,400.0	4,352.1	4,258.7	4,200.0	12.8	14.5	-38.11	-2,178.7	357.4	1,819.4	1,795.2	24.22	75.126		
4,429.1	4,380.8	4,301.0	4,241.9	12.9	14.6	-38.41	-2,180.3	363.8	1,817.7	1,793.3	24.43	74.414		
4,500.0	4,450.7	4,405.3	4,345.3	13.1	14.9	-39.05	-2,183.7	376.9	1,813.7	1,788.8	24.90	72.842		
4,527.5	4,478.0	4,446.2	4,386.0	13.2	15.0	-39.26	-2,184.7	381.1	1,812.2	1,787.1	25.06	72.301		
4,600.0	4,549.9	4,554.8	4,494.2	13.4	15.2	-39.72	-2,186.8	389.4	1,808.2	1,782.7	25.48	70.972		
4,626.0	4,575.7	4,594.0	4,533.3	13.5	15.3	-39.84	-2,187.3	391.4	1,806.7	1,781.1	25.61	70.539		
4,700.0	4,649.4	4,706.1	4,645.4	13.6	15.4	-40.08	-2,188.1	394.3	1,802.6	1,776.6	25.96	69.431		
4,724.4	4,673.7	4,737.4	4,676.7	13.7	15.5	-40.11	-2,188.1	394.4	1,801.2	1,775.2	26.06	69.127		
4,800.0	4,749.2	4,812.9	4,752.2	13.8	15.6	-40.15	-2,188.1	394.4	1,797.9	1,771.6	26.32	68.321		
4,822.8	4,772.0	4,835.7	4,775.0	13.9	15.6	-40.16	-2,188.1	394.4	1,797.3	1,770.9	26.39	68.105		
4,900.0	4,849.2	4,912.9	4,852.2	14.0	15.7	-40.18	-2,188.1	394.4	1,795.9	1,769.3	26.63	67.436		
4,921.2	4,870.4	4,934.1	4,873.4	14.1	15.8	-40.18	-2,188.1	394.4	1,795.8	1,769.1	26.69	67.274		
4,925.6	4,874.8	4,938.5	4,877.8	14.1	15.8	161.01	-2,188.1	394.4	1,795.8	1,770.3	25.54	70.313		
5,000.0	4,949.2	5,012.9	4,952.2	14.2	15.9	161.01	-2,188.1	394.4	1,795.8	1,770.1	25.79	69.635		

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 SCHAUMBERG 17G-314
<b>Project:</b>	WELD COUNTY, COLORADO	<b>TVD Reference:</b>	KB-EST @ 4633.0usft (Original Well Elev)
<b>Reference Site:</b>	SW NW SEC. 17 T5N R64W 6th P.M.	<b>MD Reference:</b>	KB-EST @ 4633.0usft (Original Well Elev)
<b>Site Error:</b>	0.0 usft	<b>North Reference:</b>	True
<b>Reference Well:</b>	SCHAUMBERG 17G-314	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Well Error:</b>	0.0 usft	<b>Output errors are at</b>	2.00 sigma
<b>Reference Wellbore</b>	ORIGINAL WELLBORE	<b>Database:</b>	EDM 5000.1 Single User Db
<b>Reference Design:</b>	PROPOSAL #1	<b>Offset TVD Reference:</b>	Offset Datum

Offset Design												Offset Site Error:	0.0 usft
Survey Program: 0-MWMD												Offset Well Error:	0.0 usft
Reference		Offset		Semi Major Axis			Distance						Warning
Measured Depth (usft)	Vertical Depth (usft)	Measured Depth (usft)	Vertical Depth (usft)	Reference (usft)	Offset (usft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (usft)	+E/-W (usft)	Between Centres (usft)	Between Ellipses (usft)	Minimum Separation (usft)	Separation Factor	
5,019.7	4,968.8	5,032.5	4,971.8	14.2	15.9	161.01	-2,188.1	394.4	1,795.8	1,770.0	25.85	69.459	
5,100.0	5,049.2	5,112.9	5,052.2	14.3	16.0	161.01	-2,188.1	394.4	1,795.8	1,769.7	26.12	68.747	
5,118.1	5,067.3	5,131.0	5,070.3	14.3	16.0	161.01	-2,188.1	394.4	1,795.8	1,769.7	26.18	68.587	
5,200.0	5,149.2	5,212.9	5,152.2	14.5	16.2	161.01	-2,188.1	394.4	1,795.8	1,769.4	26.46	67.872	
5,216.5	5,165.7	5,229.4	5,168.7	14.5	16.2	161.01	-2,188.1	394.4	1,795.8	1,769.3	26.52	67.729	
5,300.0	5,249.2	5,312.9	5,252.2	14.6	16.3	161.01	-2,188.1	394.4	1,795.8	1,769.0	26.80	67.011	
5,314.9	5,264.1	5,327.8	5,267.1	14.6	16.3	161.01	-2,188.1	394.4	1,795.8	1,769.0	26.85	66.883	
5,400.0	5,349.2	5,412.9	5,352.2	14.8	16.5	161.01	-2,188.1	394.4	1,795.8	1,768.7	27.14	66.164	
5,413.4	5,362.5	5,426.2	5,365.5	14.8	16.5	161.01	-2,188.1	394.4	1,795.8	1,768.7	27.19	66.052	
5,500.0	5,449.2	5,512.9	5,452.2	14.9	16.6	161.01	-2,188.1	394.4	1,795.8	1,768.4	27.49	65.331	
5,511.8	5,461.0	5,524.7	5,464.0	14.9	16.6	161.01	-2,188.1	394.4	1,795.8	1,768.3	27.53	65.233	
5,600.0	5,549.2	5,612.9	5,552.2	15.1	16.8	161.01	-2,188.1	394.4	1,795.8	1,768.0	27.84	64.511	
5,610.2	5,559.4	5,623.1	5,562.4	15.1	16.8	161.01	-2,188.1	394.4	1,795.8	1,768.0	27.87	64.428	
5,700.0	5,649.2	5,712.9	5,652.2	15.2	16.9	161.01	-2,188.1	394.4	1,795.8	1,767.7	28.19	63.706	
5,708.6	5,657.8	5,721.5	5,660.8	15.3	16.9	161.01	-2,188.1	394.4	1,795.8	1,767.6	28.22	63.637	
5,800.0	5,749.2	5,812.9	5,752.2	15.4	17.1	161.01	-2,188.1	394.4	1,795.8	1,767.3	28.54	62.914	
5,807.1	5,756.2	5,819.9	5,759.2	15.4	17.1	161.01	-2,188.1	394.4	1,795.8	1,767.3	28.57	62.858	
5,900.0	5,849.2	5,912.9	5,852.2	15.6	17.2	161.01	-2,188.1	394.4	1,795.8	1,766.9	28.90	62.136	
5,905.5	5,854.7	5,918.4	5,857.7	15.6	17.2	161.01	-2,188.1	394.4	1,795.8	1,766.9	28.92	62.094	
6,000.0	5,949.2	6,012.9	5,952.2	15.7	17.4	161.01	-2,188.1	394.4	1,795.8	1,766.6	29.26	61.372	
6,003.9	5,953.1	6,016.8	5,956.1	15.7	17.4	161.01	-2,188.1	394.4	1,795.8	1,766.6	29.28	61.342	
6,100.0	6,049.2	6,112.9	6,052.2	15.9	17.5	161.01	-2,188.1	394.4	1,795.8	1,766.2	29.62	60.621	
6,102.3	6,051.5	6,115.2	6,054.5	15.9	17.5	161.01	-2,188.1	394.4	1,795.8	1,766.2	29.63	60.604	
6,124.6	6,073.8	6,141.9	6,081.2	15.9	17.6	161.01	-2,188.1	394.3	1,795.8	1,766.1	29.72	60.423	
6,150.0	6,099.2	6,278.3	6,216.7	16.0	17.7	-108.69	-2,188.1	380.4	1,795.1	1,764.2	30.96	57.976	
6,200.0	6,149.0	6,251.5	6,442.6	16.1	17.5	-106.87	-2,188.1	293.3	1,790.4	1,759.5	30.92	57.909	
6,200.8	6,149.8	6,524.9	6,445.5	16.1	17.4	-106.84	-2,188.1	291.6	1,790.3	1,759.4	30.92	57.907	
6,250.0	6,198.5	6,713.1	6,592.1	16.2	17.4	-104.46	-2,188.1	174.5	1,782.4	1,751.4	31.02	57.457	
6,299.2	6,246.6	6,855.5	6,680.0	16.3	17.7	-102.28	-2,188.1	62.7	1,773.1	1,741.5	31.56	56.178	
6,300.0	6,247.4	6,857.5	6,681.1	16.3	17.7	-102.25	-2,188.1	61.0	1,772.9	1,741.3	31.57	56.150	
6,350.0	6,295.5	6,968.2	6,732.8	16.5	18.4	-100.47	-2,188.1	-36.7	1,762.9	1,730.4	32.47	54.295	
6,397.6	6,340.2	7,052.3	6,761.7	16.6	19.1	-99.11	-2,188.1	-115.6	1,753.4	1,720.0	33.46	52.401	
6,400.0	6,342.4	7,056.1	6,762.7	16.6	19.2	-99.05	-2,188.1	-119.2	1,753.0	1,719.4	33.52	52.303	
6,450.0	6,388.1	7,128.6	6,779.7	16.8	20.0	-97.91	-2,188.1	-189.7	1,743.5	1,708.9	34.63	50.342	
6,496.0	6,428.8	7,186.0	6,788.0	17.0	20.8	-97.03	-2,188.1	-246.5	1,735.5	1,699.8	35.67	48.648	
6,500.0	6,432.2	7,190.6	6,788.5	17.0	20.9	-96.96	-2,188.1	-251.1	1,734.8	1,699.1	35.76	48.512	
6,550.0	6,474.6	7,245.1	6,791.8	17.3	21.7	-96.11	-2,188.1	-305.5	1,726.9	1,690.1	36.89	46.811	
6,594.5	6,510.7	7,279.1	6,792.0	17.5	22.3	-95.69	-2,188.1	-339.4	1,720.8	1,683.0	37.74	45.595	
6,600.0	6,515.0	7,282.4	6,791.9	17.6	22.4	-95.66	-2,188.1	-342.8	1,720.1	1,682.2	37.83	45.465	
6,650.0	6,553.3	7,314.5	6,791.9	17.9	22.9	-95.29	-2,188.1	-374.8	1,714.4	1,675.6	38.77	44.224	
6,692.9	6,584.3	7,344.1	6,791.8	18.2	23.5	-94.89	-2,188.1	-404.4	1,710.4	1,670.7	39.67	43.110	
6,700.0	6,589.2	7,349.1	6,791.8	18.2	23.5	-94.82	-2,188.1	-409.5	1,709.8	1,670.0	39.83	42.929	
6,750.0	6,622.7	7,386.2	6,791.7	18.6	24.2	-94.27	-2,188.1	-446.6	1,706.2	1,665.2	41.00	41.618	
6,791.3	6,648.3	7,418.6	6,791.6	19.0	24.8	-93.78	-2,188.1	-478.9	1,703.9	1,661.8	42.08	40.489	
6,800.0	6,653.4	7,425.6	6,791.6	19.1	25.0	-93.68	-2,188.1	-485.9	1,703.5	1,661.1	42.32	40.253	
6,850.0	6,681.4	7,466.9	6,791.5	19.6	25.8	-93.06	-2,188.1	-527.3	1,701.5	1,657.7	43.78	38.867	
6,889.7	6,701.5	7,501.2	6,791.4	20.1	26.5	-92.56	-2,188.1	-561.5	1,700.3	1,655.3	45.02	37.768	
6,900.0	6,706.3	7,510.2	6,791.3	20.2	26.7	-92.44	-2,188.1	-570.5	1,700.1	1,654.7	45.36	37.483	
6,950.0	6,728.2	7,555.1	6,791.2	20.9	27.6	-91.85	-2,188.1	-615.4	1,699.2	1,652.1	47.09	36.084	
6,988.2	6,742.8	7,590.3	6,791.1	21.5	28.4	-91.43	-2,188.1	-650.6	1,698.7	1,650.2	48.48	35.036	
7,000.0	6,746.9	7,601.4	6,791.1	21.6	28.6	-91.30	-2,188.1	-661.7	1,698.6	1,649.7	48.92	34.721	
7,050.0	6,762.4	7,648.9	6,791.0	22.5	29.7	-90.83	-2,188.1	-709.2	1,698.3	1,647.4	50.89	33.369	

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 SCHAUMBERG 17G-314
<b>Project:</b>	WELD COUNTY, COLORADO	<b>TVD Reference:</b>	KB-EST @ 4633.0usft (Original Well Elev)
<b>Reference Site:</b>	SW NW SEC. 17 T5N R64W 6th P.M.	<b>MD Reference:</b>	KB-EST @ 4633.0usft (Original Well Elev)
<b>Site Error:</b>	0.0 usft	<b>North Reference:</b>	True
<b>Reference Well:</b>	SCHAUMBERG 17G-314	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Well Error:</b>	0.0 usft	<b>Output errors are at</b>	2.00 sigma
<b>Reference Wellbore</b>	ORIGINAL WELLBORE	<b>Database:</b>	EDM 5000.1 Single User Db
<b>Reference Design:</b>	PROPOSAL #1	<b>Offset TVD Reference:</b>	Offset Datum

Offset Design NW SW SEC. 17 T5N R64W 6th P.M. - CECIL'S KERSEY FARM 17B-304 - ORIGINAL WELLBORE - P													Offset Site Error:	0.0 usft
Survey Program: 0-MWMD													Offset Well Error:	0.0 usft
Reference		Offset		Semi Major Axis			Distance						Warning	
Measured Depth (usft)	Vertical Depth (usft)	Measured Depth (usft)	Vertical Depth (usft)	Reference (usft)	Offset (usft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (usft)	+E/-W (usft)	Between Centres (usft)	Between Ellipses (usft)	Minimum Separation (usft)	Separation Factor		
7,086.6	6,771.5	7,684.3	6,790.9	23.1	30.5	-90.54	-2,188.1	-744.6	1,698.2	1,645.8	52.39	32.411		
7,100.0	6,774.4	7,697.4	6,790.9	23.3	30.8	-90.44	-2,188.1	-757.7	1,698.2	1,645.2	52.95	32.073		
7,150.0	6,783.1	7,746.6	6,790.7	24.3	31.9	-90.15	-2,188.1	-806.9	1,698.1	1,643.0	55.11	30.815		
7,185.0	6,787.1	7,781.4	6,790.6	25.0	32.7	-90.02	-2,188.1	-841.7	1,698.1	1,641.4	56.66	29.972		
7,193.3	6,787.8	7,789.6	6,790.6	25.1	32.9	-89.99	-2,188.1	-850.0	1,698.1	1,641.1	57.02	29.779		
7,200.0	6,788.3	7,796.3	6,790.6	25.3	33.1	-89.98	-2,188.1	-856.6	1,698.1	1,640.8	57.32	29.625		
7,252.3	6,790.0	7,848.6	6,790.5	26.3	34.3	-89.91	-2,188.1	-908.9	1,698.1	1,638.4	59.71	28.440		
7,283.4	6,789.9	7,879.7	6,790.4	27.0	35.1	-89.92	-2,188.1	-940.0	1,698.1	1,637.0	61.15	27.771		
7,300.0	6,789.8	7,896.2	6,790.3	27.3	35.5	-89.92	-2,188.1	-956.6	1,698.1	1,636.2	61.91	27.428		
7,381.9	6,789.5	7,978.1	6,790.1	29.1	37.5	-89.92	-2,188.1	-1,038.4	1,698.1	1,632.3	65.80	25.807		
7,400.0	6,789.4	7,996.2	6,790.1	29.5	37.9	-89.92	-2,188.1	-1,056.6	1,698.1	1,631.4	66.66	25.473		
7,480.3	6,789.1	8,076.5	6,789.8	31.4	39.9	-89.92	-2,188.1	-1,136.9	1,698.1	1,627.5	70.58	24.059		
7,500.0	6,789.1	8,096.2	6,789.8	31.8	40.4	-89.92	-2,188.1	-1,156.6	1,698.1	1,626.6	71.54	23.735		
7,578.7	6,788.8	8,175.0	6,789.6	33.7	42.4	-89.93	-2,188.1	-1,235.3	1,698.1	1,622.6	75.47	22.500		
7,600.0	6,788.7	8,196.2	6,789.5	34.2	43.0	-89.93	-2,188.1	-1,256.6	1,698.1	1,621.6	76.53	22.188		
7,677.1	6,788.4	8,273.4	6,789.3	36.1	44.9	-89.93	-2,188.1	-1,333.7	1,698.1	1,617.7	80.44	21.109		
7,700.0	6,788.3	8,296.2	6,789.3	36.7	45.5	-89.93	-2,188.1	-1,356.6	1,698.1	1,616.5	81.60	20.809		
7,775.6	6,788.0	8,371.8	6,789.1	38.6	47.5	-89.93	-2,188.1	-1,432.1	1,698.1	1,612.6	85.49	19.864		
7,800.0	6,787.9	8,396.2	6,789.0	39.2	48.1	-89.93	-2,188.1	-1,456.6	1,698.1	1,611.3	86.74	19.576		
7,874.0	6,787.6	8,470.2	6,788.8	41.0	50.1	-89.94	-2,188.1	-1,530.6	1,698.1	1,607.5	90.59	18.745		
7,900.0	6,787.6	8,496.2	6,788.7	41.7	50.8	-89.94	-2,188.1	-1,556.6	1,698.1	1,606.1	91.94	18.469		
7,972.4	6,787.3	8,568.7	6,788.5	43.6	52.7	-89.94	-2,188.1	-1,629.0	1,698.1	1,602.3	95.74	17.736		
8,000.0	6,787.2	8,596.2	6,788.5	44.3	53.4	-89.94	-2,188.1	-1,656.6	1,698.1	1,600.9	97.19	17.472		
8,070.8	6,786.9	8,667.1	6,788.3	46.1	55.3	-89.95	-2,188.1	-1,727.4	1,698.1	1,597.2	100.93	16.824		
8,100.0	6,786.8	8,696.2	6,788.2	46.9	56.0	-89.95	-2,188.1	-1,756.6	1,698.1	1,595.6	102.47	16.571		
8,169.3	6,786.5	8,765.5	6,788.0	48.7	57.9	-89.95	-2,188.1	-1,825.8	1,698.1	1,591.9	106.16	15.995		
8,200.0	6,786.4	8,796.2	6,787.9	49.5	58.7	-89.95	-2,188.1	-1,856.6	1,698.1	1,590.3	107.80	15.753		
8,267.7	6,786.1	8,863.9	6,787.8	51.3	60.5	-89.95	-2,188.1	-1,924.3	1,698.1	1,586.7	111.42	15.241		
8,300.0	6,786.0	8,896.2	6,787.7	52.1	61.4	-89.95	-2,188.1	-1,956.6	1,698.1	1,584.9	113.15	15.008		
8,366.1	6,785.8	8,962.4	6,787.5	53.9	63.2	-89.96	-2,188.1	-2,022.7	1,698.1	1,581.4	116.70	14.551		
8,400.0	6,785.6	8,996.2	6,787.4	54.8	64.1	-89.96	-2,188.1	-2,056.6	1,698.1	1,579.6	118.52	14.327		
8,464.5	6,785.4	9,060.8	6,787.2	56.5	65.8	-89.96	-2,188.1	-2,121.1	1,698.1	1,576.1	122.01	13.918		
8,500.0	6,785.3	9,096.2	6,787.2	57.5	66.8	-89.96	-2,188.1	-2,156.6	1,698.1	1,574.2	123.92	13.703		
8,563.0	6,785.0	9,159.2	6,787.0	59.2	68.5	-89.97	-2,188.1	-2,219.5	1,698.1	1,570.8	127.33	13.336		
8,600.0	6,784.9	9,196.2	6,786.9	60.2	69.5	-89.97	-2,188.1	-2,256.6	1,698.1	1,568.7	129.34	13.129		
8,661.4	6,784.6	9,257.6	6,786.7	61.8	71.2	-89.97	-2,188.1	-2,318.0	1,698.1	1,565.4	132.67	12.799		
8,700.0	6,784.5	9,296.2	6,786.6	62.9	72.2	-89.97	-2,188.1	-2,356.6	1,698.1	1,563.3	134.77	12.600		
8,759.8	6,784.3	9,356.1	6,786.5	64.5	73.9	-89.97	-2,188.1	-2,416.4	1,698.1	1,560.1	138.03	12.302		
8,800.0	6,784.1	9,396.2	6,786.4	65.6	75.0	-89.97	-2,188.1	-2,456.6	1,698.1	1,557.9	140.22	12.110		
8,858.2	6,783.9	9,454.5	6,786.2	67.1	76.5	-89.98	-2,188.1	-2,514.8	1,698.1	1,554.7	143.40	11.842		
8,900.0	6,783.7	9,496.2	6,786.1	68.3	77.7	-89.98	-2,188.1	-2,556.6	1,698.1	1,552.4	145.68	11.656		
8,956.7	6,783.5	9,552.9	6,786.0	69.8	79.2	-89.98	-2,188.1	-2,613.2	1,698.1	1,549.3	148.78	11.413		
9,000.0	6,783.3	9,596.2	6,785.8	71.0	80.4	-89.98	-2,188.1	-2,656.6	1,698.1	1,546.9	151.15	11.234		
9,055.1	6,783.1	9,651.3	6,785.7	72.5	81.9	-89.99	-2,188.1	-2,711.7	1,698.1	1,543.9	154.18	11.014		
9,100.0	6,782.9	9,696.2	6,785.6	73.7	83.2	-89.99	-2,188.1	-2,756.6	1,698.1	1,541.4	156.64	10.841		
9,153.5	6,782.7	9,749.8	6,785.4	75.2	84.6	-89.99	-2,188.1	-2,810.1	1,698.1	1,538.5	159.58	10.641		
9,200.0	6,782.6	9,796.2	6,785.3	76.5	85.9	-89.99	-2,188.1	-2,856.6	1,698.1	1,535.9	162.13	10.474		
9,251.9	6,782.4	9,848.2	6,785.2	77.9	87.3	-89.99	-2,188.1	-2,908.5	1,698.1	1,533.1	164.99	10.292		
9,300.0	6,782.2	9,896.2	6,785.0	79.2	88.7	-90.00	-2,188.1	-2,956.6	1,698.1	1,530.4	167.63	10.130		
9,350.4	6,782.0	9,946.6	6,784.9	80.6	90.1	-90.00	-2,188.1	-3,006.9	1,698.1	1,527.7	170.41	9.965		
9,400.0	6,781.8	9,996.2	6,784.8	82.0	91.4	-90.00	-2,188.1	-3,056.6	1,698.1	1,524.9	173.14	9.807		
9,448.8	6,781.6	10,045.0	6,784.7	83.3	92.8	-90.00	-2,188.1	-3,105.4	1,698.1	1,522.2	175.83	9.657		

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 SCHAUMBERG 17G-314
<b>Project:</b>	WELD COUNTY, COLORADO	<b>TVD Reference:</b>	KB-EST @ 4633.0usft (Original Well Elev)
<b>Reference Site:</b>	SW NW SEC. 17 T5N R64W 6th P.M.	<b>MD Reference:</b>	KB-EST @ 4633.0usft (Original Well Elev)
<b>Site Error:</b>	0.0 usft	<b>North Reference:</b>	True
<b>Reference Well:</b>	SCHAUMBERG 17G-314	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Well Error:</b>	0.0 usft	<b>Output errors are at</b>	2.00 sigma
<b>Reference Wellbore</b>	ORIGINAL WELLBORE	<b>Database:</b>	EDM 5000.1 Single User Db
<b>Reference Design:</b>	PROPOSAL #1	<b>Offset TVD Reference:</b>	Offset Datum

Offset Design												Offset Site Error:	0.0 usft
Survey Program: 0-MWDD												Offset Well Error:	0.0 usft
Reference		Offset		Semi Major Axis			Distance						Warning
Measured Depth (usft)	Vertical Depth (usft)	Measured Depth (usft)	Vertical Depth (usft)	Reference (usft)	Offset (usft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (usft)	+E/-W (usft)	Between Centres (usft)	Between Ellipses (usft)	Minimum Separation (usft)	Separation Factor	
9,500.0	6,781.4	10,096.2	6,784.5	84.7	94.2	-90.00	-2,188.1	-3,156.6	1,698.1	1,519.4	178.66	9.505	
9,547.2	6,781.2	10,143.5	6,784.4	86.0	95.5	-90.01	-2,188.1	-3,203.8	1,698.1	1,516.8	181.27	9.368	
9,600.0	6,781.0	10,196.2	6,784.3	87.5	96.9	-90.01	-2,188.1	-3,256.6	1,698.1	1,513.9	184.18	9.220	
9,645.6	6,780.8	10,241.9	6,784.1	88.7	98.2	-90.01	-2,188.1	-3,302.2	1,698.1	1,511.4	186.71	9.095	
9,700.0	6,780.6	10,296.2	6,784.0	90.2	99.7	-90.01	-2,188.1	-3,356.6	1,698.1	1,508.4	189.71	8.951	
9,744.1	6,780.4	10,340.3	6,783.9	91.4	100.9	-90.01	-2,188.1	-3,400.6	1,698.1	1,505.9	192.15	8.837	
9,800.0	6,780.2	10,396.2	6,783.7	93.0	102.5	-90.02	-2,188.1	-3,456.6	1,698.1	1,502.8	195.24	8.697	
9,842.5	6,780.1	10,438.7	6,783.6	94.2	103.6	-90.02	-2,188.1	-3,499.1	1,698.1	1,500.5	197.60	8.594	
9,900.0	6,779.8	10,496.2	6,783.5	95.7	105.2	-90.02	-2,188.1	-3,556.6	1,698.1	1,497.3	200.78	8.457	
9,940.9	6,779.7	10,537.2	6,783.4	96.9	106.4	-90.02	-2,188.1	-3,597.5	1,698.1	1,495.0	203.05	8.363	
10,000.0	6,779.4	10,596.2	6,783.2	98.5	108.0	-90.03	-2,188.1	-3,656.6	1,698.1	1,491.7	206.33	8.230	
10,039.3	6,779.3	10,635.6	6,783.1	99.6	109.1	-90.03	-2,188.1	-3,695.9	1,698.1	1,489.6	208.51	8.144	
10,100.0	6,779.0	10,696.2	6,782.9	101.3	110.8	-90.03	-2,188.1	-3,756.6	1,698.1	1,486.2	211.87	8.015	
10,137.8	6,778.9	10,734.0	6,782.8	102.3	111.8	-90.03	-2,188.1	-3,794.3	1,698.1	1,484.1	213.97	7.936	
10,200.0	6,778.7	10,796.2	6,782.7	104.1	113.6	-90.03	-2,188.1	-3,856.6	1,698.1	1,480.6	217.42	7.810	
10,236.2	6,778.5	10,832.4	6,782.6	105.1	114.6	-90.04	-2,188.1	-3,892.8	1,698.1	1,478.6	219.43	7.738	
10,300.0	6,778.3	10,896.2	6,782.4	106.8	116.3	-90.04	-2,188.1	-3,956.6	1,698.1	1,475.1	222.98	7.615	
10,334.6	6,778.1	10,930.9	6,782.3	107.8	117.3	-90.04	-2,188.1	-3,991.2	1,698.1	1,473.2	224.90	7.550	
10,400.0	6,777.9	10,996.2	6,782.2	109.6	119.1	-90.04	-2,188.1	-4,056.6	1,698.1	1,469.5	228.54	7.430	
10,433.0	6,777.7	11,029.3	6,782.1	110.5	120.0	-90.05	-2,188.1	-4,089.6	1,698.1	1,467.7	230.37	7.371	
10,500.0	6,777.5	11,096.2	6,781.9	112.4	121.9	-90.05	-2,188.1	-4,156.6	1,698.1	1,464.0	234.10	7.254	
10,531.5	6,777.3	11,127.7	6,781.8	113.3	122.8	-90.05	-2,188.1	-4,188.0	1,698.1	1,462.2	235.85	7.200	
10,600.0	6,777.1	11,196.2	6,781.6	115.2	124.7	-90.05	-2,188.1	-4,256.6	1,698.1	1,458.4	239.66	7.085	
10,629.9	6,777.0	11,226.1	6,781.6	116.0	125.5	-90.05	-2,188.1	-4,286.5	1,698.1	1,456.7	241.32	7.036	
10,700.0	6,776.7	11,296.2	6,781.4	117.9	127.4	-90.06	-2,188.1	-4,356.6	1,698.1	1,452.8	245.23	6.924	
10,728.3	6,776.6	11,324.6	6,781.3	118.7	128.2	-90.06	-2,188.1	-4,384.9	1,698.1	1,451.3	246.80	6.880	
10,800.0	6,776.3	11,396.2	6,781.1	120.7	130.2	-90.06	-2,188.1	-4,456.6	1,698.1	1,447.3	250.80	6.771	
10,826.7	6,776.2	11,423.0	6,781.0	121.5	131.0	-90.06	-2,188.1	-4,483.3	1,698.1	1,445.8	252.29	6.731	
10,900.0	6,775.9	11,496.2	6,780.8	123.5	133.0	-90.07	-2,188.1	-4,556.6	1,698.1	1,441.7	256.37	6.624	
10,925.2	6,775.8	11,521.4	6,780.8	124.2	133.7	-90.07	-2,188.1	-4,581.7	1,698.1	1,440.3	257.77	6.588	
11,000.0	6,775.5	11,596.2	6,780.6	126.3	135.8	-90.07	-2,188.1	-4,656.6	1,698.1	1,436.1	261.94	6.483	
11,023.6	6,775.4	11,619.8	6,780.5	126.9	136.5	-90.07	-2,188.0	-4,680.2	1,698.1	1,434.8	263.25	6.450	
11,100.0	6,775.1	11,696.2	6,780.3	129.1	138.6	-90.08	-2,188.0	-4,756.6	1,698.1	1,430.6	267.51	6.348	
11,122.0	6,775.0	11,718.3	6,780.3	129.7	139.2	-90.08	-2,188.0	-4,778.6	1,698.1	1,429.3	268.74	6.319	
11,200.0	6,774.7	11,796.2	6,780.1	131.9	141.4	-90.08	-2,188.0	-4,856.6	1,698.1	1,425.0	273.09	6.218	
11,220.4	6,774.6	11,816.7	6,780.0	132.4	141.9	-90.08	-2,188.0	-4,877.0	1,698.1	1,423.8	274.23	6.192	
11,300.0	6,774.3	11,896.2	6,779.8	134.6	144.2	-90.08	-2,188.0	-4,956.6	1,698.1	1,419.4	278.67	6.093	
11,318.9	6,774.2	11,915.1	6,779.7	135.2	144.7	-90.09	-2,188.0	-4,975.4	1,698.1	1,418.3	279.72	6.071	
11,400.0	6,773.9	11,996.2	6,779.5	137.4	147.0	-90.09	-2,188.0	-5,056.6	1,698.1	1,413.8	284.25	5.974	
11,417.3	6,773.8	12,013.5	6,779.5	137.9	147.4	-90.09	-2,188.0	-5,073.9	1,698.1	1,412.8	285.22	5.954	
11,500.0	6,773.5	12,096.2	6,779.3	140.2	149.7	-90.09	-2,188.0	-5,156.6	1,698.1	1,408.2	289.83	5.859	
11,515.7	6,773.4	12,112.0	6,779.2	140.7	150.2	-90.09	-2,188.0	-5,172.3	1,698.1	1,407.4	290.71	5.841	
11,600.0	6,773.1	12,196.2	6,779.0	143.0	152.5	-90.10	-2,188.0	-5,256.6	1,698.1	1,402.6	295.42	5.748	
11,614.1	6,773.0	12,210.4	6,779.0	143.4	152.9	-90.10	-2,188.0	-5,270.7	1,698.1	1,401.9	296.21	5.733	
11,700.0	6,772.7	12,296.2	6,778.7	145.8	155.3	-90.10	-2,188.0	-5,356.6	1,698.1	1,397.1	301.00	5.641	
11,712.6	6,772.6	12,308.8	6,778.7	146.2	155.7	-90.10	-2,188.0	-5,369.1	1,698.1	1,396.4	301.70	5.628	
11,800.0	6,772.3	12,396.2	6,778.5	148.6	158.1	-90.11	-2,188.0	-5,456.6	1,698.1	1,391.5	306.59	5.539	
11,811.0	6,772.2	12,407.2	6,778.5	148.9	158.4	-90.11	-2,188.0	-5,467.6	1,698.1	1,390.9	307.20	5.528	
11,900.0	6,771.9	12,496.2	6,778.2	151.4	160.9	-90.11	-2,188.0	-5,556.6	1,698.1	1,385.9	312.17	5.439	
11,909.4	6,771.8	12,505.7	6,778.2	151.7	161.2	-90.11	-2,188.0	-5,566.0	1,698.1	1,385.4	312.70	5.430	
12,000.0	6,771.5	12,596.2	6,778.0	154.2	163.7	-90.12	-2,188.0	-5,656.6	1,698.1	1,380.3	317.76	5.344	
12,007.8	6,771.4	12,604.1	6,777.9	154.4	163.9	-90.12	-2,188.0	-5,664.4	1,698.1	1,379.9	318.20	5.336	

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 SCHAUMBERG 17G-314
<b>Project:</b>	WELD COUNTY, COLORADO	<b>TVD Reference:</b>	KB-EST @ 4633.0usft (Original Well Elev)
<b>Reference Site:</b>	SW NW SEC. 17 T5N R64W 6th P.M.	<b>MD Reference:</b>	KB-EST @ 4633.0usft (Original Well Elev)
<b>Site Error:</b>	0.0 usft	<b>North Reference:</b>	True
<b>Reference Well:</b>	SCHAUMBERG 17G-314	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Well Error:</b>	0.0 usft	<b>Output errors are at</b>	2.00 sigma
<b>Reference Wellbore</b>	ORIGINAL WELLBORE	<b>Database:</b>	EDM 5000.1 Single User Db
<b>Reference Design:</b>	PROPOSAL #1	<b>Offset TVD Reference:</b>	Offset Datum

<b>Offset Design</b> NW SW SEC. 17 T5N R64W 6th P.M. - CECIL'S KERSEY FARM 17B-304 - ORIGINAL WELLBORE - P												<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
12,100.0	6,771.1	12,696.2	6,777.7	157.0	166.5	-90.12	-2,188.0	-5,756.6	1,698.1	1,374.7	323.35	5.251	
12,106.3	6,771.0	12,702.5	6,777.7	157.2	166.7	-90.12	-2,188.0	-5,762.8	1,698.1	1,374.4	323.70	5.246	
12,200.0	6,770.7	12,796.2	6,777.4	159.8	169.3	-90.13	-2,188.0	-5,856.6	1,698.1	1,369.1	328.94	5.162	
12,204.7	6,770.6	12,800.9	6,777.4	159.9	169.4	-90.13	-2,188.0	-5,861.3	1,698.1	1,368.9	329.20	5.158	
12,300.0	6,770.3	12,896.2	6,777.2	162.6	172.1	-90.13	-2,188.0	-5,956.6	1,698.1	1,363.5	334.53	5.076	
12,303.1	6,770.2	12,899.4	6,777.2	162.7	172.2	-90.13	-2,188.0	-5,959.7	1,698.1	1,363.3	334.71	5.073	
12,361.7	6,770.0	12,957.9	6,777.0	164.3	173.8	-90.14	-2,188.0	-6,018.3	1,698.1	1,360.1	337.98	5.024 CC, ES, SF	



# Anticollision Report



<b>Company:</b>	PDC ENERGY	<b>Local Co-ordinate Reference:</b>	Well SCHAUMBERG 17G-314
<b>Project:</b>	WELD COUNTY, COLORADO	<b>TVD Reference:</b>	KB-EST @ 4633.0usft (Original Well Elev)
<b>Reference Site:</b>	SW NW SEC. 17 T5N R64W 6th P.M.	<b>MD Reference:</b>	KB-EST @ 4633.0usft (Original Well Elev)
<b>Site Error:</b>	0.0 usft	<b>North Reference:</b>	True
<b>Reference Well:</b>	SCHAUMBERG 17G-314	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Well Error:</b>	0.0 usft	<b>Output errors are at</b>	2.00 sigma
<b>Reference Wellbore</b>	ORIGINAL WELLBORE	<b>Database:</b>	EDM 5000.1 Single User Db
<b>Reference Design:</b>	PROPOSAL #1	<b>Offset TVD Reference:</b>	Offset Datum

<b>Offset Design</b> NW SW SEC. 17 T5N R64W 6th P.M. - CECIL'S KERSEY FARM 17K-204 - ORIGINAL WELLBORE - P												<b>Offset Site Error:</b>	0.0 usft
Survey Program: 0-MWMD												<b>Offset Well Error:</b>	0.0 usft
Reference	Offset	Semi Major Axis		Distance									
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	3.0	3.0	0.0	0.0	-174.20	-1,945.8	-197.5	1,955.8				
98.4	98.4	101.4	101.4	0.1	0.1	-174.20	-1,945.8	-197.5	1,955.8	1,955.6	0.20	9,928.814	
100.0	100.0	103.0	103.0	0.1	0.1	-174.20	-1,945.8	-197.5	1,955.8	1,955.6	0.20	9,668.183	
196.8	196.8	199.8	199.8	0.3	0.3	-174.20	-1,945.8	-197.5	1,955.8	1,955.1	0.64	3,067.103	
200.0	200.0	203.0	203.0	0.3	0.3	-174.20	-1,945.8	-197.5	1,955.8	1,955.1	0.65	3,000.473	
295.3	295.3	298.3	298.3	0.5	0.5	-174.20	-1,945.8	-197.5	1,955.8	1,954.7	1.08	1,810.711	
300.0	300.0	303.0	303.0	0.5	0.6	-174.20	-1,945.8	-197.5	1,955.8	1,954.7	1.10	1,775.790	
393.7	393.7	396.7	396.7	0.8	0.8	-174.20	-1,945.8	-197.5	1,955.8	1,954.3	1.52	1,284.525	
400.0	400.0	403.0	403.0	0.8	0.8	-174.20	-1,945.8	-197.5	1,955.8	1,954.2	1.55	1,261.069	
492.1	492.1	495.1	495.1	1.0	1.0	-174.20	-1,945.8	-197.5	1,955.8	1,953.8	1.97	995.296	
500.0	500.0	503.0	503.0	1.0	1.0	-174.20	-1,945.8	-197.5	1,955.8	1,953.8	2.00	977.682	
590.5	590.5	593.5	593.5	1.2	1.2	-174.20	-1,945.8	-197.5	1,955.8	1,953.4	2.41	812.377	
600.0	600.0	603.0	603.0	1.2	1.2	-174.20	-1,945.8	-197.5	1,955.8	1,953.3	2.45	798.291	
689.0	689.0	692.0	692.0	1.4	1.4	-174.20	-1,945.8	-197.5	1,955.8	1,952.9	2.85	686.255	
700.0	700.0	703.0	703.0	1.4	1.5	-174.20	-1,945.8	-197.5	1,955.8	1,952.9	2.90	674.525	
787.4	787.4	790.4	790.4	1.6	1.6	-174.20	-1,945.8	-197.5	1,955.8	1,952.5	3.29	594.032	
800.0	800.0	803.0	803.0	1.7	1.7	-174.20	-1,945.8	-197.5	1,955.8	1,952.4	3.35	583.985	
885.8	885.8	888.8	888.8	1.9	1.9	-174.20	-1,945.8	-197.5	1,955.8	1,952.0	3.73	523.659	
900.0	900.0	903.0	903.0	1.9	1.9	-174.20	-1,945.8	-197.5	1,955.8	1,952.0	3.80	514.874	
984.2	984.2	987.2	987.2	2.1	2.1	-174.20	-1,945.8	-197.5	1,955.8	1,951.6	4.18	468.193	
1,000.0	1,000.0	1,003.0	1,003.0	2.1	2.1	-174.20	-1,945.8	-197.5	1,955.8	1,951.5	4.25	460.390	
1,082.7	1,082.7	1,085.7	1,085.7	2.3	2.3	-174.20	-1,945.8	-197.5	1,955.8	1,951.2	4.62	423.352	
1,100.0	1,100.0	1,103.0	1,103.0	2.3	2.4	-174.20	-1,945.8	-197.5	1,955.8	1,951.1	4.70	416.334	
1,181.1	1,181.1	1,184.1	1,184.1	2.5	2.5	-174.20	-1,945.8	-197.5	1,955.8	1,950.7	5.06	386.350	
1,200.0	1,200.0	1,203.0	1,203.0	2.6	2.6	-174.20	-1,945.8	-197.5	1,955.8	1,950.6	5.15	379.973	
1,279.5	1,279.5	1,326.8	1,326.8	2.7	2.9	-174.22	-1,945.0	-196.8	1,955.4	1,949.8	5.60	349.077	
1,300.0	1,300.0	1,375.1	1,375.1	2.8	3.0	-174.25	-1,943.6	-195.8	1,954.8	1,949.0	5.75	339.718	
1,377.9	1,377.9	1,558.2	1,557.6	3.0	3.4	-174.47	-1,932.8	-187.3	1,949.8	1,943.5	6.34	307.336	
1,400.0	1,400.0	1,609.6	1,608.7	3.0	3.5	-174.56	-1,928.1	-183.6	1,947.7	1,941.1	6.52	298.931	
1,476.4	1,476.4	1,785.6	1,782.5	3.2	4.0	-175.00	-1,906.5	-166.6	1,937.6	1,930.5	7.14	271.433	
1,500.0	1,500.0	1,839.3	1,835.2	3.2	4.1	-175.18	-1,898.3	-160.2	1,933.8	1,926.4	7.35	263.266	
1,574.8	1,574.8	1,949.5	1,942.7	3.4	4.5	-175.58	-1,879.2	-145.2	1,919.8	1,911.9	7.85	244.585	
1,600.0	1,600.0	1,974.1	1,966.6	3.5	4.6	-175.68	-1,874.8	-141.8	1,915.0	1,907.0	7.98	239.843	
1,673.2	1,673.2	2,045.4	2,036.0	3.6	4.8	-175.95	-1,862.1	-131.8	1,901.1	1,892.7	8.38	226.759	
1,700.0	1,700.0	2,071.5	2,061.4	3.7	4.9	-176.05	-1,857.5	-128.1	1,896.1	1,887.5	8.53	222.238	
1,771.6	1,771.6	2,141.2	2,129.4	3.9	5.2	-176.33	-1,845.0	-118.4	1,882.5	1,873.6	8.93	210.740	
1,800.0	1,800.0	2,168.9	2,156.3	3.9	5.3	-176.44	-1,840.1	-114.5	1,877.2	1,868.1	9.09	206.432	
1,870.1	1,870.1	2,236.9	2,222.6	4.1	5.6	-18.00	-1,828.0	-105.0	1,863.2	1,854.0	9.25	201.333	
1,900.0	1,900.0	2,265.9	2,250.8	4.1	5.7	-18.17	-1,822.8	-100.9	1,856.8	1,847.4	9.40	197.545	
1,968.5	1,968.4	2,331.8	2,315.0	4.2	6.0	-18.58	-1,811.0	-91.7	1,841.0	1,831.3	9.71	189.527	
2,000.0	1,999.8	2,362.0	2,344.4	4.3	6.1	-18.78	-1,805.7	-87.5	1,833.3	1,823.4	9.86	185.982	
2,066.9	2,066.5	2,425.8	2,406.5	4.4	6.3	-19.23	-1,794.3	-78.5	1,815.8	1,805.6	10.16	178.642	
2,100.0	2,099.5	2,457.1	2,437.0	4.5	6.5	-19.46	-1,788.7	-74.1	1,806.7	1,796.3	10.32	175.144	
2,165.3	2,164.4	2,518.7	2,497.0	4.6	6.7	-19.95	-1,777.7	-65.5	1,787.6	1,777.0	10.62	168.397	
2,200.0	2,198.7	2,551.1	2,528.6	4.7	6.9	-20.22	-1,771.9	-61.0	1,777.0	1,766.2	10.77	164.938	
2,263.8	2,261.8	2,610.5	2,586.4	4.8	7.1	-20.76	-1,761.4	-52.7	1,756.6	1,745.5	11.07	158.705	
2,300.0	2,297.5	2,643.9	2,619.0	4.9	7.3	-21.08	-1,755.4	-48.0	1,744.5	1,733.2	11.23	155.271	
2,362.2	2,358.6	2,701.0	2,674.6	5.0	7.5	-21.66	-1,745.2	-40.0	1,722.7	1,711.2	11.53	149.477	
2,400.0	2,395.6	2,735.4	2,708.1	5.1	7.7	-22.03	-1,739.1	-35.2	1,709.0	1,697.3	11.70	146.056	
2,460.6	2,454.9	2,790.4	2,761.7	5.3	7.9	-22.46	-1,729.3	-27.5	1,686.7	1,674.7	12.03	140.259	
2,500.0	2,493.4	2,826.2	2,796.5	5.4	8.1	-22.75	-1,722.9	-22.5	1,672.3	1,660.1	12.24	136.641	
2,559.0	2,551.2	2,879.8	2,848.7	5.6	8.3	-23.19	-1,713.4	-15.0	1,650.8	1,638.2	12.57	131.357	

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 SCHAUMBERG 17G-314
<b>Project:</b>	WELD COUNTY, COLORADO	<b>TVD Reference:</b>	KB-EST @ 4633.0usft (Original Well Elev)
<b>Reference Site:</b>	SW NW SEC. 17 T5N R64W 6th P.M.	<b>MD Reference:</b>	KB-EST @ 4633.0usft (Original Well Elev)
<b>Site Error:</b>	0.0 usft	<b>North Reference:</b>	True
<b>Reference Well:</b>	SCHAUMBERG 17G-314	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Well Error:</b>	0.0 usft	<b>Output errors are at</b>	2.00 sigma
<b>Reference Wellbore</b>	ORIGINAL WELLBORE	<b>Database:</b>	EDM 5000.1 Single User Db
<b>Reference Design:</b>	PROPOSAL #1	<b>Offset TVD Reference:</b>	Offset Datum

<b>Offset Design</b> NW SW SEC. 17 T5N R64W 6th P.M. - CECIL'S KERSEY FARM 17K-204 - ORIGINAL WELLBORE - P												<b>Offset Site Error:</b>	0.0 usft
Survey Program: 0-MWMD												<b>Offset Well Error:</b>	0.0 usft
Reference		Offset		Semi Major Axis			Distance						Warning
Measured Depth (usft)	Vertical Depth (usft)	Measured Depth (usft)	Vertical Depth (usft)	Reference (usft)	Offset (usft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (usft)	+E/-W (usft)	Between Centres (usft)	Between Ellipses (usft)	Minimum Separation (usft)	Separation Factor	
2,600.0	2,591.3	2,916.9	2,884.9	5.7	8.5	-23.51	-1,706.7	-9.8	1,635.9	1,623.1	12.80	127.851	
2,657.5	2,647.5	2,969.1	2,935.7	5.9	8.7	-23.96	-1,697.4	-2.5	1,615.0	1,601.9	13.12	123.082	
2,700.0	2,689.1	3,007.7	2,973.3	6.0	8.9	-24.30	-1,690.5	2.9	1,599.7	1,586.3	13.37	119.647	
2,755.9	2,743.7	3,058.4	3,022.7	6.2	9.1	-24.75	-1,681.5	10.0	1,579.6	1,565.9	13.70	115.296	
2,800.0	2,786.9	3,098.4	3,061.7	6.4	9.3	-25.12	-1,674.4	15.7	1,563.8	1,549.8	13.96	111.990	
2,854.3	2,840.0	3,147.7	3,109.7	6.6	9.5	-25.58	-1,665.6	22.6	1,544.4	1,530.1	14.29	108.041	
2,900.0	2,884.7	3,189.2	3,150.1	6.7	9.7	-25.98	-1,658.2	28.4	1,528.2	1,513.6	14.58	104.842	
2,952.7	2,936.3	3,237.1	3,196.7	6.9	9.9	-26.44	-1,649.7	35.1	1,509.6	1,494.7	14.91	101.263	
3,000.0	2,982.5	3,280.0	3,238.5	7.1	10.1	-26.87	-1,642.0	41.1	1,492.9	1,477.7	15.21	98.171	
3,051.2	3,032.6	3,326.4	3,283.7	7.3	10.3	-27.35	-1,633.7	47.6	1,475.0	1,459.5	15.54	94.928	
3,100.0	3,080.3	3,370.7	3,326.9	7.5	10.6	-27.81	-1,625.8	53.8	1,458.1	1,442.2	15.86	91.943	
3,149.6	3,128.8	3,415.7	3,370.7	7.7	10.8	-28.29	-1,617.8	60.1	1,440.9	1,424.7	16.19	89.006	
3,200.0	3,178.1	3,461.5	3,415.3	7.9	11.0	-28.79	-1,609.6	66.5	1,423.5	1,407.0	16.53	86.125	
3,248.0	3,225.1	3,505.1	3,457.7	8.1	11.2	-29.27	-1,601.9	72.6	1,407.1	1,390.3	16.86	83.468	
3,300.0	3,276.0	3,552.2	3,503.7	8.3	11.4	-29.81	-1,593.5	79.2	1,389.4	1,372.2	17.22	80.690	
3,346.4	3,321.4	3,594.4	3,544.7	8.5	11.6	-30.30	-1,585.9	85.1	1,373.8	1,356.2	17.55	78.287	
3,400.0	3,373.8	3,643.0	3,592.1	8.7	11.8	-30.88	-1,577.3	91.9	1,355.8	1,337.9	17.93	75.611	
3,444.9	3,417.7	3,683.7	3,631.7	8.8	12.0	-31.38	-1,570.0	97.6	1,340.8	1,322.6	18.26	73.440	
3,500.0	3,471.6	3,733.8	3,680.5	9.1	12.2	-32.01	-1,561.1	104.6	1,322.6	1,303.9	18.66	70.863	
3,543.3	3,513.9	3,773.1	3,718.7	9.2	12.4	-32.51	-1,554.1	110.1	1,308.4	1,289.4	18.99	68.903	
3,600.0	3,569.4	3,824.5	3,768.9	9.5	12.7	-33.18	-1,544.9	117.3	1,289.9	1,270.5	19.42	66.424	
3,641.7	3,610.2	3,862.4	3,805.7	9.7	12.8	-33.69	-1,538.2	122.6	1,276.5	1,256.7	19.74	64.657	
3,700.0	3,667.2	3,915.3	3,857.3	9.9	13.1	-34.41	-1,528.7	130.0	1,257.8	1,237.6	20.20	62.274	
3,740.1	3,706.5	3,951.7	3,892.7	10.1	13.3	-34.92	-1,522.2	135.1	1,245.1	1,224.6	20.52	60.684	
3,800.0	3,765.0	4,006.0	3,945.7	10.3	13.5	-35.70	-1,512.6	142.7	1,226.3	1,205.3	21.00	58.394	
3,838.6	3,802.8	4,041.1	3,979.8	10.5	13.7	-36.22	-1,506.3	147.6	1,214.3	1,193.0	21.32	56.965	
3,900.0	3,862.8	4,096.8	4,034.1	10.7	13.9	-37.05	-1,496.4	155.4	1,195.4	1,173.6	21.83	54.768	
3,937.0	3,899.0	4,130.4	4,066.8	10.9	14.1	-37.57	-1,490.4	160.1	1,184.2	1,162.0	22.14	53.487	
4,000.0	3,960.7	4,187.6	4,122.4	11.2	14.4	-38.47	-1,480.2	168.1	1,165.2	1,142.6	22.68	51.381	
4,035.4	3,995.3	4,219.7	4,153.8	11.3	14.5	-38.98	-1,474.5	172.6	1,154.7	1,131.7	22.99	50.235	
4,100.0	4,058.5	4,278.3	4,210.8	11.6	14.8	-39.95	-1,464.0	180.8	1,135.8	1,112.3	23.56	48.219	
4,133.8	4,091.6	4,309.0	4,240.8	11.7	14.9	-40.47	-1,458.5	185.1	1,126.0	1,102.2	23.86	47.197	
4,200.0	4,156.3	4,369.1	4,299.2	12.0	15.2	-41.50	-1,447.8	193.6	1,107.2	1,082.7	24.46	45.270	
4,232.3	4,187.9	4,398.4	4,327.8	12.2	15.3	-42.02	-1,442.6	197.7	1,098.1	1,073.4	24.75	44.361	
4,300.0	4,254.1	4,459.8	4,387.6	12.5	15.6	-43.12	-1,431.6	206.3	1,079.4	1,054.1	25.39	42.522	
4,325.7	4,279.2	4,483.1	4,410.3	12.6	15.7	-43.55	-1,427.5	209.5	1,072.5	1,046.8	25.63	41.848	
4,330.7	4,284.1	4,487.7	4,414.8	12.6	15.8	-43.62	-1,426.7	210.2	1,071.1	1,045.4	25.67	41.719	
4,400.0	4,352.1	4,551.0	4,476.4	12.8	16.1	-44.52	-1,415.4	219.0	1,053.3	1,027.0	26.32	40.025	
4,429.1	4,380.8	4,577.8	4,502.5	12.9	16.2	-44.90	-1,410.6	222.8	1,046.3	1,019.7	26.57	39.376	
4,500.0	4,450.7	4,643.5	4,566.5	13.1	16.5	-45.82	-1,398.9	232.0	1,030.4	1,003.2	27.20	37.889	
4,527.5	4,478.0	4,669.2	4,591.5	13.2	16.6	-46.17	-1,394.3	235.6	1,024.7	997.2	27.43	37.353	
4,600.0	4,549.9	4,737.2	4,657.8	13.4	16.9	-47.10	-1,382.2	245.1	1,010.7	982.7	28.05	36.031	
4,626.0	4,575.7	4,761.7	4,681.7	13.5	17.1	-47.43	-1,377.8	248.5	1,006.2	977.9	28.27	35.594	
4,700.0	4,649.4	4,832.0	4,750.2	13.6	17.4	-48.36	-1,365.3	258.4	994.2	965.3	28.88	34.426	
4,724.4	4,673.7	4,855.4	4,772.9	13.7	17.5	-48.66	-1,361.1	261.6	990.6	961.5	29.07	34.072	
4,800.0	4,749.2	4,927.9	4,843.5	13.8	17.9	-49.56	-1,348.2	271.8	980.6	950.9	29.67	33.048	
4,822.8	4,772.0	4,949.9	4,865.0	13.9	18.0	-49.83	-1,344.3	274.9	977.9	948.1	29.85	32.765	
4,900.0	4,849.2	5,024.7	4,937.8	14.0	18.3	-50.70	-1,330.9	285.3	969.8	939.4	30.43	31.873	
4,921.2	4,870.4	5,045.4	4,957.9	14.1	18.4	-50.93	-1,327.3	288.2	967.9	937.3	30.58	31.648	
4,925.6	4,874.8	5,049.6	4,962.1	14.1	18.4	-50.93	-1,326.5	288.8	967.5	942.2	25.34	38.188	
5,000.0	4,949.2	5,122.1	5,032.6	14.2	18.8	-49.30	-1,313.6	299.0	961.2	935.6	25.55	37.614	
5,019.7	4,968.8	5,141.2	5,051.3	14.2	18.9	-49.06	-1,310.2	301.7	959.5	933.9	25.61	37.466	

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 SCHAUMBERG 17G-314
<b>Project:</b>	WELD COUNTY, COLORADO	<b>TVD Reference:</b>	KB-EST @ 4633.0usft (Original Well Elev)
<b>Reference Site:</b>	SW NW SEC. 17 T5N R64W 6th P.M.	<b>MD Reference:</b>	KB-EST @ 4633.0usft (Original Well Elev)
<b>Site Error:</b>	0.0 usft	<b>North Reference:</b>	True
<b>Reference Well:</b>	SCHAUMBERG 17G-314	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Well Error:</b>	0.0 usft	<b>Output errors are at</b>	2.00 sigma
<b>Reference Wellbore</b>	ORIGINAL WELLBORE	<b>Database:</b>	EDM 5000.1 Single User Db
<b>Reference Design:</b>	PROPOSAL #1	<b>Offset TVD Reference:</b>	Offset Datum

<b>Offset Design</b> NW SW SEC. 17 T5N R64W 6th P.M. - CECIL'S KERSEY FARM 17K-204 - ORIGINAL WELLBORE - P												<b>Offset Site Error:</b>	0.0 usft
Survey Program: 0-MWDD												<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	5,049.2	5,219.5	5,127.5	14.3	19.2	148.06	-1,296.2	312.6	953.0	927.2	25.84	36.878	
5,118.1	5,067.3	5,237.1	5,144.7	14.3	19.3	147.83	-1,293.1	315.1	951.6	925.7	25.90	36.748	
5,200.0	5,149.2	5,316.9	5,222.4	14.5	19.7	146.80	-1,278.8	326.2	945.4	919.2	26.13	36.176	
5,216.5	5,165.7	5,333.0	5,238.0	14.5	19.8	146.59	-1,276.0	328.5	944.2	918.0	26.18	36.063	
5,300.0	5,249.2	5,413.4	5,316.4	14.6	20.2	145.53	-1,261.6	339.8	938.2	911.8	26.42	35.507	
5,314.9	5,264.1	5,427.4	5,330.1	14.6	20.2	145.34	-1,259.2	341.7	937.2	910.7	26.46	35.416	
5,400.0	5,349.2	5,500.0	5,401.0	14.8	20.5	144.45	-1,247.2	351.1	932.0	905.3	26.69	34.922	
5,413.4	5,362.5	5,515.4	5,416.1	14.8	20.6	144.27	-1,244.9	352.9	931.2	904.5	26.72	34.847	
5,500.0	5,449.2	5,593.6	5,493.1	14.9	20.8	143.44	-1,233.9	361.6	927.0	900.0	26.95	34.396	
5,511.8	5,461.0	5,604.3	5,503.6	14.9	20.8	143.34	-1,232.5	362.6	926.4	899.5	26.98	34.336	
5,600.0	5,549.2	5,684.8	5,583.3	15.1	21.1	142.63	-1,223.2	370.0	923.1	895.9	27.23	33.905	
5,610.2	5,559.4	5,694.2	5,592.6	15.1	21.1	142.55	-1,222.2	370.7	922.7	895.5	27.25	33.856	
5,700.0	5,649.2	5,776.9	5,674.6	15.2	21.3	141.98	-1,214.6	376.7	920.2	892.7	27.52	33.442	
5,708.6	5,657.8	5,784.9	5,682.6	15.3	21.3	141.93	-1,214.0	377.2	920.0	892.4	27.54	33.402	
5,800.0	5,749.2	5,869.5	5,766.9	15.4	21.5	141.50	-1,208.4	381.6	918.2	890.3	27.82	33.003	
5,807.1	5,756.2	5,876.1	5,773.5	15.4	21.5	141.47	-1,208.1	381.8	918.1	890.2	27.84	32.973	
5,900.0	5,849.2	5,962.5	5,859.8	15.6	21.6	141.19	-1,204.5	384.6	916.9	888.8	28.14	32.588	
5,905.5	5,854.7	5,967.7	5,865.0	15.6	21.7	141.18	-1,204.4	384.7	916.9	888.7	28.16	32.566	
6,000.0	5,949.2	6,055.8	5,953.1	15.7	21.8	141.08	-1,203.0	385.8	916.5	888.0	28.47	32.195	
6,003.9	5,953.1	6,059.5	5,956.7	15.7	21.8	141.08	-1,203.0	385.8	916.5	888.0	28.48	32.179	
6,100.0	6,049.2	6,372.0	6,262.7	15.9	21.8	143.67	-1,203.0	334.2	909.7	880.2	29.50	30.831	
6,102.3	6,051.5	6,382.3	6,272.2	15.9	21.8	143.88	-1,203.0	330.3	909.1	879.6	29.55	30.761	
6,124.6	6,073.8	6,473.4	6,353.8	15.9	21.6	146.05	-1,203.0	290.0	903.0	872.9	30.07	30.033	
6,150.0	6,099.2	6,564.0	6,429.2	16.0	21.4	-121.77	-1,203.0	239.8	894.7	859.0	35.63	25.112	
6,200.0	6,149.0	6,709.5	6,535.3	16.1	21.1	-117.62	-1,203.0	140.7	875.9	841.1	34.86	25.127	
6,200.8	6,149.8	6,711.4	6,536.6	16.1	21.1	-117.56	-1,203.0	139.2	875.6	840.8	34.85	25.125	
6,250.0	6,198.5	6,821.4	6,602.0	16.2	20.9	-114.03	-1,203.0	51.0	855.7	821.3	34.42	24.858	
6,299.2	6,246.6	6,909.1	6,644.1	16.3	20.7	-111.09	-1,203.0	-26.0	835.6	801.3	34.34	24.336	
6,300.0	6,247.4	6,910.4	6,644.6	16.3	20.7	-111.04	-1,203.0	-27.1	835.3	800.9	34.34	24.325	
6,350.0	6,295.5	6,983.9	6,672.3	16.5	20.6	-108.55	-1,203.0	-95.2	815.5	780.9	34.54	23.608	
6,397.6	6,340.2	7,044.0	6,689.6	16.6	20.6	-106.50	-1,203.0	-152.7	797.6	762.7	34.93	22.834	
6,400.0	6,342.4	7,046.8	6,690.3	16.6	20.6	-106.40	-1,203.0	-155.4	796.8	761.8	34.95	22.796	
6,450.0	6,388.1	7,102.0	6,701.7	16.8	20.7	-104.48	-1,203.0	-209.4	779.5	744.0	35.52	21.946	
6,496.0	6,428.8	7,147.9	6,708.0	17.0	20.9	-102.83	-1,203.0	-254.9	765.2	729.0	36.15	21.166	
6,500.0	6,432.2	7,151.7	6,708.4	17.0	20.9	-102.69	-1,203.0	-258.6	764.0	727.8	36.21	21.101	
6,550.0	6,474.6	7,197.2	6,711.5	17.3	21.4	-100.96	-1,203.0	-304.1	750.4	713.4	36.99	20.287	
6,594.5	6,510.7	7,232.0	6,712.0	17.5	21.9	-99.62	-1,203.0	-338.8	740.1	702.3	37.72	19.622	
6,600.0	6,515.0	7,235.4	6,712.0	17.6	22.0	-99.50	-1,203.0	-342.2	738.9	701.1	37.80	19.549	
6,650.0	6,553.3	7,267.5	6,712.0	17.9	22.5	-98.31	-1,203.0	-374.3	729.8	691.1	38.64	18.887	
6,692.9	6,584.3	7,297.1	6,711.9	18.2	23.0	-97.10	-1,203.0	-404.0	723.8	684.3	39.45	18.347	
6,700.0	6,589.2	7,302.2	6,711.9	18.2	23.1	-96.88	-1,203.0	-409.1	723.0	683.4	39.59	18.260	
6,750.0	6,622.7	7,339.3	6,711.9	18.6	23.8	-95.29	-1,203.0	-446.2	718.2	677.5	40.72	17.638	
6,791.3	6,648.3	7,371.7	6,711.9	19.0	24.4	-93.90	-1,203.0	-478.6	715.5	673.8	41.73	17.145	
6,800.0	6,653.4	7,378.7	6,711.9	19.1	24.5	-93.60	-1,203.0	-485.6	715.1	673.2	41.95	17.047	
6,850.0	6,681.4	7,420.2	6,711.8	19.6	25.3	-91.87	-1,203.0	-527.0	713.5	670.2	43.33	16.469	
6,889.7	6,701.5	7,454.4	6,711.8	20.1	26.1	-90.52	-1,203.0	-561.3	713.0	668.5	44.52	16.014	
6,900.0	6,706.3	7,463.4	6,711.8	20.2	26.2	-90.17	-1,203.0	-570.3	713.0	668.1	44.84	15.902	
6,905.3	6,708.8	7,468.1	6,711.8	20.3	26.3	-90.00	-1,203.0	-575.0	713.0	668.0	45.01	15.842 CC	
6,950.0	6,728.2	7,508.4	6,711.8	20.9	27.2	-88.57	-1,203.0	-615.2	713.2	666.8	46.45	15.354	
6,988.2	6,742.8	7,543.6	6,711.7	21.5	28.0	-87.44	-1,203.0	-650.5	713.8	666.0	47.79	14.936	
7,000.0	6,746.9	7,554.7	6,711.7	21.6	28.2	-87.12	-1,203.0	-661.6	714.0	665.8	48.21	14.811	
7,050.0	6,762.4	7,602.2	6,711.7	22.5	29.2	-85.86	-1,203.0	-709.1	715.0	664.9	50.05	14.286	

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 SCHAUMBERG 17G-314
<b>Project:</b>	WELD COUNTY, COLORADO	<b>TVD Reference:</b>	KB-EST @ 4633.0usft (Original Well Elev)
<b>Reference Site:</b>	SW NW SEC. 17 T5N R64W 6th P.M.	<b>MD Reference:</b>	KB-EST @ 4633.0usft (Original Well Elev)
<b>Site Error:</b>	0.0 usft	<b>North Reference:</b>	True
<b>Reference Well:</b>	SCHAUMBERG 17G-314	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Well Error:</b>	0.0 usft	<b>Output errors are at</b>	2.00 sigma
<b>Reference Wellbore</b>	ORIGINAL WELLBORE	<b>Database:</b>	EDM 5000.1 Single User Db
<b>Reference Design:</b>	PROPOSAL #1	<b>Offset TVD Reference:</b>	Offset Datum

<b>Offset Design</b> NW SW SEC. 17 T5N R64W 6th P.M. - CECIL'S KERSEY FARM 17K-204 - ORIGINAL WELLBORE - P												<b>Offset Site Error:</b>	0.0 usft
Survey Program: 0-MWDD												<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
7,086.6	6,771.5	7,637.7	6,711.7	23.1	30.1	-85.09	-1,203.0	-744.5	715.7	664.3	51.49	13.901	
7,100.0	6,774.4	7,650.8	6,711.6	23.3	30.4	-84.84	-1,203.0	-757.6	716.0	664.0	52.02	13.764	
7,150.0	6,783.1	7,700.0	6,711.6	24.3	31.5	-84.09	-1,203.0	-806.8	716.9	662.8	54.07	13.257	
7,185.0	6,787.1	7,734.8	6,711.6	25.0	32.3	-83.74	-1,203.0	-841.6	717.3	661.7	55.59	12.903	
7,200.0	6,788.3	7,749.7	6,711.6	25.3	32.7	-83.64	-1,203.0	-856.5	717.4	661.2	56.24	12.756	
7,252.3	6,790.0	7,802.0	6,711.5	26.3	33.9	-83.48	-1,203.0	-908.8	717.6	659.0	58.59	12.248	
7,283.4	6,789.9	7,833.1	6,711.5	27.0	34.6	-83.49	-1,203.0	-940.0	717.6	657.6	60.03	11.955	
7,300.0	6,789.8	7,849.7	6,711.5	27.3	35.0	-83.49	-1,203.0	-956.5	717.6	656.8	60.79	11.805	
7,381.9	6,789.5	7,931.5	6,711.4	29.1	37.0	-83.51	-1,203.0	-1,038.4	717.6	652.9	64.64	11.101	
7,400.0	6,789.4	7,949.7	6,711.4	29.5	37.5	-83.51	-1,203.0	-1,056.5	717.6	652.1	65.50	10.956	
7,480.3	6,789.1	8,029.9	6,711.3	31.4	39.5	-83.53	-1,203.0	-1,136.8	717.5	648.2	69.38	10.342	
7,500.0	6,789.1	8,049.6	6,711.3	31.8	40.0	-83.54	-1,203.0	-1,156.5	717.5	647.2	70.34	10.201	
7,578.7	6,788.8	8,128.4	6,711.2	33.7	42.0	-83.56	-1,203.0	-1,235.2	717.5	643.3	74.23	9.666	
7,600.0	6,788.7	8,149.6	6,711.2	34.2	42.5	-83.56	-1,203.0	-1,256.5	717.5	642.2	75.29	9.530	
7,677.1	6,788.4	8,226.8	6,711.2	36.1	44.5	-83.58	-1,203.0	-1,333.6	717.5	638.3	79.17	9.062	
7,700.0	6,788.3	8,249.6	6,711.1	36.7	45.1	-83.58	-1,203.0	-1,356.5	717.5	637.1	80.32	8.932	
7,775.6	6,788.0	8,325.2	6,711.1	38.6	47.0	-83.60	-1,203.0	-1,432.1	717.4	633.3	84.18	8.523	
7,800.0	6,787.9	8,349.6	6,711.0	39.2	47.7	-83.61	-1,203.0	-1,456.5	717.4	632.0	85.43	8.398	
7,874.0	6,787.6	8,423.6	6,711.0	41.0	49.6	-83.62	-1,203.0	-1,530.5	717.4	628.2	89.25	8.038	
7,900.0	6,787.6	8,449.6	6,711.0	41.7	50.3	-83.63	-1,203.0	-1,556.5	717.4	626.8	90.60	7.919	
7,972.4	6,787.3	8,522.1	6,710.9	43.6	52.2	-83.65	-1,203.0	-1,628.9	717.4	623.0	94.37	7.602	
8,000.0	6,787.2	8,549.6	6,710.9	44.3	52.9	-83.65	-1,203.0	-1,656.5	717.4	621.6	95.81	7.487	
8,070.8	6,786.9	8,620.5	6,710.8	46.1	54.8	-83.67	-1,203.0	-1,727.3	717.3	617.8	99.53	7.207	
8,100.0	6,786.8	8,649.6	6,710.8	46.9	55.5	-83.68	-1,203.0	-1,756.5	717.3	616.3	101.07	7.098	
8,169.3	6,786.5	8,718.9	6,710.7	48.7	57.4	-83.69	-1,203.0	-1,825.8	717.3	612.6	104.73	6.849	
8,200.0	6,786.4	8,749.6	6,710.7	49.5	58.2	-83.70	-1,203.0	-1,856.5	717.3	610.9	106.36	6.744	
8,267.7	6,786.1	8,817.3	6,710.6	51.3	60.0	-83.72	-1,203.0	-1,924.2	717.3	607.3	109.96	6.523	
8,300.0	6,786.0	8,849.6	6,710.6	52.1	60.9	-83.72	-1,203.0	-1,956.5	717.3	605.6	111.68	6.423	
8,366.1	6,785.8	8,915.8	6,710.6	53.9	62.7	-83.74	-1,203.0	-2,022.6	717.2	602.0	115.21	6.226	
8,400.0	6,785.6	8,949.6	6,710.5	54.8	63.6	-83.75	-1,203.0	-2,056.5	717.2	600.2	117.02	6.129	
8,464.5	6,785.4	9,014.2	6,710.5	56.5	65.3	-83.76	-1,203.0	-2,121.0	717.2	596.7	120.49	5.953	
8,500.0	6,785.3	9,049.6	6,710.4	57.5	66.3	-83.77	-1,203.0	-2,156.5	717.2	594.8	122.39	5.860	
8,563.0	6,785.0	9,112.6	6,710.4	59.2	68.0	-83.79	-1,203.0	-2,219.5	717.2	591.4	125.78	5.702	
8,600.0	6,784.9	9,149.6	6,710.4	60.2	69.0	-83.80	-1,203.0	-2,256.5	717.2	589.4	127.78	5.612	
8,661.4	6,784.6	9,211.0	6,710.3	61.8	70.6	-83.81	-1,203.0	-2,317.9	717.1	586.0	131.10	5.470	
8,700.0	6,784.5	9,249.6	6,710.3	62.9	71.7	-83.82	-1,203.0	-2,356.5	717.1	583.9	133.19	5.384	
8,759.8	6,784.3	9,309.5	6,710.2	64.5	73.3	-83.83	-1,203.0	-2,416.3	717.1	580.7	136.43	5.256	
8,800.0	6,784.1	9,349.6	6,710.2	65.6	74.4	-83.84	-1,203.0	-2,456.5	717.1	578.5	138.61	5.173	
8,858.2	6,783.9	9,407.9	6,710.1	67.1	76.0	-83.86	-1,203.0	-2,514.7	717.1	575.3	141.78	5.058	
8,900.0	6,783.7	9,449.6	6,710.1	68.3	77.1	-83.87	-1,203.0	-2,556.5	717.1	573.0	144.05	4.978	
8,956.7	6,783.5	9,506.3	6,710.1	69.8	78.7	-83.88	-1,203.0	-2,613.2	717.1	569.9	147.13	4.873	
9,000.0	6,783.3	9,549.6	6,710.0	71.0	79.9	-83.89	-1,203.0	-2,656.5	717.0	567.5	149.50	4.796	
9,055.1	6,783.1	9,604.7	6,710.0	72.5	81.4	-83.90	-1,203.0	-2,711.6	717.0	564.5	152.50	4.702	
9,100.0	6,782.9	9,649.6	6,709.9	73.7	82.6	-83.91	-1,203.0	-2,756.5	717.0	562.1	154.95	4.627	
9,153.5	6,782.7	9,703.2	6,709.9	75.2	84.1	-83.93	-1,203.0	-2,810.0	717.0	559.1	157.88	4.541	
9,200.0	6,782.6	9,749.6	6,709.8	76.5	85.3	-83.94	-1,203.0	-2,856.5	717.0	556.5	160.42	4.469	
9,251.9	6,782.4	9,801.6	6,709.8	77.9	86.8	-83.95	-1,203.0	-2,908.4	717.0	553.7	163.27	4.391	
9,300.0	6,782.2	9,849.6	6,709.8	79.2	88.1	-83.96	-1,203.0	-2,956.5	716.9	551.0	165.90	4.321	
9,350.4	6,782.0	9,900.0	6,709.7	80.6	89.5	-83.97	-1,203.0	-3,006.9	716.9	548.3	168.66	4.251	
9,400.0	6,781.8	9,949.6	6,709.7	82.0	90.8	-83.99	-1,203.0	-3,056.5	716.9	545.5	171.39	4.183	
9,448.8	6,781.6	9,998.4	6,709.6	83.3	92.2	-84.00	-1,203.0	-3,105.3	716.9	542.8	174.07	4.118	
9,500.0	6,781.4	10,049.6	6,709.6	84.7	93.6	-84.01	-1,203.0	-3,156.5	716.9	540.0	176.88	4.053	

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 SCHAUMBERG 17G-314
<b>Project:</b>	WELD COUNTY, COLORADO	<b>TVD Reference:</b>	KB-EST @ 4633.0usft (Original Well Elev)
<b>Reference Site:</b>	SW NW SEC. 17 T5N R64W 6th P.M.	<b>MD Reference:</b>	KB-EST @ 4633.0usft (Original Well Elev)
<b>Site Error:</b>	0.0 usft	<b>North Reference:</b>	True
<b>Reference Well:</b>	SCHAUMBERG 17G-314	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Well Error:</b>	0.0 usft	<b>Output errors are at</b>	2.00 sigma
<b>Reference Wellbore</b>	ORIGINAL WELLBORE	<b>Database:</b>	EDM 5000.1 Single User Db
<b>Reference Design:</b>	PROPOSAL #1	<b>Offset TVD Reference:</b>	Offset Datum

Offset Design												Offset Site Error:	0.0 usft
Survey Program: 0-MWMD												Offset Well Error:	0.0 usft
Reference		Offset		Semi Major Axis			Distance						Warning
Measured Depth (usft)	Vertical Depth (usft)	Measured Depth (usft)	Vertical Depth (usft)	Reference (usft)	Offset (usft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (usft)	+E/-W (usft)	Between Centres (usft)	Between Ellipses (usft)	Minimum Separation (usft)	Separation Factor	
9,547.2	6,781.2	10,096.9	6,709.5	86.0	94.9	-84.02	-1,203.0	-3,203.7	716.9	537.4	179.48	3.994	
9,600.0	6,781.0	10,149.6	6,709.5	87.5	96.3	-84.03	-1,203.0	-3,256.5	716.8	534.5	182.38	3.930	
9,645.6	6,780.8	10,195.3	6,709.4	88.7	97.6	-84.04	-1,203.0	-3,302.1	716.8	531.9	184.90	3.877	
9,700.0	6,780.6	10,249.6	6,709.4	90.2	99.1	-84.06	-1,203.0	-3,356.5	716.8	528.9	187.89	3.815	
9,744.1	6,780.4	10,293.7	6,709.4	91.4	100.3	-84.07	-1,203.0	-3,400.6	716.8	526.5	190.32	3.766	
9,800.0	6,780.2	10,349.6	6,709.3	93.0	101.9	-84.08	-1,203.0	-3,456.5	716.8	523.4	193.40	3.706	
9,842.5	6,780.1	10,392.1	6,709.3	94.2	103.0	-84.09	-1,203.0	-3,499.0	716.8	521.0	195.75	3.662	
9,900.0	6,779.8	10,449.6	6,709.2	95.7	104.6	-84.11	-1,203.0	-3,556.5	716.8	517.8	198.92	3.603	
9,940.9	6,779.7	10,490.6	6,709.2	96.9	105.8	-84.12	-1,203.0	-3,597.4	716.7	515.6	201.18	3.563	
10,000.0	6,779.4	10,549.6	6,709.1	98.5	107.4	-84.13	-1,203.0	-3,656.5	716.7	512.3	204.44	3.506	
10,039.3	6,779.3	10,589.0	6,709.1	99.6	108.5	-84.14	-1,203.0	-3,695.8	716.7	510.1	206.62	3.469	
10,100.0	6,779.0	10,649.6	6,709.0	101.3	110.2	-84.15	-1,203.0	-3,756.5	716.7	506.7	209.97	3.413	
10,137.8	6,778.9	10,687.4	6,709.0	102.3	111.2	-84.16	-1,203.0	-3,794.3	716.7	504.6	212.06	3.380	
10,200.0	6,778.7	10,749.6	6,709.0	104.1	112.9	-84.18	-1,202.9	-3,856.5	716.7	501.2	215.50	3.326	
10,236.2	6,778.5	10,785.8	6,708.9	105.1	113.9	-84.19	-1,202.9	-3,892.7	716.6	499.1	217.51	3.295	
10,300.0	6,778.3	10,849.6	6,708.9	106.8	115.7	-84.20	-1,202.9	-3,956.5	716.6	495.6	221.04	3.242	
10,334.6	6,778.1	10,884.3	6,708.8	107.8	116.7	-84.21	-1,202.9	-3,991.1	716.6	493.7	222.95	3.214	
10,400.0	6,777.9	10,949.6	6,708.8	109.6	118.5	-84.23	-1,202.9	-4,056.5	716.6	490.0	226.58	3.163	
10,433.0	6,777.7	10,982.7	6,708.7	110.5	119.4	-84.23	-1,202.9	-4,089.5	716.6	488.2	228.41	3.137	
10,500.0	6,777.5	11,049.6	6,708.7	112.4	121.2	-84.25	-1,202.9	-4,156.5	716.6	484.4	232.12	3.087	
10,531.5	6,777.3	11,081.1	6,708.7	113.3	122.1	-84.26	-1,202.9	-4,188.0	716.6	482.7	233.86	3.064	
10,600.0	6,777.1	11,149.6	6,708.6	115.2	124.0	-84.28	-1,202.9	-4,256.5	716.5	478.9	237.67	3.015	
10,629.9	6,777.0	11,179.5	6,708.6	116.0	124.9	-84.28	-1,202.9	-4,286.4	716.5	477.2	239.32	2.994	
10,700.0	6,776.7	11,249.6	6,708.5	117.9	126.8	-84.30	-1,202.9	-4,356.5	716.5	473.3	243.21	2.946	
10,728.3	6,776.6	11,278.0	6,708.5	118.7	127.6	-84.31	-1,202.9	-4,384.8	716.5	471.7	244.79	2.927	
10,800.0	6,776.3	11,349.6	6,708.4	120.7	129.6	-84.32	-1,202.9	-4,456.5	716.5	467.7	248.77	2.880	
10,826.7	6,776.2	11,376.4	6,708.4	121.5	130.3	-84.33	-1,202.9	-4,483.2	716.5	466.2	250.25	2.863	
10,900.0	6,775.9	11,449.6	6,708.3	123.5	132.4	-84.35	-1,202.9	-4,556.5	716.4	462.1	254.32	2.817	
10,925.2	6,775.8	11,474.8	6,708.3	124.2	133.1	-84.36	-1,202.9	-4,581.7	716.4	460.7	255.72	2.802	
11,000.0	6,775.5	11,549.6	6,708.2	126.3	135.1	-84.37	-1,202.9	-4,656.5	716.4	456.5	259.88	2.757	
11,023.6	6,775.4	11,573.2	6,708.2	126.9	135.8	-84.38	-1,202.9	-4,680.1	716.4	455.2	261.19	2.743	
11,100.0	6,775.1	11,649.6	6,708.2	129.1	137.9	-84.40	-1,202.9	-4,756.5	716.4	450.9	265.44	2.699	
11,122.0	6,775.0	11,671.7	6,708.1	129.7	138.5	-84.40	-1,202.9	-4,778.5	716.4	449.7	266.66	2.686	
11,200.0	6,774.7	11,749.6	6,708.1	131.9	140.7	-84.42	-1,202.9	-4,856.5	716.3	445.3	271.00	2.643	
11,220.4	6,774.6	11,770.1	6,708.0	132.4	141.3	-84.43	-1,202.9	-4,876.9	716.3	444.2	272.14	2.632	
11,300.0	6,774.3	11,849.6	6,708.0	134.6	143.5	-84.45	-1,202.9	-4,956.5	716.3	439.8	276.56	2.590	
11,318.9	6,774.2	11,868.5	6,708.0	135.2	144.0	-84.45	-1,202.9	-4,975.4	716.3	438.7	277.61	2.580	
11,400.0	6,773.9	11,949.6	6,707.9	137.4	146.3	-84.47	-1,202.9	-5,056.5	716.3	434.2	282.13	2.539	
11,417.3	6,773.8	11,966.9	6,707.9	137.9	146.8	-84.48	-1,202.9	-5,073.8	716.3	433.2	283.09	2.530	
11,500.0	6,773.5	12,049.6	6,707.8	140.2	149.1	-84.50	-1,202.9	-5,156.5	716.3	428.6	287.70	2.490	
11,515.7	6,773.4	12,065.4	6,707.8	140.7	149.5	-84.50	-1,202.9	-5,172.2	716.3	427.7	288.57	2.482	
11,600.0	6,773.1	12,149.6	6,707.7	143.0	151.9	-84.52	-1,202.9	-5,256.5	716.2	423.0	293.27	2.442	
11,614.1	6,773.0	12,163.8	6,707.7	143.4	152.3	-84.52	-1,202.9	-5,270.6	716.2	422.2	294.06	2.436	
11,700.0	6,772.7	12,249.6	6,707.6	145.8	154.7	-84.55	-1,202.9	-5,356.5	716.2	417.4	298.84	2.397	
11,712.6	6,772.6	12,262.2	6,707.6	146.2	155.0	-84.55	-1,202.9	-5,369.0	716.2	416.7	299.54	2.391	
11,800.0	6,772.3	12,349.6	6,707.5	148.6	157.4	-84.57	-1,202.9	-5,456.5	716.2	411.8	304.41	2.353	
11,811.0	6,772.2	12,360.6	6,707.5	148.9	157.8	-84.57	-1,202.9	-5,467.5	716.2	411.1	305.03	2.348	
11,900.0	6,771.9	12,449.6	6,707.4	151.4	160.2	-84.60	-1,202.9	-5,556.5	716.1	406.2	309.99	2.310	
11,909.4	6,771.8	12,459.0	6,707.4	151.7	160.5	-84.60	-1,202.9	-5,565.9	716.1	405.6	310.51	2.306	
12,000.0	6,771.5	12,549.6	6,707.3	154.2	163.0	-84.62	-1,202.9	-5,656.5	716.1	400.5	315.56	2.269	
12,007.8	6,771.4	12,557.5	6,707.3	154.4	163.2	-84.62	-1,202.9	-5,664.3	716.1	400.1	316.00	2.266	
12,100.0	6,771.1	12,649.6	6,707.2	157.0	165.8	-84.65	-1,202.9	-5,756.5	716.1	394.9	321.14	2.230	

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 SCHAUMBERG 17G-314
<b>Project:</b>	WELD COUNTY, COLORADO	<b>TVD Reference:</b>	KB-EST @ 4633.0usft (Original Well Elev)
<b>Reference Site:</b>	SW NW SEC. 17 T5N R64W 6th P.M.	<b>MD Reference:</b>	KB-EST @ 4633.0usft (Original Well Elev)
<b>Site Error:</b>	0.0 usft	<b>North Reference:</b>	True
<b>Reference Well:</b>	SCHAUMBERG 17G-314	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Well Error:</b>	0.0 usft	<b>Output errors are at</b>	2.00 sigma
<b>Reference Wellbore</b>	ORIGINAL WELLBORE	<b>Database:</b>	EDM 5000.1 Single User Db
<b>Reference Design:</b>	PROPOSAL #1	<b>Offset TVD Reference:</b>	Offset Datum

<b>Offset Design</b> NW SW SEC. 17 T5N R64W 6th P.M. - CECIL'S KERSEY FARM 17K-204 - ORIGINAL WELLBORE - P												<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
12,106.3	6,771.0	12,655.9	6,707.2	157.2	166.0	-84.65	-1,202.9	-5,762.7	716.1	394.6	321.49	2.227	
12,200.0	6,770.7	12,749.6	6,707.2	159.8	168.6	-84.67	-1,202.9	-5,856.5	716.1	389.3	326.72	2.192	
12,204.7	6,770.6	12,754.3	6,707.1	159.9	168.7	-84.67	-1,202.9	-5,861.2	716.1	389.1	326.98	2.190	
12,300.0	6,770.3	12,849.6	6,707.1	162.6	171.4	-84.70	-1,202.9	-5,956.5	716.0	383.7	332.30	2.155	
12,303.1	6,770.2	12,852.7	6,707.1	162.7	171.5	-84.70	-1,202.9	-5,959.6	716.0	383.5	332.48	2.154	
12,361.7	6,770.0	12,911.3	6,707.0	164.3	173.1	-84.71	-1,202.9	-6,018.2	716.0	380.3	335.75	2.133 ES, SF	



# Anticollision Report



<b>Company:</b>	PDC ENERGY	<b>Local Co-ordinate Reference:</b>	Well SCHAUMBERG 17G-314
<b>Project:</b>	WELD COUNTY, COLORADO	<b>TVD Reference:</b>	KB-EST @ 4633.0usft (Original Well Elev)
<b>Reference Site:</b>	SW NW SEC. 17 T5N R64W 6th P.M.	<b>MD Reference:</b>	KB-EST @ 4633.0usft (Original Well Elev)
<b>Site Error:</b>	0.0 usft	<b>North Reference:</b>	True
<b>Reference Well:</b>	SCHAUMBERG 17G-314	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Well Error:</b>	0.0 usft	<b>Output errors are at</b>	2.00 sigma
<b>Reference Wellbore</b>	ORIGINAL WELLBORE	<b>Database:</b>	EDM 5000.1 Single User Db
<b>Reference Design:</b>	PROPOSAL #1	<b>Offset TVD Reference:</b>	Offset Datum

<b>Offset Design</b> NW SW SEC. 17 T5N R64W 6th P.M. - CECIL'S KERSEY FARM 17K-232 - ORIGINAL WELLBORE - P												<b>Offset Site Error:</b>	0.0 usft
Survey Program: 0-MW/D												<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	3.0	3.0	0.0	0.0	-174.21	-1,960.7	-198.9	1,970.8				
98.4	98.4	101.4	101.4	0.1	0.1	-174.21	-1,960.7	-198.9	1,970.8	1,970.6	0.20	N/A	
100.0	100.0	103.0	103.0	0.1	0.1	-174.21	-1,960.7	-198.9	1,970.8	1,970.6	0.20	9,742.339	
196.8	196.8	199.8	199.8	0.3	0.3	-174.21	-1,960.7	-198.9	1,970.8	1,970.1	0.64	3,090.628	
200.0	200.0	203.0	203.0	0.3	0.3	-174.21	-1,960.7	-198.9	1,970.8	1,970.1	0.65	3,023.487	
295.3	295.3	298.3	298.3	0.5	0.5	-174.21	-1,960.7	-198.9	1,970.8	1,969.7	1.08	1,824.600	
300.0	300.0	303.0	303.0	0.5	0.6	-174.21	-1,960.7	-198.9	1,970.8	1,969.7	1.10	1,789.411	
393.7	393.7	396.7	396.7	0.8	0.8	-174.21	-1,960.7	-198.9	1,970.8	1,969.3	1.52	1,294.378	
400.0	400.0	403.0	403.0	0.8	0.8	-174.21	-1,960.7	-198.9	1,970.8	1,969.2	1.55	1,270.741	
492.1	492.1	495.1	495.1	1.0	1.0	-174.21	-1,960.7	-198.9	1,970.8	1,968.8	1.97	1,002.930	
500.0	500.0	503.0	503.0	1.0	1.0	-174.21	-1,960.7	-198.9	1,970.8	1,968.8	2.00	985.181	
590.5	590.5	593.5	593.5	1.2	1.2	-174.21	-1,960.7	-198.9	1,970.8	1,968.4	2.41	818.608	
600.0	600.0	603.0	603.0	1.2	1.2	-174.21	-1,960.7	-198.9	1,970.8	1,968.3	2.45	804.414	
689.0	689.0	692.0	692.0	1.4	1.4	-174.21	-1,960.7	-198.9	1,970.8	1,967.9	2.85	691.519	
700.0	700.0	703.0	703.0	1.4	1.5	-174.21	-1,960.7	-198.9	1,970.8	1,967.9	2.90	679.699	
787.4	787.4	790.4	790.4	1.6	1.6	-174.21	-1,960.7	-198.9	1,970.8	1,967.5	3.29	598.588	
800.0	800.0	803.0	803.0	1.7	1.7	-174.21	-1,960.7	-198.9	1,970.8	1,967.4	3.35	588.464	
885.8	885.8	888.8	888.8	1.9	1.9	-174.21	-1,960.7	-198.9	1,970.8	1,967.0	3.73	527.675	
900.0	900.0	903.0	903.0	1.9	1.9	-174.21	-1,960.7	-198.9	1,970.8	1,967.0	3.80	518.823	
984.2	984.2	987.2	987.2	2.1	2.1	-174.21	-1,960.7	-198.9	1,970.8	1,966.6	4.18	471.784	
1,000.0	1,000.0	1,003.0	1,003.0	2.1	2.1	-174.21	-1,960.7	-198.9	1,970.8	1,966.5	4.25	463.921	
1,082.7	1,082.7	1,085.7	1,085.7	2.3	2.3	-174.21	-1,960.7	-198.9	1,970.8	1,966.2	4.62	426.600	
1,100.0	1,100.0	1,103.0	1,103.0	2.3	2.4	-174.21	-1,960.7	-198.9	1,970.8	1,966.1	4.70	419.527	
1,181.1	1,181.1	1,184.1	1,184.1	2.5	2.5	-174.21	-1,960.7	-198.9	1,970.8	1,965.7	5.06	389.313	
1,200.0	1,200.0	1,203.0	1,203.0	2.6	2.6	-174.21	-1,960.7	-198.9	1,970.8	1,965.6	5.15	382.887	
1,279.5	1,279.5	1,282.5	1,282.5	2.7	2.8	-174.21	-1,960.7	-198.9	1,970.8	1,965.3	5.50	358.021	
1,300.0	1,300.0	1,303.0	1,303.0	2.8	2.8	-174.21	-1,960.7	-198.9	1,970.8	1,965.2	5.60	352.133	
1,377.9	1,377.9	1,399.4	1,399.4	3.0	3.0	-174.20	-1,960.4	-199.2	1,970.6	1,964.6	5.99	329.206	
1,400.0	1,400.0	1,434.5	1,434.5	3.0	3.1	-174.18	-1,959.9	-199.8	1,970.4	1,964.2	6.11	322.379	
1,476.4	1,476.4	1,556.0	1,555.8	3.2	3.4	-174.03	-1,956.1	-204.7	1,968.3	1,961.7	6.55	300.480	
1,500.0	1,500.0	1,593.4	1,593.2	3.2	3.4	-173.96	-1,954.3	-206.9	1,967.3	1,960.6	6.69	294.204	
1,574.8	1,574.8	1,711.4	1,710.4	3.4	3.7	-173.65	-1,946.5	-216.7	1,963.0	1,955.9	7.13	275.472	
1,600.0	1,600.0	1,750.9	1,749.6	3.5	3.8	-173.52	-1,943.2	-220.8	1,961.2	1,953.9	7.28	269.500	
1,673.2	1,673.2	1,864.7	1,861.9	3.6	4.1	-173.07	-1,931.9	-234.9	1,955.0	1,947.3	7.72	253.138	
1,700.0	1,700.0	1,905.9	1,902.5	3.7	4.2	-172.88	-1,927.1	-240.9	1,952.4	1,944.5	7.89	247.495	
1,771.6	1,771.6	2,015.1	2,009.1	3.9	4.6	-172.29	-1,912.7	-258.9	1,944.4	1,936.0	8.35	232.851	
1,800.0	1,800.0	2,057.8	2,050.6	3.9	4.7	-172.03	-1,906.4	-266.8	1,940.9	1,932.3	8.54	227.247	
1,870.1	1,870.1	2,144.9	2,134.8	4.1	5.1	-12.70	-1,892.4	-284.3	1,930.6	1,921.6	9.07	212.746	
1,900.0	1,900.0	2,173.7	2,162.6	4.1	5.2	-12.53	-1,887.7	-290.3	1,925.7	1,916.5	9.24	208.411	
1,968.5	1,968.4	2,239.5	2,226.0	4.2	5.5	-12.15	-1,876.9	-303.8	1,913.5	1,903.9	9.61	199.198	
2,000.0	1,999.8	2,269.6	2,255.1	4.3	5.6	-11.97	-1,871.9	-310.0	1,907.3	1,897.6	9.77	195.144	
2,066.9	2,066.5	2,333.5	2,316.8	4.4	5.9	-11.61	-1,861.4	-323.1	1,893.3	1,883.1	10.14	186.773	
2,100.0	2,099.5	2,365.0	2,347.2	4.5	6.0	-11.43	-1,856.2	-329.6	1,885.8	1,875.5	10.32	182.809	
2,165.3	2,164.4	2,427.1	2,407.0	4.6	6.3	-11.09	-1,846.0	-342.4	1,870.1	1,859.4	10.67	175.221	
2,200.0	2,198.7	2,459.8	2,438.6	4.7	6.5	-10.91	-1,840.7	-349.1	1,861.2	1,850.3	10.86	171.366	
2,263.8	2,261.8	2,519.9	2,496.5	4.8	6.8	-10.58	-1,830.8	-361.5	1,843.9	1,832.7	11.21	164.498	
2,300.0	2,297.5	2,553.9	2,529.3	4.9	6.9	-10.39	-1,825.2	-368.5	1,833.5	1,822.1	11.41	160.757	
2,362.2	2,358.6	2,611.9	2,585.3	5.0	7.2	-10.08	-1,815.6	-380.4	1,814.7	1,802.9	11.74	154.537	
2,400.0	2,395.6	2,647.0	2,619.2	5.1	7.4	-9.89	-1,809.9	-387.6	1,802.7	1,790.8	11.95	150.913	
2,460.6	2,454.9	2,703.3	2,673.5	5.3	7.7	-9.51	-1,800.6	-399.2	1,783.1	1,770.8	12.32	144.695	
2,500.0	2,493.4	2,739.8	2,708.7	5.4	7.8	-9.25	-1,794.6	-406.7	1,770.5	1,757.9	12.57	140.838	
2,559.0	2,551.2	2,794.5	2,761.5	5.6	8.1	-8.87	-1,785.6	-418.0	1,751.5	1,738.6	12.95	135.259	

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 SCHAUMBERG 17G-314
<b>Project:</b>	WELD COUNTY, COLORADO	<b>TVD Reference:</b>	KB-EST @ 4633.0usft (Original Well Elev)
<b>Reference Site:</b>	SW NW SEC. 17 T5N R64W 6th P.M.	<b>MD Reference:</b>	KB-EST @ 4633.0usft (Original Well Elev)
<b>Site Error:</b>	0.0 usft	<b>North Reference:</b>	True
<b>Reference Well:</b>	SCHAUMBERG 17G-314	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Well Error:</b>	0.0 usft	<b>Output errors are at</b>	2.00 sigma
<b>Reference Wellbore</b>	ORIGINAL WELLBORE	<b>Database:</b>	EDM 5000.1 Single User Db
<b>Reference Design:</b>	PROPOSAL #1	<b>Offset TVD Reference:</b>	Offset Datum

Offset Design												Offset Site Error:	0.0 usft
Survey Program: 0-MWDD												Offset Well Error:	0.0 usft
Reference		Offset		Semi Major Axis			Distance						Warning
Measured Depth (usft)	Vertical Depth (usft)	Measured Depth (usft)	Vertical Depth (usft)	Reference (usft)	Offset (usft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (usft)	+E/-W (usft)	Between Centres (usft)	Between Ellipses (usft)	Minimum Separation (usft)	Separation Factor	
2,600.0	2,591.3	2,832.5	2,798.1	5.7	8.3	-8.60	-1,779.4	-425.8	1,738.4	1,725.2	13.21	131.579	
2,657.5	2,647.5	2,885.8	2,849.5	5.9	8.6	-8.21	-1,770.6	-436.7	1,720.1	1,706.6	13.59	126.620	
2,700.0	2,689.1	2,925.2	2,887.6	6.0	8.8	-7.92	-1,764.2	-444.8	1,706.7	1,692.8	13.87	123.068	
2,755.9	2,743.7	2,977.1	2,937.6	6.2	9.1	-7.53	-1,755.6	-455.5	1,689.0	1,674.7	14.24	118.608	
2,800.0	2,786.9	3,017.9	2,977.0	6.4	9.3	-7.22	-1,748.9	-463.9	1,675.1	1,660.6	14.54	115.240	
2,854.3	2,840.0	3,068.3	3,025.6	6.6	9.5	-6.82	-1,740.6	-474.3	1,658.0	1,643.1	14.90	111.246	
2,900.0	2,884.7	3,110.7	3,066.5	6.7	9.7	-6.49	-1,733.7	-483.0	1,643.8	1,628.6	15.22	108.033	
2,952.7	2,936.3	3,159.6	3,113.7	6.9	10.0	-6.09	-1,725.6	-493.1	1,627.4	1,611.8	15.58	104.458	
3,000.0	2,982.5	3,203.4	3,155.9	7.1	10.2	-5.73	-1,718.4	-502.1	1,612.7	1,596.8	15.91	101.392	
3,051.2	3,032.6	3,250.8	3,201.7	7.3	10.5	-5.33	-1,710.6	-511.8	1,596.9	1,580.7	16.26	98.189	
3,100.0	3,080.3	3,296.1	3,245.4	7.5	10.7	-4.95	-1,703.2	-521.1	1,582.0	1,565.3	16.61	95.261	
3,149.6	3,128.8	3,342.1	3,289.8	7.7	11.0	-4.55	-1,695.6	-530.6	1,566.8	1,549.8	16.96	92.392	
3,200.0	3,178.1	3,388.8	3,334.8	7.9	11.2	-4.13	-1,688.0	-540.2	1,551.5	1,534.2	17.32	89.596	
3,248.0	3,225.1	3,433.4	3,377.8	8.1	11.4	-3.73	-1,680.6	-549.4	1,536.9	1,519.3	17.66	87.025	
3,300.0	3,276.0	3,481.6	3,424.3	8.3	11.7	-3.29	-1,672.7	-559.3	1,521.3	1,503.3	18.04	84.353	
3,346.4	3,321.4	3,524.6	3,465.8	8.5	11.9	-2.89	-1,665.6	-568.1	1,507.4	1,489.0	18.37	82.048	
3,400.0	3,373.8	3,574.3	3,513.7	8.7	12.2	-2.41	-1,657.5	-578.4	1,491.5	1,472.7	18.76	79.493	
3,444.9	3,417.7	3,615.9	3,553.9	8.8	12.4	-2.01	-1,650.6	-586.9	1,478.2	1,459.1	19.09	77.427	
3,500.0	3,471.6	3,667.0	3,603.2	9.1	12.7	-1.50	-1,642.2	-597.4	1,462.0	1,442.5	19.50	74.983	
3,543.3	3,513.9	3,707.2	3,641.9	9.2	12.9	-1.10	-1,635.6	-605.7	1,449.3	1,429.5	19.82	73.129	
3,600.0	3,569.4	3,759.7	3,692.6	9.5	13.2	-0.56	-1,627.0	-616.5	1,432.9	1,412.6	20.24	70.790	
3,641.7	3,610.2	3,798.4	3,730.0	9.7	13.4	-0.16	-1,620.6	-624.5	1,420.8	1,400.3	20.55	69.128	
3,700.0	3,667.2	3,852.5	3,782.1	9.9	13.7	0.42	-1,611.7	-635.6	1,404.1	1,383.1	20.99	66.889	
3,740.1	3,706.5	3,889.7	3,818.0	10.1	13.9	0.83	-1,605.6	-643.2	1,392.7	1,371.4	21.30	65.398	
3,800.0	3,765.0	3,945.2	3,871.5	10.3	14.2	1.44	-1,596.5	-654.6	1,375.8	1,354.1	21.75	63.254	
3,838.6	3,802.8	3,981.0	3,906.1	10.5	14.4	1.84	-1,590.6	-662.0	1,365.0	1,343.0	22.05	61.917	
3,900.0	3,862.8	4,037.9	3,961.0	10.7	14.7	2.50	-1,581.3	-673.7	1,348.0	1,325.5	22.52	59.862	
3,937.0	3,899.0	4,072.2	3,994.1	10.9	14.9	2.90	-1,575.6	-680.8	1,337.8	1,315.0	22.80	58.665	
4,000.0	3,960.7	4,130.6	4,050.5	11.2	15.2	3.60	-1,566.0	-692.8	1,320.6	1,297.3	23.29	56.696	
4,035.4	3,995.3	4,163.5	4,082.1	11.3	15.4	4.00	-1,560.6	-699.5	1,311.0	1,287.4	23.57	55.624	
4,100.0	4,058.5	4,223.4	4,139.9	11.6	15.7	4.74	-1,550.8	-711.9	1,293.7	1,269.6	24.08	53.736	
4,133.8	4,091.6	4,254.7	4,170.2	11.7	15.9	5.14	-1,545.6	-718.3	1,284.7	1,260.4	24.34	52.778	
4,200.0	4,156.3	4,316.1	4,229.4	12.0	16.2	5.93	-1,535.5	-730.9	1,267.4	1,242.5	24.87	50.968	
4,232.3	4,187.9	4,346.0	4,258.2	12.2	16.4	6.32	-1,530.6	-737.1	1,259.0	1,233.9	25.12	50.113	
4,300.0	4,254.1	4,408.8	4,318.8	12.5	16.7	7.16	-1,520.3	-750.0	1,241.6	1,215.9	25.66	48.377	
4,325.7	4,279.2	4,432.6	4,341.8	12.6	16.9	7.48	-1,516.4	-754.9	1,235.1	1,209.2	25.87	47.739	
4,330.7	4,284.1	4,437.3	4,346.3	12.6	16.9	7.54	-1,515.6	-755.9	1,233.8	1,207.9	25.92	47.604	
4,400.0	4,352.1	4,501.8	4,408.5	12.8	17.2	8.38	-1,505.0	-769.1	1,217.4	1,190.8	26.56	45.829	
4,429.1	4,380.8	4,529.0	4,434.8	12.9	17.4	8.74	-1,500.5	-774.7	1,211.0	1,184.2	26.83	45.139	
4,500.0	4,450.7	4,595.6	4,499.0	13.1	17.7	9.62	-1,489.6	-788.4	1,197.0	1,169.5	27.47	43.580	
4,527.5	4,478.0	4,621.6	4,524.1	13.2	17.9	9.96	-1,485.3	-793.8	1,192.1	1,164.4	27.71	43.020	
4,600.0	4,549.9	4,690.2	4,590.3	13.4	18.3	10.87	-1,474.0	-807.9	1,180.7	1,152.4	28.34	41.657	
4,626.0	4,575.7	4,714.9	4,614.1	13.5	18.4	11.20	-1,470.0	-813.0	1,177.1	1,148.6	28.57	41.209	
4,700.0	4,649.4	4,785.5	4,682.2	13.6	18.8	12.13	-1,458.4	-827.5	1,168.4	1,139.3	29.19	40.032	
4,724.4	4,673.7	4,808.8	4,704.7	13.7	18.9	12.44	-1,454.6	-832.3	1,166.1	1,136.7	29.39	39.679	
4,800.0	4,749.2	4,881.3	4,774.6	13.8	19.3	13.40	-1,442.6	-847.2	1,160.2	1,130.2	30.00	38.681	
4,822.8	4,772.0	4,903.2	4,795.8	13.9	19.4	13.69	-1,439.0	-851.7	1,158.9	1,128.8	30.17	38.409	
4,900.0	4,849.2	4,977.5	4,867.5	14.0	19.8	14.66	-1,426.8	-867.0	1,156.0	1,125.3	30.76	37.579	
4,921.2	4,870.4	4,998.0	4,887.2	14.1	20.0	14.93	-1,423.5	-871.2	1,155.7	1,124.7	30.92	37.376	
4,925.6	4,874.8	5,002.2	4,891.3	14.1	20.0	-143.82	-1,422.8	-872.1	1,155.6	1,129.5	26.13	44.230	
5,000.0	4,949.2	5,074.0	4,960.5	14.2	20.4	-142.89	-1,411.0	-886.8	1,154.9	1,128.5	26.41	43.726	
5,019.7	4,968.8	5,093.0	4,978.8	14.2	20.5	-142.64	-1,407.9	-890.7	1,154.8	1,128.3	26.49	43.596	

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 SCHAUMBERG 17G-314
<b>Project:</b>	WELD COUNTY, COLORADO	<b>TVD Reference:</b>	KB-EST @ 4633.0usft (Original Well Elev)
<b>Reference Site:</b>	SW NW SEC. 17 T5N R64W 6th P.M.	<b>MD Reference:</b>	KB-EST @ 4633.0usft (Original Well Elev)
<b>Site Error:</b>	0.0 usft	<b>North Reference:</b>	True
<b>Reference Well:</b>	SCHAUMBERG 17G-314	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Well Error:</b>	0.0 usft	<b>Output errors are at</b>	2.00 sigma
<b>Reference Wellbore</b>	ORIGINAL WELLBORE	<b>Database:</b>	EDM 5000.1 Single User Db
<b>Reference Design:</b>	PROPOSAL #1	<b>Offset TVD Reference:</b>	Offset Datum

Offset Design												Offset Site Error:	0.0 usft
Survey Program: 0-MW/D												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	5,049.2	5,170.5	5,053.6	14.3	20.9	-141.63	-1,395.1	-906.7	1,154.5	1,127.7	26.80	43.075	
5,118.1	5,067.3	5,187.9	5,070.4	14.3	21.0	-141.40	-1,392.2	-910.3	1,154.5	1,127.6	26.87	42.959	
5,120.4	5,069.6	5,190.1	5,072.6	14.3	21.0	-141.37	-1,391.9	-910.7	1,154.5	1,127.6	26.88	42.945	
5,200.0	5,149.2	5,266.9	5,146.7	14.5	21.4	-140.37	-1,379.3	-926.5	1,154.7	1,127.5	27.20	42.446	
5,216.5	5,165.7	5,282.9	5,162.0	14.5	21.5	-140.16	-1,376.6	-929.8	1,154.8	1,127.5	27.27	42.344	
5,300.0	5,249.2	5,364.1	5,240.4	14.6	21.9	-139.11	-1,363.5	-946.3	1,155.4	1,127.8	27.61	41.852	
5,314.9	5,264.1	5,378.8	5,254.7	14.6	22.0	-138.93	-1,361.2	-949.1	1,155.6	1,127.9	27.67	41.767	
5,400.0	5,349.2	5,463.3	5,337.0	14.8	22.3	-137.97	-1,349.0	-964.3	1,156.6	1,128.6	27.99	41.315	
5,413.4	5,362.5	5,476.7	5,350.1	14.8	22.4	-137.83	-1,347.2	-966.6	1,156.8	1,128.7	28.05	41.246	
5,500.0	5,449.2	5,564.2	5,435.8	14.9	22.7	-136.98	-1,336.5	-980.0	1,158.0	1,129.6	28.38	40.807	
5,511.8	5,461.0	5,576.2	5,447.6	14.9	22.7	-136.87	-1,335.2	-981.7	1,158.2	1,129.7	28.42	40.747	
5,600.0	5,549.2	5,666.3	5,536.6	15.1	23.0	-136.15	-1,326.1	-993.1	1,159.4	1,130.6	28.76	40.314	
5,610.2	5,559.4	5,676.9	5,547.0	15.1	23.0	-136.08	-1,325.1	-994.3	1,159.5	1,130.7	28.80	40.264	
5,700.0	5,649.2	5,769.6	5,639.0	15.2	23.3	-135.50	-1,317.8	-1,003.4	1,160.6	1,131.5	29.13	39.837	
5,708.6	5,657.8	5,778.6	5,647.9	15.3	23.3	-135.45	-1,317.2	-1,004.2	1,160.7	1,131.6	29.17	39.796	
5,800.0	5,749.2	5,873.7	5,742.6	15.4	23.5	-135.03	-1,311.8	-1,011.0	1,161.6	1,132.1	29.50	39.376	
5,807.1	5,756.2	5,881.1	5,750.0	15.4	23.5	-135.00	-1,311.4	-1,011.4	1,161.7	1,132.2	29.53	39.343	
5,900.0	5,849.2	5,978.3	5,847.1	15.6	23.7	-134.74	-1,308.1	-1,015.6	1,162.3	1,132.4	29.85	38.931	
5,905.5	5,854.7	5,984.1	5,852.8	15.6	23.7	-134.73	-1,308.0	-1,015.7	1,162.3	1,132.4	29.87	38.906	
6,000.0	5,949.2	7,357.6	6,701.3	15.7	25.8	179.68	-1,306.8	-185.4	1,108.3	1,074.0	34.31	32.299	
6,003.9	5,953.1	7,357.6	6,701.3	15.7	25.8	179.68	-1,306.8	-185.4	1,105.7	1,071.4	34.32	32.216	
6,100.0	6,049.2	7,357.0	6,701.3	15.9	25.8	179.72	-1,306.8	-186.0	1,043.4	1,008.9	34.48	30.258	
6,102.3	6,051.5	7,357.0	6,701.3	15.9	25.8	179.72	-1,306.8	-186.0	1,041.9	1,007.4	34.49	30.212	
6,124.6	6,073.8	7,356.9	6,701.3	15.9	25.8	179.73	-1,306.8	-186.2	1,028.2	993.7	34.52	29.783	
6,150.0	6,099.2	7,356.3	6,701.3	16.0	25.7	-91.74	-1,306.8	-186.8	1,013.0	974.0	39.02	25.960	
6,200.0	6,149.0	7,352.5	6,701.4	16.1	25.7	-94.27	-1,306.8	-190.6	984.4	945.3	39.04	25.215	
6,200.8	6,149.8	7,352.4	6,701.4	16.1	25.7	-94.31	-1,306.8	-190.7	983.9	944.9	39.04	25.204	
6,250.0	6,198.5	7,345.2	6,701.4	16.2	25.6	-96.29	-1,306.8	-197.9	957.6	918.6	39.02	24.543	
6,299.2	6,246.6	7,334.7	6,701.5	16.3	25.4	-97.79	-1,306.8	-208.4	933.5	894.5	38.97	23.953	
6,300.0	6,247.4	7,334.5	6,701.5	16.3	25.4	-97.81	-1,306.8	-208.6	933.1	894.1	38.97	23.944	
6,350.0	6,295.5	7,320.4	6,701.5	16.5	25.2	-98.84	-1,306.8	-222.7	910.9	872.0	38.89	23.420	
6,397.6	6,340.2	7,303.8	6,701.6	16.6	25.0	-99.41	-1,306.8	-239.2	892.0	853.2	38.80	22.991	
6,400.0	6,342.4	7,302.9	6,701.7	16.6	25.0	-99.43	-1,306.8	-240.1	891.1	852.3	38.79	22.972	
6,450.0	6,388.1	7,282.3	6,701.8	16.8	24.8	-99.59	-1,306.8	-260.7	873.9	835.2	38.71	22.579	
6,496.0	6,428.8	7,260.5	6,701.9	17.0	24.5	-99.41	-1,306.8	-282.5	860.3	821.7	38.63	22.273	
6,500.0	6,432.2	7,258.5	6,701.9	17.0	24.5	-99.38	-1,306.8	-284.5	859.3	820.6	38.62	22.251	
6,550.0	6,474.6	7,225.1	6,701.8	17.3	24.2	-98.43	-1,306.8	-318.0	847.0	808.6	38.47	22.021	
6,594.5	6,510.7	7,191.0	6,700.2	17.5	23.9	-97.20	-1,306.8	-352.0	838.0	799.6	38.34	21.854	
6,600.0	6,515.0	7,186.9	6,699.9	17.6	23.8	-97.05	-1,306.8	-356.1	836.9	798.6	38.33	21.834	
6,650.0	6,553.3	7,150.6	6,696.2	17.9	23.6	-95.61	-1,306.8	-392.2	828.9	790.6	38.30	21.642	
6,692.9	6,584.3	7,120.7	6,691.8	18.2	23.4	-94.33	-1,306.8	-421.7	823.7	785.3	38.37	21.465	
6,700.0	6,589.2	7,115.9	6,690.9	18.2	23.4	-94.12	-1,306.8	-426.5	822.9	784.6	38.38	21.439	
6,750.0	6,622.7	7,082.3	6,684.3	18.6	23.2	-92.55	-1,306.8	-459.4	819.0	780.5	38.56	21.238	
6,791.3	6,648.3	7,055.3	6,677.8	19.0	23.1	-91.19	-1,306.8	-485.6	817.3	778.5	38.79	21.071	
6,800.0	6,653.4	7,049.7	6,676.3	19.1	23.1	-90.90	-1,306.8	-491.0	817.1	778.2	38.83	21.041	
6,826.6	6,668.6	7,032.8	6,671.6	19.4	23.0	-90.00	-1,306.8	-507.3	816.8	777.8	39.03	20.926 CC, ES	
6,850.0	6,681.4	7,018.0	6,667.2	19.6	23.0	-89.19	-1,306.8	-521.4	817.0	777.8	39.21	20.838	
6,889.7	6,701.5	6,993.2	6,659.2	20.1	22.9	-87.77	-1,306.8	-544.9	818.2	778.7	39.56	20.685	
6,900.0	6,706.3	6,986.9	6,657.0	20.2	22.9	-87.40	-1,306.8	-550.8	818.7	779.1	39.65	20.648	
6,950.0	6,728.2	6,956.3	6,645.8	20.9	22.8	-85.56	-1,306.8	-579.2	822.1	781.9	40.16	20.468	
6,988.2	6,742.8	6,933.3	6,636.5	21.5	22.8	-84.12	-1,306.8	-600.2	825.6	785.0	40.60	20.334	
7,000.0	6,746.9	6,926.3	6,633.5	21.6	22.8	-83.67	-1,306.8	-606.6	826.9	786.2	40.74	20.299	

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 SCHAUMBERG 17G-314
<b>Project:</b>	WELD COUNTY, COLORADO	<b>TVD Reference:</b>	KB-EST @ 4633.0usft (Original Well Elev)
<b>Reference Site:</b>	SW NW SEC. 17 T5N R64W 6th P.M.	<b>MD Reference:</b>	KB-EST @ 4633.0usft (Original Well Elev)
<b>Site Error:</b>	0.0 usft	<b>North Reference:</b>	True
<b>Reference Well:</b>	SCHAUMBERG 17G-314	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Well Error:</b>	0.0 usft	<b>Output errors are at</b>	2.00 sigma
<b>Reference Wellbore</b>	ORIGINAL WELLBORE	<b>Database:</b>	EDM 5000.1 Single User Db
<b>Reference Design:</b>	PROPOSAL #1	<b>Offset TVD Reference:</b>	Offset Datum

Offset Design												Offset Site Error:	0.0 usft
Survey Program: 0-MW/D												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	
7,050.0	6,762.4	6,900.0	6,621.9	22.5	22.8	-81.90	-1,306.8	-630.2	833.1	791.7	41.36	20.142	
7,086.6	6,771.5	6,875.2	6,610.0	23.1	22.8	-80.32	-1,306.8	-652.1	838.3	796.5	41.81	20.052	
7,100.0	6,774.4	6,867.3	6,606.2	23.3	22.8	-79.80	-1,306.8	-658.9	840.4	798.4	41.97	20.023	
7,150.0	6,783.1	6,838.3	6,591.2	24.3	22.8	-77.84	-1,306.8	-683.7	848.7	806.1	42.61	19.919	
7,185.0	6,787.1	6,818.2	6,580.2	25.0	22.8	-76.48	-1,306.8	-700.6	855.1	812.0	43.06	19.857	
7,200.0	6,788.3	6,809.6	6,575.3	25.3	22.9	-75.90	-1,306.8	-707.6	857.9	814.7	43.25	19.838	
7,252.3	6,790.0	6,779.8	6,557.9	26.3	22.9	-73.90	-1,306.8	-731.8	868.2	824.3	43.90	19.778	
7,283.4	6,789.9	6,762.4	6,547.3	27.0	22.9	-73.22	-1,306.8	-745.6	874.8	830.4	44.41	19.698	
7,300.0	6,789.8	6,750.0	6,539.5	27.3	22.9	-72.72	-1,306.8	-755.2	878.6	833.9	44.65	19.677	
7,381.9	6,789.5	6,711.7	6,514.4	29.1	23.0	-71.14	-1,306.8	-784.2	899.5	853.4	46.09	19.518	
7,400.0	6,789.4	6,700.0	6,506.5	29.5	23.0	-70.64	-1,306.8	-792.8	904.7	858.4	46.36	19.515	
7,480.3	6,789.1	6,666.7	6,483.0	31.4	23.1	-69.20	-1,306.8	-816.4	930.3	882.5	47.81	19.457 SF	
7,500.0	6,789.1	6,650.0	6,470.9	31.8	23.1	-68.46	-1,306.8	-827.9	937.2	889.2	48.05	19.503	
7,578.7	6,788.8	6,626.9	6,453.6	33.7	23.2	-67.42	-1,306.8	-843.3	967.1	917.5	49.56	19.511	
7,600.0	6,788.7	6,618.9	6,447.5	34.2	23.2	-67.06	-1,306.8	-848.5	975.8	925.9	49.94	19.539	
7,677.1	6,788.4	6,600.0	6,433.0	36.1	23.3	-66.20	-1,306.8	-860.4	1,009.8	958.3	51.46	19.624	
7,700.0	6,788.3	6,583.9	6,420.3	36.7	23.3	-65.46	-1,306.8	-870.3	1,020.4	968.7	51.74	19.721	
7,775.6	6,788.0	6,550.0	6,392.8	38.6	23.4	-63.90	-1,306.8	-890.3	1,058.0	1,005.0	52.95	19.981	
7,800.0	6,787.9	6,550.0	6,392.8	39.2	23.4	-63.90	-1,306.8	-890.3	1,070.7	1,017.2	53.51	20.009	
7,874.0	6,787.6	6,532.2	6,378.0	41.0	23.4	-63.07	-1,306.8	-900.2	1,111.2	1,056.3	54.91	20.235	
7,900.0	6,787.6	6,525.3	6,372.3	41.7	23.4	-62.75	-1,306.8	-903.9	1,126.1	1,070.7	55.39	20.331	
7,972.4	6,787.3	6,500.0	6,350.7	43.6	23.5	-61.57	-1,306.8	-917.2	1,169.2	1,112.6	56.58	20.666	
8,000.0	6,787.2	6,500.0	6,350.7	44.3	23.5	-61.57	-1,306.8	-917.2	1,186.1	1,128.9	57.21	20.732	
8,070.8	6,786.9	6,484.7	6,337.5	46.1	23.5	-60.86	-1,306.8	-924.9	1,231.2	1,172.7	58.53	21.034	
8,100.0	6,786.8	6,478.5	6,332.1	46.9	23.5	-60.57	-1,306.8	-927.9	1,250.3	1,191.3	59.07	21.166	
8,169.3	6,786.5	6,450.0	6,306.9	48.7	23.6	-59.25	-1,306.8	-941.2	1,297.2	1,237.2	60.02	21.613	
8,200.0	6,786.4	6,450.0	6,306.9	49.5	23.6	-59.25	-1,306.8	-941.2	1,318.3	1,257.6	60.73	21.709	
8,267.7	6,786.1	6,450.0	6,306.9	51.3	23.6	-59.25	-1,306.8	-941.2	1,366.1	1,303.8	62.29	21.931	
8,300.0	6,786.0	6,450.0	6,306.9	52.1	23.6	-59.25	-1,306.8	-941.2	1,389.5	1,326.4	63.04	22.043	
8,366.1	6,785.8	6,429.6	6,288.5	53.9	23.6	-58.31	-1,306.8	-950.0	1,438.0	1,374.0	64.04	22.456	
8,400.0	6,785.6	6,424.3	6,283.7	54.8	23.6	-58.06	-1,306.8	-952.3	1,463.4	1,398.7	64.68	22.627	
8,464.5	6,785.4	6,400.0	6,261.4	56.5	23.7	-56.95	-1,306.8	-962.0	1,512.7	1,447.3	65.49	23.100	
8,500.0	6,785.3	6,400.0	6,261.4	57.5	23.7	-56.95	-1,306.8	-962.0	1,540.0	1,473.7	66.30	23.230	
8,563.0	6,785.0	6,400.0	6,261.4	59.2	23.7	-56.95	-1,306.8	-962.0	1,589.3	1,521.6	67.74	23.462	
8,600.0	6,784.9	6,400.0	6,261.4	60.2	23.7	-56.95	-1,306.8	-962.0	1,618.7	1,550.1	68.59	23.601	
8,661.4	6,784.6	6,400.0	6,261.4	61.8	23.7	-56.95	-1,306.8	-962.0	1,668.1	1,598.1	70.00	23.831	
8,700.0	6,784.5	6,400.0	6,261.4	62.9	23.7	-56.95	-1,306.8	-962.0	1,699.6	1,628.7	70.88	23.977	
8,759.8	6,784.3	6,376.5	6,239.5	64.5	23.7	-55.89	-1,306.8	-970.7	1,748.5	1,677.0	71.51	24.450	
8,800.0	6,784.1	6,372.0	6,235.4	65.6	23.7	-55.69	-1,306.8	-972.3	1,781.8	1,709.5	72.28	24.651	
8,858.2	6,783.9	6,350.0	6,214.6	67.1	23.8	-54.71	-1,306.8	-979.6	1,830.7	1,757.8	72.87	25.123	
8,900.0	6,783.7	6,350.0	6,214.6	68.3	23.8	-54.71	-1,306.8	-979.6	1,865.8	1,792.0	73.81	25.278	
8,956.7	6,783.5	6,350.0	6,214.6	69.8	23.8	-54.71	-1,306.8	-979.6	1,913.9	1,838.8	75.09	25.487	
9,000.0	6,783.3	6,350.0	6,214.6	71.0	23.8	-54.71	-1,306.8	-979.6	1,950.9	1,874.8	76.07	25.646	
9,055.1	6,783.1	6,350.0	6,214.6	72.5	23.8	-54.71	-1,306.8	-979.6	1,998.4	1,921.1	77.32	25.845	
9,100.0	6,782.9	6,350.0	6,214.6	73.7	23.8	-54.71	-1,306.8	-979.6	2,037.4	1,959.1	78.34	26.007	
9,153.5	6,782.7	6,350.0	6,214.6	75.2	23.8	-54.71	-1,306.8	-979.6	2,084.2	2,004.6	79.56	26.198	
9,200.0	6,782.6	6,350.0	6,214.6	76.5	23.8	-54.71	-1,306.8	-979.6	2,125.1	2,044.5	80.61	26.362	
9,251.9	6,782.4	6,330.2	6,195.8	77.9	23.8	-53.84	-1,306.8	-985.7	2,170.7	2,089.7	81.02	26.791	
9,300.0	6,782.2	6,326.5	6,192.2	79.2	23.8	-53.67	-1,306.8	-986.8	2,213.3	2,131.4	81.96	27.005	
9,350.4	6,782.0	6,322.8	6,188.7	80.6	23.8	-53.51	-1,306.8	-987.8	2,258.2	2,175.3	82.94	27.226	
9,400.0	6,781.8	6,319.2	6,185.3	82.0	23.8	-53.36	-1,306.8	-988.8	2,302.6	2,218.7	83.91	27.440	
9,448.8	6,781.6	6,300.0	6,166.7	83.3	23.8	-52.53	-1,306.8	-993.9	2,346.7	2,262.5	84.21	27.866	

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 SCHAUMBERG 17G-314
<b>Project:</b>	WELD COUNTY, COLORADO	<b>TVD Reference:</b>	KB-EST @ 4633.0usft (Original Well Elev)
<b>Reference Site:</b>	SW NW SEC. 17 T5N R64W 6th P.M.	<b>MD Reference:</b>	KB-EST @ 4633.0usft (Original Well Elev)
<b>Site Error:</b>	0.0 usft	<b>North Reference:</b>	True
<b>Reference Well:</b>	SCHAUMBERG 17G-314	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Well Error:</b>	0.0 usft	<b>Output errors are at</b>	2.00 sigma
<b>Reference Wellbore</b>	ORIGINAL WELLBORE	<b>Database:</b>	EDM 5000.1 Single User Db
<b>Reference Design:</b>	PROPOSAL #1	<b>Offset TVD Reference:</b>	Offset Datum

Offset Design NW SW SEC. 17 T5N R64W 6th P.M. - CECIL'S KERSEY FARM 17K-232 - ORIGINAL WELLBORE - P												Offset Site Error:	0.0 usft
Survey Program: 0-MWMD												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
9,500.0	6,781.4	6,300.0	6,166.7	84.7	23.8	-52.53	-1,306.8	-993.9	2,392.8	2,307.5	85.35	28.034	
9,547.2	6,781.2	6,300.0	6,166.7	86.0	23.8	-52.53	-1,306.8	-993.9	2,435.5	2,349.1	86.40	28.187	
9,600.0	6,781.0	6,300.0	6,166.7	87.5	23.8	-52.53	-1,306.8	-993.9	2,483.5	2,395.9	87.58	28.356	
9,645.6	6,780.8	6,300.0	6,166.7	88.7	23.8	-52.53	-1,306.8	-993.9	2,525.1	2,436.5	88.60	28.500	
9,700.0	6,780.6	6,300.0	6,166.7	90.2	23.8	-52.53	-1,306.8	-993.9	2,574.8	2,485.0	89.81	28.669	
9,744.1	6,780.4	6,300.0	6,166.7	91.4	23.8	-52.53	-1,306.8	-993.9	2,615.3	2,524.5	90.80	28.804	
9,800.0	6,780.2	6,300.0	6,166.7	93.0	23.8	-52.53	-1,306.8	-993.9	2,666.8	2,574.7	92.04	28.973	
9,842.5	6,780.1	6,300.0	6,166.7	94.2	23.8	-52.53	-1,306.8	-993.9	2,706.0	2,613.0	92.99	29.099	
9,900.0	6,779.8	6,300.0	6,166.7	95.7	23.8	-52.53	-1,306.8	-993.9	2,759.3	2,665.0	94.28	29.268	
9,940.9	6,779.7	6,300.0	6,166.7	96.9	23.8	-52.53	-1,306.8	-993.9	2,797.3	2,702.1	95.19	29.385	
10,000.0	6,779.4	6,300.0	6,166.7	98.5	23.8	-52.53	-1,306.8	-993.9	2,852.3	2,755.8	96.52	29.553	
10,039.3	6,779.3	6,300.0	6,166.7	99.6	23.8	-52.53	-1,306.8	-993.9	2,889.1	2,791.7	97.40	29.663	
10,100.0	6,779.0	6,279.3	6,146.6	101.3	23.8	-51.65	-1,306.8	-998.9	2,945.4	2,847.7	97.73	30.140	
10,137.8	6,778.9	6,277.6	6,144.9	102.3	23.8	-51.58	-1,306.8	-999.3	2,980.8	2,882.3	98.48	30.269	
10,200.0	6,778.7	6,274.8	6,142.2	104.1	23.8	-51.46	-1,306.8	-999.9	3,039.2	2,939.5	99.71	30.479	
10,236.2	6,778.5	6,273.2	6,140.7	105.1	23.9	-51.39	-1,306.8	-1,000.2	3,073.2	2,972.8	100.43	30.599	
10,300.0	6,778.3	6,270.5	6,138.1	106.8	23.9	-51.28	-1,306.8	-1,000.8	3,133.3	3,031.6	101.70	30.808	
10,334.6	6,778.1	6,250.0	6,118.0	107.8	23.9	-50.43	-1,306.8	-1,004.9	3,166.2	3,064.8	101.39	31.227	
10,400.0	6,777.9	6,250.0	6,118.0	109.6	23.9	-50.43	-1,306.8	-1,004.9	3,227.9	3,125.1	102.82	31.393	
10,433.0	6,777.7	6,250.0	6,118.0	110.5	23.9	-50.43	-1,306.8	-1,004.9	3,259.1	3,155.6	103.54	31.476	
10,500.0	6,777.5	6,250.0	6,118.0	112.4	23.9	-50.43	-1,306.8	-1,004.9	3,322.5	3,217.5	105.01	31.641	
10,531.5	6,777.3	6,250.0	6,118.0	113.3	23.9	-50.43	-1,306.8	-1,004.9	3,352.4	3,246.7	105.70	31.717	
10,600.0	6,777.1	6,250.0	6,118.0	115.2	23.9	-50.43	-1,306.8	-1,004.9	3,417.4	3,310.3	107.20	31.881	
10,629.9	6,777.0	6,250.0	6,118.0	116.0	23.9	-50.43	-1,306.8	-1,004.9	3,445.9	3,338.0	107.85	31.951	
10,700.0	6,776.7	6,250.0	6,118.0	117.9	23.9	-50.43	-1,306.8	-1,004.9	3,512.7	3,403.3	109.38	32.113	
10,728.3	6,776.6	6,250.0	6,118.0	118.7	23.9	-50.43	-1,306.8	-1,004.9	3,539.7	3,429.7	110.00	32.178	
10,800.0	6,776.3	6,250.0	6,118.0	120.7	23.9	-50.43	-1,306.8	-1,004.9	3,608.1	3,496.5	111.57	32.339	
10,826.7	6,776.2	6,250.0	6,118.0	121.5	23.9	-50.43	-1,306.8	-1,004.9	3,633.7	3,521.5	112.16	32.398	
10,900.0	6,775.9	6,250.0	6,118.0	123.5	23.9	-50.43	-1,306.8	-1,004.9	3,703.8	3,590.1	113.76	32.557	
10,925.2	6,775.8	6,250.0	6,118.0	124.2	23.9	-50.43	-1,306.8	-1,004.9	3,728.0	3,613.6	114.32	32.611	
11,000.0	6,775.5	6,250.0	6,118.0	126.3	23.9	-50.43	-1,306.8	-1,004.9	3,799.8	3,683.8	115.96	32.769	
11,023.6	6,775.4	6,250.0	6,118.0	126.9	23.9	-50.43	-1,306.8	-1,004.9	3,822.4	3,706.0	116.47	32.818	
11,100.0	6,775.1	6,250.0	6,118.0	129.1	23.9	-50.43	-1,306.8	-1,004.9	3,895.9	3,777.7	118.15	32.975	
11,122.0	6,775.0	6,250.0	6,118.0	129.7	23.9	-50.43	-1,306.8	-1,004.9	3,917.1	3,798.5	118.63	33.019	
11,200.0	6,774.7	6,250.0	6,118.0	131.9	23.9	-50.43	-1,306.8	-1,004.9	3,992.2	3,871.9	120.34	33.174	
11,220.4	6,774.6	6,250.0	6,118.0	132.4	23.9	-50.43	-1,306.8	-1,004.9	4,011.9	3,891.1	120.79	33.214	
11,300.0	6,774.3	6,250.0	6,118.0	134.6	23.9	-50.42	-1,306.8	-1,004.9	4,088.7	3,966.2	122.53	33.368	
11,318.9	6,774.2	6,250.0	6,118.0	135.2	23.9	-50.42	-1,306.8	-1,004.9	4,106.9	3,984.0	122.95	33.404	
11,400.0	6,773.9	6,250.0	6,118.0	137.4	23.9	-50.42	-1,306.8	-1,004.9	4,185.4	4,060.6	124.73	33.556	
11,417.3	6,773.8	6,250.0	6,118.0	137.9	23.9	-50.42	-1,306.8	-1,004.9	4,202.1	4,077.0	125.11	33.588	
11,500.0	6,773.5	6,250.0	6,118.0	140.2	23.9	-50.42	-1,306.8	-1,004.9	4,282.2	4,155.3	126.92	33.739	
11,515.7	6,773.4	6,250.0	6,118.0	140.7	23.9	-50.42	-1,306.8	-1,004.9	4,297.4	4,170.2	127.27	33.767	
11,600.0	6,773.1	6,250.0	6,118.0	143.0	23.9	-50.42	-1,306.8	-1,004.9	4,379.1	4,250.0	129.12	33.916	
11,614.1	6,773.0	6,250.0	6,118.0	143.4	23.9	-50.42	-1,306.8	-1,004.9	4,392.9	4,263.5	129.43	33.941	
11,700.0	6,772.7	6,228.1	6,096.4	145.8	23.9	-49.53	-1,306.8	-1,008.6	4,475.9	4,346.0	129.81	34.480	
11,712.6	6,772.6	6,227.8	6,096.1	146.2	23.9	-49.52	-1,306.8	-1,008.6	4,488.1	4,358.0	130.06	34.507	
11,800.0	6,772.3	6,225.9	6,094.2	148.6	23.9	-49.44	-1,306.8	-1,008.9	4,573.0	4,441.2	131.83	34.689	
11,811.0	6,772.2	6,225.7	6,094.0	148.9	23.9	-49.43	-1,306.8	-1,009.0	4,583.7	4,451.6	132.05	34.712	
11,900.0	6,771.9	6,223.8	6,092.1	151.4	23.9	-49.36	-1,306.8	-1,009.2	4,670.3	4,536.4	133.85	34.892	
11,909.4	6,771.8	6,223.6	6,091.9	151.7	23.9	-49.35	-1,306.8	-1,009.3	4,679.4	4,545.4	134.04	34.911	
12,000.0	6,771.5	6,221.8	6,090.1	154.2	23.9	-49.28	-1,306.8	-1,009.5	4,767.6	4,631.7	135.87	35.089	
12,007.8	6,771.4	6,200.0	6,068.5	154.4	23.9	-48.42	-1,306.8	-1,012.4	4,775.6	4,641.2	134.48	35.513	

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 SCHAUMBERG 17G-314
<b>Project:</b>	WELD COUNTY, COLORADO	<b>TVD Reference:</b>	KB-EST @ 4633.0usft (Original Well Elev)
<b>Reference Site:</b>	SW NW SEC. 17 T5N R64W 6th P.M.	<b>MD Reference:</b>	KB-EST @ 4633.0usft (Original Well Elev)
<b>Site Error:</b>	0.0 usft	<b>North Reference:</b>	True
<b>Reference Well:</b>	SCHAUMBERG 17G-314	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Well Error:</b>	0.0 usft	<b>Output errors are at</b>	2.00 sigma
<b>Reference Wellbore</b>	ORIGINAL WELLBORE	<b>Database:</b>	EDM 5000.1 Single User Db
<b>Reference Design:</b>	PROPOSAL #1	<b>Offset TVD Reference:</b>	Offset Datum

<b>Offset Design</b> NW SW SEC. 17 T5N R64W 6th P.M. - CECIL'S KERSEY FARM 17K-232 - ORIGINAL WELLBORE - P												<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
12,100.0	6,771.1	6,200.0	6,068.5	157.0	23.9	-48.42	-1,306.8	-1,012.4	4,865.4	4,728.9	136.45	35.657	
12,106.3	6,771.0	6,200.0	6,068.5	157.2	23.9	-48.42	-1,306.8	-1,012.4	4,871.5	4,734.9	136.58	35.667	
12,200.0	6,770.7	6,200.0	6,068.5	159.8	23.9	-48.42	-1,306.8	-1,012.4	4,962.9	4,824.3	138.59	35.810	
12,204.7	6,770.6	6,200.0	6,068.5	159.9	23.9	-48.42	-1,306.8	-1,012.4	4,967.5	4,828.8	138.69	35.817	
12,300.0	6,770.3	6,200.0	6,068.5	162.6	23.9	-48.42	-1,306.8	-1,012.4	5,060.5	4,919.8	140.73	35.959	
12,303.1	6,770.2	6,200.0	6,068.5	162.7	23.9	-48.42	-1,306.8	-1,012.4	5,063.5	4,922.7	140.80	35.964	
12,361.7	6,770.0	6,200.0	6,068.5	164.3	23.9	-48.41	-1,306.8	-1,012.4	5,120.8	4,978.7	142.05	36.049	



# Anticollision Report



<b>Company:</b>	PDC ENERGY	<b>Local Co-ordinate Reference:</b>	Well SCHAUMBERG 17G-314
<b>Project:</b>	WELD COUNTY, COLORADO	<b>TVD Reference:</b>	KB-EST @ 4633.0usft (Original Well Elev)
<b>Reference Site:</b>	SW NW SEC. 17 T5N R64W 6th P.M.	<b>MD Reference:</b>	KB-EST @ 4633.0usft (Original Well Elev)
<b>Site Error:</b>	0.0 usft	<b>North Reference:</b>	True
<b>Reference Well:</b>	SCHAUMBERG 17G-314	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Well Error:</b>	0.0 usft	<b>Output errors are at</b>	2.00 sigma
<b>Reference Wellbore</b>	ORIGINAL WELLBORE	<b>Database:</b>	EDM 5000.1 Single User Db
<b>Reference Design:</b>	PROPOSAL #1	<b>Offset TVD Reference:</b>	Offset Datum

<b>Offset Design</b> NW SW SEC. 17 T5N R64W 6th P.M. - CECIL'S KERSEY FARM 17K-332 - ORIGINAL WELLBORE - P												<b>Offset Site Error:</b>	0.0 usft
Survey Program: 0-MWDD												<b>Offset Well Error:</b>	0.0 usft
Reference		Offset		Semi Major Axis			Distance						Warning
Measured Depth (usft)	Vertical Depth (usft)	Measured Depth (usft)	Vertical Depth (usft)	Reference (usft)	Offset (usft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (usft)	+E/-W (usft)	Between Centres (usft)	Between Ellipses (usft)	Minimum Separation (usft)	Separation Factor	
0.0	0.0	3.0	3.0	0.0	0.0	-174.22	-1,990.6	-201.7	2,000.8				
98.4	98.4	101.4	101.4	0.1	0.1	-174.22	-1,990.6	-201.7	2,000.8	2,000.6	0.20	N/A	
100.0	100.0	103.0	103.0	0.1	0.1	-174.22	-1,990.6	-201.7	2,000.8	2,000.6	0.20	9,890.652	
196.8	196.8	199.8	199.8	0.3	0.3	-174.22	-1,990.6	-201.7	2,000.8	2,000.1	0.64	3,137.678	
200.0	200.0	203.0	203.0	0.3	0.3	-174.22	-1,990.6	-201.7	2,000.8	2,000.1	0.65	3,069.515	
295.3	295.3	298.3	298.3	0.5	0.5	-174.22	-1,990.6	-201.7	2,000.8	1,999.7	1.08	1,852.376	
300.0	300.0	303.0	303.0	0.5	0.6	-174.22	-1,990.6	-201.7	2,000.8	1,999.7	1.10	1,816.652	
393.7	393.7	396.7	396.7	0.8	0.8	-174.22	-1,990.6	-201.7	2,000.8	1,999.3	1.52	1,314.083	
400.0	400.0	403.0	403.0	0.8	0.8	-174.22	-1,990.6	-201.7	2,000.8	1,999.2	1.55	1,290.086	
492.1	492.1	495.1	495.1	1.0	1.0	-174.22	-1,990.6	-201.7	2,000.8	1,998.8	1.97	1,018.198	
500.0	500.0	503.0	503.0	1.0	1.0	-174.22	-1,990.6	-201.7	2,000.8	1,998.8	2.00	1,000.179	
590.5	590.5	593.5	593.5	1.2	1.2	-174.22	-1,990.6	-201.7	2,000.8	1,998.4	2.41	831.070	
600.0	600.0	603.0	603.0	1.2	1.2	-174.22	-1,990.6	-201.7	2,000.8	1,998.3	2.45	816.660	
689.0	689.0	692.0	692.0	1.4	1.4	-174.22	-1,990.6	-201.7	2,000.8	1,997.9	2.85	702.046	
700.0	700.0	703.0	703.0	1.4	1.5	-174.22	-1,990.6	-201.7	2,000.8	1,997.9	2.90	690.046	
787.4	787.4	790.4	790.4	1.6	1.6	-174.22	-1,990.6	-201.7	2,000.8	1,997.5	3.29	607.700	
800.0	800.0	803.0	803.0	1.7	1.7	-174.22	-1,990.6	-201.7	2,000.8	1,997.4	3.35	597.423	
885.8	885.8	888.8	888.8	1.9	1.9	-174.22	-1,990.6	-201.7	2,000.8	1,997.0	3.73	535.708	
900.0	900.0	903.0	903.0	1.9	1.9	-174.22	-1,990.6	-201.7	2,000.8	1,997.0	3.80	526.722	
984.2	984.2	987.2	987.2	2.1	2.1	-174.22	-1,990.6	-201.7	2,000.8	1,996.6	4.18	478.967	
1,000.0	1,000.0	1,003.0	1,003.0	2.1	2.1	-174.22	-1,990.6	-201.7	2,000.8	1,996.5	4.25	470.984	
1,082.7	1,082.7	1,085.7	1,085.7	2.3	2.3	-174.22	-1,990.6	-201.7	2,000.8	1,996.2	4.62	433.094	
1,100.0	1,100.0	1,103.0	1,103.0	2.3	2.4	-174.22	-1,990.6	-201.7	2,000.8	1,996.1	4.70	425.914	
1,181.1	1,181.1	1,184.1	1,184.1	2.5	2.5	-174.22	-1,990.6	-201.7	2,000.8	1,995.7	5.06	395.240	
1,200.0	1,200.0	1,203.0	1,203.0	2.6	2.6	-174.22	-1,990.6	-201.7	2,000.8	1,995.6	5.15	388.716	
1,279.5	1,279.5	1,282.5	1,282.5	2.7	2.8	-174.22	-1,990.6	-201.7	2,000.8	1,995.3	5.50	363.471	
1,300.0	1,300.0	1,303.0	1,303.0	2.8	2.8	-174.22	-1,990.6	-201.7	2,000.8	1,995.2	5.60	357.494	
1,377.9	1,377.9	1,380.9	1,380.9	3.0	3.0	-174.22	-1,990.6	-201.7	2,000.8	1,994.8	5.95	336.430	
1,400.0	1,400.0	1,403.0	1,403.0	3.0	3.0	-174.22	-1,990.6	-201.7	2,000.8	1,994.7	6.05	330.914	
1,476.4	1,476.4	1,479.4	1,479.4	3.2	3.2	-174.22	-1,990.6	-201.7	2,000.8	1,994.4	6.39	313.133	
1,500.0	1,500.0	1,503.0	1,503.0	3.2	3.3	-174.22	-1,990.6	-201.7	2,000.8	1,994.3	6.50	308.014	
1,574.8	1,574.8	1,587.5	1,587.5	3.4	3.4	-174.21	-1,990.5	-201.9	2,000.7	1,993.9	6.85	292.026	
1,600.0	1,600.0	1,621.5	1,621.5	3.5	3.5	-174.19	-1,990.2	-202.5	2,000.5	1,993.6	6.98	286.579	
1,673.2	1,673.2	1,720.2	1,720.1	3.6	3.7	-174.08	-1,988.2	-206.1	1,999.4	1,992.0	7.36	271.785	
1,700.0	1,700.0	1,756.2	1,756.1	3.7	3.8	-174.02	-1,987.2	-208.2	1,998.7	1,991.2	7.50	266.659	
1,771.6	1,771.6	1,852.2	1,851.7	3.9	4.0	-173.79	-1,983.2	-215.8	1,996.4	1,988.5	7.87	253.641	
1,800.0	1,800.0	1,890.0	1,889.2	3.9	4.1	-173.68	-1,981.3	-219.5	1,995.2	1,987.2	8.02	248.771	
1,870.1	1,870.1	1,982.9	1,981.2	4.1	4.3	-14.57	-1,975.5	-230.6	1,991.0	1,982.6	8.39	237.338	
1,900.0	1,900.0	2,022.3	2,020.1	4.1	4.4	-14.42	-1,972.6	-236.1	1,988.4	1,979.9	8.55	232.600	
1,968.5	1,968.4	2,111.6	2,108.0	4.2	4.7	-14.05	-1,965.2	-250.3	1,981.0	1,972.1	8.91	222.398	
2,000.0	1,999.8	2,152.2	2,147.8	4.3	4.8	-13.86	-1,961.4	-257.6	1,976.8	1,967.7	9.08	217.698	
2,066.9	2,066.5	2,236.6	2,230.1	4.4	5.1	-13.44	-1,952.7	-274.2	1,966.3	1,956.8	9.45	207.985	
2,100.0	2,099.5	2,268.5	2,261.1	4.5	5.2	-13.28	-1,949.2	-280.9	1,960.4	1,950.8	9.61	203.930	
2,165.3	2,164.4	2,331.4	2,322.1	4.6	5.4	-12.97	-1,942.3	-294.1	1,947.9	1,938.0	9.94	196.037	
2,200.0	2,198.7	2,364.6	2,354.5	4.7	5.6	-12.80	-1,938.7	-301.1	1,940.7	1,930.6	10.11	192.021	
2,263.8	2,261.8	2,425.6	2,413.7	4.8	5.8	-12.51	-1,932.0	-313.8	1,926.4	1,916.0	10.42	184.806	
2,300.0	2,297.5	2,460.2	2,447.3	4.9	5.9	-12.35	-1,928.2	-321.1	1,917.8	1,907.2	10.60	180.840	
2,362.2	2,358.6	2,519.3	2,504.7	5.0	6.2	-12.08	-1,921.7	-333.5	1,901.9	1,891.0	10.92	174.199	
2,400.0	2,395.6	2,555.0	2,539.4	5.1	6.3	-11.92	-1,917.8	-340.9	1,891.7	1,880.6	11.11	170.309	
2,460.6	2,454.9	2,612.3	2,595.1	5.3	6.5	-11.58	-1,911.5	-353.0	1,875.0	1,863.6	11.46	163.648	
2,500.0	2,493.4	2,649.6	2,631.3	5.4	6.7	-11.36	-1,907.5	-360.7	1,864.2	1,852.5	11.69	159.501	
2,559.0	2,551.2	2,705.4	2,685.5	5.6	6.9	-11.03	-1,901.4	-372.4	1,848.0	1,836.0	12.04	153.492	

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 SCHAUMBERG 17G-314
<b>Project:</b>	WELD COUNTY, COLORADO	<b>TVD Reference:</b>	KB-EST @ 4633.0usft (Original Well Elev)
<b>Reference Site:</b>	SW NW SEC. 17 T5N R64W 6th P.M.	<b>MD Reference:</b>	KB-EST @ 4633.0usft (Original Well Elev)
<b>Site Error:</b>	0.0 usft	<b>North Reference:</b>	True
<b>Reference Well:</b>	SCHAUMBERG 17G-314	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Well Error:</b>	0.0 usft	<b>Output errors are at</b>	2.00 sigma
<b>Reference Wellbore</b>	ORIGINAL WELLBORE	<b>Database:</b>	EDM 5000.1 Single User Db
<b>Reference Design:</b>	PROPOSAL #1	<b>Offset TVD Reference:</b>	Offset Datum

Offset Design												Offset Site Error:	0.0 usft
Survey Program: 0-MWDD												Offset Well Error:	0.0 usft
Reference		Offset		Semi Major Axis			Distance						Warning
Measured Depth (usft)	Vertical Depth (usft)	Measured Depth (usft)	Vertical Depth (usft)	Reference (usft)	Offset (usft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (usft)	+E/-W (usft)	Between Centres (usft)	Between Ellipses (usft)	Minimum Separation (usft)	Separation Factor	
2,600.0	2,591.3	2,744.1	2,723.1	5.7	7.1	-10.80	-1,897.1	-380.5	1,836.9	1,824.6	12.29	149.515	
2,657.5	2,647.5	2,798.4	2,775.9	5.9	7.4	-10.46	-1,891.2	-391.9	1,821.2	1,808.6	12.63	144.161	
2,700.0	2,689.1	2,838.5	2,814.9	6.0	7.5	-10.21	-1,886.8	-400.3	1,809.7	1,796.8	12.90	140.303	
2,755.9	2,743.7	2,891.4	2,866.3	6.2	7.8	-9.88	-1,881.0	-411.4	1,794.6	1,781.3	13.25	135.472	
2,800.0	2,786.9	2,933.0	2,906.8	6.4	8.0	-9.61	-1,876.4	-420.1	1,782.7	1,769.2	13.52	131.811	
2,854.3	2,840.0	2,984.4	2,956.6	6.6	8.2	-9.28	-1,870.8	-430.9	1,768.1	1,754.3	13.87	127.476	
2,900.0	2,884.7	3,027.5	2,998.6	6.7	8.4	-8.99	-1,866.1	-439.9	1,755.9	1,741.8	14.16	123.982	
2,952.7	2,936.3	3,077.4	3,047.0	6.9	8.6	-8.66	-1,860.6	-450.4	1,741.9	1,727.4	14.50	120.097	
3,000.0	2,982.5	3,122.0	3,090.4	7.1	8.8	-8.35	-1,855.7	-459.7	1,729.3	1,714.5	14.81	116.762	
3,051.2	3,032.6	3,170.4	3,137.4	7.3	9.0	-8.02	-1,850.4	-469.9	1,715.8	1,700.7	15.15	113.281	
3,100.0	3,080.3	3,216.5	3,182.2	7.5	9.3	-7.70	-1,845.4	-479.5	1,703.0	1,687.5	15.47	110.098	
3,149.6	3,128.8	3,263.4	3,227.7	7.7	9.5	-7.36	-1,840.3	-489.3	1,690.0	1,674.2	15.80	106.978	
3,200.0	3,178.1	3,311.0	3,274.0	7.9	9.7	-7.02	-1,835.0	-499.3	1,676.8	1,660.7	16.13	103.939	
3,248.0	3,225.1	3,356.4	3,318.1	8.1	9.9	-6.69	-1,830.1	-508.8	1,664.4	1,647.9	16.46	101.143	
3,300.0	3,276.0	3,405.5	3,365.8	8.3	10.1	-6.32	-1,824.7	-519.1	1,650.9	1,634.1	16.80	98.240	
3,346.4	3,321.4	3,449.4	3,408.5	8.5	10.4	-5.99	-1,819.9	-528.3	1,639.0	1,621.8	17.12	95.734	
3,400.0	3,373.8	3,500.0	3,457.7	8.7	10.6	-5.61	-1,814.4	-538.9	1,625.3	1,607.8	17.48	92.960	
3,444.9	3,417.7	3,542.4	3,498.9	8.8	10.8	-5.28	-1,809.7	-547.8	1,613.8	1,596.0	17.79	90.712	
3,500.0	3,471.6	3,594.5	3,549.5	9.1	11.1	-4.87	-1,804.0	-558.7	1,599.8	1,581.7	18.17	88.059	
3,543.3	3,513.9	3,635.4	3,589.2	9.2	11.3	-4.54	-1,799.5	-567.3	1,588.9	1,570.5	18.47	86.044	
3,600.0	3,569.4	3,689.0	3,641.3	9.5	11.5	-4.10	-1,793.7	-578.5	1,574.7	1,555.9	18.86	83.505	
3,641.7	3,610.2	3,728.4	3,679.6	9.7	11.7	-3.78	-1,789.4	-586.8	1,564.3	1,545.2	19.15	81.698	
3,700.0	3,667.2	3,783.5	3,733.1	9.9	12.0	-3.32	-1,783.3	-598.3	1,549.9	1,530.3	19.55	79.267	
3,740.1	3,706.5	3,821.4	3,770.0	10.1	12.2	-2.99	-1,779.2	-606.3	1,540.0	1,520.1	19.83	77.647	
3,800.0	3,765.0	3,878.0	3,824.9	10.3	12.4	-2.51	-1,773.0	-618.1	1,525.3	1,505.0	20.25	75.318	
3,838.6	3,802.8	3,914.5	3,860.4	10.5	12.6	-2.19	-1,769.0	-625.7	1,515.9	1,495.4	20.52	73.865	
3,900.0	3,862.8	3,972.5	3,916.8	10.7	12.9	-1.67	-1,762.6	-637.9	1,501.0	1,480.1	20.96	71.632	
3,937.0	3,899.0	4,007.5	3,950.7	10.9	13.1	-1.36	-1,758.8	-645.2	1,492.2	1,470.9	21.22	70.330	
4,000.0	3,960.7	4,067.0	4,008.6	11.2	13.4	-0.81	-1,752.3	-657.7	1,477.1	1,455.5	21.66	68.188	
4,035.4	3,995.3	4,100.5	4,041.1	11.3	13.5	-0.50	-1,748.6	-664.7	1,468.7	1,446.8	21.91	67.021	
4,100.0	4,058.5	4,161.5	4,100.4	11.6	13.8	0.08	-1,741.9	-677.5	1,453.5	1,431.2	22.37	64.965	
4,133.8	4,091.6	4,193.5	4,131.5	11.7	14.0	0.38	-1,738.4	-684.2	1,445.6	1,423.0	22.62	63.921	
4,200.0	4,156.3	4,256.0	4,192.2	12.0	14.3	0.99	-1,731.6	-697.3	1,430.3	1,407.2	23.09	61.946	
4,232.3	4,187.9	4,286.5	4,221.8	12.2	14.4	1.29	-1,728.3	-703.7	1,422.9	1,399.6	23.32	61.013	
4,300.0	4,254.1	4,350.5	4,284.0	12.5	14.8	1.94	-1,721.3	-717.1	1,407.5	1,383.7	23.81	59.116	
4,325.7	4,279.2	4,374.7	4,307.6	12.6	14.9	2.18	-1,718.6	-722.2	1,401.7	1,377.7	23.99	58.418	
4,330.7	4,284.1	4,379.5	4,312.2	12.6	14.9	2.23	-1,718.1	-723.2	1,400.6	1,376.5	24.04	58.268	
4,400.0	4,352.1	4,445.2	4,376.0	12.8	15.2	2.89	-1,710.9	-736.9	1,386.0	1,361.4	24.62	56.303	
4,429.1	4,380.8	4,472.9	4,403.0	12.9	15.4	3.17	-1,707.9	-742.7	1,380.4	1,355.6	24.85	55.539	
4,500.0	4,450.7	4,540.6	4,468.7	13.1	15.7	3.86	-1,700.4	-756.9	1,368.2	1,342.8	25.43	53.809	
4,527.5	4,478.0	4,567.0	4,494.4	13.2	15.8	4.13	-1,697.6	-762.4	1,364.0	1,338.3	25.65	53.187	
4,600.0	4,549.9	4,636.6	4,562.0	13.4	16.2	4.84	-1,689.9	-777.0	1,354.3	1,328.1	26.21	51.670	
4,626.0	4,575.7	4,661.6	4,586.3	13.5	16.3	5.10	-1,687.2	-782.3	1,351.3	1,324.9	26.41	51.170	
4,700.0	4,649.4	4,733.0	4,655.7	13.6	16.6	5.83	-1,679.4	-797.2	1,344.3	1,317.3	26.96	49.857	
4,724.4	4,673.7	4,756.6	4,678.6	13.7	16.8	6.07	-1,676.8	-802.2	1,342.4	1,315.3	27.14	49.462	
4,800.0	4,749.2	4,829.8	4,749.8	13.8	17.1	6.83	-1,668.8	-817.5	1,338.1	1,310.5	27.68	48.343	
4,822.8	4,772.0	4,852.0	4,771.3	13.9	17.2	7.05	-1,666.4	-822.1	1,337.3	1,309.5	27.84	48.038	
4,900.0	4,849.2	4,926.9	4,844.1	14.0	17.6	7.82	-1,658.2	-837.8	1,335.9	1,307.6	28.36	47.105	
4,907.3	4,856.4	4,934.0	4,851.0	14.0	17.7	7.89	-1,657.4	-839.3	1,335.9	1,307.5	28.41	47.025	
4,921.2	4,870.4	4,947.5	4,864.2	14.1	17.7	8.03	-1,655.9	-842.2	1,335.9	1,307.4	28.50	46.875	
4,925.6	4,874.8	4,951.8	4,868.3	14.1	17.7	-150.74	-1,655.4	-843.1	1,336.0	1,310.2	25.77	51.839	
5,000.0	4,949.2	5,024.1	4,938.5	14.2	18.1	-150.00	-1,647.5	-858.2	1,336.6	1,310.5	26.08	51.252	

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 SCHAUMBERG 17G-314
<b>Project:</b>	WELD COUNTY, COLORADO	<b>TVD Reference:</b>	KB-EST @ 4633.0usft (Original Well Elev)
<b>Reference Site:</b>	SW NW SEC. 17 T5N R64W 6th P.M.	<b>MD Reference:</b>	KB-EST @ 4633.0usft (Original Well Elev)
<b>Site Error:</b>	0.0 usft	<b>North Reference:</b>	True
<b>Reference Well:</b>	SCHAUMBERG 17G-314	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Well Error:</b>	0.0 usft	<b>Output errors are at</b>	2.00 sigma
<b>Reference Wellbore</b>	ORIGINAL WELLBORE	<b>Database:</b>	EDM 5000.1 Single User Db
<b>Reference Design:</b>	PROPOSAL #1	<b>Offset TVD Reference:</b>	Offset Datum

Offset Design												Offset Site Error:	0.0 usft
Survey Program: 0-MW/D												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	4,968.8	5,043.2	4,957.1	14.2	18.2	-149.81	-1,645.4	-862.2	1,336.8	1,310.7	26.16	51.100	
5,100.0	5,049.2	5,121.2	5,032.9	14.3	18.6	-149.02	-1,636.9	-878.6	1,337.8	1,311.4	26.50	50.493	
5,118.1	5,067.3	5,138.8	5,050.0	14.3	18.7	-148.84	-1,635.0	-882.2	1,338.1	1,311.5	26.57	50.358	
5,200.0	5,149.2	5,218.4	5,127.3	14.5	19.1	-148.04	-1,626.2	-898.9	1,339.5	1,312.6	26.92	49.758	
5,216.5	5,165.7	5,234.4	5,142.9	14.5	19.2	-147.88	-1,624.5	-902.3	1,339.8	1,312.8	26.99	49.639	
5,300.0	5,249.2	5,315.6	5,221.7	14.6	19.6	-147.06	-1,615.6	-919.3	1,341.6	1,314.2	27.35	49.048	
5,314.9	5,264.1	5,330.1	5,235.9	14.6	19.6	-146.92	-1,614.0	-922.3	1,341.9	1,314.5	27.42	48.944	
5,400.0	5,349.2	5,412.7	5,316.2	14.8	20.1	-146.09	-1,605.0	-939.6	1,344.0	1,316.2	27.79	48.360	
5,413.4	5,362.5	5,425.7	5,328.8	14.8	20.1	-145.96	-1,603.6	-942.3	1,344.4	1,316.5	27.85	48.270	
5,500.0	5,449.2	5,513.4	5,414.1	14.9	20.5	-145.10	-1,594.2	-960.2	1,346.8	1,318.6	28.23	47.709	
5,511.8	5,461.0	5,525.7	5,426.1	14.9	20.5	-144.99	-1,593.0	-962.6	1,347.2	1,318.9	28.28	47.639	
5,600.0	5,549.2	5,618.2	5,516.8	15.1	20.9	-144.22	-1,584.5	-978.7	1,349.6	1,320.9	28.64	47.120	
5,610.2	5,559.4	5,629.0	5,527.4	15.1	20.9	-144.14	-1,583.6	-980.4	1,349.8	1,321.2	28.68	47.061	
5,700.0	5,649.2	5,724.4	5,621.6	15.2	21.2	-143.50	-1,576.5	-994.1	1,352.0	1,323.0	29.05	46.549	
5,708.6	5,657.8	5,733.6	5,630.7	15.3	21.2	-143.44	-1,575.9	-995.2	1,352.2	1,323.2	29.08	46.500	
5,800.0	5,749.2	5,831.7	5,728.1	15.4	21.5	-142.93	-1,570.3	-1,006.1	1,354.1	1,324.6	29.44	45.995	
5,807.1	5,756.2	5,839.4	5,735.7	15.4	21.5	-142.90	-1,569.9	-1,006.8	1,354.2	1,324.7	29.47	45.957	
5,900.0	5,849.2	5,940.0	5,835.9	15.6	21.7	-142.53	-1,565.8	-1,014.6	1,355.6	1,325.7	29.82	45.459	
5,905.5	5,854.7	5,946.0	5,841.9	15.6	21.7	-142.51	-1,565.6	-1,014.9	1,355.6	1,325.8	29.84	45.430	
6,000.0	5,949.2	6,040.0	5,940.0	15.7	25.6	179.40	-1,562.6	-178.8	1,355.2	1,323.3	31.95	42.413	
6,003.9	5,953.1	6,043.9	5,949.9	15.7	25.6	179.40	-1,562.6	-178.8	1,352.8	1,320.8	31.96	42.329	
6,100.0	6,049.2	6,149.6	6,049.2	15.9	25.6	179.47	-1,562.6	-180.1	1,296.5	1,264.4	32.12	40.363	
6,102.3	6,051.5	6,151.5	6,051.5	15.9	25.6	179.47	-1,562.6	-180.1	1,295.2	1,263.1	32.12	40.317	
6,124.6	6,073.8	6,173.8	6,073.8	15.9	25.6	179.49	-1,562.6	-180.4	1,282.8	1,250.7	32.16	39.886	
6,150.0	6,099.2	6,199.2	6,099.2	16.0	25.6	-91.77	-1,562.6	-181.2	1,269.1	1,230.0	39.08	32.474	
6,200.0	6,149.0	6,249.0	6,149.0	16.1	25.5	-93.97	-1,562.6	-185.4	1,243.2	1,204.1	39.12	31.777	
6,200.8	6,149.8	6,249.8	6,149.8	16.1	25.5	-94.00	-1,562.6	-185.5	1,242.8	1,203.7	39.12	31.767	
6,250.0	6,198.5	6,298.5	6,198.5	16.2	25.4	-95.78	-1,562.6	-193.1	1,219.0	1,179.8	39.11	31.166	
6,299.2	6,246.6	6,296.6	6,246.6	16.3	25.2	-97.18	-1,562.6	-204.0	1,196.9	1,157.8	39.07	30.636	
6,300.0	6,247.4	6,297.4	6,247.4	16.3	25.2	-97.20	-1,562.6	-204.2	1,196.6	1,157.5	39.07	30.628	
6,350.0	6,295.5	6,345.5	6,295.5	16.5	25.0	-98.25	-1,562.6	-218.6	1,176.1	1,137.1	39.01	30.152	
6,397.6	6,340.2	6,390.2	6,340.2	16.6	24.8	-98.92	-1,562.6	-235.5	1,158.6	1,119.6	38.93	29.764	
6,400.0	6,342.4	6,392.4	6,342.4	16.6	24.7	-98.95	-1,562.6	-236.4	1,157.7	1,118.8	38.92	29.747	
6,450.0	6,388.1	6,438.1	6,388.1	16.8	24.4	-99.32	-1,562.6	-257.3	1,141.4	1,102.6	38.81	29.407	
6,496.0	6,428.8	6,528.8	6,428.8	17.0	24.1	-99.40	-1,562.6	-279.4	1,128.3	1,089.6	38.71	29.148	
6,500.0	6,432.2	6,532.2	6,432.2	17.0	24.1	-99.40	-1,562.6	-281.4	1,127.2	1,088.5	38.70	29.129	
6,550.0	6,474.6	6,574.6	6,474.6	17.3	23.6	-98.76	-1,562.6	-318.6	1,114.9	1,076.5	38.47	28.983	
6,594.5	6,510.7	6,610.7	6,510.7	17.5	23.2	-97.77	-1,562.6	-358.9	1,105.3	1,067.1	38.25	28.901	
6,600.0	6,515.0	6,615.0	6,515.0	17.6	23.1	-97.65	-1,562.6	-363.7	1,104.2	1,066.0	38.23	28.888	
6,650.0	6,553.3	6,653.3	6,553.3	17.9	22.7	-96.56	-1,562.6	-405.3	1,095.1	1,057.0	38.11	28.731	
6,692.9	6,584.3	6,684.3	6,584.3	18.2	22.4	-95.62	-1,562.6	-438.6	1,088.5	1,050.4	38.13	28.546	
6,700.0	6,589.2	6,689.2	6,589.2	18.2	22.3	-95.46	-1,562.6	-443.9	1,087.5	1,049.4	38.14	28.517	
6,750.0	6,622.7	6,722.7	6,622.7	18.6	22.0	-94.33	-1,562.6	-480.1	1,081.5	1,043.2	38.28	28.250	
6,791.3	6,648.3	6,748.3	6,648.3	19.0	21.8	-93.37	-1,562.6	-508.6	1,077.8	1,039.3	38.50	27.996	
6,800.0	6,653.4	6,753.4	6,653.4	19.1	21.8	-93.16	-1,562.6	-514.4	1,077.1	1,038.6	38.55	27.942	
6,850.0	6,681.4	6,781.4	6,681.4	19.6	21.6	-91.95	-1,562.6	-546.9	1,074.2	1,035.3	38.92	27.602	
6,889.7	6,701.5	6,801.5	6,701.5	20.1	21.5	-90.95	-1,562.6	-571.7	1,073.0	1,033.6	39.31	27.295	
6,900.0	6,706.3	6,806.3	6,706.3	20.2	21.5	-90.68	-1,562.6	-577.9	1,072.8	1,033.4	39.41	27.221	
6,926.1	6,718.2	6,818.2	6,718.2	20.6	21.4	-90.00	-1,562.6	-593.6	1,072.6	1,032.9	39.71	27.014 CC	
6,950.0	6,728.2	6,828.2	6,728.2	20.9	21.4	-89.36	-1,562.6	-607.6	1,072.7	1,032.7	39.99	26.822 ES	
6,988.2	6,742.8	6,842.8	6,742.8	21.5	21.3	-88.33	-1,562.6	-629.3	1,073.6	1,033.1	40.50	26.507	
7,000.0	6,746.9	6,846.9	6,746.9	21.6	21.3	-87.98	-1,562.6	-636.5	1,074.0	1,033.4	40.66	26.418	

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 SCHAUMBERG 17G-314
<b>Project:</b>	WELD COUNTY, COLORADO	<b>TVD Reference:</b>	KB-EST @ 4633.0usft (Original Well Elev)
<b>Reference Site:</b>	SW NW SEC. 17 T5N R64W 6th P.M.	<b>MD Reference:</b>	KB-EST @ 4633.0usft (Original Well Elev)
<b>Site Error:</b>	0.0 usft	<b>North Reference:</b>	True
<b>Reference Well:</b>	SCHAUMBERG 17G-314	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Well Error:</b>	0.0 usft	<b>Output errors are at</b>	2.00 sigma
<b>Reference Wellbore</b>	ORIGINAL WELLBORE	<b>Database:</b>	EDM 5000.1 Single User Db
<b>Reference Design:</b>	PROPOSAL #1	<b>Offset TVD Reference:</b>	Offset Datum

<b>Offset Design</b> NW SW SEC. 17 T5N R64W 6th P.M. - CECIL'S KERSEY FARM 17K-332 - ORIGINAL WELLBORE - P												<b>Offset Site Error:</b>	0.0 usft
Survey Program: 0-MWMD												<b>Offset Well Error:</b>	0.0 usft
Reference		Offset		Semi Major Axis			Distance						Warning
Measured Depth (usft)	Vertical Depth (usft)	Measured Depth (usft)	Vertical Depth (usft)	Reference (usft)	Offset (usft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (usft)	+E/-W (usft)	Between Centres (usft)	Between Ellipses (usft)	Minimum Separation (usft)	Separation Factor	
7,050.0	6,762.4	6,919.6	6,685.8	22.5	21.2	-86.60	-1,562.6	-663.2	1,076.5	1,035.1	41.42	25.993	
7,086.6	6,771.5	6,900.0	6,675.8	23.1	21.2	-85.65	-1,562.6	-680.0	1,079.1	1,037.0	42.01	25.683	
7,100.0	6,774.4	6,889.1	6,670.0	23.3	21.2	-85.16	-1,562.6	-689.3	1,080.1	1,037.9	42.23	25.580	
7,150.0	6,783.1	6,859.0	6,653.3	24.3	21.2	-83.69	-1,562.6	-714.3	1,084.7	1,041.7	43.08	25.178	
7,185.0	6,787.1	6,838.1	6,641.1	25.0	21.2	-82.65	-1,562.6	-731.2	1,088.5	1,044.8	43.71	24.903	
7,200.0	6,788.3	6,829.3	6,635.8	25.3	21.2	-82.20	-1,562.6	-738.3	1,090.2	1,046.3	43.98	24.791	
7,252.3	6,790.0	6,800.0	6,617.6	26.3	21.2	-80.69	-1,562.6	-761.2	1,096.8	1,051.9	44.93	24.412	
7,283.4	6,789.9	6,780.7	6,605.1	27.0	21.2	-80.04	-1,562.6	-775.9	1,101.2	1,055.7	45.54	24.180	
7,300.0	6,789.8	6,771.5	6,599.0	27.3	21.2	-79.73	-1,562.6	-782.8	1,103.7	1,057.9	45.87	24.064	
7,381.9	6,789.5	6,729.1	6,569.8	29.1	21.3	-78.23	-1,562.6	-813.5	1,118.3	1,070.8	47.53	23.527	
7,400.0	6,789.4	6,720.3	6,563.5	29.5	21.3	-77.91	-1,562.6	-819.6	1,122.0	1,074.1	47.90	23.424	
7,480.3	6,789.1	6,684.0	6,536.8	31.4	21.4	-76.55	-1,562.6	-844.2	1,140.7	1,091.2	49.59	23.005	
7,500.0	6,789.1	6,675.7	6,530.5	31.8	21.4	-76.23	-1,562.6	-849.6	1,145.9	1,095.9	50.00	22.918	
7,578.7	6,788.8	6,650.0	6,510.6	33.7	21.5	-75.24	-1,562.6	-865.9	1,168.7	1,117.0	51.71	22.600	
7,600.0	6,788.7	6,636.7	6,500.1	34.2	21.5	-74.72	-1,562.6	-874.1	1,175.5	1,123.3	52.13	22.548	
7,677.1	6,788.4	6,600.0	6,470.4	36.1	21.6	-73.26	-1,562.6	-895.6	1,202.3	1,148.5	53.72	22.381	
7,700.0	6,788.3	6,600.0	6,470.4	36.7	21.6	-73.26	-1,562.6	-895.6	1,210.8	1,156.5	54.27	22.311	
7,775.6	6,788.0	6,579.5	6,453.3	38.6	21.6	-72.42	-1,562.6	-906.9	1,241.1	1,185.2	55.93	22.190	
7,800.0	6,787.9	6,572.5	6,447.4	39.2	21.6	-72.14	-1,562.6	-910.7	1,251.6	1,195.1	56.46	22.167	
7,874.0	6,787.6	6,550.0	6,428.2	41.0	21.7	-71.22	-1,562.6	-922.4	1,285.2	1,227.1	58.05	22.139	
7,900.0	6,787.6	6,550.0	6,428.2	41.7	21.7	-71.22	-1,562.6	-922.4	1,297.7	1,239.0	58.69	22.112 SF	
7,972.4	6,787.3	6,528.6	6,409.6	43.6	21.7	-70.33	-1,562.6	-932.9	1,334.1	1,273.9	60.23	22.149	
8,000.0	6,787.2	6,522.4	6,404.1	44.3	21.7	-70.07	-1,562.6	-935.9	1,348.7	1,287.8	60.84	22.168	
8,070.8	6,786.9	6,500.0	6,384.2	46.1	21.8	-69.14	-1,562.6	-946.1	1,387.6	1,325.3	62.30	22.271	
8,100.0	6,786.8	6,500.0	6,384.2	46.9	21.8	-69.14	-1,562.6	-946.1	1,404.2	1,341.2	63.02	22.281	
8,169.3	6,786.5	6,500.0	6,384.2	48.7	21.8	-69.14	-1,562.6	-946.1	1,445.2	1,380.5	64.74	22.322	
8,200.0	6,786.4	6,482.6	6,368.5	49.5	21.8	-68.41	-1,562.6	-953.7	1,463.8	1,398.6	65.25	22.434	
8,267.7	6,786.1	6,470.9	6,357.9	51.3	21.8	-67.93	-1,562.6	-958.5	1,506.3	1,439.6	66.75	22.565	
8,300.0	6,786.0	6,465.7	6,353.1	52.1	21.8	-67.71	-1,562.6	-960.7	1,527.2	1,459.7	67.47	22.635	
8,366.1	6,785.8	6,450.0	6,338.7	53.9	21.9	-67.05	-1,562.6	-966.8	1,571.0	1,502.1	68.85	22.816	
8,400.0	6,785.6	6,450.0	6,338.7	54.8	21.9	-67.05	-1,562.6	-966.8	1,593.9	1,524.2	69.69	22.870	
8,464.5	6,785.4	6,450.0	6,338.7	56.5	21.9	-67.05	-1,562.6	-966.8	1,638.6	1,567.3	71.30	22.982	
8,500.0	6,785.3	6,450.0	6,338.7	57.5	21.9	-67.05	-1,562.6	-966.8	1,663.8	1,591.6	72.18	23.049	
8,563.0	6,785.0	6,428.4	6,318.6	59.2	21.9	-66.15	-1,562.6	-974.7	1,708.9	1,635.6	73.34	23.300	
8,600.0	6,784.9	6,423.9	6,314.3	60.2	21.9	-65.96	-1,562.6	-976.3	1,736.0	1,661.8	74.17	23.405	
8,661.4	6,784.6	6,416.7	6,307.6	61.8	21.9	-65.66	-1,562.6	-978.7	1,781.7	1,706.1	75.55	23.582	
8,700.0	6,784.5	6,400.0	6,291.8	62.9	22.0	-64.96	-1,562.6	-984.2	1,810.9	1,734.8	76.16	23.779	
8,759.8	6,784.3	6,400.0	6,291.8	64.5	22.0	-64.96	-1,562.6	-984.2	1,856.6	1,779.0	77.64	23.913	
8,800.0	6,784.1	6,400.0	6,291.8	65.6	22.0	-64.96	-1,562.6	-984.2	1,887.8	1,809.1	78.64	24.006	
8,858.2	6,783.9	6,400.0	6,291.8	67.1	22.0	-64.96	-1,562.6	-984.2	1,933.5	1,853.4	80.08	24.143	
8,900.0	6,783.7	6,400.0	6,291.8	68.3	22.0	-64.96	-1,562.6	-984.2	1,966.6	1,885.5	81.12	24.243	
8,956.7	6,783.5	6,400.0	6,291.8	69.8	22.0	-64.96	-1,562.6	-984.2	2,012.2	1,929.7	82.53	24.380	
9,000.0	6,783.3	6,400.0	6,291.8	71.0	22.0	-64.96	-1,562.6	-984.2	2,047.4	1,963.8	83.61	24.486	
9,055.1	6,783.1	6,378.4	6,271.2	72.5	22.0	-64.07	-1,562.6	-990.7	2,092.2	2,007.7	84.45	24.775	
9,100.0	6,782.9	6,374.7	6,267.7	73.7	22.0	-63.92	-1,562.6	-991.7	2,129.2	2,043.8	85.47	24.913	
9,153.5	6,782.7	6,370.5	6,263.7	75.2	22.0	-63.74	-1,562.6	-992.9	2,173.7	2,087.0	86.68	25.077	
9,200.0	6,782.6	6,350.0	6,243.8	76.5	22.0	-62.90	-1,562.6	-998.3	2,212.9	2,125.6	87.27	25.356	
9,251.9	6,782.4	6,350.0	6,243.8	77.9	22.0	-62.90	-1,562.6	-998.3	2,256.7	2,168.1	88.56	25.483	
9,300.0	6,782.2	6,350.0	6,243.8	79.2	22.0	-62.90	-1,562.6	-998.3	2,297.4	2,207.7	89.74	25.601	
9,350.4	6,782.0	6,350.0	6,243.8	80.6	22.0	-62.90	-1,562.6	-998.3	2,340.5	2,249.5	90.98	25.724	
9,400.0	6,781.8	6,350.0	6,243.8	82.0	22.0	-62.90	-1,562.6	-998.3	2,383.2	2,291.0	92.21	25.845	
9,448.8	6,781.6	6,350.0	6,243.8	83.3	22.0	-62.90	-1,562.6	-998.3	2,425.4	2,332.0	93.42	25.963	

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 SCHAUMBERG 17G-314
<b>Project:</b>	WELD COUNTY, COLORADO	<b>TVD Reference:</b>	KB-EST @ 4633.0usft (Original Well Elev)
<b>Reference Site:</b>	SW NW SEC. 17 T5N R64W 6th P.M.	<b>MD Reference:</b>	KB-EST @ 4633.0usft (Original Well Elev)
<b>Site Error:</b>	0.0 usft	<b>North Reference:</b>	True
<b>Reference Well:</b>	SCHAUMBERG 17G-314	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Well Error:</b>	0.0 usft	<b>Output errors are at</b>	2.00 sigma
<b>Reference Wellbore</b>	ORIGINAL WELLBORE	<b>Database:</b>	EDM 5000.1 Single User Db
<b>Reference Design:</b>	PROPOSAL #1	<b>Offset TVD Reference:</b>	Offset Datum

Offset Design												Offset Site Error:	0.0 usft
Survey Program: 0-MWMD												Offset Well Error:	0.0 usft
Reference		Offset		Semi Major Axis			Distance						Warning
Measured Depth (usft)	Vertical Depth (usft)	Measured Depth (usft)	Vertical Depth (usft)	Reference (usft)	Offset (usft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (usft)	+E/-W (usft)	Between Centres (usft)	Between Ellipses (usft)	Minimum Separation (usft)	Separation Factor	
9,500.0	6,781.4	6,350.0	6,243.8	84.7	22.0	-62.90	-1,562.6	-998.3	2,470.0	2,375.3	94.68	26.087	
9,547.2	6,781.2	6,350.0	6,243.8	86.0	22.0	-62.90	-1,562.6	-998.3	2,511.3	2,415.4	95.85	26.200	
9,600.0	6,781.0	6,350.0	6,243.8	87.5	22.0	-62.90	-1,562.6	-998.3	2,557.7	2,460.6	97.16	26.326	
9,645.6	6,780.8	6,350.0	6,243.8	88.7	22.0	-62.90	-1,562.6	-998.3	2,598.1	2,499.8	98.29	26.433	
9,700.0	6,780.6	6,350.0	6,243.8	90.2	22.0	-62.90	-1,562.6	-998.3	2,646.3	2,546.7	99.63	26.560	
9,744.1	6,780.4	6,350.0	6,243.8	91.4	22.0	-62.90	-1,562.6	-998.3	2,685.7	2,584.9	100.73	26.662	
9,800.0	6,780.2	6,330.4	6,224.8	93.0	22.0	-62.10	-1,562.6	-1,002.9	2,735.4	2,634.0	101.46	26.960	
9,842.5	6,780.1	6,328.3	6,222.8	94.2	22.0	-62.01	-1,562.6	-1,003.4	2,773.6	2,671.1	102.44	27.076	
9,900.0	6,779.8	6,325.6	6,220.1	95.7	22.0	-61.90	-1,562.6	-1,004.0	2,825.4	2,721.6	103.76	27.230	
9,940.9	6,779.7	6,323.7	6,218.2	96.9	22.0	-61.82	-1,562.6	-1,004.4	2,862.4	2,757.7	104.70	27.338	
10,000.0	6,779.4	6,321.0	6,215.6	98.5	22.0	-61.71	-1,562.6	-1,004.9	2,916.0	2,809.9	106.06	27.493	
10,039.3	6,779.3	6,300.0	6,195.0	99.6	22.1	-60.87	-1,562.6	-1,009.0	2,952.1	2,845.8	106.27	27.780	
10,100.0	6,779.0	6,300.0	6,195.0	101.3	22.1	-60.87	-1,562.6	-1,009.0	3,007.3	2,899.6	107.75	27.910	
10,137.8	6,778.9	6,300.0	6,195.0	102.3	22.1	-60.87	-1,562.6	-1,009.0	3,041.8	2,933.2	108.67	27.991	
10,200.0	6,778.7	6,300.0	6,195.0	104.1	22.1	-60.87	-1,562.6	-1,009.0	3,098.9	2,988.7	110.19	28.122	
10,236.2	6,778.5	6,300.0	6,195.0	105.1	22.1	-60.87	-1,562.6	-1,009.0	3,132.1	3,021.1	111.08	28.197	
10,300.0	6,778.3	6,300.0	6,195.0	106.8	22.1	-60.86	-1,562.6	-1,009.0	3,190.9	3,078.3	112.64	28.328	
10,334.6	6,778.1	6,300.0	6,195.0	107.8	22.1	-60.86	-1,562.6	-1,009.0	3,222.9	3,109.4	113.49	28.398	
10,400.0	6,777.9	6,300.0	6,195.0	109.6	22.1	-60.86	-1,562.6	-1,009.0	3,283.5	3,168.4	115.09	28.529	
10,433.0	6,777.7	6,300.0	6,195.0	110.5	22.1	-60.86	-1,562.6	-1,009.0	3,314.1	3,198.2	115.90	28.595	
10,500.0	6,777.5	6,300.0	6,195.0	112.4	22.1	-60.86	-1,562.6	-1,009.0	3,376.4	3,258.9	117.54	28.725	
10,531.5	6,777.3	6,300.0	6,195.0	113.3	22.1	-60.86	-1,562.6	-1,009.0	3,405.7	3,287.4	118.31	28.786	
10,600.0	6,777.1	6,300.0	6,195.0	115.2	22.1	-60.86	-1,562.6	-1,009.0	3,469.7	3,349.8	119.99	28.916	
10,629.9	6,777.0	6,300.0	6,195.0	116.0	22.1	-60.86	-1,562.6	-1,009.0	3,497.7	3,377.0	120.73	28.973	
10,700.0	6,776.7	6,300.0	6,195.0	117.9	22.1	-60.86	-1,562.6	-1,009.0	3,563.4	3,441.0	122.44	29.103	
10,728.3	6,776.6	6,300.0	6,195.0	118.7	22.1	-60.86	-1,562.6	-1,009.0	3,590.1	3,466.9	123.14	29.154	
10,800.0	6,776.3	6,300.0	6,195.0	120.7	22.1	-60.86	-1,562.6	-1,009.0	3,657.5	3,532.6	124.90	29.284	
10,826.7	6,776.2	6,300.0	6,195.0	121.5	22.1	-60.86	-1,562.6	-1,009.0	3,682.7	3,557.1	125.56	29.331	
10,900.0	6,775.9	6,300.0	6,195.0	123.5	22.1	-60.86	-1,562.6	-1,009.0	3,751.8	3,624.5	127.35	29.460	
10,925.2	6,775.8	6,300.0	6,195.0	124.2	22.1	-60.86	-1,562.6	-1,009.0	3,775.6	3,647.7	127.97	29.504	
11,000.0	6,775.5	6,300.0	6,195.0	126.3	22.1	-60.86	-1,562.6	-1,009.0	3,846.5	3,716.7	129.81	29.632	
11,023.6	6,775.4	6,300.0	6,195.0	126.9	22.1	-60.86	-1,562.6	-1,009.0	3,868.8	3,738.4	130.39	29.672	
11,100.0	6,775.1	6,300.0	6,195.0	129.1	22.1	-60.86	-1,562.6	-1,009.0	3,941.4	3,809.1	132.26	29.799	
11,122.0	6,775.0	6,300.0	6,195.0	129.7	22.1	-60.86	-1,562.6	-1,009.0	3,962.3	3,829.5	132.81	29.835	
11,200.0	6,774.7	6,300.0	6,195.0	131.9	22.1	-60.86	-1,562.6	-1,009.0	4,036.5	3,901.8	134.72	29.962	
11,220.4	6,774.6	6,300.0	6,195.0	132.4	22.1	-60.86	-1,562.6	-1,009.0	4,056.0	3,920.8	135.22	29.994	
11,300.0	6,774.3	6,300.0	6,195.0	134.6	22.1	-60.86	-1,562.6	-1,009.0	4,131.9	3,994.7	137.18	30.120	
11,318.9	6,774.2	6,278.4	6,173.7	135.2	22.1	-60.00	-1,562.6	-1,012.6	4,149.5	4,012.9	136.59	30.379	
11,400.0	6,773.9	6,276.5	6,171.9	137.4	22.1	-59.92	-1,562.6	-1,012.9	4,227.0	4,088.5	138.48	30.525	
11,417.3	6,773.8	6,276.1	6,171.5	137.9	22.1	-59.91	-1,562.6	-1,012.9	4,243.6	4,104.7	138.88	30.556	
11,500.0	6,773.5	6,274.3	6,169.7	140.2	22.1	-59.83	-1,562.6	-1,013.2	4,322.7	4,181.9	140.80	30.701	
11,515.7	6,773.4	6,274.0	6,169.3	140.7	22.1	-59.82	-1,562.6	-1,013.2	4,337.8	4,196.6	141.17	30.728	
11,600.0	6,773.1	6,272.2	6,167.6	143.0	22.1	-59.75	-1,562.6	-1,013.5	4,418.6	4,275.5	143.13	30.872	
11,614.1	6,773.0	6,271.9	6,167.3	143.4	22.1	-59.74	-1,562.6	-1,013.5	4,432.2	4,288.7	143.46	30.896	
11,700.0	6,772.7	6,250.0	6,145.6	145.8	22.1	-58.88	-1,562.6	-1,016.3	4,515.0	4,370.6	144.39	31.270	
11,712.6	6,772.6	6,250.0	6,145.6	146.2	22.1	-58.88	-1,562.6	-1,016.3	4,527.1	4,382.4	144.69	31.288	
11,800.0	6,772.3	6,250.0	6,145.6	148.6	22.1	-58.88	-1,562.6	-1,016.3	4,611.1	4,464.3	146.80	31.410	
11,811.0	6,772.2	6,250.0	6,145.6	148.9	22.1	-58.88	-1,562.6	-1,016.3	4,621.7	4,474.7	147.07	31.426	
11,900.0	6,771.9	6,250.0	6,145.6	151.4	22.1	-58.88	-1,562.6	-1,016.3	4,707.4	4,558.2	149.22	31.547	
11,909.4	6,771.8	6,250.0	6,145.6	151.7	22.1	-58.88	-1,562.6	-1,016.3	4,716.5	4,567.1	149.45	31.560	
12,000.0	6,771.5	6,250.0	6,145.6	154.2	22.1	-58.87	-1,562.6	-1,016.3	4,803.9	4,652.3	151.64	31.681	
12,007.8	6,771.4	6,250.0	6,145.6	154.4	22.1	-58.87	-1,562.6	-1,016.3	4,811.5	4,659.7	151.83	31.691	

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 SCHAUMBERG 17G-314
<b>Project:</b>	WELD COUNTY, COLORADO	<b>TVD Reference:</b>	KB-EST @ 4633.0usft (Original Well Elev)
<b>Reference Site:</b>	SW NW SEC. 17 T5N R64W 6th P.M.	<b>MD Reference:</b>	KB-EST @ 4633.0usft (Original Well Elev)
<b>Site Error:</b>	0.0 usft	<b>North Reference:</b>	True
<b>Reference Well:</b>	SCHAUMBERG 17G-314	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Well Error:</b>	0.0 usft	<b>Output errors are at</b>	2.00 sigma
<b>Reference Wellbore</b>	ORIGINAL WELLBORE	<b>Database:</b>	EDM 5000.1 Single User Db
<b>Reference Design:</b>	PROPOSAL #1	<b>Offset TVD Reference:</b>	Offset Datum

<b>Offset Design</b> NW SW SEC. 17 T5N R64W 6th P.M. - CECIL'S KERSEY FARM 17K-332 - ORIGINAL WELLBORE - P												<b>Offset Site Error:</b>	0.0 usft
Survey Program: 0-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
12,100.0	6,771.1	6,250.0	6,145.6	157.0	22.1	-58.87	-1,562.6	-1,016.3	4,900.5	4,746.5	154.05	31.811	
12,106.3	6,771.0	6,250.0	6,145.6	157.2	22.1	-58.87	-1,562.6	-1,016.3	4,906.6	4,752.4	154.21	31.819	
12,200.0	6,770.7	6,250.0	6,145.6	159.8	22.1	-58.87	-1,562.6	-1,016.3	4,997.3	4,840.8	156.47	31.937	
12,204.7	6,770.6	6,250.0	6,145.6	159.9	22.1	-58.87	-1,562.6	-1,016.3	5,001.8	4,845.2	156.59	31.943	
12,300.0	6,770.3	6,250.0	6,145.6	162.6	22.1	-58.87	-1,562.6	-1,016.3	5,094.1	4,935.2	158.89	32.061	
12,303.1	6,770.2	6,250.0	6,145.6	162.7	22.1	-58.87	-1,562.6	-1,016.3	5,097.2	4,938.2	158.97	32.065	
12,361.7	6,770.0	6,250.0	6,145.6	164.3	22.1	-58.87	-1,562.6	-1,016.3	5,154.0	4,993.6	160.38	32.136	



# Anticollision Report



<b>Company:</b>	PDC ENERGY	<b>Local Co-ordinate Reference:</b>	Well SCHAUMBERG 17G-314
<b>Project:</b>	WELD COUNTY, COLORADO	<b>TVD Reference:</b>	KB-EST @ 4633.0usft (Original Well Elev)
<b>Reference Site:</b>	SW NW SEC. 17 T5N R64W 6th P.M.	<b>MD Reference:</b>	KB-EST @ 4633.0usft (Original Well Elev)
<b>Site Error:</b>	0.0 usft	<b>North Reference:</b>	True
<b>Reference Well:</b>	SCHAUMBERG 17G-314	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Well Error:</b>	0.0 usft	<b>Output errors are at</b>	2.00 sigma
<b>Reference Wellbore</b>	ORIGINAL WELLBORE	<b>Database:</b>	EDM 5000.1 Single User Db
<b>Reference Design:</b>	PROPOSAL #1	<b>Offset TVD Reference:</b>	Offset Datum

<b>Offset Design</b> NW SW SEC. 17 T5N R64W 6th P.M. - CECIL'S KERSEY FARM 17K-334 - ORIGINAL WELLBORE - P												<b>Offset Site Error:</b>	0.0 usft
Survey Program: 0-MWMD												<b>Offset Well Error:</b>	0.0 usft
Reference		Offset		Semi Major Axis			Distance						
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	3.0	3.0	0.0	0.0	-174.21	-1,975.7	-200.3	1,985.8				
98.4	98.4	101.4	101.4	0.1	0.1	-174.21	-1,975.7	-200.3	1,985.8	1,985.6	0.20	N/A	
100.0	100.0	103.0	103.0	0.1	0.1	-174.21	-1,975.7	-200.3	1,985.8	1,985.6	0.20	9,816.496	
196.8	196.8	199.8	199.8	0.3	0.3	-174.21	-1,975.7	-200.3	1,985.8	1,985.1	0.64	3,114.153	
200.0	200.0	203.0	203.0	0.3	0.3	-174.21	-1,975.7	-200.3	1,985.8	1,985.1	0.65	3,046.501	
295.3	295.3	298.3	298.3	0.5	0.5	-174.21	-1,975.7	-200.3	1,985.8	1,984.7	1.08	1,838.488	
300.0	300.0	303.0	303.0	0.5	0.6	-174.21	-1,975.7	-200.3	1,985.8	1,984.7	1.10	1,803.031	
393.7	393.7	396.7	396.7	0.8	0.8	-174.21	-1,975.7	-200.3	1,985.8	1,984.3	1.52	1,304.230	
400.0	400.0	403.0	403.0	0.8	0.8	-174.21	-1,975.7	-200.3	1,985.8	1,984.2	1.55	1,280.414	
492.1	492.1	495.1	495.1	1.0	1.0	-174.21	-1,975.7	-200.3	1,985.8	1,983.8	1.97	1,010.564	
500.0	500.0	503.0	503.0	1.0	1.0	-174.21	-1,975.7	-200.3	1,985.8	1,983.8	2.00	992.680	
590.5	590.5	593.5	593.5	1.2	1.2	-174.21	-1,975.7	-200.3	1,985.8	1,983.4	2.41	824.839	
600.0	600.0	603.0	603.0	1.2	1.2	-174.21	-1,975.7	-200.3	1,985.8	1,983.3	2.45	810.537	
689.0	689.0	692.0	692.0	1.4	1.4	-174.21	-1,975.7	-200.3	1,985.8	1,982.9	2.85	696.783	
700.0	700.0	703.0	703.0	1.4	1.5	-174.21	-1,975.7	-200.3	1,985.8	1,982.9	2.90	684.872	
787.4	787.4	790.4	790.4	1.6	1.6	-174.21	-1,975.7	-200.3	1,985.8	1,982.5	3.29	603.144	
800.0	800.0	803.0	803.0	1.7	1.7	-174.21	-1,975.7	-200.3	1,985.8	1,982.4	3.35	592.943	
885.8	885.8	888.8	888.8	1.9	1.9	-174.21	-1,975.7	-200.3	1,985.8	1,982.0	3.73	531.692	
900.0	900.0	903.0	903.0	1.9	1.9	-174.21	-1,975.7	-200.3	1,985.8	1,982.0	3.80	522.772	
984.2	984.2	987.2	987.2	2.1	2.1	-174.21	-1,975.7	-200.3	1,985.8	1,981.6	4.18	475.376	
1,000.0	1,000.0	1,003.0	1,003.0	2.1	2.1	-174.21	-1,975.7	-200.3	1,985.8	1,981.5	4.25	467.453	
1,082.7	1,082.7	1,085.7	1,085.7	2.3	2.3	-174.21	-1,975.7	-200.3	1,985.8	1,981.2	4.62	429.847	
1,100.0	1,100.0	1,103.0	1,103.0	2.3	2.4	-174.21	-1,975.7	-200.3	1,985.8	1,981.1	4.70	422.720	
1,181.1	1,181.1	1,184.1	1,184.1	2.5	2.5	-174.21	-1,975.7	-200.3	1,985.8	1,980.7	5.06	392.277	
1,200.0	1,200.0	1,203.0	1,203.0	2.6	2.6	-174.21	-1,975.7	-200.3	1,985.8	1,980.6	5.15	385.802	
1,279.5	1,279.5	1,282.5	1,282.5	2.7	2.8	-174.21	-1,975.7	-200.3	1,985.8	1,980.3	5.50	360.746	
1,300.0	1,300.0	1,303.0	1,303.0	2.8	2.8	-174.21	-1,975.7	-200.3	1,985.8	1,980.2	5.60	354.813	
1,377.9	1,377.9	1,380.9	1,380.9	3.0	3.0	-174.21	-1,975.7	-200.3	1,985.8	1,979.8	5.95	333.907	
1,400.0	1,400.0	1,403.0	1,403.0	3.0	3.0	-174.21	-1,975.7	-200.3	1,985.8	1,979.7	6.05	328.433	
1,476.4	1,476.4	1,509.9	1,509.9	3.2	3.3	-174.22	-1,975.2	-199.8	1,985.5	1,979.1	6.46	307.593	
1,500.0	1,500.0	1,558.1	1,558.0	3.2	3.4	-174.25	-1,974.3	-198.7	1,985.0	1,978.4	6.61	300.181	
1,574.8	1,574.8	1,710.0	1,709.6	3.4	3.7	-174.44	-1,967.8	-191.4	1,981.5	1,974.4	7.12	278.408	
1,600.0	1,600.0	1,760.9	1,760.2	3.5	3.8	-174.54	-1,964.5	-187.7	1,979.7	1,972.4	7.29	271.514	
1,673.2	1,673.2	1,907.5	1,905.6	3.6	4.2	-174.93	-1,951.5	-173.0	1,972.5	1,964.7	7.81	252.440	
1,700.0	1,700.0	1,960.6	1,957.9	3.7	4.3	-175.11	-1,945.6	-166.3	1,969.2	1,961.2	8.02	245.650	
1,771.6	1,771.6	2,075.4	2,070.5	3.9	4.7	-175.57	-1,930.6	-149.5	1,958.9	1,950.4	8.51	230.267	
1,800.0	1,800.0	2,103.2	2,097.6	3.9	4.7	-175.69	-1,926.8	-145.1	1,954.6	1,945.9	8.66	225.823	
1,870.1	1,870.1	2,171.5	2,164.5	4.1	5.0	-17.26	-1,917.4	-134.5	1,943.2	1,934.3	8.94	217.338	
1,900.0	1,900.0	2,200.6	2,193.0	4.1	5.1	-17.42	-1,913.4	-130.0	1,937.9	1,928.8	9.08	213.401	
1,968.5	1,968.4	2,267.0	2,257.9	4.2	5.3	-17.83	-1,904.2	-119.7	1,924.7	1,915.3	9.39	204.969	
2,000.0	1,999.8	2,297.3	2,287.6	4.3	5.4	-18.02	-1,900.0	-114.9	1,918.1	1,908.6	9.53	201.288	
2,066.9	2,066.5	2,361.6	2,350.4	4.4	5.6	-18.46	-1,891.2	-105.0	1,903.1	1,893.3	9.83	193.556	
2,100.0	2,099.5	2,393.2	2,381.3	4.5	5.8	-18.69	-1,886.8	-100.0	1,895.2	1,885.2	9.98	189.901	
2,165.3	2,164.4	2,455.3	2,442.0	4.6	6.0	-19.16	-1,878.3	-90.4	1,878.6	1,868.3	10.28	182.789	
2,200.0	2,198.7	2,488.0	2,474.1	4.7	6.1	-19.43	-1,873.7	-85.3	1,869.2	1,858.8	10.43	179.169	
2,263.8	2,261.8	2,547.9	2,532.7	4.8	6.3	-19.94	-1,865.5	-76.0	1,851.1	1,840.4	10.72	172.606	
2,300.0	2,297.5	2,581.7	2,565.7	4.9	6.5	-20.25	-1,860.8	-70.7	1,840.3	1,829.4	10.89	169.015	
2,362.2	2,358.6	2,639.4	2,622.2	5.0	6.7	-20.80	-1,852.9	-61.7	1,820.8	1,809.7	11.18	162.931	
2,400.0	2,395.6	2,674.2	2,656.2	5.1	6.8	-21.16	-1,848.1	-56.3	1,808.5	1,797.1	11.35	159.360	
2,460.6	2,454.9	2,729.9	2,710.7	5.3	7.0	-21.59	-1,840.4	-47.7	1,788.4	1,776.7	11.67	153.261	
2,500.0	2,493.4	2,766.0	2,746.0	5.4	7.2	-21.87	-1,835.4	-42.0	1,775.3	1,763.5	11.88	149.460	
2,559.0	2,551.2	2,820.3	2,799.1	5.6	7.4	-22.31	-1,827.9	-33.6	1,755.9	1,743.7	12.20	143.908	

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 SCHAUMBERG 17G-314
<b>Project:</b>	WELD COUNTY, COLORADO	<b>TVD Reference:</b>	KB-EST @ 4633.0usft (Original Well Elev)
<b>Reference Site:</b>	SW NW SEC. 17 T5N R64W 6th P.M.	<b>MD Reference:</b>	KB-EST @ 4633.0usft (Original Well Elev)
<b>Site Error:</b>	0.0 usft	<b>North Reference:</b>	True
<b>Reference Well:</b>	SCHAUMBERG 17G-314	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Well Error:</b>	0.0 usft	<b>Output errors are at</b>	2.00 sigma
<b>Reference Wellbore</b>	ORIGINAL WELLBORE	<b>Database:</b>	EDM 5000.1 Single User Db
<b>Reference Design:</b>	PROPOSAL #1	<b>Offset TVD Reference:</b>	Offset Datum

<b>Offset Design</b> NW SW SEC. 17 T5N R64W 6th P.M. - CECIL'S KERSEY FARM 17K-334 - ORIGINAL WELLBORE - P												<b>Offset Site Error:</b>	0.0 usft
Survey Program: 0-MWDD												<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	
2,600.0	2,591.3	2,857.9	2,835.9	5.7	7.6	-22.61	-1,822.8	-27.8	1,742.5	1,730.1	12.43	140.224	
2,657.5	2,647.5	2,910.7	2,887.5	5.9	7.8	-23.05	-1,815.5	-19.6	1,723.7	1,711.0	12.75	135.221	
2,700.0	2,689.1	2,949.7	2,925.7	6.0	7.9	-23.38	-1,810.1	-13.5	1,709.9	1,696.9	12.99	131.609	
2,755.9	2,743.7	3,001.1	2,975.9	6.2	8.1	-23.82	-1,803.0	-5.5	1,691.8	1,678.5	13.32	127.050	
2,800.0	2,786.9	3,041.6	3,015.5	6.4	8.3	-24.17	-1,797.4	0.8	1,677.6	1,664.1	13.58	123.577	
2,854.3	2,840.0	3,091.5	3,064.3	6.6	8.5	-24.62	-1,790.6	8.6	1,660.2	1,646.3	13.90	119.442	
2,900.0	2,884.7	3,133.4	3,105.4	6.7	8.7	-25.00	-1,784.8	15.1	1,645.7	1,631.5	14.18	116.089	
2,952.7	2,936.3	3,181.8	3,152.8	6.9	8.9	-25.44	-1,778.1	22.6	1,629.0	1,614.5	14.50	112.343	
3,000.0	2,982.5	3,225.2	3,195.2	7.1	9.1	-25.85	-1,772.1	29.4	1,614.1	1,599.3	14.79	109.109	
3,051.2	3,032.6	3,272.2	3,241.2	7.3	9.3	-26.30	-1,765.6	36.7	1,598.0	1,582.9	15.12	105.717	
3,100.0	3,080.3	3,317.1	3,285.0	7.5	9.5	-26.73	-1,759.5	43.7	1,582.8	1,567.4	15.43	102.598	
3,149.6	3,128.8	3,362.6	3,329.6	7.7	9.7	-27.19	-1,753.2	50.7	1,567.5	1,551.7	15.75	99.530	
3,200.0	3,178.1	3,408.9	3,374.9	7.9	9.8	-27.65	-1,746.8	57.9	1,551.9	1,535.9	16.08	96.524	
3,248.0	3,225.1	3,453.0	3,418.0	8.1	10.0	-28.11	-1,740.7	64.8	1,537.3	1,520.9	16.40	93.750	
3,300.0	3,276.0	3,500.8	3,464.7	8.3	10.2	-28.61	-1,734.1	72.2	1,521.5	1,504.7	16.75	90.855	
3,346.4	3,321.4	3,543.4	3,506.4	8.5	10.4	-29.06	-1,728.3	78.9	1,507.5	1,490.4	17.06	88.348	
3,400.0	3,373.8	3,592.6	3,554.5	8.7	10.6	-29.59	-1,721.5	86.5	1,491.4	1,474.0	17.43	85.561	
3,444.9	3,417.7	3,633.8	3,594.8	8.8	10.8	-30.05	-1,715.8	92.9	1,478.1	1,460.3	17.74	83.298	
3,500.0	3,471.6	3,684.4	3,644.4	9.1	11.0	-30.62	-1,708.8	100.8	1,461.8	1,443.7	18.13	80.615	
3,543.3	3,513.9	3,724.2	3,683.3	9.2	11.2	-31.08	-1,703.3	107.0	1,449.2	1,430.7	18.44	78.574	
3,600.0	3,569.4	3,776.3	3,734.2	9.5	11.4	-31.68	-1,696.2	115.1	1,432.7	1,413.9	18.85	75.993	
3,641.7	3,610.2	3,814.6	3,771.7	9.7	11.6	-32.14	-1,690.9	121.0	1,420.7	1,401.6	19.16	74.154	
3,700.0	3,667.2	3,868.1	3,824.0	9.9	11.8	-32.79	-1,683.5	129.4	1,404.1	1,384.5	19.59	71.672	
3,740.1	3,706.5	3,905.0	3,860.1	10.1	12.0	-33.24	-1,678.4	135.1	1,392.8	1,372.9	19.89	70.017	
3,800.0	3,765.0	3,959.9	3,913.9	10.3	12.2	-33.94	-1,670.8	143.6	1,376.1	1,355.7	20.35	67.632	
3,838.6	3,802.8	3,995.4	3,948.5	10.5	12.4	-34.39	-1,666.0	149.2	1,365.4	1,344.7	20.64	66.145	
3,900.0	3,862.8	4,051.8	4,003.7	10.7	12.6	-35.13	-1,658.2	157.9	1,348.6	1,327.5	21.12	63.854	
3,937.0	3,899.0	4,085.8	4,036.9	10.9	12.8	-35.58	-1,653.5	163.2	1,338.6	1,317.2	21.41	62.519	
4,000.0	3,960.7	4,143.6	4,093.5	11.2	13.0	-36.36	-1,645.5	172.2	1,321.7	1,299.8	21.91	60.320	
4,035.4	3,995.3	4,176.2	4,125.4	11.3	13.2	-36.81	-1,641.0	177.3	1,312.3	1,290.1	22.20	59.124	
4,100.0	4,058.5	4,235.5	4,183.4	11.6	13.4	-37.64	-1,632.9	186.5	1,295.5	1,272.8	22.72	57.016	
4,133.8	4,091.6	4,266.5	4,213.8	11.7	13.6	-38.08	-1,628.6	191.3	1,286.8	1,263.8	23.00	55.946	
4,200.0	4,156.3	4,327.3	4,273.2	12.0	13.8	-38.97	-1,620.2	200.8	1,270.0	1,246.4	23.55	53.926	
4,232.3	4,187.9	4,356.9	4,302.2	12.2	14.0	-39.41	-1,616.1	205.4	1,261.9	1,238.1	23.82	52.972	
4,300.0	4,254.1	4,419.1	4,363.0	12.5	14.2	-40.34	-1,607.5	215.1	1,245.2	1,220.8	24.40	51.039	
4,325.7	4,279.2	4,442.7	4,386.1	12.6	14.3	-40.70	-1,604.3	218.7	1,238.9	1,214.3	24.62	50.329	
4,330.7	4,284.1	4,447.3	4,390.6	12.6	14.3	-40.76	-1,603.7	219.4	1,237.7	1,213.1	24.66	50.191	
4,400.0	4,352.1	4,511.3	4,453.2	12.8	14.6	-41.51	-1,594.8	229.4	1,221.9	1,196.6	25.26	48.379	
4,429.1	4,380.8	4,538.4	4,479.7	12.9	14.7	-41.83	-1,591.1	233.6	1,215.7	1,190.2	25.49	47.685	
4,500.0	4,450.7	4,604.7	4,544.6	13.1	15.0	-42.59	-1,582.0	243.9	1,201.8	1,175.7	26.07	46.096	
4,527.5	4,478.0	4,630.7	4,570.0	13.2	15.2	-42.89	-1,578.4	248.0	1,196.8	1,170.5	26.29	45.524	
4,600.0	4,549.9	4,699.3	4,637.1	13.4	15.5	-43.66	-1,568.9	258.6	1,184.9	1,158.0	26.86	44.112	
4,626.0	4,575.7	4,724.0	4,661.3	13.5	15.6	-43.93	-1,565.5	262.5	1,181.0	1,154.0	27.06	43.646	
4,700.0	4,649.4	4,794.9	4,730.6	13.6	15.9	-44.69	-1,555.7	273.5	1,171.1	1,143.5	27.62	42.399	
4,724.4	4,673.7	4,818.4	4,753.5	13.7	16.0	-44.94	-1,552.5	277.2	1,168.2	1,140.4	27.80	42.022	
4,800.0	4,749.2	4,891.4	4,825.0	13.8	16.3	-45.69	-1,542.4	288.5	1,160.3	1,132.0	28.35	40.931	
4,822.8	4,772.0	4,913.5	4,846.6	13.9	16.4	-45.91	-1,539.4	292.0	1,158.3	1,129.8	28.51	40.630	
4,900.0	4,849.2	4,988.7	4,920.1	14.0	16.7	-46.63	-1,529.0	303.6	1,152.4	1,123.4	29.04	39.684	
4,921.2	4,870.4	5,009.4	4,940.4	14.1	16.8	-46.82	-1,526.2	306.9	1,151.1	1,121.9	29.18	39.445	
4,925.6	4,874.8	5,013.7	4,944.6	14.1	16.8	154.34	-1,525.6	307.5	1,150.8	1,126.2	24.60	46.787	
5,000.0	4,949.2	5,086.5	5,015.8	14.2	17.2	153.61	-1,515.6	318.9	1,146.6	1,121.8	24.85	46.149	
5,019.7	4,968.8	5,105.7	5,034.6	14.2	17.3	153.42	-1,512.9	321.8	1,145.5	1,120.6	24.91	45.984	

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 SCHAUMBERG 17G-314
<b>Project:</b>	WELD COUNTY, COLORADO	<b>TVD Reference:</b>	KB-EST @ 4633.0usft (Original Well Elev)
<b>Reference Site:</b>	SW NW SEC. 17 T5N R64W 6th P.M.	<b>MD Reference:</b>	KB-EST @ 4633.0usft (Original Well Elev)
<b>Site Error:</b>	0.0 usft	<b>North Reference:</b>	True
<b>Reference Well:</b>	SCHAUMBERG 17G-314	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Well Error:</b>	0.0 usft	<b>Output errors are at</b>	2.00 sigma
<b>Reference Wellbore</b>	ORIGINAL WELLBORE	<b>Database:</b>	EDM 5000.1 Single User Db
<b>Reference Design:</b>	PROPOSAL #1	<b>Offset TVD Reference:</b>	Offset Datum

<b>Offset Design</b> NW SW SEC. 17 T5N R64W 6th P.M. - CECIL'S KERSEY FARM 17K-334 - ORIGINAL WELLBORE - P												<b>Offset Site Error:</b>	0.0 usft
Survey Program: 0-MWMD												<b>Offset Well Error:</b>	0.0 usft
Reference		Offset		Semi Major Axis			Distance						Warning
Measured Depth (usft)	Vertical Depth (usft)	Measured Depth (usft)	Vertical Depth (usft)	Reference (usft)	Offset (usft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (usft)	+E/-W (usft)	Between Centres (usft)	Between Ellipses (usft)	Minimum Separation (usft)	Separation Factor	
5,100.0	5,049.2	5,184.3	5,111.5	14.3	17.6	152.62	-1,502.1	334.1	1,141.2	1,116.1	25.18	45.326	
5,118.1	5,067.3	5,202.0	5,128.8	14.3	17.7	152.44	-1,499.6	336.8	1,140.3	1,115.1	25.24	45.181	
5,200.0	5,149.2	5,278.3	5,203.5	14.5	18.0	151.68	-1,489.3	348.5	1,136.3	1,110.8	25.50	44.565	
5,216.5	5,165.7	5,293.2	5,218.1	14.5	18.1	151.54	-1,487.4	350.6	1,135.6	1,110.0	25.55	44.448	
5,300.0	5,249.2	5,368.6	5,292.4	14.6	18.3	150.89	-1,478.6	360.5	1,132.3	1,106.5	25.79	43.902	
5,314.9	5,264.1	5,382.2	5,305.8	14.6	18.3	150.78	-1,477.2	362.2	1,131.8	1,105.9	25.84	43.806	
5,400.0	5,349.2	5,459.9	5,382.7	14.8	18.5	150.22	-1,469.7	370.6	1,129.2	1,103.1	26.09	43.280	
5,413.4	5,362.5	5,472.2	5,394.8	14.8	18.6	150.14	-1,468.7	371.8	1,128.8	1,102.7	26.13	43.198	
5,500.0	5,449.2	5,552.0	5,474.1	14.9	18.8	149.69	-1,462.7	378.5	1,126.8	1,100.4	26.40	42.687	
5,511.8	5,461.0	5,562.9	5,485.0	14.9	18.8	149.64	-1,462.0	379.3	1,126.6	1,100.2	26.44	42.618	
5,600.0	5,549.2	5,644.6	5,566.4	15.1	19.0	149.31	-1,457.5	384.3	1,125.2	1,098.5	26.71	42.120	
5,610.2	5,559.4	5,654.1	5,575.9	15.1	19.0	149.28	-1,457.1	384.8	1,125.1	1,098.4	26.75	42.064	
5,700.0	5,649.2	5,737.7	5,659.4	15.2	19.1	149.07	-1,454.4	387.8	1,124.3	1,097.3	27.04	41.580	
5,708.6	5,657.8	5,745.8	5,667.4	15.3	19.1	149.06	-1,454.2	388.0	1,124.2	1,097.2	27.07	41.535	
5,800.0	5,749.2	5,831.0	5,752.6	15.4	19.3	148.98	-1,453.3	389.1	1,124.0	1,096.6	27.37	41.063	
5,807.1	5,756.2	5,837.6	5,759.2	15.4	19.3	148.98	-1,453.3	389.1	1,124.0	1,096.6	27.40	41.027	
5,900.0	5,849.2	5,930.5	5,852.2	15.6	19.4	148.98	-1,453.3	389.1	1,124.0	1,096.2	27.74	40.520	
5,905.5	5,854.7	5,936.0	5,857.7	15.6	19.4	148.98	-1,453.3	389.1	1,124.0	1,096.2	27.76	40.489	
6,000.0	5,949.2	6,030.5	5,952.2	15.7	19.5	148.98	-1,453.3	389.1	1,124.0	1,095.8	28.12	39.971	
6,003.9	5,953.1	6,034.4	5,956.1	15.7	19.5	148.98	-1,453.3	389.1	1,124.0	1,095.8	28.13	39.949	
6,100.0	6,049.2	6,130.5	6,052.2	15.9	19.7	148.98	-1,453.3	389.1	1,124.0	1,095.5	28.50	39.433	
6,102.3	6,051.5	6,132.9	6,054.5	15.9	19.7	148.98	-1,453.3	389.1	1,124.0	1,095.4	28.51	39.421	
6,124.6	6,073.8	6,159.4	6,081.0	15.9	19.7	148.99	-1,453.3	389.1	1,124.0	1,095.3	28.60	39.292	
6,150.0	6,099.2	6,290.7	6,211.5	16.0	19.8	-120.62	-1,453.3	376.2	1,122.9	1,088.2	34.65	32.404	
6,200.0	6,149.0	6,266.7	6,431.8	16.1	19.5	-118.13	-1,453.3	294.4	1,115.6	1,081.4	34.22	32.605	
6,200.8	6,149.8	6,530.0	6,434.6	16.1	19.5	-118.08	-1,453.3	292.8	1,115.5	1,081.3	34.21	32.609	
6,250.0	6,198.5	6,715.6	6,581.5	16.2	19.2	-114.62	-1,453.3	180.1	1,103.4	1,069.7	33.63	32.805	
6,299.2	6,246.6	6,858.1	6,671.7	16.3	19.0	-111.27	-1,453.3	70.2	1,088.7	1,055.2	33.42	32.575	
6,300.0	6,247.4	6,860.1	6,672.9	16.3	19.0	-111.22	-1,453.3	68.5	1,088.4	1,055.0	33.42	32.567	
6,350.0	6,295.5	6,971.8	6,727.1	16.5	19.0	-108.33	-1,453.3	-29.1	1,072.4	1,038.7	33.66	31.855	
6,397.6	6,340.2	7,057.2	6,757.9	16.6	19.3	-106.07	-1,453.3	-108.6	1,057.1	1,022.9	34.20	30.908	
6,400.0	6,342.4	7,061.0	6,759.0	16.6	19.3	-105.97	-1,453.3	-112.3	1,056.3	1,022.1	34.23	30.856	
6,450.0	6,388.1	7,134.8	6,777.5	16.8	19.9	-104.02	-1,453.3	-183.7	1,040.9	1,005.9	35.01	29.728	
6,496.0	6,428.8	7,193.3	6,786.9	17.0	20.6	-102.48	-1,453.3	-241.4	1,027.5	991.7	35.83	28.673	
6,500.0	6,432.2	7,198.0	6,787.4	17.0	20.6	-102.35	-1,453.3	-246.0	1,026.4	990.5	35.91	28.586	
6,550.0	6,474.6	7,253.5	6,791.5	17.3	21.4	-100.87	-1,453.3	-301.4	1,013.2	976.3	36.88	27.473	
6,594.5	6,510.7	7,291.5	6,792.0	17.5	22.0	-99.96	-1,453.2	-339.4	1,002.7	965.0	37.70	26.597	
6,600.0	6,515.0	7,294.9	6,792.0	17.6	22.0	-99.90	-1,453.2	-342.8	1,001.4	963.7	37.78	26.506	
6,650.0	6,553.3	7,326.9	6,791.9	17.9	22.6	-99.27	-1,453.2	-374.8	991.6	953.0	38.65	25.660	
6,692.9	6,584.3	7,356.5	6,791.8	18.2	23.1	-98.58	-1,453.2	-404.4	984.7	945.2	39.50	24.928	
6,700.0	6,589.2	7,361.6	6,791.8	18.2	23.2	-98.46	-1,453.2	-409.5	983.7	944.1	39.65	24.810	
6,750.0	6,622.7	7,398.7	6,791.7	18.6	23.8	-97.51	-1,453.2	-446.6	977.5	936.7	40.75	23.984	
6,791.3	6,648.3	7,431.0	6,791.6	19.0	24.5	-96.65	-1,453.2	-478.9	973.4	931.6	41.82	23.279	
6,800.0	6,653.4	7,438.0	6,791.6	19.1	24.6	-96.47	-1,453.2	-485.9	972.7	930.6	42.04	23.135	
6,850.0	6,681.4	7,479.4	6,791.5	19.6	25.4	-95.38	-1,453.2	-527.3	969.2	925.7	43.45	22.307	
6,889.7	6,701.5	7,513.6	6,791.4	20.1	26.1	-94.51	-1,453.2	-561.5	967.2	922.5	44.67	21.650	
6,900.0	6,706.3	7,522.6	6,791.4	20.2	26.3	-94.29	-1,453.2	-570.5	966.7	921.7	45.00	21.483	
6,950.0	6,728.2	7,567.5	6,791.2	20.9	27.2	-93.25	-1,453.2	-615.4	965.1	918.4	46.69	20.670	
6,988.2	6,742.8	7,602.7	6,791.1	21.5	28.0	-92.51	-1,453.2	-650.6	964.3	916.3	48.06	20.064	
7,000.0	6,746.9	7,613.8	6,791.1	21.6	28.2	-92.30	-1,453.2	-661.7	964.1	915.6	48.50	19.878	
7,050.0	6,762.4	7,661.3	6,791.0	22.5	29.3	-91.46	-1,453.2	-709.2	963.6	913.1	50.45	19.102	
7,086.6	6,771.5	7,696.7	6,790.9	23.1	30.0	-90.95	-1,453.2	-744.6	963.4	911.5	51.92	18.554	

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 SCHAUMBERG 17G-314
<b>Project:</b>	WELD COUNTY, COLORADO	<b>TVD Reference:</b>	KB-EST @ 4633.0usft (Original Well Elev)
<b>Reference Site:</b>	SW NW SEC. 17 T5N R64W 6th P.M.	<b>MD Reference:</b>	KB-EST @ 4633.0usft (Original Well Elev)
<b>Site Error:</b>	0.0 usft	<b>North Reference:</b>	True
<b>Reference Well:</b>	SCHAUMBERG 17G-314	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Well Error:</b>	0.0 usft	<b>Output errors are at</b>	2.00 sigma
<b>Reference Wellbore</b>	ORIGINAL WELLBORE	<b>Database:</b>	EDM 5000.1 Single User Db
<b>Reference Design:</b>	PROPOSAL #1	<b>Offset TVD Reference:</b>	Offset Datum

Offset Design NW SW SEC. 17 T5N R64W 6th P.M. - CECIL'S KERSEY FARM 17K-334 - ORIGINAL WELLBORE - P												Offset Site Error:	0.0 usft
Survey Program: 0-MWMD												Offset Well Error:	0.0 usft
Reference		Offset		Semi Major Axis			Distance						Warning
Measured Depth (usft)	Vertical Depth (usft)	Measured Depth (usft)	Vertical Depth (usft)	Reference (usft)	Offset (usft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (usft)	+E/-W (usft)	Between Centres (usft)	Between Ellipses (usft)	Minimum Separation (usft)	Separation Factor	
7,100.0	6,774.4	7,709.8	6,790.9	23.3	30.3	-90.78	-1,453.2	-757.7	963.3	910.9	52.48	18.357	
7,150.0	6,783.1	7,759.0	6,790.7	24.3	31.5	-90.27	-1,453.2	-806.9	963.3	908.6	54.62	17.637	
7,185.0	6,787.1	7,793.8	6,790.6	25.0	32.3	-90.03	-1,453.2	-841.7	963.3	907.1	56.15	17.155	
7,192.3	6,787.7	7,801.0	6,790.6	25.1	32.5	-89.99	-1,453.2	-848.9	963.3	906.8	56.47	17.057	
7,200.0	6,788.3	7,808.7	6,790.6	25.3	32.6	-89.96	-1,453.2	-856.6	963.3	906.4	56.82	16.954	
7,252.3	6,790.0	7,861.0	6,790.5	26.3	33.9	-89.85	-1,453.2	-908.9	963.3	904.1	59.19	16.273	
7,283.4	6,789.9	7,892.1	6,790.4	27.0	34.6	-89.85	-1,453.2	-940.0	963.3	902.6	60.62	15.889	
7,300.0	6,789.8	7,908.7	6,790.3	27.3	35.0	-89.85	-1,453.2	-956.6	963.3	901.9	61.39	15.691	
7,381.9	6,789.5	7,990.5	6,790.1	29.1	37.0	-89.86	-1,453.2	-1,038.4	963.3	898.0	65.27	14.759	
7,400.0	6,789.4	8,008.7	6,790.1	29.5	37.5	-89.86	-1,453.2	-1,056.6	963.3	897.1	66.13	14.566	
7,480.3	6,789.1	8,089.0	6,789.9	31.4	39.5	-89.86	-1,453.2	-1,136.9	963.3	893.2	70.04	13.753	
7,500.0	6,789.1	8,108.7	6,789.8	31.8	40.0	-89.87	-1,453.2	-1,156.6	963.3	892.2	71.00	13.566	
7,578.7	6,788.8	8,187.4	6,789.6	33.7	42.0	-89.87	-1,453.2	-1,235.3	963.2	888.3	74.92	12.857	
7,600.0	6,788.7	8,208.7	6,789.5	34.2	42.5	-89.87	-1,453.2	-1,256.6	963.2	887.3	75.98	12.677	
7,677.1	6,788.4	8,285.8	6,789.3	36.1	44.5	-89.88	-1,453.2	-1,333.7	963.2	883.4	79.89	12.057	
7,700.0	6,788.3	8,308.7	6,789.3	36.7	45.1	-89.88	-1,453.2	-1,356.6	963.2	882.2	81.05	11.885	
7,775.6	6,788.0	8,384.2	6,789.1	38.6	47.0	-89.88	-1,453.2	-1,432.1	963.2	878.3	84.93	11.342	
7,800.0	6,787.9	8,408.7	6,789.0	39.2	47.7	-89.89	-1,453.2	-1,456.6	963.2	877.1	86.18	11.177	
7,874.0	6,787.6	8,482.7	6,788.8	41.0	49.6	-89.89	-1,453.2	-1,530.6	963.2	873.2	90.03	10.700	
7,900.0	6,787.6	8,508.7	6,788.8	41.7	50.3	-89.89	-1,453.2	-1,556.6	963.2	871.9	91.38	10.541	
7,972.4	6,787.3	8,581.1	6,788.6	43.6	52.2	-89.90	-1,453.2	-1,629.0	963.2	868.1	95.17	10.121	
8,000.0	6,787.2	8,608.7	6,788.5	44.3	52.9	-89.90	-1,453.2	-1,656.6	963.2	866.6	96.62	9.969	
8,070.8	6,786.9	8,679.5	6,788.3	46.1	54.8	-89.90	-1,453.2	-1,727.4	963.2	862.9	100.36	9.598	
8,100.0	6,786.8	8,708.7	6,788.2	46.9	55.6	-89.91	-1,453.2	-1,756.6	963.2	861.3	101.90	9.452	
8,169.3	6,786.5	8,777.9	6,788.0	48.7	57.4	-89.91	-1,453.2	-1,825.8	963.2	857.7	105.59	9.123	
8,200.0	6,786.4	8,808.7	6,788.0	49.5	58.2	-89.91	-1,453.2	-1,856.6	963.2	856.0	107.22	8.984	
8,267.7	6,786.1	8,876.4	6,787.8	51.3	60.1	-89.92	-1,453.2	-1,924.3	963.2	852.4	110.84	8.690	
8,300.0	6,786.0	8,908.7	6,787.7	52.1	60.9	-89.92	-1,453.2	-1,956.6	963.2	850.7	112.57	8.557	
8,366.1	6,785.8	8,974.8	6,787.5	53.9	62.7	-89.93	-1,453.2	-2,022.7	963.2	847.1	116.12	8.295	
8,400.0	6,785.6	9,008.7	6,787.4	54.8	63.6	-89.93	-1,453.2	-2,056.6	963.2	845.3	117.94	8.167	
8,464.5	6,785.4	9,073.2	6,787.3	56.5	65.4	-89.93	-1,453.2	-2,121.1	963.2	841.8	121.43	7.933	
8,500.0	6,785.3	9,108.7	6,787.2	57.5	66.3	-89.94	-1,453.2	-2,156.6	963.2	839.9	123.34	7.810	
8,563.0	6,785.0	9,171.6	6,787.0	59.2	68.0	-89.94	-1,453.2	-2,219.5	963.2	836.5	126.75	7.600	
8,600.0	6,784.9	9,208.7	6,786.9	60.2	69.0	-89.94	-1,453.2	-2,256.6	963.2	834.5	128.76	7.481	
8,661.4	6,784.6	9,270.1	6,786.7	61.8	70.7	-89.95	-1,453.2	-2,318.0	963.2	831.2	132.09	7.292	
8,700.0	6,784.5	9,308.7	6,786.6	62.9	71.7	-89.95	-1,453.2	-2,356.6	963.2	829.1	134.19	7.178	
8,759.8	6,784.3	9,368.5	6,786.5	64.5	73.4	-89.95	-1,453.2	-2,416.4	963.2	825.8	137.45	7.008	
8,800.0	6,784.1	9,408.7	6,786.4	65.6	74.5	-89.96	-1,453.2	-2,456.6	963.2	823.6	139.63	6.898	
8,858.2	6,783.9	9,466.9	6,786.2	67.1	76.0	-89.96	-1,453.2	-2,514.8	963.2	820.4	142.82	6.745	
8,900.0	6,783.7	9,508.7	6,786.1	68.3	77.2	-89.96	-1,453.2	-2,556.6	963.2	818.1	145.10	6.639	
8,956.7	6,783.5	9,565.3	6,786.0	69.8	78.7	-89.97	-1,453.2	-2,613.2	963.2	815.0	148.20	6.500	
9,000.0	6,783.3	9,608.7	6,785.8	71.0	79.9	-89.97	-1,453.2	-2,656.6	963.2	812.7	150.57	6.397	
9,055.1	6,783.1	9,663.8	6,785.7	72.5	81.4	-89.98	-1,453.2	-2,711.7	963.2	809.7	153.59	6.272	
9,100.0	6,782.9	9,708.7	6,785.6	73.7	82.7	-89.98	-1,453.2	-2,756.6	963.2	807.2	156.05	6.173	
9,153.5	6,782.7	9,762.2	6,785.4	75.2	84.1	-89.98	-1,453.2	-2,810.1	963.2	804.2	158.99	6.058	
9,200.0	6,782.6	9,808.7	6,785.3	76.5	85.4	-89.99	-1,453.2	-2,856.6	963.2	801.7	161.54	5.963	
9,251.9	6,782.4	9,860.6	6,785.2	77.9	86.8	-89.99	-1,453.2	-2,908.5	963.2	798.8	164.40	5.859	
9,300.0	6,782.2	9,908.7	6,785.1	79.2	88.2	-89.99	-1,453.2	-2,956.6	963.2	796.2	167.04	5.766	
9,350.4	6,782.0	9,959.0	6,784.9	80.6	89.5	-90.00	-1,453.2	-3,006.9	963.2	793.4	169.82	5.672	
9,400.0	6,781.8	10,008.7	6,784.8	82.0	90.9	-90.00	-1,453.2	-3,056.6	963.2	790.7	172.55	5.582	
9,448.8	6,781.6	10,057.5	6,784.7	83.3	92.3	-90.00	-1,453.2	-3,105.4	963.2	788.0	175.25	5.497	
9,500.0	6,781.4	10,108.7	6,784.5	84.7	93.7	-90.01	-1,453.2	-3,156.6	963.2	785.2	178.07	5.409	

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 SCHAUMBERG 17G-314
<b>Project:</b>	WELD COUNTY, COLORADO	<b>TVD Reference:</b>	KB-EST @ 4633.0usft (Original Well Elev)
<b>Reference Site:</b>	SW NW SEC. 17 T5N R64W 6th P.M.	<b>MD Reference:</b>	KB-EST @ 4633.0usft (Original Well Elev)
<b>Site Error:</b>	0.0 usft	<b>North Reference:</b>	True
<b>Reference Well:</b>	SCHAUMBERG 17G-314	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Well Error:</b>	0.0 usft	<b>Output errors are at</b>	2.00 sigma
<b>Reference Wellbore</b>	ORIGINAL WELLBORE	<b>Database:</b>	EDM 5000.1 Single User Db
<b>Reference Design:</b>	PROPOSAL #1	<b>Offset TVD Reference:</b>	Offset Datum

Offset Design NW SW SEC. 17 T5N R64W 6th P.M. - CECIL'S KERSEY FARM 17K-334 - ORIGINAL WELLBORE - P													Offset Site Error:	0.0 usft
Survey Program: 0-MWDD													Offset Well Error:	0.0 usft
Reference		Offset		Semi Major Axis			Distance						Warning	
Measured Depth (usft)	Vertical Depth (usft)	Measured Depth (usft)	Vertical Depth (usft)	Reference (usft)	Offset (usft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (usft)	+E/-W (usft)	Between Centres (usft)	Between Ellipses (usft)	Minimum Separation (usft)	Separation Factor		
9,547.2	6,781.2	10,155.9	6,784.4	86.0	95.0	-90.01	-1,453.2	-3,203.8	963.2	782.6	180.68	5.331		
9,600.0	6,781.0	10,208.7	6,784.3	87.5	96.4	-90.02	-1,453.2	-3,256.6	963.2	779.6	183.59	5.247		
9,645.6	6,780.8	10,254.3	6,784.1	88.7	97.7	-90.02	-1,453.2	-3,302.2	963.2	777.1	186.12	5.175		
9,700.0	6,780.6	10,308.7	6,784.0	90.2	99.2	-90.02	-1,453.2	-3,356.6	963.2	774.1	189.12	5.093		
9,744.1	6,780.4	10,352.7	6,783.9	91.4	100.4	-90.03	-1,453.2	-3,400.6	963.2	771.7	191.56	5.028		
9,800.0	6,780.2	10,408.7	6,783.7	93.0	101.9	-90.03	-1,453.2	-3,456.6	963.2	768.6	194.65	4.948		
9,842.5	6,780.1	10,451.2	6,783.6	94.2	103.1	-90.03	-1,453.2	-3,499.1	963.2	766.2	197.01	4.889		
9,900.0	6,779.8	10,508.7	6,783.5	95.7	104.7	-90.04	-1,453.2	-3,556.6	963.2	763.0	200.19	4.812		
9,940.9	6,779.7	10,549.6	6,783.4	96.9	105.8	-90.04	-1,453.2	-3,597.5	963.2	760.8	202.46	4.758		
10,000.0	6,779.4	10,608.7	6,783.2	98.5	107.5	-90.05	-1,453.2	-3,656.6	963.2	757.5	205.73	4.682		
10,039.3	6,779.3	10,648.0	6,783.1	99.6	108.6	-90.05	-1,453.2	-3,695.9	963.2	755.3	207.92	4.633		
10,100.0	6,779.0	10,708.7	6,782.9	101.3	110.3	-90.05	-1,453.2	-3,756.6	963.2	752.0	211.28	4.559		
10,137.8	6,778.9	10,746.4	6,782.8	102.3	111.3	-90.06	-1,453.2	-3,794.3	963.2	749.9	213.38	4.514		
10,200.0	6,778.7	10,808.7	6,782.7	104.1	113.0	-90.06	-1,453.2	-3,856.6	963.2	746.4	216.83	4.442		
10,205.2	6,778.6	10,813.8	6,782.7	104.2	113.2	-90.06	-1,453.2	-3,861.7	963.2	746.1	217.12	4.436 CC		
10,236.2	6,778.5	10,844.9	6,782.6	105.1	114.0	-90.06	-1,453.2	-3,892.8	963.2	744.4	218.84	4.401		
10,300.0	6,778.3	10,908.7	6,782.4	106.8	115.8	-90.07	-1,453.2	-3,956.5	963.2	740.9	222.39	4.331		
10,334.6	6,778.1	10,943.3	6,782.3	107.8	116.8	-90.07	-1,453.2	-3,991.2	963.2	738.9	224.31	4.294		
10,400.0	6,777.9	11,008.6	6,782.2	109.6	118.6	-90.08	-1,453.2	-4,056.5	963.2	735.3	227.94	4.226		
10,433.0	6,777.7	11,041.7	6,782.1	110.5	119.5	-90.08	-1,453.2	-4,089.6	963.2	733.5	229.78	4.192		
10,500.0	6,777.5	11,108.6	6,781.9	112.4	121.4	-90.09	-1,453.2	-4,156.5	963.2	729.7	233.50	4.125		
10,531.5	6,777.3	11,140.1	6,781.8	113.3	122.2	-90.09	-1,453.2	-4,188.0	963.2	728.0	235.26	4.094		
10,600.0	6,777.1	11,208.6	6,781.6	115.2	124.1	-90.09	-1,453.2	-4,256.5	963.2	724.2	239.07	4.029		
10,629.9	6,777.0	11,238.5	6,781.6	116.0	125.0	-90.10	-1,453.2	-4,286.4	963.2	722.5	240.73	4.001		
10,700.0	6,776.7	11,308.6	6,781.4	117.9	126.9	-90.10	-1,453.2	-4,356.5	963.2	718.6	244.63	3.937		
10,728.3	6,776.6	11,337.0	6,781.3	118.7	127.7	-90.10	-1,453.2	-4,384.9	963.2	717.0	246.21	3.912		
10,800.0	6,776.3	11,408.6	6,781.1	120.7	129.7	-90.11	-1,453.2	-4,456.5	963.2	713.0	250.20	3.850		
10,826.7	6,776.2	11,435.4	6,781.0	121.5	130.4	-90.11	-1,453.2	-4,483.3	963.2	711.5	251.69	3.827		
10,900.0	6,775.9	11,508.6	6,780.8	123.5	132.5	-90.12	-1,453.2	-4,556.5	963.2	707.5	255.77	3.766		
10,925.2	6,775.8	11,533.8	6,780.8	124.2	133.2	-90.12	-1,453.2	-4,581.7	963.2	706.1	257.18	3.745		
11,000.0	6,775.5	11,608.6	6,780.6	126.3	135.3	-90.13	-1,453.2	-4,656.5	963.2	701.9	261.35	3.686		
11,023.6	6,775.4	11,632.2	6,780.5	126.9	135.9	-90.13	-1,453.2	-4,680.1	963.2	700.6	262.66	3.667		
11,100.0	6,775.1	11,708.6	6,780.3	129.1	138.0	-90.13	-1,453.2	-4,756.5	963.2	696.3	266.92	3.609		
11,122.0	6,775.0	11,730.7	6,780.3	129.7	138.7	-90.13	-1,453.2	-4,778.6	963.2	695.1	268.15	3.592		
11,200.0	6,774.7	11,808.6	6,780.1	131.9	140.8	-90.14	-1,453.2	-4,856.5	963.2	690.7	272.50	3.535		
11,220.4	6,774.6	11,829.1	6,780.0	132.4	141.4	-90.14	-1,453.2	-4,877.0	963.2	689.6	273.64	3.520		
11,300.0	6,774.3	11,908.6	6,779.8	134.6	143.6	-90.15	-1,453.2	-4,956.5	963.2	685.2	278.08	3.464		
11,318.9	6,774.2	11,927.5	6,779.7	135.2	144.1	-90.15	-1,453.2	-4,975.4	963.2	684.1	279.13	3.451		
11,400.0	6,773.9	12,008.6	6,779.5	137.4	146.4	-90.16	-1,453.2	-5,056.5	963.2	679.6	283.66	3.396		
11,417.3	6,773.8	12,025.9	6,779.5	137.9	146.9	-90.16	-1,453.2	-5,073.8	963.2	678.6	284.62	3.384		
11,500.0	6,773.5	12,108.6	6,779.3	140.2	149.2	-90.17	-1,453.2	-5,156.5	963.2	674.0	289.24	3.330		
11,515.7	6,773.4	12,124.4	6,779.2	140.7	149.6	-90.17	-1,453.2	-5,172.3	963.2	673.1	290.12	3.320		
11,600.0	6,773.1	12,208.6	6,779.0	143.0	152.0	-90.17	-1,453.2	-5,256.5	963.2	668.4	294.82	3.267		
11,614.1	6,773.0	12,222.8	6,779.0	143.4	152.4	-90.18	-1,453.2	-5,270.7	963.2	667.6	295.61	3.258		
11,700.0	6,772.7	12,308.6	6,778.7	145.8	154.8	-90.18	-1,453.2	-5,356.5	963.2	662.8	300.41	3.206		
11,712.6	6,772.6	12,321.2	6,778.7	146.2	155.1	-90.18	-1,453.2	-5,369.1	963.2	662.1	301.11	3.199		
11,800.0	6,772.3	12,408.6	6,778.5	148.6	157.6	-90.19	-1,453.2	-5,456.5	963.2	657.2	305.99	3.148		
11,811.0	6,772.2	12,419.6	6,778.5	148.9	157.9	-90.19	-1,453.2	-5,467.5	963.2	656.6	306.61	3.142		
11,900.0	6,771.9	12,508.6	6,778.2	151.4	160.4	-90.20	-1,453.2	-5,556.5	963.2	651.7	311.58	3.091		
11,909.4	6,771.8	12,518.1	6,778.2	151.7	160.6	-90.20	-1,453.2	-5,566.0	963.2	651.1	312.11	3.086		
12,000.0	6,771.5	12,608.6	6,778.0	154.2	163.2	-90.21	-1,453.2	-5,656.5	963.2	646.1	317.17	3.037		
12,007.8	6,771.4	12,616.5	6,777.9	154.4	163.4	-90.21	-1,453.2	-5,664.4	963.2	645.6	317.61	3.033		

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 SCHAUMBERG 17G-314
<b>Project:</b>	WELD COUNTY, COLORADO	<b>TVD Reference:</b>	KB-EST @ 4633.0usft (Original Well Elev)
<b>Reference Site:</b>	SW NW SEC. 17 T5N R64W 6th P.M.	<b>MD Reference:</b>	KB-EST @ 4633.0usft (Original Well Elev)
<b>Site Error:</b>	0.0 usft	<b>North Reference:</b>	True
<b>Reference Well:</b>	SCHAUMBERG 17G-314	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Well Error:</b>	0.0 usft	<b>Output errors are at</b>	2.00 sigma
<b>Reference Wellbore</b>	ORIGINAL WELLBORE	<b>Database:</b>	EDM 5000.1 Single User Db
<b>Reference Design:</b>	PROPOSAL #1	<b>Offset TVD Reference:</b>	Offset Datum

<b>Offset Design</b> NW SW SEC. 17 T5N R64W 6th P.M. - CECIL'S KERSEY FARM 17K-334 - ORIGINAL WELLBORE - P												<b>Offset Site Error:</b>	0.0 usft
Survey Program: 0-MWD												<b>Offset Well Error:</b>	0.0 usft
Reference	Offset	Semi Major Axis			Distance								Warning
Measured Depth (usft)	Vertical Depth (usft)	Measured Depth (usft)	Vertical Depth (usft)	Reference (usft)	Offset (usft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (usft)	+E/-W (usft)	Between Centres (usft)	Between Ellipses (usft)	Minimum Separation (usft)	Separation Factor	
12,100.0	6,771.1	12,708.6	6,777.7	157.0	165.9	-90.22	-1,453.2	-5,756.5	963.2	640.5	322.76	2.984	
12,106.3	6,771.0	12,714.9	6,777.7	157.2	166.1	-90.22	-1,453.2	-5,762.8	963.2	640.1	323.11	2.981	
12,200.0	6,770.7	12,808.6	6,777.4	159.8	168.7	-90.22	-1,453.2	-5,856.5	963.2	634.9	328.35	2.934	
12,204.7	6,770.6	12,813.3	6,777.4	159.9	168.9	-90.23	-1,453.2	-5,861.2	963.2	634.6	328.61	2.931	
12,300.0	6,770.3	12,908.6	6,777.2	162.6	171.5	-90.23	-1,453.2	-5,956.5	963.2	629.3	333.94	2.884	
12,303.1	6,770.2	12,911.8	6,777.2	162.7	171.6	-90.23	-1,453.2	-5,959.7	963.2	629.1	334.11	2.883	
12,361.7	6,770.0	12,970.4	6,777.0	164.3	173.3	-90.24	-1,453.2	-6,018.2	963.2	625.9	337.39	2.855 ES, SF	



# Anticollision Report



<b>Company:</b>	PDC ENERGY	<b>Local Co-ordinate Reference:</b>	Well SCHAUMBERG 17G-314
<b>Project:</b>	WELD COUNTY, COLORADO	<b>TVD Reference:</b>	KB-EST @ 4633.0usft (Original Well Elev)
<b>Reference Site:</b>	SW NW SEC. 17 T5N R64W 6th P.M.	<b>MD Reference:</b>	KB-EST @ 4633.0usft (Original Well Elev)
<b>Site Error:</b>	0.0 usft	<b>North Reference:</b>	True
<b>Reference Well:</b>	SCHAUMBERG 17G-314	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Well Error:</b>	0.0 usft	<b>Output errors are at</b>	2.00 sigma
<b>Reference Wellbore</b>	ORIGINAL WELLBORE	<b>Database:</b>	EDM 5000.1 Single User Db
<b>Reference Design:</b>	PROPOSAL #1	<b>Offset TVD Reference:</b>	Offset Datum

Offset Design												Offset Site Error:	0.0 usft
Survey Program: 0-MW/D												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	3.0	3.0	0.0	0.0	-174.20	-1,930.8	-196.1	1,940.8				
98.4	98.4	101.4	101.4	0.1	0.1	-174.20	-1,930.8	-196.1	1,940.8	1,940.6	0.20	9,852.659	
100.0	100.0	103.0	103.0	0.1	0.1	-174.20	-1,930.8	-196.1	1,940.8	1,940.6	0.20	9,594.027	
196.8	196.8	199.8	199.8	0.3	0.3	-174.20	-1,930.8	-196.1	1,940.8	1,940.1	0.64	3,043.578	
200.0	200.0	203.0	203.0	0.3	0.3	-174.20	-1,930.8	-196.1	1,940.8	1,940.1	0.65	2,977.459	
295.3	295.3	298.3	298.3	0.5	0.5	-174.20	-1,930.8	-196.1	1,940.8	1,939.7	1.08	1,796.823	
300.0	300.0	303.0	303.0	0.5	0.6	-174.20	-1,930.8	-196.1	1,940.8	1,939.7	1.10	1,762.170	
393.7	393.7	396.7	396.7	0.8	0.8	-174.20	-1,930.8	-196.1	1,940.8	1,939.2	1.52	1,274.673	
400.0	400.0	403.0	403.0	0.8	0.8	-174.20	-1,930.8	-196.1	1,940.8	1,939.2	1.55	1,251.396	
492.1	492.1	495.1	495.1	1.0	1.0	-174.20	-1,930.8	-196.1	1,940.8	1,938.8	1.97	987.662	
500.0	500.0	503.0	503.0	1.0	1.0	-174.20	-1,930.8	-196.1	1,940.8	1,938.8	2.00	970.183	
590.5	590.5	593.5	593.5	1.2	1.2	-174.20	-1,930.8	-196.1	1,940.8	1,938.4	2.41	806.146	
600.0	600.0	603.0	603.0	1.2	1.2	-174.20	-1,930.8	-196.1	1,940.8	1,938.3	2.45	792.168	
689.0	689.0	692.0	692.0	1.4	1.4	-174.20	-1,930.8	-196.1	1,940.8	1,937.9	2.85	680.992	
700.0	700.0	703.0	703.0	1.4	1.5	-174.20	-1,930.8	-196.1	1,940.8	1,937.9	2.90	669.351	
787.4	787.4	790.4	790.4	1.6	1.6	-174.20	-1,930.8	-196.1	1,940.8	1,937.5	3.29	589.475	
800.0	800.0	803.0	803.0	1.7	1.7	-174.20	-1,930.8	-196.1	1,940.8	1,937.4	3.35	579.506	
885.8	885.8	888.8	888.8	1.9	1.9	-174.20	-1,930.8	-196.1	1,940.8	1,937.0	3.73	519.642	
900.0	900.0	903.0	903.0	1.9	1.9	-174.20	-1,930.8	-196.1	1,940.8	1,937.0	3.80	510.925	
984.2	984.2	987.2	987.2	2.1	2.1	-174.20	-1,930.8	-196.1	1,940.8	1,936.6	4.18	464.602	
1,000.0	1,000.0	1,003.0	1,003.0	2.1	2.1	-174.20	-1,930.8	-196.1	1,940.8	1,936.5	4.25	456.859	
1,082.7	1,082.7	1,085.7	1,085.7	2.3	2.3	-174.20	-1,930.8	-196.1	1,940.8	1,936.2	4.62	420.105	
1,100.0	1,100.0	1,103.0	1,103.0	2.3	2.4	-174.20	-1,930.8	-196.1	1,940.8	1,936.1	4.70	413.140	
1,181.1	1,181.1	1,210.5	1,210.5	2.5	2.6	-174.19	-1,930.4	-196.5	1,940.5	1,935.4	5.12	379.071	
1,200.0	1,200.0	1,244.0	1,244.0	2.6	2.7	-174.17	-1,929.7	-197.2	1,940.2	1,935.0	5.24	370.599	
1,279.5	1,279.5	1,384.7	1,384.4	2.7	3.0	-173.98	-1,923.9	-202.8	1,937.3	1,931.6	5.73	338.245	
1,300.0	1,300.0	1,420.7	1,420.3	2.8	3.1	-173.91	-1,921.7	-205.0	1,936.1	1,930.3	5.86	330.627	
1,377.9	1,377.9	1,557.1	1,555.7	3.0	3.4	-173.54	-1,910.1	-216.2	1,930.2	1,923.9	6.35	303.941	
1,400.0	1,400.0	1,595.4	1,593.6	3.0	3.5	-173.41	-1,906.0	-220.1	1,928.1	1,921.6	6.49	297.030	
1,476.4	1,476.4	1,726.6	1,722.7	3.2	3.9	-172.87	-1,889.3	-236.3	1,919.5	1,912.5	7.00	274.372	
1,500.0	1,500.0	1,766.7	1,762.0	3.2	4.0	-172.67	-1,883.3	-242.1	1,916.4	1,909.3	7.16	267.805	
1,574.8	1,574.8	1,892.1	1,883.9	3.4	4.5	-171.97	-1,862.2	-262.6	1,905.3	1,897.7	7.68	248.208	
1,600.0	1,600.0	1,933.7	1,924.0	3.5	4.6	-171.71	-1,854.3	-270.2	1,901.2	1,893.3	7.86	241.887	
1,673.2	1,673.2	2,008.9	1,996.3	3.6	5.0	-171.21	-1,839.5	-284.5	1,888.7	1,880.5	8.26	228.702	
1,700.0	1,700.0	2,034.6	2,021.0	3.7	5.1	-171.03	-1,834.5	-289.4	1,884.2	1,875.8	8.40	224.275	
1,771.6	1,771.6	2,103.5	2,087.3	3.9	5.4	-170.57	-1,820.9	-302.6	1,872.2	1,863.4	8.78	213.135	
1,800.0	1,800.0	2,130.8	2,113.5	3.9	5.5	-170.38	-1,815.5	-307.8	1,867.4	1,858.5	8.94	208.899	
1,870.1	1,870.1	2,198.1	2,178.2	4.1	5.8	-11.16	-1,802.3	-320.6	1,855.0	1,845.4	9.64	192.493	
1,900.0	1,900.0	2,226.8	2,205.8	4.1	6.0	-10.99	-1,796.7	-326.1	1,849.3	1,839.4	9.82	188.394	
1,968.5	1,968.4	2,292.2	2,268.7	4.2	6.3	-10.60	-1,783.8	-338.5	1,835.0	1,824.8	10.21	179.780	
2,000.0	1,999.8	2,322.2	2,297.6	4.3	6.5	-10.42	-1,777.9	-344.2	1,828.0	1,817.6	10.39	175.994	
2,066.9	2,066.5	2,385.7	2,358.7	4.4	6.8	-10.04	-1,765.4	-356.4	1,812.0	1,801.2	10.77	168.251	
2,100.0	2,099.5	2,417.0	2,388.8	4.5	6.9	-9.86	-1,759.2	-362.3	1,803.5	1,792.6	10.96	164.601	
2,165.3	2,164.4	2,478.6	2,448.0	4.6	7.3	-9.50	-1,747.1	-374.1	1,785.9	1,774.6	11.33	157.637	
2,200.0	2,198.7	2,511.1	2,479.2	4.7	7.4	-9.31	-1,740.7	-380.3	1,776.0	1,764.5	11.52	154.118	
2,263.8	2,261.8	2,570.6	2,536.5	4.8	7.7	-8.95	-1,729.0	-391.6	1,756.9	1,745.0	11.88	147.841	
2,300.0	2,297.5	2,604.2	2,568.9	4.9	7.9	-8.75	-1,722.4	-398.0	1,745.4	1,733.4	12.08	144.444	
2,362.2	2,358.6	2,661.7	2,624.1	5.0	8.2	-8.41	-1,711.1	-409.0	1,724.9	1,712.5	12.43	138.771	
2,400.0	2,395.6	2,696.4	2,657.5	5.1	8.4	-8.20	-1,704.2	-415.6	1,711.8	1,699.2	12.63	135.485	
2,460.6	2,454.9	2,752.0	2,711.0	5.3	8.7	-7.80	-1,693.3	-426.2	1,690.5	1,677.5	13.03	129.780	
2,500.0	2,493.4	2,788.2	2,745.7	5.4	8.9	-7.53	-1,686.2	-433.1	1,676.8	1,663.5	13.28	126.259	
2,559.0	2,551.2	2,842.3	2,797.8	5.6	9.2	-7.12	-1,675.5	-443.4	1,656.2	1,642.5	13.67	121.146	

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 SCHAUMBERG 17G-314
<b>Project:</b>	WELD COUNTY, COLORADO	<b>TVD Reference:</b>	KB-EST @ 4633.0usft (Original Well Elev)
<b>Reference Site:</b>	SW NW SEC. 17 T5N R64W 6th P.M.	<b>MD Reference:</b>	KB-EST @ 4633.0usft (Original Well Elev)
<b>Site Error:</b>	0.0 usft	<b>North Reference:</b>	True
<b>Reference Well:</b>	SCHAUMBERG 17G-314	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Well Error:</b>	0.0 usft	<b>Output errors are at</b>	2.00 sigma
<b>Reference Wellbore</b>	ORIGINAL WELLBORE	<b>Database:</b>	EDM 5000.1 Single User Db
<b>Reference Design:</b>	PROPOSAL #1	<b>Offset TVD Reference:</b>	Offset Datum

<b>Offset Design</b> NW SW SEC. 17 T5N R64W 6th P.M. - CECIL'S KERSEY FARM 17K-402 - ORIGINAL WELLBORE - P												<b>Offset Site Error:</b>	0.0 usft
Survey Program: 0-MWDD												<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	
2,600.0	2,591.3	2,879.8	2,833.9	5.7	9.4	-6.83	-1,668.1	-450.6	1,641.9	1,628.0	13.94	117.781	
2,657.5	2,647.5	2,932.5	2,884.6	5.9	9.7	-6.41	-1,657.8	-460.6	1,622.0	1,607.7	14.32	113.235	
2,700.0	2,689.1	2,971.5	2,922.1	6.0	9.9	-6.09	-1,650.1	-468.0	1,607.3	1,592.7	14.61	109.984	
2,755.9	2,743.7	3,022.8	2,971.4	6.2	10.2	-5.67	-1,640.0	-477.8	1,588.1	1,573.1	15.00	105.896	
2,800.0	2,786.9	3,063.2	3,010.3	6.4	10.4	-5.33	-1,632.0	-485.5	1,573.0	1,557.7	15.30	102.805	
2,854.3	2,840.0	3,113.0	3,058.2	6.6	10.7	-4.90	-1,622.2	-495.0	1,554.5	1,538.8	15.68	99.141	
2,900.0	2,884.7	3,154.9	3,098.4	6.7	10.9	-4.54	-1,614.0	-503.0	1,538.9	1,522.9	16.00	96.186	
2,952.7	2,936.3	3,203.3	3,145.0	6.9	11.2	-4.11	-1,604.5	-512.2	1,521.1	1,504.7	16.37	92.901	
3,000.0	2,982.5	3,246.6	3,186.6	7.1	11.4	-3.71	-1,595.9	-520.5	1,505.1	1,488.4	16.71	90.076	
3,051.2	3,032.6	3,293.5	3,231.7	7.3	11.7	-3.27	-1,586.7	-529.4	1,488.0	1,470.9	17.08	87.128	
3,100.0	3,080.3	3,338.3	3,274.8	7.5	11.9	-2.85	-1,577.9	-537.9	1,471.7	1,454.2	17.43	84.427	
3,149.6	3,128.8	3,383.8	3,318.5	7.7	12.2	-2.40	-1,569.0	-546.6	1,455.2	1,437.4	17.79	81.782	
3,200.0	3,178.1	3,430.0	3,363.0	7.9	12.4	-1.94	-1,559.9	-555.4	1,438.5	1,420.3	18.16	79.198	
3,248.0	3,225.1	3,474.0	3,405.3	8.1	12.7	-1.50	-1,551.2	-563.8	1,422.7	1,404.2	18.52	76.822	
3,300.0	3,276.0	3,521.7	3,451.2	8.3	12.9	-1.00	-1,541.8	-572.9	1,405.7	1,386.8	18.91	74.350	
3,346.4	3,321.4	3,564.3	3,492.1	8.5	13.2	-0.55	-1,533.4	-581.0	1,390.6	1,371.4	19.26	72.217	
3,400.0	3,373.8	3,613.4	3,539.3	8.7	13.5	-0.02	-1,523.8	-590.4	1,373.3	1,353.6	19.66	69.850	
3,444.9	3,417.7	3,654.5	3,578.9	8.8	13.7	0.44	-1,515.7	-598.2	1,358.9	1,338.9	20.00	67.934	
3,500.0	3,471.6	3,705.0	3,627.5	9.1	14.0	1.01	-1,505.7	-607.9	1,341.3	1,320.9	20.43	65.667	
3,543.3	3,513.9	3,744.7	3,665.7	9.2	14.2	1.47	-1,497.9	-615.4	1,327.5	1,306.8	20.76	63.946	
3,600.0	3,569.4	3,796.7	3,715.7	9.5	14.5	2.08	-1,487.7	-625.3	1,309.7	1,288.5	21.20	61.775	
3,641.7	3,610.2	3,835.0	3,752.5	9.7	14.7	2.55	-1,480.1	-632.6	1,296.7	1,275.1	21.53	60.230	
3,700.0	3,667.2	3,888.4	3,803.9	9.9	15.0	3.21	-1,469.6	-642.8	1,278.6	1,256.6	21.99	58.149	
3,740.1	3,706.5	3,925.2	3,839.3	10.1	15.2	3.67	-1,462.4	-649.8	1,266.2	1,243.9	22.31	56.763	
3,800.0	3,765.0	3,980.1	3,892.1	10.3	15.5	4.38	-1,451.6	-660.3	1,248.0	1,225.2	22.79	54.769	
3,838.6	3,802.8	4,015.5	3,926.1	10.5	15.7	4.85	-1,444.6	-667.0	1,236.3	1,213.2	23.10	53.526	
3,900.0	3,862.8	4,071.8	3,980.2	10.7	16.0	5.61	-1,433.5	-677.8	1,217.9	1,194.3	23.60	51.615	
3,937.0	3,899.0	4,105.7	4,012.9	10.9	16.2	6.08	-1,426.9	-684.2	1,206.9	1,183.0	23.90	50.501	
4,000.0	3,960.7	4,163.5	4,068.4	11.2	16.6	6.90	-1,415.5	-695.3	1,188.4	1,164.0	24.42	48.670	
4,035.4	3,995.3	4,196.0	4,099.7	11.3	16.7	7.37	-1,409.1	-701.5	1,178.1	1,153.4	24.71	47.674	
4,100.0	4,058.5	4,255.2	4,156.6	11.6	17.1	8.24	-1,397.4	-712.7	1,159.5	1,134.3	25.25	45.919	
4,133.8	4,091.6	4,286.2	4,186.5	11.7	17.2	8.71	-1,391.3	-718.7	1,149.9	1,124.4	25.54	45.029	
4,200.0	4,156.3	4,346.9	4,244.8	12.0	17.6	9.65	-1,379.4	-730.2	1,131.3	1,105.2	26.10	43.349	
4,232.3	4,187.9	4,376.5	4,273.3	12.2	17.8	10.12	-1,373.6	-735.9	1,122.4	1,096.0	26.37	42.556	
4,300.0	4,254.1	4,438.6	4,333.0	12.5	18.1	11.12	-1,361.4	-747.7	1,103.8	1,076.9	26.96	40.948	
4,325.7	4,279.2	4,462.1	4,355.6	12.6	18.2	11.51	-1,356.7	-752.2	1,096.9	1,069.7	27.18	40.358	
4,330.7	4,284.1	4,466.7	4,360.0	12.6	18.3	11.58	-1,355.8	-753.1	1,095.5	1,068.3	27.23	40.234	
4,400.0	4,352.1	4,530.5	4,421.4	12.8	18.6	12.57	-1,343.3	-765.2	1,078.0	1,050.1	27.92	38.613	
4,429.1	4,380.8	4,557.5	4,447.4	12.9	18.8	12.99	-1,337.9	-770.4	1,071.3	1,043.1	28.20	37.985	
4,500.0	4,450.7	4,623.5	4,510.8	13.1	19.2	14.03	-1,325.0	-782.9	1,056.3	1,027.4	28.89	36.567	
4,527.5	4,478.0	4,649.3	4,535.6	13.2	19.3	14.43	-1,319.9	-787.9	1,051.0	1,021.8	29.15	36.059	
4,600.0	4,549.9	4,717.3	4,601.1	13.4	19.7	15.51	-1,306.5	-800.8	1,038.6	1,008.8	29.82	34.825	
4,626.0	4,575.7	4,741.9	4,624.7	13.5	19.8	15.90	-1,301.7	-805.5	1,034.7	1,004.7	30.06	34.420	
4,700.0	4,649.4	4,812.0	4,692.1	13.6	20.2	17.01	-1,287.9	-818.9	1,025.2	994.4	30.73	33.362	
4,724.4	4,673.7	4,835.2	4,714.4	13.7	20.4	17.37	-1,283.3	-823.3	1,022.5	991.6	30.94	33.045	
4,800.0	4,749.2	4,907.3	4,783.7	13.8	20.8	18.51	-1,269.1	-837.0	1,015.9	984.3	31.60	32.152	
4,822.8	4,772.0	4,929.1	4,804.7	13.9	20.9	18.85	-1,264.8	-841.2	1,014.3	982.5	31.79	31.910	
4,900.0	4,849.2	5,003.1	4,875.9	14.0	21.3	20.00	-1,250.3	-855.3	1,010.6	978.2	32.42	31.175	
4,921.2	4,870.4	5,023.5	4,895.5	14.1	21.4	20.31	-1,246.2	-859.2	1,010.1	977.5	32.59	30.995	
4,925.6	4,874.8	5,027.7	4,899.6	14.1	21.5	-138.43	-1,245.4	-860.0	1,010.0	983.6	26.36	38.316	
5,000.0	4,949.2	5,099.2	4,968.4	14.2	21.9	-137.32	-1,231.3	-873.6	1,008.6	981.9	26.62	37.891	
5,019.7	4,968.8	5,118.2	4,986.6	14.2	22.0	-137.02	-1,227.6	-877.2	1,008.3	981.6	26.69	37.781	

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 SCHAUMBERG 17G-314
<b>Project:</b>	WELD COUNTY, COLORADO	<b>TVD Reference:</b>	KB-EST @ 4633.0usft (Original Well Elev)
<b>Reference Site:</b>	SW NW SEC. 17 T5N R64W 6th P.M.	<b>MD Reference:</b>	KB-EST @ 4633.0usft (Original Well Elev)
<b>Site Error:</b>	0.0 usft	<b>North Reference:</b>	True
<b>Reference Well:</b>	SCHAUMBERG 17G-314	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Well Error:</b>	0.0 usft	<b>Output errors are at</b>	2.00 sigma
<b>Reference Wellbore</b>	ORIGINAL WELLBORE	<b>Database:</b>	EDM 5000.1 Single User Db
<b>Reference Design:</b>	PROPOSAL #1	<b>Offset TVD Reference:</b>	Offset Datum

<b>Offset Design</b> NW SW SEC. 17 T5N R64W 6th P.M. - CECIL'S KERSEY FARM 17K-402 - ORIGINAL WELLBORE - P												<b>Offset Site Error:</b>	0.0 usft
Survey Program: 0-MWDD												<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	5,049.2	5,195.4	5,060.9	14.3	22.4	-135.82	-1,212.4	-892.0	1,007.3	980.4	26.98	37.341	
5,118.1	5,067.3	5,212.8	5,077.6	14.3	22.5	-135.55	-1,209.0	-895.3	1,007.2	980.1	27.04	37.243	
5,200.0	5,149.2	5,291.6	5,153.4	14.5	23.0	-134.32	-1,193.5	-910.3	1,006.8	979.5	27.35	36.809	
5,215.8	5,164.9	5,306.7	5,167.9	14.5	23.1	-134.09	-1,190.5	-913.2	1,006.8	979.4	27.41	36.727	
5,216.5	5,165.7	5,307.5	5,168.6	14.5	23.1	-134.07	-1,190.3	-913.3	1,006.8	979.4	27.42	36.723	
5,300.0	5,249.2	5,387.8	5,245.8	14.6	23.5	-132.82	-1,174.5	-928.6	1,007.1	979.3	27.75	36.294	
5,314.9	5,264.1	5,402.1	5,259.7	14.6	23.6	-132.60	-1,171.7	-931.4	1,007.2	979.4	27.81	36.218	
5,400.0	5,349.2	5,484.2	5,338.6	14.8	24.1	-131.32	-1,155.6	-947.0	1,008.1	979.9	28.16	35.798	
5,413.4	5,362.5	5,497.3	5,351.3	14.8	24.1	-131.13	-1,153.1	-949.4	1,008.3	980.1	28.22	35.735	
5,500.0	5,449.2	5,583.2	5,434.4	14.9	24.5	-129.77	-1,137.7	-964.4	1,009.7	981.1	28.56	35.358	
5,511.8	5,461.0	5,594.9	5,445.8	14.9	24.5	-129.75	-1,135.7	-966.3	1,009.9	981.3	28.60	35.307	
5,600.0	5,549.2	5,683.8	5,532.6	15.1	24.9	-128.67	-1,121.9	-979.6	1,011.5	982.6	28.96	34.933	
5,610.2	5,559.4	5,694.2	5,542.7	15.1	24.9	-128.55	-1,120.4	-981.1	1,011.7	982.7	29.00	34.889	
5,700.0	5,649.2	5,785.9	5,632.9	15.2	25.2	-127.61	-1,108.4	-992.7	1,013.5	984.1	29.36	34.518	
5,708.6	5,657.8	5,794.8	5,641.7	15.3	25.2	-127.53	-1,107.4	-993.7	1,013.6	984.2	29.40	34.482	
5,800.0	5,749.2	5,889.2	5,735.1	15.4	25.5	-126.75	-1,097.4	-1,003.4	1,015.3	985.5	29.76	34.115	
5,807.1	5,756.2	5,896.6	5,742.4	15.4	25.5	-126.70	-1,096.7	-1,004.0	1,015.4	985.6	29.79	34.087	
5,900.0	5,849.2	5,993.6	5,838.8	15.6	25.7	-126.10	-1,089.0	-1,011.5	1,016.8	986.6	30.15	33.725	
5,905.5	5,854.7	5,999.3	5,844.5	15.6	25.7	-126.07	-1,088.6	-1,011.9	1,016.9	986.7	30.17	33.703	
6,000.0	5,949.2	6,098.6	5,943.5	15.7	25.9	-125.65	-1,083.3	-1,017.1	1,017.9	987.4	30.52	33.347	
6,003.9	5,953.1	6,102.8	5,947.7	15.7	25.9	-125.64	-1,083.1	-1,017.2	1,017.9	987.4	30.54	33.333	
6,100.0	6,049.2	7,539.8	6,854.1	15.9	26.5	179.36	-1,079.8	-183.4	995.5	958.1	37.35	26.655	
6,102.3	6,051.5	7,539.7	6,854.1	15.9	26.5	179.36	-1,079.8	-183.4	993.6	956.2	37.35	26.602	
6,124.6	6,073.8	7,539.6	6,854.1	15.9	26.5	179.38	-1,079.8	-183.6	975.8	938.4	37.39	26.098	
6,150.0	6,099.2	7,538.9	6,854.1	16.0	26.5	-93.18	-1,079.8	-184.3	955.7	916.3	39.40	24.255	
6,200.0	6,149.0	7,535.0	6,854.1	16.1	26.5	-97.67	-1,079.8	-188.2	917.0	877.6	39.34	23.306	
6,200.8	6,149.8	7,534.9	6,854.1	16.1	26.5	-97.74	-1,079.8	-188.3	916.4	877.0	39.34	23.292	
6,250.0	6,198.5	7,527.6	6,854.2	16.2	26.4	-101.40	-1,079.8	-195.6	879.7	840.4	39.27	22.404	
6,299.2	6,246.6	7,517.0	6,854.2	16.3	26.2	-104.33	-1,079.8	-206.2	844.7	805.5	39.16	21.568	
6,300.0	6,247.4	7,516.8	6,854.2	16.3	26.2	-104.38	-1,079.8	-206.4	844.1	805.0	39.16	21.555	
6,350.0	6,295.5	7,502.6	6,854.4	16.5	26.1	-106.65	-1,079.8	-220.6	810.5	771.5	39.03	20.768	
6,397.6	6,340.2	7,486.0	6,854.5	16.6	25.9	-108.21	-1,079.8	-237.2	780.6	741.7	38.90	20.065	
6,400.0	6,342.4	7,485.1	6,854.5	16.6	25.9	-108.28	-1,079.8	-238.1	779.2	740.3	38.90	20.032	
6,450.0	6,388.1	7,464.3	6,854.7	16.8	25.8	-109.32	-1,079.8	-258.8	750.2	711.5	38.75	19.361	
6,496.0	6,428.8	7,442.5	6,854.9	17.0	25.6	-109.83	-1,079.8	-280.7	725.9	687.3	38.60	18.804	
6,500.0	6,432.2	7,440.5	6,854.9	17.0	25.6	-109.85	-1,079.8	-282.7	723.9	685.3	38.59	18.760	
6,550.0	6,474.6	7,401.1	6,854.8	17.3	25.3	-109.01	-1,079.8	-322.1	700.2	661.9	38.31	18.278	
6,594.5	6,510.7	7,353.3	6,852.0	17.5	25.1	-107.12	-1,079.8	-369.8	680.7	642.7	38.04	17.895	
6,600.0	6,515.0	7,347.7	6,851.5	17.6	25.1	-106.90	-1,079.8	-375.4	678.4	640.4	38.01	17.846	
6,650.0	6,553.3	7,300.0	6,845.2	17.9	25.0	-104.94	-1,079.8	-422.7	658.6	620.6	37.91	17.372	
6,692.9	6,584.3	7,262.3	6,838.0	18.2	24.9	-103.31	-1,079.8	-459.6	643.3	605.3	37.97	16.942	
6,700.0	6,589.2	7,256.4	6,836.6	18.2	24.9	-103.04	-1,079.8	-465.4	641.0	603.0	37.99	16.874	
6,750.0	6,622.7	7,215.8	6,826.4	18.6	24.9	-101.15	-1,079.8	-504.6	625.8	587.6	38.22	16.372	
6,791.3	6,648.3	7,184.1	6,816.8	19.0	24.9	-99.54	-1,079.8	-534.9	615.2	576.7	38.53	15.965	
6,800.0	6,653.4	7,177.7	6,814.7	19.1	24.9	-99.20	-1,079.8	-541.0	613.2	574.6	38.61	15.884	
6,850.0	6,681.4	7,141.3	6,801.9	19.6	24.9	-97.18	-1,079.8	-575.0	603.3	564.2	39.12	15.425	
6,889.7	6,701.5	7,113.5	6,790.8	20.1	24.9	-95.50	-1,079.8	-600.5	597.4	557.8	39.61	15.082	
6,900.0	6,706.3	7,106.4	6,787.9	20.2	24.9	-95.06	-1,079.8	-606.9	596.2	556.4	39.74	15.002	
6,950.0	6,728.2	7,072.7	6,772.9	20.9	25.0	-92.83	-1,079.8	-637.1	591.7	551.3	40.46	14.625	
6,988.2	6,742.8	7,047.7	6,760.9	21.5	25.0	-91.07	-1,079.8	-659.1	590.1	549.0	41.05	14.376	
7,000.0	6,746.9	7,040.0	6,757.0	21.6	25.0	-90.51	-1,079.8	-665.8	589.9	548.7	41.23	14.307	
7,010.7	6,750.5	7,033.1	6,753.5	21.8	25.0	-90.00	-1,079.8	-671.7	589.8	548.4	41.41	14.243 CC, ES	

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

# Anticollision Report



<b>Company:</b>	PDC ENERGY	<b>Local Co-ordinate Reference:</b>	Well SCHAUMBERG 17G-314
<b>Project:</b>	WELD COUNTY, COLORADO	<b>TVD Reference:</b>	KB-EST @ 4633.0usft (Original Well Elev)
<b>Reference Site:</b>	SW NW SEC. 17 T5N R64W 6th P.M.	<b>MD Reference:</b>	KB-EST @ 4633.0usft (Original Well Elev)
<b>Site Error:</b>	0.0 usft	<b>North Reference:</b>	True
<b>Reference Well:</b>	SCHAUMBERG 17G-314	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Well Error:</b>	0.0 usft	<b>Output errors are at</b>	2.00 sigma
<b>Reference Wellbore</b>	ORIGINAL WELLBORE	<b>Database:</b>	EDM 5000.1 Single User Db
<b>Reference Design:</b>	PROPOSAL #1	<b>Offset TVD Reference:</b>	Offset Datum

Offset Design												Offset Site Error:	0.0 usft
Survey Program: 0-MWD												Offset Well Error:	0.0 usft
Reference		Offset		Semi Major Axis			Distance						Warning
Measured Depth (usft)	Vertical Depth (usft)	Measured Depth (usft)	Vertical Depth (usft)	Reference (usft)	Offset (usft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (usft)	+E/-W (usft)	Between Centres (usft)	Between Ellipses (usft)	Minimum Separation (usft)	Separation Factor	
7,050.0	6,762.4	7,008.1	6,740.3	22.5	25.1	-88.09	-1,079.8	-693.0	590.6	548.6	42.04	14.048	
7,086.6	6,771.5	6,985.1	6,727.5	23.1	25.1	-86.27	-1,079.8	-712.0	592.6	550.0	42.64	13.897	
7,100.0	6,774.4	6,976.8	6,722.8	23.3	25.1	-85.60	-1,079.8	-718.8	593.6	550.8	42.85	13.853	
7,150.0	6,783.1	6,946.1	6,704.5	24.3	25.2	-83.04	-1,079.8	-743.5	598.8	555.2	43.63	13.725	
7,185.0	6,787.1	6,924.8	6,691.2	25.0	25.2	-81.22	-1,079.8	-760.1	603.6	559.5	44.15	13.671	
7,200.0	6,788.3	6,915.8	6,685.4	25.3	25.3	-80.43	-1,079.8	-767.0	605.9	561.6	44.36	13.660	
7,252.3	6,790.0	6,884.6	6,664.7	26.3	25.3	-77.69	-1,079.8	-790.3	615.2	570.1	45.03	13.660	
7,283.4	6,789.9	6,866.6	6,652.3	27.0	25.4	-76.55	-1,079.8	-803.4	621.5	576.0	45.53	13.652 SF	
7,300.0	6,789.8	6,857.4	6,645.9	27.3	25.4	-75.96	-1,079.8	-810.0	625.3	579.5	45.79	13.657	
7,381.9	6,789.5	6,815.0	6,615.0	29.1	25.5	-73.19	-1,079.8	-839.1	647.4	600.3	47.08	13.750	
7,400.0	6,789.4	6,800.0	6,603.8	29.5	25.5	-72.19	-1,079.8	-848.9	653.2	605.9	47.27	13.818	
7,480.3	6,789.1	6,770.5	6,580.9	31.4	25.6	-70.21	-1,079.8	-867.6	681.9	633.3	48.62	14.025	
7,500.0	6,789.1	6,762.3	6,574.5	31.8	25.6	-69.66	-1,079.8	-872.6	689.8	640.9	48.92	14.101	
7,578.7	6,788.8	6,732.0	6,550.0	33.7	25.7	-67.61	-1,079.8	-890.6	724.7	674.5	50.15	14.451	
7,600.0	6,788.7	6,724.4	6,543.8	34.2	25.7	-67.09	-1,079.8	-894.9	735.0	684.5	50.48	14.561	
7,677.1	6,788.4	6,700.0	6,523.4	36.1	25.8	-65.44	-1,079.8	-908.4	775.0	723.3	51.71	14.988	
7,700.0	6,788.3	6,700.0	6,523.4	36.7	25.8	-65.44	-1,079.8	-908.4	787.8	735.5	52.23	15.082	
7,775.6	6,788.0	6,669.5	6,497.3	38.6	25.8	-63.38	-1,079.8	-924.2	832.0	778.8	53.22	15.633	
7,800.0	6,787.9	6,662.8	6,491.5	39.2	25.9	-62.93	-1,079.8	-927.5	847.0	793.4	53.60	15.803	
7,874.0	6,787.6	6,650.0	6,480.3	41.0	25.9	-62.08	-1,079.8	-933.7	894.7	839.7	54.95	16.282	
7,900.0	6,787.6	6,637.7	6,469.4	41.7	25.9	-61.26	-1,079.8	-939.5	912.0	856.8	55.18	16.527	
7,972.4	6,787.3	6,621.3	6,454.9	43.6	25.9	-60.18	-1,079.8	-946.9	962.1	905.8	56.34	17.076	
8,000.0	6,787.2	6,615.5	6,449.6	44.3	26.0	-59.80	-1,079.8	-949.4	981.8	925.0	56.79	17.289	
8,070.8	6,786.9	6,600.0	6,435.6	46.1	26.0	-58.80	-1,079.8	-956.0	1,033.7	975.8	57.90	17.854	
8,100.0	6,786.8	6,600.0	6,435.6	46.9	26.0	-58.80	-1,079.8	-956.0	1,055.6	997.0	58.56	18.027	
8,169.3	6,786.5	6,583.4	6,420.4	48.7	26.0	-57.73	-1,079.8	-962.7	1,108.7	1,049.1	59.55	18.617	
8,200.0	6,786.4	6,578.2	6,415.6	49.5	26.0	-57.40	-1,079.8	-964.7	1,132.7	1,072.6	60.06	18.860	
8,267.7	6,786.1	6,567.4	6,405.6	51.3	26.0	-56.72	-1,079.8	-968.8	1,186.5	1,125.3	61.19	19.392	
8,300.0	6,786.0	6,550.0	6,389.4	52.1	26.1	-55.63	-1,079.8	-975.1	1,212.8	1,151.5	61.25	19.802	
8,366.1	6,785.8	6,550.0	6,389.4	53.9	26.1	-55.63	-1,079.8	-975.1	1,266.8	1,204.1	62.72	20.196	
8,400.0	6,785.6	6,550.0	6,389.4	54.8	26.1	-55.63	-1,079.8	-975.1	1,294.9	1,231.4	63.48	20.398	
8,464.5	6,785.4	6,550.0	6,389.4	56.5	26.1	-55.63	-1,079.8	-975.1	1,349.2	1,284.3	64.93	20.778	
8,500.0	6,785.3	6,550.0	6,389.4	57.5	26.1	-55.63	-1,079.8	-975.1	1,379.4	1,313.7	65.73	20.986	
8,563.0	6,785.0	6,528.0	6,368.7	59.2	26.1	-54.29	-1,079.8	-982.5	1,433.2	1,367.0	66.20	21.648	
8,600.0	6,784.9	6,523.9	6,364.7	60.2	26.1	-54.03	-1,079.8	-983.8	1,465.2	1,398.4	66.84	21.920	
8,661.4	6,784.6	6,517.2	6,358.4	61.8	26.1	-53.64	-1,079.8	-985.9	1,518.7	1,450.8	67.91	22.364	
8,700.0	6,784.5	6,500.0	6,342.0	62.9	26.1	-52.61	-1,079.8	-991.0	1,552.8	1,484.8	67.97	22.845	
8,759.8	6,784.3	6,500.0	6,342.0	64.5	26.1	-52.61	-1,079.8	-991.0	1,605.6	1,536.3	69.29	23.173	
8,800.0	6,784.1	6,500.0	6,342.0	65.6	26.1	-52.61	-1,079.8	-991.0	1,641.3	1,571.2	70.17	23.391	
8,858.2	6,783.9	6,500.0	6,342.0	67.1	26.1	-52.61	-1,079.8	-991.0	1,693.5	1,622.1	71.45	23.702	
8,900.0	6,783.7	6,500.0	6,342.0	68.3	26.1	-52.61	-1,079.8	-991.0	1,731.1	1,658.8	72.37	23.920	
8,956.7	6,783.5	6,500.0	6,342.0	69.8	26.1	-52.61	-1,079.8	-991.0	1,782.5	1,708.9	73.62	24.212	
9,000.0	6,783.3	6,500.0	6,342.0	71.0	26.1	-52.61	-1,079.8	-991.0	1,822.0	1,747.4	74.58	24.431	
9,055.1	6,783.1	6,482.1	6,324.8	72.5	26.2	-51.57	-1,079.8	-995.8	1,872.1	1,797.3	74.87	25.006	
9,100.0	6,782.9	6,478.8	6,321.5	73.7	26.2	-51.38	-1,079.8	-996.7	1,913.3	1,837.6	75.67	25.285	
9,153.5	6,782.7	6,474.9	6,317.8	75.2	26.2	-51.16	-1,079.8	-997.6	1,962.6	1,886.0	76.63	25.610	
9,200.0	6,782.6	6,471.7	6,314.7	76.5	26.2	-50.98	-1,079.8	-998.4	2,005.5	1,928.1	77.47	25.888	
9,251.9	6,782.4	6,450.0	6,293.6	77.9	26.2	-49.76	-1,079.8	-1,003.5	2,054.0	1,976.6	77.41	26.536	
9,300.0	6,782.2	6,450.0	6,293.6	79.2	26.2	-49.76	-1,079.8	-1,003.5	2,098.6	2,020.2	78.43	26.756	
9,350.4	6,782.0	6,450.0	6,293.6	80.6	26.2	-49.76	-1,079.8	-1,003.5	2,145.5	2,066.0	79.52	26.983	
9,400.0	6,781.8	6,450.0	6,293.6	82.0	26.2	-49.76	-1,079.8	-1,003.5	2,191.9	2,111.3	80.58	27.202	
9,448.8	6,781.6	6,450.0	6,293.6	83.3	26.2	-49.76	-1,079.8	-1,003.5	2,237.6	2,156.0	81.63	27.413	

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 SCHAUMBERG 17G-314
<b>Project:</b>	WELD COUNTY, COLORADO	<b>TVD Reference:</b>	KB-EST @ 4633.0usft (Original Well Elev)
<b>Reference Site:</b>	SW NW SEC. 17 T5N R64W 6th P.M.	<b>MD Reference:</b>	KB-EST @ 4633.0usft (Original Well Elev)
<b>Site Error:</b>	0.0 usft	<b>North Reference:</b>	True
<b>Reference Well:</b>	SCHAUMBERG 17G-314	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Well Error:</b>	0.0 usft	<b>Output errors are at</b>	2.00 sigma
<b>Reference Wellbore</b>	ORIGINAL WELLBORE	<b>Database:</b>	EDM 5000.1 Single User Db
<b>Reference Design:</b>	PROPOSAL #1	<b>Offset TVD Reference:</b>	Offset Datum

Offset Design NW SW SEC. 17 T5N R64W 6th P.M. - CECIL'S KERSEY FARM 17K-402 - ORIGINAL WELLBORE - P												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	
9,500.0	6,781.4	6,450.0	6,293.6	84.7	26.2	-49.76	-1,079.8	-1,003.5	2,285.7	2,203.0	82.73	27.630	
9,547.2	6,781.2	6,450.0	6,293.6	86.0	26.2	-49.76	-1,079.8	-1,003.5	2,330.2	2,246.5	83.74	27.826	
9,600.0	6,781.0	6,450.0	6,293.6	87.5	26.2	-49.76	-1,079.8	-1,003.5	2,380.1	2,295.2	84.88	28.042	
9,645.6	6,780.8	6,450.0	6,293.6	88.7	26.2	-49.76	-1,079.8	-1,003.5	2,423.3	2,337.5	85.86	28.224	
9,700.0	6,780.6	6,450.0	6,293.6	90.2	26.2	-49.76	-1,079.8	-1,003.5	2,474.9	2,387.9	87.03	28.437	
9,744.1	6,780.4	6,450.0	6,293.6	91.4	26.2	-49.76	-1,079.8	-1,003.5	2,516.8	2,428.8	87.98	28.607	
9,800.0	6,780.2	6,450.0	6,293.6	93.0	26.2	-49.76	-1,079.8	-1,003.5	2,570.1	2,480.9	89.18	28.817	
9,842.5	6,780.1	6,450.0	6,293.6	94.2	26.2	-49.76	-1,079.8	-1,003.5	2,610.6	2,520.5	90.10	28.974	
9,900.0	6,779.8	6,450.0	6,293.6	95.7	26.2	-49.75	-1,079.8	-1,003.5	2,665.6	2,574.3	91.34	29.183	
9,940.9	6,779.7	6,450.0	6,293.6	96.9	26.2	-49.75	-1,079.8	-1,003.5	2,704.8	2,612.6	92.23	29.328	
10,000.0	6,779.4	6,429.8	6,273.8	98.5	26.2	-48.66	-1,079.8	-1,007.5	2,761.1	2,669.0	92.15	29.963	
10,039.3	6,779.3	6,428.3	6,272.3	99.6	26.2	-48.57	-1,079.8	-1,007.8	2,798.9	2,706.0	92.88	30.133	
10,100.0	6,779.0	6,425.9	6,270.0	101.3	26.2	-48.44	-1,079.8	-1,008.3	2,857.1	2,763.1	94.01	30.391	
10,137.8	6,778.9	6,424.5	6,268.6	102.3	26.2	-48.37	-1,079.8	-1,008.5	2,893.4	2,798.7	94.72	30.548	
10,200.0	6,778.7	6,422.2	6,266.3	104.1	26.2	-48.25	-1,079.8	-1,008.9	2,953.4	2,857.5	95.88	30.803	
10,236.2	6,778.5	6,420.9	6,265.1	105.1	26.2	-48.18	-1,079.8	-1,009.2	2,988.3	2,891.7	96.56	30.948	
10,300.0	6,778.3	6,400.0	6,244.4	106.8	26.2	-47.08	-1,079.8	-1,012.6	3,050.1	2,953.7	96.43	31.631	
10,334.6	6,778.1	6,400.0	6,244.4	107.8	26.2	-47.08	-1,079.8	-1,012.6	3,083.5	2,986.4	97.15	31.740	
10,400.0	6,777.9	6,400.0	6,244.4	109.6	26.2	-47.08	-1,079.8	-1,012.6	3,146.7	3,048.2	98.51	31.941	
10,433.0	6,777.7	6,400.0	6,244.4	110.5	26.2	-47.08	-1,079.8	-1,012.6	3,178.6	3,079.4	99.20	32.041	
10,500.0	6,777.5	6,400.0	6,244.4	112.4	26.2	-47.08	-1,079.8	-1,012.6	3,243.4	3,142.8	100.60	32.240	
10,531.5	6,777.3	6,400.0	6,244.4	113.3	26.2	-47.08	-1,079.8	-1,012.6	3,273.9	3,172.7	101.26	32.332	
10,600.0	6,777.1	6,400.0	6,244.4	115.2	26.2	-47.08	-1,079.8	-1,012.6	3,340.4	3,237.7	102.69	32.529	
10,629.9	6,777.0	6,400.0	6,244.4	116.0	26.2	-47.08	-1,079.8	-1,012.6	3,369.4	3,266.1	103.32	32.613	
10,700.0	6,776.7	6,400.0	6,244.4	117.9	26.2	-47.08	-1,079.8	-1,012.6	3,437.5	3,332.8	104.78	32.807	
10,728.3	6,776.6	6,400.0	6,244.4	118.7	26.2	-47.08	-1,079.8	-1,012.6	3,465.1	3,359.7	105.37	32.884	
10,800.0	6,776.3	6,400.0	6,244.4	120.7	26.2	-47.08	-1,079.8	-1,012.6	3,534.8	3,428.0	106.87	33.075	
10,826.7	6,776.2	6,400.0	6,244.4	121.5	26.2	-47.08	-1,079.8	-1,012.6	3,560.9	3,453.5	107.43	33.145	
10,900.0	6,775.9	6,400.0	6,244.4	123.5	26.2	-47.08	-1,079.8	-1,012.6	3,632.3	3,523.3	108.96	33.335	
10,925.2	6,775.8	6,400.0	6,244.4	124.2	26.2	-47.08	-1,079.8	-1,012.6	3,656.8	3,547.3	109.49	33.398	
11,000.0	6,775.5	6,400.0	6,244.4	126.3	26.2	-47.08	-1,079.8	-1,012.6	3,729.8	3,618.8	111.06	33.585	
11,023.6	6,775.4	6,400.0	6,244.4	126.9	26.2	-47.08	-1,079.8	-1,012.6	3,752.9	3,641.3	111.55	33.643	
11,100.0	6,775.1	6,400.0	6,244.4	129.1	26.2	-47.07	-1,079.8	-1,012.6	3,827.5	3,714.4	113.15	33.827	
11,122.0	6,775.0	6,400.0	6,244.4	129.7	26.2	-47.07	-1,079.8	-1,012.6	3,849.1	3,735.5	113.61	33.879	
11,200.0	6,774.7	6,400.0	6,244.4	131.9	26.2	-47.07	-1,079.8	-1,012.6	3,925.4	3,810.1	115.24	34.061	
11,220.4	6,774.6	6,400.0	6,244.4	132.4	26.2	-47.07	-1,079.8	-1,012.6	3,945.4	3,829.7	115.67	34.108	
11,300.0	6,774.3	6,400.0	6,244.4	134.6	26.2	-47.07	-1,079.8	-1,012.6	4,023.3	3,906.0	117.34	34.288	
11,318.9	6,774.2	6,400.0	6,244.4	135.2	26.2	-47.07	-1,079.8	-1,012.6	4,041.8	3,924.1	117.73	34.330	
11,400.0	6,773.9	6,400.0	6,244.4	137.4	26.2	-47.07	-1,079.8	-1,012.6	4,121.3	4,001.9	119.43	34.507	
11,417.3	6,773.8	6,400.0	6,244.4	137.9	26.2	-47.07	-1,079.8	-1,012.6	4,138.3	4,018.5	119.80	34.544	
11,500.0	6,773.5	6,400.0	6,244.4	140.2	26.2	-47.07	-1,079.8	-1,012.6	4,219.4	4,097.9	121.53	34.719	
11,515.7	6,773.4	6,400.0	6,244.4	140.7	26.2	-47.07	-1,079.8	-1,012.6	4,234.9	4,113.0	121.86	34.752	
11,600.0	6,773.1	6,400.0	6,244.4	143.0	26.2	-47.07	-1,079.8	-1,012.6	4,317.6	4,194.0	123.63	34.925	
11,614.1	6,773.0	6,400.0	6,244.4	143.4	26.2	-47.07	-1,079.8	-1,012.6	4,331.5	4,207.6	123.92	34.954	
11,700.0	6,772.7	6,400.0	6,244.4	145.8	26.2	-47.07	-1,079.8	-1,012.6	4,415.9	4,290.2	125.72	35.124	
11,712.6	6,772.6	6,400.0	6,244.4	146.2	26.2	-47.07	-1,079.8	-1,012.6	4,428.3	4,302.3	125.99	35.149	
11,800.0	6,772.3	6,400.0	6,244.4	148.6	26.2	-47.07	-1,079.8	-1,012.6	4,514.3	4,386.5	127.82	35.318	
11,811.0	6,772.2	6,400.0	6,244.4	148.9	26.2	-47.07	-1,079.8	-1,012.6	4,525.1	4,397.0	128.05	35.338	
11,900.0	6,771.9	6,400.0	6,244.4	151.4	26.2	-47.06	-1,079.8	-1,012.6	4,612.7	4,482.8	129.92	35.505	
11,909.4	6,771.8	6,400.0	6,244.4	151.7	26.2	-47.06	-1,079.8	-1,012.6	4,622.0	4,491.9	130.11	35.522	
12,000.0	6,771.5	6,400.0	6,244.4	154.2	26.2	-47.06	-1,079.8	-1,012.6	4,711.2	4,579.2	132.01	35.687	
12,007.8	6,771.4	6,400.0	6,244.4	154.4	26.2	-47.06	-1,079.8	-1,012.6	4,718.9	4,586.8	132.18	35.701	

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 SCHAUMBERG 17G-314
<b>Project:</b>	WELD COUNTY, COLORADO	<b>TVD Reference:</b>	KB-EST @ 4633.0usft (Original Well Elev)
<b>Reference Site:</b>	SW NW SEC. 17 T5N R64W 6th P.M.	<b>MD Reference:</b>	KB-EST @ 4633.0usft (Original Well Elev)
<b>Site Error:</b>	0.0 usft	<b>North Reference:</b>	True
<b>Reference Well:</b>	SCHAUMBERG 17G-314	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Well Error:</b>	0.0 usft	<b>Output errors are at</b>	2.00 sigma
<b>Reference Wellbore</b>	ORIGINAL WELLBORE	<b>Database:</b>	EDM 5000.1 Single User Db
<b>Reference Design:</b>	PROPOSAL #1	<b>Offset TVD Reference:</b>	Offset Datum

<b>Offset Design</b> NW SW SEC. 17 T5N R64W 6th P.M. - CECIL'S KERSEY FARM 17K-402 - ORIGINAL WELLBORE - P												<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
12,100.0	6,771.1	6,377.1	6,221.7	157.0	26.2	-45.90	-1,079.8	-1,015.6	4,809.3	4,677.5	131.86	36.472	
12,106.3	6,771.0	6,377.0	6,221.6	157.2	26.2	-45.90	-1,079.8	-1,015.6	4,815.5	4,683.5	131.98	36.486	
12,200.0	6,770.7	6,375.5	6,220.2	159.8	26.2	-45.82	-1,079.8	-1,015.7	4,907.9	4,774.1	133.78	36.688	
12,204.7	6,770.6	6,375.5	6,220.1	159.9	26.2	-45.82	-1,079.8	-1,015.8	4,912.5	4,778.7	133.87	36.698	
12,300.0	6,770.3	6,374.0	6,218.7	162.6	26.2	-45.75	-1,079.8	-1,015.9	5,006.5	4,870.8	135.69	36.897	
12,303.1	6,770.2	6,374.0	6,218.6	162.7	26.2	-45.75	-1,079.8	-1,015.9	5,009.6	4,873.8	135.75	36.904	
12,361.7	6,770.0	6,373.2	6,217.8	164.3	26.2	-45.70	-1,079.8	-1,016.0	5,067.4	4,930.5	136.87	37.024	



# Anticollision Report



<b>Company:</b>	PDC ENERGY	<b>Local Co-ordinate Reference:</b>	Well SCHAUMBERG 17G-314
<b>Project:</b>	WELD COUNTY, COLORADO	<b>TVD Reference:</b>	KB-EST @ 4633.0usft (Original Well Elev)
<b>Reference Site:</b>	SW NW SEC. 17 T5N R64W 6th P.M.	<b>MD Reference:</b>	KB-EST @ 4633.0usft (Original Well Elev)
<b>Site Error:</b>	0.0 usft	<b>North Reference:</b>	True
<b>Reference Well:</b>	SCHAUMBERG 17G-314	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Well Error:</b>	0.0 usft	<b>Output errors are at</b>	2.00 sigma
<b>Reference Wellbore</b>	ORIGINAL WELLBORE	<b>Database:</b>	EDM 5000.1 Single User Db
<b>Reference Design:</b>	PROPOSAL #1	<b>Offset TVD Reference:</b>	Offset Datum

<b>Offset Design</b> NW SW SEC. 17 T5N R64W 6th P.M. - CECIL'S KERSEY FARM 17K-404 - ORIGINAL WELLBORE - P												<b>Offset Site Error:</b>	0.0 usft
Survey Program: 0-MWMD												<b>Offset Well Error:</b>	0.0 usft
Reference		Offset		Semi Major Axis			Distance						
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	3.0	3.0	0.0	0.0	-174.20	-1,915.9	-194.7	1,925.8				
98.4	98.4	101.4	101.4	0.1	0.1	-174.20	-1,915.9	-194.7	1,925.8	1,925.6	0.20	9,776.462	
100.0	100.0	103.0	103.0	0.1	0.1	-174.20	-1,915.9	-194.7	1,925.8	1,925.6	0.20	9,519.831	
196.8	196.8	199.8	199.8	0.3	0.3	-174.20	-1,915.9	-194.7	1,925.8	1,925.1	0.64	3,020.040	
200.0	200.0	203.0	203.0	0.3	0.3	-174.20	-1,915.9	-194.7	1,925.8	1,925.1	0.65	2,954.432	
295.3	295.3	298.3	298.3	0.5	0.5	-174.20	-1,915.9	-194.7	1,925.8	1,924.7	1.08	1,782.927	
300.0	300.0	303.0	303.0	0.5	0.6	-174.20	-1,915.9	-194.7	1,925.8	1,924.7	1.10	1,748.542	
393.7	393.7	396.7	396.7	0.8	0.8	-174.20	-1,915.9	-194.7	1,925.8	1,924.2	1.52	1,264.815	
400.0	400.0	403.0	403.0	0.8	0.8	-174.20	-1,915.9	-194.7	1,925.8	1,924.2	1.55	1,241.718	
492.1	492.1	495.1	495.1	1.0	1.0	-174.20	-1,915.9	-194.7	1,925.8	1,923.8	1.97	980.024	
500.0	500.0	503.0	503.0	1.0	1.0	-174.20	-1,915.9	-194.7	1,925.8	1,923.8	2.00	962.680	
590.5	590.5	593.5	593.5	1.2	1.2	-174.20	-1,915.9	-194.7	1,925.8	1,923.4	2.41	799.912	
600.0	600.0	603.0	603.0	1.2	1.2	-174.20	-1,915.9	-194.7	1,925.8	1,923.3	2.45	786.042	
689.0	689.0	692.0	692.0	1.4	1.4	-174.20	-1,915.9	-194.7	1,925.8	1,922.9	2.85	675.725	
700.0	700.0	703.0	703.0	1.4	1.5	-174.20	-1,915.9	-194.7	1,925.8	1,922.9	2.90	664.175	
787.4	787.4	790.4	790.4	1.6	1.6	-174.20	-1,915.9	-194.7	1,925.8	1,922.5	3.29	584.916	
800.0	800.0	803.0	803.0	1.7	1.7	-174.20	-1,915.9	-194.7	1,925.8	1,922.4	3.35	575.024	
885.8	885.8	888.8	888.8	1.9	1.9	-174.20	-1,915.9	-194.7	1,925.8	1,922.0	3.73	515.623	
900.0	900.0	903.0	903.0	1.9	1.9	-174.20	-1,915.9	-194.7	1,925.8	1,922.0	3.80	506.974	
984.2	984.2	987.2	987.2	2.1	2.1	-174.20	-1,915.9	-194.7	1,925.8	1,921.6	4.18	461.009	
1,000.0	1,000.0	1,003.0	1,003.0	2.1	2.1	-174.20	-1,915.9	-194.7	1,925.8	1,921.5	4.25	453.326	
1,082.7	1,082.7	1,141.0	1,140.9	2.3	2.4	-174.22	-1,914.7	-194.0	1,925.3	1,920.5	4.74	405.989	
1,100.0	1,100.0	1,185.1	1,185.0	2.3	2.5	-174.24	-1,913.2	-193.1	1,924.6	1,919.8	4.88	394.458	
1,181.1	1,181.1	1,390.4	1,389.6	2.5	3.0	-174.46	-1,898.6	-184.3	1,918.6	1,913.0	5.53	346.722	
1,200.0	1,200.0	1,437.8	1,436.6	2.6	3.1	-174.53	-1,893.4	-181.2	1,916.4	1,910.7	5.69	336.697	
1,279.5	1,279.5	1,634.8	1,630.7	2.7	3.7	-174.97	-1,865.0	-164.0	1,904.3	1,897.9	6.39	297.977	
1,300.0	1,300.0	1,684.6	1,679.5	2.8	3.8	-175.12	-1,855.9	-158.6	1,900.4	1,893.8	6.58	288.731	
1,377.9	1,377.9	1,810.8	1,802.0	3.0	4.3	-175.53	-1,830.1	-143.0	1,883.4	1,876.2	7.16	263.062	
1,400.0	1,400.0	1,832.2	1,822.7	3.0	4.4	-175.61	-1,825.6	-140.3	1,878.4	1,871.2	7.28	258.003	
1,476.4	1,476.4	1,906.2	1,894.3	3.2	4.7	-175.87	-1,809.8	-130.8	1,861.4	1,853.7	7.70	241.608	
1,500.0	1,500.0	1,929.0	1,916.5	3.2	4.8	-175.95	-1,805.0	-127.8	1,856.1	1,848.3	7.84	236.812	
1,574.8	1,574.8	2,001.5	1,986.7	3.4	5.1	-176.21	-1,789.5	-118.6	1,839.5	1,831.2	8.26	222.589	
1,600.0	1,600.0	2,025.9	2,010.3	3.5	5.2	-176.30	-1,784.3	-115.4	1,833.9	1,825.5	8.41	218.055	
1,673.2	1,673.2	2,096.8	2,079.0	3.6	5.5	-176.56	-1,769.2	-106.3	1,817.6	1,808.8	8.84	205.687	
1,700.0	1,700.0	2,122.8	2,104.2	3.7	5.6	-176.66	-1,763.7	-103.0	1,811.7	1,802.7	9.00	201.411	
1,771.6	1,771.6	2,192.2	2,171.4	3.9	5.9	-176.92	-1,749.0	-94.1	1,795.9	1,786.4	9.42	190.628	
1,800.0	1,800.0	2,219.6	2,198.0	3.9	6.1	-177.03	-1,743.1	-90.6	1,789.6	1,780.0	9.59	186.593	
1,870.1	1,870.1	2,287.3	2,263.5	4.1	6.4	-18.60	-1,728.7	-81.9	1,773.4	1,763.8	9.55	185.602	
1,900.0	1,900.0	2,316.1	2,291.4	4.1	6.5	-18.77	-1,722.6	-78.2	1,766.0	1,756.3	9.70	182.024	
1,968.5	1,968.4	2,381.5	2,354.8	4.2	6.8	-19.19	-1,708.7	-69.8	1,748.0	1,737.9	10.02	174.432	
2,000.0	1,999.8	2,411.5	2,383.8	4.3	7.0	-19.39	-1,702.3	-66.0	1,739.2	1,729.0	10.17	171.079	
2,066.9	2,066.5	2,474.8	2,445.1	4.4	7.3	-19.86	-1,688.8	-57.9	1,719.6	1,709.1	10.48	164.120	
2,100.0	2,099.5	2,505.9	2,475.2	4.5	7.4	-20.10	-1,682.2	-53.9	1,709.4	1,698.8	10.63	160.809	
2,165.3	2,164.4	2,566.9	2,534.3	4.6	7.7	-20.61	-1,669.2	-46.1	1,688.3	1,677.4	10.93	154.397	
2,200.0	2,198.7	2,599.0	2,565.5	4.7	7.9	-20.90	-1,662.4	-41.9	1,676.6	1,665.5	11.09	151.117	
2,263.8	2,261.8	2,657.7	2,622.3	4.8	8.1	-21.46	-1,649.9	-34.4	1,654.2	1,642.8	11.39	145.173	
2,300.0	2,297.5	2,690.8	2,654.4	4.9	8.3	-21.80	-1,642.8	-30.2	1,640.9	1,629.4	11.56	141.905	
2,362.2	2,358.6	2,747.3	2,709.1	5.0	8.6	-22.41	-1,630.8	-22.9	1,617.3	1,605.5	11.86	136.361	
2,400.0	2,395.6	2,781.2	2,742.0	5.1	8.7	-22.81	-1,623.6	-18.6	1,602.5	1,590.4	12.04	133.091	
2,460.6	2,454.9	2,835.6	2,794.6	5.3	9.0	-23.26	-1,612.0	-11.6	1,578.3	1,565.9	12.37	127.569	
2,500.0	2,493.4	2,870.9	2,828.8	5.4	9.2	-23.56	-1,604.5	-7.1	1,562.7	1,550.1	12.59	124.124	
2,559.0	2,551.2	2,923.9	2,880.1	5.6	9.4	-24.02	-1,593.2	-0.3	1,539.3	1,526.4	12.93	119.093	

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 SCHAUMBERG 17G-314
<b>Project:</b>	WELD COUNTY, COLORADO	<b>TVD Reference:</b>	KB-EST @ 4633.0usft (Original Well Elev)
<b>Reference Site:</b>	SW NW SEC. 17 T5N R64W 6th P.M.	<b>MD Reference:</b>	KB-EST @ 4633.0usft (Original Well Elev)
<b>Site Error:</b>	0.0 usft	<b>North Reference:</b>	True
<b>Reference Well:</b>	SCHAUMBERG 17G-314	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Well Error:</b>	0.0 usft	<b>Output errors are at</b>	2.00 sigma
<b>Reference Wellbore</b>	ORIGINAL WELLBORE	<b>Database:</b>	EDM 5000.1 Single User Db
<b>Reference Design:</b>	PROPOSAL #1	<b>Offset TVD Reference:</b>	Offset Datum

Offset Design NW SW SEC. 17 T5N R64W 6th P.M. - CECIL'S KERSEY FARM 17K-404 - ORIGINAL WELLBORE - P													Offset Site Error:	0.0 usft
Survey Program: 0-MWMD													Offset Well Error:	0.0 usft
Reference		Offset		Semi Major Axis			Distance							Warning
Measured Depth (usft)	Vertical Depth (usft)	Measured Depth (usft)	Vertical Depth (usft)	Reference (usft)	Offset (usft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (usft)	+E/-W (usft)	Between Centres (usft)	Between Ellipses (usft)	Minimum Separation (usft)	Separation Factor		
2,600.0	2,591.3	2,960.6	2,915.7	5.7	9.6	-24.35	-1,585.4	4.4	1,523.2	1,510.0	13.16	115.749		
2,657.5	2,647.5	3,012.1	2,965.6	5.9	9.9	-24.82	-1,574.5	11.0	1,500.6	1,487.1	13.49	111.204		
2,700.0	2,689.1	3,050.2	3,002.5	6.0	10.1	-25.18	-1,566.3	15.9	1,484.0	1,470.2	13.75	107.928		
2,755.9	2,743.7	3,100.3	3,051.1	6.2	10.3	-25.66	-1,555.7	22.4	1,462.1	1,448.1	14.09	103.782		
2,800.0	2,786.9	3,139.9	3,089.4	6.4	10.5	-26.05	-1,547.3	27.4	1,445.0	1,430.6	14.36	100.623		
2,854.3	2,840.0	3,188.6	3,136.5	6.6	10.8	-26.55	-1,536.9	33.7	1,424.0	1,409.3	14.70	96.857		
2,900.0	2,884.7	3,229.5	3,176.2	6.7	11.0	-26.97	-1,528.2	38.9	1,406.4	1,391.4	14.99	93.802		
2,952.7	2,936.3	3,276.8	3,222.0	6.9	11.2	-27.47	-1,518.1	45.0	1,386.1	1,370.8	15.34	90.384		
3,000.0	2,982.5	3,319.2	3,263.1	7.1	11.4	-27.94	-1,509.1	50.4	1,368.1	1,352.5	15.65	87.431		
3,051.2	3,032.6	3,365.1	3,307.5	7.3	11.6	-28.45	-1,499.3	56.3	1,348.7	1,332.7	15.99	84.332		
3,100.0	3,080.3	3,408.9	3,349.9	7.5	11.9	-28.95	-1,490.0	61.9	1,330.2	1,313.9	16.33	81.479		
3,149.6	3,128.8	3,453.3	3,393.0	7.7	12.1	-29.48	-1,480.6	67.6	1,311.5	1,294.9	16.67	78.672		
3,200.0	3,178.1	3,498.5	3,436.8	7.9	12.3	-30.03	-1,470.9	73.4	1,292.7	1,275.7	17.03	75.919		
3,248.0	3,225.1	3,541.6	3,478.5	8.1	12.5	-30.57	-1,461.8	78.9	1,274.8	1,257.5	17.37	73.377		
3,300.0	3,276.0	3,588.2	3,523.6	8.3	12.8	-31.16	-1,451.9	84.9	1,255.6	1,237.9	17.75	70.722		
3,346.4	3,321.4	3,629.8	3,563.9	8.5	13.0	-31.71	-1,443.0	90.3	1,238.6	1,220.5	18.10	68.424		
3,400.0	3,373.8	3,677.8	3,610.4	8.7	13.2	-32.36	-1,432.8	96.4	1,219.0	1,200.5	18.51	65.867		
3,444.9	3,417.7	3,718.1	3,649.4	8.8	13.4	-32.92	-1,424.2	101.6	1,202.8	1,183.9	18.86	63.792		
3,500.0	3,471.6	3,767.5	3,697.3	9.1	13.7	-33.62	-1,413.7	107.9	1,183.0	1,163.7	19.29	61.330		
3,543.3	3,513.9	3,806.3	3,734.9	9.2	13.9	-34.19	-1,405.4	112.9	1,167.6	1,147.9	19.64	59.459		
3,600.0	3,569.4	3,857.2	3,784.1	9.5	14.1	-34.96	-1,394.6	119.4	1,147.5	1,127.4	20.10	57.092		
3,641.7	3,610.2	3,894.6	3,820.4	9.7	14.3	-35.54	-1,386.7	124.2	1,132.9	1,112.4	20.45	55.407		
3,700.0	3,667.2	3,946.8	3,871.0	9.9	14.6	-36.38	-1,375.5	130.9	1,112.7	1,091.7	20.94	53.135		
3,740.1	3,706.5	3,982.8	3,905.9	10.1	14.8	-36.97	-1,367.9	135.5	1,098.9	1,077.6	21.29	51.621		
3,800.0	3,765.0	4,036.5	3,957.8	10.3	15.0	-37.87	-1,356.5	142.4	1,078.5	1,056.7	21.81	49.443		
3,838.6	3,802.8	4,071.1	3,991.3	10.5	15.2	-38.47	-1,349.1	146.8	1,065.5	1,043.4	22.16	48.086		
3,900.0	3,862.8	4,126.1	4,044.7	10.7	15.5	-39.46	-1,337.4	153.9	1,045.1	1,022.4	22.72	46.001		
3,937.0	3,899.0	4,159.3	4,076.8	10.9	15.6	-40.07	-1,330.3	158.2	1,033.0	1,009.9	23.06	44.789		
4,000.0	3,960.7	4,215.8	4,131.5	11.2	15.9	-41.13	-1,318.3	165.4	1,012.6	988.9	23.66	42.797		
4,035.4	3,995.3	4,247.5	4,162.3	11.3	16.1	-41.75	-1,311.5	169.5	1,001.3	977.3	24.00	41.717		
4,100.0	4,058.5	4,305.4	4,218.4	11.6	16.4	-42.91	-1,299.2	176.9	980.9	956.3	24.64	39.819		
4,133.8	4,091.6	4,335.8	4,247.8	11.7	16.5	-43.53	-1,292.7	180.8	970.5	945.5	24.97	38.860		
4,200.0	4,156.3	4,395.1	4,305.2	12.0	16.8	-44.79	-1,280.1	188.4	950.3	924.7	25.65	37.056		
4,232.3	4,187.9	4,424.0	4,333.2	12.2	17.0	-45.42	-1,274.0	192.1	940.7	914.7	25.98	36.208		
4,300.0	4,254.1	4,484.8	4,392.1	12.5	17.3	-46.77	-1,261.0	199.9	920.8	894.1	26.69	34.498		
4,325.7	4,279.2	4,507.8	4,414.4	12.6	17.4	-47.30	-1,256.1	202.8	913.4	886.5	26.97	33.874		
4,330.7	4,284.1	4,512.3	4,418.7	12.6	17.4	-47.38	-1,255.2	203.4	912.0	885.0	27.02	33.757		
4,400.0	4,352.1	4,574.8	4,479.3	12.8	17.8	-48.52	-1,241.9	211.5	893.1	865.4	27.73	32.211		
4,429.1	4,380.8	4,601.3	4,505.0	12.9	17.9	-49.01	-1,236.2	214.8	885.7	857.7	28.01	31.618		
4,500.0	4,450.7	4,666.3	4,567.9	13.1	18.2	-50.18	-1,222.4	223.2	868.8	840.1	28.71	30.266		
4,527.5	4,478.0	4,691.8	4,592.6	13.2	18.4	-50.64	-1,217.0	226.4	862.7	833.7	28.97	29.780		
4,600.0	4,549.9	4,759.1	4,657.8	13.4	18.7	-51.84	-1,202.6	235.1	847.8	818.2	29.66	28.584		
4,626.0	4,575.7	4,783.5	4,681.4	13.5	18.8	-52.26	-1,197.5	238.2	842.9	813.0	29.90	28.189		
4,700.0	4,649.4	4,853.2	4,749.0	13.6	19.2	-53.47	-1,182.6	247.1	830.0	799.4	30.59	27.137		
4,724.4	4,673.7	4,876.3	4,771.4	13.7	19.3	-53.86	-1,177.7	250.1	826.1	795.3	30.80	26.819		
4,800.0	4,749.2	4,948.4	4,841.1	13.8	19.7	-55.04	-1,162.4	259.4	815.2	783.7	31.47	25.900		
4,822.8	4,772.0	4,970.2	4,862.3	13.9	19.8	-55.39	-1,157.7	262.2	812.2	780.5	31.67	25.646		
4,900.0	4,849.2	5,044.6	4,934.3	14.0	20.2	-56.54	-1,141.9	271.7	803.1	770.8	32.32	24.849		
4,921.2	4,870.4	5,065.1	4,954.2	14.1	20.3	-56.84	-1,137.5	274.3	800.9	768.4	32.49	24.648		
4,925.6	4,874.8	5,069.4	4,958.3	14.1	20.3	144.29	-1,136.6	274.9	800.5	774.6	25.82	30.997		
5,000.0	4,949.2	5,141.4	5,028.1	14.2	20.7	143.09	-1,121.3	284.1	793.1	767.2	25.99	30.519		
5,019.7	4,968.8	5,160.5	5,046.6	14.2	20.8	142.77	-1,117.2	286.6	791.3	765.2	26.03	30.396		

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 SCHAUMBERG 17G-314
<b>Project:</b>	WELD COUNTY, COLORADO	<b>TVD Reference:</b>	KB-EST @ 4633.0usft (Original Well Elev)
<b>Reference Site:</b>	SW NW SEC. 17 T5N R64W 6th P.M.	<b>MD Reference:</b>	KB-EST @ 4633.0usft (Original Well Elev)
<b>Site Error:</b>	0.0 usft	<b>North Reference:</b>	True
<b>Reference Well:</b>	SCHAUMBERG 17G-314	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Well Error:</b>	0.0 usft	<b>Output errors are at</b>	2.00 sigma
<b>Reference Wellbore</b>	ORIGINAL WELLBORE	<b>Database:</b>	EDM 5000.1 Single User Db
<b>Reference Design:</b>	PROPOSAL #1	<b>Offset TVD Reference:</b>	Offset Datum

Offset Design												Offset Site Error:	0.0 usft
Survey Program: 0-MWD												Offset Well Error:	0.0 usft
Reference		Offset		Semi Major Axis			Distance						Warning
Measured Depth (usft)	Vertical Depth (usft)	Measured Depth (usft)	Vertical Depth (usft)	Reference (usft)	Offset (usft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (usft)	+E/-W (usft)	Between Centres (usft)	Between Ellipses (usft)	Minimum Separation (usft)	Separation Factor	
5,100.0	5,049.2	5,238.3	5,121.9	14.3	21.1	141.46	-1,100.7	296.5	783.9	757.7	26.21	29.912	
5,118.1	5,067.3	5,255.8	5,138.9	14.3	21.2	141.16	-1,097.0	298.8	782.3	756.1	26.25	29.806	
5,200.0	5,149.2	5,335.1	5,215.8	14.5	21.6	139.78	-1,080.1	309.0	775.4	748.9	26.43	29.340	
5,216.5	5,165.7	5,351.1	5,231.3	14.5	21.7	139.50	-1,076.7	311.0	774.0	747.5	26.46	29.248	
5,300.0	5,249.2	5,432.0	5,309.6	14.6	22.1	138.08	-1,059.5	321.4	767.5	740.9	26.65	28.800	
5,314.9	5,264.1	5,446.5	5,323.6	14.6	22.2	137.82	-1,056.4	323.2	766.4	739.7	26.68	28.721	
5,400.0	5,349.2	5,528.4	5,403.0	14.8	22.6	136.35	-1,038.9	333.7	760.4	733.5	26.88	28.290	
5,413.4	5,362.5	5,540.5	5,414.7	14.8	22.7	136.13	-1,036.4	335.3	759.5	732.6	26.91	28.228	
5,500.0	5,449.2	5,619.5	5,491.6	14.9	23.0	134.80	-1,020.9	344.6	754.5	727.4	27.10	27.842	
5,511.8	5,461.0	5,630.4	5,502.2	14.9	23.1	134.63	-1,018.9	345.8	753.9	726.7	27.12	27.794	
5,600.0	5,549.2	5,711.9	5,582.2	15.1	23.3	133.43	-1,005.1	354.1	749.9	722.5	27.33	27.439	
5,610.2	5,559.4	5,721.4	5,591.5	15.1	23.4	133.30	-1,003.6	355.0	749.5	722.1	27.35	27.399	
5,700.0	5,649.2	5,805.5	5,674.4	15.2	23.6	132.25	-991.7	362.2	746.4	718.8	27.59	27.057	
5,708.6	5,657.8	5,813.6	5,682.4	15.3	23.6	132.16	-990.6	362.8	746.1	718.5	27.61	27.025	
5,800.0	5,749.2	5,900.0	5,768.0	15.4	23.9	131.29	-980.7	368.8	743.9	716.0	27.87	26.692	
5,807.1	5,756.2	5,906.6	5,774.6	15.4	23.9	131.23	-980.0	369.2	743.7	715.8	27.89	26.668	
5,900.0	5,849.2	5,995.2	5,862.7	15.6	24.1	130.55	-972.4	373.8	742.1	713.9	28.17	26.345	
5,905.5	5,854.7	6,000.0	5,867.5	15.6	24.1	130.52	-972.0	374.1	742.0	713.8	28.19	26.326	
6,000.0	5,949.2	6,090.9	5,958.3	15.7	24.3	130.04	-966.7	377.3	741.0	712.5	28.49	26.012	
6,003.9	5,953.1	6,094.7	5,962.0	15.7	24.3	130.03	-966.5	377.4	741.0	712.5	28.50	25.999	
6,100.0	6,049.2	6,187.1	6,054.3	15.9	24.4	129.78	-963.7	379.0	740.4	711.6	28.82	25.694	
6,102.3	6,051.5	6,189.3	6,056.6	15.9	24.4	129.78	-963.7	379.1	740.4	711.6	28.83	25.686	
6,124.6	6,073.8	6,210.8	6,078.0	15.9	24.4	129.75	-963.4	379.2	740.4	711.5	28.90	25.617	
6,126.1	6,075.2	6,212.2	6,079.4	15.9	24.4	-140.25	-963.4	379.2	740.4	700.4	39.99	18.516	
6,150.0	6,099.2	6,235.2	6,102.4	16.0	24.5	-140.27	-963.3	379.3	740.7	700.7	40.04	18.498	
6,200.0	6,149.0	6,337.7	6,204.8	16.1	24.6	-140.42	-963.3	376.3	742.9	702.8	40.14	18.510	
6,200.8	6,149.8	6,341.5	6,208.7	16.1	24.6	-140.43	-963.3	375.9	742.9	702.8	40.14	18.509	
6,250.0	6,198.5	6,381.2	6,258.9	16.2	24.4	-139.17	-963.3	313.4	738.2	698.4	39.78	18.555	
6,299.2	6,246.6	6,789.1	6,612.5	16.3	24.1	-135.81	-963.3	200.3	724.6	685.7	38.88	18.634	
6,300.0	6,247.4	6,792.1	6,614.7	16.3	24.0	-135.75	-963.3	198.3	724.3	685.4	38.87	18.635	
6,350.0	6,295.5	6,959.3	6,725.6	16.5	23.7	-131.34	-963.3	73.7	704.1	666.2	37.88	18.587	
6,397.6	6,340.2	7,083.6	6,787.7	16.6	23.4	-127.11	-963.3	-33.8	681.7	644.4	37.23	18.308	
6,400.0	6,342.4	7,089.1	6,790.0	16.6	23.4	-126.90	-963.3	-38.8	680.5	643.3	37.21	18.288	
6,450.0	6,388.1	7,191.6	6,825.9	16.8	23.2	-122.86	-963.3	-134.7	655.3	618.3	36.98	17.721	
6,496.0	6,428.8	7,269.1	6,843.7	17.0	23.0	-119.57	-963.3	-210.1	631.8	594.7	37.13	17.015	
6,500.0	6,432.2	7,275.1	6,844.7	17.0	23.0	-119.30	-963.3	-216.0	629.8	592.6	37.16	16.949	
6,550.0	6,474.6	7,345.4	6,853.2	17.3	22.9	-116.16	-963.3	-285.8	604.8	567.2	37.66	16.061	
6,594.5	6,510.7	7,396.4	6,855.0	17.5	22.8	-113.90	-963.3	-336.8	583.6	545.3	38.27	15.249	
6,600.0	6,515.0	7,399.9	6,855.0	17.6	22.8	-113.84	-963.3	-340.2	581.0	542.7	38.32	15.161	
6,650.0	6,553.3	7,432.2	6,855.2	17.9	22.8	-113.05	-963.3	-372.5	559.8	520.8	39.00	14.354	
6,692.9	6,584.3	7,462.1	6,855.4	18.2	23.3	-112.10	-963.3	-402.4	544.0	504.3	39.65	13.719	
6,700.0	6,589.2	7,467.2	6,855.4	18.2	23.4	-111.92	-963.3	-407.5	541.5	501.8	39.76	13.621	
6,750.0	6,622.7	7,504.5	6,855.6	18.6	24.2	-110.51	-963.3	-444.8	526.2	485.6	40.61	12.956	
6,791.3	6,648.3	7,537.1	6,855.8	19.0	24.8	-109.19	-963.3	-477.4	515.6	474.0	41.57	12.402	
6,800.0	6,653.4	7,544.1	6,855.8	19.1	24.9	-108.90	-963.3	-484.4	513.6	471.8	41.78	12.292	
6,850.0	6,681.4	7,585.7	6,856.1	19.6	25.7	-107.16	-963.3	-526.0	503.5	460.4	43.11	11.678	
6,889.7	6,701.5	7,620.1	6,856.3	20.1	26.5	-105.75	-963.3	-560.4	497.0	452.7	44.33	11.213	
6,900.0	6,706.3	7,629.2	6,856.3	20.2	26.6	-105.38	-963.3	-569.5	495.6	450.9	44.66	11.098	
6,950.0	6,728.2	7,674.2	6,856.6	20.9	27.6	-103.64	-963.3	-614.5	489.6	443.3	46.36	10.561	
6,988.2	6,742.8	7,709.6	6,856.8	21.5	28.3	-102.38	-963.3	-649.9	486.1	438.4	47.76	10.178	
7,000.0	6,746.9	7,720.7	6,856.8	21.6	28.6	-102.01	-963.3	-661.0	485.2	437.0	48.21	10.064	
7,050.0	6,762.4	7,768.3	6,857.1	22.5	29.6	-100.57	-963.3	-708.6	482.1	431.9	50.19	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 SCHAUMBERG 17G-314
<b>Project:</b>	WELD COUNTY, COLORADO	<b>TVD Reference:</b>	KB-EST @ 4633.0usft (Original Well Elev)
<b>Reference Site:</b>	SW NW SEC. 17 T5N R64W 6th P.M.	<b>MD Reference:</b>	KB-EST @ 4633.0usft (Original Well Elev)
<b>Site Error:</b>	0.0 usft	<b>North Reference:</b>	True
<b>Reference Well:</b>	SCHAUMBERG 17G-314	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Well Error:</b>	0.0 usft	<b>Output errors are at</b>	2.00 sigma
<b>Reference Wellbore</b>	ORIGINAL WELLBORE	<b>Database:</b>	EDM 5000.1 Single User Db
<b>Reference Design:</b>	PROPOSAL #1	<b>Offset TVD Reference:</b>	Offset Datum

Offset Design NW SW SEC. 17 T5N R64W 6th P.M. - CECIL'S KERSEY FARM 17K-404 - ORIGINAL WELLBORE - P										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)		
7,086.6	6,771.5	7,803.8	6,857.3	23.1	30.4	-99.68	-963.3	-744.1	480.5	428.8	51.69	9.295	
7,100.0	6,774.4	7,816.9	6,857.4	23.3	30.7	-99.39	-963.3	-757.2	480.0	427.7	52.25	9.186	
7,150.0	6,783.1	7,866.2	6,857.7	24.3	31.8	-98.52	-963.3	-806.5	478.7	424.3	54.40	8.799	
7,185.0	6,787.1	7,901.0	6,857.8	25.0	32.6	-98.12	-963.3	-841.3	478.1	422.2	55.93	8.549	
7,200.0	6,788.3	7,915.9	6,857.9	25.3	33.0	-98.00	-963.3	-856.2	478.0	421.4	56.59	8.446	
7,245.7	6,790.0	7,961.6	6,858.2	26.2	34.1	-97.84	-963.3	-901.9	477.8	419.1	58.62	8.150 CC	
7,252.3	6,790.0	7,968.2	6,858.2	26.3	34.2	-97.85	-963.3	-908.5	477.8	418.9	58.92	8.109	
7,283.4	6,789.9	7,999.3	6,858.4	27.0	34.9	-97.88	-963.3	-939.7	477.8	417.5	60.32	7.921	
7,300.0	6,789.8	8,015.9	6,858.5	27.3	35.3	-97.90	-963.3	-956.2	477.8	416.8	61.07	7.824	
7,381.9	6,789.5	8,097.8	6,859.0	29.1	37.3	-97.99	-963.3	-1,038.1	477.9	413.1	64.87	7.367	
7,400.0	6,789.4	8,115.9	6,859.1	29.5	37.8	-98.01	-963.3	-1,056.2	478.0	412.2	65.72	7.272	
7,480.3	6,789.1	8,196.2	6,859.5	31.4	39.7	-98.10	-963.3	-1,136.5	478.1	408.5	69.56	6.873	
7,500.0	6,789.1	8,215.9	6,859.6	31.8	40.2	-98.12	-963.3	-1,156.2	478.1	407.6	70.51	6.781	
7,578.7	6,788.8	8,294.6	6,860.1	33.7	42.2	-98.21	-963.3	-1,234.9	478.2	403.8	74.35	6.431	
7,600.0	6,788.7	8,315.9	6,860.2	34.2	42.7	-98.23	-963.3	-1,256.2	478.2	402.8	75.40	6.343	
7,677.1	6,788.4	8,393.0	6,860.6	36.1	44.7	-98.32	-963.3	-1,333.3	478.3	399.1	79.23	6.037	
7,700.0	6,788.3	8,415.9	6,860.7	36.7	45.3	-98.34	-963.3	-1,356.2	478.4	398.0	80.37	5.952	
7,775.6	6,788.0	8,491.5	6,861.2	38.6	47.2	-98.43	-963.3	-1,431.7	478.5	394.3	84.18	5.683	
7,800.0	6,787.9	8,515.9	6,861.3	39.2	47.9	-98.46	-963.3	-1,456.2	478.5	393.1	85.42	5.602	
7,874.0	6,787.6	8,589.9	6,861.7	41.0	49.8	-98.54	-963.3	-1,530.2	478.6	389.4	89.19	5.366	
7,900.0	6,787.6	8,615.9	6,861.9	41.7	50.4	-98.57	-963.3	-1,556.2	478.6	388.1	90.52	5.287	
7,972.4	6,787.3	8,688.3	6,862.3	43.6	52.3	-98.65	-963.3	-1,628.6	478.7	384.5	94.25	5.079	
8,000.0	6,787.2	8,715.9	6,862.4	44.3	53.1	-98.68	-963.3	-1,656.2	478.8	383.1	95.67	5.004	
8,070.8	6,786.9	8,786.7	6,862.8	46.1	54.9	-98.76	-963.3	-1,727.0	478.9	379.5	99.34	4.820	
8,100.0	6,786.8	8,815.9	6,863.0	46.9	55.7	-98.79	-963.3	-1,756.2	478.9	378.1	100.86	4.748	
8,169.3	6,786.5	8,885.1	6,863.4	48.7	57.5	-98.87	-963.3	-1,825.4	479.0	374.5	104.47	4.585	
8,200.0	6,786.4	8,915.9	6,863.5	49.5	58.3	-98.90	-963.3	-1,856.1	479.1	373.0	106.08	4.516	
8,267.7	6,786.1	8,983.6	6,863.9	51.3	60.1	-98.98	-963.3	-1,923.8	479.2	369.5	109.63	4.371	
8,300.0	6,786.0	9,015.9	6,864.1	52.1	61.0	-99.01	-963.3	-1,956.1	479.2	367.9	111.33	4.305	
8,366.1	6,785.8	9,082.0	6,864.5	53.9	62.8	-99.09	-963.3	-2,022.3	479.3	364.5	114.81	4.175	
8,400.0	6,785.6	9,115.8	6,864.7	54.8	63.7	-99.13	-963.3	-2,056.1	479.4	362.8	116.60	4.111	
8,464.5	6,785.4	9,180.4	6,865.0	56.5	65.4	-99.20	-963.3	-2,120.7	479.4	359.4	120.01	3.995	
8,500.0	6,785.3	9,215.8	6,865.2	57.5	66.4	-99.24	-963.3	-2,156.1	479.5	357.6	121.89	3.934	
8,563.0	6,785.0	9,278.8	6,865.6	59.2	68.1	-99.31	-963.3	-2,219.1	479.6	354.4	125.23	3.830	
8,600.0	6,784.9	9,315.8	6,865.8	60.2	69.0	-99.35	-963.3	-2,256.1	479.7	352.5	127.19	3.771	
8,661.4	6,784.6	9,377.2	6,866.1	61.8	70.7	-99.42	-963.3	-2,317.5	479.7	349.3	130.46	3.677	
8,700.0	6,784.5	9,415.8	6,866.3	62.9	71.8	-99.46	-963.3	-2,356.1	479.8	347.3	132.51	3.621	
8,759.8	6,784.3	9,475.7	6,866.7	64.5	73.4	-99.53	-963.3	-2,415.9	479.9	344.2	135.70	3.536	
8,800.0	6,784.1	9,515.8	6,866.9	65.6	74.5	-99.57	-963.3	-2,456.1	480.0	342.1	137.85	3.482	
8,858.2	6,783.9	9,574.1	6,867.2	67.1	76.0	-99.64	-963.3	-2,514.4	480.1	339.1	140.96	3.406	
8,900.0	6,783.7	9,615.8	6,867.5	68.3	77.2	-99.68	-963.3	-2,556.1	480.1	336.9	143.19	3.353	
8,956.7	6,783.5	9,672.5	6,867.8	69.8	78.7	-99.75	-963.3	-2,612.8	480.2	334.0	146.22	3.284	
9,000.0	6,783.3	9,715.8	6,868.0	71.0	79.9	-99.79	-963.3	-2,656.1	480.3	331.7	148.54	3.233	
9,055.1	6,783.1	9,770.9	6,868.3	72.5	81.4	-99.86	-963.3	-2,711.2	480.4	328.9	151.49	3.171	
9,100.0	6,782.9	9,815.8	6,868.6	73.7	82.6	-99.91	-963.3	-2,756.1	480.4	326.5	153.90	3.122	
9,153.5	6,782.7	9,869.3	6,868.9	75.2	84.1	-99.97	-963.3	-2,809.6	480.5	323.8	156.77	3.065	
9,200.0	6,782.6	9,915.8	6,869.2	76.5	85.4	-100.02	-963.3	-2,856.1	480.6	321.3	159.26	3.018	
9,251.9	6,782.4	9,967.8	6,869.5	77.9	86.8	-100.08	-963.3	-2,908.0	480.7	318.6	162.05	2.966	
9,300.0	6,782.2	10,015.8	6,869.7	79.2	88.1	-100.13	-963.3	-2,956.1	480.8	316.1	164.63	2.920	
9,350.4	6,782.0	10,066.2	6,870.0	80.6	89.5	-100.19	-963.3	-3,006.5	480.9	313.5	167.34	2.874	
9,400.0	6,781.8	10,115.8	6,870.3	82.0	90.8	-100.24	-963.3	-3,056.1	480.9	310.9	170.00	2.829	
9,448.8	6,781.6	10,164.6	6,870.6	83.3	92.2	-100.29	-963.3	-3,104.9	481.0	308.4	172.63	2.786	

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 SCHAUMBERG 17G-314
<b>Project:</b>	WELD COUNTY, COLORADO	<b>TVD Reference:</b>	KB-EST @ 4633.0usft (Original Well Elev)
<b>Reference Site:</b>	SW NW SEC. 17 T5N R64W 6th P.M.	<b>MD Reference:</b>	KB-EST @ 4633.0usft (Original Well Elev)
<b>Site Error:</b>	0.0 usft	<b>North Reference:</b>	True
<b>Reference Well:</b>	SCHAUMBERG 17G-314	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Well Error:</b>	0.0 usft	<b>Output errors are at</b>	2.00 sigma
<b>Reference Wellbore</b>	ORIGINAL WELLBORE	<b>Database:</b>	EDM 5000.1 Single User Db
<b>Reference Design:</b>	PROPOSAL #1	<b>Offset TVD Reference:</b>	Offset Datum

Offset Design NW SW SEC. 17 T5N R64W 6th P.M. - CECIL'S KERSEY FARM 17K-404 - ORIGINAL WELLBORE - P												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	
9,500.0	6,781.4	10,215.8	6,870.8	84.7	93.6	-100.35	-963.3	-3,156.1	481.1	305.7	175.38	2.743	
9,547.2	6,781.2	10,263.0	6,871.1	86.0	94.9	-100.40	-963.3	-3,203.3	481.2	303.3	177.92	2.705	
9,600.0	6,781.0	10,315.8	6,871.4	87.5	96.3	-100.46	-963.3	-3,256.1	481.3	300.5	180.76	2.663	
9,645.6	6,780.8	10,361.4	6,871.7	88.7	97.6	-100.51	-963.3	-3,301.7	481.4	298.1	183.21	2.627	
9,700.0	6,780.6	10,415.8	6,872.0	90.2	99.1	-100.58	-963.3	-3,356.1	481.4	295.3	186.14	2.587	
9,744.1	6,780.4	10,459.9	6,872.2	91.4	100.3	-100.62	-963.3	-3,400.1	481.5	293.0	188.51	2.554	
9,800.0	6,780.2	10,515.8	6,872.5	93.0	101.8	-100.69	-963.3	-3,456.0	481.6	290.1	191.52	2.515	
9,842.5	6,780.1	10,558.3	6,872.8	94.2	103.0	-100.73	-963.3	-3,498.5	481.7	287.9	193.81	2.485	
9,900.0	6,779.8	10,615.8	6,873.1	95.7	104.6	-100.80	-963.3	-3,556.0	481.8	284.9	196.90	2.447	
9,940.9	6,779.7	10,656.7	6,873.3	96.9	105.7	-100.84	-963.3	-3,597.0	481.9	282.8	199.10	2.420	
10,000.0	6,779.4	10,715.8	6,873.7	98.5	107.4	-100.91	-963.3	-3,656.0	482.0	279.7	202.28	2.383	
10,039.3	6,779.3	10,755.1	6,873.9	99.6	108.5	-100.95	-963.3	-3,695.4	482.0	277.6	204.40	2.358	
10,100.0	6,779.0	10,815.8	6,874.2	101.3	110.1	-101.02	-963.3	-3,756.0	482.2	274.5	207.66	2.322	
10,137.8	6,778.9	10,853.5	6,874.4	102.3	111.2	-101.06	-963.3	-3,793.8	482.2	272.5	209.70	2.300	
10,200.0	6,778.7	10,915.8	6,874.8	104.1	112.9	-101.13	-963.3	-3,856.0	482.3	269.3	213.05	2.264	
10,236.2	6,778.5	10,952.0	6,875.0	105.1	113.9	-101.17	-963.3	-3,892.2	482.4	267.4	214.99	2.244	
10,300.0	6,778.3	11,015.8	6,875.4	106.8	115.7	-101.24	-963.3	-3,956.0	482.5	264.1	218.43	2.209	
10,334.6	6,778.1	11,050.4	6,875.5	107.8	116.6	-101.28	-963.3	-3,990.6	482.6	262.3	220.29	2.191	
10,400.0	6,777.9	11,115.8	6,875.9	109.6	118.4	-101.36	-963.3	-4,056.0	482.7	258.9	223.80	2.157	
10,433.0	6,777.7	11,148.8	6,876.1	110.5	119.3	-101.39	-963.3	-4,089.1	482.8	257.2	225.58	2.140	
10,500.0	6,777.5	11,215.8	6,876.5	112.4	121.2	-101.47	-963.3	-4,156.0	482.9	253.7	229.18	2.107	
10,531.5	6,777.3	11,247.2	6,876.7	113.3	122.1	-101.50	-963.2	-4,187.5	483.0	252.1	230.87	2.092	
10,600.0	6,777.1	11,315.8	6,877.0	115.2	124.0	-101.58	-963.2	-4,256.0	483.1	248.5	234.56	2.060	
10,629.9	6,777.0	11,345.6	6,877.2	116.0	124.8	-101.61	-963.2	-4,285.9	483.2	247.0	236.16	2.046	
10,700.0	6,776.7	11,415.7	6,877.6	117.9	126.8	-101.69	-963.2	-4,356.0	483.3	243.4	239.93	2.014	
10,728.3	6,776.6	11,444.1	6,877.8	118.7	127.5	-101.72	-963.2	-4,384.3	483.3	241.9	241.45	2.002	
10,800.0	6,776.3	11,515.7	6,878.2	120.7	129.5	-101.80	-963.2	-4,456.0	483.5	238.2	245.30	1.971	
10,826.7	6,776.2	11,542.5	6,878.3	121.5	130.3	-101.83	-963.2	-4,482.7	483.5	236.8	246.74	1.960	
10,900.0	6,775.9	11,615.7	6,878.7	123.5	132.3	-101.91	-963.2	-4,556.0	483.7	233.0	250.67	1.930	
10,925.2	6,775.8	11,640.9	6,878.9	124.2	133.0	-101.94	-963.2	-4,581.2	483.7	231.7	252.02	1.919	
11,000.0	6,775.5	11,715.7	6,879.3	126.3	135.1	-102.03	-963.2	-4,656.0	483.9	227.8	256.04	1.890	
11,023.6	6,775.4	11,739.3	6,879.4	126.9	135.7	-102.05	-963.2	-4,679.6	483.9	226.6	257.30	1.881	
11,100.0	6,775.1	11,815.7	6,879.9	129.1	137.9	-102.14	-963.2	-4,756.0	484.1	222.7	261.40	1.852	
11,122.0	6,775.0	11,837.8	6,880.0	129.7	138.5	-102.16	-963.2	-4,778.0	484.1	221.5	262.58	1.844	
11,200.0	6,774.7	11,915.7	6,880.4	131.9	140.6	-102.25	-963.2	-4,856.0	484.3	217.5	266.76	1.815	
11,220.4	6,774.6	11,936.2	6,880.5	132.4	141.2	-102.27	-963.2	-4,876.4	484.3	216.5	267.86	1.808	
11,300.0	6,774.3	12,015.7	6,881.0	134.6	143.4	-102.36	-963.2	-4,956.0	484.5	212.4	272.12	1.780	
11,318.9	6,774.2	12,034.6	6,881.1	135.2	144.0	-102.38	-963.2	-4,974.8	484.5	211.4	273.13	1.774	
11,400.0	6,773.9	12,115.7	6,881.6	137.4	146.2	-102.47	-963.2	-5,056.0	484.7	207.2	277.47	1.747	
11,417.3	6,773.8	12,133.0	6,881.7	137.9	146.7	-102.49	-963.2	-5,073.2	484.7	206.3	278.40	1.741	
11,500.0	6,773.5	12,215.7	6,882.1	140.2	149.0	-102.58	-963.2	-5,155.9	484.9	202.1	282.82	1.715	
11,515.7	6,773.4	12,231.4	6,882.2	140.7	149.4	-102.60	-963.2	-5,171.7	484.9	201.3	283.66	1.710	
11,600.0	6,773.1	12,315.7	6,882.7	143.0	151.8	-102.69	-963.2	-5,255.9	485.1	196.9	288.16	1.683	
11,614.1	6,773.0	12,329.9	6,882.8	143.4	152.2	-102.71	-963.2	-5,270.1	485.1	196.2	288.92	1.679	
11,700.0	6,772.7	12,415.7	6,883.2	145.8	154.6	-102.81	-963.2	-5,355.9	485.3	191.8	293.51	1.654	
11,712.6	6,772.6	12,428.3	6,883.3	146.2	154.9	-102.82	-963.2	-5,368.5	485.3	191.2	294.18	1.650	
11,800.0	6,772.3	12,515.7	6,883.8	148.6	157.4	-102.92	-963.2	-5,455.9	485.5	186.7	298.84	1.625	
11,811.0	6,772.2	12,526.7	6,883.9	148.9	157.7	-102.93	-963.2	-5,466.9	485.6	186.1	299.43	1.622	
11,900.0	6,771.9	12,615.7	6,884.4	151.4	160.1	-103.03	-963.2	-5,555.9	485.7	181.6	304.18	1.597	
11,909.4	6,771.8	12,625.1	6,884.4	151.7	160.4	-103.04	-963.2	-5,565.3	485.8	181.1	304.68	1.594	
12,000.0	6,771.5	12,715.7	6,884.9	154.2	162.9	-103.14	-963.2	-5,655.9	486.0	176.5	309.51	1.570	
12,007.8	6,771.4	12,723.5	6,885.0	154.4	163.1	-103.15	-963.2	-5,663.8	486.0	176.1	309.92	1.568	

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 SCHAUMBERG 17G-314
<b>Project:</b>	WELD COUNTY, COLORADO	<b>TVD Reference:</b>	KB-EST @ 4633.0usft (Original Well Elev)
<b>Reference Site:</b>	SW NW SEC. 17 T5N R64W 6th P.M.	<b>MD Reference:</b>	KB-EST @ 4633.0usft (Original Well Elev)
<b>Site Error:</b>	0.0 usft	<b>North Reference:</b>	True
<b>Reference Well:</b>	SCHAUMBERG 17G-314	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Well Error:</b>	0.0 usft	<b>Output errors are at</b>	2.00 sigma
<b>Reference Wellbore</b>	ORIGINAL WELLBORE	<b>Database:</b>	EDM 5000.1 Single User Db
<b>Reference Design:</b>	PROPOSAL #1	<b>Offset TVD Reference:</b>	Offset Datum

<b>Offset Design</b> NW SW SEC. 17 T5N R64W 6th P.M. - CECIL'S KERSEY FARM 17K-404 - ORIGINAL WELLBORE - P												<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
12,100.0	6,771.1	12,815.7	6,885.5	157.0	165.7	-103.25	-963.2	-5,755.9	486.2	171.4	314.83	1.544	
12,106.3	6,771.0	12,822.0	6,885.5	157.2	165.9	-103.26	-963.2	-5,762.2	486.2	171.0	315.16	1.543	
12,200.0	6,770.7	12,915.7	6,886.1	159.8	168.5	-103.36	-963.2	-5,855.9	486.4	166.3	320.15	1.519	
12,204.7	6,770.6	12,920.4	6,886.1	159.9	168.6	-103.37	-963.2	-5,860.6	486.4	166.0	320.40	1.518	
12,300.0	6,770.3	13,015.7	6,886.6	162.6	171.3	-103.47	-963.2	-5,955.9	486.6	161.2	325.46	1.495 Level 3	
12,303.1	6,770.2	13,018.8	6,886.7	162.7	171.4	-103.48	-963.2	-5,959.0	486.6	161.0	325.63	1.494 Level 3	
12,361.7	6,770.0	13,077.4	6,887.0	164.3	173.0	-103.54	-963.2	-6,017.6	486.8	158.0	328.74	1.481 Level 3, ES, SF	



# Anticollision Report



<b>Company:</b>	PDC ENERGY	<b>Local Co-ordinate Reference:</b>	Well SCHAUMBERG 17G-314
<b>Project:</b>	WELD COUNTY, COLORADO	<b>TVD Reference:</b>	KB-EST @ 4633.0usft (Original Well Elev)
<b>Reference Site:</b>	SW NW SEC. 17 T5N R64W 6th P.M.	<b>MD Reference:</b>	KB-EST @ 4633.0usft (Original Well Elev)
<b>Site Error:</b>	0.0 usft	<b>North Reference:</b>	True
<b>Reference Well:</b>	SCHAUMBERG 17G-314	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Well Error:</b>	0.0 usft	<b>Output errors are at</b>	2.00 sigma
<b>Reference Wellbore</b>	ORIGINAL WELLBORE	<b>Database:</b>	EDM 5000.1 Single User Db
<b>Reference Design:</b>	PROPOSAL #1	<b>Offset TVD Reference:</b>	Offset Datum

Offset Design												Offset Site Error:	0.0 usft
Survey Program: 0-INC												Offset Well Error:	0.0 usft
Reference		Offset		Semi Major Axis			Distance						Warning
Measured Depth (usft)	Vertical Depth (usft)	Measured Depth (usft)	Vertical Depth (usft)	Reference (usft)	Offset (usft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (usft)	+E/-W (usft)	Between Centres (usft)	Between Ellipses (usft)	Minimum Separation (usft)	Separation Factor	
0.0	0.0	4.0	4.0	0.0	0.0	-108.95	-1,942.9	-5,657.9	5,982.2				
98.4	98.4	102.4	102.4	0.1	1.2	-108.95	-1,942.9	-5,657.9	5,982.2	5,980.9	1.30	4,613.100	
100.0	100.0	104.0	104.0	0.1	1.2	-108.95	-1,942.9	-5,657.9	5,982.2	5,980.9	1.33	4,481.702	
196.8	196.8	200.8	200.8	0.3	3.5	-108.95	-1,942.9	-5,657.9	5,982.2	5,978.4	3.78	1,582.724	
200.0	200.0	204.0	204.0	0.3	3.5	-108.95	-1,942.9	-5,657.9	5,982.2	5,978.3	3.85	1,552.906	
295.3	295.3	299.3	299.3	0.5	5.5	-108.95	-1,942.9	-5,657.9	5,982.2	5,976.1	6.05	989.220	
300.0	300.0	304.0	304.0	0.5	5.6	-108.95	-1,942.9	-5,657.9	5,982.2	5,976.0	6.15	971.960	
393.7	393.7	397.7	397.7	0.8	7.5	-108.95	-1,942.9	-5,657.9	5,982.2	5,973.9	8.28	722.564	
400.0	400.0	404.0	404.0	0.8	7.6	-108.95	-1,942.9	-5,657.9	5,982.2	5,973.8	8.42	710.355	
492.1	492.1	496.1	496.1	1.0	9.5	-108.95	-1,942.9	-5,657.9	5,982.2	5,971.7	10.50	569.851	
500.0	500.0	504.0	504.0	1.0	9.7	-108.95	-1,942.9	-5,657.9	5,982.2	5,971.5	10.68	560.390	
590.5	590.5	594.5	594.5	1.2	11.5	-108.95	-1,942.9	-5,657.9	5,982.2	5,969.5	12.71	470.660	
600.0	600.0	604.0	604.0	1.2	11.7	-108.95	-1,942.9	-5,657.9	5,982.2	5,969.3	12.92	462.929	
689.0	689.0	693.0	693.0	1.4	13.5	-108.95	-1,942.9	-5,657.9	5,982.2	5,967.3	14.92	400.975	
700.0	700.0	704.0	704.0	1.4	13.7	-108.95	-1,942.9	-5,657.9	5,982.2	5,967.0	15.17	394.436	
787.4	787.4	791.4	791.4	1.6	15.5	-108.95	-1,942.9	-5,657.9	5,982.2	5,965.1	17.13	349.307	
800.0	800.0	804.0	804.0	1.7	15.7	-108.95	-1,942.9	-5,657.9	5,982.2	5,964.8	17.41	343.640	
885.8	885.8	889.8	889.8	1.9	17.5	-108.95	-1,942.9	-5,657.9	5,982.2	5,962.9	19.33	309.458	
900.0	900.0	904.0	904.0	1.9	17.8	-108.95	-1,942.9	-5,657.9	5,982.2	5,962.5	19.65	304.457	
984.2	984.2	988.2	988.2	2.1	19.5	-108.95	-1,942.9	-5,657.9	5,982.2	5,960.7	21.54	277.782	
1,000.0	1,000.0	1,004.0	1,004.0	2.1	19.8	-108.95	-1,942.9	-5,657.9	5,982.2	5,960.3	21.89	273.306	
1,082.7	1,082.7	1,086.7	1,086.7	2.3	21.4	-108.95	-1,942.9	-5,657.9	5,982.2	5,958.5	23.74	251.997	
1,100.0	1,100.0	1,104.0	1,104.0	2.3	21.8	-108.95	-1,942.9	-5,657.9	5,982.2	5,958.1	24.13	247.946	
1,181.1	1,181.1	1,185.1	1,185.1	2.5	23.4	-108.95	-1,942.9	-5,657.9	5,982.2	5,956.3	25.94	230.596	
1,200.0	1,200.0	1,204.0	1,204.0	2.6	23.8	-108.95	-1,942.9	-5,657.9	5,982.2	5,955.8	26.37	226.897	
1,279.5	1,279.5	1,283.5	1,283.5	2.7	25.4	-108.95	-1,942.9	-5,657.9	5,982.2	5,954.1	28.14	212.549	
1,300.0	1,300.0	1,304.0	1,304.0	2.8	25.8	-108.95	-1,942.9	-5,657.9	5,982.2	5,953.6	28.60	209.145	
1,377.9	1,377.9	1,381.9	1,381.9	3.0	27.4	-108.95	-1,942.9	-5,657.9	5,982.2	5,951.8	30.35	197.124	
1,400.0	1,400.0	1,404.0	1,404.0	3.0	27.8	-108.95	-1,942.9	-5,657.9	5,982.2	5,951.4	30.84	193.971	
1,476.4	1,476.4	1,480.4	1,480.4	3.2	29.4	-108.95	-1,942.9	-5,657.9	5,982.2	5,949.6	32.55	183.788	
1,500.0	1,500.0	1,504.0	1,504.0	3.2	29.8	-108.95	-1,942.9	-5,657.9	5,982.2	5,949.1	33.08	180.851	
1,574.8	1,574.8	1,578.8	1,578.8	3.4	31.3	-108.95	-1,942.9	-5,657.9	5,982.2	5,947.4	34.75	172.143	
1,600.0	1,600.0	1,604.0	1,604.0	3.5	31.8	-108.95	-1,942.9	-5,657.9	5,982.2	5,946.9	35.32	169.395	
1,673.2	1,673.2	1,677.2	1,677.2	3.6	33.3	-108.95	-1,942.9	-5,657.9	5,982.2	5,945.2	36.95	161.886	
1,700.0	1,700.0	1,704.0	1,704.0	3.7	33.9	-108.95	-1,942.9	-5,657.9	5,982.2	5,944.6	37.55	159.304	
1,771.6	1,771.6	1,775.6	1,775.6	3.9	35.3	-108.95	-1,942.9	-5,657.9	5,982.2	5,943.0	39.15	152.784	
1,800.0	1,800.0	1,804.0	1,804.0	3.9	35.9	-108.95	-1,942.9	-5,657.9	5,982.2	5,942.4	39.79	150.349	
1,870.1	1,870.1	1,874.1	1,874.1	4.1	37.3	49.87	-1,942.9	-5,657.9	5,981.6	5,940.3	41.33	144.725	
1,900.0	1,900.0	1,904.0	1,904.0	4.1	37.9	49.88	-1,942.9	-5,657.9	5,981.1	5,939.1	41.99	142.454	
1,968.5	1,968.4	1,972.4	1,972.4	4.2	39.3	49.94	-1,942.9	-5,657.9	5,979.0	5,935.5	43.46	137.575	
2,000.0	1,999.8	2,003.8	2,003.8	4.3	39.9	49.97	-1,942.9	-5,657.9	5,977.7	5,933.6	44.13	135.446	
2,066.9	2,066.5	2,070.5	2,070.5	4.4	41.2	50.07	-1,942.9	-5,657.9	5,974.2	5,928.6	45.56	131.132	
2,100.0	2,099.5	2,103.5	2,103.5	4.5	41.9	50.12	-1,942.9	-5,657.9	5,972.1	5,925.8	46.26	129.105	
2,165.3	2,164.4	2,168.4	2,168.4	4.6	43.2	50.25	-1,942.9	-5,657.9	5,967.2	5,919.6	47.63	125.271	
2,200.0	2,198.7	2,202.7	2,202.7	4.7	43.9	50.33	-1,942.9	-5,657.9	5,964.3	5,915.9	48.36	123.336	
2,263.8	2,261.8	2,265.8	2,265.8	4.8	45.2	50.50	-1,942.9	-5,657.9	5,958.1	5,908.4	49.69	119.910	
2,300.0	2,297.5	2,301.5	2,301.5	4.9	45.9	50.60	-1,942.9	-5,657.9	5,954.2	5,903.8	50.44	118.055	
2,362.2	2,358.6	2,362.6	2,362.6	5.0	47.1	50.80	-1,942.9	-5,657.9	5,946.9	5,895.2	51.72	114.978	
2,400.0	2,395.6	2,399.6	2,399.6	5.1	47.9	50.94	-1,942.9	-5,657.9	5,942.0	5,889.5	52.49	113.194	
2,460.6	2,454.9	2,458.9	2,458.9	5.3	49.0	51.03	-1,942.9	-5,657.9	5,934.0	5,880.2	53.83	110.233	
2,500.0	2,493.4	2,497.4	2,497.4	5.4	49.8	51.09	-1,942.9	-5,657.9	5,928.8	5,874.1	54.70	108.390	
2,559.0	2,551.2	2,555.2	2,555.2	5.6	51.0	51.18	-1,942.9	-5,657.9	5,921.0	5,865.0	56.01	105.712	

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 SCHAUMBERG 17G-314
<b>Project:</b>	WELD COUNTY, COLORADO	<b>TVD Reference:</b>	KB-EST @ 4633.0usft (Original Well Elev)
<b>Reference Site:</b>	SW NW SEC. 17 T5N R64W 6th P.M.	<b>MD Reference:</b>	KB-EST @ 4633.0usft (Original Well Elev)
<b>Site Error:</b>	0.0 usft	<b>North Reference:</b>	True
<b>Reference Well:</b>	SCHAUMBERG 17G-314	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Well Error:</b>	0.0 usft	<b>Output errors are at</b>	2.00 sigma
<b>Reference Wellbore</b>	ORIGINAL WELLBORE	<b>Database:</b>	EDM 5000.1 Single User Db
<b>Reference Design:</b>	PROPOSAL #1	<b>Offset TVD Reference:</b>	Offset Datum

Offset Design NW SW SEC. 17 T5N R64W 6th P.M. - EXIST VERT B&H #1 - Wellbore #1 - Design #1													Offset Site Error:	0.0 usft
Survey Program: 0-INC													Offset Well Error:	0.0 usft
Reference		Offset		Semi Major Axis			Distance							Warning
Measured Depth (usft)	Vertical Depth (usft)	Measured Depth (usft)	Vertical Depth (usft)	Reference (usft)	Offset (usft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (usft)	+E/-W (usft)	Between Centres (usft)	Between Ellipses (usft)	Minimum Separation (usft)	Separation Factor		
2,600.0	2,591.3	2,595.3	2,595.3	5.7	51.8	51.24	-1,942.9	-5,657.9	5,915.6	5,858.6	56.92	103.929		
2,657.5	2,647.5	2,651.5	2,651.5	5.9	52.9	51.33	-1,942.9	-5,657.9	5,908.0	5,849.8	58.20	101.504		
2,700.0	2,689.1	2,693.1	2,693.1	6.0	53.8	51.40	-1,942.9	-5,657.9	5,902.4	5,843.2	59.16	99.777		
2,755.9	2,743.7	2,747.7	2,747.7	6.2	54.9	51.49	-1,942.9	-5,657.9	5,895.1	5,834.6	60.41	97.578		
2,800.0	2,786.9	2,790.9	2,790.9	6.4	55.7	51.56	-1,942.9	-5,657.9	5,889.3	5,827.9	61.41	95.907		
2,854.3	2,840.0	2,844.0	2,844.0	6.6	56.8	51.64	-1,942.9	-5,657.9	5,882.2	5,819.5	62.64	93.912		
2,900.0	2,884.7	2,888.7	2,888.7	6.7	57.7	51.71	-1,942.9	-5,657.9	5,876.2	5,812.5	63.67	92.294		
2,952.7	2,936.3	2,940.3	2,940.3	6.9	58.7	51.79	-1,942.9	-5,657.9	5,869.3	5,804.4	64.87	90.482		
3,000.0	2,982.5	2,986.5	2,986.5	7.1	59.7	51.87	-1,942.9	-5,657.9	5,863.2	5,797.2	65.94	88.915		
3,051.2	3,032.6	3,036.6	3,036.6	7.3	60.7	51.95	-1,942.9	-5,657.9	5,856.5	5,789.4	67.11	87.269		
3,100.0	3,080.3	3,084.3	3,084.3	7.5	61.6	52.03	-1,942.9	-5,657.9	5,850.2	5,781.9	68.22	85.751		
3,149.6	3,128.8	3,132.8	3,132.8	7.7	62.6	52.11	-1,942.9	-5,657.9	5,843.7	5,774.4	69.36	84.254		
3,200.0	3,178.1	3,182.1	3,182.1	7.9	63.6	52.19	-1,942.9	-5,657.9	5,837.2	5,766.7	70.51	82.782		
3,248.0	3,225.1	3,229.1	3,229.1	8.1	64.5	52.26	-1,942.9	-5,657.9	5,831.0	5,759.4	71.62	81.420		
3,300.0	3,276.0	3,280.0	3,280.0	8.3	65.6	52.35	-1,942.9	-5,657.9	5,824.3	5,751.5	72.81	79.993		
3,346.4	3,321.4	3,325.4	3,325.4	8.5	66.5	52.42	-1,942.9	-5,657.9	5,818.3	5,744.5	73.88	78.753		
3,400.0	3,373.8	3,377.8	3,377.8	8.7	67.5	52.51	-1,942.9	-5,657.9	5,811.5	5,736.4	75.11	77.368		
3,444.9	3,417.7	3,421.7	3,421.7	8.8	68.4	52.58	-1,942.9	-5,657.9	5,805.7	5,729.6	76.15	76.239		
3,500.0	3,471.6	3,475.6	3,475.6	9.1	69.5	52.67	-1,942.9	-5,657.9	5,798.7	5,721.2	77.42	74.894		
3,543.3	3,513.9	3,517.9	3,517.9	9.2	70.3	52.74	-1,942.9	-5,657.9	5,793.1	5,714.7	78.43	73.866		
3,600.0	3,569.4	3,573.4	3,573.4	9.5	71.5	52.83	-1,942.9	-5,657.9	5,785.9	5,706.2	79.74	72.559		
3,641.7	3,610.2	3,614.2	3,614.2	9.7	72.3	52.89	-1,942.9	-5,657.9	5,780.6	5,699.9	80.71	71.623		
3,700.0	3,667.2	3,671.2	3,671.2	9.9	73.4	52.99	-1,942.9	-5,657.9	5,773.2	5,691.1	82.06	70.352		
3,740.1	3,706.5	3,710.5	3,710.5	10.1	74.2	53.05	-1,942.9	-5,657.9	5,768.1	5,685.1	82.99	69.500		
3,800.0	3,765.0	3,769.0	3,769.0	10.3	75.4	53.15	-1,942.9	-5,657.9	5,760.5	5,676.1	84.39	68.264		
3,838.6	3,802.8	3,806.8	3,806.8	10.5	76.2	53.22	-1,942.9	-5,657.9	5,755.6	5,670.4	85.28	67.488		
3,900.0	3,862.8	3,866.8	3,866.8	10.7	77.4	53.32	-1,942.9	-5,657.9	5,747.9	5,661.2	86.72	66.285		
3,937.0	3,899.0	3,903.0	3,903.0	10.9	78.1	53.38	-1,942.9	-5,657.9	5,743.2	5,655.7	87.58	65.579		
4,000.0	3,960.7	3,964.7	3,964.7	11.2	79.3	53.48	-1,942.9	-5,657.9	5,735.3	5,646.3	89.05	64.407		
4,035.4	3,995.3	3,999.3	3,999.3	11.3	80.0	53.54	-1,942.9	-5,657.9	5,730.9	5,641.0	89.88	63.765		
4,100.0	4,058.5	4,062.5	4,062.5	11.6	81.3	53.64	-1,942.9	-5,657.9	5,722.8	5,631.4	91.38	62.623		
4,133.8	4,091.6	4,095.6	4,095.6	11.7	82.0	53.70	-1,942.9	-5,657.9	5,718.6	5,626.4	92.18	62.039		
4,200.0	4,156.3	4,160.3	4,160.3	12.0	83.3	53.81	-1,942.9	-5,657.9	5,710.3	5,616.6	93.72	60.927		
4,232.3	4,187.9	4,191.9	4,191.9	12.2	83.9	53.86	-1,942.9	-5,657.9	5,706.3	5,611.8	94.48	60.397		
4,300.0	4,254.1	4,258.1	4,258.1	12.5	85.2	53.98	-1,942.9	-5,657.9	5,697.9	5,601.8	96.07	59.311		
4,325.7	4,279.2	4,283.2	4,283.2	12.6	85.7	54.02	-1,942.9	-5,657.9	5,694.7	5,598.0	96.67	58.909		
4,330.7	4,284.1	4,288.1	4,288.1	12.6	85.8	54.02	-1,942.9	-5,657.9	5,694.1	5,597.3	96.80	58.826		
4,400.0	4,352.1	4,356.1	4,356.1	12.8	87.2	54.00	-1,942.9	-5,657.9	5,686.1	5,587.6	98.53	57.712		
4,429.1	4,380.8	4,384.8	4,384.8	12.9	87.8	53.99	-1,942.9	-5,657.9	5,683.0	5,583.8	99.23	57.269		
4,500.0	4,450.7	4,454.7	4,454.7	13.1	89.2	53.97	-1,942.9	-5,657.9	5,676.3	5,575.3	100.95	56.227		
4,527.5	4,478.0	4,482.0	4,482.0	13.2	89.7	53.96	-1,942.9	-5,657.9	5,673.9	5,572.3	101.61	55.840		
4,600.0	4,549.9	4,553.9	4,553.9	13.4	91.2	53.95	-1,942.9	-5,657.9	5,668.5	5,565.2	103.33	54.856		
4,626.0	4,575.7	4,579.7	4,579.7	13.5	91.7	53.95	-1,942.9	-5,657.9	5,666.9	5,562.9	103.94	54.519		
4,700.0	4,649.4	4,653.4	4,653.4	13.6	93.2	53.94	-1,942.9	-5,657.9	5,662.9	5,557.2	105.67	53.592		
4,724.4	4,673.7	4,677.7	4,677.7	13.7	93.7	53.93	-1,942.9	-5,657.9	5,661.8	5,555.6	106.22	53.301		
4,800.0	4,749.2	4,753.2	4,753.2	13.8	95.2	53.93	-1,942.9	-5,657.9	5,659.3	5,551.3	107.94	52.431		
4,822.8	4,772.0	4,776.0	4,776.0	13.9	95.6	53.93	-1,942.9	-5,657.9	5,658.7	5,550.3	108.45	52.180		
4,900.0	4,849.2	4,853.2	4,853.2	14.0	97.2	53.92	-1,942.9	-5,657.9	5,657.7	5,547.6	110.15	51.365		
4,921.2	4,870.4	4,874.4	4,874.4	14.1	97.6	53.92	-1,942.9	-5,657.9	5,657.6	5,547.0	110.61	51.150		
4,925.6	4,874.8	4,878.8	4,878.8	14.1	97.7	-104.88	-1,942.9	-5,657.9	5,657.6	5,547.9	109.72	51.566		
5,000.0	4,949.2	4,953.2	4,953.2	14.2	99.2	-104.88	-1,942.9	-5,657.9	5,657.6	5,546.3	111.34	50.813		
5,019.7	4,968.8	4,972.8	4,972.8	14.2	99.6	-104.88	-1,942.9	-5,657.9	5,657.6	5,545.9	111.77	50.617		

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 SCHAUMBERG 17G-314
<b>Project:</b>	WELD COUNTY, COLORADO	<b>TVD Reference:</b>	KB-EST @ 4633.0usft (Original Well Elev)
<b>Reference Site:</b>	SW NW SEC. 17 T5N R64W 6th P.M.	<b>MD Reference:</b>	KB-EST @ 4633.0usft (Original Well Elev)
<b>Site Error:</b>	0.0 usft	<b>North Reference:</b>	True
<b>Reference Well:</b>	SCHAUMBERG 17G-314	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Well Error:</b>	0.0 usft	<b>Output errors are at</b>	2.00 sigma
<b>Reference Wellbore</b>	ORIGINAL WELLBORE	<b>Database:</b>	EDM 5000.1 Single User Db
<b>Reference Design:</b>	PROPOSAL #1	<b>Offset TVD Reference:</b>	Offset Datum

Offset Design NW SW SEC. 17 T5N R64W 6th P.M. - EXIST VERT B&H #1 - Wellbore #1 - Design #1													Offset Site Error:	0.0 usft
Survey Program: 0-INC													Offset Well Error:	0.0 usft
Reference		Offset		Semi Major Axis			Distance							Warning
Measured Depth (usft)	Vertical Depth (usft)	Measured Depth (usft)	Vertical Depth (usft)	Reference (usft)	Offset (usft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (usft)	+E/-W (usft)	Between Centres (usft)	Between Ellipses (usft)	Minimum Separation (usft)	Separation Factor		
5,100.0	5,049.2	5,053.2	5,053.2	14.3	101.2	-104.88	-1,942.9	-5,657.9	5,657.6	5,544.1	113.53	49.834		
5,118.1	5,067.3	5,071.3	5,071.3	14.3	101.6	-104.88	-1,942.9	-5,657.9	5,657.6	5,543.7	113.93	49.660		
5,200.0	5,149.2	5,153.2	5,153.2	14.5	103.2	-104.88	-1,942.9	-5,657.9	5,657.6	5,541.9	115.72	48.891		
5,216.5	5,165.7	5,169.7	5,169.7	14.5	103.6	-104.88	-1,942.9	-5,657.9	5,657.6	5,541.6	116.08	48.738		
5,300.0	5,249.2	5,253.2	5,253.2	14.6	105.2	-104.88	-1,942.9	-5,657.9	5,657.6	5,539.7	117.91	47.983		
5,314.9	5,264.1	5,268.1	5,268.1	14.6	105.5	-104.88	-1,942.9	-5,657.9	5,657.6	5,539.4	118.24	47.850		
5,400.0	5,349.2	5,353.2	5,353.2	14.8	107.3	-104.88	-1,942.9	-5,657.9	5,657.6	5,537.5	120.10	47.107		
5,413.4	5,362.5	5,366.5	5,366.5	14.8	107.5	-104.88	-1,942.9	-5,657.9	5,657.6	5,537.2	120.40	46.992		
5,500.0	5,449.2	5,453.2	5,453.2	14.9	109.3	-104.88	-1,942.9	-5,657.9	5,657.6	5,535.3	122.30	46.262		
5,511.8	5,461.0	5,465.0	5,465.0	14.9	109.5	-104.88	-1,942.9	-5,657.9	5,657.6	5,535.1	122.55	46.164		
5,600.0	5,549.2	5,553.2	5,553.2	15.1	111.3	-104.88	-1,942.9	-5,657.9	5,657.6	5,533.1	124.49	45.446		
5,610.2	5,559.4	5,563.4	5,563.4	15.1	111.5	-104.88	-1,942.9	-5,657.9	5,657.6	5,532.9	124.71	45.365		
5,700.0	5,649.2	5,653.2	5,653.2	15.2	113.3	-104.88	-1,942.9	-5,657.9	5,657.6	5,530.9	126.69	44.659		
5,708.6	5,657.8	5,661.8	5,661.8	15.3	113.5	-104.88	-1,942.9	-5,657.9	5,657.6	5,530.8	126.88	44.592		
5,800.0	5,749.2	5,753.2	5,753.2	15.4	115.3	-104.88	-1,942.9	-5,657.9	5,657.6	5,528.7	128.88	43.897		
5,807.1	5,756.2	5,760.2	5,760.2	15.4	115.4	-104.88	-1,942.9	-5,657.9	5,657.6	5,528.6	129.04	43.844		
5,900.0	5,849.2	5,853.2	5,853.2	15.6	117.3	-104.88	-1,942.9	-5,657.9	5,657.6	5,526.6	131.08	43.161		
5,905.5	5,854.7	5,858.7	5,858.7	15.6	117.4	-104.88	-1,942.9	-5,657.9	5,657.6	5,526.4	131.20	43.121		
6,000.0	5,949.2	5,953.2	5,953.2	15.7	119.3	-104.88	-1,942.9	-5,657.9	5,657.6	5,524.4	133.28	42.449		
6,003.9	5,953.1	5,957.1	5,957.1	15.7	119.4	-104.88	-1,942.9	-5,657.9	5,657.6	5,524.3	133.37	42.421		
6,100.0	6,049.2	6,053.2	6,053.2	15.9	121.3	-104.88	-1,942.9	-5,657.9	5,657.6	5,522.2	135.48	41.759		
6,102.3	6,051.5	6,055.5	6,055.5	15.9	121.4	-104.88	-1,942.9	-5,657.9	5,657.6	5,522.1	135.53	41.743		
6,124.6	6,073.8	6,077.8	6,077.8	15.9	121.8	-104.88	-1,942.9	-5,657.9	5,657.6	5,521.6	136.02	41.593		
6,150.0	6,099.2	6,103.2	6,103.2	16.0	122.3	-14.89	-1,942.9	-5,657.9	5,657.2	5,519.9	137.33	41.196		
6,200.0	6,149.0	6,153.0	6,153.0	16.1	123.3	-14.97	-1,942.9	-5,657.9	5,653.8	5,516.0	137.82	41.023		
6,200.8	6,149.8	6,153.8	6,153.8	16.1	123.4	-14.97	-1,942.9	-5,657.9	5,653.7	5,515.9	137.82	41.021		
6,250.0	6,198.5	6,202.5	6,202.5	16.2	124.3	-15.13	-1,942.9	-5,657.9	5,647.1	5,509.4	137.68	41.017		
6,299.2	6,246.6	6,250.6	6,250.6	16.3	125.3	-15.37	-1,942.9	-5,657.9	5,637.2	5,500.3	136.90	41.177		
6,300.0	6,247.4	6,251.4	6,251.4	16.3	125.3	-15.37	-1,942.9	-5,657.9	5,637.0	5,500.1	136.88	41.181		
6,350.0	6,295.5	6,299.5	6,299.5	16.5	126.3	-15.71	-1,942.9	-5,657.9	5,623.7	5,488.2	135.45	41.518		
6,397.6	6,340.2	6,344.2	6,344.2	16.6	127.2	-16.12	-1,942.9	-5,657.9	5,608.0	5,474.5	133.50	42.006		
6,400.0	6,342.4	6,346.4	6,346.4	16.6	127.2	-16.14	-1,942.9	-5,657.9	5,607.1	5,473.7	133.39	42.034		
6,450.0	6,388.1	6,392.1	6,392.1	16.8	128.1	-16.68	-1,942.9	-5,657.9	5,587.5	5,456.7	130.74	42.738		
6,496.0	6,428.8	6,432.8	6,432.8	17.0	129.0	-17.29	-1,942.9	-5,657.9	5,566.7	5,438.9	127.80	43.557		
6,500.0	6,432.2	6,436.2	6,436.2	17.0	129.0	-17.35	-1,942.9	-5,657.9	5,564.8	5,437.2	127.53	43.635		
6,550.0	6,474.6	6,478.6	6,478.6	17.3	129.9	-18.16	-1,942.9	-5,657.9	5,539.2	5,415.3	123.84	44.728		
6,594.5	6,510.7	6,514.7	6,514.7	17.5	130.6	-19.02	-1,942.9	-5,657.9	5,514.1	5,393.8	120.24	45.861		
6,600.0	6,515.0	6,519.0	6,519.0	17.6	130.7	-19.14	-1,942.9	-5,657.9	5,510.8	5,391.0	119.77	46.011		
6,650.0	6,553.3	6,557.3	6,557.3	17.9	131.5	-20.31	-1,942.9	-5,657.9	5,479.8	5,364.3	115.46	47.460		
6,692.9	6,584.3	6,588.3	6,588.3	18.2	132.1	-21.52	-1,942.9	-5,657.9	5,451.2	5,339.5	111.73	48.789		
6,700.0	6,589.2	6,593.2	6,593.2	18.2	132.2	-21.74	-1,942.9	-5,657.9	5,446.3	5,335.2	111.12	49.012		
6,750.0	6,622.7	6,626.7	6,626.7	18.6	132.9	-23.46	-1,942.9	-5,657.9	5,410.5	5,303.5	107.04	50.546		
6,791.3	6,648.3	6,652.3	6,652.3	19.0	133.4	-25.16	-1,942.9	-5,657.9	5,379.3	5,275.1	104.15	51.647		
6,800.0	6,653.4	6,657.4	6,657.4	19.1	133.5	-25.56	-1,942.9	-5,657.9	5,372.6	5,268.9	103.63	51.843		
6,850.0	6,681.4	6,685.4	6,685.4	19.6	134.0	-28.14	-1,942.9	-5,657.9	5,332.7	5,231.2	101.44	52.570		
6,889.7	6,701.5	6,705.5	6,705.5	20.1	134.4	-30.62	-1,942.9	-5,657.9	5,299.7	5,198.6	101.03	52.457		
6,900.0	6,706.3	6,710.3	6,710.3	20.2	134.5	-31.34	-1,942.9	-5,657.9	5,291.0	5,189.8	101.16	52.301		
6,950.0	6,728.2	6,732.2	6,732.2	20.9	135.0	-35.34	-1,942.9	-5,657.9	5,247.8	5,144.2	103.58	50.662		
6,988.2	6,742.8	6,746.8	6,746.8	21.5	135.3	-39.10	-1,942.9	-5,657.9	5,213.9	5,106.2	107.69	48.417		
7,000.0	6,746.9	6,750.9	6,750.9	21.6	135.4	-40.41	-1,942.9	-5,657.9	5,203.3	5,093.9	109.39	47.568		
7,050.0	6,762.4	6,766.4	6,766.4	22.5	135.7	-46.86	-1,942.9	-5,657.9	5,157.6	5,038.8	118.87	43.390		
7,086.6	6,771.5	6,775.5	6,775.5	23.1	135.9	-52.65	-1,942.9	-5,657.9	5,123.6	4,995.8	127.88	40.068		

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

# Anticollision Report



<b>Company:</b>	PDC ENERGY	<b>Local Co-ordinate Reference:</b>	Well SCHAUMBERG 17G-314
<b>Project:</b>	WELD COUNTY, COLORADO	<b>TVD Reference:</b>	KB-EST @ 4633.0usft (Original Well Elev)
<b>Reference Site:</b>	SW NW SEC. 17 T5N R64W 6th P.M.	<b>MD Reference:</b>	KB-EST @ 4633.0usft (Original Well Elev)
<b>Site Error:</b>	0.0 usft	<b>North Reference:</b>	True
<b>Reference Well:</b>	SCHAUMBERG 17G-314	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Well Error:</b>	0.0 usft	<b>Output errors are at</b>	2.00 sigma
<b>Reference Wellbore</b>	ORIGINAL WELLBORE	<b>Database:</b>	EDM 5000.1 Single User Db
<b>Reference Design:</b>	PROPOSAL #1	<b>Offset TVD Reference:</b>	Offset Datum

Offset Design NW SW SEC. 17 T5N R64W 6th P.M. - EXIST VERT B&H #1 - Wellbore #1 - Design #1													Offset Site Error:	0.0 usft
Survey Program: 0-INC													Offset Well Error:	0.0 usft
Reference		Offset		Semi Major Axis			Distance						Warning	
Measured Depth (usft)	Vertical Depth (usft)	Measured Depth (usft)	Vertical Depth (usft)	Reference (usft)	Offset (usft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (usft)	+E/-W (usft)	Between Centres (usft)	Between Ellipses (usft)	Minimum Separation (usft)	Separation Factor		
7,100.0	6,774.4	6,778.4	6,778.4	23.3	135.9	-55.03	-1,942.9	-5,657.9	5,111.1	4,979.6	131.48	38.874		
7,150.0	6,783.1	6,787.1	6,787.1	24.3	136.1	-65.16	-1,942.9	-5,657.9	5,063.9	4,918.6	145.27	34.859		
7,185.0	6,787.1	6,791.1	6,791.1	25.0	136.2	-73.37	-1,942.9	-5,657.9	5,030.6	4,876.8	153.75	32.719		
7,200.0	6,788.3	6,792.3	6,792.3	25.3	136.2	-77.11	-1,942.9	-5,657.9	5,016.3	4,859.7	156.64	32.024		
7,252.3	6,790.0	6,794.0	6,794.0	26.3	136.2	-90.70	-1,942.9	-5,657.9	4,966.3	4,804.7	161.58	30.736		
7,283.4	6,789.9	6,793.9	6,793.9	27.0	136.2	-90.70	-1,942.9	-5,657.9	4,936.5	4,774.3	162.27	30.422		
7,300.0	6,789.8	6,793.8	6,793.8	27.3	136.2	-90.70	-1,942.9	-5,657.9	4,920.7	4,758.1	162.64	30.256		
7,381.9	6,789.5	6,793.5	6,793.5	29.1	136.2	-90.69	-1,942.9	-5,657.9	4,842.6	4,678.0	164.51	29.436		
7,400.0	6,789.4	6,793.4	6,793.4	29.5	136.2	-90.68	-1,942.9	-5,657.9	4,825.3	4,660.3	164.93	29.257		
7,480.3	6,789.1	6,793.1	6,793.1	31.4	136.2	-90.67	-1,942.9	-5,657.9	4,748.8	4,581.9	166.83	28.464		
7,500.0	6,789.1	6,793.1	6,793.1	31.8	136.2	-90.67	-1,942.9	-5,657.9	4,730.0	4,562.7	167.30	28.272		
7,578.7	6,788.8	6,792.8	6,792.8	33.7	136.2	-90.66	-1,942.9	-5,657.9	4,655.1	4,485.9	169.22	27.509		
7,600.0	6,788.7	6,792.7	6,792.7	34.2	136.2	-90.66	-1,942.9	-5,657.9	4,634.9	4,465.2	169.74	27.305		
7,677.1	6,788.4	6,792.4	6,792.4	36.1	136.2	-90.65	-1,942.9	-5,657.9	4,561.7	4,390.1	171.67	26.573		
7,700.0	6,788.3	6,792.3	6,792.3	36.7	136.2	-90.64	-1,942.9	-5,657.9	4,540.1	4,367.9	172.24	26.359		
7,775.6	6,788.0	6,792.0	6,792.0	38.6	136.2	-90.63	-1,942.9	-5,657.9	4,468.6	4,294.4	174.16	25.658		
7,800.0	6,787.9	6,791.9	6,791.9	39.2	136.2	-90.63	-1,942.9	-5,657.9	4,445.5	4,270.7	174.78	25.435		
7,874.0	6,787.6	6,791.6	6,791.6	41.0	136.2	-90.62	-1,942.9	-5,657.9	4,375.6	4,198.9	176.68	24.766		
7,900.0	6,787.6	6,791.6	6,791.6	41.7	136.2	-90.61	-1,942.9	-5,657.9	4,351.1	4,173.7	177.35	24.534		
7,972.4	6,787.3	6,791.3	6,791.3	43.6	136.2	-90.60	-1,942.9	-5,657.9	4,282.9	4,103.7	179.23	23.896		
8,000.0	6,787.2	6,791.2	6,791.2	44.3	136.2	-90.60	-1,942.9	-5,657.9	4,257.0	4,077.0	179.95	23.657		
8,070.8	6,786.9	6,790.9	6,790.9	46.1	136.2	-90.59	-1,942.9	-5,657.9	4,190.4	4,008.6	181.81	23.049		
8,100.0	6,786.8	6,790.8	6,790.8	46.9	136.2	-90.59	-1,942.9	-5,657.9	4,163.1	3,980.5	182.57	22.802		
8,169.3	6,786.5	6,790.5	6,790.5	48.7	136.2	-90.58	-1,942.9	-5,657.9	4,098.3	3,913.8	184.40	22.224		
8,200.0	6,786.4	6,790.4	6,790.4	49.5	136.2	-90.57	-1,942.9	-5,657.9	4,069.5	3,884.3	185.22	21.972		
8,267.7	6,786.1	6,790.1	6,790.1	51.3	136.2	-90.56	-1,942.9	-5,657.9	4,006.4	3,819.4	187.02	21.422		
8,300.0	6,786.0	6,790.0	6,790.0	52.1	136.1	-90.56	-1,942.9	-5,657.9	3,976.3	3,788.4	187.88	21.164		
8,366.1	6,785.8	6,789.8	6,789.8	53.9	136.1	-90.55	-1,942.9	-5,657.9	3,914.8	3,725.2	189.65	20.643		
8,400.0	6,785.6	6,789.6	6,789.6	54.8	136.1	-90.54	-1,942.9	-5,657.9	3,883.4	3,692.8	190.55	20.380		
8,464.5	6,785.4	6,789.4	6,789.4	56.5	136.1	-90.53	-1,942.9	-5,657.9	3,823.6	3,631.3	192.29	19.885		
8,500.0	6,785.3	6,789.3	6,789.3	57.5	136.1	-90.53	-1,942.9	-5,657.9	3,790.8	3,597.6	193.24	19.617		
8,563.0	6,785.0	6,789.0	6,789.0	59.2	136.1	-90.52	-1,942.9	-5,657.9	3,732.7	3,537.8	194.94	19.148		
8,600.0	6,784.9	6,788.9	6,788.9	60.2	136.1	-90.52	-1,942.9	-5,657.9	3,698.7	3,502.7	195.94	18.877		
8,661.4	6,784.6	6,788.6	6,788.6	61.8	136.1	-90.51	-1,942.9	-5,657.9	3,642.3	3,444.7	197.60	18.432		
8,700.0	6,784.5	6,788.5	6,788.5	62.9	136.1	-90.50	-1,942.9	-5,657.9	3,606.9	3,408.3	198.65	18.158		
8,759.8	6,784.3	6,788.3	6,788.3	64.5	136.1	-90.49	-1,942.9	-5,657.9	3,552.2	3,352.0	200.27	17.737		
8,800.0	6,784.1	6,788.1	6,788.1	65.6	136.1	-90.49	-1,942.9	-5,657.9	3,515.6	3,314.3	201.36	17.459		
8,858.2	6,783.9	6,787.9	6,787.9	67.1	136.1	-90.48	-1,942.9	-5,657.9	3,462.7	3,259.7	202.95	17.062		
8,900.0	6,783.7	6,787.7	6,787.7	68.3	136.1	-90.47	-1,942.9	-5,657.9	3,424.8	3,220.7	204.08	16.781		
8,956.7	6,783.5	6,787.5	6,787.5	69.8	136.1	-90.46	-1,942.9	-5,657.9	3,373.6	3,167.9	205.63	16.406		
9,000.0	6,783.3	6,787.3	6,787.3	71.0	136.1	-90.46	-1,942.9	-5,657.9	3,334.5	3,127.7	206.81	16.123		
9,055.1	6,783.1	6,787.1	6,787.1	72.5	136.1	-90.45	-1,942.9	-5,657.9	3,285.0	3,076.7	208.32	15.769		
9,100.0	6,782.9	6,786.9	6,786.9	73.7	136.1	-90.44	-1,942.9	-5,657.9	3,244.8	3,035.3	209.55	15.485		
9,153.5	6,782.7	6,786.7	6,786.7	75.2	136.1	-90.43	-1,942.9	-5,657.9	3,197.0	2,986.0	211.01	15.151		
9,200.0	6,782.6	6,786.6	6,786.6	76.5	136.1	-90.43	-1,942.9	-5,657.9	3,155.7	2,943.4	212.29	14.865		
9,251.9	6,782.4	6,786.4	6,786.4	77.9	136.1	-90.42	-1,942.9	-5,657.9	3,109.7	2,896.0	213.71	14.551		
9,300.0	6,782.2	6,786.2	6,786.2	79.2	136.1	-90.41	-1,942.9	-5,657.9	3,067.3	2,852.3	215.03	14.264		
9,350.4	6,782.0	6,786.0	6,786.0	80.6	136.1	-90.41	-1,942.9	-5,657.9	3,023.0	2,806.6	216.42	13.969		
9,400.0	6,781.8	6,785.8	6,785.8	82.0	136.1	-90.40	-1,942.9	-5,657.9	2,979.6	2,761.8	217.78	13.682		
9,448.8	6,781.6	6,785.6	6,785.6	83.3	136.1	-90.39	-1,942.9	-5,657.9	2,937.1	2,718.0	219.12	13.404		
9,500.0	6,781.4	6,785.4	6,785.4	84.7	136.1	-90.38	-1,942.9	-5,657.9	2,892.7	2,672.2	220.53	13.117		
9,547.2	6,781.2	6,785.2	6,785.2	86.0	136.1	-90.38	-1,942.9	-5,657.9	2,852.0	2,630.1	221.83	12.856		

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 SCHAUMBERG 17G-314
<b>Project:</b>	WELD COUNTY, COLORADO	<b>TVD Reference:</b>	KB-EST @ 4633.0usft (Original Well Elev)
<b>Reference Site:</b>	SW NW SEC. 17 T5N R64W 6th P.M.	<b>MD Reference:</b>	KB-EST @ 4633.0usft (Original Well Elev)
<b>Site Error:</b>	0.0 usft	<b>North Reference:</b>	True
<b>Reference Well:</b>	SCHAUMBERG 17G-314	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Well Error:</b>	0.0 usft	<b>Output errors are at</b>	2.00 sigma
<b>Reference Wellbore</b>	ORIGINAL WELLBORE	<b>Database:</b>	EDM 5000.1 Single User Db
<b>Reference Design:</b>	PROPOSAL #1	<b>Offset TVD Reference:</b>	Offset Datum

Offset Design NW SW SEC. 17 T5N R64W 6th P.M. - EXIST VERT B&H #1 - Wellbore #1 - Design #1												Offset Site Error:	0.0 usft
Survey Program: 0-INC												Offset Well Error:	0.0 usft
Reference		Offset		Semi Major Axis			Distance						Warning
Measured Depth (usft)	Vertical Depth (usft)	Measured Depth (usft)	Vertical Depth (usft)	Reference (usft)	Offset (usft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (usft)	+E/-W (usft)	Between Centres (usft)	Between Ellipses (usft)	Minimum Separation (usft)	Separation Factor	
9,600.0	6,781.0	6,785.0	6,785.0	87.5	136.0	-90.37	-1,942.9	-5,657.9	2,806.7	2,583.4	223.29	12.570	
9,645.6	6,780.8	6,784.8	6,784.8	88.7	136.0	-90.36	-1,942.9	-5,657.9	2,767.7	2,543.2	224.55	12.326	
9,700.0	6,780.6	6,784.6	6,784.6	90.2	136.0	-90.35	-1,942.9	-5,657.9	2,721.6	2,495.6	226.04	12.040	
9,744.1	6,780.4	6,784.4	6,784.4	91.4	136.0	-90.35	-1,942.9	-5,657.9	2,684.5	2,457.2	227.26	11.812	
9,800.0	6,780.2	6,784.2	6,784.2	93.0	136.0	-90.34	-1,942.9	-5,657.9	2,637.6	2,408.8	228.81	11.528	
9,842.5	6,780.1	6,784.1	6,784.1	94.2	136.0	-90.33	-1,942.9	-5,657.9	2,602.2	2,372.3	229.98	11.315	
9,900.0	6,779.8	6,783.8	6,783.8	95.7	136.0	-90.32	-1,942.9	-5,657.9	2,554.7	2,323.2	231.57	11.032	
9,940.9	6,779.7	6,783.7	6,783.7	96.9	136.0	-90.32	-1,942.9	-5,657.9	2,521.2	2,288.5	232.70	10.834	
10,000.0	6,779.4	6,783.4	6,783.4	98.5	136.0	-90.31	-1,942.9	-5,657.9	2,473.1	2,238.8	234.33	10.554	
10,039.3	6,779.3	6,783.3	6,783.3	99.6	136.0	-90.30	-1,942.9	-5,657.9	2,441.4	2,206.0	235.42	10.370	
10,100.0	6,779.0	6,783.0	6,783.0	101.3	136.0	-90.29	-1,942.9	-5,657.9	2,392.9	2,155.8	237.10	10.093	
10,137.8	6,778.9	6,782.9	6,782.9	102.3	136.0	-90.29	-1,942.9	-5,657.9	2,363.0	2,124.9	238.15	9.923	
10,200.0	6,778.7	6,782.7	6,782.7	104.1	136.0	-90.28	-1,942.9	-5,657.9	2,314.3	2,074.4	239.87	9.648	
10,236.2	6,778.5	6,782.5	6,782.5	105.1	136.0	-90.27	-1,942.9	-5,657.9	2,286.2	2,045.3	240.87	9.491	
10,300.0	6,778.3	6,782.3	6,782.3	106.8	136.0	-90.26	-1,942.9	-5,657.9	2,237.3	1,994.7	242.64	9.221	
10,334.6	6,778.1	6,782.1	6,782.1	107.8	136.0	-90.26	-1,942.9	-5,657.9	2,211.1	1,967.5	243.60	9.077	
10,400.0	6,777.9	6,781.9	6,781.9	109.6	136.0	-90.25	-1,942.9	-5,657.9	2,162.3	1,916.8	245.41	8.811	
10,433.0	6,777.7	6,781.7	6,781.7	110.5	136.0	-90.24	-1,942.9	-5,657.9	2,137.9	1,891.6	246.33	8.679	
10,500.0	6,777.5	6,781.5	6,781.5	112.4	136.0	-90.23	-1,942.9	-5,657.9	2,089.3	1,841.1	248.19	8.418	
10,531.5	6,777.3	6,781.3	6,781.3	113.3	136.0	-90.23	-1,942.9	-5,657.9	2,066.8	1,817.7	249.06	8.298	
10,600.0	6,777.1	6,781.1	6,781.1	115.2	136.0	-90.22	-1,942.9	-5,657.9	2,018.6	1,767.7	250.96	8.043	
10,629.9	6,777.0	6,781.0	6,781.0	116.0	136.0	-90.21	-1,942.9	-5,657.9	1,998.0	1,746.2	251.79	7.935	
10,700.0	6,776.7	6,780.7	6,780.7	117.9	136.0	-90.20	-1,942.9	-5,657.9	1,950.5	1,696.8	253.74	7.687	
10,728.3	6,776.6	6,780.6	6,780.6	118.7	136.0	-90.20	-1,942.9	-5,657.9	1,931.8	1,677.2	254.53	7.590	
10,800.0	6,776.3	6,780.3	6,780.3	120.7	136.0	-90.19	-1,942.9	-5,657.9	1,885.3	1,628.8	256.52	7.350	
10,826.7	6,776.2	6,780.2	6,780.2	121.5	136.0	-90.18	-1,942.9	-5,657.9	1,868.4	1,611.1	257.26	7.262	
10,900.0	6,775.9	6,779.9	6,779.9	123.5	135.9	-90.17	-1,942.9	-5,657.9	1,823.2	1,563.9	259.30	7.031	
10,925.2	6,775.8	6,779.8	6,779.8	124.2	135.9	-90.17	-1,942.9	-5,657.9	1,808.1	1,548.1	260.00	6.954	
11,000.0	6,775.5	6,779.5	6,779.5	126.3	135.9	-90.16	-1,942.9	-5,657.9	1,764.6	1,502.5	262.08	6.733	
11,023.6	6,775.4	6,779.4	6,779.4	126.9	135.9	-90.15	-1,942.9	-5,657.9	1,751.3	1,488.6	262.73	6.666	
11,100.0	6,775.1	6,779.1	6,779.1	129.1	135.9	-90.14	-1,942.9	-5,657.9	1,709.8	1,445.0	264.86	6.456	
11,122.0	6,775.0	6,779.0	6,779.0	129.7	135.9	-90.14	-1,942.9	-5,657.9	1,698.3	1,432.9	265.47	6.397	
11,200.0	6,774.7	6,778.7	6,778.7	131.9	135.9	-90.13	-1,942.9	-5,657.9	1,659.3	1,391.7	267.64	6.200	
11,220.4	6,774.6	6,778.6	6,778.6	132.4	135.9	-90.12	-1,942.9	-5,657.9	1,649.5	1,381.3	268.21	6.150	
11,300.0	6,774.3	6,778.3	6,778.3	134.6	135.9	-90.11	-1,942.9	-5,657.9	1,613.4	1,343.0	270.42	5.966	
11,318.9	6,774.2	6,778.2	6,778.2	135.2	135.9	-90.11	-1,942.9	-5,657.9	1,605.3	1,334.3	270.95	5.925	
11,400.0	6,773.9	6,777.9	6,777.9	137.4	135.9	-90.10	-1,942.9	-5,657.9	1,572.5	1,299.3	273.21	5.756	
11,417.3	6,773.8	6,777.8	6,777.8	137.9	135.9	-90.09	-1,942.9	-5,657.9	1,566.0	1,292.3	273.69	5.722	
11,500.0	6,773.5	6,777.5	6,777.5	140.2	135.9	-90.08	-1,942.9	-5,657.9	1,537.0	1,261.0	275.99	5.569	
11,515.7	6,773.4	6,777.4	6,777.4	140.7	135.9	-90.08	-1,942.9	-5,657.9	1,532.0	1,255.5	276.43	5.542	
11,600.0	6,773.1	6,777.1	6,777.1	143.0	135.9	-90.06	-1,942.9	-5,657.9	1,507.4	1,228.6	278.78	5.407	
11,614.1	6,773.0	6,777.0	6,777.0	143.4	135.9	-90.06	-1,942.9	-5,657.9	1,503.7	1,224.5	279.17	5.386	
11,700.0	6,772.7	6,776.7	6,776.7	145.8	135.9	-90.05	-1,942.9	-5,657.9	1,483.9	1,202.3	281.56	5.270	
11,712.6	6,772.6	6,776.6	6,776.6	146.2	135.9	-90.05	-1,942.9	-5,657.9	1,481.4	1,199.5	281.91	5.255	
11,800.0	6,772.3	6,776.3	6,776.3	148.6	135.9	-90.03	-1,942.9	-5,657.9	1,466.8	1,182.5	284.35	5.159	
11,811.0	6,772.2	6,776.2	6,776.2	148.9	135.9	-90.03	-1,942.9	-5,657.9	1,465.4	1,180.7	284.66	5.148	
11,900.0	6,771.9	6,775.9	6,775.9	151.4	135.9	-90.02	-1,942.9	-5,657.9	1,456.5	1,169.4	287.14	5.072	
11,909.4	6,771.8	6,775.8	6,775.8	151.7	135.9	-90.01	-1,942.9	-5,657.9	1,455.9	1,168.5	287.40	5.066	
12,000.0	6,771.5	6,775.5	6,775.5	154.2	135.9	-90.00	-1,942.9	-5,657.9	1,453.0	1,163.0	289.92	5.012	
12,001.3	6,771.5	6,775.5	6,775.5	154.2	135.9	-90.00	-1,942.9	-5,657.9	1,453.0	1,163.0	289.96	5.011 CC	
12,007.8	6,771.4	6,775.4	6,775.4	154.4	135.9	-90.00	-1,942.9	-5,657.9	1,453.0	1,162.8	290.14	5.008 ES	
12,100.0	6,771.1	6,775.1	6,775.1	157.0	135.8	-89.98	-1,942.9	-5,657.9	1,456.3	1,163.6	292.71	4.975	

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 SCHAUMBERG 17G-314
<b>Project:</b>	WELD COUNTY, COLORADO	<b>TVD Reference:</b>	KB-EST @ 4633.0usft (Original Well Elev)
<b>Reference Site:</b>	SW NW SEC. 17 T5N R64W 6th P.M.	<b>MD Reference:</b>	KB-EST @ 4633.0usft (Original Well Elev)
<b>Site Error:</b>	0.0 usft	<b>North Reference:</b>	True
<b>Reference Well:</b>	SCHAUMBERG 17G-314	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Well Error:</b>	0.0 usft	<b>Output errors are at</b>	2.00 sigma
<b>Reference Wellbore</b>	ORIGINAL WELLBORE	<b>Database:</b>	EDM 5000.1 Single User Db
<b>Reference Design:</b>	PROPOSAL #1	<b>Offset TVD Reference:</b>	Offset Datum

<b>Offset Design</b> NW SW SEC. 17 T5N R64W 6th P.M. - EXIST VERT B&H #1 - Wellbore #1 - Design #1												<b>Offset Site Error:</b>	0.0 usft
Survey Program: 0-INC												<b>Offset Well Error:</b>	0.0 usft
Reference	Offset	Semi Major Axis		Distance									
Measured Depth (usft)	Vertical Depth (usft)	Measured Depth (usft)	Vertical Depth (usft)	Reference (usft)	Offset (usft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (usft)	+E/-W (usft)	Between Centres (usft)	Between Ellipses (usft)	Minimum Separation (usft)	Separation Factor	Warning
12,106.3	6,771.0	6,775.0	6,775.0	157.2	135.8	-89.98	-1,942.9	-5,657.9	1,456.7	1,163.9	292.89	4.974	
12,200.0	6,770.7	6,774.7	6,774.7	159.8	135.8	-89.97	-1,942.9	-5,657.9	1,466.5	1,171.0	295.50	4.963	
12,204.7	6,770.6	6,774.6	6,774.6	159.9	135.8	-89.97	-1,942.9	-5,657.9	1,467.1	1,171.5	295.63	4.963 SF	
12,300.0	6,770.3	6,774.3	6,774.3	162.6	135.8	-89.95	-1,942.9	-5,657.9	1,483.3	1,185.1	298.29	4.973	
12,303.1	6,770.2	6,774.2	6,774.2	162.7	135.8	-89.95	-1,942.9	-5,657.9	1,484.0	1,185.6	298.38	4.973	
12,361.7	6,770.0	6,774.0	6,774.0	164.3	135.8	-89.94	-1,942.9	-5,657.9	1,497.0	1,197.0	300.01	4.990	



# Anticollision Report



<b>Company:</b>	PDC ENERGY	<b>Local Co-ordinate Reference:</b>	Well SCHAUMBERG 17G-314
<b>Project:</b>	WELD COUNTY, COLORADO	<b>TVD Reference:</b>	KB-EST @ 4633.0usft (Original Well Elev)
<b>Reference Site:</b>	SW NW SEC. 17 T5N R64W 6th P.M.	<b>MD Reference:</b>	KB-EST @ 4633.0usft (Original Well Elev)
<b>Site Error:</b>	0.0 usft	<b>North Reference:</b>	True
<b>Reference Well:</b>	SCHAUMBERG 17G-314	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Well Error:</b>	0.0 usft	<b>Output errors are at</b>	2.00 sigma
<b>Reference Wellbore</b>	ORIGINAL WELLBORE	<b>Database:</b>	EDM 5000.1 Single User Db
<b>Reference Design:</b>	PROPOSAL #1	<b>Offset TVD Reference:</b>	Offset Datum

Offset Design												Offset Site Error:	0.0 usft
Survey Program: 0-INC												Offset Well Error:	0.0 usft
Reference		Offset		Semi Major Axis			Distance						Warning
Measured Depth (usft)	Vertical Depth (usft)	Measured Depth (usft)	Vertical Depth (usft)	Reference (usft)	Offset (usft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (usft)	+E/-W (usft)	Between Centres (usft)	Between Ellipses (usft)	Minimum Separation (usft)	Separation Factor	
0.0	0.0	4.0	4.0	0.0	0.0	-94.63	-444.6	-5,487.6	5,505.6				
98.4	98.4	102.4	102.4	0.1	1.2	-94.63	-444.6	-5,487.6	5,505.6	5,504.3	1.30	4,245.595	
100.0	100.0	104.0	104.0	0.1	1.2	-94.63	-444.6	-5,487.6	5,505.6	5,504.3	1.33	4,124.666	
196.8	196.8	200.8	200.8	0.3	3.5	-94.63	-444.6	-5,487.6	5,505.6	5,501.8	3.78	1,456.636	
200.0	200.0	204.0	204.0	0.3	3.5	-94.63	-444.6	-5,487.6	5,505.6	5,501.8	3.85	1,429.193	
295.3	295.3	299.3	299.3	0.5	5.5	-94.63	-444.6	-5,487.6	5,505.6	5,499.6	6.05	910.413	
300.0	300.0	304.0	304.0	0.5	5.6	-94.63	-444.6	-5,487.6	5,505.6	5,499.5	6.15	894.528	
393.7	393.7	397.7	397.7	0.8	7.5	-94.63	-444.6	-5,487.6	5,505.6	5,497.3	8.28	665.001	
400.0	400.0	404.0	404.0	0.8	7.6	-94.63	-444.6	-5,487.6	5,505.6	5,497.2	8.42	653.764	
492.1	492.1	496.1	496.1	1.0	9.5	-94.63	-444.6	-5,487.6	5,505.6	5,495.1	10.50	524.454	
500.0	500.0	504.0	504.0	1.0	9.7	-94.63	-444.6	-5,487.6	5,505.6	5,494.9	10.68	515.746	
590.5	590.5	594.5	594.5	1.2	11.5	-94.63	-444.6	-5,487.6	5,505.6	5,492.9	12.71	433.164	
600.0	600.0	604.0	604.0	1.2	11.7	-94.63	-444.6	-5,487.6	5,505.6	5,492.7	12.92	426.050	
689.0	689.0	693.0	693.0	1.4	13.5	-94.63	-444.6	-5,487.6	5,505.6	5,490.7	14.92	369.031	
700.0	700.0	704.0	704.0	1.4	13.7	-94.63	-444.6	-5,487.6	5,505.6	5,490.5	15.17	363.013	
787.4	787.4	791.4	791.4	1.6	15.5	-94.63	-444.6	-5,487.6	5,505.6	5,488.5	17.13	321.479	
800.0	800.0	804.0	804.0	1.7	15.7	-94.63	-444.6	-5,487.6	5,505.6	5,488.2	17.41	316.264	
885.8	885.8	889.8	889.8	1.9	17.5	-94.63	-444.6	-5,487.6	5,505.6	5,486.3	19.33	284.805	
900.0	900.0	904.0	904.0	1.9	17.8	-94.63	-444.6	-5,487.6	5,505.6	5,486.0	19.65	280.202	
984.2	984.2	988.2	988.2	2.1	19.5	-94.63	-444.6	-5,487.6	5,505.6	5,484.1	21.54	255.653	
1,000.0	1,000.0	1,004.0	1,004.0	2.1	19.8	-94.63	-444.6	-5,487.6	5,505.6	5,483.7	21.89	251.533	
1,082.7	1,082.7	1,086.7	1,086.7	2.3	21.4	-94.63	-444.6	-5,487.6	5,505.6	5,481.9	23.74	231.921	
1,100.0	1,100.0	1,104.0	1,104.0	2.3	21.8	-94.63	-444.6	-5,487.6	5,505.6	5,481.5	24.13	228.193	
1,181.1	1,181.1	1,185.1	1,185.1	2.5	23.4	-94.63	-444.6	-5,487.6	5,505.6	5,479.7	25.94	212.226	
1,200.0	1,200.0	1,204.0	1,204.0	2.6	23.8	-94.63	-444.6	-5,487.6	5,505.6	5,479.3	26.37	208.821	
1,279.5	1,279.5	1,283.5	1,283.5	2.7	25.4	-94.63	-444.6	-5,487.6	5,505.6	5,477.5	28.14	195.616	
1,300.0	1,300.0	1,304.0	1,304.0	2.8	25.8	-94.63	-444.6	-5,487.6	5,505.6	5,477.0	28.60	192.483	
1,377.9	1,377.9	1,381.9	1,381.9	3.0	27.4	-94.63	-444.6	-5,487.6	5,505.6	5,475.3	30.35	181.420	
1,400.0	1,400.0	1,404.0	1,404.0	3.0	27.8	-94.63	-444.6	-5,487.6	5,505.6	5,474.8	30.84	178.518	
1,476.4	1,476.4	1,480.4	1,480.4	3.2	29.4	-94.63	-444.6	-5,487.6	5,505.6	5,473.1	32.55	169.146	
1,500.0	1,500.0	1,504.0	1,504.0	3.2	29.8	-94.63	-444.6	-5,487.6	5,505.6	5,472.5	33.08	166.443	
1,574.8	1,574.8	1,578.8	1,578.8	3.4	31.3	-94.63	-444.6	-5,487.6	5,505.6	5,470.9	34.75	158.429	
1,600.0	1,600.0	1,604.0	1,604.0	3.5	31.8	-94.63	-444.6	-5,487.6	5,505.6	5,470.3	35.32	155.900	
1,673.2	1,673.2	1,677.2	1,677.2	3.6	33.3	-94.63	-444.6	-5,487.6	5,505.6	5,468.7	36.95	148.989	
1,700.0	1,700.0	1,704.0	1,704.0	3.7	33.9	-94.63	-444.6	-5,487.6	5,505.6	5,468.1	37.55	146.613	
1,771.6	1,771.6	1,775.6	1,775.6	3.9	35.3	-94.63	-444.6	-5,487.6	5,505.6	5,466.5	39.15	140.612	
1,800.0	1,800.0	1,804.0	1,804.0	3.9	35.9	-94.63	-444.6	-5,487.6	5,505.6	5,465.8	39.79	138.371	
1,870.1	1,870.1	1,874.1	1,874.1	4.1	37.3	64.19	-444.6	-5,487.6	5,505.2	5,463.9	41.33	133.191	
1,900.0	1,900.0	1,904.0	1,904.0	4.1	37.9	64.20	-444.6	-5,487.6	5,504.9	5,462.9	41.99	131.095	
1,968.5	1,968.4	1,972.4	1,972.4	4.2	39.3	64.26	-444.6	-5,487.6	5,503.5	5,460.0	43.48	126.585	
2,000.0	1,999.8	2,003.8	2,003.8	4.3	39.9	64.29	-444.6	-5,487.6	5,502.6	5,458.4	44.16	124.614	
2,066.9	2,066.5	2,070.5	2,070.5	4.4	41.2	64.39	-444.6	-5,487.6	5,500.2	5,454.6	45.60	120.612	
2,100.0	2,099.5	2,103.5	2,103.5	4.5	41.9	64.44	-444.6	-5,487.6	5,498.8	5,452.5	46.31	118.729	
2,165.3	2,164.4	2,168.4	2,168.4	4.6	43.2	64.57	-444.6	-5,487.6	5,495.5	5,447.8	47.72	115.156	
2,200.0	2,198.7	2,202.7	2,202.7	4.7	43.9	64.65	-444.6	-5,487.6	5,493.5	5,445.1	48.47	113.350	
2,263.8	2,261.8	2,265.8	2,265.8	4.8	45.2	64.82	-444.6	-5,487.6	5,489.4	5,439.6	49.84	110.144	
2,300.0	2,297.5	2,301.5	2,301.5	4.9	45.9	64.92	-444.6	-5,487.6	5,486.8	5,436.2	50.61	108.404	
2,362.2	2,358.6	2,362.6	2,362.6	5.0	47.1	65.12	-444.6	-5,487.6	5,481.9	5,429.9	51.96	105.509	
2,400.0	2,395.6	2,399.6	2,399.6	5.1	47.9	65.25	-444.6	-5,487.6	5,478.6	5,425.9	52.77	103.828	
2,460.6	2,454.9	2,458.9	2,458.9	5.3	49.0	65.37	-444.6	-5,487.6	5,473.3	5,419.2	54.12	101.133	
2,500.0	2,493.4	2,497.4	2,497.4	5.4	49.8	65.44	-444.6	-5,487.6	5,469.8	5,414.8	55.00	99.455	
2,559.0	2,551.2	2,555.2	2,555.2	5.6	51.0	65.56	-444.6	-5,487.6	5,464.6	5,408.3	56.33	97.015	

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 SCHAUMBERG 17G-314
<b>Project:</b>	WELD COUNTY, COLORADO	<b>TVD Reference:</b>	KB-EST @ 4633.0usft (Original Well Elev)
<b>Reference Site:</b>	SW NW SEC. 17 T5N R64W 6th P.M.	<b>MD Reference:</b>	KB-EST @ 4633.0usft (Original Well Elev)
<b>Site Error:</b>	0.0 usft	<b>North Reference:</b>	True
<b>Reference Well:</b>	SCHAUMBERG 17G-314	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Well Error:</b>	0.0 usft	<b>Output errors are at</b>	2.00 sigma
<b>Reference Wellbore</b>	ORIGINAL WELLBORE	<b>Database:</b>	EDM 5000.1 Single User Db
<b>Reference Design:</b>	PROPOSAL #1	<b>Offset TVD Reference:</b>	Offset Datum

Offset Design NW SW SEC. 17 T5N R64W 6th P.M. - EXIST VERT BRIGHT #2 - 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	
2,600.0	2,591.3	2,595.3	2,595.3	5.7	51.8	65.64	-444.6	-5,487.6	5,461.0	5,403.8	57.25	95.390	
2,657.5	2,647.5	2,651.5	2,651.5	5.9	52.9	65.75	-444.6	-5,487.6	5,456.0	5,397.5	58.55	93.180	
2,700.0	2,689.1	2,693.1	2,693.1	6.0	53.8	65.83	-444.6	-5,487.6	5,452.3	5,392.8	59.52	91.606	
2,755.9	2,743.7	2,747.7	2,747.7	6.2	54.9	65.94	-444.6	-5,487.6	5,447.5	5,386.7	60.80	89.601	
2,800.0	2,786.9	2,790.9	2,790.9	6.4	55.7	66.03	-444.6	-5,487.6	5,443.7	5,381.9	61.81	88.078	
2,854.3	2,840.0	2,844.0	2,844.0	6.6	56.8	66.14	-444.6	-5,487.6	5,439.0	5,376.0	63.05	86.259	
2,900.0	2,884.7	2,888.7	2,888.7	6.7	57.7	66.23	-444.6	-5,487.6	5,435.1	5,371.0	64.11	84.785	
2,952.7	2,936.3	2,940.3	2,940.3	6.9	58.7	66.33	-444.6	-5,487.6	5,430.6	5,365.3	65.32	83.134	
3,000.0	2,982.5	2,986.5	2,986.5	7.1	59.7	66.42	-444.6	-5,487.6	5,426.6	5,360.2	66.42	81.706	
3,051.2	3,032.6	3,036.6	3,036.6	7.3	60.7	66.52	-444.6	-5,487.6	5,422.3	5,354.7	67.60	80.206	
3,100.0	3,080.3	3,084.3	3,084.3	7.5	61.6	66.62	-444.6	-5,487.6	5,418.2	5,349.5	68.74	78.823	
3,149.6	3,128.8	3,132.8	3,132.8	7.7	62.6	66.72	-444.6	-5,487.6	5,414.0	5,344.1	69.89	77.460	
3,200.0	3,178.1	3,182.1	3,182.1	7.9	63.6	66.82	-444.6	-5,487.6	5,409.8	5,338.8	71.07	76.120	
3,248.0	3,225.1	3,229.1	3,229.1	8.1	64.5	66.91	-444.6	-5,487.6	5,405.8	5,333.6	72.19	74.880	
3,300.0	3,276.0	3,280.0	3,280.0	8.3	65.6	67.02	-444.6	-5,487.6	5,401.5	5,328.1	73.41	73.581	
3,346.4	3,321.4	3,325.4	3,325.4	8.5	66.5	67.11	-444.6	-5,487.6	5,397.7	5,323.2	74.50	72.453	
3,400.0	3,373.8	3,377.8	3,377.8	8.7	67.5	67.22	-444.6	-5,487.6	5,393.3	5,317.5	75.76	71.194	
3,444.9	3,417.7	3,421.7	3,421.7	8.8	68.4	67.31	-444.6	-5,487.6	5,389.6	5,312.8	76.81	70.167	
3,500.0	3,471.6	3,475.6	3,475.6	9.1	69.5	67.42	-444.6	-5,487.6	5,385.1	5,307.0	78.11	68.945	
3,543.3	3,513.9	3,517.9	3,517.9	9.2	70.3	67.50	-444.6	-5,487.6	5,381.6	5,302.5	79.13	68.011	
3,600.0	3,569.4	3,573.4	3,573.4	9.5	71.5	67.62	-444.6	-5,487.6	5,377.0	5,296.5	80.47	66.823	
3,641.7	3,610.2	3,614.2	3,614.2	9.7	72.3	67.70	-444.6	-5,487.6	5,373.7	5,292.2	81.45	65.973	
3,700.0	3,667.2	3,671.2	3,671.2	9.9	73.4	67.82	-444.6	-5,487.6	5,369.0	5,286.1	82.83	64.820	
3,740.1	3,706.5	3,710.5	3,710.5	10.1	74.2	67.90	-444.6	-5,487.6	5,365.8	5,282.0	83.78	64.046	
3,800.0	3,765.0	3,769.0	3,769.0	10.3	75.4	68.02	-444.6	-5,487.6	5,361.0	5,275.8	85.20	62.925	
3,838.6	3,802.8	3,806.8	3,806.8	10.5	76.2	68.10	-444.6	-5,487.6	5,358.0	5,271.8	86.11	62.221	
3,900.0	3,862.8	3,866.8	3,866.8	10.7	77.4	68.22	-444.6	-5,487.6	5,353.1	5,265.6	87.57	61.130	
3,937.0	3,899.0	3,903.0	3,903.0	10.9	78.1	68.30	-444.6	-5,487.6	5,350.2	5,261.8	88.45	60.490	
4,000.0	3,960.7	3,964.7	3,964.7	11.2	79.3	68.43	-444.6	-5,487.6	5,345.3	5,255.3	89.94	59.429	
4,035.4	3,995.3	3,999.3	3,999.3	11.3	80.0	68.50	-444.6	-5,487.6	5,342.5	5,251.7	90.79	58.847	
4,100.0	4,058.5	4,062.5	4,062.5	11.6	81.3	68.63	-444.6	-5,487.6	5,337.5	5,245.2	92.32	57.813	
4,133.8	4,091.6	4,095.6	4,095.6	11.7	82.0	68.70	-444.6	-5,487.6	5,334.9	5,241.8	93.13	57.285	
4,200.0	4,156.3	4,160.3	4,160.3	12.0	83.3	68.83	-444.6	-5,487.6	5,329.8	5,235.1	94.71	56.278	
4,232.3	4,187.9	4,191.9	4,191.9	12.2	83.9	68.90	-444.6	-5,487.6	5,327.4	5,231.9	95.48	55.798	
4,300.0	4,254.1	4,258.1	4,258.1	12.5	85.2	69.04	-444.6	-5,487.6	5,322.2	5,225.1	97.09	54.817	
4,325.7	4,279.2	4,283.2	4,283.2	12.6	85.7	69.09	-444.6	-5,487.6	5,320.3	5,222.6	97.70	54.453	
4,330.7	4,284.1	4,288.1	4,288.1	12.6	85.8	69.10	-444.6	-5,487.6	5,319.9	5,222.1	97.83	54.382	
4,400.0	4,352.1	4,356.1	4,356.1	12.8	87.2	69.14	-444.6	-5,487.6	5,315.0	5,215.5	99.49	53.422	
4,429.1	4,380.8	4,384.8	4,384.8	12.9	87.8	69.15	-444.6	-5,487.6	5,313.2	5,213.0	100.17	53.040	
4,500.0	4,450.7	4,454.7	4,454.7	13.1	89.2	69.19	-444.6	-5,487.6	5,309.1	5,207.2	101.83	52.137	
4,527.5	4,478.0	4,482.0	4,482.0	13.2	89.7	69.20	-444.6	-5,487.6	5,307.7	5,205.2	102.47	51.799	
4,600.0	4,549.9	4,553.9	4,553.9	13.4	91.2	69.23	-444.6	-5,487.6	5,304.4	5,200.3	104.14	50.936	
4,626.0	4,575.7	4,579.7	4,579.7	13.5	91.7	69.24	-444.6	-5,487.6	5,303.4	5,198.7	104.73	50.639	
4,700.0	4,649.4	4,653.4	4,653.4	13.6	93.2	69.27	-444.6	-5,487.6	5,301.0	5,194.6	106.41	49.816	
4,724.4	4,673.7	4,677.7	4,677.7	13.7	93.7	69.27	-444.6	-5,487.6	5,300.3	5,193.4	106.96	49.555	
4,800.0	4,749.2	4,753.2	4,753.2	13.8	95.2	69.29	-444.6	-5,487.6	5,298.8	5,190.2	108.65	48.772	
4,822.8	4,772.0	4,776.0	4,776.0	13.9	95.6	69.29	-444.6	-5,487.6	5,298.5	5,189.3	109.15	48.545	
4,900.0	4,849.2	4,853.2	4,853.2	14.0	97.2	69.30	-444.6	-5,487.6	5,297.9	5,187.0	110.84	47.799	
4,921.2	4,870.4	4,874.4	4,874.4	14.1	97.6	69.30	-444.6	-5,487.6	5,297.8	5,186.5	111.30	47.601	
4,925.6	4,874.8	4,878.8	4,878.8	14.1	97.7	-89.51	-444.6	-5,487.6	5,297.8	5,188.9	108.93	48.637	
5,000.0	4,949.2	4,953.2	4,953.2	14.2	99.2	-89.51	-444.6	-5,487.6	5,297.8	5,187.3	110.56	47.918	
5,019.7	4,968.8	4,972.8	4,972.8	14.2	99.6	-89.51	-444.6	-5,487.6	5,297.8	5,186.8	110.99	47.731	

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 SCHAUMBERG 17G-314
<b>Project:</b>	WELD COUNTY, COLORADO	<b>TVD Reference:</b>	KB-EST @ 4633.0usft (Original Well Elev)
<b>Reference Site:</b>	SW NW SEC. 17 T5N R64W 6th P.M.	<b>MD Reference:</b>	KB-EST @ 4633.0usft (Original Well Elev)
<b>Site Error:</b>	0.0 usft	<b>North Reference:</b>	True
<b>Reference Well:</b>	SCHAUMBERG 17G-314	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Well Error:</b>	0.0 usft	<b>Output errors are at</b>	2.00 sigma
<b>Reference Wellbore</b>	ORIGINAL WELLBORE	<b>Database:</b>	EDM 5000.1 Single User Db
<b>Reference Design:</b>	PROPOSAL #1	<b>Offset TVD Reference:</b>	Offset Datum

Offset Design NW SW SEC. 17 T5N R64W 6th P.M. - EXIST VERT BRIGHT #2 - 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	5,049.2	5,053.2	5,053.2	14.3	101.2	-89.51	-444.6	-5,487.6	5,297.8	5,185.1	112.76	46.983		
5,118.1	5,067.3	5,071.3	5,071.3	14.3	101.6	-89.51	-444.6	-5,487.6	5,297.8	5,184.7	113.16	46.818		
5,200.0	5,149.2	5,153.2	5,153.2	14.5	103.2	-89.51	-444.6	-5,487.6	5,297.8	5,182.9	114.96	46.084		
5,216.5	5,165.7	5,169.7	5,169.7	14.5	103.6	-89.51	-444.6	-5,487.6	5,297.8	5,182.5	115.33	45.938		
5,300.0	5,249.2	5,253.2	5,253.2	14.6	105.2	-89.51	-444.6	-5,487.6	5,297.8	5,180.7	117.16	45.217		
5,314.9	5,264.1	5,268.1	5,268.1	14.6	105.5	-89.51	-444.6	-5,487.6	5,297.8	5,180.3	117.49	45.091		
5,400.0	5,349.2	5,353.2	5,353.2	14.8	107.3	-89.51	-444.6	-5,487.6	5,297.8	5,178.5	119.37	44.383		
5,413.4	5,362.5	5,366.5	5,366.5	14.8	107.5	-89.51	-444.6	-5,487.6	5,297.8	5,178.2	119.66	44.273		
5,500.0	5,449.2	5,453.2	5,453.2	14.9	109.3	-89.51	-444.6	-5,487.6	5,297.8	5,176.3	121.57	43.578		
5,511.8	5,461.0	5,465.0	5,465.0	14.9	109.5	-89.51	-444.6	-5,487.6	5,297.8	5,176.0	121.83	43.485		
5,600.0	5,549.2	5,553.2	5,553.2	15.1	111.3	-89.51	-444.6	-5,487.6	5,297.8	5,174.1	123.78	42.802		
5,610.2	5,559.4	5,563.4	5,563.4	15.1	111.5	-89.51	-444.6	-5,487.6	5,297.8	5,173.8	124.00	42.724		
5,700.0	5,649.2	5,653.2	5,653.2	15.2	113.3	-89.51	-444.6	-5,487.6	5,297.8	5,171.9	125.98	42.052		
5,708.6	5,657.8	5,661.8	5,661.8	15.3	113.5	-89.51	-444.6	-5,487.6	5,297.8	5,171.7	126.17	41.988		
5,800.0	5,749.2	5,753.2	5,753.2	15.4	115.3	-89.51	-444.6	-5,487.6	5,297.8	5,169.6	128.19	41.328		
5,807.1	5,756.2	5,760.2	5,760.2	15.4	115.4	-89.51	-444.6	-5,487.6	5,297.8	5,169.5	128.35	41.277		
5,900.0	5,849.2	5,853.2	5,853.2	15.6	117.3	-89.51	-444.6	-5,487.6	5,297.8	5,167.4	130.40	40.628		
5,905.5	5,854.7	5,858.7	5,858.7	15.6	117.4	-89.51	-444.6	-5,487.6	5,297.8	5,167.3	130.52	40.590		
6,000.0	5,949.2	5,953.2	5,953.2	15.7	119.3	-89.51	-444.6	-5,487.6	5,297.8	5,165.2	132.61	39.951		
6,003.9	5,953.1	5,957.1	5,957.1	15.7	119.4	-89.51	-444.6	-5,487.6	5,297.8	5,165.1	132.70	39.925		
6,100.0	6,049.2	6,053.2	6,053.2	15.9	121.3	-89.51	-444.6	-5,487.6	5,297.8	5,163.0	134.82	39.296		
6,102.3	6,051.5	6,055.5	6,055.5	15.9	121.4	-89.51	-444.6	-5,487.6	5,297.8	5,163.0	134.87	39.281		
6,124.6	6,073.8	6,077.8	6,077.8	15.9	121.8	-89.51	-444.6	-5,487.6	5,297.8	5,162.5	135.36	39.138		
6,150.0	6,099.2	6,103.2	6,103.2	16.0	122.3	0.49	-444.6	-5,487.6	5,297.4	5,159.5	137.91	38.412		
6,200.0	6,149.0	6,153.0	6,153.0	16.1	123.3	0.49	-444.6	-5,487.6	5,293.9	5,155.5	138.36	38.263		
6,200.8	6,149.8	6,153.8	6,153.8	16.1	123.4	0.49	-444.6	-5,487.6	5,293.8	5,155.4	138.36	38.261		
6,250.0	6,198.5	6,202.5	6,202.5	16.2	124.3	0.50	-444.6	-5,487.6	5,286.9	5,148.8	138.12	38.277		
6,299.2	6,246.6	6,250.6	6,250.6	16.3	125.3	0.51	-444.6	-5,487.6	5,276.7	5,139.5	137.22	38.455		
6,300.0	6,247.4	6,251.4	6,251.4	16.3	125.3	0.51	-444.6	-5,487.6	5,276.5	5,139.3	137.20	38.459		
6,350.0	6,295.5	6,299.5	6,299.5	16.5	126.3	0.52	-444.6	-5,487.6	5,262.7	5,127.1	135.57	38.819		
6,397.6	6,340.2	6,344.2	6,344.2	16.6	127.2	0.53	-444.6	-5,487.6	5,246.4	5,113.1	133.37	39.339		
6,400.0	6,342.4	6,346.4	6,346.4	16.6	127.2	0.54	-444.6	-5,487.6	5,245.6	5,112.3	133.24	39.369		
6,450.0	6,388.1	6,392.1	6,392.1	16.8	128.1	0.55	-444.6	-5,487.6	5,225.2	5,095.0	130.21	40.130		
6,496.0	6,428.8	6,432.8	6,432.8	17.0	129.0	0.58	-444.6	-5,487.6	5,203.7	5,076.9	126.80	41.038		
6,500.0	6,432.2	6,436.2	6,436.2	17.0	129.0	0.58	-444.6	-5,487.6	5,201.7	5,075.2	126.48	41.126		
6,550.0	6,474.6	6,478.6	6,478.6	17.3	129.9	0.61	-444.6	-5,487.6	5,175.2	5,053.1	122.07	42.394		
6,594.5	6,510.7	6,514.7	6,514.7	17.5	130.6	0.64	-444.6	-5,487.6	5,149.2	5,031.6	117.60	43.787		
6,600.0	6,515.0	6,519.0	6,519.0	17.6	130.7	0.64	-444.6	-5,487.6	5,145.8	5,028.8	117.00	43.980		
6,650.0	6,553.3	6,557.3	6,557.3	17.9	131.5	0.69	-444.6	-5,487.6	5,113.6	5,002.3	111.29	45.948		
6,692.9	6,584.3	6,588.3	6,588.3	18.2	132.1	0.73	-444.6	-5,487.6	5,084.0	4,978.1	105.91	48.004		
6,700.0	6,589.2	6,593.2	6,593.2	18.2	132.2	0.74	-444.6	-5,487.6	5,078.9	4,973.9	104.97	48.383		
6,750.0	6,622.7	6,626.7	6,626.7	18.6	132.9	0.80	-444.6	-5,487.6	5,041.7	4,943.6	98.08	51.403		
6,791.3	6,648.3	6,652.3	6,652.3	19.0	133.4	0.87	-444.6	-5,487.6	5,009.3	4,917.3	91.99	54.457		
6,800.0	6,653.4	6,657.4	6,657.4	19.1	133.5	0.89	-444.6	-5,487.6	5,002.3	4,911.7	90.66	55.175		
6,850.0	6,681.4	6,685.4	6,685.4	19.6	134.0	0.99	-444.6	-5,487.6	4,960.9	4,878.1	82.77	59.938		
6,889.7	6,701.5	6,705.5	6,705.5	20.1	134.4	1.10	-444.6	-5,487.6	4,926.6	4,850.4	76.19	64.664		
6,900.0	6,706.3	6,710.3	6,710.3	20.2	134.5	1.13	-444.6	-5,487.6	4,917.6	4,843.1	74.45	66.050		
6,950.0	6,728.2	6,732.2	6,732.2	20.9	135.0	1.31	-444.6	-5,487.6	4,872.6	4,806.8	65.79	74.065		
6,988.2	6,742.8	6,746.8	6,746.8	21.5	135.3	1.51	-444.6	-5,487.6	4,837.3	4,778.4	59.00	81.995		
7,000.0	6,746.9	6,750.9	6,750.9	21.6	135.4	1.58	-444.6	-5,487.6	4,826.3	4,769.4	56.87	84.868		
7,050.0	6,762.4	6,766.4	6,766.4	22.5	135.7	1.98	-444.6	-5,487.6	4,778.7	4,730.9	47.82	99.924		
7,086.6	6,771.5	6,775.5	6,775.5	23.1	135.9	2.43	-444.6	-5,487.6	4,743.3	4,702.0	41.27	114.921		

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 SCHAUMBERG 17G-314
<b>Project:</b>	WELD COUNTY, COLORADO	<b>TVD Reference:</b>	KB-EST @ 4633.0usft (Original Well Elev)
<b>Reference Site:</b>	SW NW SEC. 17 T5N R64W 6th P.M.	<b>MD Reference:</b>	KB-EST @ 4633.0usft (Original Well Elev)
<b>Site Error:</b>	0.0 usft	<b>North Reference:</b>	True
<b>Reference Well:</b>	SCHAUMBERG 17G-314	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Well Error:</b>	0.0 usft	<b>Output errors are at</b>	2.00 sigma
<b>Reference Wellbore</b>	ORIGINAL WELLBORE	<b>Database:</b>	EDM 5000.1 Single User Db
<b>Reference Design:</b>	PROPOSAL #1	<b>Offset TVD Reference:</b>	Offset Datum

Offset Design NW SW SEC. 17 T5N R64W 6th P.M. - EXIST VERT BRIGHT #2 - 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	
7,100.0	6,774.4	6,778.4	6,778.4	23.3	135.9	2.65	-444.6	-5,487.6	4,730.2	4,691.3	38.94	121.478	
7,150.0	6,783.1	6,787.1	6,787.1	24.3	136.1	4.00	-444.6	-5,487.6	4,681.0	4,649.7	31.25	149.810	
7,185.0	6,787.1	6,791.1	6,791.1	25.0	136.2	6.19	-444.6	-5,487.6	4,646.2	4,616.9	29.34	158.378	
7,200.0	6,788.3	6,792.3	6,792.3	25.3	136.2	8.06	-444.6	-5,487.6	4,631.3	4,599.8	31.47	147.150	
7,252.3	6,790.0	6,794.0	6,794.0	26.3	136.2	110.77	-444.6	-5,487.6	4,579.0	4,427.3	151.69	30.186	
7,283.4	6,789.9	6,793.9	6,793.9	27.0	136.2	110.64	-444.6	-5,487.6	4,547.9	4,395.4	152.46	29.830	
7,300.0	6,789.8	6,793.8	6,793.8	27.3	136.2	110.59	-444.6	-5,487.6	4,531.3	4,378.5	152.86	29.644	
7,381.9	6,789.5	6,793.5	6,793.5	29.1	136.2	110.25	-444.6	-5,487.6	4,449.4	4,294.5	154.94	28.716	
7,400.0	6,789.4	6,793.4	6,793.4	29.5	136.2	110.20	-444.6	-5,487.6	4,431.3	4,275.9	155.38	28.519	
7,480.3	6,789.1	6,793.1	6,793.1	31.4	136.2	109.86	-444.6	-5,487.6	4,351.0	4,193.5	157.50	27.626	
7,500.0	6,789.1	6,793.1	6,793.1	31.8	136.2	109.81	-444.6	-5,487.6	4,331.3	4,173.3	157.99	27.416	
7,578.7	6,788.8	6,792.8	6,792.8	33.7	136.2	109.48	-444.6	-5,487.6	4,252.6	4,092.5	160.12	26.559	
7,600.0	6,788.7	6,792.7	6,792.7	34.2	136.2	109.41	-444.6	-5,487.6	4,231.3	4,070.7	160.67	26.336	
7,677.1	6,788.4	6,792.4	6,792.4	36.1	136.2	109.09	-444.6	-5,487.6	4,154.2	3,991.4	162.79	25.518	
7,700.0	6,788.3	6,792.3	6,792.3	36.7	136.2	109.02	-444.6	-5,487.6	4,131.3	3,967.9	163.40	25.284	
7,775.6	6,788.0	6,792.0	6,792.0	38.6	136.2	108.69	-444.6	-5,487.6	4,055.8	3,890.2	165.52	24.503	
7,800.0	6,787.9	6,791.9	6,791.9	39.2	136.2	108.61	-444.6	-5,487.6	4,031.3	3,865.2	166.18	24.259	
7,874.0	6,787.6	6,791.6	6,791.6	41.0	136.2	108.30	-444.6	-5,487.6	3,957.3	3,789.1	168.28	23.516	
7,900.0	6,787.6	6,791.6	6,791.6	41.7	136.2	108.21	-444.6	-5,487.6	3,931.3	3,762.3	169.00	23.262	
7,972.4	6,787.3	6,791.3	6,791.3	43.6	136.2	107.90	-444.6	-5,487.6	3,858.9	3,687.8	171.08	22.556	
8,000.0	6,787.2	6,791.2	6,791.2	44.3	136.2	107.80	-444.6	-5,487.6	3,831.4	3,659.5	171.85	22.294	
8,070.8	6,786.9	6,790.9	6,790.9	46.1	136.2	107.49	-444.6	-5,487.6	3,760.5	3,586.6	173.91	21.623	
8,100.0	6,786.8	6,790.8	6,790.8	46.9	136.2	107.39	-444.6	-5,487.6	3,731.4	3,556.6	174.73	21.354	
8,169.3	6,786.5	6,790.5	6,790.5	48.7	136.2	107.09	-444.6	-5,487.6	3,662.1	3,485.3	176.76	20.718	
8,200.0	6,786.4	6,790.4	6,790.4	49.5	136.2	106.98	-444.6	-5,487.6	3,631.4	3,453.7	177.64	20.442	
8,267.7	6,786.1	6,790.1	6,790.1	51.3	136.2	106.68	-444.6	-5,487.6	3,563.7	3,384.0	179.64	19.838	
8,300.0	6,786.0	6,790.0	6,790.0	52.1	136.1	106.56	-444.6	-5,487.6	3,531.4	3,350.8	180.57	19.557	
8,366.1	6,785.8	6,789.8	6,789.8	53.9	136.1	106.27	-444.6	-5,487.6	3,465.3	3,282.7	182.53	18.985	
8,400.0	6,785.6	6,789.6	6,789.6	54.8	136.1	106.14	-444.6	-5,487.6	3,431.4	3,247.9	183.51	18.699	
8,464.5	6,785.4	6,789.4	6,789.4	56.5	136.1	105.85	-444.6	-5,487.6	3,366.8	3,181.4	185.43	18.157	
8,500.0	6,785.3	6,789.3	6,789.3	57.5	136.1	105.72	-444.6	-5,487.6	3,331.4	3,144.9	186.47	17.866	
8,563.0	6,785.0	6,789.0	6,789.0	59.2	136.1	105.43	-444.6	-5,487.6	3,268.4	3,080.1	188.36	17.352	
8,600.0	6,784.9	6,788.9	6,788.9	60.2	136.1	105.29	-444.6	-5,487.6	3,231.4	3,042.0	189.44	17.057	
8,661.4	6,784.6	6,788.6	6,788.6	61.8	136.1	105.01	-444.6	-5,487.6	3,170.0	2,978.7	191.29	16.572	
8,700.0	6,784.5	6,788.5	6,788.5	62.9	136.1	104.86	-444.6	-5,487.6	3,131.4	2,939.0	192.43	16.273	
8,759.8	6,784.3	6,788.3	6,788.3	64.5	136.1	104.59	-444.6	-5,487.6	3,071.6	2,877.4	194.23	15.814	
8,800.0	6,784.1	6,788.1	6,788.1	65.6	136.1	104.43	-444.6	-5,487.6	3,031.4	2,836.0	195.43	15.512	
8,858.2	6,783.9	6,787.9	6,787.9	67.1	136.1	104.16	-444.6	-5,487.6	2,973.2	2,776.0	197.18	15.078	
8,900.0	6,783.7	6,787.7	6,787.7	68.3	136.1	103.99	-444.6	-5,487.6	2,931.4	2,733.0	198.43	14.773	
8,956.7	6,783.5	6,787.5	6,787.5	69.8	136.1	103.73	-444.6	-5,487.6	2,874.8	2,674.6	200.14	14.363	
9,000.0	6,783.3	6,787.3	6,787.3	71.0	136.1	103.55	-444.6	-5,487.6	2,831.5	2,630.0	201.44	14.056	
9,055.1	6,783.1	6,787.1	6,787.1	72.5	136.1	103.30	-444.6	-5,487.6	2,776.4	2,573.3	203.11	13.669	
9,100.0	6,782.9	6,786.9	6,786.9	73.7	136.1	103.11	-444.6	-5,487.6	2,731.5	2,527.0	204.46	13.360	
9,153.5	6,782.7	6,786.7	6,786.7	75.2	136.1	102.86	-444.6	-5,487.6	2,678.0	2,471.9	206.08	12.995	
9,200.0	6,782.6	6,786.6	6,786.6	76.5	136.1	102.66	-444.6	-5,487.6	2,631.5	2,424.0	207.48	12.683	
9,251.9	6,782.4	6,786.4	6,786.4	77.9	136.1	102.42	-444.6	-5,487.6	2,579.5	2,370.5	209.06	12.339	
9,300.0	6,782.2	6,786.2	6,786.2	79.2	136.1	102.21	-444.6	-5,487.6	2,531.5	2,321.0	210.50	12.026	
9,350.4	6,782.0	6,786.0	6,786.0	80.6	136.1	101.98	-444.6	-5,487.6	2,481.1	2,269.1	212.03	11.702	
9,400.0	6,781.8	6,785.8	6,785.8	82.0	136.1	101.76	-444.6	-5,487.6	2,431.5	2,218.0	213.53	11.387	
9,448.8	6,781.6	6,785.6	6,785.6	83.3	136.1	101.53	-444.6	-5,487.6	2,382.7	2,167.7	215.01	11.082	
9,500.0	6,781.4	6,785.4	6,785.4	84.7	136.1	101.31	-444.6	-5,487.6	2,331.5	2,115.0	216.56	10.766	
9,547.2	6,781.2	6,785.2	6,785.2	86.0	136.1	101.09	-444.6	-5,487.6	2,284.3	2,066.3	217.99	10.479	

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 SCHAUMBERG 17G-314
<b>Project:</b>	WELD COUNTY, COLORADO	<b>TVD Reference:</b>	KB-EST @ 4633.0usft (Original Well Elev)
<b>Reference Site:</b>	SW NW SEC. 17 T5N R64W 6th P.M.	<b>MD Reference:</b>	KB-EST @ 4633.0usft (Original Well Elev)
<b>Site Error:</b>	0.0 usft	<b>North Reference:</b>	True
<b>Reference Well:</b>	SCHAUMBERG 17G-314	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Well Error:</b>	0.0 usft	<b>Output errors are at</b>	2.00 sigma
<b>Reference Wellbore</b>	ORIGINAL WELLBORE	<b>Database:</b>	EDM 5000.1 Single User Db
<b>Reference Design:</b>	PROPOSAL #1	<b>Offset TVD Reference:</b>	Offset Datum

Offset Design NW SW SEC. 17 T5N R64W 6th P.M. - EXIST VERT BRIGHT #2 - 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	
9,600.0	6,781.0	6,785.0	6,785.0	87.5	136.0	100.85	-444.6	-5,487.6	2,231.6	2,012.0	219.59	10.163	
9,645.6	6,780.8	6,784.8	6,784.8	88.7	136.0	100.64	-444.6	-5,487.6	2,185.9	1,964.9	220.97	9.892	
9,700.0	6,780.6	6,784.6	6,784.6	90.2	136.0	100.39	-444.6	-5,487.6	2,131.6	1,909.0	222.61	9.575	
9,744.1	6,780.4	6,784.4	6,784.4	91.4	136.0	100.18	-444.6	-5,487.6	2,087.5	1,863.6	223.95	9.321	
9,800.0	6,780.2	6,784.2	6,784.2	93.0	136.0	99.93	-444.6	-5,487.6	2,031.6	1,806.0	225.64	9.004	
9,842.5	6,780.1	6,784.1	6,784.1	94.2	136.0	99.73	-444.6	-5,487.6	1,989.1	1,762.2	226.93	8.765	
9,900.0	6,779.8	6,783.8	6,783.8	95.7	136.0	99.46	-444.6	-5,487.6	1,931.6	1,703.0	228.66	8.448	
9,940.9	6,779.7	6,783.7	6,783.7	96.9	136.0	99.27	-444.6	-5,487.6	1,890.7	1,660.8	229.90	8.224	
10,000.0	6,779.4	6,783.4	6,783.4	98.5	136.0	98.99	-444.6	-5,487.6	1,831.7	1,600.0	231.68	7.906	
10,039.3	6,779.3	6,783.3	6,783.3	99.6	136.0	98.80	-444.6	-5,487.6	1,792.3	1,559.5	232.87	7.697	
10,100.0	6,779.0	6,783.0	6,783.0	101.3	136.0	98.52	-444.6	-5,487.6	1,731.7	1,497.0	234.70	7.378	
10,137.8	6,778.9	6,782.9	6,782.9	102.3	136.0	98.34	-444.6	-5,487.6	1,693.9	1,458.1	235.84	7.183	
10,200.0	6,778.7	6,782.7	6,782.7	104.1	136.0	98.05	-444.6	-5,487.6	1,631.7	1,394.0	237.70	6.865	
10,236.2	6,778.5	6,782.5	6,782.5	105.1	136.0	97.87	-444.6	-5,487.6	1,595.5	1,356.8	238.79	6.682	
10,300.0	6,778.3	6,782.3	6,782.3	106.8	136.0	97.57	-444.6	-5,487.6	1,531.8	1,291.1	240.71	6.364	
10,334.6	6,778.1	6,782.1	6,782.1	107.8	136.0	97.40	-444.6	-5,487.6	1,497.2	1,255.4	241.75	6.193	
10,400.0	6,777.9	6,781.9	6,781.9	109.6	136.0	97.09	-444.6	-5,487.6	1,431.8	1,188.1	243.70	5.875	
10,433.0	6,777.7	6,781.7	6,781.7	110.5	136.0	96.93	-444.6	-5,487.6	1,398.8	1,154.1	244.69	5.717	
10,500.0	6,777.5	6,781.5	6,781.5	112.4	136.0	96.61	-444.6	-5,487.6	1,331.9	1,085.2	246.69	5.399	
10,531.5	6,777.3	6,781.3	6,781.3	113.3	136.0	96.46	-444.6	-5,487.6	1,300.4	1,052.8	247.63	5.251	
10,600.0	6,777.1	6,781.1	6,781.1	115.2	136.0	96.13	-444.6	-5,487.6	1,231.9	982.3	249.67	4.934	
10,629.9	6,777.0	6,781.0	6,781.0	116.0	136.0	95.98	-444.6	-5,487.6	1,202.1	951.5	250.56	4.798	
10,700.0	6,776.7	6,780.7	6,780.7	117.9	136.0	95.64	-444.6	-5,487.6	1,132.0	879.4	252.63	4.481	
10,728.3	6,776.6	6,780.6	6,780.6	118.7	136.0	95.50	-444.6	-5,487.6	1,103.7	850.2	253.47	4.354	
10,800.0	6,776.3	6,780.3	6,780.3	120.7	136.0	95.16	-444.6	-5,487.6	1,032.1	776.5	255.59	4.038	
10,826.7	6,776.2	6,780.2	6,780.2	121.5	136.0	95.02	-444.6	-5,487.6	1,005.4	749.0	256.38	3.921	
10,900.0	6,775.9	6,779.9	6,779.9	123.5	135.9	94.66	-444.6	-5,487.6	932.2	673.7	258.54	3.606	
10,925.2	6,775.8	6,779.8	6,779.8	124.2	135.9	94.54	-444.6	-5,487.6	907.1	647.8	259.28	3.498	
11,000.0	6,775.5	6,779.5	6,779.5	126.3	135.9	94.17	-444.6	-5,487.6	832.3	570.9	261.47	3.183	
11,023.6	6,775.4	6,779.4	6,779.4	126.9	135.9	94.05	-444.6	-5,487.6	808.8	546.6	262.16	3.085	
11,100.0	6,775.1	6,779.1	6,779.1	129.1	135.9	93.68	-444.6	-5,487.6	732.5	468.1	264.39	2.771	
11,122.0	6,775.0	6,779.0	6,779.0	129.7	135.9	93.57	-444.6	-5,487.6	710.5	445.5	265.03	2.681	
11,200.0	6,774.7	6,778.7	6,778.7	131.9	135.9	93.18	-444.6	-5,487.6	632.7	365.5	267.29	2.367	
11,220.4	6,774.6	6,778.6	6,778.6	132.4	135.9	93.08	-444.6	-5,487.6	612.3	344.5	267.88	2.286	
11,300.0	6,774.3	6,778.3	6,778.3	134.6	135.9	92.68	-444.6	-5,487.6	533.0	262.9	270.18	1.973	
11,318.9	6,774.2	6,778.2	6,778.2	135.2	135.9	92.59	-444.6	-5,487.6	514.2	243.5	270.72	1.900	
11,400.0	6,773.9	6,777.9	6,777.9	137.4	135.9	92.18	-444.6	-5,487.6	433.5	160.4	273.05	1.588	
11,417.3	6,773.8	6,777.8	6,777.8	137.9	135.9	92.09	-444.6	-5,487.6	416.3	142.8	273.54	1.522	
11,500.0	6,773.5	6,777.5	6,777.5	140.2	135.9	91.68	-444.6	-5,487.6	334.2	58.3	275.90	1.211 Level 2	
11,515.7	6,773.4	6,777.4	6,777.4	140.7	135.9	91.60	-444.6	-5,487.6	318.6	42.3	276.35	1.153 Level 2	
11,600.0	6,773.1	6,777.1	6,777.1	143.0	135.9	91.17	-444.6	-5,487.6	235.5	-43.2	278.74	0.845 Level 1	
11,614.1	6,773.0	6,777.0	6,777.0	143.4	135.9	91.10	-444.6	-5,487.6	221.7	-57.5	279.14	0.794 Level 1	
11,700.0	6,772.7	6,776.7	6,776.7	145.8	135.9	90.67	-444.6	-5,487.6	138.8	-142.8	281.55	0.493 Level 1	
11,712.6	6,772.6	6,776.6	6,776.6	146.2	135.9	90.60	-444.6	-5,487.6	126.9	-155.0	281.91	0.450 Level 1	
11,800.0	6,772.3	6,776.3	6,776.3	148.6	135.9	90.16	-444.6	-5,487.6	55.0	-229.3	284.35	0.194 Level 1	
11,811.0	6,772.2	6,776.2	6,776.2	148.9	135.9	90.10	-444.6	-5,487.6	49.7	-235.0	284.66	0.174 Level 1	
11,831.1	6,772.1	6,776.1	6,776.1	149.5	135.9	90.00	-444.6	-5,487.6	45.4	-239.8	285.22	0.159 Level 1, CC, ES, SF	
11,900.0	6,771.9	6,775.9	6,775.9	151.4	135.9	89.65	-444.6	-5,487.6	82.5	-204.6	287.13	0.287 Level 1	
11,909.4	6,771.8	6,775.8	6,775.8	151.7	135.9	89.60	-444.6	-5,487.6	90.5	-196.9	287.39	0.315 Level 1	
12,000.0	6,771.5	6,775.5	6,775.5	154.2	135.9	89.14	-444.6	-5,487.6	174.9	-115.0	289.88	0.603 Level 1	
12,007.8	6,771.4	6,775.4	6,775.4	154.4	135.9	89.10	-444.6	-5,487.6	182.5	-107.6	290.10	0.629 Level 1	
12,100.0	6,771.1	6,775.1	6,775.1	157.0	135.8	88.63	-444.6	-5,487.6	272.7	-19.9	292.61	0.932 Level 1	

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 SCHAUMBERG 17G-314
<b>Project:</b>	WELD COUNTY, COLORADO	<b>TVD Reference:</b>	KB-EST @ 4633.0usft (Original Well Elev)
<b>Reference Site:</b>	SW NW SEC. 17 T5N R64W 6th P.M.	<b>MD Reference:</b>	KB-EST @ 4633.0usft (Original Well Elev)
<b>Site Error:</b>	0.0 usft	<b>North Reference:</b>	True
<b>Reference Well:</b>	SCHAUMBERG 17G-314	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Well Error:</b>	0.0 usft	<b>Output errors are at</b>	2.00 sigma
<b>Reference Wellbore</b>	ORIGINAL WELLBORE	<b>Database:</b>	EDM 5000.1 Single User Db
<b>Reference Design:</b>	PROPOSAL #1	<b>Offset TVD Reference:</b>	Offset Datum

<b>Offset Design</b> NW SW SEC. 17 T5N R64W 6th P.M. - EXIST VERT BRIGHT #2 - Wellbore #1 - Design #1												<b>Offset Site Error:</b>	0.0 usft
Survey Program: 0-INC												<b>Offset Well Error:</b>	0.0 usft
Reference	Offset	Semi Major Axis		Distance									
Measured Depth (usft)	Vertical Depth (usft)	Measured Depth (usft)	Vertical Depth (usft)	Reference (usft)	Offset (usft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (usft)	+E/-W (usft)	Between Centres (usft)	Between Ellipses (usft)	Minimum Separation (usft)	Separation Factor	Warning
12,106.3	6,771.0	6,775.0	6,775.0	157.2	135.8	88.59	-444.6	-5,487.6	278.9	-13.9	292.78	0.953	Level 1
12,200.0	6,770.7	6,774.7	6,774.7	159.8	135.8	88.11	-444.6	-5,487.6	371.7	76.3	295.32	1.259	Level 3
12,204.7	6,770.6	6,774.6	6,774.6	159.9	135.8	88.09	-444.6	-5,487.6	376.3	80.9	295.45	1.274	Level 3
12,300.0	6,770.3	6,774.3	6,774.3	162.6	135.8	87.60	-444.6	-5,487.6	471.1	173.1	298.01	1.581	
12,303.1	6,770.2	6,774.2	6,774.2	162.7	135.8	87.58	-444.6	-5,487.6	474.2	176.1	298.09	1.591	
12,361.7	6,770.0	6,774.0	6,774.0	164.3	135.8	87.28	-444.6	-5,487.6	532.5	232.9	299.65	1.777	



# Anticollision Report



<b>Company:</b>	PDC ENERGY	<b>Local Co-ordinate Reference:</b>	Well SCHAUMBERG 17G-314
<b>Project:</b>	WELD COUNTY, COLORADO	<b>TVD Reference:</b>	KB-EST @ 4633.0usft (Original Well Elev)
<b>Reference Site:</b>	SW NW SEC. 17 T5N R64W 6th P.M.	<b>MD Reference:</b>	KB-EST @ 4633.0usft (Original Well Elev)
<b>Site Error:</b>	0.0 usft	<b>North Reference:</b>	True
<b>Reference Well:</b>	SCHAUMBERG 17G-314	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Well Error:</b>	0.0 usft	<b>Output errors are at</b>	2.00 sigma
<b>Reference Wellbore</b>	ORIGINAL WELLBORE	<b>Database:</b>	EDM 5000.1 Single User Db
<b>Reference Design:</b>	PROPOSAL #1	<b>Offset TVD Reference:</b>	Offset Datum

Offset Design NW SW SEC. 17 T5N R64W 6th P.M. - EXIST VERT DUNN #22-18 - Wellbore #1 - Design #1													Offset Site Error:	0.0 usft
Survey Program: 0-INC													Offset Well Error:	0.0 usft
Reference		Offset		Semi Major Axis			Distance							Warning
Measured Depth (usft)	Vertical Depth (usft)	Measured Depth (usft)	Vertical Depth (usft)	Reference (usft)	Offset (usft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (usft)	+E/-W (usft)	Between Centres (usft)	Between Ellipses (usft)	Minimum Separation (usft)	Separation Factor		
0.0	0.0	1.0	1.0	0.0	0.0	-93.01	-226.2	-4,303.9	4,309.8					
98.4	98.4	99.4	99.4	0.1	1.2	-93.01	-226.2	-4,303.9	4,309.8	4,308.6	1.27	3,382.662		
100.0	100.0	101.0	101.0	0.1	1.2	-93.01	-226.2	-4,303.9	4,309.8	4,308.5	1.31	3,301.025		
196.8	196.8	197.8	197.8	0.3	3.4	-93.01	-226.2	-4,303.9	4,309.8	4,306.1	3.74	1,151.232		
200.0	200.0	201.0	201.0	0.3	3.5	-93.01	-226.2	-4,303.9	4,309.8	4,306.0	3.82	1,127.984		
295.3	295.3	296.3	296.3	0.5	5.5	-93.01	-226.2	-4,303.9	4,309.8	4,303.8	6.02	716.477		
300.0	300.0	301.0	301.0	0.5	5.6	-93.01	-226.2	-4,303.9	4,309.8	4,303.7	6.12	703.786		
393.7	393.7	394.7	394.7	0.8	7.5	-93.01	-226.2	-4,303.9	4,309.8	4,301.6	8.25	522.533		
400.0	400.0	401.0	401.0	0.8	7.6	-93.01	-226.2	-4,303.9	4,309.8	4,301.5	8.39	513.647		
492.1	492.1	493.1	493.1	1.0	9.5	-93.01	-226.2	-4,303.9	4,309.8	4,299.4	10.47	411.754		
500.0	500.0	501.0	501.0	1.0	9.6	-93.01	-226.2	-4,303.9	4,309.8	4,299.2	10.64	404.891		
590.5	590.5	591.5	591.5	1.2	11.5	-93.01	-226.2	-4,303.9	4,309.8	4,297.2	12.68	339.903		
600.0	600.0	601.0	601.0	1.2	11.7	-93.01	-226.2	-4,303.9	4,309.8	4,297.0	12.89	334.304		
689.0	689.0	690.0	690.0	1.4	13.5	-93.01	-226.2	-4,303.9	4,309.8	4,295.0	14.89	289.472		
700.0	700.0	701.0	701.0	1.4	13.7	-93.01	-226.2	-4,303.9	4,309.8	4,294.7	15.14	284.741		
787.4	787.4	788.4	788.4	1.6	15.5	-93.01	-226.2	-4,303.9	4,309.8	4,292.7	17.10	252.105		
800.0	800.0	801.0	801.0	1.7	15.7	-93.01	-226.2	-4,303.9	4,309.8	4,292.5	17.38	248.007		
885.8	885.8	886.8	886.8	1.9	17.4	-93.01	-226.2	-4,303.9	4,309.8	4,290.5	19.30	223.299		
900.0	900.0	901.0	901.0	1.9	17.7	-93.01	-226.2	-4,303.9	4,309.8	4,290.2	19.62	219.684		
984.2	984.2	985.2	985.2	2.1	19.4	-93.01	-226.2	-4,303.9	4,309.8	4,288.3	21.51	200.409		
1,000.0	1,000.0	1,001.0	1,001.0	2.1	19.7	-93.01	-226.2	-4,303.9	4,309.8	4,288.0	21.86	197.176		
1,082.7	1,082.7	1,083.7	1,083.7	2.3	21.4	-93.01	-226.2	-4,303.9	4,309.8	4,286.1	23.71	181.782		
1,100.0	1,100.0	1,101.0	1,101.0	2.3	21.8	-93.01	-226.2	-4,303.9	4,309.8	4,285.7	24.10	178.856		
1,181.1	1,181.1	1,182.1	1,182.1	2.5	23.4	-93.01	-226.2	-4,303.9	4,309.8	4,283.9	25.91	166.326		
1,200.0	1,200.0	1,201.0	1,201.0	2.6	23.8	-93.01	-226.2	-4,303.9	4,309.8	4,283.5	26.33	163.655		
1,279.5	1,279.5	1,280.5	1,280.5	2.7	25.4	-93.01	-226.2	-4,303.9	4,309.8	4,281.7	28.11	153.295		
1,300.0	1,300.0	1,301.0	1,301.0	2.8	25.8	-93.01	-226.2	-4,303.9	4,309.8	4,281.3	28.57	150.837		
1,377.9	1,377.9	1,378.9	1,378.9	3.0	27.3	-93.01	-226.2	-4,303.9	4,309.8	4,279.5	30.32	142.159		
1,400.0	1,400.0	1,401.0	1,401.0	3.0	27.8	-93.01	-226.2	-4,303.9	4,309.8	4,279.0	30.81	139.883		
1,476.4	1,476.4	1,477.4	1,477.4	3.2	29.3	-93.01	-226.2	-4,303.9	4,309.8	4,277.3	32.52	132.532		
1,500.0	1,500.0	1,501.0	1,501.0	3.2	29.8	-93.01	-226.2	-4,303.9	4,309.8	4,276.8	33.05	130.413		
1,574.8	1,574.8	1,575.8	1,575.8	3.4	31.3	-93.01	-226.2	-4,303.9	4,309.8	4,275.1	34.72	124.128		
1,600.0	1,600.0	1,601.0	1,601.0	3.5	31.8	-93.01	-226.2	-4,303.9	4,309.8	4,274.6	35.28	122.144		
1,673.2	1,673.2	1,674.2	1,674.2	3.6	33.3	-93.01	-226.2	-4,303.9	4,309.8	4,272.9	36.92	116.726		
1,700.0	1,700.0	1,701.0	1,701.0	3.7	33.8	-93.01	-226.2	-4,303.9	4,309.8	4,272.3	37.52	114.862		
1,771.6	1,771.6	1,772.6	1,772.6	3.9	35.3	-93.01	-226.2	-4,303.9	4,309.8	4,270.7	39.12	110.157		
1,800.0	1,800.0	1,801.0	1,801.0	3.9	35.8	-93.01	-226.2	-4,303.9	4,309.8	4,270.1	39.76	108.400		
1,870.1	1,870.1	1,871.1	1,871.1	4.1	37.2	65.81	-226.2	-4,303.9	4,309.5	4,268.2	41.30	104.337		
1,900.0	1,900.0	1,901.0	1,901.0	4.1	37.9	65.83	-226.2	-4,303.9	4,309.1	4,267.2	41.96	102.692		
1,968.5	1,968.4	1,969.4	1,969.4	4.2	39.2	65.89	-226.2	-4,303.9	4,307.8	4,264.4	43.45	99.149		
2,000.0	1,999.8	2,000.8	2,000.8	4.3	39.9	65.93	-226.2	-4,303.9	4,307.0	4,262.9	44.13	97.600		
2,066.9	2,066.5	2,067.5	2,067.5	4.4	41.2	66.04	-226.2	-4,303.9	4,304.8	4,259.2	45.58	94.451		
2,100.0	2,099.5	2,100.5	2,100.5	4.5	41.9	66.10	-226.2	-4,303.9	4,303.4	4,257.1	46.29	92.968		
2,165.3	2,164.4	2,165.4	2,165.4	4.6	43.2	66.25	-226.2	-4,303.9	4,300.4	4,252.7	47.70	90.153		
2,200.0	2,198.7	2,199.7	2,199.7	4.7	43.9	66.34	-226.2	-4,303.9	4,298.5	4,250.0	48.45	88.728		
2,263.8	2,261.8	2,262.8	2,262.8	4.8	45.1	66.53	-226.2	-4,303.9	4,294.6	4,244.8	49.82	86.197		
2,300.0	2,297.5	2,298.5	2,298.5	4.9	45.8	66.65	-226.2	-4,303.9	4,292.2	4,241.6	50.60	84.822		
2,362.2	2,358.6	2,359.6	2,359.6	5.0	47.1	66.87	-226.2	-4,303.9	4,287.6	4,235.6	51.95	82.533		
2,400.0	2,395.6	2,396.6	2,396.6	5.1	47.8	67.02	-226.2	-4,303.9	4,284.6	4,231.8	52.76	81.201		
2,460.6	2,454.9	2,455.9	2,455.9	5.3	49.0	67.17	-226.2	-4,303.9	4,279.6	4,225.4	54.12	79.076		
2,500.0	2,493.4	2,494.4	2,494.4	5.4	49.8	67.27	-226.2	-4,303.9	4,276.3	4,221.3	55.00	77.752		
2,559.0	2,551.2	2,552.2	2,552.2	5.6	51.0	67.42	-226.2	-4,303.9	4,271.5	4,215.2	56.33	75.828		

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 SCHAUMBERG 17G-314
<b>Project:</b>	WELD COUNTY, COLORADO	<b>TVD Reference:</b>	KB-EST @ 4633.0usft (Original Well Elev)
<b>Reference Site:</b>	SW NW SEC. 17 T5N R64W 6th P.M.	<b>MD Reference:</b>	KB-EST @ 4633.0usft (Original Well Elev)
<b>Site Error:</b>	0.0 usft	<b>North Reference:</b>	True
<b>Reference Well:</b>	SCHAUMBERG 17G-314	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Well Error:</b>	0.0 usft	<b>Output errors are at</b>	2.00 sigma
<b>Reference Wellbore</b>	ORIGINAL WELLBORE	<b>Database:</b>	EDM 5000.1 Single User Db
<b>Reference Design:</b>	PROPOSAL #1	<b>Offset TVD Reference:</b>	Offset Datum

Offset Design NW SW SEC. 17 T5N R64W 6th P.M. - EXIST VERT DUNN #22-18 - 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	
2,600.0	2,591.3	2,592.3	2,592.3	5.7	51.8	67.52	-226.2	-4,303.9	4,268.2	4,210.9	57.26	74.547	
2,657.5	2,647.5	2,648.5	2,648.5	5.9	52.9	67.67	-226.2	-4,303.9	4,263.6	4,205.0	58.56	72.804	
2,700.0	2,689.1	2,690.1	2,690.1	6.0	53.7	67.78	-226.2	-4,303.9	4,260.1	4,200.6	59.53	71.563	
2,755.9	2,743.7	2,744.7	2,744.7	6.2	54.8	67.92	-226.2	-4,303.9	4,255.7	4,194.9	60.81	69.983	
2,800.0	2,786.9	2,787.9	2,787.9	6.4	55.7	68.03	-226.2	-4,303.9	4,252.2	4,190.3	61.82	68.782	
2,854.3	2,840.0	2,841.0	2,841.0	6.6	56.8	68.17	-226.2	-4,303.9	4,247.9	4,184.8	63.07	67.349	
2,900.0	2,884.7	2,885.7	2,885.7	6.7	57.7	68.29	-226.2	-4,303.9	4,244.3	4,180.2	64.13	66.187	
2,952.7	2,936.3	2,937.3	2,937.3	6.9	58.7	68.42	-226.2	-4,303.9	4,240.2	4,174.8	65.35	64.886	
3,000.0	2,982.5	2,983.5	2,983.5	7.1	59.6	68.54	-226.2	-4,303.9	4,236.5	4,170.0	66.44	63.761	
3,051.2	3,032.6	3,033.6	3,033.6	7.3	60.6	68.67	-226.2	-4,303.9	4,232.5	4,164.9	67.63	62.580	
3,100.0	3,080.3	3,081.3	3,081.3	7.5	61.6	68.80	-226.2	-4,303.9	4,228.8	4,160.0	68.77	61.491	
3,149.6	3,128.8	3,129.8	3,129.8	7.7	62.6	68.93	-226.2	-4,303.9	4,225.0	4,155.1	69.93	60.418	
3,200.0	3,178.1	3,179.1	3,179.1	7.9	63.6	69.06	-226.2	-4,303.9	4,221.2	4,150.1	71.11	59.363	
3,248.0	3,225.1	3,226.1	3,226.1	8.1	64.5	69.18	-226.2	-4,303.9	4,217.5	4,145.3	72.23	58.387	
3,300.0	3,276.0	3,277.0	3,277.0	8.3	65.5	69.32	-226.2	-4,303.9	4,213.6	4,140.2	73.45	57.365	
3,346.4	3,321.4	3,322.4	3,322.4	8.5	66.4	69.44	-226.2	-4,303.9	4,210.2	4,135.6	74.55	56.477	
3,400.0	3,373.8	3,374.8	3,374.8	8.7	67.5	69.58	-226.2	-4,303.9	4,206.2	4,130.4	75.81	55.486	
3,444.9	3,417.7	3,418.7	3,418.7	8.8	68.4	69.69	-226.2	-4,303.9	4,202.9	4,126.0	76.86	54.679	
3,500.0	3,471.6	3,472.6	3,472.6	9.1	69.5	69.84	-226.2	-4,303.9	4,198.8	4,120.7	78.17	53.717	
3,543.3	3,513.9	3,514.9	3,514.9	9.2	70.3	69.95	-226.2	-4,303.9	4,195.7	4,116.5	79.19	52.983	
3,600.0	3,569.4	3,570.4	3,570.4	9.5	71.4	70.10	-226.2	-4,303.9	4,191.6	4,111.0	80.53	52.049	
3,641.7	3,610.2	3,611.2	3,611.2	9.7	72.3	70.21	-226.2	-4,303.9	4,188.6	4,107.1	81.52	51.381	
3,700.0	3,667.2	3,668.2	3,668.2	9.9	73.4	70.36	-226.2	-4,303.9	4,184.4	4,101.5	82.90	50.475	
3,740.1	3,706.5	3,707.5	3,707.5	10.1	74.2	70.47	-226.2	-4,303.9	4,181.6	4,097.7	83.85	49.867	
3,800.0	3,765.0	3,766.0	3,766.0	10.3	75.4	70.63	-226.2	-4,303.9	4,177.3	4,092.1	85.28	48.986	
3,838.6	3,802.8	3,803.8	3,803.8	10.5	76.1	70.73	-226.2	-4,303.9	4,174.6	4,088.4	86.19	48.433	
3,900.0	3,862.8	3,863.8	3,863.8	10.7	77.3	70.89	-226.2	-4,303.9	4,170.3	4,082.7	87.66	47.576	
3,937.0	3,899.0	3,900.0	3,900.0	10.9	78.1	70.99	-226.2	-4,303.9	4,167.8	4,079.2	88.54	47.074	
4,000.0	3,960.7	3,961.7	3,961.7	11.2	79.3	71.15	-226.2	-4,303.9	4,163.4	4,073.4	90.04	46.240	
4,035.4	3,995.3	3,996.3	3,996.3	11.3	80.0	71.25	-226.2	-4,303.9	4,161.0	4,070.1	90.88	45.784	
4,100.0	4,058.5	4,059.5	4,059.5	11.6	81.3	71.42	-226.2	-4,303.9	4,156.6	4,064.2	92.43	44.973	
4,133.8	4,091.6	4,092.6	4,092.6	11.7	81.9	71.51	-226.2	-4,303.9	4,154.4	4,061.1	93.23	44.558	
4,200.0	4,156.3	4,157.3	4,157.3	12.0	83.2	71.69	-226.2	-4,303.9	4,149.9	4,055.1	94.82	43.768	
4,232.3	4,187.9	4,188.9	4,188.9	12.2	83.9	71.77	-226.2	-4,303.9	4,147.8	4,052.2	95.59	43.392	
4,300.0	4,254.1	4,255.1	4,255.1	12.5	85.2	71.95	-226.2	-4,303.9	4,143.3	4,046.1	97.21	42.623	
4,325.7	4,279.2	4,280.2	4,280.2	12.6	85.7	72.02	-226.2	-4,303.9	4,141.6	4,043.8	97.82	42.338	
4,330.7	4,284.1	4,285.1	4,285.1	12.6	85.8	72.03	-226.2	-4,303.9	4,141.3	4,043.4	97.94	42.282	
4,400.0	4,352.1	4,353.1	4,353.1	12.8	87.2	72.12	-226.2	-4,303.9	4,137.1	4,037.5	99.60	41.536	
4,429.1	4,380.8	4,381.8	4,381.8	12.9	87.7	72.16	-226.2	-4,303.9	4,135.5	4,035.2	100.28	41.239	
4,500.0	4,450.7	4,451.7	4,451.7	13.1	89.2	72.24	-226.2	-4,303.9	4,132.0	4,030.0	101.93	40.537	
4,527.5	4,478.0	4,479.0	4,479.0	13.2	89.7	72.27	-226.2	-4,303.9	4,130.8	4,028.2	102.56	40.275	
4,600.0	4,549.9	4,550.9	4,550.9	13.4	91.1	72.34	-226.2	-4,303.9	4,128.0	4,023.7	104.23	39.605	
4,626.0	4,575.7	4,576.7	4,576.7	13.5	91.7	72.36	-226.2	-4,303.9	4,127.1	4,022.3	104.82	39.374	
4,700.0	4,649.4	4,650.4	4,650.4	13.6	93.2	72.41	-226.2	-4,303.9	4,125.0	4,018.5	106.49	38.735	
4,724.4	4,673.7	4,674.7	4,674.7	13.7	93.6	72.42	-226.2	-4,303.9	4,124.5	4,017.4	107.04	38.533	
4,800.0	4,749.2	4,750.2	4,750.2	13.8	95.2	72.45	-226.2	-4,303.9	4,123.2	4,014.5	108.72	37.924	
4,822.8	4,772.0	4,773.0	4,773.0	13.9	95.6	72.46	-226.2	-4,303.9	4,122.9	4,013.7	109.22	37.748	
4,900.0	4,849.2	4,850.2	4,850.2	14.0	97.2	72.47	-226.2	-4,303.9	4,122.4	4,011.5	110.91	37.169	
4,921.2	4,870.4	4,871.4	4,871.4	14.1	97.6	72.47	-226.2	-4,303.9	4,122.4	4,011.0	111.37	37.015	
4,925.6	4,874.8	4,875.8	4,875.8	14.1	97.7	-86.33	-226.2	-4,303.9	4,122.4	4,013.6	108.77	37.901	
5,000.0	4,949.2	4,950.2	4,950.2	14.2	99.2	-86.33	-226.2	-4,303.9	4,122.4	4,011.9	110.40	37.339	
5,019.7	4,968.8	4,969.8	4,969.8	14.2	99.6	-86.33	-226.2	-4,303.9	4,122.4	4,011.5	110.84	37.193	

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 SCHAUMBERG 17G-314
<b>Project:</b>	WELD COUNTY, COLORADO	<b>TVD Reference:</b>	KB-EST @ 4633.0usft (Original Well Elev)
<b>Reference Site:</b>	SW NW SEC. 17 T5N R64W 6th P.M.	<b>MD Reference:</b>	KB-EST @ 4633.0usft (Original Well Elev)
<b>Site Error:</b>	0.0 usft	<b>North Reference:</b>	True
<b>Reference Well:</b>	SCHAUMBERG 17G-314	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Well Error:</b>	0.0 usft	<b>Output errors are at</b>	2.00 sigma
<b>Reference Wellbore</b>	ORIGINAL WELLBORE	<b>Database:</b>	EDM 5000.1 Single User Db
<b>Reference Design:</b>	PROPOSAL #1	<b>Offset TVD Reference:</b>	Offset Datum

Offset Design NW SW SEC. 17 T5N R64W 6th P.M. - EXIST VERT DUNN #22-18 - 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	5,049.2	5,050.2	5,050.2	14.3	101.2	-86.33	-226.2	-4,303.9	4,122.4	4,009.7	112.61	36.609	
5,118.1	5,067.3	5,068.3	5,068.3	14.3	101.6	-86.33	-226.2	-4,303.9	4,122.4	4,009.3	113.00	36.480	
5,200.0	5,149.2	5,150.2	5,150.2	14.5	103.2	-86.33	-226.2	-4,303.9	4,122.4	4,007.5	114.81	35.906	
5,216.5	5,165.7	5,166.7	5,166.7	14.5	103.5	-86.33	-226.2	-4,303.9	4,122.4	4,007.2	115.17	35.793	
5,300.0	5,249.2	5,250.2	5,250.2	14.6	105.2	-86.33	-226.2	-4,303.9	4,122.4	4,005.3	117.01	35.230	
5,314.9	5,264.1	5,265.1	5,265.1	14.6	105.5	-86.33	-226.2	-4,303.9	4,122.4	4,005.0	117.34	35.131	
5,400.0	5,349.2	5,350.2	5,350.2	14.8	107.2	-86.33	-226.2	-4,303.9	4,122.4	4,003.1	119.22	34.578	
5,413.4	5,362.5	5,363.5	5,363.5	14.8	107.5	-86.33	-226.2	-4,303.9	4,122.4	4,002.8	119.51	34.493	
5,500.0	5,449.2	5,450.2	5,450.2	14.9	109.2	-86.33	-226.2	-4,303.9	4,122.4	4,000.9	121.42	33.950	
5,511.8	5,461.0	5,462.0	5,462.0	14.9	109.5	-86.33	-226.2	-4,303.9	4,122.4	4,000.7	121.68	33.877	
5,600.0	5,549.2	5,550.2	5,550.2	15.1	111.2	-86.33	-226.2	-4,303.9	4,122.4	3,998.7	123.63	33.344	
5,610.2	5,559.4	5,560.4	5,560.4	15.1	111.5	-86.33	-226.2	-4,303.9	4,122.4	3,998.5	123.86	33.283	
5,700.0	5,649.2	5,650.2	5,650.2	15.2	113.3	-86.33	-226.2	-4,303.9	4,122.4	3,996.5	125.84	32.759	
5,708.6	5,657.8	5,658.8	5,658.8	15.3	113.4	-86.33	-226.2	-4,303.9	4,122.4	3,996.3	126.03	32.709	
5,800.0	5,749.2	5,750.2	5,750.2	15.4	115.3	-86.33	-226.2	-4,303.9	4,122.4	3,994.3	128.05	32.194	
5,807.1	5,756.2	5,757.2	5,757.2	15.4	115.4	-86.33	-226.2	-4,303.9	4,122.4	3,994.1	128.21	32.154	
5,900.0	5,849.2	5,850.2	5,850.2	15.6	117.3	-86.33	-226.2	-4,303.9	4,122.4	3,992.1	130.26	31.647	
5,905.5	5,854.7	5,855.7	5,855.7	15.6	117.4	-86.33	-226.2	-4,303.9	4,122.4	3,992.0	130.38	31.618	
6,000.0	5,949.2	5,950.2	5,950.2	15.7	119.3	-86.33	-226.2	-4,303.9	4,122.4	3,989.9	132.47	31.119	
6,003.9	5,953.1	5,954.1	5,954.1	15.7	119.4	-86.33	-226.2	-4,303.9	4,122.4	3,989.8	132.56	31.099	
6,100.0	6,049.2	6,050.2	6,050.2	15.9	121.3	-86.33	-226.2	-4,303.9	4,122.4	3,987.7	134.68	30.608	
6,102.3	6,051.5	6,052.5	6,052.5	15.9	121.3	-86.33	-226.2	-4,303.9	4,122.4	3,987.6	134.73	30.596	
6,124.6	6,073.8	6,074.8	6,074.8	15.9	121.8	-86.33	-226.2	-4,303.9	4,122.4	3,987.1	135.23	30.485	
6,150.0	6,099.2	6,100.2	6,100.2	16.0	122.3	3.67	-226.2	-4,303.9	4,121.9	3,983.9	137.97	29.875	
6,200.0	6,149.0	6,150.0	6,150.0	16.1	123.3	3.69	-226.2	-4,303.9	4,118.4	3,980.0	138.42	29.753	
6,200.8	6,149.8	6,150.8	6,150.8	16.1	123.3	3.69	-226.2	-4,303.9	4,118.3	3,979.9	138.42	29.752	
6,250.0	6,198.5	6,199.5	6,199.5	16.2	124.3	3.74	-226.2	-4,303.9	4,111.4	3,973.2	138.19	29.752	
6,299.2	6,246.6	6,247.6	6,247.6	16.3	125.3	3.80	-226.2	-4,303.9	4,101.2	3,963.9	137.30	29.871	
6,300.0	6,247.4	6,248.4	6,248.4	16.3	125.3	3.80	-226.2	-4,303.9	4,101.0	3,963.8	137.28	29.874	
6,350.0	6,295.5	6,296.5	6,296.5	16.5	126.3	3.89	-226.2	-4,303.9	4,087.3	3,951.6	135.67	30.127	
6,397.6	6,340.2	6,341.2	6,341.2	16.6	127.2	4.00	-226.2	-4,303.9	4,071.1	3,937.6	133.49	30.497	
6,400.0	6,342.4	6,343.4	6,343.4	16.6	127.2	4.01	-226.2	-4,303.9	4,070.2	3,936.8	133.36	30.519	
6,450.0	6,388.1	6,389.1	6,389.1	16.8	128.1	4.15	-226.2	-4,303.9	4,049.9	3,919.5	130.37	31.065	
6,496.0	6,428.8	6,429.8	6,429.8	17.0	128.9	4.32	-226.2	-4,303.9	4,028.4	3,901.4	127.01	31.718	
6,500.0	6,432.2	6,433.2	6,433.2	17.0	129.0	4.34	-226.2	-4,303.9	4,026.4	3,899.7	126.69	31.781	
6,550.0	6,474.6	6,475.6	6,475.6	17.3	129.9	4.56	-226.2	-4,303.9	4,000.0	3,877.6	122.35	32.693	
6,594.5	6,510.7	6,511.7	6,511.7	17.5	130.6	4.80	-226.2	-4,303.9	3,974.0	3,856.1	117.95	33.693	
6,600.0	6,515.0	6,516.0	6,516.0	17.6	130.7	4.83	-226.2	-4,303.9	3,970.6	3,853.3	117.37	33.831	
6,650.0	6,553.3	6,554.3	6,554.3	17.9	131.4	5.16	-226.2	-4,303.9	3,938.5	3,826.8	111.78	35.235	
6,692.9	6,584.3	6,585.3	6,585.3	18.2	132.1	5.51	-226.2	-4,303.9	3,908.9	3,802.4	106.54	36.690	
6,700.0	6,589.2	6,590.2	6,590.2	18.2	132.2	5.57	-226.2	-4,303.9	3,903.9	3,798.2	105.63	36.956	
6,750.0	6,622.7	6,623.7	6,623.7	18.6	132.8	6.08	-226.2	-4,303.9	3,866.8	3,767.8	99.00	39.060	
6,791.3	6,648.3	6,649.3	6,649.3	19.0	133.3	6.59	-226.2	-4,303.9	3,834.5	3,741.3	93.20	41.143	
6,800.0	6,653.4	6,654.4	6,654.4	19.1	133.5	6.71	-226.2	-4,303.9	3,827.5	3,735.5	91.95	41.624	
6,850.0	6,681.4	6,682.4	6,682.4	19.6	134.0	7.51	-226.2	-4,303.9	3,786.1	3,701.5	84.65	44.729	
6,889.7	6,701.5	6,702.5	6,702.5	20.1	134.4	8.33	-226.2	-4,303.9	3,751.9	3,673.1	78.79	47.617	
6,900.0	6,706.3	6,707.3	6,707.3	20.2	134.5	8.57	-226.2	-4,303.9	3,742.9	3,665.6	77.30	48.420	
6,950.0	6,728.2	6,729.2	6,729.2	20.9	135.0	9.98	-226.2	-4,303.9	3,698.1	3,627.8	70.32	52.586	
6,988.2	6,742.8	6,743.8	6,743.8	21.5	135.3	11.43	-226.2	-4,303.9	3,662.9	3,597.2	65.72	55.733	
7,000.0	6,746.9	6,747.9	6,747.9	21.6	135.3	11.97	-226.2	-4,303.9	3,651.9	3,587.3	64.52	56.597	
7,050.0	6,762.4	6,763.4	6,763.4	22.5	135.6	14.93	-226.2	-4,303.9	3,604.4	3,542.9	61.58	58.535	
7,086.6	6,771.5	6,772.5	6,772.5	23.1	135.8	18.18	-226.2	-4,303.9	3,569.1	3,506.0	63.09	56.569	

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 SCHAUMBERG 17G-314
<b>Project:</b>	WELD COUNTY, COLORADO	<b>TVD Reference:</b>	KB-EST @ 4633.0usft (Original Well Elev)
<b>Reference Site:</b>	SW NW SEC. 17 T5N R64W 6th P.M.	<b>MD Reference:</b>	KB-EST @ 4633.0usft (Original Well Elev)
<b>Site Error:</b>	0.0 usft	<b>North Reference:</b>	True
<b>Reference Well:</b>	SCHAUMBERG 17G-314	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Well Error:</b>	0.0 usft	<b>Output errors are at</b>	2.00 sigma
<b>Reference Wellbore</b>	ORIGINAL WELLBORE	<b>Database:</b>	EDM 5000.1 Single User Db
<b>Reference Design:</b>	PROPOSAL #1	<b>Offset TVD Reference:</b>	Offset Datum

Offset Design NW SW SEC. 17 T5N R64W 6th P.M. - EXIST VERT DUNN #22-18 - 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	
7,100.0	6,774.4	6,775.4	6,775.4	23.3	135.9	19.73	-226.2	-4,303.9	3,556.0	3,491.2	64.88	54.812	
7,150.0	6,783.1	6,784.1	6,784.1	24.3	136.1	28.54	-226.2	-4,303.9	3,507.0	3,426.2	80.74	43.437	
7,185.0	6,787.1	6,788.1	6,788.1	25.0	136.1	40.22	-226.2	-4,303.9	3,472.3	3,367.2	105.02	33.062	
7,200.0	6,788.3	6,789.3	6,789.3	25.3	136.2	47.85	-226.2	-4,303.9	3,457.4	3,337.6	119.74	28.873	
7,252.3	6,790.0	6,791.0	6,791.0	26.3	136.2	92.77	-226.2	-4,303.9	3,405.2	3,243.8	161.44	21.093	
7,283.4	6,789.9	6,790.9	6,790.9	27.0	136.2	92.75	-226.2	-4,303.9	3,374.2	3,212.1	162.13	20.812	
7,300.0	6,789.8	6,790.8	6,790.8	27.3	136.2	92.74	-226.2	-4,303.9	3,357.7	3,195.2	162.50	20.663	
7,381.9	6,789.5	6,790.5	6,790.5	29.1	136.2	92.67	-226.2	-4,303.9	3,276.1	3,111.7	164.38	19.930	
7,400.0	6,789.4	6,790.4	6,790.4	29.5	136.2	92.66	-226.2	-4,303.9	3,258.0	3,093.2	164.80	19.770	
7,480.3	6,789.1	6,790.1	6,790.1	31.4	136.2	92.59	-226.2	-4,303.9	3,178.0	3,011.3	166.71	19.063	
7,500.0	6,789.1	6,790.1	6,790.1	31.8	136.2	92.58	-226.2	-4,303.9	3,158.4	2,991.2	167.18	18.892	
7,578.7	6,788.8	6,789.8	6,789.8	33.7	136.2	92.52	-226.2	-4,303.9	3,079.9	2,910.8	169.10	18.213	
7,600.0	6,788.7	6,789.7	6,789.7	34.2	136.2	92.50	-226.2	-4,303.9	3,058.7	2,889.1	169.62	18.032	
7,677.1	6,788.4	6,789.4	6,789.4	36.1	136.2	92.44	-226.2	-4,303.9	2,981.9	2,810.3	171.55	17.382	
7,700.0	6,788.3	6,789.3	6,789.3	36.7	136.2	92.42	-226.2	-4,303.9	2,959.1	2,787.0	172.12	17.192	
7,775.6	6,788.0	6,789.0	6,789.0	38.6	136.2	92.36	-226.2	-4,303.9	2,883.9	2,709.8	174.05	16.570	
7,800.0	6,787.9	6,788.9	6,788.9	39.2	136.2	92.35	-226.2	-4,303.9	2,859.5	2,684.9	174.67	16.371	
7,874.0	6,787.6	6,788.6	6,788.6	41.0	136.2	92.29	-226.2	-4,303.9	2,785.9	2,609.3	176.57	15.777	
7,900.0	6,787.6	6,788.6	6,788.6	41.7	136.1	92.27	-226.2	-4,303.9	2,760.0	2,582.7	177.24	15.572	
7,972.4	6,787.3	6,788.3	6,788.3	43.6	136.1	92.21	-226.2	-4,303.9	2,687.9	2,508.8	179.13	15.005	
8,000.0	6,787.2	6,788.2	6,788.2	44.3	136.1	92.19	-226.2	-4,303.9	2,660.5	2,480.6	179.85	14.793	
8,070.8	6,786.9	6,787.9	6,787.9	46.1	136.1	92.13	-226.2	-4,303.9	2,590.0	2,408.3	181.71	14.253	
8,100.0	6,786.8	6,787.8	6,787.8	46.9	136.1	92.11	-226.2	-4,303.9	2,561.0	2,378.5	182.48	14.034	
8,169.3	6,786.5	6,787.5	6,787.5	48.7	136.1	92.05	-226.2	-4,303.9	2,492.1	2,307.8	184.31	13.521	
8,200.0	6,786.4	6,787.4	6,787.4	49.5	136.1	92.03	-226.2	-4,303.9	2,461.5	2,276.4	185.13	13.296	
8,267.7	6,786.1	6,787.1	6,787.1	51.3	136.1	91.97	-226.2	-4,303.9	2,394.2	2,207.3	186.93	12.808	
8,300.0	6,786.0	6,787.0	6,787.0	52.1	136.1	91.95	-226.2	-4,303.9	2,362.1	2,174.3	187.79	12.578	
8,366.1	6,785.8	6,786.8	6,786.8	53.9	136.1	91.89	-226.2	-4,303.9	2,296.4	2,106.9	189.57	12.114	
8,400.0	6,785.6	6,786.6	6,786.6	54.8	136.1	91.87	-226.2	-4,303.9	2,262.8	2,072.3	190.47	11.880	
8,464.5	6,785.4	6,786.4	6,786.4	56.5	136.1	91.82	-226.2	-4,303.9	2,198.7	2,006.5	192.21	11.439	
8,500.0	6,785.3	6,786.3	6,786.3	57.5	136.1	91.79	-226.2	-4,303.9	2,163.5	1,970.3	193.17	11.200	
8,563.0	6,785.0	6,786.0	6,786.0	59.2	136.1	91.74	-226.2	-4,303.9	2,101.0	1,906.1	194.87	10.782	
8,600.0	6,784.9	6,785.9	6,785.9	60.2	136.1	91.71	-226.2	-4,303.9	2,064.3	1,868.4	195.87	10.539	
8,661.4	6,784.6	6,785.6	6,785.6	61.8	136.1	91.66	-226.2	-4,303.9	2,003.4	1,805.9	197.53	10.142	
8,700.0	6,784.5	6,785.5	6,785.5	62.9	136.1	91.63	-226.2	-4,303.9	1,965.1	1,766.6	198.58	9.896	
8,759.8	6,784.3	6,785.3	6,785.3	64.5	136.1	91.58	-226.2	-4,303.9	1,905.9	1,705.7	200.21	9.519	
8,800.0	6,784.1	6,785.1	6,785.1	65.6	136.1	91.55	-226.2	-4,303.9	1,866.1	1,664.8	201.30	9.270	
8,858.2	6,783.9	6,784.9	6,784.9	67.1	136.1	91.50	-226.2	-4,303.9	1,808.4	1,605.6	202.89	8.913	
8,900.0	6,783.7	6,784.7	6,784.7	68.3	136.1	91.46	-226.2	-4,303.9	1,767.1	1,563.1	204.03	8.661	
8,956.7	6,783.5	6,784.5	6,784.5	69.8	136.1	91.42	-226.2	-4,303.9	1,711.1	1,505.6	205.58	8.324	
9,000.0	6,783.3	6,784.3	6,784.3	71.0	136.1	91.38	-226.2	-4,303.9	1,668.3	1,461.6	206.76	8.069	
9,055.1	6,783.1	6,784.1	6,784.1	72.5	136.1	91.34	-226.2	-4,303.9	1,614.0	1,405.7	208.27	7.749	
9,100.0	6,782.9	6,783.9	6,783.9	73.7	136.1	91.30	-226.2	-4,303.9	1,569.7	1,360.2	209.50	7.493	
9,153.5	6,782.7	6,783.7	6,783.7	75.2	136.1	91.26	-226.2	-4,303.9	1,516.9	1,306.0	210.97	7.190	
9,200.0	6,782.6	6,783.6	6,783.6	76.5	136.0	91.22	-226.2	-4,303.9	1,471.2	1,259.0	212.24	6.932	
9,251.9	6,782.4	6,783.4	6,783.4	77.9	136.0	91.18	-226.2	-4,303.9	1,420.1	1,206.4	213.67	6.646	
9,300.0	6,782.2	6,783.2	6,783.2	79.2	136.0	91.14	-226.2	-4,303.9	1,372.9	1,157.9	214.99	6.386	
9,350.4	6,782.0	6,783.0	6,783.0	80.6	136.0	91.09	-226.2	-4,303.9	1,323.5	1,107.2	216.38	6.117	
9,400.0	6,781.8	6,782.8	6,782.8	82.0	136.0	91.05	-226.2	-4,303.9	1,274.9	1,057.2	217.74	5.855	
9,448.8	6,781.6	6,782.6	6,782.6	83.3	136.0	91.01	-226.2	-4,303.9	1,227.2	1,008.2	219.09	5.602	
9,500.0	6,781.4	6,782.4	6,782.4	84.7	136.0	90.97	-226.2	-4,303.9	1,177.3	956.8	220.50	5.339	
9,547.2	6,781.2	6,782.2	6,782.2	86.0	136.0	90.93	-226.2	-4,303.9	1,131.3	909.5	221.80	5.101	

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 SCHAUMBERG 17G-314
<b>Project:</b>	WELD COUNTY, COLORADO	<b>TVD Reference:</b>	KB-EST @ 4633.0usft (Original Well Elev)
<b>Reference Site:</b>	SW NW SEC. 17 T5N R64W 6th P.M.	<b>MD Reference:</b>	KB-EST @ 4633.0usft (Original Well Elev)
<b>Site Error:</b>	0.0 usft	<b>North Reference:</b>	True
<b>Reference Well:</b>	SCHAUMBERG 17G-314	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Well Error:</b>	0.0 usft	<b>Output errors are at</b>	2.00 sigma
<b>Reference Wellbore</b>	ORIGINAL WELLBORE	<b>Database:</b>	EDM 5000.1 Single User Db
<b>Reference Design:</b>	PROPOSAL #1	<b>Offset TVD Reference:</b>	Offset Datum

Offset Design NW SW SEC. 17 T5N R64W 6th P.M. - EXIST VERT DUNN #22-18 - 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		
9,600.0	6,781.0	6,782.0	6,782.0	87.5	136.0	90.89	-226.2	-4,303.9	1,080.1	856.8	223.25	4.838		
9,645.6	6,780.8	6,781.8	6,781.8	88.7	136.0	90.85	-226.2	-4,303.9	1,035.9	811.3	224.51	4.614		
9,700.0	6,780.6	6,781.6	6,781.6	90.2	136.0	90.80	-226.2	-4,303.9	983.4	757.4	226.01	4.351		
9,744.1	6,780.4	6,781.4	6,781.4	91.4	136.0	90.77	-226.2	-4,303.9	941.0	713.8	227.23	4.141		
9,800.0	6,780.2	6,781.2	6,781.2	93.0	136.0	90.72	-226.2	-4,303.9	887.5	658.7	228.78	3.879		
9,842.5	6,780.1	6,781.1	6,781.1	94.2	136.0	90.68	-226.2	-4,303.9	847.0	617.0	229.95	3.683		
9,900.0	6,779.8	6,780.8	6,780.8	95.7	136.0	90.64	-226.2	-4,303.9	792.5	561.0	231.54	3.423		
9,940.9	6,779.7	6,780.7	6,780.7	96.9	136.0	90.60	-226.2	-4,303.9	754.1	521.4	232.67	3.241		
10,000.0	6,779.4	6,780.4	6,780.4	98.5	136.0	90.55	-226.2	-4,303.9	699.0	464.7	234.31	2.983		
10,039.3	6,779.3	6,780.3	6,780.3	99.6	136.0	90.52	-226.2	-4,303.9	662.8	427.4	235.40	2.815		
10,100.0	6,779.0	6,780.0	6,780.0	101.3	136.0	90.47	-226.2	-4,303.9	607.6	370.5	237.08	2.563		
10,137.8	6,778.9	6,779.9	6,779.9	102.3	136.0	90.44	-226.2	-4,303.9	573.8	335.7	238.12	2.410		
10,200.0	6,778.7	6,779.7	6,779.7	104.1	136.0	90.38	-226.2	-4,303.9	519.3	279.5	239.85	2.165		
10,236.2	6,778.5	6,779.5	6,779.5	105.1	136.0	90.35	-226.2	-4,303.9	488.5	247.6	240.85	2.028		
10,300.0	6,778.3	6,779.3	6,779.3	106.8	136.0	90.30	-226.2	-4,303.9	436.2	193.5	242.62	1.798		
10,334.6	6,778.1	6,779.1	6,779.1	107.8	136.0	90.27	-226.2	-4,303.9	409.1	165.5	243.58	1.680		
10,400.0	6,777.9	6,778.9	6,778.9	109.6	136.0	90.21	-226.2	-4,303.9	361.6	116.2	245.39	1.474 Level 3		
10,433.0	6,777.7	6,778.7	6,778.7	110.5	136.0	90.18	-226.2	-4,303.9	339.9	93.6	246.31	1.380 Level 3		
10,500.0	6,777.5	6,778.5	6,778.5	112.4	135.9	90.13	-226.2	-4,303.9	302.1	54.0	248.16	1.218 Level 2		
10,531.5	6,777.3	6,778.3	6,778.3	113.3	135.9	90.10	-226.2	-4,303.9	288.1	39.1	249.04	1.157 Level 2		
10,600.0	6,777.1	6,778.1	6,778.1	115.2	135.9	90.04	-226.2	-4,303.9	268.0	17.0	250.94	1.068 Level 2		
10,629.9	6,777.0	6,778.0	6,778.0	116.0	135.9	90.02	-226.2	-4,303.9	264.3	12.6	251.77	1.050 Level 2		
10,647.4	6,776.9	6,777.9	6,777.9	116.5	135.9	90.00	-226.2	-4,303.9	263.8	11.5	252.25	1.046 Level 2, CC, ES, SF		
10,700.0	6,776.7	6,777.7	6,777.7	117.9	135.9	89.95	-226.2	-4,303.9	269.0	15.3	253.71	1.060 Level 2		
10,728.3	6,776.6	6,777.6	6,777.6	118.7	135.9	89.93	-226.2	-4,303.9	275.9	21.4	254.50	1.084 Level 2		
10,800.0	6,776.3	6,777.3	6,777.3	120.7	135.9	89.87	-226.2	-4,303.9	304.7	48.3	256.49	1.188 Level 2		
10,826.7	6,776.2	6,777.2	6,777.2	121.5	135.9	89.85	-226.2	-4,303.9	319.0	61.8	257.23	1.240 Level 2		
10,900.0	6,775.9	6,776.9	6,776.9	123.5	135.9	89.78	-226.2	-4,303.9	365.2	106.0	259.27	1.409 Level 3		
10,925.2	6,775.8	6,776.8	6,776.8	124.2	135.9	89.76	-226.2	-4,303.9	383.1	123.1	259.97	1.474 Level 3		
11,000.0	6,775.5	6,776.5	6,776.5	126.3	135.9	89.69	-226.2	-4,303.9	440.4	178.3	262.04	1.681		
11,023.6	6,775.4	6,776.4	6,776.4	126.9	135.9	89.67	-226.2	-4,303.9	459.5	196.8	262.70	1.749		
11,100.0	6,775.1	6,776.1	6,776.1	129.1	135.9	89.61	-226.2	-4,303.9	523.9	259.1	264.82	1.978		
11,122.0	6,775.0	6,776.0	6,776.0	129.7	135.9	89.59	-226.2	-4,303.9	543.0	277.6	265.43	2.046		
11,200.0	6,774.7	6,775.7	6,775.7	131.9	135.9	89.52	-226.2	-4,303.9	612.4	344.8	267.60	2.288		
11,220.4	6,774.6	6,775.6	6,775.6	132.4	135.9	89.50	-226.2	-4,303.9	630.9	362.7	268.17	2.353		
11,300.0	6,774.3	6,775.3	6,775.3	134.6	135.9	89.43	-226.2	-4,303.9	703.9	433.5	270.38	2.603		
11,318.9	6,774.2	6,775.2	6,775.2	135.2	135.9	89.42	-226.2	-4,303.9	721.5	450.6	270.90	2.663		
11,400.0	6,773.9	6,774.9	6,774.9	137.4	135.9	89.34	-226.2	-4,303.9	797.5	524.4	273.15	2.920		
11,417.3	6,773.8	6,774.8	6,774.8	137.9	135.9	89.33	-226.2	-4,303.9	813.9	540.2	273.63	2.974		
11,500.0	6,773.5	6,774.5	6,774.5	140.2	135.9	89.26	-226.2	-4,303.9	892.5	616.6	275.93	3.234		
11,515.7	6,773.4	6,774.4	6,774.4	140.7	135.9	89.24	-226.2	-4,303.9	907.5	631.2	276.37	3.284		
11,600.0	6,773.1	6,774.1	6,774.1	143.0	135.9	89.17	-226.2	-4,303.9	988.5	709.8	278.71	3.547		
11,614.1	6,773.0	6,774.0	6,774.0	143.4	135.9	89.16	-226.2	-4,303.9	1,002.1	723.0	279.10	3.590		
11,700.0	6,772.7	6,773.7	6,773.7	145.8	135.9	89.08	-226.2	-4,303.9	1,085.2	803.7	281.49	3.855		
11,712.6	6,772.6	6,773.6	6,773.6	146.2	135.8	89.07	-226.2	-4,303.9	1,097.4	815.5	281.84	3.894		
11,800.0	6,772.3	6,773.3	6,773.3	148.6	135.8	88.99	-226.2	-4,303.9	1,182.4	898.2	284.26	4.160		
11,811.0	6,772.2	6,773.2	6,773.2	148.9	135.8	88.98	-226.2	-4,303.9	1,193.1	908.6	284.57	4.193		
11,900.0	6,771.9	6,772.9	6,772.9	151.4	135.8	88.90	-226.2	-4,303.9	1,280.1	993.1	287.04	4.460		
11,909.4	6,771.8	6,772.8	6,772.8	151.7	135.8	88.89	-226.2	-4,303.9	1,289.3	1,002.0	287.30	4.488		
12,000.0	6,771.5	6,772.5	6,772.5	154.2	135.8	88.81	-226.2	-4,303.9	1,378.1	1,088.3	289.82	4.755		
12,007.8	6,771.4	6,772.4	6,772.4	154.4	135.8	88.80	-226.2	-4,303.9	1,385.8	1,095.8	290.04	4.778		
12,100.0	6,771.1	6,772.1	6,772.1	157.0	135.8	88.72	-226.2	-4,303.9	1,476.4	1,183.8	292.60	5.046		

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 SCHAUMBERG 17G-314
<b>Project:</b>	WELD COUNTY, COLORADO	<b>TVD Reference:</b>	KB-EST @ 4633.0usft (Original Well Elev)
<b>Reference Site:</b>	SW NW SEC. 17 T5N R64W 6th P.M.	<b>MD Reference:</b>	KB-EST @ 4633.0usft (Original Well Elev)
<b>Site Error:</b>	0.0 usft	<b>North Reference:</b>	True
<b>Reference Well:</b>	SCHAUMBERG 17G-314	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Well Error:</b>	0.0 usft	<b>Output errors are at</b>	2.00 sigma
<b>Reference Wellbore</b>	ORIGINAL WELLBORE	<b>Database:</b>	EDM 5000.1 Single User Db
<b>Reference Design:</b>	PROPOSAL #1	<b>Offset TVD Reference:</b>	Offset Datum

<b>Offset Design</b> NW SW SEC. 17 T5N R64W 6th P.M. - EXIST VERT DUNN #22-18 - Wellbore #1 - Design #1												<b>Offset Site Error:</b>	0.0 usft
Survey Program: 0-INC												<b>Offset Well Error:</b>	0.0 usft
Reference	Offset	Semi Major Axis		Distance									
Measured Depth (usft)	Vertical Depth (usft)	Measured Depth (usft)	Vertical Depth (usft)	Reference (usft)	Offset (usft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (usft)	+E/-W (usft)	Between Centres (usft)	Between Ellipses (usft)	Minimum Separation (usft)	Separation Factor	Warning
12,106.3	6,771.0	6,772.0	6,772.0	157.2	135.8	88.72	-226.2	-4,303.9	1,482.5	1,189.8	292.77	5.064	
12,200.0	6,770.7	6,771.7	6,771.7	159.8	135.8	88.63	-226.2	-4,303.9	1,574.9	1,279.5	295.37	5.332	
12,204.7	6,770.6	6,771.6	6,771.6	159.9	135.8	88.63	-226.2	-4,303.9	1,579.5	1,284.0	295.50	5.345	
12,300.0	6,770.3	6,771.3	6,771.3	162.6	135.8	88.54	-226.2	-4,303.9	1,673.5	1,375.4	298.15	5.613	
12,303.1	6,770.2	6,771.2	6,771.2	162.7	135.8	88.54	-226.2	-4,303.9	1,676.6	1,378.4	298.24	5.622	
12,361.7	6,770.0	6,771.0	6,771.0	164.3	135.8	88.49	-226.2	-4,303.9	1,734.5	1,434.6	299.86	5.784	



# Anticollision Report



<b>Company:</b>	PDC ENERGY	<b>Local Co-ordinate Reference:</b>	Well SCHAUMBERG 17G-314
<b>Project:</b>	WELD COUNTY, COLORADO	<b>TVD Reference:</b>	KB-EST @ 4633.0usft (Original Well Elev)
<b>Reference Site:</b>	SW NW SEC. 17 T5N R64W 6th P.M.	<b>MD Reference:</b>	KB-EST @ 4633.0usft (Original Well Elev)
<b>Site Error:</b>	0.0 usft	<b>North Reference:</b>	True
<b>Reference Well:</b>	SCHAUMBERG 17G-314	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Well Error:</b>	0.0 usft	<b>Output errors are at</b>	2.00 sigma
<b>Reference Wellbore</b>	ORIGINAL WELLBORE	<b>Database:</b>	EDM 5000.1 Single User Db
<b>Reference Design:</b>	PROPOSAL #1	<b>Offset TVD Reference:</b>	Offset Datum

<b>Offset Design</b> NW SW SEC. 17 T5N R64W 6th P.M. - EXIST VERT DUNN/MILLER #1 - 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	-167.53	-1,691.1	-374.1	1,732.0				
98.4	98.4	101.1	101.1	0.1	0.1	-167.52	-1,691.0	-374.1	1,731.9	1,731.7	0.19	8,982.889	
100.0	100.0	102.6	102.6	0.1	0.1	-167.52	-1,691.0	-374.1	1,731.9	1,731.7	0.20	8,805.679	
196.8	196.8	198.5	198.5	0.3	0.2	-167.52	-1,690.9	-374.3	1,731.8	1,731.3	0.54	3,182.648	
200.0	200.0	201.7	201.7	0.3	0.2	-167.52	-1,690.9	-374.3	1,731.8	1,731.2	0.55	3,122.720	
295.3	295.3	296.9	296.9	0.5	0.3	-167.51	-1,690.7	-374.7	1,731.7	1,730.9	0.85	2,044.564	
300.0	300.0	301.6	301.6	0.5	0.3	-167.50	-1,690.7	-374.7	1,731.7	1,730.8	0.86	2,010.694	
393.7	393.7	396.0	396.0	0.8	0.4	-167.48	-1,690.4	-375.4	1,731.6	1,730.5	1.13	1,525.808	
400.0	400.0	402.4	402.4	0.8	0.4	-167.48	-1,690.4	-375.4	1,731.6	1,730.4	1.15	1,501.752	
492.1	492.1	495.0	495.0	1.0	0.4	-167.45	-1,690.1	-376.2	1,731.5	1,730.0	1.41	1,225.103	
500.0	500.0	503.0	502.9	1.0	0.5	-167.45	-1,690.1	-376.2	1,731.4	1,730.0	1.44	1,206.234	
590.5	590.5	595.1	595.1	1.2	0.5	-167.42	-1,689.7	-377.0	1,731.2	1,729.6	1.69	1,026.525	
600.0	600.0	604.5	604.5	1.2	0.5	-167.42	-1,689.6	-377.1	1,731.2	1,729.5	1.71	1,010.975	
689.0	689.0	692.0	692.0	1.4	0.6	-167.39	-1,689.2	-378.0	1,731.0	1,729.1	1.95	886.088	
700.0	700.0	702.9	702.9	1.4	0.6	-167.38	-1,689.2	-378.1	1,731.0	1,729.0	1.98	872.771	
787.4	787.4	789.7	789.7	1.6	0.6	-167.35	-1,688.9	-379.0	1,730.9	1,728.7	2.22	780.571	
800.0	800.0	802.3	802.2	1.7	0.6	-167.35	-1,688.8	-379.2	1,730.9	1,728.6	2.25	768.884	
885.8	885.8	887.5	887.5	1.9	0.7	-167.32	-1,688.5	-380.0	1,730.8	1,728.3	2.48	698.294	
900.0	900.0	901.6	901.6	1.9	0.7	-167.31	-1,688.5	-380.2	1,730.7	1,728.2	2.52	687.867	
984.2	984.2	987.9	987.9	2.1	0.7	-167.28	-1,688.1	-381.1	1,730.6	1,727.9	2.74	631.902	
1,000.0	1,000.0	1,004.0	1,004.0	2.1	0.7	-167.27	-1,688.1	-381.2	1,730.6	1,727.8	2.78	622.436	
1,082.7	1,082.7	1,088.9	1,088.9	2.3	0.7	-167.24	-1,687.6	-382.2	1,730.3	1,727.3	3.00	577.123	
1,100.0	1,100.0	1,106.8	1,106.8	2.3	0.8	-167.23	-1,687.5	-382.4	1,730.3	1,727.2	3.04	568.446	
1,181.1	1,181.1	1,191.3	1,191.2	2.5	0.8	-167.20	-1,686.8	-383.4	1,729.9	1,726.6	3.26	531.041	
1,200.0	1,200.0	1,210.4	1,210.3	2.6	0.8	-167.19	-1,686.7	-383.6	1,729.8	1,726.5	3.31	523.065	
1,279.5	1,279.5	1,288.6	1,288.6	2.7	0.8	-167.15	-1,686.0	-384.6	1,729.3	1,725.8	3.51	492.127	
1,300.0	1,300.0	1,309.0	1,308.9	2.8	0.8	-167.14	-1,685.8	-384.9	1,729.2	1,725.6	3.57	484.749	
1,377.9	1,377.9	1,387.6	1,387.5	3.0	0.9	-167.10	-1,685.2	-385.8	1,728.8	1,725.0	3.77	458.575	
1,400.0	1,400.0	1,409.8	1,409.7	3.0	0.9	-167.09	-1,685.0	-386.1	1,728.7	1,724.8	3.83	451.679	
1,476.4	1,476.4	1,486.5	1,486.4	3.2	0.9	-167.06	-1,684.3	-386.9	1,728.2	1,724.2	4.03	429.326	
1,500.0	1,500.0	1,510.9	1,510.8	3.2	0.9	-167.05	-1,684.1	-387.2	1,728.1	1,724.0	4.09	422.830	
1,574.8	1,574.8	1,590.6	1,590.5	3.4	1.0	-167.03	-1,683.4	-387.7	1,727.5	1,723.2	4.28	403.390	
1,600.0	1,600.0	1,616.2	1,616.1	3.5	1.0	-167.02	-1,683.1	-387.9	1,727.3	1,722.9	4.35	397.234	
1,673.2	1,673.2	1,688.4	1,688.3	3.6	1.0	-167.01	-1,682.4	-388.2	1,726.6	1,722.1	4.54	380.376	
1,700.0	1,700.0	1,715.2	1,715.1	3.7	1.0	-167.00	-1,682.1	-388.3	1,726.4	1,721.8	4.61	374.555	
1,771.6	1,771.6	1,787.5	1,787.4	3.9	1.0	-166.99	-1,681.4	-388.5	1,725.8	1,721.0	4.80	359.793	
1,800.0	1,800.0	1,816.2	1,816.1	3.9	1.0	-166.98	-1,681.1	-388.6	1,725.5	1,720.6	4.87	354.263	
1,870.1	1,870.1	1,887.3	1,887.2	4.1	1.1	-8.18	-1,680.3	-388.8	1,724.0	1,719.0	4.98	346.346	
1,900.0	1,900.0	1,917.6	1,917.5	4.1	1.1	-8.18	-1,680.0	-388.8	1,722.8	1,717.7	5.05	341.327	
1,968.5	1,968.4	1,986.9	1,986.8	4.2	1.1	-8.19	-1,679.2	-389.0	1,718.9	1,713.7	5.19	331.061	
2,000.0	1,999.8	2,017.2	2,017.1	4.3	1.1	-8.21	-1,678.9	-389.1	1,716.6	1,711.3	5.26	326.476	
2,066.9	2,066.5	2,079.0	2,078.8	4.4	1.1	-8.24	-1,678.3	-389.1	1,710.6	1,705.2	5.40	316.708	
2,100.0	2,099.5	2,109.7	2,109.6	4.5	1.1	-8.26	-1,678.1	-389.1	1,707.2	1,701.7	5.47	312.055	
2,165.3	2,164.4	2,171.4	2,171.3	4.6	1.1	-8.33	-1,677.9	-388.9	1,699.3	1,693.7	5.61	302.998	
2,200.0	2,198.7	2,204.3	2,204.1	4.7	1.1	-8.37	-1,677.8	-388.7	1,694.6	1,689.0	5.68	298.279	
2,263.8	2,261.8	2,266.4	2,266.3	4.8	1.1	-8.46	-1,677.8	-388.1	1,685.0	1,679.2	5.82	289.390	
2,300.0	2,297.5	2,301.6	2,301.5	4.9	1.1	-8.53	-1,677.8	-387.5	1,678.9	1,673.0	5.90	284.436	
2,362.2	2,358.6	2,364.0	2,363.9	5.0	1.2	-8.66	-1,677.8	-386.6	1,667.4	1,661.3	6.05	275.785	
2,400.0	2,395.6	2,401.8	2,401.6	5.1	1.2	-8.74	-1,677.8	-386.0	1,659.7	1,653.6	6.13	270.650	
2,460.6	2,454.9	2,462.0	2,461.8	5.3	1.2	-8.84	-1,677.7	-385.2	1,647.0	1,640.8	6.27	262.572	
2,500.0	2,493.4	2,501.0	2,500.9	5.4	1.2	-8.89	-1,677.7	-384.8	1,638.8	1,632.4	6.36	257.527	
2,559.0	2,551.2	2,559.3	2,559.1	5.6	1.2	-8.98	-1,677.5	-384.2	1,626.4	1,619.9	6.51	249.999	

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 SCHAUMBERG 17G-314
<b>Project:</b>	WELD COUNTY, COLORADO	<b>TVD Reference:</b>	KB-EST @ 4633.0usft (Original Well Elev)
<b>Reference Site:</b>	SW NW SEC. 17 T5N R64W 6th P.M.	<b>MD Reference:</b>	KB-EST @ 4633.0usft (Original Well Elev)
<b>Site Error:</b>	0.0 usft	<b>North Reference:</b>	True
<b>Reference Well:</b>	SCHAUMBERG 17G-314	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Well Error:</b>	0.0 usft	<b>Output errors are at</b>	2.00 sigma
<b>Reference Wellbore</b>	ORIGINAL WELLBORE	<b>Database:</b>	EDM 5000.1 Single User Db
<b>Reference Design:</b>	PROPOSAL #1	<b>Offset TVD Reference:</b>	Offset Datum

Offset Design												Offset Site Error:	0.0 usft
Survey Program: 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	
2,600.0	2,591.3	2,599.7	2,599.5	5.7	1.2	-9.04	-1,677.4	-383.8	1,617.7	1,611.1	6.60	245.058	
2,657.5	2,647.5	2,656.1	2,655.9	5.9	1.2	-9.13	-1,677.2	-383.2	1,605.7	1,598.9	6.74	238.267	
2,700.0	2,689.1	2,697.8	2,697.6	6.0	1.2	-9.19	-1,677.1	-382.8	1,596.7	1,589.9	6.84	233.266	
2,755.9	2,743.7	2,752.6	2,752.5	6.2	1.2	-9.28	-1,676.9	-382.2	1,584.9	1,577.9	6.98	226.942	
2,800.0	2,786.9	2,795.9	2,795.7	6.4	1.2	-9.35	-1,676.8	-381.8	1,575.6	1,568.5	7.09	222.116	
2,854.3	2,840.0	2,848.1	2,848.0	6.6	1.2	-9.43	-1,676.6	-381.3	1,564.2	1,557.0	7.23	216.328	
2,900.0	2,884.7	2,892.0	2,891.8	6.7	1.2	-9.51	-1,676.5	-380.8	1,554.6	1,547.3	7.35	211.630	
2,952.7	2,936.3	2,941.3	2,941.1	6.9	1.2	-9.59	-1,676.4	-380.3	1,543.6	1,536.1	7.48	206.390	
3,000.0	2,982.5	2,985.2	2,985.0	7.1	1.2	-9.66	-1,676.3	-379.9	1,533.8	1,526.2	7.60	201.868	
3,051.2	3,032.6	3,032.4	3,032.2	7.3	1.2	-9.74	-1,676.4	-379.5	1,523.3	1,515.5	7.73	197.154	
3,100.0	3,080.3	3,077.4	3,077.2	7.5	1.2	-9.82	-1,676.5	-379.1	1,513.3	1,505.5	7.85	192.809	
3,149.6	3,128.8	3,123.4	3,123.2	7.7	1.2	-9.89	-1,676.7	-378.8	1,503.3	1,495.3	7.97	188.537	
3,200.0	3,178.1	3,170.6	3,170.5	7.9	1.2	-9.97	-1,677.0	-378.6	1,493.2	1,485.1	8.10	184.353	
3,248.0	3,225.1	3,215.5	3,215.3	8.1	1.3	-10.04	-1,677.3	-378.4	1,483.6	1,475.4	8.22	180.466	
3,300.0	3,276.0	3,263.5	3,263.3	8.3	1.3	-10.12	-1,677.7	-378.2	1,473.3	1,465.0	8.35	176.402	
3,346.4	3,321.4	3,306.1	3,305.9	8.5	1.3	-10.20	-1,678.2	-378.0	1,464.3	1,455.8	8.47	172.863	
3,400.0	3,373.8	3,352.5	3,352.3	8.7	1.3	-10.28	-1,678.8	-377.7	1,454.0	1,445.4	8.61	168.940	
3,444.9	3,417.7	3,391.4	3,391.2	8.8	1.3	-10.36	-1,679.5	-377.4	1,445.5	1,436.8	8.72	165.748	
3,500.0	3,471.6	3,444.4	3,444.2	9.1	1.3	-10.47	-1,680.7	-376.9	1,435.3	1,426.4	8.86	161.919	
3,543.3	3,513.9	3,486.9	3,486.6	9.2	1.3	-10.56	-1,681.6	-376.4	1,427.2	1,418.2	8.98	158.974	
3,600.0	3,569.4	3,542.6	3,542.3	9.5	1.3	-10.68	-1,682.8	-375.8	1,416.7	1,407.6	9.13	155.197	
3,641.7	3,610.2	3,583.6	3,583.3	9.7	1.3	-10.77	-1,683.7	-375.3	1,408.9	1,399.7	9.24	152.474	
3,700.0	3,667.2	3,641.3	3,641.0	9.9	1.3	-10.90	-1,684.9	-374.6	1,398.1	1,388.7	9.40	148.769	
3,740.1	3,706.5	3,681.2	3,680.9	10.1	1.3	-10.99	-1,685.7	-374.2	1,390.6	1,381.1	9.51	146.272	
3,800.0	3,765.0	3,741.6	3,741.3	10.3	1.3	-11.13	-1,686.9	-373.7	1,379.5	1,369.8	9.67	142.638	
3,838.6	3,802.8	3,780.8	3,780.5	10.5	1.3	-11.21	-1,687.7	-373.4	1,372.2	1,362.5	9.78	140.343	
3,900.0	3,862.8	3,839.6	3,839.2	10.7	1.3	-11.34	-1,688.7	-373.0	1,360.7	1,350.7	9.95	136.803	
3,937.0	3,899.0	3,873.9	3,873.6	10.9	1.3	-11.41	-1,689.4	-372.8	1,353.8	1,343.7	10.05	134.730	
4,000.0	3,960.7	3,933.2	3,932.9	11.2	1.3	-11.54	-1,690.6	-372.4	1,342.2	1,332.0	10.22	131.307	
4,035.4	3,995.3	3,966.8	3,966.5	11.3	1.3	-11.62	-1,691.4	-372.2	1,335.7	1,325.4	10.32	129.433	
4,100.0	4,058.5	4,029.3	4,028.9	11.6	1.3	-11.74	-1,692.8	-372.2	1,323.9	1,313.4	10.50	126.103	
4,133.8	4,091.6	4,062.6	4,062.3	11.7	1.3	-11.81	-1,693.5	-372.2	1,317.8	1,307.2	10.59	124.391	
4,200.0	4,156.3	4,129.3	4,128.9	12.0	1.3	-11.93	-1,695.0	-372.5	1,305.7	1,295.0	10.78	121.117	
4,232.3	4,187.9	4,162.8	4,162.4	12.2	1.3	-11.99	-1,695.6	-372.7	1,299.8	1,288.9	10.87	119.540	
4,300.0	4,254.1	4,233.1	4,232.7	12.5	1.3	-12.12	-1,696.8	-373.3	1,287.2	1,276.2	11.07	116.299	
4,325.7	4,279.2	4,259.8	4,259.4	12.6	1.4	-12.16	-1,697.2	-373.5	1,282.4	1,271.3	11.14	115.090	
4,330.7	4,284.1	4,265.0	4,264.6	12.6	1.4	-12.17	-1,697.3	-373.6	1,281.5	1,270.3	11.16	114.878	
4,400.0	4,352.1	4,337.0	4,336.5	12.8	1.4	-12.22	-1,698.2	-374.3	1,269.2	1,257.9	11.32	112.098	
4,429.1	4,380.8	4,367.1	4,366.7	12.9	1.4	-12.24	-1,698.5	-374.6	1,264.5	1,253.1	11.39	111.043	
4,500.0	4,450.7	4,448.6	4,448.1	13.1	1.4	-12.28	-1,699.0	-375.6	1,254.0	1,242.4	11.55	108.608	
4,527.5	4,478.0	4,482.8	4,482.3	13.2	1.4	-12.29	-1,698.9	-376.1	1,250.1	1,238.5	11.60	107.728	
4,600.0	4,549.9	4,564.6	4,564.1	13.4	1.4	-12.28	-1,698.0	-377.4	1,240.6	1,228.8	11.76	105.512	
4,626.0	4,575.7	4,593.3	4,592.8	13.5	1.4	-12.27	-1,697.5	-378.0	1,237.5	1,225.7	11.81	104.790	
4,700.0	4,649.4	4,667.1	4,666.6	13.6	1.4	-12.24	-1,696.3	-379.4	1,229.8	1,217.9	11.95	102.896	
4,724.4	4,673.7	4,691.2	4,690.7	13.7	1.4	-12.22	-1,695.8	-379.8	1,227.7	1,215.7	12.00	102.338	
4,800.0	4,749.2	4,767.2	4,766.7	13.8	1.4	-12.17	-1,694.6	-381.1	1,222.4	1,210.3	12.13	100.746	
4,822.8	4,772.0	4,790.2	4,789.7	13.9	1.4	-12.15	-1,694.2	-381.5	1,221.2	1,209.1	12.17	100.320	
4,900.0	4,849.2	4,865.5	4,864.9	14.0	1.5	-12.09	-1,692.9	-382.9	1,218.5	1,206.2	12.31	99.006	
4,921.2	4,870.4	4,886.1	4,885.5	14.1	1.5	-12.07	-1,692.6	-383.2	1,218.1	1,205.8	12.34	98.687	
4,925.6	4,874.8	4,890.4	4,889.8	14.1	1.5	-170.87	-1,692.5	-383.3	1,218.0	1,202.7	15.38	79.181	
5,000.0	4,949.2	4,965.6	4,965.1	14.2	1.5	-170.80	-1,691.3	-384.5	1,217.1	1,201.6	15.51	78.459	
5,019.7	4,968.8	4,985.7	4,985.1	14.2	1.5	-170.78	-1,691.0	-384.9	1,216.8	1,201.3	15.55	78.272	

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 SCHAUMBERG 17G-314
<b>Project:</b>	WELD COUNTY, COLORADO	<b>TVD Reference:</b>	KB-EST @ 4633.0usft (Original Well Elev)
<b>Reference Site:</b>	SW NW SEC. 17 T5N R64W 6th P.M.	<b>MD Reference:</b>	KB-EST @ 4633.0usft (Original Well Elev)
<b>Site Error:</b>	0.0 usft	<b>North Reference:</b>	True
<b>Reference Well:</b>	SCHAUMBERG 17G-314	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Well Error:</b>	0.0 usft	<b>Output errors are at</b>	2.00 sigma
<b>Reference Wellbore</b>	ORIGINAL WELLBORE	<b>Database:</b>	EDM 5000.1 Single User Db
<b>Reference Design:</b>	PROPOSAL #1	<b>Offset TVD Reference:</b>	Offset Datum

<b>Offset Design</b> NW SW SEC. 17 T5N R64W 6th P.M. - EXIST VERT DUNN/MILLER #1 - 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
5,100.0	5,049.2	5,057.9	5,057.3	14.3	1.5	-170.72	-1,690.0	-386.2	1,216.0	1,200.3	15.68	77.539	
5,118.1	5,067.3	5,073.7	5,073.1	14.3	1.5	-170.70	-1,689.9	-386.4	1,215.9	1,200.2	15.71	77.380	
5,200.0	5,149.2	5,151.1	5,150.5	14.5	1.5	-170.65	-1,689.6	-387.5	1,215.7	1,199.9	15.85	76.679	
5,216.5	5,165.7	5,167.4	5,166.8	14.5	1.5	-170.64	-1,689.5	-387.8	1,215.7	1,199.8	15.88	76.538	
5,300.0	5,249.2	5,249.9	5,249.3	14.6	1.5	-170.59	-1,689.3	-388.7	1,215.7	1,199.6	16.03	75.834	
5,312.8	5,261.9	5,262.6	5,261.9	14.6	1.5	-170.59	-1,689.3	-388.8	1,215.7	1,199.6	16.05	75.727	
5,314.9	5,264.1	5,264.7	5,264.1	14.6	1.5	-170.59	-1,689.3	-388.9	1,215.7	1,199.6	16.06	75.709	
5,400.0	5,349.2	5,347.7	5,347.1	14.8	1.6	-170.56	-1,689.2	-389.5	1,215.7	1,199.5	16.21	75.011	
5,413.4	5,362.5	5,360.6	5,360.0	14.8	1.6	-170.55	-1,689.2	-389.6	1,215.7	1,199.5	16.23	74.903	
5,500.0	5,449.2	5,448.1	5,447.5	14.9	1.6	-170.53	-1,689.4	-390.0	1,216.0	1,199.6	16.38	74.215	
5,511.8	5,461.0	5,460.5	5,459.9	14.9	1.6	-170.53	-1,689.4	-390.0	1,216.0	1,199.6	16.41	74.120	
5,587.7	5,536.8	5,537.5	5,536.8	15.1	1.6	-170.52	-1,689.4	-390.2	1,216.0	1,199.4	16.54	73.509	
5,600.0	5,549.2	5,549.5	5,548.9	15.1	1.6	-170.52	-1,689.3	-390.3	1,216.0	1,199.4	16.56	73.410	
5,610.2	5,559.4	5,559.5	5,558.9	15.1	1.6	-170.52	-1,689.3	-390.3	1,216.0	1,199.4	16.58	73.328	
5,700.0	5,649.2	5,648.6	5,648.0	15.2	1.6	-170.50	-1,689.4	-390.6	1,216.0	1,199.3	16.74	72.631	
5,708.6	5,657.8	5,657.3	5,656.6	15.3	1.6	-170.50	-1,689.4	-390.6	1,216.1	1,199.3	16.76	72.565	
5,800.0	5,749.2	5,750.3	5,749.6	15.4	1.6	-170.50	-1,689.4	-390.7	1,216.1	1,199.2	16.91	71.908	
5,807.1	5,756.2	5,757.6	5,756.9	15.4	1.6	-170.50	-1,689.4	-390.7	1,216.1	1,199.2	16.92	71.859	
5,900.0	5,849.2	5,852.6	5,851.9	15.6	1.6	-170.50	-1,689.3	-390.6	1,216.0	1,198.9	17.08	71.190	
5,905.5	5,854.7	5,858.1	5,857.5	15.6	1.6	-170.50	-1,689.3	-390.6	1,215.9	1,198.9	17.09	71.149	
6,000.0	5,949.2	5,953.7	5,953.1	15.7	1.6	-170.51	-1,689.0	-390.5	1,215.7	1,198.4	17.26	70.444	
6,003.9	5,953.1	5,957.6	5,957.0	15.7	1.6	-170.51	-1,689.0	-390.5	1,215.7	1,198.4	17.26	70.415	
6,100.0	6,049.2	6,054.6	6,054.0	15.9	1.7	-170.50	-1,688.6	-390.5	1,215.3	1,197.9	17.44	69.690	
6,102.3	6,051.5	6,057.0	6,056.4	15.9	1.7	-170.50	-1,688.6	-390.5	1,215.3	1,197.9	17.44	69.672	
6,124.6	6,073.8	6,079.5	6,078.9	15.9	1.7	-170.50	-1,688.5	-390.6	1,215.2	1,197.7	17.48	69.503	
6,150.0	6,099.2	6,105.0	6,104.4	16.0	1.7	-80.53	-1,688.4	-390.6	1,215.0	1,200.1	14.94	81.339	
6,200.0	6,149.0	6,154.4	6,153.8	16.1	1.7	-80.75	-1,688.2	-390.7	1,214.3	1,199.2	15.08	80.541	
6,200.8	6,149.8	6,155.2	6,154.5	16.1	1.7	-80.75	-1,688.2	-390.7	1,214.2	1,199.2	15.08	80.527	
6,250.0	6,198.5	6,203.4	6,202.7	16.2	1.7	-81.16	-1,688.0	-390.8	1,213.0	1,197.7	15.23	79.631	
6,299.2	6,246.6	6,250.5	6,249.8	16.3	1.7	-81.75	-1,687.8	-391.0	1,211.3	1,195.9	15.40	78.633	
6,300.0	6,247.4	6,251.2	6,250.6	16.3	1.7	-81.76	-1,687.8	-391.0	1,211.2	1,195.8	15.41	78.617	
6,350.0	6,295.5	6,298.2	6,297.6	16.5	1.7	-82.52	-1,687.7	-391.2	1,209.1	1,193.5	15.60	77.495	
6,397.6	6,340.2	6,343.7	6,343.1	16.6	1.7	-83.42	-1,687.6	-391.3	1,206.9	1,191.1	15.82	76.316	
6,400.0	6,342.4	6,345.9	6,345.3	16.6	1.7	-83.47	-1,687.6	-391.3	1,206.8	1,191.0	15.83	76.257	
6,450.0	6,388.1	6,392.4	6,391.7	16.8	1.7	-84.56	-1,687.4	-391.4	1,204.4	1,188.3	16.08	74.901	
6,496.0	6,428.8	6,432.2	6,431.6	17.0	1.7	-85.61	-1,687.3	-391.5	1,202.1	1,185.8	16.34	73.553	
6,500.0	6,432.2	6,435.6	6,434.9	17.0	1.8	-85.71	-1,687.3	-391.5	1,201.9	1,185.6	16.37	73.440	
6,550.0	6,474.6	6,476.8	6,476.1	17.3	1.8	-86.91	-1,687.2	-391.7	1,199.8	1,183.1	16.69	71.871	
6,594.5	6,510.7	6,513.0	6,512.4	17.5	1.8	-88.03	-1,687.2	-391.8	1,198.4	1,181.3	17.03	70.374	
6,600.0	6,515.0	6,517.6	6,517.0	17.6	1.8	-88.18	-1,687.2	-391.8	1,198.2	1,181.1	17.07	70.192	
6,650.0	6,553.3	6,558.3	6,557.7	17.9	1.8	-89.51	-1,687.1	-392.0	1,197.2	1,179.7	17.50	68.407	
6,684.7	6,578.5	6,585.1	6,584.5	18.1	1.8	-90.40	-1,686.9	-392.1	1,197.0	1,179.1	17.84	67.097 CC	
6,692.9	6,584.3	6,591.2	6,590.6	18.2	1.8	-90.61	-1,686.9	-392.1	1,197.0	1,179.1	17.92	66.800	
6,700.0	6,589.2	6,596.5	6,595.9	18.2	1.8	-90.79	-1,686.9	-392.1	1,197.0	1,179.0	17.99	66.546 ES	
6,750.0	6,622.7	6,631.2	6,630.6	18.6	1.8	-91.95	-1,686.7	-392.2	1,197.9	1,179.4	18.53	64.633	
6,791.3	6,648.3	6,657.8	6,657.2	19.0	1.8	-92.81	-1,686.5	-392.3	1,199.6	1,180.6	19.04	63.021	
6,800.0	6,653.4	6,663.2	6,662.6	19.1	1.8	-92.97	-1,686.5	-392.3	1,200.1	1,181.0	19.14	62.703	
6,850.0	6,681.4	6,692.3	6,691.7	19.6	1.8	-93.83	-1,686.2	-392.4	1,203.8	1,184.0	19.80	60.787	
6,889.7	6,701.5	6,712.9	6,712.3	20.1	1.8	-94.34	-1,686.1	-392.5	1,208.0	1,187.6	20.38	59.279	
6,900.0	6,706.3	6,717.9	6,717.3	20.2	1.8	-94.45	-1,686.0	-392.6	1,209.2	1,188.7	20.52	58.917	
6,950.0	6,728.2	6,740.3	6,739.7	20.9	1.8	-94.82	-1,685.8	-392.7	1,216.4	1,195.1	21.30	57.113	
6,988.2	6,742.8	6,755.4	6,754.7	21.5	1.8	-94.93	-1,685.7	-392.8	1,223.2	1,201.3	21.93	55.773	

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 SCHAUMBERG 17G-314
<b>Project:</b>	WELD COUNTY, COLORADO	<b>TVD Reference:</b>	KB-EST @ 4633.0usft (Original Well Elev)
<b>Reference Site:</b>	SW NW SEC. 17 T5N R64W 6th P.M.	<b>MD Reference:</b>	KB-EST @ 4633.0usft (Original Well Elev)
<b>Site Error:</b>	0.0 usft	<b>North Reference:</b>	True
<b>Reference Well:</b>	SCHAUMBERG 17G-314	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Well Error:</b>	0.0 usft	<b>Output errors are at</b>	2.00 sigma
<b>Reference Wellbore</b>	ORIGINAL WELLBORE	<b>Database:</b>	EDM 5000.1 Single User Db
<b>Reference Design:</b>	PROPOSAL #1	<b>Offset TVD Reference:</b>	Offset Datum

<b>Offset Design</b> NW SW SEC. 17 T5N R64W 6th P.M. - EXIST VERT DUNN/MILLER #1 - 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
7,000.0	6,746.9	6,759.7	6,759.0	21.6	1.8	-94.93	-1,685.7	-392.9	1,225.6	1,203.4	22.13	55.388	
7,050.0	6,762.4	6,775.8	6,775.1	22.5	1.8	-94.75	-1,685.5	-393.0	1,236.7	1,213.7	23.01	53.753	
7,086.6	6,771.5	6,785.5	6,784.9	23.1	1.8	-94.42	-1,685.5	-393.1	1,246.1	1,222.4	23.69	52.603	
7,100.0	6,774.4	6,788.6	6,788.0	23.3	1.8	-94.25	-1,685.4	-393.2	1,249.8	1,225.9	23.94	52.210	
7,150.0	6,783.1	6,798.0	6,797.4	24.3	1.8	-93.42	-1,685.4	-393.3	1,265.0	1,240.1	24.92	50.757	
7,185.0	6,787.1	6,800.0	6,799.4	25.0	1.8	-92.52	-1,685.4	-393.3	1,276.7	1,251.1	25.65	49.782	
7,200.0	6,788.3	6,800.0	6,799.4	25.3	1.8	-92.07	-1,685.4	-393.3	1,282.0	1,256.1	25.96	49.386	
7,252.3	6,790.0	6,800.0	6,799.4	26.3	1.8	-90.36	-1,685.4	-393.3	1,301.8	1,274.7	27.11	48.026	
7,283.4	6,789.9	6,800.0	6,799.4	27.0	1.8	-90.36	-1,685.4	-393.3	1,314.5	1,286.7	27.80	47.286	
7,300.0	6,789.8	6,800.0	6,799.4	27.3	1.8	-90.36	-1,685.4	-393.3	1,321.5	1,293.3	28.17	46.916	
7,381.9	6,789.5	6,800.0	6,799.4	29.1	1.8	-90.36	-1,685.4	-393.3	1,358.4	1,328.3	30.05	45.207	
7,400.0	6,789.4	6,800.0	6,799.4	29.5	1.8	-90.36	-1,685.4	-393.3	1,367.1	1,336.6	30.46	44.874	
7,480.3	6,789.1	6,800.0	6,799.4	31.4	1.8	-90.36	-1,685.4	-393.3	1,407.8	1,375.4	32.38	43.480	
7,500.0	6,789.1	6,800.0	6,799.4	31.8	1.8	-90.36	-1,685.4	-393.3	1,418.3	1,385.4	32.85	43.178	
7,578.7	6,788.8	6,800.0	6,799.4	33.7	1.8	-90.36	-1,685.4	-393.3	1,462.2	1,427.4	34.78	42.046	
7,600.0	6,788.7	6,800.0	6,799.4	34.2	1.8	-90.35	-1,685.4	-393.3	1,474.5	1,439.2	35.30	41.776	
7,677.1	6,788.4	6,800.0	6,799.4	36.1	1.8	-90.35	-1,685.4	-393.3	1,521.0	1,483.8	37.23	40.858	
7,700.0	6,788.3	6,800.0	6,799.4	36.7	1.8	-90.35	-1,685.4	-393.3	1,535.2	1,497.4	37.80	40.616	
7,775.6	6,788.0	6,800.0	6,799.4	38.6	1.8	-90.35	-1,685.4	-393.3	1,583.7	1,544.0	39.72	39.872	
7,800.0	6,787.9	6,800.0	6,799.4	39.2	1.8	-90.35	-1,685.4	-393.3	1,599.9	1,559.5	40.34	39.657	
7,874.0	6,787.6	6,800.0	6,799.4	41.0	1.8	-90.35	-1,685.4	-393.3	1,650.0	1,607.7	42.25	39.052	
7,900.0	6,787.6	6,800.0	6,799.4	41.7	1.8	-90.35	-1,685.4	-393.3	1,668.0	1,625.1	42.92	38.862	
7,972.4	6,787.3	6,800.0	6,799.4	43.6	1.8	-90.35	-1,685.4	-393.3	1,719.3	1,674.5	44.81	38.369	
8,000.0	6,787.2	6,800.0	6,799.4	44.3	1.8	-90.35	-1,685.4	-393.3	1,739.2	1,693.7	45.53	38.201	
8,070.8	6,786.9	6,800.0	6,799.4	46.1	1.8	-90.35	-1,685.4	-393.3	1,791.3	1,743.9	47.39	37.798	
8,100.0	6,786.8	6,800.0	6,799.4	46.9	1.8	-90.35	-1,685.4	-393.3	1,813.2	1,765.0	48.16	37.649	
8,169.3	6,786.5	6,800.0	6,799.4	48.7	1.8	-90.35	-1,685.4	-393.3	1,865.8	1,815.8	50.00	37.319	
8,200.0	6,786.4	6,800.0	6,799.4	49.5	1.8	-90.35	-1,685.4	-393.3	1,889.5	1,838.7	50.81	37.187	
8,267.7	6,786.1	6,800.0	6,799.4	51.3	1.8	-90.35	-1,685.4	-393.3	1,942.4	1,889.8	52.62	36.916	
8,300.0	6,786.0	6,800.0	6,799.4	52.1	1.8	-90.35	-1,685.4	-393.3	1,968.0	1,914.5	53.48	36.799	
8,366.1	6,785.8	6,800.0	6,799.4	53.9	1.8	-90.35	-1,685.4	-393.3	2,020.9	1,965.6	55.25	36.576	
8,400.0	6,785.6	6,800.0	6,799.4	54.8	1.8	-90.35	-1,685.4	-393.3	2,048.3	1,992.1	56.16	36.472	
8,464.5	6,785.4	6,800.0	6,799.4	56.5	1.8	-90.35	-1,685.4	-393.3	2,101.0	2,043.1	57.90	36.287	
8,500.0	6,785.3	6,800.0	6,799.4	57.5	1.8	-90.35	-1,685.4	-393.3	2,130.3	2,071.4	58.86	36.195	
8,563.0	6,785.0	6,800.0	6,799.4	59.2	1.8	-90.35	-1,685.4	-393.3	2,182.7	2,122.1	60.56	36.043	
8,600.0	6,784.9	6,800.0	6,799.4	60.2	1.8	-90.35	-1,685.4	-393.3	2,213.8	2,152.2	61.56	35.961	
8,661.4	6,784.6	6,800.0	6,799.4	61.8	1.8	-90.35	-1,685.4	-393.3	2,265.7	2,202.5	63.23	35.834	
8,700.0	6,784.5	6,800.0	6,799.4	62.9	1.8	-90.35	-1,685.4	-393.3	2,298.6	2,234.3	64.28	35.762	
8,759.8	6,784.3	6,800.0	6,799.4	64.5	1.8	-90.35	-1,685.4	-393.3	2,349.9	2,284.0	65.90	35.656	
8,800.0	6,784.1	6,800.0	6,799.4	65.6	1.8	-90.35	-1,685.4	-393.3	2,384.6	2,317.6	67.00	35.592	
8,858.2	6,783.9	6,800.0	6,799.4	67.1	1.8	-90.35	-1,685.4	-393.3	2,435.1	2,366.6	68.59	35.504	
8,900.0	6,783.7	6,800.0	6,799.4	68.3	1.8	-90.35	-1,685.4	-393.3	2,471.6	2,401.9	69.73	35.446	
8,956.7	6,783.5	6,800.0	6,799.4	69.8	1.8	-90.35	-1,685.4	-393.3	2,521.4	2,450.1	71.28	35.373	
9,000.0	6,783.3	6,800.0	6,799.4	71.0	1.8	-90.35	-1,685.4	-393.3	2,559.6	2,487.1	72.46	35.322	
9,055.1	6,783.1	6,800.0	6,799.4	72.5	1.8	-90.35	-1,685.4	-393.3	2,608.4	2,534.5	73.97	35.261	
9,100.0	6,782.9	6,800.0	6,799.4	73.7	1.8	-90.35	-1,685.4	-393.3	2,648.4	2,573.2	75.21	35.216	
9,153.5	6,782.7	6,800.0	6,799.4	75.2	1.8	-90.35	-1,685.4	-393.3	2,696.3	2,619.6	76.68	35.165	
9,200.0	6,782.6	6,800.0	6,799.4	76.5	1.8	-90.35	-1,685.4	-393.3	2,738.0	2,660.1	77.95	35.124	
9,251.9	6,782.4	6,800.0	6,799.4	77.9	1.8	-90.35	-1,685.4	-393.3	2,784.9	2,705.5	79.38	35.082	
9,300.0	6,782.2	6,800.0	6,799.4	79.2	1.8	-90.35	-1,685.4	-393.3	2,828.3	2,747.6	80.70	35.046	
9,350.4	6,782.0	6,800.0	6,799.4	80.6	1.8	-90.35	-1,685.4	-393.3	2,874.1	2,792.0	82.09	35.010	
9,400.0	6,781.8	6,800.0	6,799.4	82.0	1.8	-90.35	-1,685.4	-393.3	2,919.3	2,835.8	83.46	34.978	

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 SCHAUMBERG 17G-314
<b>Project:</b>	WELD COUNTY, COLORADO	<b>TVD Reference:</b>	KB-EST @ 4633.0usft (Original Well Elev)
<b>Reference Site:</b>	SW NW SEC. 17 T5N R64W 6th P.M.	<b>MD Reference:</b>	KB-EST @ 4633.0usft (Original Well Elev)
<b>Site Error:</b>	0.0 usft	<b>North Reference:</b>	True
<b>Reference Well:</b>	SCHAUMBERG 17G-314	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Well Error:</b>	0.0 usft	<b>Output errors are at</b>	2.00 sigma
<b>Reference Wellbore</b>	ORIGINAL WELLBORE	<b>Database:</b>	EDM 5000.1 Single User Db
<b>Reference Design:</b>	PROPOSAL #1	<b>Offset TVD Reference:</b>	Offset Datum

<b>Offset Design</b> NW SW SEC. 17 T5N R64W 6th P.M. - EXIST VERT DUNN/MILLER #1 - 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
9,448.8	6,781.6	6,800.0	6,799.4	83.3	1.8	-90.35	-1,685.4	-393.3	2,963.9	2,879.0	84.81	34.949	
9,500.0	6,781.4	6,800.0	6,799.4	84.7	1.8	-90.35	-1,685.4	-393.3	3,010.8	2,924.6	86.22	34.920	
9,547.2	6,781.2	6,800.0	6,799.4	86.0	1.8	-90.35	-1,685.4	-393.3	3,054.2	2,966.7	87.52	34.896	
9,600.0	6,781.0	6,800.0	6,799.4	87.5	1.8	-90.34	-1,685.4	-393.3	3,102.8	3,013.8	88.98	34.871	
9,645.6	6,780.8	6,800.0	6,799.4	88.7	1.8	-90.34	-1,685.4	-393.3	3,145.0	3,054.7	90.24	34.850	
9,700.0	6,780.6	6,800.0	6,799.4	90.2	1.8	-90.34	-1,685.4	-393.3	3,195.3	3,103.6	91.75	34.828	
9,744.1	6,780.4	6,800.0	6,799.4	91.4	1.8	-90.34	-1,685.4	-393.3	3,236.2	3,143.3	92.97	34.811	
9,800.0	6,780.2	6,800.0	6,799.4	93.0	1.8	-90.34	-1,685.4	-393.3	3,288.3	3,193.8	94.51	34.792	
9,842.5	6,780.1	6,800.0	6,799.4	94.2	1.8	-90.34	-1,685.4	-393.3	3,327.9	3,232.2	95.69	34.778	
9,900.0	6,779.8	6,800.0	6,799.4	95.7	1.8	-90.34	-1,685.4	-393.3	3,381.6	3,284.3	97.28	34.760	
9,940.9	6,779.7	6,800.0	6,799.4	96.9	1.8	-90.34	-1,685.4	-393.3	3,419.9	3,321.5	98.42	34.749	
10,000.0	6,779.4	6,800.0	6,799.4	98.5	1.8	-90.34	-1,685.4	-393.3	3,475.4	3,375.3	100.06	34.734	
10,039.3	6,779.3	6,800.0	6,799.4	99.6	1.8	-90.34	-1,685.4	-393.3	3,512.3	3,411.2	101.15	34.724	
10,100.0	6,779.0	6,800.0	6,799.4	101.3	1.8	-90.34	-1,685.4	-393.3	3,569.4	3,466.6	102.83	34.711	
10,137.8	6,778.9	6,800.0	6,799.4	102.3	1.8	-90.34	-1,685.4	-393.3	3,605.0	3,501.2	103.88	34.704	
10,200.0	6,778.7	6,800.0	6,799.4	104.1	1.8	-90.34	-1,685.4	-393.3	3,663.8	3,558.2	105.61	34.692	
10,236.2	6,778.5	6,800.0	6,799.4	105.1	1.8	-90.34	-1,685.4	-393.3	3,698.0	3,591.4	106.61	34.686	
10,300.0	6,778.3	6,800.0	6,799.4	106.8	1.8	-90.34	-1,685.4	-393.3	3,758.5	3,650.1	108.39	34.676	
10,334.6	6,778.1	6,800.0	6,799.4	107.8	1.8	-90.34	-1,685.4	-393.3	3,791.3	3,682.0	109.35	34.671	
10,400.0	6,777.9	6,800.0	6,799.4	109.6	1.8	-90.34	-1,685.4	-393.3	3,853.4	3,742.2	111.17	34.663	
10,433.0	6,777.7	6,800.0	6,799.4	110.5	1.8	-90.34	-1,685.4	-393.3	3,884.8	3,772.8	112.09	34.659	
10,500.0	6,777.5	6,800.0	6,799.4	112.4	1.8	-90.34	-1,685.4	-393.3	3,948.6	3,834.6	113.95	34.652	
10,531.5	6,777.3	6,800.0	6,799.4	113.3	1.8	-90.34	-1,685.4	-393.3	3,978.6	3,863.8	114.82	34.649	
10,600.0	6,777.1	6,800.0	6,799.4	115.2	1.8	-90.33	-1,685.4	-393.3	4,044.0	3,927.3	116.73	34.644	
10,629.9	6,777.0	6,800.0	6,799.4	116.0	1.8	-90.33	-1,685.4	-393.3	4,072.6	3,955.0	117.56	34.641	
10,700.0	6,776.7	6,800.0	6,799.4	117.9	1.8	-90.33	-1,685.4	-393.3	4,139.7	4,020.1	119.52	34.637	
10,728.3	6,776.6	6,800.0	6,799.4	118.7	1.8	-90.33	-1,685.4	-393.3	4,166.8	4,046.5	120.31	34.635	
10,800.0	6,776.3	6,800.0	6,799.4	120.7	1.8	-90.33	-1,685.4	-393.3	4,235.5	4,113.2	122.30	34.631	
10,826.7	6,776.2	6,800.0	6,799.4	121.5	1.8	-90.33	-1,685.4	-393.3	4,261.2	4,138.1	123.05	34.630	
10,900.0	6,775.9	6,800.0	6,799.4	123.5	1.8	-90.33	-1,685.4	-393.3	4,331.5	4,206.4	125.09	34.628	
10,925.2	6,775.8	6,800.0	6,799.4	124.2	1.8	-90.33	-1,685.4	-393.3	4,355.7	4,229.9	125.79	34.627	
11,000.0	6,775.5	6,800.0	6,799.4	126.3	1.8	-90.33	-1,685.4	-393.3	4,427.7	4,299.8	127.88	34.625	
11,023.6	6,775.4	6,800.0	6,799.4	126.9	1.8	-90.33	-1,685.4	-393.3	4,450.4	4,321.9	128.53	34.624	
11,100.0	6,775.1	6,800.0	6,799.4	129.1	1.8	-90.33	-1,685.4	-393.3	4,524.1	4,393.4	130.67	34.623	
11,122.0	6,775.0	6,800.0	6,799.4	129.7	1.8	-90.33	-1,685.4	-393.3	4,545.3	4,414.1	131.28	34.623	
11,200.0	6,774.7	6,800.0	6,799.4	131.9	1.8	-90.33	-1,685.4	-393.3	4,620.6	4,487.2	133.46	34.623	
11,220.4	6,774.6	6,800.0	6,799.4	132.4	1.8	-90.33	-1,685.4	-393.3	4,640.4	4,506.3	134.03	34.623 SF	
11,300.0	6,774.3	6,800.0	6,799.4	134.6	1.8	-90.33	-1,685.4	-393.3	4,717.3	4,581.0	136.25	34.623	
11,318.9	6,774.2	6,800.0	6,799.4	135.2	1.8	-90.33	-1,685.4	-393.3	4,735.5	4,598.8	136.77	34.623	
11,400.0	6,773.9	6,800.0	6,799.4	137.4	1.8	-90.33	-1,685.4	-393.3	4,814.1	4,675.0	139.04	34.624	
11,417.3	6,773.8	6,800.0	6,799.4	137.9	1.8	-90.33	-1,685.4	-393.3	4,830.8	4,691.3	139.52	34.625	
11,500.0	6,773.5	6,800.0	6,799.4	140.2	1.8	-90.32	-1,685.4	-393.3	4,911.0	4,769.2	141.83	34.626	
11,515.7	6,773.4	6,800.0	6,799.4	140.7	1.8	-90.32	-1,685.4	-393.3	4,926.3	4,784.0	142.27	34.626	
11,600.0	6,773.1	6,800.0	6,799.4	143.0	1.8	-90.32	-1,685.4	-393.3	5,008.1	4,863.4	144.62	34.629	
11,614.1	6,773.0	6,800.0	6,799.4	143.4	1.8	-90.32	-1,685.4	-393.3	5,021.8	4,876.8	145.02	34.629	
11,700.0	6,772.7	6,800.0	6,799.4	145.8	1.8	-90.32	-1,685.4	-393.3	5,105.2	4,957.8	147.42	34.631	
11,712.6	6,772.6	6,800.0	6,799.4	146.2	1.8	-90.32	-1,685.4	-393.3	5,117.5	4,969.7	147.77	34.632	
11,800.0	6,772.3	6,800.0	6,799.4	148.6	1.8	-90.32	-1,685.4	-393.3	5,202.5	5,052.3	150.21	34.635	
11,811.0	6,772.2	6,800.0	6,799.4	148.9	1.8	-90.32	-1,685.4	-393.3	5,213.2	5,062.7	150.52	34.635	
11,900.0	6,771.9	6,800.0	6,799.4	151.4	1.8	-90.32	-1,685.4	-393.3	5,299.9	5,146.9	153.00	34.639	
11,909.4	6,771.8	6,800.0	6,799.4	151.7	1.8	-90.32	-1,685.4	-393.3	5,309.1	5,155.8	153.27	34.639	
12,000.0	6,771.5	6,800.0	6,799.4	154.2	1.8	-90.32	-1,685.4	-393.3	5,397.3	5,241.5	155.80	34.643	

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 SCHAUMBERG 17G-314
<b>Project:</b>	WELD COUNTY, COLORADO	<b>TVD Reference:</b>	KB-EST @ 4633.0usft (Original Well Elev)
<b>Reference Site:</b>	SW NW SEC. 17 T5N R64W 6th P.M.	<b>MD Reference:</b>	KB-EST @ 4633.0usft (Original Well Elev)
<b>Site Error:</b>	0.0 usft	<b>North Reference:</b>	True
<b>Reference Well:</b>	SCHAUMBERG 17G-314	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Well Error:</b>	0.0 usft	<b>Output errors are at</b>	2.00 sigma
<b>Reference Wellbore</b>	ORIGINAL WELLBORE	<b>Database:</b>	EDM 5000.1 Single User Db
<b>Reference Design:</b>	PROPOSAL #1	<b>Offset TVD Reference:</b>	Offset Datum

<b>Offset Design</b> NW SW SEC. 17 T5N R64W 6th P.M. - EXIST VERT DUNN/MILLER #1 - 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)	Offset Wellbore Centre +E/-W (usft)	Between Centres (usft)	Between Ellipses (usft)	Minimum Separation (usft)	Separation Factor		
12,007.8	6,771.4	6,800.0	6,799.4	154.4	1.8	-90.32	-1,685.4	-393.3	5,405.0	5,249.0	156.02	34.643		
12,100.0	6,771.1	6,800.0	6,799.4	157.0	1.8	-90.32	-1,685.4	-393.3	5,494.9	5,336.3	158.60	34.647		
12,106.3	6,771.0	6,800.0	6,799.4	157.2	1.8	-90.32	-1,685.4	-393.3	5,501.0	5,342.3	158.77	34.647		
12,200.0	6,770.7	6,800.0	6,799.4	159.8	1.8	-90.31	-1,685.4	-393.3	5,592.6	5,431.2	161.39	34.652		
12,204.7	6,770.6	6,800.0	6,799.4	159.9	1.8	-90.31	-1,685.4	-393.3	5,597.1	5,435.6	161.52	34.652		
12,300.0	6,770.3	6,800.0	6,799.4	162.6	1.8	-90.31	-1,685.4	-393.3	5,690.3	5,526.1	164.19	34.657		
12,303.1	6,770.2	6,800.0	6,799.4	162.7	1.8	-90.31	-1,685.4	-393.3	5,693.3	5,529.1	164.28	34.657		
12,361.7	6,770.0	6,800.0	6,799.4	164.3	1.8	-90.31	-1,685.4	-393.3	5,750.6	5,584.7	165.92	34.660		



# Anticollision Report



<b>Company:</b>	PDC ENERGY	<b>Local Co-ordinate Reference:</b>	Well SCHAUMBERG 17G-314
<b>Project:</b>	WELD COUNTY, COLORADO	<b>TVD Reference:</b>	KB-EST @ 4633.0usft (Original Well Elev)
<b>Reference Site:</b>	SW NW SEC. 17 T5N R64W 6th P.M.	<b>MD Reference:</b>	KB-EST @ 4633.0usft (Original Well Elev)
<b>Site Error:</b>	0.0 usft	<b>North Reference:</b>	True
<b>Reference Well:</b>	SCHAUMBERG 17G-314	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Well Error:</b>	0.0 usft	<b>Output errors are at</b>	2.00 sigma
<b>Reference Wellbore</b>	ORIGINAL WELLBORE	<b>Database:</b>	EDM 5000.1 Single User Db
<b>Reference Design:</b>	PROPOSAL #1	<b>Offset TVD Reference:</b>	Offset Datum

Offset Design												Offset Site Error:	0.0 usft
Survey Program: 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	172.83	-2,208.4	277.7	2,225.8				
98.4	98.4	100.0	100.0	0.1	0.1	172.83	-2,208.2	277.8	2,225.6	2,225.4	0.20	N/A	
100.0	100.0	100.0	100.0	0.1	0.1	172.83	-2,208.2	277.8	2,225.6	2,225.4	0.20	N/A	
177.9	177.9	170.9	170.9	0.3	0.1	172.83	-2,208.0	277.9	2,225.4	2,225.0	0.40	5,506.064	
196.8	196.8	187.2	187.2	0.3	0.1	172.83	-2,208.0	277.9	2,225.4	2,225.0	0.45	4,909.578	
200.0	200.0	190.0	190.0	0.3	0.1	172.83	-2,208.0	277.9	2,225.4	2,225.0	0.46	4,822.625	
295.3	295.3	295.1	295.1	0.5	0.2	172.82	-2,208.0	278.1	2,225.4	2,224.7	0.72	3,079.440	
300.0	300.0	300.0	300.0	0.5	0.2	172.82	-2,207.9	278.1	2,225.4	2,224.7	0.74	3,025.660	
340.6	340.6	333.6	333.6	0.6	0.2	172.82	-2,207.9	278.2	2,225.3	2,224.5	0.83	2,667.730	
393.7	393.7	377.1	377.1	0.8	0.2	172.82	-2,208.0	278.3	2,225.4	2,224.5	0.96	2,310.125	
400.0	400.0	382.3	382.3	0.8	0.2	172.82	-2,208.0	278.3	2,225.5	2,224.5	0.98	2,274.007	
492.1	492.1	465.8	465.8	1.0	0.3	172.81	-2,208.5	278.6	2,226.1	2,224.9	1.25	1,782.451	
500.0	500.0	473.2	473.2	1.0	0.3	172.81	-2,208.6	278.6	2,226.2	2,224.9	1.27	1,748.701	
590.5	590.5	565.7	565.7	1.2	0.4	172.80	-2,209.4	279.2	2,227.0	2,225.5	1.54	1,441.501	
600.0	600.0	575.8	575.8	1.2	0.4	172.79	-2,209.4	279.3	2,227.1	2,225.5	1.57	1,415.820	
689.0	689.0	668.3	668.3	1.4	0.4	172.78	-2,210.0	280.1	2,227.7	2,225.9	1.83	1,217.607	
700.0	700.0	679.6	679.6	1.4	0.4	172.78	-2,210.0	280.1	2,227.8	2,225.9	1.86	1,197.051	
787.4	787.4	768.1	768.1	1.6	0.5	172.77	-2,210.5	280.4	2,228.3	2,226.2	2.11	1,057.120	
800.0	800.0	780.7	780.7	1.7	0.5	172.77	-2,210.6	280.4	2,228.3	2,226.2	2.14	1,039.651	
885.8	885.8	864.6	864.5	1.9	0.5	172.76	-2,211.0	280.7	2,228.8	2,226.5	2.38	936.270	
900.0	900.0	878.3	878.3	1.9	0.5	172.76	-2,211.1	280.8	2,228.9	2,226.5	2.42	921.227	
984.2	984.2	963.0	963.0	2.1	0.6	172.75	-2,211.6	281.2	2,229.5	2,226.8	2.65	840.884	
1,000.0	1,000.0	979.1	979.0	2.1	0.6	172.75	-2,211.7	281.3	2,229.6	2,226.9	2.69	827.389	
1,082.7	1,082.7	1,064.8	1,064.7	2.3	0.6	172.75	-2,212.2	281.6	2,230.1	2,227.1	2.92	763.251	
1,100.0	1,100.0	1,082.8	1,082.8	2.3	0.6	172.74	-2,212.3	281.6	2,230.1	2,227.2	2.97	751.056	
1,181.1	1,181.1	1,164.4	1,164.4	2.5	0.7	172.74	-2,212.6	281.8	2,230.5	2,227.3	3.19	699.416	
1,200.0	1,200.0	1,183.2	1,183.2	2.6	0.7	172.74	-2,212.7	281.9	2,230.6	2,227.3	3.24	688.422	
1,279.5	1,279.5	1,262.7	1,262.7	2.7	0.7	172.74	-2,213.0	282.0	2,230.9	2,227.5	3.45	646.176	
1,300.0	1,300.0	1,283.3	1,283.2	2.8	0.7	172.74	-2,213.1	281.9	2,231.0	2,227.5	3.51	636.157	
1,377.9	1,377.9	1,358.7	1,358.7	3.0	0.7	172.74	-2,213.5	281.9	2,231.4	2,227.7	3.71	600.977	
1,400.0	1,400.0	1,379.8	1,379.8	3.0	0.8	172.74	-2,213.6	281.9	2,231.5	2,227.7	3.77	591.748	
1,476.4	1,476.4	1,455.8	1,455.8	3.2	0.8	172.75	-2,214.1	281.8	2,232.0	2,228.0	3.97	561.877	
1,500.0	1,500.0	1,479.7	1,479.7	3.2	0.8	172.75	-2,214.2	281.9	2,232.1	2,228.1	4.03	553.240	
1,574.8	1,574.8	1,561.2	1,561.1	3.4	0.8	172.74	-2,214.6	282.1	2,232.5	2,228.3	4.23	527.711	
1,600.0	1,600.0	1,589.3	1,589.3	3.5	0.8	172.74	-2,214.6	282.2	2,232.6	2,228.3	4.30	519.637	
1,673.2	1,673.2	1,666.8	1,666.8	3.6	0.8	172.73	-2,214.7	282.4	2,232.6	2,228.1	4.47	499.989	
1,700.0	1,700.0	1,694.9	1,694.9	3.7	0.8	172.73	-2,214.6	282.4	2,232.6	2,228.1	4.53	493.298	
1,726.7	1,726.7	1,719.7	1,719.7	3.8	0.8	172.73	-2,214.6	282.3	2,232.6	2,228.0	4.59	486.711	
1,771.6	1,771.6	1,760.4	1,760.3	3.9	0.8	172.74	-2,214.7	282.2	2,232.6	2,227.9	4.69	475.987	
1,800.0	1,800.0	1,786.0	1,786.0	3.9	0.8	172.74	-2,214.8	282.1	2,232.7	2,227.9	4.76	469.471	
1,870.1	1,870.1	1,852.8	1,852.8	4.1	0.9	-28.46	-2,215.1	281.8	2,232.2	2,227.3	4.90	455.906	
1,900.0	1,900.0	1,881.7	1,881.7	4.1	0.9	-28.47	-2,215.2	281.8	2,231.6	2,226.6	4.97	449.448	
1,968.5	1,968.4	1,953.7	1,953.7	4.2	0.9	-28.54	-2,215.6	281.6	2,229.1	2,224.0	5.11	436.140	
2,000.0	1,999.8	1,987.8	1,987.8	4.3	0.9	-28.58	-2,215.7	281.6	2,227.4	2,222.2	5.18	430.123	
2,066.9	2,066.5	2,063.2	2,063.2	4.4	0.9	-28.69	-2,215.7	281.4	2,222.6	2,217.3	5.31	418.331	
2,100.0	2,099.5	2,100.6	2,100.6	4.5	0.9	-28.77	-2,215.6	281.4	2,219.7	2,214.3	5.38	412.735	
2,165.3	2,164.4	2,164.8	2,164.8	4.6	0.9	-28.92	-2,215.4	281.2	2,212.8	2,207.3	5.52	401.221	
2,200.0	2,198.7	2,198.8	2,198.7	4.7	0.9	-29.02	-2,215.3	281.2	2,208.6	2,203.0	5.59	395.209	
2,263.8	2,261.8	2,262.4	2,262.3	4.8	0.9	-29.23	-2,215.1	281.1	2,200.0	2,194.3	5.73	384.267	
2,300.0	2,297.5	2,298.4	2,298.3	4.9	0.9	-29.36	-2,215.0	281.2	2,194.6	2,188.8	5.80	378.156	
2,362.2	2,358.6	2,360.6	2,360.6	5.0	0.9	-29.62	-2,214.7	281.4	2,184.3	2,178.4	5.95	367.107	
2,400.0	2,395.6	2,398.3	2,398.3	5.1	0.9	-29.79	-2,214.6	281.4	2,177.5	2,171.5	6.04	360.528	

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 SCHAUMBERG 17G-314
<b>Project:</b>	WELD COUNTY, COLORADO	<b>TVD Reference:</b>	KB-EST @ 4633.0usft (Original Well Elev)
<b>Reference Site:</b>	SW NW SEC. 17 T5N R64W 6th P.M.	<b>MD Reference:</b>	KB-EST @ 4633.0usft (Original Well Elev)
<b>Site Error:</b>	0.0 usft	<b>North Reference:</b>	True
<b>Reference Well:</b>	SCHAUMBERG 17G-314	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Well Error:</b>	0.0 usft	<b>Output errors are at</b>	2.00 sigma
<b>Reference Wellbore</b>	ORIGINAL WELLBORE	<b>Database:</b>	EDM 5000.1 Single User Db
<b>Reference Design:</b>	PROPOSAL #1	<b>Offset TVD Reference:</b>	Offset Datum

Offset Design													Offset Site Error:	0.0 usft
Survey Program: 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	2,454.9	2,453.5	2,453.5	5.3	0.9	-29.94	-2,214.4	281.4	2,166.3	2,160.2	6.18	350.400		
2,500.0	2,493.4	2,489.3	2,489.2	5.4	0.9	-30.05	-2,214.3	281.5	2,159.1	2,152.9	6.28	344.064		
2,559.0	2,551.2	2,548.8	2,548.7	5.6	1.0	-30.22	-2,214.2	281.7	2,148.4	2,142.0	6.42	334.435		
2,600.0	2,591.3	2,591.0	2,591.0	5.7	1.0	-30.34	-2,214.0	281.7	2,140.9	2,134.4	6.53	328.039		
2,657.5	2,647.5	2,644.7	2,644.7	5.9	1.0	-30.50	-2,213.9	281.8	2,130.4	2,123.7	6.67	319.244		
2,700.0	2,689.1	2,683.7	2,683.6	6.0	1.0	-30.61	-2,213.8	281.8	2,122.6	2,115.9	6.79	312.782		
2,755.9	2,743.7	2,733.5	2,733.5	6.2	1.0	-30.76	-2,213.8	281.9	2,112.6	2,105.7	6.94	304.629		
2,800.0	2,786.9	2,772.3	2,772.3	6.4	1.0	-30.88	-2,213.9	282.0	2,104.8	2,097.7	7.05	298.376		
2,854.3	2,840.0	2,822.7	2,822.7	6.6	1.0	-31.03	-2,214.1	282.1	2,095.3	2,088.1	7.21	290.754		
2,900.0	2,884.7	2,868.0	2,867.9	6.7	1.0	-31.16	-2,214.3	282.2	2,087.3	2,080.0	7.34	284.371		
2,952.7	2,936.3	2,919.8	2,919.8	6.9	1.0	-31.32	-2,214.6	282.3	2,078.2	2,070.7	7.50	277.206		
3,000.0	2,982.5	2,965.7	2,965.6	7.1	1.0	-31.46	-2,214.8	282.3	2,069.9	2,062.3	7.64	271.063		
3,051.2	3,032.6	3,014.8	3,014.8	7.3	1.1	-31.61	-2,215.0	282.1	2,061.1	2,053.3	7.79	264.559		
3,100.0	3,080.3	3,060.5	3,060.5	7.5	1.1	-31.74	-2,215.4	281.9	2,052.7	2,044.7	7.94	258.539		
3,149.6	3,128.8	3,108.3	3,108.2	7.7	1.1	-31.88	-2,215.7	281.7	2,044.2	2,036.1	8.09	252.569		
3,200.0	3,178.1	3,164.6	3,164.5	7.9	1.1	-32.05	-2,216.0	281.4	2,035.5	2,027.2	8.25	246.642		
3,248.0	3,225.1	3,220.7	3,220.7	8.1	1.1	-32.22	-2,216.2	281.2	2,027.0	2,018.6	8.41	241.100		
3,300.0	3,276.0	3,286.8	3,286.8	8.3	1.1	-32.42	-2,215.9	280.8	2,017.6	2,009.0	8.57	235.365		
3,346.4	3,321.4	3,333.0	3,332.9	8.5	1.1	-32.56	-2,215.5	280.4	2,008.9	2,000.2	8.72	230.424		
3,400.0	3,373.8	3,382.0	3,381.9	8.7	1.1	-32.71	-2,215.2	280.0	1,999.1	1,990.2	8.89	224.957		
3,444.9	3,417.7	3,424.8	3,424.7	8.8	1.1	-32.84	-2,214.9	279.7	1,990.8	1,981.8	9.03	220.506		
3,500.0	3,471.6	3,479.0	3,478.9	9.1	1.1	-33.01	-2,214.6	279.2	1,980.8	1,971.6	9.20	215.222		
3,543.3	3,513.9	3,518.8	3,518.7	9.2	1.1	-33.13	-2,214.5	278.7	1,972.9	1,963.5	9.34	211.197		
3,600.0	3,569.4	3,567.3	3,567.2	9.5	1.1	-33.27	-2,214.4	277.9	1,962.7	1,953.2	9.52	206.110		
3,641.7	3,610.2	3,603.3	3,603.2	9.7	1.1	-33.38	-2,214.5	277.3	1,955.4	1,945.7	9.66	202.455		
3,700.0	3,667.2	3,657.7	3,657.6	9.9	1.2	-33.53	-2,214.7	276.3	1,945.2	1,935.4	9.85	197.474		
3,740.1	3,706.5	3,695.2	3,695.1	10.1	1.2	-33.64	-2,214.9	275.7	1,938.3	1,928.3	9.98	194.163		
3,800.0	3,765.0	3,753.4	3,753.3	10.3	1.2	-33.82	-2,215.3	274.8	1,928.0	1,917.9	10.18	189.319		
3,838.6	3,802.8	3,791.1	3,791.0	10.5	1.2	-33.93	-2,215.5	274.2	1,921.4	1,911.1	10.32	186.272		
3,900.0	3,862.8	3,850.3	3,850.2	10.7	1.2	-34.10	-2,215.9	273.1	1,910.9	1,900.4	10.52	181.575		
3,937.0	3,899.0	3,885.9	3,885.7	10.9	1.2	-34.21	-2,216.1	272.4	1,904.6	1,894.0	10.65	178.810		
4,000.0	3,960.7	3,947.3	3,947.2	11.2	1.2	-34.39	-2,216.6	271.2	1,894.0	1,883.1	10.87	174.245		
4,035.4	3,995.3	3,982.1	3,981.9	11.3	1.2	-34.49	-2,216.9	270.4	1,888.0	1,877.0	10.99	171.748		
4,100.0	4,058.5	4,045.1	4,044.9	11.6	1.2	-34.67	-2,217.5	268.9	1,877.0	1,865.8	11.22	167.329		
4,133.8	4,091.6	4,078.1	4,077.9	11.7	1.2	-34.76	-2,217.8	268.0	1,871.3	1,860.0	11.34	165.073		
4,200.0	4,156.3	4,146.1	4,145.9	12.0	1.3	-34.95	-2,218.5	266.1	1,860.2	1,848.6	11.57	160.766		
4,232.3	4,187.9	4,180.0	4,179.8	12.2	1.3	-35.05	-2,218.7	265.1	1,854.7	1,843.0	11.69	158.707		
4,300.0	4,254.1	4,248.3	4,248.1	12.5	1.3	-35.24	-2,219.2	263.3	1,843.1	1,831.1	11.93	154.513		
4,325.7	4,279.2	4,273.7	4,273.5	12.6	1.3	-35.32	-2,219.3	262.6	1,838.7	1,826.6	12.02	152.965		
4,330.7	4,284.1	4,278.7	4,278.5	12.6	1.3	-35.32	-2,219.4	262.4	1,837.8	1,825.8	12.03	152.708		
4,400.0	4,352.1	4,359.9	4,359.6	12.8	1.3	-35.40	-2,219.7	260.0	1,826.5	1,814.3	12.24	149.234		
4,429.1	4,380.8	4,396.3	4,396.0	12.9	1.3	-35.43	-2,219.6	258.8	1,822.0	1,809.7	12.31	147.957		
4,500.0	4,450.7	4,475.7	4,475.3	13.1	1.3	-35.46	-2,219.1	255.9	1,811.7	1,799.2	12.49	145.025		
4,527.5	4,478.0	4,506.2	4,505.8	13.2	1.3	-35.46	-2,218.8	254.6	1,807.9	1,795.4	12.56	143.991		
4,600.0	4,549.9	4,584.4	4,583.9	13.4	1.3	-35.44	-2,217.9	251.3	1,799.0	1,786.2	12.72	141.438		
4,626.0	4,575.7	4,612.2	4,611.7	13.5	1.4	-35.43	-2,217.5	250.2	1,796.0	1,783.3	12.77	140.622		
4,700.0	4,649.4	4,690.4	4,689.8	13.6	1.4	-35.42	-2,216.1	247.8	1,788.6	1,775.7	12.92	138.416		
4,724.4	4,673.7	4,715.3	4,714.8	13.7	1.4	-35.42	-2,215.5	247.4	1,786.5	1,773.5	12.97	137.774		
4,800.0	4,749.2	4,791.0	4,790.4	13.8	1.4	-35.43	-2,213.5	246.9	1,781.0	1,767.9	13.11	135.889		
4,822.8	4,772.0	4,812.6	4,812.0	13.9	1.4	-35.44	-2,212.9	247.1	1,779.6	1,766.5	13.14	135.388		
4,900.0	4,849.2	4,882.7	4,882.0	14.0	1.4	-35.47	-2,211.0	247.6	1,776.3	1,763.0	13.28	133.798		
4,921.2	4,870.4	4,900.0	4,899.4	14.1	1.4	-35.47	-2,210.6	247.8	1,775.8	1,762.4	13.31	133.414		

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 SCHAUMBERG 17G-314
<b>Project:</b>	WELD COUNTY, COLORADO	<b>TVD Reference:</b>	KB-EST @ 4633.0usft (Original Well Elev)
<b>Reference Site:</b>	SW NW SEC. 17 T5N R64W 6th P.M.	<b>MD Reference:</b>	KB-EST @ 4633.0usft (Original Well Elev)
<b>Site Error:</b>	0.0 usft	<b>North Reference:</b>	True
<b>Reference Well:</b>	SCHAUMBERG 17G-314	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Well Error:</b>	0.0 usft	<b>Output errors are at</b>	2.00 sigma
<b>Reference Wellbore</b>	ORIGINAL WELLBORE	<b>Database:</b>	EDM 5000.1 Single User Db
<b>Reference Design:</b>	PROPOSAL #1	<b>Offset TVD Reference:</b>	Offset Datum

<b>Offset Design</b> NW SW SEC. 17 T5N R64W 6th P.M. - EXIST VERT DUNN/MILLER #17B - 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	
4,925.6	4,874.8	4,906.1	4,905.4	14.1	1.4	165.72	-2,210.4	247.8	1,775.7	1,761.3	14.39	123.375	
5,000.0	4,949.2	4,974.7	4,974.0	14.2	1.4	165.69	-2,208.9	248.5	1,774.2	1,759.7	14.52	122.199	
5,019.7	4,968.8	4,992.9	4,992.2	14.2	1.4	165.68	-2,208.5	248.7	1,773.9	1,759.3	14.55	121.898	
5,100.0	5,049.2	5,066.2	5,065.5	14.3	1.4	165.64	-2,207.1	249.7	1,772.6	1,758.0	14.69	120.702	
5,118.1	5,067.3	5,082.7	5,082.0	14.3	1.4	165.63	-2,206.8	249.9	1,772.4	1,757.7	14.72	120.435	
5,200.0	5,149.2	5,167.8	5,167.1	14.5	1.4	165.58	-2,205.4	251.1	1,771.4	1,756.5	14.86	119.238	
5,216.5	5,165.7	5,185.6	5,184.9	14.5	1.4	165.57	-2,205.1	251.3	1,771.1	1,756.3	14.88	118.994	
5,300.0	5,249.2	5,269.9	5,269.2	14.6	1.4	165.52	-2,203.4	252.5	1,769.9	1,754.8	15.03	117.773	
5,314.9	5,264.1	5,284.9	5,284.1	14.6	1.4	165.51	-2,203.1	252.7	1,769.6	1,754.6	15.05	117.554	
5,400.0	5,349.2	5,365.3	5,364.5	14.8	1.4	165.46	-2,201.7	253.8	1,768.4	1,753.2	15.20	116.333	
5,413.4	5,362.5	5,377.7	5,377.0	14.8	1.4	165.46	-2,201.5	254.0	1,768.3	1,753.0	15.22	116.143	
5,500.0	5,449.2	5,449.8	5,449.0	14.9	1.4	165.41	-2,200.5	255.1	1,767.5	1,752.1	15.37	114.962	
5,511.8	5,461.0	5,459.1	5,458.4	14.9	1.4	165.41	-2,200.5	255.2	1,767.5	1,752.1	15.40	114.806	
5,532.9	5,482.1	5,475.9	5,475.1	15.0	1.4	165.40	-2,200.4	255.5	1,767.5	1,752.0	15.43	114.531	
5,600.0	5,549.2	5,538.1	5,537.3	15.1	1.4	165.37	-2,200.3	256.5	1,767.6	1,752.1	15.55	113.670	
5,610.2	5,559.4	5,548.7	5,547.9	15.1	1.4	165.36	-2,200.3	256.7	1,767.7	1,752.1	15.57	113.537	
5,700.0	5,649.2	5,645.0	5,644.2	15.2	1.5	165.33	-2,200.1	257.8	1,767.8	1,752.0	15.73	112.374	
5,708.6	5,657.8	5,654.6	5,653.8	15.3	1.5	165.32	-2,200.1	257.9	1,767.8	1,752.0	15.75	112.261	
5,800.0	5,749.2	5,757.0	5,756.2	15.4	1.5	165.30	-2,199.4	258.4	1,767.3	1,751.4	15.91	111.052	
5,807.1	5,756.2	5,765.0	5,764.2	15.4	1.5	165.30	-2,199.3	258.5	1,767.3	1,751.3	15.93	110.957	
5,900.0	5,849.2	5,862.2	5,861.4	15.6	1.5	165.29	-2,198.3	258.4	1,766.3	1,750.2	16.10	109.700	
5,905.5	5,854.7	5,867.7	5,866.9	15.6	1.5	165.29	-2,198.3	258.4	1,766.2	1,750.1	16.11	109.626	
6,000.0	5,949.2	5,961.8	5,961.0	15.7	1.5	165.29	-2,197.2	258.2	1,765.2	1,748.9	16.29	108.364	
6,003.9	5,953.1	5,965.7	5,964.8	15.7	1.5	165.29	-2,197.2	258.2	1,765.2	1,748.9	16.30	108.312	
6,100.0	6,049.2	6,062.1	6,061.3	15.9	1.5	165.28	-2,196.1	258.4	1,764.1	1,747.7	16.48	107.055	
6,102.3	6,051.5	6,064.5	6,063.7	15.9	1.5	165.28	-2,196.1	258.4	1,764.1	1,747.6	16.48	107.024	
6,124.6	6,073.8	6,087.1	6,086.2	15.9	1.5	165.27	-2,195.8	258.4	1,763.9	1,747.4	16.53	106.736 ES	
6,150.0	6,099.2	6,112.2	6,111.3	16.0	1.5	-104.76	-2,195.5	258.5	1,763.7	1,748.0	15.75	111.960	
6,154.9	6,104.1	6,116.9	6,116.1	16.0	1.5	-104.77	-2,195.4	258.6	1,763.7	1,747.9	15.76	111.880 CC	
6,200.0	6,149.0	6,160.4	6,159.6	16.1	1.5	-104.85	-2,194.9	258.8	1,764.1	1,748.2	15.87	111.170	
6,200.8	6,149.8	6,161.1	6,160.3	16.1	1.5	-104.85	-2,194.9	258.8	1,764.1	1,748.2	15.87	111.156	
6,250.0	6,198.5	6,208.2	6,207.4	16.2	1.5	-104.97	-2,194.4	259.0	1,765.4	1,749.4	16.01	110.278	
6,299.2	6,246.6	6,254.4	6,253.6	16.3	1.5	-105.11	-2,193.9	259.3	1,767.7	1,751.5	16.17	109.304	
6,300.0	6,247.4	6,255.2	6,254.3	16.3	1.5	-105.11	-2,193.9	259.3	1,767.8	1,751.6	16.18	109.289	
6,350.0	6,295.5	6,300.0	6,299.2	16.5	1.5	-105.25	-2,193.5	259.6	1,771.1	1,754.8	16.37	108.216	
6,397.6	6,340.2	6,341.1	6,340.2	16.6	1.6	-105.36	-2,193.2	259.9	1,775.4	1,758.8	16.57	107.123	
6,400.0	6,342.4	6,343.0	6,342.2	16.6	1.6	-105.37	-2,193.1	259.9	1,775.7	1,759.1	16.58	107.071	
6,450.0	6,388.1	6,383.7	6,382.8	16.8	1.6	-105.45	-2,193.0	260.2	1,781.4	1,764.6	16.83	105.861	
6,496.0	6,428.8	6,421.8	6,420.9	17.0	1.6	-105.51	-2,192.9	260.4	1,787.8	1,770.8	17.08	104.666	
6,500.0	6,432.2	6,425.1	6,424.3	17.0	1.6	-105.51	-2,192.9	260.4	1,788.5	1,771.3	17.10	104.568	
6,550.0	6,474.6	6,466.3	6,465.4	17.3	1.6	-105.55	-2,192.8	260.7	1,796.8	1,779.4	17.41	103.190	
6,594.5	6,510.7	6,501.3	6,500.5	17.5	1.6	-105.53	-2,192.8	261.0	1,805.3	1,787.6	17.72	101.891	
6,600.0	6,515.0	6,505.8	6,505.0	17.6	1.6	-105.53	-2,192.8	261.1	1,806.4	1,788.7	17.76	101.739	
6,650.0	6,553.3	6,545.1	6,544.2	17.9	1.6	-105.45	-2,192.7	261.4	1,817.5	1,799.3	18.14	100.200	
6,692.9	6,584.3	6,576.9	6,576.0	18.2	1.6	-105.30	-2,192.7	261.6	1,828.1	1,809.6	18.50	98.801	
6,700.0	6,589.2	6,582.0	6,581.1	18.2	1.6	-105.27	-2,192.6	261.7	1,830.0	1,811.4	18.56	98.585	
6,750.0	6,622.7	6,615.7	6,614.8	18.6	1.6	-104.94	-2,192.6	261.9	1,843.9	1,824.9	19.03	96.898	
6,791.3	6,648.3	6,641.0	6,640.1	19.0	1.6	-104.53	-2,192.5	262.1	1,856.6	1,837.2	19.46	95.427	
6,800.0	6,653.4	6,646.1	6,645.2	19.1	1.6	-104.43	-2,192.5	262.2	1,859.4	1,839.9	19.54	95.139	
6,850.0	6,681.4	6,673.5	6,672.7	19.6	1.6	-103.75	-2,192.4	262.4	1,876.5	1,856.4	20.11	93.305	
6,889.7	6,701.5	6,693.2	6,692.4	20.1	1.6	-103.06	-2,192.3	262.6	1,891.2	1,870.6	20.61	91.771	
6,900.0	6,706.3	6,698.0	6,697.1	20.2	1.6	-102.86	-2,192.3	262.7	1,895.2	1,874.4	20.73	91.399	

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 SCHAUMBERG 17G-314
<b>Project:</b>	WELD COUNTY, COLORADO	<b>TVD Reference:</b>	KB-EST @ 4633.0usft (Original Well Elev)
<b>Reference Site:</b>	SW NW SEC. 17 T5N R64W 6th P.M.	<b>MD Reference:</b>	KB-EST @ 4633.0usft (Original Well Elev)
<b>Site Error:</b>	0.0 usft	<b>North Reference:</b>	True
<b>Reference Well:</b>	SCHAUMBERG 17G-314	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Well Error:</b>	0.0 usft	<b>Output errors are at</b>	2.00 sigma
<b>Reference Wellbore</b>	ORIGINAL WELLBORE	<b>Database:</b>	EDM 5000.1 Single User Db
<b>Reference Design:</b>	PROPOSAL #1	<b>Offset TVD Reference:</b>	Offset Datum

Offset Design												Offset Site Error:	0.0 usft
Survey Program: 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	
6,950.0	6,728.2	6,718.4	6,717.6	20.9	1.6	-101.73	-2,192.2	262.8	1,915.4	1,894.0	21.42	89.433	
6,988.2	6,742.8	6,732.0	6,731.1	21.5	1.6	-100.70	-2,192.2	263.0	1,931.8	1,909.8	21.98	87.870	
7,000.0	6,746.9	6,735.8	6,735.0	21.6	1.6	-100.36	-2,192.2	263.0	1,937.1	1,914.9	22.16	87.410	
7,050.0	6,762.4	6,750.2	6,749.3	22.5	1.6	-98.74	-2,192.2	263.1	1,960.3	1,937.3	22.97	85.338	
7,086.6	6,771.5	6,758.7	6,757.8	23.1	1.6	-97.39	-2,192.2	263.2	1,978.1	1,954.5	23.61	83.777	
7,100.0	6,774.4	6,761.4	6,760.5	23.3	1.6	-96.87	-2,192.2	263.2	1,984.8	1,961.0	23.85	83.225	
7,150.0	6,783.1	6,769.3	6,768.5	24.3	1.6	-94.73	-2,192.2	263.2	2,010.6	1,985.8	24.80	81.074	
7,185.0	6,787.1	6,772.9	6,772.1	25.0	1.6	-93.08	-2,192.2	263.3	2,029.4	2,003.9	25.52	79.533	
7,200.0	6,788.3	6,774.0	6,773.1	25.3	1.6	-92.34	-2,192.2	263.3	2,037.6	2,011.7	25.83	78.884	
7,252.3	6,790.0	6,775.3	6,774.5	26.3	1.6	-89.56	-2,192.2	263.3	2,066.8	2,039.8	27.00	76.553	
7,283.4	6,789.9	6,775.0	6,774.1	27.0	1.6	-89.55	-2,192.2	263.3	2,084.6	2,056.9	27.69	75.284	
7,300.0	6,789.8	6,774.8	6,774.0	27.3	1.6	-89.55	-2,192.2	263.3	2,094.2	2,066.1	28.06	74.639	
7,381.9	6,789.5	6,774.0	6,773.2	29.1	1.6	-89.52	-2,192.2	263.3	2,142.9	2,112.9	29.94	71.574	
7,400.0	6,789.4	6,773.9	6,773.0	29.5	1.6	-89.51	-2,192.2	263.3	2,153.9	2,123.6	30.36	70.955	
7,480.3	6,789.1	6,773.1	6,772.2	31.4	1.6	-89.49	-2,192.2	263.3	2,204.1	2,171.8	32.27	68.301	
7,500.0	6,789.1	6,772.9	6,772.0	31.8	1.6	-89.48	-2,192.2	263.3	2,216.6	2,183.9	32.74	67.705	
7,578.7	6,788.8	6,772.1	6,771.2	33.7	1.6	-89.45	-2,192.2	263.3	2,267.9	2,233.2	34.67	65.417	
7,600.0	6,788.7	6,771.9	6,771.0	34.2	1.6	-89.45	-2,192.2	263.3	2,282.0	2,246.8	35.19	64.849	
7,677.1	6,788.4	6,771.1	6,770.2	36.1	1.6	-89.42	-2,192.2	263.3	2,334.1	2,296.9	37.12	62.880	
7,700.0	6,788.3	6,770.9	6,770.0	36.7	1.6	-89.41	-2,192.2	263.3	2,349.8	2,312.1	37.69	62.343	
7,775.6	6,788.0	6,770.1	6,769.2	38.6	1.6	-89.39	-2,192.2	263.2	2,402.5	2,362.9	39.61	60.647	
7,800.0	6,787.9	6,769.8	6,769.0	39.2	1.6	-89.38	-2,192.2	263.2	2,419.8	2,379.5	40.24	60.140	
7,874.0	6,787.6	6,769.1	6,768.2	41.0	1.6	-89.35	-2,192.2	263.2	2,472.9	2,430.8	42.14	58.677	
7,900.0	6,787.6	6,768.8	6,767.9	41.7	1.6	-89.34	-2,192.2	263.2	2,491.8	2,449.0	42.81	58.200	
7,972.4	6,787.3	6,768.1	6,767.2	43.6	1.6	-89.32	-2,192.2	263.2	2,545.2	2,500.5	44.70	56.936	
8,000.0	6,787.2	6,767.8	6,766.9	44.3	1.6	-89.31	-2,192.2	263.2	2,565.8	2,520.4	45.42	56.487	
8,070.8	6,786.9	6,767.0	6,766.2	46.1	1.6	-89.28	-2,192.2	263.2	2,619.2	2,571.9	47.29	55.390	
8,100.0	6,786.8	6,766.7	6,765.9	46.9	1.6	-89.27	-2,192.2	263.2	2,641.4	2,593.4	48.05	54.968	
8,169.3	6,786.5	6,766.0	6,765.1	48.7	1.6	-89.25	-2,192.2	263.2	2,694.8	2,644.9	49.89	54.014	
8,200.0	6,786.4	6,765.7	6,764.8	49.5	1.6	-89.24	-2,192.2	263.2	2,718.7	2,667.9	50.70	53.617	
8,267.7	6,786.1	6,764.9	6,764.1	51.3	1.6	-89.21	-2,192.2	263.2	2,771.8	2,719.3	52.51	52.784	
8,300.0	6,786.0	6,764.6	6,763.7	52.1	1.6	-89.20	-2,192.2	263.2	2,797.3	2,744.0	53.37	52.411	
8,366.1	6,785.8	6,763.9	6,763.0	53.9	1.6	-89.17	-2,192.2	263.2	2,850.1	2,794.9	55.15	51.682	
8,400.0	6,785.6	6,763.5	6,762.6	54.8	1.6	-89.16	-2,192.2	263.2	2,877.3	2,821.3	56.06	51.330	
8,464.5	6,785.4	6,762.8	6,761.9	56.5	1.6	-89.14	-2,192.2	263.2	2,929.6	2,871.8	57.79	50.690	
8,500.0	6,785.3	6,762.4	6,761.5	57.5	1.6	-89.12	-2,192.2	263.2	2,958.5	2,899.8	58.75	50.358	
8,563.0	6,785.0	6,761.7	6,760.8	59.2	1.6	-89.10	-2,192.2	263.2	3,010.3	2,949.8	60.45	49.795	
8,600.0	6,784.9	6,761.3	6,760.4	60.2	1.6	-89.09	-2,192.2	263.2	3,040.9	2,979.4	61.45	49.481	
8,661.4	6,784.6	6,760.6	6,759.8	61.8	1.6	-89.06	-2,192.2	263.2	3,091.9	3,028.8	63.12	48.984	
8,700.0	6,784.5	6,760.2	6,759.3	62.9	1.6	-89.05	-2,192.2	263.2	3,124.2	3,060.1	64.17	48.687	
8,759.8	6,784.3	6,759.5	6,758.6	64.5	1.6	-89.03	-2,192.2	263.2	3,174.6	3,108.8	65.80	48.247	
8,800.0	6,784.1	6,759.1	6,758.2	65.6	1.6	-89.01	-2,192.2	263.2	3,208.5	3,141.6	66.89	47.966	
8,858.2	6,783.9	6,758.4	6,757.5	67.1	1.6	-88.99	-2,192.2	263.2	3,258.1	3,189.6	68.48	47.576	
8,900.0	6,783.7	6,757.9	6,757.1	68.3	1.6	-88.97	-2,192.2	263.2	3,293.7	3,224.1	69.62	47.309	
8,956.7	6,783.5	6,757.3	6,756.4	69.8	1.6	-88.95	-2,192.2	263.2	3,342.4	3,271.2	71.17	46.962	
9,000.0	6,783.3	6,756.8	6,755.9	71.0	1.6	-88.93	-2,192.2	263.2	3,379.7	3,307.4	72.36	46.709	
9,055.1	6,783.1	6,756.1	6,755.3	72.5	1.6	-88.91	-2,192.2	263.2	3,427.4	3,353.6	73.87	46.400	
9,100.0	6,782.9	6,755.6	6,754.7	73.7	1.6	-88.89	-2,192.2	263.1	3,466.5	3,391.4	75.10	46.159	
9,153.5	6,782.7	6,755.0	6,754.1	75.2	1.6	-88.87	-2,192.2	263.1	3,513.2	3,436.6	76.57	45.883	
9,200.0	6,782.6	6,754.4	6,753.6	76.5	1.6	-88.85	-2,192.2	263.1	3,553.9	3,476.1	77.84	45.654	
9,251.9	6,782.4	6,753.8	6,752.9	77.9	1.6	-88.83	-2,192.2	263.1	3,599.6	3,520.3	79.27	45.408	
9,300.0	6,782.2	6,753.2	6,752.4	79.2	1.6	-88.81	-2,192.2	263.1	3,642.0	3,561.4	80.59	45.189	

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 SCHAUMBERG 17G-314
<b>Project:</b>	WELD COUNTY, COLORADO	<b>TVD Reference:</b>	KB-EST @ 4633.0usft (Original Well Elev)
<b>Reference Site:</b>	SW NW SEC. 17 T5N R64W 6th P.M.	<b>MD Reference:</b>	KB-EST @ 4633.0usft (Original Well Elev)
<b>Site Error:</b>	0.0 usft	<b>North Reference:</b>	True
<b>Reference Well:</b>	SCHAUMBERG 17G-314	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Well Error:</b>	0.0 usft	<b>Output errors are at</b>	2.00 sigma
<b>Reference Wellbore</b>	ORIGINAL WELLBORE	<b>Database:</b>	EDM 5000.1 Single User Db
<b>Reference Design:</b>	PROPOSAL #1	<b>Offset TVD Reference:</b>	Offset Datum

<b>Offset Design</b> NW SW SEC. 17 T5N R64W 6th P.M. - EXIST VERT DUNN/MILLER #17B - 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
9,350.4	6,782.0	6,752.6	6,751.8	80.6	1.6	-88.79	-2,192.2	263.1	3,686.6	3,604.6	81.98	44.968	
9,400.0	6,781.8	6,752.0	6,751.2	82.0	1.6	-88.77	-2,192.2	263.1	3,730.7	3,647.4	83.35	44.760	
9,448.8	6,781.6	6,751.4	6,750.6	83.3	1.6	-88.75	-2,192.2	263.1	3,774.2	3,689.5	84.70	44.562	
9,500.0	6,781.4	6,750.8	6,750.0	84.7	1.6	-88.73	-2,192.2	263.1	3,820.0	3,733.9	86.11	44.363	
9,547.2	6,781.2	6,750.2	6,749.4	86.0	1.6	-88.71	-2,192.2	263.1	3,862.3	3,774.9	87.41	44.185	
9,600.0	6,781.0	6,749.6	6,748.7	87.5	1.6	-88.69	-2,192.2	263.1	3,909.7	3,820.9	88.87	43.995	
9,645.6	6,780.8	6,749.0	6,748.2	88.7	1.6	-88.67	-2,192.2	263.1	3,950.9	3,860.7	90.13	43.835	
9,700.0	6,780.6	6,748.4	6,747.5	90.2	1.6	-88.65	-2,192.2	263.1	4,000.0	3,908.4	91.63	43.652	
9,744.1	6,780.4	6,747.8	6,747.0	91.4	1.6	-88.63	-2,192.2	263.1	4,039.9	3,947.1	92.85	43.509	
9,800.0	6,780.2	6,747.1	6,746.3	93.0	1.6	-88.60	-2,192.2	263.1	4,090.7	3,996.3	94.40	43.334	
9,842.5	6,780.1	6,746.6	6,745.7	94.2	1.6	-88.58	-2,192.2	263.1	4,129.4	4,033.8	95.58	43.205	
9,900.0	6,779.8	6,745.8	6,745.0	95.7	1.6	-88.56	-2,192.2	263.1	4,181.8	4,084.7	97.17	43.037	
9,940.9	6,779.7	6,745.3	6,744.5	96.9	1.6	-88.54	-2,192.2	263.1	4,219.2	4,120.9	98.30	42.921	
10,000.0	6,779.4	6,744.6	6,743.7	98.5	1.6	-88.52	-2,192.2	263.1	4,273.4	4,173.4	99.94	42.759	
10,039.3	6,779.3	6,744.1	6,743.2	99.6	1.6	-88.50	-2,192.2	263.1	4,309.5	4,208.5	101.03	42.655	
10,100.0	6,779.0	6,743.3	6,742.4	101.3	1.6	-88.47	-2,192.2	263.1	4,365.3	4,262.6	102.71	42.500	
10,137.8	6,778.9	6,742.8	6,741.9	102.3	1.6	-88.45	-2,192.2	263.1	4,400.1	4,296.3	103.76	42.406	
10,200.0	6,778.7	6,742.0	6,741.1	104.1	1.6	-88.43	-2,192.2	263.0	4,457.5	4,352.0	105.49	42.256	
10,236.2	6,778.5	6,741.5	6,740.6	105.1	1.6	-88.41	-2,192.2	263.0	4,491.0	4,384.5	106.49	42.172	
10,300.0	6,778.3	6,740.7	6,739.8	106.8	1.6	-88.38	-2,192.2	263.0	4,550.1	4,441.8	108.26	42.028	
10,334.6	6,778.1	6,740.2	6,739.3	107.8	1.6	-88.37	-2,192.2	263.0	4,582.2	4,473.0	109.23	41.952	
10,400.0	6,777.9	6,739.3	6,738.5	109.6	1.6	-88.34	-2,192.2	263.0	4,643.0	4,531.9	111.04	41.813	
10,433.0	6,777.7	6,738.9	6,738.0	110.5	1.6	-88.32	-2,192.2	263.0	4,673.7	4,561.8	111.96	41.745	
10,500.0	6,777.5	6,738.0	6,737.1	112.4	1.6	-88.29	-2,192.2	263.0	4,736.1	4,622.3	113.82	41.610	
10,531.5	6,777.3	6,737.5	6,736.7	113.3	1.6	-88.27	-2,192.2	263.0	4,765.5	4,650.8	114.70	41.549	
10,600.0	6,777.1	6,736.6	6,735.7	115.2	1.6	-88.24	-2,192.2	263.0	4,829.6	4,713.0	116.60	41.420	
10,629.9	6,777.0	6,736.2	6,735.3	116.0	1.6	-88.23	-2,192.2	263.0	4,857.6	4,740.1	117.43	41.365	
10,700.0	6,776.7	6,735.2	6,734.4	117.9	1.6	-88.20	-2,192.2	263.0	4,923.3	4,803.9	119.38	41.240	
10,728.3	6,776.6	6,734.8	6,734.0	118.7	1.6	-88.18	-2,192.2	263.0	4,949.9	4,829.7	120.17	41.190	
10,800.0	6,776.3	6,733.8	6,733.0	120.7	1.6	-88.15	-2,192.2	263.0	5,017.2	4,895.1	122.17	41.069	
10,826.7	6,776.2	6,733.5	6,732.6	121.5	1.6	-88.13	-2,192.2	263.0	5,042.4	4,919.5	122.91	41.025	
10,900.0	6,775.9	6,732.4	6,731.6	123.5	1.6	-88.10	-2,192.2	263.0	5,111.4	4,986.5	124.95	40.908	
10,925.2	6,775.8	6,732.1	6,731.2	124.2	1.6	-88.09	-2,192.2	263.0	5,135.2	5,009.5	125.65	40.869	
11,000.0	6,775.5	6,731.0	6,730.1	126.3	1.6	-88.05	-2,192.2	263.0	5,205.8	5,078.1	127.73	40.755	
11,023.6	6,775.4	6,730.7	6,729.8	126.9	1.6	-88.04	-2,192.2	263.0	5,228.1	5,099.7	128.39	40.720	
11,100.0	6,775.1	6,729.6	6,728.7	129.1	1.6	-88.00	-2,192.2	262.9	5,300.4	5,169.9	130.52	40.610	
11,122.0	6,775.0	6,729.2	6,728.4	129.7	1.6	-87.99	-2,192.2	262.9	5,321.3	5,190.1	131.13	40.580	
11,200.0	6,774.7	6,728.1	6,727.2	131.9	1.6	-87.95	-2,192.2	262.9	5,395.2	5,261.9	133.30	40.473	
11,220.4	6,774.6	6,727.8	6,726.9	132.4	1.6	-87.94	-2,192.2	262.9	5,414.6	5,280.7	133.87	40.446	
11,300.0	6,774.3	6,726.6	6,725.8	134.6	1.6	-87.90	-2,192.2	262.9	5,490.2	5,354.1	136.09	40.342	
11,318.9	6,774.2	6,726.3	6,725.5	135.2	1.6	-87.89	-2,192.2	262.9	5,508.1	5,371.5	136.62	40.318	
11,400.0	6,773.9	6,725.1	6,724.3	137.4	1.6	-87.85	-2,192.2	262.9	5,585.3	5,446.4	138.88	40.218	
11,417.3	6,773.8	6,724.9	6,724.0	137.9	1.6	-87.84	-2,192.2	262.9	5,601.8	5,462.4	139.36	40.197	
11,500.0	6,773.5	6,723.6	6,722.8	140.2	1.6	-87.80	-2,192.2	262.9	5,680.6	5,539.0	141.66	40.099	
11,515.7	6,773.4	6,723.4	6,722.5	140.7	1.6	-87.79	-2,192.2	262.9	5,695.6	5,553.5	142.10	40.081	
11,600.0	6,773.1	6,722.1	6,721.2	143.0	1.6	-87.74	-2,192.2	262.9	5,776.1	5,631.7	144.45	39.986	
11,614.1	6,773.0	6,721.9	6,721.0	143.4	1.6	-87.74	-2,192.2	262.9	5,789.6	5,644.8	144.85	39.971	
11,700.0	6,772.7	6,720.6	6,719.7	145.8	1.6	-87.69	-2,192.2	262.9	5,871.7	5,724.5	147.24	39.879	
11,712.6	6,772.6	6,720.4	6,719.5	146.2	1.6	-87.69	-2,192.2	262.9	5,883.8	5,736.2	147.59	39.866	
11,800.0	6,772.3	6,719.0	6,718.1	148.6	1.6	-87.64	-2,192.2	262.9	5,967.5	5,817.5	150.03	39.776	
11,811.0	6,772.2	6,718.8	6,718.0	148.9	1.6	-87.63	-2,192.2	262.9	5,978.1	5,827.7	150.33	39.765	
11,900.0	6,771.9	6,717.4	6,716.6	151.4	1.6	-87.58	-2,192.2	262.8	6,063.4	5,910.6	152.82	39.678	

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

# Anticollision Report



<b>Company:</b>	PDC ENERGY	<b>Local Co-ordinate Reference:</b>	Well SCHAUMBERG 17G-314
<b>Project:</b>	WELD COUNTY, COLORADO	<b>TVD Reference:</b>	KB-EST @ 4633.0usft (Original Well Elev)
<b>Reference Site:</b>	SW NW SEC. 17 T5N R64W 6th P.M.	<b>MD Reference:</b>	KB-EST @ 4633.0usft (Original Well Elev)
<b>Site Error:</b>	0.0 usft	<b>North Reference:</b>	True
<b>Reference Well:</b>	SCHAUMBERG 17G-314	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Well Error:</b>	0.0 usft	<b>Output errors are at</b>	2.00 sigma
<b>Reference Wellbore</b>	ORIGINAL WELLBORE	<b>Database:</b>	EDM 5000.1 Single User Db
<b>Reference Design:</b>	PROPOSAL #1	<b>Offset TVD Reference:</b>	Offset Datum

Offset Design NW SW SEC. 17 T5N R64W 6th P.M. - EXIST VERT DUNN/MILLER #17B - 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	Vertical Depth	Measured Depth	Vertical Depth	Reference	Offset	Highside Toolface	Offset Wellbore Centre		Between Centres	Between Ellipses	Minimum Separation	Separation Factor		
(usft)	(usft)	(usft)	(usft)	(usft)	(usft)	(°)	+N/-S (usft)	+E/-W (usft)	(usft)	(usft)	(usft)			
11,909.4	6,771.8	6,717.3	6,716.4	151.7	1.6	-87.58	-2,192.2	262.8	6,072.5	5,919.4	153.08	39.669		
12,000.0	6,771.5	6,715.8	6,715.0	154.2	1.6	-87.53	-2,192.2	262.8	6,159.5	6,003.8	155.61	39.584		
12,007.8	6,771.4	6,715.7	6,714.8	154.4	1.6	-87.53	-2,192.2	262.8	6,167.0	6,011.2	155.82	39.577		
12,100.0	6,771.1	6,714.2	6,713.3	157.0	1.6	-87.47	-2,192.2	262.8	6,255.6	6,097.2	158.39	39.494		
12,106.3	6,771.0	6,714.1	6,713.2	157.2	1.6	-87.47	-2,192.2	262.8	6,261.6	6,103.1	158.57	39.488		
12,200.0	6,770.7	6,712.6	6,711.7	159.8	1.6	-87.42	-2,192.2	262.8	6,351.9	6,190.7	161.18	39.408		
12,204.7	6,770.6	6,712.5	6,711.6	159.9	1.6	-87.42	-2,192.2	262.8	6,356.4	6,195.1	161.31	39.404		
12,300.0	6,770.3	6,710.9	6,710.0	162.6	1.6	-87.36	-2,192.2	262.8	6,448.3	6,284.3	163.97	39.325		
12,303.1	6,770.2	6,710.9	6,710.0	162.7	1.6	-87.36	-2,192.2	262.8	6,451.3	6,287.2	164.06	39.323		
12,361.7	6,770.0	6,709.9	6,709.0	164.3	1.6	-87.33	-2,192.3	262.8	6,507.8	6,342.1	165.69	39.276 SF		



# Anticollision Report



<b>Company:</b>	PDC ENERGY	<b>Local Co-ordinate Reference:</b>	Well SCHAUMBERG 17G-314
<b>Project:</b>	WELD COUNTY, COLORADO	<b>TVD Reference:</b>	KB-EST @ 4633.0usft (Original Well Elev)
<b>Reference Site:</b>	SW NW SEC. 17 T5N R64W 6th P.M.	<b>MD Reference:</b>	KB-EST @ 4633.0usft (Original Well Elev)
<b>Site Error:</b>	0.0 usft	<b>North Reference:</b>	True
<b>Reference Well:</b>	SCHAUMBERG 17G-314	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Well Error:</b>	0.0 usft	<b>Output errors are at</b>	2.00 sigma
<b>Reference Wellbore</b>	ORIGINAL WELLBORE	<b>Database:</b>	EDM 5000.1 Single User Db
<b>Reference Design:</b>	PROPOSAL #1	<b>Offset TVD Reference:</b>	Offset Datum

Offset Design												Offset Site Error:	0.0 usft
Survey Program: 0-INC												Offset Well Error:	0.0 usft
Reference		Offset		Semi Major Axis			Distance						Warning
Measured Depth (usft)	Vertical Depth (usft)	Measured Depth (usft)	Vertical Depth (usft)	Reference (usft)	Offset (usft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (usft)	+E/-W (usft)	Between Centres (usft)	Between Ellipses (usft)	Minimum Separation (usft)	Separation Factor	
0.0	0.0	0.0	0.0	0.0	0.0	149.11	-1,549.0	926.7	1,805.1				
98.4	98.4	89.4	89.4	0.1	1.2	149.11	-1,549.0	926.7	1,805.0	1,803.8	1.27	1,416.098	
100.0	100.0	91.0	91.0	0.1	1.2	149.11	-1,549.0	926.7	1,805.0	1,803.8	1.30	1,391.503	
196.8	196.8	187.8	187.8	0.3	3.3	149.11	-1,549.0	926.7	1,805.0	1,801.4	3.62	498.304	
200.0	200.0	191.0	191.0	0.3	3.4	149.11	-1,549.0	926.7	1,805.0	1,801.3	3.70	487.748	
295.3	295.3	286.3	286.3	0.5	5.4	149.11	-1,549.0	926.7	1,805.0	1,799.1	5.91	305.440	
300.0	300.0	291.0	291.0	0.5	5.5	149.11	-1,549.0	926.7	1,805.0	1,799.0	6.02	299.923	
393.7	393.7	384.7	384.7	0.8	7.4	149.11	-1,549.0	926.7	1,805.0	1,796.9	8.14	221.615	
400.0	400.0	391.0	391.0	0.8	7.5	149.11	-1,549.0	926.7	1,805.0	1,796.8	8.29	217.797	
492.1	492.1	483.1	483.1	1.0	9.4	149.11	-1,549.0	926.7	1,805.0	1,794.7	10.36	174.149	
500.0	500.0	491.0	491.0	1.0	9.5	149.11	-1,549.0	926.7	1,805.0	1,794.5	10.54	171.218	
590.5	590.5	581.5	581.5	1.2	11.4	149.11	-1,549.0	926.7	1,805.0	1,792.5	12.58	143.508	
600.0	600.0	591.0	591.0	1.2	11.6	149.11	-1,549.0	926.7	1,805.0	1,792.3	12.79	141.125	
689.0	689.0	680.0	680.0	1.4	13.4	149.11	-1,549.0	926.7	1,805.0	1,790.3	14.79	122.068	
700.0	700.0	691.0	691.0	1.4	13.6	149.11	-1,549.0	926.7	1,805.0	1,790.0	15.03	120.059	
787.4	787.4	778.4	778.4	1.6	15.4	149.11	-1,549.0	926.7	1,805.0	1,788.1	16.99	106.215	
800.0	800.0	791.0	791.0	1.7	15.6	149.11	-1,549.0	926.7	1,805.0	1,787.8	17.28	104.479	
885.8	885.8	876.8	876.8	1.9	17.3	149.11	-1,549.0	926.7	1,805.0	1,785.8	19.20	94.014	
900.0	900.0	891.0	891.0	1.9	17.6	149.11	-1,549.0	926.7	1,805.0	1,785.5	19.52	92.484	
984.2	984.2	975.2	975.2	2.1	19.3	149.11	-1,549.0	926.7	1,805.0	1,783.6	21.40	84.332	
1,000.0	1,000.0	991.0	991.0	2.1	19.6	149.11	-1,549.0	926.7	1,805.0	1,783.3	21.76	82.964	
1,082.7	1,082.7	1,073.7	1,073.7	2.3	21.3	149.11	-1,549.0	926.7	1,805.0	1,781.4	23.61	76.459	
1,100.0	1,100.0	1,091.0	1,091.0	2.3	21.7	149.11	-1,549.0	926.7	1,805.0	1,781.1	24.00	75.224	
1,181.1	1,181.1	1,172.1	1,172.1	2.5	23.3	149.11	-1,549.0	926.7	1,805.0	1,779.2	25.81	69.933	
1,200.0	1,200.0	1,191.0	1,191.0	2.6	23.7	149.11	-1,549.0	926.7	1,805.0	1,778.8	26.23	68.805	
1,279.5	1,279.5	1,270.5	1,270.5	2.7	25.3	149.11	-1,549.0	926.7	1,805.0	1,777.0	28.01	64.434	
1,300.0	1,300.0	1,291.0	1,291.0	2.8	25.7	149.11	-1,549.0	926.7	1,805.0	1,776.6	28.47	63.397	
1,377.9	1,377.9	1,368.9	1,368.9	3.0	27.2	149.11	-1,549.0	926.7	1,805.0	1,774.8	30.22	59.738	
1,400.0	1,400.0	1,391.0	1,391.0	3.0	27.7	149.11	-1,549.0	926.7	1,805.0	1,774.3	30.71	58.778	
1,476.4	1,476.4	1,467.4	1,467.4	3.2	29.2	149.11	-1,549.0	926.7	1,805.0	1,772.6	32.42	55.680	
1,500.0	1,500.0	1,491.0	1,491.0	3.2	29.7	149.11	-1,549.0	926.7	1,805.0	1,772.1	32.95	54.787	
1,574.8	1,574.8	1,565.8	1,565.8	3.4	31.2	149.11	-1,549.0	926.7	1,805.0	1,770.4	34.62	52.138	
1,600.0	1,600.0	1,591.0	1,591.0	3.5	31.7	149.11	-1,549.0	926.7	1,805.0	1,769.9	35.18	51.303	
1,673.2	1,673.2	1,664.2	1,664.2	3.6	33.2	149.11	-1,549.0	926.7	1,805.0	1,768.2	36.82	49.021	
1,700.0	1,700.0	1,691.0	1,691.0	3.7	33.7	149.11	-1,549.0	926.7	1,805.0	1,767.6	37.42	48.236	
1,771.6	1,771.6	1,762.6	1,762.6	3.9	35.2	149.11	-1,549.0	926.7	1,805.0	1,766.0	39.02	46.255	
1,800.0	1,800.0	1,791.0	1,791.0	3.9	35.7	149.11	-1,549.0	926.7	1,805.0	1,765.4	39.66	45.516	
1,870.1	1,870.1	1,861.1	1,861.1	4.1	37.1	-52.11	-1,549.0	926.7	1,804.5	1,763.3	41.20	43.798	
1,900.0	1,900.0	1,891.0	1,891.0	4.1	37.8	-52.14	-1,549.0	926.7	1,804.0	1,762.1	41.86	43.099	
1,968.5	1,968.4	1,959.4	1,959.4	4.2	39.1	-52.26	-1,549.0	926.7	1,802.0	1,758.7	43.33	41.584	
2,000.0	1,999.8	1,990.8	1,990.8	4.3	39.8	-52.33	-1,549.0	926.7	1,800.8	1,756.8	44.01	40.918	
2,066.9	2,066.5	2,057.5	2,057.5	4.4	41.1	-52.52	-1,549.0	926.7	1,797.4	1,752.0	45.44	39.556	
2,100.0	2,099.5	2,090.5	2,090.5	4.5	41.8	-52.63	-1,549.0	926.7	1,795.4	1,749.3	46.14	38.911	
2,165.3	2,164.4	2,155.4	2,155.4	4.6	43.1	-52.90	-1,549.0	926.7	1,790.8	1,743.3	47.53	37.680	
2,200.0	2,198.7	2,189.7	2,189.7	4.7	43.8	-53.06	-1,549.0	926.7	1,788.1	1,739.8	48.26	37.052	
2,263.8	2,261.8	2,252.8	2,252.8	4.8	45.0	-53.39	-1,549.0	926.7	1,782.3	1,732.7	49.60	35.933	
2,300.0	2,297.5	2,288.5	2,288.5	4.9	45.7	-53.61	-1,549.0	926.7	1,778.6	1,728.3	50.36	35.320	
2,362.2	2,358.6	2,349.6	2,349.6	5.0	47.0	-54.02	-1,549.0	926.7	1,771.8	1,720.1	51.66	34.296	
2,400.0	2,395.6	2,386.6	2,386.6	5.1	47.7	-54.29	-1,549.0	926.7	1,767.3	1,714.8	52.45	33.695	
2,460.6	2,454.9	2,445.9	2,445.9	5.3	48.9	-54.62	-1,549.0	926.7	1,759.8	1,706.0	53.80	32.714	
2,500.0	2,493.4	2,484.4	2,484.4	5.4	49.7	-54.83	-1,549.0	926.7	1,755.0	1,700.4	54.67	32.102	
2,559.0	2,551.2	2,542.2	2,542.2	5.6	50.9	-55.15	-1,549.0	926.7	1,747.9	1,691.9	55.99	31.215	

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 SCHAUMBERG 17G-314
<b>Project:</b>	WELD COUNTY, COLORADO	<b>TVD Reference:</b>	KB-EST @ 4633.0usft (Original Well Elev)
<b>Reference Site:</b>	SW NW SEC. 17 T5N R64W 6th P.M.	<b>MD Reference:</b>	KB-EST @ 4633.0usft (Original Well Elev)
<b>Site Error:</b>	0.0 usft	<b>North Reference:</b>	True
<b>Reference Well:</b>	SCHAUMBERG 17G-314	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Well Error:</b>	0.0 usft	<b>Output errors are at</b>	2.00 sigma
<b>Reference Wellbore</b>	ORIGINAL WELLBORE	<b>Database:</b>	EDM 5000.1 Single User Db
<b>Reference Design:</b>	PROPOSAL #1	<b>Offset TVD Reference:</b>	Offset Datum

Offset Design												Offset Site Error:	0.0 usft
Survey Program: 0-INC												Offset Well Error:	0.0 usft
Reference		Offset		Semi Major Axis			Distance						Warning
Measured Depth (usft)	Vertical Depth (usft)	Measured Depth (usft)	Vertical Depth (usft)	Reference (usft)	Offset (usft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (usft)	+E/-W (usft)	Between Centres (usft)	Between Ellipses (usft)	Minimum Separation (usft)	Separation Factor	
2,600.0	2,591.3	2,582.3	2,582.3	5.7	51.7	-55.38	-1,549.0	926.7	1,743.0	1,686.1	56.91	30.625	
2,657.5	2,647.5	2,638.5	2,638.5	5.9	52.8	-55.70	-1,549.0	926.7	1,736.1	1,677.9	58.21	29.825	
2,700.0	2,689.1	2,680.1	2,680.1	6.0	53.6	-55.94	-1,549.0	926.7	1,731.1	1,671.9	59.17	29.254	
2,755.9	2,743.7	2,734.7	2,734.7	6.2	54.7	-56.25	-1,549.0	926.7	1,724.5	1,664.0	60.44	28.530	
2,800.0	2,786.9	2,777.9	2,777.9	6.4	55.6	-56.50	-1,549.0	926.7	1,719.3	1,657.9	61.45	27.980	
2,854.3	2,840.0	2,831.0	2,831.0	6.6	56.7	-56.81	-1,549.0	926.7	1,713.0	1,650.3	62.69	27.325	
2,900.0	2,884.7	2,875.7	2,875.7	6.7	57.6	-57.08	-1,549.0	926.7	1,707.8	1,644.0	63.74	26.793	
2,952.7	2,936.3	2,927.3	2,927.3	6.9	58.6	-57.38	-1,549.0	926.7	1,701.7	1,636.8	64.95	26.200	
3,000.0	2,982.5	2,973.5	2,973.5	7.1	59.5	-57.66	-1,549.0	926.7	1,696.4	1,630.3	66.04	25.687	
3,051.2	3,032.6	3,023.6	3,023.6	7.3	60.5	-57.96	-1,549.0	926.7	1,690.6	1,623.4	67.23	25.149	
3,100.0	3,080.3	3,071.3	3,071.3	7.5	61.5	-58.24	-1,549.0	926.7	1,685.2	1,616.8	68.36	24.653	
3,149.6	3,128.8	3,119.8	3,119.8	7.7	62.5	-58.54	-1,549.0	926.7	1,679.7	1,610.2	69.51	24.165	
3,200.0	3,178.1	3,169.1	3,169.1	7.9	63.5	-58.84	-1,549.0	926.7	1,674.1	1,603.5	70.68	23.686	
3,248.0	3,225.1	3,216.1	3,216.1	8.1	64.4	-59.13	-1,549.0	926.7	1,668.9	1,597.1	71.80	23.243	
3,300.0	3,276.0	3,267.0	3,267.0	8.3	65.4	-59.44	-1,549.0	926.7	1,663.3	1,590.3	73.02	22.779	
3,346.4	3,321.4	3,312.4	3,312.4	8.5	66.3	-59.73	-1,549.0	926.7	1,658.3	1,584.2	74.11	22.378	
3,400.0	3,373.8	3,364.8	3,364.8	8.7	67.4	-60.05	-1,549.0	926.7	1,652.7	1,577.3	75.36	21.929	
3,444.9	3,417.7	3,408.7	3,408.7	8.8	68.3	-60.33	-1,549.0	926.7	1,647.9	1,571.5	76.42	21.565	
3,500.0	3,471.6	3,462.6	3,462.6	9.1	69.4	-60.67	-1,549.0	926.7	1,642.2	1,564.5	77.72	21.131	
3,543.3	3,513.9	3,504.9	3,504.9	9.2	70.2	-60.94	-1,549.0	926.7	1,637.7	1,559.0	78.74	20.800	
3,600.0	3,569.4	3,560.4	3,560.4	9.5	71.3	-61.30	-1,549.0	926.7	1,631.9	1,551.9	80.08	20.379	
3,641.7	3,610.2	3,601.2	3,601.2	9.7	72.2	-61.56	-1,549.0	926.7	1,627.7	1,546.7	81.07	20.079	
3,700.0	3,667.2	3,658.2	3,658.2	9.9	73.3	-61.93	-1,549.0	926.7	1,621.9	1,539.4	82.45	19.672	
3,740.1	3,706.5	3,697.5	3,697.5	10.1	74.1	-62.19	-1,549.0	926.7	1,617.9	1,534.5	83.40	19.399	
3,800.0	3,765.0	3,756.0	3,756.0	10.3	75.3	-62.57	-1,549.0	926.7	1,612.0	1,527.2	84.82	19.005	
3,838.6	3,802.8	3,793.8	3,793.8	10.5	76.0	-62.82	-1,549.0	926.7	1,608.3	1,522.6	85.74	18.757	
3,900.0	3,862.8	3,853.8	3,853.8	10.7	77.2	-63.22	-1,549.0	926.7	1,602.4	1,515.2	87.21	18.375	
3,937.0	3,899.0	3,890.0	3,890.0	10.9	78.0	-63.46	-1,549.0	926.7	1,598.9	1,510.8	88.09	18.151	
4,000.0	3,960.7	3,951.7	3,951.7	11.2	79.2	-63.87	-1,549.0	926.7	1,593.0	1,503.4	89.60	17.780	
4,035.4	3,995.3	3,986.3	3,986.3	11.3	79.9	-64.11	-1,549.0	926.7	1,589.7	1,499.3	90.44	17.577	
4,100.0	4,058.5	4,049.5	4,049.5	11.6	81.2	-64.54	-1,549.0	926.7	1,583.8	1,491.8	91.99	17.217	
4,133.8	4,091.6	4,082.6	4,082.6	11.7	81.8	-64.76	-1,549.0	926.7	1,580.7	1,487.9	92.80	17.033	
4,200.0	4,156.3	4,147.3	4,147.3	12.0	83.1	-65.21	-1,549.0	926.7	1,574.8	1,480.4	94.39	16.684	
4,232.3	4,187.9	4,178.9	4,178.9	12.2	83.8	-65.43	-1,549.0	926.7	1,571.9	1,476.8	95.17	16.518	
4,300.0	4,254.1	4,245.1	4,245.1	12.5	85.1	-65.89	-1,549.0	926.7	1,566.0	1,469.2	96.80	16.179	
4,325.7	4,279.2	4,270.2	4,270.2	12.6	85.6	-66.06	-1,549.0	926.7	1,563.8	1,466.4	97.41	16.053	
4,330.7	4,284.1	4,275.1	4,275.1	12.6	85.7	-66.09	-1,549.0	926.7	1,563.4	1,465.8	97.54	16.029	
4,400.0	4,352.1	4,343.1	4,343.1	12.8	87.1	-66.43	-1,549.0	926.7	1,557.9	1,458.6	99.23	15.699	
4,429.1	4,380.8	4,371.8	4,371.8	12.9	87.6	-66.57	-1,549.0	926.7	1,555.8	1,455.9	99.92	15.570	
4,500.0	4,450.7	4,441.7	4,441.7	13.1	89.1	-66.86	-1,549.0	926.7	1,551.2	1,449.6	101.60	15.268	
4,527.5	4,478.0	4,469.0	4,469.0	13.2	89.6	-66.97	-1,549.0	926.7	1,549.7	1,447.4	102.25	15.156	
4,600.0	4,549.9	4,540.9	4,540.9	13.4	91.0	-67.21	-1,549.0	926.7	1,546.1	1,442.2	103.94	14.876	
4,626.0	4,575.7	4,566.7	4,566.7	13.5	91.6	-67.29	-1,549.0	926.7	1,545.0	1,440.5	104.53	14.780	
4,700.0	4,649.4	4,640.4	4,640.4	13.6	93.1	-67.47	-1,549.0	926.7	1,542.4	1,436.2	106.23	14.520	
4,724.4	4,673.7	4,664.7	4,664.7	13.7	93.5	-67.52	-1,549.0	926.7	1,541.7	1,434.9	106.77	14.439	
4,800.0	4,749.2	4,740.2	4,740.2	13.8	95.1	-67.64	-1,549.0	926.7	1,540.0	1,431.6	108.47	14.198	
4,822.8	4,772.0	4,763.0	4,763.0	13.9	95.5	-67.66	-1,549.0	926.7	1,539.7	1,430.7	108.97	14.129	
4,900.0	4,849.2	4,840.2	4,840.2	14.0	97.1	-67.71	-1,549.0	926.7	1,539.0	1,428.4	110.66	13.907	
4,921.2	4,870.4	4,861.4	4,861.4	14.1	97.5	-67.71	-1,549.0	926.7	1,539.0	1,427.9	111.13	13.849	
4,925.6	4,874.8	4,865.8	4,865.8	14.1	97.6	133.48	-1,549.0	926.7	1,539.0	1,430.1	108.84	14.139	
5,000.0	4,949.2	4,940.2	4,940.2	14.2	99.1	133.48	-1,549.0	926.7	1,539.0	1,428.5	110.48	13.930	
5,019.7	4,968.8	4,959.8	4,959.8	14.2	99.5	133.48	-1,549.0	926.7	1,539.0	1,428.1	110.91	13.876	

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 SCHAUMBERG 17G-314
<b>Project:</b>	WELD COUNTY, COLORADO	<b>TVD Reference:</b>	KB-EST @ 4633.0usft (Original Well Elev)
<b>Reference Site:</b>	SW NW SEC. 17 T5N R64W 6th P.M.	<b>MD Reference:</b>	KB-EST @ 4633.0usft (Original Well Elev)
<b>Site Error:</b>	0.0 usft	<b>North Reference:</b>	True
<b>Reference Well:</b>	SCHAUMBERG 17G-314	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Well Error:</b>	0.0 usft	<b>Output errors are at</b>	2.00 sigma
<b>Reference Wellbore</b>	ORIGINAL WELLBORE	<b>Database:</b>	EDM 5000.1 Single User Db
<b>Reference Design:</b>	PROPOSAL #1	<b>Offset TVD Reference:</b>	Offset Datum

Offset Design												Offset Site Error:	0.0 usft
Survey Program: 0-INC												Offset Well Error:	0.0 usft
Reference		Offset		Semi Major Axis			Distance						Warning
Measured Depth (usft)	Vertical Depth (usft)	Measured Depth (usft)	Vertical Depth (usft)	Reference (usft)	Offset (usft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (usft)	+E/-W (usft)	Between Centres (usft)	Between Ellipses (usft)	Minimum Separation (usft)	Separation Factor	
5,100.0	5,049.2	5,040.2	5,040.2	14.3	101.1	133.48	-1,549.0	926.7	1,539.0	1,426.3	112.68	13.659	
5,118.1	5,067.3	5,058.3	5,058.3	14.3	101.5	133.48	-1,549.0	926.7	1,539.0	1,425.9	113.07	13.611	
5,200.0	5,149.2	5,140.2	5,140.2	14.5	103.1	133.48	-1,549.0	926.7	1,539.0	1,424.1	114.87	13.397	
5,216.5	5,165.7	5,156.7	5,156.7	14.5	103.4	133.48	-1,549.0	926.7	1,539.0	1,423.8	115.24	13.355	
5,300.0	5,249.2	5,240.2	5,240.2	14.6	105.1	133.48	-1,549.0	926.7	1,539.0	1,421.9	117.07	13.146	
5,314.9	5,264.1	5,255.1	5,255.1	14.6	105.4	133.48	-1,549.0	926.7	1,539.0	1,421.6	117.40	13.109	
5,400.0	5,349.2	5,340.2	5,340.2	14.8	107.1	133.48	-1,549.0	926.7	1,539.0	1,419.7	119.27	12.903	
5,413.4	5,362.5	5,353.5	5,353.5	14.8	107.4	133.48	-1,549.0	926.7	1,539.0	1,419.4	119.57	12.871	
5,500.0	5,449.2	5,440.2	5,440.2	14.9	109.1	133.48	-1,549.0	926.7	1,539.0	1,417.5	121.48	12.669	
5,511.8	5,461.0	5,452.0	5,452.0	14.9	109.4	133.48	-1,549.0	926.7	1,539.0	1,417.3	121.74	12.642	
5,600.0	5,549.2	5,540.2	5,540.2	15.1	111.1	133.48	-1,549.0	926.7	1,539.0	1,415.3	123.68	12.444	
5,610.2	5,559.4	5,550.4	5,550.4	15.1	111.4	133.48	-1,549.0	926.7	1,539.0	1,415.1	123.90	12.421	
5,700.0	5,649.2	5,640.2	5,640.2	15.2	113.2	133.48	-1,549.0	926.7	1,539.0	1,413.1	125.88	12.226	
5,708.6	5,657.8	5,648.8	5,648.8	15.3	113.3	133.48	-1,549.0	926.7	1,539.0	1,412.9	126.07	12.207	
5,800.0	5,749.2	5,740.2	5,740.2	15.4	115.2	133.48	-1,549.0	926.7	1,539.0	1,410.9	128.09	12.015	
5,807.1	5,756.2	5,747.2	5,747.2	15.4	115.3	133.48	-1,549.0	926.7	1,539.0	1,410.8	128.24	12.001	
5,900.0	5,849.2	5,840.2	5,840.2	15.6	117.2	133.48	-1,549.0	926.7	1,539.0	1,408.7	130.29	11.812	
5,905.5	5,854.7	5,845.7	5,845.7	15.6	117.3	133.48	-1,549.0	926.7	1,539.0	1,408.6	130.41	11.801	
6,000.0	5,949.2	5,940.2	5,940.2	15.7	119.2	133.48	-1,549.0	926.7	1,539.0	1,406.5	132.50	11.615	
6,003.9	5,953.1	5,944.1	5,944.1	15.7	119.3	133.48	-1,549.0	926.7	1,539.0	1,406.4	132.59	11.607	
6,100.0	6,049.2	6,040.2	6,040.2	15.9	121.2	133.48	-1,549.0	926.7	1,539.0	1,404.3	134.71	11.425	
6,102.3	6,051.5	6,042.5	6,042.5	15.9	121.2	133.48	-1,549.0	926.7	1,539.0	1,404.2	134.76	11.420	
6,124.6	6,073.8	6,064.8	6,064.8	15.9	121.7	133.48	-1,549.0	926.7	1,539.0	1,403.7	135.25	11.379 CC	
6,150.0	6,099.2	6,090.2	6,090.2	16.0	122.2	-136.51	-1,549.0	926.7	1,539.3	1,401.5	137.79	11.172 ES	
6,200.0	6,149.0	6,140.0	6,140.0	16.1	123.2	-136.46	-1,549.0	926.7	1,541.9	1,403.3	138.53	11.130	
6,200.8	6,149.8	6,140.8	6,140.8	16.1	123.2	-136.46	-1,549.0	926.7	1,541.9	1,403.4	138.54	11.130 SF	
6,250.0	6,198.5	6,189.5	6,189.5	16.2	124.2	-136.36	-1,549.0	926.7	1,547.0	1,408.0	138.93	11.135	
6,299.2	6,246.6	6,237.6	6,237.6	16.3	125.2	-136.20	-1,549.0	926.7	1,554.4	1,415.4	139.00	11.183	
6,300.0	6,247.4	6,238.4	6,238.4	16.3	125.2	-136.19	-1,549.0	926.7	1,554.6	1,415.6	139.00	11.184	
6,350.0	6,295.5	6,286.5	6,286.5	16.5	126.2	-135.96	-1,549.0	926.7	1,564.7	1,426.0	138.75	11.277	
6,397.6	6,340.2	6,331.2	6,331.2	16.6	127.1	-135.67	-1,549.0	926.7	1,576.7	1,438.5	138.23	11.406	
6,400.0	6,342.4	6,333.4	6,333.4	16.6	127.1	-135.66	-1,549.0	926.7	1,577.3	1,439.1	138.20	11.414	
6,450.0	6,388.1	6,379.1	6,379.1	16.8	128.0	-135.26	-1,549.0	926.7	1,592.5	1,455.1	137.39	11.591	
6,496.0	6,428.8	6,419.8	6,419.8	17.0	128.8	-134.80	-1,549.0	926.7	1,608.6	1,472.1	136.48	11.787	
6,500.0	6,432.2	6,423.2	6,423.2	17.0	128.9	-134.76	-1,549.0	926.7	1,610.1	1,473.7	136.39	11.805	
6,550.0	6,474.6	6,465.6	6,465.6	17.3	129.8	-134.12	-1,549.0	926.7	1,630.2	1,494.9	135.27	12.052	
6,594.5	6,510.7	6,501.7	6,501.7	17.5	130.5	-133.43	-1,549.0	926.7	1,650.0	1,515.8	134.24	12.291	
6,600.0	6,515.0	6,506.0	6,506.0	17.6	130.6	-133.34	-1,549.0	926.7	1,652.6	1,518.5	134.12	12.322	
6,650.0	6,553.3	6,544.3	6,544.3	17.9	131.3	-132.38	-1,549.0	926.7	1,677.4	1,544.4	133.06	12.606	
6,692.9	6,584.3	6,575.3	6,575.3	18.2	132.0	-131.39	-1,549.0	926.7	1,700.6	1,568.2	132.35	12.849	
6,700.0	6,589.2	6,580.2	6,580.2	18.2	132.1	-131.21	-1,549.0	926.7	1,704.5	1,572.3	132.25	12.889	
6,750.0	6,622.7	6,613.7	6,613.7	18.6	132.7	-129.78	-1,549.0	926.7	1,733.8	1,602.0	131.84	13.151	
6,791.3	6,648.3	6,639.3	6,639.3	19.0	133.2	-128.39	-1,549.0	926.7	1,759.6	1,627.7	131.93	13.338	
6,800.0	6,653.4	6,644.4	6,644.4	19.1	133.4	-128.07	-1,549.0	926.7	1,765.2	1,633.2	132.00	13.372	
6,850.0	6,681.4	6,672.4	6,672.4	19.6	133.9	-126.01	-1,549.0	926.7	1,798.5	1,665.6	132.91	13.532	
6,889.7	6,701.5	6,692.5	6,692.5	20.1	134.3	-124.09	-1,549.0	926.7	1,826.3	1,692.1	134.27	13.602	
6,900.0	6,706.3	6,697.3	6,697.3	20.2	134.4	-123.54	-1,549.0	926.7	1,833.7	1,699.0	134.71	13.612	
6,950.0	6,728.2	6,719.2	6,719.2	20.9	134.9	-120.61	-1,549.0	926.7	1,870.6	1,733.1	137.47	13.607	
6,988.2	6,742.8	6,733.8	6,733.8	21.5	135.1	-118.00	-1,549.0	926.7	1,899.7	1,759.5	140.22	13.548	
7,000.0	6,746.9	6,737.9	6,737.9	21.6	135.2	-117.12	-1,549.0	926.7	1,909.0	1,767.8	141.17	13.522	
7,050.0	6,762.4	6,753.4	6,753.4	22.5	135.5	-113.03	-1,549.0	926.7	1,948.7	1,803.0	145.65	13.379	
7,086.6	6,771.5	6,762.5	6,762.5	23.1	135.7	-109.60	-1,549.0	926.7	1,978.5	1,829.3	149.23	13.259	

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 SCHAUMBERG 17G-314
<b>Project:</b>	WELD COUNTY, COLORADO	<b>TVD Reference:</b>	KB-EST @ 4633.0usft (Original Well Elev)
<b>Reference Site:</b>	SW NW SEC. 17 T5N R64W 6th P.M.	<b>MD Reference:</b>	KB-EST @ 4633.0usft (Original Well Elev)
<b>Site Error:</b>	0.0 usft	<b>North Reference:</b>	True
<b>Reference Well:</b>	SCHAUMBERG 17G-314	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Well Error:</b>	0.0 usft	<b>Output errors are at</b>	2.00 sigma
<b>Reference Wellbore</b>	ORIGINAL WELLBORE	<b>Database:</b>	EDM 5000.1 Single User Db
<b>Reference Design:</b>	PROPOSAL #1	<b>Offset TVD Reference:</b>	Offset Datum

Offset Design												Offset Site Error:	0.0 usft
Survey Program: 0-INC												Offset Well Error:	0.0 usft
Reference		Offset		Semi Major Axis			Distance						Warning
Measured Depth (usft)	Vertical Depth (usft)	Measured Depth (usft)	Vertical Depth (usft)	Reference (usft)	Offset (usft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (usft)	+E/-W (usft)	Between Centres (usft)	Between Ellipses (usft)	Minimum Separation (usft)	Separation Factor	
7,100.0	6,774.4	6,765.4	6,765.4	23.3	135.8	-108.26	-1,549.0	926.7	1,989.6	1,839.0	150.54	13.216	
7,150.0	6,783.1	6,774.1	6,774.1	24.3	136.0	-102.79	-1,549.0	926.7	2,031.4	1,876.1	155.30	13.081	
7,185.0	6,787.1	6,778.1	6,778.1	25.0	136.0	-98.56	-1,549.0	926.7	2,061.2	1,903.1	158.16	13.033	
7,200.0	6,788.3	6,779.3	6,779.3	25.3	136.1	-96.65	-1,549.0	926.7	2,074.0	1,914.9	159.18	13.030	
7,252.3	6,790.0	6,781.0	6,781.0	26.3	136.1	-89.63	-1,549.0	926.7	2,119.2	1,957.7	161.48	13.124	
7,283.4	6,789.9	6,780.9	6,780.9	27.0	136.1	-89.62	-1,549.0	926.7	2,146.2	1,984.0	162.17	13.234	
7,300.0	6,789.8	6,780.8	6,780.8	27.3	136.1	-89.62	-1,549.0	926.7	2,160.6	1,998.1	162.53	13.293	
7,381.9	6,789.5	6,780.5	6,780.5	29.1	136.1	-89.60	-1,549.0	926.7	2,232.3	2,067.9	164.41	13.578	
7,400.0	6,789.4	6,780.4	6,780.4	29.5	136.1	-89.60	-1,549.0	926.7	2,248.3	2,083.5	164.82	13.641	
7,480.3	6,789.1	6,780.1	6,780.1	31.4	136.1	-89.58	-1,549.0	926.7	2,319.4	2,152.7	166.73	13.911	
7,500.0	6,789.1	6,780.1	6,780.1	31.8	136.1	-89.57	-1,549.0	926.7	2,337.0	2,169.8	167.20	13.977	
7,578.7	6,788.8	6,779.8	6,779.8	33.7	136.1	-89.56	-1,549.0	926.7	2,407.4	2,238.3	169.12	14.235	
7,600.0	6,788.7	6,779.7	6,779.7	34.2	136.1	-89.55	-1,549.0	926.7	2,426.5	2,256.9	169.64	14.304	
7,677.1	6,788.4	6,779.4	6,779.4	36.1	136.1	-89.54	-1,549.0	926.7	2,496.2	2,324.6	171.56	14.550	
7,700.0	6,788.3	6,779.3	6,779.3	36.7	136.1	-89.53	-1,549.0	926.7	2,516.9	2,344.7	172.13	14.622	
7,775.6	6,788.0	6,779.0	6,779.0	38.6	136.1	-89.52	-1,549.0	926.7	2,585.6	2,411.6	174.05	14.856	
7,800.0	6,787.9	6,778.9	6,778.9	39.2	136.1	-89.51	-1,549.0	926.7	2,607.9	2,433.3	174.67	14.931	
7,874.0	6,787.6	6,778.6	6,778.6	41.0	136.1	-89.50	-1,549.0	926.7	2,675.7	2,499.2	176.57	15.154	
7,900.0	6,787.6	6,778.6	6,778.6	41.7	136.0	-89.49	-1,549.0	926.7	2,699.6	2,522.4	177.24	15.231	
7,972.4	6,787.3	6,778.3	6,778.3	43.6	136.0	-89.47	-1,549.0	926.7	2,766.4	2,587.3	179.12	15.444	
8,000.0	6,787.2	6,778.2	6,778.2	44.3	136.0	-89.47	-1,549.0	926.7	2,791.9	2,612.0	179.84	15.524	
8,070.8	6,786.9	6,777.9	6,777.9	46.1	136.0	-89.45	-1,549.0	926.7	2,857.6	2,675.9	181.70	15.727	
8,100.0	6,786.8	6,777.8	6,777.8	46.9	136.0	-89.45	-1,549.0	926.7	2,884.7	2,702.2	182.46	15.810	
8,169.3	6,786.5	6,777.5	6,777.5	48.7	136.0	-89.43	-1,549.0	926.7	2,949.2	2,764.9	184.29	16.003	
8,200.0	6,786.4	6,777.4	6,777.4	49.5	136.0	-89.42	-1,549.0	926.7	2,977.9	2,792.8	185.11	16.088	
8,267.7	6,786.1	6,777.1	6,777.1	51.3	136.0	-89.41	-1,549.0	926.7	3,041.3	2,854.4	186.91	16.272	
8,300.0	6,786.0	6,777.0	6,777.0	52.1	136.0	-89.40	-1,549.0	926.7	3,071.6	2,883.8	187.77	16.359	
8,366.1	6,785.8	6,776.8	6,776.8	53.9	136.0	-89.39	-1,549.0	926.7	3,133.7	2,944.2	189.53	16.534	
8,400.0	6,785.6	6,776.6	6,776.6	54.8	136.0	-89.38	-1,549.0	926.7	3,165.6	2,975.2	190.44	16.623	
8,464.5	6,785.4	6,776.4	6,776.4	56.5	136.0	-89.37	-1,549.0	926.7	3,226.5	3,034.4	192.17	16.790	
8,500.0	6,785.3	6,776.3	6,776.3	57.5	136.0	-89.36	-1,549.0	926.7	3,260.0	3,066.9	193.13	16.880	
8,563.0	6,785.0	6,776.0	6,776.0	59.2	136.0	-89.35	-1,549.0	926.7	3,319.7	3,124.8	194.82	17.039	
8,600.0	6,784.9	6,775.9	6,775.9	60.2	136.0	-89.34	-1,549.0	926.7	3,354.8	3,158.9	195.82	17.132	
8,661.4	6,784.6	6,775.6	6,775.6	61.8	136.0	-89.33	-1,549.0	926.7	3,413.1	3,215.6	197.48	17.283	
8,700.0	6,784.5	6,775.5	6,775.5	62.9	136.0	-89.32	-1,549.0	926.7	3,449.8	3,251.3	198.53	17.377	
8,759.8	6,784.3	6,775.3	6,775.3	64.5	136.0	-89.30	-1,549.0	926.7	3,506.8	3,306.6	200.15	17.521	
8,800.0	6,784.1	6,775.1	6,775.1	65.6	136.0	-89.29	-1,549.0	926.7	3,545.1	3,343.9	201.24	17.616	
8,858.2	6,783.9	6,774.9	6,774.9	67.1	136.0	-89.28	-1,549.0	926.7	3,600.7	3,397.9	202.83	17.753	
8,900.0	6,783.7	6,774.7	6,774.7	68.3	136.0	-89.27	-1,549.0	926.7	3,640.7	3,436.7	203.96	17.850	
8,956.7	6,783.5	6,774.5	6,774.5	69.8	136.0	-89.26	-1,549.0	926.7	3,694.9	3,489.4	205.51	17.979	
9,000.0	6,783.3	6,774.3	6,774.3	71.0	136.0	-89.25	-1,549.0	926.7	3,736.4	3,529.8	206.69	18.077	
9,055.1	6,783.1	6,774.1	6,774.1	72.5	136.0	-89.24	-1,549.0	926.7	3,789.3	3,581.1	208.20	18.201	
9,100.0	6,782.9	6,773.9	6,773.9	73.7	136.0	-89.23	-1,549.0	926.7	3,832.5	3,623.0	209.42	18.300	
9,153.5	6,782.7	6,773.7	6,773.7	75.2	136.0	-89.22	-1,549.0	926.7	3,883.9	3,673.0	210.89	18.417	
9,200.0	6,782.6	6,773.6	6,773.6	76.5	135.9	-89.21	-1,549.0	926.7	3,928.7	3,716.5	212.16	18.517	
9,251.9	6,782.4	6,773.4	6,773.4	77.9	135.9	-89.20	-1,549.0	926.7	3,978.7	3,765.1	213.59	18.628	
9,300.0	6,782.2	6,773.2	6,773.2	79.2	135.9	-89.18	-1,549.0	926.7	4,025.0	3,810.1	214.90	18.729	
9,350.4	6,782.0	6,773.0	6,773.0	80.6	135.9	-89.17	-1,549.0	926.7	4,073.7	3,857.4	216.29	18.834	
9,400.0	6,781.8	6,772.8	6,772.8	82.0	135.9	-89.16	-1,549.0	926.7	4,121.6	3,904.0	217.65	18.937	
9,448.8	6,781.6	6,772.6	6,772.6	83.3	135.9	-89.15	-1,549.0	926.7	4,168.8	3,949.8	218.99	19.036	
9,500.0	6,781.4	6,772.4	6,772.4	84.7	135.9	-89.14	-1,549.0	926.7	4,218.3	3,997.9	220.40	19.139	
9,547.2	6,781.2	6,772.2	6,772.2	86.0	135.9	-89.13	-1,549.0	926.7	4,264.0	4,042.3	221.70	19.233	

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 SCHAUMBERG 17G-314
<b>Project:</b>	WELD COUNTY, COLORADO	<b>TVD Reference:</b>	KB-EST @ 4633.0usft (Original Well Elev)
<b>Reference Site:</b>	SW NW SEC. 17 T5N R64W 6th P.M.	<b>MD Reference:</b>	KB-EST @ 4633.0usft (Original Well Elev)
<b>Site Error:</b>	0.0 usft	<b>North Reference:</b>	True
<b>Reference Well:</b>	SCHAUMBERG 17G-314	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Well Error:</b>	0.0 usft	<b>Output errors are at</b>	2.00 sigma
<b>Reference Wellbore</b>	ORIGINAL WELLBORE	<b>Database:</b>	EDM 5000.1 Single User Db
<b>Reference Design:</b>	PROPOSAL #1	<b>Offset TVD Reference:</b>	Offset Datum

Offset Design												Offset Site Error:	0.0 usft
Survey Program: 0-INC												Offset Well Error:	0.0 usft
Reference		Offset		Semi Major Axis			Distance						Warning
Measured Depth (usft)	Vertical Depth (usft)	Measured Depth (usft)	Vertical Depth (usft)	Reference (usft)	Offset (usft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (usft)	+E/-W (usft)	Between Centres (usft)	Between Ellipses (usft)	Minimum Separation (usft)	Separation Factor	
9,600.0	6,781.0	6,772.0	6,772.0	87.5	135.9	-89.12	-1,549.0	926.7	4,315.2	4,092.0	223.15	19.337	
9,645.6	6,780.8	6,771.8	6,771.8	88.7	135.9	-89.11	-1,549.0	926.7	4,359.5	4,135.0	224.41	19.426	
9,700.0	6,780.6	6,771.6	6,771.6	90.2	135.9	-89.09	-1,549.0	926.7	4,412.2	4,186.3	225.91	19.531	
9,744.1	6,780.4	6,771.4	6,771.4	91.4	135.9	-89.09	-1,549.0	926.7	4,455.0	4,227.9	227.13	19.615	
9,800.0	6,780.2	6,771.2	6,771.2	93.0	135.9	-89.07	-1,549.0	926.7	4,509.3	4,280.7	228.67	19.720	
9,842.5	6,780.1	6,771.1	6,771.1	94.2	135.9	-89.06	-1,549.0	926.7	4,550.7	4,320.8	229.84	19.799	
9,900.0	6,779.8	6,770.8	6,770.8	95.7	135.9	-89.05	-1,549.0	926.7	4,606.6	4,375.2	231.43	19.905	
9,940.9	6,779.7	6,770.7	6,770.7	96.9	135.9	-89.04	-1,549.0	926.7	4,646.4	4,413.9	232.56	19.980	
10,000.0	6,779.4	6,770.4	6,770.4	98.5	135.9	-89.03	-1,549.0	926.7	4,704.0	4,469.8	234.19	20.086	
10,039.3	6,779.3	6,770.3	6,770.3	99.6	135.9	-89.02	-1,549.0	926.7	4,742.3	4,507.0	235.28	20.156	
10,100.0	6,779.0	6,770.0	6,770.0	101.3	135.9	-89.00	-1,549.0	926.7	4,801.5	4,564.5	236.96	20.263	
10,137.8	6,778.9	6,769.9	6,769.9	102.3	135.9	-89.00	-1,549.0	926.7	4,838.3	4,600.3	238.00	20.329	
10,200.0	6,778.7	6,769.7	6,769.7	104.1	135.9	-88.98	-1,549.0	926.7	4,899.1	4,659.3	239.72	20.436	
10,236.2	6,778.5	6,769.5	6,769.5	105.1	135.9	-88.97	-1,549.0	926.7	4,934.4	4,693.7	240.73	20.498	
10,300.0	6,778.3	6,769.3	6,769.3	106.8	135.9	-88.96	-1,549.0	926.7	4,996.7	4,754.2	242.49	20.606	
10,334.6	6,778.1	6,769.1	6,769.1	107.8	135.9	-88.95	-1,549.0	926.7	5,030.6	4,787.1	243.45	20.663	
10,400.0	6,777.9	6,768.9	6,768.9	109.6	135.9	-88.94	-1,549.0	926.7	5,094.5	4,849.2	245.26	20.772	
10,433.0	6,777.7	6,768.7	6,768.7	110.5	135.9	-88.93	-1,549.0	926.7	5,126.8	4,880.7	246.18	20.826	
10,500.0	6,777.5	6,768.5	6,768.5	112.4	135.8	-88.91	-1,549.0	926.7	5,192.4	4,944.3	248.03	20.934	
10,531.5	6,777.3	6,768.3	6,768.3	113.3	135.8	-88.91	-1,549.0	926.7	5,223.2	4,974.3	248.91	20.984	
10,600.0	6,777.1	6,768.1	6,768.1	115.2	135.8	-88.89	-1,549.0	926.7	5,290.3	5,039.5	250.81	21.093	
10,629.9	6,777.0	6,768.0	6,768.0	116.0	135.8	-88.88	-1,549.0	926.7	5,319.6	5,068.0	251.64	21.140	
10,700.0	6,776.7	6,767.7	6,767.7	117.9	135.8	-88.87	-1,549.0	926.7	5,388.3	5,134.7	253.58	21.249	
10,728.3	6,776.6	6,767.6	6,767.6	118.7	135.8	-88.86	-1,549.0	926.7	5,416.1	5,161.7	254.37	21.292	
10,800.0	6,776.3	6,767.3	6,767.3	120.7	135.8	-88.84	-1,549.0	926.7	5,486.4	5,230.0	256.36	21.401	
10,826.7	6,776.2	6,767.2	6,767.2	121.5	135.8	-88.84	-1,549.0	926.7	5,512.6	5,255.5	257.10	21.442	
10,900.0	6,775.9	6,766.9	6,766.9	123.5	135.8	-88.82	-1,549.0	926.7	5,584.5	5,325.4	259.13	21.551	
10,925.2	6,775.8	6,766.8	6,766.8	124.2	135.8	-88.81	-1,549.0	926.7	5,609.3	5,349.4	259.83	21.588	
11,000.0	6,775.5	6,766.5	6,766.5	126.3	135.8	-88.80	-1,549.0	926.7	5,682.8	5,420.8	261.91	21.697	
11,023.6	6,775.4	6,766.4	6,766.4	126.9	135.8	-88.79	-1,549.0	926.7	5,705.9	5,443.4	262.57	21.731	
11,100.0	6,775.1	6,766.1	6,766.1	129.1	135.8	-88.77	-1,549.0	926.7	5,781.0	5,516.3	264.69	21.841	
11,122.0	6,775.0	6,766.0	6,766.0	129.7	135.8	-88.77	-1,549.0	926.7	5,802.7	5,537.4	265.30	21.872	
11,200.0	6,774.7	6,765.7	6,765.7	131.9	135.8	-88.75	-1,549.0	926.7	5,879.4	5,611.9	267.47	21.982	
11,220.4	6,774.6	6,765.6	6,765.6	132.4	135.8	-88.75	-1,549.0	926.7	5,899.5	5,631.5	268.04	22.010	
11,300.0	6,774.3	6,765.3	6,765.3	134.6	135.8	-88.73	-1,549.0	926.7	5,977.8	5,707.5	270.25	22.120	
11,318.9	6,774.2	6,765.2	6,765.2	135.2	135.8	-88.72	-1,549.0	926.7	5,996.3	5,725.6	270.77	22.145	
11,400.0	6,773.9	6,764.9	6,764.9	137.4	135.8	-88.70	-1,549.0	926.7	6,076.2	5,803.2	273.03	22.255	
11,417.3	6,773.8	6,764.8	6,764.8	137.9	135.8	-88.70	-1,549.0	926.7	6,093.2	5,819.7	273.51	22.278	
11,500.0	6,773.5	6,764.5	6,764.5	140.2	135.8	-88.68	-1,549.0	926.7	6,174.7	5,898.9	275.81	22.388	
11,515.7	6,773.4	6,764.4	6,764.4	140.7	135.8	-88.68	-1,549.0	926.7	6,190.2	5,913.9	276.25	22.408	
11,600.0	6,773.1	6,764.1	6,764.1	143.0	135.8	-88.66	-1,549.0	926.7	6,273.2	5,994.7	278.59	22.518	
11,614.1	6,773.0	6,764.0	6,764.0	143.4	135.8	-88.65	-1,549.0	926.7	6,287.2	6,008.2	278.98	22.536	
11,700.0	6,772.7	6,763.7	6,763.7	145.8	135.8	-88.63	-1,549.0	926.7	6,371.8	6,090.5	281.37	22.645	
11,712.6	6,772.6	6,763.6	6,763.6	146.2	135.7	-88.63	-1,549.0	926.7	6,384.2	6,102.5	281.72	22.661	
11,800.0	6,772.3	6,763.3	6,763.3	148.6	135.7	-88.61	-1,549.0	926.7	6,470.5	6,186.3	284.16	22.771	
11,811.0	6,772.2	6,763.2	6,763.2	148.9	135.7	-88.61	-1,549.0	926.7	6,481.3	6,196.8	284.46	22.784	
11,900.0	6,771.9	6,762.9	6,762.9	151.4	135.7	-88.58	-1,549.0	926.7	6,569.1	6,282.2	286.94	22.894	
11,909.4	6,771.8	6,762.8	6,762.8	151.7	135.7	-88.58	-1,549.0	926.7	6,578.4	6,291.2	287.20	22.905	
12,000.0	6,771.5	6,762.5	6,762.5	154.2	135.7	-88.56	-1,549.0	926.7	6,667.8	6,378.1	289.72	23.015	
12,007.8	6,771.4	6,762.4	6,762.4	154.4	135.7	-88.56	-1,549.0	926.7	6,675.6	6,385.6	289.94	23.024	
12,100.0	6,771.1	6,762.1	6,762.1	157.0	135.7	-88.54	-1,549.0	926.7	6,766.6	6,474.1	292.51	23.133	
12,106.3	6,771.0	6,762.0	6,762.0	157.2	135.7	-88.53	-1,549.0	926.7	6,772.8	6,480.1	292.68	23.140	

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 SCHAUMBERG 17G-314
<b>Project:</b>	WELD COUNTY, COLORADO	<b>TVD Reference:</b>	KB-EST @ 4633.0usft (Original Well Elev)
<b>Reference Site:</b>	SW NW SEC. 17 T5N R64W 6th P.M.	<b>MD Reference:</b>	KB-EST @ 4633.0usft (Original Well Elev)
<b>Site Error:</b>	0.0 usft	<b>North Reference:</b>	True
<b>Reference Well:</b>	SCHAUMBERG 17G-314	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Well Error:</b>	0.0 usft	<b>Output errors are at</b>	2.00 sigma
<b>Reference Wellbore</b>	ORIGINAL WELLBORE	<b>Database:</b>	EDM 5000.1 Single User Db
<b>Reference Design:</b>	PROPOSAL #1	<b>Offset TVD Reference:</b>	Offset Datum

<b>Offset Design</b> NW SW SEC. 17 T5N R64W 6th P.M. - EXIST VERT DUNN/MILLER #23-17 - Wellbore #1 - Design #1												<b>Offset Site Error:</b>	0.0 usft
Survey Program: 0-INC												<b>Offset Well Error:</b>	0.0 usft
Reference	Offset	Semi Major Axis		Distance									
Measured Depth (usft)	Vertical Depth (usft)	Measured Depth (usft)	Vertical Depth (usft)	Reference (usft)	Offset (usft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (usft)	+E/-W (usft)	Between Centres (usft)	Between Ellipses (usft)	Minimum Separation (usft)	Separation Factor	Warning
12,200.0	6,770.7	6,761.7	6,761.7	159.8	135.7	-88.51	-1,549.0	926.7	6,865.4	6,570.1	295.29	23.249	
12,204.7	6,770.6	6,761.6	6,761.6	159.9	135.7	-88.51	-1,549.0	926.7	6,870.0	6,574.6	295.42	23.255	
12,300.0	6,770.3	6,761.3	6,761.3	162.6	135.7	-88.49	-1,549.0	926.7	6,964.2	6,666.1	298.08	23.364	
12,303.1	6,770.2	6,761.2	6,761.2	162.7	135.7	-88.49	-1,549.0	926.7	6,967.3	6,669.1	298.16	23.367	
12,361.7	6,770.0	6,761.0	6,761.0	164.3	135.7	-88.47	-1,549.0	926.7	7,025.2	6,725.4	299.80	23.433	



# Anticollision Report



<b>Company:</b>	PDC ENERGY	<b>Local Co-ordinate Reference:</b>	Well SCHAUMBERG 17G-314
<b>Project:</b>	WELD COUNTY, COLORADO	<b>TVD Reference:</b>	KB-EST @ 4633.0usft (Original Well Elev)
<b>Reference Site:</b>	SW NW SEC. 17 T5N R64W 6th P.M.	<b>MD Reference:</b>	KB-EST @ 4633.0usft (Original Well Elev)
<b>Site Error:</b>	0.0 usft	<b>North Reference:</b>	True
<b>Reference Well:</b>	SCHAUMBERG 17G-314	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Well Error:</b>	0.0 usft	<b>Output errors are at</b>	2.00 sigma
<b>Reference Wellbore</b>	ORIGINAL WELLBORE	<b>Database:</b>	EDM 5000.1 Single User Db
<b>Reference Design:</b>	PROPOSAL #1	<b>Offset TVD Reference:</b>	Offset Datum

Offset Design												Offset Site Error:	0.0 usft
Survey Program: 0-INC												Offset Well Error:	0.0 usft
Reference		Offset		Semi Major Axis			Distance						Warning
Measured Depth (usft)	Vertical Depth (usft)	Measured Depth (usft)	Vertical Depth (usft)	Reference (usft)	Offset (usft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (usft)	+E/-W (usft)	Between Centres (usft)	Between Ellipses (usft)	Minimum Separation (usft)	Separation Factor	
0.0	0.0	0.0	0.0	0.0	0.0	-100.98	-333.3	-1,717.9	1,749.9				
98.4	98.4	95.4	95.4	0.1	1.2	-100.98	-333.3	-1,717.9	1,749.9	1,748.6	1.28	1,369.781	
100.0	100.0	97.0	97.0	0.1	1.2	-100.98	-333.3	-1,717.9	1,749.9	1,748.6	1.30	1,347.347	
196.8	196.8	193.8	193.8	0.3	3.4	-100.98	-333.3	-1,717.9	1,749.9	1,746.2	3.69	473.687	
200.0	200.0	197.0	197.0	0.3	3.5	-100.98	-333.3	-1,717.9	1,749.9	1,746.1	3.77	463.778	
295.3	295.3	292.3	292.3	0.5	5.4	-100.98	-333.3	-1,717.9	1,749.9	1,743.9	5.97	292.980	
300.0	300.0	297.0	297.0	0.5	5.5	-100.98	-333.3	-1,717.9	1,749.9	1,743.8	6.08	287.739	
393.7	393.7	390.7	390.7	0.8	7.4	-100.98	-333.3	-1,717.9	1,749.9	1,741.7	8.21	213.232	
400.0	400.0	397.0	397.0	0.8	7.6	-100.98	-333.3	-1,717.9	1,749.9	1,741.6	8.35	209.585	
492.1	492.1	489.1	489.1	1.0	9.4	-100.98	-333.3	-1,717.9	1,749.9	1,739.5	10.43	167.841	
500.0	500.0	497.0	497.0	1.0	9.6	-100.98	-333.3	-1,717.9	1,749.9	1,739.3	10.60	165.031	
590.5	590.5	587.5	587.5	1.2	11.4	-100.98	-333.3	-1,717.9	1,749.9	1,737.3	12.64	138.455	
600.0	600.0	597.0	597.0	1.2	11.6	-100.98	-333.3	-1,717.9	1,749.9	1,737.1	12.85	136.167	
689.0	689.0	686.0	686.0	1.4	13.4	-100.98	-333.3	-1,717.9	1,749.9	1,735.1	14.85	117.856	
700.0	700.0	697.0	697.0	1.4	13.6	-100.98	-333.3	-1,717.9	1,749.9	1,734.8	15.10	115.924	
787.4	787.4	784.4	784.4	1.6	15.4	-100.98	-333.3	-1,717.9	1,749.9	1,732.9	17.05	102.605	
800.0	800.0	797.0	797.0	1.7	15.7	-100.98	-333.3	-1,717.9	1,749.9	1,732.6	17.34	100.933	
885.8	885.8	882.8	882.8	1.9	17.4	-100.98	-333.3	-1,717.9	1,749.9	1,730.7	19.26	90.856	
900.0	900.0	897.0	897.0	1.9	17.7	-100.98	-333.3	-1,717.9	1,749.9	1,730.3	19.58	89.382	
984.2	984.2	981.2	981.2	2.1	19.4	-100.98	-333.3	-1,717.9	1,749.9	1,728.5	21.46	81.525	
1,000.0	1,000.0	997.0	997.0	2.1	19.7	-100.98	-333.3	-1,717.9	1,749.9	1,728.1	21.82	80.207	
1,082.7	1,082.7	1,079.7	1,079.7	2.3	21.4	-100.98	-333.3	-1,717.9	1,749.9	1,726.3	23.67	73.935	
1,100.0	1,100.0	1,097.0	1,097.0	2.3	21.7	-100.98	-333.3	-1,717.9	1,749.9	1,725.9	24.06	72.743	
1,181.1	1,181.1	1,178.1	1,178.1	2.5	23.3	-100.98	-333.3	-1,717.9	1,749.9	1,724.1	25.87	67.639	
1,200.0	1,200.0	1,197.0	1,197.0	2.6	23.7	-100.98	-333.3	-1,717.9	1,749.9	1,723.6	26.29	66.551	
1,279.5	1,279.5	1,276.5	1,276.5	2.7	25.3	-100.98	-333.3	-1,717.9	1,749.9	1,721.8	28.07	62.332	
1,300.0	1,300.0	1,297.0	1,297.0	2.8	25.7	-100.98	-333.3	-1,717.9	1,749.9	1,721.4	28.53	61.331	
1,377.9	1,377.9	1,374.9	1,374.9	3.0	27.3	-100.98	-333.3	-1,717.9	1,749.9	1,719.6	30.28	57.798	
1,400.0	1,400.0	1,397.0	1,397.0	3.0	27.8	-100.98	-333.3	-1,717.9	1,749.9	1,719.2	30.77	56.871	
1,476.4	1,476.4	1,473.4	1,473.4	3.2	29.3	-100.98	-333.3	-1,717.9	1,749.9	1,717.4	32.48	53.879	
1,500.0	1,500.0	1,497.0	1,497.0	3.2	29.8	-100.98	-333.3	-1,717.9	1,749.9	1,716.9	33.01	53.016	
1,574.8	1,574.8	1,571.8	1,571.8	3.4	31.3	-100.98	-333.3	-1,717.9	1,749.9	1,715.2	34.68	50.458	
1,600.0	1,600.0	1,597.0	1,597.0	3.5	31.8	-100.98	-333.3	-1,717.9	1,749.9	1,714.7	35.24	49.651	
1,673.2	1,673.2	1,670.2	1,670.2	3.6	33.2	-100.98	-333.3	-1,717.9	1,749.9	1,713.0	36.88	47.446	
1,700.0	1,700.0	1,697.0	1,697.0	3.7	33.8	-100.98	-333.3	-1,717.9	1,749.9	1,712.4	37.48	46.688	
1,771.6	1,771.6	1,768.6	1,768.6	3.9	35.2	-100.98	-333.3	-1,717.9	1,749.9	1,710.8	39.08	44.773	
1,800.0	1,800.0	1,797.0	1,797.0	3.9	35.8	-100.98	-333.3	-1,717.9	1,749.9	1,710.2	39.72	44.058	
1,870.1	1,870.1	1,867.1	1,867.1	4.1	37.2	57.86	-333.3	-1,717.9	1,749.5	1,708.2	41.26	42.399	
1,900.0	1,900.0	1,897.0	1,897.0	4.1	37.8	57.89	-333.3	-1,717.9	1,749.0	1,707.1	41.92	41.723	
1,968.5	1,968.4	1,965.4	1,965.4	4.2	39.2	58.01	-333.3	-1,717.9	1,747.3	1,703.9	43.40	40.261	
2,000.0	1,999.8	1,996.8	1,996.8	4.3	39.8	58.08	-333.3	-1,717.9	1,746.2	1,702.1	44.08	39.618	
2,066.9	2,066.5	2,063.5	2,063.5	4.4	41.2	58.28	-333.3	-1,717.9	1,743.3	1,697.8	45.51	38.303	
2,100.0	2,099.5	2,096.5	2,096.5	4.5	41.8	58.40	-333.3	-1,717.9	1,741.6	1,695.4	46.22	37.680	
2,165.3	2,164.4	2,161.4	2,161.4	4.6	43.1	58.68	-333.3	-1,717.9	1,737.6	1,690.0	47.62	36.491	
2,200.0	2,198.7	2,195.7	2,195.7	4.7	43.8	58.85	-333.3	-1,717.9	1,735.2	1,686.9	48.35	35.886	
2,263.8	2,261.8	2,258.8	2,258.8	4.8	45.1	59.21	-333.3	-1,717.9	1,730.3	1,680.6	49.71	34.805	
2,300.0	2,297.5	2,294.5	2,294.5	4.9	45.8	59.43	-333.3	-1,717.9	1,727.1	1,676.7	50.48	34.214	
2,362.2	2,358.6	2,355.6	2,355.6	5.0	47.0	59.86	-333.3	-1,717.9	1,721.3	1,669.5	51.81	33.225	
2,400.0	2,395.6	2,392.6	2,392.6	5.1	47.8	60.14	-333.3	-1,717.9	1,717.4	1,664.8	52.61	32.646	
2,460.6	2,454.9	2,451.9	2,451.9	5.3	49.0	60.50	-333.3	-1,717.9	1,711.1	1,657.1	53.96	31.710	
2,500.0	2,493.4	2,490.4	2,490.4	5.4	49.7	60.74	-333.3	-1,717.9	1,707.0	1,652.1	54.84	31.128	
2,559.0	2,551.2	2,548.2	2,548.2	5.6	50.9	61.09	-333.3	-1,717.9	1,700.9	1,644.7	56.17	30.283	

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 SCHAUMBERG 17G-314
<b>Project:</b>	WELD COUNTY, COLORADO	<b>TVD Reference:</b>	KB-EST @ 4633.0usft (Original Well Elev)
<b>Reference Site:</b>	SW NW SEC. 17 T5N R64W 6th P.M.	<b>MD Reference:</b>	KB-EST @ 4633.0usft (Original Well Elev)
<b>Site Error:</b>	0.0 usft	<b>North Reference:</b>	True
<b>Reference Well:</b>	SCHAUMBERG 17G-314	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Well Error:</b>	0.0 usft	<b>Output errors are at</b>	2.00 sigma
<b>Reference Wellbore</b>	ORIGINAL WELLBORE	<b>Database:</b>	EDM 5000.1 Single User Db
<b>Reference Design:</b>	PROPOSAL #1	<b>Offset TVD Reference:</b>	Offset Datum

Offset Design												Offset Site Error:	0.0 usft
Survey Program: 0-INC												Offset Well Error:	0.0 usft
Reference		Offset		Semi Major Axis			Distance						Warning
Measured Depth (usft)	Vertical Depth (usft)	Measured Depth (usft)	Vertical Depth (usft)	Reference (usft)	Offset (usft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (usft)	+E/-W (usft)	Between Centres (usft)	Between Ellipses (usft)	Minimum Separation (usft)	Separation Factor	
2,600.0	2,591.3	2,588.3	2,588.3	5.7	51.7	61.34	-333.3	-1,717.9	1,696.7	1,639.6	57.09	29.720	
2,657.5	2,647.5	2,644.5	2,644.5	5.9	52.8	61.69	-333.3	-1,717.9	1,690.9	1,632.5	58.40	28.957	
2,700.0	2,689.1	2,686.1	2,686.1	6.0	53.7	61.95	-333.3	-1,717.9	1,686.7	1,627.3	59.36	28.414	
2,755.9	2,743.7	2,740.7	2,740.7	6.2	54.8	62.29	-333.3	-1,717.9	1,681.2	1,620.5	60.64	27.724	
2,800.0	2,786.9	2,783.9	2,783.9	6.4	55.7	62.57	-333.3	-1,717.9	1,676.9	1,615.2	61.65	27.199	
2,854.3	2,840.0	2,837.0	2,837.0	6.6	56.7	62.90	-333.3	-1,717.9	1,671.6	1,608.7	62.90	26.575	
2,900.0	2,884.7	2,881.7	2,881.7	6.7	57.6	63.19	-333.3	-1,717.9	1,667.2	1,603.3	63.95	26.069	
2,952.7	2,936.3	2,933.3	2,933.3	6.9	58.7	63.52	-333.3	-1,717.9	1,662.2	1,597.0	65.18	25.503	
3,000.0	2,982.5	2,979.5	2,979.5	7.1	59.6	63.82	-333.3	-1,717.9	1,657.8	1,591.5	66.27	25.015	
3,051.2	3,032.6	3,029.6	3,029.6	7.3	60.6	64.15	-333.3	-1,717.9	1,653.0	1,585.6	67.46	24.502	
3,100.0	3,080.3	3,077.3	3,077.3	7.5	61.6	64.46	-333.3	-1,717.9	1,648.5	1,579.9	68.60	24.030	
3,149.6	3,128.8	3,125.8	3,125.8	7.7	62.5	64.78	-333.3	-1,717.9	1,644.0	1,574.3	69.76	23.566	
3,200.0	3,178.1	3,175.1	3,175.1	7.9	63.5	65.10	-333.3	-1,717.9	1,639.5	1,568.6	70.94	23.110	
3,248.0	3,225.1	3,222.1	3,222.1	8.1	64.5	65.41	-333.3	-1,717.9	1,635.3	1,563.2	72.07	22.689	
3,300.0	3,276.0	3,273.0	3,273.0	8.3	65.5	65.75	-333.3	-1,717.9	1,630.7	1,557.4	73.29	22.249	
3,346.4	3,321.4	3,318.4	3,318.4	8.5	66.4	66.06	-333.3	-1,717.9	1,626.7	1,552.3	74.39	21.867	
3,400.0	3,373.8	3,370.8	3,370.8	8.7	67.5	66.41	-333.3	-1,717.9	1,622.1	1,546.5	75.66	21.441	
3,444.9	3,417.7	3,414.7	3,414.7	8.8	68.3	66.71	-333.3	-1,717.9	1,618.3	1,541.6	76.72	21.095	
3,500.0	3,471.6	3,468.6	3,468.6	9.1	69.4	67.07	-333.3	-1,717.9	1,613.8	1,535.7	78.02	20.683	
3,543.3	3,513.9	3,510.9	3,510.9	9.2	70.3	67.36	-333.3	-1,717.9	1,610.2	1,531.2	79.05	20.369	
3,600.0	3,569.4	3,566.4	3,566.4	9.5	71.4	67.74	-333.3	-1,717.9	1,605.6	1,525.2	80.40	19.970	
3,641.7	3,610.2	3,607.2	3,607.2	9.7	72.2	68.02	-333.3	-1,717.9	1,602.3	1,520.9	81.39	19.685	
3,700.0	3,667.2	3,664.2	3,664.2	9.9	73.4	68.42	-333.3	-1,717.9	1,597.7	1,514.9	82.78	19.300	
3,740.1	3,706.5	3,703.5	3,703.5	10.1	74.1	68.69	-333.3	-1,717.9	1,594.6	1,510.9	83.74	19.042	
3,800.0	3,765.0	3,762.0	3,762.0	10.3	75.3	69.10	-333.3	-1,717.9	1,590.0	1,504.9	85.17	18.668	
3,838.6	3,802.8	3,799.8	3,799.8	10.5	76.1	69.37	-333.3	-1,717.9	1,587.1	1,501.0	86.10	18.434	
3,900.0	3,862.8	3,859.8	3,859.8	10.7	77.3	69.79	-333.3	-1,717.9	1,582.6	1,495.0	87.57	18.073	
3,937.0	3,899.0	3,896.0	3,896.0	10.9	78.0	70.05	-333.3	-1,717.9	1,579.9	1,491.4	88.46	17.861	
4,000.0	3,960.7	3,957.7	3,957.7	11.2	79.3	70.49	-333.3	-1,717.9	1,575.4	1,485.4	89.97	17.510	
4,035.4	3,995.3	3,992.3	3,992.3	11.3	80.0	70.74	-333.3	-1,717.9	1,572.9	1,482.1	90.82	17.319	
4,100.0	4,058.5	4,055.5	4,055.5	11.6	81.2	71.19	-333.3	-1,717.9	1,568.4	1,476.1	92.38	16.979	
4,133.8	4,091.6	4,088.6	4,088.6	11.7	81.9	71.43	-333.3	-1,717.9	1,566.1	1,472.9	93.19	16.806	
4,200.0	4,156.3	4,153.3	4,153.3	12.0	83.2	71.90	-333.3	-1,717.9	1,561.7	1,466.9	94.79	16.476	
4,232.3	4,187.9	4,184.9	4,184.9	12.2	83.8	72.13	-333.3	-1,717.9	1,559.6	1,464.0	95.56	16.320	
4,300.0	4,254.1	4,251.1	4,251.1	12.5	85.2	72.61	-333.3	-1,717.9	1,555.3	1,458.1	97.20	16.001	
4,325.7	4,279.2	4,276.2	4,276.2	12.6	85.7	72.80	-333.3	-1,717.9	1,553.6	1,455.8	97.82	15.883	
4,330.7	4,284.1	4,281.1	4,281.1	12.6	85.8	72.83	-333.3	-1,717.9	1,553.3	1,455.4	97.94	15.860	
4,400.0	4,352.1	4,349.1	4,349.1	12.8	87.1	73.22	-333.3	-1,717.9	1,549.3	1,449.7	99.61	15.554	
4,429.1	4,380.8	4,377.8	4,377.8	12.9	87.7	73.37	-333.3	-1,717.9	1,547.8	1,447.5	100.29	15.433	
4,500.0	4,450.7	4,447.7	4,447.7	13.1	89.1	73.70	-333.3	-1,717.9	1,544.6	1,442.6	101.95	15.151	
4,527.5	4,478.0	4,475.0	4,475.0	13.2	89.7	73.82	-333.3	-1,717.9	1,543.4	1,440.9	102.58	15.046	
4,600.0	4,549.9	4,546.9	4,546.9	13.4	91.1	74.10	-333.3	-1,717.9	1,540.9	1,436.7	104.25	14.781	
4,626.0	4,575.7	4,572.7	4,572.7	13.5	91.6	74.18	-333.3	-1,717.9	1,540.1	1,435.3	104.84	14.691	
4,700.0	4,649.4	4,646.4	4,646.4	13.6	93.1	74.39	-333.3	-1,717.9	1,538.3	1,431.8	106.52	14.442	
4,724.4	4,673.7	4,670.7	4,670.7	13.7	93.6	74.44	-333.3	-1,717.9	1,537.8	1,430.7	107.06	14.364	
4,800.0	4,749.2	4,746.2	4,746.2	13.8	95.1	74.58	-333.3	-1,717.9	1,536.6	1,427.9	108.74	14.131	
4,822.8	4,772.0	4,769.0	4,769.0	13.9	95.6	74.61	-333.3	-1,717.9	1,536.4	1,427.2	109.24	14.064	
4,900.0	4,849.2	4,846.2	4,846.2	14.0	97.1	74.66	-333.3	-1,717.9	1,535.9	1,425.0	110.93	13.846	
4,921.2	4,870.4	4,867.4	4,867.4	14.1	97.6	74.66	-333.3	-1,717.9	1,535.9	1,424.5	111.39	13.788	
4,925.6	4,874.8	4,871.8	4,871.8	14.1	97.6	-84.14	-333.3	-1,717.9	1,535.9	1,427.3	108.65	14.136	
5,000.0	4,949.2	4,946.2	4,946.2	14.2	99.1	-84.14	-333.3	-1,717.9	1,535.9	1,425.6	110.29	13.927	
5,019.7	4,968.8	4,965.8	4,965.8	14.2	99.5	-84.14	-333.3	-1,717.9	1,535.9	1,425.2	110.72	13.872	

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 SCHAUMBERG 17G-314
<b>Project:</b>	WELD COUNTY, COLORADO	<b>TVD Reference:</b>	KB-EST @ 4633.0usft (Original Well Elev)
<b>Reference Site:</b>	SW NW SEC. 17 T5N R64W 6th P.M.	<b>MD Reference:</b>	KB-EST @ 4633.0usft (Original Well Elev)
<b>Site Error:</b>	0.0 usft	<b>North Reference:</b>	True
<b>Reference Well:</b>	SCHAUMBERG 17G-314	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Well Error:</b>	0.0 usft	<b>Output errors are at</b>	2.00 sigma
<b>Reference Wellbore</b>	ORIGINAL WELLBORE	<b>Database:</b>	EDM 5000.1 Single User Db
<b>Reference Design:</b>	PROPOSAL #1	<b>Offset TVD Reference:</b>	Offset Datum

Offset Design NW SW SEC. 17 T5N R64W 6th P.M. - EXIST VERT GUNTHER #18-2 - 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	5,049.2	5,046.2	5,046.2	14.3	101.2	-84.14	-333.3	-1,717.9	1,535.9	1,423.4	112.49	13.654		
5,118.1	5,067.3	5,064.3	5,064.3	14.3	101.5	-84.14	-333.3	-1,717.9	1,535.9	1,423.0	112.89	13.606		
5,200.0	5,149.2	5,146.2	5,146.2	14.5	103.2	-84.14	-333.3	-1,717.9	1,535.9	1,421.2	114.69	13.391		
5,216.5	5,165.7	5,162.7	5,162.7	14.5	103.5	-84.14	-333.3	-1,717.9	1,535.9	1,420.9	115.06	13.349		
5,300.0	5,249.2	5,246.2	5,246.2	14.6	105.2	-84.14	-333.3	-1,717.9	1,535.9	1,419.0	116.90	13.139		
5,314.9	5,264.1	5,261.1	5,261.1	14.6	105.5	-84.14	-333.3	-1,717.9	1,535.9	1,418.7	117.23	13.102		
5,400.0	5,349.2	5,346.2	5,346.2	14.8	107.2	-84.14	-333.3	-1,717.9	1,535.9	1,416.8	119.11	12.895		
5,413.4	5,362.5	5,359.5	5,359.5	14.8	107.5	-84.14	-333.3	-1,717.9	1,535.9	1,416.5	119.40	12.863		
5,500.0	5,449.2	5,446.2	5,446.2	14.9	109.2	-84.14	-333.3	-1,717.9	1,535.9	1,414.6	121.31	12.661		
5,511.8	5,461.0	5,458.0	5,458.0	14.9	109.4	-84.14	-333.3	-1,717.9	1,535.9	1,414.3	121.57	12.634		
5,600.0	5,549.2	5,546.2	5,546.2	15.1	111.2	-84.14	-333.3	-1,717.9	1,535.9	1,412.4	123.52	12.434		
5,610.2	5,559.4	5,556.4	5,556.4	15.1	111.4	-84.14	-333.3	-1,717.9	1,535.9	1,412.2	123.75	12.412		
5,700.0	5,649.2	5,646.2	5,646.2	15.2	113.2	-84.14	-333.3	-1,717.9	1,535.9	1,410.2	125.73	12.216		
5,708.6	5,657.8	5,654.8	5,654.8	15.3	113.4	-84.14	-333.3	-1,717.9	1,535.9	1,410.0	125.92	12.197		
5,800.0	5,749.2	5,746.2	5,746.2	15.4	115.2	-84.14	-333.3	-1,717.9	1,535.9	1,408.0	127.94	12.005		
5,807.1	5,756.2	5,753.2	5,753.2	15.4	115.4	-84.14	-333.3	-1,717.9	1,535.9	1,407.8	128.10	11.990		
5,900.0	5,849.2	5,846.2	5,846.2	15.6	117.2	-84.14	-333.3	-1,717.9	1,535.9	1,405.8	130.15	11.801		
5,905.5	5,854.7	5,851.7	5,851.7	15.6	117.3	-84.14	-333.3	-1,717.9	1,535.9	1,405.6	130.27	11.790		
6,000.0	5,949.2	5,946.2	5,946.2	15.7	119.2	-84.14	-333.3	-1,717.9	1,535.9	1,403.5	132.36	11.604		
6,003.9	5,953.1	5,950.1	5,950.1	15.7	119.3	-84.14	-333.3	-1,717.9	1,535.9	1,403.5	132.45	11.596		
6,100.0	6,049.2	6,046.2	6,046.2	15.9	121.3	-84.14	-333.3	-1,717.9	1,535.9	1,401.3	134.58	11.413		
6,102.3	6,051.5	6,048.5	6,048.5	15.9	121.3	-84.14	-333.3	-1,717.9	1,535.9	1,401.3	134.63	11.409		
6,124.6	6,073.8	6,070.8	6,070.8	15.9	121.8	-84.14	-333.3	-1,717.9	1,535.9	1,400.8	135.12	11.367		
6,150.0	6,099.2	6,096.2	6,096.2	16.0	122.3	5.86	-333.3	-1,717.9	1,535.5	1,397.5	137.99	11.128		
6,200.0	6,149.0	6,146.0	6,146.0	16.1	123.3	5.90	-333.3	-1,717.9	1,532.0	1,393.5	138.44	11.066		
6,200.8	6,149.8	6,146.8	6,146.8	16.1	123.3	5.90	-333.3	-1,717.9	1,531.9	1,393.4	138.44	11.065		
6,250.0	6,198.5	6,195.5	6,195.5	16.2	124.3	5.99	-333.3	-1,717.9	1,525.0	1,386.8	138.22	11.033		
6,299.2	6,246.6	6,243.6	6,243.6	16.3	125.2	6.12	-333.3	-1,717.9	1,514.9	1,377.5	137.34	11.030		
6,300.0	6,247.4	6,244.4	6,244.4	16.3	125.2	6.12	-333.3	-1,717.9	1,514.7	1,377.3	137.32	11.030		
6,350.0	6,295.5	6,292.5	6,292.5	16.5	126.2	6.30	-333.3	-1,717.9	1,500.9	1,365.2	135.74	11.057		
6,397.6	6,340.2	6,337.2	6,337.2	16.6	127.1	6.52	-333.3	-1,717.9	1,484.8	1,351.2	133.60	11.114		
6,400.0	6,342.4	6,339.4	6,339.4	16.6	127.2	6.54	-333.3	-1,717.9	1,483.9	1,350.4	133.48	11.117		
6,450.0	6,388.1	6,385.1	6,385.1	16.8	128.1	6.83	-333.3	-1,717.9	1,463.7	1,333.1	130.54	11.213		
6,496.0	6,428.8	6,425.8	6,425.8	17.0	128.9	7.17	-333.3	-1,717.9	1,442.3	1,315.0	127.25	11.334		
6,500.0	6,432.2	6,429.2	6,429.2	17.0	129.0	7.21	-333.3	-1,717.9	1,440.3	1,313.4	126.94	11.346		
6,550.0	6,474.6	6,471.6	6,471.6	17.3	129.8	7.66	-333.3	-1,717.9	1,414.0	1,291.2	122.71	11.522		
6,594.5	6,510.7	6,507.7	6,507.7	17.5	130.5	8.16	-333.3	-1,717.9	1,388.1	1,269.6	118.46	11.718		
6,600.0	6,515.0	6,512.0	6,512.0	17.6	130.6	8.23	-333.3	-1,717.9	1,384.7	1,266.8	117.90	11.745		
6,650.0	6,553.3	6,550.3	6,550.3	17.9	131.4	8.92	-333.3	-1,717.9	1,352.8	1,240.2	112.56	12.019		
6,692.9	6,584.3	6,581.3	6,581.3	18.2	132.0	9.65	-333.3	-1,717.9	1,323.3	1,215.7	107.63	12.296		
6,700.0	6,589.2	6,586.2	6,586.2	18.2	132.1	9.78	-333.3	-1,717.9	1,318.3	1,211.5	106.78	12.346		
6,750.0	6,622.7	6,619.7	6,619.7	18.6	132.8	10.86	-333.3	-1,717.9	1,281.4	1,180.7	100.71	12.723		
6,791.3	6,648.3	6,645.3	6,645.3	19.0	133.3	11.96	-333.3	-1,717.9	1,249.2	1,153.6	95.63	13.063		
6,800.0	6,653.4	6,650.4	6,650.4	19.1	133.4	12.22	-333.3	-1,717.9	1,242.3	1,147.7	94.57	13.136		
6,850.0	6,681.4	6,678.4	6,678.4	19.6	134.0	13.96	-333.3	-1,717.9	1,201.2	1,112.5	88.73	13.538		
6,889.7	6,701.5	6,698.5	6,698.5	20.1	134.4	15.71	-333.3	-1,717.9	1,167.2	1,082.5	84.69	13.782		
6,900.0	6,706.3	6,703.3	6,703.3	20.2	134.5	16.23	-333.3	-1,717.9	1,158.3	1,074.5	83.79	13.823		
6,950.0	6,728.2	6,725.2	6,725.2	20.9	134.9	19.28	-333.3	-1,717.9	1,113.7	1,032.9	80.82	13.780		
6,988.2	6,742.8	6,739.8	6,739.8	21.5	135.2	22.36	-333.3	-1,717.9	1,078.8	997.9	80.89	13.337		
7,000.0	6,746.9	6,743.9	6,743.9	21.6	135.3	23.48	-333.3	-1,717.9	1,067.9	986.4	81.48	13.105		
7,050.0	6,762.4	6,759.4	6,759.4	22.5	135.6	29.45	-333.3	-1,717.9	1,020.9	932.8	88.02	11.598		
7,086.6	6,771.5	6,768.5	6,768.5	23.1	135.8	35.51	-333.3	-1,717.9	985.9	888.0	97.82	10.078		

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 SCHAUMBERG 17G-314
<b>Project:</b>	WELD COUNTY, COLORADO	<b>TVD Reference:</b>	KB-EST @ 4633.0usft (Original Well Elev)
<b>Reference Site:</b>	SW NW SEC. 17 T5N R64W 6th P.M.	<b>MD Reference:</b>	KB-EST @ 4633.0usft (Original Well Elev)
<b>Site Error:</b>	0.0 usft	<b>North Reference:</b>	True
<b>Reference Well:</b>	SCHAUMBERG 17G-314	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Well Error:</b>	0.0 usft	<b>Output errors are at</b>	2.00 sigma
<b>Reference Wellbore</b>	ORIGINAL WELLBORE	<b>Database:</b>	EDM 5000.1 Single User Db
<b>Reference Design:</b>	PROPOSAL #1	<b>Offset TVD Reference:</b>	Offset Datum

Offset Design												Offset Site Error:	0.0 usft
Survey Program: 0-INC												Offset Well Error:	0.0 usft
Reference		Offset		Semi Major Axis			Distance						Warning
Measured Depth (usft)	Vertical Depth (usft)	Measured Depth (usft)	Vertical Depth (usft)	Reference (usft)	Offset (usft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (usft)	+E/-W (usft)	Between Centres (usft)	Between Ellipses (usft)	Minimum Separation (usft)	Separation Factor	
7,100.0	6,774.4	6,771.4	6,771.4	23.3	135.8	38.20	-333.3	-1,717.9	972.9	870.4	102.59	9.484	
7,150.0	6,783.1	6,780.1	6,780.1	24.3	136.0	51.13	-333.3	-1,717.9	924.4	799.0	125.38	7.373	
7,185.0	6,787.1	6,784.1	6,784.1	25.0	136.1	63.26	-333.3	-1,717.9	890.1	746.9	143.20	6.216	
7,200.0	6,788.3	6,785.3	6,785.3	25.3	136.1	69.16	-333.3	-1,717.9	875.4	725.5	149.93	5.839	
7,252.3	6,790.0	6,787.0	6,787.0	26.3	136.2	91.11	-333.3	-1,717.9	824.0	662.5	161.52	5.102	
7,283.4	6,789.9	6,786.9	6,786.9	27.0	136.2	91.07	-333.3	-1,717.9	793.5	631.3	162.21	4.892	
7,300.0	6,789.8	6,786.8	6,786.8	27.3	136.2	91.05	-333.3	-1,717.9	777.3	614.7	162.58	4.781	
7,381.9	6,789.5	6,786.5	6,786.5	29.1	136.1	90.94	-333.3	-1,717.9	697.3	532.8	164.46	4.240	
7,400.0	6,789.4	6,786.4	6,786.4	29.5	136.1	90.91	-333.3	-1,717.9	679.6	514.8	164.88	4.122	
7,480.3	6,789.1	6,786.1	6,786.1	31.4	136.1	90.80	-333.3	-1,717.9	601.8	435.0	166.79	3.608	
7,500.0	6,789.1	6,786.1	6,786.1	31.8	136.1	90.78	-333.3	-1,717.9	582.8	415.5	167.25	3.484	
7,578.7	6,788.8	6,785.8	6,785.8	33.7	136.1	90.67	-333.3	-1,717.9	507.4	338.2	169.18	2.999	
7,600.0	6,788.7	6,785.7	6,785.7	34.2	136.1	90.64	-333.3	-1,717.9	487.2	317.5	169.70	2.871	
7,677.1	6,788.4	6,785.4	6,785.4	36.1	136.1	90.53	-333.3	-1,717.9	414.9	243.3	171.62	2.418	
7,700.0	6,788.3	6,785.3	6,785.3	36.7	136.1	90.50	-333.3	-1,717.9	393.9	221.7	172.19	2.287	
7,775.6	6,788.0	6,785.0	6,785.0	38.6	136.1	90.40	-333.3	-1,717.9	325.9	151.8	174.11	1.872	
7,800.0	6,787.9	6,784.9	6,784.9	39.2	136.1	90.36	-333.3	-1,717.9	304.7	130.0	174.73	1.744	
7,874.0	6,787.6	6,784.6	6,784.6	41.0	136.1	90.26	-333.3	-1,717.9	244.2	67.6	176.63	1.383 Level 3	
7,900.0	6,787.6	6,784.6	6,784.6	41.7	136.1	90.22	-333.3	-1,717.9	224.9	47.6	177.30	1.269 Level 3	
7,972.4	6,787.3	6,784.3	6,784.3	43.6	136.1	90.12	-333.3	-1,717.9	180.2	1.0	179.18	1.006 Level 2	
8,000.0	6,787.2	6,784.2	6,784.2	44.3	136.1	90.09	-333.3	-1,717.9	168.3	-11.6	179.90	0.935 Level 1	
8,061.3	6,786.9	6,783.9	6,783.9	45.9	136.1	90.00	-333.3	-1,717.9	156.7	-24.8	181.51	0.863 Level 1, CC, ES, SF	
8,070.8	6,786.9	6,783.9	6,783.9	46.1	136.1	89.99	-333.3	-1,717.9	157.0	-24.7	181.76	0.864 Level 1	
8,100.0	6,786.8	6,783.8	6,783.8	46.9	136.1	89.95	-333.3	-1,717.9	161.4	-21.1	182.52	0.884 Level 1	
8,169.3	6,786.5	6,783.5	6,783.5	48.7	136.1	89.85	-333.3	-1,717.9	190.3	5.9	184.35	1.032 Level 2	
8,200.0	6,786.4	6,783.4	6,783.4	49.5	136.1	89.81	-333.3	-1,717.9	209.3	24.1	185.16	1.130 Level 2	
8,267.7	6,786.1	6,783.1	6,783.1	51.3	136.1	89.71	-333.3	-1,717.9	259.1	72.2	186.96	1.386 Level 3	
8,300.0	6,786.0	6,783.0	6,783.0	52.1	136.1	89.67	-333.3	-1,717.9	285.5	97.7	187.82	1.520	
8,366.1	6,785.8	6,782.8	6,782.8	53.9	136.1	89.57	-333.3	-1,717.9	342.7	153.1	189.58	1.808	
8,400.0	6,785.6	6,782.6	6,782.6	54.8	136.1	89.53	-333.3	-1,717.9	373.2	182.7	190.49	1.959	
8,464.5	6,785.4	6,782.4	6,782.4	56.5	136.1	89.44	-333.3	-1,717.9	432.6	240.4	192.22	2.251	
8,500.0	6,785.3	6,782.3	6,782.3	57.5	136.1	89.38	-333.3	-1,717.9	465.8	272.7	193.17	2.411	
8,563.0	6,785.0	6,782.0	6,782.0	59.2	136.1	89.30	-333.3	-1,717.9	525.5	330.7	194.86	2.697	
8,600.0	6,784.9	6,781.9	6,781.9	60.2	136.1	89.24	-333.3	-1,717.9	561.0	365.1	195.86	2.864	
8,661.4	6,784.6	6,781.6	6,781.6	61.8	136.1	89.16	-333.3	-1,717.9	620.2	422.7	197.51	3.140	
8,700.0	6,784.5	6,781.5	6,781.5	62.9	136.0	89.10	-333.3	-1,717.9	657.6	459.1	198.55	3.312	
8,759.8	6,784.3	6,781.3	6,781.3	64.5	136.0	89.02	-333.3	-1,717.9	715.9	515.7	200.17	3.576	
8,800.0	6,784.1	6,781.1	6,781.1	65.6	136.0	88.96	-333.3	-1,717.9	755.1	553.8	201.26	3.752	
8,858.2	6,783.9	6,780.9	6,780.9	67.1	136.0	88.88	-333.3	-1,717.9	812.2	609.3	202.84	4.004	
8,900.0	6,783.7	6,780.7	6,780.7	68.3	136.0	88.82	-333.3	-1,717.9	853.2	649.2	203.97	4.183	
8,956.7	6,783.5	6,780.5	6,780.5	69.8	136.0	88.74	-333.3	-1,717.9	908.9	703.4	205.51	4.423	
9,000.0	6,783.3	6,780.3	6,780.3	71.0	136.0	88.67	-333.3	-1,717.9	951.7	745.0	206.68	4.604	
9,055.1	6,783.1	6,780.1	6,780.1	72.5	136.0	88.60	-333.3	-1,717.9	1,006.0	797.9	208.18	4.833	
9,100.0	6,782.9	6,779.9	6,779.9	73.7	136.0	88.53	-333.3	-1,717.9	1,050.4	841.0	209.40	5.016	
9,153.5	6,782.7	6,779.7	6,779.7	75.2	136.0	88.45	-333.3	-1,717.9	1,103.4	892.5	210.86	5.233	
9,200.0	6,782.6	6,779.6	6,779.6	76.5	136.0	88.39	-333.3	-1,717.9	1,149.4	937.3	212.12	5.419	
9,251.9	6,782.4	6,779.4	6,779.4	77.9	136.0	88.31	-333.3	-1,717.9	1,200.9	987.3	213.54	5.624	
9,300.0	6,782.2	6,779.2	6,779.2	79.2	136.0	88.24	-333.3	-1,717.9	1,248.5	1,033.7	214.85	5.811	
9,350.4	6,782.0	6,779.0	6,779.0	80.6	136.0	88.17	-333.3	-1,717.9	1,298.5	1,082.3	216.22	6.006	
9,400.0	6,781.8	6,778.8	6,778.8	82.0	136.0	88.10	-333.3	-1,717.9	1,347.8	1,130.2	217.57	6.195	
9,448.8	6,781.6	6,778.6	6,778.6	83.3	136.0	88.03	-333.3	-1,717.9	1,396.3	1,177.4	218.91	6.378	
9,500.0	6,781.4	6,778.4	6,778.4	84.7	136.0	87.95	-333.3	-1,717.9	1,447.2	1,226.9	220.30	6.569	

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 SCHAUMBERG 17G-314
<b>Project:</b>	WELD COUNTY, COLORADO	<b>TVD Reference:</b>	KB-EST @ 4633.0usft (Original Well Elev)
<b>Reference Site:</b>	SW NW SEC. 17 T5N R64W 6th P.M.	<b>MD Reference:</b>	KB-EST @ 4633.0usft (Original Well Elev)
<b>Site Error:</b>	0.0 usft	<b>North Reference:</b>	True
<b>Reference Well:</b>	SCHAUMBERG 17G-314	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Well Error:</b>	0.0 usft	<b>Output errors are at</b>	2.00 sigma
<b>Reference Wellbore</b>	ORIGINAL WELLBORE	<b>Database:</b>	EDM 5000.1 Single User Db
<b>Reference Design:</b>	PROPOSAL #1	<b>Offset TVD Reference:</b>	Offset Datum

Offset Design NW SW SEC. 17 T5N R64W 6th P.M. - EXIST VERT GUNTHER #18-2 - 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	
9,547.2	6,781.2	6,778.2	6,778.2	86.0	136.0	87.88	-333.3	-1,717.9	1,494.1	1,272.5	221.59	6.743	
9,600.0	6,781.0	6,778.0	6,778.0	87.5	136.0	87.81	-333.3	-1,717.9	1,546.6	1,323.6	223.03	6.934	
9,645.6	6,780.8	6,777.8	6,777.8	88.7	136.0	87.74	-333.3	-1,717.9	1,592.0	1,367.8	224.28	7.098	
9,700.0	6,780.6	6,777.6	6,777.6	90.2	136.0	87.66	-333.3	-1,717.9	1,646.1	1,420.4	225.77	7.291	
9,744.1	6,780.4	6,777.4	6,777.4	91.4	136.0	87.60	-333.3	-1,717.9	1,690.0	1,463.0	226.97	7.446	
9,800.0	6,780.2	6,777.2	6,777.2	93.0	136.0	87.51	-333.3	-1,717.9	1,745.7	1,517.2	228.50	7.640	
9,842.5	6,780.1	6,777.1	6,777.1	94.2	136.0	87.45	-333.3	-1,717.9	1,788.0	1,558.4	229.66	7.786	
9,900.0	6,779.8	6,776.8	6,776.8	95.7	136.0	87.37	-333.3	-1,717.9	1,845.3	1,614.1	231.23	7.980	
9,940.9	6,779.7	6,776.7	6,776.7	96.9	136.0	87.31	-333.3	-1,717.9	1,886.1	1,653.7	232.35	8.118	
10,000.0	6,779.4	6,776.4	6,776.4	98.5	135.9	87.22	-333.3	-1,717.9	1,945.0	1,711.0	233.96	8.313	
10,039.3	6,779.3	6,776.3	6,776.3	99.6	135.9	87.16	-333.3	-1,717.9	1,984.2	1,749.2	235.04	8.442	
10,100.0	6,779.0	6,776.0	6,776.0	101.3	135.9	87.07	-333.3	-1,717.9	2,044.7	1,808.0	236.70	8.638	
10,137.8	6,778.9	6,775.9	6,775.9	102.3	135.9	87.02	-333.3	-1,717.9	2,082.3	1,844.6	237.73	8.759	
10,200.0	6,778.7	6,775.7	6,775.7	104.1	135.9	86.92	-333.3	-1,717.9	2,144.4	1,905.0	239.43	8.956	
10,236.2	6,778.5	6,775.5	6,775.5	105.1	135.9	86.87	-333.3	-1,717.9	2,180.5	1,940.1	240.42	9.070	
10,300.0	6,778.3	6,775.3	6,775.3	106.8	135.9	86.78	-333.3	-1,717.9	2,244.1	2,002.0	242.16	9.267	
10,334.6	6,778.1	6,775.1	6,775.1	107.8	135.9	86.73	-333.3	-1,717.9	2,278.7	2,035.6	243.11	9.373	
10,400.0	6,777.9	6,774.9	6,774.9	109.6	135.9	86.63	-333.3	-1,717.9	2,343.9	2,099.0	244.89	9.571	
10,433.0	6,777.7	6,774.7	6,774.7	110.5	135.9	86.58	-333.3	-1,717.9	2,376.9	2,131.1	245.79	9.670	
10,500.0	6,777.5	6,774.5	6,774.5	112.4	135.9	86.48	-333.3	-1,717.9	2,443.7	2,196.1	247.62	9.869	
10,531.5	6,777.3	6,774.3	6,774.3	113.3	135.9	86.43	-333.3	-1,717.9	2,475.1	2,226.6	248.48	9.961	
10,600.0	6,777.1	6,774.1	6,774.1	115.2	135.9	86.33	-333.3	-1,717.9	2,543.5	2,293.1	250.35	10.160	
10,629.9	6,777.0	6,774.0	6,774.0	116.0	135.9	86.29	-333.3	-1,717.9	2,573.3	2,322.2	251.17	10.246	
10,700.0	6,776.7	6,773.7	6,773.7	117.9	135.9	86.18	-333.3	-1,717.9	2,643.3	2,390.2	253.08	10.445	
10,728.3	6,776.6	6,773.6	6,773.6	118.7	135.9	86.14	-333.3	-1,717.9	2,671.6	2,417.7	253.85	10.524	
10,800.0	6,776.3	6,773.3	6,773.3	120.7	135.9	86.03	-333.3	-1,717.9	2,743.1	2,487.3	255.80	10.724	
10,826.7	6,776.2	6,773.2	6,773.2	121.5	135.9	85.99	-333.3	-1,717.9	2,769.8	2,513.3	256.53	10.797	
10,900.0	6,775.9	6,772.9	6,772.9	123.5	135.9	85.88	-333.3	-1,717.9	2,843.0	2,584.4	258.53	10.997	
10,925.2	6,775.8	6,772.8	6,772.8	124.2	135.9	85.84	-333.3	-1,717.9	2,868.1	2,608.9	259.21	11.065	
11,000.0	6,775.5	6,772.5	6,772.5	126.3	135.9	85.73	-333.3	-1,717.9	2,942.8	2,681.6	261.25	11.264	
11,023.6	6,775.4	6,772.4	6,772.4	126.9	135.9	85.69	-333.3	-1,717.9	2,966.4	2,704.5	261.89	11.327	
11,100.0	6,775.1	6,772.1	6,772.1	129.1	135.9	85.58	-333.3	-1,717.9	3,042.7	2,778.7	263.97	11.527	
11,122.0	6,775.0	6,772.0	6,772.0	129.7	135.9	85.54	-333.3	-1,717.9	3,064.7	2,800.1	264.57	11.584	
11,200.0	6,774.7	6,771.7	6,771.7	131.9	135.9	85.42	-333.3	-1,717.9	3,142.6	2,875.9	266.69	11.784	
11,220.4	6,774.6	6,771.6	6,771.6	132.4	135.8	85.39	-333.3	-1,717.9	3,163.0	2,895.7	267.25	11.835	
11,300.0	6,774.3	6,771.3	6,771.3	134.6	135.8	85.27	-333.3	-1,717.9	3,242.4	2,973.0	269.41	12.035	
11,318.9	6,774.2	6,771.2	6,771.2	135.2	135.8	85.24	-333.3	-1,717.9	3,261.3	2,991.4	269.92	12.082	
11,400.0	6,773.9	6,770.9	6,770.9	137.4	135.8	85.12	-333.3	-1,717.9	3,342.3	3,070.2	272.12	12.282	
11,417.3	6,773.8	6,770.8	6,770.8	137.9	135.8	85.09	-333.3	-1,717.9	3,359.6	3,087.0	272.59	12.325	
11,500.0	6,773.5	6,770.5	6,770.5	140.2	135.8	84.97	-333.3	-1,717.9	3,442.2	3,167.4	274.83	12.525	
11,515.7	6,773.4	6,770.4	6,770.4	140.7	135.8	84.94	-333.3	-1,717.9	3,457.9	3,182.7	275.26	12.562	
11,600.0	6,773.1	6,770.1	6,770.1	143.0	135.8	84.81	-333.3	-1,717.9	3,542.1	3,264.6	277.54	12.762	
11,614.1	6,773.0	6,770.0	6,770.0	143.4	135.8	84.79	-333.3	-1,717.9	3,556.2	3,278.3	277.93	12.796	
11,700.0	6,772.7	6,769.7	6,769.7	145.8	135.8	84.66	-333.3	-1,717.9	3,642.0	3,361.8	280.25	12.996	
11,712.6	6,772.6	6,769.6	6,769.6	146.2	135.8	84.64	-333.3	-1,717.9	3,654.6	3,374.0	280.59	13.025	
11,800.0	6,772.3	6,769.3	6,769.3	148.6	135.8	84.51	-333.3	-1,717.9	3,741.9	3,459.0	282.95	13.225	
11,811.0	6,772.2	6,769.2	6,769.2	148.9	135.8	84.49	-333.3	-1,717.9	3,752.9	3,469.7	283.25	13.249	
11,900.0	6,771.9	6,768.9	6,768.9	151.4	135.8	84.35	-333.3	-1,717.9	3,841.8	3,556.2	285.65	13.449	
11,909.4	6,771.8	6,768.8	6,768.8	151.7	135.8	84.34	-333.3	-1,717.9	3,851.3	3,565.3	285.91	13.470	
12,000.0	6,771.5	6,768.5	6,768.5	154.2	135.8	84.20	-333.3	-1,717.9	3,941.8	3,653.4	288.35	13.670	
12,007.8	6,771.4	6,768.4	6,768.4	154.4	135.8	84.18	-333.3	-1,717.9	3,949.6	3,661.0	288.56	13.687	
12,100.0	6,771.1	6,768.1	6,768.1	157.0	135.8	84.04	-333.3	-1,717.9	4,041.7	3,750.6	291.05	13.887	

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 SCHAUMBERG 17G-314
<b>Project:</b>	WELD COUNTY, COLORADO	<b>TVD Reference:</b>	KB-EST @ 4633.0usft (Original Well Elev)
<b>Reference Site:</b>	SW NW SEC. 17 T5N R64W 6th P.M.	<b>MD Reference:</b>	KB-EST @ 4633.0usft (Original Well Elev)
<b>Site Error:</b>	0.0 usft	<b>North Reference:</b>	True
<b>Reference Well:</b>	SCHAUMBERG 17G-314	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Well Error:</b>	0.0 usft	<b>Output errors are at</b>	2.00 sigma
<b>Reference Wellbore</b>	ORIGINAL WELLBORE	<b>Database:</b>	EDM 5000.1 Single User Db
<b>Reference Design:</b>	PROPOSAL #1	<b>Offset TVD Reference:</b>	Offset Datum

<b>Offset Design</b> NW SW SEC. 17 T5N R64W 6th P.M. - EXIST VERT GUNTHER #18-2 - Wellbore #1 - Design #1												<b>Offset Site Error:</b>	0.0 usft
Survey Program: 0-INC												<b>Offset Well Error:</b>	0.0 usft
Reference	Offset	Semi Major Axis		Distance									
Measured Depth (usft)	Vertical Depth (usft)	Measured Depth (usft)	Vertical Depth (usft)	Reference (usft)	Offset (usft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (usft)	+E/-W (usft)	Between Centres (usft)	Between Ellipses (usft)	Minimum Separation (usft)	Separation Factor	Warning
12,106.3	6,771.0	6,768.0	6,768.0	157.2	135.8	84.03	-333.3	-1,717.9	4,047.9	3,756.7	291.22	13.900	
12,200.0	6,770.7	6,767.7	6,767.7	159.8	135.8	83.89	-333.3	-1,717.9	4,141.6	3,847.9	293.74	14.100	
12,204.7	6,770.6	6,767.6	6,767.6	159.9	135.8	83.88	-333.3	-1,717.9	4,146.3	3,852.4	293.87	14.109	
12,300.0	6,770.3	6,767.3	6,767.3	162.6	135.8	83.73	-333.3	-1,717.9	4,241.5	3,945.1	296.43	14.309	
12,303.1	6,770.2	6,767.2	6,767.2	162.7	135.8	83.73	-333.3	-1,717.9	4,244.7	3,948.1	296.51	14.315	
12,361.7	6,770.0	6,767.0	6,767.0	164.3	135.8	83.63	-333.3	-1,717.9	4,303.2	4,005.1	298.09	14.436	



# Anticollision Report



<b>Company:</b>	PDC ENERGY	<b>Local Co-ordinate Reference:</b>	Well SCHAUMBERG 17G-314
<b>Project:</b>	WELD COUNTY, COLORADO	<b>TVD Reference:</b>	KB-EST @ 4633.0usft (Original Well Elev)
<b>Reference Site:</b>	SW NW SEC. 17 T5N R64W 6th P.M.	<b>MD Reference:</b>	KB-EST @ 4633.0usft (Original Well Elev)
<b>Site Error:</b>	0.0 usft	<b>North Reference:</b>	True
<b>Reference Well:</b>	SCHAUMBERG 17G-314	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Well Error:</b>	0.0 usft	<b>Output errors are at</b>	2.00 sigma
<b>Reference Wellbore</b>	ORIGINAL WELLBORE	<b>Database:</b>	EDM 5000.1 Single User Db
<b>Reference Design:</b>	PROPOSAL #1	<b>Offset TVD Reference:</b>	Offset Datum

Offset Design													Offset Site Error:	0.0 usft
Survey Program: 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	-94.26	-226.4	-3,039.4	3,047.9					
98.4	98.4	103.8	103.8	0.1	0.1	-94.27	-226.8	-3,039.3	3,047.7	3,047.5	0.20	N/A		
100.0	100.0	105.3	105.3	0.1	0.1	-94.27	-226.9	-3,039.3	3,047.7	3,047.5	0.20	N/A		
196.8	196.8	200.0	200.0	0.3	0.2	-94.28	-227.7	-3,039.0	3,047.5	3,047.0	0.55	5,580.445		
200.0	200.0	202.1	202.1	0.3	0.2	-94.29	-227.7	-3,039.0	3,047.5	3,046.9	0.55	5,491.773		
295.3	295.3	296.4	296.4	0.5	0.3	-94.30	-228.7	-3,038.8	3,047.4	3,046.5	0.85	3,603.607		
300.0	300.0	301.1	301.1	0.5	0.3	-94.30	-228.7	-3,038.8	3,047.3	3,046.5	0.86	3,543.843		
393.7	393.7	397.9	397.9	0.8	0.4	-94.32	-229.6	-3,038.5	3,047.2	3,046.0	1.13	2,691.002		
400.0	400.0	404.4	404.4	0.8	0.4	-94.32	-229.7	-3,038.5	3,047.2	3,046.0	1.15	2,649.140		
492.1	492.1	499.2	499.2	1.0	0.5	-94.34	-230.5	-3,038.1	3,046.9	3,045.5	1.41	2,162.715		
500.0	500.0	507.5	507.5	1.0	0.5	-94.34	-230.6	-3,038.1	3,046.9	3,045.4	1.43	2,129.834		
590.5	590.5	602.8	602.8	1.2	0.5	-94.36	-231.3	-3,037.6	3,046.5	3,044.8	1.68	1,813.700		
600.0	600.0	612.0	612.0	1.2	0.5	-94.36	-231.4	-3,037.6	3,046.4	3,044.7	1.70	1,786.780		
689.0	689.0	698.7	698.6	1.4	0.6	-94.37	-232.1	-3,037.2	3,046.0	3,044.1	1.94	1,567.771		
700.0	700.0	709.2	709.1	1.4	0.6	-94.37	-232.2	-3,037.1	3,046.0	3,044.0	1.97	1,544.655		
787.4	787.4	792.2	792.2	1.6	0.6	-94.38	-232.8	-3,036.8	3,045.7	3,043.5	2.20	1,383.358		
800.0	800.0	804.3	804.3	1.7	0.6	-94.39	-232.9	-3,036.7	3,045.7	3,043.4	2.23	1,362.866		
885.8	885.8	889.0	889.0	1.9	0.7	-94.40	-233.6	-3,036.5	3,045.5	3,043.0	2.46	1,238.149		
900.0	900.0	900.0	900.0	1.9	0.7	-94.40	-233.7	-3,036.5	3,045.5	3,043.0	2.50	1,220.267		
984.2	984.2	982.3	982.2	2.1	0.7	-94.42	-234.5	-3,036.3	3,045.4	3,042.6	2.71	1,121.967		
1,000.0	1,000.0	997.1	997.1	2.1	0.7	-94.42	-234.6	-3,036.3	3,045.4	3,042.6	2.75	1,105.402		
1,003.0	1,003.0	1,000.0	1,000.0	2.1	0.7	-94.42	-234.7	-3,036.3	3,045.4	3,042.6	2.76	1,102.332		
1,082.7	1,082.7	1,061.3	1,061.3	2.3	0.7	-94.43	-235.2	-3,036.4	3,045.6	3,042.6	2.96	1,029.493		
1,100.0	1,100.0	1,074.7	1,074.6	2.3	0.7	-94.43	-235.3	-3,036.5	3,045.7	3,042.7	3.00	1,014.941		
1,181.1	1,181.1	1,152.2	1,152.2	2.5	0.8	-94.44	-235.9	-3,037.2	3,046.4	3,043.2	3.21	949.772		
1,200.0	1,200.0	1,172.7	1,172.6	2.6	0.8	-94.44	-236.1	-3,037.3	3,046.6	3,043.3	3.26	935.434		
1,279.5	1,279.5	1,254.1	1,254.0	2.7	0.8	-94.46	-237.1	-3,037.9	3,047.2	3,043.7	3.46	879.872		
1,300.0	1,300.0	1,274.5	1,274.4	2.8	0.8	-94.47	-237.3	-3,038.0	3,047.3	3,043.8	3.52	866.659		
1,377.9	1,377.9	1,348.8	1,348.7	3.0	0.8	-94.48	-238.3	-3,038.5	3,047.9	3,044.2	3.72	820.105		
1,400.0	1,400.0	1,369.3	1,369.2	3.0	0.8	-94.49	-238.6	-3,038.7	3,048.1	3,044.4	3.77	807.885		
1,476.4	1,476.4	1,440.8	1,440.7	3.2	0.9	-94.51	-239.5	-3,039.3	3,048.9	3,044.9	3.97	768.208		
1,500.0	1,500.0	1,462.9	1,462.8	3.2	0.9	-94.51	-239.8	-3,039.5	3,049.2	3,045.1	4.03	756.724		
1,574.8	1,574.8	1,535.0	1,534.9	3.4	0.9	-94.53	-240.6	-3,040.3	3,050.0	3,045.8	4.22	722.329		
1,600.0	1,600.0	1,560.0	1,559.9	3.5	0.9	-94.53	-240.9	-3,040.6	3,050.4	3,046.1	4.29	711.426		
1,673.2	1,673.2	1,632.9	1,632.8	3.6	0.9	-94.54	-241.7	-3,041.4	3,051.2	3,046.8	4.47	681.884		
1,700.0	1,700.0	1,659.6	1,659.5	3.7	0.9	-94.55	-241.9	-3,041.7	3,051.6	3,047.0	4.54	671.608		
1,771.6	1,771.6	1,729.8	1,729.6	3.9	1.0	-94.56	-242.5	-3,042.6	3,052.5	3,047.7	4.73	645.536		
1,800.0	1,800.0	1,756.8	1,756.7	3.9	1.0	-94.56	-242.6	-3,042.9	3,052.8	3,048.0	4.80	635.969		
1,870.1	1,870.1	1,826.9	1,826.8	4.1	1.0	64.25	-242.6	-3,043.9	3,053.4	3,048.5	4.93	619.929		
1,900.0	1,900.0	1,859.4	1,859.3	4.1	1.0	64.27	-242.5	-3,044.3	3,053.4	3,048.4	4.99	611.529		
1,968.5	1,968.4	1,929.2	1,929.1	4.2	1.0	64.34	-242.2	-3,045.1	3,052.8	3,047.7	5.13	595.060		
2,000.0	1,999.8	1,958.8	1,958.6	4.3	1.0	64.39	-242.1	-3,045.5	3,052.3	3,047.1	5.19	587.815		
2,066.9	2,066.5	2,021.9	2,021.8	4.4	1.0	64.51	-242.0	-3,046.3	3,050.8	3,045.5	5.33	572.281		
2,100.0	2,099.5	2,053.6	2,053.4	4.5	1.0	64.58	-241.9	-3,046.8	3,049.9	3,044.5	5.40	564.856		
2,165.3	2,164.4	2,116.4	2,116.2	4.6	1.0	64.75	-241.6	-3,047.7	3,047.6	3,042.1	5.54	549.759		
2,200.0	2,198.7	2,150.4	2,150.2	4.7	1.1	64.86	-241.4	-3,048.2	3,046.1	3,040.5	5.62	542.015		
2,263.8	2,261.8	2,214.5	2,214.3	4.8	1.1	65.09	-241.1	-3,049.2	3,043.0	3,037.2	5.77	527.011		
2,300.0	2,297.5	2,254.6	2,254.4	4.9	1.1	65.24	-240.8	-3,049.8	3,040.9	3,035.1	5.86	518.701		
2,362.2	2,358.6	2,321.2	2,321.0	5.0	1.1	65.54	-240.3	-3,050.6	3,036.9	3,030.8	6.03	503.529		
2,400.0	2,395.6	2,359.0	2,358.8	5.1	1.1	65.73	-240.0	-3,051.1	3,034.1	3,028.0	6.13	494.738		
2,460.6	2,454.9	2,419.5	2,419.3	5.3	1.1	65.96	-239.5	-3,051.8	3,029.5	3,023.2	6.31	479.942		
2,500.0	2,493.4	2,458.4	2,458.3	5.4	1.1	66.10	-239.2	-3,052.2	3,026.5	3,020.1	6.43	470.808		

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 SCHAUMBERG 17G-314
<b>Project:</b>	WELD COUNTY, COLORADO	<b>TVD Reference:</b>	KB-EST @ 4633.0usft (Original Well Elev)
<b>Reference Site:</b>	SW NW SEC. 17 T5N R64W 6th P.M.	<b>MD Reference:</b>	KB-EST @ 4633.0usft (Original Well Elev)
<b>Site Error:</b>	0.0 usft	<b>North Reference:</b>	True
<b>Reference Well:</b>	SCHAUMBERG 17G-314	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Well Error:</b>	0.0 usft	<b>Output errors are at</b>	2.00 sigma
<b>Reference Wellbore</b>	ORIGINAL WELLBORE	<b>Database:</b>	EDM 5000.1 Single User Db
<b>Reference Design:</b>	PROPOSAL #1	<b>Offset TVD Reference:</b>	Offset Datum

Offset Design												Offset Site Error:	0.0 usft
Survey Program: 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	
2,559.0	2,551.2	2,515.4	2,515.2	5.6	1.1	66.32	-238.7	-3,052.8	3,022.1	3,015.5	6.61	456.867	
2,600.0	2,591.3	2,552.4	2,552.2	5.7	1.1	66.46	-238.4	-3,053.3	3,019.1	3,012.4	6.74	447.730	
2,657.5	2,647.5	2,604.8	2,604.6	5.9	1.1	66.66	-237.8	-3,054.0	3,015.0	3,008.1	6.93	434.818	
2,700.0	2,689.1	2,647.9	2,647.7	6.0	1.2	66.83	-237.3	-3,054.6	3,012.0	3,005.0	7.08	425.623	
2,755.9	2,743.7	2,704.4	2,704.2	6.2	1.2	67.05	-236.6	-3,055.3	3,008.1	3,000.8	7.27	413.596	
2,800.0	2,786.9	2,747.3	2,747.1	6.4	1.2	67.21	-236.2	-3,055.8	3,005.0	2,997.6	7.43	404.565	
2,854.3	2,840.0	2,800.2	2,800.0	6.6	1.2	67.42	-235.5	-3,056.5	3,001.3	2,993.6	7.63	393.569	
2,900.0	2,884.7	2,855.9	2,855.6	6.7	1.2	67.64	-234.7	-3,057.1	2,998.1	2,990.3	7.79	384.623	
2,952.7	2,936.3	2,915.7	2,915.5	6.9	1.2	67.88	-233.9	-3,057.5	2,994.2	2,986.2	7.99	374.512	
3,000.0	2,982.5	2,960.8	2,960.5	7.1	1.2	68.05	-233.2	-3,057.8	2,990.7	2,982.6	8.17	365.975	
3,051.2	3,032.6	3,011.3	3,011.1	7.3	1.2	68.25	-232.7	-3,058.2	2,987.0	2,978.7	8.37	356.909	
3,100.0	3,080.3	3,066.0	3,065.7	7.5	1.2	68.47	-232.1	-3,058.4	2,983.5	2,974.9	8.56	348.586	
3,149.6	3,128.8	3,120.9	3,120.6	7.7	1.2	68.68	-231.5	-3,058.6	2,979.8	2,971.0	8.76	340.350	
3,200.0	3,178.1	3,175.5	3,175.2	7.9	1.2	68.90	-231.0	-3,058.7	2,975.9	2,967.0	8.95	332.383	
3,248.0	3,225.1	3,232.8	3,232.5	8.1	1.2	69.12	-230.7	-3,058.6	2,972.2	2,963.1	9.15	324.988	
3,300.0	3,276.0	3,299.7	3,299.4	8.3	1.2	69.38	-230.3	-3,058.2	2,968.0	2,958.7	9.35	317.347	
3,346.4	3,321.4	3,350.8	3,350.6	8.5	1.2	69.58	-230.0	-3,057.7	2,964.1	2,954.5	9.54	310.768	
3,400.0	3,373.8	3,409.3	3,409.0	8.7	1.3	69.80	-229.9	-3,057.0	2,959.5	2,949.7	9.75	303.469	
3,444.9	3,417.7	3,456.6	3,456.3	8.8	1.3	69.98	-230.0	-3,056.3	2,955.6	2,945.7	9.93	297.531	
3,500.0	3,471.6	3,512.5	3,512.2	9.1	1.3	70.18	-230.4	-3,055.5	2,950.8	2,940.6	10.16	290.520	
3,543.3	3,513.9	3,551.3	3,551.0	9.2	1.3	70.32	-230.8	-3,055.0	2,947.1	2,936.7	10.33	285.176	
3,600.0	3,569.4	3,600.0	3,599.7	9.5	1.3	70.50	-231.4	-3,054.3	2,942.3	2,931.7	10.57	278.462	
3,641.7	3,610.2	3,640.3	3,639.9	9.7	1.3	70.64	-232.0	-3,053.9	2,938.9	2,928.1	10.74	273.636	
3,700.0	3,667.2	3,693.5	3,693.1	9.9	1.3	70.83	-232.6	-3,053.3	2,934.2	2,923.2	10.98	267.165	
3,740.1	3,706.5	3,731.2	3,730.8	10.1	1.3	70.97	-233.1	-3,053.0	2,931.0	2,919.8	11.15	262.828	
3,800.0	3,765.0	3,787.7	3,787.4	10.3	1.3	71.18	-233.7	-3,052.5	2,926.3	2,914.9	11.40	256.597	
3,838.6	3,802.8	3,823.6	3,823.3	10.5	1.3	71.31	-234.0	-3,052.2	2,923.4	2,911.8	11.57	252.698	
3,900.0	3,862.8	3,880.2	3,879.9	10.7	1.3	71.52	-234.6	-3,051.8	2,918.8	2,906.9	11.83	246.713	
3,937.0	3,899.0	3,914.3	3,914.0	10.9	1.3	71.64	-235.0	-3,051.6	2,916.0	2,904.0	11.99	243.212	
4,000.0	3,960.7	3,972.3	3,972.0	11.2	1.3	71.86	-235.5	-3,051.3	2,911.5	2,899.2	12.26	237.457	
4,035.4	3,995.3	4,000.0	3,999.7	11.3	1.3	71.96	-235.7	-3,051.2	2,909.0	2,896.6	12.41	234.337	
4,100.0	4,058.5	4,058.4	4,058.1	11.6	1.4	72.18	-236.3	-3,051.1	2,904.6	2,891.9	12.69	228.821	
4,133.8	4,091.6	4,086.8	4,086.4	11.7	1.4	72.28	-236.7	-3,051.1	2,902.4	2,889.6	12.84	226.026	
4,200.0	4,156.3	4,144.0	4,143.7	12.0	1.4	72.49	-237.6	-3,051.3	2,898.3	2,885.2	13.13	220.729	
4,232.3	4,187.9	4,172.3	4,171.9	12.2	1.4	72.59	-238.0	-3,051.4	2,896.4	2,883.1	13.27	218.218	
4,300.0	4,254.1	4,225.6	4,225.2	12.5	1.4	72.79	-238.8	-3,051.8	2,892.6	2,879.0	13.57	213.164	
4,325.7	4,279.2	4,243.8	4,243.4	12.6	1.4	72.85	-239.0	-3,052.0	2,891.2	2,877.5	13.68	211.319	
4,330.7	4,284.1	4,247.4	4,247.0	12.6	1.4	72.86	-239.0	-3,052.0	2,891.0	2,877.3	13.70	211.011	
4,400.0	4,352.1	4,300.0	4,299.6	12.8	1.4	72.99	-239.3	-3,052.8	2,888.0	2,874.0	13.96	206.875	
4,429.1	4,380.8	4,333.8	4,333.4	12.9	1.4	73.09	-239.2	-3,053.4	2,887.0	2,872.9	14.05	205.428	
4,500.0	4,450.7	4,428.7	4,428.3	13.1	1.4	73.34	-238.8	-3,054.4	2,884.4	2,870.1	14.28	201.941	
4,527.5	4,478.0	4,463.1	4,462.7	13.2	1.4	73.42	-238.5	-3,054.6	2,883.4	2,869.1	14.36	200.744	
4,600.0	4,549.9	4,552.8	4,552.4	13.4	1.4	73.60	-237.5	-3,054.6	2,880.9	2,866.3	14.57	197.688	
4,626.0	4,575.7	4,584.9	4,584.5	13.5	1.4	73.66	-237.0	-3,054.5	2,880.0	2,865.4	14.64	196.729	
4,700.0	4,649.4	4,673.9	4,673.5	13.6	1.4	73.80	-235.8	-3,053.7	2,877.6	2,862.8	14.83	194.084	
4,724.4	4,673.7	4,703.1	4,702.7	13.7	1.5	73.83	-235.4	-3,053.4	2,876.9	2,862.0	14.88	193.334	
4,800.0	4,749.2	4,791.6	4,791.1	13.8	1.5	73.91	-234.4	-3,052.1	2,874.6	2,859.6	15.04	191.078	
4,822.8	4,772.0	4,817.5	4,817.1	13.9	1.5	73.92	-234.1	-3,051.7	2,874.0	2,858.9	15.09	190.508	
4,900.0	4,849.2	4,903.6	4,903.1	14.0	1.5	73.94	-233.4	-3,050.0	2,872.1	2,856.9	15.23	188.628	
4,921.2	4,870.4	4,924.7	4,924.2	14.1	1.5	73.94	-233.3	-3,049.6	2,871.7	2,856.4	15.26	188.169	
4,925.6	4,874.8	4,929.0	4,928.5	14.1	1.5	-84.87	-233.3	-3,049.5	2,871.6	2,859.1	12.49	229.932	
5,000.0	4,949.2	5,002.8	5,002.3	14.2	1.5	-84.87	-233.2	-3,048.1	2,870.1	2,857.5	12.64	227.070	

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 SCHAUMBERG 17G-314
<b>Project:</b>	WELD COUNTY, COLORADO	<b>TVD Reference:</b>	KB-EST @ 4633.0usft (Original Well Elev)
<b>Reference Site:</b>	SW NW SEC. 17 T5N R64W 6th P.M.	<b>MD Reference:</b>	KB-EST @ 4633.0usft (Original Well Elev)
<b>Site Error:</b>	0.0 usft	<b>North Reference:</b>	True
<b>Reference Well:</b>	SCHAUMBERG 17G-314	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Well Error:</b>	0.0 usft	<b>Output errors are at</b>	2.00 sigma
<b>Reference Wellbore</b>	ORIGINAL WELLBORE	<b>Database:</b>	EDM 5000.1 Single User Db
<b>Reference Design:</b>	PROPOSAL #1	<b>Offset TVD Reference:</b>	Offset Datum

Offset Design													Offset Site Error:	0.0 usft
Survey Program: 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	4,968.8	5,022.7	5,022.2	14.2	1.5	-84.87	-233.2	-3,047.7	2,869.7	2,857.1	12.68	226.313		
5,100.0	5,049.2	5,100.0	5,099.5	14.3	1.5	-84.86	-233.3	-3,046.1	2,868.1	2,855.3	12.85	223.280		
5,118.1	5,067.3	5,116.7	5,116.2	14.3	1.5	-84.86	-233.3	-3,045.8	2,867.8	2,854.9	12.88	222.609		
5,200.0	5,149.2	5,178.8	5,178.3	14.5	1.5	-84.86	-233.2	-3,044.9	2,866.6	2,853.6	13.05	219.679		
5,216.5	5,165.7	5,200.0	5,199.5	14.5	1.5	-84.86	-233.2	-3,044.7	2,866.4	2,853.4	13.08	219.080		
5,300.0	5,249.2	5,268.3	5,267.8	14.6	1.5	-84.86	-233.2	-3,044.1	2,865.7	2,852.5	13.26	216.195		
5,314.9	5,264.1	5,282.4	5,281.9	14.6	1.5	-84.86	-233.2	-3,044.0	2,865.6	2,852.3	13.29	215.680		
5,400.0	5,349.2	5,366.9	5,366.4	14.8	1.5	-84.86	-233.3	-3,043.4	2,865.0	2,851.6	13.47	212.774		
5,413.4	5,362.5	5,380.4	5,379.8	14.8	1.5	-84.86	-233.4	-3,043.3	2,864.9	2,851.4	13.49	212.320		
5,500.0	5,449.2	5,463.6	5,463.1	14.9	1.5	-84.86	-233.5	-3,042.8	2,864.4	2,850.7	13.68	209.452		
5,511.8	5,461.0	5,474.8	5,474.3	14.9	1.5	-84.86	-233.5	-3,042.7	2,864.3	2,850.6	13.70	209.067		
5,600.0	5,549.2	5,566.6	5,566.1	15.1	1.5	-84.86	-233.6	-3,042.2	2,863.8	2,849.9	13.89	206.215		
5,610.2	5,559.4	5,577.7	5,577.2	15.1	1.6	-84.86	-233.6	-3,042.1	2,863.7	2,849.8	13.91	205.887		
5,700.0	5,649.2	5,666.2	5,665.7	15.2	1.6	-84.86	-233.7	-3,041.5	2,863.0	2,848.9	14.10	203.057		
5,708.6	5,657.8	5,674.5	5,674.0	15.3	1.6	-84.86	-233.7	-3,041.4	2,863.0	2,848.9	14.12	202.788		
5,800.0	5,749.2	5,768.1	5,767.6	15.4	1.6	-84.87	-234.0	-3,040.8	2,862.4	2,848.0	14.31	199.965		
5,807.1	5,756.2	5,775.5	5,775.0	15.4	1.6	-84.87	-234.1	-3,040.8	2,862.3	2,848.0	14.33	199.748		
5,900.0	5,849.2	5,872.6	5,872.1	15.6	1.6	-84.89	-235.1	-3,040.0	2,861.5	2,847.0	14.53	196.898		
5,905.5	5,854.7	5,878.4	5,877.8	15.6	1.6	-84.89	-235.1	-3,040.0	2,861.5	2,846.9	14.55	196.731		
6,000.0	5,949.2	5,970.3	5,969.7	15.7	1.6	-84.92	-236.5	-3,039.3	2,860.6	2,845.9	14.75	193.900		
6,003.9	5,953.1	5,974.0	5,973.5	15.7	1.6	-84.92	-236.6	-3,039.3	2,860.6	2,845.8	14.76	193.785		
6,100.0	6,049.2	6,068.3	6,067.7	15.9	1.6	-84.95	-238.2	-3,038.7	2,859.9	2,844.9	14.97	190.977		
6,102.3	6,051.5	6,070.6	6,070.0	15.9	1.6	-84.95	-238.2	-3,038.7	2,859.8	2,844.9	14.98	190.909		
6,124.6	6,073.8	6,092.7	6,092.2	15.9	1.6	-84.96	-238.6	-3,038.5	2,859.7	2,844.6	15.03	190.268		
6,150.0	6,099.2	6,117.6	6,117.0	16.0	1.7	5.04	-239.1	-3,038.4	2,859.0	2,841.6	17.40	164.282		
6,200.0	6,149.0	6,166.3	6,165.7	16.1	1.7	5.05	-240.1	-3,038.1	2,855.2	2,837.6	17.57	162.530		
6,200.8	6,149.8	6,167.0	6,166.4	16.1	1.7	5.05	-240.1	-3,038.1	2,855.1	2,837.5	17.57	162.498		
6,250.0	6,198.5	6,213.5	6,212.9	16.2	1.7	5.10	-241.1	-3,037.9	2,847.9	2,830.1	17.76	160.318		
6,299.2	6,246.6	6,257.1	6,256.5	16.3	1.7	5.17	-241.9	-3,037.7	2,837.5	2,819.5	17.97	157.928		
6,300.0	6,247.4	6,257.8	6,257.2	16.3	1.7	5.18	-241.9	-3,037.7	2,837.3	2,819.3	17.97	157.888		
6,350.0	6,295.5	6,301.8	6,301.1	16.5	1.7	5.29	-242.5	-3,037.6	2,823.3	2,805.2	18.17	155.424		
6,397.6	6,340.2	6,351.3	6,350.7	16.6	1.7	5.44	-243.1	-3,037.5	2,807.0	2,788.7	18.33	153.105		
6,400.0	6,342.4	6,353.8	6,353.2	16.6	1.7	5.45	-243.2	-3,037.5	2,806.1	2,787.7	18.34	152.993		
6,450.0	6,388.1	6,404.0	6,403.4	16.8	1.7	5.66	-243.9	-3,037.2	2,785.6	2,767.1	18.48	150.703		
6,496.0	6,428.8	6,446.3	6,445.7	17.0	1.7	5.89	-244.5	-3,037.0	2,763.8	2,745.3	18.58	148.758		
6,500.0	6,432.2	6,449.9	6,449.2	17.0	1.7	5.91	-244.5	-3,037.0	2,761.8	2,743.3	18.59	148.600		
6,550.0	6,474.6	6,493.8	6,493.2	17.3	1.7	6.22	-245.3	-3,036.7	2,735.1	2,716.5	18.64	146.695		
6,594.5	6,510.7	6,525.2	6,524.6	17.5	1.7	6.55	-245.9	-3,036.5	2,708.9	2,690.3	18.65	145.219		
6,600.0	6,515.0	6,528.9	6,528.2	17.6	1.7	6.59	-245.9	-3,036.5	2,705.5	2,686.9	18.65	145.050		
6,650.0	6,553.3	6,561.0	6,560.4	17.9	1.8	7.05	-246.4	-3,036.4	2,673.3	2,654.7	18.62	143.603		
6,692.9	6,584.3	6,587.1	6,586.5	18.2	1.8	7.52	-246.7	-3,036.4	2,643.7	2,625.2	18.55	142.487		
6,700.0	6,589.2	6,591.3	6,590.7	18.2	1.8	7.61	-246.8	-3,036.4	2,638.6	2,620.1	18.54	142.314		
6,750.0	6,622.7	6,624.3	6,623.7	18.6	1.8	8.32	-247.1	-3,036.3	2,601.6	2,583.2	18.44	141.077		
6,791.3	6,648.3	6,651.2	6,650.6	19.0	1.8	9.05	-247.4	-3,036.3	2,569.3	2,550.9	18.34	140.057		
6,800.0	6,653.4	6,656.6	6,656.0	19.1	1.8	9.22	-247.4	-3,036.3	2,562.3	2,544.0	18.32	139.844		
6,850.0	6,681.4	6,685.9	6,685.3	19.6	1.8	10.38	-247.8	-3,036.3	2,521.0	2,502.8	18.20	138.525		
6,889.7	6,701.5	6,705.3	6,704.6	20.1	1.8	11.53	-248.0	-3,036.2	2,486.8	2,468.7	18.11	137.315		
6,900.0	6,706.3	6,709.2	6,708.5	20.2	1.8	11.86	-248.0	-3,036.2	2,477.8	2,459.7	18.09	136.979		
6,950.0	6,728.2	6,726.7	6,726.0	20.9	1.8	13.82	-248.2	-3,036.2	2,433.0	2,415.0	18.03	134.916		
6,988.2	6,742.8	6,738.4	6,737.7	21.5	1.8	15.81	-248.3	-3,036.2	2,397.9	2,379.9	18.08	132.641		
7,000.0	6,746.9	6,741.7	6,741.1	21.6	1.8	16.54	-248.3	-3,036.2	2,386.9	2,368.8	18.11	131.766		
7,050.0	6,762.4	6,750.0	6,749.4	22.5	1.8	20.39	-248.4	-3,036.3	2,339.7	2,321.2	18.45	126.786		

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 SCHAUMBERG 17G-314
<b>Project:</b>	WELD COUNTY, COLORADO	<b>TVD Reference:</b>	KB-EST @ 4633.0usft (Original Well Elev)
<b>Reference Site:</b>	SW NW SEC. 17 T5N R64W 6th P.M.	<b>MD Reference:</b>	KB-EST @ 4633.0usft (Original Well Elev)
<b>Site Error:</b>	0.0 usft	<b>North Reference:</b>	True
<b>Reference Well:</b>	SCHAUMBERG 17G-314	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Well Error:</b>	0.0 usft	<b>Output errors are at</b>	2.00 sigma
<b>Reference Wellbore</b>	ORIGINAL WELLBORE	<b>Database:</b>	EDM 5000.1 Single User Db
<b>Reference Design:</b>	PROPOSAL #1	<b>Offset TVD Reference:</b>	Offset Datum

Offset Design NW SW SEC. 17 T5N R64W 6th P.M. - EXIST VERT GUNTHER-PM B #18-7 - Wellbore #1 - Wellbore													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		
7,086.6	6,771.5	6,750.0	6,749.4	23.1	1.8	24.27	-248.4	-3,036.3	2,304.5	2,285.5	18.98	121.393		
7,100.0	6,774.4	6,750.0	6,749.4	23.3	1.8	26.06	-248.4	-3,036.3	2,291.5	2,272.2	19.27	118.899		
7,150.0	6,783.1	6,750.0	6,749.4	24.3	1.8	35.43	-248.4	-3,036.3	2,242.7	2,221.6	21.05	106.539		
7,185.0	6,787.1	6,750.0	6,749.4	25.0	1.8	46.13	-248.4	-3,036.3	2,208.1	2,185.0	23.13	95.454		
7,200.0	6,788.3	6,750.0	6,749.4	25.3	1.8	52.29	-248.4	-3,036.3	2,193.3	2,169.1	24.20	90.642		
7,252.3	6,790.0	6,750.0	6,749.4	26.3	1.8	83.01	-248.4	-3,036.3	2,141.4	2,114.3	27.07	79.101		
7,283.4	6,789.9	6,750.0	6,749.4	27.0	1.8	83.01	-248.4	-3,036.3	2,110.5	2,082.7	27.76	76.032		
7,300.0	6,789.8	6,750.0	6,749.4	27.3	1.8	83.01	-248.4	-3,036.3	2,094.0	2,065.9	28.12	74.461		
7,381.9	6,789.5	6,750.0	6,749.4	29.1	1.8	83.01	-248.4	-3,036.3	2,012.7	1,982.7	29.99	67.112		
7,400.0	6,789.4	6,750.0	6,749.4	29.5	1.8	83.01	-248.4	-3,036.3	1,994.7	1,964.3	30.40	65.607		
7,480.3	6,789.1	6,750.0	6,749.4	31.4	1.8	83.01	-248.4	-3,036.3	1,915.1	1,882.8	32.30	59.282		
7,500.0	6,789.1	6,750.0	6,749.4	31.8	1.8	83.01	-248.4	-3,036.3	1,895.5	1,862.8	32.77	57.843		
7,578.7	6,788.8	6,750.0	6,749.4	33.7	1.8	83.01	-248.4	-3,036.3	1,817.5	1,782.8	34.69	52.400		
7,600.0	6,788.7	6,750.0	6,749.4	34.2	1.8	83.02	-248.4	-3,036.3	1,796.4	1,761.2	35.20	51.030		
7,677.1	6,788.4	6,750.0	6,749.4	36.1	1.8	83.02	-248.4	-3,036.3	1,720.0	1,682.9	37.12	46.337		
7,700.0	6,788.3	6,750.0	6,749.4	36.7	1.8	83.02	-248.4	-3,036.3	1,697.4	1,659.7	37.69	45.038		
7,775.6	6,788.0	6,750.0	6,749.4	38.6	1.8	83.02	-248.4	-3,036.3	1,622.6	1,583.0	39.60	40.978		
7,800.0	6,787.9	6,750.0	6,749.4	39.2	1.8	83.02	-248.4	-3,036.3	1,598.5	1,558.3	40.21	39.748		
7,874.0	6,787.6	6,750.0	6,749.4	41.0	1.8	83.02	-248.4	-3,036.3	1,525.4	1,483.3	42.11	36.223		
7,900.0	6,787.6	6,750.0	6,749.4	41.7	1.8	83.02	-248.4	-3,036.3	1,499.7	1,456.9	42.78	35.059		
7,972.4	6,787.3	6,750.0	6,749.4	43.6	1.8	83.02	-248.4	-3,036.3	1,428.3	1,383.7	44.65	31.987		
8,000.0	6,787.2	6,750.0	6,749.4	44.3	1.8	83.02	-248.4	-3,036.3	1,401.1	1,355.8	45.37	30.885		
8,070.8	6,786.9	6,750.0	6,749.4	46.1	1.8	83.02	-248.4	-3,036.3	1,331.4	1,284.2	47.22	28.197		
8,100.0	6,786.8	6,750.0	6,749.4	46.9	1.8	83.03	-248.4	-3,036.3	1,302.8	1,254.8	47.98	27.152		
8,169.3	6,786.5	6,750.0	6,749.4	48.7	1.8	83.03	-248.4	-3,036.3	1,234.8	1,185.0	49.81	24.792		
8,200.0	6,786.4	6,750.0	6,749.4	49.5	1.8	83.03	-248.4	-3,036.3	1,204.7	1,154.1	50.61	23.801		
8,267.7	6,786.1	6,750.0	6,749.4	51.3	1.8	83.03	-248.4	-3,036.3	1,138.5	1,086.1	52.41	21.723		
8,300.0	6,786.0	6,750.0	6,749.4	52.1	1.8	83.03	-248.4	-3,036.3	1,106.9	1,053.7	53.27	20.782		
8,366.1	6,785.8	6,750.0	6,749.4	53.9	1.8	83.03	-248.4	-3,036.3	1,042.5	987.5	55.03	18.946		
8,400.0	6,785.6	6,750.0	6,749.4	54.8	1.8	83.03	-248.4	-3,036.3	1,009.6	953.7	55.93	18.052		
8,464.5	6,785.4	6,750.0	6,749.4	56.5	1.8	83.03	-248.4	-3,036.3	947.1	889.4	57.66	16.426		
8,500.0	6,785.3	6,750.0	6,749.4	57.5	1.8	83.03	-248.4	-3,036.3	912.9	854.3	58.61	15.576		
8,563.0	6,785.0	6,750.0	6,749.4	59.2	1.8	83.03	-248.4	-3,036.3	852.4	792.1	60.30	14.135		
8,600.0	6,784.9	6,750.0	6,749.4	60.2	1.8	83.03	-248.4	-3,036.3	816.9	755.7	61.29	13.328		
8,661.4	6,784.6	6,750.0	6,749.4	61.8	1.8	83.03	-248.4	-3,036.3	758.6	695.6	62.95	12.050		
8,700.0	6,784.5	6,750.0	6,749.4	62.9	1.8	83.03	-248.4	-3,036.3	722.1	658.1	63.99	11.284		
8,759.8	6,784.3	6,750.0	6,749.4	64.5	1.8	83.03	-248.4	-3,036.3	666.1	600.5	65.61	10.152		
8,800.0	6,784.1	6,750.0	6,749.4	65.6	1.8	83.04	-248.4	-3,036.3	628.9	562.2	66.70	9.429		
8,858.2	6,783.9	6,750.0	6,749.4	67.1	1.8	83.04	-248.4	-3,036.3	575.6	507.3	68.28	8.430		
8,900.0	6,783.7	6,750.0	6,749.4	68.3	1.8	83.04	-248.4	-3,036.3	538.1	468.6	69.41	7.752		
8,956.7	6,783.5	6,750.0	6,749.4	69.8	1.8	83.04	-248.4	-3,036.3	488.2	417.2	70.95	6.881		
9,000.0	6,783.3	6,750.0	6,749.4	71.0	1.8	83.04	-248.4	-3,036.3	451.1	379.0	72.13	6.255		
9,055.1	6,783.1	6,750.0	6,749.4	72.5	1.8	83.04	-248.4	-3,036.3	405.8	332.2	73.63	5.512		
9,100.0	6,782.9	6,750.0	6,749.4	73.7	1.8	83.04	-248.4	-3,036.3	370.9	296.0	74.85	4.955		
9,153.5	6,782.7	6,750.0	6,749.4	75.2	1.8	83.04	-248.4	-3,036.3	332.4	256.1	76.31	4.356		
9,200.0	6,782.6	6,750.0	6,749.4	76.5	1.8	83.04	-248.4	-3,036.3	302.7	225.1	77.58	3.901		
9,251.9	6,782.4	6,750.0	6,749.4	77.9	1.8	83.04	-248.4	-3,036.3	275.0	196.0	79.00	3.481		
9,300.0	6,782.2	6,750.0	6,749.4	79.2	1.8	83.04	-248.4	-3,036.3	256.2	175.9	80.31	3.190		
9,350.4	6,782.0	6,750.0	6,749.4	80.6	1.8	83.04	-248.4	-3,036.3	245.2	163.5	81.69	3.002		
9,379.8	6,781.9	6,750.0	6,749.4	81.4	1.8	83.04	-248.4	-3,036.3	243.4	160.9	82.50	2.951 CC, ES		
9,400.0	6,781.8	6,750.0	6,749.4	82.0	1.8	83.04	-248.4	-3,036.3	244.3	161.2	83.05	2.941 SF		
9,448.8	6,781.6	6,750.0	6,749.4	83.3	1.8	83.04	-248.4	-3,036.3	253.0	168.6	84.39	2.998		

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 SCHAUMBERG 17G-314
<b>Project:</b>	WELD COUNTY, COLORADO	<b>TVD Reference:</b>	KB-EST @ 4633.0usft (Original Well Elev)
<b>Reference Site:</b>	SW NW SEC. 17 T5N R64W 6th P.M.	<b>MD Reference:</b>	KB-EST @ 4633.0usft (Original Well Elev)
<b>Site Error:</b>	0.0 usft	<b>North Reference:</b>	True
<b>Reference Well:</b>	SCHAUMBERG 17G-314	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Well Error:</b>	0.0 usft	<b>Output errors are at</b>	2.00 sigma
<b>Reference Wellbore</b>	ORIGINAL WELLBORE	<b>Database:</b>	EDM 5000.1 Single User Db
<b>Reference Design:</b>	PROPOSAL #1	<b>Offset TVD Reference:</b>	Offset Datum

Offset Design													Offset Site Error:	0.0 usft
Survey Program: 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		
9,500.0	6,781.4	6,750.0	6,749.4	84.7	1.8	83.04	-248.4	-3,036.3	271.5	185.7	85.79	3.164		
9,547.2	6,781.2	6,750.0	6,749.4	86.0	1.8	83.04	-248.4	-3,036.3	295.4	208.3	87.09	3.392		
9,600.0	6,781.0	6,750.0	6,749.4	87.5	1.8	83.04	-248.4	-3,036.3	328.2	239.7	88.53	3.707		
9,645.6	6,780.8	6,750.0	6,749.4	88.7	1.8	83.04	-248.4	-3,036.3	360.4	270.7	89.79	4.014		
9,700.0	6,780.6	6,750.0	6,749.4	90.2	1.8	83.04	-248.4	-3,036.3	402.2	310.9	91.28	4.406		
9,744.1	6,780.4	6,750.0	6,749.4	91.4	1.8	83.04	-248.4	-3,036.3	438.1	345.6	92.49	4.737		
9,800.0	6,780.2	6,750.0	6,749.4	93.0	1.8	83.04	-248.4	-3,036.3	485.6	391.6	94.03	5.164		
9,842.5	6,780.1	6,750.0	6,749.4	94.2	1.8	83.04	-248.4	-3,036.3	522.8	427.6	95.20	5.492		
9,900.0	6,779.8	6,750.0	6,749.4	95.7	1.8	83.04	-248.4	-3,036.3	574.3	477.5	96.78	5.934		
9,940.9	6,779.7	6,750.0	6,749.4	96.9	1.8	83.04	-248.4	-3,036.3	611.6	513.7	97.91	6.247		
10,000.0	6,779.4	6,750.0	6,749.4	98.5	1.8	83.03	-248.4	-3,036.3	666.2	566.7	99.54	6.693		
10,039.3	6,779.3	6,750.0	6,749.4	99.6	1.8	83.03	-248.4	-3,036.3	703.0	602.4	100.62	6.987		
10,100.0	6,779.0	6,750.0	6,749.4	101.3	1.8	83.03	-248.4	-3,036.3	760.2	657.9	102.29	7.431		
10,137.8	6,778.9	6,750.0	6,749.4	102.3	1.8	83.03	-248.4	-3,036.3	796.1	692.7	103.34	7.704		
10,200.0	6,778.7	6,750.0	6,749.4	104.1	1.8	83.03	-248.4	-3,036.3	855.5	750.5	105.05	8.144		
10,236.2	6,778.5	6,750.0	6,749.4	105.1	1.8	83.03	-248.4	-3,036.3	890.3	784.2	106.05	8.395		
10,300.0	6,778.3	6,750.0	6,749.4	106.8	1.8	83.03	-248.4	-3,036.3	951.8	844.0	107.81	8.828		
10,334.6	6,778.1	6,750.0	6,749.4	107.8	1.8	83.03	-248.4	-3,036.3	985.3	876.6	108.77	9.059		
10,400.0	6,777.9	6,750.0	6,749.4	109.6	1.8	83.03	-248.4	-3,036.3	1,048.8	938.2	110.57	9.485		
10,433.0	6,777.7	6,750.0	6,749.4	110.5	1.8	83.03	-248.4	-3,036.3	1,081.0	969.5	111.49	9.696		
10,500.0	6,777.5	6,750.0	6,749.4	112.4	1.8	83.03	-248.4	-3,036.3	1,146.3	1,033.0	113.34	10.114		
10,531.5	6,777.3	6,750.0	6,749.4	113.3	1.8	83.03	-248.4	-3,036.3	1,177.1	1,062.9	114.21	10.307		
10,600.0	6,777.1	6,750.0	6,749.4	115.2	1.8	83.03	-248.4	-3,036.3	1,244.2	1,128.1	116.10	10.717		
10,629.9	6,777.0	6,750.0	6,749.4	116.0	1.8	83.03	-248.4	-3,036.3	1,273.5	1,156.6	116.93	10.892		
10,700.0	6,776.7	6,750.0	6,749.4	117.9	1.8	83.03	-248.4	-3,036.3	1,342.4	1,223.6	118.87	11.293		
10,728.3	6,776.6	6,750.0	6,749.4	118.7	1.8	83.03	-248.4	-3,036.3	1,370.3	1,250.6	119.65	11.452		
10,800.0	6,776.3	6,750.0	6,749.4	120.7	1.8	83.02	-248.4	-3,036.3	1,440.9	1,319.2	121.63	11.846		
10,826.7	6,776.2	6,750.0	6,749.4	121.5	1.8	83.02	-248.4	-3,036.3	1,467.2	1,344.9	122.37	11.990		
10,900.0	6,775.9	6,750.0	6,749.4	123.5	1.8	83.02	-248.4	-3,036.3	1,539.5	1,415.1	124.40	12.375		
10,925.2	6,775.8	6,750.0	6,749.4	124.2	1.8	83.02	-248.4	-3,036.3	1,564.4	1,439.3	125.10	12.505		
11,000.0	6,775.5	6,750.0	6,749.4	126.3	1.8	83.02	-248.4	-3,036.3	1,638.3	1,511.2	127.17	12.883		
11,023.6	6,775.4	6,750.0	6,749.4	126.9	1.8	83.02	-248.4	-3,036.3	1,661.7	1,533.9	127.82	13.000		
11,100.0	6,775.1	6,750.0	6,749.4	129.1	1.8	83.02	-248.4	-3,036.3	1,737.3	1,607.4	129.94	13.370		
11,122.0	6,775.0	6,750.0	6,749.4	129.7	1.8	83.02	-248.4	-3,036.3	1,759.1	1,628.6	130.55	13.475		
11,200.0	6,774.7	6,750.0	6,749.4	131.9	1.8	83.01	-248.4	-3,036.3	1,836.4	1,703.7	132.71	13.837		
11,220.4	6,774.6	6,750.0	6,749.4	132.4	1.8	83.01	-248.4	-3,036.3	1,856.6	1,723.4	133.28	13.931		
11,300.0	6,774.3	6,750.0	6,749.4	134.6	1.8	83.01	-248.4	-3,036.3	1,935.5	1,800.1	135.48	14.286		
11,318.9	6,774.2	6,750.0	6,749.4	135.2	1.8	83.01	-248.4	-3,036.3	1,954.3	1,818.3	136.01	14.369		
11,400.0	6,773.9	6,750.0	6,749.4	137.4	1.8	83.01	-248.4	-3,036.3	2,034.8	1,896.5	138.26	14.718		
11,417.3	6,773.8	6,750.0	6,749.4	137.9	1.8	83.01	-248.4	-3,036.3	2,052.0	1,913.2	138.73	14.790		
11,500.0	6,773.5	6,750.0	6,749.4	140.2	1.8	83.01	-248.4	-3,036.3	2,134.1	1,993.1	141.03	15.132		
11,515.7	6,773.4	6,750.0	6,749.4	140.7	1.8	83.01	-248.4	-3,036.3	2,149.7	2,008.3	141.46	15.196		
11,600.0	6,773.1	6,750.0	6,749.4	143.0	1.8	83.00	-248.4	-3,036.3	2,233.5	2,089.7	143.80	15.532		
11,614.1	6,773.0	6,750.0	6,749.4	143.4	1.8	83.00	-248.4	-3,036.3	2,247.5	2,103.3	144.19	15.587		
11,700.0	6,772.7	6,750.0	6,749.4	145.8	1.8	83.00	-248.4	-3,036.3	2,332.9	2,186.3	146.58	15.916		
11,712.6	6,772.6	6,750.0	6,749.4	146.2	1.8	83.00	-248.4	-3,036.3	2,345.4	2,198.5	146.92	15.963		
11,800.0	6,772.3	6,750.0	6,749.4	148.6	1.8	83.00	-248.4	-3,036.3	2,432.4	2,283.0	149.35	16.286		
11,811.0	6,772.2	6,750.0	6,749.4	148.9	1.8	83.00	-248.4	-3,036.3	2,443.3	2,293.7	149.66	16.326		
11,900.0	6,771.9	6,750.0	6,749.4	151.4	1.8	82.99	-248.4	-3,036.3	2,531.9	2,379.8	152.13	16.643		
11,909.4	6,771.8	6,750.0	6,749.4	151.7	1.8	82.99	-248.4	-3,036.3	2,541.3	2,388.9	152.39	16.676		
12,000.0	6,771.5	6,750.0	6,749.4	154.2	1.8	82.99	-248.4	-3,036.3	2,631.4	2,476.5	154.90	16.988		
12,007.8	6,771.4	6,750.0	6,749.4	154.4	1.8	82.99	-248.4	-3,036.3	2,639.3	2,484.1	155.12	17.014		

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 SCHAUMBERG 17G-314
<b>Project:</b>	WELD COUNTY, COLORADO	<b>TVD Reference:</b>	KB-EST @ 4633.0usft (Original Well Elev)
<b>Reference Site:</b>	SW NW SEC. 17 T5N R64W 6th P.M.	<b>MD Reference:</b>	KB-EST @ 4633.0usft (Original Well Elev)
<b>Site Error:</b>	0.0 usft	<b>North Reference:</b>	True
<b>Reference Well:</b>	SCHAUMBERG 17G-314	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Well Error:</b>	0.0 usft	<b>Output errors are at</b>	2.00 sigma
<b>Reference Wellbore</b>	ORIGINAL WELLBORE	<b>Database:</b>	EDM 5000.1 Single User Db
<b>Reference Design:</b>	PROPOSAL #1	<b>Offset TVD Reference:</b>	Offset Datum

<b>Offset Design</b> NW SW SEC. 17 T5N R64W 6th P.M. - EXIST VERT GUNTHER-PM B #18-7 - 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)	Offset Wellbore Centre +E/-W (usft)	Between Centres (usft)	Between Ellipses (usft)	Minimum Separation (usft)	Separation Factor	Warning
12,100.0	6,771.1	6,750.0	6,749.4	157.0	1.8	82.99	-248.4	-3,036.3	2,731.0	2,573.4	157.68	17.320	
12,106.3	6,771.0	6,750.0	6,749.4	157.2	1.8	82.99	-248.4	-3,036.3	2,737.3	2,579.4	157.85	17.341	
12,200.0	6,770.7	6,750.0	6,749.4	159.8	1.8	82.98	-248.4	-3,036.3	2,830.6	2,670.2	160.45	17.641	
12,204.7	6,770.6	6,750.0	6,749.4	159.9	1.8	82.98	-248.4	-3,036.3	2,835.3	2,674.7	160.58	17.656	
12,300.0	6,770.3	6,750.0	6,749.4	162.6	1.8	82.98	-248.4	-3,036.3	2,930.3	2,767.1	163.23	17.952	
12,303.1	6,770.2	6,750.0	6,749.4	162.7	1.8	82.98	-248.4	-3,036.3	2,933.4	2,770.1	163.32	17.961	
12,361.7	6,770.0	6,750.0	6,749.4	164.3	1.8	82.98	-248.4	-3,036.3	2,991.8	2,826.8	164.95	18.138	



# Anticollision Report



<b>Company:</b>	PDC ENERGY	<b>Local Co-ordinate Reference:</b>	Well SCHAUMBERG 17G-314
<b>Project:</b>	WELD COUNTY, COLORADO	<b>TVD Reference:</b>	KB-EST @ 4633.0usft (Original Well Elev)
<b>Reference Site:</b>	SW NW SEC. 17 T5N R64W 6th P.M.	<b>MD Reference:</b>	KB-EST @ 4633.0usft (Original Well Elev)
<b>Site Error:</b>	0.0 usft	<b>North Reference:</b>	True
<b>Reference Well:</b>	SCHAUMBERG 17G-314	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Well Error:</b>	0.0 usft	<b>Output errors are at</b>	2.00 sigma
<b>Reference Wellbore</b>	ORIGINAL WELLBORE	<b>Database:</b>	EDM 5000.1 Single User Db
<b>Reference Design:</b>	PROPOSAL #1	<b>Offset TVD Reference:</b>	Offset Datum

<b>Offset Design</b> NW SW SEC. 17 T5N R64W 6th P.M. - EXIST VERT H&S #1 - 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	126.76	-1,842.6	2,466.1	3,078.5				
98.4	98.4	95.7	95.7	0.1	0.1	126.77	-1,842.6	2,466.0	3,078.4	3,078.2	0.19	N/A	
100.0	100.0	97.3	97.3	0.1	0.1	126.77	-1,842.6	2,466.0	3,078.4	3,078.2	0.20	N/A	
124.4	124.4	119.4	119.4	0.2	0.1	126.77	-1,842.7	2,466.0	3,078.4	3,078.1	0.27	N/A	
196.8	196.8	183.8	183.8	0.3	0.2	126.77	-1,842.9	2,465.9	3,078.5	3,078.0	0.51	6,089.472	
200.0	200.0	186.6	186.6	0.3	0.2	126.77	-1,842.9	2,465.9	3,078.5	3,078.0	0.52	5,970.334	
295.3	295.3	276.9	276.9	0.5	0.2	126.77	-1,843.1	2,466.2	3,078.9	3,078.1	0.77	3,977.621	
300.0	300.0	281.4	281.4	0.5	0.2	126.77	-1,843.1	2,466.2	3,078.9	3,078.1	0.79	3,915.074	
393.7	393.7	365.8	365.8	0.8	0.3	126.76	-1,843.0	2,466.9	3,079.4	3,078.4	1.05	2,924.584	
400.0	400.0	371.4	371.4	0.8	0.3	126.76	-1,843.0	2,467.0	3,079.5	3,078.4	1.07	2,874.589	
492.1	492.1	459.3	459.3	1.0	0.4	126.76	-1,843.2	2,467.8	3,080.3	3,078.9	1.34	2,299.341	
500.0	500.0	467.1	467.1	1.0	0.4	126.76	-1,843.2	2,467.8	3,080.3	3,079.0	1.36	2,260.680	
590.5	590.5	560.6	560.6	1.2	0.4	126.75	-1,843.4	2,468.7	3,081.1	3,079.5	1.62	1,899.169	
600.0	600.0	570.5	570.5	1.2	0.4	126.75	-1,843.4	2,468.9	3,081.2	3,079.6	1.65	1,868.274	
689.0	689.0	653.1	653.1	1.4	0.5	126.74	-1,843.3	2,469.8	3,082.0	3,080.1	1.89	1,627.001	
700.0	700.0	662.7	662.7	1.4	0.5	126.73	-1,843.3	2,469.9	3,082.1	3,080.1	1.92	1,601.768	
787.4	787.4	751.9	751.9	1.6	0.5	126.72	-1,843.4	2,471.1	3,083.1	3,080.9	2.17	1,423.031	
800.0	800.0	766.6	766.6	1.7	0.5	126.72	-1,843.4	2,471.3	3,083.2	3,081.0	2.20	1,400.034	
885.8	885.8	853.4	853.4	1.9	0.6	126.71	-1,843.2	2,472.3	3,083.9	3,081.5	2.44	1,265.253	
900.0	900.0	866.7	866.6	1.9	0.6	126.70	-1,843.2	2,472.4	3,084.0	3,081.5	2.48	1,245.784	
984.2	984.2	944.2	944.1	2.1	0.6	126.69	-1,843.2	2,473.4	3,084.9	3,082.2	2.70	1,142.573	
1,000.0	1,000.0	958.5	958.4	2.1	0.6	126.69	-1,843.2	2,473.6	3,085.1	3,082.3	2.74	1,125.308	
1,082.7	1,082.7	1,039.0	1,039.0	2.3	0.7	126.69	-1,843.7	2,474.5	3,086.1	3,083.1	2.96	1,041.700	
1,100.0	1,100.0	1,057.3	1,057.3	2.3	0.7	126.69	-1,843.8	2,474.7	3,086.3	3,083.3	3.01	1,025.490	
1,181.1	1,181.1	1,140.0	1,140.0	2.5	0.7	126.69	-1,844.4	2,475.5	3,087.3	3,084.0	3.23	956.403	
1,200.0	1,200.0	1,158.6	1,158.6	2.6	0.7	126.69	-1,844.6	2,475.6	3,087.5	3,084.2	3.28	941.746	
1,279.5	1,279.5	1,242.2	1,242.1	2.7	0.7	126.69	-1,845.1	2,476.4	3,088.4	3,084.9	3.49	884.355	
1,300.0	1,300.0	1,265.3	1,265.2	2.8	0.8	126.69	-1,845.3	2,476.6	3,088.6	3,085.1	3.55	870.589	
1,377.9	1,377.9	1,344.6	1,344.6	3.0	0.8	126.69	-1,845.8	2,477.1	3,089.3	3,085.6	3.75	822.829	
1,400.0	1,400.0	1,365.5	1,365.4	3.0	0.8	126.69	-1,845.9	2,477.3	3,089.5	3,085.7	3.81	810.434	
1,476.4	1,476.4	1,436.8	1,436.7	3.2	0.8	126.69	-1,846.1	2,478.0	3,090.3	3,086.3	4.01	770.212	
1,500.0	1,500.0	1,458.5	1,458.4	3.2	0.8	126.68	-1,846.2	2,478.3	3,090.6	3,086.5	4.07	758.561	
1,574.8	1,574.8	1,530.6	1,530.5	3.4	0.9	126.68	-1,846.7	2,479.1	3,091.5	3,087.3	4.27	723.728	
1,600.0	1,600.0	1,556.6	1,556.5	3.5	0.9	126.68	-1,846.8	2,479.4	3,091.8	3,087.5	4.34	712.611	
1,673.2	1,673.2	1,630.6	1,630.6	3.6	0.9	126.68	-1,847.2	2,480.2	3,092.7	3,088.2	4.53	682.377	
1,700.0	1,700.0	1,657.1	1,657.0	3.7	0.9	126.68	-1,847.4	2,480.5	3,093.1	3,088.5	4.60	672.057	
1,771.6	1,771.6	1,731.1	1,731.0	3.9	0.9	126.68	-1,848.0	2,481.1	3,093.9	3,089.1	4.79	645.770	
1,800.0	1,800.0	1,762.4	1,762.3	3.9	1.0	126.68	-1,848.3	2,481.4	3,094.3	3,089.4	4.87	635.831	
1,870.1	1,870.1	1,834.2	1,834.1	4.1	1.0	-74.52	-1,848.8	2,481.9	3,094.7	3,089.7	5.03	615.308	
1,900.0	1,900.0	1,862.6	1,862.5	4.1	1.0	-74.53	-1,849.0	2,482.1	3,094.8	3,089.7	5.10	606.944	
1,968.5	1,968.4	1,941.8	1,941.7	4.2	1.0	-74.60	-1,849.7	2,482.5	3,094.6	3,089.4	5.24	590.390	
2,000.0	1,999.8	1,987.0	1,986.9	4.3	1.0	-74.65	-1,850.1	2,482.5	3,094.2	3,088.9	5.31	583.036	
2,066.9	2,066.5	2,055.4	2,055.3	4.4	1.0	-74.76	-1,850.8	2,482.1	3,092.9	3,087.5	5.45	568.006	
2,100.0	2,099.5	2,087.0	2,086.9	4.5	1.0	-74.82	-1,851.1	2,482.0	3,092.1	3,086.6	5.51	560.834	
2,165.3	2,164.4	2,157.3	2,157.1	4.6	1.1	-74.99	-1,851.8	2,481.6	3,090.3	3,084.6	5.66	546.231	
2,200.0	2,198.7	2,195.6	2,195.4	4.7	1.1	-75.10	-1,852.2	2,481.3	3,089.1	3,083.3	5.73	538.688	
2,263.8	2,261.8	2,261.6	2,261.4	4.8	1.1	-75.31	-1,852.9	2,480.8	3,086.5	3,080.6	5.89	524.396	
2,300.0	2,297.5	2,298.8	2,298.6	4.9	1.1	-75.44	-1,853.2	2,480.4	3,084.9	3,078.9	5.97	516.507	
2,362.2	2,358.6	2,360.9	2,360.8	5.0	1.1	-75.69	-1,853.8	2,479.9	3,081.9	3,075.7	6.14	502.178	
2,400.0	2,395.6	2,398.5	2,398.3	5.1	1.1	-75.86	-1,854.0	2,479.6	3,079.9	3,073.6	6.24	493.733	
2,460.6	2,454.9	2,453.3	2,453.1	5.3	1.1	-76.06	-1,854.4	2,479.2	3,076.6	3,070.2	6.42	479.578	
2,500.0	2,493.4	2,488.7	2,488.6	5.4	1.1	-76.19	-1,854.6	2,479.0	3,074.6	3,068.1	6.53	470.715	

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 SCHAUMBERG 17G-314
<b>Project:</b>	WELD COUNTY, COLORADO	<b>TVD Reference:</b>	KB-EST @ 4633.0usft (Original Well Elev)
<b>Reference Site:</b>	SW NW SEC. 17 T5N R64W 6th P.M.	<b>MD Reference:</b>	KB-EST @ 4633.0usft (Original Well Elev)
<b>Site Error:</b>	0.0 usft	<b>North Reference:</b>	True
<b>Reference Well:</b>	SCHAUMBERG 17G-314	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Well Error:</b>	0.0 usft	<b>Output errors are at</b>	2.00 sigma
<b>Reference Wellbore</b>	ORIGINAL WELLBORE	<b>Database:</b>	EDM 5000.1 Single User Db
<b>Reference Design:</b>	PROPOSAL #1	<b>Offset TVD Reference:</b>	Offset Datum

Offset Design NW SW SEC. 17 T5N R64W 6th P.M. - EXIST VERT H&S #1 - Wellbore #1 - Wellbore #1												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
2,559.0	2,551.2	2,547.0	2,546.8	5.6	1.1	-76.40	-1,854.9	2,478.8	3,071.6	3,064.9	6.72	457.137	
2,600.0	2,591.3	2,588.3	2,588.2	5.7	1.1	-76.55	-1,855.2	2,478.6	3,069.6	3,062.7	6.85	448.073	
2,657.5	2,647.5	2,650.5	2,650.4	5.9	1.2	-76.78	-1,855.5	2,478.3	3,066.7	3,059.6	7.04	435.627	
2,700.0	2,689.1	2,697.3	2,697.1	6.0	1.2	-76.95	-1,855.6	2,478.0	3,064.5	3,057.3	7.18	426.791	
2,755.9	2,743.7	2,745.9	2,745.7	6.2	1.2	-77.13	-1,855.6	2,477.8	3,061.6	3,054.3	7.37	415.351	
2,800.0	2,786.9	2,783.7	2,783.6	6.4	1.2	-77.27	-1,855.6	2,477.7	3,059.5	3,052.0	7.52	406.702	
2,854.3	2,840.0	2,840.3	2,840.2	6.6	1.2	-77.49	-1,855.7	2,477.6	3,056.9	3,049.2	7.72	396.057	
2,900.0	2,884.7	2,892.4	2,892.2	6.7	1.2	-77.68	-1,855.8	2,477.4	3,054.7	3,046.8	7.88	387.409	
2,952.7	2,936.3	2,946.4	2,946.2	6.9	1.2	-77.88	-1,855.9	2,477.0	3,052.1	3,044.0	8.08	377.680	
3,000.0	2,982.5	2,994.0	2,993.8	7.1	1.2	-78.06	-1,855.9	2,476.7	3,049.8	3,041.5	8.26	369.332	
3,051.2	3,032.6	3,038.2	3,038.0	7.3	1.2	-78.23	-1,856.0	2,476.4	3,047.3	3,038.8	8.45	360.530	
3,100.0	3,080.3	3,079.4	3,079.3	7.5	1.2	-78.38	-1,856.1	2,476.3	3,045.1	3,036.4	8.64	352.495	
3,149.6	3,128.8	3,129.6	3,129.4	7.7	1.2	-78.57	-1,856.2	2,476.1	3,042.9	3,034.1	8.83	344.505	
3,200.0	3,178.1	3,188.6	3,188.5	7.9	1.2	-78.79	-1,856.3	2,475.8	3,040.6	3,031.6	9.03	336.671	
3,248.0	3,225.1	3,233.6	3,233.4	8.1	1.2	-78.96	-1,856.3	2,475.5	3,038.4	3,029.2	9.22	329.499	
3,300.0	3,276.0	3,279.1	3,278.9	8.3	1.2	-79.14	-1,856.3	2,475.4	3,036.1	3,026.7	9.43	322.080	
3,346.4	3,321.4	3,318.9	3,318.7	8.5	1.2	-79.29	-1,856.2	2,475.3	3,034.2	3,024.6	9.61	315.644	
3,400.0	3,373.8	3,363.7	3,363.5	8.7	1.2	-79.47	-1,856.1	2,475.4	3,032.1	3,022.3	9.83	308.524	
3,444.9	3,417.7	3,401.6	3,401.4	8.8	1.2	-79.62	-1,855.9	2,475.6	3,030.5	3,020.5	10.01	302.731	
3,500.0	3,471.6	3,461.7	3,461.6	9.1	1.2	-79.86	-1,855.7	2,476.0	3,028.6	3,018.4	10.25	295.604	
3,543.3	3,513.9	3,507.3	3,507.1	9.2	1.3	-80.04	-1,855.6	2,476.1	3,027.0	3,016.6	10.43	290.180	
3,600.0	3,569.4	3,557.0	3,556.8	9.5	1.3	-80.24	-1,855.4	2,476.3	3,025.1	3,014.4	10.67	283.422	
3,641.7	3,610.2	3,593.6	3,593.4	9.7	1.3	-80.38	-1,855.2	2,476.5	3,023.7	3,012.9	10.85	278.605	
3,700.0	3,667.2	3,655.8	3,655.7	9.9	1.3	-80.64	-1,854.9	2,477.0	3,021.9	3,010.8	11.11	272.075	
3,740.1	3,706.5	3,699.8	3,699.7	10.1	1.3	-80.81	-1,854.6	2,477.2	3,020.6	3,009.3	11.28	267.702	
3,800.0	3,765.0	3,757.4	3,757.3	10.3	1.3	-81.04	-1,854.3	2,477.4	3,018.6	3,007.0	11.54	261.465	
3,838.6	3,802.8	3,794.6	3,794.4	10.5	1.3	-81.19	-1,854.3	2,477.5	3,017.4	3,005.7	11.71	257.568	
3,900.0	3,862.8	3,844.0	3,843.9	10.7	1.3	-81.38	-1,854.3	2,477.6	3,015.6	3,003.6	11.98	251.670	
3,937.0	3,899.0	3,873.3	3,873.1	10.9	1.3	-81.50	-1,854.5	2,477.7	3,014.6	3,002.5	12.14	248.237	
4,000.0	3,960.7	3,927.1	3,927.0	11.2	1.3	-81.70	-1,855.0	2,478.0	3,013.2	3,000.8	12.42	242.549	
4,035.4	3,995.3	3,960.1	3,959.9	11.3	1.3	-81.83	-1,855.3	2,478.2	3,012.5	2,999.9	12.58	239.408	
4,100.0	4,058.5	4,017.8	4,017.6	11.6	1.3	-82.05	-1,855.8	2,478.6	3,011.3	2,998.4	12.87	233.894	
4,133.8	4,091.6	4,045.6	4,045.4	11.7	1.4	-82.15	-1,856.1	2,478.8	3,010.7	2,997.7	13.03	231.105	
4,200.0	4,156.3	4,100.0	4,099.8	12.0	1.4	-82.36	-1,856.8	2,479.4	3,009.9	2,996.5	13.33	225.851	
4,232.3	4,187.9	4,133.6	4,133.4	12.2	1.4	-82.49	-1,857.3	2,479.8	3,009.5	2,996.0	13.48	223.336	
4,300.0	4,254.1	4,204.5	4,204.3	12.5	1.4	-82.75	-1,858.5	2,480.4	3,008.8	2,995.0	13.79	218.229	
4,325.7	4,279.2	4,233.8	4,233.5	12.6	1.4	-82.86	-1,859.0	2,480.6	3,008.4	2,994.5	13.91	216.339	
4,330.7	4,284.1	4,239.5	4,239.3	12.6	1.4	-82.88	-1,859.1	2,480.6	3,008.4	2,994.5	13.93	216.018	
4,400.0	4,352.1	4,315.4	4,315.2	12.8	1.4	-83.13	-1,860.2	2,481.1	3,007.5	2,993.3	14.21	211.722	
4,429.1	4,380.8	4,343.1	4,342.8	12.9	1.4	-83.21	-1,860.5	2,481.2	3,007.2	2,992.9	14.30	210.303	
4,500.0	4,450.7	4,410.8	4,410.5	13.1	1.5	-83.40	-1,861.4	2,481.6	3,006.7	2,992.2	14.53	206.941	
4,527.5	4,478.0	4,437.7	4,437.5	13.2	1.5	-83.46	-1,861.7	2,481.8	3,006.6	2,992.0	14.61	205.779	
4,591.1	4,541.0	4,500.0	4,499.8	13.4	1.5	-83.60	-1,862.6	2,482.2	3,006.4	2,991.6	14.80	203.159 CC	
4,600.0	4,549.9	4,500.0	4,499.8	13.4	1.5	-83.60	-1,862.6	2,482.2	3,006.4	2,991.6	14.82	202.833	
4,626.0	4,575.7	4,528.8	4,528.6	13.5	1.5	-83.66	-1,863.0	2,482.4	3,006.4	2,991.6	14.89	201.889 ES	
4,700.0	4,649.4	4,590.2	4,589.9	13.6	1.5	-83.76	-1,864.1	2,482.9	3,006.9	2,991.8	15.08	199.351	
4,724.4	4,673.7	4,614.2	4,614.0	13.7	1.5	-83.79	-1,864.6	2,483.2	3,007.1	2,992.0	15.14	198.627	
4,800.0	4,749.2	4,699.9	4,699.6	13.8	1.5	-83.88	-1,866.2	2,484.0	3,007.9	2,992.6	15.32	196.381	
4,822.8	4,772.0	4,719.9	4,719.6	13.9	1.5	-83.89	-1,866.5	2,484.1	3,008.2	2,992.8	15.36	195.832	
4,900.0	4,849.2	4,787.5	4,787.2	14.0	1.6	-83.93	-1,867.7	2,484.8	3,009.3	2,993.8	15.51	194.018	
4,921.2	4,870.4	4,806.1	4,805.8	14.1	1.6	-83.94	-1,868.1	2,485.0	3,009.7	2,994.2	15.55	193.573	
4,925.6	4,874.8	4,810.0	4,809.7	14.1	1.6	117.26	-1,868.2	2,485.1	3,009.8	2,997.6	12.20	246.689	

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 SCHAUMBERG 17G-314
<b>Project:</b>	WELD COUNTY, COLORADO	<b>TVD Reference:</b>	KB-EST @ 4633.0usft (Original Well Elev)
<b>Reference Site:</b>	SW NW SEC. 17 T5N R64W 6th P.M.	<b>MD Reference:</b>	KB-EST @ 4633.0usft (Original Well Elev)
<b>Site Error:</b>	0.0 usft	<b>North Reference:</b>	True
<b>Reference Well:</b>	SCHAUMBERG 17G-314	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Well Error:</b>	0.0 usft	<b>Output errors are at</b>	2.00 sigma
<b>Reference Wellbore</b>	ORIGINAL WELLBORE	<b>Database:</b>	EDM 5000.1 Single User Db
<b>Reference Design:</b>	PROPOSAL #1	<b>Offset TVD Reference:</b>	Offset Datum

Offset Design NW SW SEC. 17 T5N R64W 6th P.M. - EXIST VERT H&S #1 - 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
5,000.0	4,949.2	4,875.7	4,875.4	14.2	1.6	117.27	-1,869.6	2,485.9	3,011.4	2,999.1	12.36	243.665	
5,019.7	4,968.8	4,893.1	4,892.8	14.2	1.6	117.28	-1,870.0	2,486.2	3,011.9	2,999.5	12.40	242.878	
5,100.0	5,049.2	4,975.1	4,974.8	14.3	1.6	117.30	-1,871.8	2,487.4	3,013.8	3,001.2	12.57	239.689	
5,118.1	5,067.3	4,993.9	4,993.5	14.3	1.6	117.30	-1,872.2	2,487.7	3,014.2	3,001.6	12.61	238.976	
5,200.0	5,149.2	5,083.8	5,083.4	14.5	1.7	117.32	-1,874.0	2,488.9	3,015.9	3,003.1	12.79	235.788	
5,216.5	5,165.7	5,102.0	5,101.6	14.5	1.7	117.33	-1,874.3	2,489.2	3,016.3	3,003.4	12.83	235.151	
5,300.0	5,249.2	5,193.8	5,193.4	14.6	1.7	117.34	-1,875.7	2,490.4	3,017.8	3,004.8	13.01	231.998	
5,314.9	5,264.1	5,211.1	5,210.6	14.6	1.7	117.34	-1,875.9	2,490.6	3,018.0	3,005.0	13.04	231.435	
5,400.0	5,349.2	5,310.6	5,310.2	14.8	1.7	117.35	-1,877.0	2,491.5	3,019.2	3,005.9	13.23	228.260	
5,413.4	5,362.5	5,324.6	5,324.2	14.8	1.7	117.35	-1,877.2	2,491.6	3,019.3	3,006.1	13.26	227.769	
5,500.0	5,449.2	5,413.0	5,412.6	14.9	1.8	117.36	-1,877.9	2,492.2	3,020.2	3,006.8	13.44	224.646	
5,511.8	5,461.0	5,423.6	5,423.1	14.9	1.8	117.36	-1,878.0	2,492.3	3,020.4	3,006.9	13.47	224.230	
5,600.0	5,549.2	5,502.8	5,502.3	15.1	1.8	117.37	-1,878.9	2,493.0	3,021.4	3,007.8	13.66	221.184	
5,610.2	5,559.4	5,512.6	5,512.2	15.1	1.8	117.37	-1,879.0	2,493.1	3,021.6	3,007.9	13.68	220.835	
5,700.0	5,649.2	5,600.0	5,599.5	15.2	1.8	117.38	-1,880.0	2,494.0	3,022.9	3,009.0	13.88	217.825	
5,708.6	5,657.8	5,608.0	5,607.5	15.3	1.8	117.38	-1,880.0	2,494.1	3,023.0	3,009.1	13.90	217.542	
5,800.0	5,749.2	5,706.4	5,705.9	15.4	1.8	117.38	-1,880.8	2,495.2	3,024.3	3,010.2	14.10	214.556	
5,807.1	5,756.2	5,714.1	5,713.7	15.4	1.8	117.38	-1,880.9	2,495.3	3,024.4	3,010.3	14.11	214.326	
5,900.0	5,849.2	5,813.5	5,813.0	15.6	1.9	117.39	-1,881.6	2,496.2	3,025.4	3,011.1	14.31	211.348	
5,905.5	5,854.7	5,818.7	5,818.2	15.6	1.9	117.39	-1,881.6	2,496.2	3,025.5	3,011.1	14.33	211.173	
6,000.0	5,949.2	5,907.6	5,907.1	15.7	1.9	117.40	-1,882.5	2,496.9	3,026.5	3,012.0	14.53	208.237	
6,003.9	5,953.1	5,911.3	5,910.8	15.7	1.9	117.40	-1,882.6	2,496.9	3,026.6	3,012.0	14.54	208.117	
6,100.0	6,049.2	6,000.0	5,999.5	15.9	1.9	117.40	-1,883.4	2,497.8	3,027.9	3,013.1	14.75	205.243	
6,102.3	6,051.5	6,003.6	6,003.2	15.9	1.9	117.40	-1,883.4	2,497.9	3,027.9	3,013.1	14.76	205.171	
6,124.6	6,073.8	6,025.0	6,024.5	15.9	1.9	117.40	-1,883.6	2,498.1	3,028.2	3,013.4	14.81	204.519	
6,150.0	6,099.2	6,049.3	6,048.9	16.0	1.9	-152.57	-1,883.8	2,498.4	3,029.0	3,011.1	17.85	169.709	
6,200.0	6,149.0	6,097.1	6,096.6	16.1	2.0	-152.45	-1,884.2	2,499.0	3,032.9	3,014.9	17.99	168.608	
6,200.8	6,149.8	6,097.9	6,097.4	16.1	2.0	-152.45	-1,884.2	2,499.0	3,033.0	3,015.0	17.99	168.589	
6,250.0	6,198.5	6,149.1	6,148.6	16.2	2.0	-152.25	-1,884.7	2,499.7	3,039.8	3,021.7	18.15	167.443	
6,299.2	6,246.6	6,199.9	6,199.4	16.3	2.0	-151.97	-1,885.3	2,500.2	3,049.6	3,031.3	18.33	166.336	
6,300.0	6,247.4	6,200.7	6,200.2	16.3	2.0	-151.97	-1,885.3	2,500.2	3,049.8	3,031.5	18.34	166.321	
6,350.0	6,295.5	6,249.2	6,248.7	16.5	2.0	-151.58	-1,885.8	2,500.7	3,062.7	3,044.2	18.52	165.354	
6,397.6	6,340.2	6,294.4	6,293.9	16.6	2.0	-151.11	-1,886.4	2,501.1	3,077.8	3,059.1	18.70	164.630	
6,400.0	6,342.4	6,296.6	6,296.1	16.6	2.0	-151.08	-1,886.4	2,501.1	3,078.6	3,059.9	18.70	164.603	
6,450.0	6,388.1	6,341.0	6,340.4	16.8	2.0	-150.46	-1,886.9	2,501.5	3,097.4	3,078.5	18.87	164.113	
6,496.0	6,428.8	6,380.3	6,379.8	17.0	2.1	-149.77	-1,887.4	2,501.9	3,117.2	3,098.2	19.02	163.891	
6,500.0	6,432.2	6,383.6	6,383.1	17.0	2.1	-149.70	-1,887.4	2,501.9	3,119.0	3,100.0	19.03	163.888	
6,550.0	6,474.6	6,422.8	6,422.2	17.3	2.1	-148.78	-1,887.9	2,502.3	3,143.3	3,124.1	19.18	163.912	
6,594.5	6,510.7	6,455.0	6,454.4	17.5	2.1	-147.80	-1,888.3	2,502.7	3,167.2	3,147.9	19.30	164.092	
6,600.0	6,515.0	6,458.9	6,458.3	17.6	2.1	-147.67	-1,888.3	2,502.7	3,170.3	3,151.0	19.32	164.132	
6,650.0	6,553.3	6,492.9	6,492.4	17.9	2.1	-146.33	-1,888.7	2,503.2	3,199.8	3,180.4	19.46	164.456	
6,692.9	6,584.3	6,522.5	6,522.0	18.2	2.1	-145.00	-1,889.1	2,503.6	3,227.1	3,207.5	19.59	164.692	
6,700.0	6,589.2	6,527.4	6,526.8	18.2	2.1	-144.77	-1,889.2	2,503.7	3,231.8	3,212.1	19.62	164.737	
6,750.0	6,622.7	6,560.1	6,559.6	18.6	2.1	-142.90	-1,889.6	2,504.1	3,265.9	3,246.1	19.81	164.835	
6,791.3	6,648.3	6,585.2	6,584.6	19.0	2.1	-141.08	-1,890.1	2,504.4	3,295.7	3,275.6	20.02	164.627	
6,800.0	6,653.4	6,590.2	6,589.6	19.1	2.1	-140.67	-1,890.1	2,504.4	3,302.1	3,282.0	20.07	164.564	
6,850.0	6,681.4	6,600.0	6,599.4	19.6	2.1	-137.72	-1,890.3	2,504.5	3,340.2	3,319.8	20.40	163.764	
6,889.7	6,701.5	6,627.2	6,626.6	20.1	2.1	-135.30	-1,890.8	2,504.9	3,371.7	3,351.0	20.75	162.461	
6,900.0	6,706.3	6,630.6	6,630.1	20.2	2.1	-134.56	-1,890.9	2,504.9	3,380.0	3,359.2	20.85	162.077	
6,950.0	6,728.2	6,646.1	6,645.5	20.9	2.1	-130.50	-1,891.2	2,505.1	3,421.4	3,400.0	21.45	159.488	
6,988.2	6,742.8	6,656.2	6,655.7	21.5	2.1	-126.84	-1,891.5	2,505.3	3,454.0	3,432.0	22.02	156.846	
7,000.0	6,746.9	6,659.1	6,658.5	21.6	2.1	-125.60	-1,891.5	2,505.3	3,464.2	3,442.0	22.21	155.969	

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 SCHAUMBERG 17G-314
<b>Project:</b>	WELD COUNTY, COLORADO	<b>TVD Reference:</b>	KB-EST @ 4633.0usft (Original Well Elev)
<b>Reference Site:</b>	SW NW SEC. 17 T5N R64W 6th P.M.	<b>MD Reference:</b>	KB-EST @ 4633.0usft (Original Well Elev)
<b>Site Error:</b>	0.0 usft	<b>North Reference:</b>	True
<b>Reference Well:</b>	SCHAUMBERG 17G-314	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Well Error:</b>	0.0 usft	<b>Output errors are at</b>	2.00 sigma
<b>Reference Wellbore</b>	ORIGINAL WELLBORE	<b>Database:</b>	EDM 5000.1 Single User Db
<b>Reference Design:</b>	PROPOSAL #1	<b>Offset TVD Reference:</b>	Offset Datum

Offset Design NW SW SEC. 17 T5N R64W 6th P.M. - EXIST VERT H&S #1 - Wellbore #1 - Wellbore #1													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	
7,050.0	6,762.4	6,669.7	6,669.1	22.5	2.1	-119.70	-1,891.8	2,505.5	3,508.1	3,485.0	23.12	151.747		
7,086.6	6,771.5	6,675.8	6,675.3	23.1	2.1	-114.69	-1,891.9	2,505.6	3,540.8	3,517.0	23.85	148.433		
7,100.0	6,774.4	6,677.8	6,677.2	23.3	2.1	-112.71	-1,892.0	2,505.7	3,552.9	3,528.8	24.13	147.266		
7,150.0	6,783.1	6,683.4	6,682.8	24.3	2.1	-104.59	-1,892.1	2,505.8	3,598.4	3,573.3	25.16	143.031		
7,185.0	6,787.1	6,685.8	6,685.2	25.0	2.1	-98.32	-1,892.2	2,505.8	3,630.6	3,604.7	25.88	140.281		
7,200.0	6,788.3	6,700.0	6,699.4	25.3	2.2	-96.07	-1,892.6	2,506.1	3,644.4	3,618.2	26.19	139.127		
7,252.3	6,790.0	6,700.0	6,699.4	26.3	2.2	-85.98	-1,892.6	2,506.1	3,692.8	3,665.4	27.42	134.677		
7,283.4	6,789.9	6,700.0	6,699.4	27.0	2.2	-85.98	-1,892.6	2,506.1	3,721.6	3,693.5	28.11	132.396		
7,300.0	6,789.8	6,700.0	6,699.4	27.3	2.2	-85.98	-1,892.6	2,506.1	3,736.9	3,708.4	28.48	131.228		
7,381.9	6,789.5	6,684.9	6,684.3	29.1	2.1	-85.37	-1,892.2	2,505.8	3,812.8	3,782.5	30.36	125.601		
7,400.0	6,789.4	6,684.6	6,684.1	29.5	2.1	-85.36	-1,892.2	2,505.8	3,829.7	3,798.9	30.77	124.453		
7,480.3	6,789.1	6,683.4	6,682.8	31.4	2.1	-85.31	-1,892.1	2,505.8	3,904.5	3,871.8	32.68	119.479		
7,500.0	6,789.1	6,683.1	6,682.5	31.8	2.1	-85.30	-1,892.1	2,505.8	3,922.9	3,889.7	33.15	118.348		
7,578.7	6,788.8	6,681.9	6,681.3	33.7	2.1	-85.25	-1,892.1	2,505.7	3,996.4	3,961.4	35.07	113.963		
7,600.0	6,788.7	6,681.6	6,681.0	34.2	2.1	-85.23	-1,892.1	2,505.7	4,016.4	3,980.8	35.59	112.860		
7,677.1	6,788.4	6,680.4	6,679.8	36.1	2.1	-85.18	-1,892.0	2,505.7	4,088.7	4,051.2	37.51	109.003		
7,700.0	6,788.3	6,680.1	6,679.5	36.7	2.1	-85.17	-1,892.0	2,505.7	4,110.2	4,072.1	38.08	107.937		
7,775.6	6,788.0	6,678.9	6,678.3	38.6	2.1	-85.12	-1,892.0	2,505.7	4,181.3	4,141.3	39.99	104.545		
7,800.0	6,787.9	6,678.6	6,678.0	39.2	2.1	-85.11	-1,892.0	2,505.7	4,204.3	4,163.7	40.61	103.518		
7,874.0	6,787.6	6,677.5	6,676.9	41.0	2.1	-85.06	-1,892.0	2,505.7	4,274.1	4,231.6	42.51	100.533		
7,900.0	6,787.6	6,677.1	6,676.5	41.7	2.1	-85.05	-1,892.0	2,505.7	4,298.6	4,255.5	43.18	99.547		
7,972.4	6,787.3	6,676.0	6,675.4	43.6	2.1	-85.00	-1,891.9	2,505.6	4,367.1	4,322.1	45.06	96.913		
8,000.0	6,787.2	6,675.6	6,675.0	44.3	2.1	-84.99	-1,891.9	2,505.6	4,393.3	4,347.5	45.78	95.968		
8,070.8	6,786.9	6,674.6	6,674.0	46.1	2.1	-84.95	-1,891.9	2,505.6	4,460.4	4,412.8	47.63	93.639		
8,100.0	6,786.8	6,674.2	6,673.6	46.9	2.1	-84.93	-1,891.9	2,505.6	4,488.1	4,439.7	48.40	92.734		
8,169.3	6,786.5	6,673.2	6,672.6	48.7	2.1	-84.89	-1,891.9	2,505.6	4,553.9	4,503.7	50.23	90.669		
8,200.0	6,786.4	6,672.8	6,672.2	49.5	2.1	-84.87	-1,891.9	2,505.6	4,583.2	4,532.1	51.04	89.802		
8,267.7	6,786.1	6,671.8	6,671.2	51.3	2.1	-84.83	-1,891.8	2,505.6	4,647.6	4,594.8	52.83	87.967		
8,300.0	6,786.0	6,671.4	6,670.8	52.1	2.1	-84.81	-1,891.8	2,505.6	4,678.4	4,624.7	53.69	87.136		
8,366.1	6,785.8	6,670.4	6,669.8	53.9	2.1	-84.77	-1,891.8	2,505.5	4,741.5	4,686.1	55.46	85.500		
8,400.0	6,785.6	6,670.0	6,669.4	54.8	2.1	-84.75	-1,891.8	2,505.5	4,773.9	4,717.5	56.36	84.703		
8,464.5	6,785.4	6,669.1	6,668.5	56.5	2.1	-84.72	-1,891.8	2,505.5	4,835.6	4,777.5	58.09	83.242		
8,500.0	6,785.3	6,668.6	6,668.0	57.5	2.1	-84.69	-1,891.8	2,505.5	4,869.5	4,810.5	59.04	82.477		
8,563.0	6,785.0	6,667.7	6,667.1	59.2	2.1	-84.66	-1,891.7	2,505.5	4,929.9	4,869.1	60.74	81.169		
8,600.0	6,784.9	6,667.2	6,666.6	60.2	2.1	-84.64	-1,891.7	2,505.5	4,965.3	4,903.6	61.73	80.434		
8,661.4	6,784.6	6,666.4	6,665.8	61.8	2.1	-84.60	-1,891.7	2,505.5	5,024.3	4,960.9	63.39	79.260		
8,700.0	6,784.5	6,665.9	6,665.3	62.9	2.1	-84.58	-1,891.7	2,505.5	5,061.3	4,996.9	64.43	78.554		
8,759.8	6,784.3	6,665.0	6,664.5	64.5	2.1	-84.55	-1,891.7	2,505.4	5,118.8	5,052.8	66.05	77.498		
8,800.0	6,784.1	6,664.5	6,663.9	65.6	2.1	-84.53	-1,891.7	2,505.4	5,157.4	5,090.3	67.14	76.818		
8,858.2	6,783.9	6,663.7	6,663.2	67.1	2.1	-84.50	-1,891.6	2,505.4	5,213.5	5,144.8	68.72	75.866		
8,900.0	6,783.7	6,663.2	6,662.6	68.3	2.1	-84.47	-1,891.6	2,505.4	5,253.7	5,183.9	69.85	75.211		
8,956.7	6,783.5	6,662.4	6,661.9	69.8	2.1	-84.44	-1,891.6	2,505.4	5,308.3	5,236.9	71.39	74.353		
9,000.0	6,783.3	6,661.9	6,661.3	71.0	2.1	-84.42	-1,891.6	2,505.4	5,350.1	5,277.6	72.57	73.721		
9,055.1	6,783.1	6,661.2	6,660.6	72.5	2.1	-84.39	-1,891.6	2,505.4	5,403.3	5,329.2	74.07	72.945		
9,100.0	6,782.9	6,660.6	6,660.0	73.7	2.1	-84.36	-1,891.6	2,505.4	5,446.7	5,371.4	75.30	72.336		
9,153.5	6,782.7	6,659.9	6,659.3	75.2	2.1	-84.34	-1,891.6	2,505.4	5,498.4	5,421.6	76.76	71.633		
9,200.0	6,782.6	6,659.3	6,658.7	76.5	2.1	-84.31	-1,891.5	2,505.4	5,543.3	5,465.3	78.03	71.044		
9,251.9	6,782.4	6,658.6	6,658.0	77.9	2.1	-84.28	-1,891.5	2,505.3	5,593.6	5,514.1	79.45	70.407		
9,300.0	6,782.2	6,658.0	6,657.4	79.2	2.1	-84.26	-1,891.5	2,505.3	5,640.1	5,559.3	80.76	69.838		
9,350.4	6,782.0	6,657.4	6,656.8	80.6	2.1	-84.23	-1,891.5	2,505.3	5,688.9	5,606.8	82.14	69.259		
9,400.0	6,781.8	6,656.8	6,656.2	82.0	2.1	-84.20	-1,891.5	2,505.3	5,737.0	5,653.5	83.50	68.709		
9,448.8	6,781.6	6,656.2	6,655.6	83.3	2.1	-84.18	-1,891.5	2,505.3	5,784.3	5,699.5	84.83	68.184		

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 SCHAUMBERG 17G-314
<b>Project:</b>	WELD COUNTY, COLORADO	<b>TVD Reference:</b>	KB-EST @ 4633.0usft (Original Well Elev)
<b>Reference Site:</b>	SW NW SEC. 17 T5N R64W 6th P.M.	<b>MD Reference:</b>	KB-EST @ 4633.0usft (Original Well Elev)
<b>Site Error:</b>	0.0 usft	<b>North Reference:</b>	True
<b>Reference Well:</b>	SCHAUMBERG 17G-314	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Well Error:</b>	0.0 usft	<b>Output errors are at</b>	2.00 sigma
<b>Reference Wellbore</b>	ORIGINAL WELLBORE	<b>Database:</b>	EDM 5000.1 Single User Db
<b>Reference Design:</b>	PROPOSAL #1	<b>Offset TVD Reference:</b>	Offset Datum

Offset Design NW SW SEC. 17 T5N R64W 6th P.M. - EXIST VERT H&S #1 - Wellbore #1 - Wellbore #1												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
9,500.0	6,781.4	6,655.5	6,654.9	84.7	2.1	-84.15	-1,891.5	2,505.3	5,834.0	5,747.7	86.24	67.650	
9,547.2	6,781.2	6,654.9	6,654.3	86.0	2.1	-84.13	-1,891.4	2,505.3	5,879.8	5,792.3	87.53	67.173	
9,600.0	6,781.0	6,654.3	6,653.7	87.5	2.1	-84.10	-1,891.4	2,505.3	5,931.1	5,842.1	88.98	66.656	
9,645.6	6,780.8	6,653.7	6,653.1	88.7	2.1	-84.08	-1,891.4	2,505.3	5,975.4	5,885.2	90.23	66.222	
9,700.0	6,780.6	6,653.1	6,652.5	90.2	2.1	-84.05	-1,891.4	2,505.3	6,028.2	5,936.5	91.73	65.721	
9,744.1	6,780.4	6,652.5	6,651.9	91.4	2.1	-84.03	-1,891.4	2,505.2	6,071.1	5,978.2	92.94	65.325	
9,800.0	6,780.2	6,651.9	6,651.3	93.0	2.1	-84.00	-1,891.4	2,505.2	6,125.5	6,031.1	94.47	64.839	
9,842.5	6,780.1	6,651.3	6,650.8	94.2	2.1	-83.98	-1,891.4	2,505.2	6,166.9	6,071.2	95.64	64.479	
9,900.0	6,779.8	6,650.7	6,650.1	95.7	2.1	-83.95	-1,891.3	2,505.2	6,222.9	6,125.7	97.22	64.007	
9,940.9	6,779.7	6,650.2	6,649.6	96.9	2.1	-83.93	-1,891.3	2,505.2	6,262.8	6,164.4	98.35	63.679	
10,000.0	6,779.4	6,649.5	6,648.9	98.5	2.1	-83.90	-1,891.3	2,505.2	6,320.3	6,220.4	99.97	63.220	
10,039.3	6,779.3	6,649.0	6,648.4	99.6	2.1	-83.88	-1,891.3	2,505.2	6,358.7	6,257.6	101.06	62.922	
10,100.0	6,779.0	6,648.3	6,647.7	101.3	2.1	-83.85	-1,891.3	2,505.2	6,417.8	6,315.1	102.73	62.475	
10,137.8	6,778.9	6,647.9	6,647.3	102.3	2.1	-83.83	-1,891.3	2,505.2	6,454.7	6,350.9	103.77	62.203	
10,200.0	6,778.7	6,647.1	6,646.6	104.1	2.1	-83.80	-1,891.3	2,505.2	6,515.4	6,410.0	105.48	61.769	
10,236.2	6,778.5	6,646.7	6,646.1	105.1	2.1	-83.79	-1,891.3	2,505.2	6,550.8	6,444.3	106.48	61.522	
10,300.0	6,778.3	6,646.0	6,645.4	106.8	2.1	-83.76	-1,891.2	2,505.1	6,613.1	6,504.9	108.24	61.098	
10,334.6	6,778.1	6,645.6	6,645.0	107.8	2.1	-83.74	-1,891.2	2,505.1	6,646.9	6,537.8	109.19	60.874	
10,400.0	6,777.9	6,644.8	6,644.3	109.6	2.1	-83.71	-1,891.2	2,505.1	6,710.8	6,599.9	110.99	60.461	
10,433.0	6,777.7	6,644.5	6,643.9	110.5	2.1	-83.69	-1,891.2	2,505.1	6,743.2	6,631.3	111.91	60.258	
10,500.0	6,777.5	6,643.7	6,643.1	112.4	2.1	-83.66	-1,891.2	2,505.1	6,808.6	6,694.9	113.75	59.855	
10,531.5	6,777.3	6,643.4	6,642.8	113.3	2.1	-83.65	-1,891.2	2,505.1	6,839.4	6,724.8	114.62	59.670	
10,600.0	6,777.1	6,642.6	6,642.0	115.2	2.1	-83.61	-1,891.2	2,505.1	6,906.5	6,790.0	116.51	59.278	
10,629.9	6,777.0	6,642.3	6,641.7	116.0	2.1	-83.60	-1,891.2	2,505.1	6,935.8	6,818.4	117.34	59.110	
10,700.0	6,776.7	6,641.5	6,640.9	117.9	2.1	-83.57	-1,891.1	2,505.1	7,004.4	6,885.2	119.27	58.727	
10,728.3	6,776.6	6,641.2	6,640.6	118.7	2.1	-83.55	-1,891.1	2,505.1	7,032.2	6,912.1	120.05	58.576	
10,800.0	6,776.3	6,640.4	6,639.8	120.7	2.1	-83.52	-1,891.1	2,505.1	7,102.4	6,980.4	122.03	58.202	
10,826.7	6,776.2	6,640.1	6,639.5	121.5	2.1	-83.51	-1,891.1	2,505.1	7,128.6	7,005.9	122.77	58.065	
10,900.0	6,775.9	6,639.3	6,638.7	123.5	2.1	-83.48	-1,891.1	2,505.0	7,200.5	7,075.7	124.79	57.699	
10,925.2	6,775.8	6,639.0	6,638.5	124.2	2.1	-83.46	-1,891.1	2,505.0	7,225.1	7,099.7	125.49	57.577	
11,000.0	6,775.5	6,638.2	6,637.7	126.3	2.1	-83.43	-1,891.1	2,505.0	7,298.5	7,171.0	127.55	57.219	
11,023.6	6,775.4	6,638.0	6,637.4	126.9	2.1	-83.42	-1,891.1	2,505.0	7,321.7	7,193.5	128.21	57.109	
11,100.0	6,775.1	6,637.2	6,636.6	129.1	2.1	-83.39	-1,891.0	2,505.0	7,396.7	7,266.4	130.32	56.759	
11,122.0	6,775.0	6,636.9	6,636.4	129.7	2.1	-83.38	-1,891.0	2,505.0	7,418.3	7,287.4	130.92	56.661	
11,200.0	6,774.7	6,636.1	6,635.5	131.9	2.1	-83.34	-1,891.0	2,505.0	7,494.9	7,361.8	133.08	56.319	
11,220.4	6,774.6	6,635.9	6,635.3	132.4	2.1	-83.33	-1,891.0	2,505.0	7,515.0	7,381.3	133.64	56.231	
11,300.0	6,774.3	6,635.1	6,634.5	134.6	2.1	-83.30	-1,891.0	2,505.0	7,593.1	7,457.3	135.84	55.897	
11,318.9	6,774.2	6,634.9	6,634.3	135.2	2.1	-83.29	-1,891.0	2,505.0	7,611.7	7,475.3	136.36	55.819	
11,400.0	6,773.9	6,634.0	6,633.5	137.4	2.1	-83.25	-1,891.0	2,505.0	7,691.4	7,552.8	138.61	55.491	
11,417.3	6,773.8	6,633.9	6,633.3	137.9	2.1	-83.25	-1,891.0	2,505.0	7,708.4	7,569.3	139.08	55.423	
11,500.0	6,773.5	6,633.0	6,632.4	140.2	2.1	-83.21	-1,891.0	2,505.0	7,789.7	7,648.3	141.37	55.102	
11,515.7	6,773.4	6,632.8	6,632.3	140.7	2.1	-83.20	-1,891.0	2,505.0	7,805.2	7,663.4	141.80	55.042	
11,600.0	6,773.1	6,632.0	6,631.4	143.0	2.1	-83.17	-1,890.9	2,504.9	7,888.1	7,743.9	144.13	54.728	
11,614.1	6,773.0	6,631.8	6,631.3	143.4	2.1	-83.16	-1,890.9	2,504.9	7,902.0	7,757.5	144.52	54.676	
11,700.0	6,772.7	6,631.0	6,630.4	145.8	2.1	-83.12	-1,890.9	2,504.9	7,986.5	7,839.6	146.90	54.368	
11,712.6	6,772.6	6,630.9	6,630.3	146.2	2.1	-83.12	-1,890.9	2,504.9	7,998.9	7,851.6	147.25	54.323	
11,800.0	6,772.3	6,630.0	6,629.4	148.6	2.1	-83.08	-1,890.9	2,504.9	8,084.9	7,935.3	149.66	54.021	
11,811.0	6,772.2	6,629.9	6,629.3	148.9	2.1	-83.08	-1,890.9	2,504.9	8,095.8	7,945.8	149.97	53.984	
11,900.0	6,771.9	6,629.0	6,628.4	151.4	2.1	-83.04	-1,890.9	2,504.9	8,183.4	8,031.0	152.43	53.688	
11,909.4	6,771.8	6,628.9	6,628.3	151.7	2.1	-83.04	-1,890.9	2,504.9	8,192.7	8,040.0	152.69	53.657	
12,000.0	6,771.5	6,628.0	6,627.4	154.2	2.1	-83.00	-1,890.9	2,504.9	8,281.9	8,126.7	155.19	53.366	
12,007.8	6,771.4	6,627.9	6,627.4	154.4	2.1	-83.00	-1,890.9	2,504.9	8,289.7	8,134.3	155.41	53.341	

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 SCHAUMBERG 17G-314
<b>Project:</b>	WELD COUNTY, COLORADO	<b>TVD Reference:</b>	KB-EST @ 4633.0usft (Original Well Elev)
<b>Reference Site:</b>	SW NW SEC. 17 T5N R64W 6th P.M.	<b>MD Reference:</b>	KB-EST @ 4633.0usft (Original Well Elev)
<b>Site Error:</b>	0.0 usft	<b>North Reference:</b>	True
<b>Reference Well:</b>	SCHAUMBERG 17G-314	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Well Error:</b>	0.0 usft	<b>Output errors are at</b>	2.00 sigma
<b>Reference Wellbore</b>	ORIGINAL WELLBORE	<b>Database:</b>	EDM 5000.1 Single User Db
<b>Reference Design:</b>	PROPOSAL #1	<b>Offset TVD Reference:</b>	Offset Datum

Offset Design NW SW SEC. 17 T5N R64W 6th P.M. - EXIST VERT H&S #1 - 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	Vertical Depth	Measured Depth	Vertical Depth	Reference	Offset	Highside Toolface	Offset Wellbore Centre		Between Centres	Between Ellipses	Minimum Separation	Separation Factor		
(usft)	(usft)	(usft)	(usft)	(usft)	(usft)	(°)	+N/-S (usft)	+E/-W (usft)	(usft)	(usft)	(usft)			
12,100.0	6,771.1	6,627.0	6,626.5	157.0	2.1	-82.96	-1,890.8	2,504.9	8,380.5	8,222.5	157.96	53.056		
12,106.3	6,771.0	6,627.0	6,626.4	157.2	2.1	-82.95	-1,890.8	2,504.9	8,386.7	8,228.5	158.13	53.037		
12,200.0	6,770.7	6,626.1	6,625.5	159.8	2.1	-82.92	-1,890.8	2,504.9	8,479.1	8,318.4	160.72	52.756		
12,204.7	6,770.6	6,626.0	6,625.4	159.9	2.1	-82.91	-1,890.8	2,504.9	8,483.7	8,322.9	160.85	52.743		
12,300.0	6,770.3	6,625.1	6,624.5	162.6	2.1	-82.88	-1,890.8	2,504.8	8,577.7	8,414.2	163.49	52.467		
12,303.1	6,770.2	6,625.1	6,624.5	162.7	2.1	-82.87	-1,890.8	2,504.8	8,580.8	8,417.2	163.57	52.459		
12,361.7	6,770.0	6,624.5	6,624.0	164.3	2.1	-82.85	-1,890.8	2,504.8	8,638.6	8,473.4	165.19	52.294 SF		



# Anticollision Report



<b>Company:</b>	PDC ENERGY	<b>Local Co-ordinate Reference:</b>	Well SCHAUMBERG 17G-314
<b>Project:</b>	WELD COUNTY, COLORADO	<b>TVD Reference:</b>	KB-EST @ 4633.0usft (Original Well Elev)
<b>Reference Site:</b>	SW NW SEC. 17 T5N R64W 6th P.M.	<b>MD Reference:</b>	KB-EST @ 4633.0usft (Original Well Elev)
<b>Site Error:</b>	0.0 usft	<b>North Reference:</b>	True
<b>Reference Well:</b>	SCHAUMBERG 17G-314	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Well Error:</b>	0.0 usft	<b>Output errors are at</b>	2.00 sigma
<b>Reference Wellbore</b>	ORIGINAL WELLBORE	<b>Database:</b>	EDM 5000.1 Single User Db
<b>Reference Design:</b>	PROPOSAL #1	<b>Offset TVD Reference:</b>	Offset Datum

<b>Offset Design</b> NW SW SEC. 17 T5N R64W 6th P.M. - EXIST VERT HETTINGER #1 - Wellbore #1 - Design #1												<b>Offset Site Error:</b>	0.0 usft
Survey Program: 0-INC												<b>Offset Well Error:</b>	0.0 usft
Reference		Offset		Semi Major Axis			Distance						Warning
Measured Depth (usft)	Vertical Depth (usft)	Measured Depth (usft)	Vertical Depth (usft)	Reference (usft)	Offset (usft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (usft)	+E/-W (usft)	Between Centres (usft)	Between Ellipses (usft)	Minimum Separation (usft)	Separation Factor	
0.0	0.0	1.0	1.0	0.0	0.0	-134.26	-1,661.9	-1,705.5	2,381.3				
98.4	98.4	99.4	99.4	0.1	1.2	-134.26	-1,661.9	-1,705.5	2,381.3	2,380.0	1.27	1,869.000	
100.0	100.0	101.0	101.0	0.1	1.2	-134.26	-1,661.9	-1,705.5	2,381.3	2,380.0	1.31	1,823.894	
196.8	196.8	197.8	197.8	0.3	3.4	-134.26	-1,661.9	-1,705.5	2,381.3	2,377.5	3.74	636.083	
200.0	200.0	201.0	201.0	0.3	3.5	-134.26	-1,661.9	-1,705.5	2,381.3	2,377.5	3.82	623.238	
295.3	295.3	296.3	296.3	0.5	5.5	-134.26	-1,661.9	-1,705.5	2,381.3	2,375.3	6.02	395.870	
300.0	300.0	301.0	301.0	0.5	5.6	-134.26	-1,661.9	-1,705.5	2,381.3	2,375.2	6.12	388.859	
393.7	393.7	394.7	394.7	0.8	7.5	-134.26	-1,661.9	-1,705.5	2,381.3	2,373.0	8.25	288.712	
400.0	400.0	401.0	401.0	0.8	7.6	-134.26	-1,661.9	-1,705.5	2,381.3	2,372.9	8.39	283.802	
492.1	492.1	493.1	493.1	1.0	9.5	-134.26	-1,661.9	-1,705.5	2,381.3	2,370.8	10.47	227.504	
500.0	500.0	501.0	501.0	1.0	9.6	-134.26	-1,661.9	-1,705.5	2,381.3	2,370.6	10.64	223.712	
590.5	590.5	591.5	591.5	1.2	11.5	-134.26	-1,661.9	-1,705.5	2,381.3	2,368.6	12.68	187.805	
600.0	600.0	601.0	601.0	1.2	11.7	-134.26	-1,661.9	-1,705.5	2,381.3	2,368.4	12.89	184.711	
689.0	689.0	690.0	690.0	1.4	13.5	-134.26	-1,661.9	-1,705.5	2,381.3	2,366.4	14.89	159.940	
700.0	700.0	701.0	701.0	1.4	13.7	-134.26	-1,661.9	-1,705.5	2,381.3	2,366.2	15.14	157.326	
787.4	787.4	788.4	788.4	1.6	15.5	-134.26	-1,661.9	-1,705.5	2,381.3	2,364.2	17.10	139.294	
800.0	800.0	801.0	801.0	1.7	15.7	-134.26	-1,661.9	-1,705.5	2,381.3	2,363.9	17.38	137.030	
885.8	885.8	886.8	886.8	1.9	17.4	-134.26	-1,661.9	-1,705.5	2,381.3	2,362.0	19.30	123.378	
900.0	900.0	901.0	901.0	1.9	17.7	-134.26	-1,661.9	-1,705.5	2,381.3	2,361.7	19.62	121.380	
984.2	984.2	985.2	985.2	2.1	19.4	-134.26	-1,661.9	-1,705.5	2,381.3	2,359.8	21.51	110.731	
1,000.0	1,000.0	1,001.0	1,001.0	2.1	19.7	-134.26	-1,661.9	-1,705.5	2,381.3	2,359.4	21.86	108.944	
1,082.7	1,082.7	1,083.7	1,083.7	2.3	21.4	-134.26	-1,661.9	-1,705.5	2,381.3	2,357.6	23.71	100.439	
1,100.0	1,100.0	1,101.0	1,101.0	2.3	21.8	-134.26	-1,661.9	-1,705.5	2,381.3	2,357.2	24.10	98.822	
1,181.1	1,181.1	1,182.1	1,182.1	2.5	23.4	-134.26	-1,661.9	-1,705.5	2,381.3	2,355.4	25.91	91.899	
1,200.0	1,200.0	1,201.0	1,201.0	2.6	23.8	-134.26	-1,661.9	-1,705.5	2,381.3	2,355.0	26.33	90.423	
1,279.5	1,279.5	1,280.5	1,280.5	2.7	25.4	-134.26	-1,661.9	-1,705.5	2,381.3	2,353.2	28.11	84.699	
1,300.0	1,300.0	1,301.0	1,301.0	2.8	25.8	-134.26	-1,661.9	-1,705.5	2,381.3	2,352.7	28.57	83.341	
1,377.9	1,377.9	1,378.9	1,378.9	3.0	27.3	-134.26	-1,661.9	-1,705.5	2,381.3	2,351.0	30.32	78.546	
1,400.0	1,400.0	1,401.0	1,401.0	3.0	27.8	-134.26	-1,661.9	-1,705.5	2,381.3	2,350.5	30.81	77.288	
1,476.4	1,476.4	1,477.4	1,477.4	3.2	29.3	-134.26	-1,661.9	-1,705.5	2,381.3	2,348.8	32.52	73.227	
1,500.0	1,500.0	1,501.0	1,501.0	3.2	29.8	-134.26	-1,661.9	-1,705.5	2,381.3	2,348.2	33.05	72.056	
1,574.8	1,574.8	1,575.8	1,575.8	3.4	31.3	-134.26	-1,661.9	-1,705.5	2,381.3	2,346.6	34.72	68.583	
1,600.0	1,600.0	1,601.0	1,601.0	3.5	31.8	-134.26	-1,661.9	-1,705.5	2,381.3	2,346.0	35.28	67.488	
1,673.2	1,673.2	1,674.2	1,674.2	3.6	33.3	-134.26	-1,661.9	-1,705.5	2,381.3	2,344.4	36.92	64.494	
1,700.0	1,700.0	1,701.0	1,701.0	3.7	33.8	-134.26	-1,661.9	-1,705.5	2,381.3	2,343.8	37.52	63.464	
1,771.6	1,771.6	1,772.6	1,772.6	3.9	35.3	-134.26	-1,661.9	-1,705.5	2,381.3	2,342.2	39.12	60.864	
1,800.0	1,800.0	1,801.0	1,801.0	3.9	35.8	-134.26	-1,661.9	-1,705.5	2,381.3	2,341.5	39.76	59.894	
1,870.1	1,870.1	1,871.1	1,871.1	4.1	37.2	24.56	-1,661.9	-1,705.5	2,380.5	2,339.2	41.30	57.645	
1,900.0	1,900.0	1,901.0	1,901.0	4.1	37.9	24.58	-1,661.9	-1,705.5	2,379.7	2,337.8	41.95	56.733	
1,968.5	1,968.4	1,969.4	1,969.4	4.2	39.2	24.63	-1,661.9	-1,705.5	2,376.8	2,333.4	43.40	54.764	
2,000.0	1,999.8	2,000.8	2,000.8	4.3	39.9	24.67	-1,661.9	-1,705.5	2,374.9	2,330.9	44.06	53.901	
2,066.9	2,066.5	2,067.5	2,067.5	4.4	41.2	24.77	-1,661.9	-1,705.5	2,370.0	2,324.5	45.45	52.146	
2,100.0	2,099.5	2,100.5	2,100.5	4.5	41.9	24.82	-1,661.9	-1,705.5	2,367.0	2,320.9	46.12	51.318	
2,165.3	2,164.4	2,165.4	2,165.4	4.6	43.2	24.96	-1,661.9	-1,705.5	2,360.1	2,312.7	47.44	49.745	
2,200.0	2,198.7	2,199.7	2,199.7	4.7	43.9	25.04	-1,661.9	-1,705.5	2,356.0	2,307.8	48.13	48.948	
2,263.8	2,261.8	2,262.8	2,262.8	4.8	45.1	25.22	-1,661.9	-1,705.5	2,347.3	2,297.9	49.38	47.533	
2,300.0	2,297.5	2,298.5	2,298.5	4.9	45.8	25.33	-1,661.9	-1,705.5	2,341.8	2,291.7	50.08	46.763	
2,362.2	2,358.6	2,359.6	2,359.6	5.0	47.1	25.54	-1,661.9	-1,705.5	2,331.4	2,280.1	51.26	45.485	
2,400.0	2,395.6	2,396.6	2,396.6	5.1	47.8	25.68	-1,661.9	-1,705.5	2,324.5	2,272.5	51.96	44.739	
2,460.6	2,454.9	2,455.9	2,455.9	5.3	49.0	25.81	-1,661.9	-1,705.5	2,313.1	2,259.8	53.26	43.427	
2,500.0	2,493.4	2,494.4	2,494.4	5.4	49.8	25.90	-1,661.9	-1,705.5	2,305.7	2,251.6	54.11	42.611	
2,559.0	2,551.2	2,552.2	2,552.2	5.6	51.0	26.03	-1,661.9	-1,705.5	2,294.6	2,239.2	55.39	41.427	

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 SCHAUMBERG 17G-314
<b>Project:</b>	WELD COUNTY, COLORADO	<b>TVD Reference:</b>	KB-EST @ 4633.0usft (Original Well Elev)
<b>Reference Site:</b>	SW NW SEC. 17 T5N R64W 6th P.M.	<b>MD Reference:</b>	KB-EST @ 4633.0usft (Original Well Elev)
<b>Site Error:</b>	0.0 usft	<b>North Reference:</b>	True
<b>Reference Well:</b>	SCHAUMBERG 17G-314	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Well Error:</b>	0.0 usft	<b>Output errors are at</b>	2.00 sigma
<b>Reference Wellbore</b>	ORIGINAL WELLBORE	<b>Database:</b>	EDM 5000.1 Single User Db
<b>Reference Design:</b>	PROPOSAL #1	<b>Offset TVD Reference:</b>	Offset Datum

Offset Design NW SW SEC. 17 T5N R64W 6th P.M. - EXIST VERT HETTINGER #1 - Wellbore #1 - Design #1												Offset Site Error:	0.0 usft
Survey Program: 0-INC												Offset Well Error:	0.0 usft
Reference		Offset		Semi Major Axis			Distance						Warning
Measured Depth (usft)	Vertical Depth (usft)	Measured Depth (usft)	Vertical Depth (usft)	Reference (usft)	Offset (usft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (usft)	+E/-W (usft)	Between Centres (usft)	Between Ellipses (usft)	Minimum Separation (usft)	Separation Factor	
2,600.0	2,591.3	2,592.3	2,592.3	5.7	51.8	26.13	-1,661.9	-1,705.5	2,286.9	2,230.7	56.27	40.639	
2,657.5	2,647.5	2,648.5	2,648.5	5.9	52.9	26.26	-1,661.9	-1,705.5	2,276.2	2,218.6	57.52	39.571	
2,700.0	2,689.1	2,690.1	2,690.1	6.0	53.7	26.36	-1,661.9	-1,705.5	2,268.2	2,209.8	58.45	38.808	
2,755.9	2,743.7	2,744.7	2,744.7	6.2	54.8	26.49	-1,661.9	-1,705.5	2,257.8	2,198.1	59.67	37.839	
2,800.0	2,786.9	2,787.9	2,787.9	6.4	55.7	26.59	-1,661.9	-1,705.5	2,249.5	2,188.9	60.63	37.103	
2,854.3	2,840.0	2,841.0	2,841.0	6.6	56.8	26.72	-1,661.9	-1,705.5	2,239.4	2,177.6	61.82	36.225	
2,900.0	2,884.7	2,885.7	2,885.7	6.7	57.7	26.83	-1,661.9	-1,705.5	2,230.9	2,168.0	62.82	35.512	
2,952.7	2,936.3	2,937.3	2,937.3	6.9	58.7	26.96	-1,661.9	-1,705.5	2,221.0	2,157.1	63.98	34.715	
3,000.0	2,982.5	2,983.5	2,983.5	7.1	59.6	27.07	-1,661.9	-1,705.5	2,212.2	2,147.2	65.02	34.026	
3,051.2	3,032.6	3,033.6	3,033.6	7.3	60.6	27.20	-1,661.9	-1,705.5	2,202.7	2,136.6	66.14	33.302	
3,100.0	3,080.3	3,081.3	3,081.3	7.5	61.6	27.32	-1,661.9	-1,705.5	2,193.7	2,126.5	67.22	32.634	
3,149.6	3,128.8	3,129.8	3,129.8	7.7	62.6	27.44	-1,661.9	-1,705.5	2,184.5	2,116.2	68.32	31.975	
3,200.0	3,178.1	3,179.1	3,179.1	7.9	63.6	27.57	-1,661.9	-1,705.5	2,175.1	2,105.7	69.43	31.328	
3,248.0	3,225.1	3,226.1	3,226.1	8.1	64.5	27.69	-1,661.9	-1,705.5	2,166.2	2,095.8	70.50	30.729	
3,300.0	3,276.0	3,277.0	3,277.0	8.3	65.5	27.82	-1,661.9	-1,705.5	2,156.6	2,085.0	71.65	30.100	
3,346.4	3,321.4	3,322.4	3,322.4	8.5	66.4	27.94	-1,661.9	-1,705.5	2,148.1	2,075.4	72.68	29.555	
3,400.0	3,373.8	3,374.8	3,374.8	8.7	67.5	28.08	-1,661.9	-1,705.5	2,138.2	2,064.3	73.87	28.945	
3,444.9	3,417.7	3,418.7	3,418.7	8.8	68.4	28.20	-1,661.9	-1,705.5	2,129.9	2,055.1	74.87	28.448	
3,500.0	3,471.6	3,472.6	3,472.6	9.1	69.5	28.34	-1,661.9	-1,705.5	2,119.8	2,043.7	76.10	27.856	
3,543.3	3,513.9	3,514.9	3,514.9	9.2	70.3	28.46	-1,661.9	-1,705.5	2,111.8	2,034.8	77.06	27.403	
3,600.0	3,569.4	3,570.4	3,570.4	9.5	71.4	28.61	-1,661.9	-1,705.5	2,101.4	2,023.1	78.33	26.827	
3,641.7	3,610.2	3,611.2	3,611.2	9.7	72.3	28.73	-1,661.9	-1,705.5	2,093.8	2,014.5	79.26	26.415	
3,700.0	3,667.2	3,668.2	3,668.2	9.9	73.4	28.88	-1,661.9	-1,705.5	2,083.1	2,002.5	80.57	25.855	
3,740.1	3,706.5	3,707.5	3,707.5	10.1	74.2	29.00	-1,661.9	-1,705.5	2,075.8	1,994.3	81.47	25.479	
3,800.0	3,765.0	3,766.0	3,766.0	10.3	75.4	29.16	-1,661.9	-1,705.5	2,064.8	1,982.0	82.81	24.934	
3,838.6	3,802.8	3,803.8	3,803.8	10.5	76.1	29.27	-1,661.9	-1,705.5	2,057.8	1,974.1	83.68	24.592	
3,900.0	3,862.8	3,863.8	3,863.8	10.7	77.3	29.44	-1,661.9	-1,705.5	2,046.6	1,961.5	85.06	24.061	
3,937.0	3,899.0	3,900.0	3,900.0	10.9	78.1	29.55	-1,661.9	-1,705.5	2,039.9	1,954.0	85.89	23.750	
4,000.0	3,960.7	3,961.7	3,961.7	11.2	79.3	29.73	-1,661.9	-1,705.5	2,028.4	1,941.1	87.31	23.233	
4,035.4	3,995.3	3,996.3	3,996.3	11.3	80.0	29.83	-1,661.9	-1,705.5	2,022.0	1,933.9	88.11	22.949	
4,100.0	4,058.5	4,059.5	4,059.5	11.6	81.3	30.02	-1,661.9	-1,705.5	2,010.3	1,920.7	89.57	22.445	
4,133.8	4,091.6	4,092.6	4,092.6	11.7	81.9	30.12	-1,661.9	-1,705.5	2,004.2	1,913.8	90.33	22.187	
4,200.0	4,156.3	4,157.3	4,157.3	12.0	83.2	30.32	-1,661.9	-1,705.5	1,992.2	1,900.4	91.83	21.696	
4,232.3	4,187.9	4,188.9	4,188.9	12.2	83.9	30.42	-1,661.9	-1,705.5	1,986.4	1,893.9	92.56	21.462	
4,300.0	4,254.1	4,255.1	4,255.1	12.5	85.2	30.62	-1,661.9	-1,705.5	1,974.2	1,880.1	94.09	20.982	
4,325.7	4,279.2	4,280.2	4,280.2	12.6	85.7	30.70	-1,661.9	-1,705.5	1,969.6	1,874.9	94.67	20.804	
4,330.7	4,284.1	4,285.1	4,285.1	12.6	85.8	30.71	-1,661.9	-1,705.5	1,968.7	1,873.9	94.81	20.765	
4,400.0	4,352.1	4,353.1	4,353.1	12.8	87.2	30.79	-1,661.9	-1,705.5	1,957.1	1,860.4	96.67	20.246	
4,429.1	4,380.8	4,381.8	4,381.8	12.9	87.7	30.82	-1,661.9	-1,705.5	1,952.6	1,855.2	97.43	20.041	
4,500.0	4,450.7	4,451.7	4,451.7	13.1	89.2	30.89	-1,661.9	-1,705.5	1,942.8	1,843.6	99.27	19.571	
4,527.5	4,478.0	4,479.0	4,479.0	13.2	89.7	30.91	-1,661.9	-1,705.5	1,939.4	1,839.5	99.97	19.400	
4,600.0	4,549.9	4,550.9	4,550.9	13.4	91.1	30.97	-1,661.9	-1,705.5	1,931.6	1,829.8	101.79	18.975	
4,626.0	4,575.7	4,576.7	4,576.7	13.5	91.7	30.99	-1,661.9	-1,705.5	1,929.1	1,826.7	102.44	18.833	
4,700.0	4,649.4	4,650.4	4,650.4	13.6	93.2	31.03	-1,661.9	-1,705.5	1,923.3	1,819.1	104.24	18.452	
4,724.4	4,673.7	4,674.7	4,674.7	13.7	93.6	31.04	-1,661.9	-1,705.5	1,921.8	1,817.0	104.82	18.335	
4,800.0	4,749.2	4,750.2	4,750.2	13.8	95.2	31.07	-1,661.9	-1,705.5	1,918.1	1,811.5	106.58	17.996	
4,822.8	4,772.0	4,773.0	4,773.0	13.9	95.6	31.08	-1,661.9	-1,705.5	1,917.3	1,810.2	107.10	17.902	
4,900.0	4,849.2	4,850.2	4,850.2	14.0	97.2	31.09	-1,661.9	-1,705.5	1,915.8	1,807.0	108.82	17.605	
4,921.2	4,870.4	4,871.4	4,871.4	14.1	97.6	31.09	-1,661.9	-1,705.5	1,915.7	1,806.4	109.29	17.529	
4,925.6	4,874.8	4,875.8	4,875.8	14.1	97.7	-127.72	-1,661.9	-1,705.5	1,915.7	1,804.8	110.95	17.267	
5,000.0	4,949.2	4,950.2	4,950.2	14.2	99.2	-127.72	-1,661.9	-1,705.5	1,915.7	1,803.2	112.56	17.019	
5,019.7	4,968.8	4,969.8	4,969.8	14.2	99.6	-127.72	-1,661.9	-1,705.5	1,915.7	1,802.7	112.99	16.955	

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 SCHAUMBERG 17G-314
<b>Project:</b>	WELD COUNTY, COLORADO	<b>TVD Reference:</b>	KB-EST @ 4633.0usft (Original Well Elev)
<b>Reference Site:</b>	SW NW SEC. 17 T5N R64W 6th P.M.	<b>MD Reference:</b>	KB-EST @ 4633.0usft (Original Well Elev)
<b>Site Error:</b>	0.0 usft	<b>North Reference:</b>	True
<b>Reference Well:</b>	SCHAUMBERG 17G-314	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Well Error:</b>	0.0 usft	<b>Output errors are at</b>	2.00 sigma
<b>Reference Wellbore</b>	ORIGINAL WELLBORE	<b>Database:</b>	EDM 5000.1 Single User Db
<b>Reference Design:</b>	PROPOSAL #1	<b>Offset TVD Reference:</b>	Offset Datum

Offset Design NW SW SEC. 17 T5N R64W 6th P.M. - EXIST VERT HETTINGER #1 - Wellbore #1 - Design #1												Offset Site Error:	0.0 usft
Survey Program: 0-INC												Offset Well Error:	0.0 usft
Reference		Offset		Semi Major Axis			Distance						Warning
Measured Depth (usft)	Vertical Depth (usft)	Measured Depth (usft)	Vertical Depth (usft)	Reference (usft)	Offset (usft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (usft)	+E/-W (usft)	Between Centres (usft)	Between Ellipses (usft)	Minimum Separation (usft)	Separation Factor	
5,100.0	5,049.2	5,050.2	5,050.2	14.3	101.2	-127.72	-1,661.9	-1,705.5	1,915.7	1,801.0	114.73	16.697	
5,118.1	5,067.3	5,068.3	5,068.3	14.3	101.6	-127.72	-1,661.9	-1,705.5	1,915.7	1,800.6	115.12	16.640	
5,200.0	5,149.2	5,150.2	5,150.2	14.5	103.2	-127.72	-1,661.9	-1,705.5	1,915.7	1,798.8	116.90	16.387	
5,216.5	5,165.7	5,166.7	5,166.7	14.5	103.5	-127.72	-1,661.9	-1,705.5	1,915.7	1,798.5	117.26	16.337	
5,300.0	5,249.2	5,250.2	5,250.2	14.6	105.2	-127.72	-1,661.9	-1,705.5	1,915.7	1,796.6	119.08	16.088	
5,314.9	5,264.1	5,265.1	5,265.1	14.6	105.5	-127.72	-1,661.9	-1,705.5	1,915.7	1,796.3	119.40	16.044	
5,400.0	5,349.2	5,350.2	5,350.2	14.8	107.2	-127.72	-1,661.9	-1,705.5	1,915.7	1,794.5	121.25	15.799	
5,413.4	5,362.5	5,363.5	5,363.5	14.8	107.5	-127.72	-1,661.9	-1,705.5	1,915.7	1,794.2	121.54	15.762	
5,500.0	5,449.2	5,450.2	5,450.2	14.9	109.2	-127.72	-1,661.9	-1,705.5	1,915.7	1,792.3	123.43	15.521	
5,511.8	5,461.0	5,462.0	5,462.0	14.9	109.5	-127.72	-1,661.9	-1,705.5	1,915.7	1,792.0	123.69	15.488	
5,600.0	5,549.2	5,550.2	5,550.2	15.1	111.2	-127.72	-1,661.9	-1,705.5	1,915.7	1,790.1	125.61	15.252	
5,610.2	5,559.4	5,560.4	5,560.4	15.1	111.5	-127.72	-1,661.9	-1,705.5	1,915.7	1,789.9	125.83	15.225	
5,700.0	5,649.2	5,650.2	5,650.2	15.2	113.3	-127.72	-1,661.9	-1,705.5	1,915.7	1,787.9	127.79	14.991	
5,708.6	5,657.8	5,658.8	5,658.8	15.3	113.4	-127.72	-1,661.9	-1,705.5	1,915.7	1,787.7	127.98	14.969	
5,800.0	5,749.2	5,750.2	5,750.2	15.4	115.3	-127.72	-1,661.9	-1,705.5	1,915.7	1,785.8	129.97	14.740	
5,807.1	5,756.2	5,757.2	5,757.2	15.4	115.4	-127.72	-1,661.9	-1,705.5	1,915.7	1,785.6	130.13	14.722	
5,900.0	5,849.2	5,850.2	5,850.2	15.6	117.3	-127.72	-1,661.9	-1,705.5	1,915.7	1,783.6	132.15	14.496	
5,905.5	5,854.7	5,855.7	5,855.7	15.6	117.4	-127.72	-1,661.9	-1,705.5	1,915.7	1,783.5	132.27	14.483	
6,000.0	5,949.2	5,950.2	5,950.2	15.7	119.3	-127.72	-1,661.9	-1,705.5	1,915.7	1,781.4	134.34	14.260	
6,003.9	5,953.1	5,954.1	5,954.1	15.7	119.4	-127.72	-1,661.9	-1,705.5	1,915.7	1,781.3	134.42	14.251	
6,100.0	6,049.2	6,050.2	6,050.2	15.9	121.3	-127.72	-1,661.9	-1,705.5	1,915.7	1,779.2	136.52	14.032	
6,102.3	6,051.5	6,052.5	6,052.5	15.9	121.3	-127.72	-1,661.9	-1,705.5	1,915.7	1,779.1	136.58	14.027	
6,124.6	6,073.8	6,074.8	6,074.8	15.9	121.8	-127.72	-1,661.9	-1,705.5	1,915.7	1,778.7	137.06	13.977	
6,150.0	6,099.2	6,100.2	6,100.2	16.0	122.3	-37.74	-1,661.9	-1,705.5	1,915.4	1,779.1	136.24	14.059	
6,200.0	6,149.0	6,150.0	6,150.0	16.1	123.3	-37.94	-1,661.9	-1,705.5	1,912.6	1,775.6	136.95	13.966	
6,200.8	6,149.8	6,150.8	6,150.8	16.1	123.3	-37.95	-1,661.9	-1,705.5	1,912.5	1,775.6	136.96	13.964	
6,250.0	6,198.5	6,199.5	6,199.5	16.2	124.3	-38.35	-1,661.9	-1,705.5	1,907.1	1,769.8	137.23	13.897	
6,299.2	6,246.6	6,247.6	6,247.6	16.3	125.3	-38.94	-1,661.9	-1,705.5	1,899.0	1,761.9	137.12	13.849	
6,300.0	6,247.4	6,248.4	6,248.4	16.3	125.3	-38.96	-1,661.9	-1,705.5	1,898.9	1,761.8	137.12	13.849	
6,350.0	6,295.5	6,296.5	6,296.5	16.5	126.3	-39.78	-1,661.9	-1,705.5	1,888.0	1,751.4	136.65	13.817	
6,397.6	6,340.2	6,341.2	6,341.2	16.6	127.2	-40.77	-1,661.9	-1,705.5	1,875.3	1,739.4	135.94	13.795	
6,400.0	6,342.4	6,343.4	6,343.4	16.6	127.2	-40.83	-1,661.9	-1,705.5	1,874.6	1,738.7	135.90	13.794	
6,450.0	6,388.1	6,389.1	6,389.1	16.8	128.1	-42.11	-1,661.9	-1,705.5	1,858.8	1,723.8	134.97	13.772	
6,496.0	6,428.8	6,429.8	6,429.8	17.0	128.9	-43.51	-1,661.9	-1,705.5	1,842.1	1,708.1	134.07	13.740	
6,500.0	6,432.2	6,433.2	6,433.2	17.0	129.0	-43.64	-1,661.9	-1,705.5	1,840.6	1,706.6	134.00	13.736	
6,550.0	6,474.6	6,475.6	6,475.6	17.3	129.9	-45.43	-1,661.9	-1,705.5	1,820.2	1,687.1	133.13	13.673	
6,594.5	6,510.7	6,511.7	6,511.7	17.5	130.6	-47.26	-1,661.9	-1,705.5	1,800.4	1,667.8	132.59	13.578	
6,600.0	6,515.0	6,516.0	6,516.0	17.6	130.7	-47.50	-1,661.9	-1,705.5	1,797.8	1,665.3	132.55	13.564	
6,650.0	6,553.3	6,554.3	6,554.3	17.9	131.4	-49.84	-1,661.9	-1,705.5	1,773.6	1,641.2	132.43	13.392	
6,692.9	6,584.3	6,585.3	6,585.3	18.2	132.1	-52.08	-1,661.9	-1,705.5	1,751.4	1,618.6	132.83	13.185	
6,700.0	6,589.2	6,590.2	6,590.2	18.2	132.2	-52.47	-1,661.9	-1,705.5	1,747.7	1,614.7	132.95	13.146	
6,750.0	6,622.7	6,623.7	6,623.7	18.6	132.8	-55.38	-1,661.9	-1,705.5	1,720.3	1,586.1	134.21	12.818	
6,791.3	6,648.3	6,649.3	6,649.3	19.0	133.3	-57.99	-1,661.9	-1,705.5	1,696.7	1,560.8	135.84	12.490	
6,800.0	6,653.4	6,654.4	6,654.4	19.1	133.5	-58.56	-1,661.9	-1,705.5	1,691.6	1,555.4	136.25	12.416	
6,850.0	6,681.4	6,682.4	6,682.4	19.6	134.0	-61.97	-1,661.9	-1,705.5	1,662.0	1,523.0	139.01	11.956	
6,889.7	6,701.5	6,702.5	6,702.5	20.1	134.4	-64.82	-1,661.9	-1,705.5	1,637.9	1,496.2	141.62	11.565	
6,900.0	6,706.3	6,707.3	6,707.3	20.2	134.5	-65.57	-1,661.9	-1,705.5	1,631.6	1,489.2	142.32	11.464	
6,950.0	6,728.2	6,729.2	6,729.2	20.9	135.0	-69.30	-1,661.9	-1,705.5	1,600.6	1,454.7	145.95	10.967	
6,988.2	6,742.8	6,743.8	6,743.8	21.5	135.3	-72.18	-1,661.9	-1,705.5	1,576.8	1,428.0	148.76	10.600	
7,000.0	6,746.9	6,747.9	6,747.9	21.6	135.3	-73.08	-1,661.9	-1,705.5	1,569.4	1,419.8	149.61	10.490	
7,050.0	6,762.4	6,763.4	6,763.4	22.5	135.6	-76.83	-1,661.9	-1,705.5	1,538.2	1,385.2	153.03	10.052	
7,086.6	6,771.5	6,772.5	6,772.5	23.1	135.8	-79.52	-1,661.9	-1,705.5	1,515.5	1,360.2	155.26	9.761	

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 SCHAUMBERG 17G-314
<b>Project:</b>	WELD COUNTY, COLORADO	<b>TVD Reference:</b>	KB-EST @ 4633.0usft (Original Well Elev)
<b>Reference Site:</b>	SW NW SEC. 17 T5N R64W 6th P.M.	<b>MD Reference:</b>	KB-EST @ 4633.0usft (Original Well Elev)
<b>Site Error:</b>	0.0 usft	<b>North Reference:</b>	True
<b>Reference Well:</b>	SCHAUMBERG 17G-314	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Well Error:</b>	0.0 usft	<b>Output errors are at</b>	2.00 sigma
<b>Reference Wellbore</b>	ORIGINAL WELLBORE	<b>Database:</b>	EDM 5000.1 Single User Db
<b>Reference Design:</b>	PROPOSAL #1	<b>Offset TVD Reference:</b>	Offset Datum

Offset Design NW SW SEC. 17 T5N R64W 6th P.M. - EXIST VERT HETTINGER #1 - Wellbore #1 - Design #1												Offset Site Error:	0.0 usft
Survey Program: 0-INC												Offset Well Error:	0.0 usft
Reference		Offset		Semi Major Axis			Distance						Warning
Measured Depth (usft)	Vertical Depth (usft)	Measured Depth (usft)	Vertical Depth (usft)	Reference (usft)	Offset (usft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (usft)	+E/-W (usft)	Between Centres (usft)	Between Ellipses (usft)	Minimum Separation (usft)	Separation Factor	
7,100.0	6,774.4	6,775.4	6,775.4	23.3	135.9	-80.48	-1,661.9	-1,705.5	1,507.2	1,351.2	156.00	9.661	
7,150.0	6,783.1	6,784.1	6,784.1	24.3	136.1	-83.93	-1,661.9	-1,705.5	1,476.8	1,318.3	158.42	9.322	
7,185.0	6,787.1	6,788.1	6,788.1	25.0	136.1	-86.20	-1,661.9	-1,705.5	1,455.9	1,296.1	159.76	9.113	
7,200.0	6,788.3	6,789.3	6,789.3	25.3	136.2	-87.13	-1,661.9	-1,705.5	1,447.0	1,286.8	160.24	9.030	
7,252.3	6,790.0	6,791.0	6,791.0	26.3	136.2	-90.15	-1,661.9	-1,705.5	1,417.0	1,255.4	161.57	8.770	
7,283.4	6,789.9	6,790.9	6,790.9	27.0	136.2	-90.14	-1,661.9	-1,705.5	1,399.8	1,237.5	162.26	8.627	
7,300.0	6,789.8	6,790.8	6,790.8	27.3	136.2	-90.14	-1,661.9	-1,705.5	1,390.8	1,228.1	162.63	8.552	
7,381.9	6,789.5	6,790.5	6,790.5	29.1	136.2	-90.12	-1,661.9	-1,705.5	1,348.4	1,183.9	164.50	8.197	
7,400.0	6,789.4	6,790.4	6,790.4	29.5	136.2	-90.12	-1,661.9	-1,705.5	1,339.6	1,174.7	164.92	8.123	
7,480.3	6,789.1	6,790.1	6,790.1	31.4	136.2	-90.10	-1,661.9	-1,705.5	1,302.6	1,135.7	166.83	7.808	
7,500.0	6,789.1	6,790.1	6,790.1	31.8	136.2	-90.10	-1,661.9	-1,705.5	1,294.1	1,126.8	167.29	7.735	
7,578.7	6,788.8	6,789.8	6,789.8	33.7	136.2	-90.09	-1,661.9	-1,705.5	1,262.7	1,093.5	169.22	7.462	
7,600.0	6,788.7	6,789.7	6,789.7	34.2	136.2	-90.08	-1,661.9	-1,705.5	1,255.0	1,085.2	169.74	7.394	
7,677.1	6,788.4	6,789.4	6,789.4	36.1	136.2	-90.07	-1,661.9	-1,705.5	1,229.5	1,057.8	171.66	7.162	
7,700.0	6,788.3	6,789.3	6,789.3	36.7	136.2	-90.06	-1,661.9	-1,705.5	1,222.8	1,050.5	172.23	7.100	
7,775.6	6,788.0	6,789.0	6,789.0	38.6	136.2	-90.05	-1,661.9	-1,705.5	1,203.4	1,029.2	174.15	6.910	
7,800.0	6,787.9	6,788.9	6,788.9	39.2	136.2	-90.05	-1,661.9	-1,705.5	1,198.1	1,023.3	174.77	6.855	
7,874.0	6,787.6	6,788.6	6,788.6	41.0	136.2	-90.03	-1,661.9	-1,705.5	1,184.9	1,008.2	176.67	6.707	
7,900.0	6,787.6	6,788.6	6,788.6	41.7	136.1	-90.03	-1,661.9	-1,705.5	1,181.3	1,004.0	177.34	6.662	
7,972.4	6,787.3	6,788.3	6,788.3	43.6	136.1	-90.01	-1,661.9	-1,705.5	1,174.4	995.2	179.22	6.553	
8,000.0	6,787.2	6,788.2	6,788.2	44.3	136.1	-90.01	-1,661.9	-1,705.5	1,172.9	993.0	179.94	6.519	
8,048.9	6,787.0	6,788.0	6,788.0	45.5	136.1	-90.00	-1,661.9	-1,705.5	1,171.9	990.7	181.22	6.467	CC
8,070.8	6,786.9	6,787.9	6,787.9	46.1	136.1	-90.00	-1,661.9	-1,705.5	1,172.1	990.3	181.80	6.447	ES
8,100.0	6,786.8	6,787.8	6,787.8	46.9	136.1	-89.99	-1,661.9	-1,705.5	1,173.0	990.5	182.56	6.425	
8,169.3	6,786.5	6,787.5	6,787.5	48.7	136.1	-89.98	-1,661.9	-1,705.5	1,178.1	993.7	184.39	6.389	
8,200.0	6,786.4	6,787.4	6,787.4	49.5	136.1	-89.97	-1,661.9	-1,705.5	1,181.6	996.4	185.21	6.380	
8,267.7	6,786.1	6,787.1	6,787.1	51.3	136.1	-89.96	-1,661.9	-1,705.5	1,192.2	1,005.2	187.01	6.375	SF
8,300.0	6,786.0	6,787.0	6,787.0	52.1	136.1	-89.95	-1,661.9	-1,705.5	1,198.5	1,010.7	187.87	6.380	
8,366.1	6,785.8	6,786.8	6,786.8	53.9	136.1	-89.94	-1,661.9	-1,705.5	1,214.1	1,024.5	189.64	6.402	
8,400.0	6,785.6	6,786.6	6,786.6	54.8	136.1	-89.93	-1,661.9	-1,705.5	1,223.4	1,032.8	190.54	6.421	
8,464.5	6,785.4	6,786.4	6,786.4	56.5	136.1	-89.92	-1,661.9	-1,705.5	1,243.5	1,051.2	192.28	6.467	
8,500.0	6,785.3	6,786.3	6,786.3	57.5	136.1	-89.92	-1,661.9	-1,705.5	1,255.7	1,062.5	193.23	6.499	
8,563.0	6,785.0	6,786.0	6,786.0	59.2	136.1	-89.90	-1,661.9	-1,705.5	1,279.7	1,084.8	194.93	6.565	
8,600.0	6,784.9	6,785.9	6,785.9	60.2	136.1	-89.90	-1,661.9	-1,705.5	1,295.0	1,099.1	195.93	6.610	
8,661.4	6,784.6	6,785.6	6,785.6	61.8	136.1	-89.88	-1,661.9	-1,705.5	1,322.3	1,124.7	197.59	6.692	
8,700.0	6,784.5	6,785.5	6,785.5	62.9	136.1	-89.88	-1,661.9	-1,705.5	1,340.7	1,142.0	198.63	6.749	
8,759.8	6,784.3	6,785.3	6,785.3	64.5	136.1	-89.87	-1,661.9	-1,705.5	1,370.7	1,170.4	200.26	6.845	
8,800.0	6,784.1	6,785.1	6,785.1	65.6	136.1	-89.86	-1,661.9	-1,705.5	1,392.0	1,190.6	201.35	6.913	
8,858.2	6,783.9	6,784.9	6,784.9	67.1	136.1	-89.85	-1,661.9	-1,705.5	1,424.2	1,221.3	202.93	7.018	
8,900.0	6,783.7	6,784.7	6,784.7	68.3	136.1	-89.84	-1,661.9	-1,705.5	1,448.4	1,244.3	204.07	7.097	
8,956.7	6,783.5	6,784.5	6,784.5	69.8	136.1	-89.83	-1,661.9	-1,705.5	1,482.4	1,276.8	205.62	7.209	
9,000.0	6,783.3	6,784.3	6,784.3	71.0	136.1	-89.82	-1,661.9	-1,705.5	1,509.3	1,302.5	206.80	7.298	
9,055.1	6,783.1	6,784.1	6,784.1	72.5	136.1	-89.81	-1,661.9	-1,705.5	1,544.6	1,336.3	208.31	7.415	
9,100.0	6,782.9	6,783.9	6,783.9	73.7	136.1	-89.80	-1,661.9	-1,705.5	1,574.2	1,364.7	209.53	7.513	
9,153.5	6,782.7	6,783.7	6,783.7	75.2	136.1	-89.79	-1,661.9	-1,705.5	1,610.5	1,399.5	211.00	7.633	
9,200.0	6,782.6	6,783.6	6,783.6	76.5	136.0	-89.78	-1,661.9	-1,705.5	1,642.7	1,430.4	212.27	7.739	
9,251.9	6,782.4	6,783.4	6,783.4	77.9	136.0	-89.77	-1,661.9	-1,705.5	1,679.5	1,465.8	213.70	7.859	
9,300.0	6,782.2	6,783.2	6,783.2	79.2	136.0	-89.76	-1,661.9	-1,705.5	1,714.3	1,499.2	215.02	7.973	
9,350.4	6,782.0	6,783.0	6,783.0	80.6	136.0	-89.75	-1,661.9	-1,705.5	1,751.4	1,535.0	216.40	8.093	
9,400.0	6,781.8	6,782.8	6,782.8	82.0	136.0	-89.74	-1,661.9	-1,705.5	1,788.5	1,570.8	217.76	8.213	
9,448.8	6,781.6	6,782.6	6,782.6	83.3	136.0	-89.73	-1,661.9	-1,705.5	1,825.7	1,606.6	219.11	8.332	
9,500.0	6,781.4	6,782.4	6,782.4	84.7	136.0	-89.72	-1,661.9	-1,705.5	1,865.2	1,644.7	220.51	8.459	

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 SCHAUMBERG 17G-314
<b>Project:</b>	WELD COUNTY, COLORADO	<b>TVD Reference:</b>	KB-EST @ 4633.0usft (Original Well Elev)
<b>Reference Site:</b>	SW NW SEC. 17 T5N R64W 6th P.M.	<b>MD Reference:</b>	KB-EST @ 4633.0usft (Original Well Elev)
<b>Site Error:</b>	0.0 usft	<b>North Reference:</b>	True
<b>Reference Well:</b>	SCHAUMBERG 17G-314	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Well Error:</b>	0.0 usft	<b>Output errors are at</b>	2.00 sigma
<b>Reference Wellbore</b>	ORIGINAL WELLBORE	<b>Database:</b>	EDM 5000.1 Single User Db
<b>Reference Design:</b>	PROPOSAL #1	<b>Offset TVD Reference:</b>	Offset Datum

Offset Design NW SW SEC. 17 T5N R64W 6th P.M. - EXIST VERT HETTINGER #1 - Wellbore #1 - Design #1												Offset Site Error:	0.0 usft
Survey Program: 0-INC												Offset Well Error:	0.0 usft
Reference		Offset		Semi Major Axis			Distance						Warning
Measured Depth (usft)	Vertical Depth (usft)	Measured Depth (usft)	Vertical Depth (usft)	Reference (usft)	Offset (usft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (usft)	+E/-W (usft)	Between Centres (usft)	Between Ellipses (usft)	Minimum Separation (usft)	Separation Factor	
9,547.2	6,781.2	6,782.2	6,782.2	86.0	136.0	-89.71	-1,661.9	-1,705.5	1,902.2	1,680.4	221.81	8.576	
9,600.0	6,781.0	6,782.0	6,782.0	87.5	136.0	-89.70	-1,661.9	-1,705.5	1,944.0	1,720.8	223.27	8.707	
9,645.6	6,780.8	6,781.8	6,781.8	88.7	136.0	-89.70	-1,661.9	-1,705.5	1,980.7	1,756.1	224.53	8.821	
9,700.0	6,780.6	6,781.6	6,781.6	90.2	136.0	-89.68	-1,661.9	-1,705.5	2,024.7	1,798.7	226.03	8.958	
9,744.1	6,780.4	6,781.4	6,781.4	91.4	136.0	-89.68	-1,661.9	-1,705.5	2,060.8	1,833.6	227.24	9.069	
9,800.0	6,780.2	6,781.2	6,781.2	93.0	136.0	-89.66	-1,661.9	-1,705.5	2,107.1	1,878.3	228.78	9.210	
9,842.5	6,780.1	6,781.1	6,781.1	94.2	136.0	-89.66	-1,661.9	-1,705.5	2,142.5	1,912.6	229.96	9.317	
9,900.0	6,779.8	6,780.8	6,780.8	95.7	136.0	-89.65	-1,661.9	-1,705.5	2,190.9	1,959.3	231.55	9.462	
9,940.9	6,779.7	6,780.7	6,780.7	96.9	136.0	-89.64	-1,661.9	-1,705.5	2,225.6	1,992.9	232.68	9.565	
10,000.0	6,779.4	6,780.4	6,780.4	98.5	136.0	-89.63	-1,661.9	-1,705.5	2,276.0	2,041.7	234.31	9.714	
10,039.3	6,779.3	6,780.3	6,780.3	99.6	136.0	-89.62	-1,661.9	-1,705.5	2,309.8	2,074.4	235.40	9.812	
10,100.0	6,779.0	6,780.0	6,780.0	101.3	136.0	-89.61	-1,661.9	-1,705.5	2,362.3	2,125.2	237.08	9.964	
10,137.8	6,778.9	6,779.9	6,779.9	102.3	136.0	-89.60	-1,661.9	-1,705.5	2,395.2	2,157.0	238.12	10.058	
10,200.0	6,778.7	6,779.7	6,779.7	104.1	136.0	-89.59	-1,661.9	-1,705.5	2,449.6	2,209.8	239.85	10.213	
10,236.2	6,778.5	6,779.5	6,779.5	105.1	136.0	-89.58	-1,661.9	-1,705.5	2,481.5	2,240.6	240.85	10.303	
10,300.0	6,778.3	6,779.3	6,779.3	106.8	136.0	-89.57	-1,661.9	-1,705.5	2,537.9	2,295.3	242.62	10.460	
10,334.6	6,778.1	6,779.1	6,779.1	107.8	136.0	-89.56	-1,661.9	-1,705.5	2,568.6	2,325.1	243.58	10.546	
10,400.0	6,777.9	6,778.9	6,778.9	109.6	136.0	-89.55	-1,661.9	-1,705.5	2,627.0	2,381.6	245.39	10.705	
10,433.0	6,777.7	6,778.7	6,778.7	110.5	136.0	-89.54	-1,661.9	-1,705.5	2,656.6	2,410.3	246.31	10.786	
10,500.0	6,777.5	6,778.5	6,778.5	112.4	135.9	-89.53	-1,661.9	-1,705.5	2,716.8	2,468.7	248.16	10.948	
10,531.5	6,777.3	6,778.3	6,778.3	113.3	135.9	-89.52	-1,661.9	-1,705.5	2,745.3	2,496.2	249.04	11.024	
10,600.0	6,777.1	6,778.1	6,778.1	115.2	135.9	-89.51	-1,661.9	-1,705.5	2,807.4	2,556.5	250.94	11.188	
10,629.9	6,777.0	6,778.0	6,778.0	116.0	135.9	-89.50	-1,661.9	-1,705.5	2,834.6	2,582.8	251.77	11.259	
10,700.0	6,776.7	6,777.7	6,777.7	117.9	135.9	-89.49	-1,661.9	-1,705.5	2,898.6	2,644.9	253.71	11.425	
10,728.3	6,776.6	6,777.6	6,777.6	118.7	135.9	-89.48	-1,661.9	-1,705.5	2,924.5	2,670.0	254.50	11.491	
10,800.0	6,776.3	6,777.3	6,777.3	120.7	135.9	-89.47	-1,661.9	-1,705.5	2,990.3	2,733.8	256.49	11.659	
10,826.7	6,776.2	6,777.2	6,777.2	121.5	135.9	-89.46	-1,661.9	-1,705.5	3,014.9	2,757.7	257.23	11.721	
10,900.0	6,775.9	6,776.9	6,776.9	123.5	135.9	-89.45	-1,661.9	-1,705.5	3,082.6	2,823.3	259.27	11.889	
10,925.2	6,775.8	6,776.8	6,776.8	124.2	135.9	-89.44	-1,661.9	-1,705.5	3,105.9	2,845.9	259.97	11.947	
11,000.0	6,775.5	6,776.5	6,776.5	126.3	135.9	-89.43	-1,661.9	-1,705.5	3,175.3	2,913.2	262.05	12.117	
11,023.6	6,775.4	6,776.4	6,776.4	126.9	135.9	-89.42	-1,661.9	-1,705.5	3,197.2	2,934.5	262.70	12.170	
11,100.0	6,775.1	6,776.1	6,776.1	129.1	135.9	-89.40	-1,661.9	-1,705.5	3,268.4	3,003.6	264.83	12.342	
11,122.0	6,775.0	6,776.0	6,776.0	129.7	135.9	-89.40	-1,661.9	-1,705.5	3,289.0	3,023.5	265.44	12.391	
11,200.0	6,774.7	6,775.7	6,775.7	131.9	135.9	-89.38	-1,661.9	-1,705.5	3,362.0	3,094.4	267.61	12.563	
11,220.4	6,774.6	6,775.6	6,775.6	132.4	135.9	-89.38	-1,661.9	-1,705.5	3,381.1	3,113.0	268.18	12.608	
11,300.0	6,774.3	6,775.3	6,775.3	134.6	135.9	-89.36	-1,661.9	-1,705.5	3,455.9	3,185.5	270.39	12.781	
11,318.9	6,774.2	6,775.2	6,775.2	135.2	135.9	-89.36	-1,661.9	-1,705.5	3,473.6	3,202.7	270.91	12.822	
11,400.0	6,773.9	6,774.9	6,774.9	137.4	135.9	-89.34	-1,661.9	-1,705.5	3,550.1	3,276.9	273.17	12.996	
11,417.3	6,773.8	6,774.8	6,774.8	137.9	135.9	-89.34	-1,661.9	-1,705.5	3,566.4	3,292.8	273.65	13.033	
11,500.0	6,773.5	6,774.5	6,774.5	140.2	135.9	-89.32	-1,661.9	-1,705.5	3,644.6	3,368.7	275.95	13.207	
11,515.7	6,773.4	6,774.4	6,774.4	140.7	135.9	-89.32	-1,661.9	-1,705.5	3,659.5	3,383.1	276.39	13.240	
11,600.0	6,773.1	6,774.1	6,774.1	143.0	135.9	-89.30	-1,661.9	-1,705.5	3,739.5	3,460.7	278.74	13.416	
11,614.1	6,773.0	6,774.0	6,774.0	143.4	135.9	-89.30	-1,661.9	-1,705.5	3,752.9	3,473.8	279.13	13.445	
11,700.0	6,772.7	6,773.7	6,773.7	145.8	135.9	-89.28	-1,661.9	-1,705.5	3,834.6	3,553.0	281.52	13.621	
11,712.6	6,772.6	6,773.6	6,773.6	146.2	135.8	-89.28	-1,661.9	-1,705.5	3,846.5	3,564.7	281.87	13.646	
11,800.0	6,772.3	6,773.3	6,773.3	148.6	135.8	-89.26	-1,661.9	-1,705.5	3,929.9	3,645.6	284.31	13.823	
11,811.0	6,772.2	6,773.2	6,773.2	148.9	135.8	-89.26	-1,661.9	-1,705.5	3,940.4	3,655.8	284.61	13.845	
11,900.0	6,771.9	6,772.9	6,772.9	151.4	135.8	-89.24	-1,661.9	-1,705.5	4,025.4	3,738.4	287.09	14.021	
11,909.4	6,771.8	6,772.8	6,772.8	151.7	135.8	-89.24	-1,661.9	-1,705.5	4,034.5	3,747.1	287.35	14.040	
12,000.0	6,771.5	6,772.5	6,772.5	154.2	135.8	-89.22	-1,661.9	-1,705.5	4,121.2	3,831.3	289.88	14.217	
12,007.8	6,771.4	6,772.4	6,772.4	154.4	135.8	-89.22	-1,661.9	-1,705.5	4,128.7	3,838.7	290.10	14.232	
12,100.0	6,771.1	6,772.1	6,772.1	157.0	135.8	-89.20	-1,661.9	-1,705.5	4,217.2	3,924.5	292.66	14.410	

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 SCHAUMBERG 17G-314
<b>Project:</b>	WELD COUNTY, COLORADO	<b>TVD Reference:</b>	KB-EST @ 4633.0usft (Original Well Elev)
<b>Reference Site:</b>	SW NW SEC. 17 T5N R64W 6th P.M.	<b>MD Reference:</b>	KB-EST @ 4633.0usft (Original Well Elev)
<b>Site Error:</b>	0.0 usft	<b>North Reference:</b>	True
<b>Reference Well:</b>	SCHAUMBERG 17G-314	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Well Error:</b>	0.0 usft	<b>Output errors are at</b>	2.00 sigma
<b>Reference Wellbore</b>	ORIGINAL WELLBORE	<b>Database:</b>	EDM 5000.1 Single User Db
<b>Reference Design:</b>	PROPOSAL #1	<b>Offset TVD Reference:</b>	Offset Datum

<b>Offset Design</b> NW SW SEC. 17 T5N R64W 6th P.M. - EXIST VERT HETTINGER #1 - Wellbore #1 - Design #1												<b>Offset Site Error:</b>	0.0 usft
Survey Program: 0-INC												<b>Offset Well Error:</b>	0.0 usft
Reference		Offset		Semi Major Axis			Distance						
Measured Depth (usft)	Vertical Depth (usft)	Measured Depth (usft)	Vertical Depth (usft)	Reference (usft)	Offset (usft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (usft)	+E/-W (usft)	Between Centres (usft)	Between Ellipses (usft)	Minimum Separation (usft)	Separation Factor	Warning
12,106.3	6,771.0	6,772.0	6,772.0	157.2	135.8	-89.20	-1,661.9	-1,705.5	4,223.2	3,930.4	292.84	14.422	
12,200.0	6,770.7	6,771.7	6,771.7	159.8	135.8	-89.18	-1,661.9	-1,705.5	4,313.3	4,017.9	295.45	14.599	
12,204.7	6,770.6	6,771.6	6,771.6	159.9	135.8	-89.18	-1,661.9	-1,705.5	4,317.9	4,022.3	295.58	14.608	
12,300.0	6,770.3	6,771.3	6,771.3	162.6	135.8	-89.16	-1,661.9	-1,705.5	4,409.7	4,111.4	298.24	14.786	
12,303.1	6,770.2	6,771.2	6,771.2	162.7	135.8	-89.16	-1,661.9	-1,705.5	4,412.7	4,114.3	298.32	14.791	
12,361.7	6,770.0	6,771.0	6,771.0	164.3	135.8	-89.14	-1,661.9	-1,705.5	4,469.2	4,169.2	299.96	14.899	



# Anticollision Report



<b>Company:</b>	PDC ENERGY	<b>Local Co-ordinate Reference:</b>	Well SCHAUMBERG 17G-314
<b>Project:</b>	WELD COUNTY, COLORADO	<b>TVD Reference:</b>	KB-EST @ 4633.0usft (Original Well Elev)
<b>Reference Site:</b>	SW NW SEC. 17 T5N R64W 6th P.M.	<b>MD Reference:</b>	KB-EST @ 4633.0usft (Original Well Elev)
<b>Site Error:</b>	0.0 usft	<b>North Reference:</b>	True
<b>Reference Well:</b>	SCHAUMBERG 17G-314	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Well Error:</b>	0.0 usft	<b>Output errors are at</b>	2.00 sigma
<b>Reference Wellbore</b>	ORIGINAL WELLBORE	<b>Database:</b>	EDM 5000.1 Single User Db
<b>Reference Design:</b>	PROPOSAL #1	<b>Offset TVD Reference:</b>	Offset Datum

Offset Design													Offset Site Error:	0.0 usft
Survey Program: 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	-120.43	-1,779.8	-3,029.9	3,514.0					
98.4	98.4	83.6	83.6	0.1	0.1	-120.43	-1,780.0	-3,029.9	3,514.1	3,513.9	0.18	N/A		
100.0	100.0	85.0	85.0	0.1	0.1	-120.43	-1,780.0	-3,029.9	3,514.1	3,513.9	0.18	N/A		
196.8	196.8	174.7	174.7	0.3	0.2	-120.44	-1,780.5	-3,030.1	3,514.5	3,514.0	0.52	6,792.160		
200.0	200.0	177.6	177.6	0.3	0.2	-120.44	-1,780.5	-3,030.1	3,514.5	3,514.0	0.53	6,650.158		
295.3	295.3	265.3	265.3	0.5	0.3	-120.45	-1,781.1	-3,030.3	3,515.1	3,514.2	0.83	4,241.558		
300.0	300.0	269.6	269.6	0.5	0.3	-120.45	-1,781.2	-3,030.3	3,515.1	3,514.3	0.84	4,169.522		
393.7	393.7	355.8	355.8	0.8	0.4	-120.45	-1,781.8	-3,030.8	3,515.9	3,514.8	1.12	3,152.523		
400.0	400.0	361.6	361.6	0.8	0.4	-120.45	-1,781.8	-3,030.8	3,515.9	3,514.8	1.13	3,102.844		
492.1	492.1	454.8	454.8	1.0	0.4	-120.45	-1,782.3	-3,031.6	3,516.9	3,515.5	1.40	2,514.939		
500.0	500.0	463.4	463.4	1.0	0.4	-120.45	-1,782.3	-3,031.7	3,516.9	3,515.5	1.42	2,474.382		
590.5	590.5	551.2	551.2	1.2	0.5	-120.45	-1,782.7	-3,032.4	3,517.7	3,516.0	1.68	2,099.038		
600.0	600.0	559.7	559.7	1.2	0.5	-120.45	-1,782.7	-3,032.5	3,517.8	3,516.1	1.70	2,067.040		
689.0	689.0	644.2	644.2	1.4	0.5	-120.45	-1,783.2	-3,033.2	3,518.8	3,516.8	1.95	1,806.894		
700.0	700.0	655.2	655.2	1.4	0.5	-120.45	-1,783.3	-3,033.3	3,518.9	3,516.9	1.98	1,779.060		
787.4	787.4	739.9	739.9	1.6	0.6	-120.45	-1,783.8	-3,034.2	3,519.9	3,517.7	2.22	1,587.415		
800.0	800.0	751.8	751.8	1.7	0.6	-120.45	-1,783.8	-3,034.3	3,520.1	3,517.8	2.25	1,563.434		
885.8	885.8	835.3	835.2	1.9	0.6	-120.45	-1,784.3	-3,035.3	3,521.2	3,518.7	2.48	1,417.286		
900.0	900.0	849.7	849.7	1.9	0.6	-120.45	-1,784.4	-3,035.5	3,521.4	3,518.8	2.52	1,395.664		
984.2	984.2	932.0	932.0	2.1	0.7	-120.45	-1,784.9	-3,036.4	3,522.4	3,519.7	2.75	1,280.757		
1,000.0	1,000.0	946.4	946.4	2.1	0.7	-120.45	-1,785.0	-3,036.5	3,522.7	3,519.9	2.79	1,261.635		
1,082.7	1,082.7	1,022.5	1,022.4	2.3	0.7	-120.45	-1,785.5	-3,037.6	3,523.9	3,520.9	3.01	1,170.069		
1,100.0	1,100.0	1,038.7	1,038.6	2.3	0.7	-120.45	-1,785.6	-3,037.8	3,524.2	3,521.1	3.06	1,152.589		
1,181.1	1,181.1	1,114.9	1,114.8	2.5	0.7	-120.44	-1,786.0	-3,039.0	3,525.5	3,522.2	3.27	1,077.305		
1,200.0	1,200.0	1,133.1	1,133.1	2.6	0.8	-120.44	-1,786.2	-3,039.3	3,525.8	3,522.5	3.32	1,061.169		
1,279.5	1,279.5	1,208.7	1,208.7	2.7	0.8	-120.44	-1,786.7	-3,040.6	3,527.3	3,523.7	3.53	998.446		
1,300.0	1,300.0	1,226.2	1,226.1	2.8	0.8	-120.44	-1,786.8	-3,040.9	3,527.7	3,524.1	3.59	983.759		
1,377.9	1,377.9	1,300.0	1,299.9	3.0	0.8	-120.43	-1,787.4	-3,042.4	3,529.3	3,525.5	3.79	930.926		
1,400.0	1,400.0	1,313.9	1,313.8	3.0	0.8	-120.43	-1,787.5	-3,042.7	3,529.8	3,526.0	3.85	917.729		
1,476.4	1,476.4	1,392.4	1,392.3	3.2	0.9	-120.43	-1,788.1	-3,044.4	3,531.6	3,527.5	4.05	872.221		
1,500.0	1,500.0	1,415.2	1,415.1	3.2	0.9	-120.43	-1,788.3	-3,044.9	3,532.1	3,528.0	4.11	859.215		
1,574.8	1,574.8	1,485.2	1,485.1	3.4	0.9	-120.42	-1,788.8	-3,046.5	3,533.8	3,529.5	4.31	820.732		
1,600.0	1,600.0	1,509.5	1,509.4	3.5	0.9	-120.42	-1,788.9	-3,047.1	3,534.4	3,530.1	4.37	808.512		
1,673.2	1,673.2	1,583.8	1,583.6	3.6	0.9	-120.41	-1,789.4	-3,048.9	3,536.2	3,531.6	4.56	774.862		
1,700.0	1,700.0	1,610.7	1,610.6	3.7	1.0	-120.41	-1,789.6	-3,049.5	3,536.8	3,532.2	4.63	763.280		
1,771.6	1,771.6	1,681.9	1,681.7	3.9	1.0	-120.40	-1,790.0	-3,051.2	3,538.6	3,533.7	4.82	734.043		
1,800.0	1,800.0	1,709.5	1,709.3	3.9	1.0	-120.40	-1,790.2	-3,051.9	3,539.2	3,534.3	4.89	723.124		
1,870.1	1,870.1	1,775.1	1,774.9	4.1	1.0	38.41	-1,790.7	-3,053.5	3,540.3	3,535.2	5.07	697.930		
1,900.0	1,900.0	1,804.0	1,803.8	4.1	1.0	38.42	-1,790.9	-3,054.2	3,540.4	3,535.2	5.14	688.553		
1,968.5	1,968.4	1,885.8	1,885.6	4.2	1.1	38.48	-1,791.4	-3,056.2	3,539.5	3,534.2	5.29	669.164		
2,000.0	1,999.8	1,920.2	1,919.9	4.3	1.1	38.52	-1,791.5	-3,057.0	3,538.6	3,533.2	5.36	660.690		
2,066.9	2,066.5	1,988.9	1,988.6	4.4	1.1	38.62	-1,791.6	-3,058.6	3,535.7	3,530.2	5.50	642.809		
2,100.0	2,099.5	2,025.0	2,024.6	4.5	1.1	38.69	-1,791.6	-3,059.4	3,533.8	3,528.3	5.57	634.223		
2,165.3	2,164.4	2,098.2	2,097.9	4.6	1.1	38.85	-1,791.5	-3,061.1	3,529.1	3,523.4	5.72	616.951		
2,200.0	2,198.7	2,140.5	2,140.1	4.7	1.2	38.96	-1,791.4	-3,062.0	3,526.1	3,520.3	5.80	608.055		
2,263.8	2,261.8	2,214.8	2,214.4	4.8	1.2	39.17	-1,791.0	-3,063.3	3,519.5	3,513.5	5.95	591.292		
2,300.0	2,297.5	2,250.4	2,250.0	4.9	1.2	39.30	-1,790.7	-3,064.0	3,515.2	3,509.1	6.04	582.421		
2,362.2	2,358.6	2,313.4	2,313.0	5.0	1.2	39.54	-1,790.3	-3,065.1	3,507.0	3,500.8	6.19	566.455		
2,400.0	2,395.6	2,357.1	2,356.7	5.1	1.2	39.71	-1,789.9	-3,065.8	3,501.5	3,495.2	6.29	557.065		
2,460.6	2,454.9	2,422.4	2,422.0	5.3	1.2	39.87	-1,789.3	-3,066.8	3,492.2	3,485.8	6.45	541.615		
2,500.0	2,493.4	2,459.9	2,459.5	5.4	1.3	39.97	-1,788.9	-3,067.4	3,486.2	3,479.7	6.55	532.249		
2,559.0	2,551.2	2,516.2	2,515.7	5.6	1.3	40.11	-1,788.4	-3,068.2	3,477.2	3,470.5	6.71	517.925		

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 SCHAUMBERG 17G-314
<b>Project:</b>	WELD COUNTY, COLORADO	<b>TVD Reference:</b>	KB-EST @ 4633.0usft (Original Well Elev)
<b>Reference Site:</b>	SW NW SEC. 17 T5N R64W 6th P.M.	<b>MD Reference:</b>	KB-EST @ 4633.0usft (Original Well Elev)
<b>Site Error:</b>	0.0 usft	<b>North Reference:</b>	True
<b>Reference Well:</b>	SCHAUMBERG 17G-314	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Well Error:</b>	0.0 usft	<b>Output errors are at</b>	2.00 sigma
<b>Reference Wellbore</b>	ORIGINAL WELLBORE	<b>Database:</b>	EDM 5000.1 Single User Db
<b>Reference Design:</b>	PROPOSAL #1	<b>Offset TVD Reference:</b>	Offset Datum

Offset Design NW SW SEC. 17 T5N R64W 6th P.M. - EXIST VERT HETTINGER #33-18 - 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		
2,600.0	2,591.3	2,555.3	2,554.9	5.7	1.3	40.21	-1,788.0	-3,068.9	3,471.0	3,464.2	6.83	508.557		
2,657.5	2,647.5	2,611.3	2,610.8	5.9	1.3	40.35	-1,787.4	-3,069.8	3,462.4	3,455.4	6.99	495.315		
2,700.0	2,689.1	2,655.9	2,655.4	6.0	1.3	40.46	-1,787.0	-3,070.4	3,455.9	3,448.8	7.11	485.737		
2,755.9	2,743.7	2,714.3	2,713.8	6.2	1.3	40.60	-1,786.5	-3,071.2	3,447.5	3,440.2	7.28	473.289		
2,800.0	2,786.9	2,760.0	2,759.5	6.4	1.3	40.72	-1,786.1	-3,071.8	3,440.7	3,433.3	7.42	463.888		
2,854.3	2,840.0	2,816.3	2,815.9	6.6	1.4	40.86	-1,785.6	-3,072.5	3,432.4	3,424.8	7.59	452.424		
2,900.0	2,884.7	2,864.0	2,863.5	6.7	1.4	40.98	-1,785.2	-3,073.0	3,425.4	3,417.7	7.73	443.202		
2,952.7	2,936.3	2,918.4	2,918.0	6.9	1.4	41.12	-1,784.7	-3,073.5	3,417.3	3,409.4	7.90	432.708		
3,000.0	2,982.5	2,966.2	2,965.7	7.1	1.4	41.24	-1,784.3	-3,073.9	3,410.0	3,402.0	8.05	423.724		
3,051.2	3,032.6	3,016.7	3,016.3	7.3	1.4	41.37	-1,783.9	-3,074.3	3,402.1	3,393.9	8.21	414.167		
3,100.0	3,080.3	3,062.9	3,062.4	7.5	1.4	41.48	-1,783.5	-3,074.7	3,394.6	3,386.2	8.37	405.450		
3,149.6	3,128.8	3,109.3	3,108.8	7.7	1.4	41.60	-1,783.1	-3,075.2	3,387.0	3,378.5	8.54	396.757		
3,200.0	3,178.1	3,154.9	3,154.4	7.9	1.4	41.72	-1,782.6	-3,075.6	3,379.4	3,370.7	8.70	388.283		
3,248.0	3,225.1	3,200.0	3,199.5	8.1	1.5	41.84	-1,782.2	-3,076.2	3,372.1	3,363.3	8.87	380.348		
3,300.0	3,276.0	3,249.9	3,249.4	8.3	1.5	41.97	-1,781.6	-3,076.8	3,364.3	3,355.3	9.04	372.075		
3,346.4	3,321.4	3,296.1	3,295.6	8.5	1.5	42.10	-1,781.0	-3,077.5	3,357.4	3,348.2	9.20	364.810		
3,400.0	3,373.8	3,345.5	3,345.0	8.7	1.5	42.24	-1,780.2	-3,078.3	3,349.4	3,340.0	9.39	356.797		
3,444.9	3,417.7	3,386.7	3,386.2	8.8	1.5	42.35	-1,779.5	-3,079.0	3,342.8	3,333.2	9.54	350.232		
3,500.0	3,471.6	3,440.8	3,440.2	9.1	1.5	42.50	-1,778.6	-3,079.9	3,334.7	3,324.9	9.74	342.420		
3,543.3	3,513.9	3,484.2	3,483.6	9.2	1.5	42.63	-1,777.9	-3,080.7	3,328.3	3,318.4	9.89	336.404		
3,600.0	3,569.4	3,540.4	3,539.8	9.5	1.6	42.79	-1,777.0	-3,081.6	3,320.0	3,309.9	10.10	328.839		
3,641.7	3,610.2	3,581.7	3,581.1	9.7	1.6	42.90	-1,776.4	-3,082.2	3,313.9	3,303.6	10.25	323.332		
3,700.0	3,667.2	3,638.0	3,637.4	9.9	1.6	43.06	-1,775.7	-3,083.0	3,305.3	3,294.9	10.46	315.948		
3,740.1	3,706.5	3,676.3	3,675.7	10.1	1.6	43.17	-1,775.2	-3,083.6	3,299.5	3,288.9	10.61	311.003		
3,800.0	3,765.0	3,735.5	3,734.9	10.3	1.6	43.33	-1,774.5	-3,084.5	3,290.8	3,280.0	10.83	303.852		
3,838.6	3,802.8	3,774.6	3,774.0	10.5	1.6	43.44	-1,774.1	-3,085.0	3,285.2	3,274.2	10.97	299.341		
3,900.0	3,862.8	3,838.0	3,837.3	10.7	1.6	43.62	-1,773.4	-3,085.8	3,276.3	3,265.1	11.21	292.380		
3,937.0	3,899.0	3,876.6	3,876.0	10.9	1.7	43.73	-1,772.9	-3,086.3	3,270.9	3,259.5	11.35	288.286		
4,000.0	3,960.7	3,937.0	3,936.3	11.2	1.7	43.90	-1,772.2	-3,087.0	3,261.7	3,250.1	11.58	281.582		
4,035.4	3,995.3	3,969.3	3,968.6	11.3	1.7	43.99	-1,771.8	-3,087.4	3,256.5	3,244.8	11.72	277.923		
4,100.0	4,058.5	4,030.4	4,029.8	11.6	1.7	44.16	-1,771.2	-3,088.2	3,247.2	3,235.3	11.96	271.436		
4,133.8	4,091.6	4,063.8	4,063.1	11.7	1.7	44.26	-1,770.9	-3,088.6	3,242.4	3,230.3	12.09	268.104		
4,200.0	4,156.3	4,122.4	4,121.7	12.0	1.7	44.42	-1,770.3	-3,089.3	3,232.9	3,220.6	12.35	261.843		
4,232.3	4,187.9	4,147.0	4,146.4	12.2	1.7	44.49	-1,770.1	-3,089.7	3,228.4	3,216.0	12.47	258.901		
4,300.0	4,254.1	4,200.0	4,199.3	12.5	1.8	44.65	-1,769.6	-3,090.8	3,219.2	3,206.5	12.73	252.912		
4,325.7	4,279.2	4,216.8	4,216.1	12.6	1.8	44.70	-1,769.4	-3,091.2	3,215.8	3,203.0	12.83	250.727		
4,330.7	4,284.1	4,220.3	4,219.6	12.6	1.8	44.70	-1,769.3	-3,091.2	3,215.2	3,202.3	12.84	250.362		
4,400.0	4,352.1	4,269.0	4,268.3	12.8	1.8	44.72	-1,768.8	-3,092.7	3,207.0	3,193.9	13.06	245.491		
4,429.1	4,380.8	4,300.0	4,299.3	12.9	1.8	44.77	-1,768.4	-3,093.7	3,204.1	3,190.9	13.15	243.702		
4,500.0	4,450.7	4,339.9	4,339.2	13.1	1.8	44.78	-1,767.9	-3,095.3	3,198.1	3,184.7	13.34	239.763		
4,527.5	4,478.0	4,359.6	4,358.8	13.2	1.8	44.80	-1,767.7	-3,096.2	3,196.2	3,182.8	13.41	238.360		
4,600.0	4,549.9	4,400.0	4,399.2	13.4	1.8	44.84	-1,767.2	-3,098.1	3,192.6	3,179.0	13.59	234.897		
4,626.0	4,575.7	4,428.0	4,427.2	13.5	1.8	44.88	-1,766.9	-3,099.5	3,191.7	3,178.0	13.66	233.697		
4,700.0	4,649.4	4,477.5	4,476.6	13.6	1.9	44.95	-1,766.4	-3,102.3	3,190.5	3,176.6	13.83	230.632		
4,708.8	4,658.2	4,483.5	4,482.5	13.7	1.9	44.96	-1,766.4	-3,102.7	3,190.5	3,176.6	13.85	230.312		
4,724.4	4,673.7	4,500.0	4,499.0	13.7	1.9	44.98	-1,766.3	-3,103.7	3,190.5	3,176.6	13.89	229.714		
4,800.0	4,749.2	4,548.8	4,547.7	13.8	1.9	45.06	-1,766.1	-3,107.0	3,191.9	3,177.8	14.05	227.103		
4,822.8	4,772.0	4,565.6	4,564.4	13.9	1.9	45.09	-1,766.0	-3,108.1	3,192.7	3,178.6	14.10	226.417		
4,900.0	4,849.2	4,636.3	4,634.9	14.0	1.9	45.20	-1,765.9	-3,113.3	3,196.5	3,182.3	14.26	224.122		
4,921.2	4,870.4	4,661.7	4,660.3	14.1	1.9	45.24	-1,765.8	-3,115.1	3,197.8	3,183.5	14.31	223.515		
4,925.6	4,874.8	4,666.9	4,665.5	14.1	1.9	-113.56	-1,765.7	-3,115.5	3,198.1	3,184.0	14.07	227.258		
5,000.0	4,949.2	4,796.4	4,794.7	14.2	2.0	-113.49	-1,764.9	-3,123.8	3,202.4	3,188.2	14.22	225.185		

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 SCHAUMBERG 17G-314
<b>Project:</b>	WELD COUNTY, COLORADO	<b>TVD Reference:</b>	KB-EST @ 4633.0usft (Original Well Elev)
<b>Reference Site:</b>	SW NW SEC. 17 T5N R64W 6th P.M.	<b>MD Reference:</b>	KB-EST @ 4633.0usft (Original Well Elev)
<b>Site Error:</b>	0.0 usft	<b>North Reference:</b>	True
<b>Reference Well:</b>	SCHAUMBERG 17G-314	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Well Error:</b>	0.0 usft	<b>Output errors are at</b>	2.00 sigma
<b>Reference Wellbore</b>	ORIGINAL WELLBORE	<b>Database:</b>	EDM 5000.1 Single User Db
<b>Reference Design:</b>	PROPOSAL #1	<b>Offset TVD Reference:</b>	Offset Datum

Offset Design NW SW SEC. 17 T5N R64W 6th P.M. - EXIST VERT HETTINGER #33-18 - 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		
5,019.7	4,968.8	4,823.2	4,821.5	14.2	2.0	-113.48	-1,764.8	-3,125.2	3,203.3	3,189.0	14.26	224.647		
5,100.0	5,049.2	4,925.5	4,923.6	14.3	2.0	-113.44	-1,764.5	-3,129.9	3,206.6	3,192.1	14.41	222.470		
5,118.1	5,067.3	4,947.4	4,945.6	14.3	2.0	-113.43	-1,764.5	-3,130.8	3,207.2	3,192.8	14.45	221.979		
5,200.0	5,149.2	5,059.5	5,057.6	14.5	2.1	-113.40	-1,764.3	-3,134.9	3,209.9	3,195.3	14.61	219.729		
5,216.5	5,165.7	5,085.1	5,083.1	14.5	2.1	-113.39	-1,764.3	-3,135.6	3,210.3	3,195.7	14.64	219.260		
5,300.0	5,249.2	5,199.2	5,197.3	14.6	2.1	-113.38	-1,764.4	-3,137.9	3,211.9	3,197.1	14.81	216.939		
5,314.9	5,264.1	5,219.4	5,217.5	14.6	2.1	-113.38	-1,764.4	-3,138.2	3,212.1	3,197.3	14.83	216.541		
5,400.0	5,349.2	5,325.2	5,323.2	14.8	2.1	-113.38	-1,764.9	-3,139.0	3,212.9	3,197.9	14.99	214.304		
5,413.4	5,362.5	5,338.5	5,336.5	14.8	2.1	-113.38	-1,765.0	-3,139.1	3,213.0	3,197.9	15.02	213.965		
5,500.0	5,449.2	5,422.8	5,420.8	14.9	2.2	-113.39	-1,765.6	-3,139.4	3,213.5	3,198.4	15.17	211.797		
5,511.8	5,461.0	5,433.8	5,431.8	14.9	2.2	-113.39	-1,765.8	-3,139.4	3,213.6	3,198.4	15.19	211.507		
5,600.0	5,549.2	5,518.3	5,516.3	15.1	2.2	-113.41	-1,767.0	-3,139.7	3,214.4	3,199.0	15.35	209.361		
5,610.2	5,559.4	5,529.3	5,527.3	15.1	2.2	-113.41	-1,767.2	-3,139.7	3,214.5	3,199.1	15.37	209.115		
5,700.0	5,649.2	5,625.8	5,623.8	15.2	2.2	-113.44	-1,769.0	-3,139.7	3,215.1	3,199.6	15.53	206.961		
5,708.6	5,657.8	5,635.1	5,633.1	15.3	2.2	-113.45	-1,769.2	-3,139.7	3,215.2	3,199.6	15.55	206.755		
5,800.0	5,749.2	5,736.4	5,734.4	15.4	2.2	-113.47	-1,770.6	-3,139.6	3,215.6	3,199.9	15.72	204.621		
5,807.1	5,756.2	5,744.6	5,742.6	15.4	2.2	-113.47	-1,770.7	-3,139.6	3,215.6	3,199.9	15.73	204.453		
5,900.0	5,849.2	5,844.2	5,842.2	15.6	2.2	-113.49	-1,771.9	-3,139.2	3,215.7	3,199.8	15.90	202.214		
5,905.5	5,854.7	5,849.6	5,847.5	15.6	2.2	-113.49	-1,771.9	-3,139.2	3,215.7	3,199.8	15.91	202.084		
6,000.0	5,949.2	5,947.9	5,945.8	15.7	2.2	-113.51	-1,773.0	-3,138.8	3,215.8	3,199.7	16.09	199.896		
6,003.9	5,953.1	5,952.3	5,950.2	15.7	2.2	-113.51	-1,773.0	-3,138.7	3,215.8	3,199.7	16.09	199.805		
6,100.0	6,049.2	6,053.2	6,051.2	15.9	2.2	-113.53	-1,773.6	-3,138.3	3,215.6	3,199.3	16.27	197.589		
6,102.3	6,051.5	6,055.6	6,053.5	15.9	2.2	-113.53	-1,773.6	-3,138.3	3,215.6	3,199.3	16.28	197.535		
6,124.6	6,073.8	6,077.8	6,075.7	15.9	2.2	-113.53	-1,773.7	-3,138.2	3,215.6	3,199.2	16.32	197.025		
6,150.0	6,099.2	6,103.1	6,101.1	16.0	2.2	-23.55	-1,773.8	-3,138.1	3,215.1	3,198.3	16.78	191.564		
6,200.0	6,149.0	6,154.7	6,152.6	16.1	2.2	-23.69	-1,774.1	-3,137.8	3,211.7	3,194.8	16.90	190.024		
6,200.8	6,149.8	6,155.5	6,153.4	16.1	2.2	-23.69	-1,774.1	-3,137.8	3,211.7	3,194.8	16.90	189.999		
6,250.0	6,198.5	6,205.4	6,203.3	16.2	2.2	-23.96	-1,774.4	-3,137.5	3,205.2	3,188.2	17.02	188.343		
6,299.2	6,246.6	6,251.4	6,249.3	16.3	2.2	-24.35	-1,774.5	-3,137.3	3,195.7	3,178.6	17.12	186.637		
6,300.0	6,247.4	6,252.1	6,250.1	16.3	2.2	-24.36	-1,774.5	-3,137.3	3,195.5	3,178.4	17.12	186.608		
6,350.0	6,295.5	6,300.0	6,298.0	16.5	2.2	-24.91	-1,774.6	-3,137.2	3,182.8	3,165.6	17.22	184.874		
6,397.6	6,340.2	6,342.5	6,340.4	16.6	2.2	-25.56	-1,774.6	-3,137.1	3,167.9	3,150.6	17.28	183.294		
6,400.0	6,342.4	6,344.7	6,342.6	16.6	2.2	-25.60	-1,774.6	-3,137.1	3,167.1	3,149.8	17.29	183.217		
6,450.0	6,388.1	6,390.0	6,388.0	16.8	2.2	-26.46	-1,774.7	-3,137.0	3,148.4	3,131.1	17.33	181.657		
6,496.0	6,428.8	6,431.8	6,429.8	17.0	2.2	-27.44	-1,774.7	-3,136.9	3,128.7	3,111.3	17.35	180.278		
6,500.0	6,432.2	6,435.4	6,433.3	17.0	2.2	-27.53	-1,774.7	-3,136.9	3,126.9	3,109.5	17.36	180.162		
6,550.0	6,474.6	6,479.4	6,477.3	17.3	2.2	-28.81	-1,774.8	-3,136.8	3,102.6	3,085.3	17.37	178.662		
6,594.5	6,510.7	6,515.9	6,513.9	17.5	2.2	-30.15	-1,774.9	-3,136.6	3,078.9	3,061.5	17.37	177.204		
6,600.0	6,515.0	6,520.2	6,518.2	17.6	2.2	-30.33	-1,774.9	-3,136.6	3,075.8	3,058.4	17.38	177.014		
6,650.0	6,553.3	6,557.9	6,555.8	17.9	2.2	-32.12	-1,775.0	-3,136.5	3,046.5	3,029.1	17.41	174.984		
6,692.9	6,584.3	6,588.4	6,586.3	18.2	2.2	-33.91	-1,775.0	-3,136.3	3,019.6	3,002.1	17.49	172.686		
6,700.0	6,589.2	6,593.3	6,591.2	18.2	2.2	-34.23	-1,775.0	-3,136.3	3,015.0	2,997.4	17.50	172.255		
6,750.0	6,622.7	6,627.2	6,625.1	18.6	2.1	-36.73	-1,775.1	-3,136.2	2,981.3	2,963.6	17.70	168.445		
6,791.3	6,648.3	6,653.3	6,651.3	19.0	2.1	-39.12	-1,775.2	-3,136.1	2,952.0	2,934.0	17.98	164.222		
6,800.0	6,653.4	6,658.6	6,656.5	19.1	2.1	-39.66	-1,775.2	-3,136.1	2,945.7	2,927.7	18.05	163.231		
6,850.0	6,681.4	6,687.0	6,685.0	19.6	2.1	-43.09	-1,775.2	-3,136.0	2,908.4	2,889.8	18.59	156.457		
6,889.7	6,701.5	6,707.0	6,704.9	20.1	2.1	-46.20	-1,775.2	-3,135.9	2,877.6	2,858.4	19.18	150.017		
6,900.0	6,706.3	6,711.6	6,709.5	20.2	2.1	-47.06	-1,775.2	-3,135.9	2,869.5	2,850.2	19.35	148.278		
6,950.0	6,728.2	6,732.2	6,730.2	20.9	2.1	-51.63	-1,775.3	-3,135.8	2,829.4	2,809.0	20.33	139.158		
6,988.2	6,742.8	6,745.9	6,743.9	21.5	2.1	-55.55	-1,775.3	-3,135.7	2,797.9	2,776.7	21.21	131.937		
7,000.0	6,746.9	6,749.8	6,747.8	21.6	2.1	-56.85	-1,775.3	-3,135.7	2,788.1	2,766.6	21.49	129.757		
7,050.0	6,762.4	6,764.3	6,762.2	22.5	2.1	-62.72	-1,775.4	-3,135.7	2,746.0	2,723.2	22.74	120.776		

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 SCHAUMBERG 17G-314
<b>Project:</b>	WELD COUNTY, COLORADO	<b>TVD Reference:</b>	KB-EST @ 4633.0usft (Original Well Elev)
<b>Reference Site:</b>	SW NW SEC. 17 T5N R64W 6th P.M.	<b>MD Reference:</b>	KB-EST @ 4633.0usft (Original Well Elev)
<b>Site Error:</b>	0.0 usft	<b>North Reference:</b>	True
<b>Reference Well:</b>	SCHAUMBERG 17G-314	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Well Error:</b>	0.0 usft	<b>Output errors are at</b>	2.00 sigma
<b>Reference Wellbore</b>	ORIGINAL WELLBORE	<b>Database:</b>	EDM 5000.1 Single User Db
<b>Reference Design:</b>	PROPOSAL #1	<b>Offset TVD Reference:</b>	Offset Datum

Offset Design NW SW SEC. 17 T5N R64W 6th P.M. - EXIST VERT HETTINGER #33-18 - Wellbore #1 - Wellbore #1													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	
7,086.6	6,771.5	6,772.9	6,770.8	23.1	2.1	-67.39	-1,775.4	-3,135.6	2,714.7	2,691.0	23.65	114.771		
7,100.0	6,774.4	6,775.6	6,773.5	23.3	2.1	-69.16	-1,775.4	-3,135.6	2,703.2	2,679.2	23.97	112.762		
7,150.0	6,783.1	6,783.6	6,781.6	24.3	2.1	-76.04	-1,775.5	-3,135.6	2,659.9	2,634.8	25.10	105.975		
7,185.0	6,787.1	6,787.3	6,785.2	25.0	2.1	-81.00	-1,775.5	-3,135.6	2,629.5	2,603.7	25.81	101.880		
7,200.0	6,788.3	6,788.4	6,786.3	25.3	2.1	-83.13	-1,775.5	-3,135.6	2,616.5	2,590.4	26.09	100.273		
7,252.3	6,790.0	6,789.8	6,787.7	26.3	2.1	-90.50	-1,775.5	-3,135.5	2,571.1	2,544.0	27.09	94.899		
7,283.4	6,789.9	6,789.5	6,787.5	27.0	2.1	-90.49	-1,775.5	-3,135.5	2,544.2	2,516.4	27.78	91.569		
7,300.0	6,789.8	6,789.4	6,787.4	27.3	2.1	-90.48	-1,775.5	-3,135.5	2,529.9	2,501.8	28.15	89.866		
7,381.9	6,789.5	6,788.8	6,786.8	29.1	2.1	-90.45	-1,775.5	-3,135.5	2,459.8	2,429.7	30.03	81.898		
7,400.0	6,789.4	6,788.7	6,786.6	29.5	2.1	-90.45	-1,775.5	-3,135.6	2,444.3	2,413.9	30.45	80.270		
7,480.3	6,789.1	6,788.1	6,786.0	31.4	2.1	-90.42	-1,775.5	-3,135.6	2,376.4	2,344.0	32.36	73.426		
7,500.0	6,789.1	6,787.9	6,785.9	31.8	2.1	-90.41	-1,775.5	-3,135.6	2,359.9	2,327.0	32.83	71.872		
7,578.7	6,788.8	6,787.3	6,785.3	33.7	2.1	-90.39	-1,775.5	-3,135.6	2,294.2	2,259.5	34.76	65.997		
7,600.0	6,788.7	6,787.2	6,785.1	34.2	2.1	-90.38	-1,775.5	-3,135.6	2,276.7	2,241.4	35.28	64.524		
7,677.1	6,788.4	6,786.6	6,784.6	36.1	2.1	-90.36	-1,775.5	-3,135.6	2,213.4	2,176.2	37.21	59.477		
7,700.0	6,788.3	6,786.4	6,784.4	36.7	2.1	-90.35	-1,775.5	-3,135.6	2,194.8	2,157.1	37.79	58.086		
7,775.6	6,788.0	6,785.9	6,783.8	38.6	2.1	-90.32	-1,775.5	-3,135.6	2,134.1	2,094.3	39.71	53.742		
7,800.0	6,787.9	6,785.7	6,783.6	39.2	2.1	-90.32	-1,775.5	-3,135.6	2,114.6	2,074.3	40.33	52.432		
7,874.0	6,787.6	6,785.1	6,783.1	41.0	2.1	-90.29	-1,775.5	-3,135.6	2,056.3	2,014.1	42.24	48.683		
7,900.0	6,787.6	6,784.9	6,782.9	41.7	2.1	-90.28	-1,775.5	-3,135.6	2,036.1	1,993.2	42.91	47.451		
7,972.4	6,787.3	6,784.4	6,782.3	43.6	2.1	-90.26	-1,775.5	-3,135.6	1,980.5	1,935.7	44.80	44.208		
8,000.0	6,787.2	6,784.2	6,782.1	44.3	2.1	-90.25	-1,775.5	-3,135.6	1,959.6	1,914.1	45.52	43.051		
8,070.8	6,786.9	6,783.6	6,781.6	46.1	2.1	-90.22	-1,775.5	-3,135.6	1,906.7	1,859.3	47.38	40.240		
8,100.0	6,786.8	6,783.4	6,781.4	46.9	2.1	-90.22	-1,775.5	-3,135.6	1,885.2	1,837.1	48.15	39.154		
8,169.3	6,786.5	6,782.9	6,780.8	48.7	2.1	-90.19	-1,775.5	-3,135.6	1,835.2	1,785.2	49.99	36.713		
8,200.0	6,786.4	6,782.7	6,780.6	49.5	2.1	-90.18	-1,775.5	-3,135.6	1,813.4	1,762.6	50.80	35.696		
8,267.7	6,786.1	6,782.1	6,780.1	51.3	2.1	-90.16	-1,775.5	-3,135.6	1,766.3	1,713.7	52.61	33.575		
8,300.0	6,786.0	6,781.9	6,779.9	52.1	2.1	-90.15	-1,775.5	-3,135.6	1,744.3	1,690.8	53.47	32.622		
8,366.1	6,785.8	6,781.4	6,779.4	53.9	2.1	-90.13	-1,775.5	-3,135.6	1,700.3	1,645.1	55.24	30.778		
8,400.0	6,785.6	6,781.1	6,779.1	54.8	2.1	-90.12	-1,775.5	-3,135.6	1,678.3	1,622.2	56.15	29.889		
8,464.5	6,785.4	6,780.7	6,778.6	56.5	2.1	-90.09	-1,775.5	-3,135.6	1,637.6	1,579.7	57.89	28.286		
8,500.0	6,785.3	6,780.4	6,778.3	57.5	2.1	-90.08	-1,775.5	-3,135.6	1,615.8	1,557.0	58.85	27.458		
8,563.0	6,785.0	6,779.9	6,777.9	59.2	2.1	-90.06	-1,775.5	-3,135.6	1,578.5	1,517.9	60.55	26.068		
8,600.0	6,784.9	6,779.6	6,777.6	60.2	2.1	-90.05	-1,775.5	-3,135.6	1,557.3	1,495.7	61.55	25.300		
8,661.4	6,784.6	6,779.2	6,777.1	61.8	2.1	-90.03	-1,775.5	-3,135.6	1,523.5	1,460.3	63.22	24.098		
8,700.0	6,784.5	6,778.9	6,776.8	62.9	2.1	-90.01	-1,775.5	-3,135.6	1,503.1	1,438.8	64.27	23.388		
8,759.8	6,784.3	6,778.4	6,776.4	64.5	2.1	-89.99	-1,775.5	-3,135.6	1,473.0	1,407.1	65.90	22.353		
8,800.0	6,784.1	6,778.1	6,776.1	65.6	2.1	-89.98	-1,775.5	-3,135.6	1,453.8	1,386.8	66.99	21.701		
8,858.2	6,783.9	6,777.7	6,775.6	67.1	2.1	-89.96	-1,775.5	-3,135.6	1,427.5	1,358.9	68.58	20.815		
8,900.0	6,783.7	6,777.3	6,775.3	68.3	2.1	-89.95	-1,775.5	-3,135.6	1,409.9	1,340.1	69.72	20.221		
8,956.7	6,783.5	6,776.9	6,774.9	69.8	2.1	-89.93	-1,775.5	-3,135.6	1,387.5	1,316.3	71.27	19.468		
9,000.0	6,783.3	6,776.6	6,774.6	71.0	2.1	-89.91	-1,775.5	-3,135.6	1,371.8	1,299.4	72.46	18.933		
9,055.1	6,783.1	6,776.2	6,774.1	72.5	2.1	-89.90	-1,775.5	-3,135.6	1,353.6	1,279.6	73.97	18.299		
9,100.0	6,782.9	6,775.8	6,773.8	73.7	2.1	-89.88	-1,775.4	-3,135.6	1,340.2	1,265.0	75.20	17.822		
9,153.5	6,782.7	6,775.4	6,773.4	75.2	2.1	-89.86	-1,775.4	-3,135.6	1,326.0	1,249.4	76.67	17.295		
9,200.0	6,782.6	6,775.1	6,773.0	76.5	2.1	-89.85	-1,775.4	-3,135.6	1,315.4	1,237.5	77.95	16.875		
9,251.9	6,782.4	6,774.7	6,772.6	77.9	2.1	-89.83	-1,775.4	-3,135.6	1,305.4	1,226.0	79.38	16.445		
9,300.0	6,782.2	6,774.3	6,772.3	79.2	2.1	-89.81	-1,775.4	-3,135.6	1,297.9	1,217.2	80.70	16.083		
9,350.4	6,782.0	6,773.9	6,771.9	80.6	2.1	-89.80	-1,775.4	-3,135.6	1,291.9	1,209.8	82.09	15.738		
9,400.0	6,781.8	6,773.5	6,771.5	82.0	2.1	-89.78	-1,775.4	-3,135.6	1,287.9	1,204.4	83.45	15.432		
9,448.8	6,781.6	6,773.2	6,771.1	83.3	2.1	-89.76	-1,775.4	-3,135.6	1,285.8	1,201.0	84.80	15.163		
9,479.1	6,781.5	6,772.9	6,770.9	84.1	2.1	-89.75	-1,775.4	-3,135.6	1,285.5	1,199.8	85.64	15.011 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 SCHAUMBERG 17G-314
<b>Project:</b>	WELD COUNTY, COLORADO	<b>TVD Reference:</b>	KB-EST @ 4633.0usft (Original Well Elev)
<b>Reference Site:</b>	SW NW SEC. 17 T5N R64W 6th P.M.	<b>MD Reference:</b>	KB-EST @ 4633.0usft (Original Well Elev)
<b>Site Error:</b>	0.0 usft	<b>North Reference:</b>	True
<b>Reference Well:</b>	SCHAUMBERG 17G-314	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Well Error:</b>	0.0 usft	<b>Output errors are at</b>	2.00 sigma
<b>Reference Wellbore</b>	ORIGINAL WELLBORE	<b>Database:</b>	EDM 5000.1 Single User Db
<b>Reference Design:</b>	PROPOSAL #1	<b>Offset TVD Reference:</b>	Offset Datum

Offset Design NW SW SEC. 17 T5N R64W 6th P.M. - EXIST VERT HETTINGER #33-18 - Wellbore #1 - Wellbore #1													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	
9,500.0	6,781.4	6,772.8	6,770.7	84.7	2.1	-89.74	-1,775.4	-3,135.6	1,285.6	1,199.4	86.21	14.912	ES	
9,547.2	6,781.2	6,772.4	6,770.4	86.0	2.1	-89.73	-1,775.4	-3,135.6	1,287.3	1,199.7	87.52	14.708		
9,600.0	6,781.0	6,772.0	6,770.0	87.5	2.1	-89.71	-1,775.4	-3,135.6	1,291.1	1,202.2	88.98	14.511		
9,645.6	6,780.8	6,771.7	6,769.6	88.7	2.1	-89.70	-1,775.4	-3,135.6	1,296.2	1,206.0	90.24	14.364		
9,700.0	6,780.6	6,771.3	6,769.2	90.2	2.1	-89.68	-1,775.4	-3,135.6	1,304.3	1,212.6	91.74	14.217		
9,744.1	6,780.4	6,770.9	6,768.9	91.4	2.1	-89.66	-1,775.4	-3,135.6	1,312.5	1,219.5	92.96	14.119		
9,800.0	6,780.2	6,770.5	6,768.5	93.0	2.1	-89.64	-1,775.4	-3,135.6	1,324.9	1,230.4	94.51	14.019		
9,842.5	6,780.1	6,770.2	6,768.1	94.2	2.1	-89.63	-1,775.4	-3,135.6	1,335.8	1,240.1	95.69	13.960		
9,900.0	6,779.8	6,769.7	6,767.7	95.7	2.1	-89.61	-1,775.4	-3,135.6	1,352.6	1,255.3	97.28	13.904		
9,940.9	6,779.7	6,769.4	6,767.4	96.9	2.1	-89.59	-1,775.4	-3,135.6	1,365.9	1,267.5	98.42	13.879		
10,000.0	6,779.4	6,769.0	6,766.9	98.5	2.1	-89.57	-1,775.4	-3,135.6	1,387.0	1,286.9	100.05	13.862	SF	
10,039.3	6,779.3	6,768.7	6,766.6	99.6	2.1	-89.56	-1,775.4	-3,135.6	1,402.2	1,301.1	101.15	13.864		
10,100.0	6,779.0	6,768.2	6,766.2	101.3	2.1	-89.54	-1,775.4	-3,135.6	1,427.6	1,324.7	102.83	13.883		
10,137.8	6,778.9	6,767.9	6,765.9	102.3	2.1	-89.53	-1,775.4	-3,135.6	1,444.4	1,340.5	103.88	13.905		
10,200.0	6,778.7	6,767.4	6,765.4	104.1	2.1	-89.51	-1,775.4	-3,135.6	1,473.8	1,368.2	105.60	13.956		
10,236.2	6,778.5	6,767.2	6,765.1	105.1	2.1	-89.49	-1,775.4	-3,135.6	1,491.8	1,385.2	106.61	13.993		
10,300.0	6,778.3	6,766.7	6,764.6	106.8	2.1	-89.47	-1,775.4	-3,135.6	1,525.2	1,416.8	108.38	14.072		
10,334.6	6,778.1	6,766.4	6,764.4	107.8	2.1	-89.46	-1,775.4	-3,135.6	1,544.1	1,434.8	109.35	14.121		
10,400.0	6,777.9	6,765.9	6,763.9	109.6	2.1	-89.44	-1,775.4	-3,135.6	1,581.3	1,470.1	111.16	14.225		
10,433.0	6,777.7	6,765.6	6,763.6	110.5	2.1	-89.43	-1,775.4	-3,135.6	1,600.7	1,488.7	112.08	14.282		
10,500.0	6,777.5	6,765.1	6,763.1	112.4	2.1	-89.40	-1,775.4	-3,135.6	1,641.5	1,527.6	113.94	14.406		
10,531.5	6,777.3	6,764.9	6,762.8	113.3	2.1	-89.39	-1,775.4	-3,135.6	1,661.3	1,546.5	114.82	14.469		
10,600.0	6,777.1	6,764.4	6,762.3	115.2	2.1	-89.37	-1,775.4	-3,135.7	1,705.5	1,588.8	116.73	14.611		
10,629.9	6,777.0	6,764.1	6,762.1	116.0	2.1	-89.36	-1,775.4	-3,135.7	1,725.3	1,607.7	117.56	14.676		
10,700.0	6,776.7	6,763.6	6,761.6	117.9	2.1	-89.33	-1,775.4	-3,135.7	1,772.8	1,653.3	119.51	14.834		
10,728.3	6,776.6	6,763.4	6,761.3	118.7	2.1	-89.32	-1,775.4	-3,135.7	1,792.5	1,672.2	120.30	14.900		
10,800.0	6,776.3	6,762.8	6,760.8	120.7	2.1	-89.30	-1,775.4	-3,135.7	1,843.1	1,720.8	122.30	15.071		
10,826.7	6,776.2	6,762.6	6,760.6	121.5	2.1	-89.29	-1,775.4	-3,135.7	1,862.4	1,739.3	123.04	15.136		
10,900.0	6,775.9	6,762.1	6,760.0	123.5	2.1	-89.26	-1,775.4	-3,135.7	1,916.1	1,791.0	125.08	15.318		
10,925.2	6,775.8	6,761.9	6,759.8	124.2	2.1	-89.25	-1,775.4	-3,135.7	1,934.8	1,809.0	125.78	15.382		
11,000.0	6,775.5	6,761.3	6,759.2	126.3	2.1	-89.23	-1,775.4	-3,135.7	1,991.3	1,863.5	127.87	15.573		
11,023.6	6,775.4	6,761.1	6,759.1	126.9	2.1	-89.22	-1,775.4	-3,135.7	2,009.4	1,880.9	128.53	15.634		
11,100.0	6,775.1	6,760.5	6,758.5	129.1	2.1	-89.19	-1,775.4	-3,135.7	2,068.7	1,938.1	130.66	15.833		
11,122.0	6,775.0	6,760.3	6,758.3	129.7	2.1	-89.19	-1,775.4	-3,135.7	2,086.0	1,954.7	131.27	15.891		
11,200.0	6,774.7	6,759.7	6,757.7	131.9	2.1	-89.16	-1,775.4	-3,135.7	2,148.0	2,014.5	133.45	16.096		
11,220.4	6,774.6	6,759.6	6,757.5	132.4	2.1	-89.15	-1,775.4	-3,135.7	2,164.4	2,030.4	134.02	16.150		
11,300.0	6,774.3	6,759.0	6,756.9	134.6	2.1	-89.12	-1,775.4	-3,135.7	2,228.9	2,092.6	136.24	16.360		
11,318.9	6,774.2	6,758.8	6,756.8	135.2	2.1	-89.12	-1,775.4	-3,135.7	2,244.3	2,107.6	136.76	16.410		
11,400.0	6,773.9	6,758.2	6,756.1	137.4	2.1	-89.09	-1,775.4	-3,135.7	2,311.3	2,172.3	139.03	16.625		
11,417.3	6,773.8	6,758.1	6,756.0	137.9	2.1	-89.08	-1,775.4	-3,135.7	2,325.7	2,186.2	139.51	16.670		
11,500.0	6,773.5	6,757.4	6,755.4	140.2	2.1	-89.05	-1,775.4	-3,135.7	2,395.0	2,253.2	141.82	16.888		
11,515.7	6,773.4	6,757.3	6,755.3	140.7	2.1	-89.05	-1,775.4	-3,135.7	2,408.3	2,266.1	142.26	16.929		
11,600.0	6,773.1	6,756.6	6,754.6	143.0	2.1	-89.02	-1,775.4	-3,135.7	2,480.0	2,335.4	144.61	17.150		
11,614.1	6,773.0	6,756.5	6,754.5	143.4	2.1	-89.01	-1,775.4	-3,135.7	2,492.1	2,347.1	145.00	17.186		
11,700.0	6,772.7	6,755.9	6,753.8	145.8	2.1	-88.98	-1,775.4	-3,135.7	2,566.0	2,418.6	147.40	17.408		
11,712.6	6,772.6	6,755.8	6,753.7	146.2	2.1	-88.98	-1,775.4	-3,135.7	2,576.9	2,429.2	147.75	17.441		
11,800.0	6,772.3	6,755.1	6,753.1	148.6	2.1	-88.95	-1,775.4	-3,135.7	2,653.1	2,502.9	150.19	17.664		
11,811.0	6,772.2	6,755.0	6,753.0	148.9	2.1	-88.95	-1,775.4	-3,135.7	2,662.7	2,512.2	150.50	17.692		
11,900.0	6,771.9	6,754.3	6,752.3	151.4	2.1	-88.91	-1,775.4	-3,135.7	2,741.0	2,588.0	152.99	17.916		
11,909.4	6,771.8	6,754.2	6,752.2	151.7	2.1	-88.91	-1,775.4	-3,135.7	2,749.3	2,596.0	153.25	17.940		
12,000.0	6,771.5	6,753.5	6,751.5	154.2	2.1	-88.88	-1,775.4	-3,135.7	2,829.7	2,673.9	155.78	18.164		
12,007.8	6,771.4	6,753.5	6,751.4	154.4	2.1	-88.88	-1,775.4	-3,135.7	2,836.7	2,680.7	156.00	18.184		

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 SCHAUMBERG 17G-314
<b>Project:</b>	WELD COUNTY, COLORADO	<b>TVD Reference:</b>	KB-EST @ 4633.0usft (Original Well Elev)
<b>Reference Site:</b>	SW NW SEC. 17 T5N R64W 6th P.M.	<b>MD Reference:</b>	KB-EST @ 4633.0usft (Original Well Elev)
<b>Site Error:</b>	0.0 usft	<b>North Reference:</b>	True
<b>Reference Well:</b>	SCHAUMBERG 17G-314	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Well Error:</b>	0.0 usft	<b>Output errors are at</b>	2.00 sigma
<b>Reference Wellbore</b>	ORIGINAL WELLBORE	<b>Database:</b>	EDM 5000.1 Single User Db
<b>Reference Design:</b>	PROPOSAL #1	<b>Offset TVD Reference:</b>	Offset Datum

Offset Design										NW SW SEC. 17 T5N R64W 6th P.M. - EXIST VERT HETTINGER #33-18 - 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				
12,100.0	6,771.1	6,752.8	6,750.7	157.0	2.1	-88.84	-1,775.4	-3,135.7	2,919.1	2,760.5	158.58	18.408					
12,106.3	6,771.0	6,752.7	6,750.7	157.2	2.1	-88.84	-1,775.4	-3,135.7	2,924.7	2,766.0	158.75	18.423					
12,200.0	6,770.7	6,752.0	6,749.9	159.8	2.1	-88.81	-1,775.4	-3,135.7	3,009.2	2,847.8	161.37	18.648					
12,204.7	6,770.6	6,751.9	6,749.9	159.9	2.1	-88.81	-1,775.4	-3,135.7	3,013.5	2,852.0	161.50	18.659					
12,300.0	6,770.3	6,751.2	6,749.2	162.6	2.1	-88.77	-1,775.4	-3,135.7	3,099.9	2,935.7	164.17	18.883					
12,303.1	6,770.2	6,751.2	6,749.1	162.7	2.1	-88.77	-1,775.4	-3,135.7	3,102.8	2,938.5	164.25	18.890					
12,361.7	6,770.0	6,750.7	6,748.7	164.3	2.1	-88.75	-1,775.4	-3,135.7	3,156.2	2,990.3	165.89	19.026					



# Anticollision Report



<b>Company:</b>	PDC ENERGY	<b>Local Co-ordinate Reference:</b>	Well SCHAUMBERG 17G-314
<b>Project:</b>	WELD COUNTY, COLORADO	<b>TVD Reference:</b>	KB-EST @ 4633.0usft (Original Well Elev)
<b>Reference Site:</b>	SW NW SEC. 17 T5N R64W 6th P.M.	<b>MD Reference:</b>	KB-EST @ 4633.0usft (Original Well Elev)
<b>Site Error:</b>	0.0 usft	<b>North Reference:</b>	True
<b>Reference Well:</b>	SCHAUMBERG 17G-314	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Well Error:</b>	0.0 usft	<b>Output errors are at</b>	2.00 sigma
<b>Reference Wellbore</b>	ORIGINAL WELLBORE	<b>Database:</b>	EDM 5000.1 Single User Db
<b>Reference Design:</b>	PROPOSAL #1	<b>Offset TVD Reference:</b>	Offset Datum

Offset Design												Offset Site Error:	0.0 usft
Survey Program: 0-INC												Offset Well Error:	0.0 usft
Reference		Offset		Semi Major Axis			Distance						Warning
Measured Depth (usft)	Vertical Depth (usft)	Measured Depth (usft)	Vertical Depth (usft)	Reference (usft)	Offset (usft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (usft)	+E/-W (usft)	Between Centres (usft)	Between Ellipses (usft)	Minimum Separation (usft)	Separation Factor	
0.0	0.0	0.0	0.0	0.0	0.0	-134.94	-3,006.1	-3,011.9	4,255.4				
98.4	98.4	98.4	98.4	0.1	1.2	-134.94	-3,006.1	-3,011.9	4,255.4	4,254.1	1.28	3,336.639	
100.0	100.0	100.0	100.0	0.1	1.2	-134.94	-3,006.1	-3,011.9	4,255.4	4,254.1	1.30	3,283.495	
196.8	196.8	196.8	196.8	0.3	3.4	-134.94	-3,006.1	-3,011.9	4,255.4	4,251.7	3.73	1,140.487	
200.0	200.0	200.0	200.0	0.3	3.5	-134.94	-3,006.1	-3,011.9	4,255.4	4,251.6	3.81	1,116.781	
295.3	295.3	295.3	295.3	0.5	5.5	-134.94	-3,006.1	-3,011.9	4,255.4	4,249.4	6.00	708.680	
300.0	300.0	300.0	300.0	0.5	5.6	-134.94	-3,006.1	-3,011.9	4,255.4	4,249.3	6.11	696.065	
393.7	393.7	393.7	393.7	0.8	7.5	-134.94	-3,006.1	-3,011.9	4,255.4	4,247.2	8.24	516.580	
400.0	400.0	400.0	400.0	0.8	7.6	-134.94	-3,006.1	-3,011.9	4,255.4	4,247.0	8.38	507.776	
492.1	492.1	492.1	492.1	1.0	9.5	-134.94	-3,006.1	-3,011.9	4,255.4	4,244.9	10.46	406.950	
500.0	500.0	500.0	500.0	1.0	9.6	-134.94	-3,006.1	-3,011.9	4,255.4	4,244.8	10.63	400.158	
590.5	590.5	590.5	590.5	1.2	11.5	-134.94	-3,006.1	-3,011.9	4,255.4	4,242.7	12.67	335.879	
600.0	600.0	600.0	600.0	1.2	11.7	-134.94	-3,006.1	-3,011.9	4,255.4	4,242.5	12.88	330.341	
689.0	689.0	689.0	689.0	1.4	13.5	-134.94	-3,006.1	-3,011.9	4,255.4	4,240.5	14.88	286.010	
700.0	700.0	700.0	700.0	1.4	13.7	-134.94	-3,006.1	-3,011.9	4,255.4	4,240.3	15.13	281.332	
787.4	787.4	787.4	787.4	1.6	15.4	-134.94	-3,006.1	-3,011.9	4,255.4	4,238.3	17.09	249.068	
800.0	800.0	800.0	800.0	1.7	15.7	-134.94	-3,006.1	-3,011.9	4,255.4	4,238.0	17.37	245.017	
885.8	885.8	885.8	885.8	1.9	17.4	-134.94	-3,006.1	-3,011.9	4,255.4	4,236.1	19.29	220.593	
900.0	900.0	900.0	900.0	1.9	17.7	-134.94	-3,006.1	-3,011.9	4,255.4	4,235.8	19.61	217.020	
984.2	984.2	984.2	984.2	2.1	19.4	-134.94	-3,006.1	-3,011.9	4,255.4	4,233.9	21.50	197.971	
1,000.0	1,000.0	1,000.0	1,000.0	2.1	19.7	-134.94	-3,006.1	-3,011.9	4,255.4	4,233.5	21.85	194.775	
1,082.7	1,082.7	1,082.7	1,082.7	2.3	21.4	-134.94	-3,006.1	-3,011.9	4,255.4	4,231.7	23.70	179.562	
1,100.0	1,100.0	1,100.0	1,100.0	2.3	21.7	-134.94	-3,006.1	-3,011.9	4,255.4	4,231.3	24.09	176.671	
1,181.1	1,181.1	1,181.1	1,181.1	2.5	23.4	-134.94	-3,006.1	-3,011.9	4,255.4	4,229.5	25.90	164.289	
1,200.0	1,200.0	1,200.0	1,200.0	2.6	23.8	-134.94	-3,006.1	-3,011.9	4,255.4	4,229.1	26.32	161.649	
1,279.5	1,279.5	1,279.5	1,279.5	2.7	25.4	-134.94	-3,006.1	-3,011.9	4,255.4	4,227.3	28.10	151.413	
1,300.0	1,300.0	1,300.0	1,300.0	2.8	25.8	-134.94	-3,006.1	-3,011.9	4,255.4	4,226.8	28.56	148.984	
1,377.9	1,377.9	1,377.9	1,377.9	3.0	27.3	-134.94	-3,006.1	-3,011.9	4,255.4	4,225.1	30.31	140.410	
1,400.0	1,400.0	1,400.0	1,400.0	3.0	27.8	-134.94	-3,006.1	-3,011.9	4,255.4	4,224.6	30.80	138.161	
1,476.4	1,476.4	1,476.4	1,476.4	3.2	29.3	-134.94	-3,006.1	-3,011.9	4,255.4	4,222.9	32.51	130.899	
1,500.0	1,500.0	1,500.0	1,500.0	3.2	29.8	-134.94	-3,006.1	-3,011.9	4,255.4	4,222.4	33.04	128.804	
1,574.8	1,574.8	1,574.8	1,574.8	3.4	31.3	-134.94	-3,006.1	-3,011.9	4,255.4	4,220.7	34.71	122.595	
1,600.0	1,600.0	1,600.0	1,600.0	3.5	31.8	-134.94	-3,006.1	-3,011.9	4,255.4	4,220.1	35.27	120.636	
1,673.2	1,673.2	1,673.2	1,673.2	3.6	33.3	-134.94	-3,006.1	-3,011.9	4,255.4	4,218.5	36.91	115.282	
1,700.0	1,700.0	1,700.0	1,700.0	3.7	33.8	-134.94	-3,006.1	-3,011.9	4,255.4	4,217.9	37.51	113.442	
1,771.6	1,771.6	1,771.6	1,771.6	3.9	35.3	-134.94	-3,006.1	-3,011.9	4,255.4	4,216.3	39.11	108.794	
1,800.0	1,800.0	1,800.0	1,800.0	3.9	35.8	-134.94	-3,006.1	-3,011.9	4,255.4	4,215.6	39.75	107.058	
1,870.1	1,870.1	1,870.1	1,870.1	4.1	37.2	23.87	-3,006.1	-3,011.9	4,254.6	4,213.3	41.29	103.052	
1,900.0	1,900.0	1,900.0	1,900.0	4.1	37.8	23.88	-3,006.1	-3,011.9	4,253.8	4,211.9	41.94	101.436	
1,968.5	1,968.4	1,968.4	1,968.4	4.2	39.2	23.92	-3,006.1	-3,011.9	4,250.9	4,207.5	43.39	97.969	
2,000.0	1,999.8	1,999.8	1,999.8	4.3	39.9	23.95	-3,006.1	-3,011.9	4,249.0	4,205.0	44.05	96.459	
2,066.9	2,066.5	2,066.5	2,066.5	4.4	41.2	24.02	-3,006.1	-3,011.9	4,244.0	4,198.6	45.44	93.404	
2,100.0	2,099.5	2,099.5	2,099.5	4.5	41.9	24.06	-3,006.1	-3,011.9	4,241.0	4,194.9	46.11	91.972	
2,165.3	2,164.4	2,164.4	2,164.4	4.6	43.2	24.16	-3,006.1	-3,011.9	4,234.1	4,186.7	47.43	89.270	
2,200.0	2,198.7	2,198.7	2,198.7	4.7	43.9	24.22	-3,006.1	-3,011.9	4,229.9	4,181.8	48.12	87.909	
2,263.8	2,261.8	2,261.8	2,261.8	4.8	45.1	24.35	-3,006.1	-3,011.9	4,221.2	4,171.8	49.36	85.511	
2,300.0	2,297.5	2,297.5	2,297.5	4.9	45.8	24.43	-3,006.1	-3,011.9	4,215.6	4,165.6	50.06	84.216	
2,362.2	2,358.6	2,358.6	2,358.6	5.0	47.1	24.58	-3,006.1	-3,011.9	4,205.2	4,153.9	51.23	82.079	
2,400.0	2,395.6	2,395.6	2,395.6	5.1	47.8	24.68	-3,006.1	-3,011.9	4,198.2	4,146.3	51.93	80.844	
2,460.6	2,454.9	2,454.9	2,454.9	5.3	49.0	24.76	-3,006.1	-3,011.9	4,186.7	4,133.5	53.23	78.646	
2,500.0	2,493.4	2,493.4	2,493.4	5.4	49.8	24.80	-3,006.1	-3,011.9	4,179.3	4,125.2	54.08	77.279	
2,559.0	2,551.2	2,551.2	2,551.2	5.6	50.9	24.87	-3,006.1	-3,011.9	4,168.1	4,112.7	55.36	75.295	

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

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<b>Project:</b>	WELD COUNTY, COLORADO	<b>TVD Reference:</b>	KB-EST @ 4633.0usft (Original Well Elev)
<b>Reference Site:</b>	SW NW SEC. 17 T5N R64W 6th P.M.	<b>MD Reference:</b>	KB-EST @ 4633.0usft (Original Well Elev)
<b>Site Error:</b>	0.0 usft	<b>North Reference:</b>	True
<b>Reference Well:</b>	SCHAUMBERG 17G-314	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Well Error:</b>	0.0 usft	<b>Output errors are at</b>	2.00 sigma
<b>Reference Wellbore</b>	ORIGINAL WELLBORE	<b>Database:</b>	EDM 5000.1 Single User Db
<b>Reference Design:</b>	PROPOSAL #1	<b>Offset TVD Reference:</b>	Offset Datum

Offset Design												Offset Site Error:	0.0 usft
Survey Program: 0-INC												Offset Well Error:	0.0 usft
Reference		Offset		Semi Major Axis			Distance						Warning
Measured Depth (usft)	Vertical Depth (usft)	Measured Depth (usft)	Vertical Depth (usft)	Reference (usft)	Offset (usft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (usft)	+E/-W (usft)	Between Centres (usft)	Between Ellipses (usft)	Minimum Separation (usft)	Separation Factor	
2,600.0	2,591.3	2,591.3	2,591.3	5.7	51.7	24.92	-3,006.1	-3,011.9	4,160.3	4,104.1	56.24	73.975	
2,657.5	2,647.5	2,647.5	2,647.5	5.9	52.9	24.99	-3,006.1	-3,011.9	4,149.5	4,092.0	57.48	72.184	
2,700.0	2,689.1	2,689.1	2,689.1	6.0	53.7	25.04	-3,006.1	-3,011.9	4,141.4	4,083.0	58.41	70.905	
2,755.9	2,743.7	2,743.7	2,743.7	6.2	54.8	25.11	-3,006.1	-3,011.9	4,130.8	4,071.2	59.62	69.281	
2,800.0	2,786.9	2,786.9	2,786.9	6.4	55.7	25.16	-3,006.1	-3,011.9	4,122.5	4,061.9	60.58	68.046	
2,854.3	2,840.0	2,840.0	2,840.0	6.6	56.8	25.23	-3,006.1	-3,011.9	4,112.3	4,050.5	61.77	66.574	
2,900.0	2,884.7	2,884.7	2,884.7	6.7	57.6	25.29	-3,006.1	-3,011.9	4,103.6	4,040.9	62.77	65.379	
2,952.7	2,936.3	2,936.3	2,936.3	6.9	58.7	25.35	-3,006.1	-3,011.9	4,093.7	4,029.8	63.92	64.042	
3,000.0	2,982.5	2,982.5	2,982.5	7.1	59.6	25.41	-3,006.1	-3,011.9	4,084.8	4,019.8	64.96	62.885	
3,051.2	3,032.6	3,032.6	3,032.6	7.3	60.6	25.48	-3,006.1	-3,011.9	4,075.1	4,009.0	66.08	61.669	
3,100.0	3,080.3	3,080.3	3,080.3	7.5	61.6	25.54	-3,006.1	-3,011.9	4,065.9	3,998.8	67.15	60.548	
3,149.6	3,128.8	3,128.8	3,128.8	7.7	62.6	25.60	-3,006.1	-3,011.9	4,056.6	3,988.3	68.24	59.443	
3,200.0	3,178.1	3,178.1	3,178.1	7.9	63.6	25.66	-3,006.1	-3,011.9	4,047.1	3,977.7	69.35	58.355	
3,248.0	3,225.1	3,225.1	3,225.1	8.1	64.5	25.72	-3,006.1	-3,011.9	4,038.1	3,967.7	70.41	57.349	
3,300.0	3,276.0	3,276.0	3,276.0	8.3	65.5	25.79	-3,006.1	-3,011.9	4,028.3	3,956.7	71.56	56.294	
3,346.4	3,321.4	3,321.4	3,321.4	8.5	66.4	25.85	-3,006.1	-3,011.9	4,019.6	3,947.0	72.58	55.377	
3,400.0	3,373.8	3,373.8	3,373.8	8.7	67.5	25.92	-3,006.1	-3,011.9	4,009.5	3,935.7	73.77	54.353	
3,444.9	3,417.7	3,417.7	3,417.7	8.8	68.4	25.98	-3,006.1	-3,011.9	4,001.1	3,926.3	74.76	53.518	
3,500.0	3,471.6	3,471.6	3,471.6	9.1	69.5	26.05	-3,006.1	-3,011.9	3,990.7	3,914.8	75.98	52.522	
3,543.3	3,513.9	3,513.9	3,513.9	9.2	70.3	26.11	-3,006.1	-3,011.9	3,982.6	3,905.7	76.94	51.761	
3,600.0	3,569.4	3,569.4	3,569.4	9.5	71.4	26.18	-3,006.1	-3,011.9	3,972.0	3,893.8	78.20	50.793	
3,641.7	3,610.2	3,610.2	3,610.2	9.7	72.2	26.24	-3,006.1	-3,011.9	3,964.2	3,885.0	79.13	50.099	
3,700.0	3,667.2	3,667.2	3,667.2	9.9	73.4	26.31	-3,006.1	-3,011.9	3,953.3	3,872.8	80.42	49.157	
3,740.1	3,706.5	3,706.5	3,706.5	10.1	74.2	26.37	-3,006.1	-3,011.9	3,945.8	3,864.4	81.32	48.524	
3,800.0	3,765.0	3,765.0	3,765.0	10.3	75.4	26.45	-3,006.1	-3,011.9	3,934.6	3,851.9	82.65	47.607	
3,838.6	3,802.8	3,802.8	3,802.8	10.5	76.1	26.50	-3,006.1	-3,011.9	3,927.4	3,843.8	83.51	47.031	
3,900.0	3,862.8	3,862.8	3,862.8	10.7	77.3	26.58	-3,006.1	-3,011.9	3,915.9	3,831.0	84.87	46.137	
3,937.0	3,899.0	3,899.0	3,899.0	10.9	78.1	26.63	-3,006.1	-3,011.9	3,909.0	3,823.3	85.70	45.612	
4,000.0	3,960.7	3,960.7	3,960.7	11.2	79.3	26.72	-3,006.1	-3,011.9	3,897.2	3,810.1	87.11	44.741	
4,035.4	3,995.3	3,995.3	3,995.3	11.3	80.0	26.77	-3,006.1	-3,011.9	3,890.6	3,802.7	87.90	44.263	
4,100.0	4,058.5	4,058.5	4,058.5	11.6	81.3	26.85	-3,006.1	-3,011.9	3,878.6	3,789.2	89.34	43.414	
4,133.8	4,091.6	4,091.6	4,091.6	11.7	81.9	26.90	-3,006.1	-3,011.9	3,872.3	3,782.2	90.10	42.979	
4,200.0	4,156.3	4,156.3	4,156.3	12.0	83.2	26.99	-3,006.1	-3,011.9	3,860.0	3,768.4	91.58	42.150	
4,232.3	4,187.9	4,187.9	4,187.9	12.2	83.9	27.04	-3,006.1	-3,011.9	3,853.9	3,761.7	92.30	41.755	
4,300.0	4,254.1	4,254.1	4,254.1	12.5	85.2	27.13	-3,006.1	-3,011.9	3,841.4	3,747.5	93.82	40.946	
4,325.7	4,279.2	4,279.2	4,279.2	12.6	85.7	27.17	-3,006.1	-3,011.9	3,836.6	3,742.2	94.39	40.646	
4,330.7	4,284.1	4,284.1	4,284.1	12.6	85.8	27.17	-3,006.1	-3,011.9	3,835.7	3,741.1	94.53	40.577	
4,400.0	4,352.1	4,352.1	4,352.1	12.8	87.2	27.15	-3,006.1	-3,011.9	3,823.6	3,727.2	96.39	39.667	
4,429.1	4,380.8	4,380.8	4,380.8	12.9	87.7	27.14	-3,006.1	-3,011.9	3,819.0	3,721.9	97.16	39.305	
4,500.0	4,450.7	4,450.7	4,450.7	13.1	89.1	27.13	-3,006.1	-3,011.9	3,808.9	3,709.9	99.01	38.469	
4,527.5	4,478.0	4,478.0	4,478.0	13.2	89.7	27.12	-3,006.1	-3,011.9	3,805.4	3,705.6	99.72	38.161	
4,600.0	4,549.9	4,549.9	4,549.9	13.4	91.1	27.11	-3,006.1	-3,011.9	3,797.2	3,695.7	101.55	37.392	
4,626.0	4,575.7	4,575.7	4,575.7	13.5	91.7	27.10	-3,006.1	-3,011.9	3,794.7	3,692.5	102.20	37.132	
4,700.0	4,649.4	4,649.4	4,649.4	13.6	93.1	27.10	-3,006.1	-3,011.9	3,788.7	3,684.7	104.00	36.429	
4,724.4	4,673.7	4,673.7	4,673.7	13.7	93.6	27.09	-3,006.1	-3,011.9	3,787.0	3,682.5	104.58	36.210	
4,800.0	4,749.2	4,749.2	4,749.2	13.8	95.1	27.09	-3,006.1	-3,011.9	3,783.2	3,676.8	106.36	35.571	
4,822.8	4,772.0	4,772.0	4,772.0	13.9	95.6	27.09	-3,006.1	-3,011.9	3,782.4	3,675.5	106.88	35.390	
4,900.0	4,849.2	4,849.2	4,849.2	14.0	97.2	27.08	-3,006.1	-3,011.9	3,780.9	3,672.2	108.60	34.813	
4,921.2	4,870.4	4,870.4	4,870.4	14.1	97.6	27.08	-3,006.1	-3,011.9	3,780.8	3,671.7	109.07	34.664	
4,925.6	4,874.8	4,874.8	4,874.8	14.1	97.7	-131.72	-3,006.1	-3,011.9	3,780.8	3,669.6	111.12	34.024	
5,000.0	4,949.2	4,949.2	4,949.2	14.2	99.2	-131.72	-3,006.1	-3,011.9	3,780.8	3,668.0	112.73	33.538	
5,019.7	4,968.8	4,968.8	4,968.8	14.2	99.6	-131.72	-3,006.1	-3,011.9	3,780.8	3,667.6	113.16	33.411	

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 SCHAUMBERG 17G-314
<b>Project:</b>	WELD COUNTY, COLORADO	<b>TVD Reference:</b>	KB-EST @ 4633.0usft (Original Well Elev)
<b>Reference Site:</b>	SW NW SEC. 17 T5N R64W 6th P.M.	<b>MD Reference:</b>	KB-EST @ 4633.0usft (Original Well Elev)
<b>Site Error:</b>	0.0 usft	<b>North Reference:</b>	True
<b>Reference Well:</b>	SCHAUMBERG 17G-314	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Well Error:</b>	0.0 usft	<b>Output errors are at</b>	2.00 sigma
<b>Reference Wellbore</b>	ORIGINAL WELLBORE	<b>Database:</b>	EDM 5000.1 Single User Db
<b>Reference Design:</b>	PROPOSAL #1	<b>Offset TVD Reference:</b>	Offset Datum

Offset Design												Offset Site Error:	0.0 usft
Survey Program: 0-INC												Offset Well Error:	0.0 usft
Reference		Offset		Semi Major Axis			Distance						Warning
Measured Depth (usft)	Vertical Depth (usft)	Measured Depth (usft)	Vertical Depth (usft)	Reference (usft)	Offset (usft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (usft)	+E/-W (usft)	Between Centres (usft)	Between Ellipses (usft)	Minimum Separation (usft)	Separation Factor	
5,100.0	5,049.2	5,049.2	5,049.2	14.3	101.2	-131.72	-3,006.1	-3,011.9	3,780.8	3,665.9	114.90	32.905	
5,118.1	5,067.3	5,067.3	5,067.3	14.3	101.5	-131.72	-3,006.1	-3,011.9	3,780.8	3,665.5	115.29	32.793	
5,200.0	5,149.2	5,149.2	5,149.2	14.5	103.2	-131.72	-3,006.1	-3,011.9	3,780.8	3,663.7	117.07	32.295	
5,216.5	5,165.7	5,165.7	5,165.7	14.5	103.5	-131.72	-3,006.1	-3,011.9	3,780.8	3,663.3	117.43	32.196	
5,300.0	5,249.2	5,249.2	5,249.2	14.6	105.2	-131.72	-3,006.1	-3,011.9	3,780.8	3,661.5	119.24	31.707	
5,314.9	5,264.1	5,264.1	5,264.1	14.6	105.5	-131.72	-3,006.1	-3,011.9	3,780.8	3,661.2	119.57	31.621	
5,400.0	5,349.2	5,349.2	5,349.2	14.8	107.2	-131.72	-3,006.1	-3,011.9	3,780.8	3,659.3	121.41	31.139	
5,413.4	5,362.5	5,362.5	5,362.5	14.8	107.5	-131.72	-3,006.1	-3,011.9	3,780.8	3,659.0	121.71	31.065	
5,500.0	5,449.2	5,449.2	5,449.2	14.9	109.2	-131.72	-3,006.1	-3,011.9	3,780.8	3,657.2	123.59	30.591	
5,511.8	5,461.0	5,461.0	5,461.0	14.9	109.5	-131.72	-3,006.1	-3,011.9	3,780.8	3,656.9	123.85	30.528	
5,600.0	5,549.2	5,549.2	5,549.2	15.1	111.2	-131.72	-3,006.1	-3,011.9	3,780.8	3,655.0	125.77	30.062	
5,610.2	5,559.4	5,559.4	5,559.4	15.1	111.4	-131.72	-3,006.1	-3,011.9	3,780.8	3,654.8	125.99	30.009	
5,700.0	5,649.2	5,649.2	5,649.2	15.2	113.2	-131.72	-3,006.1	-3,011.9	3,780.8	3,652.8	127.94	29.550	
5,708.6	5,657.8	5,657.8	5,657.8	15.3	113.4	-131.72	-3,006.1	-3,011.9	3,780.8	3,652.6	128.13	29.507	
5,800.0	5,749.2	5,749.2	5,749.2	15.4	115.3	-131.72	-3,006.1	-3,011.9	3,780.8	3,650.6	130.12	29.055	
5,807.1	5,756.2	5,756.2	5,756.2	15.4	115.4	-131.72	-3,006.1	-3,011.9	3,780.8	3,650.5	130.28	29.021	
5,900.0	5,849.2	5,849.2	5,849.2	15.6	117.3	-131.72	-3,006.1	-3,011.9	3,780.8	3,648.4	132.30	28.576	
5,905.5	5,854.7	5,854.7	5,854.7	15.6	117.4	-131.72	-3,006.1	-3,011.9	3,780.8	3,648.3	132.42	28.550	
6,000.0	5,949.2	5,949.2	5,949.2	15.7	119.3	-131.72	-3,006.1	-3,011.9	3,780.8	3,646.3	134.49	28.112	
6,003.9	5,953.1	5,953.1	5,953.1	15.7	119.4	-131.72	-3,006.1	-3,011.9	3,780.8	3,646.2	134.57	28.094	
6,100.0	6,049.2	6,049.2	6,049.2	15.9	121.3	-131.72	-3,006.1	-3,011.9	3,780.8	3,644.1	136.67	27.663	
6,102.3	6,051.5	6,051.5	6,051.5	15.9	121.3	-131.72	-3,006.1	-3,011.9	3,780.8	3,644.0	136.72	27.653	
6,124.6	6,073.8	6,073.8	6,073.8	15.9	121.8	-131.72	-3,006.1	-3,011.9	3,780.8	3,643.5	137.21	27.555	
6,150.0	6,099.2	6,099.2	6,099.2	16.0	122.3	-41.74	-3,006.1	-3,011.9	3,780.4	3,644.4	136.06	27.785	
6,200.0	6,149.0	6,149.0	6,149.0	16.1	123.3	-41.92	-3,006.1	-3,011.9	3,777.8	3,641.0	136.82	27.611	
6,200.8	6,149.8	6,149.8	6,149.8	16.1	123.3	-41.92	-3,006.1	-3,011.9	3,777.7	3,640.9	136.83	27.609	
6,250.0	6,198.5	6,198.5	6,198.5	16.2	124.3	-42.27	-3,006.1	-3,011.9	3,772.6	3,635.4	137.20	27.497	
6,299.2	6,246.6	6,246.6	6,246.6	16.3	125.3	-42.79	-3,006.1	-3,011.9	3,765.0	3,627.8	137.23	27.436	
6,300.0	6,247.4	6,247.4	6,247.4	16.3	125.3	-42.80	-3,006.1	-3,011.9	3,764.8	3,627.6	137.22	27.436	
6,350.0	6,295.5	6,295.5	6,295.5	16.5	126.2	-43.52	-3,006.1	-3,011.9	3,754.6	3,617.6	136.93	27.419	
6,397.6	6,340.2	6,340.2	6,340.2	16.6	127.1	-44.37	-3,006.1	-3,011.9	3,742.5	3,606.1	136.43	27.432	
6,400.0	6,342.4	6,342.4	6,342.4	16.6	127.2	-44.42	-3,006.1	-3,011.9	3,741.9	3,605.5	136.40	27.434	
6,450.0	6,388.1	6,388.1	6,388.1	16.8	128.1	-45.52	-3,006.1	-3,011.9	3,726.8	3,591.1	135.70	27.464	
6,496.0	6,428.8	6,428.8	6,428.8	17.0	128.9	-46.72	-3,006.1	-3,011.9	3,711.0	3,576.0	135.01	27.486	
6,500.0	6,432.2	6,432.2	6,432.2	17.0	129.0	-46.83	-3,006.1	-3,011.9	3,709.5	3,574.6	134.95	27.488	
6,550.0	6,474.6	6,474.6	6,474.6	17.3	129.8	-48.36	-3,006.1	-3,011.9	3,690.1	3,555.8	134.29	27.479	
6,594.5	6,510.7	6,510.7	6,510.7	17.5	130.6	-49.91	-3,006.1	-3,011.9	3,671.1	3,537.2	133.88	27.421	
6,600.0	6,515.0	6,515.0	6,515.0	17.6	130.7	-50.11	-3,006.1	-3,011.9	3,668.7	3,534.8	133.85	27.409	
6,650.0	6,553.3	6,553.3	6,553.3	17.9	131.4	-52.09	-3,006.1	-3,011.9	3,645.3	3,511.5	133.78	27.249	
6,692.9	6,584.3	6,584.3	6,584.3	18.2	132.1	-53.98	-3,006.1	-3,011.9	3,623.9	3,489.8	134.13	27.019	
6,700.0	6,589.2	6,589.2	6,589.2	18.2	132.2	-54.31	-3,006.1	-3,011.9	3,620.3	3,486.0	134.22	26.972	
6,750.0	6,622.7	6,622.7	6,622.7	18.6	132.8	-56.77	-3,006.1	-3,011.9	3,593.6	3,458.4	135.28	26.565	
6,791.3	6,648.3	6,648.3	6,648.3	19.0	133.3	-58.98	-3,006.1	-3,011.9	3,570.6	3,433.9	136.66	26.128	
6,800.0	6,653.4	6,653.4	6,653.4	19.1	133.4	-59.47	-3,006.1	-3,011.9	3,565.6	3,428.6	137.00	26.027	
6,850.0	6,681.4	6,681.4	6,681.4	19.6	134.0	-62.39	-3,006.1	-3,011.9	3,536.3	3,397.0	139.36	25.375	
6,889.7	6,701.5	6,701.5	6,701.5	20.1	134.4	-64.87	-3,006.1	-3,011.9	3,512.3	3,370.7	141.65	24.796	
6,900.0	6,706.3	6,706.3	6,706.3	20.2	134.5	-65.53	-3,006.1	-3,011.9	3,506.1	3,363.8	142.28	24.642	
6,950.0	6,728.2	6,728.2	6,728.2	20.9	134.9	-68.84	-3,006.1	-3,011.9	3,474.9	3,329.3	145.58	23.869	
6,988.2	6,742.8	6,742.8	6,742.8	21.5	135.2	-71.48	-3,006.1	-3,011.9	3,450.7	3,302.4	148.23	23.279	
7,000.0	6,746.9	6,746.9	6,746.9	21.6	135.3	-72.31	-3,006.1	-3,011.9	3,443.1	3,294.0	149.05	23.100	
7,050.0	6,762.4	6,762.4	6,762.4	22.5	135.6	-75.87	-3,006.1	-3,011.9	3,410.8	3,258.4	152.45	22.374	
7,086.6	6,771.5	6,771.5	6,771.5	23.1	135.8	-78.50	-3,006.1	-3,011.9	3,387.0	3,232.2	154.76	21.886	

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 SCHAUMBERG 17G-314
<b>Project:</b>	WELD COUNTY, COLORADO	<b>TVD Reference:</b>	KB-EST @ 4633.0usft (Original Well Elev)
<b>Reference Site:</b>	SW NW SEC. 17 T5N R64W 6th P.M.	<b>MD Reference:</b>	KB-EST @ 4633.0usft (Original Well Elev)
<b>Site Error:</b>	0.0 usft	<b>North Reference:</b>	True
<b>Reference Well:</b>	SCHAUMBERG 17G-314	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Well Error:</b>	0.0 usft	<b>Output errors are at</b>	2.00 sigma
<b>Reference Wellbore</b>	ORIGINAL WELLBORE	<b>Database:</b>	EDM 5000.1 Single User Db
<b>Reference Design:</b>	PROPOSAL #1	<b>Offset TVD Reference:</b>	Offset Datum

Offset Design NW SW SEC. 17 T5N R64W 6th P.M. - EXIST VERT HETTINGER #34-18 - 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	
7,100.0	6,774.4	6,774.4	6,774.4	23.3	135.9	-79.47	-3,006.1	-3,011.9	3,378.3	3,222.7	155.54	21.719	
7,150.0	6,783.1	6,783.1	6,783.1	24.3	136.1	-83.07	-3,006.1	-3,011.9	3,345.6	3,187.4	158.15	21.154	
7,185.0	6,787.1	6,787.1	6,787.1	25.0	136.1	-85.56	-3,006.1	-3,011.9	3,322.8	3,163.1	159.63	20.816	
7,200.0	6,788.3	6,788.3	6,788.3	25.3	136.2	-86.60	-3,006.1	-3,011.9	3,313.0	3,152.9	160.16	20.686	
7,252.3	6,790.0	6,790.0	6,790.0	26.3	136.2	-90.18	-3,006.1	-3,011.9	3,279.3	3,117.7	161.56	20.297	
7,283.4	6,789.9	6,789.9	6,789.9	27.0	136.2	-90.18	-3,006.1	-3,011.9	3,259.4	3,097.1	162.25	20.089	
7,300.0	6,789.8	6,789.8	6,789.8	27.3	136.2	-90.18	-3,006.1	-3,011.9	3,248.9	3,086.3	162.62	19.979	
7,381.9	6,789.5	6,789.5	6,789.5	29.1	136.2	-90.17	-3,006.1	-3,011.9	3,197.7	3,033.2	164.49	19.440	
7,400.0	6,789.4	6,789.4	6,789.4	29.5	136.2	-90.17	-3,006.1	-3,011.9	3,186.6	3,021.7	164.91	19.324	
7,480.3	6,789.1	6,789.1	6,789.1	31.4	136.2	-90.16	-3,006.1	-3,011.9	3,137.9	2,971.1	166.81	18.811	
7,500.0	6,789.1	6,789.1	6,789.1	31.8	136.2	-90.16	-3,006.1	-3,011.9	3,126.2	2,958.9	167.28	18.688	
7,578.7	6,788.8	6,788.8	6,788.8	33.7	136.2	-90.15	-3,006.1	-3,011.9	3,080.1	2,910.9	169.20	18.204	
7,600.0	6,788.7	6,788.7	6,788.7	34.2	136.2	-90.15	-3,006.1	-3,011.9	3,067.9	2,898.2	169.72	18.076	
7,677.1	6,788.4	6,788.4	6,788.4	36.1	136.2	-90.14	-3,006.1	-3,011.9	3,024.4	2,852.8	171.65	17.620	
7,700.0	6,788.3	6,788.3	6,788.3	36.7	136.2	-90.14	-3,006.1	-3,011.9	3,011.8	2,839.6	172.22	17.488	
7,775.6	6,788.0	6,788.0	6,788.0	38.6	136.1	-90.14	-3,006.1	-3,011.9	2,971.0	2,796.8	174.14	17.061	
7,800.0	6,787.9	6,787.9	6,787.9	39.2	136.1	-90.13	-3,006.1	-3,011.9	2,958.0	2,783.3	174.75	16.927	
7,874.0	6,787.6	6,787.6	6,787.6	41.0	136.1	-90.13	-3,006.1	-3,011.9	2,919.8	2,743.1	176.66	16.528	
7,900.0	6,787.6	6,787.6	6,787.6	41.7	136.1	-90.13	-3,006.1	-3,011.9	2,906.7	2,729.4	177.33	16.392	
7,972.4	6,787.3	6,787.3	6,787.3	43.6	136.1	-90.12	-3,006.1	-3,011.9	2,871.1	2,691.9	179.21	16.021	
8,000.0	6,787.2	6,787.2	6,787.2	44.3	136.1	-90.12	-3,006.1	-3,011.9	2,857.9	2,678.0	179.93	15.884	
8,070.8	6,786.9	6,786.9	6,786.9	46.1	136.1	-90.11	-3,006.1	-3,011.9	2,825.0	2,643.2	181.79	15.540	
8,100.0	6,786.8	6,786.8	6,786.8	46.9	136.1	-90.11	-3,006.1	-3,011.9	2,811.9	2,629.3	182.55	15.403	
8,169.3	6,786.5	6,786.5	6,786.5	48.7	136.1	-90.10	-3,006.1	-3,011.9	2,781.7	2,597.3	184.38	15.086	
8,200.0	6,786.4	6,786.4	6,786.4	49.5	136.1	-90.10	-3,006.1	-3,011.9	2,768.7	2,583.5	185.19	14.950	
8,267.7	6,786.1	6,786.1	6,786.1	51.3	136.1	-90.09	-3,006.1	-3,011.9	2,741.1	2,554.1	186.99	14.659	
8,300.0	6,786.0	6,786.0	6,786.0	52.1	136.1	-90.09	-3,006.1	-3,011.9	2,728.5	2,540.6	187.85	14.524	
8,366.1	6,785.8	6,785.8	6,785.8	53.9	136.1	-90.09	-3,006.1	-3,011.9	2,703.6	2,514.0	189.62	14.258	
8,400.0	6,785.6	6,785.6	6,785.6	54.8	136.1	-90.08	-3,006.1	-3,011.9	2,691.4	2,500.9	190.53	14.126	
8,464.5	6,785.4	6,785.4	6,785.4	56.5	136.1	-90.08	-3,006.1	-3,011.9	2,669.2	2,476.9	192.26	13.883	
8,500.0	6,785.3	6,785.3	6,785.3	57.5	136.1	-90.07	-3,006.1	-3,011.9	2,657.5	2,464.3	193.22	13.754	
8,563.0	6,785.0	6,785.0	6,785.0	59.2	136.1	-90.07	-3,006.1	-3,011.9	2,637.9	2,443.0	194.91	13.534	
8,600.0	6,784.9	6,784.9	6,784.9	60.2	136.1	-90.07	-3,006.1	-3,011.9	2,627.1	2,431.1	195.91	13.409	
8,661.4	6,784.6	6,784.6	6,784.6	61.8	136.1	-90.06	-3,006.1	-3,011.9	2,610.1	2,412.5	197.58	13.210	
8,700.0	6,784.5	6,784.5	6,784.5	62.9	136.1	-90.06	-3,006.1	-3,011.9	2,600.1	2,401.4	198.62	13.091	
8,759.8	6,784.3	6,784.3	6,784.3	64.5	136.1	-90.05	-3,006.1	-3,011.9	2,585.6	2,385.4	200.24	12.912	
8,800.0	6,784.1	6,784.1	6,784.1	65.6	136.1	-90.05	-3,006.1	-3,011.9	2,576.7	2,375.3	201.34	12.798	
8,858.2	6,783.9	6,783.9	6,783.9	67.1	136.1	-90.04	-3,006.1	-3,011.9	2,564.8	2,361.8	202.92	12.639	
8,900.0	6,783.7	6,783.7	6,783.7	68.3	136.1	-90.04	-3,006.1	-3,011.9	2,557.0	2,352.9	204.06	12.531	
8,956.7	6,783.5	6,783.5	6,783.5	69.8	136.1	-90.04	-3,006.1	-3,011.9	2,547.5	2,341.9	205.60	12.390	
9,000.0	6,783.3	6,783.3	6,783.3	71.0	136.1	-90.03	-3,006.1	-3,011.9	2,541.1	2,334.3	206.79	12.288	
9,055.1	6,783.1	6,783.1	6,783.1	72.5	136.1	-90.03	-3,006.1	-3,011.9	2,534.0	2,325.7	208.29	12.165	
9,100.0	6,782.9	6,782.9	6,782.9	73.7	136.0	-90.02	-3,006.1	-3,011.9	2,529.0	2,319.5	209.52	12.071	
9,153.5	6,782.7	6,782.7	6,782.7	75.2	136.0	-90.02	-3,006.1	-3,011.9	2,524.2	2,313.2	210.99	11.964	
9,200.0	6,782.6	6,782.6	6,782.6	76.5	136.0	-90.01	-3,006.1	-3,011.9	2,520.9	2,308.6	212.26	11.877	
9,251.9	6,782.4	6,782.4	6,782.4	77.9	136.0	-90.01	-3,006.1	-3,011.9	2,518.2	2,304.6	213.68	11.785	
9,300.0	6,782.2	6,782.2	6,782.2	79.2	136.0	-90.00	-3,006.1	-3,011.9	2,516.7	2,301.7	215.00	11.706	
9,350.4	6,782.0	6,782.0	6,782.0	80.6	136.0	-90.00	-3,006.1	-3,011.9	2,516.1	2,299.7	216.39	11.628	
9,355.4	6,782.0	6,782.0	6,782.0	80.7	136.0	-90.00	-3,006.1	-3,011.9	2,516.1	2,299.6	216.52	11.620 CC	
9,400.0	6,781.8	6,781.8	6,781.8	82.0	136.0	-90.00	-3,006.1	-3,011.9	2,516.5	2,298.8	217.75	11.557	
9,448.8	6,781.6	6,781.6	6,781.6	83.3	136.0	-89.99	-3,006.1	-3,011.9	2,517.8	2,298.8	219.09	11.492 ES	
9,500.0	6,781.4	6,781.4	6,781.4	84.7	136.0	-89.99	-3,006.1	-3,011.9	2,520.3	2,299.8	220.50	11.430	

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 SCHAUMBERG 17G-314
<b>Project:</b>	WELD COUNTY, COLORADO	<b>TVD Reference:</b>	KB-EST @ 4633.0usft (Original Well Elev)
<b>Reference Site:</b>	SW NW SEC. 17 T5N R64W 6th P.M.	<b>MD Reference:</b>	KB-EST @ 4633.0usft (Original Well Elev)
<b>Site Error:</b>	0.0 usft	<b>North Reference:</b>	True
<b>Reference Well:</b>	SCHAUMBERG 17G-314	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Well Error:</b>	0.0 usft	<b>Output errors are at</b>	2.00 sigma
<b>Reference Wellbore</b>	ORIGINAL WELLBORE	<b>Database:</b>	EDM 5000.1 Single User Db
<b>Reference Design:</b>	PROPOSAL #1	<b>Offset TVD Reference:</b>	Offset Datum

Offset Design NW SW SEC. 17 T5N R64W 6th P.M. - EXIST VERT HETTINGER #34-18 - 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	
9,547.2	6,781.2	6,781.2	6,781.2	86.0	136.0	-89.98	-3,006.1	-3,011.9	2,523.4	2,301.6	221.80	11.377	
9,600.0	6,781.0	6,781.0	6,781.0	87.5	136.0	-89.98	-3,006.1	-3,011.9	2,528.0	2,304.7	223.26	11.323	
9,645.6	6,780.8	6,780.8	6,780.8	88.7	136.0	-89.97	-3,006.1	-3,011.9	2,532.8	2,308.3	224.52	11.281	
9,700.0	6,780.6	6,780.6	6,780.6	90.2	136.0	-89.97	-3,006.1	-3,011.9	2,539.6	2,313.6	226.01	11.236	
9,744.1	6,780.4	6,780.4	6,780.4	91.4	136.0	-89.97	-3,006.1	-3,011.9	2,546.0	2,318.7	227.23	11.204	
9,800.0	6,780.2	6,780.2	6,780.2	93.0	136.0	-89.96	-3,006.1	-3,011.9	2,555.1	2,326.3	228.77	11.169	
9,842.5	6,780.1	6,780.1	6,780.1	94.2	136.0	-89.96	-3,006.1	-3,011.9	2,562.8	2,332.9	229.95	11.145	
9,900.0	6,779.8	6,779.8	6,779.8	95.7	136.0	-89.95	-3,006.1	-3,011.9	2,574.4	2,342.8	231.54	11.119	
9,940.9	6,779.7	6,779.7	6,779.7	96.9	136.0	-89.95	-3,006.1	-3,011.9	2,583.3	2,350.7	232.67	11.103	
10,000.0	6,779.4	6,779.4	6,779.4	98.5	136.0	-89.94	-3,006.1	-3,011.9	2,597.4	2,363.1	234.30	11.086	
10,039.3	6,779.3	6,779.3	6,779.3	99.6	136.0	-89.94	-3,006.1	-3,011.9	2,607.4	2,372.0	235.39	11.077	
10,100.0	6,779.0	6,779.0	6,779.0	101.3	136.0	-89.93	-3,006.1	-3,011.9	2,624.0	2,386.9	237.07	11.068	
10,137.8	6,778.9	6,778.9	6,778.9	102.3	136.0	-89.93	-3,006.1	-3,011.9	2,634.9	2,396.8	238.11	11.066 SF	
10,200.0	6,778.7	6,778.7	6,778.7	104.1	136.0	-89.92	-3,006.1	-3,011.9	2,654.1	2,414.3	239.84	11.066	
10,236.2	6,778.5	6,778.5	6,778.5	105.1	136.0	-89.92	-3,006.1	-3,011.9	2,665.8	2,425.0	240.84	11.069	
10,300.0	6,778.3	6,778.3	6,778.3	106.8	136.0	-89.92	-3,006.1	-3,011.9	2,687.6	2,445.0	242.61	11.078	
10,334.6	6,778.1	6,778.1	6,778.1	107.8	136.0	-89.91	-3,006.1	-3,011.9	2,700.0	2,456.4	243.57	11.085	
10,400.0	6,777.9	6,777.9	6,777.9	109.6	135.9	-89.91	-3,006.1	-3,011.9	2,724.3	2,479.0	245.38	11.103	
10,433.0	6,777.7	6,777.7	6,777.7	110.5	135.9	-89.90	-3,006.1	-3,011.9	2,737.2	2,490.9	246.30	11.113	
10,500.0	6,777.5	6,777.5	6,777.5	112.4	135.9	-89.90	-3,006.1	-3,011.9	2,764.2	2,516.1	248.15	11.139	
10,531.5	6,777.3	6,777.3	6,777.3	113.3	135.9	-89.89	-3,006.1	-3,011.9	2,777.4	2,528.4	249.03	11.153	
10,600.0	6,777.1	6,777.1	6,777.1	115.2	135.9	-89.89	-3,006.1	-3,011.9	2,807.1	2,556.2	250.93	11.187	
10,629.9	6,777.0	6,777.0	6,777.0	116.0	135.9	-89.89	-3,006.1	-3,011.9	2,820.5	2,568.7	251.76	11.203	
10,700.0	6,776.7	6,776.7	6,776.7	117.9	135.9	-89.88	-3,006.1	-3,011.9	2,852.9	2,599.2	253.71	11.245	
10,728.3	6,776.6	6,776.6	6,776.6	118.7	135.9	-89.88	-3,006.1	-3,011.9	2,866.3	2,611.8	254.49	11.263	
10,800.0	6,776.3	6,776.3	6,776.3	120.7	135.9	-89.87	-3,006.1	-3,011.9	2,901.3	2,644.8	256.48	11.312	
10,826.7	6,776.2	6,776.2	6,776.2	121.5	135.9	-89.87	-3,006.1	-3,011.9	2,914.7	2,657.5	257.23	11.331	
10,900.0	6,775.9	6,775.9	6,775.9	123.5	135.9	-89.86	-3,006.1	-3,011.9	2,952.4	2,693.1	259.26	11.388	
10,925.2	6,775.8	6,775.8	6,775.8	124.2	135.9	-89.86	-3,006.1	-3,011.9	2,965.6	2,705.7	259.96	11.408	
11,000.0	6,775.5	6,775.5	6,775.5	126.3	135.9	-89.85	-3,006.1	-3,011.9	3,005.9	2,743.9	262.04	11.471	
11,023.6	6,775.4	6,775.4	6,775.4	126.9	135.9	-89.85	-3,006.1	-3,011.9	3,018.9	2,756.2	262.70	11.492	
11,100.0	6,775.1	6,775.1	6,775.1	129.1	135.9	-89.84	-3,006.1	-3,011.9	3,061.8	2,797.0	264.82	11.562	
11,122.0	6,775.0	6,775.0	6,775.0	129.7	135.9	-89.84	-3,006.1	-3,011.9	3,074.4	2,808.9	265.44	11.582	
11,200.0	6,774.7	6,774.7	6,774.7	131.9	135.9	-89.83	-3,006.1	-3,011.9	3,119.8	2,852.2	267.60	11.658	
11,220.4	6,774.6	6,774.6	6,774.6	132.4	135.9	-89.83	-3,006.1	-3,011.9	3,132.0	2,863.8	268.17	11.679	
11,300.0	6,774.3	6,774.3	6,774.3	134.6	135.9	-89.82	-3,006.1	-3,011.9	3,180.0	2,909.6	270.39	11.761	
11,318.9	6,774.2	6,774.2	6,774.2	135.2	135.9	-89.82	-3,006.1	-3,011.9	3,191.6	2,920.7	270.91	11.781	
11,400.0	6,773.9	6,773.9	6,773.9	137.4	135.9	-89.81	-3,006.1	-3,011.9	3,242.1	2,968.9	273.17	11.868	
11,417.3	6,773.8	6,773.8	6,773.8	137.9	135.9	-89.81	-3,006.1	-3,011.9	3,253.0	2,979.4	273.65	11.888	
11,500.0	6,773.5	6,773.5	6,773.5	140.2	135.9	-89.80	-3,006.1	-3,011.9	3,306.1	3,030.1	275.95	11.981	
11,515.7	6,773.4	6,773.4	6,773.4	140.7	135.9	-89.80	-3,006.1	-3,011.9	3,316.3	3,039.9	276.39	11.999	
11,600.0	6,773.1	6,773.1	6,773.1	143.0	135.8	-89.79	-3,006.1	-3,011.9	3,371.8	3,093.1	278.74	12.097	
11,614.1	6,773.0	6,773.0	6,773.0	143.4	135.8	-89.79	-3,006.1	-3,011.9	3,381.2	3,102.1	279.13	12.113	
11,700.0	6,772.7	6,772.7	6,772.7	145.8	135.8	-89.79	-3,006.1	-3,011.9	3,439.2	3,157.7	281.52	12.216	
11,712.6	6,772.6	6,772.6	6,772.6	146.2	135.8	-89.78	-3,006.1	-3,011.9	3,447.8	3,165.9	281.87	12.232	
11,800.0	6,772.3	6,772.3	6,772.3	148.6	135.8	-89.78	-3,006.1	-3,011.9	3,508.1	3,223.8	284.31	12.339	
11,811.0	6,772.2	6,772.2	6,772.2	148.9	135.8	-89.77	-3,006.1	-3,011.9	3,515.8	3,231.2	284.62	12.353	
11,900.0	6,771.9	6,771.9	6,771.9	151.4	135.8	-89.77	-3,006.1	-3,011.9	3,578.5	3,291.4	287.10	12.465	
11,909.4	6,771.8	6,771.8	6,771.8	151.7	135.8	-89.77	-3,006.1	-3,011.9	3,585.2	3,297.9	287.36	12.476	
12,000.0	6,771.5	6,771.5	6,771.5	154.2	135.8	-89.76	-3,006.1	-3,011.9	3,650.3	3,360.4	289.88	12.592	
12,007.8	6,771.4	6,771.4	6,771.4	154.4	135.8	-89.76	-3,006.1	-3,011.9	3,656.0	3,365.9	290.10	12.602	
12,100.0	6,771.1	6,771.1	6,771.1	157.0	135.8	-89.75	-3,006.1	-3,011.9	3,723.4	3,430.7	292.67	12.722	

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 SCHAUMBERG 17G-314
<b>Project:</b>	WELD COUNTY, COLORADO	<b>TVD Reference:</b>	KB-EST @ 4633.0usft (Original Well Elev)
<b>Reference Site:</b>	SW NW SEC. 17 T5N R64W 6th P.M.	<b>MD Reference:</b>	KB-EST @ 4633.0usft (Original Well Elev)
<b>Site Error:</b>	0.0 usft	<b>North Reference:</b>	True
<b>Reference Well:</b>	SCHAUMBERG 17G-314	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Well Error:</b>	0.0 usft	<b>Output errors are at</b>	2.00 sigma
<b>Reference Wellbore</b>	ORIGINAL WELLBORE	<b>Database:</b>	EDM 5000.1 Single User Db
<b>Reference Design:</b>	PROPOSAL #1	<b>Offset TVD Reference:</b>	Offset Datum

<b>Offset Design</b> NW SW SEC. 17 T5N R64W 6th P.M. - EXIST VERT HETTINGER #34-18 - Wellbore #1 - Design #1												<b>Offset Site Error:</b>	0.0 usft
Survey Program: 0-INC												<b>Offset Well Error:</b>	0.0 usft
Reference	Offset	Semi Major Axis		Distance									
Measured Depth (usft)	Vertical Depth (usft)	Measured Depth (usft)	Vertical Depth (usft)	Reference (usft)	Offset (usft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (usft)	+E/-W (usft)	Between Centres (usft)	Between Ellipses (usft)	Minimum Separation (usft)	Separation Factor	Warning
12,106.3	6,771.0	6,771.0	6,771.0	157.2	135.8	-89.75	-3,006.1	-3,011.9	3,728.0	3,435.2	292.85	12.730	
12,200.0	6,770.7	6,770.7	6,770.7	159.8	135.8	-89.74	-3,006.1	-3,011.9	3,797.7	3,502.3	295.46	12.854	
12,204.7	6,770.6	6,770.6	6,770.6	159.9	135.8	-89.74	-3,006.1	-3,011.9	3,801.2	3,505.6	295.59	12.860	
12,300.0	6,770.3	6,770.3	6,770.3	162.6	135.8	-89.73	-3,006.1	-3,011.9	3,873.2	3,574.9	298.25	12.986	
12,303.1	6,770.2	6,770.2	6,770.2	162.7	135.8	-89.73	-3,006.1	-3,011.9	3,875.6	3,577.2	298.34	12.991	
12,361.7	6,770.0	6,770.0	6,770.0	164.3	135.8	-89.72	-3,006.1	-3,011.9	3,920.3	3,620.3	299.97	13.069	



# Anticollision Report



<b>Company:</b>	PDC ENERGY	<b>Local Co-ordinate Reference:</b>	Well SCHAUMBERG 17G-314
<b>Project:</b>	WELD COUNTY, COLORADO	<b>TVD Reference:</b>	KB-EST @ 4633.0usft (Original Well Elev)
<b>Reference Site:</b>	SW NW SEC. 17 T5N R64W 6th P.M.	<b>MD Reference:</b>	KB-EST @ 4633.0usft (Original Well Elev)
<b>Site Error:</b>	0.0 usft	<b>North Reference:</b>	True
<b>Reference Well:</b>	SCHAUMBERG 17G-314	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Well Error:</b>	0.0 usft	<b>Output errors are at</b>	2.00 sigma
<b>Reference Wellbore</b>	ORIGINAL WELLBORE	<b>Database:</b>	EDM 5000.1 Single User Db
<b>Reference Design:</b>	PROPOSAL #1	<b>Offset TVD Reference:</b>	Offset Datum

Offset Design NW SW SEC. 17 T5N R64W 6th P.M. - EXIST VERT HETTINGER #44-18 - Wellbore #1 - Wellbore #1													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	-150.43	-2,977.1	-1,688.8	3,422.7					
98.4	98.4	109.9	109.9	0.1	0.1	-150.43	-2,976.8	-1,688.7	3,422.5	3,422.3	0.21	N/A		
100.0	100.0	111.3	111.3	0.1	0.1	-150.43	-2,976.8	-1,688.7	3,422.5	3,422.3	0.21	N/A		
196.8	196.8	202.4	202.4	0.3	0.2	-150.43	-2,976.5	-1,688.6	3,422.1	3,421.6	0.55	6,182.051		
200.0	200.0	205.5	205.5	0.3	0.2	-150.43	-2,976.5	-1,688.6	3,422.1	3,421.6	0.56	6,075.254		
295.3	295.3	300.0	300.0	0.5	0.3	-150.43	-2,976.3	-1,688.5	3,421.9	3,421.0	0.86	3,988.119		
300.0	300.0	304.5	304.5	0.5	0.3	-150.43	-2,976.3	-1,688.5	3,421.9	3,421.0	0.87	3,927.569		
393.7	393.7	405.1	405.1	0.8	0.4	-150.42	-2,975.7	-1,688.7	3,421.5	3,420.4	1.14	3,002.023		
400.0	400.0	411.8	411.8	0.8	0.4	-150.42	-2,975.7	-1,688.8	3,421.5	3,420.4	1.16	2,954.595		
492.1	492.1	510.8	510.8	1.0	0.4	-150.41	-2,974.7	-1,689.4	3,421.0	3,419.6	1.43	2,400.579		
500.0	500.0	519.5	519.4	1.0	0.5	-150.41	-2,974.6	-1,689.4	3,420.9	3,419.5	1.45	2,363.332		
590.5	590.5	616.9	616.9	1.2	0.5	-150.39	-2,973.5	-1,689.8	3,420.2	3,418.5	1.70	2,006.371		
600.0	600.0	626.4	626.3	1.2	0.5	-150.39	-2,973.3	-1,689.9	3,420.1	3,418.4	1.73	1,975.976		
689.0	689.0	713.1	713.0	1.4	0.6	-150.38	-2,972.4	-1,690.1	3,419.4	3,417.4	1.98	1,730.797		
700.0	700.0	722.6	722.6	1.4	0.6	-150.38	-2,972.3	-1,690.1	3,419.3	3,417.3	2.00	1,705.448		
787.4	787.4	800.0	800.0	1.6	0.6	-150.37	-2,971.6	-1,690.4	3,418.7	3,416.5	2.24	1,527.654		
800.0	800.0	810.1	810.1	1.7	0.6	-150.37	-2,971.5	-1,690.4	3,418.7	3,416.4	2.27	1,505.647		
885.8	885.8	889.4	889.4	1.9	0.6	-150.35	-2,971.0	-1,690.8	3,418.4	3,415.9	2.50	1,368.689		
900.0	900.0	900.0	900.0	1.9	0.6	-150.35	-2,970.9	-1,690.9	3,418.4	3,415.8	2.53	1,349.017		
984.2	984.2	982.4	982.3	2.1	0.7	-150.34	-2,970.4	-1,691.5	3,418.3	3,415.5	2.76	1,240.527		
1,000.0	1,000.0	997.3	997.2	2.1	0.7	-150.34	-2,970.3	-1,691.6	3,418.3	3,415.5	2.80	1,222.249		
1,022.8	1,022.8	1,018.8	1,018.8	2.2	0.7	-150.33	-2,970.2	-1,691.8	3,418.3	3,415.4	2.86	1,197.048		
1,082.7	1,082.7	1,075.5	1,075.4	2.3	0.7	-150.33	-2,970.0	-1,692.3	3,418.3	3,415.3	3.01	1,135.629		
1,100.0	1,100.0	1,091.9	1,091.8	2.3	0.7	-150.32	-2,969.9	-1,692.4	3,418.3	3,415.3	3.05	1,119.030		
1,181.1	1,181.1	1,169.2	1,169.1	2.5	0.8	-150.31	-2,969.7	-1,693.1	3,418.5	3,415.2	3.26	1,047.967		
1,200.0	1,200.0	1,187.2	1,187.2	2.6	0.8	-150.31	-2,969.7	-1,693.2	3,418.5	3,415.2	3.31	1,032.708		
1,279.5	1,279.5	1,271.2	1,271.1	2.7	0.8	-150.29	-2,969.4	-1,694.1	3,418.7	3,415.2	3.52	972.541		
1,300.0	1,300.0	1,293.2	1,293.2	2.8	0.8	-150.29	-2,969.3	-1,694.3	3,418.7	3,415.1	3.57	958.138		
1,377.9	1,377.9	1,375.3	1,375.3	3.0	0.8	-150.28	-2,968.9	-1,695.0	3,418.7	3,414.9	3.77	906.939		
1,400.0	1,400.0	1,398.5	1,398.4	3.0	0.8	-150.27	-2,968.8	-1,695.2	3,418.7	3,414.9	3.83	893.432		
1,476.4	1,476.4	1,474.0	1,473.9	3.2	0.9	-150.26	-2,968.4	-1,695.7	3,418.7	3,414.6	4.02	849.962		
1,500.0	1,500.0	1,497.3	1,497.2	3.2	0.9	-150.26	-2,968.4	-1,695.9	3,418.6	3,414.6	4.08	837.364		
1,526.5	1,526.5	1,522.5	1,522.5	3.3	0.9	-150.26	-2,968.3	-1,696.0	3,418.6	3,414.5	4.15	823.876		
1,574.8	1,574.8	1,568.5	1,568.4	3.4	0.9	-150.25	-2,968.2	-1,696.2	3,418.7	3,414.4	4.27	800.374		
1,600.0	1,600.0	1,592.4	1,592.3	3.5	0.9	-150.25	-2,968.1	-1,696.3	3,418.7	3,414.3	4.33	788.650		
1,673.2	1,673.2	1,665.4	1,665.3	3.6	0.9	-150.24	-2,968.0	-1,696.7	3,418.8	3,414.2	4.52	756.505		
1,700.0	1,700.0	1,692.2	1,692.2	3.7	0.9	-150.24	-2,968.0	-1,696.9	3,418.8	3,414.2	4.59	745.399		
1,771.6	1,771.6	1,764.1	1,764.1	3.9	1.0	-150.24	-2,967.8	-1,697.2	3,418.9	3,414.1	4.77	717.272		
1,800.0	1,800.0	1,792.6	1,792.5	3.9	1.0	-150.23	-2,967.8	-1,697.4	3,418.9	3,414.1	4.84	706.724		
1,870.1	1,870.1	1,878.0	1,877.9	4.1	1.0	8.59	-2,967.5	-1,697.8	3,418.0	3,413.0	4.95	690.091		
1,900.0	1,900.0	1,919.9	1,919.9	4.1	1.0	8.60	-2,967.2	-1,697.8	3,417.0	3,411.9	5.02	680.192		
1,968.5	1,968.4	2,023.5	2,023.5	4.2	1.1	8.63	-2,965.8	-1,697.6	3,412.9	3,407.7	5.18	659.058		
2,000.0	1,999.8	2,062.0	2,062.0	4.3	1.1	8.64	-2,965.2	-1,697.3	3,410.3	3,405.1	5.25	649.819		
2,066.9	2,066.5	2,141.4	2,141.3	4.4	1.1	8.68	-2,963.7	-1,696.5	3,403.5	3,398.1	5.40	630.230		
2,100.0	2,099.5	2,179.6	2,179.5	4.5	1.1	8.70	-2,962.9	-1,696.0	3,399.5	3,394.0	5.47	620.930		
2,165.3	2,164.4	2,244.4	2,244.3	4.6	1.1	8.74	-2,961.7	-1,694.9	3,390.4	3,384.8	5.62	602.993		
2,200.0	2,198.7	2,276.6	2,276.5	4.7	1.1	8.77	-2,961.1	-1,694.2	3,385.0	3,379.3	5.70	593.938		
2,263.8	2,261.8	2,334.9	2,334.7	4.8	1.1	8.81	-2,960.2	-1,693.0	3,374.0	3,368.2	5.84	577.297		
2,300.0	2,297.5	2,367.5	2,367.3	4.9	1.1	8.84	-2,959.8	-1,692.4	3,367.2	3,361.3	5.93	568.272		
2,362.2	2,358.6	2,421.5	2,421.3	5.0	1.2	8.90	-2,959.1	-1,691.3	3,354.6	3,348.5	6.07	552.710		
2,400.0	2,395.6	2,452.5	2,452.3	5.1	1.2	8.94	-2,958.7	-1,690.7	3,346.4	3,340.2	6.15	543.736		
2,460.6	2,454.9	2,500.0	2,499.8	5.3	1.2	8.95	-2,958.3	-1,689.9	3,332.9	3,326.6	6.29	529.772		

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 SCHAUMBERG 17G-314
<b>Project:</b>	WELD COUNTY, COLORADO	<b>TVD Reference:</b>	KB-EST @ 4633.0usft (Original Well Elev)
<b>Reference Site:</b>	SW NW SEC. 17 T5N R64W 6th P.M.	<b>MD Reference:</b>	KB-EST @ 4633.0usft (Original Well Elev)
<b>Site Error:</b>	0.0 usft	<b>North Reference:</b>	True
<b>Reference Well:</b>	SCHAUMBERG 17G-314	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Well Error:</b>	0.0 usft	<b>Output errors are at</b>	2.00 sigma
<b>Reference Wellbore</b>	ORIGINAL WELLBORE	<b>Database:</b>	EDM 5000.1 Single User Db
<b>Reference Design:</b>	PROPOSAL #1	<b>Offset TVD Reference:</b>	Offset Datum

Offset Design													Offset Site Error:	0.0 usft
Survey Program: 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	2,493.4	2,535.9	2,535.7	5.4	1.2	8.97	-2,958.0	-1,689.3	3,324.3	3,317.9	6.38	521.077		
2,559.0	2,551.2	2,586.2	2,586.0	5.6	1.2	8.99	-2,957.6	-1,688.7	3,311.4	3,304.9	6.52	508.010		
2,600.0	2,591.3	2,627.9	2,627.7	5.7	1.2	9.01	-2,957.3	-1,688.3	3,302.5	3,295.9	6.61	499.259		
2,657.5	2,647.5	2,692.4	2,692.2	5.9	1.2	9.05	-2,956.6	-1,687.7	3,290.0	3,283.2	6.76	486.907		
2,700.0	2,689.1	2,733.9	2,733.6	6.0	1.2	9.07	-2,956.2	-1,687.2	3,280.6	3,273.7	6.86	477.923		
2,755.9	2,743.7	2,786.8	2,786.6	6.2	1.2	9.09	-2,955.6	-1,686.7	3,268.3	3,261.3	7.01	466.543		
2,800.0	2,786.9	2,828.6	2,828.3	6.4	1.3	9.12	-2,955.2	-1,686.2	3,258.7	3,251.5	7.12	457.927		
2,854.3	2,840.0	2,880.0	2,879.8	6.6	1.3	9.14	-2,954.7	-1,685.6	3,246.8	3,239.5	7.25	447.534		
2,900.0	2,884.7	2,922.5	2,922.2	6.7	1.3	9.16	-2,954.3	-1,685.2	3,236.8	3,229.4	7.37	439.135		
2,952.7	2,936.3	2,970.8	2,970.6	6.9	1.3	9.19	-2,953.9	-1,684.7	3,225.3	3,217.8	7.51	429.635		
3,000.0	2,982.5	3,015.2	3,015.0	7.1	1.3	9.21	-2,953.6	-1,684.2	3,215.1	3,207.5	7.63	421.416		
3,051.2	3,032.6	3,065.8	3,065.6	7.3	1.3	9.24	-2,953.2	-1,683.9	3,204.0	3,196.3	7.76	412.629		
3,100.0	3,080.3	3,114.2	3,114.0	7.5	1.3	9.27	-2,952.7	-1,683.6	3,193.4	3,185.5	7.89	404.558		
3,149.6	3,128.8	3,163.8	3,163.6	7.7	1.3	9.31	-2,952.0	-1,683.5	3,182.7	3,174.6	8.03	396.532		
3,200.0	3,178.1	3,217.4	3,217.1	7.9	1.4	9.35	-2,951.2	-1,683.6	3,171.7	3,163.6	8.16	388.589		
3,248.0	3,225.1	3,276.3	3,276.0	8.1	1.4	9.40	-2,949.9	-1,684.0	3,161.1	3,152.8	8.30	380.976		
3,300.0	3,276.0	3,338.6	3,338.3	8.3	1.4	9.47	-2,948.2	-1,684.5	3,149.5	3,141.0	8.44	373.030		
3,346.4	3,321.4	3,393.5	3,393.2	8.5	1.4	9.53	-2,946.5	-1,685.0	3,138.9	3,130.4	8.58	366.050		
3,400.0	3,373.8	3,445.0	3,444.6	8.7	1.4	9.58	-2,944.8	-1,685.5	3,126.7	3,118.0	8.72	358.492		
3,444.9	3,417.7	3,487.0	3,486.6	8.8	1.5	9.63	-2,943.4	-1,685.9	3,116.4	3,107.6	8.85	352.322		
3,500.0	3,471.6	3,539.3	3,538.8	9.1	1.5	9.69	-2,941.6	-1,686.4	3,103.9	3,094.9	9.00	345.011		
3,543.3	3,513.9	3,580.5	3,580.1	9.2	1.5	9.74	-2,940.3	-1,686.8	3,094.0	3,084.9	9.12	339.402		
3,600.0	3,569.4	3,631.5	3,631.0	9.5	1.5	9.80	-2,938.7	-1,687.2	3,081.2	3,071.9	9.27	332.332		
3,641.7	3,610.2	3,667.7	3,667.2	9.7	1.5	9.84	-2,937.7	-1,687.6	3,071.8	3,062.4	9.39	327.268		
3,700.0	3,667.2	3,719.2	3,718.7	9.9	1.5	9.89	-2,936.2	-1,688.1	3,058.8	3,049.2	9.55	320.413		
3,740.1	3,706.5	3,756.0	3,755.4	10.1	1.5	9.94	-2,935.2	-1,688.5	3,049.9	3,040.2	9.66	315.795		
3,800.0	3,765.0	3,810.5	3,809.9	10.3	1.6	10.00	-2,933.8	-1,689.1	3,036.6	3,026.8	9.82	309.120		
3,838.6	3,802.8	3,844.9	3,844.3	10.5	1.6	10.04	-2,932.9	-1,689.6	3,028.1	3,018.2	9.93	304.925		
3,900.0	3,862.8	3,900.0	3,899.4	10.7	1.6	10.10	-2,931.5	-1,690.3	3,014.7	3,004.6	10.10	298.441		
3,937.0	3,899.0	3,931.4	3,930.7	10.9	1.6	10.14	-2,930.8	-1,690.7	3,006.7	2,996.4	10.20	294.657		
4,000.0	3,960.7	3,985.2	3,984.6	11.2	1.6	10.20	-2,929.7	-1,691.5	2,993.1	2,982.7	10.38	288.400		
4,035.4	3,995.3	4,015.2	4,014.5	11.3	1.6	10.24	-2,929.1	-1,691.9	2,985.5	2,975.1	10.48	284.978		
4,100.0	4,058.5	4,069.2	4,068.5	11.6	1.6	10.30	-2,928.3	-1,692.7	2,971.9	2,961.3	10.65	278.944		
4,133.8	4,091.6	4,100.0	4,099.3	11.7	1.7	10.33	-2,927.9	-1,693.1	2,964.9	2,954.1	10.75	275.840		
4,200.0	4,156.3	4,160.4	4,159.7	12.0	1.7	10.40	-2,927.2	-1,694.0	2,951.2	2,940.2	10.93	269.938		
4,232.3	4,187.9	4,191.3	4,190.6	12.2	1.7	10.43	-2,926.8	-1,694.5	2,944.5	2,933.5	11.02	267.113		
4,300.0	4,254.1	4,260.3	4,259.6	12.5	1.7	10.52	-2,925.8	-1,695.7	2,930.4	2,919.2	11.22	261.271		
4,325.7	4,279.2	4,286.7	4,286.0	12.6	1.7	10.55	-2,925.4	-1,696.2	2,925.1	2,913.8	11.29	259.099		
4,330.7	4,284.1	4,291.9	4,291.2	12.6	1.7	10.55	-2,925.3	-1,696.3	2,924.1	2,912.8	11.30	258.724		
4,400.0	4,352.1	4,353.7	4,353.0	12.8	1.7	10.58	-2,924.3	-1,697.6	2,910.6	2,899.2	11.47	253.830		
4,429.1	4,380.8	4,379.2	4,378.5	12.9	1.7	10.59	-2,923.9	-1,698.2	2,905.5	2,894.0	11.53	251.976		
4,500.0	4,450.7	4,446.3	4,445.6	13.1	1.8	10.63	-2,922.9	-1,699.9	2,894.3	2,882.7	11.69	247.693		
4,527.5	4,478.0	4,473.4	4,472.6	13.2	1.8	10.64	-2,922.5	-1,700.6	2,890.5	2,878.7	11.74	246.159		
4,600.0	4,549.9	4,558.5	4,557.7	13.4	1.8	10.71	-2,920.9	-1,702.9	2,881.4	2,869.5	11.90	242.231		
4,626.0	4,575.7	4,591.9	4,591.1	13.5	1.8	10.73	-2,920.1	-1,703.8	2,878.5	2,866.6	11.95	240.912		
4,700.0	4,649.4	4,670.5	4,669.6	13.6	1.8	10.80	-2,917.9	-1,706.3	2,871.3	2,859.2	12.10	237.378		
4,724.4	4,673.7	4,695.9	4,694.9	13.7	1.8	10.82	-2,917.1	-1,707.2	2,869.3	2,857.2	12.14	236.316		
4,800.0	4,749.2	4,765.9	4,764.9	13.8	1.8	10.88	-2,914.9	-1,709.6	2,864.5	2,852.2	12.28	233.253		
4,822.8	4,772.0	4,787.0	4,785.9	13.9	1.9	10.90	-2,914.3	-1,710.2	2,863.4	2,851.1	12.32	232.416		
4,900.0	4,849.2	4,866.0	4,864.9	14.0	1.9	10.96	-2,912.3	-1,712.5	2,861.2	2,848.8	12.46	229.707		
4,921.2	4,870.4	4,888.3	4,887.1	14.1	1.9	10.97	-2,911.8	-1,713.1	2,861.0	2,848.5	12.49	229.013		
4,925.6	4,874.8	4,892.8	4,891.7	14.1	1.9	-147.83	-2,911.7	-1,713.2	2,860.9	2,845.3	15.68	182.478		

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 SCHAUMBERG 17G-314
<b>Project:</b>	WELD COUNTY, COLORADO	<b>TVD Reference:</b>	KB-EST @ 4633.0usft (Original Well Elev)
<b>Reference Site:</b>	SW NW SEC. 17 T5N R64W 6th P.M.	<b>MD Reference:</b>	KB-EST @ 4633.0usft (Original Well Elev)
<b>Site Error:</b>	0.0 usft	<b>North Reference:</b>	True
<b>Reference Well:</b>	SCHAUMBERG 17G-314	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Well Error:</b>	0.0 usft	<b>Output errors are at</b>	2.00 sigma
<b>Reference Wellbore</b>	ORIGINAL WELLBORE	<b>Database:</b>	EDM 5000.1 Single User Db
<b>Reference Design:</b>	PROPOSAL #1	<b>Offset TVD Reference:</b>	Offset Datum

Offset Design NW SW SEC. 17 T5N R64W 6th P.M. - EXIST VERT HETTINGER #44-18 - 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		
5,000.0	4,949.2	4,966.1	4,965.0	14.2	1.9	-147.78	-2,909.8	-1,715.1	2,860.4	2,844.6	15.81	180.886		
5,019.7	4,968.8	4,985.4	4,984.2	14.2	1.9	-147.77	-2,909.4	-1,715.6	2,860.3	2,844.4	15.85	180.475		
5,100.0	5,049.2	5,053.8	5,052.6	14.3	1.9	-147.72	-2,907.8	-1,717.5	2,859.9	2,843.9	15.99	178.855		
5,118.1	5,067.3	5,068.8	5,067.5	14.3	1.9	-147.71	-2,907.5	-1,717.9	2,859.8	2,843.8	16.02	178.495		
5,142.2	5,091.4	5,088.6	5,087.4	14.4	1.9	-147.69	-2,907.1	-1,718.4	2,859.8	2,843.7	16.06	178.019		
5,200.0	5,149.2	5,141.6	5,140.4	14.5	2.0	-147.66	-2,906.3	-1,719.8	2,859.9	2,843.7	16.17	176.877		
5,216.5	5,165.7	5,157.3	5,156.0	14.5	2.0	-147.65	-2,906.1	-1,720.2	2,859.9	2,843.7	16.20	176.549		
5,300.0	5,249.2	5,235.3	5,234.0	14.6	2.0	-147.60	-2,904.9	-1,722.5	2,860.1	2,843.8	16.35	174.916		
5,314.9	5,264.1	5,249.0	5,247.7	14.6	2.0	-147.59	-2,904.7	-1,722.9	2,860.2	2,843.8	16.38	174.626		
5,400.0	5,349.2	5,325.9	5,324.5	14.8	2.0	-147.54	-2,903.7	-1,725.3	2,860.7	2,844.1	16.54	173.004		
5,413.4	5,362.5	5,337.6	5,336.2	14.8	2.0	-147.53	-2,903.6	-1,725.7	2,860.8	2,844.2	16.56	172.752		
5,500.0	5,449.2	5,413.3	5,411.9	14.9	2.0	-147.47	-2,902.6	-1,728.5	2,861.6	2,844.9	16.72	171.149		
5,511.8	5,461.0	5,423.7	5,422.2	14.9	2.0	-147.47	-2,902.5	-1,728.9	2,861.8	2,845.0	16.74	170.933		
5,600.0	5,549.2	5,501.2	5,499.7	15.1	2.1	-147.40	-2,901.7	-1,732.2	2,863.0	2,846.1	16.91	169.346		
5,610.2	5,559.4	5,512.2	5,510.7	15.1	2.1	-147.39	-2,901.6	-1,732.6	2,863.2	2,846.2	16.93	169.159		
5,700.0	5,649.2	5,609.7	5,608.1	15.2	2.1	-147.33	-2,901.2	-1,736.0	2,864.5	2,847.4	17.10	167.527		
5,708.6	5,657.8	5,620.1	5,618.5	15.3	2.1	-147.33	-2,901.1	-1,736.3	2,864.6	2,847.5	17.12	167.366		
5,800.0	5,749.2	5,730.2	5,728.6	15.4	2.1	-147.28	-2,900.7	-1,738.8	2,865.4	2,848.1	17.30	165.665		
5,807.1	5,756.2	5,738.7	5,737.0	15.4	2.1	-147.28	-2,900.7	-1,738.9	2,865.4	2,848.1	17.31	165.531		
5,900.0	5,849.2	5,839.8	5,838.2	15.6	2.1	-147.25	-2,900.3	-1,740.1	2,865.7	2,848.2	17.49	163.823		
5,905.5	5,854.7	5,845.0	5,843.4	15.6	2.1	-147.25	-2,900.3	-1,740.1	2,865.7	2,848.2	17.50	163.724		
6,000.0	5,949.2	5,943.6	5,942.0	15.7	2.2	-147.24	-2,900.2	-1,740.7	2,866.0	2,848.3	17.69	162.051		
6,003.9	5,953.1	5,948.3	5,946.7	15.7	2.2	-147.24	-2,900.2	-1,740.7	2,866.0	2,848.3	17.69	161.982		
6,100.0	6,049.2	6,056.7	6,055.1	15.9	2.2	-147.24	-2,899.9	-1,740.9	2,865.8	2,847.9	17.88	160.288		
6,102.3	6,051.5	6,059.2	6,057.6	15.9	2.2	-147.24	-2,899.9	-1,740.9	2,865.8	2,847.9	17.88	160.247		
6,124.6	6,073.8	6,083.3	6,081.7	15.9	2.2	-147.23	-2,899.7	-1,740.9	2,865.7	2,847.8	17.93	159.858		
6,150.0	6,099.2	6,108.5	6,106.9	16.0	2.2	-57.26	-2,899.6	-1,740.9	2,865.4	2,850.3	15.08	189.963		
6,200.0	6,149.0	6,151.6	6,150.0	16.1	2.2	-57.45	-2,899.5	-1,740.9	2,863.3	2,848.1	15.23	187.989		
6,200.8	6,149.8	6,152.3	6,150.6	16.1	2.2	-57.46	-2,899.5	-1,740.9	2,863.3	2,848.0	15.23	187.957		
6,250.0	6,198.5	6,200.0	6,198.4	16.2	2.2	-57.83	-2,899.5	-1,740.9	2,859.5	2,844.1	15.39	185.846		
6,299.2	6,246.6	6,241.8	6,240.2	16.3	2.2	-58.35	-2,899.5	-1,740.9	2,854.1	2,838.5	15.55	183.585		
6,300.0	6,247.4	6,242.6	6,240.9	16.3	2.2	-58.36	-2,899.5	-1,740.9	2,854.0	2,838.4	15.55	183.547		
6,350.0	6,295.5	6,290.9	6,289.3	16.5	2.2	-59.10	-2,899.5	-1,740.9	2,846.6	2,830.9	15.72	181.071		
6,397.6	6,340.2	6,344.4	6,342.8	16.6	2.2	-60.03	-2,899.5	-1,740.9	2,838.0	2,822.1	15.90	178.465		
6,400.0	6,342.4	6,347.2	6,345.5	16.6	2.2	-60.08	-2,899.5	-1,740.9	2,837.5	2,821.6	15.91	178.331		
6,450.0	6,388.1	6,403.1	6,401.4	16.8	2.2	-61.27	-2,899.2	-1,740.8	2,826.6	2,810.5	16.13	175.291		
6,496.0	6,428.8	6,443.0	6,441.4	17.0	2.2	-62.45	-2,899.0	-1,740.8	2,815.2	2,798.8	16.35	172.132		
6,500.0	6,432.2	6,446.3	6,444.7	17.0	2.2	-62.56	-2,899.0	-1,740.7	2,814.2	2,797.8	16.38	171.856		
6,550.0	6,474.6	6,487.9	6,486.3	17.3	2.2	-64.00	-2,898.8	-1,740.7	2,800.3	2,783.6	16.67	168.023		
6,594.5	6,510.7	6,523.0	6,521.3	17.5	2.2	-65.42	-2,898.6	-1,740.6	2,786.9	2,770.0	16.97	164.215		
6,600.0	6,515.0	6,527.2	6,525.6	17.6	2.2	-65.60	-2,898.6	-1,740.6	2,785.2	2,768.2	17.01	163.735		
6,650.0	6,553.3	6,564.2	6,562.6	17.9	2.2	-67.33	-2,898.4	-1,740.5	2,769.0	2,751.6	17.42	158.958		
6,692.9	6,584.3	6,594.2	6,592.5	18.2	2.3	-68.91	-2,898.3	-1,740.4	2,754.3	2,736.5	17.83	154.449		
6,700.0	6,589.2	6,600.0	6,598.4	18.2	2.3	-69.20	-2,898.3	-1,740.4	2,751.9	2,734.0	17.90	153.698		
6,750.0	6,622.7	6,633.2	6,631.5	18.6	2.3	-71.16	-2,898.2	-1,740.3	2,733.9	2,715.5	18.47	148.024		
6,791.3	6,648.3	6,659.5	6,657.8	19.0	2.3	-72.86	-2,898.1	-1,740.2	2,718.6	2,699.6	19.00	143.061		
6,800.0	6,653.4	6,664.7	6,663.1	19.1	2.3	-73.23	-2,898.1	-1,740.2	2,715.3	2,696.2	19.12	142.044		
6,850.0	6,681.4	6,693.4	6,691.8	19.6	2.3	-75.34	-2,897.9	-1,740.1	2,696.3	2,676.4	19.84	135.897		
6,889.7	6,701.5	6,713.0	6,711.3	20.1	2.3	-77.01	-2,897.8	-1,740.0	2,680.9	2,660.5	20.47	130.950		
6,900.0	6,706.3	6,717.6	6,716.0	20.2	2.3	-77.44	-2,897.8	-1,740.0	2,677.0	2,656.3	20.64	129.725		
6,950.0	6,728.2	6,738.5	6,736.9	20.9	2.3	-79.52	-2,897.7	-1,740.0	2,657.5	2,636.0	21.49	123.638		
6,988.2	6,742.8	6,752.4	6,750.8	21.5	2.3	-81.08	-2,897.6	-1,740.0	2,642.7	2,620.5	22.19	119.075		

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 SCHAUMBERG 17G-314
<b>Project:</b>	WELD COUNTY, COLORADO	<b>TVD Reference:</b>	KB-EST @ 4633.0usft (Original Well Elev)
<b>Reference Site:</b>	SW NW SEC. 17 T5N R64W 6th P.M.	<b>MD Reference:</b>	KB-EST @ 4633.0usft (Original Well Elev)
<b>Site Error:</b>	0.0 usft	<b>North Reference:</b>	True
<b>Reference Well:</b>	SCHAUMBERG 17G-314	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Well Error:</b>	0.0 usft	<b>Output errors are at</b>	2.00 sigma
<b>Reference Wellbore</b>	ORIGINAL WELLBORE	<b>Database:</b>	EDM 5000.1 Single User Db
<b>Reference Design:</b>	PROPOSAL #1	<b>Offset TVD Reference:</b>	Offset Datum

Offset Design												Offset Site Error:	0.0 usft
Survey Program: 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	
7,000.0	6,746.9	6,756.4	6,754.8	21.6	2.3	-81.56	-2,897.6	-1,740.0	2,638.1	2,615.7	22.41	117.730	
7,050.0	6,762.4	6,771.3	6,769.6	22.5	2.3	-83.54	-2,897.5	-1,740.0	2,619.0	2,595.6	23.37	112.069	
7,086.6	6,771.5	6,780.1	6,778.5	23.1	2.3	-84.92	-2,897.5	-1,740.0	2,605.2	2,581.1	24.10	108.089	
7,100.0	6,774.4	6,782.9	6,781.3	23.3	2.3	-85.41	-2,897.5	-1,740.0	2,600.2	2,575.9	24.37	106.705	
7,150.0	6,783.1	6,791.4	6,789.8	24.3	2.3	-87.17	-2,897.4	-1,740.0	2,582.0	2,556.6	25.40	101.666	
7,185.0	6,787.1	6,795.3	6,793.7	25.0	2.3	-88.33	-2,897.4	-1,740.1	2,569.6	2,543.5	26.13	98.326	
7,200.0	6,788.3	6,796.5	6,794.9	25.3	2.3	-88.80	-2,897.4	-1,740.1	2,564.4	2,538.0	26.45	96.969	
7,252.3	6,790.0	6,798.3	6,796.7	26.3	2.3	-90.33	-2,897.4	-1,740.1	2,546.9	2,519.3	27.56	92.427	
7,283.4	6,789.9	6,798.2	6,796.6	27.0	2.3	-90.33	-2,897.4	-1,740.1	2,536.9	2,508.6	28.25	89.811	
7,300.0	6,789.8	6,798.2	6,796.6	27.3	2.3	-90.33	-2,897.4	-1,740.1	2,531.7	2,503.1	28.61	88.476	
7,381.9	6,789.5	6,798.1	6,796.5	29.1	2.3	-90.32	-2,897.4	-1,740.1	2,507.6	2,477.1	30.50	82.225	
7,400.0	6,789.4	6,798.1	6,796.5	29.5	2.3	-90.32	-2,897.4	-1,740.1	2,502.6	2,471.7	30.91	80.955	
7,480.3	6,789.1	6,798.0	6,796.3	31.4	2.3	-90.32	-2,897.4	-1,740.1	2,481.9	2,449.0	32.83	75.605	
7,500.0	6,789.1	6,797.9	6,796.3	31.8	2.3	-90.32	-2,897.4	-1,740.1	2,477.1	2,443.8	33.30	74.398	
7,578.7	6,788.8	6,797.8	6,796.2	33.7	2.3	-90.32	-2,897.4	-1,740.1	2,459.8	2,424.6	35.22	69.833	
7,600.0	6,788.7	6,797.8	6,796.2	34.2	2.3	-90.32	-2,897.4	-1,740.1	2,455.5	2,419.8	35.74	68.695	
7,677.1	6,788.4	6,797.7	6,796.0	36.1	2.3	-90.31	-2,897.4	-1,740.1	2,441.5	2,403.8	37.67	64.804	
7,700.0	6,788.3	6,797.6	6,796.0	36.7	2.3	-90.31	-2,897.4	-1,740.1	2,437.8	2,399.5	38.25	63.739	
7,775.6	6,788.0	6,797.5	6,795.9	38.6	2.3	-90.31	-2,897.4	-1,740.1	2,427.1	2,386.9	40.17	60.420	
7,800.0	6,787.9	6,797.5	6,795.9	39.2	2.3	-90.31	-2,897.4	-1,740.1	2,424.1	2,383.3	40.79	59.427	
7,874.0	6,787.6	6,797.4	6,795.7	41.0	2.3	-90.31	-2,897.4	-1,740.1	2,416.5	2,373.8	42.70	56.594	
7,900.0	6,787.6	6,797.3	6,795.7	41.7	2.3	-90.31	-2,897.4	-1,740.1	2,414.4	2,371.1	43.37	55.671	
7,972.4	6,787.3	6,797.2	6,795.6	43.6	2.3	-90.30	-2,897.4	-1,740.1	2,410.0	2,364.7	45.26	53.250	
8,000.0	6,787.2	6,797.2	6,795.6	44.3	2.3	-90.30	-2,897.4	-1,740.1	2,408.9	2,362.9	45.98	52.393	
8,070.8	6,786.9	6,797.1	6,795.4	46.1	2.3	-90.30	-2,897.4	-1,740.1	2,407.5	2,359.6	47.84	50.322	
8,083.5	6,786.9	6,797.0	6,795.4	46.4	2.3	-90.30	-2,897.4	-1,740.1	2,407.4	2,359.3	48.17	49.775 CC	
8,100.0	6,786.8	6,797.0	6,795.4	46.9	2.3	-90.30	-2,897.4	-1,740.1	2,407.5	2,358.9	48.61	49.528	
8,169.3	6,786.5	6,796.9	6,795.3	48.7	2.3	-90.30	-2,897.4	-1,740.1	2,409.0	2,358.5	50.45	47.754 ES	
8,200.0	6,786.4	6,796.9	6,795.2	49.5	2.3	-90.29	-2,897.4	-1,740.1	2,410.3	2,359.0	51.26	47.021	
8,267.7	6,786.1	6,796.8	6,795.1	51.3	2.3	-90.29	-2,897.4	-1,740.1	2,414.5	2,361.4	53.07	45.500	
8,300.0	6,786.0	6,796.7	6,795.1	52.1	2.3	-90.29	-2,897.4	-1,740.1	2,417.2	2,363.2	53.93	44.822	
8,366.1	6,785.8	6,796.6	6,795.0	53.9	2.3	-90.29	-2,897.4	-1,740.1	2,424.0	2,368.3	55.70	43.518	
8,400.0	6,785.6	6,796.5	6,794.9	54.8	2.3	-90.29	-2,897.4	-1,740.1	2,428.2	2,371.6	56.61	42.893	
8,464.5	6,785.4	6,796.4	6,794.8	56.5	2.3	-90.28	-2,897.4	-1,740.1	2,437.4	2,379.1	58.35	41.773	
8,500.0	6,785.3	6,796.4	6,794.7	57.5	2.3	-90.28	-2,897.4	-1,740.1	2,443.2	2,383.9	59.30	41.198	
8,563.0	6,785.0	6,796.3	6,794.6	59.2	2.3	-90.28	-2,897.4	-1,740.1	2,454.7	2,393.7	61.01	40.236	
8,600.0	6,784.9	6,796.2	6,794.6	60.2	2.3	-90.28	-2,897.4	-1,740.1	2,462.2	2,400.2	62.01	39.707	
8,661.4	6,784.6	6,796.1	6,794.5	61.8	2.3	-90.28	-2,897.4	-1,740.1	2,475.8	2,412.2	63.68	38.882	
8,700.0	6,784.5	6,796.0	6,794.4	62.9	2.3	-90.27	-2,897.4	-1,740.1	2,485.1	2,420.4	64.72	38.396	
8,759.8	6,784.3	6,795.9	6,794.3	64.5	2.3	-90.27	-2,897.4	-1,740.1	2,500.7	2,434.3	66.35	37.687	
8,800.0	6,784.1	6,795.9	6,794.2	65.6	2.3	-90.27	-2,897.4	-1,740.1	2,511.8	2,444.4	67.45	37.241	
8,858.2	6,783.9	6,795.8	6,794.1	67.1	2.3	-90.27	-2,897.4	-1,740.1	2,529.1	2,460.0	69.04	36.633	
8,900.0	6,783.7	6,795.7	6,794.1	68.3	2.3	-90.27	-2,897.4	-1,740.1	2,542.2	2,472.0	70.18	36.225	
8,956.7	6,783.5	6,795.6	6,794.0	69.8	2.3	-90.26	-2,897.4	-1,740.1	2,560.9	2,489.2	71.73	35.703	
9,000.0	6,783.3	6,795.5	6,793.9	71.0	2.3	-90.26	-2,897.4	-1,740.1	2,576.0	2,503.1	72.91	35.330	
9,055.1	6,783.1	6,795.4	6,793.8	72.5	2.3	-90.26	-2,897.4	-1,740.1	2,596.1	2,521.7	74.42	34.883	
9,100.0	6,782.9	6,795.3	6,793.7	73.7	2.3	-90.26	-2,897.4	-1,740.1	2,613.3	2,537.6	75.66	34.542	
9,153.5	6,782.7	6,795.2	6,793.6	75.2	2.3	-90.26	-2,897.4	-1,740.1	2,634.5	2,557.4	77.13	34.159	
9,200.0	6,782.6	6,795.1	6,793.5	76.5	2.3	-90.25	-2,897.4	-1,740.1	2,653.8	2,575.4	78.40	33.848	
9,251.9	6,782.4	6,795.0	6,793.4	77.9	2.3	-90.25	-2,897.4	-1,740.1	2,676.0	2,596.2	79.83	33.521	
9,300.0	6,782.2	6,795.0	6,793.3	79.2	2.3	-90.25	-2,897.4	-1,740.1	2,697.4	2,616.2	81.15	33.238	
9,350.4	6,782.0	6,794.9	6,793.2	80.6	2.3	-90.25	-2,897.4	-1,740.1	2,720.5	2,637.9	82.54	32.959	

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 SCHAUMBERG 17G-314
<b>Project:</b>	WELD COUNTY, COLORADO	<b>TVD Reference:</b>	KB-EST @ 4633.0usft (Original Well Elev)
<b>Reference Site:</b>	SW NW SEC. 17 T5N R64W 6th P.M.	<b>MD Reference:</b>	KB-EST @ 4633.0usft (Original Well Elev)
<b>Site Error:</b>	0.0 usft	<b>North Reference:</b>	True
<b>Reference Well:</b>	SCHAUMBERG 17G-314	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Well Error:</b>	0.0 usft	<b>Output errors are at</b>	2.00 sigma
<b>Reference Wellbore</b>	ORIGINAL WELLBORE	<b>Database:</b>	EDM 5000.1 Single User Db
<b>Reference Design:</b>	PROPOSAL #1	<b>Offset TVD Reference:</b>	Offset Datum

Offset Design												Offset Site Error:	0.0 usft
Survey Program: 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	6,781.8	6,794.8	6,793.1	82.0	2.3	-90.24	-2,897.4	-1,740.1	2,743.9	2,660.0	83.91	32.701	
9,448.8	6,781.6	6,794.7	6,793.0	83.3	2.3	-90.24	-2,897.4	-1,740.1	2,767.7	2,682.4	85.26	32.463	
9,500.0	6,781.4	6,794.6	6,792.9	84.7	2.3	-90.24	-2,897.4	-1,740.1	2,793.3	2,706.6	86.67	32.230	
9,547.2	6,781.2	6,794.5	6,792.9	86.0	2.3	-90.24	-2,897.4	-1,740.1	2,817.5	2,729.5	87.97	32.027	
9,600.0	6,781.0	6,794.4	6,792.8	87.5	2.3	-90.23	-2,897.4	-1,740.1	2,845.3	2,755.9	89.43	31.816	
9,645.6	6,780.8	6,794.3	6,792.7	88.7	2.3	-90.23	-2,897.4	-1,740.1	2,869.9	2,779.2	90.69	31.644	
9,700.0	6,780.6	6,794.2	6,792.6	90.2	2.3	-90.23	-2,897.4	-1,740.1	2,899.8	2,807.6	92.20	31.453	
9,744.1	6,780.4	6,794.1	6,792.5	91.4	2.3	-90.23	-2,897.4	-1,740.1	2,924.6	2,831.2	93.42	31.308	
9,800.0	6,780.2	6,794.0	6,792.4	93.0	2.3	-90.22	-2,897.4	-1,740.1	2,956.7	2,861.8	94.96	31.136	
9,842.5	6,780.1	6,793.9	6,792.3	94.2	2.3	-90.22	-2,897.4	-1,740.1	2,981.6	2,885.5	96.14	31.013	
9,900.0	6,779.8	6,793.8	6,792.2	95.7	2.3	-90.22	-2,897.4	-1,740.1	3,015.9	2,918.2	97.73	30.858	
9,940.9	6,779.7	6,793.7	6,792.1	96.9	2.3	-90.22	-2,897.4	-1,740.1	3,040.7	2,941.9	98.87	30.755	
10,000.0	6,779.4	6,793.6	6,792.0	98.5	2.3	-90.21	-2,897.4	-1,740.1	3,077.2	2,976.7	100.51	30.617	
10,039.3	6,779.3	6,793.5	6,791.9	99.6	2.3	-90.21	-2,897.4	-1,740.1	3,101.8	3,000.2	101.60	30.530	
10,100.0	6,779.0	6,793.4	6,791.7	101.3	2.3	-90.21	-2,897.4	-1,740.1	3,140.4	3,037.1	103.28	30.406	
10,137.8	6,778.9	6,793.3	6,791.7	102.3	2.3	-90.21	-2,897.4	-1,740.1	3,164.8	3,060.5	104.33	30.334	
10,200.0	6,778.7	6,793.2	6,791.5	104.1	2.3	-90.20	-2,897.4	-1,740.1	3,205.6	3,099.5	106.06	30.224	
10,236.2	6,778.5	6,793.1	6,791.5	105.1	2.3	-90.20	-2,897.4	-1,740.1	3,229.6	3,122.5	107.06	30.165	
10,300.0	6,778.3	6,792.9	6,791.3	106.8	2.3	-90.20	-2,897.4	-1,740.1	3,272.4	3,163.6	108.84	30.067	
10,334.6	6,778.1	6,792.9	6,791.2	107.8	2.3	-90.20	-2,897.4	-1,740.1	3,296.0	3,186.2	109.80	30.018	
10,400.0	6,777.9	6,792.7	6,791.1	109.6	2.3	-90.19	-2,897.4	-1,740.1	3,341.0	3,229.4	111.62	29.933	
10,433.0	6,777.7	6,792.6	6,791.0	110.5	2.3	-90.19	-2,897.4	-1,740.1	3,364.0	3,251.5	112.54	29.892	
10,500.0	6,777.5	6,792.5	6,790.9	112.4	2.3	-90.19	-2,897.4	-1,740.1	3,411.1	3,296.7	114.40	29.817	
10,531.5	6,777.3	6,792.4	6,790.8	113.3	2.3	-90.19	-2,897.4	-1,740.1	3,433.5	3,318.2	115.28	29.785	
10,600.0	6,777.1	6,792.3	6,790.7	115.2	2.3	-90.18	-2,897.4	-1,740.1	3,482.6	3,365.5	117.18	29.720	
10,629.9	6,777.0	6,792.2	6,790.6	116.0	2.3	-90.18	-2,897.4	-1,740.1	3,504.3	3,386.3	118.01	29.694	
10,700.0	6,776.7	6,792.0	6,790.4	117.9	2.3	-90.18	-2,897.4	-1,740.1	3,555.6	3,435.6	119.97	29.638	
10,728.3	6,776.6	6,792.0	6,790.4	118.7	2.3	-90.17	-2,897.4	-1,740.1	3,576.5	3,455.7	120.76	29.617	
10,800.0	6,776.3	6,791.8	6,790.2	120.7	2.3	-90.17	-2,897.4	-1,740.1	3,629.8	3,507.0	122.75	29.570	
10,826.7	6,776.2	6,791.8	6,790.1	121.5	2.3	-90.17	-2,897.4	-1,740.1	3,649.9	3,526.4	123.50	29.554	
10,900.0	6,775.9	6,791.6	6,790.0	123.5	2.3	-90.16	-2,897.4	-1,740.0	3,705.2	3,579.7	125.54	29.515	
10,925.2	6,775.8	6,791.5	6,789.9	124.2	2.3	-90.16	-2,897.4	-1,740.0	3,724.4	3,598.2	126.24	29.502	
11,000.0	6,775.5	6,791.3	6,789.7	126.3	2.3	-90.16	-2,897.4	-1,740.0	3,781.8	3,653.5	128.33	29.470	
11,023.6	6,775.4	6,791.3	6,789.7	126.9	2.3	-90.16	-2,897.4	-1,740.0	3,800.0	3,671.1	128.99	29.461	
11,100.0	6,775.1	6,791.1	6,789.5	129.1	2.3	-90.15	-2,897.4	-1,740.0	3,859.5	3,728.3	131.12	29.435	
11,122.0	6,775.0	6,791.1	6,789.4	129.7	2.3	-90.15	-2,897.4	-1,740.0	3,876.7	3,745.0	131.73	29.429	
11,200.0	6,774.7	6,790.9	6,789.2	131.9	2.3	-90.15	-2,897.4	-1,740.0	3,938.1	3,804.2	133.91	29.410	
11,220.4	6,774.6	6,790.8	6,789.2	132.4	2.3	-90.14	-2,897.4	-1,740.0	3,954.3	3,819.8	134.48	29.405	
11,300.0	6,774.3	6,790.6	6,789.0	134.6	2.3	-90.14	-2,897.4	-1,740.0	4,017.7	3,881.0	136.70	29.391	
11,318.9	6,774.2	6,790.6	6,788.9	135.2	2.3	-90.14	-2,897.4	-1,740.0	4,032.8	3,895.6	137.22	29.389	
11,400.0	6,773.9	6,790.4	6,788.7	137.4	2.3	-90.13	-2,897.4	-1,740.0	4,098.2	3,958.7	139.49	29.380	
11,417.3	6,773.8	6,790.3	6,788.7	137.9	2.3	-90.13	-2,897.4	-1,740.0	4,112.2	3,972.2	139.97	29.379	
11,500.0	6,773.5	6,790.1	6,788.5	140.2	2.3	-90.13	-2,897.4	-1,740.0	4,179.5	4,037.3	142.28	29.375	
11,515.7	6,773.4	6,790.1	6,788.4	140.7	2.3	-90.12	-2,897.4	-1,740.0	4,192.4	4,049.7	142.72	29.375 SF	
11,600.0	6,773.1	6,789.8	6,788.2	143.0	2.3	-90.12	-2,897.4	-1,740.0	4,261.7	4,116.6	145.07	29.376	
11,614.1	6,773.0	6,789.8	6,788.2	143.4	2.3	-90.12	-2,897.4	-1,740.0	4,273.4	4,127.9	145.47	29.377	
11,700.0	6,772.7	6,789.6	6,788.0	145.8	2.3	-90.11	-2,897.4	-1,740.0	4,344.6	4,196.7	147.87	29.382	
11,712.6	6,772.6	6,789.5	6,787.9	146.2	2.3	-90.11	-2,897.4	-1,740.0	4,355.0	4,206.8	148.22	29.383	
11,800.0	6,772.3	6,789.3	6,787.7	148.6	2.3	-90.11	-2,897.4	-1,740.0	4,428.2	4,277.5	150.66	29.392	
11,811.0	6,772.2	6,789.3	6,787.7	148.9	2.3	-90.10	-2,897.4	-1,740.0	4,437.4	4,286.4	150.97	29.393	
11,900.0	6,771.9	6,789.0	6,787.4	151.4	2.3	-90.10	-2,897.5	-1,740.0	4,512.4	4,359.0	153.46	29.405	
11,909.4	6,771.8	6,789.0	6,787.4	151.7	2.3	-90.10	-2,897.5	-1,740.0	4,520.4	4,366.7	153.72	29.407	

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

# Anticollision Report



<b>Company:</b>	PDC ENERGY	<b>Local Co-ordinate Reference:</b>	Well SCHAUMBERG 17G-314
<b>Project:</b>	WELD COUNTY, COLORADO	<b>TVD Reference:</b>	KB-EST @ 4633.0usft (Original Well Elev)
<b>Reference Site:</b>	SW NW SEC. 17 T5N R64W 6th P.M.	<b>MD Reference:</b>	KB-EST @ 4633.0usft (Original Well Elev)
<b>Site Error:</b>	0.0 usft	<b>North Reference:</b>	True
<b>Reference Well:</b>	SCHAUMBERG 17G-314	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Well Error:</b>	0.0 usft	<b>Output errors are at</b>	2.00 sigma
<b>Reference Wellbore</b>	ORIGINAL WELLBORE	<b>Database:</b>	EDM 5000.1 Single User Db
<b>Reference Design:</b>	PROPOSAL #1	<b>Offset TVD Reference:</b>	Offset Datum

<b>Offset Design</b> NW SW SEC. 17 T5N R64W 6th P.M. - EXIST VERT HETTINGER #44-18 - 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
12,000.0	6,771.5	6,788.8	6,787.1	154.2	2.3	-90.09	-2,897.5	-1,740.0	4,597.3	4,441.0	156.25	29.422	
12,007.8	6,771.4	6,788.7	6,787.1	154.4	2.3	-90.09	-2,897.5	-1,740.0	4,604.0	4,447.5	156.47	29.424	
12,100.0	6,771.1	6,788.5	6,786.9	157.0	2.3	-90.08	-2,897.5	-1,740.0	4,682.8	4,523.7	159.05	29.443	
12,106.3	6,771.0	6,788.5	6,786.8	157.2	2.3	-90.08	-2,897.5	-1,740.0	4,688.2	4,528.9	159.22	29.444	
12,200.0	6,770.7	6,788.2	6,786.6	159.8	2.3	-90.08	-2,897.5	-1,740.0	4,768.8	4,607.0	161.84	29.466	
12,204.7	6,770.6	6,788.2	6,786.6	159.9	2.3	-90.08	-2,897.5	-1,740.0	4,772.9	4,610.9	161.98	29.467	
12,300.0	6,770.3	6,787.9	6,786.3	162.6	2.3	-90.07	-2,897.5	-1,740.0	4,855.4	4,690.8	164.64	29.491	
12,303.1	6,770.2	6,787.9	6,786.3	162.7	2.3	-90.07	-2,897.5	-1,740.0	4,858.1	4,693.4	164.73	29.492	
12,361.7	6,770.0	6,787.7	6,786.1	164.3	2.3	-90.06	-2,897.5	-1,740.0	4,909.1	4,742.7	166.37	29.508	



# Anticollision Report



<b>Company:</b>	PDC ENERGY	<b>Local Co-ordinate Reference:</b>	Well SCHAUMBERG 17G-314
<b>Project:</b>	WELD COUNTY, COLORADO	<b>TVD Reference:</b>	KB-EST @ 4633.0usft (Original Well Elev)
<b>Reference Site:</b>	SW NW SEC. 17 T5N R64W 6th P.M.	<b>MD Reference:</b>	KB-EST @ 4633.0usft (Original Well Elev)
<b>Site Error:</b>	0.0 usft	<b>North Reference:</b>	True
<b>Reference Well:</b>	SCHAUMBERG 17G-314	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Well Error:</b>	0.0 usft	<b>Output errors are at</b>	2.00 sigma
<b>Reference Wellbore</b>	ORIGINAL WELLBORE	<b>Database:</b>	EDM 5000.1 Single User Db
<b>Reference Design:</b>	PROPOSAL #1	<b>Offset TVD Reference:</b>	Offset Datum

Offset Design												Offset Site Error:	0.0 usft
Survey Program: 0-INC												Offset Well Error:	0.0 usft
Reference		Offset		Semi Major Axis			Distance						Warning
Measured Depth (usft)	Vertical Depth (usft)	Measured Depth (usft)	Vertical Depth (usft)	Reference (usft)	Offset (usft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (usft)	+E/-W (usft)	Between Centres (usft)	Between Ellipses (usft)	Minimum Separation (usft)	Separation Factor	
0.0	0.0	0.0	0.0	0.0	0.0	98.19	-324.9	2,257.9	2,281.2				
98.4	98.4	91.4	91.4	0.1	1.2	98.19	-324.9	2,257.9	2,281.2	2,279.9	1.28	1,786.809	
100.0	100.0	93.0	93.0	0.1	1.2	98.19	-324.9	2,257.9	2,281.2	2,279.9	1.30	1,756.391	
196.8	196.8	189.8	189.8	0.3	3.3	98.19	-324.9	2,257.9	2,281.2	2,277.5	3.65	625.659	
200.0	200.0	193.0	193.0	0.3	3.4	98.19	-324.9	2,257.9	2,281.2	2,277.5	3.72	612.461	
295.3	295.3	288.3	288.3	0.5	5.4	98.19	-324.9	2,257.9	2,281.2	2,275.3	5.93	384.643	
300.0	300.0	293.0	293.0	0.5	5.5	98.19	-324.9	2,257.9	2,281.2	2,275.1	6.04	377.718	
393.7	393.7	386.7	386.7	0.8	7.4	98.19	-324.9	2,257.9	2,281.2	2,273.0	8.17	279.369	
400.0	400.0	393.0	393.0	0.8	7.5	98.19	-324.9	2,257.9	2,281.2	2,272.9	8.31	274.568	
492.1	492.1	485.1	485.1	1.0	9.4	98.19	-324.9	2,257.9	2,281.2	2,270.8	10.39	219.655	
500.0	500.0	493.0	493.0	1.0	9.6	98.19	-324.9	2,257.9	2,281.2	2,270.6	10.56	215.964	
590.5	590.5	583.5	583.5	1.2	11.4	98.19	-324.9	2,257.9	2,281.2	2,268.6	12.60	181.071	
600.0	600.0	593.0	593.0	1.2	11.6	98.19	-324.9	2,257.9	2,281.2	2,268.4	12.81	178.069	
689.0	689.0	682.0	682.0	1.4	13.4	98.19	-324.9	2,257.9	2,281.2	2,266.4	14.81	154.056	
700.0	700.0	693.0	693.0	1.4	13.6	98.19	-324.9	2,257.9	2,281.2	2,266.1	15.05	151.524	
787.4	787.4	780.4	780.4	1.6	15.4	98.19	-324.9	2,257.9	2,281.2	2,264.2	17.01	134.073	
800.0	800.0	793.0	793.0	1.7	15.6	98.19	-324.9	2,257.9	2,281.2	2,263.9	17.30	131.884	
885.8	885.8	878.8	878.8	1.9	17.4	98.19	-324.9	2,257.9	2,281.2	2,262.0	19.22	118.689	
900.0	900.0	893.0	893.0	1.9	17.6	98.19	-324.9	2,257.9	2,281.2	2,261.6	19.54	116.759	
984.2	984.2	977.2	977.2	2.1	19.3	98.19	-324.9	2,257.9	2,281.2	2,259.8	21.42	106.476	
1,000.0	1,000.0	993.0	993.0	2.1	19.7	98.19	-324.9	2,257.9	2,281.2	2,259.4	21.78	104.752	
1,082.7	1,082.7	1,075.7	1,075.7	2.3	21.3	98.19	-324.9	2,257.9	2,281.2	2,257.6	23.63	96.546	
1,100.0	1,100.0	1,093.0	1,093.0	2.3	21.7	98.19	-324.9	2,257.9	2,281.2	2,257.2	24.02	94.986	
1,181.1	1,181.1	1,174.1	1,174.1	2.5	23.3	98.19	-324.9	2,257.9	2,281.2	2,255.4	25.83	88.311	
1,200.0	1,200.0	1,193.0	1,193.0	2.6	23.7	98.19	-324.9	2,257.9	2,281.2	2,254.9	26.25	86.888	
1,279.5	1,279.5	1,272.5	1,272.5	2.7	25.3	98.19	-324.9	2,257.9	2,281.2	2,253.2	28.03	81.372	
1,300.0	1,300.0	1,293.0	1,293.0	2.8	25.7	98.19	-324.9	2,257.9	2,281.2	2,252.7	28.49	80.064	
1,377.9	1,377.9	1,370.9	1,370.9	3.0	27.3	98.19	-324.9	2,257.9	2,281.2	2,250.9	30.24	75.445	
1,400.0	1,400.0	1,393.0	1,393.0	3.0	27.7	98.19	-324.9	2,257.9	2,281.2	2,250.5	30.73	74.234	
1,476.4	1,476.4	1,469.4	1,469.4	3.2	29.2	98.19	-324.9	2,257.9	2,281.2	2,248.7	32.44	70.323	
1,500.0	1,500.0	1,493.0	1,493.0	3.2	29.7	98.19	-324.9	2,257.9	2,281.2	2,248.2	32.97	69.196	
1,574.8	1,574.8	1,567.8	1,567.8	3.4	31.2	98.19	-324.9	2,257.9	2,281.2	2,246.5	34.64	65.853	
1,600.0	1,600.0	1,593.0	1,593.0	3.5	31.7	98.19	-324.9	2,257.9	2,281.2	2,246.0	35.20	64.799	
1,673.2	1,673.2	1,666.2	1,666.2	3.6	33.2	98.19	-324.9	2,257.9	2,281.2	2,244.3	36.84	61.918	
1,700.0	1,700.0	1,693.0	1,693.0	3.7	33.7	98.19	-324.9	2,257.9	2,281.2	2,243.7	37.44	60.927	
1,771.6	1,771.6	1,764.6	1,764.6	3.9	35.2	98.19	-324.9	2,257.9	2,281.2	2,242.1	39.04	58.426	
1,800.0	1,800.0	1,793.0	1,793.0	3.9	35.8	98.19	-324.9	2,257.9	2,281.2	2,241.5	39.68	57.492 CC	
1,870.1	1,870.1	1,863.1	1,863.1	4.1	37.2	-103.02	-324.9	2,257.9	2,281.4	2,240.2	41.22	55.341	
1,900.0	1,900.0	1,893.0	1,893.0	4.1	37.8	-103.04	-324.9	2,257.9	2,281.6	2,239.7	41.88	54.474	
1,968.5	1,968.4	1,961.4	1,961.4	4.2	39.1	-103.11	-324.9	2,257.9	2,282.3	2,238.9	43.38	52.617	
2,000.0	1,999.8	1,992.8	1,992.8	4.3	39.8	-103.15	-324.9	2,257.9	2,282.8	2,238.7	44.06	51.810	
2,066.9	2,066.5	2,059.5	2,059.5	4.4	41.1	-103.26	-324.9	2,257.9	2,284.0	2,238.5	45.52	50.178 ES	
2,100.0	2,099.5	2,092.5	2,092.5	4.5	41.8	-103.32	-324.9	2,257.9	2,284.8	2,238.5	46.24	49.414	
2,165.3	2,164.4	2,157.4	2,157.4	4.6	43.1	-103.47	-324.9	2,257.9	2,286.5	2,238.9	47.66	47.973	
2,200.0	2,198.7	2,191.7	2,191.7	4.7	43.8	-103.56	-324.9	2,257.9	2,287.6	2,239.2	48.42	47.249	
2,263.8	2,261.8	2,254.8	2,254.8	4.8	45.0	-103.75	-324.9	2,257.9	2,289.9	2,240.1	49.81	45.971	
2,300.0	2,297.5	2,290.5	2,290.5	4.9	45.8	-103.86	-324.9	2,257.9	2,291.4	2,240.8	50.60	45.282	
2,362.2	2,358.6	2,351.6	2,351.6	5.0	47.0	-104.08	-324.9	2,257.9	2,294.2	2,242.2	51.97	44.144	
2,400.0	2,395.6	2,388.6	2,388.6	5.1	47.7	-104.22	-324.9	2,257.9	2,296.1	2,243.3	52.80	43.488	
2,460.6	2,454.9	2,447.9	2,447.9	5.3	48.9	-104.52	-324.9	2,257.9	2,299.3	2,245.1	54.15	42.458	
2,500.0	2,493.4	2,486.4	2,486.4	5.4	49.7	-104.72	-324.9	2,257.9	2,301.4	2,246.4	55.03	41.818	
2,559.0	2,551.2	2,544.2	2,544.2	5.6	50.9	-105.01	-324.9	2,257.9	2,304.6	2,248.2	56.37	40.886	

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 SCHAUMBERG 17G-314
<b>Project:</b>	WELD COUNTY, COLORADO	<b>TVD Reference:</b>	KB-EST @ 4633.0usft (Original Well Elev)
<b>Reference Site:</b>	SW NW SEC. 17 T5N R64W 6th P.M.	<b>MD Reference:</b>	KB-EST @ 4633.0usft (Original Well Elev)
<b>Site Error:</b>	0.0 usft	<b>North Reference:</b>	True
<b>Reference Well:</b>	SCHAUMBERG 17G-314	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Well Error:</b>	0.0 usft	<b>Output errors are at</b>	2.00 sigma
<b>Reference Wellbore</b>	ORIGINAL WELLBORE	<b>Database:</b>	EDM 5000.1 Single User Db
<b>Reference Design:</b>	PROPOSAL #1	<b>Offset TVD Reference:</b>	Offset Datum

Offset Design												Offset Site Error:	0.0 usft
Survey Program: 0-INC												Offset Well Error:	0.0 usft
Reference		Offset		Semi Major Axis			Distance						Warning
Measured Depth (usft)	Vertical Depth (usft)	Measured Depth (usft)	Vertical Depth (usft)	Reference (usft)	Offset (usft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (usft)	+E/-W (usft)	Between Centres (usft)	Between Ellipses (usft)	Minimum Separation (usft)	Separation Factor	
2,600.0	2,591.3	2,584.3	2,584.3	5.7	51.7	-105.21	-324.9	2,257.9	2,306.9	2,249.6	57.29	40.266	
2,657.5	2,647.5	2,640.5	2,640.5	5.9	52.8	-105.49	-324.9	2,257.9	2,310.1	2,251.5	58.60	39.423	
2,700.0	2,689.1	2,682.1	2,682.1	6.0	53.6	-105.69	-324.9	2,257.9	2,312.5	2,253.0	59.56	38.824	
2,755.9	2,743.7	2,736.7	2,736.7	6.2	54.7	-105.96	-324.9	2,257.9	2,315.8	2,254.9	60.84	38.061	
2,800.0	2,786.9	2,779.9	2,779.9	6.4	55.6	-106.18	-324.9	2,257.9	2,318.3	2,256.5	61.85	37.482	
2,854.3	2,840.0	2,833.0	2,833.0	6.6	56.7	-106.44	-324.9	2,257.9	2,321.6	2,258.5	63.10	36.791	
2,900.0	2,884.7	2,877.7	2,877.7	6.7	57.6	-106.66	-324.9	2,257.9	2,324.3	2,260.2	64.15	36.231	
2,952.7	2,936.3	2,929.3	2,929.3	6.9	58.6	-106.91	-324.9	2,257.9	2,327.6	2,262.2	65.37	35.605	
3,000.0	2,982.5	2,975.5	2,975.5	7.1	59.5	-107.14	-324.9	2,257.9	2,330.5	2,264.0	66.46	35.065	
3,051.2	3,032.6	3,025.6	3,025.6	7.3	60.6	-107.38	-324.9	2,257.9	2,333.7	2,266.1	67.65	34.497	
3,100.0	3,080.3	3,073.3	3,073.3	7.5	61.5	-107.62	-324.9	2,257.9	2,336.8	2,268.1	68.78	33.975	
3,149.6	3,128.8	3,121.8	3,121.8	7.7	62.5	-107.85	-324.9	2,257.9	2,340.1	2,270.1	69.93	33.460	
3,200.0	3,178.1	3,171.1	3,171.1	7.9	63.5	-108.09	-324.9	2,257.9	2,343.3	2,272.2	71.11	32.956	
3,248.0	3,225.1	3,218.1	3,218.1	8.1	64.4	-108.32	-324.9	2,257.9	2,346.5	2,274.3	72.23	32.489	
3,300.0	3,276.0	3,269.0	3,269.0	8.3	65.4	-108.56	-324.9	2,257.9	2,350.0	2,276.6	73.44	32.001	
3,346.4	3,321.4	3,314.4	3,314.4	8.5	66.4	-108.78	-324.9	2,257.9	2,353.2	2,278.7	74.52	31.577	
3,400.0	3,373.8	3,366.8	3,366.8	8.7	67.4	-109.03	-324.9	2,257.9	2,356.9	2,281.1	75.77	31.105	
3,444.9	3,417.7	3,410.7	3,410.7	8.8	68.3	-109.24	-324.9	2,257.9	2,360.0	2,283.2	76.82	30.721	
3,500.0	3,471.6	3,464.6	3,464.6	9.1	69.4	-109.50	-324.9	2,257.9	2,363.8	2,285.7	78.11	30.264	
3,543.3	3,513.9	3,506.9	3,506.9	9.2	70.2	-109.70	-324.9	2,257.9	2,366.9	2,287.8	79.12	29.915	
3,600.0	3,569.4	3,562.4	3,562.4	9.5	71.4	-109.97	-324.9	2,257.9	2,371.0	2,290.6	80.45	29.472	
3,641.7	3,610.2	3,603.2	3,603.2	9.7	72.2	-110.16	-324.9	2,257.9	2,374.0	2,292.6	81.43	29.156	
3,700.0	3,667.2	3,660.2	3,660.2	9.9	73.3	-110.43	-324.9	2,257.9	2,378.3	2,295.5	82.79	28.727	
3,740.1	3,706.5	3,699.5	3,699.5	10.1	74.1	-110.61	-324.9	2,257.9	2,381.3	2,297.6	83.73	28.440	
3,800.0	3,765.0	3,758.0	3,758.0	10.3	75.3	-110.89	-324.9	2,257.9	2,385.8	2,300.7	85.13	28.024	
3,838.6	3,802.8	3,795.8	3,795.8	10.5	76.0	-111.06	-324.9	2,257.9	2,388.7	2,302.7	86.04	27.763	
3,900.0	3,862.8	3,855.8	3,855.8	10.7	77.3	-111.34	-324.9	2,257.9	2,393.4	2,306.0	87.48	27.360	
3,937.0	3,899.0	3,892.0	3,892.0	10.9	78.0	-111.51	-324.9	2,257.9	2,396.3	2,308.0	88.35	27.124	
4,000.0	3,960.7	3,953.7	3,953.7	11.2	79.2	-111.80	-324.9	2,257.9	2,401.2	2,311.4	89.82	26.733	
4,035.4	3,995.3	3,988.3	3,988.3	11.3	79.9	-111.96	-324.9	2,257.9	2,404.0	2,313.4	90.65	26.519	
4,100.0	4,058.5	4,051.5	4,051.5	11.6	81.2	-112.25	-324.9	2,257.9	2,409.2	2,317.0	92.17	26.139	
4,133.8	4,091.6	4,084.6	4,084.6	11.7	81.9	-112.40	-324.9	2,257.9	2,411.9	2,318.9	92.96	25.945	
4,200.0	4,156.3	4,149.3	4,149.3	12.0	83.2	-112.69	-324.9	2,257.9	2,417.3	2,322.8	94.51	25.576	
4,232.3	4,187.9	4,180.9	4,180.9	12.2	83.8	-112.84	-324.9	2,257.9	2,419.9	2,324.6	95.27	25.400	
4,300.0	4,254.1	4,247.1	4,247.1	12.5	85.1	-113.14	-324.9	2,257.9	2,425.5	2,328.7	96.86	25.042	
4,325.7	4,279.2	4,272.2	4,272.2	12.6	85.6	-113.25	-324.9	2,257.9	2,427.7	2,330.2	97.46	24.909	
4,330.7	4,284.1	4,277.1	4,277.1	12.6	85.7	-113.28	-324.9	2,257.9	2,428.1	2,330.5	97.58	24.883	
4,400.0	4,352.1	4,345.1	4,345.1	12.8	87.1	-113.67	-324.9	2,257.9	2,433.5	2,334.3	99.23	24.524	
4,429.1	4,380.8	4,373.8	4,373.8	12.9	87.7	-113.82	-324.9	2,257.9	2,435.6	2,335.7	99.91	24.379	
4,500.0	4,450.7	4,443.7	4,443.7	13.1	89.1	-114.14	-324.9	2,257.9	2,440.3	2,338.7	101.56	24.029	
4,527.5	4,478.0	4,471.0	4,471.0	13.2	89.6	-114.26	-324.9	2,257.9	2,441.9	2,339.7	102.19	23.896	
4,600.0	4,549.9	4,542.9	4,542.9	13.4	91.1	-114.52	-324.9	2,257.9	2,445.7	2,341.9	103.86	23.548	
4,626.0	4,575.7	4,568.7	4,568.7	13.5	91.6	-114.60	-324.9	2,257.9	2,446.9	2,342.5	104.45	23.426	
4,700.0	4,649.4	4,642.4	4,642.4	13.6	93.1	-114.80	-324.9	2,257.9	2,449.8	2,343.6	106.13	23.082	
4,724.4	4,673.7	4,666.7	4,666.7	13.7	93.6	-114.85	-324.9	2,257.9	2,450.5	2,343.8	106.68	22.971	
4,800.0	4,749.2	4,742.2	4,742.2	13.8	95.1	-114.97	-324.9	2,257.9	2,452.3	2,344.0	108.37	22.630	
4,822.8	4,772.0	4,765.0	4,765.0	13.9	95.5	-115.00	-324.9	2,257.9	2,452.7	2,343.9	108.87	22.529	
4,900.0	4,849.2	4,842.2	4,842.2	14.0	97.1	-115.05	-324.9	2,257.9	2,453.5	2,342.9	110.56	22.191	
4,921.2	4,870.4	4,863.4	4,863.4	14.1	97.5	-115.05	-324.9	2,257.9	2,453.5	2,342.5	111.02	22.100	
4,925.6	4,874.8	4,867.8	4,867.8	14.1	97.6	86.14	-324.9	2,257.9	2,453.5	2,344.5	109.01	22.506	
5,000.0	4,949.2	4,942.2	4,942.2	14.2	99.1	86.14	-324.9	2,257.9	2,453.5	2,342.9	110.65	22.174	
5,019.7	4,968.8	4,961.8	4,961.8	14.2	99.5	86.14	-324.9	2,257.9	2,453.5	2,342.4	111.08	22.088	

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 SCHAUMBERG 17G-314
<b>Project:</b>	WELD COUNTY, COLORADO	<b>TVD Reference:</b>	KB-EST @ 4633.0usft (Original Well Elev)
<b>Reference Site:</b>	SW NW SEC. 17 T5N R64W 6th P.M.	<b>MD Reference:</b>	KB-EST @ 4633.0usft (Original Well Elev)
<b>Site Error:</b>	0.0 usft	<b>North Reference:</b>	True
<b>Reference Well:</b>	SCHAUMBERG 17G-314	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Well Error:</b>	0.0 usft	<b>Output errors are at</b>	2.00 sigma
<b>Reference Wellbore</b>	ORIGINAL WELLBORE	<b>Database:</b>	EDM 5000.1 Single User Db
<b>Reference Design:</b>	PROPOSAL #1	<b>Offset TVD Reference:</b>	Offset Datum

<b>Offset Design</b> NW SW SEC. 17 T5N R64W 6th P.M. - EXIST VERT HOSHIKO #32-17 - Wellbore #1 - Design #1												<b>Offset Site Error:</b>	0.0 usft
Survey Program: 0-INC												<b>Offset Well Error:</b>	0.0 usft
Reference		Offset		Semi Major Axis			Distance						Warning
Measured Depth (usft)	Vertical Depth (usft)	Measured Depth (usft)	Vertical Depth (usft)	Reference (usft)	Offset (usft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (usft)	+E/-W (usft)	Between Centres (usft)	Between Ellipses (usft)	Minimum Separation (usft)	Separation Factor	
5,100.0	5,049.2	5,042.2	5,042.2	14.3	101.1	86.14	-324.9	2,257.9	2,453.5	2,340.7	112.84	21.742	
5,118.1	5,067.3	5,060.3	5,060.3	14.3	101.5	86.14	-324.9	2,257.9	2,453.5	2,340.3	113.24	21.666	
5,200.0	5,149.2	5,142.2	5,142.2	14.5	103.1	86.14	-324.9	2,257.9	2,453.5	2,338.5	115.04	21.327	
5,216.5	5,165.7	5,158.7	5,158.7	14.5	103.5	86.14	-324.9	2,257.9	2,453.5	2,338.1	115.40	21.260	
5,300.0	5,249.2	5,242.2	5,242.2	14.6	105.1	86.14	-324.9	2,257.9	2,453.5	2,336.3	117.24	20.927	
5,314.9	5,264.1	5,257.1	5,257.1	14.6	105.4	86.14	-324.9	2,257.9	2,453.5	2,335.9	117.57	20.868	
5,400.0	5,349.2	5,342.2	5,342.2	14.8	107.1	86.14	-324.9	2,257.9	2,453.5	2,334.1	119.44	20.541	
5,413.4	5,362.5	5,355.5	5,355.5	14.8	107.4	86.14	-324.9	2,257.9	2,453.5	2,333.8	119.74	20.491	
5,500.0	5,449.2	5,442.2	5,442.2	14.9	109.2	86.14	-324.9	2,257.9	2,453.5	2,331.9	121.64	20.170	
5,511.8	5,461.0	5,454.0	5,454.0	14.9	109.4	86.14	-324.9	2,257.9	2,453.5	2,331.6	121.90	20.127	
5,600.0	5,549.2	5,542.2	5,542.2	15.1	111.2	86.14	-324.9	2,257.9	2,453.5	2,329.7	123.85	19.811	
5,610.2	5,559.4	5,552.4	5,552.4	15.1	111.4	86.14	-324.9	2,257.9	2,453.5	2,329.4	124.07	19.775	
5,700.0	5,649.2	5,642.2	5,642.2	15.2	113.2	86.14	-324.9	2,257.9	2,453.5	2,327.5	126.05	19.465	
5,708.6	5,657.8	5,650.8	5,650.8	15.3	113.4	86.14	-324.9	2,257.9	2,453.5	2,327.3	126.24	19.435	
5,800.0	5,749.2	5,742.2	5,742.2	15.4	115.2	86.14	-324.9	2,257.9	2,453.5	2,325.2	128.25	19.130	
5,807.1	5,756.2	5,749.2	5,749.2	15.4	115.3	86.14	-324.9	2,257.9	2,453.5	2,325.1	128.41	19.107	
5,900.0	5,849.2	5,842.2	5,842.2	15.6	117.2	86.14	-324.9	2,257.9	2,453.5	2,323.0	130.46	18.807	
5,905.5	5,854.7	5,847.7	5,847.7	15.6	117.3	86.14	-324.9	2,257.9	2,453.5	2,322.9	130.58	18.789	
6,000.0	5,949.2	5,942.2	5,942.2	15.7	119.2	86.14	-324.9	2,257.9	2,453.5	2,320.8	132.67	18.494	
6,003.9	5,953.1	5,946.1	5,946.1	15.7	119.3	86.14	-324.9	2,257.9	2,453.5	2,320.7	132.75	18.482	
6,100.0	6,049.2	6,042.2	6,042.2	15.9	121.2	86.14	-324.9	2,257.9	2,453.5	2,318.6	134.87	18.191	
6,102.3	6,051.5	6,044.5	6,044.5	15.9	121.3	86.14	-324.9	2,257.9	2,453.5	2,318.6	134.93	18.184	
6,124.6	6,073.8	6,066.8	6,066.8	15.9	121.7	86.14	-324.9	2,257.9	2,453.5	2,318.1	135.42	18.118	
6,150.0	6,099.2	6,092.2	6,092.2	16.0	122.2	176.14	-324.9	2,257.9	2,453.9	2,316.3	137.66	17.826	
6,200.0	6,149.0	6,142.0	6,142.0	16.1	123.2	176.13	-324.9	2,257.9	2,457.5	2,319.3	138.11	17.794 SF	
6,200.8	6,149.8	6,142.8	6,142.8	16.1	123.2	176.13	-324.9	2,257.9	2,457.5	2,319.4	138.11	17.794	
6,250.0	6,198.5	6,191.5	6,191.5	16.2	124.2	176.10	-324.9	2,257.9	2,464.4	2,326.5	137.88	17.873	
6,299.2	6,246.6	6,239.6	6,239.6	16.3	125.2	176.06	-324.9	2,257.9	2,474.6	2,337.6	136.98	18.065	
6,300.0	6,247.4	6,240.4	6,240.4	16.3	125.2	176.06	-324.9	2,257.9	2,474.8	2,337.9	136.96	18.069	
6,350.0	6,295.5	6,288.5	6,288.5	16.5	126.2	176.00	-324.9	2,257.9	2,488.6	2,353.2	135.35	18.387	
6,397.6	6,340.2	6,333.2	6,333.2	16.6	127.1	175.93	-324.9	2,257.9	2,504.8	2,371.6	133.16	18.811	
6,400.0	6,342.4	6,335.4	6,335.4	16.6	127.1	175.92	-324.9	2,257.9	2,505.7	2,372.6	133.03	18.835	
6,450.0	6,388.1	6,381.1	6,381.1	16.8	128.0	175.83	-324.9	2,257.9	2,526.0	2,396.0	130.02	19.428	
6,496.0	6,428.8	6,421.8	6,421.8	17.0	128.9	175.72	-324.9	2,257.9	2,547.5	2,420.8	126.63	20.117	
6,500.0	6,432.2	6,425.2	6,425.2	17.0	128.9	175.71	-324.9	2,257.9	2,549.4	2,423.1	126.32	20.183	
6,550.0	6,474.6	6,467.6	6,467.6	17.3	129.8	175.57	-324.9	2,257.9	2,575.9	2,453.9	121.94	21.123	
6,594.5	6,510.7	6,503.7	6,503.7	17.5	130.5	175.41	-324.9	2,257.9	2,601.8	2,484.3	117.51	22.142	
6,600.0	6,515.0	6,508.0	6,508.0	17.6	130.6	175.39	-324.9	2,257.9	2,605.2	2,488.3	116.92	22.282	
6,650.0	6,553.3	6,546.3	6,546.3	17.9	131.4	175.17	-324.9	2,257.9	2,637.3	2,526.0	111.28	23.700	
6,692.9	6,584.3	6,577.3	6,577.3	18.2	132.0	174.95	-324.9	2,257.9	2,666.9	2,560.9	105.98	25.165	
6,700.0	6,589.2	6,582.2	6,582.2	18.2	132.1	174.90	-324.9	2,257.9	2,672.0	2,566.9	105.06	25.433	
6,750.0	6,622.7	6,615.7	6,615.7	18.6	132.8	174.57	-324.9	2,257.9	2,709.1	2,610.8	98.32	27.554	
6,791.3	6,648.3	6,641.3	6,641.3	19.0	133.3	174.23	-324.9	2,257.9	2,741.4	2,649.0	92.41	29.667	
6,800.0	6,653.4	6,646.4	6,646.4	19.1	133.4	174.15	-324.9	2,257.9	2,748.4	2,657.3	91.13	30.159	
6,850.0	6,681.4	6,674.4	6,674.4	19.6	133.9	173.61	-324.9	2,257.9	2,789.8	2,706.2	83.59	33.373	
6,889.7	6,701.5	6,694.5	6,694.5	20.1	134.3	173.07	-324.9	2,257.9	2,824.0	2,746.6	77.46	36.457	
6,900.0	6,706.3	6,699.3	6,699.3	20.2	134.4	172.90	-324.9	2,257.9	2,833.0	2,757.2	75.87	37.339	
6,950.0	6,728.2	6,721.2	6,721.2	20.9	134.9	171.95	-324.9	2,257.9	2,877.9	2,809.7	68.24	42.173	
6,988.2	6,742.8	6,735.8	6,735.8	21.5	135.2	170.96	-324.9	2,257.9	2,913.1	2,850.3	62.78	46.401	
7,000.0	6,746.9	6,739.9	6,739.9	21.6	135.3	170.60	-324.9	2,257.9	2,924.2	2,863.0	61.22	47.764	
7,050.0	6,762.4	6,755.4	6,755.4	22.5	135.6	168.56	-324.9	2,257.9	2,971.7	2,915.7	55.96	53.107	
7,086.6	6,771.5	6,764.5	6,764.5	23.1	135.7	166.30	-324.9	2,257.9	3,007.0	2,952.4	54.64	55.037	

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 SCHAUMBERG 17G-314
<b>Project:</b>	WELD COUNTY, COLORADO	<b>TVD Reference:</b>	KB-EST @ 4633.0usft (Original Well Elev)
<b>Reference Site:</b>	SW NW SEC. 17 T5N R64W 6th P.M.	<b>MD Reference:</b>	KB-EST @ 4633.0usft (Original Well Elev)
<b>Site Error:</b>	0.0 usft	<b>North Reference:</b>	True
<b>Reference Well:</b>	SCHAUMBERG 17G-314	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Well Error:</b>	0.0 usft	<b>Output errors are at</b>	2.00 sigma
<b>Reference Wellbore</b>	ORIGINAL WELLBORE	<b>Database:</b>	EDM 5000.1 Single User Db
<b>Reference Design:</b>	PROPOSAL #1	<b>Offset TVD Reference:</b>	Offset Datum

<b>Offset Design</b> NW SW SEC. 17 T5N R64W 6th P.M. - EXIST VERT HOSHIKO #32-17 - Wellbore #1 - Design #1												<b>Offset Site Error:</b>	0.0 usft
Survey Program: 0-INC												<b>Offset Well Error:</b>	0.0 usft
Reference		Offset		Semi Major Axis			Distance						
Measured Depth (usft)	Vertical Depth (usft)	Measured Depth (usft)	Vertical Depth (usft)	Reference (usft)	Offset (usft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (usft)	+E/-W (usft)	Between Centres (usft)	Between Ellipses (usft)	Minimum Separation (usft)	Separation Factor	Warning
7,100.0	6,774.4	6,767.4	6,767.4	23.3	135.8	165.21	-324.9	2,257.9	3,020.1	2,965.0	55.09	54.823	
7,150.0	6,783.1	6,776.1	6,776.1	24.3	136.0	158.77	-324.9	2,257.9	3,069.3	3,004.6	64.69	47.443	
7,185.0	6,787.1	6,780.1	6,780.1	25.0	136.1	149.40	-324.9	2,257.9	3,104.0	3,019.0	85.03	36.503	
7,200.0	6,788.3	6,781.3	6,781.3	25.3	136.1	142.56	-324.9	2,257.9	3,118.9	3,018.9	100.00	31.190	
7,252.3	6,790.0	6,783.0	6,783.0	26.3	136.1	85.87	-324.9	2,257.9	3,171.1	3,010.1	161.01	19.696	
7,283.4	6,789.9	6,782.9	6,782.9	27.0	136.1	85.83	-324.9	2,257.9	3,202.2	3,040.5	161.69	19.805	
7,300.0	6,789.8	6,782.8	6,782.8	27.3	136.1	85.81	-324.9	2,257.9	3,218.7	3,056.7	162.05	19.863	
7,381.9	6,789.5	6,782.5	6,782.5	29.1	136.1	85.70	-324.9	2,257.9	3,300.5	3,136.6	163.89	20.138	
7,400.0	6,789.4	6,782.4	6,782.4	29.5	136.1	85.67	-324.9	2,257.9	3,318.6	3,154.3	164.30	20.199	
7,480.3	6,789.1	6,782.1	6,782.1	31.4	136.1	85.57	-324.9	2,257.9	3,398.8	3,232.6	166.18	20.453	
7,500.0	6,789.1	6,782.1	6,782.1	31.8	136.1	85.53	-324.9	2,257.9	3,418.5	3,251.9	166.64	20.515	
7,578.7	6,788.8	6,781.8	6,781.8	33.7	136.1	85.43	-324.9	2,257.9	3,497.1	3,328.6	168.53	20.751	
7,600.0	6,788.7	6,781.7	6,781.7	34.2	136.1	85.40	-324.9	2,257.9	3,518.4	3,349.3	169.04	20.814	
7,677.1	6,788.4	6,781.4	6,781.4	36.1	136.1	85.30	-324.9	2,257.9	3,595.4	3,424.5	170.93	21.035	
7,700.0	6,788.3	6,781.3	6,781.3	36.7	136.1	85.26	-324.9	2,257.9	3,618.3	3,446.8	171.49	21.099	
7,775.6	6,788.0	6,781.0	6,781.0	38.6	136.1	85.16	-324.9	2,257.9	3,693.8	3,520.4	173.37	21.305	
7,800.0	6,787.9	6,780.9	6,780.9	39.2	136.1	85.12	-324.9	2,257.9	3,718.2	3,544.2	173.98	21.371	
7,874.0	6,787.6	6,780.6	6,780.6	41.0	136.1	85.02	-324.9	2,257.9	3,792.1	3,616.2	175.85	21.564	
7,900.0	6,787.6	6,780.6	6,780.6	41.7	136.1	84.98	-324.9	2,257.9	3,818.1	3,641.6	176.50	21.632	
7,972.4	6,787.3	6,780.3	6,780.3	43.6	136.1	84.89	-324.9	2,257.9	3,890.4	3,712.1	178.35	21.813	
8,000.0	6,787.2	6,780.2	6,780.2	44.3	136.1	84.84	-324.9	2,257.9	3,918.0	3,738.9	179.06	21.881	
8,070.8	6,786.9	6,779.9	6,779.9	46.1	136.1	84.75	-324.9	2,257.9	3,988.8	3,807.9	180.88	22.052	
8,100.0	6,786.8	6,779.8	6,779.8	46.9	136.1	84.70	-324.9	2,257.9	4,017.9	3,836.3	181.63	22.122	
8,169.3	6,786.5	6,779.5	6,779.5	48.7	136.0	84.61	-324.9	2,257.9	4,087.1	3,903.7	183.42	22.282	
8,200.0	6,786.4	6,779.4	6,779.4	49.5	136.0	84.56	-324.9	2,257.9	4,117.8	3,933.6	184.22	22.353	
8,267.7	6,786.1	6,779.1	6,779.1	51.3	136.0	84.48	-324.9	2,257.9	4,185.5	3,999.5	185.98	22.504	
8,300.0	6,786.0	6,779.0	6,779.0	52.1	136.0	84.42	-324.9	2,257.9	4,217.7	4,030.9	186.82	22.576	
8,366.1	6,785.8	6,778.8	6,778.8	53.9	136.0	84.34	-324.9	2,257.9	4,283.8	4,095.2	188.55	22.719	
8,400.0	6,785.6	6,778.6	6,778.6	54.8	136.0	84.28	-324.9	2,257.9	4,317.7	4,128.2	189.44	22.792	
8,464.5	6,785.4	6,778.4	6,778.4	56.5	136.0	84.20	-324.9	2,257.9	4,382.2	4,191.0	191.14	22.927	
8,500.0	6,785.3	6,778.3	6,778.3	57.5	136.0	84.14	-324.9	2,257.9	4,417.6	4,225.5	192.07	23.000	
8,563.0	6,785.0	6,778.0	6,778.0	59.2	136.0	84.06	-324.9	2,257.9	4,480.5	4,286.8	193.73	23.128	
8,600.0	6,784.9	6,777.9	6,777.9	60.2	136.0	84.00	-324.9	2,257.9	4,517.5	4,322.8	194.70	23.202	
8,661.4	6,784.6	6,777.6	6,777.6	61.8	136.0	83.92	-324.9	2,257.9	4,578.9	4,382.5	196.32	23.323	
8,700.0	6,784.5	6,777.5	6,777.5	62.9	136.0	83.86	-324.9	2,257.9	4,617.4	4,420.1	197.34	23.398	
8,759.8	6,784.3	6,777.3	6,777.3	64.5	136.0	83.78	-324.9	2,257.9	4,677.2	4,478.3	198.93	23.512	
8,800.0	6,784.1	6,777.1	6,777.1	65.6	136.0	83.72	-324.9	2,257.9	4,717.4	4,517.4	199.99	23.588	
8,858.2	6,783.9	6,776.9	6,776.9	67.1	136.0	83.64	-324.9	2,257.9	4,775.6	4,574.1	201.53	23.696	
8,900.0	6,783.7	6,776.7	6,776.7	68.3	136.0	83.58	-324.9	2,257.9	4,817.3	4,614.7	202.64	23.773	
8,956.7	6,783.5	6,776.5	6,776.5	69.8	136.0	83.50	-324.9	2,257.9	4,874.0	4,669.8	204.15	23.875	
9,000.0	6,783.3	6,776.3	6,776.3	71.0	136.0	83.44	-324.9	2,257.9	4,917.3	4,712.0	205.29	23.952	
9,055.1	6,783.1	6,776.1	6,776.1	72.5	136.0	83.36	-324.9	2,257.9	4,972.3	4,765.6	206.76	24.049	
9,100.0	6,782.9	6,775.9	6,775.9	73.7	136.0	83.29	-324.9	2,257.9	5,017.2	4,809.3	207.95	24.127	
9,153.5	6,782.7	6,775.7	6,775.7	75.2	136.0	83.22	-324.9	2,257.9	5,070.7	4,861.3	209.38	24.218	
9,200.0	6,782.6	6,775.6	6,775.6	76.5	136.0	83.15	-324.9	2,257.9	5,117.2	4,906.5	210.61	24.297	
9,251.9	6,782.4	6,775.4	6,775.4	77.9	136.0	83.08	-324.9	2,257.9	5,169.1	4,957.1	211.99	24.383	
9,300.0	6,782.2	6,775.2	6,775.2	79.2	136.0	83.01	-324.9	2,257.9	5,217.1	5,003.8	213.27	24.462	
9,350.4	6,782.0	6,775.0	6,775.0	80.6	136.0	82.94	-324.9	2,257.9	5,267.4	5,052.8	214.61	24.544	
9,400.0	6,781.8	6,774.8	6,774.8	82.0	136.0	82.86	-324.9	2,257.9	5,317.0	5,101.1	215.93	24.624	
9,448.8	6,781.6	6,774.6	6,774.6	83.3	135.9	82.80	-324.9	2,257.9	5,365.8	5,148.6	217.23	24.701	
9,500.0	6,781.4	6,774.4	6,774.4	84.7	135.9	82.72	-324.9	2,257.9	5,417.0	5,198.4	218.60	24.781	
9,547.2	6,781.2	6,774.2	6,774.2	86.0	135.9	82.66	-324.9	2,257.9	5,464.2	5,244.3	219.86	24.854	

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 SCHAUMBERG 17G-314
<b>Project:</b>	WELD COUNTY, COLORADO	<b>TVD Reference:</b>	KB-EST @ 4633.0usft (Original Well Elev)
<b>Reference Site:</b>	SW NW SEC. 17 T5N R64W 6th P.M.	<b>MD Reference:</b>	KB-EST @ 4633.0usft (Original Well Elev)
<b>Site Error:</b>	0.0 usft	<b>North Reference:</b>	True
<b>Reference Well:</b>	SCHAUMBERG 17G-314	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Well Error:</b>	0.0 usft	<b>Output errors are at</b>	2.00 sigma
<b>Reference Wellbore</b>	ORIGINAL WELLBORE	<b>Database:</b>	EDM 5000.1 Single User Db
<b>Reference Design:</b>	PROPOSAL #1	<b>Offset TVD Reference:</b>	Offset Datum

Offset Design												Offset Site Error:	0.0 usft
Survey Program: 0-INC												Offset Well Error:	0.0 usft
Reference		Offset		Semi Major Axis			Distance						Warning
Measured Depth (usft)	Vertical Depth (usft)	Measured Depth (usft)	Vertical Depth (usft)	Reference (usft)	Offset (usft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (usft)	+E/-W (usft)	Between Centres (usft)	Between Ellipses (usft)	Minimum Separation (usft)	Separation Factor	
9,600.0	6,781.0	6,774.0	6,774.0	87.5	135.9	82.58	-324.9	2,257.9	5,517.0	5,295.7	221.26	24.934	
9,645.6	6,780.8	6,773.8	6,773.8	88.7	135.9	82.52	-324.9	2,257.9	5,562.6	5,340.1	222.48	25.003	
9,700.0	6,780.6	6,773.6	6,773.6	90.2	135.9	82.43	-324.9	2,257.9	5,616.9	5,393.0	223.92	25.084	
9,744.1	6,780.4	6,773.4	6,773.4	91.4	135.9	82.37	-324.9	2,257.9	5,661.0	5,435.9	225.10	25.149	
9,800.0	6,780.2	6,773.2	6,773.2	93.0	135.9	82.29	-324.9	2,257.9	5,716.9	5,490.3	226.58	25.231	
9,842.5	6,780.1	6,773.1	6,773.1	94.2	135.9	82.23	-324.9	2,257.9	5,759.3	5,531.6	227.72	25.292	
9,900.0	6,779.8	6,772.8	6,772.8	95.7	135.9	82.14	-324.9	2,257.9	5,816.8	5,587.6	229.24	25.374	
9,940.9	6,779.7	6,772.7	6,772.7	96.9	135.9	82.09	-324.9	2,257.9	5,857.7	5,627.4	230.34	25.431	
10,000.0	6,779.4	6,772.4	6,772.4	98.5	135.9	82.00	-324.9	2,257.9	5,916.8	5,684.9	231.90	25.514	
10,039.3	6,779.3	6,772.3	6,772.3	99.6	135.9	81.94	-324.9	2,257.9	5,956.1	5,723.2	232.95	25.568	
10,100.0	6,779.0	6,772.0	6,772.0	101.3	135.9	81.85	-324.9	2,257.9	6,016.7	5,782.2	234.56	25.651	
10,137.8	6,778.9	6,771.9	6,771.9	102.3	135.9	81.80	-324.9	2,257.9	6,054.5	5,818.9	235.57	25.702	
10,200.0	6,778.7	6,771.7	6,771.7	104.1	135.9	81.71	-324.9	2,257.9	6,116.7	5,879.5	237.22	25.785	
10,236.2	6,778.5	6,771.5	6,771.5	105.1	135.9	81.66	-324.9	2,257.9	6,152.9	5,914.7	238.18	25.833	
10,300.0	6,778.3	6,771.3	6,771.3	106.8	135.9	81.56	-324.9	2,257.9	6,216.7	5,976.8	239.88	25.916	
10,334.6	6,778.1	6,771.1	6,771.1	107.8	135.9	81.51	-324.9	2,257.9	6,251.3	6,010.5	240.80	25.961	
10,400.0	6,777.9	6,770.9	6,770.9	109.6	135.9	81.41	-324.9	2,257.9	6,316.6	6,074.1	242.53	26.045	
10,433.0	6,777.7	6,770.7	6,770.7	110.5	135.9	81.37	-324.9	2,257.9	6,349.7	6,106.3	243.41	26.087	
10,500.0	6,777.5	6,770.5	6,770.5	112.4	135.9	81.27	-324.9	2,257.9	6,416.6	6,171.4	245.18	26.171	
10,531.5	6,777.3	6,770.3	6,770.3	113.3	135.9	81.22	-324.9	2,257.9	6,448.1	6,202.0	246.02	26.210	
10,600.0	6,777.1	6,770.1	6,770.1	115.2	135.9	81.12	-324.9	2,257.9	6,516.6	6,268.7	247.83	26.295	
10,629.9	6,777.0	6,770.0	6,770.0	116.0	135.9	81.08	-324.9	2,257.9	6,546.5	6,297.8	248.62	26.331	
10,700.0	6,776.7	6,769.7	6,769.7	117.9	135.9	80.97	-324.9	2,257.9	6,616.5	6,366.1	250.47	26.416	
10,728.3	6,776.6	6,769.6	6,769.6	118.7	135.8	80.93	-324.9	2,257.9	6,644.9	6,393.6	251.23	26.450	
10,800.0	6,776.3	6,769.3	6,769.3	120.7	135.8	80.82	-324.9	2,257.9	6,716.5	6,463.4	253.12	26.535	
10,826.7	6,776.2	6,769.2	6,769.2	121.5	135.8	80.79	-324.9	2,257.9	6,743.2	6,489.4	253.83	26.566	
10,900.0	6,775.9	6,768.9	6,768.9	123.5	135.8	80.68	-324.9	2,257.9	6,816.5	6,560.7	255.76	26.652	
10,925.2	6,775.8	6,768.8	6,768.8	124.2	135.8	80.64	-324.9	2,257.9	6,841.6	6,585.2	256.43	26.681	
11,000.0	6,775.5	6,768.5	6,768.5	126.3	135.8	80.53	-324.9	2,257.9	6,916.4	6,658.0	258.40	26.767	
11,023.6	6,775.4	6,768.4	6,768.4	126.9	135.8	80.50	-324.9	2,257.9	6,940.0	6,681.0	259.02	26.793	
11,100.0	6,775.1	6,768.1	6,768.1	129.1	135.8	80.38	-324.9	2,257.9	7,016.4	6,755.4	261.03	26.880	
11,122.0	6,775.0	6,768.0	6,768.0	129.7	135.8	80.35	-324.9	2,257.9	7,038.4	6,776.8	261.61	26.904	
11,200.0	6,774.7	6,767.7	6,767.7	131.9	135.8	80.23	-324.9	2,257.9	7,116.4	6,852.7	263.66	26.990	
11,220.4	6,774.6	6,767.6	6,767.6	132.4	135.8	80.20	-324.9	2,257.9	7,136.8	6,872.6	264.20	27.013	
11,300.0	6,774.3	6,767.3	6,767.3	134.6	135.8	80.08	-324.9	2,257.9	7,216.4	6,950.1	266.29	27.099	
11,318.9	6,774.2	6,767.2	6,767.2	135.2	135.8	80.06	-324.9	2,257.9	7,235.2	6,968.4	266.79	27.120	
11,400.0	6,773.9	6,766.9	6,766.9	137.4	135.8	79.93	-324.9	2,257.9	7,316.3	7,047.4	268.92	27.207	
11,417.3	6,773.8	6,766.8	6,766.8	137.9	135.8	79.91	-324.9	2,257.9	7,333.6	7,064.3	269.37	27.225	
11,500.0	6,773.5	6,766.5	6,766.5	140.2	135.8	79.78	-324.9	2,257.9	7,416.3	7,144.8	271.54	27.312	
11,515.7	6,773.4	6,766.4	6,766.4	140.7	135.8	79.76	-324.9	2,257.9	7,432.0	7,160.1	271.95	27.328	
11,600.0	6,773.1	6,766.1	6,766.1	143.0	135.8	79.63	-324.9	2,257.9	7,516.3	7,242.1	274.16	27.416	
11,614.1	6,773.0	6,766.0	6,766.0	143.4	135.8	79.61	-324.9	2,257.9	7,530.4	7,255.9	274.53	27.430	
11,700.0	6,772.7	6,765.7	6,765.7	145.8	135.8	79.48	-324.9	2,257.9	7,616.3	7,339.5	276.77	27.518	
11,712.6	6,772.6	6,765.6	6,765.6	146.2	135.8	79.47	-324.9	2,257.9	7,628.8	7,351.7	277.10	27.531	
11,800.0	6,772.3	6,765.3	6,765.3	148.6	135.8	79.33	-324.9	2,257.9	7,716.2	7,436.9	279.38	27.619	
11,811.0	6,772.2	6,765.2	6,765.2	148.9	135.8	79.32	-324.9	2,257.9	7,727.2	7,447.6	279.67	27.630	
11,900.0	6,771.9	6,764.9	6,764.9	151.4	135.8	79.18	-324.9	2,257.9	7,816.2	7,534.2	281.99	27.718	
11,909.4	6,771.8	6,764.8	6,764.8	151.7	135.8	79.17	-324.9	2,257.9	7,825.6	7,543.4	282.23	27.728	
12,000.0	6,771.5	6,764.5	6,764.5	154.2	135.7	79.03	-324.9	2,257.9	7,916.2	7,631.6	284.59	27.816	
12,007.8	6,771.4	6,764.4	6,764.4	154.4	135.7	79.02	-324.9	2,257.9	7,924.0	7,639.2	284.79	27.824	
12,100.0	6,771.1	6,764.1	6,764.1	157.0	135.7	78.88	-324.9	2,257.9	8,016.2	7,729.0	287.19	27.913	
12,106.3	6,771.0	6,764.0	6,764.0	157.2	135.7	78.87	-324.9	2,257.9	8,022.4	7,735.1	287.35	27.919	

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 SCHAUMBERG 17G-314
<b>Project:</b>	WELD COUNTY, COLORADO	<b>TVD Reference:</b>	KB-EST @ 4633.0usft (Original Well Elev)
<b>Reference Site:</b>	SW NW SEC. 17 T5N R64W 6th P.M.	<b>MD Reference:</b>	KB-EST @ 4633.0usft (Original Well Elev)
<b>Site Error:</b>	0.0 usft	<b>North Reference:</b>	True
<b>Reference Well:</b>	SCHAUMBERG 17G-314	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Well Error:</b>	0.0 usft	<b>Output errors are at</b>	2.00 sigma
<b>Reference Wellbore</b>	ORIGINAL WELLBORE	<b>Database:</b>	EDM 5000.1 Single User Db
<b>Reference Design:</b>	PROPOSAL #1	<b>Offset TVD Reference:</b>	Offset Datum

<b>Offset Design</b> NW SW SEC. 17 T5N R64W 6th P.M. - EXIST VERT HOSHIKO #32-17 - Wellbore #1 - Design #1												<b>Offset Site Error:</b>	0.0 usft
Survey Program: 0-INC												<b>Offset Well Error:</b>	0.0 usft
Reference	Offset	Semi Major Axis		Distance									
Measured Depth (usft)	Vertical Depth (usft)	Measured Depth (usft)	Vertical Depth (usft)	Reference (usft)	Offset (usft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (usft)	Offset Wellbore Centre +E/-W (usft)	Between Centres (usft)	Between Ellipses (usft)	Minimum Separation (usft)	Separation Factor	Warning
12,200.0	6,770.7	6,763.7	6,763.7	159.8	135.7	78.73	-324.9	2,257.9	8,116.1	7,826.4	289.78	28.008	
12,204.7	6,770.6	6,763.6	6,763.6	159.9	135.7	78.72	-324.9	2,257.9	8,120.8	7,830.9	289.90	28.012	
12,300.0	6,770.3	6,763.3	6,763.3	162.6	135.7	78.58	-324.9	2,257.9	8,216.1	7,923.8	292.37	28.102	
12,303.1	6,770.2	6,763.2	6,763.2	162.7	135.7	78.57	-324.9	2,257.9	8,219.2	7,926.8	292.45	28.105	
12,361.7	6,770.0	6,763.0	6,763.0	164.3	135.7	78.49	-324.9	2,257.9	8,277.8	7,983.9	293.96	28.159	



# Anticollision Report



<b>Company:</b>	PDC ENERGY	<b>Local Co-ordinate Reference:</b>	Well SCHAUMBERG 17G-314
<b>Project:</b>	WELD COUNTY, COLORADO	<b>TVD Reference:</b>	KB-EST @ 4633.0usft (Original Well Elev)
<b>Reference Site:</b>	SW NW SEC. 17 T5N R64W 6th P.M.	<b>MD Reference:</b>	KB-EST @ 4633.0usft (Original Well Elev)
<b>Site Error:</b>	0.0 usft	<b>North Reference:</b>	True
<b>Reference Well:</b>	SCHAUMBERG 17G-314	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Well Error:</b>	0.0 usft	<b>Output errors are at</b>	2.00 sigma
<b>Reference Wellbore</b>	ORIGINAL WELLBORE	<b>Database:</b>	EDM 5000.1 Single User Db
<b>Reference Design:</b>	PROPOSAL #1	<b>Offset TVD Reference:</b>	Offset Datum

Offset Design												Offset Site Error:	0.0 usft
Survey Program: 0-INC												Offset Well Error:	0.0 usft
Reference		Offset		Semi Major Axis			Distance						Warning
Measured Depth (usft)	Vertical Depth (usft)	Measured Depth (usft)	Vertical Depth (usft)	Reference (usft)	Offset (usft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (usft)	+E/-W (usft)	Between Centres (usft)	Between Ellipses (usft)	Minimum Separation (usft)	Separation Factor	
0.0	0.0	0.0	0.0	0.0	0.0	95.00	-313.8	3,586.5	3,600.2				
98.4	98.4	91.4	91.4	0.1	1.2	95.00	-313.8	3,586.5	3,600.2	3,598.9	1.28	2,819.935	
100.0	100.0	93.0	93.0	0.1	1.2	95.00	-313.8	3,586.5	3,600.2	3,598.9	1.30	2,771.930	
196.8	196.8	189.8	189.8	0.3	3.3	95.00	-313.8	3,586.5	3,600.2	3,596.5	3.65	987.414	
200.0	200.0	193.0	193.0	0.3	3.4	95.00	-313.8	3,586.5	3,600.2	3,596.4	3.72	966.584	
295.3	295.3	288.3	288.3	0.5	5.4	95.00	-313.8	3,586.5	3,600.2	3,594.2	5.93	607.043	
300.0	300.0	293.0	293.0	0.5	5.5	95.00	-313.8	3,586.5	3,600.2	3,594.1	6.04	596.113	
393.7	393.7	386.7	386.7	0.8	7.4	95.00	-313.8	3,586.5	3,600.2	3,592.0	8.17	440.900	
400.0	400.0	393.0	393.0	0.8	7.5	95.00	-313.8	3,586.5	3,600.2	3,591.9	8.31	433.323	
492.1	492.1	485.1	485.1	1.0	9.4	95.00	-313.8	3,586.5	3,600.2	3,589.8	10.39	346.659	
500.0	500.0	493.0	493.0	1.0	9.6	95.00	-313.8	3,586.5	3,600.2	3,589.6	10.56	340.834	
590.5	590.5	583.5	583.5	1.2	11.4	95.00	-313.8	3,586.5	3,600.2	3,587.6	12.60	285.766	
600.0	600.0	593.0	593.0	1.2	11.6	95.00	-313.8	3,586.5	3,600.2	3,587.3	12.81	281.028	
689.0	689.0	682.0	682.0	1.4	13.4	95.00	-313.8	3,586.5	3,600.2	3,585.4	14.81	243.131	
700.0	700.0	693.0	693.0	1.4	13.6	95.00	-313.8	3,586.5	3,600.2	3,585.1	15.05	239.135	
787.4	787.4	780.4	780.4	1.6	15.4	95.00	-313.8	3,586.5	3,600.2	3,583.1	17.01	211.594	
800.0	800.0	793.0	793.0	1.7	15.6	95.00	-313.8	3,586.5	3,600.2	3,582.9	17.30	208.139	
885.8	885.8	878.8	878.8	1.9	17.4	95.00	-313.8	3,586.5	3,600.2	3,580.9	19.22	187.314	
900.0	900.0	893.0	893.0	1.9	17.6	95.00	-313.8	3,586.5	3,600.2	3,580.6	19.54	184.269	
984.2	984.2	977.2	977.2	2.1	19.3	95.00	-313.8	3,586.5	3,600.2	3,578.7	21.42	168.040	
1,000.0	1,000.0	993.0	993.0	2.1	19.7	95.00	-313.8	3,586.5	3,600.2	3,578.4	21.78	165.319	
1,082.7	1,082.7	1,075.7	1,075.7	2.3	21.3	95.00	-313.8	3,586.5	3,600.2	3,576.5	23.63	152.368	
1,100.0	1,100.0	1,093.0	1,093.0	2.3	21.7	95.00	-313.8	3,586.5	3,600.2	3,576.1	24.02	149.907	
1,181.1	1,181.1	1,174.1	1,174.1	2.5	23.3	95.00	-313.8	3,586.5	3,600.2	3,574.3	25.83	139.372	
1,200.0	1,200.0	1,193.0	1,193.0	2.6	23.7	95.00	-313.8	3,586.5	3,600.2	3,573.9	26.25	137.127	
1,279.5	1,279.5	1,272.5	1,272.5	2.7	25.3	95.00	-313.8	3,586.5	3,600.2	3,572.1	28.03	128.421	
1,300.0	1,300.0	1,293.0	1,293.0	2.8	25.7	95.00	-313.8	3,586.5	3,600.2	3,571.7	28.49	126.356	
1,377.9	1,377.9	1,370.9	1,370.9	3.0	27.3	95.00	-313.8	3,586.5	3,600.2	3,569.9	30.24	119.067	
1,400.0	1,400.0	1,393.0	1,393.0	3.0	27.7	95.00	-313.8	3,586.5	3,600.2	3,569.4	30.73	117.155	
1,476.4	1,476.4	1,469.4	1,469.4	3.2	29.2	95.00	-313.8	3,586.5	3,600.2	3,567.7	32.44	110.984	
1,500.0	1,500.0	1,493.0	1,493.0	3.2	29.7	95.00	-313.8	3,586.5	3,600.2	3,567.2	32.97	109.205	
1,574.8	1,574.8	1,567.8	1,567.8	3.4	31.2	95.00	-313.8	3,586.5	3,600.2	3,565.5	34.64	103.929	
1,600.0	1,600.0	1,593.0	1,593.0	3.5	31.7	95.00	-313.8	3,586.5	3,600.2	3,565.0	35.20	102.265	
1,673.2	1,673.2	1,666.2	1,666.2	3.6	33.2	95.00	-313.8	3,586.5	3,600.2	3,563.3	36.84	97.718	
1,700.0	1,700.0	1,693.0	1,693.0	3.7	33.7	95.00	-313.8	3,586.5	3,600.2	3,562.7	37.44	96.155	
1,771.6	1,771.6	1,764.6	1,764.6	3.9	35.2	95.00	-313.8	3,586.5	3,600.2	3,561.1	39.04	92.208	
1,800.0	1,800.0	1,793.0	1,793.0	3.9	35.8	95.00	-313.8	3,586.5	3,600.2	3,560.5	39.68	90.734 CC	
1,870.1	1,870.1	1,863.1	1,863.1	4.1	37.2	-106.20	-313.8	3,586.5	3,600.4	3,559.2	41.22	87.337	
1,900.0	1,900.0	1,893.0	1,893.0	4.1	37.8	-106.21	-313.8	3,586.5	3,600.6	3,558.8	41.88	85.968	
1,968.5	1,968.4	1,961.4	1,961.4	4.2	39.1	-106.24	-313.8	3,586.5	3,601.5	3,558.2	43.37	83.035	
2,000.0	1,999.8	1,992.8	1,992.8	4.3	39.8	-106.26	-313.8	3,586.5	3,602.1	3,558.1	44.06	81.759 ES	
2,066.9	2,066.5	2,059.5	2,059.5	4.4	41.1	-106.32	-313.8	3,586.5	3,603.6	3,558.1	45.51	79.178	
2,100.0	2,099.5	2,092.5	2,092.5	4.5	41.8	-106.35	-313.8	3,586.5	3,604.6	3,558.3	46.23	77.969	
2,165.3	2,164.4	2,157.4	2,157.4	4.6	43.1	-106.42	-313.8	3,586.5	3,606.7	3,559.1	47.65	75.688	
2,200.0	2,198.7	2,191.7	2,191.7	4.7	43.8	-106.47	-313.8	3,586.5	3,608.0	3,559.6	48.40	74.540	
2,263.8	2,261.8	2,254.8	2,254.8	4.8	45.0	-106.56	-313.8	3,586.5	3,610.8	3,561.0	49.80	72.512	
2,300.0	2,297.5	2,290.5	2,290.5	4.9	45.8	-106.62	-313.8	3,586.5	3,612.5	3,562.0	50.58	71.419	
2,362.2	2,358.6	2,351.6	2,351.6	5.0	47.0	-106.72	-313.8	3,586.5	3,615.9	3,563.9	51.95	69.609	
2,400.0	2,395.6	2,388.6	2,388.6	5.1	47.7	-106.79	-313.8	3,586.5	3,618.1	3,565.3	52.77	68.565	
2,460.6	2,454.9	2,447.9	2,447.9	5.3	48.9	-106.98	-313.8	3,586.5	3,621.9	3,567.7	54.12	66.917	
2,500.0	2,493.4	2,486.4	2,486.4	5.4	49.7	-107.10	-313.8	3,586.5	3,624.3	3,569.3	55.00	65.892	
2,559.0	2,551.2	2,544.2	2,544.2	5.6	50.9	-107.28	-313.8	3,586.5	3,628.0	3,571.7	56.34	64.400	

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 SCHAUMBERG 17G-314
<b>Project:</b>	WELD COUNTY, COLORADO	<b>TVD Reference:</b>	KB-EST @ 4633.0usft (Original Well Elev)
<b>Reference Site:</b>	SW NW SEC. 17 T5N R64W 6th P.M.	<b>MD Reference:</b>	KB-EST @ 4633.0usft (Original Well Elev)
<b>Site Error:</b>	0.0 usft	<b>North Reference:</b>	True
<b>Reference Well:</b>	SCHAUMBERG 17G-314	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Well Error:</b>	0.0 usft	<b>Output errors are at</b>	2.00 sigma
<b>Reference Wellbore</b>	ORIGINAL WELLBORE	<b>Database:</b>	EDM 5000.1 Single User Db
<b>Reference Design:</b>	PROPOSAL #1	<b>Offset TVD Reference:</b>	Offset Datum

Offset Design												Offset Site Error:	0.0 usft
Survey Program: 0-INC												Offset Well Error:	0.0 usft
Reference		Offset		Semi Major Axis			Distance						Warning
Measured Depth (usft)	Vertical Depth (usft)	Measured Depth (usft)	Vertical Depth (usft)	Reference (usft)	Offset (usft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (usft)	+E/-W (usft)	Between Centres (usft)	Between Ellipses (usft)	Minimum Separation (usft)	Separation Factor	
2,600.0	2,591.3	2,584.3	2,584.3	5.7	51.7	-107.41	-313.8	3,586.5	3,630.6	3,573.3	57.26	63.406	
2,657.5	2,647.5	2,640.5	2,640.5	5.9	52.8	-107.58	-313.8	3,586.5	3,634.3	3,575.7	58.57	62.054	
2,700.0	2,689.1	2,682.1	2,682.1	6.0	53.6	-107.72	-313.8	3,586.5	3,637.0	3,577.5	59.53	61.093	
2,755.9	2,743.7	2,736.7	2,736.7	6.2	54.7	-107.89	-313.8	3,586.5	3,640.6	3,579.8	60.81	59.868	
2,800.0	2,786.9	2,779.9	2,779.9	6.4	55.6	-108.02	-313.8	3,586.5	3,643.5	3,581.7	61.82	58.937	
2,854.3	2,840.0	2,833.0	2,833.0	6.6	56.7	-108.19	-313.8	3,586.5	3,647.1	3,584.0	63.07	57.826	
2,900.0	2,884.7	2,877.7	2,877.7	6.7	57.6	-108.32	-313.8	3,586.5	3,650.1	3,586.0	64.12	56.926	
2,952.7	2,936.3	2,929.3	2,929.3	6.9	58.6	-108.48	-313.8	3,586.5	3,653.6	3,588.3	65.34	55.918	
3,000.0	2,982.5	2,975.5	2,975.5	7.1	59.5	-108.63	-313.8	3,586.5	3,656.8	3,590.4	66.43	55.047	
3,051.2	3,032.6	3,025.6	3,025.6	7.3	60.6	-108.78	-313.8	3,586.5	3,660.3	3,592.7	67.62	54.133	
3,100.0	3,080.3	3,073.3	3,073.3	7.5	61.5	-108.93	-313.8	3,586.5	3,663.7	3,594.9	68.75	53.290	
3,149.6	3,128.8	3,121.8	3,121.8	7.7	62.5	-109.08	-313.8	3,586.5	3,667.1	3,597.2	69.90	52.459	
3,200.0	3,178.1	3,171.1	3,171.1	7.9	63.5	-109.23	-313.8	3,586.5	3,670.6	3,599.5	71.08	51.643	
3,248.0	3,225.1	3,218.1	3,218.1	8.1	64.4	-109.38	-313.8	3,586.5	3,674.0	3,601.8	72.20	50.889	
3,300.0	3,276.0	3,269.0	3,269.0	8.3	65.4	-109.53	-313.8	3,586.5	3,677.6	3,604.2	73.41	50.098	
3,346.4	3,321.4	3,314.4	3,314.4	8.5	66.4	-109.67	-313.8	3,586.5	3,680.9	3,606.4	74.49	49.413	
3,400.0	3,373.8	3,366.8	3,366.8	8.7	67.4	-109.83	-313.8	3,586.5	3,684.8	3,609.0	75.75	48.647	
3,444.9	3,417.7	3,410.7	3,410.7	8.8	68.3	-109.96	-313.8	3,586.5	3,688.0	3,611.2	76.80	48.023	
3,500.0	3,471.6	3,464.6	3,464.6	9.1	69.4	-110.13	-313.8	3,586.5	3,692.0	3,613.9	78.09	47.281	
3,543.3	3,513.9	3,506.9	3,506.9	9.2	70.2	-110.26	-313.8	3,586.5	3,695.2	3,616.1	79.10	46.714	
3,600.0	3,569.4	3,562.4	3,562.4	9.5	71.4	-110.42	-313.8	3,586.5	3,699.4	3,618.9	80.43	45.994	
3,641.7	3,610.2	3,603.2	3,603.2	9.7	72.2	-110.55	-313.8	3,586.5	3,702.5	3,621.0	81.41	45.479	
3,700.0	3,667.2	3,660.2	3,660.2	9.9	73.3	-110.72	-313.8	3,586.5	3,706.8	3,624.0	82.78	44.780	
3,740.1	3,706.5	3,699.5	3,699.5	10.1	74.1	-110.84	-313.8	3,586.5	3,709.8	3,626.1	83.72	44.311	
3,800.0	3,765.0	3,758.0	3,758.0	10.3	75.3	-111.01	-313.8	3,586.5	3,714.4	3,629.2	85.13	43.632	
3,838.6	3,802.8	3,795.8	3,795.8	10.5	76.0	-111.13	-313.8	3,586.5	3,717.3	3,631.3	86.04	43.206	
3,900.0	3,862.8	3,855.8	3,855.8	10.7	77.3	-111.31	-313.8	3,586.5	3,722.0	3,634.5	87.48	42.547	
3,937.0	3,899.0	3,892.0	3,892.0	10.9	78.0	-111.41	-313.8	3,586.5	3,724.9	3,636.5	88.35	42.160	
4,000.0	3,960.7	3,953.7	3,953.7	11.2	79.2	-111.60	-313.8	3,586.5	3,729.8	3,639.9	89.83	41.519	
4,035.4	3,995.3	3,988.3	3,988.3	11.3	79.9	-111.70	-313.8	3,586.5	3,732.5	3,641.9	90.67	41.167	
4,100.0	4,058.5	4,051.5	4,051.5	11.6	81.2	-111.89	-313.8	3,586.5	3,737.6	3,645.4	92.19	40.544	
4,133.8	4,091.6	4,084.6	4,084.6	11.7	81.9	-111.99	-313.8	3,586.5	3,740.3	3,647.3	92.98	40.225	
4,200.0	4,156.3	4,149.3	4,149.3	12.0	83.2	-112.18	-313.8	3,586.5	3,745.6	3,651.0	94.54	39.618	
4,232.3	4,187.9	4,180.9	4,180.9	12.2	83.8	-112.27	-313.8	3,586.5	3,748.1	3,652.8	95.30	39.329	
4,300.0	4,254.1	4,247.1	4,247.1	12.5	85.1	-112.47	-313.8	3,586.5	3,753.6	3,656.7	96.90	38.738	
4,325.7	4,279.2	4,272.2	4,272.2	12.6	85.6	-112.54	-313.8	3,586.5	3,755.7	3,658.2	97.50	38.519	
4,330.7	4,284.1	4,277.1	4,277.1	12.6	85.7	-112.56	-313.8	3,586.5	3,756.1	3,658.5	97.62	38.476	
4,400.0	4,352.1	4,345.1	4,345.1	12.8	87.1	-112.85	-313.8	3,586.5	3,761.4	3,662.1	99.28	37.887	
4,429.1	4,380.8	4,373.8	4,373.8	12.9	87.7	-112.96	-313.8	3,586.5	3,763.4	3,663.5	99.95	37.651	
4,500.0	4,450.7	4,443.7	4,443.7	13.1	89.1	-113.20	-313.8	3,586.5	3,767.9	3,666.3	101.61	37.084	
4,527.5	4,478.0	4,471.0	4,471.0	13.2	89.6	-113.28	-313.8	3,586.5	3,769.5	3,667.2	102.24	36.869	
4,600.0	4,549.9	4,542.9	4,542.9	13.4	91.1	-113.47	-313.8	3,586.5	3,773.1	3,669.2	103.91	36.312	
4,626.0	4,575.7	4,568.7	4,568.7	13.5	91.6	-113.53	-313.8	3,586.5	3,774.3	3,669.8	104.50	36.117	
4,700.0	4,649.4	4,642.4	4,642.4	13.6	93.1	-113.68	-313.8	3,586.5	3,777.0	3,670.8	106.18	35.571	
4,724.4	4,673.7	4,666.7	4,666.7	13.7	93.6	-113.72	-313.8	3,586.5	3,777.7	3,671.0	106.73	35.396	
4,800.0	4,749.2	4,742.2	4,742.2	13.8	95.1	-113.81	-313.8	3,586.5	3,779.5	3,671.0	108.42	34.861	
4,822.8	4,772.0	4,765.0	4,765.0	13.9	95.5	-113.83	-313.8	3,586.5	3,779.8	3,670.9	108.92	34.703	
4,900.0	4,849.2	4,842.2	4,842.2	14.0	97.1	-113.86	-313.8	3,586.5	3,780.5	3,669.9	110.61	34.180	
4,921.2	4,870.4	4,863.4	4,863.4	14.1	97.5	-113.87	-313.8	3,586.5	3,780.6	3,669.5	111.07	34.038	
4,925.6	4,874.8	4,867.8	4,867.8	14.1	97.6	87.33	-313.8	3,586.5	3,780.6	3,671.6	108.96	34.698	
5,000.0	4,949.2	4,942.2	4,942.2	14.2	99.1	87.33	-313.8	3,586.5	3,780.6	3,670.0	110.59	34.185	
5,019.7	4,968.8	4,961.8	4,961.8	14.2	99.5	87.33	-313.8	3,586.5	3,780.6	3,669.5	111.02	34.052	

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

# Anticollision Report



<b>Company:</b>	PDC ENERGY	<b>Local Co-ordinate Reference:</b>	Well SCHAUMBERG 17G-314
<b>Project:</b>	WELD COUNTY, COLORADO	<b>TVD Reference:</b>	KB-EST @ 4633.0usft (Original Well Elev)
<b>Reference Site:</b>	SW NW SEC. 17 T5N R64W 6th P.M.	<b>MD Reference:</b>	KB-EST @ 4633.0usft (Original Well Elev)
<b>Site Error:</b>	0.0 usft	<b>North Reference:</b>	True
<b>Reference Well:</b>	SCHAUMBERG 17G-314	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Well Error:</b>	0.0 usft	<b>Output errors are at</b>	2.00 sigma
<b>Reference Wellbore</b>	ORIGINAL WELLBORE	<b>Database:</b>	EDM 5000.1 Single User Db
<b>Reference Design:</b>	PROPOSAL #1	<b>Offset TVD Reference:</b>	Offset Datum

<b>Offset Design</b> NW SW SEC. 17 T5N R64W 6th P.M. - EXIST VERT HOSHIKO #42-17 - Wellbore #1 - Design #1												<b>Offset Site Error:</b>	0.0 usft
Survey Program: 0-INC												<b>Offset Well Error:</b>	0.0 usft
Reference		Offset		Semi Major Axis			Distance						
Measured Depth (usft)	Vertical Depth (usft)	Measured Depth (usft)	Vertical Depth (usft)	Reference (usft)	Offset (usft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (usft)	+E/-W (usft)	Between Centres (usft)	Between Ellipses (usft)	Minimum Separation (usft)	Separation Factor	Warning
5,100.0	5,049.2	5,042.2	5,042.2	14.3	101.1	87.33	-313.8	3,586.5	3,780.6	3,667.8	112.79	33.519	
5,118.1	5,067.3	5,060.3	5,060.3	14.3	101.5	87.33	-313.8	3,586.5	3,780.6	3,667.4	113.19	33.401	
5,200.0	5,149.2	5,142.2	5,142.2	14.5	103.1	87.33	-313.8	3,586.5	3,780.6	3,665.6	114.99	32.878	
5,216.5	5,165.7	5,158.7	5,158.7	14.5	103.5	87.33	-313.8	3,586.5	3,780.6	3,665.2	115.35	32.775	
5,300.0	5,249.2	5,242.2	5,242.2	14.6	105.1	87.33	-313.8	3,586.5	3,780.6	3,663.4	117.19	32.261	
5,314.9	5,264.1	5,257.1	5,257.1	14.6	105.4	87.33	-313.8	3,586.5	3,780.6	3,663.1	117.52	32.171	
5,400.0	5,349.2	5,342.2	5,342.2	14.8	107.1	87.33	-313.8	3,586.5	3,780.6	3,661.2	119.39	31.666	
5,413.4	5,362.5	5,355.5	5,355.5	14.8	107.4	87.33	-313.8	3,586.5	3,780.6	3,660.9	119.68	31.588	
5,500.0	5,449.2	5,442.2	5,442.2	14.9	109.2	87.33	-313.8	3,586.5	3,780.6	3,659.0	121.59	31.093	
5,511.8	5,461.0	5,454.0	5,454.0	14.9	109.4	87.33	-313.8	3,586.5	3,780.6	3,658.7	121.85	31.026	
5,600.0	5,549.2	5,542.2	5,542.2	15.1	111.2	87.33	-313.8	3,586.5	3,780.6	3,656.8	123.79	30.539	
5,610.2	5,559.4	5,552.4	5,552.4	15.1	111.4	87.33	-313.8	3,586.5	3,780.6	3,656.5	124.02	30.484	
5,700.0	5,649.2	5,642.2	5,642.2	15.2	113.2	87.33	-313.8	3,586.5	3,780.6	3,654.6	126.00	30.005	
5,708.6	5,657.8	5,650.8	5,650.8	15.3	113.4	87.33	-313.8	3,586.5	3,780.6	3,654.4	126.19	29.959	
5,800.0	5,749.2	5,742.2	5,742.2	15.4	115.2	87.33	-313.8	3,586.5	3,780.6	3,652.4	128.20	29.489	
5,807.1	5,756.2	5,749.2	5,749.2	15.4	115.3	87.33	-313.8	3,586.5	3,780.6	3,652.2	128.36	29.453	
5,900.0	5,849.2	5,842.2	5,842.2	15.6	117.2	87.33	-313.8	3,586.5	3,780.6	3,650.2	130.41	28.990	
5,905.5	5,854.7	5,847.7	5,847.7	15.6	117.3	87.33	-313.8	3,586.5	3,780.6	3,650.0	130.53	28.963	
6,000.0	5,949.2	5,942.2	5,942.2	15.7	119.2	87.33	-313.8	3,586.5	3,780.6	3,648.0	132.62	28.507	
6,003.9	5,953.1	5,946.1	5,946.1	15.7	119.3	87.33	-313.8	3,586.5	3,780.6	3,647.9	132.71	28.489	
6,100.0	6,049.2	6,042.2	6,042.2	15.9	121.2	87.33	-313.8	3,586.5	3,780.6	3,645.7	134.83	28.040	
6,102.3	6,051.5	6,044.5	6,044.5	15.9	121.3	87.33	-313.8	3,586.5	3,780.6	3,645.7	134.88	28.029	
6,124.6	6,073.8	6,066.8	6,066.8	15.9	121.7	87.33	-313.8	3,586.5	3,780.6	3,645.2	135.37	27.928	
6,150.0	6,099.2	6,092.2	6,092.2	16.0	122.2	177.33	-313.8	3,586.5	3,781.0	3,643.3	137.70	27.459	
6,200.0	6,149.0	6,142.0	6,142.0	16.1	123.2	177.32	-313.8	3,586.5	3,784.5	3,646.4	138.15	27.395 SF	
6,200.8	6,149.8	6,142.8	6,142.8	16.1	123.2	177.32	-313.8	3,586.5	3,784.6	3,646.5	138.15	27.395	
6,250.0	6,198.5	6,191.5	6,191.5	16.2	124.2	177.29	-313.8	3,586.5	3,791.5	3,653.6	137.92	27.491	
6,299.2	6,246.6	6,239.6	6,239.6	16.3	125.2	177.26	-313.8	3,586.5	3,801.7	3,664.7	137.01	27.747	
6,300.0	6,247.4	6,240.4	6,240.4	16.3	125.2	177.26	-313.8	3,586.5	3,801.9	3,664.9	136.99	27.752	
6,350.0	6,295.5	6,288.5	6,288.5	16.5	126.2	177.22	-313.8	3,586.5	3,815.7	3,680.3	135.37	28.187	
6,397.6	6,340.2	6,333.2	6,333.2	16.6	127.1	177.16	-313.8	3,586.5	3,831.9	3,698.7	133.17	28.774	
6,400.0	6,342.4	6,335.4	6,335.4	16.6	127.1	177.16	-313.8	3,586.5	3,832.8	3,699.8	133.05	28.808	
6,450.0	6,388.1	6,381.1	6,381.1	16.8	128.0	177.08	-313.8	3,586.5	3,853.1	3,723.1	130.02	29.634	
6,496.0	6,428.8	6,421.8	6,421.8	17.0	128.9	177.00	-313.8	3,586.5	3,874.6	3,748.0	126.63	30.599	
6,500.0	6,432.2	6,425.2	6,425.2	17.0	128.9	176.99	-313.8	3,586.5	3,876.6	3,750.3	126.31	30.691	
6,550.0	6,474.6	6,467.6	6,467.6	17.3	129.8	176.88	-313.8	3,586.5	3,903.1	3,781.2	121.92	32.014	
6,594.5	6,510.7	6,503.7	6,503.7	17.5	130.5	176.76	-313.8	3,586.5	3,929.1	3,811.6	117.46	33.451	
6,600.0	6,515.0	6,508.0	6,508.0	17.6	130.6	176.74	-313.8	3,586.5	3,932.5	3,815.6	116.87	33.649	
6,650.0	6,553.3	6,546.3	6,546.3	17.9	131.4	176.57	-313.8	3,586.5	3,964.6	3,853.4	111.19	35.656	
6,692.9	6,584.3	6,577.3	6,577.3	18.2	132.0	176.40	-313.8	3,586.5	3,994.2	3,888.4	105.84	37.737	
6,700.0	6,589.2	6,582.2	6,582.2	18.2	132.1	176.36	-313.8	3,586.5	3,999.3	3,894.4	104.92	38.118	
6,750.0	6,622.7	6,615.7	6,615.7	18.6	132.8	176.11	-313.8	3,586.5	4,036.4	3,938.3	98.10	41.145	
6,791.3	6,648.3	6,641.3	6,641.3	19.0	133.3	175.85	-313.8	3,586.5	4,068.8	3,976.7	92.10	44.179	
6,800.0	6,653.4	6,646.4	6,646.4	19.1	133.4	175.79	-313.8	3,586.5	4,075.8	3,985.0	90.80	44.888	
6,850.0	6,681.4	6,674.4	6,674.4	19.6	133.9	175.37	-313.8	3,586.5	4,117.2	4,034.1	83.09	49.551	
6,889.7	6,701.5	6,694.5	6,694.5	20.1	134.3	174.96	-313.8	3,586.5	4,151.5	4,074.7	76.75	54.092	
6,900.0	6,706.3	6,699.3	6,699.3	20.2	134.4	174.84	-313.8	3,586.5	4,160.5	4,085.4	75.09	55.405	
6,950.0	6,728.2	6,721.2	6,721.2	20.9	134.9	174.11	-313.8	3,586.5	4,205.4	4,138.4	66.99	62.775	
6,988.2	6,742.8	6,735.8	6,735.8	21.5	135.2	173.35	-313.8	3,586.5	4,240.6	4,179.7	60.94	69.582	
7,000.0	6,746.9	6,739.9	6,739.9	21.6	135.3	173.07	-313.8	3,586.5	4,251.7	4,192.6	59.14	71.893	
7,050.0	6,762.4	6,755.4	6,755.4	22.5	135.6	171.52	-313.8	3,586.5	4,299.2	4,246.9	52.32	82.175	
7,086.6	6,771.5	6,764.5	6,764.5	23.1	135.7	169.78	-313.8	3,586.5	4,334.6	4,285.6	49.05	88.378	

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 SCHAUMBERG 17G-314
<b>Project:</b>	WELD COUNTY, COLORADO	<b>TVD Reference:</b>	KB-EST @ 4633.0usft (Original Well Elev)
<b>Reference Site:</b>	SW NW SEC. 17 T5N R64W 6th P.M.	<b>MD Reference:</b>	KB-EST @ 4633.0usft (Original Well Elev)
<b>Site Error:</b>	0.0 usft	<b>North Reference:</b>	True
<b>Reference Well:</b>	SCHAUMBERG 17G-314	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Well Error:</b>	0.0 usft	<b>Output errors are at</b>	2.00 sigma
<b>Reference Wellbore</b>	ORIGINAL WELLBORE	<b>Database:</b>	EDM 5000.1 Single User Db
<b>Reference Design:</b>	PROPOSAL #1	<b>Offset TVD Reference:</b>	Offset Datum

Offset Design NW SW SEC. 17 T5N R64W 6th P.M. - EXIST VERT HOSHIKO #42-17 - 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	
7,100.0	6,774.4	6,767.4	6,767.4	23.3	135.8	168.93	-313.8	3,586.5	4,347.7	4,299.1	48.55	89.560	
7,150.0	6,783.1	6,776.1	6,776.1	24.3	136.0	163.87	-313.8	3,586.5	4,396.9	4,343.6	53.32	82.464	
7,185.0	6,787.1	6,780.1	6,780.1	25.0	136.1	156.17	-313.8	3,586.5	4,431.6	4,362.2	69.42	63.842	
7,200.0	6,788.3	6,781.3	6,781.3	25.3	136.1	150.20	-313.8	3,586.5	4,446.6	4,363.5	83.10	53.509	
7,252.3	6,790.0	6,783.0	6,783.0	26.3	136.1	84.52	-313.8	3,586.5	4,498.8	4,338.1	160.67	28.000	
7,283.4	6,789.9	6,782.9	6,782.9	27.0	136.1	84.48	-313.8	3,586.5	4,529.9	4,368.6	161.34	28.076	
7,300.0	6,789.8	6,782.8	6,782.8	27.3	136.1	84.46	-313.8	3,586.5	4,546.4	4,384.7	161.70	28.116	
7,381.9	6,789.5	6,782.5	6,782.5	29.1	136.1	84.36	-313.8	3,586.5	4,628.3	4,464.7	163.54	28.300	
7,400.0	6,789.4	6,782.4	6,782.4	29.5	136.1	84.33	-313.8	3,586.5	4,646.4	4,482.4	163.94	28.341	
7,480.3	6,789.1	6,782.1	6,782.1	31.4	136.1	84.23	-313.8	3,586.5	4,726.6	4,560.8	165.81	28.506	
7,500.0	6,789.1	6,782.1	6,782.1	31.8	136.1	84.19	-313.8	3,586.5	4,746.3	4,580.0	166.27	28.546	
7,578.7	6,788.8	6,781.8	6,781.8	33.7	136.1	84.10	-313.8	3,586.5	4,825.0	4,656.8	168.15	28.694	
7,600.0	6,788.7	6,781.7	6,781.7	34.2	136.1	84.06	-313.8	3,586.5	4,846.2	4,677.6	168.66	28.734	
7,677.1	6,788.4	6,781.4	6,781.4	36.1	136.1	83.97	-313.8	3,586.5	4,923.3	4,752.8	170.54	28.869	
7,700.0	6,788.3	6,781.3	6,781.3	36.7	136.1	83.93	-313.8	3,586.5	4,946.2	4,775.1	171.10	28.908	
7,775.6	6,788.0	6,781.0	6,781.0	38.6	136.1	83.84	-313.8	3,586.5	5,021.7	4,848.7	172.97	29.031	
7,800.0	6,787.9	6,780.9	6,780.9	39.2	136.1	83.80	-313.8	3,586.5	5,046.1	4,872.5	173.58	29.071	
7,874.0	6,787.6	6,780.6	6,780.6	41.0	136.1	83.71	-313.8	3,586.5	5,120.1	4,944.6	175.44	29.184	
7,900.0	6,787.6	6,780.6	6,780.6	41.7	136.1	83.67	-313.8	3,586.5	5,146.0	4,969.9	176.09	29.224	
7,972.4	6,787.3	6,780.3	6,780.3	43.6	136.1	83.58	-313.8	3,586.5	5,218.4	5,040.5	177.93	29.328	
8,000.0	6,787.2	6,780.2	6,780.2	44.3	136.1	83.54	-313.8	3,586.5	5,246.0	5,067.4	178.63	29.368	
8,070.8	6,786.9	6,779.9	6,779.9	46.1	136.1	83.45	-313.8	3,586.5	5,316.8	5,136.3	180.44	29.465	
8,100.0	6,786.8	6,779.8	6,779.8	46.9	136.1	83.41	-313.8	3,586.5	5,345.9	5,164.7	181.19	29.505	
8,169.3	6,786.5	6,779.5	6,779.5	48.7	136.0	83.32	-313.8	3,586.5	5,415.2	5,232.2	182.98	29.595	
8,200.0	6,786.4	6,779.4	6,779.4	49.5	136.0	83.27	-313.8	3,586.5	5,445.9	5,262.1	183.76	29.635	
8,267.7	6,786.1	6,779.1	6,779.1	51.3	136.0	83.19	-313.8	3,586.5	5,513.5	5,328.0	185.52	29.719	
8,300.0	6,786.0	6,779.0	6,779.0	52.1	136.0	83.14	-313.8	3,586.5	5,545.8	5,359.5	186.36	29.759	
8,366.1	6,785.8	6,778.8	6,778.8	53.9	136.0	83.06	-313.8	3,586.5	5,611.9	5,423.8	188.08	29.838	
8,400.0	6,785.6	6,778.6	6,778.6	54.8	136.0	83.01	-313.8	3,586.5	5,645.8	5,456.8	188.96	29.878	
8,464.5	6,785.4	6,778.4	6,778.4	56.5	136.0	82.93	-313.8	3,586.5	5,710.3	5,519.6	190.65	29.952	
8,500.0	6,785.3	6,778.3	6,778.3	57.5	136.0	82.87	-313.8	3,586.5	5,745.7	5,554.1	191.57	29.993	
8,563.0	6,785.0	6,778.0	6,778.0	59.2	136.0	82.80	-313.8	3,586.5	5,808.7	5,615.4	193.23	30.062	
8,600.0	6,784.9	6,777.9	6,777.9	60.2	136.0	82.74	-313.8	3,586.5	5,845.7	5,651.5	194.19	30.102	
8,661.4	6,784.6	6,777.6	6,777.6	61.8	136.0	82.66	-313.8	3,586.5	5,907.0	5,711.2	195.81	30.167	
8,700.0	6,784.5	6,777.5	6,777.5	62.9	136.0	82.61	-313.8	3,586.5	5,945.6	5,748.8	196.82	30.208	
8,759.8	6,784.3	6,777.3	6,777.3	64.5	136.0	82.53	-313.8	3,586.5	6,005.4	5,807.0	198.40	30.269	
8,800.0	6,784.1	6,777.1	6,777.1	65.6	136.0	82.47	-313.8	3,586.5	6,045.6	5,846.1	199.45	30.311	
8,858.2	6,783.9	6,776.9	6,776.9	67.1	136.0	82.40	-313.8	3,586.5	6,103.8	5,902.8	200.99	30.368	
8,900.0	6,783.7	6,776.7	6,776.7	68.3	136.0	82.34	-313.8	3,586.5	6,145.5	5,943.4	202.09	30.410	
8,956.7	6,783.5	6,776.5	6,776.5	69.8	136.0	82.27	-313.8	3,586.5	6,202.2	5,998.6	203.59	30.464	
9,000.0	6,783.3	6,776.3	6,776.3	71.0	136.0	82.20	-313.8	3,586.5	6,245.5	6,040.8	204.73	30.506	
9,055.1	6,783.1	6,776.1	6,776.1	72.5	136.0	82.13	-313.8	3,586.5	6,300.6	6,094.4	206.19	30.557	
9,100.0	6,782.9	6,775.9	6,775.9	73.7	136.0	82.07	-313.8	3,586.5	6,345.5	6,138.1	207.37	30.599	
9,153.5	6,782.7	6,775.7	6,775.7	75.2	136.0	82.00	-313.8	3,586.5	6,399.0	6,190.2	208.79	30.647	
9,200.0	6,782.6	6,775.6	6,775.6	76.5	136.0	81.93	-313.8	3,586.5	6,445.4	6,235.4	210.02	30.690	
9,251.9	6,782.4	6,775.4	6,775.4	77.9	136.0	81.87	-313.8	3,586.5	6,497.3	6,286.0	211.40	30.735	
9,300.0	6,782.2	6,775.2	6,775.2	79.2	136.0	81.79	-313.8	3,586.5	6,545.4	6,332.7	212.67	30.778	
9,350.4	6,782.0	6,775.0	6,775.0	80.6	136.0	81.73	-313.8	3,586.5	6,595.7	6,381.7	214.00	30.821	
9,400.0	6,781.8	6,774.8	6,774.8	82.0	136.0	81.66	-313.8	3,586.5	6,645.3	6,430.0	215.31	30.863	
9,448.8	6,781.6	6,774.6	6,774.6	83.3	135.9	81.60	-313.8	3,586.5	6,694.1	6,477.5	216.61	30.904	
9,500.0	6,781.4	6,774.4	6,774.4	84.7	135.9	81.52	-313.8	3,586.5	6,745.3	6,527.3	217.96	30.947	
9,547.2	6,781.2	6,774.2	6,774.2	86.0	135.9	81.46	-313.8	3,586.5	6,792.5	6,573.3	219.22	30.985	

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 SCHAUMBERG 17G-314
<b>Project:</b>	WELD COUNTY, COLORADO	<b>TVD Reference:</b>	KB-EST @ 4633.0usft (Original Well Elev)
<b>Reference Site:</b>	SW NW SEC. 17 T5N R64W 6th P.M.	<b>MD Reference:</b>	KB-EST @ 4633.0usft (Original Well Elev)
<b>Site Error:</b>	0.0 usft	<b>North Reference:</b>	True
<b>Reference Well:</b>	SCHAUMBERG 17G-314	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Well Error:</b>	0.0 usft	<b>Output errors are at</b>	2.00 sigma
<b>Reference Wellbore</b>	ORIGINAL WELLBORE	<b>Database:</b>	EDM 5000.1 Single User Db
<b>Reference Design:</b>	PROPOSAL #1	<b>Offset TVD Reference:</b>	Offset Datum

Offset Design												Offset Site Error:	0.0 usft
Survey Program: 0-INC												Offset Well Error:	0.0 usft
Reference		Offset		Semi Major Axis			Distance						Warning
Measured Depth (usft)	Vertical Depth (usft)	Measured Depth (usft)	Vertical Depth (usft)	Reference (usft)	Offset (usft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (usft)	+E/-W (usft)	Between Centres (usft)	Between Ellipses (usft)	Minimum Separation (usft)	Separation Factor	
9,600.0	6,781.0	6,774.0	6,774.0	87.5	135.9	81.38	-313.8	3,586.5	6,845.3	6,624.7	220.61	31.029	
9,645.6	6,780.8	6,773.8	6,773.8	88.7	135.9	81.33	-313.8	3,586.5	6,890.9	6,669.1	221.82	31.065	
9,700.0	6,780.6	6,773.6	6,773.6	90.2	135.9	81.25	-313.8	3,586.5	6,945.2	6,722.0	223.26	31.108	
9,744.1	6,780.4	6,773.4	6,773.4	91.4	135.9	81.19	-313.8	3,586.5	6,989.3	6,764.9	224.43	31.142	
9,800.0	6,780.2	6,773.2	6,773.2	93.0	135.9	81.11	-313.8	3,586.5	7,045.2	6,819.3	225.91	31.186	
9,842.5	6,780.1	6,773.1	6,773.1	94.2	135.9	81.06	-313.8	3,586.5	7,087.7	6,860.7	227.04	31.218	
9,900.0	6,779.8	6,772.8	6,772.8	95.7	135.9	80.97	-313.8	3,586.5	7,145.2	6,916.6	228.55	31.262	
9,940.9	6,779.7	6,772.7	6,772.7	96.9	135.9	80.92	-313.8	3,586.5	7,186.1	6,956.4	229.64	31.293	
10,000.0	6,779.4	6,772.4	6,772.4	98.5	135.9	80.84	-313.8	3,586.5	7,245.1	7,013.9	231.20	31.337	
10,039.3	6,779.3	6,772.3	6,772.3	99.6	135.9	80.79	-313.8	3,586.5	7,284.5	7,052.2	232.24	31.366	
10,100.0	6,779.0	6,772.0	6,772.0	101.3	135.9	80.70	-313.8	3,586.5	7,345.1	7,111.3	233.84	31.410	
10,137.8	6,778.9	6,771.9	6,771.9	102.3	135.9	80.65	-313.8	3,586.5	7,382.9	7,148.0	234.85	31.437	
10,200.0	6,778.7	6,771.7	6,771.7	104.1	135.9	80.56	-313.8	3,586.5	7,445.1	7,208.6	236.49	31.482	
10,236.2	6,778.5	6,771.5	6,771.5	105.1	135.9	80.51	-313.8	3,586.5	7,481.3	7,243.8	237.45	31.507	
10,300.0	6,778.3	6,771.3	6,771.3	106.8	135.9	80.42	-313.8	3,586.5	7,545.1	7,305.9	239.13	31.552	
10,334.6	6,778.1	6,771.1	6,771.1	107.8	135.9	80.38	-313.8	3,586.5	7,579.7	7,339.6	240.05	31.576	
10,400.0	6,777.9	6,770.9	6,770.9	109.6	135.9	80.28	-313.8	3,586.5	7,645.0	7,403.3	241.77	31.621	
10,433.0	6,777.7	6,770.7	6,770.7	110.5	135.9	80.24	-313.8	3,586.5	7,678.1	7,435.4	242.64	31.644	
10,500.0	6,777.5	6,770.5	6,770.5	112.4	135.9	80.14	-313.8	3,586.5	7,745.0	7,500.6	244.40	31.689	
10,531.5	6,777.3	6,770.3	6,770.3	113.3	135.9	80.10	-313.8	3,586.5	7,776.5	7,531.2	245.24	31.710	
10,600.0	6,777.1	6,770.1	6,770.1	115.2	135.9	80.00	-313.8	3,586.5	7,845.0	7,597.9	247.04	31.756	
10,629.9	6,777.0	6,770.0	6,770.0	116.0	135.9	79.97	-313.8	3,586.5	7,874.9	7,627.0	247.83	31.775	
10,700.0	6,776.7	6,769.7	6,769.7	117.9	135.9	79.86	-313.8	3,586.5	7,945.0	7,695.3	249.67	31.822	
10,728.3	6,776.6	6,769.6	6,769.6	118.7	135.8	79.83	-313.8	3,586.5	7,973.3	7,722.9	250.42	31.840	
10,800.0	6,776.3	6,769.3	6,769.3	120.7	135.8	79.72	-313.8	3,586.5	8,044.9	7,792.6	252.30	31.886	
10,826.7	6,776.2	6,769.2	6,769.2	121.5	135.8	79.69	-313.8	3,586.5	8,071.7	7,818.7	253.01	31.903	
10,900.0	6,775.9	6,768.9	6,768.9	123.5	135.8	79.58	-313.8	3,586.5	8,144.9	7,890.0	254.93	31.950	
10,925.2	6,775.8	6,768.8	6,768.8	124.2	135.8	79.55	-313.8	3,586.5	8,170.1	7,914.5	255.59	31.965	
11,000.0	6,775.5	6,768.5	6,768.5	126.3	135.8	79.44	-313.8	3,586.5	8,244.9	7,987.3	257.55	32.013	
11,023.6	6,775.4	6,768.4	6,768.4	126.9	135.8	79.41	-313.8	3,586.5	8,268.5	8,010.3	258.17	32.027	
11,100.0	6,775.1	6,768.1	6,768.1	129.1	135.8	79.30	-313.8	3,586.5	8,344.9	8,084.7	260.17	32.075	
11,122.0	6,775.0	6,768.0	6,768.0	129.7	135.8	79.27	-313.8	3,586.5	8,366.9	8,106.1	260.75	32.088	
11,200.0	6,774.7	6,767.7	6,767.7	131.9	135.8	79.16	-313.8	3,586.5	8,444.8	8,182.0	262.79	32.135	
11,220.4	6,774.6	6,767.6	6,767.6	132.4	135.8	79.14	-313.8	3,586.5	8,465.3	8,202.0	263.33	32.147	
11,300.0	6,774.3	6,767.3	6,767.3	134.6	135.8	79.02	-313.8	3,586.5	8,544.8	8,279.4	265.40	32.196	
11,318.9	6,774.2	6,767.2	6,767.2	135.2	135.8	79.00	-313.8	3,586.5	8,563.7	8,297.8	265.90	32.207	
11,400.0	6,773.9	6,766.9	6,766.9	137.4	135.8	78.88	-313.8	3,586.5	8,644.8	8,376.8	268.01	32.255	
11,417.3	6,773.8	6,766.8	6,766.8	137.9	135.8	78.86	-313.8	3,586.5	8,662.1	8,393.6	268.47	32.265	
11,500.0	6,773.5	6,766.5	6,766.5	140.2	135.8	78.74	-313.8	3,586.5	8,744.8	8,474.1	270.62	32.314	
11,515.7	6,773.4	6,766.4	6,766.4	140.7	135.8	78.72	-313.8	3,586.5	8,760.5	8,489.5	271.03	32.323	
11,600.0	6,773.1	6,766.1	6,766.1	143.0	135.8	78.60	-313.8	3,586.5	8,844.7	8,571.5	273.22	32.372	
11,614.1	6,773.0	6,766.0	6,766.0	143.4	135.8	78.58	-313.8	3,586.5	8,858.9	8,585.3	273.60	32.380	
11,700.0	6,772.7	6,765.7	6,765.7	145.8	135.8	78.45	-313.8	3,586.5	8,944.7	8,668.9	275.82	32.429	
11,712.6	6,772.6	6,765.6	6,765.6	146.2	135.8	78.44	-313.8	3,586.5	8,957.3	8,681.1	276.15	32.436	
11,800.0	6,772.3	6,765.3	6,765.3	148.6	135.8	78.31	-313.8	3,586.5	9,044.7	8,766.3	278.42	32.486	
11,811.0	6,772.2	6,765.2	6,765.2	148.9	135.8	78.30	-313.8	3,586.5	9,055.7	8,777.0	278.71	32.492	
11,900.0	6,771.9	6,764.9	6,764.9	151.4	135.8	78.17	-313.8	3,586.5	9,144.7	8,863.7	281.01	32.542	
11,909.4	6,771.8	6,764.8	6,764.8	151.7	135.8	78.16	-313.8	3,586.5	9,154.1	8,872.8	281.26	32.547	
12,000.0	6,771.5	6,764.5	6,764.5	154.2	135.7	78.03	-313.8	3,586.5	9,244.7	8,961.1	283.60	32.597	
12,007.8	6,771.4	6,764.4	6,764.4	154.4	135.7	78.02	-313.8	3,586.5	9,252.5	8,968.7	283.81	32.601	
12,100.0	6,771.1	6,764.1	6,764.1	157.0	135.7	77.88	-313.8	3,586.5	9,344.6	9,058.5	286.19	32.652	
12,106.3	6,771.0	6,764.0	6,764.0	157.2	135.7	77.88	-313.8	3,586.5	9,350.9	9,064.6	286.35	32.656	

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 SCHAUMBERG 17G-314
<b>Project:</b>	WELD COUNTY, COLORADO	<b>TVD Reference:</b>	KB-EST @ 4633.0usft (Original Well Elev)
<b>Reference Site:</b>	SW NW SEC. 17 T5N R64W 6th P.M.	<b>MD Reference:</b>	KB-EST @ 4633.0usft (Original Well Elev)
<b>Site Error:</b>	0.0 usft	<b>North Reference:</b>	True
<b>Reference Well:</b>	SCHAUMBERG 17G-314	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Well Error:</b>	0.0 usft	<b>Output errors are at</b>	2.00 sigma
<b>Reference Wellbore</b>	ORIGINAL WELLBORE	<b>Database:</b>	EDM 5000.1 Single User Db
<b>Reference Design:</b>	PROPOSAL #1	<b>Offset TVD Reference:</b>	Offset Datum

<b>Offset Design</b> NW SW SEC. 17 T5N R64W 6th P.M. - EXIST VERT HOSHIKO #42-17 - Wellbore #1 - Design #1												<b>Offset Site Error:</b>	0.0 usft
Survey Program: 0-INC												<b>Offset Well Error:</b>	0.0 usft
Reference	Offset	Semi Major Axis		Distance									
Measured Depth (usft)	Vertical Depth (usft)	Measured Depth (usft)	Vertical Depth (usft)	Reference (usft)	Offset (usft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (usft)	+E/-W (usft)	Between Centres (usft)	Between Ellipses (usft)	Minimum Separation (usft)	Separation Factor	Warning
12,200.0	6,770.7	6,763.7	6,763.7	159.8	135.7	77.74	-313.8	3,586.5	9,444.6	9,155.9	288.77	32.707	
12,204.7	6,770.6	6,763.6	6,763.6	159.9	135.7	77.73	-313.8	3,586.5	9,449.3	9,160.4	288.89	32.709	
12,300.0	6,770.3	6,763.3	6,763.3	162.6	135.7	77.60	-313.8	3,586.5	9,544.6	9,253.3	291.34	32.761	
12,303.1	6,770.2	6,763.2	6,763.2	162.7	135.7	77.59	-313.8	3,586.5	9,547.7	9,256.3	291.42	32.762	
12,361.7	6,770.0	6,763.0	6,763.0	164.3	135.7	77.51	-313.8	3,586.5	9,606.3	9,313.4	292.93	32.794	



# Anticollision Report



<b>Company:</b>	PDC ENERGY	<b>Local Co-ordinate Reference:</b>	Well SCHAUMBERG 17G-314
<b>Project:</b>	WELD COUNTY, COLORADO	<b>TVD Reference:</b>	KB-EST @ 4633.0usft (Original Well Elev)
<b>Reference Site:</b>	SW NW SEC. 17 T5N R64W 6th P.M.	<b>MD Reference:</b>	KB-EST @ 4633.0usft (Original Well Elev)
<b>Site Error:</b>	0.0 usft	<b>North Reference:</b>	True
<b>Reference Well:</b>	SCHAUMBERG 17G-314	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Well Error:</b>	0.0 usft	<b>Output errors are at</b>	2.00 sigma
<b>Reference Wellbore</b>	ORIGINAL WELLBORE	<b>Database:</b>	EDM 5000.1 Single User Db
<b>Reference Design:</b>	PROPOSAL #1	<b>Offset TVD Reference:</b>	Offset Datum

Offset Design													Offset Site Error:	0.0 usft
Survey Program: 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	144.73	-3,158.1	2,234.0	3,868.4					
98.4	98.4	89.4	89.4	0.1	0.1	144.73	-3,158.2	2,233.9	3,868.4	3,868.2	0.19	N/A		
100.0	100.0	90.9	90.9	0.1	0.1	144.73	-3,158.2	2,233.9	3,868.4	3,868.2	0.19	N/A		
196.8	196.8	181.8	181.8	0.3	0.2	144.73	-3,158.4	2,233.9	3,868.6	3,868.1	0.52	7,437.611		
200.0	200.0	184.8	184.8	0.3	0.2	144.73	-3,158.4	2,233.9	3,868.6	3,868.1	0.53	7,285.424		
295.3	295.3	274.1	274.1	0.5	0.3	144.73	-3,158.6	2,234.2	3,868.9	3,868.1	0.81	4,798.843		
300.0	300.0	278.6	278.5	0.5	0.3	144.73	-3,158.6	2,234.2	3,868.9	3,868.1	0.82	4,721.663		
393.7	393.7	365.8	365.8	0.8	0.3	144.72	-3,158.6	2,235.0	3,869.4	3,868.3	1.09	3,545.758		
400.0	400.0	371.7	371.7	0.8	0.3	144.72	-3,158.6	2,235.0	3,869.4	3,868.3	1.11	3,486.668		
492.1	492.1	458.8	458.8	1.0	0.4	144.71	-3,158.7	2,235.9	3,870.1	3,868.7	1.38	2,814.356		
500.0	500.0	466.3	466.3	1.0	0.4	144.71	-3,158.7	2,236.0	3,870.1	3,868.7	1.40	2,769.168		
590.5	590.5	556.1	556.1	1.2	0.5	144.69	-3,158.8	2,237.0	3,870.8	3,869.2	1.65	2,340.141		
600.0	600.0	565.7	565.7	1.2	0.5	144.69	-3,158.8	2,237.1	3,870.9	3,869.2	1.68	2,303.071		
689.0	689.0	655.9	655.8	1.4	0.5	144.68	-3,158.9	2,238.2	3,871.6	3,869.6	1.93	2,006.870		
700.0	700.0	667.0	667.0	1.4	0.5	144.68	-3,158.9	2,238.3	3,871.6	3,869.7	1.96	1,975.590		
787.4	787.4	754.4	754.3	1.6	0.6	144.67	-3,159.0	2,239.3	3,872.3	3,870.1	2.20	1,760.235		
800.0	800.0	766.8	766.8	1.7	0.6	144.67	-3,159.0	2,239.4	3,872.4	3,870.1	2.23	1,733.161		
885.8	885.8	853.4	853.3	1.9	0.6	144.65	-3,159.0	2,240.5	3,873.0	3,870.5	2.47	1,569.228		
900.0	900.0	867.8	867.8	1.9	0.6	144.65	-3,159.0	2,240.6	3,873.1	3,870.6	2.51	1,545.134		
984.2	984.2	946.7	946.7	2.1	0.6	144.64	-3,159.2	2,241.4	3,873.7	3,871.0	2.73	1,418.087		
1,000.0	1,000.0	960.7	960.6	2.1	0.7	144.64	-3,159.2	2,241.6	3,873.8	3,871.1	2.77	1,396.861		
1,082.7	1,082.7	1,037.7	1,037.7	2.3	0.7	144.64	-3,159.6	2,242.3	3,874.7	3,871.7	2.99	1,294.394		
1,100.0	1,100.0	1,054.8	1,054.7	2.3	0.7	144.64	-3,159.7	2,242.5	3,874.8	3,871.8	3.04	1,274.624		
1,181.1	1,181.1	1,138.7	1,138.7	2.5	0.7	144.63	-3,160.2	2,243.3	3,875.7	3,872.4	3.26	1,189.135		
1,200.0	1,200.0	1,159.6	1,159.5	2.6	0.7	144.63	-3,160.3	2,243.5	3,875.8	3,872.5	3.31	1,170.701		
1,279.5	1,279.5	1,243.6	1,243.6	2.7	0.8	144.62	-3,160.6	2,244.3	3,876.5	3,873.0	3.53	1,099.637		
1,300.0	1,300.0	1,264.5	1,264.4	2.8	0.8	144.62	-3,160.7	2,244.4	3,876.7	3,873.1	3.58	1,082.852		
1,377.9	1,377.9	1,341.1	1,341.0	3.0	0.8	144.62	-3,161.1	2,244.9	3,877.3	3,873.5	3.79	1,023.775		
1,400.0	1,400.0	1,362.1	1,362.0	3.0	0.8	144.62	-3,161.2	2,245.1	3,877.5	3,873.6	3.85	1,008.306		
1,476.4	1,476.4	1,434.7	1,434.6	3.2	0.9	144.62	-3,161.6	2,245.6	3,878.2	3,874.1	4.05	958.262		
1,500.0	1,500.0	1,457.0	1,457.0	3.2	0.9	144.61	-3,161.8	2,245.8	3,878.4	3,874.3	4.11	943.808		
1,574.8	1,574.8	1,531.2	1,531.2	3.4	0.9	144.61	-3,162.2	2,246.5	3,879.1	3,874.8	4.31	900.550		
1,600.0	1,600.0	1,557.9	1,557.9	3.5	0.9	144.61	-3,162.3	2,246.8	3,879.4	3,875.0	4.37	886.731		
1,673.2	1,673.2	1,631.5	1,631.5	3.6	0.9	144.60	-3,162.7	2,247.4	3,880.1	3,875.5	4.57	849.226		
1,700.0	1,700.0	1,656.7	1,656.6	3.7	0.9	144.60	-3,162.9	2,247.6	3,880.3	3,875.7	4.64	836.444		
1,771.6	1,771.6	1,723.8	1,723.7	3.9	1.0	144.60	-3,163.4	2,248.1	3,881.1	3,876.2	4.83	804.120		
1,800.0	1,800.0	1,750.2	1,750.1	3.9	1.0	144.60	-3,163.6	2,248.3	3,881.4	3,876.5	4.90	792.049		
1,870.1	1,870.1	1,817.7	1,817.6	4.1	1.0	-56.60	-3,164.2	2,248.8	3,881.8	3,876.7	5.04	770.769		
1,900.0	1,900.0	1,849.7	1,849.6	4.1	1.0	-56.61	-3,164.5	2,249.1	3,881.6	3,876.5	5.11	760.075		
1,968.5	1,968.4	1,925.7	1,925.6	4.2	1.0	-56.67	-3,165.3	2,249.4	3,880.6	3,875.4	5.25	738.789		
2,000.0	1,999.8	1,963.3	1,963.2	4.3	1.1	-56.71	-3,165.7	2,249.5	3,879.8	3,874.5	5.32	729.399		
2,066.9	2,066.5	2,040.0	2,039.9	4.4	1.1	-56.82	-3,166.5	2,249.2	3,877.3	3,871.8	5.46	709.601		
2,100.0	2,099.5	2,076.6	2,076.5	4.5	1.1	-56.89	-3,166.8	2,249.0	3,875.6	3,870.1	5.54	700.174		
2,165.3	2,164.4	2,148.1	2,148.0	4.6	1.1	-57.05	-3,167.5	2,248.6	3,871.7	3,866.0	5.68	681.424		
2,200.0	2,198.7	2,185.7	2,185.6	4.7	1.1	-57.15	-3,167.8	2,248.4	3,869.3	3,863.5	5.76	671.802		
2,263.8	2,261.8	2,255.1	2,255.0	4.8	1.1	-57.35	-3,168.3	2,247.9	3,864.2	3,858.2	5.91	653.721		
2,300.0	2,297.5	2,294.5	2,294.3	4.9	1.1	-57.49	-3,168.5	2,247.5	3,860.9	3,854.9	6.00	643.730		
2,362.2	2,358.6	2,352.7	2,352.5	5.0	1.1	-57.72	-3,168.8	2,247.1	3,854.6	3,848.5	6.16	626.020		
2,400.0	2,395.6	2,387.4	2,387.3	5.1	1.1	-57.87	-3,169.0	2,246.9	3,850.5	3,844.3	6.26	615.552		
2,460.6	2,454.9	2,450.7	2,450.5	5.3	1.1	-58.03	-3,169.3	2,246.5	3,843.8	3,837.3	6.43	598.200		
2,500.0	2,493.4	2,493.1	2,493.0	5.4	1.2	-58.14	-3,169.5	2,246.2	3,839.3	3,832.8	6.54	587.271		
2,559.0	2,551.2	2,548.5	2,548.4	5.6	1.2	-58.28	-3,169.7	2,245.8	3,832.7	3,826.0	6.71	570.923		

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 SCHAUMBERG 17G-314
<b>Project:</b>	WELD COUNTY, COLORADO	<b>TVD Reference:</b>	KB-EST @ 4633.0usft (Original Well Elev)
<b>Reference Site:</b>	SW NW SEC. 17 T5N R64W 6th P.M.	<b>MD Reference:</b>	KB-EST @ 4633.0usft (Original Well Elev)
<b>Site Error:</b>	0.0 usft	<b>North Reference:</b>	True
<b>Reference Well:</b>	SCHAUMBERG 17G-314	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Well Error:</b>	0.0 usft	<b>Output errors are at</b>	2.00 sigma
<b>Reference Wellbore</b>	ORIGINAL WELLBORE	<b>Database:</b>	EDM 5000.1 Single User Db
<b>Reference Design:</b>	PROPOSAL #1	<b>Offset TVD Reference:</b>	Offset Datum

Offset Design													Offset Site Error:	0.0 usft
Survey Program: 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		
2,600.0	2,591.3	2,586.2	2,586.1	5.7	1.2	-58.38	-3,169.9	2,245.5	3,828.2	3,821.3	6.84	560.045		
2,657.5	2,647.5	2,644.6	2,644.5	5.9	1.2	-58.53	-3,170.1	2,245.2	3,821.8	3,814.8	7.01	544.855		
2,700.0	2,689.1	2,689.3	2,689.1	6.0	1.2	-58.64	-3,170.2	2,245.0	3,817.1	3,809.9	7.15	533.876		
2,755.9	2,743.7	2,744.2	2,744.1	6.2	1.2	-58.79	-3,170.3	2,244.8	3,810.9	3,803.5	7.33	519.783		
2,800.0	2,786.9	2,786.9	2,786.8	6.4	1.2	-58.90	-3,170.4	2,244.6	3,806.0	3,798.5	7.48	509.076		
2,854.3	2,840.0	2,839.7	2,839.5	6.6	1.2	-59.04	-3,170.5	2,244.3	3,800.0	3,792.3	7.66	496.083		
2,900.0	2,884.7	2,884.1	2,883.9	6.7	1.2	-59.15	-3,170.6	2,244.1	3,795.0	3,787.2	7.82	485.559		
2,952.7	2,936.3	2,937.0	2,936.9	6.9	1.2	-59.29	-3,170.7	2,243.8	3,789.2	3,781.2	8.00	473.666		
3,000.0	2,982.5	2,985.0	2,984.9	7.1	1.2	-59.42	-3,170.8	2,243.6	3,784.1	3,775.9	8.17	463.417		
3,051.2	3,032.6	3,036.0	3,035.9	7.3	1.2	-59.56	-3,170.8	2,243.4	3,778.5	3,770.1	8.35	452.594		
3,100.0	3,080.3	3,084.2	3,084.1	7.5	1.2	-59.69	-3,170.9	2,243.2	3,773.1	3,764.6	8.52	442.664		
3,149.6	3,128.8	3,131.6	3,131.5	7.7	1.3	-59.81	-3,170.9	2,242.9	3,767.7	3,759.0	8.70	432.824		
3,200.0	3,178.1	3,179.0	3,178.8	7.9	1.3	-59.94	-3,171.0	2,242.7	3,762.3	3,753.4	8.89	423.201		
3,248.0	3,225.1	3,226.9	3,226.8	8.1	1.3	-60.07	-3,171.0	2,242.5	3,757.1	3,748.1	9.07	414.285		
3,300.0	3,276.0	3,281.5	3,281.3	8.3	1.3	-60.22	-3,171.0	2,242.3	3,751.6	3,742.3	9.26	405.000		
3,346.4	3,321.4	3,325.2	3,325.1	8.5	1.3	-60.34	-3,171.0	2,242.2	3,746.6	3,737.1	9.44	397.054		
3,400.0	3,373.8	3,372.0	3,371.9	8.7	1.3	-60.47	-3,170.9	2,242.2	3,740.9	3,731.2	9.63	388.320		
3,444.9	3,417.7	3,412.2	3,412.1	8.8	1.3	-60.58	-3,170.8	2,242.3	3,736.2	3,726.4	9.80	381.095		
3,500.0	3,471.6	3,464.4	3,464.3	9.1	1.3	-60.73	-3,170.6	2,242.5	3,730.5	3,720.5	10.02	372.283		
3,543.3	3,513.9	3,506.0	3,505.8	9.2	1.3	-60.85	-3,170.5	2,242.8	3,726.1	3,715.9	10.19	365.563		
3,600.0	3,569.4	3,564.9	3,564.8	9.5	1.3	-61.03	-3,170.2	2,243.1	3,720.3	3,709.9	10.42	357.031		
3,641.7	3,610.2	3,607.2	3,607.1	9.7	1.3	-61.15	-3,170.1	2,243.3	3,716.0	3,705.4	10.59	350.937		
3,700.0	3,667.2	3,659.6	3,659.5	9.9	1.3	-61.30	-3,169.9	2,243.5	3,710.1	3,699.3	10.82	342.781		
3,740.1	3,706.5	3,695.8	3,695.6	10.1	1.3	-61.41	-3,169.8	2,243.7	3,706.1	3,695.1	10.99	337.324		
3,800.0	3,765.0	3,754.2	3,754.0	10.3	1.3	-61.58	-3,169.7	2,244.0	3,700.1	3,688.9	11.23	329.397		
3,838.6	3,802.8	3,792.1	3,791.9	10.5	1.3	-61.69	-3,169.6	2,244.2	3,696.3	3,684.9	11.39	324.427		
3,900.0	3,862.8	3,841.5	3,841.3	10.7	1.3	-61.83	-3,169.6	2,244.4	3,690.3	3,678.7	11.64	316.912		
3,937.0	3,899.0	3,870.3	3,870.2	10.9	1.3	-61.91	-3,169.7	2,244.5	3,686.8	3,675.0	11.80	312.540		
4,000.0	3,960.7	3,919.8	3,919.7	11.2	1.4	-62.06	-3,170.0	2,244.7	3,681.1	3,669.0	12.06	305.307		
4,035.4	3,995.3	3,948.0	3,947.8	11.3	1.4	-62.14	-3,170.3	2,244.9	3,678.0	3,665.8	12.21	301.314		
4,100.0	4,058.5	4,000.0	3,999.8	11.6	1.4	-62.28	-3,170.9	2,245.2	3,672.5	3,660.0	12.48	294.283		
4,133.8	4,091.6	4,032.6	4,032.4	11.7	1.4	-62.38	-3,171.3	2,245.5	3,669.7	3,657.0	12.63	290.650		
4,200.0	4,156.3	4,097.9	4,097.7	12.0	1.4	-62.56	-3,172.2	2,245.9	3,664.2	3,651.3	12.91	283.767		
4,232.3	4,187.9	4,127.5	4,127.3	12.2	1.4	-62.65	-3,172.6	2,246.1	3,661.5	3,648.5	13.05	280.517		
4,300.0	4,254.1	4,189.2	4,189.0	12.5	1.4	-62.82	-3,173.5	2,246.6	3,656.0	3,642.7	13.35	273.917		
4,325.7	4,279.2	4,214.2	4,214.0	12.6	1.4	-62.89	-3,173.9	2,246.8	3,654.0	3,640.5	13.46	271.472		
4,330.7	4,284.1	4,219.4	4,219.2	12.6	1.4	-62.90	-3,174.0	2,246.8	3,653.6	3,640.1	13.48	271.060		
4,400.0	4,352.1	4,290.8	4,290.6	12.8	1.5	-63.00	-3,175.0	2,247.3	3,648.5	3,634.8	13.74	265.531		
4,429.1	4,380.8	4,318.7	4,318.6	12.9	1.5	-63.03	-3,175.5	2,247.5	3,646.6	3,632.7	13.83	263.654		
4,500.0	4,450.7	4,384.6	4,384.4	13.1	1.5	-63.10	-3,176.5	2,247.9	3,642.5	3,628.5	14.05	259.252		
4,527.5	4,478.0	4,410.9	4,410.7	13.2	1.5	-63.13	-3,177.0	2,248.1	3,641.2	3,627.1	14.13	257.720		
4,600.0	4,549.9	4,483.2	4,483.0	13.4	1.5	-63.20	-3,178.2	2,248.6	3,638.3	3,624.0	14.34	253.794		
4,626.0	4,575.7	4,508.6	4,508.4	13.5	1.5	-63.22	-3,178.6	2,248.8	3,637.5	3,623.1	14.40	252.558		
4,700.0	4,649.4	4,578.6	4,578.4	13.6	1.5	-63.27	-3,179.8	2,249.3	3,635.7	3,621.1	14.59	249.157		
4,724.4	4,673.7	4,600.0	4,599.8	13.7	1.6	-63.28	-3,180.2	2,249.4	3,635.3	3,620.7	14.65	248.199		
4,798.0	4,747.2	4,669.8	4,669.5	13.8	1.6	-63.32	-3,181.5	2,249.9	3,634.9	3,620.1	14.81	245.365 CC		
4,800.0	4,749.2	4,671.6	4,671.4	13.8	1.6	-63.33	-3,181.6	2,250.0	3,634.9	3,620.0	14.82	245.290 ES		
4,822.8	4,772.0	4,692.8	4,692.5	13.9	1.6	-63.34	-3,182.0	2,250.1	3,634.9	3,620.1	14.86	244.550		
4,900.0	4,849.2	4,765.0	4,764.7	14.0	1.6	-63.37	-3,183.4	2,250.8	3,635.8	3,620.8	15.02	242.114		
4,921.2	4,870.4	4,784.9	4,784.6	14.1	1.6	-63.37	-3,183.8	2,251.0	3,636.2	3,621.1	15.06	241.514		
4,925.6	4,874.8	4,789.0	4,788.7	14.1	1.6	137.82	-3,183.9	2,251.1	3,636.3	3,623.4	12.88	282.274		
5,000.0	4,949.2	4,856.7	4,856.4	14.2	1.6	137.82	-3,185.3	2,251.9	3,638.0	3,625.0	13.03	279.213		

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 SCHAUMBERG 17G-314
<b>Project:</b>	WELD COUNTY, COLORADO	<b>TVD Reference:</b>	KB-EST @ 4633.0usft (Original Well Elev)
<b>Reference Site:</b>	SW NW SEC. 17 T5N R64W 6th P.M.	<b>MD Reference:</b>	KB-EST @ 4633.0usft (Original Well Elev)
<b>Site Error:</b>	0.0 usft	<b>North Reference:</b>	True
<b>Reference Well:</b>	SCHAUMBERG 17G-314	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Well Error:</b>	0.0 usft	<b>Output errors are at</b>	2.00 sigma
<b>Reference Wellbore</b>	ORIGINAL WELLBORE	<b>Database:</b>	EDM 5000.1 Single User Db
<b>Reference Design:</b>	PROPOSAL #1	<b>Offset TVD Reference:</b>	Offset Datum

Offset Design													Offset Site Error:	0.0 usft
Survey Program: 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	4,968.8	4,874.5	4,874.2	14.2	1.6	137.82	-3,185.6	2,252.2	3,638.5	3,625.4	13.07	278.421		
5,100.0	5,049.2	4,952.2	4,951.8	14.3	1.7	137.83	-3,187.3	2,253.3	3,640.5	3,627.3	13.23	275.228		
5,118.1	5,067.3	4,970.3	4,969.9	14.3	1.7	137.83	-3,187.7	2,253.5	3,641.0	3,627.7	13.26	274.511		
5,200.0	5,149.2	5,067.4	5,067.1	14.5	1.7	137.84	-3,189.6	2,254.8	3,643.0	3,629.5	13.43	271.267		
5,216.5	5,165.7	5,088.8	5,088.4	14.5	1.7	137.84	-3,190.0	2,255.1	3,643.3	3,629.8	13.46	270.608		
5,300.0	5,249.2	5,185.7	5,185.3	14.6	1.7	137.84	-3,191.4	2,256.1	3,644.8	3,631.1	13.63	267.352		
5,314.9	5,264.1	5,202.7	5,202.3	14.6	1.7	137.84	-3,191.6	2,256.3	3,645.0	3,631.4	13.66	266.773		
5,400.0	5,349.2	5,296.0	5,295.6	14.8	1.8	137.84	-3,192.7	2,257.0	3,646.2	3,632.4	13.84	263.530		
5,413.4	5,362.5	5,310.1	5,309.7	14.8	1.8	137.84	-3,192.9	2,257.2	3,646.4	3,632.6	13.86	263.025		
5,500.0	5,449.2	5,400.0	5,399.6	14.9	1.8	137.84	-3,193.8	2,257.9	3,647.5	3,633.5	14.04	259.807		
5,511.8	5,461.0	5,411.8	5,411.4	14.9	1.8	137.84	-3,193.9	2,257.9	3,647.7	3,633.6	14.06	259.372		
5,600.0	5,549.2	5,498.8	5,498.4	15.1	1.8	137.85	-3,194.8	2,258.6	3,648.8	3,634.5	14.24	256.179		
5,610.2	5,559.4	5,508.9	5,508.4	15.1	1.8	137.85	-3,194.9	2,258.6	3,648.9	3,634.6	14.26	255.811		
5,700.0	5,649.2	5,597.4	5,597.0	15.2	1.9	137.85	-3,195.9	2,259.2	3,650.0	3,635.6	14.45	252.629		
5,708.6	5,657.8	5,605.7	5,605.3	15.3	1.9	137.85	-3,196.0	2,259.3	3,650.1	3,635.7	14.47	252.326		
5,800.0	5,749.2	5,692.3	5,691.8	15.4	1.9	137.85	-3,197.0	2,259.9	3,651.4	3,636.7	14.65	249.183		
5,807.1	5,756.2	5,700.0	5,699.6	15.4	1.9	137.85	-3,197.1	2,260.0	3,651.5	3,636.8	14.67	248.940		
5,900.0	5,849.2	5,799.4	5,798.9	15.6	1.9	137.86	-3,198.1	2,260.8	3,652.7	3,637.9	14.86	245.795		
5,905.5	5,854.7	5,805.0	5,804.5	15.6	1.9	137.86	-3,198.2	2,260.8	3,652.8	3,637.9	14.87	245.611		
6,000.0	5,949.2	5,900.0	5,899.6	15.7	1.9	137.86	-3,199.1	2,261.5	3,654.0	3,638.9	15.07	242.491		
6,003.9	5,953.1	5,904.5	5,904.0	15.7	1.9	137.86	-3,199.2	2,261.6	3,654.0	3,638.9	15.08	242.361		
6,100.0	6,049.2	5,994.6	5,994.1	15.9	2.0	137.86	-3,200.1	2,262.3	3,655.2	3,640.0	15.28	239.285		
6,102.3	6,051.5	5,996.8	5,996.3	15.9	2.0	137.86	-3,200.1	2,262.3	3,655.3	3,640.0	15.28	239.210		
6,124.6	6,073.8	6,019.9	6,019.4	15.9	2.0	137.86	-3,200.3	2,262.6	3,655.6	3,640.3	15.33	238.504		
6,150.0	6,099.2	6,046.6	6,046.1	16.0	2.0	-132.11	-3,200.6	2,262.8	3,656.2	3,638.8	17.46	209.411		
6,200.0	6,149.0	6,099.1	6,098.6	16.1	2.0	-131.97	-3,201.1	2,263.2	3,659.2	3,641.6	17.58	208.155		
6,200.8	6,149.8	6,099.9	6,099.5	16.1	2.0	-131.97	-3,201.1	2,263.3	3,659.3	3,641.7	17.58	208.133		
6,250.0	6,198.5	6,145.5	6,145.0	16.2	2.0	-131.73	-3,201.5	2,263.6	3,664.5	3,646.8	17.72	206.806		
6,299.2	6,246.6	6,190.4	6,189.9	16.3	2.0	-131.38	-3,201.9	2,264.1	3,672.1	3,654.2	17.88	205.414		
6,300.0	6,247.4	6,191.1	6,190.6	16.3	2.0	-131.38	-3,201.9	2,264.1	3,672.2	3,654.3	17.88	205.393		
6,350.0	6,295.5	6,244.1	6,243.6	16.5	2.1	-130.94	-3,202.5	2,264.6	3,682.2	3,664.1	18.06	203.914		
6,397.6	6,340.2	6,295.4	6,294.9	16.6	2.1	-130.43	-3,203.0	2,264.9	3,693.7	3,675.5	18.24	202.494		
6,400.0	6,342.4	6,298.0	6,297.5	16.6	2.1	-130.40	-3,203.0	2,265.0	3,694.4	3,676.1	18.25	202.430		
6,450.0	6,388.1	6,339.7	6,339.2	16.8	2.1	-129.69	-3,203.4	2,265.2	3,708.7	3,690.3	18.45	201.058		
6,496.0	6,428.8	6,376.5	6,376.1	17.0	2.1	-128.91	-3,203.8	2,265.5	3,723.9	3,705.3	18.64	199.825		
6,500.0	6,432.2	6,379.6	6,379.1	17.0	2.1	-128.84	-3,203.8	2,265.5	3,725.3	3,706.7	18.65	199.733		
6,550.0	6,474.6	6,418.3	6,417.8	17.3	2.1	-127.83	-3,204.2	2,265.8	3,744.1	3,725.2	18.87	198.414		
6,594.5	6,510.7	6,451.7	6,451.2	17.5	2.1	-126.80	-3,204.6	2,266.1	3,762.6	3,743.5	19.08	197.184		
6,600.0	6,515.0	6,455.7	6,455.2	17.6	2.1	-126.66	-3,204.7	2,266.1	3,765.0	3,745.9	19.11	197.048		
6,650.0	6,553.3	6,491.0	6,490.5	17.9	2.1	-125.30	-3,205.1	2,266.4	3,787.9	3,768.5	19.37	195.570		
6,692.9	6,584.3	6,518.3	6,517.8	18.2	2.1	-123.97	-3,205.4	2,266.7	3,809.1	3,789.5	19.62	194.131		
6,700.0	6,589.2	6,522.6	6,522.1	18.2	2.1	-123.73	-3,205.5	2,266.7	3,812.8	3,793.1	19.66	193.907		
6,750.0	6,622.7	6,551.5	6,551.0	18.6	2.1	-121.92	-3,205.9	2,267.0	3,839.5	3,819.5	20.00	191.961		
6,791.3	6,648.3	6,573.6	6,573.1	19.0	2.2	-120.24	-3,206.2	2,267.2	3,862.9	3,842.6	20.33	190.042		
6,800.0	6,653.4	6,578.1	6,577.5	19.1	2.2	-119.86	-3,206.3	2,267.3	3,868.0	3,847.6	20.40	189.648		
6,850.0	6,681.4	6,600.0	6,599.5	19.6	2.2	-117.50	-3,206.7	2,267.5	3,898.1	3,877.3	20.85	186.925		
6,889.7	6,701.5	6,600.0	6,599.5	20.1	2.2	-115.18	-3,206.7	2,267.5	3,923.2	3,902.0	21.26	184.502		
6,900.0	6,706.3	6,617.6	6,617.1	20.2	2.2	-114.82	-3,207.0	2,267.7	3,929.8	3,908.4	21.39	183.753		
6,950.0	6,728.2	6,631.5	6,631.0	20.9	2.2	-111.80	-3,207.2	2,267.9	3,962.9	3,940.9	22.00	180.152		
6,988.2	6,742.8	6,640.7	6,640.2	21.5	2.2	-109.28	-3,207.4	2,268.0	3,988.9	3,966.4	22.52	177.096		
7,000.0	6,746.9	6,643.3	6,642.8	21.6	2.2	-108.47	-3,207.5	2,268.0	3,997.2	3,974.5	22.69	176.165		
7,050.0	6,762.4	6,652.9	6,652.4	22.5	2.2	-104.80	-3,207.7	2,268.2	4,032.5	4,009.1	23.46	171.872		

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 SCHAUMBERG 17G-314
<b>Project:</b>	WELD COUNTY, COLORADO	<b>TVD Reference:</b>	KB-EST @ 4633.0usft (Original Well Elev)
<b>Reference Site:</b>	SW NW SEC. 17 T5N R64W 6th P.M.	<b>MD Reference:</b>	KB-EST @ 4633.0usft (Original Well Elev)
<b>Site Error:</b>	0.0 usft	<b>North Reference:</b>	True
<b>Reference Well:</b>	SCHAUMBERG 17G-314	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Well Error:</b>	0.0 usft	<b>Output errors are at</b>	2.00 sigma
<b>Reference Wellbore</b>	ORIGINAL WELLBORE	<b>Database:</b>	EDM 5000.1 Single User Db
<b>Reference Design:</b>	PROPOSAL #1	<b>Offset TVD Reference:</b>	Offset Datum

Offset Design NW SW SEC. 17 T5N R64W 6th P.M. - EXIST VERT HOSHIKO/SOLIS #1 - Wellbore #1 - Wellbore #1													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	
7,086.6	6,771.5	6,658.5	6,658.0	23.1	2.2	-101.93	-3,207.8	2,268.3	4,059.0	4,034.9	24.08	168.543		
7,100.0	6,774.4	6,660.3	6,659.7	23.3	2.2	-100.84	-3,207.9	2,268.3	4,068.8	4,044.5	24.31	167.344		
7,150.0	6,783.1	6,665.4	6,664.8	24.3	2.2	-96.60	-3,208.0	2,268.4	4,105.8	4,080.5	25.25	162.609		
7,185.0	6,787.1	6,667.6	6,667.1	25.0	2.2	-93.49	-3,208.0	2,268.4	4,132.0	4,106.1	25.96	159.142		
7,200.0	6,788.3	6,668.2	6,667.7	25.3	2.2	-92.13	-3,208.1	2,268.4	4,143.3	4,117.0	26.28	157.658		
7,252.3	6,790.0	6,668.8	6,668.3	26.3	2.2	-87.29	-3,208.1	2,268.4	4,182.9	4,155.5	27.47	152.283		
7,283.4	6,789.9	6,668.4	6,667.9	27.0	2.2	-87.28	-3,208.1	2,268.4	4,206.6	4,178.4	28.16	149.388		
7,300.0	6,789.8	6,668.2	6,667.7	27.3	2.2	-87.28	-3,208.1	2,268.4	4,219.2	4,190.7	28.53	147.907		
7,381.9	6,789.5	6,667.2	6,666.6	29.1	2.2	-87.25	-3,208.0	2,268.4	4,282.1	4,251.7	30.41	140.831		
7,400.0	6,789.4	6,666.9	6,666.4	29.5	2.2	-87.25	-3,208.0	2,268.4	4,296.1	4,265.3	30.82	139.384		
7,480.3	6,789.1	6,666.0	6,665.4	31.4	2.2	-87.23	-3,208.0	2,268.4	4,358.6	4,325.8	32.73	133.155		
7,500.0	6,789.1	6,665.7	6,665.2	31.8	2.2	-87.22	-3,208.0	2,268.4	4,374.0	4,340.8	33.20	131.739		
7,578.7	6,788.8	6,664.7	6,664.2	33.7	2.2	-87.20	-3,208.0	2,268.3	4,435.9	4,400.8	35.13	126.280		
7,600.0	6,788.7	6,664.5	6,663.9	34.2	2.2	-87.20	-3,208.0	2,268.3	4,452.7	4,417.1	35.65	124.909		
7,677.1	6,788.4	6,663.5	6,663.0	36.1	2.2	-87.18	-3,207.9	2,268.3	4,514.0	4,476.5	37.58	120.133		
7,700.0	6,788.3	6,663.3	6,662.7	36.7	2.2	-87.17	-3,207.9	2,268.3	4,532.3	4,494.1	38.15	118.814		
7,775.6	6,788.0	6,662.4	6,661.8	38.6	2.2	-87.15	-3,207.9	2,268.3	4,592.9	4,552.9	40.07	114.634		
7,800.0	6,787.9	6,662.1	6,661.5	39.2	2.2	-87.15	-3,207.9	2,268.3	4,612.6	4,572.0	40.69	113.370		
7,874.0	6,787.6	6,661.2	6,660.7	41.0	2.2	-87.13	-3,207.9	2,268.3	4,672.6	4,630.0	42.59	109.705		
7,900.0	6,787.6	6,660.9	6,660.3	41.7	2.2	-87.12	-3,207.9	2,268.3	4,693.8	4,650.5	43.26	108.496		
7,972.4	6,787.3	6,660.0	6,659.5	43.6	2.2	-87.10	-3,207.9	2,268.3	4,752.9	4,707.8	45.15	105.276		
8,000.0	6,787.2	6,659.7	6,659.2	44.3	2.2	-87.09	-3,207.9	2,268.3	4,775.6	4,729.7	45.87	104.122		
8,070.8	6,786.9	6,658.9	6,658.3	46.1	2.2	-87.08	-3,207.8	2,268.3	4,834.0	4,786.2	47.73	101.285		
8,100.0	6,786.8	6,658.5	6,658.0	46.9	2.2	-87.07	-3,207.8	2,268.3	4,858.1	4,809.6	48.49	100.183		
8,169.3	6,786.5	6,657.7	6,657.2	48.7	2.2	-87.05	-3,207.8	2,268.2	4,915.6	4,865.3	50.33	97.676		
8,200.0	6,786.4	6,657.4	6,656.8	49.5	2.2	-87.04	-3,207.8	2,268.2	4,941.2	4,890.1	51.14	96.624		
8,267.7	6,786.1	6,656.6	6,656.1	51.3	2.2	-87.03	-3,207.8	2,268.2	4,997.9	4,944.9	52.94	94.403		
8,300.0	6,786.0	6,656.2	6,655.7	52.1	2.2	-87.02	-3,207.8	2,268.2	5,025.0	4,971.2	53.80	93.397		
8,366.1	6,785.8	6,655.5	6,654.9	53.9	2.2	-87.00	-3,207.8	2,268.2	5,080.7	5,025.2	55.57	91.424		
8,400.0	6,785.6	6,655.1	6,654.6	54.8	2.2	-87.00	-3,207.8	2,268.2	5,109.4	5,052.9	56.48	90.463		
8,464.5	6,785.4	6,654.4	6,653.8	56.5	2.2	-86.98	-3,207.7	2,268.2	5,164.1	5,105.9	58.22	88.705		
8,500.0	6,785.3	6,654.0	6,653.4	57.5	2.2	-86.97	-3,207.7	2,268.2	5,194.3	5,135.1	59.17	87.785		
8,563.0	6,785.0	6,653.3	6,652.7	59.2	2.2	-86.96	-3,207.7	2,268.2	5,248.0	5,187.1	60.87	86.216		
8,600.0	6,784.9	6,652.9	6,652.3	60.2	2.2	-86.95	-3,207.7	2,268.2	5,279.7	5,217.8	61.87	85.335		
8,661.4	6,784.6	6,652.2	6,651.7	61.8	2.2	-86.93	-3,207.7	2,268.2	5,332.4	5,268.9	63.53	83.930		
8,700.0	6,784.5	6,651.8	6,651.2	62.9	2.2	-86.92	-3,207.7	2,268.2	5,365.6	5,301.1	64.58	83.085		
8,759.8	6,784.3	6,651.1	6,650.6	64.5	2.2	-86.91	-3,207.7	2,268.1	5,417.3	5,351.1	66.21	81.825		
8,800.0	6,784.1	6,650.7	6,650.1	65.6	2.2	-86.90	-3,207.7	2,268.1	5,452.1	5,384.8	67.30	81.014		
8,858.2	6,783.9	6,650.0	6,649.5	67.1	2.2	-86.89	-3,207.6	2,268.1	5,502.6	5,433.7	68.89	79.881		
8,900.0	6,783.7	6,649.6	6,649.1	68.3	2.2	-86.88	-3,207.6	2,268.1	5,538.9	5,468.9	70.02	79.102		
8,956.7	6,783.5	6,649.0	6,648.4	69.8	2.2	-86.86	-3,207.6	2,268.1	5,588.4	5,516.8	71.57	78.082		
9,000.0	6,783.3	6,648.5	6,648.0	71.0	2.2	-86.85	-3,207.6	2,268.1	5,626.2	5,553.5	72.75	77.333		
9,055.1	6,783.1	6,647.9	6,647.4	72.5	2.2	-86.84	-3,207.6	2,268.1	5,674.5	5,600.3	74.26	76.413		
9,100.0	6,782.9	6,647.5	6,646.9	73.7	2.2	-86.83	-3,207.6	2,268.1	5,714.0	5,638.5	75.49	75.692		
9,153.5	6,782.7	6,646.9	6,646.4	75.2	2.2	-86.82	-3,207.6	2,268.1	5,761.1	5,684.1	76.96	74.861		
9,200.0	6,782.6	6,646.4	6,645.9	76.5	2.2	-86.81	-3,207.6	2,268.1	5,802.1	5,723.9	78.23	74.166		
9,251.9	6,782.4	6,645.9	6,645.3	77.9	2.2	-86.80	-3,207.5	2,268.1	5,848.0	5,768.4	79.66	73.414		
9,300.0	6,782.2	6,645.4	6,644.8	79.2	2.2	-86.79	-3,207.5	2,268.1	5,890.6	5,809.6	80.98	72.744		
9,350.4	6,782.0	6,644.8	6,644.3	80.6	2.2	-86.77	-3,207.5	2,268.1	5,935.3	5,853.0	82.36	72.064		
9,400.0	6,781.8	6,644.3	6,643.8	82.0	2.2	-86.76	-3,207.5	2,268.0	5,979.5	5,895.7	83.73	71.416		
9,448.8	6,781.6	6,643.8	6,643.3	83.3	2.2	-86.75	-3,207.5	2,268.0	6,022.9	5,937.9	85.07	70.800		
9,500.0	6,781.4	6,643.3	6,642.8	84.7	2.2	-86.74	-3,207.5	2,268.0	6,068.7	5,982.2	86.48	70.174		

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 SCHAUMBERG 17G-314
<b>Project:</b>	WELD COUNTY, COLORADO	<b>TVD Reference:</b>	KB-EST @ 4633.0usft (Original Well Elev)
<b>Reference Site:</b>	SW NW SEC. 17 T5N R64W 6th P.M.	<b>MD Reference:</b>	KB-EST @ 4633.0usft (Original Well Elev)
<b>Site Error:</b>	0.0 usft	<b>North Reference:</b>	True
<b>Reference Well:</b>	SCHAUMBERG 17G-314	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Well Error:</b>	0.0 usft	<b>Output errors are at</b>	2.00 sigma
<b>Reference Wellbore</b>	ORIGINAL WELLBORE	<b>Database:</b>	EDM 5000.1 Single User Db
<b>Reference Design:</b>	PROPOSAL #1	<b>Offset TVD Reference:</b>	Offset Datum

Offset Design NW SW SEC. 17 T5N R64W 6th P.M. - EXIST VERT HOSHIKO/SOLIS #1 - 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		
9,547.2	6,781.2	6,642.8	6,642.3	86.0	2.2	-86.73	-3,207.5	2,268.0	6,110.9	6,023.1	87.78	69.615		
9,600.0	6,781.0	6,642.3	6,641.8	87.5	2.2	-86.72	-3,207.5	2,268.0	6,158.2	6,069.0	89.24	69.010		
9,645.6	6,780.8	6,641.8	6,641.3	88.7	2.2	-86.71	-3,207.5	2,268.0	6,199.2	6,108.7	90.50	68.503		
9,700.0	6,780.6	6,641.3	6,640.7	90.2	2.2	-86.70	-3,207.4	2,268.0	6,248.1	6,156.1	92.00	67.917		
9,744.1	6,780.4	6,640.8	6,640.3	91.4	2.2	-86.69	-3,207.4	2,268.0	6,287.8	6,194.6	93.21	67.456		
9,800.0	6,780.2	6,640.3	6,639.8	93.0	2.2	-86.68	-3,207.4	2,268.0	6,338.2	6,243.5	94.76	66.889		
9,842.5	6,780.1	6,639.9	6,639.3	94.2	2.2	-86.67	-3,207.4	2,268.0	6,376.6	6,280.7	95.93	66.470		
9,900.0	6,779.8	6,639.3	6,638.8	95.7	2.2	-86.65	-3,207.4	2,268.0	6,428.7	6,331.2	97.52	65.921		
9,940.9	6,779.7	6,638.9	6,638.4	96.9	2.2	-86.65	-3,207.4	2,268.0	6,465.8	6,367.1	98.65	65.540		
10,000.0	6,779.4	6,638.3	6,637.8	98.5	2.2	-86.63	-3,207.4	2,268.0	6,519.4	6,419.1	100.29	65.007		
10,039.3	6,779.3	6,637.9	6,637.4	99.6	2.2	-86.62	-3,207.4	2,268.0	6,555.2	6,453.8	101.38	64.661		
10,100.0	6,779.0	6,637.3	6,636.8	101.3	2.2	-86.61	-3,207.4	2,267.9	6,610.4	6,507.3	103.06	64.144		
10,137.8	6,778.9	6,637.0	6,636.5	102.3	2.2	-86.60	-3,207.4	2,267.9	6,644.8	6,540.7	104.10	63.830		
10,200.0	6,778.7	6,636.4	6,635.9	104.1	2.2	-86.59	-3,207.3	2,267.9	6,701.7	6,595.8	105.83	63.327		
10,236.2	6,778.5	6,636.0	6,635.5	105.1	2.2	-86.58	-3,207.3	2,267.9	6,734.8	6,627.9	106.83	63.042		
10,300.0	6,778.3	6,635.4	6,634.9	106.8	2.2	-86.57	-3,207.3	2,267.9	6,793.2	6,684.6	108.60	62.553		
10,334.6	6,778.1	6,635.1	6,634.6	107.8	2.2	-86.56	-3,207.3	2,267.9	6,824.9	6,715.3	109.56	62.295		
10,400.0	6,777.9	6,634.5	6,634.0	109.6	2.2	-86.55	-3,207.3	2,267.9	6,884.9	6,773.5	111.37	61.819		
10,433.0	6,777.7	6,634.2	6,633.6	110.5	2.2	-86.54	-3,207.3	2,267.9	6,915.3	6,803.0	112.29	61.585		
10,500.0	6,777.5	6,633.5	6,633.0	112.4	2.2	-86.53	-3,207.3	2,267.9	6,976.9	6,862.7	114.15	61.122		
10,531.5	6,777.3	6,633.2	6,632.7	113.3	2.2	-86.52	-3,207.3	2,267.9	7,005.8	6,890.8	115.02	60.910		
10,600.0	6,777.1	6,632.6	6,632.1	115.2	2.2	-86.51	-3,207.3	2,267.9	7,069.0	6,952.1	116.92	60.460		
10,629.9	6,777.0	6,632.3	6,631.8	116.0	2.2	-86.50	-3,207.3	2,267.9	7,096.6	6,978.9	117.75	60.268		
10,700.0	6,776.7	6,631.7	6,631.2	117.9	2.2	-86.49	-3,207.2	2,267.9	7,161.4	7,041.7	119.70	59.829		
10,728.3	6,776.6	6,631.4	6,630.9	118.7	2.2	-86.48	-3,207.2	2,267.9	7,187.6	7,067.2	120.49	59.655		
10,800.0	6,776.3	6,630.8	6,630.2	120.7	2.2	-86.47	-3,207.2	2,267.9	7,254.0	7,131.5	122.48	59.227		
10,826.7	6,776.2	6,630.5	6,630.0	121.5	2.2	-86.46	-3,207.2	2,267.9	7,278.8	7,155.6	123.22	59.071		
10,900.0	6,775.9	6,629.9	6,629.3	123.5	2.2	-86.45	-3,207.2	2,267.9	7,346.8	7,221.6	125.26	58.654		
10,925.2	6,775.8	6,629.6	6,629.1	124.2	2.2	-86.44	-3,207.2	2,267.8	7,370.2	7,244.2	125.96	58.514		
11,000.0	6,775.5	6,629.0	6,628.4	126.3	2.2	-86.43	-3,207.2	2,267.8	7,439.8	7,311.7	128.04	58.107		
11,023.6	6,775.4	6,628.8	6,628.2	126.9	2.2	-86.42	-3,207.2	2,267.8	7,461.8	7,333.1	128.69	57.981		
11,100.0	6,775.1	6,628.1	6,627.6	129.1	2.2	-86.41	-3,207.2	2,267.8	7,532.9	7,402.1	130.82	57.583		
11,122.0	6,775.0	6,627.9	6,627.4	129.7	2.2	-86.40	-3,207.2	2,267.8	7,553.5	7,422.0	131.43	57.471		
11,200.0	6,774.7	6,627.2	6,626.7	131.9	2.2	-86.39	-3,207.2	2,267.8	7,626.3	7,492.7	133.60	57.083		
11,220.4	6,774.6	6,627.0	6,626.5	132.4	2.2	-86.38	-3,207.2	2,267.8	7,645.4	7,511.2	134.17	56.983		
11,300.0	6,774.3	6,626.3	6,625.8	134.6	2.2	-86.37	-3,207.1	2,267.8	7,719.8	7,583.4	136.38	56.604		
11,318.9	6,774.2	6,626.2	6,625.6	135.2	2.2	-86.37	-3,207.1	2,267.8	7,737.4	7,600.5	136.91	56.515		
11,400.0	6,773.9	6,625.4	6,624.9	137.4	2.2	-86.35	-3,207.1	2,267.8	7,813.4	7,674.2	139.17	56.144		
11,417.3	6,773.8	6,625.3	6,624.8	137.9	2.2	-86.35	-3,207.1	2,267.8	7,829.6	7,690.0	139.65	56.067		
11,500.0	6,773.5	6,624.6	6,624.1	140.2	2.2	-86.33	-3,207.1	2,267.8	7,907.2	7,765.3	141.95	55.704		
11,515.7	6,773.4	6,624.4	6,623.9	140.7	2.2	-86.33	-3,207.1	2,267.8	7,922.0	7,779.6	142.39	55.636		
11,600.0	6,773.1	6,600.0	6,599.5	143.0	2.2	-85.81	-3,206.7	2,267.5	8,001.2	7,856.6	144.67	55.308		
11,614.1	6,773.0	6,600.0	6,599.5	143.4	2.2	-85.81	-3,206.7	2,267.5	8,014.6	7,869.5	145.06	55.249		
11,700.0	6,772.7	6,600.0	6,599.5	145.8	2.2	-85.81	-3,206.7	2,267.5	8,095.3	7,947.9	147.45	54.901		
11,712.6	6,772.6	6,600.0	6,599.5	146.2	2.2	-85.81	-3,206.7	2,267.5	8,107.2	7,959.4	147.80	54.851		
11,800.0	6,772.3	6,600.0	6,599.5	148.6	2.2	-85.81	-3,206.7	2,267.5	8,189.6	8,039.3	150.24	54.510		
11,811.0	6,772.2	6,600.0	6,599.5	148.9	2.2	-85.81	-3,206.7	2,267.5	8,200.0	8,049.4	150.55	54.468		
11,900.0	6,771.9	6,600.0	6,599.5	151.4	2.2	-85.81	-3,206.7	2,267.5	8,284.0	8,130.9	153.03	54.134		
11,909.4	6,771.8	6,600.0	6,599.5	151.7	2.2	-85.81	-3,206.7	2,267.5	8,292.9	8,139.6	153.29	54.099		
12,000.0	6,771.5	6,600.0	6,599.5	154.2	2.2	-85.81	-3,206.7	2,267.5	8,378.5	8,222.6	155.81	53.772		
12,007.8	6,771.4	6,600.0	6,599.5	154.4	2.2	-85.81	-3,206.7	2,267.5	8,385.9	8,229.8	156.03	53.744		
12,100.0	6,771.1	6,600.0	6,599.5	157.0	2.2	-85.81	-3,206.7	2,267.5	8,473.1	8,314.5	158.60	53.423		

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 SCHAUMBERG 17G-314
<b>Project:</b>	WELD COUNTY, COLORADO	<b>TVD Reference:</b>	KB-EST @ 4633.0usft (Original Well Elev)
<b>Reference Site:</b>	SW NW SEC. 17 T5N R64W 6th P.M.	<b>MD Reference:</b>	KB-EST @ 4633.0usft (Original Well Elev)
<b>Site Error:</b>	0.0 usft	<b>North Reference:</b>	True
<b>Reference Well:</b>	SCHAUMBERG 17G-314	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Well Error:</b>	0.0 usft	<b>Output errors are at</b>	2.00 sigma
<b>Reference Wellbore</b>	ORIGINAL WELLBORE	<b>Database:</b>	EDM 5000.1 Single User Db
<b>Reference Design:</b>	PROPOSAL #1	<b>Offset TVD Reference:</b>	Offset Datum

<b>Offset Design</b> NW SW SEC. 17 T5N R64W 6th P.M. - EXIST VERT HOSHIKO/SOLIS #1 - 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		
12,106.3	6,771.0	6,600.0	6,599.5	157.2	2.2	-85.81	-3,206.7	2,267.5	8,479.0	8,320.3	158.78	53.402		
12,200.0	6,770.7	6,600.0	6,599.5	159.8	2.2	-85.81	-3,206.7	2,267.5	8,567.8	8,406.4	161.39	53.087		
12,204.7	6,770.6	6,600.0	6,599.5	159.9	2.2	-85.81	-3,206.7	2,267.5	8,572.3	8,410.8	161.52	53.072		
12,300.0	6,770.3	6,600.0	6,599.5	162.6	2.2	-85.81	-3,206.7	2,267.5	8,662.7	8,498.5	164.18	52.763		
12,303.1	6,770.2	6,600.0	6,599.5	162.7	2.2	-85.81	-3,206.7	2,267.5	8,665.7	8,501.4	164.27	52.753		
12,361.7	6,770.0	6,600.0	6,599.5	164.3	2.2	-85.81	-3,206.7	2,267.5	8,721.3	8,555.4	165.90	52.569 SF		



# Anticollision Report



<b>Company:</b>	PDC ENERGY	<b>Local Co-ordinate Reference:</b>	Well SCHAUMBERG 17G-314
<b>Project:</b>	WELD COUNTY, COLORADO	<b>TVD Reference:</b>	KB-EST @ 4633.0usft (Original Well Elev)
<b>Reference Site:</b>	SW NW SEC. 17 T5N R64W 6th P.M.	<b>MD Reference:</b>	KB-EST @ 4633.0usft (Original Well Elev)
<b>Site Error:</b>	0.0 usft	<b>North Reference:</b>	True
<b>Reference Well:</b>	SCHAUMBERG 17G-314	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Well Error:</b>	0.0 usft	<b>Output errors are at</b>	2.00 sigma
<b>Reference Wellbore</b>	ORIGINAL WELLBORE	<b>Database:</b>	EDM 5000.1 Single User Db
<b>Reference Design:</b>	PROPOSAL #1	<b>Offset TVD Reference:</b>	Offset Datum

<b>Offset Design</b> NW SW SEC. 17 T5N R64W 6th P.M. - EXIST VERT HOWARD #14-18 - 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	2.2	2.2	0.0	0.0	-118.56	-3,096.7	-5,688.8	6,477.0				
98.4	98.4	109.7	109.7	0.1	0.1	-118.56	-3,096.7	-5,688.7	6,476.9	6,476.7	0.20	N/A	
100.0	100.0	111.1	111.1	0.1	0.1	-118.56	-3,096.7	-5,688.7	6,476.9	6,476.7	0.20	N/A	
196.8	196.8	200.0	200.0	0.3	0.2	-118.56	-3,096.6	-5,688.6	6,476.9	6,476.3	0.53	N/A	
200.0	200.0	200.0	200.0	0.3	0.2	-118.56	-3,096.6	-5,688.6	6,476.9	6,476.3	0.54	N/A	
203.0	203.0	205.4	205.4	0.3	0.2	-118.56	-3,096.6	-5,688.6	6,476.9	6,476.3	0.54	N/A	
295.3	295.3	292.0	292.0	0.5	0.2	-118.56	-3,096.7	-5,688.7	6,476.9	6,476.2	0.75	8,619.384	
300.0	300.0	296.5	296.5	0.5	0.2	-118.56	-3,096.7	-5,688.7	6,476.9	6,476.1	0.76	8,498.407	
393.7	393.7	383.6	383.6	0.8	0.3	-118.56	-3,096.9	-5,688.7	6,477.0	6,476.0	1.03	6,258.615	
400.0	400.0	389.5	389.5	0.8	0.3	-118.56	-3,097.0	-5,688.7	6,477.0	6,476.0	1.05	6,147.865	
492.1	492.1	487.1	487.1	1.0	0.4	-118.57	-3,097.6	-5,688.5	6,477.2	6,475.9	1.33	4,880.998	
500.0	500.0	495.6	495.6	1.0	0.4	-118.57	-3,097.7	-5,688.5	6,477.2	6,475.9	1.35	4,796.719	
590.5	590.5	591.4	591.4	1.2	0.4	-118.58	-3,098.3	-5,688.2	6,477.3	6,475.6	1.61	4,025.421	
600.0	600.0	601.3	601.3	1.2	0.4	-118.58	-3,098.3	-5,688.2	6,477.3	6,475.6	1.64	3,959.379	
689.0	689.0	694.0	693.9	1.4	0.5	-118.58	-3,099.0	-5,687.8	6,477.2	6,475.4	1.88	3,440.234	
700.0	700.0	706.8	706.8	1.4	0.5	-118.59	-3,099.1	-5,687.7	6,477.2	6,475.3	1.91	3,384.711	
787.4	787.4	819.7	819.7	1.6	0.5	-118.60	-3,100.1	-5,686.8	6,477.0	6,474.8	2.16	2,998.695	
800.0	800.0	835.4	835.4	1.7	0.5	-118.60	-3,100.3	-5,686.6	6,476.9	6,474.7	2.19	2,951.141	
885.8	885.8	943.4	943.4	1.9	0.6	-118.61	-3,101.1	-5,685.3	6,476.3	6,473.9	2.43	2,664.458	
900.0	900.0	961.6	961.5	1.9	0.6	-118.61	-3,101.3	-5,685.1	6,476.2	6,473.8	2.47	2,622.609	
984.2	984.2	1,050.3	1,050.2	2.1	0.6	-118.62	-3,101.8	-5,683.8	6,475.4	6,472.7	2.69	2,406.006	
1,000.0	1,000.0	1,064.9	1,064.8	2.1	0.7	-118.62	-3,101.9	-5,683.6	6,475.2	6,472.5	2.73	2,370.162	
1,082.7	1,082.7	1,153.0	1,153.0	2.3	0.7	-118.63	-3,102.5	-5,682.3	6,474.4	6,471.5	2.95	2,195.920	
1,100.0	1,100.0	1,173.6	1,173.5	2.3	0.7	-118.64	-3,102.6	-5,681.9	6,474.2	6,471.2	2.99	2,162.199	
1,181.1	1,181.1	1,265.5	1,265.5	2.5	0.7	-118.64	-3,102.9	-5,680.5	6,473.3	6,470.1	3.21	2,018.695	
1,200.0	1,200.0	1,286.6	1,286.5	2.6	0.7	-118.65	-3,102.9	-5,680.2	6,473.0	6,469.8	3.26	1,988.070	
1,279.5	1,279.5	1,366.2	1,366.1	2.7	0.8	-118.65	-3,102.9	-5,679.0	6,472.0	6,468.5	3.46	1,870.461	
1,300.0	1,300.0	1,386.2	1,386.2	2.8	0.8	-118.65	-3,102.9	-5,678.7	6,471.7	6,468.2	3.51	1,842.471	
1,377.9	1,377.9	1,469.1	1,469.0	3.0	0.8	-118.66	-3,102.8	-5,677.5	6,470.7	6,466.9	3.71	1,742.389	
1,400.0	1,400.0	1,493.0	1,492.9	3.0	0.8	-118.66	-3,102.8	-5,677.1	6,470.4	6,466.6	3.77	1,715.967	
1,476.4	1,476.4	1,567.1	1,567.0	3.2	0.9	-118.66	-3,102.7	-5,676.0	6,469.3	6,465.3	3.97	1,631.554	
1,500.0	1,500.0	1,589.8	1,589.7	3.2	0.9	-118.66	-3,102.7	-5,675.7	6,469.0	6,464.9	4.03	1,607.130	
1,574.8	1,574.8	1,642.5	1,642.4	3.4	0.9	-118.67	-3,102.6	-5,675.0	6,468.1	6,463.9	4.21	1,536.887	
1,600.0	1,600.0	1,659.2	1,659.1	3.5	0.9	-118.67	-3,102.6	-5,674.8	6,467.8	6,463.6	4.27	1,514.731	
1,673.2	1,673.2	1,709.5	1,709.4	3.6	0.9	-118.67	-3,102.7	-5,674.3	6,467.3	6,462.9	4.45	1,453.743	
1,700.0	1,700.0	1,731.2	1,731.1	3.7	0.9	-118.67	-3,102.8	-5,674.2	6,467.2	6,462.7	4.51	1,432.438	
1,771.6	1,771.6	1,789.4	1,789.3	3.9	0.9	-118.67	-3,102.9	-5,673.9	6,466.9	6,462.3	4.69	1,378.409	
1,800.0	1,800.0	1,811.9	1,811.8	3.9	0.9	-118.67	-3,102.9	-5,673.8	6,466.9	6,462.1	4.76	1,358.590	
1,870.1	1,870.1	1,866.6	1,866.4	4.1	1.0	40.14	-3,103.1	-5,673.7	6,466.2	6,461.3	4.94	1,309.724	
1,900.0	1,900.0	1,900.0	1,899.9	4.1	1.0	40.16	-3,103.2	-5,673.7	6,465.6	6,460.6	5.00	1,292.816	
1,968.5	1,968.4	1,943.4	1,943.3	4.2	1.0	40.20	-3,103.3	-5,673.8	6,463.3	6,458.2	5.13	1,260.605	
2,000.0	1,999.8	1,968.0	1,967.9	4.3	1.0	40.22	-3,103.4	-5,673.9	6,461.9	6,456.7	5.19	1,246.085	
2,066.9	2,066.5	2,018.3	2,018.2	4.4	1.0	40.29	-3,103.7	-5,674.1	6,458.2	6,452.9	5.31	1,215.150	
2,100.0	2,099.5	2,041.7	2,041.6	4.5	1.0	40.34	-3,103.8	-5,674.3	6,456.0	6,450.6	5.38	1,200.427	
2,165.3	2,164.4	2,100.0	2,099.9	4.6	1.0	40.44	-3,104.0	-5,674.9	6,450.9	6,445.4	5.51	1,170.390	
2,200.0	2,198.7	2,100.0	2,099.9	4.7	1.0	40.48	-3,104.0	-5,674.9	6,447.8	6,442.3	5.58	1,155.963	
2,263.8	2,261.8	2,155.0	2,154.9	4.8	1.0	40.61	-3,104.3	-5,675.7	6,441.5	6,435.8	5.72	1,126.658	
2,300.0	2,297.5	2,179.5	2,179.4	4.9	1.0	40.69	-3,104.4	-5,676.1	6,437.5	6,431.7	5.79	1,110.960	
2,362.2	2,358.6	2,226.0	2,225.9	5.0	1.0	40.84	-3,104.6	-5,677.1	6,430.0	6,424.1	5.94	1,082.365	
2,400.0	2,395.6	2,256.8	2,256.6	5.1	1.0	40.95	-3,104.7	-5,677.8	6,425.0	6,419.0	6.03	1,065.677	
2,460.6	2,454.9	2,307.3	2,307.2	5.3	1.0	41.01	-3,104.8	-5,679.0	6,416.8	6,410.6	6.18	1,038.207	
2,500.0	2,493.4	2,345.9	2,345.7	5.4	1.0	41.07	-3,104.8	-5,680.0	6,411.5	6,405.2	6.28	1,020.924	

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 SCHAUMBERG 17G-314
<b>Project:</b>	WELD COUNTY, COLORADO	<b>TVD Reference:</b>	KB-EST @ 4633.0usft (Original Well Elev)
<b>Reference Site:</b>	SW NW SEC. 17 T5N R64W 6th P.M.	<b>MD Reference:</b>	KB-EST @ 4633.0usft (Original Well Elev)
<b>Site Error:</b>	0.0 usft	<b>North Reference:</b>	True
<b>Reference Well:</b>	SCHAUMBERG 17G-314	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Well Error:</b>	0.0 usft	<b>Output errors are at</b>	2.00 sigma
<b>Reference Wellbore</b>	ORIGINAL WELLBORE	<b>Database:</b>	EDM 5000.1 Single User Db
<b>Reference Design:</b>	PROPOSAL #1	<b>Offset TVD Reference:</b>	Offset Datum

Offset Design												Offset Site Error:	0.0 usft
Survey Program: 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	
2,559.0	2,551.2	2,404.0	2,403.8	5.6	1.0	41.15	-3,104.7	-5,681.7	6,403.5	6,397.1	6.44	994.420	
2,600.0	2,591.3	2,447.6	2,447.3	5.7	1.0	41.21	-3,104.5	-5,682.9	6,398.0	6,391.4	6.55	976.792	
2,657.5	2,647.5	2,508.9	2,508.7	5.9	1.1	41.29	-3,104.1	-5,684.6	6,390.2	6,383.5	6.71	951.846	
2,700.0	2,689.1	2,555.2	2,554.9	6.0	1.1	41.36	-3,103.8	-5,686.0	6,384.4	6,377.6	6.84	933.895	
2,755.9	2,743.7	2,613.6	2,613.3	6.2	1.1	41.44	-3,103.3	-5,687.6	6,376.8	6,369.8	7.00	910.622	
2,800.0	2,786.9	2,654.5	2,654.1	6.4	1.1	41.50	-3,102.9	-5,688.8	6,370.8	6,363.6	7.13	893.208	
2,854.3	2,840.0	2,706.7	2,706.4	6.6	1.1	41.58	-3,102.3	-5,690.4	6,363.4	6,356.1	7.30	871.886	
2,900.0	2,884.7	2,765.9	2,765.5	6.7	1.1	41.67	-3,101.5	-5,692.1	6,357.1	6,349.7	7.44	854.246	
2,952.7	2,936.3	2,826.9	2,826.5	6.9	1.1	41.76	-3,100.5	-5,693.9	6,349.8	6,342.2	7.61	834.316	
3,000.0	2,982.5	2,875.1	2,874.6	7.1	1.1	41.83	-3,099.6	-5,695.3	6,343.3	6,335.5	7.76	817.360	
3,051.2	3,032.6	2,925.4	2,924.9	7.3	1.1	41.91	-3,098.6	-5,696.8	6,336.1	6,328.2	7.93	799.371	
3,100.0	3,080.3	2,971.7	2,971.2	7.5	1.1	41.98	-3,097.6	-5,698.2	6,329.4	6,321.3	8.08	782.978	
3,149.6	3,128.8	3,021.1	3,020.5	7.7	1.1	42.06	-3,096.6	-5,699.7	6,322.5	6,314.3	8.25	766.578	
3,200.0	3,178.1	3,074.6	3,074.1	7.9	1.1	42.14	-3,095.8	-5,701.2	6,315.5	6,307.1	8.42	750.498	
3,248.0	3,225.1	3,126.4	3,125.8	8.1	1.1	42.22	-3,095.3	-5,702.4	6,308.8	6,300.2	8.58	735.456	
3,300.0	3,276.0	3,183.1	3,182.5	8.3	1.1	42.30	-3,094.9	-5,703.5	6,301.6	6,292.8	8.75	719.779	
3,346.4	3,321.4	3,231.1	3,230.5	8.5	1.2	42.36	-3,094.8	-5,704.4	6,295.0	6,286.1	8.91	706.133	
3,400.0	3,373.8	3,284.7	3,284.1	8.7	1.2	42.44	-3,094.7	-5,705.4	6,287.5	6,278.4	9.10	691.044	
3,444.9	3,417.7	3,331.9	3,331.3	8.8	1.2	42.50	-3,094.5	-5,706.2	6,281.2	6,272.0	9.26	678.608	
3,500.0	3,471.6	3,391.4	3,390.8	9.1	1.2	42.58	-3,094.4	-5,707.2	6,273.4	6,264.0	9.45	663.876	
3,543.3	3,513.9	3,460.3	3,459.6	9.2	1.2	42.68	-3,094.1	-5,708.2	6,267.2	6,257.6	9.61	652.096	
3,600.0	3,569.4	3,534.1	3,533.4	9.5	1.2	42.78	-3,093.8	-5,708.9	6,258.9	6,249.1	9.82	637.522	
3,641.7	3,610.2	3,576.6	3,576.0	9.7	1.2	42.84	-3,093.6	-5,709.3	6,252.7	6,242.7	9.97	627.288	
3,700.0	3,667.2	3,632.7	3,632.0	9.9	1.2	42.92	-3,093.3	-5,709.8	6,244.1	6,233.9	10.18	613.600	
3,740.1	3,706.5	3,669.8	3,669.1	10.1	1.2	42.97	-3,093.2	-5,710.1	6,238.1	6,227.8	10.32	604.449	
3,800.0	3,765.0	3,725.5	3,724.8	10.3	1.2	43.05	-3,092.9	-5,710.7	6,229.3	6,218.8	10.54	591.266	
3,838.6	3,802.8	3,761.8	3,761.1	10.5	1.3	43.10	-3,092.7	-5,711.1	6,223.7	6,213.0	10.68	582.977	
3,900.0	3,862.8	3,819.5	3,818.8	10.7	1.3	43.18	-3,092.4	-5,711.7	6,214.7	6,203.8	10.90	570.210	
3,937.0	3,899.0	3,854.3	3,853.6	10.9	1.3	43.23	-3,092.2	-5,712.0	6,209.3	6,198.3	11.03	562.710	
4,000.0	3,960.7	3,915.6	3,914.9	11.2	1.3	43.32	-3,091.9	-5,712.7	6,200.2	6,188.9	11.27	550.318	
4,035.4	3,995.3	3,954.1	3,953.4	11.3	1.3	43.37	-3,091.6	-5,713.2	6,195.0	6,183.6	11.40	543.464	
4,100.0	4,058.5	4,020.7	4,020.0	11.6	1.3	43.47	-3,091.1	-5,713.9	6,185.6	6,174.0	11.64	531.406	
4,133.8	4,091.6	4,052.1	4,051.4	11.7	1.3	43.51	-3,090.8	-5,714.3	6,180.7	6,168.9	11.77	525.292	
4,200.0	4,156.3	4,116.2	4,115.5	12.0	1.3	43.61	-3,090.3	-5,715.1	6,171.1	6,159.1	12.01	513.677	
4,232.3	4,187.9	4,152.5	4,151.8	12.2	1.3	43.66	-3,089.9	-5,715.5	6,166.4	6,154.2	12.14	508.092	
4,300.0	4,254.1	4,233.5	4,232.8	12.5	1.3	43.79	-3,088.6	-5,716.6	6,156.5	6,144.1	12.40	496.656	
4,325.7	4,279.2	4,267.4	4,266.7	12.6	1.4	43.84	-3,087.7	-5,717.1	6,152.6	6,140.1	12.50	492.377	
4,330.7	4,284.1	4,274.0	4,273.3	12.6	1.4	43.84	-3,087.5	-5,717.3	6,151.9	6,139.4	12.51	491.681	
4,400.0	4,352.1	4,373.5	4,372.6	12.8	1.4	43.87	-3,083.6	-5,719.1	6,142.1	6,129.3	12.74	482.212	
4,429.1	4,380.8	4,422.2	4,421.3	12.9	1.4	43.90	-3,080.9	-5,720.1	6,138.2	6,125.4	12.82	478.813	
4,500.0	4,450.7	4,576.8	4,575.5	13.1	1.4	44.03	-3,070.9	-5,722.7	6,129.1	6,116.0	13.03	470.307	
4,527.5	4,478.0	4,618.2	4,616.8	13.2	1.4	44.05	-3,067.9	-5,723.1	6,125.6	6,112.5	13.10	467.514	
4,600.0	4,549.9	4,691.4	4,689.8	13.4	1.4	44.04	-3,062.5	-5,723.8	6,117.4	6,104.1	13.28	460.784	
4,626.0	4,575.7	4,700.0	4,698.4	13.5	1.4	44.02	-3,061.8	-5,723.9	6,114.8	6,101.5	13.33	458.788	
4,700.0	4,649.4	4,764.8	4,763.0	13.6	1.5	44.01	-3,057.3	-5,724.6	6,108.4	6,094.9	13.49	452.947	
4,724.4	4,673.7	4,782.1	4,780.3	13.7	1.5	44.00	-3,056.2	-5,724.7	6,106.7	6,093.2	13.53	451.277	
4,800.0	4,749.2	4,847.8	4,845.9	13.8	1.5	44.00	-3,052.3	-5,725.4	6,102.4	6,088.7	13.68	446.145	
4,822.8	4,772.0	4,869.5	4,867.5	13.9	1.5	44.01	-3,051.1	-5,725.6	6,101.4	6,087.7	13.72	444.779	
4,900.0	4,849.2	4,938.5	4,936.5	14.0	1.5	44.02	-3,047.4	-5,726.2	6,099.0	6,085.1	13.85	440.273	
4,921.2	4,870.4	4,956.8	4,954.7	14.1	1.5	44.02	-3,046.5	-5,726.3	6,098.6	6,084.7	13.89	439.126	
4,925.6	4,874.8	4,960.5	4,958.4	14.1	1.5	-114.78	-3,046.3	-5,726.3	6,098.6	6,084.5	14.06	433.770	
5,000.0	4,949.2	5,000.0	4,997.9	14.2	1.5	-114.77	-3,044.4	-5,726.6	6,097.7	6,083.5	14.19	429.664	

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 SCHAUMBERG 17G-314
<b>Project:</b>	WELD COUNTY, COLORADO	<b>TVD Reference:</b>	KB-EST @ 4633.0usft (Original Well Elev)
<b>Reference Site:</b>	SW NW SEC. 17 T5N R64W 6th P.M.	<b>MD Reference:</b>	KB-EST @ 4633.0usft (Original Well Elev)
<b>Site Error:</b>	0.0 usft	<b>North Reference:</b>	True
<b>Reference Well:</b>	SCHAUMBERG 17G-314	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Well Error:</b>	0.0 usft	<b>Output errors are at</b>	2.00 sigma
<b>Reference Wellbore</b>	ORIGINAL WELLBORE	<b>Database:</b>	EDM 5000.1 Single User Db
<b>Reference Design:</b>	PROPOSAL #1	<b>Offset TVD Reference:</b>	Offset Datum

<b>Offset Design</b> NW SW SEC. 17 T5N R64W 6th P.M. - EXIST VERT HOWARD #14-18 - 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
5,019.7	4,968.8	5,025.9	5,023.8	14.2	1.5	-114.76	-3,043.3	-5,726.9	6,097.5	6,083.2	14.23	428.502	
5,100.0	5,049.2	5,069.3	5,067.1	14.3	1.5	-114.74	-3,041.7	-5,727.3	6,097.0	6,082.6	14.37	424.188	
5,106.7	5,055.9	5,072.9	5,070.7	14.3	1.5	-114.74	-3,041.6	-5,727.4	6,097.0	6,082.6	14.39	423.829	
5,118.1	5,067.3	5,100.0	5,097.8	14.3	1.5	-114.73	-3,040.8	-5,727.7	6,097.0	6,082.6	14.41	423.108	
5,146.6	5,095.8	5,100.0	5,097.8	14.4	1.5	-114.73	-3,040.8	-5,727.7	6,097.0	6,082.5	14.46	421.683	
5,200.0	5,149.2	5,130.2	5,128.0	14.5	1.5	-114.72	-3,040.1	-5,728.2	6,097.1	6,082.5	14.56	418.889	
5,216.5	5,165.7	5,141.7	5,139.5	14.5	1.5	-114.72	-3,039.8	-5,728.3	6,097.2	6,082.6	14.59	418.013	
5,300.0	5,249.2	5,200.0	5,197.8	14.6	1.6	-114.71	-3,038.9	-5,729.2	6,097.7	6,083.0	14.74	413.651	
5,314.9	5,264.1	5,212.3	5,210.1	14.6	1.6	-114.71	-3,038.7	-5,729.4	6,097.9	6,083.1	14.77	412.866	
5,400.0	5,349.2	5,281.1	5,278.8	14.8	1.6	-114.70	-3,038.0	-5,730.5	6,098.8	6,083.8	14.93	408.461	
5,413.4	5,362.5	5,300.0	5,297.8	14.8	1.6	-114.69	-3,037.9	-5,730.8	6,098.9	6,084.0	14.96	407.728	
5,500.0	5,449.2	5,356.3	5,354.1	14.9	1.6	-114.69	-3,037.6	-5,731.8	6,100.1	6,085.0	15.12	403.459	
5,511.8	5,461.0	5,365.0	5,362.8	14.9	1.6	-114.69	-3,037.6	-5,732.0	6,100.3	6,085.2	15.14	402.877	
5,600.0	5,549.2	5,432.2	5,429.9	15.1	1.6	-114.68	-3,037.8	-5,733.3	6,101.9	6,086.6	15.31	398.620	
5,610.2	5,559.4	5,440.2	5,438.0	15.1	1.6	-114.68	-3,037.9	-5,733.4	6,102.1	6,086.8	15.33	398.135	
5,700.0	5,649.2	5,513.5	5,511.2	15.2	1.6	-114.69	-3,038.8	-5,734.7	6,104.1	6,088.6	15.50	393.927	
5,708.6	5,657.8	5,521.6	5,519.4	15.3	1.6	-114.69	-3,038.9	-5,734.9	6,104.3	6,088.8	15.51	393.524	
5,800.0	5,749.2	5,615.0	5,612.7	15.4	1.6	-114.70	-3,040.7	-5,736.4	6,106.4	6,090.7	15.69	389.307	
5,807.1	5,756.2	5,627.4	5,625.1	15.4	1.6	-114.70	-3,041.0	-5,736.6	6,106.6	6,090.9	15.70	388.970	
5,900.0	5,849.2	5,777.1	5,774.8	15.6	1.7	-114.71	-3,043.2	-5,738.4	6,108.1	6,092.2	15.88	384.598	
5,905.5	5,854.7	5,785.4	5,783.0	15.6	1.7	-114.71	-3,043.3	-5,738.4	6,108.2	6,092.3	15.89	384.341	
6,000.0	5,949.2	5,930.0	5,927.6	15.7	1.7	-114.72	-3,044.6	-5,739.2	6,109.0	6,092.9	16.08	380.018	
6,003.9	5,953.1	5,937.5	5,935.2	15.7	1.7	-114.72	-3,044.7	-5,739.2	6,109.0	6,092.9	16.08	379.842	
6,100.0	6,049.2	6,101.4	6,099.1	15.9	1.7	-114.74	-3,046.0	-5,738.1	6,108.7	6,092.5	16.27	375.497	
6,102.3	6,051.5	6,103.9	6,101.5	15.9	1.7	-114.74	-3,046.0	-5,738.1	6,108.7	6,092.4	16.27	375.392	
6,124.6	6,073.8	6,127.3	6,124.9	15.9	1.7	-114.74	-3,046.1	-5,737.8	6,108.5	6,092.2	16.32	374.395	
6,150.0	6,099.2	6,153.9	6,151.6	16.0	1.7	-24.76	-3,046.3	-5,737.5	6,107.9	6,091.7	16.26	375.586	
6,200.0	6,149.0	6,206.5	6,204.1	16.1	1.7	-24.91	-3,046.7	-5,736.8	6,104.3	6,087.9	16.42	371.781	
6,200.8	6,149.8	6,207.4	6,205.0	16.1	1.7	-24.91	-3,046.7	-5,736.8	6,104.2	6,087.8	16.42	371.718	
6,250.0	6,198.5	6,260.5	6,258.1	16.2	1.7	-25.17	-3,047.2	-5,736.0	6,097.5	6,080.9	16.59	367.514	
6,299.2	6,246.6	6,310.8	6,308.4	16.3	1.7	-25.56	-3,047.6	-5,735.3	6,087.8	6,071.0	16.76	363.229	
6,300.0	6,247.4	6,311.5	6,309.1	16.3	1.7	-25.57	-3,047.6	-5,735.3	6,087.6	6,070.8	16.76	363.160	
6,350.0	6,295.5	6,355.2	6,352.8	16.5	1.7	-26.10	-3,047.9	-5,734.7	6,074.6	6,057.7	16.92	359.081	
6,397.6	6,340.2	6,400.0	6,397.6	16.6	1.7	-26.74	-3,048.2	-5,734.1	6,059.5	6,042.5	17.04	355.579	
6,400.0	6,342.4	6,400.0	6,397.6	16.6	1.7	-26.77	-3,048.2	-5,734.1	6,058.7	6,041.6	17.05	355.434	
6,450.0	6,388.1	6,447.9	6,445.5	16.8	1.7	-27.61	-3,048.6	-5,733.5	6,039.8	6,022.7	17.15	352.237	
6,496.0	6,428.8	6,492.9	6,490.4	17.0	1.7	-28.55	-3,048.9	-5,732.9	6,020.0	6,002.7	17.22	349.646	
6,500.0	6,432.2	6,496.6	6,494.2	17.0	1.7	-28.64	-3,048.9	-5,732.8	6,018.1	6,000.9	17.22	349.439	
6,550.0	6,474.6	6,537.9	6,535.5	17.3	1.7	-29.86	-3,049.2	-5,732.2	5,993.7	5,976.5	17.28	346.940	
6,594.5	6,510.7	6,572.7	6,570.2	17.5	1.7	-31.13	-3,049.4	-5,731.8	5,969.9	5,952.5	17.32	344.667	
6,600.0	6,515.0	6,576.9	6,574.4	17.6	1.7	-31.30	-3,049.4	-5,731.7	5,966.8	5,949.4	17.33	344.378	
6,650.0	6,553.3	6,615.7	6,613.2	17.9	1.7	-33.01	-3,049.6	-5,731.2	5,937.4	5,920.0	17.40	341.243	
6,692.9	6,584.3	6,649.6	6,647.2	18.2	1.7	-34.73	-3,049.7	-5,730.8	5,910.3	5,892.8	17.51	337.575	
6,700.0	6,589.2	6,655.0	6,652.6	18.2	1.7	-35.04	-3,049.7	-5,730.7	5,905.7	5,888.2	17.53	336.887	
6,750.0	6,622.7	6,691.5	6,689.1	18.6	1.7	-37.43	-3,049.9	-5,730.2	5,871.9	5,854.1	17.76	330.663	
6,791.3	6,648.3	6,716.5	6,714.0	19.0	1.7	-39.69	-3,050.0	-5,729.8	5,842.4	5,824.4	18.05	323.660	
6,800.0	6,653.4	6,721.2	6,718.8	19.1	1.7	-40.20	-3,050.1	-5,729.7	5,836.1	5,818.0	18.12	322.012	
6,850.0	6,681.4	6,746.9	6,744.5	19.6	1.7	-43.45	-3,050.2	-5,729.4	5,798.6	5,779.9	18.67	310.537	
6,889.7	6,701.5	6,765.4	6,763.0	20.1	1.7	-46.42	-3,050.3	-5,729.1	5,767.6	5,748.3	19.26	299.408	
6,900.0	6,706.3	6,769.9	6,767.4	20.2	1.7	-47.24	-3,050.3	-5,729.1	5,759.5	5,740.0	19.43	296.378	
6,950.0	6,728.2	6,790.0	6,787.5	20.9	1.7	-51.66	-3,050.4	-5,728.8	5,719.0	5,698.6	20.40	280.290	
6,988.2	6,742.8	6,800.0	6,797.6	21.5	1.7	-55.44	-3,050.4	-5,728.7	5,687.4	5,666.1	21.26	267.455	

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 SCHAUMBERG 17G-314
<b>Project:</b>	WELD COUNTY, COLORADO	<b>TVD Reference:</b>	KB-EST @ 4633.0usft (Original Well Elev)
<b>Reference Site:</b>	SW NW SEC. 17 T5N R64W 6th P.M.	<b>MD Reference:</b>	KB-EST @ 4633.0usft (Original Well Elev)
<b>Site Error:</b>	0.0 usft	<b>North Reference:</b>	True
<b>Reference Well:</b>	SCHAUMBERG 17G-314	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Well Error:</b>	0.0 usft	<b>Output errors are at</b>	2.00 sigma
<b>Reference Wellbore</b>	ORIGINAL WELLBORE	<b>Database:</b>	EDM 5000.1 Single User Db
<b>Reference Design:</b>	PROPOSAL #1	<b>Offset TVD Reference:</b>	Offset Datum

Offset Design NW SW SEC. 17 T5N R64W 6th P.M. - EXIST VERT HOWARD #14-18 - 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		
7,000.0	6,746.9	6,800.0	6,797.6	21.6	1.7	-56.65	-3,050.4	-5,728.7	5,677.4	5,655.9	21.54	263.624		
7,050.0	6,762.4	6,800.0	6,797.6	22.5	1.7	-62.21	-3,050.4	-5,728.7	5,634.9	5,612.2	22.76	247.607		
7,086.6	6,771.5	6,800.0	6,797.6	23.1	1.7	-66.72	-3,050.4	-5,728.7	5,603.3	5,579.7	23.67	236.751		
7,100.0	6,774.4	6,800.0	6,797.6	23.3	1.7	-68.46	-3,050.4	-5,728.7	5,591.7	5,567.7	23.99	233.115		
7,150.0	6,783.1	6,800.0	6,797.6	24.3	1.7	-75.33	-3,050.4	-5,728.7	5,548.0	5,522.8	25.12	220.876		
7,185.0	6,787.1	6,800.0	6,797.6	25.0	1.7	-80.43	-3,050.4	-5,728.7	5,517.1	5,491.3	25.82	213.659		
7,200.0	6,788.3	6,800.0	6,797.6	25.3	1.7	-82.65	-3,050.4	-5,728.7	5,503.9	5,477.8	26.10	210.891		
7,252.3	6,790.0	6,800.0	6,797.6	26.3	1.7	-90.53	-3,050.4	-5,728.7	5,457.6	5,430.6	27.06	201.710		
7,283.4	6,789.9	6,800.0	6,797.6	27.0	1.7	-90.53	-3,050.4	-5,728.7	5,430.2	5,402.4	27.75	195.695		
7,300.0	6,789.8	6,800.0	6,797.6	27.3	1.7	-90.53	-3,050.4	-5,728.7	5,415.6	5,387.5	28.12	192.616		
7,381.9	6,789.5	6,800.0	6,797.6	29.1	1.7	-90.53	-3,050.4	-5,728.7	5,343.6	5,313.6	30.00	178.133		
7,400.0	6,789.4	6,800.0	6,797.6	29.5	1.7	-90.53	-3,050.4	-5,728.7	5,327.7	5,297.3	30.41	175.170		
7,480.3	6,789.1	6,800.0	6,797.6	31.4	1.7	-90.53	-3,050.4	-5,728.7	5,257.4	5,225.1	32.33	162.629		
7,500.0	6,789.1	6,800.0	6,797.6	31.8	1.7	-90.53	-3,050.4	-5,728.7	5,240.2	5,207.4	32.80	159.777		
7,578.7	6,788.8	6,800.0	6,797.6	33.7	1.7	-90.53	-3,050.4	-5,728.7	5,171.7	5,136.9	34.72	148.933		
7,600.0	6,788.7	6,800.0	6,797.6	34.2	1.7	-90.53	-3,050.4	-5,728.7	5,153.2	5,118.0	35.25	146.207		
7,677.1	6,788.4	6,800.0	6,797.6	36.1	1.7	-90.53	-3,050.4	-5,728.7	5,086.4	5,049.2	37.18	136.820		
7,700.0	6,788.3	6,800.0	6,797.6	36.7	1.7	-90.53	-3,050.4	-5,728.7	5,066.7	5,028.9	37.75	134.225		
7,775.6	6,788.0	6,800.0	6,797.6	38.6	1.7	-90.53	-3,050.4	-5,728.7	5,001.6	4,961.9	39.67	126.079		
7,800.0	6,787.9	6,800.0	6,797.6	39.2	1.7	-90.53	-3,050.4	-5,728.7	4,980.6	4,940.3	40.29	123.614		
7,874.0	6,787.6	6,800.0	6,797.6	41.0	1.7	-90.53	-3,050.4	-5,728.7	4,917.3	4,875.1	42.20	116.523		
7,900.0	6,787.6	6,800.0	6,797.6	41.7	1.7	-90.53	-3,050.4	-5,728.7	4,895.1	4,852.3	42.87	114.184		
7,972.4	6,787.3	6,800.0	6,797.6	43.6	1.7	-90.53	-3,050.4	-5,728.7	4,833.5	4,788.8	44.76	107.990		
8,000.0	6,787.2	6,800.0	6,797.6	44.3	1.7	-90.53	-3,050.4	-5,728.7	4,810.2	4,764.7	45.48	105.769		
8,070.8	6,786.9	6,800.0	6,797.6	46.1	1.7	-90.53	-3,050.4	-5,728.7	4,750.4	4,703.0	47.34	100.341		
8,100.0	6,786.8	6,800.0	6,797.6	46.9	1.7	-90.54	-3,050.4	-5,728.7	4,725.8	4,677.7	48.11	98.231		
8,169.3	6,786.5	6,800.0	6,797.6	48.7	1.7	-90.54	-3,050.4	-5,728.7	4,667.7	4,617.8	49.95	93.457		
8,200.0	6,786.4	6,800.0	6,797.6	49.5	1.7	-90.54	-3,050.4	-5,728.7	4,642.1	4,591.3	50.76	91.452		
8,267.7	6,786.1	6,800.0	6,797.6	51.3	1.7	-90.54	-3,050.4	-5,728.7	4,585.8	4,533.2	52.57	87.238		
8,300.0	6,786.0	6,800.0	6,797.6	52.1	1.7	-90.54	-3,050.4	-5,728.7	4,559.0	4,505.6	53.43	85.330		
8,366.1	6,785.8	6,800.0	6,797.6	53.9	1.7	-90.54	-3,050.4	-5,728.7	4,504.5	4,449.3	55.20	81.600		
8,400.0	6,785.6	6,800.0	6,797.6	54.8	1.7	-90.54	-3,050.4	-5,728.7	4,476.6	4,420.5	56.11	79.783		
8,464.5	6,785.4	6,800.0	6,797.6	56.5	1.7	-90.54	-3,050.4	-5,728.7	4,423.8	4,366.0	57.85	76.472		
8,500.0	6,785.3	6,800.0	6,797.6	57.5	1.7	-90.54	-3,050.4	-5,728.7	4,395.0	4,336.2	58.80	74.739		
8,563.0	6,785.0	6,800.0	6,797.6	59.2	1.7	-90.54	-3,050.4	-5,728.7	4,343.9	4,283.4	60.51	71.791		
8,600.0	6,784.9	6,800.0	6,797.6	60.2	1.7	-90.54	-3,050.4	-5,728.7	4,314.1	4,252.6	61.51	70.137		
8,661.4	6,784.6	6,800.0	6,797.6	61.8	1.7	-90.54	-3,050.4	-5,728.7	4,264.8	4,201.7	63.18	67.507		
8,700.0	6,784.5	6,800.0	6,797.6	62.9	1.7	-90.54	-3,050.4	-5,728.7	4,234.0	4,169.8	64.22	65.926		
8,759.8	6,784.3	6,800.0	6,797.6	64.5	1.7	-90.54	-3,050.4	-5,728.7	4,186.5	4,120.7	65.85	63.574		
8,800.0	6,784.1	6,800.0	6,797.6	65.6	1.7	-90.54	-3,050.4	-5,728.7	4,154.8	4,087.9	66.95	62.061		
8,858.2	6,783.9	6,800.0	6,797.6	67.1	1.7	-90.54	-3,050.4	-5,728.7	4,109.1	4,040.6	68.54	59.954		
8,900.0	6,783.7	6,800.0	6,797.6	68.3	1.7	-90.54	-3,050.4	-5,728.7	4,076.5	4,006.9	69.68	58.506		
8,956.7	6,783.5	6,800.0	6,797.6	69.8	1.7	-90.54	-3,050.4	-5,728.7	4,032.6	3,961.4	71.23	56.616		
9,000.0	6,783.3	6,800.0	6,797.6	71.0	1.7	-90.54	-3,050.4	-5,728.7	3,999.2	3,926.8	72.41	55.228		
9,055.1	6,783.1	6,800.0	6,797.6	72.5	1.7	-90.54	-3,050.4	-5,728.7	3,957.0	3,883.1	73.92	53.529		
9,100.0	6,782.9	6,800.0	6,797.6	73.7	1.7	-90.54	-3,050.4	-5,728.7	3,922.9	3,847.8	75.15	52.198		
9,153.5	6,782.7	6,800.0	6,797.6	75.2	1.7	-90.54	-3,050.4	-5,728.7	3,882.5	3,805.9	76.62	50.669		
9,200.0	6,782.6	6,800.0	6,797.6	76.5	1.7	-90.54	-3,050.4	-5,728.7	3,847.7	3,769.8	77.90	49.392		
9,251.9	6,782.4	6,800.0	6,797.6	77.9	1.7	-90.54	-3,050.4	-5,728.7	3,809.1	3,729.8	79.33	48.015		
9,300.0	6,782.2	6,800.0	6,797.6	79.2	1.7	-90.54	-3,050.4	-5,728.7	3,773.7	3,693.0	80.65	46.789		
9,350.4	6,782.0	6,800.0	6,797.6	80.6	1.7	-90.54	-3,050.4	-5,728.7	3,736.8	3,654.8	82.04	45.548		
9,400.0	6,781.8	6,800.0	6,797.6	82.0	1.7	-90.54	-3,050.4	-5,728.7	3,700.8	3,617.4	83.41	44.370		

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 SCHAUMBERG 17G-314
<b>Project:</b>	WELD COUNTY, COLORADO	<b>TVD Reference:</b>	KB-EST @ 4633.0usft (Original Well Elev)
<b>Reference Site:</b>	SW NW SEC. 17 T5N R64W 6th P.M.	<b>MD Reference:</b>	KB-EST @ 4633.0usft (Original Well Elev)
<b>Site Error:</b>	0.0 usft	<b>North Reference:</b>	True
<b>Reference Well:</b>	SCHAUMBERG 17G-314	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Well Error:</b>	0.0 usft	<b>Output errors are at</b>	2.00 sigma
<b>Reference Wellbore</b>	ORIGINAL WELLBORE	<b>Database:</b>	EDM 5000.1 Single User Db
<b>Reference Design:</b>	PROPOSAL #1	<b>Offset TVD Reference:</b>	Offset Datum

Offset Design NW SW SEC. 17 T5N R64W 6th P.M. - EXIST VERT HOWARD #14-18 - 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		
9,448.8	6,781.6	6,800.0	6,797.6	83.3	1.7	-90.54	-3,050.4	-5,728.7	3,665.7	3,581.0	84.75	43.252		
9,500.0	6,781.4	6,800.0	6,797.6	84.7	1.7	-90.54	-3,050.4	-5,728.7	3,629.3	3,543.1	86.17	42.119		
9,547.2	6,781.2	6,800.0	6,797.6	86.0	1.7	-90.54	-3,050.4	-5,728.7	3,596.0	3,508.5	87.47	41.110		
9,600.0	6,781.0	6,800.0	6,797.6	87.5	1.7	-90.54	-3,050.4	-5,728.7	3,559.1	3,470.2	88.93	40.022		
9,645.6	6,780.8	6,800.0	6,797.6	88.7	1.7	-90.54	-3,050.4	-5,728.7	3,527.6	3,437.4	90.19	39.112		
9,700.0	6,780.6	6,800.0	6,797.6	90.2	1.7	-90.54	-3,050.4	-5,728.7	3,490.4	3,398.7	91.69	38.066		
9,744.1	6,780.4	6,800.0	6,797.6	91.4	1.7	-90.54	-3,050.4	-5,728.7	3,460.6	3,367.7	92.91	37.245		
9,800.0	6,780.2	6,800.0	6,797.6	93.0	1.7	-90.54	-3,050.4	-5,728.7	3,423.2	3,328.8	94.46	36.239		
9,842.5	6,780.1	6,800.0	6,797.6	94.2	1.7	-90.54	-3,050.4	-5,728.7	3,395.2	3,299.5	95.64	35.500		
9,900.0	6,779.8	6,800.0	6,797.6	95.7	1.7	-90.54	-3,050.4	-5,728.7	3,357.7	3,260.5	97.23	34.533		
9,940.9	6,779.7	6,800.0	6,797.6	96.9	1.7	-90.54	-3,050.4	-5,728.7	3,331.4	3,233.0	98.37	33.867		
10,000.0	6,779.4	6,800.0	6,797.6	98.5	1.7	-90.54	-3,050.4	-5,728.7	3,293.9	3,193.9	100.01	32.937		
10,039.3	6,779.3	6,800.0	6,797.6	99.6	1.7	-90.54	-3,050.4	-5,728.7	3,269.3	3,168.2	101.10	32.338		
10,100.0	6,779.0	6,799.2	6,796.8	101.3	1.7	-90.53	-3,050.4	-5,728.7	3,231.9	3,129.1	102.78	31.445		
10,137.8	6,778.9	6,798.6	6,796.1	102.3	1.7	-90.51	-3,050.4	-5,728.7	3,209.0	3,105.2	103.83	30.906		
10,200.0	6,778.7	6,797.5	6,795.1	104.1	1.7	-90.49	-3,050.4	-5,728.7	3,171.9	3,066.3	105.56	30.049		
10,236.2	6,778.5	6,796.9	6,794.4	105.1	1.7	-90.47	-3,050.4	-5,728.7	3,150.7	3,044.1	106.56	29.566		
10,300.0	6,778.3	6,795.8	6,793.4	106.8	1.7	-90.45	-3,050.4	-5,728.7	3,113.9	3,005.6	108.34	28.743		
10,334.6	6,778.1	6,795.2	6,792.8	107.8	1.7	-90.44	-3,050.4	-5,728.7	3,094.3	2,985.0	109.30	28.310		
10,400.0	6,777.9	6,794.1	6,791.6	109.6	1.7	-90.41	-3,050.4	-5,728.7	3,058.1	2,947.0	111.12	27.521		
10,433.0	6,777.7	6,793.5	6,791.1	110.5	1.7	-90.40	-3,050.4	-5,728.8	3,040.2	2,928.1	112.04	27.135		
10,500.0	6,777.5	6,792.4	6,789.9	112.4	1.7	-90.37	-3,050.4	-5,728.8	3,004.6	2,890.7	113.90	26.379		
10,531.5	6,777.3	6,791.8	6,789.4	113.3	1.7	-90.36	-3,050.4	-5,728.8	2,988.2	2,873.5	114.78	26.035		
10,600.0	6,777.1	6,790.7	6,788.2	115.2	1.7	-90.33	-3,050.4	-5,728.8	2,953.5	2,836.8	116.68	25.312		
10,629.9	6,777.0	6,790.1	6,787.7	116.0	1.7	-90.32	-3,050.4	-5,728.8	2,938.7	2,821.2	117.52	25.007		
10,700.0	6,776.7	6,788.9	6,786.5	117.9	1.7	-90.30	-3,050.4	-5,728.8	2,904.9	2,785.5	119.47	24.315		
10,728.3	6,776.6	6,788.4	6,786.0	118.7	1.7	-90.29	-3,050.4	-5,728.8	2,891.7	2,771.4	120.26	24.045		
10,800.0	6,776.3	6,787.2	6,784.7	120.7	1.7	-90.26	-3,050.4	-5,728.8	2,859.1	2,736.8	122.26	23.386		
10,826.7	6,776.2	6,786.7	6,784.3	121.5	1.7	-90.25	-3,050.4	-5,728.8	2,847.3	2,724.3	123.00	23.148		
10,900.0	6,775.9	6,785.4	6,783.0	123.5	1.7	-90.22	-3,050.3	-5,728.9	2,816.0	2,690.9	125.04	22.520		
10,925.2	6,775.8	6,785.0	6,782.6	124.2	1.7	-90.21	-3,050.3	-5,728.9	2,805.6	2,679.9	125.75	22.312		
11,000.0	6,775.5	6,783.7	6,781.3	126.3	1.7	-90.18	-3,050.3	-5,728.9	2,775.9	2,648.0	127.83	21.715		
11,023.6	6,775.4	6,783.3	6,780.8	126.9	1.7	-90.17	-3,050.3	-5,728.9	2,766.8	2,638.3	128.49	21.533		
11,100.0	6,775.1	6,781.9	6,779.5	129.1	1.7	-90.14	-3,050.3	-5,728.9	2,738.8	2,608.2	130.62	20.967		
11,122.0	6,775.0	6,781.5	6,779.1	129.7	1.7	-90.13	-3,050.3	-5,728.9	2,731.0	2,599.8	131.24	20.810		
11,200.0	6,774.7	6,780.2	6,777.7	131.9	1.7	-90.10	-3,050.3	-5,728.9	2,704.9	2,571.5	133.41	20.275		
11,220.4	6,774.6	6,779.8	6,777.4	132.4	1.7	-90.09	-3,050.3	-5,728.9	2,698.4	2,564.4	133.98	20.140		
11,300.0	6,774.3	6,778.4	6,776.0	134.6	1.7	-90.06	-3,050.3	-5,729.0	2,674.3	2,538.1	136.20	19.635		
11,318.9	6,774.2	6,778.1	6,775.6	135.2	1.7	-90.05	-3,050.3	-5,729.0	2,668.9	2,532.2	136.73	19.520		
11,400.0	6,773.9	6,776.6	6,774.2	137.4	1.7	-90.02	-3,050.3	-5,729.0	2,647.2	2,508.2	138.99	19.045		
11,417.3	6,773.8	6,776.3	6,773.9	137.9	1.7	-90.02	-3,050.3	-5,729.0	2,642.8	2,503.3	139.48	18.948		
11,500.0	6,773.5	6,774.8	6,772.4	140.2	1.7	-89.98	-3,050.3	-5,729.0	2,623.5	2,481.8	141.79	18.503		
11,515.7	6,773.4	6,774.6	6,772.1	140.7	1.7	-89.98	-3,050.3	-5,729.0	2,620.2	2,477.9	142.23	18.422		
11,600.0	6,773.1	6,773.0	6,770.6	143.0	1.7	-89.94	-3,050.3	-5,729.0	2,603.5	2,459.0	144.58	18.008		
11,614.1	6,773.0	6,772.8	6,770.3	143.4	1.7	-89.94	-3,050.3	-5,729.0	2,601.0	2,456.0	144.98	17.941		
11,700.0	6,772.7	6,771.2	6,768.8	145.8	1.7	-89.90	-3,050.3	-5,729.0	2,587.3	2,439.9	147.37	17.556		
11,712.6	6,772.6	6,771.0	6,768.6	146.2	1.7	-89.90	-3,050.3	-5,729.1	2,585.5	2,437.8	147.73	17.502		
11,800.0	6,772.3	6,769.4	6,767.0	148.6	1.7	-89.86	-3,050.3	-5,729.1	2,574.8	2,424.6	150.17	17.146		
11,811.0	6,772.2	6,769.2	6,766.8	148.9	1.7	-89.86	-3,050.3	-5,729.1	2,573.6	2,423.2	150.48	17.103		
11,900.0	6,771.9	6,767.6	6,765.2	151.4	1.7	-89.82	-3,050.3	-5,729.1	2,566.1	2,413.2	152.96	16.776		
11,909.4	6,771.8	6,767.5	6,765.0	151.7	1.7	-89.82	-3,050.3	-5,729.1	2,565.5	2,412.3	153.23	16.743		
12,000.0	6,771.5	6,765.8	6,763.4	154.2	1.7	-89.78	-3,050.3	-5,729.1	2,561.3	2,405.6	155.76	16.444		

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 SCHAUMBERG 17G-314
<b>Project:</b>	WELD COUNTY, COLORADO	<b>TVD Reference:</b>	KB-EST @ 4633.0usft (Original Well Elev)
<b>Reference Site:</b>	SW NW SEC. 17 T5N R64W 6th P.M.	<b>MD Reference:</b>	KB-EST @ 4633.0usft (Original Well Elev)
<b>Site Error:</b>	0.0 usft	<b>North Reference:</b>	True
<b>Reference Well:</b>	SCHAUMBERG 17G-314	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Well Error:</b>	0.0 usft	<b>Output errors are at</b>	2.00 sigma
<b>Reference Wellbore</b>	ORIGINAL WELLBORE	<b>Database:</b>	EDM 5000.1 Single User Db
<b>Reference Design:</b>	PROPOSAL #1	<b>Offset TVD Reference:</b>	Offset Datum

Offset Design NW SW SEC. 17 T5N R64W 6th P.M. - EXIST VERT HOWARD #14-18 - 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		
12,007.8	6,771.4	6,765.7	6,763.2	154.4	1.7	-89.78	-3,050.3	-5,729.1	2,561.1	2,405.1	155.98	16.420		
12,072.6	6,771.2	6,764.5	6,762.0	156.2	1.7	-89.75	-3,050.3	-5,729.1	2,560.3	2,402.5	157.79	16.226 CC		
12,100.0	6,771.1	6,764.0	6,761.5	157.0	1.7	-89.74	-3,050.3	-5,729.1	2,560.4	2,401.9	158.56	16.149		
12,106.3	6,771.0	6,763.9	6,761.4	157.2	1.7	-89.74	-3,050.3	-5,729.1	2,560.5	2,401.8	158.73	16.131 ES		
12,200.0	6,770.7	6,762.1	6,759.7	159.8	1.7	-89.70	-3,050.2	-5,729.2	2,563.5	2,402.1	161.35	15.887		
12,204.7	6,770.6	6,762.0	6,759.6	159.9	1.7	-89.70	-3,050.2	-5,729.2	2,563.7	2,402.2	161.48	15.876		
12,300.0	6,770.3	6,760.3	6,757.9	162.6	1.7	-89.66	-3,050.2	-5,729.2	2,570.4	2,406.2	164.15	15.659		
12,303.1	6,770.2	6,760.2	6,757.8	162.7	1.7	-89.66	-3,050.2	-5,729.2	2,570.7	2,406.4	164.24	15.652		
12,361.7	6,770.0	6,759.1	6,756.7	164.3	1.7	-89.63	-3,050.2	-5,729.2	2,576.6	2,410.7	165.87	15.533 SF		



# Anticollision Report



<b>Company:</b>	PDC ENERGY	<b>Local Co-ordinate Reference:</b>	Well SCHAUMBERG 17G-314
<b>Project:</b>	WELD COUNTY, COLORADO	<b>TVD Reference:</b>	KB-EST @ 4633.0usft (Original Well Elev)
<b>Reference Site:</b>	SW NW SEC. 17 T5N R64W 6th P.M.	<b>MD Reference:</b>	KB-EST @ 4633.0usft (Original Well Elev)
<b>Site Error:</b>	0.0 usft	<b>North Reference:</b>	True
<b>Reference Well:</b>	SCHAUMBERG 17G-314	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Well Error:</b>	0.0 usft	<b>Output errors are at</b>	2.00 sigma
<b>Reference Wellbore</b>	ORIGINAL WELLBORE	<b>Database:</b>	EDM 5000.1 Single User Db
<b>Reference Design:</b>	PROPOSAL #1	<b>Offset TVD Reference:</b>	Offset Datum

<b>Offset Design</b> NW SW SEC. 17 T5N R64W 6th P.M. - EXIST VERT MASON #1 - Wellbore #1 - Design #1												<b>Offset Site Error:</b>	0.0 usft
Survey Program: 0-INC												<b>Offset Well Error:</b>	0.0 usft
Reference		Offset		Semi Major Axis			Distance						Warning
Measured Depth (usft)	Vertical Depth (usft)	Measured Depth (usft)	Vertical Depth (usft)	Reference (usft)	Offset (usft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (usft)	+E/-W (usft)	Between Centres (usft)	Between Ellipses (usft)	Minimum Separation (usft)	Separation Factor	
0.0	0.0	1.0	1.0	0.0	0.0	-113.57	-1,891.1	-4,334.8	4,729.4				
98.4	98.4	99.4	99.4	0.1	1.2	-113.57	-1,891.1	-4,334.8	4,729.4	4,728.1	1.27	3,711.947	
100.0	100.0	101.0	101.0	0.1	1.2	-113.57	-1,891.1	-4,334.8	4,729.4	4,728.1	1.31	3,622.363	
196.8	196.8	197.8	197.8	0.3	3.4	-113.57	-1,891.1	-4,334.8	4,729.4	4,725.6	3.74	1,263.298	
200.0	200.0	201.0	201.0	0.3	3.5	-113.57	-1,891.1	-4,334.8	4,729.4	4,725.6	3.82	1,237.788	
295.3	295.3	296.3	296.3	0.5	5.5	-113.57	-1,891.1	-4,334.8	4,729.4	4,723.4	6.02	786.222	
300.0	300.0	301.0	301.0	0.5	5.6	-113.57	-1,891.1	-4,334.8	4,729.4	4,723.3	6.12	772.296	
393.7	393.7	394.7	394.7	0.8	7.5	-113.57	-1,891.1	-4,334.8	4,729.4	4,721.1	8.25	573.399	
400.0	400.0	401.0	401.0	0.8	7.6	-113.57	-1,891.1	-4,334.8	4,729.4	4,721.0	8.39	563.647	
492.1	492.1	493.1	493.1	1.0	9.5	-113.57	-1,891.1	-4,334.8	4,729.4	4,718.9	10.47	451.836	
500.0	500.0	501.0	501.0	1.0	9.6	-113.57	-1,891.1	-4,334.8	4,729.4	4,718.7	10.64	444.305	
590.5	590.5	591.5	591.5	1.2	11.5	-113.57	-1,891.1	-4,334.8	4,729.4	4,716.7	12.68	372.991	
600.0	600.0	601.0	601.0	1.2	11.7	-113.57	-1,891.1	-4,334.8	4,729.4	4,716.5	12.89	366.847	
689.0	689.0	690.0	690.0	1.4	13.5	-113.57	-1,891.1	-4,334.8	4,729.4	4,714.5	14.89	317.651	
700.0	700.0	701.0	701.0	1.4	13.7	-113.57	-1,891.1	-4,334.8	4,729.4	4,714.2	15.14	312.459	
787.4	787.4	788.4	788.4	1.6	15.5	-113.57	-1,891.1	-4,334.8	4,729.4	4,712.3	17.10	276.646	
800.0	800.0	801.0	801.0	1.7	15.7	-113.57	-1,891.1	-4,334.8	4,729.4	4,712.0	17.38	272.149	
885.8	885.8	886.8	886.8	1.9	17.4	-113.57	-1,891.1	-4,334.8	4,729.4	4,710.1	19.30	245.036	
900.0	900.0	901.0	901.0	1.9	17.7	-113.57	-1,891.1	-4,334.8	4,729.4	4,709.8	19.62	241.069	
984.2	984.2	985.2	985.2	2.1	19.4	-113.57	-1,891.1	-4,334.8	4,729.4	4,707.9	21.51	219.918	
1,000.0	1,000.0	1,001.0	1,001.0	2.1	19.7	-113.57	-1,891.1	-4,334.8	4,729.4	4,707.5	21.86	216.370	
1,082.7	1,082.7	1,083.7	1,083.7	2.3	21.4	-113.57	-1,891.1	-4,334.8	4,729.4	4,705.7	23.71	199.478	
1,100.0	1,100.0	1,101.0	1,101.0	2.3	21.8	-113.57	-1,891.1	-4,334.8	4,729.4	4,705.3	24.10	196.267	
1,181.1	1,181.1	1,182.1	1,182.1	2.5	23.4	-113.57	-1,891.1	-4,334.8	4,729.4	4,703.5	25.91	182.517	
1,200.0	1,200.0	1,201.0	1,201.0	2.6	23.8	-113.57	-1,891.1	-4,334.8	4,729.4	4,703.1	26.33	179.586	
1,279.5	1,279.5	1,280.5	1,280.5	2.7	25.4	-113.57	-1,891.1	-4,334.8	4,729.4	4,701.3	28.11	168.218	
1,300.0	1,300.0	1,301.0	1,301.0	2.8	25.8	-113.57	-1,891.1	-4,334.8	4,729.4	4,700.8	28.57	165.520	
1,377.9	1,377.9	1,378.9	1,378.9	3.0	27.3	-113.57	-1,891.1	-4,334.8	4,729.4	4,699.1	30.32	155.998	
1,400.0	1,400.0	1,401.0	1,401.0	3.0	27.8	-113.57	-1,891.1	-4,334.8	4,729.4	4,698.6	30.81	153.499	
1,476.4	1,476.4	1,477.4	1,477.4	3.2	29.3	-113.57	-1,891.1	-4,334.8	4,729.4	4,696.9	32.52	145.434	
1,500.0	1,500.0	1,501.0	1,501.0	3.2	29.8	-113.57	-1,891.1	-4,334.8	4,729.4	4,696.3	33.05	143.108	
1,574.8	1,574.8	1,575.8	1,575.8	3.4	31.3	-113.57	-1,891.1	-4,334.8	4,729.4	4,694.7	34.72	136.211	
1,600.0	1,600.0	1,601.0	1,601.0	3.5	31.8	-113.57	-1,891.1	-4,334.8	4,729.4	4,694.1	35.28	134.034	
1,673.2	1,673.2	1,674.2	1,674.2	3.6	33.3	-113.57	-1,891.1	-4,334.8	4,729.4	4,692.5	36.92	128.088	
1,700.0	1,700.0	1,701.0	1,701.0	3.7	33.8	-113.57	-1,891.1	-4,334.8	4,729.4	4,691.9	37.52	126.044	
1,771.6	1,771.6	1,772.6	1,772.6	3.9	35.3	-113.57	-1,891.1	-4,334.8	4,729.4	4,690.3	39.12	120.881	
1,800.0	1,800.0	1,801.0	1,801.0	3.9	35.8	-113.57	-1,891.1	-4,334.8	4,729.4	4,689.6	39.76	118.953	
1,870.1	1,870.1	1,871.1	1,871.1	4.1	37.2	45.25	-1,891.1	-4,334.8	4,728.8	4,687.5	41.30	114.499	
1,900.0	1,900.0	1,901.0	1,901.0	4.1	37.9	45.27	-1,891.1	-4,334.8	4,728.2	4,686.2	41.95	112.699	
1,968.5	1,968.4	1,969.4	1,969.4	4.2	39.2	45.33	-1,891.1	-4,334.8	4,725.9	4,682.5	43.42	108.831	
2,000.0	1,999.8	2,000.8	2,000.8	4.3	39.9	45.37	-1,891.1	-4,334.8	4,724.5	4,680.4	44.09	107.143	
2,066.9	2,066.5	2,067.5	2,067.5	4.4	41.2	45.47	-1,891.1	-4,334.8	4,720.6	4,675.1	45.51	103.720	
2,100.0	2,099.5	2,100.5	2,100.5	4.5	41.9	45.53	-1,891.1	-4,334.8	4,718.3	4,672.1	46.21	102.112	
2,165.3	2,164.4	2,165.4	2,165.4	4.6	43.2	45.67	-1,891.1	-4,334.8	4,713.0	4,665.5	47.57	99.068	
2,200.0	2,198.7	2,199.7	2,199.7	4.7	43.9	45.76	-1,891.1	-4,334.8	4,709.8	4,661.5	48.29	97.532	
2,263.8	2,261.8	2,262.8	2,262.8	4.8	45.1	45.94	-1,891.1	-4,334.8	4,703.1	4,653.5	49.61	94.810	
2,300.0	2,297.5	2,298.5	2,298.5	4.9	45.8	46.05	-1,891.1	-4,334.8	4,698.8	4,648.5	50.34	93.336	
2,362.2	2,358.6	2,359.6	2,359.6	5.0	47.1	46.27	-1,891.1	-4,334.8	4,690.8	4,639.2	51.61	90.891	
2,400.0	2,395.6	2,396.6	2,396.6	5.1	47.8	46.41	-1,891.1	-4,334.8	4,685.5	4,633.1	52.37	89.472	
2,460.6	2,454.9	2,455.9	2,455.9	5.3	49.0	46.52	-1,891.1	-4,334.8	4,676.7	4,623.0	53.70	87.089	
2,500.0	2,493.4	2,494.4	2,494.4	5.4	49.8	46.59	-1,891.1	-4,334.8	4,671.0	4,616.5	54.56	85.607	
2,559.0	2,551.2	2,552.2	2,552.2	5.6	51.0	46.70	-1,891.1	-4,334.8	4,662.5	4,606.6	55.87	83.453	

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

# Anticollision Report



<b>Company:</b>	PDC ENERGY	<b>Local Co-ordinate Reference:</b>	Well SCHAUMBERG 17G-314
<b>Project:</b>	WELD COUNTY, COLORADO	<b>TVD Reference:</b>	KB-EST @ 4633.0usft (Original Well Elev)
<b>Reference Site:</b>	SW NW SEC. 17 T5N R64W 6th P.M.	<b>MD Reference:</b>	KB-EST @ 4633.0usft (Original Well Elev)
<b>Site Error:</b>	0.0 usft	<b>North Reference:</b>	True
<b>Reference Well:</b>	SCHAUMBERG 17G-314	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Well Error:</b>	0.0 usft	<b>Output errors are at</b>	2.00 sigma
<b>Reference Wellbore</b>	ORIGINAL WELLBORE	<b>Database:</b>	EDM 5000.1 Single User Db
<b>Reference Design:</b>	PROPOSAL #1	<b>Offset TVD Reference:</b>	Offset Datum

Offset Design NW SW SEC. 17 T5N R64W 6th P.M. - EXIST VERT MASON #1 - Wellbore #1 - Design #1												Offset Site Error:	0.0 usft
Survey Program: 0-INC												Offset Well Error:	0.0 usft
Reference		Offset		Semi Major Axis			Distance						Warning
Measured Depth (usft)	Vertical Depth (usft)	Measured Depth (usft)	Vertical Depth (usft)	Reference (usft)	Offset (usft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (usft)	+E/-W (usft)	Between Centres (usft)	Between Ellipses (usft)	Minimum Separation (usft)	Separation Factor	
2,600.0	2,591.3	2,592.3	2,592.3	5.7	51.8	46.78	-1,891.1	-4,334.8	4,656.6	4,599.8	56.77	82.019	
2,657.5	2,647.5	2,648.5	2,648.5	5.9	52.9	46.88	-1,891.1	-4,334.8	4,648.3	4,590.3	58.05	80.070	
2,700.0	2,689.1	2,690.1	2,690.1	6.0	53.7	46.96	-1,891.1	-4,334.8	4,642.2	4,583.2	59.00	78.681	
2,755.9	2,743.7	2,744.7	2,744.7	6.2	54.8	47.07	-1,891.1	-4,334.8	4,634.2	4,574.0	60.25	76.914	
2,800.0	2,786.9	2,787.9	2,787.9	6.4	55.7	47.15	-1,891.1	-4,334.8	4,627.9	4,566.7	61.24	75.571	
2,854.3	2,840.0	2,841.0	2,841.0	6.6	56.8	47.25	-1,891.1	-4,334.8	4,620.1	4,557.7	62.46	73.968	
2,900.0	2,884.7	2,885.7	2,885.7	6.7	57.7	47.34	-1,891.1	-4,334.8	4,613.6	4,550.1	63.49	72.668	
2,952.7	2,936.3	2,937.3	2,937.3	6.9	58.7	47.44	-1,891.1	-4,334.8	4,606.1	4,541.4	64.68	71.212	
3,000.0	2,982.5	2,983.5	2,983.5	7.1	59.6	47.52	-1,891.1	-4,334.8	4,599.4	4,533.6	65.75	69.953	
3,051.2	3,032.6	3,033.6	3,033.6	7.3	60.6	47.62	-1,891.1	-4,334.8	4,592.1	4,525.2	66.91	68.630	
3,100.0	3,080.3	3,081.3	3,081.3	7.5	61.6	47.71	-1,891.1	-4,334.8	4,585.2	4,517.2	68.02	67.411	
3,149.6	3,128.8	3,129.8	3,129.8	7.7	62.6	47.81	-1,891.1	-4,334.8	4,578.2	4,509.0	69.15	66.208	
3,200.0	3,178.1	3,179.1	3,179.1	7.9	63.6	47.90	-1,891.1	-4,334.8	4,571.1	4,500.8	70.30	65.026	
3,248.0	3,225.1	3,226.1	3,226.1	8.1	64.5	48.00	-1,891.1	-4,334.8	4,564.3	4,492.9	71.39	63.932	
3,300.0	3,276.0	3,277.0	3,277.0	8.3	65.5	48.10	-1,891.1	-4,334.8	4,557.0	4,484.4	72.58	62.785	
3,346.4	3,321.4	3,322.4	3,322.4	8.5	66.4	48.19	-1,891.1	-4,334.8	4,550.5	4,476.8	73.65	61.789	
3,400.0	3,373.8	3,374.8	3,374.8	8.7	67.5	48.29	-1,891.1	-4,334.8	4,543.0	4,468.1	74.87	60.676	
3,444.9	3,417.7	3,418.7	3,418.7	8.8	68.4	48.38	-1,891.1	-4,334.8	4,536.7	4,460.8	75.90	59.769	
3,500.0	3,471.6	3,472.6	3,472.6	9.1	69.5	48.48	-1,891.1	-4,334.8	4,529.0	4,451.8	77.17	58.688	
3,543.3	3,513.9	3,514.9	3,514.9	9.2	70.3	48.57	-1,891.1	-4,334.8	4,523.0	4,444.8	78.17	57.862	
3,600.0	3,569.4	3,570.4	3,570.4	9.5	71.4	48.68	-1,891.1	-4,334.8	4,515.1	4,435.6	79.47	56.812	
3,641.7	3,610.2	3,611.2	3,611.2	9.7	72.3	48.76	-1,891.1	-4,334.8	4,509.3	4,428.8	80.44	56.060	
3,700.0	3,667.2	3,668.2	3,668.2	9.9	73.4	48.87	-1,891.1	-4,334.8	4,501.2	4,419.4	81.78	55.039	
3,740.1	3,706.5	3,707.5	3,707.5	10.1	74.2	48.95	-1,891.1	-4,334.8	4,495.6	4,412.9	82.71	54.354	
3,800.0	3,765.0	3,766.0	3,766.0	10.3	75.4	49.07	-1,891.1	-4,334.8	4,487.4	4,403.3	84.09	53.361	
3,838.6	3,802.8	3,803.8	3,803.8	10.5	76.1	49.15	-1,891.1	-4,334.8	4,482.1	4,397.1	84.99	52.737	
3,900.0	3,862.8	3,863.8	3,863.8	10.7	77.3	49.27	-1,891.1	-4,334.8	4,473.6	4,387.2	86.41	51.770	
3,937.0	3,899.0	3,900.0	3,900.0	10.9	78.1	49.34	-1,891.1	-4,334.8	4,468.5	4,381.3	87.27	51.203	
4,000.0	3,960.7	3,961.7	3,961.7	11.2	79.3	49.47	-1,891.1	-4,334.8	4,459.9	4,371.2	88.73	50.262	
4,035.4	3,995.3	3,996.3	3,996.3	11.3	80.0	49.54	-1,891.1	-4,334.8	4,455.1	4,365.5	89.56	49.745	
4,100.0	4,058.5	4,059.5	4,059.5	11.6	81.3	49.67	-1,891.1	-4,334.8	4,446.2	4,355.2	91.06	48.828	
4,133.8	4,091.6	4,092.6	4,092.6	11.7	81.9	49.74	-1,891.1	-4,334.8	4,441.6	4,349.8	91.85	48.359	
4,200.0	4,156.3	4,157.3	4,157.3	12.0	83.2	49.87	-1,891.1	-4,334.8	4,432.6	4,339.3	93.39	47.465	
4,232.3	4,187.9	4,188.9	4,188.9	12.2	83.9	49.94	-1,891.1	-4,334.8	4,428.3	4,334.1	94.14	47.039	
4,300.0	4,254.1	4,255.1	4,255.1	12.5	85.2	50.08	-1,891.1	-4,334.8	4,419.1	4,323.4	95.72	46.166	
4,325.7	4,279.2	4,280.2	4,280.2	12.6	85.7	50.13	-1,891.1	-4,334.8	4,415.6	4,319.3	96.32	45.843	
4,330.7	4,284.1	4,285.1	4,285.1	12.6	85.8	50.13	-1,891.1	-4,334.8	4,415.0	4,318.5	96.45	45.776	
4,400.0	4,352.1	4,353.1	4,353.1	12.8	87.2	50.13	-1,891.1	-4,334.8	4,406.2	4,308.0	98.20	44.870	
4,429.1	4,380.8	4,381.8	4,381.8	12.9	87.7	50.13	-1,891.1	-4,334.8	4,402.9	4,304.0	98.92	44.511	
4,500.0	4,450.7	4,451.7	4,451.7	13.1	89.2	50.13	-1,891.1	-4,334.8	4,395.5	4,294.9	100.66	43.669	
4,527.5	4,478.0	4,479.0	4,479.0	13.2	89.7	50.13	-1,891.1	-4,334.8	4,393.0	4,291.7	101.32	43.357	
4,600.0	4,549.9	4,550.9	4,550.9	13.4	91.1	50.13	-1,891.1	-4,334.8	4,387.1	4,284.1	103.06	42.568	
4,626.0	4,575.7	4,576.7	4,576.7	13.5	91.7	50.13	-1,891.1	-4,334.8	4,385.3	4,281.6	103.68	42.298	
4,700.0	4,649.4	4,650.4	4,650.4	13.6	93.2	50.13	-1,891.1	-4,334.8	4,380.9	4,275.5	105.41	41.465	
4,724.4	4,673.7	4,674.7	4,674.7	13.7	93.6	50.13	-1,891.1	-4,334.8	4,379.8	4,273.8	105.97	41.329	
4,800.0	4,749.2	4,750.2	4,750.2	13.8	95.2	50.13	-1,891.1	-4,334.8	4,377.0	4,269.3	107.70	40.642	
4,822.8	4,772.0	4,773.0	4,773.0	13.9	95.6	50.13	-1,891.1	-4,334.8	4,376.4	4,268.2	108.21	40.445	
4,900.0	4,849.2	4,850.2	4,850.2	14.0	97.2	50.13	-1,891.1	-4,334.8	4,375.3	4,265.4	109.91	39.808	
4,921.2	4,870.4	4,871.4	4,871.4	14.1	97.6	50.13	-1,891.1	-4,334.8	4,375.2	4,264.9	110.37	39.641	
4,925.6	4,874.8	4,875.8	4,875.8	14.1	97.7	-108.68	-1,891.1	-4,334.8	4,375.2	4,265.3	109.91	39.809	
5,000.0	4,949.2	4,950.2	4,950.2	14.2	99.2	-108.68	-1,891.1	-4,334.8	4,375.2	4,263.7	111.53	39.230	
5,019.7	4,968.8	4,969.8	4,969.8	14.2	99.6	-108.68	-1,891.1	-4,334.8	4,375.2	4,263.3	111.96	39.079	

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 SCHAUMBERG 17G-314
<b>Project:</b>	WELD COUNTY, COLORADO	<b>TVD Reference:</b>	KB-EST @ 4633.0usft (Original Well Elev)
<b>Reference Site:</b>	SW NW SEC. 17 T5N R64W 6th P.M.	<b>MD Reference:</b>	KB-EST @ 4633.0usft (Original Well Elev)
<b>Site Error:</b>	0.0 usft	<b>North Reference:</b>	True
<b>Reference Well:</b>	SCHAUMBERG 17G-314	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Well Error:</b>	0.0 usft	<b>Output errors are at</b>	2.00 sigma
<b>Reference Wellbore</b>	ORIGINAL WELLBORE	<b>Database:</b>	EDM 5000.1 Single User Db
<b>Reference Design:</b>	PROPOSAL #1	<b>Offset TVD Reference:</b>	Offset Datum

Offset Design NW SW SEC. 17 T5N R64W 6th P.M. - EXIST VERT MASON #1 - Wellbore #1 - Design #1												Offset Site Error:	0.0 usft
Survey Program: 0-INC												Offset Well Error:	0.0 usft
Reference		Offset		Semi Major Axis			Distance						Warning
Measured Depth (usft)	Vertical Depth (usft)	Measured Depth (usft)	Vertical Depth (usft)	Reference (usft)	Offset (usft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (usft)	+E/-W (usft)	Between Centres (usft)	Between Ellipses (usft)	Minimum Separation (usft)	Separation Factor	
5,100.0	5,049.2	5,050.2	5,050.2	14.3	101.2	-108.68	-1,891.1	-4,334.8	4,375.2	4,261.5	113.71	38.476	
5,118.1	5,067.3	5,068.3	5,068.3	14.3	101.6	-108.68	-1,891.1	-4,334.8	4,375.2	4,261.1	114.11	38.343	
5,200.0	5,149.2	5,150.2	5,150.2	14.5	103.2	-108.68	-1,891.1	-4,334.8	4,375.2	4,259.3	115.90	37.750	
5,216.5	5,165.7	5,166.7	5,166.7	14.5	103.5	-108.68	-1,891.1	-4,334.8	4,375.2	4,259.0	116.26	37.633	
5,300.0	5,249.2	5,250.2	5,250.2	14.6	105.2	-108.68	-1,891.1	-4,334.8	4,375.2	4,257.2	118.09	37.051	
5,314.9	5,264.1	5,265.1	5,265.1	14.6	105.5	-108.68	-1,891.1	-4,334.8	4,375.2	4,256.8	118.41	36.949	
5,400.0	5,349.2	5,350.2	5,350.2	14.8	107.2	-108.68	-1,891.1	-4,334.8	4,375.2	4,255.0	120.28	36.377	
5,413.4	5,362.5	5,363.5	5,363.5	14.8	107.5	-108.68	-1,891.1	-4,334.8	4,375.2	4,254.7	120.57	36.288	
5,500.0	5,449.2	5,450.2	5,450.2	14.9	109.2	-108.68	-1,891.1	-4,334.8	4,375.2	4,252.8	122.47	35.726	
5,511.8	5,461.0	5,462.0	5,462.0	14.9	109.5	-108.68	-1,891.1	-4,334.8	4,375.2	4,252.5	122.73	35.651	
5,600.0	5,549.2	5,550.2	5,550.2	15.1	111.2	-108.68	-1,891.1	-4,334.8	4,375.2	4,250.6	124.66	35.098	
5,610.2	5,559.4	5,560.4	5,560.4	15.1	111.5	-108.68	-1,891.1	-4,334.8	4,375.2	4,250.4	124.88	35.035	
5,700.0	5,649.2	5,650.2	5,650.2	15.2	113.3	-108.68	-1,891.1	-4,334.8	4,375.2	4,248.4	126.85	34.491	
5,708.6	5,657.8	5,658.8	5,658.8	15.3	113.4	-108.68	-1,891.1	-4,334.8	4,375.2	4,248.2	127.04	34.439	
5,800.0	5,749.2	5,750.2	5,750.2	15.4	115.3	-108.68	-1,891.1	-4,334.8	4,375.2	4,246.2	129.05	33.904	
5,807.1	5,756.2	5,757.2	5,757.2	15.4	115.4	-108.68	-1,891.1	-4,334.8	4,375.2	4,246.0	129.20	33.864	
5,900.0	5,849.2	5,850.2	5,850.2	15.6	117.3	-108.68	-1,891.1	-4,334.8	4,375.2	4,244.0	131.24	33.337	
5,905.5	5,854.7	5,855.7	5,855.7	15.6	117.4	-108.68	-1,891.1	-4,334.8	4,375.2	4,243.9	131.36	33.307	
6,000.0	5,949.2	5,950.2	5,950.2	15.7	119.3	-108.68	-1,891.1	-4,334.8	4,375.2	4,241.8	133.44	32.788	
6,003.9	5,953.1	5,954.1	5,954.1	15.7	119.4	-108.68	-1,891.1	-4,334.8	4,375.2	4,241.7	133.52	32.767	
6,100.0	6,049.2	6,050.2	6,050.2	15.9	121.3	-108.68	-1,891.1	-4,334.8	4,375.2	4,239.6	135.64	32.257	
6,102.3	6,051.5	6,052.5	6,052.5	15.9	121.3	-108.68	-1,891.1	-4,334.8	4,375.2	4,239.6	135.69	32.245	
6,124.6	6,073.8	6,074.8	6,074.8	15.9	121.8	-108.68	-1,891.1	-4,334.8	4,375.2	4,239.1	136.18	32.129	
6,150.0	6,099.2	6,100.2	6,100.2	16.0	122.3	-18.69	-1,891.1	-4,334.8	4,374.8	4,237.7	137.12	31.904	
6,200.0	6,149.0	6,150.0	6,150.0	16.1	123.3	-18.79	-1,891.1	-4,334.8	4,371.5	4,233.8	137.65	31.759	
6,200.8	6,149.8	6,150.8	6,150.8	16.1	123.3	-18.79	-1,891.1	-4,334.8	4,371.4	4,233.8	137.65	31.758	
6,250.0	6,198.5	6,199.5	6,199.5	16.2	124.3	-18.99	-1,891.1	-4,334.8	4,364.9	4,227.3	137.55	31.733	
6,299.2	6,246.6	6,247.6	6,247.6	16.3	125.3	-19.30	-1,891.1	-4,334.8	4,355.2	4,218.3	136.85	31.823	
6,300.0	6,247.4	6,248.4	6,248.4	16.3	125.3	-19.30	-1,891.1	-4,334.8	4,355.0	4,218.2	136.84	31.826	
6,350.0	6,295.5	6,296.5	6,296.5	16.5	126.3	-19.72	-1,891.1	-4,334.8	4,341.9	4,206.4	135.52	32.039	
6,397.6	6,340.2	6,341.2	6,341.2	16.6	127.2	-20.24	-1,891.1	-4,334.8	4,326.6	4,192.9	133.73	32.354	
6,400.0	6,342.4	6,343.4	6,343.4	16.6	127.2	-20.27	-1,891.1	-4,334.8	4,325.7	4,192.1	133.62	32.373	
6,450.0	6,388.1	6,389.1	6,389.1	16.8	128.1	-20.95	-1,891.1	-4,334.8	4,306.5	4,175.3	131.19	32.827	
6,496.0	6,428.8	6,429.8	6,429.8	17.0	128.9	-21.72	-1,891.1	-4,334.8	4,286.1	4,157.6	128.52	33.350	
6,500.0	6,432.2	6,433.2	6,433.2	17.0	129.0	-21.79	-1,891.1	-4,334.8	4,284.3	4,156.0	128.28	33.399	
6,550.0	6,474.6	6,475.6	6,475.6	17.3	129.9	-22.80	-1,891.1	-4,334.8	4,259.2	4,134.2	124.99	34.077	
6,594.5	6,510.7	6,511.7	6,511.7	17.5	130.6	-23.87	-1,891.1	-4,334.8	4,234.7	4,112.8	121.85	34.753	
6,600.0	6,515.0	6,516.0	6,516.0	17.6	130.7	-24.01	-1,891.1	-4,334.8	4,231.5	4,110.0	121.45	34.841	
6,650.0	6,553.3	6,554.3	6,554.3	17.9	131.4	-25.47	-1,891.1	-4,334.8	4,201.2	4,083.3	117.86	35.646	
6,692.9	6,584.3	6,585.3	6,585.3	18.2	132.1	-26.94	-1,891.1	-4,334.8	4,173.2	4,058.3	114.92	36.315	
6,700.0	6,589.2	6,590.2	6,590.2	18.2	132.2	-27.20	-1,891.1	-4,334.8	4,168.4	4,054.0	114.46	36.419	
6,750.0	6,622.7	6,623.7	6,623.7	18.6	132.8	-29.29	-1,891.1	-4,334.8	4,133.4	4,021.8	111.59	37.041	
6,791.3	6,648.3	6,649.3	6,649.3	19.0	133.3	-31.32	-1,891.1	-4,334.8	4,102.9	3,993.0	109.93	37.324	
6,800.0	6,653.4	6,654.4	6,654.4	19.1	133.5	-31.79	-1,891.1	-4,334.8	4,096.4	3,986.7	109.69	37.346	
6,850.0	6,681.4	6,682.4	6,682.4	19.6	134.0	-34.80	-1,891.1	-4,334.8	4,057.4	3,948.2	109.27	37.133	
6,889.7	6,701.5	6,702.5	6,702.5	20.1	134.4	-37.63	-1,891.1	-4,334.8	4,025.3	3,914.9	110.35	36.478	
6,900.0	6,706.3	6,707.3	6,707.3	20.2	134.5	-38.43	-1,891.1	-4,334.8	4,016.8	3,906.0	110.86	36.233	
6,950.0	6,728.2	6,729.2	6,729.2	20.9	135.0	-42.84	-1,891.1	-4,334.8	3,974.7	3,859.8	114.91	34.589	
6,988.2	6,742.8	6,743.8	6,743.8	21.5	135.3	-46.81	-1,891.1	-4,334.8	3,941.7	3,822.0	119.79	32.907	
7,000.0	6,746.9	6,747.9	6,747.9	21.6	135.3	-48.16	-1,891.1	-4,334.8	3,931.4	3,809.8	121.59	32.333	
7,050.0	6,762.4	6,763.4	6,763.4	22.5	135.6	-54.55	-1,891.1	-4,334.8	3,887.0	3,756.4	130.57	29.769	
7,086.6	6,771.5	6,772.5	6,772.5	23.1	135.8	-59.96	-1,891.1	-4,334.8	3,854.0	3,715.9	138.07	27.912	

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 SCHAUMBERG 17G-314
<b>Project:</b>	WELD COUNTY, COLORADO	<b>TVD Reference:</b>	KB-EST @ 4633.0usft (Original Well Elev)
<b>Reference Site:</b>	SW NW SEC. 17 T5N R64W 6th P.M.	<b>MD Reference:</b>	KB-EST @ 4633.0usft (Original Well Elev)
<b>Site Error:</b>	0.0 usft	<b>North Reference:</b>	True
<b>Reference Well:</b>	SCHAUMBERG 17G-314	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Well Error:</b>	0.0 usft	<b>Output errors are at</b>	2.00 sigma
<b>Reference Wellbore</b>	ORIGINAL WELLBORE	<b>Database:</b>	EDM 5000.1 Single User Db
<b>Reference Design:</b>	PROPOSAL #1	<b>Offset TVD Reference:</b>	Offset Datum

<b>Offset Design</b> NW SW SEC. 17 T5N R64W 6th P.M. - EXIST VERT MASON #1 - Wellbore #1 - Design #1												<b>Offset Site Error:</b>	0.0 usft
Survey Program: 0-INC												<b>Offset Well Error:</b>	0.0 usft
Reference		Offset		Semi Major Axis			Distance						Warning
Measured Depth (usft)	Vertical Depth (usft)	Measured Depth (usft)	Vertical Depth (usft)	Reference (usft)	Offset (usft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (usft)	+E/-W (usft)	Between Centres (usft)	Between Ellipses (usft)	Minimum Separation (usft)	Separation Factor	
7,100.0	6,774.4	6,775.4	6,775.4	23.3	135.9	-62.10	-1,891.1	-4,334.8	3,841.8	3,700.9	140.88	27.271	
7,150.0	6,783.1	6,784.1	6,784.1	24.3	136.1	-70.75	-1,891.1	-4,334.8	3,796.0	3,645.2	150.80	25.172	
7,185.0	6,787.1	6,788.1	6,788.1	25.0	136.1	-77.34	-1,891.1	-4,334.8	3,763.7	3,607.3	156.41	24.064	
7,200.0	6,788.3	6,789.3	6,789.3	25.3	136.2	-80.24	-1,891.1	-4,334.8	3,749.8	3,591.6	158.26	23.695	
7,252.3	6,790.0	6,791.0	6,791.0	26.3	136.2	-90.53	-1,891.1	-4,334.8	3,701.4	3,539.8	161.56	22.911	
7,283.4	6,789.9	6,790.9	6,790.9	27.0	136.2	-90.52	-1,891.1	-4,334.8	3,672.6	3,510.3	162.25	22.636	
7,300.0	6,789.8	6,790.8	6,790.8	27.3	136.2	-90.52	-1,891.1	-4,334.8	3,657.3	3,494.7	162.61	22.491	
7,381.9	6,789.5	6,790.5	6,790.5	29.1	136.2	-90.51	-1,891.1	-4,334.8	3,581.8	3,417.3	164.49	21.775	
7,400.0	6,789.4	6,790.4	6,790.4	29.5	136.2	-90.51	-1,891.1	-4,334.8	3,565.1	3,400.2	164.90	21.619	
7,480.3	6,789.1	6,790.1	6,790.1	31.4	136.2	-90.49	-1,891.1	-4,334.8	3,491.4	3,324.6	166.81	20.930	
7,500.0	6,789.1	6,790.1	6,790.1	31.8	136.2	-90.49	-1,891.1	-4,334.8	3,473.4	3,306.1	167.28	20.764	
7,578.7	6,788.8	6,789.8	6,789.8	33.7	136.2	-90.48	-1,891.1	-4,334.8	3,401.5	3,232.3	169.20	20.103	
7,600.0	6,788.7	6,789.7	6,789.7	34.2	136.2	-90.48	-1,891.1	-4,334.8	3,382.1	3,212.4	169.72	19.927	
7,677.1	6,788.4	6,789.4	6,789.4	36.1	136.2	-90.46	-1,891.1	-4,334.8	3,312.1	3,140.4	171.65	19.296	
7,700.0	6,788.3	6,789.3	6,789.3	36.7	136.2	-90.46	-1,891.1	-4,334.8	3,291.4	3,119.2	172.22	19.112	
7,775.6	6,788.0	6,789.0	6,789.0	38.6	136.2	-90.45	-1,891.1	-4,334.8	3,223.2	3,049.0	174.13	18.510	
7,800.0	6,787.9	6,788.9	6,788.9	39.2	136.2	-90.45	-1,891.1	-4,334.8	3,201.2	3,026.4	174.75	18.318	
7,874.0	6,787.6	6,788.6	6,788.6	41.0	136.2	-90.44	-1,891.1	-4,334.8	3,134.8	2,958.2	176.66	17.745	
7,900.0	6,787.6	6,788.6	6,788.6	41.7	136.1	-90.43	-1,891.1	-4,334.8	3,111.6	2,934.3	177.33	17.547	
7,972.4	6,787.3	6,788.3	6,788.3	43.6	136.1	-90.42	-1,891.1	-4,334.8	3,047.1	2,867.9	179.21	17.003	
8,000.0	6,787.2	6,788.2	6,788.2	44.3	136.1	-90.42	-1,891.1	-4,334.8	3,022.6	2,842.7	179.93	16.799	
8,070.8	6,786.9	6,787.9	6,787.9	46.1	136.1	-90.41	-1,891.1	-4,334.8	2,960.0	2,778.2	181.79	16.283	
8,100.0	6,786.8	6,787.8	6,787.8	46.9	136.1	-90.40	-1,891.1	-4,334.8	2,934.4	2,751.8	182.55	16.074	
8,169.3	6,786.5	6,787.5	6,787.5	48.7	136.1	-90.39	-1,891.1	-4,334.8	2,873.7	2,689.3	184.38	15.586	
8,200.0	6,786.4	6,787.4	6,787.4	49.5	136.1	-90.39	-1,891.1	-4,334.8	2,846.9	2,661.7	185.19	15.373	
8,267.7	6,786.1	6,787.1	6,787.1	51.3	136.1	-90.38	-1,891.1	-4,334.8	2,788.2	2,601.2	187.00	14.910	
8,300.0	6,786.0	6,787.0	6,787.0	52.1	136.1	-90.37	-1,891.1	-4,334.8	2,760.3	2,572.5	187.86	14.694	
8,366.1	6,785.8	6,786.8	6,786.8	53.9	136.1	-90.36	-1,891.1	-4,334.8	2,703.6	2,513.9	189.62	14.257	
8,400.0	6,785.6	6,786.6	6,786.6	54.8	136.1	-90.36	-1,891.1	-4,334.8	2,674.6	2,484.1	190.53	14.038	
8,464.5	6,785.4	6,786.4	6,786.4	56.5	136.1	-90.35	-1,891.1	-4,334.8	2,619.9	2,427.6	192.27	13.626	
8,500.0	6,785.3	6,786.3	6,786.3	57.5	136.1	-90.34	-1,891.1	-4,334.8	2,590.0	2,396.8	193.22	13.404	
8,563.0	6,785.0	6,786.0	6,786.0	59.2	136.1	-90.33	-1,891.1	-4,334.8	2,537.3	2,342.3	194.92	13.017	
8,600.0	6,784.9	6,785.9	6,785.9	60.2	136.1	-90.33	-1,891.1	-4,334.8	2,506.5	2,310.6	195.92	12.794	
8,661.4	6,784.6	6,785.6	6,785.6	61.8	136.1	-90.32	-1,891.1	-4,334.8	2,455.8	2,258.2	197.58	12.429	
8,700.0	6,784.5	6,785.5	6,785.5	62.9	136.1	-90.31	-1,891.1	-4,334.8	2,424.2	2,225.6	198.62	12.205	
8,759.8	6,784.3	6,785.3	6,785.3	64.5	136.1	-90.30	-1,891.1	-4,334.8	2,375.6	2,175.4	200.25	11.863	
8,800.0	6,784.1	6,785.1	6,785.1	65.6	136.1	-90.30	-1,891.1	-4,334.8	2,343.3	2,142.0	201.34	11.639	
8,858.2	6,783.9	6,784.9	6,784.9	67.1	136.1	-90.29	-1,891.1	-4,334.8	2,296.9	2,094.0	202.92	11.319	
8,900.0	6,783.7	6,784.7	6,784.7	68.3	136.1	-90.28	-1,891.1	-4,334.8	2,263.9	2,059.9	204.06	11.094	
8,956.7	6,783.5	6,784.5	6,784.5	69.8	136.1	-90.27	-1,891.1	-4,334.8	2,219.7	2,014.1	205.61	10.796	
9,000.0	6,783.3	6,784.3	6,784.3	71.0	136.1	-90.27	-1,891.1	-4,334.8	2,186.3	1,979.5	206.79	10.572	
9,055.1	6,783.1	6,784.1	6,784.1	72.5	136.1	-90.26	-1,891.1	-4,334.8	2,144.3	1,936.0	208.30	10.294	
9,100.0	6,782.9	6,783.9	6,783.9	73.7	136.1	-90.25	-1,891.1	-4,334.8	2,110.5	1,901.0	209.52	10.073	
9,153.5	6,782.7	6,783.7	6,783.7	75.2	136.1	-90.24	-1,891.1	-4,334.8	2,070.8	1,859.8	210.99	9.814	
9,200.0	6,782.6	6,783.6	6,783.6	76.5	136.0	-90.23	-1,891.1	-4,334.8	2,036.8	1,824.5	212.26	9.595	
9,251.9	6,782.4	6,783.4	6,783.4	77.9	136.0	-90.23	-1,891.1	-4,334.8	1,999.4	1,785.7	213.69	9.357	
9,300.0	6,782.2	6,783.2	6,783.2	79.2	136.0	-90.22	-1,891.1	-4,334.8	1,965.4	1,750.4	215.01	9.141	
9,350.4	6,782.0	6,783.0	6,783.0	80.6	136.0	-90.21	-1,891.1	-4,334.8	1,930.4	1,714.0	216.39	8.921	
9,400.0	6,781.8	6,782.8	6,782.8	82.0	136.0	-90.20	-1,891.1	-4,334.8	1,896.6	1,678.9	217.76	8.710	
9,448.8	6,781.6	6,782.6	6,782.6	83.3	136.0	-90.20	-1,891.1	-4,334.8	1,864.1	1,645.0	219.10	8.508	
9,500.0	6,781.4	6,782.4	6,782.4	84.7	136.0	-90.19	-1,891.1	-4,334.8	1,830.7	1,610.2	220.51	8.302	
9,547.2	6,781.2	6,782.2	6,782.2	86.0	136.0	-90.18	-1,891.1	-4,334.8	1,800.7	1,578.9	221.81	8.118	

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 SCHAUMBERG 17G-314
<b>Project:</b>	WELD COUNTY, COLORADO	<b>TVD Reference:</b>	KB-EST @ 4633.0usft (Original Well Elev)
<b>Reference Site:</b>	SW NW SEC. 17 T5N R64W 6th P.M.	<b>MD Reference:</b>	KB-EST @ 4633.0usft (Original Well Elev)
<b>Site Error:</b>	0.0 usft	<b>North Reference:</b>	True
<b>Reference Well:</b>	SCHAUMBERG 17G-314	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Well Error:</b>	0.0 usft	<b>Output errors are at</b>	2.00 sigma
<b>Reference Wellbore</b>	ORIGINAL WELLBORE	<b>Database:</b>	EDM 5000.1 Single User Db
<b>Reference Design:</b>	PROPOSAL #1	<b>Offset TVD Reference:</b>	Offset Datum

Offset Design NW SW SEC. 17 T5N R64W 6th P.M. - EXIST VERT MASON #1 - Wellbore #1 - Design #1												Offset Site Error:	0.0 usft
Survey Program: 0-INC												Offset Well Error:	0.0 usft
Reference		Offset		Semi Major Axis			Distance						Warning
Measured Depth (usft)	Vertical Depth (usft)	Measured Depth (usft)	Vertical Depth (usft)	Reference (usft)	Offset (usft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (usft)	+E/-W (usft)	Between Centres (usft)	Between Ellipses (usft)	Minimum Separation (usft)	Separation Factor	
9,600.0	6,781.0	6,782.0	6,782.0	87.5	136.0	-90.17	-1,891.1	-4,334.8	1,768.0	1,544.7	223.26	7.919	
9,645.6	6,780.8	6,781.8	6,781.8	88.7	136.0	-90.16	-1,891.1	-4,334.8	1,740.5	1,516.0	224.52	7.752	
9,700.0	6,780.6	6,781.6	6,781.6	90.2	136.0	-90.16	-1,891.1	-4,334.8	1,708.9	1,482.8	226.02	7.561	
9,744.1	6,780.4	6,781.4	6,781.4	91.4	136.0	-90.15	-1,891.1	-4,334.8	1,684.0	1,456.8	227.24	7.411	
9,800.0	6,780.2	6,781.2	6,781.2	93.0	136.0	-90.14	-1,891.1	-4,334.8	1,653.6	1,424.9	228.78	7.228	
9,842.5	6,780.1	6,781.1	6,781.1	94.2	136.0	-90.13	-1,891.1	-4,334.8	1,631.5	1,401.5	229.96	7.095	
9,900.0	6,779.8	6,780.8	6,780.8	95.7	136.0	-90.12	-1,891.1	-4,334.8	1,602.8	1,371.2	231.54	6.922	
9,940.9	6,779.7	6,780.7	6,780.7	96.9	136.0	-90.12	-1,891.1	-4,334.8	1,583.3	1,350.6	232.68	6.805	
10,000.0	6,779.4	6,780.4	6,780.4	98.5	136.0	-90.11	-1,891.1	-4,334.8	1,556.7	1,322.4	234.31	6.644	
10,039.3	6,779.3	6,780.3	6,780.3	99.6	136.0	-90.10	-1,891.1	-4,334.8	1,539.9	1,304.5	235.40	6.542	
10,100.0	6,779.0	6,780.0	6,780.0	101.3	136.0	-90.09	-1,891.1	-4,334.8	1,515.8	1,278.7	237.08	6.394	
10,137.8	6,778.9	6,779.9	6,779.9	102.3	136.0	-90.09	-1,891.1	-4,334.8	1,501.8	1,263.6	238.12	6.307	
10,200.0	6,778.7	6,779.7	6,779.7	104.1	136.0	-90.08	-1,891.1	-4,334.8	1,480.5	1,240.7	239.85	6.173	
10,236.2	6,778.5	6,779.5	6,779.5	105.1	136.0	-90.07	-1,891.1	-4,334.8	1,469.2	1,228.4	240.85	6.100	
10,300.0	6,778.3	6,779.3	6,779.3	106.8	136.0	-90.06	-1,891.1	-4,334.8	1,451.3	1,208.7	242.62	5.982	
10,334.6	6,778.1	6,779.1	6,779.1	107.8	136.0	-90.06	-1,891.1	-4,334.8	1,442.7	1,199.1	243.58	5.923	
10,400.0	6,777.9	6,778.9	6,778.9	109.6	136.0	-90.04	-1,891.1	-4,334.8	1,428.5	1,183.1	245.39	5.821	
10,433.0	6,777.7	6,778.7	6,778.7	110.5	136.0	-90.04	-1,891.1	-4,334.8	1,422.4	1,176.1	246.31	5.775	
10,500.0	6,777.5	6,778.5	6,778.5	112.4	135.9	-90.03	-1,891.1	-4,334.8	1,412.4	1,164.3	248.16	5.692	
10,531.5	6,777.3	6,778.3	6,778.3	113.3	135.9	-90.02	-1,891.1	-4,334.8	1,408.8	1,159.8	249.04	5.657	
10,600.0	6,777.1	6,778.1	6,778.1	115.2	135.9	-90.01	-1,891.1	-4,334.8	1,403.3	1,152.4	250.94	5.592	
10,629.9	6,777.0	6,778.0	6,778.0	116.0	135.9	-90.01	-1,891.1	-4,334.8	1,402.0	1,150.2	251.77	5.568	
10,678.3	6,776.8	6,777.8	6,777.8	117.3	135.9	-90.00	-1,891.1	-4,334.8	1,401.1	1,148.0	253.11	5.536 CC	
10,700.0	6,776.7	6,777.7	6,777.7	117.9	135.9	-90.00	-1,891.1	-4,334.8	1,401.3	1,147.6	253.72	5.523	
10,728.3	6,776.6	6,777.6	6,777.6	118.7	135.9	-89.99	-1,891.1	-4,334.8	1,402.0	1,147.5	254.50	5.509 ES	
10,800.0	6,776.3	6,777.3	6,777.3	120.7	135.9	-89.98	-1,891.1	-4,334.8	1,406.4	1,149.9	256.49	5.483	
10,826.7	6,776.2	6,777.2	6,777.2	121.5	135.9	-89.98	-1,891.1	-4,334.8	1,409.0	1,151.7	257.24	5.477	
10,900.0	6,775.9	6,776.9	6,776.9	123.5	135.9	-89.96	-1,891.1	-4,334.8	1,418.6	1,159.3	259.27	5.471 SF	
10,925.2	6,775.8	6,776.8	6,776.8	124.2	135.9	-89.96	-1,891.1	-4,334.8	1,422.7	1,162.7	259.97	5.473	
11,000.0	6,775.5	6,776.5	6,776.5	126.3	135.9	-89.95	-1,891.1	-4,334.8	1,437.6	1,175.5	262.05	5.486	
11,023.6	6,775.4	6,776.4	6,776.4	126.9	135.9	-89.94	-1,891.1	-4,334.8	1,443.1	1,180.3	262.71	5.493	
11,100.0	6,775.1	6,776.1	6,776.1	129.1	135.9	-89.93	-1,891.1	-4,334.8	1,463.2	1,198.4	264.83	5.525	
11,122.0	6,775.0	6,776.0	6,776.0	129.7	135.9	-89.93	-1,891.1	-4,334.8	1,469.7	1,204.3	265.45	5.537	
11,200.0	6,774.7	6,775.7	6,775.7	131.9	135.9	-89.91	-1,891.1	-4,334.8	1,495.1	1,227.5	267.61	5.587	
11,220.4	6,774.6	6,775.6	6,775.6	132.4	135.9	-89.91	-1,891.1	-4,334.8	1,502.4	1,234.2	268.18	5.602	
11,300.0	6,774.3	6,775.3	6,775.3	134.6	135.9	-89.90	-1,891.1	-4,334.8	1,532.9	1,262.5	270.40	5.669	
11,318.9	6,774.2	6,775.2	6,775.2	135.2	135.9	-89.90	-1,891.1	-4,334.8	1,540.6	1,269.7	270.92	5.687	
11,400.0	6,773.9	6,774.9	6,774.9	137.4	135.9	-89.88	-1,891.1	-4,334.8	1,576.1	1,302.9	273.18	5.769	
11,417.3	6,773.8	6,774.8	6,774.8	137.9	135.9	-89.88	-1,891.1	-4,334.8	1,584.1	1,310.4	273.66	5.788	
11,500.0	6,773.5	6,774.5	6,774.5	140.2	135.9	-89.87	-1,891.1	-4,334.8	1,624.3	1,348.3	275.96	5.886	
11,515.7	6,773.4	6,774.4	6,774.4	140.7	135.9	-89.86	-1,891.1	-4,334.8	1,632.3	1,355.9	276.40	5.906	
11,600.0	6,773.1	6,774.1	6,774.1	143.0	135.9	-89.85	-1,891.1	-4,334.8	1,677.1	1,398.4	278.75	6.017	
11,614.1	6,773.0	6,774.0	6,774.0	143.4	135.9	-89.85	-1,891.1	-4,334.8	1,684.9	1,405.8	279.14	6.036	
11,700.0	6,772.7	6,773.7	6,773.7	145.8	135.9	-89.83	-1,891.1	-4,334.8	1,734.1	1,452.5	281.53	6.159	
11,712.6	6,772.6	6,773.6	6,773.6	146.2	135.8	-89.83	-1,891.1	-4,334.8	1,741.5	1,459.6	281.89	6.178	
11,800.0	6,772.3	6,773.3	6,773.3	148.6	135.8	-89.82	-1,891.1	-4,334.8	1,794.8	1,510.5	284.32	6.313	
11,811.0	6,772.2	6,773.2	6,773.2	148.9	135.8	-89.81	-1,891.1	-4,334.8	1,801.7	1,517.1	284.63	6.330	
11,900.0	6,771.9	6,772.9	6,772.9	151.4	135.8	-89.80	-1,891.1	-4,334.8	1,859.0	1,571.8	287.11	6.475	
11,909.4	6,771.8	6,772.8	6,772.8	151.7	135.8	-89.80	-1,891.1	-4,334.8	1,865.2	1,577.8	287.37	6.490	
12,000.0	6,771.5	6,772.5	6,772.5	154.2	135.8	-89.78	-1,891.1	-4,334.8	1,926.2	1,636.3	289.89	6.644	
12,007.8	6,771.4	6,772.4	6,772.4	154.4	135.8	-89.78	-1,891.1	-4,334.8	1,931.5	1,641.4	290.11	6.658	
12,100.0	6,771.1	6,772.1	6,772.1	157.0	135.8	-89.76	-1,891.1	-4,334.8	1,996.1	1,703.4	292.68	6.820	

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 SCHAUMBERG 17G-314
<b>Project:</b>	WELD COUNTY, COLORADO	<b>TVD Reference:</b>	KB-EST @ 4633.0usft (Original Well Elev)
<b>Reference Site:</b>	SW NW SEC. 17 T5N R64W 6th P.M.	<b>MD Reference:</b>	KB-EST @ 4633.0usft (Original Well Elev)
<b>Site Error:</b>	0.0 usft	<b>North Reference:</b>	True
<b>Reference Well:</b>	SCHAUMBERG 17G-314	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Well Error:</b>	0.0 usft	<b>Output errors are at</b>	2.00 sigma
<b>Reference Wellbore</b>	ORIGINAL WELLBORE	<b>Database:</b>	EDM 5000.1 Single User Db
<b>Reference Design:</b>	PROPOSAL #1	<b>Offset TVD Reference:</b>	Offset Datum

<b>Offset Design</b> NW SW SEC. 17 T5N R64W 6th P.M. - EXIST VERT MASON #1 - Wellbore #1 - Design #1												<b>Offset Site Error:</b>	0.0 usft
Survey Program: 0-INC												<b>Offset Well Error:</b>	0.0 usft
Reference	Offset	Semi Major Axis		Distance									
Measured Depth (usft)	Vertical Depth (usft)	Measured Depth (usft)	Vertical Depth (usft)	Reference (usft)	Offset (usft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (usft)	+E/-W (usft)	Between Centres (usft)	Between Ellipses (usft)	Minimum Separation (usft)	Separation Factor	Warning
12,106.3	6,771.0	6,772.0	6,772.0	157.2	135.8	-89.76	-1,891.1	-4,334.8	2,000.6	1,707.7	292.86	6.831	
12,200.0	6,770.7	6,771.7	6,771.7	159.8	135.8	-89.75	-1,891.1	-4,334.8	2,068.5	1,773.0	295.47	7.001	
12,204.7	6,770.6	6,771.6	6,771.6	159.9	135.8	-89.75	-1,891.1	-4,334.8	2,072.0	1,776.4	295.60	7.009	
12,300.0	6,770.3	6,771.3	6,771.3	162.6	135.8	-89.73	-1,891.1	-4,334.8	2,143.1	1,844.9	298.26	7.186	
12,303.1	6,770.2	6,771.2	6,771.2	162.7	135.8	-89.73	-1,891.1	-4,334.8	2,145.5	1,847.2	298.35	7.191	
12,361.7	6,770.0	6,771.0	6,771.0	164.3	135.8	-89.72	-1,891.1	-4,334.8	2,190.2	1,890.2	299.98	7.301	



# Anticollision Report



<b>Company:</b>	PDC ENERGY	<b>Local Co-ordinate Reference:</b>	Well SCHAUMBERG 17G-314
<b>Project:</b>	WELD COUNTY, COLORADO	<b>TVD Reference:</b>	KB-EST @ 4633.0usft (Original Well Elev)
<b>Reference Site:</b>	SW NW SEC. 17 T5N R64W 6th P.M.	<b>MD Reference:</b>	KB-EST @ 4633.0usft (Original Well Elev)
<b>Site Error:</b>	0.0 usft	<b>North Reference:</b>	True
<b>Reference Well:</b>	SCHAUMBERG 17G-314	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Well Error:</b>	0.0 usft	<b>Output errors are at</b>	2.00 sigma
<b>Reference Wellbore</b>	ORIGINAL WELLBORE	<b>Database:</b>	EDM 5000.1 Single User Db
<b>Reference Design:</b>	PROPOSAL #1	<b>Offset TVD Reference:</b>	Offset Datum

<b>Offset Design</b> NW SW SEC. 17 T5N R64W 6th P.M. - EXIST VERT MILLER #1 - 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	-173.13	-3,035.4	-365.7	3,057.4				
98.4	98.4	83.5	83.5	0.1	0.1	-173.13	-3,035.6	-366.0	3,057.6	3,057.4	0.18	N/A	
100.0	100.0	84.8	84.8	0.1	0.1	-173.13	-3,035.6	-366.0	3,057.6	3,057.5	0.18	N/A	
196.8	196.8	181.9	181.9	0.3	0.2	-173.11	-3,036.0	-366.7	3,058.2	3,057.6	0.52	5,875.119	
200.0	200.0	185.2	185.2	0.3	0.2	-173.11	-3,036.1	-366.8	3,058.2	3,057.6	0.53	5,748.316	
295.3	295.3	284.8	284.8	0.5	0.3	-173.09	-3,036.4	-367.7	3,058.6	3,057.7	0.83	3,666.339	
300.0	300.0	289.7	289.7	0.5	0.3	-173.09	-3,036.4	-367.8	3,058.6	3,057.7	0.85	3,603.322	
393.7	393.7	376.7	376.7	0.8	0.4	-173.08	-3,036.6	-368.7	3,059.0	3,057.9	1.12	2,740.218	
400.0	400.0	382.5	382.5	0.8	0.4	-173.08	-3,036.7	-368.8	3,059.0	3,057.9	1.13	2,697.212	
492.1	492.1	484.9	484.9	1.0	0.4	-173.06	-3,037.0	-369.8	3,059.4	3,058.0	1.40	2,188.248	
500.0	500.0	494.1	494.1	1.0	0.4	-173.06	-3,037.0	-369.8	3,059.5	3,058.0	1.42	2,153.385	
590.5	590.5	583.7	583.6	1.2	0.5	-173.05	-3,037.1	-370.3	3,059.6	3,058.0	1.67	1,834.741	
600.0	600.0	592.9	592.9	1.2	0.5	-173.05	-3,037.2	-370.4	3,059.7	3,058.0	1.69	1,806.933	
689.0	689.0	681.2	681.2	1.4	0.5	-173.04	-3,037.3	-370.7	3,059.9	3,057.9	1.93	1,583.639	
700.0	700.0	692.1	692.1	1.4	0.6	-173.04	-3,037.4	-370.7	3,059.9	3,057.9	1.96	1,559.788	
787.4	787.4	784.5	784.5	1.6	0.6	-173.03	-3,037.5	-371.1	3,060.1	3,057.9	2.19	1,395.621	
800.0	800.0	797.9	797.9	1.7	0.6	-173.03	-3,037.5	-371.2	3,060.1	3,057.9	2.23	1,374.790	
885.8	885.8	881.0	881.0	1.9	0.6	-173.03	-3,037.5	-371.6	3,060.2	3,057.7	2.45	1,249.274	
900.0	900.0	894.7	894.6	1.9	0.6	-173.03	-3,037.5	-371.6	3,060.2	3,057.7	2.49	1,230.726	
984.2	984.2	977.1	977.1	2.1	0.7	-173.02	-3,037.7	-371.9	3,060.4	3,057.7	2.71	1,131.276	
1,000.0	1,000.0	992.5	992.5	2.1	0.7	-173.02	-3,037.7	-372.0	3,060.4	3,057.7	2.75	1,114.451	
1,082.7	1,082.7	1,083.2	1,083.2	2.3	0.7	-173.01	-3,037.8	-372.2	3,060.5	3,057.6	2.96	1,035.494	
1,100.0	1,100.0	1,102.1	1,102.1	2.3	0.7	-173.01	-3,037.8	-372.2	3,060.5	3,057.5	3.00	1,020.357	
1,170.5	1,170.5	1,170.5	1,170.5	2.5	0.8	-173.01	-3,037.7	-372.4	3,060.5	3,057.3	3.18	962.694	
1,181.1	1,181.1	1,180.8	1,180.8	2.5	0.8	-173.01	-3,037.7	-372.5	3,060.5	3,057.3	3.21	954.548	
1,200.0	1,200.0	1,200.0	1,200.0	2.6	0.8	-173.01	-3,037.7	-372.5	3,060.5	3,057.2	3.25	940.341	
1,279.5	1,279.5	1,277.9	1,277.8	2.7	0.8	-173.00	-3,037.7	-372.7	3,060.5	3,057.1	3.45	885.887	
1,300.0	1,300.0	1,298.1	1,298.1	2.8	0.8	-173.00	-3,037.7	-372.8	3,060.5	3,057.0	3.51	872.860	
1,377.9	1,377.9	1,383.4	1,383.4	3.0	0.8	-173.01	-3,037.7	-372.7	3,060.5	3,056.8	3.68	831.182	
1,400.0	1,400.0	1,406.8	1,406.8	3.0	0.8	-173.01	-3,037.7	-372.6	3,060.4	3,056.7	3.73	819.684	
1,476.4	1,476.4	1,481.7	1,481.7	3.2	0.8	-173.01	-3,037.5	-372.5	3,060.3	3,056.4	3.93	779.205	
1,500.0	1,500.0	1,504.8	1,504.8	3.2	0.8	-173.01	-3,037.5	-372.5	3,060.3	3,056.3	3.99	767.543	
1,574.8	1,574.8	1,577.3	1,577.3	3.4	0.8	-173.01	-3,037.4	-372.3	3,060.2	3,056.0	4.17	733.328	
1,600.0	1,600.0	1,600.0	1,600.0	3.5	0.8	-173.01	-3,037.4	-372.3	3,060.2	3,055.9	4.24	722.558	
1,604.9	1,604.9	1,606.2	1,606.2	3.5	0.8	-173.01	-3,037.4	-372.2	3,060.1	3,055.9	4.25	720.413	
1,624.4	1,624.4	1,624.5	1,624.4	3.5	0.8	-173.01	-3,037.4	-372.2	3,060.1	3,055.8	4.30	712.254	
1,673.2	1,673.2	1,670.1	1,670.0	3.6	0.8	-173.02	-3,037.5	-372.0	3,060.2	3,055.8	4.42	692.687	
1,700.0	1,700.0	1,695.1	1,695.1	3.7	0.8	-173.02	-3,037.5	-371.9	3,060.2	3,055.7	4.48	682.402	
1,771.6	1,771.6	1,768.1	1,768.0	3.9	0.9	-173.02	-3,037.7	-371.7	3,060.3	3,055.6	4.67	655.914	
1,800.0	1,800.0	1,797.1	1,797.1	3.9	0.9	-173.02	-3,037.7	-371.7	3,060.3	3,055.6	4.74	645.978	
1,870.1	1,870.1	1,864.4	1,864.3	4.1	0.9	-14.23	-3,037.8	-371.6	3,059.6	3,054.7	4.90	624.272	
1,900.0	1,900.0	1,893.0	1,893.0	4.1	0.9	-14.24	-3,037.8	-371.6	3,058.8	3,053.8	4.97	615.852	
1,968.5	1,968.4	1,958.8	1,958.8	4.2	0.9	-14.26	-3,038.0	-371.7	3,055.9	3,050.8	5.11	598.188	
2,000.0	1,999.8	1,989.1	1,989.1	4.3	0.9	-14.28	-3,038.1	-371.7	3,054.0	3,048.9	5.17	590.264	
2,066.9	2,066.5	2,058.0	2,058.0	4.4	0.9	-14.33	-3,038.3	-371.8	3,049.0	3,043.7	5.32	573.560	
2,100.0	2,099.5	2,092.5	2,092.4	4.5	0.9	-14.36	-3,038.4	-371.9	3,045.9	3,040.5	5.39	565.553	
2,165.3	2,164.4	2,158.2	2,158.1	4.6	1.0	-14.43	-3,038.5	-372.2	3,038.7	3,033.2	5.53	549.536	
2,200.0	2,198.7	2,192.8	2,192.8	4.7	1.0	-14.47	-3,038.6	-372.4	3,034.3	3,028.7	5.61	541.291	
2,263.8	2,261.8	2,254.9	2,254.8	4.8	1.0	-14.55	-3,038.6	-372.8	3,025.1	3,019.4	5.75	526.119	
2,300.0	2,297.5	2,289.9	2,289.9	4.9	1.0	-14.60	-3,038.7	-373.1	3,019.3	3,013.5	5.83	517.774	
2,362.2	2,358.6	2,348.4	2,348.3	5.0	1.0	-14.70	-3,038.8	-373.6	3,008.4	3,002.4	5.98	503.366	
2,400.0	2,395.6	2,383.6	2,383.5	5.1	1.0	-14.77	-3,038.9	-373.9	3,001.2	2,995.1	6.06	494.911	

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 SCHAUMBERG 17G-314
<b>Project:</b>	WELD COUNTY, COLORADO	<b>TVD Reference:</b>	KB-EST @ 4633.0usft (Original Well Elev)
<b>Reference Site:</b>	SW NW SEC. 17 T5N R64W 6th P.M.	<b>MD Reference:</b>	KB-EST @ 4633.0usft (Original Well Elev)
<b>Site Error:</b>	0.0 usft	<b>North Reference:</b>	True
<b>Reference Well:</b>	SCHAUMBERG 17G-314	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Well Error:</b>	0.0 usft	<b>Output errors are at</b>	2.00 sigma
<b>Reference Wellbore</b>	ORIGINAL WELLBORE	<b>Database:</b>	EDM 5000.1 Single User Db
<b>Reference Design:</b>	PROPOSAL #1	<b>Offset TVD Reference:</b>	Offset Datum

<b>Offset Design</b> NW SW SEC. 17 T5N R64W 6th P.M. - EXIST VERT MILLER #1 - 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
2,460.6	2,454.9	2,442.4	2,442.4	5.3	1.1	-14.82	-3,039.1	-374.5	2,989.2	2,983.0	6.21	481.685	
2,500.0	2,493.4	2,481.3	2,481.2	5.4	1.1	-14.85	-3,039.2	-374.8	2,981.5	2,975.2	6.30	473.443	
2,559.0	2,551.2	2,537.8	2,537.8	5.6	1.1	-14.90	-3,039.4	-375.3	2,969.8	2,963.4	6.44	461.110	
2,600.0	2,591.3	2,576.5	2,576.5	5.7	1.1	-14.94	-3,039.5	-375.6	2,961.8	2,955.2	6.54	453.034	
2,657.5	2,647.5	2,632.6	2,632.6	5.9	1.1	-14.99	-3,039.8	-376.1	2,950.5	2,943.8	6.68	441.869	
2,700.0	2,689.1	2,675.2	2,675.1	6.0	1.1	-15.03	-3,039.9	-376.4	2,942.2	2,935.4	6.79	433.585	
2,755.9	2,743.7	2,728.9	2,728.8	6.2	1.2	-15.08	-3,040.2	-376.9	2,931.2	2,924.3	6.93	423.172	
2,800.0	2,786.9	2,769.8	2,769.8	6.4	1.2	-15.11	-3,040.3	-377.3	2,922.6	2,915.5	7.04	415.251	
2,854.3	2,840.0	2,819.7	2,819.7	6.6	1.2	-15.16	-3,040.6	-377.9	2,912.0	2,904.8	7.18	405.731	
2,900.0	2,884.7	2,861.0	2,860.9	6.7	1.2	-15.19	-3,040.8	-378.3	2,903.1	2,895.9	7.29	398.026	
2,952.7	2,936.3	2,909.1	2,909.0	6.9	1.2	-15.24	-3,041.2	-378.9	2,893.0	2,885.6	7.43	389.315	
3,000.0	2,982.5	2,953.6	2,953.6	7.1	1.2	-15.28	-3,041.6	-379.5	2,884.0	2,876.4	7.55	381.733	
3,051.2	3,032.6	3,000.0	2,999.9	7.3	1.3	-15.32	-3,042.0	-380.0	2,874.2	2,866.5	7.69	373.733	
3,100.0	3,080.3	3,046.5	3,046.4	7.5	1.3	-15.36	-3,042.5	-380.5	2,864.9	2,857.1	7.82	366.305	
3,149.6	3,128.8	3,091.8	3,091.7	7.7	1.3	-15.40	-3,043.0	-381.0	2,855.6	2,847.6	7.96	358.963	
3,200.0	3,178.1	3,137.7	3,137.7	7.9	1.3	-15.44	-3,043.6	-381.5	2,846.1	2,838.1	8.09	351.751	
3,248.0	3,225.1	3,181.5	3,181.4	8.1	1.3	-15.49	-3,044.2	-382.0	2,837.2	2,829.0	8.22	345.044	
3,300.0	3,276.0	3,230.6	3,230.4	8.3	1.3	-15.53	-3,044.9	-382.6	2,827.6	2,819.2	8.37	337.993	
3,346.4	3,321.4	3,275.4	3,275.3	8.5	1.3	-15.57	-3,045.6	-383.2	2,819.0	2,810.5	8.50	331.824	
3,400.0	3,373.8	3,324.1	3,324.0	8.7	1.4	-15.62	-3,046.3	-383.8	2,809.2	2,800.5	8.64	324.975	
3,444.9	3,417.7	3,362.7	3,362.6	8.8	1.4	-15.65	-3,047.0	-384.3	2,801.0	2,792.2	8.77	319.411	
3,500.0	3,471.6	3,409.9	3,409.8	9.1	1.4	-15.70	-3,047.9	-385.0	2,791.1	2,782.1	8.92	312.806	
3,543.3	3,513.9	3,446.4	3,446.2	9.2	1.4	-15.73	-3,048.7	-385.6	2,783.4	2,774.3	9.04	307.768	
3,600.0	3,569.4	3,500.0	3,499.8	9.5	1.4	-15.78	-3,050.0	-386.5	2,773.5	2,764.3	9.20	301.335	
3,641.7	3,610.2	3,531.1	3,530.9	9.7	1.4	-15.80	-3,050.9	-387.0	2,766.2	2,756.9	9.32	296.780	
3,700.0	3,667.2	3,583.3	3,583.1	9.9	1.4	-15.85	-3,052.3	-387.8	2,756.3	2,746.8	9.49	290.538	
3,740.1	3,706.5	3,620.4	3,620.2	10.1	1.5	-15.89	-3,053.4	-388.4	2,749.4	2,739.8	9.60	286.320	
3,800.0	3,765.0	3,677.4	3,677.1	10.3	1.5	-15.94	-3,055.2	-389.2	2,739.3	2,729.6	9.78	280.190	
3,838.6	3,802.8	3,716.2	3,715.9	10.5	1.5	-15.98	-3,056.4	-389.7	2,732.8	2,722.9	9.89	276.303	
3,900.0	3,862.8	3,783.5	3,783.2	10.7	1.5	-16.05	-3,058.4	-390.6	2,722.4	2,712.3	10.08	270.206	
3,937.0	3,899.0	3,824.6	3,824.2	10.9	1.5	-16.09	-3,059.5	-391.1	2,716.0	2,705.8	10.19	266.598	
4,000.0	3,960.7	3,895.2	3,894.8	11.2	1.5	-16.16	-3,061.2	-392.1	2,705.0	2,694.6	10.38	260.600	
4,035.4	3,995.3	3,937.7	3,937.3	11.3	1.6	-16.20	-3,062.1	-392.7	2,698.7	2,688.2	10.49	257.284	
4,100.0	4,058.5	4,016.5	4,016.0	11.6	1.6	-16.27	-3,063.5	-394.2	2,687.0	2,676.3	10.69	251.387	
4,133.8	4,091.6	4,059.6	4,059.1	11.7	1.6	-16.31	-3,064.0	-395.1	2,680.7	2,669.9	10.79	248.354	
4,200.0	4,156.3	4,141.4	4,140.9	12.0	1.6	-16.37	-3,064.6	-397.0	2,668.1	2,657.1	11.00	242.614	
4,232.3	4,187.9	4,180.2	4,179.7	12.2	1.6	-16.40	-3,064.7	-397.9	2,661.8	2,650.7	11.10	239.891	
4,300.0	4,254.1	4,254.7	4,254.2	12.5	1.7	-16.46	-3,064.6	-399.8	2,648.3	2,637.0	11.30	234.399	
4,325.7	4,279.2	4,282.1	4,281.6	12.6	1.7	-16.48	-3,064.5	-400.6	2,643.2	2,631.8	11.37	232.372	
4,330.7	4,284.1	4,287.5	4,286.9	12.6	1.7	-16.47	-3,064.5	-400.7	2,642.2	2,630.8	11.39	232.024	
4,400.0	4,352.1	4,363.6	4,363.0	12.8	1.7	-16.44	-3,064.1	-402.9	2,629.1	2,617.5	11.56	227.426	
4,429.1	4,380.8	4,395.8	4,395.3	12.9	1.7	-16.43	-3,063.9	-403.7	2,624.0	2,612.3	11.63	225.692	
4,500.0	4,450.7	4,473.0	4,472.4	13.1	1.7	-16.40	-3,063.1	-405.8	2,612.6	2,600.8	11.78	221.707	
4,527.5	4,478.0	4,503.5	4,502.8	13.2	1.7	-16.38	-3,062.8	-406.7	2,608.5	2,596.7	11.84	220.284	
4,600.0	4,549.9	4,595.5	4,594.9	13.4	1.7	-16.35	-3,061.4	-408.9	2,598.8	2,586.8	11.99	216.715	
4,626.0	4,575.7	4,622.3	4,621.7	13.5	1.7	-16.33	-3,060.8	-409.4	2,595.6	2,583.6	12.04	215.565	
4,700.0	4,649.4	4,696.0	4,695.3	13.6	1.8	-16.30	-3,059.4	-410.9	2,587.8	2,575.6	12.18	212.472	
4,724.4	4,673.7	4,718.1	4,717.5	13.7	1.8	-16.28	-3,059.0	-411.3	2,585.7	2,573.4	12.22	211.561	
4,800.0	4,749.2	4,785.6	4,784.9	13.8	1.8	-16.25	-3,057.9	-412.4	2,580.4	2,568.0	12.35	208.895	
4,822.8	4,772.0	4,806.4	4,805.6	13.9	1.8	-16.24	-3,057.6	-412.6	2,579.2	2,566.8	12.39	208.172	
4,900.0	4,849.2	4,879.2	4,878.5	14.0	1.8	-16.22	-3,056.6	-413.4	2,576.6	2,564.1	12.52	205.856	
4,921.2	4,870.4	4,900.0	4,899.3	14.1	1.8	-16.22	-3,056.3	-413.5	2,576.2	2,563.7	12.55	205.271	

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 SCHAUMBERG 17G-314
<b>Project:</b>	WELD COUNTY, COLORADO	<b>TVD Reference:</b>	KB-EST @ 4633.0usft (Original Well Elev)
<b>Reference Site:</b>	SW NW SEC. 17 T5N R64W 6th P.M.	<b>MD Reference:</b>	KB-EST @ 4633.0usft (Original Well Elev)
<b>Site Error:</b>	0.0 usft	<b>North Reference:</b>	True
<b>Reference Well:</b>	SCHAUMBERG 17G-314	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Well Error:</b>	0.0 usft	<b>Output errors are at</b>	2.00 sigma
<b>Reference Wellbore</b>	ORIGINAL WELLBORE	<b>Database:</b>	EDM 5000.1 Single User Db
<b>Reference Design:</b>	PROPOSAL #1	<b>Offset TVD Reference:</b>	Offset Datum

<b>Offset Design</b> NW SW SEC. 17 T5N R64W 6th P.M. - EXIST VERT MILLER #1 - 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
4,925.6	4,874.8	4,900.0	4,899.3	14.1	1.8	-175.02	-3,056.3	-413.5	2,576.2	2,560.7	15.53	165.905	
5,000.0	4,949.2	4,972.4	4,971.7	14.2	1.8	-175.01	-3,055.6	-414.1	2,575.5	2,559.8	15.66	164.449	
5,019.7	4,968.8	4,990.7	4,989.9	14.2	1.8	-175.00	-3,055.4	-414.3	2,575.3	2,559.6	15.70	164.077	
5,100.0	5,049.2	5,064.9	5,064.2	14.3	1.8	-174.99	-3,054.8	-414.8	2,574.7	2,558.9	15.84	162.580	
5,118.1	5,067.3	5,081.6	5,080.9	14.3	1.8	-174.99	-3,054.7	-414.9	2,574.6	2,558.8	15.87	162.245	
5,200.0	5,149.2	5,164.3	5,163.6	14.5	1.8	-174.98	-3,054.3	-415.4	2,574.2	2,558.2	16.02	160.729	
5,216.5	5,165.7	5,181.5	5,180.7	14.5	1.8	-174.97	-3,054.2	-415.5	2,574.1	2,558.1	16.05	160.422	
5,300.0	5,249.2	5,266.6	5,265.9	14.6	1.9	-174.96	-3,053.6	-415.9	2,573.6	2,557.4	16.20	158.895	
5,314.9	5,264.1	5,281.8	5,281.0	14.6	1.9	-174.96	-3,053.5	-416.0	2,573.5	2,557.3	16.22	158.622	
5,400.0	5,349.2	5,365.4	5,364.7	14.8	1.9	-174.95	-3,052.9	-416.6	2,573.0	2,556.6	16.38	157.085	
5,413.4	5,362.5	5,378.5	5,377.7	14.8	1.9	-174.95	-3,052.8	-416.7	2,572.9	2,556.5	16.40	156.844	
5,500.0	5,449.2	5,464.6	5,463.8	14.9	1.9	-174.92	-3,051.8	-417.6	2,572.1	2,555.6	16.57	155.237	
5,511.8	5,461.0	5,500.0	5,499.3	14.9	1.9	-174.92	-3,051.6	-417.8	2,572.0	2,555.4	16.59	155.012	
5,600.0	5,549.2	5,597.6	5,596.8	15.1	1.9	-174.89	-3,049.8	-418.7	2,570.5	2,553.7	16.76	153.409	
5,610.2	5,559.4	5,608.2	5,607.4	15.1	1.9	-174.89	-3,049.6	-418.8	2,570.3	2,553.5	16.77	153.226	
5,700.0	5,649.2	5,698.9	5,698.1	15.2	1.9	-174.87	-3,047.9	-419.5	2,568.6	2,551.7	16.94	151.643	
5,708.6	5,657.8	5,707.3	5,706.5	15.3	1.9	-174.87	-3,047.7	-419.6	2,568.4	2,551.5	16.95	151.493	
5,800.0	5,749.2	5,795.7	5,794.9	15.4	2.0	-174.86	-3,046.0	-420.1	2,566.8	2,549.6	17.12	149.926	
5,807.1	5,756.2	5,802.7	5,801.9	15.4	2.0	-174.85	-3,045.9	-420.1	2,566.6	2,549.5	17.13	149.805	
5,900.0	5,849.2	5,897.0	5,896.2	15.6	2.0	-174.85	-3,044.1	-420.4	2,565.0	2,547.7	17.30	148.252	
5,905.5	5,854.7	5,902.5	5,901.6	15.6	2.0	-174.84	-3,044.0	-420.4	2,564.9	2,547.5	17.31	148.160	
6,000.0	5,949.2	5,992.7	5,991.8	15.7	2.0	-174.84	-3,042.4	-420.6	2,563.2	2,545.7	17.48	146.617	
6,003.9	5,953.1	5,996.4	5,995.6	15.7	2.0	-174.84	-3,042.4	-420.6	2,563.1	2,545.6	17.49	146.553	
6,100.0	6,049.2	6,105.4	6,104.5	15.9	2.0	-174.83	-3,040.3	-420.8	2,561.3	2,543.6	17.67	144.978	
6,102.3	6,051.5	6,107.9	6,107.0	15.9	2.0	-174.83	-3,040.2	-420.8	2,561.3	2,543.6	17.67	144.940	
6,124.6	6,073.8	6,131.1	6,130.2	15.9	2.0	-174.83	-3,039.7	-420.8	2,560.8	2,543.1	17.71	144.580	
6,150.0	6,099.2	6,157.5	6,156.6	16.0	2.0	-84.88	-3,039.1	-420.8	2,560.2	2,545.1	15.06	170.044	
6,200.0	6,149.0	6,209.4	6,208.5	16.1	2.0	-85.08	-3,037.9	-420.9	2,558.7	2,543.5	15.19	168.482	
6,200.8	6,149.8	6,210.2	6,209.3	16.1	2.0	-85.08	-3,037.9	-420.9	2,558.7	2,543.5	15.19	168.455	
6,250.0	6,198.5	6,261.1	6,260.2	16.2	2.0	-85.38	-3,036.7	-420.8	2,556.9	2,541.6	15.34	166.734	
6,299.2	6,246.6	6,312.2	6,311.2	16.3	2.0	-85.78	-3,035.5	-420.7	2,554.9	2,539.4	15.50	164.830	
6,300.0	6,247.4	6,313.0	6,312.1	16.3	2.0	-85.79	-3,035.4	-420.7	2,554.9	2,539.3	15.50	164.799	
6,350.0	6,295.5	6,366.8	6,365.8	16.5	2.0	-86.31	-3,034.0	-420.6	2,552.5	2,536.8	15.69	162.658	
6,397.6	6,340.2	6,413.2	6,412.2	16.6	2.0	-86.86	-3,032.7	-420.5	2,550.0	2,534.1	15.89	160.432	
6,400.0	6,342.4	6,415.1	6,414.1	16.6	2.0	-86.89	-3,032.7	-420.5	2,549.9	2,534.0	15.90	160.323	
6,450.0	6,388.1	6,455.0	6,454.0	16.8	2.0	-87.46	-3,031.6	-420.5	2,547.3	2,531.2	16.14	157.801	
6,496.0	6,428.8	6,490.7	6,489.7	17.0	2.0	-88.01	-3,030.7	-420.7	2,545.1	2,528.7	16.39	155.262	
6,500.0	6,432.2	6,493.7	6,492.7	17.0	2.0	-88.06	-3,030.6	-420.7	2,544.9	2,528.5	16.41	155.048	
6,550.0	6,474.6	6,523.3	6,522.3	17.3	2.0	-88.58	-3,029.9	-420.8	2,542.7	2,526.0	16.72	152.089	
6,594.5	6,510.7	6,547.2	6,546.2	17.5	2.0	-89.02	-3,029.6	-420.9	2,541.1	2,524.1	17.03	149.234	
6,600.0	6,515.0	6,550.1	6,549.1	17.6	2.0	-89.07	-3,029.5	-420.9	2,541.0	2,523.9	17.07	148.888	
6,650.0	6,553.3	6,575.4	6,574.4	17.9	2.0	-89.53	-3,029.2	-421.0	2,539.8	2,522.3	17.46	145.432	
6,692.9	6,584.3	6,600.0	6,599.0	18.2	2.0	-89.97	-3,029.1	-421.0	2,539.2	2,521.3	17.85	142.216	
6,700.0	6,589.2	6,600.0	6,599.0	18.2	2.0	-89.97	-3,029.1	-421.0	2,539.1	2,521.2	17.92	141.720	
6,723.2	6,605.1	6,611.6	6,610.6	18.4	2.0	-90.17	-3,029.1	-421.0	2,539.1	2,520.9	18.15	139.858 CC	
6,750.0	6,622.7	6,625.7	6,624.7	18.6	2.0	-90.40	-3,029.0	-421.0	2,539.2	2,520.7	18.43	137.784 ES	
6,791.3	6,648.3	6,646.2	6,645.2	19.0	2.0	-90.72	-3,029.0	-421.0	2,539.7	2,520.8	18.91	134.337	
6,800.0	6,653.4	6,650.3	6,649.3	19.1	2.0	-90.78	-3,029.1	-421.0	2,539.9	2,520.9	19.01	133.641	
6,850.0	6,681.4	6,672.6	6,671.6	19.6	2.0	-91.08	-3,029.1	-420.9	2,541.4	2,521.7	19.65	129.345	
6,889.7	6,701.5	6,688.6	6,687.6	20.1	2.0	-91.25	-3,029.2	-420.9	2,543.1	2,522.9	20.21	125.820	
6,900.0	6,706.3	6,700.0	6,699.0	20.2	2.0	-91.43	-3,029.3	-420.8	2,543.7	2,523.3	20.36	124.927	
6,950.0	6,728.2	6,711.9	6,710.9	20.9	2.0	-91.42	-3,029.3	-420.8	2,546.8	2,525.7	21.14	120.502	

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 SCHAUMBERG 17G-314
<b>Project:</b>	WELD COUNTY, COLORADO	<b>TVD Reference:</b>	KB-EST @ 4633.0usft (Original Well Elev)
<b>Reference Site:</b>	SW NW SEC. 17 T5N R64W 6th P.M.	<b>MD Reference:</b>	KB-EST @ 4633.0usft (Original Well Elev)
<b>Site Error:</b>	0.0 usft	<b>North Reference:</b>	True
<b>Reference Well:</b>	SCHAUMBERG 17G-314	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Well Error:</b>	0.0 usft	<b>Output errors are at</b>	2.00 sigma
<b>Reference Wellbore</b>	ORIGINAL WELLBORE	<b>Database:</b>	EDM 5000.1 Single User Db
<b>Reference Design:</b>	PROPOSAL #1	<b>Offset TVD Reference:</b>	Offset Datum

<b>Offset Design</b> NW SW SEC. 17 T5N R64W 6th P.M. - EXIST VERT MILLER #1 - 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
6,988.2	6,742.8	6,725.8	6,724.8	21.5	2.0	-91.47	-3,029.4	-420.8	2,549.9	2,528.1	21.78	117.080	
7,000.0	6,746.9	6,729.7	6,728.7	21.6	2.0	-91.47	-3,029.5	-420.8	2,550.9	2,528.9	21.98	116.068	
7,050.0	6,762.4	6,744.3	6,743.3	22.5	2.0	-91.38	-3,029.6	-420.7	2,556.0	2,533.1	22.88	111.710	
7,086.6	6,771.5	6,753.0	6,752.0	23.1	2.0	-91.22	-3,029.6	-420.7	2,560.3	2,536.7	23.58	108.570	
7,100.0	6,774.4	6,755.7	6,754.7	23.3	2.0	-91.14	-3,029.6	-420.7	2,562.0	2,538.1	23.84	107.472	
7,150.0	6,783.1	6,763.8	6,762.8	24.3	2.0	-90.76	-3,029.7	-420.6	2,569.0	2,544.1	24.85	103.387	
7,185.0	6,787.1	6,767.5	6,766.5	25.0	2.0	-90.39	-3,029.7	-420.6	2,574.5	2,548.9	25.59	100.617	
7,200.0	6,788.3	6,768.6	6,767.6	25.3	2.0	-90.22	-3,029.7	-420.6	2,577.0	2,551.1	25.90	99.481	
7,252.3	6,790.0	6,770.1	6,769.1	26.3	2.0	-89.49	-3,029.7	-420.6	2,586.3	2,559.3	27.05	95.604	
7,283.4	6,789.9	6,769.8	6,768.8	27.0	2.0	-89.48	-3,029.7	-420.6	2,592.4	2,564.7	27.74	93.439	
7,300.0	6,789.8	6,769.7	6,768.7	27.3	2.0	-89.48	-3,029.7	-420.6	2,595.8	2,567.7	28.11	92.336	
7,381.9	6,789.5	6,769.1	6,768.1	29.1	2.0	-89.46	-3,029.7	-420.6	2,613.9	2,583.9	29.99	87.147	
7,400.0	6,789.4	6,769.0	6,768.0	29.5	2.0	-89.46	-3,029.7	-420.6	2,618.2	2,587.8	30.41	86.096	
7,480.3	6,789.1	6,768.4	6,767.4	31.4	2.0	-89.45	-3,029.7	-420.6	2,638.9	2,606.6	32.32	81.639	
7,500.0	6,789.1	6,768.3	6,767.3	31.8	2.0	-89.45	-3,029.7	-420.6	2,644.3	2,611.5	32.79	80.635	
7,578.7	6,788.8	6,767.7	6,766.7	33.7	2.0	-89.43	-3,029.7	-420.6	2,667.3	2,632.6	34.72	76.820	
7,600.0	6,788.7	6,767.5	6,766.5	34.2	2.0	-89.43	-3,029.7	-420.6	2,673.9	2,638.6	35.24	75.870	
7,677.1	6,788.4	6,767.0	6,766.0	36.1	2.0	-89.42	-3,029.7	-420.6	2,699.0	2,661.8	37.17	72.606	
7,700.0	6,788.3	6,766.8	6,765.8	36.7	2.0	-89.41	-3,029.7	-420.6	2,706.8	2,669.0	37.74	71.714	
7,775.6	6,788.0	6,766.3	6,765.3	38.6	2.0	-89.40	-3,029.7	-420.6	2,733.8	2,694.2	39.67	68.920	
7,800.0	6,787.9	6,766.1	6,765.1	39.2	2.0	-89.40	-3,029.7	-420.6	2,743.0	2,702.7	40.29	68.083	
7,874.0	6,787.6	6,765.6	6,764.6	41.0	2.0	-89.38	-3,029.7	-420.6	2,771.8	2,729.6	42.20	65.686	
7,900.0	6,787.6	6,765.4	6,764.4	41.7	2.0	-89.38	-3,029.7	-420.6	2,782.3	2,739.4	42.87	64.904	
7,972.4	6,787.3	6,764.9	6,763.9	43.6	2.0	-89.37	-3,029.7	-420.6	2,812.6	2,767.9	44.76	62.844	
8,000.0	6,787.2	6,764.7	6,763.7	44.3	2.0	-89.36	-3,029.7	-420.6	2,824.6	2,779.1	45.47	62.113	
8,070.8	6,786.9	6,764.2	6,763.1	46.1	2.0	-89.35	-3,029.7	-420.6	2,856.3	2,808.9	47.34	60.337	
8,100.0	6,786.8	6,764.0	6,762.9	46.9	2.0	-89.35	-3,029.7	-420.6	2,869.7	2,821.6	48.11	59.655	
8,169.3	6,786.5	6,763.5	6,762.4	48.7	2.0	-89.34	-3,029.7	-420.6	2,902.6	2,852.7	49.94	58.120	
8,200.0	6,786.4	6,763.2	6,762.2	49.5	2.0	-89.33	-3,029.7	-420.6	2,917.6	2,866.9	50.76	57.483	
8,267.7	6,786.1	6,762.8	6,761.7	51.3	2.0	-89.32	-3,029.7	-420.6	2,951.5	2,899.0	52.56	56.152	
8,300.0	6,786.0	6,762.5	6,761.5	52.1	2.0	-89.31	-3,029.7	-420.6	2,968.1	2,914.7	53.42	55.557	
8,366.1	6,785.8	6,762.1	6,761.0	53.9	2.0	-89.30	-3,029.7	-420.6	3,002.9	2,947.7	55.20	54.402	
8,400.0	6,785.6	6,761.8	6,760.8	54.8	2.0	-89.30	-3,029.7	-420.6	3,021.1	2,965.0	56.11	53.845	
8,464.5	6,785.4	6,761.4	6,760.3	56.5	2.0	-89.29	-3,029.7	-420.6	3,056.5	2,998.7	57.85	52.839	
8,500.0	6,785.3	6,761.1	6,760.1	57.5	2.0	-89.28	-3,029.7	-420.6	3,076.4	3,017.6	58.80	52.318	
8,563.0	6,785.0	6,760.7	6,759.6	59.2	2.0	-89.27	-3,029.7	-420.6	3,112.3	3,051.8	60.50	51.440	
8,600.0	6,784.9	6,760.4	6,759.4	60.2	2.0	-89.27	-3,029.7	-420.7	3,133.9	3,072.4	61.51	50.952	
8,661.4	6,784.6	6,760.0	6,759.0	61.8	2.0	-89.26	-3,029.7	-420.7	3,170.2	3,107.1	63.17	50.184	
8,700.0	6,784.5	6,759.7	6,758.7	62.9	2.0	-89.25	-3,029.7	-420.7	3,193.5	3,129.3	64.22	49.727	
8,759.8	6,784.3	6,759.3	6,758.3	64.5	2.0	-89.24	-3,029.7	-420.7	3,230.1	3,164.2	65.85	49.053	
8,800.0	6,784.1	6,759.0	6,758.0	65.6	2.0	-89.23	-3,029.7	-420.7	3,255.1	3,188.1	66.94	48.625	
8,858.2	6,783.9	6,758.6	6,757.6	67.1	2.0	-89.22	-3,029.7	-420.7	3,291.8	3,223.3	68.53	48.033	
8,900.0	6,783.7	6,758.3	6,757.3	68.3	2.0	-89.22	-3,029.7	-420.7	3,318.5	3,248.9	69.67	47.631	
8,956.7	6,783.5	6,757.9	6,756.9	69.8	2.0	-89.21	-3,029.7	-420.7	3,355.3	3,284.1	71.22	47.110	
9,000.0	6,783.3	6,757.6	6,756.6	71.0	2.0	-89.20	-3,029.6	-420.7	3,383.8	3,311.3	72.41	46.732	
9,055.1	6,783.1	6,757.2	6,756.2	72.5	2.0	-89.19	-3,029.6	-420.7	3,420.4	3,346.5	73.92	46.273	
9,100.0	6,782.9	6,756.9	6,755.9	73.7	2.0	-89.19	-3,029.6	-420.7	3,450.6	3,375.5	75.15	45.917	
9,153.5	6,782.7	6,756.5	6,755.5	75.2	2.0	-89.18	-3,029.6	-420.7	3,487.1	3,410.5	76.62	45.512	
9,200.0	6,782.6	6,756.2	6,755.2	76.5	2.0	-89.17	-3,029.6	-420.7	3,519.1	3,441.2	77.90	45.177	
9,251.9	6,782.4	6,755.8	6,754.8	77.9	2.0	-89.16	-3,029.6	-420.7	3,555.3	3,475.9	79.32	44.819	
9,300.0	6,782.2	6,755.5	6,754.5	79.2	2.0	-89.15	-3,029.6	-420.7	3,589.0	3,508.4	80.65	44.503	
9,350.4	6,782.0	6,755.1	6,754.1	80.6	2.0	-89.15	-3,029.6	-420.7	3,624.8	3,542.8	82.03	44.186	

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 SCHAUMBERG 17G-314
<b>Project:</b>	WELD COUNTY, COLORADO	<b>TVD Reference:</b>	KB-EST @ 4633.0usft (Original Well Elev)
<b>Reference Site:</b>	SW NW SEC. 17 T5N R64W 6th P.M.	<b>MD Reference:</b>	KB-EST @ 4633.0usft (Original Well Elev)
<b>Site Error:</b>	0.0 usft	<b>North Reference:</b>	True
<b>Reference Well:</b>	SCHAUMBERG 17G-314	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Well Error:</b>	0.0 usft	<b>Output errors are at</b>	2.00 sigma
<b>Reference Wellbore</b>	ORIGINAL WELLBORE	<b>Database:</b>	EDM 5000.1 Single User Db
<b>Reference Design:</b>	PROPOSAL #1	<b>Offset TVD Reference:</b>	Offset Datum

<b>Offset Design</b> NW SW SEC. 17 T5N R64W 6th P.M. - EXIST VERT MILLER #1 - 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	6,781.8	6,754.8	6,753.8	82.0	2.0	-89.14	-3,029.6	-420.7	3,660.4	3,577.0	83.40	43.889	
9,448.8	6,781.6	6,754.5	6,753.4	83.3	2.0	-89.13	-3,029.6	-420.7	3,695.7	3,610.9	84.75	43.608	
9,500.0	6,781.4	6,754.1	6,753.1	84.7	2.0	-89.12	-3,029.6	-420.7	3,733.0	3,646.9	86.16	43.327	
9,547.2	6,781.2	6,753.8	6,752.8	86.0	2.0	-89.11	-3,029.6	-420.7	3,767.8	3,680.3	87.46	43.078	
9,600.0	6,781.0	6,753.4	6,752.4	87.5	2.0	-89.11	-3,029.6	-420.7	3,806.9	3,718.0	88.92	42.812	
9,645.6	6,780.8	6,753.1	6,752.1	88.7	2.0	-89.10	-3,029.6	-420.7	3,841.1	3,750.9	90.18	42.591	
9,700.0	6,780.6	6,752.7	6,751.7	90.2	2.0	-89.09	-3,029.6	-420.7	3,882.0	3,790.3	91.69	42.340	
9,744.1	6,780.4	6,752.4	6,751.4	91.4	2.0	-89.08	-3,029.6	-420.7	3,915.4	3,822.5	92.91	42.144	
9,800.0	6,780.2	6,752.0	6,751.0	93.0	2.0	-89.07	-3,029.6	-420.7	3,958.2	3,863.7	94.45	41.906	
9,842.5	6,780.1	6,751.7	6,750.7	94.2	2.0	-89.07	-3,029.6	-420.7	3,990.8	3,895.2	95.63	41.731	
9,900.0	6,779.8	6,751.4	6,750.3	95.7	2.0	-89.06	-3,029.6	-420.7	4,035.4	3,938.1	97.22	41.506	
9,940.9	6,779.7	6,751.1	6,750.1	96.9	2.0	-89.05	-3,029.6	-420.7	4,067.2	3,968.9	98.36	41.351	
10,000.0	6,779.4	6,750.7	6,749.7	98.5	2.0	-89.04	-3,029.6	-420.7	4,113.5	4,013.6	100.00	41.137	
10,039.3	6,779.3	6,750.4	6,749.4	99.6	2.0	-89.04	-3,029.6	-420.7	4,144.6	4,043.5	101.09	41.000	
10,100.0	6,779.0	6,750.0	6,749.0	101.3	2.0	-89.03	-3,029.6	-420.7	4,192.7	4,089.9	102.77	40.796	
10,137.8	6,778.9	6,749.7	6,748.7	102.3	2.0	-89.02	-3,029.6	-420.7	4,222.8	4,119.0	103.82	40.674	
10,200.0	6,778.7	6,749.3	6,748.3	104.1	2.0	-89.01	-3,029.6	-420.7	4,272.7	4,167.1	105.55	40.481	
10,236.2	6,778.5	6,749.1	6,748.0	105.1	2.0	-89.00	-3,029.6	-420.7	4,301.8	4,195.3	106.55	40.373	
10,300.0	6,778.3	6,748.6	6,747.6	106.8	2.0	-88.99	-3,029.6	-420.7	4,353.5	4,245.1	108.32	40.189	
10,334.6	6,778.1	6,748.4	6,747.4	107.8	2.0	-88.99	-3,029.6	-420.7	4,381.6	4,272.4	109.29	40.093	
10,400.0	6,777.9	6,747.9	6,746.9	109.6	2.0	-88.98	-3,029.6	-420.7	4,435.1	4,324.0	111.10	39.918	
10,433.0	6,777.7	6,747.7	6,746.7	110.5	2.0	-88.97	-3,029.6	-420.7	4,462.2	4,350.2	112.02	39.833	
10,500.0	6,777.5	6,747.3	6,746.2	112.4	2.0	-88.96	-3,029.6	-420.7	4,517.4	4,403.5	113.88	39.666	
10,531.5	6,777.3	6,747.0	6,746.0	113.3	2.0	-88.96	-3,029.6	-420.7	4,543.5	4,428.7	114.76	39.591	
10,600.0	6,777.1	6,746.6	6,745.6	115.2	2.0	-88.95	-3,029.6	-420.7	4,600.4	4,483.8	116.67	39.432	
10,629.9	6,777.0	6,746.4	6,745.4	116.0	2.0	-88.94	-3,029.6	-420.7	4,625.4	4,507.9	117.50	39.365	
10,700.0	6,776.7	6,745.9	6,744.9	117.9	2.0	-88.93	-3,029.6	-420.7	4,684.2	4,564.7	119.45	39.214	
10,728.3	6,776.6	6,745.7	6,744.7	118.7	2.0	-88.93	-3,029.6	-420.7	4,708.0	4,587.7	120.24	39.155	
10,800.0	6,776.3	6,745.2	6,744.2	120.7	2.0	-88.92	-3,029.6	-420.7	4,768.5	4,646.2	122.24	39.011	
10,826.7	6,776.2	6,745.1	6,744.0	121.5	2.0	-88.91	-3,029.6	-420.7	4,791.1	4,668.2	122.98	38.958	
10,900.0	6,775.9	6,744.6	6,743.6	123.5	2.0	-88.90	-3,029.6	-420.7	4,853.4	4,728.4	125.02	38.821	
10,925.2	6,775.8	6,744.4	6,743.4	124.2	2.0	-88.90	-3,029.6	-420.7	4,874.9	4,749.2	125.72	38.775	
11,000.0	6,775.5	6,743.9	6,742.9	126.3	2.0	-88.88	-3,029.6	-420.7	4,938.9	4,811.1	127.81	38.643	
11,023.6	6,775.4	6,743.7	6,742.7	126.9	2.0	-88.88	-3,029.5	-420.7	4,959.1	4,830.7	128.47	38.603	
11,100.0	6,775.1	6,743.2	6,742.2	129.1	2.0	-88.87	-3,029.5	-420.7	5,024.9	4,894.3	130.60	38.477	
11,122.0	6,775.0	6,743.1	6,742.1	129.7	2.0	-88.86	-3,029.5	-420.7	5,043.9	4,912.7	131.21	38.442	
11,200.0	6,774.7	6,742.6	6,741.5	131.9	2.0	-88.85	-3,029.5	-420.7	5,111.5	4,978.1	133.38	38.321	
11,220.4	6,774.6	6,742.4	6,741.4	132.4	2.0	-88.85	-3,029.5	-420.7	5,129.2	4,995.3	133.96	38.290	
11,300.0	6,774.3	6,741.9	6,740.9	134.6	2.0	-88.84	-3,029.5	-420.7	5,198.5	5,062.3	136.17	38.175	
11,318.9	6,774.2	6,741.8	6,740.8	135.2	2.0	-88.83	-3,029.5	-420.7	5,214.9	5,078.2	136.70	38.149	
11,400.0	6,773.9	6,741.2	6,740.2	137.4	2.0	-88.82	-3,029.5	-420.7	5,285.9	5,147.0	138.96	38.038	
11,417.3	6,773.8	6,741.1	6,740.1	137.9	2.0	-88.82	-3,029.5	-420.7	5,301.1	5,161.7	139.45	38.015	
11,500.0	6,773.5	6,740.6	6,739.6	140.2	2.0	-88.81	-3,029.5	-420.7	5,373.9	5,232.1	141.76	37.909	
11,515.7	6,773.4	6,740.5	6,739.4	140.7	2.0	-88.80	-3,029.5	-420.7	5,387.7	5,245.5	142.19	37.890	
11,600.0	6,773.1	6,739.9	6,738.9	143.0	2.0	-88.79	-3,029.5	-420.7	5,462.2	5,317.6	144.55	37.788	
11,614.1	6,773.0	6,739.8	6,738.8	143.4	2.0	-88.79	-3,029.5	-420.7	5,474.7	5,329.8	144.94	37.772	
11,700.0	6,772.7	6,739.2	6,738.2	145.8	2.0	-88.77	-3,029.5	-420.7	5,550.9	5,403.6	147.34	37.674	
11,712.6	6,772.6	6,739.2	6,738.1	146.2	2.0	-88.77	-3,029.5	-420.7	5,562.1	5,414.4	147.69	37.660	
11,800.0	6,772.3	6,738.6	6,737.6	148.6	2.0	-88.76	-3,029.5	-420.7	5,640.0	5,489.9	150.13	37.567	
11,811.0	6,772.2	6,738.5	6,737.5	148.9	2.0	-88.76	-3,029.5	-420.7	5,649.8	5,499.4	150.44	37.555	
11,900.0	6,771.9	6,737.9	6,736.9	151.4	2.0	-88.74	-3,029.5	-420.7	5,729.5	5,576.5	152.93	37.466	
11,909.4	6,771.8	6,737.9	6,736.9	151.7	2.0	-88.74	-3,029.5	-420.7	5,737.9	5,584.7	153.19	37.456	

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 SCHAUMBERG 17G-314
<b>Project:</b>	WELD COUNTY, COLORADO	<b>TVD Reference:</b>	KB-EST @ 4633.0usft (Original Well Elev)
<b>Reference Site:</b>	SW NW SEC. 17 T5N R64W 6th P.M.	<b>MD Reference:</b>	KB-EST @ 4633.0usft (Original Well Elev)
<b>Site Error:</b>	0.0 usft	<b>North Reference:</b>	True
<b>Reference Well:</b>	SCHAUMBERG 17G-314	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Well Error:</b>	0.0 usft	<b>Output errors are at</b>	2.00 sigma
<b>Reference Wellbore</b>	ORIGINAL WELLBORE	<b>Database:</b>	EDM 5000.1 Single User Db
<b>Reference Design:</b>	PROPOSAL #1	<b>Offset TVD Reference:</b>	Offset Datum

<b>Offset Design</b> NW SW SEC. 17 T5N R64W 6th P.M. - EXIST VERT MILLER #1 - 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
12,000.0	6,771.5	6,737.3	6,736.3	154.2	2.0	-88.73	-3,029.5	-420.7	5,819.3	5,663.6	155.72	37.370	
12,007.8	6,771.4	6,737.2	6,736.2	154.4	2.0	-88.73	-3,029.5	-420.7	5,826.3	5,670.4	155.94	37.363	
12,100.0	6,771.1	6,736.6	6,735.6	157.0	2.0	-88.71	-3,029.5	-420.7	5,909.4	5,750.9	158.51	37.280	
12,106.3	6,771.0	6,736.6	6,735.6	157.2	2.0	-88.71	-3,029.5	-420.7	5,915.1	5,756.4	158.69	37.274	
12,200.0	6,770.7	6,736.0	6,735.0	159.8	2.0	-88.70	-3,029.5	-420.7	5,999.9	5,838.5	161.31	37.195	
12,204.7	6,770.6	6,735.9	6,734.9	159.9	2.0	-88.70	-3,029.5	-420.7	6,004.1	5,842.7	161.44	37.191	
12,300.0	6,770.3	6,735.3	6,734.3	162.6	2.0	-88.68	-3,029.5	-420.7	6,090.6	5,926.5	164.11	37.114	
12,303.1	6,770.2	6,735.3	6,734.3	162.7	2.0	-88.68	-3,029.5	-420.7	6,093.4	5,929.2	164.19	37.111	
12,361.7	6,770.0	6,734.9	6,733.9	164.3	2.0	-88.67	-3,029.5	-420.7	6,146.7	5,980.9	165.83	37.066 SF	



# Anticollision Report



<b>Company:</b>	PDC ENERGY	<b>Local Co-ordinate Reference:</b>	Well SCHAUMBERG 17G-314
<b>Project:</b>	WELD COUNTY, COLORADO	<b>TVD Reference:</b>	KB-EST @ 4633.0usft (Original Well Elev)
<b>Reference Site:</b>	SW NW SEC. 17 T5N R64W 6th P.M.	<b>MD Reference:</b>	KB-EST @ 4633.0usft (Original Well Elev)
<b>Site Error:</b>	0.0 usft	<b>North Reference:</b>	True
<b>Reference Well:</b>	SCHAUMBERG 17G-314	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Well Error:</b>	0.0 usft	<b>Output errors are at</b>	2.00 sigma
<b>Reference Wellbore</b>	ORIGINAL WELLBORE	<b>Database:</b>	EDM 5000.1 Single User Db
<b>Reference Design:</b>	PROPOSAL #1	<b>Offset TVD Reference:</b>	Offset Datum

Offset Design NW SW SEC. 17 T5N R64W 6th P.M. - EXIST VERT MILLER #2 - Wellbore #1 - Wellbore #1												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	162.21	-2,984.4	957.4	3,134.2				
98.4	98.4	85.4	85.4	0.1	0.1	162.21	-2,984.5	957.5	3,134.4	3,134.2	0.18	N/A	
100.0	100.0	86.8	86.8	0.1	0.1	162.21	-2,984.5	957.5	3,134.4	3,134.2	0.18	N/A	
196.8	196.8	194.1	194.1	0.3	0.1	162.21	-2,984.7	957.6	3,134.6	3,134.1	0.44	7,132.177	
200.0	200.0	197.7	197.7	0.3	0.1	162.21	-2,984.7	957.6	3,134.6	3,134.1	0.45	7,003.993	
295.3	295.3	307.5	307.5	0.5	0.2	162.22	-2,984.5	957.2	3,134.3	3,133.5	0.79	3,991.443	
300.0	300.0	312.4	312.4	0.5	0.3	162.22	-2,984.5	957.1	3,134.3	3,133.5	0.80	3,918.743	
393.7	393.7	409.1	409.1	0.8	0.3	162.23	-2,984.2	956.4	3,133.8	3,132.7	1.09	2,883.994	
400.0	400.0	415.9	415.9	0.8	0.3	162.23	-2,984.2	956.3	3,133.8	3,132.6	1.11	2,835.403	
492.1	492.1	513.1	513.1	1.0	0.4	162.24	-2,983.8	955.4	3,133.1	3,131.7	1.38	2,278.029	
500.0	500.0	520.5	520.4	1.0	0.4	162.25	-2,983.7	955.3	3,133.0	3,131.6	1.40	2,242.278	
590.5	590.5	605.2	605.2	1.2	0.5	162.26	-2,983.4	954.5	3,132.4	3,130.8	1.65	1,899.157	
600.0	600.0	615.4	615.4	1.2	0.5	162.26	-2,983.4	954.4	3,132.4	3,130.7	1.68	1,869.007	
689.0	689.0	710.0	710.0	1.4	0.5	162.27	-2,983.0	953.6	3,131.8	3,129.8	1.93	1,626.620	
700.0	700.0	720.4	720.4	1.4	0.5	162.27	-2,982.9	953.5	3,131.7	3,129.7	1.96	1,601.660	
787.4	787.4	802.9	802.8	1.6	0.6	162.28	-2,982.6	952.8	3,131.1	3,128.9	2.19	1,427.875	
800.0	800.0	816.0	816.0	1.7	0.6	162.28	-2,982.5	952.7	3,131.0	3,128.8	2.23	1,405.936	
885.8	885.8	905.1	905.1	1.9	0.6	162.29	-2,982.0	952.3	3,130.5	3,128.0	2.46	1,272.684	
900.0	900.0	918.6	918.5	1.9	0.6	162.29	-2,981.9	952.2	3,130.4	3,127.9	2.50	1,253.322	
984.2	984.2	1,000.0	1,000.0	2.1	0.6	162.29	-2,981.5	952.1	3,129.8	3,127.1	2.72	1,149.081	
1,000.0	1,000.0	1,014.6	1,014.6	2.1	0.7	162.29	-2,981.4	952.0	3,129.8	3,127.0	2.77	1,131.792	
1,082.7	1,082.7	1,098.4	1,098.4	2.3	0.7	162.29	-2,980.9	952.0	3,129.3	3,126.3	2.99	1,047.875	
1,100.0	1,100.0	1,115.5	1,115.5	2.3	0.7	162.29	-2,980.8	952.0	3,129.2	3,126.1	3.03	1,031.991	
1,181.1	1,181.1	1,195.1	1,195.1	2.5	0.7	162.29	-2,980.3	952.0	3,128.7	3,125.5	3.25	963.654	
1,200.0	1,200.0	1,214.1	1,214.0	2.6	0.7	162.29	-2,980.2	952.0	3,128.6	3,125.3	3.30	949.057	
1,279.5	1,279.5	1,294.3	1,294.3	2.7	0.8	162.28	-2,979.7	952.0	3,128.2	3,124.7	3.51	892.240	
1,300.0	1,300.0	1,314.7	1,314.7	2.8	0.8	162.28	-2,979.6	952.0	3,128.0	3,124.5	3.56	878.751	
1,377.9	1,377.9	1,391.9	1,391.9	3.0	0.8	162.28	-2,979.2	952.0	3,127.6	3,123.9	3.76	830.994	
1,400.0	1,400.0	1,413.6	1,413.6	3.0	0.8	162.28	-2,979.1	951.9	3,127.5	3,123.7	3.82	818.409	
1,476.4	1,476.4	1,488.5	1,488.5	3.2	0.8	162.28	-2,978.7	951.9	3,127.1	3,123.1	4.02	777.611	
1,500.0	1,500.0	1,510.7	1,510.6	3.2	0.8	162.28	-2,978.6	951.9	3,127.0	3,122.9	4.08	766.077	
1,574.8	1,574.8	1,577.4	1,577.3	3.4	0.9	162.27	-2,978.3	952.0	3,126.8	3,122.5	4.27	732.513	
1,600.0	1,600.0	1,600.0	1,600.0	3.5	0.9	162.27	-2,978.3	952.0	3,126.7	3,122.4	4.33	721.860	
1,673.2	1,673.2	1,675.2	1,675.1	3.6	0.9	162.27	-2,978.1	952.2	3,126.6	3,122.1	4.52	692.387	
1,700.0	1,700.0	1,700.0	1,700.0	3.7	0.9	162.27	-2,978.1	952.2	3,126.6	3,122.0	4.58	682.298	
1,771.6	1,771.6	1,769.0	1,768.9	3.9	0.9	162.27	-2,978.0	952.4	3,126.5	3,121.8	4.75	657.826	
1,775.7	1,775.7	1,772.7	1,772.7	3.9	0.9	162.27	-2,978.0	952.4	3,126.5	3,121.8	4.76	656.513	
1,800.0	1,800.0	1,795.3	1,795.3	3.9	0.9	162.26	-2,977.9	952.4	3,126.5	3,121.7	4.82	648.636	
1,870.1	1,870.1	1,865.3	1,865.3	4.1	0.9	-38.95	-2,978.0	952.5	3,125.9	3,120.9	4.97	628.511	
1,900.0	1,900.0	1,895.4	1,895.4	4.1	0.9	-38.97	-2,978.0	952.6	3,125.2	3,120.2	5.04	620.293	
1,968.5	1,968.4	1,956.8	1,956.7	4.2	0.9	-39.03	-2,978.0	952.7	3,122.9	3,117.7	5.16	604.886	
2,000.0	1,999.8	1,984.7	1,984.7	4.3	0.9	-39.07	-2,978.1	952.8	3,121.4	3,116.2	5.22	598.022	
2,066.9	2,066.5	2,047.5	2,047.5	4.4	0.9	-39.18	-2,978.4	952.8	3,117.5	3,112.1	5.35	582.836	
2,100.0	2,099.5	2,079.1	2,079.1	4.5	0.9	-39.25	-2,978.5	952.9	3,115.1	3,109.7	5.41	575.449	
2,165.3	2,164.4	2,142.1	2,142.0	4.6	0.9	-39.40	-2,978.9	953.0	3,109.6	3,104.1	5.55	560.496	
2,200.0	2,198.7	2,175.5	2,175.5	4.7	1.0	-39.50	-2,979.1	953.1	3,106.3	3,100.6	5.62	552.713	
2,263.8	2,261.8	2,237.3	2,237.3	4.8	1.0	-39.70	-2,979.5	953.2	3,099.3	3,093.5	5.76	537.942	
2,300.0	2,297.5	2,272.4	2,272.4	4.9	1.0	-39.83	-2,979.7	953.2	3,094.8	3,089.0	5.84	529.709	
2,362.2	2,358.6	2,332.7	2,332.6	5.0	1.0	-40.07	-2,980.2	953.3	3,086.4	3,080.5	5.99	515.068	
2,400.0	2,395.6	2,369.2	2,369.1	5.1	1.0	-40.23	-2,980.5	953.3	3,080.9	3,074.8	6.08	506.383	
2,460.6	2,454.9	2,429.1	2,429.1	5.3	1.0	-40.37	-2,981.0	953.1	3,071.6	3,065.4	6.24	492.376	
2,500.0	2,493.4	2,469.1	2,469.0	5.4	1.0	-40.47	-2,981.4	953.0	3,065.6	3,059.3	6.34	483.514	

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 SCHAUMBERG 17G-314
<b>Project:</b>	WELD COUNTY, COLORADO	<b>TVD Reference:</b>	KB-EST @ 4633.0usft (Original Well Elev)
<b>Reference Site:</b>	SW NW SEC. 17 T5N R64W 6th P.M.	<b>MD Reference:</b>	KB-EST @ 4633.0usft (Original Well Elev)
<b>Site Error:</b>	0.0 usft	<b>North Reference:</b>	True
<b>Reference Well:</b>	SCHAUMBERG 17G-314	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Well Error:</b>	0.0 usft	<b>Output errors are at</b>	2.00 sigma
<b>Reference Wellbore</b>	ORIGINAL WELLBORE	<b>Database:</b>	EDM 5000.1 Single User Db
<b>Reference Design:</b>	PROPOSAL #1	<b>Offset TVD Reference:</b>	Offset Datum

Offset Design												Offset Site Error:	0.0 usft
Survey Program: 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	
2,559.0	2,551.2	2,528.1	2,528.1	5.6	1.0	-40.61	-2,981.9	952.8	3,056.6	3,050.1	6.50	470.179	
2,600.0	2,591.3	2,568.4	2,568.4	5.7	1.0	-40.71	-2,982.2	952.6	3,050.3	3,043.7	6.61	461.332	
2,657.5	2,647.5	2,623.9	2,623.9	5.9	1.0	-40.85	-2,982.6	952.4	3,041.6	3,034.8	6.77	449.097	
2,700.0	2,689.1	2,664.0	2,663.9	6.0	1.0	-40.95	-2,983.0	952.3	3,035.1	3,028.2	6.90	440.167	
2,755.9	2,743.7	2,717.9	2,717.9	6.2	1.0	-41.08	-2,983.5	952.0	3,026.7	3,019.7	7.06	428.742	
2,800.0	2,786.9	2,762.8	2,762.7	6.4	1.1	-41.19	-2,983.9	951.8	3,020.1	3,012.9	7.19	419.979	
2,854.3	2,840.0	2,816.6	2,816.5	6.6	1.1	-41.33	-2,984.4	951.5	3,011.9	3,004.5	7.36	409.410	
2,900.0	2,884.7	2,859.3	2,859.2	6.7	1.1	-41.43	-2,984.8	951.3	3,005.0	2,997.5	7.50	400.861	
2,952.7	2,936.3	2,909.4	2,909.3	6.9	1.1	-41.56	-2,985.3	951.0	2,997.1	2,989.4	7.66	391.192	
3,000.0	2,982.5	2,957.3	2,957.3	7.1	1.1	-41.68	-2,985.8	950.8	2,990.1	2,982.2	7.81	382.797	
3,051.2	3,032.6	3,008.6	3,008.6	7.3	1.1	-41.81	-2,986.3	950.5	2,982.4	2,974.4	7.98	373.904	
3,100.0	3,080.3	3,054.7	3,054.6	7.5	1.1	-41.92	-2,986.8	950.2	2,975.1	2,967.0	8.13	365.736	
3,149.6	3,128.8	3,101.5	3,101.4	7.7	1.1	-42.04	-2,987.2	950.0	2,967.8	2,959.5	8.30	357.680	
3,200.0	3,178.1	3,149.9	3,149.8	7.9	1.1	-42.17	-2,987.8	949.8	2,960.4	2,951.9	8.46	349.755	
3,248.0	3,225.1	3,196.1	3,196.0	8.1	1.1	-42.29	-2,988.3	949.6	2,953.3	2,944.7	8.63	342.403	
3,300.0	3,276.0	3,245.4	3,245.3	8.3	1.2	-42.42	-2,988.8	949.3	2,945.7	2,936.9	8.80	334.722	
3,346.4	3,321.4	3,289.5	3,289.4	8.5	1.2	-42.53	-2,989.4	949.2	2,939.0	2,930.0	8.96	328.040	
3,400.0	3,373.8	3,340.5	3,340.4	8.7	1.2	-42.66	-2,990.0	949.0	2,931.2	2,922.1	9.14	320.592	
3,444.9	3,417.7	3,383.2	3,383.1	8.8	1.2	-42.78	-2,990.5	948.9	2,924.8	2,915.5	9.30	314.516	
3,500.0	3,471.6	3,431.9	3,431.8	9.1	1.2	-42.91	-2,991.2	948.7	2,916.9	2,907.4	9.49	307.357	
3,543.3	3,513.9	3,468.7	3,468.6	9.2	1.2	-43.01	-2,991.7	948.7	2,910.9	2,901.2	9.64	301.907	
3,600.0	3,569.4	3,518.3	3,518.2	9.5	1.2	-43.14	-2,992.5	948.7	2,903.1	2,893.2	9.84	295.002	
3,641.7	3,610.2	3,556.7	3,556.6	9.7	1.2	-43.25	-2,993.2	948.8	2,897.4	2,887.4	9.99	290.039	
3,700.0	3,667.2	3,610.3	3,610.1	9.9	1.2	-43.39	-2,994.3	948.8	2,889.5	2,879.3	10.20	283.337	
3,740.1	3,706.5	3,646.7	3,646.6	10.1	1.2	-43.49	-2,995.0	948.8	2,884.2	2,873.8	10.34	278.840	
3,800.0	3,765.0	3,701.2	3,701.1	10.3	1.3	-43.64	-2,996.2	948.8	2,876.3	2,865.7	10.56	272.357	
3,838.6	3,802.8	3,739.8	3,739.6	10.5	1.3	-43.74	-2,997.1	948.8	2,871.2	2,860.5	10.70	268.253	
3,900.0	3,862.8	3,800.0	3,799.8	10.7	1.3	-43.91	-2,998.4	948.9	2,863.2	2,852.3	10.93	261.931	
3,937.0	3,899.0	3,834.8	3,834.6	10.9	1.3	-44.00	-2,999.2	948.9	2,858.4	2,847.3	11.07	258.234	
4,000.0	3,960.7	3,892.4	3,892.2	11.2	1.3	-44.16	-3,000.6	948.8	2,850.3	2,839.0	11.30	252.154	
4,035.4	3,995.3	3,927.3	3,927.0	11.3	1.3	-44.26	-3,001.5	948.8	2,845.8	2,834.3	11.44	248.807	
4,100.0	4,058.5	3,992.2	3,992.0	11.6	1.3	-44.43	-3,003.1	948.7	2,837.5	2,825.8	11.68	242.876	
4,133.8	4,091.6	4,024.2	4,024.0	11.7	1.3	-44.52	-3,004.0	948.6	2,833.2	2,821.4	11.81	239.864	
4,200.0	4,156.3	4,085.5	4,085.3	12.0	1.4	-44.68	-3,005.6	948.3	2,824.9	2,812.8	12.06	234.169	
4,232.3	4,187.9	4,116.6	4,116.4	12.2	1.4	-44.76	-3,006.6	948.0	2,820.8	2,808.6	12.19	231.459	
4,300.0	4,254.1	4,184.2	4,183.8	12.5	1.4	-44.94	-3,008.7	947.3	2,812.4	2,799.9	12.45	225.927	
4,325.7	4,279.2	4,209.1	4,208.8	12.6	1.4	-45.00	-3,009.5	946.9	2,809.2	2,796.6	12.55	223.888	
4,330.7	4,284.1	4,213.8	4,213.4	12.6	1.4	-45.00	-3,009.6	946.9	2,808.5	2,796.0	12.56	223.551	
4,400.0	4,352.1	4,278.2	4,277.8	12.8	1.4	-45.04	-3,011.8	945.9	2,800.7	2,787.9	12.78	219.062	
4,429.1	4,380.8	4,306.1	4,305.7	12.9	1.4	-45.05	-3,012.7	945.6	2,797.7	2,784.9	12.86	217.480	
4,500.0	4,450.7	4,380.3	4,379.8	13.1	1.4	-45.10	-3,015.2	944.6	2,791.4	2,778.4	13.06	213.742	
4,527.5	4,478.0	4,408.5	4,408.0	13.2	1.4	-45.11	-3,016.1	944.2	2,789.3	2,776.2	13.13	212.436	
4,600.0	4,549.9	4,478.5	4,478.0	13.4	1.5	-45.14	-3,018.3	943.4	2,784.6	2,771.3	13.31	209.159	
4,626.0	4,575.7	4,503.8	4,503.2	13.5	1.5	-45.15	-3,019.1	943.1	2,783.2	2,769.9	13.37	208.116	
4,700.0	4,649.4	4,577.5	4,576.9	13.6	1.5	-45.17	-3,021.5	942.2	2,780.3	2,766.8	13.55	205.256	
4,724.4	4,673.7	4,602.2	4,601.6	13.7	1.5	-45.17	-3,022.3	941.9	2,779.6	2,766.0	13.60	204.429	
4,800.0	4,749.2	4,692.5	4,691.9	13.8	1.5	-45.19	-3,025.0	940.8	2,778.3	2,764.5	13.76	201.913	
4,822.8	4,772.0	4,718.5	4,717.8	13.9	1.5	-45.19	-3,025.7	940.5	2,778.1	2,764.3	13.80	201.259	
4,856.4	4,805.5	4,755.9	4,755.2	13.9	1.5	-45.19	-3,026.6	940.0	2,777.9	2,764.1	13.87	200.323 CC, ES	
4,900.0	4,849.2	4,804.4	4,803.8	14.0	1.6	-45.18	-3,027.7	939.5	2,778.1	2,764.2	13.95	199.141	
4,921.2	4,870.4	4,827.5	4,826.8	14.1	1.6	-45.18	-3,028.2	939.2	2,778.4	2,764.4	13.99	198.618	
4,925.6	4,874.8	4,832.3	4,831.6	14.1	1.6	156.02	-3,028.3	939.2	2,778.4	2,764.5	13.99	198.605	

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

# Anticollision Report



<b>Company:</b>	PDC ENERGY	<b>Local Co-ordinate Reference:</b>	Well SCHAUMBERG 17G-314
<b>Project:</b>	WELD COUNTY, COLORADO	<b>TVD Reference:</b>	KB-EST @ 4633.0usft (Original Well Elev)
<b>Reference Site:</b>	SW NW SEC. 17 T5N R64W 6th P.M.	<b>MD Reference:</b>	KB-EST @ 4633.0usft (Original Well Elev)
<b>Site Error:</b>	0.0 usft	<b>North Reference:</b>	True
<b>Reference Well:</b>	SCHAUMBERG 17G-314	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Well Error:</b>	0.0 usft	<b>Output errors are at</b>	2.00 sigma
<b>Reference Wellbore</b>	ORIGINAL WELLBORE	<b>Database:</b>	EDM 5000.1 Single User Db
<b>Reference Design:</b>	PROPOSAL #1	<b>Offset TVD Reference:</b>	Offset Datum

Offset Design NW SW SEC. 17 T5N R64W 6th P.M. - EXIST VERT MILLER #2 - 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
5,000.0	4,949.2	4,911.5	4,910.8	14.2	1.6	156.05	-3,029.9	938.3	2,779.4	2,765.3	14.14	196.624	
5,019.7	4,968.8	4,930.3	4,929.6	14.2	1.6	156.06	-3,030.2	938.1	2,779.7	2,765.5	14.17	196.119	
5,100.0	5,049.2	5,008.2	5,007.5	14.3	1.6	156.08	-3,031.7	937.3	2,780.8	2,766.5	14.33	194.092	
5,118.1	5,067.3	5,028.0	5,027.2	14.3	1.6	156.09	-3,032.1	937.2	2,781.0	2,766.7	14.36	193.630	
5,200.0	5,149.2	5,118.0	5,117.2	14.5	1.6	156.11	-3,033.6	936.4	2,782.0	2,767.5	14.52	191.558	
5,216.5	5,165.7	5,136.7	5,136.0	14.5	1.6	156.12	-3,033.9	936.3	2,782.2	2,767.6	14.56	191.138	
5,300.0	5,249.2	5,232.6	5,231.8	14.6	1.7	156.14	-3,034.9	935.8	2,782.8	2,768.1	14.72	189.029	
5,314.9	5,264.1	5,250.1	5,249.4	14.6	1.7	156.14	-3,035.0	935.7	2,782.9	2,768.1	14.75	188.650	
5,400.0	5,349.2	5,343.1	5,342.3	14.8	1.7	156.14	-3,035.3	935.5	2,783.1	2,768.1	14.92	186.526	
5,413.4	5,362.5	5,356.6	5,355.8	14.8	1.7	156.15	-3,035.3	935.5	2,783.1	2,768.1	14.95	186.196	
5,500.0	5,449.2	5,442.5	5,441.7	14.9	1.7	156.15	-3,035.5	935.3	2,783.2	2,768.1	15.11	184.171	
5,511.8	5,461.0	5,453.9	5,453.2	14.9	1.7	156.15	-3,035.6	935.3	2,783.2	2,768.1	15.13	183.908	
5,600.0	5,549.2	5,543.0	5,542.2	15.1	1.7	156.15	-3,035.7	935.5	2,783.4	2,768.1	15.29	182.011	
5,610.2	5,559.4	5,553.7	5,553.0	15.1	1.7	156.15	-3,035.7	935.5	2,783.4	2,768.1	15.31	181.797	
5,700.0	5,649.2	5,645.5	5,644.8	15.2	1.7	156.14	-3,035.6	935.7	2,783.4	2,768.0	15.47	179.938	
5,708.6	5,657.8	5,654.2	5,653.4	15.3	1.7	156.14	-3,035.6	935.8	2,783.5	2,768.0	15.48	179.759	
5,800.0	5,749.2	5,746.6	5,745.8	15.4	1.7	156.13	-3,035.5	936.2	2,783.5	2,767.8	15.65	177.895	
5,807.1	5,756.2	5,753.9	5,753.1	15.4	1.7	156.13	-3,035.5	936.2	2,783.5	2,767.8	15.66	177.751	
5,900.0	5,849.2	5,848.0	5,847.2	15.6	1.7	156.12	-3,035.3	936.7	2,783.5	2,767.6	15.83	175.872	
5,905.5	5,854.7	5,853.4	5,852.7	15.6	1.7	156.12	-3,035.2	936.7	2,783.5	2,767.6	15.84	175.761	
5,966.3	5,915.4	5,913.2	5,912.4	15.7	1.7	156.11	-3,035.0	937.1	2,783.4	2,767.5	15.95	174.545	
6,000.0	5,949.2	5,944.9	5,944.1	15.7	1.7	156.11	-3,035.0	937.3	2,783.5	2,767.5	16.01	173.878	
6,003.9	5,953.1	5,948.5	5,947.8	15.7	1.7	156.11	-3,034.9	937.3	2,783.5	2,767.4	16.02	173.800	
6,100.0	6,049.2	6,041.6	6,040.9	15.9	1.7	156.09	-3,034.8	938.2	2,783.6	2,767.4	16.19	171.920	
6,102.3	6,051.5	6,044.0	6,043.2	15.9	1.8	156.09	-3,034.8	938.2	2,783.6	2,767.4	16.20	171.874	
6,124.6	6,073.8	6,066.5	6,065.7	15.9	1.8	156.09	-3,034.7	938.4	2,783.7	2,767.4	16.24	171.442	
6,150.0	6,099.2	6,092.1	6,091.4	16.0	1.8	-113.91	-3,034.6	938.7	2,783.9	2,767.5	16.36	170.139	
6,200.0	6,149.0	6,139.8	6,139.1	16.1	1.8	-113.87	-3,034.5	939.2	2,785.4	2,769.0	16.48	169.058	
6,200.8	6,149.8	6,140.6	6,139.8	16.1	1.8	-113.87	-3,034.5	939.2	2,785.5	2,769.0	16.48	169.038	
6,250.0	6,198.5	6,186.7	6,185.9	16.2	1.8	-113.79	-3,034.4	939.8	2,788.4	2,771.8	16.62	167.825	
6,299.2	6,246.6	6,230.1	6,229.3	16.3	1.8	-113.64	-3,034.4	940.3	2,792.8	2,776.0	16.78	166.477	
6,300.0	6,247.4	6,230.7	6,230.0	16.3	1.8	-113.64	-3,034.4	940.3	2,792.9	2,776.1	16.78	166.457	
6,350.0	6,295.5	6,273.1	6,272.3	16.5	1.8	-113.43	-3,034.4	940.9	2,798.9	2,782.0	16.96	164.982	
6,397.6	6,340.2	6,312.8	6,312.0	16.6	1.8	-113.16	-3,034.4	941.6	2,806.1	2,788.9	17.16	163.484	
6,400.0	6,342.4	6,314.8	6,314.0	16.6	1.8	-113.15	-3,034.4	941.6	2,806.5	2,789.3	17.17	163.413	
6,450.0	6,388.1	6,355.9	6,355.1	16.8	1.8	-112.80	-3,034.5	942.3	2,815.6	2,798.2	17.41	161.755	
6,496.0	6,428.8	6,392.5	6,391.7	17.0	1.8	-112.40	-3,034.7	943.0	2,825.3	2,807.7	17.64	160.150	
6,500.0	6,432.2	6,400.0	6,399.2	17.0	1.8	-112.41	-3,034.7	943.2	2,826.2	2,808.6	17.67	159.987	
6,550.0	6,474.6	6,434.3	6,433.5	17.3	1.8	-111.84	-3,034.9	943.8	2,838.4	2,820.5	17.94	158.194	
6,594.5	6,510.7	6,467.3	6,466.5	17.5	1.8	-111.29	-3,035.1	944.4	2,850.5	2,832.3	18.22	156.466	
6,600.0	6,515.0	6,471.3	6,470.5	17.6	1.8	-111.21	-3,035.1	944.5	2,852.1	2,833.9	18.25	156.266	
6,650.0	6,553.3	6,507.1	6,506.3	17.9	1.8	-110.48	-3,035.4	945.1	2,867.3	2,848.7	18.59	154.205	
6,692.9	6,584.3	6,539.1	6,538.3	18.2	1.8	-109.78	-3,035.7	945.5	2,881.6	2,862.6	18.93	152.261	
6,700.0	6,589.2	6,544.2	6,543.4	18.2	1.8	-109.66	-3,035.8	945.6	2,884.0	2,865.1	18.98	151.958	
6,750.0	6,622.7	6,579.2	6,578.3	18.6	1.8	-108.71	-3,036.3	945.8	2,902.2	2,882.8	19.41	149.526	
6,791.3	6,648.3	6,605.9	6,605.1	19.0	1.8	-107.81	-3,036.7	945.8	2,918.2	2,898.4	19.81	147.333	
6,800.0	6,653.4	6,611.1	6,610.2	19.1	1.8	-107.61	-3,036.8	945.8	2,921.7	2,901.8	19.89	146.897	
6,850.0	6,681.4	6,638.9	6,638.1	19.6	1.8	-106.32	-3,037.2	945.8	2,942.6	2,922.2	20.43	144.066	
6,889.7	6,701.5	6,658.9	6,658.1	20.1	1.8	-105.16	-3,037.5	945.8	2,960.2	2,939.3	20.90	141.631	
6,900.0	6,706.3	6,663.7	6,662.9	20.2	1.8	-104.85	-3,037.6	945.8	2,964.9	2,943.8	21.02	141.029	
6,950.0	6,728.2	6,685.3	6,684.4	20.9	1.8	-103.19	-3,037.9	945.9	2,988.4	2,966.7	21.69	137.801	
6,988.2	6,742.8	6,700.0	6,699.2	21.5	1.8	-101.79	-3,038.0	946.0	3,007.2	2,984.9	22.24	135.185	

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 SCHAUMBERG 17G-314
<b>Project:</b>	WELD COUNTY, COLORADO	<b>TVD Reference:</b>	KB-EST @ 4633.0usft (Original Well Elev)
<b>Reference Site:</b>	SW NW SEC. 17 T5N R64W 6th P.M.	<b>MD Reference:</b>	KB-EST @ 4633.0usft (Original Well Elev)
<b>Site Error:</b>	0.0 usft	<b>North Reference:</b>	True
<b>Reference Well:</b>	SCHAUMBERG 17G-314	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Well Error:</b>	0.0 usft	<b>Output errors are at</b>	2.00 sigma
<b>Reference Wellbore</b>	ORIGINAL WELLBORE	<b>Database:</b>	EDM 5000.1 Single User Db
<b>Reference Design:</b>	PROPOSAL #1	<b>Offset TVD Reference:</b>	Offset Datum

Offset Design NW SW SEC. 17 T5N R64W 6th P.M. - EXIST VERT MILLER #2 - 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		
7,000.0	6,746.9	6,700.0	6,699.2	21.6	1.8	-101.25	-3,038.0	946.0	3,013.1	2,990.7	22.41	134.426		
7,050.0	6,762.4	6,715.7	6,714.8	22.5	1.8	-99.20	-3,038.2	946.1	3,039.0	3,015.8	23.22	130.891		
7,086.6	6,771.5	6,723.1	6,722.2	23.1	1.8	-97.52	-3,038.3	946.2	3,058.6	3,034.7	23.86	128.213		
7,100.0	6,774.4	6,725.4	6,724.5	23.3	1.8	-96.88	-3,038.4	946.2	3,065.8	3,041.8	24.09	127.256		
7,150.0	6,783.1	6,732.1	6,731.3	24.3	1.8	-94.37	-3,038.4	946.3	3,093.6	3,068.6	25.04	123.532		
7,185.0	6,787.1	6,735.1	6,734.3	25.0	1.8	-92.50	-3,038.5	946.3	3,113.5	3,087.8	25.76	120.865		
7,200.0	6,788.3	6,736.0	6,735.1	25.3	1.8	-91.68	-3,038.5	946.3	3,122.1	3,096.1	26.07	119.742		
7,252.3	6,790.0	6,736.9	6,736.0	26.3	1.8	-88.70	-3,038.5	946.3	3,152.7	3,125.4	27.24	115.750		
7,283.4	6,789.9	6,736.5	6,735.6	27.0	1.8	-88.69	-3,038.5	946.3	3,171.1	3,143.1	27.93	113.544		
7,300.0	6,789.8	6,736.3	6,735.4	27.3	1.8	-88.68	-3,038.5	946.3	3,180.9	3,152.6	28.30	112.417		
7,381.9	6,789.5	6,735.3	6,734.4	29.1	1.8	-88.66	-3,038.5	946.3	3,230.6	3,200.4	30.18	107.053		
7,400.0	6,789.4	6,735.1	6,734.2	29.5	1.8	-88.66	-3,038.5	946.3	3,241.7	3,211.2	30.59	105.960		
7,480.3	6,789.1	6,734.1	6,733.3	31.4	1.8	-88.63	-3,038.5	946.3	3,292.0	3,259.5	32.51	101.270		
7,500.0	6,789.1	6,733.9	6,733.0	31.8	1.8	-88.63	-3,038.5	946.3	3,304.5	3,271.5	32.98	100.208		
7,578.7	6,788.8	6,733.0	6,732.1	33.7	1.8	-88.61	-3,038.4	946.3	3,355.1	3,320.2	34.90	96.125		
7,600.0	6,788.7	6,732.7	6,731.9	34.2	1.8	-88.60	-3,038.4	946.3	3,369.0	3,333.5	35.42	95.104		
7,677.1	6,788.4	6,731.9	6,731.0	36.1	1.8	-88.58	-3,038.4	946.3	3,419.9	3,382.6	37.35	91.555		
7,700.0	6,788.3	6,731.6	6,730.8	36.7	1.8	-88.58	-3,038.4	946.3	3,435.2	3,397.3	37.93	90.578		
7,775.6	6,788.0	6,730.8	6,729.9	38.6	1.8	-88.56	-3,038.4	946.3	3,486.3	3,446.4	39.85	87.492		
7,800.0	6,787.9	6,730.5	6,729.7	39.2	1.8	-88.55	-3,038.4	946.3	3,503.0	3,462.5	40.47	86.561		
7,874.0	6,787.6	6,729.7	6,728.9	41.0	1.8	-88.53	-3,038.4	946.2	3,554.2	3,511.8	42.38	83.872		
7,900.0	6,787.6	6,729.4	6,728.6	41.7	1.8	-88.53	-3,038.4	946.2	3,572.3	3,529.3	43.05	82.988		
7,972.4	6,787.3	6,728.7	6,727.8	43.6	1.8	-88.51	-3,038.4	946.2	3,623.4	3,578.5	44.93	80.639		
8,000.0	6,787.2	6,728.4	6,727.5	44.3	1.8	-88.50	-3,038.4	946.2	3,643.1	3,597.4	45.65	79.800		
8,070.8	6,786.9	6,727.6	6,726.8	46.1	1.8	-88.49	-3,038.4	946.2	3,694.0	3,646.5	47.52	77.743		
8,100.0	6,786.8	6,727.4	6,726.5	46.9	1.8	-88.48	-3,038.4	946.2	3,715.2	3,666.9	48.28	76.947		
8,169.3	6,786.5	6,726.7	6,725.8	48.7	1.8	-88.46	-3,038.4	946.2	3,765.9	3,715.8	50.12	75.140		
8,200.0	6,786.4	6,726.3	6,725.5	49.5	1.8	-88.46	-3,038.4	946.2	3,788.5	3,737.6	50.93	74.384		
8,267.7	6,786.1	6,725.7	6,724.8	51.3	1.8	-88.44	-3,038.4	946.2	3,838.9	3,786.2	52.74	72.792		
8,300.0	6,786.0	6,725.4	6,724.5	52.1	1.8	-88.44	-3,038.4	946.2	3,863.1	3,809.5	53.60	72.074		
8,366.1	6,785.8	6,724.7	6,723.9	53.9	1.8	-88.42	-3,038.3	946.2	3,913.0	3,857.7	55.37	70.669		
8,400.0	6,785.6	6,724.4	6,723.6	54.8	1.8	-88.41	-3,038.3	946.2	3,938.8	3,882.5	56.28	69.986		
8,464.5	6,785.4	6,723.8	6,722.9	56.5	1.8	-88.40	-3,038.3	946.2	3,988.2	3,930.2	58.02	68.741		
8,500.0	6,785.3	6,723.5	6,722.6	57.5	1.8	-88.39	-3,038.3	946.2	4,015.5	3,956.6	58.97	68.091		
8,563.0	6,785.0	6,722.9	6,722.0	59.2	1.8	-88.38	-3,038.3	946.2	4,064.4	4,003.7	60.68	66.986		
8,600.0	6,784.9	6,722.5	6,721.7	60.2	1.8	-88.37	-3,038.3	946.2	4,093.3	4,031.6	61.68	66.367		
8,661.4	6,784.6	6,722.0	6,721.1	61.8	1.8	-88.36	-3,038.3	946.2	4,141.5	4,078.2	63.34	65.383		
8,700.0	6,784.5	6,721.6	6,720.8	62.9	1.8	-88.35	-3,038.3	946.2	4,172.0	4,107.6	64.39	64.793		
8,759.8	6,784.3	6,721.1	6,720.3	64.5	1.8	-88.34	-3,038.3	946.2	4,219.5	4,153.5	66.02	63.915		
8,800.0	6,784.1	6,720.8	6,719.9	65.6	1.8	-88.33	-3,038.3	946.2	4,251.6	4,184.5	67.11	63.352		
8,858.2	6,783.9	6,720.2	6,719.4	67.1	1.8	-88.32	-3,038.3	946.2	4,298.4	4,229.7	68.70	62.567		
8,900.0	6,783.7	6,719.9	6,719.0	68.3	1.8	-88.31	-3,038.3	946.2	4,332.0	4,262.2	69.84	62.029		
8,956.7	6,783.5	6,719.4	6,718.6	69.8	1.8	-88.30	-3,038.3	946.1	4,378.0	4,306.6	71.39	61.326		
9,000.0	6,783.3	6,719.0	6,718.2	71.0	1.8	-88.29	-3,038.3	946.1	4,413.3	4,340.7	72.57	60.811		
9,055.1	6,783.1	6,718.6	6,717.7	72.5	1.8	-88.28	-3,038.3	946.1	4,458.4	4,384.3	74.08	60.181		
9,100.0	6,782.9	6,718.2	6,717.4	73.7	1.8	-88.27	-3,038.3	946.1	4,495.3	4,420.0	75.31	59.688		
9,153.5	6,782.7	6,717.8	6,716.9	75.2	1.8	-88.26	-3,038.3	946.1	4,539.5	4,462.7	76.78	59.121		
9,200.0	6,782.6	6,717.4	6,716.5	76.5	1.8	-88.25	-3,038.3	946.1	4,578.0	4,499.9	78.06	58.648		
9,251.9	6,782.4	6,700.0	6,699.2	77.9	1.8	-87.86	-3,038.0	946.0	4,621.3	4,541.8	79.48	58.146		
9,300.0	6,782.2	6,700.0	6,699.2	79.2	1.8	-87.86	-3,038.0	946.0	4,661.4	4,580.6	80.80	57.692		
9,350.4	6,782.0	6,700.0	6,699.2	80.6	1.8	-87.86	-3,038.0	946.0	4,703.7	4,621.5	82.18	57.233		
9,400.0	6,781.8	6,700.0	6,699.2	82.0	1.8	-87.86	-3,038.0	946.0	4,745.5	4,661.9	83.55	56.797		

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 SCHAUMBERG 17G-314
<b>Project:</b>	WELD COUNTY, COLORADO	<b>TVD Reference:</b>	KB-EST @ 4633.0usft (Original Well Elev)
<b>Reference Site:</b>	SW NW SEC. 17 T5N R64W 6th P.M.	<b>MD Reference:</b>	KB-EST @ 4633.0usft (Original Well Elev)
<b>Site Error:</b>	0.0 usft	<b>North Reference:</b>	True
<b>Reference Well:</b>	SCHAUMBERG 17G-314	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Well Error:</b>	0.0 usft	<b>Output errors are at</b>	2.00 sigma
<b>Reference Wellbore</b>	ORIGINAL WELLBORE	<b>Database:</b>	EDM 5000.1 Single User Db
<b>Reference Design:</b>	PROPOSAL #1	<b>Offset TVD Reference:</b>	Offset Datum

Offset Design												Offset Site Error:	0.0 usft
Survey Program: 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	
9,448.8	6,781.6	6,700.0	6,699.2	83.3	1.8	-87.86	-3,038.0	946.0	4,786.7	4,701.8	84.90	56.383	
9,500.0	6,781.4	6,700.0	6,699.2	84.7	1.8	-87.86	-3,038.0	946.0	4,830.1	4,743.8	86.31	55.964	
9,547.2	6,781.2	6,700.0	6,699.2	86.0	1.8	-87.86	-3,038.0	946.0	4,870.3	4,782.7	87.61	55.589	
9,600.0	6,781.0	6,700.0	6,699.2	87.5	1.8	-87.86	-3,038.0	946.0	4,915.3	4,826.2	89.07	55.186	
9,645.6	6,780.8	6,700.0	6,699.2	88.7	1.8	-87.86	-3,038.0	946.0	4,954.4	4,864.1	90.33	54.848	
9,700.0	6,780.6	6,700.0	6,699.2	90.2	1.8	-87.86	-3,038.0	946.0	5,001.1	4,909.2	91.83	54.459	
9,744.1	6,780.4	6,700.0	6,699.2	91.4	1.8	-87.86	-3,038.0	946.0	5,039.0	4,946.0	93.05	54.154	
9,800.0	6,780.2	6,700.0	6,699.2	93.0	1.8	-87.86	-3,038.0	946.0	5,087.3	4,992.8	94.60	53.779	
9,842.5	6,780.1	6,700.0	6,699.2	94.2	1.8	-87.86	-3,038.0	946.0	5,124.2	5,028.4	95.77	53.503	
9,900.0	6,779.8	6,700.0	6,699.2	95.7	1.8	-87.86	-3,038.0	946.0	5,174.1	5,076.8	97.37	53.141	
9,940.9	6,779.7	6,700.0	6,699.2	96.9	1.8	-87.86	-3,038.0	946.0	5,209.8	5,111.3	98.50	52.892	
10,000.0	6,779.4	6,700.0	6,699.2	98.5	1.8	-87.86	-3,038.0	946.0	5,261.4	5,161.2	100.14	52.542	
10,039.3	6,779.3	6,700.0	6,699.2	99.6	1.8	-87.86	-3,038.0	946.0	5,295.8	5,194.6	101.23	52.316	
10,100.0	6,779.0	6,700.0	6,699.2	101.3	1.8	-87.86	-3,038.0	946.0	5,349.1	5,246.2	102.91	51.979	
10,137.8	6,778.9	6,700.0	6,699.2	102.3	1.8	-87.86	-3,038.0	946.0	5,382.3	5,278.3	103.96	51.774	
10,200.0	6,778.7	6,700.0	6,699.2	104.1	1.8	-87.86	-3,038.0	946.0	5,437.2	5,331.5	105.68	51.448	
10,236.2	6,778.5	6,700.0	6,699.2	105.1	1.8	-87.86	-3,038.0	946.0	5,469.2	5,362.5	106.69	51.263	
10,300.0	6,778.3	6,700.0	6,699.2	106.8	1.8	-87.85	-3,038.0	946.0	5,525.7	5,417.2	108.46	50.947	
10,334.6	6,778.1	6,700.0	6,699.2	107.8	1.8	-87.85	-3,038.0	946.0	5,556.4	5,447.0	109.42	50.780	
10,400.0	6,777.9	6,700.0	6,699.2	109.6	1.8	-87.85	-3,038.0	946.0	5,614.6	5,503.4	111.24	50.474	
10,433.0	6,777.7	6,700.0	6,699.2	110.5	1.8	-87.85	-3,038.0	946.0	5,644.1	5,531.9	112.16	50.323	
10,500.0	6,777.5	6,700.0	6,699.2	112.4	1.8	-87.85	-3,038.0	946.0	5,703.9	5,589.9	114.02	50.026	
10,531.5	6,777.3	6,700.0	6,699.2	113.3	1.8	-87.85	-3,038.0	946.0	5,732.1	5,617.2	114.89	49.890	
10,600.0	6,777.1	6,700.0	6,699.2	115.2	1.8	-87.85	-3,038.0	946.0	5,793.5	5,676.7	116.80	49.603	
10,629.9	6,777.0	6,700.0	6,699.2	116.0	1.8	-87.85	-3,038.0	946.0	5,820.4	5,702.7	117.63	49.480	
10,700.0	6,776.7	6,700.0	6,699.2	117.9	1.8	-87.85	-3,038.0	946.0	5,883.5	5,763.9	119.58	49.201	
10,728.3	6,776.6	6,700.0	6,699.2	118.7	1.8	-87.85	-3,038.0	946.0	5,909.0	5,788.6	120.37	49.091	
10,800.0	6,776.3	6,700.0	6,699.2	120.7	1.8	-87.85	-3,038.0	946.0	5,973.7	5,851.4	122.36	48.819	
10,826.7	6,776.2	6,700.0	6,699.2	121.5	1.8	-87.85	-3,038.0	946.0	5,997.9	5,874.8	123.11	48.721	
10,900.0	6,775.9	6,700.0	6,699.2	123.5	1.8	-87.85	-3,038.0	946.0	6,064.3	5,939.2	125.15	48.457	
10,925.2	6,775.8	6,700.0	6,699.2	124.2	1.8	-87.85	-3,038.0	946.0	6,087.2	5,961.3	125.85	48.368	
11,000.0	6,775.5	6,700.0	6,699.2	126.3	1.8	-87.85	-3,038.0	946.0	6,155.2	6,027.3	127.93	48.112	
11,023.6	6,775.4	6,700.0	6,699.2	126.9	1.8	-87.85	-3,038.0	946.0	6,176.7	6,048.1	128.59	48.033	
11,100.0	6,775.1	6,700.0	6,699.2	129.1	1.8	-87.85	-3,038.0	946.0	6,246.4	6,115.6	130.72	47.784	
11,122.0	6,775.0	6,700.0	6,699.2	129.7	1.8	-87.85	-3,038.0	946.0	6,266.5	6,135.1	131.34	47.714	
11,200.0	6,774.7	6,700.0	6,699.2	131.9	1.8	-87.85	-3,038.0	946.0	6,337.8	6,204.3	133.51	47.471	
11,220.4	6,774.6	6,700.0	6,699.2	132.4	1.8	-87.85	-3,038.0	946.0	6,356.5	6,222.4	134.08	47.409	
11,300.0	6,774.3	6,700.0	6,699.2	134.6	1.8	-87.85	-3,038.0	946.0	6,429.4	6,293.2	136.30	47.172	
11,318.9	6,774.2	6,700.0	6,699.2	135.2	1.8	-87.85	-3,038.0	946.0	6,446.8	6,310.0	136.82	47.117	
11,400.0	6,773.9	6,700.0	6,699.2	137.4	1.8	-87.85	-3,038.0	946.0	6,521.4	6,382.3	139.09	46.887	
11,417.3	6,773.8	6,700.0	6,699.2	137.9	1.8	-87.85	-3,038.0	946.0	6,537.3	6,397.7	139.57	46.839	
11,500.0	6,773.5	6,700.0	6,699.2	140.2	1.8	-87.85	-3,038.0	946.0	6,613.5	6,471.6	141.88	46.615	
11,515.7	6,773.4	6,700.0	6,699.2	140.7	1.8	-87.85	-3,038.0	946.0	6,628.0	6,485.7	142.32	46.573	
11,600.0	6,773.1	6,700.0	6,699.2	143.0	1.8	-87.85	-3,038.0	946.0	6,705.9	6,561.2	144.67	46.354	
11,614.1	6,773.0	6,700.0	6,699.2	143.4	1.8	-87.85	-3,038.0	946.0	6,719.0	6,573.9	145.06	46.318	
11,700.0	6,772.7	6,700.0	6,699.2	145.8	1.8	-87.84	-3,038.0	946.0	6,798.5	6,651.0	147.46	46.104	
11,712.6	6,772.6	6,700.0	6,699.2	146.2	1.8	-87.84	-3,038.0	946.0	6,810.2	6,662.3	147.81	46.074	
11,800.0	6,772.3	6,700.0	6,699.2	148.6	1.8	-87.84	-3,038.0	946.0	6,891.3	6,741.0	150.25	45.865	
11,811.0	6,772.2	6,700.0	6,699.2	148.9	1.8	-87.84	-3,038.0	946.0	6,901.5	6,751.0	150.56	45.840	
11,900.0	6,771.9	6,700.0	6,699.2	151.4	1.8	-87.84	-3,038.0	946.0	6,984.3	6,831.3	153.04	45.636	
11,909.4	6,771.8	6,700.0	6,699.2	151.7	1.8	-87.84	-3,038.0	946.0	6,993.1	6,839.8	153.31	45.615	
12,000.0	6,771.5	6,700.0	6,699.2	154.2	1.8	-87.84	-3,038.0	946.0	7,077.5	6,921.7	155.84	45.416	

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 SCHAUMBERG 17G-314
<b>Project:</b>	WELD COUNTY, COLORADO	<b>TVD Reference:</b>	KB-EST @ 4633.0usft (Original Well Elev)
<b>Reference Site:</b>	SW NW SEC. 17 T5N R64W 6th P.M.	<b>MD Reference:</b>	KB-EST @ 4633.0usft (Original Well Elev)
<b>Site Error:</b>	0.0 usft	<b>North Reference:</b>	True
<b>Reference Well:</b>	SCHAUMBERG 17G-314	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Well Error:</b>	0.0 usft	<b>Output errors are at</b>	2.00 sigma
<b>Reference Wellbore</b>	ORIGINAL WELLBORE	<b>Database:</b>	EDM 5000.1 Single User Db
<b>Reference Design:</b>	PROPOSAL #1	<b>Offset TVD Reference:</b>	Offset Datum

<b>Offset Design</b> NW SW SEC. 17 T5N R64W 6th P.M. - EXIST VERT MILLER #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
12,007.8	6,771.4	6,700.0	6,699.2	154.4	1.8	-87.84	-3,038.0	946.0	7,084.8	6,928.8	156.06	45.399	
12,100.0	6,771.1	6,700.0	6,699.2	157.0	1.8	-87.84	-3,038.0	946.0	7,170.9	7,012.2	158.63	45.205	
12,106.3	6,771.0	6,700.0	6,699.2	157.2	1.8	-87.84	-3,038.0	946.0	7,176.7	7,017.9	158.81	45.192	
12,200.0	6,770.7	6,700.0	6,699.2	159.8	1.8	-87.84	-3,038.0	946.0	7,264.4	7,103.0	161.42	45.002	
12,204.7	6,770.6	6,700.0	6,699.2	159.9	1.8	-87.84	-3,038.0	946.0	7,268.8	7,107.3	161.56	44.993	
12,300.0	6,770.3	6,700.0	6,699.2	162.6	1.8	-87.84	-3,038.0	946.0	7,358.1	7,193.9	164.22	44.807	
12,303.1	6,770.2	6,700.0	6,699.2	162.7	1.8	-87.84	-3,038.0	946.0	7,361.1	7,196.8	164.31	44.801	
12,361.7	6,770.0	6,700.0	6,699.2	164.3	1.8	-87.84	-3,038.0	946.0	7,416.1	7,250.1	165.94	44.690 SF	



# Anticollision Report



<b>Company:</b>	PDC ENERGY	<b>Local Co-ordinate Reference:</b>	Well SCHAUMBERG 17G-314
<b>Project:</b>	WELD COUNTY, COLORADO	<b>TVD Reference:</b>	KB-EST @ 4633.0usft (Original Well Elev)
<b>Reference Site:</b>	SW NW SEC. 17 T5N R64W 6th P.M.	<b>MD Reference:</b>	KB-EST @ 4633.0usft (Original Well Elev)
<b>Site Error:</b>	0.0 usft	<b>North Reference:</b>	True
<b>Reference Well:</b>	SCHAUMBERG 17G-314	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Well Error:</b>	0.0 usft	<b>Output errors are at</b>	2.00 sigma
<b>Reference Wellbore</b>	ORIGINAL WELLBORE	<b>Database:</b>	EDM 5000.1 Single User Db
<b>Reference Design:</b>	PROPOSAL #1	<b>Offset TVD Reference:</b>	Offset Datum

<b>Offset Design</b> NW SW SEC. 17 T5N R64W 6th P.M. - EXIST VERT SCHAUMBERG #12-17 - Wellbore #1 - Design #1												<b>Offset Site Error:</b>	0.0 usft
Survey Program: 0-INC												<b>Offset Well Error:</b>	0.0 usft
Reference		Offset		Semi Major Axis			Distance						
Measured Depth (usft)	Vertical Depth (usft)	Measured Depth (usft)	Vertical Depth (usft)	Reference (usft)	Offset (usft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (usft)	+E/-W (usft)	Between Centres (usft)	Between Ellipses (usft)	Minimum Separation (usft)	Separation Factor	Warning
0.0	0.0	0.0	0.0	0.0	0.0	-147.25	-365.0	-234.8	434.0				
98.4	98.4	93.4	93.4	0.1	1.2	-147.25	-365.0	-234.8	434.0	432.7	1.28	339.707	
100.0	100.0	95.0	95.0	0.1	1.2	-147.25	-365.0	-234.8	434.0	432.7	1.30	334.036	
196.8	196.8	191.8	191.8	0.3	3.4	-147.25	-365.0	-234.8	434.0	430.4	3.67	118.262	
200.0	200.0	195.0	195.0	0.3	3.4	-147.25	-365.0	-234.8	434.0	430.3	3.75	115.777	
295.3	295.3	290.3	290.3	0.5	5.4	-147.25	-365.0	-234.8	434.0	428.1	5.95	72.924	
300.0	300.0	295.0	295.0	0.5	5.5	-147.25	-365.0	-234.8	434.0	428.0	6.06	71.615	
393.7	393.7	388.7	388.7	0.8	7.4	-147.25	-365.0	-234.8	434.0	425.8	8.19	53.020	
400.0	400.0	395.0	395.0	0.8	7.6	-147.25	-365.0	-234.8	434.0	425.7	8.33	52.111	
492.1	492.1	487.1	487.1	1.0	9.4	-147.25	-365.0	-234.8	434.0	423.6	10.41	41.710	
500.0	500.0	495.0	495.0	1.0	9.6	-147.25	-365.0	-234.8	434.0	423.4	10.58	41.010	
590.5	590.5	585.5	585.5	1.2	11.4	-147.25	-365.0	-234.8	434.0	421.4	12.62	34.395	
600.0	600.0	595.0	595.0	1.2	11.6	-147.25	-365.0	-234.8	434.0	421.2	12.83	33.826	
689.0	689.0	684.0	684.0	1.4	13.4	-147.25	-365.0	-234.8	434.0	419.2	14.83	29.271	
700.0	700.0	695.0	695.0	1.4	13.6	-147.25	-365.0	-234.8	434.0	418.9	15.08	28.790	
787.4	787.4	782.4	782.4	1.6	15.4	-147.25	-365.0	-234.8	434.0	417.0	17.03	25.479	
800.0	800.0	795.0	795.0	1.7	15.6	-147.25	-365.0	-234.8	434.0	416.7	17.32	25.063	
885.8	885.8	880.8	880.8	1.9	17.4	-147.25	-365.0	-234.8	434.0	414.8	19.24	22.558	
900.0	900.0	895.0	895.0	1.9	17.7	-147.25	-365.0	-234.8	434.0	414.5	19.56	22.192	
984.2	984.2	979.2	979.2	2.1	19.4	-147.25	-365.0	-234.8	434.0	412.6	21.44	20.239	
1,000.0	1,000.0	995.0	995.0	2.1	19.7	-147.25	-365.0	-234.8	434.0	412.2	21.80	19.912	
1,082.7	1,082.7	1,077.7	1,077.7	2.3	21.3	-147.25	-365.0	-234.8	434.0	410.4	23.65	18.353	
1,100.0	1,100.0	1,095.0	1,095.0	2.3	21.7	-147.25	-365.0	-234.8	434.0	410.0	24.04	18.057	
1,181.1	1,181.1	1,176.1	1,176.1	2.5	23.3	-147.25	-365.0	-234.8	434.0	408.2	25.85	16.789	
1,200.0	1,200.0	1,195.0	1,195.0	2.6	23.7	-147.25	-365.0	-234.8	434.0	407.7	26.27	16.519	
1,279.5	1,279.5	1,274.5	1,274.5	2.7	25.3	-147.25	-365.0	-234.8	434.0	406.0	28.05	15.471	
1,300.0	1,300.0	1,295.0	1,295.0	2.8	25.7	-147.25	-365.0	-234.8	434.0	405.5	28.51	15.222	
1,377.9	1,377.9	1,372.9	1,372.9	3.0	27.3	-147.25	-365.0	-234.8	434.0	403.8	30.26	14.345	
1,400.0	1,400.0	1,395.0	1,395.0	3.0	27.7	-147.25	-365.0	-234.8	434.0	403.3	30.75	14.115	
1,476.4	1,476.4	1,471.4	1,471.4	3.2	29.3	-147.25	-365.0	-234.8	434.0	401.6	32.46	13.371	
1,500.0	1,500.0	1,495.0	1,495.0	3.2	29.7	-147.25	-365.0	-234.8	434.0	401.0	32.99	13.157	
1,574.8	1,574.8	1,569.8	1,569.8	3.4	31.2	-147.25	-365.0	-234.8	434.0	399.4	34.66	12.522	
1,600.0	1,600.0	1,595.0	1,595.0	3.5	31.8	-147.25	-365.0	-234.8	434.0	398.8	35.22	12.322	
1,673.2	1,673.2	1,668.2	1,668.2	3.6	33.2	-147.25	-365.0	-234.8	434.0	397.2	36.86	11.774	
1,700.0	1,700.0	1,695.0	1,695.0	3.7	33.8	-147.25	-365.0	-234.8	434.0	396.6	37.46	11.586	
1,771.6	1,771.6	1,766.6	1,766.6	3.9	35.2	-147.25	-365.0	-234.8	434.0	395.0	39.06	11.110	
1,800.0	1,800.0	1,795.0	1,795.0	3.9	35.8	-147.25	-365.0	-234.8	434.0	394.3	39.70	10.933	
1,870.1	1,870.1	1,865.1	1,865.1	4.1	37.2	11.58	-365.0	-234.8	433.2	391.9	41.23	10.505	
1,900.0	1,900.0	1,895.0	1,895.0	4.1	37.8	11.61	-365.0	-234.8	432.3	390.4	41.88	10.322	
1,968.5	1,968.4	1,963.4	1,963.4	4.2	39.2	11.71	-365.0	-234.8	429.2	385.8	43.33	9.904	
2,000.0	1,999.8	1,994.8	1,994.8	4.3	39.8	11.77	-365.0	-234.8	427.2	383.2	43.99	9.712	
2,066.9	2,066.5	2,061.5	2,061.5	4.4	41.1	11.94	-365.0	-234.8	421.9	376.5	45.36	9.299	
2,100.0	2,099.5	2,094.5	2,094.5	4.5	41.8	12.05	-365.0	-234.8	418.7	372.6	46.03	9.095	
2,165.3	2,164.4	2,159.4	2,159.4	4.6	43.1	12.30	-365.0	-234.8	411.3	363.9	47.33	8.688	
2,200.0	2,198.7	2,193.7	2,193.7	4.7	43.8	12.46	-365.0	-234.8	406.7	358.7	48.01	8.472	
2,263.8	2,261.8	2,256.8	2,256.8	4.8	45.1	12.80	-365.0	-234.8	397.4	348.2	49.23	8.071	
2,300.0	2,297.5	2,292.5	2,292.5	4.9	45.8	13.02	-365.0	-234.8	391.5	341.6	49.91	7.843	
2,362.2	2,358.6	2,353.6	2,353.6	5.0	47.0	13.46	-365.0	-234.8	380.3	329.2	51.06	7.448	
2,400.0	2,395.6	2,390.6	2,390.6	5.1	47.8	13.77	-365.0	-234.8	372.9	321.2	51.74	7.208	
2,460.6	2,454.9	2,449.9	2,449.9	5.3	49.0	14.25	-365.0	-234.8	360.7	307.6	53.04	6.800	
2,500.0	2,493.4	2,488.4	2,488.4	5.4	49.7	14.58	-365.0	-234.8	352.7	298.8	53.88	6.546	
2,559.0	2,551.2	2,546.2	2,546.2	5.6	50.9	15.09	-365.0	-234.8	340.8	285.7	55.15	6.180	

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 SCHAUMBERG 17G-314
<b>Project:</b>	WELD COUNTY, COLORADO	<b>TVD Reference:</b>	KB-EST @ 4633.0usft (Original Well Elev)
<b>Reference Site:</b>	SW NW SEC. 17 T5N R64W 6th P.M.	<b>MD Reference:</b>	KB-EST @ 4633.0usft (Original Well Elev)
<b>Site Error:</b>	0.0 usft	<b>North Reference:</b>	True
<b>Reference Well:</b>	SCHAUMBERG 17G-314	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Well Error:</b>	0.0 usft	<b>Output errors are at</b>	2.00 sigma
<b>Reference Wellbore</b>	ORIGINAL WELLBORE	<b>Database:</b>	EDM 5000.1 Single User Db
<b>Reference Design:</b>	PROPOSAL #1	<b>Offset TVD Reference:</b>	Offset Datum

Offset Design												Offset Site Error:	0.0 usft
Survey Program: 0-INC												Offset Well Error:	0.0 usft
Reference		Offset		Semi Major Axis			Distance						Warning
Measured Depth (usft)	Vertical Depth (usft)	Measured Depth (usft)	Vertical Depth (usft)	Reference (usft)	Offset (usft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (usft)	+E/-W (usft)	Between Centres (usft)	Between Ellipses (usft)	Minimum Separation (usft)	Separation Factor	
2,600.0	2,591.3	2,586.3	2,586.3	5.7	51.7	15.47	-365.0	-234.8	332.6	276.6	56.03	5.936	
2,657.5	2,647.5	2,642.5	2,642.5	5.9	52.8	16.04	-365.0	-234.8	321.1	263.8	57.27	5.606	
2,700.0	2,689.1	2,684.1	2,684.1	6.0	53.7	16.49	-365.0	-234.8	312.6	254.4	58.20	5.371	
2,755.9	2,743.7	2,738.7	2,738.7	6.2	54.8	17.12	-365.0	-234.8	301.4	242.0	59.41	5.074	
2,800.0	2,786.9	2,781.9	2,781.9	6.4	55.6	17.64	-365.0	-234.8	292.7	232.3	60.37	4.848	
2,854.3	2,840.0	2,835.0	2,835.0	6.6	56.7	18.34	-365.0	-234.8	281.9	220.3	61.56	4.579	
2,900.0	2,884.7	2,879.7	2,879.7	6.7	57.6	18.96	-365.0	-234.8	272.9	210.3	62.56	4.362	
2,952.7	2,936.3	2,931.3	2,931.3	6.9	58.6	19.74	-365.0	-234.8	262.5	198.8	63.73	4.119	
3,000.0	2,982.5	2,977.5	2,977.5	7.1	59.6	20.49	-365.0	-234.8	253.3	188.5	64.77	3.910	
3,051.2	3,032.6	3,027.6	3,027.6	7.3	60.6	21.36	-365.0	-234.8	243.3	177.4	65.91	3.691	
3,100.0	3,080.3	3,075.3	3,075.3	7.5	61.5	22.27	-365.0	-234.8	233.9	166.9	67.00	3.490	
3,149.6	3,128.8	3,123.8	3,123.8	7.7	62.5	23.26	-365.0	-234.8	224.3	156.2	68.12	3.293	
3,200.0	3,178.1	3,173.1	3,173.1	7.9	63.5	24.36	-365.0	-234.8	214.7	145.4	69.26	3.100	
3,248.0	3,225.1	3,220.1	3,220.1	8.1	64.4	25.50	-365.0	-234.8	205.6	135.2	70.35	2.922	
3,300.0	3,276.0	3,271.0	3,271.0	8.3	65.5	26.86	-365.0	-234.8	195.9	124.3	71.55	2.737	
3,346.4	3,321.4	3,316.4	3,316.4	8.5	66.4	28.19	-365.0	-234.8	187.3	114.6	72.63	2.578	
3,400.0	3,373.8	3,368.8	3,368.8	8.7	67.4	29.88	-365.0	-234.8	177.5	103.6	73.89	2.402	
3,444.9	3,417.7	3,412.7	3,412.7	8.8	68.3	31.44	-365.0	-234.8	169.4	94.4	74.96	2.260	
3,500.0	3,471.6	3,466.6	3,466.6	9.1	69.4	33.57	-365.0	-234.8	159.7	83.4	76.30	2.093	
3,543.3	3,513.9	3,508.9	3,508.9	9.2	70.3	35.43	-365.0	-234.8	152.2	74.8	77.37	1.967	
3,600.0	3,569.4	3,564.4	3,564.4	9.5	71.4	38.15	-365.0	-234.8	142.7	63.9	78.80	1.811	
3,641.7	3,610.2	3,605.2	3,605.2	9.7	72.2	40.39	-365.0	-234.8	135.9	56.0	79.87	1.702	
3,700.0	3,667.2	3,662.2	3,662.2	9.9	73.3	43.90	-365.0	-234.8	126.8	45.4	81.41	1.558	
3,740.1	3,706.5	3,701.5	3,701.5	10.1	74.1	46.62	-365.0	-234.8	120.9	38.4	82.50	1.465 Level 3	
3,800.0	3,765.0	3,760.0	3,760.0	10.3	75.3	51.16	-365.0	-234.8	112.6	28.4	84.17	1.338 Level 3	
3,838.6	3,802.8	3,797.8	3,797.8	10.5	76.1	54.44	-365.0	-234.8	107.7	22.4	85.27	1.263 Level 3	
3,900.0	3,862.8	3,857.8	3,857.8	10.7	77.3	60.26	-365.0	-234.8	100.7	13.6	87.06	1.156 Level 2	
3,937.0	3,899.0	3,894.0	3,894.0	10.9	78.0	64.14	-365.0	-234.8	97.0	8.9	88.15	1.101 Level 2	
4,000.0	3,960.7	3,955.7	3,955.7	11.2	79.2	71.36	-365.0	-234.8	92.0	2.0	89.99	1.022 Level 2	
4,035.4	3,995.3	3,990.3	3,990.3	11.3	79.9	75.72	-365.0	-234.8	89.8	-1.2	91.00	0.987 Level 1	
4,100.0	4,058.5	4,053.5	4,053.5	11.6	81.2	84.10	-365.0	-234.8	87.4	-5.3	92.75	0.943 Level 1	
4,133.8	4,091.6	4,086.6	4,086.6	11.7	81.9	88.61	-365.0	-234.8	87.0	-6.6	93.60	0.929 Level 1	
4,144.2	4,101.7	4,096.7	4,096.7	11.8	82.1	90.00	-365.0	-234.8	86.9	-6.9	93.86	0.926 Level 1, CC	
4,200.0	4,156.3	4,151.3	4,151.3	12.0	83.2	97.43	-365.0	-234.8	87.7	-7.4	95.12	0.922 Level 1	
4,232.3	4,187.9	4,182.9	4,182.9	12.2	83.8	101.64	-365.0	-234.8	88.8	-6.9	95.79	0.927 Level 1	
4,300.0	4,254.1	4,249.1	4,249.1	12.5	85.1	110.02	-365.0	-234.8	92.8	-4.3	97.06	0.956 Level 1	
4,325.7	4,279.2	4,274.2	4,274.2	12.6	85.6	113.00	-365.0	-234.8	94.8	-2.7	97.51	0.972 Level 1	
4,330.7	4,284.1	4,279.1	4,279.1	12.6	85.7	113.57	-365.0	-234.8	95.2	-2.4	97.60	0.975 Level 1	
4,400.0	4,352.1	4,347.1	4,347.1	12.8	87.1	120.57	-365.0	-234.8	101.4	2.6	98.84	1.026 Level 2	
4,429.1	4,380.8	4,375.8	4,375.8	12.9	87.7	123.04	-365.0	-234.8	104.2	4.8	99.37	1.048 Level 2	
4,500.0	4,450.7	4,445.7	4,445.7	13.1	89.1	128.03	-365.0	-234.8	110.8	10.1	100.75	1.100 Level 2	
4,527.5	4,478.0	4,473.0	4,473.0	13.2	89.6	129.63	-365.0	-234.8	113.3	12.0	101.30	1.119 Level 2	
4,600.0	4,549.9	4,544.9	4,544.9	13.4	91.1	133.08	-365.0	-234.8	119.4	16.6	102.81	1.161 Level 2	
4,626.0	4,575.7	4,570.7	4,570.7	13.5	91.6	134.08	-365.0	-234.8	121.4	18.0	103.37	1.174 Level 2	
4,700.0	4,649.4	4,644.4	4,644.4	13.6	93.1	136.36	-365.0	-234.8	126.2	21.2	104.98	1.202 Level 2	
4,724.4	4,673.7	4,668.7	4,668.7	13.7	93.6	136.94	-365.0	-234.8	127.5	22.0	105.51	1.208 Level 2	
4,800.0	4,749.2	4,744.2	4,744.2	13.8	95.1	138.27	-365.0	-234.8	130.7	23.5	107.17	1.219 Level 2	
4,822.8	4,772.0	4,767.0	4,767.0	13.9	95.6	138.54	-365.0	-234.8	131.4	23.7	107.67	1.220 Level 2	
4,900.0	4,849.2	4,844.2	4,844.2	14.0	97.1	139.05	-365.0	-234.8	132.7	23.3	109.35	1.213 Level 2	
4,921.2	4,870.4	4,865.4	4,865.4	14.1	97.5	139.09	-365.0	-234.8	132.7	22.9	109.81	1.209 Level 2	
4,925.6	4,874.8	4,869.8	4,869.8	14.1	97.6	-19.72	-365.0	-234.8	132.7	22.4	110.35	1.203 Level 2	
5,000.0	4,949.2	4,944.2	4,944.2	14.2	99.1	-19.72	-365.0	-234.8	132.7	20.8	111.97	1.186 Level 2	

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 SCHAUMBERG 17G-314
<b>Project:</b>	WELD COUNTY, COLORADO	<b>TVD Reference:</b>	KB-EST @ 4633.0usft (Original Well Elev)
<b>Reference Site:</b>	SW NW SEC. 17 T5N R64W 6th P.M.	<b>MD Reference:</b>	KB-EST @ 4633.0usft (Original Well Elev)
<b>Site Error:</b>	0.0 usft	<b>North Reference:</b>	True
<b>Reference Well:</b>	SCHAUMBERG 17G-314	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Well Error:</b>	0.0 usft	<b>Output errors are at</b>	2.00 sigma
<b>Reference Wellbore</b>	ORIGINAL WELLBORE	<b>Database:</b>	EDM 5000.1 Single User Db
<b>Reference Design:</b>	PROPOSAL #1	<b>Offset TVD Reference:</b>	Offset Datum

Offset Design												Offset Site Error:	0.0 usft
Survey Program: 0-INC												Offset Well Error:	0.0 usft
Reference		Offset		Semi Major Axis			Distance						Warning
Measured Depth (usft)	Vertical Depth (usft)	Measured Depth (usft)	Vertical Depth (usft)	Reference (usft)	Offset (usft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (usft)	+E/-W (usft)	Between Centres (usft)	Between Ellipses (usft)	Minimum Separation (usft)	Separation Factor	
5,019.7	4,968.8	4,963.8	4,963.8	14.2	99.5	-19.72	-365.0	-234.8	132.7	20.4	112.40	1.181	Level 2
5,100.0	5,049.2	5,044.2	5,044.2	14.3	101.1	-19.72	-365.0	-234.8	132.7	18.6	114.14	1.163	Level 2
5,118.1	5,067.3	5,062.3	5,062.3	14.3	101.5	-19.72	-365.0	-234.8	132.7	18.2	114.54	1.159	Level 2
5,200.0	5,149.2	5,144.2	5,144.2	14.5	103.1	-19.72	-365.0	-234.8	132.7	16.4	116.32	1.141	Level 2
5,216.5	5,165.7	5,160.7	5,160.7	14.5	103.5	-19.72	-365.0	-234.8	132.7	16.1	116.68	1.138	Level 2
5,300.0	5,249.2	5,244.2	5,244.2	14.6	105.2	-19.72	-365.0	-234.8	132.7	14.3	118.50	1.120	Level 2
5,314.9	5,264.1	5,259.1	5,259.1	14.6	105.5	-19.72	-365.0	-234.8	132.7	13.9	118.82	1.117	Level 2
5,400.0	5,349.2	5,344.2	5,344.2	14.8	107.2	-19.72	-365.0	-234.8	132.7	12.1	120.68	1.100	Level 2
5,413.4	5,362.5	5,357.5	5,357.5	14.8	107.4	-19.72	-365.0	-234.8	132.7	11.8	120.97	1.097	Level 2
5,500.0	5,449.2	5,444.2	5,444.2	14.9	109.2	-19.72	-365.0	-234.8	132.7	9.9	122.86	1.081	Level 2
5,511.8	5,461.0	5,456.0	5,456.0	14.9	109.4	-19.72	-365.0	-234.8	132.7	9.6	123.12	1.078	Level 2
5,600.0	5,549.2	5,544.2	5,544.2	15.1	111.2	-19.72	-365.0	-234.8	132.7	7.7	125.04	1.062	Level 2
5,610.2	5,559.4	5,554.4	5,554.4	15.1	111.4	-19.72	-365.0	-234.8	132.7	7.5	125.26	1.060	Level 2
5,700.0	5,649.2	5,644.2	5,644.2	15.2	113.2	-19.72	-365.0	-234.8	132.7	5.5	127.22	1.043	Level 2
5,708.6	5,657.8	5,652.8	5,652.8	15.3	113.4	-19.72	-365.0	-234.8	132.7	5.3	127.41	1.042	Level 2
5,800.0	5,749.2	5,744.2	5,744.2	15.4	115.2	-19.72	-365.0	-234.8	132.7	3.3	129.41	1.026	Level 2
5,807.1	5,756.2	5,751.2	5,751.2	15.4	115.3	-19.72	-365.0	-234.8	132.7	3.2	129.57	1.025	Level 2
5,900.0	5,849.2	5,844.2	5,844.2	15.6	117.2	-19.72	-365.0	-234.8	132.7	1.2	131.60	1.009	Level 2
5,905.5	5,854.7	5,849.7	5,849.7	15.6	117.3	-19.72	-365.0	-234.8	132.7	1.0	131.72	1.008	Level 2
6,000.0	5,949.2	5,944.2	5,944.2	15.7	119.2	-19.72	-365.0	-234.8	132.7	-1.0	133.79	0.992	Level 1
6,003.9	5,953.1	5,948.1	5,948.1	15.7	119.3	-19.72	-365.0	-234.8	132.7	-1.1	133.87	0.992	Level 1
6,100.0	6,049.2	6,044.2	6,044.2	15.9	121.2	-19.72	-365.0	-234.8	132.7	-3.2	135.98	0.976	Level 1
6,102.3	6,051.5	6,046.5	6,046.5	15.9	121.3	-19.72	-365.0	-234.8	132.7	-3.3	136.03	0.976	Level 1
6,124.6	6,073.8	6,068.8	6,068.8	15.9	121.7	-19.72	-365.0	-234.8	132.7	-3.8	136.52	0.972	Level 1
6,150.0	6,099.2	6,094.2	6,094.2	16.0	122.2	70.48	-365.0	-234.8	132.6	-4.1	136.70	0.970	Level 1
6,200.0	6,149.0	6,144.0	6,144.0	16.1	123.2	72.00	-365.0	-234.8	131.5	-6.2	137.67	0.955	Level 1
6,200.8	6,149.8	6,144.8	6,144.8	16.1	123.3	72.04	-365.0	-234.8	131.4	-6.2	137.68	0.955	Level 1
6,250.0	6,198.5	6,193.5	6,193.5	16.2	124.2	75.07	-365.0	-234.8	129.5	-9.1	138.58	0.934	Level 1
6,299.2	6,246.6	6,241.6	6,241.6	16.3	125.2	79.61	-365.0	-234.8	127.2	-12.3	139.49	0.912	Level 1
6,300.0	6,247.4	6,242.4	6,242.4	16.3	125.2	79.69	-365.0	-234.8	127.1	-12.4	139.50	0.911	Level 1
6,350.0	6,295.5	6,290.5	6,290.5	16.5	126.2	85.81	-365.0	-234.8	125.3	-15.1	140.48	0.892	Level 1
6,379.3	6,323.1	6,318.1	6,318.1	16.6	126.7	90.00	-365.0	-234.8	125.0	-16.1	141.03	0.886	Level 1
6,397.6	6,340.2	6,335.2	6,335.2	16.6	127.1	92.81	-365.0	-234.8	125.1	-16.2	141.33	0.885	Level 1, ES, SF
6,400.0	6,342.4	6,337.4	6,337.4	16.6	127.1	93.18	-365.0	-234.8	125.2	-16.2	141.37	0.886	Level 1
6,450.0	6,388.1	6,383.1	6,383.1	16.8	128.1	101.33	-365.0	-234.8	128.0	-13.8	141.79	0.903	Level 1
6,496.0	6,428.8	6,423.8	6,423.8	17.0	128.9	108.94	-365.0	-234.8	134.4	-7.0	141.38	0.950	Level 1
6,500.0	6,432.2	6,427.2	6,427.2	17.0	128.9	109.58	-365.0	-234.8	135.1	-6.2	141.29	0.956	Level 1
6,550.0	6,474.6	6,469.6	6,469.6	17.3	129.8	117.31	-365.0	-234.8	147.2	7.7	139.56	1.055	Level 2
6,594.5	6,510.7	6,505.7	6,505.7	17.5	130.5	123.37	-365.0	-234.8	162.5	25.5	137.00	1.186	Level 2
6,600.0	6,515.0	6,510.0	6,510.0	17.6	130.6	124.06	-365.0	-234.8	164.7	28.1	136.61	1.205	Level 2
6,650.0	6,553.3	6,548.3	6,548.3	17.9	131.4	129.65	-365.0	-234.8	187.2	54.5	132.69	1.411	Level 3
6,692.9	6,584.3	6,579.3	6,579.3	18.2	132.0	133.50	-365.0	-234.8	210.2	81.4	128.80	1.632	
6,700.0	6,589.2	6,584.2	6,584.2	18.2	132.1	134.06	-365.0	-234.8	214.4	86.2	128.12	1.673	
6,750.0	6,622.7	6,617.7	6,617.7	18.6	132.8	137.37	-365.0	-234.8	245.5	122.2	123.28	1.992	
6,791.3	6,648.3	6,643.3	6,643.3	19.0	133.3	139.35	-365.0	-234.8	273.9	154.6	119.32	2.296	
6,800.0	6,653.4	6,648.4	6,648.4	19.1	133.4	139.68	-365.0	-234.8	280.2	161.6	118.51	2.364	
6,850.0	6,681.4	6,676.4	6,676.4	19.6	134.0	141.07	-365.0	-234.8	317.8	203.6	114.20	2.783	
6,889.7	6,701.5	6,696.5	6,696.5	20.1	134.4	141.52	-365.0	-234.8	349.6	238.1	111.43	3.137	
6,900.0	6,706.3	6,701.3	6,701.3	20.2	134.5	141.55	-365.0	-234.8	358.0	247.2	110.85	3.230	
6,950.0	6,728.2	6,723.2	6,723.2	20.9	134.9	141.04	-365.0	-234.8	400.4	291.4	109.06	3.672	
6,988.2	6,742.8	6,737.8	6,737.8	21.5	135.2	139.90	-365.0	-234.8	434.1	324.9	109.24	3.974	
7,000.0	6,746.9	6,741.9	6,741.9	21.6	135.3	139.39	-365.0	-234.8	444.7	335.1	109.64	4.056	

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 SCHAUMBERG 17G-314
<b>Project:</b>	WELD COUNTY, COLORADO	<b>TVD Reference:</b>	KB-EST @ 4633.0usft (Original Well Elev)
<b>Reference Site:</b>	SW NW SEC. 17 T5N R64W 6th P.M.	<b>MD Reference:</b>	KB-EST @ 4633.0usft (Original Well Elev)
<b>Site Error:</b>	0.0 usft	<b>North Reference:</b>	True
<b>Reference Well:</b>	SCHAUMBERG 17G-314	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Well Error:</b>	0.0 usft	<b>Output errors are at</b>	2.00 sigma
<b>Reference Wellbore</b>	ORIGINAL WELLBORE	<b>Database:</b>	EDM 5000.1 Single User Db
<b>Reference Design:</b>	PROPOSAL #1	<b>Offset TVD Reference:</b>	Offset Datum

Offset Design												Offset Site Error:	0.0 usft
Survey Program: 0-INC												Offset Well Error:	0.0 usft
Reference		Offset		Semi Major Axis			Distance						Warning
Measured Depth (usft)	Vertical Depth (usft)	Measured Depth (usft)	Vertical Depth (usft)	Reference (usft)	Offset (usft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (usft)	+E/-W (usft)	Between Centres (usft)	Between Ellipses (usft)	Minimum Separation (usft)	Separation Factor	
7,050.0	6,762.4	6,757.4	6,757.4	22.5	135.6	136.25	-365.0	-234.8	490.5	376.9	113.61	4.318	
7,086.6	6,771.5	6,766.5	6,766.5	23.1	135.8	132.63	-365.0	-234.8	524.9	405.6	119.32	4.399	
7,100.0	6,774.4	6,769.4	6,769.4	23.3	135.8	130.95	-365.0	-234.8	537.6	415.5	122.07	4.404	
7,150.0	6,783.1	6,778.1	6,778.1	24.3	136.0	122.41	-365.0	-234.8	585.6	450.0	135.61	4.318	
7,185.0	6,787.1	6,782.1	6,782.1	25.0	136.1	113.63	-365.0	-234.8	619.6	472.4	147.21	4.209	
7,200.0	6,788.3	6,783.3	6,783.3	25.3	136.1	109.01	-365.0	-234.8	634.2	482.2	152.04	4.172	
7,252.3	6,790.0	6,785.0	6,785.0	26.3	136.1	88.84	-365.0	-234.8	685.6	524.1	161.46	4.246	
7,283.4	6,789.9	6,784.9	6,784.9	27.0	136.1	88.78	-365.0	-234.8	716.2	554.1	162.14	4.417	
7,300.0	6,789.8	6,784.8	6,784.8	27.3	136.1	88.75	-365.0	-234.8	732.5	570.0	162.51	4.508	
7,381.9	6,789.5	6,784.5	6,784.5	29.1	136.1	88.61	-365.0	-234.8	813.3	648.9	164.37	4.948	
7,400.0	6,789.4	6,784.4	6,784.4	29.5	136.1	88.58	-365.0	-234.8	831.2	666.4	164.78	5.044	
7,480.3	6,789.1	6,784.1	6,784.1	31.4	136.1	88.44	-365.0	-234.8	910.7	744.0	166.68	5.464	
7,500.0	6,789.1	6,784.1	6,784.1	31.8	136.1	88.40	-365.0	-234.8	930.2	763.1	167.14	5.565	
7,578.7	6,788.8	6,783.8	6,783.8	33.7	136.1	88.27	-365.0	-234.8	1,008.3	839.2	169.05	5.964	
7,600.0	6,788.7	6,783.7	6,783.7	34.2	136.1	88.23	-365.0	-234.8	1,029.4	859.8	169.56	6.071	
7,677.1	6,788.4	6,783.4	6,783.4	36.1	136.1	88.09	-365.0	-234.8	1,106.0	934.5	171.47	6.450	
7,700.0	6,788.3	6,783.3	6,783.3	36.7	136.1	88.05	-365.0	-234.8	1,128.7	956.7	172.04	6.561	
7,775.6	6,788.0	6,783.0	6,783.0	38.6	136.1	87.92	-365.0	-234.8	1,203.8	1,029.9	173.94	6.921	
7,800.0	6,787.9	6,782.9	6,782.9	39.2	136.1	87.87	-365.0	-234.8	1,228.1	1,053.6	174.55	7.036	
7,874.0	6,787.6	6,782.6	6,782.6	41.0	136.1	87.75	-365.0	-234.8	1,301.8	1,125.3	176.44	7.378	
7,900.0	6,787.6	6,782.6	6,782.6	41.7	136.1	87.70	-365.0	-234.8	1,327.7	1,150.6	177.10	7.497	
7,972.4	6,787.3	6,782.3	6,782.3	43.6	136.1	87.57	-365.0	-234.8	1,399.8	1,220.8	178.96	7.822	
8,000.0	6,787.2	6,782.2	6,782.2	44.3	136.1	87.52	-365.0	-234.8	1,427.2	1,247.6	179.67	7.944	
8,070.8	6,786.9	6,781.9	6,781.9	46.1	136.1	87.40	-365.0	-234.8	1,497.8	1,316.3	181.51	8.252	
8,100.0	6,786.8	6,781.8	6,781.8	46.9	136.1	87.34	-365.0	-234.8	1,526.9	1,344.6	182.26	8.377	
8,169.3	6,786.5	6,781.5	6,781.5	48.7	136.1	87.22	-365.0	-234.8	1,595.9	1,411.9	184.07	8.670	
8,200.0	6,786.4	6,781.4	6,781.4	49.5	136.1	87.16	-365.0	-234.8	1,626.6	1,441.7	184.87	8.798	
8,267.7	6,786.1	6,781.1	6,781.1	51.3	136.1	87.04	-365.0	-234.8	1,694.1	1,507.4	186.65	9.076	
8,300.0	6,786.0	6,781.0	6,781.0	52.1	136.1	86.98	-365.0	-234.8	1,726.3	1,538.8	187.50	9.207	
8,366.1	6,785.8	6,780.8	6,780.8	53.9	136.1	86.87	-365.0	-234.8	1,792.3	1,603.0	189.24	9.471	
8,400.0	6,785.6	6,780.6	6,780.6	54.8	136.1	86.80	-365.0	-234.8	1,826.0	1,635.9	190.14	9.604	
8,464.5	6,785.4	6,780.4	6,780.4	56.5	136.0	86.69	-365.0	-234.8	1,890.5	1,698.6	191.85	9.854	
8,500.0	6,785.3	6,780.3	6,780.3	57.5	136.0	86.62	-365.0	-234.8	1,925.8	1,733.0	192.78	9.990	
8,563.0	6,785.0	6,780.0	6,780.0	59.2	136.0	86.51	-365.0	-234.8	1,988.7	1,794.2	194.46	10.227	
8,600.0	6,784.9	6,779.9	6,779.9	60.2	136.0	86.44	-365.0	-234.8	2,025.6	1,830.2	195.44	10.365	
8,661.4	6,784.6	6,779.6	6,779.6	61.8	136.0	86.33	-365.0	-234.8	2,086.9	1,889.8	197.07	10.590	
8,700.0	6,784.5	6,779.5	6,779.5	62.9	136.0	86.26	-365.0	-234.8	2,125.4	1,927.3	198.10	10.729	
8,759.8	6,784.3	6,779.3	6,779.3	64.5	136.0	86.16	-365.0	-234.8	2,185.2	1,985.5	199.69	10.943	
8,800.0	6,784.1	6,779.1	6,779.1	65.6	136.0	86.08	-365.0	-234.8	2,225.3	2,024.5	200.76	11.084	
8,858.2	6,783.9	6,778.9	6,778.9	67.1	136.0	85.98	-365.0	-234.8	2,283.4	2,081.1	202.32	11.286	
8,900.0	6,783.7	6,778.7	6,778.7	68.3	136.0	85.90	-365.0	-234.8	2,325.1	2,121.7	203.43	11.429	
8,956.7	6,783.5	6,778.5	6,778.5	69.8	136.0	85.80	-365.0	-234.8	2,381.7	2,176.8	204.95	11.621	
9,000.0	6,783.3	6,778.3	6,778.3	71.0	136.0	85.71	-365.0	-234.8	2,425.0	2,218.9	206.11	11.766	
9,055.1	6,783.1	6,778.1	6,778.1	72.5	136.0	85.62	-365.0	-234.8	2,480.0	2,272.4	207.58	11.947	
9,100.0	6,782.9	6,777.9	6,777.9	73.7	136.0	85.53	-365.0	-234.8	2,524.9	2,316.1	208.78	12.093	
9,153.5	6,782.7	6,777.7	6,777.7	75.2	136.0	85.44	-365.0	-234.8	2,578.3	2,368.1	210.21	12.265	
9,200.0	6,782.6	6,777.6	6,777.6	76.5	136.0	85.35	-365.0	-234.8	2,624.7	2,413.3	211.46	12.413	
9,251.9	6,782.4	6,777.4	6,777.4	77.9	136.0	85.26	-365.0	-234.8	2,676.6	2,463.8	212.85	12.575	
9,300.0	6,782.2	6,777.2	6,777.2	79.2	136.0	85.16	-365.0	-234.8	2,724.6	2,510.5	214.13	12.724	
9,350.4	6,782.0	6,777.0	6,777.0	80.6	136.0	85.08	-365.0	-234.8	2,774.9	2,559.5	215.48	12.878	
9,400.0	6,781.8	6,776.8	6,776.8	82.0	136.0	84.98	-365.0	-234.8	2,824.5	2,607.7	216.81	13.028	
9,448.8	6,781.6	6,776.6	6,776.6	83.3	136.0	84.89	-365.0	-234.8	2,873.3	2,655.2	218.12	13.173	

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 SCHAUMBERG 17G-314
<b>Project:</b>	WELD COUNTY, COLORADO	<b>TVD Reference:</b>	KB-EST @ 4633.0usft (Original Well Elev)
<b>Reference Site:</b>	SW NW SEC. 17 T5N R64W 6th P.M.	<b>MD Reference:</b>	KB-EST @ 4633.0usft (Original Well Elev)
<b>Site Error:</b>	0.0 usft	<b>North Reference:</b>	True
<b>Reference Well:</b>	SCHAUMBERG 17G-314	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Well Error:</b>	0.0 usft	<b>Output errors are at</b>	2.00 sigma
<b>Reference Wellbore</b>	ORIGINAL WELLBORE	<b>Database:</b>	EDM 5000.1 Single User Db
<b>Reference Design:</b>	PROPOSAL #1	<b>Offset TVD Reference:</b>	Offset Datum

Offset Design												Offset Site Error:	0.0 usft
Survey Program: 0-INC												Offset Well Error:	0.0 usft
Reference		Offset		Semi Major Axis			Distance						Warning
Measured Depth (usft)	Vertical Depth (usft)	Measured Depth (usft)	Vertical Depth (usft)	Reference (usft)	Offset (usft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (usft)	+E/-W (usft)	Between Centres (usft)	Between Ellipses (usft)	Minimum Separation (usft)	Separation Factor	
9,500.0	6,781.4	6,776.4	6,776.4	84.7	136.0	84.80	-365.0	-234.8	2,924.4	2,704.9	219.49	13.324	
9,547.2	6,781.2	6,776.2	6,776.2	86.0	136.0	84.71	-365.0	-234.8	2,971.6	2,750.9	220.76	13.461	
9,600.0	6,781.0	6,776.0	6,776.0	87.5	136.0	84.61	-365.0	-234.8	3,024.3	2,802.2	222.17	13.613	
9,645.6	6,780.8	6,775.8	6,775.8	88.7	136.0	84.53	-365.0	-234.8	3,070.0	2,846.6	223.39	13.743	
9,700.0	6,780.6	6,775.6	6,775.6	90.2	136.0	84.42	-365.0	-234.8	3,124.3	2,899.4	224.84	13.895	
9,744.1	6,780.4	6,775.4	6,775.4	91.4	135.9	84.35	-365.0	-234.8	3,168.3	2,942.3	226.02	14.018	
9,800.0	6,780.2	6,775.2	6,775.2	93.0	135.9	84.24	-365.0	-234.8	3,224.2	2,996.7	227.52	14.171	
9,842.5	6,780.1	6,775.1	6,775.1	94.2	135.9	84.16	-365.0	-234.8	3,266.6	3,038.0	228.66	14.286	
9,900.0	6,779.8	6,774.8	6,774.8	95.7	135.9	84.05	-365.0	-234.8	3,324.1	3,093.9	230.19	14.441	
9,940.9	6,779.7	6,774.7	6,774.7	96.9	135.9	83.98	-365.0	-234.8	3,365.0	3,133.7	231.29	14.549	
10,000.0	6,779.4	6,774.4	6,774.4	98.5	135.9	83.86	-365.0	-234.8	3,424.0	3,191.2	232.86	14.704	
10,039.3	6,779.3	6,774.3	6,774.3	99.6	135.9	83.79	-365.0	-234.8	3,463.4	3,229.4	233.91	14.806	
10,100.0	6,779.0	6,774.0	6,774.0	101.3	135.9	83.68	-365.0	-234.8	3,524.0	3,288.4	235.53	14.962	
10,137.8	6,778.9	6,773.9	6,773.9	102.3	135.9	83.61	-365.0	-234.8	3,561.7	3,325.2	236.54	15.058	
10,200.0	6,778.7	6,773.7	6,773.7	104.1	135.9	83.49	-365.0	-234.8	3,623.9	3,385.7	238.20	15.214	
10,236.2	6,778.5	6,773.5	6,773.5	105.1	135.9	83.43	-365.0	-234.8	3,660.1	3,420.9	239.16	15.304	
10,300.0	6,778.3	6,773.3	6,773.3	106.8	135.9	83.30	-365.0	-234.8	3,723.8	3,483.0	240.86	15.461	
10,334.6	6,778.1	6,773.1	6,773.1	107.8	135.9	83.24	-365.0	-234.8	3,758.5	3,516.7	241.78	15.545	
10,400.0	6,777.9	6,772.9	6,772.9	109.6	135.9	83.11	-365.0	-234.8	3,823.8	3,580.3	243.52	15.702	
10,433.0	6,777.7	6,772.7	6,772.7	110.5	135.9	83.05	-365.0	-234.8	3,856.8	3,612.4	244.40	15.781	
10,500.0	6,777.5	6,772.5	6,772.5	112.4	135.9	82.92	-365.0	-234.8	3,923.7	3,677.6	246.18	15.939	
10,531.5	6,777.3	6,772.3	6,772.3	113.3	135.9	82.87	-365.0	-234.8	3,955.2	3,708.2	247.01	16.012	
10,600.0	6,777.1	6,772.1	6,772.1	115.2	135.9	82.74	-365.0	-234.8	4,023.7	3,774.9	248.83	16.170	
10,629.9	6,777.0	6,772.0	6,772.0	116.0	135.9	82.68	-365.0	-234.8	4,053.6	3,803.9	249.63	16.239	
10,700.0	6,776.7	6,771.7	6,771.7	117.9	135.9	82.55	-365.0	-234.8	4,123.6	3,872.2	251.48	16.397	
10,728.3	6,776.6	6,771.6	6,771.6	118.7	135.9	82.49	-365.0	-234.8	4,152.0	3,899.7	252.23	16.461	
10,800.0	6,776.3	6,771.3	6,771.3	120.7	135.9	82.36	-365.0	-234.8	4,223.6	3,969.5	254.13	16.620	
10,826.7	6,776.2	6,771.2	6,771.2	121.5	135.9	82.31	-365.0	-234.8	4,250.3	3,995.5	254.84	16.679	
10,900.0	6,775.9	6,770.9	6,770.9	123.5	135.9	82.17	-365.0	-234.8	4,323.6	4,066.8	256.77	16.838	
10,925.2	6,775.8	6,770.8	6,770.8	124.2	135.9	82.12	-365.0	-234.8	4,348.7	4,091.3	257.44	16.892	
11,000.0	6,775.5	6,770.5	6,770.5	126.3	135.8	81.97	-365.0	-234.8	4,423.5	4,164.1	259.41	17.052	
11,023.6	6,775.4	6,770.4	6,770.4	126.9	135.8	81.93	-365.0	-234.8	4,447.1	4,187.1	260.03	17.102	
11,100.0	6,775.1	6,770.1	6,770.1	129.1	135.8	81.78	-365.0	-234.8	4,523.5	4,261.4	262.04	17.263	
11,122.0	6,775.0	6,770.0	6,770.0	129.7	135.8	81.74	-365.0	-234.8	4,545.5	4,282.9	262.62	17.308	
11,200.0	6,774.7	6,769.7	6,769.7	131.9	135.8	81.59	-365.0	-234.8	4,623.4	4,358.8	264.67	17.469	
11,220.4	6,774.6	6,769.6	6,769.6	132.4	135.8	81.56	-365.0	-234.8	4,643.9	4,378.7	265.21	17.510	
11,300.0	6,774.3	6,769.3	6,769.3	134.6	135.8	81.40	-365.0	-234.8	4,723.4	4,456.1	267.29	17.671	
11,318.9	6,774.2	6,769.2	6,769.2	135.2	135.8	81.37	-365.0	-234.8	4,742.3	4,474.5	267.79	17.709	
11,400.0	6,773.9	6,768.9	6,768.9	137.4	135.8	81.21	-365.0	-234.8	4,823.4	4,553.4	269.91	17.870	
11,417.3	6,773.8	6,768.8	6,768.8	137.9	135.8	81.18	-365.0	-234.8	4,840.7	4,570.3	270.37	17.904	
11,500.0	6,773.5	6,768.5	6,768.5	140.2	135.8	81.02	-365.0	-234.8	4,923.3	4,650.8	272.53	18.065	
11,515.7	6,773.4	6,768.4	6,768.4	140.7	135.8	80.99	-365.0	-234.8	4,939.0	4,666.1	272.94	18.096	
11,600.0	6,773.1	6,768.1	6,768.1	143.0	135.8	80.82	-365.0	-234.8	5,023.3	4,748.2	275.14	18.258	
11,614.1	6,773.0	6,768.0	6,768.0	143.4	135.8	80.80	-365.0	-234.8	5,037.4	4,761.9	275.51	18.284	
11,700.0	6,772.7	6,767.7	6,767.7	145.8	135.8	80.63	-365.0	-234.8	5,123.3	4,845.5	277.74	18.446	
11,712.6	6,772.6	6,767.6	6,767.6	146.2	135.8	80.61	-365.0	-234.8	5,135.8	4,857.8	278.07	18.470	
11,800.0	6,772.3	6,767.3	6,767.3	148.6	135.8	80.44	-365.0	-234.8	5,223.2	4,942.9	280.34	18.632	
11,811.0	6,772.2	6,767.2	6,767.2	148.9	135.8	80.42	-365.0	-234.8	5,234.2	4,953.6	280.62	18.652	
11,900.0	6,771.9	6,766.9	6,766.9	151.4	135.8	80.24	-365.0	-234.8	5,323.2	5,040.3	282.93	18.815	
11,909.4	6,771.8	6,766.8	6,766.8	151.7	135.8	80.23	-365.0	-234.8	5,332.6	5,049.5	283.18	18.832	
12,000.0	6,771.5	6,766.5	6,766.5	154.2	135.8	80.05	-365.0	-234.8	5,423.2	5,137.7	285.52	18.994	
12,007.8	6,771.4	6,766.4	6,766.4	154.4	135.8	80.03	-365.0	-234.8	5,431.0	5,145.3	285.72	19.008	

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 SCHAUMBERG 17G-314
<b>Project:</b>	WELD COUNTY, COLORADO	<b>TVD Reference:</b>	KB-EST @ 4633.0usft (Original Well Elev)
<b>Reference Site:</b>	SW NW SEC. 17 T5N R64W 6th P.M.	<b>MD Reference:</b>	KB-EST @ 4633.0usft (Original Well Elev)
<b>Site Error:</b>	0.0 usft	<b>North Reference:</b>	True
<b>Reference Well:</b>	SCHAUMBERG 17G-314	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Well Error:</b>	0.0 usft	<b>Output errors are at</b>	2.00 sigma
<b>Reference Wellbore</b>	ORIGINAL WELLBORE	<b>Database:</b>	EDM 5000.1 Single User Db
<b>Reference Design:</b>	PROPOSAL #1	<b>Offset TVD Reference:</b>	Offset Datum

Offset Design NW SW SEC. 17 T5N R64W 6th P.M. - EXIST VERT SCHAUMBERG #12-17 - 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	Vertical Depth	Measured Depth	Vertical Depth	Reference	Offset	Highside Toolface	Offset Wellbore Centre		Between Centres	Between Ellipses	Minimum Separation	Separation Factor		
(usft)	(usft)	(usft)	(usft)	(usft)	(usft)	(°)	+N/-S (usft)	+E/-W (usft)	(usft)	(usft)	(usft)			
12,100.0	6,771.1	6,766.1	6,766.1	157.0	135.8	79.85	-365.0	-234.8	5,523.2	5,235.1	288.10	19.171		
12,106.3	6,771.0	6,766.0	6,766.0	157.2	135.8	79.84	-365.0	-234.8	5,529.4	5,241.2	288.26	19.182		
12,200.0	6,770.7	6,765.7	6,765.7	159.8	135.7	79.66	-365.0	-234.8	5,623.1	5,332.5	290.67	19.345		
12,204.7	6,770.6	6,765.6	6,765.6	159.9	135.7	79.65	-365.0	-234.8	5,627.8	5,337.0	290.79	19.353		
12,300.0	6,770.3	6,765.3	6,765.3	162.6	135.7	79.47	-365.0	-234.8	5,723.1	5,429.9	293.24	19.517		
12,303.1	6,770.2	6,765.2	6,765.2	162.7	135.7	79.46	-365.0	-234.8	5,726.2	5,432.9	293.32	19.522		
12,361.7	6,770.0	6,765.0	6,765.0	164.3	135.7	79.34	-365.0	-234.8	5,784.8	5,490.0	294.82	19.621		



# Anticollision Report



<b>Company:</b>	PDC ENERGY	<b>Local Co-ordinate Reference:</b>	Well SCHAUMBERG 17G-314
<b>Project:</b>	WELD COUNTY, COLORADO	<b>TVD Reference:</b>	KB-EST @ 4633.0usft (Original Well Elev)
<b>Reference Site:</b>	SW NW SEC. 17 T5N R64W 6th P.M.	<b>MD Reference:</b>	KB-EST @ 4633.0usft (Original Well Elev)
<b>Site Error:</b>	0.0 usft	<b>North Reference:</b>	True
<b>Reference Well:</b>	SCHAUMBERG 17G-314	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Well Error:</b>	0.0 usft	<b>Output errors are at</b>	2.00 sigma
<b>Reference Wellbore</b>	ORIGINAL WELLBORE	<b>Database:</b>	EDM 5000.1 Single User Db
<b>Reference Design:</b>	PROPOSAL #1	<b>Offset TVD Reference:</b>	Offset Datum

Offset Design NW SW SEC. 17 T5N R64W 6th P.M. - EXIST VERT SOLIS #43-17 - Wellbore #1 - Design #1												Offset Site Error:	0.0 usft
Survey Program: 0-INC												Offset Well Error:	0.0 usft
Reference		Offset		Semi Major Axis			Distance						Warning
Measured Depth (usft)	Vertical Depth (usft)	Measured Depth (usft)	Vertical Depth (usft)	Reference (usft)	Offset (usft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (usft)	+E/-W (usft)	Between Centres (usft)	Between Ellipses (usft)	Minimum Separation (usft)	Separation Factor	
0.0	0.0	5.0	5.0	0.0	0.1	116.83	-1,811.1	3,581.1	4,013.0				
98.4	98.4	103.4	103.4	0.1	1.2	116.83	-1,811.1	3,581.1	4,013.0	4,011.7	1.31	3,071.370	
100.0	100.0	105.0	105.0	0.1	1.2	116.83	-1,811.1	3,581.1	4,013.0	4,011.7	1.34	2,984.419	
196.8	196.8	201.8	201.8	0.3	3.5	116.83	-1,811.1	3,581.1	4,013.0	4,009.2	3.79	1,058.789	
200.0	200.0	205.0	205.0	0.3	3.5	116.83	-1,811.1	3,581.1	4,013.0	4,009.2	3.86	1,038.894	
295.3	295.3	300.3	300.3	0.5	5.5	116.83	-1,811.1	3,581.1	4,013.0	4,007.0	6.06	662.433	
300.0	300.0	305.0	305.0	0.5	5.6	116.83	-1,811.1	3,581.1	4,013.0	4,006.9	6.17	650.922	
393.7	393.7	398.7	398.7	0.8	7.5	116.83	-1,811.1	3,581.1	4,013.0	4,004.7	8.29	484.108	
400.0	400.0	405.0	405.0	0.8	7.7	116.83	-1,811.1	3,581.1	4,013.0	4,004.6	8.43	475.945	
492.1	492.1	497.1	497.1	1.0	9.5	116.83	-1,811.1	3,581.1	4,013.0	4,002.5	10.51	381.898	
500.0	500.0	505.0	505.0	1.0	9.7	116.83	-1,811.1	3,581.1	4,013.0	4,002.3	10.69	375.566	
590.5	590.5	595.5	595.5	1.2	11.5	116.83	-1,811.1	3,581.1	4,013.0	4,000.3	12.72	315.478	
600.0	600.0	605.0	605.0	1.2	11.7	116.83	-1,811.1	3,581.1	4,013.0	4,000.1	12.93	310.301	
689.0	689.0	694.0	694.0	1.4	13.5	116.83	-1,811.1	3,581.1	4,013.0	3,998.1	14.93	268.801	
700.0	700.0	705.0	705.0	1.4	13.7	116.83	-1,811.1	3,581.1	4,013.0	3,997.8	15.18	264.421	
787.4	787.4	792.4	792.4	1.6	15.5	116.83	-1,811.1	3,581.1	4,013.0	3,995.9	17.14	234.186	
800.0	800.0	805.0	805.0	1.7	15.7	116.83	-1,811.1	3,581.1	4,013.0	3,995.6	17.42	230.389	
885.8	885.8	890.8	890.8	1.9	17.5	116.83	-1,811.1	3,581.1	4,013.0	3,993.7	19.34	207.484	
900.0	900.0	905.0	905.0	1.9	17.8	116.83	-1,811.1	3,581.1	4,013.0	3,993.4	19.66	204.133	
984.2	984.2	989.2	989.2	2.1	19.5	116.83	-1,811.1	3,581.1	4,013.0	3,991.5	21.55	186.256	
1,000.0	1,000.0	1,005.0	1,005.0	2.1	19.8	116.83	-1,811.1	3,581.1	4,013.0	3,991.1	21.90	183.257	
1,082.7	1,082.7	1,087.7	1,087.7	2.3	21.4	116.83	-1,811.1	3,581.1	4,013.0	3,989.3	23.75	168.974	
1,100.0	1,100.0	1,105.0	1,105.0	2.3	21.8	116.83	-1,811.1	3,581.1	4,013.0	3,988.9	24.14	166.259	
1,181.1	1,181.1	1,186.1	1,186.1	2.5	23.4	116.83	-1,811.1	3,581.1	4,013.0	3,987.1	25.95	154.630	
1,200.0	1,200.0	1,205.0	1,205.0	2.6	23.8	116.83	-1,811.1	3,581.1	4,013.0	3,986.6	26.38	152.150	
1,279.5	1,279.5	1,284.5	1,284.5	2.7	25.4	116.83	-1,811.1	3,581.1	4,013.0	3,984.9	28.16	142.533	
1,300.0	1,300.0	1,305.0	1,305.0	2.8	25.8	116.83	-1,811.1	3,581.1	4,013.0	3,984.4	28.61	140.250	
1,377.9	1,377.9	1,382.9	1,382.9	3.0	27.4	116.83	-1,811.1	3,581.1	4,013.0	3,982.7	30.36	132.192	
1,400.0	1,400.0	1,405.0	1,405.0	3.0	27.8	116.83	-1,811.1	3,581.1	4,013.0	3,982.2	30.85	130.078	
1,476.4	1,476.4	1,481.4	1,481.4	3.2	29.4	116.83	-1,811.1	3,581.1	4,013.0	3,980.5	32.56	123.252	
1,500.0	1,500.0	1,505.0	1,505.0	3.2	29.8	116.83	-1,811.1	3,581.1	4,013.0	3,979.9	33.09	121.283	
1,574.8	1,574.8	1,579.8	1,579.8	3.4	31.3	116.83	-1,811.1	3,581.1	4,013.0	3,978.3	34.76	115.445	
1,600.0	1,600.0	1,605.0	1,605.0	3.5	31.9	116.83	-1,811.1	3,581.1	4,013.0	3,977.7	35.33	113.602	
1,673.2	1,673.2	1,678.2	1,678.2	3.6	33.3	116.83	-1,811.1	3,581.1	4,013.0	3,976.1	36.96	108.568	
1,700.0	1,700.0	1,705.0	1,705.0	3.7	33.9	116.83	-1,811.1	3,581.1	4,013.0	3,975.5	37.56	106.837	
1,771.6	1,771.6	1,776.6	1,776.6	3.9	35.3	116.83	-1,811.1	3,581.1	4,013.0	3,973.9	39.16	102.465	
1,800.0	1,800.0	1,805.0	1,805.0	3.9	35.9	116.83	-1,811.1	3,581.1	4,013.0	3,973.2	39.80	100.832	
1,870.1	1,870.1	1,875.1	1,875.1	4.1	37.3	-84.38	-1,811.1	3,581.1	4,012.9	3,971.6	41.35	97.058	
1,900.0	1,900.0	1,905.0	1,905.0	4.1	37.9	-84.40	-1,811.1	3,581.1	4,012.9	3,970.8	42.01	95.530	
1,968.5	1,968.4	1,973.4	1,973.4	4.2	39.3	-84.45	-1,811.1	3,581.1	4,012.5	3,969.0	43.50	92.242	
2,000.0	1,999.8	2,004.8	2,004.8	4.3	39.9	-84.48	-1,811.1	3,581.1	4,012.3	3,968.2	44.19	90.805	
2,066.9	2,066.5	2,071.5	2,071.5	4.4	41.2	-84.57	-1,811.1	3,581.1	4,011.8	3,966.2	45.65	87.884	
2,100.0	2,099.5	2,104.5	2,104.5	4.5	41.9	-84.62	-1,811.1	3,581.1	4,011.5	3,965.1	46.37	86.510	
2,165.3	2,164.4	2,169.4	2,169.4	4.6	43.2	-84.74	-1,811.1	3,581.1	4,010.8	3,963.0	47.80	83.902	
2,200.0	2,198.7	2,203.7	2,203.7	4.7	43.9	-84.81	-1,811.1	3,581.1	4,010.4	3,961.8	48.56	82.582	
2,263.8	2,261.8	2,266.8	2,266.8	4.8	45.2	-84.97	-1,811.1	3,581.1	4,009.5	3,959.6	49.97	80.240	
2,300.0	2,297.5	2,302.5	2,302.5	4.9	45.9	-85.06	-1,811.1	3,581.1	4,009.0	3,958.2	50.77	78.969	
2,362.2	2,358.6	2,363.6	2,363.6	5.0	47.1	-85.24	-1,811.1	3,581.1	4,008.0	3,955.9	52.15	76.855	
2,400.0	2,395.6	2,400.6	2,400.6	5.1	47.9	-85.36	-1,811.1	3,581.1	4,007.4	3,954.4	52.99	75.627	
2,460.6	2,454.9	2,459.9	2,459.9	5.3	49.1	-85.54	-1,811.1	3,581.1	4,006.3	3,952.0	54.35	73.710	
2,500.0	2,493.4	2,498.4	2,498.4	5.4	49.8	-85.65	-1,811.1	3,581.1	4,005.7	3,950.5	55.24	72.516	
2,559.0	2,551.2	2,556.2	2,556.2	5.6	51.0	-85.82	-1,811.1	3,581.1	4,004.8	3,948.2	56.58	70.780	

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 SCHAUMBERG 17G-314
<b>Project:</b>	WELD COUNTY, COLORADO	<b>TVD Reference:</b>	KB-EST @ 4633.0usft (Original Well Elev)
<b>Reference Site:</b>	SW NW SEC. 17 T5N R64W 6th P.M.	<b>MD Reference:</b>	KB-EST @ 4633.0usft (Original Well Elev)
<b>Site Error:</b>	0.0 usft	<b>North Reference:</b>	True
<b>Reference Well:</b>	SCHAUMBERG 17G-314	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Well Error:</b>	0.0 usft	<b>Output errors are at</b>	2.00 sigma
<b>Reference Wellbore</b>	ORIGINAL WELLBORE	<b>Database:</b>	EDM 5000.1 Single User Db
<b>Reference Design:</b>	PROPOSAL #1	<b>Offset TVD Reference:</b>	Offset Datum

Offset Design NW SW SEC. 17 T5N R64W 6th P.M. - EXIST VERT SOLIS #43-17 - 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	
2,600.0	2,591.3	2,596.3	2,596.3	5.7	51.8	-85.94	-1,811.1	3,581.1	4,004.1	3,946.6	57.51	69.623	
2,657.5	2,647.5	2,652.5	2,652.5	5.9	52.9	-86.11	-1,811.1	3,581.1	4,003.3	3,944.5	58.83	68.050	
2,700.0	2,689.1	2,694.1	2,694.1	6.0	53.8	-86.23	-1,811.1	3,581.1	4,002.7	3,942.9	59.80	66.930	
2,755.9	2,743.7	2,748.7	2,748.7	6.2	54.9	-86.39	-1,811.1	3,581.1	4,001.9	3,940.8	61.09	65.504	
2,800.0	2,786.9	2,791.9	2,791.9	6.4	55.7	-86.52	-1,811.1	3,581.1	4,001.3	3,939.2	62.11	64.421	
2,854.3	2,840.0	2,845.0	2,845.0	6.6	56.8	-86.68	-1,811.1	3,581.1	4,000.7	3,937.3	63.37	63.128	
2,900.0	2,884.7	2,889.7	2,889.7	6.7	57.7	-86.81	-1,811.1	3,581.1	4,000.1	3,935.7	64.44	62.079	
2,952.7	2,936.3	2,941.3	2,941.3	6.9	58.7	-86.97	-1,811.1	3,581.1	3,999.5	3,933.8	65.67	60.906	
3,000.0	2,982.5	2,987.5	2,987.5	7.1	59.7	-87.10	-1,811.1	3,581.1	3,999.0	3,932.2	66.77	59.891	
3,051.2	3,032.6	3,037.6	3,037.6	7.3	60.7	-87.25	-1,811.1	3,581.1	3,998.4	3,930.5	67.97	58.826	
3,100.0	3,080.3	3,085.3	3,085.3	7.5	61.6	-87.39	-1,811.1	3,581.1	3,998.0	3,928.8	69.12	57.845	
3,149.6	3,128.8	3,133.8	3,133.8	7.7	62.6	-87.54	-1,811.1	3,581.1	3,997.5	3,927.2	70.28	56.877	
3,200.0	3,178.1	3,183.1	3,183.1	7.9	63.6	-87.69	-1,811.1	3,581.1	3,997.1	3,925.6	71.47	55.927	
3,248.0	3,225.1	3,230.1	3,230.1	8.1	64.5	-87.83	-1,811.1	3,581.1	3,996.7	3,924.0	72.60	55.048	
3,300.0	3,276.0	3,281.0	3,281.0	8.3	65.6	-87.98	-1,811.1	3,581.1	3,996.2	3,922.4	73.83	54.127	
3,346.4	3,321.4	3,326.4	3,326.4	8.5	66.5	-88.11	-1,811.1	3,581.1	3,995.9	3,921.0	74.93	53.328	
3,400.0	3,373.8	3,378.8	3,378.8	8.7	67.5	-88.27	-1,811.1	3,581.1	3,995.6	3,919.4	76.20	52.436	
3,444.9	3,417.7	3,422.7	3,422.7	8.8	68.4	-88.40	-1,811.1	3,581.1	3,995.3	3,918.0	77.26	51.709	
3,500.0	3,471.6	3,476.6	3,476.6	9.1	69.5	-88.56	-1,811.1	3,581.1	3,995.0	3,916.4	78.57	50.844	
3,543.3	3,513.9	3,518.9	3,518.9	9.2	70.4	-88.69	-1,811.1	3,581.1	3,994.7	3,915.1	79.60	50.184	
3,600.0	3,569.4	3,574.4	3,574.4	9.5	71.5	-88.85	-1,811.1	3,581.1	3,994.5	3,913.5	80.95	49.345	
3,641.7	3,610.2	3,615.2	3,615.2	9.7	72.3	-88.97	-1,811.1	3,581.1	3,994.3	3,912.4	81.94	48.744	
3,700.0	3,667.2	3,672.2	3,672.2	9.9	73.4	-89.14	-1,811.1	3,581.1	3,994.1	3,910.8	83.33	47.929	
3,740.1	3,706.5	3,711.5	3,711.5	10.1	74.2	-89.26	-1,811.1	3,581.1	3,994.0	3,909.7	84.29	47.383	
3,800.0	3,765.0	3,770.0	3,770.0	10.3	75.4	-89.44	-1,811.1	3,581.1	3,993.8	3,908.1	85.72	46.592	
3,838.6	3,802.8	3,807.8	3,807.8	10.5	76.2	-89.55	-1,811.1	3,581.1	3,993.8	3,907.1	86.64	46.096	
3,900.0	3,862.8	3,867.8	3,867.8	10.7	77.4	-89.73	-1,811.1	3,581.1	3,993.7	3,905.6	88.11	45.327	
3,937.0	3,899.0	3,904.0	3,904.0	10.9	78.1	-89.83	-1,811.1	3,581.1	3,993.7	3,904.7	88.99	44.876	
3,993.6	3,954.4	3,959.4	3,959.4	11.1	79.2	-90.00	-1,811.1	3,581.1	3,993.6	3,903.3	90.35	44.203 CC	
4,000.0	3,960.7	3,965.7	3,965.7	11.2	79.3	-90.02	-1,811.1	3,581.1	3,993.6	3,903.1	90.50	44.128	
4,035.4	3,995.3	4,000.3	4,000.3	11.3	80.0	-90.12	-1,811.1	3,581.1	3,993.7	3,902.3	91.35	43.718	
4,100.0	4,058.5	4,063.5	4,063.5	11.6	81.3	-90.31	-1,811.1	3,581.1	3,993.7	3,900.8	92.90	42.991	
4,133.8	4,091.6	4,096.6	4,096.6	11.7	82.0	-90.41	-1,811.1	3,581.1	3,993.8	3,900.0	93.71	42.619	
4,200.0	4,156.3	4,161.3	4,161.3	12.0	83.3	-90.60	-1,811.1	3,581.1	3,993.9	3,898.6	95.29	41.912	
4,232.3	4,187.9	4,192.9	4,192.9	12.2	83.9	-90.70	-1,811.1	3,581.1	3,994.0	3,897.9	96.07	41.575	
4,300.0	4,254.1	4,259.1	4,259.1	12.5	85.2	-90.89	-1,811.1	3,581.1	3,994.2	3,896.5	97.69	40.885	
4,325.7	4,279.2	4,284.2	4,284.2	12.6	85.7	-90.97	-1,811.1	3,581.1	3,994.2	3,895.9	98.31	40.630	
4,330.7	4,284.1	4,289.1	4,289.1	12.6	85.8	-90.98	-1,811.1	3,581.1	3,994.3	3,895.8	98.42	40.582	
4,400.0	4,352.1	4,357.1	4,357.1	12.8	87.2	-91.18	-1,811.1	3,581.1	3,994.5	3,894.5	100.05	39.925	
4,429.1	4,380.8	4,385.8	4,385.8	12.9	87.8	-91.25	-1,811.1	3,581.1	3,994.6	3,893.9	100.71	39.664	
4,500.0	4,450.7	4,455.7	4,455.7	13.1	89.2	-91.42	-1,811.1	3,581.1	3,994.9	3,892.6	102.33	39.039	
4,527.5	4,478.0	4,483.0	4,483.0	13.2	89.7	-91.48	-1,811.1	3,581.1	3,995.0	3,892.0	102.95	38.804	
4,600.0	4,549.9	4,554.9	4,554.9	13.4	91.2	-91.61	-1,811.1	3,581.1	3,995.2	3,890.7	104.59	38.198	
4,626.0	4,575.7	4,580.7	4,580.7	13.5	91.7	-91.65	-1,811.1	3,581.1	3,995.3	3,890.2	105.17	37.988	
4,700.0	4,649.4	4,654.4	4,654.4	13.6	93.2	-91.76	-1,811.1	3,581.1	3,995.5	3,888.7	106.83	37.400	
4,724.4	4,673.7	4,678.7	4,678.7	13.7	93.7	-91.78	-1,811.1	3,581.1	3,995.6	3,888.2	107.37	37.213	
4,800.0	4,749.2	4,754.2	4,754.2	13.8	95.2	-91.85	-1,811.1	3,581.1	3,995.7	3,886.7	109.04	36.644	
4,822.8	4,772.0	4,777.0	4,777.0	13.9	95.7	-91.86	-1,811.1	3,581.1	3,995.8	3,886.2	109.54	36.478	
4,900.0	4,849.2	4,854.2	4,854.2	14.0	97.2	-91.89	-1,811.1	3,581.1	3,995.8	3,884.6	111.22	35.926	
4,921.2	4,870.4	4,875.4	4,875.4	14.1	97.6	-91.89	-1,811.1	3,581.1	3,995.8	3,884.1	111.68	35.778	
4,925.6	4,874.8	4,879.8	4,879.8	14.1	97.7	109.31	-1,811.1	3,581.1	3,995.8	3,887.4	108.46	36.841	
5,000.0	4,949.2	4,954.2	4,954.2	14.2	99.2	109.31	-1,811.1	3,581.1	3,995.8	3,885.7	110.10	36.292	

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 SCHAUMBERG 17G-314
<b>Project:</b>	WELD COUNTY, COLORADO	<b>TVD Reference:</b>	KB-EST @ 4633.0usft (Original Well Elev)
<b>Reference Site:</b>	SW NW SEC. 17 T5N R64W 6th P.M.	<b>MD Reference:</b>	KB-EST @ 4633.0usft (Original Well Elev)
<b>Site Error:</b>	0.0 usft	<b>North Reference:</b>	True
<b>Reference Well:</b>	SCHAUMBERG 17G-314	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Well Error:</b>	0.0 usft	<b>Output errors are at</b>	2.00 sigma
<b>Reference Wellbore</b>	ORIGINAL WELLBORE	<b>Database:</b>	EDM 5000.1 Single User Db
<b>Reference Design:</b>	PROPOSAL #1	<b>Offset TVD Reference:</b>	Offset Datum

Offset Design												Offset Site Error:	0.0 usft
Survey Program: 0-INC												Offset Well Error:	0.0 usft
Reference		Offset		Semi Major Axis			Distance						Warning
Measured Depth (usft)	Vertical Depth (usft)	Measured Depth (usft)	Vertical Depth (usft)	Reference (usft)	Offset (usft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (usft)	+E/-W (usft)	Between Centres (usft)	Between Ellipses (usft)	Minimum Separation (usft)	Separation Factor	
5,019.7	4,968.8	4,973.8	4,973.8	14.2	99.6	109.31	-1,811.1	3,581.1	3,995.8	3,885.3	110.54	36.149	
5,100.0	5,049.2	5,054.2	5,054.2	14.3	101.2	109.31	-1,811.1	3,581.1	3,995.8	3,883.5	112.31	35.579	
5,118.1	5,067.3	5,072.3	5,072.3	14.3	101.6	109.31	-1,811.1	3,581.1	3,995.8	3,883.1	112.71	35.452	
5,200.0	5,149.2	5,154.2	5,154.2	14.5	103.2	109.31	-1,811.1	3,581.1	3,995.8	3,881.3	114.52	34.893	
5,216.5	5,165.7	5,170.7	5,170.7	14.5	103.6	109.31	-1,811.1	3,581.1	3,995.8	3,880.9	114.88	34.782	
5,300.0	5,249.2	5,254.2	5,254.2	14.6	105.3	109.31	-1,811.1	3,581.1	3,995.8	3,879.1	116.73	34.232	
5,314.9	5,264.1	5,269.1	5,269.1	14.6	105.6	109.31	-1,811.1	3,581.1	3,995.8	3,878.8	117.06	34.135	
5,400.0	5,349.2	5,354.2	5,354.2	14.8	107.3	109.31	-1,811.1	3,581.1	3,995.8	3,876.9	118.94	33.596	
5,413.4	5,362.5	5,367.5	5,367.5	14.8	107.5	109.31	-1,811.1	3,581.1	3,995.8	3,876.6	119.23	33.513	
5,500.0	5,449.2	5,454.2	5,454.2	14.9	109.3	109.31	-1,811.1	3,581.1	3,995.8	3,874.7	121.15	32.983	
5,511.8	5,461.0	5,466.0	5,466.0	14.9	109.5	109.31	-1,811.1	3,581.1	3,995.8	3,874.4	121.41	32.912	
5,600.0	5,549.2	5,554.2	5,554.2	15.1	111.3	109.31	-1,811.1	3,581.1	3,995.8	3,872.5	123.36	32.391	
5,610.2	5,559.4	5,564.4	5,564.4	15.1	111.5	109.31	-1,811.1	3,581.1	3,995.8	3,872.2	123.59	32.332	
5,700.0	5,649.2	5,654.2	5,654.2	15.2	113.3	109.31	-1,811.1	3,581.1	3,995.8	3,870.2	125.57	31.821	
5,708.6	5,657.8	5,662.8	5,662.8	15.3	113.5	109.31	-1,811.1	3,581.1	3,995.8	3,870.0	125.76	31.772	
5,800.0	5,749.2	5,754.2	5,754.2	15.4	115.3	109.31	-1,811.1	3,581.1	3,995.8	3,868.0	127.79	31.269	
5,807.1	5,756.2	5,761.2	5,761.2	15.4	115.5	109.31	-1,811.1	3,581.1	3,995.8	3,867.9	127.94	31.231	
5,900.0	5,849.2	5,854.2	5,854.2	15.6	117.3	109.31	-1,811.1	3,581.1	3,995.8	3,865.8	130.00	30.737	
5,905.5	5,854.7	5,859.7	5,859.7	15.6	117.4	109.31	-1,811.1	3,581.1	3,995.8	3,865.7	130.12	30.708	
6,000.0	5,949.2	5,954.2	5,954.2	15.7	119.3	109.31	-1,811.1	3,581.1	3,995.8	3,863.6	132.22	30.222	
6,003.9	5,953.1	5,958.1	5,958.1	15.7	119.4	109.31	-1,811.1	3,581.1	3,995.8	3,863.5	132.30	30.202	
6,100.0	6,049.2	6,054.2	6,054.2	15.9	121.3	109.31	-1,811.1	3,581.1	3,995.8	3,861.4	134.43	29.724	
6,102.3	6,051.5	6,056.5	6,056.5	15.9	121.4	109.31	-1,811.1	3,581.1	3,995.8	3,861.3	134.48	29.712	
6,124.6	6,073.8	6,078.8	6,078.8	15.9	121.8	109.31	-1,811.1	3,581.1	3,995.8	3,860.8	134.98	29.604	
6,150.0	6,099.2	6,104.2	6,104.2	16.0	122.3	-160.68	-1,811.1	3,581.1	3,996.2	3,858.0	138.26	28.905 ES	
6,200.0	6,149.0	6,154.0	6,154.0	16.1	123.3	-160.61	-1,811.1	3,581.1	3,999.6	3,860.8	138.76	28.823	
6,200.8	6,149.8	6,154.8	6,154.8	16.1	123.4	-160.61	-1,811.1	3,581.1	3,999.6	3,860.9	138.77	28.823 SF	
6,250.0	6,198.5	6,203.5	6,203.5	16.2	124.3	-160.47	-1,811.1	3,581.1	4,006.1	3,867.5	138.68	28.888	
6,299.2	6,246.6	6,251.6	6,251.6	16.3	125.3	-160.25	-1,811.1	3,581.1	4,015.8	3,877.8	138.02	29.097	
6,300.0	6,247.4	6,252.4	6,252.4	16.3	125.3	-160.25	-1,811.1	3,581.1	4,016.0	3,878.0	138.00	29.101	
6,350.0	6,295.5	6,300.5	6,300.5	16.5	126.3	-159.95	-1,811.1	3,581.1	4,029.0	3,892.3	136.73	29.467	
6,397.6	6,340.2	6,345.2	6,345.2	16.6	127.2	-159.58	-1,811.1	3,581.1	4,044.4	3,909.4	134.99	29.961	
6,400.0	6,342.4	6,347.4	6,347.4	16.6	127.2	-159.56	-1,811.1	3,581.1	4,045.2	3,910.3	134.89	29.989	
6,450.0	6,388.1	6,393.1	6,393.1	16.8	128.2	-159.07	-1,811.1	3,581.1	4,064.4	3,931.9	132.51	30.673	
6,496.0	6,428.8	6,433.8	6,433.8	17.0	129.0	-158.52	-1,811.1	3,581.1	4,084.8	3,954.9	129.88	31.451	
6,500.0	6,432.2	6,437.2	6,437.2	17.0	129.0	-158.47	-1,811.1	3,581.1	4,086.7	3,957.0	129.64	31.524	
6,550.0	6,474.6	6,479.6	6,479.6	17.3	129.9	-157.74	-1,811.1	3,581.1	4,111.8	3,985.4	126.34	32.545	
6,594.5	6,510.7	6,515.7	6,515.7	17.5	130.6	-156.96	-1,811.1	3,581.1	4,136.4	4,013.3	123.14	33.591	
6,600.0	6,515.0	6,520.0	6,520.0	17.6	130.7	-156.85	-1,811.1	3,581.1	4,139.6	4,016.9	122.73	33.730	
6,650.0	6,553.3	6,558.3	6,558.3	17.9	131.5	-155.79	-1,811.1	3,581.1	4,170.1	4,051.2	118.93	35.064	
6,692.9	6,584.3	6,589.3	6,589.3	18.2	132.1	-154.70	-1,811.1	3,581.1	4,198.2	4,082.6	115.67	36.297	
6,700.0	6,589.2	6,594.2	6,594.2	18.2	132.2	-154.50	-1,811.1	3,581.1	4,203.1	4,087.9	115.13	36.506	
6,750.0	6,622.7	6,627.7	6,627.7	18.6	132.9	-152.95	-1,811.1	3,581.1	4,238.4	4,126.8	111.61	37.976	
6,791.3	6,648.3	6,653.3	6,653.3	19.0	133.4	-151.41	-1,811.1	3,581.1	4,269.2	4,160.1	109.13	39.119	
6,800.0	6,653.4	6,658.4	6,658.4	19.1	133.5	-151.05	-1,811.1	3,581.1	4,275.8	4,167.1	108.69	39.340	
6,850.0	6,681.4	6,686.4	6,686.4	19.6	134.1	-148.73	-1,811.1	3,581.1	4,315.3	4,208.4	106.84	40.391	
6,889.7	6,701.5	6,706.5	6,706.5	20.1	134.5	-146.49	-1,811.1	3,581.1	4,347.9	4,241.4	106.50	40.827	
6,900.0	6,706.3	6,711.3	6,711.3	20.2	134.6	-145.84	-1,811.1	3,581.1	4,356.5	4,249.9	106.61	40.863	
6,950.0	6,728.2	6,733.2	6,733.2	20.9	135.0	-142.23	-1,811.1	3,581.1	4,399.4	4,290.7	108.64	40.494	
6,988.2	6,742.8	6,747.8	6,747.8	21.5	135.3	-138.83	-1,811.1	3,581.1	4,433.0	4,321.0	112.09	39.550	
7,000.0	6,746.9	6,751.9	6,751.9	21.6	135.4	-137.65	-1,811.1	3,581.1	4,443.6	4,330.1	113.52	39.145	
7,050.0	6,762.4	6,767.4	6,767.4	22.5	135.7	-131.78	-1,811.1	3,581.1	4,489.0	4,367.5	121.59	36.920	

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 SCHAUMBERG 17G-314
<b>Project:</b>	WELD COUNTY, COLORADO	<b>TVD Reference:</b>	KB-EST @ 4633.0usft (Original Well Elev)
<b>Reference Site:</b>	SW NW SEC. 17 T5N R64W 6th P.M.	<b>MD Reference:</b>	KB-EST @ 4633.0usft (Original Well Elev)
<b>Site Error:</b>	0.0 usft	<b>North Reference:</b>	True
<b>Reference Well:</b>	SCHAUMBERG 17G-314	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Well Error:</b>	0.0 usft	<b>Output errors are at</b>	2.00 sigma
<b>Reference Wellbore</b>	ORIGINAL WELLBORE	<b>Database:</b>	EDM 5000.1 Single User Db
<b>Reference Design:</b>	PROPOSAL #1	<b>Offset TVD Reference:</b>	Offset Datum

<b>Offset Design</b> NW SW SEC. 17 T5N R64W 6th P.M. - EXIST VERT SOLIS #43-17 - Wellbore #1 - Design #1												<b>Offset Site Error:</b>	0.0 usft
Survey Program: 0-INC												<b>Offset Well Error:</b>	0.0 usft
Reference		Offset		Semi Major Axis			Distance						
Measured Depth (usft)	Vertical Depth (usft)	Measured Depth (usft)	Vertical Depth (usft)	Reference (usft)	Offset (usft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (usft)	+E/-W (usft)	Between Centres (usft)	Between Ellipses (usft)	Minimum Separation (usft)	Separation Factor	Warning
7,086.6	6,771.5	6,776.5	6,776.5	23.1	135.9	-126.46	-1,811.1	3,581.1	4,522.9	4,393.5	129.42	34.948	
7,100.0	6,774.4	6,779.4	6,779.4	23.3	135.9	-124.26	-1,811.1	3,581.1	4,535.4	4,402.8	132.60	34.203	
7,150.0	6,783.1	6,788.1	6,788.1	24.3	136.1	-114.73	-1,811.1	3,581.1	4,582.5	4,437.4	145.18	31.566	
7,185.0	6,787.1	6,792.1	6,792.1	25.0	136.2	-106.78	-1,811.1	3,581.1	4,615.9	4,462.5	153.33	30.104	
7,200.0	6,788.3	6,793.3	6,793.3	25.3	136.2	-103.10	-1,811.1	3,581.1	4,630.2	4,473.9	156.23	29.636	
7,252.3	6,790.0	6,795.0	6,795.0	26.3	136.2	-89.27	-1,811.1	3,581.1	4,680.3	4,518.7	161.61	28.960	
7,283.4	6,789.9	6,794.9	6,794.9	27.0	136.2	-89.26	-1,811.1	3,581.1	4,710.2	4,547.9	162.30	29.021	
7,300.0	6,789.8	6,794.8	6,794.8	27.3	136.2	-89.26	-1,811.1	3,581.1	4,726.1	4,563.4	162.67	29.053	
7,381.9	6,789.5	6,794.5	6,794.5	29.1	136.2	-89.25	-1,811.1	3,581.1	4,804.7	4,640.2	164.55	29.200	
7,400.0	6,789.4	6,794.4	6,794.4	29.5	136.2	-89.24	-1,811.1	3,581.1	4,822.2	4,657.2	164.96	29.232	
7,480.3	6,789.1	6,794.1	6,794.1	31.4	136.2	-89.23	-1,811.1	3,581.1	4,899.4	4,732.6	166.87	29.361	
7,500.0	6,789.1	6,794.1	6,794.1	31.8	136.2	-89.22	-1,811.1	3,581.1	4,918.4	4,751.1	167.34	29.393	
7,578.7	6,788.8	6,793.8	6,793.8	33.7	136.2	-89.21	-1,811.1	3,581.1	4,994.3	4,825.0	169.26	29.507	
7,600.0	6,788.7	6,793.7	6,793.7	34.2	136.2	-89.21	-1,811.1	3,581.1	5,014.8	4,845.0	169.78	29.538	
7,677.1	6,788.4	6,793.4	6,793.4	36.1	136.2	-89.19	-1,811.1	3,581.1	5,089.3	4,917.6	171.70	29.641	
7,700.0	6,788.3	6,793.3	6,793.3	36.7	136.2	-89.19	-1,811.1	3,581.1	5,111.3	4,939.1	172.27	29.671	
7,775.6	6,788.0	6,793.0	6,793.0	38.6	136.2	-89.18	-1,811.1	3,581.1	5,184.4	5,010.2	174.19	29.764	
7,800.0	6,787.9	6,792.9	6,792.9	39.2	136.2	-89.17	-1,811.1	3,581.1	5,208.0	5,033.2	174.80	29.793	
7,874.0	6,787.6	6,792.6	6,792.6	41.0	136.2	-89.16	-1,811.1	3,581.1	5,279.6	5,102.9	176.71	29.878	
7,900.0	6,787.6	6,792.6	6,792.6	41.7	136.2	-89.15	-1,811.1	3,581.1	5,304.8	5,127.4	177.38	29.907	
7,972.4	6,787.3	6,792.3	6,792.3	43.6	136.2	-89.14	-1,811.1	3,581.1	5,375.0	5,195.7	179.26	29.985	
8,000.0	6,787.2	6,792.2	6,792.2	44.3	136.2	-89.14	-1,811.1	3,581.1	5,401.7	5,221.7	179.97	30.014	
8,070.8	6,786.9	6,791.9	6,791.9	46.1	136.2	-89.12	-1,811.1	3,581.1	5,470.4	5,288.6	181.83	30.085	
8,100.0	6,786.8	6,791.8	6,791.8	46.9	136.2	-89.12	-1,811.1	3,581.1	5,498.7	5,316.1	182.60	30.114	
8,169.3	6,786.5	6,791.5	6,791.5	48.7	136.2	-89.11	-1,811.1	3,581.1	5,566.0	5,381.6	184.43	30.180	
8,200.0	6,786.4	6,791.4	6,791.4	49.5	136.2	-89.10	-1,811.1	3,581.1	5,595.8	5,410.6	185.24	30.209	
8,267.7	6,786.1	6,791.1	6,791.1	51.3	136.2	-89.09	-1,811.1	3,581.1	5,661.7	5,474.6	187.04	30.270	
8,300.0	6,786.0	6,791.0	6,791.0	52.1	136.2	-89.08	-1,811.1	3,581.1	5,693.1	5,505.2	187.90	30.299	
8,366.1	6,785.8	6,790.8	6,790.8	53.9	136.2	-89.07	-1,811.1	3,581.1	5,757.4	5,567.7	189.67	30.356	
8,400.0	6,785.6	6,790.6	6,790.6	54.8	136.2	-89.06	-1,811.1	3,581.1	5,790.4	5,599.8	190.57	30.384	
8,464.5	6,785.4	6,790.4	6,790.4	56.5	136.1	-89.05	-1,811.1	3,581.1	5,853.2	5,660.9	192.31	30.437	
8,500.0	6,785.3	6,790.3	6,790.3	57.5	136.1	-89.05	-1,811.1	3,581.1	5,887.8	5,694.5	193.26	30.466	
8,563.0	6,785.0	6,790.0	6,790.0	59.2	136.1	-89.03	-1,811.1	3,581.1	5,949.2	5,754.2	194.96	30.516	
8,600.0	6,784.9	6,789.9	6,789.9	60.2	136.1	-89.03	-1,811.1	3,581.1	5,985.3	5,789.3	195.95	30.544	
8,661.4	6,784.6	6,789.6	6,789.6	61.8	136.1	-89.02	-1,811.1	3,581.1	6,045.2	5,847.6	197.61	30.591	
8,700.0	6,784.5	6,789.5	6,789.5	62.9	136.1	-89.01	-1,811.1	3,581.1	6,082.9	5,884.2	198.66	30.620	
8,759.8	6,784.3	6,789.3	6,789.3	64.5	136.1	-89.00	-1,811.1	3,581.1	6,141.3	5,941.0	200.28	30.663	
8,800.0	6,784.1	6,789.1	6,789.1	65.6	136.1	-88.99	-1,811.1	3,581.1	6,180.5	5,979.1	201.37	30.692	
8,858.2	6,783.9	6,788.9	6,788.9	67.1	136.1	-88.98	-1,811.1	3,581.1	6,237.4	6,034.5	202.96	30.733	
8,900.0	6,783.7	6,788.7	6,788.7	68.3	136.1	-88.97	-1,811.1	3,581.1	6,278.2	6,074.1	204.09	30.762	
8,956.7	6,783.5	6,788.5	6,788.5	69.8	136.1	-88.96	-1,811.1	3,581.1	6,333.6	6,128.0	205.64	30.800	
9,000.0	6,783.3	6,788.3	6,788.3	71.0	136.1	-88.95	-1,811.1	3,581.1	6,376.0	6,169.2	206.82	30.829	
9,055.1	6,783.1	6,788.1	6,788.1	72.5	136.1	-88.94	-1,811.1	3,581.1	6,429.9	6,221.6	208.33	30.865	
9,100.0	6,782.9	6,787.9	6,787.9	73.7	136.1	-88.94	-1,811.1	3,581.1	6,473.9	6,264.3	209.55	30.894	
9,153.5	6,782.7	6,787.7	6,787.7	75.2	136.1	-88.93	-1,811.1	3,581.1	6,526.3	6,315.3	211.02	30.928	
9,200.0	6,782.6	6,787.6	6,787.6	76.5	136.1	-88.92	-1,811.1	3,581.1	6,571.8	6,359.5	212.29	30.957	
9,251.9	6,782.4	6,787.4	6,787.4	77.9	136.1	-88.91	-1,811.1	3,581.1	6,622.7	6,409.0	213.71	30.989	
9,300.0	6,782.2	6,787.2	6,787.2	79.2	136.1	-88.90	-1,811.1	3,581.1	6,669.8	6,454.8	215.03	31.018	
9,350.4	6,782.0	6,787.0	6,787.0	80.6	136.1	-88.89	-1,811.1	3,581.1	6,719.2	6,502.8	216.42	31.048	
9,400.0	6,781.8	6,786.8	6,786.8	82.0	136.1	-88.88	-1,811.1	3,581.1	6,767.8	6,550.1	217.78	31.077	
9,448.8	6,781.6	6,786.6	6,786.6	83.3	136.1	-88.87	-1,811.1	3,581.1	6,815.7	6,596.6	219.12	31.105	
9,500.0	6,781.4	6,786.4	6,786.4	84.7	136.1	-88.86	-1,811.1	3,581.1	6,866.0	6,645.4	220.53	31.134	

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 SCHAUMBERG 17G-314
<b>Project:</b>	WELD COUNTY, COLORADO	<b>TVD Reference:</b>	KB-EST @ 4633.0usft (Original Well Elev)
<b>Reference Site:</b>	SW NW SEC. 17 T5N R64W 6th P.M.	<b>MD Reference:</b>	KB-EST @ 4633.0usft (Original Well Elev)
<b>Site Error:</b>	0.0 usft	<b>North Reference:</b>	True
<b>Reference Well:</b>	SCHAUMBERG 17G-314	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Well Error:</b>	0.0 usft	<b>Output errors are at</b>	2.00 sigma
<b>Reference Wellbore</b>	ORIGINAL WELLBORE	<b>Database:</b>	EDM 5000.1 Single User Db
<b>Reference Design:</b>	PROPOSAL #1	<b>Offset TVD Reference:</b>	Offset Datum

<b>Offset Design</b> NW SW SEC. 17 T5N R64W 6th P.M. - EXIST VERT SOLIS #43-17 - Wellbore #1 - Design #1												<b>Offset Site Error:</b>	0.0 usft
Survey Program: 0-INC												<b>Offset Well Error:</b>	0.0 usft
Reference	Offset	Semi Major Axis		Distance									
Measured Depth (usft)	Vertical Depth (usft)	Measured Depth (usft)	Vertical Depth (usft)	Reference (usft)	Offset (usft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (usft)	+E/-W (usft)	Between Centres (usft)	Between Ellipses (usft)	Minimum Separation (usft)	Separation Factor	Warning
9,547.2	6,781.2	6,786.2	6,786.2	86.0	136.1	-88.85	-1,811.1	3,581.1	6,912.3	6,690.5	221.83	31.161	
9,600.0	6,781.0	6,786.0	6,786.0	87.5	136.1	-88.84	-1,811.1	3,581.1	6,964.1	6,740.8	223.28	31.190	
9,645.6	6,780.8	6,785.8	6,785.8	88.7	136.1	-88.84	-1,811.1	3,581.1	7,008.9	6,784.4	224.54	31.215	
9,700.0	6,780.6	6,785.6	6,785.6	90.2	136.1	-88.82	-1,811.1	3,581.1	7,062.3	6,836.3	226.04	31.244	
9,744.1	6,780.4	6,785.4	6,785.4	91.4	136.0	-88.82	-1,811.1	3,581.1	7,105.6	6,878.4	227.25	31.268	
9,800.0	6,780.2	6,785.2	6,785.2	93.0	136.0	-88.81	-1,811.1	3,581.1	7,160.6	6,931.8	228.79	31.297	
9,842.5	6,780.1	6,785.1	6,785.1	94.2	136.0	-88.80	-1,811.1	3,581.1	7,202.3	6,972.4	229.97	31.319	
9,900.0	6,779.8	6,784.8	6,784.8	95.7	136.0	-88.79	-1,811.1	3,581.1	7,258.9	7,027.3	231.55	31.349	
9,940.9	6,779.7	6,784.7	6,784.7	96.9	136.0	-88.78	-1,811.1	3,581.1	7,299.1	7,066.4	232.68	31.369	
10,000.0	6,779.4	6,784.4	6,784.4	98.5	136.0	-88.77	-1,811.1	3,581.1	7,357.2	7,122.9	234.32	31.399	
10,039.3	6,779.3	6,784.3	6,784.3	99.6	136.0	-88.76	-1,811.1	3,581.1	7,395.9	7,160.5	235.41	31.418	
10,100.0	6,779.0	6,784.0	6,784.0	101.3	136.0	-88.75	-1,811.1	3,581.1	7,455.6	7,218.5	237.08	31.447	
10,137.8	6,778.9	6,783.9	6,783.9	102.3	136.0	-88.74	-1,811.1	3,581.1	7,492.8	7,254.7	238.13	31.466	
10,200.0	6,778.7	6,783.7	6,783.7	104.1	136.0	-88.73	-1,811.1	3,581.1	7,554.1	7,314.2	239.85	31.495	
10,236.2	6,778.5	6,783.5	6,783.5	105.1	136.0	-88.72	-1,811.1	3,581.1	7,589.7	7,348.9	240.85	31.512	
10,300.0	6,778.3	6,783.3	6,783.3	106.8	136.0	-88.71	-1,811.1	3,581.1	7,652.5	7,409.9	242.62	31.542	
10,334.6	6,778.1	6,783.1	6,783.1	107.8	136.0	-88.71	-1,811.1	3,581.1	7,686.7	7,443.1	243.58	31.558	
10,400.0	6,777.9	6,782.9	6,782.9	109.6	136.0	-88.69	-1,811.1	3,581.1	7,751.1	7,505.7	245.39	31.587	
10,433.0	6,777.7	6,782.7	6,782.7	110.5	136.0	-88.69	-1,811.1	3,581.1	7,783.6	7,537.3	246.30	31.602	
10,500.0	6,777.5	6,782.5	6,782.5	112.4	136.0	-88.67	-1,811.1	3,581.1	7,849.6	7,601.5	248.16	31.632	
10,531.5	6,777.3	6,782.3	6,782.3	113.3	136.0	-88.67	-1,811.1	3,581.1	7,880.6	7,631.6	249.03	31.645	
10,600.0	6,777.1	6,782.1	6,782.1	115.2	136.0	-88.65	-1,811.1	3,581.1	7,948.2	7,697.3	250.93	31.675	
10,629.9	6,777.0	6,782.0	6,782.0	116.0	136.0	-88.65	-1,811.1	3,581.1	7,977.7	7,725.9	251.76	31.688	
10,700.0	6,776.7	6,781.7	6,781.7	117.9	136.0	-88.63	-1,811.1	3,581.1	8,046.8	7,793.1	253.70	31.717	
10,728.3	6,776.6	6,781.6	6,781.6	118.7	136.0	-88.63	-1,811.1	3,581.1	8,074.8	7,820.3	254.49	31.729	
10,800.0	6,776.3	6,781.3	6,781.3	120.7	136.0	-88.62	-1,811.1	3,581.1	8,145.5	7,889.0	256.48	31.759	
10,826.7	6,776.2	6,781.2	6,781.2	121.5	136.0	-88.61	-1,811.1	3,581.1	8,171.9	7,914.7	257.22	31.770	
10,900.0	6,775.9	6,780.9	6,780.9	123.5	136.0	-88.60	-1,811.1	3,581.1	8,244.2	7,984.9	259.26	31.799	
10,925.2	6,775.8	6,780.8	6,780.8	124.2	136.0	-88.59	-1,811.1	3,581.1	8,269.0	8,009.1	259.95	31.810	
11,000.0	6,775.5	6,780.5	6,780.5	126.3	135.9	-88.58	-1,811.1	3,581.1	8,342.9	8,080.9	262.03	31.839	
11,023.6	6,775.4	6,780.4	6,780.4	126.9	135.9	-88.57	-1,811.1	3,581.1	8,366.2	8,103.5	262.69	31.848	
11,100.0	6,775.1	6,780.1	6,780.1	129.1	135.9	-88.56	-1,811.1	3,581.1	8,441.7	8,176.8	264.81	31.878	
11,122.0	6,775.0	6,780.0	6,780.0	129.7	135.9	-88.55	-1,811.1	3,581.1	8,463.4	8,198.0	265.42	31.887	
11,200.0	6,774.7	6,779.7	6,779.7	131.9	135.9	-88.54	-1,811.1	3,581.1	8,540.4	8,272.8	267.59	31.916	
11,220.4	6,774.6	6,779.6	6,779.6	132.4	135.9	-88.53	-1,811.1	3,581.1	8,560.6	8,292.5	268.16	31.924	
11,300.0	6,774.3	6,779.3	6,779.3	134.6	135.9	-88.52	-1,811.1	3,581.1	8,639.2	8,368.9	270.37	31.954	
11,318.9	6,774.2	6,779.2	6,779.2	135.2	135.9	-88.51	-1,811.1	3,581.1	8,657.9	8,387.0	270.89	31.961	
11,400.0	6,773.9	6,778.9	6,778.9	137.4	135.9	-88.50	-1,811.1	3,581.1	8,738.1	8,464.9	273.15	31.990	
11,417.3	6,773.8	6,778.8	6,778.8	137.9	135.9	-88.50	-1,811.1	3,581.1	8,755.2	8,481.6	273.63	31.996	
11,500.0	6,773.5	6,778.5	6,778.5	140.2	135.9	-88.48	-1,811.1	3,581.1	8,836.9	8,561.0	275.93	32.026	
11,515.7	6,773.4	6,778.4	6,778.4	140.7	135.9	-88.48	-1,811.1	3,581.1	8,852.5	8,576.1	276.37	32.032	
11,600.0	6,773.1	6,778.1	6,778.1	143.0	135.9	-88.46	-1,811.1	3,581.1	8,935.8	8,657.1	278.71	32.061	
11,614.1	6,773.0	6,778.0	6,778.0	143.4	135.9	-88.46	-1,811.1	3,581.1	8,949.8	8,670.7	279.10	32.066	
11,700.0	6,772.7	6,777.7	6,777.7	145.8	135.9	-88.44	-1,811.1	3,581.1	9,034.7	8,753.3	281.49	32.096	
11,712.6	6,772.6	6,777.6	6,777.6	146.2	135.9	-88.44	-1,811.1	3,581.1	9,047.2	8,765.3	281.84	32.100	
11,800.0	6,772.3	6,777.3	6,777.3	148.6	135.9	-88.42	-1,811.1	3,581.1	9,133.7	8,849.4	284.28	32.130	
11,811.0	6,772.2	6,777.2	6,777.2	148.9	135.9	-88.42	-1,811.1	3,581.1	9,144.6	8,860.0	284.58	32.133	
11,900.0	6,771.9	6,776.9	6,776.9	151.4	135.9	-88.40	-1,811.1	3,581.1	9,232.6	8,945.6	287.06	32.163	
11,909.4	6,771.8	6,776.8	6,776.8	151.7	135.9	-88.40	-1,811.1	3,581.1	9,242.0	8,954.6	287.32	32.166	
12,000.0	6,771.5	6,776.5	6,776.5	154.2	135.9	-88.38	-1,811.1	3,581.1	9,331.6	9,041.8	289.84	32.195	
12,007.8	6,771.4	6,776.4	6,776.4	154.4	135.9	-88.38	-1,811.1	3,581.1	9,339.4	9,049.3	290.06	32.198	
12,100.0	6,771.1	6,776.1	6,776.1	157.0	135.9	-88.36	-1,811.1	3,581.1	9,430.6	9,138.0	292.63	32.228	

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 SCHAUMBERG 17G-314
<b>Project:</b>	WELD COUNTY, COLORADO	<b>TVD Reference:</b>	KB-EST @ 4633.0usft (Original Well Elev)
<b>Reference Site:</b>	SW NW SEC. 17 T5N R64W 6th P.M.	<b>MD Reference:</b>	KB-EST @ 4633.0usft (Original Well Elev)
<b>Site Error:</b>	0.0 usft	<b>North Reference:</b>	True
<b>Reference Well:</b>	SCHAUMBERG 17G-314	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Well Error:</b>	0.0 usft	<b>Output errors are at</b>	2.00 sigma
<b>Reference Wellbore</b>	ORIGINAL WELLBORE	<b>Database:</b>	EDM 5000.1 Single User Db
<b>Reference Design:</b>	PROPOSAL #1	<b>Offset TVD Reference:</b>	Offset Datum

<b>Offset Design</b> NW SW SEC. 17 T5N R64W 6th P.M. - EXIST VERT SOLIS #43-17 - Wellbore #1 - Design #1												<b>Offset Site Error:</b>	0.0 usft
Survey Program: 0-INC												<b>Offset Well Error:</b>	0.0 usft
Reference	Offset	Semi Major Axis			Distance								Warning
Measured Depth (usft)	Vertical Depth (usft)	Measured Depth (usft)	Vertical Depth (usft)	Reference (usft)	Offset (usft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (usft)	+E/-W (usft)	Between Centres (usft)	Between Ellipses (usft)	Minimum Separation (usft)	Separation Factor	
12,106.3	6,771.0	6,776.0	6,776.0	157.2	135.9	-88.36	-1,811.1	3,581.1	9,436.8	9,144.0	292.80	32.229	
12,200.0	6,770.7	6,775.7	6,775.7	159.8	135.9	-88.34	-1,811.1	3,581.1	9,529.7	9,234.2	295.41	32.259	
12,204.7	6,770.6	6,775.6	6,775.6	159.9	135.9	-88.34	-1,811.1	3,581.1	9,534.3	9,238.8	295.54	32.260	
12,300.0	6,770.3	6,775.3	6,775.3	162.6	135.8	-88.32	-1,811.1	3,581.1	9,628.7	9,330.5	298.20	32.290	
12,303.1	6,770.2	6,775.2	6,775.2	162.7	135.8	-88.32	-1,811.1	3,581.1	9,631.8	9,333.5	298.28	32.291	
12,361.7	6,770.0	6,775.0	6,775.0	164.3	135.8	-88.31	-1,811.1	3,581.1	9,689.8	9,389.9	299.91	32.309	



# Anticollision Report



<b>Company:</b>	PDC ENERGY	<b>Local Co-ordinate Reference:</b>	Well SCHAUMBERG 17G-314
<b>Project:</b>	WELD COUNTY, COLORADO	<b>TVD Reference:</b>	KB-EST @ 4633.0usft (Original Well Elev)
<b>Reference Site:</b>	SW NW SEC. 17 T5N R64W 6th P.M.	<b>MD Reference:</b>	KB-EST @ 4633.0usft (Original Well Elev)
<b>Site Error:</b>	0.0 usft	<b>North Reference:</b>	True
<b>Reference Well:</b>	SCHAUMBERG 17G-314	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Well Error:</b>	0.0 usft	<b>Output errors are at</b>	2.00 sigma
<b>Reference Wellbore</b>	ORIGINAL WELLBORE	<b>Database:</b>	EDM 5000.1 Single User Db
<b>Reference Design:</b>	PROPOSAL #1	<b>Offset TVD Reference:</b>	Offset Datum

<b>Offset Design</b> NW SW SEC. 17 T5N R64W 6th P.M. - EXIST VERT SOLIS #44-17 - 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	6.6	6.6	0.0	0.0	125.53	-2,710.9	3,795.7	4,664.4				
98.4	98.4	155.7	155.7	0.1	0.2	125.54	-2,710.7	3,794.3	4,663.5	4,663.2	0.27	N/A	
100.0	100.0	157.3	157.3	0.1	0.2	125.54	-2,710.7	3,794.3	4,663.4	4,663.2	0.27	N/A	
196.8	196.8	249.2	249.2	0.3	0.3	125.55	-2,710.6	3,793.1	4,662.3	4,661.8	0.59	7,862.613	
200.0	200.0	252.1	252.1	0.3	0.3	125.55	-2,710.6	3,793.1	4,662.3	4,661.7	0.60	7,737.917	
295.3	295.3	343.8	343.8	0.5	0.4	125.55	-2,710.4	3,792.1	4,661.4	4,660.5	0.89	5,246.162	
300.0	300.0	348.6	348.6	0.5	0.4	125.56	-2,710.4	3,792.1	4,661.3	4,660.4	0.90	5,164.681	
393.7	393.7	445.5	445.4	0.8	0.4	125.56	-2,710.0	3,791.1	4,660.4	4,659.2	1.18	3,961.302	
400.0	400.0	452.1	452.0	0.8	0.4	125.56	-2,710.0	3,791.1	4,660.3	4,659.1	1.19	3,901.157	
492.1	492.1	546.2	546.1	1.0	0.5	125.56	-2,709.4	3,790.2	4,659.3	4,657.9	1.46	3,199.721	
500.0	500.0	554.0	554.0	1.0	0.5	125.56	-2,709.3	3,790.2	4,659.2	4,657.8	1.48	3,151.890	
590.5	590.5	643.9	643.9	1.2	0.5	125.56	-2,708.6	3,789.5	4,658.2	4,656.5	1.73	2,692.784	
600.0	600.0	653.2	653.2	1.2	0.5	125.56	-2,708.6	3,789.4	4,658.1	4,656.4	1.76	2,652.802	
689.0	689.0	744.8	744.7	1.4	0.6	125.55	-2,707.9	3,788.7	4,657.2	4,655.2	2.00	2,326.928	
700.0	700.0	756.6	756.6	1.4	0.6	125.55	-2,707.7	3,788.6	4,657.1	4,655.0	2.03	2,291.970	
787.4	787.4	847.2	847.2	1.6	0.6	125.55	-2,706.9	3,787.9	4,656.0	4,653.7	2.27	2,050.520	
800.0	800.0	859.9	859.8	1.7	0.6	125.55	-2,706.8	3,787.8	4,655.9	4,653.5	2.30	2,020.140	
885.8	885.8	947.4	947.3	1.9	0.7	125.55	-2,705.9	3,787.0	4,654.8	4,652.3	2.54	1,834.981	
900.0	900.0	962.0	962.0	1.9	0.7	125.55	-2,705.8	3,786.9	4,654.6	4,652.0	2.58	1,807.618	
984.2	984.2	1,050.7	1,050.7	2.1	0.7	125.54	-2,705.0	3,786.0	4,653.5	4,650.7	2.80	1,660.245	
1,000.0	1,000.0	1,067.6	1,067.5	2.1	0.7	125.54	-2,704.9	3,785.9	4,653.3	4,650.5	2.85	1,635.288	
1,082.7	1,082.7	1,152.3	1,152.2	2.3	0.8	125.54	-2,704.1	3,784.9	4,652.1	4,649.1	3.07	1,516.588	
1,100.0	1,100.0	1,169.6	1,169.6	2.3	0.8	125.54	-2,704.0	3,784.7	4,651.9	4,648.8	3.11	1,493.968	
1,181.1	1,181.1	1,251.2	1,251.1	2.5	0.8	125.54	-2,703.3	3,783.8	4,650.7	4,647.4	3.33	1,396.587	
1,200.0	1,200.0	1,270.2	1,270.1	2.6	0.8	125.54	-2,703.1	3,783.6	4,650.4	4,647.1	3.38	1,375.702	
1,279.5	1,279.5	1,344.7	1,344.6	2.7	0.9	125.54	-2,702.5	3,782.7	4,649.3	4,645.7	3.59	1,295.211	
1,300.0	1,300.0	1,363.0	1,362.9	2.8	0.9	125.54	-2,702.4	3,782.5	4,649.0	4,645.4	3.64	1,276.132	
1,377.9	1,377.9	1,434.3	1,434.2	3.0	0.9	125.54	-2,702.0	3,781.7	4,648.1	4,644.3	3.85	1,208.191	
1,400.0	1,400.0	1,454.9	1,454.8	3.0	0.9	125.55	-2,701.9	3,781.5	4,647.9	4,644.0	3.91	1,190.211	
1,476.4	1,476.4	1,526.1	1,526.0	3.2	0.9	125.55	-2,701.6	3,780.8	4,647.0	4,642.9	4.11	1,131.943	
1,500.0	1,500.0	1,547.8	1,547.7	3.2	0.9	125.55	-2,701.5	3,780.6	4,646.8	4,642.6	4.17	1,115.099	
1,574.8	1,574.8	1,616.5	1,616.4	3.4	1.0	125.55	-2,701.3	3,780.0	4,646.1	4,641.8	4.36	1,064.966	
1,600.0	1,600.0	1,639.4	1,639.3	3.5	1.0	125.55	-2,701.3	3,779.8	4,645.9	4,641.5	4.43	1,049.116	
1,673.2	1,673.2	1,706.5	1,706.4	3.6	1.0	125.55	-2,701.1	3,779.3	4,645.4	4,640.8	4.62	1,005.598	
1,700.0	1,700.0	1,732.9	1,732.8	3.7	1.0	125.55	-2,701.1	3,779.1	4,645.2	4,640.6	4.69	990.442	
1,771.6	1,771.6	1,800.0	1,799.9	3.9	1.0	125.56	-2,700.9	3,778.7	4,644.8	4,639.9	4.88	952.325	
1,800.0	1,800.0	1,828.2	1,828.1	3.9	1.0	125.56	-2,700.9	3,778.5	4,644.6	4,639.7	4.95	937.948	
1,870.1	1,870.1	1,889.8	1,889.7	4.1	1.1	-75.66	-2,700.8	3,778.3	4,644.1	4,639.0	5.12	906.706	
1,900.0	1,900.0	1,915.5	1,915.4	4.1	1.1	-75.67	-2,700.7	3,778.2	4,643.8	4,638.6	5.19	895.330	
1,968.5	1,968.4	1,973.8	1,973.7	4.2	1.1	-75.72	-2,700.6	3,778.1	4,642.9	4,637.6	5.31	873.931	
2,000.0	1,999.8	2,000.0	1,999.9	4.3	1.1	-75.75	-2,700.6	3,778.2	4,642.4	4,637.0	5.37	864.429	
2,066.9	2,066.5	2,065.6	2,065.5	4.4	1.1	-75.84	-2,700.5	3,778.3	4,641.1	4,635.6	5.50	843.438	
2,100.0	2,099.5	2,097.7	2,097.6	4.5	1.1	-75.90	-2,700.4	3,778.4	4,640.3	4,634.8	5.57	833.390	
2,165.3	2,164.4	2,163.3	2,163.2	4.6	1.1	-76.03	-2,700.1	3,778.7	4,638.5	4,632.8	5.71	812.769	
2,200.0	2,198.7	2,198.1	2,198.0	4.7	1.1	-76.11	-2,700.0	3,778.8	4,637.4	4,631.7	5.78	802.124	
2,263.8	2,261.8	2,260.9	2,260.7	4.8	1.1	-76.27	-2,699.7	3,779.1	4,635.2	4,629.3	5.93	781.541	
2,300.0	2,297.5	2,296.4	2,296.3	4.9	1.1	-76.37	-2,699.5	3,779.2	4,633.8	4,627.8	6.02	770.175	
2,362.2	2,358.6	2,357.6	2,357.4	5.0	1.1	-76.56	-2,699.3	3,779.5	4,631.1	4,624.9	6.18	749.343	
2,400.0	2,395.6	2,394.6	2,394.5	5.1	1.2	-76.69	-2,699.2	3,779.6	4,629.3	4,623.1	6.28	737.072	
2,460.6	2,454.9	2,459.9	2,459.8	5.3	1.2	-76.86	-2,698.9	3,779.8	4,626.4	4,620.0	6.46	716.062	
2,500.0	2,493.4	2,502.5	2,502.3	5.4	1.2	-76.97	-2,698.8	3,779.9	4,624.5	4,617.9	6.58	702.870	
2,559.0	2,551.2	2,561.4	2,561.3	5.6	1.2	-77.12	-2,698.5	3,779.9	4,621.6	4,614.8	6.77	682.619	

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 SCHAUMBERG 17G-314
<b>Project:</b>	WELD COUNTY, COLORADO	<b>TVD Reference:</b>	KB-EST @ 4633.0usft (Original Well Elev)
<b>Reference Site:</b>	SW NW SEC. 17 T5N R64W 6th P.M.	<b>MD Reference:</b>	KB-EST @ 4633.0usft (Original Well Elev)
<b>Site Error:</b>	0.0 usft	<b>North Reference:</b>	True
<b>Reference Well:</b>	SCHAUMBERG 17G-314	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Well Error:</b>	0.0 usft	<b>Output errors are at</b>	2.00 sigma
<b>Reference Wellbore</b>	ORIGINAL WELLBORE	<b>Database:</b>	EDM 5000.1 Single User Db
<b>Reference Design:</b>	PROPOSAL #1	<b>Offset TVD Reference:</b>	Offset Datum

<b>Offset Design</b> NW SW SEC. 17 T5N R64W 6th P.M. - EXIST VERT SOLIS #44-17 - 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	
2,600.0	2,591.3	2,602.3	2,602.2	5.7	1.2	-77.22	-2,698.3	3,780.0	4,619.6	4,612.7	6.90	669.137	
2,657.5	2,647.5	2,659.8	2,659.7	5.9	1.2	-77.37	-2,698.0	3,780.1	4,616.8	4,609.7	7.10	650.163	
2,700.0	2,689.1	2,702.6	2,702.4	6.0	1.2	-77.48	-2,697.8	3,780.1	4,614.7	4,607.5	7.25	636.654	
2,755.9	2,743.7	2,762.9	2,762.8	6.2	1.2	-77.63	-2,697.5	3,780.1	4,612.0	4,604.6	7.45	618.905	
2,800.0	2,786.9	2,809.8	2,809.6	6.4	1.3	-77.75	-2,697.4	3,780.0	4,609.8	4,602.2	7.61	605.441	
2,854.3	2,840.0	2,864.3	2,864.2	6.6	1.3	-77.89	-2,697.2	3,779.8	4,607.2	4,599.3	7.82	588.965	
2,900.0	2,884.7	2,910.7	2,910.5	6.7	1.3	-78.01	-2,697.0	3,779.6	4,604.9	4,596.9	8.00	575.707	
2,952.7	2,936.3	2,966.5	2,966.3	6.9	1.3	-78.15	-2,696.8	3,779.4	4,602.3	4,594.1	8.21	560.673	
3,000.0	2,982.5	3,016.7	3,016.5	7.1	1.3	-78.28	-2,696.6	3,779.2	4,600.0	4,591.6	8.40	547.790	
3,051.2	3,032.6	3,071.5	3,071.4	7.3	1.4	-78.42	-2,696.4	3,778.8	4,597.4	4,588.8	8.61	534.167	
3,100.0	3,080.3	3,128.2	3,128.0	7.5	1.4	-78.57	-2,696.1	3,778.5	4,594.9	4,586.1	8.81	521.657	
3,149.6	3,128.8	3,191.0	3,190.9	7.7	1.4	-78.72	-2,695.8	3,777.8	4,592.3	4,583.2	9.02	509.196	
3,200.0	3,178.1	3,246.2	3,246.0	7.9	1.4	-78.86	-2,695.7	3,777.0	4,589.5	4,580.2	9.23	497.323	
3,248.0	3,225.1	3,297.5	3,297.3	8.1	1.4	-78.98	-2,695.9	3,776.0	4,586.8	4,577.4	9.43	486.355	
3,300.0	3,276.0	3,345.5	3,345.3	8.3	1.4	-79.09	-2,696.2	3,774.9	4,583.9	4,574.3	9.65	475.172	
3,346.4	3,321.4	3,388.2	3,388.0	8.5	1.4	-79.19	-2,696.5	3,774.0	4,581.4	4,571.5	9.84	465.484	
3,400.0	3,373.8	3,439.6	3,439.4	8.7	1.5	-79.31	-2,697.0	3,772.8	4,578.5	4,568.4	10.07	454.755	
3,444.9	3,417.7	3,483.3	3,483.1	8.8	1.5	-79.41	-2,697.4	3,771.9	4,576.1	4,565.9	10.26	446.021	
3,500.0	3,471.6	3,528.9	3,528.7	9.1	1.5	-79.52	-2,697.7	3,771.0	4,573.3	4,562.8	10.49	435.798	
3,543.3	3,513.9	3,561.8	3,561.6	9.2	1.5	-79.60	-2,697.9	3,770.5	4,571.1	4,560.4	10.68	428.041	
3,600.0	3,569.4	3,600.0	3,599.8	9.5	1.5	-79.70	-2,698.0	3,770.0	4,568.5	4,557.5	10.92	418.337	
3,641.7	3,610.2	3,640.0	3,639.8	9.7	1.5	-79.80	-2,698.1	3,769.6	4,566.6	4,555.5	11.10	411.358	
3,700.0	3,667.2	3,688.5	3,688.3	9.9	1.5	-79.91	-2,698.4	3,769.2	4,564.1	4,552.8	11.35	402.044	
3,740.1	3,706.5	3,725.7	3,725.5	10.1	1.5	-80.00	-2,698.8	3,768.8	4,562.5	4,551.0	11.53	395.819	
3,800.0	3,765.0	3,784.0	3,783.8	10.3	1.5	-80.14	-2,699.4	3,768.2	4,560.1	4,548.3	11.79	386.871	
3,838.6	3,802.8	3,821.3	3,821.1	10.5	1.5	-80.23	-2,699.8	3,767.8	4,558.6	4,546.6	11.96	381.278	
3,900.0	3,862.8	3,880.3	3,880.0	10.7	1.5	-80.37	-2,700.4	3,767.2	4,556.2	4,543.9	12.23	372.691	
3,937.0	3,899.0	3,900.0	3,899.7	10.9	1.5	-80.42	-2,700.6	3,767.0	4,554.8	4,542.4	12.38	367.770	
4,000.0	3,960.7	3,945.2	3,944.9	11.2	1.5	-80.53	-2,701.2	3,766.7	4,552.6	4,540.0	12.65	359.786	
4,035.4	3,995.3	3,965.3	3,965.0	11.3	1.5	-80.58	-2,701.5	3,766.6	4,551.6	4,538.8	12.81	355.445	
4,100.0	4,058.5	4,000.0	3,999.7	11.6	1.5	-80.66	-2,702.1	3,766.7	4,550.0	4,537.0	13.08	347.811	
4,133.8	4,091.6	4,000.0	3,999.7	11.7	1.5	-80.66	-2,702.1	3,766.7	4,549.5	4,536.2	13.23	343.978	
4,200.0	4,156.3	4,043.7	4,043.4	12.0	1.5	-80.77	-2,703.0	3,767.1	4,548.6	4,535.1	13.51	336.727	
4,232.3	4,187.9	4,057.4	4,057.1	12.2	1.5	-80.80	-2,703.4	3,767.3	4,548.4	4,534.8	13.65	333.294	
4,254.0	4,209.1	4,066.5	4,066.2	12.3	1.5	-80.82	-2,703.6	3,767.5	4,548.3	4,534.6	13.74	331.032 CC	
4,300.0	4,254.1	4,100.0	4,099.7	12.5	1.5	-80.90	-2,704.7	3,768.3	4,548.5	4,534.5	13.94	326.352 ES	
4,325.7	4,279.2	4,100.0	4,099.7	12.6	1.5	-80.90	-2,704.7	3,768.3	4,548.6	4,534.5	14.05	323.800	
4,330.7	4,284.1	4,100.0	4,099.7	12.6	1.5	-80.90	-2,704.7	3,768.3	4,548.6	4,534.6	14.07	323.374	
4,400.0	4,352.1	4,137.7	4,137.3	12.8	1.5	-81.00	-2,706.2	3,769.4	4,549.6	4,535.3	14.32	317.632	
4,429.1	4,380.8	4,154.2	4,153.8	12.9	1.6	-81.05	-2,706.9	3,769.9	4,550.3	4,535.9	14.41	315.758	
4,500.0	4,450.7	4,313.7	4,313.1	13.1	1.5	-81.34	-2,714.4	3,774.1	4,552.3	4,537.7	14.62	311.269	
4,527.5	4,478.0	4,340.1	4,339.4	13.2	1.6	-81.38	-2,715.5	3,774.4	4,552.6	4,537.9	14.70	309.703	
4,600.0	4,549.9	4,400.0	4,399.3	13.4	1.6	-81.47	-2,717.8	3,775.2	4,553.5	4,538.6	14.90	305.686	
4,626.0	4,575.7	4,400.0	4,399.3	13.5	1.6	-81.48	-2,717.8	3,775.2	4,554.0	4,539.1	14.96	304.465	
4,700.0	4,649.4	4,456.6	4,455.8	13.6	1.6	-81.57	-2,720.4	3,776.2	4,555.9	4,540.7	15.14	301.011	
4,724.4	4,673.7	4,469.2	4,468.4	13.7	1.6	-81.59	-2,721.0	3,776.5	4,556.7	4,541.5	15.19	300.065	
4,800.0	4,749.2	4,513.6	4,512.8	13.8	1.6	-81.66	-2,723.5	3,777.7	4,559.8	4,544.5	15.34	297.205	
4,822.8	4,772.0	4,533.3	4,532.4	13.9	1.6	-81.68	-2,724.6	3,778.2	4,560.9	4,545.5	15.38	296.502	
4,900.0	4,849.2	4,600.0	4,598.9	14.0	1.6	-81.75	-2,728.5	3,780.2	4,564.8	4,549.3	15.52	294.167	
4,921.2	4,870.4	4,625.3	4,624.2	14.1	1.6	-81.76	-2,730.0	3,780.9	4,566.0	4,550.4	15.55	293.605	
4,925.6	4,874.8	4,630.5	4,629.4	14.1	1.6	119.43	-2,730.3	3,781.1	4,566.2	4,554.0	12.20	374.133	
5,000.0	4,949.2	4,722.0	4,720.7	14.2	1.6	119.47	-2,735.6	3,783.7	4,570.1	4,557.8	12.37	369.589	

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 SCHAUMBERG 17G-314
<b>Project:</b>	WELD COUNTY, COLORADO	<b>TVD Reference:</b>	KB-EST @ 4633.0usft (Original Well Elev)
<b>Reference Site:</b>	SW NW SEC. 17 T5N R64W 6th P.M.	<b>MD Reference:</b>	KB-EST @ 4633.0usft (Original Well Elev)
<b>Site Error:</b>	0.0 usft	<b>North Reference:</b>	True
<b>Reference Well:</b>	SCHAUMBERG 17G-314	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Well Error:</b>	0.0 usft	<b>Output errors are at</b>	2.00 sigma
<b>Reference Wellbore</b>	ORIGINAL WELLBORE	<b>Database:</b>	EDM 5000.1 Single User Db
<b>Reference Design:</b>	PROPOSAL #1	<b>Offset TVD Reference:</b>	Offset Datum

Offset Design NW SW SEC. 17 T5N R64W 6th P.M. - EXIST VERT SOLIS #44-17 - 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		
5,019.7	4,968.8	4,748.6	4,747.3	14.2	1.6	119.48	-2,737.0	3,784.4	4,571.1	4,558.7	12.41	368.388		
5,100.0	5,049.2	4,845.0	4,843.4	14.3	1.6	119.52	-2,741.9	3,786.8	4,574.9	4,562.3	12.58	363.621		
5,118.1	5,067.3	4,864.1	4,862.6	14.3	1.6	119.53	-2,742.9	3,787.3	4,575.7	4,563.1	12.62	362.568		
5,200.0	5,149.2	4,973.9	4,972.2	14.5	1.6	119.57	-2,748.0	3,789.8	4,579.3	4,566.5	12.80	357.766		
5,216.5	5,165.7	4,999.3	4,997.6	14.5	1.6	119.58	-2,749.1	3,790.3	4,579.9	4,567.1	12.84	356.787		
5,300.0	5,249.2	5,142.3	5,140.5	14.6	1.6	119.62	-2,754.1	3,792.4	4,582.4	4,569.4	13.03	351.807		
5,314.9	5,264.1	5,164.4	5,162.5	14.6	1.6	119.63	-2,754.8	3,792.7	4,582.8	4,569.7	13.06	350.936		
5,400.0	5,349.2	5,318.6	5,316.8	14.8	1.6	119.65	-2,757.8	3,793.7	4,584.1	4,570.9	13.25	345.893		
5,413.4	5,362.5	5,343.6	5,341.7	14.8	1.6	119.66	-2,758.1	3,793.7	4,584.2	4,570.9	13.28	345.103		
5,500.0	5,449.2	5,450.4	5,448.5	14.9	1.6	119.67	-2,759.0	3,793.4	4,584.3	4,570.8	13.47	340.233		
5,511.8	5,461.0	5,460.9	5,459.0	14.9	1.6	119.67	-2,759.0	3,793.4	4,584.3	4,570.8	13.50	339.592		
5,600.0	5,549.2	5,535.1	5,533.2	15.1	1.6	119.67	-2,759.5	3,793.3	4,584.5	4,570.8	13.69	334.890		
5,610.2	5,559.4	5,543.1	5,541.2	15.1	1.6	119.67	-2,759.6	3,793.3	4,584.6	4,570.8	13.71	334.359		
5,700.0	5,649.2	5,613.8	5,612.0	15.2	1.6	119.68	-2,760.2	3,793.5	4,585.2	4,571.3	13.90	329.827		
5,708.6	5,657.8	5,620.6	5,618.7	15.3	1.6	119.68	-2,760.3	3,793.5	4,585.2	4,571.3	13.92	329.395		
5,800.0	5,749.2	5,700.0	5,698.1	15.4	1.6	119.69	-2,761.2	3,794.1	4,586.3	4,572.2	14.12	324.865		
5,807.1	5,756.2	5,700.0	5,698.1	15.4	1.6	119.69	-2,761.2	3,794.1	4,586.4	4,572.2	14.13	324.542		
5,900.0	5,849.2	5,779.0	5,777.1	15.6	1.6	119.69	-2,762.2	3,794.9	4,587.8	4,573.4	14.33	320.101		
5,905.5	5,854.7	5,783.8	5,781.9	15.6	1.6	119.69	-2,762.3	3,794.9	4,587.9	4,573.5	14.34	319.841		
6,000.0	5,949.2	5,869.1	5,867.2	15.7	1.7	119.70	-2,763.5	3,795.9	4,589.5	4,575.0	14.55	315.444		
6,003.9	5,953.1	5,872.7	5,870.7	15.7	1.7	119.70	-2,763.6	3,796.0	4,589.6	4,575.0	14.56	315.266		
6,100.0	6,049.2	5,968.1	5,966.1	15.9	1.7	119.71	-2,765.0	3,797.2	4,591.4	4,576.7	14.77	310.889		
6,102.3	6,051.5	5,970.5	5,968.6	15.9	1.7	119.71	-2,765.1	3,797.2	4,591.5	4,576.7	14.77	310.783		
6,124.6	6,073.8	5,993.5	5,991.6	15.9	1.7	119.71	-2,765.5	3,797.5	4,591.9	4,577.1	14.82	309.781		
6,150.0	6,099.2	6,019.3	6,017.3	16.0	1.7	-150.25	-2,765.9	3,797.8	4,592.7	4,575.2	17.58	261.205		
6,200.0	6,149.0	6,069.7	6,067.7	16.1	1.7	-150.11	-2,766.7	3,798.4	4,596.7	4,579.0	17.72	259.358		
6,200.8	6,149.8	6,070.5	6,068.5	16.1	1.7	-150.11	-2,766.8	3,798.4	4,596.8	4,579.1	17.73	259.325		
6,250.0	6,198.5	6,122.1	6,120.1	16.2	1.7	-149.87	-2,767.7	3,799.0	4,603.7	4,585.8	17.90	257.227		
6,299.2	6,246.6	6,176.7	6,174.7	16.3	1.7	-149.54	-2,768.6	3,799.5	4,613.4	4,595.3	18.09	255.037		
6,300.0	6,247.4	6,177.6	6,175.6	16.3	1.7	-149.53	-2,768.6	3,799.5	4,613.6	4,595.5	18.09	255.004		
6,350.0	6,295.5	6,230.2	6,228.2	16.5	1.7	-149.08	-2,769.4	3,800.0	4,626.3	4,608.0	18.29	252.891		
6,397.6	6,340.2	6,278.0	6,276.0	16.6	1.7	-148.54	-2,770.3	3,800.4	4,641.1	4,622.6	18.48	251.095		
6,400.0	6,342.4	6,280.4	6,278.4	16.6	1.7	-148.51	-2,770.3	3,800.4	4,641.9	4,623.4	18.49	251.019		
6,450.0	6,388.1	6,326.2	6,324.2	16.8	1.7	-147.80	-2,771.1	3,800.7	4,660.3	4,641.6	18.68	249.462		
6,496.0	6,428.8	6,365.3	6,363.3	17.0	1.7	-147.00	-2,771.9	3,800.9	4,679.7	4,660.8	18.85	248.309		
6,500.0	6,432.2	6,368.6	6,366.6	17.0	1.7	-146.93	-2,772.0	3,800.9	4,681.4	4,662.6	18.86	248.232		
6,550.0	6,474.6	6,400.0	6,398.0	17.3	1.7	-145.85	-2,772.6	3,801.1	4,705.2	4,686.2	19.02	247.368		
6,594.5	6,510.7	6,430.6	6,428.6	17.5	1.7	-144.73	-2,773.2	3,801.3	4,728.6	4,709.4	19.17	246.702		
6,600.0	6,515.0	6,433.5	6,431.5	17.6	1.7	-144.58	-2,773.2	3,801.4	4,731.6	4,712.5	19.18	246.650		
6,650.0	6,553.3	6,458.9	6,456.9	17.9	1.7	-143.04	-2,773.6	3,801.7	4,760.6	4,741.2	19.35	246.054		
6,692.9	6,584.3	6,479.2	6,477.2	18.2	1.7	-141.50	-2,773.8	3,802.1	4,787.3	4,767.8	19.51	245.420		
6,700.0	6,589.2	6,482.5	6,480.4	18.2	1.7	-141.23	-2,773.8	3,802.2	4,791.9	4,772.3	19.53	245.321		
6,750.0	6,622.7	6,500.0	6,498.0	18.6	1.7	-139.04	-2,773.9	3,802.6	4,825.4	4,805.6	19.76	244.253		
6,791.3	6,648.3	6,527.1	6,525.0	19.0	1.7	-137.07	-2,774.1	3,803.3	4,854.6	4,834.6	20.00	242.723		
6,800.0	6,653.4	6,531.4	6,529.4	19.1	1.7	-136.61	-2,774.2	3,803.4	4,860.9	4,840.9	20.05	242.386		
6,850.0	6,681.4	6,555.0	6,552.9	19.6	1.7	-133.68	-2,774.4	3,804.0	4,898.3	4,877.8	20.43	239.704		
6,889.7	6,701.5	6,571.9	6,569.8	20.1	1.7	-130.98	-2,774.7	3,804.4	4,929.2	4,908.3	20.82	236.782		
6,900.0	6,706.3	6,576.0	6,573.9	20.2	1.7	-130.22	-2,774.7	3,804.5	4,937.3	4,916.4	20.92	235.968		
6,950.0	6,728.2	6,600.0	6,597.9	20.9	1.7	-126.23	-2,775.1	3,805.0	4,977.8	4,956.2	21.54	231.105		
6,988.2	6,742.8	6,600.0	6,597.9	21.5	1.7	-122.44	-2,775.1	3,805.0	5,009.5	4,987.4	22.10	226.719		
7,000.0	6,746.9	6,600.0	6,597.9	21.6	1.7	-121.18	-2,775.1	3,805.0	5,019.5	4,997.2	22.28	225.323		
7,050.0	6,762.4	6,619.4	6,617.3	22.5	1.7	-115.70	-2,775.5	3,805.4	5,062.3	5,039.2	23.13	218.870		

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 SCHAUMBERG 17G-314
<b>Project:</b>	WELD COUNTY, COLORADO	<b>TVD Reference:</b>	KB-EST @ 4633.0usft (Original Well Elev)
<b>Reference Site:</b>	SW NW SEC. 17 T5N R64W 6th P.M.	<b>MD Reference:</b>	KB-EST @ 4633.0usft (Original Well Elev)
<b>Site Error:</b>	0.0 usft	<b>North Reference:</b>	True
<b>Reference Well:</b>	SCHAUMBERG 17G-314	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Well Error:</b>	0.0 usft	<b>Output errors are at</b>	2.00 sigma
<b>Reference Wellbore</b>	ORIGINAL WELLBORE	<b>Database:</b>	EDM 5000.1 Single User Db
<b>Reference Design:</b>	PROPOSAL #1	<b>Offset TVD Reference:</b>	Offset Datum

Offset Design NW SW SEC. 17 T5N R64W 6th P.M. - EXIST VERT SOLIS #44-17 - 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		
7,086.6	6,771.5	6,625.8	6,623.7	23.1	1.7	-111.06	-2,775.6	3,805.6	5,094.2	5,070.4	23.80	214.042		
7,100.0	6,774.4	6,627.7	6,625.6	23.3	1.7	-109.25	-2,775.7	3,805.6	5,106.0	5,081.9	24.04	212.364		
7,150.0	6,783.1	6,633.5	6,631.4	24.3	1.7	-102.01	-2,775.8	3,805.7	5,150.3	5,125.3	24.97	206.228		
7,185.0	6,787.1	6,636.0	6,633.9	25.0	1.7	-96.57	-2,775.9	3,805.8	5,181.6	5,155.9	25.64	202.072		
7,200.0	6,788.3	6,636.6	6,634.5	25.3	1.7	-94.17	-2,775.9	3,805.8	5,195.0	5,169.1	25.94	200.284		
7,252.3	6,790.0	6,637.1	6,635.0	26.3	1.7	-85.60	-2,775.9	3,805.8	5,242.0	5,214.9	27.14	193.162		
7,283.4	6,789.9	6,636.5	6,634.4	27.0	1.7	-85.59	-2,775.9	3,805.8	5,270.0	5,242.2	27.83	189.381		
7,300.0	6,789.8	6,636.2	6,634.1	27.3	1.7	-85.58	-2,775.9	3,805.8	5,284.9	5,256.7	28.19	187.445		
7,381.9	6,789.5	6,634.6	6,632.5	29.1	1.7	-85.54	-2,775.8	3,805.8	5,358.8	5,328.8	30.07	178.205		
7,400.0	6,789.4	6,634.2	6,632.1	29.5	1.7	-85.53	-2,775.8	3,805.8	5,375.2	5,344.7	30.49	176.314		
7,480.3	6,789.1	6,632.7	6,630.6	31.4	1.7	-85.49	-2,775.8	3,805.7	5,448.0	5,415.6	32.39	168.177		
7,500.0	6,789.1	6,632.3	6,630.2	31.8	1.7	-85.48	-2,775.8	3,805.7	5,465.8	5,433.0	32.86	166.326		
7,578.7	6,788.8	6,630.7	6,628.7	33.7	1.7	-85.44	-2,775.7	3,805.7	5,537.4	5,502.6	34.78	159.194		
7,600.0	6,788.7	6,630.3	6,628.2	34.2	1.7	-85.43	-2,775.7	3,805.7	5,556.8	5,521.5	35.30	157.401		
7,677.1	6,788.4	6,628.8	6,626.7	36.1	1.7	-85.39	-2,775.7	3,805.6	5,627.1	5,589.9	37.23	151.158		
7,700.0	6,788.3	6,628.4	6,626.3	36.7	1.7	-85.38	-2,775.7	3,805.6	5,648.0	5,610.2	37.80	149.431		
7,775.6	6,788.0	6,626.9	6,624.8	38.6	1.7	-85.35	-2,775.7	3,805.6	5,717.1	5,677.4	39.71	143.963		
7,800.0	6,787.9	6,626.4	6,624.3	39.2	1.7	-85.33	-2,775.6	3,805.6	5,739.5	5,699.2	40.33	142.307		
7,874.0	6,787.6	6,624.9	6,622.8	41.0	1.7	-85.30	-2,775.6	3,805.6	5,807.4	5,765.2	42.23	137.509		
7,900.0	6,787.6	6,624.4	6,622.3	41.7	1.7	-85.28	-2,775.6	3,805.5	5,831.3	5,788.4	42.90	135.924		
7,972.4	6,787.3	6,623.0	6,620.9	43.6	1.7	-85.25	-2,775.6	3,805.5	5,898.0	5,853.2	44.78	131.703		
8,000.0	6,787.2	6,622.4	6,620.3	44.3	1.7	-85.23	-2,775.6	3,805.5	5,923.4	5,877.9	45.50	130.188		
8,070.8	6,786.9	6,621.0	6,618.9	46.1	1.7	-85.20	-2,775.5	3,805.5	5,988.8	5,941.4	47.36	126.464		
8,100.0	6,786.8	6,620.4	6,618.4	46.9	1.7	-85.18	-2,775.5	3,805.5	6,015.7	5,967.6	48.12	125.017		
8,169.3	6,786.5	6,619.1	6,617.0	48.7	1.7	-85.15	-2,775.5	3,805.4	6,079.8	6,029.9	49.95	121.722		
8,200.0	6,786.4	6,618.5	6,616.4	49.5	1.7	-85.13	-2,775.5	3,805.4	6,108.3	6,057.5	50.76	120.338		
8,267.7	6,786.1	6,617.1	6,615.0	51.3	1.7	-85.10	-2,775.4	3,805.4	6,171.1	6,118.5	52.56	117.415		
8,300.0	6,786.0	6,616.4	6,614.4	52.1	1.7	-85.08	-2,775.4	3,805.4	6,201.1	6,147.7	53.42	116.090		
8,366.1	6,785.8	6,615.1	6,613.0	53.9	1.7	-85.05	-2,775.4	3,805.3	6,262.6	6,207.4	55.18	113.489		
8,400.0	6,785.6	6,614.4	6,612.3	54.8	1.7	-85.03	-2,775.4	3,805.3	6,294.1	6,238.0	56.09	112.221		
8,464.5	6,785.4	6,613.1	6,611.0	56.5	1.7	-85.00	-2,775.4	3,805.3	6,354.3	6,296.4	57.82	109.901		
8,500.0	6,785.3	6,612.4	6,610.3	57.5	1.7	-84.98	-2,775.4	3,805.3	6,387.3	6,328.6	58.77	108.685		
8,563.0	6,785.0	6,611.1	6,609.0	59.2	1.7	-84.95	-2,775.3	3,805.3	6,446.1	6,385.7	60.46	106.610		
8,600.0	6,784.9	6,600.0	6,597.9	60.2	1.7	-84.67	-2,775.1	3,805.0	6,480.8	6,419.3	61.45	105.463		
8,661.4	6,784.6	6,600.0	6,597.9	61.8	1.7	-84.67	-2,775.1	3,805.0	6,538.2	6,475.1	63.11	103.601		
8,700.0	6,784.5	6,600.0	6,597.9	62.9	1.7	-84.67	-2,775.1	3,805.0	6,574.4	6,510.2	64.15	102.480		
8,759.8	6,784.3	6,600.0	6,597.9	64.5	1.7	-84.67	-2,775.1	3,805.0	6,630.5	6,564.7	65.77	100.806		
8,800.0	6,784.1	6,600.0	6,597.9	65.6	1.7	-84.67	-2,775.1	3,805.0	6,668.2	6,601.3	66.86	99.728		
8,858.2	6,783.9	6,600.0	6,597.9	67.1	1.7	-84.67	-2,775.1	3,805.0	6,722.9	6,654.5	68.45	98.221		
8,900.0	6,783.7	6,600.0	6,597.9	68.3	1.7	-84.67	-2,775.1	3,805.0	6,762.2	6,692.6	69.58	97.183		
8,956.7	6,783.5	6,600.0	6,597.9	69.8	1.7	-84.67	-2,775.1	3,805.0	6,815.5	6,744.4	71.13	95.823		
9,000.0	6,783.3	6,600.0	6,597.9	71.0	1.7	-84.66	-2,775.1	3,805.0	6,856.3	6,784.0	72.31	94.824		
9,055.1	6,783.1	6,600.0	6,597.9	72.5	1.7	-84.66	-2,775.1	3,805.0	6,908.3	6,834.4	73.81	93.595		
9,100.0	6,782.9	6,600.0	6,597.9	73.7	1.7	-84.66	-2,775.1	3,805.0	6,950.6	6,875.6	75.04	92.631		
9,153.5	6,782.7	6,600.0	6,597.9	75.2	1.7	-84.66	-2,775.1	3,805.0	7,001.2	6,924.7	76.50	91.519		
9,200.0	6,782.6	6,600.0	6,597.9	76.5	1.7	-84.66	-2,775.1	3,805.0	7,045.1	6,967.3	77.77	90.588		
9,251.9	6,782.4	6,596.4	6,594.3	77.9	1.7	-84.57	-2,775.1	3,804.9	7,094.2	7,015.0	79.19	89.588		
9,300.0	6,782.2	6,595.2	6,593.1	79.2	1.7	-84.54	-2,775.0	3,804.9	7,139.7	7,059.2	80.50	88.691		
9,350.4	6,782.0	6,593.9	6,591.9	80.6	1.7	-84.51	-2,775.0	3,804.9	7,187.4	7,105.6	81.88	87.780		
9,400.0	6,781.8	6,592.7	6,590.6	82.0	1.7	-84.48	-2,775.0	3,804.8	7,234.5	7,151.2	83.24	86.913		
9,448.8	6,781.6	6,591.5	6,589.4	83.3	1.7	-84.45	-2,775.0	3,804.8	7,280.8	7,196.2	84.58	86.085		
9,500.0	6,781.4	6,590.2	6,588.1	84.7	1.7	-84.42	-2,774.9	3,804.8	7,329.4	7,243.4	85.98	85.246		

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 SCHAUMBERG 17G-314
<b>Project:</b>	WELD COUNTY, COLORADO	<b>TVD Reference:</b>	KB-EST @ 4633.0usft (Original Well Elev)
<b>Reference Site:</b>	SW NW SEC. 17 T5N R64W 6th P.M.	<b>MD Reference:</b>	KB-EST @ 4633.0usft (Original Well Elev)
<b>Site Error:</b>	0.0 usft	<b>North Reference:</b>	True
<b>Reference Well:</b>	SCHAUMBERG 17G-314	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Well Error:</b>	0.0 usft	<b>Output errors are at</b>	2.00 sigma
<b>Reference Wellbore</b>	ORIGINAL WELLBORE	<b>Database:</b>	EDM 5000.1 Single User Db
<b>Reference Design:</b>	PROPOSAL #1	<b>Offset TVD Reference:</b>	Offset Datum

<b>Offset Design</b> NW SW SEC. 17 T5N R64W 6th P.M. - EXIST VERT SOLIS #44-17 - 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
9,547.2	6,781.2	6,589.0	6,586.9	86.0	1.7	-84.39	-2,774.9	3,804.8	7,374.2	7,287.0	87.27	84.494	
9,600.0	6,781.0	6,587.7	6,585.6	87.5	1.7	-84.35	-2,774.9	3,804.7	7,424.4	7,335.7	88.72	83.681	
9,645.6	6,780.8	6,586.5	6,584.4	88.7	1.7	-84.32	-2,774.9	3,804.7	7,467.8	7,377.9	89.98	82.998	
9,700.0	6,780.6	6,585.1	6,583.1	90.2	1.7	-84.29	-2,774.9	3,804.7	7,519.6	7,428.1	91.47	82.210	
9,744.1	6,780.4	6,584.0	6,581.9	91.4	1.7	-84.26	-2,774.8	3,804.6	7,561.5	7,468.9	92.68	81.588	
9,800.0	6,780.2	6,582.6	6,580.5	93.0	1.7	-84.22	-2,774.8	3,804.6	7,614.9	7,520.6	94.22	80.824	
9,842.5	6,780.1	6,581.5	6,579.4	94.2	1.7	-84.20	-2,774.8	3,804.6	7,655.4	7,560.0	95.38	80.258	
9,900.0	6,779.8	6,580.0	6,577.9	95.7	1.7	-84.16	-2,774.8	3,804.6	7,710.3	7,613.3	96.96	79.516	
9,940.9	6,779.7	6,579.0	6,576.9	96.9	1.7	-84.13	-2,774.8	3,804.5	7,749.3	7,651.2	98.09	79.002	
10,000.0	6,779.4	6,577.4	6,575.4	98.5	1.7	-84.09	-2,774.7	3,804.5	7,805.8	7,706.1	99.72	78.280	
10,039.3	6,779.3	6,576.4	6,574.3	99.6	1.7	-84.07	-2,774.7	3,804.5	7,843.4	7,742.6	100.80	77.812	
10,100.0	6,779.0	6,574.8	6,572.8	101.3	1.7	-84.03	-2,774.7	3,804.4	7,901.4	7,798.9	102.47	77.111	
10,137.8	6,778.9	6,573.8	6,571.8	102.3	1.7	-84.00	-2,774.7	3,804.4	7,937.5	7,834.0	103.51	76.685	
10,200.0	6,778.7	6,572.2	6,570.1	104.1	1.7	-83.96	-2,774.7	3,804.4	7,997.1	7,891.9	105.22	76.003	
10,236.2	6,778.5	6,571.3	6,569.2	105.1	1.7	-83.94	-2,774.7	3,804.4	8,031.8	7,925.6	106.22	75.616	
10,300.0	6,778.3	6,569.6	6,567.5	106.8	1.7	-83.89	-2,774.6	3,804.3	8,093.0	7,985.0	107.98	74.952	
10,334.6	6,778.1	6,568.7	6,566.6	107.8	1.7	-83.87	-2,774.6	3,804.3	8,126.2	8,017.2	108.93	74.600	
10,400.0	6,777.9	6,566.9	6,564.9	109.6	1.7	-83.83	-2,774.6	3,804.2	8,188.9	8,078.2	110.73	73.953	
10,433.0	6,777.7	6,566.0	6,564.0	110.5	1.7	-83.81	-2,774.6	3,804.2	8,220.6	8,109.0	111.64	73.634	
10,500.0	6,777.5	6,564.3	6,562.2	112.4	1.7	-83.76	-2,774.6	3,804.2	8,284.9	8,171.4	113.49	73.004	
10,531.5	6,777.3	6,563.4	6,561.3	113.3	1.7	-83.74	-2,774.5	3,804.2	8,315.2	8,200.8	114.35	72.714	
10,600.0	6,777.1	6,561.6	6,559.5	115.2	1.7	-83.69	-2,774.5	3,804.1	8,381.1	8,264.8	116.24	72.100	
10,629.9	6,777.0	6,560.8	6,558.7	116.0	1.7	-83.67	-2,774.5	3,804.1	8,409.8	8,292.7	117.07	71.837	
10,700.0	6,776.7	6,558.9	6,556.8	117.9	1.7	-83.62	-2,774.5	3,804.1	8,477.3	8,358.3	119.00	71.238	
10,728.3	6,776.6	6,558.1	6,556.0	118.7	1.7	-83.61	-2,774.5	3,804.0	8,504.5	8,384.7	119.78	71.001	
10,800.0	6,776.3	6,556.2	6,554.1	120.7	1.7	-83.56	-2,774.5	3,804.0	8,573.6	8,451.8	121.76	70.416	
10,826.7	6,776.2	6,555.4	6,553.4	121.5	1.7	-83.54	-2,774.4	3,804.0	8,599.3	8,476.8	122.49	70.202	
10,900.0	6,775.9	6,553.4	6,551.4	123.5	1.7	-83.49	-2,774.4	3,803.9	8,669.9	8,545.4	124.51	69.630	
10,925.2	6,775.8	6,552.7	6,550.7	124.2	1.7	-83.47	-2,774.4	3,803.9	8,694.2	8,569.0	125.21	69.438	
11,000.0	6,775.5	6,550.7	6,548.6	126.3	1.7	-83.42	-2,774.4	3,803.9	8,766.4	8,639.1	127.27	68.880	
11,023.6	6,775.4	6,550.0	6,548.0	126.9	1.7	-83.40	-2,774.4	3,803.8	8,789.2	8,661.2	127.92	68.707	
11,100.0	6,775.1	6,547.9	6,545.8	129.1	1.7	-83.35	-2,774.4	3,803.8	8,862.9	8,732.9	130.03	68.161	
11,122.0	6,775.0	6,547.3	6,545.2	129.7	1.7	-83.33	-2,774.3	3,803.8	8,884.2	8,753.6	130.64	68.007	
11,200.0	6,774.7	6,545.1	6,543.0	131.9	1.7	-83.28	-2,774.3	3,803.7	8,959.5	8,826.8	132.79	67.474	
11,220.4	6,774.6	6,544.5	6,542.5	132.4	1.7	-83.26	-2,774.3	3,803.7	8,979.3	8,846.0	133.35	67.336	
11,300.0	6,774.3	6,542.3	6,540.2	134.6	1.7	-83.21	-2,774.3	3,803.7	9,056.2	8,920.7	135.54	66.814	
11,318.9	6,774.2	6,541.8	6,539.7	135.2	1.7	-83.19	-2,774.3	3,803.6	9,074.5	8,938.4	136.06	66.693	
11,400.0	6,773.9	6,539.5	6,537.4	137.4	1.7	-83.14	-2,774.3	3,803.6	9,153.0	9,014.7	138.30	66.182	
11,417.3	6,773.8	6,539.0	6,536.9	137.9	1.7	-83.12	-2,774.3	3,803.6	9,169.7	9,031.0	138.78	66.075	
11,500.0	6,773.5	6,536.6	6,534.6	140.2	1.7	-83.06	-2,774.2	3,803.5	9,249.8	9,108.7	141.06	65.575	
11,515.7	6,773.4	6,536.2	6,534.1	140.7	1.7	-83.05	-2,774.2	3,803.5	9,265.0	9,123.5	141.49	65.482	
11,600.0	6,773.1	6,533.8	6,531.7	143.0	1.7	-82.99	-2,774.2	3,803.5	9,346.7	9,202.9	143.81	64.992	
11,614.1	6,773.0	6,533.4	6,531.3	143.4	1.7	-82.98	-2,774.2	3,803.4	9,360.4	9,216.2	144.20	64.911	
11,700.0	6,772.7	6,530.9	6,528.8	145.8	1.7	-82.92	-2,774.2	3,803.4	9,443.6	9,297.1	146.57	64.431	
11,712.6	6,772.6	6,530.5	6,528.5	146.2	1.7	-82.91	-2,774.2	3,803.4	9,455.8	9,308.9	146.92	64.362	
11,800.0	6,772.3	6,528.0	6,525.9	148.6	1.7	-82.85	-2,774.1	3,803.3	9,540.7	9,391.3	149.32	63.892	
11,811.0	6,772.2	6,527.7	6,525.6	148.9	1.7	-82.84	-2,774.1	3,803.3	9,551.3	9,401.7	149.63	63.834	
11,900.0	6,771.9	6,525.1	6,523.0	151.4	1.7	-82.77	-2,774.1	3,803.2	9,637.7	9,485.7	152.08	63.373	
11,909.4	6,771.8	6,524.8	6,522.8	151.7	1.7	-82.77	-2,774.1	3,803.2	9,646.9	9,494.6	152.34	63.325	
12,000.0	6,771.5	6,522.1	6,520.1	154.2	1.7	-82.70	-2,774.1	3,803.2	9,734.9	9,580.0	154.83	62.873	
12,007.8	6,771.4	6,521.9	6,519.9	154.4	1.7	-82.69	-2,774.1	3,803.2	9,742.5	9,587.4	155.05	62.835	
12,100.0	6,771.1	6,519.2	6,517.1	157.0	1.7	-82.62	-2,774.1	3,803.1	9,832.1	9,674.5	157.59	62.391	

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 SCHAUMBERG 17G-314
<b>Project:</b>	WELD COUNTY, COLORADO	<b>TVD Reference:</b>	KB-EST @ 4633.0usft (Original Well Elev)
<b>Reference Site:</b>	SW NW SEC. 17 T5N R64W 6th P.M.	<b>MD Reference:</b>	KB-EST @ 4633.0usft (Original Well Elev)
<b>Site Error:</b>	0.0 usft	<b>North Reference:</b>	True
<b>Reference Well:</b>	SCHAUMBERG 17G-314	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Well Error:</b>	0.0 usft	<b>Output errors are at</b>	2.00 sigma
<b>Reference Wellbore</b>	ORIGINAL WELLBORE	<b>Database:</b>	EDM 5000.1 Single User Db
<b>Reference Design:</b>	PROPOSAL #1	<b>Offset TVD Reference:</b>	Offset Datum

<b>Offset Design</b> NW SW SEC. 17 T5N R64W 6th P.M. - EXIST VERT SOLIS #44-17 - 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
12,106.3	6,771.0	6,519.0	6,517.0	157.2	1.7	-82.62	-2,774.1	3,803.1	9,838.2	9,680.4	157.76	62.362	
12,200.0	6,770.7	6,516.2	6,514.2	159.8	1.7	-82.55	-2,774.1	3,803.0	9,929.3	9,769.0	160.34	61.927	
12,204.7	6,770.6	6,516.1	6,514.0	159.9	1.7	-82.55	-2,774.1	3,803.0	9,933.9	9,773.4	160.47	61.905 SF	



# Anticollision Report



<b>Company:</b>	PDC ENERGY	<b>Local Co-ordinate Reference:</b>	Well SCHAUMBERG 17G-314
<b>Project:</b>	WELD COUNTY, COLORADO	<b>TVD Reference:</b>	KB-EST @ 4633.0usft (Original Well Elev)
<b>Reference Site:</b>	SW NW SEC. 17 T5N R64W 6th P.M.	<b>MD Reference:</b>	KB-EST @ 4633.0usft (Original Well Elev)
<b>Site Error:</b>	0.0 usft	<b>North Reference:</b>	True
<b>Reference Well:</b>	SCHAUMBERG 17G-314	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Well Error:</b>	0.0 usft	<b>Output errors are at</b>	2.00 sigma
<b>Reference Wellbore</b>	ORIGINAL WELLBORE	<b>Database:</b>	EDM 5000.1 Single User Db
<b>Reference Design:</b>	PROPOSAL #1	<b>Offset TVD Reference:</b>	Offset Datum

Offset Design NW SW SEC. 17 T5N R64W 6th P.M. - EXIST VERT STEINMETZ #1 - Wellbore #1 - Design #1												Offset Site Error:	0.0 usft
Survey Program: 0-INC												Offset Well Error:	0.0 usft
Reference		Offset		Semi Major Axis			Distance						Warning
Measured Depth (usft)	Vertical Depth (usft)	Measured Depth (usft)	Vertical Depth (usft)	Reference (usft)	Offset (usft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (usft)	+E/-W (usft)	Between Centres (usft)	Between Ellipses (usft)	Minimum Separation (usft)	Separation Factor	
0.0	0.0	0.0	0.0	0.0	0.0	110.49	-346.4	926.9	989.5				
98.4	98.4	94.4	94.4	0.1	1.2	110.49	-346.4	926.9	989.5	988.3	1.28	774.456	
100.0	100.0	96.0	96.0	0.1	1.2	110.49	-346.4	926.9	989.5	988.2	1.30	761.651	
196.8	196.8	192.8	192.8	0.3	3.4	110.49	-346.4	926.9	989.5	985.8	3.68	268.741	
200.0	200.0	196.0	196.0	0.3	3.4	110.49	-346.4	926.9	989.5	985.8	3.76	263.108	
295.3	295.3	291.3	291.3	0.5	5.4	110.49	-346.4	926.9	989.5	983.6	5.96	165.965	
300.0	300.0	296.0	296.0	0.5	5.5	110.49	-346.4	926.9	989.5	983.5	6.07	162.992	
393.7	393.7	389.7	389.7	0.8	7.4	110.49	-346.4	926.9	989.5	981.3	8.20	120.728	
400.0	400.0	396.0	396.0	0.8	7.6	110.49	-346.4	926.9	989.5	981.2	8.34	118.661	
492.1	492.1	488.1	488.1	1.0	9.4	110.49	-346.4	926.9	989.5	979.1	10.42	95.002	
500.0	500.0	496.0	496.0	1.0	9.6	110.49	-346.4	926.9	989.5	978.9	10.59	93.410	
590.5	590.5	586.5	586.5	1.2	11.4	110.49	-346.4	926.9	989.5	976.9	12.63	78.355	
600.0	600.0	596.0	596.0	1.2	11.6	110.49	-346.4	926.9	989.5	976.7	12.84	77.059	
689.0	689.0	685.0	685.0	1.4	13.4	110.49	-346.4	926.9	989.5	974.7	14.84	66.689	
700.0	700.0	696.0	696.0	1.4	13.6	110.49	-346.4	926.9	989.5	974.4	15.09	65.596	
787.4	787.4	783.4	783.4	1.6	15.4	110.49	-346.4	926.9	989.5	972.5	17.04	58.055	
800.0	800.0	796.0	796.0	1.7	15.7	110.49	-346.4	926.9	989.5	972.2	17.33	57.108	
885.8	885.8	881.8	881.8	1.9	17.4	110.49	-346.4	926.9	989.5	970.3	19.25	51.404	
900.0	900.0	896.0	896.0	1.9	17.7	110.49	-346.4	926.9	989.5	970.0	19.57	50.569	
984.2	984.2	980.2	980.2	2.1	19.4	110.49	-346.4	926.9	989.5	968.1	21.45	46.122	
1,000.0	1,000.0	996.0	996.0	2.1	19.7	110.49	-346.4	926.9	989.5	967.7	21.81	45.376	
1,082.7	1,082.7	1,078.7	1,078.7	2.3	21.4	110.49	-346.4	926.9	989.5	965.9	23.66	41.826	
1,100.0	1,100.0	1,096.0	1,096.0	2.3	21.7	110.49	-346.4	926.9	989.5	965.5	24.05	41.151	
1,181.1	1,181.1	1,177.1	1,177.1	2.5	23.3	110.49	-346.4	926.9	989.5	963.7	25.86	38.263	
1,200.0	1,200.0	1,196.0	1,196.0	2.6	23.7	110.49	-346.4	926.9	989.5	963.2	26.28	37.647	
1,279.5	1,279.5	1,275.5	1,275.5	2.7	25.3	110.49	-346.4	926.9	989.5	961.5	28.06	35.259	
1,300.0	1,300.0	1,296.0	1,296.0	2.8	25.7	110.49	-346.4	926.9	989.5	961.0	28.52	34.693	
1,377.9	1,377.9	1,373.9	1,373.9	3.0	27.3	110.49	-346.4	926.9	989.5	959.3	30.27	32.694	
1,400.0	1,400.0	1,396.0	1,396.0	3.0	27.7	110.49	-346.4	926.9	989.5	958.8	30.76	32.169	
1,476.4	1,476.4	1,472.4	1,472.4	3.2	29.3	110.49	-346.4	926.9	989.5	957.1	32.47	30.476	
1,500.0	1,500.0	1,496.0	1,496.0	3.2	29.8	110.49	-346.4	926.9	989.5	956.5	33.00	29.988	
1,574.8	1,574.8	1,570.8	1,570.8	3.4	31.3	110.49	-346.4	926.9	989.5	954.9	34.67	28.541	
1,600.0	1,600.0	1,596.0	1,596.0	3.5	31.8	110.49	-346.4	926.9	989.5	954.3	35.23	28.084	
1,673.2	1,673.2	1,669.2	1,669.2	3.6	33.2	110.49	-346.4	926.9	989.5	952.7	36.87	26.837	
1,700.0	1,700.0	1,696.0	1,696.0	3.7	33.8	110.49	-346.4	926.9	989.5	952.1	37.47	26.408	
1,771.6	1,771.6	1,767.6	1,767.6	3.9	35.2	110.49	-346.4	926.9	989.5	950.5	39.07	25.324	
1,800.0	1,800.0	1,796.0	1,796.0	3.9	35.8	110.49	-346.4	926.9	989.5	949.8	39.71	24.920 CC	
1,870.1	1,870.1	1,866.1	1,866.1	4.1	37.2	-90.75	-346.4	926.9	989.5	948.3	41.26	23.986	
1,900.0	1,900.0	1,896.0	1,896.0	4.1	37.8	-90.80	-346.4	926.9	989.6	947.6	41.92	23.608	
1,968.5	1,968.4	1,964.4	1,964.4	4.2	39.2	-90.99	-346.4	926.9	989.6	946.2	43.41	22.797	
2,000.0	1,999.8	1,995.8	1,995.8	4.3	39.8	-91.10	-346.4	926.9	989.6	945.5	44.10	22.443	
2,066.9	2,066.5	2,062.5	2,062.5	4.4	41.2	-91.41	-346.4	926.9	989.8	944.2	45.56	21.725	
2,100.0	2,099.5	2,095.5	2,095.5	4.5	41.8	-91.60	-346.4	926.9	989.8	943.6	46.28	21.388	
2,165.3	2,164.4	2,160.4	2,160.4	4.6	43.1	-92.03	-346.4	926.9	990.1	942.4	47.71	20.750	
2,200.0	2,198.7	2,194.7	2,194.7	4.7	43.8	-92.29	-346.4	926.9	990.3	941.8	48.47	20.429	
2,263.8	2,261.8	2,257.8	2,257.8	4.8	45.1	-92.83	-346.4	926.9	990.7	940.8	49.88	19.861	
2,300.0	2,297.5	2,293.5	2,293.5	4.9	45.8	-93.17	-346.4	926.9	991.0	940.3	50.68	19.555	
2,362.2	2,358.6	2,354.6	2,354.6	5.0	47.0	-93.80	-346.4	926.9	991.7	939.7	52.06	19.050	
2,400.0	2,395.6	2,391.6	2,391.6	5.1	47.8	-94.22	-346.4	926.9	992.3	939.4	52.90	18.759	
2,460.6	2,454.9	2,450.9	2,450.9	5.3	49.0	-94.93	-346.4	926.9	993.3	939.0	54.26	18.307	
2,500.0	2,493.4	2,489.4	2,489.4	5.4	49.7	-95.39	-346.4	926.9	994.1	938.9	55.14	18.027	
2,559.0	2,551.2	2,547.2	2,547.2	5.6	50.9	-96.08	-346.4	926.9	995.3	938.8	56.48	17.623 ES	

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

# Anticollision Report



<b>Company:</b>	PDC ENERGY	<b>Local Co-ordinate Reference:</b>	Well SCHAUMBERG 17G-314
<b>Project:</b>	WELD COUNTY, COLORADO	<b>TVD Reference:</b>	KB-EST @ 4633.0usft (Original Well Elev)
<b>Reference Site:</b>	SW NW SEC. 17 T5N R64W 6th P.M.	<b>MD Reference:</b>	KB-EST @ 4633.0usft (Original Well Elev)
<b>Site Error:</b>	0.0 usft	<b>North Reference:</b>	True
<b>Reference Well:</b>	SCHAUMBERG 17G-314	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Well Error:</b>	0.0 usft	<b>Output errors are at</b>	2.00 sigma
<b>Reference Wellbore</b>	ORIGINAL WELLBORE	<b>Database:</b>	EDM 5000.1 Single User Db
<b>Reference Design:</b>	PROPOSAL #1	<b>Offset TVD Reference:</b>	Offset Datum

Offset Design												Offset Site Error:	0.0 usft
Survey Program: 0-INC												Offset Well Error:	0.0 usft
Reference		Offset		Semi Major Axis			Distance						Warning
Measured Depth (usft)	Vertical Depth (usft)	Measured Depth (usft)	Vertical Depth (usft)	Reference (usft)	Offset (usft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (usft)	+E/-W (usft)	Between Centres (usft)	Between Ellipses (usft)	Minimum Separation (usft)	Separation Factor	
2,600.0	2,591.3	2,587.3	2,587.3	5.7	51.7	-96.56	-346.4	926.9	996.3	938.9	57.41	17.355	
2,657.5	2,647.5	2,643.5	2,643.5	5.9	52.8	-97.22	-346.4	926.9	997.7	939.0	58.72	16.992	
2,700.0	2,689.1	2,685.1	2,685.1	6.0	53.7	-97.72	-346.4	926.9	998.9	939.2	59.69	16.736	
2,755.9	2,743.7	2,739.7	2,739.7	6.2	54.8	-98.36	-346.4	926.9	1,000.6	939.6	60.97	16.411	
2,800.0	2,786.9	2,782.9	2,782.9	6.4	55.6	-98.87	-346.4	926.9	1,002.0	940.0	61.98	16.166	
2,854.3	2,840.0	2,836.0	2,836.0	6.6	56.7	-99.49	-346.4	926.9	1,003.8	940.6	63.23	15.875	
2,900.0	2,884.7	2,880.7	2,880.7	6.7	57.6	-100.02	-346.4	926.9	1,005.5	941.2	64.29	15.640	
2,952.7	2,936.3	2,932.3	2,932.3	6.9	58.6	-100.62	-346.4	926.9	1,007.5	942.0	65.51	15.379	
3,000.0	2,982.5	2,978.5	2,978.5	7.1	59.6	-101.15	-346.4	926.9	1,009.4	942.8	66.60	15.156	
3,051.2	3,032.6	3,028.6	3,028.6	7.3	60.6	-101.73	-346.4	926.9	1,011.5	943.7	67.79	14.922	
3,100.0	3,080.3	3,076.3	3,076.3	7.5	61.5	-102.28	-346.4	926.9	1,013.7	944.8	68.92	14.708	
3,149.6	3,128.8	3,124.8	3,124.8	7.7	62.5	-102.84	-346.4	926.9	1,016.0	945.9	70.07	14.499	
3,200.0	3,178.1	3,174.1	3,174.1	7.9	63.5	-103.40	-346.4	926.9	1,018.4	947.1	71.24	14.294	
3,248.0	3,225.1	3,221.1	3,221.1	8.1	64.5	-103.94	-346.4	926.9	1,020.8	948.4	72.36	14.107	
3,300.0	3,276.0	3,272.0	3,272.0	8.3	65.5	-104.51	-346.4	926.9	1,023.5	949.9	73.57	13.912	
3,346.4	3,321.4	3,317.4	3,317.4	8.5	66.4	-105.02	-346.4	926.9	1,026.0	951.4	74.65	13.744	
3,400.0	3,373.8	3,369.8	3,369.8	8.7	67.4	-105.61	-346.4	926.9	1,029.0	953.1	75.90	13.558	
3,444.9	3,417.7	3,413.7	3,413.7	8.8	68.3	-106.10	-346.4	926.9	1,031.6	954.7	76.94	13.407	
3,500.0	3,471.6	3,467.6	3,467.6	9.1	69.4	-106.70	-346.4	926.9	1,034.9	956.7	78.23	13.230	
3,543.3	3,513.9	3,509.9	3,509.9	9.2	70.3	-107.16	-346.4	926.9	1,037.6	958.4	79.24	13.095	
3,600.0	3,569.4	3,565.4	3,565.4	9.5	71.4	-107.77	-346.4	926.9	1,041.2	960.7	80.55	12.926	
3,641.7	3,610.2	3,606.2	3,606.2	9.7	72.2	-108.21	-346.4	926.9	1,043.9	962.4	81.53	12.805	
3,700.0	3,667.2	3,663.2	3,663.2	9.9	73.3	-108.83	-346.4	926.9	1,047.9	965.0	82.88	12.643	
3,740.1	3,706.5	3,702.5	3,702.5	10.1	74.1	-109.25	-346.4	926.9	1,050.6	966.8	83.82	12.535	
3,800.0	3,765.0	3,761.0	3,761.0	10.3	75.3	-109.88	-346.4	926.9	1,054.9	969.7	85.21	12.381	
3,838.6	3,802.8	3,798.8	3,798.8	10.5	76.1	-110.28	-346.4	926.9	1,057.7	971.6	86.10	12.284	
3,900.0	3,862.8	3,858.8	3,858.8	10.7	77.3	-110.91	-346.4	926.9	1,062.3	974.8	87.53	12.137	
3,937.0	3,899.0	3,895.0	3,895.0	10.9	78.0	-111.29	-346.4	926.9	1,065.1	976.7	88.39	12.051	
4,000.0	3,960.7	3,956.7	3,956.7	11.2	79.2	-111.93	-346.4	926.9	1,070.0	980.2	89.85	11.909	
4,035.4	3,995.3	3,991.3	3,991.3	11.3	79.9	-112.29	-346.4	926.9	1,072.9	982.2	90.67	11.833	
4,100.0	4,058.5	4,054.5	4,054.5	11.6	81.2	-112.94	-346.4	926.9	1,078.1	985.9	92.16	11.698	
4,133.8	4,091.6	4,087.6	4,087.6	11.7	81.9	-113.28	-346.4	926.9	1,080.9	988.0	92.95	11.630	
4,200.0	4,156.3	4,152.3	4,152.3	12.0	83.2	-113.93	-346.4	926.9	1,086.5	992.1	94.47	11.501	
4,232.3	4,187.9	4,183.9	4,183.9	12.2	83.8	-114.25	-346.4	926.9	1,089.3	994.1	95.22	11.440	
4,300.0	4,254.1	4,250.1	4,250.1	12.5	85.2	-114.91	-346.4	926.9	1,095.3	998.5	96.78	11.317	
4,325.7	4,279.2	4,275.2	4,275.2	12.6	85.7	-115.16	-346.4	926.9	1,097.6	1,000.2	97.37	11.272	
4,330.7	4,284.1	4,280.1	4,280.1	12.6	85.8	-115.21	-346.4	926.9	1,098.0	1,000.5	97.49	11.263	
4,400.0	4,352.1	4,348.1	4,348.1	12.8	87.1	-115.94	-346.4	926.9	1,103.9	1,004.8	99.13	11.136	
4,429.1	4,380.8	4,376.8	4,376.8	12.9	87.7	-116.22	-346.4	926.9	1,106.2	1,006.4	99.80	11.084	
4,500.0	4,450.7	4,446.7	4,446.7	13.1	89.1	-116.83	-346.4	926.9	1,111.4	1,009.9	101.44	10.956	
4,527.5	4,478.0	4,474.0	4,474.0	13.2	89.7	-117.04	-346.4	926.9	1,113.2	1,011.1	102.08	10.905	
4,600.0	4,549.9	4,545.9	4,545.9	13.4	91.1	-117.53	-346.4	926.9	1,117.4	1,013.6	103.74	10.771	
4,626.0	4,575.7	4,571.7	4,571.7	13.5	91.6	-117.68	-346.4	926.9	1,118.7	1,014.4	104.33	10.723	
4,700.0	4,649.4	4,645.4	4,645.4	13.6	93.1	-118.05	-346.4	926.9	1,121.9	1,015.9	106.01	10.583	
4,724.4	4,673.7	4,669.7	4,669.7	13.7	93.6	-118.14	-346.4	926.9	1,122.7	1,016.2	106.56	10.536	
4,800.0	4,749.2	4,745.2	4,745.2	13.8	95.1	-118.37	-346.4	926.9	1,124.8	1,016.5	108.25	10.391	
4,822.8	4,772.0	4,768.0	4,768.0	13.9	95.6	-118.42	-346.4	926.9	1,125.2	1,016.5	108.75	10.347	
4,900.0	4,849.2	4,845.2	4,845.2	14.0	97.1	-118.51	-346.4	926.9	1,126.0	1,015.6	110.44	10.196	
4,921.2	4,870.4	4,866.4	4,866.4	14.1	97.5	-118.52	-346.4	926.9	1,126.1	1,015.2	110.90	10.154	
4,925.6	4,874.8	4,870.8	4,870.8	14.1	97.6	82.68	-346.4	926.9	1,126.1	1,016.9	109.22	10.310	
5,000.0	4,949.2	4,945.2	4,945.2	14.2	99.1	82.68	-346.4	926.9	1,126.1	1,015.2	110.85	10.159	
5,019.7	4,968.8	4,964.8	4,964.8	14.2	99.5	82.68	-346.4	926.9	1,126.1	1,014.8	111.28	10.119	

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 SCHAUMBERG 17G-314
<b>Project:</b>	WELD COUNTY, COLORADO	<b>TVD Reference:</b>	KB-EST @ 4633.0usft (Original Well Elev)
<b>Reference Site:</b>	SW NW SEC. 17 T5N R64W 6th P.M.	<b>MD Reference:</b>	KB-EST @ 4633.0usft (Original Well Elev)
<b>Site Error:</b>	0.0 usft	<b>North Reference:</b>	True
<b>Reference Well:</b>	SCHAUMBERG 17G-314	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Well Error:</b>	0.0 usft	<b>Output errors are at</b>	2.00 sigma
<b>Reference Wellbore</b>	ORIGINAL WELLBORE	<b>Database:</b>	EDM 5000.1 Single User Db
<b>Reference Design:</b>	PROPOSAL #1	<b>Offset TVD Reference:</b>	Offset Datum

Offset Design												Offset Site Error:	0.0 usft
Survey Program: 0-INC												Offset Well Error:	0.0 usft
Reference		Offset		Semi Major Axis			Distance						Warning
Measured Depth (usft)	Vertical Depth (usft)	Measured Depth (usft)	Vertical Depth (usft)	Reference (usft)	Offset (usft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (usft)	+E/-W (usft)	Between Centres (usft)	Between Ellipses (usft)	Minimum Separation (usft)	Separation Factor	
5,100.0	5,049.2	5,045.2	5,045.2	14.3	101.1	82.68	-346.4	926.9	1,126.1	1,013.0	113.04	9.962	
5,118.1	5,067.3	5,063.3	5,063.3	14.3	101.5	82.68	-346.4	926.9	1,126.1	1,012.7	113.44	9.927	
5,200.0	5,149.2	5,145.2	5,145.2	14.5	103.2	82.68	-346.4	926.9	1,126.1	1,010.9	115.24	9.772	
5,216.5	5,165.7	5,161.7	5,161.7	14.5	103.5	82.68	-346.4	926.9	1,126.1	1,010.5	115.60	9.741	
5,300.0	5,249.2	5,245.2	5,245.2	14.6	105.2	82.68	-346.4	926.9	1,126.1	1,008.7	117.44	9.589	
5,314.9	5,264.1	5,260.1	5,260.1	14.6	105.5	82.68	-346.4	926.9	1,126.1	1,008.3	117.76	9.562	
5,400.0	5,349.2	5,345.2	5,345.2	14.8	107.2	82.68	-346.4	926.9	1,126.1	1,006.5	119.63	9.413	
5,413.4	5,362.5	5,358.5	5,358.5	14.8	107.4	82.68	-346.4	926.9	1,126.1	1,006.2	119.93	9.390	
5,500.0	5,449.2	5,445.2	5,445.2	14.9	109.2	82.68	-346.4	926.9	1,126.1	1,004.3	121.83	9.243	
5,511.8	5,461.0	5,457.0	5,457.0	14.9	109.4	82.68	-346.4	926.9	1,126.1	1,004.0	122.09	9.223	
5,600.0	5,549.2	5,545.2	5,545.2	15.1	111.2	82.68	-346.4	926.9	1,126.1	1,002.1	124.03	9.079	
5,610.2	5,559.4	5,555.4	5,555.4	15.1	111.4	82.68	-346.4	926.9	1,126.1	1,001.8	124.26	9.062	
5,700.0	5,649.2	5,645.2	5,645.2	15.2	113.2	82.68	-346.4	926.9	1,126.1	999.9	126.23	8.921	
5,708.6	5,657.8	5,653.8	5,653.8	15.3	113.4	82.68	-346.4	926.9	1,126.1	999.7	126.43	8.907	
5,800.0	5,749.2	5,745.2	5,745.2	15.4	115.2	82.68	-346.4	926.9	1,126.1	997.7	128.44	8.768	
5,807.1	5,756.2	5,752.2	5,752.2	15.4	115.4	82.68	-346.4	926.9	1,126.1	997.5	128.59	8.757	
5,900.0	5,849.2	5,845.2	5,845.2	15.6	117.2	82.68	-346.4	926.9	1,126.1	995.5	130.64	8.620	
5,905.5	5,854.7	5,850.7	5,850.7	15.6	117.3	82.68	-346.4	926.9	1,126.1	995.3	130.76	8.612	
6,000.0	5,949.2	5,945.2	5,945.2	15.7	119.2	82.68	-346.4	926.9	1,126.1	993.2	132.85	8.477	
6,003.9	5,953.1	5,949.1	5,949.1	15.7	119.3	82.68	-346.4	926.9	1,126.1	993.2	132.93	8.471	
6,100.0	6,049.2	6,045.2	6,045.2	15.9	121.3	82.68	-346.4	926.9	1,126.1	991.0	135.05	8.338	
6,102.3	6,051.5	6,047.5	6,047.5	15.9	121.3	82.68	-346.4	926.9	1,126.1	991.0	135.10	8.335	
6,124.6	6,073.8	6,069.8	6,069.8	15.9	121.7	82.68	-346.4	926.9	1,126.1	990.5	135.59	8.305	
6,150.0	6,099.2	6,095.2	6,095.2	16.0	122.3	172.67	-346.4	926.9	1,126.5	989.0	137.56	8.189	
6,200.0	6,149.0	6,145.0	6,145.0	16.1	123.3	172.66	-346.4	926.9	1,130.0	992.0	138.02	8.187 SF	
6,200.8	6,149.8	6,145.8	6,145.8	16.1	123.3	172.66	-346.4	926.9	1,130.1	992.1	138.02	8.188	
6,250.0	6,198.5	6,194.5	6,194.5	16.2	124.3	172.63	-346.4	926.9	1,137.0	999.1	137.81	8.250	
6,299.2	6,246.6	6,242.6	6,242.6	16.3	125.2	172.59	-346.4	926.9	1,147.1	1,010.2	136.93	8.377	
6,300.0	6,247.4	6,243.4	6,243.4	16.3	125.2	172.59	-346.4	926.9	1,147.3	1,010.4	136.92	8.380	
6,350.0	6,295.5	6,291.5	6,291.5	16.5	126.2	172.53	-346.4	926.9	1,161.0	1,025.7	135.33	8.579	
6,397.6	6,340.2	6,336.2	6,336.2	16.6	127.1	172.46	-346.4	926.9	1,177.1	1,043.9	133.18	8.838	
6,400.0	6,342.4	6,338.4	6,338.4	16.6	127.1	172.45	-346.4	926.9	1,178.0	1,044.9	133.06	8.853	
6,450.0	6,388.1	6,384.1	6,384.1	16.8	128.1	172.35	-346.4	926.9	1,198.2	1,068.1	130.09	9.210	
6,496.0	6,428.8	6,424.8	6,424.8	17.0	128.9	172.23	-346.4	926.9	1,219.6	1,092.8	126.77	9.620	
6,500.0	6,432.2	6,428.2	6,428.2	17.0	129.0	172.22	-346.4	926.9	1,221.5	1,095.0	126.46	9.659	
6,550.0	6,474.6	6,470.6	6,470.6	17.3	129.8	172.04	-346.4	926.9	1,247.8	1,125.7	122.17	10.214	
6,594.5	6,510.7	6,506.7	6,506.7	17.5	130.5	171.85	-346.4	926.9	1,273.7	1,155.9	117.83	10.809	
6,600.0	6,515.0	6,511.0	6,511.0	17.6	130.6	171.83	-346.4	926.9	1,277.1	1,159.8	117.26	10.891	
6,650.0	6,553.3	6,549.3	6,549.3	17.9	131.4	171.55	-346.4	926.9	1,309.0	1,197.2	111.77	11.712	
6,692.9	6,584.3	6,580.3	6,580.3	18.2	132.0	171.26	-346.4	926.9	1,338.5	1,231.9	106.63	12.553	
6,700.0	6,589.2	6,585.2	6,585.2	18.2	132.1	171.20	-346.4	926.9	1,343.5	1,237.8	105.74	12.706	
6,750.0	6,622.7	6,618.7	6,618.7	18.6	132.8	170.76	-346.4	926.9	1,380.5	1,281.2	99.27	13.906	
6,791.3	6,648.3	6,644.3	6,644.3	19.0	133.3	170.29	-346.4	926.9	1,412.8	1,319.1	93.67	15.083	
6,800.0	6,653.4	6,649.4	6,649.4	19.1	133.4	170.18	-346.4	926.9	1,419.7	1,327.2	92.47	15.354	
6,850.0	6,681.4	6,677.4	6,677.4	19.6	134.0	169.44	-346.4	926.9	1,461.0	1,375.5	85.49	17.089	
6,889.7	6,701.5	6,697.5	6,697.5	20.1	134.4	168.67	-346.4	926.9	1,495.1	1,415.1	80.01	18.687	
6,900.0	6,706.3	6,702.3	6,702.3	20.2	134.5	168.45	-346.4	926.9	1,504.1	1,425.4	78.62	19.130	
6,950.0	6,728.2	6,724.2	6,724.2	20.9	134.9	167.09	-346.4	926.9	1,548.8	1,476.5	72.33	21.413	
6,988.2	6,742.8	6,738.8	6,738.8	21.5	135.2	165.70	-346.4	926.9	1,583.9	1,515.5	68.43	23.148	
7,000.0	6,746.9	6,742.9	6,742.9	21.6	135.3	165.18	-346.4	926.9	1,595.0	1,527.5	67.48	23.637	
7,050.0	6,762.4	6,758.4	6,758.4	22.5	135.6	162.31	-346.4	926.9	1,642.3	1,576.6	65.71	24.993	
7,086.6	6,771.5	6,767.5	6,767.5	23.1	135.8	159.16	-346.4	926.9	1,677.6	1,609.6	68.07	24.647	

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 SCHAUMBERG 17G-314
<b>Project:</b>	WELD COUNTY, COLORADO	<b>TVD Reference:</b>	KB-EST @ 4633.0usft (Original Well Elev)
<b>Reference Site:</b>	SW NW SEC. 17 T5N R64W 6th P.M.	<b>MD Reference:</b>	KB-EST @ 4633.0usft (Original Well Elev)
<b>Site Error:</b>	0.0 usft	<b>North Reference:</b>	True
<b>Reference Well:</b>	SCHAUMBERG 17G-314	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Well Error:</b>	0.0 usft	<b>Output errors are at</b>	2.00 sigma
<b>Reference Wellbore</b>	ORIGINAL WELLBORE	<b>Database:</b>	EDM 5000.1 Single User Db
<b>Reference Design:</b>	PROPOSAL #1	<b>Offset TVD Reference:</b>	Offset Datum

<b>Offset Design</b> NW SW SEC. 17 T5N R64W 6th P.M. - EXIST VERT STEINMETZ #1 - Wellbore #1 - Design #1												<b>Offset Site Error:</b>	0.0 usft
Survey Program: 0-INC												<b>Offset Well Error:</b>	0.0 usft
Reference		Offset		Semi Major Axis			Distance						
Measured Depth (usft)	Vertical Depth (usft)	Measured Depth (usft)	Vertical Depth (usft)	Reference (usft)	Offset (usft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (usft)	+E/-W (usft)	Between Centres (usft)	Between Ellipses (usft)	Minimum Separation (usft)	Separation Factor	Warning
7,100.0	6,774.4	6,770.4	6,770.4	23.3	135.8	157.66	-346.4	926.9	1,690.7	1,620.6	70.10	24.118	
7,150.0	6,783.1	6,779.1	6,779.1	24.3	136.0	149.16	-346.4	926.9	1,739.7	1,653.6	86.17	20.190	
7,185.0	6,787.1	6,783.1	6,783.1	25.0	136.1	137.98	-346.4	926.9	1,774.4	1,665.0	109.35	16.227	
7,200.0	6,788.3	6,784.3	6,784.3	25.3	136.1	130.71	-346.4	926.9	1,789.3	1,666.2	123.10	14.535	
7,252.3	6,790.0	6,786.0	6,786.0	26.3	136.1	87.25	-346.4	926.9	1,841.4	1,680.1	161.29	11.417	
7,283.4	6,789.9	6,785.9	6,785.9	27.0	136.1	87.20	-346.4	926.9	1,872.4	1,710.5	161.97	11.560	
7,300.0	6,789.8	6,785.8	6,785.8	27.3	136.1	87.17	-346.4	926.9	1,888.9	1,726.6	162.33	11.636	
7,381.9	6,789.5	6,785.5	6,785.5	29.1	136.1	87.05	-346.4	926.9	1,970.6	1,806.4	164.19	12.002	
7,400.0	6,789.4	6,785.4	6,785.4	29.5	136.1	87.02	-346.4	926.9	1,988.7	1,824.1	164.60	12.082	
7,480.3	6,789.1	6,785.1	6,785.1	31.4	136.1	86.90	-346.4	926.9	2,068.8	1,902.3	166.48	12.426	
7,500.0	6,789.1	6,785.1	6,785.1	31.8	136.1	86.86	-346.4	926.9	2,088.4	1,921.5	166.94	12.510	
7,578.7	6,788.8	6,784.8	6,784.8	33.7	136.1	86.74	-346.4	926.9	2,167.0	1,998.1	168.84	12.834	
7,600.0	6,788.7	6,784.7	6,784.7	34.2	136.1	86.71	-346.4	926.9	2,188.2	2,018.8	169.35	12.921	
7,677.1	6,788.4	6,784.4	6,784.4	36.1	136.1	86.59	-346.4	926.9	2,265.2	2,093.9	171.25	13.227	
7,700.0	6,788.3	6,784.3	6,784.3	36.7	136.1	86.55	-346.4	926.9	2,288.0	2,116.2	171.81	13.317	
7,775.6	6,788.0	6,784.0	6,784.0	38.6	136.1	86.44	-346.4	926.9	2,363.4	2,189.7	173.70	13.606	
7,800.0	6,787.9	6,783.9	6,783.9	39.2	136.1	86.39	-346.4	926.9	2,387.8	2,213.5	174.31	13.698	
7,874.0	6,787.6	6,783.6	6,783.6	41.0	136.1	86.28	-346.4	926.9	2,461.7	2,285.5	176.19	13.972	
7,900.0	6,787.6	6,783.6	6,783.6	41.7	136.1	86.24	-346.4	926.9	2,487.6	2,310.8	176.85	14.066	
7,972.4	6,787.3	6,783.3	6,783.3	43.6	136.1	86.13	-346.4	926.9	2,559.9	2,381.2	178.70	14.325	
8,000.0	6,787.2	6,783.2	6,783.2	44.3	136.1	86.08	-346.4	926.9	2,587.4	2,408.0	179.41	14.422	
8,070.8	6,786.9	6,782.9	6,782.9	46.1	136.1	85.97	-346.4	926.9	2,658.2	2,477.0	181.24	14.667	
8,100.0	6,786.8	6,782.8	6,782.8	46.9	136.1	85.92	-346.4	926.9	2,687.3	2,505.3	181.99	14.766	
8,169.3	6,786.5	6,782.5	6,782.5	48.7	136.1	85.82	-346.4	926.9	2,756.5	2,572.7	183.79	14.998	
8,200.0	6,786.4	6,782.4	6,782.4	49.5	136.1	85.77	-346.4	926.9	2,787.2	2,602.6	184.59	15.099	
8,267.7	6,786.1	6,782.1	6,782.1	51.3	136.1	85.66	-346.4	926.9	2,854.8	2,668.4	186.36	15.319	
8,300.0	6,786.0	6,782.0	6,782.0	52.1	136.1	85.61	-346.4	926.9	2,887.0	2,699.8	187.20	15.422	
8,366.1	6,785.8	6,781.8	6,781.8	53.9	136.1	85.51	-346.4	926.9	2,953.1	2,764.1	188.94	15.630	
8,400.0	6,785.6	6,781.6	6,781.6	54.8	136.1	85.45	-346.4	926.9	2,986.9	2,797.1	189.83	15.735	
8,464.5	6,785.4	6,781.4	6,781.4	56.5	136.1	85.35	-346.4	926.9	3,051.4	2,859.9	191.53	15.932	
8,500.0	6,785.3	6,781.3	6,781.3	57.5	136.1	85.29	-346.4	926.9	3,086.8	2,894.3	192.46	16.039	
8,563.0	6,785.0	6,781.0	6,781.0	59.2	136.0	85.19	-346.4	926.9	3,149.7	2,955.6	194.13	16.225	
8,600.0	6,784.9	6,780.9	6,780.9	60.2	136.0	85.13	-346.4	926.9	3,186.7	2,991.6	195.10	16.333	
8,661.4	6,784.6	6,780.6	6,780.6	61.8	136.0	85.04	-346.4	926.9	3,248.0	3,051.3	196.73	16.510	
8,700.0	6,784.5	6,780.5	6,780.5	62.9	136.0	84.97	-346.4	926.9	3,286.6	3,088.8	197.75	16.620	
8,759.8	6,784.3	6,780.3	6,780.3	64.5	136.0	84.88	-346.4	926.9	3,346.4	3,147.0	199.34	16.787	
8,800.0	6,784.1	6,780.1	6,780.1	65.6	136.0	84.81	-346.4	926.9	3,386.5	3,186.1	200.41	16.898	
8,858.2	6,783.9	6,779.9	6,779.9	67.1	136.0	84.72	-346.4	926.9	3,444.7	3,242.7	201.96	17.057	
8,900.0	6,783.7	6,779.7	6,779.7	68.3	136.0	84.65	-346.4	926.9	3,486.4	3,283.3	203.07	17.169	
8,956.7	6,783.5	6,779.5	6,779.5	69.8	136.0	84.56	-346.4	926.9	3,543.0	3,338.5	204.58	17.319	
9,000.0	6,783.3	6,779.3	6,779.3	71.0	136.0	84.49	-346.4	926.9	3,586.3	3,380.6	205.73	17.432	
9,055.1	6,783.1	6,779.1	6,779.1	72.5	136.0	84.40	-346.4	926.9	3,641.4	3,434.2	207.20	17.574	
9,100.0	6,782.9	6,778.9	6,778.9	73.7	136.0	84.33	-346.4	926.9	3,686.3	3,477.9	208.39	17.689	
9,153.5	6,782.7	6,778.7	6,778.7	75.2	136.0	84.24	-346.4	926.9	3,739.7	3,529.9	209.82	17.823	
9,200.0	6,782.6	6,778.6	6,778.6	76.5	136.0	84.16	-346.4	926.9	3,786.2	3,575.1	211.06	17.939	
9,251.9	6,782.4	6,778.4	6,778.4	77.9	136.0	84.08	-346.4	926.9	3,838.1	3,625.6	212.45	18.066	
9,300.0	6,782.2	6,778.2	6,778.2	79.2	136.0	84.00	-346.4	926.9	3,886.1	3,672.4	213.73	18.183	
9,350.4	6,782.0	6,778.0	6,778.0	80.6	136.0	83.92	-346.4	926.9	3,936.4	3,721.4	215.07	18.303	
9,400.0	6,781.8	6,777.8	6,777.8	82.0	136.0	83.84	-346.4	926.9	3,986.0	3,769.6	216.39	18.420	
9,448.8	6,781.6	6,777.6	6,777.6	83.3	136.0	83.76	-346.4	926.9	4,034.8	3,817.1	217.70	18.534	
9,500.0	6,781.4	6,777.4	6,777.4	84.7	136.0	83.68	-346.4	926.9	4,086.0	3,866.9	219.06	18.652	
9,547.2	6,781.2	6,777.2	6,777.2	86.0	136.0	83.60	-346.4	926.9	4,133.2	3,912.8	220.33	18.759	

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

# Anticollision Report



<b>Company:</b>	PDC ENERGY	<b>Local Co-ordinate Reference:</b>	Well SCHAUMBERG 17G-314
<b>Project:</b>	WELD COUNTY, COLORADO	<b>TVD Reference:</b>	KB-EST @ 4633.0usft (Original Well Elev)
<b>Reference Site:</b>	SW NW SEC. 17 T5N R64W 6th P.M.	<b>MD Reference:</b>	KB-EST @ 4633.0usft (Original Well Elev)
<b>Site Error:</b>	0.0 usft	<b>North Reference:</b>	True
<b>Reference Well:</b>	SCHAUMBERG 17G-314	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Well Error:</b>	0.0 usft	<b>Output errors are at</b>	2.00 sigma
<b>Reference Wellbore</b>	ORIGINAL WELLBORE	<b>Database:</b>	EDM 5000.1 Single User Db
<b>Reference Design:</b>	PROPOSAL #1	<b>Offset TVD Reference:</b>	Offset Datum

Offset Design NW SW SEC. 17 T5N R64W 6th P.M. - EXIST VERT STEINMETZ #1 - Wellbore #1 - Design #1												Offset Site Error:	0.0 usft
Survey Program: 0-INC												Offset Well Error:	0.0 usft
Reference		Offset		Semi Major Axis			Distance						Warning
Measured Depth (usft)	Vertical Depth (usft)	Measured Depth (usft)	Vertical Depth (usft)	Reference (usft)	Offset (usft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (usft)	+E/-W (usft)	Between Centres (usft)	Between Ellipses (usft)	Minimum Separation (usft)	Separation Factor	
9,600.0	6,781.0	6,777.0	6,777.0	87.5	136.0	83.51	-346.4	926.9	4,185.9	3,964.2	221.73	18.878	
9,645.6	6,780.8	6,776.8	6,776.8	88.7	136.0	83.44	-346.4	926.9	4,231.5	4,008.6	222.95	18.980	
9,700.0	6,780.6	6,776.6	6,776.6	90.2	136.0	83.35	-346.4	926.9	4,285.9	4,061.5	224.40	19.099	
9,744.1	6,780.4	6,776.4	6,776.4	91.4	136.0	83.28	-346.4	926.9	4,329.9	4,104.3	225.58	19.195	
9,800.0	6,780.2	6,776.2	6,776.2	93.0	136.0	83.19	-346.4	926.9	4,385.8	4,158.7	227.07	19.315	
9,842.5	6,780.1	6,776.1	6,776.1	94.2	135.9	83.12	-346.4	926.9	4,428.3	4,200.1	228.20	19.405	
9,900.0	6,779.8	6,775.8	6,775.8	95.7	135.9	83.02	-346.4	926.9	4,485.7	4,256.0	229.73	19.526	
9,940.9	6,779.7	6,775.7	6,775.7	96.9	135.9	82.96	-346.4	926.9	4,526.7	4,295.8	230.82	19.611	
10,000.0	6,779.4	6,775.4	6,775.4	98.5	135.9	82.86	-346.4	926.9	4,585.7	4,353.3	232.39	19.732	
10,039.3	6,779.3	6,775.3	6,775.3	99.6	135.9	82.80	-346.4	926.9	4,625.0	4,391.6	233.44	19.812	
10,100.0	6,779.0	6,775.0	6,775.0	101.3	135.9	82.69	-346.4	926.9	4,685.6	4,450.6	235.06	19.934	
10,137.8	6,778.9	6,774.9	6,774.9	102.3	135.9	82.63	-346.4	926.9	4,723.4	4,487.3	236.06	20.009	
10,200.0	6,778.7	6,774.7	6,774.7	104.1	135.9	82.53	-346.4	926.9	4,785.6	4,547.9	237.72	20.132	
10,236.2	6,778.5	6,774.5	6,774.5	105.1	135.9	82.47	-346.4	926.9	4,821.8	4,583.1	238.68	20.202	
10,300.0	6,778.3	6,774.3	6,774.3	106.8	135.9	82.36	-346.4	926.9	4,885.6	4,645.2	240.37	20.325	
10,334.6	6,778.1	6,774.1	6,774.1	107.8	135.9	82.31	-346.4	926.9	4,920.2	4,678.9	241.30	20.390	
10,400.0	6,777.9	6,773.9	6,773.9	109.6	135.9	82.19	-346.4	926.9	4,985.5	4,742.5	243.03	20.514	
10,433.0	6,777.7	6,773.7	6,773.7	110.5	135.9	82.14	-346.4	926.9	5,018.5	4,774.6	243.91	20.575	
10,500.0	6,777.5	6,773.5	6,773.5	112.4	135.9	82.03	-346.4	926.9	5,085.5	4,839.8	245.68	20.699	
10,531.5	6,777.3	6,773.3	6,773.3	113.3	135.9	81.98	-346.4	926.9	5,116.9	4,870.4	246.52	20.757	
10,600.0	6,777.1	6,773.1	6,773.1	115.2	135.9	81.86	-346.4	926.9	5,185.4	4,937.1	248.33	20.881	
10,629.9	6,777.0	6,773.0	6,773.0	116.0	135.9	81.81	-346.4	926.9	5,215.3	4,966.2	249.13	20.934	
10,700.0	6,776.7	6,772.7	6,772.7	117.9	135.9	81.69	-346.4	926.9	5,285.4	5,034.4	250.98	21.059	
10,728.3	6,776.6	6,772.6	6,772.6	118.7	135.9	81.65	-346.4	926.9	5,313.7	5,062.0	251.73	21.109	
10,800.0	6,776.3	6,772.3	6,772.3	120.7	135.9	81.53	-346.4	926.9	5,385.4	5,131.7	253.62	21.234	
10,826.7	6,776.2	6,772.2	6,772.2	121.5	135.9	81.49	-346.4	926.9	5,412.1	5,157.8	254.33	21.280	
10,900.0	6,775.9	6,771.9	6,771.9	123.5	135.9	81.36	-346.4	926.9	5,485.3	5,229.1	256.26	21.405	
10,925.2	6,775.8	6,771.8	6,771.8	124.2	135.9	81.32	-346.4	926.9	5,510.5	5,253.6	256.93	21.447	
11,000.0	6,775.5	6,771.5	6,771.5	126.3	135.9	81.19	-346.4	926.9	5,585.3	5,326.4	258.90	21.573	
11,023.6	6,775.4	6,771.4	6,771.4	126.9	135.9	81.15	-346.4	926.9	5,608.9	5,349.4	259.52	21.612	
11,100.0	6,775.1	6,771.1	6,771.1	129.1	135.8	81.02	-346.4	926.9	5,685.3	5,423.7	261.53	21.738	
11,122.0	6,775.0	6,771.0	6,771.0	129.7	135.8	80.99	-346.4	926.9	5,707.3	5,445.2	262.11	21.774	
11,200.0	6,774.7	6,770.7	6,770.7	131.9	135.8	80.85	-346.4	926.9	5,785.2	5,521.1	264.16	21.900	
11,220.4	6,774.6	6,770.6	6,770.6	132.4	135.8	80.82	-346.4	926.9	5,805.7	5,541.0	264.70	21.933	
11,300.0	6,774.3	6,770.3	6,770.3	134.6	135.8	80.69	-346.4	926.9	5,885.2	5,618.4	266.79	22.059	
11,318.9	6,774.2	6,770.2	6,770.2	135.2	135.8	80.66	-346.4	926.9	5,904.1	5,636.8	267.28	22.089	
11,400.0	6,773.9	6,769.9	6,769.9	137.4	135.8	80.52	-346.4	926.9	5,985.2	5,715.8	269.41	22.216	
11,417.3	6,773.8	6,769.8	6,769.8	137.9	135.8	80.49	-346.4	926.9	6,002.5	5,732.6	269.86	22.243	
11,500.0	6,773.5	6,769.5	6,769.5	140.2	135.8	80.35	-346.4	926.9	6,085.1	5,813.1	272.03	22.370	
11,515.7	6,773.4	6,769.4	6,769.4	140.7	135.8	80.32	-346.4	926.9	6,100.9	5,828.4	272.44	22.394	
11,600.0	6,773.1	6,769.1	6,769.1	143.0	135.8	80.18	-346.4	926.9	6,185.1	5,910.5	274.64	22.521	
11,614.1	6,773.0	6,769.0	6,769.0	143.4	135.8	80.15	-346.4	926.9	6,199.2	5,924.2	275.01	22.542	
11,700.0	6,772.7	6,768.7	6,768.7	145.8	135.8	80.01	-346.4	926.9	6,285.1	6,007.8	277.25	22.670	
11,712.6	6,772.6	6,768.6	6,768.6	146.2	135.8	79.99	-346.4	926.9	6,297.6	6,020.1	277.57	22.688	
11,800.0	6,772.3	6,768.3	6,768.3	148.6	135.8	79.84	-346.4	926.9	6,385.0	6,105.2	279.85	22.816	
11,811.0	6,772.2	6,768.2	6,768.2	148.9	135.8	79.82	-346.4	926.9	6,396.0	6,115.9	280.14	22.832	
11,900.0	6,771.9	6,767.9	6,767.9	151.4	135.8	79.67	-346.4	926.9	6,485.0	6,202.6	282.45	22.960	
11,909.4	6,771.8	6,767.8	6,767.8	151.7	135.8	79.65	-346.4	926.9	6,494.4	6,211.8	282.69	22.973	
12,000.0	6,771.5	6,767.5	6,767.5	154.2	135.8	79.49	-346.4	926.9	6,585.0	6,300.0	285.04	23.102	
12,007.8	6,771.4	6,767.4	6,767.4	154.4	135.8	79.48	-346.4	926.9	6,592.8	6,307.6	285.25	23.113	
12,100.0	6,771.1	6,767.1	6,767.1	157.0	135.8	79.32	-346.4	926.9	6,685.0	6,397.3	287.63	23.242	
12,106.3	6,771.0	6,767.0	6,767.0	157.2	135.8	79.31	-346.4	926.9	6,691.2	6,403.5	287.79	23.250	

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

# Anticollision Report



<b>Company:</b>	PDC ENERGY	<b>Local Co-ordinate Reference:</b>	Well SCHAUMBERG 17G-314
<b>Project:</b>	WELD COUNTY, COLORADO	<b>TVD Reference:</b>	KB-EST @ 4633.0usft (Original Well Elev)
<b>Reference Site:</b>	SW NW SEC. 17 T5N R64W 6th P.M.	<b>MD Reference:</b>	KB-EST @ 4633.0usft (Original Well Elev)
<b>Site Error:</b>	0.0 usft	<b>North Reference:</b>	True
<b>Reference Well:</b>	SCHAUMBERG 17G-314	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Well Error:</b>	0.0 usft	<b>Output errors are at</b>	2.00 sigma
<b>Reference Wellbore</b>	ORIGINAL WELLBORE	<b>Database:</b>	EDM 5000.1 Single User Db
<b>Reference Design:</b>	PROPOSAL #1	<b>Offset TVD Reference:</b>	Offset Datum

<b>Offset Design</b> NW SW SEC. 17 T5N R64W 6th P.M. - EXIST VERT STEINMETZ #1 - Wellbore #1 - Design #1												<b>Offset Site Error:</b>	0.0 usft
Survey Program: 0-INC												<b>Offset Well Error:</b>	0.0 usft
Reference	Offset	Semi Major Axis		Distance									
Measured Depth (usft)	Vertical Depth (usft)	Measured Depth (usft)	Vertical Depth (usft)	Reference (usft)	Offset (usft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (usft)	+E/-W (usft)	Between Centres (usft)	Between Ellipses (usft)	Minimum Separation (usft)	Separation Factor	Warning
12,200.0	6,770.7	6,766.7	6,766.7	159.8	135.8	79.15	-346.4	926.9	6,784.9	6,494.7	290.21	23.379	
12,204.7	6,770.6	6,766.6	6,766.6	159.9	135.8	79.14	-346.4	926.9	6,789.6	6,499.3	290.34	23.385	
12,300.0	6,770.3	6,766.3	6,766.3	162.6	135.8	78.98	-346.4	926.9	6,884.9	6,592.1	292.79	23.515	
12,303.1	6,770.2	6,766.2	6,766.2	162.7	135.8	78.98	-346.4	926.9	6,888.1	6,595.2	292.87	23.519	
12,361.7	6,770.0	6,766.0	6,766.0	164.3	135.7	78.87	-346.4	926.9	6,946.6	6,652.2	294.38	23.597	



# Anticollision Report



<b>Company:</b>	PDC ENERGY	<b>Local Co-ordinate Reference:</b>	Well SCHAUMBERG 17G-314
<b>Project:</b>	WELD COUNTY, COLORADO	<b>TVD Reference:</b>	KB-EST @ 4633.0usft (Original Well Elev)
<b>Reference Site:</b>	SW NW SEC. 17 T5N R64W 6th P.M.	<b>MD Reference:</b>	KB-EST @ 4633.0usft (Original Well Elev)
<b>Site Error:</b>	0.0 usft	<b>North Reference:</b>	True
<b>Reference Well:</b>	SCHAUMBERG 17G-314	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Well Error:</b>	0.0 usft	<b>Output errors are at</b>	2.00 sigma
<b>Reference Wellbore</b>	ORIGINAL WELLBORE	<b>Database:</b>	EDM 5000.1 Single User Db
<b>Reference Design:</b>	PROPOSAL #1	<b>Offset TVD Reference:</b>	Offset Datum

Offset Design												Offset Site Error:	0.0 usft
Survey Program: 0-INC												Offset Well Error:	0.0 usft
Reference		Offset		Semi Major Axis			Distance						Warning
Measured Depth (usft)	Vertical Depth (usft)	Measured Depth (usft)	Vertical Depth (usft)	Reference (usft)	Offset (usft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (usft)	+E/-W (usft)	Between Centres (usft)	Between Ellipses (usft)	Minimum Separation (usft)	Separation Factor	
0.0	0.0	0.0	0.0	0.0	0.0	-80.08	979.9	-5,604.3	5,689.3				
98.4	98.4	90.4	90.4	0.1	1.1	-80.08	979.9	-5,604.3	5,689.3	5,688.1	1.24	4,589.312	
100.0	100.0	92.0	92.0	0.1	1.2	-80.08	979.9	-5,604.3	5,689.3	5,688.1	1.26	4,510.395	
196.8	196.8	188.8	188.8	0.3	3.3	-80.08	979.9	-5,604.3	5,689.3	5,685.7	3.60	1,579.600	
200.0	200.0	192.0	192.0	0.3	3.4	-80.08	979.9	-5,604.3	5,689.3	5,685.6	3.68	1,545.802	
295.3	295.3	287.3	287.3	0.5	5.4	-80.08	979.9	-5,604.3	5,689.3	5,683.4	5.89	966.028	
300.0	300.0	292.0	292.0	0.5	5.5	-80.08	979.9	-5,604.3	5,689.3	5,683.3	6.00	948.512	
393.7	393.7	385.7	385.7	0.8	7.4	-80.08	979.9	-5,604.3	5,689.3	5,681.2	8.12	700.243	
400.0	400.0	392.0	392.0	0.8	7.5	-80.08	979.9	-5,604.3	5,689.3	5,681.1	8.27	688.149	
492.1	492.1	484.1	484.1	1.0	9.4	-80.08	979.9	-5,604.3	5,689.3	5,679.0	10.34	549.968	
500.0	500.0	492.0	492.0	1.0	9.5	-80.08	979.9	-5,604.3	5,689.3	5,678.8	10.52	540.692	
590.5	590.5	582.5	582.5	1.2	11.4	-80.08	979.9	-5,604.3	5,689.3	5,676.8	12.56	453.048	
600.0	600.0	592.0	592.0	1.2	11.5	-80.08	979.9	-5,604.3	5,689.3	5,676.6	12.77	445.513	
689.0	689.0	681.0	681.0	1.4	13.3	-80.08	979.9	-5,604.3	5,689.3	5,674.6	14.77	385.268	
700.0	700.0	692.0	692.0	1.4	13.6	-80.08	979.9	-5,604.3	5,689.3	5,674.3	15.01	378.920	
787.4	787.4	779.4	779.4	1.6	15.3	-80.08	979.9	-5,604.3	5,689.3	5,672.3	16.97	335.175	
800.0	800.0	792.0	792.0	1.7	15.6	-80.08	979.9	-5,604.3	5,689.3	5,672.1	17.26	329.689	
885.8	885.8	877.8	877.8	1.9	17.3	-80.08	979.9	-5,604.3	5,689.3	5,670.1	19.18	296.633	
900.0	900.0	892.0	892.0	1.9	17.6	-80.08	979.9	-5,604.3	5,689.3	5,669.8	19.50	291.801	
984.2	984.2	976.2	976.2	2.1	19.3	-80.08	979.9	-5,604.3	5,689.3	5,667.9	21.38	266.054	
1,000.0	1,000.0	992.0	992.0	2.1	19.6	-80.08	979.9	-5,604.3	5,689.3	5,667.6	21.74	261.736	
1,082.7	1,082.7	1,074.7	1,074.7	2.3	21.3	-80.08	979.9	-5,604.3	5,689.3	5,665.7	23.59	241.197	
1,100.0	1,100.0	1,092.0	1,092.0	2.3	21.6	-80.08	979.9	-5,604.3	5,689.3	5,665.3	23.98	237.295	
1,181.1	1,181.1	1,173.1	1,173.1	2.5	23.3	-80.08	979.9	-5,604.3	5,689.3	5,663.5	25.79	220.593	
1,200.0	1,200.0	1,192.0	1,192.0	2.6	23.6	-80.08	979.9	-5,604.3	5,689.3	5,663.1	26.21	217.034	
1,279.5	1,279.5	1,271.5	1,271.5	2.7	25.2	-80.08	979.9	-5,604.3	5,689.3	5,661.3	27.99	203.236	
1,300.0	1,300.0	1,292.0	1,292.0	2.8	25.7	-80.08	979.9	-5,604.3	5,689.3	5,660.9	28.45	199.963	
1,377.9	1,377.9	1,369.9	1,369.9	3.0	27.2	-80.08	979.9	-5,604.3	5,689.3	5,659.1	30.20	188.412	
1,400.0	1,400.0	1,392.0	1,392.0	3.0	27.7	-80.08	979.9	-5,604.3	5,689.3	5,658.6	30.69	185.383	
1,476.4	1,476.4	1,468.4	1,468.4	3.2	29.2	-80.08	979.9	-5,604.3	5,689.3	5,656.9	32.40	175.606	
1,500.0	1,500.0	1,492.0	1,492.0	3.2	29.7	-80.08	979.9	-5,604.3	5,689.3	5,656.4	32.93	172.787	
1,574.8	1,574.8	1,566.8	1,566.8	3.4	31.2	-80.08	979.9	-5,604.3	5,689.3	5,654.7	34.60	164.430	
1,600.0	1,600.0	1,592.0	1,592.0	3.5	31.7	-80.08	979.9	-5,604.3	5,689.3	5,654.2	35.16	161.794	
1,673.2	1,673.2	1,665.2	1,665.2	3.6	33.2	-80.08	979.9	-5,604.3	5,689.3	5,652.5	36.80	154.593	
1,700.0	1,700.0	1,692.0	1,692.0	3.7	33.7	-80.08	979.9	-5,604.3	5,689.3	5,651.9	37.40	152.117	
1,771.6	1,771.6	1,763.6	1,763.6	3.9	35.1	-80.08	979.9	-5,604.3	5,689.3	5,650.3	39.00	145.866	
1,800.0	1,800.0	1,792.0	1,792.0	3.9	35.7	-80.08	979.9	-5,604.3	5,689.3	5,649.7	39.64	143.533	
1,870.1	1,870.1	1,862.1	1,862.1	4.1	37.1	78.74	979.9	-5,604.3	5,689.2	5,648.0	41.18	138.139	
1,900.0	1,900.0	1,892.0	1,892.0	4.1	37.7	78.75	979.9	-5,604.3	5,689.0	5,647.1	41.84	135.956	
1,968.5	1,968.4	1,960.4	1,960.4	4.2	39.1	78.79	979.9	-5,604.3	5,688.4	5,645.0	43.34	131.260	
2,000.0	1,999.8	1,991.8	1,991.8	4.3	39.7	78.82	979.9	-5,604.3	5,688.0	5,643.9	44.02	129.208	
2,066.9	2,066.5	2,058.5	2,058.5	4.4	41.1	78.89	979.9	-5,604.3	5,686.9	5,641.4	45.48	125.038	
2,100.0	2,099.5	2,091.5	2,091.5	4.5	41.7	78.94	979.9	-5,604.3	5,686.3	5,640.1	46.20	123.076	
2,165.3	2,164.4	2,156.4	2,156.4	4.6	43.0	79.04	979.9	-5,604.3	5,684.8	5,637.2	47.63	119.354	
2,200.0	2,198.7	2,190.7	2,190.7	4.7	43.7	79.10	979.9	-5,604.3	5,683.9	5,635.6	48.39	117.471	
2,263.8	2,261.8	2,253.8	2,253.8	4.8	45.0	79.23	979.9	-5,604.3	5,682.1	5,632.3	49.79	114.128	
2,300.0	2,297.5	2,289.5	2,289.5	4.9	45.7	79.32	979.9	-5,604.3	5,681.0	5,630.4	50.58	112.315	
2,362.2	2,358.6	2,350.6	2,350.6	5.0	47.0	79.47	979.9	-5,604.3	5,678.8	5,626.9	51.96	109.296	
2,400.0	2,395.6	2,387.6	2,387.6	5.1	47.7	79.57	979.9	-5,604.3	5,677.4	5,624.6	52.79	107.543	
2,460.6	2,454.9	2,446.9	2,446.9	5.3	48.9	79.69	979.9	-5,604.3	5,675.1	5,620.9	54.15	104.795	
2,500.0	2,493.4	2,485.4	2,485.4	5.4	49.7	79.77	979.9	-5,604.3	5,673.6	5,618.6	55.04	103.083	
2,559.0	2,551.2	2,543.2	2,543.2	5.6	50.8	79.89	979.9	-5,604.3	5,671.4	5,615.0	56.38	100.595	

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 SCHAUMBERG 17G-314
<b>Project:</b>	WELD COUNTY, COLORADO	<b>TVD Reference:</b>	KB-EST @ 4633.0usft (Original Well Elev)
<b>Reference Site:</b>	SW NW SEC. 17 T5N R64W 6th P.M.	<b>MD Reference:</b>	KB-EST @ 4633.0usft (Original Well Elev)
<b>Site Error:</b>	0.0 usft	<b>North Reference:</b>	True
<b>Reference Well:</b>	SCHAUMBERG 17G-314	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Well Error:</b>	0.0 usft	<b>Output errors are at</b>	2.00 sigma
<b>Reference Wellbore</b>	ORIGINAL WELLBORE	<b>Database:</b>	EDM 5000.1 Single User Db
<b>Reference Design:</b>	PROPOSAL #1	<b>Offset TVD Reference:</b>	Offset Datum

Offset Design												Offset Site Error:	0.0 usft
Survey Program: 0-INC												Offset Well Error:	0.0 usft
Reference		Offset		Semi Major Axis			Distance						Warning
Measured Depth (usft)	Vertical Depth (usft)	Measured Depth (usft)	Vertical Depth (usft)	Reference (usft)	Offset (usft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (usft)	+E/-W (usft)	Between Centres (usft)	Between Ellipses (usft)	Minimum Separation (usft)	Separation Factor	
2,600.0	2,591.3	2,583.3	2,583.3	5.7	51.6	79.98	979.9	-5,604.3	5,669.9	5,612.6	57.31	98.936	
2,657.5	2,647.5	2,639.5	2,639.5	5.9	52.8	80.09	979.9	-5,604.3	5,667.8	5,609.1	58.62	96.680	
2,700.0	2,689.1	2,681.1	2,681.1	6.0	53.6	80.18	979.9	-5,604.3	5,666.2	5,606.6	59.60	95.075	
2,755.9	2,743.7	2,735.7	2,735.7	6.2	54.7	80.29	979.9	-5,604.3	5,664.2	5,603.3	60.89	93.030	
2,800.0	2,786.9	2,778.9	2,778.9	6.4	55.6	80.38	979.9	-5,604.3	5,662.6	5,600.7	61.90	91.476	
2,854.3	2,840.0	2,832.0	2,832.0	6.6	56.6	80.49	979.9	-5,604.3	5,660.7	5,597.5	63.16	89.620	
2,900.0	2,884.7	2,876.7	2,876.7	6.7	57.5	80.58	979.9	-5,604.3	5,659.1	5,594.9	64.22	88.116	
2,952.7	2,936.3	2,928.3	2,928.3	6.9	58.6	80.69	979.9	-5,604.3	5,657.3	5,591.8	65.45	86.433	
3,000.0	2,982.5	2,974.5	2,974.5	7.1	59.5	80.79	979.9	-5,604.3	5,655.7	5,589.1	66.56	84.977	
3,051.2	3,032.6	3,024.6	3,024.6	7.3	60.5	80.89	979.9	-5,604.3	5,653.9	5,586.2	67.75	83.448	
3,100.0	3,080.3	3,072.3	3,072.3	7.5	61.5	80.99	979.9	-5,604.3	5,652.3	5,583.4	68.90	82.039	
3,149.6	3,128.8	3,120.8	3,120.8	7.7	62.4	81.09	979.9	-5,604.3	5,650.7	5,580.6	70.06	80.650	
3,200.0	3,178.1	3,170.1	3,170.1	7.9	63.4	81.19	979.9	-5,604.3	5,649.0	5,577.8	71.25	79.285	
3,248.0	3,225.1	3,217.1	3,217.1	8.1	64.4	81.29	979.9	-5,604.3	5,647.5	5,575.1	72.38	78.022	
3,300.0	3,276.0	3,268.0	3,268.0	8.3	65.4	81.40	979.9	-5,604.3	5,645.8	5,572.2	73.61	76.700	
3,346.4	3,321.4	3,313.4	3,313.4	8.5	66.3	81.49	979.9	-5,604.3	5,644.3	5,569.6	74.71	75.552	
3,400.0	3,373.8	3,365.8	3,365.8	8.7	67.4	81.60	979.9	-5,604.3	5,642.7	5,566.7	75.98	74.269	
3,444.9	3,417.7	3,409.7	3,409.7	8.8	68.3	81.69	979.9	-5,604.3	5,641.3	5,564.2	77.04	73.225	
3,500.0	3,471.6	3,463.6	3,463.6	9.1	69.3	81.81	979.9	-5,604.3	5,639.6	5,561.3	78.35	71.982	
3,543.3	3,513.9	3,505.9	3,505.9	9.2	70.2	81.90	979.9	-5,604.3	5,638.3	5,558.9	79.38	71.032	
3,600.0	3,569.4	3,561.4	3,561.4	9.5	71.3	82.01	979.9	-5,604.3	5,636.6	5,555.9	80.73	69.825	
3,641.7	3,610.2	3,602.2	3,602.2	9.7	72.1	82.10	979.9	-5,604.3	5,635.4	5,553.7	81.72	68.960	
3,700.0	3,667.2	3,659.2	3,659.2	9.9	73.3	82.22	979.9	-5,604.3	5,633.7	5,550.6	83.11	67.788	
3,740.1	3,706.5	3,698.5	3,698.5	10.1	74.1	82.30	979.9	-5,604.3	5,632.5	5,548.5	84.07	67.002	
3,800.0	3,765.0	3,757.0	3,757.0	10.3	75.2	82.42	979.9	-5,604.3	5,630.9	5,545.4	85.49	65.863	
3,838.6	3,802.8	3,794.8	3,794.8	10.5	76.0	82.50	979.9	-5,604.3	5,629.8	5,543.4	86.42	65.148	
3,900.0	3,862.8	3,854.8	3,854.8	10.7	77.2	82.63	979.9	-5,604.3	5,628.1	5,540.2	87.88	64.041	
3,937.0	3,899.0	3,891.0	3,891.0	10.9	77.9	82.70	979.9	-5,604.3	5,627.1	5,538.3	88.77	63.391	
4,000.0	3,960.7	3,952.7	3,952.7	11.2	79.2	82.83	979.9	-5,604.3	5,625.4	5,535.1	90.28	62.313	
4,035.4	3,995.3	3,987.3	3,987.3	11.3	79.9	82.91	979.9	-5,604.3	5,624.5	5,533.3	91.12	61.723	
4,100.0	4,058.5	4,050.5	4,050.5	11.6	81.1	83.04	979.9	-5,604.3	5,622.8	5,530.1	92.67	60.674	
4,133.8	4,091.6	4,083.6	4,083.6	11.7	81.8	83.11	979.9	-5,604.3	5,621.9	5,528.4	93.48	60.138	
4,200.0	4,156.3	4,148.3	4,148.3	12.0	83.1	83.24	979.9	-5,604.3	5,620.3	5,525.2	95.07	59.117	
4,232.3	4,187.9	4,179.9	4,179.9	12.2	83.7	83.31	979.9	-5,604.3	5,619.5	5,523.6	95.84	58.631	
4,300.0	4,254.1	4,246.1	4,246.1	12.5	85.1	83.45	979.9	-5,604.3	5,617.8	5,520.3	97.47	57.636	
4,325.7	4,279.2	4,271.2	4,271.2	12.6	85.6	83.50	979.9	-5,604.3	5,617.2	5,519.1	98.09	57.267	
4,330.7	4,284.1	4,276.1	4,276.1	12.6	85.7	83.51	979.9	-5,604.3	5,617.1	5,518.8	98.21	57.197	
4,400.0	4,352.1	4,344.1	4,344.1	12.8	87.1	83.61	979.9	-5,604.3	5,615.5	5,515.7	99.84	56.247	
4,429.1	4,380.8	4,372.8	4,372.8	12.9	87.6	83.65	979.9	-5,604.3	5,614.9	5,514.4	100.50	55.869	
4,500.0	4,450.7	4,442.7	4,442.7	13.1	89.0	83.74	979.9	-5,604.3	5,613.7	5,511.5	102.13	54.969	
4,527.5	4,478.0	4,470.0	4,470.0	13.2	89.6	83.77	979.9	-5,604.3	5,613.2	5,510.5	102.75	54.630	
4,600.0	4,549.9	4,541.9	4,541.9	13.4	91.0	83.85	979.9	-5,604.3	5,612.2	5,507.9	104.39	53.761	
4,626.0	4,575.7	4,567.7	4,567.7	13.5	91.5	83.87	979.9	-5,604.3	5,611.9	5,507.0	104.98	53.460	
4,700.0	4,649.4	4,641.4	4,641.4	13.6	93.0	83.92	979.9	-5,604.3	5,611.2	5,504.6	106.64	52.620	
4,724.4	4,673.7	4,665.7	4,665.7	13.7	93.5	83.94	979.9	-5,604.3	5,611.0	5,503.8	107.18	52.354	
4,800.0	4,749.2	4,741.2	4,741.2	13.8	95.0	83.97	979.9	-5,604.3	5,610.6	5,501.7	108.85	51.544	
4,822.8	4,772.0	4,764.0	4,764.0	13.9	95.5	83.98	979.9	-5,604.3	5,610.5	5,501.1	109.35	51.309	
4,900.0	4,849.2	4,841.2	4,841.2	14.0	97.0	83.99	979.9	-5,604.3	5,610.3	5,499.3	111.03	50.529	
4,921.2	4,870.4	4,862.4	4,862.4	14.1	97.5	83.99	979.9	-5,604.3	5,610.3	5,498.8	111.49	50.321	
4,925.6	4,874.8	4,866.8	4,866.8	14.1	97.6	-74.81	979.9	-5,604.3	5,610.3	5,501.9	108.34	51.784	
5,000.0	4,949.2	4,941.2	4,941.2	14.2	99.1	-74.81	979.9	-5,604.3	5,610.3	5,500.3	109.98	51.011	
5,019.7	4,968.8	4,960.8	4,960.8	14.2	99.5	-74.81	979.9	-5,604.3	5,610.3	5,499.9	110.42	50.811	

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 SCHAUMBERG 17G-314
<b>Project:</b>	WELD COUNTY, COLORADO	<b>TVD Reference:</b>	KB-EST @ 4633.0usft (Original Well Elev)
<b>Reference Site:</b>	SW NW SEC. 17 T5N R64W 6th P.M.	<b>MD Reference:</b>	KB-EST @ 4633.0usft (Original Well Elev)
<b>Site Error:</b>	0.0 usft	<b>North Reference:</b>	True
<b>Reference Well:</b>	SCHAUMBERG 17G-314	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Well Error:</b>	0.0 usft	<b>Output errors are at</b>	2.00 sigma
<b>Reference Wellbore</b>	ORIGINAL WELLBORE	<b>Database:</b>	EDM 5000.1 Single User Db
<b>Reference Design:</b>	PROPOSAL #1	<b>Offset TVD Reference:</b>	Offset Datum

Offset Design												Offset Site Error:	0.0 usft
Survey Program: 0-INC												Offset Well Error:	0.0 usft
Reference		Offset		Semi Major Axis			Distance						Warning
Measured Depth (usft)	Vertical Depth (usft)	Measured Depth (usft)	Vertical Depth (usft)	Reference (usft)	Offset (usft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (usft)	+E/-W (usft)	Between Centres (usft)	Between Ellipses (usft)	Minimum Separation (usft)	Separation Factor	
5,100.0	5,049.2	5,041.2	5,041.2	14.3	101.1	-74.81	979.9	-5,604.3	5,610.3	5,498.1	112.19	50.008	
5,118.1	5,067.3	5,059.3	5,059.3	14.3	101.4	-74.81	979.9	-5,604.3	5,610.3	5,497.7	112.59	49.831	
5,200.0	5,149.2	5,141.2	5,141.2	14.5	103.1	-74.81	979.9	-5,604.3	5,610.3	5,495.9	114.40	49.043	
5,216.5	5,165.7	5,157.7	5,157.7	14.5	103.4	-74.81	979.9	-5,604.3	5,610.3	5,495.5	114.76	48.887	
5,300.0	5,249.2	5,241.2	5,241.2	14.6	105.1	-74.81	979.9	-5,604.3	5,610.3	5,493.7	116.60	48.114	
5,314.9	5,264.1	5,256.1	5,256.1	14.6	105.4	-74.81	979.9	-5,604.3	5,610.3	5,493.3	116.93	47.978	
5,400.0	5,349.2	5,341.2	5,341.2	14.8	107.1	-74.81	979.9	-5,604.3	5,610.3	5,491.5	118.81	47.219	
5,413.4	5,362.5	5,354.5	5,354.5	14.8	107.4	-74.81	979.9	-5,604.3	5,610.3	5,491.2	119.11	47.102	
5,500.0	5,449.2	5,441.2	5,441.2	14.9	109.1	-74.81	979.9	-5,604.3	5,610.3	5,489.3	121.02	46.357	
5,511.8	5,461.0	5,453.0	5,453.0	14.9	109.4	-74.81	979.9	-5,604.3	5,610.3	5,489.0	121.29	46.257	
5,600.0	5,549.2	5,541.2	5,541.2	15.1	111.1	-74.81	979.9	-5,604.3	5,610.3	5,487.0	123.24	45.525	
5,610.2	5,559.4	5,551.4	5,551.4	15.1	111.3	-74.81	979.9	-5,604.3	5,610.3	5,486.8	123.46	45.441	
5,700.0	5,649.2	5,641.2	5,641.2	15.2	113.1	-74.81	979.9	-5,604.3	5,610.3	5,484.8	125.45	44.722	
5,708.6	5,657.8	5,649.8	5,649.8	15.3	113.3	-74.81	979.9	-5,604.3	5,610.3	5,484.6	125.64	44.654	
5,800.0	5,749.2	5,741.2	5,741.2	15.4	115.1	-74.81	979.9	-5,604.3	5,610.3	5,482.6	127.66	43.947	
5,807.1	5,756.2	5,748.2	5,748.2	15.4	115.3	-74.81	979.9	-5,604.3	5,610.3	5,482.5	127.82	43.893	
5,900.0	5,849.2	5,841.2	5,841.2	15.6	117.2	-74.81	979.9	-5,604.3	5,610.3	5,480.4	129.88	43.197	
5,905.5	5,854.7	5,846.7	5,846.7	15.6	117.3	-74.81	979.9	-5,604.3	5,610.3	5,480.3	130.00	43.157	
6,000.0	5,949.2	5,941.2	5,941.2	15.7	119.2	-74.81	979.9	-5,604.3	5,610.3	5,478.2	132.09	42.473	
6,003.9	5,953.1	5,945.1	5,945.1	15.7	119.2	-74.81	979.9	-5,604.3	5,610.3	5,478.1	132.18	42.445	
6,100.0	6,049.2	6,041.2	6,041.2	15.9	121.2	-74.81	979.9	-5,604.3	5,610.3	5,476.0	134.31	41.773	
6,102.3	6,051.5	6,043.5	6,043.5	15.9	121.2	-74.81	979.9	-5,604.3	5,610.3	5,475.9	134.36	41.756	
6,124.6	6,073.8	6,065.8	6,065.8	15.9	121.7	-74.81	979.9	-5,604.3	5,610.3	5,475.4	134.85	41.604	
6,150.0	6,099.2	6,091.2	6,091.2	16.0	122.2	15.20	979.9	-5,604.3	5,609.8	5,471.8	138.07	40.632	
6,200.0	6,149.0	6,141.0	6,141.0	16.1	123.2	15.28	979.9	-5,604.3	5,606.5	5,467.9	138.55	40.465	
6,200.8	6,149.8	6,141.8	6,141.8	16.1	123.2	15.28	979.9	-5,604.3	5,606.4	5,467.8	138.55	40.464	
6,250.0	6,198.5	6,190.5	6,190.5	16.2	124.2	15.44	979.9	-5,604.3	5,599.7	5,461.3	138.41	40.457	
6,299.2	6,246.6	6,238.6	6,238.6	16.3	125.2	15.69	979.9	-5,604.3	5,589.9	5,452.2	137.67	40.604	
6,300.0	6,247.4	6,239.4	6,239.4	16.3	125.2	15.69	979.9	-5,604.3	5,589.7	5,452.0	137.65	40.608	
6,350.0	6,295.5	6,287.5	6,287.5	16.5	126.1	16.03	979.9	-5,604.3	5,576.4	5,440.1	136.27	40.922	
6,397.6	6,340.2	6,332.2	6,332.2	16.6	127.0	16.45	979.9	-5,604.3	5,560.7	5,426.3	134.39	41.379	
6,400.0	6,342.4	6,334.4	6,334.4	16.6	127.1	16.47	979.9	-5,604.3	5,559.8	5,425.6	134.28	41.405	
6,450.0	6,388.1	6,380.1	6,380.1	16.8	128.0	17.03	979.9	-5,604.3	5,540.2	5,408.5	131.71	42.063	
6,496.0	6,428.8	6,420.8	6,420.8	17.0	128.8	17.65	979.9	-5,604.3	5,519.5	5,390.6	128.88	42.826	
6,500.0	6,432.2	6,424.2	6,424.2	17.0	128.9	17.71	979.9	-5,604.3	5,517.6	5,388.9	128.62	42.899	
6,550.0	6,474.6	6,466.6	6,466.6	17.3	129.7	18.53	979.9	-5,604.3	5,492.0	5,366.9	125.06	43.914	
6,594.5	6,510.7	6,502.7	6,502.7	17.5	130.5	19.41	979.9	-5,604.3	5,466.9	5,345.4	121.59	44.962	
6,600.0	6,515.0	6,507.0	6,507.0	17.6	130.5	19.53	979.9	-5,604.3	5,463.7	5,342.5	121.14	45.101	
6,650.0	6,553.3	6,545.3	6,545.3	17.9	131.3	20.72	979.9	-5,604.3	5,432.7	5,315.7	117.01	46.431	
6,692.9	6,584.3	6,576.3	6,576.3	18.2	131.9	21.95	979.9	-5,604.3	5,404.2	5,290.7	113.43	47.643	
6,700.0	6,589.2	6,581.2	6,581.2	18.2	132.0	22.17	979.9	-5,604.3	5,399.3	5,286.4	112.85	47.846	
6,750.0	6,622.7	6,614.7	6,614.7	18.6	132.7	23.92	979.9	-5,604.3	5,363.5	5,254.6	108.95	49.229	
6,791.3	6,648.3	6,640.3	6,640.3	19.0	133.2	25.65	979.9	-5,604.3	5,332.4	5,226.2	106.20	50.209	
6,800.0	6,653.4	6,645.4	6,645.4	19.1	133.3	26.05	979.9	-5,604.3	5,325.6	5,219.9	105.71	50.381	
6,850.0	6,681.4	6,673.4	6,673.4	19.6	133.9	28.67	979.9	-5,604.3	5,285.8	5,182.2	103.64	51.003	
6,889.7	6,701.5	6,693.5	6,693.5	20.1	134.3	31.18	979.9	-5,604.3	5,252.9	5,149.6	103.27	50.866	
6,900.0	6,706.3	6,698.3	6,698.3	20.2	134.4	31.90	979.9	-5,604.3	5,244.2	5,140.8	103.40	50.716	
6,950.0	6,728.2	6,720.2	6,720.2	20.9	134.8	35.95	979.9	-5,604.3	5,201.1	5,095.4	105.74	49.190	
6,988.2	6,742.8	6,734.8	6,734.8	21.5	135.1	39.73	979.9	-5,604.3	5,167.3	5,057.6	109.66	47.121	
7,000.0	6,746.9	6,738.9	6,738.9	21.6	135.2	41.05	979.9	-5,604.3	5,156.6	5,045.4	111.28	46.338	
7,050.0	6,762.4	6,754.4	6,754.4	22.5	135.5	47.50	979.9	-5,604.3	5,111.1	4,990.8	120.32	42.480	
7,086.6	6,771.5	6,763.5	6,763.5	23.1	135.7	53.27	979.9	-5,604.3	5,077.2	4,948.3	128.89	39.392	

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 SCHAUMBERG 17G-314
<b>Project:</b>	WELD COUNTY, COLORADO	<b>TVD Reference:</b>	KB-EST @ 4633.0usft (Original Well Elev)
<b>Reference Site:</b>	SW NW SEC. 17 T5N R64W 6th P.M.	<b>MD Reference:</b>	KB-EST @ 4633.0usft (Original Well Elev)
<b>Site Error:</b>	0.0 usft	<b>North Reference:</b>	True
<b>Reference Well:</b>	SCHAUMBERG 17G-314	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Well Error:</b>	0.0 usft	<b>Output errors are at</b>	2.00 sigma
<b>Reference Wellbore</b>	ORIGINAL WELLBORE	<b>Database:</b>	EDM 5000.1 Single User Db
<b>Reference Design:</b>	PROPOSAL #1	<b>Offset TVD Reference:</b>	Offset Datum

Offset Design												Offset Site Error:	0.0 usft
Survey Program: 0-INC												Offset Well Error:	0.0 usft
Reference		Offset		Semi Major Axis			Distance						Warning
Measured Depth (usft)	Vertical Depth (usft)	Measured Depth (usft)	Vertical Depth (usft)	Reference (usft)	Offset (usft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (usft)	+E/-W (usft)	Between Centres (usft)	Between Ellipses (usft)	Minimum Separation (usft)	Separation Factor	
7,100.0	6,774.4	6,766.4	6,766.4	23.3	135.8	55.63	979.9	-5,604.3	5,064.6	4,932.3	132.32	38.277	
7,150.0	6,783.1	6,775.1	6,775.1	24.3	135.9	65.65	979.9	-5,604.3	5,017.5	4,872.1	145.45	34.497	
7,185.0	6,787.1	6,779.1	6,779.1	25.0	136.0	73.73	979.9	-5,604.3	4,984.3	4,830.7	153.58	32.455	
7,200.0	6,788.3	6,780.3	6,780.3	25.3	136.0	77.39	979.9	-5,604.3	4,970.0	4,813.7	156.38	31.782	
7,252.3	6,790.0	6,782.0	6,782.0	26.3	136.1	90.69	979.9	-5,604.3	4,920.1	4,758.6	161.45	30.474	
7,283.4	6,789.9	6,781.9	6,781.9	27.0	136.1	90.68	979.9	-5,604.3	4,890.4	4,728.3	162.14	30.161	
7,300.0	6,789.8	6,781.8	6,781.8	27.3	136.1	90.68	979.9	-5,604.3	4,874.6	4,712.1	162.51	29.996	
7,381.9	6,789.5	6,781.5	6,781.5	29.1	136.1	90.67	979.9	-5,604.3	4,796.6	4,632.2	164.39	29.179	
7,400.0	6,789.4	6,781.4	6,781.4	29.5	136.1	90.67	979.9	-5,604.3	4,779.4	4,614.6	164.80	29.001	
7,480.3	6,789.1	6,781.1	6,781.1	31.4	136.1	90.66	979.9	-5,604.3	4,703.0	4,536.3	166.71	28.211	
7,500.0	6,789.1	6,781.1	6,781.1	31.8	136.1	90.65	979.9	-5,604.3	4,684.3	4,517.2	167.18	28.020	
7,578.7	6,788.8	6,780.8	6,780.8	33.7	136.1	90.64	979.9	-5,604.3	4,609.7	4,440.6	169.10	27.260	
7,600.0	6,788.7	6,780.7	6,780.7	34.2	136.1	90.64	979.9	-5,604.3	4,589.5	4,419.9	169.62	27.058	
7,677.1	6,788.4	6,780.4	6,780.4	36.1	136.0	90.63	979.9	-5,604.3	4,516.5	4,344.9	171.54	26.329	
7,700.0	6,788.3	6,780.3	6,780.3	36.7	136.0	90.63	979.9	-5,604.3	4,494.9	4,322.8	172.11	26.116	
7,775.6	6,788.0	6,780.0	6,780.0	38.6	136.0	90.62	979.9	-5,604.3	4,423.5	4,249.5	174.03	25.418	
7,800.0	6,787.9	6,779.9	6,779.9	39.2	136.0	90.61	979.9	-5,604.3	4,400.5	4,225.8	174.65	25.196	
7,874.0	6,787.6	6,779.6	6,779.6	41.0	136.0	90.60	979.9	-5,604.3	4,330.8	4,154.3	176.55	24.530	
7,900.0	6,787.6	6,779.6	6,779.6	41.7	136.0	90.60	979.9	-5,604.3	4,306.4	4,129.2	177.22	24.300	
7,972.4	6,787.3	6,779.3	6,779.3	43.6	136.0	90.59	979.9	-5,604.3	4,238.4	4,059.3	179.10	23.665	
8,000.0	6,787.2	6,779.2	6,779.2	44.3	136.0	90.59	979.9	-5,604.3	4,212.5	4,032.7	179.82	23.426	
8,070.8	6,786.9	6,778.9	6,778.9	46.1	136.0	90.58	979.9	-5,604.3	4,146.2	3,964.5	181.68	22.822	
8,100.0	6,786.8	6,778.8	6,778.8	46.9	136.0	90.57	979.9	-5,604.3	4,118.9	3,936.5	182.44	22.577	
8,169.3	6,786.5	6,778.5	6,778.5	48.7	136.0	90.56	979.9	-5,604.3	4,054.3	3,870.0	184.27	22.002	
8,200.0	6,786.4	6,778.4	6,778.4	49.5	136.0	90.56	979.9	-5,604.3	4,025.7	3,840.6	185.09	21.750	
8,267.7	6,786.1	6,778.1	6,778.1	51.3	136.0	90.55	979.9	-5,604.3	3,962.7	3,775.9	186.89	21.204	
8,300.0	6,786.0	6,778.0	6,778.0	52.1	136.0	90.54	979.9	-5,604.3	3,932.8	3,745.0	187.75	20.947	
8,366.1	6,785.8	6,777.8	6,777.8	53.9	136.0	90.53	979.9	-5,604.3	3,871.5	3,682.0	189.51	20.429	
8,400.0	6,785.6	6,777.6	6,777.6	54.8	136.0	90.53	979.9	-5,604.3	3,840.2	3,649.8	190.42	20.167	
8,464.5	6,785.4	6,777.4	6,777.4	56.5	136.0	90.52	979.9	-5,604.3	3,780.6	3,588.5	192.15	19.675	
8,500.0	6,785.3	6,777.3	6,777.3	57.5	136.0	90.52	979.9	-5,604.3	3,748.0	3,554.9	193.11	19.409	
8,563.0	6,785.0	6,777.0	6,777.0	59.2	136.0	90.51	979.9	-5,604.3	3,690.2	3,495.4	194.81	18.943	
8,600.0	6,784.9	6,776.9	6,776.9	60.2	136.0	90.50	979.9	-5,604.3	3,656.2	3,460.4	195.80	18.673	
8,661.4	6,784.6	6,776.6	6,776.6	61.8	136.0	90.49	979.9	-5,604.3	3,600.1	3,402.6	197.47	18.231	
8,700.0	6,784.5	6,776.5	6,776.5	62.9	136.0	90.49	979.9	-5,604.3	3,564.9	3,366.4	198.51	17.958	
8,759.8	6,784.3	6,776.3	6,776.3	64.5	136.0	90.48	979.9	-5,604.3	3,510.5	3,310.3	200.14	17.540	
8,800.0	6,784.1	6,776.1	6,776.1	65.6	136.0	90.47	979.9	-5,604.3	3,474.0	3,272.8	201.23	17.264	
8,858.2	6,783.9	6,775.9	6,775.9	67.1	136.0	90.46	979.9	-5,604.3	3,421.3	3,218.5	202.81	16.870	
8,900.0	6,783.7	6,775.7	6,775.7	68.3	136.0	90.46	979.9	-5,604.3	3,383.7	3,179.7	203.95	16.591	
8,956.7	6,783.5	6,775.5	6,775.5	69.8	135.9	90.45	979.9	-5,604.3	3,332.7	3,127.2	205.50	16.218	
9,000.0	6,783.3	6,775.3	6,775.3	71.0	135.9	90.44	979.9	-5,604.3	3,293.9	3,087.2	206.68	15.937	
9,055.1	6,783.1	6,775.1	6,775.1	72.5	135.9	90.44	979.9	-5,604.3	3,244.7	3,036.5	208.18	15.586	
9,100.0	6,782.9	6,774.9	6,774.9	73.7	135.9	90.43	979.9	-5,604.3	3,204.7	2,995.3	209.41	15.304	
9,153.5	6,782.7	6,774.7	6,774.7	75.2	135.9	90.42	979.9	-5,604.3	3,157.3	2,946.4	210.88	14.972	
9,200.0	6,782.6	6,774.6	6,774.6	76.5	135.9	90.42	979.9	-5,604.3	3,116.2	2,904.1	212.15	14.689	
9,251.9	6,782.4	6,774.4	6,774.4	77.9	135.9	90.41	979.9	-5,604.3	3,070.5	2,856.9	213.58	14.377	
9,300.0	6,782.2	6,774.2	6,774.2	79.2	135.9	90.40	979.9	-5,604.3	3,028.4	2,813.5	214.89	14.093	
9,350.4	6,782.0	6,774.0	6,774.0	80.6	135.9	90.39	979.9	-5,604.3	2,984.5	2,768.2	216.28	13.799	
9,400.0	6,781.8	6,773.8	6,773.8	82.0	135.9	90.39	979.9	-5,604.3	2,941.4	2,723.7	217.64	13.515	
9,448.8	6,781.6	6,773.6	6,773.6	83.3	135.9	90.38	979.9	-5,604.3	2,899.2	2,680.2	218.98	13.239	
9,500.0	6,781.4	6,773.4	6,773.4	84.7	135.9	90.37	979.9	-5,604.3	2,855.2	2,634.8	220.39	12.955	
9,547.2	6,781.2	6,773.2	6,773.2	86.0	135.9	90.36	979.9	-5,604.3	2,814.8	2,593.1	221.69	12.697	

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 SCHAUMBERG 17G-314
<b>Project:</b>	WELD COUNTY, COLORADO	<b>TVD Reference:</b>	KB-EST @ 4633.0usft (Original Well Elev)
<b>Reference Site:</b>	SW NW SEC. 17 T5N R64W 6th P.M.	<b>MD Reference:</b>	KB-EST @ 4633.0usft (Original Well Elev)
<b>Site Error:</b>	0.0 usft	<b>North Reference:</b>	True
<b>Reference Well:</b>	SCHAUMBERG 17G-314	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Well Error:</b>	0.0 usft	<b>Output errors are at</b>	2.00 sigma
<b>Reference Wellbore</b>	ORIGINAL WELLBORE	<b>Database:</b>	EDM 5000.1 Single User Db
<b>Reference Design:</b>	PROPOSAL #1	<b>Offset TVD Reference:</b>	Offset Datum

Offset Design												Offset Site Error:	0.0 usft
Survey Program: 0-INC												Offset Well Error:	0.0 usft
Reference		Offset		Semi Major Axis			Distance						Warning
Measured Depth (usft)	Vertical Depth (usft)	Measured Depth (usft)	Vertical Depth (usft)	Reference (usft)	Offset (usft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (usft)	+E/-W (usft)	Between Centres (usft)	Between Ellipses (usft)	Minimum Separation (usft)	Separation Factor	
9,600.0	6,781.0	6,773.0	6,773.0	87.5	135.9	90.36	979.9	-5,604.3	2,769.9	2,546.8	223.15	12.413	
9,645.6	6,780.8	6,772.8	6,772.8	88.7	135.9	90.35	979.9	-5,604.3	2,731.4	2,506.9	224.41	12.172	
9,700.0	6,780.6	6,772.6	6,772.6	90.2	135.9	90.34	979.9	-5,604.3	2,685.7	2,459.8	225.90	11.889	
9,744.1	6,780.4	6,772.4	6,772.4	91.4	135.9	90.34	979.9	-5,604.3	2,648.9	2,421.8	227.12	11.663	
9,800.0	6,780.2	6,772.2	6,772.2	93.0	135.9	90.33	979.9	-5,604.3	2,602.6	2,373.9	228.66	11.382	
9,842.5	6,780.1	6,772.1	6,772.1	94.2	135.9	90.32	979.9	-5,604.3	2,567.6	2,337.8	229.84	11.171	
9,900.0	6,779.8	6,771.8	6,771.8	95.7	135.9	90.31	979.9	-5,604.3	2,520.7	2,289.3	231.43	10.892	
9,940.9	6,779.7	6,771.7	6,771.7	96.9	135.9	90.31	979.9	-5,604.3	2,487.6	2,255.0	232.56	10.697	
10,000.0	6,779.4	6,771.4	6,771.4	98.5	135.9	90.30	979.9	-5,604.3	2,440.2	2,206.0	234.19	10.419	
10,039.3	6,779.3	6,771.3	6,771.3	99.6	135.9	90.29	979.9	-5,604.3	2,408.9	2,173.6	235.28	10.238	
10,100.0	6,779.0	6,771.0	6,771.0	101.3	135.9	90.28	979.9	-5,604.3	2,361.1	2,124.1	236.96	9.964	
10,137.8	6,778.9	6,770.9	6,770.9	102.3	135.9	90.28	979.9	-5,604.3	2,331.7	2,093.7	238.00	9.797	
10,200.0	6,778.7	6,770.7	6,770.7	104.1	135.9	90.27	979.9	-5,604.3	2,283.7	2,044.0	239.73	9.526	
10,236.2	6,778.5	6,770.5	6,770.5	105.1	135.8	90.26	979.9	-5,604.3	2,256.1	2,015.4	240.73	9.372	
10,300.0	6,778.3	6,770.3	6,770.3	106.8	135.8	90.25	979.9	-5,604.3	2,208.1	1,965.6	242.50	9.106	
10,334.6	6,778.1	6,770.1	6,770.1	107.8	135.8	90.25	979.9	-5,604.3	2,182.4	1,938.9	243.46	8.964	
10,400.0	6,777.9	6,769.9	6,769.9	109.6	135.8	90.24	979.9	-5,604.3	2,134.5	1,889.2	245.27	8.703	
10,433.0	6,777.7	6,769.7	6,769.7	110.5	135.8	90.23	979.9	-5,604.3	2,110.7	1,864.5	246.19	8.573	
10,500.0	6,777.5	6,769.5	6,769.5	112.4	135.8	90.22	979.9	-5,604.3	2,063.2	1,815.1	248.04	8.318	
10,531.5	6,777.3	6,769.3	6,769.3	113.3	135.8	90.22	979.9	-5,604.3	2,041.2	1,792.3	248.92	8.200	
10,600.0	6,777.1	6,769.1	6,769.1	115.2	135.8	90.21	979.9	-5,604.3	1,994.3	1,743.4	250.82	7.951	
10,629.9	6,777.0	6,769.0	6,769.0	116.0	135.8	90.20	979.9	-5,604.3	1,974.2	1,722.5	251.65	7.845	
10,700.0	6,776.7	6,768.7	6,768.7	117.9	135.8	90.19	979.9	-5,604.3	1,928.1	1,674.5	253.60	7.603	
10,728.3	6,776.6	6,768.6	6,768.6	118.7	135.8	90.19	979.9	-5,604.3	1,909.9	1,655.5	254.38	7.508	
10,800.0	6,776.3	6,768.3	6,768.3	120.7	135.8	90.18	979.9	-5,604.3	1,864.9	1,608.6	256.37	7.274	
10,826.7	6,776.2	6,768.2	6,768.2	121.5	135.8	90.17	979.9	-5,604.3	1,848.6	1,591.5	257.12	7.190	
10,900.0	6,775.9	6,767.9	6,767.9	123.5	135.8	90.16	979.9	-5,604.3	1,805.1	1,546.0	259.15	6.965	
10,925.2	6,775.8	6,767.8	6,767.8	124.2	135.8	90.16	979.9	-5,604.3	1,790.6	1,530.8	259.85	6.891	
11,000.0	6,775.5	6,767.5	6,767.5	126.3	135.8	90.15	979.9	-5,604.3	1,749.0	1,487.0	261.93	6.677	
11,023.6	6,775.4	6,767.4	6,767.4	126.9	135.8	90.14	979.9	-5,604.3	1,736.3	1,473.7	262.59	6.612	
11,100.0	6,775.1	6,767.1	6,767.1	129.1	135.8	90.13	979.9	-5,604.3	1,696.9	1,432.1	264.71	6.410	
11,122.0	6,775.0	6,767.0	6,767.0	129.7	135.8	90.13	979.9	-5,604.3	1,686.0	1,420.6	265.33	6.354	
11,200.0	6,774.7	6,766.7	6,766.7	131.9	135.8	90.12	979.9	-5,604.3	1,649.2	1,381.7	267.49	6.165	
11,220.4	6,774.6	6,766.6	6,766.6	132.4	135.8	90.11	979.9	-5,604.3	1,640.0	1,371.9	268.06	6.118	
11,300.0	6,774.3	6,766.3	6,766.3	134.6	135.8	90.10	979.9	-5,604.3	1,606.3	1,336.0	270.28	5.943	
11,318.9	6,774.2	6,766.2	6,766.2	135.2	135.8	90.10	979.9	-5,604.3	1,598.8	1,328.0	270.80	5.904	
11,400.0	6,773.9	6,765.9	6,765.9	137.4	135.8	90.09	979.9	-5,604.3	1,568.6	1,295.6	273.06	5.745	
11,417.3	6,773.8	6,765.8	6,765.8	137.9	135.8	90.08	979.9	-5,604.3	1,562.7	1,289.1	273.54	5.713	
11,500.0	6,773.5	6,765.5	6,765.5	140.2	135.7	90.07	979.9	-5,604.3	1,536.6	1,260.7	275.84	5.570	
11,515.7	6,773.4	6,765.4	6,765.4	140.7	135.7	90.07	979.9	-5,604.3	1,532.1	1,255.8	276.28	5.545	
11,600.0	6,773.1	6,765.1	6,765.1	143.0	135.7	90.05	979.9	-5,604.3	1,510.5	1,231.8	278.63	5.421	
11,614.1	6,773.0	6,765.0	6,765.0	143.4	135.7	90.05	979.9	-5,604.3	1,507.3	1,228.3	279.02	5.402	
11,700.0	6,772.7	6,764.7	6,764.7	145.8	135.7	90.04	979.9	-5,604.3	1,490.6	1,209.2	281.41	5.297	
11,712.6	6,772.6	6,764.6	6,764.6	146.2	135.7	90.04	979.9	-5,604.3	1,488.6	1,206.8	281.76	5.283	
11,800.0	6,772.3	6,764.3	6,764.3	148.6	135.7	90.02	979.9	-5,604.3	1,477.3	1,193.1	284.20	5.198	
11,811.0	6,772.2	6,764.2	6,764.2	148.9	135.7	90.02	979.9	-5,604.3	1,476.2	1,191.7	284.51	5.189	
11,900.0	6,771.9	6,763.9	6,763.9	151.4	135.7	90.01	979.9	-5,604.3	1,470.7	1,183.7	286.99	5.125	
11,909.4	6,771.8	6,763.8	6,763.8	151.7	135.7	90.01	979.9	-5,604.3	1,470.4	1,183.1	287.25	5.119	
11,947.8	6,771.7	6,763.7	6,763.7	152.7	135.7	90.00	979.9	-5,604.3	1,469.9	1,181.6	288.32	5.098 CC	
12,000.0	6,771.5	6,763.5	6,763.5	154.2	135.7	89.99	979.9	-5,604.3	1,470.8	1,181.0	289.77	5.076 ES	
12,007.8	6,771.4	6,763.4	6,763.4	154.4	135.7	89.99	979.9	-5,604.3	1,471.1	1,181.1	289.99	5.073	
12,100.0	6,771.1	6,763.1	6,763.1	157.0	135.7	89.98	979.9	-5,604.3	1,477.8	1,185.2	292.56	5.051	

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 SCHAUMBERG 17G-314
<b>Project:</b>	WELD COUNTY, COLORADO	<b>TVD Reference:</b>	KB-EST @ 4633.0usft (Original Well Elev)
<b>Reference Site:</b>	SW NW SEC. 17 T5N R64W 6th P.M.	<b>MD Reference:</b>	KB-EST @ 4633.0usft (Original Well Elev)
<b>Site Error:</b>	0.0 usft	<b>North Reference:</b>	True
<b>Reference Well:</b>	SCHAUMBERG 17G-314	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Well Error:</b>	0.0 usft	<b>Output errors are at</b>	2.00 sigma
<b>Reference Wellbore</b>	ORIGINAL WELLBORE	<b>Database:</b>	EDM 5000.1 Single User Db
<b>Reference Design:</b>	PROPOSAL #1	<b>Offset TVD Reference:</b>	Offset Datum

<b>Offset Design</b> SW NW SEC. 17 T5N R64W 6th P.M. - EXIST VERT BRIGHT #1 - Wellbore #1 - Design #1												<b>Offset Site Error:</b>	0.0 usft
Survey Program: 0-INC												<b>Offset Well Error:</b>	0.0 usft
Reference		Offset		Semi Major Axis			Distance						
Measured Depth (usft)	Vertical Depth (usft)	Measured Depth (usft)	Vertical Depth (usft)	Reference (usft)	Offset (usft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (usft)	+E/-W (usft)	Between Centres (usft)	Between Ellipses (usft)	Minimum Separation (usft)	Separation Factor	Warning
12,106.3	6,771.0	6,763.0	6,763.0	157.2	135.7	89.97	979.9	-5,604.3	1,478.4	1,185.7	292.74	5.050	
12,200.0	6,770.7	6,762.7	6,762.7	159.8	135.7	89.96	979.9	-5,604.3	1,491.4	1,196.0	295.35	5.050 SF	
12,204.7	6,770.6	6,762.6	6,762.6	159.9	135.7	89.96	979.9	-5,604.3	1,492.2	1,196.7	295.48	5.050	
12,300.0	6,770.3	6,762.3	6,762.3	162.6	135.7	89.94	979.9	-5,604.3	1,511.5	1,213.4	298.14	5.070	
12,303.1	6,770.2	6,762.2	6,762.2	162.7	135.7	89.94	979.9	-5,604.3	1,512.2	1,214.0	298.22	5.071	
12,361.7	6,770.0	6,762.0	6,762.0	164.3	135.7	89.93	979.9	-5,604.3	1,527.1	1,227.2	299.86	5.093	



# Anticollision Report



<b>Company:</b>	PDC ENERGY	<b>Local Co-ordinate Reference:</b>	Well SCHAUMBERG 17G-314
<b>Project:</b>	WELD COUNTY, COLORADO	<b>TVD Reference:</b>	KB-EST @ 4633.0usft (Original Well Elev)
<b>Reference Site:</b>	SW NW SEC. 17 T5N R64W 6th P.M.	<b>MD Reference:</b>	KB-EST @ 4633.0usft (Original Well Elev)
<b>Site Error:</b>	0.0 usft	<b>North Reference:</b>	True
<b>Reference Well:</b>	SCHAUMBERG 17G-314	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Well Error:</b>	0.0 usft	<b>Output errors are at</b>	2.00 sigma
<b>Reference Wellbore</b>	ORIGINAL WELLBORE	<b>Database:</b>	EDM 5000.1 Single User Db
<b>Reference Design:</b>	PROPOSAL #1	<b>Offset TVD Reference:</b>	Offset Datum

Offset Design												Offset Site Error:	0.0 usft
Survey Program: 0-INC												Offset Well Error:	0.0 usft
Reference		Offset		Semi Major Axis			Distance						Warning
Measured Depth (usft)	Vertical Depth (usft)	Measured Depth (usft)	Vertical Depth (usft)	Reference (usft)	Offset (usft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (usft)	+E/-W (usft)	Between Centres (usft)	Between Ellipses (usft)	Minimum Separation (usft)	Separation Factor	
0.0	0.0	0.0	0.0	0.0	0.0	-85.83	353.1	-4,838.5	4,851.4				
98.4	98.4	98.4	98.4	0.1	0.9	-85.83	353.1	-4,838.5	4,851.4	4,850.4	0.97	4,981.096	
100.0	100.0	100.0	100.0	0.1	0.9	-85.83	353.1	-4,838.5	4,851.4	4,850.4	0.99	4,901.486	
196.8	196.8	196.8	196.8	0.3	3.2	-85.83	353.1	-4,838.5	4,851.4	4,847.9	3.50	1,387.688	
200.0	200.0	200.0	200.0	0.3	3.3	-85.83	353.1	-4,838.5	4,851.4	4,847.8	3.58	1,356.069	
295.3	295.3	295.3	295.3	0.5	5.2	-85.83	353.1	-4,838.5	4,851.4	4,845.6	5.78	840.042	
300.0	300.0	300.0	300.0	0.5	5.3	-85.83	353.1	-4,838.5	4,851.4	4,845.5	5.88	824.483	
393.7	393.7	393.7	393.7	0.8	7.3	-85.83	353.1	-4,838.5	4,851.4	4,843.4	8.01	605.765	
400.0	400.0	400.0	400.0	0.8	7.4	-85.83	353.1	-4,838.5	4,851.4	4,843.3	8.15	595.150	
492.1	492.1	492.1	492.1	1.0	9.2	-85.83	353.1	-4,838.5	4,851.4	4,841.2	10.23	474.333	
500.0	500.0	500.0	500.0	1.0	9.4	-85.83	353.1	-4,838.5	4,851.4	4,841.0	10.41	466.243	
590.5	590.5	590.5	590.5	1.2	11.2	-85.83	353.1	-4,838.5	4,851.4	4,839.0	12.44	389.974	
600.0	600.0	600.0	600.0	1.2	11.4	-85.83	353.1	-4,838.5	4,851.4	4,838.8	12.65	383.429	
689.0	689.0	689.0	689.0	1.4	13.2	-85.83	353.1	-4,838.5	4,851.4	4,836.8	14.65	331.172	
700.0	700.0	700.0	700.0	1.4	13.5	-85.83	353.1	-4,838.5	4,851.4	4,836.5	14.90	325.673	
787.4	787.4	787.4	787.4	1.6	15.2	-85.83	353.1	-4,838.5	4,851.4	4,834.6	16.86	287.817	
800.0	800.0	800.0	800.0	1.7	15.5	-85.83	353.1	-4,838.5	4,851.4	4,834.3	17.14	283.074	
885.8	885.8	885.8	885.8	1.9	17.2	-85.83	353.1	-4,838.5	4,851.4	4,832.3	19.06	254.519	
900.0	900.0	900.0	900.0	1.9	17.5	-85.83	353.1	-4,838.5	4,851.4	4,832.0	19.38	250.348	
984.2	984.2	984.2	984.2	2.1	19.2	-85.83	353.1	-4,838.5	4,851.4	4,830.1	21.27	228.137	
1,000.0	1,000.0	1,000.0	1,000.0	2.1	19.5	-85.83	353.1	-4,838.5	4,851.4	4,829.8	21.62	224.415	
1,082.7	1,082.7	1,082.7	1,082.7	2.3	21.2	-85.83	353.1	-4,838.5	4,851.4	4,827.9	23.47	206.716	
1,100.0	1,100.0	1,100.0	1,100.0	2.3	21.5	-85.83	353.1	-4,838.5	4,851.4	4,827.6	23.86	203.356	
1,181.1	1,181.1	1,181.1	1,181.1	2.5	23.1	-85.83	353.1	-4,838.5	4,851.4	4,825.7	25.67	188.977	
1,200.0	1,200.0	1,200.0	1,200.0	2.6	23.5	-85.83	353.1	-4,838.5	4,851.4	4,825.3	26.09	185.914	
1,279.5	1,279.5	1,279.5	1,279.5	2.7	25.1	-85.83	353.1	-4,838.5	4,851.4	4,823.5	27.87	174.044	
1,300.0	1,300.0	1,300.0	1,300.0	2.8	25.5	-85.83	353.1	-4,838.5	4,851.4	4,823.1	28.33	171.230	
1,377.9	1,377.9	1,377.9	1,377.9	3.0	27.1	-85.83	353.1	-4,838.5	4,851.4	4,821.3	30.08	161.300	
1,400.0	1,400.0	1,400.0	1,400.0	3.0	27.6	-85.83	353.1	-4,838.5	4,851.4	4,820.8	30.57	158.697	
1,476.4	1,476.4	1,476.4	1,476.4	3.2	29.1	-85.83	353.1	-4,838.5	4,851.4	4,819.1	32.28	150.296	
1,500.0	1,500.0	1,500.0	1,500.0	3.2	29.6	-85.83	353.1	-4,838.5	4,851.4	4,818.6	32.81	147.875	
1,574.8	1,574.8	1,574.8	1,574.8	3.4	31.1	-85.83	353.1	-4,838.5	4,851.4	4,816.9	34.48	140.699	
1,600.0	1,600.0	1,600.0	1,600.0	3.5	31.6	-85.83	353.1	-4,838.5	4,851.4	4,816.4	35.04	138.435	
1,673.2	1,673.2	1,673.2	1,673.2	3.6	33.0	-85.83	353.1	-4,838.5	4,851.4	4,814.7	36.68	132.254	
1,700.0	1,700.0	1,700.0	1,700.0	3.7	33.6	-85.83	353.1	-4,838.5	4,851.4	4,814.1	37.28	130.129	
1,771.6	1,771.6	1,771.6	1,771.6	3.9	35.0	-85.83	353.1	-4,838.5	4,851.4	4,812.5	38.88	124.766	
1,800.0	1,800.0	1,800.0	1,800.0	3.9	35.6	-85.83	353.1	-4,838.5	4,851.4	4,811.9	39.52	122.764	
1,870.1	1,870.1	1,870.1	1,870.1	4.1	37.0	72.99	353.1	-4,838.5	4,851.2	4,810.1	41.06	118.136	
1,900.0	1,900.0	1,900.0	1,900.0	4.1	37.6	73.01	353.1	-4,838.5	4,850.9	4,809.2	41.72	116.263	
1,968.5	1,968.4	1,968.4	1,968.4	4.2	39.0	73.06	353.1	-4,838.5	4,850.0	4,806.7	43.21	112.233	
2,000.0	1,999.8	1,999.8	1,999.8	4.3	39.6	73.10	353.1	-4,838.5	4,849.4	4,805.5	43.90	110.471	
2,066.9	2,066.5	2,066.5	2,066.5	4.4	41.0	73.19	353.1	-4,838.5	4,847.8	4,802.4	45.35	106.892	
2,100.0	2,099.5	2,099.5	2,099.5	4.5	41.6	73.24	353.1	-4,838.5	4,846.8	4,800.8	46.07	105.207	
2,165.3	2,164.4	2,164.4	2,164.4	4.6	42.9	73.37	353.1	-4,838.5	4,844.7	4,797.2	47.49	102.010	
2,200.0	2,198.7	2,198.7	2,198.7	4.7	43.6	73.45	353.1	-4,838.5	4,843.3	4,795.1	48.24	100.392	
2,263.8	2,261.8	2,261.8	2,261.8	4.8	44.9	73.61	353.1	-4,838.5	4,840.6	4,790.9	49.64	97.520	
2,300.0	2,297.5	2,297.5	2,297.5	4.9	45.6	73.71	353.1	-4,838.5	4,838.8	4,788.4	50.43	95.961	
2,362.2	2,358.6	2,358.6	2,358.6	5.0	46.8	73.90	353.1	-4,838.5	4,835.6	4,783.8	51.79	93.366	
2,400.0	2,395.6	2,395.6	2,395.6	5.1	47.6	74.03	353.1	-4,838.5	4,833.5	4,780.8	52.62	91.858	
2,460.6	2,454.9	2,454.9	2,454.9	5.3	48.8	74.17	353.1	-4,838.5	4,829.9	4,776.0	53.98	89.478	
2,500.0	2,493.4	2,493.4	2,493.4	5.4	49.5	74.26	353.1	-4,838.5	4,827.7	4,772.8	54.86	87.997	
2,559.0	2,551.2	2,551.2	2,551.2	5.6	50.7	74.40	353.1	-4,838.5	4,824.3	4,768.1	56.20	85.843	

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 SCHAUMBERG 17G-314
<b>Project:</b>	WELD COUNTY, COLORADO	<b>TVD Reference:</b>	KB-EST @ 4633.0usft (Original Well Elev)
<b>Reference Site:</b>	SW NW SEC. 17 T5N R64W 6th P.M.	<b>MD Reference:</b>	KB-EST @ 4633.0usft (Original Well Elev)
<b>Site Error:</b>	0.0 usft	<b>North Reference:</b>	True
<b>Reference Well:</b>	SCHAUMBERG 17G-314	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Well Error:</b>	0.0 usft	<b>Output errors are at</b>	2.00 sigma
<b>Reference Wellbore</b>	ORIGINAL WELLBORE	<b>Database:</b>	EDM 5000.1 Single User Db
<b>Reference Design:</b>	PROPOSAL #1	<b>Offset TVD Reference:</b>	Offset Datum

Offset Design												Offset Site Error:	0.0 usft
Survey Program: 0-INC												Offset Well Error:	0.0 usft
Reference		Offset		Semi Major Axis			Distance						Warning
Measured Depth (usft)	Vertical Depth (usft)	Measured Depth (usft)	Vertical Depth (usft)	Reference (usft)	Offset (usft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (usft)	+E/-W (usft)	Between Centres (usft)	Between Ellipses (usft)	Minimum Separation (usft)	Separation Factor	
2,600.0	2,591.3	2,591.3	2,591.3	5.7	51.5	74.49	353.1	-4,838.5	4,821.9	4,764.8	57.13	84.408	
2,657.5	2,647.5	2,647.5	2,647.5	5.9	52.6	74.63	353.1	-4,838.5	4,818.7	4,760.3	58.44	82.457	
2,700.0	2,689.1	2,689.1	2,689.1	6.0	53.5	74.73	353.1	-4,838.5	4,816.3	4,756.9	59.41	81.068	
2,755.9	2,743.7	2,743.7	2,743.7	6.2	54.6	74.86	353.1	-4,838.5	4,813.2	4,752.5	60.70	79.299	
2,800.0	2,786.9	2,786.9	2,786.9	6.4	55.5	74.96	353.1	-4,838.5	4,810.8	4,749.1	61.71	77.956	
2,854.3	2,840.0	2,840.0	2,840.0	6.6	56.5	75.09	353.1	-4,838.5	4,807.8	4,744.8	62.97	76.352	
2,900.0	2,884.7	2,884.7	2,884.7	6.7	57.4	75.20	353.1	-4,838.5	4,805.3	4,741.3	64.03	75.052	
2,952.7	2,936.3	2,936.3	2,936.3	6.9	58.5	75.32	353.1	-4,838.5	4,802.4	4,737.2	65.25	73.596	
3,000.0	2,982.5	2,982.5	2,982.5	7.1	59.4	75.43	353.1	-4,838.5	4,799.9	4,733.6	66.35	72.338	
3,051.2	3,032.6	3,032.6	3,032.6	7.3	60.4	75.55	353.1	-4,838.5	4,797.2	4,729.6	67.55	71.017	
3,100.0	3,080.3	3,080.3	3,080.3	7.5	61.4	75.67	353.1	-4,838.5	4,794.6	4,725.9	68.69	69.799	
3,149.6	3,128.8	3,128.8	3,128.8	7.7	62.3	75.78	353.1	-4,838.5	4,792.0	4,722.2	69.86	68.599	
3,200.0	3,178.1	3,178.1	3,178.1	7.9	63.3	75.90	353.1	-4,838.5	4,789.4	4,718.4	71.04	67.419	
3,248.0	3,225.1	3,225.1	3,225.1	8.1	64.3	76.02	353.1	-4,838.5	4,786.9	4,714.8	72.17	66.328	
3,300.0	3,276.0	3,276.0	3,276.0	8.3	65.3	76.14	353.1	-4,838.5	4,784.3	4,710.9	73.39	65.186	
3,346.4	3,321.4	3,321.4	3,321.4	8.5	66.2	76.25	353.1	-4,838.5	4,781.9	4,707.4	74.49	64.194	
3,400.0	3,373.8	3,373.8	3,373.8	8.7	67.3	76.38	353.1	-4,838.5	4,779.2	4,703.5	75.76	63.087	
3,444.9	3,417.7	3,417.7	3,417.7	8.8	68.1	76.48	353.1	-4,838.5	4,777.0	4,700.2	76.82	62.185	
3,500.0	3,471.6	3,471.6	3,471.6	9.1	69.2	76.61	353.1	-4,838.5	4,774.3	4,696.2	78.13	61.111	
3,543.3	3,513.9	3,513.9	3,513.9	9.2	70.1	76.72	353.1	-4,838.5	4,772.2	4,693.0	79.15	60.290	
3,600.0	3,569.4	3,569.4	3,569.4	9.5	71.2	76.85	353.1	-4,838.5	4,769.4	4,688.9	80.50	59.248	
3,641.7	3,610.2	3,610.2	3,610.2	9.7	72.0	76.95	353.1	-4,838.5	4,767.4	4,685.9	81.49	58.502	
3,700.0	3,667.2	3,667.2	3,667.2	9.9	73.2	77.09	353.1	-4,838.5	4,764.6	4,681.7	82.88	57.489	
3,740.1	3,706.5	3,706.5	3,706.5	10.1	73.9	77.18	353.1	-4,838.5	4,762.7	4,678.9	83.83	56.811	
3,800.0	3,765.0	3,765.0	3,765.0	10.3	75.1	77.33	353.1	-4,838.5	4,759.9	4,674.7	85.26	55.827	
3,838.6	3,802.8	3,802.8	3,802.8	10.5	75.9	77.42	353.1	-4,838.5	4,758.1	4,671.9	86.18	55.210	
3,900.0	3,862.8	3,862.8	3,862.8	10.7	77.1	77.57	353.1	-4,838.5	4,755.3	4,667.7	87.65	54.254	
3,937.0	3,899.0	3,899.0	3,899.0	10.9	77.8	77.66	353.1	-4,838.5	4,753.6	4,665.1	88.53	53.693	
4,000.0	3,960.7	3,960.7	3,960.7	11.2	79.1	77.81	353.1	-4,838.5	4,750.8	4,660.7	90.04	52.764	
4,035.4	3,995.3	3,995.3	3,995.3	11.3	79.8	77.89	353.1	-4,838.5	4,749.2	4,658.3	90.89	52.254	
4,100.0	4,058.5	4,058.5	4,058.5	11.6	81.0	78.05	353.1	-4,838.5	4,746.3	4,653.9	92.43	51.349	
4,133.8	4,091.6	4,091.6	4,091.6	11.7	81.7	78.13	353.1	-4,838.5	4,744.9	4,651.6	93.24	50.887	
4,200.0	4,156.3	4,156.3	4,156.3	12.0	83.0	78.29	353.1	-4,838.5	4,742.0	4,647.2	94.83	50.005	
4,232.3	4,187.9	4,187.9	4,187.9	12.2	83.6	78.37	353.1	-4,838.5	4,740.6	4,645.0	95.60	49.586	
4,300.0	4,254.1	4,254.1	4,254.1	12.5	85.0	78.53	353.1	-4,838.5	4,737.7	4,640.5	97.23	48.728	
4,325.7	4,279.2	4,279.2	4,279.2	12.6	85.5	78.59	353.1	-4,838.5	4,736.6	4,638.8	97.84	48.410	
4,330.7	4,284.1	4,284.1	4,284.1	12.6	85.6	78.60	353.1	-4,838.5	4,736.4	4,638.5	97.96	48.349	
4,400.0	4,352.1	4,352.1	4,352.1	12.8	86.9	78.70	353.1	-4,838.5	4,733.7	4,634.1	99.60	47.525	
4,429.1	4,380.8	4,380.8	4,380.8	12.9	87.5	78.74	353.1	-4,838.5	4,732.7	4,632.4	100.27	47.198	
4,500.0	4,450.7	4,450.7	4,450.7	13.1	88.9	78.83	353.1	-4,838.5	4,730.5	4,628.6	101.91	46.420	
4,527.5	4,478.0	4,478.0	4,478.0	13.2	89.5	78.86	353.1	-4,838.5	4,729.7	4,627.2	102.53	46.129	
4,600.0	4,549.9	4,549.9	4,549.9	13.4	90.9	78.94	353.1	-4,838.5	4,727.9	4,623.7	104.18	45.381	
4,626.0	4,575.7	4,575.7	4,575.7	13.5	91.4	78.96	353.1	-4,838.5	4,727.4	4,622.6	104.77	45.123	
4,700.0	4,649.4	4,649.4	4,649.4	13.6	92.9	79.01	353.1	-4,838.5	4,726.1	4,619.6	106.43	44.404	
4,724.4	4,673.7	4,673.7	4,673.7	13.7	93.4	79.03	353.1	-4,838.5	4,725.7	4,618.8	106.97	44.176	
4,800.0	4,749.2	4,749.2	4,749.2	13.8	94.9	79.06	353.1	-4,838.5	4,724.9	4,616.3	108.65	43.487	
4,822.8	4,772.0	4,772.0	4,772.0	13.9	95.4	79.07	353.1	-4,838.5	4,724.7	4,615.6	109.15	43.287	
4,900.0	4,849.2	4,849.2	4,849.2	14.0	96.9	79.09	353.1	-4,838.5	4,724.4	4,613.6	110.83	42.626	
4,921.2	4,870.4	4,870.4	4,870.4	14.1	97.4	79.09	353.1	-4,838.5	4,724.4	4,613.1	111.30	42.449	
4,925.6	4,874.8	4,874.8	4,874.8	14.1	97.4	-79.72	353.1	-4,838.5	4,724.4	4,616.1	108.32	43.616	
5,000.0	4,949.2	4,949.2	4,949.2	14.2	98.9	-79.72	353.1	-4,838.5	4,724.4	4,614.4	109.96	42.966	
5,019.7	4,968.8	4,968.8	4,968.8	14.2	99.3	-79.72	353.1	-4,838.5	4,724.4	4,614.0	110.39	42.797	

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 SCHAUMBERG 17G-314
<b>Project:</b>	WELD COUNTY, COLORADO	<b>TVD Reference:</b>	KB-EST @ 4633.0usft (Original Well Elev)
<b>Reference Site:</b>	SW NW SEC. 17 T5N R64W 6th P.M.	<b>MD Reference:</b>	KB-EST @ 4633.0usft (Original Well Elev)
<b>Site Error:</b>	0.0 usft	<b>North Reference:</b>	True
<b>Reference Well:</b>	SCHAUMBERG 17G-314	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Well Error:</b>	0.0 usft	<b>Output errors are at</b>	2.00 sigma
<b>Reference Wellbore</b>	ORIGINAL WELLBORE	<b>Database:</b>	EDM 5000.1 Single User Db
<b>Reference Design:</b>	PROPOSAL #1	<b>Offset TVD Reference:</b>	Offset Datum

Offset Design												Offset Site Error:	0.0 usft
Survey Program: 0-INC												Offset Well Error:	0.0 usft
Reference		Offset		Semi Major Axis			Distance						Warning
Measured Depth (usft)	Vertical Depth (usft)	Measured Depth (usft)	Vertical Depth (usft)	Reference (usft)	Offset (usft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (usft)	+E/-W (usft)	Between Centres (usft)	Between Ellipses (usft)	Minimum Separation (usft)	Separation Factor	
5,100.0	5,049.2	5,049.2	5,049.2	14.3	100.9	-79.72	353.1	-4,838.5	4,724.4	4,612.2	112.16	42.121	
5,118.1	5,067.3	5,067.3	5,067.3	14.3	101.3	-79.72	353.1	-4,838.5	4,724.4	4,611.8	112.56	41.972	
5,200.0	5,149.2	5,149.2	5,149.2	14.5	103.0	-79.72	353.1	-4,838.5	4,724.4	4,610.0	114.37	41.309	
5,216.5	5,165.7	5,165.7	5,165.7	14.5	103.3	-79.72	353.1	-4,838.5	4,724.4	4,609.7	114.73	41.177	
5,300.0	5,249.2	5,249.2	5,249.2	14.6	105.0	-79.72	353.1	-4,838.5	4,724.4	4,607.8	116.58	40.526	
5,314.9	5,264.1	5,264.1	5,264.1	14.6	105.3	-79.72	353.1	-4,838.5	4,724.4	4,607.5	116.91	40.412	
5,400.0	5,349.2	5,349.2	5,349.2	14.8	107.0	-79.72	353.1	-4,838.5	4,724.4	4,605.6	118.78	39.773	
5,413.4	5,362.5	5,362.5	5,362.5	14.8	107.3	-79.72	353.1	-4,838.5	4,724.4	4,605.3	119.08	39.674	
5,500.0	5,449.2	5,449.2	5,449.2	14.9	109.0	-79.72	353.1	-4,838.5	4,724.4	4,603.4	120.99	39.047	
5,511.8	5,461.0	5,461.0	5,461.0	14.9	109.2	-79.72	353.1	-4,838.5	4,724.4	4,603.1	121.25	38.963	
5,600.0	5,549.2	5,549.2	5,549.2	15.1	111.0	-79.72	353.1	-4,838.5	4,724.4	4,601.2	123.20	38.346	
5,610.2	5,559.4	5,559.4	5,559.4	15.1	111.2	-79.72	353.1	-4,838.5	4,724.4	4,601.0	123.43	38.276	
5,700.0	5,649.2	5,649.2	5,649.2	15.2	113.0	-79.72	353.1	-4,838.5	4,724.4	4,599.0	125.41	37.670	
5,708.6	5,657.8	5,657.8	5,657.8	15.3	113.2	-79.72	353.1	-4,838.5	4,724.4	4,598.8	125.61	37.613	
5,800.0	5,749.2	5,749.2	5,749.2	15.4	115.0	-79.72	353.1	-4,838.5	4,724.4	4,596.8	127.63	37.017	
5,807.1	5,756.2	5,756.2	5,756.2	15.4	115.2	-79.72	353.1	-4,838.5	4,724.4	4,596.6	127.78	36.972	
5,900.0	5,849.2	5,849.2	5,849.2	15.6	117.0	-79.72	353.1	-4,838.5	4,724.4	4,594.5	129.84	36.386	
5,905.5	5,854.7	5,854.7	5,854.7	15.6	117.1	-79.72	353.1	-4,838.5	4,724.4	4,594.4	129.96	36.352	
6,000.0	5,949.2	5,949.2	5,949.2	15.7	119.0	-79.72	353.1	-4,838.5	4,724.4	4,592.3	132.05	35.777	
6,003.9	5,953.1	5,953.1	5,953.1	15.7	119.1	-79.72	353.1	-4,838.5	4,724.4	4,592.2	132.14	35.753	
6,100.0	6,049.2	6,049.2	6,049.2	15.9	121.1	-79.72	353.1	-4,838.5	4,724.4	4,590.1	134.27	35.187	
6,102.3	6,051.5	6,051.5	6,051.5	15.9	121.1	-79.72	353.1	-4,838.5	4,724.4	4,590.1	134.32	35.173	
6,124.6	6,073.8	6,073.8	6,073.8	15.9	121.6	-79.72	353.1	-4,838.5	4,724.4	4,589.6	134.81	35.044	
6,150.0	6,099.2	6,099.2	6,099.2	16.0	122.1	10.29	353.1	-4,838.5	4,723.9	4,586.1	137.88	34.262	
6,200.0	6,149.0	6,149.0	6,149.0	16.1	123.1	10.34	353.1	-4,838.5	4,720.5	4,582.1	138.34	34.121	
6,200.8	6,149.8	6,149.8	6,149.8	16.1	123.1	10.35	353.1	-4,838.5	4,720.4	4,582.1	138.34	34.121	
6,250.0	6,198.5	6,198.5	6,198.5	16.2	124.1	10.46	353.1	-4,838.5	4,713.6	4,575.5	138.15	34.119	
6,299.2	6,246.6	6,246.6	6,246.6	16.3	125.0	10.63	353.1	-4,838.5	4,703.6	4,566.2	137.33	34.251	
6,300.0	6,247.4	6,247.4	6,247.4	16.3	125.0	10.64	353.1	-4,838.5	4,703.4	4,566.1	137.31	34.254	
6,350.0	6,295.5	6,295.5	6,295.5	16.5	126.0	10.88	353.1	-4,838.5	4,689.8	4,554.0	135.80	34.533	
6,397.6	6,340.2	6,340.2	6,340.2	16.6	126.9	11.18	353.1	-4,838.5	4,673.8	4,540.1	133.76	34.941	
6,400.0	6,342.4	6,342.4	6,342.4	16.6	127.0	11.19	353.1	-4,838.5	4,672.9	4,539.3	133.65	34.965	
6,450.0	6,388.1	6,388.1	6,388.1	16.8	127.9	11.59	353.1	-4,838.5	4,652.9	4,522.1	130.85	35.559	
6,496.0	6,428.8	6,428.8	6,428.8	17.0	128.7	12.03	353.1	-4,838.5	4,631.8	4,504.0	127.74	36.260	
6,500.0	6,432.2	6,432.2	6,432.2	17.0	128.8	12.07	353.1	-4,838.5	4,629.8	4,502.4	127.45	36.328	
6,550.0	6,474.6	6,474.6	6,474.6	17.3	129.6	12.67	353.1	-4,838.5	4,603.8	4,480.3	123.47	37.286	
6,594.5	6,510.7	6,510.7	6,510.7	17.5	130.3	13.30	353.1	-4,838.5	4,578.2	4,458.7	119.51	38.307	
6,600.0	6,515.0	6,515.0	6,515.0	17.6	130.4	13.39	353.1	-4,838.5	4,574.9	4,455.9	119.00	38.445	
6,650.0	6,553.3	6,553.3	6,553.3	17.9	131.2	14.27	353.1	-4,838.5	4,543.3	4,429.1	114.11	39.816	
6,692.9	6,584.3	6,584.3	6,584.3	18.2	131.8	15.17	353.1	-4,838.5	4,514.1	4,404.4	109.68	41.155	
6,700.0	6,589.2	6,589.2	6,589.2	18.2	131.9	15.33	353.1	-4,838.5	4,509.1	4,400.2	108.94	41.391	
6,750.0	6,622.7	6,622.7	6,622.7	18.6	132.6	16.64	353.1	-4,838.5	4,472.6	4,368.9	103.69	43.133	
6,791.3	6,648.3	6,648.3	6,648.3	19.0	133.1	17.94	353.1	-4,838.5	4,440.8	4,341.3	99.51	44.628	
6,800.0	6,653.4	6,653.4	6,653.4	19.1	133.2	18.25	353.1	-4,838.5	4,433.9	4,335.2	98.67	44.938	
6,850.0	6,681.4	6,681.4	6,681.4	19.6	133.8	20.27	353.1	-4,838.5	4,393.2	4,298.9	94.31	46.582	
6,889.7	6,701.5	6,701.5	6,701.5	20.1	134.2	22.26	353.1	-4,838.5	4,359.6	4,267.8	91.77	47.506	
6,900.0	6,706.3	6,706.3	6,706.3	20.2	134.3	22.84	353.1	-4,838.5	4,350.7	4,259.4	91.30	47.651	
6,950.0	6,728.2	6,728.2	6,728.2	20.9	134.7	26.17	353.1	-4,838.5	4,306.6	4,216.0	90.61	47.528	
6,988.2	6,742.8	6,742.8	6,742.8	21.5	135.0	29.42	353.1	-4,838.5	4,272.1	4,179.6	92.42	46.225	
7,000.0	6,746.9	6,746.9	6,746.9	21.6	135.1	30.58	353.1	-4,838.5	4,261.2	4,167.7	93.49	45.577	
7,050.0	6,762.4	6,762.4	6,762.4	22.5	135.4	36.58	353.1	-4,838.5	4,214.6	4,113.3	101.29	41.609	
7,086.6	6,771.5	6,771.5	6,771.5	23.1	135.6	42.38	353.1	-4,838.5	4,179.9	4,069.2	110.68	37.765	

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 SCHAUMBERG 17G-314
<b>Project:</b>	WELD COUNTY, COLORADO	<b>TVD Reference:</b>	KB-EST @ 4633.0usft (Original Well Elev)
<b>Reference Site:</b>	SW NW SEC. 17 T5N R64W 6th P.M.	<b>MD Reference:</b>	KB-EST @ 4633.0usft (Original Well Elev)
<b>Site Error:</b>	0.0 usft	<b>North Reference:</b>	True
<b>Reference Well:</b>	SCHAUMBERG 17G-314	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Well Error:</b>	0.0 usft	<b>Output errors are at</b>	2.00 sigma
<b>Reference Wellbore</b>	ORIGINAL WELLBORE	<b>Database:</b>	EDM 5000.1 Single User Db
<b>Reference Design:</b>	PROPOSAL #1	<b>Offset TVD Reference:</b>	Offset Datum

<b>Offset Design</b> SW NW SEC. 17 T5N R64W 6th P.M. - EXIST VERT BRIGHT DUNN #18D - Wellbore #1 - Design #1												<b>Offset Site Error:</b>	0.0 usft
Survey Program: 0-INC												<b>Offset Well Error:</b>	0.0 usft
Reference		Offset		Semi Major Axis			Distance						Warning
Measured Depth (usft)	Vertical Depth (usft)	Measured Depth (usft)	Vertical Depth (usft)	Reference (usft)	Offset (usft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (usft)	+E/-W (usft)	Between Centres (usft)	Between Ellipses (usft)	Minimum Separation (usft)	Separation Factor	
7,100.0	6,774.4	6,774.4	6,774.4	23.3	135.6	44.89	353.1	-4,838.5	4,167.1	4,052.2	114.90	36.267	
7,150.0	6,783.1	6,783.1	6,783.1	24.3	135.8	56.45	353.1	-4,838.5	4,118.9	3,985.3	133.53	30.847	
7,185.0	6,787.1	6,787.1	6,787.1	25.0	135.9	66.87	353.1	-4,838.5	4,084.8	3,937.7	147.16	27.758	
7,200.0	6,788.3	6,788.3	6,788.3	25.3	135.9	71.89	353.1	-4,838.5	4,070.2	3,918.0	152.24	26.736	
7,252.3	6,790.0	6,790.0	6,790.0	26.3	136.0	91.00	353.1	-4,838.5	4,019.1	3,857.7	161.33	24.913	
7,283.4	6,789.9	6,789.9	6,789.9	27.0	136.0	91.00	353.1	-4,838.5	3,988.7	3,826.6	162.02	24.619	
7,300.0	6,789.8	6,789.8	6,789.8	27.3	136.0	90.99	353.1	-4,838.5	3,972.5	3,810.1	162.38	24.464	
7,381.9	6,789.5	6,789.5	6,789.5	29.1	135.9	90.97	353.1	-4,838.5	3,892.5	3,728.3	164.26	23.697	
7,400.0	6,789.4	6,789.4	6,789.4	29.5	135.9	90.97	353.1	-4,838.5	3,874.8	3,710.1	164.67	23.530	
7,480.3	6,789.1	6,789.1	6,789.1	31.4	135.9	90.95	353.1	-4,838.5	3,796.5	3,629.9	166.58	22.791	
7,500.0	6,789.1	6,789.1	6,789.1	31.8	135.9	90.95	353.1	-4,838.5	3,777.3	3,610.2	167.05	22.612	
7,578.7	6,788.8	6,788.8	6,788.8	33.7	135.9	90.92	353.1	-4,838.5	3,700.6	3,531.6	168.97	21.901	
7,600.0	6,788.7	6,788.7	6,788.7	34.2	135.9	90.92	353.1	-4,838.5	3,679.9	3,510.4	169.49	21.711	
7,677.1	6,788.4	6,788.4	6,788.4	36.1	135.9	90.90	353.1	-4,838.5	3,604.8	3,433.4	171.42	21.030	
7,700.0	6,788.3	6,788.3	6,788.3	36.7	135.9	90.90	353.1	-4,838.5	3,582.6	3,410.6	171.99	20.831	
7,775.6	6,788.0	6,788.0	6,788.0	38.6	135.9	90.88	353.1	-4,838.5	3,509.2	3,335.3	173.90	20.179	
7,800.0	6,787.9	6,787.9	6,787.9	39.2	135.9	90.87	353.1	-4,838.5	3,485.5	3,311.0	174.52	19.972	
7,874.0	6,787.6	6,787.6	6,787.6	41.0	135.9	90.85	353.1	-4,838.5	3,413.7	3,237.3	176.43	19.349	
7,900.0	6,787.6	6,787.6	6,787.6	41.7	135.9	90.85	353.1	-4,838.5	3,388.5	3,211.5	177.09	19.134	
7,972.4	6,787.3	6,787.3	6,787.3	43.6	135.9	90.83	353.1	-4,838.5	3,318.5	3,139.5	178.98	18.541	
8,000.0	6,787.2	6,787.2	6,787.2	44.3	135.9	90.82	353.1	-4,838.5	3,291.8	3,112.1	179.69	18.319	
8,070.8	6,786.9	6,786.9	6,786.9	46.1	135.9	90.80	353.1	-4,838.5	3,223.4	3,041.8	181.55	17.754	
8,100.0	6,786.8	6,786.8	6,786.8	46.9	135.9	90.80	353.1	-4,838.5	3,195.2	3,012.9	182.32	17.526	
8,169.3	6,786.5	6,786.5	6,786.5	48.7	135.9	90.78	353.1	-4,838.5	3,128.5	2,944.3	184.15	16.989	
8,200.0	6,786.4	6,786.4	6,786.4	49.5	135.9	90.77	353.1	-4,838.5	3,098.9	2,913.9	184.96	16.754	
8,267.7	6,786.1	6,786.1	6,786.1	51.3	135.9	90.76	353.1	-4,838.5	3,033.8	2,847.0	186.76	16.244	
8,300.0	6,786.0	6,786.0	6,786.0	52.1	135.9	90.75	353.1	-4,838.5	3,002.8	2,815.2	187.62	16.004	
8,366.1	6,785.8	6,785.8	6,785.8	53.9	135.9	90.73	353.1	-4,838.5	2,939.4	2,750.0	189.39	15.520	
8,400.0	6,785.6	6,785.6	6,785.6	54.8	135.9	90.72	353.1	-4,838.5	2,906.9	2,716.6	190.30	15.276	
8,464.5	6,785.4	6,785.4	6,785.4	56.5	135.9	90.71	353.1	-4,838.5	2,845.2	2,653.2	192.03	14.816	
8,500.0	6,785.3	6,785.3	6,785.3	57.5	135.9	90.70	353.1	-4,838.5	2,811.4	2,618.4	192.98	14.568	
8,563.0	6,785.0	6,785.0	6,785.0	59.2	135.9	90.68	353.1	-4,838.5	2,751.4	2,556.7	194.68	14.133	
8,600.0	6,784.9	6,784.9	6,784.9	60.2	135.9	90.67	353.1	-4,838.5	2,716.2	2,520.5	195.68	13.881	
8,661.4	6,784.6	6,784.6	6,784.6	61.8	135.9	90.66	353.1	-4,838.5	2,657.9	2,460.5	197.34	13.468	
8,700.0	6,784.5	6,784.5	6,784.5	62.9	135.8	90.65	353.1	-4,838.5	2,621.3	2,422.9	198.39	13.213	
8,759.8	6,784.3	6,784.3	6,784.3	64.5	135.8	90.63	353.1	-4,838.5	2,564.7	2,364.7	200.01	12.823	
8,800.0	6,784.1	6,784.1	6,784.1	65.6	135.8	90.62	353.1	-4,838.5	2,526.8	2,325.7	201.10	12.565	
8,858.2	6,783.9	6,783.9	6,783.9	67.1	135.8	90.61	353.1	-4,838.5	2,472.0	2,269.3	202.69	12.196	
8,900.0	6,783.7	6,783.7	6,783.7	68.3	135.8	90.60	353.1	-4,838.5	2,432.8	2,228.9	203.83	11.935	
8,956.7	6,783.5	6,783.5	6,783.5	69.8	135.8	90.58	353.1	-4,838.5	2,379.7	2,174.3	205.37	11.587	
9,000.0	6,783.3	6,783.3	6,783.3	71.0	135.8	90.57	353.1	-4,838.5	2,339.2	2,132.7	206.55	11.325	
9,055.1	6,783.1	6,783.1	6,783.1	72.5	135.8	90.56	353.1	-4,838.5	2,287.9	2,079.8	208.06	10.996	
9,100.0	6,782.9	6,782.9	6,782.9	73.7	135.8	90.55	353.1	-4,838.5	2,246.2	2,036.9	209.29	10.733	
9,153.5	6,782.7	6,782.7	6,782.7	75.2	135.8	90.53	353.1	-4,838.5	2,196.7	1,986.0	210.76	10.423	
9,200.0	6,782.6	6,782.6	6,782.6	76.5	135.8	90.52	353.1	-4,838.5	2,153.9	1,941.8	212.03	10.158	
9,251.9	6,782.4	6,782.4	6,782.4	77.9	135.8	90.51	353.1	-4,838.5	2,106.2	1,892.7	213.45	9.867	
9,300.0	6,782.2	6,782.2	6,782.2	79.2	135.8	90.50	353.1	-4,838.5	2,062.2	1,847.4	214.77	9.602	
9,350.4	6,782.0	6,782.0	6,782.0	80.6	135.8	90.48	353.1	-4,838.5	2,016.4	1,800.2	216.16	9.328	
9,400.0	6,781.8	6,781.8	6,781.8	82.0	135.8	90.47	353.1	-4,838.5	1,971.4	1,753.9	217.52	9.063	
9,448.8	6,781.6	6,781.6	6,781.6	83.3	135.8	90.46	353.1	-4,838.5	1,927.4	1,708.5	218.86	8.806	
9,500.0	6,781.4	6,781.4	6,781.4	84.7	135.8	90.45	353.1	-4,838.5	1,881.5	1,661.2	220.27	8.542	
9,547.2	6,781.2	6,781.2	6,781.2	86.0	135.8	90.43	353.1	-4,838.5	1,839.4	1,617.8	221.57	8.302	

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

# Anticollision Report



<b>Company:</b>	PDC ENERGY	<b>Local Co-ordinate Reference:</b>	Well SCHAUMBERG 17G-314
<b>Project:</b>	WELD COUNTY, COLORADO	<b>TVD Reference:</b>	KB-EST @ 4633.0usft (Original Well Elev)
<b>Reference Site:</b>	SW NW SEC. 17 T5N R64W 6th P.M.	<b>MD Reference:</b>	KB-EST @ 4633.0usft (Original Well Elev)
<b>Site Error:</b>	0.0 usft	<b>North Reference:</b>	True
<b>Reference Well:</b>	SCHAUMBERG 17G-314	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Well Error:</b>	0.0 usft	<b>Output errors are at</b>	2.00 sigma
<b>Reference Wellbore</b>	ORIGINAL WELLBORE	<b>Database:</b>	EDM 5000.1 Single User Db
<b>Reference Design:</b>	PROPOSAL #1	<b>Offset TVD Reference:</b>	Offset Datum

Offset Design												Offset Site Error:	0.0 usft
Survey Program: 0-INC												Offset Well Error:	0.0 usft
Reference		Offset		Semi Major Axis			Distance						Warning
Measured Depth (usft)	Vertical Depth (usft)	Measured Depth (usft)	Vertical Depth (usft)	Reference (usft)	Offset (usft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (usft)	+E/-W (usft)	Between Centres (usft)	Between Ellipses (usft)	Minimum Separation (usft)	Separation Factor	
9,600.0	6,781.0	6,781.0	6,781.0	87.5	135.8	90.42	353.1	-4,838.5	1,792.6	1,569.6	223.03	8.038	
9,645.6	6,780.8	6,780.8	6,780.8	88.7	135.8	90.41	353.1	-4,838.5	1,752.5	1,528.2	224.28	7.814	
9,700.0	6,780.6	6,780.6	6,780.6	90.2	135.8	90.39	353.1	-4,838.5	1,705.0	1,479.3	225.78	7.552	
9,744.1	6,780.4	6,780.4	6,780.4	91.4	135.8	90.38	353.1	-4,838.5	1,666.9	1,439.9	227.00	7.343	
9,800.0	6,780.2	6,780.2	6,780.2	93.0	135.8	90.37	353.1	-4,838.5	1,618.9	1,390.3	228.54	7.083	
9,842.5	6,780.1	6,780.1	6,780.1	94.2	135.8	90.36	353.1	-4,838.5	1,582.8	1,353.0	229.72	6.890	
9,900.0	6,779.8	6,779.8	6,779.8	95.7	135.8	90.34	353.1	-4,838.5	1,534.4	1,303.1	231.31	6.634	
9,940.9	6,779.7	6,779.7	6,779.7	96.9	135.8	90.33	353.1	-4,838.5	1,500.4	1,267.9	232.44	6.455	
10,000.0	6,779.4	6,779.4	6,779.4	98.5	135.7	90.32	353.1	-4,838.5	1,451.9	1,217.8	234.07	6.203	
10,039.3	6,779.3	6,779.3	6,779.3	99.6	135.7	90.30	353.1	-4,838.5	1,420.0	1,184.9	235.16	6.039	
10,100.0	6,779.0	6,779.0	6,779.0	101.3	135.7	90.29	353.1	-4,838.5	1,371.7	1,134.9	236.84	5.792	
10,137.8	6,778.9	6,778.9	6,778.9	102.3	135.7	90.28	353.1	-4,838.5	1,342.1	1,104.2	237.88	5.642	
10,200.0	6,778.7	6,778.7	6,778.7	104.1	135.7	90.26	353.1	-4,838.5	1,294.3	1,054.7	239.61	5.402	
10,236.2	6,778.5	6,778.5	6,778.5	105.1	135.7	90.25	353.1	-4,838.5	1,267.0	1,026.4	240.61	5.266	
10,300.0	6,778.3	6,778.3	6,778.3	106.8	135.7	90.24	353.1	-4,838.5	1,220.2	977.8	242.38	5.034	
10,334.6	6,778.1	6,778.1	6,778.1	107.8	135.7	90.23	353.1	-4,838.5	1,195.4	952.0	243.34	4.912	
10,400.0	6,777.9	6,777.9	6,777.9	109.6	135.7	90.21	353.1	-4,838.5	1,149.9	904.8	245.15	4.691	
10,433.0	6,777.7	6,777.7	6,777.7	110.5	135.7	90.20	353.1	-4,838.5	1,127.7	881.7	246.07	4.583	
10,500.0	6,777.5	6,777.5	6,777.5	112.4	135.7	90.18	353.1	-4,838.5	1,084.4	836.5	247.92	4.374	
10,531.5	6,777.3	6,777.3	6,777.3	113.3	135.7	90.17	353.1	-4,838.5	1,064.9	816.1	248.80	4.280	
10,600.0	6,777.1	6,777.1	6,777.1	115.2	135.7	90.16	353.1	-4,838.5	1,024.5	773.8	250.70	4.087	
10,629.9	6,777.0	6,777.0	6,777.0	116.0	135.7	90.15	353.1	-4,838.5	1,007.8	756.3	251.53	4.007	
10,700.0	6,776.7	6,776.7	6,776.7	117.9	135.7	90.13	353.1	-4,838.5	971.2	717.7	253.48	3.831	
10,728.3	6,776.6	6,776.6	6,776.6	118.7	135.7	90.12	353.1	-4,838.5	957.4	703.2	254.26	3.766	
10,800.0	6,776.3	6,776.3	6,776.3	120.7	135.7	90.10	353.1	-4,838.5	925.6	669.4	256.25	3.612	
10,826.7	6,776.2	6,776.2	6,776.2	121.5	135.7	90.10	353.1	-4,838.5	914.9	657.9	257.00	3.560	
10,900.0	6,775.9	6,775.9	6,775.9	123.5	135.7	90.08	353.1	-4,838.5	889.0	630.0	259.03	3.432	
10,925.2	6,775.8	6,775.8	6,775.8	124.2	135.7	90.07	353.1	-4,838.5	881.4	621.6	259.73	3.393	
11,000.0	6,775.5	6,775.5	6,775.5	126.3	135.7	90.05	353.1	-4,838.5	862.5	600.7	261.81	3.295	
11,023.6	6,775.4	6,775.4	6,775.4	126.9	135.7	90.04	353.1	-4,838.5	857.9	595.4	262.47	3.269	
11,100.0	6,775.1	6,775.1	6,775.1	129.1	135.7	90.02	353.1	-4,838.5	847.1	582.5	264.59	3.202	
11,122.0	6,775.0	6,775.0	6,775.0	129.7	135.7	90.02	353.1	-4,838.5	845.3	580.0	265.20	3.187	
11,182.0	6,774.8	6,774.8	6,774.8	131.4	135.7	90.00	353.1	-4,838.5	843.1	576.2	266.87	3.159 CC	
11,200.0	6,774.7	6,774.7	6,774.7	131.9	135.7	90.00	353.1	-4,838.5	843.3	575.9	267.37	3.154 ES	
11,220.4	6,774.6	6,774.6	6,774.6	132.4	135.6	89.99	353.1	-4,838.5	844.0	576.1	267.94	3.150 SF	
11,300.0	6,774.3	6,774.3	6,774.3	134.6	135.6	89.97	353.1	-4,838.5	851.3	581.2	270.15	3.151	
11,318.9	6,774.2	6,774.2	6,774.2	135.2	135.6	89.96	353.1	-4,838.5	854.2	583.5	270.68	3.156	
11,400.0	6,773.9	6,773.9	6,773.9	137.4	135.6	89.94	353.1	-4,838.5	870.8	597.9	272.94	3.191	
11,417.3	6,773.8	6,773.8	6,773.8	137.9	135.6	89.94	353.1	-4,838.5	875.3	601.9	273.42	3.201	
11,500.0	6,773.5	6,773.5	6,773.5	140.2	135.6	89.91	353.1	-4,838.5	901.1	625.4	275.72	3.268	
11,515.7	6,773.4	6,773.4	6,773.4	140.7	135.6	89.91	353.1	-4,838.5	906.8	630.6	276.16	3.283	
11,600.0	6,773.1	6,773.1	6,773.1	143.0	135.6	89.89	353.1	-4,838.5	941.0	662.5	278.51	3.379	
11,614.1	6,773.0	6,773.0	6,773.0	143.4	135.6	89.88	353.1	-4,838.5	947.4	668.5	278.90	3.397	
11,700.0	6,772.7	6,772.7	6,772.7	145.8	135.6	89.86	353.1	-4,838.5	989.5	708.2	281.29	3.518	
11,712.6	6,772.6	6,772.6	6,772.6	146.2	135.6	89.85	353.1	-4,838.5	996.2	714.5	281.64	3.537	
11,800.0	6,772.3	6,772.3	6,772.3	148.6	135.6	89.83	353.1	-4,838.5	1,045.4	761.3	284.08	3.680	
11,811.0	6,772.2	6,772.2	6,772.2	148.9	135.6	89.83	353.1	-4,838.5	1,051.9	767.5	284.38	3.699	
11,900.0	6,771.9	6,771.9	6,771.9	151.4	135.6	89.80	353.1	-4,838.5	1,107.4	820.5	286.86	3.860	
11,909.4	6,771.8	6,771.8	6,771.8	151.7	135.6	89.80	353.1	-4,838.5	1,113.5	826.4	287.12	3.878	
12,000.0	6,771.5	6,771.5	6,771.5	154.2	135.6	89.78	353.1	-4,838.5	1,174.7	885.1	289.65	4.056	
12,007.8	6,771.4	6,771.4	6,771.4	154.4	135.6	89.77	353.1	-4,838.5	1,180.2	890.3	289.87	4.071	
12,100.0	6,771.1	6,771.1	6,771.1	157.0	135.6	89.75	353.1	-4,838.5	1,246.4	954.0	292.43	4.262	

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 SCHAUMBERG 17G-314
<b>Project:</b>	WELD COUNTY, COLORADO	<b>TVD Reference:</b>	KB-EST @ 4633.0usft (Original Well Elev)
<b>Reference Site:</b>	SW NW SEC. 17 T5N R64W 6th P.M.	<b>MD Reference:</b>	KB-EST @ 4633.0usft (Original Well Elev)
<b>Site Error:</b>	0.0 usft	<b>North Reference:</b>	True
<b>Reference Well:</b>	SCHAUMBERG 17G-314	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Well Error:</b>	0.0 usft	<b>Output errors are at</b>	2.00 sigma
<b>Reference Wellbore</b>	ORIGINAL WELLBORE	<b>Database:</b>	EDM 5000.1 Single User Db
<b>Reference Design:</b>	PROPOSAL #1	<b>Offset TVD Reference:</b>	Offset Datum

<b>Offset Design</b> SW NW SEC. 17 T5N R64W 6th P.M. - EXIST VERT BRIGHT DUNN #18D - Wellbore #1 - Design #1												<b>Offset Site Error:</b>	0.0 usft
Survey Program: 0-INC												<b>Offset Well Error:</b>	0.0 usft
Reference	Offset	Semi Major Axis			Distance								Warning
Measured Depth (usft)	Vertical Depth (usft)	Measured Depth (usft)	Vertical Depth (usft)	Reference (usft)	Offset (usft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (usft)	+E/-W (usft)	Between Centres (usft)	Between Ellipses (usft)	Minimum Separation (usft)	Separation Factor	
12,106.3	6,771.0	6,771.0	6,771.0	157.2	135.6	89.75	353.1	-4,838.5	1,251.0	958.4	292.61	4.275	
12,200.0	6,770.7	6,770.7	6,770.7	159.8	135.6	89.72	353.1	-4,838.5	1,321.8	1,026.6	295.22	4.477	
12,204.7	6,770.6	6,770.6	6,770.6	159.9	135.6	89.72	353.1	-4,838.5	1,325.4	1,030.1	295.35	4.488	
12,300.0	6,770.3	6,770.3	6,770.3	162.6	135.6	89.69	353.1	-4,838.5	1,400.3	1,102.3	298.01	4.699	
12,303.1	6,770.2	6,770.2	6,770.2	162.7	135.6	89.69	353.1	-4,838.5	1,402.8	1,104.7	298.10	4.706	
12,361.7	6,770.0	6,770.0	6,770.0	164.3	135.6	89.67	353.1	-4,838.5	1,450.0	1,150.3	299.73	4.838	



# Anticollision Report



<b>Company:</b>	PDC ENERGY	<b>Local Co-ordinate Reference:</b>	Well SCHAUMBERG 17G-314
<b>Project:</b>	WELD COUNTY, COLORADO	<b>TVD Reference:</b>	KB-EST @ 4633.0usft (Original Well Elev)
<b>Reference Site:</b>	SW NW SEC. 17 T5N R64W 6th P.M.	<b>MD Reference:</b>	KB-EST @ 4633.0usft (Original Well Elev)
<b>Site Error:</b>	0.0 usft	<b>North Reference:</b>	True
<b>Reference Well:</b>	SCHAUMBERG 17G-314	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Well Error:</b>	0.0 usft	<b>Output errors are at</b>	2.00 sigma
<b>Reference Wellbore</b>	ORIGINAL WELLBORE	<b>Database:</b>	EDM 5000.1 Single User Db
<b>Reference Design:</b>	PROPOSAL #1	<b>Offset TVD Reference:</b>	Offset Datum

Offset Design SW NW SEC. 17 T5N R64W 6th P.M. - EXIST VERT DUNN #1 - 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		
0.0	0.0	0.0	0.0	0.0	0.0	-76.92	1,012.5	-4,356.6	4,472.7					
98.4	98.4	79.7	79.7	0.1	0.1	-76.92	1,012.4	-4,356.7	4,472.8	4,472.6	0.16	N/A		
100.0	100.0	81.1	81.1	0.1	0.1	-76.92	1,012.4	-4,356.7	4,472.8	4,472.6	0.16	N/A		
196.8	196.8	171.8	171.8	0.3	0.2	-76.92	1,012.3	-4,357.0	4,473.1	4,472.6	0.50	8,937.985		
200.0	200.0	174.7	174.7	0.3	0.2	-76.92	1,012.3	-4,357.0	4,473.1	4,472.6	0.51	8,738.654		
295.3	295.3	266.3	266.3	0.5	0.3	-76.92	1,012.2	-4,357.4	4,473.5	4,472.7	0.82	5,445.428		
300.0	300.0	270.9	270.9	0.5	0.3	-76.92	1,012.2	-4,357.4	4,473.5	4,472.7	0.84	5,349.921		
393.7	393.7	368.7	368.7	0.8	0.4	-76.92	1,012.1	-4,357.9	4,473.9	4,472.8	1.12	3,999.465		
400.0	400.0	375.5	375.5	0.8	0.4	-76.93	1,012.1	-4,357.9	4,473.9	4,472.8	1.14	3,933.644		
492.1	492.1	475.1	475.1	1.0	0.4	-76.93	1,011.7	-4,358.3	4,474.2	4,472.8	1.40	3,186.038		
500.0	500.0	483.6	483.6	1.0	0.4	-76.93	1,011.7	-4,358.3	4,474.2	4,472.8	1.43	3,135.508		
590.5	590.5	578.4	578.4	1.2	0.5	-76.94	1,011.2	-4,358.5	4,474.3	4,472.6	1.68	2,662.104		
600.0	600.0	588.3	588.3	1.2	0.5	-76.94	1,011.2	-4,358.5	4,474.3	4,472.6	1.71	2,621.008		
689.0	689.0	683.6	683.6	1.4	0.5	-76.95	1,010.7	-4,358.7	4,474.3	4,472.3	1.95	2,293.879		
700.0	700.0	695.5	695.5	1.4	0.5	-76.95	1,010.6	-4,358.7	4,474.3	4,472.3	1.98	2,259.031		
787.4	787.4	790.1	790.1	1.6	0.6	-76.95	1,010.1	-4,358.6	4,474.1	4,471.9	2.21	2,020.825		
800.0	800.0	803.4	803.4	1.7	0.6	-76.95	1,010.0	-4,358.6	4,474.1	4,471.8	2.25	1,990.776		
885.8	885.8	889.3	889.3	1.9	0.6	-76.96	1,009.6	-4,358.4	4,473.9	4,471.4	2.47	1,810.472		
900.0	900.0	903.6	903.6	1.9	0.6	-76.96	1,009.5	-4,358.4	4,473.8	4,471.3	2.51	1,783.872		
984.2	984.2	989.4	989.3	2.1	0.7	-76.96	1,009.1	-4,358.2	4,473.6	4,470.8	2.72	1,641.898		
1,000.0	1,000.0	1,000.0	1,000.0	2.1	0.7	-76.96	1,009.1	-4,358.2	4,473.5	4,470.8	2.76	1,618.831		
1,082.7	1,082.7	1,077.8	1,077.7	2.3	0.7	-76.97	1,008.8	-4,358.1	4,473.4	4,470.4	2.97	1,505.458		
1,100.0	1,100.0	1,093.1	1,093.1	2.3	0.7	-76.97	1,008.7	-4,358.1	4,473.3	4,470.3	3.01	1,483.828		
1,116.6	1,116.6	1,107.6	1,107.6	2.4	0.7	-76.97	1,008.7	-4,358.1	4,473.3	4,470.3	3.06	1,463.648		
1,181.1	1,181.1	1,163.6	1,163.6	2.5	0.7	-76.97	1,008.5	-4,358.2	4,473.4	4,470.2	3.22	1,389.650		
1,200.0	1,200.0	1,180.0	1,180.0	2.6	0.7	-76.97	1,008.5	-4,358.3	4,473.4	4,470.2	3.27	1,369.384		
1,279.5	1,279.5	1,252.1	1,252.0	2.7	0.8	-76.97	1,008.3	-4,358.6	4,473.7	4,470.2	3.47	1,288.714		
1,300.0	1,300.0	1,270.9	1,270.9	2.8	0.8	-76.98	1,008.2	-4,358.7	4,473.8	4,470.3	3.52	1,269.308		
1,377.9	1,377.9	1,342.0	1,342.0	3.0	0.8	-76.98	1,007.9	-4,359.1	4,474.2	4,470.5	3.73	1,200.657		
1,400.0	1,400.0	1,362.0	1,362.0	3.0	0.8	-76.98	1,007.8	-4,359.3	4,474.3	4,470.6	3.78	1,182.599		
1,476.4	1,476.4	1,435.6	1,435.6	3.2	0.8	-76.99	1,007.4	-4,359.9	4,474.9	4,470.9	3.98	1,123.728		
1,500.0	1,500.0	1,460.0	1,460.0	3.2	0.8	-76.99	1,007.3	-4,360.1	4,475.0	4,471.0	4.04	1,106.566		
1,574.8	1,574.8	1,537.1	1,537.1	3.4	0.9	-77.00	1,006.7	-4,360.8	4,475.5	4,471.3	4.24	1,055.654		
1,600.0	1,600.0	1,563.0	1,563.0	3.5	0.9	-77.00	1,006.4	-4,361.0	4,475.7	4,471.4	4.31	1,039.586		
1,673.2	1,673.2	1,639.5	1,639.5	3.6	0.9	-77.01	1,005.8	-4,361.6	4,476.1	4,471.6	4.50	995.573		
1,700.0	1,700.0	1,668.0	1,667.9	3.7	0.9	-77.02	1,005.5	-4,361.8	4,476.3	4,471.7	4.57	980.400		
1,771.6	1,771.6	1,745.3	1,745.3	3.9	1.0	-77.03	1,004.8	-4,362.4	4,476.6	4,471.9	4.75	942.036		
1,800.0	1,800.0	1,776.3	1,776.3	3.9	1.0	-77.03	1,004.5	-4,362.5	4,476.7	4,471.9	4.83	927.686		
1,870.1	1,870.1	1,849.4	1,849.4	4.1	1.0	81.77	1,003.9	-4,362.9	4,476.8	4,471.8	4.94	906.000		
1,900.0	1,900.0	1,880.0	1,879.9	4.1	1.0	81.78	1,003.7	-4,363.0	4,476.7	4,471.7	5.01	893.913		
1,968.5	1,968.4	1,950.5	1,950.4	4.2	1.0	81.82	1,003.2	-4,363.3	4,476.4	4,471.3	5.14	870.210		
2,000.0	1,999.8	1,983.0	1,982.9	4.3	1.1	81.85	1,003.1	-4,363.4	4,476.2	4,471.0	5.21	859.721		
2,066.9	2,066.5	2,053.5	2,053.5	4.4	1.1	81.93	1,002.6	-4,363.6	4,475.5	4,470.2	5.34	837.374		
2,100.0	2,099.5	2,088.6	2,088.5	4.5	1.1	81.98	1,002.4	-4,363.7	4,475.1	4,469.7	5.41	826.727		
2,165.3	2,164.4	2,149.7	2,149.6	4.6	1.1	82.09	1,002.0	-4,363.8	4,474.1	4,468.5	5.56	805.407		
2,200.0	2,198.7	2,181.2	2,181.2	4.7	1.1	82.15	1,001.9	-4,363.9	4,473.5	4,467.9	5.63	794.525		
2,263.8	2,261.8	2,248.6	2,248.5	4.8	1.2	82.30	1,001.5	-4,364.1	4,472.3	4,466.5	5.78	773.183		
2,300.0	2,297.5	2,289.3	2,289.3	4.9	1.2	82.40	1,001.2	-4,364.2	4,471.5	4,465.6	5.87	761.431		
2,362.2	2,358.6	2,356.0	2,355.9	5.0	1.2	82.58	1,000.8	-4,364.2	4,469.9	4,463.9	6.04	739.984		
2,400.0	2,395.6	2,396.0	2,395.9	5.1	1.2	82.70	1,000.5	-4,364.2	4,468.9	4,462.7	6.14	727.478		
2,460.6	2,454.9	2,456.8	2,456.8	5.3	1.2	82.86	1,000.1	-4,364.2	4,467.1	4,460.8	6.32	706.374		
2,500.0	2,493.4	2,496.2	2,496.1	5.4	1.2	82.96	999.9	-4,364.1	4,466.0	4,459.5	6.44	693.243		

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 SCHAUMBERG 17G-314
<b>Project:</b>	WELD COUNTY, COLORADO	<b>TVD Reference:</b>	KB-EST @ 4633.0usft (Original Well Elev)
<b>Reference Site:</b>	SW NW SEC. 17 T5N R64W 6th P.M.	<b>MD Reference:</b>	KB-EST @ 4633.0usft (Original Well Elev)
<b>Site Error:</b>	0.0 usft	<b>North Reference:</b>	True
<b>Reference Well:</b>	SCHAUMBERG 17G-314	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Well Error:</b>	0.0 usft	<b>Output errors are at</b>	2.00 sigma
<b>Reference Wellbore</b>	ORIGINAL WELLBORE	<b>Database:</b>	EDM 5000.1 Single User Db
<b>Reference Design:</b>	PROPOSAL #1	<b>Offset TVD Reference:</b>	Offset Datum

Offset Design												Offset Site Error:	0.0 usft
Survey Program: 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	
2,559.0	2,551.2	2,556.0	2,555.9	5.6	1.3	83.11	999.5	-4,364.0	4,464.3	4,457.6	6.63	673.176	
2,600.0	2,591.3	2,597.5	2,597.4	5.7	1.3	83.22	999.3	-4,364.0	4,463.1	4,456.3	6.76	659.858	
2,657.5	2,647.5	2,652.5	2,652.4	5.9	1.3	83.36	999.0	-4,363.9	4,461.5	4,454.5	6.96	641.135	
2,700.0	2,689.1	2,693.1	2,693.0	6.0	1.3	83.47	998.8	-4,363.8	4,460.3	4,453.2	7.10	627.911	
2,755.9	2,743.7	2,744.0	2,743.9	6.2	1.3	83.60	998.7	-4,363.7	4,458.8	4,451.5	7.30	610.845	
2,800.0	2,786.9	2,783.8	2,783.7	6.4	1.3	83.71	998.6	-4,363.6	4,457.7	4,450.3	7.45	598.015	
2,854.3	2,840.0	2,834.4	2,834.3	6.6	1.3	83.84	998.6	-4,363.6	4,456.4	4,448.8	7.65	582.260	
2,900.0	2,884.7	2,877.5	2,877.4	6.7	1.3	83.95	998.6	-4,363.5	4,455.4	4,447.5	7.82	569.567	
2,952.7	2,936.3	2,929.0	2,928.9	6.9	1.3	84.09	998.6	-4,363.5	4,454.2	4,446.1	8.02	555.084	
3,000.0	2,982.5	2,976.3	2,976.2	7.1	1.3	84.22	998.7	-4,363.5	4,453.1	4,444.9	8.21	542.643	
3,051.2	3,032.6	3,024.4	3,024.3	7.3	1.3	84.35	998.7	-4,363.4	4,452.0	4,443.6	8.41	529.590	
3,100.0	3,080.3	3,067.8	3,067.7	7.5	1.3	84.46	998.8	-4,363.4	4,451.0	4,442.4	8.60	517.787	
3,149.6	3,128.8	3,111.4	3,111.4	7.7	1.3	84.58	998.9	-4,363.5	4,450.1	4,441.3	8.79	506.060	
3,200.0	3,178.1	3,154.6	3,154.6	7.9	1.3	84.70	998.9	-4,363.6	4,449.2	4,440.2	9.00	494.590	
3,248.0	3,225.1	3,200.0	3,199.9	8.1	1.3	84.82	999.0	-4,363.8	4,448.5	4,439.3	9.19	483.918	
3,300.0	3,276.0	3,237.7	3,237.6	8.3	1.3	84.92	999.0	-4,364.0	4,447.8	4,438.4	9.40	472.938	
3,346.4	3,321.4	3,274.9	3,274.8	8.5	1.3	85.02	998.9	-4,364.3	4,447.3	4,437.7	9.60	463.375	
3,400.0	3,373.8	3,317.1	3,317.0	8.7	1.3	85.12	998.8	-4,364.7	4,446.8	4,437.0	9.82	452.816	
3,444.9	3,417.7	3,351.7	3,351.6	8.8	1.4	85.21	998.7	-4,365.2	4,446.5	4,436.5	10.01	444.228	
3,500.0	3,471.6	3,400.0	3,399.9	9.1	1.4	85.34	998.5	-4,366.0	4,446.4	4,436.1	10.24	434.068	
3,526.3	3,497.3	3,413.5	3,413.4	9.2	1.4	85.37	998.4	-4,366.2	4,446.4	4,436.0	10.35	429.428	
3,543.3	3,513.9	3,425.8	3,425.7	9.2	1.4	85.40	998.3	-4,366.5	4,446.4	4,435.9	10.43	426.438	
3,600.0	3,569.4	3,466.6	3,466.5	9.5	1.4	85.51	998.1	-4,367.4	4,446.5	4,435.9	10.67	416.794	
3,641.7	3,610.2	3,500.0	3,499.9	9.7	1.4	85.59	997.9	-4,368.2	4,446.8	4,436.0	10.85	409.891	
3,700.0	3,667.2	3,549.0	3,548.8	9.9	1.4	85.71	997.5	-4,369.6	4,447.3	4,436.2	11.10	400.608	
3,740.1	3,706.5	3,585.6	3,585.4	10.1	1.4	85.80	997.1	-4,370.6	4,447.7	4,436.4	11.28	394.386	
3,800.0	3,765.0	3,641.4	3,641.2	10.3	1.4	85.94	996.5	-4,372.3	4,448.3	4,436.8	11.54	385.454	
3,838.6	3,802.8	3,677.6	3,677.4	10.5	1.5	86.02	996.2	-4,373.4	4,448.8	4,437.1	11.71	379.871	
3,900.0	3,862.8	3,737.8	3,737.5	10.7	1.5	86.17	995.6	-4,375.3	4,449.5	4,437.6	11.98	371.290	
3,937.0	3,899.0	3,774.9	3,774.7	10.9	1.5	86.26	995.3	-4,376.4	4,450.0	4,437.9	12.15	366.269	
4,000.0	3,960.7	3,847.4	3,847.1	11.2	1.5	86.44	994.6	-4,378.5	4,450.8	4,438.3	12.43	357.961	
4,035.4	3,995.3	3,891.5	3,891.2	11.3	1.5	86.55	994.3	-4,379.7	4,451.1	4,438.5	12.60	353.402	
4,100.0	4,058.5	3,998.5	3,998.2	11.6	1.5	86.82	993.6	-4,381.7	4,451.4	4,438.5	12.90	345.193	
4,133.8	4,091.6	4,036.2	4,035.9	11.7	1.6	86.92	993.5	-4,382.2	4,451.4	4,438.4	13.05	341.117	
4,200.0	4,156.3	4,110.7	4,110.4	12.0	1.6	87.11	993.2	-4,383.1	4,451.3	4,438.0	13.35	333.415	
4,232.3	4,187.9	4,153.2	4,152.9	12.2	1.6	87.22	993.0	-4,383.4	4,451.2	4,437.7	13.50	329.726	
4,300.0	4,254.1	4,233.5	4,233.2	12.5	1.6	87.43	992.9	-4,383.8	4,450.8	4,437.0	13.81	322.313	
4,325.7	4,279.2	4,260.2	4,259.9	12.6	1.6	87.50	992.9	-4,383.9	4,450.6	4,436.7	13.93	319.615	
4,330.7	4,284.1	4,265.4	4,265.1	12.6	1.6	87.51	992.9	-4,383.9	4,450.6	4,436.7	13.94	319.160	
4,400.0	4,352.1	4,336.7	4,336.4	12.8	1.6	87.68	993.0	-4,384.0	4,450.2	4,435.9	14.22	313.040	
4,429.1	4,380.8	4,366.4	4,366.0	12.9	1.6	87.75	993.1	-4,384.0	4,450.0	4,435.7	14.31	311.008	
4,500.0	4,450.7	4,438.5	4,438.2	13.1	1.6	87.89	993.4	-4,384.0	4,449.6	4,435.1	14.53	306.183	
4,527.5	4,478.0	4,466.5	4,466.2	13.2	1.6	87.95	993.5	-4,383.9	4,449.5	4,434.9	14.61	304.522	
4,600.0	4,549.9	4,541.4	4,541.1	13.4	1.6	88.07	993.9	-4,383.8	4,449.2	4,434.4	14.82	300.253	
4,626.0	4,575.7	4,568.6	4,568.3	13.5	1.6	88.10	994.1	-4,383.8	4,449.1	4,434.2	14.88	298.921	
4,700.0	4,649.4	4,676.1	4,675.8	13.6	1.6	88.23	994.9	-4,383.1	4,448.7	4,433.6	15.07	295.140	
4,724.4	4,673.7	4,714.2	4,713.8	13.7	1.6	88.27	995.3	-4,382.6	4,448.4	4,433.3	15.13	294.066	
4,800.0	4,749.2	4,810.8	4,810.4	13.8	1.6	88.34	996.4	-4,380.8	4,447.2	4,431.9	15.29	290.831	
4,822.8	4,772.0	4,831.8	4,831.5	13.9	1.6	88.35	996.6	-4,380.4	4,446.8	4,431.5	15.33	290.028	
4,900.0	4,849.2	4,903.9	4,903.5	14.0	1.6	88.36	997.3	-4,379.0	4,445.6	4,430.2	15.47	287.353	
4,921.2	4,870.4	4,928.1	4,927.7	14.1	1.6	88.36	997.6	-4,378.5	4,445.3	4,429.8	15.51	286.684	
4,925.6	4,874.8	4,933.1	4,932.7	14.1	1.6	-70.45	997.6	-4,378.4	4,445.3	4,432.9	12.32	360.828	

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 SCHAUMBERG 17G-314
<b>Project:</b>	WELD COUNTY, COLORADO	<b>TVD Reference:</b>	KB-EST @ 4633.0usft (Original Well Elev)
<b>Reference Site:</b>	SW NW SEC. 17 T5N R64W 6th P.M.	<b>MD Reference:</b>	KB-EST @ 4633.0usft (Original Well Elev)
<b>Site Error:</b>	0.0 usft	<b>North Reference:</b>	True
<b>Reference Well:</b>	SCHAUMBERG 17G-314	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Well Error:</b>	0.0 usft	<b>Output errors are at</b>	2.00 sigma
<b>Reference Wellbore</b>	ORIGINAL WELLBORE	<b>Database:</b>	EDM 5000.1 Single User Db
<b>Reference Design:</b>	PROPOSAL #1	<b>Offset TVD Reference:</b>	Offset Datum

Offset Design													Offset Site Error:	0.0 usft
Survey Program: 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	4,949.2	5,016.9	5,016.5	14.2	1.6	-70.43	998.1	-4,376.8	4,444.1	4,431.6	12.47	356.414		
5,019.7	4,968.8	5,038.2	5,037.7	14.2	1.6	-70.43	998.2	-4,376.4	4,443.7	4,431.2	12.51	355.243		
5,100.0	5,049.2	5,121.4	5,121.0	14.3	1.6	-70.42	998.3	-4,374.7	4,442.3	4,429.6	12.67	350.540		
5,118.1	5,067.3	5,138.3	5,137.9	14.3	1.6	-70.42	998.3	-4,374.4	4,441.9	4,429.2	12.71	349.493		
5,200.0	5,149.2	5,215.4	5,215.0	14.5	1.6	-70.41	998.6	-4,372.9	4,440.5	4,427.6	12.88	344.840		
5,216.5	5,165.7	5,231.7	5,231.2	14.5	1.6	-70.41	998.6	-4,372.6	4,440.2	4,427.3	12.91	343.913		
5,300.0	5,249.2	5,312.4	5,312.0	14.6	1.6	-70.40	998.9	-4,371.1	4,438.9	4,425.8	13.08	339.303		
5,314.9	5,264.1	5,325.8	5,325.4	14.6	1.6	-70.40	998.9	-4,370.8	4,438.6	4,425.5	13.11	338.485		
5,400.0	5,349.2	5,400.0	5,399.5	14.8	1.6	-70.39	999.0	-4,369.7	4,437.4	4,424.1	13.29	333.920		
5,413.4	5,362.5	5,413.2	5,412.7	14.8	1.6	-70.39	999.0	-4,369.5	4,437.2	4,423.9	13.32	333.193		
5,500.0	5,449.2	5,486.0	5,485.5	14.9	1.6	-70.39	998.6	-4,368.7	4,436.2	4,422.7	13.50	328.610		
5,511.8	5,461.0	5,500.0	5,499.5	14.9	1.6	-70.39	998.4	-4,368.6	4,436.0	4,422.5	13.53	327.981		
5,600.0	5,549.2	5,580.0	5,579.5	15.1	1.7	-70.40	997.6	-4,368.1	4,435.2	4,421.5	13.72	323.265		
5,610.2	5,559.4	5,589.8	5,589.4	15.1	1.7	-70.40	997.5	-4,368.1	4,435.1	4,421.4	13.74	322.722		
5,700.0	5,649.2	5,673.4	5,672.9	15.2	1.7	-70.41	996.6	-4,367.6	4,434.4	4,420.5	13.94	318.064		
5,708.6	5,657.8	5,681.4	5,680.9	15.3	1.7	-70.41	996.6	-4,367.6	4,434.3	4,420.4	13.96	317.622		
5,800.0	5,749.2	5,769.4	5,768.9	15.4	1.7	-70.42	996.0	-4,367.2	4,433.7	4,419.6	14.16	313.052		
5,807.1	5,756.2	5,776.3	5,775.8	15.4	1.7	-70.42	996.0	-4,367.1	4,433.7	4,419.5	14.18	312.703		
5,900.0	5,849.2	5,864.4	5,863.9	15.6	1.7	-70.42	995.7	-4,366.7	4,433.1	4,418.7	14.38	308.299		
5,905.5	5,854.7	5,869.5	5,869.0	15.6	1.7	-70.42	995.7	-4,366.6	4,433.1	4,418.7	14.39	308.044		
6,000.0	5,949.2	5,950.7	5,950.2	15.7	1.7	-70.42	995.7	-4,366.3	4,432.7	4,418.1	14.59	303.888		
6,003.9	5,953.1	5,953.9	5,953.4	15.7	1.7	-70.42	995.7	-4,366.3	4,432.7	4,418.1	14.59	303.721		
6,059.3	6,008.5	6,000.0	5,999.5	15.8	1.7	-70.42	995.7	-4,366.2	4,432.6	4,417.9	14.71	301.390		
6,100.0	6,049.2	6,034.6	6,034.1	15.9	1.7	-70.42	995.8	-4,366.2	4,432.7	4,417.9	14.79	299.682		
6,102.3	6,051.5	6,036.7	6,036.2	15.9	1.7	-70.42	995.8	-4,366.2	4,432.7	4,417.9	14.80	299.584		
6,124.6	6,073.8	6,056.1	6,055.6	15.9	1.7	-70.42	995.8	-4,366.3	4,432.7	4,417.9	14.84	298.656		
6,150.0	6,099.2	6,078.3	6,077.8	16.0	1.7	19.60	995.9	-4,366.3	4,432.4	4,414.8	17.57	252.234		
6,200.0	6,149.0	6,122.2	6,121.7	16.1	1.7	19.69	996.0	-4,366.4	4,429.2	4,411.5	17.72	249.993		
6,200.8	6,149.8	6,122.9	6,122.4	16.1	1.7	19.70	996.0	-4,366.4	4,429.1	4,411.4	17.72	249.950		
6,250.0	6,198.5	6,166.1	6,165.6	16.2	1.7	19.90	996.1	-4,366.6	4,422.9	4,405.0	17.90	247.084		
6,299.2	6,246.6	6,209.2	6,208.7	16.3	1.7	20.20	996.4	-4,366.8	4,413.5	4,395.4	18.10	243.873		
6,300.0	6,247.4	6,209.9	6,209.4	16.3	1.7	20.21	996.4	-4,366.8	4,413.4	4,395.3	18.10	243.821		
6,350.0	6,295.5	6,254.3	6,253.8	16.5	1.7	20.63	996.6	-4,367.0	4,400.7	4,382.4	18.30	240.448		
6,397.6	6,340.2	6,295.7	6,295.2	16.6	1.7	21.15	996.9	-4,367.3	4,385.8	4,367.3	18.48	237.294		
6,400.0	6,342.4	6,300.0	6,299.5	16.6	1.7	21.18	996.9	-4,367.3	4,385.0	4,366.5	18.49	237.129		
6,450.0	6,388.1	6,352.3	6,351.8	16.8	1.7	21.90	997.3	-4,367.6	4,366.2	4,347.5	18.67	233.876		
6,496.0	6,428.8	6,401.6	6,401.1	17.0	1.7	22.70	997.5	-4,367.8	4,346.1	4,327.3	18.82	230.990		
6,500.0	6,432.2	6,405.8	6,405.3	17.0	1.7	22.78	997.5	-4,367.8	4,344.3	4,325.5	18.83	230.754		
6,550.0	6,474.6	6,458.2	6,457.7	17.3	1.7	23.85	997.6	-4,367.9	4,319.5	4,300.6	18.97	227.747		
6,594.5	6,510.7	6,502.3	6,501.8	17.5	1.7	24.98	997.6	-4,368.0	4,295.1	4,276.1	19.08	225.116		
6,600.0	6,515.0	6,506.8	6,506.2	17.6	1.7	25.13	997.6	-4,368.0	4,292.0	4,272.9	19.09	224.807		
6,650.0	6,553.3	6,545.9	6,545.4	17.9	1.7	26.64	997.5	-4,368.0	4,261.8	4,242.6	19.21	221.891		
6,692.9	6,584.3	6,577.6	6,577.1	18.2	1.8	28.15	997.4	-4,368.0	4,234.0	4,214.7	19.31	219.227		
6,700.0	6,589.2	6,582.7	6,582.2	18.2	1.8	28.43	997.3	-4,368.0	4,229.3	4,209.9	19.33	218.779		
6,750.0	6,622.7	6,600.0	6,599.5	18.6	1.8	30.45	997.3	-4,368.1	4,194.5	4,175.0	19.46	215.522		
6,791.3	6,648.3	6,630.4	6,629.9	19.0	1.8	32.55	997.1	-4,368.1	4,164.2	4,144.6	19.64	212.061		
6,800.0	6,653.4	6,634.1	6,633.6	19.1	1.8	33.01	997.1	-4,368.2	4,157.7	4,138.0	19.67	211.325		
6,850.0	6,681.4	6,654.5	6,653.9	19.6	1.8	35.96	997.1	-4,368.3	4,119.1	4,099.2	19.96	206.366		
6,889.7	6,701.5	6,669.2	6,668.6	20.1	1.8	38.73	997.0	-4,368.3	4,087.3	4,067.0	20.28	201.544		
6,900.0	6,706.3	6,672.7	6,672.2	20.2	1.8	39.51	997.0	-4,368.4	4,078.9	4,058.5	20.37	200.202		
6,950.0	6,728.2	6,700.0	6,699.5	20.9	1.8	43.94	997.0	-4,368.6	4,037.3	4,016.3	20.98	192.450		
6,988.2	6,742.8	6,700.0	6,699.5	21.5	1.8	47.57	997.0	-4,368.6	4,004.6	3,983.0	21.52	186.049		

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 SCHAUMBERG 17G-314
<b>Project:</b>	WELD COUNTY, COLORADO	<b>TVD Reference:</b>	KB-EST @ 4633.0usft (Original Well Elev)
<b>Reference Site:</b>	SW NW SEC. 17 T5N R64W 6th P.M.	<b>MD Reference:</b>	KB-EST @ 4633.0usft (Original Well Elev)
<b>Site Error:</b>	0.0 usft	<b>North Reference:</b>	True
<b>Reference Well:</b>	SCHAUMBERG 17G-314	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Well Error:</b>	0.0 usft	<b>Output errors are at</b>	2.00 sigma
<b>Reference Wellbore</b>	ORIGINAL WELLBORE	<b>Database:</b>	EDM 5000.1 Single User Db
<b>Reference Design:</b>	PROPOSAL #1	<b>Offset TVD Reference:</b>	Offset Datum

Offset Design												Offset Site Error:	0.0 usft
Survey Program: 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
7,000.0	6,746.9	6,705.0	6,704.5	21.6	1.8	48.89	997.0	-4,368.6	3,994.3	3,972.6	21.72	183.867	
7,050.0	6,762.4	6,725.8	6,725.3	22.5	1.8	55.19	997.1	-4,368.8	3,950.3	3,927.7	22.70	174.049	
7,086.6	6,771.5	6,738.2	6,737.7	23.1	1.8	60.48	997.1	-4,368.9	3,917.6	3,894.1	23.49	166.750	
7,100.0	6,774.4	6,742.1	6,741.6	23.3	1.8	62.55	997.1	-4,368.9	3,905.5	3,881.7	23.79	164.178	
7,150.0	6,783.1	6,753.8	6,753.2	24.3	1.8	70.91	997.1	-4,369.0	3,860.1	3,835.2	24.90	155.054	
7,185.0	6,787.1	6,759.2	6,758.7	25.0	1.8	77.23	997.1	-4,369.0	3,828.0	3,802.4	25.64	149.314	
7,200.0	6,788.3	6,760.9	6,760.3	25.3	1.8	80.00	997.1	-4,369.0	3,814.3	3,788.4	25.94	147.023	
7,252.3	6,790.0	6,763.4	6,762.9	26.3	1.8	89.80	997.1	-4,369.0	3,766.2	3,739.1	27.12	138.885	
7,283.4	6,789.9	6,763.4	6,762.9	27.0	1.8	89.81	997.1	-4,369.0	3,737.6	3,709.8	27.81	134.404	
7,300.0	6,789.8	6,763.5	6,763.0	27.3	1.8	89.81	997.1	-4,369.0	3,722.5	3,694.3	28.18	132.111	
7,381.9	6,789.5	6,763.6	6,763.1	29.1	1.8	89.81	997.1	-4,369.0	3,647.5	3,617.5	30.06	121.348	
7,400.0	6,789.4	6,763.6	6,763.1	29.5	1.8	89.81	997.1	-4,369.0	3,631.0	3,600.5	30.48	119.146	
7,480.3	6,789.1	6,763.7	6,763.2	31.4	1.8	89.82	997.1	-4,369.0	3,557.9	3,525.5	32.39	109.850	
7,500.0	6,789.1	6,763.7	6,763.2	31.8	1.8	89.82	997.1	-4,369.0	3,540.0	3,507.2	32.86	107.736	
7,578.7	6,788.8	6,763.8	6,763.3	33.7	1.8	89.82	997.1	-4,369.0	3,468.7	3,433.9	34.79	99.716	
7,600.0	6,788.7	6,763.9	6,763.3	34.2	1.8	89.82	997.1	-4,369.0	3,449.5	3,414.2	35.31	97.700	
7,677.1	6,788.4	6,763.9	6,763.4	36.1	1.8	89.83	997.1	-4,369.0	3,380.1	3,342.8	37.24	90.771	
7,700.0	6,788.3	6,764.0	6,763.5	36.7	1.8	89.83	997.1	-4,369.0	3,359.6	3,321.8	37.81	88.856	
7,775.6	6,788.0	6,764.1	6,763.5	38.6	1.8	89.83	997.1	-4,369.0	3,292.0	3,252.2	39.73	82.855	
7,800.0	6,787.9	6,764.1	6,763.6	39.2	1.8	89.83	997.1	-4,369.0	3,270.2	3,229.8	40.35	81.039	
7,874.0	6,787.6	6,764.2	6,763.7	41.0	1.8	89.84	997.1	-4,369.0	3,204.5	3,162.2	42.26	75.824	
7,900.0	6,787.6	6,764.2	6,763.7	41.7	1.8	89.84	997.1	-4,369.0	3,181.5	3,138.5	42.93	74.104	
7,972.4	6,787.3	6,764.3	6,763.8	43.6	1.8	89.84	997.1	-4,369.0	3,117.6	3,072.8	44.82	69.557	
8,000.0	6,787.2	6,764.3	6,763.8	44.3	1.8	89.84	997.1	-4,369.0	3,093.4	3,047.9	45.54	67.927	
8,070.8	6,786.9	6,764.4	6,763.9	46.1	1.8	89.85	997.1	-4,369.0	3,031.5	2,984.1	47.40	63.950	
8,100.0	6,786.8	6,764.4	6,763.9	46.9	1.8	89.85	997.1	-4,369.0	3,006.1	2,957.9	48.17	62.405	
8,169.3	6,786.5	6,764.5	6,764.0	48.7	1.8	89.85	997.1	-4,369.0	2,946.1	2,896.1	50.01	58.913	
8,200.0	6,786.4	6,764.5	6,764.0	49.5	1.8	89.85	997.1	-4,369.0	2,919.6	2,868.8	50.82	57.448	
8,267.7	6,786.1	6,764.6	6,764.1	51.3	1.8	89.86	997.1	-4,369.0	2,861.6	2,808.9	52.63	54.373	
8,300.0	6,786.0	6,764.6	6,764.1	52.1	1.8	89.86	997.1	-4,369.0	2,834.0	2,780.5	53.49	52.982	
8,366.1	6,785.8	6,764.7	6,764.2	53.9	1.8	89.86	997.1	-4,369.0	2,777.9	2,722.7	55.26	50.267	
8,400.0	6,785.6	6,764.8	6,764.2	54.8	1.8	89.86	997.1	-4,369.0	2,749.4	2,693.2	56.17	48.945	
8,464.5	6,785.4	6,764.8	6,764.3	56.5	1.8	89.87	997.1	-4,369.0	2,695.3	2,637.4	57.91	46.542	
8,500.0	6,785.3	6,764.9	6,764.3	57.5	1.8	89.87	997.1	-4,369.0	2,665.8	2,607.0	58.87	45.285	
8,563.0	6,785.0	6,764.9	6,764.4	59.2	1.8	89.87	997.1	-4,369.0	2,613.8	2,553.2	60.57	43.153	
8,600.0	6,784.9	6,765.0	6,764.4	60.2	1.8	89.87	997.1	-4,369.0	2,583.4	2,521.9	61.57	41.958	
8,661.4	6,784.6	6,765.0	6,764.5	61.8	1.8	89.87	997.1	-4,369.0	2,533.5	2,470.2	63.24	40.062	
8,700.0	6,784.5	6,765.1	6,764.5	62.9	1.8	89.88	997.1	-4,369.0	2,502.3	2,438.0	64.29	38.924	
8,759.8	6,784.3	6,765.1	6,764.6	64.5	1.8	89.88	997.1	-4,369.0	2,454.5	2,388.6	65.92	37.236	
8,800.0	6,784.1	6,765.1	6,764.6	65.6	1.8	89.88	997.1	-4,369.0	2,422.6	2,355.6	67.01	36.153	
8,858.2	6,783.9	6,765.2	6,764.7	67.1	1.8	89.88	997.1	-4,369.0	2,376.9	2,308.3	68.60	34.649	
8,900.0	6,783.7	6,765.2	6,764.7	68.3	1.8	89.88	997.1	-4,369.0	2,344.5	2,274.8	69.74	33.618	
8,956.7	6,783.5	6,765.3	6,764.8	69.8	1.8	89.89	997.1	-4,369.0	2,301.0	2,229.7	71.29	32.276	
9,000.0	6,783.3	6,765.3	6,764.8	71.0	1.8	89.89	997.1	-4,369.0	2,268.1	2,195.6	72.48	31.294	
9,055.1	6,783.1	6,765.4	6,764.9	72.5	1.8	89.89	997.1	-4,369.0	2,226.8	2,152.8	73.99	30.097	
9,100.0	6,782.9	6,765.4	6,764.9	73.7	1.8	89.89	997.1	-4,369.0	2,193.5	2,118.3	75.22	29.163	
9,153.5	6,782.7	6,765.5	6,764.9	75.2	1.8	89.89	997.1	-4,369.0	2,154.5	2,077.8	76.69	28.094	
9,200.0	6,782.6	6,765.5	6,765.0	76.5	1.8	89.90	997.1	-4,369.0	2,121.1	2,043.2	77.96	27.206	
9,251.9	6,782.4	6,765.6	6,765.0	77.9	1.8	89.90	997.1	-4,369.0	2,084.4	2,005.0	79.39	26.254	
9,300.0	6,782.2	6,765.6	6,765.1	79.2	1.8	89.90	997.1	-4,369.0	2,051.0	1,970.3	80.72	25.410	
9,350.4	6,782.0	6,765.6	6,765.1	80.6	1.8	89.90	997.1	-4,369.0	2,016.6	1,934.5	82.10	24.562	
9,400.0	6,781.8	6,765.7	6,765.2	82.0	1.8	89.90	997.1	-4,369.0	1,983.5	1,900.0	83.47	23.762	

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 SCHAUMBERG 17G-314
<b>Project:</b>	WELD COUNTY, COLORADO	<b>TVD Reference:</b>	KB-EST @ 4633.0usft (Original Well Elev)
<b>Reference Site:</b>	SW NW SEC. 17 T5N R64W 6th P.M.	<b>MD Reference:</b>	KB-EST @ 4633.0usft (Original Well Elev)
<b>Site Error:</b>	0.0 usft	<b>North Reference:</b>	True
<b>Reference Well:</b>	SCHAUMBERG 17G-314	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Well Error:</b>	0.0 usft	<b>Output errors are at</b>	2.00 sigma
<b>Reference Wellbore</b>	ORIGINAL WELLBORE	<b>Database:</b>	EDM 5000.1 Single User Db
<b>Reference Design:</b>	PROPOSAL #1	<b>Offset TVD Reference:</b>	Offset Datum

Offset Design SW NW SEC. 17 T5N R64W 6th P.M. - EXIST VERT DUNN #1 - Wellbore #1 - Wellbore #1												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
9,448.8	6,781.6	6,765.7	6,765.2	83.3	1.8	89.90	997.1	-4,369.0	1,951.5	1,866.7	84.82	23.008	
9,500.0	6,781.4	6,765.8	6,765.2	84.7	1.8	89.91	997.1	-4,369.0	1,918.8	1,832.5	86.23	22.251	
9,547.2	6,781.2	6,765.8	6,765.3	86.0	1.8	89.91	997.1	-4,369.0	1,889.3	1,801.7	87.54	21.583	
9,600.0	6,781.0	6,765.8	6,765.3	87.5	1.8	89.91	997.1	-4,369.0	1,857.2	1,768.2	88.99	20.869	
9,645.6	6,780.8	6,765.9	6,765.4	88.7	1.8	89.91	997.1	-4,369.0	1,830.2	1,739.9	90.26	20.278	
9,700.0	6,780.6	6,765.9	6,765.4	90.2	1.8	89.91	997.1	-4,369.0	1,799.1	1,707.3	91.76	19.607	
9,744.1	6,780.4	6,765.9	6,765.4	91.4	1.8	89.91	997.1	-4,369.0	1,774.6	1,681.7	92.98	19.087	
9,800.0	6,780.2	6,766.0	6,765.5	93.0	1.8	89.92	997.1	-4,369.0	1,744.7	1,650.2	94.53	18.458	
9,842.5	6,780.1	6,766.0	6,765.5	94.2	1.8	89.92	997.1	-4,369.0	1,722.9	1,627.2	95.70	18.002	
9,900.0	6,779.8	6,766.1	6,765.5	95.7	1.8	89.92	997.1	-4,369.0	1,694.6	1,597.3	97.30	17.417	
9,940.9	6,779.7	6,766.1	6,765.6	96.9	1.8	89.92	997.1	-4,369.0	1,675.3	1,576.9	98.43	17.020	
10,000.0	6,779.4	6,766.1	6,765.6	98.5	1.8	89.92	997.1	-4,369.0	1,649.0	1,548.9	100.07	16.478	
10,039.3	6,779.3	6,766.2	6,765.6	99.6	1.8	89.92	997.1	-4,369.0	1,632.4	1,531.2	101.16	16.136	
10,100.0	6,779.0	6,766.2	6,765.7	101.3	1.8	89.92	997.1	-4,369.0	1,608.3	1,505.5	102.84	15.638	
10,137.8	6,778.9	6,766.2	6,765.7	102.3	1.8	89.93	997.1	-4,369.0	1,594.3	1,490.4	103.89	15.345	
10,200.0	6,778.7	6,766.3	6,765.8	104.1	1.8	89.93	997.1	-4,369.0	1,572.9	1,467.3	105.62	14.892	
10,236.2	6,778.5	6,766.3	6,765.8	105.1	1.8	89.93	997.1	-4,369.0	1,561.5	1,454.9	106.63	14.645	
10,300.0	6,778.3	6,766.3	6,765.8	106.8	1.8	89.93	997.1	-4,369.0	1,543.2	1,434.8	108.40	14.237	
10,334.6	6,778.1	6,766.4	6,765.8	107.8	1.8	89.93	997.1	-4,369.0	1,534.4	1,425.0	109.36	14.030	
10,400.0	6,777.9	6,766.4	6,765.9	109.6	1.8	89.93	997.1	-4,369.0	1,519.6	1,408.4	111.18	13.668	
10,433.0	6,777.7	6,766.4	6,765.9	110.5	1.8	89.93	997.1	-4,369.0	1,513.1	1,401.0	112.10	13.498	
10,500.0	6,777.5	6,766.5	6,766.0	112.4	1.8	89.94	997.1	-4,369.0	1,502.2	1,388.2	113.96	13.182	
10,531.5	6,777.3	6,766.5	6,766.0	113.3	1.8	89.94	997.1	-4,369.0	1,498.1	1,383.2	114.84	13.045	
10,600.0	6,777.1	6,766.5	6,766.0	115.2	1.8	89.94	997.1	-4,369.0	1,491.3	1,374.6	116.74	12.774	
10,629.9	6,777.0	6,766.6	6,766.0	116.0	1.8	89.94	997.1	-4,369.0	1,489.4	1,371.8	117.58	12.667	
10,700.0	6,776.7	6,766.6	6,766.1	117.9	1.8	89.94	997.1	-4,369.0	1,487.1	1,367.6	119.53	12.442	
10,712.5	6,776.6	6,766.6	6,766.1	118.3	1.8	89.94	997.1	-4,369.0	1,487.1	1,367.2	119.88	12.405 CC	
10,728.3	6,776.6	6,766.6	6,766.1	118.7	1.8	89.94	997.1	-4,369.0	1,487.2	1,366.9	120.32	12.360 ES	
10,800.0	6,776.3	6,766.7	6,766.1	120.7	1.8	89.94	997.1	-4,369.0	1,489.7	1,367.3	122.32	12.179	
10,826.7	6,776.2	6,766.7	6,766.2	121.5	1.8	89.94	997.1	-4,369.0	1,491.5	1,368.4	123.06	12.120	
10,900.0	6,775.9	6,766.7	6,766.2	123.5	1.8	89.95	997.1	-4,369.0	1,498.9	1,373.8	125.10	11.981	
10,925.2	6,775.8	6,766.7	6,766.2	124.2	1.8	89.95	997.1	-4,369.0	1,502.2	1,376.4	125.80	11.941	
11,000.0	6,775.5	6,766.8	6,766.3	126.3	1.8	89.95	997.1	-4,369.0	1,514.6	1,386.7	127.89	11.843	
11,023.6	6,775.4	6,766.8	6,766.3	126.9	1.8	89.95	997.1	-4,369.0	1,519.3	1,390.7	128.55	11.819	
11,100.0	6,775.1	6,766.8	6,766.3	129.1	1.8	89.95	997.1	-4,369.0	1,536.7	1,406.1	130.68	11.760	
11,122.0	6,775.0	6,766.8	6,766.3	129.7	1.8	89.95	997.1	-4,369.0	1,542.4	1,411.1	131.29	11.748	
11,200.0	6,774.7	6,766.9	6,766.4	131.9	1.8	89.95	997.1	-4,369.0	1,565.0	1,431.5	133.47	11.725	
11,220.4	6,774.6	6,766.9	6,766.4	132.4	1.8	89.95	997.1	-4,369.0	1,571.4	1,437.4	134.04	11.724 SF	
11,300.0	6,774.3	6,766.9	6,766.4	134.6	1.8	89.95	997.1	-4,369.0	1,598.9	1,462.7	136.26	11.734	
11,318.9	6,774.2	6,767.0	6,766.4	135.2	1.8	89.95	997.1	-4,369.0	1,606.0	1,469.2	136.79	11.741	
11,400.0	6,773.9	6,767.0	6,766.5	137.4	1.8	89.96	997.1	-4,369.0	1,638.3	1,499.3	139.05	11.782	
11,417.3	6,773.8	6,767.0	6,766.5	137.9	1.8	89.96	997.1	-4,369.0	1,645.6	1,506.1	139.53	11.794	
11,500.0	6,773.5	6,767.0	6,766.5	140.2	1.8	89.96	997.1	-4,369.0	1,682.7	1,540.9	141.84	11.863	
11,515.7	6,773.4	6,767.1	6,766.5	140.7	1.8	89.96	997.1	-4,369.0	1,690.1	1,547.9	142.28	11.879	
11,600.0	6,773.1	6,767.1	6,766.6	143.0	1.8	89.96	997.1	-4,369.0	1,731.8	1,587.1	144.64	11.973	
11,614.1	6,773.0	6,767.1	6,766.6	143.4	1.8	89.96	997.1	-4,369.0	1,739.1	1,594.0	145.03	11.991	
11,700.0	6,772.7	6,767.1	6,766.6	145.8	1.8	89.96	997.1	-4,369.0	1,785.1	1,637.7	147.43	12.108	
11,712.6	6,772.6	6,767.1	6,766.6	146.2	1.8	89.96	997.1	-4,369.0	1,792.1	1,644.3	147.78	12.127	
11,800.0	6,772.3	6,767.2	6,766.7	148.6	1.8	89.96	997.1	-4,369.0	1,842.3	1,692.1	150.22	12.264	
11,811.0	6,772.2	6,767.2	6,766.7	148.9	1.8	89.96	997.1	-4,369.0	1,848.8	1,698.3	150.53	12.282	
11,900.0	6,771.9	6,767.2	6,766.7	151.4	1.8	89.96	997.1	-4,369.0	1,903.0	1,750.0	153.02	12.437	
11,909.4	6,771.8	6,767.2	6,766.7	151.7	1.8	89.96	997.1	-4,369.0	1,908.9	1,755.6	153.28	12.454	

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 SCHAUMBERG 17G-314
<b>Project:</b>	WELD COUNTY, COLORADO	<b>TVD Reference:</b>	KB-EST @ 4633.0usft (Original Well Elev)
<b>Reference Site:</b>	SW NW SEC. 17 T5N R64W 6th P.M.	<b>MD Reference:</b>	KB-EST @ 4633.0usft (Original Well Elev)
<b>Site Error:</b>	0.0 usft	<b>North Reference:</b>	True
<b>Reference Well:</b>	SCHAUMBERG 17G-314	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Well Error:</b>	0.0 usft	<b>Output errors are at</b>	2.00 sigma
<b>Reference Wellbore</b>	ORIGINAL WELLBORE	<b>Database:</b>	EDM 5000.1 Single User Db
<b>Reference Design:</b>	PROPOSAL #1	<b>Offset TVD Reference:</b>	Offset Datum

<b>Offset Design</b> SW NW SEC. 17 T5N R64W 6th P.M. - EXIST VERT DUNN #1 - 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
12,000.0	6,771.5	6,767.3	6,766.8	154.2	1.8	89.97	997.1	-4,369.0	1,967.0	1,811.2	155.81	12.624	
12,007.8	6,771.4	6,767.3	6,766.8	154.4	1.8	89.97	997.1	-4,369.0	1,972.1	1,816.1	156.03	12.639	
12,100.0	6,771.1	6,767.3	6,766.8	157.0	1.8	89.97	997.1	-4,369.0	2,033.8	1,875.2	158.61	12.823	
12,106.3	6,771.0	6,767.3	6,766.8	157.2	1.8	89.97	997.1	-4,369.0	2,038.1	1,879.3	158.78	12.836	
12,200.0	6,770.7	6,767.4	6,766.9	159.8	1.8	89.97	997.1	-4,369.0	2,103.3	1,941.9	161.41	13.031	
12,204.7	6,770.6	6,767.4	6,766.9	159.9	1.8	89.97	997.1	-4,369.0	2,106.7	1,945.1	161.54	13.041	
12,300.0	6,770.3	6,767.4	6,766.9	162.6	1.8	89.97	997.1	-4,369.0	2,175.2	2,011.0	164.20	13.247	
12,303.1	6,770.2	6,767.4	6,766.9	162.7	1.8	89.97	997.1	-4,369.0	2,177.5	2,013.2	164.29	13.254	
12,361.7	6,770.0	6,767.4	6,766.9	164.3	1.8	89.97	997.1	-4,369.0	2,220.6	2,054.7	165.93	13.383	



# Anticollision Report



<b>Company:</b>	PDC ENERGY	<b>Local Co-ordinate Reference:</b>	Well SCHAUMBERG 17G-314
<b>Project:</b>	WELD COUNTY, COLORADO	<b>TVD Reference:</b>	KB-EST @ 4633.0usft (Original Well Elev)
<b>Reference Site:</b>	SW NW SEC. 17 T5N R64W 6th P.M.	<b>MD Reference:</b>	KB-EST @ 4633.0usft (Original Well Elev)
<b>Site Error:</b>	0.0 usft	<b>North Reference:</b>	True
<b>Reference Well:</b>	SCHAUMBERG 17G-314	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Well Error:</b>	0.0 usft	<b>Output errors are at</b>	2.00 sigma
<b>Reference Wellbore</b>	ORIGINAL WELLBORE	<b>Database:</b>	EDM 5000.1 Single User Db
<b>Reference Design:</b>	PROPOSAL #1	<b>Offset TVD Reference:</b>	Offset Datum

Offset Design												Offset Site Error:	0.0 usft
Survey Program: 0-INC												Offset Well Error:	0.0 usft
Reference		Offset		Semi Major Axis			Distance						Warning
Measured Depth (usft)	Vertical Depth (usft)	Measured Depth (usft)	Vertical Depth (usft)	Reference (usft)	Offset (usft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (usft)	+E/-W (usft)	Between Centres (usft)	Between Ellipses (usft)	Minimum Separation (usft)	Separation Factor	
0.0	0.0	0.0	0.0	0.0	0.0	-73.22	917.5	-3,042.1	3,177.5				
98.4	98.4	86.4	86.4	0.1	1.1	-73.22	917.5	-3,042.1	3,177.4	3,176.2	1.24	2,572.574	
100.0	100.0	88.0	88.0	0.1	1.2	-73.22	917.5	-3,042.1	3,177.4	3,176.2	1.26	2,526.489	
196.8	196.8	184.8	184.8	0.3	3.2	-73.22	917.5	-3,042.1	3,177.4	3,173.9	3.55	893.930	
200.0	200.0	188.0	188.0	0.3	3.3	-73.22	917.5	-3,042.1	3,177.4	3,173.8	3.63	874.639	
295.3	295.3	283.3	283.3	0.5	5.3	-73.22	917.5	-3,042.1	3,177.4	3,171.6	5.85	543.395	
300.0	300.0	288.0	288.0	0.5	5.4	-73.22	917.5	-3,042.1	3,177.4	3,171.5	5.96	533.477	
393.7	393.7	381.7	381.7	0.8	7.3	-73.22	917.5	-3,042.1	3,177.4	3,169.4	8.08	393.067	
400.0	400.0	388.0	388.0	0.8	7.5	-73.22	917.5	-3,042.1	3,177.4	3,169.2	8.23	386.245	
492.1	492.1	480.1	480.1	1.0	9.3	-73.22	917.5	-3,042.1	3,177.4	3,167.1	10.30	308.367	
500.0	500.0	488.0	488.0	1.0	9.5	-73.22	917.5	-3,042.1	3,177.4	3,167.0	10.48	303.146	
590.5	590.5	578.5	578.5	1.2	11.3	-73.22	917.5	-3,042.1	3,177.4	3,164.9	12.52	253.844	
600.0	600.0	588.0	588.0	1.2	11.5	-73.22	917.5	-3,042.1	3,177.4	3,164.7	12.73	249.609	
689.0	689.0	677.0	677.0	1.4	13.3	-73.22	917.5	-3,042.1	3,177.4	3,162.7	14.73	215.761	
700.0	700.0	688.0	688.0	1.4	13.5	-73.22	917.5	-3,042.1	3,177.4	3,162.5	14.97	212.196	
787.4	787.4	775.4	775.4	1.6	15.3	-73.22	917.5	-3,042.1	3,177.4	3,160.5	16.93	187.640	
800.0	800.0	788.0	788.0	1.7	15.5	-73.22	917.5	-3,042.1	3,177.4	3,160.2	17.22	184.561	
885.8	885.8	873.8	873.8	1.9	17.3	-73.22	917.5	-3,042.1	3,177.4	3,158.3	19.14	166.017	
900.0	900.0	888.0	888.0	1.9	17.6	-73.22	917.5	-3,042.1	3,177.4	3,158.0	19.46	163.307	
984.2	984.2	972.2	972.2	2.1	19.3	-73.22	917.5	-3,042.1	3,177.4	3,156.1	21.34	148.870	
1,000.0	1,000.0	988.0	988.0	2.1	19.6	-73.22	917.5	-3,042.1	3,177.4	3,155.7	21.70	146.450	
1,082.7	1,082.7	1,070.7	1,070.7	2.3	21.2	-73.22	917.5	-3,042.1	3,177.4	3,153.9	23.55	134.938	
1,100.0	1,100.0	1,088.0	1,088.0	2.3	21.6	-73.22	917.5	-3,042.1	3,177.4	3,153.5	23.94	132.751	
1,181.1	1,181.1	1,169.1	1,169.1	2.5	23.2	-73.22	917.5	-3,042.1	3,177.4	3,151.7	25.75	123.393	
1,200.0	1,200.0	1,188.0	1,188.0	2.6	23.6	-73.22	917.5	-3,042.1	3,177.4	3,151.3	26.17	121.398	
1,279.5	1,279.5	1,267.5	1,267.5	2.7	25.2	-73.22	917.5	-3,042.1	3,177.4	3,149.5	27.95	113.669	
1,300.0	1,300.0	1,288.0	1,288.0	2.8	25.6	-73.22	917.5	-3,042.1	3,177.4	3,149.0	28.41	111.836	
1,377.9	1,377.9	1,365.9	1,365.9	3.0	27.2	-73.22	917.5	-3,042.1	3,177.4	3,147.3	30.16	105.367	
1,400.0	1,400.0	1,388.0	1,388.0	3.0	27.6	-73.22	917.5	-3,042.1	3,177.4	3,146.8	30.65	103.671	
1,476.4	1,476.4	1,464.4	1,464.4	3.2	29.2	-73.22	917.5	-3,042.1	3,177.4	3,145.1	32.36	98.197	
1,500.0	1,500.0	1,488.0	1,488.0	3.2	29.6	-73.22	917.5	-3,042.1	3,177.4	3,144.6	32.89	96.618	
1,574.8	1,574.8	1,562.8	1,562.8	3.4	31.1	-73.22	917.5	-3,042.1	3,177.4	3,142.9	34.56	91.940	
1,600.0	1,600.0	1,588.0	1,588.0	3.5	31.7	-73.22	917.5	-3,042.1	3,177.4	3,142.3	35.12	90.464	
1,673.2	1,673.2	1,661.2	1,661.2	3.6	33.1	-73.22	917.5	-3,042.1	3,177.4	3,140.7	36.76	86.433	
1,700.0	1,700.0	1,688.0	1,688.0	3.7	33.7	-73.22	917.5	-3,042.1	3,177.4	3,140.1	37.36	85.048	
1,771.6	1,771.6	1,759.6	1,759.6	3.9	35.1	-73.22	917.5	-3,042.1	3,177.4	3,138.5	38.96	81.550	
1,800.0	1,800.0	1,788.0	1,788.0	3.9	35.7	-73.22	917.5	-3,042.1	3,177.4	3,137.8	39.60	80.244	
1,870.1	1,870.1	1,858.1	1,858.1	4.1	37.1	85.61	917.5	-3,042.1	3,177.4	3,136.2	41.14	77.225	
1,900.0	1,900.0	1,888.0	1,888.0	4.1	37.7	85.62	917.5	-3,042.1	3,177.3	3,135.5	41.80	76.003	
1,968.5	1,968.4	1,956.4	1,956.4	4.2	39.1	85.69	917.5	-3,042.1	3,177.1	3,133.8	43.30	73.375	
2,000.0	1,999.8	1,987.8	1,987.8	4.3	39.7	85.73	917.5	-3,042.1	3,176.9	3,132.9	43.99	72.227	
2,066.9	2,066.5	2,054.5	2,054.5	4.4	41.0	85.83	917.5	-3,042.1	3,176.5	3,131.1	45.45	69.894	
2,100.0	2,099.5	2,087.5	2,087.5	4.5	41.7	85.89	917.5	-3,042.1	3,176.3	3,130.1	46.17	68.796	
2,165.3	2,164.4	2,152.4	2,152.4	4.6	43.0	86.04	917.5	-3,042.1	3,175.7	3,128.1	47.60	66.714	
2,200.0	2,198.7	2,186.7	2,186.7	4.7	43.7	86.13	917.5	-3,042.1	3,175.4	3,127.1	48.36	65.660	
2,263.8	2,261.8	2,249.8	2,249.8	4.8	45.0	86.31	917.5	-3,042.1	3,174.8	3,125.0	49.77	63.791	
2,300.0	2,297.5	2,285.5	2,285.5	4.9	45.7	86.43	917.5	-3,042.1	3,174.4	3,123.8	50.57	62.777	
2,362.2	2,358.6	2,346.6	2,346.6	5.0	46.9	86.65	917.5	-3,042.1	3,173.7	3,121.7	51.95	61.091	
2,400.0	2,395.6	2,383.6	2,383.6	5.1	47.7	86.79	917.5	-3,042.1	3,173.2	3,120.5	52.79	60.112	
2,460.6	2,454.9	2,442.9	2,442.9	5.3	48.9	87.01	917.5	-3,042.1	3,172.5	3,118.4	54.15	58.584	
2,500.0	2,493.4	2,481.4	2,481.4	5.4	49.6	87.16	917.5	-3,042.1	3,172.1	3,117.1	55.04	57.633	
2,559.0	2,551.2	2,539.2	2,539.2	5.6	50.8	87.37	917.5	-3,042.1	3,171.5	3,115.1	56.38	56.251	

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 SCHAUMBERG 17G-314
<b>Project:</b>	WELD COUNTY, COLORADO	<b>TVD Reference:</b>	KB-EST @ 4633.0usft (Original Well Elev)
<b>Reference Site:</b>	SW NW SEC. 17 T5N R64W 6th P.M.	<b>MD Reference:</b>	KB-EST @ 4633.0usft (Original Well Elev)
<b>Site Error:</b>	0.0 usft	<b>North Reference:</b>	True
<b>Reference Well:</b>	SCHAUMBERG 17G-314	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Well Error:</b>	0.0 usft	<b>Output errors are at</b>	2.00 sigma
<b>Reference Wellbore</b>	ORIGINAL WELLBORE	<b>Database:</b>	EDM 5000.1 Single User Db
<b>Reference Design:</b>	PROPOSAL #1	<b>Offset TVD Reference:</b>	Offset Datum

Offset Design												Offset Site Error:	0.0 usft
Survey Program: 0-INC												Offset Well Error:	0.0 usft
Reference		Offset		Semi Major Axis			Distance						Warning
Measured Depth (usft)	Vertical Depth (usft)	Measured Depth (usft)	Vertical Depth (usft)	Reference (usft)	Offset (usft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (usft)	+E/-W (usft)	Between Centres (usft)	Between Ellipses (usft)	Minimum Separation (usft)	Separation Factor	
2,600.0	2,591.3	2,579.3	2,579.3	5.7	51.6	87.52	917.5	-3,042.1	3,171.1	3,113.8	57.31	55.331	
2,657.5	2,647.5	2,635.5	2,635.5	5.9	52.7	87.73	917.5	-3,042.1	3,170.6	3,112.0	58.63	54.079	
2,700.0	2,689.1	2,677.1	2,677.1	6.0	53.6	87.89	917.5	-3,042.1	3,170.3	3,110.7	59.60	53.188	
2,755.9	2,743.7	2,731.7	2,731.7	6.2	54.7	88.09	917.5	-3,042.1	3,169.9	3,109.0	60.90	52.054	
2,800.0	2,786.9	2,774.9	2,774.9	6.4	55.5	88.26	917.5	-3,042.1	3,169.6	3,107.7	61.91	51.193	
2,854.3	2,840.0	2,828.0	2,828.0	6.6	56.6	88.46	917.5	-3,042.1	3,169.2	3,106.1	63.18	50.165	
2,900.0	2,884.7	2,872.7	2,872.7	6.7	57.5	88.62	917.5	-3,042.1	3,169.0	3,104.8	64.24	49.333	
2,952.7	2,936.3	2,924.3	2,924.3	6.9	58.5	88.82	917.5	-3,042.1	3,168.7	3,103.3	65.47	48.401	
3,000.0	2,982.5	2,970.5	2,970.5	7.1	59.5	88.99	917.5	-3,042.1	3,168.5	3,102.0	66.57	47.596	
3,051.2	3,032.6	3,020.6	3,020.6	7.3	60.5	89.18	917.5	-3,042.1	3,168.4	3,100.6	67.77	46.750	
3,100.0	3,080.3	3,068.3	3,068.3	7.5	61.4	89.36	917.5	-3,042.1	3,168.2	3,099.3	68.92	45.972	
3,149.6	3,128.8	3,116.8	3,116.8	7.7	62.4	89.54	917.5	-3,042.1	3,168.1	3,098.1	70.08	45.205	
3,200.0	3,178.1	3,166.1	3,166.1	7.9	63.4	89.73	917.5	-3,042.1	3,168.1	3,096.8	71.27	44.451	
3,248.0	3,225.1	3,213.1	3,213.1	8.1	64.3	89.90	917.5	-3,042.1	3,168.0	3,095.6	72.40	43.755	
3,274.1	3,250.7	3,238.7	3,238.7	8.2	64.9	90.00	917.5	-3,042.1	3,168.0	3,095.0	73.02	43.385	
3,300.0	3,276.0	3,264.0	3,264.0	8.3	65.4	90.10	917.5	-3,042.1	3,168.0	3,094.4	73.63	43.025	
3,346.4	3,321.4	3,309.4	3,309.4	8.5	66.3	90.27	917.5	-3,042.1	3,168.1	3,093.3	74.73	42.393	
3,400.0	3,373.8	3,361.8	3,361.8	8.7	67.3	90.46	917.5	-3,042.1	3,168.1	3,092.1	76.00	41.686	
3,444.9	3,417.7	3,405.7	3,405.7	8.8	68.2	90.63	917.5	-3,042.1	3,168.2	3,091.2	77.06	41.112	
3,500.0	3,471.6	3,459.6	3,459.6	9.1	69.3	90.83	917.5	-3,042.1	3,168.4	3,090.0	78.37	40.427	
3,543.3	3,513.9	3,501.9	3,501.9	9.2	70.2	90.99	917.5	-3,042.1	3,168.5	3,089.1	79.40	39.905	
3,600.0	3,569.4	3,557.4	3,557.4	9.5	71.3	91.20	917.5	-3,042.1	3,168.8	3,088.0	80.75	39.242	
3,641.7	3,610.2	3,598.2	3,598.2	9.7	72.1	91.35	917.5	-3,042.1	3,169.0	3,087.2	81.74	38.767	
3,700.0	3,667.2	3,655.2	3,655.2	9.9	73.2	91.57	917.5	-3,042.1	3,169.3	3,086.1	83.13	38.124	
3,740.1	3,706.5	3,694.5	3,694.5	10.1	74.0	91.71	917.5	-3,042.1	3,169.5	3,085.4	84.09	37.693	
3,800.0	3,765.0	3,753.0	3,753.0	10.3	75.2	91.93	917.5	-3,042.1	3,169.9	3,084.4	85.52	37.068	
3,838.6	3,802.8	3,790.8	3,790.8	10.5	76.0	92.07	917.5	-3,042.1	3,170.2	3,083.8	86.44	36.677	
3,900.0	3,862.8	3,850.8	3,850.8	10.7	77.2	92.30	917.5	-3,042.1	3,170.7	3,082.8	87.90	36.071	
3,937.0	3,899.0	3,887.0	3,887.0	10.9	77.9	92.44	917.5	-3,042.1	3,171.0	3,082.2	88.79	35.715	
4,000.0	3,960.7	3,948.7	3,948.7	11.2	79.1	92.67	917.5	-3,042.1	3,171.6	3,081.3	90.29	35.126	
4,035.4	3,995.3	3,983.3	3,983.3	11.3	79.8	92.80	917.5	-3,042.1	3,172.0	3,080.8	91.14	34.803	
4,100.0	4,058.5	4,046.5	4,046.5	11.6	81.1	93.03	917.5	-3,042.1	3,172.7	3,080.0	92.68	34.231	
4,133.8	4,091.6	4,079.6	4,079.6	11.7	81.8	93.16	917.5	-3,042.1	3,173.1	3,079.6	93.49	33.939	
4,200.0	4,156.3	4,144.3	4,144.3	12.0	83.1	93.40	917.5	-3,042.1	3,173.9	3,078.8	95.08	33.382	
4,232.3	4,187.9	4,175.9	4,175.9	12.2	83.7	93.52	917.5	-3,042.1	3,174.3	3,078.4	95.85	33.117	
4,300.0	4,254.1	4,242.1	4,242.1	12.5	85.0	93.77	917.5	-3,042.1	3,175.2	3,077.7	97.47	32.575	
4,325.7	4,279.2	4,267.2	4,267.2	12.6	85.5	93.86	917.5	-3,042.1	3,175.6	3,077.5	98.09	32.375	
4,330.7	4,284.1	4,272.1	4,272.1	12.6	85.6	93.88	917.5	-3,042.1	3,175.6	3,077.4	98.21	32.337	
4,400.0	4,352.1	4,340.1	4,340.1	12.8	87.0	94.14	917.5	-3,042.1	3,176.6	3,076.8	99.83	31.820	
4,429.1	4,380.8	4,368.8	4,368.8	12.9	87.6	94.24	917.5	-3,042.1	3,177.0	3,076.5	100.49	31.614	
4,500.0	4,450.7	4,438.7	4,438.7	13.1	89.0	94.46	917.5	-3,042.1	3,177.9	3,075.7	102.11	31.122	
4,527.5	4,478.0	4,466.0	4,466.0	13.2	89.5	94.53	917.5	-3,042.1	3,178.2	3,075.4	102.73	30.936	
4,600.0	4,549.9	4,537.9	4,537.9	13.4	91.0	94.71	917.5	-3,042.1	3,178.9	3,074.5	104.37	30.457	
4,626.0	4,575.7	4,563.7	4,563.7	13.5	91.5	94.77	917.5	-3,042.1	3,179.1	3,074.2	104.95	30.291	
4,700.0	4,649.4	4,637.4	4,637.4	13.6	93.0	94.90	917.5	-3,042.1	3,179.7	3,073.1	106.61	29.825	
4,724.4	4,673.7	4,661.7	4,661.7	13.7	93.5	94.93	917.5	-3,042.1	3,179.9	3,072.7	107.15	29.677	
4,800.0	4,749.2	4,737.2	4,737.2	13.8	95.0	95.02	917.5	-3,042.1	3,180.3	3,071.4	108.82	29.224	
4,822.8	4,772.0	4,760.0	4,760.0	13.9	95.5	95.04	917.5	-3,042.1	3,180.3	3,071.0	109.32	29.092	
4,900.0	4,849.2	4,837.2	4,837.2	14.0	97.0	95.07	917.5	-3,042.1	3,180.5	3,069.5	111.00	28.652	
4,921.2	4,870.4	4,858.4	4,858.4	14.1	97.4	95.07	917.5	-3,042.1	3,180.5	3,069.0	111.46	28.534	
4,925.6	4,874.8	4,862.8	4,862.8	14.1	97.5	-63.73	917.5	-3,042.1	3,180.5	3,072.2	108.28	29.372	
5,000.0	4,949.2	4,937.2	4,937.2	14.2	99.0	-63.73	917.5	-3,042.1	3,180.5	3,070.6	109.92	28.934	

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 SCHAUMBERG 17G-314
<b>Project:</b>	WELD COUNTY, COLORADO	<b>TVD Reference:</b>	KB-EST @ 4633.0usft (Original Well Elev)
<b>Reference Site:</b>	SW NW SEC. 17 T5N R64W 6th P.M.	<b>MD Reference:</b>	KB-EST @ 4633.0usft (Original Well Elev)
<b>Site Error:</b>	0.0 usft	<b>North Reference:</b>	True
<b>Reference Well:</b>	SCHAUMBERG 17G-314	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Well Error:</b>	0.0 usft	<b>Output errors are at</b>	2.00 sigma
<b>Reference Wellbore</b>	ORIGINAL WELLBORE	<b>Database:</b>	EDM 5000.1 Single User Db
<b>Reference Design:</b>	PROPOSAL #1	<b>Offset TVD Reference:</b>	Offset Datum

<b>Offset Design</b> SW NW SEC. 17 T5N R64W 6th P.M. - EXIST VERT GUNTHER #18-1 - Wellbore #1 - Design #1												<b>Offset Site Error:</b>	0.0 usft
Survey Program: 0-INC												<b>Offset Well Error:</b>	0.0 usft
Reference		Offset		Semi Major Axis			Distance						Warning
Measured Depth (usft)	Vertical Depth (usft)	Measured Depth (usft)	Vertical Depth (usft)	Reference (usft)	Offset (usft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (usft)	+E/-W (usft)	Between Centres (usft)	Between Ellipses (usft)	Minimum Separation (usft)	Separation Factor	
5,019.7	4,968.8	4,956.8	4,956.8	14.2	99.4	-63.73	917.5	-3,042.1	3,180.5	3,070.1	110.36	28.820	
5,100.0	5,049.2	5,037.2	5,037.2	14.3	101.0	-63.73	917.5	-3,042.1	3,180.5	3,068.4	112.13	28.364	
5,118.1	5,067.3	5,055.3	5,055.3	14.3	101.4	-63.73	917.5	-3,042.1	3,180.5	3,068.0	112.53	28.264	
5,200.0	5,149.2	5,137.2	5,137.2	14.5	103.0	-63.73	917.5	-3,042.1	3,180.5	3,066.2	114.34	27.817	
5,216.5	5,165.7	5,153.7	5,153.7	14.5	103.4	-63.73	917.5	-3,042.1	3,180.5	3,065.8	114.70	27.728	
5,300.0	5,249.2	5,237.2	5,237.2	14.6	105.1	-63.73	917.5	-3,042.1	3,180.5	3,063.9	116.55	27.290	
5,314.9	5,264.1	5,252.1	5,252.1	14.6	105.4	-63.73	917.5	-3,042.1	3,180.5	3,063.6	116.88	27.213	
5,400.0	5,349.2	5,337.2	5,337.2	14.8	107.1	-63.73	917.5	-3,042.1	3,180.5	3,061.7	118.75	26.782	
5,413.4	5,362.5	5,350.5	5,350.5	14.8	107.3	-63.73	917.5	-3,042.1	3,180.5	3,061.4	119.05	26.716	
5,500.0	5,449.2	5,437.2	5,437.2	14.9	109.1	-63.73	917.5	-3,042.1	3,180.5	3,059.5	120.97	26.293	
5,511.8	5,461.0	5,449.0	5,449.0	14.9	109.3	-63.73	917.5	-3,042.1	3,180.5	3,059.3	121.23	26.236	
5,600.0	5,549.2	5,537.2	5,537.2	15.1	111.1	-63.73	917.5	-3,042.1	3,180.5	3,057.3	123.18	25.821	
5,610.2	5,559.4	5,547.4	5,547.4	15.1	111.3	-63.73	917.5	-3,042.1	3,180.5	3,057.1	123.40	25.773	
5,700.0	5,649.2	5,637.2	5,637.2	15.2	113.1	-63.73	917.5	-3,042.1	3,180.5	3,055.1	125.39	25.365	
5,708.6	5,657.8	5,645.8	5,645.8	15.3	113.3	-63.73	917.5	-3,042.1	3,180.5	3,054.9	125.58	25.326	
5,800.0	5,749.2	5,737.2	5,737.2	15.4	115.1	-63.73	917.5	-3,042.1	3,180.5	3,052.9	127.60	24.925	
5,807.1	5,756.2	5,744.2	5,744.2	15.4	115.2	-63.73	917.5	-3,042.1	3,180.5	3,052.7	127.76	24.895	
5,900.0	5,849.2	5,837.2	5,837.2	15.6	117.1	-63.73	917.5	-3,042.1	3,180.5	3,050.7	129.81	24.500	
5,905.5	5,854.7	5,842.7	5,842.7	15.6	117.2	-63.73	917.5	-3,042.1	3,180.5	3,050.6	129.94	24.477	
6,000.0	5,949.2	5,937.2	5,937.2	15.7	119.1	-63.73	917.5	-3,042.1	3,180.5	3,048.5	132.03	24.089	
6,003.9	5,953.1	5,941.1	5,941.1	15.7	119.2	-63.73	917.5	-3,042.1	3,180.5	3,048.4	132.12	24.073	
6,100.0	6,049.2	6,037.2	6,037.2	15.9	121.1	-63.73	917.5	-3,042.1	3,180.5	3,046.2	134.24	23.692	
6,102.3	6,051.5	6,039.5	6,039.5	15.9	121.2	-63.73	917.5	-3,042.1	3,180.5	3,046.2	134.30	23.683	
6,124.6	6,073.8	6,061.8	6,061.8	15.9	121.6	-63.73	917.5	-3,042.1	3,180.5	3,045.7	134.79	23.596	
6,150.0	6,099.2	6,087.2	6,087.2	16.0	122.1	26.28	917.5	-3,042.1	3,180.1	3,042.0	138.05	23.036	
6,200.0	6,149.0	6,137.0	6,137.0	16.1	123.1	26.42	917.5	-3,042.1	3,176.9	3,038.3	138.61	22.920	
6,200.8	6,149.8	6,137.8	6,137.8	16.1	123.2	26.43	917.5	-3,042.1	3,176.9	3,038.3	138.62	22.919	
6,250.0	6,198.5	6,186.5	6,186.5	16.2	124.1	26.71	917.5	-3,042.1	3,170.7	3,032.0	138.65	22.869	
6,299.2	6,246.6	6,234.6	6,234.6	16.3	125.1	27.13	917.5	-3,042.1	3,161.5	3,023.3	138.18	22.880	
6,300.0	6,247.4	6,235.4	6,235.4	16.3	125.1	27.14	917.5	-3,042.1	3,161.3	3,023.2	138.17	22.880	
6,350.0	6,295.5	6,283.5	6,283.5	16.5	126.1	27.72	917.5	-3,042.1	3,149.0	3,011.8	137.20	22.953	
6,397.6	6,340.2	6,328.2	6,328.2	16.6	127.0	28.43	917.5	-3,042.1	3,134.5	2,998.6	135.85	23.073	
6,400.0	6,342.4	6,330.4	6,330.4	16.6	127.0	28.47	917.5	-3,042.1	3,133.7	2,997.9	135.77	23.080	
6,450.0	6,388.1	6,376.1	6,376.1	16.8	128.0	29.40	917.5	-3,042.1	3,115.5	2,981.5	133.97	23.255	
6,496.0	6,428.8	6,416.8	6,416.8	17.0	128.8	30.44	917.5	-3,042.1	3,096.3	2,964.3	132.05	23.448	
6,500.0	6,432.2	6,420.2	6,420.2	17.0	128.8	30.54	917.5	-3,042.1	3,094.6	2,962.7	131.88	23.465	
6,550.0	6,474.6	6,462.6	6,462.6	17.3	129.7	31.89	917.5	-3,042.1	3,071.0	2,941.4	129.63	23.691	
6,594.5	6,510.7	6,498.7	6,498.7	17.5	130.4	33.31	917.5	-3,042.1	3,047.9	2,920.3	127.63	23.881	
6,600.0	6,515.0	6,503.0	6,503.0	17.6	130.5	33.50	917.5	-3,042.1	3,044.9	2,917.5	127.39	23.903	
6,650.0	6,553.3	6,541.3	6,541.3	17.9	131.3	35.38	917.5	-3,042.1	3,016.4	2,891.0	125.36	24.061	
6,692.9	6,584.3	6,572.3	6,572.3	18.2	131.9	37.26	917.5	-3,042.1	2,990.2	2,866.2	124.00	24.114	
6,700.0	6,589.2	6,577.2	6,577.2	18.2	132.0	37.59	917.5	-3,042.1	2,985.7	2,861.9	123.82	24.113	
6,750.0	6,622.7	6,610.7	6,610.7	18.6	132.7	40.17	917.5	-3,042.1	2,953.0	2,830.0	123.04	24.000	
6,791.3	6,648.3	6,636.3	6,636.3	19.0	133.2	42.60	917.5	-3,042.1	2,924.5	2,801.3	123.19	23.740	
6,800.0	6,653.4	6,641.4	6,641.4	19.1	133.3	43.15	917.5	-3,042.1	2,918.4	2,795.1	123.32	23.664	
6,850.0	6,681.4	6,669.4	6,669.4	19.6	133.9	46.59	917.5	-3,042.1	2,882.2	2,757.2	124.92	23.073	
6,889.7	6,701.5	6,689.5	6,689.5	20.1	134.3	49.67	917.5	-3,042.1	2,852.3	2,725.1	127.22	22.420	
6,900.0	6,706.3	6,694.3	6,694.3	20.2	134.4	50.52	917.5	-3,042.1	2,844.5	2,716.5	127.96	22.230	
6,950.0	6,728.2	6,716.2	6,716.2	20.9	134.8	54.99	917.5	-3,042.1	2,805.5	2,673.1	132.40	21.189	
6,988.2	6,742.8	6,730.8	6,730.8	21.5	135.1	58.76	917.5	-3,042.1	2,775.0	2,638.5	136.58	20.318	
7,000.0	6,746.9	6,734.9	6,734.9	21.6	135.2	59.99	917.5	-3,042.1	2,765.5	2,627.5	137.97	20.045	
7,050.0	6,762.4	6,750.4	6,750.4	22.5	135.5	65.48	917.5	-3,042.1	2,724.7	2,580.5	144.13	18.904	

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 SCHAUMBERG 17G-314
<b>Project:</b>	WELD COUNTY, COLORADO	<b>TVD Reference:</b>	KB-EST @ 4633.0usft (Original Well Elev)
<b>Reference Site:</b>	SW NW SEC. 17 T5N R64W 6th P.M.	<b>MD Reference:</b>	KB-EST @ 4633.0usft (Original Well Elev)
<b>Site Error:</b>	0.0 usft	<b>North Reference:</b>	True
<b>Reference Well:</b>	SCHAUMBERG 17G-314	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Well Error:</b>	0.0 usft	<b>Output errors are at</b>	2.00 sigma
<b>Reference Wellbore</b>	ORIGINAL WELLBORE	<b>Database:</b>	EDM 5000.1 Single User Db
<b>Reference Design:</b>	PROPOSAL #1	<b>Offset TVD Reference:</b>	Offset Datum

Offset Design													Offset Site Error:	0.0 usft
Survey Program: 0-INC													Offset Well Error:	0.0 usft
Reference		Offset		Semi Major Axis			Distance							Warning
Measured Depth (usft)	Vertical Depth (usft)	Measured Depth (usft)	Vertical Depth (usft)	Reference (usft)	Offset (usft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (usft)	+E/-W (usft)	Between Centres (usft)	Between Ellipses (usft)	Minimum Separation (usft)	Separation Factor		
7,086.6	6,771.5	6,759.5	6,759.5	23.1	135.7	69.78	917.5	-3,042.1	2,694.4	2,545.8	148.63	18.128		
7,100.0	6,774.4	6,762.4	6,762.4	23.3	135.7	71.39	917.5	-3,042.1	2,683.2	2,533.0	150.20	17.864		
7,150.0	6,783.1	6,771.1	6,771.1	24.3	135.9	77.58	917.5	-3,042.1	2,641.5	2,486.0	155.45	16.992		
7,185.0	6,787.1	6,775.1	6,775.1	25.0	136.0	81.98	917.5	-3,042.1	2,612.1	2,453.8	158.31	16.500		
7,200.0	6,788.3	6,776.3	6,776.3	25.3	136.0	83.86	917.5	-3,042.1	2,599.5	2,440.2	159.28	16.320		
7,252.3	6,790.0	6,778.0	6,778.0	26.3	136.0	90.33	917.5	-3,042.1	2,555.7	2,394.3	161.42	15.833		
7,283.4	6,789.9	6,777.9	6,777.9	27.0	136.0	90.32	917.5	-3,042.1	2,529.8	2,367.7	162.11	15.606		
7,300.0	6,789.8	6,777.8	6,777.8	27.3	136.0	90.32	917.5	-3,042.1	2,516.1	2,353.6	162.47	15.486		
7,381.9	6,789.5	6,777.5	6,777.5	29.1	136.0	90.31	917.5	-3,042.1	2,448.6	2,284.3	164.35	14.899		
7,400.0	6,789.4	6,777.4	6,777.4	29.5	136.0	90.30	917.5	-3,042.1	2,433.8	2,269.0	164.76	14.772		
7,480.3	6,789.1	6,777.1	6,777.1	31.4	136.0	90.29	917.5	-3,042.1	2,368.8	2,202.1	166.67	14.212		
7,500.0	6,789.1	6,777.1	6,777.1	31.8	136.0	90.29	917.5	-3,042.1	2,352.9	2,185.8	167.14	14.078		
7,578.7	6,788.8	6,776.8	6,776.8	33.7	136.0	90.28	917.5	-3,042.1	2,290.3	2,121.3	169.06	13.548		
7,600.0	6,788.7	6,776.7	6,776.7	34.2	136.0	90.27	917.5	-3,042.1	2,273.6	2,104.0	169.58	13.407		
7,677.1	6,788.4	6,776.4	6,776.4	36.1	136.0	90.26	917.5	-3,042.1	2,213.5	2,042.0	171.50	12.907		
7,700.0	6,788.3	6,776.3	6,776.3	36.7	136.0	90.26	917.5	-3,042.1	2,195.9	2,023.9	172.07	12.762		
7,775.6	6,788.0	6,776.0	6,776.0	38.6	136.0	90.25	917.5	-3,042.1	2,138.5	1,964.5	173.99	12.291		
7,800.0	6,787.9	6,775.9	6,775.9	39.2	136.0	90.24	917.5	-3,042.1	2,120.1	1,945.5	174.61	12.142		
7,874.0	6,787.6	6,775.6	6,775.6	41.0	136.0	90.23	917.5	-3,042.1	2,065.4	1,888.9	176.51	11.701		
7,900.0	6,787.6	6,775.6	6,775.6	41.7	136.0	90.23	917.5	-3,042.1	2,046.4	1,869.3	177.18	11.550		
7,972.4	6,787.3	6,775.3	6,775.3	43.6	136.0	90.22	917.5	-3,042.1	1,994.5	1,815.4	179.06	11.138		
8,000.0	6,787.2	6,775.2	6,775.2	44.3	136.0	90.21	917.5	-3,042.1	1,975.0	1,795.3	179.78	10.986		
8,070.8	6,786.9	6,774.9	6,774.9	46.1	136.0	90.20	917.5	-3,042.1	1,926.0	1,744.4	181.64	10.604		
8,100.0	6,786.8	6,774.8	6,774.8	46.9	136.0	90.20	917.5	-3,042.1	1,906.2	1,723.8	182.40	10.451		
8,169.3	6,786.5	6,774.5	6,774.5	48.7	136.0	90.19	917.5	-3,042.1	1,860.2	1,676.0	184.23	10.097		
8,200.0	6,786.4	6,774.4	6,774.4	49.5	136.0	90.18	917.5	-3,042.1	1,840.3	1,655.2	185.05	9.945		
8,267.7	6,786.1	6,774.1	6,774.1	51.3	136.0	90.17	917.5	-3,042.1	1,797.4	1,610.6	186.85	9.620		
8,300.0	6,786.0	6,774.0	6,774.0	52.1	136.0	90.17	917.5	-3,042.1	1,777.5	1,589.8	187.71	9.470		
8,366.1	6,785.8	6,773.8	6,773.8	53.9	136.0	90.16	917.5	-3,042.1	1,737.9	1,548.4	189.48	9.172		
8,400.0	6,785.6	6,773.6	6,773.6	54.8	136.0	90.15	917.5	-3,042.1	1,718.3	1,527.9	190.38	9.025		
8,464.5	6,785.4	6,773.4	6,773.4	56.5	135.9	90.14	917.5	-3,042.1	1,682.1	1,489.9	192.12	8.755		
8,500.0	6,785.3	6,773.3	6,773.3	57.5	135.9	90.14	917.5	-3,042.1	1,662.9	1,469.9	193.07	8.613		
8,563.0	6,785.0	6,773.0	6,773.0	59.2	135.9	90.13	917.5	-3,042.1	1,630.3	1,435.5	194.77	8.370		
8,600.0	6,784.9	6,772.9	6,772.9	60.2	135.9	90.12	917.5	-3,042.1	1,611.9	1,416.1	195.77	8.234		
8,661.4	6,784.6	6,772.6	6,772.6	61.8	135.9	90.11	917.5	-3,042.1	1,582.9	1,385.4	197.43	8.018		
8,700.0	6,784.5	6,772.5	6,772.5	62.9	135.9	90.11	917.5	-3,042.1	1,565.6	1,367.1	198.47	7.888		
8,759.8	6,784.3	6,772.3	6,772.3	64.5	135.9	90.10	917.5	-3,042.1	1,540.3	1,340.2	200.10	7.698		
8,800.0	6,784.1	6,772.1	6,772.1	65.6	135.9	90.09	917.5	-3,042.1	1,524.5	1,323.3	201.19	7.577		
8,858.2	6,783.9	6,771.9	6,771.9	67.1	135.9	90.08	917.5	-3,042.1	1,503.0	1,300.3	202.77	7.413		
8,900.0	6,783.7	6,771.7	6,771.7	68.3	135.9	90.08	917.5	-3,042.1	1,488.9	1,285.0	203.91	7.302		
8,956.7	6,783.5	6,771.5	6,771.5	69.8	135.9	90.07	917.5	-3,042.1	1,471.4	1,266.0	205.45	7.162		
9,000.0	6,783.3	6,771.3	6,771.3	71.0	135.9	90.06	917.5	-3,042.1	1,459.4	1,252.7	206.64	7.062		
9,055.1	6,783.1	6,771.1	6,771.1	72.5	135.9	90.05	917.5	-3,042.1	1,445.8	1,237.6	208.14	6.946		
9,100.0	6,782.9	6,770.9	6,770.9	73.7	135.9	90.05	917.5	-3,042.1	1,436.2	1,226.8	209.37	6.860		
9,153.5	6,782.7	6,770.7	6,770.7	75.2	135.9	90.04	917.5	-3,042.1	1,426.5	1,215.7	210.84	6.766		
9,200.0	6,782.6	6,770.6	6,770.6	76.5	135.9	90.03	917.5	-3,042.1	1,419.7	1,207.6	212.11	6.693		
9,251.9	6,782.4	6,770.4	6,770.4	77.9	135.9	90.02	917.5	-3,042.1	1,413.9	1,200.3	213.53	6.621		
9,300.0	6,782.2	6,770.2	6,770.2	79.2	135.9	90.01	917.5	-3,042.1	1,410.1	1,195.3	214.85	6.563		
9,350.4	6,782.0	6,770.0	6,770.0	80.6	135.9	90.01	917.5	-3,042.1	1,408.0	1,191.7	216.24	6.511		
9,385.5	6,781.8	6,769.8	6,769.8	81.6	135.9	90.00	917.5	-3,042.1	1,407.5	1,190.3	217.20	6.480 CC		
9,400.0	6,781.8	6,769.8	6,769.8	82.0	135.9	90.00	917.5	-3,042.1	1,407.6	1,190.0	217.60	6.469 ES		
9,448.8	6,781.6	6,769.6	6,769.6	83.3	135.9	89.99	917.5	-3,042.1	1,408.9	1,190.0	218.94	6.435		

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 SCHAUMBERG 17G-314
<b>Project:</b>	WELD COUNTY, COLORADO	<b>TVD Reference:</b>	KB-EST @ 4633.0usft (Original Well Elev)
<b>Reference Site:</b>	SW NW SEC. 17 T5N R64W 6th P.M.	<b>MD Reference:</b>	KB-EST @ 4633.0usft (Original Well Elev)
<b>Site Error:</b>	0.0 usft	<b>North Reference:</b>	True
<b>Reference Well:</b>	SCHAUMBERG 17G-314	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Well Error:</b>	0.0 usft	<b>Output errors are at</b>	2.00 sigma
<b>Reference Wellbore</b>	ORIGINAL WELLBORE	<b>Database:</b>	EDM 5000.1 Single User Db
<b>Reference Design:</b>	PROPOSAL #1	<b>Offset TVD Reference:</b>	Offset Datum

<b>Offset Design</b> SW NW SEC. 17 T5N R64W 6th P.M. - EXIST VERT GUNTHER #18-1 - Wellbore #1 - Design #1												<b>Offset Site Error:</b>	0.0 usft
Survey Program: 0-INC												<b>Offset Well Error:</b>	0.0 usft
Reference		Offset		Semi Major Axis			Distance						
Measured Depth (usft)	Vertical Depth (usft)	Measured Depth (usft)	Vertical Depth (usft)	Reference (usft)	Offset (usft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (usft)	+E/-W (usft)	Between Centres (usft)	Between Ellipses (usft)	Minimum Separation (usft)	Separation Factor	Warning
9,500.0	6,781.4	6,769.4	6,769.4	84.7	135.9	89.98	917.5	-3,042.1	1,412.2	1,191.8	220.35	6.409	
9,547.2	6,781.2	6,769.2	6,769.2	86.0	135.9	89.97	917.5	-3,042.1	1,416.8	1,195.1	221.65	6.392	
9,600.0	6,781.0	6,769.0	6,769.0	87.5	135.9	89.97	917.5	-3,042.1	1,423.8	1,200.7	223.10	6.382	
9,645.6	6,780.8	6,768.8	6,768.8	88.7	135.9	89.96	917.5	-3,042.1	1,431.4	1,207.0	224.36	6.380 SF	
9,700.0	6,780.6	6,768.6	6,768.6	90.2	135.8	89.95	917.5	-3,042.1	1,442.2	1,216.4	225.86	6.385	
9,744.1	6,780.4	6,768.4	6,768.4	91.4	135.8	89.94	917.5	-3,042.1	1,452.5	1,225.4	227.08	6.396	
9,800.0	6,780.2	6,768.2	6,768.2	93.0	135.8	89.93	917.5	-3,042.1	1,467.3	1,238.7	228.62	6.418	
9,842.5	6,780.1	6,768.1	6,768.1	94.2	135.8	89.93	917.5	-3,042.1	1,479.8	1,250.0	229.80	6.440	
9,900.0	6,779.8	6,767.8	6,767.8	95.7	135.8	89.92	917.5	-3,042.1	1,498.6	1,267.2	231.38	6.477	
9,940.9	6,779.7	6,767.7	6,767.7	96.9	135.8	89.91	917.5	-3,042.1	1,513.1	1,280.6	232.52	6.508	
10,000.0	6,779.4	6,767.4	6,767.4	98.5	135.8	89.90	917.5	-3,042.1	1,535.8	1,301.7	234.15	6.559	
10,039.3	6,779.3	6,767.3	6,767.3	99.6	135.8	89.90	917.5	-3,042.1	1,552.0	1,316.7	235.24	6.597	
10,100.0	6,779.0	6,767.0	6,767.0	101.3	135.8	89.89	917.5	-3,042.1	1,578.5	1,341.6	236.92	6.663	
10,137.8	6,778.9	6,766.9	6,766.9	102.3	135.8	89.88	917.5	-3,042.1	1,595.9	1,358.0	237.96	6.707	
10,200.0	6,778.7	6,766.7	6,766.7	104.1	135.8	89.87	917.5	-3,042.1	1,626.2	1,386.5	239.68	6.785	
10,236.2	6,778.5	6,766.5	6,766.5	105.1	135.8	89.86	917.5	-3,042.1	1,644.6	1,403.9	240.69	6.833	
10,300.0	6,778.3	6,766.3	6,766.3	106.8	135.8	89.85	917.5	-3,042.1	1,678.5	1,436.0	242.45	6.923	
10,334.6	6,778.1	6,766.1	6,766.1	107.8	135.8	89.85	917.5	-3,042.1	1,697.6	1,454.2	243.41	6.974	
10,400.0	6,777.9	6,765.9	6,765.9	109.6	135.8	89.84	917.5	-3,042.1	1,735.0	1,489.8	245.23	7.075	
10,433.0	6,777.7	6,765.7	6,765.7	110.5	135.8	89.83	917.5	-3,042.1	1,754.5	1,508.4	246.14	7.128	
10,500.0	6,777.5	6,765.5	6,765.5	112.4	135.8	89.82	917.5	-3,042.1	1,795.3	1,547.3	248.00	7.239	
10,531.5	6,777.3	6,765.3	6,765.3	113.3	135.8	89.82	917.5	-3,042.1	1,815.0	1,566.1	248.87	7.293	
10,600.0	6,777.1	6,765.1	6,765.1	115.2	135.8	89.80	917.5	-3,042.1	1,859.0	1,608.3	250.77	7.413	
10,629.9	6,777.0	6,765.0	6,765.0	116.0	135.8	89.80	917.5	-3,042.1	1,878.7	1,627.1	251.60	7.467	
10,700.0	6,776.7	6,764.7	6,764.7	117.9	135.8	89.79	917.5	-3,042.1	1,925.8	1,672.3	253.55	7.596	
10,728.3	6,776.6	6,764.6	6,764.6	118.7	135.8	89.78	917.5	-3,042.1	1,945.3	1,691.0	254.34	7.649	
10,800.0	6,776.3	6,764.3	6,764.3	120.7	135.8	89.77	917.5	-3,042.1	1,995.4	1,739.1	256.33	7.785	
10,826.7	6,776.2	6,764.2	6,764.2	121.5	135.8	89.77	917.5	-3,042.1	2,014.5	1,757.4	257.07	7.836	
10,900.0	6,775.9	6,763.9	6,763.9	123.5	135.8	89.75	917.5	-3,042.1	2,067.5	1,808.4	259.10	7.979	
10,925.2	6,775.8	6,763.8	6,763.8	124.2	135.8	89.75	917.5	-3,042.1	2,086.0	1,826.2	259.80	8.029	
11,000.0	6,775.5	6,763.5	6,763.5	126.3	135.7	89.74	917.5	-3,042.1	2,141.9	1,880.0	261.88	8.179	
11,023.6	6,775.4	6,763.4	6,763.4	126.9	135.7	89.73	917.5	-3,042.1	2,159.7	1,897.2	262.54	8.226	
11,100.0	6,775.1	6,763.1	6,763.1	129.1	135.7	89.72	917.5	-3,042.1	2,218.2	1,953.5	264.66	8.381	
11,122.0	6,775.0	6,763.0	6,763.0	129.7	135.7	89.72	917.5	-3,042.1	2,235.3	1,970.0	265.28	8.426	
11,200.0	6,774.7	6,762.7	6,762.7	131.9	135.7	89.70	917.5	-3,042.1	2,296.4	2,028.9	267.45	8.586	
11,220.4	6,774.6	6,762.6	6,762.6	132.4	135.7	89.70	917.5	-3,042.1	2,312.6	2,044.6	268.01	8.629	
11,300.0	6,774.3	6,762.3	6,762.3	134.6	135.7	89.69	917.5	-3,042.1	2,376.2	2,105.9	270.23	8.793	
11,318.9	6,774.2	6,762.2	6,762.2	135.2	135.7	89.68	917.5	-3,042.1	2,391.4	2,120.7	270.75	8.832	
11,400.0	6,773.9	6,761.9	6,761.9	137.4	135.7	89.67	917.5	-3,042.1	2,457.5	2,184.4	273.01	9.001	
11,417.3	6,773.8	6,761.8	6,761.8	137.9	135.7	89.67	917.5	-3,042.1	2,471.7	2,198.2	273.49	9.037	
11,500.0	6,773.5	6,761.5	6,761.5	140.2	135.7	89.65	917.5	-3,042.1	2,540.1	2,264.3	275.79	9.210	
11,515.7	6,773.4	6,761.4	6,761.4	140.7	135.7	89.65	917.5	-3,042.1	2,553.2	2,276.9	276.23	9.243	
11,600.0	6,773.1	6,761.1	6,761.1	143.0	135.7	89.64	917.5	-3,042.1	2,623.9	2,345.3	278.58	9.419	
11,614.1	6,773.0	6,761.0	6,761.0	143.4	135.7	89.64	917.5	-3,042.1	2,635.9	2,356.9	278.97	9.448	
11,700.0	6,772.7	6,760.7	6,760.7	145.8	135.7	89.62	917.5	-3,042.1	2,708.8	2,427.5	281.36	9.628	
11,712.6	6,772.6	6,760.6	6,760.6	146.2	135.7	89.62	917.5	-3,042.1	2,719.6	2,437.9	281.71	9.654	
11,800.0	6,772.3	6,760.3	6,760.3	148.6	135.7	89.60	917.5	-3,042.1	2,794.8	2,510.6	284.15	9.836	
11,811.0	6,772.2	6,760.2	6,760.2	148.9	135.7	89.60	917.5	-3,042.1	2,804.3	2,519.8	284.45	9.858	
11,900.0	6,771.9	6,759.9	6,759.9	151.4	135.7	89.59	917.5	-3,042.1	2,881.6	2,594.6	286.93	10.043	
11,909.4	6,771.8	6,759.8	6,759.8	151.7	135.7	89.59	917.5	-3,042.1	2,889.8	2,602.6	287.20	10.062	
12,000.0	6,771.5	6,759.5	6,759.5	154.2	135.7	89.57	917.5	-3,042.1	2,969.2	2,679.5	289.72	10.249	
12,007.8	6,771.4	6,759.4	6,759.4	154.4	135.7	89.57	917.5	-3,042.1	2,976.2	2,686.2	289.94	10.265	

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 SCHAUMBERG 17G-314
<b>Project:</b>	WELD COUNTY, COLORADO	<b>TVD Reference:</b>	KB-EST @ 4633.0usft (Original Well Elev)
<b>Reference Site:</b>	SW NW SEC. 17 T5N R64W 6th P.M.	<b>MD Reference:</b>	KB-EST @ 4633.0usft (Original Well Elev)
<b>Site Error:</b>	0.0 usft	<b>North Reference:</b>	True
<b>Reference Well:</b>	SCHAUMBERG 17G-314	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Well Error:</b>	0.0 usft	<b>Output errors are at</b>	2.00 sigma
<b>Reference Wellbore</b>	ORIGINAL WELLBORE	<b>Database:</b>	EDM 5000.1 Single User Db
<b>Reference Design:</b>	PROPOSAL #1	<b>Offset TVD Reference:</b>	Offset Datum

<b>Offset Design</b> SW NW SEC. 17 T5N R64W 6th P.M. - EXIST VERT GUNTHER #18-1 - Wellbore #1 - Design #1												<b>Offset Site Error:</b>	0.0 usft
Survey Program: 0-INC												<b>Offset Well Error:</b>	0.0 usft
Reference	Offset	Semi Major Axis		Distance									
Measured Depth (usft)	Vertical Depth (usft)	Measured Depth (usft)	Vertical Depth (usft)	Reference (usft)	Offset (usft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (usft)	+E/-W (usft)	Between Centres (usft)	Between Ellipses (usft)	Minimum Separation (usft)	Separation Factor	Warning
12,100.0	6,771.1	6,759.1	6,759.1	157.0	135.7	89.55	917.5	-3,042.1	3,057.7	2,765.2	292.51	10.453	
12,106.3	6,771.0	6,759.0	6,759.0	157.2	135.7	89.55	917.5	-3,042.1	3,063.2	2,770.5	292.68	10.466	
12,200.0	6,770.7	6,758.7	6,758.7	159.8	135.6	89.54	917.5	-3,042.1	3,146.8	2,851.5	295.29	10.656	
12,204.7	6,770.6	6,758.6	6,758.6	159.9	135.6	89.53	917.5	-3,042.1	3,151.0	2,855.5	295.43	10.666	
12,300.0	6,770.3	6,758.3	6,758.3	162.6	135.6	89.52	917.5	-3,042.1	3,236.5	2,938.4	298.08	10.858	
12,303.1	6,770.2	6,758.2	6,758.2	162.7	135.6	89.52	917.5	-3,042.1	3,239.3	2,941.2	298.17	10.864	
12,361.7	6,770.0	6,758.0	6,758.0	164.3	135.6	89.51	917.5	-3,042.1	3,292.2	2,992.4	299.80	10.981	



# Anticollision Report



<b>Company:</b>	PDC ENERGY	<b>Local Co-ordinate Reference:</b>	Well SCHAUMBERG 17G-314
<b>Project:</b>	WELD COUNTY, COLORADO	<b>TVD Reference:</b>	KB-EST @ 4633.0usft (Original Well Elev)
<b>Reference Site:</b>	SW NW SEC. 17 T5N R64W 6th P.M.	<b>MD Reference:</b>	KB-EST @ 4633.0usft (Original Well Elev)
<b>Site Error:</b>	0.0 usft	<b>North Reference:</b>	True
<b>Reference Well:</b>	SCHAUMBERG 17G-314	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Well Error:</b>	0.0 usft	<b>Output errors are at</b>	2.00 sigma
<b>Reference Wellbore</b>	ORIGINAL WELLBORE	<b>Database:</b>	EDM 5000.1 Single User Db
<b>Reference Design:</b>	PROPOSAL #1	<b>Offset TVD Reference:</b>	Offset Datum

Offset Design												Offset Site Error:	0.0 usft
Survey Program: 0-INC												Offset Well Error:	0.0 usft
Reference		Offset		Semi Major Axis			Distance						Warning
Measured Depth (usft)	Vertical Depth (usft)	Measured Depth (usft)	Vertical Depth (usft)	Reference (usft)	Offset (usft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (usft)	+E/-W (usft)	Between Centres (usft)	Between Ellipses (usft)	Minimum Separation (usft)	Separation Factor	
0.0	0.0	0.0	0.0	0.0	0.0	-61.20	949.1	-1,726.4	1,970.2				
98.4	98.4	84.4	84.4	0.1	0.9	-61.20	949.1	-1,726.4	1,970.1	1,969.1	1.01	1,957.509	
100.0	100.0	86.0	86.0	0.1	0.9	-61.20	949.1	-1,726.4	1,970.1	1,969.1	1.03	1,921.699	
196.8	196.8	182.8	182.8	0.3	3.0	-61.20	949.1	-1,726.4	1,970.1	1,966.8	3.31	594.580	
200.0	200.0	186.0	186.0	0.3	3.1	-61.20	949.1	-1,726.4	1,970.1	1,966.7	3.39	580.552	
295.3	295.3	281.3	281.3	0.5	5.1	-61.20	949.1	-1,726.4	1,970.1	1,964.5	5.62	350.385	
300.0	300.0	286.0	286.0	0.5	5.2	-61.20	949.1	-1,726.4	1,970.1	1,964.4	5.73	343.727	
393.7	393.7	379.7	379.7	0.8	7.1	-61.20	949.1	-1,726.4	1,970.1	1,962.3	7.86	250.606	
400.0	400.0	386.0	386.0	0.8	7.2	-61.20	949.1	-1,726.4	1,970.1	1,962.1	8.00	246.134	
492.1	492.1	478.1	478.1	1.0	9.1	-61.20	949.1	-1,726.4	1,970.1	1,960.0	10.08	195.398	
500.0	500.0	486.0	486.0	1.0	9.3	-61.20	949.1	-1,726.4	1,970.1	1,959.9	10.26	192.018	
590.5	590.5	576.5	576.5	1.2	11.1	-61.20	949.1	-1,726.4	1,970.1	1,957.8	12.30	160.222	
600.0	600.0	586.0	586.0	1.2	11.3	-61.20	949.1	-1,726.4	1,970.1	1,957.6	12.51	157.502	
689.0	689.0	675.0	675.0	1.4	13.1	-61.20	949.1	-1,726.4	1,970.1	1,955.6	14.51	135.817	
700.0	700.0	686.0	686.0	1.4	13.3	-61.20	949.1	-1,726.4	1,970.1	1,955.4	14.75	133.540	
787.4	787.4	773.4	773.4	1.6	15.1	-61.20	949.1	-1,726.4	1,970.1	1,953.4	16.71	117.881	
800.0	800.0	786.0	786.0	1.7	15.3	-61.20	949.1	-1,726.4	1,970.1	1,953.1	17.00	115.922	
885.8	885.8	871.8	871.8	1.9	17.1	-61.20	949.1	-1,726.4	1,970.1	1,951.2	18.92	104.138	
900.0	900.0	886.0	886.0	1.9	17.3	-61.20	949.1	-1,726.4	1,970.1	1,950.9	19.24	102.419	
984.2	984.2	970.2	970.2	2.1	19.0	-61.20	949.1	-1,726.4	1,970.1	1,949.0	21.12	93.270	
1,000.0	1,000.0	986.0	986.0	2.1	19.4	-61.20	949.1	-1,726.4	1,970.1	1,948.6	21.48	91.738	
1,082.7	1,082.7	1,068.7	1,068.7	2.3	21.0	-61.20	949.1	-1,726.4	1,970.1	1,946.8	23.33	84.458	
1,100.0	1,100.0	1,086.0	1,086.0	2.3	21.4	-61.20	949.1	-1,726.4	1,970.1	1,946.4	23.71	83.077	
1,181.1	1,181.1	1,167.1	1,167.1	2.5	23.0	-61.20	949.1	-1,726.4	1,970.1	1,944.6	25.53	77.169	
1,200.0	1,200.0	1,186.0	1,186.0	2.6	23.4	-61.20	949.1	-1,726.4	1,970.1	1,944.2	25.95	75.912	
1,279.5	1,279.5	1,265.5	1,265.5	2.7	25.0	-61.20	949.1	-1,726.4	1,970.1	1,942.4	27.73	71.040	
1,300.0	1,300.0	1,286.0	1,286.0	2.8	25.4	-61.20	949.1	-1,726.4	1,970.1	1,941.9	28.19	69.885	
1,377.9	1,377.9	1,363.9	1,363.9	3.0	27.0	-61.20	949.1	-1,726.4	1,970.1	1,940.2	29.93	65.813	
1,400.0	1,400.0	1,386.0	1,386.0	3.0	27.4	-61.20	949.1	-1,726.4	1,970.1	1,939.7	30.43	64.746	
1,476.4	1,476.4	1,462.4	1,462.4	3.2	28.9	-61.20	949.1	-1,726.4	1,970.1	1,938.0	32.14	61.304	
1,500.0	1,500.0	1,486.0	1,486.0	3.2	29.4	-61.20	949.1	-1,726.4	1,970.1	1,937.5	32.67	60.312	
1,574.8	1,574.8	1,560.8	1,560.8	3.4	30.9	-61.20	949.1	-1,726.4	1,970.1	1,935.8	34.34	57.373	
1,600.0	1,600.0	1,586.0	1,586.0	3.5	31.4	-61.20	949.1	-1,726.4	1,970.1	1,935.2	34.90	56.446	
1,673.2	1,673.2	1,659.2	1,659.2	3.6	32.9	-61.20	949.1	-1,726.4	1,970.1	1,933.6	36.54	53.916	
1,700.0	1,700.0	1,686.0	1,686.0	3.7	33.4	-61.20	949.1	-1,726.4	1,970.1	1,933.0	37.14	53.046	
1,771.6	1,771.6	1,757.6	1,757.6	3.9	34.9	-61.20	949.1	-1,726.4	1,970.1	1,931.4	38.74	50.852	
1,800.0	1,800.0	1,786.0	1,786.0	3.9	35.5	-61.20	949.1	-1,726.4	1,970.1	1,930.7	39.38	50.033	
1,870.1	1,870.1	1,856.1	1,856.1	4.1	36.9	97.63	949.1	-1,726.4	1,970.2	1,929.3	40.92	48.144	
1,900.0	1,900.0	1,886.0	1,886.0	4.1	37.5	97.65	949.1	-1,726.4	1,970.4	1,928.8	41.58	47.383	
1,968.5	1,968.4	1,954.4	1,954.4	4.2	38.8	97.73	949.1	-1,726.4	1,970.8	1,927.7	43.08	45.750	
2,000.0	1,999.8	1,985.8	1,985.8	4.3	39.5	97.79	949.1	-1,726.4	1,971.1	1,927.3	43.76	45.039	
2,066.9	2,066.5	2,052.5	2,052.5	4.4	40.8	97.93	949.1	-1,726.4	1,971.8	1,926.6	45.22	43.600	
2,100.0	2,099.5	2,085.5	2,085.5	4.5	41.5	98.01	949.1	-1,726.4	1,972.3	1,926.3	45.95	42.926	
2,165.3	2,164.4	2,150.4	2,150.4	4.6	42.8	98.21	949.1	-1,726.4	1,973.3	1,926.0	47.38	41.652	
2,200.0	2,198.7	2,184.7	2,184.7	4.7	43.5	98.33	949.1	-1,726.4	1,974.0	1,925.9	48.13	41.010	
2,263.8	2,261.8	2,247.8	2,247.8	4.8	44.7	98.57	949.1	-1,726.4	1,975.4	1,925.9	49.54	39.877	
2,300.0	2,297.5	2,283.5	2,283.5	4.9	45.5	98.72	949.1	-1,726.4	1,976.4	1,926.0	50.33	39.266	
2,362.2	2,358.6	2,344.6	2,344.6	5.0	46.7	99.01	949.1	-1,726.4	1,978.1	1,926.4	51.71	38.254	
2,400.0	2,395.6	2,381.6	2,381.6	5.1	47.4	99.20	949.1	-1,726.4	1,979.4	1,926.8	52.54	37.670	
2,460.6	2,454.9	2,440.9	2,440.9	5.3	48.6	99.55	949.1	-1,726.4	1,981.5	1,927.6	53.90	36.759	
2,500.0	2,493.4	2,479.4	2,479.4	5.4	49.4	99.78	949.1	-1,726.4	1,982.9	1,928.1	54.79	36.192	
2,559.0	2,551.2	2,537.2	2,537.2	5.6	50.6	100.12	949.1	-1,726.4	1,985.0	1,928.9	56.12	35.369	

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 SCHAUMBERG 17G-314
<b>Project:</b>	WELD COUNTY, COLORADO	<b>TVD Reference:</b>	KB-EST @ 4633.0usft (Original Well Elev)
<b>Reference Site:</b>	SW NW SEC. 17 T5N R64W 6th P.M.	<b>MD Reference:</b>	KB-EST @ 4633.0usft (Original Well Elev)
<b>Site Error:</b>	0.0 usft	<b>North Reference:</b>	True
<b>Reference Well:</b>	SCHAUMBERG 17G-314	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Well Error:</b>	0.0 usft	<b>Output errors are at</b>	2.00 sigma
<b>Reference Wellbore</b>	ORIGINAL WELLBORE	<b>Database:</b>	EDM 5000.1 Single User Db
<b>Reference Design:</b>	PROPOSAL #1	<b>Offset TVD Reference:</b>	Offset Datum

Offset Design													Offset Site Error:	0.0 usft
Survey Program: 0-INC													Offset Well Error:	0.0 usft
Reference		Offset		Semi Major Axis			Distance							Warning
Measured Depth (usft)	Vertical Depth (usft)	Measured Depth (usft)	Vertical Depth (usft)	Reference (usft)	Offset (usft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (usft)	+E/-W (usft)	Between Centres (usft)	Between Ellipses (usft)	Minimum Separation (usft)	Separation Factor		
2,600.0	2,591.3	2,577.3	2,577.3	5.7	51.4	100.36	949.1	-1,726.4	1,986.6	1,929.5	57.05	34.821		
2,657.5	2,647.5	2,633.5	2,633.5	5.9	52.5	100.69	949.1	-1,726.4	1,988.8	1,930.5	58.36	34.077		
2,700.0	2,689.1	2,675.1	2,675.1	6.0	53.3	100.94	949.1	-1,726.4	1,990.5	1,931.2	59.33	33.548		
2,755.9	2,743.7	2,729.7	2,729.7	6.2	54.4	101.26	949.1	-1,726.4	1,992.8	1,932.2	60.62	32.875		
2,800.0	2,786.9	2,772.9	2,772.9	6.4	55.3	101.51	949.1	-1,726.4	1,994.7	1,933.0	61.63	32.365		
2,854.3	2,840.0	2,826.0	2,826.0	6.6	56.4	101.82	949.1	-1,726.4	1,997.0	1,934.1	62.88	31.756		
2,900.0	2,884.7	2,870.7	2,870.7	6.7	57.3	102.08	949.1	-1,726.4	1,999.0	1,935.1	63.94	31.264		
2,952.7	2,936.3	2,922.3	2,922.3	6.9	58.3	102.38	949.1	-1,726.4	2,001.4	1,936.2	65.16	30.714		
3,000.0	2,982.5	2,968.5	2,968.5	7.1	59.2	102.65	949.1	-1,726.4	2,003.5	1,937.3	66.26	30.239		
3,051.2	3,032.6	3,018.6	3,018.6	7.3	60.3	102.94	949.1	-1,726.4	2,005.9	1,938.5	67.45	29.740		
3,100.0	3,080.3	3,066.3	3,066.3	7.5	61.2	103.22	949.1	-1,726.4	2,008.3	1,939.7	68.58	29.282		
3,149.6	3,128.8	3,114.8	3,114.8	7.7	62.2	103.50	949.1	-1,726.4	2,010.7	1,941.0	69.74	28.831		
3,200.0	3,178.1	3,164.1	3,164.1	7.9	63.2	103.78	949.1	-1,726.4	2,013.2	1,942.3	70.92	28.388		
3,248.0	3,225.1	3,211.1	3,211.1	8.1	64.1	104.05	949.1	-1,726.4	2,015.7	1,943.7	72.04	27.980		
3,300.0	3,276.0	3,262.0	3,262.0	8.3	65.1	104.34	949.1	-1,726.4	2,018.4	1,945.1	73.26	27.553		
3,346.4	3,321.4	3,307.4	3,307.4	8.5	66.1	104.60	949.1	-1,726.4	2,020.9	1,946.5	74.34	27.182		
3,400.0	3,373.8	3,359.8	3,359.8	8.7	67.1	104.90	949.1	-1,726.4	2,023.8	1,948.2	75.60	26.770		
3,444.9	3,417.7	3,403.7	3,403.7	8.8	68.0	105.15	949.1	-1,726.4	2,026.2	1,949.6	76.65	26.434		
3,500.0	3,471.6	3,457.6	3,457.6	9.1	69.1	105.46	949.1	-1,726.4	2,029.3	1,951.4	77.95	26.035		
3,543.3	3,513.9	3,499.9	3,499.9	9.2	69.9	105.70	949.1	-1,726.4	2,031.8	1,952.8	78.96	25.731		
3,600.0	3,569.4	3,555.4	3,555.4	9.5	71.0	106.01	949.1	-1,726.4	2,035.1	1,954.8	80.29	25.345		
3,641.7	3,610.2	3,596.2	3,596.2	9.7	71.9	106.24	949.1	-1,726.4	2,037.5	1,956.3	81.27	25.070		
3,700.0	3,667.2	3,653.2	3,653.2	9.9	73.0	106.56	949.1	-1,726.4	2,041.0	1,958.4	82.64	24.697		
3,740.1	3,706.5	3,692.5	3,692.5	10.1	73.8	106.78	949.1	-1,726.4	2,043.5	1,959.9	83.59	24.447		
3,800.0	3,765.0	3,751.0	3,751.0	10.3	75.0	107.11	949.1	-1,726.4	2,047.2	1,962.2	85.00	24.086		
3,838.6	3,802.8	3,788.8	3,788.8	10.5	75.7	107.32	949.1	-1,726.4	2,049.6	1,963.7	85.90	23.859		
3,900.0	3,862.8	3,848.8	3,848.8	10.7	77.0	107.65	949.1	-1,726.4	2,053.5	1,966.2	87.35	23.510		
3,937.0	3,899.0	3,885.0	3,885.0	10.9	77.7	107.85	949.1	-1,726.4	2,055.9	1,967.7	88.22	23.305		
4,000.0	3,960.7	3,946.7	3,946.7	11.2	78.9	108.19	949.1	-1,726.4	2,060.0	1,970.3	89.70	22.966		
4,035.4	3,995.3	3,981.3	3,981.3	11.3	79.6	108.38	949.1	-1,726.4	2,062.4	1,971.8	90.53	22.780		
4,100.0	4,058.5	4,044.5	4,044.5	11.6	80.9	108.73	949.1	-1,726.4	2,066.7	1,974.7	92.05	22.452		
4,133.8	4,091.6	4,077.6	4,077.6	11.7	81.6	108.91	949.1	-1,726.4	2,069.1	1,976.2	92.85	22.284		
4,200.0	4,156.3	4,142.3	4,142.3	12.0	82.9	109.26	949.1	-1,726.4	2,073.6	1,979.2	94.40	21.966		
4,232.3	4,187.9	4,173.9	4,173.9	12.2	83.5	109.43	949.1	-1,726.4	2,075.9	1,980.7	95.16	21.814		
4,300.0	4,254.1	4,240.1	4,240.1	12.5	84.8	109.79	949.1	-1,726.4	2,080.7	1,984.0	96.75	21.505		
4,325.7	4,279.2	4,265.2	4,265.2	12.6	85.3	109.93	949.1	-1,726.4	2,082.6	1,985.2	97.36	21.391		
4,330.7	4,284.1	4,270.1	4,270.1	12.6	85.4	109.96	949.1	-1,726.4	2,082.9	1,985.5	97.48	21.368		
4,400.0	4,352.1	4,338.1	4,338.1	12.8	86.8	110.39	949.1	-1,726.4	2,087.7	1,988.5	99.12	21.063		
4,429.1	4,380.8	4,366.8	4,366.8	12.9	87.4	110.55	949.1	-1,726.4	2,089.5	1,989.7	99.79	20.939		
4,500.0	4,450.7	4,436.7	4,436.7	13.1	88.8	110.92	949.1	-1,726.4	2,093.6	1,992.1	101.43	20.641		
4,527.5	4,478.0	4,464.0	4,464.0	13.2	89.3	111.04	949.1	-1,726.4	2,095.0	1,992.9	102.06	20.528		
4,600.0	4,549.9	4,535.9	4,535.9	13.4	90.8	111.34	949.1	-1,726.4	2,098.3	1,994.6	103.72	20.231		
4,626.0	4,575.7	4,561.7	4,561.7	13.5	91.3	111.43	949.1	-1,726.4	2,099.3	1,995.0	104.30	20.127		
4,700.0	4,649.4	4,635.4	4,635.4	13.6	92.8	111.65	949.1	-1,726.4	2,101.8	1,995.9	105.98	19.833		
4,724.4	4,673.7	4,659.7	4,659.7	13.7	93.3	111.70	949.1	-1,726.4	2,102.5	1,996.0	106.52	19.738		
4,800.0	4,749.2	4,735.2	4,735.2	13.8	94.8	111.84	949.1	-1,726.4	2,104.1	1,995.9	108.21	19.445		
4,822.8	4,772.0	4,758.0	4,758.0	13.9	95.2	111.87	949.1	-1,726.4	2,104.5	1,995.7	108.71	19.359		
4,900.0	4,849.2	4,835.2	4,835.2	14.0	96.8	111.93	949.1	-1,726.4	2,105.1	1,994.7	110.40	19.069		
4,921.2	4,870.4	4,856.4	4,856.4	14.1	97.2	111.93	949.1	-1,726.4	2,105.1	1,994.3	110.86	18.990		
4,925.6	4,874.8	4,860.8	4,860.8	14.1	97.3	-46.87	949.1	-1,726.4	2,105.1	1,996.6	108.55	19.394		
5,000.0	4,949.2	4,935.2	4,935.2	14.2	98.8	-46.87	949.1	-1,726.4	2,105.1	1,995.0	110.18	19.106		
5,019.7	4,968.8	4,954.8	4,954.8	14.2	99.2	-46.87	949.1	-1,726.4	2,105.1	1,994.5	110.61	19.031		

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 SCHAUMBERG 17G-314
<b>Project:</b>	WELD COUNTY, COLORADO	<b>TVD Reference:</b>	KB-EST @ 4633.0usft (Original Well Elev)
<b>Reference Site:</b>	SW NW SEC. 17 T5N R64W 6th P.M.	<b>MD Reference:</b>	KB-EST @ 4633.0usft (Original Well Elev)
<b>Site Error:</b>	0.0 usft	<b>North Reference:</b>	True
<b>Reference Well:</b>	SCHAUMBERG 17G-314	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Well Error:</b>	0.0 usft	<b>Output errors are at</b>	2.00 sigma
<b>Reference Wellbore</b>	ORIGINAL WELLBORE	<b>Database:</b>	EDM 5000.1 Single User Db
<b>Reference Design:</b>	PROPOSAL #1	<b>Offset TVD Reference:</b>	Offset Datum

Offset Design													Offset Site Error:	0.0 usft
Survey Program: 0-INC													Offset Well Error:	0.0 usft
Reference		Offset		Semi Major Axis			Distance						Warning	
Measured Depth (usft)	Vertical Depth (usft)	Measured Depth (usft)	Vertical Depth (usft)	Reference (usft)	Offset (usft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (usft)	+E/-W (usft)	Between Centres (usft)	Between Ellipses (usft)	Minimum Separation (usft)	Separation Factor		
5,100.0	5,049.2	5,035.2	5,035.2	14.3	100.8	-46.87	949.1	-1,726.4	2,105.1	1,992.8	112.38	18.733		
5,118.1	5,067.3	5,053.3	5,053.3	14.3	101.2	-46.87	949.1	-1,726.4	2,105.1	1,992.4	112.78	18.667		
5,200.0	5,149.2	5,135.2	5,135.2	14.5	102.8	-46.87	949.1	-1,726.4	2,105.1	1,990.6	114.58	18.373		
5,216.5	5,165.7	5,151.7	5,151.7	14.5	103.2	-46.87	949.1	-1,726.4	2,105.1	1,990.2	114.94	18.315		
5,300.0	5,249.2	5,235.2	5,235.2	14.6	104.8	-46.87	949.1	-1,726.4	2,105.1	1,988.4	116.78	18.027		
5,314.9	5,264.1	5,250.1	5,250.1	14.6	105.1	-46.87	949.1	-1,726.4	2,105.1	1,988.0	117.11	17.976		
5,400.0	5,349.2	5,335.2	5,335.2	14.8	106.8	-46.87	949.1	-1,726.4	2,105.1	1,986.2	118.98	17.694		
5,413.4	5,362.5	5,348.5	5,348.5	14.8	107.1	-46.87	949.1	-1,726.4	2,105.1	1,985.9	119.27	17.650		
5,500.0	5,449.2	5,435.2	5,435.2	14.9	108.9	-46.87	949.1	-1,726.4	2,105.1	1,984.0	121.18	17.372		
5,511.8	5,461.0	5,447.0	5,447.0	14.9	109.1	-46.87	949.1	-1,726.4	2,105.1	1,983.7	121.44	17.335		
5,600.0	5,549.2	5,535.2	5,535.2	15.1	110.9	-46.87	949.1	-1,726.4	2,105.1	1,981.8	123.38	17.062		
5,610.2	5,559.4	5,545.4	5,545.4	15.1	111.1	-46.87	949.1	-1,726.4	2,105.1	1,981.5	123.61	17.031		
5,700.0	5,649.2	5,635.2	5,635.2	15.2	112.9	-46.87	949.1	-1,726.4	2,105.1	1,979.6	125.59	16.762		
5,708.6	5,657.8	5,643.8	5,643.8	15.3	113.0	-46.87	949.1	-1,726.4	2,105.1	1,979.4	125.78	16.737		
5,800.0	5,749.2	5,735.2	5,735.2	15.4	114.9	-46.87	949.1	-1,726.4	2,105.1	1,977.4	127.79	16.473		
5,807.1	5,756.2	5,742.2	5,742.2	15.4	115.0	-46.87	949.1	-1,726.4	2,105.1	1,977.2	127.95	16.453		
5,900.0	5,849.2	5,835.2	5,835.2	15.6	116.9	-46.87	949.1	-1,726.4	2,105.1	1,975.1	130.00	16.194		
5,905.5	5,854.7	5,840.7	5,840.7	15.6	117.0	-46.87	949.1	-1,726.4	2,105.1	1,975.0	130.12	16.179		
6,000.0	5,949.2	5,935.2	5,935.2	15.7	118.9	-46.87	949.1	-1,726.4	2,105.1	1,972.9	132.21	15.923		
6,003.9	5,953.1	5,939.1	5,939.1	15.7	119.0	-46.87	949.1	-1,726.4	2,105.1	1,972.9	132.29	15.913		
6,100.0	6,049.2	6,035.2	6,035.2	15.9	120.9	-46.87	949.1	-1,726.4	2,105.1	1,970.7	134.41	15.662		
6,102.3	6,051.5	6,037.5	6,037.5	15.9	121.0	-46.87	949.1	-1,726.4	2,105.1	1,970.7	134.47	15.656		
6,124.6	6,073.8	6,059.8	6,059.8	15.9	121.4	-46.87	949.1	-1,726.4	2,105.1	1,970.2	134.96	15.599		
6,150.0	6,099.2	6,085.2	6,085.2	16.0	121.9	43.15	949.1	-1,726.4	2,104.8	1,967.3	137.52	15.306		
6,200.0	6,149.0	6,135.0	6,135.0	16.1	122.9	43.36	949.1	-1,726.4	2,102.3	1,964.0	138.25	15.206		
6,200.8	6,149.8	6,135.8	6,135.8	16.1	122.9	43.36	949.1	-1,726.4	2,102.2	1,963.9	138.26	15.205		
6,250.0	6,198.5	6,184.5	6,184.5	16.2	123.9	43.77	949.1	-1,726.4	2,097.2	1,958.5	138.65	15.125		
6,299.2	6,246.6	6,232.6	6,232.6	16.3	124.9	44.38	949.1	-1,726.4	2,089.7	1,951.0	138.75	15.061		
6,300.0	6,247.4	6,233.4	6,233.4	16.3	124.9	44.39	949.1	-1,726.4	2,089.6	1,950.9	138.75	15.061		
6,350.0	6,295.5	6,281.5	6,281.5	16.5	125.9	45.23	949.1	-1,726.4	2,079.6	1,941.0	138.58	15.007		
6,397.6	6,340.2	6,326.2	6,326.2	16.6	126.8	46.23	949.1	-1,726.4	2,067.9	1,929.7	138.23	14.960		
6,400.0	6,342.4	6,328.4	6,328.4	16.6	126.8	46.29	949.1	-1,726.4	2,067.3	1,929.1	138.21	14.957		
6,450.0	6,388.1	6,374.1	6,374.1	16.8	127.7	47.57	949.1	-1,726.4	2,052.7	1,915.0	137.74	14.903		
6,496.0	6,428.8	6,414.8	6,414.8	17.0	128.6	48.96	949.1	-1,726.4	2,037.4	1,900.1	137.31	14.839		
6,500.0	6,432.2	6,418.2	6,418.2	17.0	128.6	49.09	949.1	-1,726.4	2,036.0	1,898.8	137.27	14.832		
6,550.0	6,474.6	6,460.6	6,460.6	17.3	129.5	50.85	949.1	-1,726.4	2,017.4	1,880.4	136.92	14.733		
6,594.5	6,510.7	6,496.7	6,496.7	17.5	130.2	52.61	949.1	-1,726.4	1,999.2	1,862.4	136.83	14.611		
6,600.0	6,515.0	6,501.0	6,501.0	17.6	130.3	52.85	949.1	-1,726.4	1,996.9	1,860.0	136.83	14.594		
6,650.0	6,553.3	6,539.3	6,539.3	17.9	131.1	55.09	949.1	-1,726.4	1,974.7	1,837.6	137.12	14.402		
6,692.9	6,584.3	6,570.3	6,570.3	18.2	131.7	57.19	949.1	-1,726.4	1,954.5	1,816.8	137.73	14.191		
6,700.0	6,589.2	6,575.2	6,575.2	18.2	131.8	57.56	949.1	-1,726.4	1,951.1	1,813.2	137.87	14.152		
6,750.0	6,622.7	6,608.7	6,608.7	18.6	132.5	60.25	949.1	-1,726.4	1,926.2	1,787.0	139.15	13.843		
6,791.3	6,648.3	6,634.3	6,634.3	19.0	133.0	62.62	949.1	-1,726.4	1,904.8	1,764.2	140.61	13.547		
6,800.0	6,653.4	6,639.4	6,639.4	19.1	133.1	63.14	949.1	-1,726.4	1,900.2	1,759.3	140.95	13.481		
6,850.0	6,681.4	6,667.4	6,667.4	19.6	133.6	66.19	949.1	-1,726.4	1,873.4	1,730.2	143.21	13.081		
6,889.7	6,701.5	6,687.5	6,687.5	20.1	134.0	68.70	949.1	-1,726.4	1,851.7	1,706.4	145.26	12.747		
6,900.0	6,706.3	6,692.3	6,692.3	20.2	134.1	69.35	949.1	-1,726.4	1,846.0	1,700.2	145.81	12.661		
6,950.0	6,728.2	6,714.2	6,714.2	20.9	134.6	72.58	949.1	-1,726.4	1,818.2	1,669.6	148.57	12.238		
6,988.2	6,742.8	6,728.8	6,728.8	21.5	134.9	75.06	949.1	-1,726.4	1,796.8	1,646.1	150.70	11.923		
7,000.0	6,746.9	6,732.9	6,732.9	21.6	135.0	75.82	949.1	-1,726.4	1,790.2	1,638.9	151.34	11.829		
7,050.0	6,762.4	6,748.4	6,748.4	22.5	135.3	78.99	949.1	-1,726.4	1,762.4	1,608.4	153.94	11.448		
7,086.6	6,771.5	6,757.5	6,757.5	23.1	135.4	81.25	949.1	-1,726.4	1,742.1	1,586.5	155.68	11.190		

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 SCHAUMBERG 17G-314
<b>Project:</b>	WELD COUNTY, COLORADO	<b>TVD Reference:</b>	KB-EST @ 4633.0usft (Original Well Elev)
<b>Reference Site:</b>	SW NW SEC. 17 T5N R64W 6th P.M.	<b>MD Reference:</b>	KB-EST @ 4633.0usft (Original Well Elev)
<b>Site Error:</b>	0.0 usft	<b>North Reference:</b>	True
<b>Reference Well:</b>	SCHAUMBERG 17G-314	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Well Error:</b>	0.0 usft	<b>Output errors are at</b>	2.00 sigma
<b>Reference Wellbore</b>	ORIGINAL WELLBORE	<b>Database:</b>	EDM 5000.1 Single User Db
<b>Reference Design:</b>	PROPOSAL #1	<b>Offset TVD Reference:</b>	Offset Datum

Offset Design													Offset Site Error:	0.0 usft
Survey Program: 0-INC													Offset Well Error:	0.0 usft
Reference		Offset		Semi Major Axis			Distance						Warning	
Measured Depth (usft)	Vertical Depth (usft)	Measured Depth (usft)	Vertical Depth (usft)	Reference (usft)	Offset (usft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (usft)	+E/-W (usft)	Between Centres (usft)	Between Ellipses (usft)	Minimum Separation (usft)	Separation Factor		
7,100.0	6,774.4	6,760.4	6,760.4	23.3	135.5	82.05	949.1	-1,726.4	1,734.8	1,578.5	156.27	11.102		
7,150.0	6,783.1	6,769.1	6,769.1	24.3	135.7	84.94	949.1	-1,726.4	1,707.8	1,549.6	158.24	10.792		
7,185.0	6,787.1	6,773.1	6,773.1	25.0	135.8	86.83	949.1	-1,726.4	1,689.3	1,529.9	159.42	10.597		
7,200.0	6,788.3	6,774.3	6,774.3	25.3	135.8	87.60	949.1	-1,726.4	1,681.5	1,521.7	159.86	10.519		
7,252.3	6,790.0	6,776.0	6,776.0	26.3	135.8	90.12	949.1	-1,726.4	1,655.1	1,493.9	161.19	10.268		
7,283.4	6,789.9	6,775.9	6,775.9	27.0	135.8	90.12	949.1	-1,726.4	1,640.0	1,478.1	161.88	10.131		
7,300.0	6,789.8	6,775.8	6,775.8	27.3	135.8	90.12	949.1	-1,726.4	1,632.1	1,469.8	162.25	10.059		
7,381.9	6,789.5	6,775.5	6,775.5	29.1	135.8	90.10	949.1	-1,726.4	1,595.1	1,431.0	164.12	9.719		
7,400.0	6,789.4	6,775.4	6,775.4	29.5	135.8	90.10	949.1	-1,726.4	1,587.4	1,422.8	164.54	9.647		
7,480.3	6,789.1	6,775.1	6,775.1	31.4	135.8	90.09	949.1	-1,726.4	1,555.2	1,388.7	166.45	9.343		
7,500.0	6,789.1	6,775.1	6,775.1	31.8	135.8	90.09	949.1	-1,726.4	1,547.8	1,380.9	166.91	9.273		
7,578.7	6,788.8	6,774.8	6,774.8	33.7	135.8	90.07	949.1	-1,726.4	1,520.6	1,351.8	168.84	9.006		
7,600.0	6,788.7	6,774.7	6,774.7	34.2	135.8	90.07	949.1	-1,726.4	1,513.9	1,344.5	169.36	8.939		
7,677.1	6,788.4	6,774.4	6,774.4	36.1	135.8	90.06	949.1	-1,726.4	1,491.7	1,320.4	171.28	8.709		
7,700.0	6,788.3	6,774.3	6,774.3	36.7	135.8	90.06	949.1	-1,726.4	1,485.9	1,314.0	171.85	8.646		
7,775.6	6,788.0	6,774.0	6,774.0	38.6	135.8	90.04	949.1	-1,726.4	1,468.9	1,295.1	173.77	8.453		
7,800.0	6,787.9	6,773.9	6,773.9	39.2	135.8	90.04	949.1	-1,726.4	1,464.2	1,289.8	174.39	8.396		
7,874.0	6,787.6	6,773.6	6,773.6	41.0	135.8	90.03	949.1	-1,726.4	1,452.4	1,276.1	176.29	8.239		
7,900.0	6,787.6	6,773.6	6,773.6	41.7	135.8	90.03	949.1	-1,726.4	1,449.1	1,272.1	176.96	8.189		
7,972.4	6,787.3	6,773.3	6,773.3	43.6	135.8	90.01	949.1	-1,726.4	1,442.4	1,263.6	178.84	8.065		
8,000.0	6,787.2	6,773.2	6,773.2	44.3	135.8	90.01	949.1	-1,726.4	1,440.8	1,261.2	179.56	8.024		
8,069.9	6,786.9	6,772.9	6,772.9	46.1	135.8	90.00	949.1	-1,726.4	1,439.1	1,257.7	181.39	7.934 CC		
8,070.8	6,786.9	6,772.9	6,772.9	46.1	135.8	90.00	949.1	-1,726.4	1,439.1	1,257.7	181.42	7.933		
8,100.0	6,786.8	6,772.8	6,772.8	46.9	135.8	90.00	949.1	-1,726.4	1,439.4	1,257.2	182.18	7.901 ES		
8,169.3	6,786.5	6,772.5	6,772.5	48.7	135.7	89.98	949.1	-1,726.4	1,442.5	1,258.5	184.01	7.839		
8,200.0	6,786.4	6,772.4	6,772.4	49.5	135.7	89.98	949.1	-1,726.4	1,445.0	1,260.1	184.82	7.818		
8,267.7	6,786.1	6,772.1	6,772.1	51.3	135.7	89.97	949.1	-1,726.4	1,452.6	1,266.0	186.62	7.784		
8,300.0	6,786.0	6,772.0	6,772.0	52.1	135.7	89.96	949.1	-1,726.4	1,457.4	1,269.9	187.48	7.773		
8,366.1	6,785.8	6,771.8	6,771.8	53.9	135.7	89.95	949.1	-1,726.4	1,469.3	1,280.0	189.25	7.764 SF		
8,400.0	6,785.6	6,771.6	6,771.6	54.8	135.7	89.95	949.1	-1,726.4	1,476.5	1,286.3	190.16	7.764		
8,464.5	6,785.4	6,771.4	6,771.4	56.5	135.7	89.94	949.1	-1,726.4	1,492.2	1,300.3	191.89	7.776		
8,500.0	6,785.3	6,771.3	6,771.3	57.5	135.7	89.93	949.1	-1,726.4	1,502.0	1,309.2	192.84	7.789		
8,563.0	6,785.0	6,771.0	6,771.0	59.2	135.7	89.92	949.1	-1,726.4	1,521.2	1,326.7	194.54	7.820		
8,600.0	6,784.9	6,770.9	6,770.9	60.2	135.7	89.92	949.1	-1,726.4	1,533.6	1,338.1	195.54	7.843		
8,661.4	6,784.6	6,770.6	6,770.6	61.8	135.7	89.91	949.1	-1,726.4	1,555.9	1,358.7	197.20	7.890		
8,700.0	6,784.5	6,770.5	6,770.5	62.9	135.7	89.90	949.1	-1,726.4	1,571.0	1,372.8	198.25	7.924		
8,759.8	6,784.3	6,770.3	6,770.3	64.5	135.7	89.89	949.1	-1,726.4	1,595.9	1,396.1	199.87	7.985		
8,800.0	6,784.1	6,770.1	6,770.1	65.6	135.7	89.89	949.1	-1,726.4	1,613.7	1,412.7	200.96	8.030		
8,858.2	6,783.9	6,769.9	6,769.9	67.1	135.7	89.88	949.1	-1,726.4	1,640.9	1,438.3	202.55	8.101		
8,900.0	6,783.7	6,769.7	6,769.7	68.3	135.7	89.87	949.1	-1,726.4	1,661.3	1,457.7	203.68	8.157		
8,956.7	6,783.5	6,769.5	6,769.5	69.8	135.7	89.86	949.1	-1,726.4	1,690.4	1,485.2	205.23	8.237		
9,000.0	6,783.3	6,769.3	6,769.3	71.0	135.7	89.86	949.1	-1,726.4	1,713.5	1,507.1	206.41	8.301		
9,055.1	6,783.1	6,769.1	6,769.1	72.5	135.7	89.85	949.1	-1,726.4	1,744.0	1,536.1	207.92	8.388		
9,100.0	6,782.9	6,768.9	6,768.9	73.7	135.7	89.84	949.1	-1,726.4	1,769.8	1,560.6	209.15	8.462		
9,153.5	6,782.7	6,768.7	6,768.7	75.2	135.7	89.83	949.1	-1,726.4	1,801.5	1,590.8	210.61	8.553		
9,200.0	6,782.6	6,768.6	6,768.6	76.5	135.7	89.83	949.1	-1,726.4	1,829.8	1,617.9	211.88	8.636		
9,251.9	6,782.4	6,768.4	6,768.4	77.9	135.7	89.82	949.1	-1,726.4	1,862.3	1,649.0	213.31	8.731		
9,300.0	6,782.2	6,768.2	6,768.2	79.2	135.7	89.81	949.1	-1,726.4	1,893.2	1,678.6	214.63	8.821		
9,350.4	6,782.0	6,768.0	6,768.0	80.6	135.7	89.80	949.1	-1,726.4	1,926.3	1,710.3	216.01	8.918		
9,400.0	6,781.8	6,767.8	6,767.8	82.0	135.7	89.79	949.1	-1,726.4	1,959.6	1,742.3	217.37	9.015		
9,448.8	6,781.6	6,767.6	6,767.6	83.3	135.6	89.79	949.1	-1,726.4	1,993.1	1,774.4	218.72	9.113		
9,500.0	6,781.4	6,767.4	6,767.4	84.7	135.6	89.78	949.1	-1,726.4	2,028.8	1,808.7	220.12	9.217		

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 SCHAUMBERG 17G-314
<b>Project:</b>	WELD COUNTY, COLORADO	<b>TVD Reference:</b>	KB-EST @ 4633.0usft (Original Well Elev)
<b>Reference Site:</b>	SW NW SEC. 17 T5N R64W 6th P.M.	<b>MD Reference:</b>	KB-EST @ 4633.0usft (Original Well Elev)
<b>Site Error:</b>	0.0 usft	<b>North Reference:</b>	True
<b>Reference Well:</b>	SCHAUMBERG 17G-314	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Well Error:</b>	0.0 usft	<b>Output errors are at</b>	2.00 sigma
<b>Reference Wellbore</b>	ORIGINAL WELLBORE	<b>Database:</b>	EDM 5000.1 Single User Db
<b>Reference Design:</b>	PROPOSAL #1	<b>Offset TVD Reference:</b>	Offset Datum

Offset Design												Offset Site Error:	0.0 usft
Survey Program: 0-INC												Offset Well Error:	0.0 usft
Reference		Offset		Semi Major Axis			Distance						Warning
Measured Depth (usft)	Vertical Depth (usft)	Measured Depth (usft)	Vertical Depth (usft)	Reference (usft)	Offset (usft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (usft)	+E/-W (usft)	Between Centres (usft)	Between Ellipses (usft)	Minimum Separation (usft)	Separation Factor	
9,547.2	6,781.2	6,767.2	6,767.2	86.0	135.6	89.77	949.1	-1,726.4	2,062.4	1,841.0	221.43	9.314	
9,600.0	6,781.0	6,767.0	6,767.0	87.5	135.6	89.76	949.1	-1,726.4	2,100.5	1,877.7	222.88	9.425	
9,645.6	6,780.8	6,766.8	6,766.8	88.7	135.6	89.76	949.1	-1,726.4	2,134.0	1,909.9	224.14	9.521	
9,700.0	6,780.6	6,766.6	6,766.6	90.2	135.6	89.75	949.1	-1,726.4	2,174.5	1,948.8	225.64	9.637	
9,744.1	6,780.4	6,766.4	6,766.4	91.4	135.6	89.74	949.1	-1,726.4	2,207.7	1,980.8	226.85	9.732	
9,800.0	6,780.2	6,766.2	6,766.2	93.0	135.6	89.73	949.1	-1,726.4	2,250.4	2,022.0	228.40	9.853	
9,842.5	6,780.1	6,766.1	6,766.1	94.2	135.6	89.72	949.1	-1,726.4	2,283.2	2,053.7	229.57	9.946	
9,900.0	6,779.8	6,765.8	6,765.8	95.7	135.6	89.71	949.1	-1,726.4	2,328.1	2,097.0	231.16	10.072	
9,940.9	6,779.7	6,765.7	6,765.7	96.9	135.6	89.71	949.1	-1,726.4	2,360.5	2,128.2	232.29	10.162	
10,000.0	6,779.4	6,765.4	6,765.4	98.5	135.6	89.70	949.1	-1,726.4	2,407.5	2,173.6	233.92	10.292	
10,039.3	6,779.3	6,765.3	6,765.3	99.6	135.6	89.69	949.1	-1,726.4	2,439.2	2,204.2	235.01	10.379	
10,100.0	6,779.0	6,765.0	6,765.0	101.3	135.6	89.68	949.1	-1,726.4	2,488.4	2,251.7	236.69	10.514	
10,137.8	6,778.9	6,764.9	6,764.9	102.3	135.6	89.68	949.1	-1,726.4	2,519.3	2,281.6	237.73	10.597	
10,200.0	6,778.7	6,764.7	6,764.7	104.1	135.6	89.67	949.1	-1,726.4	2,570.7	2,331.2	239.46	10.735	
10,236.2	6,778.5	6,764.5	6,764.5	105.1	135.6	89.66	949.1	-1,726.4	2,600.7	2,360.3	240.46	10.816	
10,300.0	6,778.3	6,764.3	6,764.3	106.8	135.6	89.65	949.1	-1,726.4	2,654.1	2,411.9	242.23	10.957	
10,334.6	6,778.1	6,764.1	6,764.1	107.8	135.6	89.64	949.1	-1,726.4	2,683.3	2,440.1	243.19	11.034	
10,400.0	6,777.9	6,763.9	6,763.9	109.6	135.6	89.63	949.1	-1,726.4	2,738.7	2,493.7	245.00	11.178	
10,433.0	6,777.7	6,763.7	6,763.7	110.5	135.6	89.63	949.1	-1,726.4	2,766.9	2,520.9	245.91	11.251	
10,500.0	6,777.5	6,763.5	6,763.5	112.4	135.6	89.62	949.1	-1,726.4	2,824.2	2,576.5	247.77	11.399	
10,531.5	6,777.3	6,763.3	6,763.3	113.3	135.6	89.61	949.1	-1,726.4	2,851.4	2,602.7	248.64	11.468	
10,600.0	6,777.1	6,763.1	6,763.1	115.2	135.6	89.60	949.1	-1,726.4	2,910.7	2,660.2	250.55	11.618	
10,629.9	6,777.0	6,763.0	6,763.0	116.0	135.6	89.60	949.1	-1,726.4	2,936.8	2,685.4	251.38	11.683	
10,700.0	6,776.7	6,762.7	6,762.7	117.9	135.5	89.58	949.1	-1,726.4	2,998.1	2,744.7	253.32	11.835	
10,728.3	6,776.6	6,762.6	6,762.6	118.7	135.5	89.58	949.1	-1,726.4	3,022.9	2,768.8	254.11	11.896	
10,800.0	6,776.3	6,762.3	6,762.3	120.7	135.5	89.57	949.1	-1,726.4	3,086.2	2,830.1	256.10	12.051	
10,826.7	6,776.2	6,762.2	6,762.2	121.5	135.5	89.56	949.1	-1,726.4	3,109.9	2,853.0	256.84	12.108	
10,900.0	6,775.9	6,761.9	6,761.9	123.5	135.5	89.55	949.1	-1,726.4	3,175.0	2,916.1	258.88	12.264	
10,925.2	6,775.8	6,761.8	6,761.8	124.2	135.5	89.55	949.1	-1,726.4	3,197.4	2,937.9	259.58	12.318	
11,000.0	6,775.5	6,761.5	6,761.5	126.3	135.5	89.54	949.1	-1,726.4	3,264.4	3,002.8	261.65	12.476	
11,023.6	6,775.4	6,761.4	6,761.4	126.9	135.5	89.53	949.1	-1,726.4	3,285.6	3,023.3	262.31	12.526	
11,100.0	6,775.1	6,761.1	6,761.1	129.1	135.5	89.52	949.1	-1,726.4	3,354.5	3,090.0	264.43	12.685	
11,122.0	6,775.0	6,761.0	6,761.0	129.7	135.5	89.52	949.1	-1,726.4	3,374.4	3,109.3	265.05	12.731	
11,200.0	6,774.7	6,760.7	6,760.7	131.9	135.5	89.50	949.1	-1,726.4	3,445.1	3,177.9	267.22	12.892	
11,220.4	6,774.6	6,760.6	6,760.6	132.4	135.5	89.50	949.1	-1,726.4	3,463.7	3,195.9	267.78	12.935	
11,300.0	6,774.3	6,760.3	6,760.3	134.6	135.5	89.49	949.1	-1,726.4	3,536.2	3,266.2	270.00	13.097	
11,318.9	6,774.2	6,760.2	6,760.2	135.2	135.5	89.48	949.1	-1,726.4	3,553.4	3,282.9	270.52	13.135	
11,400.0	6,773.9	6,759.9	6,759.9	137.4	135.5	89.47	949.1	-1,726.4	3,627.7	3,355.0	272.78	13.299	
11,417.3	6,773.8	6,759.8	6,759.8	137.9	135.5	89.47	949.1	-1,726.4	3,643.6	3,370.4	273.26	13.334	
11,500.0	6,773.5	6,759.5	6,759.5	140.2	135.5	89.45	949.1	-1,726.4	3,719.7	3,444.2	275.56	13.499	
11,515.7	6,773.4	6,759.4	6,759.4	140.7	135.5	89.45	949.1	-1,726.4	3,734.3	3,458.3	276.00	13.530	
11,600.0	6,773.1	6,759.1	6,759.1	143.0	135.5	89.43	949.1	-1,726.4	3,812.2	3,533.8	278.35	13.696	
11,614.1	6,773.0	6,759.0	6,759.0	143.4	135.5	89.43	949.1	-1,726.4	3,825.3	3,546.5	278.74	13.723	
11,700.0	6,772.7	6,758.7	6,758.7	145.8	135.5	89.42	949.1	-1,726.4	3,904.9	3,623.8	281.13	13.890	
11,712.6	6,772.6	6,758.6	6,758.6	146.2	135.5	89.42	949.1	-1,726.4	3,916.6	3,635.1	281.48	13.914	
11,800.0	6,772.3	6,758.3	6,758.3	148.6	135.5	89.40	949.1	-1,726.4	3,998.1	3,714.2	283.92	14.082	
11,811.0	6,772.2	6,758.2	6,758.2	148.9	135.5	89.40	949.1	-1,726.4	4,008.3	3,724.1	284.22	14.103	
11,900.0	6,771.9	6,757.9	6,757.9	151.4	135.5	89.38	949.1	-1,726.4	4,091.5	3,804.8	286.70	14.271	
11,909.4	6,771.8	6,757.8	6,757.8	151.7	135.5	89.38	949.1	-1,726.4	4,100.3	3,813.4	286.96	14.289	
12,000.0	6,771.5	6,757.5	6,757.5	154.2	135.4	89.37	949.1	-1,726.4	4,185.3	3,895.8	289.49	14.458	
12,007.8	6,771.4	6,757.4	6,757.4	154.4	135.4	89.37	949.1	-1,726.4	4,192.7	3,902.9	289.71	14.472	
12,100.0	6,771.1	6,757.1	6,757.1	157.0	135.4	89.35	949.1	-1,726.4	4,279.3	3,987.0	292.27	14.641	

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 SCHAUMBERG 17G-314
<b>Project:</b>	WELD COUNTY, COLORADO	<b>TVD Reference:</b>	KB-EST @ 4633.0usft (Original Well Elev)
<b>Reference Site:</b>	SW NW SEC. 17 T5N R64W 6th P.M.	<b>MD Reference:</b>	KB-EST @ 4633.0usft (Original Well Elev)
<b>Site Error:</b>	0.0 usft	<b>North Reference:</b>	True
<b>Reference Well:</b>	SCHAUMBERG 17G-314	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Well Error:</b>	0.0 usft	<b>Output errors are at</b>	2.00 sigma
<b>Reference Wellbore</b>	ORIGINAL WELLBORE	<b>Database:</b>	EDM 5000.1 Single User Db
<b>Reference Design:</b>	PROPOSAL #1	<b>Offset TVD Reference:</b>	Offset Datum

<b>Offset Design</b> SW NW SEC. 17 T5N R64W 6th P.M. - EXIST VERT GUNTHER B18-1 - Wellbore #1 - Design #1												<b>Offset Site Error:</b>	0.0 usft
Survey Program: 0-INC												<b>Offset Well Error:</b>	0.0 usft
Reference		Offset		Semi Major Axis			Distance						
Measured Depth (usft)	Vertical Depth (usft)	Measured Depth (usft)	Vertical Depth (usft)	Reference (usft)	Offset (usft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (usft)	+E/-W (usft)	Between Centres (usft)	Between Ellipses (usft)	Minimum Separation (usft)	Separation Factor	Warning
12,106.3	6,771.0	6,757.0	6,757.0	157.2	135.4	89.35	949.1	-1,726.4	4,285.2	3,992.8	292.45	14.653	
12,200.0	6,770.7	6,756.7	6,756.7	159.8	135.4	89.33	949.1	-1,726.4	4,373.6	4,078.6	295.06	14.823	
12,204.7	6,770.6	6,756.6	6,756.6	159.9	135.4	89.33	949.1	-1,726.4	4,378.1	4,082.9	295.19	14.831	
12,300.0	6,770.3	6,756.3	6,756.3	162.6	135.4	89.32	949.1	-1,726.4	4,468.2	4,170.3	297.85	15.002	
12,303.1	6,770.2	6,756.2	6,756.2	162.7	135.4	89.32	949.1	-1,726.4	4,471.1	4,173.2	297.94	15.007	
12,361.7	6,770.0	6,756.0	6,756.0	164.3	135.4	89.31	949.1	-1,726.4	4,526.6	4,227.1	299.57	15.111	



# Anticollision Report



<b>Company:</b>	PDC ENERGY	<b>Local Co-ordinate Reference:</b>	Well SCHAUMBERG 17G-314
<b>Project:</b>	WELD COUNTY, COLORADO	<b>TVD Reference:</b>	KB-EST @ 4633.0usft (Original Well Elev)
<b>Reference Site:</b>	SW NW SEC. 17 T5N R64W 6th P.M.	<b>MD Reference:</b>	KB-EST @ 4633.0usft (Original Well Elev)
<b>Site Error:</b>	0.0 usft	<b>North Reference:</b>	True
<b>Reference Well:</b>	SCHAUMBERG 17G-314	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Well Error:</b>	0.0 usft	<b>Output errors are at</b>	2.00 sigma
<b>Reference Wellbore</b>	ORIGINAL WELLBORE	<b>Database:</b>	EDM 5000.1 Single User Db
<b>Reference Design:</b>	PROPOSAL #1	<b>Offset TVD Reference:</b>	Offset Datum

Offset Design												Offset Site Error:	0.0 usft
Survey Program: 0-INC												Offset Well Error:	0.0 usft
Reference		Offset		Semi Major Axis			Distance						Warning
Measured Depth (usft)	Vertical Depth (usft)	Measured Depth (usft)	Vertical Depth (usft)	Reference (usft)	Offset (usft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (usft)	+E/-W (usft)	Between Centres (usft)	Between Ellipses (usft)	Minimum Separation (usft)	Separation Factor	
0.0	0.0	0.0	0.0	0.0	0.0	69.36	888.3	2,358.1	2,519.9				
98.4	98.4	88.4	88.4	0.1	0.9	69.36	888.3	2,358.1	2,519.9	2,518.9	1.00	2,513.600	
100.0	100.0	90.0	90.0	0.1	0.9	69.36	888.3	2,358.1	2,519.9	2,518.8	1.02	2,469.467	
196.8	196.8	186.8	186.8	0.3	3.0	69.36	888.3	2,358.1	2,519.9	2,516.5	3.36	749.083	
200.0	200.0	190.0	190.0	0.3	3.1	69.36	888.3	2,358.1	2,519.9	2,516.4	3.44	731.584	
295.3	295.3	285.3	285.3	0.5	5.1	69.36	888.3	2,358.1	2,519.9	2,514.2	5.67	444.738	
300.0	300.0	290.0	290.0	0.5	5.2	69.36	888.3	2,358.1	2,519.9	2,514.1	5.77	436.348	
393.7	393.7	383.7	383.7	0.8	7.1	69.36	888.3	2,358.1	2,519.9	2,512.0	7.90	318.836	
400.0	400.0	390.0	390.0	0.8	7.3	69.36	888.3	2,358.1	2,519.9	2,511.8	8.05	313.176	
492.1	492.1	482.1	482.1	1.0	9.1	69.36	888.3	2,358.1	2,519.9	2,509.7	10.12	248.901	
500.0	500.0	490.0	490.0	1.0	9.3	69.36	888.3	2,358.1	2,519.9	2,509.6	10.30	244.612	
590.5	590.5	580.5	580.5	1.2	11.1	69.36	888.3	2,358.1	2,519.9	2,507.5	12.34	204.248	
600.0	600.0	590.0	590.0	1.2	11.3	69.36	888.3	2,358.1	2,519.9	2,507.3	12.55	200.792	
689.0	689.0	679.0	679.0	1.4	13.1	69.36	888.3	2,358.1	2,519.9	2,505.3	14.55	173.227	
700.0	700.0	690.0	690.0	1.4	13.3	69.36	888.3	2,358.1	2,519.9	2,505.1	14.79	170.330	
787.4	787.4	777.4	777.4	1.6	15.1	69.36	888.3	2,358.1	2,519.9	2,503.1	16.75	150.407	
800.0	800.0	790.0	790.0	1.7	15.4	69.36	888.3	2,358.1	2,519.9	2,502.8	17.04	147.913	
885.8	885.8	875.8	875.8	1.9	17.1	69.36	888.3	2,358.1	2,519.9	2,500.9	18.96	132.910	
900.0	900.0	890.0	890.0	1.9	17.4	69.36	888.3	2,358.1	2,519.9	2,500.6	19.28	130.721	
984.2	984.2	974.2	974.2	2.1	19.1	69.36	888.3	2,358.1	2,519.9	2,498.7	21.16	119.066	
1,000.0	1,000.0	990.0	990.0	2.1	19.4	69.36	888.3	2,358.1	2,519.9	2,498.3	21.52	117.114	
1,082.7	1,082.7	1,072.7	1,072.7	2.3	21.1	69.36	888.3	2,358.1	2,519.9	2,496.5	23.37	107.837	
1,100.0	1,100.0	1,090.0	1,090.0	2.3	21.4	69.36	888.3	2,358.1	2,519.9	2,496.1	23.76	106.077	
1,181.1	1,181.1	1,171.1	1,171.1	2.5	23.0	69.36	888.3	2,358.1	2,519.9	2,494.3	25.57	98.546	
1,200.0	1,200.0	1,190.0	1,190.0	2.6	23.4	69.36	888.3	2,358.1	2,519.9	2,493.9	25.99	96.942	
1,279.5	1,279.5	1,269.5	1,269.5	2.7	25.0	69.36	888.3	2,358.1	2,519.9	2,492.1	27.77	90.730	
1,300.0	1,300.0	1,290.0	1,290.0	2.8	25.4	69.36	888.3	2,358.1	2,519.9	2,491.6	28.23	89.258	
1,377.9	1,377.9	1,367.9	1,367.9	3.0	27.0	69.36	888.3	2,358.1	2,519.9	2,489.9	29.98	84.064	
1,400.0	1,400.0	1,390.0	1,390.0	3.0	27.4	69.36	888.3	2,358.1	2,519.9	2,489.4	30.47	82.703	
1,476.4	1,476.4	1,466.4	1,466.4	3.2	29.0	69.36	888.3	2,358.1	2,519.9	2,487.7	32.18	78.311	
1,500.0	1,500.0	1,490.0	1,490.0	3.2	29.5	69.36	888.3	2,358.1	2,519.9	2,487.1	32.71	77.045	
1,574.8	1,574.8	1,564.8	1,564.8	3.4	31.0	69.36	888.3	2,358.1	2,519.9	2,485.5	34.38	73.295	
1,600.0	1,600.0	1,590.0	1,590.0	3.5	31.5	69.36	888.3	2,358.1	2,519.9	2,484.9	34.94	72.113	
1,673.2	1,673.2	1,663.2	1,663.2	3.6	32.9	69.36	888.3	2,358.1	2,519.9	2,483.3	36.58	68.884	
1,700.0	1,700.0	1,690.0	1,690.0	3.7	33.5	69.36	888.3	2,358.1	2,519.9	2,482.7	37.18	67.774	
1,771.6	1,771.6	1,761.6	1,761.6	3.9	34.9	69.36	888.3	2,358.1	2,519.9	2,481.1	38.78	64.973	
1,800.0	1,800.0	1,790.0	1,790.0	3.9	35.5	69.36	888.3	2,358.1	2,519.9	2,480.4	39.42	63.928 CC	
1,870.1	1,870.1	1,860.1	1,860.1	4.1	36.9	-131.84	888.3	2,358.1	2,520.4	2,479.5	40.96	61.536	
1,900.0	1,900.0	1,890.0	1,890.0	4.1	37.5	-131.85	888.3	2,358.1	2,521.0	2,479.4	41.61	60.582 ES	
1,968.5	1,968.4	1,958.4	1,958.4	4.2	38.9	-131.87	888.3	2,358.1	2,523.2	2,480.1	43.09	58.561	
2,000.0	1,999.8	1,989.8	1,989.8	4.3	39.5	-131.88	888.3	2,358.1	2,524.5	2,480.8	43.76	57.692	
2,066.9	2,066.5	2,056.5	2,056.5	4.4	40.9	-131.92	888.3	2,358.1	2,528.2	2,483.0	45.18	55.956	
2,100.0	2,099.5	2,089.5	2,089.5	4.5	41.5	-131.94	888.3	2,358.1	2,530.3	2,484.5	45.88	55.154	
2,165.3	2,164.4	2,154.4	2,154.4	4.6	42.8	-132.00	888.3	2,358.1	2,535.4	2,488.2	47.25	53.661	
2,200.0	2,198.7	2,188.7	2,188.7	4.7	43.5	-132.03	888.3	2,358.1	2,538.5	2,490.6	47.97	52.921	
2,263.8	2,261.8	2,251.8	2,251.8	4.8	44.8	-132.09	888.3	2,358.1	2,545.0	2,495.7	49.29	51.635	
2,300.0	2,297.5	2,287.5	2,287.5	4.9	45.5	-132.13	888.3	2,358.1	2,549.1	2,499.1	50.03	50.952	
2,362.2	2,358.6	2,348.6	2,348.6	5.0	46.7	-132.20	888.3	2,358.1	2,556.9	2,505.6	51.30	49.842	
2,400.0	2,395.6	2,385.6	2,385.6	5.1	47.5	-132.25	888.3	2,358.1	2,562.0	2,510.0	52.06	49.214	
2,460.6	2,454.9	2,444.9	2,444.9	5.3	48.7	-132.45	888.3	2,358.1	2,570.6	2,517.2	53.39	48.152	
2,500.0	2,493.4	2,483.4	2,483.4	5.4	49.4	-132.59	888.3	2,358.1	2,576.2	2,522.0	54.24	47.493	
2,559.0	2,551.2	2,541.2	2,541.2	5.6	50.6	-132.78	888.3	2,358.1	2,584.6	2,529.1	55.54	46.533	

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 SCHAUMBERG 17G-314
<b>Project:</b>	WELD COUNTY, COLORADO	<b>TVD Reference:</b>	KB-EST @ 4633.0usft (Original Well Elev)
<b>Reference Site:</b>	SW NW SEC. 17 T5N R64W 6th P.M.	<b>MD Reference:</b>	KB-EST @ 4633.0usft (Original Well Elev)
<b>Site Error:</b>	0.0 usft	<b>North Reference:</b>	True
<b>Reference Well:</b>	SCHAUMBERG 17G-314	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Well Error:</b>	0.0 usft	<b>Output errors are at</b>	2.00 sigma
<b>Reference Wellbore</b>	ORIGINAL WELLBORE	<b>Database:</b>	EDM 5000.1 Single User Db
<b>Reference Design:</b>	PROPOSAL #1	<b>Offset TVD Reference:</b>	Offset Datum

Offset Design												Offset Site Error:	0.0 usft
Survey Program: 0-INC												Offset Well Error:	0.0 usft
Reference		Offset		Semi Major Axis			Distance						Warning
Measured Depth (usft)	Vertical Depth (usft)	Measured Depth (usft)	Vertical Depth (usft)	Reference (usft)	Offset (usft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (usft)	+E/-W (usft)	Between Centres (usft)	Between Ellipses (usft)	Minimum Separation (usft)	Separation Factor	
2,600.0	2,591.3	2,581.3	2,581.3	5.7	51.4	-132.92	888.3	2,358.1	2,590.5	2,534.1	56.44	45.895	
2,657.5	2,647.5	2,637.5	2,637.5	5.9	52.5	-133.11	888.3	2,358.1	2,598.8	2,541.0	57.72	45.027	
2,700.0	2,689.1	2,679.1	2,679.1	6.0	53.4	-133.25	888.3	2,358.1	2,604.9	2,546.2	58.66	44.409	
2,755.9	2,743.7	2,733.7	2,733.7	6.2	54.5	-133.44	888.3	2,358.1	2,612.9	2,553.0	59.90	43.623	
2,800.0	2,786.9	2,776.9	2,776.9	6.4	55.4	-133.58	888.3	2,358.1	2,619.3	2,558.5	60.88	43.026	
2,854.3	2,840.0	2,830.0	2,830.0	6.6	56.4	-133.76	888.3	2,358.1	2,627.2	2,565.1	62.09	42.313	
2,900.0	2,884.7	2,874.7	2,874.7	6.7	57.3	-133.90	888.3	2,358.1	2,633.9	2,570.8	63.11	41.736	
2,952.7	2,936.3	2,926.3	2,926.3	6.9	58.4	-134.07	888.3	2,358.1	2,641.6	2,577.3	64.29	41.089	
3,000.0	2,982.5	2,972.5	2,972.5	7.1	59.3	-134.22	888.3	2,358.1	2,648.5	2,583.1	65.35	40.531	
3,051.2	3,032.6	3,022.6	3,022.6	7.3	60.3	-134.39	888.3	2,358.1	2,656.0	2,589.5	66.49	39.944	
3,100.0	3,080.3	3,070.3	3,070.3	7.5	61.3	-134.54	888.3	2,358.1	2,663.2	2,595.6	67.59	39.403	
3,149.6	3,128.8	3,118.8	3,118.8	7.7	62.2	-134.70	888.3	2,358.1	2,670.5	2,601.8	68.70	38.870	
3,200.0	3,178.1	3,168.1	3,168.1	7.9	63.2	-134.85	888.3	2,358.1	2,678.0	2,608.1	69.84	38.347	
3,248.0	3,225.1	3,215.1	3,215.1	8.1	64.2	-135.00	888.3	2,358.1	2,685.1	2,614.2	70.92	37.862	
3,300.0	3,276.0	3,266.0	3,266.0	8.3	65.2	-135.17	888.3	2,358.1	2,692.8	2,620.8	72.09	37.355	
3,346.4	3,321.4	3,311.4	3,311.4	8.5	66.1	-135.31	888.3	2,358.1	2,699.8	2,626.6	73.13	36.915	
3,400.0	3,373.8	3,363.8	3,363.8	8.7	67.2	-135.47	888.3	2,358.1	2,707.8	2,633.4	74.34	36.424	
3,444.9	3,417.7	3,407.7	3,407.7	8.8	68.0	-135.61	888.3	2,358.1	2,714.5	2,639.2	75.35	36.023	
3,500.0	3,471.6	3,461.6	3,461.6	9.1	69.1	-135.78	888.3	2,358.1	2,722.8	2,646.2	76.60	35.547	
3,543.3	3,513.9	3,503.9	3,503.9	9.2	70.0	-135.91	888.3	2,358.1	2,729.3	2,651.8	77.58	35.182	
3,600.0	3,569.4	3,559.4	3,559.4	9.5	71.1	-136.08	888.3	2,358.1	2,737.9	2,659.0	78.86	34.720	
3,641.7	3,610.2	3,600.2	3,600.2	9.7	71.9	-136.20	888.3	2,358.1	2,744.2	2,664.4	79.80	34.389	
3,700.0	3,667.2	3,657.2	3,657.2	9.9	73.1	-136.37	888.3	2,358.1	2,753.1	2,672.0	81.12	33.939	
3,740.1	3,706.5	3,696.5	3,696.5	10.1	73.8	-136.49	888.3	2,358.1	2,759.2	2,677.2	82.03	33.638	
3,800.0	3,765.0	3,755.0	3,755.0	10.3	75.0	-136.67	888.3	2,358.1	2,768.3	2,684.9	83.38	33.202	
3,838.6	3,802.8	3,792.8	3,792.8	10.5	75.8	-136.78	888.3	2,358.1	2,774.2	2,690.0	84.25	32.928	
3,900.0	3,862.8	3,852.8	3,852.8	10.7	77.0	-136.96	888.3	2,358.1	2,783.6	2,698.0	85.64	32.504	
3,937.0	3,899.0	3,889.0	3,889.0	10.9	77.7	-137.06	888.3	2,358.1	2,789.3	2,702.8	86.48	32.255	
4,000.0	3,960.7	3,950.7	3,950.7	11.2	79.0	-137.24	888.3	2,358.1	2,799.0	2,711.1	87.90	31.842	
4,035.4	3,995.3	3,985.3	3,985.3	11.3	79.7	-137.35	888.3	2,358.1	2,804.5	2,715.8	88.70	31.616	
4,100.0	4,058.5	4,048.5	4,048.5	11.6	80.9	-137.53	888.3	2,358.1	2,814.5	2,724.3	90.17	31.215	
4,133.8	4,091.6	4,081.6	4,081.6	11.7	81.6	-137.62	888.3	2,358.1	2,819.7	2,728.8	90.93	31.009	
4,200.0	4,156.3	4,146.3	4,146.3	12.0	82.9	-137.81	888.3	2,358.1	2,830.0	2,737.6	92.43	30.618	
4,232.3	4,187.9	4,177.9	4,177.9	12.2	83.5	-137.90	888.3	2,358.1	2,835.0	2,741.9	93.16	30.432	
4,300.0	4,254.1	4,244.1	4,244.1	12.5	84.9	-138.09	888.3	2,358.1	2,845.6	2,750.9	94.69	30.051	
4,325.7	4,279.2	4,269.2	4,269.2	12.6	85.4	-138.16	888.3	2,358.1	2,849.6	2,754.3	95.27	29.910	
4,330.7	4,284.1	4,274.1	4,274.1	12.6	85.5	-138.18	888.3	2,358.1	2,850.4	2,755.0	95.40	29.878	
4,400.0	4,352.1	4,342.1	4,342.1	12.8	86.8	-138.50	888.3	2,358.1	2,860.5	2,763.4	97.17	29.438	
4,429.1	4,380.8	4,370.8	4,370.8	12.9	87.4	-138.62	888.3	2,358.1	2,864.4	2,766.5	97.90	29.259	
4,500.0	4,450.7	4,440.7	4,440.7	13.1	88.8	-138.88	888.3	2,358.1	2,873.0	2,773.4	99.66	28.828	
4,527.5	4,478.0	4,468.0	4,468.0	13.2	89.4	-138.97	888.3	2,358.1	2,876.0	2,775.7	100.34	28.663	
4,600.0	4,549.9	4,539.9	4,539.9	13.4	90.8	-139.18	888.3	2,358.1	2,882.9	2,780.8	102.10	28.236	
4,626.0	4,575.7	4,565.7	4,565.7	13.5	91.3	-139.25	888.3	2,358.1	2,885.1	2,782.3	102.72	28.086	
4,700.0	4,649.4	4,639.4	4,639.4	13.6	92.8	-139.40	888.3	2,358.1	2,890.2	2,785.7	104.48	27.663	
4,724.4	4,673.7	4,663.7	4,663.7	13.7	93.3	-139.44	888.3	2,358.1	2,891.6	2,786.6	105.05	27.527	
4,800.0	4,749.2	4,739.2	4,739.2	13.8	94.8	-139.54	888.3	2,358.1	2,894.9	2,788.1	106.79	27.109	
4,822.8	4,772.0	4,762.0	4,762.0	13.9	95.3	-139.56	888.3	2,358.1	2,895.6	2,788.3	107.30	26.986	
4,900.0	4,849.2	4,839.2	4,839.2	14.0	96.8	-139.60	888.3	2,358.1	2,896.9	2,787.9	109.01	26.574	
4,921.2	4,870.4	4,860.4	4,860.4	14.1	97.3	-139.60	888.3	2,358.1	2,897.0	2,787.5	109.47	26.463	
4,925.6	4,874.8	4,864.8	4,864.8	14.1	97.3	61.59	888.3	2,358.1	2,897.0	2,786.9	110.12	26.307	
5,000.0	4,949.2	4,939.2	4,939.2	14.2	98.8	61.59	888.3	2,358.1	2,897.0	2,785.2	111.74	25.926	
5,019.7	4,968.8	4,958.8	4,958.8	14.2	99.2	61.59	888.3	2,358.1	2,897.0	2,784.8	112.17	25.827	

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

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<b>Project:</b>	WELD COUNTY, COLORADO	<b>TVD Reference:</b>	KB-EST @ 4633.0usft (Original Well Elev)
<b>Reference Site:</b>	SW NW SEC. 17 T5N R64W 6th P.M.	<b>MD Reference:</b>	KB-EST @ 4633.0usft (Original Well Elev)
<b>Site Error:</b>	0.0 usft	<b>North Reference:</b>	True
<b>Reference Well:</b>	SCHAUMBERG 17G-314	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Well Error:</b>	0.0 usft	<b>Output errors are at</b>	2.00 sigma
<b>Reference Wellbore</b>	ORIGINAL WELLBORE	<b>Database:</b>	EDM 5000.1 Single User Db
<b>Reference Design:</b>	PROPOSAL #1	<b>Offset TVD Reference:</b>	Offset Datum

Offset Design												Offset Site Error:	0.0 usft
Survey Program: 0-INC												Offset Well Error:	0.0 usft
Reference		Offset		Semi Major Axis			Distance						Warning
Measured Depth (usft)	Vertical Depth (usft)	Measured Depth (usft)	Vertical Depth (usft)	Reference (usft)	Offset (usft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (usft)	+E/-W (usft)	Between Centres (usft)	Between Ellipses (usft)	Minimum Separation (usft)	Separation Factor	
5,100.0	5,049.2	5,039.2	5,039.2	14.3	100.8	61.59	888.3	2,358.1	2,897.0	2,783.1	113.92	25.431	
5,118.1	5,067.3	5,057.3	5,057.3	14.3	101.2	61.59	888.3	2,358.1	2,897.0	2,782.7	114.31	25.343	
5,200.0	5,149.2	5,139.2	5,139.2	14.5	102.9	61.59	888.3	2,358.1	2,897.0	2,780.9	116.09	24.954	
5,216.5	5,165.7	5,155.7	5,155.7	14.5	103.2	61.59	888.3	2,358.1	2,897.0	2,780.5	116.45	24.876	
5,300.0	5,249.2	5,239.2	5,239.2	14.6	104.9	61.59	888.3	2,358.1	2,897.0	2,778.7	118.27	24.494	
5,314.9	5,264.1	5,254.1	5,254.1	14.6	105.2	61.59	888.3	2,358.1	2,897.0	2,778.4	118.60	24.426	
5,400.0	5,349.2	5,339.2	5,339.2	14.8	106.9	61.59	888.3	2,358.1	2,897.0	2,776.5	120.46	24.050	
5,413.4	5,362.5	5,352.5	5,352.5	14.8	107.2	61.59	888.3	2,358.1	2,897.0	2,776.2	120.75	23.992	
5,500.0	5,449.2	5,439.2	5,439.2	14.9	108.9	61.59	888.3	2,358.1	2,897.0	2,774.3	122.64	23.622	
5,511.8	5,461.0	5,451.0	5,451.0	14.9	109.1	61.59	888.3	2,358.1	2,897.0	2,774.1	122.90	23.572	
5,600.0	5,549.2	5,539.2	5,539.2	15.1	110.9	61.59	888.3	2,358.1	2,897.0	2,772.2	124.82	23.208	
5,610.2	5,559.4	5,549.4	5,549.4	15.1	111.1	61.59	888.3	2,358.1	2,897.0	2,771.9	125.05	23.167	
5,700.0	5,649.2	5,639.2	5,639.2	15.2	112.9	61.59	888.3	2,358.1	2,897.0	2,770.0	127.01	22.809	
5,708.6	5,657.8	5,647.8	5,647.8	15.3	113.1	61.59	888.3	2,358.1	2,897.0	2,769.8	127.20	22.775	
5,800.0	5,749.2	5,739.2	5,739.2	15.4	114.9	61.59	888.3	2,358.1	2,897.0	2,767.8	129.20	22.423	
5,807.1	5,756.2	5,746.2	5,746.2	15.4	115.1	61.59	888.3	2,358.1	2,897.0	2,767.6	129.35	22.396	
5,900.0	5,849.2	5,839.2	5,839.2	15.6	116.9	61.59	888.3	2,358.1	2,897.0	2,765.6	131.39	22.049	
5,905.5	5,854.7	5,844.7	5,844.7	15.6	117.0	61.59	888.3	2,358.1	2,897.0	2,765.5	131.51	22.029	
6,000.0	5,949.2	5,939.2	5,939.2	15.7	118.9	61.59	888.3	2,358.1	2,897.0	2,763.4	133.58	21.688	
6,003.9	5,953.1	5,943.1	5,943.1	15.7	119.0	61.59	888.3	2,358.1	2,897.0	2,763.3	133.66	21.674	
6,100.0	6,049.2	6,039.2	6,039.2	15.9	121.0	61.59	888.3	2,358.1	2,897.0	2,761.2	135.77	21.338	
6,102.3	6,051.5	6,041.5	6,041.5	15.9	121.0	61.59	888.3	2,358.1	2,897.0	2,761.2	135.82	21.330	
6,124.6	6,073.8	6,063.8	6,063.8	15.9	121.5	61.59	888.3	2,358.1	2,897.0	2,760.7	136.31	21.253	
6,150.0	6,099.2	6,089.2	6,089.2	16.0	122.0	151.58	888.3	2,358.1	2,897.4	2,761.0	136.32	21.254	
6,200.0	6,149.0	6,139.0	6,139.0	16.1	123.0	151.49	888.3	2,358.1	2,900.5	2,763.5	136.94	21.181	
6,200.8	6,149.8	6,139.8	6,139.8	16.1	123.0	151.49	888.3	2,358.1	2,900.5	2,763.6	136.94	21.181 SF	
6,250.0	6,198.5	6,188.5	6,188.5	16.2	124.0	151.32	888.3	2,358.1	2,906.6	2,769.6	137.02	21.214	
6,299.2	6,246.6	6,236.6	6,236.6	16.3	124.9	151.07	888.3	2,358.1	2,915.6	2,779.0	136.58	21.347	
6,300.0	6,247.4	6,237.4	6,237.4	16.3	124.9	151.06	888.3	2,358.1	2,915.8	2,779.2	136.57	21.350	
6,350.0	6,295.5	6,285.5	6,285.5	16.5	125.9	150.70	888.3	2,358.1	2,928.0	2,792.3	135.61	21.591	
6,397.6	6,340.2	6,330.2	6,330.2	16.6	126.8	150.26	888.3	2,358.1	2,942.3	2,808.0	134.25	21.916	
6,400.0	6,342.4	6,332.4	6,332.4	16.6	126.9	150.24	888.3	2,358.1	2,943.1	2,808.9	134.17	21.935	
6,450.0	6,388.1	6,378.1	6,378.1	16.8	127.8	149.66	888.3	2,358.1	2,961.1	2,828.8	132.31	22.380	
6,496.0	6,428.8	6,418.8	6,418.8	17.0	128.6	149.01	888.3	2,358.1	2,980.1	2,849.9	130.28	22.876	
6,500.0	6,432.2	6,422.2	6,422.2	17.0	128.7	148.95	888.3	2,358.1	2,981.9	2,851.8	130.09	22.922	
6,550.0	6,474.6	6,464.6	6,464.6	17.3	129.5	148.09	888.3	2,358.1	3,005.4	2,877.8	127.61	23.552	
6,594.5	6,510.7	6,500.7	6,500.7	17.5	130.2	147.18	888.3	2,358.1	3,028.6	2,903.3	125.29	24.172	
6,600.0	6,515.0	6,505.0	6,505.0	17.6	130.3	147.06	888.3	2,358.1	3,031.6	2,906.6	125.00	24.252	
6,650.0	6,553.3	6,543.3	6,543.3	17.9	131.1	145.82	888.3	2,358.1	3,060.3	2,937.8	122.44	24.993	
6,692.9	6,584.3	6,574.3	6,574.3	18.2	131.7	144.57	888.3	2,358.1	3,086.8	2,966.3	120.45	25.627	
6,700.0	6,589.2	6,579.2	6,579.2	18.2	131.8	144.34	888.3	2,358.1	3,091.3	2,971.2	120.15	25.729	
6,750.0	6,622.7	6,612.7	6,612.7	18.6	132.5	142.58	888.3	2,358.1	3,124.6	3,006.2	118.38	26.394	
6,791.3	6,648.3	6,638.3	6,638.3	19.0	133.0	140.86	888.3	2,358.1	3,153.8	3,036.2	117.55	26.829	
6,800.0	6,653.4	6,643.4	6,643.4	19.1	133.1	140.47	888.3	2,358.1	3,160.0	3,042.6	117.47	26.902	
6,850.0	6,681.4	6,671.4	6,671.4	19.6	133.7	137.94	888.3	2,358.1	3,197.4	3,079.7	117.74	27.157	
6,889.7	6,701.5	6,691.5	6,691.5	20.1	134.1	135.57	888.3	2,358.1	3,228.4	3,109.3	119.03	27.123	
6,900.0	6,706.3	6,696.3	6,696.3	20.2	134.2	134.90	888.3	2,358.1	3,236.5	3,117.0	119.53	27.078	
6,950.0	6,728.2	6,718.2	6,718.2	20.9	134.6	131.23	888.3	2,358.1	3,277.2	3,154.2	123.09	26.624	
6,988.2	6,742.8	6,732.8	6,732.8	21.5	134.9	127.93	888.3	2,358.1	3,309.3	3,182.2	127.08	26.041	
7,000.0	6,746.9	6,736.9	6,736.9	21.6	135.0	126.81	888.3	2,358.1	3,319.4	3,190.8	128.52	25.827	
7,050.0	6,762.4	6,752.4	6,752.4	22.5	135.3	121.48	888.3	2,358.1	3,362.7	3,227.1	135.62	24.796	
7,086.6	6,771.5	6,761.5	6,761.5	23.1	135.5	116.93	888.3	2,358.1	3,395.0	3,253.5	141.53	23.988	

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 SCHAUMBERG 17G-314
<b>Project:</b>	WELD COUNTY, COLORADO	<b>TVD Reference:</b>	KB-EST @ 4633.0usft (Original Well Elev)
<b>Reference Site:</b>	SW NW SEC. 17 T5N R64W 6th P.M.	<b>MD Reference:</b>	KB-EST @ 4633.0usft (Original Well Elev)
<b>Site Error:</b>	0.0 usft	<b>North Reference:</b>	True
<b>Reference Well:</b>	SCHAUMBERG 17G-314	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Well Error:</b>	0.0 usft	<b>Output errors are at</b>	2.00 sigma
<b>Reference Wellbore</b>	ORIGINAL WELLBORE	<b>Database:</b>	EDM 5000.1 Single User Db
<b>Reference Design:</b>	PROPOSAL #1	<b>Offset TVD Reference:</b>	Offset Datum

Offset Design												Offset Site Error:	0.0 usft
Survey Program: 0-INC												Offset Well Error:	0.0 usft
Reference		Offset		Semi Major Axis			Distance						Warning
Measured Depth (usft)	Vertical Depth (usft)	Measured Depth (usft)	Vertical Depth (usft)	Reference (usft)	Offset (usft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (usft)	+E/-W (usft)	Between Centres (usft)	Between Ellipses (usft)	Minimum Separation (usft)	Separation Factor	
7,100.0	6,774.4	6,764.4	6,764.4	23.3	135.5	115.12	888.3	2,358.1	3,407.0	3,263.2	143.75	23.700	
7,150.0	6,783.1	6,773.1	6,773.1	24.3	135.7	107.66	888.3	2,358.1	3,452.1	3,300.3	151.80	22.740	
7,185.0	6,787.1	6,777.1	6,777.1	25.0	135.8	101.81	888.3	2,358.1	3,484.0	3,327.4	156.55	22.255	
7,200.0	6,788.3	6,778.3	6,778.3	25.3	135.8	99.18	888.3	2,358.1	3,497.7	3,339.5	158.17	22.113	
7,252.3	6,790.0	6,780.0	6,780.0	26.3	135.9	89.49	888.3	2,358.1	3,545.8	3,384.6	161.22	21.994	
7,283.4	6,789.9	6,779.9	6,779.9	27.0	135.9	89.48	888.3	2,358.1	3,574.5	3,412.6	161.91	22.078	
7,300.0	6,789.8	6,779.8	6,779.8	27.3	135.9	89.48	888.3	2,358.1	3,589.8	3,427.5	162.27	22.122	
7,381.9	6,789.5	6,779.5	6,779.5	29.1	135.8	89.47	888.3	2,358.1	3,665.5	3,501.4	164.15	22.331	
7,400.0	6,789.4	6,779.4	6,779.4	29.5	135.8	89.46	888.3	2,358.1	3,682.3	3,517.8	164.56	22.377	
7,480.3	6,789.1	6,779.1	6,779.1	31.4	135.8	89.45	888.3	2,358.1	3,756.9	3,590.4	166.47	22.568	
7,500.0	6,789.1	6,779.1	6,779.1	31.8	135.8	89.45	888.3	2,358.1	3,775.2	3,608.3	166.94	22.615	
7,578.7	6,788.8	6,778.8	6,778.8	33.7	135.8	89.44	888.3	2,358.1	3,848.6	3,679.8	168.86	22.792	
7,600.0	6,788.7	6,778.7	6,778.7	34.2	135.8	89.43	888.3	2,358.1	3,868.5	3,699.1	169.38	22.840	
7,677.1	6,788.4	6,778.4	6,778.4	36.1	135.8	89.42	888.3	2,358.1	3,940.7	3,769.4	171.30	23.005	
7,700.0	6,788.3	6,778.3	6,778.3	36.7	135.8	89.41	888.3	2,358.1	3,962.1	3,790.2	171.87	23.053	
7,775.6	6,788.0	6,778.0	6,778.0	38.6	135.8	89.40	888.3	2,358.1	4,033.1	3,859.3	173.79	23.207	
7,800.0	6,787.9	6,777.9	6,777.9	39.2	135.8	89.40	888.3	2,358.1	4,056.0	3,881.6	174.41	23.256	
7,874.0	6,787.6	6,777.6	6,777.6	41.0	135.8	89.39	888.3	2,358.1	4,125.7	3,949.4	176.31	23.400	
7,900.0	6,787.6	6,777.6	6,777.6	41.7	135.8	89.38	888.3	2,358.1	4,150.2	3,973.2	176.98	23.451	
7,972.4	6,787.3	6,777.3	6,777.3	43.6	135.8	89.37	888.3	2,358.1	4,218.6	4,039.7	178.86	23.586	
8,000.0	6,787.2	6,777.2	6,777.2	44.3	135.8	89.36	888.3	2,358.1	4,244.7	4,065.1	179.57	23.637	
8,070.8	6,786.9	6,776.9	6,776.9	46.1	135.8	89.35	888.3	2,358.1	4,311.7	4,130.3	181.43	23.765	
8,100.0	6,786.8	6,776.8	6,776.8	46.9	135.8	89.35	888.3	2,358.1	4,339.4	4,157.2	182.20	23.817	
8,169.3	6,786.5	6,776.5	6,776.5	48.7	135.8	89.34	888.3	2,358.1	4,405.1	4,221.1	184.03	23.937	
8,200.0	6,786.4	6,776.4	6,776.4	49.5	135.8	89.33	888.3	2,358.1	4,434.3	4,249.5	184.84	23.990	
8,267.7	6,786.1	6,776.1	6,776.1	51.3	135.8	89.32	888.3	2,358.1	4,498.7	4,312.0	186.64	24.104	
8,300.0	6,786.0	6,776.0	6,776.0	52.1	135.8	89.31	888.3	2,358.1	4,529.4	4,341.9	187.50	24.157	
8,366.1	6,785.8	6,775.8	6,775.8	53.9	135.8	89.30	888.3	2,358.1	4,592.5	4,403.2	189.27	24.265	
8,400.0	6,785.6	6,775.6	6,775.6	54.8	135.8	89.30	888.3	2,358.1	4,624.8	4,434.6	190.17	24.319	
8,464.5	6,785.4	6,775.4	6,775.4	56.5	135.8	89.29	888.3	2,358.1	4,686.5	4,494.6	191.91	24.421	
8,500.0	6,785.3	6,775.3	6,775.3	57.5	135.8	89.28	888.3	2,358.1	4,720.4	4,527.5	192.86	24.476	
8,563.0	6,785.0	6,775.0	6,775.0	59.2	135.8	89.27	888.3	2,358.1	4,780.6	4,586.1	194.56	24.572	
8,600.0	6,784.9	6,774.9	6,774.9	60.2	135.8	89.26	888.3	2,358.1	4,816.1	4,620.5	195.55	24.628	
8,661.4	6,784.6	6,774.6	6,774.6	61.8	135.7	89.25	888.3	2,358.1	4,874.9	4,677.7	197.22	24.719	
8,700.0	6,784.5	6,774.5	6,774.5	62.9	135.7	89.25	888.3	2,358.1	4,912.0	4,713.7	198.26	24.775	
8,759.8	6,784.3	6,774.3	6,774.3	64.5	135.7	89.24	888.3	2,358.1	4,969.4	4,769.5	199.88	24.862	
8,800.0	6,784.1	6,774.1	6,774.1	65.6	135.7	89.23	888.3	2,358.1	5,008.0	4,807.1	200.97	24.919	
8,858.2	6,783.9	6,773.9	6,773.9	67.1	135.7	89.22	888.3	2,358.1	5,064.1	4,861.5	202.56	25.000	
8,900.0	6,783.7	6,773.7	6,773.7	68.3	135.7	89.21	888.3	2,358.1	5,104.3	4,900.6	203.70	25.058	
8,956.7	6,783.5	6,773.5	6,773.5	69.8	135.7	89.20	888.3	2,358.1	5,158.8	4,953.6	205.24	25.136	
9,000.0	6,783.3	6,773.3	6,773.3	71.0	135.7	89.19	888.3	2,358.1	5,200.6	4,994.2	206.42	25.194	
9,055.1	6,783.1	6,773.1	6,773.1	72.5	135.7	89.19	888.3	2,358.1	5,253.8	5,045.8	207.93	25.267	
9,100.0	6,782.9	6,772.9	6,772.9	73.7	135.7	89.18	888.3	2,358.1	5,297.1	5,087.9	209.15	25.326	
9,153.5	6,782.7	6,772.7	6,772.7	75.2	135.7	89.17	888.3	2,358.1	5,348.8	5,138.2	210.62	25.395	
9,200.0	6,782.6	6,772.6	6,772.6	76.5	135.7	89.16	888.3	2,358.1	5,393.7	5,181.8	211.89	25.455	
9,251.9	6,782.4	6,772.4	6,772.4	77.9	135.7	89.15	888.3	2,358.1	5,444.0	5,230.6	213.32	25.520	
9,300.0	6,782.2	6,772.2	6,772.2	79.2	135.7	89.14	888.3	2,358.1	5,490.5	5,275.8	214.63	25.580	
9,350.4	6,782.0	6,772.0	6,772.0	80.6	135.7	89.13	888.3	2,358.1	5,539.2	5,323.2	216.02	25.642	
9,400.0	6,781.8	6,771.8	6,771.8	82.0	135.7	89.12	888.3	2,358.1	5,587.3	5,369.9	217.38	25.703	
9,448.8	6,781.6	6,771.6	6,771.6	83.3	135.7	89.12	888.3	2,358.1	5,634.6	5,415.9	218.72	25.761	
9,500.0	6,781.4	6,771.4	6,771.4	84.7	135.7	89.11	888.3	2,358.1	5,684.3	5,464.1	220.13	25.822	
9,547.2	6,781.2	6,771.2	6,771.2	86.0	135.7	89.10	888.3	2,358.1	5,730.1	5,508.7	221.43	25.878	

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 SCHAUMBERG 17G-314
<b>Project:</b>	WELD COUNTY, COLORADO	<b>TVD Reference:</b>	KB-EST @ 4633.0usft (Original Well Elev)
<b>Reference Site:</b>	SW NW SEC. 17 T5N R64W 6th P.M.	<b>MD Reference:</b>	KB-EST @ 4633.0usft (Original Well Elev)
<b>Site Error:</b>	0.0 usft	<b>North Reference:</b>	True
<b>Reference Well:</b>	SCHAUMBERG 17G-314	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Well Error:</b>	0.0 usft	<b>Output errors are at</b>	2.00 sigma
<b>Reference Wellbore</b>	ORIGINAL WELLBORE	<b>Database:</b>	EDM 5000.1 Single User Db
<b>Reference Design:</b>	PROPOSAL #1	<b>Offset TVD Reference:</b>	Offset Datum

<b>Offset Design</b> SW NW SEC. 17 T5N R64W 6th P.M. - EXIST VERT HOSHIKO #31-17 - Wellbore #1 - Design #1												<b>Offset Site Error:</b>	0.0 usft
Survey Program: 0-INC												<b>Offset Well Error:</b>	0.0 usft
Reference		Offset		Semi Major Axis			Distance						Warning
Measured Depth (usft)	Vertical Depth (usft)	Measured Depth (usft)	Vertical Depth (usft)	Reference (usft)	Offset (usft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (usft)	+E/-W (usft)	Between Centres (usft)	Between Ellipses (usft)	Minimum Separation (usft)	Separation Factor	
9,600.0	6,781.0	6,771.0	6,771.0	87.5	135.7	89.09	888.3	2,358.1	5,781.3	5,558.5	222.88	25.939	
9,645.6	6,780.8	6,770.8	6,770.8	88.7	135.7	89.08	888.3	2,358.1	5,825.7	5,601.5	224.14	25.991	
9,700.0	6,780.6	6,770.6	6,770.6	90.2	135.7	89.07	888.3	2,358.1	5,878.5	5,652.9	225.64	26.053	
9,744.1	6,780.4	6,770.4	6,770.4	91.4	135.7	89.06	888.3	2,358.1	5,921.4	5,694.5	226.86	26.102	
9,800.0	6,780.2	6,770.2	6,770.2	93.0	135.7	89.05	888.3	2,358.1	5,975.8	5,747.4	228.40	26.164	
9,842.5	6,780.1	6,770.1	6,770.1	94.2	135.7	89.05	888.3	2,358.1	6,017.1	5,787.5	229.57	26.210	
9,900.0	6,779.8	6,769.8	6,769.8	95.7	135.7	89.04	888.3	2,358.1	6,073.1	5,841.9	231.16	26.272	
9,940.9	6,779.7	6,769.7	6,769.7	96.9	135.6	89.03	888.3	2,358.1	6,113.0	5,880.7	232.29	26.316	
10,000.0	6,779.4	6,769.4	6,769.4	98.5	135.6	89.02	888.3	2,358.1	6,170.5	5,936.6	233.92	26.379	
10,039.3	6,779.3	6,769.3	6,769.3	99.6	135.6	89.01	888.3	2,358.1	6,208.9	5,973.9	235.01	26.420	
10,100.0	6,779.0	6,769.0	6,769.0	101.3	135.6	89.00	888.3	2,358.1	6,268.0	6,031.4	236.69	26.482	
10,137.8	6,778.9	6,768.9	6,768.9	102.3	135.6	88.99	888.3	2,358.1	6,304.9	6,067.2	237.73	26.521	
10,200.0	6,778.7	6,768.7	6,768.7	104.1	135.6	88.98	888.3	2,358.1	6,365.6	6,126.2	239.45	26.584	
10,236.2	6,778.5	6,768.5	6,768.5	105.1	135.6	88.98	888.3	2,358.1	6,401.0	6,160.5	240.46	26.620	
10,300.0	6,778.3	6,768.3	6,768.3	106.8	135.6	88.96	888.3	2,358.1	6,463.3	6,221.1	242.22	26.683	
10,334.6	6,778.1	6,768.1	6,768.1	107.8	135.6	88.96	888.3	2,358.1	6,497.1	6,253.9	243.18	26.717	
10,400.0	6,777.9	6,767.9	6,767.9	109.6	135.6	88.95	888.3	2,358.1	6,561.0	6,316.0	244.99	26.780	
10,433.0	6,777.7	6,767.7	6,767.7	110.5	135.6	88.94	888.3	2,358.1	6,593.3	6,347.4	245.91	26.812	
10,500.0	6,777.5	6,767.5	6,767.5	112.4	135.6	88.93	888.3	2,358.1	6,658.8	6,411.1	247.76	26.876	
10,531.5	6,777.3	6,767.3	6,767.3	113.3	135.6	88.92	888.3	2,358.1	6,689.6	6,441.0	248.64	26.905	
10,600.0	6,777.1	6,767.1	6,767.1	115.2	135.6	88.91	888.3	2,358.1	6,756.7	6,506.2	250.54	26.969	
10,629.9	6,777.0	6,767.0	6,767.0	116.0	135.6	88.91	888.3	2,358.1	6,786.0	6,534.6	251.37	26.996	
10,700.0	6,776.7	6,766.7	6,766.7	117.9	135.6	88.89	888.3	2,358.1	6,854.6	6,601.3	253.31	27.060	
10,728.3	6,776.6	6,766.6	6,766.6	118.7	135.6	88.89	888.3	2,358.1	6,882.4	6,628.3	254.10	27.085	
10,800.0	6,776.3	6,766.3	6,766.3	120.7	135.6	88.87	888.3	2,358.1	6,952.6	6,696.5	256.09	27.149	
10,826.7	6,776.2	6,766.2	6,766.2	121.5	135.6	88.87	888.3	2,358.1	6,978.8	6,722.0	256.83	27.173	
10,900.0	6,775.9	6,765.9	6,765.9	123.5	135.6	88.86	888.3	2,358.1	7,050.7	6,791.8	258.86	27.237	
10,925.2	6,775.8	6,765.8	6,765.8	124.2	135.6	88.85	888.3	2,358.1	7,075.3	6,815.8	259.56	27.259	
11,000.0	6,775.5	6,765.5	6,765.5	126.3	135.6	88.84	888.3	2,358.1	7,148.8	6,887.1	261.64	27.323	
11,023.6	6,775.4	6,765.4	6,765.4	126.9	135.6	88.83	888.3	2,358.1	7,171.9	6,909.6	262.30	27.343	
11,100.0	6,775.1	6,765.1	6,765.1	129.1	135.6	88.82	888.3	2,358.1	7,246.9	6,982.5	264.42	27.407	
11,122.0	6,775.0	6,765.0	6,765.0	129.7	135.6	88.82	888.3	2,358.1	7,268.5	7,003.5	265.03	27.425	
11,200.0	6,774.7	6,764.7	6,764.7	131.9	135.5	88.80	888.3	2,358.1	7,345.1	7,077.9	267.20	27.489	
11,220.4	6,774.6	6,764.6	6,764.6	132.4	135.5	88.80	888.3	2,358.1	7,365.2	7,097.4	267.77	27.506	
11,300.0	6,774.3	6,764.3	6,764.3	134.6	135.5	88.78	888.3	2,358.1	7,443.3	7,173.4	269.98	27.570	
11,318.9	6,774.2	6,764.2	6,764.2	135.2	135.5	88.78	888.3	2,358.1	7,461.9	7,191.4	270.50	27.585	
11,400.0	6,773.9	6,763.9	6,763.9	137.4	135.5	88.76	888.3	2,358.1	7,541.6	7,268.9	272.76	27.649	
11,417.3	6,773.8	6,763.8	6,763.8	137.9	135.5	88.76	888.3	2,358.1	7,558.6	7,285.4	273.24	27.663	
11,500.0	6,773.5	6,763.5	6,763.5	140.2	135.5	88.75	888.3	2,358.1	7,640.0	7,364.4	275.54	27.727	
11,515.7	6,773.4	6,763.4	6,763.4	140.7	135.5	88.74	888.3	2,358.1	7,655.4	7,379.5	275.98	27.739	
11,600.0	6,773.1	6,763.1	6,763.1	143.0	135.5	88.73	888.3	2,358.1	7,738.4	7,460.0	278.32	27.803	
11,614.1	6,773.0	6,763.0	6,763.0	143.4	135.5	88.73	888.3	2,358.1	7,752.3	7,473.6	278.72	27.814	
11,700.0	6,772.7	6,762.7	6,762.7	145.8	135.5	88.71	888.3	2,358.1	7,836.8	7,555.7	281.11	27.878	
11,712.6	6,772.6	6,762.6	6,762.6	146.2	135.5	88.71	888.3	2,358.1	7,849.2	7,567.7	281.46	27.888	
11,800.0	6,772.3	6,762.3	6,762.3	148.6	135.5	88.69	888.3	2,358.1	7,935.2	7,651.3	283.89	27.952	
11,811.0	6,772.2	6,762.2	6,762.2	148.9	135.5	88.69	888.3	2,358.1	7,946.1	7,661.9	284.20	27.960	
11,900.0	6,771.9	6,761.9	6,761.9	151.4	135.5	88.67	888.3	2,358.1	8,033.7	7,747.1	286.67	28.024	
11,909.4	6,771.8	6,761.8	6,761.8	151.7	135.5	88.67	888.3	2,358.1	8,043.0	7,756.1	286.94	28.031	
12,000.0	6,771.5	6,761.5	6,761.5	154.2	135.5	88.65	888.3	2,358.1	8,132.3	7,842.8	289.46	28.095	
12,007.8	6,771.4	6,761.4	6,761.4	154.4	135.5	88.65	888.3	2,358.1	8,140.0	7,850.3	289.68	28.100	
12,100.0	6,771.1	6,761.1	6,761.1	157.0	135.5	88.63	888.3	2,358.1	8,230.8	7,938.6	292.24	28.164	
12,106.3	6,771.0	6,761.0	6,761.0	157.2	135.5	88.63	888.3	2,358.1	8,237.0	7,944.6	292.42	28.169	

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 SCHAUMBERG 17G-314
<b>Project:</b>	WELD COUNTY, COLORADO	<b>TVD Reference:</b>	KB-EST @ 4633.0usft (Original Well Elev)
<b>Reference Site:</b>	SW NW SEC. 17 T5N R64W 6th P.M.	<b>MD Reference:</b>	KB-EST @ 4633.0usft (Original Well Elev)
<b>Site Error:</b>	0.0 usft	<b>North Reference:</b>	True
<b>Reference Well:</b>	SCHAUMBERG 17G-314	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Well Error:</b>	0.0 usft	<b>Output errors are at</b>	2.00 sigma
<b>Reference Wellbore</b>	ORIGINAL WELLBORE	<b>Database:</b>	EDM 5000.1 Single User Db
<b>Reference Design:</b>	PROPOSAL #1	<b>Offset TVD Reference:</b>	Offset Datum

<b>Offset Design</b> SW NW SEC. 17 T5N R64W 6th P.M. - EXIST VERT HOSHIKO #31-17 - Wellbore #1 - Design #1												<b>Offset Site Error:</b>	0.0 usft
Survey Program: 0-INC												<b>Offset Well Error:</b>	0.0 usft
Reference	Offset	Semi Major Axis		Distance									
Measured Depth (usft)	Vertical Depth (usft)	Measured Depth (usft)	Vertical Depth (usft)	Reference (usft)	Offset (usft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (usft)	+E/-W (usft)	Between Centres (usft)	Between Ellipses (usft)	Minimum Separation (usft)	Separation Factor	Warning
12,200.0	6,770.7	6,760.7	6,760.7	159.8	135.5	88.62	888.3	2,358.1	8,329.4	8,034.4	295.03	28.233	
12,204.7	6,770.6	6,760.6	6,760.6	159.9	135.5	88.61	888.3	2,358.1	8,334.1	8,038.9	295.16	28.236	
12,300.0	6,770.3	6,760.3	6,760.3	162.6	135.5	88.60	888.3	2,358.1	8,428.1	8,130.3	297.81	28.300	
12,303.1	6,770.2	6,760.2	6,760.2	162.7	135.5	88.60	888.3	2,358.1	8,431.2	8,133.3	297.90	28.302	
12,361.7	6,770.0	6,760.0	6,760.0	164.3	135.5	88.58	888.3	2,358.1	8,489.0	8,189.4	299.53	28.341	



# Anticollision Report



<b>Company:</b>	PDC ENERGY	<b>Local Co-ordinate Reference:</b>	Well SCHAUMBERG 17G-314
<b>Project:</b>	WELD COUNTY, COLORADO	<b>TVD Reference:</b>	KB-EST @ 4633.0usft (Original Well Elev)
<b>Reference Site:</b>	SW NW SEC. 17 T5N R64W 6th P.M.	<b>MD Reference:</b>	KB-EST @ 4633.0usft (Original Well Elev)
<b>Site Error:</b>	0.0 usft	<b>North Reference:</b>	True
<b>Reference Well:</b>	SCHAUMBERG 17G-314	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Well Error:</b>	0.0 usft	<b>Output errors are at</b>	2.00 sigma
<b>Reference Wellbore</b>	ORIGINAL WELLBORE	<b>Database:</b>	EDM 5000.1 Single User Db
<b>Reference Design:</b>	PROPOSAL #1	<b>Offset TVD Reference:</b>	Offset Datum

Offset Design												Offset Site Error:	0.0 usft
Survey Program: 0-INC												Offset Well Error:	0.0 usft
Reference		Offset		Semi Major Axis			Distance						Warning
Measured Depth (usft)	Vertical Depth (usft)	Measured Depth (usft)	Vertical Depth (usft)	Reference (usft)	Offset (usft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (usft)	+E/-W (usft)	Between Centres (usft)	Between Ellipses (usft)	Minimum Separation (usft)	Separation Factor	
0.0	0.0	0.0	0.0	0.0	0.0	75.70	888.4	3,486.0	3,597.5				
98.4	98.4	85.4	85.4	0.1	0.9	75.70	888.4	3,486.0	3,597.5	3,596.5	1.01	3,576.523	
100.0	100.0	87.0	87.0	0.1	0.9	75.70	888.4	3,486.0	3,597.5	3,596.4	1.02	3,511.775	
196.8	196.8	183.8	183.8	0.3	3.0	75.70	888.4	3,486.0	3,597.5	3,594.1	3.33	1,081.631	
200.0	200.0	187.0	187.0	0.3	3.1	75.70	888.4	3,486.0	3,597.5	3,594.1	3.41	1,056.175	
295.3	295.3	282.3	282.3	0.5	5.1	75.70	888.4	3,486.0	3,597.5	3,591.8	5.63	638.582	
300.0	300.0	287.0	287.0	0.5	5.2	75.70	888.4	3,486.0	3,597.5	3,591.7	5.74	626.470	
393.7	393.7	380.7	380.7	0.8	7.1	75.70	888.4	3,486.0	3,597.5	3,589.6	7.87	457.001	
400.0	400.0	387.0	387.0	0.8	7.2	75.70	888.4	3,486.0	3,597.5	3,589.4	8.01	448.856	
492.1	492.1	479.1	479.1	1.0	9.1	75.70	888.4	3,486.0	3,597.5	3,587.4	10.09	356.434	
500.0	500.0	487.0	487.0	1.0	9.3	75.70	888.4	3,486.0	3,597.5	3,587.2	10.27	350.274	
590.5	590.5	577.5	577.5	1.2	11.1	75.70	888.4	3,486.0	3,597.5	3,585.2	12.31	292.324	
600.0	600.0	587.0	587.0	1.2	11.3	75.70	888.4	3,486.0	3,597.5	3,584.9	12.52	287.364	
689.0	689.0	676.0	676.0	1.4	13.1	75.70	888.4	3,486.0	3,597.5	3,582.9	14.52	247.829	
700.0	700.0	687.0	687.0	1.4	13.3	75.70	888.4	3,486.0	3,597.5	3,582.7	14.76	243.676	
787.4	787.4	774.4	774.4	1.6	15.1	75.70	888.4	3,486.0	3,597.5	3,580.7	16.72	215.120	
800.0	800.0	787.0	787.0	1.7	15.3	75.70	888.4	3,486.0	3,597.5	3,580.5	17.01	211.547	
885.8	885.8	872.8	872.8	1.9	17.1	75.70	888.4	3,486.0	3,597.5	3,578.5	18.93	190.055	
900.0	900.0	887.0	887.0	1.9	17.4	75.70	888.4	3,486.0	3,597.5	3,578.2	19.25	186.919	
984.2	984.2	971.2	971.2	2.1	19.0	75.70	888.4	3,486.0	3,597.5	3,576.3	21.13	170.229	
1,000.0	1,000.0	987.0	987.0	2.1	19.4	75.70	888.4	3,486.0	3,597.5	3,576.0	21.49	167.435	
1,082.7	1,082.7	1,069.7	1,069.7	2.3	21.0	75.70	888.4	3,486.0	3,597.5	3,574.1	23.34	154.154	
1,100.0	1,100.0	1,087.0	1,087.0	2.3	21.4	75.70	888.4	3,486.0	3,597.5	3,573.7	23.72	151.634	
1,181.1	1,181.1	1,168.1	1,168.1	2.5	23.0	75.70	888.4	3,486.0	3,597.5	3,571.9	25.54	140.856	
1,200.0	1,200.0	1,187.0	1,187.0	2.6	23.4	75.70	888.4	3,486.0	3,597.5	3,571.5	25.96	138.561	
1,279.5	1,279.5	1,266.5	1,266.5	2.7	25.0	75.70	888.4	3,486.0	3,597.5	3,569.7	27.74	129.672	
1,300.0	1,300.0	1,287.0	1,287.0	2.8	25.4	75.70	888.4	3,486.0	3,597.5	3,569.3	28.20	127.565	
1,377.9	1,377.9	1,364.9	1,364.9	3.0	27.0	75.70	888.4	3,486.0	3,597.5	3,567.5	29.95	120.135	
1,400.0	1,400.0	1,387.0	1,387.0	3.0	27.4	75.70	888.4	3,486.0	3,597.5	3,567.0	30.44	118.188	
1,476.4	1,476.4	1,463.4	1,463.4	3.2	29.0	75.70	888.4	3,486.0	3,597.5	3,565.3	32.15	111.906	
1,500.0	1,500.0	1,487.0	1,487.0	3.2	29.4	75.70	888.4	3,486.0	3,597.5	3,564.8	32.68	110.095	
1,574.8	1,574.8	1,561.8	1,561.8	3.4	30.9	75.70	888.4	3,486.0	3,597.5	3,563.1	34.35	104.732	
1,600.0	1,600.0	1,587.0	1,587.0	3.5	31.4	75.70	888.4	3,486.0	3,597.5	3,562.5	34.91	103.041	
1,673.2	1,673.2	1,660.2	1,660.2	3.6	32.9	75.70	888.4	3,486.0	3,597.5	3,560.9	36.55	98.423	
1,700.0	1,700.0	1,687.0	1,687.0	3.7	33.5	75.70	888.4	3,486.0	3,597.5	3,560.3	37.15	96.836	
1,771.6	1,771.6	1,758.6	1,758.6	3.9	34.9	75.70	888.4	3,486.0	3,597.5	3,558.7	38.75	92.832	
1,800.0	1,800.0	1,787.0	1,787.0	3.9	35.5	75.70	888.4	3,486.0	3,597.5	3,558.1	39.39	91.337 CC	
1,870.1	1,870.1	1,857.1	1,857.1	4.1	36.9	-125.50	888.4	3,486.0	3,598.0	3,557.0	40.93	87.906	
1,900.0	1,900.0	1,887.0	1,887.0	4.1	37.5	-125.50	888.4	3,486.0	3,598.5	3,556.9	41.59	86.531 ES	
1,968.5	1,968.4	1,955.4	1,955.4	4.2	38.9	-125.51	888.4	3,486.0	3,600.3	3,557.3	43.06	83.605	
2,000.0	1,999.8	1,986.8	1,986.8	4.3	39.5	-125.52	888.4	3,486.0	3,601.5	3,557.8	43.74	82.340	
2,066.9	2,066.5	2,053.5	2,053.5	4.4	40.8	-125.54	888.4	3,486.0	3,604.7	3,559.5	45.17	79.800	
2,100.0	2,099.5	2,086.5	2,086.5	4.5	41.5	-125.55	888.4	3,486.0	3,606.6	3,560.7	45.87	78.619	
2,165.3	2,164.4	2,151.4	2,151.4	4.6	42.8	-125.57	888.4	3,486.0	3,611.0	3,563.8	47.26	76.406	
2,200.0	2,198.7	2,185.7	2,185.7	4.7	43.5	-125.59	888.4	3,486.0	3,613.7	3,565.7	47.99	75.302	
2,263.8	2,261.8	2,248.8	2,248.8	4.8	44.8	-125.62	888.4	3,486.0	3,619.3	3,570.0	49.33	73.367	
2,300.0	2,297.5	2,284.5	2,284.5	4.9	45.5	-125.64	888.4	3,486.0	3,622.9	3,572.8	50.09	72.333	
2,362.2	2,358.6	2,345.6	2,345.6	5.0	46.7	-125.67	888.4	3,486.0	3,629.7	3,578.3	51.39	70.636	
2,400.0	2,395.6	2,382.6	2,382.6	5.1	47.4	-125.69	888.4	3,486.0	3,634.2	3,582.0	52.16	69.667	
2,460.6	2,454.9	2,441.9	2,441.9	5.3	48.6	-125.85	888.4	3,486.0	3,641.6	3,588.1	53.50	68.067	
2,500.0	2,493.4	2,480.4	2,480.4	5.4	49.4	-125.96	888.4	3,486.0	3,646.5	3,592.1	54.37	67.073	
2,559.0	2,551.2	2,538.2	2,538.2	5.6	50.6	-126.11	888.4	3,486.0	3,653.8	3,598.2	55.68	65.626	

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 SCHAUMBERG 17G-314
<b>Project:</b>	WELD COUNTY, COLORADO	<b>TVD Reference:</b>	KB-EST @ 4633.0usft (Original Well Elev)
<b>Reference Site:</b>	SW NW SEC. 17 T5N R64W 6th P.M.	<b>MD Reference:</b>	KB-EST @ 4633.0usft (Original Well Elev)
<b>Site Error:</b>	0.0 usft	<b>North Reference:</b>	True
<b>Reference Well:</b>	SCHAUMBERG 17G-314	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Well Error:</b>	0.0 usft	<b>Output errors are at</b>	2.00 sigma
<b>Reference Wellbore</b>	ORIGINAL WELLBORE	<b>Database:</b>	EDM 5000.1 Single User Db
<b>Reference Design:</b>	PROPOSAL #1	<b>Offset TVD Reference:</b>	Offset Datum

Offset Design												Offset Site Error:	0.0 usft
Survey Program: 0-INC												Offset Well Error:	0.0 usft
Reference		Offset		Semi Major Axis			Distance						Warning
Measured Depth (usft)	Vertical Depth (usft)	Measured Depth (usft)	Vertical Depth (usft)	Reference (usft)	Offset (usft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (usft)	+E/-W (usft)	Between Centres (usft)	Between Ellipses (usft)	Minimum Separation (usft)	Separation Factor	
2,600.0	2,591.3	2,578.3	2,578.3	5.7	51.4	-126.22	888.4	3,486.0	3,658.9	3,602.3	56.58	64.664	
2,657.5	2,647.5	2,634.5	2,634.5	5.9	52.5	-126.36	888.4	3,486.0	3,666.1	3,608.2	57.87	63.354	
2,700.0	2,689.1	2,676.1	2,676.1	6.0	53.4	-126.47	888.4	3,486.0	3,671.4	3,612.6	58.82	62.423	
2,755.9	2,743.7	2,730.7	2,730.7	6.2	54.5	-126.62	888.4	3,486.0	3,678.4	3,618.4	60.07	61.236	
2,800.0	2,786.9	2,773.9	2,773.9	6.4	55.3	-126.73	888.4	3,486.0	3,684.0	3,622.9	61.06	60.335	
2,854.3	2,840.0	2,827.0	2,827.0	6.6	56.4	-126.87	888.4	3,486.0	3,690.9	3,628.6	62.28	59.259	
2,900.0	2,884.7	2,871.7	2,871.7	6.7	57.3	-126.98	888.4	3,486.0	3,696.6	3,633.3	63.31	58.387	
2,952.7	2,936.3	2,923.3	2,923.3	6.9	58.3	-127.12	888.4	3,486.0	3,703.3	3,638.8	64.51	57.411	
3,000.0	2,982.5	2,969.5	2,969.5	7.1	59.3	-127.24	888.4	3,486.0	3,709.4	3,643.8	65.57	56.567	
3,051.2	3,032.6	3,019.6	3,019.6	7.3	60.3	-127.37	888.4	3,486.0	3,715.9	3,649.2	66.74	55.681	
3,100.0	3,080.3	3,067.3	3,067.3	7.5	61.2	-127.49	888.4	3,486.0	3,722.2	3,654.3	67.84	54.864	
3,149.6	3,128.8	3,115.8	3,115.8	7.7	62.2	-127.61	888.4	3,486.0	3,728.5	3,659.6	68.97	54.059	
3,200.0	3,178.1	3,165.1	3,165.1	7.9	63.2	-127.74	888.4	3,486.0	3,735.0	3,664.9	70.12	53.268	
3,248.0	3,225.1	3,212.1	3,212.1	8.1	64.1	-127.86	888.4	3,486.0	3,741.2	3,670.0	71.21	52.536	
3,300.0	3,276.0	3,263.0	3,263.0	8.3	65.2	-127.99	888.4	3,486.0	3,748.0	3,675.6	72.40	51.770	
3,346.4	3,321.4	3,308.4	3,308.4	8.5	66.1	-128.10	888.4	3,486.0	3,754.0	3,680.5	73.46	51.104	
3,400.0	3,373.8	3,360.8	3,360.8	8.7	67.1	-128.23	888.4	3,486.0	3,761.0	3,686.3	74.68	50.361	
3,444.9	3,417.7	3,404.7	3,404.7	8.8	68.0	-128.34	888.4	3,486.0	3,766.8	3,691.1	75.71	49.756	
3,500.0	3,471.6	3,458.6	3,458.6	9.1	69.1	-128.48	888.4	3,486.0	3,774.0	3,697.1	76.97	49.035	
3,543.3	3,513.9	3,500.9	3,500.9	9.2	69.9	-128.58	888.4	3,486.0	3,779.7	3,701.8	77.96	48.485	
3,600.0	3,569.4	3,556.4	3,556.4	9.5	71.1	-128.72	888.4	3,486.0	3,787.2	3,707.9	79.25	47.785	
3,641.7	3,610.2	3,597.2	3,597.2	9.7	71.9	-128.82	888.4	3,486.0	3,792.7	3,712.5	80.21	47.284	
3,700.0	3,667.2	3,654.2	3,654.2	9.9	73.0	-128.96	888.4	3,486.0	3,800.4	3,718.9	81.55	46.605	
3,740.1	3,706.5	3,693.5	3,693.5	10.1	73.8	-129.06	888.4	3,486.0	3,805.7	3,723.3	82.47	46.149	
3,800.0	3,765.0	3,752.0	3,752.0	10.3	75.0	-129.20	888.4	3,486.0	3,813.7	3,729.8	83.84	45.489	
3,838.6	3,802.8	3,789.8	3,789.8	10.5	75.8	-129.29	888.4	3,486.0	3,818.8	3,734.1	84.72	45.074	
3,900.0	3,862.8	3,849.8	3,849.8	10.7	77.0	-129.44	888.4	3,486.0	3,827.0	3,740.9	86.13	44.432	
3,937.0	3,899.0	3,886.0	3,886.0	10.9	77.7	-129.53	888.4	3,486.0	3,832.0	3,745.0	86.98	44.055	
4,000.0	3,960.7	3,947.7	3,947.7	11.2	78.9	-129.68	888.4	3,486.0	3,840.4	3,752.0	88.43	43.431	
4,035.4	3,995.3	3,982.3	3,982.3	11.3	79.6	-129.76	888.4	3,486.0	3,845.2	3,756.0	89.24	43.088	
4,100.0	4,058.5	4,045.5	4,045.5	11.6	80.9	-129.91	888.4	3,486.0	3,853.9	3,763.2	90.72	42.480	
4,133.8	4,091.6	4,078.6	4,078.6	11.7	81.6	-129.99	888.4	3,486.0	3,858.5	3,767.0	91.50	42.169	
4,200.0	4,156.3	4,143.3	4,143.3	12.0	82.9	-130.14	888.4	3,486.0	3,867.5	3,774.4	93.02	41.577	
4,232.3	4,187.9	4,174.9	4,174.9	12.2	83.5	-130.22	888.4	3,486.0	3,871.8	3,778.1	93.76	41.295	
4,300.0	4,254.1	4,241.1	4,241.1	12.5	84.8	-130.38	888.4	3,486.0	3,881.1	3,785.8	95.31	40.718	
4,325.7	4,279.2	4,266.2	4,266.2	12.6	85.3	-130.43	888.4	3,486.0	3,884.6	3,788.7	95.90	40.505	
4,330.7	4,284.1	4,271.1	4,271.1	12.6	85.4	-130.46	888.4	3,486.0	3,885.3	3,789.2	96.03	40.459	
4,400.0	4,352.1	4,339.1	4,339.1	12.8	86.8	-130.74	888.4	3,486.0	3,894.1	3,796.4	97.76	39.833	
4,429.1	4,380.8	4,367.8	4,367.8	12.9	87.4	-130.85	888.4	3,486.0	3,897.5	3,799.1	98.47	39.579	
4,500.0	4,450.7	4,437.7	4,437.7	13.1	88.8	-131.09	888.4	3,486.0	3,905.0	3,804.8	100.20	38.973	
4,527.5	4,478.0	4,465.0	4,465.0	13.2	89.3	-131.17	888.4	3,486.0	3,907.6	3,806.8	100.86	38.743	
4,600.0	4,549.9	4,536.9	4,536.9	13.4	90.8	-131.36	888.4	3,486.0	3,913.7	3,811.1	102.59	38.147	
4,626.0	4,575.7	4,562.7	4,562.7	13.5	91.3	-131.42	888.4	3,486.0	3,915.6	3,812.4	103.21	37.939	
4,700.0	4,649.4	4,636.4	4,636.4	13.6	92.8	-131.56	888.4	3,486.0	3,920.1	3,815.1	104.94	37.356	
4,724.4	4,673.7	4,660.7	4,660.7	13.7	93.3	-131.60	888.4	3,486.0	3,921.3	3,815.8	105.50	37.169	
4,800.0	4,749.2	4,736.2	4,736.2	13.8	94.8	-131.69	888.4	3,486.0	3,924.1	3,816.9	107.22	36.599	
4,822.8	4,772.0	4,759.0	4,759.0	13.9	95.2	-131.71	888.4	3,486.0	3,924.7	3,817.0	107.73	36.432	
4,900.0	4,849.2	4,836.2	4,836.2	14.0	96.8	-131.75	888.4	3,486.0	3,925.9	3,816.5	109.43	35.875	
4,921.2	4,870.4	4,857.4	4,857.4	14.1	97.2	-131.75	888.4	3,486.0	3,926.0	3,816.1	109.90	35.725	
4,925.6	4,874.8	4,861.8	4,861.8	14.1	97.3	69.44	888.4	3,486.0	3,926.0	3,816.3	109.64	35.807	
5,000.0	4,949.2	4,936.2	4,936.2	14.2	98.8	69.44	888.4	3,486.0	3,926.0	3,814.7	111.27	35.285	
5,019.7	4,968.8	4,955.8	4,955.8	14.2	99.2	69.44	888.4	3,486.0	3,926.0	3,814.3	111.69	35.149	

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 SCHAUMBERG 17G-314
<b>Project:</b>	WELD COUNTY, COLORADO	<b>TVD Reference:</b>	KB-EST @ 4633.0usft (Original Well Elev)
<b>Reference Site:</b>	SW NW SEC. 17 T5N R64W 6th P.M.	<b>MD Reference:</b>	KB-EST @ 4633.0usft (Original Well Elev)
<b>Site Error:</b>	0.0 usft	<b>North Reference:</b>	True
<b>Reference Well:</b>	SCHAUMBERG 17G-314	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Well Error:</b>	0.0 usft	<b>Output errors are at</b>	2.00 sigma
<b>Reference Wellbore</b>	ORIGINAL WELLBORE	<b>Database:</b>	EDM 5000.1 Single User Db
<b>Reference Design:</b>	PROPOSAL #1	<b>Offset TVD Reference:</b>	Offset Datum

Offset Design												Offset Site Error:	0.0 usft
Survey Program: 0-INC												Offset Well Error:	0.0 usft
Reference		Offset		Semi Major Axis			Distance						Warning
Measured Depth (usft)	Vertical Depth (usft)	Measured Depth (usft)	Vertical Depth (usft)	Reference (usft)	Offset (usft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (usft)	+E/-W (usft)	Between Centres (usft)	Between Ellipses (usft)	Minimum Separation (usft)	Separation Factor	
5,100.0	5,049.2	5,036.2	5,036.2	14.3	100.8	69.44	888.4	3,486.0	3,926.0	3,812.5	113.45	34.606	
5,118.1	5,067.3	5,054.3	5,054.3	14.3	101.2	69.44	888.4	3,486.0	3,926.0	3,812.1	113.84	34.486	
5,200.0	5,149.2	5,136.2	5,136.2	14.5	102.8	69.44	888.4	3,486.0	3,926.0	3,810.3	115.63	33.952	
5,216.5	5,165.7	5,152.7	5,152.7	14.5	103.2	69.44	888.4	3,486.0	3,926.0	3,810.0	115.99	33.846	
5,300.0	5,249.2	5,236.2	5,236.2	14.6	104.8	69.44	888.4	3,486.0	3,926.0	3,808.2	117.82	33.322	
5,314.9	5,264.1	5,251.1	5,251.1	14.6	105.1	69.44	888.4	3,486.0	3,926.0	3,807.8	118.15	33.230	
5,400.0	5,349.2	5,336.2	5,336.2	14.8	106.9	69.44	888.4	3,486.0	3,926.0	3,806.0	120.01	32.715	
5,413.4	5,362.5	5,349.5	5,349.5	14.8	107.1	69.44	888.4	3,486.0	3,926.0	3,805.7	120.30	32.635	
5,500.0	5,449.2	5,436.2	5,436.2	14.9	108.9	69.44	888.4	3,486.0	3,926.0	3,803.8	122.20	32.129	
5,511.8	5,461.0	5,448.0	5,448.0	14.9	109.1	69.44	888.4	3,486.0	3,926.0	3,803.5	122.45	32.061	
5,600.0	5,549.2	5,536.2	5,536.2	15.1	110.9	69.44	888.4	3,486.0	3,926.0	3,801.6	124.39	31.563	
5,610.2	5,559.4	5,546.4	5,546.4	15.1	111.1	69.44	888.4	3,486.0	3,926.0	3,801.4	124.61	31.506	
5,700.0	5,649.2	5,636.2	5,636.2	15.2	112.9	69.44	888.4	3,486.0	3,926.0	3,799.4	126.58	31.016	
5,708.6	5,657.8	5,644.8	5,644.8	15.3	113.1	69.44	888.4	3,486.0	3,926.0	3,799.2	126.77	30.970	
5,800.0	5,749.2	5,736.2	5,736.2	15.4	114.9	69.44	888.4	3,486.0	3,926.0	3,797.2	128.77	30.488	
5,807.1	5,756.2	5,743.2	5,743.2	15.4	115.0	69.44	888.4	3,486.0	3,926.0	3,797.0	128.93	30.451	
5,900.0	5,849.2	5,836.2	5,836.2	15.6	116.9	69.44	888.4	3,486.0	3,926.0	3,795.0	130.96	29.977	
5,905.5	5,854.7	5,841.7	5,841.7	15.6	117.0	69.44	888.4	3,486.0	3,926.0	3,794.9	131.09	29.950	
6,000.0	5,949.2	5,936.2	5,936.2	15.7	118.9	69.44	888.4	3,486.0	3,926.0	3,792.8	133.16	29.483	
6,003.9	5,953.1	5,940.1	5,940.1	15.7	119.0	69.44	888.4	3,486.0	3,926.0	3,792.7	133.25	29.464	
6,100.0	6,049.2	6,036.2	6,036.2	15.9	120.9	69.44	888.4	3,486.0	3,926.0	3,790.6	135.36	29.005	
6,102.3	6,051.5	6,038.5	6,038.5	15.9	121.0	69.44	888.4	3,486.0	3,926.0	3,790.6	135.41	28.994	
6,124.6	6,073.8	6,060.8	6,060.8	15.9	121.4	69.44	888.4	3,486.0	3,926.0	3,790.1	135.90	28.889	
6,150.0	6,099.2	6,086.2	6,086.2	16.0	121.9	159.44	888.4	3,486.0	3,926.4	3,789.7	136.66	28.730	
6,200.0	6,149.0	6,136.0	6,136.0	16.1	122.9	159.36	888.4	3,486.0	3,929.7	3,792.5	137.20	28.641	
6,200.8	6,149.8	6,136.8	6,136.8	16.1	123.0	159.36	888.4	3,486.0	3,929.8	3,792.6	137.21	28.641	
6,250.0	6,198.5	6,185.5	6,185.5	16.2	123.9	159.21	888.4	3,486.0	3,936.2	3,799.1	137.14	28.702	
6,299.2	6,246.6	6,233.6	6,233.6	16.3	124.9	158.98	888.4	3,486.0	3,945.8	3,809.3	136.49	28.909	
6,300.0	6,247.4	6,234.4	6,234.4	16.3	124.9	158.98	888.4	3,486.0	3,946.0	3,809.5	136.48	28.913	
6,350.0	6,295.5	6,282.5	6,282.5	16.5	125.9	158.66	888.4	3,486.0	3,958.9	3,823.7	135.22	29.278	
6,397.6	6,340.2	6,327.2	6,327.2	16.6	126.8	158.28	888.4	3,486.0	3,974.1	3,840.7	133.48	29.772	
6,400.0	6,342.4	6,329.4	6,329.4	16.6	126.8	158.26	888.4	3,486.0	3,975.0	3,841.6	133.39	29.801	
6,450.0	6,388.1	6,375.1	6,375.1	16.8	127.7	157.74	888.4	3,486.0	3,994.1	3,863.1	131.02	30.485	
6,496.0	6,428.8	6,415.8	6,415.8	17.0	128.6	157.17	888.4	3,486.0	4,014.3	3,885.9	128.41	31.263	
6,500.0	6,432.2	6,419.2	6,419.2	17.0	128.6	157.12	888.4	3,486.0	4,016.1	3,888.0	128.16	31.336	
6,550.0	6,474.6	6,461.6	6,461.6	17.3	129.5	156.35	888.4	3,486.0	4,041.0	3,916.1	124.91	32.352	
6,594.5	6,510.7	6,497.7	6,497.7	17.5	130.2	155.54	888.4	3,486.0	4,065.5	3,943.7	121.76	33.389	
6,600.0	6,515.0	6,502.0	6,502.0	17.6	130.3	155.43	888.4	3,486.0	4,068.7	3,947.3	121.36	33.526	
6,650.0	6,553.3	6,540.3	6,540.3	17.9	131.1	154.32	888.4	3,486.0	4,099.0	3,981.3	117.67	34.835	
6,692.9	6,584.3	6,571.3	6,571.3	18.2	131.7	153.20	888.4	3,486.0	4,126.9	4,012.4	114.54	36.029	
6,700.0	6,589.2	6,576.2	6,576.2	18.2	131.8	152.99	888.4	3,486.0	4,131.7	4,017.7	114.04	36.229	
6,750.0	6,622.7	6,609.7	6,609.7	18.6	132.5	151.38	888.4	3,486.0	4,166.8	4,056.0	110.76	37.618	
6,791.3	6,648.3	6,635.3	6,635.3	19.0	133.0	149.79	888.4	3,486.0	4,197.4	4,088.8	108.58	38.658	
6,800.0	6,653.4	6,640.4	6,640.4	19.1	133.1	149.42	888.4	3,486.0	4,204.0	4,095.8	108.20	38.853	
6,850.0	6,681.4	6,668.4	6,668.4	19.6	133.6	147.03	888.4	3,486.0	4,243.2	4,136.3	106.82	39.723	
6,889.7	6,701.5	6,688.5	6,688.5	20.1	134.0	144.73	888.4	3,486.0	4,275.6	4,168.7	106.93	39.986	
6,900.0	6,706.3	6,693.3	6,693.3	20.2	134.1	144.08	888.4	3,486.0	4,284.1	4,177.0	107.16	39.978	
6,950.0	6,728.2	6,715.2	6,715.2	20.9	134.6	140.40	888.4	3,486.0	4,326.7	4,216.9	109.81	39.401	
6,988.2	6,742.8	6,729.8	6,729.8	21.5	134.9	136.97	888.4	3,486.0	4,360.2	4,246.5	113.69	38.350	
7,000.0	6,746.9	6,733.9	6,733.9	21.6	135.0	135.78	888.4	3,486.0	4,370.7	4,255.4	115.24	37.926	
7,050.0	6,762.4	6,749.4	6,749.4	22.5	135.3	129.94	888.4	3,486.0	4,415.8	4,292.2	123.64	35.716	
7,086.6	6,771.5	6,758.5	6,758.5	23.1	135.5	124.71	888.4	3,486.0	4,449.5	4,318.0	131.45	33.849	

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 SCHAUMBERG 17G-314
<b>Project:</b>	WELD COUNTY, COLORADO	<b>TVD Reference:</b>	KB-EST @ 4633.0usft (Original Well Elev)
<b>Reference Site:</b>	SW NW SEC. 17 T5N R64W 6th P.M.	<b>MD Reference:</b>	KB-EST @ 4633.0usft (Original Well Elev)
<b>Site Error:</b>	0.0 usft	<b>North Reference:</b>	True
<b>Reference Well:</b>	SCHAUMBERG 17G-314	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Well Error:</b>	0.0 usft	<b>Output errors are at</b>	2.00 sigma
<b>Reference Wellbore</b>	ORIGINAL WELLBORE	<b>Database:</b>	EDM 5000.1 Single User Db
<b>Reference Design:</b>	PROPOSAL #1	<b>Offset TVD Reference:</b>	Offset Datum

Offset Design													Offset Site Error:	0.0 usft
Survey Program: 0-INC													Offset Well Error:	0.0 usft
Reference		Offset		Semi Major Axis			Distance							Warning
Measured Depth (usft)	Vertical Depth (usft)	Measured Depth (usft)	Vertical Depth (usft)	Reference (usft)	Offset (usft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (usft)	+E/-W (usft)	Between Centres (usft)	Between Ellipses (usft)	Minimum Separation (usft)	Separation Factor		
7,100.0	6,774.4	6,761.4	6,761.4	23.3	135.5	122.56	888.4	3,486.0	4,461.9	4,327.4	134.56	33.160		
7,150.0	6,783.1	6,770.1	6,770.1	24.3	135.7	113.36	888.4	3,486.0	4,508.8	4,362.3	146.51	30.775		
7,185.0	6,787.1	6,774.1	6,774.1	25.0	135.8	105.79	888.4	3,486.0	4,541.9	4,387.9	153.99	29.495		
7,200.0	6,788.3	6,775.3	6,775.3	25.3	135.8	102.31	888.4	3,486.0	4,556.2	4,399.6	156.59	29.096		
7,252.3	6,790.0	6,777.0	6,777.0	26.3	135.8	89.31	888.4	3,486.0	4,606.0	4,444.8	161.18	28.577 SF		
7,283.4	6,789.9	6,776.9	6,776.9	27.0	135.8	89.31	888.4	3,486.0	4,635.7	4,473.9	161.87	28.639		
7,300.0	6,789.8	6,776.8	6,776.8	27.3	135.8	89.30	888.4	3,486.0	4,651.5	4,489.3	162.23	28.672		
7,381.9	6,789.5	6,776.5	6,776.5	29.1	135.8	89.29	888.4	3,486.0	4,729.8	4,565.7	164.11	28.821		
7,400.0	6,789.4	6,776.4	6,776.4	29.5	135.8	89.29	888.4	3,486.0	4,747.1	4,582.6	164.52	28.854		
7,480.3	6,789.1	6,776.1	6,776.1	31.4	135.8	89.28	888.4	3,486.0	4,824.0	4,657.6	166.43	28.985		
7,500.0	6,789.1	6,776.1	6,776.1	31.8	135.8	89.27	888.4	3,486.0	4,842.9	4,676.0	166.90	29.017		
7,578.7	6,788.8	6,775.8	6,775.8	33.7	135.8	89.26	888.4	3,486.0	4,918.4	4,749.6	168.82	29.134		
7,600.0	6,788.7	6,775.7	6,775.7	34.2	135.8	89.25	888.4	3,486.0	4,938.8	4,769.5	169.34	29.166		
7,677.1	6,788.4	6,775.4	6,775.4	36.1	135.8	89.24	888.4	3,486.0	5,013.0	4,841.7	171.26	29.271		
7,700.0	6,788.3	6,775.3	6,775.3	36.7	135.8	89.24	888.4	3,486.0	5,035.0	4,863.1	171.83	29.302		
7,775.6	6,788.0	6,775.0	6,775.0	38.6	135.8	89.23	888.4	3,486.0	5,107.7	4,933.9	173.75	29.397		
7,800.0	6,787.9	6,774.9	6,774.9	39.2	135.8	89.22	888.4	3,486.0	5,131.2	4,956.8	174.37	29.428		
7,874.0	6,787.6	6,774.6	6,774.6	41.0	135.8	89.21	888.4	3,486.0	5,202.5	5,026.3	176.27	29.515		
7,900.0	6,787.6	6,774.6	6,774.6	41.7	135.8	89.20	888.4	3,486.0	5,227.6	5,050.7	176.94	29.545		
7,972.4	6,787.3	6,774.3	6,774.3	43.6	135.8	89.19	888.4	3,486.0	5,297.5	5,118.7	178.82	29.625		
8,000.0	6,787.2	6,774.2	6,774.2	44.3	135.8	89.19	888.4	3,486.0	5,324.1	5,144.6	179.53	29.655		
8,070.8	6,786.9	6,773.9	6,773.9	46.1	135.8	89.18	888.4	3,486.0	5,392.6	5,211.2	181.39	29.729		
8,100.0	6,786.8	6,773.8	6,773.8	46.9	135.8	89.17	888.4	3,486.0	5,420.8	5,238.6	182.16	29.759		
8,169.3	6,786.5	6,773.5	6,773.5	48.7	135.8	89.16	888.4	3,486.0	5,487.8	5,303.8	183.99	29.827		
8,200.0	6,786.4	6,773.4	6,773.4	49.5	135.8	89.15	888.4	3,486.0	5,517.5	5,332.7	184.80	29.857		
8,267.7	6,786.1	6,773.1	6,773.1	51.3	135.7	89.14	888.4	3,486.0	5,583.1	5,396.5	186.60	29.920		
8,300.0	6,786.0	6,773.0	6,773.0	52.1	135.7	89.13	888.4	3,486.0	5,614.4	5,427.0	187.46	29.950		
8,366.1	6,785.8	6,772.8	6,772.8	53.9	135.7	89.12	888.4	3,486.0	5,678.6	5,489.3	189.23	30.009		
8,400.0	6,785.6	6,772.6	6,772.6	54.8	135.7	89.12	888.4	3,486.0	5,711.4	5,521.3	190.13	30.039		
8,464.5	6,785.4	6,772.4	6,772.4	56.5	135.7	89.11	888.4	3,486.0	5,774.1	5,582.2	191.86	30.095		
8,500.0	6,785.3	6,772.3	6,772.3	57.5	135.7	89.10	888.4	3,486.0	5,808.5	5,615.7	192.82	30.125		
8,563.0	6,785.0	6,772.0	6,772.0	59.2	135.7	89.09	888.4	3,486.0	5,869.7	5,675.2	194.51	30.176		
8,600.0	6,784.9	6,771.9	6,771.9	60.2	135.7	89.08	888.4	3,486.0	5,905.7	5,710.2	195.51	30.206		
8,661.4	6,784.6	6,771.6	6,771.6	61.8	135.7	89.07	888.4	3,486.0	5,965.4	5,768.2	197.17	30.255		
8,700.0	6,784.5	6,771.5	6,771.5	62.9	135.7	89.07	888.4	3,486.0	6,003.0	5,804.8	198.22	30.285		
8,759.8	6,784.3	6,771.3	6,771.3	64.5	135.7	89.06	888.4	3,486.0	6,061.2	5,861.4	199.84	30.330		
8,800.0	6,784.1	6,771.1	6,771.1	65.6	135.7	89.05	888.4	3,486.0	6,100.4	5,899.4	200.93	30.360		
8,858.2	6,783.9	6,770.9	6,770.9	67.1	135.7	89.04	888.4	3,486.0	6,157.1	5,954.6	202.52	30.403		
8,900.0	6,783.7	6,770.7	6,770.7	68.3	135.7	89.03	888.4	3,486.0	6,197.8	5,994.2	203.65	30.433		
8,956.7	6,783.5	6,770.5	6,770.5	69.8	135.7	89.02	888.4	3,486.0	6,253.1	6,047.9	205.20	30.473		
9,000.0	6,783.3	6,770.3	6,770.3	71.0	135.7	89.01	888.4	3,486.0	6,295.3	6,089.0	206.38	30.504		
9,055.1	6,783.1	6,770.1	6,770.1	72.5	135.7	89.00	888.4	3,486.0	6,349.1	6,141.2	207.88	30.542		
9,100.0	6,782.9	6,769.9	6,769.9	73.7	135.7	89.00	888.4	3,486.0	6,393.0	6,183.8	209.11	30.572		
9,153.5	6,782.7	6,769.7	6,769.7	75.2	135.7	88.99	888.4	3,486.0	6,445.2	6,234.7	210.58	30.607		
9,200.0	6,782.6	6,769.6	6,769.6	76.5	135.7	88.98	888.4	3,486.0	6,490.6	6,278.8	211.85	30.638		
9,251.9	6,782.4	6,769.4	6,769.4	77.9	135.7	88.97	888.4	3,486.0	6,541.4	6,328.1	213.27	30.671		
9,300.0	6,782.2	6,769.2	6,769.2	79.2	135.7	88.96	888.4	3,486.0	6,588.4	6,373.8	214.59	30.702		
9,350.4	6,782.0	6,769.0	6,769.0	80.6	135.7	88.95	888.4	3,486.0	6,637.7	6,421.7	215.97	30.734		
9,400.0	6,781.8	6,768.8	6,768.8	82.0	135.7	88.94	888.4	3,486.0	6,686.2	6,468.9	217.34	30.764		
9,448.8	6,781.6	6,768.6	6,768.6	83.3	135.7	88.93	888.4	3,486.0	6,734.0	6,515.3	218.68	30.794		
9,500.0	6,781.4	6,768.4	6,768.4	84.7	135.7	88.92	888.4	3,486.0	6,784.1	6,564.0	220.09	30.825		
9,547.2	6,781.2	6,768.2	6,768.2	86.0	135.7	88.92	888.4	3,486.0	6,830.3	6,608.9	221.39	30.853		

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 SCHAUMBERG 17G-314
<b>Project:</b>	WELD COUNTY, COLORADO	<b>TVD Reference:</b>	KB-EST @ 4633.0usft (Original Well Elev)
<b>Reference Site:</b>	SW NW SEC. 17 T5N R64W 6th P.M.	<b>MD Reference:</b>	KB-EST @ 4633.0usft (Original Well Elev)
<b>Site Error:</b>	0.0 usft	<b>North Reference:</b>	True
<b>Reference Well:</b>	SCHAUMBERG 17G-314	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Well Error:</b>	0.0 usft	<b>Output errors are at</b>	2.00 sigma
<b>Reference Wellbore</b>	ORIGINAL WELLBORE	<b>Database:</b>	EDM 5000.1 Single User Db
<b>Reference Design:</b>	PROPOSAL #1	<b>Offset TVD Reference:</b>	Offset Datum

Offset Design												Offset Site Error:	0.0 usft
Survey Program: 0-INC												Offset Well Error:	0.0 usft
Reference		Offset		Semi Major Axis			Distance						Warning
Measured Depth (usft)	Vertical Depth (usft)	Measured Depth (usft)	Vertical Depth (usft)	Reference (usft)	Offset (usft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (usft)	+E/-W (usft)	Between Centres (usft)	Between Ellipses (usft)	Minimum Separation (usft)	Separation Factor	
9,600.0	6,781.0	6,768.0	6,768.0	87.5	135.6	88.91	888.4	3,486.0	6,882.0	6,659.2	222.84	30.884	
9,645.6	6,780.8	6,767.8	6,767.8	88.7	135.6	88.90	888.4	3,486.0	6,926.8	6,702.7	224.10	30.910	
9,700.0	6,780.6	6,767.6	6,767.6	90.2	135.6	88.89	888.4	3,486.0	6,980.0	6,754.4	225.59	30.941	
9,744.1	6,780.4	6,767.4	6,767.4	91.4	135.6	88.88	888.4	3,486.0	7,023.2	6,796.4	226.81	30.965	
9,800.0	6,780.2	6,767.2	6,767.2	93.0	135.6	88.87	888.4	3,486.0	7,078.1	6,849.7	228.35	30.996	
9,842.5	6,780.1	6,767.1	6,767.1	94.2	135.6	88.86	888.4	3,486.0	7,119.8	6,890.3	229.53	31.020	
9,900.0	6,779.8	6,766.8	6,766.8	95.7	135.6	88.85	888.4	3,486.0	7,176.2	6,945.1	231.11	31.051	
9,940.9	6,779.7	6,766.7	6,766.7	96.9	135.6	88.85	888.4	3,486.0	7,216.4	6,984.1	232.24	31.072	
10,000.0	6,779.4	6,766.4	6,766.4	98.5	135.6	88.83	888.4	3,486.0	7,274.4	7,040.5	233.88	31.104	
10,039.3	6,779.3	6,766.3	6,766.3	99.6	135.6	88.83	888.4	3,486.0	7,313.0	7,078.0	234.96	31.124	
10,100.0	6,779.0	6,766.0	6,766.0	101.3	135.6	88.82	888.4	3,486.0	7,372.6	7,135.9	236.64	31.155	
10,137.8	6,778.9	6,765.9	6,765.9	102.3	135.6	88.81	888.4	3,486.0	7,409.7	7,172.0	237.69	31.174	
10,200.0	6,778.7	6,765.7	6,765.7	104.1	135.6	88.80	888.4	3,486.0	7,470.8	7,231.4	239.41	31.206	
10,236.2	6,778.5	6,765.5	6,765.5	105.1	135.6	88.79	888.4	3,486.0	7,506.4	7,266.0	240.41	31.224	
10,300.0	6,778.3	6,765.3	6,765.3	106.8	135.6	88.78	888.4	3,486.0	7,569.1	7,327.0	242.18	31.255	
10,334.6	6,778.1	6,765.1	6,765.1	107.8	135.6	88.77	888.4	3,486.0	7,603.2	7,360.1	243.13	31.272	
10,400.0	6,777.9	6,764.9	6,764.9	109.6	135.6	88.76	888.4	3,486.0	7,667.5	7,422.5	244.94	31.303	
10,433.0	6,777.7	6,764.7	6,764.7	110.5	135.6	88.76	888.4	3,486.0	7,700.0	7,454.1	245.86	31.319	
10,500.0	6,777.5	6,764.5	6,764.5	112.4	135.6	88.74	888.4	3,486.0	7,765.9	7,518.2	247.72	31.350	
10,531.5	6,777.3	6,764.3	6,764.3	113.3	135.6	88.74	888.4	3,486.0	7,796.9	7,548.3	248.59	31.364	
10,600.0	6,777.1	6,764.1	6,764.1	115.2	135.6	88.73	888.4	3,486.0	7,864.3	7,613.8	250.49	31.396	
10,629.9	6,777.0	6,764.0	6,764.0	116.0	135.6	88.72	888.4	3,486.0	7,893.7	7,642.4	251.32	31.409	
10,700.0	6,776.7	6,763.7	6,763.7	117.9	135.6	88.71	888.4	3,486.0	7,962.8	7,709.5	253.26	31.441	
10,728.3	6,776.6	6,763.6	6,763.6	118.7	135.6	88.70	888.4	3,486.0	7,990.7	7,736.6	254.05	31.453	
10,800.0	6,776.3	6,763.3	6,763.3	120.7	135.6	88.69	888.4	3,486.0	8,061.3	7,805.2	256.04	31.485	
10,826.7	6,776.2	6,763.2	6,763.2	121.5	135.5	88.68	888.4	3,486.0	8,087.6	7,830.9	256.78	31.496	
10,900.0	6,775.9	6,762.9	6,762.9	123.5	135.5	88.67	888.4	3,486.0	8,159.8	7,901.0	258.81	31.528	
10,925.2	6,775.8	6,762.8	6,762.8	124.2	135.5	88.67	888.4	3,486.0	8,184.6	7,925.1	259.51	31.538	
11,000.0	6,775.5	6,762.5	6,762.5	126.3	135.5	88.65	888.4	3,486.0	8,258.4	7,996.8	261.59	31.570	
11,023.6	6,775.4	6,762.4	6,762.4	126.9	135.5	88.65	888.4	3,486.0	8,281.7	8,019.4	262.25	31.580	
11,100.0	6,775.1	6,762.1	6,762.1	129.1	135.5	88.63	888.4	3,486.0	8,357.0	8,092.7	264.37	31.611	
11,122.0	6,775.0	6,762.0	6,762.0	129.7	135.5	88.63	888.4	3,486.0	8,378.7	8,113.8	264.98	31.620	
11,200.0	6,774.7	6,761.7	6,761.7	131.9	135.5	88.61	888.4	3,486.0	8,455.7	8,188.5	267.15	31.652	
11,220.4	6,774.6	6,761.6	6,761.6	132.4	135.5	88.61	888.4	3,486.0	8,475.8	8,208.1	267.72	31.660	
11,300.0	6,774.3	6,761.3	6,761.3	134.6	135.5	88.60	888.4	3,486.0	8,554.3	8,284.4	269.93	31.691	
11,318.9	6,774.2	6,761.2	6,761.2	135.2	135.5	88.59	888.4	3,486.0	8,573.0	8,302.5	270.45	31.699	
11,400.0	6,773.9	6,760.9	6,760.9	137.4	135.5	88.58	888.4	3,486.0	8,653.1	8,380.3	272.71	31.730	
11,417.3	6,773.8	6,760.8	6,760.8	137.9	135.5	88.57	888.4	3,486.0	8,670.1	8,396.9	273.19	31.737	
11,500.0	6,773.5	6,760.5	6,760.5	140.2	135.5	88.56	888.4	3,486.0	8,751.8	8,476.3	275.49	31.768	
11,515.7	6,773.4	6,760.4	6,760.4	140.7	135.5	88.56	888.4	3,486.0	8,767.3	8,491.4	275.93	31.774	
11,600.0	6,773.1	6,760.1	6,760.1	143.0	135.5	88.54	888.4	3,486.0	8,850.6	8,572.3	278.27	31.806	
11,614.1	6,773.0	6,760.0	6,760.0	143.4	135.5	88.54	888.4	3,486.0	8,864.5	8,585.9	278.66	31.811	
11,700.0	6,772.7	6,759.7	6,759.7	145.8	135.5	88.52	888.4	3,486.0	8,949.3	8,668.3	281.05	31.842	
11,712.6	6,772.6	6,759.6	6,759.6	146.2	135.5	88.52	888.4	3,486.0	8,961.8	8,680.4	281.40	31.847	
11,800.0	6,772.3	6,759.3	6,759.3	148.6	135.5	88.50	888.4	3,486.0	9,048.2	8,764.3	283.84	31.878	
11,811.0	6,772.2	6,759.2	6,759.2	148.9	135.5	88.50	888.4	3,486.0	9,059.0	8,774.9	284.14	31.882	
11,900.0	6,771.9	6,758.9	6,758.9	151.4	135.5	88.48	888.4	3,486.0	9,147.0	8,860.4	286.62	31.913	
11,909.4	6,771.8	6,758.8	6,758.8	151.7	135.5	88.48	888.4	3,486.0	9,156.3	8,869.4	286.88	31.917	
12,000.0	6,771.5	6,758.5	6,758.5	154.2	135.5	88.46	888.4	3,486.0	9,245.9	8,956.5	289.40	31.948	
12,007.8	6,771.4	6,758.4	6,758.4	154.4	135.5	88.46	888.4	3,486.0	9,253.6	8,964.0	289.62	31.951	
12,100.0	6,771.1	6,758.1	6,758.1	157.0	135.4	88.44	888.4	3,486.0	9,344.8	9,052.6	292.19	31.982	
12,106.3	6,771.0	6,758.0	6,758.0	157.2	135.4	88.44	888.4	3,486.0	9,351.0	9,058.6	292.36	31.984	

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 SCHAUMBERG 17G-314
<b>Project:</b>	WELD COUNTY, COLORADO	<b>TVD Reference:</b>	KB-EST @ 4633.0usft (Original Well Elev)
<b>Reference Site:</b>	SW NW SEC. 17 T5N R64W 6th P.M.	<b>MD Reference:</b>	KB-EST @ 4633.0usft (Original Well Elev)
<b>Site Error:</b>	0.0 usft	<b>North Reference:</b>	True
<b>Reference Well:</b>	SCHAUMBERG 17G-314	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Well Error:</b>	0.0 usft	<b>Output errors are at</b>	2.00 sigma
<b>Reference Wellbore</b>	ORIGINAL WELLBORE	<b>Database:</b>	EDM 5000.1 Single User Db
<b>Reference Design:</b>	PROPOSAL #1	<b>Offset TVD Reference:</b>	Offset Datum

<b>Offset Design</b> SW NW SEC. 17 T5N R64W 6th P.M. - EXIST VERT HOSHIKO #41-17 - Wellbore #1 - Design #1												<b>Offset Site Error:</b>	0.0 usft
Survey Program: 0-INC												<b>Offset Well Error:</b>	0.0 usft
Reference	Offset	Semi Major Axis		Distance									
Measured Depth (usft)	Vertical Depth (usft)	Measured Depth (usft)	Vertical Depth (usft)	Reference (usft)	Offset (usft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (usft)	+E/-W (usft)	Between Centres (usft)	Between Ellipses (usft)	Minimum Separation (usft)	Separation Factor	Warning
12,200.0	6,770.7	6,757.7	6,757.7	159.8	135.4	88.43	888.4	3,486.0	9,443.7	9,148.7	294.97	32.016	
12,204.7	6,770.6	6,757.6	6,757.6	159.9	135.4	88.42	888.4	3,486.0	9,448.3	9,153.2	295.10	32.017	
12,300.0	6,770.3	6,757.3	6,757.3	162.6	135.4	88.41	888.4	3,486.0	9,542.6	9,244.9	297.76	32.048	
12,303.1	6,770.2	6,757.2	6,757.2	162.7	135.4	88.41	888.4	3,486.0	9,545.7	9,247.9	297.84	32.049	
12,361.7	6,770.0	6,757.0	6,757.0	164.3	135.4	88.39	888.4	3,486.0	9,603.7	9,304.2	299.48	32.068	



# Anticollision Report



<b>Company:</b>	PDC ENERGY	<b>Local Co-ordinate Reference:</b>	Well SCHAUMBERG 17G-314
<b>Project:</b>	WELD COUNTY, COLORADO	<b>TVD Reference:</b>	KB-EST @ 4633.0usft (Original Well Elev)
<b>Reference Site:</b>	SW NW SEC. 17 T5N R64W 6th P.M.	<b>MD Reference:</b>	KB-EST @ 4633.0usft (Original Well Elev)
<b>Site Error:</b>	0.0 usft	<b>North Reference:</b>	True
<b>Reference Well:</b>	SCHAUMBERG 17G-314	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Well Error:</b>	0.0 usft	<b>Output errors are at</b>	2.00 sigma
<b>Reference Wellbore</b>	ORIGINAL WELLBORE	<b>Database:</b>	EDM 5000.1 Single User Db
<b>Reference Design:</b>	PROPOSAL #1	<b>Offset TVD Reference:</b>	Offset Datum

Offset Design												Offset Site Error:	0.0 usft
Survey Program: 0-INC												Offset Well Error:	0.0 usft
Reference		Offset		Semi Major Axis			Distance						Warning
Measured Depth (usft)	Vertical Depth (usft)	Measured Depth (usft)	Vertical Depth (usft)	Reference (usft)	Offset (usft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (usft)	+E/-W (usft)	Between Centres (usft)	Between Ellipses (usft)	Minimum Separation (usft)	Separation Factor	
0.0	0.0	1.0	1.0	0.0	0.0	-82.61	305.8	-2,356.5	2,376.2				
98.4	98.4	99.4	99.4	0.1	0.9	-82.61	305.8	-2,356.5	2,376.2	2,375.3	0.97	2,450.609	
100.0	100.0	101.0	101.0	0.1	0.9	-82.61	305.8	-2,356.5	2,376.2	2,375.2	1.00	2,375.907	
196.8	196.8	197.8	197.8	0.3	3.2	-82.61	305.8	-2,356.5	2,376.2	2,372.7	3.51	677.037	
200.0	200.0	201.0	201.0	0.3	3.3	-82.61	305.8	-2,356.5	2,376.2	2,372.6	3.59	662.174	
295.3	295.3	296.3	296.3	0.5	5.2	-82.61	305.8	-2,356.5	2,376.2	2,370.4	5.79	410.670	
300.0	300.0	301.0	301.0	0.5	5.3	-82.61	305.8	-2,356.5	2,376.2	2,370.3	5.89	403.105	
393.7	393.7	394.7	394.7	0.8	7.3	-82.61	305.8	-2,356.5	2,376.2	2,368.2	8.02	296.312	
400.0	400.0	401.0	401.0	0.8	7.4	-82.61	305.8	-2,356.5	2,376.2	2,368.1	8.16	291.131	
492.1	492.1	493.1	493.1	1.0	9.3	-82.61	305.8	-2,356.5	2,376.2	2,366.0	10.24	232.092	
500.0	500.0	501.0	501.0	1.0	9.4	-82.61	305.8	-2,356.5	2,376.2	2,365.8	10.42	228.139	
590.5	590.5	591.5	591.5	1.2	11.3	-82.61	305.8	-2,356.5	2,376.2	2,363.8	12.45	190.851	
600.0	600.0	601.0	601.0	1.2	11.4	-82.61	305.8	-2,356.5	2,376.2	2,363.6	12.66	187.651	
689.0	689.0	690.0	690.0	1.4	13.2	-82.61	305.8	-2,356.5	2,376.2	2,361.6	14.66	162.095	
700.0	700.0	701.0	701.0	1.4	13.5	-82.61	305.8	-2,356.5	2,376.2	2,361.3	14.91	159.405	
787.4	787.4	788.4	788.4	1.6	15.2	-82.61	305.8	-2,356.5	2,376.2	2,359.4	16.87	140.888	
800.0	800.0	801.0	801.0	1.7	15.5	-82.61	305.8	-2,356.5	2,376.2	2,359.1	17.15	138.567	
885.8	885.8	886.8	886.8	1.9	17.2	-82.61	305.8	-2,356.5	2,376.2	2,357.2	19.07	124.597	
900.0	900.0	901.0	901.0	1.9	17.5	-82.61	305.8	-2,356.5	2,376.2	2,356.8	19.39	122.556	
984.2	984.2	985.2	985.2	2.1	19.2	-82.61	305.8	-2,356.5	2,376.2	2,355.0	21.28	111.688	
1,000.0	1,000.0	1,001.0	1,001.0	2.1	19.5	-82.61	305.8	-2,356.5	2,376.2	2,354.6	21.63	109.867	
1,082.7	1,082.7	1,083.7	1,083.7	2.3	21.2	-82.61	305.8	-2,356.5	2,376.2	2,352.7	23.48	101.206	
1,100.0	1,100.0	1,101.0	1,101.0	2.3	21.5	-82.61	305.8	-2,356.5	2,376.2	2,352.4	23.87	99.561	
1,181.1	1,181.1	1,182.1	1,182.1	2.5	23.2	-82.61	305.8	-2,356.5	2,376.2	2,350.5	25.68	92.525	
1,200.0	1,200.0	1,201.0	1,201.0	2.6	23.5	-82.61	305.8	-2,356.5	2,376.2	2,350.1	26.11	91.025	
1,279.5	1,279.5	1,280.5	1,280.5	2.7	25.1	-82.61	305.8	-2,356.5	2,376.2	2,348.3	27.88	85.216	
1,300.0	1,300.0	1,301.0	1,301.0	2.8	25.5	-82.61	305.8	-2,356.5	2,376.2	2,347.9	28.34	83.838	
1,377.9	1,377.9	1,378.9	1,378.9	3.0	27.1	-82.61	305.8	-2,356.5	2,376.2	2,346.1	30.09	78.978	
1,400.0	1,400.0	1,401.0	1,401.0	3.0	27.6	-82.61	305.8	-2,356.5	2,376.2	2,345.6	30.58	77.704	
1,476.4	1,476.4	1,477.4	1,477.4	3.2	29.1	-82.61	305.8	-2,356.5	2,376.2	2,343.9	32.29	73.592	
1,500.0	1,500.0	1,501.0	1,501.0	3.2	29.6	-82.61	305.8	-2,356.5	2,376.2	2,343.4	32.82	72.407	
1,574.8	1,574.8	1,575.8	1,575.8	3.4	31.1	-82.61	305.8	-2,356.5	2,376.2	2,341.7	34.49	68.894	
1,600.0	1,600.0	1,601.0	1,601.0	3.5	31.6	-82.61	305.8	-2,356.5	2,376.2	2,341.2	35.05	67.786	
1,673.2	1,673.2	1,674.2	1,674.2	3.6	33.1	-82.61	305.8	-2,356.5	2,376.2	2,339.5	36.69	64.760	
1,700.0	1,700.0	1,701.0	1,701.0	3.7	33.6	-82.61	305.8	-2,356.5	2,376.2	2,338.9	37.29	63.720	
1,771.6	1,771.6	1,772.6	1,772.6	3.9	35.0	-82.61	305.8	-2,356.5	2,376.2	2,337.3	38.89	61.095	
1,800.0	1,800.0	1,801.0	1,801.0	3.9	35.6	-82.61	305.8	-2,356.5	2,376.2	2,336.7	39.53	60.115	
1,870.1	1,870.1	1,871.1	1,871.1	4.1	37.0	76.22	305.8	-2,356.5	2,376.0	2,334.9	41.07	57.847	
1,900.0	1,900.0	1,901.0	1,901.0	4.1	37.6	76.25	305.8	-2,356.5	2,375.8	2,334.1	41.73	56.927	
1,968.5	1,968.4	1,969.4	1,969.4	4.2	39.0	76.34	305.8	-2,356.5	2,375.1	2,331.8	43.23	54.945	
2,000.0	1,999.8	2,000.8	2,000.8	4.3	39.6	76.39	305.8	-2,356.5	2,374.6	2,330.7	43.91	54.078	
2,066.9	2,066.5	2,067.5	2,067.5	4.4	41.0	76.55	305.8	-2,356.5	2,373.3	2,327.9	45.37	52.312	
2,100.0	2,099.5	2,100.5	2,100.5	4.5	41.6	76.64	305.8	-2,356.5	2,372.5	2,326.4	46.09	51.479	
2,165.3	2,164.4	2,165.4	2,165.4	4.6	42.9	76.85	305.8	-2,356.5	2,370.8	2,323.3	47.51	49.896	
2,200.0	2,198.7	2,199.7	2,199.7	4.7	43.6	76.98	305.8	-2,356.5	2,369.7	2,321.5	48.27	49.094	
2,263.8	2,261.8	2,262.8	2,262.8	4.8	44.9	77.24	305.8	-2,356.5	2,367.6	2,317.9	49.67	47.668	
2,300.0	2,297.5	2,298.5	2,298.5	4.9	45.6	77.41	305.8	-2,356.5	2,366.2	2,315.8	50.46	46.892	
2,362.2	2,358.6	2,359.6	2,359.6	5.0	46.8	77.73	305.8	-2,356.5	2,363.7	2,311.9	51.84	45.600	
2,400.0	2,395.6	2,396.6	2,396.6	5.1	47.6	77.94	305.8	-2,356.5	2,362.1	2,309.4	52.67	44.848	
2,460.6	2,454.9	2,455.9	2,455.9	5.3	48.8	78.23	305.8	-2,356.5	2,359.4	2,305.4	54.03	43.667	
2,500.0	2,493.4	2,494.4	2,494.4	5.4	49.6	78.42	305.8	-2,356.5	2,357.7	2,302.8	54.92	42.932	
2,559.0	2,551.2	2,552.2	2,552.2	5.6	50.7	78.71	305.8	-2,356.5	2,355.2	2,299.0	56.26	41.865	

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 SCHAUMBERG 17G-314
<b>Project:</b>	WELD COUNTY, COLORADO	<b>TVD Reference:</b>	KB-EST @ 4633.0usft (Original Well Elev)
<b>Reference Site:</b>	SW NW SEC. 17 T5N R64W 6th P.M.	<b>MD Reference:</b>	KB-EST @ 4633.0usft (Original Well Elev)
<b>Site Error:</b>	0.0 usft	<b>North Reference:</b>	True
<b>Reference Well:</b>	SCHAUMBERG 17G-314	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Well Error:</b>	0.0 usft	<b>Output errors are at</b>	2.00 sigma
<b>Reference Wellbore</b>	ORIGINAL WELLBORE	<b>Database:</b>	EDM 5000.1 Single User Db
<b>Reference Design:</b>	PROPOSAL #1	<b>Offset TVD Reference:</b>	Offset Datum

Offset Design													Offset Site Error:	0.0 usft
Survey Program: 0-INC													Offset Well Error:	0.0 usft
Reference		Offset		Semi Major Axis			Distance						Warning	
Measured Depth (usft)	Vertical Depth (usft)	Measured Depth (usft)	Vertical Depth (usft)	Reference (usft)	Offset (usft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (usft)	+E/-W (usft)	Between Centres (usft)	Between Ellipses (usft)	Minimum Separation (usft)	Separation Factor		
2,600.0	2,591.3	2,592.3	2,592.3	5.7	51.5	78.90	305.8	-2,356.5	2,353.6	2,296.4	57.19	41.154		
2,657.5	2,647.5	2,648.5	2,648.5	5.9	52.7	79.18	305.8	-2,356.5	2,351.2	2,292.7	58.50	40.189		
2,700.0	2,689.1	2,690.1	2,690.1	6.0	53.5	79.39	305.8	-2,356.5	2,349.6	2,290.1	59.48	39.502		
2,755.9	2,743.7	2,744.7	2,744.7	6.2	54.6	79.66	305.8	-2,356.5	2,347.4	2,286.6	60.77	38.628		
2,800.0	2,786.9	2,787.9	2,787.9	6.4	55.5	79.88	305.8	-2,356.5	2,345.7	2,283.9	61.79	37.964		
2,854.3	2,840.0	2,841.0	2,841.0	6.6	56.5	80.15	305.8	-2,356.5	2,343.7	2,280.7	63.05	37.173		
2,900.0	2,884.7	2,885.7	2,885.7	6.7	57.4	80.37	305.8	-2,356.5	2,342.1	2,278.0	64.11	36.532		
2,952.7	2,936.3	2,937.3	2,937.3	6.9	58.5	80.63	305.8	-2,356.5	2,340.2	2,274.9	65.34	35.815		
3,000.0	2,982.5	2,983.5	2,983.5	7.1	59.4	80.86	305.8	-2,356.5	2,338.6	2,272.2	66.45	35.196		
3,051.2	3,032.6	3,033.6	3,033.6	7.3	60.4	81.11	305.8	-2,356.5	2,336.9	2,269.3	67.65	34.546		
3,100.0	3,080.3	3,081.3	3,081.3	7.5	61.4	81.35	305.8	-2,356.5	2,335.3	2,266.5	68.79	33.948		
3,149.6	3,128.8	3,129.8	3,129.8	7.7	62.3	81.60	305.8	-2,356.5	2,333.8	2,263.8	69.96	33.358		
3,200.0	3,178.1	3,179.1	3,179.1	7.9	63.3	81.85	305.8	-2,356.5	2,332.2	2,261.1	71.15	32.780		
3,248.0	3,225.1	3,226.1	3,226.1	8.1	64.3	82.09	305.8	-2,356.5	2,330.8	2,258.5	72.28	32.245		
3,300.0	3,276.0	3,277.0	3,277.0	8.3	65.3	82.34	305.8	-2,356.5	2,329.3	2,255.8	73.51	31.686		
3,346.4	3,321.4	3,322.4	3,322.4	8.5	66.2	82.57	305.8	-2,356.5	2,328.0	2,253.4	74.61	31.201		
3,400.0	3,373.8	3,374.8	3,374.8	8.7	67.3	82.84	305.8	-2,356.5	2,326.6	2,250.7	75.88	30.660		
3,444.9	3,417.7	3,418.7	3,418.7	8.8	68.1	83.06	305.8	-2,356.5	2,325.4	2,248.5	76.95	30.220		
3,500.0	3,471.6	3,472.6	3,472.6	9.1	69.2	83.34	305.8	-2,356.5	2,324.0	2,245.8	78.26	29.696		
3,543.3	3,513.9	3,514.9	3,514.9	9.2	70.1	83.55	305.8	-2,356.5	2,323.0	2,243.7	79.29	29.297		
3,600.0	3,569.4	3,570.4	3,570.4	9.5	71.2	83.84	305.8	-2,356.5	2,321.6	2,241.0	80.64	28.790		
3,641.7	3,610.2	3,611.2	3,611.2	9.7	72.0	84.05	305.8	-2,356.5	2,320.7	2,239.1	81.64	28.427		
3,700.0	3,667.2	3,668.2	3,668.2	9.9	73.2	84.34	305.8	-2,356.5	2,319.5	2,236.4	83.03	27.936		
3,740.1	3,706.5	3,707.5	3,707.5	10.1	74.0	84.54	305.8	-2,356.5	2,318.6	2,234.6	83.99	27.607		
3,800.0	3,765.0	3,766.0	3,766.0	10.3	75.1	84.84	305.8	-2,356.5	2,317.5	2,232.0	85.42	27.131		
3,838.6	3,802.8	3,803.8	3,803.8	10.5	75.9	85.03	305.8	-2,356.5	2,316.7	2,230.4	86.34	26.832		
3,900.0	3,862.8	3,863.8	3,863.8	10.7	77.1	85.34	305.8	-2,356.5	2,315.6	2,227.8	87.81	26.371		
3,937.0	3,899.0	3,900.0	3,900.0	10.9	77.8	85.52	305.8	-2,356.5	2,315.0	2,226.3	88.70	26.100		
4,000.0	3,960.7	3,961.7	3,961.7	11.2	79.1	85.84	305.8	-2,356.5	2,314.0	2,223.8	90.21	25.652		
4,035.4	3,995.3	3,996.3	3,996.3	11.3	79.8	86.02	305.8	-2,356.5	2,313.5	2,222.4	91.06	25.407		
4,100.0	4,058.5	4,059.5	4,059.5	11.6	81.0	86.34	305.8	-2,356.5	2,312.6	2,219.9	92.61	24.972		
4,133.8	4,091.6	4,092.6	4,092.6	11.7	81.7	86.51	305.8	-2,356.5	2,312.1	2,218.7	93.42	24.750		
4,200.0	4,156.3	4,157.3	4,157.3	12.0	83.0	86.85	305.8	-2,356.5	2,311.3	2,216.3	95.01	24.327		
4,232.3	4,187.9	4,188.9	4,188.9	12.2	83.6	87.01	305.8	-2,356.5	2,310.9	2,215.1	95.78	24.126		
4,300.0	4,254.1	4,255.1	4,255.1	12.5	85.0	87.35	305.8	-2,356.5	2,310.2	2,212.8	97.41	23.716		
4,325.7	4,279.2	4,280.2	4,280.2	12.6	85.5	87.48	305.8	-2,356.5	2,310.0	2,211.9	98.03	23.564		
4,330.7	4,284.1	4,285.1	4,285.1	12.6	85.6	87.50	305.8	-2,356.5	2,309.9	2,211.8	98.15	23.536		
4,400.0	4,352.1	4,353.1	4,353.1	12.8	86.9	87.82	305.8	-2,356.5	2,309.4	2,209.6	99.77	23.146		
4,429.1	4,380.8	4,381.8	4,381.8	12.9	87.5	87.94	305.8	-2,356.5	2,309.2	2,208.7	100.44	22.991		
4,500.0	4,450.7	4,451.7	4,451.7	13.1	88.9	88.21	305.8	-2,356.5	2,308.8	2,206.7	102.06	22.622		
4,527.5	4,478.0	4,479.0	4,479.0	13.2	89.5	88.31	305.8	-2,356.5	2,308.7	2,206.0	102.68	22.484		
4,600.0	4,549.9	4,550.9	4,550.9	13.4	90.9	88.53	305.8	-2,356.5	2,308.4	2,204.1	104.32	22.128		
4,626.0	4,575.7	4,576.7	4,576.7	13.5	91.4	88.59	305.8	-2,356.5	2,308.3	2,203.4	104.90	22.004		
4,700.0	4,649.4	4,650.4	4,650.4	13.6	92.9	88.76	305.8	-2,356.5	2,308.2	2,201.6	106.56	21.660		
4,724.4	4,673.7	4,674.7	4,674.7	13.7	93.4	88.80	305.8	-2,356.5	2,308.1	2,201.0	107.10	21.551		
4,800.0	4,749.2	4,750.2	4,750.2	13.8	94.9	88.91	305.8	-2,356.5	2,308.0	2,199.3	108.77	21.219		
4,822.8	4,772.0	4,773.0	4,773.0	13.9	95.4	88.93	305.8	-2,356.5	2,308.0	2,198.8	109.27	21.122		
4,900.0	4,849.2	4,850.2	4,850.2	14.0	96.9	88.97	305.8	-2,356.5	2,308.0	2,197.0	110.95	20.801		
4,921.2	4,870.4	4,871.4	4,871.4	14.1	97.4	88.97	305.8	-2,356.5	2,308.0	2,196.6	111.41	20.716		
4,925.6	4,874.8	4,875.8	4,875.8	14.1	97.5	-69.83	305.8	-2,356.5	2,308.0	2,199.8	108.19	21.333		
5,000.0	4,949.2	4,950.2	4,950.2	14.2	98.9	-69.83	305.8	-2,356.5	2,308.0	2,198.2	109.83	21.015		
5,019.7	4,968.8	4,969.8	4,969.8	14.2	99.3	-69.83	305.8	-2,356.5	2,308.0	2,197.7	110.26	20.932		

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 SCHAUMBERG 17G-314
<b>Project:</b>	WELD COUNTY, COLORADO	<b>TVD Reference:</b>	KB-EST @ 4633.0usft (Original Well Elev)
<b>Reference Site:</b>	SW NW SEC. 17 T5N R64W 6th P.M.	<b>MD Reference:</b>	KB-EST @ 4633.0usft (Original Well Elev)
<b>Site Error:</b>	0.0 usft	<b>North Reference:</b>	True
<b>Reference Well:</b>	SCHAUMBERG 17G-314	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Well Error:</b>	0.0 usft	<b>Output errors are at</b>	2.00 sigma
<b>Reference Wellbore</b>	ORIGINAL WELLBORE	<b>Database:</b>	EDM 5000.1 Single User Db
<b>Reference Design:</b>	PROPOSAL #1	<b>Offset TVD Reference:</b>	Offset Datum

Offset Design													Offset Site Error:	0.0 usft
Survey Program: 0-INC													Offset Well Error:	0.0 usft
Reference		Offset		Semi Major Axis			Distance							Warning
Measured Depth (usft)	Vertical Depth (usft)	Measured Depth (usft)	Vertical Depth (usft)	Reference (usft)	Offset (usft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (usft)	+E/-W (usft)	Between Centres (usft)	Between Ellipses (usft)	Minimum Separation (usft)	Separation Factor		
5,100.0	5,049.2	5,050.2	5,050.2	14.3	101.0	-69.83	305.8	-2,356.5	2,308.0	2,196.0	112.04	20.601		
5,118.1	5,067.3	5,068.3	5,068.3	14.3	101.3	-69.83	305.8	-2,356.5	2,308.0	2,195.6	112.43	20.527		
5,200.0	5,149.2	5,150.2	5,150.2	14.5	103.0	-69.83	305.8	-2,356.5	2,308.0	2,193.8	114.24	20.202		
5,216.5	5,165.7	5,166.7	5,166.7	14.5	103.3	-69.83	305.8	-2,356.5	2,308.0	2,193.4	114.61	20.138		
5,300.0	5,249.2	5,250.2	5,250.2	14.6	105.0	-69.83	305.8	-2,356.5	2,308.0	2,191.5	116.45	19.819		
5,314.9	5,264.1	5,265.1	5,265.1	14.6	105.3	-69.83	305.8	-2,356.5	2,308.0	2,191.2	116.78	19.763		
5,400.0	5,349.2	5,350.2	5,350.2	14.8	107.0	-69.83	305.8	-2,356.5	2,308.0	2,189.3	118.66	19.450		
5,413.4	5,362.5	5,363.5	5,363.5	14.8	107.3	-69.83	305.8	-2,356.5	2,308.0	2,189.0	118.96	19.402		
5,500.0	5,449.2	5,450.2	5,450.2	14.9	109.0	-69.83	305.8	-2,356.5	2,308.0	2,187.1	120.87	19.094		
5,511.8	5,461.0	5,462.0	5,462.0	14.9	109.2	-69.83	305.8	-2,356.5	2,308.0	2,186.9	121.13	19.053		
5,600.0	5,549.2	5,550.2	5,550.2	15.1	111.0	-69.83	305.8	-2,356.5	2,308.0	2,184.9	123.09	18.751		
5,610.2	5,559.4	5,560.4	5,560.4	15.1	111.2	-69.83	305.8	-2,356.5	2,308.0	2,184.7	123.31	18.717		
5,700.0	5,649.2	5,650.2	5,650.2	15.2	113.0	-69.83	305.8	-2,356.5	2,308.0	2,182.7	125.30	18.420		
5,708.6	5,657.8	5,658.8	5,658.8	15.3	113.2	-69.83	305.8	-2,356.5	2,308.0	2,182.5	125.49	18.392		
5,800.0	5,749.2	5,750.2	5,750.2	15.4	115.0	-69.83	305.8	-2,356.5	2,308.0	2,180.5	127.51	18.100		
5,807.1	5,756.2	5,757.2	5,757.2	15.4	115.2	-69.83	305.8	-2,356.5	2,308.0	2,180.3	127.67	18.078		
5,900.0	5,849.2	5,850.2	5,850.2	15.6	117.0	-69.83	305.8	-2,356.5	2,308.0	2,178.3	129.73	17.791		
5,905.5	5,854.7	5,855.7	5,855.7	15.6	117.2	-69.83	305.8	-2,356.5	2,308.0	2,178.1	129.85	17.775		
6,000.0	5,949.2	5,950.2	5,950.2	15.7	119.1	-69.83	305.8	-2,356.5	2,308.0	2,176.1	131.94	17.493		
6,003.9	5,953.1	5,954.1	5,954.1	15.7	119.1	-69.83	305.8	-2,356.5	2,308.0	2,176.0	132.03	17.481		
6,100.0	6,049.2	6,050.2	6,050.2	15.9	121.1	-69.83	305.8	-2,356.5	2,308.0	2,173.8	134.16	17.204		
6,102.3	6,051.5	6,052.5	6,052.5	15.9	121.1	-69.83	305.8	-2,356.5	2,308.0	2,173.8	134.21	17.197		
6,124.6	6,073.8	6,074.8	6,074.8	15.9	121.6	-69.83	305.8	-2,356.5	2,308.0	2,173.3	134.70	17.134		
6,150.0	6,099.2	6,100.2	6,100.2	16.0	122.1	20.18	305.8	-2,356.5	2,307.6	2,169.6	137.99	16.723		
6,200.0	6,149.0	6,150.0	6,150.0	16.1	123.1	20.31	305.8	-2,356.5	2,304.3	2,165.8	138.50	16.637		
6,200.8	6,149.8	6,150.8	6,150.8	16.1	123.1	20.31	305.8	-2,356.5	2,304.2	2,165.7	138.51	16.636		
6,250.0	6,198.5	6,199.5	6,199.5	16.2	124.1	20.55	305.8	-2,356.5	2,297.7	2,159.3	138.44	16.598		
6,299.2	6,246.6	6,247.6	6,247.6	16.3	125.0	20.92	305.8	-2,356.5	2,288.1	2,150.3	137.81	16.604		
6,300.0	6,247.4	6,248.4	6,248.4	16.3	125.1	20.93	305.8	-2,356.5	2,288.0	2,150.2	137.79	16.604		
6,350.0	6,295.5	6,296.5	6,296.5	16.5	126.0	21.44	305.8	-2,356.5	2,275.0	2,138.4	136.58	16.657		
6,397.6	6,340.2	6,341.2	6,341.2	16.6	126.9	22.06	305.8	-2,356.5	2,259.8	2,124.9	134.94	16.747		
6,400.0	6,342.4	6,343.4	6,343.4	16.6	127.0	22.10	305.8	-2,356.5	2,259.0	2,124.1	134.84	16.753		
6,450.0	6,388.1	6,389.1	6,389.1	16.8	127.9	22.93	305.8	-2,356.5	2,239.9	2,107.3	132.62	16.890		
6,496.0	6,428.8	6,429.8	6,429.8	17.0	128.7	23.85	305.8	-2,356.5	2,219.8	2,089.6	130.22	17.047		
6,500.0	6,432.2	6,433.2	6,433.2	17.0	128.8	23.94	305.8	-2,356.5	2,218.0	2,088.0	130.00	17.062		
6,550.0	6,474.6	6,475.6	6,475.6	17.3	129.6	25.16	305.8	-2,356.5	2,193.3	2,066.2	127.08	17.258		
6,594.5	6,510.7	6,511.7	6,511.7	17.5	130.4	26.46	305.8	-2,356.5	2,169.1	2,044.7	124.37	17.440		
6,600.0	6,515.0	6,516.0	6,516.0	17.6	130.4	26.63	305.8	-2,356.5	2,165.9	2,041.9	124.03	17.462		
6,650.0	6,553.3	6,554.3	6,554.3	17.9	131.2	28.39	305.8	-2,356.5	2,136.0	2,015.0	121.06	17.645		
6,692.9	6,584.3	6,585.3	6,585.3	18.2	131.8	30.16	305.8	-2,356.5	2,108.5	1,989.8	118.77	17.752		
6,700.0	6,589.2	6,590.2	6,590.2	18.2	131.9	30.48	305.8	-2,356.5	2,103.8	1,985.4	118.44	17.764		
6,750.0	6,622.7	6,623.7	6,623.7	18.6	132.6	32.96	305.8	-2,356.5	2,069.5	1,953.0	116.51	17.761		
6,791.3	6,648.3	6,649.3	6,649.3	19.0	133.1	35.36	305.8	-2,356.5	2,039.6	1,923.8	115.75	17.620		
6,800.0	6,653.4	6,654.4	6,654.4	19.1	133.2	35.91	305.8	-2,356.5	2,033.1	1,917.4	115.71	17.571		
6,850.0	6,681.4	6,682.4	6,682.4	19.6	133.8	39.40	305.8	-2,356.5	1,995.1	1,878.6	116.46	17.132		
6,889.7	6,701.5	6,702.5	6,702.5	20.1	134.2	42.63	305.8	-2,356.5	1,963.7	1,845.3	118.40	16.584		
6,900.0	6,706.3	6,707.3	6,707.3	20.2	134.3	43.53	305.8	-2,356.5	1,955.4	1,836.3	119.11	16.416		
6,950.0	6,728.2	6,729.2	6,729.2	20.9	134.7	48.36	305.8	-2,356.5	1,914.5	1,790.6	123.85	15.458		
6,988.2	6,742.8	6,743.8	6,743.8	21.5	135.0	52.57	305.8	-2,356.5	1,882.4	1,753.7	128.76	14.619		
7,000.0	6,746.9	6,747.9	6,747.9	21.6	135.1	53.97	305.8	-2,356.5	1,872.4	1,741.9	130.47	14.351		
7,050.0	6,762.4	6,763.4	6,763.4	22.5	135.4	60.33	305.8	-2,356.5	1,829.5	1,691.1	138.37	13.222		
7,086.6	6,771.5	6,772.5	6,772.5	23.1	135.6	65.43	305.8	-2,356.5	1,797.6	1,653.3	144.38	12.451		

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 SCHAUMBERG 17G-314
<b>Project:</b>	WELD COUNTY, COLORADO	<b>TVD Reference:</b>	KB-EST @ 4633.0usft (Original Well Elev)
<b>Reference Site:</b>	SW NW SEC. 17 T5N R64W 6th P.M.	<b>MD Reference:</b>	KB-EST @ 4633.0usft (Original Well Elev)
<b>Site Error:</b>	0.0 usft	<b>North Reference:</b>	True
<b>Reference Well:</b>	SCHAUMBERG 17G-314	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Well Error:</b>	0.0 usft	<b>Output errors are at</b>	2.00 sigma
<b>Reference Wellbore</b>	ORIGINAL WELLBORE	<b>Database:</b>	EDM 5000.1 Single User Db
<b>Reference Design:</b>	PROPOSAL #1	<b>Offset TVD Reference:</b>	Offset Datum

<b>Offset Design</b> SW NW SEC. 17 T5N R64W 6th P.M. - EXIST VERT PUYPE B #18-17 - Wellbore #1 - Design #1												<b>Offset Site Error:</b>	0.0 usft
Survey Program: 0-INC												<b>Offset Well Error:</b>	0.0 usft
Reference		Offset		Semi Major Axis			Distance						Warning
Measured Depth (usft)	Vertical Depth (usft)	Measured Depth (usft)	Vertical Depth (usft)	Reference (usft)	Offset (usft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (usft)	+E/-W (usft)	Between Centres (usft)	Between Ellipses (usft)	Minimum Separation (usft)	Separation Factor	
7,100.0	6,774.4	6,775.4	6,775.4	23.3	135.7	67.38	305.8	-2,356.5	1,785.9	1,639.4	146.51	12.190	
7,150.0	6,783.1	6,784.1	6,784.1	24.3	135.8	74.89	305.8	-2,356.5	1,742.0	1,588.3	153.67	11.336	
7,185.0	6,787.1	6,788.1	6,788.1	25.0	135.9	80.27	305.8	-2,356.5	1,711.1	1,553.6	157.51	10.863	
7,200.0	6,788.3	6,789.3	6,789.3	25.3	135.9	82.56	305.8	-2,356.5	1,697.9	1,539.1	158.78	10.694	
7,252.3	6,790.0	6,791.0	6,791.0	26.3	136.0	90.39	305.8	-2,356.5	1,651.9	1,490.5	161.35	10.238	
7,283.4	6,789.9	6,790.9	6,790.9	27.0	136.0	90.38	305.8	-2,356.5	1,624.7	1,462.7	162.04	10.027	
7,300.0	6,789.8	6,790.8	6,790.8	27.3	136.0	90.38	305.8	-2,356.5	1,610.3	1,447.9	162.40	9.915	
7,381.9	6,789.5	6,790.5	6,790.5	29.1	136.0	90.36	305.8	-2,356.5	1,539.6	1,375.4	164.28	9.372	
7,400.0	6,789.4	6,790.4	6,790.4	29.5	136.0	90.35	305.8	-2,356.5	1,524.1	1,359.5	164.69	9.254	
7,480.3	6,789.1	6,790.1	6,790.1	31.4	136.0	90.33	305.8	-2,356.5	1,456.3	1,289.7	166.60	8.741	
7,500.0	6,789.1	6,790.1	6,790.1	31.8	135.9	90.33	305.8	-2,356.5	1,439.8	1,272.7	167.07	8.618	
7,578.7	6,788.8	6,789.8	6,789.8	33.7	135.9	90.30	305.8	-2,356.5	1,374.9	1,205.9	168.99	8.136	
7,600.0	6,788.7	6,789.7	6,789.7	34.2	135.9	90.30	305.8	-2,356.5	1,357.6	1,188.1	169.51	8.009	
7,677.1	6,788.4	6,789.4	6,789.4	36.1	135.9	90.28	305.8	-2,356.5	1,295.9	1,124.4	171.43	7.559	
7,700.0	6,788.3	6,789.3	6,789.3	36.7	135.9	90.27	305.8	-2,356.5	1,277.9	1,105.9	172.00	7.430	
7,775.6	6,788.0	6,789.0	6,789.0	38.6	135.9	90.25	305.8	-2,356.5	1,219.7	1,045.8	173.92	7.013	
7,800.0	6,787.9	6,788.9	6,788.9	39.2	135.9	90.25	305.8	-2,356.5	1,201.3	1,026.7	174.54	6.883	
7,874.0	6,787.6	6,788.6	6,788.6	41.0	135.9	90.23	305.8	-2,356.5	1,146.9	970.5	176.44	6.500	
7,900.0	6,787.6	6,788.6	6,788.6	41.7	135.9	90.22	305.8	-2,356.5	1,128.3	951.2	177.11	6.371	
7,972.4	6,787.3	6,788.3	6,788.3	43.6	135.9	90.20	305.8	-2,356.5	1,078.2	899.2	178.99	6.024	
8,000.0	6,787.2	6,788.2	6,788.2	44.3	135.9	90.19	305.8	-2,356.5	1,059.8	880.1	179.71	5.897	
8,070.8	6,786.9	6,787.9	6,787.9	46.1	135.9	90.17	305.8	-2,356.5	1,014.4	832.8	181.57	5.587	
8,100.0	6,786.8	6,787.8	6,787.8	46.9	135.9	90.16	305.8	-2,356.5	996.6	814.2	182.33	5.466	
8,169.3	6,786.5	6,787.5	6,787.5	48.7	135.9	90.15	305.8	-2,356.5	956.5	772.3	184.16	5.194	
8,200.0	6,786.4	6,787.4	6,787.4	49.5	135.9	90.14	305.8	-2,356.5	939.8	754.8	184.98	5.080	
8,267.7	6,786.1	6,787.1	6,787.1	51.3	135.9	90.12	305.8	-2,356.5	905.6	718.8	186.78	4.848	
8,300.0	6,786.0	6,787.0	6,787.0	52.1	135.9	90.11	305.8	-2,356.5	890.6	703.0	187.64	4.746	
8,366.1	6,785.8	6,786.8	6,786.8	53.9	135.9	90.09	305.8	-2,356.5	862.9	673.5	189.40	4.556	
8,400.0	6,785.6	6,786.6	6,786.6	54.8	135.9	90.08	305.8	-2,356.5	850.4	660.1	190.31	4.469	
8,464.5	6,785.4	6,786.4	6,786.4	56.5	135.9	90.06	305.8	-2,356.5	829.9	637.8	192.04	4.321	
8,500.0	6,785.3	6,786.3	6,786.3	57.5	135.9	90.06	305.8	-2,356.5	820.5	627.5	193.00	4.251	
8,563.0	6,785.0	6,786.0	6,786.0	59.2	135.9	90.04	305.8	-2,356.5	807.5	612.8	194.70	4.147	
8,600.0	6,784.9	6,785.9	6,785.9	60.2	135.9	90.03	305.8	-2,356.5	802.0	606.3	195.69	4.098	
8,661.4	6,784.6	6,785.6	6,785.6	61.8	135.9	90.01	305.8	-2,356.5	796.7	599.3	197.36	4.037	
8,699.9	6,784.5	6,785.5	6,785.5	62.9	135.9	90.00	305.8	-2,356.5	795.8	597.4	198.40	4.011	
8,700.0	6,784.5	6,785.5	6,785.5	62.9	135.9	90.00	305.8	-2,356.5	795.8	597.4	198.40	4.011 CC, ES	
8,759.8	6,784.3	6,785.3	6,785.3	64.5	135.9	89.98	305.8	-2,356.5	798.0	598.0	200.02	3.990	
8,800.0	6,784.1	6,785.1	6,785.1	65.6	135.8	89.97	305.8	-2,356.5	802.0	600.9	201.11	3.988 SF	
8,858.2	6,783.9	6,784.9	6,784.9	67.1	135.8	89.96	305.8	-2,356.5	811.4	608.7	202.70	4.003	
8,900.0	6,783.7	6,784.7	6,784.7	68.3	135.8	89.94	305.8	-2,356.5	820.5	616.7	203.84	4.025	
8,956.7	6,783.5	6,784.5	6,784.5	69.8	135.8	89.93	305.8	-2,356.5	836.2	630.8	205.38	4.071	
9,000.0	6,783.3	6,784.3	6,784.3	71.0	135.8	89.92	305.8	-2,356.5	850.5	643.9	206.56	4.117	
9,055.1	6,783.1	6,784.1	6,784.1	72.5	135.8	89.90	305.8	-2,356.5	871.4	663.4	208.07	4.188	
9,100.0	6,782.9	6,783.9	6,783.9	73.7	135.8	89.89	305.8	-2,356.5	890.7	681.4	209.30	4.256	
9,153.5	6,782.7	6,783.7	6,783.7	75.2	135.8	89.87	305.8	-2,356.5	916.0	705.2	210.76	4.346	
9,200.0	6,782.6	6,783.6	6,783.6	76.5	135.8	89.86	305.8	-2,356.5	939.9	727.8	212.04	4.433	
9,251.9	6,782.4	6,783.4	6,783.4	77.9	135.8	89.85	305.8	-2,356.5	968.5	755.0	213.46	4.537	
9,300.0	6,782.2	6,783.2	6,783.2	79.2	135.8	89.83	305.8	-2,356.5	996.7	781.9	214.78	4.640	
9,350.4	6,782.0	6,783.0	6,783.0	80.6	135.8	89.82	305.8	-2,356.5	1,027.8	811.6	216.16	4.755	
9,400.0	6,781.8	6,782.8	6,782.8	82.0	135.8	89.80	305.8	-2,356.5	1,059.9	842.4	217.53	4.872	
9,448.8	6,781.6	6,782.6	6,782.6	83.3	135.8	89.79	305.8	-2,356.5	1,092.7	873.9	218.87	4.993	
9,500.0	6,781.4	6,782.4	6,782.4	84.7	135.8	89.78	305.8	-2,356.5	1,128.4	908.2	220.28	5.123	

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 SCHAUMBERG 17G-314
<b>Project:</b>	WELD COUNTY, COLORADO	<b>TVD Reference:</b>	KB-EST @ 4633.0usft (Original Well Elev)
<b>Reference Site:</b>	SW NW SEC. 17 T5N R64W 6th P.M.	<b>MD Reference:</b>	KB-EST @ 4633.0usft (Original Well Elev)
<b>Site Error:</b>	0.0 usft	<b>North Reference:</b>	True
<b>Reference Well:</b>	SCHAUMBERG 17G-314	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Well Error:</b>	0.0 usft	<b>Output errors are at</b>	2.00 sigma
<b>Reference Wellbore</b>	ORIGINAL WELLBORE	<b>Database:</b>	EDM 5000.1 Single User Db
<b>Reference Design:</b>	PROPOSAL #1	<b>Offset TVD Reference:</b>	Offset Datum

Offset Design												Offset Site Error:	0.0 usft
Survey Program: 0-INC												Offset Well Error:	0.0 usft
Reference		Offset		Semi Major Axis			Distance						Warning
Measured Depth (usft)	Vertical Depth (usft)	Measured Depth (usft)	Vertical Depth (usft)	Reference (usft)	Offset (usft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (usft)	+E/-W (usft)	Between Centres (usft)	Between Ellipses (usft)	Minimum Separation (usft)	Separation Factor	
9,547.2	6,781.2	6,782.2	6,782.2	86.0	135.8	89.76	305.8	-2,356.5	1,162.4	940.8	221.58	5.246	
9,600.0	6,781.0	6,782.0	6,782.0	87.5	135.8	89.75	305.8	-2,356.5	1,201.4	978.4	223.03	5.387	
9,645.6	6,780.8	6,781.8	6,781.8	88.7	135.8	89.73	305.8	-2,356.5	1,236.0	1,011.7	224.29	5.511	
9,700.0	6,780.6	6,781.6	6,781.6	90.2	135.8	89.72	305.8	-2,356.5	1,278.0	1,052.3	225.79	5.660	
9,744.1	6,780.4	6,781.4	6,781.4	91.4	135.8	89.71	305.8	-2,356.5	1,312.8	1,085.8	227.00	5.783	
9,800.0	6,780.2	6,781.2	6,781.2	93.0	135.8	89.69	305.8	-2,356.5	1,357.7	1,129.2	228.54	5.941	
9,842.5	6,780.1	6,781.1	6,781.1	94.2	135.8	89.68	305.8	-2,356.5	1,392.4	1,162.7	229.72	6.061	
9,900.0	6,779.8	6,780.8	6,780.8	95.7	135.8	89.66	305.8	-2,356.5	1,439.9	1,208.6	231.31	6.225	
9,940.9	6,779.7	6,780.7	6,780.7	96.9	135.8	89.65	305.8	-2,356.5	1,474.2	1,241.8	232.44	6.342	
10,000.0	6,779.4	6,780.4	6,780.4	98.5	135.8	89.63	305.8	-2,356.5	1,524.3	1,290.2	234.07	6.512	
10,039.3	6,779.3	6,780.3	6,780.3	99.6	135.8	89.62	305.8	-2,356.5	1,558.0	1,322.8	235.16	6.625	
10,100.0	6,779.0	6,780.0	6,780.0	101.3	135.7	89.60	305.8	-2,356.5	1,610.4	1,373.6	236.84	6.800	
10,137.8	6,778.9	6,779.9	6,779.9	102.3	135.7	89.59	305.8	-2,356.5	1,643.4	1,405.5	237.88	6.908	
10,200.0	6,778.7	6,779.7	6,779.7	104.1	135.7	89.57	305.8	-2,356.5	1,698.1	1,458.5	239.60	7.087	
10,236.2	6,778.5	6,779.5	6,779.5	105.1	135.7	89.56	305.8	-2,356.5	1,730.1	1,489.5	240.61	7.191	
10,300.0	6,778.3	6,779.3	6,779.3	106.8	135.7	89.55	305.8	-2,356.5	1,787.0	1,544.7	242.37	7.373	
10,334.6	6,778.1	6,779.1	6,779.1	107.8	135.7	89.54	305.8	-2,356.5	1,818.1	1,574.8	243.33	7.472	
10,400.0	6,777.9	6,778.9	6,778.9	109.6	135.7	89.52	305.8	-2,356.5	1,877.1	1,632.0	245.14	7.657	
10,433.0	6,777.7	6,778.7	6,778.7	110.5	135.7	89.51	305.8	-2,356.5	1,907.1	1,661.0	246.06	7.750	
10,500.0	6,777.5	6,778.5	6,778.5	112.4	135.7	89.49	305.8	-2,356.5	1,968.1	1,720.2	247.92	7.939	
10,531.5	6,777.3	6,778.3	6,778.3	113.3	135.7	89.48	305.8	-2,356.5	1,996.9	1,748.2	248.79	8.027	
10,600.0	6,777.1	6,778.1	6,778.1	115.2	135.7	89.46	305.8	-2,356.5	2,060.0	1,809.3	250.69	8.217	
10,629.9	6,777.0	6,778.0	6,778.0	116.0	135.7	89.45	305.8	-2,356.5	2,087.6	1,836.1	251.52	8.300	
10,700.0	6,776.7	6,777.7	6,777.7	117.9	135.7	89.43	305.8	-2,356.5	2,152.6	1,899.1	253.46	8.493	
10,728.3	6,776.6	6,777.6	6,777.6	118.7	135.7	89.42	305.8	-2,356.5	2,178.9	1,924.7	254.25	8.570	
10,800.0	6,776.3	6,777.3	6,777.3	120.7	135.7	89.40	305.8	-2,356.5	2,245.8	1,989.5	256.24	8.764	
10,826.7	6,776.2	6,777.2	6,777.2	121.5	135.7	89.39	305.8	-2,356.5	2,270.8	2,013.8	256.98	8.836	
10,900.0	6,775.9	6,776.9	6,776.9	123.5	135.7	89.37	305.8	-2,356.5	2,339.6	2,080.5	259.02	9.032	
10,925.2	6,775.8	6,776.8	6,776.8	124.2	135.7	89.36	305.8	-2,356.5	2,363.2	2,103.5	259.72	9.099	
11,000.0	6,775.5	6,776.5	6,776.5	126.3	135.7	89.34	305.8	-2,356.5	2,433.8	2,172.0	261.79	9.297	
11,023.6	6,775.4	6,776.4	6,776.4	126.9	135.7	89.33	305.8	-2,356.5	2,456.1	2,193.7	262.45	9.359	
11,100.0	6,775.1	6,776.1	6,776.1	129.1	135.7	89.31	305.8	-2,356.5	2,528.5	2,264.0	264.57	9.557	
11,122.0	6,775.0	6,776.0	6,776.0	129.7	135.7	89.30	305.8	-2,356.5	2,549.5	2,284.3	265.19	9.614	
11,200.0	6,774.7	6,775.7	6,775.7	131.9	135.7	89.28	305.8	-2,356.5	2,623.7	2,356.3	267.35	9.813	
11,220.4	6,774.6	6,775.6	6,775.6	132.4	135.7	89.27	305.8	-2,356.5	2,643.1	2,375.2	267.92	9.865	
11,300.0	6,774.3	6,775.3	6,775.3	134.6	135.7	89.25	305.8	-2,356.5	2,719.1	2,449.0	270.13	10.066	
11,318.9	6,774.2	6,775.2	6,775.2	135.2	135.7	89.25	305.8	-2,356.5	2,737.2	2,466.5	270.66	10.113	
11,400.0	6,773.9	6,774.9	6,774.9	137.4	135.6	89.22	305.8	-2,356.5	2,814.9	2,542.0	272.91	10.314	
11,417.3	6,773.8	6,774.8	6,774.8	137.9	135.6	89.22	305.8	-2,356.5	2,831.5	2,558.1	273.40	10.357	
11,500.0	6,773.5	6,774.5	6,774.5	140.2	135.6	89.19	305.8	-2,356.5	2,910.9	2,635.2	275.70	10.559	
11,515.7	6,773.4	6,774.4	6,774.4	140.7	135.6	89.19	305.8	-2,356.5	2,926.1	2,649.9	276.13	10.597	
11,600.0	6,773.1	6,774.1	6,774.1	143.0	135.6	89.16	305.8	-2,356.5	3,007.3	2,728.8	278.48	10.799	
11,614.1	6,773.0	6,774.0	6,774.0	143.4	135.6	89.16	305.8	-2,356.5	3,020.9	2,742.0	278.87	10.833	
11,700.0	6,772.7	6,773.7	6,773.7	145.8	135.6	89.13	305.8	-2,356.5	3,103.8	2,822.5	281.26	11.035	
11,712.6	6,772.6	6,773.6	6,773.6	146.2	135.6	89.13	305.8	-2,356.5	3,116.0	2,834.3	281.61	11.065	
11,800.0	6,772.3	6,773.3	6,773.3	148.6	135.6	89.10	305.8	-2,356.5	3,200.6	2,916.5	284.04	11.268	
11,811.0	6,772.2	6,773.2	6,773.2	148.9	135.6	89.10	305.8	-2,356.5	3,211.2	2,926.9	284.35	11.293	
11,900.0	6,771.9	6,772.9	6,772.9	151.4	135.6	89.07	305.8	-2,356.5	3,297.5	3,010.7	286.83	11.496	
11,909.4	6,771.8	6,772.8	6,772.8	151.7	135.6	89.07	305.8	-2,356.5	3,306.7	3,019.6	287.09	11.518	
12,000.0	6,771.5	6,772.5	6,772.5	154.2	135.6	89.04	305.8	-2,356.5	3,394.6	3,105.0	289.61	11.721	
12,007.8	6,771.4	6,772.4	6,772.4	154.4	135.6	89.04	305.8	-2,356.5	3,402.3	3,112.4	289.83	11.739	
12,100.0	6,771.1	6,772.1	6,772.1	157.0	135.6	89.01	305.8	-2,356.5	3,491.9	3,199.5	292.40	11.942	

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 SCHAUMBERG 17G-314
<b>Project:</b>	WELD COUNTY, COLORADO	<b>TVD Reference:</b>	KB-EST @ 4633.0usft (Original Well Elev)
<b>Reference Site:</b>	SW NW SEC. 17 T5N R64W 6th P.M.	<b>MD Reference:</b>	KB-EST @ 4633.0usft (Original Well Elev)
<b>Site Error:</b>	0.0 usft	<b>North Reference:</b>	True
<b>Reference Well:</b>	SCHAUMBERG 17G-314	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Well Error:</b>	0.0 usft	<b>Output errors are at</b>	2.00 sigma
<b>Reference Wellbore</b>	ORIGINAL WELLBORE	<b>Database:</b>	EDM 5000.1 Single User Db
<b>Reference Design:</b>	PROPOSAL #1	<b>Offset TVD Reference:</b>	Offset Datum

<b>Offset Design</b> SW NW SEC. 17 T5N R64W 6th P.M. - EXIST VERT PUYPE B #18-17 - Wellbore #1 - Design #1												<b>Offset Site Error:</b>	0.0 usft
Survey Program: 0-INC												<b>Offset Well Error:</b>	0.0 usft
Reference	Offset	Semi Major Axis			Distance								Warning
Measured Depth (usft)	Vertical Depth (usft)	Measured Depth (usft)	Vertical Depth (usft)	Reference (usft)	Offset (usft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (usft)	+E/-W (usft)	Between Centres (usft)	Between Ellipses (usft)	Minimum Separation (usft)	Separation Factor	
12,106.3	6,771.0	6,772.0	6,772.0	157.2	135.6	89.01	305.8	-2,356.5	3,498.0	3,205.5	292.57	11.956	
12,200.0	6,770.7	6,771.7	6,771.7	159.8	135.6	88.98	305.8	-2,356.5	3,589.4	3,294.2	295.18	12.160	
12,204.7	6,770.6	6,771.6	6,771.6	159.9	135.6	88.98	305.8	-2,356.5	3,594.0	3,298.6	295.31	12.170	
12,300.0	6,770.3	6,771.3	6,771.3	162.6	135.6	88.95	305.8	-2,356.5	3,687.0	3,389.0	297.97	12.374	
12,303.1	6,770.2	6,771.2	6,771.2	162.7	135.6	88.95	305.8	-2,356.5	3,690.0	3,392.0	298.05	12.380	
12,361.7	6,770.0	6,771.0	6,771.0	164.3	135.6	88.93	305.8	-2,356.5	3,747.2	3,447.5	299.69	12.504	



# Anticollision Report



<b>Company:</b>	PDC ENERGY	<b>Local Co-ordinate Reference:</b>	Well SCHAUMBERG 17G-314
<b>Project:</b>	WELD COUNTY, COLORADO	<b>TVD Reference:</b>	KB-EST @ 4633.0usft (Original Well Elev)
<b>Reference Site:</b>	SW NW SEC. 17 T5N R64W 6th P.M.	<b>MD Reference:</b>	KB-EST @ 4633.0usft (Original Well Elev)
<b>Site Error:</b>	0.0 usft	<b>North Reference:</b>	True
<b>Reference Well:</b>	SCHAUMBERG 17G-314	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Well Error:</b>	0.0 usft	<b>Output errors are at</b>	2.00 sigma
<b>Reference Wellbore</b>	ORIGINAL WELLBORE	<b>Database:</b>	EDM 5000.1 Single User Db
<b>Reference Design:</b>	PROPOSAL #1	<b>Offset TVD Reference:</b>	Offset Datum

Offset Design												Offset Site Error:	0.0 usft
Survey Program: 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	-21.86	870.0	-349.0	937.5				
98.4	98.4	85.7	85.7	0.1	0.1	-21.86	869.9	-349.0	937.3	937.1	0.17	5,515.923	
100.0	100.0	87.3	87.3	0.1	0.1	-21.86	869.9	-349.0	937.3	937.1	0.17	5,415.022	
196.8	196.8	184.0	184.0	0.3	0.2	-21.87	869.6	-349.0	937.0	936.5	0.52	1,807.948	
200.0	200.0	187.1	187.1	0.3	0.2	-21.87	869.6	-349.0	937.0	936.5	0.53	1,768.938	
295.3	295.3	282.8	282.8	0.5	0.3	-21.87	869.3	-349.0	936.8	935.9	0.83	1,124.834	
300.0	300.0	287.5	287.5	0.5	0.3	-21.87	869.3	-349.0	936.8	935.9	0.85	1,105.344	
393.7	393.7	381.4	381.3	0.8	0.4	-21.87	869.1	-348.9	936.5	935.4	1.12	833.410	
400.0	400.0	387.7	387.7	0.8	0.4	-21.87	869.1	-348.9	936.5	935.3	1.14	819.902	
492.1	492.1	479.1	479.0	1.0	0.4	-21.87	868.9	-348.7	936.3	934.8	1.41	665.567	
500.0	500.0	486.9	486.9	1.0	0.4	-21.87	868.9	-348.7	936.2	934.8	1.43	655.049	
590.5	590.5	577.0	577.0	1.2	0.5	-21.87	868.7	-348.7	936.1	934.4	1.67	559.590	
600.0	600.0	586.4	586.4	1.2	0.5	-21.87	868.7	-348.7	936.1	934.4	1.70	551.299	
653.1	653.1	638.1	638.1	1.3	0.5	-21.87	868.6	-348.7	936.0	934.2	1.83	512.136 CC	
689.0	689.0	672.8	672.7	1.4	0.5	-21.88	868.6	-348.8	936.0	934.1	1.91	489.316	
700.0	700.0	683.4	683.4	1.4	0.5	-21.88	868.6	-348.8	936.1	934.1	1.94	482.710	
787.4	787.4	770.5	770.5	1.6	0.5	-21.89	868.8	-349.0	936.2	934.1	2.16	433.101	
800.0	800.0	783.2	783.2	1.7	0.5	-21.89	868.8	-349.0	936.3	934.1	2.19	426.621	
885.8	885.8	869.8	869.8	1.9	0.6	-21.90	868.8	-349.2	936.4	934.0	2.42	387.311	
900.0	900.0	884.2	884.2	1.9	0.6	-21.90	868.8	-349.3	936.4	934.0	2.45	381.520	
984.2	984.2	968.5	968.5	2.1	0.6	-21.91	868.9	-349.4	936.5	933.8	2.67	350.318	
1,000.0	1,000.0	984.3	984.3	2.1	0.6	-21.91	868.9	-349.4	936.5	933.8	2.71	345.044	
1,082.7	1,082.7	1,066.4	1,066.4	2.3	0.6	-21.92	868.9	-349.6	936.6	933.7	2.93	319.949	
1,100.0	1,100.0	1,083.5	1,083.5	2.3	0.6	-21.92	868.9	-349.6	936.6	933.6	2.97	315.158	
1,181.1	1,181.1	1,163.6	1,163.6	2.5	0.7	-21.93	869.0	-349.8	936.8	933.6	3.18	294.574 ES	
1,200.0	1,200.0	1,182.3	1,182.3	2.6	0.7	-21.93	869.0	-349.9	936.8	933.6	3.23	290.165	
1,279.5	1,279.5	1,260.7	1,260.7	2.7	0.7	-21.94	869.3	-350.1	937.1	933.7	3.43	272.948	
1,300.0	1,300.0	1,280.9	1,280.9	2.8	0.7	-21.94	869.3	-350.1	937.2	933.7	3.49	268.845	
1,377.9	1,377.9	1,357.7	1,357.7	3.0	0.7	-21.94	869.6	-350.4	937.6	933.9	3.69	254.307	
1,400.0	1,400.0	1,379.4	1,379.4	3.0	0.7	-21.95	869.7	-350.5	937.7	934.0	3.74	250.484	
1,476.4	1,476.4	1,454.5	1,454.5	3.2	0.8	-21.95	870.2	-350.7	938.2	934.3	3.94	238.147	
1,500.0	1,500.0	1,477.7	1,477.6	3.2	0.8	-21.95	870.3	-350.8	938.4	934.4	4.00	234.591	
1,574.8	1,574.8	1,552.0	1,552.0	3.4	0.8	-21.94	871.0	-350.9	939.0	934.8	4.19	223.987	
1,600.0	1,600.0	1,577.1	1,577.1	3.5	0.8	-21.94	871.2	-350.9	939.2	935.0	4.26	220.648	
1,673.2	1,673.2	1,650.6	1,650.6	3.6	0.8	-21.92	871.9	-350.9	939.8	935.4	4.44	211.553	
1,700.0	1,700.0	1,677.5	1,677.5	3.7	0.8	-21.91	872.1	-350.8	940.0	935.5	4.51	208.378	
1,771.6	1,771.6	1,748.9	1,748.9	3.9	0.8	-21.90	872.7	-350.8	940.6	935.9	4.69	200.354	
1,800.0	1,800.0	1,777.0	1,777.0	3.9	0.9	-21.89	873.0	-350.7	940.9	936.1	4.77	197.366	
1,870.1	1,870.1	1,848.6	1,848.6	4.1	0.9	136.95	873.6	-350.7	942.1	937.1	4.92	191.487	
1,900.0	1,900.0	1,879.5	1,879.5	4.1	0.9	136.98	873.8	-350.8	942.9	937.9	4.99	189.024	
1,968.5	1,968.4	1,949.6	1,949.5	4.2	0.9	137.08	874.1	-350.9	945.6	940.4	5.13	184.386	
2,000.0	1,999.8	1,981.6	1,981.6	4.3	0.9	137.14	874.2	-351.0	947.2	942.0	5.19	182.422	
2,066.9	2,066.5	2,048.4	2,048.3	4.4	0.9	137.29	874.3	-351.3	951.4	946.1	5.33	178.351	
2,100.0	2,099.5	2,081.1	2,081.1	4.5	0.9	137.38	874.4	-351.5	953.9	948.5	5.41	176.488	
2,165.3	2,164.4	2,145.1	2,145.0	4.6	1.0	137.58	874.5	-351.9	959.8	954.2	5.55	172.897	
2,200.0	2,198.7	2,178.8	2,178.8	4.7	1.0	137.70	874.6	-352.1	963.4	957.7	5.63	171.141	
2,263.8	2,261.8	2,240.8	2,240.8	4.8	1.0	137.95	874.8	-352.6	970.9	965.1	5.78	167.941	
2,300.0	2,297.5	2,276.0	2,276.0	4.9	1.0	138.11	874.9	-352.9	975.6	969.8	5.87	166.267	
2,362.2	2,358.6	2,336.7	2,336.7	5.0	1.0	138.40	875.1	-353.5	984.7	978.7	6.03	163.383	
2,400.0	2,395.6	2,373.7	2,373.6	5.1	1.0	138.59	875.3	-353.9	990.7	984.6	6.12	161.778	
2,460.6	2,454.9	2,433.0	2,433.0	5.3	1.1	139.03	875.5	-354.5	1,000.7	994.4	6.28	159.253	
2,500.0	2,493.4	2,471.5	2,471.5	5.4	1.1	139.32	875.6	-354.9	1,007.2	1,000.8	6.39	157.680	

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 SCHAUMBERG 17G-314
<b>Project:</b>	WELD COUNTY, COLORADO	<b>TVD Reference:</b>	KB-EST @ 4633.0usft (Original Well Elev)
<b>Reference Site:</b>	SW NW SEC. 17 T5N R64W 6th P.M.	<b>MD Reference:</b>	KB-EST @ 4633.0usft (Original Well Elev)
<b>Site Error:</b>	0.0 usft	<b>North Reference:</b>	True
<b>Reference Well:</b>	SCHAUMBERG 17G-314	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Well Error:</b>	0.0 usft	<b>Output errors are at</b>	2.00 sigma
<b>Reference Wellbore</b>	ORIGINAL WELLBORE	<b>Database:</b>	EDM 5000.1 Single User Db
<b>Reference Design:</b>	PROPOSAL #1	<b>Offset TVD Reference:</b>	Offset Datum

Offset Design												Offset Site Error:	0.0 usft
Survey Program: 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	
2,559.0	2,551.2	2,528.7	2,528.7	5.6	1.1	139.73	875.9	-355.5	1,017.1	1,010.5	6.55	155.257	
2,600.0	2,591.3	2,568.0	2,567.9	5.7	1.1	140.02	876.1	-355.8	1,023.9	1,017.3	6.66	153.675	
2,657.5	2,647.5	2,622.8	2,622.8	5.9	1.1	140.41	876.4	-356.3	1,033.7	1,026.9	6.82	151.461	
2,700.0	2,689.1	2,663.2	2,663.1	6.0	1.1	140.69	876.7	-356.7	1,041.0	1,034.1	6.95	149.815	
2,755.9	2,743.7	2,715.5	2,715.5	6.2	1.1	141.06	877.2	-357.2	1,050.7	1,043.6	7.11	147.727	
2,800.0	2,786.9	2,755.5	2,755.4	6.4	1.2	141.33	877.7	-357.6	1,058.6	1,051.3	7.24	146.149	
2,854.3	2,840.0	2,804.6	2,804.6	6.6	1.2	141.67	878.4	-358.1	1,068.4	1,061.0	7.41	144.254	
2,900.0	2,884.7	2,846.2	2,846.1	6.7	1.2	141.95	879.2	-358.5	1,076.9	1,069.3	7.54	142.730	
2,952.7	2,936.3	2,894.1	2,894.0	6.9	1.2	142.27	880.2	-358.9	1,086.8	1,079.1	7.71	141.018	
3,000.0	2,982.5	2,937.9	2,937.8	7.1	1.2	142.57	881.4	-359.1	1,095.9	1,088.0	7.85	139.570	
3,051.2	3,032.6	2,985.5	2,985.4	7.3	1.2	142.90	882.7	-359.3	1,105.9	1,097.8	8.01	138.045	
3,100.0	3,080.3	3,031.9	3,031.7	7.5	1.2	143.22	884.1	-359.5	1,115.5	1,107.3	8.16	136.669	
3,149.6	3,128.8	3,079.5	3,079.3	7.7	1.3	143.54	885.5	-359.6	1,125.3	1,117.0	8.32	135.309	
3,200.0	3,178.1	3,132.3	3,132.1	7.9	1.3	143.89	887.1	-359.7	1,135.3	1,126.8	8.47	133.998	
3,248.0	3,225.1	3,186.0	3,185.7	8.1	1.3	144.23	888.4	-359.9	1,144.6	1,136.0	8.62	132.755	
3,300.0	3,276.0	3,238.6	3,238.4	8.3	1.3	144.55	889.5	-360.1	1,154.5	1,145.7	8.78	131.453	
3,346.4	3,321.4	3,284.0	3,283.8	8.5	1.3	144.83	890.3	-360.3	1,163.3	1,154.4	8.93	130.318	
3,400.0	3,373.8	3,337.0	3,336.7	8.7	1.3	145.15	891.3	-360.5	1,173.5	1,164.4	9.09	129.044	
3,444.9	3,417.7	3,381.6	3,381.3	8.8	1.3	145.40	892.1	-360.9	1,182.1	1,172.8	9.24	127.992	
3,500.0	3,471.6	3,437.7	3,437.4	9.1	1.4	145.71	892.9	-361.4	1,192.5	1,183.1	9.41	126.755	
3,543.3	3,513.9	3,482.3	3,482.0	9.2	1.4	145.94	893.5	-361.9	1,200.7	1,191.1	9.54	125.800	
3,600.0	3,569.4	3,544.2	3,543.9	9.5	1.4	146.26	894.1	-362.8	1,211.2	1,201.5	9.72	124.615	
3,641.7	3,610.2	3,591.0	3,590.7	9.7	1.4	146.49	894.3	-363.3	1,218.7	1,208.9	9.85	123.752	
3,700.0	3,667.2	3,659.2	3,659.0	9.9	1.4	146.85	894.2	-363.6	1,228.8	1,218.8	10.01	122.747	
3,740.1	3,706.5	3,705.8	3,705.6	10.1	1.4	147.10	893.8	-363.4	1,235.5	1,225.4	10.12	122.050	
3,800.0	3,765.0	3,768.3	3,768.1	10.3	1.4	147.44	893.0	-363.0	1,245.3	1,235.0	10.30	120.959	
3,838.6	3,802.8	3,807.8	3,807.5	10.5	1.4	147.65	892.5	-362.7	1,251.5	1,241.1	10.41	120.279	
3,900.0	3,862.8	3,865.4	3,865.1	10.7	1.4	147.96	891.7	-362.4	1,261.5	1,250.9	10.59	119.178	
3,937.0	3,899.0	3,900.0	3,899.7	10.9	1.4	148.14	891.3	-362.2	1,267.6	1,256.9	10.69	118.536	
4,000.0	3,960.7	3,959.4	3,959.1	11.2	1.4	148.45	890.6	-361.8	1,278.1	1,267.2	10.88	117.466	
4,035.4	3,995.3	3,992.8	3,992.4	11.3	1.4	148.62	890.3	-361.5	1,284.1	1,273.1	10.99	116.884	
4,100.0	4,058.5	4,054.6	4,054.3	11.6	1.4	148.94	889.9	-361.0	1,295.0	1,283.9	11.18	115.859	
4,133.8	4,091.6	4,087.1	4,086.7	11.7	1.4	149.11	889.6	-360.8	1,300.8	1,289.6	11.28	115.339	
4,200.0	4,156.3	4,149.8	4,149.5	12.0	1.4	149.43	889.3	-360.2	1,312.3	1,300.8	11.48	114.356	
4,232.3	4,187.9	4,180.3	4,180.0	12.2	1.4	149.58	889.2	-359.9	1,317.9	1,306.3	11.57	113.886	
4,300.0	4,254.1	4,247.1	4,246.7	12.5	1.4	149.91	888.9	-359.3	1,329.8	1,318.0	11.77	112.946	
4,325.7	4,279.2	4,272.8	4,272.5	12.6	1.4	150.04	888.8	-359.1	1,334.3	1,322.4	11.85	112.599	
4,330.7	4,284.1	4,277.9	4,277.6	12.6	1.4	150.07	888.7	-359.0	1,335.1	1,323.3	11.86	112.560	
4,400.0	4,352.1	4,344.0	4,343.7	12.8	1.4	150.47	888.4	-358.7	1,346.5	1,334.5	12.02	111.976	
4,429.1	4,380.8	4,371.1	4,370.8	12.9	1.4	150.63	888.3	-358.5	1,350.9	1,338.8	12.08	111.785	
4,500.0	4,450.7	4,439.6	4,439.3	13.1	1.4	150.97	888.1	-358.1	1,360.6	1,348.4	12.23	111.241	
4,527.5	4,478.0	4,467.0	4,466.7	13.2	1.4	151.08	888.1	-358.0	1,364.0	1,351.7	12.29	111.030	
4,600.0	4,549.9	4,536.5	4,536.2	13.4	1.4	151.35	888.0	-357.7	1,371.9	1,359.4	12.43	110.391	
4,626.0	4,575.7	4,560.6	4,560.3	13.5	1.4	151.43	888.0	-357.5	1,374.3	1,361.9	12.47	110.168	
4,700.0	4,649.4	4,630.1	4,629.7	13.6	1.4	151.64	888.2	-357.1	1,380.4	1,367.8	12.61	109.440	
4,724.4	4,673.7	4,653.2	4,652.9	13.7	1.4	151.70	888.3	-356.9	1,382.1	1,369.5	12.66	109.197	
4,800.0	4,749.2	4,726.2	4,725.9	13.8	1.4	151.85	888.8	-356.3	1,386.3	1,373.6	12.79	108.358	
4,822.8	4,772.0	4,749.0	4,748.7	13.9	1.5	151.88	888.9	-356.0	1,387.3	1,374.5	12.83	108.103	
4,900.0	4,849.2	4,825.5	4,825.2	14.0	1.5	151.96	889.5	-355.4	1,389.3	1,376.3	12.97	107.139	
4,921.2	4,870.4	4,846.2	4,845.9	14.1	1.5	151.98	889.6	-355.2	1,389.5	1,376.5	13.00	106.862	
4,925.6	4,874.8	4,850.5	4,850.2	14.1	1.5	-6.83	889.7	-355.2	1,389.6	1,374.7	14.81	93.852	
5,000.0	4,949.2	4,925.2	4,924.8	14.2	1.5	-6.79	890.3	-354.4	1,390.1	1,375.2	14.93	93.088	

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 SCHAUMBERG 17G-314
<b>Project:</b>	WELD COUNTY, COLORADO	<b>TVD Reference:</b>	KB-EST @ 4633.0usft (Original Well Elev)
<b>Reference Site:</b>	SW NW SEC. 17 T5N R64W 6th P.M.	<b>MD Reference:</b>	KB-EST @ 4633.0usft (Original Well Elev)
<b>Site Error:</b>	0.0 usft	<b>North Reference:</b>	True
<b>Reference Well:</b>	SCHAUMBERG 17G-314	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Well Error:</b>	0.0 usft	<b>Output errors are at</b>	2.00 sigma
<b>Reference Wellbore</b>	ORIGINAL WELLBORE	<b>Database:</b>	EDM 5000.1 Single User Db
<b>Reference Design:</b>	PROPOSAL #1	<b>Offset TVD Reference:</b>	Offset Datum

Offset Design												Offset Site Error:	0.0 usft
Survey Program: 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	4,968.8	4,946.0	4,945.7	14.2	1.5	-6.78	890.5	-354.2	1,390.2	1,375.3	14.97	92.889	
5,100.0	5,049.2	5,031.2	5,030.8	14.3	1.5	-6.75	890.9	-353.5	1,390.6	1,375.5	15.10	92.077	
5,118.1	5,067.3	5,050.3	5,050.0	14.3	1.5	-6.75	891.0	-353.4	1,390.6	1,375.5	15.13	91.891	
5,200.0	5,149.2	5,131.9	5,131.6	14.5	1.5	-6.71	891.1	-352.6	1,390.7	1,375.4	15.27	91.058	
5,216.5	5,165.7	5,147.1	5,146.7	14.5	1.5	-6.71	891.2	-352.4	1,390.7	1,375.4	15.30	90.893	
5,300.0	5,249.2	5,224.9	5,224.5	14.6	1.5	-6.67	891.7	-351.7	1,391.1	1,375.7	15.44	90.078	
5,314.9	5,264.1	5,239.4	5,239.0	14.6	1.5	-6.67	891.8	-351.5	1,391.2	1,375.8	15.47	89.932	
5,400.0	5,349.2	5,327.3	5,326.9	14.8	1.5	-6.62	892.6	-350.5	1,391.9	1,376.3	15.62	89.112	
5,413.4	5,362.5	5,343.5	5,343.1	14.8	1.5	-6.61	892.7	-350.3	1,391.9	1,376.3	15.64	88.980	
5,500.0	5,449.2	5,441.9	5,441.5	14.9	1.5	-6.56	892.6	-349.1	1,391.7	1,376.0	15.80	88.102	
5,511.8	5,461.0	5,454.3	5,453.9	14.9	1.5	-6.56	892.6	-348.9	1,391.7	1,375.9	15.82	87.981	
5,600.0	5,549.2	5,542.5	5,542.1	15.1	1.6	-6.54	892.0	-348.5	1,391.1	1,375.1	15.97	87.083	
5,610.2	5,559.4	5,552.2	5,551.8	15.1	1.6	-6.54	892.0	-348.4	1,391.1	1,375.1	15.99	86.979	
5,700.0	5,649.2	5,641.1	5,640.7	15.2	1.6	-6.53	891.6	-348.1	1,390.7	1,374.5	16.15	86.084	
5,708.6	5,657.8	5,650.0	5,649.6	15.3	1.6	-6.52	891.6	-348.0	1,390.6	1,374.5	16.17	85.997	
5,800.0	5,749.2	5,745.3	5,745.0	15.4	1.6	-6.50	891.1	-347.4	1,390.1	1,373.7	16.34	85.081	
5,807.1	5,756.2	5,752.8	5,752.4	15.4	1.6	-6.50	891.0	-347.4	1,390.0	1,373.7	16.35	85.010	
5,900.0	5,849.2	5,846.5	5,846.1	15.6	1.6	-6.48	890.2	-346.8	1,389.2	1,372.6	16.52	84.080	
5,905.5	5,854.7	5,851.8	5,851.4	15.6	1.6	-6.48	890.2	-346.7	1,389.1	1,372.6	16.53	84.026	
6,000.0	5,949.2	5,942.4	5,942.0	15.7	1.6	-6.45	889.6	-346.0	1,388.4	1,371.7	16.71	83.104	
6,003.9	5,953.1	5,946.1	5,945.7	15.7	1.6	-6.45	889.6	-346.0	1,388.4	1,371.7	16.71	83.067	
6,100.0	6,049.2	6,039.2	6,038.8	15.9	1.6	-6.43	889.3	-345.3	1,388.0	1,371.1	16.89	82.161	
6,102.3	6,051.5	6,041.5	6,041.1	15.9	1.6	-6.42	889.3	-345.3	1,388.0	1,371.1	16.90	82.139	
6,124.6	6,073.8	6,063.7	6,063.3	15.9	1.6	-6.42	889.2	-345.2	1,388.0	1,371.0	16.94	81.932	
6,150.0	6,099.2	6,089.1	6,088.6	16.0	1.6	83.61	889.2	-345.1	1,387.8	1,372.4	15.46	89.791	
6,200.0	6,149.0	6,137.9	6,137.5	16.1	1.6	83.80	889.0	-345.0	1,387.3	1,371.7	15.56	89.139	
6,200.8	6,149.8	6,138.6	6,138.2	16.1	1.6	83.80	889.0	-345.0	1,387.3	1,371.7	15.57	89.127	
6,250.0	6,198.5	6,186.1	6,185.7	16.2	1.6	84.15	889.0	-344.8	1,386.4	1,370.8	15.68	88.403	
6,299.2	6,246.6	6,234.2	6,233.8	16.3	1.6	84.65	888.9	-344.6	1,385.4	1,369.5	15.82	87.597	
6,300.0	6,247.4	6,235.0	6,234.6	16.3	1.6	84.66	888.9	-344.6	1,385.3	1,369.5	15.82	87.584	
6,350.0	6,295.5	6,283.4	6,283.0	16.5	1.6	85.33	888.9	-344.4	1,384.0	1,368.0	15.97	86.681	
6,397.6	6,340.2	6,328.3	6,327.9	16.6	1.6	86.09	888.8	-344.0	1,382.6	1,366.5	16.13	85.737	
6,400.0	6,342.4	6,330.5	6,330.1	16.6	1.6	86.13	888.8	-344.0	1,382.5	1,366.4	16.13	85.691	
6,450.0	6,388.1	6,376.1	6,375.7	16.8	1.6	87.03	888.7	-343.6	1,381.1	1,364.8	16.32	84.607	
6,496.0	6,428.8	6,417.2	6,416.8	17.0	1.6	87.93	888.7	-343.3	1,379.9	1,363.4	16.52	83.509	
6,500.0	6,432.2	6,420.7	6,420.3	17.0	1.6	88.01	888.7	-343.2	1,379.8	1,363.3	16.54	83.417	
6,550.0	6,474.6	6,464.2	6,463.7	17.3	1.7	89.06	888.6	-342.9	1,378.9	1,362.1	16.79	82.106	
6,594.5	6,510.7	6,501.1	6,500.6	17.5	1.7	90.00	888.4	-342.5	1,378.5	1,361.4	17.06	80.809	
6,600.0	6,515.0	6,505.4	6,504.9	17.6	1.7	90.11	888.4	-342.5	1,378.4	1,361.3	17.09	80.652	
6,610.1	6,523.0	6,513.2	6,512.7	17.6	1.7	90.32	888.4	-342.4	1,378.4	1,361.3	17.16	80.317	
6,650.0	6,553.3	6,543.0	6,542.6	17.9	1.7	91.11	888.3	-342.2	1,378.7	1,361.2	17.44	79.038	
6,692.9	6,584.3	6,573.5	6,573.1	18.2	1.7	91.92	888.2	-342.0	1,379.6	1,361.8	17.80	77.510	
6,700.0	6,589.2	6,578.4	6,578.0	18.2	1.7	92.05	888.2	-341.9	1,379.8	1,362.0	17.86	77.265	
6,750.0	6,622.7	6,611.1	6,610.7	18.6	1.7	92.88	888.1	-341.7	1,382.0	1,363.7	18.34	75.337	
6,791.3	6,648.3	6,635.7	6,635.3	19.0	1.7	93.47	888.0	-341.5	1,384.8	1,366.0	18.81	73.620	
6,800.0	6,653.4	6,640.7	6,640.3	19.1	1.7	93.57	888.0	-341.5	1,385.5	1,366.6	18.91	73.273	
6,850.0	6,681.4	6,667.5	6,667.0	19.6	1.7	94.11	888.0	-341.3	1,390.4	1,370.9	19.55	71.110	
6,889.7	6,701.5	6,686.6	6,686.2	20.1	1.7	94.39	887.9	-341.1	1,395.4	1,375.3	20.13	69.326	
6,900.0	6,706.3	6,691.3	6,690.9	20.2	1.7	94.44	887.9	-341.0	1,396.9	1,376.6	20.28	68.888	
6,950.0	6,728.2	6,700.0	6,699.6	20.9	1.7	94.11	887.9	-341.0	1,405.0	1,383.9	21.08	66.657	
6,988.2	6,742.8	6,700.0	6,699.6	21.5	1.7	93.49	887.9	-341.0	1,412.5	1,390.8	21.74	64.972	
7,000.0	6,746.9	6,700.0	6,699.6	21.6	1.7	93.29	887.9	-341.0	1,415.1	1,393.2	21.95	64.482	

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

# Anticollision Report



<b>Company:</b>	PDC ENERGY	<b>Local Co-ordinate Reference:</b>	Well SCHAUMBERG 17G-314
<b>Project:</b>	WELD COUNTY, COLORADO	<b>TVD Reference:</b>	KB-EST @ 4633.0usft (Original Well Elev)
<b>Reference Site:</b>	SW NW SEC. 17 T5N R64W 6th P.M.	<b>MD Reference:</b>	KB-EST @ 4633.0usft (Original Well Elev)
<b>Site Error:</b>	0.0 usft	<b>North Reference:</b>	True
<b>Reference Well:</b>	SCHAUMBERG 17G-314	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Well Error:</b>	0.0 usft	<b>Output errors are at</b>	2.00 sigma
<b>Reference Wellbore</b>	ORIGINAL WELLBORE	<b>Database:</b>	EDM 5000.1 Single User Db
<b>Reference Design:</b>	PROPOSAL #1	<b>Offset TVD Reference:</b>	Offset Datum

Offset Design												Offset Site Error:	0.0 usft
Survey Program: 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	
7,050.0	6,762.4	6,700.0	6,699.6	22.5	1.7	92.30	887.9	-341.0	1,427.1	1,404.2	22.87	62.396	
7,086.6	6,771.5	6,700.0	6,699.6	23.1	1.7	91.48	887.9	-341.0	1,436.9	1,413.4	23.58	60.927	
7,100.0	6,774.4	6,700.0	6,699.6	23.3	1.7	91.16	887.9	-341.0	1,440.8	1,416.9	23.85	60.423	
7,150.0	6,783.1	6,700.0	6,699.6	24.3	1.7	89.87	887.9	-341.0	1,456.2	1,431.3	24.86	58.581	
7,185.0	6,787.1	6,700.0	6,699.6	25.0	1.7	88.87	887.9	-341.0	1,467.9	1,442.3	25.59	57.368	
7,200.0	6,788.3	6,700.0	6,699.6	25.3	1.7	88.43	887.9	-341.0	1,473.1	1,447.2	25.90	56.884	
7,252.3	6,790.0	6,700.0	6,699.6	26.3	1.7	86.78	887.9	-341.0	1,492.3	1,465.3	27.00	55.278	
7,283.4	6,789.9	6,700.0	6,699.6	27.0	1.7	86.78	887.9	-341.0	1,504.4	1,476.7	27.69	54.337	
7,300.0	6,789.8	6,700.0	6,699.6	27.3	1.7	86.78	887.9	-341.0	1,511.1	1,483.0	28.05	53.863	
7,381.9	6,789.5	6,700.0	6,699.6	29.1	1.7	86.78	887.9	-341.0	1,546.2	1,516.3	29.93	51.656	
7,400.0	6,789.4	6,700.0	6,699.6	29.5	1.7	86.78	887.9	-341.0	1,554.5	1,524.1	30.35	51.220	
7,480.3	6,789.1	6,700.0	6,699.6	31.4	1.7	86.78	887.9	-341.0	1,593.0	1,560.8	32.26	49.382	
7,500.0	6,789.1	6,700.0	6,699.6	31.8	1.7	86.78	887.9	-341.0	1,602.9	1,570.2	32.73	48.978	
7,578.7	6,788.8	6,700.0	6,699.6	33.7	1.7	86.78	887.9	-341.0	1,644.4	1,609.7	34.65	47.453	
7,600.0	6,788.7	6,700.0	6,699.6	34.2	1.7	86.78	887.9	-341.0	1,656.0	1,620.9	35.17	47.082	
7,677.1	6,788.4	6,700.0	6,699.6	36.1	1.7	86.78	887.9	-341.0	1,699.9	1,662.8	37.10	45.818	
7,700.0	6,788.3	6,700.0	6,699.6	36.7	1.7	86.78	887.9	-341.0	1,713.3	1,675.7	37.67	45.481	
7,775.6	6,788.0	6,700.0	6,699.6	38.6	1.7	86.78	887.9	-341.0	1,759.2	1,719.6	39.59	44.433	
7,800.0	6,787.9	6,700.0	6,699.6	39.2	1.7	86.78	887.9	-341.0	1,774.4	1,734.2	40.21	44.126	
7,874.0	6,787.6	6,700.0	6,699.6	41.0	1.7	86.78	887.9	-341.0	1,821.9	1,779.7	42.12	43.255	
7,900.0	6,787.6	6,700.0	6,699.6	41.7	1.7	86.78	887.9	-341.0	1,838.9	1,796.1	42.79	42.978	
7,972.4	6,787.3	6,700.0	6,699.6	43.6	1.7	86.78	887.9	-341.0	1,887.6	1,842.9	44.67	42.252	
8,000.0	6,787.2	6,700.0	6,699.6	44.3	1.7	86.78	887.9	-341.0	1,906.5	1,861.1	45.39	42.001	
8,070.8	6,786.9	6,700.0	6,699.6	46.1	1.7	86.78	887.9	-341.0	1,956.1	1,908.8	47.25	41.395	
8,100.0	6,786.8	6,700.0	6,699.6	46.9	1.7	86.78	887.9	-341.0	1,976.8	1,928.8	48.02	41.167	
8,169.3	6,786.5	6,700.0	6,699.6	48.7	1.7	86.78	887.9	-341.0	2,027.0	1,977.1	49.85	40.659	
8,200.0	6,786.4	6,700.0	6,699.6	49.5	1.7	86.78	887.9	-341.0	2,049.6	1,998.9	50.67	40.452	
8,267.7	6,786.1	6,700.0	6,699.6	51.3	1.7	86.78	887.9	-341.0	2,100.1	2,047.7	52.47	40.025	
8,300.0	6,786.0	6,700.0	6,699.6	52.1	1.7	86.78	887.9	-341.0	2,124.6	2,071.3	53.33	39.837	
8,366.1	6,785.8	6,700.0	6,699.6	53.9	1.7	86.78	887.9	-341.0	2,175.3	2,120.2	55.10	39.477	
8,400.0	6,785.6	6,700.0	6,699.6	54.8	1.7	86.77	887.9	-341.0	2,201.6	2,145.6	56.01	39.307	
8,464.5	6,785.4	6,700.0	6,699.6	56.5	1.7	86.77	887.9	-341.0	2,252.2	2,194.5	57.75	39.001	
8,500.0	6,785.3	6,700.0	6,699.6	57.5	1.7	86.77	887.9	-341.0	2,280.4	2,221.7	58.70	38.847	
8,563.0	6,785.0	6,700.0	6,699.6	59.2	1.7	86.77	887.9	-341.0	2,330.8	2,270.4	60.40	38.588	
8,600.0	6,784.9	6,700.0	6,699.6	60.2	1.7	86.77	887.9	-341.0	2,360.7	2,299.3	61.40	38.447	
8,661.4	6,784.6	6,700.0	6,699.6	61.8	1.7	86.77	887.9	-341.0	2,410.8	2,347.8	63.07	38.226	
8,700.0	6,784.5	6,700.0	6,699.6	62.9	1.7	86.77	887.9	-341.0	2,442.6	2,378.5	64.11	38.097	
8,759.8	6,784.3	6,700.0	6,699.6	64.5	1.7	86.77	887.9	-341.0	2,492.2	2,426.4	65.74	37.909	
8,800.0	6,784.1	6,700.0	6,699.6	65.6	1.7	86.77	887.9	-341.0	2,525.7	2,458.9	66.83	37.791	
8,858.2	6,783.9	6,700.0	6,699.6	67.1	1.7	86.77	887.9	-341.0	2,574.7	2,506.3	68.42	37.630	
8,900.0	6,783.7	6,700.0	6,699.6	68.3	1.7	86.77	887.9	-341.0	2,610.0	2,540.5	69.56	37.522	
8,956.7	6,783.5	6,700.0	6,699.6	69.8	1.7	86.77	887.9	-341.0	2,658.3	2,587.2	71.11	37.384	
9,000.0	6,783.3	6,700.0	6,699.6	71.0	1.7	86.77	887.9	-341.0	2,695.4	2,623.1	72.29	37.285	
9,055.1	6,783.1	6,700.0	6,699.6	72.5	1.7	86.77	887.9	-341.0	2,742.9	2,669.1	73.80	37.166	
9,100.0	6,782.9	6,700.0	6,699.6	73.7	1.7	86.77	887.9	-341.0	2,781.8	2,706.8	75.03	37.076	
9,153.5	6,782.7	6,700.0	6,699.6	75.2	1.7	86.77	887.9	-341.0	2,828.4	2,751.9	76.50	36.973	
9,200.0	6,782.6	6,700.0	6,699.6	76.5	1.7	86.77	887.9	-341.0	2,869.1	2,791.3	77.77	36.890	
9,251.9	6,782.4	6,700.0	6,699.6	77.9	1.7	86.77	887.9	-341.0	2,914.7	2,835.5	79.20	36.801	
9,300.0	6,782.2	6,700.0	6,699.6	79.2	1.7	86.77	887.9	-341.0	2,957.1	2,876.6	80.52	36.725	
9,350.4	6,782.0	6,700.0	6,699.6	80.6	1.7	86.77	887.9	-341.0	3,001.8	2,919.9	81.91	36.648	
9,400.0	6,781.8	6,700.0	6,699.6	82.0	1.7	86.77	887.9	-341.0	3,045.9	2,962.6	83.27	36.578	
9,448.8	6,781.6	6,700.0	6,699.6	83.3	1.7	86.77	887.9	-341.0	3,089.5	3,004.9	84.62	36.511	

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 SCHAUMBERG 17G-314
<b>Project:</b>	WELD COUNTY, COLORADO	<b>TVD Reference:</b>	KB-EST @ 4633.0usft (Original Well Elev)
<b>Reference Site:</b>	SW NW SEC. 17 T5N R64W 6th P.M.	<b>MD Reference:</b>	KB-EST @ 4633.0usft (Original Well Elev)
<b>Site Error:</b>	0.0 usft	<b>North Reference:</b>	True
<b>Reference Well:</b>	SCHAUMBERG 17G-314	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Well Error:</b>	0.0 usft	<b>Output errors are at</b>	2.00 sigma
<b>Reference Wellbore</b>	ORIGINAL WELLBORE	<b>Database:</b>	EDM 5000.1 Single User Db
<b>Reference Design:</b>	PROPOSAL #1	<b>Offset TVD Reference:</b>	Offset Datum

Offset Design												Offset Site Error:	0.0 usft
Survey Program: 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	
9,500.0	6,781.4	6,700.0	6,699.6	84.7	1.7	86.77	887.9	-341.0	3,135.4	3,049.4	86.03	36.446	
9,547.2	6,781.2	6,700.0	6,699.6	86.0	1.7	86.77	887.9	-341.0	3,177.9	3,090.5	87.33	36.389	
9,600.0	6,781.0	6,700.0	6,699.6	87.5	1.7	86.77	887.9	-341.0	3,225.5	3,136.7	88.79	36.329	
9,645.6	6,780.8	6,700.0	6,699.6	88.7	1.7	86.77	887.9	-341.0	3,266.8	3,176.8	90.05	36.279	
9,700.0	6,780.6	6,700.0	6,699.6	90.2	1.7	86.77	887.9	-341.0	3,316.1	3,224.6	91.55	36.223	
9,744.1	6,780.4	6,700.0	6,699.6	91.4	1.7	86.77	887.9	-341.0	3,356.3	3,263.5	92.77	36.180	
9,800.0	6,780.2	6,700.0	6,699.6	93.0	1.7	86.77	887.9	-341.0	3,407.3	3,313.0	94.31	36.128	
9,842.5	6,780.1	6,700.0	6,699.6	94.2	1.7	86.77	887.9	-341.0	3,446.2	3,350.7	95.49	36.091	
9,900.0	6,779.8	6,700.0	6,699.6	95.7	1.7	86.77	887.9	-341.0	3,499.0	3,401.9	97.08	36.043	
9,940.9	6,779.7	6,700.0	6,699.6	96.9	1.7	86.77	887.9	-341.0	3,536.6	3,438.4	98.21	36.010	
10,000.0	6,779.4	6,700.0	6,699.6	98.5	1.7	86.77	887.9	-341.0	3,591.1	3,491.2	99.85	35.966	
10,039.3	6,779.3	6,700.0	6,699.6	99.6	1.7	86.77	887.9	-341.0	3,627.5	3,526.5	100.94	35.937	
10,100.0	6,779.0	6,700.0	6,699.6	101.3	1.7	86.76	887.9	-341.0	3,683.6	3,581.0	102.62	35.896	
10,137.8	6,778.9	6,700.0	6,699.6	102.3	1.7	86.76	887.9	-341.0	3,718.7	3,615.0	103.67	35.871	
10,200.0	6,778.7	6,700.0	6,699.6	104.1	1.7	86.76	887.9	-341.0	3,776.5	3,671.1	105.39	35.833	
10,236.2	6,778.5	6,700.0	6,699.6	105.1	1.7	86.76	887.9	-341.0	3,810.2	3,703.8	106.40	35.812	
10,300.0	6,778.3	6,700.0	6,699.6	106.8	1.7	86.76	887.9	-341.0	3,869.8	3,761.6	108.17	35.776	
10,334.6	6,778.1	6,700.0	6,699.6	107.8	1.7	86.76	887.9	-341.0	3,902.1	3,793.0	109.13	35.758	
10,400.0	6,777.9	6,700.0	6,699.6	109.6	1.7	86.76	887.9	-341.0	3,963.4	3,852.4	110.94	35.724	
10,433.0	6,777.7	6,700.0	6,699.6	110.5	1.7	86.76	887.9	-341.0	3,994.4	3,882.5	111.86	35.708	
10,500.0	6,777.5	6,700.0	6,699.6	112.4	1.7	86.76	887.9	-341.0	4,057.2	3,943.5	113.72	35.677	
10,531.5	6,777.3	6,700.0	6,699.6	113.3	1.7	86.76	887.9	-341.0	4,086.9	3,972.3	114.60	35.663	
10,600.0	6,777.1	6,700.0	6,699.6	115.2	1.7	86.76	887.9	-341.0	4,151.4	4,034.9	116.50	35.635	
10,629.9	6,777.0	6,700.0	6,699.6	116.0	1.7	86.76	887.9	-341.0	4,179.6	4,062.3	117.33	35.623	
10,700.0	6,776.7	6,700.0	6,699.6	117.9	1.7	86.76	887.9	-341.0	4,245.9	4,126.6	119.28	35.596	
10,728.3	6,776.6	6,700.0	6,699.6	118.7	1.7	86.76	887.9	-341.0	4,272.7	4,152.6	120.07	35.585	
10,800.0	6,776.3	6,700.0	6,699.6	120.7	1.7	86.76	887.9	-341.0	4,340.6	4,218.5	122.06	35.560	
10,826.7	6,776.2	6,700.0	6,699.6	121.5	1.7	86.76	887.9	-341.0	4,365.9	4,243.1	122.81	35.551	
10,900.0	6,775.9	6,700.0	6,699.6	123.5	1.7	86.76	887.9	-341.0	4,435.5	4,310.6	124.84	35.528	
10,925.2	6,775.8	6,700.0	6,699.6	124.2	1.7	86.76	887.9	-341.0	4,459.4	4,333.9	125.55	35.520	
11,000.0	6,775.5	6,700.0	6,699.6	126.3	1.7	86.76	887.9	-341.0	4,530.6	4,403.0	127.63	35.498	
11,023.6	6,775.4	6,700.0	6,699.6	126.9	1.7	86.76	887.9	-341.0	4,553.1	4,424.8	128.29	35.492	
11,100.0	6,775.1	6,700.0	6,699.6	129.1	1.7	86.75	887.9	-341.0	4,626.0	4,495.6	130.41	35.472	
11,122.0	6,775.0	6,700.0	6,699.6	129.7	1.7	86.75	887.9	-341.0	4,647.0	4,516.0	131.03	35.466	
11,200.0	6,774.7	6,700.0	6,699.6	131.9	1.7	86.75	887.9	-341.0	4,721.5	4,588.3	133.20	35.447	
11,220.4	6,774.6	6,700.0	6,699.6	132.4	1.7	86.75	887.9	-341.0	4,741.1	4,607.3	133.77	35.442	
11,300.0	6,774.3	6,700.0	6,699.6	134.6	1.7	86.75	887.9	-341.0	4,817.2	4,681.2	135.99	35.424	
11,318.9	6,774.2	6,700.0	6,699.6	135.2	1.7	86.75	887.9	-341.0	4,835.3	4,698.8	136.51	35.420	
11,400.0	6,773.9	6,700.0	6,699.6	137.4	1.7	86.75	887.9	-341.0	4,913.1	4,774.3	138.77	35.404	
11,417.3	6,773.8	6,700.0	6,699.6	137.9	1.7	86.75	887.9	-341.0	4,929.7	4,790.5	139.26	35.400	
11,500.0	6,773.5	6,700.0	6,699.6	140.2	1.7	86.75	887.9	-341.0	5,009.2	4,867.6	141.56	35.385	
11,515.7	6,773.4	6,700.0	6,699.6	140.7	1.7	86.75	887.9	-341.0	5,024.3	4,882.3	142.00	35.382	
11,600.0	6,773.1	6,700.0	6,699.6	143.0	1.7	86.75	887.9	-341.0	5,105.4	4,961.0	144.35	35.368	
11,614.1	6,773.0	6,700.0	6,699.6	143.4	1.7	86.75	887.9	-341.0	5,119.0	4,974.3	144.75	35.366	
11,700.0	6,772.7	6,700.0	6,699.6	145.8	1.7	86.75	887.9	-341.0	5,201.7	5,054.6	147.14	35.352	
11,712.6	6,772.6	6,700.0	6,699.6	146.2	1.7	86.75	887.9	-341.0	5,213.9	5,066.4	147.49	35.350	
11,800.0	6,772.3	6,700.0	6,699.6	148.6	1.7	86.75	887.9	-341.0	5,298.2	5,148.3	149.93	35.338	
11,811.0	6,772.2	6,700.0	6,699.6	148.9	1.7	86.75	887.9	-341.0	5,308.8	5,158.6	150.24	35.336	
11,900.0	6,771.9	6,700.0	6,699.6	151.4	1.7	86.75	887.9	-341.0	5,394.8	5,242.1	152.72	35.325	
11,909.4	6,771.8	6,700.0	6,699.6	151.7	1.7	86.75	887.9	-341.0	5,403.9	5,250.9	152.98	35.323	
12,000.0	6,771.5	6,700.0	6,699.6	154.2	1.7	86.74	887.9	-341.0	5,491.5	5,336.0	155.51	35.313	
12,007.8	6,771.4	6,700.0	6,699.6	154.4	1.7	86.74	887.9	-341.0	5,499.1	5,343.4	155.73	35.312	

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 SCHAUMBERG 17G-314
<b>Project:</b>	WELD COUNTY, COLORADO	<b>TVD Reference:</b>	KB-EST @ 4633.0usft (Original Well Elev)
<b>Reference Site:</b>	SW NW SEC. 17 T5N R64W 6th P.M.	<b>MD Reference:</b>	KB-EST @ 4633.0usft (Original Well Elev)
<b>Site Error:</b>	0.0 usft	<b>North Reference:</b>	True
<b>Reference Well:</b>	SCHAUMBERG 17G-314	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Well Error:</b>	0.0 usft	<b>Output errors are at</b>	2.00 sigma
<b>Reference Wellbore</b>	ORIGINAL WELLBORE	<b>Database:</b>	EDM 5000.1 Single User Db
<b>Reference Design:</b>	PROPOSAL #1	<b>Offset TVD Reference:</b>	Offset Datum

<b>Offset Design</b>												<b>Offset Site Error:</b>	0.0 usft
Survey Program: 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
12,100.0	6,771.1	6,700.0	6,699.6	157.0	1.7	86.74	887.9	-341.0	5,588.4	5,430.1	158.30	35.302	
12,106.3	6,771.0	6,700.0	6,699.6	157.2	1.7	86.74	887.9	-341.0	5,594.5	5,436.0	158.48	35.301	
12,200.0	6,770.7	6,700.0	6,699.6	159.8	1.7	86.74	887.9	-341.0	5,685.4	5,524.3	161.10	35.291	
12,204.7	6,770.6	6,700.0	6,699.6	159.9	1.7	86.74	887.9	-341.0	5,689.9	5,528.7	161.23	35.291	
12,300.0	6,770.3	6,700.0	6,699.6	162.6	1.7	86.74	887.9	-341.0	5,782.4	5,618.5	163.89	35.282	
12,303.1	6,770.2	6,700.0	6,699.6	162.7	1.7	86.74	887.9	-341.0	5,785.4	5,621.5	163.98	35.282	
12,361.7	6,770.0	6,700.0	6,699.6	164.3	1.7	86.74	887.9	-341.0	5,842.4	5,676.7	165.61	35.277 SF	



# Anticollision Report



<b>Company:</b>	PDC ENERGY	<b>Local Co-ordinate Reference:</b>	Well SCHAUMBERG 17G-314
<b>Project:</b>	WELD COUNTY, COLORADO	<b>TVD Reference:</b>	KB-EST @ 4633.0usft (Original Well Elev)
<b>Reference Site:</b>	SW NW SEC. 17 T5N R64W 6th P.M.	<b>MD Reference:</b>	KB-EST @ 4633.0usft (Original Well Elev)
<b>Site Error:</b>	0.0 usft	<b>North Reference:</b>	True
<b>Reference Well:</b>	SCHAUMBERG 17G-314	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Well Error:</b>	0.0 usft	<b>Output errors are at</b>	2.00 sigma
<b>Reference Wellbore</b>	ORIGINAL WELLBORE	<b>Database:</b>	EDM 5000.1 Single User Db
<b>Reference Design:</b>	PROPOSAL #1	<b>Offset TVD Reference:</b>	Offset Datum

<b>Offset Design</b> SW NW SEC. 17 T5N R64W 6th P.M. - EXIST VERT STEINMETZ #21-17 - 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	48.27	888.2	995.9	1,334.5				
98.4	98.4	86.1	86.1	0.1	0.1	48.28	888.1	995.9	1,334.4	1,334.2	0.17	7,861.820	
100.0	100.0	87.7	87.7	0.1	0.1	48.28	888.1	995.9	1,334.4	1,334.2	0.17	7,718.764	
196.8	196.8	183.4	183.4	0.3	0.2	48.28	887.9	996.0	1,334.3	1,333.8	0.52	2,586.551	
200.0	200.0	186.5	186.5	0.3	0.2	48.28	887.9	996.0	1,334.3	1,333.8	0.53	2,530.904	
295.3	295.3	281.6	281.6	0.5	0.3	48.29	887.7	996.1	1,334.3	1,333.5	0.83	1,609.176	
300.0	300.0	286.3	286.3	0.5	0.3	48.29	887.7	996.1	1,334.3	1,333.5	0.84	1,581.286	
393.7	393.7	384.0	384.0	0.8	0.4	48.30	887.5	996.2	1,334.2	1,333.0	1.12	1,195.502	
400.0	400.0	390.6	390.6	0.8	0.4	48.30	887.4	996.2	1,334.1	1,333.0	1.13	1,176.409	
492.1	492.1	485.9	485.9	1.0	0.4	48.32	886.9	996.0	1,333.7	1,332.3	1.40	952.646	
500.0	500.0	494.0	494.0	1.0	0.4	48.32	886.9	996.0	1,333.7	1,332.2	1.42	937.388	
590.5	590.5	586.6	586.6	1.2	0.5	48.33	886.3	995.7	1,333.0	1,331.4	1.68	794.022	
600.0	600.0	596.3	596.3	1.2	0.5	48.33	886.2	995.7	1,333.0	1,331.3	1.71	781.567	
689.0	689.0	687.9	687.9	1.4	0.5	48.34	885.5	995.2	1,332.2	1,330.2	1.95	681.841	
700.0	700.0	699.3	699.3	1.4	0.5	48.34	885.4	995.1	1,332.1	1,330.1	1.98	671.254	
787.4	787.4	788.5	788.5	1.6	0.6	48.35	884.6	994.6	1,331.2	1,328.9	2.23	598.209	
800.0	800.0	801.3	801.3	1.7	0.6	48.35	884.5	994.5	1,331.0	1,328.8	2.26	588.927	
885.8	885.8	887.5	887.5	1.9	0.6	48.36	883.7	993.8	1,330.0	1,327.5	2.49	533.301	
900.0	900.0	901.8	901.8	1.9	0.6	48.36	883.6	993.7	1,329.8	1,327.3	2.53	525.096	
984.2	984.2	987.3	987.3	2.1	0.7	48.37	882.7	993.1	1,328.8	1,326.0	2.76	481.258	
1,000.0	1,000.0	1,003.4	1,003.4	2.1	0.7	48.37	882.6	993.0	1,328.6	1,325.8	2.80	473.847	
1,082.7	1,082.7	1,090.0	1,090.0	2.3	0.7	48.38	881.5	992.2	1,327.4	1,324.4	3.03	438.323	
1,100.0	1,100.0	1,107.9	1,107.9	2.3	0.7	48.39	881.2	992.1	1,327.1	1,324.0	3.08	431.551	
1,181.1	1,181.1	1,190.5	1,190.4	2.5	0.8	48.40	880.0	991.3	1,325.7	1,322.4	3.29	402.526	
1,200.0	1,200.0	1,209.8	1,209.8	2.6	0.8	48.41	879.7	991.1	1,325.4	1,322.1	3.34	396.307	
1,279.5	1,279.5	1,291.9	1,291.8	2.7	0.8	48.43	878.2	990.3	1,323.9	1,320.3	3.56	372.072	
1,300.0	1,300.0	1,312.9	1,312.9	2.8	0.8	48.44	877.8	990.1	1,323.5	1,319.9	3.61	366.304	
1,377.9	1,377.9	1,392.8	1,392.7	3.0	0.9	48.47	876.1	989.3	1,321.8	1,318.0	3.82	345.872	
1,400.0	1,400.0	1,415.0	1,414.9	3.0	0.9	48.48	875.7	989.1	1,321.4	1,317.5	3.88	340.515	
1,476.4	1,476.4	1,491.4	1,491.3	3.2	0.9	48.52	873.8	988.5	1,319.7	1,315.6	4.08	323.189	
1,500.0	1,500.0	1,515.1	1,515.0	3.2	0.9	48.54	873.2	988.4	1,319.2	1,315.0	4.15	318.179	
1,574.8	1,574.8	1,590.4	1,590.3	3.4	0.9	48.59	871.2	987.9	1,317.5	1,313.2	4.34	303.278	
1,600.0	1,600.0	1,615.8	1,615.7	3.5	0.9	48.61	870.5	987.8	1,317.0	1,312.5	4.41	298.565	
1,673.2	1,673.2	1,689.7	1,689.5	3.6	1.0	48.67	868.4	987.4	1,315.3	1,310.7	4.60	285.650	
1,700.0	1,700.0	1,717.2	1,717.0	3.7	1.0	48.69	867.6	987.2	1,314.7	1,310.0	4.68	281.184	
1,771.6	1,771.6	1,791.6	1,791.4	3.9	1.0	48.74	865.5	986.6	1,312.9	1,308.0	4.87	269.842	
1,800.0	1,800.0	1,821.1	1,820.9	3.9	1.0	48.76	864.7	986.3	1,312.2	1,307.2	4.94	265.585	
1,870.1	1,870.1	1,894.1	1,893.8	4.1	1.1	-152.43	862.7	985.4	1,311.0	1,305.9	5.07	258.705	
1,894.5	1,894.5	1,919.1	1,918.8	4.1	1.1	-152.43	862.0	985.0	1,310.9	1,305.8	5.12	255.845 CC	
1,900.0	1,900.0	1,924.7	1,924.4	4.1	1.1	-152.43	861.9	984.9	1,310.9	1,305.8	5.14	255.212 ES	
1,968.5	1,968.4	1,994.4	1,994.0	4.2	1.1	-152.46	860.0	983.9	1,311.7	1,306.4	5.28	248.503	
2,000.0	1,999.8	2,025.9	2,025.5	4.3	1.1	-152.48	859.1	983.3	1,312.5	1,307.2	5.34	245.642	
2,066.9	2,066.5	2,092.4	2,092.0	4.4	1.1	-152.54	857.4	982.2	1,315.4	1,309.9	5.49	239.771	
2,100.0	2,099.5	2,124.9	2,124.5	4.5	1.1	-152.57	856.6	981.6	1,317.3	1,311.7	5.56	237.098	
2,165.3	2,164.4	2,188.7	2,188.3	4.6	1.2	-152.66	855.1	980.4	1,322.1	1,316.4	5.70	231.941	
2,200.0	2,198.7	2,222.6	2,222.1	4.7	1.2	-152.72	854.3	979.8	1,325.2	1,319.5	5.78	229.441	
2,263.8	2,261.8	2,284.7	2,284.2	4.8	1.2	-152.83	852.9	978.7	1,332.0	1,326.1	5.92	224.885	
2,300.0	2,297.5	2,320.1	2,319.6	4.9	1.2	-152.90	852.2	978.1	1,336.4	1,330.4	6.01	222.537	
2,362.2	2,358.6	2,380.8	2,380.2	5.0	1.2	-153.02	850.9	977.1	1,345.0	1,338.9	6.16	218.484	
2,400.0	2,395.6	2,417.9	2,417.3	5.1	1.2	-153.11	850.1	976.5	1,350.9	1,344.6	6.25	216.270	
2,460.6	2,454.9	2,478.1	2,477.5	5.3	1.3	-153.34	848.9	975.5	1,360.6	1,354.2	6.40	212.551	
2,500.0	2,493.4	2,517.2	2,516.7	5.4	1.3	-153.49	848.0	974.8	1,366.9	1,360.4	6.50	210.294	

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 SCHAUMBERG 17G-314
<b>Project:</b>	WELD COUNTY, COLORADO	<b>TVD Reference:</b>	KB-EST @ 4633.0usft (Original Well Elev)
<b>Reference Site:</b>	SW NW SEC. 17 T5N R64W 6th P.M.	<b>MD Reference:</b>	KB-EST @ 4633.0usft (Original Well Elev)
<b>Site Error:</b>	0.0 usft	<b>North Reference:</b>	True
<b>Reference Well:</b>	SCHAUMBERG 17G-314	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Well Error:</b>	0.0 usft	<b>Output errors are at</b>	2.00 sigma
<b>Reference Wellbore</b>	ORIGINAL WELLBORE	<b>Database:</b>	EDM 5000.1 Single User Db
<b>Reference Design:</b>	PROPOSAL #1	<b>Offset TVD Reference:</b>	Offset Datum

Offset Design												Offset Site Error:	0.0 usft
Survey Program: 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	
2,559.0	2,551.2	2,576.2	2,575.6	5.6	1.3	-153.71	846.8	973.7	1,376.3	1,369.6	6.66	206.766	
2,600.0	2,591.3	2,617.7	2,617.1	5.7	1.3	-153.87	845.9	972.9	1,382.8	1,376.1	6.76	204.496	
2,657.5	2,647.5	2,677.3	2,676.7	5.9	1.3	-154.09	844.6	971.7	1,391.9	1,385.0	6.92	201.248	
2,700.0	2,689.1	2,720.6	2,719.9	6.0	1.4	-154.25	843.6	970.8	1,398.6	1,391.5	7.03	198.878	
2,755.9	2,743.7	2,776.2	2,775.5	6.2	1.4	-154.45	842.3	969.5	1,407.3	1,400.1	7.19	195.822	
2,800.0	2,786.9	2,820.3	2,819.6	6.4	1.4	-154.61	841.2	968.6	1,414.2	1,406.9	7.31	193.511	
2,854.3	2,840.0	2,874.8	2,874.1	6.6	1.4	-154.80	839.8	967.4	1,422.6	1,415.2	7.46	190.663	
2,900.0	2,884.7	2,920.7	2,919.9	6.7	1.4	-154.96	838.6	966.4	1,429.7	1,422.1	7.59	188.372	
2,952.7	2,936.3	2,973.7	2,972.9	6.9	1.5	-155.14	837.2	965.2	1,437.9	1,430.2	7.74	185.742	
3,000.0	2,982.5	3,021.1	3,020.3	7.1	1.5	-155.30	835.9	964.1	1,445.2	1,437.3	7.88	183.486	
3,051.2	3,032.6	3,072.1	3,071.3	7.3	1.5	-155.47	834.5	962.9	1,453.1	1,445.1	8.03	181.065	
3,100.0	3,080.3	3,120.3	3,119.4	7.5	1.5	-155.63	833.2	961.7	1,460.6	1,452.4	8.17	178.853	
3,149.6	3,128.8	3,168.4	3,167.5	7.7	1.5	-155.79	831.9	960.6	1,468.3	1,459.9	8.31	176.639	
3,200.0	3,178.1	3,214.0	3,213.0	7.9	1.5	-155.94	830.7	959.5	1,476.1	1,467.6	8.46	174.496	
3,248.0	3,225.1	3,251.5	3,250.5	8.1	1.5	-156.06	829.9	958.7	1,483.8	1,475.2	8.60	172.529	
3,300.0	3,276.0	3,300.0	3,299.0	8.3	1.6	-156.22	829.2	957.9	1,492.6	1,483.8	8.76	170.475	
3,346.4	3,321.4	3,328.2	3,327.2	8.5	1.6	-156.32	828.9	957.5	1,500.7	1,491.8	8.89	168.837	
3,400.0	3,373.8	3,369.8	3,368.9	8.7	1.6	-156.46	828.7	957.2	1,510.4	1,501.4	9.04	167.022	
3,444.9	3,417.7	3,400.0	3,399.0	8.8	1.6	-156.56	828.7	957.0	1,518.9	1,509.7	9.17	165.587	
3,500.0	3,471.6	3,448.9	3,447.9	9.1	1.6	-156.73	829.0	956.9	1,529.6	1,520.3	9.33	164.003	
3,543.3	3,513.9	3,483.4	3,482.4	9.2	1.6	-156.84	829.4	957.0	1,538.3	1,528.8	9.45	162.827	
3,600.0	3,569.4	3,533.1	3,532.1	9.5	1.6	-157.00	830.1	957.2	1,549.9	1,540.3	9.60	161.417	
3,641.7	3,610.2	3,571.5	3,570.5	9.7	1.6	-157.13	830.7	957.5	1,558.6	1,548.9	9.72	160.419	
3,700.0	3,667.2	3,625.7	3,624.7	9.9	1.6	-157.31	831.6	957.9	1,570.8	1,560.9	9.87	159.077	
3,740.1	3,706.5	3,663.4	3,662.4	10.1	1.6	-157.43	832.2	958.2	1,579.3	1,569.3	9.98	158.191	
3,800.0	3,765.0	3,719.5	3,718.5	10.3	1.6	-157.60	833.2	958.8	1,592.0	1,581.8	10.15	156.920	
3,838.6	3,802.8	3,755.6	3,754.5	10.5	1.6	-157.71	833.9	959.2	1,600.2	1,589.9	10.25	156.115	
3,900.0	3,862.8	3,813.9	3,812.8	10.7	1.6	-157.89	835.0	959.9	1,613.4	1,603.0	10.42	154.880	
3,937.0	3,899.0	3,850.9	3,849.9	10.9	1.6	-158.00	835.6	960.4	1,621.3	1,610.8	10.52	154.152	
4,000.0	3,960.7	3,913.3	3,912.2	11.2	1.6	-158.18	836.7	961.2	1,634.8	1,624.1	10.69	152.945	
4,035.4	3,995.3	3,946.7	3,945.6	11.3	1.6	-158.27	837.2	961.7	1,642.4	1,631.7	10.79	152.274	
4,100.0	4,058.5	4,007.7	4,006.6	11.6	1.6	-158.42	838.0	962.9	1,656.4	1,645.4	10.96	151.081	
4,133.8	4,091.6	4,039.5	4,038.4	11.7	1.6	-158.49	838.3	963.6	1,663.7	1,652.6	11.06	150.455	
4,200.0	4,156.3	4,101.6	4,100.5	12.0	1.6	-158.62	838.7	965.4	1,678.1	1,666.9	11.24	149.250	
4,232.3	4,187.9	4,132.8	4,131.7	12.2	1.6	-158.69	838.9	966.3	1,685.2	1,673.8	11.34	148.667	
4,300.0	4,254.1	4,198.3	4,197.2	12.5	1.6	-158.81	839.2	968.5	1,700.0	1,688.5	11.53	147.477	
4,325.7	4,279.2	4,222.5	4,221.3	12.6	1.6	-158.85	839.2	969.4	1,705.6	1,694.0	11.60	147.032	
4,330.7	4,284.1	4,227.2	4,226.0	12.6	1.6	-158.87	839.2	969.5	1,706.7	1,695.1	11.61	146.976	
4,400.0	4,352.1	4,292.5	4,291.2	12.8	1.6	-159.07	839.5	971.9	1,721.2	1,709.4	11.77	146.172	
4,429.1	4,380.8	4,320.0	4,318.7	12.9	1.6	-159.15	839.6	972.9	1,726.8	1,714.9	11.84	145.889	
4,500.0	4,450.7	4,387.0	4,385.7	13.1	1.6	-159.31	840.0	975.4	1,739.4	1,727.4	11.98	145.141	
4,527.5	4,478.0	4,412.5	4,411.2	13.2	1.6	-159.37	840.1	976.3	1,743.9	1,731.9	12.04	144.863	
4,600.0	4,549.9	4,478.0	4,476.6	13.4	1.6	-159.49	840.7	978.8	1,754.8	1,742.6	12.18	144.073	
4,626.0	4,575.7	4,500.0	4,498.6	13.5	1.6	-159.53	840.9	979.7	1,758.3	1,746.1	12.23	143.805	
4,700.0	4,649.4	4,567.7	4,566.2	13.6	1.6	-159.62	841.8	982.5	1,767.4	1,755.0	12.36	142.974	
4,724.4	4,673.7	4,589.5	4,588.0	13.7	1.6	-159.64	842.2	983.4	1,770.1	1,757.7	12.40	142.711	
4,800.0	4,749.2	4,677.4	4,675.8	13.8	1.6	-159.66	843.0	987.4	1,777.0	1,764.4	12.53	141.787	
4,822.8	4,772.0	4,704.9	4,703.3	13.9	1.6	-159.65	843.0	988.8	1,778.6	1,766.0	12.57	141.495	
4,900.0	4,849.2	4,796.2	4,794.5	14.0	1.6	-159.56	841.9	993.7	1,782.3	1,769.6	12.70	140.329	
4,921.2	4,870.4	4,818.1	4,816.3	14.1	1.6	-159.52	841.4	995.0	1,782.8	1,770.1	12.74	139.981	
4,925.6	4,874.8	4,822.5	4,820.7	14.1	1.6	41.68	841.4	995.2	1,782.9	1,767.8	15.18	117.431	
5,000.0	4,949.2	4,896.8	4,894.9	14.2	1.6	41.82	839.7	999.6	1,784.6	1,769.3	15.31	116.549	

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 SCHAUMBERG 17G-314
<b>Project:</b>	WELD COUNTY, COLORADO	<b>TVD Reference:</b>	KB-EST @ 4633.0usft (Original Well Elev)
<b>Reference Site:</b>	SW NW SEC. 17 T5N R64W 6th P.M.	<b>MD Reference:</b>	KB-EST @ 4633.0usft (Original Well Elev)
<b>Site Error:</b>	0.0 usft	<b>North Reference:</b>	True
<b>Reference Well:</b>	SCHAUMBERG 17G-314	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Well Error:</b>	0.0 usft	<b>Output errors are at</b>	2.00 sigma
<b>Reference Wellbore</b>	ORIGINAL WELLBORE	<b>Database:</b>	EDM 5000.1 Single User Db
<b>Reference Design:</b>	PROPOSAL #1	<b>Offset TVD Reference:</b>	Offset Datum

Offset Design												Offset Site Error:	0.0 usft
Survey Program: 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	4,968.8	4,917.1	4,915.1	14.2	1.6	41.86	839.2	1,000.9	1,785.1	1,769.7	15.35	116.320	
5,100.0	5,049.2	5,000.5	4,998.3	14.3	1.6	42.03	837.0	1,006.0	1,786.8	1,771.3	15.48	115.391	
5,118.1	5,067.3	5,021.4	5,019.1	14.3	1.6	42.07	836.4	1,007.3	1,787.1	1,771.6	15.52	115.176	
5,200.0	5,149.2	5,115.1	5,112.7	14.5	1.7	42.26	833.5	1,012.7	1,788.4	1,772.8	15.66	114.196	
5,216.5	5,165.7	5,133.4	5,130.9	14.5	1.7	42.30	832.9	1,013.6	1,788.6	1,772.9	15.69	113.994	
5,300.0	5,249.2	5,224.1	5,221.4	14.6	1.7	42.47	829.9	1,018.2	1,789.4	1,773.6	15.84	112.973	
5,314.9	5,264.1	5,239.6	5,236.9	14.6	1.7	42.50	829.3	1,018.9	1,789.5	1,773.6	15.87	112.791	
5,400.0	5,349.2	5,324.9	5,322.1	14.8	1.7	42.65	826.5	1,022.9	1,790.1	1,774.1	16.02	111.764	
5,413.4	5,362.5	5,337.4	5,334.5	14.8	1.7	42.67	826.1	1,023.4	1,790.2	1,774.2	16.04	111.604	
5,500.0	5,449.2	5,421.4	5,418.5	14.9	1.7	42.82	823.7	1,027.2	1,791.0	1,774.8	16.20	110.574	
5,511.8	5,461.0	5,434.5	5,431.6	14.9	1.7	42.84	823.4	1,027.7	1,791.1	1,774.9	16.22	110.432	
5,600.0	5,549.2	5,530.5	5,527.5	15.1	1.8	42.97	820.9	1,031.2	1,791.6	1,775.3	16.38	109.362	
5,610.2	5,559.4	5,541.2	5,538.1	15.1	1.8	42.98	820.7	1,031.5	1,791.7	1,775.3	16.40	109.237	
5,700.0	5,649.2	5,632.1	5,629.0	15.2	1.8	43.09	818.6	1,034.2	1,792.0	1,775.4	16.57	108.150	
5,708.6	5,657.8	5,640.4	5,637.3	15.3	1.8	43.10	818.4	1,034.5	1,792.0	1,775.4	16.59	108.046	
5,800.0	5,749.2	5,728.0	5,724.8	15.4	1.8	43.19	816.9	1,036.7	1,792.4	1,775.7	16.76	106.964	
5,807.1	5,756.2	5,734.7	5,731.5	15.4	1.8	43.19	816.8	1,036.8	1,792.5	1,775.7	16.77	106.881	
5,900.0	5,849.2	5,823.8	5,820.6	15.6	1.8	43.27	815.7	1,039.0	1,793.1	1,776.2	16.95	105.807	
5,905.5	5,854.7	5,829.1	5,825.9	15.6	1.8	43.27	815.6	1,039.1	1,793.2	1,776.2	16.96	105.744	
6,000.0	5,949.2	5,922.1	5,918.9	15.7	1.8	43.33	814.9	1,041.1	1,794.0	1,776.9	17.14	104.673	
6,003.9	5,953.1	5,926.1	5,922.9	15.7	1.8	43.33	814.9	1,041.1	1,794.1	1,776.9	17.15	104.629	
6,100.0	6,049.2	6,022.1	6,018.9	15.9	1.9	43.38	814.6	1,042.7	1,794.9	1,777.6	17.33	103.558	
6,102.3	6,051.5	6,024.4	6,021.2	15.9	1.9	43.38	814.6	1,042.7	1,794.9	1,777.6	17.34	103.532	
6,124.6	6,073.8	6,046.2	6,043.0	15.9	1.9	43.38	814.6	1,043.0	1,795.1	1,777.8	17.38	103.288	
6,150.0	6,099.2	6,071.1	6,067.8	16.0	1.9	133.37	814.6	1,043.4	1,795.7	1,780.4	15.32	117.230	
6,200.0	6,149.0	6,119.9	6,116.7	16.1	1.9	133.30	814.6	1,044.0	1,798.6	1,783.1	15.48	116.223	
6,200.8	6,149.8	6,120.7	6,117.5	16.1	1.9	133.29	814.6	1,044.0	1,798.7	1,783.2	15.48	116.208	
6,250.0	6,198.5	6,168.5	6,165.3	16.2	1.9	133.16	814.7	1,044.7	1,803.9	1,788.3	15.64	115.331	
6,299.2	6,246.6	6,215.7	6,212.4	16.3	1.9	132.95	814.8	1,045.3	1,811.5	1,795.7	15.81	114.591	
6,300.0	6,247.4	6,216.4	6,213.2	16.3	1.9	132.94	814.8	1,045.3	1,811.7	1,795.9	15.81	114.580	
6,350.0	6,295.5	6,263.3	6,260.0	16.5	1.9	132.65	814.9	1,046.0	1,821.8	1,805.8	15.98	113.989	
6,397.6	6,340.2	6,306.9	6,303.6	16.6	1.9	132.29	815.0	1,046.6	1,833.7	1,817.6	16.15	113.579	
6,400.0	6,342.4	6,309.1	6,305.8	16.6	1.9	132.27	815.0	1,046.6	1,834.4	1,818.2	16.15	113.562	
6,450.0	6,388.1	6,353.7	6,350.5	16.8	1.9	131.79	815.2	1,047.3	1,849.3	1,833.0	16.33	113.277	
6,496.0	6,428.8	6,393.5	6,390.2	17.0	1.9	131.25	815.3	1,047.9	1,865.2	1,848.7	16.49	113.098	
6,500.0	6,432.2	6,396.8	6,393.5	17.0	1.9	131.20	815.3	1,048.0	1,866.6	1,850.1	16.51	113.088	
6,550.0	6,474.6	6,436.6	6,433.3	17.3	1.9	130.45	815.4	1,048.6	1,886.2	1,869.5	16.70	112.926	
6,594.5	6,510.7	6,470.2	6,466.9	17.5	1.9	129.64	815.5	1,049.2	1,905.6	1,888.7	16.91	112.713	
6,600.0	6,515.0	6,474.3	6,471.0	17.6	1.9	129.53	815.5	1,049.3	1,908.2	1,891.2	16.93	112.688	
6,650.0	6,553.3	6,510.8	6,507.5	17.9	1.9	128.45	815.6	1,050.0	1,932.4	1,915.2	17.21	112.254	
6,692.9	6,584.3	6,520.0	6,516.7	18.2	1.9	126.94	815.6	1,050.2	1,955.0	1,937.5	17.50	111.690	
6,700.0	6,589.2	6,520.0	6,516.7	18.2	1.9	126.64	815.6	1,050.2	1,958.9	1,941.3	17.55	111.589	
6,750.0	6,622.7	6,520.0	6,516.7	18.6	1.9	124.30	815.6	1,050.2	1,988.0	1,970.0	18.00	110.466	
6,791.3	6,648.3	6,520.0	6,516.7	19.0	1.9	122.09	815.6	1,050.2	2,013.8	1,995.4	18.46	109.089	
6,800.0	6,653.4	6,520.0	6,516.7	19.1	1.9	121.58	815.6	1,050.2	2,019.5	2,000.9	18.56	108.781	
6,850.0	6,681.4	6,520.0	6,516.7	19.6	1.9	118.45	815.6	1,050.2	2,053.0	2,033.8	19.27	106.563	
6,889.7	6,701.5	6,520.0	6,516.7	20.1	1.9	115.63	815.6	1,050.2	2,081.0	2,061.1	19.92	104.475	
6,900.0	6,706.3	6,520.0	6,516.7	20.2	1.9	114.86	815.6	1,050.2	2,088.4	2,068.3	20.09	103.942	
6,950.0	6,728.2	6,520.0	6,516.7	20.9	1.9	110.81	815.6	1,050.2	2,125.4	2,104.4	21.02	101.116	
6,988.2	6,742.8	6,520.0	6,516.7	21.5	1.9	107.40	815.6	1,050.2	2,154.6	2,132.8	21.78	98.929	
7,000.0	6,746.9	6,520.0	6,516.7	21.6	1.9	106.29	815.6	1,050.2	2,163.7	2,141.7	22.01	98.300	
7,050.0	6,762.4	6,520.0	6,516.7	22.5	1.9	101.32	815.6	1,050.2	2,203.1	2,180.1	23.03	95.665	

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 SCHAUMBERG 17G-314
<b>Project:</b>	WELD COUNTY, COLORADO	<b>TVD Reference:</b>	KB-EST @ 4633.0usft (Original Well Elev)
<b>Reference Site:</b>	SW NW SEC. 17 T5N R64W 6th P.M.	<b>MD Reference:</b>	KB-EST @ 4633.0usft (Original Well Elev)
<b>Site Error:</b>	0.0 usft	<b>North Reference:</b>	True
<b>Reference Well:</b>	SCHAUMBERG 17G-314	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Well Error:</b>	0.0 usft	<b>Output errors are at</b>	2.00 sigma
<b>Reference Wellbore</b>	ORIGINAL WELLBORE	<b>Database:</b>	EDM 5000.1 Single User Db
<b>Reference Design:</b>	PROPOSAL #1	<b>Offset TVD Reference:</b>	Offset Datum

Offset Design													Offset Site Error:	0.0 usft
Survey Program: 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		
7,086.6	6,771.5	6,520.0	6,516.7	23.1	1.9	97.44	815.6	1,050.2	2,232.5	2,208.7	23.78	93.872		
7,100.0	6,774.4	6,520.0	6,516.7	23.3	1.9	95.97	815.6	1,050.2	2,243.3	2,219.3	24.05	93.274		
7,150.0	6,783.1	6,520.0	6,516.7	24.3	1.9	90.33	815.6	1,050.2	2,284.1	2,259.0	25.08	91.085		
7,185.0	6,787.1	6,520.0	6,516.7	25.0	1.9	86.28	815.6	1,050.2	2,312.9	2,287.1	25.80	89.663		
7,200.0	6,788.3	6,520.0	6,516.7	25.3	1.9	84.54	815.6	1,050.2	2,325.3	2,299.2	26.09	89.122		
7,252.3	6,790.0	6,520.0	6,516.7	26.3	1.9	78.46	815.6	1,050.2	2,368.6	2,341.5	27.05	87.571		
7,283.4	6,789.9	6,520.0	6,516.7	27.0	1.9	78.46	815.6	1,050.2	2,394.3	2,366.6	27.72	86.362		
7,300.0	6,789.8	6,520.0	6,516.7	27.3	1.9	78.46	815.6	1,050.2	2,408.1	2,380.0	28.08	85.744		
7,381.9	6,789.5	6,520.0	6,516.7	29.1	1.9	78.46	815.6	1,050.2	2,476.7	2,446.8	29.93	82.751		
7,400.0	6,789.4	6,520.0	6,516.7	29.5	1.9	78.46	815.6	1,050.2	2,492.0	2,461.7	30.34	82.142		
7,480.3	6,789.1	6,520.0	6,516.7	31.4	1.9	78.46	815.6	1,050.2	2,560.2	2,528.0	32.21	79.475		
7,500.0	6,789.1	6,520.0	6,516.7	31.8	1.9	78.45	815.6	1,050.2	2,577.1	2,544.4	32.67	78.871		
7,578.7	6,788.8	6,520.0	6,516.7	33.7	1.9	78.45	815.6	1,050.2	2,644.8	2,610.2	34.57	76.514		
7,600.0	6,788.7	6,520.0	6,516.7	34.2	1.9	78.45	815.6	1,050.2	2,663.2	2,628.1	35.08	75.924		
7,677.1	6,788.4	6,520.0	6,516.7	36.1	1.9	78.45	815.6	1,050.2	2,730.2	2,693.3	36.97	73.849		
7,700.0	6,788.3	6,520.0	6,516.7	36.7	1.9	78.45	815.6	1,050.2	2,750.2	2,712.7	37.53	73.277		
7,775.6	6,788.0	6,520.0	6,516.7	38.6	1.9	78.45	815.6	1,050.2	2,816.6	2,777.1	39.42	71.452		
7,800.0	6,787.9	6,520.0	6,516.7	39.2	1.9	78.45	815.6	1,050.2	2,838.1	2,798.1	40.03	70.902		
7,874.0	6,787.6	6,520.0	6,516.7	41.0	1.9	78.45	815.6	1,050.2	2,903.6	2,861.7	41.90	69.297		
7,900.0	6,787.6	6,520.0	6,516.7	41.7	1.9	78.45	815.6	1,050.2	2,926.8	2,884.2	42.56	68.769		
7,972.4	6,787.3	6,520.0	6,516.7	43.6	1.9	78.45	815.6	1,050.2	2,991.4	2,947.0	44.41	67.355		
8,000.0	6,787.2	6,520.0	6,516.7	44.3	1.9	78.45	815.6	1,050.2	3,016.1	2,971.0	45.12	66.850		
8,070.8	6,786.9	6,520.0	6,516.7	46.1	1.9	78.45	815.6	1,050.2	3,079.9	3,032.9	46.95	65.601		
8,100.0	6,786.8	6,520.0	6,516.7	46.9	1.9	78.45	815.6	1,050.2	3,106.2	3,058.5	47.70	65.118		
8,169.3	6,786.5	6,520.0	6,516.7	48.7	1.9	78.45	815.6	1,050.2	3,168.9	3,119.4	49.50	64.013		
8,200.0	6,786.4	6,520.0	6,516.7	49.5	1.9	78.45	815.6	1,050.2	3,196.8	3,146.5	50.30	63.551		
8,267.7	6,786.1	6,520.0	6,516.7	51.3	1.9	78.45	815.6	1,050.2	3,258.4	3,206.4	52.08	62.571		
8,300.0	6,786.0	6,520.0	6,516.7	52.1	1.9	78.45	815.6	1,050.2	3,287.9	3,235.0	52.92	62.129		
8,366.1	6,785.8	6,520.0	6,516.7	53.9	1.9	78.45	815.6	1,050.2	3,348.5	3,293.8	54.66	61.258		
8,400.0	6,785.6	6,520.0	6,516.7	54.8	1.9	78.45	815.6	1,050.2	3,379.6	3,324.0	55.55	60.834		
8,464.5	6,785.4	6,520.0	6,516.7	56.5	1.9	78.45	815.6	1,050.2	3,439.0	3,381.8	57.26	60.058		
8,500.0	6,785.3	6,520.0	6,516.7	57.5	1.9	78.45	815.6	1,050.2	3,471.7	3,413.5	58.20	59.652		
8,563.0	6,785.0	6,520.0	6,516.7	59.2	1.9	78.45	815.6	1,050.2	3,530.0	3,470.1	59.87	58.959		
8,600.0	6,784.9	6,520.0	6,516.7	60.2	1.9	78.45	815.6	1,050.2	3,564.3	3,503.4	60.85	58.570		
8,661.4	6,784.6	6,520.0	6,516.7	61.8	1.9	78.45	815.6	1,050.2	3,621.3	3,558.8	62.49	57.949		
8,700.0	6,784.5	6,520.0	6,516.7	62.9	1.9	78.45	815.6	1,050.2	3,657.2	3,593.7	63.52	57.576		
8,759.8	6,784.3	6,520.0	6,516.7	64.5	1.9	78.45	815.6	1,050.2	3,713.0	3,647.9	65.12	57.019		
8,800.0	6,784.1	6,520.0	6,516.7	65.6	1.9	78.45	815.6	1,050.2	3,750.5	3,684.3	66.19	56.661		
8,858.2	6,783.9	6,520.0	6,516.7	67.1	1.9	78.45	815.6	1,050.2	3,805.0	3,737.3	67.75	56.161		
8,900.0	6,783.7	6,520.0	6,516.7	68.3	1.9	78.44	815.6	1,050.2	3,844.2	3,775.3	68.87	55.817		
8,956.7	6,783.5	6,520.0	6,516.7	69.8	1.9	78.44	815.6	1,050.2	3,897.4	3,827.0	70.39	55.365		
9,000.0	6,783.3	6,520.0	6,516.7	71.0	1.9	78.44	815.6	1,050.2	3,938.1	3,866.5	71.56	55.035		
9,055.1	6,783.1	6,520.0	6,516.7	72.5	1.9	78.44	815.6	1,050.2	3,990.0	3,917.0	73.04	54.628		
9,100.0	6,782.9	6,520.0	6,516.7	73.7	1.9	78.44	815.6	1,050.2	4,032.3	3,958.1	74.25	54.309		
9,153.5	6,782.7	6,520.0	6,516.7	75.2	1.9	78.44	815.6	1,050.2	4,082.9	4,007.2	75.69	53.942		
9,200.0	6,782.6	6,520.0	6,516.7	76.5	1.9	78.44	815.6	1,050.2	4,126.9	4,049.9	76.94	53.635		
9,251.9	6,782.4	6,520.0	6,516.7	77.9	1.9	78.44	815.6	1,050.2	4,176.1	4,097.7	78.35	53.302		
9,300.0	6,782.2	6,520.0	6,516.7	79.2	1.9	78.44	815.6	1,050.2	4,221.6	4,142.0	79.64	53.006		
9,350.4	6,782.0	6,520.0	6,516.7	80.6	1.9	78.44	815.6	1,050.2	4,269.5	4,188.4	81.01	52.705		
9,400.0	6,781.8	6,520.0	6,516.7	82.0	1.9	78.44	815.6	1,050.2	4,316.6	4,234.3	82.35	52.419		
9,448.8	6,781.6	6,520.0	6,516.7	83.3	1.9	78.44	815.6	1,050.2	4,363.1	4,279.4	83.67	52.146		
9,500.0	6,781.4	6,520.0	6,516.7	84.7	1.9	78.44	815.6	1,050.2	4,411.8	4,326.8	85.06	51.870		

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 SCHAUMBERG 17G-314
<b>Project:</b>	WELD COUNTY, COLORADO	<b>TVD Reference:</b>	KB-EST @ 4633.0usft (Original Well Elev)
<b>Reference Site:</b>	SW NW SEC. 17 T5N R64W 6th P.M.	<b>MD Reference:</b>	KB-EST @ 4633.0usft (Original Well Elev)
<b>Site Error:</b>	0.0 usft	<b>North Reference:</b>	True
<b>Reference Well:</b>	SCHAUMBERG 17G-314	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Well Error:</b>	0.0 usft	<b>Output errors are at</b>	2.00 sigma
<b>Reference Wellbore</b>	ORIGINAL WELLBORE	<b>Database:</b>	EDM 5000.1 Single User Db
<b>Reference Design:</b>	PROPOSAL #1	<b>Offset TVD Reference:</b>	Offset Datum

Offset Design												Offset Site Error:	0.0 usft
Survey Program: 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	
9,547.2	6,781.2	6,520.0	6,516.7	86.0	1.9	78.44	815.6	1,050.2	4,456.9	4,370.6	86.34	51.622	
9,600.0	6,781.0	6,520.0	6,516.7	87.5	1.9	78.44	815.6	1,050.2	4,507.3	4,419.5	87.77	51.355	
9,645.6	6,780.8	6,520.0	6,516.7	88.7	1.9	78.44	815.6	1,050.2	4,550.9	4,461.9	89.01	51.130	
9,700.0	6,780.6	6,520.0	6,516.7	90.2	1.9	78.44	815.6	1,050.2	4,602.9	4,512.4	90.48	50.871	
9,744.1	6,780.4	6,520.0	6,516.7	91.4	1.9	78.44	815.6	1,050.2	4,645.1	4,553.4	91.68	50.667	
9,800.0	6,780.2	6,520.0	6,516.7	93.0	1.9	78.44	815.6	1,050.2	4,698.7	4,605.5	93.20	50.416	
9,842.5	6,780.1	6,520.0	6,516.7	94.2	1.9	78.44	815.6	1,050.2	4,739.5	4,645.1	94.35	50.231	
9,900.0	6,779.8	6,520.0	6,516.7	95.7	1.9	78.43	815.6	1,050.2	4,794.7	4,698.8	95.92	49.988	
9,940.9	6,779.7	6,520.0	6,516.7	96.9	1.9	78.43	815.6	1,050.2	4,834.0	4,737.0	97.03	49.819	
10,000.0	6,779.4	6,520.0	6,516.7	98.5	1.9	78.43	815.6	1,050.2	4,890.8	4,792.2	98.64	49.583	
10,039.3	6,779.3	6,520.0	6,516.7	99.6	1.9	78.43	815.6	1,050.2	4,928.7	4,829.0	99.71	49.430	
10,100.0	6,779.0	6,520.0	6,516.7	101.3	1.9	78.43	815.6	1,050.2	4,987.1	4,885.8	101.36	49.201	
10,137.8	6,778.9	6,520.0	6,516.7	102.3	1.9	78.43	815.6	1,050.2	5,023.5	4,921.1	102.39	49.062	
10,200.0	6,778.7	6,520.0	6,516.7	104.1	1.9	78.43	815.6	1,050.2	5,083.5	4,979.5	104.09	48.839	
10,236.2	6,778.5	6,520.0	6,516.7	105.1	1.9	78.43	815.6	1,050.2	5,118.5	5,013.4	105.07	48.713	
10,300.0	6,778.3	6,520.0	6,516.7	106.8	1.9	78.43	815.6	1,050.2	5,180.1	5,073.3	106.81	48.497	
10,334.6	6,778.1	6,520.0	6,516.7	107.8	1.9	78.43	815.6	1,050.2	5,213.6	5,105.8	107.76	48.382	
10,400.0	6,777.9	6,520.0	6,516.7	109.6	1.9	78.43	815.6	1,050.2	5,276.8	5,167.3	109.54	48.171	
10,433.0	6,777.7	6,520.0	6,516.7	110.5	1.9	78.43	815.6	1,050.2	5,308.8	5,198.4	110.44	48.067	
10,500.0	6,777.5	6,520.0	6,516.7	112.4	1.9	78.43	815.6	1,050.2	5,373.6	5,261.4	112.27	47.862	
10,531.5	6,777.3	6,520.0	6,516.7	113.3	1.9	78.43	815.6	1,050.2	5,404.1	5,291.0	113.13	47.768	
10,600.0	6,777.1	6,520.0	6,516.7	115.2	1.9	78.43	815.6	1,050.2	5,470.6	5,355.6	115.00	47.569	
10,629.9	6,777.0	6,520.0	6,516.7	116.0	1.9	78.43	815.6	1,050.2	5,499.6	5,383.7	115.82	47.483	
10,700.0	6,776.7	6,520.0	6,516.7	117.9	1.9	78.42	815.6	1,050.2	5,567.6	5,449.9	117.74	47.289	
10,728.3	6,776.6	6,520.0	6,516.7	118.7	1.9	78.42	815.6	1,050.2	5,595.1	5,476.6	118.51	47.212	
10,800.0	6,776.3	6,520.0	6,516.7	120.7	1.9	78.42	815.6	1,050.2	5,664.7	5,544.3	120.47	47.022	
10,826.7	6,776.2	6,520.0	6,516.7	121.5	1.9	78.42	815.6	1,050.2	5,690.7	5,569.5	121.20	46.953	
10,900.0	6,775.9	6,520.0	6,516.7	123.5	1.9	78.42	815.6	1,050.2	5,762.0	5,638.8	123.20	46.768	
10,925.2	6,775.8	6,520.0	6,516.7	124.2	1.9	78.42	815.6	1,050.2	5,786.5	5,662.6	123.89	46.705	
11,000.0	6,775.5	6,520.0	6,516.7	126.3	1.9	78.42	815.6	1,050.2	5,859.3	5,733.4	125.94	46.525	
11,023.6	6,775.4	6,520.0	6,516.7	126.9	1.9	78.42	815.6	1,050.2	5,882.3	5,755.7	126.59	46.469	
11,100.0	6,775.1	6,520.0	6,516.7	129.1	1.9	78.42	815.6	1,050.2	5,956.7	5,828.1	128.68	46.292	
11,122.0	6,775.0	6,520.0	6,516.7	129.7	1.9	78.42	815.6	1,050.2	5,978.2	5,848.9	129.28	46.242	
11,200.0	6,774.7	6,520.0	6,516.7	131.9	1.9	78.42	815.6	1,050.2	6,054.2	5,922.8	131.41	46.070	
11,220.4	6,774.6	6,520.0	6,516.7	132.4	1.9	78.42	815.6	1,050.2	6,074.2	5,942.2	131.97	46.026	
11,300.0	6,774.3	6,520.0	6,516.7	134.6	1.9	78.42	815.6	1,050.2	6,151.8	6,017.7	134.15	45.857	
11,318.9	6,774.2	6,520.0	6,516.7	135.2	1.9	78.42	815.6	1,050.2	6,170.3	6,035.6	134.67	45.818	
11,400.0	6,773.9	6,520.0	6,516.7	137.4	1.9	78.41	815.6	1,050.2	6,249.5	6,112.6	136.89	45.653	
11,417.3	6,773.8	6,520.0	6,516.7	137.9	1.9	78.41	815.6	1,050.2	6,266.4	6,129.0	137.37	45.618	
11,500.0	6,773.5	6,520.0	6,516.7	140.2	1.9	78.41	815.6	1,050.2	6,347.2	6,207.6	139.63	45.457	
11,515.7	6,773.4	6,520.0	6,516.7	140.7	1.9	78.41	815.6	1,050.2	6,362.6	6,222.5	140.06	45.427	
11,600.0	6,773.1	6,520.0	6,516.7	143.0	1.9	78.41	815.6	1,050.2	6,445.0	6,302.7	142.37	45.269	
11,614.1	6,773.0	6,520.0	6,516.7	143.4	1.9	78.41	815.6	1,050.2	6,458.9	6,316.1	142.76	45.243	
11,700.0	6,772.7	6,520.0	6,516.7	145.8	1.9	78.41	815.6	1,050.2	6,542.9	6,397.8	145.11	45.088	
11,712.6	6,772.6	6,520.0	6,516.7	146.2	1.9	78.41	815.6	1,050.2	6,555.2	6,409.8	145.46	45.066	
11,800.0	6,772.3	6,520.0	6,516.7	148.6	1.9	78.41	815.6	1,050.2	6,640.8	6,493.0	147.85	44.915	
11,811.0	6,772.2	6,520.0	6,516.7	148.9	1.9	78.41	815.6	1,050.2	6,651.6	6,503.5	148.16	44.896	
11,900.0	6,771.9	6,520.0	6,516.7	151.4	1.9	78.41	815.6	1,050.2	6,738.8	6,588.2	150.60	44.748	
11,909.4	6,771.8	6,520.0	6,516.7	151.7	1.9	78.41	815.6	1,050.2	6,748.1	6,597.2	150.86	44.732	
12,000.0	6,771.5	6,520.0	6,516.7	154.2	1.9	78.40	815.6	1,050.2	6,836.9	6,683.6	153.34	44.587	
12,007.8	6,771.4	6,520.0	6,516.7	154.4	1.9	78.40	815.6	1,050.2	6,844.6	6,691.0	153.55	44.574	
12,100.0	6,771.1	6,520.0	6,516.7	157.0	1.9	78.40	815.6	1,050.2	6,935.0	6,778.9	156.08	44.432	

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

# Anticollision Report



<b>Company:</b>	PDC ENERGY	<b>Local Co-ordinate Reference:</b>	Well SCHAUMBERG 17G-314
<b>Project:</b>	WELD COUNTY, COLORADO	<b>TVD Reference:</b>	KB-EST @ 4633.0usft (Original Well Elev)
<b>Reference Site:</b>	SW NW SEC. 17 T5N R64W 6th P.M.	<b>MD Reference:</b>	KB-EST @ 4633.0usft (Original Well Elev)
<b>Site Error:</b>	0.0 usft	<b>North Reference:</b>	True
<b>Reference Well:</b>	SCHAUMBERG 17G-314	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Well Error:</b>	0.0 usft	<b>Output errors are at</b>	2.00 sigma
<b>Reference Wellbore</b>	ORIGINAL WELLBORE	<b>Database:</b>	EDM 5000.1 Single User Db
<b>Reference Design:</b>	PROPOSAL #1	<b>Offset TVD Reference:</b>	Offset Datum

<b>Offset Design</b> SW NW SEC. 17 T5N R64W 6th P.M. - EXIST VERT STEINMETZ #21-17 - 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	
12,106.3	6,771.0	6,520.0	6,516.7	157.2	1.9	78.40	815.6	1,050.2	6,941.2	6,784.9	156.25	44.422	
12,200.0	6,770.7	6,520.0	6,516.7	159.8	1.9	78.40	815.6	1,050.2	7,033.2	6,874.3	158.83	44.282	
12,204.7	6,770.6	6,520.0	6,516.7	159.9	1.9	78.40	815.6	1,050.2	7,037.8	6,878.8	158.96	44.275	
12,300.0	6,770.3	6,520.0	6,516.7	162.6	1.9	78.40	815.6	1,050.2	7,131.4	6,969.8	161.57	44.138	
12,303.1	6,770.2	6,520.0	6,516.7	162.7	1.9	78.40	815.6	1,050.2	7,134.4	6,972.8	161.66	44.133	
12,361.7	6,770.0	6,520.0	6,516.7	164.3	1.9	78.40	815.6	1,050.2	7,192.0	7,028.7	163.26	44.051 SF	



# Anticollision Report



<b>Company:</b>	PDC ENERGY	<b>Local Co-ordinate Reference:</b>	Well SCHAUMBERG 17G-314
<b>Project:</b>	WELD COUNTY, COLORADO	<b>TVD Reference:</b>	KB-EST @ 4633.0usft (Original Well Elev)
<b>Reference Site:</b>	SW NW SEC. 17 T5N R64W 6th P.M.	<b>MD Reference:</b>	KB-EST @ 4633.0usft (Original Well Elev)
<b>Site Error:</b>	0.0 usft	<b>North Reference:</b>	True
<b>Reference Well:</b>	SCHAUMBERG 17G-314	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Well Error:</b>	0.0 usft	<b>Output errors are at</b>	2.00 sigma
<b>Reference Wellbore</b>	ORIGINAL WELLBORE	<b>Database:</b>	EDM 5000.1 Single User Db
<b>Reference Design:</b>	PROPOSAL #1	<b>Offset TVD Reference:</b>	Offset Datum

Offset Design												Offset Site Error:	0.0 usft
Survey Program: 0-MWD												Offset Well Error:	0.0 usft
Reference		Offset		Semi Major Axis			Distance						
Measured Depth (usft)	Vertical Depth (usft)	Measured Depth (usft)	Vertical Depth (usft)	Reference (usft)	Offset (usft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (usft)	+E/-W (usft)	Between Centres (usft)	Between Ellipses (usft)	Minimum Separation (usft)	Separation Factor	Warning
0.0	0.0	0.0	0.0	0.0	0.0	-90.34	-0.7	-120.0	120.0				
98.4	98.4	98.4	98.4	0.1	0.1	-90.34	-0.7	-120.0	120.0	119.8	0.19	624.446	
100.0	100.0	100.0	100.0	0.1	0.1	-90.34	-0.7	-120.0	120.0	119.8	0.20	613.876	
196.8	196.8	196.8	196.8	0.3	0.3	-90.34	-0.7	-120.0	120.0	119.4	0.63	190.264	
200.0	200.0	200.0	200.0	0.3	0.3	-90.34	-0.7	-120.0	120.0	119.4	0.65	186.088	
295.3	295.3	295.3	295.3	0.5	0.5	-90.34	-0.7	-120.0	120.0	119.0	1.07	111.836	
300.0	300.0	300.0	300.0	0.5	0.5	-90.34	-0.7	-120.0	120.0	118.9	1.09	109.666	
393.7	393.7	393.7	393.7	0.8	0.8	-90.34	-0.7	-120.0	120.0	118.5	1.52	79.192	
400.0	400.0	400.0	400.0	0.8	0.8	-90.34	-0.7	-120.0	120.0	118.5	1.54	77.740	
492.1	492.1	492.1	492.1	1.0	1.0	-90.34	-0.7	-120.0	120.0	118.1	1.96	61.300	
500.0	500.0	500.0	500.0	1.0	1.0	-90.34	-0.7	-120.0	120.0	118.0	1.99	60.211	
590.5	590.5	590.5	590.5	1.2	1.2	-90.34	-0.7	-120.0	120.0	117.6	2.40	50.002	
600.0	600.0	600.0	600.0	1.2	1.2	-90.34	-0.7	-120.0	120.0	117.6	2.44	49.133	
689.0	689.0	689.0	689.0	1.4	1.4	-90.34	-0.7	-120.0	120.0	117.2	2.84	42.221	
700.0	700.0	700.0	700.0	1.4	1.4	-90.34	-0.7	-120.0	120.0	117.1	2.89	41.497	
787.4	787.4	787.4	787.4	1.6	1.6	-90.34	-0.7	-120.0	120.0	116.8	3.29	36.535	
800.0	800.0	800.0	800.0	1.7	1.7	-90.34	-0.7	-120.0	120.0	116.7	3.34	35.916	
885.8	885.8	885.8	885.8	1.9	1.9	-90.34	-0.7	-120.0	120.0	116.3	3.73	32.199	
900.0	900.0	900.0	900.0	1.9	1.9	-90.34	-0.7	-120.0	120.0	116.2	3.79	31.658	
984.2	984.2	984.2	984.2	2.1	2.1	-90.34	-0.7	-120.0	120.0	115.9	4.17	28.783	
1,000.0	1,000.0	1,000.0	1,000.0	2.1	2.1	-90.34	-0.7	-120.0	120.0	115.8	4.24	28.303 CC, ES	
1,082.7	1,082.7	1,079.3	1,079.3	2.3	2.3	-90.29	-0.6	-121.1	121.2	116.6	4.60	26.367	
1,100.0	1,100.0	1,096.0	1,095.9	2.3	2.3	-90.27	-0.6	-121.6	121.7	117.0	4.67	26.060	
1,181.1	1,181.1	1,173.6	1,173.5	2.5	2.5	-90.10	-0.2	-125.3	125.5	120.5	5.01	25.036	
1,200.0	1,200.0	1,191.7	1,191.6	2.6	2.5	-90.04	-0.1	-126.4	126.7	121.6	5.09	24.879	
1,279.5	1,279.5	1,267.6	1,267.2	2.7	2.7	-89.79	0.5	-132.5	133.0	127.6	5.43	24.489	
1,300.0	1,300.0	1,287.0	1,286.6	2.8	2.7	-89.71	0.7	-134.3	135.0	129.5	5.52	24.458	
1,377.9	1,377.9	1,360.9	1,360.0	3.0	2.9	-89.41	1.5	-142.6	143.8	137.9	5.86	24.545	
1,400.0	1,400.0	1,381.7	1,380.6	3.0	3.0	-89.31	1.7	-145.3	146.6	140.7	5.95	24.628	
1,476.4	1,476.4	1,453.5	1,451.6	3.2	3.2	-88.99	2.8	-155.7	157.7	151.4	6.29	25.073	
1,500.0	1,500.0	1,475.6	1,473.4	3.2	3.2	-88.89	3.1	-159.2	161.5	155.1	6.39	25.260	
1,574.8	1,574.8	1,545.1	1,541.8	3.4	3.4	-88.57	4.3	-171.5	174.7	168.0	6.73	25.972	
1,600.0	1,600.0	1,568.4	1,564.7	3.5	3.5	-88.46	4.7	-176.0	179.5	172.7	6.84	26.253	
1,673.2	1,673.2	1,635.6	1,630.4	3.6	3.7	-88.16	6.1	-189.9	194.8	187.6	7.17	27.163	
1,700.0	1,700.0	1,660.1	1,654.2	3.7	3.8	-88.06	6.6	-195.4	200.8	193.5	7.29	27.529	
1,771.6	1,771.6	1,724.9	1,717.2	3.9	4.1	-87.79	8.1	-210.8	217.9	210.3	7.62	28.581	
1,800.0	1,800.0	1,750.3	1,741.8	3.9	4.2	-87.69	8.7	-217.3	225.1	217.4	7.76	29.022	
1,870.1	1,870.1	1,812.8	1,801.9	4.1	4.5	71.16	10.4	-234.0	243.7	235.7	7.98	30.524	
1,900.0	1,900.0	1,839.2	1,827.3	4.1	4.6	71.27	11.1	-241.5	251.9	243.8	8.11	31.070	
1,968.5	1,968.4	1,900.0	1,885.3	4.2	4.9	71.69	12.9	-259.6	271.4	263.1	8.38	32.402	
2,000.0	1,999.8	1,926.7	1,910.6	4.3	5.0	71.92	13.7	-267.9	280.7	272.2	8.50	33.024	
2,066.9	2,066.5	1,984.4	1,965.1	4.4	5.4	72.53	15.5	-286.7	301.1	292.3	8.77	34.337	
2,100.0	2,099.5	2,012.6	1,991.6	4.5	5.5	72.87	16.4	-296.3	311.5	302.6	8.90	34.989	
2,165.3	2,164.4	2,070.4	2,045.7	4.6	5.9	73.66	18.4	-316.7	332.7	323.5	9.19	36.218	
2,200.0	2,198.7	2,102.9	2,076.1	4.7	6.1	74.15	19.5	-328.2	344.0	334.6	9.34	36.826	
2,263.8	2,261.8	2,162.8	2,132.0	4.8	6.5	75.11	21.6	-349.5	364.5	354.9	9.64	37.818	
2,300.0	2,297.5	2,196.7	2,163.7	4.9	6.7	75.68	22.8	-361.5	376.1	366.3	9.81	38.341	
2,362.2	2,358.6	2,254.9	2,218.1	5.0	7.1	76.71	24.8	-382.2	396.0	385.8	10.13	39.098	
2,400.0	2,395.6	2,290.2	2,251.1	5.1	7.4	77.36	26.0	-394.7	408.0	397.7	10.32	39.523	
2,460.6	2,454.9	2,346.9	2,304.0	5.3	7.8	78.74	28.0	-414.8	427.4	416.7	10.66	40.082	
2,500.0	2,493.4	2,383.6	2,338.3	5.4	8.0	79.58	29.3	-427.9	440.1	429.2	10.89	40.424	
2,559.0	2,551.2	2,438.8	2,389.8	5.6	8.4	80.75	31.2	-447.4	459.3	448.1	11.24	40.859	

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 SCHAUMBERG 17G-314
<b>Project:</b>	WELD COUNTY, COLORADO	<b>TVD Reference:</b>	KB-EST @ 4633.0usft (Original Well Elev)
<b>Reference Site:</b>	SW NW SEC. 17 T5N R64W 6th P.M.	<b>MD Reference:</b>	KB-EST @ 4633.0usft (Original Well Elev)
<b>Site Error:</b>	0.0 usft	<b>North Reference:</b>	True
<b>Reference Well:</b>	SCHAUMBERG 17G-314	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Well Error:</b>	0.0 usft	<b>Output errors are at</b>	2.00 sigma
<b>Reference Wellbore</b>	ORIGINAL WELLBORE	<b>Database:</b>	EDM 5000.1 Single User Db
<b>Reference Design:</b>	PROPOSAL #1	<b>Offset TVD Reference:</b>	Offset Datum

Offset Design												Offset Site Error:	0.0 usft
Survey Program: 0-MWD												Offset Well Error:	0.0 usft
Reference		Offset		Semi Major Axis			Distance						Warning
Measured Depth (usft)	Vertical Depth (usft)	Measured Depth (usft)	Vertical Depth (usft)	Reference (usft)	Offset (usft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (usft)	+E/-W (usft)	Between Centres (usft)	Between Ellipses (usft)	Minimum Separation (usft)	Separation Factor	
2,600.0	2,591.3	2,477.0	2,425.6	5.7	8.7	81.51	32.5	-461.0	472.7	461.2	11.49	41.141	
2,657.5	2,647.5	2,530.7	2,475.7	5.9	9.1	82.50	34.3	-480.1	491.7	479.8	11.86	41.473	
2,700.0	2,689.1	2,570.4	2,512.8	6.0	9.4	83.19	35.7	-494.2	505.8	493.7	12.13	41.701	
2,755.9	2,743.7	2,622.6	2,561.6	6.2	9.7	84.03	37.5	-512.7	524.4	511.9	12.50	41.951	
2,800.0	2,786.9	2,663.8	2,600.0	6.4	10.0	84.66	38.9	-527.3	539.2	526.4	12.80	42.131	
2,854.3	2,840.0	2,714.5	2,647.4	6.6	10.4	85.39	40.7	-545.3	557.5	544.3	13.17	42.316	
2,900.0	2,884.7	2,757.1	2,687.3	6.7	10.7	85.97	42.2	-560.5	572.9	559.4	13.49	42.456	
2,952.7	2,936.3	2,806.4	2,733.3	6.9	11.1	86.60	43.9	-578.0	590.8	576.9	13.87	42.590	
3,000.0	2,982.5	2,850.5	2,774.5	7.1	11.4	87.13	45.4	-593.6	606.9	592.6	14.21	42.697	
3,051.2	3,032.6	2,898.3	2,819.1	7.3	11.8	87.68	47.0	-610.6	624.3	609.7	14.59	42.792	
3,100.0	3,080.3	2,943.9	2,861.7	7.5	12.1	88.18	48.6	-626.8	641.0	626.0	14.95	42.871	
3,149.6	3,128.8	2,990.2	2,905.0	7.7	12.5	88.65	50.2	-643.2	658.0	642.7	15.33	42.935	
3,200.0	3,178.1	3,037.3	2,949.0	7.9	12.8	89.11	51.8	-659.9	675.3	659.6	15.71	42.992	
3,248.0	3,225.1	3,082.1	2,990.9	8.1	13.1	89.53	53.4	-675.9	691.8	675.7	16.08	43.033	
3,300.0	3,276.0	3,130.7	3,036.2	8.3	13.5	89.96	55.1	-693.1	709.8	693.3	16.48	43.072	
3,346.4	3,321.4	3,174.0	3,076.7	8.5	13.8	90.33	56.6	-708.5	725.8	709.0	16.84	43.095	
3,400.0	3,373.8	3,224.0	3,123.4	8.7	14.2	90.73	58.3	-726.2	744.3	727.1	17.26	43.119	
3,444.9	3,417.7	3,265.9	3,162.6	8.8	14.5	91.05	59.8	-741.1	759.9	742.3	17.62	43.130	
3,500.0	3,471.6	3,317.4	3,210.7	9.1	14.9	91.43	61.5	-759.4	779.0	761.0	18.06	43.141	
3,543.3	3,513.9	3,357.8	3,248.5	9.2	15.2	91.72	62.9	-773.8	794.1	775.7	18.41	43.143	
3,600.0	3,569.4	3,410.8	3,297.9	9.5	15.6	92.07	64.8	-792.5	813.8	794.9	18.86	43.143	
3,641.7	3,610.2	3,449.8	3,334.3	9.7	15.9	92.33	66.1	-806.4	828.3	809.1	19.20	43.138	
3,700.0	3,667.2	3,504.2	3,385.2	9.9	16.3	92.66	68.0	-825.7	848.7	829.0	19.68	43.131	
3,740.1	3,706.5	3,541.7	3,420.2	10.1	16.6	92.89	69.3	-839.0	862.7	842.7	20.01	43.121	
3,800.0	3,765.0	3,597.5	3,472.4	10.3	17.0	93.21	71.2	-858.9	883.6	863.1	20.50	43.106	
3,838.6	3,802.8	3,633.6	3,506.0	10.5	17.3	93.41	72.5	-871.6	897.1	876.3	20.82	43.093	
3,900.0	3,862.8	3,690.9	3,559.6	10.7	17.7	93.71	74.4	-892.0	918.6	897.3	21.33	43.073	
3,937.0	3,899.0	3,725.5	3,591.9	10.9	18.0	93.89	75.6	-904.3	931.6	909.9	21.64	43.058	
4,000.0	3,960.7	3,784.3	3,646.9	11.2	18.4	94.18	77.7	-925.2	953.7	931.5	22.16	43.033	
4,035.4	3,995.3	3,817.4	3,677.8	11.3	18.7	94.33	78.8	-936.9	966.1	943.6	22.46	43.017	
4,100.0	4,058.5	3,877.7	3,734.1	11.6	19.1	94.61	80.9	-958.3	988.8	965.8	23.00	42.988	
4,133.8	4,091.6	3,909.3	3,763.6	11.7	19.4	94.75	82.0	-969.5	1,000.7	977.4	23.29	42.972	
4,200.0	4,156.3	3,971.1	3,821.3	12.0	19.8	95.01	84.1	-991.5	1,023.9	1,000.1	23.85	42.940	
4,232.3	4,187.9	4,001.2	3,849.5	12.2	20.1	95.14	85.2	-1,002.2	1,035.3	1,011.2	24.12	42.924	
4,300.0	4,254.1	4,064.4	3,908.6	12.5	20.5	95.39	87.4	-1,024.6	1,059.1	1,034.5	24.69	42.889	
4,325.7	4,279.2	4,088.4	3,931.0	12.6	20.7	95.48	88.2	-1,033.1	1,068.2	1,043.3	24.91	42.876	
4,330.7	4,284.1	4,093.1	3,935.3	12.6	20.8	95.54	88.3	-1,034.8	1,070.0	1,045.0	24.96	42.869	
4,400.0	4,352.1	4,157.9	3,995.9	12.8	21.3	96.24	90.6	-1,057.8	1,094.3	1,068.7	25.59	42.770	
4,429.1	4,380.8	4,185.2	4,021.4	12.9	21.5	96.51	91.5	-1,067.5	1,104.5	1,078.7	25.83	42.767	
4,500.0	4,450.7	4,251.6	4,083.4	13.1	22.0	97.08	93.8	-1,091.1	1,129.1	1,102.7	26.41	42.760	
4,527.5	4,478.0	4,277.5	4,107.6	13.2	22.2	97.28	94.7	-1,100.3	1,138.6	1,112.0	26.62	42.772	
4,600.0	4,549.9	4,345.5	4,171.1	13.4	22.7	97.72	97.1	-1,124.4	1,163.5	1,136.3	27.18	42.807	
4,626.0	4,575.7	4,369.9	4,193.9	13.5	22.9	97.86	97.9	-1,133.1	1,172.4	1,145.0	27.37	42.834	
4,700.0	4,649.4	4,439.4	4,258.9	13.6	23.4	98.18	100.3	-1,157.7	1,197.5	1,169.6	27.90	42.915	
4,724.4	4,673.7	4,462.3	4,280.3	13.7	23.6	98.26	101.1	-1,165.9	1,205.7	1,177.7	28.07	42.955	
4,800.0	4,749.2	4,533.2	4,346.5	13.8	24.1	98.47	103.6	-1,191.1	1,231.1	1,202.5	28.57	43.086	
4,822.8	4,772.0	4,554.6	4,366.5	13.9	24.3	98.51	104.3	-1,198.7	1,238.7	1,210.0	28.71	43.139	
4,900.0	4,849.2	4,626.9	4,434.0	14.0	24.8	98.61	106.8	-1,224.3	1,264.2	1,235.0	29.18	43.323	
4,921.2	4,870.4	4,646.7	4,452.6	14.1	25.0	98.62	107.5	-1,231.4	1,271.2	1,241.9	29.30	43.381	
4,925.6	4,874.8	4,650.8	4,456.4	14.1	25.0	-60.18	107.6	-1,232.8	1,272.7	1,238.6	34.04	37.384	
5,000.0	4,949.2	4,720.3	4,521.3	14.2	25.5	-60.66	110.0	-1,257.5	1,297.2	1,262.4	34.73	37.346	
5,019.7	4,968.8	4,738.7	4,538.5	14.2	25.7	-60.78	110.7	-1,264.0	1,303.7	1,268.7	34.92	37.336	

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 SCHAUMBERG 17G-314
<b>Project:</b>	WELD COUNTY, COLORADO	<b>TVD Reference:</b>	KB-EST @ 4633.0usft (Original Well Elev)
<b>Reference Site:</b>	SW NW SEC. 17 T5N R64W 6th P.M.	<b>MD Reference:</b>	KB-EST @ 4633.0usft (Original Well Elev)
<b>Site Error:</b>	0.0 usft	<b>North Reference:</b>	True
<b>Reference Well:</b>	SCHAUMBERG 17G-314	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Well Error:</b>	0.0 usft	<b>Output errors are at</b>	2.00 sigma
<b>Reference Wellbore</b>	ORIGINAL WELLBORE	<b>Database:</b>	EDM 5000.1 Single User Db
<b>Reference Design:</b>	PROPOSAL #1	<b>Offset TVD Reference:</b>	Offset Datum

Offset Design												Offset Site Error:	0.0 usft
Survey Program: 0-MWD												Offset Well Error:	0.0 usft
Reference		Offset		Semi Major Axis			Distance						Warning
Measured Depth (usft)	Vertical Depth (usft)	Measured Depth (usft)	Vertical Depth (usft)	Reference (usft)	Offset (usft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (usft)	+E/-W (usft)	Between Centres (usft)	Between Ellipses (usft)	Minimum Separation (usft)	Separation Factor	
5,100.0	5,049.2	4,813.7	4,608.6	14.3	26.3	-61.27	113.3	-1,290.6	1,330.2	1,294.6	35.66	37.299	
5,118.1	5,067.3	4,830.6	4,624.4	14.3	26.4	-61.38	113.8	-1,296.6	1,336.2	1,300.4	35.83	37.291	
5,200.0	5,149.2	4,907.2	4,695.8	14.5	27.0	-61.86	116.5	-1,323.8	1,363.4	1,326.8	36.60	37.256	
5,216.5	5,165.7	4,922.6	4,710.3	14.5	27.1	-61.95	117.0	-1,329.3	1,368.9	1,332.1	36.75	37.249	
5,300.0	5,249.2	5,000.6	4,783.1	14.6	27.7	-62.41	119.7	-1,357.0	1,396.7	1,359.2	37.53	37.216	
5,314.9	5,264.1	5,014.5	4,796.2	14.6	27.8	-62.50	120.2	-1,361.9	1,401.7	1,364.0	37.67	37.211	
5,400.0	5,349.2	5,094.0	4,870.4	14.8	28.4	-62.95	122.9	-1,390.1	1,430.1	1,391.7	38.47	37.180	
5,413.4	5,362.5	5,106.5	4,882.1	14.8	28.5	-63.01	123.4	-1,394.6	1,434.6	1,396.0	38.59	37.175	
5,500.0	5,449.2	5,062.9	4,869.5	14.9	43.0	0.73	143.5	-181.9	1,398.1	1,367.7	30.35	46.061	
5,511.8	5,461.0	5,062.8	4,869.5	14.9	43.0	0.72	143.5	-182.0	1,387.6	1,357.2	30.37	45.686	
5,600.0	5,549.2	5,062.2	4,869.5	15.1	43.0	0.67	143.5	-182.6	1,309.7	1,279.2	30.51	42.923	
5,610.2	5,559.4	5,062.1	4,869.5	15.1	43.0	0.67	143.5	-182.6	1,300.8	1,270.2	30.53	42.607	
5,700.0	5,649.2	5,061.6	4,869.5	15.2	43.0	0.61	143.5	-183.2	1,223.1	1,192.5	30.67	39.875	
5,708.6	5,657.8	5,061.5	4,869.5	15.3	43.0	0.61	143.5	-183.3	1,215.8	1,185.1	30.69	39.615	
5,800.0	5,749.2	5,060.9	4,869.5	15.4	43.0	0.56	143.5	-183.9	1,138.8	1,107.9	30.84	36.927	
5,807.1	5,756.2	5,060.9	4,869.5	15.4	43.0	0.55	143.5	-183.9	1,132.9	1,102.1	30.85	36.723	
5,900.0	5,849.2	5,060.3	4,869.5	15.6	42.9	0.50	143.5	-184.5	1,057.2	1,026.1	31.00	34.097	
5,905.5	5,854.7	5,060.2	4,869.5	15.6	42.9	0.49	143.5	-184.5	1,052.8	1,021.7	31.01	33.945	
6,000.0	5,949.2	5,059.6	4,869.5	15.7	42.9	0.44	143.5	-185.2	978.9	947.8	31.17	31.405	
6,003.9	5,953.1	5,059.6	4,869.5	15.7	42.9	0.44	143.5	-185.2	975.9	944.8	31.18	31.302	
6,100.0	6,049.2	5,059.0	4,869.5	15.9	42.9	0.38	143.5	-185.8	905.0	873.7	31.34	28.877	
6,102.3	6,051.5	5,059.0	4,869.5	15.9	42.9	0.38	143.5	-185.8	903.3	872.0	31.34	28.820	
6,124.6	6,073.8	5,058.8	4,869.5	15.9	42.9	0.37	143.5	-186.0	887.6	856.2	31.38	28.283	
6,150.0	6,099.2	5,058.2	4,869.5	16.0	42.9	92.26	143.5	-186.6	870.0	813.6	56.43	15.417	
6,200.0	6,149.0	5,054.4	4,869.5	16.1	42.8	95.49	143.5	-190.4	836.6	780.3	56.29	14.864	
6,200.8	6,149.8	5,054.3	4,869.5	16.1	42.8	95.54	143.5	-190.5	836.1	779.8	56.28	14.856	
6,250.0	6,198.5	5,047.1	4,869.5	16.2	42.7	98.06	143.5	-197.7	805.2	749.1	56.06	14.364	
6,299.2	6,246.6	5,036.5	4,869.5	16.3	42.5	99.96	143.5	-208.3	776.5	720.7	55.80	13.916	
6,300.0	6,247.4	5,036.3	4,869.5	16.3	42.5	99.98	143.5	-208.5	776.0	720.2	55.79	13.909	
6,350.0	6,295.5	5,022.2	4,869.5	16.5	42.2	101.28	143.5	-222.6	749.3	693.8	55.52	13.496	
6,397.6	6,340.2	5,005.7	4,869.5	16.6	41.9	101.98	143.5	-239.1	726.5	671.2	55.28	13.141	
6,400.0	6,342.4	5,004.8	4,869.5	16.6	41.9	102.00	143.5	-240.0	725.4	670.1	55.27	13.125	
6,450.0	6,388.1	4,984.1	4,869.6	16.8	41.5	102.20	143.5	-260.6	704.3	649.3	55.06	12.792	
6,496.0	6,428.8	4,962.3	4,869.6	17.0	41.1	101.94	143.5	-282.4	687.6	632.7	54.91	12.522	
6,500.0	6,432.2	4,960.3	4,869.6	17.0	41.1	101.91	143.5	-284.4	686.3	631.4	54.90	12.501	
6,550.0	6,474.6	4,933.6	4,869.6	17.3	40.6	101.19	143.5	-311.2	671.2	616.4	54.78	12.252	
6,594.5	6,510.7	4,907.3	4,869.6	17.5	40.1	100.23	143.5	-337.5	660.2	605.5	54.71	12.067	
6,600.0	6,515.0	4,903.9	4,869.6	17.6	40.1	100.09	143.5	-340.9	659.0	604.3	54.70	12.047	
6,650.0	6,553.3	4,871.5	4,869.6	17.9	39.5	98.68	143.5	-373.3	649.5	594.8	54.69	11.875	
6,692.9	6,584.3	4,841.6	4,869.6	18.2	39.0	97.27	143.5	-403.1	643.4	588.7	54.72	11.758	
6,700.0	6,589.2	4,836.5	4,869.6	18.2	38.9	97.02	143.5	-408.2	642.6	587.8	54.72	11.743	
6,750.0	6,622.7	4,799.1	4,869.7	18.6	38.3	95.18	143.5	-445.6	637.8	583.1	54.77	11.646	
6,791.3	6,648.3	4,766.5	4,869.7	19.0	37.8	93.57	143.5	-478.2	635.4	580.5	54.86	11.582	
6,800.0	6,653.4	4,759.5	4,869.7	19.1	37.7	93.23	143.5	-485.2	635.0	580.1	54.87	11.572	
6,850.0	6,681.4	4,717.9	4,869.7	19.6	37.1	91.26	143.5	-526.9	633.7	578.7	54.97	11.527	
6,882.4	6,697.9	4,689.9	4,869.7	20.0	36.7	90.00	143.5	-554.8	633.5	578.4	55.06	11.506	
6,889.7	6,701.5	4,683.5	4,869.7	20.1	36.6	89.72	143.5	-561.3	633.5	578.4	55.08	11.501	
6,900.0	6,706.3	4,674.4	4,869.8	20.2	36.5	89.33	143.5	-570.3	633.5	578.4	55.10	11.497	
6,950.0	6,728.2	4,629.3	4,869.8	20.9	35.8	87.52	143.5	-615.4	634.2	578.9	55.25	11.478	
6,988.2	6,742.8	4,594.0	4,869.8	21.5	35.4	86.25	143.5	-650.8	635.0	579.6	55.38	11.466	
7,000.0	6,746.9	4,582.9	4,869.8	21.6	35.2	85.89	143.5	-661.9	635.3	579.9	55.43	11.462	
7,050.0	6,762.4	4,535.2	4,869.8	22.5	34.7	84.49	143.5	-709.5	636.7	581.0	55.66	11.437	

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 SCHAUMBERG 17G-314
<b>Project:</b>	WELD COUNTY, COLORADO	<b>TVD Reference:</b>	KB-EST @ 4633.0usft (Original Well Elev)
<b>Reference Site:</b>	SW NW SEC. 17 T5N R64W 6th P.M.	<b>MD Reference:</b>	KB-EST @ 4633.0usft (Original Well Elev)
<b>Site Error:</b>	0.0 usft	<b>North Reference:</b>	True
<b>Reference Well:</b>	SCHAUMBERG 17G-314	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Well Error:</b>	0.0 usft	<b>Output errors are at</b>	2.00 sigma
<b>Reference Wellbore</b>	ORIGINAL WELLBORE	<b>Database:</b>	EDM 5000.1 Single User Db
<b>Reference Design:</b>	PROPOSAL #1	<b>Offset TVD Reference:</b>	Offset Datum

Offset Design												Offset Site Error:	0.0 usft
Survey Program: 0-MWD												Offset Well Error:	0.0 usft
Reference		Offset		Semi Major Axis			Distance						Warning
Measured Depth (usft)	Vertical Depth (usft)	Measured Depth (usft)	Vertical Depth (usft)	Reference (usft)	Offset (usft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (usft)	+E/-W (usft)	Between Centres (usft)	Between Ellipses (usft)	Minimum Separation (usft)	Separation Factor	
7,086.6	6,771.5	7,499.7	6,699.1	23.1	34.2	83.64	143.5	-745.0	637.6	581.7	55.86	11.415	
7,100.0	6,774.4	7,486.6	6,699.2	23.3	34.1	83.37	143.5	-758.1	637.9	582.0	55.95	11.402	
7,150.0	6,783.1	7,437.3	6,699.5	24.3	33.6	82.55	143.5	-807.4	639.0	582.6	56.34	11.341	
7,185.0	6,787.1	7,402.5	6,699.8	25.0	33.3	82.18	143.5	-842.2	639.5	582.8	56.65	11.288	
7,200.0	6,788.3	7,387.6	6,699.8	25.3	33.1	82.07	143.5	-857.2	639.6	582.8	56.80	11.260	
7,252.3	6,790.0	7,338.5	6,699.7	26.3	32.7	81.89	143.5	-906.2	639.9	582.4	57.45	11.138	
7,283.4	6,789.9	7,311.0	6,698.4	27.0	32.5	81.78	143.5	-933.8	640.1	582.2	57.91	11.053	
7,300.0	6,789.8	7,296.3	6,697.2	27.3	32.4	81.68	143.5	-948.3	640.3	582.1	58.15	11.010	
7,381.9	6,789.5	7,225.0	6,687.4	29.1	31.9	80.83	143.5	-1,019.0	642.0	582.5	59.42	10.803	
7,400.0	6,789.4	7,209.5	6,684.3	29.5	31.9	80.57	143.5	-1,034.2	642.5	582.8	59.70	10.763	
7,480.3	6,789.1	7,142.7	6,667.4	31.4	31.5	79.11	143.5	-1,098.8	646.2	585.2	61.00	10.594	
7,500.0	6,789.1	7,126.8	6,662.5	31.8	31.5	78.68	143.5	-1,113.9	647.4	586.1	61.31	10.559	
7,578.7	6,788.8	7,065.8	6,640.5	33.7	31.3	76.81	143.5	-1,170.8	653.8	591.2	62.59	10.446	
7,600.0	6,788.7	7,050.0	6,634.1	34.2	31.2	76.26	143.5	-1,185.2	656.0	593.1	62.92	10.426	
7,677.1	6,788.4	7,000.0	6,611.5	36.1	31.2	74.37	143.5	-1,229.8	665.9	601.7	64.18	10.374 SF	
7,700.0	6,788.3	6,980.0	6,601.7	36.7	31.2	73.55	143.5	-1,247.2	669.4	604.9	64.47	10.383	
7,775.6	6,788.0	6,931.9	6,576.0	38.6	31.1	71.45	143.5	-1,287.9	683.4	617.9	65.58	10.421	
7,800.0	6,787.9	6,917.2	6,567.6	39.2	31.2	70.77	143.5	-1,299.9	688.8	622.8	65.93	10.448	
7,874.0	6,787.6	6,875.2	6,542.2	41.0	31.2	68.76	143.5	-1,333.4	707.4	640.4	66.94	10.567	
7,900.0	6,787.6	6,861.3	6,533.4	41.7	31.2	68.08	143.5	-1,344.2	714.8	647.5	67.28	10.624	
7,972.4	6,787.3	6,824.8	6,509.3	43.6	31.3	66.24	143.5	-1,371.6	738.1	669.9	68.22	10.819	
8,000.0	6,787.2	6,811.7	6,500.4	44.3	31.3	65.56	143.5	-1,381.1	748.0	679.4	68.57	10.909	
8,070.8	6,786.9	6,780.2	6,478.0	46.1	31.3	63.92	143.5	-1,403.4	775.7	706.3	69.45	11.170	
8,100.0	6,786.8	6,768.0	6,469.1	46.9	31.4	63.27	143.5	-1,411.7	788.1	718.3	69.80	11.291	
8,169.3	6,786.5	6,750.0	6,455.7	48.7	31.4	62.32	143.5	-1,423.7	820.0	749.1	70.92	11.562	
8,200.0	6,786.4	6,729.3	6,440.0	49.5	31.5	61.21	143.5	-1,437.1	835.0	764.0	71.01	11.759	
8,267.7	6,786.1	6,700.0	6,417.0	51.3	31.5	59.65	143.5	-1,455.3	870.3	798.7	71.64	12.148	
8,300.0	6,786.0	6,700.0	6,417.0	52.1	31.5	59.65	143.5	-1,455.3	888.1	815.7	72.39	12.268	
8,366.1	6,785.8	6,674.5	6,396.5	53.9	31.6	58.29	143.5	-1,470.4	926.2	853.2	73.03	12.683	
8,400.0	6,785.6	6,664.6	6,388.3	54.8	31.6	57.76	143.5	-1,476.0	946.7	873.2	73.45	12.889	
8,464.5	6,785.4	6,650.0	6,376.2	56.5	31.7	56.98	143.5	-1,484.1	987.2	912.8	74.38	13.273	
8,500.0	6,785.3	6,650.0	6,376.2	57.5	31.7	56.98	143.5	-1,484.1	1,010.3	935.2	75.19	13.438	
8,563.0	6,785.0	6,622.0	6,352.5	59.2	31.8	55.50	143.5	-1,499.0	1,052.4	976.9	75.50	13.939	
8,600.0	6,784.9	6,600.0	6,333.4	60.2	31.8	54.35	143.5	-1,510.0	1,078.1	1,002.7	75.41	14.297	
8,661.4	6,784.6	6,600.0	6,333.4	61.8	31.8	54.35	143.5	-1,510.0	1,121.4	1,044.6	76.79	14.604	
8,700.0	6,784.5	6,600.0	6,333.4	62.9	31.8	54.35	143.5	-1,510.0	1,149.5	1,071.8	77.65	14.803	
8,759.8	6,784.3	6,579.7	6,315.6	64.5	31.9	53.30	143.5	-1,519.7	1,193.7	1,115.6	78.09	15.287	
8,800.0	6,784.1	6,572.1	6,308.8	65.6	31.9	52.91	143.5	-1,523.2	1,224.1	1,145.4	78.63	15.567	
8,858.2	6,783.9	6,550.0	6,289.0	67.1	32.0	51.79	143.5	-1,532.9	1,269.0	1,190.1	78.88	16.088	
8,900.0	6,783.7	6,550.0	6,289.0	68.3	32.0	51.79	143.5	-1,532.9	1,301.5	1,221.7	79.79	16.311	
8,956.7	6,783.5	6,550.0	6,289.0	69.8	32.0	51.79	143.5	-1,532.9	1,346.5	1,265.4	81.04	16.615	
9,000.0	6,783.3	6,550.0	6,289.0	71.0	32.0	51.79	143.5	-1,532.9	1,381.4	1,299.4	81.99	16.848	
9,055.1	6,783.1	6,530.2	6,271.0	72.5	32.0	50.80	143.5	-1,541.1	1,426.1	1,343.9	82.21	17.348	
9,100.0	6,782.9	6,523.8	6,265.1	73.7	32.0	50.48	143.5	-1,543.6	1,463.1	1,380.2	82.85	17.659	
9,153.5	6,782.7	6,516.5	6,258.4	75.2	32.1	50.12	143.5	-1,546.5	1,507.6	1,424.0	83.64	18.026	
9,200.0	6,782.6	6,500.0	6,243.0	76.5	32.1	49.32	143.5	-1,552.6	1,546.8	1,463.1	83.77	18.466	
9,251.9	6,782.4	6,500.0	6,243.0	77.9	32.1	49.32	143.5	-1,552.6	1,590.8	1,505.9	84.88	18.742	
9,300.0	6,782.2	6,500.0	6,243.0	79.2	32.1	49.31	143.5	-1,552.6	1,631.9	1,546.0	85.90	18.996	
9,350.4	6,782.0	6,500.0	6,243.0	80.6	32.1	49.31	143.5	-1,552.6	1,675.3	1,588.4	86.98	19.260	
9,400.0	6,781.8	6,500.0	6,243.0	82.0	32.1	49.31	143.5	-1,552.6	1,718.5	1,630.5	88.05	19.519	
9,448.8	6,781.6	6,481.9	6,226.0	83.3	32.1	48.44	143.5	-1,559.0	1,761.0	1,673.0	88.07	19.996	
9,500.0	6,781.4	6,476.6	6,221.1	84.7	32.1	48.20	143.5	-1,560.7	1,806.1	1,717.2	88.86	20.326	

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

# Anticollision Report



<b>Company:</b>	PDC ENERGY	<b>Local Co-ordinate Reference:</b>	Well SCHAUMBERG 17G-314
<b>Project:</b>	WELD COUNTY, COLORADO	<b>TVD Reference:</b>	KB-EST @ 4633.0usft (Original Well Elev)
<b>Reference Site:</b>	SW NW SEC. 17 T5N R64W 6th P.M.	<b>MD Reference:</b>	KB-EST @ 4633.0usft (Original Well Elev)
<b>Site Error:</b>	0.0 usft	<b>North Reference:</b>	True
<b>Reference Well:</b>	SCHAUMBERG 17G-314	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Well Error:</b>	0.0 usft	<b>Output errors are at</b>	2.00 sigma
<b>Reference Wellbore</b>	ORIGINAL WELLBORE	<b>Database:</b>	EDM 5000.1 Single User Db
<b>Reference Design:</b>	PROPOSAL #1	<b>Offset TVD Reference:</b>	Offset Datum

Offset Design												Offset Site Error:	0.0 usft
Survey Program: 0-MWD												Offset Well Error:	0.0 usft
Reference		Offset		Semi Major Axis			Distance						Warning
Measured Depth (usft)	Vertical Depth (usft)	Measured Depth (usft)	Vertical Depth (usft)	Reference (usft)	Offset (usft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (usft)	+E/-W (usft)	Between Centres (usft)	Between Ellipses (usft)	Minimum Separation (usft)	Separation Factor	
9,547.2	6,781.2	6,472.0	6,216.8	86.0	32.2	47.98	143.5	-1,562.2	1,847.9	1,758.3	89.59	20.626	
9,600.0	6,781.0	6,450.0	6,195.8	87.5	32.2	46.95	143.5	-1,569.1	1,895.1	1,805.7	89.42	21.194	
9,645.6	6,780.8	6,450.0	6,195.8	88.7	32.2	46.95	143.5	-1,569.1	1,935.8	1,845.4	90.37	21.422	
9,700.0	6,780.6	6,450.0	6,195.8	90.2	32.2	46.95	143.5	-1,569.1	1,984.5	1,893.0	91.50	21.690	
9,744.1	6,780.4	6,450.0	6,195.8	91.4	32.2	46.95	143.5	-1,569.1	2,024.3	1,931.9	92.42	21.904	
9,800.0	6,780.2	6,450.0	6,195.8	93.0	32.2	46.95	143.5	-1,569.1	2,074.9	1,981.4	93.58	22.173	
9,842.5	6,780.1	6,450.0	6,195.8	94.2	32.2	46.95	143.5	-1,569.1	2,113.6	2,019.2	94.47	22.375	
9,900.0	6,779.8	6,450.0	6,195.8	95.7	32.2	46.95	143.5	-1,569.1	2,166.2	2,070.5	95.66	22.644	
9,940.9	6,779.7	6,450.0	6,195.8	96.9	32.2	46.95	143.5	-1,569.1	2,203.8	2,107.3	96.52	22.833	
10,000.0	6,779.4	6,450.0	6,195.8	98.5	32.2	46.95	143.5	-1,569.1	2,258.2	2,160.5	97.75	23.102	
10,039.3	6,779.3	6,450.0	6,195.8	99.6	32.2	46.95	143.5	-1,569.1	2,294.6	2,196.0	98.57	23.278	
10,100.0	6,779.0	6,428.3	6,175.0	101.3	32.3	45.96	143.5	-1,575.2	2,350.4	2,252.0	98.42	23.881	
10,137.8	6,778.9	6,425.9	6,172.7	102.3	32.3	45.85	143.5	-1,575.8	2,385.5	2,286.4	99.04	24.085	
10,200.0	6,778.7	6,422.0	6,168.9	104.1	32.3	45.68	143.5	-1,576.8	2,443.4	2,343.3	100.07	24.418	
10,236.2	6,778.5	6,419.8	6,166.8	105.1	32.3	45.58	143.5	-1,577.4	2,477.2	2,376.5	100.66	24.608	
10,300.0	6,778.3	6,400.0	6,147.6	106.8	32.3	44.71	143.5	-1,582.2	2,537.1	2,436.4	100.64	25.209	
10,334.6	6,778.1	6,400.0	6,147.6	107.8	32.3	44.71	143.5	-1,582.2	2,569.5	2,468.1	101.34	25.355	
10,400.0	6,777.9	6,400.0	6,147.6	109.6	32.3	44.70	143.5	-1,582.2	2,630.8	2,528.1	102.66	25.625	
10,433.0	6,777.7	6,400.0	6,147.6	110.5	32.3	44.70	143.5	-1,582.2	2,661.9	2,558.5	103.33	25.760	
10,500.0	6,777.5	6,400.0	6,147.6	112.4	32.3	44.70	143.5	-1,582.2	2,725.0	2,620.3	104.69	26.029	
10,531.5	6,777.3	6,400.0	6,147.6	113.3	32.3	44.70	143.5	-1,582.2	2,754.7	2,649.4	105.33	26.154	
10,600.0	6,777.1	6,400.0	6,147.6	115.2	32.3	44.70	143.5	-1,582.2	2,819.5	2,712.8	106.71	26.421	
10,629.9	6,777.0	6,400.0	6,147.6	116.0	32.3	44.70	143.5	-1,582.2	2,847.9	2,740.6	107.32	26.536	
10,700.0	6,776.7	6,400.0	6,147.6	117.9	32.3	44.70	143.5	-1,582.2	2,914.5	2,805.7	108.74	26.802	
10,728.3	6,776.6	6,400.0	6,147.6	118.7	32.3	44.70	143.5	-1,582.2	2,941.4	2,832.1	109.32	26.908	
10,800.0	6,776.3	6,400.0	6,147.6	120.7	32.3	44.70	143.5	-1,582.2	3,009.7	2,899.0	110.77	27.171	
10,826.7	6,776.2	6,400.0	6,147.6	121.5	32.3	44.70	143.5	-1,582.2	3,035.3	2,924.0	111.31	27.268	
10,900.0	6,775.9	6,400.0	6,147.6	123.5	32.3	44.70	143.5	-1,582.2	3,105.3	2,992.5	112.80	27.530	
10,925.2	6,775.8	6,400.0	6,147.6	124.2	32.3	44.70	143.5	-1,582.2	3,129.4	3,016.1	113.31	27.618	
11,000.0	6,775.5	6,400.0	6,147.6	126.3	32.3	44.70	143.5	-1,582.2	3,201.1	3,086.3	114.83	27.878	
11,023.6	6,775.4	6,400.0	6,147.6	126.9	32.3	44.70	143.5	-1,582.2	3,223.8	3,108.5	115.31	27.959	
11,100.0	6,775.1	6,379.2	6,127.3	129.1	32.3	43.81	143.5	-1,586.6	3,296.8	3,181.6	115.24	28.608	
11,122.0	6,775.0	6,378.4	6,126.5	129.7	32.3	43.77	143.5	-1,586.8	3,318.0	3,202.4	115.62	28.697	
11,200.0	6,774.7	6,375.6	6,123.7	131.9	32.3	43.65	143.5	-1,587.4	3,393.0	3,276.1	116.96	29.009	
11,220.4	6,774.6	6,374.9	6,123.0	132.4	32.3	43.62	143.5	-1,587.5	3,412.7	3,295.4	117.32	29.090	
11,300.0	6,774.3	6,372.2	6,120.4	134.6	32.3	43.51	143.5	-1,588.0	3,489.4	3,370.7	118.69	29.400	
11,318.9	6,774.2	6,371.5	6,119.7	135.2	32.3	43.48	143.5	-1,588.1	3,507.6	3,388.6	119.01	29.472	
11,400.0	6,773.9	6,350.0	6,098.5	137.4	32.4	42.59	143.5	-1,591.9	3,586.2	3,467.3	118.90	30.161	
11,417.3	6,773.8	6,350.0	6,098.5	137.9	32.4	42.59	143.5	-1,591.9	3,602.9	3,483.7	119.24	30.215	
11,500.0	6,773.5	6,350.0	6,098.5	140.2	32.4	42.59	143.5	-1,591.9	3,682.9	3,562.0	120.87	30.470	
11,515.7	6,773.4	6,350.0	6,098.5	140.7	32.4	42.59	143.5	-1,591.9	3,698.1	3,576.9	121.18	30.518	
11,600.0	6,773.1	6,350.0	6,098.5	143.0	32.4	42.59	143.5	-1,591.9	3,779.7	3,656.8	122.83	30.770	
11,614.1	6,773.0	6,350.0	6,098.5	143.4	32.4	42.59	143.5	-1,591.9	3,793.4	3,670.3	123.11	30.812	
11,700.0	6,772.7	6,350.0	6,098.5	145.8	32.4	42.58	143.5	-1,591.9	3,876.6	3,751.8	124.80	31.062	
11,712.6	6,772.6	6,350.0	6,098.5	146.2	32.4	42.58	143.5	-1,591.9	3,888.8	3,763.8	125.05	31.099	
11,800.0	6,772.3	6,350.0	6,098.5	148.6	32.4	42.58	143.5	-1,591.9	3,973.7	3,847.0	126.77	31.347	
11,811.0	6,772.2	6,350.0	6,098.5	148.9	32.4	42.58	143.5	-1,591.9	3,984.4	3,857.4	126.98	31.377	
11,900.0	6,771.9	6,350.0	6,098.5	151.4	32.4	42.58	143.5	-1,591.9	4,071.0	3,942.3	128.73	31.623	
11,909.4	6,771.8	6,350.0	6,098.5	151.7	32.4	42.58	143.5	-1,591.9	4,080.2	3,951.2	128.92	31.649	
12,000.0	6,771.5	6,350.0	6,098.5	154.2	32.4	42.58	143.5	-1,591.9	4,168.4	4,037.7	130.70	31.892	
12,007.8	6,771.4	6,350.0	6,098.5	154.4	32.4	42.58	143.5	-1,591.9	4,176.0	4,045.2	130.86	31.913	
12,100.0	6,771.1	6,350.0	6,098.5	157.0	32.4	42.58	143.5	-1,591.9	4,265.9	4,133.2	132.67	32.154	

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 SCHAUMBERG 17G-314
<b>Project:</b>	WELD COUNTY, COLORADO	<b>TVD Reference:</b>	KB-EST @ 4633.0usft (Original Well Elev)
<b>Reference Site:</b>	SW NW SEC. 17 T5N R64W 6th P.M.	<b>MD Reference:</b>	KB-EST @ 4633.0usft (Original Well Elev)
<b>Site Error:</b>	0.0 usft	<b>North Reference:</b>	True
<b>Reference Well:</b>	SCHAUMBERG 17G-314	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Well Error:</b>	0.0 usft	<b>Output errors are at</b>	2.00 sigma
<b>Reference Wellbore</b>	ORIGINAL WELLBORE	<b>Database:</b>	EDM 5000.1 Single User Db
<b>Reference Design:</b>	PROPOSAL #1	<b>Offset TVD Reference:</b>	Offset Datum

<b>Offset Design</b> SW NW SEC. 17 T5N R64W 6th P.M. - SCHAUMBERG 17F-202 - ORIGINAL WELLBORE - PROPOS												<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
12,106.3	6,771.0	6,350.0	6,098.5	157.2	32.4	42.58	143.5	-1,591.9	4,272.0	4,139.2	132.79	32.170	
12,200.0	6,770.7	6,350.0	6,098.5	159.8	32.4	42.58	143.5	-1,591.9	4,363.5	4,228.9	134.64	32.409	
12,204.7	6,770.6	6,350.0	6,098.5	159.9	32.4	42.58	143.5	-1,591.9	4,368.1	4,233.4	134.73	32.421	
12,300.0	6,770.3	6,350.0	6,098.5	162.6	32.4	42.58	143.5	-1,591.9	4,461.2	4,324.6	136.60	32.658	
12,303.1	6,770.2	6,350.0	6,098.5	162.7	32.4	42.58	143.5	-1,591.9	4,464.3	4,327.6	136.67	32.666	
12,361.7	6,770.0	6,350.0	6,098.5	164.3	32.4	42.58	143.5	-1,591.9	4,521.6	4,383.7	137.82	32.808	



# Anticollision Report



<b>Company:</b>	PDC ENERGY	<b>Local Co-ordinate Reference:</b>	Well SCHAUMBERG 17G-314
<b>Project:</b>	WELD COUNTY, COLORADO	<b>TVD Reference:</b>	KB-EST @ 4633.0usft (Original Well Elev)
<b>Reference Site:</b>	SW NW SEC. 17 T5N R64W 6th P.M.	<b>MD Reference:</b>	KB-EST @ 4633.0usft (Original Well Elev)
<b>Site Error:</b>	0.0 usft	<b>North Reference:</b>	True
<b>Reference Well:</b>	SCHAUMBERG 17G-314	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Well Error:</b>	0.0 usft	<b>Output errors are at</b>	2.00 sigma
<b>Reference Wellbore</b>	ORIGINAL WELLBORE	<b>Database:</b>	EDM 5000.1 Single User Db
<b>Reference Design:</b>	PROPOSAL #1	<b>Offset TVD Reference:</b>	Offset Datum

Offset Design													Offset Site Error:	0.0 usft
Survey Program: 0-MWD													Offset Well Error:	0.0 usft
Reference		Offset		Semi Major Axis			Distance							Warning
Measured Depth (usft)	Vertical Depth (usft)	Measured Depth (usft)	Vertical Depth (usft)	Reference (usft)	Offset (usft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (usft)	+E/-W (usft)	Between Centres (usft)	Between Ellipses (usft)	Minimum Separation (usft)	Separation Factor		
0.0	0.0	0.0	0.0	0.0	0.0	-90.68	-0.4	-29.8	29.8					
98.4	98.4	98.4	98.4	0.1	0.1	-90.68	-0.4	-29.8	29.8	29.6	0.19	155.033		
100.0	100.0	100.0	100.0	0.1	0.1	-90.68	-0.4	-29.8	29.8	29.6	0.20	152.409		
196.8	196.8	196.8	196.8	0.3	0.3	-90.68	-0.4	-29.8	29.8	29.2	0.63	47.238		
200.0	200.0	200.0	200.0	0.3	0.3	-90.68	-0.4	-29.8	29.8	29.2	0.65	46.201		
295.3	295.3	295.3	295.3	0.5	0.5	-90.68	-0.4	-29.8	29.8	28.7	1.07	27.766		
300.0	300.0	300.0	300.0	0.5	0.5	-90.68	-0.4	-29.8	29.8	28.7	1.09	27.227		
393.7	393.7	393.7	393.7	0.8	0.8	-90.68	-0.4	-29.8	29.8	28.3	1.52	19.661		
400.0	400.0	400.0	400.0	0.8	0.8	-90.68	-0.4	-29.8	29.8	28.3	1.54	19.301		
492.1	492.1	492.1	492.1	1.0	1.0	-90.68	-0.4	-29.8	29.8	27.8	1.96	15.219		
500.0	500.0	500.0	500.0	1.0	1.0	-90.68	-0.4	-29.8	29.8	27.8	1.99	14.949		
590.5	590.5	590.5	590.5	1.2	1.2	-90.68	-0.4	-29.8	29.8	27.4	2.40	12.414		
600.0	600.0	600.0	600.0	1.2	1.2	-90.68	-0.4	-29.8	29.8	27.4	2.44	12.198		
689.0	689.0	689.0	689.0	1.4	1.4	-90.68	-0.4	-29.8	29.8	27.0	2.84	10.482		
700.0	700.0	700.0	700.0	1.4	1.4	-90.68	-0.4	-29.8	29.8	26.9	2.89	10.303		
787.4	787.4	787.4	787.4	1.6	1.6	-90.68	-0.4	-29.8	29.8	26.5	3.29	9.071		
800.0	800.0	800.0	800.0	1.7	1.7	-90.68	-0.4	-29.8	29.8	26.5	3.34	8.917		
885.8	885.8	885.8	885.8	1.9	1.9	-90.68	-0.4	-29.8	29.8	26.1	3.73	7.994		
900.0	900.0	900.0	900.0	1.9	1.9	-90.68	-0.4	-29.8	29.8	26.0	3.79	7.860		
984.2	984.2	984.2	984.2	2.1	2.1	-90.68	-0.4	-29.8	29.8	25.6	4.17	7.146		
1,000.0	1,000.0	1,000.0	1,000.0	2.1	2.1	-90.68	-0.4	-29.8	29.8	25.6	4.24	7.027		
1,082.7	1,082.7	1,082.7	1,082.7	2.3	2.3	-90.68	-0.4	-29.8	29.8	25.2	4.61	6.461		
1,100.0	1,100.0	1,100.0	1,100.0	2.3	2.3	-90.68	-0.4	-29.8	29.8	25.1	4.69	6.353		
1,181.1	1,181.1	1,181.1	1,181.1	2.5	2.5	-90.68	-0.4	-29.8	29.8	24.7	5.06	5.895		
1,200.0	1,200.0	1,200.0	1,200.0	2.6	2.6	-90.68	-0.4	-29.8	29.8	24.7	5.14	5.798		
1,279.5	1,279.5	1,279.5	1,279.5	2.7	2.7	-90.68	-0.4	-29.8	29.8	24.3	5.50	5.421		
1,300.0	1,300.0	1,300.0	1,300.0	2.8	2.8	-90.68	-0.4	-29.8	29.8	24.2	5.59	5.332		
1,377.9	1,377.9	1,377.9	1,377.9	3.0	3.0	-90.68	-0.4	-29.8	29.8	23.9	5.94	5.017		
1,400.0	1,400.0	1,400.0	1,400.0	3.0	3.0	-90.68	-0.4	-29.8	29.8	23.8	6.04	4.935		
1,476.4	1,476.4	1,476.4	1,476.4	3.2	3.2	-90.68	-0.4	-29.8	29.8	23.4	6.38	4.669		
1,500.0	1,500.0	1,500.0	1,500.0	3.2	3.2	-90.68	-0.4	-29.8	29.8	23.3	6.49	4.593		
1,574.8	1,574.8	1,574.8	1,574.8	3.4	3.4	-90.68	-0.4	-29.8	29.8	23.0	6.83	4.367		
1,600.0	1,600.0	1,600.0	1,600.0	3.5	3.5	-90.68	-0.4	-29.8	29.8	22.9	6.94	4.295 CC, ES		
1,673.2	1,673.2	1,672.8	1,672.8	3.6	3.6	-89.22	0.4	-30.3	30.3	23.1	7.26	4.174		
1,700.0	1,700.0	1,699.4	1,699.4	3.7	3.7	-88.00	1.1	-30.8	30.8	23.4	7.38	4.170		
1,771.6	1,771.6	1,770.5	1,770.4	3.9	3.8	-83.27	3.9	-32.6	32.9	25.2	7.70	4.270		
1,800.0	1,800.0	1,798.5	1,798.4	3.9	3.9	-80.96	5.4	-33.6	34.1	26.3	7.83	4.357		
1,870.1	1,870.1	1,867.7	1,867.3	4.1	4.1	85.22	10.0	-36.8	38.1	30.0	8.12	4.698		
1,900.0	1,900.0	1,897.1	1,896.6	4.1	4.1	89.04	12.4	-38.4	40.4	32.2	8.24	4.905		
1,968.5	1,968.4	1,964.0	1,963.0	4.2	4.3	98.21	18.8	-42.7	47.4	38.9	8.51	5.573		
2,000.0	1,999.8	1,994.5	1,993.3	4.3	4.4	102.32	22.1	-44.9	51.6	43.0	8.64	5.976		
2,066.9	2,066.5	2,058.8	2,056.8	4.4	4.5	110.24	30.1	-50.3	62.6	53.7	8.90	7.035		
2,100.0	2,099.5	2,090.2	2,087.8	4.5	4.6	113.65	34.4	-53.2	69.2	60.2	9.03	7.661		
2,165.3	2,164.4	2,151.7	2,148.3	4.6	4.8	119.39	43.6	-59.4	84.4	75.1	9.30	9.072		
2,200.0	2,198.7	2,183.8	2,179.8	4.7	4.9	121.93	48.8	-62.9	93.5	84.1	9.44	9.912		
2,263.8	2,261.8	2,243.8	2,238.5	4.8	5.1	125.95	59.1	-69.8	112.1	102.4	9.70	11.558		
2,300.0	2,297.5	2,278.0	2,271.9	4.9	5.2	127.91	65.1	-73.8	123.2	113.4	9.84	12.520		
2,362.2	2,358.6	2,336.5	2,329.1	5.0	5.4	130.81	75.1	-80.6	143.3	133.2	10.10	14.191		
2,400.0	2,395.6	2,371.7	2,363.6	5.1	5.5	132.35	81.2	-84.7	156.1	145.8	10.25	15.224		
2,460.6	2,454.9	2,428.3	2,418.9	5.3	5.7	134.72	91.0	-91.2	177.1	166.5	10.52	16.830		
2,500.0	2,493.4	2,465.0	2,454.8	5.4	5.8	135.98	97.3	-95.5	190.8	180.1	10.70	17.837		
2,559.0	2,551.2	2,520.0	2,508.6	5.6	6.0	137.56	106.8	-101.9	211.6	200.6	10.97	19.285		

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 SCHAUMBERG 17G-314
<b>Project:</b>	WELD COUNTY, COLORADO	<b>TVD Reference:</b>	KB-EST @ 4633.0usft (Original Well Elev)
<b>Reference Site:</b>	SW NW SEC. 17 T5N R64W 6th P.M.	<b>MD Reference:</b>	KB-EST @ 4633.0usft (Original Well Elev)
<b>Site Error:</b>	0.0 usft	<b>North Reference:</b>	True
<b>Reference Well:</b>	SCHAUMBERG 17G-314	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Well Error:</b>	0.0 usft	<b>Output errors are at</b>	2.00 sigma
<b>Reference Wellbore</b>	ORIGINAL WELLBORE	<b>Database:</b>	EDM 5000.1 Single User Db
<b>Reference Design:</b>	PROPOSAL #1	<b>Offset TVD Reference:</b>	Offset Datum

Offset Design												Offset Site Error:	0.0 usft
Survey Program: 0-MWD												Offset Well Error:	0.0 usft
Reference		Offset		Semi Major Axis			Distance						Warning
Measured Depth (usft)	Vertical Depth (usft)	Measured Depth (usft)	Vertical Depth (usft)	Reference (usft)	Offset (usft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (usft)	+E/-W (usft)	Between Centres (usft)	Between Ellipses (usft)	Minimum Separation (usft)	Separation Factor	
2,600.0	2,591.3	2,558.2	2,546.0	5.7	6.1	138.49	113.4	-106.3	226.0	214.9	11.16	20.252	
2,657.5	2,647.5	2,611.7	2,598.4	5.9	6.3	139.61	122.6	-112.5	246.4	235.0	11.43	21.554	
2,700.0	2,689.1	2,651.4	2,637.1	6.0	6.5	140.33	129.5	-117.1	261.5	249.9	11.64	22.472	
2,755.9	2,743.7	2,703.5	2,688.1	6.2	6.7	141.16	138.5	-123.2	281.4	269.5	11.91	23.632	
2,800.0	2,786.9	2,744.6	2,728.3	6.4	6.8	141.73	145.6	-127.9	297.2	285.0	12.13	24.507	
2,854.3	2,840.0	2,795.2	2,777.8	6.6	7.0	142.36	154.3	-133.8	316.6	304.2	12.40	25.540	
2,900.0	2,884.7	2,837.8	2,819.5	6.7	7.2	142.83	161.6	-138.8	333.0	320.3	12.63	26.372	
2,952.7	2,936.3	2,887.0	2,867.6	6.9	7.4	143.32	170.1	-144.5	351.9	339.0	12.89	27.292	
3,000.0	2,982.5	2,931.0	2,910.6	7.1	7.5	143.72	177.7	-149.6	368.8	355.7	13.13	28.083	
3,051.2	3,032.6	2,978.7	2,957.3	7.3	7.7	144.11	185.9	-155.1	387.2	373.8	13.40	28.902	
3,100.0	3,080.3	3,024.2	3,001.8	7.5	7.9	144.45	193.8	-160.4	404.8	391.1	13.65	29.654	
3,149.6	3,128.8	3,076.6	3,053.1	7.7	8.1	144.82	202.6	-166.3	422.3	408.4	13.91	30.364	
3,200.0	3,178.1	3,131.7	3,107.3	7.9	8.3	145.23	210.9	-171.9	439.4	425.2	14.16	31.023	
3,248.0	3,225.1	3,184.8	3,159.6	8.1	8.4	145.65	218.2	-176.8	454.8	440.4	14.40	31.586	
3,300.0	3,276.0	3,242.8	3,217.1	8.3	8.6	146.12	225.2	-181.5	470.7	456.0	14.66	32.116	
3,346.4	3,321.4	3,295.3	3,269.1	8.5	8.7	146.56	230.7	-185.2	484.1	469.2	14.89	32.520	
3,400.0	3,373.8	3,356.3	3,329.8	8.7	8.9	147.09	236.1	-188.8	498.6	483.5	15.15	32.915	
3,444.9	3,417.7	3,407.9	3,381.2	8.8	9.0	147.57	239.8	-191.3	510.1	494.7	15.37	33.184	
3,500.0	3,471.6	3,471.8	3,445.0	9.1	9.1	148.18	243.3	-193.7	523.1	507.5	15.64	33.451	
3,543.3	3,513.9	3,522.4	3,495.4	9.2	9.2	148.68	245.3	-195.0	532.7	516.8	15.85	33.609	
3,600.0	3,569.4	3,589.0	3,562.1	9.5	9.3	149.38	246.8	-196.0	544.2	528.1	16.12	33.756	
3,641.7	3,610.2	3,637.2	3,610.2	9.7	9.4	149.90	247.0	-196.2	552.0	535.7	16.32	33.826	
3,700.0	3,667.2	3,694.2	3,667.2	9.9	9.5	150.52	247.0	-196.2	562.5	546.0	16.59	33.918	
3,740.1	3,706.5	3,733.4	3,706.5	10.1	9.6	150.93	247.0	-196.2	569.9	553.1	16.78	33.967	
3,800.0	3,765.0	3,792.0	3,765.0	10.3	9.7	151.52	247.0	-196.2	580.8	563.8	17.06	34.041	
3,838.6	3,802.8	3,829.7	3,802.8	10.5	9.8	151.89	247.0	-196.2	587.9	570.7	17.25	34.089	
3,900.0	3,862.8	3,889.8	3,862.8	10.7	9.9	152.46	247.0	-196.2	599.3	581.7	17.54	34.168	
3,937.0	3,899.0	3,926.0	3,899.0	10.9	9.9	152.80	247.0	-196.2	606.1	588.4	17.72	34.215	
4,000.0	3,960.7	3,987.6	3,960.7	11.2	10.1	153.35	247.0	-196.2	617.9	599.8	18.01	34.299	
4,035.4	3,995.3	4,022.2	3,995.3	11.3	10.1	153.65	247.0	-196.2	624.5	606.3	18.18	34.345	
4,100.0	4,058.5	4,085.4	4,058.5	11.6	10.2	154.19	247.0	-196.2	636.6	618.1	18.49	34.432	
4,133.8	4,091.6	4,118.5	4,091.6	11.7	10.3	154.46	247.0	-196.2	643.0	624.3	18.65	34.478	
4,200.0	4,156.3	4,183.2	4,156.3	12.0	10.4	154.98	247.0	-196.2	655.4	636.5	18.96	34.567	
4,232.3	4,187.9	4,214.8	4,187.9	12.2	10.5	155.22	247.0	-196.2	661.5	642.4	19.11	34.611	
4,300.0	4,254.1	4,281.0	4,254.1	12.5	10.6	155.72	247.0	-196.2	674.4	655.0	19.43	34.704	
4,325.7	4,279.2	4,306.1	4,279.2	12.6	10.7	155.91	247.0	-196.2	679.3	659.7	19.55	34.739	
4,330.7	4,284.1	4,311.1	4,284.1	12.6	10.7	155.95	247.0	-196.2	680.2	660.7	19.58	34.739	
4,400.0	4,352.1	4,379.0	4,352.1	12.8	10.8	156.50	247.0	-196.2	692.6	672.7	19.95	34.714	
4,429.1	4,380.8	4,407.7	4,380.8	12.9	10.8	156.71	247.0	-196.2	697.4	677.3	20.10	34.696	
4,500.0	4,450.7	4,477.7	4,450.7	13.1	11.0	157.15	247.0	-196.2	707.8	687.4	20.45	34.606	
4,527.5	4,478.0	4,504.9	4,478.0	13.2	11.0	157.31	247.0	-196.2	711.5	690.9	20.59	34.559	
4,600.0	4,549.9	4,576.8	4,549.9	13.4	11.2	157.65	247.0	-196.2	719.9	699.0	20.93	34.389	
4,626.0	4,575.7	4,602.6	4,575.7	13.5	11.2	157.76	247.0	-196.2	722.5	701.5	21.05	34.318	
4,700.0	4,649.4	4,676.3	4,649.4	13.6	11.4	158.00	247.0	-196.2	728.8	707.4	21.39	34.073	
4,724.4	4,673.7	4,700.7	4,673.7	13.7	11.4	158.07	247.0	-196.2	730.5	709.0	21.50	33.983	
4,800.0	4,749.2	4,776.1	4,749.2	13.8	11.6	158.23	247.0	-196.2	734.5	712.7	21.82	33.662	
4,822.8	4,772.0	4,799.0	4,772.0	13.9	11.6	158.26	247.0	-196.2	735.4	713.4	21.91	33.557	
4,900.0	4,849.2	4,876.1	4,849.2	14.0	11.8	158.32	247.0	-196.2	737.0	714.7	22.22	33.162	
4,921.2	4,870.4	4,897.4	4,870.4	14.1	11.8	158.32	247.0	-196.2	737.1	714.8	22.31	33.045	
4,925.6	4,874.8	4,901.7	4,874.8	14.1	11.8	-0.48	247.0	-196.2	737.1	712.0	25.08	29.388	
5,000.0	4,949.2	4,976.1	4,949.2	14.2	12.0	-0.48	247.0	-196.2	737.1	711.7	25.35	29.079	
5,019.7	4,968.8	4,995.8	4,968.8	14.2	12.0	-0.48	247.0	-196.2	737.1	711.6	25.42	28.999	

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 SCHAUMBERG 17G-314
<b>Project:</b>	WELD COUNTY, COLORADO	<b>TVD Reference:</b>	KB-EST @ 4633.0usft (Original Well Elev)
<b>Reference Site:</b>	SW NW SEC. 17 T5N R64W 6th P.M.	<b>MD Reference:</b>	KB-EST @ 4633.0usft (Original Well Elev)
<b>Site Error:</b>	0.0 usft	<b>North Reference:</b>	True
<b>Reference Well:</b>	SCHAUMBERG 17G-314	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Well Error:</b>	0.0 usft	<b>Output errors are at</b>	2.00 sigma
<b>Reference Wellbore</b>	ORIGINAL WELLBORE	<b>Database:</b>	EDM 5000.1 Single User Db
<b>Reference Design:</b>	PROPOSAL #1	<b>Offset TVD Reference:</b>	Offset Datum

Offset Design												Offset Site Error:	0.0 usft
Survey Program: 0-MWD												Offset Well Error:	0.0 usft
Reference		Offset		Semi Major Axis			Distance						Warning
Measured Depth (usft)	Vertical Depth (usft)	Measured Depth (usft)	Vertical Depth (usft)	Reference (usft)	Offset (usft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (usft)	+E/-W (usft)	Between Centres (usft)	Between Ellipses (usft)	Minimum Separation (usft)	Separation Factor	
5,100.0	5,049.2	5,076.1	5,049.2	14.3	12.2	-0.48	247.0	-196.2	737.1	711.4	25.70	28.676	
5,118.1	5,067.3	5,094.2	5,067.3	14.3	12.2	-0.48	247.0	-196.2	737.1	711.3	25.77	28.603	
5,200.0	5,149.2	5,176.1	5,149.2	14.5	12.4	-0.48	247.0	-196.2	737.1	711.0	26.06	28.280	
5,216.5	5,165.7	5,192.6	5,165.7	14.5	12.4	-0.48	247.0	-196.2	737.1	710.9	26.12	28.216	
5,300.0	5,249.2	5,276.1	5,249.2	14.6	12.6	-0.48	247.0	-196.2	737.1	710.6	26.42	27.893	
5,314.9	5,264.1	5,291.1	5,264.1	14.6	12.6	-0.48	247.0	-196.2	737.1	710.6	26.48	27.836	
5,400.0	5,349.2	5,376.1	5,349.2	14.8	12.8	-0.48	247.0	-196.2	737.1	710.3	26.79	27.514	
5,413.4	5,362.5	5,389.5	5,362.5	14.8	12.8	-0.48	247.0	-196.2	737.1	710.2	26.84	27.464	
5,500.0	5,449.2	5,476.1	5,449.2	14.9	13.0	-0.48	247.0	-196.2	737.1	709.9	27.16	27.142	
5,511.8	5,461.0	5,487.9	5,461.0	14.9	13.0	-0.48	247.0	-196.2	737.1	709.9	27.20	27.099	
5,600.0	5,549.2	5,576.1	5,549.2	15.1	13.2	-0.48	247.0	-196.2	737.1	709.5	27.52	26.778	
5,610.2	5,559.4	5,586.3	5,559.4	15.1	13.2	-0.48	247.0	-196.2	737.1	709.5	27.56	26.742	
5,700.0	5,649.2	5,676.1	5,649.2	15.2	13.4	-0.48	247.0	-196.2	737.1	709.2	27.90	26.422	
5,708.6	5,657.8	5,684.8	5,657.8	15.3	13.4	-0.48	247.0	-196.2	737.1	709.1	27.93	26.392	
5,800.0	5,749.2	5,776.1	5,749.2	15.4	13.6	-0.48	247.0	-196.2	737.1	708.8	28.27	26.073	
5,807.1	5,756.2	5,783.2	5,756.2	15.4	13.6	-0.48	247.0	-196.2	737.1	708.8	28.30	26.049	
5,900.0	5,849.2	5,876.1	5,849.2	15.6	13.8	-0.48	247.0	-196.2	737.1	708.4	28.64	25.731	
5,905.5	5,854.7	5,881.6	5,854.7	15.6	13.8	-0.48	247.0	-196.2	737.1	708.4	28.67	25.713	
6,000.0	5,949.2	5,976.1	5,949.2	15.7	14.0	-0.48	247.0	-196.2	737.1	708.0	29.02	25.397	
6,003.9	5,953.1	5,980.0	5,953.1	15.7	14.0	-0.48	247.0	-196.2	737.1	708.0	29.04	25.384	
6,039.9	5,989.1	6,016.0	5,989.1	15.8	14.1	-0.48	247.0	-196.2	737.1	707.9	29.17	25.265	
6,100.0	6,049.2	6,075.6	6,049.2	15.9	14.2	-0.62	247.0	-197.9	737.1	707.7	29.39	25.077	
6,102.3	6,051.5	6,077.9	6,050.9	15.9	14.2	-0.63	247.0	-198.1	737.1	707.7	29.40	25.070	
6,124.6	6,073.8	6,100.0	6,072.9	15.9	14.2	-0.78	247.0	-200.0	737.1	707.6	29.48	25.004	
6,150.0	6,099.2	6,124.7	6,097.4	16.0	14.3	89.02	247.0	-203.0	737.1	709.8	27.34	26.963	
6,200.0	6,149.0	6,173.4	6,145.4	16.1	14.4	88.63	247.0	-211.4	737.3	709.7	27.60	26.716	
6,200.8	6,149.8	6,174.1	6,146.1	16.1	14.4	88.62	247.0	-211.5	737.3	709.7	27.60	26.711	
6,250.0	6,198.5	6,221.8	6,192.4	16.2	14.6	88.24	247.0	-222.9	737.4	709.5	27.89	26.443	
6,299.2	6,246.6	6,269.1	6,237.5	16.3	14.7	87.87	247.0	-237.1	737.6	709.3	28.21	26.149	
6,300.0	6,247.4	6,269.8	6,238.2	16.3	14.7	87.86	247.0	-237.4	737.6	709.3	28.21	26.144	
6,350.0	6,295.5	6,317.6	6,282.7	16.5	14.9	87.50	247.0	-254.9	737.7	709.2	28.58	25.816	
6,397.6	6,340.2	6,362.8	6,323.6	16.6	15.1	87.16	247.0	-274.1	738.0	709.0	28.97	25.475	
6,400.0	6,342.4	6,365.1	6,325.6	16.6	15.1	87.15	247.0	-275.1	738.0	709.0	28.99	25.458	
6,450.0	6,388.1	6,412.3	6,366.9	16.8	15.4	86.81	247.0	-298.0	738.2	708.7	29.45	25.064	
6,496.0	6,428.8	6,455.6	6,403.3	17.0	15.6	86.51	247.0	-321.4	738.4	708.5	29.94	24.666	
6,500.0	6,432.2	6,459.3	6,406.4	17.0	15.6	86.49	247.0	-323.5	738.4	708.5	29.98	24.631	
6,550.0	6,474.6	6,506.1	6,443.9	17.3	15.9	86.18	247.0	-351.3	738.7	708.1	30.58	24.156	
6,594.5	6,510.7	6,547.5	6,475.6	17.5	16.2	85.92	247.0	-378.0	738.9	707.7	31.19	23.694	
6,600.0	6,515.0	6,552.6	6,479.4	17.6	16.3	85.89	247.0	-381.4	738.9	707.7	31.26	23.636	
6,650.0	6,553.3	6,600.0	6,513.5	17.9	16.7	85.62	247.0	-414.4	739.2	707.2	32.05	23.063	
6,692.9	6,584.3	6,638.5	6,539.5	18.2	17.0	85.41	247.0	-442.8	739.4	706.6	32.80	22.540	
6,700.0	6,589.2	6,645.1	6,543.8	18.2	17.1	85.37	247.0	-447.7	739.5	706.5	32.93	22.455	
6,750.0	6,622.7	6,691.1	6,572.5	18.6	17.6	85.15	247.0	-483.6	739.7	705.8	33.93	21.800	
6,791.3	6,648.3	6,728.9	6,594.3	19.0	18.0	84.98	247.0	-514.6	739.9	705.0	34.86	21.227	
6,800.0	6,653.4	6,736.9	6,598.7	19.1	18.1	84.94	247.0	-521.2	739.9	704.9	35.05	21.109	
6,850.0	6,681.4	6,782.6	6,622.4	19.6	18.7	84.76	247.0	-560.3	740.1	703.8	36.30	20.391	
6,889.7	6,701.5	6,818.8	6,639.5	20.1	19.3	84.63	247.0	-592.3	740.3	702.9	37.38	19.804	
6,900.0	6,706.3	6,828.2	6,643.6	20.2	19.4	84.60	247.0	-600.6	740.3	702.7	37.67	19.655	
6,950.0	6,728.2	6,873.7	6,662.1	20.9	20.1	84.47	247.0	-642.2	740.5	701.3	39.16	18.910	
6,988.2	6,742.8	6,908.3	6,674.4	21.5	20.7	84.38	247.0	-674.6	740.6	700.2	40.38	18.341	
7,000.0	6,746.9	6,919.1	6,677.9	21.6	20.9	84.36	247.0	-684.7	740.6	699.9	40.77	18.167	
7,050.0	6,762.4	6,964.4	6,690.9	22.5	21.7	84.27	247.0	-728.2	740.7	698.3	42.49	17.435	

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 SCHAUMBERG 17G-314
<b>Project:</b>	WELD COUNTY, COLORADO	<b>TVD Reference:</b>	KB-EST @ 4633.0usft (Original Well Elev)
<b>Reference Site:</b>	SW NW SEC. 17 T5N R64W 6th P.M.	<b>MD Reference:</b>	KB-EST @ 4633.0usft (Original Well Elev)
<b>Site Error:</b>	0.0 usft	<b>North Reference:</b>	True
<b>Reference Well:</b>	SCHAUMBERG 17G-314	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Well Error:</b>	0.0 usft	<b>Output errors are at</b>	2.00 sigma
<b>Reference Wellbore</b>	ORIGINAL WELLBORE	<b>Database:</b>	EDM 5000.1 Single User Db
<b>Reference Design:</b>	PROPOSAL #1	<b>Offset TVD Reference:</b>	Offset Datum

Offset Design												Offset Site Error:	0.0 usft
Survey Program: 0-MWD												Offset Well Error:	0.0 usft
Reference		Offset		Semi Major Axis			Distance						Warning
Measured Depth (usft)	Vertical Depth (usft)	Measured Depth (usft)	Vertical Depth (usft)	Reference (usft)	Offset (usft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (usft)	+E/-W (usft)	Between Centres (usft)	Between Ellipses (usft)	Minimum Separation (usft)	Separation Factor	
7,086.6	6,771.5	6,997.6	6,698.7	23.1	22.3	84.23	247.0	-760.4	740.8	697.0	43.81	16.910	
7,100.0	6,774.4	7,009.7	6,701.2	23.3	22.6	84.21	247.0	-772.3	740.8	696.5	44.30	16.722	
7,150.0	6,783.1	7,055.0	6,708.6	24.3	23.5	84.18	247.0	-816.9	740.9	694.7	46.20	16.034	
7,185.0	6,787.1	7,086.7	6,712.1	25.0	24.2	84.17	247.0	-848.4	740.9	693.3	47.59	15.569	
7,199.9	6,788.3	7,100.0	6,713.2	25.3	24.4	84.17	247.0	-861.7	740.9	692.7	48.17	15.380	
7,200.0	6,788.3	7,100.0	6,713.2	25.3	24.4	84.17	247.0	-861.7	740.9	692.7	48.17	15.379	
7,252.3	6,790.0	7,147.6	6,715.0	26.3	25.4	84.19	247.0	-909.2	740.8	690.5	50.31	14.726	
7,268.0	6,789.9	7,162.6	6,715.0	26.7	25.8	84.19	247.0	-924.3	740.8	689.9	50.98	14.531	
7,283.4	6,789.9	7,178.1	6,714.9	27.0	26.1	84.19	247.0	-939.8	740.8	689.2	51.67	14.339	
7,300.0	6,789.8	7,194.7	6,714.9	27.3	26.5	84.19	247.0	-956.3	740.8	688.4	52.40	14.139	
7,381.9	6,789.5	7,276.6	6,714.6	29.1	28.3	84.20	247.0	-1,038.2	740.8	684.7	56.13	13.197	
7,400.0	6,789.4	7,294.7	6,714.6	29.5	28.7	84.20	247.0	-1,056.3	740.8	683.9	56.96	13.006	
7,480.3	6,789.1	7,375.0	6,714.3	31.4	30.6	84.21	247.0	-1,136.6	740.8	680.1	60.76	12.192	
7,500.0	6,789.1	7,394.7	6,714.3	31.8	31.1	84.21	247.0	-1,156.3	740.8	679.1	61.70	12.007	
7,578.7	6,788.8	7,473.4	6,714.1	33.7	33.0	84.21	247.0	-1,235.1	740.8	675.3	65.53	11.305	
7,600.0	6,788.7	7,494.7	6,714.0	34.2	33.5	84.21	247.0	-1,256.3	740.8	674.3	66.56	11.129	
7,677.1	6,788.4	7,571.8	6,713.8	36.1	35.4	84.22	247.0	-1,333.5	740.8	670.4	70.40	10.523	
7,700.0	6,788.3	7,594.7	6,713.7	36.7	36.0	84.22	247.0	-1,356.3	740.8	669.3	71.54	10.355	
7,775.6	6,788.0	7,670.3	6,713.5	38.6	37.9	84.23	247.0	-1,431.9	740.8	665.4	75.36	9.830	
7,800.0	6,787.9	7,694.7	6,713.4	39.2	38.5	84.23	247.0	-1,456.3	740.8	664.2	76.60	9.671	
7,874.0	6,787.6	7,768.7	6,713.2	41.0	40.4	84.23	247.0	-1,530.3	740.8	660.4	80.40	9.214	
7,900.0	6,787.6	7,794.7	6,713.1	41.7	41.1	84.23	247.0	-1,556.3	740.8	659.1	81.73	9.064	
7,972.4	6,787.3	7,867.1	6,712.9	43.6	43.0	84.24	247.0	-1,628.8	740.8	655.3	85.49	8.665	
8,000.0	6,787.2	7,894.7	6,712.8	44.3	43.7	84.24	247.0	-1,656.3	740.8	653.9	86.92	8.523	
8,070.8	6,786.9	7,965.5	6,712.6	46.1	45.6	84.25	247.0	-1,727.2	740.8	650.1	90.63	8.174	
8,100.0	6,786.8	7,994.7	6,712.5	46.9	46.3	84.25	247.0	-1,756.3	740.8	648.6	92.16	8.038	
8,169.3	6,786.5	8,064.0	6,712.3	48.7	48.1	84.25	247.0	-1,825.6	740.8	645.0	95.81	7.732	
8,200.0	6,786.4	8,094.7	6,712.2	49.5	49.0	84.25	247.0	-1,856.3	740.8	643.3	97.43	7.603	
8,267.7	6,786.1	8,162.4	6,712.0	51.3	50.8	84.26	247.0	-1,924.0	740.8	639.7	101.03	7.332	
8,300.0	6,786.0	8,194.7	6,711.9	52.1	51.6	84.26	247.0	-1,956.3	740.8	638.0	102.74	7.210	
8,366.1	6,785.8	8,260.8	6,711.8	53.9	53.4	84.27	247.0	-2,022.5	740.7	634.5	106.27	6.970	
8,400.0	6,785.6	8,294.7	6,711.7	54.8	54.3	84.27	247.0	-2,056.3	740.7	632.7	108.08	6.854	
8,464.5	6,785.4	8,359.2	6,711.5	56.5	56.0	84.27	247.0	-2,120.9	740.7	629.2	111.55	6.641	
8,500.0	6,785.3	8,394.7	6,711.4	57.5	57.0	84.27	247.0	-2,156.3	740.7	627.3	113.45	6.529	
8,563.0	6,785.0	8,457.7	6,711.2	59.2	58.7	84.28	247.0	-2,219.3	740.7	623.9	116.84	6.340	
8,600.0	6,784.9	8,494.7	6,711.1	60.2	59.7	84.28	247.0	-2,256.3	740.7	621.9	118.83	6.233	
8,661.4	6,784.6	8,556.1	6,710.9	61.8	61.3	84.29	247.0	-2,317.7	740.7	618.6	122.15	6.064	
8,700.0	6,784.5	8,594.7	6,710.8	62.9	62.4	84.29	247.0	-2,356.3	740.7	616.5	124.24	5.962	
8,759.8	6,784.3	8,654.5	6,710.6	64.5	64.0	84.29	247.0	-2,416.2	740.7	613.2	127.48	5.810	
8,800.0	6,784.1	8,694.7	6,710.5	65.6	65.1	84.30	247.0	-2,456.3	740.7	611.0	129.66	5.713	
8,858.2	6,783.9	8,752.9	6,710.3	67.1	66.7	84.30	247.0	-2,514.6	740.7	607.9	132.83	5.576	
8,900.0	6,783.7	8,794.7	6,710.2	68.3	67.8	84.30	247.0	-2,556.3	740.7	605.6	135.10	5.483	
8,956.7	6,783.5	8,851.4	6,710.0	69.8	69.4	84.31	247.0	-2,613.0	740.7	602.5	138.18	5.360	
9,000.0	6,783.3	8,894.7	6,709.9	71.0	70.6	84.31	247.0	-2,656.3	740.7	600.1	140.55	5.270	
9,055.1	6,783.1	8,949.8	6,709.7	72.5	72.1	84.31	247.0	-2,711.4	740.7	597.1	143.55	5.160	
9,100.0	6,782.9	8,994.7	6,709.6	73.7	73.3	84.32	247.0	-2,756.3	740.7	594.7	146.01	5.073	
9,153.5	6,782.7	9,048.2	6,709.5	75.2	74.8	84.32	247.0	-2,809.9	740.7	591.7	148.93	4.973	
9,200.0	6,782.6	9,094.7	6,709.3	76.5	76.0	84.32	247.0	-2,856.3	740.7	589.2	151.48	4.890	
9,251.9	6,782.4	9,146.6	6,709.2	77.9	77.5	84.33	247.0	-2,908.3	740.7	586.3	154.32	4.799	
9,300.0	6,782.2	9,194.7	6,709.0	79.2	78.8	84.33	247.0	-2,956.3	740.7	583.7	156.96	4.719	
9,350.4	6,782.0	9,245.1	6,708.9	80.6	80.2	84.34	247.0	-3,006.7	740.7	580.9	159.72	4.637	
9,400.0	6,781.8	9,294.7	6,708.7	82.0	81.5	84.34	247.0	-3,056.3	740.7	578.2	162.44	4.559	

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 SCHAUMBERG 17G-314
<b>Project:</b>	WELD COUNTY, COLORADO	<b>TVD Reference:</b>	KB-EST @ 4633.0usft (Original Well Elev)
<b>Reference Site:</b>	SW NW SEC. 17 T5N R64W 6th P.M.	<b>MD Reference:</b>	KB-EST @ 4633.0usft (Original Well Elev)
<b>Site Error:</b>	0.0 usft	<b>North Reference:</b>	True
<b>Reference Well:</b>	SCHAUMBERG 17G-314	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Well Error:</b>	0.0 usft	<b>Output errors are at</b>	2.00 sigma
<b>Reference Wellbore</b>	ORIGINAL WELLBORE	<b>Database:</b>	EDM 5000.1 Single User Db
<b>Reference Design:</b>	PROPOSAL #1	<b>Offset TVD Reference:</b>	Offset Datum

Offset Design												Offset Site Error:	0.0 usft
Survey Program: 0-MWD												Offset Well Error:	0.0 usft
Reference		Offset		Semi Major Axis			Distance						Warning
Measured Depth (usft)	Vertical Depth (usft)	Measured Depth (usft)	Vertical Depth (usft)	Reference (usft)	Offset (usft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (usft)	+E/-W (usft)	Between Centres (usft)	Between Ellipses (usft)	Minimum Separation (usft)	Separation Factor	
9,448.8	6,781.6	9,343.5	6,708.6	83.3	82.9	84.34	247.0	-3,105.1	740.6	575.5	165.13	4.485	
9,500.0	6,781.4	9,394.7	6,708.4	84.7	84.3	84.35	247.0	-3,156.3	740.6	572.7	167.94	4.410	
9,547.2	6,781.2	9,441.9	6,708.3	86.0	85.6	84.35	247.0	-3,203.6	740.6	570.1	170.54	4.343	
9,600.0	6,781.0	9,494.7	6,708.1	87.5	87.1	84.35	247.0	-3,256.3	740.6	567.2	173.44	4.270	
9,645.6	6,780.8	9,540.3	6,708.0	88.7	88.3	84.36	247.0	-3,302.0	740.6	564.7	175.96	4.209	
9,700.0	6,780.6	9,594.7	6,707.9	90.2	89.8	84.36	247.0	-3,356.3	740.6	561.7	178.95	4.139	
9,744.1	6,780.4	9,638.8	6,707.7	91.4	91.0	84.37	247.0	-3,400.4	740.6	559.2	181.38	4.083	
9,800.0	6,780.2	9,694.7	6,707.6	93.0	92.6	84.37	247.0	-3,456.3	740.6	556.1	184.46	4.015	
9,842.5	6,780.1	9,737.2	6,707.4	94.2	93.8	84.37	247.0	-3,498.8	740.6	553.8	186.81	3.965	
9,900.0	6,779.8	9,794.7	6,707.3	95.7	95.4	84.38	247.0	-3,556.3	740.6	550.6	189.98	3.898	
9,940.9	6,779.7	9,835.6	6,707.1	96.9	96.5	84.38	247.0	-3,597.3	740.6	548.4	192.24	3.852	
10,000.0	6,779.4	9,894.7	6,707.0	98.5	98.1	84.38	247.0	-3,656.3	740.6	545.1	195.51	3.788	
10,039.3	6,779.3	9,934.0	6,706.9	99.6	99.2	84.39	247.0	-3,695.7	740.6	542.9	197.68	3.746	
10,100.0	6,779.0	9,994.7	6,706.7	101.3	100.9	84.39	247.0	-3,756.3	740.6	539.5	201.03	3.684	
10,137.8	6,778.9	10,032.5	6,706.6	102.3	101.9	84.40	247.0	-3,794.1	740.6	537.5	203.12	3.646	
10,200.0	6,778.7	10,094.7	6,706.4	104.1	103.7	84.40	247.0	-3,856.3	740.6	534.0	206.57	3.585	
10,236.2	6,778.5	10,130.9	6,706.3	105.1	104.7	84.40	247.0	-3,892.5	740.6	532.0	208.57	3.551	
10,300.0	6,778.3	10,194.7	6,706.1	106.8	106.5	84.41	247.0	-3,956.3	740.6	528.5	212.10	3.492	
10,334.6	6,778.1	10,229.3	6,706.0	107.8	107.4	84.41	247.0	-3,991.0	740.6	526.5	214.02	3.460	
10,400.0	6,777.9	10,294.7	6,705.8	109.6	109.2	84.42	247.0	-4,056.3	740.6	522.9	217.64	3.403	
10,433.0	6,777.7	10,327.7	6,705.7	110.5	110.1	84.42	247.0	-4,089.4	740.5	521.1	219.47	3.374	
10,500.0	6,777.5	10,394.7	6,705.5	112.4	112.0	84.42	247.0	-4,156.3	740.5	517.4	223.18	3.318	
10,531.5	6,777.3	10,426.2	6,705.4	113.3	112.9	84.43	247.0	-4,187.8	740.5	515.6	224.93	3.292	
10,600.0	6,777.1	10,494.7	6,705.2	115.2	114.8	84.43	247.0	-4,256.3	740.5	511.8	228.73	3.238	
10,629.9	6,777.0	10,524.6	6,705.1	116.0	115.6	84.43	247.0	-4,286.2	740.5	510.1	230.39	3.214	
10,700.0	6,776.7	10,594.7	6,704.9	117.9	117.6	84.44	247.0	-4,356.3	740.5	506.2	234.28	3.161	
10,728.3	6,776.6	10,623.0	6,704.8	118.7	118.4	84.44	247.0	-4,384.7	740.5	504.7	235.85	3.140	
10,800.0	6,776.3	10,694.7	6,704.6	120.7	120.4	84.45	247.0	-4,456.3	740.5	500.7	239.83	3.088	
10,826.7	6,776.2	10,721.4	6,704.6	121.5	121.1	84.45	247.0	-4,483.1	740.5	499.2	241.31	3.069	
10,900.0	6,775.9	10,794.7	6,704.3	123.5	123.1	84.46	247.0	-4,556.3	740.5	495.1	245.38	3.018	
10,925.2	6,775.8	10,819.9	6,704.3	124.2	123.8	84.46	247.0	-4,581.5	740.5	493.7	246.78	3.001	
11,000.0	6,775.5	10,894.7	6,704.0	126.3	125.9	84.46	247.0	-4,656.3	740.5	489.6	250.94	2.951	
11,023.6	6,775.4	10,918.3	6,704.0	126.9	126.6	84.47	247.0	-4,679.9	740.5	488.2	252.25	2.936	
11,100.0	6,775.1	10,994.7	6,703.8	129.1	128.7	84.47	247.0	-4,756.3	740.5	484.0	256.49	2.887	
11,122.0	6,775.0	11,016.7	6,703.7	129.7	129.3	84.47	247.0	-4,778.4	740.5	482.8	257.72	2.873	
11,200.0	6,774.7	11,094.7	6,703.5	131.9	131.5	84.48	247.0	-4,856.3	740.5	478.4	262.05	2.826	
11,220.4	6,774.6	11,115.1	6,703.4	132.4	132.1	84.48	247.0	-4,876.8	740.5	477.3	263.19	2.813	
11,300.0	6,774.3	11,194.7	6,703.2	134.6	134.3	84.49	247.0	-4,956.3	740.5	472.8	267.61	2.767	
11,318.9	6,774.2	11,213.6	6,703.1	135.2	134.8	84.49	247.0	-4,975.2	740.5	471.8	268.66	2.756	
11,400.0	6,773.9	11,294.7	6,702.9	137.4	137.1	84.50	247.0	-5,056.3	740.4	467.3	273.18	2.711	
11,417.3	6,773.8	11,312.0	6,702.8	137.9	137.6	84.50	247.0	-5,073.6	740.4	466.3	274.14	2.701	
11,500.0	6,773.5	11,394.7	6,702.6	140.2	139.9	84.51	247.1	-5,156.3	740.4	461.7	278.74	2.656	
11,515.7	6,773.4	11,410.4	6,702.5	140.7	140.3	84.51	247.1	-5,172.0	740.4	460.8	279.62	2.648	
11,600.0	6,773.1	11,494.7	6,702.3	143.0	142.7	84.51	247.1	-5,256.3	740.4	456.1	284.31	2.604	
11,614.1	6,773.0	11,508.8	6,702.2	143.4	143.1	84.51	247.1	-5,270.5	740.4	455.3	285.10	2.597	
11,700.0	6,772.7	11,594.7	6,702.0	145.8	145.5	84.52	247.1	-5,356.3	740.4	450.5	289.88	2.554	
11,712.6	6,772.6	11,607.3	6,702.0	146.2	145.8	84.52	247.1	-5,368.9	740.4	449.8	290.58	2.548	
11,800.0	6,772.3	11,694.7	6,701.7	148.6	148.3	84.53	247.1	-5,456.3	740.4	445.0	295.45	2.506	
11,811.0	6,772.2	11,705.7	6,701.7	148.9	148.6	84.53	247.1	-5,467.3	740.4	444.3	296.06	2.501	
11,900.0	6,771.9	11,794.7	6,701.4	151.4	151.0	84.54	247.1	-5,556.3	740.4	439.4	301.02	2.460	
11,909.4	6,771.8	11,804.1	6,701.4	151.7	151.3	84.54	247.1	-5,565.7	740.4	438.8	301.54	2.455	
12,000.0	6,771.5	11,894.7	6,701.1	154.2	153.8	84.55	247.1	-5,656.3	740.4	433.8	306.59	2.415	

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 SCHAUMBERG 17G-314
<b>Project:</b>	WELD COUNTY, COLORADO	<b>TVD Reference:</b>	KB-EST @ 4633.0usft (Original Well Elev)
<b>Reference Site:</b>	SW NW SEC. 17 T5N R64W 6th P.M.	<b>MD Reference:</b>	KB-EST @ 4633.0usft (Original Well Elev)
<b>Site Error:</b>	0.0 usft	<b>North Reference:</b>	True
<b>Reference Well:</b>	SCHAUMBERG 17G-314	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Well Error:</b>	0.0 usft	<b>Output errors are at</b>	2.00 sigma
<b>Reference Wellbore</b>	ORIGINAL WELLBORE	<b>Database:</b>	EDM 5000.1 Single User Db
<b>Reference Design:</b>	PROPOSAL #1	<b>Offset TVD Reference:</b>	Offset Datum

<b>Offset Design</b> SW NW SEC. 17 T5N R64W 6th P.M. - SCHAUMBERG 17F-204 - ORIGINAL WELLBORE - PROPOS												<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
12,007.8	6,771.4	11,902.5	6,701.1	154.4	154.1	84.55	247.1	-5,664.2	740.4	433.4	307.03	2.411	
12,100.0	6,771.1	11,994.7	6,700.8	157.0	156.6	84.56	247.1	-5,756.3	740.4	428.2	312.16	2.372	
12,106.3	6,771.0	12,001.0	6,700.8	157.2	156.8	84.56	247.1	-5,762.6	740.4	427.9	312.51	2.369	
12,200.0	6,770.7	12,094.7	6,700.5	159.8	159.4	84.56	247.1	-5,856.3	740.4	422.6	317.74	2.330	
12,204.7	6,770.6	12,099.4	6,700.5	159.9	159.6	84.57	247.1	-5,861.0	740.4	422.4	318.00	2.328	
12,300.0	6,770.3	12,194.7	6,700.2	162.6	162.2	84.57	247.1	-5,956.3	740.3	417.0	323.31	2.290	
12,303.1	6,770.2	12,197.8	6,700.2	162.7	162.3	84.57	247.1	-5,959.4	740.3	416.9	323.49	2.289	
12,350.0	6,770.0	12,245.0	6,700.0	164.0	163.6	84.57	247.0	-6,006.6	740.3	414.2	326.11	2.270	
12,361.7	6,770.0	12,253.4	6,700.0	164.3	163.9	84.57	247.0	-6,015.0	740.3	413.7	326.67	2.266 SF	



# Anticollision Report



<b>Company:</b>	PDC ENERGY	<b>Local Co-ordinate Reference:</b>	Well SCHAUMBERG 17G-314
<b>Project:</b>	WELD COUNTY, COLORADO	<b>TVD Reference:</b>	KB-EST @ 4633.0usft (Original Well Elev)
<b>Reference Site:</b>	SW NW SEC. 17 T5N R64W 6th P.M.	<b>MD Reference:</b>	KB-EST @ 4633.0usft (Original Well Elev)
<b>Site Error:</b>	0.0 usft	<b>North Reference:</b>	True
<b>Reference Well:</b>	SCHAUMBERG 17G-314	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Well Error:</b>	0.0 usft	<b>Output errors are at</b>	2.00 sigma
<b>Reference Wellbore</b>	ORIGINAL WELLBORE	<b>Database:</b>	EDM 5000.1 Single User Db
<b>Reference Design:</b>	PROPOSAL #1	<b>Offset TVD Reference:</b>	Offset Datum

Offset Design												Offset Site Error:	0.0 usft
Survey Program: 0-MWD												Offset Well Error:	0.0 usft
Reference		Offset		Semi Major Axis			Distance						Warning
Measured Depth (usft)	Vertical Depth (usft)	Measured Depth (usft)	Vertical Depth (usft)	Reference (usft)	Offset (usft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (usft)	+E/-W (usft)	Between Centres (usft)	Between Ellipses (usft)	Minimum Separation (usft)	Separation Factor	
0.0	0.0	0.0	0.0	0.0	0.0	-90.46	-0.7	-90.0	90.0				
98.4	98.4	98.4	98.4	0.1	0.1	-90.46	-0.7	-90.0	90.0	89.8	0.19	467.978	
100.0	100.0	100.0	100.0	0.1	0.1	-90.46	-0.7	-90.0	90.0	89.8	0.20	460.057	
196.8	196.8	196.8	196.8	0.3	0.3	-90.46	-0.7	-90.0	90.0	89.3	0.63	142.590	
200.0	200.0	200.0	200.0	0.3	0.3	-90.46	-0.7	-90.0	90.0	89.3	0.65	139.460	
295.3	295.3	295.3	295.3	0.5	0.5	-90.46	-0.7	-90.0	90.0	88.9	1.07	83.813	
300.0	300.0	300.0	300.0	0.5	0.5	-90.46	-0.7	-90.0	90.0	88.9	1.09	82.187	
393.7	393.7	393.7	393.7	0.8	0.8	-90.46	-0.7	-90.0	90.0	88.4	1.52	59.349	
400.0	400.0	400.0	400.0	0.8	0.8	-90.46	-0.7	-90.0	90.0	88.4	1.54	58.261	
492.1	492.1	492.1	492.1	1.0	1.0	-90.46	-0.7	-90.0	90.0	88.0	1.96	45.940	
500.0	500.0	500.0	500.0	1.0	1.0	-90.46	-0.7	-90.0	90.0	88.0	1.99	45.124	
590.5	590.5	590.5	590.5	1.2	1.2	-90.46	-0.7	-90.0	90.0	87.6	2.40	37.473	
600.0	600.0	600.0	600.0	1.2	1.2	-90.46	-0.7	-90.0	90.0	87.5	2.44	36.822	
689.0	689.0	689.0	689.0	1.4	1.4	-90.46	-0.7	-90.0	90.0	87.1	2.84	31.642	
700.0	700.0	700.0	700.0	1.4	1.4	-90.46	-0.7	-90.0	90.0	87.1	2.89	31.099	
787.4	787.4	787.4	787.4	1.6	1.6	-90.46	-0.7	-90.0	90.0	86.7	3.29	27.381	
800.0	800.0	800.0	800.0	1.7	1.7	-90.46	-0.7	-90.0	90.0	86.6	3.34	26.917	
885.8	885.8	885.8	885.8	1.9	1.9	-90.46	-0.7	-90.0	90.0	86.2	3.73	24.131	
900.0	900.0	900.0	900.0	1.9	1.9	-90.46	-0.7	-90.0	90.0	86.2	3.79	23.726	
984.2	984.2	984.2	984.2	2.1	2.1	-90.46	-0.7	-90.0	90.0	85.8	4.17	21.571	
1,000.0	1,000.0	1,000.0	1,000.0	2.1	2.1	-90.46	-0.7	-90.0	90.0	85.7	4.24	21.211	
1,082.7	1,082.7	1,082.7	1,082.7	2.3	2.3	-90.46	-0.7	-90.0	90.0	85.3	4.61	19.502	
1,100.0	1,100.0	1,100.0	1,100.0	2.3	2.3	-90.46	-0.7	-90.0	90.0	85.3	4.69	19.178	
1,181.1	1,181.1	1,181.1	1,181.1	2.5	2.5	-90.46	-0.7	-90.0	90.0	84.9	5.06	17.795	
1,200.0	1,200.0	1,200.0	1,200.0	2.6	2.6	-90.46	-0.7	-90.0	90.0	84.8	5.14	17.501 CC, ES	
1,279.5	1,279.5	1,277.1	1,277.1	2.7	2.7	-90.58	-0.9	-91.0	91.0	85.5	5.48	16.609	
1,300.0	1,300.0	1,297.0	1,296.9	2.8	2.8	-90.65	-1.0	-91.6	91.6	86.1	5.57	16.458	
1,377.9	1,377.9	1,372.4	1,372.3	3.0	2.9	-91.03	-1.7	-95.1	95.2	89.3	5.89	16.163	
1,400.0	1,400.0	1,393.7	1,393.6	3.0	3.0	-91.16	-2.0	-96.4	96.6	90.6	5.98	16.148	
1,476.4	1,476.4	1,467.3	1,466.9	3.2	3.1	-91.73	-3.1	-102.2	102.7	96.4	6.31	16.284	
1,500.0	1,500.0	1,490.0	1,489.5	3.2	3.2	-91.92	-3.5	-104.4	104.9	98.5	6.40	16.385	
1,574.8	1,574.8	1,561.6	1,560.7	3.4	3.3	-92.57	-5.0	-112.3	113.3	106.6	6.72	16.858	
1,600.0	1,600.0	1,585.7	1,584.5	3.5	3.4	-92.79	-5.6	-115.4	116.6	109.8	6.83	17.069	
1,673.2	1,673.2	1,655.2	1,653.3	3.6	3.6	-93.45	-7.6	-125.4	127.2	120.0	7.15	17.801	
1,700.0	1,700.0	1,680.5	1,678.2	3.7	3.6	-93.68	-8.3	-129.4	131.5	124.3	7.26	18.113	
1,771.6	1,771.6	1,747.8	1,744.4	3.9	3.8	-94.29	-10.6	-141.2	144.2	136.6	7.57	19.044	
1,800.0	1,800.0	1,774.2	1,770.4	3.9	3.9	-94.53	-11.6	-146.3	149.7	142.0	7.70	19.450	
1,870.1	1,870.1	1,839.3	1,834.0	4.1	4.1	63.73	-14.2	-159.7	164.0	156.0	7.97	20.575	
1,900.0	1,900.0	1,866.9	1,860.9	4.1	4.2	63.65	-15.4	-165.8	170.3	162.2	8.09	21.052	
1,968.5	1,968.4	1,929.8	1,922.0	4.2	4.5	63.71	-18.2	-180.8	185.4	177.0	8.35	22.195	
2,000.0	1,999.8	1,958.6	1,949.8	4.3	4.6	63.85	-19.6	-188.0	192.6	184.1	8.47	22.725	
2,066.9	2,066.5	2,019.4	2,008.2	4.4	4.8	64.30	-22.8	-204.2	208.4	199.6	8.74	23.844	
2,100.0	2,099.5	2,049.2	2,036.8	4.5	5.0	64.59	-24.4	-212.6	216.5	207.6	8.87	24.399	
2,165.3	2,164.4	2,107.8	2,092.6	4.6	5.3	65.27	-27.7	-230.0	233.0	223.8	9.14	25.480	
2,200.0	2,198.7	2,138.6	2,121.9	4.7	5.4	65.67	-29.6	-239.6	242.0	232.8	9.29	26.053	
2,263.8	2,261.8	2,194.9	2,175.0	4.8	5.7	66.47	-33.1	-257.9	259.3	249.7	9.58	27.075	
2,300.0	2,297.5	2,226.7	2,204.8	4.9	5.9	66.95	-35.2	-268.7	269.4	259.7	9.74	27.652	
2,362.2	2,358.6	2,280.8	2,255.3	5.0	6.3	67.79	-38.9	-287.8	287.4	277.3	10.05	28.596	
2,400.0	2,395.6	2,313.3	2,285.5	5.1	6.5	68.32	-41.2	-299.7	298.6	288.4	10.24	29.166	
2,460.6	2,454.9	2,365.5	2,333.7	5.3	6.9	69.43	-45.0	-319.6	317.5	307.0	10.58	30.023	
2,500.0	2,493.4	2,402.6	2,367.7	5.4	7.1	70.14	-47.8	-334.0	330.1	319.3	10.81	30.545	
2,559.0	2,551.2	2,458.3	2,418.9	5.6	7.5	71.11	-51.9	-355.5	349.1	338.0	11.17	31.251	

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 SCHAUMBERG 17G-314
<b>Project:</b>	WELD COUNTY, COLORADO	<b>TVD Reference:</b>	KB-EST @ 4633.0usft (Original Well Elev)
<b>Reference Site:</b>	SW NW SEC. 17 T5N R64W 6th P.M.	<b>MD Reference:</b>	KB-EST @ 4633.0usft (Original Well Elev)
<b>Site Error:</b>	0.0 usft	<b>North Reference:</b>	True
<b>Reference Well:</b>	SCHAUMBERG 17G-314	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Well Error:</b>	0.0 usft	<b>Output errors are at</b>	2.00 sigma
<b>Reference Wellbore</b>	ORIGINAL WELLBORE	<b>Database:</b>	EDM 5000.1 Single User Db
<b>Reference Design:</b>	PROPOSAL #1	<b>Offset TVD Reference:</b>	Offset Datum

Offset Design												Offset Site Error:	0.0 usft
Survey Program: 0-MWD												Offset Well Error:	0.0 usft
Reference		Offset		Semi Major Axis			Distance						Warning
Measured Depth (usft)	Vertical Depth (usft)	Measured Depth (usft)	Vertical Depth (usft)	Reference (usft)	Offset (usft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (usft)	+E/-W (usft)	Between Centres (usft)	Between Ellipses (usft)	Minimum Separation (usft)	Separation Factor	
2,600.0	2,591.3	2,496.9	2,454.3	5.7	7.8	71.72	-54.8	-370.5	362.4	350.9	11.43	31.710	
2,657.5	2,647.5	2,551.0	2,504.1	5.9	8.2	72.51	-58.9	-391.5	381.0	369.2	11.80	32.275	
2,700.0	2,689.1	2,591.1	2,540.9	6.0	8.5	73.04	-61.9	-407.0	394.8	382.7	12.09	32.666	
2,755.9	2,743.7	2,643.8	2,589.3	6.2	8.9	73.69	-65.8	-427.4	413.0	400.5	12.47	33.116	
2,800.0	2,786.9	2,685.4	2,627.5	6.4	9.3	74.16	-68.9	-443.5	427.3	414.6	12.78	33.446	
2,854.3	2,840.0	2,736.6	2,674.5	6.6	9.7	74.70	-72.7	-463.3	445.1	431.9	13.17	33.803	
2,900.0	2,884.7	2,779.6	2,714.1	6.7	10.0	75.13	-75.9	-480.0	460.0	446.5	13.50	34.081	
2,952.7	2,936.3	2,829.3	2,759.8	6.9	10.4	75.58	-79.7	-499.3	477.3	463.4	13.89	34.364	
3,000.0	2,982.5	2,873.8	2,800.7	7.1	10.8	75.96	-83.0	-516.5	492.9	478.6	14.25	34.597	
3,051.2	3,032.6	2,922.1	2,845.0	7.3	11.1	76.35	-86.6	-535.2	509.7	495.0	14.64	34.820	
3,100.0	3,080.3	2,968.1	2,887.3	7.5	11.5	76.70	-90.0	-553.1	525.7	510.7	15.01	35.016	
3,149.6	3,128.8	3,014.8	2,930.2	7.7	11.9	77.03	-93.5	-571.2	542.1	526.7	15.40	35.192	
3,200.0	3,178.1	3,062.3	2,973.9	7.9	12.3	77.34	-97.1	-589.6	558.7	542.9	15.80	35.356	
3,248.0	3,225.1	3,107.6	3,015.4	8.1	12.7	77.63	-100.5	-607.1	574.5	558.4	16.19	35.495	
3,300.0	3,276.0	3,156.5	3,060.4	8.3	13.1	77.92	-104.1	-626.1	591.7	575.1	16.61	35.632	
3,346.4	3,321.4	3,200.3	3,100.7	8.5	13.4	78.16	-107.4	-643.1	607.1	590.1	16.98	35.741	
3,400.0	3,373.8	3,250.8	3,147.0	8.7	13.8	78.43	-111.2	-662.6	624.8	607.3	17.42	35.856	
3,444.9	3,417.7	3,293.1	3,185.9	8.8	14.2	78.64	-114.3	-679.0	639.6	621.8	17.80	35.941	
3,500.0	3,471.6	3,345.0	3,233.6	9.1	14.6	78.89	-118.2	-699.1	657.9	639.6	18.26	36.037	
3,543.3	3,513.9	3,385.8	3,271.1	9.2	14.9	79.08	-121.2	-714.9	672.2	653.6	18.62	36.104	
3,600.0	3,569.4	3,439.3	3,320.2	9.5	15.4	79.31	-125.2	-735.7	691.0	671.9	19.10	36.184	
3,641.7	3,610.2	3,478.6	3,356.3	9.7	15.7	79.47	-128.2	-750.9	704.8	685.4	19.45	36.235	
3,700.0	3,667.2	3,533.5	3,406.8	9.9	16.2	79.69	-132.3	-772.2	724.2	704.2	19.95	36.302	
3,740.1	3,706.5	3,571.3	3,441.6	10.1	16.5	79.83	-135.1	-786.8	737.5	717.2	20.29	36.342	
3,800.0	3,765.0	3,627.7	3,493.4	10.3	17.0	80.04	-139.3	-808.7	757.3	736.5	20.81	36.397	
3,838.6	3,802.8	3,664.1	3,526.8	10.5	17.3	80.16	-142.0	-822.8	770.2	749.0	21.14	36.428	
3,900.0	3,862.8	3,722.0	3,580.0	10.7	17.7	80.36	-146.4	-845.2	790.6	768.9	21.67	36.474	
3,937.0	3,899.0	3,756.8	3,612.0	10.9	18.0	80.47	-149.0	-858.7	802.9	780.9	22.00	36.497	
4,000.0	3,960.7	3,816.2	3,666.6	11.2	18.5	80.65	-153.4	-881.7	823.8	801.2	22.55	36.534	
4,035.4	3,995.3	3,849.6	3,697.2	11.3	18.8	80.75	-155.9	-894.7	835.6	812.7	22.86	36.552	
4,100.0	4,058.5	3,910.4	3,753.1	11.6	19.3	80.92	-160.5	-918.2	857.0	833.6	23.43	36.582	
4,133.8	4,091.6	3,942.3	3,782.5	11.7	19.6	81.00	-162.8	-930.6	868.3	844.6	23.73	36.595	
4,200.0	4,156.3	4,004.7	3,839.7	12.0	20.1	81.17	-167.5	-954.8	890.3	866.0	24.31	36.619	
4,232.3	4,187.9	4,035.1	3,867.7	12.2	20.4	81.24	-169.8	-966.5	901.0	876.4	24.60	36.629	
4,300.0	4,254.1	4,098.9	3,926.3	12.5	20.9	81.40	-174.5	-991.3	923.6	898.4	25.20	36.647	
4,325.7	4,279.2	4,123.1	3,948.5	12.6	21.1	81.46	-176.3	-1,000.6	932.1	906.7	25.43	36.653	
4,330.7	4,284.1	4,127.8	3,952.9	12.6	21.1	81.50	-176.7	-1,002.5	933.8	908.3	25.48	36.651	
4,400.0	4,352.1	4,193.1	4,012.9	12.8	21.7	82.08	-181.6	-1,027.8	957.0	930.9	26.12	36.636	
4,429.1	4,380.8	4,220.5	4,038.1	12.9	21.9	82.29	-183.6	-1,038.4	966.8	940.5	26.37	36.667	
4,500.0	4,450.7	4,287.2	4,099.3	13.1	22.5	82.73	-188.6	-1,064.2	990.9	963.9	26.96	36.756	
4,527.5	4,478.0	4,313.1	4,123.1	13.2	22.7	82.87	-190.5	-1,074.3	1,000.3	973.1	27.18	36.808	
4,600.0	4,549.9	4,381.0	4,185.5	13.4	23.3	83.19	-195.6	-1,100.6	1,025.2	997.4	27.74	36.957	
4,626.0	4,575.7	4,405.4	4,207.9	13.5	23.5	83.28	-197.4	-1,110.0	1,034.1	1,006.2	27.93	37.027	
4,700.0	4,649.4	4,474.5	4,271.4	13.6	24.1	83.48	-202.6	-1,136.8	1,059.9	1,031.4	28.46	37.240	
4,724.4	4,673.7	4,497.2	4,292.3	13.7	24.3	83.53	-204.3	-1,145.6	1,068.4	1,039.8	28.62	37.325	
4,800.0	4,749.2	4,567.5	4,356.9	13.8	24.9	83.62	-209.6	-1,172.9	1,095.0	1,065.9	29.12	37.603	
4,822.8	4,772.0	4,588.6	4,376.3	13.9	25.0	83.64	-211.1	-1,181.1	1,103.1	1,073.9	29.26	37.702	
4,900.0	4,849.2	4,659.9	4,441.8	14.0	25.6	83.63	-216.5	-1,208.7	1,130.7	1,101.0	29.72	38.049	
4,921.2	4,870.4	4,679.4	4,459.7	14.1	25.8	83.62	-217.9	-1,216.2	1,138.4	1,108.5	29.84	38.153	
4,925.6	4,874.8	4,683.5	4,463.4	14.1	25.8	-75.19	-218.2	-1,217.8	1,139.9	1,105.4	34.56	32.985	
5,000.0	4,949.2	4,751.8	4,526.2	14.2	26.4	-75.81	-223.3	-1,244.3	1,166.8	1,131.5	35.34	33.022	
5,019.7	4,968.8	4,769.9	4,542.8	14.2	26.6	-75.96	-224.7	-1,251.3	1,174.0	1,138.4	35.54	33.032	

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 SCHAUMBERG 17G-314
<b>Project:</b>	WELD COUNTY, COLORADO	<b>TVD Reference:</b>	KB-EST @ 4633.0usft (Original Well Elev)
<b>Reference Site:</b>	SW NW SEC. 17 T5N R64W 6th P.M.	<b>MD Reference:</b>	KB-EST @ 4633.0usft (Original Well Elev)
<b>Site Error:</b>	0.0 usft	<b>North Reference:</b>	True
<b>Reference Well:</b>	SCHAUMBERG 17G-314	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Well Error:</b>	0.0 usft	<b>Output errors are at</b>	2.00 sigma
<b>Reference Wellbore</b>	ORIGINAL WELLBORE	<b>Database:</b>	EDM 5000.1 Single User Db
<b>Reference Design:</b>	PROPOSAL #1	<b>Offset TVD Reference:</b>	Offset Datum

Offset Design												Offset Site Error:	0.0 usft
Survey Program: 0-MWD												Offset Well Error:	0.0 usft
Reference		Offset		Semi Major Axis			Distance						Warning
Measured Depth (usft)	Vertical Depth (usft)	Measured Depth (usft)	Vertical Depth (usft)	Reference (usft)	Offset (usft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (usft)	+E/-W (usft)	Between Centres (usft)	Between Ellipses (usft)	Minimum Separation (usft)	Separation Factor	
5,100.0	5,049.2	4,843.7	4,610.6	14.3	27.2	-76.59	-230.2	-1,279.9	1,203.2	1,166.8	36.38	33.074	
5,118.1	5,067.3	4,860.3	4,625.9	14.3	27.3	-76.73	-231.4	-1,286.3	1,209.8	1,173.2	36.57	33.084	
5,200.0	5,149.2	4,935.6	4,695.1	14.5	28.0	-77.33	-237.1	-1,315.5	1,239.7	1,202.3	37.42	33.129	
5,216.5	5,165.7	4,950.8	4,709.0	14.5	28.1	-77.45	-238.2	-1,321.4	1,245.8	1,208.2	37.59	33.139	
5,300.0	5,249.2	5,027.5	4,779.5	14.6	28.8	-78.03	-243.9	-1,351.1	1,276.4	1,238.0	38.46	33.187	
5,314.9	5,264.1	5,041.2	4,792.1	14.6	28.9	-78.14	-245.0	-1,356.4	1,281.9	1,243.3	38.62	33.196	
5,400.0	5,349.2	5,152.6	4,894.9	14.8	29.7	-78.91	-253.1	-1,398.7	1,312.8	1,273.1	39.68	33.085	
5,413.4	5,362.5	5,174.5	4,915.2	14.8	29.8	-79.05	-254.6	-1,406.5	1,317.3	1,277.5	39.86	33.049	
5,500.0	5,449.2	5,091.9	4,695.5	14.9	43.5	2.31	-291.5	-182.0	1,262.1	1,230.5	31.60	39.937	
5,511.8	5,461.0	5,091.9	4,695.5	14.9	43.5	2.29	-291.5	-182.1	1,250.4	1,218.8	31.62	39.551	
5,600.0	5,549.2	5,091.3	4,695.5	15.1	43.5	2.13	-291.5	-182.6	1,163.5	1,131.7	31.72	36.675	
5,610.2	5,559.4	5,091.2	4,695.5	15.1	43.5	2.11	-291.5	-182.7	1,153.4	1,121.6	31.74	36.342	
5,700.0	5,649.2	5,090.6	4,695.5	15.2	43.5	1.94	-291.5	-183.3	1,065.1	1,033.2	31.85	33.442	
5,708.6	5,657.8	5,090.6	4,695.5	15.3	43.5	1.92	-291.5	-183.3	1,056.6	1,024.7	31.86	33.164	
5,800.0	5,749.2	5,090.0	4,695.6	15.4	43.5	1.76	-291.5	-183.9	967.0	935.0	31.98	30.242	
5,807.1	5,756.2	5,090.0	4,695.6	15.4	43.5	1.74	-291.5	-184.0	960.1	928.1	31.98	30.017	
5,900.0	5,849.2	5,089.4	4,695.6	15.6	43.5	1.57	-291.5	-184.6	869.4	837.3	32.10	27.079	
5,905.5	5,854.7	5,089.3	4,695.6	15.6	43.5	1.56	-291.5	-184.6	864.0	831.9	32.11	26.906	
6,000.0	5,949.2	5,088.7	4,695.6	15.7	43.5	1.38	-291.5	-185.2	772.3	740.1	32.24	23.959	
6,003.9	5,953.1	5,088.7	4,695.6	15.7	43.5	1.38	-291.5	-185.2	768.6	736.3	32.24	23.837	
6,100.0	6,049.2	5,088.1	4,695.6	15.9	43.4	1.20	-291.5	-185.8	676.2	643.8	32.37	20.889	
6,102.3	6,051.5	5,088.1	4,695.6	15.9	43.4	1.19	-291.5	-185.9	673.9	641.6	32.37	20.817	
6,124.6	6,073.8	5,087.9	4,695.6	15.9	43.4	1.15	-291.5	-186.0	652.7	620.3	32.40	20.142	
6,150.0	6,099.2	5,087.3	4,695.6	16.0	43.4	97.17	-291.5	-186.6	628.6	572.5	56.12	11.200	
6,200.0	6,149.0	5,083.5	4,695.6	16.1	43.4	107.06	-291.5	-190.4	581.5	527.2	54.28	10.713	
6,200.8	6,149.8	5,083.4	4,695.6	16.1	43.4	107.19	-291.5	-190.5	580.8	526.5	54.25	10.706	
6,250.0	6,198.5	5,076.2	4,695.6	16.2	43.2	114.33	-291.5	-197.7	535.3	482.9	52.42	10.212	
6,299.2	6,246.6	5,065.6	4,695.7	16.3	43.0	119.26	-291.5	-208.3	491.0	440.1	50.91	9.644	
6,300.0	6,247.4	5,065.4	4,695.7	16.3	43.0	119.32	-291.5	-208.5	490.3	439.4	50.89	9.634	
6,350.0	6,295.5	5,051.3	4,695.8	16.5	42.8	122.48	-291.5	-222.6	446.8	397.1	49.79	8.975	
6,397.6	6,340.2	5,034.8	4,695.9	16.6	42.5	124.11	-291.5	-239.1	407.3	358.2	49.11	8.293	
6,400.0	6,342.4	5,033.9	4,695.9	16.6	42.5	124.16	-291.5	-240.0	405.4	356.3	49.09	8.259	
6,450.0	6,388.1	5,013.3	4,696.0	16.8	42.1	124.60	-291.5	-260.7	366.4	317.6	48.75	7.516	
6,496.0	6,428.8	4,991.5	4,696.2	17.0	41.7	124.03	-291.5	-282.5	333.0	284.3	48.74	6.832	
6,500.0	6,432.2	4,989.5	4,696.2	17.0	41.6	123.94	-291.5	-284.4	330.3	281.5	48.75	6.775	
6,550.0	6,474.6	4,962.7	4,696.4	17.3	41.2	122.26	-291.5	-311.2	297.6	248.5	49.09	6.063	
6,594.5	6,510.7	4,936.4	4,696.5	17.5	40.7	119.94	-291.5	-337.5	271.9	222.3	49.65	5.477	
6,600.0	6,515.0	4,933.0	4,696.6	17.6	40.7	119.60	-291.5	-340.9	269.0	219.2	49.73	5.408	
6,650.0	6,553.3	4,900.6	4,696.8	17.9	40.1	115.98	-291.5	-373.3	244.9	194.2	50.67	4.833	
6,692.9	6,584.3	4,870.8	4,697.0	18.2	39.6	112.15	-291.5	-403.1	228.2	176.5	51.69	4.415	
6,700.0	6,589.2	4,865.7	4,697.0	18.2	39.6	111.46	-291.5	-408.3	225.8	174.0	51.86	4.354	
6,750.0	6,622.7	4,828.3	4,697.2	18.6	39.0	106.14	-291.5	-445.6	212.0	158.9	53.15	3.989	
6,791.3	6,648.3	4,795.7	4,697.4	19.0	38.5	101.29	-291.5	-478.2	204.5	150.3	54.14	3.777	
6,800.0	6,653.4	4,788.7	4,697.5	19.1	38.4	100.23	-291.5	-485.2	203.3	149.0	54.33	3.742	
6,850.0	6,681.4	4,747.0	4,697.8	19.6	37.8	94.02	-291.5	-526.9	199.2	143.9	55.24	3.605	
6,882.5	6,697.9	4,719.0	4,697.9	20.0	37.4	90.00	-291.5	-554.9	198.5	142.9	55.58	3.571	
6,889.7	6,701.5	4,712.6	4,698.0	20.1	37.3	89.11	-291.5	-561.3	198.5	142.9	55.62	3.569 SF	
6,900.0	6,706.3	4,703.6	4,698.0	20.2	37.1	87.88	-291.5	-570.3	198.7	143.0	55.66	3.569	
6,950.0	6,728.2	4,658.5	4,698.3	20.9	36.6	82.14	-291.5	-615.4	200.7	145.1	55.65	3.607	
6,988.2	6,742.8	4,623.1	4,698.6	21.5	36.1	78.21	-291.5	-650.8	203.4	148.0	55.37	3.673	
7,000.0	6,746.9	4,612.0	4,698.6	21.6	36.0	77.08	-291.5	-661.9	204.3	149.0	55.23	3.698	
7,050.0	6,762.4	4,564.4	4,698.9	22.5	35.4	72.89	-291.5	-709.5	208.4	153.7	54.62	3.815	

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 SCHAUMBERG 17G-314
<b>Project:</b>	WELD COUNTY, COLORADO	<b>TVD Reference:</b>	KB-EST @ 4633.0usft (Original Well Elev)
<b>Reference Site:</b>	SW NW SEC. 17 T5N R64W 6th P.M.	<b>MD Reference:</b>	KB-EST @ 4633.0usft (Original Well Elev)
<b>Site Error:</b>	0.0 usft	<b>North Reference:</b>	True
<b>Reference Well:</b>	SCHAUMBERG 17G-314	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Well Error:</b>	0.0 usft	<b>Output errors are at</b>	2.00 sigma
<b>Reference Wellbore</b>	ORIGINAL WELLBORE	<b>Database:</b>	EDM 5000.1 Single User Db
<b>Reference Design:</b>	PROPOSAL #1	<b>Offset TVD Reference:</b>	Offset Datum

Offset Design												Offset Site Error:	0.0 usft
Survey Program: 0-MWD												Offset Well Error:	0.0 usft
Reference		Offset		Semi Major Axis			Distance						Warning
Measured Depth (usft)	Vertical Depth (usft)	Measured Depth (usft)	Vertical Depth (usft)	Reference (usft)	Offset (usft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (usft)	+E/-W (usft)	Between Centres (usft)	Between Ellipses (usft)	Minimum Separation (usft)	Separation Factor	
7,086.6	6,771.5	7,528.9	6,699.2	23.1	35.0	70.42	-291.5	-745.0	211.3	157.1	54.14	3.902	
7,100.0	6,774.4	7,515.8	6,699.2	23.3	34.9	69.64	-291.5	-758.1	212.2	158.3	53.96	3.933	
7,150.0	6,783.1	7,466.5	6,699.6	24.3	34.4	67.36	-291.5	-807.4	215.3	161.9	53.46	4.028	
7,185.0	6,787.1	7,431.7	6,699.8	25.0	34.1	66.33	-291.5	-842.2	216.8	163.6	53.26	4.071	
7,200.0	6,788.3	7,416.7	6,699.9	25.3	34.0	66.03	-291.5	-857.2	217.3	164.1	53.21	4.083	
7,252.3	6,790.0	7,368.1	6,699.6	26.3	33.6	65.51	-291.5	-905.8	218.1	164.8	53.32	4.090	
7,283.4	6,789.9	7,340.5	6,698.1	27.0	33.4	65.19	-291.5	-933.4	218.8	165.1	53.63	4.079	
7,300.0	6,789.8	7,325.9	6,696.9	27.3	33.3	64.91	-291.5	-947.9	219.3	165.6	53.75	4.080	
7,381.9	6,789.5	7,254.6	6,686.8	29.1	32.9	62.63	-291.5	-1,018.5	224.4	170.3	54.02	4.153	
7,400.0	6,789.4	7,239.1	6,683.7	29.5	32.8	61.94	-291.5	-1,033.6	226.1	172.1	54.00	4.186	
7,480.3	6,789.1	7,172.5	6,666.6	31.4	32.5	58.27	-291.5	-1,098.0	236.5	183.0	53.54	4.417	
7,500.0	6,789.1	7,156.6	6,661.6	31.8	32.4	57.26	-291.5	-1,113.0	239.9	186.5	53.34	4.497	
7,578.7	6,788.8	7,100.0	6,641.2	33.7	32.3	53.32	-291.5	-1,165.9	256.9	204.4	52.47	4.895	
7,600.0	6,788.7	7,080.1	6,633.0	34.2	32.2	51.85	-291.5	-1,184.1	262.4	210.5	51.92	5.054	
7,677.1	6,788.4	7,025.6	6,608.2	36.1	32.2	47.71	-291.5	-1,232.5	286.6	236.0	50.53	5.671	
7,700.0	6,788.3	7,010.3	6,600.6	36.7	32.2	46.53	-291.5	-1,245.7	294.8	244.7	50.09	5.886	
7,775.6	6,788.0	6,962.4	6,574.8	38.6	32.2	42.88	-291.5	-1,286.2	325.8	277.1	48.67	6.695	
7,800.0	6,787.9	6,950.0	6,567.7	39.2	32.2	41.95	-291.5	-1,296.3	337.0	288.6	48.35	6.969	
7,874.0	6,787.6	6,900.0	6,537.4	41.0	32.2	38.34	-291.5	-1,336.1	374.0	327.4	46.59	8.026	
7,900.0	6,787.6	6,892.0	6,532.3	41.7	32.2	37.78	-291.5	-1,342.2	387.9	341.4	46.54	8.336	
7,972.4	6,787.3	6,850.0	6,504.4	43.6	32.3	34.96	-291.5	-1,373.6	429.7	384.6	45.18	9.511	
8,000.0	6,787.2	6,850.0	6,504.4	44.3	32.3	34.96	-291.5	-1,373.6	446.6	401.0	45.62	9.790	
8,070.8	6,786.9	6,811.2	6,477.0	46.1	32.4	32.53	-291.5	-1,401.0	491.9	447.5	44.43	11.072	
8,100.0	6,786.8	6,800.0	6,468.8	46.9	32.4	31.86	-291.5	-1,408.7	511.4	467.2	44.21	11.567	
8,169.3	6,786.5	6,771.9	6,447.7	48.7	32.5	30.25	-291.5	-1,427.3	559.5	515.8	43.64	12.820	
8,200.0	6,786.4	6,750.0	6,430.8	49.5	32.5	29.06	-291.5	-1,441.2	581.7	538.8	42.87	13.567	
8,267.7	6,786.1	6,737.0	6,420.6	51.3	32.5	28.38	-291.5	-1,449.2	631.4	588.3	43.12	14.641	
8,300.0	6,786.0	6,726.4	6,412.2	52.1	32.6	27.84	-291.5	-1,455.6	655.8	612.8	43.01	15.249	
8,366.1	6,785.8	6,700.0	6,390.7	53.9	32.6	26.55	-291.5	-1,471.0	706.9	664.4	42.53	16.623	
8,400.0	6,785.6	6,700.0	6,390.7	54.8	32.6	26.55	-291.5	-1,471.0	733.6	690.6	42.98	17.069	
8,464.5	6,785.4	6,678.4	6,372.7	56.5	32.7	25.56	-291.5	-1,483.0	785.4	742.6	42.74	18.376	
8,500.0	6,785.3	6,669.2	6,365.0	57.5	32.7	25.15	-291.5	-1,488.0	814.2	771.5	42.74	19.051	
8,563.0	6,785.0	6,650.0	6,348.6	59.2	32.8	24.32	-291.5	-1,498.0	866.3	823.7	42.62	20.328	
8,600.0	6,784.9	6,650.0	6,348.6	60.2	32.8	24.32	-291.5	-1,498.0	897.3	854.2	43.08	20.826	
8,661.4	6,784.6	6,631.5	6,332.6	61.8	32.8	23.56	-291.5	-1,507.2	949.3	906.3	42.98	22.088	
8,700.0	6,784.5	6,623.5	6,325.5	62.9	32.9	23.24	-291.5	-1,511.1	982.3	939.2	43.08	22.803	
8,759.8	6,784.3	6,600.0	6,304.7	64.5	32.9	22.34	-291.5	-1,521.9	1,034.1	991.4	42.74	24.196	
8,800.0	6,784.1	6,600.0	6,304.7	65.6	32.9	22.34	-291.5	-1,521.9	1,069.0	1,025.8	43.23	24.730	
8,858.2	6,783.9	6,600.0	6,304.7	67.1	32.9	22.34	-291.5	-1,521.9	1,120.2	1,076.2	43.93	25.497	
8,900.0	6,783.7	6,600.0	6,304.7	68.3	32.9	22.34	-291.5	-1,521.9	1,157.3	1,112.8	44.44	26.041	
8,956.7	6,783.5	6,577.1	6,284.1	69.8	33.0	21.51	-291.5	-1,531.9	1,207.5	1,163.5	44.08	27.393	
9,000.0	6,783.3	6,570.4	6,278.0	71.0	33.0	21.28	-291.5	-1,534.7	1,246.4	1,202.1	44.30	28.136	
9,055.1	6,783.1	6,550.0	6,259.3	72.5	33.1	20.59	-291.5	-1,542.8	1,296.2	1,252.1	44.06	29.417	
9,100.0	6,782.9	6,550.0	6,259.3	73.7	33.1	20.59	-291.5	-1,542.8	1,336.8	1,292.2	44.58	29.983	
9,153.5	6,782.7	6,550.0	6,259.3	75.2	33.1	20.59	-291.5	-1,542.8	1,385.5	1,340.2	45.21	30.646	
9,200.0	6,782.6	6,550.0	6,259.3	76.5	33.1	20.59	-291.5	-1,542.8	1,428.0	1,382.3	45.75	31.214	
9,251.9	6,782.4	6,550.0	6,259.3	77.9	33.1	20.59	-291.5	-1,542.8	1,475.9	1,429.5	46.36	31.838	
9,300.0	6,782.2	6,530.3	6,241.0	79.2	33.1	19.96	-291.5	-1,550.1	1,520.0	1,473.9	46.05	33.008	
9,350.4	6,782.0	6,524.5	6,235.6	80.6	33.1	19.78	-291.5	-1,552.1	1,566.6	1,520.2	46.38	33.777	
9,400.0	6,781.8	6,519.1	6,230.5	82.0	33.1	19.61	-291.5	-1,554.0	1,612.7	1,566.0	46.71	34.524	
9,448.8	6,781.6	6,500.0	6,212.5	83.3	33.2	19.04	-291.5	-1,560.4	1,658.4	1,611.9	46.47	35.688	
9,500.0	6,781.4	6,500.0	6,212.5	84.7	33.2	19.04	-291.5	-1,560.4	1,706.1	1,659.1	47.04	36.268	

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 SCHAUMBERG 17G-314
<b>Project:</b>	WELD COUNTY, COLORADO	<b>TVD Reference:</b>	KB-EST @ 4633.0usft (Original Well Elev)
<b>Reference Site:</b>	SW NW SEC. 17 T5N R64W 6th P.M.	<b>MD Reference:</b>	KB-EST @ 4633.0usft (Original Well Elev)
<b>Site Error:</b>	0.0 usft	<b>North Reference:</b>	True
<b>Reference Well:</b>	SCHAUMBERG 17G-314	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Well Error:</b>	0.0 usft	<b>Output errors are at</b>	2.00 sigma
<b>Reference Wellbore</b>	ORIGINAL WELLBORE	<b>Database:</b>	EDM 5000.1 Single User Db
<b>Reference Design:</b>	PROPOSAL #1	<b>Offset TVD Reference:</b>	Offset Datum

Offset Design												Offset Site Error:	0.0 usft
Survey Program: 0-MWD												Offset Well Error:	0.0 usft
Reference		Offset		Semi Major Axis			Distance						Warning
Measured Depth (usft)	Vertical Depth (usft)	Measured Depth (usft)	Vertical Depth (usft)	Reference (usft)	Offset (usft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (usft)	+E/-W (usft)	Between Centres (usft)	Between Ellipses (usft)	Minimum Separation (usft)	Separation Factor	
9,547.2	6,781.2	6,500.0	6,212.5	86.0	33.2	19.04	-291.5	-1,560.4	1,750.3	1,702.7	47.57	36.794	
9,600.0	6,781.0	6,500.0	6,212.5	87.5	33.2	19.04	-291.5	-1,560.4	1,799.9	1,751.7	48.16	37.371	
9,645.6	6,780.8	6,500.0	6,212.5	88.7	33.2	19.04	-291.5	-1,560.4	1,842.9	1,794.2	48.68	37.861	
9,700.0	6,780.6	6,500.0	6,212.5	90.2	33.2	19.04	-291.5	-1,560.4	1,894.3	1,845.0	49.29	38.435	
9,744.1	6,780.4	6,500.0	6,212.5	91.4	33.2	19.04	-291.5	-1,560.4	1,936.1	1,886.3	49.78	38.892	
9,800.0	6,780.2	6,500.0	6,212.5	93.0	33.2	19.04	-291.5	-1,560.4	1,989.3	1,938.9	50.41	39.461	
9,842.5	6,780.1	6,478.7	6,192.3	94.2	33.2	18.44	-291.5	-1,566.9	2,029.4	1,979.4	49.97	40.615	
9,900.0	6,779.8	6,474.4	6,188.1	95.7	33.2	18.32	-291.5	-1,568.1	2,084.1	2,033.7	50.42	41.338	
9,940.9	6,779.7	6,471.4	6,185.2	96.9	33.2	18.24	-291.5	-1,569.0	2,123.1	2,072.4	50.74	41.842	
10,000.0	6,779.4	6,450.0	6,164.6	98.5	33.3	17.67	-291.5	-1,574.7	2,179.8	2,129.3	50.50	43.162	
10,039.3	6,779.3	6,450.0	6,164.6	99.6	33.3	17.67	-291.5	-1,574.7	2,217.4	2,166.5	50.93	43.539	
10,100.0	6,779.0	6,450.0	6,164.6	101.3	33.3	17.67	-291.5	-1,574.7	2,275.4	2,223.8	51.59	44.110	
10,137.8	6,778.9	6,450.0	6,164.6	102.3	33.3	17.67	-291.5	-1,574.7	2,311.6	2,259.6	52.00	44.458	
10,200.0	6,778.7	6,450.0	6,164.6	104.1	33.3	17.67	-291.5	-1,574.7	2,371.4	2,318.7	52.67	45.024	
10,236.2	6,778.5	6,450.0	6,164.6	105.1	33.3	17.67	-291.5	-1,574.7	2,406.2	2,353.1	53.06	45.346	
10,300.0	6,778.3	6,450.0	6,164.6	106.8	33.3	17.67	-291.5	-1,574.7	2,467.7	2,413.9	53.75	45.906	
10,334.6	6,778.1	6,450.0	6,164.6	107.8	33.3	17.67	-291.5	-1,574.7	2,501.1	2,446.9	54.13	46.204	
10,400.0	6,777.9	6,450.0	6,164.6	109.6	33.3	17.67	-291.5	-1,574.7	2,564.2	2,509.4	54.84	46.758	
10,433.0	6,777.7	6,450.0	6,164.6	110.5	33.3	17.67	-291.5	-1,574.7	2,596.2	2,541.0	55.20	47.032	
10,500.0	6,777.5	6,450.0	6,164.6	112.4	33.3	17.67	-291.5	-1,574.7	2,661.0	2,605.1	55.93	47.580	
10,531.5	6,777.3	6,450.0	6,164.6	113.3	33.3	17.67	-291.5	-1,574.7	2,691.5	2,635.3	56.27	47.832	
10,600.0	6,777.1	6,450.0	6,164.6	115.2	33.3	17.67	-291.5	-1,574.7	2,758.1	2,701.1	57.02	48.374	
10,629.9	6,777.0	6,450.0	6,164.6	116.0	33.3	17.67	-291.5	-1,574.7	2,787.1	2,729.8	57.34	48.606	
10,700.0	6,776.7	6,427.9	6,143.1	117.9	33.3	17.12	-291.5	-1,579.9	2,854.9	2,797.8	57.11	49.988	
10,728.3	6,776.6	6,426.6	6,141.9	118.7	33.3	17.08	-291.5	-1,580.2	2,882.4	2,825.1	57.36	50.253	
10,800.0	6,776.3	6,423.5	6,138.8	120.7	33.3	17.01	-291.5	-1,580.9	2,952.1	2,894.2	57.99	50.910	
10,826.7	6,776.2	6,422.3	6,137.7	121.5	33.3	16.98	-291.5	-1,581.1	2,978.2	2,920.0	58.22	51.152	
10,900.0	6,775.9	6,400.0	6,115.8	123.5	33.4	16.46	-291.5	-1,585.6	3,049.9	2,991.8	58.04	52.545	
10,925.2	6,775.8	6,400.0	6,115.8	124.2	33.4	16.46	-291.5	-1,585.6	3,074.4	3,016.1	58.31	52.727	
11,000.0	6,775.5	6,400.0	6,115.8	126.3	33.4	16.46	-291.5	-1,585.6	3,147.3	3,088.2	59.09	53.259	
11,023.6	6,775.4	6,400.0	6,115.8	126.9	33.4	16.46	-291.5	-1,585.6	3,170.3	3,110.9	59.34	53.424	
11,100.0	6,775.1	6,400.0	6,115.8	129.1	33.4	16.46	-291.5	-1,585.6	3,244.8	3,184.7	60.14	53.951	
11,122.0	6,775.0	6,400.0	6,115.8	129.7	33.4	16.46	-291.5	-1,585.6	3,266.3	3,206.0	60.38	54.100	
11,200.0	6,774.7	6,400.0	6,115.8	131.9	33.4	16.46	-291.5	-1,585.6	3,342.5	3,281.3	61.20	54.620	
11,220.4	6,774.6	6,400.0	6,115.8	132.4	33.4	16.46	-291.5	-1,585.6	3,362.5	3,301.1	61.41	54.754	
11,300.0	6,774.3	6,400.0	6,115.8	134.6	33.4	16.46	-291.5	-1,585.6	3,440.4	3,378.1	62.25	55.269	
11,318.9	6,774.2	6,400.0	6,115.8	135.2	33.4	16.46	-291.5	-1,585.6	3,458.9	3,396.4	62.45	55.388	
11,400.0	6,773.9	6,400.0	6,115.8	137.4	33.4	16.46	-291.5	-1,585.6	3,538.3	3,475.0	63.30	55.897	
11,417.3	6,773.8	6,400.0	6,115.8	137.9	33.4	16.46	-291.5	-1,585.6	3,555.3	3,491.8	63.48	56.004	
11,500.0	6,773.5	6,400.0	6,115.8	140.2	33.4	16.46	-291.5	-1,585.6	3,636.4	3,572.1	64.35	56.506	
11,515.7	6,773.4	6,400.0	6,115.8	140.7	33.4	16.46	-291.5	-1,585.6	3,651.9	3,587.3	64.52	56.600	
11,600.0	6,773.1	6,400.0	6,115.8	143.0	33.4	16.45	-291.5	-1,585.6	3,734.6	3,669.2	65.41	57.097	
11,614.1	6,773.0	6,400.0	6,115.8	143.4	33.4	16.45	-291.5	-1,585.6	3,748.5	3,682.9	65.56	57.179	
11,700.0	6,772.7	6,400.0	6,115.8	145.8	33.4	16.45	-291.5	-1,585.6	3,832.9	3,766.4	66.46	57.670	
11,712.6	6,772.6	6,400.0	6,115.8	146.2	33.4	16.45	-291.5	-1,585.6	3,845.2	3,778.6	66.59	57.741	
11,800.0	6,772.3	6,400.0	6,115.8	148.6	33.4	16.45	-291.5	-1,585.6	3,931.2	3,863.7	67.52	58.226	
11,811.0	6,772.2	6,400.0	6,115.8	148.9	33.4	16.45	-291.5	-1,585.6	3,942.0	3,874.4	67.63	58.286	
11,900.0	6,771.9	6,400.0	6,115.8	151.4	33.4	16.45	-291.5	-1,585.6	4,029.7	3,961.1	68.57	58.766	
11,909.4	6,771.8	6,400.0	6,115.8	151.7	33.4	16.45	-291.5	-1,585.6	4,038.9	3,970.3	68.67	58.816	
12,000.0	6,771.5	6,400.0	6,115.8	154.2	33.4	16.45	-291.5	-1,585.6	4,128.2	4,058.5	69.63	59.290	
12,007.8	6,771.4	6,400.0	6,115.8	154.4	33.4	16.45	-291.5	-1,585.6	4,135.9	4,066.2	69.71	59.331	
12,100.0	6,771.1	6,400.0	6,115.8	157.0	33.4	16.45	-291.5	-1,585.6	4,226.8	4,156.1	70.68	59.800	

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 SCHAUMBERG 17G-314
<b>Project:</b>	WELD COUNTY, COLORADO	<b>TVD Reference:</b>	KB-EST @ 4633.0usft (Original Well Elev)
<b>Reference Site:</b>	SW NW SEC. 17 T5N R64W 6th P.M.	<b>MD Reference:</b>	KB-EST @ 4633.0usft (Original Well Elev)
<b>Site Error:</b>	0.0 usft	<b>North Reference:</b>	True
<b>Reference Well:</b>	SCHAUMBERG 17G-314	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Well Error:</b>	0.0 usft	<b>Output errors are at</b>	2.00 sigma
<b>Reference Wellbore</b>	ORIGINAL WELLBORE	<b>Database:</b>	EDM 5000.1 Single User Db
<b>Reference Design:</b>	PROPOSAL #1	<b>Offset TVD Reference:</b>	Offset Datum

<b>Offset Design</b> SW NW SEC. 17 T5N R64W 6th P.M. - SCHAUMBERG 17F-232 - ORIGINAL WELLBORE - PROPOS												<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
12,106.3	6,771.0	6,400.0	6,115.8	157.2	33.4	16.45	-291.5	-1,585.6	4,232.9	4,162.2	70.75	59.831	
12,200.0	6,770.7	6,400.0	6,115.8	159.8	33.4	16.45	-291.5	-1,585.6	4,325.4	4,253.7	71.74	60.295	
12,204.7	6,770.6	6,400.0	6,115.8	159.9	33.4	16.45	-291.5	-1,585.6	4,330.0	4,258.3	71.79	60.318	
12,300.0	6,770.3	6,377.4	6,093.5	162.6	33.4	15.95	-291.5	-1,589.4	4,423.7	4,352.0	71.65	61.743	
12,303.1	6,770.2	6,377.3	6,093.4	162.7	33.4	15.95	-291.5	-1,589.4	4,426.8	4,355.1	71.68	61.761	
12,361.7	6,770.0	6,376.0	6,092.2	164.3	33.4	15.92	-291.5	-1,589.6	4,484.6	4,412.4	72.22	62.094	



# Anticollision Report



<b>Company:</b>	PDC ENERGY	<b>Local Co-ordinate Reference:</b>	Well SCHAUMBERG 17G-314
<b>Project:</b>	WELD COUNTY, COLORADO	<b>TVD Reference:</b>	KB-EST @ 4633.0usft (Original Well Elev)
<b>Reference Site:</b>	SW NW SEC. 17 T5N R64W 6th P.M.	<b>MD Reference:</b>	KB-EST @ 4633.0usft (Original Well Elev)
<b>Site Error:</b>	0.0 usft	<b>North Reference:</b>	True
<b>Reference Well:</b>	SCHAUMBERG 17G-314	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Well Error:</b>	0.0 usft	<b>Output errors are at</b>	2.00 sigma
<b>Reference Wellbore</b>	ORIGINAL WELLBORE	<b>Database:</b>	EDM 5000.1 Single User Db
<b>Reference Design:</b>	PROPOSAL #1	<b>Offset TVD Reference:</b>	Offset Datum

Offset Design												Offset Site Error:	0.0 usft
Survey Program: 0-MWD												Offset Well Error:	0.0 usft
Reference		Offset		Semi Major Axis			Distance						Warning
Measured Depth (usft)	Vertical Depth (usft)	Measured Depth (usft)	Vertical Depth (usft)	Reference (usft)	Offset (usft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (usft)	+E/-W (usft)	Between Centres (usft)	Between Ellipses (usft)	Minimum Separation (usft)	Separation Factor	
0.0	0.0	0.0	0.0	0.0	0.0	-90.05	0.0	-15.0	15.0				
98.4	98.4	98.4	98.4	0.1	0.1	-90.05	0.0	-15.0	15.0	14.8	0.19	78.235	
100.0	100.0	100.0	100.0	0.1	0.1	-90.05	0.0	-15.0	15.0	14.8	0.20	76.911	
196.8	196.8	196.8	196.8	0.3	0.3	-90.05	0.0	-15.0	15.0	14.4	0.63	23.838	
200.0	200.0	200.0	200.0	0.3	0.3	-90.05	0.0	-15.0	15.0	14.4	0.65	23.315	
295.3	295.3	295.3	295.3	0.5	0.5	-90.05	0.0	-15.0	15.0	14.0	1.07	14.012	
300.0	300.0	300.0	300.0	0.5	0.5	-90.05	0.0	-15.0	15.0	13.9	1.09	13.740	
393.7	393.7	393.7	393.7	0.8	0.8	-90.05	0.0	-15.0	15.0	13.5	1.52	9.922	
400.0	400.0	400.0	400.0	0.8	0.8	-90.05	0.0	-15.0	15.0	13.5	1.54	9.740	
492.1	492.1	492.1	492.1	1.0	1.0	-90.05	0.0	-15.0	15.0	13.1	1.96	7.680	
500.0	500.0	500.0	500.0	1.0	1.0	-90.05	0.0	-15.0	15.0	13.0	1.99	7.544	
590.5	590.5	590.5	590.5	1.2	1.2	-90.05	0.0	-15.0	15.0	12.6	2.40	6.265	
600.0	600.0	600.0	600.0	1.2	1.2	-90.05	0.0	-15.0	15.0	12.6	2.44	6.156	
689.0	689.0	689.0	689.0	1.4	1.4	-90.05	0.0	-15.0	15.0	12.2	2.84	5.290	
700.0	700.0	700.0	700.0	1.4	1.4	-90.05	0.0	-15.0	15.0	12.1	2.89	5.199	
787.4	787.4	787.4	787.4	1.6	1.6	-90.05	0.0	-15.0	15.0	11.8	3.29	4.577	
800.0	800.0	800.0	800.0	1.7	1.7	-90.05	0.0	-15.0	15.0	11.7	3.34	4.500	
885.8	885.8	885.8	885.8	1.9	1.9	-90.05	0.0	-15.0	15.0	11.3	3.73	4.034	
900.0	900.0	900.0	900.0	1.9	1.9	-90.05	0.0	-15.0	15.0	11.2	3.79	3.966	
984.2	984.2	984.2	984.2	2.1	2.1	-90.05	0.0	-15.0	15.0	10.9	4.17	3.606	
1,000.0	1,000.0	1,000.0	1,000.0	2.1	2.1	-90.05	0.0	-15.0	15.0	10.8	4.24	3.546	
1,082.7	1,082.7	1,082.7	1,082.7	2.3	2.3	-90.05	0.0	-15.0	15.0	10.4	4.61	3.260	
1,100.0	1,100.0	1,100.0	1,100.0	2.3	2.3	-90.05	0.0	-15.0	15.0	10.3	4.69	3.206	
1,181.1	1,181.1	1,181.1	1,181.1	2.5	2.5	-90.05	0.0	-15.0	15.0	10.0	5.06	2.975	
1,200.0	1,200.0	1,200.0	1,200.0	2.6	2.6	-90.05	0.0	-15.0	15.0	9.9	5.14	2.926	
1,279.5	1,279.5	1,279.5	1,279.5	2.7	2.7	-90.05	0.0	-15.0	15.0	9.5	5.50	2.736	
1,300.0	1,300.0	1,300.0	1,300.0	2.8	2.8	-90.05	0.0	-15.0	15.0	9.4	5.59	2.691	
1,377.9	1,377.9	1,377.9	1,377.9	3.0	3.0	-90.05	0.0	-15.0	15.0	9.1	5.94	2.532	
1,400.0	1,400.0	1,400.0	1,400.0	3.0	3.0	-90.05	0.0	-15.0	15.0	9.0	6.04	2.490	
1,476.4	1,476.4	1,476.4	1,476.4	3.2	3.2	-90.05	0.0	-15.0	15.0	8.7	6.38	2.356	
1,500.0	1,500.0	1,500.0	1,500.0	3.2	3.2	-90.05	0.0	-15.0	15.0	8.6	6.49	2.318	
1,574.8	1,574.8	1,574.8	1,574.8	3.4	3.4	-90.05	0.0	-15.0	15.0	8.2	6.83	2.204	
1,600.0	1,600.0	1,600.0	1,600.0	3.5	3.5	-90.05	0.0	-15.0	15.0	8.1	6.94	2.168	
1,673.2	1,673.2	1,673.2	1,673.2	3.6	3.6	-90.05	0.0	-15.0	15.0	7.8	7.27	2.069	
1,700.0	1,700.0	1,700.0	1,700.0	3.7	3.7	-90.05	0.0	-15.0	15.0	7.7	7.39	2.036 CC	
1,771.6	1,771.6	1,771.4	1,771.4	3.9	3.8	-92.42	-0.7	-15.6	15.7	8.0	7.69	2.036	
1,800.0	1,800.0	1,799.6	1,799.6	3.9	3.9	-94.50	-1.3	-16.2	16.3	8.5	7.81	2.084	
1,870.1	1,870.1	1,869.3	1,869.2	4.1	4.0	59.77	-3.7	-18.5	18.4	10.3	8.07	2.278	
1,900.0	1,900.0	1,899.1	1,898.9	4.1	4.1	58.54	-5.1	-19.8	19.5	11.3	8.18	2.378	
1,968.5	1,968.4	1,967.1	1,966.7	4.2	4.2	56.97	-9.1	-23.5	22.3	13.8	8.42	2.643	
2,000.0	1,999.8	1,998.4	1,997.8	4.3	4.3	56.73	-11.4	-25.6	23.7	15.2	8.53	2.777	
2,066.9	2,066.5	2,064.7	2,063.7	4.4	4.4	56.94	-17.0	-30.9	27.1	18.3	8.78	3.082	
2,100.0	2,099.5	2,097.5	2,096.2	4.5	4.5	57.32	-20.1	-33.8	28.9	20.0	8.90	3.245	
2,165.3	2,164.4	2,162.2	2,160.1	4.6	4.6	58.44	-27.2	-40.4	32.8	23.6	9.15	3.579	
2,200.0	2,198.7	2,196.4	2,193.9	4.7	4.7	59.18	-31.4	-44.3	35.0	25.7	9.29	3.767	
2,263.8	2,261.8	2,259.4	2,255.8	4.8	4.9	60.70	-39.8	-52.2	39.4	29.8	9.56	4.122	
2,300.0	2,297.5	2,295.1	2,290.8	4.9	5.0	61.62	-45.0	-57.1	42.1	32.4	9.72	4.334	
2,362.2	2,358.6	2,357.1	2,351.4	5.0	5.1	63.72	-54.4	-65.9	46.6	36.6	10.02	4.656	
2,400.0	2,395.6	2,394.7	2,388.3	5.1	5.2	65.50	-60.2	-71.2	49.2	38.9	10.21	4.815	
2,460.6	2,454.9	2,455.2	2,447.4	5.3	5.4	68.47	-69.4	-79.8	53.1	42.6	10.56	5.033	
2,500.0	2,493.4	2,494.4	2,485.8	5.4	5.6	70.16	-75.3	-85.4	55.8	45.0	10.78	5.173	
2,559.0	2,551.2	2,553.3	2,543.4	5.6	5.8	72.42	-84.3	-93.7	59.8	48.7	11.15	5.367	

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 SCHAUMBERG 17G-314
<b>Project:</b>	WELD COUNTY, COLORADO	<b>TVD Reference:</b>	KB-EST @ 4633.0usft (Original Well Elev)
<b>Reference Site:</b>	SW NW SEC. 17 T5N R64W 6th P.M.	<b>MD Reference:</b>	KB-EST @ 4633.0usft (Original Well Elev)
<b>Site Error:</b>	0.0 usft	<b>North Reference:</b>	True
<b>Reference Well:</b>	SCHAUMBERG 17G-314	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Well Error:</b>	0.0 usft	<b>Output errors are at</b>	2.00 sigma
<b>Reference Wellbore</b>	ORIGINAL WELLBORE	<b>Database:</b>	EDM 5000.1 Single User Db
<b>Reference Design:</b>	PROPOSAL #1	<b>Offset TVD Reference:</b>	Offset Datum

Offset Design												Offset Site Error:	0.0 usft
Survey Program: 0-MWD												Offset Well Error:	0.0 usft
Reference		Offset		Semi Major Axis			Distance						
Measured Depth (usft)	Vertical Depth (usft)	Measured Depth (usft)	Vertical Depth (usft)	Reference (usft)	Offset (usft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (usft)	+E/-W (usft)	Between Centres (usft)	Between Ellipses (usft)	Minimum Separation (usft)	Separation Factor	Warning
2,600.0	2,591.3	2,594.1	2,583.3	5.7	5.9	73.81	-90.5	-99.5	62.7	51.3	11.41	5.497	
2,657.5	2,647.5	2,651.4	2,639.4	5.9	6.1	75.57	-99.2	-107.6	66.8	55.0	11.78	5.666	
2,700.0	2,689.1	2,693.8	2,680.8	6.0	6.3	76.73	-105.6	-113.6	69.8	57.7	12.07	5.786	
2,755.9	2,743.7	2,749.5	2,735.3	6.2	6.5	78.12	-114.1	-121.6	73.9	61.4	12.45	5.931	
2,800.0	2,786.9	2,793.5	2,778.3	6.4	6.6	79.11	-120.8	-127.8	77.1	64.3	12.76	6.040	
2,854.3	2,840.0	2,847.7	2,831.3	6.6	6.8	80.22	-129.0	-135.5	81.1	67.9	13.15	6.164	
2,900.0	2,884.7	2,893.2	2,875.9	6.7	7.0	81.07	-135.9	-141.9	84.5	71.0	13.48	6.263	
2,952.7	2,936.3	2,945.8	2,927.3	6.9	7.2	81.97	-143.9	-149.4	88.4	74.5	13.88	6.369	
3,000.0	2,982.5	2,993.6	2,974.1	7.1	7.4	82.92	-150.9	-155.9	91.7	77.5	14.22	6.451	
3,051.2	3,032.6	3,045.4	3,025.0	7.3	7.5	84.35	-157.9	-162.4	95.0	80.4	14.59	6.510	
3,100.0	3,080.3	3,094.8	3,073.7	7.5	7.7	86.09	-163.9	-168.0	97.8	82.9	14.95	6.541	
3,149.6	3,128.8	3,144.9	3,123.3	7.7	7.8	88.20	-169.3	-173.1	100.4	85.1	15.32	6.554	
3,200.0	3,178.1	3,195.7	3,173.7	7.9	8.0	90.69	-174.2	-177.7	102.8	87.1	15.69	6.555	
3,248.0	3,225.1	3,244.0	3,221.7	8.1	8.1	93.39	-178.3	-181.5	105.1	89.0	16.03	6.554	
3,300.0	3,276.0	3,296.1	3,273.5	8.3	8.2	96.63	-182.0	-184.9	107.5	91.1	16.39	6.558	
3,346.4	3,321.4	3,342.5	3,319.8	8.5	8.3	99.79	-184.7	-187.5	109.8	93.1	16.69	6.576	
3,400.0	3,373.8	3,395.8	3,373.0	8.7	8.5	103.71	-187.1	-189.8	112.7	95.6	17.02	6.621	
3,444.9	3,417.7	3,440.2	3,417.3	8.8	8.6	107.20	-188.6	-191.1	115.4	98.2	17.26	6.688	
3,500.0	3,471.6	3,494.5	3,471.6	9.1	8.7	111.66	-189.7	-192.2	119.4	101.8	17.51	6.815	
3,543.3	3,513.9	3,536.9	3,514.0	9.2	8.7	115.27	-190.1	-192.5	123.0	105.3	17.68	6.957	
3,600.0	3,569.4	3,592.3	3,569.4	9.5	8.8	119.94	-190.1	-192.5	128.6	110.7	17.86	7.198	
3,641.7	3,610.2	3,633.1	3,610.2	9.7	8.9	123.12	-190.1	-192.5	133.2	115.2	17.98	7.406	
3,700.0	3,667.2	3,690.1	3,667.2	9.9	9.0	127.21	-190.1	-192.5	140.3	122.1	18.14	7.733	
3,740.1	3,706.5	3,729.4	3,706.5	10.1	9.1	129.80	-190.1	-192.5	145.5	127.3	18.24	7.979	
3,800.0	3,765.0	3,788.0	3,765.0	10.3	9.2	133.32	-190.1	-192.5	153.9	135.5	18.39	8.370	
3,838.6	3,802.8	3,825.7	3,802.8	10.5	9.3	135.39	-190.1	-192.5	159.6	141.1	18.48	8.633	
3,900.0	3,862.8	3,885.8	3,862.8	10.7	9.4	138.41	-190.1	-192.5	169.0	150.3	18.64	9.067	
3,937.0	3,899.0	3,922.0	3,899.0	10.9	9.5	140.06	-190.1	-192.5	174.9	156.1	18.73	9.334	
4,000.0	3,960.7	3,983.6	3,960.7	11.2	9.6	142.65	-190.1	-192.5	185.2	166.3	18.90	9.797	
4,035.4	3,995.3	4,018.2	3,995.3	11.3	9.6	143.97	-190.1	-192.5	191.1	172.1	19.00	10.059	
4,100.0	4,058.5	4,081.4	4,058.5	11.6	9.8	146.20	-190.1	-192.5	202.2	183.0	19.19	10.538	
4,133.8	4,091.6	4,114.5	4,091.6	11.7	9.8	147.27	-190.1	-192.5	208.1	188.8	19.29	10.789	
4,200.0	4,156.3	4,179.2	4,156.3	12.0	9.9	149.20	-190.1	-192.5	219.9	200.4	19.50	11.279	
4,232.3	4,187.9	4,210.8	4,187.9	12.2	10.0	150.06	-190.1	-192.5	225.7	206.1	19.60	11.516	
4,300.0	4,254.1	4,277.0	4,254.1	12.5	10.1	151.75	-190.1	-192.5	238.1	218.3	19.83	12.009	
4,325.7	4,279.2	4,302.1	4,279.2	12.6	10.2	152.34	-190.1	-192.5	242.8	222.9	19.91	12.195	
4,330.7	4,284.1	4,307.1	4,284.1	12.6	10.2	152.46	-190.1	-192.5	243.8	223.8	19.93	12.230	
4,400.0	4,352.1	4,375.0	4,352.1	12.8	10.3	153.96	-190.1	-192.5	255.8	235.6	20.19	12.669	
4,429.1	4,380.8	4,403.7	4,380.8	12.9	10.4	154.50	-190.1	-192.5	260.5	240.2	20.30	12.832	
4,500.0	4,450.7	4,473.7	4,450.7	13.1	10.5	155.62	-190.1	-192.5	270.8	250.2	20.57	13.166	
4,527.5	4,478.0	4,500.9	4,478.0	13.2	10.6	155.98	-190.1	-192.5	274.4	253.8	20.67	13.275	
4,600.0	4,549.9	4,572.8	4,549.9	13.4	10.7	156.80	-190.1	-192.5	282.8	261.8	20.95	13.498	
4,626.0	4,575.7	4,598.6	4,575.7	13.5	10.8	157.05	-190.1	-192.5	285.4	264.4	21.05	13.558	
4,700.0	4,649.4	4,672.3	4,649.4	13.6	10.9	157.61	-190.1	-192.5	291.7	270.3	21.33	13.672	
4,724.4	4,673.7	4,696.7	4,673.7	13.7	11.0	157.76	-190.1	-192.5	293.3	271.9	21.42	13.692	
4,800.0	4,749.2	4,772.1	4,749.2	13.8	11.1	158.11	-190.1	-192.5	297.3	275.6	21.71	13.698	
4,822.8	4,772.0	4,794.9	4,772.0	13.9	11.1	158.18	-190.1	-192.5	298.2	276.4	21.79	13.685	
4,900.0	4,849.2	4,872.1	4,849.2	14.0	11.3	158.31	-190.1	-192.5	299.8	277.7	22.07	13.584	
4,921.2	4,870.4	4,893.4	4,870.4	14.1	11.3	158.32	-190.1	-192.5	299.9	277.7	22.14	13.542	
4,925.6	4,874.8	4,897.7	4,874.8	14.1	11.4	-0.49	-190.1	-192.5	299.9	275.3	24.55	12.218	
5,000.0	4,949.2	4,972.1	4,949.2	14.2	11.5	-0.49	-190.1	-192.5	299.9	275.1	24.82	12.085	
5,019.7	4,968.8	4,991.8	4,968.8	14.2	11.5	-0.49	-190.1	-192.5	299.9	275.0	24.89	12.051	

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 SCHAUMBERG 17G-314
<b>Project:</b>	WELD COUNTY, COLORADO	<b>TVD Reference:</b>	KB-EST @ 4633.0usft (Original Well Elev)
<b>Reference Site:</b>	SW NW SEC. 17 T5N R64W 6th P.M.	<b>MD Reference:</b>	KB-EST @ 4633.0usft (Original Well Elev)
<b>Site Error:</b>	0.0 usft	<b>North Reference:</b>	True
<b>Reference Well:</b>	SCHAUMBERG 17G-314	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Well Error:</b>	0.0 usft	<b>Output errors are at</b>	2.00 sigma
<b>Reference Wellbore</b>	ORIGINAL WELLBORE	<b>Database:</b>	EDM 5000.1 Single User Db
<b>Reference Design:</b>	PROPOSAL #1	<b>Offset TVD Reference:</b>	Offset Datum

Offset Design												Offset Site Error:	0.0 usft
Survey Program: 0-MWD												Offset Well Error:	0.0 usft
Reference		Offset		Semi Major Axis			Distance						Warning
Measured Depth (usft)	Vertical Depth (usft)	Measured Depth (usft)	Vertical Depth (usft)	Reference (usft)	Offset (usft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (usft)	+E/-W (usft)	Between Centres (usft)	Between Ellipses (usft)	Minimum Separation (usft)	Separation Factor	
5,100.0	5,049.2	5,072.1	5,049.2	14.3	11.7	-0.49	-190.1	-192.5	299.9	274.7	25.18	11.912	
5,118.1	5,067.3	5,090.2	5,067.3	14.3	11.7	-0.49	-190.1	-192.5	299.9	274.7	25.24	11.881	
5,200.0	5,149.2	5,172.1	5,149.2	14.5	11.9	-0.49	-190.1	-192.5	299.9	274.4	25.54	11.743	
5,216.5	5,165.7	5,188.6	5,165.7	14.5	11.9	-0.49	-190.1	-192.5	299.9	274.3	25.60	11.715	
5,300.0	5,249.2	5,272.1	5,249.2	14.6	12.1	-0.49	-190.1	-192.5	299.9	274.0	25.90	11.577	
5,314.9	5,264.1	5,287.1	5,264.1	14.6	12.1	-0.49	-190.1	-192.5	299.9	273.9	25.96	11.552	
5,400.0	5,349.2	5,372.1	5,349.2	14.8	12.3	-0.49	-190.1	-192.5	299.9	273.6	26.27	11.415	
5,413.4	5,362.5	5,385.5	5,362.5	14.8	12.3	-0.49	-190.1	-192.5	299.9	273.6	26.32	11.393	
5,500.0	5,449.2	5,472.1	5,449.2	14.9	12.5	-0.49	-190.1	-192.5	299.9	273.3	26.64	11.256	
5,511.8	5,461.0	5,483.9	5,461.0	14.9	12.5	-0.49	-190.1	-192.5	299.9	273.2	26.69	11.238	
5,600.0	5,549.2	5,572.1	5,549.2	15.1	12.7	-0.49	-190.1	-192.5	299.9	272.9	27.02	11.101	
5,610.2	5,559.4	5,582.3	5,559.4	15.1	12.7	-0.49	-190.1	-192.5	299.9	272.8	27.05	11.085	
5,700.0	5,649.2	5,672.1	5,649.2	15.2	12.9	-0.49	-190.1	-192.5	299.9	272.5	27.39	10.949	
5,708.6	5,657.8	5,680.8	5,657.8	15.3	12.9	-0.49	-190.1	-192.5	299.9	272.5	27.42	10.936	
5,800.0	5,749.2	5,772.1	5,749.2	15.4	13.1	-0.49	-190.1	-192.5	299.9	272.1	27.77	10.800	
5,807.1	5,756.2	5,779.2	5,756.2	15.4	13.2	-0.49	-190.1	-192.5	299.9	272.1	27.79	10.790	
5,900.0	5,849.2	5,872.1	5,849.2	15.6	13.3	-0.49	-190.1	-192.5	299.9	271.7	28.15	10.655	
5,905.5	5,854.7	5,877.6	5,854.7	15.6	13.4	-0.49	-190.1	-192.5	299.9	271.7	28.17	10.647	
6,000.0	5,949.2	5,972.1	5,949.2	15.7	13.6	-0.49	-190.1	-192.5	299.9	271.4	28.53	10.513	
6,003.9	5,953.1	5,976.0	5,953.1	15.7	13.6	-0.49	-190.1	-192.5	299.9	271.4	28.54	10.507	
6,047.7	5,996.9	6,019.8	5,996.9	15.8	13.6	-0.49	-190.1	-192.5	299.9	271.2	28.71	10.446	
6,100.0	6,049.2	6,071.9	6,049.2	15.9	13.8	-0.76	-190.1	-194.0	299.9	271.0	28.89	10.380	
6,102.3	6,051.5	6,074.2	6,051.2	15.9	13.8	-0.79	-190.1	-194.1	299.9	271.0	28.90	10.378	
6,124.6	6,073.8	6,096.3	6,073.2	15.9	13.8	-1.13	-190.1	-195.9	299.9	271.0	28.97	10.354	
6,150.0	6,099.2	6,121.3	6,098.1	16.0	13.9	88.40	-190.1	-198.8	300.0	272.8	27.20	11.028	
6,200.0	6,149.0	6,170.3	6,146.4	16.1	14.0	87.49	-190.1	-206.9	300.2	272.7	27.50	10.915	
6,200.8	6,149.8	6,171.1	6,147.1	16.1	14.0	87.48	-190.1	-207.0	300.2	272.7	27.51	10.913	
6,250.0	6,198.5	6,219.0	6,193.8	16.2	14.2	86.60	-190.1	-218.2	300.4	272.6	27.83	10.794	
6,299.2	6,246.6	6,266.7	6,239.3	16.3	14.3	85.74	-190.1	-232.4	300.7	272.5	28.19	10.666	
6,300.0	6,247.4	6,267.4	6,240.0	16.3	14.3	85.73	-190.1	-232.6	300.7	272.5	28.20	10.664	
6,350.0	6,295.5	6,315.6	6,284.9	16.5	14.5	84.88	-190.1	-250.0	301.1	272.5	28.61	10.526	
6,397.6	6,340.2	6,361.2	6,326.2	16.6	14.7	84.09	-190.1	-269.2	301.5	272.5	29.03	10.385	
6,400.0	6,342.4	6,363.4	6,328.2	16.6	14.8	84.05	-190.1	-270.2	301.5	272.5	29.06	10.377	
6,450.0	6,388.1	6,411.0	6,369.9	16.8	15.0	83.26	-190.1	-293.2	302.0	272.4	29.55	10.218	
6,496.0	6,428.8	6,454.7	6,406.7	17.0	15.3	82.57	-190.1	-316.6	302.4	272.4	30.06	10.060	
6,500.0	6,432.2	6,458.4	6,409.8	17.0	15.3	82.51	-190.1	-318.7	302.5	272.4	30.11	10.046	
6,550.0	6,474.6	6,505.5	6,447.7	17.3	15.6	81.79	-190.1	-346.7	303.0	272.3	30.73	9.861	
6,594.5	6,510.7	6,547.2	6,479.7	17.5	15.9	81.19	-190.1	-373.5	303.5	272.1	31.34	9.684	
6,600.0	6,515.0	6,552.4	6,483.5	17.6	15.9	81.11	-190.1	-377.0	303.5	272.1	31.42	9.662	
6,650.0	6,553.3	6,600.0	6,517.8	17.9	16.4	80.47	-190.1	-410.0	304.1	271.9	32.19	9.446	
6,692.9	6,584.3	6,639.1	6,544.2	18.2	16.7	79.97	-190.1	-438.7	304.6	271.6	32.92	9.250	
6,700.0	6,589.2	6,645.6	6,548.5	18.2	16.8	79.89	-190.1	-443.7	304.6	271.6	33.05	9.218	
6,750.0	6,622.7	6,692.0	6,577.4	18.6	17.3	79.35	-190.1	-479.9	305.2	271.2	34.00	8.975	
6,791.3	6,648.3	6,730.2	6,599.5	19.0	17.8	78.94	-190.1	-511.1	305.6	270.7	34.87	8.762	
6,800.0	6,653.4	6,738.2	6,603.9	19.1	17.9	78.86	-190.1	-517.8	305.7	270.6	35.06	8.719	
6,850.0	6,681.4	6,784.3	6,627.8	19.6	18.5	78.42	-190.1	-557.2	306.1	269.9	36.22	8.452	
6,889.7	6,701.5	6,820.8	6,644.9	20.1	19.1	78.11	-190.1	-589.4	306.5	269.2	37.23	8.233	
6,900.0	6,706.3	6,830.2	6,649.0	20.2	19.2	78.03	-190.1	-597.9	306.6	269.1	37.49	8.177	
6,950.0	6,728.2	6,876.0	6,667.6	20.9	20.0	77.70	-190.1	-639.8	306.9	268.1	38.86	7.898	
6,988.2	6,742.8	6,911.0	6,679.9	21.5	20.6	77.48	-190.1	-672.5	307.2	267.2	39.99	7.683	
7,000.0	6,746.9	6,921.8	6,683.4	21.6	20.8	77.42	-190.1	-682.7	307.3	266.9	40.34	7.617	
7,050.0	6,762.4	6,967.5	6,696.4	22.5	21.6	77.19	-190.1	-726.5	307.5	265.6	41.92	7.336	

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 SCHAUMBERG 17G-314
<b>Project:</b>	WELD COUNTY, COLORADO	<b>TVD Reference:</b>	KB-EST @ 4633.0usft (Original Well Elev)
<b>Reference Site:</b>	SW NW SEC. 17 T5N R64W 6th P.M.	<b>MD Reference:</b>	KB-EST @ 4633.0usft (Original Well Elev)
<b>Site Error:</b>	0.0 usft	<b>North Reference:</b>	True
<b>Reference Well:</b>	SCHAUMBERG 17G-314	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Well Error:</b>	0.0 usft	<b>Output errors are at</b>	2.00 sigma
<b>Reference Wellbore</b>	ORIGINAL WELLBORE	<b>Database:</b>	EDM 5000.1 Single User Db
<b>Reference Design:</b>	PROPOSAL #1	<b>Offset TVD Reference:</b>	Offset Datum

Offset Design												Offset Site Error:	0.0 usft
Survey Program: 0-MWD												Offset Well Error:	0.0 usft
Reference		Offset		Semi Major Axis			Distance						Warning
Measured Depth (usft)	Vertical Depth (usft)	Measured Depth (usft)	Vertical Depth (usft)	Reference (usft)	Offset (usft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (usft)	+E/-W (usft)	Between Centres (usft)	Between Ellipses (usft)	Minimum Separation (usft)	Separation Factor	
7,086.6	6,771.5	7,000.0	6,704.0	23.1	22.2	77.07	-190.1	-758.1	307.7	264.6	43.12	7.136	
7,100.0	6,774.4	7,013.1	6,706.6	23.3	22.5	77.03	-190.1	-770.9	307.7	264.2	43.59	7.060	
7,150.0	6,783.1	7,058.7	6,714.0	24.3	23.4	76.91	-190.1	-815.9	307.9	262.5	45.34	6.790	
7,185.0	6,787.1	7,090.6	6,717.4	25.0	24.1	76.87	-190.1	-847.6	307.9	261.3	46.62	6.605	
7,200.0	6,788.3	7,104.2	6,718.4	25.3	24.4	76.86	-190.1	-861.2	307.9	260.8	47.17	6.529	
7,252.3	6,790.0	7,151.9	6,720.0	26.3	25.4	76.86	-190.1	-908.9	307.9	258.8	49.15	6.266	
7,258.2	6,790.0	7,157.5	6,720.0	26.4	25.5	76.86	-190.1	-914.5	307.9	258.6	49.39	6.235	
7,283.4	6,789.9	7,182.7	6,719.9	27.0	26.1	76.86	-190.1	-939.8	307.9	257.5	50.49	6.099	
7,299.3	6,789.8	7,198.6	6,719.8	27.3	26.4	76.86	-190.1	-955.6	307.9	256.8	51.18	6.017	
7,300.0	6,789.8	7,199.3	6,719.8	27.3	26.5	76.86	-190.1	-956.3	307.9	256.7	51.21	6.014	
7,381.9	6,789.5	7,281.2	6,719.5	29.1	28.3	76.86	-190.1	-1,038.2	307.9	253.1	54.88	5.612	
7,400.0	6,789.4	7,299.3	6,719.5	29.5	28.8	76.86	-190.1	-1,056.3	307.9	252.3	55.69	5.530	
7,406.9	6,789.4	7,306.2	6,719.4	29.7	28.9	76.86	-190.1	-1,063.2	307.9	251.9	56.01	5.498	
7,480.3	6,789.1	7,379.6	6,719.2	31.4	30.7	76.86	-190.1	-1,136.6	307.9	248.5	59.42	5.182	
7,500.0	6,789.1	7,399.3	6,719.1	31.8	31.1	76.86	-190.1	-1,156.3	307.9	247.6	60.34	5.104	
7,518.6	6,789.0	7,417.9	6,719.0	32.3	31.6	76.86	-190.1	-1,174.9	307.9	246.7	61.22	5.030	
7,578.7	6,788.8	7,478.0	6,718.8	33.7	33.0	76.86	-190.1	-1,235.0	307.9	243.8	64.10	4.804	
7,600.0	6,788.7	7,499.3	6,718.7	34.2	33.6	76.86	-190.1	-1,256.3	307.9	242.8	65.12	4.729	
7,677.1	6,788.4	7,576.4	6,718.4	36.1	35.5	76.86	-190.1	-1,333.4	307.9	239.1	68.88	4.470	
7,700.0	6,788.3	7,599.3	6,718.3	36.7	36.1	76.86	-190.1	-1,356.3	307.9	237.9	70.00	4.399	
7,775.6	6,788.0	7,674.9	6,718.0	38.6	38.0	76.86	-190.1	-1,431.9	307.9	234.2	73.75	4.175	
7,800.0	6,787.9	7,699.3	6,717.9	39.2	38.6	76.86	-190.1	-1,456.3	307.9	233.0	74.97	4.108	
7,874.0	6,787.6	7,773.3	6,717.7	41.0	40.5	76.86	-190.1	-1,530.3	307.9	229.3	78.69	3.913	
7,900.0	6,787.6	7,799.3	6,717.6	41.7	41.2	76.86	-190.1	-1,556.3	307.9	227.9	80.00	3.849	
7,972.4	6,787.3	7,871.7	6,717.3	43.6	43.1	76.86	-190.1	-1,628.7	307.9	224.3	83.69	3.680	
8,000.0	6,787.2	7,899.3	6,717.2	44.3	43.8	76.86	-190.1	-1,656.3	307.9	222.9	85.09	3.619	
8,070.8	6,786.9	7,970.1	6,716.9	46.1	45.6	76.86	-190.1	-1,727.1	307.9	219.2	88.73	3.471	
8,100.0	6,786.8	7,999.3	6,716.8	46.9	46.4	76.86	-190.1	-1,756.3	307.9	217.7	90.23	3.413	
8,169.3	6,786.5	8,068.6	6,716.5	48.7	48.2	76.86	-190.1	-1,825.6	307.9	214.1	93.81	3.282	
8,200.0	6,786.4	8,099.3	6,716.4	49.5	49.1	76.86	-190.1	-1,856.3	307.9	212.5	95.40	3.228	
8,267.7	6,786.1	8,167.0	6,716.2	51.3	50.9	76.86	-190.1	-1,924.0	307.9	209.0	98.93	3.113	
8,300.0	6,786.0	8,199.3	6,716.0	52.1	51.7	76.86	-190.1	-1,956.3	307.9	207.3	100.61	3.061	
8,366.1	6,785.8	8,265.4	6,715.8	53.9	53.5	76.86	-190.1	-2,022.4	307.9	203.9	104.08	2.959	
8,400.0	6,785.6	8,299.3	6,715.7	54.8	54.4	76.86	-190.1	-2,056.3	307.9	202.1	105.85	2.909	
8,464.5	6,785.4	8,363.8	6,715.4	56.5	56.1	76.86	-190.1	-2,120.8	307.9	198.7	109.25	2.819	
8,500.0	6,785.3	8,399.3	6,715.3	57.5	57.1	76.86	-190.1	-2,156.3	307.9	196.8	111.11	2.771	
8,563.0	6,785.0	8,462.3	6,715.0	59.2	58.8	76.86	-190.1	-2,219.3	307.9	193.5	114.44	2.691	
8,600.0	6,784.9	8,499.3	6,714.9	60.2	59.8	76.86	-190.1	-2,256.3	307.9	191.5	116.39	2.646	
8,661.4	6,784.6	8,560.7	6,714.6	61.8	61.5	76.86	-190.1	-2,317.7	307.9	188.3	119.65	2.574	
8,700.0	6,784.5	8,599.3	6,714.5	62.9	62.5	76.86	-190.1	-2,356.3	307.9	186.2	121.69	2.530	
8,759.8	6,784.3	8,659.1	6,714.3	64.5	64.1	76.86	-190.1	-2,416.1	307.9	183.1	124.87	2.466	
8,800.0	6,784.1	8,699.3	6,714.1	65.6	65.2	76.86	-190.1	-2,456.3	307.9	180.9	127.01	2.425	
8,858.2	6,783.9	8,757.5	6,713.9	67.1	66.8	76.86	-190.1	-2,514.5	307.9	177.8	130.11	2.367	
8,900.0	6,783.7	8,799.3	6,713.7	68.3	68.0	76.86	-190.1	-2,556.3	307.9	175.6	132.34	2.327	
8,956.7	6,783.5	8,856.0	6,713.5	69.8	69.5	76.86	-190.1	-2,613.0	307.9	172.6	135.37	2.275	
9,000.0	6,783.3	8,899.3	6,713.3	71.0	70.7	76.86	-190.1	-2,656.3	307.9	170.3	137.68	2.237	
9,055.1	6,783.1	8,954.4	6,713.1	72.5	72.2	76.86	-190.1	-2,711.4	307.9	167.3	140.63	2.190	
9,100.0	6,782.9	8,999.3	6,713.0	73.7	73.4	76.86	-190.1	-2,756.3	307.9	164.9	143.03	2.153	
9,153.5	6,782.7	9,052.8	6,712.7	75.2	74.9	76.86	-190.1	-2,809.8	307.9	162.0	145.90	2.111	
9,200.0	6,782.6	9,099.3	6,712.6	76.5	76.2	76.86	-190.1	-2,856.3	307.9	159.5	148.40	2.075	
9,251.9	6,782.4	9,151.2	6,712.4	77.9	77.6	76.86	-190.1	-2,908.2	307.9	156.7	151.19	2.037	
9,300.0	6,782.2	9,199.3	6,712.2	79.2	78.9	76.86	-190.1	-2,956.3	307.9	154.2	153.77	2.003	

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 SCHAUMBERG 17G-314
<b>Project:</b>	WELD COUNTY, COLORADO	<b>TVD Reference:</b>	KB-EST @ 4633.0usft (Original Well Elev)
<b>Reference Site:</b>	SW NW SEC. 17 T5N R64W 6th P.M.	<b>MD Reference:</b>	KB-EST @ 4633.0usft (Original Well Elev)
<b>Site Error:</b>	0.0 usft	<b>North Reference:</b>	True
<b>Reference Well:</b>	SCHAUMBERG 17G-314	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Well Error:</b>	0.0 usft	<b>Output errors are at</b>	2.00 sigma
<b>Reference Wellbore</b>	ORIGINAL WELLBORE	<b>Database:</b>	EDM 5000.1 Single User Db
<b>Reference Design:</b>	PROPOSAL #1	<b>Offset TVD Reference:</b>	Offset Datum

Offset Design													Offset Site Error:	0.0 usft
Survey Program: 0-MWD													Offset Well Error:	0.0 usft
Reference		Offset		Semi Major Axis			Distance						Warning	
Measured Depth (usft)	Vertical Depth (usft)	Measured Depth (usft)	Vertical Depth (usft)	Reference (usft)	Offset (usft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (usft)	+E/-W (usft)	Between Centres (usft)	Between Ellipses (usft)	Minimum Separation (usft)	Separation Factor		
9,350.4	6,782.0	9,249.7	6,712.0	80.6	80.3	76.86	-190.1	-3,006.7	307.9	151.5	156.48	1.968		
9,400.0	6,781.8	9,299.3	6,711.8	82.0	81.7	76.86	-190.1	-3,056.3	307.9	148.8	159.15	1.935		
9,448.8	6,781.6	9,348.1	6,711.6	83.3	83.0	76.86	-190.1	-3,105.1	307.9	146.2	161.78	1.903		
9,500.0	6,781.4	9,399.3	6,711.4	84.7	84.4	76.86	-190.1	-3,156.3	307.9	143.4	164.53	1.872		
9,547.2	6,781.2	9,446.5	6,711.2	86.0	85.8	76.86	-190.1	-3,203.5	307.9	140.9	167.08	1.843		
9,600.0	6,781.0	9,499.3	6,711.0	87.5	87.2	76.86	-190.1	-3,256.3	307.9	138.0	169.93	1.812		
9,645.6	6,780.8	9,544.9	6,710.8	88.7	88.5	76.86	-190.1	-3,301.9	307.9	135.5	172.39	1.786		
9,700.0	6,780.6	9,599.3	6,710.6	90.2	90.0	76.86	-190.1	-3,356.3	307.9	132.6	175.33	1.756		
9,744.1	6,780.4	9,643.4	6,710.4	91.4	91.2	76.86	-190.1	-3,400.3	307.9	130.2	177.71	1.733		
9,800.0	6,780.2	9,699.3	6,710.2	93.0	92.7	76.86	-190.1	-3,456.3	307.9	127.2	180.73	1.704		
9,842.5	6,780.1	9,741.8	6,710.1	94.2	93.9	76.86	-190.1	-3,498.8	307.9	124.9	183.03	1.682		
9,900.0	6,779.8	9,799.3	6,709.8	95.7	95.5	76.86	-190.1	-3,556.3	307.9	121.8	186.14	1.654		
9,940.9	6,779.7	9,840.2	6,709.7	96.9	96.6	76.86	-190.1	-3,597.2	307.9	119.6	188.35	1.635		
10,000.0	6,779.4	9,899.3	6,709.4	98.5	98.3	76.86	-190.1	-3,656.3	307.9	116.4	191.55	1.608		
10,039.3	6,779.3	9,938.6	6,709.3	99.6	99.4	76.86	-190.1	-3,695.6	307.9	114.2	193.68	1.590		
10,100.0	6,779.0	9,999.3	6,709.1	101.3	101.1	76.86	-190.1	-3,756.3	307.9	111.0	196.97	1.563		
10,137.8	6,778.9	10,037.1	6,708.9	102.3	102.1	76.86	-190.1	-3,794.0	307.9	108.9	199.02	1.547		
10,200.0	6,778.7	10,099.3	6,708.7	104.1	103.8	76.86	-190.1	-3,856.3	307.9	105.5	202.39	1.521		
10,236.2	6,778.5	10,135.5	6,708.5	105.1	104.8	76.86	-190.1	-3,892.5	307.9	103.6	204.35	1.507		
10,300.0	6,778.3	10,199.3	6,708.3	106.8	106.6	76.86	-190.1	-3,956.3	307.9	100.1	207.81	1.482 Level 3		
10,334.6	6,778.1	10,233.9	6,708.1	107.8	107.6	76.86	-190.1	-3,990.9	307.9	98.2	209.69	1.468 Level 3		
10,400.0	6,777.9	10,299.3	6,707.9	109.6	109.4	76.86	-190.1	-4,056.3	307.9	94.7	213.24	1.444 Level 3		
10,433.0	6,777.7	10,332.3	6,707.7	110.5	110.3	76.86	-190.1	-4,089.3	307.9	92.9	215.04	1.432 Level 3		
10,500.0	6,777.5	10,399.3	6,707.5	112.4	112.2	76.86	-190.1	-4,156.3	307.9	89.3	218.67	1.408 Level 3		
10,531.5	6,777.3	10,430.8	6,707.3	113.3	113.1	76.86	-190.1	-4,187.7	307.9	87.5	220.38	1.397 Level 3		
10,600.0	6,777.1	10,499.3	6,707.1	115.2	115.0	76.86	-190.1	-4,256.3	307.9	83.8	224.11	1.374 Level 3		
10,629.9	6,777.0	10,529.2	6,707.0	116.0	115.8	76.86	-190.1	-4,286.2	307.9	82.2	225.73	1.364 Level 3		
10,700.0	6,776.7	10,599.3	6,706.7	117.9	117.7	76.86	-190.1	-4,356.3	307.9	78.4	229.54	1.341 Level 3		
10,728.3	6,776.6	10,627.6	6,706.6	118.7	118.5	76.86	-190.1	-4,384.6	307.9	76.8	231.08	1.333 Level 3		
10,800.0	6,776.3	10,699.3	6,706.3	120.7	120.5	76.86	-190.1	-4,456.3	307.9	72.9	234.98	1.310 Level 3		
10,826.7	6,776.2	10,726.0	6,706.2	121.5	121.3	76.86	-190.1	-4,483.0	307.9	71.5	236.44	1.302 Level 3		
10,900.0	6,775.9	10,799.3	6,705.9	123.5	123.3	76.86	-190.1	-4,556.3	307.9	67.5	240.42	1.281 Level 3		
10,925.2	6,775.8	10,824.5	6,705.8	124.2	124.0	76.86	-190.1	-4,581.4	307.9	66.1	241.79	1.273 Level 3		
11,000.0	6,775.5	10,899.3	6,705.5	126.3	126.1	76.86	-190.1	-4,656.3	307.9	62.1	245.86	1.252 Level 3		
11,023.6	6,775.4	10,922.9	6,705.4	126.9	126.8	76.86	-190.1	-4,679.9	307.9	60.8	247.15	1.246 Level 2		
11,100.0	6,775.1	10,999.3	6,705.1	129.1	128.9	76.86	-190.1	-4,756.3	307.9	56.6	251.31	1.225 Level 2		
11,122.0	6,775.0	11,021.3	6,705.0	129.7	129.5	76.86	-190.1	-4,778.3	307.9	55.4	252.51	1.219 Level 2		
11,200.0	6,774.7	11,099.3	6,704.7	131.9	131.7	76.86	-190.1	-4,856.3	307.9	51.2	256.75	1.199 Level 2		
11,220.4	6,774.6	11,119.7	6,704.6	132.4	132.2	76.86	-190.1	-4,876.7	307.9	50.0	257.87	1.194 Level 2		
11,300.0	6,774.3	11,199.3	6,704.3	134.6	134.5	76.86	-190.1	-4,956.3	307.9	45.7	262.20	1.174 Level 2		
11,318.9	6,774.2	11,218.2	6,704.2	135.2	135.0	76.86	-190.1	-4,975.1	307.9	44.7	263.23	1.170 Level 2		
11,400.0	6,773.9	11,299.3	6,703.9	137.4	137.3	76.86	-190.1	-5,056.3	307.9	40.3	267.65	1.150 Level 2		
11,417.3	6,773.8	11,316.6	6,703.8	137.9	137.7	76.86	-190.1	-5,073.6	307.9	39.3	268.59	1.146 Level 2		
11,500.0	6,773.5	11,399.3	6,703.5	140.2	140.1	76.86	-190.1	-5,156.3	307.9	34.8	273.10	1.127 Level 2		
11,515.7	6,773.4	11,415.0	6,703.4	140.7	140.5	76.86	-190.1	-5,172.0	307.9	34.0	273.96	1.124 Level 2		
11,600.0	6,773.1	11,499.3	6,703.1	143.0	142.8	76.86	-190.1	-5,256.3	307.9	29.4	278.55	1.105 Level 2		
11,614.1	6,773.0	11,513.4	6,703.0	143.4	143.2	76.86	-190.1	-5,270.4	307.9	28.6	279.32	1.102 Level 2		
11,700.0	6,772.7	11,599.3	6,702.7	145.8	145.6	76.86	-190.1	-5,356.3	307.9	23.9	284.01	1.084 Level 2		
11,712.6	6,772.6	11,611.9	6,702.6	146.2	146.0	76.86	-190.1	-5,368.8	307.9	23.2	284.69	1.082 Level 2		
11,800.0	6,772.3	11,699.3	6,702.3	148.6	148.4	76.86	-190.1	-5,456.3	307.9	18.4	289.46	1.064 Level 2		
11,811.0	6,772.2	11,710.3	6,702.2	148.9	148.7	76.86	-190.1	-5,467.3	307.9	17.8	290.06	1.062 Level 2		
11,900.0	6,771.9	11,799.3	6,701.9	151.4	151.2	76.86	-190.1	-5,556.2	307.9	13.0	294.92	1.044 Level 2		

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 SCHAUMBERG 17G-314
<b>Project:</b>	WELD COUNTY, COLORADO	<b>TVD Reference:</b>	KB-EST @ 4633.0usft (Original Well Elev)
<b>Reference Site:</b>	SW NW SEC. 17 T5N R64W 6th P.M.	<b>MD Reference:</b>	KB-EST @ 4633.0usft (Original Well Elev)
<b>Site Error:</b>	0.0 usft	<b>North Reference:</b>	True
<b>Reference Well:</b>	SCHAUMBERG 17G-314	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Well Error:</b>	0.0 usft	<b>Output errors are at</b>	2.00 sigma
<b>Reference Wellbore</b>	ORIGINAL WELLBORE	<b>Database:</b>	EDM 5000.1 Single User Db
<b>Reference Design:</b>	PROPOSAL #1	<b>Offset TVD Reference:</b>	Offset Datum

<b>Offset Design</b> SW NW SEC. 17 T5N R64W 6th P.M. - SCHAUMBERG 17F-234 - ORIGINAL WELLBORE - PROPOS												<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
11,909.4	6,771.8	11,808.7	6,701.8	151.7	151.5	76.86	-190.1	-5,565.7	307.9	12.5	295.43	1.042	Level 2
12,000.0	6,771.5	11,899.3	6,701.5	154.2	154.0	76.86	-190.1	-5,656.2	307.9	7.5	300.37	1.025	Level 2
12,007.8	6,771.4	11,907.1	6,701.4	154.4	154.2	76.86	-190.1	-5,664.1	307.9	7.1	300.80	1.024	Level 2
12,100.0	6,771.1	11,999.3	6,701.1	157.0	156.8	76.86	-190.1	-5,756.2	307.9	2.1	305.83	1.007	Level 2
12,106.3	6,771.0	12,005.6	6,701.0	157.2	157.0	76.86	-190.1	-5,762.5	307.9	1.7	306.17	1.006	Level 2
12,200.0	6,770.7	12,099.3	6,700.7	159.8	159.6	76.86	-190.1	-5,856.2	307.9	-3.4	311.29	0.989	Level 1
12,204.7	6,770.6	12,104.0	6,700.6	159.9	159.7	76.86	-190.1	-5,860.9	307.9	-3.7	311.55	0.988	Level 1
12,300.0	6,770.3	12,199.3	6,700.2	162.6	162.4	76.86	-190.1	-5,956.2	307.9	-8.9	316.75	0.972	Level 1
12,303.1	6,770.2	12,202.4	6,700.2	162.7	162.5	76.86	-190.1	-5,959.4	307.9	-9.0	316.90	0.972	Level 1
12,347.1	6,770.1	12,246.4	6,700.1	163.9	163.3	76.86	-190.1	-6,003.3	307.9	-11.0	318.88	0.966	Level 1
12,361.7	6,770.0	12,260.1	6,700.0	164.3	163.5	76.86	-190.1	-6,017.0	307.9	-11.6	319.52	0.964	Level 1, ES, SF



# Anticollision Report



<b>Company:</b>	PDC ENERGY	<b>Local Co-ordinate Reference:</b>	Well SCHAUMBERG 17G-314
<b>Project:</b>	WELD COUNTY, COLORADO	<b>TVD Reference:</b>	KB-EST @ 4633.0usft (Original Well Elev)
<b>Reference Site:</b>	SW NW SEC. 17 T5N R64W 6th P.M.	<b>MD Reference:</b>	KB-EST @ 4633.0usft (Original Well Elev)
<b>Site Error:</b>	0.0 usft	<b>North Reference:</b>	True
<b>Reference Well:</b>	SCHAUMBERG 17G-314	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Well Error:</b>	0.0 usft	<b>Output errors are at</b>	2.00 sigma
<b>Reference Wellbore</b>	ORIGINAL WELLBORE	<b>Database:</b>	EDM 5000.1 Single User Db
<b>Reference Design:</b>	PROPOSAL #1	<b>Offset TVD Reference:</b>	Offset Datum

Offset Design												Offset Site Error:	0.0 usft
Survey Program: 0-MWD												Offset Well Error:	0.0 usft
Reference		Offset		Semi Major Axis			Distance						Warning
Measured Depth (usft)	Vertical Depth (usft)	Measured Depth (usft)	Vertical Depth (usft)	Reference (usft)	Offset (usft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (usft)	+E/-W (usft)	Between Centres (usft)	Between Ellipses (usft)	Minimum Separation (usft)	Separation Factor	
0.0	0.0	0.0	0.0	0.0	0.0	-90.39	-0.7	-105.0	105.0				
98.4	98.4	98.4	98.4	0.1	0.1	-90.39	-0.7	-105.0	105.0	104.8	0.19	546.212	
100.0	100.0	100.0	100.0	0.1	0.1	-90.39	-0.7	-105.0	105.0	104.8	0.20	536.966	
196.8	196.8	196.8	196.8	0.3	0.3	-90.39	-0.7	-105.0	105.0	104.4	0.63	166.427	
200.0	200.0	200.0	200.0	0.3	0.3	-90.39	-0.7	-105.0	105.0	104.4	0.65	162.774	
295.3	295.3	295.3	295.3	0.5	0.5	-90.39	-0.7	-105.0	105.0	103.9	1.07	97.825	
300.0	300.0	300.0	300.0	0.5	0.5	-90.39	-0.7	-105.0	105.0	103.9	1.09	95.926	
393.7	393.7	393.7	393.7	0.8	0.8	-90.39	-0.7	-105.0	105.0	103.5	1.52	69.271	
400.0	400.0	400.0	400.0	0.8	0.8	-90.39	-0.7	-105.0	105.0	103.5	1.54	68.000	
492.1	492.1	492.1	492.1	1.0	1.0	-90.39	-0.7	-105.0	105.0	103.0	1.96	53.620	
500.0	500.0	500.0	500.0	1.0	1.0	-90.39	-0.7	-105.0	105.0	103.0	1.99	52.668	
590.5	590.5	590.5	590.5	1.2	1.2	-90.39	-0.7	-105.0	105.0	102.6	2.40	43.738	
600.0	600.0	600.0	600.0	1.2	1.2	-90.39	-0.7	-105.0	105.0	102.6	2.44	42.977	
689.0	689.0	689.0	689.0	1.4	1.4	-90.39	-0.7	-105.0	105.0	102.2	2.84	36.931	
700.0	700.0	700.0	700.0	1.4	1.4	-90.39	-0.7	-105.0	105.0	102.1	2.89	36.298	
787.4	787.4	787.4	787.4	1.6	1.6	-90.39	-0.7	-105.0	105.0	101.7	3.29	31.958	
800.0	800.0	800.0	800.0	1.7	1.7	-90.39	-0.7	-105.0	105.0	101.7	3.34	31.416	
885.8	885.8	885.8	885.8	1.9	1.9	-90.39	-0.7	-105.0	105.0	101.3	3.73	28.165	
900.0	900.0	900.0	900.0	1.9	1.9	-90.39	-0.7	-105.0	105.0	101.2	3.79	27.692	
984.2	984.2	984.2	984.2	2.1	2.1	-90.39	-0.7	-105.0	105.0	100.8	4.17	25.177	
1,000.0	1,000.0	1,000.0	1,000.0	2.1	2.1	-90.39	-0.7	-105.0	105.0	100.8	4.24	24.757	
1,082.7	1,082.7	1,082.7	1,082.7	2.3	2.3	-90.39	-0.7	-105.0	105.0	100.4	4.61	22.762	
1,100.0	1,100.0	1,100.0	1,100.0	2.3	2.3	-90.39	-0.7	-105.0	105.0	100.3	4.69	22.384 CC, ES	
1,181.1	1,181.1	1,178.2	1,178.2	2.5	2.5	-90.42	-0.8	-106.1	106.1	101.1	5.04	21.062	
1,200.0	1,200.0	1,196.4	1,196.4	2.6	2.5	-90.44	-0.8	-106.6	106.7	101.6	5.12	20.842	
1,279.5	1,279.5	1,273.0	1,272.9	2.7	2.7	-90.52	-1.0	-110.2	110.4	105.0	5.45	20.252	
1,300.0	1,300.0	1,292.6	1,292.5	2.8	2.7	-90.55	-1.1	-111.5	111.7	106.2	5.54	20.174	
1,377.9	1,377.9	1,367.4	1,367.0	3.0	2.9	-90.69	-1.4	-117.4	118.0	112.1	5.87	20.102	
1,400.0	1,400.0	1,388.4	1,387.9	3.0	3.0	-90.73	-1.5	-119.5	120.1	114.1	5.96	20.145	
1,476.4	1,476.4	1,461.2	1,460.2	3.2	3.1	-90.89	-2.0	-127.7	128.7	122.4	6.29	20.469	
1,500.0	1,500.0	1,483.6	1,482.4	3.2	3.2	-90.94	-2.1	-130.6	131.8	125.4	6.39	20.623	
1,574.8	1,574.8	1,554.2	1,552.3	3.4	3.4	-91.10	-2.7	-140.9	142.7	136.0	6.72	21.247	
1,600.0	1,600.0	1,577.9	1,575.6	3.5	3.4	-91.16	-2.9	-144.7	146.8	139.9	6.82	21.504	
1,673.2	1,673.2	1,646.3	1,643.0	3.6	3.6	-91.31	-3.6	-156.8	159.8	152.6	7.15	22.356	
1,700.0	1,700.0	1,671.1	1,667.3	3.7	3.7	-91.37	-3.9	-161.7	165.0	157.7	7.27	22.706	
1,771.6	1,771.6	1,737.2	1,732.0	3.9	3.9	-91.51	-4.6	-175.5	180.0	172.4	7.58	23.726	
1,800.0	1,800.0	1,763.2	1,757.3	3.9	4.0	-91.56	-4.9	-181.3	186.3	178.6	7.71	24.161	
1,870.1	1,870.1	1,826.9	1,819.2	4.1	4.3	67.02	-5.8	-196.6	202.8	194.9	7.97	25.446	
1,900.0	1,900.0	1,854.0	1,845.3	4.1	4.4	67.04	-6.2	-203.5	210.2	202.1	8.09	25.964	
1,968.5	1,968.4	1,915.5	1,904.6	4.2	4.7	67.28	-7.1	-220.1	227.5	219.1	8.36	27.216	
2,000.0	1,999.8	1,943.6	1,931.5	4.3	4.8	67.47	-7.5	-228.1	235.7	227.3	8.48	27.794	
2,066.9	2,066.5	2,000.0	1,985.3	4.4	5.1	67.96	-8.5	-245.0	253.9	245.1	8.74	29.047	
2,100.0	2,099.5	2,031.9	2,015.6	4.5	5.2	68.32	-9.0	-255.0	263.1	254.2	8.88	29.624	
2,165.3	2,164.4	2,088.9	2,069.3	4.6	5.6	69.02	-10.1	-273.7	282.0	272.9	9.16	30.805	
2,200.0	2,198.7	2,118.8	2,097.4	4.7	5.7	69.42	-10.6	-284.0	292.4	283.1	9.30	31.430	
2,263.8	2,261.8	2,174.8	2,149.8	4.8	6.1	70.23	-11.7	-303.9	312.1	302.5	9.60	32.525	
2,300.0	2,297.5	2,209.0	2,181.7	4.9	6.3	70.77	-12.4	-316.3	323.3	313.5	9.77	33.096	
2,362.2	2,358.6	2,267.7	2,236.4	5.0	6.7	71.77	-13.6	-337.5	342.4	332.3	10.09	33.943	
2,400.0	2,395.6	2,303.3	2,269.6	5.1	6.9	72.41	-14.3	-350.3	353.8	343.6	10.28	34.409	
2,460.6	2,454.9	2,360.5	2,322.9	5.3	7.3	73.75	-15.5	-371.0	372.3	361.7	10.63	35.024	
2,500.0	2,493.4	2,397.6	2,357.5	5.4	7.6	74.56	-16.2	-384.4	384.4	373.5	10.86	35.401	
2,559.0	2,551.2	2,453.3	2,409.4	5.6	8.0	75.67	-17.3	-404.5	402.6	391.4	11.22	35.884	

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 SCHAUMBERG 17G-314
<b>Project:</b>	WELD COUNTY, COLORADO	<b>TVD Reference:</b>	KB-EST @ 4633.0usft (Original Well Elev)
<b>Reference Site:</b>	SW NW SEC. 17 T5N R64W 6th P.M.	<b>MD Reference:</b>	KB-EST @ 4633.0usft (Original Well Elev)
<b>Site Error:</b>	0.0 usft	<b>North Reference:</b>	True
<b>Reference Well:</b>	SCHAUMBERG 17G-314	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Well Error:</b>	0.0 usft	<b>Output errors are at</b>	2.00 sigma
<b>Reference Wellbore</b>	ORIGINAL WELLBORE	<b>Database:</b>	EDM 5000.1 Single User Db
<b>Reference Design:</b>	PROPOSAL #1	<b>Offset TVD Reference:</b>	Offset Datum

Offset Design													Offset Site Error:	0.0 usft
Survey Program: 0-MWD													Offset Well Error:	0.0 usft
Reference		Offset		Semi Major Axis			Distance							Warning
Measured Depth (usft)	Vertical Depth (usft)	Measured Depth (usft)	Vertical Depth (usft)	Reference (usft)	Offset (usft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (usft)	+E/-W (usft)	Between Centres (usft)	Between Ellipses (usft)	Minimum Separation (usft)	Separation Factor		
2,600.0	2,591.3	2,491.9	2,445.4	5.7	8.3	76.39	-18.1	-418.5	415.3	403.9	11.47	36.197		
2,657.5	2,647.5	2,546.1	2,496.0	5.9	8.6	77.32	-19.2	-438.0	433.3	421.4	11.85	36.571		
2,700.0	2,689.1	2,586.2	2,533.4	6.0	8.9	77.97	-20.0	-452.5	446.6	434.5	12.13	36.828		
2,755.9	2,743.7	2,638.9	2,582.5	6.2	9.3	78.76	-21.0	-471.5	464.2	451.7	12.51	37.114		
2,800.0	2,786.9	2,680.5	2,621.3	6.4	9.6	79.35	-21.9	-486.6	478.2	465.4	12.81	37.322		
2,854.3	2,840.0	2,731.8	2,669.0	6.6	10.0	80.02	-22.9	-505.1	495.4	482.2	13.20	37.538		
2,900.0	2,884.7	2,774.8	2,709.2	6.7	10.3	80.55	-23.8	-520.6	510.0	496.5	13.53	37.704		
2,952.7	2,936.3	2,824.6	2,755.6	6.9	10.7	81.13	-24.8	-538.6	526.8	512.9	13.91	37.865		
3,000.0	2,982.5	2,869.1	2,797.1	7.1	11.0	81.62	-25.6	-554.7	541.9	527.7	14.26	37.996		
3,051.2	3,032.6	2,917.4	2,842.1	7.3	11.4	82.12	-26.6	-572.1	558.4	543.7	14.65	38.114		
3,100.0	3,080.3	2,963.4	2,885.0	7.5	11.7	82.57	-27.5	-588.7	574.1	559.0	15.02	38.215		
3,149.6	3,128.8	3,010.2	2,928.6	7.7	12.1	83.00	-28.5	-605.6	590.0	574.6	15.41	38.301		
3,200.0	3,178.1	3,057.7	2,972.9	7.9	12.4	83.41	-29.4	-622.8	606.3	590.5	15.80	38.378		
3,248.0	3,225.1	3,103.0	3,015.1	8.1	12.8	83.79	-30.3	-639.1	621.8	605.6	16.18	38.438		
3,300.0	3,276.0	3,152.0	3,060.8	8.3	13.1	84.18	-31.3	-656.8	638.7	622.1	16.59	38.495		
3,346.4	3,321.4	3,195.8	3,101.7	8.5	13.5	84.51	-32.2	-672.6	653.7	636.7	16.96	38.536		
3,400.0	3,373.8	3,246.3	3,148.7	8.7	13.8	84.87	-33.2	-690.9	671.1	653.7	17.40	38.577		
3,444.9	3,417.7	3,288.6	3,188.2	8.8	14.2	85.16	-34.0	-706.2	685.7	667.9	17.76	38.603		
3,500.0	3,471.6	3,340.6	3,236.6	9.1	14.6	85.49	-35.1	-724.9	703.6	685.4	18.21	38.631		
3,543.3	3,513.9	3,381.4	3,274.7	9.2	14.9	85.75	-35.9	-739.7	717.7	699.1	18.57	38.646		
3,600.0	3,569.4	3,434.9	3,324.6	9.5	15.3	86.07	-37.0	-759.0	736.2	717.2	19.04	38.662		
3,641.7	3,610.2	3,474.2	3,361.2	9.7	15.6	86.29	-37.8	-773.2	749.8	730.4	19.39	38.669		
3,700.0	3,667.2	3,529.2	3,412.5	9.9	16.0	86.59	-38.9	-793.0	768.9	749.0	19.88	38.676		
3,740.1	3,706.5	3,567.0	3,447.8	10.1	16.3	86.79	-39.6	-806.7	782.0	761.8	20.22	38.677		
3,800.0	3,765.0	3,623.5	3,500.4	10.3	16.7	87.07	-40.7	-827.1	801.6	780.8	20.72	38.677		
3,838.6	3,802.8	3,659.9	3,534.3	10.5	17.0	87.24	-41.5	-840.2	814.2	793.1	21.05	38.673		
3,900.0	3,862.8	3,717.8	3,588.3	10.7	17.4	87.51	-42.6	-861.2	834.3	812.7	21.58	38.667		
3,937.0	3,899.0	3,752.7	3,620.8	10.9	17.7	87.67	-43.3	-873.8	846.4	824.5	21.89	38.660		
4,000.0	3,960.7	3,812.1	3,676.2	11.2	18.2	87.92	-44.5	-895.2	867.1	844.7	22.44	38.648		
4,035.4	3,995.3	3,845.5	3,707.3	11.3	18.4	88.06	-45.2	-907.3	878.7	856.0	22.74	38.640		
4,100.0	4,058.5	3,906.4	3,764.1	11.6	18.9	88.30	-46.4	-929.3	899.9	876.6	23.30	38.624		
4,133.8	4,091.6	3,938.3	3,793.9	11.7	19.1	88.42	-47.0	-940.8	911.1	887.5	23.59	38.614		
4,200.0	4,156.3	4,000.7	3,852.0	12.0	19.6	88.65	-48.3	-963.3	932.8	908.6	24.17	38.594		
4,232.3	4,187.9	4,031.1	3,880.4	12.2	19.8	88.76	-48.9	-974.3	943.4	919.0	24.45	38.583		
4,300.0	4,254.1	4,095.0	3,939.9	12.5	20.3	88.98	-50.2	-997.4	965.7	940.6	25.04	38.561		
4,325.7	4,279.2	4,119.2	3,962.5	12.6	20.5	89.07	-50.7	-1,006.1	974.1	948.9	25.27	38.551		
4,330.7	4,284.1	4,123.9	3,966.9	12.6	20.6	89.12	-50.8	-1,007.8	975.8	950.5	25.31	38.546		
4,400.0	4,352.1	4,189.3	4,027.9	12.8	21.1	89.75	-52.1	-1,031.4	998.6	972.7	25.95	38.485		
4,429.1	4,380.8	4,216.8	4,053.5	12.9	21.3	89.99	-52.6	-1,041.4	1,008.2	982.0	26.19	38.496		
4,500.0	4,450.7	4,283.7	4,115.9	13.1	21.8	90.49	-54.0	-1,065.5	1,031.6	1,004.8	26.77	38.531		
4,527.5	4,478.0	4,309.7	4,140.1	13.2	22.0	90.65	-54.5	-1,074.9	1,040.6	1,013.6	26.99	38.560		
4,600.0	4,549.9	4,378.1	4,203.9	13.4	22.5	91.02	-55.8	-1,099.6	1,064.5	1,036.9	27.55	38.645		
4,626.0	4,575.7	4,402.6	4,226.7	13.5	22.7	91.12	-56.3	-1,108.5	1,073.0	1,045.3	27.73	38.691		
4,700.0	4,649.4	4,472.3	4,291.7	13.6	23.2	91.36	-57.7	-1,133.6	1,097.4	1,069.1	28.26	38.829		
4,724.4	4,673.7	4,495.3	4,313.1	13.7	23.4	91.42	-58.2	-1,141.9	1,105.4	1,077.0	28.42	38.889		
4,800.0	4,749.2	4,566.3	4,379.3	13.8	24.0	91.55	-59.6	-1,167.6	1,130.2	1,101.3	28.92	39.084		
4,822.8	4,772.0	4,587.7	4,399.3	13.9	24.1	91.57	-60.0	-1,175.3	1,137.7	1,108.7	29.06	39.157		
4,900.0	4,849.2	4,659.9	4,466.6	14.0	24.7	91.58	-61.5	-1,201.4	1,163.1	1,133.6	29.51	39.412		
4,921.2	4,870.4	4,679.7	4,485.1	14.1	24.8	91.57	-61.9	-1,208.5	1,170.1	1,140.5	29.63	39.490		
4,925.6	4,874.8	4,683.8	4,488.9	14.1	24.9	-67.24	-62.0	-1,210.0	1,171.6	1,137.9	33.62	34.849		
5,000.0	4,949.2	4,753.1	4,553.5	14.2	25.4	-67.79	-63.4	-1,235.0	1,196.1	1,161.8	34.33	34.839		
5,019.7	4,968.8	4,771.4	4,570.6	14.2	25.6	-67.94	-63.7	-1,241.7	1,202.6	1,168.1	34.52	34.837		

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 SCHAUMBERG 17G-314
<b>Project:</b>	WELD COUNTY, COLORADO	<b>TVD Reference:</b>	KB-EST @ 4633.0usft (Original Well Elev)
<b>Reference Site:</b>	SW NW SEC. 17 T5N R64W 6th P.M.	<b>MD Reference:</b>	KB-EST @ 4633.0usft (Original Well Elev)
<b>Site Error:</b>	0.0 usft	<b>North Reference:</b>	True
<b>Reference Well:</b>	SCHAUMBERG 17G-314	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Well Error:</b>	0.0 usft	<b>Output errors are at</b>	2.00 sigma
<b>Reference Wellbore</b>	ORIGINAL WELLBORE	<b>Database:</b>	EDM 5000.1 Single User Db
<b>Reference Design:</b>	PROPOSAL #1	<b>Offset TVD Reference:</b>	Offset Datum

Offset Design												Offset Site Error:	0.0 usft
Survey Program: 0-MWD												Offset Well Error:	0.0 usft
Reference		Offset		Semi Major Axis			Distance						Warning
Measured Depth (usft)	Vertical Depth (usft)	Measured Depth (usft)	Vertical Depth (usft)	Reference (usft)	Offset (usft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (usft)	+E/-W (usft)	Between Centres (usft)	Between Ellipses (usft)	Minimum Separation (usft)	Separation Factor	
5,100.0	5,049.2	4,846.3	4,640.4	14.3	26.1	-68.51	-65.2	-1,268.7	1,229.3	1,194.0	35.29	34.830	
5,118.1	5,067.3	4,863.2	4,656.2	14.3	26.3	-68.63	-65.6	-1,274.8	1,235.3	1,199.8	35.47	34.829	
5,200.0	5,149.2	4,939.6	4,727.4	14.5	26.9	-69.18	-67.1	-1,302.4	1,262.6	1,226.4	36.26	34.825	
5,216.5	5,165.7	4,955.0	4,741.7	14.5	27.0	-69.29	-67.4	-1,307.9	1,268.1	1,231.7	36.42	34.824	
5,300.0	5,249.2	5,032.8	4,814.3	14.6	27.6	-69.83	-69.0	-1,336.1	1,296.1	1,258.9	37.22	34.823	
5,314.9	5,264.1	5,046.7	4,827.3	14.6	27.7	-69.92	-69.2	-1,341.1	1,301.1	1,263.7	37.36	34.823	
5,400.0	5,349.2	5,126.0	4,901.2	14.8	28.3	-70.44	-70.8	-1,369.7	1,329.7	1,291.5	38.18	34.825	
5,413.4	5,362.5	5,138.5	4,912.8	14.8	28.4	-70.52	-71.1	-1,374.2	1,334.2	1,295.9	38.31	34.825	
5,500.0	5,449.2	5,219.2	4,988.1	14.9	29.0	-71.02	-72.7	-1,403.4	1,363.5	1,324.3	39.15	34.830	
5,511.8	5,461.0	5,235.2	5,003.0	14.9	29.1	-71.12	-73.0	-1,409.1	1,367.5	1,328.2	39.29	34.803	
5,600.0	5,549.2	5,138.5	4,901.2	15.1	43.1	0.93	-83.5	-183.4	1,287.9	1,257.3	30.62	42.061	
5,610.2	5,559.4	5,138.5	4,901.2	15.1	43.1	0.92	-83.5	-183.4	1,278.2	1,247.6	30.64	41.723	
5,700.0	5,649.2	5,138.0	4,901.2	15.2	43.1	0.86	-83.5	-183.9	1,193.4	1,162.7	30.77	38.780	
5,708.6	5,657.8	5,138.0	4,901.2	15.3	43.1	0.85	-83.5	-184.0	1,185.3	1,154.5	30.79	38.499	
5,800.0	5,749.2	5,137.5	4,901.2	15.4	43.1	0.78	-83.5	-184.5	1,099.9	1,069.0	30.93	35.561	
5,807.1	5,756.2	5,137.4	4,901.2	15.4	43.1	0.77	-83.5	-184.5	1,093.4	1,062.4	30.94	35.336	
5,900.0	5,849.2	5,136.9	4,901.2	15.6	43.0	0.70	-83.5	-185.0	1,007.7	976.6	31.09	32.413	
5,905.5	5,854.7	5,136.9	4,901.2	15.6	43.0	0.70	-83.5	-185.0	1,002.7	971.6	31.10	32.242	
6,000.0	5,949.2	5,136.4	4,901.2	15.7	43.0	0.63	-83.5	-185.5	917.1	885.8	31.25	29.347	
6,003.9	5,953.1	5,136.4	4,901.2	15.7	43.0	0.62	-83.5	-185.6	913.6	882.3	31.26	29.228	
6,100.0	6,049.2	5,135.8	4,901.2	15.9	43.0	0.55	-83.5	-186.1	828.6	797.2	31.41	26.380	
6,102.3	6,051.5	5,135.8	4,901.2	15.9	43.0	0.55	-83.5	-186.1	826.6	795.2	31.42	26.311	
6,124.6	6,073.8	5,135.7	4,901.2	15.9	43.0	0.53	-83.5	-186.2	807.3	775.8	31.45	25.666	
6,150.0	6,099.2	5,135.1	4,901.2	16.0	43.0	93.86	-83.5	-186.8	785.5	729.1	56.34	13.942	
6,200.0	6,149.0	5,131.3	4,901.2	16.1	42.9	99.59	-83.5	-190.6	743.3	687.5	55.72	13.338	
6,200.8	6,149.8	5,131.2	4,901.2	16.1	42.9	99.67	-83.5	-190.7	742.6	686.9	55.71	13.329	
6,250.0	6,198.5	5,124.1	4,901.2	16.2	42.8	104.19	-83.5	-197.8	702.4	647.4	54.98	12.775	
6,299.2	6,246.6	5,113.6	4,901.2	16.3	42.6	107.66	-83.5	-208.3	663.8	609.5	54.25	12.234	
6,300.0	6,247.4	5,113.4	4,901.2	16.3	42.6	107.71	-83.5	-208.5	663.1	608.9	54.24	12.225	
6,350.0	6,295.5	5,099.3	4,901.2	16.5	42.3	110.23	-83.5	-222.6	625.9	572.3	53.58	11.681	
6,397.6	6,340.2	5,082.9	4,901.2	16.6	42.0	111.80	-83.5	-239.1	592.7	539.6	53.08	11.166	
6,400.0	6,342.4	5,082.0	4,901.2	16.6	42.0	111.86	-83.5	-240.0	591.1	538.0	53.06	11.141	
6,450.0	6,388.1	5,061.4	4,901.2	16.8	41.6	112.72	-83.5	-260.6	558.9	506.2	52.66	10.613	
6,496.0	6,428.8	5,039.6	4,901.2	17.0	41.3	112.89	-83.5	-282.3	531.8	479.4	52.42	10.147	
6,500.0	6,432.2	5,037.6	4,901.2	17.0	41.2	112.88	-83.5	-284.3	529.7	477.3	52.40	10.108	
6,550.0	6,474.6	5,010.9	4,901.2	17.3	40.7	112.42	-83.5	-311.0	503.6	451.3	52.27	9.634	
6,594.5	6,510.7	4,984.7	4,901.2	17.5	40.3	111.56	-83.5	-337.2	483.3	431.0	52.29	9.242	
6,600.0	6,515.0	4,981.3	4,901.2	17.6	40.2	111.42	-83.5	-340.7	480.9	428.6	52.30	9.195	
6,650.0	6,553.3	4,948.9	4,901.2	17.9	39.7	109.94	-83.5	-373.0	461.7	409.2	52.47	8.800	
6,692.9	6,584.3	4,919.1	4,901.2	18.2	39.2	108.35	-83.5	-402.8	447.9	395.2	52.70	8.499	
6,700.0	6,589.2	4,914.0	4,901.2	18.2	39.1	108.06	-83.5	-408.0	445.9	393.1	52.74	8.454	
6,750.0	6,622.7	4,876.6	4,901.2	18.6	38.5	105.86	-83.5	-445.3	433.3	380.1	53.13	8.155	
6,791.3	6,648.3	4,844.1	4,901.2	19.0	38.0	103.86	-83.5	-477.9	425.1	371.6	53.51	7.945	
6,800.0	6,653.4	4,837.0	4,901.2	19.1	37.9	103.43	-83.5	-484.9	423.7	370.1	53.58	7.906	
6,850.0	6,681.4	4,795.4	4,901.2	19.6	37.2	100.87	-83.5	-526.5	416.7	362.6	54.06	7.708	
6,889.7	6,701.5	4,761.0	4,901.2	20.1	36.8	98.83	-83.5	-560.9	412.8	358.3	54.48	7.576	
6,900.0	6,706.3	4,752.0	4,901.2	20.2	36.6	98.30	-83.5	-569.9	412.0	357.4	54.58	7.548	
6,950.0	6,728.2	4,706.9	4,901.2	20.9	36.0	95.83	-83.5	-615.0	409.0	353.9	55.05	7.429	
6,988.2	6,742.8	4,671.6	4,901.2	21.5	35.6	94.08	-83.5	-650.3	407.7	352.2	55.43	7.355	
7,000.0	6,746.9	4,660.5	4,901.2	21.6	35.4	93.56	-83.5	-661.4	407.4	351.8	55.53	7.335	
7,050.0	6,762.4	4,612.8	4,901.2	22.5	34.8	91.59	-83.5	-709.1	406.6	350.7	55.98	7.264	
7,086.6	6,771.5	4,577.4	4,901.2	23.1	34.5	90.38	-83.5	-744.6	406.5	350.2	56.33	7.216	

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 SCHAUMBERG 17G-314
<b>Project:</b>	WELD COUNTY, COLORADO	<b>TVD Reference:</b>	KB-EST @ 4633.0usft (Original Well Elev)
<b>Reference Site:</b>	SW NW SEC. 17 T5N R64W 6th P.M.	<b>MD Reference:</b>	KB-EST @ 4633.0usft (Original Well Elev)
<b>Site Error:</b>	0.0 usft	<b>North Reference:</b>	True
<b>Reference Well:</b>	SCHAUMBERG 17G-314	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Well Error:</b>	0.0 usft	<b>Output errors are at</b>	2.00 sigma
<b>Reference Wellbore</b>	ORIGINAL WELLBORE	<b>Database:</b>	EDM 5000.1 Single User Db
<b>Reference Design:</b>	PROPOSAL #1	<b>Offset TVD Reference:</b>	Offset Datum

Offset Design												Offset Site Error:	0.0 usft
Survey Program: 0-MWD												Offset Well Error:	0.0 usft
Reference		Offset		Semi Major Axis			Distance						Warning
Measured Depth (usft)	Vertical Depth (usft)	Measured Depth (usft)	Vertical Depth (usft)	Reference (usft)	Offset (usft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (usft)	+E/-W (usft)	Between Centres (usft)	Between Ellipses (usft)	Minimum Separation (usft)	Separation Factor	
7,099.5	6,774.3	7,564.7	6,774.3	23.3	34.3	90.00	-83.5	-757.2	406.5	350.0	56.45	7.200	
7,100.0	6,774.4	7,564.3	6,774.3	23.3	34.3	89.99	-83.5	-757.6	406.5	350.0	56.46	7.200	
7,150.0	6,783.1	7,515.0	6,774.6	24.3	33.8	88.82	-83.5	-806.9	406.6	349.6	56.95	7.139	
7,185.0	6,787.1	7,480.2	6,774.8	25.0	33.5	88.27	-83.5	-841.7	406.7	349.3	57.34	7.092	
7,200.0	6,788.3	7,465.2	6,774.9	25.3	33.4	88.12	-83.5	-856.7	406.7	349.2	57.51	7.071	
7,252.3	6,790.0	7,413.6	6,774.5	26.3	32.9	87.82	-83.5	-908.3	406.8	348.6	58.19	6.990	
7,283.4	6,789.9	7,383.2	6,772.8	27.0	32.7	87.59	-83.5	-938.7	406.8	348.2	58.65	6.937	
7,300.0	6,789.8	7,367.1	6,771.4	27.3	32.6	87.40	-83.5	-954.7	406.9	348.0	58.89	6.909	
7,381.9	6,789.5	7,288.8	6,759.3	29.1	32.1	85.74	-83.5	-1,032.0	407.7	347.5	60.16	6.776	
7,400.0	6,789.4	7,271.9	6,755.5	29.5	32.0	85.23	-83.5	-1,048.5	408.0	347.5	60.44	6.750	
7,480.3	6,789.1	7,200.0	6,735.4	31.4	31.7	82.46	-83.5	-1,117.5	410.5	348.8	61.69	6.653	
7,500.0	6,789.1	7,182.3	6,729.4	31.8	31.7	81.63	-83.5	-1,134.2	411.4	349.5	61.98	6.639	
7,578.7	6,788.8	7,117.0	6,703.7	33.7	31.5	78.16	-83.5	-1,194.2	417.3	354.3	63.04	6.620 SF	
7,600.0	6,788.7	7,100.0	6,696.1	34.2	31.5	77.15	-83.5	-1,209.4	419.6	356.3	63.28	6.630	
7,677.1	6,788.4	7,042.7	6,668.0	36.1	31.4	73.46	-83.5	-1,259.2	430.4	366.4	64.06	6.720	
7,700.0	6,788.3	7,026.7	6,659.4	36.7	31.4	72.36	-83.5	-1,272.8	434.6	370.3	64.24	6.765	
7,775.6	6,788.0	6,976.8	6,630.8	38.6	31.4	68.80	-83.5	-1,313.6	451.7	386.9	64.72	6.979	
7,800.0	6,787.9	6,961.7	6,621.6	39.2	31.5	67.68	-83.5	-1,325.6	458.3	393.5	64.83	7.069	
7,874.0	6,787.6	6,918.8	6,594.1	41.0	31.5	64.46	-83.5	-1,358.5	482.0	416.9	65.11	7.403	
7,900.0	6,787.6	6,900.0	6,581.4	41.7	31.5	63.03	-83.5	-1,372.4	491.6	426.6	64.98	7.565	
7,972.4	6,787.3	6,868.1	6,559.0	43.6	31.6	60.59	-83.5	-1,395.1	521.5	456.2	65.33	7.983	
8,000.0	6,787.2	6,850.0	6,545.9	44.3	31.6	59.21	-83.5	-1,407.6	534.2	469.1	65.14	8.201	
8,070.8	6,786.9	6,823.8	6,526.4	46.1	31.7	57.23	-83.5	-1,425.1	569.6	504.1	65.50	8.697	
8,100.0	6,786.8	6,811.7	6,517.2	46.9	31.7	56.33	-83.5	-1,432.9	585.4	519.8	65.55	8.930	
8,169.3	6,786.5	6,784.9	6,496.3	48.7	31.8	54.34	-83.5	-1,449.6	625.3	559.6	65.69	9.518	
8,200.0	6,786.4	6,773.8	6,487.4	49.5	31.8	53.53	-83.5	-1,456.4	644.0	578.3	65.77	9.793	
8,267.7	6,786.1	6,750.0	6,468.1	51.3	31.9	51.81	-83.5	-1,470.3	687.3	621.4	65.90	10.429	
8,300.0	6,786.0	6,750.0	6,468.1	52.1	31.9	51.81	-83.5	-1,470.3	709.0	642.4	66.59	10.647	
8,366.1	6,785.8	6,720.9	6,443.9	53.9	32.0	49.76	-83.5	-1,486.5	754.7	688.4	66.30	11.383	
8,400.0	6,785.6	6,700.0	6,426.1	54.8	32.0	48.34	-83.5	-1,497.4	779.2	713.4	65.77	11.847	
8,464.5	6,785.4	6,700.0	6,426.1	56.5	32.0	48.34	-83.5	-1,497.4	826.6	759.5	67.10	12.319	
8,500.0	6,785.3	6,685.5	6,413.6	57.5	32.1	47.37	-83.5	-1,504.8	853.4	786.4	66.93	12.749	
8,563.0	6,785.0	6,670.7	6,400.7	59.2	32.1	46.40	-83.5	-1,511.9	902.0	834.7	67.29	13.404	
8,600.0	6,784.9	6,650.0	6,382.3	60.2	32.2	45.08	-83.5	-1,521.6	931.4	864.7	66.73	13.957	
8,661.4	6,784.6	6,650.0	6,382.3	61.8	32.2	45.08	-83.5	-1,521.6	980.5	912.5	67.95	14.429	
8,700.0	6,784.5	6,650.0	6,382.3	62.9	32.2	45.08	-83.5	-1,521.6	1,012.0	943.3	68.72	14.728	
8,759.8	6,784.3	6,630.7	6,365.0	64.5	32.2	43.88	-83.5	-1,530.0	1,061.4	992.8	68.64	15.464	
8,800.0	6,784.1	6,623.6	6,358.5	65.6	32.3	43.45	-83.5	-1,533.1	1,095.1	1,026.1	68.95	15.882	
8,858.2	6,783.9	6,600.0	6,337.0	67.1	32.3	42.05	-83.5	-1,542.6	1,144.6	1,076.1	68.52	16.705	
8,900.0	6,783.7	6,600.0	6,337.0	68.3	32.3	42.05	-83.5	-1,542.6	1,180.2	1,110.9	69.31	17.028	
8,956.7	6,783.5	6,600.0	6,337.0	69.8	32.3	42.05	-83.5	-1,542.6	1,229.2	1,158.8	70.39	17.462	
9,000.0	6,783.3	6,600.0	6,337.0	71.0	32.3	42.05	-83.5	-1,542.6	1,267.0	1,195.8	71.22	17.791	
9,055.1	6,783.1	6,600.0	6,337.0	72.5	32.3	42.05	-83.5	-1,542.6	1,315.7	1,243.4	72.27	18.205	
9,100.0	6,782.9	6,578.4	6,317.0	73.7	32.4	40.82	-83.5	-1,550.7	1,355.2	1,283.6	71.62	18.921	
9,153.5	6,782.7	6,571.6	6,310.6	75.2	32.4	40.44	-83.5	-1,553.1	1,402.9	1,330.8	72.16	19.443	
9,200.0	6,782.6	6,550.0	6,290.3	76.5	32.4	39.26	-83.5	-1,560.4	1,444.9	1,373.4	71.52	20.203	
9,251.9	6,782.4	6,550.0	6,290.3	77.9	32.4	39.26	-83.5	-1,560.4	1,491.6	1,419.1	72.47	20.583	
9,300.0	6,782.2	6,550.0	6,290.3	79.2	32.4	39.26	-83.5	-1,560.4	1,535.1	1,461.8	73.34	20.930	
9,350.4	6,782.0	6,550.0	6,290.3	80.6	32.4	39.26	-83.5	-1,560.4	1,581.0	1,506.7	74.27	21.288	
9,400.0	6,781.8	6,550.0	6,290.3	82.0	32.4	39.26	-83.5	-1,560.4	1,626.5	1,551.3	75.17	21.636	
9,448.8	6,781.6	6,550.0	6,290.3	83.3	32.4	39.26	-83.5	-1,560.4	1,671.4	1,595.3	76.07	21.973	
9,500.0	6,781.4	6,550.0	6,290.3	84.7	32.4	39.26	-83.5	-1,560.4	1,718.8	1,641.8	77.00	22.321	

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 SCHAUMBERG 17G-314
<b>Project:</b>	WELD COUNTY, COLORADO	<b>TVD Reference:</b>	KB-EST @ 4633.0usft (Original Well Elev)
<b>Reference Site:</b>	SW NW SEC. 17 T5N R64W 6th P.M.	<b>MD Reference:</b>	KB-EST @ 4633.0usft (Original Well Elev)
<b>Site Error:</b>	0.0 usft	<b>North Reference:</b>	True
<b>Reference Well:</b>	SCHAUMBERG 17G-314	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Well Error:</b>	0.0 usft	<b>Output errors are at</b>	2.00 sigma
<b>Reference Wellbore</b>	ORIGINAL WELLBORE	<b>Database:</b>	EDM 5000.1 Single User Db
<b>Reference Design:</b>	PROPOSAL #1	<b>Offset TVD Reference:</b>	Offset Datum

Offset Design												Offset Site Error:	0.0 usft
Survey Program: 0-MWD												Offset Well Error:	0.0 usft
Reference		Offset		Semi Major Axis			Distance						Warning
Measured Depth (usft)	Vertical Depth (usft)	Measured Depth (usft)	Vertical Depth (usft)	Reference (usft)	Offset (usft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (usft)	+E/-W (usft)	Between Centres (usft)	Between Ellipses (usft)	Minimum Separation (usft)	Separation Factor	
9,547.2	6,781.2	6,530.4	6,271.6	86.0	32.5	38.23	-83.5	-1,566.4	1,762.3	1,685.9	76.42	23.061	
9,600.0	6,781.0	6,525.8	6,267.3	87.5	32.5	38.00	-83.5	-1,567.8	1,811.4	1,734.3	77.03	23.515	
9,645.6	6,780.8	6,522.0	6,263.6	88.7	32.5	37.80	-83.5	-1,568.9	1,853.9	1,776.4	77.56	23.902	
9,700.0	6,780.6	6,500.0	6,242.4	90.2	32.5	36.71	-83.5	-1,574.9	1,905.1	1,828.2	76.91	24.770	
9,744.1	6,780.4	6,500.0	6,242.4	91.4	32.5	36.71	-83.5	-1,574.9	1,946.3	1,868.6	77.68	25.055	
9,800.0	6,780.2	6,500.0	6,242.4	93.0	32.5	36.71	-83.5	-1,574.9	1,998.8	1,920.1	78.66	25.410	
9,842.5	6,780.1	6,500.0	6,242.4	94.2	32.5	36.71	-83.5	-1,574.9	2,038.8	1,959.4	79.41	25.675	
9,900.0	6,779.8	6,500.0	6,242.4	95.7	32.5	36.71	-83.5	-1,574.9	2,093.1	2,012.7	80.42	26.029	
9,940.9	6,779.7	6,500.0	6,242.4	96.9	32.5	36.71	-83.5	-1,574.9	2,131.9	2,050.7	81.13	26.275	
10,000.0	6,779.4	6,500.0	6,242.4	98.5	32.5	36.71	-83.5	-1,574.9	2,187.9	2,105.8	82.17	26.626	
10,039.3	6,779.3	6,500.0	6,242.4	99.6	32.5	36.71	-83.5	-1,574.9	2,225.4	2,142.5	82.86	26.856	
10,100.0	6,779.0	6,500.0	6,242.4	101.3	32.5	36.71	-83.5	-1,574.9	2,283.2	2,199.3	83.93	27.204	
10,137.8	6,778.9	6,500.0	6,242.4	102.3	32.5	36.71	-83.5	-1,574.9	2,319.3	2,234.7	84.59	27.417	
10,200.0	6,778.7	6,500.0	6,242.4	104.1	32.5	36.71	-83.5	-1,574.9	2,378.8	2,293.1	85.69	27.762	
10,236.2	6,778.5	6,500.0	6,242.4	105.1	32.5	36.71	-83.5	-1,574.9	2,413.5	2,327.2	86.32	27.959	
10,300.0	6,778.3	6,479.0	6,222.0	106.8	32.6	35.70	-83.5	-1,580.0	2,474.4	2,388.7	85.73	28.864	
10,334.6	6,778.1	6,477.2	6,220.3	107.8	32.6	35.62	-83.5	-1,580.4	2,507.7	2,421.5	86.18	29.099	
10,400.0	6,777.9	6,473.9	6,217.0	109.6	32.6	35.47	-83.5	-1,581.1	2,570.5	2,483.5	87.03	29.534	
10,433.0	6,777.7	6,472.3	6,215.5	110.5	32.6	35.39	-83.5	-1,581.5	2,602.3	2,514.9	87.47	29.751	
10,500.0	6,777.5	6,450.0	6,193.7	112.4	32.6	34.39	-83.5	-1,586.0	2,667.2	2,580.4	86.81	30.725	
10,531.5	6,777.3	6,450.0	6,193.7	113.3	32.6	34.39	-83.5	-1,586.0	2,697.5	2,610.2	87.34	30.886	
10,600.0	6,777.1	6,450.0	6,193.7	115.2	32.6	34.39	-83.5	-1,586.0	2,763.6	2,675.1	88.49	31.231	
10,629.9	6,777.0	6,450.0	6,193.7	116.0	32.6	34.39	-83.5	-1,586.0	2,792.5	2,703.5	88.99	31.378	
10,700.0	6,776.7	6,450.0	6,193.7	117.9	32.6	34.39	-83.5	-1,586.0	2,860.3	2,770.1	90.17	31.720	
10,728.3	6,776.6	6,450.0	6,193.7	118.7	32.6	34.39	-83.5	-1,586.0	2,887.7	2,797.0	90.65	31.855	
10,800.0	6,776.3	6,450.0	6,193.7	120.7	32.6	34.38	-83.5	-1,586.0	2,957.1	2,865.3	91.86	32.193	
10,826.7	6,776.2	6,450.0	6,193.7	121.5	32.6	34.38	-83.5	-1,586.0	2,983.1	2,890.8	92.31	32.317	
10,900.0	6,775.9	6,450.0	6,193.7	123.5	32.6	34.38	-83.5	-1,586.0	3,054.2	2,960.7	93.54	32.651	
10,925.2	6,775.8	6,450.0	6,193.7	124.2	32.6	34.38	-83.5	-1,586.0	3,078.7	2,984.7	93.97	32.764	
11,000.0	6,775.5	6,450.0	6,193.7	126.3	32.6	34.38	-83.5	-1,586.0	3,151.5	3,056.3	95.23	33.095	
11,023.6	6,775.4	6,450.0	6,193.7	126.9	32.6	34.38	-83.5	-1,586.0	3,174.5	3,078.9	95.62	33.197	
11,100.0	6,775.1	6,450.0	6,193.7	129.1	32.6	34.38	-83.5	-1,586.0	3,248.9	3,152.0	96.91	33.525	
11,122.0	6,775.0	6,450.0	6,193.7	129.7	32.6	34.38	-83.5	-1,586.0	3,270.4	3,173.1	97.28	33.617	
11,200.0	6,774.7	6,450.0	6,193.7	131.9	32.6	34.38	-83.5	-1,586.0	3,346.5	3,247.9	98.60	33.941	
11,220.4	6,774.6	6,450.0	6,193.7	132.4	32.6	34.38	-83.5	-1,586.0	3,366.5	3,267.6	98.94	34.024	
11,300.0	6,774.3	6,450.0	6,193.7	134.6	32.6	34.38	-83.5	-1,586.0	3,444.3	3,344.0	100.29	34.345	
11,318.9	6,774.2	6,450.0	6,193.7	135.2	32.6	34.38	-83.5	-1,586.0	3,462.7	3,362.1	100.60	34.419	
11,400.0	6,773.9	6,450.0	6,193.7	137.4	32.6	34.38	-83.5	-1,586.0	3,542.1	3,440.1	101.97	34.736	
11,417.3	6,773.8	6,450.0	6,193.7	137.9	32.6	34.38	-83.5	-1,586.0	3,559.1	3,456.8	102.27	34.802	
11,500.0	6,773.5	6,450.0	6,193.7	140.2	32.6	34.38	-83.5	-1,586.0	3,640.1	3,536.4	103.66	35.115	
11,515.7	6,773.4	6,450.0	6,193.7	140.7	32.6	34.38	-83.5	-1,586.0	3,655.5	3,551.6	103.93	35.174	
11,600.0	6,773.1	6,450.0	6,193.7	143.0	32.6	34.38	-83.5	-1,586.0	3,738.2	3,632.8	105.35	35.484	
11,614.1	6,773.0	6,450.0	6,193.7	143.4	32.6	34.38	-83.5	-1,586.0	3,752.0	3,646.5	105.59	35.535	
11,700.0	6,772.7	6,427.6	6,171.7	145.8	32.6	33.41	-83.5	-1,589.9	3,835.9	3,731.1	104.87	36.579	
11,712.6	6,772.6	6,427.3	6,171.3	146.2	32.7	33.40	-83.5	-1,589.9	3,848.3	3,743.2	105.04	36.634	
11,800.0	6,772.3	6,425.1	6,169.2	148.6	32.7	33.31	-83.5	-1,590.2	3,934.1	3,827.8	106.28	37.016	
11,811.0	6,772.2	6,424.9	6,168.9	148.9	32.7	33.30	-83.5	-1,590.3	3,944.9	3,838.5	106.44	37.063	
11,900.0	6,771.9	6,422.7	6,166.8	151.4	32.7	33.21	-83.5	-1,590.6	4,032.3	3,924.6	107.70	37.441	
11,909.4	6,771.8	6,422.5	6,166.6	151.7	32.7	33.20	-83.5	-1,590.6	4,041.6	3,933.8	107.83	37.480	
12,000.0	6,771.5	6,400.0	6,144.3	154.2	32.7	32.28	-83.5	-1,593.7	4,131.0	4,023.9	107.14	38.556	
12,007.8	6,771.4	6,400.0	6,144.3	154.4	32.7	32.28	-83.5	-1,593.7	4,138.7	4,031.5	107.27	38.582	
12,100.0	6,771.1	6,400.0	6,144.3	157.0	32.7	32.28	-83.5	-1,593.7	4,229.3	4,120.6	108.76	38.887	

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 SCHAUMBERG 17G-314
<b>Project:</b>	WELD COUNTY, COLORADO	<b>TVD Reference:</b>	KB-EST @ 4633.0usft (Original Well Elev)
<b>Reference Site:</b>	SW NW SEC. 17 T5N R64W 6th P.M.	<b>MD Reference:</b>	KB-EST @ 4633.0usft (Original Well Elev)
<b>Site Error:</b>	0.0 usft	<b>North Reference:</b>	True
<b>Reference Well:</b>	SCHAUMBERG 17G-314	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Well Error:</b>	0.0 usft	<b>Output errors are at</b>	2.00 sigma
<b>Reference Wellbore</b>	ORIGINAL WELLBORE	<b>Database:</b>	EDM 5000.1 Single User Db
<b>Reference Design:</b>	PROPOSAL #1	<b>Offset TVD Reference:</b>	Offset Datum

<b>Offset Design</b> SW NW SEC. 17 T5N R64W 6th P.M. - SCHAUMBERG 17F-332 - ORIGINAL WELLBORE - PROPOS												<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
12,106.3	6,771.0	6,400.0	6,144.3	157.2	32.7	32.28	-83.5	-1,593.7	4,235.5	4,126.7	108.86	38.907	
12,200.0	6,770.7	6,400.0	6,144.3	159.8	32.7	32.27	-83.5	-1,593.7	4,327.7	4,217.4	110.38	39.209	
12,204.7	6,770.6	6,400.0	6,144.3	159.9	32.7	32.27	-83.5	-1,593.7	4,332.4	4,221.9	110.45	39.224	
12,300.0	6,770.3	6,400.0	6,144.3	162.6	32.7	32.27	-83.5	-1,593.7	4,426.2	4,314.2	111.99	39.523	
12,303.1	6,770.2	6,400.0	6,144.3	162.7	32.7	32.27	-83.5	-1,593.7	4,429.3	4,317.3	112.04	39.532	
12,361.7	6,770.0	6,400.0	6,144.3	164.3	32.7	32.27	-83.5	-1,593.7	4,487.0	4,374.0	112.99	39.712	



# Anticollision Report



<b>Company:</b>	PDC ENERGY	<b>Local Co-ordinate Reference:</b>	Well SCHAUMBERG 17G-314
<b>Project:</b>	WELD COUNTY, COLORADO	<b>TVD Reference:</b>	KB-EST @ 4633.0usft (Original Well Elev)
<b>Reference Site:</b>	SW NW SEC. 17 T5N R64W 6th P.M.	<b>MD Reference:</b>	KB-EST @ 4633.0usft (Original Well Elev)
<b>Site Error:</b>	0.0 usft	<b>North Reference:</b>	True
<b>Reference Well:</b>	SCHAUMBERG 17G-314	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Well Error:</b>	0.0 usft	<b>Output errors are at</b>	2.00 sigma
<b>Reference Wellbore</b>	ORIGINAL WELLBORE	<b>Database:</b>	EDM 5000.1 Single User Db
<b>Reference Design:</b>	PROPOSAL #1	<b>Offset TVD Reference:</b>	Offset Datum

Offset Design												Offset Site Error:	0.0 usft
Survey Program: 0-MWD												Offset Well Error:	0.0 usft
Reference		Offset		Semi Major Axis			Distance						
Measured Depth (usft)	Vertical Depth (usft)	Measured Depth (usft)	Vertical Depth (usft)	Reference (usft)	Offset (usft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (usft)	+E/-W (usft)	Between Centres (usft)	Between Ellipses (usft)	Minimum Separation (usft)	Separation Factor	Warning
0.0	0.0	0.0	0.0	0.0	0.0	-90.47	-0.4	-44.8	44.8				
98.4	98.4	98.4	98.4	0.1	0.1	-90.47	-0.4	-44.8	44.8	44.6	0.19	233.265	
100.0	100.0	100.0	100.0	0.1	0.1	-90.47	-0.4	-44.8	44.8	44.6	0.20	229.317	
196.8	196.8	196.8	196.8	0.3	0.3	-90.47	-0.4	-44.8	44.8	44.2	0.63	71.074	
200.0	200.0	200.0	200.0	0.3	0.3	-90.47	-0.4	-44.8	44.8	44.2	0.65	69.514	
295.3	295.3	295.3	295.3	0.5	0.5	-90.47	-0.4	-44.8	44.8	43.8	1.07	41.777	
300.0	300.0	300.0	300.0	0.5	0.5	-90.47	-0.4	-44.8	44.8	43.7	1.09	40.966	
393.7	393.7	393.7	393.7	0.8	0.8	-90.47	-0.4	-44.8	44.8	43.3	1.52	29.583	
400.0	400.0	400.0	400.0	0.8	0.8	-90.47	-0.4	-44.8	44.8	43.3	1.54	29.040	
492.1	492.1	492.1	492.1	1.0	1.0	-90.47	-0.4	-44.8	44.8	42.9	1.96	22.899	
500.0	500.0	500.0	500.0	1.0	1.0	-90.47	-0.4	-44.8	44.8	42.8	1.99	22.492	
590.5	590.5	590.5	590.5	1.2	1.2	-90.47	-0.4	-44.8	44.8	42.4	2.40	18.679	
600.0	600.0	600.0	600.0	1.2	1.2	-90.47	-0.4	-44.8	44.8	42.4	2.44	18.354	
689.0	689.0	689.0	689.0	1.4	1.4	-90.47	-0.4	-44.8	44.8	42.0	2.84	15.772	
700.0	700.0	700.0	700.0	1.4	1.4	-90.47	-0.4	-44.8	44.8	41.9	2.89	15.502	
787.4	787.4	787.4	787.4	1.6	1.6	-90.47	-0.4	-44.8	44.8	41.6	3.29	13.648	
800.0	800.0	800.0	800.0	1.7	1.7	-90.47	-0.4	-44.8	44.8	41.5	3.34	13.417	
885.8	885.8	885.8	885.8	1.9	1.9	-90.47	-0.4	-44.8	44.8	41.1	3.73	12.028	
900.0	900.0	900.0	900.0	1.9	1.9	-90.47	-0.4	-44.8	44.8	41.1	3.79	11.826	
984.2	984.2	984.2	984.2	2.1	2.1	-90.47	-0.4	-44.8	44.8	40.7	4.17	10.752	
1,000.0	1,000.0	1,000.0	1,000.0	2.1	2.1	-90.47	-0.4	-44.8	44.8	40.6	4.24	10.573	
1,082.7	1,082.7	1,082.7	1,082.7	2.3	2.3	-90.47	-0.4	-44.8	44.8	40.2	4.61	9.721	
1,100.0	1,100.0	1,100.0	1,100.0	2.3	2.3	-90.47	-0.4	-44.8	44.8	40.2	4.69	9.559	
1,181.1	1,181.1	1,181.1	1,181.1	2.5	2.5	-90.47	-0.4	-44.8	44.8	39.8	5.06	8.870	
1,200.0	1,200.0	1,200.0	1,200.0	2.6	2.6	-90.47	-0.4	-44.8	44.8	39.7	5.14	8.723	
1,279.5	1,279.5	1,279.5	1,279.5	2.7	2.7	-90.47	-0.4	-44.8	44.8	39.3	5.50	8.156	
1,300.0	1,300.0	1,300.0	1,300.0	2.8	2.8	-90.47	-0.4	-44.8	44.8	39.3	5.59	8.022	
1,377.9	1,377.9	1,377.9	1,377.9	3.0	3.0	-90.47	-0.4	-44.8	44.8	38.9	5.94	7.549	
1,400.0	1,400.0	1,400.0	1,400.0	3.0	3.0	-90.47	-0.4	-44.8	44.8	38.8	6.04	7.425	
1,476.4	1,476.4	1,476.4	1,476.4	3.2	3.2	-90.47	-0.4	-44.8	44.8	38.5	6.38	7.025	
1,500.0	1,500.0	1,500.0	1,500.0	3.2	3.2	-90.47	-0.4	-44.8	44.8	38.4	6.49	6.910 CC, ES	
1,574.8	1,574.8	1,573.6	1,573.6	3.4	3.4	-90.27	-0.2	-45.8	45.8	39.0	6.81	6.720	
1,600.0	1,600.0	1,598.4	1,598.4	3.5	3.5	-90.12	-0.1	-46.5	46.5	39.6	6.92	6.721	
1,673.2	1,673.2	1,670.4	1,670.3	3.6	3.6	-89.48	0.5	-49.8	49.9	42.7	7.24	6.900	
1,700.0	1,700.0	1,696.7	1,696.5	3.7	3.7	-89.20	0.7	-51.5	51.6	44.3	7.35	7.023	
1,771.6	1,771.6	1,766.7	1,766.4	3.9	3.8	-88.36	1.6	-57.1	57.4	49.7	7.66	7.489	
1,800.0	1,800.0	1,794.4	1,793.9	3.9	3.9	-88.01	2.1	-59.8	60.1	52.3	7.78	7.725	
1,870.1	1,870.1	1,862.5	1,861.6	4.1	4.0	72.16	3.3	-67.4	67.8	59.7	8.06	8.412	
1,900.0	1,900.0	1,891.5	1,890.3	4.1	4.1	73.07	3.9	-71.2	71.4	63.3	8.18	8.735	
1,968.5	1,968.4	1,957.5	1,955.6	4.2	4.3	75.62	5.5	-80.8	80.7	72.3	8.44	9.563	
2,000.0	1,999.8	1,987.7	1,985.4	4.3	4.3	76.93	6.3	-85.7	85.4	76.8	8.56	9.979	
2,066.9	2,066.5	2,051.5	2,048.1	4.4	4.5	79.88	8.2	-97.1	96.4	87.6	8.82	10.933	
2,100.0	2,099.5	2,082.8	2,078.8	4.5	4.6	81.36	9.2	-103.1	102.4	93.5	8.95	11.445	
2,165.3	2,164.4	2,146.0	2,140.6	4.6	4.8	84.35	11.3	-116.1	115.1	105.8	9.22	12.476	
2,200.0	2,198.7	2,179.8	2,173.7	4.7	4.9	85.95	12.4	-123.0	121.9	112.5	9.37	13.006	
2,263.8	2,261.8	2,242.7	2,235.3	4.8	5.1	88.96	14.5	-135.9	134.6	124.9	9.66	13.937	
2,300.0	2,297.5	2,279.8	2,271.6	4.9	5.2	90.77	15.7	-143.0	141.5	131.7	9.82	14.415	
2,362.2	2,358.6	2,343.5	2,334.3	5.0	5.4	94.02	17.5	-154.2	152.8	142.7	10.11	15.114	
2,400.0	2,395.6	2,382.2	2,372.5	5.1	5.5	96.09	18.5	-160.3	159.4	149.1	10.29	15.486	
2,460.6	2,454.9	2,444.7	2,434.3	5.3	5.7	99.54	20.0	-169.1	169.4	158.8	10.60	15.979	
2,500.0	2,493.4	2,485.3	2,474.7	5.4	5.8	101.66	20.8	-174.1	175.5	164.7	10.80	16.249	
2,559.0	2,551.2	2,546.5	2,535.4	5.6	5.9	104.74	21.9	-180.6	184.1	173.0	11.11	16.571	

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 SCHAUMBERG 17G-314
<b>Project:</b>	WELD COUNTY, COLORADO	<b>TVD Reference:</b>	KB-EST @ 4633.0usft (Original Well Elev)
<b>Reference Site:</b>	SW NW SEC. 17 T5N R64W 6th P.M.	<b>MD Reference:</b>	KB-EST @ 4633.0usft (Original Well Elev)
<b>Site Error:</b>	0.0 usft	<b>North Reference:</b>	True
<b>Reference Well:</b>	SCHAUMBERG 17G-314	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Well Error:</b>	0.0 usft	<b>Output errors are at</b>	2.00 sigma
<b>Reference Wellbore</b>	ORIGINAL WELLBORE	<b>Database:</b>	EDM 5000.1 Single User Db
<b>Reference Design:</b>	PROPOSAL #1	<b>Offset TVD Reference:</b>	Offset Datum

Offset Design												Offset Site Error:	0.0 usft
Survey Program: 0-MWD												Offset Well Error:	0.0 usft
Reference		Offset		Semi Major Axis			Distance						Warning
Measured Depth (usft)	Vertical Depth (usft)	Measured Depth (usft)	Vertical Depth (usft)	Reference (usft)	Offset (usft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (usft)	+E/-W (usft)	Between Centres (usft)	Between Ellipses (usft)	Minimum Separation (usft)	Separation Factor	
2,600.0	2,591.3	2,588.9	2,577.7	5.7	6.0	106.81	22.5	-184.4	189.8	178.4	11.33	16.751	
2,657.5	2,647.5	2,648.6	2,637.3	5.9	6.2	109.69	23.2	-188.6	197.2	185.5	11.64	16.944	
2,700.0	2,689.1	2,692.9	2,681.4	6.0	6.3	111.80	23.6	-190.9	202.3	190.4	11.86	17.052	
2,755.9	2,743.7	2,751.0	2,739.5	6.2	6.4	114.59	23.9	-193.0	208.6	196.4	12.16	17.155	
2,800.0	2,786.9	2,796.8	2,785.3	6.4	6.5	116.80	24.0	-193.8	213.3	200.9	12.39	17.213	
2,854.3	2,840.0	2,851.5	2,840.0	6.6	6.6	119.45	24.0	-193.9	218.8	206.1	12.66	17.274	
2,900.0	2,884.7	2,896.2	2,884.7	6.7	6.7	121.54	24.0	-193.9	223.7	210.8	12.89	17.349	
2,952.7	2,936.3	2,947.8	2,936.3	6.9	6.8	123.83	24.0	-193.9	229.7	216.5	13.16	17.451	
3,000.0	2,982.5	2,994.0	2,982.5	7.1	6.9	125.79	24.0	-193.9	235.4	222.0	13.40	17.566	
3,051.2	3,032.6	3,044.0	3,032.6	7.3	7.0	127.81	24.0	-193.9	241.9	228.2	13.66	17.711	
3,100.0	3,080.3	3,091.8	3,080.3	7.5	7.1	129.63	24.0	-193.9	248.3	234.4	13.89	17.869	
3,149.6	3,128.8	3,140.3	3,128.8	7.7	7.2	131.40	24.0	-193.9	255.1	240.9	14.14	18.043	
3,200.0	3,178.1	3,189.6	3,178.1	7.9	7.3	133.09	24.0	-193.9	262.2	247.8	14.38	18.236	
3,248.0	3,225.1	3,236.6	3,225.1	8.1	7.3	134.63	24.0	-193.9	269.2	254.6	14.61	18.429	
3,300.0	3,276.0	3,287.4	3,276.0	8.3	7.5	136.20	24.0	-193.9	277.0	262.1	14.85	18.649	
3,346.4	3,321.4	3,332.9	3,321.4	8.5	7.5	137.54	24.0	-193.9	284.1	269.0	15.07	18.852	
3,400.0	3,373.8	3,385.2	3,373.8	8.7	7.7	139.00	24.0	-193.9	292.5	277.2	15.32	19.094	
3,444.9	3,417.7	3,429.1	3,417.7	8.8	7.7	140.16	24.0	-193.9	299.7	284.1	15.53	19.301	
3,500.0	3,471.6	3,483.1	3,471.6	9.1	7.9	141.51	24.0	-193.9	308.6	292.8	15.78	19.560	
3,543.3	3,513.9	3,525.4	3,513.9	9.2	8.0	142.52	24.0	-193.9	315.8	299.8	15.98	19.766	
3,600.0	3,569.4	3,580.9	3,569.4	9.5	8.1	143.77	24.0	-193.9	325.3	309.0	16.23	20.038	
3,641.7	3,610.2	3,621.7	3,610.2	9.7	8.2	144.65	24.0	-193.9	332.4	315.9	16.42	20.239	
3,700.0	3,667.2	3,678.7	3,667.2	9.9	8.3	145.81	24.0	-193.9	342.4	325.7	16.69	20.521	
3,740.1	3,706.5	3,718.0	3,706.5	10.1	8.4	146.58	24.0	-193.9	349.4	332.5	16.87	20.715	
3,800.0	3,765.0	3,776.5	3,765.0	10.3	8.5	147.66	24.0	-193.9	359.9	342.8	17.13	21.004	
3,838.6	3,802.8	3,814.2	3,802.8	10.5	8.6	148.33	24.0	-193.9	366.7	349.4	17.31	21.189	
3,900.0	3,862.8	3,874.3	3,862.8	10.7	8.7	149.34	24.0	-193.9	377.7	360.1	17.58	21.483	
3,937.0	3,899.0	3,910.5	3,899.0	10.9	8.8	149.92	24.0	-193.9	384.4	366.7	17.75	21.658	
4,000.0	3,960.7	3,972.1	3,960.7	11.2	8.9	150.87	24.0	-193.9	395.9	377.8	18.03	21.955	
4,035.4	3,995.3	4,006.8	3,995.3	11.3	9.0	151.38	24.0	-193.9	402.3	384.1	18.19	22.120	
4,100.0	4,058.5	4,069.9	4,058.5	11.6	9.1	152.26	24.0	-193.9	414.2	395.7	18.48	22.418	
4,133.8	4,091.6	4,103.1	4,091.6	11.7	9.2	152.70	24.0	-193.9	420.5	401.9	18.63	22.572	
4,200.0	4,156.3	4,167.8	4,156.3	12.0	9.3	153.54	24.0	-193.9	432.8	413.9	18.93	22.870	
4,232.3	4,187.9	4,199.3	4,187.9	12.2	9.4	153.92	24.0	-193.9	438.9	419.8	19.07	23.014	
4,300.0	4,254.1	4,265.6	4,254.1	12.5	9.5	154.71	24.0	-193.9	451.6	432.2	19.37	23.311	
4,325.7	4,279.2	4,290.7	4,279.2	12.6	9.6	154.99	24.0	-193.9	456.5	437.0	19.49	23.422	
4,330.7	4,284.1	4,295.6	4,284.1	12.6	9.6	155.06	24.0	-193.9	457.4	437.9	19.51	23.441	
4,400.0	4,352.1	4,363.6	4,352.1	12.8	9.7	155.85	24.0	-193.9	469.7	449.8	19.85	23.658	
4,429.1	4,380.8	4,392.2	4,380.8	12.9	9.8	156.14	24.0	-193.9	474.4	454.4	19.99	23.734	
4,500.0	4,450.7	4,462.2	4,450.7	13.1	9.9	156.77	24.0	-193.9	484.9	464.5	20.32	23.862	
4,527.5	4,478.0	4,489.5	4,478.0	13.2	10.0	156.98	24.0	-193.9	488.5	468.0	20.44	23.894	
4,600.0	4,549.9	4,561.3	4,549.9	13.4	10.2	157.45	24.0	-193.9	496.9	476.1	20.77	23.925	
4,626.0	4,575.7	4,587.2	4,575.7	13.5	10.2	157.60	24.0	-193.9	499.5	478.6	20.88	23.920	
4,700.0	4,649.4	4,660.9	4,649.4	13.6	10.4	157.94	24.0	-193.9	505.8	484.6	21.20	23.856	
4,724.4	4,673.7	4,685.2	4,673.7	13.7	10.4	158.03	24.0	-193.9	507.5	486.2	21.30	23.821	
4,800.0	4,749.2	4,760.7	4,749.2	13.8	10.6	158.24	24.0	-193.9	511.5	489.9	21.61	23.664	
4,822.8	4,772.0	4,783.5	4,772.0	13.9	10.6	158.28	24.0	-193.9	512.3	490.6	21.70	23.605	
4,900.0	4,849.2	4,860.6	4,849.2	14.0	10.8	158.37	24.0	-193.9	513.9	491.9	22.00	23.357	
4,921.2	4,870.4	4,881.9	4,870.4	14.1	10.8	158.37	24.0	-193.9	514.1	492.0	22.08	23.277	
4,925.6	4,874.8	4,886.3	4,874.8	14.1	10.9	-0.43	24.0	-193.9	514.1	489.9	24.18	21.260	
5,000.0	4,949.2	4,960.6	4,949.2	14.2	11.0	-0.43	24.0	-193.9	514.1	489.6	24.46	21.016	
5,019.7	4,968.8	4,980.3	4,968.8	14.2	11.1	-0.43	24.0	-193.9	514.1	489.5	24.53	20.953	

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 SCHAUMBERG 17G-314
<b>Project:</b>	WELD COUNTY, COLORADO	<b>TVD Reference:</b>	KB-EST @ 4633.0usft (Original Well Elev)
<b>Reference Site:</b>	SW NW SEC. 17 T5N R64W 6th P.M.	<b>MD Reference:</b>	KB-EST @ 4633.0usft (Original Well Elev)
<b>Site Error:</b>	0.0 usft	<b>North Reference:</b>	True
<b>Reference Well:</b>	SCHAUMBERG 17G-314	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Well Error:</b>	0.0 usft	<b>Output errors are at</b>	2.00 sigma
<b>Reference Wellbore</b>	ORIGINAL WELLBORE	<b>Database:</b>	EDM 5000.1 Single User Db
<b>Reference Design:</b>	PROPOSAL #1	<b>Offset TVD Reference:</b>	Offset Datum

Offset Design												Offset Site Error:	0.0 usft
Survey Program: 0-MWD												Offset Well Error:	0.0 usft
Reference		Offset		Semi Major Axis			Distance						Warning
Measured Depth (usft)	Vertical Depth (usft)	Measured Depth (usft)	Vertical Depth (usft)	Reference (usft)	Offset (usft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (usft)	+E/-W (usft)	Between Centres (usft)	Between Ellipses (usft)	Minimum Separation (usft)	Separation Factor	
5,100.0	5,049.2	5,060.6	5,049.2	14.3	11.2	-0.43	24.0	-193.9	514.1	489.2	24.84	20.699	
5,118.1	5,067.3	5,078.7	5,067.3	14.3	11.3	-0.43	24.0	-193.9	514.1	489.2	24.90	20.642	
5,200.0	5,149.2	5,160.6	5,149.2	14.5	11.5	-0.43	24.0	-193.9	514.1	488.8	25.21	20.389	
5,216.5	5,165.7	5,177.2	5,165.7	14.5	11.5	-0.43	24.0	-193.9	514.1	488.8	25.27	20.339	
5,300.0	5,249.2	5,260.6	5,249.2	14.6	11.7	-0.43	24.0	-193.9	514.1	488.5	25.59	20.088	
5,314.9	5,264.1	5,275.6	5,264.1	14.6	11.7	-0.43	24.0	-193.9	514.1	488.4	25.65	20.043	
5,400.0	5,349.2	5,360.6	5,349.2	14.8	11.9	-0.43	24.0	-193.9	514.1	488.1	25.97	19.793	
5,413.4	5,362.5	5,374.0	5,362.5	14.8	11.9	-0.43	24.0	-193.9	514.1	488.0	26.02	19.754	
5,500.0	5,449.2	5,460.6	5,449.2	14.9	12.1	-0.43	24.0	-193.9	514.1	487.7	26.35	19.506	
5,511.8	5,461.0	5,472.4	5,461.0	14.9	12.1	-0.43	24.0	-193.9	514.1	487.7	26.40	19.472	
5,600.0	5,549.2	5,560.6	5,549.2	15.1	12.3	-0.43	24.0	-193.9	514.1	487.3	26.74	19.226	
5,610.2	5,559.4	5,570.9	5,559.4	15.1	12.3	-0.43	24.0	-193.9	514.1	487.3	26.78	19.197	
5,700.0	5,649.2	5,660.6	5,649.2	15.2	12.5	-0.43	24.0	-193.9	514.1	486.9	27.12	18.952	
5,708.6	5,657.8	5,669.3	5,657.8	15.3	12.6	-0.43	24.0	-193.9	514.1	486.9	27.16	18.929	
5,800.0	5,749.2	5,760.6	5,749.2	15.4	12.8	-0.43	24.0	-193.9	514.1	486.5	27.51	18.685	
5,807.1	5,756.2	5,767.7	5,756.2	15.4	12.8	-0.43	24.0	-193.9	514.1	486.5	27.54	18.666	
5,900.0	5,849.2	5,860.6	5,849.2	15.6	13.0	-0.43	24.0	-193.9	514.1	486.2	27.90	18.424	
5,905.5	5,854.7	5,866.1	5,854.7	15.6	13.0	-0.43	24.0	-193.9	514.1	486.1	27.92	18.410	
6,000.0	5,949.2	5,960.6	5,949.2	15.7	13.2	-0.43	24.0	-193.9	514.1	485.8	28.29	18.170	
6,003.9	5,953.1	5,964.6	5,953.1	15.7	13.2	-0.43	24.0	-193.9	514.1	485.7	28.31	18.160	
6,100.0	6,049.2	6,060.6	6,049.2	15.9	13.4	-0.43	24.0	-193.9	514.1	485.4	28.68	17.921	
6,102.3	6,051.5	6,063.0	6,051.5	15.9	13.4	-0.43	24.0	-193.9	514.1	485.4	28.69	17.915	
6,124.6	6,073.8	6,085.3	6,073.8	15.9	13.5	-0.43	24.0	-193.9	514.1	485.3	28.78	17.861	
6,150.0	6,099.2	6,110.5	6,099.0	16.0	13.5	89.57	24.0	-194.3	514.1	486.9	27.14	18.938	
6,200.0	6,149.0	6,160.2	6,148.6	16.1	13.6	89.57	24.0	-197.8	514.1	486.7	27.37	18.781	
6,200.8	6,149.8	6,161.0	6,149.4	16.1	13.6	89.57	24.0	-197.9	514.1	486.7	27.38	18.778	
6,250.0	6,198.5	6,210.0	6,197.9	16.2	13.8	89.57	24.0	-204.7	514.1	486.4	27.63	18.605	
6,299.2	6,246.6	6,258.9	6,245.7	16.3	13.9	89.58	24.0	-214.8	514.1	486.1	27.92	18.413	
6,300.0	6,247.4	6,259.7	6,246.5	16.3	13.9	89.58	24.0	-215.0	514.1	486.1	27.92	18.409	
6,350.0	6,295.5	6,309.4	6,294.3	16.5	14.1	89.59	24.0	-228.7	514.1	485.8	28.25	18.193	
6,397.6	6,340.2	6,356.8	6,338.9	16.6	14.2	89.60	24.0	-244.8	514.1	485.4	28.61	17.967	
6,400.0	6,342.4	6,359.2	6,341.1	16.6	14.3	89.60	24.0	-245.6	514.1	485.4	28.63	17.955	
6,450.0	6,388.1	6,408.9	6,386.6	16.8	14.5	89.61	24.0	-265.8	514.1	485.0	29.06	17.691	
6,496.0	6,428.8	6,454.8	6,427.1	17.0	14.7	89.62	24.0	-287.1	514.1	484.5	29.51	17.422	
6,500.0	6,432.2	6,458.7	6,430.5	17.0	14.7	89.62	24.0	-289.1	514.1	484.5	29.55	17.398	
6,550.0	6,474.6	6,508.5	6,472.8	17.3	15.0	89.64	24.0	-315.3	514.1	483.9	30.11	17.073	
6,594.5	6,510.7	6,552.7	6,508.8	17.5	15.3	89.66	24.0	-341.1	514.0	483.4	30.68	16.753	
6,600.0	6,515.0	6,558.2	6,513.1	17.6	15.3	89.66	24.0	-344.5	514.0	483.3	30.76	16.712	
6,650.0	6,553.3	6,608.0	6,551.4	17.9	15.7	89.68	24.0	-376.4	514.0	482.5	31.51	16.314	
6,692.9	6,584.3	6,650.8	6,582.3	18.2	16.0	89.69	24.0	-405.8	514.0	481.8	32.24	15.943	
6,700.0	6,589.2	6,657.8	6,587.3	18.2	16.1	89.70	24.0	-410.8	514.0	481.7	32.37	15.879	
6,750.0	6,622.7	6,707.7	6,620.8	18.6	16.6	89.72	24.0	-447.7	514.0	480.7	33.36	15.409	
6,791.3	6,648.3	6,748.8	6,646.4	19.0	17.0	89.74	24.0	-479.9	514.0	479.8	34.28	14.996	
6,800.0	6,653.4	6,757.5	6,651.6	19.1	17.2	89.74	24.0	-486.9	514.0	479.6	34.48	14.907	
6,850.0	6,681.4	6,807.3	6,679.6	19.6	17.8	89.77	24.0	-528.1	514.0	478.3	35.75	14.380	
6,889.7	6,701.5	6,847.0	6,699.8	20.1	18.3	89.79	24.0	-562.2	514.0	477.2	36.86	13.947	
6,900.0	6,706.3	6,857.2	6,704.7	20.2	18.5	89.80	24.0	-571.2	514.0	476.9	37.15	13.836	
6,950.0	6,728.2	6,907.1	6,726.8	20.9	19.3	89.82	24.0	-615.9	514.0	475.3	38.70	13.283	
6,988.2	6,742.8	6,945.2	6,741.5	21.5	19.9	89.84	24.0	-651.0	514.0	474.1	39.98	12.858	
7,000.0	6,746.9	6,957.0	6,745.7	21.6	20.1	89.85	24.0	-662.1	514.0	473.7	40.38	12.729	
7,050.0	6,762.4	7,006.9	6,761.3	22.5	21.0	89.88	24.0	-709.4	514.0	471.8	42.19	12.183	
7,086.6	6,771.5	7,043.4	6,770.7	23.1	21.7	89.90	24.0	-744.8	514.0	470.4	43.59	11.791	

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 SCHAUMBERG 17G-314
<b>Project:</b>	WELD COUNTY, COLORADO	<b>TVD Reference:</b>	KB-EST @ 4633.0usft (Original Well Elev)
<b>Reference Site:</b>	SW NW SEC. 17 T5N R64W 6th P.M.	<b>MD Reference:</b>	KB-EST @ 4633.0usft (Original Well Elev)
<b>Site Error:</b>	0.0 usft	<b>North Reference:</b>	True
<b>Reference Well:</b>	SCHAUMBERG 17G-314	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Well Error:</b>	0.0 usft	<b>Output errors are at</b>	2.00 sigma
<b>Reference Wellbore</b>	ORIGINAL WELLBORE	<b>Database:</b>	EDM 5000.1 Single User Db
<b>Reference Design:</b>	PROPOSAL #1	<b>Offset TVD Reference:</b>	Offset Datum

Offset Design												Offset Site Error:	0.0 usft
Survey Program: 0-MWD												Offset Well Error:	0.0 usft
Reference		Offset		Semi Major Axis			Distance						Warning
Measured Depth (usft)	Vertical Depth (usft)	Measured Depth (usft)	Vertical Depth (usft)	Reference (usft)	Offset (usft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (usft)	+E/-W (usft)	Between Centres (usft)	Between Ellipses (usft)	Minimum Separation (usft)	Separation Factor	
7,100.0	6,774.4	7,056.8	6,773.6	23.3	21.9	89.91	24.0	-757.8	514.0	469.9	44.11	11.652	
7,150.0	6,783.1	7,106.8	6,782.5	24.3	23.0	89.94	24.0	-807.0	514.0	467.9	46.13	11.142	
7,185.0	6,787.1	7,141.8	6,786.7	25.0	23.7	89.96	24.0	-841.7	514.0	466.4	47.60	10.799	
7,200.0	6,788.3	7,156.8	6,788.0	25.3	24.0	89.97	24.0	-856.6	514.0	465.8	48.23	10.657	
7,230.7	6,789.8	7,187.4	6,789.6	25.9	24.7	89.99	24.0	-887.3	514.0	464.5	49.56	10.372	
7,252.3	6,790.0	7,209.1	6,790.0	26.3	25.1	90.00	24.0	-908.9	514.0	463.5	50.50	10.180	
7,283.4	6,789.9	7,240.2	6,789.9	27.0	25.8	90.00	24.0	-940.0	514.0	462.2	51.88	9.908	
7,300.0	6,789.8	7,256.7	6,789.8	27.3	26.2	90.00	24.0	-956.6	514.0	461.4	52.62	9.769	
7,381.9	6,789.5	7,338.6	6,789.5	29.1	28.1	90.00	24.0	-1,038.4	514.0	457.7	56.37	9.120	
7,400.0	6,789.4	7,356.7	6,789.5	29.5	28.5	90.00	24.0	-1,056.6	514.0	456.8	57.20	8.986	
7,480.3	6,789.1	7,437.0	6,789.2	31.4	30.4	90.00	24.0	-1,136.9	514.0	453.0	61.02	8.425	
7,500.0	6,789.1	7,456.7	6,789.1	31.8	30.8	90.00	24.0	-1,156.6	514.0	452.1	61.96	8.297	
7,578.7	6,788.8	7,535.5	6,788.8	33.7	32.8	90.00	24.0	-1,235.3	514.0	448.2	65.80	7.812	
7,600.0	6,788.7	7,556.7	6,788.7	34.2	33.3	90.00	24.0	-1,256.6	514.0	447.2	66.85	7.690	
7,677.1	6,788.4	7,633.9	6,788.4	36.1	35.2	90.00	24.0	-1,333.7	514.0	443.3	70.70	7.271	
7,700.0	6,788.3	7,656.7	6,788.3	36.7	35.8	90.00	24.0	-1,356.6	514.0	442.2	71.84	7.155	
7,775.6	6,788.0	7,732.3	6,788.0	38.6	37.7	90.00	24.0	-1,432.1	514.0	438.4	75.68	6.792	
7,800.0	6,787.9	7,756.7	6,787.9	39.2	38.3	90.00	24.0	-1,456.6	514.0	437.1	76.93	6.682	
7,874.0	6,787.6	7,830.7	6,787.7	41.0	40.2	90.00	24.0	-1,530.6	514.0	433.3	80.74	6.367	
7,900.0	6,787.6	7,856.7	6,787.6	41.7	40.9	90.00	24.0	-1,556.6	514.0	432.0	82.08	6.263	
7,972.4	6,787.3	7,929.2	6,787.3	43.6	42.8	90.00	24.0	-1,629.0	514.0	428.2	85.85	5.988	
8,000.0	6,787.2	7,956.7	6,787.2	44.3	43.5	90.00	24.0	-1,656.6	514.0	426.8	87.29	5.889	
8,070.8	6,786.9	8,027.6	6,786.9	46.1	45.4	90.00	24.0	-1,727.4	514.0	423.0	91.01	5.648	
8,100.0	6,786.8	8,056.7	6,786.8	46.9	46.1	90.00	24.0	-1,756.6	514.0	421.5	92.55	5.554	
8,169.3	6,786.5	8,126.0	6,786.5	48.7	48.0	90.00	24.0	-1,825.8	514.0	417.8	96.22	5.342	
8,200.0	6,786.4	8,156.7	6,786.4	49.5	48.8	90.00	24.0	-1,856.6	514.0	416.2	97.85	5.253	
8,267.7	6,786.1	8,224.4	6,786.2	51.3	50.6	90.00	24.0	-1,924.3	514.0	412.6	101.46	5.067	
8,300.0	6,786.0	8,256.7	6,786.0	52.1	51.4	90.00	24.0	-1,956.6	514.0	410.9	103.18	4.982	
8,366.1	6,785.8	8,322.9	6,785.8	53.9	53.2	90.00	24.0	-2,022.7	514.0	407.3	106.73	4.816	
8,400.0	6,785.6	8,356.7	6,785.7	54.8	54.1	90.00	24.0	-2,056.6	514.0	405.5	108.54	4.736	
8,464.5	6,785.4	8,421.3	6,785.4	56.5	55.9	90.00	24.0	-2,121.1	514.0	402.0	112.02	4.589	
8,500.0	6,785.3	8,456.7	6,785.3	57.5	56.8	90.00	24.0	-2,156.6	514.0	400.1	113.93	4.512	
8,563.0	6,785.0	8,519.7	6,785.0	59.2	58.5	90.00	24.0	-2,219.5	514.0	396.7	117.34	4.381	
8,600.0	6,784.9	8,556.7	6,784.9	60.2	59.5	90.00	24.0	-2,256.6	514.0	394.7	119.34	4.307	
8,661.4	6,784.6	8,618.1	6,784.7	61.8	61.2	90.00	24.0	-2,318.0	514.0	391.4	122.67	4.190	
8,700.0	6,784.5	8,656.7	6,784.5	62.9	62.2	90.00	24.0	-2,356.6	514.0	389.3	124.77	4.120	
8,759.8	6,784.3	8,716.6	6,784.3	64.5	63.9	90.00	24.0	-2,416.4	514.0	386.0	128.03	4.015	
8,800.0	6,784.1	8,756.7	6,784.1	65.6	64.9	90.00	24.0	-2,456.6	514.0	383.8	130.21	3.948	
8,858.2	6,783.9	8,815.0	6,783.9	67.1	66.5	90.00	24.0	-2,514.8	514.0	380.7	133.39	3.854	
8,900.0	6,783.7	8,856.7	6,783.7	68.3	67.7	90.00	24.0	-2,556.6	514.0	378.4	135.67	3.789	
8,956.7	6,783.5	8,913.4	6,783.5	69.8	69.2	90.00	24.0	-2,613.2	514.0	375.3	138.77	3.704	
9,000.0	6,783.3	8,956.7	6,783.3	71.0	70.4	90.00	24.0	-2,656.5	514.0	372.9	141.14	3.642	
9,055.1	6,783.1	9,011.8	6,783.1	72.5	71.9	90.00	24.0	-2,711.6	514.0	369.9	144.16	3.566	
9,100.0	6,782.9	9,056.7	6,783.0	73.7	73.2	90.00	24.0	-2,756.5	514.0	367.4	146.63	3.506	
9,153.5	6,782.7	9,110.3	6,782.8	75.2	74.6	90.00	24.0	-2,810.1	514.0	364.5	149.57	3.437	
9,200.0	6,782.6	9,156.7	6,782.6	76.5	75.9	90.00	24.0	-2,856.5	514.0	361.9	152.12	3.379	
9,251.9	6,782.4	9,208.7	6,782.4	77.9	77.3	90.00	24.0	-2,908.5	514.0	359.1	154.98	3.317	
9,300.0	6,782.2	9,256.7	6,782.2	79.2	78.7	90.00	24.0	-2,956.5	514.0	356.4	157.62	3.261	
9,350.4	6,782.0	9,307.1	6,782.0	80.6	80.0	90.00	24.0	-3,006.9	514.0	353.6	160.40	3.205	
9,400.0	6,781.8	9,356.7	6,781.8	82.0	81.4	90.00	24.0	-3,056.5	514.0	350.9	163.13	3.151	
9,448.8	6,781.6	9,405.5	6,781.6	83.3	82.8	90.00	24.1	-3,105.3	514.0	348.2	165.82	3.100	
9,500.0	6,781.4	9,456.7	6,781.4	84.7	84.2	90.00	24.1	-3,156.5	514.0	345.4	168.65	3.048	

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

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<b>Project:</b>	WELD COUNTY, COLORADO	<b>TVD Reference:</b>	KB-EST @ 4633.0usft (Original Well Elev)
<b>Reference Site:</b>	SW NW SEC. 17 T5N R64W 6th P.M.	<b>MD Reference:</b>	KB-EST @ 4633.0usft (Original Well Elev)
<b>Site Error:</b>	0.0 usft	<b>North Reference:</b>	True
<b>Reference Well:</b>	SCHAUMBERG 17G-314	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Well Error:</b>	0.0 usft	<b>Output errors are at</b>	2.00 sigma
<b>Reference Wellbore</b>	ORIGINAL WELLBORE	<b>Database:</b>	EDM 5000.1 Single User Db
<b>Reference Design:</b>	PROPOSAL #1	<b>Offset TVD Reference:</b>	Offset Datum

Offset Design												Offset Site Error:	0.0 usft
Survey Program: 0-MWD												Offset Well Error:	0.0 usft
Reference		Offset		Semi Major Axis			Distance						Warning
Measured Depth (usft)	Vertical Depth (usft)	Measured Depth (usft)	Vertical Depth (usft)	Reference (usft)	Offset (usft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (usft)	+E/-W (usft)	Between Centres (usft)	Between Ellipses (usft)	Minimum Separation (usft)	Separation Factor	
9,547.2	6,781.2	9,504.0	6,781.2	86.0	85.5	90.00	24.1	-3,203.8	514.0	342.8	171.26	3.002	
9,600.0	6,781.0	9,556.7	6,781.0	87.5	86.9	90.00	24.1	-3,256.5	514.0	339.9	174.17	2.951	
9,645.6	6,780.8	9,602.4	6,780.8	88.7	88.2	90.00	24.1	-3,302.2	514.0	337.3	176.70	2.909	
9,700.0	6,780.6	9,656.7	6,780.6	90.2	89.7	90.00	24.1	-3,356.5	514.0	334.3	179.70	2.861	
9,744.1	6,780.4	9,700.8	6,780.4	91.4	90.9	90.00	24.1	-3,400.6	514.0	331.9	182.14	2.822	
9,800.0	6,780.2	9,756.7	6,780.2	93.0	92.5	90.00	24.1	-3,456.5	514.0	328.8	185.24	2.775	
9,842.5	6,780.1	9,799.2	6,780.1	94.2	93.6	90.00	24.1	-3,499.0	514.0	326.5	187.59	2.740	
9,900.0	6,779.8	9,856.7	6,779.8	95.7	95.2	90.00	24.1	-3,556.5	514.0	323.3	190.78	2.694	
9,940.9	6,779.7	9,897.7	6,779.7	96.9	96.4	90.00	24.1	-3,597.5	514.0	321.0	193.05	2.663	
10,000.0	6,779.4	9,956.7	6,779.4	98.5	98.0	90.00	24.1	-3,656.5	514.0	317.7	196.32	2.618	
10,039.3	6,779.3	9,996.1	6,779.3	99.6	99.1	90.00	24.1	-3,695.9	514.0	315.5	198.51	2.590	
10,100.0	6,779.0	10,056.7	6,779.1	101.3	100.8	90.00	24.1	-3,756.5	514.0	312.2	201.87	2.546	
10,137.8	6,778.9	10,094.5	6,778.9	102.3	101.8	90.00	24.1	-3,794.3	514.0	310.1	203.97	2.520	
10,200.0	6,778.7	10,156.7	6,778.7	104.1	103.6	90.00	24.1	-3,856.5	514.0	306.6	207.43	2.478	
10,236.2	6,778.5	10,192.9	6,778.5	105.1	104.6	90.00	24.1	-3,892.7	514.0	304.6	209.44	2.454	
10,300.0	6,778.3	10,256.7	6,778.3	106.8	106.3	90.00	24.1	-3,956.5	514.0	301.1	212.98	2.414	
10,334.6	6,778.1	10,291.4	6,778.1	107.8	107.3	90.00	24.1	-3,991.2	514.0	299.1	214.91	2.392	
10,400.0	6,777.9	10,356.7	6,777.9	109.6	109.1	90.00	24.1	-4,056.5	514.0	295.5	218.54	2.352	
10,433.0	6,777.7	10,389.8	6,777.7	110.5	110.0	90.00	24.1	-4,089.6	514.0	293.7	220.38	2.333	
10,500.0	6,777.5	10,456.7	6,777.5	112.4	111.9	90.00	24.1	-4,156.5	514.0	289.9	224.11	2.294	
10,531.5	6,777.3	10,488.2	6,777.3	113.3	112.8	90.00	24.1	-4,188.0	514.0	288.2	225.86	2.276	
10,600.0	6,777.1	10,556.7	6,777.1	115.2	114.7	90.00	24.1	-4,256.5	514.0	284.4	229.67	2.238	
10,629.9	6,777.0	10,586.6	6,777.0	116.0	115.5	90.00	24.1	-4,286.4	514.0	282.7	231.34	2.222	
10,700.0	6,776.7	10,656.7	6,776.7	117.9	117.5	90.00	24.1	-4,356.5	514.0	278.8	235.24	2.185	
10,728.3	6,776.6	10,685.1	6,776.6	118.7	118.2	90.00	24.1	-4,384.9	514.0	277.2	236.82	2.171	
10,800.0	6,776.3	10,756.7	6,776.3	120.7	120.2	90.00	24.1	-4,456.5	514.0	273.2	240.81	2.135	
10,826.7	6,776.2	10,783.5	6,776.2	121.5	121.0	90.00	24.1	-4,483.3	514.0	271.7	242.30	2.121	
10,900.0	6,775.9	10,856.7	6,775.9	123.5	123.0	90.00	24.1	-4,556.5	514.0	267.7	246.39	2.086	
10,925.2	6,775.8	10,881.9	6,775.8	124.2	123.7	90.00	24.1	-4,581.7	514.0	266.3	247.79	2.075	
11,000.0	6,775.5	10,956.7	6,775.5	126.3	125.8	90.00	24.1	-4,656.5	514.0	262.1	251.96	2.040	
11,023.6	6,775.4	10,980.3	6,775.4	126.9	126.5	90.00	24.1	-4,680.1	514.0	260.8	253.28	2.030	
11,100.0	6,775.1	11,056.7	6,775.1	129.1	128.6	90.00	24.1	-4,756.5	514.0	256.5	257.54	1.996	
11,122.0	6,775.0	11,078.8	6,775.0	129.7	129.2	90.00	24.1	-4,778.6	514.0	255.3	258.77	1.987	
11,200.0	6,774.7	11,156.7	6,774.7	131.9	131.4	90.00	24.1	-4,856.5	514.0	250.9	263.12	1.954	
11,220.4	6,774.6	11,177.2	6,774.6	132.4	132.0	90.00	24.1	-4,877.0	514.0	249.8	264.26	1.945	
11,300.0	6,774.3	11,256.7	6,774.3	134.6	134.2	90.00	24.1	-4,956.5	514.0	245.3	268.70	1.913	
11,318.9	6,774.2	11,275.6	6,774.2	135.2	134.7	90.00	24.1	-4,975.4	514.0	244.3	269.75	1.906	
11,400.0	6,773.9	11,356.7	6,773.9	137.4	137.0	90.00	24.1	-5,056.5	514.0	239.8	274.28	1.874	
11,417.3	6,773.8	11,374.0	6,773.8	137.9	137.5	90.00	24.1	-5,073.8	514.0	238.8	275.25	1.868	
11,500.0	6,773.5	11,456.7	6,773.5	140.2	139.8	90.00	24.1	-5,156.5	514.0	234.2	279.87	1.837	
11,515.7	6,773.4	11,472.5	6,773.4	140.7	140.2	90.00	24.1	-5,172.3	514.0	233.3	280.74	1.831	
11,600.0	6,773.1	11,556.7	6,773.1	143.0	142.6	90.00	24.1	-5,256.5	514.0	228.6	285.45	1.801	
11,614.1	6,773.0	11,570.9	6,773.0	143.4	143.0	90.00	24.1	-5,270.7	514.0	227.8	286.24	1.796	
11,700.0	6,772.7	11,656.7	6,772.7	145.8	145.4	90.00	24.1	-5,356.5	514.0	223.0	291.04	1.766	
11,712.6	6,772.6	11,669.3	6,772.6	146.2	145.7	90.00	24.1	-5,369.1	514.0	222.3	291.74	1.762	
11,800.0	6,772.3	11,756.7	6,772.3	148.6	148.2	90.00	24.1	-5,456.5	514.0	217.4	296.63	1.733	
11,811.0	6,772.2	11,767.7	6,772.2	148.9	148.5	90.00	24.1	-5,467.5	514.0	216.8	297.24	1.729	
11,900.0	6,771.9	11,856.7	6,771.9	151.4	150.9	90.00	24.1	-5,556.5	514.0	211.8	302.22	1.701	
11,909.4	6,771.8	11,866.2	6,771.8	151.7	151.2	90.00	24.1	-5,566.0	514.0	211.3	302.74	1.698	
12,000.0	6,771.5	11,956.7	6,771.5	154.2	153.7	90.00	24.1	-5,656.5	514.0	206.2	307.81	1.670	
12,007.8	6,771.4	11,964.6	6,771.4	154.4	154.0	90.00	24.1	-5,664.4	514.0	205.8	308.25	1.668	
12,100.0	6,771.1	12,056.7	6,771.1	157.0	156.5	90.00	24.1	-5,756.5	514.0	200.6	313.40	1.640	

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# Anticollision Report



<b>Company:</b>	PDC ENERGY	<b>Local Co-ordinate Reference:</b>	Well SCHAUMBERG 17G-314
<b>Project:</b>	WELD COUNTY, COLORADO	<b>TVD Reference:</b>	KB-EST @ 4633.0usft (Original Well Elev)
<b>Reference Site:</b>	SW NW SEC. 17 T5N R64W 6th P.M.	<b>MD Reference:</b>	KB-EST @ 4633.0usft (Original Well Elev)
<b>Site Error:</b>	0.0 usft	<b>North Reference:</b>	True
<b>Reference Well:</b>	SCHAUMBERG 17G-314	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Well Error:</b>	0.0 usft	<b>Output errors are at</b>	2.00 sigma
<b>Reference Wellbore</b>	ORIGINAL WELLBORE	<b>Database:</b>	EDM 5000.1 Single User Db
<b>Reference Design:</b>	PROPOSAL #1	<b>Offset TVD Reference:</b>	Offset Datum

<b>Offset Design</b> SW NW SEC. 17 T5N R64W 6th P.M. - SCHAUMBERG 17F-334 - ORIGINAL WELLBORE - PROPOS												<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
12,106.3	6,771.0	12,063.0	6,771.0	157.2	156.7	90.00	24.1	-5,762.8	514.0	200.3	313.75	1.638	
12,200.0	6,770.7	12,156.7	6,770.6	159.8	159.3	90.00	24.1	-5,856.5	514.0	195.1	318.99	1.611	
12,204.7	6,770.6	12,161.4	6,770.6	159.9	159.5	90.00	24.1	-5,861.2	514.0	194.8	319.26	1.610	
12,300.0	6,770.3	12,256.7	6,770.2	162.6	162.1	90.00	24.1	-5,956.5	514.0	189.5	324.59	1.584	
12,303.1	6,770.2	12,259.9	6,770.2	162.7	162.2	90.00	24.1	-5,959.6	514.0	189.3	324.76	1.583	
12,346.5	6,770.1	12,303.2	6,770.1	163.9	163.4	90.00	24.1	-6,003.0	514.0	186.9	327.19	1.571	
12,361.7	6,770.0	12,316.4	6,770.0	164.3	163.8	90.00	24.1	-6,016.2	514.0	186.1	327.98	1.567 SF	



# Anticollision Report



<b>Company:</b>	PDC ENERGY	<b>Local Co-ordinate Reference:</b>	Well SCHAUMBERG 17G-314
<b>Project:</b>	WELD COUNTY, COLORADO	<b>TVD Reference:</b>	KB-EST @ 4633.0usft (Original Well Elev)
<b>Reference Site:</b>	SW NW SEC. 17 T5N R64W 6th P.M.	<b>MD Reference:</b>	KB-EST @ 4633.0usft (Original Well Elev)
<b>Site Error:</b>	0.0 usft	<b>North Reference:</b>	True
<b>Reference Well:</b>	SCHAUMBERG 17G-314	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Well Error:</b>	0.0 usft	<b>Output errors are at</b>	2.00 sigma
<b>Reference Wellbore</b>	ORIGINAL WELLBORE	<b>Database:</b>	EDM 5000.1 Single User Db
<b>Reference Design:</b>	PROPOSAL #1	<b>Offset TVD Reference:</b>	Offset Datum

Offset Design												Offset Site Error:	0.0 usft
Survey Program: 0-MWD												Offset Well Error:	0.0 usft
Reference		Offset		Semi Major Axis			Distance						Warning
Measured Depth (usft)	Vertical Depth (usft)	Measured Depth (usft)	Vertical Depth (usft)	Reference (usft)	Offset (usft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (usft)	+E/-W (usft)	Between Centres (usft)	Between Ellipses (usft)	Minimum Separation (usft)	Separation Factor	
0.0	0.0	0.0	0.0	0.0	0.0	-90.35	-0.4	-59.9	59.9				
98.4	98.4	98.4	98.4	0.1	0.1	-90.35	-0.4	-59.9	59.9	59.7	0.19	311.499	
100.0	100.0	100.0	100.0	0.1	0.1	-90.35	-0.4	-59.9	59.9	59.7	0.20	306.226	
196.8	196.8	196.8	196.8	0.3	0.3	-90.35	-0.4	-59.9	59.9	59.3	0.63	94.912	
200.0	200.0	200.0	200.0	0.3	0.3	-90.35	-0.4	-59.9	59.9	59.2	0.65	92.828	
295.3	295.3	295.3	295.3	0.5	0.5	-90.35	-0.4	-59.9	59.9	58.8	1.07	55.788	
300.0	300.0	300.0	300.0	0.5	0.5	-90.35	-0.4	-59.9	59.9	58.8	1.09	54.706	
393.7	393.7	393.7	393.7	0.8	0.8	-90.35	-0.4	-59.9	59.9	58.4	1.52	39.504	
400.0	400.0	400.0	400.0	0.8	0.8	-90.35	-0.4	-59.9	59.9	58.3	1.54	38.780	
492.1	492.1	492.1	492.1	1.0	1.0	-90.35	-0.4	-59.9	59.9	57.9	1.96	30.579	
500.0	500.0	500.0	500.0	1.0	1.0	-90.35	-0.4	-59.9	59.9	57.9	1.99	30.036	
590.5	590.5	590.5	590.5	1.2	1.2	-90.35	-0.4	-59.9	59.9	57.5	2.40	24.943	
600.0	600.0	600.0	600.0	1.2	1.2	-90.35	-0.4	-59.9	59.9	57.4	2.44	24.509	
689.0	689.0	689.0	689.0	1.4	1.4	-90.35	-0.4	-59.9	59.9	57.0	2.84	21.061	
700.0	700.0	700.0	700.0	1.4	1.4	-90.35	-0.4	-59.9	59.9	57.0	2.89	20.701	
787.4	787.4	787.4	787.4	1.6	1.6	-90.35	-0.4	-59.9	59.9	56.6	3.29	18.225	
800.0	800.0	800.0	800.0	1.7	1.7	-90.35	-0.4	-59.9	59.9	56.5	3.34	17.916	
885.8	885.8	885.8	885.8	1.9	1.9	-90.35	-0.4	-59.9	59.9	56.2	3.73	16.062	
900.0	900.0	900.0	900.0	1.9	1.9	-90.35	-0.4	-59.9	59.9	56.1	3.79	15.792	
984.2	984.2	984.2	984.2	2.1	2.1	-90.35	-0.4	-59.9	59.9	55.7	4.17	14.358	
1,000.0	1,000.0	1,000.0	1,000.0	2.1	2.1	-90.35	-0.4	-59.9	59.9	55.6	4.24	14.119	
1,082.7	1,082.7	1,082.7	1,082.7	2.3	2.3	-90.35	-0.4	-59.9	59.9	55.3	4.61	12.981	
1,100.0	1,100.0	1,100.0	1,100.0	2.3	2.3	-90.35	-0.4	-59.9	59.9	55.2	4.69	12.766	
1,181.1	1,181.1	1,181.1	1,181.1	2.5	2.5	-90.35	-0.4	-59.9	59.9	54.8	5.06	11.845	
1,200.0	1,200.0	1,200.0	1,200.0	2.6	2.6	-90.35	-0.4	-59.9	59.9	54.7	5.14	11.649	
1,279.5	1,279.5	1,279.5	1,279.5	2.7	2.7	-90.35	-0.4	-59.9	59.9	54.4	5.50	10.892	
1,300.0	1,300.0	1,300.0	1,300.0	2.8	2.8	-90.35	-0.4	-59.9	59.9	54.3	5.59	10.712	
1,377.9	1,377.9	1,377.9	1,377.9	3.0	3.0	-90.35	-0.4	-59.9	59.9	53.9	5.94	10.080	
1,400.0	1,400.0	1,400.0	1,400.0	3.0	3.0	-90.35	-0.4	-59.9	59.9	53.8	6.04	9.915 CC, ES	
1,476.4	1,476.4	1,475.0	1,475.0	3.2	3.2	-90.79	-0.8	-60.7	60.8	54.4	6.36	9.548	
1,500.0	1,500.0	1,498.2	1,498.1	3.2	3.2	-91.10	-1.2	-61.4	61.4	54.9	6.46	9.497	
1,574.8	1,574.8	1,571.4	1,571.3	3.4	3.4	-92.53	-2.8	-64.4	64.5	57.8	6.77	9.530	
1,600.0	1,600.0	1,596.1	1,595.9	3.5	3.4	-93.14	-3.6	-65.8	66.0	59.1	6.87	9.599	
1,673.2	1,673.2	1,667.5	1,667.1	3.6	3.6	-95.16	-6.4	-70.8	71.4	64.2	7.18	9.942	
1,700.0	1,700.0	1,693.6	1,693.0	3.7	3.6	-95.96	-7.6	-73.0	73.8	66.5	7.29	10.121	
1,771.6	1,771.6	1,763.0	1,762.0	3.9	3.8	-98.15	-11.5	-80.0	81.4	73.8	7.59	10.724	
1,800.0	1,800.0	1,790.4	1,789.1	3.9	3.8	-99.01	-13.2	-83.1	84.9	77.2	7.71	11.012	
1,870.1	1,870.1	1,857.8	1,855.8	4.1	4.0	58.00	-18.0	-91.8	94.2	86.2	7.98	11.803	
1,900.0	1,900.0	1,886.5	1,884.1	4.1	4.1	57.49	-20.3	-96.0	98.4	90.3	8.10	12.152	
1,968.5	1,968.4	1,951.9	1,948.5	4.2	4.2	56.79	-26.0	-106.3	108.5	100.1	8.36	12.986	
2,000.0	1,999.8	1,982.0	1,978.0	4.3	4.3	56.65	-28.8	-111.5	113.3	104.9	8.47	13.378	
2,066.9	2,066.5	2,045.5	2,040.1	4.4	4.5	56.65	-35.3	-123.3	124.0	115.3	8.73	14.205	
2,100.0	2,099.5	2,076.8	2,070.5	4.5	4.6	56.77	-38.8	-129.6	129.5	120.6	8.86	14.618	
2,165.3	2,164.4	2,138.4	2,130.2	4.6	4.9	57.20	-46.0	-142.8	140.7	131.6	9.13	15.421	
2,200.0	2,198.7	2,170.9	2,161.6	4.7	5.0	57.52	-50.1	-150.2	146.9	137.6	9.27	15.850	
2,263.8	2,261.8	2,230.5	2,219.0	4.8	5.2	58.21	-58.1	-164.6	158.7	149.1	9.55	16.614	
2,300.0	2,297.5	2,264.3	2,251.2	4.9	5.4	58.66	-62.8	-173.2	165.6	155.9	9.71	17.048	
2,362.2	2,358.6	2,321.9	2,306.1	5.0	5.7	59.49	-71.4	-188.7	177.9	167.9	10.02	17.763	
2,400.0	2,395.6	2,356.8	2,339.1	5.1	5.8	60.03	-76.8	-198.5	185.7	175.4	10.21	18.190	
2,460.6	2,454.9	2,412.4	2,391.5	5.3	6.1	61.00	-85.8	-214.9	198.8	188.3	10.54	18.857	
2,500.0	2,493.4	2,448.3	2,425.1	5.4	6.4	61.49	-91.9	-226.0	207.9	197.2	10.77	19.312	
2,559.0	2,551.2	2,500.0	2,473.2	5.6	6.7	62.06	-101.1	-242.6	222.5	211.4	11.11	20.028	

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 SCHAUMBERG 17G-314
<b>Project:</b>	WELD COUNTY, COLORADO	<b>TVD Reference:</b>	KB-EST @ 4633.0usft (Original Well Elev)
<b>Reference Site:</b>	SW NW SEC. 17 T5N R64W 6th P.M.	<b>MD Reference:</b>	KB-EST @ 4633.0usft (Original Well Elev)
<b>Site Error:</b>	0.0 usft	<b>North Reference:</b>	True
<b>Reference Well:</b>	SCHAUMBERG 17G-314	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Well Error:</b>	0.0 usft	<b>Output errors are at</b>	2.00 sigma
<b>Reference Wellbore</b>	ORIGINAL WELLBORE	<b>Database:</b>	EDM 5000.1 Single User Db
<b>Reference Design:</b>	PROPOSAL #1	<b>Offset TVD Reference:</b>	Offset Datum

Offset Design												Offset Site Error:	0.0 usft
Survey Program: 0-MWD												Offset Well Error:	0.0 usft
Reference		Offset		Semi Major Axis			Distance						Warning
Measured Depth (usft)	Vertical Depth (usft)	Measured Depth (usft)	Vertical Depth (usft)	Reference (usft)	Offset (usft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (usft)	+E/-W (usft)	Between Centres (usft)	Between Ellipses (usft)	Minimum Separation (usft)	Separation Factor	
2,600.0	2,591.3	2,538.7	2,508.9	5.7	6.9	62.37	-108.2	-255.5	233.1	221.7	11.36	20.515	
2,657.5	2,647.5	2,590.0	2,556.1	5.9	7.3	62.67	-118.0	-273.2	248.9	237.1	11.72	21.233	
2,700.0	2,689.1	2,627.7	2,590.4	6.0	7.5	62.81	-125.4	-286.8	261.1	249.1	11.99	21.775	
2,755.9	2,743.7	2,676.8	2,634.9	6.2	7.9	62.91	-135.4	-305.0	277.9	265.5	12.35	22.496	
2,800.0	2,786.9	2,715.2	2,669.5	6.4	8.2	62.93	-143.5	-319.7	291.7	279.1	12.64	23.080	
2,854.3	2,840.0	2,762.1	2,711.3	6.6	8.6	62.90	-153.7	-338.2	309.5	296.5	13.01	23.796	
2,900.0	2,884.7	2,800.0	2,744.9	6.7	8.9	62.83	-162.2	-353.6	325.0	311.7	13.30	24.428	
2,952.7	2,936.3	2,845.7	2,785.1	6.9	9.3	62.70	-172.7	-372.6	343.6	329.9	13.67	25.127	
3,000.0	2,982.5	2,885.3	2,819.6	7.1	9.7	62.56	-182.1	-389.6	360.8	346.8	14.00	25.781	
3,051.2	3,032.6	2,929.7	2,858.1	7.3	10.1	62.37	-192.8	-409.1	380.1	365.7	14.36	26.465	
3,100.0	3,080.3	2,974.9	2,897.1	7.5	10.6	62.19	-203.8	-429.0	398.5	383.8	14.72	27.077	
3,149.6	3,128.8	3,020.8	2,936.8	7.7	11.0	62.03	-215.0	-449.3	417.3	402.2	15.09	27.658	
3,200.0	3,178.1	3,067.4	2,977.1	7.9	11.5	61.88	-226.3	-469.8	436.3	420.9	15.46	28.215	
3,248.0	3,225.1	3,111.9	3,015.5	8.1	11.9	61.74	-237.1	-489.4	454.5	438.7	15.83	28.714	
3,300.0	3,276.0	3,160.0	3,057.1	8.3	12.4	61.61	-248.8	-510.6	474.2	457.9	16.23	29.222	
3,346.4	3,321.4	3,203.0	3,094.2	8.5	12.8	61.50	-259.2	-529.6	491.8	475.2	16.58	29.652	
3,400.0	3,373.8	3,252.5	3,137.0	8.7	13.4	61.38	-271.2	-551.4	512.0	495.0	17.00	30.117	
3,444.9	3,417.7	3,294.1	3,172.9	8.8	13.8	61.29	-281.3	-569.7	529.0	511.6	17.35	30.486	
3,500.0	3,471.6	3,345.1	3,217.0	9.1	14.3	61.19	-293.7	-592.2	549.9	532.1	17.79	30.913	
3,543.3	3,513.9	3,385.2	3,251.6	9.2	14.7	61.11	-303.5	-609.9	566.3	548.1	18.13	31.231	
3,600.0	3,569.4	3,437.6	3,297.0	9.5	15.3	61.02	-316.2	-633.0	587.7	569.1	18.58	31.626	
3,641.7	3,610.2	3,476.2	3,330.3	9.7	15.7	60.95	-325.6	-650.0	603.5	584.6	18.92	31.900	
3,700.0	3,667.2	3,530.2	3,376.9	9.9	16.2	60.87	-338.7	-673.8	625.6	606.2	19.39	32.265	
3,740.1	3,706.5	3,567.3	3,409.1	10.1	16.6	60.81	-347.7	-690.2	640.8	621.1	19.71	32.503	
3,800.0	3,765.0	3,622.7	3,456.9	10.3	17.2	60.73	-361.2	-714.6	663.4	643.2	20.20	32.841	
3,838.6	3,802.8	3,658.4	3,487.8	10.5	17.6	60.68	-369.8	-730.3	678.0	657.5	20.52	33.047	
3,900.0	3,862.8	3,715.3	3,536.9	10.7	18.2	60.61	-383.7	-755.4	701.3	680.3	21.02	33.362	
3,937.0	3,899.0	3,749.5	3,566.5	10.9	18.5	60.57	-392.0	-770.5	715.3	694.0	21.33	33.541	
4,000.0	3,960.7	3,807.8	3,616.9	11.2	19.1	60.51	-406.1	-796.2	739.2	717.3	21.85	33.835	
4,035.4	3,995.3	3,840.6	3,645.2	11.3	19.5	60.47	-414.1	-810.6	752.6	730.4	22.14	33.991	
4,100.0	4,058.5	3,900.4	3,696.8	11.6	20.1	60.41	-428.6	-836.9	777.0	754.4	22.68	34.265	
4,133.8	4,091.6	3,931.7	3,723.9	11.7	20.5	60.38	-436.2	-850.8	789.9	766.9	22.96	34.401	
4,200.0	4,156.3	3,992.9	3,776.8	12.0	21.1	60.32	-451.1	-877.7	814.9	791.4	23.51	34.657	
4,232.3	4,187.9	4,022.8	3,802.6	12.2	21.4	60.30	-458.4	-890.9	827.1	803.3	23.78	34.776	
4,300.0	4,254.1	4,085.4	3,856.8	12.5	22.1	60.24	-473.6	-918.5	852.8	828.4	24.35	35.016	
4,325.7	4,279.2	4,109.2	3,877.3	12.6	22.4	60.22	-479.4	-929.0	862.5	837.9	24.57	35.104	
4,330.7	4,284.1	4,113.9	3,881.3	12.6	22.4	60.26	-480.5	-931.1	864.4	839.8	24.62	35.117	
4,400.0	4,352.1	4,177.8	3,936.6	12.8	23.1	60.65	-496.0	-959.2	891.1	865.9	25.23	35.320	
4,429.1	4,380.8	4,204.6	3,959.7	12.9	23.4	60.80	-502.5	-971.0	902.5	877.1	25.46	35.443	
4,500.0	4,450.7	4,269.4	4,015.7	13.1	24.1	61.09	-518.3	-999.6	930.9	904.9	26.03	35.766	
4,527.5	4,478.0	4,294.5	4,037.4	13.2	24.3	61.19	-524.4	-1,010.7	942.2	916.0	26.24	35.912	
4,600.0	4,549.9	4,360.1	4,094.1	13.4	25.0	61.41	-540.3	-1,039.6	972.4	945.6	26.77	36.319	
4,626.0	4,575.7	4,383.5	4,114.3	13.5	25.3	61.47	-546.0	-1,049.9	983.4	956.4	26.95	36.484	
4,700.0	4,649.4	4,449.8	4,171.6	13.6	26.0	61.61	-562.1	-1,079.1	1,015.4	987.9	27.46	36.975	
4,724.4	4,673.7	4,471.5	4,190.4	13.7	26.2	61.65	-567.4	-1,088.7	1,026.1	998.5	27.62	37.154	
4,800.0	4,749.2	4,538.4	4,248.2	13.8	27.0	61.73	-583.6	-1,118.2	1,060.0	1,031.9	28.09	37.731	
4,822.8	4,772.0	4,558.5	4,265.5	13.9	27.2	61.75	-588.5	-1,127.0	1,070.5	1,042.2	28.23	37.921	
4,900.0	4,849.2	4,625.8	4,323.7	14.0	27.9	61.78	-604.8	-1,156.7	1,106.3	1,077.6	28.67	38.584	
4,921.2	4,870.4	4,644.2	4,339.6	14.1	28.1	61.79	-609.3	-1,164.8	1,116.4	1,087.6	28.79	38.776	
4,925.6	4,874.8	4,648.0	4,342.9	14.1	28.1	-97.02	-610.2	-1,166.5	1,118.5	1,080.4	38.03	29.411	
5,000.0	4,949.2	4,712.3	4,398.4	14.2	28.8	-97.70	-625.9	-1,194.8	1,153.9	1,114.9	38.95	29.627	
5,019.7	4,968.8	4,729.3	4,413.1	14.2	29.0	-97.87	-630.0	-1,202.3	1,163.3	1,124.1	39.19	29.684	

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 SCHAUMBERG 17G-314
<b>Project:</b>	WELD COUNTY, COLORADO	<b>TVD Reference:</b>	KB-EST @ 4633.0usft (Original Well Elev)
<b>Reference Site:</b>	SW NW SEC. 17 T5N R64W 6th P.M.	<b>MD Reference:</b>	KB-EST @ 4633.0usft (Original Well Elev)
<b>Site Error:</b>	0.0 usft	<b>North Reference:</b>	True
<b>Reference Well:</b>	SCHAUMBERG 17G-314	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Well Error:</b>	0.0 usft	<b>Output errors are at</b>	2.00 sigma
<b>Reference Wellbore</b>	ORIGINAL WELLBORE	<b>Database:</b>	EDM 5000.1 Single User Db
<b>Reference Design:</b>	PROPOSAL #1	<b>Offset TVD Reference:</b>	Offset Datum

Offset Design												Offset Site Error:	0.0 usft
Survey Program: 0-MWD												Offset Well Error:	0.0 usft
Reference		Offset		Semi Major Axis			Distance						Warning
Measured Depth (usft)	Vertical Depth (usft)	Measured Depth (usft)	Vertical Depth (usft)	Reference (usft)	Offset (usft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (usft)	+E/-W (usft)	Between Centres (usft)	Between Ellipses (usft)	Minimum Separation (usft)	Separation Factor	
5,100.0	5,049.2	4,798.7	4,473.1	14.3	29.8	-98.55	-646.8	-1,232.9	1,201.7	1,161.6	40.18	29.912	
5,118.1	5,067.3	4,814.3	4,486.6	14.3	29.9	-98.70	-650.6	-1,239.8	1,210.4	1,170.0	40.40	29.963	
5,200.0	5,149.2	4,914.7	4,573.8	14.5	30.9	-99.59	-674.7	-1,283.4	1,249.3	1,207.6	41.64	29.998	
5,216.5	5,165.7	4,939.7	4,595.7	14.5	31.1	-99.79	-680.4	-1,293.8	1,256.8	1,214.9	41.91	29.991	
5,300.0	5,249.2	5,069.3	4,711.2	14.6	32.1	-100.72	-708.8	-1,345.4	1,293.1	1,249.9	43.21	29.924	
5,314.9	5,264.1	5,093.2	4,732.8	14.6	32.3	-100.88	-713.8	-1,354.4	1,299.3	1,255.9	43.45	29.907	
5,400.0	5,349.2	5,232.4	4,860.1	14.8	33.3	-101.68	-740.9	-1,403.6	1,332.3	1,287.6	44.69	29.812	
5,413.4	5,362.5	5,254.8	4,880.9	14.8	33.4	-101.80	-745.0	-1,411.1	1,337.2	1,292.3	44.88	29.795	
5,500.0	5,449.2	8,205.1	6,695.6	14.9	44.5	178.71	-845.7	-182.0	1,296.2	1,259.1	37.10	34.935	
5,511.8	5,461.0	8,205.0	6,695.6	14.9	44.5	178.72	-845.7	-182.1	1,284.8	1,247.7	37.12	34.609	
5,600.0	5,549.2	8,204.5	6,695.6	15.1	44.5	178.81	-845.7	-182.6	1,200.3	1,163.0	37.29	32.188	
5,610.2	5,559.4	8,204.4	6,695.6	15.1	44.5	178.82	-845.7	-182.7	1,190.6	1,153.3	37.31	31.910	
5,700.0	5,649.2	8,203.8	6,695.6	15.2	44.5	178.92	-845.7	-183.3	1,105.2	1,067.7	37.48	29.488	
5,708.6	5,657.8	8,203.8	6,695.6	15.3	44.5	178.93	-845.7	-183.3	1,097.0	1,059.5	37.50	29.256	
5,800.0	5,749.2	8,203.2	6,695.6	15.4	44.5	179.02	-845.7	-183.9	1,011.1	973.4	37.67	26.838	
5,807.1	5,756.2	8,203.1	6,695.6	15.4	44.5	179.03	-845.7	-184.0	1,004.4	966.8	37.69	26.653	
5,900.0	5,849.2	8,202.5	6,695.6	15.6	44.5	179.12	-845.7	-184.6	918.1	880.3	37.87	24.247	
5,905.5	5,854.7	8,202.5	6,695.6	15.6	44.5	179.13	-845.7	-184.6	913.1	875.2	37.88	24.106	
6,000.0	5,949.2	8,201.9	6,695.6	15.7	44.5	179.23	-845.7	-185.2	826.8	788.8	38.06	21.725	
6,003.9	5,953.1	8,201.9	6,695.6	15.7	44.5	179.23	-845.7	-185.2	823.3	785.2	38.07	21.627	
6,100.0	6,049.2	8,201.2	6,695.6	15.9	44.5	179.33	-845.7	-185.8	737.8	699.6	38.26	19.286	
6,102.3	6,051.5	8,201.2	6,695.6	15.9	44.5	179.33	-845.7	-185.9	735.8	697.5	38.26	19.230	
6,124.6	6,073.8	8,201.1	6,695.6	15.9	44.5	179.36	-845.7	-186.0	716.3	678.0	38.31	18.701	
6,150.0	6,099.2	8,200.5	6,695.6	16.0	44.4	-94.01	-845.7	-186.6	694.4	636.6	57.84	12.006	
6,200.0	6,149.0	8,196.6	6,695.6	16.1	44.4	-99.72	-845.7	-190.5	652.1	593.7	58.42	11.164	
6,200.8	6,149.8	8,196.6	6,695.6	16.1	44.4	-99.80	-845.7	-190.5	651.5	593.1	58.42	11.152	
6,250.0	6,198.5	8,189.3	6,695.7	16.2	44.3	-104.16	-845.7	-197.8	611.3	552.7	58.58	10.434	
6,299.2	6,246.6	8,178.8	6,695.7	16.3	44.1	-107.36	-845.7	-208.3	572.9	514.4	58.51	9.791	
6,300.0	6,247.4	8,178.6	6,695.7	16.3	44.1	-107.40	-845.7	-208.5	572.3	513.8	58.51	9.781	
6,350.0	6,295.5	8,164.5	6,695.8	16.5	43.8	-109.56	-845.7	-222.6	535.5	477.2	58.31	9.185	
6,397.6	6,340.2	8,148.0	6,695.9	16.6	43.6	-110.71	-845.7	-239.1	503.0	445.0	58.06	8.664	
6,400.0	6,342.4	8,147.1	6,695.9	16.6	43.6	-110.74	-845.7	-240.0	501.5	443.4	58.04	8.640	
6,450.0	6,388.1	8,126.4	6,696.1	16.8	43.2	-111.06	-845.7	-260.7	470.5	412.7	57.76	8.145	
6,496.0	6,428.8	8,104.6	6,696.2	17.0	42.9	-110.65	-845.7	-282.5	445.0	387.5	57.51	7.738	
6,500.0	6,432.2	8,102.6	6,696.2	17.0	42.8	-110.59	-845.7	-284.4	443.0	385.5	57.49	7.705	
6,550.0	6,474.6	8,075.9	6,696.4	17.3	42.4	-109.41	-845.7	-311.2	419.2	361.9	57.25	7.322	
6,594.5	6,510.7	8,049.6	6,696.6	17.5	42.0	-107.82	-845.7	-337.5	401.3	344.3	57.05	7.035	
6,600.0	6,515.0	8,046.2	6,696.6	17.6	42.0	-107.59	-845.7	-340.9	399.3	342.3	57.02	7.003	
6,650.0	6,553.3	8,013.8	6,696.8	17.9	41.5	-105.22	-845.7	-373.3	383.5	326.7	56.81	6.751	
6,692.9	6,584.3	7,983.9	6,697.0	18.2	41.1	-102.80	-845.7	-403.1	373.1	316.5	56.65	6.586	
6,700.0	6,589.2	7,978.8	6,697.0	18.2	41.0	-102.38	-845.7	-408.3	371.6	315.0	56.62	6.564	
6,750.0	6,622.7	7,941.4	6,697.3	18.6	40.5	-99.18	-845.7	-445.6	363.4	307.0	56.44	6.439	
6,791.3	6,648.3	7,908.9	6,697.5	19.0	40.1	-96.36	-845.7	-478.2	359.1	302.8	56.28	6.380	
6,800.0	6,653.4	7,901.8	6,697.5	19.1	40.0	-95.75	-845.7	-485.2	358.4	302.2	56.24	6.373	
6,850.0	6,681.4	7,860.2	6,697.8	19.6	39.5	-92.25	-845.7	-526.9	356.0	300.0	56.08	6.349	
6,882.5	6,698.0	7,832.1	6,698.0	20.0	39.2	-90.00	-845.7	-555.0	355.7	299.7	55.98	6.354	
6,889.7	6,701.5	7,825.8	6,698.0	20.1	39.1	-89.51	-845.7	-561.3	355.7	299.7	55.95	6.357	
6,900.0	6,706.3	7,816.7	6,698.1	20.2	39.0	-88.82	-845.7	-570.3	355.8	299.9	55.91	6.363	
6,950.0	6,728.2	7,771.7	6,698.4	20.9	38.6	-85.60	-845.7	-615.4	356.9	301.1	55.81	6.396	
6,988.2	6,742.8	7,736.3	6,698.6	21.5	38.2	-83.36	-845.7	-650.8	358.4	302.6	55.78	6.425	
7,000.0	6,746.9	7,725.2	6,698.7	21.6	38.1	-82.71	-845.7	-661.9	358.9	303.2	55.78	6.435	
7,050.0	6,762.4	7,677.5	6,699.0	22.5	37.7	-80.26	-845.7	-709.5	361.3	305.4	55.88	6.466	

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 SCHAUMBERG 17G-314
<b>Project:</b>	WELD COUNTY, COLORADO	<b>TVD Reference:</b>	KB-EST @ 4633.0usft (Original Well Elev)
<b>Reference Site:</b>	SW NW SEC. 17 T5N R64W 6th P.M.	<b>MD Reference:</b>	KB-EST @ 4633.0usft (Original Well Elev)
<b>Site Error:</b>	0.0 usft	<b>North Reference:</b>	True
<b>Reference Well:</b>	SCHAUMBERG 17G-314	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Well Error:</b>	0.0 usft	<b>Output errors are at</b>	2.00 sigma
<b>Reference Wellbore</b>	ORIGINAL WELLBORE	<b>Database:</b>	EDM 5000.1 Single User Db
<b>Reference Design:</b>	PROPOSAL #1	<b>Offset TVD Reference:</b>	Offset Datum

Offset Design												Offset Site Error:	0.0 usft
Survey Program: 0-MWD												Offset Well Error:	0.0 usft
Reference		Offset		Semi Major Axis			Distance						Warning
Measured Depth (usft)	Vertical Depth (usft)	Measured Depth (usft)	Vertical Depth (usft)	Reference (usft)	Offset (usft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (usft)	+E/-W (usft)	Between Centres (usft)	Between Ellipses (usft)	Minimum Separation (usft)	Separation Factor	
7,086.6	6,771.5	7,642.1	6,699.2	23.1	37.5	-78.78	-845.7	-745.0	363.0	306.9	56.06	6.474	
7,100.0	6,774.4	7,629.0	6,699.3	23.3	37.4	-78.30	-845.7	-758.1	363.5	307.4	56.14	6.475	
7,150.0	6,783.1	7,579.7	6,699.6	24.3	37.0	-76.90	-845.7	-807.4	365.3	308.7	56.59	6.456	
7,185.0	6,787.1	7,544.8	6,699.8	25.0	36.8	-76.26	-845.7	-842.2	366.2	309.2	57.05	6.420	
7,200.0	6,788.3	7,529.9	6,699.9	25.3	36.8	-76.07	-845.7	-857.2	366.5	309.2	57.26	6.401	
7,252.3	6,790.0	7,481.7	6,699.5	26.3	36.5	-75.72	-845.7	-905.4	367.0	308.8	58.18	6.308	
7,283.4	6,789.9	7,454.1	6,697.9	27.0	36.4	-75.49	-845.7	-932.9	367.4	308.8	58.60	6.270	
7,300.0	6,789.8	7,439.6	6,696.6	27.3	36.3	-75.31	-845.7	-947.4	367.8	309.0	58.82	6.253	
7,381.9	6,789.5	7,368.4	6,686.1	29.1	36.1	-73.78	-845.7	-1,017.8	371.0	311.1	59.88	6.195 SF	
7,400.0	6,789.4	7,350.0	6,682.3	29.5	36.1	-73.22	-845.7	-1,035.8	372.0	312.0	60.05	6.196	
7,480.3	6,789.1	7,286.4	6,665.5	31.4	35.9	-70.81	-845.7	-1,097.0	378.6	317.7	60.97	6.211	
7,500.0	6,789.1	7,270.7	6,660.5	31.8	35.9	-70.11	-845.7	-1,112.0	380.8	319.7	61.15	6.227	
7,578.7	6,788.8	7,210.0	6,638.3	33.7	35.9	-67.03	-845.7	-1,168.4	392.0	330.2	61.76	6.346	
7,600.0	6,788.7	7,194.4	6,631.7	34.2	35.9	-66.15	-845.7	-1,182.6	395.7	333.8	61.88	6.395	
7,677.1	6,788.4	7,140.2	6,606.8	36.1	35.9	-62.91	-845.7	-1,230.8	412.4	350.2	62.21	6.629	
7,700.0	6,788.3	7,124.9	6,599.2	36.7	35.9	-61.94	-845.7	-1,243.9	418.3	356.0	62.27	6.717	
7,775.6	6,788.0	7,077.2	6,573.4	38.6	35.9	-58.82	-845.7	-1,284.1	441.0	378.6	62.37	7.071	
7,800.0	6,787.9	7,062.6	6,565.0	39.2	35.9	-57.85	-845.7	-1,296.0	449.4	387.1	62.37	7.206	
7,874.0	6,787.6	7,020.9	6,539.7	41.0	36.0	-55.03	-845.7	-1,329.1	478.1	415.8	62.33	7.671	
7,900.0	6,787.6	7,000.0	6,526.2	41.7	36.1	-53.61	-845.7	-1,345.2	489.4	427.4	61.98	7.895	
7,972.4	6,787.3	6,971.0	6,506.9	43.6	36.1	-51.65	-845.7	-1,366.7	523.4	461.2	62.20	8.414	
8,000.0	6,787.2	6,950.0	6,492.3	44.3	36.2	-50.24	-845.7	-1,381.9	537.5	475.7	61.78	8.701	
8,070.8	6,786.9	6,926.8	6,475.7	46.1	36.2	-48.70	-845.7	-1,398.0	576.0	514.0	62.09	9.278	
8,100.0	6,786.8	6,914.7	6,466.8	46.9	36.3	-47.91	-845.7	-1,406.3	592.9	530.9	62.06	9.554	
8,169.3	6,786.5	6,887.7	6,446.5	48.7	36.3	-46.16	-845.7	-1,424.1	635.2	573.1	62.04	10.239	
8,200.0	6,786.4	6,876.4	6,437.9	49.5	36.4	-45.45	-845.7	-1,431.4	654.8	592.8	62.04	10.555	
8,267.7	6,786.1	6,850.0	6,417.1	51.3	36.4	-43.81	-845.7	-1,447.7	699.8	637.9	61.92	11.302	
8,300.0	6,786.0	6,850.0	6,417.1	52.1	36.4	-43.80	-845.7	-1,447.7	722.1	659.6	62.53	11.549	
8,366.1	6,785.8	6,822.1	6,394.6	53.9	36.5	-42.13	-845.7	-1,464.1	769.1	706.8	62.23	12.358	
8,400.0	6,785.6	6,800.0	6,376.3	54.8	36.6	-40.83	-845.7	-1,476.5	794.0	732.4	61.62	12.886	
8,464.5	6,785.4	6,800.0	6,376.3	56.5	36.6	-40.83	-845.7	-1,476.5	842.2	779.4	62.79	13.412	
8,500.0	6,785.3	6,785.5	6,364.1	57.5	36.6	-40.01	-845.7	-1,484.4	869.3	806.7	62.61	13.885	
8,563.0	6,785.0	6,770.1	6,350.9	59.2	36.7	-39.15	-845.7	-1,492.4	918.5	855.6	62.85	14.613	
8,600.0	6,784.9	6,750.0	6,333.6	60.2	36.7	-38.06	-845.7	-1,502.5	948.1	885.7	62.35	15.206	
8,661.4	6,784.6	6,750.0	6,333.6	61.8	36.7	-38.06	-845.7	-1,502.5	997.5	934.1	63.42	15.728	
8,700.0	6,784.5	6,750.0	6,333.6	62.9	36.7	-38.06	-845.7	-1,502.5	1,029.2	965.1	64.10	16.058	
8,759.8	6,784.3	6,728.1	6,314.3	64.5	36.8	-36.92	-845.7	-1,512.9	1,078.7	1,014.9	63.84	16.897	
8,800.0	6,784.1	6,720.6	6,307.6	65.6	36.8	-36.53	-845.7	-1,516.3	1,112.5	1,048.4	64.08	17.360	
8,858.2	6,783.9	6,700.0	6,289.1	67.1	36.9	-35.50	-845.7	-1,525.3	1,162.0	1,098.2	63.86	18.197	
8,900.0	6,783.7	6,700.0	6,289.1	68.3	36.9	-35.50	-845.7	-1,525.3	1,197.7	1,133.2	64.55	18.553	
8,956.7	6,783.5	6,700.0	6,289.1	69.8	36.9	-35.50	-845.7	-1,525.3	1,246.8	1,181.3	65.50	19.033	
9,000.0	6,783.3	6,700.0	6,289.1	71.0	36.9	-35.50	-845.7	-1,525.3	1,284.7	1,218.4	66.23	19.397	
9,055.1	6,783.1	6,678.9	6,269.9	72.5	36.9	-34.49	-845.7	-1,534.0	1,332.9	1,267.0	65.87	20.236	
9,100.0	6,782.9	6,672.6	6,264.1	73.7	36.9	-34.19	-845.7	-1,536.6	1,372.6	1,306.4	66.22	20.728	
9,153.5	6,782.7	6,650.0	6,243.2	75.2	37.0	-33.15	-845.7	-1,545.1	1,420.5	1,354.8	65.73	21.611	
9,200.0	6,782.6	6,650.0	6,243.2	76.5	37.0	-33.15	-845.7	-1,545.1	1,462.0	1,395.5	66.47	21.993	
9,251.9	6,782.4	6,650.0	6,243.2	77.9	37.0	-33.15	-845.7	-1,545.1	1,508.7	1,441.4	67.31	22.415	
9,300.0	6,782.2	6,650.0	6,243.2	79.2	37.0	-33.15	-845.7	-1,545.1	1,552.2	1,484.1	68.08	22.800	
9,350.4	6,782.0	6,650.0	6,243.2	80.6	37.0	-33.15	-845.7	-1,545.1	1,598.1	1,529.2	68.89	23.197	
9,400.0	6,781.8	6,650.0	6,243.2	82.0	37.0	-33.15	-845.7	-1,545.1	1,643.5	1,573.8	69.69	23.584	
9,448.8	6,781.6	6,630.9	6,225.3	83.3	37.0	-32.31	-845.7	-1,551.8	1,688.1	1,618.8	69.26	24.373	
9,500.0	6,781.4	6,625.7	6,220.4	84.7	37.0	-32.09	-845.7	-1,553.5	1,735.2	1,665.5	69.75	24.880	

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 SCHAUMBERG 17G-314
<b>Project:</b>	WELD COUNTY, COLORADO	<b>TVD Reference:</b>	KB-EST @ 4633.0usft (Original Well Elev)
<b>Reference Site:</b>	SW NW SEC. 17 T5N R64W 6th P.M.	<b>MD Reference:</b>	KB-EST @ 4633.0usft (Original Well Elev)
<b>Site Error:</b>	0.0 usft	<b>North Reference:</b>	True
<b>Reference Well:</b>	SCHAUMBERG 17G-314	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Well Error:</b>	0.0 usft	<b>Output errors are at</b>	2.00 sigma
<b>Reference Wellbore</b>	ORIGINAL WELLBORE	<b>Database:</b>	EDM 5000.1 Single User Db
<b>Reference Design:</b>	PROPOSAL #1	<b>Offset TVD Reference:</b>	Offset Datum

Offset Design												Offset Site Error:	0.0 usft
Survey Program: 0-MWD												Offset Well Error:	0.0 usft
Reference		Offset		Semi Major Axis			Distance						Warning
Measured Depth (usft)	Vertical Depth (usft)	Measured Depth (usft)	Vertical Depth (usft)	Reference (usft)	Offset (usft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (usft)	+E/-W (usft)	Between Centres (usft)	Between Ellipses (usft)	Minimum Separation (usft)	Separation Factor	
9,547.2	6,781.2	6,621.1	6,216.0	86.0	37.1	-31.89	-845.7	-1,555.0	1,778.9	1,708.7	70.20	25.340	
9,600.0	6,781.0	6,600.0	6,196.0	87.5	37.1	-31.01	-845.7	-1,561.5	1,828.1	1,758.4	69.71	26.226	
9,645.6	6,780.8	6,600.0	6,196.0	88.7	37.1	-31.01	-845.7	-1,561.5	1,870.4	1,800.0	70.41	26.565	
9,700.0	6,780.6	6,600.0	6,196.0	90.2	37.1	-31.01	-845.7	-1,561.5	1,921.0	1,849.8	71.24	26.964	
9,744.1	6,780.4	6,600.0	6,196.0	91.4	37.1	-31.01	-845.7	-1,561.5	1,962.2	1,890.3	71.92	27.282	
9,800.0	6,780.2	6,600.0	6,196.0	93.0	37.1	-31.01	-845.7	-1,561.5	2,014.7	1,941.9	72.79	27.680	
9,842.5	6,780.1	6,600.0	6,196.0	94.2	37.1	-31.01	-845.7	-1,561.5	2,054.7	1,981.2	73.44	27.977	
9,900.0	6,779.8	6,600.0	6,196.0	95.7	37.1	-31.01	-845.7	-1,561.5	2,108.9	2,034.6	74.33	28.373	
9,940.9	6,779.7	6,600.0	6,196.0	96.9	37.1	-31.01	-845.7	-1,561.5	2,147.6	2,072.7	74.96	28.650	
10,000.0	6,779.4	6,600.0	6,196.0	98.5	37.1	-31.01	-845.7	-1,561.5	2,203.6	2,127.8	75.87	29.044	
10,039.3	6,779.3	6,600.0	6,196.0	99.6	37.1	-31.01	-845.7	-1,561.5	2,241.0	2,164.6	76.48	29.302	
10,100.0	6,779.0	6,577.6	6,174.5	101.3	37.1	-30.12	-845.7	-1,567.8	2,298.4	2,222.5	75.90	30.280	
10,137.8	6,778.9	6,575.2	6,172.2	102.3	37.2	-30.02	-845.7	-1,568.5	2,334.3	2,258.0	76.31	30.588	
10,200.0	6,778.7	6,571.3	6,168.4	104.1	37.2	-29.87	-845.7	-1,569.5	2,393.6	2,316.7	76.99	31.088	
10,236.2	6,778.5	6,550.0	6,147.7	105.1	37.2	-29.07	-845.7	-1,574.7	2,428.5	2,352.4	76.13	31.901	
10,300.0	6,778.3	6,550.0	6,147.7	106.8	37.2	-29.07	-845.7	-1,574.7	2,489.5	2,412.4	77.07	32.301	
10,334.6	6,778.1	6,550.0	6,147.7	107.8	37.2	-29.07	-845.7	-1,574.7	2,522.6	2,445.0	77.58	32.514	
10,400.0	6,777.9	6,550.0	6,147.7	109.6	37.2	-29.07	-845.7	-1,574.7	2,585.2	2,506.6	78.55	32.911	
10,433.0	6,777.7	6,550.0	6,147.7	110.5	37.2	-29.07	-845.7	-1,574.7	2,616.9	2,537.9	79.04	33.108	
10,500.0	6,777.5	6,550.0	6,147.7	112.4	37.2	-29.06	-845.7	-1,574.7	2,681.3	2,601.2	80.03	33.502	
10,531.5	6,777.3	6,550.0	6,147.7	113.3	37.2	-29.06	-845.7	-1,574.7	2,711.5	2,631.0	80.50	33.684	
10,600.0	6,777.1	6,550.0	6,147.7	115.2	37.2	-29.06	-845.7	-1,574.7	2,777.6	2,696.1	81.51	34.075	
10,629.9	6,777.0	6,550.0	6,147.7	116.0	37.2	-29.06	-845.7	-1,574.7	2,806.4	2,724.5	81.96	34.243	
10,700.0	6,776.7	6,550.0	6,147.7	117.9	37.2	-29.06	-845.7	-1,574.7	2,874.2	2,791.2	83.00	34.630	
10,728.3	6,776.6	6,550.0	6,147.7	118.7	37.2	-29.06	-845.7	-1,574.7	2,901.6	2,818.2	83.42	34.784	
10,800.0	6,776.3	6,550.0	6,147.7	120.7	37.2	-29.06	-845.7	-1,574.7	2,971.0	2,886.5	84.48	35.168	
10,826.7	6,776.2	6,550.0	6,147.7	121.5	37.2	-29.06	-845.7	-1,574.7	2,996.9	2,912.0	84.88	35.308	
10,900.0	6,775.9	6,550.0	6,147.7	123.5	37.2	-29.06	-845.7	-1,574.7	3,068.0	2,982.0	85.97	35.689	
10,925.2	6,775.8	6,550.0	6,147.7	124.2	37.2	-29.06	-845.7	-1,574.7	3,092.5	3,006.1	86.34	35.817	
11,000.0	6,775.5	6,550.0	6,147.7	126.3	37.2	-29.06	-845.7	-1,574.7	3,165.2	3,077.7	87.45	36.194	
11,023.6	6,775.4	6,550.0	6,147.7	126.9	37.2	-29.06	-845.7	-1,574.7	3,188.2	3,100.4	87.80	36.311	
11,100.0	6,775.1	6,528.7	6,127.0	129.1	37.2	-28.29	-845.7	-1,579.2	3,262.2	3,174.8	87.34	37.352	
11,122.0	6,775.0	6,527.9	6,126.2	129.7	37.2	-28.26	-845.7	-1,579.4	3,283.6	3,196.0	87.60	37.486	
11,200.0	6,774.7	6,525.1	6,123.4	131.9	37.2	-28.16	-845.7	-1,579.9	3,359.6	3,271.0	88.53	37.950	
11,220.4	6,774.6	6,524.4	6,122.7	132.4	37.2	-28.14	-845.7	-1,580.1	3,379.5	3,290.7	88.77	38.071	
11,300.0	6,774.3	6,521.7	6,120.1	134.6	37.2	-28.04	-845.7	-1,580.6	3,457.1	3,367.4	89.72	38.532	
11,318.9	6,774.2	6,521.1	6,119.4	135.2	37.2	-28.02	-845.7	-1,580.7	3,475.5	3,385.6	89.95	38.639	
11,400.0	6,773.9	6,500.0	6,098.7	137.4	37.3	-27.30	-845.7	-1,584.4	3,555.0	3,465.5	89.55	39.700	
11,417.3	6,773.8	6,500.0	6,098.7	137.9	37.3	-27.30	-845.7	-1,584.4	3,571.9	3,482.1	89.79	39.779	
11,500.0	6,773.5	6,500.0	6,098.7	140.2	37.3	-27.30	-845.7	-1,584.4	3,652.7	3,561.7	90.97	40.151	
11,515.7	6,773.4	6,500.0	6,098.7	140.7	37.3	-27.30	-845.7	-1,584.4	3,668.0	3,576.8	91.20	40.221	
11,600.0	6,773.1	6,500.0	6,098.7	143.0	37.3	-27.30	-845.7	-1,584.4	3,750.4	3,658.0	92.40	40.590	
11,614.1	6,773.0	6,500.0	6,098.7	143.4	37.3	-27.30	-845.7	-1,584.4	3,764.3	3,671.7	92.60	40.651	
11,700.0	6,772.7	6,500.0	6,098.7	145.8	37.3	-27.30	-845.7	-1,584.4	3,848.3	3,754.5	93.82	41.017	
11,712.6	6,772.6	6,500.0	6,098.7	146.2	37.3	-27.30	-845.7	-1,584.4	3,860.7	3,766.7	94.00	41.070	
11,800.0	6,772.3	6,500.0	6,098.7	148.6	37.3	-27.30	-845.7	-1,584.4	3,946.3	3,851.1	95.25	41.432	
11,811.0	6,772.2	6,500.0	6,098.7	148.9	37.3	-27.30	-845.7	-1,584.4	3,957.1	3,861.7	95.41	41.477	
11,900.0	6,771.9	6,500.0	6,098.7	151.4	37.3	-27.30	-845.7	-1,584.4	4,044.4	3,947.8	96.67	41.836	
11,909.4	6,771.8	6,500.0	6,098.7	151.7	37.3	-27.30	-845.7	-1,584.4	4,053.7	3,956.9	96.81	41.873	
12,000.0	6,771.5	6,500.0	6,098.7	154.2	37.3	-27.30	-845.7	-1,584.4	4,142.6	4,044.5	98.10	42.228	
12,007.8	6,771.4	6,500.0	6,098.7	154.4	37.3	-27.30	-845.7	-1,584.4	4,150.3	4,052.1	98.21	42.258	
12,100.0	6,771.1	6,500.0	6,098.7	157.0	37.3	-27.29	-845.7	-1,584.4	4,240.9	4,141.4	99.53	42.610	

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 SCHAUMBERG 17G-314
<b>Project:</b>	WELD COUNTY, COLORADO	<b>TVD Reference:</b>	KB-EST @ 4633.0usft (Original Well Elev)
<b>Reference Site:</b>	SW NW SEC. 17 T5N R64W 6th P.M.	<b>MD Reference:</b>	KB-EST @ 4633.0usft (Original Well Elev)
<b>Site Error:</b>	0.0 usft	<b>North Reference:</b>	True
<b>Reference Well:</b>	SCHAUMBERG 17G-314	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Well Error:</b>	0.0 usft	<b>Output errors are at</b>	2.00 sigma
<b>Reference Wellbore</b>	ORIGINAL WELLBORE	<b>Database:</b>	EDM 5000.1 Single User Db
<b>Reference Design:</b>	PROPOSAL #1	<b>Offset TVD Reference:</b>	Offset Datum

<b>Offset Design</b> SW NW SEC. 17 T5N R64W 6th P.M. - SCHAUMBERG 17G-202 - ORIGINAL WELLBORE - PROPOS												<b>Offset Site Error:</b>	0.0 usft
Survey Program: 0-MWD												<b>Offset Well Error:</b>	0.0 usft
Reference		Offset		Semi Major Axis			Distance						Warning
Measured Depth (usft)	Vertical Depth (usft)	Measured Depth (usft)	Vertical Depth (usft)	Reference (usft)	Offset (usft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (usft)	+E/-W (usft)	Between Centres (usft)	Between Ellipses (usft)	Minimum Separation (usft)	Separation Factor	
12,106.3	6,771.0	6,500.0	6,098.7	157.2	37.3	-27.29	-845.7	-1,584.4	4,247.1	4,147.4	99.62	42.634	
12,200.0	6,770.7	6,500.0	6,098.7	159.8	37.3	-27.29	-845.7	-1,584.4	4,339.2	4,238.3	100.95	42.982	
12,204.7	6,770.6	6,500.0	6,098.7	159.9	37.3	-27.29	-845.7	-1,584.4	4,343.9	4,242.8	101.02	42.999	
12,300.0	6,770.3	6,500.0	6,098.7	162.6	37.3	-27.29	-845.7	-1,584.4	4,437.7	4,335.3	102.38	43.344	
12,303.1	6,770.2	6,500.0	6,098.7	162.7	37.3	-27.29	-845.7	-1,584.4	4,440.7	4,338.3	102.43	43.355	
12,361.7	6,770.0	6,500.0	6,098.7	164.3	37.3	-27.29	-845.7	-1,584.4	4,498.4	4,395.2	103.26	43.563	



# Anticollision Report



<b>Company:</b>	PDC ENERGY	<b>Local Co-ordinate Reference:</b>	Well SCHAUMBERG 17G-314
<b>Project:</b>	WELD COUNTY, COLORADO	<b>TVD Reference:</b>	KB-EST @ 4633.0usft (Original Well Elev)
<b>Reference Site:</b>	SW NW SEC. 17 T5N R64W 6th P.M.	<b>MD Reference:</b>	KB-EST @ 4633.0usft (Original Well Elev)
<b>Site Error:</b>	0.0 usft	<b>North Reference:</b>	True
<b>Reference Well:</b>	SCHAUMBERG 17G-314	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Well Error:</b>	0.0 usft	<b>Output errors are at</b>	2.00 sigma
<b>Reference Wellbore</b>	ORIGINAL WELLBORE	<b>Database:</b>	EDM 5000.1 Single User Db
<b>Reference Design:</b>	PROPOSAL #1	<b>Offset TVD Reference:</b>	Offset Datum

Offset Design												Offset Site Error:	0.0 usft
Survey Program: 0-MWD												Offset Well Error:	0.0 usft
Reference		Offset		Semi Major Axis			Distance						Warning
Measured Depth (usft)	Vertical Depth (usft)	Measured Depth (usft)	Vertical Depth (usft)	Reference (usft)	Offset (usft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (usft)	+E/-W (usft)	Between Centres (usft)	Between Ellipses (usft)	Minimum Separation (usft)	Separation Factor	
0.0	0.0	0.0	0.0	0.0	0.0	89.94	0.0	15.0	15.0				
98.4	98.4	98.4	98.4	0.1	0.1	89.94	0.0	15.0	15.0	14.8	0.19	78.235	
100.0	100.0	100.0	100.0	0.1	0.1	89.94	0.0	15.0	15.0	14.8	0.20	76.911	
196.8	196.8	196.8	196.8	0.3	0.3	89.94	0.0	15.0	15.0	14.4	0.63	23.838	
200.0	200.0	200.0	200.0	0.3	0.3	89.94	0.0	15.0	15.0	14.4	0.65	23.315	
295.3	295.3	295.3	295.3	0.5	0.5	89.94	0.0	15.0	15.0	14.0	1.07	14.012	
300.0	300.0	300.0	300.0	0.5	0.5	89.94	0.0	15.0	15.0	13.9	1.09	13.740	
393.7	393.7	393.7	393.7	0.8	0.8	89.94	0.0	15.0	15.0	13.5	1.52	9.922	
400.0	400.0	400.0	400.0	0.8	0.8	89.94	0.0	15.0	15.0	13.5	1.54	9.740	
492.1	492.1	492.1	492.1	1.0	1.0	89.94	0.0	15.0	15.0	13.1	1.96	7.680	
500.0	500.0	500.0	500.0	1.0	1.0	89.94	0.0	15.0	15.0	13.0	1.99	7.544	
590.5	590.5	590.5	590.5	1.2	1.2	89.94	0.0	15.0	15.0	12.6	2.40	6.265	
600.0	600.0	600.0	600.0	1.2	1.2	89.94	0.0	15.0	15.0	12.6	2.44	6.156	
689.0	689.0	689.0	689.0	1.4	1.4	89.94	0.0	15.0	15.0	12.2	2.84	5.290	
700.0	700.0	700.0	700.0	1.4	1.4	89.94	0.0	15.0	15.0	12.1	2.89	5.199	
787.4	787.4	787.4	787.4	1.6	1.6	89.94	0.0	15.0	15.0	11.8	3.29	4.577	
800.0	800.0	800.0	800.0	1.7	1.7	89.94	0.0	15.0	15.0	11.7	3.34	4.500	
885.8	885.8	885.8	885.8	1.9	1.9	89.94	0.0	15.0	15.0	11.3	3.73	4.034	
900.0	900.0	900.0	900.0	1.9	1.9	89.94	0.0	15.0	15.0	11.2	3.79	3.966	
984.2	984.2	984.2	984.2	2.1	2.1	89.94	0.0	15.0	15.0	10.9	4.17	3.606	
1,000.0	1,000.0	1,000.0	1,000.0	2.1	2.1	89.94	0.0	15.0	15.0	10.8	4.24	3.546	
1,082.7	1,082.7	1,082.7	1,082.7	2.3	2.3	89.94	0.0	15.0	15.0	10.4	4.61	3.260	
1,100.0	1,100.0	1,100.0	1,100.0	2.3	2.3	89.94	0.0	15.0	15.0	10.3	4.69	3.206	
1,181.1	1,181.1	1,181.1	1,181.1	2.5	2.5	89.94	0.0	15.0	15.0	10.0	5.06	2.975	
1,200.0	1,200.0	1,200.0	1,200.0	2.6	2.6	89.94	0.0	15.0	15.0	9.9	5.14	2.926	
1,279.5	1,279.5	1,279.5	1,279.5	2.7	2.7	89.94	0.0	15.0	15.0	9.5	5.50	2.736	
1,300.0	1,300.0	1,300.0	1,300.0	2.8	2.8	89.94	0.0	15.0	15.0	9.4	5.59	2.691	
1,377.9	1,377.9	1,377.9	1,377.9	3.0	3.0	89.94	0.0	15.0	15.0	9.1	5.94	2.532	
1,400.0	1,400.0	1,400.0	1,400.0	3.0	3.0	89.94	0.0	15.0	15.0	9.0	6.04	2.490	
1,476.4	1,476.4	1,476.4	1,476.4	3.2	3.2	89.94	0.0	15.0	15.0	8.7	6.38	2.356	
1,500.0	1,500.0	1,500.0	1,500.0	3.2	3.2	89.94	0.0	15.0	15.0	8.6	6.49	2.318	
1,574.8	1,574.8	1,574.8	1,574.8	3.4	3.4	89.94	0.0	15.0	15.0	8.2	6.83	2.204	
1,600.0	1,600.0	1,600.0	1,600.0	3.5	3.5	89.94	0.0	15.0	15.0	8.1	6.94	2.168	
1,673.2	1,673.2	1,673.2	1,673.2	3.6	3.6	89.94	0.0	15.0	15.0	7.8	7.27	2.069	
1,700.0	1,700.0	1,700.0	1,700.0	3.7	3.7	89.94	0.0	15.0	15.0	7.7	7.39	2.036	
1,771.6	1,771.6	1,771.6	1,771.6	3.9	3.9	89.94	0.0	15.0	15.0	7.3	7.71	1.951	
1,800.0	1,800.0	1,800.0	1,800.0	3.9	3.9	89.94	0.0	15.0	15.0	7.2	7.84	1.919 CC	
1,870.1	1,870.1	1,870.1	1,870.1	4.1	4.1	-114.23	0.0	15.0	15.4	7.2	8.13	1.890	
1,900.0	1,900.0	1,900.0	1,900.0	4.1	4.1	-117.17	0.0	15.0	15.8	7.5	8.26	1.908	
1,968.5	1,968.4	1,968.6	1,968.6	4.2	4.3	-124.21	-0.8	14.8	17.1	8.5	8.51	2.004	
2,000.0	1,999.8	2,000.2	2,000.2	4.3	4.3	-126.98	-1.7	14.6	17.8	9.1	8.62	2.061	
2,066.9	2,066.5	2,067.3	2,067.2	4.4	4.5	-131.94	-4.7	13.7	19.5	10.7	8.85	2.204	
2,100.0	2,099.5	2,100.5	2,100.3	4.5	4.5	-133.96	-6.7	13.2	20.4	11.5	8.96	2.282	
2,165.3	2,164.4	2,166.1	2,165.7	4.6	4.6	-137.23	-11.9	11.7	22.4	13.3	9.18	2.445	
2,200.0	2,198.7	2,200.9	2,200.4	4.7	4.7	-138.62	-15.2	10.8	23.6	14.3	9.30	2.535	
2,263.8	2,261.8	2,265.1	2,264.1	4.8	4.8	-140.68	-22.4	8.8	25.8	16.2	9.53	2.703	
2,300.0	2,297.5	2,301.5	2,300.2	4.9	4.9	-141.59	-27.0	7.5	27.0	17.4	9.65	2.801	
2,362.2	2,358.6	2,364.1	2,362.1	5.0	5.0	-142.80	-36.1	5.0	29.3	19.4	9.89	2.966	
2,400.0	2,395.6	2,402.1	2,399.6	5.1	5.1	-143.35	-42.3	3.3	30.8	20.7	10.03	3.067	
2,460.6	2,454.9	2,463.3	2,459.6	5.3	5.3	-143.34	-53.2	0.3	32.6	22.3	10.30	3.166	
2,500.0	2,493.4	2,503.0	2,498.5	5.4	5.3	-142.53	-60.9	-1.9	33.3	22.8	10.48	3.177	
2,559.0	2,551.2	2,562.2	2,556.3	5.6	5.5	-140.52	-73.1	-5.3	33.8	23.0	10.78	3.137	

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 SCHAUMBERG 17G-314
<b>Project:</b>	WELD COUNTY, COLORADO	<b>TVD Reference:</b>	KB-EST @ 4633.0usft (Original Well Elev)
<b>Reference Site:</b>	SW NW SEC. 17 T5N R64W 6th P.M.	<b>MD Reference:</b>	KB-EST @ 4633.0usft (Original Well Elev)
<b>Site Error:</b>	0.0 usft	<b>North Reference:</b>	True
<b>Reference Well:</b>	SCHAUMBERG 17G-314	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Well Error:</b>	0.0 usft	<b>Output errors are at</b>	2.00 sigma
<b>Reference Wellbore</b>	ORIGINAL WELLBORE	<b>Database:</b>	EDM 5000.1 Single User Db
<b>Reference Design:</b>	PROPOSAL #1	<b>Offset TVD Reference:</b>	Offset Datum

Offset Design												Offset Site Error:	0.0 usft
Survey Program: 0-MWD												Offset Well Error:	0.0 usft
Reference		Offset		Semi Major Axis			Distance						
Measured Depth (usft)	Vertical Depth (usft)	Measured Depth (usft)	Vertical Depth (usft)	Reference (usft)	Offset (usft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (usft)	+E/-W (usft)	Between Centres (usft)	Between Ellipses (usft)	Minimum Separation (usft)	Separation Factor	Warning
2,600.0	2,591.3	2,603.1	2,596.3	5.7	5.6	-139.13	-81.6	-7.6	34.2	23.2	11.00	3.109	
2,657.5	2,647.5	2,660.6	2,652.4	5.9	5.8	-137.22	-93.5	-10.9	34.7	23.4	11.32	3.069	
2,700.0	2,689.1	2,703.1	2,694.0	6.0	5.9	-135.85	-102.3	-13.4	35.2	23.6	11.56	3.041	
2,755.9	2,743.7	2,759.0	2,748.5	6.2	6.1	-134.09	-113.9	-16.6	35.8	23.9	11.90	3.004	
2,800.0	2,786.9	2,803.0	2,791.6	6.4	6.3	-132.75	-123.0	-19.1	36.3	24.1	12.18	2.977	
2,854.3	2,840.0	2,857.4	2,844.6	6.6	6.4	-131.15	-134.3	-22.3	36.9	24.3	12.53	2.943	
2,900.0	2,884.7	2,903.0	2,889.2	6.7	6.6	-129.85	-143.7	-24.9	37.4	24.6	12.84	2.916	
2,952.7	2,936.3	2,955.8	2,940.7	6.9	6.8	-128.39	-154.6	-27.9	38.1	24.9	13.20	2.885	
3,000.0	2,982.5	3,003.0	2,986.9	7.1	7.0	-127.13	-164.4	-30.7	38.7	25.2	13.54	2.859	
3,051.2	3,032.6	3,054.2	3,036.8	7.3	7.1	-125.80	-175.0	-33.6	39.4	25.5	13.91	2.832	
3,100.0	3,080.3	3,103.0	3,084.5	7.5	7.3	-124.58	-185.1	-36.4	40.1	25.8	14.27	2.807	
3,149.6	3,128.8	3,152.6	3,132.9	7.7	7.5	-123.39	-195.4	-39.3	40.8	26.1	14.65	2.782	
3,200.0	3,178.1	3,202.9	3,182.1	7.9	7.7	-122.21	-205.8	-42.2	41.5	26.5	15.04	2.759	
3,248.0	3,225.1	3,251.0	3,229.0	8.1	7.9	-121.13	-215.8	-44.9	42.2	26.8	15.42	2.737	
3,300.0	3,276.0	3,302.9	3,279.8	8.3	8.1	-120.00	-226.6	-47.9	43.0	27.2	15.83	2.715	
3,346.4	3,321.4	3,349.4	3,325.1	8.5	8.3	-119.02	-236.2	-50.6	43.7	27.5	16.21	2.696	
3,400.0	3,373.8	3,402.9	3,377.4	8.7	8.5	-117.94	-247.3	-53.7	44.5	27.9	16.65	2.676	
3,444.9	3,417.7	3,447.8	3,421.2	8.8	8.7	-117.06	-256.6	-56.3	45.3	28.2	17.02	2.659	
3,500.0	3,471.6	3,502.9	3,475.1	9.1	8.9	-116.02	-268.0	-59.4	46.1	28.7	17.48	2.640	
3,543.3	3,513.9	3,546.2	3,517.3	9.2	9.1	-115.23	-276.9	-61.9	46.9	29.0	17.85	2.626	
3,600.0	3,569.4	3,602.8	3,572.7	9.5	9.3	-114.23	-288.7	-65.2	47.8	29.5	18.33	2.608	
3,641.7	3,610.2	3,644.6	3,613.4	9.7	9.5	-113.52	-297.3	-67.6	48.5	29.8	18.69	2.596	
3,700.0	3,667.2	3,702.8	3,670.3	9.9	9.7	-112.57	-309.4	-70.9	49.5	30.3	19.19	2.580	
3,740.1	3,706.5	3,743.0	3,709.5	10.1	9.9	-111.93	-317.7	-73.3	50.2	30.7	19.54	2.569	
3,800.0	3,765.0	3,802.8	3,768.0	10.3	10.1	-111.01	-330.1	-76.7	51.2	31.2	20.06	2.554	
3,838.6	3,802.8	3,841.4	3,805.6	10.5	10.3	-110.44	-338.1	-78.9	51.9	31.5	20.40	2.545	
3,900.0	3,862.8	3,902.8	3,865.6	10.7	10.6	-109.56	-350.8	-82.5	53.0	32.1	20.94	2.532	
3,937.0	3,899.0	3,939.8	3,901.7	10.9	10.7	-109.05	-358.5	-84.6	53.7	32.4	21.27	2.524	
4,000.0	3,960.7	4,002.8	3,963.2	11.2	11.0	-108.21	-371.5	-88.2	54.8	33.0	21.83	2.512	
4,035.4	3,995.3	4,038.2	3,997.8	11.3	11.2	-107.75	-378.9	-90.3	55.5	33.3	22.14	2.505	
4,100.0	4,058.5	4,102.7	4,060.9	11.6	11.4	-106.94	-392.2	-94.0	56.7	33.9	22.72	2.494	
4,133.8	4,091.6	4,136.6	4,093.9	11.7	11.6	-106.52	-399.2	-95.9	57.3	34.3	23.02	2.488	
4,200.0	4,156.3	4,202.7	4,158.5	12.0	11.9	-105.75	-412.9	-99.7	58.5	34.9	23.61	2.478	
4,232.3	4,187.9	4,235.0	4,190.0	12.2	12.0	-105.38	-419.6	-101.6	59.1	35.2	23.90	2.474	
4,300.0	4,254.1	4,302.7	4,256.2	12.5	12.3	-104.63	-433.7	-105.5	60.4	35.9	24.51	2.464	
4,325.7	4,279.2	4,328.3	4,281.2	12.6	12.4	-104.36	-439.0	-107.0	60.9	36.1	24.74	2.461	
4,330.7	4,284.1	4,333.4	4,286.1	12.6	12.4	-104.30	-440.0	-107.2	61.0	36.2	24.79	2.460	
4,400.0	4,352.1	4,402.6	4,353.8	12.8	12.8	-102.74	-454.4	-111.2	62.1	36.7	25.40	2.444	
4,429.1	4,380.8	4,431.7	4,382.2	12.9	12.9	-101.65	-460.4	-112.9	62.5	36.8	25.65	2.435	
4,500.0	4,450.7	4,502.5	4,451.3	13.1	13.2	-97.96	-475.0	-117.0	63.3	37.0	26.27	2.409	
4,527.5	4,478.0	4,530.0	4,478.1	13.2	13.3	-96.14	-480.7	-118.6	63.6	37.1	26.49	2.402	
4,600.0	4,549.9	4,602.1	4,548.6	13.4	13.6	-90.35	-495.7	-122.7	64.8	37.8	27.02	2.399	
4,626.0	4,575.7	4,627.9	4,573.8	13.5	13.8	-87.95	-501.0	-124.2	65.4	38.2	27.16	2.408	
4,700.0	4,649.4	4,701.4	4,645.5	13.6	14.1	-80.36	-516.2	-128.4	67.9	40.5	27.42	2.477	
4,724.4	4,673.7	4,725.5	4,669.1	13.7	14.2	-77.67	-521.2	-129.8	69.1	41.6	27.44	2.518	
4,800.0	4,749.2	4,800.1	4,742.0	13.8	14.5	-69.07	-536.7	-134.1	74.1	46.8	27.31	2.714	
4,822.8	4,772.0	4,822.6	4,763.9	13.9	14.6	-66.46	-541.4	-135.4	76.1	48.9	27.21	2.797	
4,900.0	4,849.2	4,898.3	4,837.9	14.0	15.0	-57.91	-557.0	-139.8	84.6	57.8	26.75	3.163	
4,921.2	4,870.4	4,919.1	4,858.2	14.1	15.1	-55.68	-561.3	-141.0	87.4	60.8	26.59	3.288	
4,925.6	4,874.8	4,923.4	4,862.4	14.1	15.1	145.96	-562.2	-141.2	88.1	63.3	24.71	3.564	
5,000.0	4,949.2	4,996.0	4,933.3	14.2	15.4	152.93	-577.3	-145.4	99.3	73.3	26.01	3.818	
5,019.7	4,968.8	5,015.2	4,952.1	14.2	15.5	154.51	-581.3	-146.5	102.5	76.2	26.32	3.894	

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 SCHAUMBERG 17G-314
<b>Project:</b>	WELD COUNTY, COLORADO	<b>TVD Reference:</b>	KB-EST @ 4633.0usft (Original Well Elev)
<b>Reference Site:</b>	SW NW SEC. 17 T5N R64W 6th P.M.	<b>MD Reference:</b>	KB-EST @ 4633.0usft (Original Well Elev)
<b>Site Error:</b>	0.0 usft	<b>North Reference:</b>	True
<b>Reference Well:</b>	SCHAUMBERG 17G-314	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Well Error:</b>	0.0 usft	<b>Output errors are at</b>	2.00 sigma
<b>Reference Wellbore</b>	ORIGINAL WELLBORE	<b>Database:</b>	EDM 5000.1 Single User Db
<b>Reference Design:</b>	PROPOSAL #1	<b>Offset TVD Reference:</b>	Offset Datum

Offset Design												Offset Site Error:	0.0 usft
Survey Program: 0-MWD												Offset Well Error:	0.0 usft
Reference		Offset		Semi Major Axis			Distance						Warning
Measured Depth (usft)	Vertical Depth (usft)	Measured Depth (usft)	Vertical Depth (usft)	Reference (usft)	Offset (usft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (usft)	+E/-W (usft)	Between Centres (usft)	Between Ellipses (usft)	Minimum Separation (usft)	Separation Factor	
5,100.0	5,049.2	5,093.7	5,028.7	14.3	15.8	160.07	-597.5	-151.0	116.2	88.7	27.47	4.230	
5,118.1	5,067.3	5,111.4	5,045.9	14.3	15.9	161.14	-601.2	-152.0	119.4	91.7	27.70	4.310	
5,200.0	5,149.2	5,191.3	5,124.0	14.5	16.3	165.36	-617.7	-156.6	134.4	105.7	28.67	4.688	
5,216.5	5,165.7	5,207.5	5,139.8	14.5	16.4	166.10	-621.1	-157.6	137.5	108.7	28.84	4.767	
5,300.0	5,249.2	5,289.0	5,219.4	14.6	16.7	169.38	-638.0	-162.3	153.5	123.8	29.69	5.169	
5,314.9	5,264.1	5,303.6	5,233.7	14.6	16.8	169.90	-641.0	-163.1	156.4	126.5	29.83	5.242	
5,400.0	5,349.2	5,386.7	5,314.8	14.8	17.2	172.51	-658.2	-167.9	173.1	142.5	30.59	5.659	
5,413.4	5,362.5	5,399.7	5,327.6	14.8	17.2	172.87	-660.9	-168.6	175.8	145.1	30.70	5.724	
5,500.0	5,449.2	5,487.9	5,413.8	14.9	17.6	175.02	-678.6	-173.6	192.6	161.2	31.40	6.135	
5,511.8	5,461.0	5,500.3	5,426.0	14.9	17.6	175.27	-680.9	-174.2	194.8	163.3	31.49	6.186	
5,600.0	5,549.2	5,593.3	5,517.5	15.1	17.9	176.83	-696.7	-178.6	209.4	177.3	32.04	6.534	
5,610.2	5,559.4	5,604.2	5,528.3	15.1	18.0	176.98	-698.3	-179.0	210.9	178.8	32.11	6.569	
5,700.0	5,649.2	5,700.0	5,623.1	15.2	18.2	178.08	-711.1	-182.6	222.8	190.2	32.60	6.834	
5,708.6	5,657.8	5,709.3	5,632.3	15.3	18.2	178.17	-712.2	-182.9	223.8	191.1	32.64	6.855	
5,800.0	5,749.2	5,807.7	5,730.2	15.4	18.5	178.91	-721.9	-185.6	232.7	199.6	33.08	7.035	
5,807.1	5,756.2	5,815.3	5,737.8	15.4	18.5	178.95	-722.5	-185.8	233.3	200.2	33.11	7.045	
5,900.0	5,849.2	5,916.0	5,838.3	15.6	18.7	179.40	-728.8	-187.5	239.1	205.6	33.50	7.137	
5,905.5	5,854.7	5,922.0	5,844.3	15.6	18.7	179.42	-729.1	-187.6	239.3	205.8	33.52	7.140	
6,000.0	5,949.2	6,024.7	5,947.0	15.7	18.8	179.60	-731.8	-188.3	241.8	207.9	33.86	7.141	
6,003.9	5,953.1	6,029.0	5,951.3	15.7	18.9	179.61	-731.8	-188.3	241.8	207.9	33.87	7.140	
6,100.0	6,049.2	6,127.0	6,049.2	15.9	19.0	179.95	-731.9	-189.8	241.9	207.7	34.20	7.073	
6,102.3	6,051.5	6,129.3	6,051.5	15.9	19.0	179.99	-731.9	-190.0	241.9	207.7	34.21	7.071	
6,103.1	6,052.2	6,130.0	6,052.2	15.9	19.0	-180.00	-731.9	-190.0	241.9	207.7	34.21	7.070	
6,124.6	6,073.8	6,151.5	6,073.6	15.9	19.0	-179.58	-731.9	-191.8	241.9	207.6	34.31	7.050	
6,150.0	6,099.2	6,176.6	6,098.6	16.0	19.1	-89.00	-731.9	-194.7	241.9	214.2	27.74	8.721	
6,200.0	6,149.0	6,225.9	6,147.2	16.1	19.2	-87.86	-731.9	-202.9	242.1	214.2	27.89	8.678	
6,200.8	6,149.8	6,226.7	6,148.0	16.1	19.2	-87.84	-731.9	-203.0	242.1	214.2	27.90	8.678	
6,250.0	6,198.5	6,274.9	6,194.8	16.2	19.3	-86.73	-731.9	-214.3	242.3	214.2	28.08	8.627	
6,299.2	6,246.6	6,322.8	6,240.5	16.3	19.4	-85.65	-731.9	-228.6	242.6	214.3	28.31	8.569	
6,300.0	6,247.4	6,323.6	6,241.3	16.3	19.4	-85.63	-731.9	-228.9	242.6	214.3	28.31	8.568	
6,350.0	6,295.5	6,372.0	6,286.3	16.5	19.6	-84.55	-731.9	-246.4	243.0	214.4	28.58	8.502	
6,397.6	6,340.2	6,417.8	6,327.8	16.6	19.7	-83.56	-731.9	-265.9	243.4	214.6	28.88	8.430	
6,400.0	6,342.4	6,420.1	6,329.9	16.6	19.7	-83.51	-731.9	-266.9	243.5	214.6	28.89	8.427	
6,450.0	6,388.1	6,467.9	6,371.7	16.8	19.9	-82.50	-731.9	-290.1	244.0	214.7	29.25	8.342	
6,496.0	6,428.8	6,511.7	6,408.6	17.0	20.1	-81.61	-731.9	-313.7	244.5	214.9	29.63	8.253	
6,500.0	6,432.2	6,515.5	6,411.6	17.0	20.1	-81.53	-731.9	-315.8	244.6	214.9	29.66	8.245	
6,550.0	6,474.6	6,562.8	6,449.6	17.3	20.3	-80.61	-731.9	-344.0	245.2	215.0	30.14	8.134	
6,594.5	6,510.7	6,604.7	6,481.6	17.5	20.5	-79.83	-731.9	-371.1	245.8	215.1	30.64	8.021	
6,600.0	6,515.0	6,609.9	6,485.5	17.6	20.6	-79.74	-731.9	-374.5	245.8	215.1	30.71	8.006	
6,650.0	6,553.3	6,656.7	6,519.1	17.9	20.8	-78.92	-731.9	-407.2	246.5	215.1	31.37	7.858	
6,692.9	6,584.3	6,696.8	6,546.1	18.2	21.1	-78.26	-731.9	-436.8	247.1	215.1	32.03	7.714	
6,700.0	6,589.2	6,703.4	6,550.4	18.2	21.1	-78.15	-731.9	-441.8	247.2	215.0	32.14	7.690	
6,750.0	6,622.7	6,750.0	6,579.3	18.6	21.5	-77.44	-731.9	-478.3	247.8	214.8	33.04	7.500	
6,791.3	6,648.3	6,788.2	6,601.3	19.0	21.8	-76.90	-731.9	-509.6	248.4	214.5	33.91	7.325	
6,800.0	6,653.4	6,796.3	6,605.7	19.1	21.9	-76.79	-731.9	-516.3	248.5	214.4	34.09	7.289	
6,850.0	6,681.4	6,842.4	6,629.4	19.6	22.3	-76.20	-731.9	-555.9	249.1	213.8	35.28	7.060	
6,889.7	6,701.5	6,879.1	6,646.4	20.1	22.7	-75.78	-731.9	-588.4	249.5	213.2	36.35	6.865	
6,900.0	6,706.3	6,888.5	6,650.5	20.2	22.8	-75.68	-731.9	-596.8	249.7	213.0	36.63	6.815	
6,950.0	6,728.2	6,934.4	6,668.9	20.9	23.3	-75.22	-731.9	-638.9	250.2	212.0	38.13	6.561	
6,988.2	6,742.8	6,969.4	6,681.1	21.5	23.8	-74.91	-731.9	-671.7	250.5	211.1	39.39	6.361	
7,000.0	6,746.9	6,980.2	6,684.5	21.6	24.0	-74.82	-731.9	-682.0	250.6	210.9	39.79	6.300	
7,050.0	6,762.4	7,026.0	6,697.4	22.5	24.6	-74.50	-731.9	-725.9	251.0	209.4	41.58	6.037	

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 SCHAUMBERG 17G-314
<b>Project:</b>	WELD COUNTY, COLORADO	<b>TVD Reference:</b>	KB-EST @ 4633.0usft (Original Well Elev)
<b>Reference Site:</b>	SW NW SEC. 17 T5N R64W 6th P.M.	<b>MD Reference:</b>	KB-EST @ 4633.0usft (Original Well Elev)
<b>Site Error:</b>	0.0 usft	<b>North Reference:</b>	True
<b>Reference Well:</b>	SCHAUMBERG 17G-314	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Well Error:</b>	0.0 usft	<b>Output errors are at</b>	2.00 sigma
<b>Reference Wellbore</b>	ORIGINAL WELLBORE	<b>Database:</b>	EDM 5000.1 Single User Db
<b>Reference Design:</b>	PROPOSAL #1	<b>Offset TVD Reference:</b>	Offset Datum

Offset Design												Offset Site Error:	0.0 usft
Survey Program: 0-MWD												Offset Well Error:	0.0 usft
Reference		Offset		Semi Major Axis			Distance						Warning
Measured Depth (usft)	Vertical Depth (usft)	Measured Depth (usft)	Vertical Depth (usft)	Reference (usft)	Offset (usft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (usft)	+E/-W (usft)	Between Centres (usft)	Between Ellipses (usft)	Minimum Separation (usft)	Separation Factor	
7,086.6	6,771.5	7,059.4	6,704.9	23.1	25.1	-74.30	-731.9	-758.4	251.3	208.3	42.98	5.846	
7,100.0	6,774.4	7,071.6	6,707.3	23.3	25.3	-74.23	-731.9	-770.4	251.3	207.8	43.51	5.777	
7,150.0	6,783.1	7,117.3	6,714.4	24.3	26.1	-74.04	-731.9	-815.5	251.6	206.0	45.55	5.524	
7,185.0	6,787.1	7,150.0	6,717.8	25.0	26.7	-73.94	-731.9	-848.1	251.7	204.7	47.05	5.350	
7,185.2	6,787.1	7,150.0	6,717.8	25.0	26.7	-73.94	-731.9	-848.1	251.7	204.7	47.05	5.349	
7,200.0	6,788.3	7,162.8	6,718.7	25.3	26.9	-73.92	-731.9	-860.9	251.7	204.1	47.68	5.279	
7,252.3	6,790.0	7,210.6	6,720.0	26.3	27.8	-73.86	-731.9	-908.6	251.8	201.8	50.01	5.036	
7,283.4	6,789.9	7,241.7	6,719.9	27.0	28.4	-73.86	-731.9	-939.8	251.8	200.5	51.34	4.905	
7,300.0	6,789.8	7,258.3	6,719.8	27.3	28.7	-73.86	-731.9	-956.3	251.8	199.8	52.05	4.838	
7,381.9	6,789.5	7,340.2	6,719.5	29.1	30.4	-73.86	-731.9	-1,038.2	251.8	196.2	55.65	4.525	
7,399.4	6,789.4	7,357.7	6,719.4	29.5	30.8	-73.86	-731.9	-1,055.7	251.8	195.4	56.44	4.462	
7,400.0	6,789.4	7,358.3	6,719.4	29.5	30.8	-73.86	-731.9	-1,056.3	251.8	195.4	56.46	4.460	
7,480.3	6,789.1	7,438.6	6,719.1	31.4	32.5	-73.86	-731.9	-1,136.6	251.8	191.7	60.12	4.188	
7,499.2	6,789.1	7,457.5	6,719.1	31.8	33.0	-73.86	-731.9	-1,155.5	251.8	190.8	61.00	4.128	
7,500.0	6,789.1	7,458.3	6,719.1	31.8	33.0	-73.86	-731.9	-1,156.3	251.8	190.8	61.03	4.126	
7,578.7	6,788.8	7,537.0	6,718.8	33.7	34.8	-73.86	-731.9	-1,235.0	251.8	187.1	64.72	3.891	
7,599.0	6,788.7	7,557.3	6,718.7	34.2	35.2	-73.86	-731.9	-1,255.3	251.8	186.1	65.68	3.834	
7,600.0	6,788.7	7,558.3	6,718.7	34.2	35.3	-73.86	-731.9	-1,256.3	251.8	186.1	65.73	3.831	
7,677.1	6,788.4	7,635.4	6,718.4	36.1	37.1	-73.86	-731.9	-1,333.4	251.8	182.4	69.43	3.627	
7,698.7	6,788.3	7,657.0	6,718.3	36.6	37.6	-73.86	-731.9	-1,355.0	251.8	181.3	70.47	3.574	
7,700.0	6,788.3	7,658.3	6,718.3	36.7	37.6	-73.86	-731.9	-1,356.3	251.8	181.3	70.53	3.570	
7,775.6	6,788.0	7,733.9	6,718.0	38.6	39.5	-73.86	-731.9	-1,431.9	251.8	177.6	74.22	3.393	
7,798.3	6,787.9	7,756.6	6,717.9	39.1	40.0	-73.86	-731.9	-1,454.6	251.8	176.5	75.33	3.343	
7,800.0	6,787.9	7,758.3	6,717.9	39.2	40.1	-73.86	-731.9	-1,456.3	251.8	176.4	75.41	3.339	
7,874.0	6,787.6	7,832.3	6,717.6	41.0	41.9	-73.86	-731.9	-1,530.3	251.8	172.7	79.07	3.185	
7,897.8	6,787.6	7,856.1	6,717.6	41.6	42.5	-73.86	-731.9	-1,554.1	251.8	171.6	80.26	3.138	
7,900.0	6,787.6	7,858.3	6,717.5	41.7	42.5	-73.86	-731.9	-1,556.3	251.8	171.4	80.37	3.133	
7,972.4	6,787.3	7,930.7	6,717.3	43.6	44.4	-73.86	-731.9	-1,628.7	251.8	167.8	83.99	2.998	
7,997.2	6,787.2	7,955.5	6,717.2	44.2	45.0	-73.86	-731.9	-1,653.5	251.8	166.6	85.23	2.954	
8,000.0	6,787.2	7,958.3	6,717.2	44.3	45.1	-73.86	-731.9	-1,656.3	251.8	166.4	85.37	2.950	
8,070.8	6,786.9	8,029.1	6,716.9	46.1	46.9	-73.86	-731.9	-1,727.1	251.8	162.9	88.95	2.831	
8,096.5	6,786.8	8,054.8	6,716.8	46.8	47.5	-73.86	-731.9	-1,752.8	251.8	161.6	90.25	2.790	
8,100.0	6,786.8	8,058.3	6,716.8	46.9	47.6	-73.86	-731.9	-1,756.3	251.8	161.4	90.43	2.785	
8,169.3	6,786.5	8,127.6	6,716.5	48.7	49.4	-73.86	-731.9	-1,825.6	251.8	157.9	93.95	2.680	
8,200.0	6,786.4	8,158.3	6,716.4	49.5	50.2	-73.86	-731.9	-1,856.3	251.8	156.3	95.52	2.636	
8,267.7	6,786.1	8,226.0	6,716.1	51.3	52.0	-73.86	-731.9	-1,924.0	251.8	152.8	98.99	2.544	
8,300.0	6,786.0	8,258.3	6,716.0	52.1	52.8	-73.86	-731.9	-1,956.3	251.8	151.2	100.65	2.502	
8,366.1	6,785.8	8,324.4	6,715.8	53.9	54.5	-73.86	-731.9	-2,022.4	251.8	147.8	104.05	2.420	
8,400.0	6,785.6	8,358.3	6,715.6	54.8	55.4	-73.86	-731.9	-2,056.3	251.8	146.0	105.80	2.380	
8,464.5	6,785.4	8,422.8	6,715.4	56.5	57.1	-73.86	-731.9	-2,120.8	251.8	142.7	109.14	2.307	
8,500.0	6,785.3	8,458.3	6,715.3	57.5	58.1	-73.86	-731.9	-2,156.3	251.8	140.8	110.98	2.269	
8,563.0	6,785.0	8,521.3	6,715.0	59.2	59.8	-73.86	-731.9	-2,219.3	251.8	137.6	114.26	2.204	
8,600.0	6,784.9	8,558.3	6,714.9	60.2	60.7	-73.86	-731.9	-2,256.3	251.8	135.6	116.18	2.167	
8,661.4	6,784.6	8,619.7	6,714.6	61.8	62.4	-73.86	-731.9	-2,317.7	251.8	132.4	119.39	2.109	
8,700.0	6,784.5	8,658.3	6,714.5	62.9	63.4	-73.86	-731.9	-2,356.3	251.8	130.4	121.40	2.074	
8,759.8	6,784.3	8,718.1	6,714.3	64.5	65.0	-73.86	-731.9	-2,416.1	251.8	127.3	124.53	2.022	
8,800.0	6,784.1	8,758.3	6,714.1	65.6	66.1	-73.86	-731.9	-2,456.3	251.8	125.2	126.64	1.988	
8,858.2	6,783.9	8,816.5	6,713.9	67.1	67.7	-73.86	-731.9	-2,514.5	251.8	122.1	129.69	1.942	
8,900.0	6,783.7	8,858.3	6,713.7	68.3	68.8	-73.86	-731.9	-2,556.3	251.8	119.9	131.89	1.909	
8,956.7	6,783.5	8,915.0	6,713.5	69.8	70.3	-73.86	-731.9	-2,613.0	251.8	116.9	134.87	1.867	
9,000.0	6,783.3	8,958.3	6,713.3	71.0	71.5	-73.86	-731.9	-2,656.3	251.8	114.7	137.15	1.836	
9,055.1	6,783.1	9,013.4	6,713.1	72.5	73.0	-73.86	-731.9	-2,711.4	251.8	111.8	140.05	1.798	

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

# Anticollision Report



<b>Company:</b>	PDC ENERGY	<b>Local Co-ordinate Reference:</b>	Well SCHAUMBERG 17G-314
<b>Project:</b>	WELD COUNTY, COLORADO	<b>TVD Reference:</b>	KB-EST @ 4633.0usft (Original Well Elev)
<b>Reference Site:</b>	SW NW SEC. 17 T5N R64W 6th P.M.	<b>MD Reference:</b>	KB-EST @ 4633.0usft (Original Well Elev)
<b>Site Error:</b>	0.0 usft	<b>North Reference:</b>	True
<b>Reference Well:</b>	SCHAUMBERG 17G-314	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Well Error:</b>	0.0 usft	<b>Output errors are at</b>	2.00 sigma
<b>Reference Wellbore</b>	ORIGINAL WELLBORE	<b>Database:</b>	EDM 5000.1 Single User Db
<b>Reference Design:</b>	PROPOSAL #1	<b>Offset TVD Reference:</b>	Offset Datum

Offset Design												Offset Site Error:	0.0 usft
Survey Program: 0-MWD												Offset Well Error:	0.0 usft
Reference		Offset		Semi Major Axis			Distance						Warning
Measured Depth (usft)	Vertical Depth (usft)	Measured Depth (usft)	Vertical Depth (usft)	Reference (usft)	Offset (usft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (usft)	+E/-W (usft)	Between Centres (usft)	Between Ellipses (usft)	Minimum Separation (usft)	Separation Factor	
9,100.0	6,782.9	9,058.3	6,712.9	73.7	74.2	-73.86	-731.9	-2,756.3	251.8	109.4	142.42	1.768	
9,153.5	6,782.7	9,111.8	6,712.7	75.2	75.7	-73.86	-731.9	-2,809.8	251.8	106.6	145.25	1.734	
9,200.0	6,782.6	9,158.3	6,712.6	76.5	76.9	-73.86	-731.9	-2,856.3	251.8	104.1	147.71	1.705	
9,251.9	6,782.4	9,210.2	6,712.4	77.9	78.4	-73.86	-731.9	-2,908.2	251.8	101.4	150.46	1.674	
9,300.0	6,782.2	9,258.3	6,712.2	79.2	79.7	-73.86	-731.9	-2,956.3	251.8	98.8	153.00	1.646	
9,350.4	6,782.0	9,308.7	6,712.0	80.6	81.1	-73.86	-731.9	-3,006.7	251.8	96.1	155.67	1.618	
9,400.0	6,781.8	9,358.3	6,711.8	82.0	82.4	-73.86	-731.9	-3,056.3	251.8	93.5	158.30	1.591	
9,448.8	6,781.6	9,407.1	6,711.6	83.3	83.7	-73.86	-731.9	-3,105.1	251.8	90.9	160.89	1.565	
9,500.0	6,781.4	9,458.3	6,711.4	84.7	85.2	-73.86	-731.9	-3,156.3	251.8	88.2	163.61	1.539	
9,547.2	6,781.2	9,505.5	6,711.2	86.0	86.4	-73.86	-731.9	-3,203.5	251.8	85.7	166.12	1.516	
9,600.0	6,781.0	9,558.3	6,711.0	87.5	87.9	-73.86	-731.9	-3,256.3	251.8	82.9	168.92	1.491 Level 3	
9,645.6	6,780.8	9,603.9	6,710.8	88.7	89.1	-73.86	-731.9	-3,301.9	251.8	80.5	171.35	1.470 Level 3	
9,700.0	6,780.6	9,658.3	6,710.6	90.2	90.6	-73.86	-731.9	-3,356.3	251.8	77.6	174.24	1.445 Level 3	
9,744.1	6,780.4	9,702.4	6,710.4	91.4	91.9	-73.86	-731.9	-3,400.3	251.8	75.2	176.59	1.426 Level 3	
9,800.0	6,780.2	9,758.3	6,710.2	93.0	93.4	-73.86	-731.9	-3,456.3	251.8	72.2	179.57	1.402 Level 3	
9,842.5	6,780.1	9,800.8	6,710.1	94.2	94.6	-73.86	-731.9	-3,498.8	251.8	70.0	181.83	1.385 Level 3	
9,900.0	6,779.8	9,858.3	6,709.8	95.7	96.1	-73.86	-731.9	-3,556.3	251.8	66.9	184.90	1.362 Level 3	
9,940.9	6,779.7	9,899.2	6,709.7	96.9	97.3	-73.86	-731.9	-3,597.2	251.8	64.7	187.08	1.346 Level 3	
10,000.0	6,779.4	9,958.3	6,709.4	98.5	98.9	-73.86	-731.9	-3,656.3	251.8	61.6	190.24	1.324 Level 3	
10,039.3	6,779.3	9,997.6	6,709.3	99.6	100.0	-73.86	-731.9	-3,695.6	251.8	59.5	192.34	1.309 Level 3	
10,100.0	6,779.0	10,058.3	6,709.0	101.3	101.7	-73.86	-731.9	-3,756.3	251.8	56.2	195.58	1.288 Level 3	
10,137.8	6,778.9	10,096.1	6,708.9	102.3	102.7	-73.86	-731.9	-3,794.0	251.8	54.2	197.59	1.274 Level 3	
10,200.0	6,778.7	10,158.3	6,708.6	104.1	104.4	-73.86	-731.9	-3,856.3	251.8	50.9	200.92	1.253 Level 3	
10,236.2	6,778.5	10,194.5	6,708.5	105.1	105.4	-73.86	-731.9	-3,892.5	251.8	49.0	202.86	1.241 Level 2	
10,300.0	6,778.3	10,258.3	6,708.3	106.8	107.2	-73.86	-731.9	-3,956.3	251.8	45.6	206.27	1.221 Level 2	
10,334.6	6,778.1	10,292.9	6,708.1	107.8	108.2	-73.86	-731.9	-3,990.9	251.8	43.7	208.12	1.210 Level 2	
10,400.0	6,777.9	10,358.3	6,707.9	109.6	110.0	-73.86	-731.9	-4,056.3	251.8	40.2	211.62	1.190 Level 2	
10,433.0	6,777.7	10,391.3	6,707.7	110.5	110.9	-73.86	-731.9	-4,089.3	251.8	38.4	213.39	1.180 Level 2	
10,500.0	6,777.5	10,458.3	6,707.5	112.4	112.7	-73.86	-731.9	-4,156.3	251.8	34.8	216.97	1.161 Level 2	
10,531.5	6,777.3	10,489.8	6,707.3	113.3	113.6	-73.86	-731.9	-4,187.7	251.8	33.2	218.66	1.152 Level 2	
10,600.0	6,777.1	10,558.3	6,707.1	115.2	115.5	-73.86	-731.9	-4,256.3	251.8	29.5	222.33	1.133 Level 2	
10,629.9	6,777.0	10,588.2	6,707.0	116.0	116.3	-73.86	-731.9	-4,286.2	251.8	27.9	223.93	1.125 Level 2	
10,700.0	6,776.7	10,658.3	6,706.7	117.9	118.3	-73.86	-731.9	-4,356.3	251.8	24.1	227.69	1.106 Level 2	
10,728.3	6,776.6	10,686.6	6,706.6	118.7	119.1	-73.86	-731.9	-4,384.6	251.8	22.6	229.21	1.099 Level 2	
10,800.0	6,776.3	10,758.3	6,706.3	120.7	121.1	-73.86	-731.9	-4,456.3	251.8	18.8	233.05	1.081 Level 2	
10,826.7	6,776.2	10,785.0	6,706.2	121.5	121.8	-73.86	-731.9	-4,483.0	251.8	17.3	234.48	1.074 Level 2	
10,900.0	6,775.9	10,858.3	6,705.9	123.5	123.8	-73.86	-731.9	-4,556.3	251.8	13.4	238.41	1.056 Level 2	
10,925.2	6,775.8	10,883.5	6,705.8	124.2	124.5	-73.86	-731.9	-4,581.4	251.8	12.1	239.76	1.050 Level 2	
11,000.0	6,775.5	10,958.3	6,705.5	126.3	126.6	-73.86	-731.9	-4,656.3	251.8	8.0	243.78	1.033 Level 2	
11,023.6	6,775.4	10,981.9	6,705.4	126.9	127.3	-73.86	-731.9	-4,679.9	251.8	6.8	245.04	1.028 Level 2	
11,100.0	6,775.1	11,058.3	6,705.1	129.1	129.4	-73.86	-731.9	-4,756.3	251.8	2.7	249.15	1.011 Level 2	
11,122.0	6,775.0	11,080.3	6,705.0	129.7	130.0	-73.86	-731.9	-4,778.3	251.8	1.5	250.33	1.006 Level 2	
11,200.0	6,774.7	11,158.3	6,704.7	131.9	132.2	-73.86	-731.9	-4,856.3	251.8	-2.7	254.52	0.989 Level 1	
11,220.4	6,774.6	11,178.7	6,704.6	132.4	132.8	-73.86	-731.9	-4,876.7	251.8	-3.8	255.61	0.985 Level 1	
11,300.0	6,774.3	11,258.3	6,704.3	134.6	135.0	-73.86	-731.9	-4,956.3	251.8	-8.1	259.89	0.969 Level 1	
11,318.9	6,774.2	11,277.2	6,704.2	135.2	135.5	-73.86	-731.9	-4,975.1	251.8	-9.1	260.90	0.965 Level 1	
11,400.0	6,773.9	11,358.3	6,703.9	137.4	137.8	-73.86	-731.9	-5,056.3	251.8	-13.4	265.26	0.949 Level 1	
11,417.3	6,773.8	11,375.6	6,703.8	137.9	138.2	-73.86	-731.9	-5,073.6	251.8	-14.4	266.19	0.946 Level 1	
11,500.0	6,773.5	11,458.3	6,703.5	140.2	140.5	-73.86	-731.9	-5,156.3	251.8	-18.8	270.64	0.930 Level 1	
11,515.7	6,773.4	11,474.0	6,703.4	140.7	141.0	-73.86	-731.9	-5,172.0	251.8	-19.7	271.48	0.928 Level 1	
11,600.0	6,773.1	11,558.3	6,703.1	143.0	143.3	-73.86	-731.9	-5,256.3	251.8	-24.2	276.01	0.912 Level 1	
11,614.1	6,773.0	11,572.4	6,703.0	143.4	143.7	-73.86	-731.9	-5,270.4	251.8	-24.9	276.77	0.910 Level 1	

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 SCHAUMBERG 17G-314
<b>Project:</b>	WELD COUNTY, COLORADO	<b>TVD Reference:</b>	KB-EST @ 4633.0usft (Original Well Elev)
<b>Reference Site:</b>	SW NW SEC. 17 T5N R64W 6th P.M.	<b>MD Reference:</b>	KB-EST @ 4633.0usft (Original Well Elev)
<b>Site Error:</b>	0.0 usft	<b>North Reference:</b>	True
<b>Reference Well:</b>	SCHAUMBERG 17G-314	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Well Error:</b>	0.0 usft	<b>Output errors are at</b>	2.00 sigma
<b>Reference Wellbore</b>	ORIGINAL WELLBORE	<b>Database:</b>	EDM 5000.1 Single User Db
<b>Reference Design:</b>	PROPOSAL #1	<b>Offset TVD Reference:</b>	Offset Datum

<b>Offset Design</b> SW NW SEC. 17 T5N R64W 6th P.M. - SCHAUMBERG 17G-214 - ORIGINAL WELLBORE - PROPOS												<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
11,700.0	6,772.7	11,658.3	6,702.7	145.8	146.1	-73.86	-731.9	-5,356.2	251.8	-29.6	281.39	0.895	Level 1
11,712.6	6,772.6	11,670.9	6,702.6	146.2	146.5	-73.86	-731.9	-5,368.8	251.8	-30.2	282.07	0.893	Level 1
11,800.0	6,772.3	11,758.3	6,702.3	148.6	148.9	-73.86	-731.9	-5,456.2	251.8	-34.9	286.77	0.878	Level 1
11,811.0	6,772.2	11,769.3	6,702.2	148.9	149.2	-73.86	-731.9	-5,467.2	251.8	-35.5	287.36	0.876	Level 1
11,900.0	6,771.9	11,858.3	6,701.9	151.4	151.7	-73.86	-731.9	-5,556.2	251.8	-40.3	292.15	0.862	Level 1
11,909.4	6,771.8	11,867.7	6,701.8	151.7	152.0	-73.86	-731.9	-5,565.7	251.8	-40.8	292.66	0.860	Level 1
12,000.0	6,771.5	11,958.3	6,701.5	154.2	154.5	-73.86	-731.9	-5,656.2	251.8	-45.7	297.53	0.846	Level 1
12,007.8	6,771.4	11,966.1	6,701.4	154.4	154.7	-73.86	-731.9	-5,664.1	251.8	-46.1	297.95	0.845	Level 1
12,100.0	6,771.1	12,058.3	6,701.1	157.0	157.3	-73.86	-731.9	-5,756.2	251.8	-51.1	302.91	0.831	Level 1
12,106.3	6,771.0	12,064.5	6,701.0	157.2	157.4	-73.86	-731.9	-5,762.5	251.8	-51.4	303.25	0.830	Level 1
12,200.0	6,770.7	12,158.3	6,700.7	159.8	160.1	-73.86	-731.9	-5,856.2	251.8	-56.5	308.30	0.817	Level 1
12,204.7	6,770.6	12,163.0	6,700.6	159.9	160.2	-73.86	-731.9	-5,860.9	251.8	-56.7	308.55	0.816	Level 1
12,300.0	6,770.3	12,258.3	6,700.3	162.6	162.9	-73.86	-731.9	-5,956.2	251.8	-61.9	313.68	0.803	Level 1
12,303.1	6,770.2	12,261.4	6,700.2	162.7	162.9	-73.86	-731.9	-5,959.4	251.8	-62.0	313.85	0.802	Level 1
12,361.7	6,770.0	12,320.0	6,700.0	164.3	164.6	-73.86	-731.9	-6,017.9	251.8	-65.2	317.00	0.794	Level 1, ES, SF



# Anticollision Report



<b>Company:</b>	PDC ENERGY	<b>Local Co-ordinate Reference:</b>	Well SCHAUMBERG 17G-314
<b>Project:</b>	WELD COUNTY, COLORADO	<b>TVD Reference:</b>	KB-EST @ 4633.0usft (Original Well Elev)
<b>Reference Site:</b>	SW NW SEC. 17 T5N R64W 6th P.M.	<b>MD Reference:</b>	KB-EST @ 4633.0usft (Original Well Elev)
<b>Site Error:</b>	0.0 usft	<b>North Reference:</b>	True
<b>Reference Well:</b>	SCHAUMBERG 17G-314	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Well Error:</b>	0.0 usft	<b>Output errors are at</b>	2.00 sigma
<b>Reference Wellbore</b>	ORIGINAL WELLBORE	<b>Database:</b>	EDM 5000.1 Single User Db
<b>Reference Design:</b>	PROPOSAL #1	<b>Offset TVD Reference:</b>	Offset Datum

Offset Design												Offset Site Error:	0.0 usft
Survey Program: 0-MWD												Offset Well Error:	0.0 usft
Reference		Offset		Semi Major Axis			Distance						Warning
Measured Depth (usft)	Vertical Depth (usft)	Measured Depth (usft)	Vertical Depth (usft)	Reference (usft)	Offset (usft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (usft)	+E/-W (usft)	Between Centres (usft)	Between Ellipses (usft)	Minimum Separation (usft)	Separation Factor	
0.0	0.0	0.0	0.0	0.0	0.0	-90.29	-0.4	-74.9	74.9				
98.4	98.4	98.4	98.4	0.1	0.1	-90.29	-0.4	-74.9	74.9	74.7	0.19	389.733	
100.0	100.0	100.0	100.0	0.1	0.1	-90.29	-0.4	-74.9	74.9	74.7	0.20	383.136	
196.8	196.8	196.8	196.8	0.3	0.3	-90.29	-0.4	-74.9	74.9	74.3	0.63	118.749	
200.0	200.0	200.0	200.0	0.3	0.3	-90.29	-0.4	-74.9	74.9	74.3	0.65	116.142	
295.3	295.3	295.3	295.3	0.5	0.5	-90.29	-0.4	-74.9	74.9	73.8	1.07	69.800	
300.0	300.0	300.0	300.0	0.5	0.5	-90.29	-0.4	-74.9	74.9	73.8	1.09	68.445	
393.7	393.7	393.7	393.7	0.8	0.8	-90.29	-0.4	-74.9	74.9	73.4	1.52	49.426	
400.0	400.0	400.0	400.0	0.8	0.8	-90.29	-0.4	-74.9	74.9	73.4	1.54	48.519	
492.1	492.1	492.1	492.1	1.0	1.0	-90.29	-0.4	-74.9	74.9	73.0	1.96	38.259	
500.0	500.0	500.0	500.0	1.0	1.0	-90.29	-0.4	-74.9	74.9	72.9	1.99	37.579	
590.5	590.5	590.5	590.5	1.2	1.2	-90.29	-0.4	-74.9	74.9	72.5	2.40	31.208	
600.0	600.0	600.0	600.0	1.2	1.2	-90.29	-0.4	-74.9	74.9	72.5	2.44	30.665	
689.0	689.0	689.0	689.0	1.4	1.4	-90.29	-0.4	-74.9	74.9	72.1	2.84	26.351	
700.0	700.0	700.0	700.0	1.4	1.4	-90.29	-0.4	-74.9	74.9	72.0	2.89	25.900	
787.4	787.4	787.4	787.4	1.6	1.6	-90.29	-0.4	-74.9	74.9	71.6	3.29	22.803	
800.0	800.0	800.0	800.0	1.7	1.7	-90.29	-0.4	-74.9	74.9	71.6	3.34	22.416	
885.8	885.8	885.8	885.8	1.9	1.9	-90.29	-0.4	-74.9	74.9	71.2	3.73	20.096	
900.0	900.0	900.0	900.0	1.9	1.9	-90.29	-0.4	-74.9	74.9	71.1	3.79	19.759	
984.2	984.2	984.2	984.2	2.1	2.1	-90.29	-0.4	-74.9	74.9	70.8	4.17	17.964	
1,000.0	1,000.0	1,000.0	1,000.0	2.1	2.1	-90.29	-0.4	-74.9	74.9	70.7	4.24	17.664	
1,082.7	1,082.7	1,082.7	1,082.7	2.3	2.3	-90.29	-0.4	-74.9	74.9	70.3	4.61	16.241	
1,100.0	1,100.0	1,100.0	1,100.0	2.3	2.3	-90.29	-0.4	-74.9	74.9	70.2	4.69	15.972	
1,181.1	1,181.1	1,181.1	1,181.1	2.5	2.5	-90.29	-0.4	-74.9	74.9	69.9	5.06	14.820	
1,200.0	1,200.0	1,200.0	1,200.0	2.6	2.6	-90.29	-0.4	-74.9	74.9	69.8	5.14	14.575	
1,279.5	1,279.5	1,279.5	1,279.5	2.7	2.7	-90.29	-0.4	-74.9	74.9	69.4	5.50	13.627	
1,300.0	1,300.0	1,300.0	1,300.0	2.8	2.8	-90.29	-0.4	-74.9	74.9	69.3	5.59	13.403 CC	
1,377.9	1,377.9	1,376.1	1,376.1	3.0	3.0	-90.57	-0.8	-75.9	75.9	70.0	5.92	12.815	
1,400.0	1,400.0	1,397.6	1,397.6	3.0	3.0	-90.75	-1.0	-76.5	76.5	70.5	6.02	12.719	
1,476.4	1,476.4	1,472.0	1,471.9	3.2	3.1	-91.65	-2.3	-79.7	79.9	73.5	6.33	12.617	
1,500.0	1,500.0	1,494.9	1,494.8	3.2	3.2	-92.01	-2.8	-81.1	81.3	74.9	6.43	12.648	
1,574.8	1,574.8	1,567.5	1,567.1	3.4	3.3	-93.31	-5.0	-86.5	87.0	80.3	6.74	12.908	
1,600.0	1,600.0	1,591.9	1,591.4	3.5	3.4	-93.80	-5.9	-88.7	89.3	82.5	6.84	13.051	
1,673.2	1,673.2	1,662.4	1,661.4	3.6	3.5	-95.27	-8.9	-96.2	97.3	90.2	7.15	13.602	
1,700.0	1,700.0	1,688.1	1,686.9	3.7	3.6	-95.82	-10.1	-99.3	100.7	93.4	7.27	13.854	
1,771.6	1,771.6	1,756.5	1,754.6	3.9	3.8	-97.26	-13.8	-108.6	110.8	103.3	7.57	14.638	
1,800.0	1,800.0	1,783.5	1,781.2	3.9	3.8	-97.82	-15.5	-112.7	115.3	107.6	7.69	14.992	
1,870.1	1,870.1	1,849.8	1,846.4	4.1	4.0	59.79	-19.9	-123.8	127.1	119.2	7.97	15.952	
1,900.0	1,900.0	1,878.0	1,874.1	4.1	4.1	59.48	-21.9	-128.9	132.4	124.3	8.09	16.368	
1,968.5	1,968.4	1,942.3	1,936.9	4.2	4.3	59.11	-27.0	-141.5	145.0	136.6	8.35	17.363	
2,000.0	1,999.8	1,971.7	1,965.6	4.3	4.4	59.08	-29.5	-147.7	150.9	142.5	8.47	17.824	
2,066.9	2,066.5	2,034.0	2,026.0	4.4	4.7	59.25	-35.1	-161.8	164.1	155.4	8.73	18.797	
2,100.0	2,099.5	2,064.6	2,055.6	4.5	4.8	59.43	-38.0	-169.1	170.8	162.0	8.86	19.279	
2,165.3	2,164.4	2,124.8	2,113.5	4.6	5.0	59.93	-44.1	-184.4	184.6	175.5	9.13	20.214	
2,200.0	2,198.7	2,156.6	2,143.9	4.7	5.2	60.26	-47.5	-193.0	192.1	182.9	9.28	20.708	
2,263.8	2,261.8	2,214.7	2,199.3	4.8	5.5	60.95	-54.1	-209.4	206.5	196.9	9.56	21.594	
2,300.0	2,297.5	2,247.6	2,230.4	4.9	5.6	61.38	-58.0	-219.1	214.9	205.2	9.73	22.092	
2,362.2	2,358.6	2,303.6	2,283.2	5.0	5.9	62.17	-64.9	-236.5	229.8	219.7	10.03	22.904	
2,400.0	2,395.6	2,337.5	2,314.9	5.1	6.1	62.68	-69.3	-247.5	239.1	228.9	10.22	23.386	
2,460.6	2,454.9	2,391.5	2,365.2	5.3	6.5	63.67	-76.6	-265.7	254.9	244.3	10.56	24.132	
2,500.0	2,493.4	2,426.2	2,397.5	5.4	6.7	64.22	-81.4	-277.9	265.7	254.9	10.79	24.634	
2,559.0	2,551.2	2,478.0	2,445.1	5.6	7.1	64.90	-89.0	-296.7	282.8	271.6	11.14	25.390	

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 SCHAUMBERG 17G-314
<b>Project:</b>	WELD COUNTY, COLORADO	<b>TVD Reference:</b>	KB-EST @ 4633.0usft (Original Well Elev)
<b>Reference Site:</b>	SW NW SEC. 17 T5N R64W 6th P.M.	<b>MD Reference:</b>	KB-EST @ 4633.0usft (Original Well Elev)
<b>Site Error:</b>	0.0 usft	<b>North Reference:</b>	True
<b>Reference Well:</b>	SCHAUMBERG 17G-314	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Well Error:</b>	0.0 usft	<b>Output errors are at</b>	2.00 sigma
<b>Reference Wellbore</b>	ORIGINAL WELLBORE	<b>Database:</b>	EDM 5000.1 Single User Db
<b>Reference Design:</b>	PROPOSAL #1	<b>Offset TVD Reference:</b>	Offset Datum

Offset Design												Offset Site Error:	0.0 usft
Survey Program: 0-MWD												Offset Well Error:	0.0 usft
Reference		Offset		Semi Major Axis			Distance						Warning
Measured Depth (usft)	Vertical Depth (usft)	Measured Depth (usft)	Vertical Depth (usft)	Reference (usft)	Offset (usft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (usft)	+E/-W (usft)	Between Centres (usft)	Between Ellipses (usft)	Minimum Separation (usft)	Separation Factor	
2,600.0	2,591.3	2,513.6	2,477.6	5.7	7.3	65.28	-94.3	-310.1	295.2	283.8	11.38	25.933	
2,657.5	2,647.5	2,563.2	2,522.6	5.9	7.7	65.72	-102.0	-329.4	313.4	301.7	11.74	26.688	
2,700.0	2,689.1	2,602.2	2,557.8	6.0	8.0	66.01	-108.2	-344.9	327.3	315.3	12.02	27.227	
2,755.9	2,743.7	2,654.9	2,605.5	6.2	8.4	66.35	-116.7	-366.0	345.7	333.3	12.41	27.866	
2,800.0	2,786.9	2,696.6	2,643.1	6.4	8.8	66.60	-123.3	-382.7	360.2	347.5	12.71	28.341	
2,854.3	2,840.0	2,747.8	2,689.3	6.6	9.2	66.88	-131.5	-403.1	378.0	364.9	13.10	28.864	
2,900.0	2,884.7	2,790.9	2,728.3	6.7	9.6	67.10	-138.4	-420.4	393.0	379.6	13.42	29.278	
2,952.7	2,936.3	2,840.7	2,773.2	6.9	10.0	67.33	-146.3	-440.3	410.4	396.6	13.81	29.708	
3,000.0	2,982.5	2,885.3	2,813.5	7.1	10.4	67.52	-153.4	-458.1	425.9	411.8	14.17	30.068	
3,051.2	3,032.6	2,933.7	2,857.1	7.3	10.8	67.71	-161.1	-477.4	442.8	428.2	14.55	30.421	
3,100.0	3,080.3	2,979.7	2,898.7	7.5	11.2	67.88	-168.5	-495.8	458.8	443.9	14.93	30.737	
3,149.6	3,128.8	3,026.6	2,940.9	7.7	11.6	68.03	-176.0	-514.5	475.2	459.8	15.31	31.028	
3,200.0	3,178.1	3,074.1	2,983.9	7.9	12.0	68.19	-183.6	-533.5	491.8	476.0	15.71	31.304	
3,248.0	3,225.1	3,119.5	3,024.8	8.1	12.4	68.32	-190.8	-551.6	507.6	491.5	16.09	31.545	
3,300.0	3,276.0	3,168.5	3,069.1	8.3	12.8	68.46	-198.6	-571.3	524.7	508.2	16.51	31.787	
3,346.4	3,321.4	3,212.4	3,108.7	8.5	13.2	68.57	-205.6	-588.8	540.0	523.1	16.88	31.987	
3,400.0	3,373.8	3,262.9	3,154.3	8.7	13.6	68.70	-213.7	-609.0	557.6	540.3	17.32	32.201	
3,444.9	3,417.7	3,305.3	3,192.5	8.8	14.0	68.80	-220.5	-625.9	572.4	554.7	17.69	32.366	
3,500.0	3,471.6	3,357.3	3,239.5	9.1	14.5	68.91	-228.8	-646.7	590.6	572.4	18.14	32.556	
3,543.3	3,513.9	3,398.2	3,276.4	9.2	14.9	69.00	-235.3	-663.0	604.8	586.3	18.50	32.694	
3,600.0	3,569.4	3,451.7	3,324.7	9.5	15.3	69.10	-243.8	-684.4	623.5	604.6	18.97	32.862	
3,641.7	3,610.2	3,491.1	3,360.3	9.7	15.7	69.18	-250.1	-700.1	637.3	618.0	19.33	32.977	
3,700.0	3,667.2	3,546.1	3,409.9	9.9	16.2	69.27	-258.9	-722.1	656.5	636.7	19.82	33.128	
3,740.1	3,706.5	3,584.0	3,444.1	10.1	16.5	69.34	-264.9	-737.3	669.7	649.6	20.16	33.224	
3,800.0	3,765.0	3,640.5	3,495.1	10.3	17.0	69.43	-274.0	-759.8	689.5	668.8	20.67	33.358	
3,838.6	3,802.8	3,676.9	3,528.0	10.5	17.4	69.48	-279.8	-774.4	702.2	681.2	21.00	33.439	
3,900.0	3,862.8	3,734.9	3,580.3	10.7	17.9	69.57	-289.0	-797.6	722.4	700.9	21.53	33.560	
3,937.0	3,899.0	3,769.8	3,611.9	10.9	18.2	69.62	-294.6	-811.5	734.6	712.8	21.85	33.627	
4,000.0	3,960.7	3,829.3	3,665.6	11.2	18.7	69.70	-304.1	-835.3	755.4	733.0	22.39	33.736	
4,035.4	3,995.3	3,862.7	3,695.7	11.3	19.0	69.74	-309.4	-848.6	767.1	744.4	22.70	33.793	
4,100.0	4,058.5	3,923.7	3,750.8	11.6	19.6	69.82	-319.1	-873.0	788.4	765.1	23.26	33.891	
4,133.8	4,091.6	3,955.6	3,779.6	11.7	19.9	69.85	-324.2	-885.8	799.6	776.0	23.56	33.939	
4,200.0	4,156.3	4,018.1	3,836.0	12.0	20.5	69.92	-334.2	-910.7	821.4	797.2	24.14	34.028	
4,232.3	4,187.9	4,048.5	3,863.5	12.2	20.7	69.96	-339.1	-922.9	832.0	807.6	24.42	34.069	
4,300.0	4,254.1	4,112.5	3,921.2	12.5	21.3	70.02	-349.3	-948.4	854.3	829.3	25.02	34.149	
4,325.7	4,279.2	4,136.7	3,943.1	12.6	21.5	70.05	-353.1	-958.1	862.8	837.6	25.24	34.178	
4,330.7	4,284.1	4,141.4	3,947.3	12.6	21.6	70.09	-353.9	-960.0	864.5	839.2	25.29	34.181	
4,400.0	4,352.1	4,206.8	4,006.3	12.8	22.2	70.55	-364.3	-986.1	887.6	861.7	25.92	34.243	
4,429.1	4,380.8	4,234.1	4,031.0	12.9	22.4	70.72	-368.7	-997.1	897.5	871.4	26.16	34.306	
4,500.0	4,450.7	4,300.6	4,091.0	13.1	23.0	71.06	-379.3	-1,023.6	922.0	895.3	26.74	34.482	
4,527.5	4,478.0	4,326.4	4,114.3	13.2	23.3	71.17	-383.4	-1,033.9	931.6	904.7	26.95	34.568	
4,600.0	4,549.9	4,394.0	4,175.3	13.4	23.9	71.40	-394.2	-1,060.9	957.4	929.9	27.50	34.819	
4,626.0	4,575.7	4,418.1	4,197.1	13.5	24.1	71.46	-398.1	-1,070.6	966.8	939.1	27.68	34.927	
4,700.0	4,649.4	4,486.6	4,258.9	13.6	24.7	71.59	-409.0	-1,097.9	994.0	965.8	28.19	35.255	
4,724.4	4,673.7	4,509.1	4,279.2	13.7	25.0	71.62	-412.6	-1,106.9	1,003.1	974.7	28.35	35.379	
4,800.0	4,749.2	4,578.5	4,341.9	13.8	25.6	71.65	-423.7	-1,134.7	1,031.6	1,002.8	28.83	35.785	
4,822.8	4,772.0	4,599.4	4,360.7	13.9	25.8	71.65	-427.0	-1,143.0	1,040.4	1,011.4	28.96	35.923	
4,900.0	4,849.2	4,669.5	4,424.0	14.0	26.4	71.61	-438.2	-1,171.0	1,070.5	1,041.1	29.40	36.410	
4,921.2	4,870.4	4,688.7	4,441.4	14.1	26.6	71.59	-441.3	-1,178.7	1,078.9	1,049.4	29.52	36.554	
4,925.6	4,874.8	4,692.7	4,444.9	14.1	26.6	-87.22	-441.9	-1,180.3	1,080.6	1,044.8	35.80	30.184	
5,000.0	4,949.2	4,759.8	4,505.5	14.2	27.3	-87.89	-452.6	-1,207.1	1,110.3	1,073.6	36.64	30.303	
5,019.7	4,968.8	4,777.6	4,521.6	14.2	27.4	-88.07	-455.4	-1,214.2	1,118.1	1,081.3	36.86	30.334	

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 SCHAUMBERG 17G-314
<b>Project:</b>	WELD COUNTY, COLORADO	<b>TVD Reference:</b>	KB-EST @ 4633.0usft (Original Well Elev)
<b>Reference Site:</b>	SW NW SEC. 17 T5N R64W 6th P.M.	<b>MD Reference:</b>	KB-EST @ 4633.0usft (Original Well Elev)
<b>Site Error:</b>	0.0 usft	<b>North Reference:</b>	True
<b>Reference Well:</b>	SCHAUMBERG 17G-314	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Well Error:</b>	0.0 usft	<b>Output errors are at</b>	2.00 sigma
<b>Reference Wellbore</b>	ORIGINAL WELLBORE	<b>Database:</b>	EDM 5000.1 Single User Db
<b>Reference Design:</b>	PROPOSAL #1	<b>Offset TVD Reference:</b>	Offset Datum

Offset Design												Offset Site Error:	0.0 usft
Survey Program: 0-MWD												Offset Well Error:	0.0 usft
Reference		Offset		Semi Major Axis			Distance						Warning
Measured Depth (usft)	Vertical Depth (usft)	Measured Depth (usft)	Vertical Depth (usft)	Reference (usft)	Offset (usft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (usft)	+E/-W (usft)	Between Centres (usft)	Between Ellipses (usft)	Minimum Separation (usft)	Separation Factor	
5,100.0	5,049.2	4,850.1	4,587.0	14.3	28.1	-88.75	-467.0	-1,243.2	1,150.3	1,112.6	37.76	30.464	
5,118.1	5,067.3	4,866.4	4,601.8	14.3	28.2	-88.90	-469.6	-1,249.7	1,157.6	1,119.7	37.96	30.493	
5,200.0	5,149.2	4,940.4	4,668.5	14.5	28.9	-89.55	-481.4	-1,279.3	1,190.6	1,151.7	38.88	30.624	
5,216.5	5,165.7	4,955.3	4,682.0	14.5	29.1	-89.68	-483.8	-1,285.2	1,197.3	1,158.2	39.06	30.650	
5,300.0	5,249.2	5,030.6	4,750.0	14.6	29.8	-90.30	-495.8	-1,315.3	1,231.1	1,191.1	39.99	30.783	
5,314.9	5,264.1	5,044.1	4,762.2	14.6	29.9	-90.40	-498.0	-1,320.7	1,237.1	1,197.0	40.16	30.807	
5,400.0	5,349.2	5,149.2	4,857.4	14.8	30.7	-91.20	-514.5	-1,362.1	1,271.3	1,230.0	41.26	30.808	
5,413.4	5,362.5	5,170.4	4,876.7	14.8	30.9	-91.34	-517.7	-1,370.0	1,276.4	1,234.9	41.46	30.788	
5,500.0	5,449.2	5,310.3	5,006.2	14.9	31.8	-92.21	-537.4	-1,419.4	1,307.6	1,264.9	42.66	30.654	
5,511.8	5,461.0	5,329.8	5,024.4	14.9	31.9	-92.31	-539.9	-1,425.8	1,311.6	1,268.7	42.81	30.637	
5,600.0	5,549.2	8,206.0	6,771.3	15.1	43.8	176.79	-607.4	-183.4	1,227.7	1,193.8	33.93	36.185	
5,610.2	5,559.4	8,206.0	6,771.3	15.1	43.8	176.81	-607.4	-183.5	1,217.6	1,183.6	33.95	35.863	
5,700.0	5,649.2	8,205.5	6,771.3	15.2	43.8	177.05	-607.4	-183.9	1,128.2	1,094.1	34.14	33.051	
5,708.6	5,657.8	8,205.5	6,771.3	15.3	43.8	177.07	-607.4	-184.0	1,119.6	1,085.5	34.15	32.781	
5,800.0	5,749.2	8,205.0	6,771.3	15.4	43.7	177.31	-607.4	-184.5	1,028.8	994.5	34.35	29.954	
5,807.1	5,756.2	8,204.9	6,771.3	15.4	43.7	177.33	-607.4	-184.5	1,021.8	987.5	34.36	29.737	
5,900.0	5,849.2	8,204.4	6,771.3	15.6	43.7	177.57	-607.4	-185.0	929.6	895.0	34.56	26.897	
5,905.5	5,854.7	8,204.4	6,771.3	15.6	43.7	177.59	-607.4	-185.1	924.1	889.5	34.57	26.730	
6,000.0	5,949.2	8,203.9	6,771.3	15.7	43.7	177.84	-607.4	-185.6	830.5	795.7	34.78	23.881	
6,003.9	5,953.1	8,203.9	6,771.3	15.7	43.7	177.85	-607.4	-185.6	826.6	791.8	34.78	23.763	
6,100.0	6,049.2	8,203.3	6,771.3	15.9	43.7	178.10	-607.4	-186.1	731.6	696.6	34.99	20.906	
6,102.3	6,051.5	8,203.3	6,771.3	15.9	43.7	178.11	-607.4	-186.1	729.3	694.3	35.00	20.837	
6,124.6	6,073.8	8,203.2	6,771.3	15.9	43.7	178.16	-607.4	-186.2	707.3	672.3	35.05	20.181	
6,150.0	6,099.2	8,202.6	6,771.3	16.0	43.7	-103.15	-607.4	-186.8	682.3	624.6	57.73	11.818	
6,200.0	6,149.0	8,198.8	6,771.3	16.1	43.6	-120.34	-607.4	-190.6	633.3	577.1	56.16	11.276	
6,200.8	6,149.8	8,198.8	6,771.3	16.1	43.6	-120.55	-607.4	-190.7	632.5	576.4	56.12	11.270	
6,250.0	6,198.5	8,191.6	6,771.4	16.2	43.5	-131.21	-607.4	-197.9	584.7	531.1	53.64	10.901	
6,299.2	6,246.6	8,181.1	6,771.4	16.3	43.3	-137.79	-607.4	-208.3	537.7	486.2	51.58	10.425	
6,300.0	6,247.4	8,180.9	6,771.4	16.3	43.3	-137.87	-607.4	-208.5	537.0	485.4	51.55	10.416	
6,350.0	6,295.5	8,166.8	6,771.5	16.5	43.1	-141.91	-607.4	-222.6	490.3	440.2	50.04	9.798	
6,397.6	6,340.2	8,150.4	6,771.6	16.6	42.8	-144.18	-607.4	-239.1	447.0	398.0	49.01	9.121	
6,400.0	6,342.4	8,149.5	6,771.6	16.6	42.8	-144.26	-607.4	-240.0	444.9	395.9	48.97	9.085	
6,450.0	6,388.1	8,128.9	6,771.7	16.8	42.4	-145.41	-607.4	-260.6	401.2	352.9	48.23	8.318	
6,496.0	6,428.8	8,107.1	6,771.8	17.0	42.0	-145.63	-607.4	-282.3	362.5	314.8	47.76	7.591	
6,500.0	6,432.2	8,105.1	6,771.8	17.0	42.0	-145.62	-607.4	-284.3	359.3	311.6	47.73	7.528	
6,550.0	6,474.6	8,078.4	6,772.0	17.3	41.6	-145.02	-607.4	-311.0	319.7	272.3	47.44	6.739	
6,594.5	6,510.7	8,052.2	6,772.1	17.5	41.2	-143.83	-607.4	-337.3	286.6	239.2	47.36	6.051	
6,600.0	6,515.0	8,048.8	6,772.1	17.6	41.1	-143.65	-607.4	-340.7	282.6	235.3	47.36	5.968	
6,650.0	6,553.3	8,016.4	6,772.3	17.9	40.6	-141.49	-607.4	-373.0	248.5	201.0	47.50	5.230	
6,692.9	6,584.3	7,986.6	6,772.5	18.2	40.1	-138.96	-607.4	-402.9	221.8	173.9	47.85	4.634	
6,700.0	6,589.2	7,981.5	6,772.5	18.2	40.1	-138.47	-607.4	-408.0	217.6	169.7	47.93	4.540	
6,750.0	6,622.7	7,944.1	6,772.7	18.6	39.5	-134.53	-607.4	-445.3	190.5	141.8	48.69	3.912	
6,791.3	6,648.3	7,911.6	6,772.9	19.0	39.1	-130.52	-607.4	-477.9	171.2	121.6	49.59	3.452	
6,800.0	6,653.4	7,904.6	6,772.9	19.1	39.0	-129.59	-607.4	-484.9	167.5	117.7	49.80	3.363	
6,850.0	6,681.4	7,863.0	6,773.1	19.6	38.4	-123.64	-607.4	-526.5	149.0	97.8	51.24	2.908	
6,889.7	6,701.5	7,828.6	6,773.3	20.1	38.0	-118.28	-607.4	-560.9	137.6	85.1	52.50	2.621	
6,900.0	6,706.3	7,819.5	6,773.4	20.2	37.9	-116.82	-607.4	-569.9	135.2	82.3	52.82	2.559	
6,950.0	6,728.2	7,774.5	6,773.6	20.9	37.3	-109.49	-607.4	-615.0	125.8	71.5	54.35	2.316	
6,988.2	6,742.8	7,739.1	6,773.8	21.5	36.9	-103.88	-607.4	-650.3	121.4	66.1	55.32	2.195	
7,000.0	6,746.9	7,728.0	6,773.9	21.6	36.8	-102.18	-607.4	-661.4	120.4	64.9	55.56	2.168	
7,050.0	6,762.4	7,680.4	6,774.1	22.5	36.3	-95.50	-607.4	-709.1	118.0	61.6	56.38	2.092	
7,086.6	6,771.5	7,644.9	6,774.3	23.1	36.0	-91.32	-607.4	-744.6	117.4	60.6	56.79	2.067	

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 SCHAUMBERG 17G-314
<b>Project:</b>	WELD COUNTY, COLORADO	<b>TVD Reference:</b>	KB-EST @ 4633.0usft (Original Well Elev)
<b>Reference Site:</b>	SW NW SEC. 17 T5N R64W 6th P.M.	<b>MD Reference:</b>	KB-EST @ 4633.0usft (Original Well Elev)
<b>Site Error:</b>	0.0 usft	<b>North Reference:</b>	True
<b>Reference Well:</b>	SCHAUMBERG 17G-314	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Well Error:</b>	0.0 usft	<b>Output errors are at</b>	2.00 sigma
<b>Reference Wellbore</b>	ORIGINAL WELLBORE	<b>Database:</b>	EDM 5000.1 Single User Db
<b>Reference Design:</b>	PROPOSAL #1	<b>Offset TVD Reference:</b>	Offset Datum

Offset Design												Offset Site Error:	0.0 usft
Survey Program: 0-MWD												Offset Well Error:	0.0 usft
Reference		Offset		Semi Major Axis			Distance						Warning
Measured Depth (usft)	Vertical Depth (usft)	Measured Depth (usft)	Vertical Depth (usft)	Reference (usft)	Offset (usft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (usft)	+E/-W (usft)	Between Centres (usft)	Between Ellipses (usft)	Minimum Separation (usft)	Separation Factor	
7,099.7	6,774.4	7,632.1	6,774.4	23.3	35.9	-90.00	-607.4	-757.4	117.4	60.5	56.91	2.063	
7,100.0	6,774.4	7,631.8	6,774.4	23.3	35.9	-89.97	-607.4	-757.7	117.4	60.5	56.91	2.063	
7,150.0	6,783.1	7,582.5	6,774.6	24.3	35.5	-85.92	-607.4	-806.9	117.7	60.4	57.33	2.053	
7,185.0	6,787.1	7,547.7	6,774.8	25.0	35.3	-84.05	-607.4	-841.7	118.0	60.3	57.68	2.046	
7,200.0	6,788.3	7,532.8	6,774.9	25.3	35.2	-83.51	-607.4	-856.7	118.1	60.3	57.85	2.042	
7,252.3	6,790.0	7,481.2	6,774.4	26.3	34.8	-82.42	-607.4	-908.2	118.4	59.8	58.59	2.021	
7,283.4	6,789.9	7,450.8	6,772.5	27.0	34.7	-81.56	-607.4	-938.5	118.7	59.7	58.98	2.012 ES	
7,300.0	6,789.8	7,434.7	6,771.0	27.3	34.6	-80.86	-607.4	-954.5	118.9	59.7	59.16	2.010 SF	
7,381.9	6,789.5	7,356.6	6,758.4	29.1	34.3	-75.16	-607.4	-1,031.6	121.6	62.0	59.63	2.039	
7,400.0	6,789.4	7,339.7	6,754.6	29.5	34.2	-73.46	-607.4	-1,048.1	122.7	63.2	59.58	2.060	
7,480.3	6,789.1	7,267.4	6,734.0	31.4	34.0	-64.80	-607.4	-1,117.3	131.2	72.8	58.38	2.247	
7,500.0	6,789.1	7,250.0	6,728.0	31.8	34.0	-62.47	-607.4	-1,133.7	134.3	76.5	57.80	2.323	
7,578.7	6,788.8	7,185.3	6,702.2	33.7	33.9	-53.55	-607.4	-1,193.0	151.8	97.0	54.85	2.768	
7,600.0	6,788.7	7,168.7	6,694.7	34.2	33.9	-51.27	-607.4	-1,207.9	158.0	104.1	53.89	2.932	
7,677.1	6,788.4	7,111.4	6,666.4	36.1	33.9	-43.83	-607.4	-1,257.6	185.6	135.3	50.32	3.689	
7,700.0	6,788.3	7,095.5	6,657.8	36.7	33.9	-41.90	-607.4	-1,271.0	195.3	146.0	49.28	3.962	
7,775.6	6,788.0	7,050.0	6,631.7	38.6	33.9	-36.82	-607.4	-1,308.3	231.4	184.9	46.52	4.975	
7,800.0	6,787.9	7,030.9	6,620.0	39.2	34.0	-34.87	-607.4	-1,323.4	244.4	199.1	45.27	5.398	
7,874.0	6,787.6	6,988.3	6,592.5	41.0	34.1	-30.95	-607.4	-1,356.0	286.9	244.0	42.93	6.683	
7,900.0	6,787.6	6,974.3	6,583.1	41.7	34.1	-29.78	-607.4	-1,366.3	302.9	260.7	42.24	7.172	
7,972.4	6,787.3	6,937.8	6,557.6	43.6	34.2	-26.98	-607.4	-1,392.4	350.0	309.4	40.61	8.619	
8,000.0	6,787.2	6,924.9	6,548.2	44.3	34.2	-26.07	-607.4	-1,401.3	368.8	328.7	40.10	9.198	
8,070.8	6,786.9	6,900.0	6,529.8	46.1	34.3	-24.44	-607.4	-1,418.0	419.1	379.7	39.40	10.638	
8,100.0	6,786.8	6,881.7	6,515.9	46.9	34.3	-23.33	-607.4	-1,429.8	440.4	401.7	38.65	11.393	
8,169.3	6,786.5	6,850.0	6,491.0	48.7	34.4	-21.57	-607.4	-1,449.5	492.7	455.0	37.70	13.070	
8,200.0	6,786.4	6,850.0	6,491.0	49.5	34.4	-21.57	-607.4	-1,449.5	516.5	478.4	38.04	13.576	
8,267.7	6,786.1	6,821.2	6,467.7	51.3	34.5	-20.13	-607.4	-1,466.4	569.9	532.6	37.33	15.269	
8,300.0	6,786.0	6,800.0	6,450.1	52.1	34.5	-19.17	-607.4	-1,478.3	596.1	559.5	36.67	16.257	
8,366.1	6,785.8	6,800.0	6,450.1	53.9	34.5	-19.17	-607.4	-1,478.3	650.3	612.9	37.37	17.399	
8,400.0	6,785.6	6,781.9	6,434.9	54.8	34.6	-18.39	-607.4	-1,488.0	678.3	641.4	36.91	18.376	
8,464.5	6,785.4	6,764.9	6,420.3	56.5	34.6	-17.71	-607.4	-1,496.7	732.8	695.9	36.85	19.883	
8,500.0	6,785.3	6,750.0	6,407.3	57.5	34.7	-17.15	-607.4	-1,504.1	763.1	726.5	36.60	20.848	
8,563.0	6,785.0	6,750.0	6,407.3	59.2	34.7	-17.15	-607.4	-1,504.1	817.5	780.2	37.24	21.952	
8,600.0	6,784.9	6,733.3	6,392.6	60.2	34.7	-16.55	-607.4	-1,512.1	849.6	812.7	36.95	22.995	
8,661.4	6,784.6	6,720.5	6,381.3	61.8	34.8	-16.11	-607.4	-1,517.9	903.6	866.6	37.07	24.375	
8,700.0	6,784.5	6,700.0	6,362.8	62.9	34.8	-15.44	-607.4	-1,526.9	938.0	901.3	36.71	25.554	
8,759.8	6,784.3	6,700.0	6,362.8	64.5	34.8	-15.44	-607.4	-1,526.9	991.2	954.0	37.29	26.586	
8,800.0	6,784.1	6,700.0	6,362.8	65.6	34.8	-15.44	-607.4	-1,526.9	1,027.4	989.7	37.67	27.271	
8,858.2	6,783.9	6,684.7	6,348.9	67.1	34.9	-14.98	-607.4	-1,533.2	1,080.0	1,042.3	37.70	28.649	
8,900.0	6,783.7	6,678.1	6,342.8	68.3	34.9	-14.78	-607.4	-1,535.9	1,118.0	1,080.1	37.87	29.523	
8,956.7	6,783.5	6,669.4	6,334.9	69.8	34.9	-14.53	-607.4	-1,539.3	1,169.8	1,131.7	38.12	30.689	
9,000.0	6,783.3	6,650.0	6,316.9	71.0	35.0	-14.00	-607.4	-1,546.5	1,209.8	1,171.9	37.90	31.921	
9,055.1	6,783.1	6,650.0	6,316.9	72.5	35.0	-14.00	-607.4	-1,546.5	1,260.4	1,222.0	38.41	32.814	
9,100.0	6,782.9	6,650.0	6,316.9	73.7	35.0	-14.00	-607.4	-1,546.5	1,302.0	1,263.2	38.83	33.530	
9,153.5	6,782.7	6,650.0	6,316.9	75.2	35.0	-14.00	-607.4	-1,546.5	1,351.8	1,312.5	39.33	34.370	
9,200.0	6,782.6	6,650.0	6,316.9	76.5	35.0	-14.00	-607.4	-1,546.5	1,395.3	1,355.5	39.77	35.088	
9,251.9	6,782.4	6,631.2	6,299.3	77.9	35.0	-13.51	-607.4	-1,553.1	1,443.7	1,404.1	39.65	36.410	
9,300.0	6,782.2	6,625.9	6,294.2	79.2	35.0	-13.38	-607.4	-1,554.8	1,488.9	1,448.9	39.93	37.285	
9,350.4	6,782.0	6,620.6	6,289.2	80.6	35.0	-13.25	-607.4	-1,556.6	1,536.3	1,496.1	40.23	38.185	
9,400.0	6,781.8	6,600.0	6,269.6	82.0	35.1	-12.77	-607.4	-1,562.9	1,583.4	1,543.3	40.08	39.507	
9,448.8	6,781.6	6,600.0	6,269.6	83.3	35.1	-12.77	-607.4	-1,562.9	1,629.4	1,588.9	40.52	40.212	
9,500.0	6,781.4	6,600.0	6,269.6	84.7	35.1	-12.77	-607.4	-1,562.9	1,677.9	1,636.9	40.99	40.939	

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 SCHAUMBERG 17G-314
<b>Project:</b>	WELD COUNTY, COLORADO	<b>TVD Reference:</b>	KB-EST @ 4633.0usft (Original Well Elev)
<b>Reference Site:</b>	SW NW SEC. 17 T5N R64W 6th P.M.	<b>MD Reference:</b>	KB-EST @ 4633.0usft (Original Well Elev)
<b>Site Error:</b>	0.0 usft	<b>North Reference:</b>	True
<b>Reference Well:</b>	SCHAUMBERG 17G-314	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Well Error:</b>	0.0 usft	<b>Output errors are at</b>	2.00 sigma
<b>Reference Wellbore</b>	ORIGINAL WELLBORE	<b>Database:</b>	EDM 5000.1 Single User Db
<b>Reference Design:</b>	PROPOSAL #1	<b>Offset TVD Reference:</b>	Offset Datum

Offset Design												Offset Site Error:	0.0 usft
Survey Program: 0-MWD												Offset Well Error:	0.0 usft
Reference		Offset		Semi Major Axis			Distance						Warning
Measured Depth (usft)	Vertical Depth (usft)	Measured Depth (usft)	Vertical Depth (usft)	Reference (usft)	Offset (usft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (usft)	+E/-W (usft)	Between Centres (usft)	Between Ellipses (usft)	Minimum Separation (usft)	Separation Factor	
9,547.2	6,781.2	6,600.0	6,269.6	86.0	35.1	-12.77	-607.4	-1,562.9	1,722.8	1,681.4	41.42	41.598	
9,600.0	6,781.0	6,600.0	6,269.6	87.5	35.1	-12.77	-607.4	-1,562.9	1,773.1	1,731.2	41.89	42.322	
9,645.6	6,780.8	6,600.0	6,269.6	88.7	35.1	-12.77	-607.4	-1,562.9	1,816.7	1,774.4	42.31	42.936	
9,700.0	6,780.6	6,600.0	6,269.6	90.2	35.1	-12.77	-607.4	-1,562.9	1,868.7	1,825.9	42.81	43.656	
9,744.1	6,780.4	6,600.0	6,269.6	91.4	35.1	-12.77	-607.4	-1,562.9	1,911.0	1,867.8	43.21	44.228	
9,800.0	6,780.2	6,581.4	6,251.8	93.0	35.1	-12.36	-607.4	-1,568.1	1,964.5	1,921.3	43.16	45.516	
9,842.5	6,780.1	6,578.4	6,248.8	94.2	35.1	-12.29	-607.4	-1,568.9	2,005.3	1,961.8	43.45	46.147	
9,900.0	6,779.8	6,574.4	6,245.0	95.7	35.1	-12.21	-607.4	-1,570.0	2,060.6	2,016.8	43.86	46.986	
9,940.9	6,779.7	6,571.6	6,242.3	96.9	35.1	-12.15	-607.4	-1,570.7	2,100.1	2,055.9	44.14	47.572	
10,000.0	6,779.4	6,550.0	6,221.4	98.5	35.2	-11.71	-607.4	-1,575.9	2,157.4	2,113.3	44.07	48.954	
10,039.3	6,779.3	6,550.0	6,221.4	99.6	35.2	-11.71	-607.4	-1,575.9	2,195.3	2,150.9	44.42	49.423	
10,100.0	6,779.0	6,550.0	6,221.4	101.3	35.2	-11.71	-607.4	-1,575.9	2,253.9	2,208.9	44.96	50.134	
10,137.8	6,778.9	6,550.0	6,221.4	102.3	35.2	-11.71	-607.4	-1,575.9	2,290.4	2,245.1	45.29	50.569	
10,200.0	6,778.7	6,550.0	6,221.4	104.1	35.2	-11.71	-607.4	-1,575.9	2,350.6	2,304.8	45.85	51.274	
10,236.2	6,778.5	6,550.0	6,221.4	105.1	35.2	-11.71	-607.4	-1,575.9	2,385.8	2,339.6	46.17	51.676	
10,300.0	6,778.3	6,550.0	6,221.4	106.8	35.2	-11.71	-607.4	-1,575.9	2,447.7	2,401.0	46.74	52.374	
10,334.6	6,778.1	6,550.0	6,221.4	107.8	35.2	-11.71	-607.4	-1,575.9	2,481.4	2,434.3	47.04	52.746	
10,400.0	6,777.9	6,550.0	6,221.4	109.6	35.2	-11.71	-607.4	-1,575.9	2,545.0	2,497.4	47.63	53.436	
10,433.0	6,777.7	6,550.0	6,221.4	110.5	35.2	-11.71	-607.4	-1,575.9	2,577.2	2,529.3	47.92	53.779	
10,500.0	6,777.5	6,550.0	6,221.4	112.4	35.2	-11.71	-607.4	-1,575.9	2,642.5	2,593.9	48.52	54.463	
10,531.5	6,777.3	6,550.0	6,221.4	113.3	35.2	-11.71	-607.4	-1,575.9	2,673.2	2,624.4	48.80	54.779	
10,600.0	6,777.1	6,550.0	6,221.4	115.2	35.2	-11.71	-607.4	-1,575.9	2,740.1	2,690.7	49.41	55.455	
10,629.9	6,777.0	6,550.0	6,221.4	116.0	35.2	-11.71	-607.4	-1,575.9	2,769.4	2,719.7	49.68	55.745	
10,700.0	6,776.7	6,550.0	6,221.4	117.9	35.2	-11.71	-607.4	-1,575.9	2,837.9	2,787.6	50.31	56.414	
10,728.3	6,776.6	6,550.0	6,221.4	118.7	35.2	-11.71	-607.4	-1,575.9	2,865.7	2,815.1	50.56	56.680	
10,800.0	6,776.3	6,527.7	6,199.6	120.7	35.2	-11.29	-607.4	-1,580.6	2,935.5	2,885.0	50.53	58.093	
10,826.7	6,776.2	6,526.7	6,198.6	121.5	35.2	-11.27	-607.4	-1,580.8	2,961.7	2,910.9	50.74	58.373	
10,900.0	6,775.9	6,523.9	6,195.9	123.5	35.2	-11.22	-607.4	-1,581.4	3,033.4	2,982.1	51.30	59.127	
10,925.2	6,775.8	6,523.0	6,194.9	124.2	35.2	-11.20	-607.4	-1,581.6	3,058.1	3,006.6	51.50	59.382	
11,000.0	6,775.5	6,500.0	6,172.3	126.3	35.2	-10.80	-607.4	-1,585.6	3,131.8	3,080.3	51.51	60.798	
11,023.6	6,775.4	6,500.0	6,172.3	126.9	35.2	-10.80	-607.4	-1,585.6	3,155.0	3,103.2	51.72	61.003	
11,100.0	6,775.1	6,500.0	6,172.3	129.1	35.2	-10.80	-607.4	-1,585.6	3,229.9	3,177.5	52.38	61.657	
11,122.0	6,775.0	6,500.0	6,172.3	129.7	35.2	-10.80	-607.4	-1,585.6	3,251.5	3,198.9	52.58	61.842	
11,200.0	6,774.7	6,500.0	6,172.3	131.9	35.2	-10.80	-607.4	-1,585.6	3,328.0	3,274.8	53.26	62.489	
11,220.4	6,774.6	6,500.0	6,172.3	132.4	35.2	-10.80	-607.4	-1,585.6	3,348.1	3,294.7	53.44	62.656	
11,300.0	6,774.3	6,500.0	6,172.3	134.6	35.2	-10.80	-607.4	-1,585.6	3,426.3	3,372.2	54.13	63.296	
11,318.9	6,774.2	6,500.0	6,172.3	135.2	35.2	-10.80	-607.4	-1,585.6	3,444.9	3,390.6	54.30	63.445	
11,400.0	6,773.9	6,500.0	6,172.3	137.4	35.2	-10.80	-607.4	-1,585.6	3,524.7	3,469.7	55.01	64.078	
11,417.3	6,773.8	6,500.0	6,172.3	137.9	35.2	-10.80	-607.4	-1,585.6	3,541.7	3,486.5	55.16	64.211	
11,500.0	6,773.5	6,500.0	6,172.3	140.2	35.2	-10.80	-607.4	-1,585.6	3,623.1	3,567.2	55.88	64.837	
11,515.7	6,773.4	6,500.0	6,172.3	140.7	35.2	-10.80	-607.4	-1,585.6	3,638.6	3,582.6	56.02	64.954	
11,600.0	6,773.1	6,500.0	6,172.3	143.0	35.2	-10.80	-607.4	-1,585.6	3,721.6	3,664.9	56.76	65.573	
11,614.1	6,773.0	6,500.0	6,172.3	143.4	35.2	-10.80	-607.4	-1,585.6	3,735.6	3,678.7	56.88	65.675	
11,700.0	6,772.7	6,500.0	6,172.3	145.8	35.2	-10.80	-607.4	-1,585.6	3,820.3	3,762.6	57.63	66.287	
11,712.6	6,772.6	6,500.0	6,172.3	146.2	35.2	-10.80	-607.4	-1,585.6	3,832.7	3,774.9	57.74	66.376	
11,800.0	6,772.3	6,500.0	6,172.3	148.6	35.2	-10.80	-607.4	-1,585.6	3,918.9	3,860.4	58.51	66.981	
11,811.0	6,772.2	6,500.0	6,172.3	148.9	35.2	-10.80	-607.4	-1,585.6	3,929.8	3,871.2	58.60	67.056	
11,900.0	6,771.9	6,500.0	6,172.3	151.4	35.2	-10.79	-607.4	-1,585.6	4,017.7	3,958.3	59.38	67.656	
11,909.4	6,771.8	6,500.0	6,172.3	151.7	35.2	-10.79	-607.4	-1,585.6	4,027.0	3,967.5	59.47	67.718	
12,000.0	6,771.5	6,500.0	6,172.3	154.2	35.2	-10.79	-607.4	-1,585.6	4,116.5	4,056.2	60.26	68.311	
12,007.8	6,771.4	6,500.0	6,172.3	154.4	35.2	-10.79	-607.4	-1,585.6	4,124.2	4,063.9	60.33	68.361	
12,100.0	6,771.1	6,500.0	6,172.3	157.0	35.2	-10.79	-607.4	-1,585.6	4,215.3	4,154.2	61.14	68.947	

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 SCHAUMBERG 17G-314
<b>Project:</b>	WELD COUNTY, COLORADO	<b>TVD Reference:</b>	KB-EST @ 4633.0usft (Original Well Elev)
<b>Reference Site:</b>	SW NW SEC. 17 T5N R64W 6th P.M.	<b>MD Reference:</b>	KB-EST @ 4633.0usft (Original Well Elev)
<b>Site Error:</b>	0.0 usft	<b>North Reference:</b>	True
<b>Reference Well:</b>	SCHAUMBERG 17G-314	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Well Error:</b>	0.0 usft	<b>Output errors are at</b>	2.00 sigma
<b>Reference Wellbore</b>	ORIGINAL WELLBORE	<b>Database:</b>	EDM 5000.1 Single User Db
<b>Reference Design:</b>	PROPOSAL #1	<b>Offset TVD Reference:</b>	Offset Datum

<b>Offset Design</b> SW NW SEC. 17 T5N R64W 6th P.M. - SCHAUMBERG 17G-312 - ORIGINAL WELLBORE - PROPOS												<b>Offset Site Error:</b>	0.0 usft
Survey Program: 0-MWD												<b>Offset Well Error:</b>	0.0 usft
Reference	Offset	Semi Major Axis			Distance								Warning
Measured Depth (usft)	Vertical Depth (usft)	Measured Depth (usft)	Vertical Depth (usft)	Reference (usft)	Offset (usft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (usft)	+E/-W (usft)	Between Centres (usft)	Between Ellipses (usft)	Minimum Separation (usft)	Separation Factor	
12,106.3	6,771.0	6,500.0	6,172.3	157.2	35.2	-10.79	-607.4	-1,585.6	4,221.6	4,160.4	61.19	68.987	
12,200.0	6,770.7	6,500.0	6,172.3	159.8	35.2	-10.79	-607.4	-1,585.6	4,314.3	4,252.2	62.02	69.567	
12,204.7	6,770.6	6,500.0	6,172.3	159.9	35.2	-10.79	-607.4	-1,585.6	4,318.9	4,256.9	62.06	69.595	
12,300.0	6,770.3	6,500.0	6,172.3	162.6	35.2	-10.79	-607.4	-1,585.6	4,413.2	4,350.3	62.89	70.169	
12,303.1	6,770.2	6,500.0	6,172.3	162.7	35.2	-10.79	-607.4	-1,585.6	4,416.3	4,353.4	62.92	70.188	
12,361.7	6,770.0	6,500.0	6,172.3	164.3	35.2	-10.79	-607.4	-1,585.6	4,474.3	4,410.9	63.44	70.533	



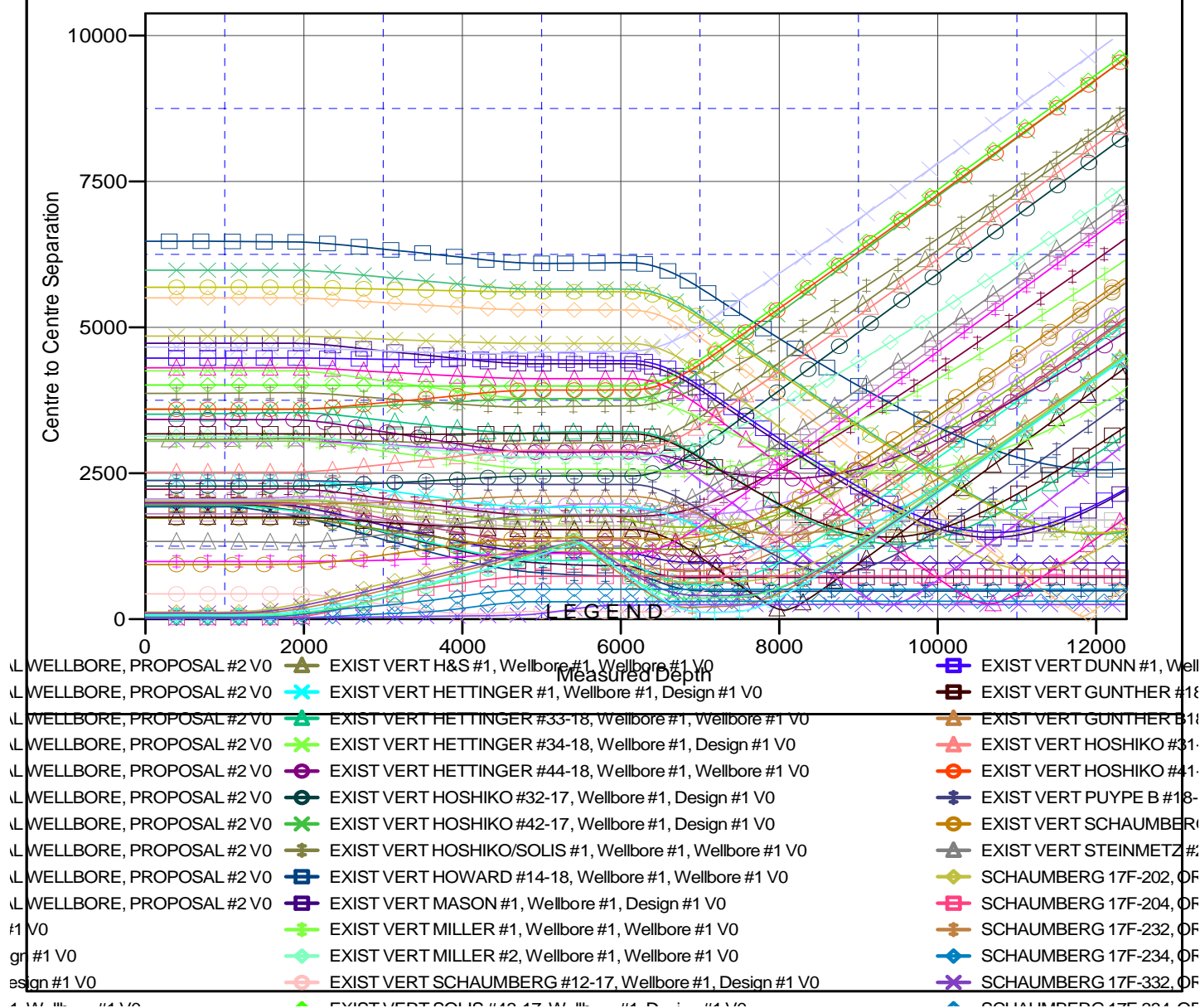
# Anticollision Report



<b>Company:</b>	PDC ENERGY	<b>Local Co-ordinate Reference:</b>	Well SCHAUMBERG 17G-314
<b>Project:</b>	WELD COUNTY, COLORADO	<b>TVD Reference:</b>	KB-EST @ 4633.0usft (Original Well Elev)
<b>Reference Site:</b>	SW NW SEC. 17 T5N R64W 6th P.M.	<b>MD Reference:</b>	KB-EST @ 4633.0usft (Original Well Elev)
<b>Site Error:</b>	0.0 usft	<b>North Reference:</b>	True
<b>Reference Well:</b>	SCHAUMBERG 17G-314	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Well Error:</b>	0.0 usft	<b>Output errors are at</b>	2.00 sigma
<b>Reference Wellbore</b>	ORIGINAL WELLBORE	<b>Database:</b>	EDM 5000.1 Single User Db
<b>Reference Design:</b>	PROPOSAL #1	<b>Offset TVD Reference:</b>	Offset Datum

Reference Depths are relative to KB-EST @ 4633.0usft (Original Well ECoordinates are relative to: SCHAUMBERG 17G-314  
 Offset Depths are relative to Offset Datum  
 Central Meridian is -105.500000  
 Coordinate System is US State Plane 1983, Colorado Northern Zone  
 Grid Convergence at Surface is: 0.59°

## Ladder Plot



Reference Depths are relative to KB-EST @ 4633.0usft (Original Well ECoordinates are relative to: SCHAU​MBERG 17G-314  
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: 0.59°

