

PDC ENERGY

**WELD COUNTY, COLORADO
SW NW SEC. 10 T5N R64W 6th P.M.
WACKER 10G-214**

**ORIGINAL WELLBORE
PROPOSAL #1**

Anticollision Report

04 February, 2016



Anticollision Report



Company:	PDC ENERGY	Local Co-ordinate Reference:	Well WACKER 10G-214
Project:	WELD COUNTY, COLORADO	TVD Reference:	KB-EST @ 4624.0usft (Original Well Elev)
Reference Site:	SW NW SEC. 10 T5N R64W 6th P.M.	MD Reference:	KB-EST @ 4624.0usft (Original Well Elev)
Site Error:	0.0 usft	North Reference:	True
Reference Well:	WACKER 10G-214	Survey Calculation Method:	Minimum Curvature
Well Error:	0.0 usft	Output errors are at	2.00 sigma
Reference Wellbore	ORIGINAL WELLBORE	Database:	EDM 5000.1 Single User Db
Reference Design:	PROPOSAL #1	Offset TVD Reference:	Offset Datum

Reference	PROPOSAL #1		
Filter type:	NO GLOBAL FILTER: Using user defined selection & filtering criteria		
Interpolation Method:	MD + Stations Interval 98.4usft	Error Model:	ISCWSA
Depth Range:	Unlimited	Scan Method:	Closest Approach 3D
Results Limited by:	Maximum center-center distance of 10,000.0 us	Error Surface:	Elliptical Conic
Warning Levels Evaluated at:	2.00 Sigma	Casing Method:	Not applied

Survey Tool Program	Date	04/02/2016		
From (usft)	To (usft)	Survey (Wellbore)	Tool Name	Description
0.0	14,982.9	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
Offset Well - Wellbore - Design						
SW NW SEC. 10 T5N R64W 6th P.M.						
ABDN VERT BLOSKAS #13-9 - Wellbore #1 - Design #1	11,586.1	6,606.1	1,032.6	758.6	3.768	CC
ABDN VERT BLOSKAS #13-9 - Wellbore #1 - Design #1	11,614.1	6,606.0	1,033.0	758.2	3.759	ES
ABDN VERT BLOSKAS #13-9 - Wellbore #1 - Design #1	11,700.0	6,605.9	1,038.9	761.7	3.748	SF
ABDN VERT HEINRICH #1 - Wellbore #1 - Design #1	7,925.5	6,622.8	291.2	118.7	1.688	CC, ES, SF
ABDN VERT OGRADY #3 - Wellbore #1 - Design #1	9,056.0	6,647.3	1,602.8	1,399.6	7.889	CC
ABDN VERT OGRADY #3 - Wellbore #1 - Design #1	9,100.0	6,647.3	1,603.4	1,399.0	7.845	ES
ABDN VERT OGRADY #3 - Wellbore #1 - Design #1	9,400.0	6,646.9	1,639.3	1,426.7	7.710	SF
ABDN VERT PLUMB #2 - Wellbore #1 - Design #1	14,982.9	6,610.0	1,679.3	1,310.1	4.549	CC, ES, SF
EXIST DD JURGENS PC #B8-22D - Wellbore #1 - Wellb	13,526.3	6,779.8	467.0	253.9	2.192	CC, ES
EXIST DD JURGENS PC #B8-22D - Wellbore #1 - Wellb	13,582.6	6,779.8	470.4	255.7	2.191	SF
EXIST DD JURGENS PC #B8-24D - Wellbore #1 - Wellb	14,816.6	6,765.0	1,687.6	1,430.8	6.571	CC
EXIST DD JURGENS PC #B8-24D - Wellbore #1 - Wellb	14,862.2	6,765.0	1,688.2	1,430.1	6.541	ES
EXIST DD JURGENS PC #B8-24D - Wellbore #1 - Wellb	14,982.9	6,765.0	1,695.7	1,434.3	6.485	SF
EXIST DD JURGENS STATE #B16-30D - Wellbore #1 -	12,386.9	6,915.4	2,898.0	2,702.9	14.854	CC
EXIST DD JURGENS STATE #B16-30D - Wellbore #1 -	12,500.0	6,913.2	2,900.2	2,702.0	14.629	ES
EXIST DD JURGENS STATE #B16-30D - Wellbore #1 -	13,600.0	6,891.0	3,141.5	2,912.5	13.717	SF
EXIST DD PETERSON B #10-24D - Wellbore #1 - Wellb	3,161.9	2,858.0	2,243.9	2,229.7	158.350	CC, ES
EXIST DD PETERSON B #10-24D - Wellbore #1 - Wellb	14,400.0	6,609.6	9,998.4	9,763.6	42.580	SF
EXIST DD PJ #81 - Wellbore #1 - Wellbore #1	14,982.9	6,694.7	1,403.2	1,147.7	5.492	CC, ES, SF
EXIST DD WACKER B #10-20D - Wellbore #1 - Wellbore	5,960.7	6,096.2	754.6	714.7	18.933	ES, SF
EXIST DD WACKER B #10-20D - Wellbore #1 - Wellbore	5,963.8	6,098.5	754.6	726.8	27.182	CC
EXIST HZ KELLY #B11-63-1HN - Wellbore #1 - Wellbore	3,240.9	2,811.5	3,929.4	3,914.9	271.561	CC
EXIST HZ KELLY #B11-63-1HN - Wellbore #1 - Wellbore	3,248.0	2,819.2	3,929.4	3,914.9	270.629	ES
EXIST HZ KELLY #B11-63-1HN - Wellbore #1 - Wellbore	12,500.0	5,938.0	9,940.5	9,771.0	58.656	SF
EXIST HZ MAX #B11-64-1HN - Wellbore #1 - Wellbore #	3,325.7	2,998.2	3,820.0	3,806.6	285.635	CC
EXIST HZ MAX #B11-64-1HN - Wellbore #1 - Wellbore #	3,346.4	3,019.3	3,820.1	3,806.6	283.329	ES
EXIST HZ MAX #B11-64-1HN - Wellbore #1 - Wellbore #	12,600.0	5,937.0	9,936.9	9,773.1	60.675	SF
EXIST HZ SEYLR #B10-64-1HN - Wellbore #1 - Wellbc	2,153.8	2,053.8	897.9	888.8	98.913	CC
EXIST HZ SEYLR #B10-64-1HN - Wellbore #1 - Wellbc	2,165.3	2,062.0	897.9	888.8	98.252	ES
EXIST HZ SEYLR #B10-64-1HN - Wellbore #1 - Wellbc	8,500.0	6,174.9	2,119.5	2,051.9	31.388	SF
EXIST HZ SEYLR STATE #B15-79HNM - Wellbore #1	2,612.8	2,555.8	844.3	832.0	68.229	CC
EXIST HZ SEYLR STATE #B15-79HNM - Wellbore #1	2,657.5	2,595.3	844.5	831.8	66.501	ES
EXIST HZ SEYLR STATE #B15-79HNM - Wellbore #1	7,900.0	6,331.0	1,176.7	1,123.2	22.001	SF
EXIST VERT BAUER #9-1 - Wellbore #1 - Wellbore #1	9,212.6	6,606.2	1,213.5	1,134.9	15.446	CC
EXIST VERT BAUER #9-1 - Wellbore #1 - Wellbore #1	9,251.9	6,606.3	1,214.1	1,134.5	15.244	ES
EXIST VERT BAUER #9-1 - Wellbore #1 - Wellbore #1	9,744.1	6,608.3	1,324.8	1,231.5	14.208	SF
EXIST VERT BLOSKAS #1 - Wellbore #1 - Design #1	11,675.0	6,616.9	1,554.0	1,278.4	5.639	CC

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

Anticollision Report



Company:	PDC ENERGY	Local Co-ordinate Reference:	Well WACKER 10G-214
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Site Error:	0.0 usft	North Reference:	True
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Reference Wellbore	ORIGINAL WELLBORE	Database:	EDM 5000.1 Single User Db
Reference Design:	PROPOSAL #1	Offset TVD Reference:	Offset Datum

Summary						
Site Name	Reference Measured Depth (usft)	Offset Measured Depth (usft)	Distance Between Centres (usft)	Distance Between Ellipses (usft)	Separation Factor	Warning
Offset Well - Wellbore - Design						
SW NW SEC. 10 T5N R64W 6th P.M.						
EXIST VERT BLOSKAS #1 - Wellbore #1 - Design #1	11,712.6	6,616.9	1,554.5	1,277.8	5.619	ES
EXIST VERT BLOSKAS #1 - Wellbore #1 - Design #1	11,909.4	6,616.6	1,571.6	1,289.4	5.570	SF
EXIST VERT BLOSKAS #12-9 - Wellbore #1 - Design #1	11,655.2	6,607.0	468.7	192.7	1.698	CC, ES, SF
EXIST VERT BLOSKAS #9-23 - Wellbore #1 - Wellbore	10,497.8	6,593.4	891.5	777.7	7.839	CC
EXIST VERT BLOSKAS #9-23 - Wellbore #1 - Wellbore	10,531.5	6,593.5	892.1	777.4	7.780	ES
EXIST VERT BLOSKAS #9-23 - Wellbore #1 - Wellbore	10,700.0	6,593.6	914.1	794.8	7.659	SF
EXIST VERT BLOSKAS BOND #9D - Wellbore #1 - Wel	11,055.5	6,632.6	925.3	796.1	7.159	CC
EXIST VERT BLOSKAS BOND #9D - Wellbore #1 - Wel	11,100.0	6,630.1	926.4	795.9	7.099	ES
EXIST VERT BLOSKAS BOND #9D - Wellbore #1 - Wel	11,220.4	6,623.2	939.8	806.0	7.021	SF
EXIST VERT BOND #1 - Wellbore #1 - Wellbore #1	10,437.4	6,614.1	268.5	156.6	2.400	CC, ES, SF
EXIST VERT BOND #21-9 - Wellbore #1 - Design #1	10,360.5	6,626.6	1,581.8	1,342.8	6.617	CC
EXIST VERT BOND #21-9 - Wellbore #1 - Design #1	10,400.0	6,626.6	1,582.3	1,342.2	6.589	ES
EXIST VERT BOND #21-9 - Wellbore #1 - Design #1	10,629.9	6,626.3	1,604.6	1,358.1	6.508	SF
EXIST VERT BOND #32-9 - Wellbore #1 - Wellbore #1	9,046.3	6,600.0	266.0	192.9	3.636	CC
EXIST VERT BOND #32-9 - Wellbore #1 - Wellbore #1	9,055.1	6,600.0	266.2	192.8	3.626	ES, SF
EXIST VERT DR B #10-12 - Wellbore #1 - Wellbore #1	5,300.2	5,241.6	826.1	812.7	61.659	CC
EXIST VERT DR B #10-12 - Wellbore #1 - Wellbore #1	5,314.9	5,255.5	826.1	812.7	61.497	ES
EXIST VERT DR B #10-12 - Wellbore #1 - Wellbore #1	14,982.9	6,500.0	8,556.4	8,319.1	36.061	SF
EXIST VERT HECKENDORF #1 - Wellbore #1 - Design	13,044.6	6,616.3	1,758.7	1,444.8	5.603	CC
EXIST VERT HECKENDORF #1 - Wellbore #1 - Design	13,090.5	6,616.2	1,759.3	1,444.1	5.582	ES
EXIST VERT HECKENDORF #1 - Wellbore #1 - Design	13,300.0	6,616.0	1,777.1	1,456.1	5.535	SF
EXIST VERT HEINRICH #41-9 - Wellbore #1 - Design #1	7,660.1	6,648.2	1,623.8	1,457.9	9.788	CC
EXIST VERT HEINRICH #41-9 - Wellbore #1 - Design #1	7,700.0	6,648.1	1,624.3	1,457.4	9.732	ES
EXIST VERT HEINRICH #41-9 - Wellbore #1 - Design #1	8,070.8	6,647.6	1,675.0	1,498.4	9.488	SF
EXIST VERT JURGENS #8-1 - Wellbore #1 - Wellbore #	12,942.5	6,584.2	1,093.7	911.8	6.013	CC
EXIST VERT JURGENS #8-1 - Wellbore #1 - Wellbore #	12,992.1	6,583.3	1,094.8	911.5	5.974	ES
EXIST VERT JURGENS #8-1 - Wellbore #1 - Wellbore #	13,100.0	6,581.4	1,104.9	918.7	5.931	SF
EXIST VERT JURGENS #8-13 - Wellbore #1 - Wellbore	14,284.4	6,600.4	312.8	93.2	1.424	Level 3, CC
EXIST VERT JURGENS #8-13 - Wellbore #1 - Wellbore	14,300.0	6,600.6	313.2	93.1	1.423	Level 3, ES, SF
EXIST VERT JURGENS #8-14 - Wellbore #1 - Wellbore	13,234.1	6,600.0	78.3	-112.2	0.411	Level 1, CC, ES, SF
EXIST VERT JURGENS PC #B8-23 - Wellbore #1 - Well	13,788.8	6,585.0	1,753.2	1,547.2	8.512	CC
EXIST VERT JURGENS PC #B8-23 - Wellbore #1 - Well	13,800.0	6,585.1	1,753.2	1,546.9	8.499	ES
EXIST VERT JURGENS PC #B8-23 - Wellbore #1 - Well	14,200.0	6,589.2	1,800.7	1,583.2	8.279	SF
EXIST VERT JURGENS PM B #B8-10 - Wellbore #1 - D	14,118.8	6,625.0	956.6	612.5	2.780	CC, ES
EXIST VERT JURGENS PM B #B8-10 - Wellbore #1 - D	14,200.0	6,624.9	960.0	613.7	2.772	SF
EXIST VERT LOWER LATHAM #8-15 - Wellbore #1 - W	13,672.3	6,586.4	601.8	399.2	2.971	CC
EXIST VERT LOWER LATHAM #8-15 - Wellbore #1 - W	13,681.1	6,586.5	601.9	399.1	2.968	ES
EXIST VERT LOWER LATHAM #8-15 - Wellbore #1 - W	13,700.0	6,586.7	602.4	399.1	2.963	SF
EXIST VERT MILLAGE #11-10 - Wellbore #1 - Design #1	1,300.0	1,295.0	1,801.8	1,773.3	63.259	CC
EXIST VERT MILLAGE #11-10 - Wellbore #1 - Design #1	1,476.4	1,471.3	1,803.9	1,771.5	55.726	ES
EXIST VERT MILLAGE #11-10 - Wellbore #1 - Design #1	7,050.0	6,639.1	2,033.9	1,879.9	13.208	SF
EXIST VERT OGRADY #31-9 - Wellbore #1 - Design #1	8,855.7	6,638.6	1,812.3	1,614.7	9.171	CC
EXIST VERT OGRADY #31-9 - Wellbore #1 - Design #1	8,900.0	6,638.5	1,812.8	1,614.0	9.118	ES
EXIST VERT OGRADY #31-9 - Wellbore #1 - Design #1	9,300.0	6,638.0	1,865.9	1,656.1	8.894	SF
EXIST VERT PAULINE #5 - Wellbore #1 - Design #1	14,982.9	6,610.0	841.9	472.7	2.281	CC, ES, SF
EXIST VERT PJ #2 - Wellbore #1 - Wellbore #1	14,982.9	6,400.0	960.8	727.8	4.124	CC, ES, SF
EXIST VERT PJ #5 - Wellbore #1 - Design #1	14,982.9	6,618.0	1,599.2	1,230.9	4.343	CC, ES, SF
EXIST VERT SLW RANCH #1-10 - Wellbore #1 - Wellbo	5,960.7	6,009.8	3,776.6	3,761.0	242.384	ES
EXIST VERT SLW RANCH #1-10 - Wellbore #1 - Wellbo	5,978.1	6,023.9	3,776.4	3,761.9	260.582	CC
EXIST VERT SLW RANCH #1-10 - Wellbore #1 - Wellbo	12,600.0	6,660.4	9,968.1	9,795.9	57.876	SF
EXIST VERT TREBOR #B10-11 - Wellbore #1 - Wellbore	3,934.8	3,881.1	1,691.6	1,679.7	142.133	CC
EXIST VERT TREBOR #B10-11 - Wellbore #1 - Wellbore	4,000.0	3,943.6	1,691.7	1,679.6	140.580	ES
EXIST VERT TREBOR #B10-11 - Wellbore #1 - Wellbore	14,900.0	6,200.0	9,987.1	9,765.3	45.016	SF

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

Anticollision Report



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Reference Wellbore	ORIGINAL WELLBORE	Database:	EDM 5000.1 Single User Db
Reference Design:	PROPOSAL #1	Offset TVD Reference:	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
SW NW SEC. 10 T5N R64W 6th P.M.						
EXIST VERT TREBOR B #10-10 - Wellbore #1 - Wellbor	3,538.0	3,473.7	2,689.7	2,680.7	298.595	CC
EXIST VERT TREBOR B #10-10 - Wellbore #1 - Wellbor	3,553.7	3,490.7	2,689.8	2,678.8	245.485	ES
EXIST VERT TREBOR B #10-10 - Wellbore #1 - Wellbor	13,779.5	6,575.5	9,981.5	9,776.4	48.658	SF
EXIST VERT WACKER #1 - Wellbore #1 - Wellbore #1	1,327.0	1,315.1	348.5	344.9	97.317	CC, ES
EXIST VERT WACKER #1 - Wellbore #1 - Wellbore #1	6,850.0	6,594.8	604.6	585.3	31.274	SF
EXIST VERT WACKER #10D - Wellbore #1 - Wellbore #	5,976.4	5,944.2	1,064.6	1,048.0	64.201	CC, ES
EXIST VERT WACKER #10D - Wellbore #1 - Wellbore #	14,982.9	6,700.0	9,199.6	8,960.4	38.456	SF
EXIST VERT WACKER #2 - Wellbore #1 - Design #1	5,960.7	5,920.9	2,031.3	1,899.6	15.427	CC
EXIST VERT WACKER #2 - Wellbore #1 - Design #1	6,000.0	5,960.2	2,032.1	1,898.5	15.209	ES
EXIST VERT WACKER #2 - Wellbore #1 - Design #1	6,050.0	6,010.0	2,035.3	1,901.0	15.160	SF
EXIST VERT WACKER #22-10 - Wellbore #1 - Wellbore	3,451.4	3,370.5	1,398.6	1,389.1	147.534	CC, ES
EXIST VERT WACKER #22-10 - Wellbore #1 - Wellbore	11,614.1	6,400.0	6,693.8	6,601.9	72.854	SF
EXIST VERT WACKER #31-10 - Wellbore #1 - Design #	5,960.7	5,884.9	2,916.3	2,785.9	22.372	CC
EXIST VERT WACKER #31-10 - Wellbore #1 - Design #	6,000.0	5,924.2	2,917.1	2,785.2	22.107	ES
EXIST VERT WACKER #31-10 - Wellbore #1 - Design #	6,050.0	5,974.0	2,920.8	2,788.3	22.045	SF
EXIST VERT WACKER #32-10 - Wellbore #1 - Design #	5,960.7	5,924.9	2,405.1	2,274.8	18.456	CC, ES
EXIST VERT WACKER #32-10 - Wellbore #1 - Design #	6,050.0	6,014.0	2,410.5	2,279.5	18.399	SF
EXIST VERT WACKER #41-10 - Wellbore #1 - Wellbore	5,981.5	6,047.5	4,352.2	4,337.0	286.747	CC, ES
EXIST VERT WACKER #41-10 - Wellbore #1 - Wellbore	12,204.7	6,730.0	9,958.2	9,796.9	61.745	SF
EXIST VERT WACKER #42-10 - Wellbore #1 - Wellbore	3,456.8	3,300.0	3,872.6	3,863.2	410.198	CC
EXIST VERT WACKER #42-10 - Wellbore #1 - Wellbore	5,900.0	5,838.6	3,876.2	3,860.8	252.010	ES
EXIST VERT WACKER #42-10 - Wellbore #1 - Wellbore	12,500.0	6,500.0	9,996.1	9,833.2	61.358	SF
EXIST VERT WILLIAMS #1 - Wellbore #1 - Wellbore #1	7,543.1	6,582.5	949.5	916.0	28.314	CC
EXIST VERT WILLIAMS #1 - Wellbore #1 - Wellbore #1	7,578.7	6,582.0	950.2	915.8	27.611	ES
EXIST VERT WILLIAMS #1 - Wellbore #1 - Wellbore #1	8,267.7	6,572.7	1,194.4	1,142.1	22.835	SF
WACKER 10F-204 - ORIGINAL WELLBORE - PROPOS	1,000.0	1,000.0	104.9	100.7	24.738	CC, ES
WACKER 10F-204 - ORIGINAL WELLBORE - PROPOS	14,982.9	15,024.8	1,025.2	550.8	2.161	SF
WACKER 10F-232 - ORIGINAL WELLBORE - PROPOS	1,300.0	1,300.0	45.2	39.6	8.079	CC, ES
WACKER 10F-232 - ORIGINAL WELLBORE - PROPOS	1,476.4	1,475.8	48.3	42.0	7.635	SF
WACKER 10F-234 - ORIGINAL WELLBORE - PROPOS	1,300.0	1,300.0	60.1	54.5	10.754	CC, ES
WACKER 10F-234 - ORIGINAL WELLBORE - PROPOS	14,982.9	14,990.6	565.5	90.8	1.191	Level 2, SF
WACKER 10F-302 - ORIGINAL WELLBORE - PROPOS	1,200.0	1,200.0	75.1	69.9	14.601	CC, ES
WACKER 10F-302 - ORIGINAL WELLBORE - PROPOS	7,800.0	6,691.1	788.5	726.8	12.771	SF
WACKER 10F-304 - ORIGINAL WELLBORE - PROPOS	1,100.0	1,100.0	90.0	85.3	19.185	CC, ES
WACKER 10F-304 - ORIGINAL WELLBORE - PROPOS	14,982.9	15,076.5	797.9	325.2	1.688	SF
WACKER 10G-212 - ORIGINAL WELLBORE - PROPOS	1,200.0	1,200.0	14.9	9.8	2.906	CC
WACKER 10G-212 - ORIGINAL WELLBORE - PROPOS	6,959.3	7,283.2	50.2	3.4	1.074	Level 2, ES, SF
WACKER 10G-302 - ORIGINAL WELLBORE - PROPOS	1,000.0	1,000.0	44.8	40.6	10.566	CC, ES
WACKER 10G-302 - ORIGINAL WELLBORE - PROPOS	7,480.3	6,861.8	263.6	209.8	4.896	SF
WACKER 10G-304 - ORIGINAL WELLBORE - PROPOS	1,100.0	1,100.0	29.9	25.2	6.369	CC
WACKER 10G-304 - ORIGINAL WELLBORE - PROPOS	14,982.9	15,065.7	224.6	-230.7	0.493	Level 1, ES, SF
WACKER 10G-312 - ORIGINAL WELLBORE - PROPOS	1,300.0	1,300.0	14.9	9.3	2.673	CC, ES
WACKER 10G-312 - ORIGINAL WELLBORE - PROPOS	1,377.9	1,377.9	15.5	9.5	2.609	SF
WACKER 10G-314 - ORIGINAL WELLBORE - PROPOS	1,300.0	1,300.0	29.9	24.3	5.344	CC
WACKER 10G-314 - ORIGINAL WELLBORE - PROPOS	14,982.9	15,047.6	245.9	-213.2	0.536	Level 1, ES, SF

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

Anticollision Report



Company:	PDC ENERGY	Local Co-ordinate Reference:	Well WACKER 10G-214
Project:	WELD COUNTY, COLORADO	TVD Reference:	KB-EST @ 4624.0usft (Original Well Elev)
Reference Site:	SW NW SEC. 10 T5N R64W 6th P.M.	MD Reference:	KB-EST @ 4624.0usft (Original Well Elev)
Site Error:	0.0 usft	North Reference:	True
Reference Well:	WACKER 10G-214	Survey Calculation Method:	Minimum Curvature
Well Error:	0.0 usft	Output errors are at	2.00 sigma
Reference Wellbore	ORIGINAL WELLBORE	Database:	EDM 5000.1 Single User Db
Reference Design:	PROPOSAL #1	Offset TVD Reference:	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	-103.70	-1,197.7	-4,914.5	5,058.4					
98.4	98.4	65.4	65.4	0.1	0.1	-103.70	-1,197.7	-4,914.5	5,058.3	5,058.2	0.17	N/A		
100.0	100.0	67.0	67.0	0.1	0.1	-103.70	-1,197.7	-4,914.5	5,058.3	5,058.2	0.18	N/A		
196.8	196.8	163.8	163.8	0.3	1.8	-103.70	-1,197.7	-4,914.5	5,058.3	5,056.2	2.10	2,404.507		
200.0	200.0	167.0	167.0	0.3	1.9	-103.70	-1,197.7	-4,914.5	5,058.3	5,056.1	2.19	2,306.499		
295.3	295.3	262.3	262.3	0.5	4.0	-103.70	-1,197.7	-4,914.5	5,058.3	5,053.8	4.55	1,110.524		
300.0	300.0	267.0	267.0	0.5	4.1	-103.70	-1,197.7	-4,914.5	5,058.3	5,053.7	4.66	1,084.768		
393.7	393.7	360.7	360.7	0.8	6.0	-103.70	-1,197.7	-4,914.5	5,058.3	5,051.5	6.79	745.134		
400.0	400.0	367.0	367.0	0.8	6.2	-103.70	-1,197.7	-4,914.5	5,058.3	5,051.4	6.93	729.846		
492.1	492.1	459.1	459.1	1.0	8.0	-103.70	-1,197.7	-4,914.5	5,058.3	5,049.3	9.00	561.767		
500.0	500.0	467.0	467.0	1.0	8.2	-103.70	-1,197.7	-4,914.5	5,058.3	5,049.1	9.18	550.938		
590.5	590.5	557.5	557.5	1.2	10.0	-103.70	-1,197.7	-4,914.5	5,058.3	5,047.1	11.21	451.080		
600.0	600.0	567.0	567.0	1.2	10.2	-103.70	-1,197.7	-4,914.5	5,058.3	5,046.9	11.43	442.712		
689.0	689.0	656.0	656.0	1.4	12.0	-103.70	-1,197.7	-4,914.5	5,058.3	5,044.9	13.42	376.917		
700.0	700.0	667.0	667.0	1.4	12.2	-103.70	-1,197.7	-4,914.5	5,058.3	5,044.7	13.67	370.104		
787.4	787.4	754.4	754.4	1.6	14.0	-103.70	-1,197.7	-4,914.5	5,058.3	5,042.7	15.62	323.734		
800.0	800.0	767.0	767.0	1.7	14.2	-103.70	-1,197.7	-4,914.5	5,058.3	5,042.4	15.91	317.991		
885.8	885.8	852.8	852.8	1.9	16.0	-103.70	-1,197.7	-4,914.5	5,058.3	5,040.5	17.83	283.719		
900.0	900.0	867.0	867.0	1.9	16.3	-103.70	-1,197.7	-4,914.5	5,058.3	5,040.2	18.15	278.758		
984.2	984.2	951.2	951.2	2.1	17.9	-103.70	-1,197.7	-4,914.5	5,058.3	5,038.3	20.03	252.518		
1,000.0	1,000.0	967.0	967.0	2.1	18.3	-103.70	-1,197.7	-4,914.5	5,058.3	5,037.9	20.38	248.151		
1,082.7	1,082.7	1,049.7	1,049.7	2.3	19.9	-103.70	-1,197.7	-4,914.5	5,058.3	5,036.1	22.23	227.504		
1,100.0	1,100.0	1,067.0	1,067.0	2.3	20.3	-103.70	-1,197.7	-4,914.5	5,058.3	5,035.7	22.62	223.605		
1,181.1	1,181.1	1,148.1	1,148.1	2.5	21.9	-103.70	-1,197.7	-4,914.5	5,058.3	5,033.9	24.44	207.002		
1,200.0	1,200.0	1,167.0	1,167.0	2.6	22.3	-103.70	-1,197.7	-4,914.5	5,058.3	5,033.5	24.86	203.481		
1,279.5	1,279.5	1,246.5	1,246.5	2.7	23.9	-103.70	-1,197.7	-4,914.5	5,058.3	5,031.7	26.64	189.892		
1,300.0	1,300.0	1,267.0	1,267.0	2.8	24.3	-103.70	-1,197.7	-4,914.5	5,058.3	5,031.2	27.10	186.682		
1,377.9	1,377.9	1,344.9	1,344.9	3.0	25.9	137.65	-1,197.7	-4,914.5	5,059.1	5,030.3	28.82	175.557		
1,400.0	1,400.0	1,367.0	1,367.0	3.0	26.3	137.65	-1,197.7	-4,914.5	5,059.6	5,030.3	29.30	172.672		
1,476.4	1,476.3	1,443.3	1,443.3	3.1	27.8	137.64	-1,197.7	-4,914.5	5,062.3	5,031.4	30.96	163.519		
1,500.0	1,499.8	1,466.8	1,466.8	3.2	28.3	137.64	-1,197.7	-4,914.5	5,063.5	5,032.0	31.47	160.911		
1,574.8	1,574.4	1,541.4	1,541.4	3.3	29.8	137.62	-1,197.7	-4,914.5	5,068.1	5,035.0	33.07	153.232		
1,600.0	1,599.5	1,566.5	1,566.5	3.4	30.3	137.62	-1,197.7	-4,914.5	5,069.9	5,036.3	33.61	150.840		
1,673.2	1,672.2	1,639.2	1,639.2	3.6	31.8	137.60	-1,197.7	-4,914.5	5,076.3	5,041.1	35.17	144.348		
1,700.0	1,698.7	1,665.7	1,665.7	3.6	32.3	137.59	-1,197.7	-4,914.5	5,079.0	5,043.2	35.73	142.146		
1,771.6	1,769.5	1,736.5	1,736.5	3.8	33.7	137.56	-1,197.7	-4,914.5	5,087.0	5,049.8	37.24	136.619		
1,800.0	1,797.5	1,764.5	1,764.5	3.9	34.3	137.55	-1,197.7	-4,914.5	5,090.6	5,052.8	37.82	134.586		
1,870.1	1,866.3	1,833.3	1,833.3	4.1	35.7	137.51	-1,197.7	-4,914.5	5,100.3	5,061.0	39.28	129.850		
1,900.2	1,895.8	1,862.8	1,862.8	4.2	36.3	137.50	-1,197.7	-4,914.5	5,104.8	5,064.9	39.90	127.952		
1,968.5	1,962.6	1,929.6	1,929.6	4.4	37.6	137.60	-1,197.7	-4,914.5	5,115.4	5,074.0	41.41	123.542		
2,000.0	1,993.4	1,960.4	1,960.4	4.5	38.3	137.65	-1,197.7	-4,914.5	5,120.3	5,078.2	42.10	121.613		
2,066.9	2,058.9	2,025.9	2,025.9	4.7	39.6	137.76	-1,197.7	-4,914.5	5,130.7	5,087.1	43.59	117.696		
2,100.0	2,091.2	2,058.2	2,058.2	4.8	40.2	137.81	-1,197.7	-4,914.5	5,135.8	5,091.5	44.33	115.858		
2,165.3	2,155.2	2,122.2	2,122.2	5.1	41.5	137.91	-1,197.7	-4,914.5	5,146.0	5,100.2	45.79	112.387		
2,200.0	2,189.1	2,156.1	2,156.1	5.2	42.2	137.96	-1,197.7	-4,914.5	5,151.4	5,104.8	46.57	110.627		
2,263.8	2,251.4	2,218.4	2,218.4	5.5	43.4	138.06	-1,197.7	-4,914.5	5,161.4	5,113.4	48.00	107.533		
2,300.0	2,286.9	2,253.9	2,253.9	5.6	44.2	138.11	-1,197.7	-4,914.5	5,167.0	5,118.2	48.81	105.856		
2,362.2	2,347.7	2,314.7	2,314.7	5.8	45.4	138.21	-1,197.7	-4,914.5	5,176.8	5,126.5	50.21	103.096		
2,400.0	2,384.7	2,351.7	2,351.7	6.0	46.1	138.27	-1,197.7	-4,914.5	5,182.7	5,131.6	51.07	101.491		
2,460.6	2,444.0	2,411.0	2,411.0	6.2	47.3	138.36	-1,197.7	-4,914.5	5,192.2	5,139.7	52.43	99.021		
2,500.0	2,482.5	2,449.5	2,449.5	6.4	48.1	138.42	-1,197.7	-4,914.5	5,198.4	5,145.0	53.32	97.485		
2,559.0	2,540.3	2,507.3	2,507.3	6.6	49.2	138.51	-1,197.7	-4,914.5	5,207.6	5,153.0	54.66	95.270		

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

Anticollision Report



Company:	PDC ENERGY	Local Co-ordinate Reference:	Well WACKER 10G-214
Project:	WELD COUNTY, COLORADO	TVD Reference:	KB-EST @ 4624.0usft (Original Well Elev)
Reference Site:	SW NW SEC. 10 T5N R64W 6th P.M.	MD Reference:	KB-EST @ 4624.0usft (Original Well Elev)
Site Error:	0.0 usft	North Reference:	True
Reference Well:	WACKER 10G-214	Survey Calculation Method:	Minimum Curvature
Well Error:	0.0 usft	Output errors are at	2.00 sigma
Reference Wellbore	ORIGINAL WELLBORE	Database:	EDM 5000.1 Single User Db
Reference Design:	PROPOSAL #1	Offset TVD Reference:	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	2,580.3	2,547.3	2,547.3	6.8	50.1	138.57	-1,197.7	-4,914.5	5,214.1	5,158.5	55.59	93.797	
2,657.5	2,636.5	2,603.5	2,603.5	7.1	51.2	138.65	-1,197.7	-4,914.5	5,223.1	5,166.2	56.89	91.807	
2,700.0	2,678.1	2,645.1	2,645.1	7.2	52.0	138.72	-1,197.7	-4,914.5	5,229.8	5,172.0	57.86	90.392	
2,755.9	2,732.8	2,699.8	2,699.8	7.5	53.1	138.80	-1,197.7	-4,914.5	5,238.7	5,179.5	59.13	88.600	
2,800.0	2,775.9	2,742.9	2,742.9	7.7	54.0	138.87	-1,197.7	-4,914.5	5,245.6	5,185.5	60.13	87.240	
2,854.3	2,829.1	2,796.1	2,796.1	7.9	55.1	138.95	-1,197.7	-4,914.5	5,254.2	5,192.9	61.36	85.624	
2,900.0	2,873.8	2,840.8	2,840.8	8.1	56.0	139.01	-1,197.7	-4,914.5	5,261.5	5,199.1	62.40	84.315	
2,952.7	2,925.4	2,892.4	2,892.4	8.3	57.0	139.09	-1,197.7	-4,914.5	5,269.8	5,206.2	63.60	82.855	
2,953.5	2,926.1	2,893.1	2,893.1	8.3	57.0	139.09	-1,197.7	-4,914.5	5,270.0	5,206.3	63.62	82.835	
3,000.0	2,971.6	2,938.6	2,938.6	8.5	57.9	139.25	-1,197.7	-4,914.5	5,277.1	5,212.3	64.77	81.475	
3,051.2	3,022.0	2,989.0	2,989.0	8.7	58.9	139.41	-1,197.7	-4,914.5	5,284.2	5,218.2	66.01	80.053	
3,100.0	3,070.1	3,037.1	3,037.1	8.8	59.9	139.55	-1,197.7	-4,914.5	5,290.4	5,223.2	67.19	78.739	
3,149.6	3,119.1	3,086.1	3,086.1	8.9	60.9	139.68	-1,197.7	-4,914.5	5,296.1	5,227.7	68.38	77.454	
3,200.0	3,169.1	3,136.1	3,136.1	9.1	61.9	139.79	-1,197.7	-4,914.5	5,301.2	5,231.6	69.58	76.190	
3,248.0	3,216.8	3,183.8	3,183.8	9.2	62.9	139.88	-1,197.7	-4,914.5	5,305.4	5,234.7	70.71	75.032	
3,300.0	3,268.5	3,235.5	3,235.5	9.3	63.9	139.97	-1,197.7	-4,914.5	5,309.3	5,237.4	71.92	73.818	
3,346.4	3,314.8	3,281.8	3,281.8	9.4	64.8	140.03	-1,197.7	-4,914.5	5,312.2	5,239.2	72.99	72.775	
3,400.0	3,368.3	3,335.3	3,335.3	9.6	65.9	140.09	-1,197.7	-4,914.5	5,314.7	5,240.5	74.22	71.609	
3,444.9	3,413.1	3,380.1	3,380.1	9.6	66.8	140.12	-1,197.7	-4,914.5	5,316.3	5,241.1	75.23	70.670	
3,500.0	3,468.2	3,435.2	3,435.2	9.7	67.9	140.15	-1,197.7	-4,914.5	5,317.5	5,241.1	76.45	69.552	
3,543.3	3,511.5	3,478.5	3,478.5	9.8	68.8	140.15	-1,197.7	-4,914.5	5,317.9	5,240.5	77.40	68.705	
3,553.7	3,521.9	3,488.9	3,488.9	9.8	69.0	-101.20	-1,197.7	-4,914.5	5,317.9	5,239.9	77.99	68.184	
3,600.0	3,568.2	3,535.2	3,535.2	9.9	69.9	-101.20	-1,197.7	-4,914.5	5,317.9	5,238.9	79.00	67.313	
3,641.7	3,609.9	3,576.9	3,576.9	10.0	70.8	-101.20	-1,197.7	-4,914.5	5,317.9	5,238.0	79.92	66.543	
3,700.0	3,668.2	3,635.2	3,635.2	10.1	71.9	-101.20	-1,197.7	-4,914.5	5,317.9	5,236.7	81.19	65.497	
3,740.1	3,708.4	3,675.4	3,675.4	10.1	72.7	-101.20	-1,197.7	-4,914.5	5,317.9	5,235.8	82.07	64.795	
3,800.0	3,768.2	3,735.2	3,735.2	10.2	73.9	-101.20	-1,197.7	-4,914.5	5,317.9	5,234.5	83.38	63.776	
3,838.6	3,806.8	3,773.8	3,773.8	10.3	74.7	-101.20	-1,197.7	-4,914.5	5,317.9	5,233.7	84.23	63.135	
3,900.0	3,868.2	3,835.2	3,835.2	10.4	76.0	-101.20	-1,197.7	-4,914.5	5,317.9	5,232.3	85.58	62.141	
3,937.0	3,905.2	3,872.2	3,872.2	10.5	76.7	-101.20	-1,197.7	-4,914.5	5,317.9	5,231.5	86.39	61.557	
4,000.0	3,968.2	3,935.2	3,935.2	10.6	78.0	-101.20	-1,197.7	-4,914.5	5,317.9	5,230.1	87.77	60.587	
4,035.4	4,003.6	3,970.6	3,970.6	10.6	78.7	-101.20	-1,197.7	-4,914.5	5,317.9	5,229.4	88.55	60.054	
4,100.0	4,068.2	4,035.2	4,035.2	10.7	80.0	-101.20	-1,197.7	-4,914.5	5,317.9	5,227.9	89.97	59.107	
4,133.8	4,102.1	4,069.1	4,069.1	10.8	80.7	-101.20	-1,197.7	-4,914.5	5,317.9	5,227.2	90.71	58.622	
4,200.0	4,168.2	4,135.2	4,135.2	10.9	82.0	-101.20	-1,197.7	-4,914.5	5,317.9	5,225.7	92.17	57.697	
4,232.3	4,200.5	4,167.5	4,167.5	11.0	82.6	-101.20	-1,197.7	-4,914.5	5,317.9	5,225.0	92.88	57.256	
4,300.0	4,268.2	4,235.2	4,235.2	11.1	84.0	-101.20	-1,197.7	-4,914.5	5,317.9	5,223.5	94.37	56.352	
4,330.7	4,298.9	4,265.9	4,265.9	11.1	84.6	-101.20	-1,197.7	-4,914.5	5,317.9	5,222.9	95.04	55.952	
4,400.0	4,368.2	4,335.2	4,335.2	11.3	86.0	-101.20	-1,197.7	-4,914.5	5,317.9	5,221.3	96.57	55.068	
4,429.1	4,397.3	4,364.3	4,364.3	11.3	86.6	-101.20	-1,197.7	-4,914.5	5,317.9	5,220.7	97.21	54.704	
4,500.0	4,468.2	4,435.2	4,435.2	11.4	88.0	-101.20	-1,197.7	-4,914.5	5,317.9	5,219.1	98.77	53.840	
4,527.5	4,495.8	4,462.8	4,462.8	11.5	88.6	-101.20	-1,197.7	-4,914.5	5,317.9	5,218.5	99.38	53.511	
4,600.0	4,568.2	4,535.2	4,535.2	11.6	90.0	-101.20	-1,197.7	-4,914.5	5,317.9	5,216.9	100.98	52.665	
4,626.0	4,594.2	4,561.2	4,561.2	11.7	90.6	-101.20	-1,197.7	-4,914.5	5,317.9	5,216.4	101.55	52.368	
4,700.0	4,668.2	4,635.2	4,635.2	11.8	92.0	-101.20	-1,197.7	-4,914.5	5,317.9	5,214.7	103.18	51.539	
4,724.4	4,692.6	4,659.6	4,659.6	11.9	92.5	-101.20	-1,197.7	-4,914.5	5,317.9	5,214.2	103.72	51.272	
4,800.0	4,768.2	4,735.2	4,735.2	12.0	94.1	-101.20	-1,197.7	-4,914.5	5,317.9	5,212.5	105.39	50.460	
4,822.8	4,791.0	4,758.0	4,758.0	12.0	94.5	-101.20	-1,197.7	-4,914.5	5,317.9	5,212.0	105.89	50.220	
4,900.0	4,868.2	4,835.2	4,835.2	12.2	96.1	-101.20	-1,197.7	-4,914.5	5,317.9	5,210.3	107.60	49.425	
4,921.2	4,889.5	4,856.5	4,856.5	12.2	96.5	-101.20	-1,197.7	-4,914.5	5,317.9	5,209.8	108.06	49.210	
5,000.0	4,968.2	4,935.2	4,935.2	12.4	98.1	-101.20	-1,197.7	-4,914.5	5,317.9	5,208.1	109.80	48.431	
5,019.7	4,987.9	4,954.9	4,954.9	12.4	98.5	-101.20	-1,197.7	-4,914.5	5,317.9	5,207.7	110.24	48.240	

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

Anticollision Report



Company:	PDC ENERGY	Local Co-ordinate Reference:	Well WACKER 10G-214
Project:	WELD COUNTY, COLORADO	TVD Reference:	KB-EST @ 4624.0usft (Original Well Elev)
Reference Site:	SW NW SEC. 10 T5N R64W 6th P.M.	MD Reference:	KB-EST @ 4624.0usft (Original Well Elev)
Site Error:	0.0 usft	North Reference:	True
Reference Well:	WACKER 10G-214	Survey Calculation Method:	Minimum Curvature
Well Error:	0.0 usft	Output errors are at	2.00 sigma
Reference Wellbore	ORIGINAL WELLBORE	Database:	EDM 5000.1 Single User Db
Reference Design:	PROPOSAL #1	Offset TVD Reference:	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	5,068.2	5,035.2	5,035.2	12.6	100.1	-101.20	-1,197.7	-4,914.5	5,317.9	5,205.9	112.01	47.476	
5,118.1	5,086.3	5,053.3	5,053.3	12.6	100.5	-101.20	-1,197.7	-4,914.5	5,317.9	5,205.5	112.41	47.307	
5,200.0	5,168.2	5,135.2	5,135.2	12.7	102.1	-101.20	-1,197.7	-4,914.5	5,317.9	5,203.7	114.22	46.557	
5,216.5	5,184.7	5,151.7	5,151.7	12.8	102.4	-101.20	-1,197.7	-4,914.5	5,317.9	5,203.3	114.59	46.408	
5,300.0	5,268.2	5,235.2	5,235.2	12.9	104.1	-101.20	-1,197.7	-4,914.5	5,317.9	5,201.5	116.43	45.673	
5,314.9	5,283.2	5,250.2	5,250.2	13.0	104.4	-101.20	-1,197.7	-4,914.5	5,317.9	5,201.1	116.77	45.543	
5,400.0	5,368.2	5,335.2	5,335.2	13.1	106.1	-101.20	-1,197.7	-4,914.5	5,317.9	5,199.3	118.65	44.821	
5,413.4	5,381.6	5,348.6	5,348.6	13.2	106.4	-101.20	-1,197.7	-4,914.5	5,317.9	5,199.0	118.94	44.710	
5,500.0	5,468.2	5,435.2	5,435.2	13.3	108.1	-101.20	-1,197.7	-4,914.5	5,317.9	5,197.0	120.86	44.001	
5,511.8	5,480.0	5,447.0	5,447.0	13.3	108.4	-101.20	-1,197.7	-4,914.5	5,317.9	5,196.8	121.12	43.906	
5,600.0	5,568.2	5,535.2	5,535.2	13.5	110.1	-101.20	-1,197.7	-4,914.5	5,317.9	5,194.8	123.07	43.209	
5,610.2	5,578.4	5,545.4	5,545.4	13.5	110.3	-101.20	-1,197.7	-4,914.5	5,317.9	5,194.6	123.30	43.130	
5,700.0	5,668.2	5,635.2	5,635.2	13.7	112.2	-101.20	-1,197.7	-4,914.5	5,317.9	5,192.6	125.29	42.446	
5,708.6	5,676.9	5,643.9	5,643.9	13.7	112.3	-101.20	-1,197.7	-4,914.5	5,317.9	5,192.4	125.48	42.381	
5,800.0	5,768.2	5,735.2	5,735.2	13.9	114.2	-101.20	-1,197.7	-4,914.5	5,317.9	5,190.4	127.50	41.708	
5,807.1	5,775.3	5,742.3	5,742.3	13.9	114.3	-101.20	-1,197.7	-4,914.5	5,317.9	5,190.2	127.66	41.657	
5,900.0	5,868.2	5,835.2	5,835.2	14.1	116.2	-101.20	-1,197.7	-4,914.5	5,317.9	5,188.2	129.72	40.996	
5,905.5	5,873.7	5,840.7	5,840.7	14.1	116.3	-101.20	-1,197.7	-4,914.5	5,317.9	5,188.1	129.84	40.957	
5,960.7	5,928.9	5,895.9	5,895.9	14.2	117.4	-101.20	-1,197.7	-4,914.5	5,317.9	5,186.8	131.06	40.575	
6,000.0	5,968.2	5,935.2	5,935.2	14.3	118.2	-11.22	-1,197.7	-4,914.5	5,316.8	5,185.4	131.42	40.458	
6,003.9	5,972.1	5,939.1	5,939.1	14.3	118.3	-11.22	-1,197.7	-4,914.5	5,316.6	5,185.2	131.46	40.443	
6,050.0	6,018.0	5,985.0	5,985.0	14.4	119.2	-11.29	-1,197.7	-4,914.5	5,312.4	5,180.8	131.69	40.341	
6,100.0	6,067.3	6,034.3	6,034.3	14.4	120.2	-11.44	-1,197.7	-4,914.5	5,304.7	5,173.3	131.33	40.391	
6,102.3	6,069.6	6,036.6	6,036.6	14.4	120.2	-11.44	-1,197.7	-4,914.5	5,304.2	5,172.9	131.30	40.397	
6,150.0	6,116.0	6,083.0	6,083.0	14.4	121.2	-11.64	-1,197.7	-4,914.5	5,293.5	5,163.2	130.34	40.612	
6,200.0	6,163.8	6,130.8	6,130.8	14.5	122.1	-11.92	-1,197.7	-4,914.5	5,279.0	5,150.3	128.72	41.012	
6,200.8	6,164.5	6,131.5	6,131.5	14.5	122.1	-11.93	-1,197.7	-4,914.5	5,278.8	5,150.1	128.69	41.020	
6,250.0	6,210.4	6,177.4	6,177.4	14.5	123.1	-12.28	-1,197.7	-4,914.5	5,261.4	5,134.9	126.47	41.601	
6,299.2	6,254.9	6,221.9	6,221.9	14.5	124.0	-12.72	-1,197.7	-4,914.5	5,240.9	5,117.2	123.67	42.377	
6,300.0	6,255.6	6,222.6	6,222.6	14.5	124.0	-12.73	-1,197.7	-4,914.5	5,240.5	5,116.9	123.62	42.391	
6,350.0	6,299.3	6,266.3	6,266.3	14.5	124.8	-13.28	-1,197.7	-4,914.5	5,216.7	5,096.5	120.21	43.396	
6,397.6	6,339.2	6,306.2	6,306.2	14.6	125.6	-13.91	-1,197.7	-4,914.5	5,191.2	5,074.7	116.48	44.568	
6,400.0	6,341.2	6,308.2	6,308.2	14.6	125.7	-13.94	-1,197.7	-4,914.5	5,189.9	5,073.6	116.28	44.633	
6,450.0	6,381.0	6,348.0	6,348.0	14.6	126.5	-14.75	-1,197.7	-4,914.5	5,160.3	5,048.4	111.91	46.110	
6,496.0	6,415.8	6,382.8	6,382.8	14.7	127.2	-15.65	-1,197.7	-4,914.5	5,130.7	5,023.1	107.60	47.685	
6,500.0	6,418.7	6,385.7	6,385.7	14.7	127.2	-15.74	-1,197.7	-4,914.5	5,128.1	5,020.9	107.22	47.830	
6,550.0	6,453.9	6,420.9	6,420.9	14.8	128.0	-16.93	-1,197.7	-4,914.5	5,093.4	4,991.0	102.35	49.763	
6,594.5	6,483.1	6,450.1	6,450.1	15.0	128.5	-18.22	-1,197.7	-4,914.5	5,060.5	4,962.5	98.07	51.599	
6,600.0	6,486.6	6,453.6	6,453.6	15.1	128.6	-18.40	-1,197.7	-4,914.5	5,056.3	4,958.8	97.56	51.829	
6,650.0	6,516.6	6,483.6	6,483.6	15.3	129.2	-20.21	-1,197.7	-4,914.5	5,017.2	4,924.0	93.18	53.842	
6,692.9	6,540.0	6,507.0	6,507.0	15.7	129.7	-22.12	-1,197.7	-4,914.5	4,982.0	4,891.9	90.15	55.263	
6,700.0	6,543.7	6,510.7	6,510.7	15.7	129.8	-22.48	-1,197.7	-4,914.5	4,976.1	4,886.3	89.74	55.447	
6,750.0	6,567.8	6,534.8	6,534.8	16.2	130.2	-25.36	-1,197.7	-4,914.5	4,933.3	4,845.3	87.98	56.071	
6,791.3	6,585.4	6,552.4	6,552.4	16.7	130.6	-28.38	-1,197.7	-4,914.5	4,896.7	4,808.2	88.49	55.339	
6,800.0	6,588.8	6,555.8	6,555.8	16.8	130.7	-29.10	-1,197.7	-4,914.5	4,888.9	4,800.0	88.88	55.007	
6,850.0	6,606.6	6,573.6	6,573.6	17.4	131.0	-34.04	-1,197.7	-4,914.5	4,843.3	4,749.7	93.57	51.763	
6,889.7	6,618.4	6,585.4	6,585.4	18.0	131.3	-39.17	-1,197.7	-4,914.5	4,806.2	4,705.5	100.67	47.742	
6,900.0	6,621.1	6,588.1	6,588.1	18.2	131.3	-40.71	-1,197.7	-4,914.5	4,796.5	4,693.5	103.02	46.559	
6,950.0	6,632.2	6,599.2	6,599.2	19.0	131.5	-49.82	-1,197.7	-4,914.5	4,748.9	4,631.5	117.41	40.448	
6,988.2	6,638.4	6,605.4	6,605.4	19.7	131.7	-58.89	-1,197.7	-4,914.5	4,712.2	4,581.6	130.64	36.071	
7,000.0	6,639.9	6,606.9	6,606.9	19.9	131.7	-62.11	-1,197.7	-4,914.5	4,700.7	4,566.0	134.77	34.880	
7,050.0	6,644.1	6,611.1	6,611.1	20.8	131.8	-77.70	-1,197.7	-4,914.5	4,652.2	4,502.9	149.25	31.170	

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

Anticollision Report



Company:	PDC ENERGY	Local Co-ordinate Reference:	Well WACKER 10G-214
Project:	WELD COUNTY, COLORADO	TVD Reference:	KB-EST @ 4624.0usft (Original Well Elev)
Reference Site:	SW NW SEC. 10 T5N R64W 6th P.M.	MD Reference:	KB-EST @ 4624.0usft (Original Well Elev)
Site Error:	0.0 usft	North Reference:	True
Reference Well:	WACKER 10G-214	Survey Calculation Method:	Minimum Curvature
Well Error:	0.0 usft	Output errors are at	2.00 sigma
Reference Wellbore	ORIGINAL WELLBORE	Database:	EDM 5000.1 Single User Db
Reference Design:	PROPOSAL #1	Offset TVD Reference:	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	
7,086.5	6,645.0	6,612.0	6,612.0	21.5	131.8	-90.35	-1,197.7	-4,914.5	4,616.6	4,463.2	153.33	30.110	
7,100.0	6,645.0	6,612.0	6,612.0	21.8	131.8	-90.35	-1,197.7	-4,914.5	4,603.4	4,449.8	153.59	29.972	
7,185.0	6,644.9	6,611.9	6,611.9	23.6	131.8	-90.34	-1,197.7	-4,914.5	4,520.6	4,365.3	155.35	29.100	
7,200.0	6,644.8	6,611.8	6,611.8	23.9	131.8	-90.34	-1,197.7	-4,914.5	4,506.0	4,350.4	155.66	28.948	
7,283.4	6,644.7	6,611.7	6,611.7	25.7	131.8	-90.33	-1,197.7	-4,914.5	4,424.9	4,267.4	157.50	28.095	
7,300.0	6,644.7	6,611.7	6,611.7	26.1	131.8	-90.33	-1,197.7	-4,914.5	4,408.8	4,250.9	157.86	27.928	
7,381.9	6,644.6	6,611.6	6,611.6	28.0	131.8	-90.32	-1,197.7	-4,914.5	4,329.2	4,169.5	159.76	27.099	
7,400.0	6,644.6	6,611.6	6,611.6	28.4	131.8	-90.32	-1,197.7	-4,914.5	4,311.6	4,151.4	160.18	26.918	
7,480.3	6,644.5	6,611.5	6,611.5	30.3	131.8	-90.32	-1,197.7	-4,914.5	4,233.7	4,071.6	162.10	26.118	
7,500.0	6,644.4	6,611.4	6,611.4	30.8	131.8	-90.31	-1,197.7	-4,914.5	4,214.6	4,052.0	162.57	25.925	
7,578.7	6,644.3	6,611.3	6,611.3	32.7	131.8	-90.31	-1,197.7	-4,914.5	4,138.3	3,973.8	164.51	25.156	
7,600.0	6,644.3	6,611.3	6,611.3	33.3	131.8	-90.30	-1,197.7	-4,914.5	4,117.7	3,952.7	165.03	24.951	
7,677.1	6,644.2	6,611.2	6,611.2	35.2	131.8	-90.30	-1,197.7	-4,914.5	4,043.1	3,876.1	166.97	24.215	
7,700.0	6,644.1	6,611.1	6,611.1	35.8	131.8	-90.30	-1,197.7	-4,914.5	4,021.0	3,853.4	167.54	24.000	
7,775.6	6,644.0	6,611.0	6,611.0	37.7	131.8	-90.29	-1,197.7	-4,914.5	3,948.0	3,778.5	169.47	23.296	
7,800.0	6,644.0	6,611.0	6,611.0	38.3	131.8	-90.29	-1,197.7	-4,914.5	3,924.4	3,754.3	170.09	23.072	
7,874.0	6,643.9	6,610.9	6,610.9	40.2	131.8	-90.28	-1,197.7	-4,914.5	3,853.1	3,681.1	172.01	22.401	
7,900.0	6,643.9	6,610.9	6,610.9	40.9	131.8	-90.28	-1,197.7	-4,914.5	3,828.0	3,655.4	172.68	22.168	
7,972.4	6,643.8	6,610.8	6,610.8	42.8	131.8	-90.27	-1,197.7	-4,914.5	3,758.3	3,583.8	174.57	21.529	
8,000.0	6,643.7	6,610.7	6,610.7	43.5	131.8	-90.27	-1,197.7	-4,914.5	3,731.8	3,556.5	175.29	21.289	
8,070.8	6,643.6	6,610.6	6,610.6	45.4	131.8	-90.27	-1,197.7	-4,914.5	3,663.8	3,486.6	177.16	20.681	
8,100.0	6,643.6	6,610.6	6,610.6	46.2	131.8	-90.26	-1,197.7	-4,914.5	3,635.8	3,457.9	177.93	20.434	
8,169.3	6,643.5	6,610.5	6,610.5	48.0	131.8	-90.26	-1,197.7	-4,914.5	3,569.5	3,389.7	179.77	19.856	
8,200.0	6,643.5	6,610.5	6,610.5	48.8	131.8	-90.26	-1,197.7	-4,914.5	3,540.1	3,359.5	180.59	19.603	
8,267.7	6,643.4	6,610.4	6,610.4	50.6	131.8	-90.25	-1,197.7	-4,914.5	3,475.4	3,293.0	182.39	19.054	
8,300.0	6,643.3	6,610.3	6,610.3	51.5	131.8	-90.25	-1,197.7	-4,914.5	3,444.6	3,261.3	183.26	18.796	
8,366.1	6,643.2	6,610.2	6,610.2	53.3	131.8	-90.24	-1,197.7	-4,914.5	3,381.5	3,196.5	185.03	18.275	
8,400.0	6,643.2	6,610.2	6,610.2	54.2	131.8	-90.24	-1,197.7	-4,914.5	3,349.3	3,163.3	185.94	18.012	
8,464.5	6,643.1	6,610.1	6,610.1	55.9	131.8	-90.23	-1,197.7	-4,914.5	3,287.9	3,100.3	187.68	17.518	
8,500.0	6,643.1	6,610.1	6,610.1	56.9	131.8	-90.23	-1,197.7	-4,914.5	3,254.3	3,065.7	188.64	17.251	
8,563.0	6,643.0	6,610.0	6,610.0	58.6	131.8	-90.23	-1,197.7	-4,914.5	3,194.6	3,004.3	190.35	16.783	
8,600.0	6,642.9	6,609.9	6,609.9	59.6	131.8	-90.22	-1,197.7	-4,914.5	3,159.6	2,968.3	191.35	16.512	
8,661.4	6,642.8	6,609.8	6,609.8	61.3	131.8	-90.22	-1,197.7	-4,914.5	3,101.7	2,908.7	193.02	16.069	
8,700.0	6,642.8	6,609.8	6,609.8	62.3	131.8	-90.22	-1,197.7	-4,914.5	3,065.3	2,871.2	194.07	15.795	
8,759.8	6,642.7	6,609.7	6,609.7	64.0	131.8	-90.21	-1,197.7	-4,914.5	3,009.0	2,813.3	195.70	15.376	
8,800.0	6,642.7	6,609.7	6,609.7	65.1	131.8	-90.21	-1,197.7	-4,914.5	2,971.3	2,774.5	196.79	15.099	
8,858.2	6,642.6	6,609.6	6,609.6	66.6	131.7	-90.20	-1,197.7	-4,914.5	2,916.8	2,718.4	198.38	14.703	
8,900.0	6,642.5	6,609.5	6,609.5	67.8	131.7	-90.20	-1,197.7	-4,914.5	2,877.8	2,678.3	199.52	14.423	
8,956.7	6,642.4	6,609.4	6,609.4	69.3	131.7	-90.19	-1,197.7	-4,914.5	2,825.0	2,623.9	201.07	14.049	
9,000.0	6,642.4	6,609.4	6,609.4	70.5	131.7	-90.19	-1,197.7	-4,914.5	2,784.7	2,582.4	202.26	13.768	
9,055.1	6,642.3	6,609.3	6,609.3	72.0	131.7	-90.19	-1,197.7	-4,914.5	2,733.6	2,529.8	203.77	13.415	
9,100.0	6,642.3	6,609.3	6,609.3	73.3	131.7	-90.18	-1,197.7	-4,914.5	2,692.1	2,487.1	205.00	13.132	
9,153.5	6,642.2	6,609.2	6,609.2	74.7	131.7	-90.18	-1,197.7	-4,914.5	2,642.7	2,436.2	206.47	12.799	
9,200.0	6,642.1	6,609.1	6,609.1	76.0	131.7	-90.18	-1,197.7	-4,914.5	2,600.0	2,392.2	207.75	12.515	
9,251.9	6,642.1	6,609.1	6,609.1	77.5	131.7	-90.17	-1,197.7	-4,914.5	2,552.4	2,343.2	209.18	12.202	
9,300.0	6,642.0	6,609.0	6,609.0	78.8	131.7	-90.17	-1,197.7	-4,914.5	2,508.5	2,298.0	210.50	11.917	
9,350.4	6,641.9	6,608.9	6,608.9	80.2	131.7	-90.16	-1,197.7	-4,914.5	2,462.7	2,250.8	211.89	11.623	
9,400.0	6,641.9	6,608.9	6,608.9	81.5	131.7	-90.16	-1,197.7	-4,914.5	2,417.7	2,204.5	213.26	11.337	
9,448.8	6,641.8	6,608.8	6,608.8	82.9	131.7	-90.16	-1,197.7	-4,914.5	2,373.7	2,159.1	214.60	11.061	
9,500.0	6,641.7	6,608.7	6,608.7	84.3	131.7	-90.15	-1,197.7	-4,914.5	2,327.7	2,111.7	216.02	10.776	
9,547.2	6,641.7	6,608.7	6,608.7	85.6	131.7	-90.15	-1,197.7	-4,914.5	2,285.5	2,068.2	217.32	10.517	
9,600.0	6,641.6	6,608.6	6,608.6	87.1	131.7	-90.14	-1,197.7	-4,914.5	2,238.5	2,019.8	218.78	10.232	

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

Anticollision Report



Company:	PDC ENERGY	Local Co-ordinate Reference:	Well WACKER 10G-214
Project:	WELD COUNTY, COLORADO	TVD Reference:	KB-EST @ 4624.0usft (Original Well Elev)
Reference Site:	SW NW SEC. 10 T5N R64W 6th P.M.	MD Reference:	KB-EST @ 4624.0usft (Original Well Elev)
Site Error:	0.0 usft	North Reference:	True
Reference Well:	WACKER 10G-214	Survey Calculation Method:	Minimum Curvature
Well Error:	0.0 usft	Output errors are at	2.00 sigma
Reference Wellbore	ORIGINAL WELLBORE	Database:	EDM 5000.1 Single User Db
Reference Design:	PROPOSAL #1	Offset TVD Reference:	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	
9,645.6	6,641.5	6,608.5	6,608.5	88.3	131.7	-90.14	-1,197.7	-4,914.5	2,198.1	1,978.1	220.04	9.990	
9,700.0	6,641.5	6,608.5	6,608.5	89.8	131.7	-90.14	-1,197.7	-4,914.5	2,150.3	1,928.8	221.55	9.706	
9,744.1	6,641.4	6,608.4	6,608.4	91.0	131.7	-90.13	-1,197.7	-4,914.5	2,111.8	1,889.0	222.77	9.480	
9,800.0	6,641.3	6,608.3	6,608.3	92.6	131.7	-90.13	-1,197.7	-4,914.5	2,063.1	1,838.8	224.31	9.198	
9,842.5	6,641.3	6,608.3	6,608.3	93.8	131.7	-90.13	-1,197.7	-4,914.5	2,026.5	1,801.0	225.49	8.987	
9,900.0	6,641.2	6,608.2	6,608.2	95.4	131.7	-90.12	-1,197.7	-4,914.5	1,977.2	1,750.1	227.08	8.707	
9,940.9	6,641.1	6,608.1	6,608.1	96.5	131.7	-90.12	-1,197.7	-4,914.5	1,942.4	1,714.2	228.22	8.511	
10,000.0	6,641.1	6,608.1	6,608.1	98.1	131.7	-90.11	-1,197.7	-4,914.5	1,892.7	1,662.8	229.86	8.234	
10,039.3	6,641.0	6,608.0	6,608.0	99.2	131.7	-90.11	-1,197.7	-4,914.5	1,859.8	1,628.9	230.95	8.053	
10,100.0	6,640.9	6,607.9	6,607.9	100.9	131.7	-90.11	-1,197.7	-4,914.5	1,809.7	1,577.0	232.63	7.779	
10,137.8	6,640.9	6,607.9	6,607.9	102.0	131.7	-90.10	-1,197.7	-4,914.5	1,778.8	1,545.1	233.68	7.612	
10,200.0	6,640.8	6,607.8	6,607.8	103.7	131.7	-90.10	-1,197.7	-4,914.5	1,728.5	1,493.1	235.41	7.343	
10,236.2	6,640.8	6,607.8	6,607.8	104.7	131.7	-90.10	-1,197.7	-4,914.5	1,699.6	1,463.2	236.41	7.189	
10,300.0	6,640.7	6,607.7	6,607.7	106.5	131.7	-90.09	-1,197.7	-4,914.5	1,649.4	1,411.2	238.18	6.925	
10,334.6	6,640.6	6,607.6	6,607.6	107.4	131.7	-90.09	-1,197.7	-4,914.5	1,622.5	1,383.4	239.15	6.785	
10,400.0	6,640.6	6,607.6	6,607.6	109.3	131.7	-90.08	-1,197.7	-4,914.5	1,572.7	1,331.7	240.96	6.527	
10,433.0	6,640.5	6,607.5	6,607.5	110.2	131.7	-90.08	-1,197.7	-4,914.5	1,547.9	1,306.0	241.88	6.399	
10,500.0	6,640.4	6,607.4	6,607.4	112.0	131.7	-90.08	-1,197.7	-4,914.5	1,498.7	1,254.9	243.75	6.149	
10,531.5	6,640.4	6,607.4	6,607.4	112.9	131.7	-90.08	-1,197.7	-4,914.5	1,476.0	1,231.4	244.62	6.034	
10,600.0	6,640.3	6,607.3	6,607.3	114.8	131.7	-90.07	-1,197.7	-4,914.5	1,427.9	1,181.3	246.53	5.792	
10,629.9	6,640.3	6,607.3	6,607.3	115.7	131.7	-90.07	-1,197.7	-4,914.5	1,407.4	1,160.0	247.36	5.690	
10,700.0	6,640.2	6,607.2	6,607.2	117.6	131.7	-90.06	-1,197.7	-4,914.5	1,360.7	1,111.4	249.31	5.458	
10,728.3	6,640.1	6,607.1	6,607.1	118.4	131.7	-90.06	-1,197.7	-4,914.5	1,342.4	1,092.3	250.10	5.368	
10,800.0	6,640.0	6,607.0	6,607.0	120.4	131.7	-90.06	-1,197.7	-4,914.5	1,297.8	1,045.7	252.10	5.148	
10,826.7	6,640.0	6,607.0	6,607.0	121.2	131.7	-90.05	-1,197.7	-4,914.5	1,281.8	1,029.0	252.84	5.070	
10,900.0	6,639.9	6,606.9	6,606.9	123.2	131.7	-90.05	-1,197.7	-4,914.5	1,239.8	984.9	254.88	4.864	
10,925.2	6,639.9	6,606.9	6,606.9	123.9	131.7	-90.05	-1,197.7	-4,914.5	1,226.1	970.5	255.58	4.797	
11,000.0	6,639.8	6,606.8	6,606.8	126.0	131.7	-90.04	-1,197.7	-4,914.5	1,187.4	929.7	257.67	4.608	
11,023.6	6,639.8	6,606.8	6,606.8	126.6	131.7	-90.04	-1,197.7	-4,914.5	1,175.9	917.6	258.33	4.552	
11,100.0	6,639.7	6,606.7	6,606.7	128.8	131.7	-90.03	-1,197.7	-4,914.5	1,141.3	880.9	260.46	4.382	
11,122.0	6,639.6	6,606.6	6,606.6	129.4	131.7	-90.03	-1,197.7	-4,914.5	1,132.1	871.1	261.07	4.337	
11,200.0	6,639.5	6,606.5	6,606.5	131.6	131.7	-90.03	-1,197.7	-4,914.5	1,102.5	839.2	263.24	4.188	
11,220.4	6,639.5	6,606.5	6,606.5	132.1	131.7	-90.03	-1,197.7	-4,914.5	1,095.5	831.7	263.82	4.152	
11,300.0	6,639.4	6,606.4	6,606.4	134.4	131.7	-90.02	-1,197.7	-4,914.5	1,071.5	805.5	266.03	4.028	
11,318.9	6,639.4	6,606.4	6,606.4	134.9	131.7	-90.02	-1,197.7	-4,914.5	1,066.7	800.1	266.56	4.002	
11,400.0	6,639.3	6,606.3	6,606.3	137.1	131.7	-90.01	-1,197.7	-4,914.5	1,049.3	780.5	268.82	3.903	
11,417.3	6,639.3	6,606.3	6,606.3	137.6	131.7	-90.01	-1,197.7	-4,914.5	1,046.3	777.0	269.31	3.885	
11,500.0	6,639.2	6,606.2	6,606.2	139.9	131.7	-90.01	-1,197.7	-4,914.5	1,036.2	764.6	271.62	3.815	
11,515.7	6,639.1	6,606.1	6,606.1	140.4	131.7	-90.00	-1,197.7	-4,914.5	1,035.0	763.0	272.05	3.805	
11,586.1	6,639.1	6,606.1	6,606.1	142.3	131.7	-90.00	-1,197.7	-4,914.5	1,032.6	758.6	274.02	3.768 CC	
11,600.0	6,639.0	6,606.0	6,606.0	142.7	131.7	-90.00	-1,197.7	-4,914.5	1,032.7	758.3	274.41	3.764	
11,614.1	6,639.0	6,606.0	6,606.0	143.1	131.7	-90.00	-1,197.7	-4,914.5	1,033.0	758.2	274.80	3.759 ES	
11,700.0	6,638.9	6,605.9	6,605.9	145.5	131.7	-89.99	-1,197.7	-4,914.5	1,038.9	761.7	277.20	3.748 SF	
11,712.6	6,638.9	6,605.9	6,605.9	145.9	131.7	-89.99	-1,197.7	-4,914.5	1,040.4	762.8	277.55	3.748	
11,800.0	6,638.8	6,605.8	6,605.8	148.3	131.7	-89.99	-1,197.7	-4,914.5	1,054.6	774.6	279.99	3.766	
11,811.0	6,638.8	6,605.8	6,605.8	148.6	131.7	-89.98	-1,197.7	-4,914.5	1,056.8	776.5	280.30	3.770	
11,900.0	6,638.7	6,605.7	6,605.7	151.1	131.7	-89.98	-1,197.7	-4,914.5	1,079.3	796.5	282.79	3.817	
11,909.4	6,638.6	6,605.6	6,605.6	151.4	131.7	-89.98	-1,197.7	-4,914.5	1,082.1	799.0	283.05	3.823	
12,000.0	6,638.5	6,605.5	6,605.5	153.9	131.7	-89.97	-1,197.7	-4,914.5	1,112.5	826.9	285.58	3.896	
12,007.8	6,638.5	6,605.5	6,605.5	154.1	131.7	-89.97	-1,197.7	-4,914.5	1,115.4	829.6	285.80	3.903	
12,100.0	6,638.4	6,605.4	6,605.4	156.7	131.7	-89.96	-1,197.7	-4,914.5	1,153.4	865.1	288.37	4.000	
12,106.3	6,638.4	6,605.4	6,605.4	156.9	131.7	-89.96	-1,197.7	-4,914.5	1,156.2	867.7	288.55	4.007	

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

Anticollision Report



Company:	PDC ENERGY	Local Co-ordinate Reference:	Well WACKER 10G-214
Project:	WELD COUNTY, COLORADO	TVD Reference:	KB-EST @ 4624.0usft (Original Well Elev)
Reference Site:	SW NW SEC. 10 T5N R64W 6th P.M.	MD Reference:	KB-EST @ 4624.0usft (Original Well Elev)
Site Error:	0.0 usft	North Reference:	True
Reference Well:	WACKER 10G-214	Survey Calculation Method:	Minimum Curvature
Well Error:	0.0 usft	Output errors are at	2.00 sigma
Reference Wellbore	ORIGINAL WELLBORE	Database:	EDM 5000.1 Single User Db
Reference Design:	PROPOSAL #1	Offset TVD Reference:	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	
12,200.0	6,638.3	6,605.3	6,605.3	159.5	131.7	-89.96	-1,197.7	-4,914.5	1,201.3	910.2	291.17	4.126	
12,204.7	6,638.3	6,605.3	6,605.3	159.6	131.7	-89.96	-1,197.7	-4,914.5	1,203.7	912.4	291.30	4.132	
12,300.0	6,638.2	6,605.2	6,605.2	162.3	131.7	-89.95	-1,197.7	-4,914.5	1,255.4	961.4	293.97	4.270	
12,303.1	6,638.2	6,605.2	6,605.2	162.4	131.7	-89.95	-1,197.7	-4,914.5	1,257.2	963.1	294.05	4.275	
12,400.0	6,638.0	6,605.0	6,605.0	165.1	131.7	-89.94	-1,197.7	-4,914.5	1,314.8	1,018.1	296.76	4.431	
12,401.5	6,638.0	6,605.0	6,605.0	165.2	131.7	-89.94	-1,197.7	-4,914.5	1,315.8	1,019.0	296.80	4.433	
12,500.0	6,637.9	6,604.9	6,604.9	167.9	131.7	-89.94	-1,197.7	-4,914.5	1,379.0	1,079.4	299.56	4.603	
12,598.4	6,637.8	6,604.8	6,604.8	170.7	131.7	-89.93	-1,197.7	-4,914.5	1,446.0	1,143.7	302.31	4.783	
12,600.0	6,637.8	6,604.8	6,604.8	170.7	131.7	-89.93	-1,197.7	-4,914.5	1,447.2	1,144.8	302.35	4.786	
12,696.8	6,637.7	6,604.7	6,604.7	173.4	131.7	-89.93	-1,197.7	-4,914.5	1,516.6	1,211.5	305.06	4.971	
12,700.0	6,637.7	6,604.7	6,604.7	173.5	131.7	-89.93	-1,197.7	-4,914.5	1,518.9	1,213.7	305.15	4.978	
12,795.2	6,637.6	6,604.6	6,604.6	176.2	131.6	-89.92	-1,197.7	-4,914.5	1,590.1	1,282.3	307.82	5.166	
12,800.0	6,637.6	6,604.6	6,604.6	176.3	131.6	-89.92	-1,197.7	-4,914.5	1,593.7	1,285.7	307.95	5.175	
12,893.7	6,637.4	6,604.4	6,604.4	178.9	131.6	-89.91	-1,197.7	-4,914.5	1,666.1	1,355.6	310.57	5.365	
12,900.0	6,637.4	6,604.4	6,604.4	179.1	131.6	-89.91	-1,197.7	-4,914.5	1,671.1	1,360.4	310.75	5.378	
12,992.1	6,637.3	6,604.3	6,604.3	181.7	131.6	-89.91	-1,197.7	-4,914.5	1,744.4	1,431.1	313.32	5.568	
13,000.0	6,637.3	6,604.3	6,604.3	181.9	131.6	-89.91	-1,197.7	-4,914.5	1,750.8	1,437.3	313.55	5.584	
13,090.5	6,637.2	6,604.2	6,604.2	184.4	131.6	-89.90	-1,197.7	-4,914.5	1,824.7	1,508.6	316.08	5.773	
13,100.0	6,637.2	6,604.2	6,604.2	184.7	131.6	-89.90	-1,197.7	-4,914.5	1,832.5	1,516.2	316.34	5.793	
13,188.9	6,637.1	6,604.1	6,604.1	187.2	131.6	-89.89	-1,197.7	-4,914.5	1,906.7	1,587.8	318.83	5.980	
13,200.0	6,637.1	6,604.1	6,604.1	187.5	131.6	-89.89	-1,197.7	-4,914.5	1,916.0	1,596.8	319.14	6.003	
13,287.4	6,637.0	6,604.0	6,604.0	190.0	131.6	-89.89	-1,197.7	-4,914.5	1,990.1	1,668.5	321.59	6.188	
13,300.0	6,637.0	6,604.0	6,604.0	190.3	131.6	-89.89	-1,197.7	-4,914.5	2,000.9	1,679.0	321.94	6.215	
13,385.8	6,636.9	6,603.9	6,603.9	192.7	131.6	-89.88	-1,197.7	-4,914.5	2,074.9	1,750.5	324.34	6.397	
13,400.0	6,636.8	6,603.8	6,603.8	193.1	131.6	-89.88	-1,197.7	-4,914.5	2,087.2	1,762.5	324.74	6.427	
13,484.2	6,636.7	6,603.7	6,603.7	195.5	131.6	-89.87	-1,197.7	-4,914.5	2,160.8	1,833.7	327.10	6.606	
13,500.0	6,636.7	6,603.7	6,603.7	195.9	131.6	-89.87	-1,197.7	-4,914.5	2,174.7	1,847.1	327.54	6.639	
13,582.6	6,636.6	6,603.6	6,603.6	198.2	131.6	-89.87	-1,197.7	-4,914.5	2,247.8	1,917.9	329.85	6.814	
13,600.0	6,636.6	6,603.6	6,603.6	198.7	131.6	-89.87	-1,197.7	-4,914.5	2,263.2	1,932.8	330.34	6.851	
13,681.1	6,636.5	6,603.5	6,603.5	201.0	131.6	-89.86	-1,197.7	-4,914.5	2,335.6	2,003.0	332.61	7.022	
13,700.0	6,636.5	6,603.5	6,603.5	201.5	131.6	-89.86	-1,197.7	-4,914.5	2,352.6	2,019.5	333.14	7.062	
13,779.5	6,636.4	6,603.4	6,603.4	203.7	131.6	-89.86	-1,197.7	-4,914.5	2,424.3	2,088.9	335.37	7.229	
13,800.0	6,636.4	6,603.4	6,603.4	204.3	131.6	-89.86	-1,197.7	-4,914.5	2,442.9	2,106.9	335.94	7.272	
13,877.9	6,636.3	6,603.3	6,603.3	206.5	131.6	-89.85	-1,197.7	-4,914.5	2,513.7	2,175.6	338.12	7.434	
13,900.0	6,636.3	6,603.3	6,603.3	207.1	131.6	-89.85	-1,197.7	-4,914.5	2,533.8	2,195.1	338.74	7.480	
13,976.3	6,636.2	6,603.2	6,603.2	209.3	131.6	-89.84	-1,197.7	-4,914.5	2,603.7	2,262.9	340.88	7.638	
14,000.0	6,636.1	6,603.1	6,603.1	209.9	131.6	-89.84	-1,197.7	-4,914.5	2,625.5	2,283.9	341.54	7.687	
14,074.8	6,636.0	6,603.0	6,603.0	212.0	131.6	-89.84	-1,197.7	-4,914.5	2,694.4	2,350.7	343.64	7.841	
14,100.0	6,636.0	6,603.0	6,603.0	212.7	131.6	-89.84	-1,197.7	-4,914.5	2,717.7	2,373.4	344.34	7.892	
14,173.2	6,635.9	6,602.9	6,602.9	214.8	131.6	-89.83	-1,197.7	-4,914.5	2,785.6	2,439.2	346.39	8.042	
14,200.0	6,635.9	6,602.9	6,602.9	215.5	131.6	-89.83	-1,197.7	-4,914.5	2,810.5	2,463.3	347.14	8.096	
14,271.6	6,635.8	6,602.8	6,602.8	217.5	131.6	-89.83	-1,197.7	-4,914.5	2,877.2	2,528.0	349.15	8.241	
14,300.0	6,635.8	6,602.8	6,602.8	218.3	131.6	-89.83	-1,197.7	-4,914.5	2,903.7	2,553.7	349.95	8.298	
14,370.0	6,635.7	6,602.7	6,602.7	220.3	131.6	-89.82	-1,197.7	-4,914.5	2,969.3	2,617.4	351.91	8.438	
14,400.0	6,635.7	6,602.7	6,602.7	221.1	131.6	-89.82	-1,197.7	-4,914.5	2,997.4	2,644.6	352.75	8.497	
14,468.5	6,635.6	6,602.6	6,602.6	223.1	131.6	-89.82	-1,197.7	-4,914.5	3,061.7	2,707.1	354.67	8.633	
14,500.0	6,635.6	6,602.6	6,602.6	223.9	131.6	-89.81	-1,197.7	-4,914.5	3,091.4	2,735.9	355.55	8.695	
14,566.9	6,635.5	6,602.5	6,602.5	225.8	131.6	-89.81	-1,197.7	-4,914.5	3,154.6	2,797.2	357.42	8.826	
14,600.0	6,635.4	6,602.4	6,602.4	226.8	131.6	-89.81	-1,197.7	-4,914.5	3,185.9	2,827.5	358.35	8.890	
14,665.3	6,635.4	6,602.4	6,602.4	228.6	131.6	-89.80	-1,197.7	-4,914.5	3,247.7	2,887.6	360.18	9.017	
14,700.0	6,635.3	6,602.3	6,602.3	229.6	131.6	-89.80	-1,197.7	-4,914.5	3,280.6	2,919.5	361.15	9.084	
14,763.7	6,635.2	6,602.2	6,602.2	231.3	131.6	-89.80	-1,197.7	-4,914.5	3,341.2	2,978.3	362.94	9.206	

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

Anticollision Report



Company:	PDC ENERGY	Local Co-ordinate Reference:	Well WACKER 10G-214
Project:	WELD COUNTY, COLORADO	TVD Reference:	KB-EST @ 4624.0usft (Original Well Elev)
Reference Site:	SW NW SEC. 10 T5N R64W 6th P.M.	MD Reference:	KB-EST @ 4624.0usft (Original Well Elev)
Site Error:	0.0 usft	North Reference:	True
Reference Well:	WACKER 10G-214	Survey Calculation Method:	Minimum Curvature
Well Error:	0.0 usft	Output errors are at	2.00 sigma
Reference Wellbore	ORIGINAL WELLBORE	Database:	EDM 5000.1 Single User Db
Reference Design:	PROPOSAL #1	Offset TVD Reference:	Offset Datum

Offset Design SW NW SEC. 10 T5N R64W 6th P.M. - ABDN VERT BLOSKAS #13-9 - 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									
Measured Depth (usft)	Vertical Depth (usft)	Measured Depth (usft)	Vertical Depth (usft)	Reference (usft)	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
14,800.0	6,635.2	6,602.2	6,602.2	232.4	131.6	-89.80	-1,197.7	-4,914.5	3,375.7	3,011.7	363.96	9.275	
14,862.2	6,635.1	6,602.1	6,602.1	234.1	131.6	-89.79	-1,197.7	-4,914.5	3,434.9	3,069.2	365.70	9.393	
14,900.0	6,635.1	6,602.1	6,602.1	235.2	131.6	-89.79	-1,197.7	-4,914.5	3,471.0	3,104.3	366.76	9.464	
14,960.6	6,635.0	6,602.0	6,602.0	236.9	131.6	-89.79	-1,197.7	-4,914.5	3,528.9	3,160.5	368.46	9.578	
14,982.9	6,635.0	6,602.0	6,602.0	237.5	131.6	-89.79	-1,197.7	-4,914.5	3,550.2	3,181.2	369.08	9.619	

Anticollision Report



Company:	PDC ENERGY	Local Co-ordinate Reference:	Well WACKER 10G-214
Project:	WELD COUNTY, COLORADO	TVD Reference:	KB-EST @ 4624.0usft (Original Well Elev)
Reference Site:	SW NW SEC. 10 T5N R64W 6th P.M.	MD Reference:	KB-EST @ 4624.0usft (Original Well Elev)
Site Error:	0.0 usft	North Reference:	True
Reference Well:	WACKER 10G-214	Survey Calculation Method:	Minimum Curvature
Well Error:	0.0 usft	Output errors are at	2.00 sigma
Reference Wellbore	ORIGINAL WELLBORE	Database:	EDM 5000.1 Single User Db
Reference Design:	PROPOSAL #1	Offset TVD Reference:	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	-84.26	126.1	-1,253.9	1,260.4				
98.4	98.4	77.4	77.4	0.1	0.0	-84.26	126.1	-1,253.9	1,260.2	1,260.1	0.10	N/A	
100.0	100.0	79.0	79.0	0.1	0.0	-84.26	126.1	-1,253.9	1,260.2	1,260.1	0.10	N/A	
196.8	196.8	175.8	175.8	0.3	1.0	-84.26	126.1	-1,253.9	1,260.2	1,258.9	1.29	973.141	
200.0	200.0	179.0	179.0	0.3	1.0	-84.26	126.1	-1,253.9	1,260.2	1,258.9	1.34	938.528	
295.3	295.3	274.3	274.3	0.5	3.0	-84.26	126.1	-1,253.9	1,260.2	1,256.7	3.51	358.648	
300.0	300.0	279.0	279.0	0.5	3.1	-84.26	126.1	-1,253.9	1,260.2	1,256.6	3.63	347.009	
393.7	393.7	372.7	372.7	0.8	5.1	-84.26	126.1	-1,253.9	1,260.2	1,254.4	5.83	216.218	
400.0	400.0	379.0	379.0	0.8	5.2	-84.26	126.1	-1,253.9	1,260.2	1,254.2	5.97	210.970	
492.1	492.1	471.1	471.1	1.0	7.1	-84.26	126.1	-1,253.9	1,260.2	1,252.1	8.07	156.186	
500.0	500.0	479.0	479.0	1.0	7.3	-84.26	126.1	-1,253.9	1,260.2	1,252.0	8.25	152.806	
590.5	590.5	569.5	569.5	1.2	9.1	-84.26	126.1	-1,253.9	1,260.2	1,249.9	10.29	122.464	
600.0	600.0	579.0	579.0	1.2	9.3	-84.26	126.1	-1,253.9	1,260.2	1,249.7	10.50	119.981	
689.0	689.0	668.0	668.0	1.4	11.1	-84.26	126.1	-1,253.9	1,260.2	1,247.7	12.50	100.781	
700.0	700.0	679.0	679.0	1.4	11.3	-84.26	126.1	-1,253.9	1,260.2	1,247.5	12.75	98.823	
787.4	787.4	766.4	766.4	1.6	13.1	-84.26	126.1	-1,253.9	1,260.2	1,245.5	14.71	85.646	
800.0	800.0	779.0	779.0	1.7	13.3	-84.26	126.1	-1,253.9	1,260.2	1,245.2	15.00	84.031	
885.8	885.8	864.8	864.8	1.9	15.1	-84.26	126.1	-1,253.9	1,260.2	1,243.3	16.92	74.474	
900.0	900.0	879.0	879.0	1.9	15.3	-84.26	126.1	-1,253.9	1,260.2	1,243.0	17.24	73.101	
984.2	984.2	963.2	963.2	2.1	17.0	-84.26	126.1	-1,253.9	1,260.2	1,241.1	19.13	65.886	
1,000.0	1,000.0	979.0	979.0	2.1	17.4	-84.26	126.1	-1,253.9	1,260.2	1,240.7	19.48	64.693	
1,082.7	1,082.7	1,061.7	1,061.7	2.3	19.0	-84.26	126.1	-1,253.9	1,260.2	1,238.9	21.33	59.077	
1,100.0	1,100.0	1,079.0	1,079.0	2.3	19.4	-84.26	126.1	-1,253.9	1,260.2	1,238.5	21.72	58.022	
1,181.1	1,181.1	1,160.1	1,160.1	2.5	21.0	-84.26	126.1	-1,253.9	1,260.2	1,236.7	23.54	53.545	
1,200.0	1,200.0	1,179.0	1,179.0	2.6	21.4	-84.26	126.1	-1,253.9	1,260.2	1,236.3	23.96	52.599	
1,279.5	1,279.5	1,258.5	1,258.5	2.7	23.0	-84.26	126.1	-1,253.9	1,260.2	1,234.5	25.74	48.962	
1,300.0	1,300.0	1,279.0	1,279.0	2.8	23.4	-84.26	126.1	-1,253.9	1,260.2	1,234.0	26.20	48.105	
1,377.9	1,377.9	1,356.9	1,356.9	3.0	25.0	157.10	126.1	-1,253.9	1,261.2	1,233.3	27.92	45.177	
1,400.0	1,400.0	1,379.0	1,379.0	3.0	25.4	157.11	126.1	-1,253.9	1,261.8	1,233.4	28.40	44.431	
1,476.4	1,476.3	1,455.3	1,455.3	3.1	27.0	157.15	126.1	-1,253.9	1,265.2	1,235.2	30.05	42.110	
1,500.0	1,499.8	1,478.8	1,478.8	3.2	27.4	157.17	126.1	-1,253.9	1,266.6	1,236.1	30.55	41.463	
1,574.8	1,574.4	1,553.4	1,553.4	3.3	28.9	157.23	126.1	-1,253.9	1,272.4	1,240.2	32.13	39.596	
1,600.0	1,599.5	1,578.5	1,578.5	3.4	29.4	157.26	126.1	-1,253.9	1,274.7	1,242.0	32.66	39.028	
1,673.2	1,672.2	1,651.2	1,651.2	3.6	30.9	157.34	126.1	-1,253.9	1,282.6	1,248.4	34.18	37.526	
1,700.0	1,698.7	1,677.7	1,677.7	3.6	31.4	157.38	126.1	-1,253.9	1,285.9	1,251.2	34.73	37.031	
1,771.6	1,769.5	1,748.5	1,748.5	3.8	32.9	157.49	126.1	-1,253.9	1,296.0	1,259.8	36.18	35.825	
1,800.0	1,797.5	1,776.5	1,776.5	3.9	33.4	157.53	126.1	-1,253.9	1,300.4	1,263.7	36.74	35.396	
1,870.1	1,866.3	1,845.3	1,845.3	4.1	34.8	157.65	126.1	-1,253.9	1,312.5	1,274.4	38.12	34.433	
1,900.2	1,895.8	1,874.8	1,874.8	4.2	35.4	157.71	126.1	-1,253.9	1,318.1	1,279.5	38.70	34.063	
1,968.5	1,962.6	1,941.6	1,941.6	4.4	36.7	157.94	126.1	-1,253.9	1,331.3	1,291.2	40.17	33.140	
2,000.0	1,993.4	1,972.4	1,972.4	4.5	37.4	158.05	126.1	-1,253.9	1,337.4	1,296.6	40.85	32.737	
2,066.9	2,058.9	2,037.9	2,037.9	4.7	38.7	158.27	126.1	-1,253.9	1,350.4	1,308.1	42.31	31.919	
2,100.0	2,091.2	2,070.2	2,070.2	4.8	39.3	158.38	126.1	-1,253.9	1,356.8	1,313.8	43.02	31.537	
2,165.3	2,155.2	2,134.2	2,134.2	5.1	40.6	158.58	126.1	-1,253.9	1,369.5	1,325.0	44.44	30.815	
2,200.0	2,189.1	2,168.1	2,168.1	5.2	41.3	158.69	126.1	-1,253.9	1,376.2	1,331.0	45.20	30.449	
2,263.8	2,251.4	2,230.4	2,230.4	5.5	42.5	158.89	126.1	-1,253.9	1,388.6	1,342.0	46.59	29.806	
2,300.0	2,286.9	2,265.9	2,265.9	5.6	43.3	159.00	126.1	-1,253.9	1,395.7	1,348.3	47.38	29.458	
2,362.2	2,347.7	2,326.7	2,326.7	5.8	44.5	159.19	126.1	-1,253.9	1,407.8	1,359.1	48.74	28.885	
2,400.0	2,384.7	2,363.7	2,363.7	6.0	45.2	159.30	126.1	-1,253.9	1,415.2	1,365.6	49.56	28.553	
2,460.6	2,444.0	2,423.0	2,423.0	6.2	46.4	159.48	126.1	-1,253.9	1,427.0	1,376.1	50.89	28.041	
2,500.0	2,482.5	2,461.5	2,461.5	6.4	47.2	159.60	126.1	-1,253.9	1,434.7	1,382.9	51.75	27.723	
2,559.0	2,540.3	2,519.3	2,519.3	6.6	48.4	159.77	126.1	-1,253.9	1,446.2	1,393.2	53.04	27.265	

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

Anticollision Report



Company:	PDC ENERGY	Local Co-ordinate Reference:	Well WACKER 10G-214
Project:	WELD COUNTY, COLORADO	TVD Reference:	KB-EST @ 4624.0usft (Original Well Elev)
Reference Site:	SW NW SEC. 10 T5N R64W 6th P.M.	MD Reference:	KB-EST @ 4624.0usft (Original Well Elev)
Site Error:	0.0 usft	North Reference:	True
Reference Well:	WACKER 10G-214	Survey Calculation Method:	Minimum Curvature
Well Error:	0.0 usft	Output errors are at	2.00 sigma
Reference Wellbore	ORIGINAL WELLBORE	Database:	EDM 5000.1 Single User Db
Reference Design:	PROPOSAL #1	Offset TVD Reference:	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	2,580.3	2,559.3	2,559.3	6.8	49.2	159.88	126.1	-1,253.9	1,454.3	1,400.3	53.94	26.960	
2,657.5	2,636.5	2,615.5	2,615.5	7.1	50.3	160.04	126.1	-1,253.9	1,465.5	1,410.3	55.20	26.549	
2,700.0	2,678.1	2,657.1	2,657.1	7.2	51.1	160.16	126.1	-1,253.9	1,473.8	1,417.7	56.13	26.257	
2,755.9	2,732.8	2,711.8	2,711.8	7.5	52.2	160.31	126.1	-1,253.9	1,484.8	1,427.5	57.36	25.886	
2,800.0	2,775.9	2,754.9	2,754.9	7.7	53.1	160.43	126.1	-1,253.9	1,493.5	1,435.1	58.33	25.606	
2,854.3	2,829.1	2,808.1	2,808.1	7.9	54.2	160.57	126.1	-1,253.9	1,504.2	1,444.6	59.52	25.272	
2,900.0	2,873.8	2,852.8	2,852.8	8.1	55.1	160.69	126.1	-1,253.9	1,513.1	1,452.6	60.52	25.002	
2,952.7	2,925.4	2,904.4	2,904.4	8.3	56.1	160.83	126.1	-1,253.9	1,523.5	1,461.8	61.68	24.701	
2,953.5	2,926.1	2,905.1	2,905.1	8.3	56.1	160.83	126.1	-1,253.9	1,523.7	1,462.0	61.70	24.696	
3,000.0	2,971.6	2,950.6	2,950.6	8.5	57.0	161.00	126.1	-1,253.9	1,532.5	1,469.6	62.88	24.371	
3,051.2	3,022.0	3,001.0	3,001.0	8.7	58.0	161.17	126.1	-1,253.9	1,541.4	1,477.2	64.16	24.022	
3,100.0	3,070.1	3,049.1	3,049.1	8.8	59.0	161.32	126.1	-1,253.9	1,549.1	1,483.7	65.38	23.692	
3,149.6	3,119.1	3,098.1	3,098.1	8.9	60.0	161.45	126.1	-1,253.9	1,556.1	1,489.5	66.61	23.362	
3,200.0	3,169.1	3,148.1	3,148.1	9.1	61.0	161.57	126.1	-1,253.9	1,562.4	1,494.5	67.84	23.029	
3,248.0	3,216.8	3,195.8	3,195.8	9.2	62.0	161.67	126.1	-1,253.9	1,567.6	1,498.6	69.00	22.718	
3,300.0	3,268.5	3,247.5	3,247.5	9.3	63.0	161.76	126.1	-1,253.9	1,572.4	1,502.2	70.25	22.384	
3,346.4	3,314.8	3,293.8	3,293.8	9.4	63.9	161.82	126.1	-1,253.9	1,576.0	1,504.6	71.34	22.091	
3,400.0	3,368.3	3,347.3	3,347.3	9.6	65.0	161.88	126.1	-1,253.9	1,579.2	1,506.6	72.59	21.756	
3,444.9	3,413.1	3,392.1	3,392.1	9.6	65.9	161.91	126.1	-1,253.9	1,581.1	1,507.5	73.61	21.480	
3,500.0	3,468.2	3,447.2	3,447.2	9.7	67.0	161.94	126.1	-1,253.9	1,582.6	1,507.8	74.85	21.145	
3,543.3	3,511.5	3,490.5	3,490.5	9.8	67.9	161.95	126.1	-1,253.9	1,583.1	1,507.3	75.80	20.885	
3,553.7	3,521.9	3,500.9	3,500.9	9.8	68.1	-79.40	126.1	-1,253.9	1,583.1	1,505.4	77.74	20.365	
3,600.0	3,568.2	3,547.2	3,547.2	9.9	69.0	-79.40	126.1	-1,253.9	1,583.1	1,504.4	78.74	20.106	
3,641.7	3,609.9	3,588.9	3,588.9	10.0	69.9	-79.40	126.1	-1,253.9	1,583.1	1,503.5	79.65	19.876	
3,700.0	3,668.2	3,647.2	3,647.2	10.1	71.0	-79.40	126.1	-1,253.9	1,583.1	1,502.2	80.92	19.564	
3,740.1	3,708.4	3,687.4	3,687.4	10.1	71.9	-79.40	126.1	-1,253.9	1,583.1	1,501.3	81.79	19.355	
3,800.0	3,768.2	3,747.2	3,747.2	10.2	73.1	-79.40	126.1	-1,253.9	1,583.1	1,500.0	83.10	19.051	
3,838.6	3,806.8	3,785.8	3,785.8	10.3	73.8	-79.40	126.1	-1,253.9	1,583.1	1,499.2	83.94	18.859	
3,900.0	3,868.2	3,847.2	3,847.2	10.4	75.1	-79.40	126.1	-1,253.9	1,583.1	1,497.8	85.28	18.563	
3,937.0	3,905.2	3,884.2	3,884.2	10.5	75.8	-79.40	126.1	-1,253.9	1,583.1	1,497.0	86.09	18.388	
4,000.0	3,968.2	3,947.2	3,947.2	10.6	77.1	-79.40	126.1	-1,253.9	1,583.1	1,495.6	87.47	18.099	
4,035.4	4,003.6	3,982.6	3,982.6	10.6	77.8	-79.40	126.1	-1,253.9	1,583.1	1,494.9	88.24	17.940	
4,100.0	4,068.2	4,047.2	4,047.2	10.7	79.1	-79.40	126.1	-1,253.9	1,583.1	1,493.4	89.66	17.657	
4,133.8	4,102.1	4,081.1	4,081.1	10.8	79.8	-79.40	126.1	-1,253.9	1,583.1	1,492.7	90.40	17.513	
4,200.0	4,168.2	4,147.2	4,147.2	10.9	81.1	-79.40	126.1	-1,253.9	1,583.1	1,491.3	91.85	17.237	
4,232.3	4,200.5	4,179.5	4,179.5	11.0	81.7	-79.40	126.1	-1,253.9	1,583.1	1,490.6	92.55	17.105	
4,300.0	4,268.2	4,247.2	4,247.2	11.1	83.1	-79.40	126.1	-1,253.9	1,583.1	1,489.1	94.04	16.835	
4,330.7	4,298.9	4,277.9	4,277.9	11.1	83.7	-79.40	126.1	-1,253.9	1,583.1	1,488.4	94.71	16.715	
4,400.0	4,368.2	4,347.2	4,347.2	11.3	85.1	-79.40	126.1	-1,253.9	1,583.1	1,486.9	96.23	16.451	
4,429.1	4,397.3	4,376.3	4,376.3	11.3	85.7	-79.40	126.1	-1,253.9	1,583.1	1,486.2	96.87	16.343	
4,500.0	4,468.2	4,447.2	4,447.2	11.4	87.1	-79.40	126.1	-1,253.9	1,583.1	1,484.7	98.42	16.085	
4,527.5	4,495.8	4,474.8	4,474.8	11.5	87.7	-79.40	126.1	-1,253.9	1,583.1	1,484.1	99.03	15.986	
4,600.0	4,568.2	4,547.2	4,547.2	11.6	89.1	-79.40	126.1	-1,253.9	1,583.1	1,482.5	100.62	15.734	
4,626.0	4,594.2	4,573.2	4,573.2	11.7	89.7	-79.40	126.1	-1,253.9	1,583.1	1,481.9	101.19	15.645	
4,700.0	4,668.2	4,647.2	4,647.2	11.8	91.2	-79.40	126.1	-1,253.9	1,583.1	1,480.3	102.82	15.398	
4,724.4	4,692.6	4,671.6	4,671.6	11.9	91.6	-79.40	126.1	-1,253.9	1,583.1	1,479.8	103.35	15.318	
4,800.0	4,768.2	4,747.2	4,747.2	12.0	93.2	-79.40	126.1	-1,253.9	1,583.1	1,478.1	105.01	15.075	
4,822.8	4,791.0	4,770.0	4,770.0	12.0	93.6	-79.40	126.1	-1,253.9	1,583.1	1,477.6	105.52	15.004	
4,900.0	4,868.2	4,847.2	4,847.2	12.2	95.2	-79.40	126.1	-1,253.9	1,583.1	1,475.9	107.21	14.766	
4,921.2	4,889.5	4,868.5	4,868.5	12.2	95.6	-79.40	126.1	-1,253.9	1,583.1	1,475.4	107.68	14.702	
5,000.0	4,968.2	4,947.2	4,947.2	12.4	97.2	-79.40	126.1	-1,253.9	1,583.1	1,473.7	109.41	14.469	
5,019.7	4,987.9	4,966.9	4,966.9	12.4	97.6	-79.40	126.1	-1,253.9	1,583.1	1,473.3	109.85	14.412	

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

Anticollision Report



Company:	PDC ENERGY	Local Co-ordinate Reference:	Well WACKER 10G-214
Project:	WELD COUNTY, COLORADO	TVD Reference:	KB-EST @ 4624.0usft (Original Well Elev)
Reference Site:	SW NW SEC. 10 T5N R64W 6th P.M.	MD Reference:	KB-EST @ 4624.0usft (Original Well Elev)
Site Error:	0.0 usft	North Reference:	True
Reference Well:	WACKER 10G-214	Survey Calculation Method:	Minimum Curvature
Well Error:	0.0 usft	Output errors are at	2.00 sigma
Reference Wellbore	ORIGINAL WELLBORE	Database:	EDM 5000.1 Single User Db
Reference Design:	PROPOSAL #1	Offset TVD Reference:	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	5,068.2	5,047.2	5,047.2	12.6	99.2	-79.40	126.1	-1,253.9	1,583.1	1,471.5	111.62	14.184		
5,118.1	5,086.3	5,065.3	5,065.3	12.6	99.6	-79.40	126.1	-1,253.9	1,583.1	1,471.1	112.01	14.133		
5,200.0	5,168.2	5,147.2	5,147.2	12.7	101.2	-79.40	126.1	-1,253.9	1,583.1	1,469.3	113.82	13.909		
5,216.5	5,184.7	5,163.7	5,163.7	12.8	101.5	-79.40	126.1	-1,253.9	1,583.1	1,468.9	114.18	13.865		
5,300.0	5,268.2	5,247.2	5,247.2	12.9	103.2	-79.40	126.1	-1,253.9	1,583.1	1,467.1	116.02	13.645		
5,314.9	5,283.2	5,262.2	5,262.2	13.0	103.5	-79.40	126.1	-1,253.9	1,583.1	1,466.8	116.35	13.606		
5,400.0	5,368.2	5,347.2	5,347.2	13.1	105.2	-79.40	126.1	-1,253.9	1,583.1	1,464.9	118.23	13.390		
5,413.4	5,381.6	5,360.6	5,360.6	13.2	105.5	-79.40	126.1	-1,253.9	1,583.1	1,464.6	118.52	13.357		
5,500.0	5,468.2	5,447.2	5,447.2	13.3	107.2	-79.40	126.1	-1,253.9	1,583.1	1,462.7	120.43	13.145		
5,511.8	5,480.0	5,459.0	5,459.0	13.3	107.5	-79.40	126.1	-1,253.9	1,583.1	1,462.4	120.69	13.117		
5,600.0	5,568.2	5,547.2	5,547.2	13.5	109.3	-79.40	126.1	-1,253.9	1,583.1	1,460.5	122.64	12.908		
5,610.2	5,578.4	5,557.4	5,557.4	13.5	109.5	-79.40	126.1	-1,253.9	1,583.1	1,460.2	122.87	12.885		
5,700.0	5,668.2	5,647.2	5,647.2	13.7	111.3	-79.40	126.1	-1,253.9	1,583.1	1,458.3	124.85	12.680		
5,708.6	5,676.9	5,655.9	5,655.9	13.7	111.4	-79.40	126.1	-1,253.9	1,583.1	1,458.1	125.04	12.661		
5,800.0	5,768.2	5,747.2	5,747.2	13.9	113.3	-79.40	126.1	-1,253.9	1,583.1	1,456.0	127.06	12.460		
5,807.1	5,775.3	5,754.3	5,754.3	13.9	113.4	-79.40	126.1	-1,253.9	1,583.1	1,455.9	127.21	12.444		
5,900.0	5,868.2	5,847.2	5,847.2	14.1	115.3	-79.40	126.1	-1,253.9	1,583.1	1,453.8	129.27	12.247		
5,905.5	5,873.7	5,852.7	5,852.7	14.1	115.4	-79.40	126.1	-1,253.9	1,583.1	1,453.7	129.39	12.235		
5,960.7	5,928.9	5,907.9	5,907.9	14.2	116.5	-79.40	126.1	-1,253.9	1,583.1	1,452.5	130.61	12.121		
6,000.0	5,968.2	5,947.2	5,947.2	14.3	117.3	10.62	126.1	-1,253.9	1,582.0	1,452.0	130.07	12.163		
6,003.9	5,972.1	5,951.1	5,951.1	14.3	117.4	10.63	126.1	-1,253.9	1,581.8	1,451.7	130.11	12.157		
6,050.0	6,018.0	5,997.0	5,997.0	14.4	118.3	10.72	126.1	-1,253.9	1,577.6	1,447.3	130.34	12.104		
6,100.0	6,067.3	6,046.3	6,046.3	14.4	119.3	10.89	126.1	-1,253.9	1,569.8	1,439.8	129.99	12.077		
6,102.3	6,069.6	6,048.6	6,048.6	14.4	119.3	10.90	126.1	-1,253.9	1,569.4	1,439.4	129.95	12.076		
6,150.0	6,116.0	6,095.0	6,095.0	14.4	120.3	11.15	126.1	-1,253.9	1,558.7	1,429.7	129.00	12.083		
6,200.0	6,163.8	6,142.8	6,142.8	14.5	121.2	11.49	126.1	-1,253.9	1,544.2	1,416.8	127.38	12.122		
6,200.8	6,164.5	6,143.5	6,143.5	14.5	121.2	11.50	126.1	-1,253.9	1,543.9	1,416.6	127.35	12.123		
6,250.0	6,210.4	6,189.4	6,189.4	14.5	122.2	11.93	126.1	-1,253.9	1,526.5	1,401.3	125.15	12.197		
6,299.2	6,254.9	6,233.9	6,233.9	14.5	123.1	12.48	126.1	-1,253.9	1,506.0	1,383.6	122.37	12.306		
6,300.0	6,255.6	6,234.6	6,234.6	14.5	123.1	12.49	126.1	-1,253.9	1,505.6	1,383.3	122.33	12.308		
6,350.0	6,299.3	6,278.3	6,278.3	14.5	124.0	13.18	126.1	-1,253.9	1,481.7	1,362.8	118.95	12.457		
6,397.6	6,339.2	6,318.2	6,318.2	14.6	124.8	13.98	126.1	-1,253.9	1,456.3	1,341.0	115.27	12.633		
6,400.0	6,341.2	6,320.2	6,320.2	14.6	124.8	14.03	126.1	-1,253.9	1,455.0	1,339.9	115.08	12.643		
6,450.0	6,381.0	6,360.0	6,360.0	14.6	125.6	15.06	126.1	-1,253.9	1,425.4	1,314.6	110.82	12.863		
6,496.0	6,415.8	6,394.8	6,394.8	14.7	126.3	16.22	126.1	-1,253.9	1,395.8	1,289.2	106.66	13.087		
6,500.0	6,418.7	6,397.7	6,397.7	14.7	126.4	16.33	126.1	-1,253.9	1,393.2	1,286.9	106.29	13.107		
6,550.0	6,453.9	6,432.9	6,432.9	14.8	127.1	17.88	126.1	-1,253.9	1,358.6	1,256.8	101.72	13.355		
6,594.5	6,483.1	6,462.1	6,462.1	15.0	127.7	19.57	126.1	-1,253.9	1,325.8	1,228.0	97.87	13.547		
6,600.0	6,486.6	6,465.6	6,465.6	15.1	127.7	19.80	126.1	-1,253.9	1,321.7	1,224.2	97.42	13.567		
6,650.0	6,516.6	6,495.6	6,495.6	15.3	128.3	22.19	126.1	-1,253.9	1,282.7	1,188.8	93.84	13.668		
6,692.9	6,540.0	6,519.0	6,519.0	15.7	128.8	24.72	126.1	-1,253.9	1,247.7	1,155.9	91.86	13.583		
6,700.0	6,543.7	6,522.7	6,522.7	15.7	128.9	25.19	126.1	-1,253.9	1,241.8	1,150.1	91.66	13.548		
6,750.0	6,567.8	6,546.8	6,546.8	16.2	129.4	29.00	126.1	-1,253.9	1,199.3	1,107.5	91.76	13.069		
6,791.3	6,585.4	6,564.4	6,564.4	16.7	129.7	32.92	126.1	-1,253.9	1,163.0	1,068.8	94.27	12.337		
6,800.0	6,588.8	6,567.8	6,567.8	16.8	129.8	33.85	126.1	-1,253.9	1,155.3	1,060.2	95.13	12.145		
6,850.0	6,606.6	6,585.6	6,585.6	17.4	130.1	40.08	126.1	-1,253.9	1,110.2	1,007.7	102.52	10.829		
6,889.7	6,618.4	6,597.4	6,597.4	18.0	130.4	46.22	126.1	-1,253.9	1,073.6	962.3	111.30	9.646		
6,900.0	6,621.1	6,600.1	6,600.1	18.2	130.4	48.00	126.1	-1,253.9	1,064.1	950.2	113.91	9.341		
6,950.0	6,632.2	6,611.2	6,611.2	19.0	130.7	57.80	126.1	-1,253.9	1,017.3	889.4	127.86	7.956		
6,988.2	6,638.4	6,617.4	6,617.4	19.7	130.8	66.43	126.1	-1,253.9	981.3	843.0	138.31	7.095		
7,000.0	6,639.9	6,618.9	6,618.9	19.9	130.8	69.26	126.1	-1,253.9	970.1	828.9	141.19	6.871		
7,050.0	6,644.1	6,623.1	6,623.1	20.8	130.9	81.52	126.1	-1,253.9	922.7	772.6	150.05	6.149		

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

Anticollision Report



Company:	PDC ENERGY	Local Co-ordinate Reference:	Well WACKER 10G-214
Project:	WELD COUNTY, COLORADO	TVD Reference:	KB-EST @ 4624.0usft (Original Well Elev)
Reference Site:	SW NW SEC. 10 T5N R64W 6th P.M.	MD Reference:	KB-EST @ 4624.0usft (Original Well Elev)
Site Error:	0.0 usft	North Reference:	True
Reference Well:	WACKER 10G-214	Survey Calculation Method:	Minimum Curvature
Well Error:	0.0 usft	Output errors are at	2.00 sigma
Reference Wellbore	ORIGINAL WELLBORE	Database:	EDM 5000.1 Single User Db
Reference Design:	PROPOSAL #1	Offset TVD Reference:	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		
7,086.5	6,645.0	6,624.0	6,624.0	21.5	130.9	90.23	126.1	-1,253.9	888.1	735.6	152.44	5.826		
7,100.0	6,645.0	6,624.0	6,624.0	21.8	130.9	90.23	126.1	-1,253.9	875.4	722.7	152.71	5.732		
7,185.0	6,644.9	6,623.9	6,623.9	23.6	130.9	90.20	126.1	-1,253.9	795.7	641.2	154.47	5.151		
7,200.0	6,644.8	6,623.8	6,623.8	23.9	130.9	90.20	126.1	-1,253.9	781.8	627.0	154.77	5.051		
7,283.4	6,644.7	6,623.7	6,623.7	25.7	130.9	90.18	126.1	-1,253.9	705.0	548.4	156.62	4.502		
7,300.0	6,644.7	6,623.7	6,623.7	26.1	130.9	90.17	126.1	-1,253.9	690.0	533.0	156.98	4.395		
7,381.9	6,644.6	6,623.6	6,623.6	28.0	130.9	90.15	126.1	-1,253.9	616.7	457.9	158.87	3.882		
7,400.0	6,644.6	6,623.6	6,623.6	28.4	130.9	90.14	126.1	-1,253.9	600.8	441.5	159.29	3.772		
7,480.3	6,644.5	6,623.5	6,623.5	30.3	130.9	90.12	126.1	-1,253.9	532.0	370.8	161.22	3.300		
7,500.0	6,644.4	6,623.4	6,623.4	30.8	130.9	90.12	126.1	-1,253.9	515.6	353.9	161.69	3.189		
7,578.7	6,644.3	6,623.3	6,623.3	32.7	130.9	90.09	126.1	-1,253.9	452.8	289.2	163.62	2.768		
7,600.0	6,644.3	6,623.3	6,623.3	33.3	130.9	90.09	126.1	-1,253.9	436.8	272.6	164.15	2.661		
7,677.1	6,644.2	6,623.2	6,623.2	35.2	130.9	90.07	126.1	-1,253.9	382.7	216.6	166.08	2.304		
7,700.0	6,644.1	6,623.1	6,623.1	35.8	130.9	90.06	126.1	-1,253.9	368.3	201.7	166.66	2.210		
7,775.6	6,644.0	6,623.0	6,623.0	37.7	130.9	90.04	126.1	-1,253.9	327.5	158.9	168.59	1.943		
7,800.0	6,644.0	6,623.0	6,623.0	38.3	130.9	90.03	126.1	-1,253.9	317.1	147.9	169.21	1.874		
7,874.0	6,643.9	6,622.9	6,622.9	40.2	130.9	90.01	126.1	-1,253.9	295.7	124.6	171.12	1.728		
7,900.0	6,643.9	6,622.9	6,622.9	40.9	130.9	90.01	126.1	-1,253.9	292.3	120.5	171.80	1.701		
7,925.5	6,643.8	6,622.8	6,622.8	41.6	130.9	90.00	126.1	-1,253.9	291.2	118.7	172.46	1.688	CC, ES, SF	
7,972.4	6,643.8	6,622.8	6,622.8	42.8	130.9	89.99	126.1	-1,253.9	294.9	121.2	173.69	1.698		
8,000.0	6,643.7	6,622.7	6,622.7	43.5	130.9	89.98	126.1	-1,253.9	300.6	126.1	174.41	1.723		
8,070.8	6,643.6	6,622.6	6,622.6	45.4	130.9	89.96	126.1	-1,253.9	325.4	149.2	176.28	1.846		
8,100.0	6,643.6	6,622.6	6,622.6	46.2	130.9	89.95	126.1	-1,253.9	339.4	162.4	177.05	1.917		
8,169.3	6,643.5	6,622.5	6,622.5	48.0	130.9	89.93	126.1	-1,253.9	379.7	200.8	178.89	2.123		
8,200.0	6,643.5	6,622.5	6,622.5	48.8	130.9	89.93	126.1	-1,253.9	400.1	220.4	179.70	2.227		
8,267.7	6,643.4	6,622.4	6,622.4	50.6	130.9	89.91	126.1	-1,253.9	449.3	267.8	181.51	2.475		
8,300.0	6,643.3	6,622.3	6,622.3	51.5	130.9	89.90	126.1	-1,253.9	474.4	292.0	182.37	2.601		
8,366.1	6,643.2	6,622.2	6,622.2	53.3	130.9	89.88	126.1	-1,253.9	528.1	344.0	184.15	2.868		
8,400.0	6,643.2	6,622.2	6,622.2	54.2	130.9	89.87	126.1	-1,253.9	556.7	371.6	185.06	3.008		
8,464.5	6,643.1	6,622.1	6,622.1	55.9	130.9	89.86	126.1	-1,253.9	612.6	425.8	186.80	3.280		
8,500.0	6,643.1	6,622.1	6,622.1	56.9	130.9	89.85	126.1	-1,253.9	644.0	456.3	187.76	3.430		
8,563.0	6,643.0	6,622.0	6,622.0	58.6	130.9	89.83	126.1	-1,253.9	700.8	511.3	189.46	3.699		
8,600.0	6,642.9	6,621.9	6,621.9	59.6	130.9	89.82	126.1	-1,253.9	734.6	544.2	190.46	3.857		
8,661.4	6,642.8	6,621.8	6,621.8	61.3	130.9	89.81	126.1	-1,253.9	791.4	599.2	192.13	4.119		
8,700.0	6,642.8	6,621.8	6,621.8	62.3	130.9	89.80	126.1	-1,253.9	827.4	634.2	193.18	4.283		
8,759.8	6,642.7	6,621.7	6,621.7	64.0	130.9	89.78	126.1	-1,253.9	883.6	688.8	194.81	4.536		
8,800.0	6,642.7	6,621.7	6,621.7	65.1	130.9	89.77	126.1	-1,253.9	921.7	725.8	195.90	4.705		
8,858.2	6,642.6	6,621.6	6,621.6	66.6	130.9	89.75	126.1	-1,253.9	977.1	779.6	197.49	4.948		
8,900.0	6,642.5	6,621.5	6,621.5	67.8	130.9	89.74	126.1	-1,253.9	1,017.0	818.4	198.63	5.120		
8,956.7	6,642.4	6,621.4	6,621.4	69.3	130.9	89.73	126.1	-1,253.9	1,071.5	871.3	200.19	5.352		
9,000.0	6,642.4	6,621.4	6,621.4	70.5	130.9	89.72	126.1	-1,253.9	1,113.2	911.8	201.37	5.528		
9,055.1	6,642.3	6,621.3	6,621.3	72.0	130.9	89.70	126.1	-1,253.9	1,166.5	963.6	202.88	5.750		
9,100.0	6,642.3	6,621.3	6,621.3	73.3	130.9	89.69	126.1	-1,253.9	1,210.0	1,005.9	204.11	5.928		
9,153.5	6,642.2	6,621.2	6,621.2	74.7	130.9	89.68	126.1	-1,253.9	1,262.0	1,056.5	205.58	6.139		
9,200.0	6,642.1	6,621.1	6,621.1	76.0	130.9	89.67	126.1	-1,253.9	1,307.3	1,100.4	206.86	6.320		
9,251.9	6,642.1	6,621.1	6,621.1	77.5	130.9	89.65	126.1	-1,253.9	1,358.0	1,149.7	208.29	6.520		
9,300.0	6,642.0	6,621.0	6,621.0	78.8	130.8	89.64	126.1	-1,253.9	1,405.0	1,195.4	209.61	6.703		
9,350.4	6,641.9	6,620.9	6,620.9	80.2	130.8	89.63	126.1	-1,253.9	1,454.3	1,243.3	211.00	6.892		
9,400.0	6,641.9	6,620.9	6,620.9	81.5	130.8	89.62	126.1	-1,253.9	1,502.9	1,290.6	212.37	7.077		
9,448.8	6,641.8	6,620.8	6,620.8	82.9	130.8	89.60	126.1	-1,253.9	1,550.8	1,337.1	213.71	7.257		
9,500.0	6,641.7	6,620.7	6,620.7	84.3	130.8	89.59	126.1	-1,253.9	1,601.2	1,386.0	215.12	7.443		
9,547.2	6,641.7	6,620.7	6,620.7	85.6	130.8	89.58	126.1	-1,253.9	1,647.6	1,431.2	216.43	7.613		

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

Anticollision Report



Company:	PDC ENERGY	Local Co-ordinate Reference:	Well WACKER 10G-214
Project:	WELD COUNTY, COLORADO	TVD Reference:	KB-EST @ 4624.0usft (Original Well Elev)
Reference Site:	SW NW SEC. 10 T5N R64W 6th P.M.	MD Reference:	KB-EST @ 4624.0usft (Original Well Elev)
Site Error:	0.0 usft	North Reference:	True
Reference Well:	WACKER 10G-214	Survey Calculation Method:	Minimum Curvature
Well Error:	0.0 usft	Output errors are at	2.00 sigma
Reference Wellbore	ORIGINAL WELLBORE	Database:	EDM 5000.1 Single User Db
Reference Design:	PROPOSAL #1	Offset TVD Reference:	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	6,641.6	6,620.6	6,620.6	87.1	130.8	89.57	126.1	-1,253.9	1,699.6	1,481.7	217.89	7.800		
9,645.6	6,641.5	6,620.5	6,620.5	88.3	130.8	89.56	126.1	-1,253.9	1,744.6	1,525.4	219.15	7.961		
9,700.0	6,641.5	6,620.5	6,620.5	89.8	130.8	89.54	126.1	-1,253.9	1,798.2	1,577.5	220.65	8.149		
9,744.1	6,641.4	6,620.4	6,620.4	91.0	130.8	89.53	126.1	-1,253.9	1,841.7	1,619.8	221.87	8.301		
9,800.0	6,641.3	6,620.3	6,620.3	92.6	130.8	89.52	126.1	-1,253.9	1,896.9	1,673.5	223.42	8.491		
9,842.5	6,641.3	6,620.3	6,620.3	93.8	130.8	89.51	126.1	-1,253.9	1,938.9	1,714.4	224.59	8.633		
9,900.0	6,641.2	6,620.2	6,620.2	95.4	130.8	89.49	126.1	-1,253.9	1,995.8	1,769.6	226.19	8.824		
9,940.9	6,641.1	6,620.1	6,620.1	96.5	130.8	89.48	126.1	-1,253.9	2,036.3	1,809.0	227.32	8.958		
10,000.0	6,641.1	6,620.1	6,620.1	98.1	130.8	89.47	126.1	-1,253.9	2,094.8	1,865.8	228.96	9.149		
10,039.3	6,641.0	6,620.0	6,620.0	99.2	130.8	89.46	126.1	-1,253.9	2,133.8	1,903.7	230.05	9.275		
10,100.0	6,640.9	6,619.9	6,619.9	100.9	130.8	89.45	126.1	-1,253.9	2,193.9	1,962.1	231.73	9.467		
10,137.8	6,640.9	6,619.9	6,619.9	102.0	130.8	89.44	126.1	-1,253.9	2,231.3	1,998.5	232.78	9.586		
10,200.0	6,640.8	6,619.8	6,619.8	103.7	130.8	89.42	126.1	-1,253.9	2,293.0	2,058.5	234.51	9.778		
10,236.2	6,640.8	6,619.8	6,619.8	104.7	130.8	89.41	126.1	-1,253.9	2,328.9	2,093.4	235.51	9.889		
10,300.0	6,640.7	6,619.7	6,619.7	106.5	130.8	89.40	126.1	-1,253.9	2,392.2	2,155.0	237.28	10.082		
10,334.6	6,640.6	6,619.6	6,619.6	107.4	130.8	89.39	126.1	-1,253.9	2,426.6	2,188.4	238.25	10.185		
10,400.0	6,640.6	6,619.6	6,619.6	109.3	130.8	89.37	126.1	-1,253.9	2,491.5	2,251.5	240.06	10.379		
10,433.0	6,640.5	6,619.5	6,619.5	110.2	130.8	89.36	126.1	-1,253.9	2,524.4	2,283.4	240.98	10.475		
10,500.0	6,640.4	6,619.4	6,619.4	112.0	130.8	89.35	126.1	-1,253.9	2,590.9	2,348.0	242.84	10.669		
10,531.5	6,640.4	6,619.4	6,619.4	112.9	130.8	89.34	126.1	-1,253.9	2,622.2	2,378.4	243.72	10.759		
10,600.0	6,640.3	6,619.3	6,619.3	114.8	130.8	89.33	126.1	-1,253.9	2,690.3	2,444.6	245.62	10.953		
10,629.9	6,640.3	6,619.3	6,619.3	115.7	130.8	89.32	126.1	-1,253.9	2,720.0	2,473.5	246.45	11.036		
10,700.0	6,640.2	6,619.2	6,619.2	117.6	130.8	89.30	126.1	-1,253.9	2,789.7	2,541.3	248.41	11.230		
10,728.3	6,640.1	6,619.1	6,619.1	118.4	130.8	89.30	126.1	-1,253.9	2,817.9	2,568.7	249.19	11.308		
10,800.0	6,640.0	6,619.0	6,619.0	120.4	130.8	89.28	126.1	-1,253.9	2,889.2	2,638.0	251.19	11.502		
10,826.7	6,640.0	6,619.0	6,619.0	121.2	130.8	89.27	126.1	-1,253.9	2,915.8	2,663.9	251.93	11.574		
10,900.0	6,639.9	6,618.9	6,618.9	123.2	130.8	89.26	126.1	-1,253.9	2,988.7	2,734.7	253.97	11.768		
10,925.2	6,639.9	6,618.9	6,618.9	123.9	130.8	89.25	126.1	-1,253.9	3,013.7	2,759.1	254.67	11.834		
11,000.0	6,639.8	6,618.8	6,618.8	126.0	130.8	89.23	126.1	-1,253.9	3,088.2	2,831.5	256.76	12.028		
11,023.6	6,639.8	6,618.8	6,618.8	126.6	130.8	89.23	126.1	-1,253.9	3,111.7	2,854.3	257.42	12.088		
11,100.0	6,639.7	6,618.7	6,618.7	128.8	130.8	89.21	126.1	-1,253.9	3,187.8	2,928.2	259.54	12.282		
11,122.0	6,639.6	6,618.6	6,618.6	129.4	130.8	89.20	126.1	-1,253.9	3,209.7	2,949.6	260.16	12.338		
11,200.0	6,639.5	6,618.5	6,618.5	131.6	130.8	89.19	126.1	-1,253.9	3,287.4	3,025.0	262.33	12.531		
11,220.4	6,639.5	6,618.5	6,618.5	132.1	130.8	89.18	126.1	-1,253.9	3,307.7	3,044.8	262.90	12.582		
11,300.0	6,639.4	6,618.4	6,618.4	134.4	130.8	89.16	126.1	-1,253.9	3,387.0	3,121.9	265.12	12.775		
11,318.9	6,639.4	6,618.4	6,618.4	134.9	130.8	89.16	126.1	-1,253.9	3,405.8	3,140.2	265.65	12.821		
11,400.0	6,639.3	6,618.3	6,618.3	137.1	130.8	89.14	126.1	-1,253.9	3,486.6	3,218.7	267.91	13.014		
11,417.3	6,639.3	6,618.3	6,618.3	137.6	130.8	89.14	126.1	-1,253.9	3,503.9	3,235.5	268.39	13.055		
11,500.0	6,639.2	6,618.2	6,618.2	139.9	130.8	89.12	126.1	-1,253.9	3,586.3	3,315.6	270.70	13.248		
11,515.7	6,639.1	6,618.1	6,618.1	140.4	130.8	89.12	126.1	-1,253.9	3,602.0	3,330.8	271.14	13.285		
11,600.0	6,639.0	6,618.0	6,618.0	142.7	130.8	89.10	126.1	-1,253.9	3,686.0	3,412.5	273.49	13.478		
11,614.1	6,639.0	6,618.0	6,618.0	143.1	130.8	89.09	126.1	-1,253.9	3,700.1	3,426.2	273.88	13.510		
11,700.0	6,638.9	6,617.9	6,617.9	145.5	130.8	89.08	126.1	-1,253.9	3,785.7	3,509.4	276.28	13.702		
11,712.6	6,638.9	6,617.9	6,617.9	145.9	130.8	89.07	126.1	-1,253.9	3,798.2	3,521.6	276.63	13.730		
11,800.0	6,638.8	6,617.8	6,617.8	148.3	130.8	89.05	126.1	-1,253.9	3,885.4	3,606.3	279.07	13.923		
11,811.0	6,638.8	6,617.8	6,617.8	148.6	130.8	89.05	126.1	-1,253.9	3,896.4	3,617.0	279.38	13.947		
11,900.0	6,638.7	6,617.7	6,617.7	151.1	130.8	89.03	126.1	-1,253.9	3,985.1	3,703.3	281.86	14.139		
11,909.4	6,638.6	6,617.6	6,617.6	151.4	130.8	89.03	126.1	-1,253.9	3,994.5	3,712.4	282.12	14.159		
12,000.0	6,638.5	6,617.5	6,617.5	153.9	130.8	89.01	126.1	-1,253.9	4,084.8	3,800.2	284.65	14.350		
12,007.8	6,638.5	6,617.5	6,617.5	154.1	130.8	89.01	126.1	-1,253.9	4,092.7	3,807.8	284.87	14.367		
12,100.0	6,638.4	6,617.4	6,617.4	156.7	130.8	88.99	126.1	-1,253.9	4,184.6	3,897.2	287.44	14.558		
12,106.3	6,638.4	6,617.4	6,617.4	156.9	130.8	88.99	126.1	-1,253.9	4,190.9	3,903.2	287.62	14.571		

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

Anticollision Report



Company:	PDC ENERGY	Local Co-ordinate Reference:	Well WACKER 10G-214
Project:	WELD COUNTY, COLORADO	TVD Reference:	KB-EST @ 4624.0usft (Original Well Elev)
Reference Site:	SW NW SEC. 10 T5N R64W 6th P.M.	MD Reference:	KB-EST @ 4624.0usft (Original Well Elev)
Site Error:	0.0 usft	North Reference:	True
Reference Well:	WACKER 10G-214	Survey Calculation Method:	Minimum Curvature
Well Error:	0.0 usft	Output errors are at	2.00 sigma
Reference Wellbore	ORIGINAL WELLBORE	Database:	EDM 5000.1 Single User Db
Reference Design:	PROPOSAL #1	Offset TVD Reference:	Offset Datum

Offset Design		SW NW SEC. 10 T5N R64W 6th P.M. - ABDN VERT HEINRICH #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			
12,200.0	6,638.3	6,617.3	6,617.3	159.5	130.8	88.97	126.1	-1,253.9	4,284.4	3,994.1	290.24	14.762			
12,204.7	6,638.3	6,617.3	6,617.3	159.6	130.8	88.97	126.1	-1,253.9	4,289.1	3,998.7	290.37	14.771			
12,300.0	6,638.2	6,617.2	6,617.2	162.3	130.8	88.95	126.1	-1,253.9	4,384.1	4,091.1	293.03	14.961			
12,303.1	6,638.2	6,617.2	6,617.2	162.4	130.8	88.94	126.1	-1,253.9	4,387.3	4,094.1	293.12	14.968			
12,400.0	6,638.0	6,617.0	6,617.0	165.1	130.8	88.92	126.1	-1,253.9	4,483.9	4,188.1	295.82	15.157			
12,401.5	6,638.0	6,617.0	6,617.0	165.2	130.8	88.92	126.1	-1,253.9	4,485.5	4,189.6	295.87	15.160			
12,500.0	6,637.9	6,616.9	6,616.9	167.9	130.8	88.90	126.1	-1,253.9	4,583.7	4,285.1	298.62	15.350			
12,598.4	6,637.8	6,616.8	6,616.8	170.7	130.8	88.88	126.1	-1,253.9	4,681.9	4,380.6	301.37	15.536			
12,600.0	6,637.8	6,616.8	6,616.8	170.7	130.8	88.88	126.1	-1,253.9	4,683.5	4,382.1	301.41	15.539			
12,696.8	6,637.7	6,616.7	6,616.7	173.4	130.8	88.86	126.1	-1,253.9	4,780.2	4,476.0	304.12	15.718			
12,700.0	6,637.7	6,616.7	6,616.7	173.5	130.8	88.86	126.1	-1,253.9	4,783.3	4,479.1	304.21	15.724			
12,795.2	6,637.6	6,616.6	6,616.6	176.2	130.8	88.84	126.1	-1,253.9	4,878.4	4,571.5	306.87	15.897			
12,800.0	6,637.6	6,616.6	6,616.6	176.3	130.8	88.84	126.1	-1,253.9	4,883.1	4,576.1	307.00	15.906			
12,893.7	6,637.4	6,616.4	6,616.4	178.9	130.8	88.82	126.1	-1,253.9	4,976.7	4,667.0	309.62	16.073			
12,900.0	6,637.4	6,616.4	6,616.4	179.1	130.8	88.82	126.1	-1,253.9	4,983.0	4,673.2	309.80	16.085			
12,992.1	6,637.3	6,616.3	6,616.3	181.7	130.8	88.80	126.1	-1,253.9	5,074.9	4,762.5	312.37	16.246			
13,000.0	6,637.3	6,616.3	6,616.3	181.9	130.8	88.80	126.1	-1,253.9	5,082.8	4,770.2	312.59	16.260			
13,090.5	6,637.2	6,616.2	6,616.2	184.4	130.8	88.78	126.1	-1,253.9	5,173.2	4,858.1	315.12	16.416			
13,100.0	6,637.2	6,616.2	6,616.2	184.7	130.8	88.78	126.1	-1,253.9	5,182.6	4,867.3	315.39	16.433			
13,188.9	6,637.1	6,616.1	6,616.1	187.2	130.8	88.76	126.1	-1,253.9	5,271.5	4,953.6	317.88	16.583			
13,200.0	6,637.1	6,616.1	6,616.1	187.5	130.8	88.76	126.1	-1,253.9	5,282.5	4,964.3	318.19	16.602			
13,287.4	6,637.0	6,616.0	6,616.0	190.0	130.7	88.74	126.1	-1,253.9	5,369.7	5,049.1	320.63	16.748			
13,300.0	6,637.0	6,616.0	6,616.0	190.3	130.7	88.74	126.1	-1,253.9	5,382.3	5,061.4	320.98	16.768			
13,385.8	6,636.9	6,615.9	6,615.9	192.7	130.7	88.72	126.1	-1,253.9	5,468.0	5,144.6	323.38	16.909			
13,400.0	6,636.8	6,615.8	6,615.8	193.1	130.7	88.72	126.1	-1,253.9	5,482.2	5,158.4	323.78	16.932			
13,484.2	6,636.7	6,615.7	6,615.7	195.5	130.7	88.70	126.1	-1,253.9	5,566.3	5,240.2	326.13	17.068			
13,500.0	6,636.7	6,615.7	6,615.7	195.9	130.7	88.70	126.1	-1,253.9	5,582.1	5,255.5	326.58	17.093			
13,582.6	6,636.6	6,615.6	6,615.6	198.2	130.7	88.68	126.1	-1,253.9	5,664.6	5,335.7	328.89	17.224			
13,600.0	6,636.6	6,615.6	6,615.6	198.7	130.7	88.68	126.1	-1,253.9	5,681.9	5,352.6	329.37	17.251			
13,681.1	6,636.5	6,615.5	6,615.5	201.0	130.7	88.66	126.1	-1,253.9	5,762.9	5,431.3	331.64	17.377			
13,700.0	6,636.5	6,615.5	6,615.5	201.5	130.7	88.66	126.1	-1,253.9	5,781.8	5,449.6	332.17	17.406			
13,779.5	6,636.4	6,615.4	6,615.4	203.7	130.7	88.64	126.1	-1,253.9	5,861.2	5,526.8	334.39	17.528			
13,800.0	6,636.4	6,615.4	6,615.4	204.3	130.7	88.64	126.1	-1,253.9	5,881.7	5,546.7	334.97	17.559			
13,877.9	6,636.3	6,615.3	6,615.3	206.5	130.7	88.62	126.1	-1,253.9	5,959.5	5,622.4	337.15	17.676			
13,900.0	6,636.3	6,615.3	6,615.3	207.1	130.7	88.62	126.1	-1,253.9	5,981.5	5,643.8	337.76	17.709			
13,976.3	6,636.2	6,615.2	6,615.2	209.3	130.7	88.60	126.1	-1,253.9	6,057.8	5,717.9	339.90	17.822			
14,000.0	6,636.1	6,615.1	6,615.1	209.9	130.7	88.60	126.1	-1,253.9	6,081.4	5,740.9	340.56	17.857			
14,074.8	6,636.0	6,615.0	6,615.0	212.0	130.7	88.59	126.1	-1,253.9	6,156.1	5,813.5	342.65	17.966			
14,100.0	6,636.0	6,615.0	6,615.0	212.7	130.7	88.58	126.1	-1,253.9	6,181.3	5,838.0	343.36	18.002			
14,173.2	6,635.9	6,614.9	6,614.9	214.8	130.7	88.57	126.1	-1,253.9	6,254.4	5,909.0	345.41	18.107			
14,200.0	6,635.9	6,614.9	6,614.9	215.5	130.7	88.56	126.1	-1,253.9	6,281.2	5,935.1	346.16	18.146			
14,271.6	6,635.8	6,614.8	6,614.8	217.5	130.7	88.55	126.1	-1,253.9	6,352.8	6,004.6	348.16	18.247			
14,300.0	6,635.8	6,614.8	6,614.8	218.3	130.7	88.55	126.1	-1,253.9	6,381.1	6,032.1	348.96	18.286			
14,370.0	6,635.7	6,614.7	6,614.7	220.3	130.7	88.53	126.1	-1,253.9	6,451.1	6,100.2	350.92	18.384			
14,400.0	6,635.7	6,614.7	6,614.7	221.1	130.7	88.53	126.1	-1,253.9	6,481.0	6,129.2	351.75	18.425			
14,468.5	6,635.6	6,614.6	6,614.6	223.1	130.7	88.51	126.1	-1,253.9	6,549.4	6,195.7	353.67	18.518			
14,500.0	6,635.6	6,614.6	6,614.6	223.9	130.7	88.51	126.1	-1,253.9	6,580.9	6,226.3	354.55	18.561			
14,566.9	6,635.5	6,614.5	6,614.5	225.8	130.7	88.49	126.1	-1,253.9	6,647.7	6,291.3	356.42	18.651			
14,600.0	6,635.4	6,614.4	6,614.4	226.8	130.7	88.49	126.1	-1,253.9	6,680.8	6,323.5	357.35	18.695			
14,665.3	6,635.4	6,614.4	6,614.4	228.6	130.7	88.48	126.1	-1,253.9	6,746.1	6,386.9	359.18	18.782			
14,700.0	6,635.3	6,614.3	6,614.3	229.6	130.7	88.47	126.1	-1,253.9	6,780.7	6,420.6	360.15	18.827			
14,763.7	6,635.2	6,614.2	6,614.2	231.3	130.7	88.46	126.1	-1,253.9	6,844.4	6,482.5	361.93	18.911			

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

Anticollision Report



Company:	PDC ENERGY	Local Co-ordinate Reference:	Well WACKER 10G-214
Project:	WELD COUNTY, COLORADO	TVD Reference:	KB-EST @ 4624.0usft (Original Well Elev)
Reference Site:	SW NW SEC. 10 T5N R64W 6th P.M.	MD Reference:	KB-EST @ 4624.0usft (Original Well Elev)
Site Error:	0.0 usft	North Reference:	True
Reference Well:	WACKER 10G-214	Survey Calculation Method:	Minimum Curvature
Well Error:	0.0 usft	Output errors are at	2.00 sigma
Reference Wellbore	ORIGINAL WELLBORE	Database:	EDM 5000.1 Single User Db
Reference Design:	PROPOSAL #1	Offset TVD Reference:	Offset Datum

Offset Design SW NW SEC. 10 T5N R64W 6th P.M. - ABDN VERT HEINRICH #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									
Measured Depth (usft)	Vertical Depth (usft)	Measured Depth (usft)	Vertical Depth (usft)	Reference (usft)	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
14,800.0	6,635.2	6,614.2	6,614.2	232.4	130.7	88.45	126.1	-1,253.9	6,880.6	6,517.7	362.95	18.958	
14,862.2	6,635.1	6,614.1	6,614.1	234.1	130.7	88.44	126.1	-1,253.9	6,942.7	6,578.1	364.69	19.037	
14,900.0	6,635.1	6,614.1	6,614.1	235.2	130.7	88.44	126.1	-1,253.9	6,980.5	6,614.8	365.75	19.086	
14,960.6	6,635.0	6,614.0	6,614.0	236.9	130.7	88.42	126.1	-1,253.9	7,041.1	6,673.6	367.44	19.162	
14,982.9	6,635.0	6,614.0	6,614.0	237.5	130.7	88.42	126.1	-1,253.9	7,063.3	6,695.3	368.07	19.190	

Anticollision Report



Company:	PDC ENERGY	Local Co-ordinate Reference:	Well WACKER 10G-214
Project:	WELD COUNTY, COLORADO	TVD Reference:	KB-EST @ 4624.0usft (Original Well Elev)
Reference Site:	SW NW SEC. 10 T5N R64W 6th P.M.	MD Reference:	KB-EST @ 4624.0usft (Original Well Elev)
Site Error:	0.0 usft	North Reference:	True
Reference Well:	WACKER 10G-214	Survey Calculation Method:	Minimum Curvature
Well Error:	0.0 usft	Output errors are at	2.00 sigma
Reference Wellbore	ORIGINAL WELLBORE	Database:	EDM 5000.1 Single User Db
Reference Design:	PROPOSAL #1	Offset TVD Reference:	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	5.0	5.0	0.0	0.0	-58.91	1,437.7	-2,384.3	2,784.2				
98.4	98.4	103.4	103.4	0.1	0.0	-58.91	1,437.7	-2,384.3	2,784.2	2,784.1	0.13	N/A	
100.0	100.0	105.0	105.0	0.1	0.0	-58.91	1,437.7	-2,384.3	2,784.2	2,784.1	0.15	N/A	
196.8	196.8	201.8	201.8	0.3	1.0	-58.91	1,437.7	-2,384.3	2,784.2	2,782.9	1.30	2,134.830	
200.0	200.0	205.0	205.0	0.3	1.1	-58.91	1,437.7	-2,384.3	2,784.2	2,782.8	1.39	2,009.869	
295.3	295.3	300.3	300.3	0.5	3.3	-58.91	1,437.7	-2,384.3	2,784.2	2,780.4	3.84	725.612	
300.0	300.0	305.0	305.0	0.5	3.4	-58.91	1,437.7	-2,384.3	2,784.2	2,780.3	3.95	705.574	
393.7	393.7	398.7	398.7	0.8	5.3	-58.91	1,437.7	-2,384.3	2,784.2	2,778.1	6.11	455.901	
400.0	400.0	405.0	405.0	0.8	5.5	-58.91	1,437.7	-2,384.3	2,784.2	2,778.0	6.25	445.445	
492.1	492.1	497.1	497.1	1.0	7.4	-58.91	1,437.7	-2,384.3	2,784.2	2,775.9	8.34	333.866	
500.0	500.0	505.0	505.0	1.0	7.5	-58.91	1,437.7	-2,384.3	2,784.2	2,775.7	8.52	326.893	
590.5	590.5	595.5	595.5	1.2	9.4	-58.91	1,437.7	-2,384.3	2,784.2	2,773.7	10.56	263.705	
600.0	600.0	605.0	605.0	1.2	9.5	-58.91	1,437.7	-2,384.3	2,784.2	2,773.4	10.77	258.498	
689.0	689.0	694.0	694.0	1.4	11.3	-58.91	1,437.7	-2,384.3	2,784.2	2,771.4	12.77	218.021	
700.0	700.0	705.0	705.0	1.4	11.6	-58.91	1,437.7	-2,384.3	2,784.2	2,771.2	13.02	213.874	
787.4	787.4	792.4	792.4	1.6	13.3	-58.91	1,437.7	-2,384.3	2,784.2	2,769.2	14.98	185.872	
800.0	800.0	805.0	805.0	1.7	13.6	-58.91	1,437.7	-2,384.3	2,784.2	2,769.0	15.26	182.430	
885.8	885.8	890.8	890.8	1.9	15.3	-58.91	1,437.7	-2,384.3	2,784.2	2,767.0	17.19	162.006	
900.0	900.0	905.0	905.0	1.9	15.6	-58.91	1,437.7	-2,384.3	2,784.2	2,766.7	17.50	159.066	
984.2	984.2	989.2	989.2	2.1	17.3	-58.91	1,437.7	-2,384.3	2,784.2	2,764.8	19.39	143.582	
1,000.0	1,000.0	1,005.0	1,005.0	2.1	17.6	-58.91	1,437.7	-2,384.3	2,784.2	2,764.5	19.74	141.016	
1,082.7	1,082.7	1,087.7	1,087.7	2.3	19.3	-58.91	1,437.7	-2,384.3	2,784.2	2,762.6	21.60	128.926	
1,100.0	1,100.0	1,105.0	1,105.0	2.3	19.6	-58.91	1,437.7	-2,384.3	2,784.2	2,762.2	21.98	126.651	
1,181.1	1,181.1	1,186.1	1,186.1	2.5	21.3	-58.91	1,437.7	-2,384.3	2,784.2	2,760.4	23.80	116.989	
1,200.0	1,200.0	1,205.0	1,205.0	2.6	21.7	-58.91	1,437.7	-2,384.3	2,784.2	2,760.0	24.22	114.946	
1,279.5	1,279.5	1,284.5	1,284.5	2.7	23.3	-58.91	1,437.7	-2,384.3	2,784.2	2,758.2	26.00	107.077	
1,300.0	1,300.0	1,305.0	1,305.0	2.8	23.7	-58.91	1,437.7	-2,384.3	2,784.2	2,757.8	26.46	105.223	
1,377.9	1,377.9	1,382.9	1,382.9	3.0	25.2	-177.56	1,437.7	-2,384.3	2,785.3	2,757.1	28.18	98.845	
1,400.0	1,400.0	1,405.0	1,405.0	3.0	25.7	-177.56	1,437.7	-2,384.3	2,786.0	2,757.3	28.66	97.208	
1,476.4	1,476.3	1,481.3	1,481.3	3.1	27.2	-177.56	1,437.7	-2,384.3	2,789.6	2,759.3	30.30	92.068	
1,500.0	1,499.8	1,504.8	1,504.8	3.2	27.7	-177.56	1,437.7	-2,384.3	2,791.2	2,760.4	30.80	90.620	
1,574.8	1,574.4	1,579.4	1,579.4	3.3	29.2	-177.56	1,437.7	-2,384.3	2,797.4	2,765.0	32.37	86.409	
1,600.0	1,599.5	1,604.5	1,604.5	3.4	29.7	-177.56	1,437.7	-2,384.3	2,799.9	2,767.0	32.90	85.115	
1,673.2	1,672.2	1,677.2	1,677.2	3.6	31.2	-177.56	1,437.7	-2,384.3	2,808.5	2,774.1	34.40	81.652	
1,700.0	1,698.7	1,703.7	1,703.7	3.6	31.7	-177.56	1,437.7	-2,384.3	2,812.1	2,777.1	34.93	80.497	
1,771.6	1,769.5	1,774.5	1,774.5	3.8	33.1	-177.56	1,437.7	-2,384.3	2,822.9	2,786.6	36.36	77.645	
1,800.0	1,797.5	1,802.5	1,802.5	3.9	33.7	-177.56	1,437.7	-2,384.3	2,827.7	2,790.8	36.91	76.616	
1,870.1	1,866.3	1,871.3	1,871.3	4.1	35.1	-177.56	1,437.7	-2,384.3	2,840.7	2,802.5	38.25	74.268	
1,900.2	1,895.8	1,900.8	1,900.8	4.2	35.7	-177.56	1,437.7	-2,384.3	2,846.8	2,808.0	38.81	73.349	
1,968.5	1,962.6	1,967.6	1,967.6	4.4	37.0	-177.57	1,437.7	-2,384.3	2,861.0	2,820.7	40.28	71.034	
2,000.0	1,993.4	1,998.4	1,998.4	4.5	37.6	-177.58	1,437.7	-2,384.3	2,867.5	2,826.6	40.95	70.025	
2,066.9	2,058.9	2,063.9	2,063.9	4.7	38.9	-177.59	1,437.7	-2,384.3	2,881.5	2,839.1	42.39	67.975	
2,100.0	2,091.2	2,096.2	2,096.2	4.8	39.6	-177.60	1,437.7	-2,384.3	2,888.3	2,845.2	43.10	67.017	
2,165.3	2,155.2	2,160.2	2,160.2	5.1	40.9	-177.61	1,437.7	-2,384.3	2,901.9	2,857.4	44.50	65.205	
2,200.0	2,189.1	2,194.1	2,194.1	5.2	41.6	-177.61	1,437.7	-2,384.3	2,909.1	2,863.9	45.25	64.287	
2,263.8	2,251.4	2,256.4	2,256.4	5.5	42.8	-177.62	1,437.7	-2,384.3	2,922.4	2,875.7	46.63	62.675	
2,300.0	2,286.9	2,291.9	2,291.9	5.6	43.5	-177.63	1,437.7	-2,384.3	2,929.9	2,882.5	47.41	61.800	
2,362.2	2,347.7	2,352.7	2,352.7	5.8	44.7	-177.64	1,437.7	-2,384.3	2,942.8	2,894.1	48.75	60.361	
2,400.0	2,384.7	2,389.7	2,389.7	6.0	45.5	-177.65	1,437.7	-2,384.3	2,950.7	2,901.1	49.57	59.525	
2,460.6	2,444.0	2,449.0	2,449.0	6.2	46.7	-177.66	1,437.7	-2,384.3	2,963.3	2,912.4	50.88	58.238	
2,500.0	2,482.5	2,487.5	2,487.5	6.4	47.5	-177.66	1,437.7	-2,384.3	2,971.5	2,919.7	51.73	57.437	
2,559.0	2,540.3	2,545.3	2,545.3	6.6	48.6	-177.67	1,437.7	-2,384.3	2,983.7	2,930.7	53.01	56.282	

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

Anticollision Report



Company:	PDC ENERGY	Local Co-ordinate Reference:	Well WACKER 10G-214
Project:	WELD COUNTY, COLORADO	TVD Reference:	KB-EST @ 4624.0usft (Original Well Elev)
Reference Site:	SW NW SEC. 10 T5N R64W 6th P.M.	MD Reference:	KB-EST @ 4624.0usft (Original Well Elev)
Site Error:	0.0 usft	North Reference:	True
Reference Well:	WACKER 10G-214	Survey Calculation Method:	Minimum Curvature
Well Error:	0.0 usft	Output errors are at	2.00 sigma
Reference Wellbore	ORIGINAL WELLBORE	Database:	EDM 5000.1 Single User Db
Reference Design:	PROPOSAL #1	Offset TVD Reference:	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	2,580.3	2,585.3	2,585.3	6.8	49.4	-177.68	1,437.7	-2,384.3	2,992.2	2,938.3	53.90	55.514	
2,657.5	2,636.5	2,641.5	2,641.5	7.1	50.6	-177.69	1,437.7	-2,384.3	3,004.2	2,949.0	55.15	54.475	
2,700.0	2,678.1	2,683.1	2,683.1	7.2	51.4	-177.69	1,437.7	-2,384.3	3,013.0	2,956.9	56.07	53.737	
2,755.9	2,732.8	2,737.8	2,737.8	7.5	52.5	-177.70	1,437.7	-2,384.3	3,024.6	2,967.4	57.28	52.801	
2,800.0	2,775.9	2,780.9	2,780.9	7.7	53.4	-177.71	1,437.7	-2,384.3	3,033.8	2,975.6	58.24	52.091	
2,854.3	2,829.1	2,834.1	2,834.1	7.9	54.4	-177.72	1,437.7	-2,384.3	3,045.1	2,985.7	59.42	51.246	
2,900.0	2,873.8	2,878.8	2,878.8	8.1	55.3	-177.73	1,437.7	-2,384.3	3,054.6	2,994.2	60.41	50.561	
2,952.7	2,925.4	2,930.4	2,930.4	8.3	56.4	-177.73	1,437.7	-2,384.3	3,065.5	3,004.0	61.56	49.797	
2,953.5	2,926.1	2,931.1	2,931.1	8.3	56.4	-177.73	1,437.7	-2,384.3	3,065.7	3,004.1	61.58	49.787	
3,000.0	2,971.6	2,976.6	2,976.6	8.5	57.3	-177.75	1,437.7	-2,384.3	3,075.0	3,012.2	62.78	48.982	
3,051.2	3,022.0	3,027.0	3,027.0	8.7	58.3	-177.76	1,437.7	-2,384.3	3,084.4	3,020.3	64.09	48.129	
3,100.0	3,070.1	3,075.1	3,075.1	8.8	59.3	-177.78	1,437.7	-2,384.3	3,092.5	3,027.2	65.32	47.342	
3,149.6	3,119.1	3,124.1	3,124.1	8.9	60.3	-177.79	1,437.7	-2,384.3	3,099.9	3,033.3	66.57	46.569	
3,200.0	3,169.1	3,174.1	3,174.1	9.1	61.3	-177.80	1,437.7	-2,384.3	3,106.5	3,038.7	67.82	45.808	
3,248.0	3,216.8	3,221.8	3,221.8	9.2	62.2	-177.80	1,437.7	-2,384.3	3,112.0	3,043.0	68.99	45.108	
3,300.0	3,268.5	3,273.5	3,273.5	9.3	63.3	-177.81	1,437.7	-2,384.3	3,117.1	3,046.8	70.25	44.374	
3,346.4	3,314.8	3,319.8	3,319.8	9.4	64.2	-177.82	1,437.7	-2,384.3	3,120.8	3,049.5	71.35	43.740	
3,400.0	3,368.3	3,373.3	3,373.3	9.6	65.3	-177.82	1,437.7	-2,384.3	3,124.2	3,051.6	72.60	43.031	
3,444.9	3,413.1	3,418.1	3,418.1	9.6	66.2	-177.83	1,437.7	-2,384.3	3,126.2	3,052.6	73.63	42.457	
3,500.0	3,468.2	3,473.2	3,473.2	9.7	67.3	-177.83	1,437.7	-2,384.3	3,127.8	3,052.9	74.88	41.772	
3,543.3	3,511.5	3,516.5	3,516.5	9.8	68.2	-177.83	1,437.7	-2,384.3	3,128.3	3,052.4	75.83	41.252	
3,553.7	3,521.9	3,526.9	3,526.9	9.8	68.4	-59.18	1,437.7	-2,384.3	3,128.3	3,050.1	78.18	40.013	
3,600.0	3,568.2	3,573.2	3,573.2	9.9	69.3	-59.18	1,437.7	-2,384.3	3,128.3	3,049.1	79.18	39.506	
3,641.7	3,609.9	3,614.9	3,614.9	10.0	70.1	-59.18	1,437.7	-2,384.3	3,128.3	3,048.2	80.09	39.058	
3,700.0	3,668.2	3,673.2	3,673.2	10.1	71.3	-59.18	1,437.7	-2,384.3	3,128.3	3,046.9	81.36	38.450	
3,740.1	3,708.4	3,713.4	3,713.4	10.1	72.1	-59.18	1,437.7	-2,384.3	3,128.3	3,046.1	82.23	38.041	
3,800.0	3,768.2	3,773.2	3,773.2	10.2	73.3	-59.18	1,437.7	-2,384.3	3,128.3	3,044.8	83.54	37.448	
3,838.6	3,806.8	3,811.8	3,811.8	10.3	74.1	-59.18	1,437.7	-2,384.3	3,128.3	3,043.9	84.38	37.074	
3,900.0	3,868.2	3,873.2	3,873.2	10.4	75.3	-59.18	1,437.7	-2,384.3	3,128.3	3,042.6	85.72	36.495	
3,937.0	3,905.2	3,910.2	3,910.2	10.5	76.1	-59.18	1,437.7	-2,384.3	3,128.3	3,041.8	86.53	36.155	
4,000.0	3,968.2	3,973.2	3,973.2	10.6	77.3	-59.18	1,437.7	-2,384.3	3,128.3	3,040.4	87.90	35.589	
4,035.4	4,003.6	4,008.6	4,008.6	10.6	78.1	-59.18	1,437.7	-2,384.3	3,128.3	3,039.6	88.67	35.279	
4,100.0	4,068.2	4,073.2	4,073.2	10.7	79.4	-59.18	1,437.7	-2,384.3	3,128.3	3,038.2	90.08	34.726	
4,133.8	4,102.1	4,107.1	4,107.1	10.8	80.0	-59.18	1,437.7	-2,384.3	3,128.3	3,037.5	90.82	34.444	
4,200.0	4,168.2	4,173.2	4,173.2	10.9	81.4	-59.18	1,437.7	-2,384.3	3,128.3	3,036.0	92.27	33.904	
4,232.3	4,200.5	4,205.5	4,205.5	11.0	82.0	-59.18	1,437.7	-2,384.3	3,128.3	3,035.3	92.98	33.646	
4,300.0	4,268.2	4,273.2	4,273.2	11.1	83.4	-59.18	1,437.7	-2,384.3	3,128.3	3,033.8	94.46	33.119	
4,330.7	4,298.9	4,303.9	4,303.9	11.1	84.0	-59.18	1,437.7	-2,384.3	3,128.3	3,033.2	95.13	32.885	
4,400.0	4,368.2	4,373.2	4,373.2	11.3	85.4	-59.18	1,437.7	-2,384.3	3,128.3	3,031.7	96.65	32.368	
4,429.1	4,397.3	4,402.3	4,402.3	11.3	86.0	-59.18	1,437.7	-2,384.3	3,128.3	3,031.0	97.29	32.156	
4,500.0	4,468.2	4,473.2	4,473.2	11.4	87.4	-59.18	1,437.7	-2,384.3	3,128.3	3,029.5	98.84	31.651	
4,527.5	4,495.8	4,500.8	4,500.8	11.5	87.9	-59.18	1,437.7	-2,384.3	3,128.3	3,028.9	99.44	31.459	
4,600.0	4,568.2	4,573.2	4,573.2	11.6	89.4	-59.18	1,437.7	-2,384.3	3,128.3	3,027.3	101.03	30.964	
4,626.0	4,594.2	4,599.2	4,599.2	11.7	89.9	-59.18	1,437.7	-2,384.3	3,128.3	3,026.7	101.60	30.790	
4,700.0	4,668.2	4,673.2	4,673.2	11.8	91.4	-59.18	1,437.7	-2,384.3	3,128.3	3,025.1	103.22	30.306	
4,724.4	4,692.6	4,697.6	4,697.6	11.9	91.9	-59.18	1,437.7	-2,384.3	3,128.3	3,024.5	103.76	30.149	
4,800.0	4,768.2	4,773.2	4,773.2	12.0	93.4	-59.18	1,437.7	-2,384.3	3,128.3	3,022.9	105.42	29.675	
4,822.8	4,791.0	4,796.0	4,796.0	12.0	93.9	-59.18	1,437.7	-2,384.3	3,128.3	3,022.4	105.92	29.534	
4,900.0	4,868.2	4,873.2	4,873.2	12.2	95.4	-59.18	1,437.7	-2,384.3	3,128.3	3,020.7	107.62	29.069	
4,921.2	4,889.5	4,894.5	4,894.5	12.2	95.9	-59.18	1,437.7	-2,384.3	3,128.3	3,020.2	108.08	28.943	
5,000.0	4,968.2	4,973.2	4,973.2	12.4	97.5	-59.18	1,437.7	-2,384.3	3,128.3	3,018.5	109.81	28.487	
5,019.7	4,987.9	4,992.9	4,992.9	12.4	97.8	-59.18	1,437.7	-2,384.3	3,128.3	3,018.1	110.25	28.375	

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

Anticollision Report



Company:	PDC ENERGY	Local Co-ordinate Reference:	Well WACKER 10G-214
Project:	WELD COUNTY, COLORADO	TVD Reference:	KB-EST @ 4624.0usft (Original Well Elev)
Reference Site:	SW NW SEC. 10 T5N R64W 6th P.M.	MD Reference:	KB-EST @ 4624.0usft (Original Well Elev)
Site Error:	0.0 usft	North Reference:	True
Reference Well:	WACKER 10G-214	Survey Calculation Method:	Minimum Curvature
Well Error:	0.0 usft	Output errors are at	2.00 sigma
Reference Wellbore	ORIGINAL WELLBORE	Database:	EDM 5000.1 Single User Db
Reference Design:	PROPOSAL #1	Offset TVD Reference:	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	5,068.2	5,073.2	5,073.2	12.6	99.5	-59.18	1,437.7	-2,384.3	3,128.3	3,016.3	112.01	27.928	
5,118.1	5,086.3	5,091.3	5,091.3	12.6	99.8	-59.18	1,437.7	-2,384.3	3,128.3	3,015.9	112.41	27.829	
5,200.0	5,168.2	5,173.2	5,173.2	12.7	101.5	-59.18	1,437.7	-2,384.3	3,128.3	3,014.1	114.21	27.390	
5,216.5	5,184.7	5,189.7	5,189.7	12.8	101.8	-59.18	1,437.7	-2,384.3	3,128.3	3,013.7	114.58	27.303	
5,300.0	5,268.2	5,273.2	5,273.2	12.9	103.5	-59.18	1,437.7	-2,384.3	3,128.3	3,011.9	116.42	26.872	
5,314.9	5,283.2	5,288.2	5,288.2	13.0	103.8	-59.18	1,437.7	-2,384.3	3,128.3	3,011.6	116.75	26.796	
5,400.0	5,368.2	5,373.2	5,373.2	13.1	105.5	-59.18	1,437.7	-2,384.3	3,128.3	3,009.7	118.62	26.373	
5,413.4	5,381.6	5,386.6	5,386.6	13.2	105.8	-59.18	1,437.7	-2,384.3	3,128.3	3,009.4	118.91	26.307	
5,500.0	5,468.2	5,473.2	5,473.2	13.3	107.5	-59.18	1,437.7	-2,384.3	3,128.3	3,007.5	120.82	25.892	
5,511.8	5,480.0	5,485.0	5,485.0	13.3	107.7	-59.18	1,437.7	-2,384.3	3,128.3	3,007.2	121.08	25.836	
5,600.0	5,568.2	5,573.2	5,573.2	13.5	109.5	-59.18	1,437.7	-2,384.3	3,128.3	3,005.3	123.03	25.428	
5,610.2	5,578.4	5,583.4	5,583.4	13.5	109.7	-59.18	1,437.7	-2,384.3	3,128.3	3,005.0	123.25	25.381	
5,700.0	5,668.2	5,673.2	5,673.2	13.7	111.5	-59.18	1,437.7	-2,384.3	3,128.3	3,003.1	125.23	24.980	
5,708.6	5,676.9	5,681.9	5,681.9	13.7	111.7	-59.18	1,437.7	-2,384.3	3,128.3	3,002.9	125.42	24.942	
5,800.0	5,768.2	5,773.2	5,773.2	13.9	113.5	-59.18	1,437.7	-2,384.3	3,128.3	3,000.9	127.44	24.547	
5,807.1	5,775.3	5,780.3	5,780.3	13.9	113.7	-59.18	1,437.7	-2,384.3	3,128.3	3,000.7	127.60	24.517	
5,900.0	5,868.2	5,873.2	5,873.2	14.1	115.6	-59.18	1,437.7	-2,384.3	3,128.3	2,998.7	129.65	24.129	
5,905.5	5,873.7	5,878.7	5,878.7	14.1	115.7	-59.18	1,437.7	-2,384.3	3,128.3	2,998.5	129.77	24.107	
5,960.7	5,928.9	5,933.9	5,933.9	14.2	116.8	-59.18	1,437.7	-2,384.3	3,128.3	2,997.3	130.99	23.882	
6,000.0	5,968.2	5,973.2	5,973.2	14.3	117.6	30.87	1,437.7	-2,384.3	3,127.4	2,997.1	130.25	24.011	
6,003.9	5,972.1	5,977.1	5,977.1	14.3	117.6	30.88	1,437.7	-2,384.3	3,127.2	2,996.9	130.30	23.999	
6,050.0	6,018.0	6,023.0	6,023.0	14.4	118.6	31.07	1,437.7	-2,384.3	3,123.5	2,992.8	130.72	23.895	
6,100.0	6,067.3	6,072.3	6,072.3	14.4	119.6	31.43	1,437.7	-2,384.3	3,116.7	2,986.0	130.72	23.843	
6,102.3	6,069.6	6,074.6	6,074.6	14.4	119.6	31.45	1,437.7	-2,384.3	3,116.3	2,985.6	130.71	23.842	
6,150.0	6,116.0	6,121.0	6,121.0	14.4	120.5	31.96	1,437.7	-2,384.3	3,107.0	2,976.7	130.27	23.849	
6,200.0	6,163.8	6,168.8	6,168.8	14.5	121.5	32.66	1,437.7	-2,384.3	3,094.3	2,964.9	129.42	23.909	
6,200.8	6,164.5	6,169.5	6,169.5	14.5	121.5	32.67	1,437.7	-2,384.3	3,094.1	2,964.7	129.40	23.910	
6,250.0	6,210.4	6,215.4	6,215.4	14.5	122.4	33.55	1,437.7	-2,384.3	3,078.9	2,950.7	128.22	24.013	
6,299.2	6,254.9	6,259.9	6,259.9	14.5	123.3	34.62	1,437.7	-2,384.3	3,061.1	2,934.4	126.77	24.147	
6,300.0	6,255.6	6,260.6	6,260.6	14.5	123.3	34.64	1,437.7	-2,384.3	3,060.8	2,934.1	126.74	24.150	
6,350.0	6,299.3	6,304.3	6,304.3	14.5	124.2	35.94	1,437.7	-2,384.3	3,040.1	2,915.0	125.11	24.299	
6,397.6	6,339.2	6,344.2	6,344.2	14.6	125.0	37.41	1,437.7	-2,384.3	3,018.1	2,894.5	123.55	24.428	
6,400.0	6,341.2	6,346.2	6,346.2	14.6	125.1	37.49	1,437.7	-2,384.3	3,016.9	2,893.4	123.47	24.434	
6,450.0	6,381.0	6,386.0	6,386.0	14.6	125.9	39.29	1,437.7	-2,384.3	2,991.4	2,869.4	121.99	24.521	
6,496.0	6,415.8	6,420.8	6,420.8	14.7	126.6	41.21	1,437.7	-2,384.3	2,965.9	2,845.0	120.95	24.522	
6,500.0	6,418.7	6,423.7	6,423.7	14.7	126.6	41.39	1,437.7	-2,384.3	2,963.6	2,842.8	120.88	24.518	
6,550.0	6,453.9	6,458.9	6,458.9	14.8	127.3	43.80	1,437.7	-2,384.3	2,933.9	2,813.5	120.36	24.376	
6,594.5	6,483.1	6,488.1	6,488.1	15.0	127.9	46.24	1,437.7	-2,384.3	2,905.9	2,785.3	120.57	24.100	
6,600.0	6,486.6	6,491.6	6,491.6	15.1	128.0	46.56	1,437.7	-2,384.3	2,902.3	2,781.7	120.65	24.056	
6,650.0	6,516.6	6,521.6	6,521.6	15.3	128.6	49.69	1,437.7	-2,384.3	2,869.0	2,747.1	121.93	23.531	
6,692.9	6,540.0	6,545.0	6,545.0	15.7	129.1	52.69	1,437.7	-2,384.3	2,839.3	2,715.4	123.88	22.920	
6,700.0	6,543.7	6,548.7	6,548.7	15.7	129.1	53.21	1,437.7	-2,384.3	2,834.3	2,710.0	124.27	22.807	
6,750.0	6,567.8	6,572.8	6,572.8	16.2	129.6	57.12	1,437.7	-2,384.3	2,798.3	2,670.6	127.66	21.920	
6,791.3	6,585.4	6,590.4	6,590.4	16.7	130.0	60.65	1,437.7	-2,384.3	2,767.7	2,636.6	131.11	21.111	
6,800.0	6,588.8	6,593.8	6,593.8	16.8	130.0	61.42	1,437.7	-2,384.3	2,761.2	2,629.4	131.88	20.937	
6,850.0	6,606.6	6,611.6	6,611.6	17.4	130.4	66.07	1,437.7	-2,384.3	2,723.3	2,586.7	136.60	19.937	
6,889.7	6,618.4	6,623.4	6,623.4	18.0	130.6	69.97	1,437.7	-2,384.3	2,692.7	2,552.3	140.42	19.176	
6,900.0	6,621.1	6,626.1	6,626.1	18.2	130.7	71.00	1,437.7	-2,384.3	2,684.8	2,543.4	141.37	18.991	
6,950.0	6,632.2	6,637.2	6,637.2	19.0	130.9	76.12	1,437.7	-2,384.3	2,645.9	2,500.1	145.72	18.157	
6,988.2	6,638.4	6,643.4	6,643.4	19.7	131.0	80.08	1,437.7	-2,384.3	2,616.0	2,467.5	148.51	17.615	
7,000.0	6,639.9	6,644.9	6,644.9	19.9	131.1	81.31	1,437.7	-2,384.3	2,606.7	2,457.5	149.25	17.466	
7,050.0	6,644.1	6,649.1	6,649.1	20.8	131.2	86.45	1,437.7	-2,384.3	2,567.6	2,416.0	151.68	16.928	

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

Anticollision Report



Company:	PDC ENERGY	Local Co-ordinate Reference:	Well WACKER 10G-214
Project:	WELD COUNTY, COLORADO	TVD Reference:	KB-EST @ 4624.0usft (Original Well Elev)
Reference Site:	SW NW SEC. 10 T5N R64W 6th P.M.	MD Reference:	KB-EST @ 4624.0usft (Original Well Elev)
Site Error:	0.0 usft	North Reference:	True
Reference Well:	WACKER 10G-214	Survey Calculation Method:	Minimum Curvature
Well Error:	0.0 usft	Output errors are at	2.00 sigma
Reference Wellbore	ORIGINAL WELLBORE	Database:	EDM 5000.1 Single User Db
Reference Design:	PROPOSAL #1	Offset TVD Reference:	Offset Datum

Offset Design		SW NW SEC. 10 T5N R64W 6th P.M. - ABDN VERT OGRADY #3 - 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					
7,086.5	6,645.0	6,650.0	6,650.0	21.5	131.2	90.10	1,437.7	-2,384.3	2,539.2	2,386.5	152.70	16.628					
7,100.0	6,645.0	6,650.0	6,650.0	21.8	131.2	90.10	1,437.7	-2,384.3	2,528.8	2,375.8	152.97	16.531					
7,185.0	6,644.9	6,649.9	6,649.9	23.6	131.2	90.09	1,437.7	-2,384.3	2,463.6	2,308.9	154.73	15.922					
7,200.0	6,644.8	6,649.8	6,649.8	23.9	131.2	90.09	1,437.7	-2,384.3	2,452.2	2,297.2	155.04	15.817					
7,283.4	6,644.7	6,649.7	6,649.7	25.7	131.2	90.09	1,437.7	-2,384.3	2,389.7	2,232.8	156.88	15.233					
7,300.0	6,644.7	6,649.7	6,649.7	26.1	131.2	90.09	1,437.7	-2,384.3	2,377.5	2,220.2	157.24	15.120					
7,381.9	6,644.6	6,649.6	6,649.6	28.0	131.2	90.08	1,437.7	-2,384.3	2,317.6	2,158.5	159.14	14.564					
7,400.0	6,644.6	6,649.6	6,649.6	28.4	131.2	90.08	1,437.7	-2,384.3	2,304.6	2,145.0	159.55	14.444					
7,480.3	6,644.5	6,649.5	6,649.5	30.3	131.2	90.08	1,437.7	-2,384.3	2,247.6	2,086.1	161.48	13.919					
7,500.0	6,644.4	6,649.4	6,649.4	30.8	131.2	90.08	1,437.7	-2,384.3	2,233.8	2,071.9	161.95	13.793					
7,578.7	6,644.3	6,649.3	6,649.3	32.7	131.2	90.07	1,437.7	-2,384.3	2,179.7	2,015.8	163.89	13.300					
7,600.0	6,644.3	6,649.3	6,649.3	33.3	131.2	90.07	1,437.7	-2,384.3	2,165.3	2,000.9	164.41	13.171					
7,677.1	6,644.2	6,649.2	6,649.2	35.2	131.2	90.07	1,437.7	-2,384.3	2,114.2	1,947.9	166.35	12.710					
7,700.0	6,644.1	6,649.1	6,649.1	35.8	131.2	90.07	1,437.7	-2,384.3	2,099.4	1,932.5	166.92	12.577					
7,775.6	6,644.0	6,649.0	6,649.0	37.7	131.2	90.06	1,437.7	-2,384.3	2,051.4	1,882.6	168.85	12.149					
7,800.0	6,644.0	6,649.0	6,649.0	38.3	131.2	90.06	1,437.7	-2,384.3	2,036.3	1,866.8	169.47	12.015					
7,874.0	6,643.9	6,648.9	6,648.9	40.2	131.1	90.06	1,437.7	-2,384.3	1,991.5	1,820.1	171.39	11.620					
7,900.0	6,643.9	6,648.9	6,648.9	40.9	131.1	90.06	1,437.7	-2,384.3	1,976.1	1,804.1	172.06	11.485					
7,972.4	6,643.8	6,648.8	6,648.8	42.8	131.1	90.05	1,437.7	-2,384.3	1,934.7	1,760.7	173.95	11.122					
8,000.0	6,643.7	6,648.7	6,648.7	43.5	131.1	90.05	1,437.7	-2,384.3	1,919.4	1,744.7	174.67	10.988					
8,070.8	6,643.6	6,648.6	6,648.6	45.4	131.1	90.05	1,437.7	-2,384.3	1,881.3	1,704.8	176.54	10.657					
8,100.0	6,643.6	6,648.6	6,648.6	46.2	131.1	90.05	1,437.7	-2,384.3	1,866.2	1,688.9	177.31	10.525					
8,169.3	6,643.5	6,648.5	6,648.5	48.0	131.1	90.04	1,437.7	-2,384.3	1,831.7	1,652.6	179.15	10.225					
8,200.0	6,643.5	6,648.5	6,648.5	48.8	131.1	90.04	1,437.7	-2,384.3	1,817.0	1,637.1	179.96	10.097					
8,267.7	6,643.4	6,648.4	6,648.4	50.6	131.1	90.04	1,437.7	-2,384.3	1,786.1	1,604.4	181.77	9.826					
8,300.0	6,643.3	6,648.3	6,648.3	51.5	131.1	90.04	1,437.7	-2,384.3	1,772.1	1,589.5	182.64	9.703					
8,366.1	6,643.2	6,648.2	6,648.2	53.3	131.1	90.03	1,437.7	-2,384.3	1,744.9	1,560.5	184.41	9.462					
8,400.0	6,643.2	6,648.2	6,648.2	54.2	131.1	90.03	1,437.7	-2,384.3	1,731.8	1,546.5	185.32	9.345					
8,464.5	6,643.1	6,648.1	6,648.1	55.9	131.1	90.03	1,437.7	-2,384.3	1,708.4	1,521.4	187.06	9.133					
8,500.0	6,643.1	6,648.1	6,648.1	56.9	131.1	90.03	1,437.7	-2,384.3	1,696.5	1,508.5	188.02	9.023					
8,563.0	6,643.0	6,648.0	6,648.0	58.6	131.1	90.02	1,437.7	-2,384.3	1,676.9	1,487.2	189.72	8.839					
8,600.0	6,642.9	6,647.9	6,647.9	59.6	131.1	90.02	1,437.7	-2,384.3	1,666.4	1,475.7	190.73	8.737					
8,661.4	6,642.8	6,647.8	6,647.8	61.3	131.1	90.02	1,437.7	-2,384.3	1,650.6	1,458.2	192.39	8.579					
8,700.0	6,642.8	6,647.8	6,647.8	62.3	131.1	90.02	1,437.7	-2,384.3	1,641.8	1,448.4	193.44	8.487					
8,759.8	6,642.7	6,647.7	6,647.7	64.0	131.1	90.01	1,437.7	-2,384.3	1,629.9	1,434.8	195.07	8.355					
8,800.0	6,642.7	6,647.7	6,647.7	65.1	131.1	90.01	1,437.7	-2,384.3	1,623.1	1,426.9	196.17	8.274					
8,858.2	6,642.6	6,647.6	6,647.6	66.6	131.1	90.01	1,437.7	-2,384.3	1,614.9	1,417.2	197.76	8.166					
8,900.0	6,642.5	6,647.5	6,647.5	67.8	131.1	90.01	1,437.7	-2,384.3	1,610.4	1,411.5	198.90	8.096					
8,956.7	6,642.4	6,647.4	6,647.4	69.3	131.1	90.00	1,437.7	-2,384.3	1,605.9	1,405.4	200.45	8.011					
9,000.0	6,642.4	6,647.4	6,647.4	70.5	131.1	90.00	1,437.7	-2,384.3	1,603.8	1,402.1	201.64	7.954					
9,055.1	6,642.3	6,647.3	6,647.3	72.0	131.1	90.00	1,437.7	-2,384.3	1,602.8	1,399.6	203.15	7.890					
9,056.0	6,642.3	6,647.3	6,647.3	72.1	131.1	90.00	1,437.7	-2,384.3	1,602.8	1,399.6	203.17	7.889	CC				
9,100.0	6,642.3	6,647.3	6,647.3	73.3	131.1	90.00	1,437.7	-2,384.3	1,603.4	1,399.0	204.38	7.845	ES				
9,153.5	6,642.2	6,647.2	6,647.2	74.7	131.1	90.00	1,437.7	-2,384.3	1,605.8	1,399.9	205.85	7.801					
9,200.0	6,642.1	6,647.1	6,647.1	76.0	131.1	89.99	1,437.7	-2,384.3	1,609.3	1,402.1	207.13	7.769					
9,251.9	6,642.1	6,647.1	6,647.1	77.5	131.1	89.99	1,437.7	-2,384.3	1,614.7	1,406.2	208.56	7.742					
9,300.0	6,642.0	6,647.0	6,647.0	78.8	131.1	89.99	1,437.7	-2,384.3	1,621.3	1,411.4	209.88	7.725					
9,350.4	6,641.9	6,646.9	6,646.9	80.2	131.1	89.99	1,437.7	-2,384.3	1,629.6	1,418.3	211.27	7.714					
9,400.0	6,641.9	6,646.9	6,646.9	81.5	131.1	89.98	1,437.7	-2,384.3	1,639.3	1,426.7	212.63	7.710	SF				
9,448.8	6,641.8	6,646.8	6,646.8	82.9	131.1	89.98	1,437.7	-2,384.3	1,650.2	1,436.3	213.98	7.712					
9,500.0	6,641.7	6,646.7	6,646.7	84.3	131.1	89.98	1,437.7	-2,384.3	1,663.2	1,447.8	215.39	7.722					
9,547.2	6,641.7	6,646.7	6,646.7	85.6	131.1	89.98	1,437.7	-2,384.3	1,676.4	1,459.7	216.70	7.736					

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

Anticollision Report



Company:	PDC ENERGY	Local Co-ordinate Reference:	Well WACKER 10G-214
Project:	WELD COUNTY, COLORADO	TVD Reference:	KB-EST @ 4624.0usft (Original Well Elev)
Reference Site:	SW NW SEC. 10 T5N R64W 6th P.M.	MD Reference:	KB-EST @ 4624.0usft (Original Well Elev)
Site Error:	0.0 usft	North Reference:	True
Reference Well:	WACKER 10G-214	Survey Calculation Method:	Minimum Curvature
Well Error:	0.0 usft	Output errors are at	2.00 sigma
Reference Wellbore	ORIGINAL WELLBORE	Database:	EDM 5000.1 Single User Db
Reference Design:	PROPOSAL #1	Offset TVD Reference:	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	6,641.6	6,646.6	6,646.6	87.1	131.1	89.97	1,437.7	-2,384.3	1,692.6	1,474.5	218.16	7.759	
9,645.6	6,641.5	6,646.5	6,646.5	88.3	131.1	89.97	1,437.7	-2,384.3	1,707.8	1,488.4	219.42	7.783	
9,700.0	6,641.5	6,646.5	6,646.5	89.8	131.1	89.97	1,437.7	-2,384.3	1,727.3	1,506.4	220.92	7.819	
9,744.1	6,641.4	6,646.4	6,646.4	91.0	131.1	89.97	1,437.7	-2,384.3	1,744.3	1,522.1	222.14	7.852	
9,800.0	6,641.3	6,646.3	6,646.3	92.6	131.1	89.97	1,437.7	-2,384.3	1,767.1	1,543.4	223.69	7.900	
9,842.5	6,641.3	6,646.3	6,646.3	93.8	131.1	89.96	1,437.7	-2,384.3	1,785.4	1,560.5	224.87	7.940	
9,900.0	6,641.2	6,646.2	6,646.2	95.4	131.1	89.96	1,437.7	-2,384.3	1,811.5	1,585.0	226.46	7.999	
9,940.9	6,641.1	6,646.1	6,646.1	96.5	131.1	89.96	1,437.7	-2,384.3	1,830.9	1,603.3	227.59	8.045	
10,000.0	6,641.1	6,646.1	6,646.1	98.1	131.1	89.96	1,437.7	-2,384.3	1,860.2	1,630.9	229.23	8.115	
10,039.3	6,641.0	6,646.0	6,646.0	99.2	131.1	89.95	1,437.7	-2,384.3	1,880.4	1,650.1	230.32	8.164	
10,100.0	6,640.9	6,645.9	6,645.9	100.9	131.1	89.95	1,437.7	-2,384.3	1,912.8	1,680.8	232.01	8.245	
10,137.8	6,640.9	6,645.9	6,645.9	102.0	131.1	89.95	1,437.7	-2,384.3	1,933.7	1,700.7	233.05	8.297	
10,200.0	6,640.8	6,645.8	6,645.8	103.7	131.1	89.95	1,437.7	-2,384.3	1,969.2	1,734.4	234.78	8.387	
10,236.2	6,640.8	6,645.8	6,645.8	104.7	131.1	89.95	1,437.7	-2,384.3	1,990.5	1,754.7	235.79	8.442	
10,300.0	6,640.7	6,645.7	6,645.7	106.5	131.1	89.94	1,437.7	-2,384.3	2,028.9	1,791.4	237.56	8.541	
10,334.6	6,640.6	6,645.6	6,645.6	107.4	131.1	89.94	1,437.7	-2,384.3	2,050.4	1,811.8	238.52	8.596	
10,400.0	6,640.6	6,645.6	6,645.6	109.3	131.1	89.94	1,437.7	-2,384.3	2,091.7	1,851.4	240.34	8.703	
10,433.0	6,640.5	6,645.5	6,645.5	110.2	131.1	89.94	1,437.7	-2,384.3	2,113.1	1,871.9	241.26	8.759	
10,500.0	6,640.4	6,645.4	6,645.4	112.0	131.1	89.93	1,437.7	-2,384.3	2,157.4	1,914.2	243.12	8.874	
10,531.5	6,640.4	6,645.4	6,645.4	112.9	131.1	89.93	1,437.7	-2,384.3	2,178.6	1,934.6	244.00	8.929	
10,600.0	6,640.3	6,645.3	6,645.3	114.8	131.1	89.93	1,437.7	-2,384.3	2,225.5	1,979.6	245.90	9.051	
10,629.9	6,640.3	6,645.3	6,645.3	115.7	131.1	89.93	1,437.7	-2,384.3	2,246.4	1,999.7	246.73	9.104	
10,700.0	6,640.2	6,645.2	6,645.2	117.6	131.1	89.92	1,437.7	-2,384.3	2,296.0	2,047.4	248.69	9.233	
10,728.3	6,640.1	6,645.1	6,645.1	118.4	131.1	89.92	1,437.7	-2,384.3	2,316.4	2,066.9	249.47	9.285	
10,800.0	6,640.0	6,645.0	6,645.0	120.4	131.1	89.92	1,437.7	-2,384.3	2,368.7	2,117.2	251.47	9.419	
10,826.7	6,640.0	6,645.0	6,645.0	121.2	131.1	89.92	1,437.7	-2,384.3	2,388.4	2,136.2	252.22	9.470	
10,900.0	6,639.9	6,644.9	6,644.9	123.2	131.1	89.92	1,437.7	-2,384.3	2,443.2	2,189.0	254.26	9.609	
10,925.2	6,639.9	6,644.9	6,644.9	123.9	131.1	89.92	1,437.7	-2,384.3	2,462.3	2,207.3	254.96	9.658	
11,000.0	6,639.8	6,644.8	6,644.8	126.0	131.1	89.91	1,437.7	-2,384.3	2,519.6	2,262.5	257.04	9.802	
11,023.6	6,639.8	6,644.8	6,644.8	126.6	131.1	89.91	1,437.7	-2,384.3	2,537.8	2,280.1	257.70	9.848	
11,100.0	6,639.7	6,644.7	6,644.7	128.8	131.1	89.91	1,437.7	-2,384.3	2,597.5	2,337.7	259.83	9.997	
11,122.0	6,639.6	6,644.6	6,644.6	129.4	131.1	89.91	1,437.7	-2,384.3	2,614.9	2,354.4	260.44	10.040	
11,200.0	6,639.5	6,644.5	6,644.5	131.6	131.1	89.90	1,437.7	-2,384.3	2,676.9	2,414.3	262.62	10.193	
11,220.4	6,639.5	6,644.5	6,644.5	132.1	131.1	89.90	1,437.7	-2,384.3	2,693.3	2,430.1	263.19	10.233	
11,300.0	6,639.4	6,644.4	6,644.4	134.4	131.1	89.90	1,437.7	-2,384.3	2,757.7	2,492.3	265.41	10.390	
11,318.9	6,639.4	6,644.4	6,644.4	134.9	131.1	89.90	1,437.7	-2,384.3	2,773.0	2,507.1	265.93	10.428	
11,400.0	6,639.3	6,644.3	6,644.3	137.1	131.1	89.89	1,437.7	-2,384.3	2,839.6	2,571.4	268.20	10.588	
11,417.3	6,639.3	6,644.3	6,644.3	137.6	131.1	89.89	1,437.7	-2,384.3	2,853.9	2,585.2	268.68	10.622	
11,500.0	6,639.2	6,644.2	6,644.2	139.9	131.1	89.89	1,437.7	-2,384.3	2,922.7	2,651.7	270.99	10.785	
11,515.7	6,639.1	6,644.1	6,644.1	140.4	131.1	89.89	1,437.7	-2,384.3	2,935.9	2,664.5	271.43	10.816	
11,600.0	6,639.0	6,644.0	6,644.0	142.7	131.1	89.89	1,437.7	-2,384.3	3,006.8	2,733.1	273.78	10.983	
11,614.1	6,639.0	6,644.0	6,644.0	143.1	131.1	89.89	1,437.7	-2,384.3	3,018.8	2,744.6	274.18	11.011	
11,700.0	6,638.9	6,643.9	6,643.9	145.5	131.0	89.88	1,437.7	-2,384.3	3,091.9	2,815.3	276.57	11.179	
11,712.6	6,638.9	6,643.9	6,643.9	145.9	131.0	89.88	1,437.7	-2,384.3	3,102.7	2,825.7	276.92	11.204	
11,800.0	6,638.8	6,643.8	6,643.8	148.3	131.0	89.88	1,437.7	-2,384.3	3,177.8	2,898.5	279.37	11.375	
11,811.0	6,638.8	6,643.8	6,643.8	148.6	131.0	89.88	1,437.7	-2,384.3	3,187.4	2,907.7	279.67	11.397	
11,900.0	6,638.7	6,643.7	6,643.7	151.1	131.0	89.87	1,437.7	-2,384.3	3,264.6	2,982.4	282.16	11.570	
11,909.4	6,638.6	6,643.6	6,643.6	151.4	131.0	89.87	1,437.7	-2,384.3	3,272.8	2,990.4	282.42	11.588	
12,000.0	6,638.5	6,643.5	6,643.5	153.9	131.0	89.87	1,437.7	-2,384.3	3,352.1	3,067.1	284.95	11.764	
12,007.8	6,638.5	6,643.5	6,643.5	154.1	131.0	89.87	1,437.7	-2,384.3	3,359.0	3,073.8	285.17	11.779	
12,100.0	6,638.4	6,643.4	6,643.4	156.7	131.0	89.87	1,437.7	-2,384.3	3,440.2	3,152.5	287.75	11.956	
12,106.3	6,638.4	6,643.4	6,643.4	156.9	131.0	89.87	1,437.7	-2,384.3	3,445.8	3,157.9	287.92	11.968	

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

Anticollision Report



Company:	PDC ENERGY	Local Co-ordinate Reference:	Well WACKER 10G-214
Project:	WELD COUNTY, COLORADO	TVD Reference:	KB-EST @ 4624.0usft (Original Well Elev)
Reference Site:	SW NW SEC. 10 T5N R64W 6th P.M.	MD Reference:	KB-EST @ 4624.0usft (Original Well Elev)
Site Error:	0.0 usft	North Reference:	True
Reference Well:	WACKER 10G-214	Survey Calculation Method:	Minimum Curvature
Well Error:	0.0 usft	Output errors are at	2.00 sigma
Reference Wellbore	ORIGINAL WELLBORE	Database:	EDM 5000.1 Single User Db
Reference Design:	PROPOSAL #1	Offset TVD Reference:	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	
12,200.0	6,638.3	6,643.3	6,643.3	159.5	131.0	89.86	1,437.7	-2,384.3	3,529.0	3,238.5	290.54	12.146	
12,204.7	6,638.3	6,643.3	6,643.3	159.6	131.0	89.86	1,437.7	-2,384.3	3,533.2	3,242.5	290.67	12.155	
12,300.0	6,638.2	6,643.2	6,643.2	162.3	131.0	89.86	1,437.7	-2,384.3	3,618.4	3,325.1	293.34	12.335	
12,303.1	6,638.2	6,643.2	6,643.2	162.4	131.0	89.86	1,437.7	-2,384.3	3,621.2	3,327.8	293.43	12.341	
12,400.0	6,638.0	6,643.0	6,643.0	165.1	131.0	89.85	1,437.7	-2,384.3	3,708.3	3,412.2	296.13	12.522	
12,401.5	6,638.0	6,643.0	6,643.0	165.2	131.0	89.85	1,437.7	-2,384.3	3,709.7	3,413.5	296.18	12.525	
12,500.0	6,637.9	6,642.9	6,642.9	167.9	131.0	89.85	1,437.7	-2,384.3	3,798.7	3,499.8	298.93	12.708	
12,598.4	6,637.8	6,642.8	6,642.8	170.7	131.0	89.85	1,437.7	-2,384.3	3,888.2	3,586.5	301.68	12.888	
12,600.0	6,637.8	6,642.8	6,642.8	170.7	131.0	89.85	1,437.7	-2,384.3	3,889.6	3,587.9	301.73	12.891	
12,696.8	6,637.7	6,642.7	6,642.7	173.4	131.0	89.84	1,437.7	-2,384.3	3,978.0	3,673.6	304.44	13.067	
12,700.0	6,637.7	6,642.7	6,642.7	173.5	131.0	89.84	1,437.7	-2,384.3	3,981.0	3,676.4	304.53	13.073	
12,795.2	6,637.6	6,642.6	6,642.6	176.2	131.0	89.84	1,437.7	-2,384.3	4,068.3	3,761.1	307.19	13.244	
12,800.0	6,637.6	6,642.6	6,642.6	176.3	131.0	89.84	1,437.7	-2,384.3	4,072.7	3,765.4	307.32	13.252	
12,893.7	6,637.4	6,642.4	6,642.4	178.9	131.0	89.83	1,437.7	-2,384.3	4,159.0	3,849.0	309.94	13.418	
12,900.0	6,637.4	6,642.4	6,642.4	179.1	131.0	89.83	1,437.7	-2,384.3	4,164.8	3,854.7	310.12	13.430	
12,992.1	6,637.3	6,642.3	6,642.3	181.7	131.0	89.83	1,437.7	-2,384.3	4,250.0	3,937.3	312.70	13.591	
13,000.0	6,637.3	6,642.3	6,642.3	181.9	131.0	89.83	1,437.7	-2,384.3	4,257.3	3,944.4	312.92	13.605	
13,090.5	6,637.2	6,642.2	6,642.2	184.4	131.0	89.83	1,437.7	-2,384.3	4,341.3	4,025.8	315.45	13.762	
13,100.0	6,637.2	6,642.2	6,642.2	184.7	131.0	89.83	1,437.7	-2,384.3	4,350.1	4,034.4	315.72	13.778	
13,188.9	6,637.1	6,642.1	6,642.1	187.2	131.0	89.82	1,437.7	-2,384.3	4,432.9	4,114.7	318.21	13.931	
13,200.0	6,637.1	6,642.1	6,642.1	187.5	131.0	89.82	1,437.7	-2,384.3	4,443.2	4,124.7	318.52	13.950	
13,287.4	6,637.0	6,642.0	6,642.0	190.0	131.0	89.82	1,437.7	-2,384.3	4,524.8	4,203.8	320.96	14.098	
13,300.0	6,637.0	6,642.0	6,642.0	190.3	131.0	89.82	1,437.7	-2,384.3	4,536.6	4,215.3	321.32	14.119	
13,385.8	6,636.9	6,641.9	6,641.9	192.7	131.0	89.82	1,437.7	-2,384.3	4,617.0	4,293.3	323.72	14.262	
13,400.0	6,636.8	6,641.8	6,641.8	193.1	131.0	89.82	1,437.7	-2,384.3	4,630.3	4,306.2	324.11	14.286	
13,484.2	6,636.7	6,641.7	6,641.7	195.5	131.0	89.81	1,437.7	-2,384.3	4,709.4	4,382.9	326.47	14.425	
13,500.0	6,636.7	6,641.7	6,641.7	195.9	131.0	89.81	1,437.7	-2,384.3	4,724.2	4,397.3	326.91	14.451	
13,582.6	6,636.6	6,641.6	6,641.6	198.2	131.0	89.81	1,437.7	-2,384.3	4,802.1	4,472.8	329.23	14.586	
13,600.0	6,636.6	6,641.6	6,641.6	198.7	131.0	89.81	1,437.7	-2,384.3	4,818.4	4,488.7	329.71	14.614	
13,681.1	6,636.5	6,641.5	6,641.5	201.0	131.0	89.80	1,437.7	-2,384.3	4,895.0	4,563.0	331.98	14.745	
13,700.0	6,636.5	6,641.5	6,641.5	201.5	131.0	89.80	1,437.7	-2,384.3	4,912.8	4,580.3	332.51	14.775	
13,779.5	6,636.4	6,641.4	6,641.4	203.7	131.0	89.80	1,437.7	-2,384.3	4,988.1	4,653.3	334.74	14.901	
13,800.0	6,636.4	6,641.4	6,641.4	204.3	131.0	89.80	1,437.7	-2,384.3	5,007.5	4,672.2	335.31	14.934	
13,877.9	6,636.3	6,641.3	6,641.3	206.5	131.0	89.80	1,437.7	-2,384.3	5,081.4	4,743.9	337.50	15.056	
13,900.0	6,636.3	6,641.3	6,641.3	207.1	131.0	89.80	1,437.7	-2,384.3	5,102.3	4,764.2	338.12	15.090	
13,976.3	6,636.2	6,641.2	6,641.2	209.3	131.0	89.79	1,437.7	-2,384.3	5,174.9	4,834.6	340.25	15.209	
14,000.0	6,636.1	6,641.1	6,641.1	209.9	131.0	89.79	1,437.7	-2,384.3	5,197.4	4,856.4	340.92	15.245	
14,074.8	6,636.0	6,641.0	6,641.0	212.0	131.0	89.79	1,437.7	-2,384.3	5,268.5	4,925.5	343.01	15.360	
14,100.0	6,636.0	6,641.0	6,641.0	212.7	131.0	89.79	1,437.7	-2,384.3	5,292.6	4,948.9	343.72	15.398	
14,173.2	6,635.9	6,640.9	6,640.9	214.8	131.0	89.79	1,437.7	-2,384.3	5,362.4	5,016.6	345.77	15.509	
14,200.0	6,635.9	6,640.9	6,640.9	215.5	131.0	89.79	1,437.7	-2,384.3	5,388.0	5,041.4	346.52	15.549	
14,271.6	6,635.8	6,640.8	6,640.8	217.5	131.0	89.78	1,437.7	-2,384.3	5,456.4	5,107.9	348.53	15.656	
14,300.0	6,635.8	6,640.8	6,640.8	218.3	131.0	89.78	1,437.7	-2,384.3	5,483.5	5,134.2	349.32	15.698	
14,370.0	6,635.7	6,640.7	6,640.7	220.3	131.0	89.78	1,437.7	-2,384.3	5,550.5	5,199.3	351.28	15.801	
14,400.0	6,635.7	6,640.7	6,640.7	221.1	131.0	89.78	1,437.7	-2,384.3	5,579.2	5,227.1	352.12	15.845	
14,468.5	6,635.6	6,640.6	6,640.6	223.1	131.0	89.78	1,437.7	-2,384.3	5,644.8	5,290.8	354.04	15.944	
14,500.0	6,635.6	6,640.6	6,640.6	223.9	131.0	89.78	1,437.7	-2,384.3	5,675.1	5,320.2	354.92	15.990	
14,566.9	6,635.5	6,640.5	6,640.5	225.8	131.0	89.77	1,437.7	-2,384.3	5,739.3	5,382.5	356.80	16.086	
14,600.0	6,635.4	6,640.4	6,640.4	226.8	131.0	89.77	1,437.7	-2,384.3	5,771.1	5,413.4	357.73	16.133	
14,665.3	6,635.4	6,640.4	6,640.4	228.6	131.0	89.77	1,437.7	-2,384.3	5,833.9	5,474.3	359.56	16.225	
14,700.0	6,635.3	6,640.3	6,640.3	229.6	131.0	89.77	1,437.7	-2,384.3	5,867.2	5,506.7	360.53	16.274	
14,763.7	6,635.2	6,640.2	6,640.2	231.3	131.0	89.77	1,437.7	-2,384.3	5,928.6	5,566.2	362.31	16.363	

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

Anticollision Report



Company:	PDC ENERGY	Local Co-ordinate Reference:	Well WACKER 10G-214
Project:	WELD COUNTY, COLORADO	TVD Reference:	KB-EST @ 4624.0usft (Original Well Elev)
Reference Site:	SW NW SEC. 10 T5N R64W 6th P.M.	MD Reference:	KB-EST @ 4624.0usft (Original Well Elev)
Site Error:	0.0 usft	North Reference:	True
Reference Well:	WACKER 10G-214	Survey Calculation Method:	Minimum Curvature
Well Error:	0.0 usft	Output errors are at	2.00 sigma
Reference Wellbore	ORIGINAL WELLBORE	Database:	EDM 5000.1 Single User Db
Reference Design:	PROPOSAL #1	Offset TVD Reference:	Offset Datum

Offset Design SW NW SEC. 10 T5N R64W 6th P.M. - ABDN VERT OGRADY #3 - 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									
Measured Depth (usft)	Vertical Depth (usft)	Measured Depth (usft)	Vertical Depth (usft)	Reference (usft)	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
14,800.0	6,635.2	6,640.2	6,640.2	232.4	131.0	89.77	1,437.7	-2,384.3	5,963.5	5,600.1	363.33	16.413	
14,862.2	6,635.1	6,640.1	6,640.1	234.1	131.0	89.76	1,437.7	-2,384.3	6,023.4	5,658.3	365.07	16.499	
14,900.0	6,635.1	6,640.1	6,640.1	235.2	131.0	89.76	1,437.7	-2,384.3	6,059.8	5,693.7	366.13	16.551	
14,960.6	6,635.0	6,640.0	6,640.0	236.9	131.0	89.76	1,437.7	-2,384.3	6,118.3	5,750.5	367.83	16.633	
14,982.9	6,635.0	6,640.0	6,640.0	237.5	131.0	89.76	1,437.7	-2,384.3	6,139.8	5,771.3	368.46	16.664	

Anticollision Report



Company:	PDC ENERGY	Local Co-ordinate Reference:	Well WACKER 10G-214
Project:	WELD COUNTY, COLORADO	TVD Reference:	KB-EST @ 4624.0usft (Original Well Elev)
Reference Site:	SW NW SEC. 10 T5N R64W 6th P.M.	MD Reference:	KB-EST @ 4624.0usft (Original Well Elev)
Site Error:	0.0 usft	North Reference:	True
Reference Well:	WACKER 10G-214	Survey Calculation Method:	Minimum Curvature
Well Error:	0.0 usft	Output errors are at	2.00 sigma
Reference Wellbore	ORIGINAL WELLBORE	Database:	EDM 5000.1 Single User Db
Reference Design:	PROPOSAL #1	Offset TVD Reference:	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	-81.48	1,353.2	-9,028.5	9,129.4				
98.4	98.4	73.4	73.4	0.1	0.0	-81.48	1,353.2	-9,028.5	9,129.4	9,129.3	0.11	N/A	
100.0	100.0	75.0	75.0	0.1	0.0	-81.48	1,353.2	-9,028.5	9,129.4	9,129.3	0.11	N/A	
196.8	196.8	171.8	171.8	0.3	1.9	-81.48	1,353.2	-9,028.5	9,129.4	9,127.1	2.24	4,079.555	
200.0	200.0	175.0	175.0	0.3	2.0	-81.48	1,353.2	-9,028.5	9,129.4	9,127.1	2.33	3,920.522	
295.3	295.3	270.3	270.3	0.5	4.1	-81.48	1,353.2	-9,028.5	9,129.4	9,124.7	4.65	1,962.186	
300.0	300.0	275.0	275.0	0.5	4.2	-81.48	1,353.2	-9,028.5	9,129.4	9,124.6	4.76	1,917.744	
393.7	393.7	368.7	368.7	0.8	6.1	-81.48	1,353.2	-9,028.5	9,129.4	9,122.5	6.88	1,327.032	
400.0	400.0	375.0	375.0	0.8	6.2	-81.48	1,353.2	-9,028.5	9,129.4	9,122.4	7.02	1,300.193	
492.1	492.1	467.1	467.1	1.0	8.1	-81.48	1,353.2	-9,028.5	9,129.4	9,120.3	9.09	1,004.057	
500.0	500.0	475.0	475.0	1.0	8.3	-81.48	1,353.2	-9,028.5	9,129.4	9,120.1	9.27	984.901	
590.5	590.5	565.5	565.5	1.2	10.1	-81.48	1,353.2	-9,028.5	9,129.4	9,118.1	11.30	807.886	
600.0	600.0	575.0	575.0	1.2	10.3	-81.48	1,353.2	-9,028.5	9,129.4	9,117.9	11.51	793.018	
689.0	689.0	664.0	664.0	1.4	12.1	-81.48	1,353.2	-9,028.5	9,129.4	9,115.9	13.51	675.964	
700.0	700.0	675.0	675.0	1.4	12.3	-81.48	1,353.2	-9,028.5	9,129.4	9,115.6	13.75	663.826	
787.4	787.4	762.4	762.4	1.6	14.1	-81.48	1,353.2	-9,028.5	9,129.4	9,113.7	15.71	581.131	
800.0	800.0	775.0	775.0	1.7	14.3	-81.48	1,353.2	-9,028.5	9,129.4	9,113.4	15.99	570.880	
885.8	885.8	860.8	860.8	1.9	16.0	-81.48	1,353.2	-9,028.5	9,129.4	9,111.5	17.91	509.657	
900.0	900.0	875.0	875.0	1.9	16.3	-81.48	1,353.2	-9,028.5	9,129.4	9,111.2	18.23	500.788	
984.2	984.2	959.2	959.2	2.1	18.0	-81.48	1,353.2	-9,028.5	9,129.4	9,109.3	20.12	453.852	
1,000.0	1,000.0	975.0	975.0	2.1	18.3	-81.48	1,353.2	-9,028.5	9,129.4	9,108.9	20.47	446.038	
1,082.7	1,082.7	1,057.7	1,057.7	2.3	20.0	-81.48	1,353.2	-9,028.5	9,129.4	9,107.1	22.32	409.070	
1,100.0	1,100.0	1,075.0	1,075.0	2.3	20.4	-81.48	1,353.2	-9,028.5	9,129.4	9,106.7	22.71	402.086	
1,181.1	1,181.1	1,156.1	1,156.1	2.5	22.0	-81.48	1,353.2	-9,028.5	9,129.4	9,104.9	24.52	372.335	
1,200.0	1,200.0	1,175.0	1,175.0	2.6	22.4	-81.48	1,353.2	-9,028.5	9,129.4	9,104.4	24.94	366.024	
1,279.5	1,279.5	1,254.5	1,254.5	2.7	24.0	-81.48	1,353.2	-9,028.5	9,129.4	9,102.7	26.72	341.658	
1,300.0	1,300.0	1,275.0	1,275.0	2.8	24.4	-81.48	1,353.2	-9,028.5	9,129.4	9,102.2	27.18	335.901	
1,377.9	1,377.9	1,352.9	1,352.9	3.0	26.0	159.87	1,353.2	-9,028.5	9,130.4	9,101.5	28.90	315.967	
1,400.0	1,400.0	1,375.0	1,375.0	3.0	26.4	159.87	1,353.2	-9,028.5	9,131.0	9,101.6	29.38	310.805	
1,476.4	1,476.3	1,451.3	1,451.3	3.1	27.9	159.85	1,353.2	-9,028.5	9,134.5	9,103.5	31.02	294.459	
1,500.0	1,499.8	1,474.8	1,474.8	3.2	28.4	159.85	1,353.2	-9,028.5	9,135.9	9,104.4	31.52	289.810	
1,574.8	1,574.4	1,549.4	1,549.4	3.3	29.9	159.82	1,353.2	-9,028.5	9,141.8	9,108.7	33.10	276.158	
1,600.0	1,599.5	1,574.5	1,574.5	3.4	30.4	159.81	1,353.2	-9,028.5	9,144.1	9,110.5	33.63	271.916	
1,673.2	1,672.2	1,647.2	1,647.2	3.6	31.9	159.77	1,353.2	-9,028.5	9,152.2	9,117.0	35.14	260.446	
1,700.0	1,698.7	1,673.7	1,673.7	3.6	32.4	159.75	1,353.2	-9,028.5	9,155.6	9,119.9	35.68	256.568	
1,771.6	1,769.5	1,744.5	1,744.5	3.8	33.8	159.71	1,353.2	-9,028.5	9,165.8	9,128.6	37.13	246.882	
1,800.0	1,797.5	1,772.5	1,772.5	3.9	34.4	159.69	1,353.2	-9,028.5	9,170.3	9,132.6	37.69	243.332	
1,870.1	1,866.3	1,841.3	1,841.3	4.1	35.8	159.63	1,353.2	-9,028.5	9,182.5	9,143.4	39.05	235.117	
1,900.2	1,895.8	1,870.8	1,870.8	4.2	36.4	159.60	1,353.2	-9,028.5	9,188.2	9,148.6	39.63	231.842	
1,968.5	1,962.6	1,937.6	1,937.6	4.4	37.7	159.63	1,353.2	-9,028.5	9,201.6	9,160.5	41.11	223.840	
2,000.0	1,993.4	1,968.4	1,968.4	4.5	38.3	159.64	1,353.2	-9,028.5	9,207.7	9,166.0	41.79	220.343	
2,066.9	2,058.9	2,033.9	2,033.9	4.7	39.6	159.67	1,353.2	-9,028.5	9,220.8	9,177.6	43.24	213.240	
2,100.0	2,091.2	2,066.2	2,066.2	4.8	40.3	159.69	1,353.2	-9,028.5	9,227.3	9,183.3	43.96	209.912	
2,165.3	2,155.2	2,130.2	2,130.2	5.1	41.6	159.72	1,353.2	-9,028.5	9,240.1	9,194.7	45.38	203.622	
2,200.0	2,189.1	2,164.1	2,164.1	5.2	42.3	159.73	1,353.2	-9,028.5	9,246.9	9,200.7	46.13	200.431	
2,263.8	2,251.4	2,226.4	2,226.4	5.5	43.5	159.76	1,353.2	-9,028.5	9,259.3	9,211.8	47.53	194.824	
2,300.0	2,286.9	2,261.9	2,261.9	5.6	44.2	159.78	1,353.2	-9,028.5	9,266.4	9,218.1	48.32	191.781	
2,362.2	2,347.7	2,322.7	2,322.7	5.8	45.5	159.81	1,353.2	-9,028.5	9,278.6	9,228.9	49.68	186.773	
2,400.0	2,384.7	2,359.7	2,359.7	6.0	46.2	159.82	1,353.2	-9,028.5	9,286.0	9,235.5	50.51	183.861	
2,460.6	2,444.0	2,419.0	2,419.0	6.2	47.4	159.85	1,353.2	-9,028.5	9,297.9	9,246.0	51.83	179.376	
2,500.0	2,482.5	2,457.5	2,457.5	6.4	48.2	159.87	1,353.2	-9,028.5	9,305.6	9,252.9	52.70	176.584	
2,559.0	2,540.3	2,515.3	2,515.3	6.6	49.3	159.89	1,353.2	-9,028.5	9,317.1	9,263.1	53.99	172.557	

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

Anticollision Report



Company:	PDC ENERGY	Local Co-ordinate Reference:	Well WACKER 10G-214
Project:	WELD COUNTY, COLORADO	TVD Reference:	KB-EST @ 4624.0usft (Original Well Elev)
Reference Site:	SW NW SEC. 10 T5N R64W 6th P.M.	MD Reference:	KB-EST @ 4624.0usft (Original Well Elev)
Site Error:	0.0 usft	North Reference:	True
Reference Well:	WACKER 10G-214	Survey Calculation Method:	Minimum Curvature
Well Error:	0.0 usft	Output errors are at	2.00 sigma
Reference Wellbore	ORIGINAL WELLBORE	Database:	EDM 5000.1 Single User Db
Reference Design:	PROPOSAL #1	Offset TVD Reference:	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	2,580.3	2,555.3	2,555.3	6.8	50.1	159.91	1,353.2	-9,028.5	9,325.1	9,270.3	54.89	169.877	
2,657.5	2,636.5	2,611.5	2,611.5	7.1	51.3	159.94	1,353.2	-9,028.5	9,336.4	9,280.2	56.16	166.254	
2,700.0	2,678.1	2,653.1	2,653.1	7.2	52.1	159.95	1,353.2	-9,028.5	9,344.7	9,287.6	57.09	163.677	
2,755.9	2,732.8	2,707.8	2,707.8	7.5	53.2	159.98	1,353.2	-9,028.5	9,355.7	9,297.4	58.32	160.411	
2,800.0	2,775.9	2,750.9	2,750.9	7.7	54.1	160.00	1,353.2	-9,028.5	9,364.3	9,305.0	59.29	157.930	
2,854.3	2,829.1	2,804.1	2,804.1	7.9	55.1	160.02	1,353.2	-9,028.5	9,375.0	9,314.5	60.49	154.980	
2,900.0	2,873.8	2,848.8	2,848.8	8.1	56.0	160.04	1,353.2	-9,028.5	9,383.9	9,322.4	61.50	152.589	
2,952.7	2,925.4	2,900.4	2,900.4	8.3	57.1	160.06	1,353.2	-9,028.5	9,394.3	9,331.6	62.66	149.921	
2,953.5	2,926.1	2,901.1	2,901.1	8.3	57.1	160.06	1,353.2	-9,028.5	9,394.4	9,331.7	62.68	149.885	
3,000.0	2,971.6	2,946.6	2,946.6	8.5	58.0	160.14	1,353.2	-9,028.5	9,403.2	9,339.3	63.87	147.231	
3,051.2	3,022.0	2,997.0	2,997.0	8.7	59.0	160.22	1,353.2	-9,028.5	9,412.0	9,346.9	65.16	144.454	
3,100.0	3,070.1	3,045.1	3,045.1	8.8	60.0	160.29	1,353.2	-9,028.5	9,419.7	9,353.3	66.38	141.910	
3,149.6	3,119.1	3,094.1	3,094.1	8.9	61.0	160.36	1,353.2	-9,028.5	9,426.6	9,359.0	67.61	139.435	
3,200.0	3,169.1	3,144.1	3,144.1	9.1	62.0	160.41	1,353.2	-9,028.5	9,432.9	9,364.1	68.84	137.021	
3,248.0	3,216.8	3,191.8	3,191.8	9.2	62.9	160.46	1,353.2	-9,028.5	9,438.1	9,368.1	70.01	134.820	
3,300.0	3,268.5	3,243.5	3,243.5	9.3	64.0	160.50	1,353.2	-9,028.5	9,442.9	9,371.6	71.25	132.531	
3,346.4	3,314.8	3,289.8	3,289.8	9.4	64.9	160.53	1,353.2	-9,028.5	9,446.4	9,374.1	72.34	130.575	
3,400.0	3,368.3	3,343.3	3,343.3	9.6	66.0	160.56	1,353.2	-9,028.5	9,449.6	9,376.0	73.59	128.408	
3,444.9	3,413.1	3,388.1	3,388.1	9.6	66.9	160.58	1,353.2	-9,028.5	9,451.5	9,376.9	74.61	126.671	
3,500.0	3,468.2	3,443.2	3,443.2	9.7	68.0	160.59	1,353.2	-9,028.5	9,453.0	9,377.1	75.85	124.622	
3,543.3	3,511.5	3,486.5	3,486.5	9.8	68.9	160.59	1,353.2	-9,028.5	9,453.4	9,376.6	76.81	123.082	
3,553.7	3,521.9	3,496.9	3,496.9	9.8	69.1	-80.76	1,353.2	-9,028.5	9,453.5	9,374.8	78.68	120.154	
3,600.0	3,568.2	3,543.2	3,543.2	9.9	70.0	-80.76	1,353.2	-9,028.5	9,453.5	9,373.8	79.68	118.639	
3,641.7	3,609.9	3,584.9	3,584.9	10.0	70.8	-80.76	1,353.2	-9,028.5	9,453.5	9,372.9	80.59	117.300	
3,700.0	3,668.2	3,643.2	3,643.2	10.1	72.0	-80.76	1,353.2	-9,028.5	9,453.5	9,371.6	81.86	115.481	
3,740.1	3,708.4	3,683.4	3,683.4	10.1	72.8	-80.76	1,353.2	-9,028.5	9,453.5	9,370.7	82.74	114.258	
3,800.0	3,768.2	3,743.2	3,743.2	10.2	74.0	-80.76	1,353.2	-9,028.5	9,453.5	9,369.4	84.04	112.483	
3,838.6	3,806.8	3,781.8	3,781.8	10.3	74.8	-80.76	1,353.2	-9,028.5	9,453.5	9,368.6	84.89	111.367	
3,900.0	3,868.2	3,843.2	3,843.2	10.4	76.0	-80.76	1,353.2	-9,028.5	9,453.5	9,367.2	86.23	109.634	
3,937.0	3,905.2	3,880.2	3,880.2	10.5	76.8	-80.76	1,353.2	-9,028.5	9,453.5	9,366.4	87.04	108.615	
4,000.0	3,968.2	3,943.2	3,943.2	10.6	78.0	-80.76	1,353.2	-9,028.5	9,453.5	9,365.1	88.41	106.924	
4,035.4	4,003.6	3,978.6	3,978.6	10.6	78.8	-80.76	1,353.2	-9,028.5	9,453.5	9,364.3	89.19	105.995	
4,100.0	4,068.2	4,043.2	4,043.2	10.7	80.1	-80.76	1,353.2	-9,028.5	9,453.5	9,362.9	90.60	104.342	
4,133.8	4,102.1	4,077.1	4,077.1	10.8	80.7	-80.76	1,353.2	-9,028.5	9,453.5	9,362.1	91.34	103.495	
4,200.0	4,168.2	4,143.2	4,143.2	10.9	82.1	-80.76	1,353.2	-9,028.5	9,453.5	9,360.7	92.79	101.880	
4,232.3	4,200.5	4,175.5	4,175.5	11.0	82.7	-80.76	1,353.2	-9,028.5	9,453.5	9,360.0	93.50	101.109	
4,300.0	4,268.2	4,243.2	4,243.2	11.1	84.1	-80.76	1,353.2	-9,028.5	9,453.5	9,358.5	94.98	99.530	
4,330.7	4,298.9	4,273.9	4,273.9	11.1	84.7	-80.76	1,353.2	-9,028.5	9,453.5	9,357.8	95.65	98.829	
4,400.0	4,368.2	4,343.2	4,343.2	11.3	86.1	-80.76	1,353.2	-9,028.5	9,453.5	9,356.3	97.17	97.284	
4,429.1	4,397.3	4,372.3	4,372.3	11.3	86.7	-80.76	1,353.2	-9,028.5	9,453.5	9,355.7	97.81	96.648	
4,500.0	4,468.2	4,443.2	4,443.2	11.4	88.1	-80.76	1,353.2	-9,028.5	9,453.5	9,354.1	99.37	95.136	
4,527.5	4,495.8	4,470.8	4,470.8	11.5	88.7	-80.76	1,353.2	-9,028.5	9,453.5	9,353.5	99.97	94.560	
4,600.0	4,568.2	4,543.2	4,543.2	11.6	90.1	-80.76	1,353.2	-9,028.5	9,453.5	9,351.9	101.56	93.079	
4,626.0	4,594.2	4,569.2	4,569.2	11.7	90.6	-80.76	1,353.2	-9,028.5	9,453.5	9,351.3	102.13	92.559	
4,700.0	4,668.2	4,643.2	4,643.2	11.8	92.1	-80.76	1,353.2	-9,028.5	9,453.5	9,349.7	103.76	91.108	
4,724.4	4,692.6	4,667.6	4,667.6	11.9	92.6	-80.76	1,353.2	-9,028.5	9,453.5	9,349.2	104.30	90.639	
4,800.0	4,768.2	4,743.2	4,743.2	12.0	94.1	-80.76	1,353.2	-9,028.5	9,453.5	9,347.5	105.96	89.217	
4,822.8	4,791.0	4,766.0	4,766.0	12.0	94.6	-80.76	1,353.2	-9,028.5	9,453.5	9,347.0	106.46	88.797	
4,900.0	4,868.2	4,843.2	4,843.2	12.2	96.1	-80.76	1,353.2	-9,028.5	9,453.5	9,345.3	108.16	87.403	
4,921.2	4,889.5	4,864.5	4,864.5	12.2	96.6	-80.76	1,353.2	-9,028.5	9,453.5	9,344.8	108.63	87.027	
5,000.0	4,968.2	4,943.2	4,943.2	12.4	98.2	-80.76	1,353.2	-9,028.5	9,453.5	9,343.1	110.36	85.660	
5,019.7	4,987.9	4,962.9	4,962.9	12.4	98.6	-80.76	1,353.2	-9,028.5	9,453.5	9,342.7	110.79	85.325	

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

Anticollision Report



Company:	PDC ENERGY	Local Co-ordinate Reference:	Well WACKER 10G-214
Project:	WELD COUNTY, COLORADO	TVD Reference:	KB-EST @ 4624.0usft (Original Well Elev)
Reference Site:	SW NW SEC. 10 T5N R64W 6th P.M.	MD Reference:	KB-EST @ 4624.0usft (Original Well Elev)
Site Error:	0.0 usft	North Reference:	True
Reference Well:	WACKER 10G-214	Survey Calculation Method:	Minimum Curvature
Well Error:	0.0 usft	Output errors are at	2.00 sigma
Reference Wellbore	ORIGINAL WELLBORE	Database:	EDM 5000.1 Single User Db
Reference Design:	PROPOSAL #1	Offset TVD Reference:	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	5,068.2	5,043.2	5,043.2	12.6	100.2	-80.76	1,353.2	-9,028.5	9,453.5	9,340.9	112.56	83.984	
5,118.1	5,086.3	5,061.3	5,061.3	12.6	100.5	-80.76	1,353.2	-9,028.5	9,453.5	9,340.5	112.96	83.687	
5,200.0	5,168.2	5,143.2	5,143.2	12.7	102.2	-80.76	1,353.2	-9,028.5	9,453.5	9,338.7	114.77	82.372	
5,216.5	5,184.7	5,159.7	5,159.7	12.8	102.5	-80.76	1,353.2	-9,028.5	9,453.5	9,338.3	115.13	82.111	
5,300.0	5,268.2	5,243.2	5,243.2	12.9	104.2	-80.76	1,353.2	-9,028.5	9,453.5	9,336.5	116.97	80.819	
5,314.9	5,283.2	5,258.2	5,258.2	13.0	104.5	-80.76	1,353.2	-9,028.5	9,453.5	9,336.2	117.30	80.592	
5,400.0	5,368.2	5,343.2	5,343.2	13.1	106.2	-80.76	1,353.2	-9,028.5	9,453.5	9,334.3	119.18	79.324	
5,413.4	5,381.6	5,356.6	5,356.6	13.2	106.5	-80.76	1,353.2	-9,028.5	9,453.5	9,334.0	119.47	79.128	
5,500.0	5,468.2	5,443.2	5,443.2	13.3	108.2	-80.76	1,353.2	-9,028.5	9,453.5	9,332.1	121.38	77.882	
5,511.8	5,480.0	5,455.0	5,455.0	13.3	108.5	-80.76	1,353.2	-9,028.5	9,453.5	9,331.8	121.64	77.715	
5,600.0	5,568.2	5,543.2	5,543.2	13.5	110.2	-80.76	1,353.2	-9,028.5	9,453.5	9,329.9	123.59	76.491	
5,610.2	5,578.4	5,553.4	5,553.4	13.5	110.4	-80.76	1,353.2	-9,028.5	9,453.5	9,329.6	123.82	76.351	
5,700.0	5,668.2	5,643.2	5,643.2	13.7	112.2	-80.76	1,353.2	-9,028.5	9,453.5	9,327.7	125.80	75.148	
5,708.6	5,676.9	5,651.9	5,651.9	13.7	112.4	-80.76	1,353.2	-9,028.5	9,453.5	9,327.5	125.99	75.034	
5,800.0	5,768.2	5,743.2	5,743.2	13.9	114.2	-80.76	1,353.2	-9,028.5	9,453.5	9,325.5	128.01	73.851	
5,807.1	5,775.3	5,750.3	5,750.3	13.9	114.4	-80.76	1,353.2	-9,028.5	9,453.5	9,325.3	128.16	73.761	
5,900.0	5,868.2	5,843.2	5,843.2	14.1	116.3	-80.76	1,353.2	-9,028.5	9,453.5	9,323.2	130.22	72.598	
5,905.5	5,873.7	5,848.7	5,848.7	14.1	116.4	-80.76	1,353.2	-9,028.5	9,453.5	9,323.1	130.34	72.530	
5,960.7	5,928.9	5,903.9	5,903.9	14.2	117.5	-80.76	1,353.2	-9,028.5	9,453.5	9,321.9	131.56	71.858	
6,000.0	5,968.2	5,943.2	5,943.2	14.3	118.3	9.26	1,353.2	-9,028.5	9,452.4	9,321.3	131.06	72.125	
6,003.9	5,972.1	5,947.1	5,947.1	14.3	118.3	9.26	1,353.2	-9,028.5	9,452.2	9,321.1	131.10	72.100	
6,050.0	6,018.0	5,993.0	5,993.0	14.4	119.3	9.32	1,353.2	-9,028.5	9,448.0	9,316.7	131.31	71.949	
6,100.0	6,067.3	6,042.3	6,042.3	14.4	120.3	9.43	1,353.2	-9,028.5	9,440.1	9,309.2	130.94	72.097	
6,102.3	6,069.6	6,044.6	6,044.6	14.4	120.3	9.44	1,353.2	-9,028.5	9,439.7	9,308.8	130.90	72.112	
6,150.0	6,116.0	6,091.0	6,091.0	14.4	121.2	9.59	1,353.2	-9,028.5	9,428.9	9,299.0	129.91	72.579	
6,200.0	6,163.8	6,138.8	6,138.8	14.5	122.2	9.81	1,353.2	-9,028.5	9,414.4	9,286.1	128.24	73.410	
6,200.8	6,164.5	6,139.5	6,139.5	14.5	122.2	9.82	1,353.2	-9,028.5	9,414.1	9,285.9	128.21	73.426	
6,250.0	6,210.4	6,185.4	6,185.4	14.5	123.1	10.10	1,353.2	-9,028.5	9,396.6	9,270.6	125.93	74.615	
6,299.2	6,254.9	6,229.9	6,229.9	14.5	124.0	10.44	1,353.2	-9,028.5	9,376.0	9,252.9	123.05	76.196	
6,300.0	6,255.6	6,230.6	6,230.6	14.5	124.0	10.45	1,353.2	-9,028.5	9,375.6	9,252.6	123.00	76.225	
6,350.0	6,299.3	6,274.3	6,274.3	14.5	124.9	10.88	1,353.2	-9,028.5	9,351.6	9,232.1	119.47	78.278	
6,397.6	6,339.2	6,314.2	6,314.2	14.6	125.7	11.38	1,353.2	-9,028.5	9,326.0	9,210.4	115.58	80.688	
6,400.0	6,341.2	6,316.2	6,316.2	14.6	125.8	11.41	1,353.2	-9,028.5	9,324.6	9,209.2	115.37	80.821	
6,450.0	6,381.0	6,356.0	6,356.0	14.6	126.6	12.05	1,353.2	-9,028.5	9,294.8	9,184.0	110.78	83.904	
6,496.0	6,415.8	6,390.8	6,390.8	14.7	127.3	12.76	1,353.2	-9,028.5	9,265.0	9,158.9	106.18	87.260	
6,500.0	6,418.7	6,393.7	6,393.7	14.7	127.3	12.83	1,353.2	-9,028.5	9,262.4	9,156.6	105.77	87.572	
6,550.0	6,453.9	6,428.9	6,428.9	14.8	128.0	13.78	1,353.2	-9,028.5	9,227.4	9,127.0	100.46	91.850	
6,594.5	6,483.1	6,458.1	6,458.1	15.0	128.6	14.81	1,353.2	-9,028.5	9,194.3	9,098.7	95.64	96.137	
6,600.0	6,486.6	6,461.6	6,461.6	15.1	128.7	14.95	1,353.2	-9,028.5	9,190.1	9,095.1	95.04	96.698	
6,650.0	6,516.6	6,491.6	6,491.6	15.3	129.3	16.41	1,353.2	-9,028.5	9,150.7	9,060.9	89.78	101.925	
6,692.9	6,540.0	6,515.0	6,515.0	15.7	129.8	17.96	1,353.2	-9,028.5	9,115.2	9,029.5	85.71	106.351	
6,700.0	6,543.7	6,518.7	6,518.7	15.7	129.8	18.25	1,353.2	-9,028.5	9,109.3	9,024.2	85.10	107.041	
6,750.0	6,567.8	6,542.8	6,542.8	16.2	130.3	20.61	1,353.2	-9,028.5	9,066.1	8,984.4	81.67	111.014	
6,791.3	6,585.4	6,560.4	6,560.4	16.7	130.7	23.13	1,353.2	-9,028.5	9,029.2	8,948.8	80.46	112.214	
6,800.0	6,588.8	6,563.8	6,563.8	16.8	130.7	23.74	1,353.2	-9,028.5	9,021.4	8,940.9	80.47	112.107	
6,850.0	6,606.6	6,581.6	6,581.6	17.4	131.1	27.98	1,353.2	-9,028.5	8,975.3	8,892.4	82.91	108.258	
6,889.7	6,618.4	6,593.4	6,593.4	18.0	131.3	32.55	1,353.2	-9,028.5	8,937.9	8,849.4	88.55	100.937	
6,900.0	6,621.1	6,596.1	6,596.1	18.2	131.4	33.96	1,353.2	-9,028.5	8,928.2	8,837.5	90.64	98.497	
6,950.0	6,632.2	6,607.2	6,607.2	19.0	131.6	42.69	1,353.2	-9,028.5	8,880.1	8,775.0	105.15	84.455	
6,988.2	6,638.4	6,613.4	6,613.4	19.7	131.7	52.13	1,353.2	-9,028.5	8,843.0	8,722.3	120.76	73.229	
7,000.0	6,639.9	6,614.9	6,614.9	19.9	131.8	55.67	1,353.2	-9,028.5	8,831.5	8,705.4	126.11	70.028	
7,050.0	6,644.1	6,619.1	6,619.1	20.8	131.9	74.22	1,353.2	-9,028.5	8,782.4	8,635.4	146.99	59.748	

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

Anticollision Report



Company:	PDC ENERGY	Local Co-ordinate Reference:	Well WACKER 10G-214
Project:	WELD COUNTY, COLORADO	TVD Reference:	KB-EST @ 4624.0usft (Original Well Elev)
Reference Site:	SW NW SEC. 10 T5N R64W 6th P.M.	MD Reference:	KB-EST @ 4624.0usft (Original Well Elev)
Site Error:	0.0 usft	North Reference:	True
Reference Well:	WACKER 10G-214	Survey Calculation Method:	Minimum Curvature
Well Error:	0.0 usft	Output errors are at	2.00 sigma
Reference Wellbore	ORIGINAL WELLBORE	Database:	EDM 5000.1 Single User Db
Reference Design:	PROPOSAL #1	Offset TVD Reference:	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	
7,086.5	6,645.0	6,620.0	6,620.0	21.5	131.9	90.45	1,353.2	-9,028.5	8,746.4	8,593.0	153.41	57.014	
7,100.0	6,645.0	6,620.0	6,620.0	21.8	131.9	90.45	1,353.2	-9,028.5	8,733.2	8,579.5	153.67	56.829	
7,185.0	6,644.9	6,619.9	6,619.9	23.6	131.9	90.45	1,353.2	-9,028.5	8,649.5	8,494.0	155.43	55.648	
7,200.0	6,644.8	6,619.8	6,619.8	23.9	131.9	90.45	1,353.2	-9,028.5	8,634.7	8,479.0	155.74	55.443	
7,283.4	6,644.7	6,619.7	6,619.7	25.7	131.9	90.44	1,353.2	-9,028.5	8,552.6	8,395.0	157.58	54.274	
7,300.0	6,644.7	6,619.7	6,619.7	26.1	131.9	90.44	1,353.2	-9,028.5	8,536.3	8,378.4	157.95	54.046	
7,381.9	6,644.6	6,619.6	6,619.6	28.0	131.9	90.44	1,353.2	-9,028.5	8,455.7	8,295.9	159.84	52.902	
7,400.0	6,644.6	6,619.6	6,619.6	28.4	131.9	90.43	1,353.2	-9,028.5	8,437.9	8,277.7	160.26	52.652	
7,480.3	6,644.5	6,619.5	6,619.5	30.3	131.9	90.43	1,353.2	-9,028.5	8,358.9	8,196.8	162.18	51.541	
7,500.0	6,644.4	6,619.4	6,619.4	30.8	131.9	90.43	1,353.2	-9,028.5	8,339.6	8,176.9	162.65	51.272	
7,578.7	6,644.3	6,619.3	6,619.3	32.7	131.9	90.42	1,353.2	-9,028.5	8,262.2	8,097.6	164.59	50.199	
7,600.0	6,644.3	6,619.3	6,619.3	33.3	131.9	90.42	1,353.2	-9,028.5	8,241.3	8,076.1	165.11	49.913	
7,677.1	6,644.2	6,619.2	6,619.2	35.2	131.9	90.42	1,353.2	-9,028.5	8,165.4	7,998.4	167.05	48.880	
7,700.0	6,644.1	6,619.1	6,619.1	35.8	131.9	90.42	1,353.2	-9,028.5	8,143.0	7,975.4	167.62	48.579	
7,775.6	6,644.0	6,619.0	6,619.0	37.7	131.9	90.41	1,353.2	-9,028.5	8,068.8	7,899.2	169.55	47.589	
7,800.0	6,644.0	6,619.0	6,619.0	38.3	131.9	90.41	1,353.2	-9,028.5	8,044.8	7,874.6	170.18	47.273	
7,874.0	6,643.9	6,618.9	6,618.9	40.2	131.9	90.41	1,353.2	-9,028.5	7,972.1	7,800.0	172.09	46.325	
7,900.0	6,643.9	6,618.9	6,618.9	40.9	131.9	90.40	1,353.2	-9,028.5	7,946.6	7,773.8	172.76	45.997	
7,972.4	6,643.8	6,618.8	6,618.8	42.8	131.9	90.40	1,353.2	-9,028.5	7,875.5	7,700.8	174.65	45.092	
8,000.0	6,643.7	6,618.7	6,618.7	43.5	131.9	90.40	1,353.2	-9,028.5	7,848.4	7,673.1	175.38	44.752	
8,070.8	6,643.6	6,618.6	6,618.6	45.4	131.9	90.39	1,353.2	-9,028.5	7,778.9	7,601.7	177.24	43.889	
8,100.0	6,643.6	6,618.6	6,618.6	46.2	131.9	90.39	1,353.2	-9,028.5	7,750.4	7,572.4	178.01	43.538	
8,169.3	6,643.5	6,618.5	6,618.5	48.0	131.8	90.39	1,353.2	-9,028.5	7,682.4	7,502.6	179.85	42.715	
8,200.0	6,643.5	6,618.5	6,618.5	48.8	131.8	90.38	1,353.2	-9,028.5	7,652.3	7,471.7	180.67	42.356	
8,267.7	6,643.4	6,618.4	6,618.4	50.6	131.8	90.38	1,353.2	-9,028.5	7,586.0	7,403.5	182.48	41.572	
8,300.0	6,643.3	6,618.3	6,618.3	51.5	131.8	90.38	1,353.2	-9,028.5	7,554.3	7,371.0	183.34	41.204	
8,366.1	6,643.2	6,618.2	6,618.2	53.3	131.8	90.38	1,353.2	-9,028.5	7,489.6	7,304.5	185.12	40.459	
8,400.0	6,643.2	6,618.2	6,618.2	54.2	131.8	90.37	1,353.2	-9,028.5	7,456.4	7,270.4	186.02	40.083	
8,464.5	6,643.1	6,618.1	6,618.1	55.9	131.8	90.37	1,353.2	-9,028.5	7,393.2	7,205.5	187.77	39.375	
8,500.0	6,643.1	6,618.1	6,618.1	56.9	131.8	90.37	1,353.2	-9,028.5	7,358.5	7,169.8	188.72	38.991	
8,563.0	6,643.0	6,618.0	6,618.0	58.6	131.8	90.36	1,353.2	-9,028.5	7,296.9	7,106.5	190.43	38.319	
8,600.0	6,642.9	6,617.9	6,617.9	59.6	131.8	90.36	1,353.2	-9,028.5	7,260.7	7,069.3	191.43	37.929	
8,661.4	6,642.8	6,617.8	6,617.8	61.3	131.8	90.36	1,353.2	-9,028.5	7,200.7	7,007.6	193.10	37.290	
8,700.0	6,642.8	6,617.8	6,617.8	62.3	131.8	90.35	1,353.2	-9,028.5	7,163.0	6,968.8	194.15	36.895	
8,759.8	6,642.7	6,617.7	6,617.7	64.0	131.8	90.35	1,353.2	-9,028.5	7,104.5	6,908.7	195.78	36.289	
8,800.0	6,642.7	6,617.7	6,617.7	65.1	131.8	90.35	1,353.2	-9,028.5	7,065.3	6,868.4	196.87	35.888	
8,858.2	6,642.6	6,617.6	6,617.6	66.6	131.8	90.35	1,353.2	-9,028.5	7,008.4	6,809.9	198.46	35.313	
8,900.0	6,642.5	6,617.5	6,617.5	67.8	131.8	90.34	1,353.2	-9,028.5	6,967.6	6,768.0	199.60	34.907	
8,956.7	6,642.4	6,617.4	6,617.4	69.3	131.8	90.34	1,353.2	-9,028.5	6,912.3	6,711.2	201.15	34.363	
9,000.0	6,642.4	6,617.4	6,617.4	70.5	131.8	90.34	1,353.2	-9,028.5	6,870.1	6,667.7	202.34	33.953	
9,055.1	6,642.3	6,617.3	6,617.3	72.0	131.8	90.33	1,353.2	-9,028.5	6,816.3	6,612.5	203.85	33.438	
9,100.0	6,642.3	6,617.3	6,617.3	73.3	131.8	90.33	1,353.2	-9,028.5	6,772.6	6,567.5	205.08	33.024	
9,153.5	6,642.2	6,617.2	6,617.2	74.7	131.8	90.33	1,353.2	-9,028.5	6,720.4	6,513.9	206.55	32.536	
9,200.0	6,642.1	6,617.1	6,617.1	76.0	131.8	90.33	1,353.2	-9,028.5	6,675.2	6,467.3	207.83	32.118	
9,251.9	6,642.1	6,617.1	6,617.1	77.5	131.8	90.32	1,353.2	-9,028.5	6,624.6	6,415.3	209.26	31.657	
9,300.0	6,642.0	6,617.0	6,617.0	78.8	131.8	90.32	1,353.2	-9,028.5	6,577.8	6,367.2	210.58	31.236	
9,350.4	6,641.9	6,616.9	6,616.9	80.2	131.8	90.32	1,353.2	-9,028.5	6,528.8	6,316.8	211.97	30.801	
9,400.0	6,641.9	6,616.9	6,616.9	81.5	131.8	90.31	1,353.2	-9,028.5	6,480.6	6,267.2	213.34	30.377	
9,448.8	6,641.8	6,616.8	6,616.8	82.9	131.8	90.31	1,353.2	-9,028.5	6,433.1	6,218.4	214.68	29.965	
9,500.0	6,641.7	6,616.7	6,616.7	84.3	131.8	90.31	1,353.2	-9,028.5	6,383.4	6,167.3	216.10	29.539	
9,547.2	6,641.7	6,616.7	6,616.7	85.6	131.8	90.31	1,353.2	-9,028.5	6,337.5	6,120.1	217.40	29.151	
9,600.0	6,641.6	6,616.6	6,616.6	87.1	131.8	90.30	1,353.2	-9,028.5	6,286.3	6,067.4	218.86	28.723	

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

Anticollision Report



Company:	PDC ENERGY	Local Co-ordinate Reference:	Well WACKER 10G-214
Project:	WELD COUNTY, COLORADO	TVD Reference:	KB-EST @ 4624.0usft (Original Well Elev)
Reference Site:	SW NW SEC. 10 T5N R64W 6th P.M.	MD Reference:	KB-EST @ 4624.0usft (Original Well Elev)
Site Error:	0.0 usft	North Reference:	True
Reference Well:	WACKER 10G-214	Survey Calculation Method:	Minimum Curvature
Well Error:	0.0 usft	Output errors are at	2.00 sigma
Reference Wellbore	ORIGINAL WELLBORE	Database:	EDM 5000.1 Single User Db
Reference Design:	PROPOSAL #1	Offset TVD Reference:	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	
9,645.6	6,641.5	6,616.5	6,616.5	88.3	131.8	90.30	1,353.2	-9,028.5	6,242.0	6,021.9	220.12	28.357	
9,700.0	6,641.5	6,616.5	6,616.5	89.8	131.8	90.30	1,353.2	-9,028.5	6,189.3	5,967.7	221.62	27.927	
9,744.1	6,641.4	6,616.4	6,616.4	91.0	131.8	90.29	1,353.2	-9,028.5	6,146.6	5,923.7	222.84	27.582	
9,800.0	6,641.3	6,616.3	6,616.3	92.6	131.8	90.29	1,353.2	-9,028.5	6,092.4	5,868.0	224.39	27.151	
9,842.5	6,641.3	6,616.3	6,616.3	93.8	131.8	90.29	1,353.2	-9,028.5	6,051.3	5,825.7	225.57	26.827	
9,900.0	6,641.2	6,616.2	6,616.2	95.4	131.8	90.29	1,353.2	-9,028.5	5,995.6	5,768.5	227.16	26.393	
9,940.9	6,641.1	6,616.1	6,616.1	96.5	131.8	90.28	1,353.2	-9,028.5	5,956.0	5,727.7	228.30	26.089	
10,000.0	6,641.1	6,616.1	6,616.1	98.1	131.8	90.28	1,353.2	-9,028.5	5,898.9	5,669.0	229.94	25.655	
10,039.3	6,641.0	6,616.0	6,616.0	99.2	131.8	90.28	1,353.2	-9,028.5	5,860.9	5,629.9	231.03	25.369	
10,100.0	6,640.9	6,615.9	6,615.9	100.9	131.8	90.27	1,353.2	-9,028.5	5,802.4	5,569.7	232.71	24.934	
10,137.8	6,640.9	6,615.9	6,615.9	102.0	131.8	90.27	1,353.2	-9,028.5	5,765.9	5,532.2	233.76	24.666	
10,200.0	6,640.8	6,615.8	6,615.8	103.7	131.8	90.27	1,353.2	-9,028.5	5,705.9	5,470.4	235.49	24.230	
10,236.2	6,640.8	6,615.8	6,615.8	104.7	131.8	90.27	1,353.2	-9,028.5	5,671.0	5,434.5	236.49	23.980	
10,300.0	6,640.7	6,615.7	6,615.7	106.5	131.8	90.26	1,353.2	-9,028.5	5,609.6	5,371.3	238.26	23.544	
10,334.6	6,640.6	6,615.6	6,615.6	107.4	131.8	90.26	1,353.2	-9,028.5	5,576.3	5,337.0	239.23	23.310	
10,400.0	6,640.6	6,615.6	6,615.6	109.3	131.8	90.26	1,353.2	-9,028.5	5,513.4	5,272.3	241.04	22.873	
10,433.0	6,640.5	6,615.5	6,615.5	110.2	131.8	90.26	1,353.2	-9,028.5	5,481.6	5,239.6	241.96	22.655	
10,500.0	6,640.4	6,615.4	6,615.4	112.0	131.8	90.25	1,353.2	-9,028.5	5,417.3	5,173.5	243.82	22.218	
10,531.5	6,640.4	6,615.4	6,615.4	112.9	131.8	90.25	1,353.2	-9,028.5	5,387.1	5,142.4	244.70	22.015	
10,600.0	6,640.3	6,615.3	6,615.3	114.8	131.8	90.25	1,353.2	-9,028.5	5,321.4	5,074.8	246.61	21.578	
10,629.9	6,640.3	6,615.3	6,615.3	115.7	131.8	90.25	1,353.2	-9,028.5	5,292.7	5,045.3	247.44	21.390	
10,700.0	6,640.2	6,615.2	6,615.2	117.6	131.8	90.24	1,353.2	-9,028.5	5,225.6	4,976.2	249.39	20.954	
10,728.3	6,640.1	6,615.1	6,615.1	118.4	131.8	90.24	1,353.2	-9,028.5	5,198.5	4,948.4	250.18	20.779	
10,800.0	6,640.0	6,615.0	6,615.0	120.4	131.8	90.24	1,353.2	-9,028.5	5,130.0	4,877.8	252.18	20.343	
10,826.7	6,640.0	6,615.0	6,615.0	121.2	131.8	90.23	1,353.2	-9,028.5	5,104.5	4,851.6	252.92	20.182	
10,900.0	6,639.9	6,614.9	6,614.9	123.2	131.8	90.23	1,353.2	-9,028.5	5,034.6	4,779.6	254.96	19.747	
10,925.2	6,639.9	6,614.9	6,614.9	123.9	131.8	90.23	1,353.2	-9,028.5	5,010.6	4,754.9	255.66	19.598	
11,000.0	6,639.8	6,614.8	6,614.8	126.0	131.8	90.22	1,353.2	-9,028.5	4,939.3	4,681.6	257.75	19.163	
11,023.6	6,639.8	6,614.8	6,614.8	126.6	131.8	90.22	1,353.2	-9,028.5	4,916.9	4,658.5	258.41	19.028	
11,100.0	6,639.7	6,614.7	6,614.7	128.8	131.8	90.22	1,353.2	-9,028.5	4,844.3	4,583.7	260.54	18.594	
11,122.0	6,639.6	6,614.6	6,614.6	129.4	131.8	90.22	1,353.2	-9,028.5	4,823.4	4,562.2	261.15	18.470	
11,200.0	6,639.5	6,614.5	6,614.5	131.6	131.8	90.21	1,353.2	-9,028.5	4,749.4	4,486.1	263.32	18.036	
11,220.4	6,639.5	6,614.5	6,614.5	132.1	131.8	90.21	1,353.2	-9,028.5	4,730.0	4,466.2	263.89	17.924	
11,300.0	6,639.4	6,614.4	6,614.4	134.4	131.8	90.21	1,353.2	-9,028.5	4,654.8	4,388.7	266.11	17.492	
11,318.9	6,639.4	6,614.4	6,614.4	134.9	131.8	90.21	1,353.2	-9,028.5	4,636.9	4,370.3	266.64	17.390	
11,400.0	6,639.3	6,614.3	6,614.3	137.1	131.8	90.20	1,353.2	-9,028.5	4,560.4	4,291.5	268.90	16.959	
11,417.3	6,639.3	6,614.3	6,614.3	137.6	131.8	90.20	1,353.2	-9,028.5	4,544.1	4,274.7	269.39	16.868	
11,500.0	6,639.2	6,614.2	6,614.2	139.9	131.8	90.20	1,353.2	-9,028.5	4,466.2	4,194.5	271.69	16.438	
11,515.7	6,639.1	6,614.1	6,614.1	140.4	131.8	90.20	1,353.2	-9,028.5	4,451.4	4,179.3	272.13	16.357	
11,600.0	6,639.0	6,614.0	6,614.0	142.7	131.8	90.19	1,353.2	-9,028.5	4,372.3	4,097.8	274.49	15.929	
11,614.1	6,639.0	6,614.0	6,614.0	143.1	131.8	90.19	1,353.2	-9,028.5	4,359.0	4,084.1	274.88	15.858	
11,700.0	6,638.9	6,613.9	6,613.9	145.5	131.8	90.19	1,353.2	-9,028.5	4,278.6	4,001.4	277.28	15.431	
11,712.6	6,638.9	6,613.9	6,613.9	145.9	131.8	90.19	1,353.2	-9,028.5	4,266.9	3,989.3	277.63	15.369	
11,800.0	6,638.8	6,613.8	6,613.8	148.3	131.8	90.18	1,353.2	-9,028.5	4,185.3	3,905.2	280.07	14.944	
11,811.0	6,638.8	6,613.8	6,613.8	148.6	131.8	90.18	1,353.2	-9,028.5	4,175.1	3,894.7	280.38	14.891	
11,900.0	6,638.7	6,613.7	6,613.7	151.1	131.8	90.18	1,353.2	-9,028.5	4,092.3	3,809.4	282.87	14.467	
11,909.4	6,638.6	6,613.6	6,613.6	151.4	131.8	90.18	1,353.2	-9,028.5	4,083.5	3,800.4	283.13	14.423	
12,000.0	6,638.5	6,613.5	6,613.5	153.9	131.7	90.17	1,353.2	-9,028.5	3,999.6	3,713.9	285.66	14.001	
12,007.8	6,638.5	6,613.5	6,613.5	154.1	131.7	90.17	1,353.2	-9,028.5	3,992.3	3,706.4	285.88	13.965	
12,100.0	6,638.4	6,613.4	6,613.4	156.7	131.7	90.17	1,353.2	-9,028.5	3,907.3	3,618.8	288.45	13.546	
12,106.3	6,638.4	6,613.4	6,613.4	156.9	131.7	90.17	1,353.2	-9,028.5	3,901.5	3,612.8	288.63	13.517	
12,200.0	6,638.3	6,613.3	6,613.3	159.5	131.7	90.16	1,353.2	-9,028.5	3,815.3	3,524.1	291.25	13.100	

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

Anticollision Report



Company:	PDC ENERGY	Local Co-ordinate Reference:	Well WACKER 10G-214
Project:	WELD COUNTY, COLORADO	TVD Reference:	KB-EST @ 4624.0usft (Original Well Elev)
Reference Site:	SW NW SEC. 10 T5N R64W 6th P.M.	MD Reference:	KB-EST @ 4624.0usft (Original Well Elev)
Site Error:	0.0 usft	North Reference:	True
Reference Well:	WACKER 10G-214	Survey Calculation Method:	Minimum Curvature
Well Error:	0.0 usft	Output errors are at	2.00 sigma
Reference Wellbore	ORIGINAL WELLBORE	Database:	EDM 5000.1 Single User Db
Reference Design:	PROPOSAL #1	Offset TVD Reference:	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	
12,204.7	6,638.3	6,613.3	6,613.3	159.6	131.7	90.16	1,353.2	-9,028.5	3,811.0	3,519.6	291.38	13.079	
12,300.0	6,638.2	6,613.2	6,613.2	162.3	131.7	90.16	1,353.2	-9,028.5	3,723.8	3,429.7	294.05	12.664	
12,303.1	6,638.2	6,613.2	6,613.2	162.4	131.7	90.16	1,353.2	-9,028.5	3,720.9	3,426.8	294.13	12.651	
12,400.0	6,638.0	6,613.0	6,613.0	165.1	131.7	90.15	1,353.2	-9,028.5	3,632.7	3,335.9	296.84	12.238	
12,401.5	6,638.0	6,613.0	6,613.0	165.2	131.7	90.15	1,353.2	-9,028.5	3,631.3	3,334.4	296.88	12.231	
12,500.0	6,637.9	6,612.9	6,612.9	167.9	131.7	90.15	1,353.2	-9,028.5	3,542.1	3,242.5	299.64	11.821	
12,598.4	6,637.8	6,612.8	6,612.8	170.7	131.7	90.14	1,353.2	-9,028.5	3,453.5	3,151.1	302.39	11.421	
12,600.0	6,637.8	6,612.8	6,612.8	170.7	131.7	90.14	1,353.2	-9,028.5	3,452.0	3,149.6	302.43	11.414	
12,696.8	6,637.7	6,612.7	6,612.7	173.4	131.7	90.14	1,353.2	-9,028.5	3,365.3	3,060.2	305.14	11.029	
12,700.0	6,637.7	6,612.7	6,612.7	173.5	131.7	90.14	1,353.2	-9,028.5	3,362.5	3,057.3	305.23	11.016	
12,795.2	6,637.6	6,612.6	6,612.6	176.2	131.7	90.13	1,353.2	-9,028.5	3,277.8	2,969.9	307.90	10.646	
12,800.0	6,637.6	6,612.6	6,612.6	176.3	131.7	90.13	1,353.2	-9,028.5	3,273.6	2,965.6	308.03	10.628	
12,893.7	6,637.4	6,612.4	6,612.4	178.9	131.7	90.13	1,353.2	-9,028.5	3,190.9	2,880.3	310.65	10.272	
12,900.0	6,637.4	6,612.4	6,612.4	179.1	131.7	90.13	1,353.2	-9,028.5	3,185.3	2,874.5	310.83	10.248	
12,992.1	6,637.3	6,612.3	6,612.3	181.7	131.7	90.12	1,353.2	-9,028.5	3,104.7	2,791.3	313.40	9.906	
13,000.0	6,637.3	6,612.3	6,612.3	181.9	131.7	90.12	1,353.2	-9,028.5	3,097.8	2,784.2	313.63	9.877	
13,090.5	6,637.2	6,612.2	6,612.2	184.4	131.7	90.12	1,353.2	-9,028.5	3,019.2	2,703.1	316.16	9.550	
13,100.0	6,637.2	6,612.2	6,612.2	184.7	131.7	90.12	1,353.2	-9,028.5	3,011.0	2,694.6	316.42	9.516	
13,188.9	6,637.1	6,612.1	6,612.1	187.2	131.7	90.11	1,353.2	-9,028.5	2,934.6	2,615.6	318.91	9.202	
13,200.0	6,637.1	6,612.1	6,612.1	187.5	131.7	90.11	1,353.2	-9,028.5	2,925.1	2,605.9	319.22	9.163	
13,287.4	6,637.0	6,612.0	6,612.0	190.0	131.7	90.11	1,353.2	-9,028.5	2,850.8	2,529.1	321.67	8.862	
13,300.0	6,637.0	6,612.0	6,612.0	190.3	131.7	90.11	1,353.2	-9,028.5	2,840.1	2,518.1	322.02	8.820	
13,385.8	6,636.9	6,611.9	6,611.9	192.7	131.7	90.10	1,353.2	-9,028.5	2,768.0	2,443.6	324.42	8.532	
13,400.0	6,636.8	6,611.8	6,611.8	193.1	131.7	90.10	1,353.2	-9,028.5	2,756.1	2,431.3	324.82	8.485	
13,484.2	6,636.7	6,611.7	6,611.7	195.5	131.7	90.10	1,353.2	-9,028.5	2,686.2	2,359.0	327.18	8.210	
13,500.0	6,636.7	6,611.7	6,611.7	195.9	131.7	90.10	1,353.2	-9,028.5	2,673.2	2,345.6	327.62	8.160	
13,582.6	6,636.6	6,611.6	6,611.6	198.2	131.7	90.09	1,353.2	-9,028.5	2,605.6	2,275.7	329.94	7.897	
13,600.0	6,636.6	6,611.6	6,611.6	198.7	131.7	90.09	1,353.2	-9,028.5	2,591.5	2,261.1	330.42	7.843	
13,681.1	6,636.5	6,611.5	6,611.5	201.0	131.7	90.09	1,353.2	-9,028.5	2,526.3	2,193.6	332.69	7.593	
13,700.0	6,636.5	6,611.5	6,611.5	201.5	131.7	90.09	1,353.2	-9,028.5	2,511.2	2,178.0	333.22	7.536	
13,779.5	6,636.4	6,611.4	6,611.4	203.7	131.7	90.09	1,353.2	-9,028.5	2,448.3	2,112.9	335.45	7.299	
13,800.0	6,636.4	6,611.4	6,611.4	204.3	131.7	90.08	1,353.2	-9,028.5	2,432.3	2,096.3	336.02	7.238	
13,877.9	6,636.3	6,611.3	6,611.3	206.5	131.7	90.08	1,353.2	-9,028.5	2,371.9	2,033.7	338.20	7.013	
13,900.0	6,636.3	6,611.3	6,611.3	207.1	131.7	90.08	1,353.2	-9,028.5	2,355.0	2,016.2	338.82	6.951	
13,976.3	6,636.2	6,611.2	6,611.2	209.3	131.7	90.08	1,353.2	-9,028.5	2,297.2	1,956.2	340.96	6.737	
14,000.0	6,636.1	6,611.1	6,611.1	209.9	131.7	90.08	1,353.2	-9,028.5	2,279.5	1,937.8	341.62	6.672	
14,074.8	6,636.0	6,611.0	6,611.0	212.0	131.7	90.07	1,353.2	-9,028.5	2,224.3	1,880.5	343.72	6.471	
14,100.0	6,636.0	6,611.0	6,611.0	212.7	131.7	90.07	1,353.2	-9,028.5	2,205.9	1,861.5	344.43	6.405	
14,173.2	6,635.9	6,610.9	6,610.9	214.8	131.7	90.07	1,353.2	-9,028.5	2,153.4	1,806.9	346.48	6.215	
14,200.0	6,635.9	6,610.9	6,610.9	215.5	131.7	90.07	1,353.2	-9,028.5	2,134.5	1,787.2	347.23	6.147	
14,271.6	6,635.8	6,610.8	6,610.8	217.5	131.7	90.06	1,353.2	-9,028.5	2,084.7	1,735.5	349.23	5.969	
14,300.0	6,635.8	6,610.8	6,610.8	218.3	131.7	90.06	1,353.2	-9,028.5	2,065.4	1,715.4	350.03	5.901	
14,370.0	6,635.7	6,610.7	6,610.7	220.3	131.7	90.06	1,353.2	-9,028.5	2,018.6	1,666.6	351.99	5.735	
14,400.0	6,635.7	6,610.7	6,610.7	221.1	131.7	90.06	1,353.2	-9,028.5	1,999.0	1,646.1	352.83	5.665	
14,468.5	6,635.6	6,610.6	6,610.6	223.1	131.7	90.05	1,353.2	-9,028.5	1,955.1	1,600.4	354.75	5.511	
14,500.0	6,635.6	6,610.6	6,610.6	223.9	131.7	90.05	1,353.2	-9,028.5	1,935.4	1,579.8	355.63	5.442	
14,566.9	6,635.5	6,610.5	6,610.5	225.8	131.7	90.05	1,353.2	-9,028.5	1,894.6	1,537.1	357.51	5.300	
14,600.0	6,635.4	6,610.4	6,610.4	226.8	131.7	90.05	1,353.2	-9,028.5	1,875.0	1,516.6	358.43	5.231	
14,665.3	6,635.4	6,610.4	6,610.4	228.6	131.7	90.04	1,353.2	-9,028.5	1,837.5	1,477.2	360.26	5.100	
14,700.0	6,635.3	6,610.3	6,610.3	229.6	131.7	90.04	1,353.2	-9,028.5	1,818.2	1,456.9	361.24	5.033	
14,763.7	6,635.2	6,610.2	6,610.2	231.3	131.7	90.04	1,353.2	-9,028.5	1,783.9	1,420.9	363.02	4.914	
14,800.0	6,635.2	6,610.2	6,610.2	232.4	131.7	90.04	1,353.2	-9,028.5	1,765.1	1,401.1	364.04	4.849	

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

Anticollision Report



Company:	PDC ENERGY	Local Co-ordinate Reference:	Well WACKER 10G-214
Project:	WELD COUNTY, COLORADO	TVD Reference:	KB-EST @ 4624.0usft (Original Well Elev)
Reference Site:	SW NW SEC. 10 T5N R64W 6th P.M.	MD Reference:	KB-EST @ 4624.0usft (Original Well Elev)
Site Error:	0.0 usft	North Reference:	True
Reference Well:	WACKER 10G-214	Survey Calculation Method:	Minimum Curvature
Well Error:	0.0 usft	Output errors are at	2.00 sigma
Reference Wellbore	ORIGINAL WELLBORE	Database:	EDM 5000.1 Single User Db
Reference Design:	PROPOSAL #1	Offset TVD Reference:	Offset Datum

Offset Design SW NW SEC. 10 T5N R64W 6th P.M. - ABDN VERT PLUMB #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									
Measured Depth (usft)	Vertical Depth (usft)	Measured Depth (usft)	Vertical Depth (usft)	Reference (usft)	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
14,862.2	6,635.1	6,610.1	6,610.1	234.1	131.7	90.04	1,353.2	-9,028.5	1,734.2	1,368.5	365.78	4.741	
14,900.0	6,635.1	6,610.1	6,610.1	235.2	131.7	90.03	1,353.2	-9,028.5	1,716.3	1,349.4	366.84	4.679	
14,960.6	6,635.0	6,610.0	6,610.0	236.9	131.7	90.03	1,353.2	-9,028.5	1,688.9	1,320.3	368.54	4.583	
14,982.9	6,635.0	6,610.0	6,610.0	237.5	131.7	90.03	1,353.2	-9,028.5	1,679.3	1,310.1	369.16	4.549	CC, ES, SF

Anticollision Report



Company:	PDC ENERGY	Local Co-ordinate Reference:	Well WACKER 10G-214
Project:	WELD COUNTY, COLORADO	TVD Reference:	KB-EST @ 4624.0usft (Original Well Elev)
Reference Site:	SW NW SEC. 10 T5N R64W 6th P.M.	MD Reference:	KB-EST @ 4624.0usft (Original Well Elev)
Site Error:	0.0 usft	North Reference:	True
Reference Well:	WACKER 10G-214	Survey Calculation Method:	Minimum Curvature
Well Error:	0.0 usft	Output errors are at	2.00 sigma
Reference Wellbore	ORIGINAL WELLBORE	Database:	EDM 5000.1 Single User Db
Reference Design:	PROPOSAL #1	Offset TVD Reference:	Offset Datum

Offset Design												Offset Site Error:	0.0 usft
Survey Program: 137-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	-104.50	-1,834.4	-7,091.8	7,325.2				
98.4	98.4	46.2	46.2	0.1	0.0	-104.50	-1,834.4	-7,091.8	7,325.3	7,325.1	0.11	N/A	
100.0	100.0	47.3	47.3	0.1	0.0	-104.50	-1,834.4	-7,091.8	7,325.3	7,325.1	0.12	N/A	
196.8	196.8	115.6	115.6	0.3	0.0	-104.50	-1,834.3	-7,092.2	7,325.7	7,325.3	0.36	N/A	
200.0	200.0	137.0	137.0	0.3	0.1	-104.50	-1,834.3	-7,092.3	7,325.8	7,325.4	0.38	N/A	
295.3	295.3	339.7	339.7	0.5	0.5	-104.49	-1,833.0	-7,092.7	7,326.1	7,325.1	1.02	7,194.105	
300.0	300.0	343.5	343.5	0.5	0.5	-104.49	-1,833.0	-7,092.6	7,326.1	7,325.0	1.04	7,063.476	
393.7	393.7	423.3	423.3	0.8	0.7	-104.48	-1,832.0	-7,092.1	7,325.2	7,323.8	1.42	5,168.003	
400.0	400.0	431.2	431.2	0.8	0.7	-104.48	-1,831.9	-7,092.1	7,325.1	7,323.7	1.45	5,057.472	
492.1	492.1	587.8	587.7	1.0	1.0	-104.47	-1,829.7	-7,090.7	7,324.1	7,322.1	1.99	3,674.772	
500.0	500.0	607.0	607.0	1.0	1.1	-104.47	-1,829.4	-7,090.4	7,323.9	7,321.9	2.05	3,567.877	
590.5	590.5	1,401.0	1,391.2	1.2	3.4	-103.78	-1,731.9	-7,064.0	7,320.9	7,316.4	4.45	1,645.772	
600.0	600.0	1,401.0	1,391.2	1.2	3.4	-103.78	-1,731.9	-7,064.0	7,319.8	7,315.3	4.47	1,637.711	
689.0	689.0	1,458.0	1,445.9	1.4	3.6	-103.66	-1,715.9	-7,061.5	7,309.8	7,304.9	4.90	1,493.299	
700.0	700.0	1,482.0	1,468.9	1.4	3.7	-103.61	-1,709.1	-7,060.6	7,308.6	7,303.6	5.02	1,457.355	
787.4	787.4	1,542.7	1,527.0	1.6	4.0	-103.48	-1,691.8	-7,058.5	7,299.4	7,294.0	5.45	1,338.665	
800.0	800.0	1,562.9	1,546.4	1.7	4.1	-103.44	-1,686.1	-7,057.7	7,298.1	7,292.5	5.56	1,312.194	
885.8	885.8	1,646.0	1,625.8	1.9	4.6	-103.26	-1,662.0	-7,054.7	7,288.9	7,282.8	6.11	1,193.669	
900.0	900.0	1,660.1	1,639.3	1.9	4.6	-103.23	-1,657.8	-7,054.2	7,287.4	7,281.2	6.19	1,176.429	
984.2	984.2	1,713.8	1,690.7	2.1	4.9	-103.11	-1,642.3	-7,052.3	7,278.6	7,272.0	6.60	1,103.115	
1,000.0	1,000.0	1,728.0	1,704.3	2.1	5.0	-103.08	-1,638.3	-7,051.8	7,277.1	7,270.4	6.69	1,087.727	
1,082.7	1,082.7	1,818.6	1,791.1	2.3	5.4	-102.89	-1,612.6	-7,048.6	7,268.7	7,261.4	7.23	1,005.739	
1,100.0	1,100.0	1,831.3	1,803.3	2.3	5.5	-102.86	-1,609.0	-7,048.2	7,266.9	7,259.6	7.32	993.154	
1,181.1	1,181.1	1,891.0	1,860.5	2.5	5.8	-102.73	-1,592.1	-7,046.1	7,258.8	7,251.1	7.74	938.172	
1,200.0	1,200.0	1,906.8	1,875.7	2.6	5.8	-102.70	-1,587.7	-7,045.6	7,257.0	7,249.1	7.84	925.590	
1,279.5	1,279.5	2,207.7	2,164.6	2.7	7.3	-102.08	-1,505.2	-7,030.4	7,248.2	7,238.9	9.26	782.369	
1,300.0	1,300.0	2,218.0	2,174.5	2.8	7.4	-102.06	-1,502.4	-7,029.8	7,245.6	7,236.2	9.35	774.561	
1,377.9	1,377.9	2,256.0	2,211.0	3.0	7.6	139.48	-1,492.2	-7,027.3	7,236.8	7,226.6	10.23	707.677	
1,400.0	1,400.0	2,265.4	2,220.1	3.0	7.6	139.53	-1,489.6	-7,026.7	7,234.7	7,224.4	10.32	701.312	
1,476.4	1,476.3	2,300.0	2,253.3	3.1	7.8	139.68	-1,480.3	-7,024.8	7,228.7	7,218.1	10.62	680.599	
1,500.0	1,499.8	2,324.4	2,276.8	3.2	7.9	139.76	-1,473.7	-7,023.5	7,227.3	7,216.5	10.78	670.170	
1,574.8	1,574.4	2,399.8	2,349.1	3.3	8.3	139.99	-1,453.1	-7,019.4	7,223.5	7,212.2	11.30	639.311	
1,600.0	1,599.5	2,414.9	2,363.7	3.4	8.4	140.04	-1,448.9	-7,018.6	7,222.7	7,211.2	11.42	632.282	
1,673.2	1,672.2	2,463.0	2,409.7	3.6	8.7	140.19	-1,435.2	-7,016.2	7,221.3	7,209.5	11.81	611.468	
1,690.4	1,689.2	2,463.0	2,409.7	3.6	8.7	140.19	-1,435.2	-7,016.2	7,221.3	7,209.4	11.84	609.851	
1,700.0	1,698.7	2,463.0	2,409.7	3.6	8.7	140.19	-1,435.2	-7,016.2	7,221.3	7,209.4	11.86	608.957	
1,771.6	1,769.5	2,516.1	2,460.6	3.8	8.9	140.33	-1,420.2	-7,013.9	7,222.3	7,210.0	12.26	588.991	
1,800.0	1,797.5	2,545.0	2,488.4	3.9	9.1	140.40	-1,412.4	-7,012.6	7,223.2	7,210.7	12.46	579.721	
1,870.1	1,866.3	2,791.0	2,723.7	4.1	10.4	141.12	-1,342.1	-6,998.3	7,224.6	7,210.7	13.87	520.732	
1,900.2	1,895.8	2,812.9	2,744.6	4.2	10.5	141.17	-1,335.8	-6,996.8	7,225.6	7,211.6	14.04	514.695	
1,968.5	1,962.6	2,844.1	2,774.5	4.4	10.7	141.27	-1,327.2	-6,994.7	7,228.6	7,214.2	14.37	503.008	
2,000.0	1,993.4	2,872.0	2,801.3	4.5	10.8	141.35	-1,319.7	-6,992.9	7,230.1	7,215.5	14.59	495.552	
2,066.9	2,058.9	2,984.7	2,908.9	4.7	11.5	141.70	-1,287.0	-6,985.4	7,232.8	7,217.5	15.37	470.706	
2,100.0	2,091.2	2,997.8	2,921.4	4.8	11.5	141.75	-1,283.0	-6,984.5	7,234.3	7,218.7	15.53	465.859	
2,165.3	2,155.2	3,035.0	2,956.7	5.1	11.8	141.87	-1,271.8	-6,982.3	7,237.4	7,221.5	15.92	454.663	
2,200.0	2,189.1	3,035.0	2,956.7	5.2	11.8	141.87	-1,271.8	-6,982.3	7,239.2	7,223.2	16.02	451.888	
2,263.8	2,251.4	3,064.1	2,984.5	5.5	11.9	141.96	-1,263.1	-6,980.7	7,242.8	7,226.4	16.36	442.751	
2,300.0	2,286.9	3,079.2	2,998.9	5.6	12.0	142.01	-1,258.8	-6,979.9	7,245.0	7,228.4	16.54	437.912	
2,362.2	2,347.7	3,117.0	3,035.2	5.8	12.2	142.12	-1,248.2	-6,978.0	7,249.0	7,232.1	16.93	428.228	
2,400.0	2,384.7	3,131.0	3,048.6	6.0	12.3	142.17	-1,244.4	-6,977.3	7,251.6	7,234.5	17.11	423.789	
2,460.6	2,444.0	3,230.8	3,144.7	6.2	12.8	142.46	-1,217.7	-6,972.0	7,255.7	7,237.9	17.79	407.904	
2,500.0	2,482.5	3,281.0	3,192.9	6.4	13.0	142.61	-1,204.3	-6,969.0	7,258.2	7,240.0	18.16	399.758	

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

Anticollision Report



Company:	PDC ENERGY	Local Co-ordinate Reference:	Well WACKER 10G-214
Project:	WELD COUNTY, COLORADO	TVD Reference:	KB-EST @ 4624.0usft (Original Well Elev)
Reference Site:	SW NW SEC. 10 T5N R64W 6th P.M.	MD Reference:	KB-EST @ 4624.0usft (Original Well Elev)
Site Error:	0.0 usft	North Reference:	True
Reference Well:	WACKER 10G-214	Survey Calculation Method:	Minimum Curvature
Well Error:	0.0 usft	Output errors are at	2.00 sigma
Reference Wellbore	ORIGINAL WELLBORE	Database:	EDM 5000.1 Single User Db
Reference Design:	PROPOSAL #1	Offset TVD Reference:	Offset Datum

Offset Design		SW NW SEC. 10 T5N R64W 6th P.M. - EXIST DD JURGENS PC #B8-22D - Wellbore #1 - Wellbore #1										Offset Site Error:		0.0 usft			
Survey Program: 137-MWD														Offset Well Error:		0.0 usft	
Reference		Offset		Semi Major Axis			Distance							Warning			
Measured Depth (usft)	Vertical Depth (usft)	Measured Depth (usft)	Vertical Depth (usft)	Reference (usft)	Offset (usft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (usft)	+E/-W (usft)	Between Centres (usft)	Between Ellipses (usft)	Minimum Separation (usft)	Separation Factor					
2,559.0	2,540.3	3,319.2	3,229.6	6.6	13.2	142.73	-1,194.0	-6,966.8	7,262.0	7,243.5	18.54	391.788					
2,600.0	2,580.3	3,338.6	3,248.3	6.8	13.3	142.79	-1,188.7	-6,965.8	7,264.8	7,246.1	18.76	387.189					
2,657.5	2,636.5	3,378.8	3,286.8	7.1	13.6	142.91	-1,177.6	-6,963.8	7,269.0	7,249.8	19.15	379.597					
2,700.0	2,678.1	3,455.7	3,360.7	7.2	14.0	143.14	-1,156.6	-6,959.6	7,272.0	7,252.3	19.67	369.646					
2,755.9	2,732.8	3,645.4	3,542.5	7.5	15.0	143.72	-1,103.9	-6,947.6	7,275.6	7,254.8	20.83	349.208					
2,800.0	2,775.9	3,689.0	3,584.1	7.7	15.2	143.85	-1,091.2	-6,944.4	7,278.0	7,256.8	21.21	343.135					
2,854.3	2,829.1	3,725.4	3,618.8	7.9	15.4	143.97	-1,080.4	-6,941.8	7,280.9	7,259.4	21.59	337.305					
2,900.0	2,873.8	3,755.4	3,647.4	8.1	15.6	144.06	-1,071.5	-6,939.8	7,283.6	7,261.7	21.90	332.608					
2,952.7	2,925.4	3,802.7	3,692.3	8.3	15.9	144.21	-1,057.2	-6,936.6	7,286.7	7,264.4	22.33	326.272					
2,953.5	2,926.1	3,803.5	3,693.1	8.3	15.9	144.22	-1,056.9	-6,936.6	7,286.8	7,264.4	22.34	326.174					
3,000.0	2,971.6	3,853.0	3,740.1	8.5	16.2	144.40	-1,041.8	-6,933.3	7,289.2	7,266.5	22.79	319.826					
3,051.2	3,022.0	3,895.2	3,780.1	8.7	16.4	144.56	-1,028.7	-6,930.4	7,291.3	7,268.1	23.20	314.230					
3,100.0	3,070.1	3,935.0	3,817.8	8.8	16.7	144.70	-1,016.0	-6,927.9	7,292.7	7,269.1	23.59	309.123					
3,149.6	3,119.1	3,935.0	3,817.8	8.9	16.7	144.71	-1,016.0	-6,927.9	7,293.6	7,269.8	23.74	307.263					
3,200.0	3,169.1	3,974.5	3,855.2	9.1	16.9	144.83	-1,003.6	-6,925.5	7,293.9	7,269.8	24.10	302.623					
3,248.0	3,216.8	4,016.0	3,894.7	9.2	17.2	144.95	-991.2	-6,923.1	7,293.8	7,269.4	24.46	298.190					
3,300.0	3,268.5	4,098.0	3,972.8	9.3	17.6	145.16	-966.6	-6,918.0	7,292.7	7,267.7	25.04	291.204					
3,346.4	3,314.8	4,129.9	4,003.0	9.4	17.8	145.22	-956.7	-6,915.9	7,291.0	7,265.6	25.33	287.804					
3,400.0	3,368.3	4,144.1	4,016.5	9.6	17.9	145.23	-952.2	-6,915.1	7,288.6	7,263.1	25.53	285.483					
3,444.9	3,413.1	4,180.0	4,050.5	9.6	18.1	145.30	-940.9	-6,913.3	7,286.3	7,260.5	25.82	282.155					
3,500.0	3,468.2	4,180.0	4,050.5	9.7	18.1	145.26	-940.9	-6,913.3	7,282.7	7,256.8	25.92	280.952					
3,543.3	3,511.5	4,198.4	4,068.0	9.8	18.2	145.27	-935.1	-6,912.5	7,279.6	7,253.5	26.09	278.990					
3,553.7	3,521.9	4,220.7	4,089.1	9.8	18.3	-96.04	-928.2	-6,911.5	7,278.8	7,258.2	20.60	353.310					
3,600.0	3,568.2	4,309.1	4,173.3	9.9	18.8	-95.83	-901.4	-6,907.1	7,274.8	7,253.9	20.94	347.464					
3,641.7	3,609.9	4,343.0	4,205.6	10.0	19.0	-95.75	-891.4	-6,905.2	7,271.1	7,250.0	21.11	344.462					
3,700.0	3,668.2	4,390.7	4,251.1	10.1	19.3	-95.65	-877.6	-6,902.6	7,266.1	7,244.7	21.35	340.363					
3,740.1	3,708.4	4,425.0	4,284.0	10.1	19.5	-95.57	-867.8	-6,900.8	7,262.7	7,241.2	21.52	337.520					
3,800.0	3,768.2	4,507.0	4,362.5	10.2	19.9	-95.39	-844.5	-6,896.1	7,257.5	7,235.6	21.86	331.946					
3,838.6	3,806.8	4,536.3	4,390.6	10.3	20.1	-95.33	-836.2	-6,894.4	7,254.1	7,232.0	22.02	329.471					
3,900.0	3,868.2	4,557.1	4,410.5	10.4	20.2	-95.28	-830.4	-6,893.3	7,249.0	7,226.8	22.19	326.718					
3,937.0	3,905.2	4,589.0	4,441.0	10.5	20.4	-95.21	-821.4	-6,891.8	7,246.2	7,223.9	22.35	324.268					
4,000.0	3,968.2	4,597.1	4,448.9	10.6	20.4	-95.20	-819.2	-6,891.4	7,241.5	7,219.1	22.48	322.092					
4,035.4	4,003.6	4,645.6	4,495.4	10.6	20.6	-95.09	-805.9	-6,889.3	7,239.0	7,216.3	22.68	319.159					
4,100.0	4,068.2	4,670.0	4,518.9	10.7	20.8	-95.04	-799.3	-6,888.1	7,234.4	7,211.6	22.87	316.374					
4,133.8	4,102.1	4,706.5	4,554.0	10.8	21.0	-94.97	-789.6	-6,886.5	7,232.0	7,209.0	23.03	314.047					
4,200.0	4,168.2	4,752.0	4,597.8	10.9	21.2	-94.87	-777.4	-6,884.8	7,227.8	7,204.5	23.27	310.546					
4,232.3	4,200.5	4,752.0	4,597.8	11.0	21.2	-94.87	-777.4	-6,884.8	7,225.8	7,202.5	23.33	309.663					
4,300.0	4,268.2	4,818.3	4,661.9	11.1	21.5	-94.74	-760.3	-6,882.4	7,221.8	7,198.2	23.64	305.548					
4,330.7	4,298.9	4,857.9	4,700.2	11.1	21.7	-94.66	-750.7	-6,880.9	7,220.0	7,196.2	23.80	303.424					
4,400.0	4,368.2	4,970.5	4,810.1	11.3	22.2	-94.47	-726.8	-6,875.8	7,215.6	7,191.4	24.21	298.001					
4,429.1	4,397.3	5,011.9	4,850.6	11.3	22.4	-94.41	-718.1	-6,873.8	7,213.7	7,189.3	24.38	295.929					
4,500.0	4,468.2	5,079.0	4,916.1	11.4	22.7	-94.30	-704.2	-6,870.4	7,208.9	7,184.2	24.69	292.007					
4,527.5	4,495.8	5,099.0	4,935.6	11.5	22.7	-94.27	-700.0	-6,869.4	7,207.0	7,182.3	24.79	290.723					
4,600.0	4,568.2	5,136.9	4,972.7	11.6	22.9	-94.21	-692.6	-6,867.6	7,202.5	7,177.4	25.02	287.831					
4,626.0	4,594.2	5,161.0	4,996.4	11.7	23.0	-94.17	-688.0	-6,866.5	7,200.9	7,175.8	25.13	286.502					
4,700.0	4,668.2	5,186.2	5,021.2	11.8	23.1	-94.14	-683.5	-6,865.5	7,196.7	7,171.4	25.33	284.078					
4,724.4	4,692.6	5,197.7	5,032.5	11.9	23.1	-94.12	-681.5	-6,865.0	7,195.5	7,170.0	25.41	283.207					
4,800.0	4,768.2	5,242.0	5,076.2	12.0	23.3	-94.07	-674.6	-6,863.4	7,191.8	7,166.1	25.66	280.321					
4,822.8	4,791.0	5,242.0	5,076.2	12.0	23.3	-94.07	-674.6	-6,863.4	7,190.7	7,165.0	25.70	279.799					
4,900.0	4,868.2	5,284.2	5,118.0	12.2	23.4	-94.02	-668.8	-6,862.0	7,187.5	7,161.5	25.94	277.084					
4,921.2	4,889.5	5,295.2	5,128.9	12.2	23.4	-94.01	-667.4	-6,861.7	7,186.7	7,160.6	26.00	276.358					
5,000.0	4,968.2	5,324.0	5,157.5	12.4	23.5	-93.98	-663.7	-6,860.9	7,183.9	7,157.7	26.22	273.981					

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

Anticollision Report



Company:	PDC ENERGY	Local Co-ordinate Reference:	Well WACKER 10G-214
Project:	WELD COUNTY, COLORADO	TVD Reference:	KB-EST @ 4624.0usft (Original Well Elev)
Reference Site:	SW NW SEC. 10 T5N R64W 6th P.M.	MD Reference:	KB-EST @ 4624.0usft (Original Well Elev)
Site Error:	0.0 usft	North Reference:	True
Reference Well:	WACKER 10G-214	Survey Calculation Method:	Minimum Curvature
Well Error:	0.0 usft	Output errors are at	2.00 sigma
Reference Wellbore	ORIGINAL WELLBORE	Database:	EDM 5000.1 Single User Db
Reference Design:	PROPOSAL #1	Offset TVD Reference:	Offset Datum

Offset Design													Offset Site Error:	0.0 usft
Survey Program: 137-MWD													Offset Well Error:	0.0 usft
Reference		Offset		Semi Major Axis			Distance							Warning
Measured Depth (usft)	Vertical Depth (usft)	Measured Depth (usft)	Vertical Depth (usft)	Reference (usft)	Offset (usft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (usft)	+E/-W (usft)	Between Centres (usft)	Between Ellipses (usft)	Minimum Separation (usft)	Separation Factor		
5,019.7	4,987.9	5,324.0	5,157.5	12.4	23.5	-93.98	-663.7	-6,860.9	7,183.3	7,157.1	26.26	273.558		
5,100.0	5,068.2	5,376.8	5,209.9	12.6	23.7	-93.93	-657.7	-6,859.8	7,181.0	7,154.5	26.52	270.759		
5,118.1	5,086.3	5,406.0	5,239.0	12.6	23.8	-93.91	-654.8	-6,859.4	7,180.7	7,154.1	26.62	269.784		
5,200.0	5,168.2	5,406.0	5,239.0	12.7	23.8	-93.91	-654.8	-6,859.4	7,179.0	7,152.3	26.78	268.102		
5,216.5	5,184.7	5,431.9	5,264.8	12.8	23.8	-93.89	-652.5	-6,859.1	7,178.7	7,151.9	26.86	267.297		
5,300.0	5,268.2	5,488.0	5,320.7	12.9	23.9	-93.87	-649.0	-6,858.6	7,177.7	7,150.5	27.12	264.627		
5,314.9	5,283.2	5,488.0	5,320.7	13.0	23.9	-93.87	-649.0	-6,858.6	7,177.5	7,150.4	27.15	264.332		
5,400.0	5,368.2	5,535.5	5,368.2	13.1	24.0	-93.85	-647.1	-6,858.4	7,176.9	7,149.5	27.40	261.925		
5,413.4	5,381.6	5,543.6	5,376.3	13.2	24.0	-93.85	-646.8	-6,858.4	7,176.9	7,149.4	27.44	261.541		
5,500.0	5,468.2	5,705.5	5,538.2	13.3	24.2	-93.83	-644.4	-6,857.0	7,175.9	7,148.0	27.88	257.389		
5,511.8	5,480.0	5,715.2	5,547.8	13.3	24.2	-93.83	-644.3	-6,856.8	7,175.8	7,147.8	27.92	257.019		
5,600.0	5,568.2	5,769.1	5,601.7	13.5	24.3	-93.83	-644.1	-6,856.2	7,174.7	7,146.5	28.18	254.573		
5,610.2	5,578.4	5,774.7	5,607.3	13.5	24.3	-93.83	-644.0	-6,856.1	7,174.6	7,146.4	28.21	254.303		
5,700.0	5,668.2	5,835.9	5,668.6	13.7	24.3	-93.83	-643.7	-6,855.8	7,174.1	7,145.6	28.49	251.794		
5,708.6	5,676.9	5,847.5	5,680.1	13.7	24.4	-93.82	-643.6	-6,855.8	7,174.0	7,145.5	28.53	251.475		
5,800.0	5,768.2	5,944.9	5,777.5	13.9	24.5	-93.82	-643.3	-6,855.2	7,173.5	7,144.6	28.87	248.481		
5,807.1	5,775.3	5,951.2	5,783.8	13.9	24.5	-93.82	-643.3	-6,855.1	7,173.4	7,144.5	28.89	248.269		
5,900.0	5,868.2	6,015.6	5,848.3	14.1	24.5	-93.82	-642.9	-6,854.9	7,173.0	7,143.9	29.19	245.766		
5,905.5	5,873.7	6,019.0	5,851.6	14.1	24.5	-93.82	-642.9	-6,854.9	7,173.0	7,143.8	29.20	245.627		
5,928.7	5,896.9	6,033.0	5,865.6	14.2	24.6	-93.82	-642.8	-6,854.9	7,173.0	7,143.7	29.27	245.041		
5,960.7	5,928.9	6,060.0	5,892.6	14.2	24.6	-93.82	-642.5	-6,854.9	7,173.0	7,143.7	29.38	244.135		
6,000.0	5,968.2	6,119.8	5,952.5	14.3	24.7	-3.82	-641.9	-6,855.0	7,172.0	7,134.7	37.29	192.354		
6,003.9	5,972.1	6,128.6	5,961.3	14.3	24.7	-3.82	-641.9	-6,854.9	7,171.7	7,134.5	37.29	192.341		
6,050.0	6,018.0	6,170.2	6,002.9	14.4	24.7	-3.84	-641.6	-6,854.8	7,167.3	7,130.2	37.16	192.903		
6,100.0	6,067.3	6,205.1	6,037.8	14.4	24.8	-3.89	-641.2	-6,854.8	7,159.3	7,122.5	36.84	194.329		
6,102.3	6,069.6	6,206.8	6,039.4	14.4	24.8	-3.89	-641.2	-6,854.8	7,158.9	7,122.1	36.82	194.416		
6,150.0	6,116.0	6,237.9	6,070.6	14.4	24.8	-3.95	-640.9	-6,854.8	7,148.0	7,111.7	36.36	196.571		
6,200.0	6,163.8	6,268.4	6,101.0	14.5	24.8	-4.04	-640.5	-6,854.9	7,133.5	7,097.7	35.73	199.676		
6,200.8	6,164.5	6,268.8	6,101.5	14.5	24.8	-4.04	-640.5	-6,855.0	7,133.2	7,097.5	35.71	199.731		
6,250.0	6,210.4	6,305.0	6,137.6	14.5	24.9	-4.15	-640.0	-6,855.2	7,115.7	7,080.8	34.94	203.650		
6,299.2	6,254.9	6,337.2	6,169.8	14.5	24.9	-4.29	-639.5	-6,855.5	7,095.2	7,061.2	34.02	208.536		
6,300.0	6,255.6	6,337.8	6,170.5	14.5	24.9	-4.29	-639.5	-6,855.5	7,094.8	7,060.8	34.01	208.622		
6,350.0	6,299.3	6,379.4	6,212.0	14.5	25.0	-4.46	-638.7	-6,855.8	7,070.9	7,037.9	32.95	214.607		
6,397.6	6,339.2	6,461.1	6,293.7	14.6	25.1	-4.68	-637.4	-6,856.3	7,045.2	7,013.3	31.87	221.057		
6,400.0	6,341.2	6,465.6	6,298.2	14.6	25.1	-4.69	-637.3	-6,856.3	7,043.8	7,012.0	31.81	221.405		
6,450.0	6,381.0	6,545.0	6,377.5	14.6	25.2	-4.98	-636.3	-6,856.3	7,013.6	6,983.1	30.55	229.555		
6,496.0	6,415.8	6,600.7	6,433.3	14.7	25.3	-5.29	-635.3	-6,856.0	6,983.3	6,954.0	29.28	238.474		
6,500.0	6,418.7	6,605.2	6,437.8	14.7	25.3	-5.32	-635.2	-6,856.0	6,980.6	6,951.4	29.17	239.305		
6,550.0	6,453.9	6,659.2	6,491.8	14.8	25.4	-5.75	-634.2	-6,855.6	6,944.9	6,917.2	27.70	250.754		
6,594.5	6,483.1	6,701.8	6,534.4	15.0	25.4	-6.21	-633.4	-6,855.2	6,911.1	6,884.8	26.33	262.529		
6,600.0	6,486.6	6,706.9	6,539.4	15.1	25.4	-6.28	-633.3	-6,855.1	6,906.8	6,880.7	26.15	264.105		
6,650.0	6,516.6	6,714.0	6,546.6	15.3	25.4	-6.91	-633.2	-6,855.0	6,866.6	6,842.1	24.52	279.994		
6,692.9	6,540.0	6,714.0	6,546.6	15.7	25.4	-7.58	-633.2	-6,855.0	6,830.6	6,807.5	23.12	295.451		
6,700.0	6,543.7	6,736.8	6,569.3	15.7	25.5	-7.74	-632.8	-6,854.8	6,824.4	6,801.5	22.92	297.809		
6,750.0	6,567.8	6,747.4	6,580.0	16.2	25.5	-8.82	-632.6	-6,854.8	6,780.5	6,759.2	21.34	317.753		
6,791.3	6,585.4	6,755.2	6,587.7	16.7	25.5	-9.99	-632.4	-6,854.7	6,743.1	6,723.0	20.12	335.158		
6,800.0	6,588.8	6,756.7	6,589.3	16.8	25.5	-10.27	-632.4	-6,854.7	6,735.2	6,715.3	19.88	338.843		
6,850.0	6,606.6	6,764.6	6,597.2	17.4	25.5	-12.35	-632.3	-6,854.7	6,688.5	6,669.8	18.65	358.718		
6,889.7	6,618.4	6,769.9	6,602.5	18.0	25.5	-14.74	-632.2	-6,854.7	6,650.6	6,632.6	17.98	369.895		
6,900.0	6,621.1	6,771.1	6,603.7	18.2	25.5	-15.52	-632.2	-6,854.7	6,640.7	6,622.8	17.88	371.427		
6,950.0	6,632.2	6,795.0	6,627.5	19.0	25.5	-21.10	-631.7	-6,854.7	6,592.1	6,573.9	18.24	361.325		
6,988.2	6,638.4	6,795.0	6,627.5	19.7	25.5	-28.36	-631.7	-6,854.7	6,554.5	6,534.4	20.16	325.189		

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

Anticollision Report



Company:	PDC ENERGY	Local Co-ordinate Reference:	Well WACKER 10G-214
Project:	WELD COUNTY, COLORADO	TVD Reference:	KB-EST @ 4624.0usft (Original Well Elev)
Reference Site:	SW NW SEC. 10 T5N R64W 6th P.M.	MD Reference:	KB-EST @ 4624.0usft (Original Well Elev)
Site Error:	0.0 usft	North Reference:	True
Reference Well:	WACKER 10G-214	Survey Calculation Method:	Minimum Curvature
Well Error:	0.0 usft	Output errors are at	2.00 sigma
Reference Wellbore	ORIGINAL WELLBORE	Database:	EDM 5000.1 Single User Db
Reference Design:	PROPOSAL #1	Offset TVD Reference:	Offset Datum

Offset Design												Offset Site Error:	0.0 usft
Survey Program: 137-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	
7,000.0	6,639.9	6,795.0	6,627.5	19.9	25.5	-31.64	-631.7	-6,854.7	6,542.8	6,521.5	21.29	307.253	
7,050.0	6,644.1	6,795.0	6,627.5	20.8	25.5	-56.84	-631.7	-6,854.7	6,493.1	6,462.2	30.90	210.136	
7,086.5	6,645.0	6,795.0	6,627.5	21.5	25.5	-93.01	-631.7	-6,854.7	6,456.7	6,418.6	38.06	169.661	
7,100.0	6,645.0	6,795.0	6,627.5	21.8	25.5	-93.01	-631.7	-6,854.7	6,443.3	6,405.0	38.32	168.136	
7,185.0	6,644.9	6,795.0	6,627.5	23.6	25.5	-93.01	-631.7	-6,854.7	6,358.5	6,318.4	40.08	158.648	
7,200.0	6,644.8	6,795.0	6,627.5	23.9	25.5	-93.01	-631.7	-6,854.7	6,343.6	6,303.2	40.39	157.062	
7,283.4	6,644.7	6,795.0	6,627.5	25.7	25.5	-93.01	-631.7	-6,854.7	6,260.3	6,218.1	42.23	148.247	
7,300.0	6,644.7	6,795.0	6,627.5	26.1	25.5	-93.00	-631.7	-6,854.7	6,243.8	6,201.2	42.59	146.590	
7,381.9	6,644.6	6,795.0	6,627.5	28.0	25.5	-93.00	-631.7	-6,854.7	6,162.2	6,117.7	44.49	138.517	
7,400.0	6,644.6	6,795.0	6,627.5	28.4	25.5	-93.00	-631.7	-6,854.7	6,144.1	6,099.2	44.91	136.822	
7,480.3	6,644.5	6,795.0	6,627.5	30.3	25.5	-93.00	-631.7	-6,854.7	6,064.0	6,017.2	46.83	129.494	
7,500.0	6,644.4	6,795.0	6,627.5	30.8	25.5	-93.00	-631.7	-6,854.7	6,044.4	5,997.1	47.30	127.787	
7,578.7	6,644.3	6,795.0	6,627.5	32.7	25.5	-93.00	-631.7	-6,854.7	5,965.9	5,916.7	49.24	121.168	
7,600.0	6,644.3	6,795.0	6,627.5	33.3	25.5	-93.00	-631.7	-6,854.7	5,944.7	5,895.0	49.76	119.468	
7,677.1	6,644.2	6,795.0	6,627.5	35.2	25.5	-93.00	-631.7	-6,854.7	5,867.8	5,816.1	51.70	113.503	
7,700.0	6,644.1	6,795.0	6,627.5	35.8	25.5	-92.99	-631.7	-6,854.7	5,845.0	5,792.8	52.27	111.822	
7,775.6	6,644.0	6,795.0	6,627.5	37.7	25.5	-92.99	-631.7	-6,854.7	5,769.7	5,715.5	54.20	106.453	
7,800.0	6,644.0	6,795.0	6,627.5	38.3	25.5	-92.99	-631.7	-6,854.7	5,745.4	5,690.5	54.82	104.798	
7,874.0	6,643.9	6,795.0	6,627.5	40.2	25.5	-92.99	-631.7	-6,854.7	5,671.6	5,614.9	56.74	99.964	
7,900.0	6,643.9	6,795.0	6,627.5	40.9	25.5	-92.99	-631.7	-6,854.7	5,645.7	5,588.3	57.41	98.342	
7,972.4	6,643.8	6,795.0	6,627.5	42.8	25.5	-92.99	-631.7	-6,854.7	5,573.5	5,514.2	59.30	93.986	
8,000.0	6,643.7	6,795.0	6,627.5	43.5	25.5	-92.99	-631.7	-6,854.7	5,546.0	5,486.0	60.02	92.400	
8,070.8	6,643.6	6,795.0	6,627.5	45.4	25.5	-92.99	-631.7	-6,854.7	5,475.4	5,413.6	61.89	88.471	
8,100.0	6,643.6	6,795.0	6,627.5	46.2	25.5	-92.99	-631.7	-6,854.7	5,446.4	5,383.7	62.66	86.922	
8,169.3	6,643.5	6,795.0	6,627.5	48.0	25.5	-92.99	-631.7	-6,854.7	5,377.4	5,312.9	64.50	83.373	
8,200.0	6,643.5	6,795.0	6,627.5	48.8	25.5	-92.98	-631.7	-6,854.7	5,346.8	5,281.5	65.31	81.863	
8,267.7	6,643.4	6,795.0	6,627.5	50.6	25.5	-92.98	-631.7	-6,854.7	5,279.3	5,212.2	67.12	78.653	
8,300.0	6,643.3	6,795.0	6,627.5	51.5	25.5	-92.98	-631.7	-6,854.7	5,247.2	5,179.2	67.99	77.181	
8,366.1	6,643.2	6,795.0	6,627.5	53.3	25.5	-92.98	-631.7	-6,854.7	5,181.3	5,111.5	69.76	74.273	
8,400.0	6,643.2	6,795.0	6,627.5	54.2	25.5	-92.98	-631.7	-6,854.7	5,147.6	5,076.9	70.67	72.839	
8,464.5	6,643.1	6,795.0	6,627.5	55.9	25.5	-92.98	-631.7	-6,854.7	5,083.3	5,010.9	72.41	70.200	
8,500.0	6,643.1	6,795.0	6,627.5	56.9	25.5	-92.98	-631.7	-6,854.7	5,048.0	4,974.6	73.37	68.804	
8,563.0	6,643.0	6,795.0	6,627.5	58.6	25.5	-92.98	-631.7	-6,854.7	4,985.3	4,910.2	75.07	66.406	
8,600.0	6,642.9	6,795.0	6,627.5	59.6	25.5	-92.98	-631.7	-6,854.7	4,948.4	4,872.4	76.08	65.047	
8,661.4	6,642.8	6,795.0	6,627.5	61.3	25.5	-92.98	-631.7	-6,854.7	4,887.3	4,809.6	77.74	62.865	
8,700.0	6,642.8	6,795.0	6,627.5	62.3	25.5	-92.97	-631.7	-6,854.7	4,848.9	4,770.1	78.79	61.541	
8,759.8	6,642.7	6,795.0	6,627.5	64.0	25.5	-92.97	-631.7	-6,854.7	4,789.3	4,708.9	80.42	59.553	
8,800.0	6,642.7	6,795.0	6,627.5	65.1	25.5	-92.97	-631.7	-6,854.7	4,749.4	4,667.8	81.52	58.263	
8,858.2	6,642.6	6,795.0	6,627.5	66.6	25.5	-92.97	-631.7	-6,854.7	4,691.4	4,608.3	83.11	56.451	
8,900.0	6,642.5	6,795.0	6,627.5	67.8	25.5	-92.97	-631.7	-6,854.7	4,649.9	4,565.6	84.25	55.193	
8,956.7	6,642.4	6,795.0	6,627.5	69.3	25.5	-92.97	-631.7	-6,854.7	4,593.5	4,507.7	85.80	53.538	
9,000.0	6,642.4	6,795.0	6,627.5	70.5	25.5	-92.97	-631.7	-6,854.7	4,550.4	4,463.4	86.98	52.313	
9,055.1	6,642.3	6,795.0	6,627.5	72.0	25.5	-92.97	-631.7	-6,854.7	4,495.6	4,407.1	88.49	50.801	
9,100.0	6,642.3	6,795.0	6,627.5	73.3	25.5	-92.97	-631.7	-6,854.7	4,450.9	4,361.2	89.73	49.606	
9,153.5	6,642.2	6,795.0	6,627.5	74.7	25.5	-92.97	-631.7	-6,854.7	4,397.7	4,306.5	91.20	48.222	
9,200.0	6,642.1	6,795.0	6,627.5	76.0	25.5	-92.96	-631.7	-6,854.7	4,351.5	4,259.0	92.47	47.057	
9,251.9	6,642.1	6,795.0	6,627.5	77.5	25.5	-92.96	-631.7	-6,854.7	4,299.8	4,205.9	93.90	45.790	
9,300.0	6,642.0	6,795.0	6,627.5	78.8	25.5	-92.96	-631.7	-6,854.7	4,252.1	4,156.8	95.22	44.653	
9,350.4	6,641.9	6,795.0	6,627.5	80.2	25.5	-92.96	-631.7	-6,854.7	4,202.0	4,105.4	96.61	43.493	
9,400.0	6,641.9	6,795.0	6,627.5	81.5	25.5	-92.96	-631.7	-6,854.7	4,152.7	4,054.7	97.98	42.383	
9,448.8	6,641.8	6,795.0	6,627.5	82.9	25.5	-92.96	-631.7	-6,854.7	4,104.2	4,004.9	99.33	41.321	
9,500.0	6,641.7	6,795.0	6,627.5	84.3	25.5	-92.96	-631.7	-6,854.7	4,053.3	3,952.6	100.74	40.236	

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

Anticollision Report



Company:	PDC ENERGY	Local Co-ordinate Reference:	Well WACKER 10G-214
Project:	WELD COUNTY, COLORADO	TVD Reference:	KB-EST @ 4624.0usft (Original Well Elev)
Reference Site:	SW NW SEC. 10 T5N R64W 6th P.M.	MD Reference:	KB-EST @ 4624.0usft (Original Well Elev)
Site Error:	0.0 usft	North Reference:	True
Reference Well:	WACKER 10G-214	Survey Calculation Method:	Minimum Curvature
Well Error:	0.0 usft	Output errors are at	2.00 sigma
Reference Wellbore	ORIGINAL WELLBORE	Database:	EDM 5000.1 Single User Db
Reference Design:	PROPOSAL #1	Offset TVD Reference:	Offset Datum

Offset Design												Offset Site Error:	0.0 usft
Survey Program: 137-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	6,641.7	6,795.0	6,627.5	85.6	25.5	-92.96	-631.7	-6,854.7	4,006.4	3,904.4	102.04	39.262	
9,600.0	6,641.6	6,795.0	6,627.5	87.1	25.5	-92.96	-631.7	-6,854.7	3,954.0	3,850.5	103.50	38.203	
9,645.6	6,641.5	6,795.0	6,627.5	88.3	25.5	-92.96	-631.7	-6,854.7	3,908.7	3,803.9	104.76	37.310	
9,700.0	6,641.5	6,795.0	6,627.5	89.8	25.5	-92.96	-631.7	-6,854.7	3,854.7	3,748.5	106.27	36.275	
9,744.1	6,641.4	6,795.0	6,627.5	91.0	25.5	-92.96	-631.7	-6,854.7	3,811.0	3,703.5	107.49	35.456	
9,800.0	6,641.3	6,795.0	6,627.5	92.6	25.5	-92.95	-631.7	-6,854.7	3,755.5	3,646.5	109.03	34.444	
9,842.5	6,641.3	6,795.0	6,627.5	93.8	25.5	-92.95	-631.7	-6,854.7	3,713.3	3,603.1	110.21	33.693	
9,900.0	6,641.2	6,795.0	6,627.5	95.4	25.5	-92.95	-631.7	-6,854.7	3,656.3	3,544.5	111.80	32.703	
9,940.9	6,641.1	6,795.0	6,627.5	96.5	25.5	-92.95	-631.7	-6,854.7	3,615.7	3,502.8	112.94	32.015	
10,000.0	6,641.1	6,795.0	6,627.5	98.1	25.5	-92.95	-631.7	-6,854.7	3,557.1	3,442.6	114.57	31.047	
10,039.3	6,641.0	6,795.0	6,627.5	99.2	25.5	-92.95	-631.7	-6,854.7	3,518.1	3,402.5	115.67	30.416	
10,100.0	6,640.9	6,795.0	6,627.5	100.9	25.5	-92.95	-631.7	-6,854.7	3,458.0	3,340.7	117.35	29.468	
10,137.8	6,640.9	6,795.0	6,627.5	102.0	25.5	-92.95	-631.7	-6,854.7	3,420.6	3,302.2	118.40	28.891	
10,200.0	6,640.8	6,795.0	6,627.5	103.7	25.5	-92.95	-631.7	-6,854.7	3,359.0	3,238.9	120.12	27.963	
10,236.2	6,640.8	6,795.0	6,627.5	104.7	25.5	-92.95	-631.7	-6,854.7	3,323.1	3,202.0	121.13	27.435	
10,300.0	6,640.7	6,795.0	6,627.5	106.5	25.5	-92.95	-631.7	-6,854.7	3,260.0	3,137.1	122.90	26.525	
10,334.6	6,640.6	6,795.0	6,627.5	107.4	25.5	-92.95	-631.7	-6,854.7	3,225.7	3,101.9	123.86	26.042	
10,400.0	6,640.6	6,795.0	6,627.5	109.3	25.5	-92.95	-631.7	-6,854.7	3,161.0	3,035.4	125.68	25.151	
10,433.0	6,640.5	6,795.0	6,627.5	110.2	25.5	-92.95	-631.7	-6,854.7	3,128.4	3,001.8	126.60	24.711	
10,500.0	6,640.4	6,795.0	6,627.5	112.0	25.5	-92.94	-631.7	-6,854.7	3,062.2	2,933.7	128.46	23.837	
10,531.5	6,640.4	6,795.0	6,627.5	112.9	25.5	-92.94	-631.7	-6,854.7	3,031.1	2,901.7	129.34	23.436	
10,600.0	6,640.3	6,795.0	6,627.5	114.8	25.5	-92.94	-631.7	-6,854.7	2,963.4	2,832.1	131.24	22.579	
10,629.9	6,640.3	6,795.0	6,627.5	115.7	25.5	-92.94	-631.7	-6,854.7	2,933.9	2,801.8	132.07	22.214	
10,700.0	6,640.2	6,781.1	6,613.6	117.6	25.5	-91.24	-632.0	-6,854.7	2,864.6	2,730.6	134.05	21.369	
10,728.3	6,640.1	6,781.1	6,613.6	118.4	25.5	-91.24	-632.0	-6,854.7	2,836.7	2,701.8	134.84	21.037	
10,800.0	6,640.0	6,781.1	6,613.6	120.4	25.5	-91.23	-632.0	-6,854.7	2,766.0	2,629.2	136.84	20.213	
10,826.7	6,640.0	6,781.0	6,613.6	121.2	25.5	-91.23	-632.0	-6,854.7	2,739.7	2,602.1	137.59	19.912	
10,900.0	6,639.9	6,781.0	6,613.6	123.2	25.5	-91.23	-632.0	-6,854.7	2,667.5	2,527.9	139.63	19.104	
10,925.2	6,639.9	6,781.0	6,613.6	123.9	25.5	-91.23	-632.0	-6,854.7	2,642.7	2,502.4	140.33	18.832	
11,000.0	6,639.8	6,781.0	6,613.5	126.0	25.5	-91.22	-632.0	-6,854.7	2,569.1	2,426.7	142.42	18.039	
11,023.6	6,639.8	6,781.0	6,613.5	126.6	25.5	-91.22	-632.0	-6,854.7	2,545.9	2,402.8	143.08	17.794	
11,100.0	6,639.7	6,781.0	6,613.5	128.8	25.5	-91.22	-632.0	-6,854.7	2,470.8	2,325.6	145.21	17.016	
11,122.0	6,639.6	6,780.9	6,613.5	129.4	25.5	-91.22	-632.0	-6,854.7	2,449.2	2,303.4	145.82	16.796	
11,200.0	6,639.5	6,780.9	6,613.5	131.6	25.5	-91.21	-632.0	-6,854.7	2,372.7	2,224.7	148.00	16.032	
11,220.4	6,639.5	6,780.9	6,613.5	132.1	25.5	-91.21	-632.0	-6,854.7	2,352.7	2,204.1	148.57	15.836	
11,300.0	6,639.4	6,780.9	6,613.4	134.4	25.5	-91.21	-632.0	-6,854.7	2,274.8	2,124.0	150.79	15.086	
11,318.9	6,639.4	6,780.9	6,613.4	134.9	25.5	-91.20	-632.0	-6,854.7	2,256.3	2,105.0	151.32	14.911	
11,400.0	6,639.3	6,780.8	6,613.4	137.1	25.5	-91.20	-632.0	-6,854.7	2,177.0	2,023.4	153.58	14.175	
11,417.3	6,639.3	6,780.8	6,613.4	137.6	25.5	-91.20	-632.0	-6,854.7	2,160.1	2,006.0	154.07	14.021	
11,500.0	6,639.2	6,780.8	6,613.4	139.9	25.5	-91.19	-632.0	-6,854.7	2,079.4	1,923.1	156.37	13.298	
11,515.7	6,639.1	6,780.8	6,613.4	140.4	25.5	-91.19	-632.0	-6,854.7	2,064.1	1,907.3	156.81	13.163	
11,600.0	6,639.0	6,780.8	6,613.3	142.7	25.5	-91.19	-632.0	-6,854.7	1,982.1	1,822.9	159.17	12.453	
11,614.1	6,639.0	6,780.8	6,613.3	143.1	25.5	-91.19	-632.0	-6,854.7	1,968.4	1,808.8	159.56	12.336	
11,700.0	6,638.9	6,780.7	6,613.3	145.5	25.5	-91.18	-632.0	-6,854.7	1,885.1	1,723.1	161.96	11.639	
11,712.6	6,638.9	6,780.7	6,613.3	145.9	25.5	-91.18	-632.0	-6,854.7	1,872.9	1,710.6	162.31	11.539	
11,800.0	6,638.8	6,780.7	6,613.2	148.3	25.5	-91.18	-632.0	-6,854.7	1,788.4	1,623.6	164.76	10.854	
11,811.0	6,638.8	6,780.7	6,613.2	148.6	25.5	-91.18	-632.0	-6,854.7	1,777.7	1,612.7	165.07	10.770	
11,900.0	6,638.7	6,780.7	6,613.2	151.1	25.5	-91.17	-632.0	-6,854.7	1,692.0	1,524.5	167.55	10.098	
11,909.4	6,638.6	6,780.7	6,613.2	151.4	25.5	-91.17	-632.0	-6,854.7	1,683.0	1,515.2	167.82	10.029	
12,000.0	6,638.5	6,780.6	6,613.2	153.9	25.5	-91.17	-632.0	-6,854.7	1,596.2	1,425.8	170.35	9.370	
12,007.8	6,638.5	6,780.6	6,613.2	154.1	25.5	-91.17	-632.0	-6,854.7	1,588.6	1,418.1	170.57	9.314	
12,100.0	6,638.4	6,780.6	6,613.1	156.7	25.5	-91.16	-632.0	-6,854.7	1,500.8	1,327.7	173.15	8.668	

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

Anticollision Report



Company:	PDC ENERGY	Local Co-ordinate Reference:	Well WACKER 10G-214
Project:	WELD COUNTY, COLORADO	TVD Reference:	KB-EST @ 4624.0usft (Original Well Elev)
Reference Site:	SW NW SEC. 10 T5N R64W 6th P.M.	MD Reference:	KB-EST @ 4624.0usft (Original Well Elev)
Site Error:	0.0 usft	North Reference:	True
Reference Well:	WACKER 10G-214	Survey Calculation Method:	Minimum Curvature
Well Error:	0.0 usft	Output errors are at	2.00 sigma
Reference Wellbore	ORIGINAL WELLBORE	Database:	EDM 5000.1 Single User Db
Reference Design:	PROPOSAL #1	Offset TVD Reference:	Offset Datum

Offset Design												Offset Site Error:	0.0 usft
Survey Program: 137-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	
12,106.3	6,638.4	6,780.6	6,613.1	156.9	25.5	-91.16	-632.0	-6,854.7	1,494.9	1,321.5	173.32	8.625	
12,200.0	6,638.3	6,780.5	6,613.1	159.5	25.5	-91.16	-632.0	-6,854.7	1,406.1	1,230.2	175.94	7.992	
12,204.7	6,638.3	6,780.5	6,613.1	159.6	25.5	-91.16	-632.0	-6,854.7	1,401.7	1,225.6	176.07	7.961	
12,300.0	6,638.2	6,780.5	6,613.0	162.3	25.5	-91.15	-632.0	-6,854.7	1,312.2	1,133.5	178.74	7.341	
12,303.1	6,638.2	6,780.5	6,613.0	162.4	25.5	-91.15	-632.0	-6,854.7	1,309.3	1,130.5	178.83	7.322	
12,400.0	6,638.0	6,780.4	6,613.0	165.1	25.5	-91.14	-632.0	-6,854.7	1,219.3	1,037.7	181.54	6.716	
12,401.5	6,638.0	6,780.4	6,613.0	165.2	25.5	-91.14	-632.0	-6,854.7	1,217.9	1,036.3	181.58	6.707	
12,500.0	6,637.9	6,780.4	6,612.9	167.9	25.5	-91.14	-632.0	-6,854.7	1,127.6	943.2	184.34	6.117	
12,598.4	6,637.8	6,780.3	6,612.9	170.7	25.5	-91.13	-632.0	-6,854.7	1,038.8	851.7	187.09	5.552	
12,600.0	6,637.8	6,780.3	6,612.9	170.7	25.5	-91.13	-632.0	-6,854.7	1,037.4	850.2	187.14	5.543	
12,696.8	6,637.7	6,780.3	6,612.9	173.4	25.5	-91.13	-632.0	-6,854.7	951.9	762.1	189.85	5.014	
12,700.0	6,637.7	6,780.3	6,612.8	173.5	25.5	-91.13	-632.0	-6,854.7	949.1	759.2	189.94	4.997	
12,795.2	6,637.6	6,780.3	6,612.8	176.2	25.5	-91.12	-632.0	-6,854.7	867.5	674.9	192.60	4.504	
12,800.0	6,637.6	6,780.3	6,612.8	176.3	25.5	-91.12	-632.0	-6,854.7	863.5	670.7	192.74	4.480	
12,893.7	6,637.4	6,780.2	6,612.8	178.9	25.5	-91.11	-632.0	-6,854.7	786.3	591.0	195.36	4.025	
12,900.0	6,637.4	6,780.2	6,612.7	179.1	25.5	-91.11	-632.0	-6,854.7	781.2	585.7	195.54	3.995	
12,992.1	6,637.3	6,780.2	6,612.7	181.7	25.5	-91.11	-632.0	-6,854.7	709.5	511.4	198.11	3.582	
13,000.0	6,637.3	6,780.1	6,612.7	181.9	25.5	-91.11	-632.0	-6,854.7	703.6	505.3	198.34	3.548	
13,090.5	6,637.2	6,780.1	6,612.6	184.4	25.5	-91.10	-632.0	-6,854.7	638.7	437.9	200.87	3.180	
13,100.0	6,637.2	6,780.1	6,612.6	184.7	25.5	-91.10	-632.0	-6,854.7	632.3	431.2	201.14	3.144	
13,188.9	6,637.1	6,780.0	6,612.6	187.2	25.5	-91.09	-632.0	-6,854.7	576.1	372.5	203.63	2.829	
13,200.0	6,637.1	6,780.0	6,612.6	187.5	25.5	-91.09	-632.0	-6,854.7	569.7	365.8	203.94	2.793	
13,287.4	6,637.0	6,780.0	6,612.5	190.0	25.5	-91.09	-632.0	-6,854.7	524.6	318.2	206.38	2.542	
13,300.0	6,637.0	6,780.0	6,612.5	190.3	25.5	-91.08	-632.0	-6,854.7	518.9	312.2	206.74	2.510	
13,385.8	6,636.9	6,779.9	6,612.5	192.7	25.5	-91.08	-632.0	-6,854.7	487.7	278.5	209.14	2.332	
13,400.0	6,636.8	6,779.9	6,612.5	193.1	25.5	-91.08	-632.0	-6,854.7	483.8	274.2	209.54	2.309	
13,484.2	6,636.7	6,779.9	6,612.4	195.5	25.5	-91.07	-632.0	-6,854.7	468.9	257.0	211.90	2.213	
13,500.0	6,636.7	6,779.9	6,612.4	195.9	25.5	-91.07	-632.0	-6,854.7	467.7	255.4	212.34	2.203	
13,526.3	6,636.7	6,779.8	6,612.4	196.7	25.5	-91.07	-632.0	-6,854.7	467.0	253.9	213.08	2.192 CC, ES	
13,582.6	6,636.6	6,779.8	6,612.4	198.2	25.5	-91.06	-632.0	-6,854.7	470.4	255.7	214.66	2.191 SF	
13,600.0	6,636.6	6,779.8	6,612.3	198.7	25.5	-91.06	-632.0	-6,854.7	472.8	257.6	215.14	2.197	
13,681.1	6,636.5	6,779.7	6,612.3	201.0	25.5	-91.06	-632.0	-6,854.7	492.0	274.5	217.42	2.263	
13,700.0	6,636.5	6,779.7	6,612.3	201.5	25.5	-91.05	-632.0	-6,854.7	498.2	280.3	217.95	2.286	
13,779.5	6,636.4	6,779.7	6,612.2	203.7	25.5	-91.05	-632.0	-6,854.7	531.2	311.0	220.17	2.413	
13,800.0	6,636.4	6,779.7	6,612.2	204.3	25.5	-91.05	-632.0	-6,854.7	541.3	320.5	220.75	2.452	
13,877.9	6,636.3	6,779.6	6,612.2	206.5	25.5	-91.04	-632.0	-6,854.7	584.6	361.6	222.93	2.622	
13,900.0	6,636.3	6,779.6	6,612.1	207.1	25.5	-91.04	-632.0	-6,854.7	598.1	374.5	223.55	2.675	
13,976.3	6,636.2	6,779.5	6,612.1	209.3	25.5	-91.03	-632.0	-6,854.7	648.5	422.9	225.69	2.874	
14,000.0	6,636.1	6,779.5	6,612.1	209.9	25.5	-91.03	-632.0	-6,854.7	665.2	438.8	226.35	2.939	
14,074.8	6,636.0	6,779.5	6,612.0	212.0	25.5	-91.02	-632.0	-6,854.7	720.3	491.9	228.45	3.153	
14,100.0	6,636.0	6,779.4	6,612.0	212.7	25.5	-91.02	-632.0	-6,854.7	739.7	510.6	229.16	3.228	
14,173.2	6,635.9	6,779.4	6,611.9	214.8	25.5	-91.01	-632.0	-6,854.7	797.8	566.6	231.21	3.451	
14,200.0	6,635.9	6,779.4	6,611.9	215.5	25.5	-91.01	-632.0	-6,854.7	819.7	587.8	231.96	3.534	
14,271.6	6,635.8	6,779.3	6,611.9	217.5	25.5	-91.00	-632.0	-6,854.7	879.5	645.6	233.97	3.759	
14,300.0	6,635.8	6,779.3	6,611.8	218.3	25.5	-91.00	-632.0	-6,854.7	903.7	668.9	234.76	3.849	
14,370.0	6,635.7	6,779.2	6,611.8	220.3	25.5	-90.99	-632.0	-6,854.7	964.3	727.6	236.73	4.074	
14,400.0	6,635.7	6,779.2	6,611.8	221.1	25.5	-90.99	-632.0	-6,854.7	990.7	753.1	237.57	4.170	
14,468.5	6,635.6	6,779.1	6,611.7	223.1	25.5	-90.98	-632.0	-6,854.7	1,051.5	812.1	239.49	4.391	
14,500.0	6,635.6	6,779.1	6,611.7	223.9	25.5	-90.98	-632.0	-6,854.7	1,079.9	839.5	240.37	4.493	
14,566.9	6,635.5	6,779.1	6,611.6	225.8	25.5	-90.97	-632.0	-6,854.7	1,140.6	898.3	242.25	4.708	
14,600.0	6,635.4	6,779.0	6,611.6	226.8	25.5	-90.97	-632.0	-6,854.7	1,170.8	927.7	243.18	4.815	
14,665.3	6,635.4	6,779.0	6,611.5	228.6	25.5	-90.96	-632.0	-6,854.7	1,231.0	986.0	245.01	5.024	

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

Anticollision Report



Company:	PDC ENERGY	Local Co-ordinate Reference:	Well WACKER 10G-214
Project:	WELD COUNTY, COLORADO	TVD Reference:	KB-EST @ 4624.0usft (Original Well Elev)
Reference Site:	SW NW SEC. 10 T5N R64W 6th P.M.	MD Reference:	KB-EST @ 4624.0usft (Original Well Elev)
Site Error:	0.0 usft	North Reference:	True
Reference Well:	WACKER 10G-214	Survey Calculation Method:	Minimum Curvature
Well Error:	0.0 usft	Output errors are at	2.00 sigma
Reference Wellbore	ORIGINAL WELLBORE	Database:	EDM 5000.1 Single User Db
Reference Design:	PROPOSAL #1	Offset TVD Reference:	Offset Datum

Offset Design SW NW SEC. 10 T5N R64W 6th P.M. - EXIST DD JURGENS PC #B8-22D - Wellbore #1 - Wellbore #1												Offset Site Error:	0.0 usft
Survey Program: 137-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)	Offset Wellbore Centre +E/-W (usft)	Between Centres (usft)	Between Ellipses (usft)	Minimum Separation (usft)	Separation Factor	
14,700.0	6,635.3	6,778.9	6,611.5	229.6	25.5	-90.96	-632.0	-6,854.7	1,263.2	1,017.2	245.98	5.135	
14,763.7	6,635.2	6,778.9	6,611.4	231.3	25.5	-90.95	-632.0	-6,854.7	1,322.6	1,074.9	247.77	5.338	
14,800.0	6,635.2	6,778.8	6,611.4	232.4	25.5	-90.95	-632.0	-6,854.7	1,356.6	1,107.8	248.78	5.453	
14,862.2	6,635.1	6,778.8	6,611.3	234.1	25.5	-90.94	-632.0	-6,854.7	1,415.1	1,164.6	250.53	5.649	
14,900.0	6,635.1	6,778.7	6,611.3	235.2	25.5	-90.93	-632.0	-6,854.7	1,450.9	1,199.3	251.59	5.767	
14,960.6	6,635.0	6,778.7	6,611.2	236.9	25.5	-90.93	-632.0	-6,854.7	1,508.4	1,255.1	253.29	5.955	
14,982.9	6,635.0	6,778.6	6,611.2	237.5	25.5	-90.92	-632.0	-6,854.7	1,529.6	1,275.7	253.91	6.024	

Anticollision Report



Company:	PDC ENERGY	Local Co-ordinate Reference:	Well WACKER 10G-214
Project:	WELD COUNTY, COLORADO	TVD Reference:	KB-EST @ 4624.0usft (Original Well Elev)
Reference Site:	SW NW SEC. 10 T5N R64W 6th P.M.	MD Reference:	KB-EST @ 4624.0usft (Original Well Elev)
Site Error:	0.0 usft	North Reference:	True
Reference Well:	WACKER 10G-214	Survey Calculation Method:	Minimum Curvature
Well Error:	0.0 usft	Output errors are at	2.00 sigma
Reference Wellbore	ORIGINAL WELLBORE	Database:	EDM 5000.1 Single User Db
Reference Design:	PROPOSAL #1	Offset TVD Reference:	Offset Datum

Offset Design												Offset Site Error:	0.0 usft
Survey Program: 75-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	-104.85	-1,880.7	-7,091.5	7,336.7				
98.4	98.4	39.2	39.2	0.1	0.0	-104.85	-1,880.7	-7,091.6	7,336.8	7,336.7	0.10	N/A	
100.0	100.0	40.0	40.0	0.1	0.0	-104.85	-1,880.7	-7,091.6	7,336.8	7,336.7	0.10	N/A	
196.8	196.8	94.9	94.9	0.3	0.0	-104.85	-1,881.0	-7,092.0	7,337.7	7,337.3	0.33	N/A	
200.0	200.0	97.2	97.2	0.3	0.0	-104.85	-1,881.0	-7,092.0	7,337.7	7,337.4	0.34	N/A	
295.3	295.3	168.0	168.0	0.5	0.1	-104.86	-1,882.0	-7,092.7	7,338.9	7,338.3	0.61	N/A	
300.0	300.0	170.5	170.5	0.5	0.1	-104.86	-1,882.0	-7,092.8	7,339.0	7,338.4	0.63	N/A	
393.7	393.7	285.0	285.0	0.8	0.3	-104.88	-1,884.2	-7,093.6	7,340.1	7,339.0	1.09	6,759.645	
400.0	400.0	289.3	289.3	0.8	0.3	-104.88	-1,884.3	-7,093.6	7,340.2	7,339.1	1.11	6,617.201	
492.1	492.1	354.0	354.0	1.0	0.5	-104.89	-1,885.7	-7,094.2	7,341.5	7,340.1	1.45	5,048.223	
500.0	500.0	369.9	369.9	1.0	0.5	-104.89	-1,886.1	-7,094.4	7,341.6	7,340.1	1.51	4,876.193	
590.5	590.5	469.8	469.7	1.2	0.7	-104.90	-1,888.3	-7,095.1	7,342.7	7,340.8	1.92	3,824.806	
600.0	600.0	474.3	474.2	1.2	0.7	-104.90	-1,888.4	-7,095.1	7,342.8	7,340.9	1.95	3,764.668	
689.0	689.0	535.0	534.9	1.4	0.9	-104.91	-1,889.5	-7,096.0	7,344.4	7,342.2	2.28	3,225.138	
700.0	700.0	535.0	534.9	1.4	0.9	-104.91	-1,889.5	-7,096.0	7,344.6	7,342.3	2.30	3,190.511	
787.4	787.4	580.0	579.9	1.6	1.0	-104.91	-1,890.3	-7,096.9	7,346.7	7,344.1	2.60	2,830.914	
800.0	800.0	589.4	589.2	1.7	1.0	-104.92	-1,890.5	-7,097.1	7,347.0	7,344.4	2.64	2,779.226	
885.8	885.8	654.7	654.6	1.9	1.1	-104.92	-1,891.5	-7,098.7	7,349.4	7,346.4	2.98	2,468.296	
900.0	900.0	666.3	666.2	1.9	1.1	-104.92	-1,891.7	-7,099.0	7,349.8	7,346.7	3.03	2,421.947	
984.2	984.2	735.3	735.1	2.1	1.3	-104.92	-1,892.5	-7,100.9	7,352.3	7,348.9	3.37	2,178.862	
1,000.0	1,000.0	747.0	746.8	2.1	1.3	-104.92	-1,892.6	-7,101.3	7,352.8	7,349.4	3.44	2,140.309	
1,082.7	1,082.7	820.5	820.2	2.3	1.5	-104.92	-1,893.0	-7,103.6	7,355.4	7,351.7	3.78	1,944.336	
1,100.0	1,100.0	828.0	827.8	2.3	1.5	-104.92	-1,893.0	-7,103.8	7,356.0	7,352.2	3.84	1,916.363	
1,181.1	1,181.1	880.5	880.2	2.5	1.6	-104.92	-1,892.9	-7,105.8	7,358.9	7,354.8	4.14	1,778.422	
1,200.0	1,200.0	891.5	891.2	2.6	1.6	-104.91	-1,892.8	-7,106.3	7,359.6	7,355.4	4.20	1,750.213	
1,279.5	1,279.5	935.4	935.0	2.7	1.7	-104.90	-1,892.0	-7,108.3	7,362.9	7,358.5	4.48	1,642.612	
1,300.0	1,300.0	946.2	945.9	2.8	1.8	-104.90	-1,891.8	-7,108.9	7,363.9	7,359.3	4.55	1,617.342	
1,377.9	1,377.9	992.0	991.6	3.0	1.9	136.40	-1,890.7	-7,111.5	7,368.3	7,363.6	4.78	1,540.658	
1,400.0	1,400.0	992.0	991.6	3.0	1.9	136.38	-1,890.7	-7,111.5	7,370.0	7,365.1	4.83	1,526.578	
1,476.4	1,476.3	1,024.7	1,024.2	3.1	1.9	136.30	-1,889.9	-7,113.5	7,376.8	7,371.8	5.04	1,462.240	
1,500.0	1,499.8	1,033.3	1,032.8	3.2	2.0	136.28	-1,889.7	-7,114.1	7,379.4	7,374.3	5.11	1,444.582	
1,574.8	1,574.4	1,073.0	1,072.3	3.3	2.1	136.18	-1,888.7	-7,117.0	7,388.6	7,383.3	5.34	1,382.738	
1,600.0	1,599.5	1,073.0	1,072.3	3.4	2.1	136.13	-1,888.7	-7,117.0	7,392.1	7,386.7	5.39	1,370.707	
1,673.2	1,672.2	1,073.0	1,072.3	3.6	2.1	135.97	-1,888.7	-7,117.0	7,403.7	7,398.1	5.55	1,335.149	
1,700.0	1,698.7	1,103.0	1,102.3	3.6	2.1	135.93	-1,887.9	-7,119.5	7,408.2	7,402.6	5.67	1,306.696	
1,771.6	1,769.5	1,126.7	1,125.8	3.8	2.2	135.77	-1,887.3	-7,121.7	7,421.8	7,415.9	5.88	1,261.389	
1,800.0	1,797.5	1,155.0	1,154.0	3.9	2.3	135.73	-1,886.4	-7,124.5	7,427.7	7,421.7	6.01	1,235.495	
1,870.1	1,866.3	1,155.0	1,154.0	4.1	2.3	135.50	-1,886.4	-7,124.5	7,443.3	7,437.1	6.18	1,203.535	
1,900.2	1,895.8	1,155.0	1,154.0	4.2	2.3	135.40	-1,886.4	-7,124.5	7,450.5	7,444.2	6.26	1,190.309	
1,968.5	1,962.6	1,155.0	1,154.0	4.4	2.3	135.40	-1,886.4	-7,124.5	7,467.6	7,461.1	6.45	1,158.413	
2,000.0	1,993.4	1,155.0	1,154.0	4.5	2.3	135.40	-1,886.4	-7,124.5	7,475.6	7,469.1	6.53	1,144.222	
2,066.9	2,058.9	1,195.7	1,194.4	4.7	2.4	135.47	-1,885.0	-7,129.1	7,492.7	7,485.8	6.83	1,097.809	
2,100.0	2,091.2	1,202.1	1,200.7	4.8	2.4	135.48	-1,884.8	-7,129.9	7,501.4	7,494.4	6.94	1,081.462	
2,165.3	2,155.2	1,236.0	1,234.3	5.1	2.5	135.53	-1,883.7	-7,134.5	7,519.0	7,511.8	7.21	1,042.393	
2,200.0	2,189.1	1,236.0	1,234.3	5.2	2.5	135.53	-1,883.7	-7,134.5	7,528.4	7,521.1	7.32	1,028.432	
2,263.8	2,251.4	1,236.0	1,234.3	5.5	2.5	135.53	-1,883.7	-7,134.5	7,546.1	7,538.5	7.52	1,003.497	
2,300.0	2,286.9	1,236.0	1,234.3	5.6	2.5	135.53	-1,883.7	-7,134.5	7,556.3	7,548.7	7.63	989.856	
2,362.2	2,347.7	1,236.0	1,234.3	5.8	2.5	135.53	-1,883.7	-7,134.5	7,574.3	7,566.4	7.83	966.867	
2,400.0	2,384.7	1,236.0	1,234.3	6.0	2.5	135.53	-1,883.7	-7,134.5	7,585.4	7,577.5	7.96	953.420	
2,460.6	2,444.0	1,278.6	1,276.4	6.2	2.6	135.60	-1,882.4	-7,141.1	7,603.2	7,594.9	8.26	920.391	
2,500.0	2,482.5	1,318.0	1,315.2	6.4	2.7	135.67	-1,881.5	-7,147.7	7,615.3	7,606.8	8.49	897.196	
2,559.0	2,540.3	1,318.0	1,315.2	6.6	2.7	135.67	-1,881.5	-7,147.7	7,633.1	7,624.4	8.69	878.817	

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

Anticollision Report



Company:	PDC ENERGY	Local Co-ordinate Reference:	Well WACKER 10G-214
Project:	WELD COUNTY, COLORADO	TVD Reference:	KB-EST @ 4624.0usft (Original Well Elev)
Reference Site:	SW NW SEC. 10 T5N R64W 6th P.M.	MD Reference:	KB-EST @ 4624.0usft (Original Well Elev)
Site Error:	0.0 usft	North Reference:	True
Reference Well:	WACKER 10G-214	Survey Calculation Method:	Minimum Curvature
Well Error:	0.0 usft	Output errors are at	2.00 sigma
Reference Wellbore	ORIGINAL WELLBORE	Database:	EDM 5000.1 Single User Db
Reference Design:	PROPOSAL #1	Offset TVD Reference:	Offset Datum

Offset Design													Offset Site Error:	0.0 usft
Survey Program: 75-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	2,580.3	1,318.0	1,315.2	6.8	2.7	135.67	-1,881.5	-7,147.7	7,645.8	7,636.9	8.82	866.546		
2,657.5	2,636.5	1,318.0	1,315.2	7.1	2.7	135.67	-1,881.5	-7,147.7	7,663.8	7,654.8	9.02	849.755		
2,700.0	2,678.1	1,318.0	1,315.2	7.2	2.7	135.67	-1,881.5	-7,147.7	7,677.4	7,668.3	9.16	837.792		
2,755.9	2,732.8	1,353.6	1,350.2	7.5	2.9	135.73	-1,880.9	-7,154.1	7,695.4	7,685.9	9.44	814.974		
2,800.0	2,775.9	1,366.3	1,362.6	7.7	2.9	135.75	-1,880.8	-7,156.5	7,709.8	7,700.2	9.63	800.997		
2,854.3	2,829.1	1,400.0	1,395.7	7.9	3.0	135.80	-1,880.6	-7,163.0	7,727.8	7,717.9	9.90	780.955		
2,900.0	2,873.8	1,400.0	1,395.7	8.1	3.0	135.80	-1,880.6	-7,163.0	7,743.0	7,733.0	10.05	770.096		
2,952.7	2,925.4	1,400.0	1,395.7	8.3	3.0	135.80	-1,880.6	-7,163.0	7,760.9	7,750.7	10.24	757.914		
2,953.5	2,926.1	1,400.0	1,395.7	8.3	3.0	135.80	-1,880.6	-7,163.0	7,761.2	7,750.9	10.24	757.749		
3,000.0	2,971.6	1,427.3	1,422.5	8.5	3.1	136.07	-1,880.5	-7,168.4	7,776.8	7,766.4	10.45	744.324		
3,051.2	3,022.0	1,444.3	1,439.2	8.7	3.2	136.34	-1,880.4	-7,171.9	7,793.7	7,783.0	10.62	733.948		
3,100.0	3,070.1	1,481.0	1,475.0	8.8	3.3	136.62	-1,880.3	-7,179.6	7,809.4	7,798.6	10.83	721.075		
3,149.6	3,119.1	1,481.0	1,475.0	8.9	3.3	136.84	-1,880.3	-7,179.6	7,824.8	7,813.9	10.95	714.879		
3,200.0	3,169.1	1,481.0	1,475.0	9.1	3.3	137.06	-1,880.3	-7,179.6	7,840.2	7,829.1	11.06	708.757		
3,248.0	3,216.8	1,512.4	1,505.7	9.2	3.5	137.29	-1,880.2	-7,186.5	7,854.4	7,843.1	11.24	698.723		
3,300.0	3,268.5	1,531.2	1,524.0	9.3	3.5	137.52	-1,880.2	-7,190.7	7,869.3	7,857.9	11.40	690.510		
3,346.4	3,314.8	1,563.0	1,554.9	9.4	3.7	137.73	-1,880.1	-7,197.9	7,882.3	7,870.7	11.56	681.681		
3,400.0	3,368.3	1,563.0	1,554.9	9.6	3.7	137.93	-1,880.1	-7,197.9	7,896.7	7,885.0	11.66	677.125		
3,444.9	3,413.1	1,563.0	1,554.9	9.6	3.7	138.09	-1,880.1	-7,197.9	7,908.5	7,896.8	11.74	673.900		
3,500.0	3,468.2	1,563.0	1,554.9	9.7	3.7	138.29	-1,880.1	-7,197.9	7,922.6	7,910.8	11.82	670.026		
3,543.3	3,511.5	1,604.1	1,594.8	9.8	3.9	138.45	-1,879.9	-7,207.7	7,933.0	7,921.0	12.00	661.328		
3,553.7	3,521.9	1,606.8	1,597.5	9.8	3.9	-102.86	-1,879.9	-7,208.4	7,935.5	7,922.7	12.78	620.718		
3,600.0	3,568.2	1,645.0	1,634.4	9.9	4.0	-102.84	-1,879.6	-7,218.1	7,946.9	7,933.8	13.03	609.675		
3,641.7	3,609.9	1,645.0	1,634.4	10.0	4.0	-102.84	-1,879.6	-7,218.1	7,957.0	7,943.9	13.11	606.960		
3,700.0	3,668.2	1,645.0	1,634.4	10.1	4.0	-102.84	-1,879.6	-7,218.1	7,971.5	7,958.3	13.21	603.250		
3,740.1	3,708.4	1,645.0	1,634.4	10.1	4.0	-102.84	-1,879.6	-7,218.1	7,981.8	7,968.5	13.29	600.708		
3,800.0	3,768.2	1,645.0	1,634.4	10.2	4.0	-102.84	-1,879.6	-7,218.1	7,997.4	7,984.0	13.40	596.999		
3,838.6	3,806.8	1,680.2	1,668.3	10.3	4.2	-102.83	-1,879.3	-7,227.4	8,007.4	7,993.7	13.64	586.970		
3,900.0	3,868.2	1,695.5	1,683.1	10.4	4.3	-102.82	-1,879.2	-7,231.7	8,023.8	8,009.9	13.83	580.124		
3,937.0	3,905.2	1,726.0	1,712.3	10.5	4.5	-102.80	-1,879.1	-7,240.3	8,033.9	8,019.9	14.05	571.747		
4,000.0	3,968.2	1,726.0	1,712.3	10.6	4.5	-102.80	-1,879.1	-7,240.3	8,051.2	8,037.0	14.17	568.259		
4,035.4	4,003.6	1,726.0	1,712.3	10.6	4.5	-102.80	-1,879.1	-7,240.3	8,061.1	8,046.8	14.23	566.312		
4,100.0	4,068.2	1,726.0	1,712.3	10.7	4.5	-102.80	-1,879.1	-7,240.3	8,079.5	8,065.1	14.35	562.837		
4,133.8	4,102.1	1,759.6	1,744.5	10.8	4.6	-102.79	-1,878.9	-7,250.1	8,089.1	8,074.5	14.60	553.966		
4,200.0	4,168.2	1,779.5	1,763.4	10.9	4.7	-102.77	-1,878.8	-7,256.1	8,108.4	8,093.6	14.84	546.569		
4,232.3	4,200.5	1,808.0	1,790.6	11.0	4.9	-102.76	-1,878.5	-7,264.8	8,118.0	8,102.9	15.05	539.333		
4,300.0	4,268.2	1,823.9	1,805.6	11.1	5.0	-102.75	-1,878.3	-7,269.7	8,138.2	8,122.9	15.26	533.266		
4,330.7	4,298.9	1,908.2	1,885.9	11.1	5.4	-102.70	-1,877.3	-7,295.5	8,147.3	8,131.5	15.75	517.439		
4,400.0	4,368.2	1,971.0	1,945.8	11.3	5.7	-102.66	-1,876.7	-7,314.4	8,167.5	8,151.3	16.18	504.922		
4,429.1	4,397.3	1,971.0	1,945.8	11.3	5.7	-102.66	-1,876.7	-7,314.4	8,176.1	8,159.9	16.23	503.709		
4,500.0	4,468.2	2,016.0	1,988.7	11.4	6.0	-102.64	-1,876.2	-7,328.1	8,197.1	8,180.5	16.61	493.402		
4,527.5	4,495.8	2,025.6	1,997.8	11.5	6.0	-102.63	-1,876.0	-7,331.1	8,205.4	8,188.7	16.72	490.790		
4,600.0	4,568.2	2,053.0	2,023.8	11.6	6.2	-102.62	-1,875.5	-7,339.7	8,227.5	8,210.5	17.01	483.733		
4,626.0	4,594.2	2,084.4	2,053.6	11.7	6.4	-102.60	-1,875.0	-7,349.6	8,235.5	8,218.2	17.24	477.755		
4,700.0	4,668.2	2,216.0	2,178.7	11.8	7.1	-102.53	-1,874.9	-7,390.3	8,257.8	8,239.7	18.11	456.026		
4,724.4	4,692.6	2,216.0	2,178.7	11.9	7.1	-102.53	-1,874.9	-7,390.3	8,265.1	8,247.0	18.16	455.229		
4,800.0	4,768.2	2,271.7	2,231.8	12.0	7.4	-102.51	-1,875.4	-7,407.3	8,287.9	8,269.3	18.62	445.029		
4,822.8	4,791.0	2,298.0	2,256.8	12.0	7.6	-102.50	-1,875.5	-7,415.5	8,294.9	8,276.0	18.82	440.767		
4,900.0	4,868.2	2,334.3	2,291.2	12.2	7.8	-102.48	-1,875.6	-7,426.8	8,318.5	8,299.3	19.19	433.446		
4,921.2	4,889.5	2,350.6	2,306.7	12.2	7.9	-102.47	-1,875.7	-7,431.9	8,325.0	8,305.7	19.33	430.625		
5,000.0	4,968.2	2,379.0	2,333.7	12.4	8.1	-102.46	-1,875.9	-7,440.9	8,349.4	8,329.7	19.66	424.670		
5,019.7	4,987.9	2,379.0	2,333.7	12.4	8.1	-102.46	-1,875.9	-7,440.9	8,355.6	8,335.9	19.70	424.140		

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

Anticollision Report



Company:	PDC ENERGY	Local Co-ordinate Reference:	Well WACKER 10G-214
Project:	WELD COUNTY, COLORADO	TVD Reference:	KB-EST @ 4624.0usft (Original Well Elev)
Reference Site:	SW NW SEC. 10 T5N R64W 6th P.M.	MD Reference:	KB-EST @ 4624.0usft (Original Well Elev)
Site Error:	0.0 usft	North Reference:	True
Reference Well:	WACKER 10G-214	Survey Calculation Method:	Minimum Curvature
Well Error:	0.0 usft	Output errors are at	2.00 sigma
Reference Wellbore	ORIGINAL WELLBORE	Database:	EDM 5000.1 Single User Db
Reference Design:	PROPOSAL #1	Offset TVD Reference:	Offset Datum

Offset Design		SW NW SEC. 10 T5N R64W 6th P.M. - EXIST DD JURGENS PC #B8-24D - Wellbore #1 - Wellbore #1										Offset Site Error:		0.0 usft			
Survey Program: 75-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	5,068.2	2,425.0	2,377.3	12.6	8.4	-102.44	-1,876.3	-7,455.5	8,380.9	8,360.7	20.15	415.887					
5,118.1	5,086.3	2,430.8	2,382.8	12.6	8.4	-102.44	-1,876.4	-7,457.4	8,386.6	8,366.4	20.23	414.665					
5,200.0	5,168.2	2,461.0	2,411.3	12.7	8.6	-102.42	-1,876.8	-7,467.3	8,413.1	8,392.5	20.58	408.794					
5,216.5	5,184.7	2,609.9	2,552.1	12.8	9.5	-102.34	-1,875.7	-7,515.7	8,418.2	8,396.7	21.51	391.286					
5,300.0	5,268.2	2,667.2	2,606.4	12.9	9.9	-102.30	-1,874.4	-7,534.2	8,444.2	8,422.2	22.03	383.352					
5,314.9	5,283.2	2,675.3	2,614.0	13.0	9.9	-102.30	-1,874.2	-7,536.8	8,448.9	8,426.8	22.11	382.194					
5,400.0	5,368.2	2,869.0	2,797.5	13.1	11.1	-102.18	-1,870.2	-7,598.6	8,475.3	8,451.8	23.43	361.664					
5,413.4	5,381.6	2,869.0	2,797.5	13.2	11.1	-102.18	-1,870.2	-7,598.6	8,479.3	8,455.8	23.46	361.419					
5,500.0	5,468.2	2,923.3	2,849.1	13.3	11.5	-102.14	-1,868.4	-7,615.5	8,505.4	8,481.4	23.96	354.968					
5,511.8	5,480.0	2,951.0	2,875.3	13.3	11.6	-102.12	-1,867.2	-7,624.5	8,509.1	8,484.9	24.15	352.335					
5,600.0	5,568.2	3,493.4	3,395.0	13.5	14.6	-101.81	-1,855.1	-7,778.7	8,531.6	8,504.4	27.28	312.756					
5,610.2	5,578.4	3,498.4	3,399.8	13.5	14.7	-101.81	-1,855.0	-7,780.0	8,534.2	8,506.9	27.33	312.319					
5,700.0	5,668.2	3,550.2	3,449.7	13.7	15.0	-101.78	-1,853.9	-7,793.7	8,557.1	8,529.3	27.78	308.027					
5,708.6	5,676.9	3,556.1	3,455.4	13.7	15.0	-101.78	-1,853.8	-7,795.3	8,559.4	8,531.5	27.83	307.561					
5,800.0	5,768.2	3,604.0	3,501.6	13.9	15.2	-101.76	-1,852.8	-7,808.1	8,583.0	8,554.7	28.27	303.570					
5,807.1	5,775.3	3,604.0	3,501.6	13.9	15.2	-101.76	-1,852.8	-7,808.1	8,584.8	8,556.6	28.29	303.480					
5,900.0	5,868.2	5,972.0	5,824.2	14.1	23.0	-101.28	-1,848.5	-8,139.2	8,607.7	8,571.5	36.18	237.906					
5,905.5	5,873.7	5,980.1	5,832.3	14.1	23.0	-101.28	-1,848.6	-8,139.2	8,607.7	8,571.5	36.20	237.772					
5,960.7	5,928.9	6,028.0	5,880.2	14.2	23.1	-101.29	-1,849.7	-8,139.2	8,607.9	8,571.5	36.37	236.682					
6,000.0	5,968.2	6,053.0	5,905.2	14.3	23.1	-11.30	-1,850.2	-8,139.1	8,606.9	8,578.8	28.09	306.386					
6,003.9	5,972.1	6,053.0	5,905.2	14.3	23.1	-11.31	-1,850.2	-8,139.1	8,606.7	8,578.6	28.10	306.264					
6,050.0	6,018.0	6,082.2	5,934.3	14.4	23.1	-11.38	-1,850.8	-8,139.2	8,602.8	8,574.6	28.23	304.731					
6,100.0	6,067.3	6,106.1	5,958.3	14.4	23.2	-11.50	-1,851.0	-8,139.3	8,595.5	8,567.2	28.26	304.182					
6,102.3	6,069.6	6,107.3	5,959.4	14.4	23.2	-11.51	-1,851.1	-8,139.4	8,595.0	8,566.8	28.26	304.181					
6,150.0	6,116.0	6,135.0	5,987.1	14.4	23.2	-11.68	-1,851.2	-8,139.7	8,584.9	8,556.7	28.19	304.528					
6,200.0	6,163.8	6,186.9	6,039.0	14.5	23.3	-11.94	-1,851.2	-8,140.4	8,571.1	8,543.0	28.07	305.373					
6,200.8	6,164.5	6,187.9	6,040.0	14.5	23.3	-11.95	-1,851.2	-8,140.4	8,570.8	8,542.8	28.07	305.389					
6,250.0	6,210.4	6,255.9	6,108.0	14.5	23.4	-12.28	-1,851.1	-8,141.2	8,553.9	8,526.0	27.88	306.809					
6,299.2	6,254.9	6,298.0	6,150.1	14.5	23.4	-12.69	-1,851.2	-8,141.5	8,533.8	8,506.2	27.57	309.560					
6,300.0	6,255.6	6,298.0	6,150.1	14.5	23.4	-12.70	-1,851.2	-8,141.5	8,533.5	8,505.9	27.56	309.625					
6,350.0	6,299.3	6,334.7	6,186.8	14.5	23.4	-13.21	-1,851.4	-8,141.8	8,510.0	8,482.9	27.16	313.366					
6,397.6	6,339.2	6,358.4	6,210.6	14.6	23.5	-13.78	-1,851.6	-8,142.0	8,485.0	8,458.3	26.70	317.828					
6,400.0	6,341.2	6,359.6	6,211.7	14.6	23.5	-13.81	-1,851.6	-8,142.1	8,483.7	8,457.0	26.67	318.066					
6,450.0	6,381.0	6,474.3	6,326.4	14.6	23.6	-14.67	-1,852.4	-8,143.0	8,454.6	8,428.3	26.30	321.421					
6,496.0	6,415.8	6,503.9	6,356.0	14.7	23.7	-15.51	-1,852.4	-8,143.1	8,425.1	8,399.3	25.82	326.283					
6,500.0	6,418.7	6,506.4	6,358.5	14.7	23.7	-15.59	-1,852.4	-8,143.1	8,422.5	8,396.7	25.78	326.704					
6,550.0	6,453.9	6,536.5	6,388.6	14.8	23.7	-16.71	-1,852.4	-8,143.3	8,388.0	8,362.7	25.28	331.847					
6,594.5	6,483.1	6,557.7	6,409.8	15.0	23.7	-17.90	-1,852.3	-8,143.4	8,355.3	8,330.4	24.88	335.850					
6,600.0	6,486.6	6,560.1	6,412.2	15.1	23.7	-18.07	-1,852.3	-8,143.4	8,351.1	8,326.3	24.83	336.284					
6,650.0	6,516.6	6,580.5	6,432.6	15.3	23.8	-19.74	-1,852.3	-8,143.6	8,312.1	8,287.6	24.52	338.937					
6,692.9	6,540.0	6,596.5	6,448.7	15.7	23.8	-21.50	-1,852.3	-8,143.7	8,277.2	8,252.7	24.44	338.695					
6,700.0	6,543.7	6,599.1	6,451.2	15.7	23.8	-21.82	-1,852.3	-8,143.7	8,271.2	8,246.8	24.44	338.373					
6,750.0	6,567.8	6,625.0	6,477.1	16.2	23.8	-24.52	-1,852.4	-8,144.0	8,228.6	8,203.9	24.75	332.465					
6,791.3	6,585.4	6,629.7	6,481.8	16.7	23.8	-27.24	-1,852.4	-8,144.0	8,192.2	8,166.8	25.35	323.130					
6,800.0	6,588.8	6,633.6	6,485.7	16.8	23.8	-27.91	-1,852.5	-8,144.0	8,184.4	8,158.9	25.54	320.400					
6,850.0	6,606.6	6,654.8	6,506.9	17.4	23.9	-32.52	-1,852.5	-8,144.2	8,138.9	8,111.7	27.16	299.668					
6,889.7	6,618.4	6,669.1	6,521.2	18.0	23.9	-37.33	-1,852.6	-8,144.4	8,101.9	8,072.7	29.18	277.678					
6,900.0	6,621.1	6,672.4	6,524.5	18.2	23.9	-38.77	-1,852.6	-8,144.4	8,092.2	8,062.4	29.82	271.399					
6,950.0	6,632.2	6,686.0	6,538.1	19.0	23.9	-47.40	-1,852.6	-8,144.5	8,044.7	8,011.0	33.72	238.570					
6,988.2	6,638.4	6,693.7	6,545.8	19.7	23.9	-56.15	-1,852.6	-8,144.6	8,007.9	7,970.5	37.46	213.768					
7,000.0	6,639.9	6,695.6	6,547.7	19.9	23.9	-59.30	-1,852.6	-8,144.6	7,996.5	7,957.8	38.68	206.716					
7,050.0	6,644.1	6,701.1	6,553.2	20.8	23.9	-74.91	-1,852.7	-8,144.6	7,947.8	7,904.4	43.45	182.917					

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

Anticollision Report



Company:	PDC ENERGY	Local Co-ordinate Reference:	Well WACKER 10G-214
Project:	WELD COUNTY, COLORADO	TVD Reference:	KB-EST @ 4624.0usft (Original Well Elev)
Reference Site:	SW NW SEC. 10 T5N R64W 6th P.M.	MD Reference:	KB-EST @ 4624.0usft (Original Well Elev)
Site Error:	0.0 usft	North Reference:	True
Reference Well:	WACKER 10G-214	Survey Calculation Method:	Minimum Curvature
Well Error:	0.0 usft	Output errors are at	2.00 sigma
Reference Wellbore	ORIGINAL WELLBORE	Database:	EDM 5000.1 Single User Db
Reference Design:	PROPOSAL #1	Offset TVD Reference:	Offset Datum

Offset Design												Offset Site Error:	0.0 usft
Survey Program: 75-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	
7,086.5	6,645.0	6,788.0	6,640.1	21.5	24.0	-90.91	-1,852.6	-8,145.0	7,912.1	7,866.6	45.54	173.756	
7,100.0	6,645.0	6,788.0	6,640.1	21.8	24.0	-90.91	-1,852.6	-8,145.0	7,899.0	7,853.2	45.80	172.461	
7,185.0	6,644.9	6,788.0	6,640.1	23.6	24.0	-90.91	-1,852.6	-8,145.0	7,815.9	7,768.4	47.56	164.334	
7,200.0	6,644.8	6,788.0	6,640.1	23.9	24.0	-90.91	-1,852.6	-8,145.0	7,801.3	7,753.5	47.87	162.965	
7,283.4	6,644.7	6,788.0	6,640.1	25.7	24.0	-90.91	-1,852.6	-8,145.0	7,719.9	7,670.2	49.71	155.287	
7,300.0	6,644.7	6,788.0	6,640.1	26.1	24.0	-90.91	-1,852.6	-8,145.0	7,703.7	7,653.6	50.08	153.832	
7,381.9	6,644.6	6,788.0	6,640.1	28.0	24.0	-90.91	-1,852.6	-8,145.0	7,623.9	7,571.9	51.97	146.686	
7,400.0	6,644.6	6,788.0	6,640.1	28.4	24.0	-90.91	-1,852.6	-8,145.0	7,606.2	7,553.8	52.39	145.174	
7,480.3	6,644.5	6,788.0	6,640.1	30.3	24.0	-90.91	-1,852.6	-8,145.0	7,527.9	7,473.6	54.32	138.588	
7,500.0	6,644.4	6,788.0	6,640.1	30.8	24.0	-90.91	-1,852.6	-8,145.0	7,508.7	7,453.9	54.79	137.043	
7,578.7	6,644.3	6,788.0	6,640.1	32.7	24.0	-90.91	-1,852.6	-8,145.0	7,432.0	7,375.3	56.73	131.008	
7,600.0	6,644.3	6,788.0	6,640.1	33.3	24.0	-90.91	-1,852.6	-8,145.0	7,411.3	7,354.0	57.25	129.448	
7,677.1	6,644.2	6,788.0	6,640.1	35.2	24.0	-90.91	-1,852.6	-8,145.0	7,336.2	7,277.0	59.19	123.938	
7,700.0	6,644.1	6,788.0	6,640.1	35.8	24.0	-90.91	-1,852.6	-8,145.0	7,314.0	7,254.2	59.77	122.375	
7,775.6	6,644.0	6,788.0	6,640.1	37.7	24.0	-90.91	-1,852.6	-8,145.0	7,240.4	7,178.8	61.70	117.354	
7,800.0	6,644.0	6,788.0	6,640.1	38.3	24.0	-90.91	-1,852.6	-8,145.0	7,216.7	7,154.4	62.32	115.797	
7,874.0	6,643.9	6,788.0	6,640.1	40.2	24.0	-90.91	-1,852.6	-8,145.0	7,144.8	7,080.5	64.24	111.225	
7,900.0	6,643.9	6,788.0	6,640.1	40.9	24.0	-90.91	-1,852.6	-8,145.0	7,119.5	7,054.6	64.91	109.682	
7,972.4	6,643.8	6,788.0	6,640.1	42.8	24.0	-90.91	-1,852.6	-8,145.0	7,049.2	6,982.4	66.80	105.519	
8,000.0	6,643.7	6,788.0	6,640.1	43.5	24.0	-90.91	-1,852.6	-8,145.0	7,022.4	6,954.9	67.53	103.995	
8,070.8	6,643.6	6,788.0	6,640.1	45.4	24.0	-90.91	-1,852.6	-8,145.0	6,953.6	6,884.3	69.40	100.202	
8,100.0	6,643.6	6,788.0	6,640.1	46.2	24.0	-90.91	-1,852.6	-8,145.0	6,925.4	6,855.2	70.17	98.701	
8,169.3	6,643.5	6,788.0	6,640.1	48.0	24.0	-90.91	-1,852.6	-8,145.0	6,858.2	6,786.2	72.01	95.244	
8,200.0	6,643.5	6,788.0	6,640.1	48.8	24.0	-90.90	-1,852.6	-8,145.0	6,828.4	6,755.6	72.82	93.767	
8,267.7	6,643.4	6,787.8	6,640.0	50.6	24.0	-90.90	-1,852.6	-8,145.0	6,762.9	6,688.2	74.63	90.614	
8,300.0	6,643.3	6,786.4	6,638.5	51.5	24.0	-90.85	-1,852.6	-8,145.0	6,731.6	6,656.1	75.50	89.163	
8,366.1	6,643.2	6,783.9	6,636.0	53.3	24.0	-90.76	-1,852.6	-8,145.0	6,667.6	6,590.3	77.27	86.286	
8,400.0	6,643.2	6,782.8	6,634.9	54.2	24.0	-90.73	-1,852.6	-8,145.0	6,634.8	6,556.6	78.18	84.862	
8,464.5	6,643.1	6,781.0	6,633.1	55.9	24.0	-90.66	-1,852.6	-8,145.0	6,572.4	6,492.5	79.93	82.232	
8,500.0	6,643.1	6,780.1	6,632.2	56.9	24.0	-90.63	-1,852.6	-8,145.0	6,538.2	6,457.3	80.88	80.836	
8,563.0	6,643.0	6,778.7	6,630.9	58.6	24.0	-90.59	-1,852.6	-8,145.0	6,477.3	6,394.7	82.59	78.430	
8,600.0	6,642.9	6,778.0	6,630.2	59.6	24.0	-90.56	-1,852.6	-8,145.0	6,441.6	6,358.0	83.59	77.061	
8,661.4	6,642.8	6,777.0	6,629.1	61.3	24.0	-90.53	-1,852.6	-8,145.0	6,382.4	6,297.1	85.26	74.858	
8,700.0	6,642.8	6,776.4	6,628.5	62.3	24.0	-90.51	-1,852.6	-8,145.0	6,345.1	6,258.8	86.31	73.516	
8,759.8	6,642.7	6,775.6	6,627.7	64.0	24.0	-90.48	-1,852.6	-8,145.0	6,287.5	6,199.6	87.94	71.497	
8,800.0	6,642.7	6,775.1	6,627.2	65.1	24.0	-90.46	-1,852.6	-8,145.0	6,248.8	6,159.8	89.04	70.183	
8,858.2	6,642.6	6,774.5	6,626.6	66.6	24.0	-90.44	-1,852.6	-8,145.0	6,192.7	6,102.1	90.63	68.332	
8,900.0	6,642.5	6,774.0	6,626.1	67.8	24.0	-90.43	-1,852.6	-8,145.0	6,152.6	6,060.8	91.77	67.045	
8,956.7	6,642.4	6,773.5	6,625.6	69.3	24.0	-90.41	-1,852.6	-8,145.0	6,098.1	6,004.8	93.32	65.345	
9,000.0	6,642.4	6,773.1	6,625.2	70.5	24.0	-90.39	-1,852.6	-8,145.0	6,056.5	5,962.0	94.51	64.084	
9,055.1	6,642.3	6,772.7	6,624.8	72.0	24.0	-90.38	-1,852.6	-8,145.0	6,003.6	5,907.6	96.02	62.524	
9,100.0	6,642.3	6,772.3	6,624.4	73.3	24.0	-90.37	-1,852.6	-8,145.0	5,960.5	5,863.2	97.25	61.289	
9,153.5	6,642.2	6,772.0	6,624.1	74.7	24.0	-90.35	-1,852.6	-8,145.0	5,909.2	5,810.5	98.72	59.855	
9,200.0	6,642.1	6,771.7	6,623.8	76.0	24.0	-90.34	-1,852.6	-8,145.0	5,864.7	5,764.7	100.00	58.645	
9,251.9	6,642.1	6,771.4	6,623.5	77.5	24.0	-90.33	-1,852.6	-8,145.0	5,814.9	5,713.5	101.43	57.328	
9,300.0	6,642.0	6,771.1	6,623.2	78.8	24.0	-90.32	-1,852.6	-8,145.0	5,769.0	5,666.2	102.76	56.142	
9,350.4	6,641.9	6,770.8	6,622.9	80.2	24.0	-90.31	-1,852.6	-8,145.0	5,720.8	5,616.7	104.15	54.931	
9,400.0	6,641.9	6,770.6	6,622.7	81.5	24.0	-90.30	-1,852.6	-8,145.0	5,673.4	5,567.9	105.51	53.769	
9,448.8	6,641.8	6,770.4	6,622.5	82.9	24.0	-90.30	-1,852.6	-8,145.0	5,626.8	5,520.0	106.86	52.655	
9,500.0	6,641.7	6,770.1	6,622.2	84.3	24.0	-90.29	-1,852.6	-8,145.0	5,578.0	5,469.7	108.28	51.517	
9,547.2	6,641.7	6,769.9	6,622.0	85.6	24.0	-90.28	-1,852.6	-8,145.0	5,533.0	5,423.4	109.58	50.492	
9,600.0	6,641.6	6,769.7	6,621.8	87.1	24.0	-90.27	-1,852.6	-8,145.0	5,482.8	5,371.7	111.04	49.376	

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

Anticollision Report



Company:	PDC ENERGY	Local Co-ordinate Reference:	Well WACKER 10G-214
Project:	WELD COUNTY, COLORADO	TVD Reference:	KB-EST @ 4624.0usft (Original Well Elev)
Reference Site:	SW NW SEC. 10 T5N R64W 6th P.M.	MD Reference:	KB-EST @ 4624.0usft (Original Well Elev)
Site Error:	0.0 usft	North Reference:	True
Reference Well:	WACKER 10G-214	Survey Calculation Method:	Minimum Curvature
Well Error:	0.0 usft	Output errors are at	2.00 sigma
Reference Wellbore	ORIGINAL WELLBORE	Database:	EDM 5000.1 Single User Db
Reference Design:	PROPOSAL #1	Offset TVD Reference:	Offset Datum

Offset Design												Offset Site Error:	0.0 usft
Survey Program: 75-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	
9,645.6	6,641.5	6,769.6	6,621.7	88.3	24.0	-90.27	-1,852.6	-8,145.0	5,439.4	5,327.1	112.30	48.434	
9,700.0	6,641.5	6,769.4	6,621.5	89.8	24.0	-90.26	-1,852.6	-8,145.0	5,387.7	5,273.9	113.81	47.340	
9,744.1	6,641.4	6,769.2	6,621.3	91.0	24.0	-90.26	-1,852.6	-8,145.0	5,345.9	5,230.9	115.03	46.474	
9,800.0	6,641.3	6,769.0	6,621.2	92.6	24.0	-90.25	-1,852.6	-8,145.0	5,292.9	5,176.3	116.58	45.402	
9,842.5	6,641.3	6,768.9	6,621.0	93.8	24.0	-90.25	-1,852.6	-8,145.0	5,252.6	5,134.8	117.76	44.605	
9,900.0	6,641.2	6,768.8	6,620.9	95.4	24.0	-90.24	-1,852.6	-8,145.0	5,198.2	5,078.8	119.35	43.554	
9,940.9	6,641.1	6,768.6	6,620.8	96.5	24.0	-90.24	-1,852.6	-8,145.0	5,159.5	5,039.0	120.49	42.822	
10,000.0	6,641.1	6,768.5	6,620.6	98.1	24.0	-90.23	-1,852.6	-8,145.0	5,103.7	4,981.6	122.13	41.791	
10,039.3	6,641.0	6,768.4	6,620.5	99.2	24.0	-90.23	-1,852.6	-8,145.0	5,066.6	4,943.4	123.22	41.119	
10,100.0	6,640.9	6,768.2	6,620.4	100.9	24.0	-90.22	-1,852.6	-8,145.0	5,009.4	4,884.5	124.90	40.107	
10,137.8	6,640.9	6,768.2	6,620.3	102.0	24.0	-90.22	-1,852.6	-8,145.0	4,973.9	4,847.9	125.95	39.490	
10,200.0	6,640.8	6,768.0	6,620.1	103.7	24.0	-90.21	-1,852.6	-8,145.0	4,915.4	4,787.7	127.68	38.497	
10,236.2	6,640.8	6,767.9	6,620.1	104.7	24.0	-90.21	-1,852.6	-8,145.0	4,881.4	4,752.7	128.69	37.932	
10,300.0	6,640.7	6,767.8	6,619.9	106.5	24.0	-90.21	-1,852.6	-8,145.0	4,821.6	4,691.1	130.46	36.958	
10,334.6	6,640.6	6,767.8	6,619.9	107.4	24.0	-90.20	-1,852.6	-8,145.0	4,789.2	4,657.7	131.42	36.440	
10,400.0	6,640.6	6,767.6	6,619.7	109.3	24.0	-90.20	-1,852.6	-8,145.0	4,728.0	4,594.8	133.24	35.484	
10,433.0	6,640.5	6,767.6	6,619.7	110.2	24.0	-90.20	-1,852.6	-8,145.0	4,697.2	4,563.0	134.16	35.011	
10,500.0	6,640.4	6,767.5	6,619.6	112.0	24.0	-90.19	-1,852.6	-8,145.0	4,634.8	4,498.7	136.03	34.072	
10,531.5	6,640.4	6,767.4	6,619.5	112.9	24.0	-90.19	-1,852.6	-8,145.0	4,605.5	4,468.6	136.90	33.640	
10,600.0	6,640.3	6,767.3	6,619.4	114.8	24.0	-90.19	-1,852.6	-8,145.0	4,541.8	4,403.0	138.81	32.719	
10,629.9	6,640.3	6,767.3	6,619.4	115.7	24.0	-90.19	-1,852.6	-8,145.0	4,514.0	4,374.4	139.64	32.325	
10,700.0	6,640.2	6,767.2	6,619.3	117.6	24.0	-90.18	-1,852.6	-8,145.0	4,449.1	4,307.5	141.60	31.421	
10,728.3	6,640.1	6,767.1	6,619.2	118.4	24.0	-90.18	-1,852.6	-8,145.0	4,422.9	4,280.5	142.39	31.063	
10,800.0	6,640.0	6,767.0	6,619.1	120.4	24.0	-90.18	-1,852.6	-8,145.0	4,356.7	4,212.3	144.38	30.175	
10,826.7	6,640.0	6,767.0	6,619.1	121.2	24.0	-90.18	-1,852.6	-8,145.0	4,332.1	4,186.9	145.13	29.850	
10,900.0	6,639.9	6,766.9	6,619.0	123.2	24.0	-90.17	-1,852.6	-8,145.0	4,264.7	4,117.5	147.17	28.978	
10,925.2	6,639.9	6,766.9	6,619.0	123.9	24.0	-90.17	-1,852.6	-8,145.0	4,241.6	4,093.7	147.87	28.684	
11,000.0	6,639.8	6,766.8	6,618.9	126.0	24.0	-90.17	-1,852.6	-8,145.0	4,173.1	4,023.1	149.96	27.827	
11,023.6	6,639.8	6,766.7	6,618.9	126.6	24.0	-90.17	-1,852.6	-8,145.0	4,151.5	4,000.9	150.62	27.563	
11,100.0	6,639.7	6,766.7	6,618.8	128.8	24.0	-90.16	-1,852.6	-8,145.0	4,081.8	3,929.1	152.75	26.722	
11,122.0	6,639.6	6,766.6	6,618.7	129.4	24.0	-90.16	-1,852.6	-8,145.0	4,061.8	3,908.4	153.37	26.484	
11,200.0	6,639.5	6,766.6	6,618.7	131.6	24.0	-90.16	-1,852.6	-8,145.0	3,991.0	3,835.4	155.54	25.658	
11,220.4	6,639.5	6,766.5	6,618.6	132.1	24.0	-90.16	-1,852.6	-8,145.0	3,972.4	3,816.3	156.11	25.446	
11,300.0	6,639.4	6,766.5	6,618.6	134.4	24.0	-90.16	-1,852.6	-8,145.0	3,900.6	3,742.2	158.34	24.635	
11,318.9	6,639.4	6,766.4	6,618.6	134.9	24.0	-90.16	-1,852.6	-8,145.0	3,883.6	3,724.7	158.86	24.446	
11,400.0	6,639.3	6,766.4	6,618.5	137.1	24.0	-90.15	-1,852.6	-8,145.0	3,810.7	3,649.5	161.13	23.650	
11,417.3	6,639.3	6,766.4	6,618.5	137.6	24.0	-90.15	-1,852.6	-8,145.0	3,795.2	3,633.5	161.61	23.483	
11,500.0	6,639.2	6,766.3	6,618.4	139.9	24.0	-90.15	-1,852.6	-8,145.0	3,721.3	3,557.3	163.92	22.702	
11,515.7	6,639.1	6,766.3	6,618.4	140.4	24.0	-90.15	-1,852.6	-8,145.0	3,707.3	3,542.9	164.36	22.556	
11,600.0	6,639.0	6,766.2	6,618.3	142.7	24.0	-90.15	-1,852.6	-8,145.0	3,632.4	3,465.7	166.72	21.788	
11,614.1	6,639.0	6,766.2	6,618.3	143.1	24.0	-90.15	-1,852.6	-8,145.0	3,619.9	3,452.8	167.11	21.662	
11,700.0	6,638.9	6,766.1	6,618.2	145.5	24.0	-90.14	-1,852.6	-8,145.0	3,544.2	3,374.7	169.51	20.908	
11,712.6	6,638.9	6,766.1	6,618.2	145.9	24.0	-90.14	-1,852.6	-8,145.0	3,533.1	3,363.3	169.86	20.800	
11,800.0	6,638.8	6,766.1	6,618.2	148.3	24.0	-90.14	-1,852.6	-8,145.0	3,456.6	3,284.3	172.31	20.061	
11,811.0	6,638.8	6,766.0	6,618.2	148.6	24.0	-90.14	-1,852.6	-8,145.0	3,447.0	3,274.4	172.61	19.969	
11,900.0	6,638.7	6,766.0	6,618.1	151.1	24.0	-90.14	-1,852.6	-8,145.0	3,369.6	3,194.5	175.10	19.244	
11,909.4	6,638.6	6,766.0	6,618.1	151.4	24.0	-90.14	-1,852.6	-8,145.0	3,361.5	3,186.1	175.36	19.169	
12,000.0	6,638.5	6,765.9	6,618.0	153.9	24.0	-90.13	-1,852.6	-8,145.0	3,283.5	3,105.6	177.90	18.457	
12,007.8	6,638.5	6,765.9	6,618.0	154.1	24.0	-90.13	-1,852.6	-8,145.0	3,276.7	3,098.6	178.12	18.397	
12,100.0	6,638.4	6,765.9	6,618.0	156.7	24.0	-90.13	-1,852.6	-8,145.0	3,198.1	3,017.4	180.69	17.699	
12,106.3	6,638.4	6,765.9	6,618.0	156.9	24.0	-90.13	-1,852.6	-8,145.0	3,192.8	3,011.9	180.87	17.652	
12,200.0	6,638.3	6,765.8	6,617.9	159.5	24.0	-90.13	-1,852.6	-8,145.0	3,113.6	2,930.1	183.49	16.969	

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

Anticollision Report



Company:	PDC ENERGY	Local Co-ordinate Reference:	Well WACKER 10G-214
Project:	WELD COUNTY, COLORADO	TVD Reference:	KB-EST @ 4624.0usft (Original Well Elev)
Reference Site:	SW NW SEC. 10 T5N R64W 6th P.M.	MD Reference:	KB-EST @ 4624.0usft (Original Well Elev)
Site Error:	0.0 usft	North Reference:	True
Reference Well:	WACKER 10G-214	Survey Calculation Method:	Minimum Curvature
Well Error:	0.0 usft	Output errors are at	2.00 sigma
Reference Wellbore	ORIGINAL WELLBORE	Database:	EDM 5000.1 Single User Db
Reference Design:	PROPOSAL #1	Offset TVD Reference:	Offset Datum

Offset Design												Offset Site Error:	0.0 usft
Survey Program: 75-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	
12,204.7	6,638.3	6,765.8	6,617.9	159.6	24.0	-90.13	-1,852.6	-8,145.0	3,109.7	2,926.0	183.62	16.935	
12,300.0	6,638.2	6,765.8	6,617.9	162.3	24.0	-90.13	-1,852.6	-8,145.0	3,030.1	2,843.8	186.29	16.265	
12,303.1	6,638.2	6,765.7	6,617.9	162.4	24.0	-90.13	-1,852.6	-8,145.0	3,027.5	2,841.1	186.38	16.244	
12,400.0	6,638.0	6,765.7	6,617.8	165.1	24.0	-90.13	-1,852.6	-8,145.0	2,947.5	2,758.4	189.09	15.588	
12,401.5	6,638.0	6,765.7	6,617.8	165.2	24.0	-90.13	-1,852.6	-8,145.0	2,946.3	2,757.1	189.13	15.578	
12,500.0	6,637.9	6,765.7	6,617.8	167.9	24.0	-90.12	-1,852.6	-8,145.0	2,866.1	2,674.2	191.89	14.936	
12,598.4	6,637.8	6,765.6	6,617.7	170.7	24.0	-90.12	-1,852.6	-8,145.0	2,787.2	2,592.5	194.64	14.320	
12,600.0	6,637.8	6,765.6	6,617.7	170.7	24.0	-90.12	-1,852.6	-8,145.0	2,785.9	2,591.2	194.69	14.310	
12,696.8	6,637.7	6,765.6	6,617.7	173.4	24.0	-90.12	-1,852.6	-8,145.0	2,709.5	2,512.1	197.40	13.726	
12,700.0	6,637.7	6,765.6	6,617.7	173.5	24.0	-90.12	-1,852.6	-8,145.0	2,707.0	2,509.5	197.49	13.707	
12,795.2	6,637.6	6,765.5	6,617.6	176.2	24.0	-90.12	-1,852.6	-8,145.0	2,633.2	2,433.1	200.15	13.156	
12,800.0	6,637.6	6,765.5	6,617.6	176.3	24.0	-90.12	-1,852.6	-8,145.0	2,629.6	2,429.3	200.29	13.129	
12,893.7	6,637.4	6,765.5	6,617.6	178.9	24.0	-90.12	-1,852.6	-8,145.0	2,558.4	2,355.5	202.91	12.609	
12,900.0	6,637.4	6,765.5	6,617.6	179.1	24.0	-90.12	-1,852.6	-8,145.0	2,553.7	2,350.6	203.09	12.574	
12,992.1	6,637.3	6,765.4	6,617.6	181.7	24.0	-90.12	-1,852.6	-8,145.0	2,485.3	2,279.6	205.67	12.084	
13,000.0	6,637.3	6,765.4	6,617.6	181.9	24.0	-90.12	-1,852.6	-8,145.0	2,479.5	2,273.6	205.89	12.043	
13,090.5	6,637.2	6,765.4	6,617.5	184.4	24.0	-90.11	-1,852.6	-8,145.0	2,414.0	2,205.6	208.42	11.582	
13,100.0	6,637.2	6,765.4	6,617.5	184.7	24.0	-90.11	-1,852.6	-8,145.0	2,407.2	2,198.5	208.69	11.535	
13,188.9	6,637.1	6,765.4	6,617.5	187.2	24.0	-90.11	-1,852.6	-8,145.0	2,344.6	2,133.4	211.18	11.102	
13,200.0	6,637.1	6,765.4	6,617.5	187.5	24.0	-90.11	-1,852.6	-8,145.0	2,336.9	2,125.5	211.49	11.050	
13,287.4	6,637.0	6,765.3	6,617.5	190.0	24.0	-90.11	-1,852.6	-8,145.0	2,277.4	2,063.4	213.94	10.645	
13,300.0	6,637.0	6,765.3	6,617.5	190.3	24.0	-90.11	-1,852.6	-8,145.0	2,268.9	2,054.6	214.29	10.588	
13,385.8	6,636.9	6,765.3	6,617.4	192.7	24.0	-90.11	-1,852.6	-8,145.0	2,212.5	1,995.8	216.70	10.210	
13,400.0	6,636.8	6,765.3	6,617.4	193.1	24.0	-90.11	-1,852.6	-8,145.0	2,203.3	1,986.2	217.09	10.149	
13,484.2	6,636.7	6,765.3	6,617.4	195.5	24.0	-90.11	-1,852.6	-8,145.0	2,150.2	1,930.7	219.45	9.798	
13,500.0	6,636.7	6,765.3	6,617.4	195.9	24.0	-90.11	-1,852.6	-8,145.0	2,140.4	1,920.5	219.90	9.734	
13,582.6	6,636.6	6,765.3	6,617.4	198.2	24.0	-90.11	-1,852.6	-8,145.0	2,090.6	1,868.4	222.21	9.408	
13,600.0	6,636.6	6,765.3	6,617.4	198.7	24.0	-90.11	-1,852.6	-8,145.0	2,080.4	1,857.7	222.70	9.342	
13,681.1	6,636.5	6,765.2	6,617.3	201.0	24.0	-90.11	-1,852.6	-8,145.0	2,034.0	1,809.1	224.97	9.041	
13,700.0	6,636.5	6,765.2	6,617.3	201.5	24.0	-90.11	-1,852.6	-8,145.0	2,023.5	1,798.0	225.50	8.974	
13,779.5	6,636.4	6,765.2	6,617.3	203.7	24.0	-90.11	-1,852.6	-8,145.0	1,980.8	1,753.1	227.73	8.698	
13,800.0	6,636.4	6,765.2	6,617.3	204.3	24.0	-90.11	-1,852.6	-8,145.0	1,970.1	1,741.8	228.30	8.629	
13,877.9	6,636.3	6,765.2	6,617.3	206.5	24.0	-90.11	-1,852.6	-8,145.0	1,931.1	1,700.6	230.49	8.378	
13,900.0	6,636.3	6,765.2	6,617.3	207.1	24.0	-90.11	-1,852.6	-8,145.0	1,920.4	1,689.3	231.11	8.310	
13,976.3	6,636.2	6,765.2	6,617.3	209.3	24.0	-90.11	-1,852.6	-8,145.0	1,885.2	1,651.9	233.25	8.082	
14,000.0	6,636.1	6,765.2	6,617.3	209.9	24.0	-90.10	-1,852.6	-8,145.0	1,874.8	1,640.9	233.91	8.015	
14,074.8	6,636.0	6,765.1	6,617.3	212.0	24.0	-90.10	-1,852.6	-8,145.0	1,843.4	1,607.4	236.01	7.811	
14,100.0	6,635.9	6,765.1	6,617.2	212.7	24.0	-90.10	-1,852.6	-8,145.0	1,833.4	1,596.7	236.71	7.745	
14,173.2	6,635.9	6,765.1	6,617.2	214.8	24.0	-90.10	-1,852.6	-8,145.0	1,806.1	1,567.3	238.76	7.564	
14,200.0	6,635.9	6,765.1	6,617.2	215.5	24.0	-90.10	-1,852.6	-8,145.0	1,796.7	1,557.2	239.52	7.501	
14,271.6	6,635.8	6,765.1	6,617.2	217.5	24.0	-90.10	-1,852.6	-8,145.0	1,773.4	1,531.9	241.52	7.342	
14,300.0	6,635.8	6,765.1	6,617.2	218.3	24.0	-90.10	-1,852.6	-8,145.0	1,764.9	1,522.6	242.32	7.283	
14,370.0	6,635.7	6,765.1	6,617.2	220.3	24.0	-90.10	-1,852.6	-8,145.0	1,745.7	1,501.4	244.28	7.146	
14,400.0	6,635.7	6,765.1	6,617.2	221.1	24.0	-90.10	-1,852.6	-8,145.0	1,738.2	1,493.1	245.12	7.091	
14,468.5	6,635.6	6,765.1	6,617.2	223.1	24.0	-90.10	-1,852.6	-8,145.0	1,723.1	1,476.1	247.04	6.975	
14,500.0	6,635.6	6,765.1	6,617.2	223.9	24.0	-90.10	-1,852.6	-8,145.0	1,717.0	1,469.1	247.93	6.925	
14,566.9	6,635.5	6,765.0	6,617.2	225.8	24.0	-90.10	-1,852.6	-8,145.0	1,705.9	1,456.1	249.80	6.829	
14,600.0	6,635.4	6,765.0	6,617.2	226.8	24.0	-90.10	-1,852.6	-8,145.0	1,701.4	1,450.7	250.73	6.786	
14,665.3	6,635.4	6,765.0	6,617.1	228.6	24.0	-90.10	-1,852.6	-8,145.0	1,694.3	1,441.8	252.56	6.709	
14,700.0	6,635.3	6,765.0	6,617.1	229.6	24.0	-90.10	-1,852.6	-8,145.0	1,691.6	1,438.1	253.54	6.672	
14,763.7	6,635.2	6,765.0	6,617.1	231.3	24.0	-90.10	-1,852.6	-8,145.0	1,688.4	1,433.1	255.33	6.613	
14,800.0	6,635.2	6,765.0	6,617.1	232.4	24.0	-90.10	-1,852.6	-8,145.0	1,687.6	1,431.3	256.34	6.584	

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

Anticollision Report



Company:	PDC ENERGY	Local Co-ordinate Reference:	Well WACKER 10G-214
Project:	WELD COUNTY, COLORADO	TVD Reference:	KB-EST @ 4624.0usft (Original Well Elev)
Reference Site:	SW NW SEC. 10 T5N R64W 6th P.M.	MD Reference:	KB-EST @ 4624.0usft (Original Well Elev)
Site Error:	0.0 usft	North Reference:	True
Reference Well:	WACKER 10G-214	Survey Calculation Method:	Minimum Curvature
Well Error:	0.0 usft	Output errors are at	2.00 sigma
Reference Wellbore	ORIGINAL WELLBORE	Database:	EDM 5000.1 Single User Db
Reference Design:	PROPOSAL #1	Offset TVD Reference:	Offset Datum

Offset Design SW NW SEC. 10 T5N R64W 6th P.M. - EXIST DD JURGENS PC #B8-24D - Wellbore #1 - Wellbore #1												Offset Site Error:	0.0 usft
Survey Program: 75-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
14,816.6	6,635.2	6,765.0	6,617.1	232.8	24.0	-90.10	-1,852.6	-8,145.0	1,687.6	1,430.8	256.81	6.571 CC	
14,862.2	6,635.1	6,765.0	6,617.1	234.1	24.0	-90.10	-1,852.6	-8,145.0	1,688.2	1,430.1	258.09	6.541 ES	
14,900.0	6,635.1	6,765.0	6,617.1	235.2	24.0	-90.10	-1,852.6	-8,145.0	1,689.6	1,430.5	259.15	6.520	
14,960.6	6,635.0	6,765.0	6,617.1	236.9	24.0	-90.10	-1,852.6	-8,145.0	1,693.7	1,432.9	260.85	6.493	
14,982.9	6,635.0	6,765.0	6,617.1	237.5	24.0	-90.10	-1,852.6	-8,145.0	1,695.7	1,434.3	261.47	6.485 SF	

Anticollision Report



Company:	PDC ENERGY	Local Co-ordinate Reference:	Well WACKER 10G-214
Project:	WELD COUNTY, COLORADO	TVD Reference:	KB-EST @ 4624.0usft (Original Well Elev)
Reference Site:	SW NW SEC. 10 T5N R64W 6th P.M.	MD Reference:	KB-EST @ 4624.0usft (Original Well Elev)
Site Error:	0.0 usft	North Reference:	True
Reference Well:	WACKER 10G-214	Survey Calculation Method:	Minimum Curvature
Well Error:	0.0 usft	Output errors are at	2.00 sigma
Reference Wellbore	ORIGINAL WELLBORE	Database:	EDM 5000.1 Single User Db
Reference Design:	PROPOSAL #1	Offset TVD Reference:	Offset Datum

Offset Design		SW NW SEC. 10 T5N R64W 6th P.M. - EXIST DD JURGENS STATE #B16-30D - Wellbore #1 - Wellbo										Offset Site Error:		0.0 usft
Survey Program: 75-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	-105.02	-1,902.1	-7,090.9	7,341.7					
98.4	98.4	50.9	50.9	0.1	0.0	-105.02	-1,902.1	-7,091.1	7,341.8	7,341.7	0.10	N/A		
100.0	100.0	51.9	51.9	0.1	0.0	-105.02	-1,902.1	-7,091.1	7,341.8	7,341.7	0.10	N/A		
196.8	196.8	153.8	153.8	0.3	0.1	-105.02	-1,902.3	-7,091.5	7,342.2	7,341.8	0.39	N/A		
200.0	200.0	157.8	157.8	0.3	0.1	-105.02	-1,902.4	-7,091.5	7,342.2	7,341.8	0.40	N/A		
295.3	295.3	1,114.4	1,099.7	0.5	3.5	-106.07	-2,016.5	-7,002.1	7,333.2	7,330.2	2.99	2,451.881		
300.0	300.0	1,116.4	1,101.6	0.5	3.5	-106.07	-2,017.0	-7,001.7	7,332.6	7,329.6	3.01	2,438.429		
393.7	393.7	1,599.7	1,556.6	0.8	6.6	-107.25	-2,141.5	-6,897.2	7,318.2	7,313.6	4.61	1,585.833		
400.0	400.0	1,603.4	1,560.0	0.8	6.6	-107.26	-2,142.4	-6,896.3	7,317.2	7,312.5	4.64	1,576.852		
492.1	492.1	1,659.5	1,612.3	1.0	7.0	-107.41	-2,157.7	-6,882.7	7,302.6	7,297.6	5.02	1,453.923		
500.0	500.0	1,664.9	1,617.3	1.0	7.1	-107.42	-2,159.2	-6,881.4	7,301.3	7,296.3	5.06	1,443.596		
590.5	590.5	1,726.0	1,674.0	1.2	7.5	-107.59	-2,176.5	-6,866.7	7,287.4	7,282.0	5.46	1,335.517		
600.0	600.0	1,726.0	1,674.0	1.2	7.5	-107.59	-2,176.5	-6,866.7	7,286.0	7,280.5	5.48	1,330.079		
689.0	689.0	1,766.5	1,711.5	1.4	7.8	-107.70	-2,188.4	-6,857.1	7,272.9	7,267.1	5.81	1,252.415		
700.0	700.0	1,770.9	1,715.6	1.4	7.8	-107.71	-2,189.7	-6,856.0	7,271.3	7,265.5	5.85	1,243.788		
787.4	787.4	1,808.0	1,749.9	1.6	8.1	-107.82	-2,200.8	-6,847.4	7,259.2	7,253.1	6.16	1,178.271		
800.0	800.0	1,808.0	1,749.9	1.7	8.1	-107.82	-2,200.8	-6,847.4	7,257.5	7,251.3	6.19	1,172.605		
885.8	885.8	2,095.5	2,013.9	1.9	10.3	-108.67	-2,290.3	-6,777.5	7,245.6	7,238.2	7.35	986.311		
900.0	900.0	2,101.6	2,019.6	1.9	10.3	-108.69	-2,292.2	-6,775.9	7,243.3	7,235.9	7.40	979.019		
984.2	984.2	2,216.0	2,124.4	2.1	11.2	-109.03	-2,327.2	-6,746.5	7,230.3	7,222.3	7.96	908.693		
1,000.0	1,000.0	2,216.0	2,124.4	2.1	11.2	-109.03	-2,327.2	-6,746.5	7,227.8	7,219.8	7.99	904.354		
1,082.7	1,082.7	2,216.0	2,124.4	2.3	11.2	-109.03	-2,327.2	-6,746.5	7,215.2	7,207.0	8.18	882.261		
1,100.0	1,100.0	2,216.0	2,124.4	2.3	11.2	-109.03	-2,327.2	-6,746.5	7,212.6	7,204.4	8.22	877.772		
1,181.1	1,181.1	3,059.1	2,908.2	2.5	17.0	-111.19	-2,524.8	-6,511.9	7,199.5	7,188.5	10.92	659.328		
1,200.0	1,200.0	3,073.0	2,921.1	2.6	17.1	-111.23	-2,527.6	-6,507.4	7,194.9	7,183.9	11.00	653.935		
1,279.5	1,279.5	3,114.0	2,959.0	2.7	17.4	-111.33	-2,535.5	-6,494.2	7,175.8	7,164.5	11.30	635.013		
1,300.0	1,300.0	3,114.0	2,959.0	2.8	17.4	-111.33	-2,535.5	-6,494.2	7,171.0	7,159.6	11.35	632.012		
1,377.9	1,377.9	3,157.1	2,999.1	3.0	17.7	130.20	-2,543.7	-6,480.6	7,153.4	7,133.8	19.66	363.765		
1,400.0	1,400.0	3,164.9	3,006.4	3.0	17.8	130.25	-2,545.1	-6,478.2	7,148.8	7,129.1	19.75	361.946		
1,476.4	1,476.3	3,196.0	3,035.5	3.1	18.0	130.42	-2,550.8	-6,468.8	7,134.0	7,114.0	20.06	355.638		
1,500.0	1,499.8	3,196.0	3,035.5	3.2	18.0	130.49	-2,550.8	-6,468.8	7,129.8	7,109.7	20.10	354.751		
1,574.8	1,574.4	3,234.1	3,071.1	3.3	18.2	130.61	-2,558.0	-6,457.5	7,117.6	7,097.1	20.45	347.982		
1,600.0	1,599.5	3,245.0	3,081.3	3.4	18.3	130.64	-2,560.1	-6,454.3	7,113.8	7,093.3	20.56	345.969		
1,673.2	1,672.2	3,679.4	3,486.5	3.6	21.3	130.14	-2,638.1	-6,318.6	7,103.4	7,080.0	23.35	304.253		
1,700.0	1,698.7	3,701.5	3,506.7	3.6	21.5	130.17	-2,642.6	-6,310.9	7,098.7	7,075.1	23.55	301.453		
1,771.6	1,769.5	3,749.8	3,550.7	3.8	21.9	130.26	-2,653.0	-6,294.0	7,087.1	7,063.1	24.03	294.899		
1,800.0	1,797.5	3,790.5	3,587.6	3.9	22.3	130.25	-2,662.3	-6,279.6	7,083.0	7,058.6	24.39	290.376		
1,870.1	1,866.3	4,094.0	3,857.9	4.1	25.1	129.83	-2,737.5	-6,164.0	7,071.2	7,044.2	27.02	261.657		
1,900.2	1,895.8	4,122.1	3,882.9	4.2	25.3	129.86	-2,744.3	-6,152.9	7,066.4	7,039.1	27.30	258.852		
1,968.5	1,962.6	4,176.0	3,931.2	4.4	25.8	129.77	-2,756.2	-6,132.2	7,055.8	7,027.9	27.90	252.876		
2,000.0	1,993.4	4,176.0	3,931.2	4.5	25.8	129.77	-2,756.2	-6,132.2	7,051.0	7,023.0	27.99	251.887		
2,066.9	2,058.9	4,176.0	3,931.2	4.7	25.8	129.77	-2,756.2	-6,132.2	7,041.4	7,013.2	28.20	249.736		
2,100.0	2,091.2	4,213.6	3,965.1	4.8	26.1	129.71	-2,764.1	-6,118.1	7,036.5	7,007.9	28.57	246.328		
2,165.3	2,155.2	4,257.0	4,004.4	5.1	26.5	129.65	-2,773.6	-6,102.3	7,027.6	6,998.5	29.08	241.642		
2,200.0	2,189.1	4,257.0	4,004.4	5.2	26.5	129.65	-2,773.6	-6,102.3	7,022.9	6,993.7	29.19	240.556		
2,263.8	2,251.4	4,257.0	4,004.4	5.5	26.5	129.65	-2,773.6	-6,102.3	7,014.8	6,985.4	29.40	238.567		
2,300.0	2,286.9	4,288.8	4,033.2	5.6	26.7	129.60	-2,780.8	-6,091.0	7,010.3	6,980.5	29.76	235.578		
2,362.2	2,347.7	4,339.0	4,078.7	5.8	27.1	129.52	-2,792.3	-6,073.1	7,002.7	6,972.4	30.34	230.814		
2,400.0	2,384.7	4,339.0	4,078.7	6.0	27.1	129.52	-2,792.3	-6,073.1	6,998.2	6,967.8	30.47	229.695		
2,460.6	2,444.0	4,367.1	4,104.2	6.2	27.4	129.47	-2,798.9	-6,063.2	6,991.3	6,960.4	30.89	226.325		
2,500.0	2,482.5	4,380.5	4,116.3	6.4	27.5	129.45	-2,802.1	-6,058.6	6,987.0	6,955.9	31.13	224.454		
2,559.0	2,540.3	4,420.0	4,152.2	6.6	27.8	129.38	-2,811.8	-6,045.1	6,980.9	6,949.2	31.64	220.652		

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

Anticollision Report



Company:	PDC ENERGY	Local Co-ordinate Reference:	Well WACKER 10G-214
Project:	WELD COUNTY, COLORADO	TVD Reference:	KB-EST @ 4624.0usft (Original Well Elev)
Reference Site:	SW NW SEC. 10 T5N R64W 6th P.M.	MD Reference:	KB-EST @ 4624.0usft (Original Well Elev)
Site Error:	0.0 usft	North Reference:	True
Reference Well:	WACKER 10G-214	Survey Calculation Method:	Minimum Curvature
Well Error:	0.0 usft	Output errors are at	2.00 sigma
Reference Wellbore	ORIGINAL WELLBORE	Database:	EDM 5000.1 Single User Db
Reference Design:	PROPOSAL #1	Offset TVD Reference:	Offset Datum

Offset Design												Offset Site Error:	0.0 usft
Survey Program: 75-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	2,580.3	4,420.0	4,152.2	6.8	27.8	129.38	-2,811.8	-6,045.1	6,976.7	6,944.9	31.78	219.514	
2,657.5	2,636.5	4,420.0	4,152.2	7.1	27.8	129.38	-2,811.8	-6,045.1	6,971.2	6,939.2	31.99	217.928	
2,700.0	2,678.1	4,450.0	4,179.4	7.2	28.1	129.33	-2,819.3	-6,035.0	6,967.3	6,935.0	32.37	215.268	
2,755.9	2,732.8	4,470.1	4,197.8	7.5	28.2	129.30	-2,824.3	-6,028.4	6,962.5	6,929.8	32.72	212.794	
2,800.0	2,775.9	4,502.0	4,226.9	7.7	28.5	129.25	-2,832.2	-6,018.2	6,958.9	6,925.8	33.12	210.124	
2,854.3	2,829.1	4,527.5	4,250.3	7.9	28.7	129.21	-2,838.5	-6,010.1	6,954.7	6,921.2	33.50	207.571	
2,900.0	2,873.8	4,584.0	4,302.0	8.1	29.1	129.12	-2,852.3	-5,992.0	6,951.0	6,916.9	34.09	203.917	
2,952.7	2,925.4	4,614.3	4,329.7	8.3	29.4	129.07	-2,859.6	-5,982.4	6,946.8	6,912.3	34.50	201.337	
2,953.5	2,926.1	4,614.6	4,330.0	8.3	29.4	129.07	-2,859.7	-5,982.3	6,946.8	6,912.3	34.51	201.307	
3,000.0	2,971.6	4,633.1	4,347.0	8.5	29.5	128.98	-2,864.1	-5,976.5	6,943.1	6,908.3	34.82	199.412	
3,051.2	3,022.0	4,665.0	4,376.4	8.7	29.8	128.86	-2,871.9	-5,966.6	6,938.8	6,903.6	35.22	197.036	
3,100.0	3,070.1	4,665.0	4,376.4	8.8	29.8	128.79	-2,871.9	-5,966.6	6,934.3	6,898.9	35.37	196.042	
3,149.6	3,119.1	4,691.4	4,400.7	8.9	30.0	128.66	-2,878.3	-5,958.7	6,929.4	6,893.7	35.70	194.089	
3,200.0	3,169.1	4,710.5	4,418.4	9.1	30.1	128.54	-2,882.8	-5,953.1	6,924.1	6,888.1	35.98	192.419	
3,248.0	3,216.8	4,747.0	4,452.3	9.2	30.4	128.39	-2,891.3	-5,942.6	6,918.8	6,882.5	36.37	190.236	
3,300.0	3,268.5	4,757.4	4,462.0	9.3	30.4	128.27	-2,893.6	-5,939.7	6,912.7	6,876.1	36.58	188.973	
3,346.4	3,314.8	4,845.1	4,543.8	9.4	31.1	127.98	-2,913.4	-5,914.8	6,906.6	6,869.3	37.30	185.171	
3,400.0	3,368.3	4,891.0	4,586.6	9.6	31.4	127.76	-2,923.5	-5,901.7	6,899.0	6,861.3	37.75	182.777	
3,444.9	3,413.1	4,910.0	4,604.3	9.6	31.5	127.60	-2,927.6	-5,896.3	6,892.2	6,854.3	37.98	181.493	
3,500.0	3,468.2	4,910.0	4,604.3	9.7	31.5	127.47	-2,927.6	-5,896.3	6,883.7	6,845.6	38.09	180.699	
3,543.3	3,511.5	4,942.3	4,634.6	9.8	31.7	127.27	-2,934.5	-5,887.4	6,876.6	6,838.2	38.39	179.143	
3,553.7	3,521.9	4,945.1	4,637.2	9.8	31.7	-114.11	-2,935.0	-5,886.7	6,874.9	6,847.7	27.18	252.949	
3,600.0	3,568.2	4,957.4	4,648.9	9.9	31.8	-114.14	-2,937.6	-5,883.5	6,867.3	6,840.0	27.30	251.548	
3,641.7	3,609.9	4,992.0	4,681.7	10.0	32.0	-114.22	-2,944.3	-5,874.8	6,860.9	6,833.4	27.49	249.586	
3,700.0	3,668.2	4,992.0	4,681.7	10.1	32.0	-114.22	-2,944.3	-5,874.8	6,851.8	6,824.3	27.60	248.272	
3,740.1	3,708.4	5,155.0	4,836.6	10.1	33.0	-114.60	-2,973.9	-5,833.6	6,845.1	6,817.0	28.19	242.789	
3,800.0	3,768.2	5,183.5	4,863.8	10.2	33.2	-114.66	-2,978.5	-5,826.4	6,835.2	6,806.8	28.40	240.709	
3,838.6	3,806.8	5,197.6	4,877.2	10.3	33.3	-114.69	-2,980.8	-5,823.0	6,829.0	6,800.5	28.51	239.496	
3,900.0	3,868.2	5,237.0	4,915.0	10.4	33.5	-114.77	-2,987.1	-5,813.6	6,819.4	6,790.6	28.76	237.154	
3,937.0	3,905.2	5,237.0	4,915.0	10.5	33.5	-114.77	-2,987.1	-5,813.6	6,813.7	6,784.9	28.83	236.370	
4,000.0	3,968.2	5,237.0	4,915.0	10.6	33.5	-114.77	-2,987.1	-5,813.6	6,804.5	6,775.5	28.95	235.061	
4,035.4	4,003.6	5,265.0	4,941.9	10.6	33.6	-114.82	-2,991.3	-5,807.3	6,799.3	6,770.3	29.09	233.710	
4,100.0	4,068.2	5,285.4	4,961.7	10.7	33.7	-114.86	-2,994.0	-5,803.0	6,790.5	6,761.2	29.28	231.950	
4,133.8	4,102.1	5,318.0	4,993.4	10.8	33.9	-114.91	-2,997.9	-5,796.6	6,786.1	6,756.6	29.43	230.546	
4,200.0	4,168.2	5,318.0	4,993.4	10.9	33.9	-114.91	-2,997.9	-5,796.6	6,777.5	6,747.9	29.56	229.249	
4,232.3	4,200.5	5,318.0	4,993.4	11.0	33.9	-114.91	-2,997.9	-5,796.6	6,773.6	6,743.9	29.63	228.624	
4,300.0	4,268.2	5,318.0	4,993.4	11.1	33.9	-114.91	-2,997.9	-5,796.6	6,765.8	6,736.0	29.76	227.340	
4,330.7	4,298.9	5,318.0	4,993.4	11.1	33.9	-114.91	-2,997.9	-5,796.6	6,762.4	6,732.6	29.82	226.766	
4,400.0	4,368.2	5,360.2	5,034.7	11.3	34.1	-114.97	-3,002.4	-5,789.3	6,754.9	6,724.8	30.06	224.737	
4,429.1	4,397.3	5,366.4	5,040.8	11.3	34.1	-114.98	-3,003.0	-5,788.4	6,752.0	6,721.8	30.13	224.098	
4,500.0	4,468.2	5,400.0	5,073.9	11.4	34.2	-115.03	-3,006.5	-5,783.5	6,745.4	6,715.0	30.35	222.252	
4,527.5	4,495.8	5,400.0	5,073.9	11.5	34.2	-115.03	-3,006.5	-5,783.5	6,742.9	6,712.5	30.41	221.767	
4,600.0	4,568.2	5,400.0	5,073.9	11.6	34.2	-115.03	-3,006.5	-5,783.5	6,736.9	6,706.3	30.55	220.518	
4,626.0	4,594.2	5,400.0	5,073.9	11.7	34.2	-115.03	-3,006.5	-5,783.5	6,734.9	6,704.3	30.60	220.077	
4,700.0	4,668.2	5,456.2	5,129.3	11.8	34.4	-115.10	-3,012.1	-5,776.2	6,729.3	6,698.5	30.86	218.034	
4,724.4	4,692.6	5,482.0	5,154.8	11.9	34.5	-115.13	-3,014.6	-5,773.1	6,727.6	6,696.7	30.97	217.266	
4,800.0	4,768.2	5,482.0	5,154.8	12.0	34.5	-115.13	-3,014.6	-5,773.1	6,722.6	6,691.5	31.12	216.039	
4,822.8	4,791.0	5,512.1	5,184.6	12.0	34.6	-115.16	-3,017.4	-5,769.6	6,721.1	6,689.9	31.22	215.291	
4,900.0	4,868.2	5,563.0	5,235.0	12.2	34.7	-115.22	-3,022.1	-5,764.3	6,716.7	6,685.2	31.47	213.437	
4,921.2	4,889.5	5,563.0	5,235.0	12.2	34.7	-115.22	-3,022.1	-5,764.3	6,715.5	6,684.0	31.51	213.106	
5,000.0	4,968.2	5,563.0	5,235.0	12.4	34.7	-115.22	-3,022.1	-5,764.3	6,711.7	6,680.0	31.67	211.906	
5,019.7	4,987.9	5,563.0	5,235.0	12.4	34.7	-115.22	-3,022.1	-5,764.3	6,710.9	6,679.2	31.71	211.612	

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

Anticollision Report



Company:	PDC ENERGY	Local Co-ordinate Reference:	Well WACKER 10G-214
Project:	WELD COUNTY, COLORADO	TVD Reference:	KB-EST @ 4624.0usft (Original Well Elev)
Reference Site:	SW NW SEC. 10 T5N R64W 6th P.M.	MD Reference:	KB-EST @ 4624.0usft (Original Well Elev)
Site Error:	0.0 usft	North Reference:	True
Reference Well:	WACKER 10G-214	Survey Calculation Method:	Minimum Curvature
Well Error:	0.0 usft	Output errors are at	2.00 sigma
Reference Wellbore	ORIGINAL WELLBORE	Database:	EDM 5000.1 Single User Db
Reference Design:	PROPOSAL #1	Offset TVD Reference:	Offset Datum

Offset Design SW NW SEC. 10 T5N R64W 6th P.M. - EXIST DD JURGENS STATE #B16-30D - Wellbore #1 - Wellbo												Offset Site Error:	0.0 usft
Survey Program: 75-MWD												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
5,100.0	5,068.2	5,607.0	5,278.6	12.6	34.8	-115.26	-3,025.9	-5,760.4	6,707.6	6,675.7	31.94	209.976	
5,118.1	5,086.3	5,612.0	5,283.7	12.6	34.8	-115.27	-3,026.4	-5,760.0	6,707.0	6,675.0	31.99	209.662	
5,200.0	5,168.2	5,645.0	5,316.4	12.7	34.9	-115.30	-3,029.1	-5,757.8	6,704.8	6,672.6	32.21	208.160	
5,216.5	5,184.7	5,645.0	5,316.4	12.8	34.9	-115.30	-3,029.1	-5,757.8	6,704.4	6,672.1	32.24	207.928	
5,300.0	5,268.2	5,686.9	5,358.2	12.9	35.0	-115.33	-3,032.5	-5,755.3	6,702.8	6,670.3	32.47	206.417	
5,314.9	5,283.2	5,696.8	5,367.9	13.0	35.0	-115.34	-3,033.4	-5,754.7	6,702.6	6,670.0	32.52	206.129	
5,400.0	5,368.2	5,840.2	5,510.7	13.1	35.3	-115.46	-3,044.5	-5,746.2	6,700.8	6,667.9	32.89	203.729	
5,413.4	5,381.6	5,848.6	5,519.0	13.2	35.4	-115.46	-3,045.0	-5,745.8	6,700.5	6,667.6	32.93	203.475	
5,500.0	5,468.2	5,915.8	5,586.0	13.3	35.5	-115.50	-3,048.8	-5,742.4	6,698.7	6,665.5	33.20	201.741	
5,511.8	5,480.0	5,930.9	5,601.1	13.3	35.5	-115.51	-3,049.5	-5,741.7	6,698.4	6,665.2	33.25	201.458	
5,600.0	5,568.2	6,017.1	5,687.1	13.5	35.6	-115.55	-3,052.6	-5,738.2	6,696.5	6,663.0	33.55	199.584	
5,610.2	5,578.4	6,025.3	5,695.3	13.5	35.7	-115.55	-3,052.9	-5,737.9	6,696.3	6,662.7	33.58	199.384	
5,700.0	5,668.2	6,100.5	5,770.5	13.7	35.8	-115.58	-3,054.8	-5,735.4	6,694.6	6,660.7	33.87	197.630	
5,708.6	5,676.9	6,107.9	5,777.9	13.7	35.8	-115.58	-3,054.9	-5,735.1	6,694.4	6,660.5	33.90	197.461	
5,800.0	5,768.2	6,195.2	5,865.1	13.9	35.9	-115.60	-3,056.2	-5,732.8	6,692.8	6,658.6	34.21	195.635	
5,807.1	5,775.3	6,202.3	5,872.2	13.9	35.9	-115.60	-3,056.3	-5,732.7	6,692.7	6,658.5	34.24	195.492	
5,900.0	5,868.2	6,311.6	5,981.5	14.1	36.0	-115.61	-3,057.1	-5,730.0	6,690.9	6,656.4	34.58	193.498	
5,905.5	5,873.7	6,317.0	5,986.9	14.1	36.0	-115.61	-3,057.1	-5,729.9	6,690.8	6,656.2	34.60	193.388	
5,960.7	5,928.9	6,371.3	6,041.2	14.2	36.1	-115.62	-3,057.7	-5,728.4	6,689.7	6,655.0	34.79	192.295	
6,000.0	5,968.2	6,409.4	6,079.3	14.3	36.1	-25.70	-3,058.2	-5,727.3	6,688.0	6,640.6	47.38	141.149	
6,003.9	5,972.1	6,413.2	6,083.1	14.3	36.1	-25.71	-3,058.2	-5,727.2	6,687.7	6,640.3	47.38	141.154	
6,050.0	6,018.0	6,457.5	6,127.3	14.4	36.2	-25.90	-3,058.7	-5,726.0	6,683.0	6,635.7	47.28	141.352	
6,100.0	6,067.3	6,486.2	6,156.1	14.4	36.2	-26.21	-3,059.0	-5,725.3	6,674.9	6,627.9	47.03	141.932	
6,102.3	6,069.6	6,487.5	6,157.4	14.4	36.2	-26.22	-3,059.0	-5,725.3	6,674.5	6,627.5	47.01	141.968	
6,150.0	6,116.0	6,513.1	6,183.0	14.4	36.2	-26.63	-3,059.3	-5,724.7	6,664.0	6,617.3	46.66	142.808	
6,200.0	6,163.8	6,543.0	6,212.8	14.5	36.3	-27.20	-3,059.7	-5,724.2	6,650.2	6,604.0	46.20	143.933	
6,200.8	6,164.5	6,543.0	6,212.8	14.5	36.3	-27.21	-3,059.7	-5,724.2	6,649.9	6,603.7	46.19	143.954	
6,250.0	6,210.4	6,628.2	6,298.0	14.5	36.3	-28.01	-3,060.6	-5,722.5	6,633.4	6,587.6	45.74	145.015	
6,299.2	6,254.9	6,705.9	6,375.7	14.5	36.4	-28.98	-3,061.1	-5,720.7	6,613.8	6,568.5	45.23	146.227	
6,300.0	6,255.6	6,706.0	6,375.8	14.5	36.4	-29.00	-3,061.1	-5,720.7	6,613.4	6,568.2	45.22	146.253	
6,350.0	6,299.3	6,746.0	6,415.8	14.5	36.5	-30.11	-3,061.3	-5,719.6	6,590.6	6,546.0	44.61	147.739	
6,397.6	6,339.2	6,781.9	6,451.7	14.6	36.5	-31.36	-3,061.7	-5,718.6	6,566.5	6,522.5	44.03	149.146	
6,400.0	6,341.2	6,783.7	6,453.4	14.6	36.5	-31.43	-3,061.7	-5,718.6	6,565.2	6,521.2	44.00	149.215	
6,450.0	6,381.0	6,819.8	6,489.6	14.6	36.6	-32.99	-3,062.0	-5,717.6	6,537.4	6,493.9	43.43	150.542	
6,496.0	6,415.8	6,851.4	6,521.1	14.7	36.6	-34.67	-3,062.3	-5,716.8	6,509.6	6,466.7	42.97	151.491	
6,500.0	6,418.7	6,854.0	6,523.7	14.7	36.6	-34.83	-3,062.4	-5,716.7	6,507.2	6,464.2	42.94	151.558	
6,550.0	6,453.9	6,870.0	6,539.7	14.8	36.6	-36.90	-3,062.5	-5,716.3	6,474.8	6,432.3	42.54	152.218	
6,594.5	6,483.1	6,898.2	6,567.9	15.0	36.7	-39.12	-3,062.7	-5,715.6	6,444.3	6,402.0	42.38	152.056	
6,600.0	6,486.6	6,900.3	6,570.0	15.1	36.7	-39.41	-3,062.7	-5,715.6	6,440.5	6,398.1	42.37	152.008	
6,650.0	6,516.6	6,918.3	6,588.0	15.3	36.7	-42.27	-3,062.9	-5,715.2	6,404.3	6,361.9	42.42	150.980	
6,692.9	6,540.0	6,932.4	6,602.1	15.7	36.7	-45.10	-3,063.1	-5,714.9	6,372.0	6,329.3	42.70	149.233	
6,700.0	6,543.7	6,934.6	6,604.3	15.7	36.7	-45.61	-3,063.1	-5,714.8	6,366.5	6,323.8	42.76	148.877	
6,750.0	6,567.8	6,951.0	6,620.7	16.2	36.7	-49.51	-3,063.4	-5,714.5	6,327.3	6,283.8	43.45	145.626	
6,791.3	6,585.4	6,967.2	6,636.9	16.7	36.7	-53.23	-3,063.6	-5,714.2	6,293.9	6,249.6	44.29	142.096	
6,800.0	6,588.8	6,971.1	6,640.8	16.8	36.7	-54.08	-3,063.6	-5,714.1	6,286.8	6,242.3	44.50	141.289	
6,850.0	6,606.6	6,991.0	6,660.7	17.4	36.8	-59.37	-3,063.9	-5,713.7	6,245.1	6,199.3	45.85	136.213	
6,889.7	6,618.4	7,004.1	6,673.8	18.0	36.8	-64.05	-3,064.0	-5,713.5	6,211.4	6,164.3	47.07	131.970	
6,900.0	6,621.1	7,007.1	6,676.8	18.2	36.8	-65.33	-3,064.0	-5,713.4	6,202.6	6,155.2	47.38	130.899	
6,950.0	6,632.2	7,019.2	6,688.9	19.0	36.8	-71.91	-3,064.1	-5,713.2	6,159.4	6,110.5	48.95	125.843	
6,988.2	6,638.4	7,025.7	6,695.4	19.7	36.8	-77.27	-3,064.2	-5,713.1	6,126.2	6,076.1	50.04	122.419	
7,000.0	6,639.9	7,027.2	6,696.9	19.9	36.8	-78.97	-3,064.2	-5,713.0	6,115.8	6,065.5	50.34	121.481	
7,050.0	6,644.1	7,031.2	6,700.9	20.8	36.8	-86.29	-3,064.2	-5,713.0	6,072.0	6,020.5	51.42	118.096	

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

Anticollision Report



Company:	PDC ENERGY	Local Co-ordinate Reference:	Well WACKER 10G-214
Project:	WELD COUNTY, COLORADO	TVD Reference:	KB-EST @ 4624.0usft (Original Well Elev)
Reference Site:	SW NW SEC. 10 T5N R64W 6th P.M.	MD Reference:	KB-EST @ 4624.0usft (Original Well Elev)
Site Error:	0.0 usft	North Reference:	True
Reference Well:	WACKER 10G-214	Survey Calculation Method:	Minimum Curvature
Well Error:	0.0 usft	Output errors are at	2.00 sigma
Reference Wellbore	ORIGINAL WELLBORE	Database:	EDM 5000.1 Single User Db
Reference Design:	PROPOSAL #1	Offset TVD Reference:	Offset Datum

Offset Design												Offset Site Error:	0.0 usft
Survey Program: 75-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	
7,086.5	6,645.0	7,031.4	6,701.1	21.5	36.8	-91.65	-3,064.2	-5,713.0	6,039.9	5,987.9	51.94	116.291	
7,100.0	6,645.0	7,031.1	6,700.8	21.8	36.8	-91.64	-3,064.2	-5,713.0	6,028.1	5,975.9	52.20	115.473	
7,185.0	6,644.9	7,029.2	6,698.8	23.6	36.8	-91.61	-3,064.2	-5,713.0	5,953.7	5,899.7	53.96	110.330	
7,200.0	6,644.8	7,028.8	6,698.5	23.9	36.8	-91.60	-3,064.2	-5,713.0	5,940.6	5,886.3	54.27	109.459	
7,283.4	6,644.7	7,026.9	6,696.6	25.7	36.8	-91.56	-3,064.2	-5,713.0	5,867.9	5,811.8	56.11	104.570	
7,300.0	6,644.7	7,026.5	6,696.2	26.1	36.8	-91.55	-3,064.2	-5,713.1	5,853.5	5,797.1	56.48	103.639	
7,381.9	6,644.6	7,024.6	6,694.2	28.0	36.8	-91.51	-3,064.2	-5,713.1	5,782.6	5,724.2	58.37	99.059	
7,400.0	6,644.6	7,024.1	6,693.8	28.4	36.8	-91.50	-3,064.2	-5,713.1	5,766.9	5,708.1	58.79	98.086	
7,480.3	6,644.5	7,022.2	6,691.9	30.3	36.8	-91.47	-3,064.1	-5,713.1	5,697.6	5,636.9	60.72	93.836	
7,500.0	6,644.4	7,021.8	6,691.5	30.8	36.8	-91.46	-3,064.1	-5,713.1	5,680.7	5,619.5	61.19	92.835	
7,578.7	6,644.3	7,019.9	6,689.6	32.7	36.8	-91.42	-3,064.1	-5,713.2	5,613.1	5,550.0	63.13	88.915	
7,600.0	6,644.3	7,019.4	6,689.1	33.3	36.8	-91.41	-3,064.1	-5,713.2	5,594.9	5,531.3	63.65	87.897	
7,677.1	6,644.2	7,017.6	6,687.3	35.2	36.8	-91.37	-3,064.1	-5,713.2	5,529.1	5,463.5	65.59	84.295	
7,700.0	6,644.1	7,017.0	6,686.7	35.8	36.8	-91.36	-3,064.1	-5,713.2	5,509.6	5,443.5	66.17	83.269	
7,775.6	6,644.0	7,015.2	6,684.9	37.7	36.8	-91.33	-3,064.1	-5,713.3	5,445.5	5,377.4	68.10	79.967	
7,800.0	6,644.0	7,014.6	6,684.3	38.3	36.8	-91.32	-3,064.1	-5,713.3	5,424.9	5,356.1	68.72	78.940	
7,874.0	6,643.9	7,012.9	6,682.5	40.2	36.8	-91.28	-3,064.1	-5,713.3	5,362.5	5,291.8	70.64	75.916	
7,900.0	6,643.9	7,012.2	6,681.9	40.9	36.8	-91.27	-3,064.1	-5,713.3	5,340.6	5,269.3	71.31	74.893	
7,972.4	6,643.8	7,010.5	6,680.2	42.8	36.8	-91.23	-3,064.1	-5,713.3	5,279.9	5,206.7	73.20	72.126	
8,000.0	6,643.7	7,009.8	6,679.5	43.5	36.8	-91.22	-3,064.0	-5,713.4	5,256.9	5,183.0	73.93	71.111	
8,070.8	6,643.6	7,008.1	6,677.8	45.4	36.8	-91.19	-3,064.0	-5,713.4	5,198.0	5,122.2	75.80	68.579	
8,100.0	6,643.6	7,007.4	6,677.1	46.2	36.8	-91.17	-3,064.0	-5,713.4	5,173.8	5,097.2	76.56	67.574	
8,169.3	6,643.5	7,005.7	6,675.4	48.0	36.8	-91.14	-3,064.0	-5,713.4	5,116.6	5,038.2	78.41	65.258	
8,200.0	6,643.5	7,004.9	6,674.6	48.8	36.8	-91.12	-3,064.0	-5,713.4	5,091.3	5,012.1	79.22	64.266	
8,267.7	6,643.4	7,003.3	6,673.0	50.6	36.8	-91.09	-3,064.0	-5,713.5	5,035.8	4,954.8	81.03	62.145	
8,300.0	6,643.3	7,002.5	6,672.2	51.5	36.8	-91.07	-3,064.0	-5,713.5	5,009.4	4,927.5	81.90	61.167	
8,366.1	6,643.2	7,000.9	6,670.6	53.3	36.8	-91.04	-3,064.0	-5,713.5	4,955.6	4,872.0	83.67	59.225	
8,400.0	6,643.2	7,000.0	6,669.7	54.2	36.8	-91.03	-3,064.0	-5,713.5	4,928.2	4,843.6	84.59	58.263	
8,464.5	6,643.1	6,998.4	6,668.1	55.9	36.8	-90.99	-3,063.9	-5,713.6	4,876.2	4,789.8	86.33	56.484	
8,500.0	6,643.1	6,997.5	6,667.2	56.9	36.8	-90.98	-3,063.9	-5,713.6	4,847.7	4,760.4	87.29	55.539	
8,563.0	6,643.0	6,996.0	6,665.7	58.6	36.8	-90.95	-3,063.9	-5,713.6	4,797.4	4,708.4	88.99	53.908	
8,600.0	6,642.9	6,995.1	6,664.7	59.6	36.8	-90.93	-3,063.9	-5,713.6	4,767.9	4,677.9	90.00	52.980	
8,661.4	6,642.8	6,993.5	6,663.2	61.3	36.8	-90.90	-3,063.9	-5,713.7	4,719.3	4,627.7	91.66	51.485	
8,700.0	6,642.8	6,992.6	6,662.2	62.3	36.8	-90.88	-3,063.9	-5,713.7	4,688.9	4,596.2	92.71	50.574	
8,759.8	6,642.7	6,991.0	6,660.7	64.0	36.8	-90.85	-3,063.9	-5,713.7	4,642.1	4,547.7	94.35	49.203	
8,800.0	6,642.7	6,990.0	6,659.7	65.1	36.8	-90.83	-3,063.9	-5,713.7	4,610.8	4,515.3	95.44	48.310	
8,858.2	6,642.6	6,988.6	6,658.3	66.6	36.8	-90.80	-3,063.8	-5,713.8	4,565.6	4,468.6	97.03	47.052	
8,900.0	6,642.5	6,987.5	6,657.2	67.8	36.8	-90.78	-3,063.8	-5,713.8	4,533.4	4,435.3	98.18	46.177	
8,956.7	6,642.4	6,986.1	6,655.8	69.3	36.8	-90.75	-3,063.8	-5,713.8	4,490.0	4,390.3	99.73	45.022	
9,000.0	6,642.4	6,985.0	6,654.7	70.5	36.8	-90.73	-3,063.8	-5,713.8	4,457.0	4,356.1	100.92	44.166	
9,055.1	6,642.3	6,983.6	6,653.2	72.0	36.8	-90.70	-3,063.8	-5,713.9	4,415.3	4,312.9	102.43	43.107	
9,100.0	6,642.3	6,982.4	6,652.1	73.3	36.8	-90.68	-3,063.8	-5,713.9	4,381.5	4,277.9	103.66	42.268	
9,153.5	6,642.2	6,981.0	6,650.7	74.7	36.7	-90.65	-3,063.8	-5,713.9	4,341.5	4,236.4	105.13	41.296	
9,200.0	6,642.1	6,979.8	6,649.5	76.0	36.7	-90.63	-3,063.7	-5,713.9	4,307.1	4,200.6	106.41	40.476	
9,251.9	6,642.1	6,978.5	6,648.2	77.5	36.7	-90.60	-3,063.7	-5,713.9	4,268.8	4,160.9	107.84	39.584	
9,300.0	6,642.0	6,977.2	6,646.9	78.8	36.7	-90.57	-3,063.7	-5,714.0	4,233.6	4,124.5	109.16	38.782	
9,350.4	6,641.9	6,975.9	6,645.6	80.2	36.7	-90.55	-3,063.7	-5,714.0	4,197.1	4,086.5	110.55	37.964	
9,400.0	6,641.9	6,974.7	6,644.3	81.5	36.7	-90.52	-3,063.7	-5,714.0	4,161.3	4,049.4	111.92	37.180	
9,448.8	6,641.8	6,973.4	6,643.1	82.9	36.7	-90.50	-3,063.7	-5,714.0	4,126.4	4,013.2	113.27	36.430	
9,500.0	6,641.7	6,972.0	6,641.7	84.3	36.7	-90.47	-3,063.6	-5,714.1	4,090.2	3,975.5	114.68	35.665	
9,547.2	6,641.7	6,970.8	6,640.5	85.6	36.7	-90.45	-3,063.6	-5,714.1	4,057.0	3,941.0	115.99	34.977	
9,600.0	6,641.6	6,969.4	6,639.1	87.1	36.7	-90.42	-3,063.6	-5,714.1	4,020.2	3,902.8	117.45	34.230	

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

Anticollision Report



Company:	PDC ENERGY	Local Co-ordinate Reference:	Well WACKER 10G-214
Project:	WELD COUNTY, COLORADO	TVD Reference:	KB-EST @ 4624.0usft (Original Well Elev)
Reference Site:	SW NW SEC. 10 T5N R64W 6th P.M.	MD Reference:	KB-EST @ 4624.0usft (Original Well Elev)
Site Error:	0.0 usft	North Reference:	True
Reference Well:	WACKER 10G-214	Survey Calculation Method:	Minimum Curvature
Well Error:	0.0 usft	Output errors are at	2.00 sigma
Reference Wellbore	ORIGINAL WELLBORE	Database:	EDM 5000.1 Single User Db
Reference Design:	PROPOSAL #1	Offset TVD Reference:	Offset Datum

Offset Design												Offset Site Error:	0.0 usft
Survey Program: 75-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	
9,645.6	6,641.5	6,968.2	6,637.9	88.3	36.7	-90.39	-3,063.6	-5,714.1	3,988.7	3,870.0	118.71	33.600	
9,700.0	6,641.5	6,966.8	6,636.5	89.8	36.7	-90.37	-3,063.6	-5,714.2	3,951.6	3,831.4	120.22	32.871	
9,744.1	6,641.4	6,965.6	6,635.3	91.0	36.7	-90.34	-3,063.6	-5,714.2	3,921.8	3,800.3	121.44	32.295	
9,800.0	6,641.3	6,964.1	6,633.8	92.6	36.7	-90.31	-3,063.5	-5,714.2	3,884.3	3,761.3	122.99	31.584	
9,842.5	6,641.3	6,963.0	6,632.7	93.8	36.7	-90.29	-3,063.5	-5,714.2	3,856.2	3,732.0	124.16	31.057	
9,900.0	6,641.2	6,961.5	6,631.2	95.4	36.7	-90.26	-3,063.5	-5,714.3	3,818.5	3,692.7	125.76	30.364	
9,940.9	6,641.1	6,960.4	6,630.1	96.5	36.7	-90.24	-3,063.5	-5,714.3	3,792.0	3,665.1	126.89	29.883	
10,000.0	6,641.1	6,958.8	6,628.5	98.1	36.7	-90.21	-3,063.5	-5,714.3	3,754.1	3,625.6	128.53	29.208	
10,039.3	6,641.0	6,957.7	6,627.4	99.2	36.7	-90.19	-3,063.5	-5,714.4	3,729.2	3,599.6	129.62	28.770	
10,100.0	6,640.9	6,956.1	6,625.8	100.9	36.7	-90.15	-3,063.4	-5,714.4	3,691.4	3,560.1	131.31	28.113	
10,137.8	6,640.9	6,955.1	6,624.8	102.0	36.7	-90.13	-3,063.4	-5,714.4	3,668.1	3,535.8	132.36	27.714	
10,200.0	6,640.8	6,953.4	6,623.1	103.7	36.7	-90.10	-3,063.4	-5,714.4	3,630.3	3,496.2	134.08	27.075	
10,236.2	6,640.8	6,952.4	6,622.1	104.7	36.7	-90.08	-3,063.4	-5,714.5	3,608.6	3,473.5	135.09	26.713	
10,300.0	6,640.7	6,951.0	6,620.7	106.5	36.7	-90.05	-3,063.4	-5,714.5	3,571.0	3,434.1	136.86	26.091	
10,334.6	6,640.6	6,951.0	6,620.7	107.4	36.7	-90.05	-3,063.4	-5,714.5	3,550.9	3,413.0	137.83	25.763	
10,400.0	6,640.6	6,951.0	6,620.7	109.3	36.7	-90.05	-3,063.4	-5,714.5	3,513.5	3,373.9	139.65	25.160	
10,433.0	6,640.5	6,951.0	6,620.7	110.2	36.7	-90.05	-3,063.4	-5,714.5	3,494.9	3,354.4	140.57	24.863	
10,500.0	6,640.4	6,951.0	6,620.7	112.0	36.7	-90.05	-3,063.4	-5,714.5	3,458.0	3,315.5	142.43	24.278	
10,531.5	6,640.4	6,951.0	6,620.7	112.9	36.7	-90.05	-3,063.4	-5,714.5	3,440.9	3,297.6	143.31	24.011	
10,600.0	6,640.3	6,951.0	6,620.7	114.8	36.7	-90.05	-3,063.4	-5,714.5	3,404.4	3,259.2	145.21	23.444	
10,629.9	6,640.3	6,951.0	6,620.7	115.7	36.7	-90.05	-3,063.4	-5,714.5	3,388.9	3,242.8	146.05	23.204	
10,700.0	6,640.2	6,951.0	6,620.7	117.6	36.7	-90.05	-3,063.4	-5,714.5	3,353.1	3,205.1	148.00	22.656	
10,728.3	6,640.1	6,951.0	6,620.7	118.4	36.7	-90.05	-3,063.4	-5,714.5	3,338.9	3,190.1	148.79	22.440	
10,800.0	6,640.0	6,951.0	6,620.7	120.4	36.7	-90.05	-3,063.4	-5,714.5	3,303.9	3,153.1	150.79	21.911	
10,826.7	6,640.0	6,951.0	6,620.7	121.2	36.7	-90.05	-3,063.4	-5,714.5	3,291.1	3,139.6	151.53	21.719	
10,900.0	6,639.9	6,951.0	6,620.7	123.2	36.7	-90.05	-3,063.4	-5,714.5	3,257.1	3,103.5	153.58	21.208	
10,925.2	6,639.9	6,951.0	6,620.7	123.9	36.7	-90.05	-3,063.4	-5,714.5	3,245.7	3,091.4	154.28	21.038	
11,000.0	6,639.8	6,939.7	6,609.4	126.0	36.7	-89.83	-3,063.2	-5,714.7	3,212.7	3,056.3	156.36	20.547	
11,023.6	6,639.8	6,939.3	6,609.0	126.6	36.7	-89.82	-3,063.2	-5,714.7	3,202.5	3,045.5	157.02	20.396	
11,100.0	6,639.7	6,938.1	6,607.8	128.8	36.7	-89.80	-3,063.2	-5,714.7	3,170.8	3,011.6	159.15	19.923	
11,122.0	6,639.6	6,937.7	6,607.4	129.4	36.7	-89.79	-3,063.2	-5,714.8	3,161.9	3,002.2	159.76	19.791	
11,200.0	6,639.5	6,936.4	6,606.1	131.6	36.7	-89.76	-3,063.2	-5,714.8	3,131.5	2,969.6	161.94	19.338	
11,220.4	6,639.5	6,936.1	6,605.8	132.1	36.7	-89.76	-3,063.2	-5,714.8	3,123.9	2,961.4	162.51	19.223	
11,300.0	6,639.4	6,934.7	6,604.4	134.4	36.7	-89.73	-3,063.1	-5,714.8	3,095.0	2,930.3	164.73	18.789	
11,318.9	6,639.4	6,934.4	6,604.1	134.9	36.7	-89.72	-3,063.1	-5,714.8	3,088.5	2,923.2	165.26	18.689	
11,400.0	6,639.3	6,933.0	6,602.7	137.1	36.7	-89.70	-3,063.1	-5,714.9	3,061.4	2,893.9	167.52	18.275	
11,417.3	6,639.3	6,932.7	6,602.4	137.6	36.7	-89.69	-3,063.1	-5,714.9	3,055.8	2,887.8	168.00	18.189	
11,500.0	6,639.2	6,931.3	6,601.0	139.9	36.7	-89.66	-3,063.1	-5,714.9	3,030.6	2,860.3	170.31	17.795	
11,515.7	6,639.1	6,931.0	6,600.8	140.4	36.7	-89.66	-3,063.1	-5,714.9	3,026.1	2,855.3	170.75	17.722	
11,600.0	6,639.0	6,929.6	6,599.3	142.7	36.7	-89.63	-3,063.1	-5,714.9	3,002.9	2,829.8	173.10	17.347	
11,614.1	6,639.0	6,929.3	6,599.0	143.1	36.7	-89.62	-3,063.1	-5,714.9	2,999.2	2,825.7	173.50	17.287	
11,700.0	6,638.9	6,927.8	6,597.6	145.5	36.7	-89.59	-3,063.1	-5,715.0	2,978.3	2,802.4	175.90	16.932	
11,712.6	6,638.9	6,927.6	6,597.3	145.9	36.7	-89.59	-3,063.1	-5,715.0	2,975.4	2,799.1	176.25	16.882	
11,800.0	6,638.8	6,926.1	6,595.8	148.3	36.7	-89.56	-3,063.0	-5,715.0	2,956.8	2,778.1	178.69	16.547	
11,811.0	6,638.8	6,925.9	6,595.6	148.6	36.7	-89.56	-3,063.0	-5,715.0	2,954.6	2,775.7	179.00	16.507	
11,900.0	6,638.7	6,924.3	6,594.0	151.1	36.7	-89.52	-3,063.0	-5,715.0	2,938.6	2,757.1	181.48	16.192	
11,909.4	6,638.6	6,924.1	6,593.8	151.4	36.7	-89.52	-3,063.0	-5,715.0	2,937.1	2,755.3	181.75	16.160	
12,000.0	6,638.5	6,922.5	6,592.2	153.9	36.7	-89.49	-3,063.0	-5,715.1	2,923.7	2,739.4	184.28	15.866	
12,007.8	6,638.5	6,922.4	6,592.1	154.1	36.7	-89.49	-3,063.0	-5,715.1	2,922.7	2,738.2	184.50	15.841	
12,100.0	6,638.4	6,920.7	6,590.4	156.7	36.7	-89.45	-3,063.0	-5,715.1	2,912.2	2,725.1	187.07	15.567	
12,106.3	6,638.4	6,920.6	6,590.3	156.9	36.7	-89.45	-3,063.0	-5,715.1	2,911.6	2,724.3	187.25	15.549	
12,200.0	6,638.3	6,918.8	6,588.6	159.5	36.7	-89.42	-3,062.9	-5,715.2	2,904.0	2,714.2	189.87	15.295	

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

Anticollision Report



Company:	PDC ENERGY	Local Co-ordinate Reference:	Well WACKER 10G-214
Project:	WELD COUNTY, COLORADO	TVD Reference:	KB-EST @ 4624.0usft (Original Well Elev)
Reference Site:	SW NW SEC. 10 T5N R64W 6th P.M.	MD Reference:	KB-EST @ 4624.0usft (Original Well Elev)
Site Error:	0.0 usft	North Reference:	True
Reference Well:	WACKER 10G-214	Survey Calculation Method:	Minimum Curvature
Well Error:	0.0 usft	Output errors are at	2.00 sigma
Reference Wellbore	ORIGINAL WELLBORE	Database:	EDM 5000.1 Single User Db
Reference Design:	PROPOSAL #1	Offset TVD Reference:	Offset Datum

Offset Design													Offset Site Error:	0.0 usft
Survey Program: 75-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		
12,204.7	6,638.3	6,918.8	6,588.5	159.6	36.7	-89.41	-3,062.9	-5,715.2	2,903.7	2,713.7	190.00	15.283		
12,300.0	6,638.2	6,917.0	6,586.7	162.3	36.7	-89.38	-3,062.9	-5,715.2	2,899.3	2,706.6	192.67	15.048		
12,303.1	6,638.2	6,916.9	6,586.6	162.4	36.7	-89.38	-3,062.9	-5,715.2	2,899.2	2,706.5	192.75	15.041		
12,386.9	6,638.1	6,915.4	6,585.1	164.7	36.7	-89.35	-3,062.9	-5,715.2	2,898.0	2,702.9	195.10	14.854 CC		
12,400.0	6,638.0	6,915.1	6,584.8	165.1	36.7	-89.34	-3,062.9	-5,715.2	2,898.0	2,702.6	195.46	14.827		
12,401.5	6,638.0	6,915.1	6,584.8	165.2	36.7	-89.34	-3,062.9	-5,715.2	2,898.0	2,702.5	195.50	14.823		
12,500.0	6,637.9	6,913.2	6,582.9	167.9	36.7	-89.31	-3,062.9	-5,715.3	2,900.2	2,702.0	198.26	14.629 ES		
12,598.4	6,637.8	6,911.3	6,581.1	170.7	36.7	-89.27	-3,062.9	-5,715.3	2,905.7	2,704.7	201.01	14.456		
12,600.0	6,637.8	6,911.3	6,581.0	170.7	36.7	-89.27	-3,062.9	-5,715.3	2,905.8	2,704.8	201.05	14.453		
12,696.8	6,637.7	6,909.4	6,579.2	173.4	36.7	-89.23	-3,062.8	-5,715.4	2,914.5	2,710.8	203.76	14.304		
12,700.0	6,637.7	6,909.4	6,579.1	173.5	36.7	-89.23	-3,062.8	-5,715.4	2,914.9	2,711.0	203.85	14.299		
12,795.2	6,637.6	6,907.5	6,577.2	176.2	36.7	-89.19	-3,062.8	-5,715.4	2,926.6	2,720.1	206.51	14.172		
12,800.0	6,637.6	6,907.4	6,577.1	176.3	36.7	-89.19	-3,062.8	-5,715.4	2,927.3	2,720.6	206.65	14.166		
12,893.7	6,637.4	6,905.6	6,575.3	178.9	36.7	-89.15	-3,062.8	-5,715.5	2,942.0	2,732.7	209.27	14.058		
12,900.0	6,637.4	6,905.5	6,575.2	179.1	36.7	-89.15	-3,062.8	-5,715.5	2,943.1	2,733.6	209.44	14.052		
12,992.1	6,637.3	6,903.6	6,573.3	181.7	36.7	-89.12	-3,062.8	-5,715.5	2,960.5	2,748.5	212.02	13.963		
13,000.0	6,637.3	6,903.5	6,573.2	181.9	36.7	-89.11	-3,062.8	-5,715.5	2,962.1	2,749.9	212.24	13.956		
13,090.5	6,637.2	6,901.6	6,571.4	184.4	36.7	-89.08	-3,062.8	-5,715.5	2,982.2	2,767.4	214.77	13.885		
13,100.0	6,637.2	6,901.4	6,571.2	184.7	36.7	-89.07	-3,062.8	-5,715.5	2,984.4	2,769.4	215.04	13.879		
13,188.9	6,637.1	6,899.6	6,569.4	187.2	36.7	-89.04	-3,062.7	-5,715.6	3,006.9	2,789.4	217.53	13.823		
13,200.0	6,637.1	6,899.4	6,569.1	187.5	36.7	-89.03	-3,062.7	-5,715.6	3,009.9	2,792.0	217.84	13.817		
13,287.4	6,637.0	6,897.6	6,567.3	190.0	36.7	-89.00	-3,062.7	-5,715.6	3,034.6	2,814.3	220.28	13.776		
13,300.0	6,637.0	6,897.3	6,567.1	190.3	36.7	-88.99	-3,062.7	-5,715.6	3,038.4	2,817.8	220.63	13.771		
13,385.8	6,636.9	6,895.6	6,565.3	192.7	36.7	-88.96	-3,062.7	-5,715.7	3,065.2	2,842.2	223.03	13.743		
13,400.0	6,636.8	6,895.3	6,565.0	193.1	36.7	-88.95	-3,062.7	-5,715.7	3,069.9	2,846.5	223.43	13.740		
13,484.2	6,636.7	6,893.5	6,563.2	195.5	36.7	-88.92	-3,062.7	-5,715.7	3,098.7	2,872.9	225.79	13.724		
13,500.0	6,636.7	6,893.2	6,562.9	195.9	36.7	-88.91	-3,062.7	-5,715.7	3,104.3	2,878.1	226.23	13.722		
13,582.6	6,636.6	6,891.4	6,561.1	198.2	36.6	-88.87	-3,062.7	-5,715.8	3,134.9	2,906.4	228.54	13.717		
13,600.0	6,636.6	6,891.0	6,560.8	198.7	36.6	-88.87	-3,062.7	-5,715.8	3,141.5	2,912.5	229.03	13.717 SF		
13,681.1	6,636.5	6,889.3	6,559.0	201.0	36.6	-88.83	-3,062.6	-5,715.8	3,173.7	2,942.4	231.29	13.722		
13,700.0	6,636.5	6,888.9	6,558.6	201.5	36.6	-88.82	-3,062.6	-5,715.8	3,181.5	2,949.7	231.82	13.724		
13,779.5	6,636.4	6,887.2	6,556.9	203.7	36.6	-88.79	-3,062.6	-5,715.9	3,215.1	2,981.0	234.05	13.737		
13,800.0	6,636.4	6,886.7	6,556.4	204.3	36.6	-88.78	-3,062.6	-5,715.9	3,224.0	2,989.4	234.62	13.741		
13,877.9	6,636.3	6,885.0	6,554.7	206.5	36.6	-88.75	-3,062.6	-5,715.9	3,258.9	3,022.1	236.80	13.762		
13,900.0	6,636.3	6,884.5	6,554.2	207.1	36.6	-88.74	-3,062.6	-5,715.9	3,269.1	3,031.6	237.42	13.769		
13,976.3	6,636.2	6,882.8	6,552.5	209.3	36.6	-88.71	-3,062.6	-5,716.0	3,305.1	3,065.5	239.55	13.797		
14,000.0	6,636.1	6,882.3	6,552.0	209.9	36.6	-88.69	-3,062.6	-5,716.0	3,316.5	3,076.3	240.21	13.806		
14,074.8	6,636.0	6,880.6	6,550.3	212.0	36.6	-88.66	-3,062.6	-5,716.0	3,353.5	3,111.2	242.31	13.840		
14,100.0	6,636.0	6,880.0	6,549.7	212.7	36.6	-88.65	-3,062.6	-5,716.1	3,366.3	3,123.2	243.01	13.852		
14,173.2	6,635.9	6,878.4	6,548.1	214.8	36.6	-88.62	-3,062.5	-5,716.1	3,404.1	3,159.0	245.06	13.891		
14,200.0	6,635.9	6,877.7	6,547.5	215.5	36.6	-88.61	-3,062.5	-5,716.1	3,418.2	3,172.4	245.81	13.906		
14,271.6	6,635.8	6,876.1	6,545.8	217.5	36.6	-88.57	-3,062.5	-5,716.1	3,456.7	3,208.9	247.81	13.949		
14,300.0	6,635.8	6,875.4	6,545.2	218.3	36.6	-88.56	-3,062.5	-5,716.2	3,472.3	3,223.6	248.61	13.967		
14,370.0	6,635.7	6,870.0	6,539.7	220.3	36.6	-88.45	-3,062.5	-5,716.3	3,511.3	3,260.8	250.55	14.014		
14,400.0	6,635.7	6,870.0	6,539.7	221.1	36.6	-88.45	-3,062.5	-5,716.3	3,528.3	3,276.9	251.39	14.035		
14,468.5	6,635.6	6,870.0	6,539.7	223.1	36.6	-88.45	-3,062.5	-5,716.3	3,567.8	3,314.5	253.31	14.085		
14,500.0	6,635.6	6,870.0	6,539.7	223.9	36.6	-88.45	-3,062.5	-5,716.3	3,586.3	3,332.1	254.20	14.108		
14,566.9	6,635.5	6,868.9	6,538.6	225.8	36.6	-88.43	-3,062.5	-5,716.3	3,626.1	3,370.0	256.07	14.161		
14,600.0	6,635.4	6,867.8	6,537.6	226.8	36.6	-88.41	-3,062.5	-5,716.4	3,646.1	3,389.1	256.99	14.187		
14,665.3	6,635.4	6,865.7	6,535.5	228.6	36.6	-88.37	-3,062.4	-5,716.4	3,686.1	3,427.2	258.82	14.242		
14,700.0	6,635.3	6,864.6	6,534.3	229.6	36.6	-88.35	-3,062.4	-5,716.4	3,707.6	3,447.8	259.79	14.272		
14,763.7	6,635.2	6,862.5	6,532.3	231.3	36.6	-88.31	-3,062.4	-5,716.5	3,747.7	3,486.1	261.57	14.328		

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

Anticollision Report



Company:	PDC ENERGY	Local Co-ordinate Reference:	Well WACKER 10G-214
Project:	WELD COUNTY, COLORADO	TVD Reference:	KB-EST @ 4624.0usft (Original Well Elev)
Reference Site:	SW NW SEC. 10 T5N R64W 6th P.M.	MD Reference:	KB-EST @ 4624.0usft (Original Well Elev)
Site Error:	0.0 usft	North Reference:	True
Reference Well:	WACKER 10G-214	Survey Calculation Method:	Minimum Curvature
Well Error:	0.0 usft	Output errors are at	2.00 sigma
Reference Wellbore	ORIGINAL WELLBORE	Database:	EDM 5000.1 Single User Db
Reference Design:	PROPOSAL #1	Offset TVD Reference:	Offset Datum

Offset Design SW NW SEC. 10 T5N R64W 6th P.M. - EXIST DD JURGENS STATE #B16-30D - Wellbore #1 - Wellbo												Offset Site Error:	0.0 usft
Survey Program: 75-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
14,800.0	6,635.2	6,861.4	6,531.1	232.4	36.6	-88.28	-3,062.4	-5,716.5	3,770.7	3,508.2	262.58	14.360	
14,862.2	6,635.1	6,859.3	6,529.1	234.1	36.6	-88.24	-3,062.4	-5,716.6	3,810.8	3,546.5	264.32	14.418	
14,900.0	6,635.1	6,858.1	6,527.8	235.2	36.6	-88.22	-3,062.4	-5,716.6	3,835.5	3,570.1	265.37	14.453	
14,960.6	6,635.0	6,856.1	6,525.8	236.9	36.6	-88.18	-3,062.4	-5,716.7	3,875.4	3,608.4	267.07	14.511	
14,982.9	6,635.0	6,855.4	6,525.1	237.5	36.6	-88.16	-3,062.4	-5,716.7	3,890.2	3,622.6	267.69	14.533	

Anticollision Report



Company:	PDC ENERGY	Local Co-ordinate Reference:	Well WACKER 10G-214
Project:	WELD COUNTY, COLORADO	TVD Reference:	KB-EST @ 4624.0usft (Original Well Elev)
Reference Site:	SW NW SEC. 10 T5N R64W 6th P.M.	MD Reference:	KB-EST @ 4624.0usft (Original Well Elev)
Site Error:	0.0 usft	North Reference:	True
Reference Well:	WACKER 10G-214	Survey Calculation Method:	Minimum Curvature
Well Error:	0.0 usft	Output errors are at	2.00 sigma
Reference Wellbore	ORIGINAL WELLBORE	Database:	EDM 5000.1 Single User Db
Reference Design:	PROPOSAL #1	Offset TVD Reference:	Offset Datum

Offset Design												Offset Site Error:	0.0 usft
Survey Program: 683-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	118.76	-1,105.2	2,013.3	2,296.8				
98.4	98.4	93.6	93.6	0.1	0.1	118.76	-1,105.2	2,013.3	2,296.7	2,296.5	0.18	N/A	
100.0	100.0	95.2	95.2	0.1	0.1	118.76	-1,105.2	2,013.3	2,296.7	2,296.5	0.19	N/A	
196.8	196.8	194.3	194.3	0.3	0.2	118.76	-1,105.1	2,013.2	2,296.6	2,296.1	0.50	4,623.403	
200.0	200.0	197.6	197.6	0.3	0.2	118.76	-1,105.1	2,013.2	2,296.6	2,296.1	0.51	4,531.366	
295.3	295.3	295.1	295.1	0.5	0.3	118.76	-1,105.0	2,013.0	2,296.3	2,295.5	0.81	2,828.239	
300.0	300.0	299.9	299.9	0.5	0.3	118.76	-1,105.0	2,013.0	2,296.3	2,295.5	0.83	2,776.478	
393.7	393.7	395.9	395.9	0.8	0.4	118.76	-1,104.7	2,012.7	2,296.0	2,294.9	1.13	2,037.021	
400.0	400.0	402.3	402.3	0.8	0.4	118.76	-1,104.7	2,012.7	2,296.0	2,294.8	1.15	2,001.178	
492.1	492.1	496.6	496.6	1.0	0.5	118.76	-1,104.5	2,012.4	2,295.6	2,294.1	1.44	1,591.553	
500.0	500.0	504.7	504.7	1.0	0.5	118.76	-1,104.4	2,012.3	2,295.5	2,294.0	1.47	1,564.176	
590.5	590.5	597.4	597.4	1.2	0.6	118.76	-1,104.1	2,011.9	2,295.0	2,293.3	1.76	1,305.812	
600.0	600.0	607.0	607.0	1.2	0.6	118.76	-1,104.1	2,011.9	2,295.0	2,293.2	1.79	1,283.676	
689.0	689.0	701.2	701.2	1.4	0.7	118.76	-1,103.7	2,011.3	2,294.4	2,292.3	2.10	1,093.743	
700.0	700.0	714.8	714.8	1.4	0.7	118.76	-1,103.8	2,011.2	2,294.3	2,292.1	2.15	1,066.269	
787.4	787.4	796.8	796.7	1.6	0.9	118.82	-1,105.5	2,009.2	2,293.3	2,290.8	2.52	908.838	
800.0	800.0	805.0	804.9	1.7	0.9	118.83	-1,105.8	2,008.9	2,293.2	2,290.6	2.57	892.652	
834.0	834.0	827.1	827.0	1.7	0.9	118.86	-1,106.9	2,008.3	2,293.1	2,290.4	2.69	851.801	
885.8	885.8	854.0	853.8	1.9	1.0	118.90	-1,108.4	2,007.5	2,293.3	2,290.5	2.87	800.308	
900.0	900.0	854.0	853.8	1.9	1.0	118.90	-1,108.4	2,007.5	2,293.5	2,290.6	2.90	791.576	
984.2	984.2	918.0	917.7	2.1	1.1	119.03	-1,113.3	2,006.0	2,295.0	2,291.8	3.22	711.889	
1,000.0	1,000.0	939.0	938.6	2.1	1.2	119.07	-1,115.2	2,005.7	2,295.5	2,292.2	3.30	694.750	
1,082.7	1,082.7	974.2	973.6	2.3	1.3	119.16	-1,118.7	2,005.2	2,298.5	2,294.9	3.57	644.564	
1,100.0	1,100.0	984.0	983.3	2.3	1.3	119.18	-1,119.8	2,005.2	2,299.3	2,295.6	3.63	634.134	
1,181.1	1,181.1	1,025.0	1,024.0	2.5	1.4	119.29	-1,124.5	2,005.1	2,303.8	2,299.9	3.90	591.222	
1,200.0	1,200.0	1,045.5	1,044.4	2.6	1.4	119.34	-1,127.1	2,005.1	2,305.0	2,301.0	3.98	578.554	
1,279.5	1,279.5	1,110.0	1,108.3	2.7	1.6	119.52	-1,135.6	2,005.3	2,310.4	2,306.1	4.30	536.857	
1,300.0	1,300.0	1,110.0	1,108.3	2.8	1.6	119.52	-1,135.6	2,005.3	2,312.0	2,307.6	4.35	531.532	
1,377.9	1,377.9	1,169.1	1,166.8	3.0	1.8	1.05	-1,144.1	2,005.9	2,317.2	2,312.5	4.74	488.716	
1,400.0	1,400.0	1,196.0	1,193.4	3.0	1.9	1.13	-1,148.3	2,006.4	2,318.6	2,313.7	4.86	476.825	
1,476.4	1,476.3	1,231.9	1,228.8	3.1	2.0	1.25	-1,154.1	2,007.1	2,322.3	2,317.2	5.11	454.391	
1,500.0	1,499.8	1,247.1	1,243.8	3.2	2.1	1.30	-1,156.7	2,007.5	2,323.3	2,318.1	5.20	446.805	
1,574.8	1,574.4	1,281.0	1,277.1	3.3	2.2	1.41	-1,162.6	2,008.3	2,325.6	2,320.2	5.44	427.515	
1,600.0	1,599.5	1,309.7	1,305.3	3.4	2.3	1.52	-1,167.9	2,009.2	2,326.1	2,320.5	5.58	416.790	
1,673.2	1,672.2	1,367.0	1,361.4	3.6	2.5	1.74	-1,179.3	2,011.2	2,327.1	2,321.2	5.91	393.931	
1,700.0	1,698.7	1,367.0	1,361.4	3.6	2.5	1.74	-1,179.3	2,011.2	2,327.1	2,321.2	5.95	390.847	
1,771.6	1,769.5	1,419.8	1,413.0	3.8	2.7	1.96	-1,190.5	2,013.4	2,326.7	2,320.4	6.27	371.168	
1,800.0	1,797.5	1,452.0	1,444.4	3.9	2.9	2.09	-1,197.4	2,014.9	2,326.3	2,319.8	6.43	361.634	
1,870.1	1,866.3	1,505.5	1,496.6	4.1	3.1	2.31	-1,209.0	2,017.6	2,324.1	2,317.4	6.74	344.954	
1,900.2	1,895.8	1,536.6	1,526.9	4.2	3.2	2.44	-1,215.6	2,019.2	2,322.7	2,315.8	6.88	337.433	
1,968.5	1,962.6	1,606.5	1,595.1	4.4	3.4	2.72	-1,230.4	2,022.8	2,319.1	2,311.8	7.24	320.263	
2,000.0	1,993.4	1,643.0	1,630.8	4.5	3.6	2.87	-1,238.1	2,024.7	2,317.4	2,309.9	7.42	312.280	
2,066.9	2,058.9	1,725.8	1,711.6	4.7	3.9	3.21	-1,255.4	2,028.3	2,313.4	2,305.6	7.84	295.139	
2,100.0	2,091.2	1,759.9	1,744.9	4.8	4.0	3.36	-1,262.7	2,029.6	2,311.4	2,303.3	8.03	287.956	
2,165.3	2,155.2	1,828.5	1,811.8	5.1	4.3	3.66	-1,277.5	2,032.0	2,307.3	2,298.9	8.41	274.492	
2,200.0	2,189.1	1,865.5	1,848.0	5.2	4.5	3.82	-1,285.3	2,033.4	2,305.1	2,296.5	8.61	267.736	
2,263.8	2,251.4	1,938.9	1,919.8	5.5	4.7	4.12	-1,300.4	2,036.0	2,301.0	2,292.0	8.99	255.845	
2,300.0	2,286.9	1,983.4	1,963.3	5.6	4.9	4.31	-1,309.3	2,037.5	2,298.5	2,289.3	9.22	249.263	
2,362.2	2,347.7	2,060.9	2,039.3	5.8	5.2	4.64	-1,325.0	2,039.6	2,293.8	2,284.2	9.63	238.305	
2,400.0	2,384.7	2,096.2	2,073.8	6.0	5.4	4.79	-1,332.1	2,040.4	2,291.0	2,281.1	9.84	232.933	
2,460.6	2,444.0	2,156.4	2,132.7	6.2	5.6	5.05	-1,344.3	2,041.8	2,286.4	2,276.2	10.18	224.530	
2,500.0	2,482.5	2,201.0	2,176.5	6.4	5.8	5.24	-1,353.1	2,043.0	2,283.4	2,273.0	10.42	219.069	

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

Anticollision Report



Company:	PDC ENERGY	Local Co-ordinate Reference:	Well WACKER 10G-214
Project:	WELD COUNTY, COLORADO	TVD Reference:	KB-EST @ 4624.0usft (Original Well Elev)
Reference Site:	SW NW SEC. 10 T5N R64W 6th P.M.	MD Reference:	KB-EST @ 4624.0usft (Original Well Elev)
Site Error:	0.0 usft	North Reference:	True
Reference Well:	WACKER 10G-214	Survey Calculation Method:	Minimum Curvature
Well Error:	0.0 usft	Output errors are at	2.00 sigma
Reference Wellbore	ORIGINAL WELLBORE	Database:	EDM 5000.1 Single User Db
Reference Design:	PROPOSAL #1	Offset TVD Reference:	Offset Datum

Offset Design												Offset Site Error:	0.0 usft
Survey Program: 683-MWD												Offset Well Error:	0.0 usft
Reference		Offset		Semi Major Axis			Distance						Warning
Measured Depth (usft)	Vertical Depth (usft)	Measured Depth (usft)	Vertical Depth (usft)	Reference (usft)	Offset (usft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (usft)	+E/-W (usft)	Between Centres (usft)	Between Ellipses (usft)	Minimum Separation (usft)	Separation Factor	
2,559.0	2,540.3	2,260.4	2,234.7	6.6	6.0	5.48	-1,364.4	2,044.5	2,278.8	2,268.1	10.76	211.865	
2,600.0	2,580.3	2,299.2	2,272.8	6.8	6.2	5.64	-1,371.8	2,045.6	2,275.7	2,264.7	10.98	207.316	
2,657.5	2,636.5	2,366.3	2,338.7	7.1	6.4	5.91	-1,384.4	2,047.5	2,271.2	2,259.9	11.33	200.517	
2,700.0	2,678.1	2,409.2	2,380.9	7.2	6.6	6.08	-1,392.2	2,048.7	2,267.8	2,256.2	11.56	196.103	
2,755.9	2,732.8	2,453.4	2,424.3	7.5	6.8	6.26	-1,400.3	2,050.0	2,263.5	2,251.6	11.84	191.166	
2,800.0	2,775.9	2,489.7	2,460.0	7.7	6.9	6.40	-1,407.0	2,051.3	2,260.3	2,248.2	12.06	187.366	
2,854.3	2,829.1	2,539.1	2,508.4	7.9	7.1	6.60	-1,416.4	2,052.9	2,256.5	2,244.1	12.36	182.587	
2,900.0	2,873.8	2,579.5	2,548.0	8.1	7.3	6.77	-1,424.3	2,054.1	2,253.4	2,240.8	12.60	178.808	
2,952.7	2,925.4	2,624.3	2,591.9	8.3	7.5	6.96	-1,433.1	2,055.6	2,250.0	2,237.1	12.88	174.699	
2,953.5	2,926.1	2,624.9	2,592.5	8.3	7.5	6.96	-1,433.2	2,055.7	2,250.0	2,237.1	12.88	174.643	
3,000.0	2,971.6	2,665.8	2,632.6	8.5	7.6	7.12	-1,441.2	2,057.2	2,247.5	2,234.4	13.15	170.920	
3,051.2	3,022.0	2,713.4	2,679.2	8.7	7.8	7.31	-1,450.6	2,059.1	2,245.8	2,232.4	13.44	167.086	
3,100.0	3,070.1	2,806.2	2,770.3	8.8	8.2	7.67	-1,468.2	2,062.5	2,244.8	2,231.0	13.86	161.991	
3,149.6	3,119.1	2,850.0	2,813.4	8.9	8.4	7.83	-1,475.8	2,063.9	2,243.9	2,229.8	14.12	158.966	
3,161.9	3,131.3	2,858.0	2,821.2	9.0	8.4	7.86	-1,477.2	2,064.1	2,243.9	2,229.7	14.17	158.350 CC, ES	
3,200.0	3,169.1	2,882.9	2,845.7	9.1	8.5	7.95	-1,481.8	2,065.0	2,244.2	2,229.9	14.34	156.521	
3,248.0	3,216.8	2,918.6	2,880.7	9.2	8.6	8.09	-1,488.6	2,066.2	2,245.7	2,231.2	14.56	154.264	
3,300.0	3,268.5	2,971.1	2,932.2	9.3	8.8	8.29	-1,498.7	2,068.2	2,248.3	2,233.5	14.84	151.546	
3,346.4	3,314.8	3,023.9	2,984.0	9.4	9.0	8.48	-1,508.6	2,070.3	2,251.4	2,236.3	15.09	149.203	
3,400.0	3,368.3	3,098.9	3,057.8	9.6	9.3	8.73	-1,521.7	2,073.5	2,255.7	2,240.2	15.41	146.374	
3,444.9	3,413.1	3,203.0	3,160.6	9.6	9.7	9.03	-1,537.9	2,077.0	2,259.2	2,243.4	15.78	143.205	
3,500.0	3,468.2	3,281.4	3,238.1	9.7	9.9	9.26	-1,549.1	2,078.2	2,263.1	2,247.0	16.08	140.719	
3,543.3	3,511.5	3,317.4	3,273.8	9.8	10.0	9.37	-1,554.3	2,078.7	2,266.9	2,250.7	16.25	139.528	
3,553.7	3,521.9	3,326.0	3,282.3	9.8	10.1	128.05	-1,555.5	2,078.8	2,268.0	2,249.5	18.45	122.936	
3,600.0	3,568.2	3,334.0	3,290.2	9.9	10.1	128.07	-1,556.7	2,079.0	2,273.0	2,254.5	18.54	122.576	
3,641.7	3,609.9	3,372.5	3,328.2	10.0	10.2	128.17	-1,562.6	2,079.7	2,277.7	2,259.0	18.74	121.561	
3,700.0	3,668.2	3,419.0	3,374.0	10.1	10.4	128.31	-1,570.7	2,081.1	2,285.3	2,266.3	18.99	120.373	
3,740.1	3,708.4	3,419.0	3,374.0	10.1	10.4	128.31	-1,570.7	2,081.1	2,290.7	2,271.6	19.05	120.233	
3,800.0	3,768.2	3,466.7	3,420.9	10.2	10.6	128.46	-1,579.6	2,082.8	2,299.4	2,280.0	19.32	118.991	
3,838.6	3,806.8	3,505.0	3,458.4	10.3	10.8	128.58	-1,586.9	2,084.2	2,305.2	2,285.6	19.53	118.051	
3,900.0	3,868.2	3,538.8	3,491.5	10.4	10.9	128.70	-1,593.6	2,085.6	2,314.7	2,294.9	19.76	117.147	
3,937.0	3,905.2	3,563.8	3,516.0	10.5	11.0	128.78	-1,598.8	2,086.6	2,320.7	2,300.8	19.92	116.515	
4,000.0	3,968.2	3,609.6	3,560.6	10.6	11.2	128.94	-1,608.7	2,088.5	2,331.3	2,311.1	20.20	115.390	
4,035.4	4,003.6	3,638.3	3,588.6	10.6	11.3	129.05	-1,615.0	2,089.7	2,337.5	2,317.1	20.38	114.694	
4,100.0	4,068.2	3,694.2	3,643.0	10.7	11.6	129.24	-1,627.3	2,092.2	2,348.9	2,328.2	20.72	113.389	
4,133.8	4,102.1	3,728.4	3,676.4	10.8	11.7	129.36	-1,634.9	2,093.8	2,354.9	2,334.0	20.91	112.616	
4,200.0	4,168.2	3,796.6	3,742.9	10.9	12.0	129.60	-1,649.9	2,097.0	2,366.6	2,345.3	21.30	111.134	
4,232.3	4,200.5	3,830.5	3,775.9	11.0	12.2	129.71	-1,657.2	2,098.7	2,372.3	2,350.9	21.48	110.422	
4,300.0	4,268.2	3,912.2	3,855.8	11.1	12.5	129.96	-1,673.9	2,103.1	2,384.1	2,362.2	21.92	108.770	
4,330.7	4,298.9	3,943.1	3,886.1	11.1	12.6	130.03	-1,679.7	2,105.0	2,389.3	2,367.2	22.09	108.152	
4,400.0	4,368.2	3,994.4	3,936.3	11.3	12.9	130.17	-1,689.7	2,108.1	2,401.3	2,378.9	22.41	107.131	
4,429.1	4,397.3	4,018.0	3,959.3	11.3	13.0	130.24	-1,694.5	2,109.5	2,406.5	2,383.9	22.56	106.677	
4,500.0	4,468.2	4,069.0	4,009.0	11.4	13.2	130.40	-1,705.5	2,112.4	2,419.5	2,396.6	22.90	105.676	
4,527.5	4,495.8	4,089.5	4,029.0	11.5	13.3	130.46	-1,710.1	2,113.5	2,424.7	2,401.7	23.03	105.283	
4,600.0	4,568.2	4,198.0	4,134.4	11.6	13.8	130.86	-1,735.5	2,117.6	2,438.0	2,414.4	23.61	103.271	
4,626.0	4,594.2	4,224.7	4,160.3	11.7	13.9	130.97	-1,741.9	2,118.1	2,442.6	2,418.8	23.76	102.788	
4,700.0	4,668.2	4,303.2	4,236.6	11.8	14.3	131.27	-1,760.4	2,119.9	2,455.5	2,431.2	24.21	101.409	
4,724.4	4,692.6	4,330.4	4,262.9	11.9	14.4	131.38	-1,766.9	2,120.3	2,459.7	2,435.3	24.37	100.941	
4,800.0	4,768.2	4,463.7	4,392.8	12.0	15.0	131.89	-1,797.3	2,121.8	2,472.0	2,447.0	25.02	98.795	
4,822.8	4,791.0	4,498.4	4,426.7	12.0	15.1	132.00	-1,804.2	2,122.4	2,475.3	2,450.1	25.19	98.272	
4,900.0	4,868.2	4,635.5	4,561.8	12.2	15.6	132.37	-1,827.9	2,125.3	2,485.6	2,459.8	25.80	96.354	
4,921.2	4,889.5	4,670.5	4,596.4	12.2	15.7	132.44	-1,833.1	2,126.1	2,488.1	2,462.2	25.95	95.896	

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

Anticollision Report



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Project:	WELD COUNTY, COLORADO	TVD Reference:	KB-EST @ 4624.0usft (Original Well Elev)
Reference Site:	SW NW SEC. 10 T5N R64W 6th P.M.	MD Reference:	KB-EST @ 4624.0usft (Original Well Elev)
Site Error:	0.0 usft	North Reference:	True
Reference Well:	WACKER 10G-214	Survey Calculation Method:	Minimum Curvature
Well Error:	0.0 usft	Output errors are at	2.00 sigma
Reference Wellbore	ORIGINAL WELLBORE	Database:	EDM 5000.1 Single User Db
Reference Design:	PROPOSAL #1	Offset TVD Reference:	Offset Datum

Offset Design												Offset Site Error:	0.0 usft
Survey Program: 683-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	
5,000.0	4,968.2	4,941.9	4,866.3	12.4	16.4	132.88	-1,860.2	2,127.4	2,492.7	2,466.0	26.77	93.118	
5,019.7	4,987.9	5,053.1	4,977.3	12.4	16.6	133.01	-1,865.7	2,125.3	2,493.2	2,466.2	27.01	92.318	
5,100.0	5,068.2	5,157.5	5,081.7	12.6	16.8	133.04	-1,866.5	2,123.9	2,492.8	2,465.5	27.30	91.303	
5,118.1	5,086.3	5,175.9	5,100.1	12.6	16.8	133.05	-1,866.5	2,123.7	2,492.6	2,465.3	27.36	91.104	
5,200.0	5,168.2	5,255.8	5,180.0	12.7	16.9	133.06	-1,866.4	2,122.9	2,491.9	2,464.3	27.62	90.222	
5,216.5	5,184.7	5,271.3	5,195.5	12.8	16.9	133.06	-1,866.4	2,122.7	2,491.8	2,464.1	27.67	90.048	
5,300.0	5,268.2	5,343.9	5,268.1	12.9	17.0	133.08	-1,866.6	2,122.0	2,491.4	2,463.4	27.93	89.198	
5,314.9	5,283.2	5,356.4	5,280.6	13.0	17.0	133.08	-1,866.6	2,122.0	2,491.3	2,463.4	27.98	89.051	
5,340.9	5,309.1	5,377.9	5,302.1	13.0	17.0	133.08	-1,866.7	2,121.9	2,491.3	2,463.3	28.06	88.797	
5,400.0	5,368.2	5,431.6	5,355.8	13.1	17.1	133.08	-1,866.8	2,121.9	2,491.4	2,463.1	28.25	88.198	
5,413.4	5,381.6	5,444.0	5,368.2	13.2	17.1	133.08	-1,866.8	2,121.9	2,491.4	2,463.1	28.29	88.063	
5,500.0	5,468.2	5,535.0	5,459.2	13.3	17.3	133.08	-1,867.0	2,122.0	2,491.6	2,463.0	28.59	87.146	
5,511.8	5,480.0	5,548.2	5,472.4	13.3	17.3	133.08	-1,867.0	2,122.0	2,491.6	2,463.0	28.63	87.018	
5,600.0	5,568.2	5,636.3	5,560.5	13.5	17.4	133.09	-1,867.2	2,121.8	2,491.6	2,462.7	28.93	86.118	
5,610.2	5,578.4	5,647.2	5,571.4	13.5	17.4	133.09	-1,867.3	2,121.8	2,491.6	2,462.7	28.97	86.012	
5,700.0	5,668.2	5,751.0	5,675.2	13.7	17.5	133.09	-1,867.2	2,121.4	2,491.3	2,462.1	29.29	85.049	
5,708.6	5,676.9	5,760.0	5,684.2	13.7	17.5	133.09	-1,867.1	2,121.4	2,491.3	2,462.0	29.32	84.961	
5,800.0	5,768.2	5,850.6	5,774.8	13.9	17.7	133.09	-1,866.6	2,121.1	2,490.7	2,461.1	29.63	84.060	
5,807.1	5,775.3	5,857.2	5,781.4	13.9	17.7	133.09	-1,866.6	2,121.1	2,490.7	2,461.0	29.65	83.993	
5,900.0	5,868.2	5,940.4	5,864.6	14.1	17.8	133.08	-1,866.2	2,121.0	2,490.4	2,460.4	29.96	83.132	
5,905.5	5,873.7	5,945.2	5,869.4	14.1	17.8	133.08	-1,866.2	2,121.0	2,490.4	2,460.4	29.97	83.082	
5,926.3	5,894.5	5,963.3	5,887.5	14.2	17.8	133.08	-1,866.2	2,121.1	2,490.3	2,460.3	30.04	82.895	
5,960.7	5,928.9	5,994.4	5,918.6	14.2	17.8	133.08	-1,866.1	2,121.1	2,490.4	2,460.2	30.16	82.582	
6,000.0	5,968.2	6,033.6	5,957.8	14.3	17.9	-136.89	-1,866.1	2,121.2	2,491.2	2,463.3	27.88	89.347	
6,003.9	5,972.1	6,037.5	5,961.7	14.3	17.9	-136.88	-1,866.1	2,121.2	2,491.4	2,463.5	27.88	89.348	
6,050.0	6,018.0	6,082.9	6,007.1	14.4	18.0	-136.78	-1,866.1	2,121.3	2,494.6	2,466.7	27.87	89.519	
6,100.0	6,067.3	6,130.8	6,055.0	14.4	18.0	-136.58	-1,866.0	2,121.5	2,500.5	2,472.7	27.77	90.048	
6,102.3	6,069.6	6,133.1	6,057.3	14.4	18.0	-136.57	-1,866.0	2,121.5	2,500.8	2,473.1	27.76	90.082	
6,150.0	6,116.0	6,180.2	6,104.3	14.4	18.1	-136.29	-1,865.9	2,121.8	2,508.9	2,481.3	27.60	90.909	
6,200.0	6,163.8	6,230.8	6,155.0	14.5	18.2	-135.92	-1,865.7	2,122.1	2,519.8	2,492.5	27.36	92.083	
6,200.8	6,164.5	6,231.6	6,155.8	14.5	18.2	-135.91	-1,865.7	2,122.1	2,520.0	2,492.7	27.36	92.104	
6,250.0	6,210.4	6,281.6	6,205.8	14.5	18.2	-135.46	-1,865.3	2,122.4	2,533.2	2,506.1	27.08	93.552	
6,299.2	6,254.9	6,327.0	6,251.2	14.5	18.3	-134.87	-1,865.0	2,122.6	2,548.6	2,521.9	26.75	95.278	
6,300.0	6,255.6	6,327.0	6,251.2	14.5	18.3	-134.85	-1,865.0	2,122.6	2,548.9	2,522.1	26.74	95.313	
6,350.0	6,299.3	6,369.7	6,293.9	14.5	18.4	-134.11	-1,864.6	2,122.8	2,567.0	2,540.6	26.38	97.292	
6,397.6	6,339.2	6,405.5	6,329.7	14.6	18.4	-133.22	-1,864.4	2,123.0	2,586.5	2,560.5	26.04	99.317	
6,400.0	6,341.2	6,407.3	6,331.4	14.6	18.4	-133.17	-1,864.4	2,123.0	2,587.6	2,561.5	26.03	99.421	
6,450.0	6,381.0	6,451.5	6,375.7	14.6	18.5	-132.15	-1,864.2	2,123.3	2,610.4	2,584.7	25.71	101.516	
6,496.0	6,415.8	6,491.1	6,415.3	14.7	18.5	-131.07	-1,863.8	2,123.5	2,633.4	2,607.9	25.49	103.323	
6,500.0	6,418.7	6,494.4	6,418.6	14.7	18.5	-130.96	-1,863.8	2,123.5	2,635.4	2,610.0	25.47	103.474	
6,550.0	6,453.9	6,526.7	6,450.8	14.8	18.6	-129.45	-1,863.4	2,123.7	2,662.6	2,637.2	25.33	105.134	
6,594.5	6,483.1	6,552.6	6,476.8	15.0	18.6	-127.87	-1,863.1	2,123.9	2,688.4	2,663.1	25.33	106.144	
6,600.0	6,486.6	6,555.7	6,479.8	15.1	18.6	-127.66	-1,863.1	2,123.9	2,691.8	2,666.4	25.34	106.245	
6,650.0	6,516.6	6,582.1	6,506.3	15.3	18.6	-125.56	-1,862.8	2,124.2	2,722.9	2,697.4	25.54	106.598	
6,692.9	6,540.0	6,601.3	6,525.5	15.7	18.7	-123.47	-1,862.6	2,124.4	2,751.2	2,725.2	25.92	106.157	
6,700.0	6,543.7	6,604.3	6,528.4	15.7	18.7	-123.09	-1,862.6	2,124.4	2,756.0	2,730.0	25.99	106.037	
6,750.0	6,567.8	6,623.8	6,547.9	16.2	18.7	-120.23	-1,862.4	2,124.6	2,790.7	2,764.0	26.70	104.517	
6,791.3	6,585.4	6,637.9	6,562.1	16.7	18.7	-117.53	-1,862.3	2,124.8	2,820.5	2,793.0	27.50	102.577	
6,800.0	6,588.8	6,640.7	6,564.8	16.8	18.7	-116.93	-1,862.3	2,124.8	2,826.9	2,799.2	27.68	102.130	
6,850.0	6,606.6	6,654.9	6,579.0	17.4	18.7	-113.16	-1,862.2	2,125.0	2,864.5	2,835.6	28.91	99.095	
6,889.7	6,618.4	6,669.0	6,593.2	18.0	18.8	-109.94	-1,862.2	2,125.2	2,895.3	2,865.3	30.02	96.450	
6,900.0	6,621.1	6,669.0	6,593.2	18.2	18.8	-108.97	-1,862.2	2,125.2	2,903.3	2,873.0	30.32	95.746	

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

Anticollision Report



Company:	PDC ENERGY	Local Co-ordinate Reference:	Well WACKER 10G-214
Project:	WELD COUNTY, COLORADO	TVD Reference:	KB-EST @ 4624.0usft (Original Well Elev)
Reference Site:	SW NW SEC. 10 T5N R64W 6th P.M.	MD Reference:	KB-EST @ 4624.0usft (Original Well Elev)
Site Error:	0.0 usft	North Reference:	True
Reference Well:	WACKER 10G-214	Survey Calculation Method:	Minimum Curvature
Well Error:	0.0 usft	Output errors are at	2.00 sigma
Reference Wellbore	ORIGINAL WELLBORE	Database:	EDM 5000.1 Single User Db
Reference Design:	PROPOSAL #1	Offset TVD Reference:	Offset Datum

Offset Design												Offset Site Error:	0.0 usft
Survey Program: 683-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	
6,950.0	6,632.2	6,669.0	6,593.2	19.0	18.8	-103.93	-1,862.2	2,125.2	2,943.1	2,911.2	31.88	92.306	
6,988.2	6,638.4	6,669.0	6,593.2	19.7	18.8	-99.80	-1,862.2	2,125.2	2,974.0	2,941.0	33.08	89.915	
7,000.0	6,639.9	6,669.0	6,593.2	19.9	18.8	-98.48	-1,862.2	2,125.2	2,983.7	2,950.3	33.43	89.258	
7,050.0	6,644.1	6,682.1	6,606.3	20.8	18.8	-93.15	-1,862.2	2,125.3	3,024.8	2,990.0	34.83	86.851	
7,086.5	6,645.0	6,682.4	6,606.6	21.5	18.8	-88.82	-1,862.2	2,125.3	3,055.1	3,019.4	35.72	85.542	
7,100.0	6,645.0	6,682.3	6,606.5	21.8	18.8	-88.82	-1,862.2	2,125.3	3,066.3	3,030.3	35.98	85.222	
7,185.0	6,644.9	6,681.4	6,605.6	23.6	18.8	-88.79	-1,862.2	2,125.3	3,137.5	3,099.7	37.74	83.136	
7,200.0	6,644.8	6,681.3	6,605.4	23.9	18.8	-88.78	-1,862.2	2,125.3	3,150.1	3,112.0	38.05	82.791	
7,283.4	6,644.7	6,669.0	6,593.2	25.7	18.8	-88.37	-1,862.2	2,125.2	3,220.7	3,180.9	39.87	80.772	
7,300.0	6,644.7	6,669.0	6,593.2	26.1	18.8	-88.37	-1,862.2	2,125.2	3,234.8	3,194.6	40.24	80.388	
7,381.9	6,644.6	6,669.0	6,593.2	28.0	18.8	-88.37	-1,862.2	2,125.2	3,304.8	3,262.6	42.13	78.435	
7,400.0	6,644.6	6,669.0	6,593.2	28.4	18.8	-88.37	-1,862.2	2,125.2	3,320.3	3,277.8	42.55	78.027	
7,480.3	6,644.5	6,669.0	6,593.2	30.3	18.8	-88.37	-1,862.2	2,125.2	3,389.6	3,345.1	44.48	76.209	
7,500.0	6,644.4	6,669.0	6,593.2	30.8	18.8	-88.37	-1,862.2	2,125.2	3,406.7	3,361.7	44.95	75.788	
7,578.7	6,644.3	6,669.0	6,593.2	32.7	18.8	-88.37	-1,862.2	2,125.2	3,475.1	3,428.3	46.89	74.116	
7,600.0	6,644.3	6,669.0	6,593.2	33.3	18.8	-88.37	-1,862.2	2,125.2	3,493.7	3,446.3	47.41	73.690	
7,677.1	6,644.2	6,669.0	6,593.2	35.2	18.8	-88.37	-1,862.2	2,125.2	3,561.3	3,512.0	49.35	72.165	
7,700.0	6,644.1	6,669.0	6,593.2	35.8	18.8	-88.37	-1,862.2	2,125.2	3,581.4	3,531.5	49.92	71.738	
7,775.6	6,644.0	6,669.0	6,593.2	37.7	18.8	-88.37	-1,862.2	2,125.2	3,648.2	3,596.3	51.85	70.354	
7,800.0	6,644.0	6,669.0	6,593.2	38.3	18.8	-88.37	-1,862.2	2,125.2	3,669.8	3,617.3	52.48	69.930	
7,874.0	6,643.9	6,669.0	6,593.2	40.2	18.8	-88.37	-1,862.2	2,125.2	3,735.6	3,681.2	54.39	68.678	
7,900.0	6,643.9	6,669.0	6,593.2	40.9	18.8	-88.37	-1,862.2	2,125.2	3,758.7	3,703.7	55.07	68.260	
7,972.4	6,643.8	6,669.0	6,593.2	42.8	18.8	-88.37	-1,862.2	2,125.2	3,823.5	3,766.5	56.96	67.127	
8,000.0	6,643.7	6,669.0	6,593.2	43.5	18.8	-88.37	-1,862.2	2,125.2	3,848.2	3,790.5	57.68	66.716	
8,070.8	6,643.6	6,669.0	6,593.2	45.4	18.8	-88.37	-1,862.2	2,125.2	3,911.9	3,852.4	59.55	65.692	
8,100.0	6,643.6	6,669.0	6,593.2	46.2	18.8	-88.37	-1,862.2	2,125.2	3,938.2	3,877.9	60.32	65.290	
8,169.3	6,643.5	6,669.0	6,593.2	48.0	18.8	-88.37	-1,862.2	2,125.2	4,000.8	3,938.7	62.16	64.364	
8,200.0	6,643.5	6,669.0	6,593.2	48.8	18.8	-88.37	-1,862.2	2,125.2	4,028.7	3,965.7	62.98	63.972	
8,267.7	6,643.4	6,669.0	6,593.2	50.6	18.8	-88.37	-1,862.2	2,125.2	4,090.2	4,025.4	64.79	63.134	
8,300.0	6,643.3	6,669.0	6,593.2	51.5	18.8	-88.37	-1,862.2	2,125.2	4,119.6	4,053.9	65.65	62.752	
8,366.1	6,643.2	6,669.0	6,593.2	53.3	18.8	-88.37	-1,862.2	2,125.2	4,179.9	4,112.5	67.43	61.993	
8,400.0	6,643.2	6,669.0	6,593.2	54.2	18.8	-88.37	-1,862.2	2,125.2	4,210.9	4,142.6	68.34	61.620	
8,464.5	6,643.1	6,669.0	6,593.2	55.9	18.8	-88.37	-1,862.2	2,125.2	4,270.0	4,200.0	70.08	60.932	
8,500.0	6,643.1	6,669.0	6,593.2	56.9	18.8	-88.37	-1,862.2	2,125.2	4,302.6	4,231.6	71.04	60.570	
8,563.0	6,643.0	6,669.0	6,593.2	58.6	18.8	-88.37	-1,862.2	2,125.2	4,360.5	4,287.8	72.74	59.946	
8,600.0	6,642.9	6,669.0	6,593.2	59.6	18.8	-88.37	-1,862.2	2,125.2	4,394.7	4,320.9	73.74	59.593	
8,661.4	6,642.8	6,669.0	6,593.2	61.3	18.8	-88.37	-1,862.2	2,125.2	4,451.4	4,375.9	75.41	59.026	
8,700.0	6,642.8	6,669.0	6,593.2	62.3	18.8	-88.37	-1,862.2	2,125.2	4,487.1	4,410.6	76.46	58.683	
8,759.8	6,642.7	6,669.0	6,593.2	64.0	18.8	-88.37	-1,862.2	2,125.2	4,542.5	4,464.4	78.09	58.167	
8,800.0	6,642.7	6,669.0	6,593.2	65.1	18.8	-88.37	-1,862.2	2,125.2	4,579.8	4,500.6	79.19	57.834	
8,858.2	6,642.6	6,669.0	6,593.2	66.6	18.8	-88.37	-1,862.2	2,125.2	4,633.9	4,553.2	80.78	57.364	
8,900.0	6,642.5	6,669.0	6,593.2	67.8	18.8	-88.37	-1,862.2	2,125.2	4,672.8	4,590.9	81.92	57.040	
8,956.7	6,642.4	6,669.0	6,593.2	69.3	18.8	-88.37	-1,862.2	2,125.2	4,725.7	4,642.2	83.47	56.612	
9,000.0	6,642.4	6,669.0	6,593.2	70.5	18.8	-88.37	-1,862.2	2,125.2	4,766.1	4,681.4	84.66	56.297	
9,055.1	6,642.3	6,669.0	6,593.2	72.0	18.8	-88.37	-1,862.2	2,125.2	4,817.6	4,731.5	86.17	55.907	
9,100.0	6,642.3	6,669.0	6,593.2	73.3	18.8	-88.37	-1,862.2	2,125.2	4,859.7	4,772.3	87.40	55.600	
9,153.5	6,642.2	6,669.0	6,593.2	74.7	18.8	-88.37	-1,862.2	2,125.2	4,909.9	4,821.0	88.88	55.244	
9,200.0	6,642.1	6,669.0	6,593.2	76.0	18.8	-88.38	-1,862.2	2,125.2	4,953.5	4,863.3	90.15	54.945	
9,251.9	6,642.1	6,669.0	6,593.2	77.5	18.8	-88.38	-1,862.2	2,125.2	5,002.3	4,910.8	91.58	54.620	
9,300.0	6,642.0	6,660.1	6,584.3	78.8	18.7	-88.08	-1,862.2	2,125.1	5,047.6	4,954.7	92.89	54.342	
9,350.4	6,641.9	6,659.6	6,583.8	80.2	18.7	-88.06	-1,862.2	2,125.1	5,095.0	5,000.7	94.27	54.045	
9,400.0	6,641.9	6,659.1	6,583.2	81.5	18.7	-88.04	-1,862.2	2,125.1	5,141.8	5,046.2	95.64	53.763	

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

Anticollision Report



Company:	PDC ENERGY	Local Co-ordinate Reference:	Well WACKER 10G-214
Project:	WELD COUNTY, COLORADO	TVD Reference:	KB-EST @ 4624.0usft (Original Well Elev)
Reference Site:	SW NW SEC. 10 T5N R64W 6th P.M.	MD Reference:	KB-EST @ 4624.0usft (Original Well Elev)
Site Error:	0.0 usft	North Reference:	True
Reference Well:	WACKER 10G-214	Survey Calculation Method:	Minimum Curvature
Well Error:	0.0 usft	Output errors are at	2.00 sigma
Reference Wellbore	ORIGINAL WELLBORE	Database:	EDM 5000.1 Single User Db
Reference Design:	PROPOSAL #1	Offset TVD Reference:	Offset Datum

Offset Design												Offset Site Error:	0.0 usft
Survey Program: 683-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	6,641.8	6,658.6	6,582.7	82.9	18.7	-88.02	-1,862.2	2,125.1	5,187.9	5,090.9	96.99	53.492	
9,500.0	6,641.7	6,658.0	6,582.2	84.3	18.7	-88.01	-1,862.2	2,125.0	5,236.3	5,137.9	98.40	53.216	
9,547.2	6,641.7	6,657.5	6,581.7	85.6	18.7	-87.99	-1,862.2	2,125.0	5,281.0	5,181.3	99.70	52.969	
9,600.0	6,641.6	6,657.0	6,581.1	87.1	18.7	-87.97	-1,862.2	2,125.0	5,331.0	5,229.9	101.16	52.700	
9,645.6	6,641.5	6,656.5	6,580.7	88.3	18.7	-87.96	-1,862.2	2,125.0	5,374.3	5,271.9	102.42	52.474	
9,700.0	6,641.5	6,655.9	6,580.1	89.8	18.7	-87.94	-1,862.2	2,125.0	5,425.9	5,322.0	103.92	52.212	
9,744.1	6,641.4	6,655.5	6,579.6	91.0	18.7	-87.92	-1,862.2	2,125.0	5,467.8	5,362.6	105.14	52.005	
9,800.0	6,641.3	6,654.9	6,579.1	92.6	18.7	-87.90	-1,862.2	2,125.0	5,521.0	5,414.3	106.69	51.750	
9,842.5	6,641.3	6,654.5	6,578.6	93.8	18.7	-87.89	-1,862.2	2,125.0	5,561.4	5,453.6	107.86	51.561	
9,900.0	6,641.2	6,653.9	6,578.0	95.4	18.7	-87.87	-1,862.2	2,125.0	5,616.2	5,506.8	109.45	51.311	
9,940.9	6,641.1	6,653.4	6,577.6	96.5	18.7	-87.85	-1,862.2	2,125.0	5,655.2	5,544.6	110.59	51.138	
10,000.0	6,641.1	6,652.8	6,577.0	98.1	18.7	-87.83	-1,862.2	2,125.0	5,711.6	5,599.4	112.22	50.895	
10,039.3	6,641.0	6,652.4	6,576.6	99.2	18.7	-87.82	-1,862.2	2,125.0	5,749.2	5,635.9	113.31	50.737	
10,100.0	6,640.9	6,651.8	6,575.9	100.9	18.7	-87.80	-1,862.2	2,125.0	5,807.2	5,692.2	114.99	50.499	
10,137.8	6,640.9	6,651.4	6,575.6	102.0	18.7	-87.79	-1,862.2	2,125.0	5,843.3	5,727.2	116.04	50.355	
10,200.0	6,640.8	6,650.7	6,574.9	103.7	18.7	-87.77	-1,862.2	2,125.0	5,902.9	5,785.1	117.77	50.123	
10,236.2	6,640.8	6,650.4	6,574.5	104.7	18.7	-87.75	-1,862.2	2,125.0	5,937.5	5,818.8	118.77	49.991	
10,300.0	6,640.7	6,649.7	6,573.9	106.5	18.7	-87.73	-1,862.2	2,124.9	5,998.7	5,878.2	120.54	49.764	
10,334.6	6,640.6	6,649.4	6,573.5	107.4	18.7	-87.72	-1,862.2	2,124.9	6,031.9	5,910.4	121.50	49.644	
10,400.0	6,640.6	6,648.7	6,572.8	109.3	18.7	-87.70	-1,862.2	2,124.9	6,094.7	5,971.4	123.32	49.422	
10,433.0	6,640.5	6,648.3	6,572.5	110.2	18.7	-87.69	-1,862.2	2,124.9	6,126.4	6,002.2	124.24	49.312	
10,500.0	6,640.4	6,647.7	6,571.8	112.0	18.7	-87.66	-1,862.2	2,124.9	6,190.8	6,064.7	126.10	49.096	
10,531.5	6,640.4	6,647.3	6,571.5	112.9	18.7	-87.65	-1,862.3	2,124.9	6,221.0	6,094.1	126.97	48.996	
10,600.0	6,640.3	6,646.6	6,570.8	114.8	18.7	-87.63	-1,862.3	2,124.9	6,287.0	6,158.1	128.87	48.784	
10,629.9	6,640.3	6,646.3	6,570.5	115.7	18.7	-87.62	-1,862.3	2,124.9	6,315.8	6,186.1	129.71	48.693	
10,700.0	6,640.2	6,645.6	6,569.8	117.6	18.7	-87.60	-1,862.3	2,124.9	6,383.3	6,251.7	131.65	48.485	
10,728.3	6,640.1	6,645.3	6,569.5	118.4	18.7	-87.59	-1,862.3	2,124.9	6,410.6	6,278.2	132.44	48.403	
10,800.0	6,640.0	6,644.6	6,568.8	120.4	18.7	-87.56	-1,862.3	2,124.9	6,479.8	6,345.3	134.44	48.200	
10,826.7	6,640.0	6,644.3	6,568.5	121.2	18.7	-87.55	-1,862.3	2,124.9	6,505.6	6,370.4	135.18	48.126	
10,900.0	6,639.9	6,643.6	6,567.7	123.2	18.7	-87.53	-1,862.3	2,124.9	6,576.3	6,439.1	137.22	47.927	
10,925.2	6,639.9	6,643.3	6,567.5	123.9	18.7	-87.52	-1,862.3	2,124.9	6,600.7	6,462.7	137.92	47.859	
11,000.0	6,639.8	6,642.6	6,566.7	126.0	18.7	-87.50	-1,862.3	2,124.9	6,673.0	6,533.0	140.00	47.664	
11,023.6	6,639.8	6,642.3	6,566.5	126.6	18.7	-87.49	-1,862.3	2,124.9	6,695.8	6,555.2	140.66	47.604	
11,100.0	6,639.7	6,641.6	6,565.7	128.8	18.7	-87.46	-1,862.3	2,124.9	6,769.7	6,627.0	142.78	47.413	
11,122.0	6,639.6	6,641.3	6,565.5	129.4	18.7	-87.45	-1,862.3	2,124.9	6,791.1	6,647.7	143.40	47.359	
11,200.0	6,639.5	6,640.5	6,564.7	131.6	18.7	-87.43	-1,862.3	2,124.8	6,866.6	6,721.0	145.57	47.171	
11,220.4	6,639.5	6,640.3	6,564.5	132.1	18.7	-87.42	-1,862.3	2,124.8	6,886.4	6,740.3	146.14	47.123	
11,300.0	6,639.4	6,639.5	6,563.7	134.4	18.7	-87.40	-1,862.3	2,124.8	6,963.5	6,815.2	148.35	46.939	
11,318.9	6,639.4	6,639.4	6,563.5	134.9	18.7	-87.39	-1,862.3	2,124.8	6,981.8	6,833.0	148.88	46.897	
11,400.0	6,639.3	6,638.5	6,562.7	137.1	18.7	-87.36	-1,862.3	2,124.8	7,060.5	6,909.4	151.14	46.716	
11,417.3	6,639.3	6,638.4	6,562.5	137.6	18.7	-87.36	-1,862.3	2,124.8	7,077.3	6,925.7	151.62	46.679	
11,500.0	6,639.2	6,637.5	6,561.7	139.9	18.7	-87.33	-1,862.3	2,124.8	7,157.6	7,003.7	153.92	46.502	
11,515.7	6,639.1	6,637.4	6,561.5	140.4	18.7	-87.32	-1,862.3	2,124.8	7,172.9	7,018.6	154.36	46.469	
11,600.0	6,639.0	6,636.5	6,560.7	142.7	18.7	-87.30	-1,862.3	2,124.8	7,254.8	7,098.1	156.71	46.295	
11,614.1	6,639.0	6,636.4	6,560.6	143.1	18.7	-87.29	-1,862.3	2,124.8	7,268.6	7,111.5	157.10	46.266	
11,700.0	6,638.9	6,635.5	6,559.7	145.5	18.7	-87.26	-1,862.3	2,124.8	7,352.1	7,192.6	159.49	46.096	
11,712.6	6,638.9	6,635.4	6,559.6	145.9	18.7	-87.26	-1,862.3	2,124.8	7,364.3	7,204.5	159.85	46.071	
11,800.0	6,638.8	6,634.6	6,558.7	148.3	18.7	-87.23	-1,862.3	2,124.8	7,449.4	7,287.1	162.28	45.904	
11,811.0	6,638.8	6,634.4	6,558.6	148.6	18.7	-87.23	-1,862.3	2,124.8	7,460.1	7,297.5	162.59	45.883	
11,900.0	6,638.7	6,633.6	6,557.7	151.1	18.7	-87.20	-1,862.3	2,124.8	7,546.8	7,381.7	165.07	45.719	
11,909.4	6,638.6	6,633.5	6,557.6	151.4	18.7	-87.20	-1,862.3	2,124.8	7,556.0	7,390.7	165.33	45.702	
12,000.0	6,638.5	6,632.6	6,556.7	153.9	18.7	-87.17	-1,862.3	2,124.7	7,644.3	7,476.4	167.86	45.540	

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

Anticollision Report



Company:	PDC ENERGY	Local Co-ordinate Reference:	Well WACKER 10G-214
Project:	WELD COUNTY, COLORADO	TVD Reference:	KB-EST @ 4624.0usft (Original Well Elev)
Reference Site:	SW NW SEC. 10 T5N R64W 6th P.M.	MD Reference:	KB-EST @ 4624.0usft (Original Well Elev)
Site Error:	0.0 usft	North Reference:	True
Reference Well:	WACKER 10G-214	Survey Calculation Method:	Minimum Curvature
Well Error:	0.0 usft	Output errors are at	2.00 sigma
Reference Wellbore	ORIGINAL WELLBORE	Database:	EDM 5000.1 Single User Db
Reference Design:	PROPOSAL #1	Offset TVD Reference:	Offset Datum

Offset Design												Offset Site Error:	0.0 usft
Survey Program: 683-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	6,638.5	6,632.5	6,556.7	154.1	18.7	-87.16	-1,862.3	2,124.7	7,651.9	7,483.9	168.08	45.526	
12,100.0	6,638.4	6,631.6	6,555.8	156.7	18.7	-87.13	-1,862.3	2,124.7	7,741.8	7,571.2	170.65	45.368	
12,106.3	6,638.4	6,631.5	6,555.7	156.9	18.7	-87.13	-1,862.3	2,124.7	7,747.9	7,577.1	170.82	45.357	
12,200.0	6,638.3	6,630.6	6,554.8	159.5	18.7	-87.10	-1,862.3	2,124.7	7,839.4	7,666.0	173.43	45.201	
12,204.7	6,638.3	6,630.6	6,554.7	159.6	18.7	-87.10	-1,862.3	2,124.7	7,844.0	7,670.4	173.57	45.193	
12,300.0	6,638.2	6,629.6	6,553.8	162.3	18.7	-87.07	-1,862.4	2,124.7	7,937.0	7,760.8	176.22	45.040	
12,303.1	6,638.2	6,629.6	6,553.8	162.4	18.7	-87.07	-1,862.4	2,124.7	7,940.1	7,763.8	176.31	45.035	
12,400.0	6,638.0	6,628.6	6,552.8	165.1	18.7	-87.04	-1,862.4	2,124.7	8,034.8	7,855.7	179.01	44.884	
12,401.5	6,638.0	6,628.6	6,552.8	165.2	18.7	-87.04	-1,862.4	2,124.7	8,036.3	7,857.2	179.06	44.881	
12,500.0	6,637.9	6,627.7	6,551.8	167.9	18.7	-87.01	-1,862.4	2,124.7	8,132.5	7,950.7	181.80	44.733	
12,598.4	6,637.8	6,626.7	6,550.9	170.7	18.7	-86.97	-1,862.4	2,124.7	8,228.8	8,044.2	184.55	44.589	
12,600.0	6,637.8	6,626.7	6,550.9	170.7	18.7	-86.97	-1,862.4	2,124.7	8,230.3	8,045.7	184.59	44.587	
12,696.8	6,637.7	6,625.8	6,549.9	173.4	18.7	-86.94	-1,862.4	2,124.7	8,325.1	8,137.8	187.29	44.450	
12,700.0	6,637.7	6,625.7	6,549.9	173.5	18.7	-86.94	-1,862.4	2,124.7	8,328.2	8,140.8	187.38	44.445	
12,795.2	6,637.6	6,624.8	6,549.0	176.2	18.7	-86.91	-1,862.4	2,124.7	8,421.5	8,231.4	190.04	44.315	
12,800.0	6,637.6	6,624.8	6,548.9	176.3	18.7	-86.91	-1,862.4	2,124.7	8,426.1	8,236.0	190.17	44.308	
12,893.7	6,637.4	6,623.9	6,548.0	178.9	18.7	-86.88	-1,862.4	2,124.7	8,517.9	8,325.1	192.78	44.184	
12,900.0	6,637.4	6,623.8	6,548.0	179.1	18.7	-86.88	-1,862.4	2,124.6	8,524.1	8,331.1	192.96	44.175	
12,992.1	6,637.3	6,622.9	6,547.1	181.7	18.7	-86.85	-1,862.4	2,124.6	8,614.4	8,418.8	195.53	44.057	
13,000.0	6,637.3	6,622.8	6,547.0	181.9	18.7	-86.85	-1,862.4	2,124.6	8,622.1	8,426.4	195.75	44.046	
13,090.5	6,637.2	6,622.0	6,546.1	184.4	18.7	-86.82	-1,862.4	2,124.6	8,710.9	8,512.6	198.28	43.933	
13,100.0	6,637.2	6,621.9	6,546.0	184.7	18.7	-86.82	-1,862.4	2,124.6	8,720.2	8,521.6	198.54	43.921	
13,188.9	6,637.1	6,621.0	6,545.2	187.2	18.7	-86.79	-1,862.4	2,124.6	8,807.4	8,606.4	201.02	43.813	
13,200.0	6,637.1	6,620.9	6,545.1	187.5	18.7	-86.78	-1,862.4	2,124.6	8,818.3	8,616.9	201.33	43.800	
13,287.4	6,637.0	6,620.1	6,544.2	190.0	18.7	-86.76	-1,862.4	2,124.6	8,904.0	8,700.3	203.77	43.697	
13,300.0	6,637.0	6,619.9	6,544.1	190.3	18.7	-86.75	-1,862.4	2,124.6	8,916.4	8,712.3	204.12	43.682	
13,385.8	6,636.9	6,619.1	6,543.3	192.7	18.7	-86.73	-1,862.4	2,124.6	9,000.7	8,794.1	206.52	43.583	
13,400.0	6,636.8	6,619.0	6,543.2	193.1	18.7	-86.72	-1,862.4	2,124.6	9,014.6	8,807.7	206.91	43.567	
13,484.2	6,636.7	6,618.2	6,542.4	195.5	18.7	-86.70	-1,862.4	2,124.6	9,097.3	8,888.1	209.26	43.473	
13,500.0	6,636.7	6,618.0	6,542.2	195.9	18.7	-86.69	-1,862.4	2,124.6	9,112.8	8,903.1	209.70	43.456	
13,582.6	6,636.6	6,617.3	6,541.4	198.2	18.7	-86.66	-1,862.4	2,124.6	9,194.0	8,982.0	212.01	43.366	
13,600.0	6,636.6	6,617.1	6,541.3	198.7	18.7	-86.66	-1,862.4	2,124.6	9,211.1	8,998.6	212.49	43.348	
13,681.1	6,636.5	6,616.3	6,540.5	201.0	18.7	-86.63	-1,862.4	2,124.6	9,290.8	9,076.0	214.76	43.262	
13,700.0	6,636.5	6,616.1	6,540.3	201.5	18.7	-86.63	-1,862.4	2,124.6	9,309.4	9,094.1	215.28	43.243	
13,779.5	6,636.4	6,615.4	6,539.6	203.7	18.7	-86.60	-1,862.5	2,124.6	9,387.6	9,170.1	217.50	43.161	
13,800.0	6,636.4	6,615.2	6,539.4	204.3	18.7	-86.60	-1,862.5	2,124.6	9,407.7	9,189.7	218.07	43.140	
13,877.9	6,636.3	6,614.5	6,538.6	206.5	18.7	-86.57	-1,862.5	2,124.5	9,484.4	9,264.1	220.25	43.062	
13,900.0	6,636.3	6,614.3	6,538.4	207.1	18.7	-86.57	-1,862.5	2,124.5	9,506.1	9,285.2	220.86	43.040	
13,976.3	6,636.2	6,613.5	6,537.7	209.3	18.7	-86.54	-1,862.5	2,124.5	9,581.2	9,358.2	223.00	42.966	
14,000.0	6,636.1	6,613.3	6,537.5	209.9	18.7	-86.54	-1,862.5	2,124.5	9,604.5	9,380.8	223.66	42.943	
14,074.8	6,636.0	6,612.6	6,536.8	212.0	18.7	-86.51	-1,862.5	2,124.5	9,678.1	9,452.4	225.74	42.872	
14,100.0	6,636.0	6,612.4	6,536.5	212.7	18.7	-86.51	-1,862.5	2,124.5	9,702.9	9,476.5	226.45	42.849	
14,173.2	6,635.9	6,611.7	6,535.9	214.8	18.7	-86.48	-1,862.5	2,124.5	9,775.0	9,546.5	228.49	42.781	
14,200.0	6,635.9	6,611.4	6,535.6	215.5	18.7	-86.48	-1,862.5	2,124.5	9,801.4	9,572.2	229.24	42.757	
14,271.6	6,635.8	6,610.8	6,534.9	217.5	18.7	-86.45	-1,862.5	2,124.5	9,872.0	9,640.7	231.24	42.692	
14,300.0	6,635.8	6,610.5	6,534.7	218.3	18.7	-86.45	-1,862.5	2,124.5	9,899.9	9,667.9	232.03	42.667	
14,370.0	6,635.7	6,609.8	6,534.0	220.3	18.7	-86.42	-1,862.5	2,124.5	9,968.9	9,734.9	233.98	42.606	
14,400.0	6,635.7	6,609.6	6,533.7	221.1	18.7	-86.42	-1,862.5	2,124.5	9,998.4	9,763.6	234.82	42.580 SF	

Anticollision Report



Company:	PDC ENERGY	Local Co-ordinate Reference:	Well WACKER 10G-214
Project:	WELD COUNTY, COLORADO	TVD Reference:	KB-EST @ 4624.0usft (Original Well Elev)
Reference Site:	SW NW SEC. 10 T5N R64W 6th P.M.	MD Reference:	KB-EST @ 4624.0usft (Original Well Elev)
Site Error:	0.0 usft	North Reference:	True
Reference Well:	WACKER 10G-214	Survey Calculation Method:	Minimum Curvature
Well Error:	0.0 usft	Output errors are at	2.00 sigma
Reference Wellbore	ORIGINAL WELLBORE	Database:	EDM 5000.1 Single User Db
Reference Design:	PROPOSAL #1	Offset TVD Reference:	Offset Datum

Offset Design													SW NW SEC. 10 T5N R64W 6th P.M. - EXIST DD PJ #8I - Wellbore #1 - Wellbore #1		Offset Site Error:		0.0 usft
Survey Program: 510-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					
5,600.0	5,568.2	5,952.0	5,873.5	13.5	18.8	-91.77	-473.0	-9,687.4	9,999.8	9,969.9	29.82	335.305					
5,610.2	5,578.4	5,952.0	5,873.5	13.5	18.8	-91.77	-473.0	-9,687.4	9,999.4	9,969.6	29.84	335.064					
5,700.0	5,668.2	6,008.8	5,930.2	13.7	18.9	-91.77	-474.6	-9,685.6	9,996.6	9,966.5	30.12	331.839					
5,708.6	5,676.9	6,013.1	5,934.6	13.7	18.9	-91.78	-474.7	-9,685.4	9,996.4	9,966.2	30.15	331.553					
5,800.0	5,768.2	6,059.4	5,980.8	13.9	19.0	-91.78	-475.9	-9,684.2	9,994.0	9,963.6	30.42	328.569					
5,807.1	5,775.3	6,062.9	5,984.4	13.9	19.0	-91.78	-476.0	-9,684.1	9,993.9	9,963.4	30.44	328.340					
5,900.0	5,868.2	6,110.0	6,031.4	14.1	19.1	-91.79	-477.2	-9,683.1	9,991.9	9,961.2	30.71	325.368					
5,905.5	5,873.7	6,110.0	6,031.4	14.1	19.1	-91.79	-477.2	-9,683.1	9,991.8	9,961.1	30.72	325.247					
5,960.7	5,928.9	6,153.6	6,075.0	14.2	19.1	-91.80	-478.2	-9,682.3	9,990.8	9,959.9	30.91	323.269					
6,000.0	5,968.2	6,181.9	6,103.2	14.3	19.2	-1.80	-478.8	-9,681.8	9,989.1	9,960.0	29.14	342.826					
6,003.9	5,972.1	6,184.7	6,106.0	14.3	19.2	-1.81	-478.8	-9,681.7	9,988.8	9,959.7	29.13	342.865					
6,050.0	6,018.0	6,217.6	6,139.0	14.4	19.2	-1.82	-479.5	-9,681.2	9,983.9	9,954.8	29.03	343.905					
6,100.0	6,067.3	6,266.0	6,187.4	14.4	19.3	-1.85	-480.2	-9,680.5	9,975.3	9,946.4	28.83	346.017					
6,102.3	6,069.6	6,266.0	6,187.4	14.4	19.3	-1.85	-480.2	-9,680.5	9,974.8	9,945.9	28.81	346.199					
6,150.0	6,116.0	6,266.0	6,187.4	14.4	19.3	-1.88	-480.2	-9,680.5	9,963.3	9,934.9	28.42	350.524					
6,200.0	6,163.8	6,317.4	6,238.7	14.5	19.4	-1.93	-480.9	-9,679.9	9,948.0	9,920.0	28.00	355.339					
6,200.8	6,164.5	6,317.8	6,239.2	14.5	19.4	-1.93	-480.9	-9,679.9	9,947.8	9,919.8	27.99	355.432					
6,250.0	6,210.4	6,347.9	6,269.3	14.5	19.5	-1.99	-481.2	-9,679.6	9,929.6	9,902.2	27.43	362.045					
6,299.2	6,254.9	6,377.1	6,298.5	14.5	19.5	-2.06	-481.4	-9,679.4	9,908.4	9,881.6	26.77	370.158					
6,300.0	6,255.6	6,377.6	6,298.9	14.5	19.5	-2.06	-481.4	-9,679.4	9,908.0	9,881.2	26.76	370.302					
6,350.0	6,299.3	6,424.0	6,345.3	14.5	19.6	-2.15	-481.7	-9,679.1	9,883.4	9,857.4	26.02	379.785					
6,397.6	6,339.2	6,437.0	6,358.3	14.6	19.6	-2.25	-481.8	-9,679.1	9,857.3	9,832.1	25.20	391.165					
6,400.0	6,341.2	6,438.9	6,360.3	14.6	19.6	-2.26	-481.8	-9,679.1	9,855.9	9,830.7	25.16	391.744					
6,450.0	6,381.0	6,479.0	6,400.3	14.6	19.6	-2.39	-482.0	-9,678.9	9,825.5	9,801.3	24.27	404.887					
6,496.0	6,415.8	6,514.0	6,435.3	14.7	19.7	-2.54	-482.2	-9,678.7	9,795.2	9,771.8	23.40	418.668					
6,500.0	6,418.7	6,516.9	6,438.2	14.7	19.7	-2.55	-482.2	-9,678.7	9,792.5	9,769.2	23.32	419.928					
6,550.0	6,453.9	6,552.3	6,473.6	14.8	19.8	-2.75	-482.4	-9,678.6	9,756.9	9,734.6	22.33	436.883					
6,594.5	6,483.1	6,581.0	6,502.3	15.0	19.8	-2.97	-482.6	-9,678.4	9,723.3	9,701.8	21.44	453.518					
6,600.0	6,486.6	6,581.0	6,502.3	15.1	19.8	-3.00	-482.6	-9,678.4	9,719.0	9,697.7	21.32	455.800					
6,650.0	6,516.6	6,611.1	6,532.4	15.3	19.8	-3.31	-482.7	-9,678.3	9,678.9	9,658.5	20.33	476.136					
6,692.9	6,540.0	6,631.8	6,553.1	15.7	19.9	-3.64	-482.7	-9,678.2	9,642.9	9,623.4	19.50	494.482					
6,700.0	6,543.7	6,635.0	6,556.4	15.7	19.9	-3.70	-482.7	-9,678.2	9,636.8	9,617.4	19.37	497.564					
6,750.0	6,567.8	6,656.3	6,577.7	16.2	19.9	-4.23	-482.7	-9,678.1	9,592.9	9,574.4	18.49	518.893					
6,791.3	6,585.4	6,671.9	6,593.2	16.7	19.9	-4.80	-482.7	-9,678.1	9,555.5	9,537.7	17.86	535.172					
6,800.0	6,588.8	6,674.9	6,596.2	16.8	19.9	-4.94	-482.7	-9,678.1	9,547.5	9,529.8	17.74	538.327					
6,850.0	6,606.6	6,690.6	6,611.9	17.4	20.0	-5.96	-482.7	-9,678.0	9,500.8	9,483.6	17.18	552.987					
6,889.7	6,618.4	6,701.0	6,622.3	18.0	20.0	-7.16	-482.7	-9,678.0	9,462.8	9,445.9	16.95	558.211					
6,900.0	6,621.1	6,703.4	6,624.7	18.2	20.0	-7.56	-482.6	-9,678.0	9,452.9	9,436.0	16.93	558.221					
6,950.0	6,632.2	6,713.2	6,634.5	19.0	20.0	-10.33	-482.6	-9,677.9	9,404.2	9,386.9	17.24	545.489					
6,988.2	6,638.4	6,718.6	6,639.9	19.7	20.0	-14.32	-482.6	-9,677.9	9,366.5	9,348.2	18.30	511.760					
7,000.0	6,639.9	6,719.9	6,641.2	19.9	20.0	-16.25	-482.6	-9,677.9	9,354.8	9,335.8	18.94	493.927					
7,050.0	6,644.1	6,723.6	6,644.9	20.8	20.0	-36.02	-482.5	-9,677.9	9,305.0	9,278.1	26.94	345.460					
7,086.5	6,645.0	6,724.3	6,645.6	21.5	20.0	-96.74	-482.5	-9,677.9	9,268.5	9,229.2	39.28	235.932					
7,100.0	6,645.0	6,724.2	6,645.6	21.8	20.0	-96.74	-482.5	-9,677.9	9,255.0	9,215.5	39.55	234.013					
7,185.0	6,644.9	6,723.9	6,645.3	23.6	20.0	-96.68	-482.5	-9,677.9	9,170.1	9,128.8	41.30	222.028					
7,200.0	6,644.8	6,723.9	6,645.2	23.9	20.0	-96.67	-482.5	-9,677.9	9,155.1	9,113.5	41.61	220.019					
7,283.4	6,644.7	6,723.6	6,644.9	25.7	20.0	-96.62	-482.5	-9,677.9	9,071.7	9,028.3	43.45	208.806					
7,300.0	6,644.7	6,723.5	6,644.9	26.1	20.0	-96.60	-482.5	-9,677.9	9,055.2	9,011.3	43.81	206.691					
7,381.9	6,644.6	6,723.3	6,644.6	28.0	20.0	-96.55	-482.5	-9,677.9	8,973.3	8,927.6	45.70	196.361					
7,400.0	6,644.6	6,723.2	6,644.5	28.4	20.0	-96.53	-482.5	-9,677.9	8,955.2	8,909.1	46.12	194.186					
7,480.3	6,644.5	6,722.9	6,644.2	30.3	20.0	-96.48	-482.6	-9,677.9	8,875.0	8,826.9	48.04	184.760					
7,500.0	6,644.4	6,722.8	6,644.2	30.8	20.0	-96.47	-482.6	-9,677.9	8,855.3	8,806.8	48.51	182.560					

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

Anticollision Report



Company:	PDC ENERGY	Local Co-ordinate Reference:	Well WACKER 10G-214
Project:	WELD COUNTY, COLORADO	TVD Reference:	KB-EST @ 4624.0usft (Original Well Elev)
Reference Site:	SW NW SEC. 10 T5N R64W 6th P.M.	MD Reference:	KB-EST @ 4624.0usft (Original Well Elev)
Site Error:	0.0 usft	North Reference:	True
Reference Well:	WACKER 10G-214	Survey Calculation Method:	Minimum Curvature
Well Error:	0.0 usft	Output errors are at	2.00 sigma
Reference Wellbore	ORIGINAL WELLBORE	Database:	EDM 5000.1 Single User Db
Reference Design:	PROPOSAL #1	Offset TVD Reference:	Offset Datum

Offset Design												Offset Site Error:	0.0 usft
Survey Program: 510-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	
7,578.7	6,644.3	6,722.6	6,643.9	32.7	20.0	-96.42	-482.6	-9,677.9	8,776.6	8,726.2	50.44	174.007	
7,600.0	6,644.3	6,722.5	6,643.8	33.3	20.0	-96.40	-482.6	-9,677.9	8,755.4	8,704.4	50.96	171.805	
7,677.1	6,644.2	6,722.2	6,643.6	35.2	20.0	-96.35	-482.6	-9,677.9	8,678.3	8,625.4	52.89	164.068	
7,700.0	6,644.1	6,722.2	6,643.5	35.8	20.0	-96.33	-482.6	-9,677.9	8,655.4	8,602.0	53.47	161.883	
7,775.6	6,644.0	6,721.9	6,643.2	37.7	20.0	-96.29	-482.6	-9,677.9	8,579.9	8,524.5	55.39	154.893	
7,800.0	6,644.0	6,721.8	6,643.1	38.3	20.0	-96.26	-482.6	-9,677.9	8,555.5	8,499.5	56.02	152.735	
7,874.0	6,643.9	6,721.5	6,642.9	40.2	20.0	-96.22	-482.6	-9,677.9	8,481.5	8,423.6	57.93	146.421	
7,900.0	6,643.9	6,721.5	6,642.8	40.9	20.0	-96.20	-482.6	-9,677.9	8,455.6	8,397.0	58.60	144.299	
7,972.4	6,643.8	6,721.2	6,642.5	42.8	20.0	-96.15	-482.6	-9,677.9	8,383.2	8,322.7	60.49	138.594	
8,000.0	6,643.7	6,721.1	6,642.4	43.5	20.0	-96.13	-482.6	-9,677.9	8,355.6	8,294.4	61.21	136.513	
8,070.8	6,643.6	6,720.9	6,642.2	45.4	20.0	-96.09	-482.6	-9,677.9	8,284.8	8,221.8	63.07	131.353	
8,100.0	6,643.6	6,720.7	6,642.1	46.2	20.0	-96.06	-482.6	-9,677.9	8,255.7	8,191.9	63.84	129.316	
8,169.3	6,643.5	6,720.5	6,641.8	48.0	20.0	-96.02	-482.6	-9,677.9	8,186.5	8,120.8	65.68	124.645	
8,200.0	6,643.5	6,720.4	6,641.7	48.8	20.0	-95.99	-482.6	-9,677.9	8,155.8	8,089.3	66.49	122.654	
8,267.7	6,643.4	6,720.2	6,641.5	50.6	20.0	-95.95	-482.6	-9,677.9	8,088.1	8,019.8	68.30	118.419	
8,300.0	6,643.3	6,720.0	6,641.4	51.5	20.0	-95.93	-482.6	-9,677.9	8,055.9	7,986.7	69.16	116.475	
8,366.1	6,643.2	6,719.8	6,641.1	53.3	20.0	-95.88	-482.6	-9,677.9	7,989.8	7,918.8	70.94	112.630	
8,400.0	6,643.2	6,719.7	6,641.0	54.2	20.0	-95.86	-482.6	-9,677.9	7,955.9	7,884.1	71.85	110.733	
8,464.5	6,643.1	6,719.5	6,640.8	55.9	20.0	-95.82	-482.6	-9,677.9	7,891.4	7,817.9	73.59	107.238	
8,500.0	6,643.1	6,719.3	6,640.7	56.9	20.0	-95.79	-482.6	-9,677.9	7,856.0	7,781.5	74.54	105.387	
8,563.0	6,643.0	6,719.1	6,640.4	58.6	20.0	-95.75	-482.6	-9,677.9	7,793.1	7,716.8	76.25	102.206	
8,600.0	6,642.9	6,719.0	6,640.3	59.6	20.0	-95.72	-482.6	-9,677.9	7,756.1	7,678.8	77.25	100.401	
8,661.4	6,642.8	6,718.8	6,640.1	61.3	20.0	-95.68	-482.6	-9,677.9	7,694.8	7,615.8	78.92	97.502	
8,700.0	6,642.8	6,718.6	6,640.0	62.3	20.0	-95.65	-482.6	-9,677.9	7,656.2	7,576.2	79.97	95.741	
8,759.8	6,642.7	6,718.4	6,639.7	64.0	20.0	-95.62	-482.6	-9,677.9	7,596.4	7,514.8	81.60	93.096	
8,800.0	6,642.7	6,718.3	6,639.6	65.1	20.0	-95.59	-482.6	-9,677.9	7,556.3	7,473.6	82.69	91.378	
8,858.2	6,642.6	6,718.1	6,639.4	66.6	20.0	-95.55	-482.6	-9,677.9	7,498.1	7,413.8	84.28	88.962	
8,900.0	6,642.5	6,717.9	6,639.2	67.8	20.0	-95.52	-482.6	-9,677.9	7,456.4	7,370.9	85.42	87.286	
8,956.7	6,642.4	6,717.7	6,639.0	69.3	20.0	-95.48	-482.6	-9,677.9	7,399.7	7,312.8	86.98	85.078	
9,000.0	6,642.4	6,717.6	6,638.9	70.5	20.0	-95.45	-482.6	-9,677.9	7,356.5	7,268.3	88.16	83.441	
9,055.1	6,642.3	6,717.4	6,638.7	72.0	20.0	-95.41	-482.6	-9,677.9	7,301.4	7,211.7	89.67	81.421	
9,100.0	6,642.3	6,717.2	6,638.5	73.3	20.0	-95.38	-482.6	-9,677.9	7,256.6	7,165.6	90.91	79.823	
9,153.5	6,642.2	6,717.0	6,638.3	74.7	20.0	-95.35	-482.6	-9,677.9	7,203.1	7,110.7	92.38	77.973	
9,200.0	6,642.1	6,716.8	6,638.2	76.0	20.0	-95.31	-482.6	-9,677.9	7,156.7	7,063.0	93.66	76.413	
9,251.9	6,642.1	6,716.6	6,638.0	77.5	20.0	-95.28	-482.6	-9,677.9	7,104.8	7,009.7	95.09	74.718	
9,300.0	6,642.0	6,716.5	6,637.8	78.8	20.0	-95.24	-482.6	-9,677.9	7,056.8	6,960.3	96.41	73.194	
9,350.4	6,641.9	6,716.3	6,637.6	80.2	20.0	-95.21	-482.6	-9,677.9	7,006.4	6,908.6	97.80	71.640	
9,400.0	6,641.9	6,716.1	6,637.4	81.5	20.0	-95.18	-482.6	-9,677.9	6,956.9	6,857.7	99.17	70.151	
9,448.8	6,641.8	6,715.9	6,637.3	82.9	20.0	-95.14	-482.6	-9,677.9	6,908.1	6,807.6	100.52	68.725	
9,500.0	6,641.7	6,715.8	6,637.1	84.3	20.0	-95.11	-482.6	-9,677.9	6,857.0	6,755.0	101.93	67.270	
9,547.2	6,641.7	6,715.6	6,636.9	85.6	20.0	-95.08	-482.6	-9,677.9	6,809.8	6,706.5	103.24	65.962	
9,600.0	6,641.6	6,715.4	6,636.7	87.1	20.0	-95.04	-482.6	-9,677.9	6,757.1	6,652.4	104.70	64.538	
9,645.6	6,641.5	6,715.2	6,636.6	88.3	20.0	-95.01	-482.6	-9,677.9	6,711.5	6,605.5	105.96	63.338	
9,700.0	6,641.5	6,715.0	6,636.4	89.8	20.0	-94.97	-482.6	-9,677.9	6,657.2	6,549.7	107.47	61.946	
9,744.1	6,641.4	6,714.9	6,636.2	91.0	20.0	-94.94	-482.6	-9,677.9	6,613.2	6,504.5	108.69	60.845	
9,800.0	6,641.3	6,714.7	6,636.0	92.6	20.0	-94.90	-482.6	-9,677.9	6,557.3	6,447.1	110.24	59.482	
9,842.5	6,641.3	6,714.5	6,635.8	93.8	20.0	-94.87	-482.6	-9,677.9	6,514.9	6,403.4	111.42	58.472	
9,900.0	6,641.2	6,714.3	6,635.6	95.4	20.0	-94.83	-482.6	-9,677.9	6,457.4	6,344.4	113.01	57.138	
9,940.9	6,641.1	6,714.1	6,635.5	96.5	20.0	-94.80	-482.6	-9,677.9	6,416.5	6,302.4	114.15	56.211	
10,000.0	6,641.1	6,713.9	6,635.3	98.1	20.0	-94.76	-482.6	-9,677.9	6,357.5	6,241.8	115.79	54.905	
10,039.3	6,641.0	6,713.8	6,635.1	99.2	20.0	-94.74	-482.6	-9,677.9	6,318.2	6,201.4	116.89	54.055	
10,100.0	6,640.9	6,713.6	6,634.9	100.9	20.0	-94.69	-482.6	-9,677.9	6,257.7	6,139.1	118.57	52.775	

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

Anticollision Report



Company:	PDC ENERGY	Local Co-ordinate Reference:	Well WACKER 10G-214
Project:	WELD COUNTY, COLORADO	TVD Reference:	KB-EST @ 4624.0usft (Original Well Elev)
Reference Site:	SW NW SEC. 10 T5N R64W 6th P.M.	MD Reference:	KB-EST @ 4624.0usft (Original Well Elev)
Site Error:	0.0 usft	North Reference:	True
Reference Well:	WACKER 10G-214	Survey Calculation Method:	Minimum Curvature
Well Error:	0.0 usft	Output errors are at	2.00 sigma
Reference Wellbore	ORIGINAL WELLBORE	Database:	EDM 5000.1 Single User Db
Reference Design:	PROPOSAL #1	Offset TVD Reference:	Offset Datum

Offset Design SW NW SEC. 10 T5N R64W 6th P.M. - EXIST DD PJ #81 - Wellbore #1 - Wellbore #1												Offset Site Error:	0.0 usft
Survey Program: 510-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	
10,137.8	6,640.9	6,713.4	6,634.8	102.0	20.0	-94.67	-482.6	-9,677.9	6,219.9	6,100.3	119.62	51.996	
10,200.0	6,640.8	6,713.2	6,634.5	103.7	20.0	-94.62	-482.6	-9,677.9	6,157.8	6,036.4	121.35	50.742	
10,236.2	6,640.8	6,713.1	6,634.4	104.7	20.0	-94.60	-482.6	-9,677.9	6,121.7	5,999.3	122.36	50.029	
10,300.0	6,640.7	6,712.8	6,634.2	106.5	20.0	-94.55	-482.6	-9,677.9	6,057.9	5,933.8	124.14	48.800	
10,334.6	6,640.6	6,712.7	6,634.0	107.4	20.0	-94.53	-482.6	-9,677.9	6,023.4	5,898.3	125.10	48.147	
10,400.0	6,640.6	6,712.5	6,633.8	109.3	20.0	-94.48	-482.6	-9,677.9	5,958.1	5,831.2	126.92	46.942	
10,433.0	6,640.5	6,712.3	6,633.7	110.2	20.0	-94.46	-482.6	-9,677.9	5,925.1	5,797.2	127.85	46.346	
10,500.0	6,640.4	6,712.1	6,633.4	112.0	20.0	-94.41	-482.6	-9,677.9	5,858.2	5,728.5	129.71	45.163	
10,531.5	6,640.4	6,712.0	6,633.3	112.9	20.0	-94.39	-482.6	-9,677.9	5,826.8	5,696.2	130.59	44.619	
10,600.0	6,640.3	6,711.7	6,633.1	114.8	20.0	-94.34	-482.6	-9,677.9	5,758.4	5,625.9	132.50	43.459	
10,629.9	6,640.3	6,711.6	6,632.9	115.7	20.0	-94.32	-482.6	-9,677.9	5,728.5	5,595.2	133.34	42.963	
10,700.0	6,640.2	6,711.4	6,632.7	117.6	20.0	-94.27	-482.6	-9,677.9	5,658.5	5,523.2	135.29	41.825	
10,728.3	6,640.1	6,711.2	6,632.6	118.4	20.0	-94.26	-482.6	-9,677.9	5,630.3	5,494.2	136.08	41.374	
10,800.0	6,640.0	6,711.0	6,632.3	120.4	20.0	-94.20	-482.6	-9,677.9	5,558.7	5,420.6	138.08	40.256	
10,826.7	6,640.0	6,710.9	6,632.2	121.2	20.0	-94.19	-482.6	-9,677.9	5,532.0	5,393.2	138.83	39.847	
10,900.0	6,639.9	6,710.6	6,631.9	123.2	20.0	-94.13	-482.6	-9,677.9	5,458.9	5,318.0	140.88	38.749	
10,925.2	6,639.9	6,710.5	6,631.8	123.9	20.0	-94.12	-482.6	-9,677.9	5,433.7	5,292.1	141.58	38.379	
11,000.0	6,639.8	6,710.2	6,631.6	126.0	20.0	-94.06	-482.6	-9,677.9	5,359.0	5,215.4	143.67	37.300	
11,023.6	6,639.8	6,710.1	6,631.5	126.6	20.0	-94.05	-482.6	-9,677.9	5,335.5	5,191.1	144.33	36.966	
11,100.0	6,639.7	6,709.9	6,631.2	128.8	20.0	-93.99	-482.6	-9,677.9	5,259.2	5,112.7	146.47	35.907	
11,122.0	6,639.6	6,709.8	6,631.1	129.4	20.0	-93.98	-482.6	-9,678.0	5,237.2	5,090.1	147.09	35.607	
11,200.0	6,639.5	6,709.5	6,630.8	131.6	20.0	-93.92	-482.6	-9,678.0	5,159.4	5,010.1	149.27	34.565	
11,220.4	6,639.5	6,709.4	6,630.7	132.1	20.0	-93.91	-482.6	-9,678.0	5,139.0	4,989.2	149.84	34.297	
11,300.0	6,639.4	6,709.1	6,630.4	134.4	20.0	-93.85	-482.6	-9,678.0	5,059.6	4,907.5	152.06	33.273	
11,318.9	6,639.4	6,709.0	6,630.4	134.9	20.0	-93.84	-482.6	-9,678.0	5,040.8	4,888.2	152.59	33.034	
11,400.0	6,639.3	6,708.7	6,630.1	137.1	20.0	-93.78	-482.6	-9,678.0	4,959.8	4,804.9	154.86	32.027	
11,417.3	6,639.3	6,708.7	6,630.0	137.6	20.0	-93.77	-482.6	-9,678.0	4,942.5	4,787.2	155.35	31.816	
11,500.0	6,639.2	6,708.4	6,629.7	139.9	20.0	-93.71	-482.6	-9,678.0	4,860.0	4,702.3	157.66	30.825	
11,515.7	6,639.1	6,708.3	6,629.6	140.4	20.0	-93.70	-482.6	-9,678.0	4,844.3	4,686.2	158.11	30.640	
11,600.0	6,639.0	6,708.0	6,629.3	142.7	20.0	-93.64	-482.6	-9,678.0	4,760.2	4,599.8	160.47	29.665	
11,614.1	6,639.0	6,707.9	6,629.3	143.1	20.0	-93.63	-482.6	-9,678.0	4,746.1	4,585.2	160.86	29.504	
11,700.0	6,638.9	6,707.6	6,628.9	145.5	20.0	-93.57	-482.6	-9,678.0	4,660.5	4,497.2	163.27	28.545	
11,712.6	6,638.9	6,707.6	6,628.9	145.9	20.0	-93.56	-482.6	-9,678.0	4,647.9	4,484.3	163.62	28.407	
11,800.0	6,638.8	6,707.2	6,628.6	148.3	20.0	-93.50	-482.6	-9,678.0	4,560.7	4,394.6	166.07	27.462	
11,811.0	6,638.8	6,707.2	6,628.5	148.6	20.0	-93.49	-482.6	-9,678.0	4,549.7	4,383.3	166.38	27.346	
11,900.0	6,638.7	6,706.8	6,628.2	151.1	20.0	-93.43	-482.6	-9,678.0	4,460.9	4,292.1	168.87	26.416	
11,909.4	6,638.6	6,706.8	6,628.1	151.4	20.0	-93.42	-482.6	-9,678.0	4,451.5	4,282.4	169.14	26.319	
12,000.0	6,638.5	6,706.5	6,627.8	153.9	20.0	-93.36	-482.6	-9,678.0	4,361.2	4,189.5	171.68	25.403	
12,007.8	6,638.5	6,706.4	6,627.8	154.1	20.0	-93.35	-482.6	-9,678.0	4,353.4	4,181.5	171.90	25.325	
12,100.0	6,638.4	6,706.1	6,627.4	156.7	20.0	-93.29	-482.6	-9,678.0	4,261.5	4,087.0	174.48	24.423	
12,106.3	6,638.4	6,706.1	6,627.4	156.9	20.0	-93.28	-482.6	-9,678.0	4,255.2	4,080.6	174.66	24.363	
12,200.0	6,638.3	6,705.7	6,627.0	159.5	20.0	-93.22	-482.6	-9,678.0	4,161.8	3,984.5	177.29	23.474	
12,204.7	6,638.3	6,705.7	6,627.0	159.6	20.0	-93.21	-482.6	-9,678.0	4,157.1	3,979.7	177.42	23.431	
12,300.0	6,638.2	6,705.3	6,626.6	162.3	20.0	-93.14	-482.6	-9,678.0	4,062.1	3,882.0	180.09	22.555	
12,303.1	6,638.2	6,705.3	6,626.6	162.4	20.0	-93.14	-482.6	-9,678.0	4,058.9	3,878.8	180.18	22.527	
12,400.0	6,638.0	6,704.9	6,626.3	165.1	20.0	-93.07	-482.6	-9,678.0	3,962.4	3,779.5	182.90	21.664	
12,401.5	6,638.0	6,704.9	6,626.3	165.2	20.0	-93.07	-482.6	-9,678.0	3,960.8	3,777.9	182.94	21.650	
12,500.0	6,637.9	6,704.5	6,625.9	167.9	20.0	-93.00	-482.6	-9,678.0	3,862.7	3,677.0	185.71	20.800	
12,598.4	6,637.8	6,704.2	6,625.5	170.7	20.0	-92.93	-482.6	-9,678.0	3,764.6	3,576.2	188.47	19.975	
12,600.0	6,637.8	6,704.2	6,625.5	170.7	20.0	-92.93	-482.6	-9,678.0	3,763.1	3,574.5	188.52	19.961	
12,696.8	6,637.7	6,703.8	6,625.1	173.4	20.0	-92.86	-482.6	-9,678.0	3,666.6	3,475.4	191.23	19.173	
12,700.0	6,637.7	6,703.8	6,625.1	173.5	20.0	-92.86	-482.6	-9,678.0	3,663.4	3,472.1	191.32	19.148	

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

Anticollision Report



Company:	PDC ENERGY	Local Co-ordinate Reference:	Well WACKER 10G-214
Project:	WELD COUNTY, COLORADO	TVD Reference:	KB-EST @ 4624.0usft (Original Well Elev)
Reference Site:	SW NW SEC. 10 T5N R64W 6th P.M.	MD Reference:	KB-EST @ 4624.0usft (Original Well Elev)
Site Error:	0.0 usft	North Reference:	True
Reference Well:	WACKER 10G-214	Survey Calculation Method:	Minimum Curvature
Well Error:	0.0 usft	Output errors are at	2.00 sigma
Reference Wellbore	ORIGINAL WELLBORE	Database:	EDM 5000.1 Single User Db
Reference Design:	PROPOSAL #1	Offset TVD Reference:	Offset Datum

Offset Design SW NW SEC. 10 T5N R64W 6th P.M. - EXIST DD PJ #81 - Wellbore #1 - Wellbore #1												Offset Site Error:	0.0 usft
Survey Program: 510-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	
12,795.2	6,637.6	6,703.4	6,624.7	176.2	20.0	-92.79	-482.6	-9,678.0	3,568.5	3,374.5	194.00	18.395	
12,800.0	6,637.6	6,703.4	6,624.7	176.3	20.0	-92.79	-482.6	-9,678.0	3,563.8	3,369.7	194.13	18.358	
12,893.7	6,637.4	6,703.0	6,624.4	178.9	20.0	-92.72	-482.6	-9,678.0	3,470.5	3,273.8	196.76	17.638	
12,900.0	6,637.4	6,703.0	6,624.3	179.1	20.0	-92.71	-482.6	-9,678.0	3,464.2	3,267.3	196.94	17.590	
12,992.1	6,637.3	6,702.6	6,624.0	181.7	20.0	-92.65	-482.6	-9,678.0	3,372.5	3,173.0	199.53	16.902	
13,000.0	6,637.3	6,702.6	6,623.9	181.9	20.0	-92.64	-482.6	-9,678.0	3,364.7	3,164.9	199.75	16.844	
13,090.5	6,637.2	6,702.3	6,623.6	184.4	20.0	-92.58	-482.6	-9,678.0	3,274.5	3,072.3	202.29	16.187	
13,100.0	6,637.2	6,702.2	6,623.6	184.7	20.0	-92.57	-482.6	-9,678.0	3,265.1	3,062.6	202.56	16.119	
13,188.9	6,637.1	6,701.9	6,623.2	187.2	20.0	-92.51	-482.6	-9,678.0	3,176.6	2,971.5	205.06	15.491	
13,200.0	6,637.1	6,701.8	6,623.2	187.5	20.0	-92.50	-482.6	-9,678.0	3,165.6	2,960.2	205.37	15.414	
13,287.4	6,637.0	6,701.5	6,622.8	190.0	20.0	-92.44	-482.6	-9,678.0	3,078.7	2,870.9	207.82	14.814	
13,300.0	6,637.0	6,701.4	6,622.8	190.3	20.0	-92.42	-482.7	-9,678.0	3,066.1	2,857.9	208.18	14.728	
13,385.8	6,636.9	6,701.1	6,622.4	192.7	20.0	-92.36	-482.7	-9,678.0	2,980.8	2,770.2	210.59	14.154	
13,400.0	6,636.8	6,701.0	6,622.4	193.1	20.0	-92.35	-482.7	-9,678.0	2,966.7	2,755.7	210.99	14.061	
13,484.2	6,636.7	6,700.7	6,622.0	195.5	20.0	-92.29	-482.7	-9,678.0	2,883.0	2,669.6	213.36	13.512	
13,500.0	6,636.7	6,700.7	6,622.0	195.9	20.0	-92.28	-482.7	-9,678.0	2,867.3	2,653.5	213.80	13.411	
13,582.6	6,636.6	6,700.3	6,621.7	198.2	20.0	-92.22	-482.7	-9,678.0	2,785.2	2,569.0	216.12	12.887	
13,600.0	6,636.6	6,700.3	6,621.6	198.7	20.0	-92.21	-482.7	-9,678.0	2,767.9	2,551.3	216.61	12.778	
13,681.1	6,636.5	6,699.9	6,621.3	201.0	20.0	-92.15	-482.7	-9,678.0	2,687.4	2,468.5	218.89	12.277	
13,700.0	6,636.5	6,699.9	6,621.2	201.5	20.0	-92.13	-482.7	-9,678.0	2,668.6	2,449.2	219.42	12.162	
13,779.5	6,636.4	6,699.5	6,620.9	203.7	20.0	-92.08	-482.7	-9,678.0	2,589.7	2,368.0	221.66	11.683	
13,800.0	6,636.4	6,699.5	6,620.8	204.3	20.0	-92.06	-482.7	-9,678.0	2,569.3	2,347.1	222.23	11.561	
13,877.9	6,636.3	6,699.2	6,620.5	206.5	20.0	-92.01	-482.7	-9,678.0	2,492.0	2,267.6	224.42	11.104	
13,900.0	6,636.3	6,699.1	6,620.4	207.1	20.0	-91.99	-482.7	-9,678.0	2,470.1	2,245.1	225.04	10.976	
13,976.3	6,636.2	6,698.8	6,620.1	209.3	20.0	-91.93	-482.7	-9,678.0	2,394.4	2,167.3	227.19	10.539	
14,000.0	6,636.1	6,698.7	6,620.0	209.9	20.0	-91.92	-482.7	-9,678.0	2,371.0	2,143.2	227.86	10.406	
14,074.8	6,636.0	6,698.4	6,619.7	212.0	20.0	-91.86	-482.7	-9,678.0	2,296.9	2,067.0	229.96	9.988	
14,100.0	6,636.0	6,698.3	6,619.6	212.7	20.0	-91.84	-482.7	-9,678.0	2,271.9	2,041.3	230.67	9.849	
14,173.2	6,635.9	6,698.0	6,619.3	214.8	20.0	-91.79	-482.7	-9,678.0	2,199.5	1,966.8	232.72	9.451	
14,200.0	6,635.9	6,697.9	6,619.2	215.5	20.0	-91.77	-482.7	-9,678.0	2,173.0	1,939.5	233.48	9.307	
14,271.6	6,635.8	6,697.6	6,618.9	217.5	20.0	-91.72	-482.7	-9,678.0	2,102.1	1,866.7	235.49	8.927	
14,300.0	6,635.8	6,697.5	6,618.8	218.3	20.0	-91.70	-482.7	-9,678.0	2,074.1	1,837.8	236.29	8.778	
14,370.0	6,635.7	6,697.2	6,618.5	220.3	20.0	-91.64	-482.7	-9,678.0	2,004.9	1,766.7	238.26	8.415	
14,400.0	6,635.7	6,697.1	6,618.4	221.1	20.0	-91.62	-482.7	-9,678.0	1,975.3	1,736.2	239.10	8.262	
14,468.5	6,635.6	6,696.8	6,618.1	223.1	20.0	-91.57	-482.7	-9,678.0	1,907.8	1,666.8	241.03	7.915	
14,500.0	6,635.6	6,696.7	6,618.0	223.9	20.0	-91.55	-482.7	-9,678.0	1,876.7	1,634.8	241.91	7.758	
14,566.9	6,635.5	6,696.4	6,617.7	225.8	20.0	-91.50	-482.7	-9,678.0	1,810.8	1,567.0	243.79	7.428	
14,600.0	6,635.4	6,696.3	6,617.6	226.8	20.0	-91.47	-482.7	-9,678.0	1,778.2	1,533.5	244.72	7.266	
14,665.3	6,635.4	6,696.0	6,617.3	228.6	20.0	-91.43	-482.7	-9,678.0	1,714.0	1,467.4	246.56	6.952	
14,700.0	6,635.3	6,695.9	6,617.2	229.6	20.0	-91.40	-482.7	-9,678.0	1,679.9	1,432.4	247.54	6.787	
14,763.7	6,635.2	6,695.6	6,616.9	231.3	20.0	-91.35	-482.7	-9,678.0	1,617.4	1,368.1	249.33	6.487	
14,800.0	6,635.2	6,695.5	6,616.8	232.4	20.0	-91.33	-482.7	-9,678.0	1,581.9	1,331.5	250.35	6.319	
14,862.2	6,635.1	6,695.2	6,616.5	234.1	20.0	-91.28	-482.7	-9,678.0	1,521.0	1,268.9	252.09	6.033	
14,900.0	6,635.1	6,695.1	6,616.4	235.2	20.0	-91.25	-482.7	-9,678.0	1,484.0	1,230.9	253.16	5.862	
14,960.6	6,635.0	6,694.8	6,616.1	236.9	20.0	-91.21	-482.7	-9,678.0	1,424.9	1,170.0	254.86	5.591	
14,982.9	6,635.0	6,694.7	6,616.0	237.5	20.0	-91.19	-482.7	-9,678.0	1,403.2	1,147.7	255.49	5.492 CC, ES, SF	

Anticollision Report



Company:	PDC ENERGY	Local Co-ordinate Reference:	Well WACKER 10G-214
Project:	WELD COUNTY, COLORADO	TVD Reference:	KB-EST @ 4624.0usft (Original Well Elev)
Reference Site:	SW NW SEC. 10 T5N R64W 6th P.M.	MD Reference:	KB-EST @ 4624.0usft (Original Well Elev)
Site Error:	0.0 usft	North Reference:	True
Reference Well:	WACKER 10G-214	Survey Calculation Method:	Minimum Curvature
Well Error:	0.0 usft	Output errors are at	2.00 sigma
Reference Wellbore	ORIGINAL WELLBORE	Database:	EDM 5000.1 Single User Db
Reference Design:	PROPOSAL #1	Offset TVD Reference:	Offset Datum

Offset Design												Offset Site Error:	0.0 usft
Survey Program: 223-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	118.56	-1,106.7	2,033.4	2,315.1				
98.4	98.4	94.6	94.6	0.1	0.1	118.57	-1,107.2	2,033.0	2,315.0	2,314.8	0.15	N/A	
100.0	100.0	96.3	96.3	0.1	0.1	118.57	-1,107.3	2,033.0	2,315.0	2,314.8	0.16	N/A	
196.8	196.8	197.6	197.6	0.3	0.1	118.63	-1,109.0	2,031.7	2,314.7	2,314.3	0.44	5,298.487	
200.0	200.0	200.9	200.9	0.3	0.1	118.63	-1,109.1	2,031.6	2,314.7	2,314.2	0.45	5,190.290	
295.3	295.3	297.6	297.6	0.5	0.3	118.71	-1,111.6	2,029.8	2,314.3	2,313.4	0.82	2,821.437	
300.0	300.0	301.9	301.8	0.5	0.3	118.71	-1,111.7	2,029.7	2,314.2	2,313.4	0.84	2,757.029	
378.9	378.9	371.0	370.9	0.7	0.4	118.75	-1,113.0	2,028.8	2,314.0	2,312.9	1.16	2,001.461	
393.7	393.7	383.9	383.8	0.8	0.5	118.75	-1,113.2	2,028.7	2,314.0	2,312.8	1.22	1,901.821	
400.0	400.0	388.9	388.8	0.8	0.5	118.76	-1,113.2	2,028.7	2,314.0	2,312.8	1.24	1,864.175	
492.1	492.1	461.7	461.6	1.0	0.6	118.78	-1,114.3	2,028.6	2,314.6	2,313.0	1.60	1,444.789	
500.0	500.0	468.6	468.5	1.0	0.6	118.78	-1,114.4	2,028.6	2,314.6	2,313.0	1.63	1,416.278	
590.5	590.5	549.8	549.7	1.2	0.8	118.80	-1,115.6	2,029.1	2,315.8	2,313.8	2.01	1,152.059	
600.0	600.0	558.7	558.6	1.2	0.8	118.81	-1,115.8	2,029.1	2,315.9	2,313.9	2.05	1,129.560	
689.0	689.0	642.5	642.4	1.4	1.0	118.83	-1,117.4	2,029.7	2,317.3	2,314.9	2.43	954.260	
700.0	700.0	652.9	652.8	1.4	1.0	118.84	-1,117.7	2,029.8	2,317.5	2,315.0	2.48	936.274	
787.4	787.4	734.3	734.2	1.6	1.2	118.87	-1,119.5	2,030.5	2,319.1	2,316.2	2.84	815.216	
800.0	800.0	746.0	745.8	1.7	1.2	118.87	-1,119.7	2,030.6	2,319.3	2,316.4	2.90	800.359	
885.8	885.8	837.8	837.6	1.9	1.4	118.88	-1,120.9	2,032.0	2,321.0	2,317.7	3.28	706.739	
900.0	900.0	853.8	853.6	1.9	1.5	118.88	-1,120.9	2,032.3	2,321.2	2,317.9	3.35	693.025	
984.2	984.2	1,024.5	1,024.2	2.1	1.8	118.77	-1,116.6	2,033.6	2,320.5	2,316.6	3.89	596.074	
1,000.0	1,000.0	1,134.2	1,133.7	2.1	2.0	118.64	-1,109.9	2,031.9	2,319.6	2,315.4	4.16	557.503	
1,082.7	1,082.7	1,356.8	1,355.1	2.3	2.5	118.39	-1,091.3	2,019.3	2,312.3	2,307.5	4.83	478.948	
1,100.0	1,100.0	1,394.1	1,392.1	2.3	2.6	118.36	-1,088.2	2,015.6	2,310.2	2,305.2	4.95	466.413	
1,181.1	1,181.1	1,555.1	1,551.3	2.5	3.1	118.34	-1,076.1	1,995.2	2,298.2	2,292.6	5.54	414.734	
1,200.0	1,200.0	1,586.3	1,582.1	2.6	3.2	118.34	-1,073.8	1,990.5	2,295.0	2,289.3	5.67	404.610	
1,279.5	1,279.5	1,936.4	1,922.9	2.7	4.5	118.57	-1,044.0	1,917.5	2,278.4	2,271.3	7.12	319.889	
1,300.0	1,300.0	2,018.3	2,001.1	2.8	4.9	118.63	-1,034.3	1,894.9	2,272.3	2,264.7	7.56	300.413	
1,377.9	1,377.9	2,111.2	2,089.1	3.0	5.4	0.05	-1,022.5	1,867.5	2,246.3	2,239.0	7.26	309.252	
1,400.0	1,400.0	2,130.0	2,106.8	3.0	5.5	0.07	-1,020.1	1,862.0	2,238.6	2,231.2	7.35	304.463	
1,476.4	1,476.3	2,188.2	2,162.1	3.1	5.8	0.12	-1,013.0	1,844.9	2,210.9	2,203.3	7.62	290.027	
1,500.0	1,499.8	2,206.0	2,178.9	3.2	5.9	0.14	-1,010.9	1,839.7	2,202.1	2,194.4	7.70	285.847	
1,574.8	1,574.4	2,272.3	2,241.9	3.3	6.3	0.21	-1,003.0	1,820.6	2,173.0	2,165.0	7.99	272.053	
1,600.0	1,599.5	2,295.8	2,264.2	3.4	6.4	0.23	-1,000.1	1,813.8	2,162.8	2,154.7	8.08	267.557	
1,673.2	1,672.2	2,382.1	2,346.2	3.6	6.9	0.31	-989.0	1,788.8	2,131.8	2,123.4	8.42	253.234	
1,700.0	1,698.7	2,406.4	2,369.1	3.6	7.0	0.33	-985.9	1,781.7	2,119.9	2,111.4	8.52	248.820	
1,771.6	1,769.5	2,459.9	2,419.8	3.8	7.4	0.39	-979.1	1,766.0	2,087.1	2,078.3	8.76	238.147	
1,800.0	1,797.5	2,479.0	2,437.9	3.9	7.5	0.41	-976.8	1,760.4	2,073.8	2,064.9	8.85	234.275	
1,870.1	1,866.3	2,532.4	2,488.6	4.1	7.8	0.48	-970.3	1,745.0	2,040.0	2,030.9	9.08	224.581	
1,900.2	1,895.8	2,554.4	2,509.6	4.2	7.9	0.51	-967.6	1,738.8	2,025.0	2,015.9	9.18	220.678	
1,968.5	1,962.6	2,605.3	2,558.0	4.4	8.2	0.56	-961.3	1,724.5	1,991.2	1,981.7	9.44	210.819	
2,000.0	1,993.4	2,628.9	2,580.5	4.5	8.3	0.58	-958.4	1,718.0	1,975.6	1,966.0	9.57	206.493	
2,066.9	2,058.9	2,688.5	2,637.4	4.7	8.6	0.64	-951.1	1,701.6	1,942.6	1,932.8	9.86	196.984	
2,100.0	2,091.2	2,721.2	2,668.5	4.8	8.8	0.67	-947.0	1,692.5	1,926.3	1,916.3	10.01	192.364	
2,165.3	2,155.2	2,769.6	2,714.6	5.1	9.1	0.72	-940.9	1,679.2	1,894.0	1,883.7	10.28	184.245	
2,200.0	2,189.1	2,793.0	2,737.0	5.2	9.2	0.74	-937.9	1,672.8	1,877.0	1,866.6	10.42	180.183	
2,263.8	2,251.4	2,846.8	2,788.4	5.5	9.5	0.77	-930.8	1,658.7	1,846.0	1,835.3	10.70	172.583	
2,300.0	2,286.9	2,888.0	2,827.7	5.6	9.8	0.78	-925.1	1,647.8	1,828.3	1,817.4	10.88	168.021	
2,362.2	2,347.7	2,947.8	2,884.7	5.8	10.1	0.80	-916.3	1,632.0	1,797.5	1,786.4	11.18	160.826	
2,400.0	2,384.7	2,981.9	2,917.2	6.0	10.3	0.80	-911.3	1,623.0	1,778.8	1,767.5	11.35	156.706	
2,460.6	2,444.0	3,016.3	2,950.0	6.2	10.5	0.81	-906.3	1,614.0	1,749.0	1,737.4	11.58	151.045	
2,500.0	2,482.5	3,035.8	2,968.7	6.4	10.6	0.81	-903.6	1,608.9	1,730.0	1,718.3	11.72	147.616	

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

Anticollision Report



Company:	PDC ENERGY	Local Co-ordinate Reference:	Well WACKER 10G-214
Project:	WELD COUNTY, COLORADO	TVD Reference:	KB-EST @ 4624.0usft (Original Well Elev)
Reference Site:	SW NW SEC. 10 T5N R64W 6th P.M.	MD Reference:	KB-EST @ 4624.0usft (Original Well Elev)
Site Error:	0.0 usft	North Reference:	True
Reference Well:	WACKER 10G-214	Survey Calculation Method:	Minimum Curvature
Well Error:	0.0 usft	Output errors are at	2.00 sigma
Reference Wellbore	ORIGINAL WELLBORE	Database:	EDM 5000.1 Single User Db
Reference Design:	PROPOSAL #1	Offset TVD Reference:	Offset Datum

Offset Design												Offset Site Error:	0.0 usft
Survey Program: 223-MWD												Offset Well Error:	0.0 usft
Reference		Offset		Semi Major Axis			Distance						Warning
Measured Depth (usft)	Vertical Depth (usft)	Measured Depth (usft)	Vertical Depth (usft)	Reference (usft)	Offset (usft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (usft)	+E/-W (usft)	Between Centres (usft)	Between Ellipses (usft)	Minimum Separation (usft)	Separation Factor	
2,559.0	2,540.3	3,077.0	3,008.2	6.6	10.9	0.84	-898.6	1,598.7	1,702.2	1,690.2	11.96	142.315	
2,600.0	2,580.3	3,091.2	3,021.9	6.8	10.9	0.86	-896.9	1,595.3	1,683.1	1,671.0	12.09	139.186	
2,657.5	2,636.5	3,136.2	3,065.3	7.1	11.2	0.90	-891.8	1,584.4	1,656.7	1,644.3	12.34	134.272	
2,700.0	2,678.1	3,173.7	3,101.5	7.2	11.3	0.93	-887.6	1,575.5	1,637.2	1,624.7	12.53	130.652	
2,755.9	2,732.8	3,244.5	3,169.6	7.5	11.7	0.99	-879.4	1,558.2	1,611.3	1,598.4	12.85	125.432	
2,800.0	2,775.9	3,284.8	3,208.4	7.7	11.9	1.03	-874.5	1,548.2	1,590.5	1,577.5	13.06	121.815	
2,854.3	2,829.1	3,333.2	3,254.9	7.9	12.2	1.06	-868.3	1,536.2	1,564.9	1,551.6	13.31	117.533	
2,900.0	2,873.8	3,366.2	3,286.6	8.1	12.4	1.08	-864.1	1,528.2	1,543.5	1,530.0	13.51	114.262	
2,952.7	2,925.4	3,404.2	3,323.2	8.3	12.6	1.10	-859.4	1,519.0	1,519.0	1,505.3	13.73	110.609	
2,953.5	2,926.1	3,404.8	3,323.7	8.3	12.6	1.10	-859.4	1,518.9	1,518.7	1,505.0	13.74	110.559	
3,000.0	2,971.6	3,438.1	3,355.9	8.5	12.8	1.12	-855.5	1,511.0	1,497.7	1,483.7	13.98	107.140	
3,051.2	3,022.0	3,474.9	3,391.4	8.7	13.0	1.15	-851.4	1,502.3	1,475.6	1,461.3	14.24	103.654	
3,100.0	3,070.1	3,515.8	3,431.0	8.8	13.2	1.19	-847.2	1,492.8	1,455.5	1,441.0	14.49	100.421	
3,149.6	3,119.1	3,586.9	3,499.5	8.9	13.5	1.27	-839.5	1,475.8	1,435.6	1,420.7	14.83	96.784	
3,200.0	3,169.1	3,649.8	3,560.0	9.1	13.9	1.34	-832.1	1,460.0	1,415.4	1,400.2	15.16	93.373	
3,248.0	3,216.8	3,704.6	3,612.4	9.2	14.2	1.39	-825.5	1,445.8	1,396.4	1,381.0	15.45	90.382	
3,300.0	3,268.5	3,760.0	3,665.4	9.3	14.5	1.46	-818.8	1,431.0	1,376.5	1,360.7	15.75	87.374	
3,346.4	3,314.8	3,805.2	3,708.7	9.4	14.8	1.52	-813.3	1,418.7	1,359.3	1,343.3	16.01	84.908	
3,400.0	3,368.3	3,857.6	3,758.7	9.6	15.1	1.60	-807.2	1,404.3	1,340.2	1,323.9	16.30	82.219	
3,444.9	3,413.1	3,902.0	3,800.9	9.6	15.4	1.67	-802.0	1,392.1	1,324.9	1,308.4	16.54	80.092	
3,500.0	3,468.2	3,953.1	3,849.7	9.7	15.7	1.76	-796.1	1,377.8	1,306.9	1,290.1	16.83	77.676	
3,543.3	3,511.5	3,990.0	3,885.0	9.8	15.9	1.81	-791.7	1,367.7	1,293.6	1,276.6	17.03	75.952	
3,553.7	3,521.9	3,999.0	3,893.5	9.8	15.9	120.47	-790.6	1,365.3	1,290.6	1,264.8	25.72	50.181	
3,600.0	3,568.2	4,050.7	3,942.8	9.9	16.3	120.55	-784.4	1,351.3	1,276.9	1,250.8	26.09	48.933	
3,641.7	3,609.9	4,103.0	3,992.6	10.0	16.6	120.66	-778.1	1,336.4	1,264.1	1,237.7	26.47	47.751	
3,700.0	3,668.2	4,150.0	4,037.4	10.1	16.9	120.73	-772.1	1,323.2	1,246.3	1,219.4	26.85	46.416	
3,740.1	3,708.4	4,189.0	4,074.6	10.1	17.1	120.76	-766.6	1,313.0	1,234.3	1,207.1	27.15	45.460	
3,800.0	3,768.2	4,252.2	4,134.8	10.2	17.5	120.75	-756.8	1,296.6	1,216.2	1,188.6	27.63	44.018	
3,838.6	3,806.8	4,294.3	4,174.8	10.3	17.7	120.74	-749.8	1,285.5	1,204.2	1,176.3	27.95	43.081	
3,900.0	3,868.2	4,352.7	4,230.3	10.4	18.1	120.72	-740.2	1,270.0	1,185.0	1,156.6	28.42	41.700	
3,937.0	3,905.2	4,399.7	4,274.9	10.5	18.4	120.72	-732.6	1,257.2	1,173.3	1,144.6	28.78	40.768	
4,000.0	3,968.2	4,474.3	4,345.3	10.6	18.9	120.80	-721.4	1,235.3	1,152.5	1,123.2	29.37	39.239	
4,035.4	4,003.6	4,509.2	4,378.2	10.6	19.1	120.87	-716.4	1,224.6	1,140.7	1,111.0	29.67	38.451	
4,100.0	4,068.2	4,558.0	4,424.2	10.7	19.4	120.98	-709.9	1,209.6	1,119.2	1,089.1	30.09	37.196	
4,133.8	4,102.1	4,579.8	4,444.7	10.8	19.6	121.03	-707.1	1,203.1	1,108.3	1,078.1	30.28	36.600	
4,200.0	4,168.2	4,624.3	4,487.1	10.9	19.8	121.14	-701.7	1,190.4	1,088.0	1,057.3	30.67	35.473	
4,232.3	4,200.5	4,652.0	4,513.5	11.0	20.0	121.20	-698.3	1,182.8	1,078.3	1,047.4	30.89	34.914	
4,300.0	4,268.2	4,713.5	4,572.2	11.1	20.3	121.31	-690.6	1,166.2	1,058.4	1,027.0	31.36	33.750	
4,330.7	4,298.9	4,749.8	4,606.9	11.1	20.6	121.37	-685.9	1,156.5	1,049.2	1,017.6	31.63	33.173	
4,400.0	4,368.2	4,810.6	4,664.7	11.3	20.9	121.46	-677.7	1,139.9	1,028.2	996.1	32.11	32.025	
4,429.1	4,397.3	4,828.5	4,681.9	11.3	21.0	121.48	-675.3	1,135.2	1,019.7	987.4	32.26	31.609	
4,500.0	4,468.2	4,873.0	4,724.6	11.4	21.3	121.52	-669.3	1,124.5	1,000.2	967.5	32.64	30.643	
4,527.5	4,495.8	4,903.8	4,754.3	11.5	21.4	121.53	-665.3	1,117.4	992.8	960.0	32.85	30.219	
4,600.0	4,568.2	5,000.0	4,846.7	11.6	22.0	121.62	-652.5	1,093.8	972.8	939.3	33.53	29.015	
4,626.0	4,594.2	5,043.9	4,888.5	11.7	22.3	121.67	-646.2	1,082.0	964.9	931.0	33.84	28.516	
4,700.0	4,668.2	5,096.4	4,938.6	11.8	22.6	121.75	-638.9	1,067.7	942.3	908.1	34.28	27.489	
4,724.4	4,692.6	5,113.9	4,955.2	11.9	22.7	121.79	-636.7	1,063.1	935.2	900.8	34.43	27.164	
4,800.0	4,768.2	5,170.9	5,010.0	12.0	23.0	121.91	-629.9	1,048.5	914.0	879.1	34.88	26.205	
4,822.8	4,791.0	5,188.6	5,027.0	12.0	23.1	121.95	-627.8	1,044.1	907.8	872.8	35.01	25.927	
4,900.0	4,868.2	5,241.3	5,077.8	12.2	23.3	122.06	-622.0	1,031.6	887.8	852.4	35.42	25.068	
4,921.2	4,889.5	5,254.3	5,090.5	12.2	23.4	122.09	-620.7	1,028.8	882.7	847.2	35.52	24.854	
5,000.0	4,968.2	5,301.0	5,136.0	12.4	23.6	122.17	-616.2	1,019.4	865.3	829.4	35.88	24.118	

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

Anticollision Report



Company:	PDC ENERGY	Local Co-ordinate Reference:	Well WACKER 10G-214
Project:	WELD COUNTY, COLORADO	TVD Reference:	KB-EST @ 4624.0usft (Original Well Elev)
Reference Site:	SW NW SEC. 10 T5N R64W 6th P.M.	MD Reference:	KB-EST @ 4624.0usft (Original Well Elev)
Site Error:	0.0 usft	North Reference:	True
Reference Well:	WACKER 10G-214	Survey Calculation Method:	Minimum Curvature
Well Error:	0.0 usft	Output errors are at	2.00 sigma
Reference Wellbore	ORIGINAL WELLBORE	Database:	EDM 5000.1 Single User Db
Reference Design:	PROPOSAL #1	Offset TVD Reference:	Offset Datum

Offset Design												Offset Site Error:	0.0 usft
Survey Program: 223-MWD												Offset Well Error:	0.0 usft
Reference		Offset		Semi Major Axis			Distance						Warning
Measured Depth (usft)	Vertical Depth (usft)	Measured Depth (usft)	Vertical Depth (usft)	Reference (usft)	Offset (usft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (usft)	+E/-W (usft)	Between Centres (usft)	Between Ellipses (usft)	Minimum Separation (usft)	Separation Factor	
5,019.7	4,987.9	5,317.3	5,151.9	12.4	23.7	122.19	-614.7	1,016.4	861.3	825.3	35.98	23.941	
5,100.0	5,068.2	5,386.0	5,219.4	12.6	24.0	122.25	-608.7	1,005.2	846.3	810.0	36.39	23.257	
5,118.1	5,086.3	5,388.3	5,221.7	12.6	24.0	122.26	-608.5	1,004.8	843.1	806.7	36.43	23.142	
5,200.0	5,168.2	5,469.0	5,301.2	12.7	24.3	122.30	-601.7	992.9	829.2	792.3	36.88	22.485	
5,216.5	5,184.7	5,483.2	5,315.2	12.8	24.3	122.30	-600.5	990.8	826.4	789.4	36.96	22.361	
5,300.0	5,268.2	5,557.0	5,388.1	12.9	24.6	122.35	-594.8	980.5	813.1	775.7	37.37	21.758	
5,314.9	5,283.2	5,564.9	5,395.8	13.0	24.6	122.36	-594.2	979.5	810.8	773.4	37.42	21.667	
5,400.0	5,368.2	5,633.9	5,464.2	13.1	24.8	122.42	-589.8	970.9	799.0	761.2	37.80	21.139	
5,413.4	5,381.6	5,643.0	5,473.2	13.2	24.8	122.43	-589.3	969.8	797.2	759.4	37.85	21.064	
5,500.0	5,468.2	5,720.5	5,550.1	13.3	25.0	122.56	-585.8	961.0	786.8	748.5	38.23	20.582	
5,511.8	5,480.0	5,728.0	5,557.6	13.3	25.1	122.58	-585.5	960.1	785.4	747.2	38.27	20.524	
5,600.0	5,568.2	5,814.0	5,643.0	13.5	25.3	122.77	-582.7	950.9	776.0	737.3	38.66	20.075	
5,610.2	5,578.4	5,814.0	5,643.0	13.5	25.3	122.77	-582.7	950.9	775.0	736.3	38.67	20.038	
5,700.0	5,668.2	5,899.0	5,727.7	13.7	25.5	122.96	-580.7	943.2	766.9	727.9	39.04	19.645	
5,708.6	5,676.9	5,899.0	5,727.7	13.7	25.5	122.96	-580.7	943.2	766.2	727.2	39.05	19.619	
5,800.0	5,768.2	5,977.9	5,806.4	13.9	25.6	123.12	-579.6	937.5	759.9	720.5	39.38	19.295	
5,807.1	5,775.3	5,984.2	5,812.6	13.9	25.7	123.13	-579.5	937.0	759.5	720.1	39.41	19.272	
5,900.0	5,868.2	6,051.5	5,879.8	14.1	25.8	123.31	-579.8	933.4	755.5	715.8	39.69	19.036	
5,905.5	5,873.7	6,055.4	5,883.8	14.1	25.8	123.32	-579.9	933.2	755.4	715.6	39.70	19.024	
5,960.7	5,928.9	6,096.2	5,924.5	14.2	25.8	123.43	-580.8	931.9	754.6	714.7	39.86	18.933 ES, SF	
5,963.8	5,932.0	6,098.5	5,926.8	14.2	25.8	-146.56	-580.9	931.9	754.6	726.8	27.76	27.182 CC	
6,000.0	5,968.2	6,125.5	5,953.8	14.3	25.8	-146.50	-581.5	931.5	755.5	727.6	27.96	27.024	
6,003.9	5,972.1	6,128.4	5,956.7	14.3	25.9	-146.49	-581.6	931.5	755.8	727.8	27.98	27.014	
6,050.0	6,018.0	6,165.5	5,993.8	14.4	25.9	-146.41	-582.3	931.8	760.1	731.9	28.17	26.984	
6,100.0	6,067.3	6,218.1	6,046.3	14.4	25.9	-146.42	-582.9	932.6	767.7	739.4	28.31	27.116	
6,102.3	6,069.6	6,220.5	6,048.8	14.4	25.9	-146.42	-582.9	932.7	768.1	739.8	28.32	27.127	
6,150.0	6,116.0	6,268.4	6,096.6	14.4	26.0	-146.48	-582.8	933.6	778.0	749.6	28.38	27.419	
6,200.0	6,163.8	6,316.7	6,144.9	14.5	26.0	-146.51	-582.7	934.5	791.2	762.8	28.37	27.889	
6,200.8	6,164.5	6,317.4	6,145.6	14.5	26.0	-146.51	-582.7	934.5	791.4	763.0	28.37	27.898	
6,250.0	6,210.4	6,359.8	6,188.0	14.5	26.0	-146.43	-582.8	935.2	807.2	778.9	28.30	28.522	
6,299.2	6,254.9	6,399.8	6,228.0	14.5	26.1	-146.25	-583.1	936.0	826.1	797.9	28.19	29.301	
6,300.0	6,255.6	6,400.4	6,228.7	14.5	26.1	-146.25	-583.1	936.0	826.4	798.2	28.19	29.315	
6,350.0	6,299.3	6,441.4	6,269.6	14.5	26.1	-145.99	-583.6	936.8	848.6	820.5	28.05	30.252	
6,397.6	6,339.2	6,479.6	6,307.8	14.6	26.1	-145.64	-584.3	937.6	872.3	844.4	27.91	31.255	
6,400.0	6,341.2	6,481.4	6,309.6	14.6	26.1	-145.62	-584.4	937.6	873.6	845.6	27.90	31.308	
6,450.0	6,381.0	6,520.1	6,348.2	14.6	26.1	-145.10	-585.3	938.3	901.2	873.5	27.77	32.447	
6,496.0	6,415.8	6,554.1	6,382.3	14.7	26.2	-144.47	-586.1	938.9	929.0	901.3	27.71	33.528	
6,500.0	6,418.7	6,556.9	6,385.1	14.7	26.2	-144.41	-586.2	939.0	931.5	903.8	27.70	33.621	
6,550.0	6,453.9	6,591.5	6,419.6	14.8	26.2	-143.48	-587.2	939.6	964.2	936.4	27.74	34.758	
6,594.5	6,483.1	6,620.2	6,448.4	15.0	26.2	-142.42	-588.0	940.0	995.2	967.3	27.91	35.662	
6,600.0	6,486.6	6,623.7	6,451.8	15.1	26.2	-142.27	-588.1	940.1	999.2	971.2	27.94	35.766	
6,650.0	6,516.6	6,653.1	6,481.2	15.3	26.2	-140.68	-589.0	940.5	1,036.3	1,008.0	28.36	36.535	
6,692.9	6,540.0	6,676.4	6,504.4	15.7	26.2	-138.97	-589.8	940.9	1,069.8	1,040.8	28.98	36.917	
6,700.0	6,543.7	6,680.1	6,508.2	15.7	26.2	-138.66	-589.9	940.9	1,075.5	1,046.4	29.10	36.957	
6,750.0	6,567.8	6,704.6	6,532.7	16.2	26.3	-136.07	-590.7	941.3	1,116.4	1,086.2	30.22	36.937	
6,791.3	6,585.4	6,722.6	6,550.6	16.7	26.3	-133.37	-591.3	941.5	1,151.5	1,119.9	31.52	36.534	
6,800.0	6,588.8	6,726.0	6,554.1	16.8	26.3	-132.72	-591.4	941.5	1,159.0	1,127.1	31.83	36.412	
6,850.0	6,606.6	6,744.1	6,572.2	17.4	26.3	-128.39	-592.0	941.7	1,202.9	1,168.9	33.98	35.397	
6,889.7	6,618.4	6,756.0	6,584.1	18.0	26.3	-124.03	-592.4	941.9	1,238.7	1,202.6	36.11	34.308	
6,900.0	6,621.1	6,758.6	6,586.7	18.2	26.3	-122.74	-592.4	941.9	1,248.0	1,211.3	36.70	34.005	
6,950.0	6,632.2	6,769.3	6,597.3	19.0	26.3	-115.43	-592.8	942.0	1,294.2	1,254.3	39.86	32.467	
6,988.2	6,638.4	6,775.1	6,603.1	19.7	26.3	-108.55	-593.0	942.0	1,329.9	1,287.6	42.32	31.422	

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

Anticollision Report



Company:	PDC ENERGY	Local Co-ordinate Reference:	Well WACKER 10G-214
Project:	WELD COUNTY, COLORADO	TVD Reference:	KB-EST @ 4624.0usft (Original Well Elev)
Reference Site:	SW NW SEC. 10 T5N R64W 6th P.M.	MD Reference:	KB-EST @ 4624.0usft (Original Well Elev)
Site Error:	0.0 usft	North Reference:	True
Reference Well:	WACKER 10G-214	Survey Calculation Method:	Minimum Curvature
Well Error:	0.0 usft	Output errors are at	2.00 sigma
Reference Wellbore	ORIGINAL WELLBORE	Database:	EDM 5000.1 Single User Db
Reference Design:	PROPOSAL #1	Offset TVD Reference:	Offset Datum

Offset Design												Offset Site Error:	0.0 usft
Survey Program: 223-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	
7,000.0	6,639.9	6,776.5	6,604.5	19.9	26.3	-106.19	-593.1	942.1	1,341.0	1,298.0	43.04	31.161	
7,050.0	6,644.1	6,780.2	6,608.2	20.8	26.3	-95.03	-593.2	942.1	1,388.4	1,343.0	45.44	30.554	
7,086.5	6,645.0	6,780.7	6,608.8	21.5	26.3	-85.97	-593.2	942.1	1,423.2	1,377.1	46.15	30.838	
7,100.0	6,645.0	6,780.6	6,608.6	21.8	26.3	-85.95	-593.2	942.1	1,436.0	1,389.6	46.42	30.939	
7,185.0	6,644.9	6,779.6	6,607.6	23.6	26.3	-85.83	-593.2	942.1	1,517.4	1,469.2	48.16	31.506	
7,200.0	6,644.8	6,779.5	6,607.5	23.9	26.3	-85.80	-593.2	942.1	1,531.8	1,483.3	48.47	31.603	
7,283.4	6,644.7	6,778.5	6,606.5	25.7	26.3	-85.68	-593.1	942.1	1,612.0	1,561.7	50.30	32.050	
7,300.0	6,644.7	6,778.3	6,606.3	26.1	26.3	-85.65	-593.1	942.1	1,628.0	1,577.3	50.66	32.136	
7,381.9	6,644.6	6,777.4	6,605.4	28.0	26.3	-85.53	-593.1	942.1	1,707.1	1,654.6	52.54	32.492	
7,400.0	6,644.6	6,777.2	6,605.2	28.4	26.3	-85.50	-593.1	942.1	1,724.7	1,671.7	52.96	32.568	
7,480.3	6,644.5	6,776.2	6,604.3	30.3	26.3	-85.38	-593.0	942.1	1,802.5	1,747.7	54.87	32.854	
7,500.0	6,644.4	6,776.0	6,604.0	30.8	26.3	-85.35	-593.0	942.1	1,821.7	1,766.3	55.33	32.922	
7,578.7	6,644.3	6,775.1	6,603.1	32.7	26.3	-85.23	-593.0	942.0	1,898.3	1,841.0	57.25	33.155	
7,600.0	6,644.3	6,774.9	6,602.9	33.3	26.3	-85.19	-593.0	942.0	1,919.0	1,861.2	57.77	33.216	
7,677.1	6,644.2	6,774.0	6,602.0	35.2	26.3	-85.08	-593.0	942.0	1,994.3	1,934.6	59.69	33.408	
7,700.0	6,644.1	6,773.7	6,601.7	35.8	26.3	-85.04	-593.0	942.0	2,016.6	1,956.3	60.26	33.463	
7,775.6	6,644.0	6,772.8	6,600.9	37.7	26.3	-84.92	-592.9	942.0	2,090.5	2,028.3	62.18	33.623	
7,800.0	6,644.0	6,772.5	6,600.6	38.3	26.3	-84.89	-592.9	942.0	2,114.4	2,051.6	62.79	33.673	
7,874.0	6,643.9	6,771.7	6,599.7	40.2	26.3	-84.77	-592.9	942.0	2,186.9	2,122.2	64.69	33.807	
7,900.0	6,643.9	6,771.4	6,599.4	40.9	26.3	-84.73	-592.9	942.0	2,212.4	2,147.1	65.35	33.853	
7,972.4	6,643.8	6,770.5	6,598.6	42.8	26.3	-84.62	-592.8	942.0	2,283.5	2,216.3	67.23	33.967	
8,000.0	6,643.7	6,770.2	6,598.2	43.5	26.3	-84.58	-592.8	942.0	2,310.6	2,242.7	67.94	34.009	
8,070.8	6,643.6	6,769.4	6,597.4	45.4	26.3	-84.47	-592.8	942.0	2,380.2	2,310.5	69.79	34.106	
8,100.0	6,643.6	6,769.0	6,597.1	46.2	26.3	-84.42	-592.8	942.0	2,408.9	2,338.4	70.55	34.145	
8,169.3	6,643.5	6,768.2	6,596.2	48.0	26.3	-84.31	-592.8	942.0	2,477.1	2,404.8	72.37	34.230	
8,200.0	6,643.5	6,767.9	6,595.9	48.8	26.3	-84.27	-592.8	942.0	2,507.4	2,434.2	73.17	34.266	
8,267.7	6,643.4	6,767.1	6,595.1	50.6	26.3	-84.16	-592.7	942.0	2,574.1	2,499.1	74.96	34.339	
8,300.0	6,643.3	6,766.7	6,594.7	51.5	26.3	-84.11	-592.7	942.0	2,606.0	2,530.1	75.81	34.373	
8,366.1	6,643.2	6,765.9	6,593.9	53.3	26.3	-84.01	-592.7	942.0	2,671.2	2,593.6	77.57	34.437	
8,400.0	6,643.2	6,765.5	6,593.5	54.2	26.3	-83.95	-592.7	941.9	2,704.6	2,626.2	78.47	34.469	
8,464.5	6,643.1	6,764.7	6,592.8	55.9	26.3	-83.85	-592.7	941.9	2,768.4	2,688.2	80.18	34.526	
8,500.0	6,643.1	6,764.3	6,592.3	56.9	26.3	-83.80	-592.6	941.9	2,803.4	2,722.3	81.13	34.556	
8,563.0	6,643.0	6,763.5	6,591.6	58.6	26.3	-83.70	-592.6	941.9	2,865.7	2,782.9	82.81	34.607	
8,600.0	6,642.9	6,763.1	6,591.1	59.6	26.3	-83.64	-592.6	941.9	2,902.3	2,818.5	83.79	34.635	
8,661.4	6,642.8	6,762.4	6,590.4	61.3	26.3	-83.54	-592.6	941.9	2,963.0	2,877.6	85.44	34.680	
8,700.0	6,642.8	6,761.9	6,589.9	62.3	26.3	-83.48	-592.6	941.9	3,001.2	2,914.7	86.47	34.708	
8,759.8	6,642.7	6,761.2	6,589.2	64.0	26.3	-83.39	-592.5	941.9	3,060.4	2,972.3	88.07	34.748	
8,800.0	6,642.7	6,760.7	6,588.7	65.1	26.3	-83.32	-592.5	941.9	3,100.2	3,011.0	89.15	34.775	
8,858.2	6,642.6	6,760.0	6,588.0	66.6	26.3	-83.23	-592.5	941.9	3,157.9	3,067.2	90.72	34.811	
8,900.0	6,642.5	6,759.5	6,587.5	67.8	26.3	-83.16	-592.5	941.9	3,199.3	3,107.4	91.84	34.836	
8,956.7	6,642.4	6,758.8	6,586.8	69.3	26.3	-83.07	-592.5	941.9	3,255.4	3,162.1	93.36	34.869	
9,000.0	6,642.4	6,758.3	6,586.3	70.5	26.3	-83.00	-592.4	941.9	3,298.4	3,203.9	94.53	34.894	
9,055.1	6,642.3	6,757.6	6,585.6	72.0	26.3	-82.92	-592.4	941.9	3,353.0	3,257.0	96.01	34.924	
9,100.0	6,642.3	6,757.1	6,585.1	73.3	26.3	-82.84	-592.4	941.9	3,397.6	3,300.3	97.22	34.948	
9,153.5	6,642.2	6,756.4	6,584.4	74.7	26.3	-82.76	-592.4	941.9	3,450.7	3,352.0	98.66	34.975	
9,200.0	6,642.1	6,755.8	6,583.9	76.0	26.3	-82.68	-592.4	941.8	3,496.8	3,396.9	99.91	34.999	
9,251.9	6,642.1	6,755.2	6,583.2	77.5	26.3	-82.60	-592.3	941.8	3,548.3	3,447.0	101.31	35.024	
9,300.0	6,642.0	6,754.5	6,582.6	78.8	26.3	-82.51	-592.3	941.8	3,596.0	3,493.4	102.60	35.047	
9,350.4	6,641.9	6,753.8	6,581.9	80.2	26.3	-82.42	-592.3	941.8	3,646.0	3,542.1	103.96	35.071	
9,400.0	6,641.9	6,753.1	6,581.2	81.5	26.3	-82.33	-592.3	941.8	3,695.3	3,590.0	105.30	35.095	
9,448.8	6,641.8	6,752.4	6,580.5	82.9	26.3	-82.24	-592.2	941.8	3,743.8	3,637.2	106.61	35.117	
9,500.0	6,641.7	6,751.7	6,579.7	84.3	26.3	-82.14	-592.2	941.8	3,794.7	3,686.7	107.99	35.141	

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

Anticollision Report



Company:	PDC ENERGY	Local Co-ordinate Reference:	Well WACKER 10G-214
Project:	WELD COUNTY, COLORADO	TVD Reference:	KB-EST @ 4624.0usft (Original Well Elev)
Reference Site:	SW NW SEC. 10 T5N R64W 6th P.M.	MD Reference:	KB-EST @ 4624.0usft (Original Well Elev)
Site Error:	0.0 usft	North Reference:	True
Reference Well:	WACKER 10G-214	Survey Calculation Method:	Minimum Curvature
Well Error:	0.0 usft	Output errors are at	2.00 sigma
Reference Wellbore	ORIGINAL WELLBORE	Database:	EDM 5000.1 Single User Db
Reference Design:	PROPOSAL #1	Offset TVD Reference:	Offset Datum

Offset Design												Offset Site Error:	0.0 usft
Survey Program: 223-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	6,641.7	6,751.0	6,579.0	85.6	26.3	-82.05	-592.2	941.8	3,841.6	3,732.3	109.26	35.162	
9,600.0	6,641.6	6,750.2	6,578.3	87.1	26.3	-81.95	-592.2	941.8	3,894.0	3,783.4	110.67	35.185	
9,645.6	6,641.5	6,749.6	6,577.6	88.3	26.3	-81.86	-592.1	941.8	3,939.4	3,827.5	111.90	35.204	
9,700.0	6,641.5	6,748.7	6,576.8	89.8	26.3	-81.76	-592.1	941.8	3,993.4	3,880.1	113.36	35.227	
9,744.1	6,641.4	6,748.1	6,576.1	91.0	26.3	-81.67	-592.1	941.8	4,037.2	3,922.7	114.55	35.246	
9,800.0	6,641.3	6,747.3	6,575.3	92.6	26.3	-81.56	-592.1	941.8	4,092.9	3,976.8	116.05	35.269	
9,842.5	6,641.3	6,746.6	6,574.7	93.8	26.3	-81.48	-592.0	941.8	4,135.1	4,017.9	117.19	35.286	
9,900.0	6,641.2	6,745.7	6,573.8	95.4	26.3	-81.36	-592.0	941.7	4,192.3	4,073.6	118.73	35.309	
9,940.9	6,641.1	6,745.1	6,573.2	96.5	26.3	-81.28	-592.0	941.7	4,233.0	4,113.2	119.83	35.326	
10,000.0	6,641.1	6,744.2	6,572.3	98.1	26.3	-81.16	-592.0	941.7	4,291.8	4,170.4	121.41	35.349	
10,039.3	6,641.0	6,743.6	6,571.7	99.2	26.3	-81.08	-591.9	941.7	4,330.9	4,208.5	122.47	35.364	
10,100.0	6,640.9	6,742.7	6,570.7	100.9	26.3	-80.96	-591.9	941.7	4,391.3	4,267.2	124.09	35.388	
10,137.8	6,640.9	6,742.1	6,570.1	102.0	26.3	-80.88	-591.9	941.7	4,428.9	4,303.8	125.10	35.402	
10,200.0	6,640.8	6,741.1	6,569.1	103.7	26.3	-80.76	-591.9	941.7	4,490.8	4,364.1	126.77	35.426	
10,236.2	6,640.8	6,740.5	6,568.6	104.7	26.3	-80.68	-591.8	941.7	4,526.9	4,399.1	127.73	35.440	
10,300.0	6,640.7	6,739.5	6,567.6	106.5	26.3	-80.55	-591.8	941.7	4,590.4	4,460.9	129.44	35.464	
10,334.6	6,640.6	6,739.0	6,567.0	107.4	26.3	-80.48	-591.8	941.7	4,624.8	4,494.5	130.36	35.477	
10,400.0	6,640.6	6,737.9	6,566.0	109.3	26.3	-80.34	-591.8	941.7	4,689.9	4,557.8	132.10	35.502	
10,433.0	6,640.5	6,737.4	6,565.4	110.2	26.3	-80.27	-591.7	941.6	4,722.8	4,589.9	132.98	35.514	
10,500.0	6,640.4	6,736.3	6,564.3	112.0	26.3	-80.13	-591.7	941.6	4,789.5	4,654.7	134.77	35.539	
10,531.5	6,640.4	6,735.8	6,563.8	112.9	26.3	-80.06	-591.7	941.6	4,820.9	4,685.3	135.60	35.551	
10,600.0	6,640.3	6,734.6	6,562.7	114.8	26.3	-79.92	-591.7	941.6	4,889.1	4,751.7	137.42	35.577	
10,629.9	6,640.3	6,734.1	6,562.2	115.7	26.3	-79.85	-591.6	941.6	4,918.9	4,780.7	138.22	35.588	
10,700.0	6,640.2	6,733.0	6,561.0	117.6	26.3	-79.70	-591.6	941.6	4,988.7	4,848.6	140.08	35.614	
10,728.3	6,640.1	6,732.5	6,560.5	118.4	26.3	-79.64	-591.6	941.6	5,016.9	4,876.1	140.83	35.625	
10,800.0	6,640.0	6,731.3	6,559.3	120.4	26.3	-79.48	-591.5	941.6	5,088.4	4,945.6	142.72	35.651	
10,826.7	6,640.0	6,730.8	6,558.9	121.2	26.3	-79.42	-591.5	941.6	5,115.0	4,971.6	143.43	35.662	
10,900.0	6,639.9	6,729.5	6,557.6	123.2	26.3	-79.26	-591.5	941.6	5,188.0	5,042.6	145.37	35.689	
10,925.2	6,639.9	6,729.1	6,557.2	123.9	26.3	-79.20	-591.5	941.6	5,213.1	5,067.1	146.03	35.699	
11,000.0	6,639.8	6,727.8	6,555.9	126.0	26.3	-79.03	-591.4	941.5	5,287.7	5,139.7	148.00	35.727	
11,023.6	6,639.8	6,727.4	6,555.5	126.6	26.3	-78.98	-591.4	941.5	5,311.2	5,162.6	148.62	35.736	
11,100.0	6,639.7	6,726.0	6,554.1	128.8	26.3	-78.81	-591.4	941.5	5,387.3	5,236.7	150.63	35.765	
11,122.0	6,639.6	6,725.7	6,553.7	129.4	26.3	-78.76	-591.4	941.5	5,409.3	5,258.1	151.21	35.773	
11,200.0	6,639.5	6,724.3	6,552.3	131.6	26.3	-78.58	-591.3	941.5	5,487.0	5,333.7	153.25	35.803	
11,220.4	6,639.5	6,723.9	6,552.0	132.1	26.3	-78.53	-591.3	941.5	5,507.4	5,353.6	153.79	35.811	
11,300.0	6,639.4	6,722.5	6,550.5	134.4	26.3	-78.34	-591.3	941.5	5,586.7	5,430.8	155.87	35.842	
11,318.9	6,639.4	6,722.1	6,550.2	134.9	26.3	-78.30	-591.2	941.5	5,605.5	5,449.1	156.36	35.849	
11,400.0	6,639.3	6,720.6	6,548.7	137.1	26.3	-78.11	-591.2	941.5	5,686.4	5,527.9	158.48	35.881	
11,417.3	6,639.3	6,720.3	6,548.4	137.6	26.3	-78.07	-591.2	941.4	5,703.6	5,544.7	158.93	35.888	
11,500.0	6,639.2	6,718.8	6,546.8	139.9	26.3	-77.87	-591.1	941.4	5,786.1	5,625.0	161.08	35.921	
11,515.7	6,639.1	6,718.5	6,546.5	140.4	26.3	-77.83	-591.1	941.4	5,801.8	5,640.3	161.49	35.927	
11,600.0	6,639.0	6,716.9	6,544.9	142.7	26.3	-77.63	-591.1	941.4	5,885.8	5,722.2	163.67	35.962	
11,614.1	6,639.0	6,716.6	6,544.7	143.1	26.3	-77.60	-591.1	941.4	5,899.9	5,735.9	164.04	35.967	
11,700.0	6,638.9	6,715.0	6,543.0	145.5	26.3	-77.39	-591.0	941.4	5,985.6	5,819.3	166.25	36.003	
11,712.6	6,638.9	6,714.7	6,542.8	145.9	26.3	-77.35	-591.0	941.4	5,998.1	5,831.5	166.58	36.008	
11,800.0	6,638.8	6,713.0	6,541.1	148.3	26.3	-77.14	-590.9	941.4	6,085.3	5,916.5	168.83	36.044	
11,811.0	6,638.8	6,712.8	6,540.9	148.6	26.3	-77.11	-590.9	941.4	6,096.3	5,927.2	169.11	36.049	
11,900.0	6,638.7	6,711.1	6,539.1	151.1	26.3	-76.89	-590.9	941.3	6,185.0	6,013.6	171.39	36.087	
11,909.4	6,638.6	6,710.9	6,538.9	151.4	26.3	-76.86	-590.9	941.3	6,194.4	6,022.8	171.63	36.091	
12,000.0	6,638.5	6,709.1	6,537.1	153.9	26.3	-76.64	-590.8	941.3	6,284.8	6,110.8	173.95	36.130	
12,007.8	6,638.5	6,708.9	6,537.0	154.1	26.3	-76.62	-590.8	941.3	6,292.6	6,118.5	174.15	36.134	
12,100.0	6,638.4	6,707.0	6,535.1	156.7	26.3	-76.38	-590.7	941.3	6,384.6	6,208.1	176.49	36.175	

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

Anticollision Report



Company:	PDC ENERGY	Local Co-ordinate Reference:	Well WACKER 10G-214
Project:	WELD COUNTY, COLORADO	TVD Reference:	KB-EST @ 4624.0usft (Original Well Elev)
Reference Site:	SW NW SEC. 10 T5N R64W 6th P.M.	MD Reference:	KB-EST @ 4624.0usft (Original Well Elev)
Site Error:	0.0 usft	North Reference:	True
Reference Well:	WACKER 10G-214	Survey Calculation Method:	Minimum Curvature
Well Error:	0.0 usft	Output errors are at	2.00 sigma
Reference Wellbore	ORIGINAL WELLBORE	Database:	EDM 5000.1 Single User Db
Reference Design:	PROPOSAL #1	Offset TVD Reference:	Offset Datum

Offset Design												Offset Site Error:	0.0 usft
Survey Program: 223-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	
12,106.3	6,638.4	6,706.9	6,535.0	156.9	26.3	-76.36	-590.7	941.3	6,390.8	6,214.2	176.65	36.177	
12,200.0	6,638.3	6,705.0	6,533.1	159.5	26.3	-76.12	-590.7	941.3	6,484.3	6,305.3	179.03	36.220	
12,204.7	6,638.3	6,704.9	6,533.0	159.6	26.3	-76.11	-590.7	941.3	6,489.0	6,309.9	179.15	36.222	
12,300.0	6,638.2	6,702.9	6,531.0	162.3	26.3	-75.86	-590.6	941.2	6,584.1	6,402.5	181.55	36.266	
12,303.1	6,638.2	6,702.9	6,530.9	162.4	26.3	-75.85	-590.6	941.2	6,587.2	6,405.6	181.63	36.267	
12,400.0	6,638.0	6,700.8	6,528.9	165.1	26.3	-75.59	-590.5	941.2	6,683.9	6,499.8	184.06	36.313	
12,401.5	6,638.0	6,700.8	6,528.8	165.2	26.3	-75.59	-590.5	941.2	6,685.4	6,501.3	184.10	36.314	
12,500.0	6,637.9	6,698.7	6,526.7	167.9	26.3	-75.32	-590.5	941.2	6,783.7	6,597.1	186.56	36.362	
12,598.4	6,637.8	6,696.5	6,524.6	170.7	26.3	-75.05	-590.4	941.1	6,881.9	6,692.9	189.01	36.411	
12,600.0	6,637.8	6,696.5	6,524.6	170.7	26.3	-75.05	-590.4	941.1	6,883.5	6,694.4	189.05	36.411	
12,696.8	6,637.7	6,694.4	6,522.4	173.4	26.3	-74.78	-590.3	941.1	6,980.1	6,788.6	191.44	36.461	
12,700.0	6,637.7	6,694.3	6,522.4	173.5	26.3	-74.77	-590.3	941.1	6,983.3	6,791.7	191.52	36.462	
12,795.2	6,637.6	6,692.2	6,520.2	176.2	26.3	-74.50	-590.3	941.1	7,078.3	6,884.5	193.86	36.512	
12,800.0	6,637.6	6,692.0	6,520.1	176.3	26.3	-74.49	-590.3	941.1	7,083.1	6,889.1	193.98	36.514	
12,893.7	6,637.4	6,689.9	6,518.0	178.9	26.3	-74.22	-590.2	941.1	7,176.6	6,980.3	196.27	36.564	
12,900.0	6,637.4	6,689.8	6,517.9	179.1	26.3	-74.21	-590.2	941.1	7,182.9	6,986.4	196.43	36.567	
12,992.1	6,637.3	6,687.6	6,515.7	181.7	26.3	-73.94	-590.1	941.0	7,274.8	7,076.1	198.67	36.618	
13,000.0	6,637.3	6,687.5	6,515.5	181.9	26.3	-73.92	-590.1	941.0	7,282.7	7,083.8	198.86	36.622	
13,090.5	6,637.2	6,685.3	6,513.4	184.4	26.3	-73.65	-590.1	941.0	7,373.0	7,172.0	201.05	36.673	
13,100.0	6,637.2	6,685.1	6,513.2	184.7	26.3	-73.63	-590.0	941.0	7,382.5	7,181.2	201.28	36.678	
13,188.9	6,637.1	6,683.0	6,511.1	187.2	26.2	-73.36	-590.0	941.0	7,471.3	7,267.9	203.41	36.730	
13,200.0	6,637.1	6,682.7	6,510.8	187.5	26.2	-73.33	-590.0	941.0	7,482.3	7,278.6	203.68	36.736	
13,287.4	6,637.0	6,680.6	6,508.7	190.0	26.2	-73.07	-589.9	940.9	7,569.5	7,363.8	205.76	36.788	
13,300.0	6,637.0	6,680.3	6,508.4	190.3	26.2	-73.04	-589.9	940.9	7,582.1	7,376.1	206.06	36.795	
13,385.8	6,636.9	6,678.2	6,506.3	192.7	26.2	-72.77	-589.8	940.9	7,667.8	7,459.7	208.09	36.848	
13,400.0	6,636.8	6,677.9	6,505.9	193.1	26.2	-72.73	-589.8	940.9	7,682.0	7,473.5	208.43	36.856	
13,484.2	6,636.7	6,675.8	6,503.8	195.5	26.2	-72.47	-589.7	940.9	7,766.1	7,555.7	210.41	36.909	
13,500.0	6,636.7	6,675.4	6,503.5	195.9	26.2	-72.43	-589.7	940.9	7,781.8	7,571.0	210.78	36.919	
13,582.6	6,636.6	6,673.3	6,501.4	198.2	26.2	-72.17	-589.7	940.8	7,864.3	7,651.6	212.71	36.973	
13,600.0	6,636.6	6,672.8	6,500.9	198.7	26.2	-72.12	-589.7	940.8	7,881.6	7,668.5	213.11	36.983	
13,681.1	6,636.5	6,670.7	6,498.8	201.0	26.2	-71.86	-589.6	940.8	7,962.6	7,747.6	214.99	37.038	
13,700.0	6,636.5	6,670.2	6,498.3	201.5	26.2	-71.80	-589.6	940.8	7,981.5	7,766.1	215.43	37.050	
13,779.5	6,636.4	6,668.4	6,496.5	203.7	26.2	-71.58	-589.5	940.8	8,060.9	7,843.6	217.28	37.098	
13,800.0	6,636.4	6,668.0	6,496.1	204.3	26.2	-71.53	-589.5	940.7	8,081.3	7,863.6	217.78	37.108	
13,877.9	6,636.3	6,666.6	6,494.7	206.5	26.2	-71.36	-589.5	940.7	8,159.1	7,939.5	219.65	37.147	
13,900.0	6,636.3	6,666.2	6,494.3	207.1	26.2	-71.31	-589.4	940.7	8,181.2	7,961.0	220.18	37.157	
13,976.3	6,636.2	6,664.8	6,492.9	209.3	26.2	-71.14	-589.4	940.7	8,257.4	8,035.4	222.00	37.195	
14,000.0	6,636.1	6,664.4	6,492.5	209.9	26.2	-71.09	-589.4	940.7	8,281.0	8,058.5	222.57	37.207	
14,074.8	6,636.0	6,663.0	6,491.1	212.0	26.2	-70.92	-589.3	940.7	8,355.7	8,131.4	224.35	37.245	
14,100.0	6,636.0	6,662.5	6,490.6	212.7	26.2	-70.87	-589.3	940.7	8,380.9	8,155.9	224.95	37.257	
14,173.2	6,635.9	6,661.2	6,489.3	214.8	26.2	-70.70	-589.3	940.6	8,454.0	8,227.3	226.68	37.295	
14,200.0	6,635.9	6,660.7	6,488.8	215.5	26.2	-70.65	-589.3	940.6	8,480.7	8,253.4	227.32	37.308	
14,271.6	6,635.8	6,659.3	6,487.4	217.5	26.2	-70.48	-589.2	940.6	8,552.3	8,323.3	229.00	37.345	
14,300.0	6,635.8	6,658.8	6,486.9	218.3	26.2	-70.42	-589.2	940.6	8,580.6	8,350.9	229.68	37.360	
14,370.0	6,635.7	6,657.5	6,485.6	220.3	26.2	-70.27	-589.2	940.6	8,650.6	8,419.2	231.32	37.397	
14,400.0	6,635.7	6,656.9	6,485.0	221.1	26.2	-70.20	-589.2	940.6	8,680.5	8,448.4	232.02	37.412	
14,468.5	6,635.6	6,655.7	6,483.8	223.1	26.2	-70.05	-589.1	940.6	8,748.9	8,515.2	233.62	37.448	
14,500.0	6,635.6	6,655.1	6,483.2	223.9	26.2	-69.98	-589.1	940.6	8,780.3	8,546.0	234.36	37.465	
14,566.9	6,635.5	6,653.8	6,481.9	225.8	26.2	-69.83	-589.1	940.5	8,847.1	8,611.2	235.92	37.501	
14,600.0	6,635.4	6,653.2	6,481.3	226.8	26.2	-69.75	-589.0	940.5	8,880.2	8,643.5	236.69	37.518	
14,665.3	6,635.4	6,651.9	6,480.0	228.6	26.2	-69.61	-589.0	940.5	8,945.4	8,707.2	238.20	37.554	
14,700.0	6,635.3	6,651.3	6,479.4	229.6	26.2	-69.53	-589.0	940.5	8,980.1	8,741.1	239.01	37.572	

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

Anticollision Report



Company:	PDC ENERGY	Local Co-ordinate Reference:	Well WACKER 10G-214
Project:	WELD COUNTY, COLORADO	TVD Reference:	KB-EST @ 4624.0usft (Original Well Elev)
Reference Site:	SW NW SEC. 10 T5N R64W 6th P.M.	MD Reference:	KB-EST @ 4624.0usft (Original Well Elev)
Site Error:	0.0 usft	North Reference:	True
Reference Well:	WACKER 10G-214	Survey Calculation Method:	Minimum Curvature
Well Error:	0.0 usft	Output errors are at	2.00 sigma
Reference Wellbore	ORIGINAL WELLBORE	Database:	EDM 5000.1 Single User Db
Reference Design:	PROPOSAL #1	Offset TVD Reference:	Offset Datum

Offset Design SW NW SEC. 10 T5N R64W 6th P.M. - EXIST DD WACKER B #10-20D - Wellbore #1 - Wellbore #1												Offset Site Error:	0.0 usft
Survey Program: 223-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
14,763.7	6,635.2	6,650.1	6,478.2	231.3	26.2	-69.38	-588.9	940.5	9,043.7	8,803.3	240.48	37.608	
14,800.0	6,635.2	6,649.4	6,477.5	232.4	26.2	-69.31	-588.9	940.5	9,080.0	8,838.6	241.32	37.627	
14,862.2	6,635.1	6,648.2	6,476.3	234.1	26.2	-69.16	-588.9	940.5	9,142.1	8,899.3	242.74	37.662	
14,900.0	6,635.1	6,647.5	6,475.6	235.2	26.2	-69.08	-588.9	940.4	9,179.8	8,936.2	243.61	37.682	
14,960.6	6,635.0	6,646.3	6,474.4	236.9	26.2	-68.94	-588.8	940.4	9,240.4	8,995.4	244.99	37.717	
14,982.9	6,635.0	6,645.9	6,474.0	237.5	26.2	-68.90	-588.8	940.4	9,262.6	9,017.1	245.51	37.729	

Anticollision Report



Company:	PDC ENERGY	Local Co-ordinate Reference:	Well WACKER 10G-214
Project:	WELD COUNTY, COLORADO	TVD Reference:	KB-EST @ 4624.0usft (Original Well Elev)
Reference Site:	SW NW SEC. 10 T5N R64W 6th P.M.	MD Reference:	KB-EST @ 4624.0usft (Original Well Elev)
Site Error:	0.0 usft	North Reference:	True
Reference Well:	WACKER 10G-214	Survey Calculation Method:	Minimum Curvature
Well Error:	0.0 usft	Output errors are at	2.00 sigma
Reference Wellbore	ORIGINAL WELLBORE	Database:	EDM 5000.1 Single User Db
Reference Design:	PROPOSAL #1	Offset TVD Reference:	Offset Datum

Offset Design												Offset Site Error:	0.0 usft
Survey Program: 655-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	109.05	-1,337.1	3,871.9	4,096.3				
98.4	98.4	90.4	90.4	0.1	0.1	109.05	-1,337.1	3,871.9	4,096.3	4,096.1	0.18	N/A	
100.0	100.0	92.0	92.0	0.1	0.1	109.05	-1,337.1	3,871.9	4,096.3	4,096.1	0.18	N/A	
196.8	196.8	188.8	188.8	0.3	0.2	109.05	-1,337.1	3,871.9	4,096.3	4,095.8	0.49	8,357.896	
200.0	200.0	192.0	192.0	0.3	0.2	109.05	-1,337.1	3,871.9	4,096.3	4,095.8	0.50	8,190.885	
295.3	295.3	287.3	287.3	0.5	0.3	109.05	-1,337.1	3,871.9	4,096.3	4,095.5	0.80	5,105.295	
300.0	300.0	292.0	292.0	0.5	0.3	109.05	-1,337.1	3,871.9	4,096.3	4,095.5	0.82	5,011.665	
393.7	393.7	385.7	385.7	0.8	0.4	109.05	-1,337.1	3,871.9	4,096.3	4,095.2	1.11	3,675.081	
400.0	400.0	392.0	392.0	0.8	0.4	109.05	-1,337.1	3,871.9	4,096.3	4,095.1	1.13	3,610.343	
492.1	492.1	484.1	484.1	1.0	0.4	109.05	-1,337.1	3,871.9	4,096.3	4,094.8	1.43	2,870.836	
500.0	500.0	492.0	492.0	1.0	0.5	109.05	-1,337.1	3,871.9	4,096.3	4,094.8	1.45	2,821.435	
590.5	590.5	582.5	582.5	1.2	0.5	109.05	-1,337.1	3,871.9	4,096.3	4,094.5	1.74	2,355.389	
600.0	600.0	592.0	592.0	1.2	0.5	109.05	-1,337.1	3,871.9	4,096.3	4,094.5	1.77	2,315.473	
689.0	689.0	699.7	699.7	1.4	0.7	109.05	-1,336.9	3,871.9	4,096.2	4,094.1	2.13	1,924.948	
700.0	700.0	718.7	718.7	1.4	0.7	109.05	-1,336.7	3,871.8	4,096.2	4,094.0	2.20	1,865.745	
787.4	787.4	802.1	802.1	1.6	0.9	109.04	-1,335.9	3,871.4	4,095.5	4,093.0	2.56	1,598.547	
800.0	800.0	812.7	812.7	1.7	0.9	109.04	-1,335.9	3,871.4	4,095.5	4,092.9	2.61	1,568.352	
885.8	885.8	899.5	899.5	1.9	1.1	109.05	-1,336.5	3,870.8	4,095.1	4,092.1	2.97	1,378.984	
900.0	900.0	914.7	914.7	1.9	1.1	109.05	-1,336.6	3,870.6	4,095.0	4,092.0	3.03	1,351.407	
944.7	944.7	925.0	925.0	2.0	1.2	109.05	-1,336.7	3,870.6	4,094.9	4,091.7	3.15	1,299.964	
984.2	984.2	953.9	953.8	2.1	1.2	109.06	-1,337.0	3,870.4	4,094.9	4,091.6	3.30	1,242.272	
1,000.0	1,000.0	959.9	959.9	2.1	1.2	109.06	-1,337.1	3,870.4	4,095.0	4,091.7	3.34	1,224.656	
1,082.7	1,082.7	1,018.0	1,018.0	2.3	1.3	109.07	-1,338.6	3,871.1	4,096.4	4,092.8	3.65	1,123.744	
1,100.0	1,100.0	1,018.0	1,018.0	2.3	1.3	109.07	-1,338.6	3,871.1	4,096.7	4,093.0	3.68	1,111.942	
1,181.1	1,181.1	1,036.6	1,036.6	2.5	1.4	109.08	-1,339.2	3,871.5	4,098.9	4,095.0	3.90	1,049.731	
1,200.0	1,200.0	1,048.1	1,048.0	2.6	1.4	109.09	-1,339.6	3,871.8	4,099.5	4,095.6	3.97	1,032.447	
1,279.5	1,279.5	1,111.0	1,110.9	2.7	1.5	109.11	-1,342.3	3,873.5	4,102.7	4,098.4	4.28	958.951	
1,300.0	1,300.0	1,111.0	1,110.9	2.8	1.5	109.11	-1,342.3	3,873.5	4,103.5	4,099.2	4.32	948.943	
1,377.9	1,377.9	1,156.1	1,155.9	3.0	1.6	-9.50	-1,344.7	3,875.0	4,106.2	4,101.7	4.58	897.252	
1,400.0	1,400.0	1,169.5	1,169.3	3.0	1.7	-9.49	-1,345.6	3,875.5	4,106.7	4,102.1	4.65	883.381	
1,476.4	1,476.3	1,218.9	1,218.4	3.1	1.8	-9.46	-1,348.9	3,877.3	4,107.5	4,102.6	4.89	839.468	
1,500.0	1,499.8	1,241.9	1,241.4	3.2	1.8	-9.45	-1,350.7	3,878.2	4,107.4	4,102.4	4.99	823.660	
1,574.8	1,574.4	1,331.8	1,330.9	3.3	2.0	-9.38	-1,358.5	3,881.2	4,105.9	4,100.6	5.33	770.292	
1,600.0	1,599.5	1,401.0	1,399.6	3.4	2.2	-9.30	-1,366.3	3,882.3	4,104.7	4,099.1	5.54	740.614	
1,673.2	1,672.2	1,446.2	1,444.4	3.6	2.3	-9.25	-1,372.1	3,882.6	4,099.9	4,094.1	5.80	707.420	
1,700.0	1,698.7	1,462.4	1,460.5	3.6	2.4	-9.24	-1,374.2	3,882.8	4,097.8	4,091.9	5.89	696.221	
1,771.6	1,769.5	1,516.8	1,514.4	3.8	2.5	-9.18	-1,381.5	3,883.7	4,091.3	4,085.1	6.16	663.837	
1,800.0	1,797.5	1,550.0	1,547.3	3.9	2.6	-9.15	-1,386.1	3,884.1	4,088.2	4,081.9	6.30	648.475	
1,870.1	1,866.3	1,658.8	1,654.9	4.1	2.9	-9.01	-1,402.1	3,884.8	4,079.3	4,072.5	6.75	604.777	
1,900.2	1,895.8	1,684.0	1,679.8	4.2	3.0	-8.98	-1,406.1	3,884.6	4,074.7	4,067.8	6.87	592.707	
1,968.5	1,962.6	1,714.9	1,710.3	4.4	3.1	-8.93	-1,411.0	3,884.6	4,064.3	4,057.2	7.12	571.030	
2,000.0	1,993.4	1,726.4	1,721.7	4.5	3.2	-8.91	-1,412.9	3,884.7	4,059.8	4,052.6	7.22	562.295	
2,066.9	2,058.9	1,763.0	1,757.7	4.7	3.3	-8.85	-1,419.0	3,885.2	4,050.7	4,043.2	7.48	541.427	
2,100.0	2,091.2	1,763.0	1,757.7	4.8	3.3	-8.85	-1,419.0	3,885.2	4,046.4	4,038.8	7.56	535.582	
2,165.3	2,155.2	1,801.0	1,795.1	5.1	3.4	-8.78	-1,425.8	3,886.1	4,038.4	4,030.5	7.83	515.977	
2,200.0	2,189.1	1,821.2	1,814.9	5.2	3.5	-8.74	-1,429.6	3,886.6	4,034.3	4,026.3	7.97	505.930	
2,263.8	2,251.4	1,858.3	1,851.3	5.5	3.6	-8.66	-1,437.0	3,887.6	4,027.1	4,018.9	8.24	488.467	
2,300.0	2,286.9	1,897.1	1,889.2	5.6	3.8	-8.58	-1,445.0	3,888.6	4,023.1	4,014.7	8.46	475.295	
2,362.2	2,347.7	1,976.6	1,967.0	5.8	4.1	-8.40	-1,461.5	3,890.6	4,016.2	4,007.3	8.89	451.612	
2,400.0	2,384.7	2,047.0	2,035.6	6.0	4.4	-8.22	-1,477.1	3,891.2	4,011.7	4,002.5	9.24	433.984	
2,460.6	2,444.0	2,096.4	2,083.7	6.2	4.6	-8.09	-1,488.6	3,891.3	4,004.4	3,994.8	9.59	417.750	
2,500.0	2,482.5	2,124.8	2,111.2	6.4	4.7	-8.01	-1,495.3	3,891.4	3,999.7	3,989.9	9.79	408.418	

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

Anticollision Report



Company:	PDC ENERGY	Local Co-ordinate Reference:	Well WACKER 10G-214
Project:	WELD COUNTY, COLORADO	TVD Reference:	KB-EST @ 4624.0usft (Original Well Elev)
Reference Site:	SW NW SEC. 10 T5N R64W 6th P.M.	MD Reference:	KB-EST @ 4624.0usft (Original Well Elev)
Site Error:	0.0 usft	North Reference:	True
Reference Well:	WACKER 10G-214	Survey Calculation Method:	Minimum Curvature
Well Error:	0.0 usft	Output errors are at	2.00 sigma
Reference Wellbore	ORIGINAL WELLBORE	Database:	EDM 5000.1 Single User Db
Reference Design:	PROPOSAL #1	Offset TVD Reference:	Offset Datum

Offset Design												Offset Site Error:	0.0 usft
Survey Program: 655-MWD												Offset Well Error:	0.0 usft
Reference		Offset		Semi Major Axis			Distance						Warning
Measured Depth (usft)	Vertical Depth (usft)	Measured Depth (usft)	Vertical Depth (usft)	Reference (usft)	Offset (usft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (usft)	+E/-W (usft)	Between Centres (usft)	Between Ellipses (usft)	Minimum Separation (usft)	Separation Factor	
2,559.0	2,540.3	2,254.6	2,237.7	6.6	5.2	-7.66	-1,524.9	3,891.4	3,992.3	3,981.9	10.43	382.902	
2,600.0	2,580.3	2,285.0	2,267.3	6.8	5.3	-7.58	-1,531.8	3,891.1	3,986.9	3,976.3	10.65	374.477	
2,657.5	2,636.5	2,332.0	2,312.9	7.1	5.5	-7.44	-1,543.1	3,890.6	3,979.5	3,968.6	10.97	362.627	
2,700.0	2,678.1	2,353.4	2,333.6	7.2	5.6	-7.38	-1,548.4	3,890.3	3,974.2	3,963.0	11.18	355.586	
2,755.9	2,732.8	2,386.1	2,365.2	7.5	5.8	-7.27	-1,556.8	3,890.0	3,967.5	3,956.1	11.46	346.060	
2,800.0	2,775.9	2,427.0	2,404.6	7.7	6.0	-7.14	-1,567.9	3,889.7	3,962.5	3,950.8	11.76	336.952	
2,854.3	2,829.1	2,461.4	2,437.7	7.9	6.2	-7.02	-1,577.3	3,889.5	3,956.5	3,944.4	12.05	328.391	
2,900.0	2,873.8	2,517.1	2,491.3	8.1	6.4	-6.83	-1,592.5	3,889.0	3,951.4	3,939.0	12.41	318.490	
2,952.7	2,925.4	2,561.8	2,534.3	8.3	6.6	-6.68	-1,604.4	3,888.6	3,945.5	3,932.8	12.72	310.161	
2,953.5	2,926.1	2,562.4	2,534.9	8.3	6.6	-6.68	-1,604.6	3,888.6	3,945.4	3,932.7	12.72	310.052	
3,000.0	2,971.6	2,600.5	2,571.7	8.5	6.8	-6.55	-1,614.5	3,888.5	3,940.7	3,927.7	13.01	302.841	
3,051.2	3,022.0	2,647.3	2,616.9	8.7	7.0	-6.39	-1,626.5	3,888.6	3,936.5	3,923.1	13.34	295.158	
3,100.0	3,070.1	2,694.6	2,662.7	8.8	7.2	-6.23	-1,638.6	3,888.7	3,933.3	3,919.7	13.65	288.076	
3,149.6	3,119.1	2,737.1	2,703.7	8.9	7.4	-6.09	-1,649.3	3,888.8	3,931.0	3,917.1	13.95	281.815	
3,200.0	3,169.1	2,777.3	2,742.7	9.1	7.6	-5.97	-1,659.3	3,889.1	3,929.7	3,915.5	14.23	276.063	
3,240.9	3,209.7	2,811.5	2,775.8	9.2	7.7	-5.86	-1,667.7	3,889.4	3,929.4	3,914.9	14.47	271.561 CC	
3,248.0	3,216.8	2,819.2	2,783.3	9.2	7.8	-5.84	-1,669.7	3,889.5	3,929.4	3,914.9	14.52	270.629 ES	
3,300.0	3,268.5	2,875.6	2,837.9	9.3	8.0	-5.65	-1,684.0	3,889.9	3,929.9	3,915.1	14.88	264.105	
3,346.4	3,314.8	2,928.6	2,888.9	9.4	8.3	-5.48	-1,697.9	3,889.9	3,931.2	3,916.0	15.21	258.463	
3,400.0	3,368.3	2,992.9	2,951.0	9.6	8.6	-5.26	-1,714.8	3,889.8	3,933.5	3,917.9	15.60	252.093	
3,444.9	3,413.1	3,037.0	2,993.7	9.6	8.8	-5.11	-1,726.2	3,889.8	3,936.1	3,920.3	15.87	247.981	
3,500.0	3,468.2	3,090.8	3,045.7	9.7	9.0	-4.95	-1,739.4	3,890.0	3,940.4	3,924.2	16.20	243.303	
3,543.3	3,511.5	3,129.8	3,083.6	9.8	9.2	-4.83	-1,748.9	3,890.2	3,944.5	3,928.0	16.43	240.120	
3,553.7	3,521.9	3,139.1	3,092.7	9.8	9.3	113.85	-1,751.1	3,890.3	3,945.5	3,928.7	16.84	234.242	
3,600.0	3,568.2	3,180.8	3,133.1	9.9	9.5	113.98	-1,761.2	3,890.6	3,950.5	3,933.5	17.05	231.741	
3,641.7	3,609.9	3,246.8	3,197.1	10.0	9.8	114.19	-1,777.1	3,890.9	3,954.9	3,937.6	17.33	228.272	
3,700.0	3,668.2	3,317.0	3,265.4	10.1	10.1	114.41	-1,793.9	3,890.9	3,960.7	3,943.1	17.64	224.503	
3,740.1	3,708.4	3,355.2	3,302.6	10.1	10.2	114.52	-1,802.5	3,891.1	3,964.8	3,946.9	17.83	222.395	
3,800.0	3,768.2	3,401.9	3,348.1	10.2	10.4	114.65	-1,812.5	3,891.6	3,970.8	3,952.8	18.07	219.711	
3,838.6	3,806.8	3,428.1	3,373.7	10.3	10.6	114.73	-1,818.2	3,892.0	3,974.9	3,956.7	18.22	218.155	
3,900.0	3,868.2	3,470.0	3,414.6	10.4	10.7	114.84	-1,827.4	3,892.7	3,981.6	3,963.2	18.46	215.727	
3,937.0	3,905.2	3,501.6	3,445.4	10.5	10.9	114.93	-1,834.5	3,893.2	3,985.8	3,967.2	18.63	214.001	
4,000.0	3,968.2	3,556.0	3,498.2	10.6	11.1	115.10	-1,847.3	3,894.0	3,993.0	3,974.1	18.91	211.111	
4,035.4	4,003.6	3,697.0	3,634.9	10.6	11.8	115.55	-1,881.9	3,892.9	3,996.3	3,976.8	19.44	205.589	
4,100.0	4,068.2	3,755.0	3,691.1	10.7	12.1	115.75	-1,896.3	3,891.6	4,002.2	3,982.4	19.74	202.768	
4,133.8	4,102.1	3,781.8	3,717.0	10.8	12.2	115.84	-1,903.1	3,891.0	4,005.3	3,985.4	19.88	201.428	
4,200.0	4,168.2	3,830.1	3,763.8	10.9	12.4	116.00	-1,915.2	3,890.2	4,011.7	3,991.5	20.16	199.005	
4,232.3	4,200.5	3,854.6	3,787.5	11.0	12.6	116.08	-1,921.4	3,889.8	4,014.9	3,994.6	20.30	197.816	
4,300.0	4,268.2	3,917.1	3,848.0	11.1	12.8	116.29	-1,936.9	3,889.1	4,021.8	4,001.2	20.62	195.044	
4,330.7	4,298.9	3,946.2	3,876.3	11.1	13.0	116.38	-1,944.0	3,888.8	4,025.0	4,004.2	20.77	193.789	
4,400.0	4,368.2	4,076.1	4,002.5	11.3	13.6	116.78	-1,974.4	3,887.1	4,031.5	4,010.2	21.30	189.236	
4,429.1	4,397.3	4,114.7	4,040.1	11.3	13.7	116.89	-1,983.0	3,886.4	4,034.0	4,012.6	21.48	187.841	
4,500.0	4,468.2	4,199.4	4,122.9	11.4	14.1	117.13	-2,001.2	3,885.1	4,040.0	4,018.2	21.86	184.804	
4,527.5	4,495.8	4,231.3	4,154.1	11.5	14.2	117.22	-2,007.6	3,884.7	4,042.3	4,020.3	22.01	183.680	
4,600.0	4,568.2	4,304.0	4,225.4	11.6	14.5	117.40	-2,021.7	3,884.1	4,048.3	4,026.0	22.36	181.092	
4,626.0	4,594.2	4,330.4	4,251.3	11.7	14.6	117.46	-2,026.6	3,883.9	4,050.5	4,028.0	22.48	180.176	
4,700.0	4,668.2	4,407.8	4,327.5	11.8	14.9	117.64	-2,040.7	3,883.7	4,056.6	4,033.7	22.84	177.576	
4,724.4	4,692.6	4,432.9	4,352.1	11.9	15.0	117.70	-2,045.0	3,883.7	4,058.6	4,035.6	22.96	176.748	
4,800.0	4,768.2	4,509.0	4,427.2	12.0	15.3	117.86	-2,058.1	3,883.8	4,064.7	4,041.4	23.32	174.274	
4,822.8	4,791.0	4,543.9	4,461.6	12.0	15.4	117.93	-2,063.8	3,884.0	4,066.6	4,043.1	23.47	173.302	
4,900.0	4,868.2	4,665.9	4,582.4	12.2	15.8	118.14	-2,081.2	3,884.7	4,072.2	4,048.3	23.94	170.074	
4,921.2	4,889.5	4,696.7	4,612.9	12.2	15.9	118.19	-2,085.1	3,885.0	4,073.7	4,049.6	24.07	169.274	

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

Anticollision Report



Company:	PDC ENERGY	Local Co-ordinate Reference:	Well WACKER 10G-214
Project:	WELD COUNTY, COLORADO	TVD Reference:	KB-EST @ 4624.0usft (Original Well Elev)
Reference Site:	SW NW SEC. 10 T5N R64W 6th P.M.	MD Reference:	KB-EST @ 4624.0usft (Original Well Elev)
Site Error:	0.0 usft	North Reference:	True
Reference Well:	WACKER 10G-214	Survey Calculation Method:	Minimum Curvature
Well Error:	0.0 usft	Output errors are at	2.00 sigma
Reference Wellbore	ORIGINAL WELLBORE	Database:	EDM 5000.1 Single User Db
Reference Design:	PROPOSAL #1	Offset TVD Reference:	Offset Datum

Offset Design												Offset Site Error:	0.0 usft
Survey Program: 655-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	
5,000.0	4,968.2	4,888.0	4,803.1	12.4	16.4	118.44	-2,105.1	3,884.4	4,076.8	4,052.2	24.67	165.244	
5,019.7	4,987.9	4,909.4	4,824.4	12.4	16.5	118.46	-2,107.0	3,884.3	4,077.6	4,052.8	24.76	164.702	
5,100.0	5,068.2	5,000.1	4,914.7	12.6	16.7	118.56	-2,114.8	3,883.9	4,080.6	4,055.5	25.11	162.488	
5,118.1	5,086.3	5,032.7	4,947.3	12.6	16.8	118.59	-2,117.3	3,883.8	4,081.2	4,056.0	25.22	161.834	
5,200.0	5,168.2	5,143.0	5,057.3	12.7	17.0	118.69	-2,124.6	3,883.2	4,083.4	4,057.8	25.61	159.460	
5,216.5	5,184.7	5,161.2	5,075.5	12.8	17.1	118.70	-2,125.7	3,883.2	4,083.8	4,058.1	25.68	159.045	
5,300.0	5,268.2	5,263.8	5,178.0	12.9	17.3	118.77	-2,131.2	3,882.8	4,085.7	4,059.7	26.04	156.873	
5,314.9	5,283.2	5,281.0	5,195.1	13.0	17.3	118.78	-2,132.0	3,882.8	4,086.0	4,059.9	26.11	156.506	
5,400.0	5,368.2	5,367.5	5,281.6	13.1	17.5	118.82	-2,135.3	3,882.9	4,087.7	4,061.2	26.44	154.603	
5,413.4	5,381.6	5,464.0	5,378.1	13.2	17.6	118.85	-2,137.5	3,882.5	4,087.7	4,061.0	26.64	153.443	
5,469.1	5,437.3	5,513.3	5,427.3	13.3	17.7	118.86	-2,138.2	3,882.0	4,087.6	4,060.7	26.83	152.350	
5,500.0	5,468.2	5,535.9	5,449.9	13.3	17.7	118.87	-2,138.6	3,881.9	4,087.6	4,060.7	26.93	151.798	
5,511.8	5,480.0	5,544.5	5,458.5	13.3	17.7	118.87	-2,138.7	3,881.8	4,087.7	4,060.7	26.97	151.589	
5,600.0	5,568.2	5,630.1	5,544.1	13.5	17.9	118.89	-2,139.9	3,881.5	4,088.0	4,060.7	27.28	149.835	
5,610.2	5,578.4	5,640.7	5,554.7	13.5	17.9	118.89	-2,140.1	3,881.5	4,088.1	4,060.7	27.32	149.627	
5,700.0	5,668.2	5,738.3	5,652.3	13.7	18.0	118.90	-2,140.8	3,881.5	4,088.3	4,060.7	27.67	147.777	
5,708.6	5,676.9	5,747.7	5,661.8	13.7	18.0	118.90	-2,140.8	3,881.5	4,088.4	4,060.7	27.70	147.599	
5,797.6	5,765.8	5,844.0	5,758.0	13.9	18.2	118.91	-2,141.3	3,881.2	4,088.3	4,060.3	28.04	145.826	
5,800.0	5,768.2	5,844.0	5,758.0	13.9	18.2	118.91	-2,141.3	3,881.2	4,088.3	4,060.3	28.04	145.802	
5,807.1	5,775.3	5,844.0	5,758.0	13.9	18.2	118.91	-2,141.3	3,881.2	4,088.3	4,060.3	28.05	145.730	
5,900.0	5,868.2	5,893.1	5,807.1	14.1	18.2	118.90	-2,141.3	3,881.5	4,088.9	4,060.6	28.32	144.371	
5,905.5	5,873.7	5,895.6	5,809.6	14.1	18.2	118.90	-2,141.3	3,881.5	4,089.0	4,060.7	28.34	144.297	
5,960.7	5,928.9	5,938.0	5,852.0	14.2	18.3	118.89	-2,141.0	3,882.7	4,090.1	4,061.5	28.52	143.413	
6,000.0	5,968.2	5,938.0	5,852.0	14.3	18.3	-151.04	-2,141.0	3,882.7	4,091.9	4,062.0	29.85	137.064	
6,003.9	5,972.1	5,938.0	5,852.0	14.3	18.3	-151.03	-2,141.0	3,882.7	4,092.2	4,062.3	29.85	137.104	
6,050.0	6,018.0	5,938.0	5,852.0	14.4	18.3	-150.82	-2,141.0	3,882.7	4,097.4	4,067.7	29.72	137.864	
6,100.0	6,067.3	5,938.0	5,852.0	14.4	18.3	-150.46	-2,141.0	3,882.7	4,106.6	4,077.1	29.47	139.333	
6,102.3	6,069.6	5,938.0	5,852.0	14.4	18.3	-150.43	-2,141.0	3,882.7	4,107.1	4,077.6	29.46	139.418	
6,150.0	6,116.0	5,938.0	5,852.0	14.4	18.3	-149.93	-2,141.0	3,882.7	4,119.2	4,090.1	29.12	141.476	
6,200.0	6,163.8	5,938.0	5,852.0	14.5	18.3	-149.24	-2,141.0	3,882.7	4,135.4	4,106.7	28.66	144.297	
6,200.8	6,164.5	5,938.0	5,852.0	14.5	18.3	-149.23	-2,141.0	3,882.7	4,135.7	4,107.0	28.65	144.346	
6,250.0	6,210.4	5,938.0	5,852.0	14.5	18.3	-148.37	-2,141.0	3,882.7	4,154.9	4,126.7	28.11	147.789	
6,299.2	6,254.9	5,938.0	5,852.0	14.5	18.3	-147.30	-2,141.0	3,882.7	4,177.1	4,149.6	27.51	151.856	
6,300.0	6,255.6	5,938.0	5,852.0	14.5	18.3	-147.28	-2,141.0	3,882.7	4,177.5	4,150.0	27.50	151.927	
6,350.0	6,299.3	5,982.7	5,896.5	14.5	18.3	-146.21	-2,139.9	3,886.3	4,201.5	4,174.6	26.86	156.421	
6,397.6	6,339.2	5,987.6	5,901.4	14.6	18.3	-144.78	-2,139.8	3,886.9	4,228.2	4,202.0	26.21	161.312	
6,400.0	6,341.2	5,987.8	5,901.6	14.6	18.3	-144.71	-2,139.8	3,887.0	4,229.6	4,203.4	26.18	161.566	
6,450.0	6,381.0	6,033.0	5,946.0	14.6	18.4	-143.25	-2,137.4	3,895.1	4,261.7	4,236.2	25.52	166.969	
6,496.0	6,415.8	6,033.0	5,946.0	14.7	18.4	-141.29	-2,137.4	3,895.1	4,292.0	4,267.0	24.97	171.877	
6,500.0	6,418.7	6,033.0	5,946.0	14.7	18.4	-141.10	-2,137.4	3,895.1	4,294.6	4,269.7	24.93	172.290	
6,550.0	6,453.9	6,033.0	5,946.0	14.8	18.4	-138.54	-2,137.4	3,895.1	4,329.9	4,305.4	24.47	176.978	
6,594.5	6,483.1	6,033.0	5,946.0	15.0	18.4	-135.85	-2,137.4	3,895.1	4,362.9	4,338.7	24.23	180.030	
6,600.0	6,486.6	6,033.0	5,946.0	15.1	18.4	-135.49	-2,137.4	3,895.1	4,367.1	4,342.9	24.22	180.327	
6,650.0	6,516.6	6,033.0	5,946.0	15.3	18.4	-131.85	-2,137.4	3,895.1	4,406.3	4,382.0	24.27	181.548	
6,692.9	6,540.0	6,033.0	5,946.0	15.7	18.4	-128.19	-2,137.4	3,895.1	4,441.1	4,416.5	24.62	180.375	
6,700.0	6,543.7	6,033.0	5,946.0	15.7	18.4	-127.53	-2,137.4	3,895.1	4,447.0	4,422.3	24.70	180.004	
6,750.0	6,567.8	6,033.0	5,946.0	16.2	18.4	-122.41	-2,137.4	3,895.1	4,489.1	4,463.5	25.57	175.527	
6,791.3	6,585.4	6,033.0	5,946.0	16.7	18.4	-117.53	-2,137.4	3,895.1	4,524.7	4,498.1	26.62	169.945	
6,800.0	6,588.8	6,033.0	5,946.0	16.8	18.4	-116.42	-2,137.4	3,895.1	4,532.3	4,505.4	26.87	168.667	
6,850.0	6,606.6	6,033.0	5,946.0	17.4	18.4	-109.53	-2,137.4	3,895.1	4,576.4	4,547.9	28.49	160.637	
6,889.7	6,618.4	6,033.0	5,946.0	18.0	18.4	-103.45	-2,137.4	3,895.1	4,611.9	4,582.1	29.87	154.382	
6,900.0	6,621.1	6,033.0	5,946.0	18.2	18.4	-101.80	-2,137.4	3,895.1	4,621.2	4,590.9	30.22	152.932	

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

Anticollision Report



Company:	PDC ENERGY	Local Co-ordinate Reference:	Well WACKER 10G-214
Project:	WELD COUNTY, COLORADO	TVD Reference:	KB-EST @ 4624.0usft (Original Well Elev)
Reference Site:	SW NW SEC. 10 T5N R64W 6th P.M.	MD Reference:	KB-EST @ 4624.0usft (Original Well Elev)
Site Error:	0.0 usft	North Reference:	True
Reference Well:	WACKER 10G-214	Survey Calculation Method:	Minimum Curvature
Well Error:	0.0 usft	Output errors are at	2.00 sigma
Reference Wellbore	ORIGINAL WELLBORE	Database:	EDM 5000.1 Single User Db
Reference Design:	PROPOSAL #1	Offset TVD Reference:	Offset Datum

Offset Design												Offset Site Error:	0.0 usft
Survey Program: 655-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	
6,950.0	6,632.2	6,033.0	5,946.0	19.0	18.4	-93.46	-2,137.4	3,895.1	4,666.3	4,634.5	31.77	146.859	
6,988.2	6,638.4	6,033.0	5,946.0	19.7	18.4	-86.89	-2,137.4	3,895.1	4,700.9	4,668.3	32.69	143.814	
7,000.0	6,639.9	6,033.0	5,946.0	19.9	18.4	-84.85	-2,137.4	3,895.1	4,711.7	4,678.8	32.90	143.214	
7,050.0	6,644.1	6,033.0	5,946.0	20.8	18.4	-76.40	-2,137.4	3,895.1	4,757.0	4,723.5	33.45	142.194	
7,086.5	6,645.0	6,033.0	5,946.0	21.5	18.4	-70.54	-2,137.4	3,895.1	4,790.0	4,756.4	33.51	142.944	
7,100.0	6,645.0	6,033.0	5,946.0	21.8	18.4	-70.54	-2,137.4	3,895.1	4,802.1	4,768.3	33.76	142.239	
7,185.0	6,644.9	6,033.0	5,946.0	23.6	18.4	-70.54	-2,137.4	3,895.1	4,878.7	4,843.3	35.42	137.731	
7,200.0	6,644.8	6,033.0	5,946.0	23.9	18.4	-70.54	-2,137.4	3,895.1	4,892.3	4,856.6	35.72	136.981	
7,283.4	6,644.7	6,033.0	5,946.0	25.7	18.4	-70.54	-2,137.4	3,895.1	4,967.8	4,930.4	37.45	132.635	
7,300.0	6,644.7	6,033.0	5,946.0	26.1	18.4	-70.54	-2,137.4	3,895.1	4,982.8	4,945.0	37.80	131.821	
7,381.9	6,644.6	6,033.0	5,946.0	28.0	18.4	-70.54	-2,137.4	3,895.1	5,057.3	5,017.7	39.59	127.742	
7,400.0	6,644.6	6,033.0	5,946.0	28.4	18.4	-70.54	-2,137.4	3,895.1	5,073.8	5,033.8	39.99	126.888	
7,480.3	6,644.5	6,033.0	5,946.0	30.3	18.4	-70.54	-2,137.4	3,895.1	5,147.0	5,105.2	41.80	123.122	
7,500.0	6,644.4	6,033.0	5,946.0	30.8	18.4	-70.54	-2,137.4	3,895.1	5,165.1	5,122.8	42.25	122.248	
7,578.7	6,644.3	6,033.0	5,946.0	32.7	18.4	-70.54	-2,137.4	3,895.1	5,237.1	5,193.0	44.08	118.805	
7,600.0	6,644.3	6,033.0	5,946.0	33.3	18.4	-70.54	-2,137.4	3,895.1	5,256.6	5,212.1	44.58	117.923	
7,677.1	6,644.2	6,033.0	5,946.0	35.2	18.4	-70.54	-2,137.4	3,895.1	5,327.5	5,281.1	46.41	114.795	
7,700.0	6,644.1	6,033.0	5,946.0	35.8	18.4	-70.54	-2,137.4	3,895.1	5,348.5	5,301.6	46.95	113.916	
7,775.6	6,644.0	6,033.0	5,946.0	37.7	18.4	-70.54	-2,137.4	3,895.1	5,418.2	5,369.4	48.78	111.082	
7,800.0	6,644.0	6,033.0	5,946.0	38.3	18.4	-70.54	-2,137.4	3,895.1	5,440.7	5,391.3	49.37	110.211	
7,874.0	6,643.9	6,033.0	5,946.0	40.2	18.4	-70.54	-2,137.4	3,895.1	5,509.1	5,457.9	51.18	107.649	
7,900.0	6,643.9	6,033.0	5,946.0	40.9	18.4	-70.54	-2,137.4	3,895.1	5,533.2	5,481.3	51.81	106.792	
7,972.4	6,643.8	6,033.0	5,946.0	42.8	18.4	-70.54	-2,137.4	3,895.1	5,600.3	5,546.7	53.60	104.476	
8,000.0	6,643.7	6,033.0	5,946.0	43.5	18.4	-70.54	-2,137.4	3,895.1	5,625.9	5,571.6	54.29	103.635	
8,070.8	6,643.6	6,033.0	5,946.0	45.4	18.4	-70.54	-2,137.4	3,895.1	5,691.7	5,635.6	56.05	101.542	
8,100.0	6,643.6	6,033.0	5,946.0	46.2	18.4	-70.54	-2,137.4	3,895.1	5,718.8	5,662.0	56.78	100.718	
8,169.3	6,643.5	6,033.0	5,946.0	48.0	18.4	-70.54	-2,137.4	3,895.1	5,783.3	5,724.8	58.52	98.825	
8,200.0	6,643.5	6,033.0	5,946.0	48.8	18.4	-70.54	-2,137.4	3,895.1	5,812.0	5,752.7	59.29	98.021	
8,267.7	6,643.4	6,033.0	5,946.0	50.6	18.4	-70.54	-2,137.4	3,895.1	5,875.2	5,814.2	61.01	96.307	
8,300.0	6,643.3	6,033.0	5,946.0	51.5	18.4	-70.54	-2,137.4	3,895.1	5,905.4	5,843.6	61.82	95.523	
8,366.1	6,643.2	6,033.0	5,946.0	53.3	18.4	-70.54	-2,137.4	3,895.1	5,967.3	5,903.8	63.50	93.969	
8,400.0	6,643.2	6,033.0	5,946.0	54.2	18.4	-70.54	-2,137.4	3,895.1	5,999.0	5,934.7	64.36	93.205	
8,464.5	6,643.1	6,033.0	5,946.0	55.9	18.4	-70.54	-2,137.4	3,895.1	6,059.6	5,993.6	66.01	91.795	
8,500.0	6,643.1	6,033.0	5,946.0	56.9	18.4	-70.54	-2,137.4	3,895.1	6,092.8	6,025.9	66.92	91.050	
8,563.0	6,643.0	5,989.5	5,903.2	58.6	18.3	-69.47	-2,139.7	3,887.2	6,150.3	6,082.2	68.08	90.338	
8,600.0	6,642.9	5,989.0	5,902.8	59.6	18.3	-69.46	-2,139.7	3,887.1	6,185.1	6,116.0	69.02	89.614	
8,661.4	6,642.8	5,988.3	5,902.1	61.3	18.3	-69.44	-2,139.7	3,887.0	6,242.8	6,172.2	70.58	88.451	
8,700.0	6,642.8	5,987.8	5,901.6	62.3	18.3	-69.43	-2,139.8	3,887.0	6,279.2	6,207.6	71.56	87.746	
8,759.8	6,642.7	5,987.1	5,900.9	64.0	18.3	-69.41	-2,139.8	3,886.9	6,335.5	6,262.4	73.09	86.687	
8,800.0	6,642.7	5,986.7	5,900.5	65.1	18.3	-69.40	-2,139.8	3,886.8	6,373.4	6,299.3	74.11	86.000	
8,858.2	6,642.6	5,986.0	5,899.8	66.6	18.3	-69.38	-2,139.8	3,886.7	6,428.4	6,352.8	75.60	85.035	
8,900.0	6,642.5	5,985.6	5,899.4	67.8	18.3	-69.37	-2,139.8	3,886.7	6,467.9	6,391.2	76.66	84.366	
8,956.7	6,642.4	5,985.0	5,898.8	69.3	18.3	-69.36	-2,139.9	3,886.6	6,521.5	6,443.4	78.12	83.485	
9,000.0	6,642.4	5,984.5	5,898.3	70.5	18.3	-69.35	-2,139.9	3,886.5	6,562.5	6,483.3	79.23	82.833	
9,055.1	6,642.3	5,983.9	5,897.7	72.0	18.3	-69.33	-2,139.9	3,886.4	6,614.7	6,534.0	80.64	82.029	
9,100.0	6,642.3	5,983.5	5,897.3	73.3	18.3	-69.32	-2,139.9	3,886.4	6,657.2	6,575.5	81.79	81.394	
9,153.5	6,642.2	5,982.9	5,896.8	74.7	18.3	-69.31	-2,139.9	3,886.3	6,708.0	6,624.9	83.17	80.659	
9,200.0	6,642.1	5,982.5	5,896.3	76.0	18.3	-69.30	-2,140.0	3,886.3	6,752.2	6,667.8	84.36	80.040	
9,251.9	6,642.1	5,982.0	5,895.8	77.5	18.3	-69.28	-2,140.0	3,886.2	6,801.5	6,715.8	85.70	79.368	
9,300.0	6,642.0	5,938.0	5,852.0	78.8	18.3	-68.19	-2,141.0	3,882.7	6,849.0	6,762.7	86.33	79.339	
9,350.4	6,641.9	5,938.0	5,852.0	80.2	18.3	-68.19	-2,141.0	3,882.7	6,896.9	6,809.3	87.62	78.713	
9,400.0	6,641.9	5,938.0	5,852.0	81.5	18.3	-68.19	-2,141.0	3,882.7	6,944.1	6,855.2	88.90	78.114	

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

Anticollision Report



Company:	PDC ENERGY	Local Co-ordinate Reference:	Well WACKER 10G-214
Project:	WELD COUNTY, COLORADO	TVD Reference:	KB-EST @ 4624.0usft (Original Well Elev)
Reference Site:	SW NW SEC. 10 T5N R64W 6th P.M.	MD Reference:	KB-EST @ 4624.0usft (Original Well Elev)
Site Error:	0.0 usft	North Reference:	True
Reference Well:	WACKER 10G-214	Survey Calculation Method:	Minimum Curvature
Well Error:	0.0 usft	Output errors are at	2.00 sigma
Reference Wellbore	ORIGINAL WELLBORE	Database:	EDM 5000.1 Single User Db
Reference Design:	PROPOSAL #1	Offset TVD Reference:	Offset Datum

Offset Design												Offset Site Error:	0.0 usft
Survey Program: 655-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	6,641.8	5,938.0	5,852.0	82.9	18.3	-68.19	-2,141.0	3,882.7	6,990.6	6,900.4	90.15	77.541	
9,500.0	6,641.7	5,938.0	5,852.0	84.3	18.3	-68.19	-2,141.0	3,882.7	7,039.4	6,947.9	91.47	76.956	
9,547.2	6,641.7	5,938.0	5,852.0	85.6	18.3	-68.19	-2,141.0	3,882.7	7,084.4	6,991.7	92.69	76.431	
9,600.0	6,641.6	5,938.0	5,852.0	87.1	18.3	-68.19	-2,141.0	3,882.7	7,134.8	7,040.7	94.05	75.861	
9,645.6	6,641.5	5,938.0	5,852.0	88.3	18.3	-68.19	-2,141.0	3,882.7	7,178.4	7,083.1	95.23	75.380	
9,700.0	6,641.5	5,938.0	5,852.0	89.8	18.3	-68.19	-2,141.0	3,882.7	7,230.3	7,133.6	96.63	74.823	
9,744.1	6,641.4	5,938.0	5,852.0	91.0	18.3	-68.19	-2,141.0	3,882.7	7,272.4	7,174.6	97.77	74.382	
9,800.0	6,641.3	5,938.0	5,852.0	92.6	18.3	-68.20	-2,141.0	3,882.7	7,325.9	7,226.7	99.22	73.838	
9,842.5	6,641.3	5,938.0	5,852.0	93.8	18.3	-68.20	-2,141.0	3,882.7	7,366.6	7,266.3	100.31	73.435	
9,900.0	6,641.2	5,938.0	5,852.0	95.4	18.3	-68.20	-2,141.0	3,882.7	7,421.7	7,319.9	101.80	72.903	
9,940.9	6,641.1	5,938.0	5,852.0	96.5	18.3	-68.20	-2,141.0	3,882.7	7,460.9	7,358.0	102.86	72.534	
10,000.0	6,641.1	5,938.0	5,852.0	98.1	18.3	-68.20	-2,141.0	3,882.7	7,517.5	7,413.1	104.39	72.014	
10,039.3	6,641.0	5,938.0	5,852.0	99.2	18.3	-68.20	-2,141.0	3,882.7	7,555.3	7,449.8	105.41	71.676	
10,100.0	6,640.9	5,938.0	5,852.0	100.9	18.3	-68.20	-2,141.0	3,882.7	7,613.5	7,506.5	106.98	71.168	
10,137.8	6,640.9	5,938.0	5,852.0	102.0	18.3	-68.20	-2,141.0	3,882.7	7,649.7	7,541.8	107.96	70.858	
10,200.0	6,640.8	5,938.0	5,852.0	103.7	18.3	-68.20	-2,141.0	3,882.7	7,709.5	7,600.0	109.57	70.361	
10,236.2	6,640.8	5,938.0	5,852.0	104.7	18.3	-68.20	-2,141.0	3,882.7	7,744.3	7,633.8	110.51	70.078	
10,300.0	6,640.7	5,938.0	5,852.0	106.5	18.3	-68.20	-2,141.0	3,882.7	7,805.7	7,693.5	112.16	69.592	
10,334.6	6,640.6	5,938.0	5,852.0	107.4	18.3	-68.20	-2,141.0	3,882.7	7,839.0	7,726.0	113.06	69.333	
10,400.0	6,640.6	5,938.0	5,852.0	109.3	18.3	-68.20	-2,141.0	3,882.7	7,902.0	7,787.2	114.76	68.857	
10,433.0	6,640.5	5,938.0	5,852.0	110.2	18.3	-68.20	-2,141.0	3,882.7	7,933.8	7,818.2	115.62	68.621	
10,500.0	6,640.4	5,938.0	5,852.0	112.0	18.3	-68.20	-2,141.0	3,882.7	7,998.3	7,881.0	117.36	68.155	
10,531.5	6,640.4	5,938.0	5,852.0	112.9	18.3	-68.20	-2,141.0	3,882.7	8,028.7	7,910.5	118.17	67.940	
10,600.0	6,640.3	5,938.0	5,852.0	114.8	18.3	-68.20	-2,141.0	3,882.7	8,094.7	7,974.8	119.95	67.483	
10,629.9	6,640.3	5,938.0	5,852.0	115.7	18.3	-68.20	-2,141.0	3,882.7	8,123.6	8,002.9	120.73	67.287	
10,700.0	6,640.2	5,938.0	5,852.0	117.6	18.3	-68.20	-2,141.0	3,882.7	8,191.3	8,068.7	122.55	66.839	
10,728.3	6,640.1	5,938.0	5,852.0	118.4	18.3	-68.20	-2,141.0	3,882.7	8,218.6	8,095.3	123.29	66.662	
10,800.0	6,640.0	5,938.0	5,852.0	120.4	18.3	-68.20	-2,141.0	3,882.7	8,287.9	8,162.7	125.15	66.223	
10,826.7	6,640.0	5,938.0	5,852.0	121.2	18.3	-68.20	-2,141.0	3,882.7	8,313.7	8,187.9	125.85	66.062	
10,900.0	6,639.9	5,938.0	5,852.0	123.2	18.3	-68.20	-2,141.0	3,882.7	8,384.6	8,256.8	127.75	65.631	
10,925.2	6,639.9	5,938.0	5,852.0	123.9	18.3	-68.20	-2,141.0	3,882.7	8,408.9	8,280.5	128.41	65.486	
11,000.0	6,639.8	5,938.0	5,852.0	126.0	18.3	-68.20	-2,141.0	3,882.7	8,481.3	8,351.0	130.35	65.064	
11,023.6	6,639.8	5,938.0	5,852.0	126.6	18.3	-68.20	-2,141.0	3,882.7	8,504.2	8,373.2	130.97	64.933	
11,100.0	6,639.7	5,938.0	5,852.0	128.8	18.3	-68.20	-2,141.0	3,882.7	8,578.2	8,445.2	132.96	64.518	
11,122.0	6,639.6	5,938.0	5,852.0	129.4	18.3	-68.20	-2,141.0	3,882.7	8,599.5	8,466.0	133.53	64.401	
11,200.0	6,639.5	5,938.0	5,852.0	131.6	18.3	-68.20	-2,141.0	3,882.7	8,675.1	8,539.5	135.56	63.994	
11,220.4	6,639.5	5,938.0	5,852.0	132.1	18.3	-68.20	-2,141.0	3,882.7	8,694.9	8,558.8	136.09	63.889	
11,300.0	6,639.4	5,938.0	5,852.0	134.4	18.3	-68.20	-2,141.0	3,882.7	8,772.1	8,633.9	138.17	63.489	
11,318.9	6,639.4	5,938.0	5,852.0	134.9	18.3	-68.20	-2,141.0	3,882.7	8,790.4	8,651.7	138.66	63.396	
11,400.0	6,639.3	5,938.0	5,852.0	137.1	18.3	-68.21	-2,141.0	3,882.7	8,869.1	8,728.3	140.77	63.004	
11,417.3	6,639.3	5,938.0	5,852.0	137.6	18.3	-68.21	-2,141.0	3,882.7	8,885.9	8,744.7	141.22	62.922	
11,500.0	6,639.2	5,938.0	5,852.0	139.9	18.3	-68.21	-2,141.0	3,882.7	8,966.2	8,822.8	143.38	62.536	
11,515.7	6,639.1	5,938.0	5,852.0	140.4	18.3	-68.21	-2,141.0	3,882.7	8,981.5	8,837.7	143.79	62.464	
11,600.0	6,639.0	5,938.0	5,852.0	142.7	18.3	-68.21	-2,141.0	3,882.7	9,063.4	8,917.4	145.98	62.085	
11,614.1	6,639.0	5,938.0	5,852.0	143.1	18.3	-68.21	-2,141.0	3,882.7	9,077.1	8,930.8	146.35	62.022	
11,700.0	6,638.9	5,938.0	5,852.0	145.5	18.3	-68.21	-2,141.0	3,882.7	9,160.6	9,012.0	148.59	61.650	
11,712.6	6,638.9	5,938.0	5,852.0	145.9	18.3	-68.21	-2,141.0	3,882.7	9,172.9	9,023.9	148.92	61.596	
11,800.0	6,638.8	5,938.0	5,852.0	148.3	18.3	-68.21	-2,141.0	3,882.7	9,257.9	9,106.7	151.20	61.230	
11,811.0	6,638.8	5,938.0	5,852.0	148.6	18.3	-68.21	-2,141.0	3,882.7	9,268.6	9,117.1	151.49	61.185	
11,900.0	6,638.7	5,938.0	5,852.0	151.1	18.3	-68.21	-2,141.0	3,882.7	9,355.3	9,201.5	153.81	60.824	
11,909.4	6,638.6	5,938.0	5,852.0	151.4	18.3	-68.21	-2,141.0	3,882.7	9,364.4	9,210.4	154.05	60.787	
12,000.0	6,638.5	5,938.0	5,852.0	153.9	18.3	-68.21	-2,141.0	3,882.7	9,452.7	9,296.3	156.42	60.433	

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

Anticollision Report



Company:	PDC ENERGY	Local Co-ordinate Reference:	Well WACKER 10G-214
Project:	WELD COUNTY, COLORADO	TVD Reference:	KB-EST @ 4624.0usft (Original Well Elev)
Reference Site:	SW NW SEC. 10 T5N R64W 6th P.M.	MD Reference:	KB-EST @ 4624.0usft (Original Well Elev)
Site Error:	0.0 usft	North Reference:	True
Reference Well:	WACKER 10G-214	Survey Calculation Method:	Minimum Curvature
Well Error:	0.0 usft	Output errors are at	2.00 sigma
Reference Wellbore	ORIGINAL WELLBORE	Database:	EDM 5000.1 Single User Db
Reference Design:	PROPOSAL #1	Offset TVD Reference:	Offset Datum

Offset Design SW NW SEC. 10 T5N R64W 6th P.M. - EXIST HZ KELLY #B11-63-1HN - Wellbore #1 - Wellbore #1												Offset Site Error:	0.0 usft
Survey Program: 655-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
12,007.8	6,638.5	5,938.0	5,852.0	154.1	18.3	-68.21	-2,141.0	3,882.7	9,460.3	9,303.7	156.62	60.402	
12,100.0	6,638.4	5,938.0	5,852.0	156.7	18.3	-68.21	-2,141.0	3,882.7	9,550.1	9,391.1	159.03	60.054	
12,106.3	6,638.4	5,938.0	5,852.0	156.9	18.3	-68.21	-2,141.0	3,882.7	9,556.2	9,397.1	159.19	60.030	
12,200.0	6,638.3	5,938.0	5,852.0	159.5	18.3	-68.21	-2,141.0	3,882.7	9,647.6	9,486.0	161.64	59.687	
12,204.7	6,638.3	5,938.0	5,852.0	159.6	18.3	-68.21	-2,141.0	3,882.7	9,652.2	9,490.5	161.76	59.670	
12,300.0	6,638.2	5,938.0	5,852.0	162.3	18.3	-68.21	-2,141.0	3,882.7	9,745.2	9,581.0	164.25	59.332	
12,303.1	6,638.2	5,938.0	5,852.0	162.4	18.3	-68.21	-2,141.0	3,882.7	9,748.3	9,583.9	164.33	59.322	
12,400.0	6,638.0	5,938.0	5,852.0	165.1	18.3	-68.21	-2,141.0	3,882.7	9,842.8	9,676.0	166.86	58.989	
12,401.5	6,638.0	5,938.0	5,852.0	165.2	18.3	-68.21	-2,141.0	3,882.7	9,844.3	9,677.4	166.90	58.984	
12,500.0	6,637.9	5,938.0	5,852.0	167.9	18.3	-68.21	-2,141.0	3,882.7	9,940.5	9,771.0	169.47	58.656 SF	

Anticollision Report



Company:	PDC ENERGY	Local Co-ordinate Reference:	Well WACKER 10G-214
Project:	WELD COUNTY, COLORADO	TVD Reference:	KB-EST @ 4624.0usft (Original Well Elev)
Reference Site:	SW NW SEC. 10 T5N R64W 6th P.M.	MD Reference:	KB-EST @ 4624.0usft (Original Well Elev)
Site Error:	0.0 usft	North Reference:	True
Reference Well:	WACKER 10G-214	Survey Calculation Method:	Minimum Curvature
Well Error:	0.0 usft	Output errors are at	2.00 sigma
Reference Wellbore	ORIGINAL WELLBORE	Database:	EDM 5000.1 Single User Db
Reference Design:	PROPOSAL #1	Offset TVD Reference:	Offset Datum

Offset Design												Offset Site Error:	0.0 usft
Survey Program: 645-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	108.75	-1,314.5	3,872.2	4,089.2				
98.4	98.4	91.4	91.4	0.1	0.1	108.75	-1,314.5	3,872.2	4,089.2	4,089.0	0.18	N/A	
100.0	100.0	93.0	93.0	0.1	0.1	108.75	-1,314.5	3,872.2	4,089.2	4,089.0	0.18	N/A	
196.8	196.8	189.8	189.8	0.3	0.2	108.75	-1,314.5	3,872.2	4,089.2	4,088.7	0.49	8,343.356	
200.0	200.0	193.0	193.0	0.3	0.2	108.75	-1,314.5	3,872.2	4,089.2	4,088.7	0.50	8,176.886	
295.3	295.3	288.3	288.3	0.5	0.3	108.75	-1,314.5	3,872.2	4,089.2	4,088.4	0.80	5,099.466	
300.0	300.0	293.0	293.0	0.5	0.3	108.75	-1,314.5	3,872.2	4,089.2	4,088.4	0.82	5,006.030	
393.7	393.7	386.7	386.7	0.8	0.4	108.75	-1,314.5	3,872.2	4,089.2	4,088.1	1.11	3,671.853	
400.0	400.0	393.0	393.0	0.8	0.4	108.75	-1,314.5	3,872.2	4,089.2	4,088.1	1.13	3,607.214	
492.1	492.1	485.1	485.1	1.0	0.4	108.75	-1,314.5	3,872.2	4,089.2	4,087.8	1.43	2,868.739	
500.0	500.0	493.0	493.0	1.0	0.5	108.75	-1,314.5	3,872.2	4,089.2	4,087.8	1.45	2,819.400	
590.5	590.5	583.5	583.5	1.2	0.5	108.75	-1,314.5	3,872.2	4,089.2	4,087.5	1.74	2,353.892	
600.0	600.0	593.0	593.0	1.2	0.5	108.75	-1,314.5	3,872.2	4,089.2	4,087.4	1.77	2,314.019	
638.2	638.2	631.2	631.2	1.3	0.6	108.75	-1,314.5	3,872.2	4,089.2	4,087.3	1.89	2,165.616	
689.0	689.0	672.9	672.9	1.4	0.6	108.75	-1,314.6	3,872.2	4,089.3	4,087.2	2.07	1,974.922	
700.0	700.0	681.2	681.2	1.4	0.7	108.75	-1,314.7	3,872.2	4,089.3	4,087.2	2.11	1,936.257	
787.4	787.4	755.7	755.7	1.6	0.8	108.77	-1,316.0	3,872.1	4,089.7	4,087.3	2.46	1,663.953	
800.0	800.0	768.7	768.7	1.7	0.8	108.77	-1,316.3	3,872.1	4,089.8	4,087.3	2.51	1,627.780	
885.8	885.8	854.5	854.5	1.9	1.0	108.79	-1,317.3	3,872.3	4,090.3	4,087.4	2.88	1,420.219	
900.0	900.0	868.1	868.1	1.9	1.0	108.79	-1,317.5	3,872.3	4,090.4	4,087.4	2.94	1,391.405	
984.2	984.2	1,017.8	1,017.8	2.1	1.4	108.80	-1,318.2	3,872.0	4,090.5	4,087.0	3.44	1,190.072	
1,000.0	1,000.0	1,031.9	1,031.9	2.1	1.4	108.80	-1,318.1	3,871.9	4,090.3	4,086.8	3.50	1,167.726	
1,082.7	1,082.7	1,107.7	1,107.7	2.3	1.5	108.80	-1,317.7	3,871.4	4,089.6	4,085.8	3.85	1,061.727	
1,100.0	1,100.0	1,126.7	1,126.6	2.3	1.6	108.80	-1,317.5	3,871.3	4,089.5	4,085.5	3.93	1,040.071	
1,181.1	1,181.1	1,215.3	1,215.3	2.5	1.8	108.79	-1,316.7	3,870.7	4,088.7	4,084.4	4.31	949.492	
1,200.0	1,200.0	1,235.7	1,235.7	2.6	1.8	108.79	-1,316.5	3,870.5	4,088.5	4,084.1	4.39	930.689	
1,279.5	1,279.5	1,315.3	1,315.3	2.7	2.0	108.78	-1,315.7	3,869.9	4,087.7	4,082.9	4.74	862.102	
1,300.0	1,300.0	1,332.7	1,332.6	2.8	2.0	108.77	-1,315.5	3,869.8	4,087.5	4,082.6	4.82	847.482	
1,377.9	1,377.9	1,399.8	1,399.7	3.0	2.2	-9.89	-1,315.0	3,869.4	4,085.8	4,080.7	5.12	798.607	
1,400.0	1,400.0	1,420.0	1,419.9	3.0	2.2	-9.89	-1,314.8	3,869.3	4,084.9	4,079.7	5.20	785.558	
1,476.4	1,476.3	1,489.9	1,489.8	3.1	2.3	-9.92	-1,314.6	3,868.9	4,080.9	4,075.4	5.48	744.946	
1,500.0	1,499.8	1,511.8	1,511.7	3.2	2.4	-9.93	-1,314.6	3,868.8	4,079.2	4,073.7	5.56	733.052	
1,574.8	1,574.4	1,580.9	1,580.9	3.3	2.5	-9.96	-1,314.6	3,868.5	4,072.8	4,067.0	5.84	697.118	
1,600.0	1,599.5	1,603.7	1,603.7	3.4	2.6	-9.97	-1,314.6	3,868.5	4,070.3	4,064.3	5.93	685.883	
1,673.2	1,672.2	1,670.0	1,669.9	3.6	2.7	-10.02	-1,314.7	3,868.3	4,061.7	4,055.5	6.21	654.528	
1,700.0	1,698.7	1,698.1	1,698.0	3.6	2.8	-10.04	-1,314.7	3,868.2	4,058.1	4,051.8	6.31	643.048	
1,771.6	1,769.5	1,764.0	1,763.9	3.8	2.9	-10.10	-1,315.0	3,868.0	4,047.3	4,040.7	6.58	615.281	
1,800.0	1,797.5	1,791.9	1,791.8	3.9	3.0	-10.13	-1,315.3	3,867.9	4,042.5	4,035.8	6.69	604.644	
1,870.1	1,866.3	1,844.3	1,844.3	4.1	3.1	-10.18	-1,316.3	3,867.6	4,029.8	4,022.9	6.92	581.988	
1,900.2	1,895.8	1,867.8	1,867.8	4.2	3.1	-10.20	-1,317.0	3,867.5	4,023.9	4,016.9	7.03	572.664	
1,968.5	1,962.6	1,925.4	1,925.3	4.4	3.2	-10.21	-1,319.0	3,867.2	4,010.4	4,003.1	7.30	549.657	
2,000.0	1,993.4	1,954.0	1,953.9	4.5	3.3	-10.20	-1,320.2	3,867.0	4,004.2	3,996.7	7.42	539.413	
2,066.9	2,058.9	1,995.7	1,995.5	4.7	3.4	-10.20	-1,322.3	3,866.8	3,991.2	3,983.5	7.66	520.741	
2,100.0	2,091.2	2,017.1	2,016.8	4.8	3.4	-10.19	-1,323.4	3,866.8	3,984.9	3,977.1	7.78	512.004	
2,165.3	2,155.2	2,061.6	2,061.3	5.1	3.5	-10.18	-1,326.1	3,866.8	3,972.8	3,964.8	8.03	494.882	
2,200.0	2,189.1	2,088.4	2,088.0	5.2	3.6	-10.17	-1,327.9	3,866.9	3,966.5	3,958.3	8.17	485.601	
2,263.8	2,251.4	2,144.0	2,143.5	5.5	3.7	-10.14	-1,332.0	3,867.0	3,955.0	3,946.6	8.44	468.625	
2,300.0	2,286.9	2,164.3	2,163.7	5.6	3.8	-10.13	-1,333.6	3,867.1	3,948.6	3,940.0	8.57	460.657	
2,362.2	2,347.7	2,209.2	2,208.5	5.8	3.9	-10.11	-1,337.2	3,867.3	3,937.8	3,928.9	8.82	446.325	
2,400.0	2,384.7	2,238.0	2,237.2	6.0	3.9	-10.09	-1,339.7	3,867.5	3,931.3	3,922.3	8.98	437.858	
2,460.6	2,444.0	2,277.1	2,276.1	6.2	4.0	-10.06	-1,343.2	3,867.9	3,921.2	3,912.0	9.22	425.367	
2,500.0	2,482.5	2,303.5	2,302.3	6.4	4.1	-10.04	-1,345.8	3,868.2	3,914.8	3,905.4	9.38	417.528	

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

Anticollision Report



Company:	PDC ENERGY	Local Co-ordinate Reference:	Well WACKER 10G-214
Project:	WELD COUNTY, COLORADO	TVD Reference:	KB-EST @ 4624.0usft (Original Well Elev)
Reference Site:	SW NW SEC. 10 T5N R64W 6th P.M.	MD Reference:	KB-EST @ 4624.0usft (Original Well Elev)
Site Error:	0.0 usft	North Reference:	True
Reference Well:	WACKER 10G-214	Survey Calculation Method:	Minimum Curvature
Well Error:	0.0 usft	Output errors are at	2.00 sigma
Reference Wellbore	ORIGINAL WELLBORE	Database:	EDM 5000.1 Single User Db
Reference Design:	PROPOSAL #1	Offset TVD Reference:	Offset Datum

Offset Design												Offset Site Error:	0.0 usft
Survey Program: 645-MWD												Offset Well Error:	0.0 usft
Reference		Offset		Semi Major Axis			Distance						Warning
Measured Depth (usft)	Vertical Depth (usft)	Measured Depth (usft)	Vertical Depth (usft)	Reference (usft)	Offset (usft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (usft)	+E/-W (usft)	Between Centres (usft)	Between Ellipses (usft)	Minimum Separation (usft)	Separation Factor	
2,559.0	2,540.3	2,333.0	2,331.7	6.6	4.2	-10.02	-1,348.9	3,868.6	3,905.4	3,895.8	9.59	407.168	
2,600.0	2,580.3	2,369.2	2,367.7	6.8	4.3	-9.98	-1,352.9	3,869.2	3,899.0	3,889.3	9.78	398.617	
2,657.5	2,636.5	2,406.5	2,404.7	7.1	4.3	-9.94	-1,357.3	3,869.8	3,890.4	3,880.4	10.02	388.390	
2,700.0	2,678.1	2,428.0	2,426.0	7.2	4.4	-9.92	-1,360.0	3,870.3	3,884.2	3,874.0	10.18	381.705	
2,755.9	2,732.8	2,476.2	2,473.8	7.5	4.5	-9.86	-1,366.3	3,871.3	3,876.2	3,865.7	10.44	371.239	
2,800.0	2,775.9	2,508.7	2,506.0	7.7	4.6	-9.81	-1,370.8	3,872.0	3,870.0	3,859.4	10.64	363.831	
2,854.3	2,829.1	2,563.9	2,560.6	7.9	4.8	-9.73	-1,379.0	3,873.1	3,862.6	3,851.6	10.92	353.578	
2,900.0	2,873.8	2,617.2	2,613.1	8.1	4.9	-9.64	-1,387.8	3,873.9	3,856.2	3,845.0	11.19	344.758	
2,952.7	2,925.4	2,681.3	2,676.2	8.3	5.1	-9.51	-1,399.4	3,874.1	3,848.7	3,837.2	11.51	334.375	
2,953.5	2,926.1	2,682.2	2,677.1	8.3	5.1	-9.51	-1,399.6	3,874.1	3,848.6	3,837.1	11.51	334.237	
3,000.0	2,971.6	2,728.8	2,722.7	8.5	5.3	-9.38	-1,408.8	3,873.9	3,842.3	3,830.5	11.78	326.056	
3,051.2	3,022.0	2,768.1	2,761.3	8.7	5.4	-9.27	-1,416.6	3,873.8	3,836.3	3,824.3	12.03	318.780	
3,100.0	3,070.1	2,807.0	2,799.4	8.8	5.5	-9.16	-1,424.1	3,873.9	3,831.6	3,819.3	12.28	312.133	
3,149.6	3,119.1	2,902.0	2,892.7	8.9	5.8	-8.92	-1,442.2	3,873.6	3,827.3	3,814.6	12.67	302.095	
3,200.0	3,169.1	2,932.1	2,922.2	9.1	5.9	-8.84	-1,448.0	3,873.4	3,823.7	3,810.8	12.89	296.746	
3,248.0	3,216.8	2,957.1	2,946.8	9.2	6.0	-8.77	-1,452.9	3,873.4	3,821.4	3,808.3	13.07	292.283	
3,300.0	3,268.5	2,997.0	2,985.8	9.3	6.1	-8.66	-1,460.8	3,873.5	3,820.2	3,806.9	13.32	286.899	
3,325.7	3,294.2	2,998.2	2,987.0	9.4	6.1	-8.66	-1,461.1	3,873.6	3,820.0	3,806.6	13.37	285.635 CC	
3,346.4	3,314.8	3,019.3	3,007.7	9.4	6.2	-8.60	-1,465.3	3,873.8	3,820.1	3,806.6	13.48	283.329 ES	
3,400.0	3,368.3	3,074.0	3,061.4	9.6	6.4	-8.47	-1,475.9	3,874.4	3,821.0	3,807.2	13.76	277.631	
3,444.9	3,413.1	3,132.2	3,118.5	9.6	6.6	-8.33	-1,486.6	3,875.2	3,822.4	3,808.4	14.02	272.627	
3,500.0	3,468.2	3,203.6	3,188.8	9.7	6.8	-8.17	-1,499.1	3,876.0	3,824.8	3,810.5	14.33	266.946	
3,543.3	3,511.5	3,243.7	3,228.4	9.8	6.9	-8.08	-1,505.9	3,876.5	3,827.5	3,812.9	14.52	263.645	
3,553.7	3,521.9	3,253.3	3,237.9	9.8	6.9	110.58	-1,507.5	3,876.6	3,828.2	3,812.2	16.05	238.540	
3,600.0	3,568.2	3,293.6	3,277.6	9.9	7.0	110.67	-1,514.0	3,877.3	3,831.6	3,815.4	16.22	236.273	
3,641.7	3,609.9	3,325.2	3,308.8	10.0	7.1	110.73	-1,518.7	3,878.0	3,834.7	3,818.4	16.36	234.377	
3,700.0	3,668.2	3,377.0	3,360.1	10.1	7.3	110.82	-1,525.8	3,879.6	3,839.3	3,822.7	16.58	231.531	
3,740.1	3,708.4	3,494.7	3,477.0	10.1	7.6	110.99	-1,539.1	3,883.1	3,842.0	3,825.1	16.93	226.994	
3,800.0	3,768.2	3,576.0	3,558.0	10.2	7.8	111.07	-1,545.9	3,885.4	3,845.4	3,828.2	17.21	223.419	
3,838.6	3,806.8	3,707.7	3,689.5	10.3	8.1	111.16	-1,552.9	3,888.2	3,846.8	3,829.2	17.56	219.006	
3,900.0	3,868.2	3,839.4	3,821.1	10.4	8.4	111.17	-1,554.5	3,890.4	3,848.0	3,830.1	17.94	214.481	
3,937.0	3,905.2	3,885.6	3,867.3	10.5	8.4	111.16	-1,554.2	3,891.0	3,848.4	3,830.3	18.10	212.647	
4,000.0	3,968.2	3,952.2	3,933.9	10.6	8.6	111.16	-1,554.2	3,891.5	3,848.8	3,830.5	18.34	209.871	
4,035.4	4,003.6	3,985.3	3,967.0	10.6	8.6	111.16	-1,554.3	3,891.7	3,849.1	3,830.6	18.47	208.424	
4,100.0	4,068.2	4,047.2	4,028.9	10.7	8.7	111.16	-1,554.5	3,892.2	3,849.6	3,830.9	18.71	205.804	
4,133.8	4,102.1	4,089.3	4,071.0	10.8	8.8	111.16	-1,554.7	3,892.4	3,849.9	3,831.0	18.85	204.236	
4,200.0	4,168.2	4,160.8	4,142.5	10.9	9.0	111.17	-1,555.3	3,892.6	3,850.2	3,831.1	19.11	201.454	
4,232.3	4,200.5	4,188.8	4,170.5	11.0	9.0	111.17	-1,555.6	3,892.6	3,850.4	3,831.1	19.23	200.264	
4,300.0	4,268.2	4,264.7	4,246.4	11.1	9.2	111.19	-1,556.7	3,892.7	3,850.8	3,831.3	19.50	197.461	
4,330.7	4,298.9	4,318.9	4,300.6	11.1	9.3	111.20	-1,557.5	3,892.5	3,850.8	3,831.2	19.67	195.802	
4,400.0	4,368.2	4,380.0	4,361.7	11.3	9.4	111.21	-1,558.4	3,892.0	3,850.7	3,830.8	19.92	193.352	
4,402.9	4,371.1	4,382.4	4,364.1	11.3	9.4	111.21	-1,558.4	3,892.0	3,850.7	3,830.8	19.93	193.254	
4,429.1	4,397.3	4,404.1	4,385.8	11.3	9.4	111.22	-1,558.8	3,891.9	3,850.7	3,830.7	20.02	192.371	
4,500.0	4,468.2	4,477.1	4,458.8	11.4	9.6	111.23	-1,559.7	3,891.6	3,850.8	3,830.5	20.29	189.760	
4,527.5	4,495.8	4,507.8	4,489.4	11.5	9.6	111.23	-1,559.7	3,891.6	3,850.8	3,830.4	20.41	188.718	
4,600.0	4,568.2	4,580.8	4,562.5	11.6	9.8	111.23	-1,559.3	3,891.8	3,850.8	3,830.1	20.68	186.176	
4,626.0	4,594.2	4,606.7	4,588.4	11.7	9.8	111.23	-1,559.3	3,891.8	3,850.8	3,830.0	20.78	185.283	
4,700.0	4,668.2	4,747.9	4,729.6	11.8	10.1	111.23	-1,559.0	3,890.2	3,849.8	3,828.6	21.20	181.604	
4,724.4	4,692.6	4,773.4	4,755.0	11.9	10.1	111.23	-1,558.9	3,889.7	3,849.4	3,828.1	21.29	180.771	
4,800.0	4,768.2	4,853.7	4,835.3	12.0	10.3	111.24	-1,558.9	3,888.1	3,848.0	3,826.4	21.59	178.201	
4,822.8	4,791.0	4,878.2	4,859.8	12.0	10.3	111.24	-1,558.9	3,887.6	3,847.5	3,825.9	21.68	177.430	
4,900.0	4,868.2	4,948.8	4,930.4	12.2	10.5	111.25	-1,559.1	3,886.1	3,846.1	3,824.1	21.97	175.064	

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

Anticollision Report



Company:	PDC ENERGY	Local Co-ordinate Reference:	Well WACKER 10G-214
Project:	WELD COUNTY, COLORADO	TVD Reference:	KB-EST @ 4624.0usft (Original Well Elev)
Reference Site:	SW NW SEC. 10 T5N R64W 6th P.M.	MD Reference:	KB-EST @ 4624.0usft (Original Well Elev)
Site Error:	0.0 usft	North Reference:	True
Reference Well:	WACKER 10G-214	Survey Calculation Method:	Minimum Curvature
Well Error:	0.0 usft	Output errors are at	2.00 sigma
Reference Wellbore	ORIGINAL WELLBORE	Database:	EDM 5000.1 Single User Db
Reference Design:	PROPOSAL #1	Offset TVD Reference:	Offset Datum

Offset Design												Offset Site Error:	0.0 usft
Survey Program: 645-MWD												Offset Well Error:	0.0 usft
Reference		Offset		Semi Major Axis			Distance						Warning
Measured Depth (usft)	Vertical Depth (usft)	Measured Depth (usft)	Vertical Depth (usft)	Reference (usft)	Offset (usft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (usft)	+E/-W (usft)	Between Centres (usft)	Between Ellipses (usft)	Minimum Separation (usft)	Separation Factor	
4,921.2	4,889.5	4,967.3	4,948.9	12.2	10.5	111.26	-1,559.2	3,885.7	3,845.7	3,823.6	22.05	174.437	
5,000.0	4,968.2	5,037.9	5,019.5	12.4	10.6	111.27	-1,559.3	3,884.4	3,844.4	3,822.1	22.33	172.129	
5,019.7	4,987.9	5,055.9	5,037.5	12.4	10.7	111.27	-1,559.3	3,884.1	3,844.1	3,821.7	22.41	171.558	
5,100.0	5,068.2	5,116.1	5,097.7	12.6	10.8	111.27	-1,559.1	3,883.4	3,843.1	3,820.4	22.68	169.459	
5,118.1	5,086.3	5,127.6	5,109.2	12.6	10.8	111.27	-1,559.0	3,883.3	3,842.9	3,820.2	22.74	169.024	
5,200.0	5,168.2	5,180.0	5,161.6	12.7	10.9	111.27	-1,559.0	3,883.1	3,842.6	3,819.6	23.00	167.098	
5,200.4	5,168.6	5,180.0	5,161.6	12.7	10.9	111.27	-1,559.0	3,883.1	3,842.6	3,819.6	23.00	167.092	
5,216.5	5,184.7	5,193.6	5,175.2	12.8	10.9	111.27	-1,559.0	3,883.1	3,842.6	3,819.6	23.06	166.668	
5,300.0	5,268.2	5,263.7	5,245.3	12.9	11.1	111.27	-1,559.1	3,883.2	3,842.8	3,819.5	23.36	164.514	
5,314.9	5,283.2	5,275.0	5,256.6	13.0	11.1	111.27	-1,559.2	3,883.3	3,842.9	3,819.5	23.41	164.153	
5,400.0	5,368.2	5,358.1	5,339.7	13.1	11.3	111.27	-1,559.1	3,883.7	3,843.3	3,819.6	23.74	161.864	
5,413.4	5,381.6	5,371.0	5,352.6	13.2	11.3	111.27	-1,559.1	3,883.8	3,843.4	3,819.6	23.80	161.512	
5,500.0	5,468.2	5,463.7	5,445.2	13.3	11.5	111.25	-1,558.4	3,884.6	3,843.8	3,819.7	24.15	159.154	
5,511.8	5,480.0	5,484.6	5,466.2	13.3	11.5	111.25	-1,558.2	3,884.7	3,843.9	3,819.7	24.22	158.728	
5,600.0	5,568.2	5,612.6	5,594.2	13.5	11.7	111.22	-1,556.4	3,884.8	3,843.4	3,818.7	24.64	155.950	
5,610.2	5,578.4	5,623.9	5,605.5	13.5	11.7	111.22	-1,556.2	3,884.7	3,843.3	3,818.6	24.69	155.677	
5,700.0	5,668.2	5,736.7	5,718.2	13.7	12.0	111.21	-1,555.0	3,883.8	3,842.3	3,817.2	25.09	153.140	
5,708.6	5,676.9	5,748.1	5,729.7	13.7	12.0	111.21	-1,555.0	3,883.7	3,842.1	3,817.0	25.13	152.890	
5,800.0	5,768.2	5,813.2	5,794.7	13.9	12.1	111.21	-1,554.8	3,882.9	3,841.0	3,815.6	25.44	150.975	
5,807.1	5,775.3	5,818.1	5,799.7	13.9	12.1	111.21	-1,554.8	3,882.8	3,841.0	3,815.5	25.47	150.830	
5,862.2	5,830.4	5,842.0	5,823.5	14.0	12.2	111.21	-1,554.8	3,882.6	3,840.7	3,815.1	25.62	149.893	
5,900.0	5,868.2	5,842.0	5,823.5	14.1	12.2	111.21	-1,554.8	3,882.6	3,840.9	3,815.2	25.70	149.467	
5,905.5	5,873.7	5,842.0	5,823.5	14.1	12.2	111.21	-1,554.8	3,882.6	3,840.9	3,815.2	25.71	149.406	
5,960.7	5,928.9	5,876.0	5,857.6	14.2	12.2	111.21	-1,554.9	3,882.8	3,841.4	3,815.5	25.89	148.380	
6,000.0	5,968.2	5,887.2	5,868.7	14.3	12.3	-158.74	-1,555.0	3,883.0	3,843.2	3,818.2	24.96	153.965	
6,003.9	5,972.1	5,888.3	5,869.8	14.3	12.3	-158.73	-1,555.0	3,883.0	3,843.5	3,818.6	24.96	153.978	
6,050.0	6,018.0	5,901.3	5,882.8	14.4	12.3	-158.58	-1,555.1	3,883.4	3,848.8	3,823.9	24.92	154.445	
6,100.0	6,067.3	5,937.0	5,918.5	14.4	12.4	-158.34	-1,555.4	3,885.0	3,858.3	3,833.5	24.84	155.355	
6,102.3	6,069.6	5,937.0	5,918.5	14.4	12.4	-158.33	-1,555.4	3,885.0	3,858.8	3,834.0	24.83	155.435	
6,150.0	6,116.0	5,937.0	5,918.5	14.4	12.4	-157.95	-1,555.4	3,885.0	3,871.0	3,846.4	24.60	157.383	
6,200.0	6,163.8	5,937.0	5,918.5	14.5	12.4	-157.42	-1,555.4	3,885.0	3,887.4	3,863.1	24.28	160.103	
6,200.8	6,164.5	5,937.0	5,918.5	14.5	12.4	-157.41	-1,555.4	3,885.0	3,887.7	3,863.4	24.27	160.151	
6,250.0	6,210.4	5,937.0	5,918.5	14.5	12.4	-156.75	-1,555.4	3,885.0	3,907.3	3,883.4	23.90	163.502	
6,299.2	6,254.9	5,937.0	5,918.5	14.5	12.4	-155.91	-1,555.4	3,885.0	3,930.2	3,906.8	23.47	167.470	
6,300.0	6,255.6	5,937.0	5,918.5	14.5	12.4	-155.90	-1,555.4	3,885.0	3,930.6	3,907.2	23.46	167.539	
6,350.0	6,299.3	5,937.0	5,918.5	14.5	12.4	-154.85	-1,555.4	3,885.0	3,957.2	3,934.2	22.99	172.141	
6,397.6	6,339.2	5,937.0	5,918.5	14.6	12.4	-153.64	-1,555.4	3,885.0	3,985.4	3,962.8	22.53	176.920	
6,400.0	6,341.2	5,937.0	5,918.5	14.6	12.4	-153.57	-1,555.4	3,885.0	3,986.8	3,964.3	22.50	177.167	
6,450.0	6,381.0	5,937.0	5,918.5	14.6	12.4	-152.01	-1,555.4	3,885.0	4,019.3	3,997.3	22.04	182.376	
6,496.0	6,415.8	5,937.0	5,918.5	14.7	12.4	-150.27	-1,555.4	3,885.0	4,051.5	4,029.8	21.67	186.998	
6,500.0	6,418.7	5,937.0	5,918.5	14.7	12.4	-150.10	-1,555.4	3,885.0	4,054.4	4,032.7	21.64	187.380	
6,550.0	6,453.9	5,937.0	5,918.5	14.8	12.4	-147.77	-1,555.4	3,885.0	4,091.8	4,070.4	21.36	191.592	
6,594.5	6,483.1	5,937.0	5,918.5	15.0	12.4	-145.24	-1,555.4	3,885.0	4,126.9	4,105.6	21.27	194.017	
6,600.0	6,486.6	5,937.0	5,918.5	15.1	12.4	-144.89	-1,555.4	3,885.0	4,131.4	4,110.1	21.27	194.216	
6,650.0	6,516.6	5,980.6	5,961.9	15.3	12.5	-141.92	-1,556.3	3,889.1	4,170.9	4,149.5	21.46	194.360	
6,692.9	6,540.0	5,982.9	5,964.2	15.7	12.5	-138.33	-1,556.3	3,889.4	4,207.6	4,185.7	21.91	192.052	
6,700.0	6,543.7	5,983.3	5,964.5	15.7	12.5	-137.66	-1,556.3	3,889.4	4,213.8	4,191.8	22.01	191.446	
6,750.0	6,567.8	5,985.4	5,966.7	16.2	12.5	-132.33	-1,556.4	3,889.7	4,258.0	4,235.0	23.03	184.862	
6,791.3	6,585.4	5,986.9	5,968.1	16.7	12.5	-126.92	-1,556.4	3,889.9	4,295.5	4,271.2	24.28	176.916	
6,800.0	6,588.8	5,987.2	5,968.4	16.8	12.5	-125.65	-1,556.4	3,889.9	4,303.4	4,278.8	24.58	175.081	
6,850.0	6,606.6	5,988.5	5,969.7	17.4	12.5	-117.34	-1,556.5	3,890.1	4,349.7	4,323.1	26.58	163.634	
6,889.7	6,618.4	5,989.2	5,970.4	18.0	12.5	-109.50	-1,556.5	3,890.2	4,386.9	4,358.6	28.33	154.839	

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

Anticollision Report



Company:	PDC ENERGY	Local Co-ordinate Reference:	Well WACKER 10G-214
Project:	WELD COUNTY, COLORADO	TVD Reference:	KB-EST @ 4624.0usft (Original Well Elev)
Reference Site:	SW NW SEC. 10 T5N R64W 6th P.M.	MD Reference:	KB-EST @ 4624.0usft (Original Well Elev)
Site Error:	0.0 usft	North Reference:	True
Reference Well:	WACKER 10G-214	Survey Calculation Method:	Minimum Curvature
Well Error:	0.0 usft	Output errors are at	2.00 sigma
Reference Wellbore	ORIGINAL WELLBORE	Database:	EDM 5000.1 Single User Db
Reference Design:	PROPOSAL #1	Offset TVD Reference:	Offset Datum

Offset Design		SW NW SEC. 10 T5N R64W 6th P.M. - EXIST HZ MAX #B11-64-1HN - Wellbore #1 - Wellbore #1											Offset Site Error:		0.0 usft	
Survey Program: 645-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				
6,900.0	6,621.1	5,989.3	5,970.5	18.2	12.5	-107.31	-1,556.5	3,890.3	4,396.6	4,367.8	28.77	152.835				
6,950.0	6,632.2	5,989.8	5,971.0	19.0	12.5	-95.83	-1,556.5	3,890.3	4,443.9	4,413.3	30.63	145.077				
6,988.2	6,638.4	5,989.9	5,971.1	19.7	12.5	-86.55	-1,556.5	3,890.3	4,480.2	4,448.7	31.50	142.227				
7,000.0	6,639.9	5,989.9	5,971.0	19.9	12.5	-83.67	-1,556.5	3,890.3	4,491.4	4,459.8	31.64	141.974				
7,050.0	6,644.1	5,989.5	5,970.7	20.8	12.5	-71.94	-1,556.5	3,890.3	4,538.9	4,507.3	31.57	143.788				
7,086.5	6,645.0	5,989.0	5,970.2	21.5	12.5	-64.16	-1,556.5	3,890.2	4,573.4	4,542.4	30.97	147.679				
7,100.0	6,645.0	5,988.8	5,970.0	21.8	12.5	-64.15	-1,556.5	3,890.2	4,586.1	4,554.8	31.21	146.958				
7,185.0	6,644.9	5,987.4	5,968.6	23.6	12.5	-64.11	-1,556.4	3,890.0	4,666.2	4,633.4	32.78	142.337				
7,200.0	6,644.8	5,987.2	5,968.4	23.9	12.5	-64.10	-1,556.4	3,890.0	4,680.3	4,647.3	33.06	141.568				
7,283.4	6,644.7	5,985.9	5,967.1	25.7	12.5	-64.06	-1,556.4	3,889.8	4,759.2	4,724.4	34.71	137.109				
7,300.0	6,644.7	5,985.6	5,966.9	26.1	12.5	-64.05	-1,556.4	3,889.7	4,774.8	4,739.8	35.04	136.274				
7,381.9	6,644.6	5,984.4	5,965.7	28.0	12.5	-64.01	-1,556.4	3,889.6	4,852.3	4,815.6	36.74	132.088				
7,400.0	6,644.6	5,984.2	5,965.4	28.4	12.5	-64.00	-1,556.3	3,889.5	4,869.5	4,832.4	37.11	131.213				
7,480.3	6,644.5	5,983.0	5,964.3	30.3	12.5	-63.96	-1,556.3	3,889.4	4,945.7	4,906.9	38.84	127.349				
7,500.0	6,644.4	5,982.7	5,964.0	30.8	12.5	-63.95	-1,556.3	3,889.3	4,964.4	4,925.2	39.26	126.453				
7,578.7	6,644.3	5,981.6	5,962.9	32.7	12.5	-63.92	-1,556.3	3,889.2	5,039.3	4,998.3	41.00	122.923				
7,600.0	6,644.3	5,981.3	5,962.6	33.3	12.5	-63.91	-1,556.3	3,889.2	5,059.5	5,018.1	41.46	122.020				
7,677.1	6,644.2	5,980.3	5,961.6	35.2	12.5	-63.87	-1,556.2	3,889.0	5,133.0	5,089.8	43.20	118.816				
7,700.0	6,644.1	5,980.0	5,961.3	35.8	12.5	-63.86	-1,556.2	3,889.0	5,154.8	5,111.1	43.72	117.916				
7,775.6	6,644.0	5,937.0	5,918.5	37.7	12.4	-62.45	-1,555.4	3,885.0	5,228.6	5,183.7	44.92	116.406				
7,800.0	6,644.0	5,937.0	5,918.5	38.3	12.4	-62.45	-1,555.4	3,885.0	5,252.0	5,206.5	45.47	115.494				
7,874.0	6,643.9	5,937.0	5,918.5	40.2	12.4	-62.45	-1,555.4	3,885.0	5,322.6	5,275.4	47.18	112.811				
7,900.0	6,643.9	5,937.0	5,918.5	40.9	12.4	-62.45	-1,555.4	3,885.0	5,347.5	5,299.7	47.78	111.914				
7,972.4	6,643.8	5,937.0	5,918.5	42.8	12.4	-62.45	-1,555.4	3,885.0	5,416.8	5,367.3	49.47	109.492				
8,000.0	6,643.7	5,937.0	5,918.5	43.5	12.4	-62.45	-1,555.4	3,885.0	5,443.2	5,393.0	50.12	108.612				
8,070.8	6,643.6	5,937.0	5,918.5	45.4	12.4	-62.45	-1,555.4	3,885.0	5,511.0	5,459.3	51.78	106.425				
8,100.0	6,643.6	5,937.0	5,918.5	46.2	12.4	-62.45	-1,555.4	3,885.0	5,539.0	5,486.5	52.47	105.565				
8,169.3	6,643.5	5,937.0	5,918.5	48.0	12.4	-62.45	-1,555.4	3,885.0	5,605.5	5,551.4	54.11	103.589				
8,200.0	6,643.5	5,937.0	5,918.5	48.8	12.4	-62.45	-1,555.4	3,885.0	5,635.0	5,580.1	54.84	102.750				
8,267.7	6,643.4	5,937.0	5,918.5	50.6	12.4	-62.45	-1,555.4	3,885.0	5,700.0	5,643.6	56.46	100.961				
8,300.0	6,643.3	5,937.0	5,918.5	51.5	12.4	-62.45	-1,555.4	3,885.0	5,731.1	5,673.9	57.23	100.144				
8,366.1	6,643.2	5,937.0	5,918.5	53.3	12.4	-62.45	-1,555.4	3,885.0	5,794.7	5,735.9	58.82	98.524				
8,400.0	6,643.2	5,937.0	5,918.5	54.2	12.4	-62.45	-1,555.4	3,885.0	5,827.3	5,767.7	59.63	97.728				
8,464.5	6,643.1	5,937.0	5,918.5	55.9	12.4	-62.45	-1,555.4	3,885.0	5,889.5	5,828.3	61.18	96.259				
8,500.0	6,643.1	5,937.0	5,918.5	56.9	12.4	-62.45	-1,555.4	3,885.0	5,923.7	5,861.7	62.04	95.484				
8,563.0	6,643.0	5,937.0	5,918.5	58.6	12.4	-62.45	-1,555.4	3,885.0	5,984.5	5,920.9	63.56	94.151				
8,600.0	6,642.9	5,937.0	5,918.5	59.6	12.4	-62.45	-1,555.4	3,885.0	6,020.2	5,955.7	64.46	93.396				
8,661.4	6,642.8	5,937.0	5,918.5	61.3	12.4	-62.45	-1,555.4	3,885.0	6,079.5	6,013.5	65.95	92.184				
8,700.0	6,642.8	5,937.0	5,918.5	62.3	12.4	-62.45	-1,555.4	3,885.0	6,116.8	6,049.9	66.89	91.450				
8,759.8	6,642.7	5,937.0	5,918.5	64.0	12.4	-62.45	-1,555.4	3,885.0	6,174.6	6,106.3	68.34	90.347				
8,800.0	6,642.7	5,937.0	5,918.5	65.1	12.4	-62.45	-1,555.4	3,885.0	6,213.5	6,144.2	69.32	89.632				
8,858.2	6,642.6	5,937.0	5,918.5	66.6	12.4	-62.45	-1,555.4	3,885.0	6,269.9	6,199.1	70.74	88.627				
8,900.0	6,642.5	5,937.0	5,918.5	67.8	12.4	-62.45	-1,555.4	3,885.0	6,310.3	6,238.6	71.76	87.932				
8,956.7	6,642.4	5,937.0	5,918.5	69.3	12.4	-62.45	-1,555.4	3,885.0	6,365.2	6,292.1	73.15	87.015				
9,000.0	6,642.4	5,937.0	5,918.5	70.5	12.4	-62.45	-1,555.4	3,885.0	6,407.2	6,333.0	74.21	86.338				
9,055.1	6,642.3	5,937.0	5,918.5	72.0	12.4	-62.45	-1,555.4	3,885.0	6,460.7	6,385.1	75.56	85.501				
9,100.0	6,642.3	5,937.0	5,918.5	73.3	12.4	-62.45	-1,555.4	3,885.0	6,504.2	6,427.6	76.66	84.841				
9,153.5	6,642.2	5,937.0	5,918.5	74.7	12.4	-62.45	-1,555.4	3,885.0	6,556.2	6,478.2	77.98	84.077				
9,200.0	6,642.1	5,937.0	5,918.5	76.0	12.4	-62.46	-1,555.4	3,885.0	6,601.3	6,522.2	79.12	83.434				
9,251.9	6,642.1	5,937.0	5,918.5	77.5	12.4	-62.46	-1,555.4	3,885.0	6,651.8	6,571.4	80.40	82.735				
9,300.0	6,642.0	5,937.0	5,918.5	78.8	12.4	-62.46	-1,555.4	3,885.0	6,698.5	6,616.9	81.58	82.108				
9,350.4	6,641.9	5,937.0	5,918.5	80.2	12.4	-62.46	-1,555.4	3,885.0	6,747.5	6,664.7	82.82	81.469				

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

Anticollision Report



Company:	PDC ENERGY	Local Co-ordinate Reference:	Well WACKER 10G-214
Project:	WELD COUNTY, COLORADO	TVD Reference:	KB-EST @ 4624.0usft (Original Well Elev)
Reference Site:	SW NW SEC. 10 T5N R64W 6th P.M.	MD Reference:	KB-EST @ 4624.0usft (Original Well Elev)
Site Error:	0.0 usft	North Reference:	True
Reference Well:	WACKER 10G-214	Survey Calculation Method:	Minimum Curvature
Well Error:	0.0 usft	Output errors are at	2.00 sigma
Reference Wellbore	ORIGINAL WELLBORE	Database:	EDM 5000.1 Single User Db
Reference Design:	PROPOSAL #1	Offset TVD Reference:	Offset Datum

Offset Design SW NW SEC. 10 T5N R64W 6th P.M. - EXIST HZ MAX #B11-64-1HN - Wellbore #1 - Wellbore #1												Offset Site Error:	0.0 usft
Survey Program: 645-MWD												Offset Well Error:	0.0 usft
Reference		Offset		Semi Major Axis			Distance						Warning
Measured Depth (usft)	Vertical Depth (usft)	Measured Depth (usft)	Vertical Depth (usft)	Reference (usft)	Offset (usft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (usft)	+E/-W (usft)	Between Centres (usft)	Between Ellipses (usft)	Minimum Separation (usft)	Separation Factor	
9,400.0	6,641.9	5,937.0	5,918.5	81.5	12.4	-62.46	-1,555.4	3,885.0	6,795.8	6,711.7	84.05	80.858	
9,448.8	6,641.8	5,937.0	5,918.5	82.9	12.4	-62.46	-1,555.4	3,885.0	6,843.3	6,758.0	85.25	80.273	
9,500.0	6,641.7	5,937.0	5,918.5	84.3	12.4	-62.46	-1,555.4	3,885.0	6,893.1	6,806.6	86.51	79.677	
9,547.2	6,641.7	5,937.0	5,918.5	85.6	12.4	-62.46	-1,555.4	3,885.0	6,939.1	6,851.4	87.68	79.141	
9,600.0	6,641.6	5,937.0	5,918.5	87.1	12.4	-62.46	-1,555.4	3,885.0	6,990.5	6,901.5	88.98	78.559	
9,645.6	6,641.5	5,937.0	5,918.5	88.3	12.4	-62.46	-1,555.4	3,885.0	7,035.0	6,944.9	90.11	78.069	
9,700.0	6,641.5	5,937.0	5,918.5	89.8	12.4	-62.46	-1,555.4	3,885.0	7,088.0	6,996.6	91.46	77.501	
9,744.1	6,641.4	5,937.0	5,918.5	91.0	12.4	-62.46	-1,555.4	3,885.0	7,131.0	7,038.5	92.55	77.052	
9,800.0	6,641.3	5,937.0	5,918.5	92.6	12.4	-62.46	-1,555.4	3,885.0	7,185.6	7,091.6	93.93	76.497	
9,842.5	6,641.3	5,937.0	5,918.5	93.8	12.4	-62.46	-1,555.4	3,885.0	7,227.1	7,132.1	94.99	76.085	
9,900.0	6,641.2	5,937.0	5,918.5	95.4	12.4	-62.46	-1,555.4	3,885.0	7,283.2	7,186.8	96.41	75.543	
9,940.9	6,641.1	5,937.0	5,918.5	96.5	12.4	-62.46	-1,555.4	3,885.0	7,323.2	7,225.7	97.43	75.167	
10,000.0	6,641.1	5,937.0	5,918.5	98.1	12.4	-62.46	-1,555.4	3,885.0	7,380.9	7,282.0	98.89	74.636	
10,039.3	6,641.0	5,937.0	5,918.5	99.2	12.4	-62.46	-1,555.4	3,885.0	7,419.3	7,319.5	99.87	74.292	
10,100.0	6,640.9	5,937.0	5,918.5	100.9	12.4	-62.46	-1,555.4	3,885.0	7,478.6	7,377.3	101.37	73.773	
10,137.8	6,640.9	5,937.0	5,918.5	102.0	12.4	-62.46	-1,555.4	3,885.0	7,515.6	7,413.3	102.31	73.458	
10,200.0	6,640.8	5,937.0	5,918.5	103.7	12.4	-62.46	-1,555.4	3,885.0	7,576.4	7,472.6	103.86	72.951	
10,236.2	6,640.8	5,937.0	5,918.5	104.7	12.4	-62.46	-1,555.4	3,885.0	7,611.9	7,507.1	104.76	72.663	
10,300.0	6,640.7	5,937.0	5,918.5	106.5	12.4	-62.46	-1,555.4	3,885.0	7,674.3	7,568.0	106.34	72.166	
10,334.6	6,640.6	5,937.0	5,918.5	107.4	12.4	-62.46	-1,555.4	3,885.0	7,708.2	7,601.0	107.20	71.903	
10,400.0	6,640.6	5,937.0	5,918.5	109.3	12.4	-62.46	-1,555.4	3,885.0	7,772.2	7,663.4	108.83	71.417	
10,433.0	6,640.5	5,937.0	5,918.5	110.2	12.4	-62.46	-1,555.4	3,885.0	7,804.6	7,694.9	109.65	71.177	
10,500.0	6,640.4	5,937.0	5,918.5	112.0	12.4	-62.46	-1,555.4	3,885.0	7,870.2	7,758.9	111.32	70.701	
10,531.5	6,640.4	5,937.0	5,918.5	112.9	12.4	-62.46	-1,555.4	3,885.0	7,901.0	7,788.9	112.10	70.482	
10,600.0	6,640.3	5,937.0	5,918.5	114.8	12.4	-62.47	-1,555.4	3,885.0	7,968.2	7,854.4	113.81	70.015	
10,629.9	6,640.3	5,937.0	5,918.5	115.7	12.4	-62.47	-1,555.4	3,885.0	7,997.5	7,883.0	114.55	69.816	
10,700.0	6,640.2	5,937.0	5,918.5	117.6	12.4	-62.47	-1,555.4	3,885.0	8,066.3	7,950.0	116.30	69.359	
10,728.3	6,640.1	5,937.0	5,918.5	118.4	12.4	-62.47	-1,555.4	3,885.0	8,094.1	7,977.1	117.00	69.179	
10,800.0	6,640.0	5,937.0	5,918.5	120.4	12.4	-62.47	-1,555.4	3,885.0	8,164.4	8,045.6	118.79	68.730	
10,826.7	6,640.0	5,937.0	5,918.5	121.2	12.4	-62.47	-1,555.4	3,885.0	8,190.7	8,071.2	119.46	68.567	
10,900.0	6,639.9	5,937.0	5,918.5	123.2	12.4	-62.47	-1,555.4	3,885.0	8,262.6	8,141.3	121.28	68.127	
10,925.2	6,639.9	5,937.0	5,918.5	123.9	12.4	-62.47	-1,555.4	3,885.0	8,287.3	8,165.4	121.91	67.979	
11,000.0	6,639.8	5,937.0	5,918.5	126.0	12.4	-62.47	-1,555.4	3,885.0	8,360.8	8,237.0	123.78	67.548	
11,023.6	6,639.8	5,937.0	5,918.5	126.6	12.4	-62.47	-1,555.4	3,885.0	8,383.9	8,259.6	124.36	67.415	
11,100.0	6,639.7	5,937.0	5,918.5	128.8	12.4	-62.47	-1,555.4	3,885.0	8,459.0	8,332.7	126.27	66.991	
11,122.0	6,639.6	5,937.0	5,918.5	129.4	12.4	-62.47	-1,555.4	3,885.0	8,480.7	8,353.8	126.82	66.872	
11,200.0	6,639.5	5,937.0	5,918.5	131.6	12.4	-62.47	-1,555.4	3,885.0	8,557.3	8,428.5	128.77	66.456	
11,220.4	6,639.5	5,937.0	5,918.5	132.1	12.4	-62.47	-1,555.4	3,885.0	8,577.4	8,448.1	129.28	66.350	
11,300.0	6,639.4	5,937.0	5,918.5	134.4	12.4	-62.47	-1,555.4	3,885.0	8,655.6	8,524.4	131.26	65.942	
11,318.9	6,639.4	5,937.0	5,918.5	134.9	12.4	-62.47	-1,555.4	3,885.0	8,674.2	8,542.5	131.73	65.847	
11,400.0	6,639.3	5,937.0	5,918.5	137.1	12.4	-62.47	-1,555.4	3,885.0	8,754.0	8,620.2	133.76	65.446	
11,417.3	6,639.3	5,937.0	5,918.5	137.6	12.4	-62.47	-1,555.4	3,885.0	8,771.0	8,636.8	134.19	65.362	
11,500.0	6,639.2	5,937.0	5,918.5	139.9	12.4	-62.47	-1,555.4	3,885.0	8,852.4	8,716.1	136.26	64.968	
11,515.7	6,639.1	5,937.0	5,918.5	140.4	12.4	-62.47	-1,555.4	3,885.0	8,867.9	8,731.2	136.65	64.895	
11,600.0	6,639.0	5,937.0	5,918.5	142.7	12.4	-62.47	-1,555.4	3,885.0	8,950.8	8,812.1	138.76	64.508	
11,614.1	6,639.0	5,937.0	5,918.5	143.1	12.4	-62.47	-1,555.4	3,885.0	8,964.8	8,825.6	139.11	64.444	
11,700.0	6,638.9	5,937.0	5,918.5	145.5	12.4	-62.48	-1,555.4	3,885.0	9,049.3	8,908.0	141.25	64.064	
11,712.6	6,638.9	5,937.0	5,918.5	145.9	12.4	-62.48	-1,555.4	3,885.0	9,061.7	8,920.1	141.57	64.009	
11,800.0	6,638.8	5,937.0	5,918.5	148.3	12.4	-62.48	-1,555.4	3,885.0	9,147.8	9,004.0	143.75	63.635	
11,811.0	6,638.8	5,937.0	5,918.5	148.6	12.4	-62.48	-1,555.4	3,885.0	9,158.6	9,014.6	144.03	63.589	
11,900.0	6,638.7	5,937.0	5,918.5	151.1	12.4	-62.48	-1,555.4	3,885.0	9,246.3	9,100.1	146.26	63.221	
11,909.4	6,638.6	5,937.0	5,918.5	151.4	12.4	-62.48	-1,555.4	3,885.0	9,255.6	9,109.1	146.49	63.182	

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

Anticollision Report



Company:	PDC ENERGY	Local Co-ordinate Reference:	Well WACKER 10G-214
Project:	WELD COUNTY, COLORADO	TVD Reference:	KB-EST @ 4624.0usft (Original Well Elev)
Reference Site:	SW NW SEC. 10 T5N R64W 6th P.M.	MD Reference:	KB-EST @ 4624.0usft (Original Well Elev)
Site Error:	0.0 usft	North Reference:	True
Reference Well:	WACKER 10G-214	Survey Calculation Method:	Minimum Curvature
Well Error:	0.0 usft	Output errors are at	2.00 sigma
Reference Wellbore	ORIGINAL WELLBORE	Database:	EDM 5000.1 Single User Db
Reference Design:	PROPOSAL #1	Offset TVD Reference:	Offset Datum

Offset Design SW NW SEC. 10 T5N R64W 6th P.M. - EXIST HZ MAX #B11-64-1HN - Wellbore #1 - Wellbore #1												Offset Site Error:	0.0 usft
Survey Program: 645-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
12,000.0	6,638.5	5,937.0	5,918.5	153.9	12.4	-62.48	-1,555.4	3,885.0	9,344.9	9,196.1	148.76	62.820	
12,007.8	6,638.5	5,937.0	5,918.5	154.1	12.4	-62.48	-1,555.4	3,885.0	9,352.6	9,203.7	148.95	62.790	
12,100.0	6,638.4	5,937.0	5,918.5	156.7	12.4	-62.48	-1,555.4	3,885.0	9,443.5	9,292.2	151.26	62.433	
12,106.3	6,638.4	5,937.0	5,918.5	156.9	12.4	-62.48	-1,555.4	3,885.0	9,449.7	9,298.3	151.41	62.409	
12,200.0	6,638.3	5,937.0	5,918.5	159.5	12.4	-62.48	-1,555.4	3,885.0	9,542.1	9,388.4	153.76	62.059	
12,204.7	6,638.3	5,937.0	5,918.5	159.6	12.4	-62.48	-1,555.4	3,885.0	9,546.8	9,392.9	153.88	62.042	
12,300.0	6,638.2	5,937.0	5,918.5	162.3	12.4	-62.48	-1,555.4	3,885.0	9,640.8	9,484.5	156.26	61.696	
12,303.1	6,638.2	5,937.0	5,918.5	162.4	12.4	-62.48	-1,555.4	3,885.0	9,643.9	9,487.5	156.34	61.685	
12,400.0	6,638.0	5,937.0	5,918.5	165.1	12.4	-62.48	-1,555.4	3,885.0	9,739.5	9,580.7	158.77	61.345	
12,401.5	6,638.0	5,937.0	5,918.5	165.2	12.4	-62.48	-1,555.4	3,885.0	9,741.0	9,582.2	158.80	61.340	
12,500.0	6,637.9	5,937.0	5,918.5	167.9	12.4	-62.48	-1,555.4	3,885.0	9,838.2	9,676.9	161.27	61.005	
12,598.4	6,637.8	5,937.0	5,918.5	170.7	12.4	-62.48	-1,555.4	3,885.0	9,935.3	9,771.6	163.73	60.681	
12,600.0	6,637.8	5,937.0	5,918.5	170.7	12.4	-62.48	-1,555.4	3,885.0	9,936.9	9,773.1	163.77	60.675 SF	

Anticollision Report



Company:	PDC ENERGY	Local Co-ordinate Reference:	Well WACKER 10G-214
Project:	WELD COUNTY, COLORADO	TVD Reference:	KB-EST @ 4624.0usft (Original Well Elev)
Reference Site:	SW NW SEC. 10 T5N R64W 6th P.M.	MD Reference:	KB-EST @ 4624.0usft (Original Well Elev)
Site Error:	0.0 usft	North Reference:	True
Reference Well:	WACKER 10G-214	Survey Calculation Method:	Minimum Curvature
Well Error:	0.0 usft	Output errors are at	2.00 sigma
Reference Wellbore	ORIGINAL WELLBORE	Database:	EDM 5000.1 Single User Db
Reference Design:	PROPOSAL #1	Offset TVD Reference:	Offset Datum

Offset Design												Offset Site Error:	0.0 usft
Survey Program: 290-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	172.63	-932.3	120.6	940.1				
98.4	98.4	87.5	87.5	0.1	0.1	172.64	-932.2	120.4	939.9	939.7	0.16	5,964.057	
100.0	100.0	89.2	89.2	0.1	0.1	172.64	-932.1	120.4	939.9	939.7	0.16	5,855.564	
196.8	196.8	189.6	189.6	0.3	0.1	172.68	-931.7	119.7	939.4	938.9	0.45	2,092.869	
200.0	200.0	192.9	192.8	0.3	0.1	172.68	-931.7	119.6	939.4	938.9	0.46	2,049.987	
295.3	295.3	290.0	290.0	0.5	0.2	172.75	-930.9	118.4	938.5	937.8	0.74	1,266.983	
300.0	300.0	295.8	295.8	0.5	0.2	172.76	-930.9	118.3	938.4	937.7	0.76	1,229.267	
393.7	393.7	384.0	384.0	0.8	0.4	172.79	-930.4	117.7	937.8	936.6	1.15	813.697	
400.0	400.0	389.2	389.1	0.8	0.4	172.79	-930.3	117.7	937.8	936.6	1.18	796.460	
492.1	492.1	479.2	479.2	1.0	0.6	172.79	-930.1	117.7	937.6	936.0	1.57	596.268	
500.0	500.0	486.9	486.9	1.0	0.6	172.79	-930.1	117.7	937.5	935.9	1.61	583.729	
539.1	539.1	525.1	525.1	1.1	0.7	172.78	-930.1	117.8	937.5	935.8	1.77	528.592	
590.5	590.5	575.4	575.4	1.2	0.8	172.77	-930.1	118.0	937.6	935.6	1.99	470.110	
600.0	600.0	584.6	584.6	1.2	0.8	172.77	-930.1	118.1	937.6	935.5	2.03	460.757	
689.0	689.0	667.2	667.1	1.4	1.0	172.80	-930.6	117.5	938.0	935.6	2.41	389.463	
700.0	700.0	678.0	677.9	1.4	1.0	172.81	-930.7	117.3	938.1	935.7	2.46	381.936	
787.4	787.4	763.6	763.6	1.6	1.2	172.90	-931.7	116.0	939.0	936.1	2.83	331.211	
800.0	800.0	776.0	775.9	1.7	1.2	172.92	-931.9	115.8	939.1	936.2	2.89	324.995	
885.8	885.8	860.1	860.0	1.9	1.4	173.00	-933.0	114.6	940.1	936.8	3.26	288.250	
900.0	900.0	874.0	873.9	1.9	1.4	173.01	-933.2	114.4	940.3	936.9	3.32	282.980	
984.2	984.2	957.5	957.4	2.1	1.6	173.09	-934.5	113.2	941.4	937.7	3.69	255.193	
1,000.0	1,000.0	973.4	973.4	2.1	1.6	173.11	-934.7	113.0	941.6	937.9	3.76	250.555	
1,082.7	1,082.7	1,057.3	1,057.2	2.3	1.8	173.17	-935.9	112.0	942.7	938.6	4.12	228.751	
1,100.0	1,100.0	1,074.8	1,074.7	2.3	1.9	173.19	-936.2	111.8	942.9	938.7	4.20	224.657	
1,181.1	1,181.1	1,161.6	1,161.5	2.5	2.0	173.26	-937.2	110.7	943.7	939.2	4.56	206.970	
1,200.0	1,200.0	1,183.1	1,183.0	2.6	2.1	173.29	-937.4	110.2	943.8	939.2	4.65	203.138	
1,279.5	1,279.5	1,286.5	1,286.3	2.7	2.3	173.58	-937.1	105.5	943.3	938.2	5.04	187.217	
1,300.0	1,300.0	1,313.3	1,313.0	2.8	2.4	173.69	-936.6	103.6	942.7	937.6	5.14	183.406	
1,377.9	1,377.9	1,393.5	1,393.0	3.0	2.5	55.48	-934.8	97.8	939.8	934.3	5.49	171.198	
1,400.0	1,400.0	1,414.5	1,413.9	3.0	2.6	55.61	-934.3	96.4	938.7	933.2	5.58	168.179	
1,476.4	1,476.3	1,483.2	1,482.4	3.1	2.7	56.14	-933.1	91.5	934.7	928.8	5.88	158.888	
1,500.0	1,499.8	1,504.7	1,503.8	3.2	2.8	56.33	-932.8	89.9	933.4	927.4	5.98	156.168	
1,574.8	1,574.4	1,573.9	1,572.8	3.3	3.0	57.06	-932.1	84.1	928.7	922.4	6.29	147.682	
1,600.0	1,599.5	1,597.1	1,595.9	3.4	3.0	57.34	-932.0	81.9	927.0	920.7	6.39	144.995	
1,673.2	1,672.2	1,664.7	1,663.2	3.6	3.2	58.21	-931.8	75.9	921.8	915.1	6.71	137.321	
1,700.0	1,698.7	1,683.0	1,681.5	3.6	3.2	58.47	-931.8	74.4	919.8	913.0	6.81	134.990	
1,771.6	1,769.5	1,743.5	1,741.7	3.8	3.4	59.35	-932.4	69.4	914.6	907.5	7.13	128.268	
1,800.0	1,797.5	1,765.2	1,763.4	3.9	3.4	59.70	-932.9	67.6	912.7	905.5	7.25	125.890	
1,870.1	1,866.3	1,824.2	1,822.1	4.1	3.6	60.69	-934.7	62.5	908.2	900.6	7.58	119.737	
1,900.2	1,895.8	1,850.1	1,847.9	4.2	3.6	61.16	-935.6	60.2	906.2	898.5	7.73	117.225	
1,968.5	1,962.6	1,905.7	1,903.2	4.4	3.8	62.12	-938.0	55.1	902.4	894.3	8.08	111.651	
2,000.0	1,993.4	1,930.6	1,928.0	4.5	3.8	62.55	-939.3	52.9	901.0	892.7	8.24	109.301	
2,066.9	2,058.9	1,983.9	1,981.0	4.7	4.0	63.46	-942.5	48.3	898.9	890.3	8.60	104.519	
2,100.0	2,091.2	2,010.5	2,007.5	4.8	4.0	63.91	-944.4	46.0	898.3	889.5	8.78	102.329	
2,153.8	2,143.9	2,053.8	2,050.5	5.0	4.2	64.65	-947.8	42.3	897.9	888.8	9.08	98.913 CC	
2,165.3	2,155.2	2,062.0	2,058.6	5.1	4.2	64.79	-948.5	41.6	897.9	888.8	9.14	98.252 ES	
2,200.0	2,189.1	2,088.7	2,085.1	5.2	4.3	65.24	-950.8	39.4	898.2	888.9	9.33	96.285	
2,263.8	2,251.4	2,136.2	2,132.2	5.5	4.4	66.02	-955.7	35.7	899.7	890.0	9.68	92.932	
2,300.0	2,286.9	2,164.9	2,160.7	5.6	4.5	66.48	-959.0	33.6	901.1	891.2	9.89	91.142	
2,362.2	2,347.7	2,224.3	2,219.4	5.8	4.6	67.43	-965.9	29.1	903.9	893.6	10.27	88.023	
2,400.0	2,384.7	2,260.2	2,255.0	6.0	4.7	68.02	-970.2	26.3	905.8	895.3	10.50	86.249	
2,460.6	2,444.0	2,317.5	2,311.6	6.2	4.9	68.97	-976.9	21.2	909.0	898.1	10.88	83.540	

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

Anticollision Report



Company:	PDC ENERGY	Local Co-ordinate Reference:	Well WACKER 10G-214
Project:	WELD COUNTY, COLORADO	TVD Reference:	KB-EST @ 4624.0usft (Original Well Elev)
Reference Site:	SW NW SEC. 10 T5N R64W 6th P.M.	MD Reference:	KB-EST @ 4624.0usft (Original Well Elev)
Site Error:	0.0 usft	North Reference:	True
Reference Well:	WACKER 10G-214	Survey Calculation Method:	Minimum Curvature
Well Error:	0.0 usft	Output errors are at	2.00 sigma
Reference Wellbore	ORIGINAL WELLBORE	Database:	EDM 5000.1 Single User Db
Reference Design:	PROPOSAL #1	Offset TVD Reference:	Offset Datum

Offset Design												Offset Site Error:	0.0 usft
Survey Program: 290-MWD												Offset Well Error:	0.0 usft
Reference		Offset		Semi Major Axis			Distance						Warning
Measured Depth (usft)	Vertical Depth (usft)	Measured Depth (usft)	Vertical Depth (usft)	Reference (usft)	Offset (usft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (usft)	+E/-W (usft)	Between Centres (usft)	Between Ellipses (usft)	Minimum Separation (usft)	Separation Factor	
2,500.0	2,482.5	2,345.0	2,338.8	6.4	5.0	69.44	-980.1	18.6	911.4	900.3	11.10	82.082	
2,559.0	2,540.3	2,398.5	2,391.7	6.6	5.1	70.37	-986.7	13.1	915.5	904.1	11.48	79.737	
2,600.0	2,580.3	2,439.0	2,431.5	6.8	5.3	71.08	-992.1	8.6	919.1	907.3	11.75	78.196	
2,657.5	2,636.5	2,476.7	2,468.6	7.1	5.4	71.73	-997.5	4.4	924.6	912.5	12.09	76.469	
2,700.0	2,678.1	2,511.5	2,502.8	7.2	5.5	72.34	-1,002.7	0.4	929.2	916.9	12.36	75.177	
2,755.9	2,732.8	2,555.0	2,545.4	7.5	5.7	73.09	-1,009.4	-4.7	936.0	923.2	12.71	73.628	
2,800.0	2,775.9	2,587.4	2,577.2	7.7	5.8	73.64	-1,014.8	-8.6	941.9	928.9	12.98	72.539	
2,854.3	2,829.1	2,628.0	2,616.8	7.9	5.9	74.33	-1,022.0	-13.6	950.0	936.7	13.32	71.300	
2,900.0	2,873.8	2,670.4	2,658.2	8.1	6.1	75.03	-1,029.8	-18.9	957.3	943.7	13.63	70.236	
2,952.7	2,925.4	2,720.6	2,707.1	8.3	6.3	75.85	-1,039.0	-25.0	965.9	951.9	13.99	69.062	
2,953.5	2,926.1	2,721.3	2,707.8	8.3	6.3	75.86	-1,039.1	-25.0	966.0	952.0	13.99	69.047	
3,000.0	2,971.6	2,768.4	2,753.8	8.5	6.4	76.73	-1,047.8	-30.5	973.8	959.5	14.28	68.180	
3,051.2	3,022.0	2,820.7	2,804.8	8.7	6.6	77.62	-1,057.4	-36.2	982.5	968.0	14.57	67.442	
3,100.0	3,070.1	2,871.0	2,854.1	8.8	6.8	78.39	-1,066.6	-41.3	991.0	976.2	14.84	66.795	
3,149.6	3,119.1	2,921.8	2,903.8	8.9	7.0	79.09	-1,075.8	-46.0	999.7	984.6	15.09	66.241	
3,200.0	3,169.1	2,970.6	2,951.6	9.1	7.1	79.72	-1,084.6	-50.5	1,008.8	993.4	15.34	65.740	
3,248.0	3,216.8	3,019.6	2,999.5	9.2	7.3	80.31	-1,093.4	-55.3	1,017.6	1,002.0	15.57	65.336	
3,300.0	3,268.5	3,082.5	3,061.2	9.3	7.5	80.96	-1,104.1	-61.5	1,026.9	1,011.0	15.84	64.812	
3,346.4	3,314.8	3,134.5	3,112.3	9.4	7.7	81.45	-1,112.5	-66.4	1,034.9	1,018.9	16.06	64.445	
3,400.0	3,368.3	3,191.8	3,168.7	9.6	7.9	81.95	-1,121.5	-71.9	1,044.1	1,027.8	16.30	64.055	
3,444.9	3,413.1	3,236.4	3,212.5	9.6	8.0	82.30	-1,128.3	-76.1	1,051.8	1,035.3	16.48	63.815	
3,500.0	3,468.2	3,290.7	3,265.9	9.7	8.2	82.68	-1,136.6	-81.4	1,061.4	1,044.7	16.70	63.539	
3,543.3	3,511.5	3,331.6	3,306.1	9.8	8.4	82.94	-1,142.8	-85.4	1,069.0	1,052.2	16.87	63.378	
3,553.7	3,521.9	3,341.4	3,315.8	9.8	8.4	-158.36	-1,144.3	-86.4	1,070.9	1,055.0	15.94	67.183	
3,600.0	3,568.2	3,386.0	3,359.6	9.9	8.6	-158.26	-1,151.1	-91.0	1,079.2	1,063.0	16.19	66.669	
3,641.7	3,609.9	3,416.6	3,389.6	10.0	8.7	-158.19	-1,155.9	-94.3	1,087.0	1,070.6	16.39	66.318	
3,700.0	3,668.2	3,460.0	3,432.2	10.1	8.9	-158.10	-1,163.2	-99.0	1,098.4	1,081.7	16.68	65.869	
3,740.1	3,708.4	3,492.9	3,464.3	10.1	9.0	-158.03	-1,169.0	-102.7	1,106.7	1,089.8	16.88	65.544	
3,800.0	3,768.2	3,552.5	3,522.6	10.2	9.2	-157.92	-1,179.6	-109.4	1,119.1	1,101.8	17.24	64.914	
3,838.6	3,806.8	3,589.0	3,558.3	10.3	9.4	-157.85	-1,186.1	-113.5	1,127.1	1,109.6	17.46	64.543	
3,900.0	3,868.2	3,642.0	3,610.1	10.4	9.6	-157.75	-1,195.8	-119.4	1,140.0	1,122.2	17.80	64.047	
3,937.0	3,905.2	3,674.1	3,641.4	10.5	9.7	-157.70	-1,201.8	-123.1	1,148.0	1,130.0	18.00	63.761	
4,000.0	3,968.2	3,732.3	3,698.2	10.6	10.0	-157.61	-1,212.9	-129.5	1,161.8	1,143.4	18.38	63.208	
4,035.4	4,003.6	3,765.1	3,730.1	10.6	10.1	-157.56	-1,219.2	-133.1	1,169.6	1,151.0	18.59	62.910	
4,100.0	4,068.2	3,828.8	3,792.2	10.7	10.4	-157.49	-1,231.7	-139.8	1,184.0	1,165.0	18.99	62.335	
4,133.8	4,102.1	3,865.1	3,827.7	10.8	10.5	-157.46	-1,238.9	-143.5	1,191.4	1,172.2	19.21	62.008	
4,200.0	4,168.2	3,988.4	3,948.6	10.9	11.0	-157.35	-1,259.8	-154.6	1,203.8	1,184.0	19.81	60.778	
4,232.3	4,200.5	4,028.0	3,987.7	11.0	11.1	-157.29	-1,265.4	-158.3	1,209.2	1,189.2	20.01	60.434	
4,300.0	4,268.2	4,095.9	4,054.6	11.1	11.3	-157.17	-1,274.6	-164.8	1,220.2	1,199.9	20.39	59.855	
4,330.7	4,298.9	4,124.1	4,082.4	11.1	11.4	-157.13	-1,278.5	-167.5	1,225.3	1,204.7	20.55	59.625	
4,400.0	4,368.2	4,183.3	4,140.7	11.3	11.7	-157.02	-1,286.8	-173.4	1,237.0	1,216.0	20.91	59.149	
4,429.1	4,397.3	4,207.2	4,164.2	11.3	11.7	-156.98	-1,290.3	-175.9	1,242.0	1,221.0	21.06	58.966	
4,500.0	4,468.2	4,267.4	4,223.4	11.4	12.0	-156.87	-1,299.4	-182.3	1,254.8	1,233.4	21.44	58.518	
4,527.5	4,495.8	4,291.8	4,247.3	11.5	12.1	-156.82	-1,303.1	-185.0	1,259.9	1,238.3	21.60	58.337	
4,600.0	4,568.2	4,353.2	4,307.6	11.6	12.3	-156.70	-1,312.8	-192.0	1,273.6	1,251.7	22.00	57.906	
4,626.0	4,594.2	4,373.4	4,327.4	11.7	12.4	-156.66	-1,316.0	-194.4	1,278.7	1,256.6	22.13	57.775	
4,700.0	4,668.2	4,431.6	4,384.3	11.8	12.6	-156.53	-1,325.8	-201.6	1,293.8	1,271.3	22.53	57.427	
4,724.4	4,692.6	4,462.3	4,414.3	11.9	12.8	-156.47	-1,331.0	-205.5	1,298.8	1,276.1	22.70	57.206	
4,800.0	4,768.2	4,548.4	4,498.6	12.0	13.1	-156.30	-1,345.0	-215.8	1,313.7	1,290.5	23.21	56.604	
4,822.8	4,791.0	4,569.2	4,519.0	12.0	13.2	-156.26	-1,348.4	-218.3	1,318.2	1,294.8	23.34	56.477	
4,900.0	4,868.2	4,644.7	4,593.0	12.2	13.5	-156.12	-1,360.7	-227.2	1,333.4	1,309.6	23.80	56.019	
4,921.2	4,889.5	4,668.9	4,616.7	12.2	13.6	-156.07	-1,364.5	-230.1	1,337.5	1,313.6	23.94	55.864	

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

Anticollision Report



Company:	PDC ENERGY	Local Co-ordinate Reference:	Well WACKER 10G-214
Project:	WELD COUNTY, COLORADO	TVD Reference:	KB-EST @ 4624.0usft (Original Well Elev)
Reference Site:	SW NW SEC. 10 T5N R64W 6th P.M.	MD Reference:	KB-EST @ 4624.0usft (Original Well Elev)
Site Error:	0.0 usft	North Reference:	True
Reference Well:	WACKER 10G-214	Survey Calculation Method:	Minimum Curvature
Well Error:	0.0 usft	Output errors are at	2.00 sigma
Reference Wellbore	ORIGINAL WELLBORE	Database:	EDM 5000.1 Single User Db
Reference Design:	PROPOSAL #1	Offset TVD Reference:	Offset Datum

Offset Design												Offset Site Error:	0.0 usft
Survey Program: 290-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	
5,000.0	4,968.2	4,747.5	4,693.7	12.4	13.9	-155.92	-1,376.8	-239.4	1,352.5	1,328.1	24.42	55.390	
5,019.7	4,987.9	4,764.2	4,710.2	12.4	14.0	-155.88	-1,379.5	-241.4	1,356.4	1,331.8	24.53	55.302	
5,100.0	5,068.2	4,829.7	4,774.3	12.6	14.2	-155.77	-1,390.2	-249.1	1,372.3	1,347.3	24.96	54.973	
5,118.1	5,086.3	4,843.2	4,787.5	12.6	14.3	-155.75	-1,392.5	-250.8	1,376.0	1,351.0	25.06	54.909	
5,200.0	5,168.2	4,905.0	4,847.7	12.7	14.6	-155.63	-1,403.4	-258.7	1,393.5	1,368.0	25.50	54.645	
5,216.5	5,184.7	4,924.8	4,867.0	12.8	14.6	-155.59	-1,407.0	-261.3	1,397.1	1,371.5	25.62	54.531	
5,300.0	5,268.2	5,052.9	4,992.3	12.9	15.2	-155.44	-1,429.5	-275.5	1,414.5	1,388.2	26.32	53.749	
5,314.9	5,283.2	5,089.5	5,028.4	13.0	15.3	-155.44	-1,435.3	-278.3	1,417.2	1,390.7	26.49	53.505	
5,400.0	5,368.2	5,253.1	5,190.2	13.1	15.8	-155.54	-1,457.6	-285.7	1,429.4	1,402.2	27.18	52.596	
5,413.4	5,381.6	5,280.8	5,217.8	13.2	15.9	-155.58	-1,460.8	-286.2	1,430.9	1,403.6	27.28	52.442	
5,500.0	5,468.2	5,402.3	5,338.7	13.3	16.2	-155.72	-1,472.2	-287.4	1,438.6	1,410.8	27.77	51.810	
5,511.8	5,480.0	5,414.6	5,351.0	13.3	16.2	-155.73	-1,473.2	-287.6	1,439.6	1,411.7	27.82	51.743	
5,600.0	5,568.2	5,524.4	5,460.5	13.5	16.4	-155.77	-1,481.2	-290.1	1,446.3	1,418.0	28.26	51.176	
5,610.2	5,578.4	5,540.5	5,476.5	13.5	16.5	-155.76	-1,482.0	-290.6	1,446.9	1,418.6	28.32	51.095	
5,700.0	5,668.2	5,663.8	5,599.7	13.7	16.7	-155.69	-1,486.7	-294.9	1,451.2	1,422.5	28.76	50.456	
5,708.6	5,676.9	5,674.9	5,610.8	13.7	16.7	-155.68	-1,486.9	-295.3	1,451.5	1,422.7	28.80	50.399	
5,800.0	5,768.2	5,793.7	5,729.5	13.9	16.9	-155.57	-1,488.7	-299.1	1,454.0	1,424.8	29.21	49.782	
5,807.1	5,775.3	5,803.3	5,739.1	13.9	17.0	-155.56	-1,488.8	-299.3	1,454.1	1,424.9	29.24	49.733	
5,900.0	5,868.2	5,904.1	5,839.8	14.1	17.1	-155.56	-1,489.6	-299.8	1,455.0	1,425.4	29.60	49.154	
5,905.5	5,873.7	5,909.1	5,844.9	14.1	17.1	-155.56	-1,489.7	-299.7	1,455.0	1,425.4	29.62	49.123	
5,960.7	5,928.9	6,079.7	6,014.4	14.2	17.3	-156.16	-1,491.8	-284.1	1,453.9	1,423.9	29.91	48.600	
6,000.0	5,968.2	6,128.2	6,061.8	14.3	17.3	-66.82	-1,492.5	-273.9	1,450.6	1,422.9	27.68	52.409	
6,003.9	5,972.1	6,133.0	6,066.5	14.3	17.3	-66.90	-1,492.6	-272.8	1,450.2	1,422.5	27.69	52.368	
6,050.0	6,018.0	6,354.6	6,270.4	14.4	17.2	-71.42	-1,498.5	-188.4	1,443.6	1,415.6	28.05	51.471	
6,100.0	6,067.3	6,416.2	6,322.4	14.4	17.1	-73.96	-1,499.5	-155.3	1,431.9	1,403.7	28.20	50.777	
6,102.3	6,069.6	6,418.9	6,324.5	14.4	17.1	-74.08	-1,499.6	-153.8	1,431.3	1,403.1	28.20	50.744	
6,150.0	6,116.0	6,463.5	6,360.5	14.4	17.0	-76.40	-1,500.8	-127.5	1,419.4	1,391.1	28.35	50.064	
6,200.0	6,163.8	6,500.3	6,388.9	14.5	17.0	-78.67	-1,502.3	-104.1	1,407.0	1,378.5	28.46	49.432	
6,200.8	6,164.5	6,500.8	6,389.3	14.5	17.0	-78.70	-1,502.3	-103.8	1,406.8	1,378.3	28.46	49.423	
6,250.0	6,210.4	6,555.3	6,428.9	14.5	17.0	-81.74	-1,504.8	-66.5	1,394.9	1,366.2	28.67	48.659	
6,299.2	6,254.9	6,598.4	6,457.7	14.5	16.9	-84.42	-1,506.8	-34.4	1,383.4	1,354.5	28.83	47.988	
6,300.0	6,255.6	6,598.9	6,458.0	14.5	16.9	-84.45	-1,506.8	-34.1	1,383.2	1,354.3	28.83	47.979	
6,350.0	6,299.3	6,615.9	6,468.7	14.5	16.9	-86.03	-1,507.5	-20.8	1,372.6	1,343.7	28.93	47.438	
6,397.6	6,339.2	6,621.5	6,472.1	14.6	16.9	-86.97	-1,507.8	-16.4	1,363.9	1,334.9	29.02	46.996	
6,400.0	6,341.2	6,621.6	6,472.2	14.6	16.9	-87.01	-1,507.8	-16.3	1,363.5	1,334.5	29.03	46.976	
6,450.0	6,381.0	6,622.1	6,472.5	14.6	16.9	-87.63	-1,507.8	-16.0	1,356.0	1,326.9	29.12	46.569	
6,496.0	6,415.8	6,619.1	6,470.6	14.7	16.9	-87.94	-1,507.7	-18.4	1,350.6	1,321.3	29.23	46.211	
6,500.0	6,418.7	6,618.7	6,470.4	14.7	16.9	-87.96	-1,507.7	-18.7	1,350.2	1,320.9	29.24	46.183	
6,550.0	6,453.9	6,612.5	6,466.6	14.8	16.9	-88.03	-1,507.4	-23.5	1,346.0	1,316.6	29.39	45.795	
6,594.5	6,483.1	6,604.2	6,461.3	15.0	16.9	-87.86	-1,507.0	-30.0	1,343.7	1,314.2	29.59	45.411	
6,600.0	6,486.6	6,602.9	6,460.5	15.1	16.9	-87.82	-1,507.0	-31.0	1,343.6	1,313.9	29.62	45.365	
6,650.0	6,516.6	6,590.5	6,452.6	15.3	16.9	-87.38	-1,506.4	-40.4	1,342.7	1,312.8	29.92	44.880	
6,650.9	6,517.1	6,590.3	6,452.4	15.4	16.9	-87.37	-1,506.4	-40.6	1,342.7	1,312.8	29.92	44.870	
6,692.9	6,540.0	6,578.9	6,444.9	15.7	16.9	-86.86	-1,505.9	-49.2	1,343.3	1,313.0	30.24	44.416	
6,700.0	6,543.7	6,576.9	6,443.6	15.7	16.9	-86.76	-1,505.8	-50.7	1,343.5	1,313.2	30.30	44.344	
6,750.0	6,567.8	6,562.2	6,433.7	16.2	16.9	-85.98	-1,505.1	-61.5	1,345.7	1,315.0	30.75	43.758	
6,791.3	6,585.4	6,549.5	6,424.9	16.7	17.0	-85.24	-1,504.6	-70.6	1,348.7	1,317.5	31.20	43.229	
6,800.0	6,588.8	6,546.8	6,422.9	16.8	17.0	-85.08	-1,504.4	-72.5	1,349.4	1,318.1	31.29	43.125	
6,850.0	6,606.6	6,530.7	6,411.4	17.4	17.0	-84.05	-1,503.7	-83.7	1,354.4	1,322.5	31.90	42.457	
6,889.7	6,618.4	6,514.0	6,399.2	18.0	17.0	-83.02	-1,502.9	-95.1	1,359.2	1,326.8	32.43	41.916	
6,900.0	6,621.1	6,514.0	6,399.2	18.2	17.0	-82.91	-1,502.9	-95.1	1,360.6	1,328.0	32.58	41.764	
6,950.0	6,632.2	6,514.0	6,399.2	19.0	17.0	-82.32	-1,502.9	-95.1	1,368.0	1,334.7	33.38	40.984	

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

Anticollision Report



Company:	PDC ENERGY	Local Co-ordinate Reference:	Well WACKER 10G-214
Project:	WELD COUNTY, COLORADO	TVD Reference:	KB-EST @ 4624.0usft (Original Well Elev)
Reference Site:	SW NW SEC. 10 T5N R64W 6th P.M.	MD Reference:	KB-EST @ 4624.0usft (Original Well Elev)
Site Error:	0.0 usft	North Reference:	True
Reference Well:	WACKER 10G-214	Survey Calculation Method:	Minimum Curvature
Well Error:	0.0 usft	Output errors are at	2.00 sigma
Reference Wellbore	ORIGINAL WELLBORE	Database:	EDM 5000.1 Single User Db
Reference Design:	PROPOSAL #1	Offset TVD Reference:	Offset Datum

Offset Design												Offset Site Error:	0.0 usft
Survey Program: 290-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	
6,988.2	6,638.4	6,489.2	6,380.4	19.7	17.0	-80.91	-1,501.8	-111.3	1,374.2	1,340.2	33.98	40.440	
7,000.0	6,639.9	6,485.6	6,377.7	19.9	17.0	-80.62	-1,501.6	-113.6	1,376.3	1,342.1	34.17	40.272	
7,050.0	6,644.1	6,470.3	6,365.9	20.8	17.0	-79.35	-1,501.1	-123.2	1,385.5	1,350.5	35.03	39.548	
7,086.5	6,645.0	6,458.8	6,356.8	21.5	17.0	-78.38	-1,500.7	-130.4	1,392.8	1,357.1	35.68	39.037	
7,100.0	6,645.0	6,454.5	6,353.4	21.8	17.1	-78.24	-1,500.5	-133.0	1,395.6	1,359.7	35.93	38.845	
7,185.0	6,644.9	6,420.0	6,325.5	23.6	17.1	-77.09	-1,499.6	-153.2	1,415.6	1,378.1	37.53	37.717	
7,200.0	6,644.8	6,420.0	6,325.5	23.9	17.1	-77.09	-1,499.6	-153.2	1,419.5	1,381.6	37.83	37.518	
7,283.4	6,644.7	6,398.4	6,307.5	25.7	17.1	-76.36	-1,499.2	-165.3	1,443.5	1,403.9	39.56	36.487	
7,300.0	6,644.7	6,393.3	6,303.3	26.1	17.1	-76.18	-1,499.1	-168.0	1,448.6	1,408.7	39.90	36.308	
7,381.9	6,644.6	6,369.1	6,282.8	28.0	17.2	-75.35	-1,498.7	-180.9	1,476.3	1,434.7	41.64	35.450	
7,400.0	6,644.6	6,364.0	6,278.5	28.4	17.2	-75.18	-1,498.6	-183.6	1,482.9	1,440.9	42.03	35.282	
7,480.3	6,644.5	6,325.0	6,244.7	30.3	17.2	-73.83	-1,498.1	-203.1	1,514.1	1,470.4	43.70	34.647	
7,500.0	6,644.4	6,325.0	6,244.7	30.8	17.2	-73.83	-1,498.1	-203.1	1,522.1	1,477.9	44.16	34.471	
7,578.7	6,644.3	6,325.0	6,244.7	32.7	17.2	-73.83	-1,498.1	-203.1	1,556.1	1,510.0	46.02	33.813	
7,600.0	6,644.3	6,325.0	6,244.7	33.3	17.2	-73.83	-1,498.1	-203.1	1,565.8	1,519.3	46.52	33.656	
7,677.1	6,644.2	6,289.3	6,213.0	35.2	17.2	-72.57	-1,497.6	-219.5	1,602.3	1,554.1	48.17	33.264	
7,700.0	6,644.1	6,283.5	6,207.8	35.8	17.2	-72.37	-1,497.5	-222.1	1,613.6	1,564.9	48.68	33.148	
7,775.6	6,644.0	6,265.5	6,191.5	37.7	17.3	-71.73	-1,497.0	-229.7	1,652.4	1,602.1	50.39	32.793	
7,800.0	6,644.0	6,260.1	6,186.6	38.3	17.3	-71.53	-1,496.8	-231.9	1,665.5	1,614.5	50.94	32.693	
7,874.0	6,643.9	6,230.0	6,158.8	40.2	17.3	-70.45	-1,495.7	-243.5	1,706.4	1,653.9	52.51	32.496	
7,900.0	6,643.9	6,230.0	6,158.8	40.9	17.3	-70.45	-1,495.7	-243.5	1,721.1	1,668.0	53.15	32.384	
7,972.4	6,643.8	6,230.0	6,158.8	42.8	17.3	-70.45	-1,495.7	-243.5	1,763.6	1,708.6	54.94	32.101	
8,000.0	6,643.7	6,230.0	6,158.8	43.5	17.3	-70.45	-1,495.7	-243.5	1,780.2	1,724.6	55.62	32.007	
8,070.8	6,643.6	6,230.0	6,158.8	45.4	17.3	-70.45	-1,495.7	-243.5	1,824.2	1,766.8	57.39	31.789	
8,100.0	6,643.6	6,230.0	6,158.8	46.2	17.3	-70.45	-1,495.7	-243.5	1,842.8	1,784.7	58.11	31.711	
8,169.3	6,643.5	6,230.0	6,158.8	48.0	17.3	-70.45	-1,495.7	-243.5	1,888.1	1,828.2	59.85	31.546	
8,200.0	6,643.5	6,230.0	6,158.8	48.8	17.3	-70.45	-1,495.7	-243.5	1,908.6	1,848.0	60.62	31.483	
8,267.7	6,643.4	6,195.2	6,126.2	50.6	17.3	-69.20	-1,494.4	-255.6	1,953.8	1,891.8	61.93	31.546	
8,300.0	6,643.3	6,192.1	6,123.3	51.5	17.3	-69.09	-1,494.3	-256.5	1,976.0	1,913.3	62.71	31.512	
8,366.1	6,643.2	6,186.1	6,117.6	53.3	17.3	-68.87	-1,494.1	-258.4	2,022.5	1,958.2	64.30	31.455	
8,400.0	6,643.2	6,183.2	6,114.8	54.2	17.3	-68.76	-1,494.0	-259.3	2,046.6	1,981.5	65.11	31.433	
8,464.5	6,643.1	6,177.8	6,109.6	55.9	17.3	-68.57	-1,493.8	-260.9	2,093.4	2,026.7	66.67	31.400	
8,500.0	6,643.1	6,174.9	6,106.9	56.9	17.3	-68.47	-1,493.7	-261.8	2,119.5	2,051.9	67.52	31.388 SF	
8,563.0	6,643.0	6,136.0	6,069.4	58.6	17.3	-67.06	-1,492.7	-272.1	2,167.4	2,098.8	68.55	31.616	
8,600.0	6,642.9	6,136.0	6,069.4	59.6	17.3	-67.06	-1,492.7	-272.1	2,195.2	2,125.7	69.48	31.594	
8,661.4	6,642.8	6,136.0	6,069.4	61.3	17.3	-67.06	-1,492.7	-272.1	2,241.8	2,170.8	71.03	31.564	
8,700.0	6,642.8	6,136.0	6,069.4	62.3	17.3	-67.07	-1,492.7	-272.1	2,271.5	2,199.5	72.00	31.551	
8,759.8	6,642.7	6,136.0	6,069.4	64.0	17.3	-67.07	-1,492.7	-272.1	2,318.1	2,244.6	73.51	31.536	
8,800.0	6,642.7	6,136.0	6,069.4	65.1	17.3	-67.07	-1,492.7	-272.1	2,349.7	2,275.2	74.52	31.531	
8,858.2	6,642.6	6,136.0	6,069.4	66.6	17.3	-67.07	-1,492.7	-272.1	2,395.9	2,320.0	75.99	31.529	
8,900.0	6,642.5	6,136.0	6,069.4	67.8	17.3	-67.07	-1,492.7	-272.1	2,429.4	2,352.4	77.05	31.531	
8,956.7	6,642.4	6,136.0	6,069.4	69.3	17.3	-67.07	-1,492.7	-272.1	2,475.3	2,396.8	78.49	31.538	
9,000.0	6,642.4	6,136.0	6,069.4	70.5	17.3	-67.07	-1,492.7	-272.1	2,510.6	2,431.0	79.58	31.547	
9,055.1	6,642.3	6,136.0	6,069.4	72.0	17.3	-67.07	-1,492.7	-272.1	2,555.9	2,474.9	80.98	31.561	
9,100.0	6,642.3	6,136.0	6,069.4	73.3	17.3	-67.07	-1,492.7	-272.1	2,593.1	2,511.0	82.12	31.576	
9,153.5	6,642.2	6,136.0	6,069.4	74.7	17.3	-67.07	-1,492.7	-272.1	2,637.8	2,554.3	83.49	31.596	
9,200.0	6,642.1	6,136.0	6,069.4	76.0	17.3	-67.07	-1,492.7	-272.1	2,676.8	2,592.2	84.67	31.615	
9,251.9	6,642.1	6,136.0	6,069.4	77.5	17.3	-67.07	-1,492.7	-272.1	2,720.7	2,634.8	85.99	31.639	
9,300.0	6,642.0	6,136.0	6,069.4	78.8	17.3	-67.07	-1,492.7	-272.1	2,761.6	2,674.4	87.22	31.663	
9,350.4	6,641.9	6,136.0	6,069.4	80.2	17.3	-67.07	-1,492.7	-272.1	2,804.7	2,716.2	88.50	31.690	
9,400.0	6,641.9	6,136.0	6,069.4	81.5	17.3	-67.07	-1,492.7	-272.1	2,847.4	2,757.6	89.77	31.719	
9,448.8	6,641.8	6,136.0	6,069.4	82.9	17.3	-67.07	-1,492.7	-272.1	2,889.6	2,798.6	91.02	31.748	

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

Anticollision Report



Company:	PDC ENERGY	Local Co-ordinate Reference:	Well WACKER 10G-214
Project:	WELD COUNTY, COLORADO	TVD Reference:	KB-EST @ 4624.0usft (Original Well Elev)
Reference Site:	SW NW SEC. 10 T5N R64W 6th P.M.	MD Reference:	KB-EST @ 4624.0usft (Original Well Elev)
Site Error:	0.0 usft	North Reference:	True
Reference Well:	WACKER 10G-214	Survey Calculation Method:	Minimum Curvature
Well Error:	0.0 usft	Output errors are at	2.00 sigma
Reference Wellbore	ORIGINAL WELLBORE	Database:	EDM 5000.1 Single User Db
Reference Design:	PROPOSAL #1	Offset TVD Reference:	Offset Datum

Offset Design												Offset Site Error:	0.0 usft
Survey Program: 290-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	6,641.7	6,136.0	6,069.4	84.3	17.3	-67.07	-1,492.7	-272.1	2,934.1	2,841.7	92.33	31.779	
9,547.2	6,641.7	6,136.0	6,069.4	85.6	17.3	-67.07	-1,492.7	-272.1	2,975.3	2,881.8	93.53	31.810	
9,600.0	6,641.6	6,136.0	6,069.4	87.1	17.3	-67.07	-1,492.7	-272.1	3,021.6	2,926.7	94.88	31.845	
9,645.6	6,641.5	6,100.3	6,034.6	88.3	17.3	-65.80	-1,492.0	-280.0	3,061.0	2,965.8	95.24	32.139	
9,700.0	6,641.5	6,097.2	6,031.6	89.8	17.3	-65.69	-1,492.0	-280.7	3,108.9	3,012.4	96.55	32.200	
9,744.1	6,641.4	6,094.8	6,029.2	91.0	17.3	-65.60	-1,491.9	-281.2	3,147.9	3,050.3	97.61	32.250	
9,800.0	6,641.3	6,091.7	6,026.2	92.6	17.3	-65.49	-1,491.9	-281.8	3,197.6	3,098.7	98.96	32.313	
9,842.5	6,641.3	6,089.5	6,024.0	93.8	17.3	-65.41	-1,491.9	-282.2	3,235.5	3,135.5	99.98	32.362	
9,900.0	6,641.2	6,086.5	6,021.1	95.4	17.3	-65.31	-1,491.8	-282.8	3,286.9	3,185.5	101.36	32.427	
9,940.9	6,641.1	6,084.4	6,019.1	96.5	17.3	-65.24	-1,491.8	-283.2	3,323.6	3,221.3	102.35	32.474	
10,000.0	6,641.1	6,081.5	6,016.2	98.1	17.3	-65.13	-1,491.8	-283.8	3,376.8	3,273.0	103.77	32.541	
10,039.3	6,641.0	6,079.6	6,014.3	99.2	17.3	-65.07	-1,491.7	-284.2	3,412.3	3,307.6	104.72	32.586	
10,100.0	6,640.9	6,041.0	5,976.3	100.9	17.3	-63.73	-1,491.5	-290.9	3,467.9	3,362.7	105.21	32.961	
10,137.8	6,640.9	6,041.0	5,976.3	102.0	17.3	-63.73	-1,491.5	-290.9	3,502.1	3,395.9	106.16	32.989	
10,200.0	6,640.8	6,041.0	5,976.3	103.7	17.3	-63.73	-1,491.5	-290.9	3,558.6	3,450.9	107.72	33.036	
10,236.2	6,640.8	6,041.0	5,976.3	104.7	17.3	-63.73	-1,491.5	-290.9	3,591.6	3,482.9	108.63	33.063	
10,300.0	6,640.7	6,041.0	5,976.3	106.5	17.3	-63.73	-1,491.5	-290.9	3,649.8	3,539.6	110.23	33.110	
10,334.6	6,640.6	6,041.0	5,976.3	107.4	17.3	-63.73	-1,491.5	-290.9	3,681.5	3,570.4	111.10	33.136	
10,400.0	6,640.6	6,041.0	5,976.3	109.3	17.3	-63.73	-1,491.5	-290.9	3,741.4	3,628.7	112.74	33.185	
10,433.0	6,640.5	6,041.0	5,976.3	110.2	17.3	-63.73	-1,491.5	-290.9	3,771.8	3,658.2	113.57	33.210	
10,500.0	6,640.4	6,041.0	5,976.3	112.0	17.3	-63.73	-1,491.5	-290.9	3,833.5	3,718.2	115.26	33.260	
10,531.5	6,640.4	6,041.0	5,976.3	112.9	17.3	-63.73	-1,491.5	-290.9	3,862.5	3,746.5	116.05	33.284	
10,600.0	6,640.3	6,041.0	5,976.3	114.8	17.3	-63.73	-1,491.5	-290.9	3,925.9	3,808.2	117.77	33.335	
10,629.9	6,640.3	6,041.0	5,976.3	115.7	17.3	-63.73	-1,491.5	-290.9	3,953.7	3,835.1	118.52	33.357	
10,700.0	6,640.2	6,041.0	5,976.3	117.6	17.3	-63.73	-1,491.5	-290.9	4,018.7	3,898.5	120.29	33.409	
10,728.3	6,640.1	6,041.0	5,976.3	118.4	17.3	-63.73	-1,491.5	-290.9	4,045.1	3,924.1	121.00	33.430	
10,800.0	6,640.0	6,041.0	5,976.3	120.4	17.3	-63.73	-1,491.5	-290.9	4,111.9	3,989.1	122.81	33.483	
10,826.7	6,640.0	6,041.0	5,976.3	121.2	17.3	-63.73	-1,491.5	-290.9	4,136.9	4,013.4	123.48	33.503	
10,900.0	6,639.9	6,041.0	5,976.3	123.2	17.3	-63.73	-1,491.5	-290.9	4,205.4	4,080.0	125.32	33.556	
10,925.2	6,639.9	6,041.0	5,976.3	123.9	17.3	-63.73	-1,491.5	-290.9	4,228.9	4,103.0	125.96	33.574	
11,000.0	6,639.8	6,041.0	5,976.3	126.0	17.3	-63.73	-1,491.5	-290.9	4,299.1	4,171.3	127.84	33.628	
11,023.6	6,639.8	6,041.0	5,976.3	126.6	17.3	-63.73	-1,491.5	-290.9	4,321.3	4,192.8	128.44	33.645	
11,100.0	6,639.7	6,041.0	5,976.3	128.8	17.3	-63.73	-1,491.5	-290.9	4,393.1	4,262.8	130.36	33.699	
11,122.0	6,639.6	6,041.0	5,976.3	129.4	17.3	-63.73	-1,491.5	-290.9	4,413.9	4,283.0	130.92	33.715	
11,200.0	6,639.5	6,041.0	5,976.3	131.6	17.3	-63.73	-1,491.5	-290.9	4,487.4	4,354.5	132.88	33.769	
11,220.4	6,639.5	6,041.0	5,976.3	132.1	17.3	-63.73	-1,491.5	-290.9	4,506.7	4,373.3	133.40	33.784	
11,300.0	6,639.4	6,041.0	5,976.3	134.4	17.3	-63.73	-1,491.5	-290.9	4,582.0	4,446.5	135.41	33.839	
11,318.9	6,639.4	6,041.0	5,976.3	134.9	17.3	-63.73	-1,491.5	-290.9	4,599.8	4,463.9	135.88	33.852	
11,400.0	6,639.3	6,041.0	5,976.3	137.1	17.3	-63.74	-1,491.5	-290.9	4,676.7	4,538.8	137.93	33.907	
11,417.3	6,639.3	6,041.0	5,976.3	137.6	17.3	-63.74	-1,491.5	-290.9	4,693.1	4,554.8	138.37	33.918	
11,500.0	6,639.2	6,041.0	5,976.3	139.9	17.3	-63.74	-1,491.5	-290.9	4,771.7	4,631.2	140.45	33.974	
11,515.7	6,639.1	6,041.0	5,976.3	140.4	17.3	-63.74	-1,491.5	-290.9	4,786.6	4,645.8	140.85	33.984	
11,600.0	6,639.0	6,041.0	5,976.3	142.7	17.3	-63.74	-1,491.5	-290.9	4,866.9	4,723.9	142.98	34.040	
11,614.1	6,639.0	6,041.0	5,976.3	143.1	17.3	-63.74	-1,491.5	-290.9	4,880.3	4,737.0	143.33	34.049	
11,700.0	6,638.9	6,041.0	5,976.3	145.5	17.3	-63.74	-1,491.5	-290.9	4,962.2	4,816.7	145.50	34.104	
11,712.6	6,638.9	6,041.0	5,976.3	145.9	17.3	-63.74	-1,491.5	-290.9	4,974.2	4,828.4	145.82	34.113	
11,800.0	6,638.8	6,041.0	5,976.3	148.3	17.3	-63.74	-1,491.5	-290.9	5,057.8	4,909.7	148.03	34.168	
11,811.0	6,638.8	6,041.0	5,976.3	148.6	17.3	-63.74	-1,491.5	-290.9	5,068.3	4,920.0	148.30	34.175	
11,900.0	6,638.7	6,041.0	5,976.3	151.1	17.3	-63.74	-1,491.5	-290.9	5,153.5	5,002.9	150.55	34.231	
11,909.4	6,638.6	6,041.0	5,976.3	151.4	17.3	-63.74	-1,491.5	-290.9	5,162.5	5,011.7	150.79	34.236	
12,000.0	6,638.5	6,041.0	5,976.3	153.9	17.3	-63.74	-1,491.5	-290.9	5,249.3	5,096.3	153.08	34.292	
12,007.8	6,638.5	6,041.0	5,976.3	154.1	17.3	-63.74	-1,491.5	-290.9	5,256.9	5,103.6	153.28	34.297	

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

Anticollision Report



Company:	PDC ENERGY	Local Co-ordinate Reference:	Well WACKER 10G-214
Project:	WELD COUNTY, COLORADO	TVD Reference:	KB-EST @ 4624.0usft (Original Well Elev)
Reference Site:	SW NW SEC. 10 T5N R64W 6th P.M.	MD Reference:	KB-EST @ 4624.0usft (Original Well Elev)
Site Error:	0.0 usft	North Reference:	True
Reference Well:	WACKER 10G-214	Survey Calculation Method:	Minimum Curvature
Well Error:	0.0 usft	Output errors are at	2.00 sigma
Reference Wellbore	ORIGINAL WELLBORE	Database:	EDM 5000.1 Single User Db
Reference Design:	PROPOSAL #1	Offset TVD Reference:	Offset Datum

Offset Design SW NW SEC. 10 T5N R64W 6th P.M. - EXIST HZ SEYLLOR #B10-64-1HN - Wellbore #1 - Wellbore #1												Offset Site Error:	0.0 usft
Survey Program: 290-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	
12,100.0	6,638.4	6,041.0	5,976.3	156.7	17.3	-63.74	-1,491.5	-290.9	5,345.4	5,189.8	155.60	34.352	
12,106.3	6,638.4	6,041.0	5,976.3	156.9	17.3	-63.74	-1,491.5	-290.9	5,351.4	5,195.6	155.76	34.356	
12,200.0	6,638.3	6,041.0	5,976.3	159.5	17.3	-63.74	-1,491.5	-290.9	5,441.5	5,283.4	158.13	34.411	
12,204.7	6,638.3	6,041.0	5,976.3	159.6	17.3	-63.74	-1,491.5	-290.9	5,446.1	5,287.8	158.25	34.414	
12,300.0	6,638.2	6,041.0	5,976.3	162.3	17.3	-63.74	-1,491.5	-290.9	5,537.8	5,377.2	160.66	34.469	
12,303.1	6,638.2	6,041.0	5,976.3	162.4	17.3	-63.74	-1,491.5	-290.9	5,540.8	5,380.1	160.74	34.471	
12,400.0	6,638.0	6,041.0	5,976.3	165.1	17.3	-63.74	-1,491.5	-290.9	5,634.3	5,471.1	163.19	34.526	
12,401.5	6,638.0	6,041.0	5,976.3	165.2	17.3	-63.74	-1,491.5	-290.9	5,635.8	5,472.5	163.23	34.527	
12,500.0	6,637.9	6,041.0	5,976.3	167.9	17.3	-63.74	-1,491.5	-290.9	5,730.8	5,565.1	165.72	34.582	
12,598.4	6,637.8	6,041.0	5,976.3	170.7	17.3	-63.74	-1,491.5	-290.9	5,825.9	5,657.7	168.20	34.636	
12,600.0	6,637.8	6,041.0	5,976.3	170.7	17.3	-63.74	-1,491.5	-290.9	5,827.5	5,659.2	168.25	34.637	
12,696.8	6,637.7	6,041.0	5,976.3	173.4	17.3	-63.74	-1,491.5	-290.9	5,921.2	5,750.5	170.69	34.689	
12,700.0	6,637.7	6,041.0	5,976.3	173.5	17.3	-63.74	-1,491.5	-290.9	5,924.3	5,753.5	170.78	34.690	
12,795.2	6,637.6	6,041.0	5,976.3	176.2	17.3	-63.74	-1,491.5	-290.9	6,016.5	5,843.4	173.18	34.741	
12,800.0	6,637.6	6,041.0	5,976.3	176.3	17.3	-63.74	-1,491.5	-290.9	6,021.2	5,847.8	173.31	34.743	
12,893.7	6,637.4	6,041.0	5,976.3	178.9	17.3	-63.74	-1,491.5	-290.9	6,112.0	5,936.3	175.67	34.792	
12,900.0	6,637.4	6,041.0	5,976.3	179.1	17.3	-63.74	-1,491.5	-290.9	6,118.1	5,942.3	175.84	34.795	
12,992.1	6,637.3	6,041.0	5,976.3	181.7	17.3	-63.74	-1,491.5	-290.9	6,207.5	6,029.4	178.17	34.841	
13,000.0	6,637.3	6,041.0	5,976.3	181.9	17.3	-63.74	-1,491.5	-290.9	6,215.2	6,036.9	178.37	34.845	
13,090.5	6,637.2	6,041.0	5,976.3	184.4	17.3	-63.74	-1,491.5	-290.9	6,303.2	6,122.5	180.66	34.890	
13,100.0	6,637.2	6,041.0	5,976.3	184.7	17.3	-63.75	-1,491.5	-290.9	6,312.4	6,131.5	180.90	34.895	
13,188.9	6,637.1	6,041.0	5,976.3	187.2	17.3	-63.75	-1,491.5	-290.9	6,398.9	6,215.8	183.15	34.938	
13,200.0	6,637.1	6,041.0	5,976.3	187.5	17.3	-63.75	-1,491.5	-290.9	6,409.7	6,226.2	183.43	34.944	
13,287.4	6,637.0	6,041.0	5,976.3	190.0	17.3	-63.75	-1,491.5	-290.9	6,494.7	6,309.1	185.64	34.986	
13,300.0	6,637.0	6,041.0	5,976.3	190.3	17.3	-63.75	-1,491.5	-290.9	6,507.0	6,321.0	185.96	34.991	
13,385.8	6,636.9	6,041.0	5,976.3	192.7	17.3	-63.75	-1,491.5	-290.9	6,590.6	6,402.4	188.13	35.032	
13,400.0	6,636.8	6,041.0	5,976.3	193.1	17.3	-63.75	-1,491.5	-290.9	6,604.4	6,415.9	188.49	35.038	
13,484.2	6,636.7	6,041.0	5,976.3	195.5	17.3	-63.75	-1,491.5	-290.9	6,686.5	6,495.9	190.62	35.077	
13,500.0	6,636.7	6,041.0	5,976.3	195.9	17.3	-63.75	-1,491.5	-290.9	6,701.9	6,510.9	191.02	35.084	
13,582.6	6,636.6	6,041.0	5,976.3	198.2	17.3	-63.75	-1,491.5	-290.9	6,782.6	6,589.4	193.12	35.122	
13,600.0	6,636.6	6,041.0	5,976.3	198.7	17.3	-63.75	-1,491.5	-290.9	6,799.5	6,605.9	193.56	35.129	
13,681.1	6,636.5	6,041.0	5,976.3	201.0	17.3	-63.75	-1,491.5	-290.9	6,878.6	6,683.0	195.61	35.165	
13,700.0	6,636.5	6,041.0	5,976.3	201.5	17.3	-63.75	-1,491.5	-290.9	6,897.1	6,701.0	196.09	35.173	
13,779.5	6,636.4	6,041.0	5,976.3	203.7	17.3	-63.75	-1,491.5	-290.9	6,974.8	6,776.7	198.10	35.208	
13,800.0	6,636.4	6,041.0	5,976.3	204.3	17.3	-63.75	-1,491.5	-290.9	6,994.8	6,796.2	198.62	35.217	
13,877.9	6,636.3	6,041.0	5,976.3	206.5	17.3	-63.75	-1,491.5	-290.9	7,071.0	6,870.4	200.60	35.250	
13,900.0	6,636.3	6,041.0	5,976.3	207.1	17.3	-63.75	-1,491.5	-290.9	7,092.6	6,891.4	201.16	35.259	
13,976.3	6,636.2	6,041.0	5,976.3	209.3	17.3	-63.75	-1,491.5	-290.9	7,167.3	6,964.2	203.09	35.291	
14,000.0	6,636.1	6,041.0	5,976.3	209.9	17.3	-63.75	-1,491.5	-290.9	7,190.4	6,986.7	203.69	35.301	
14,074.8	6,636.0	6,041.0	5,976.3	212.0	17.3	-63.75	-1,491.5	-290.9	7,263.6	7,058.0	205.58	35.332	
14,100.0	6,636.0	5,997.5	5,933.2	212.7	17.2	-62.27	-1,491.2	-296.4	7,286.9	7,083.1	203.76	35.763	
14,173.2	6,635.9	5,996.9	5,932.6	214.8	17.2	-62.25	-1,491.2	-296.4	7,358.5	7,153.0	205.55	35.799	
14,200.0	6,635.9	5,996.7	5,932.4	215.5	17.2	-62.24	-1,491.2	-296.4	7,384.7	7,178.5	206.21	35.812	
14,271.6	6,635.8	5,996.1	5,931.8	217.5	17.2	-62.22	-1,491.2	-296.5	7,454.9	7,246.9	207.97	35.846	
14,300.0	6,635.8	5,995.9	5,931.6	218.3	17.2	-62.21	-1,491.2	-296.5	7,482.7	7,274.0	208.67	35.860	
14,370.0	6,635.7	5,995.3	5,931.0	220.3	17.2	-62.20	-1,491.2	-296.6	7,551.3	7,340.9	210.38	35.893	
14,400.0	6,635.7	5,995.1	5,930.8	221.1	17.2	-62.19	-1,491.2	-296.6	7,580.7	7,369.6	211.12	35.907	
14,468.5	6,635.6	5,994.6	5,930.3	223.1	17.2	-62.17	-1,491.2	-296.6	7,647.8	7,435.0	212.80	35.939	
14,500.0	6,635.6	5,994.3	5,930.0	223.9	17.2	-62.16	-1,491.2	-296.7	7,678.7	7,465.2	213.58	35.953	
14,566.9	6,635.5	5,993.8	5,929.5	225.8	17.2	-62.15	-1,491.2	-296.7	7,744.4	7,529.1	215.22	35.984	
14,600.0	6,635.4	5,993.6	5,929.3	226.8	17.2	-62.14	-1,491.2	-296.7	7,776.8	7,560.8	216.03	35.998	
14,665.3	6,635.4	5,993.1	5,928.8	228.6	17.2	-62.12	-1,491.2	-296.8	7,840.9	7,623.3	217.64	36.028	

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

Anticollision Report



Company:	PDC ENERGY	Local Co-ordinate Reference:	Well WACKER 10G-214
Project:	WELD COUNTY, COLORADO	TVD Reference:	KB-EST @ 4624.0usft (Original Well Elev)
Reference Site:	SW NW SEC. 10 T5N R64W 6th P.M.	MD Reference:	KB-EST @ 4624.0usft (Original Well Elev)
Site Error:	0.0 usft	North Reference:	True
Reference Well:	WACKER 10G-214	Survey Calculation Method:	Minimum Curvature
Well Error:	0.0 usft	Output errors are at	2.00 sigma
Reference Wellbore	ORIGINAL WELLBORE	Database:	EDM 5000.1 Single User Db
Reference Design:	PROPOSAL #1	Offset TVD Reference:	Offset Datum

Offset Design SW NW SEC. 10 T5N R64W 6th P.M. - EXIST HZ SEYLOR #B10-64-1HN - Wellbore #1 - Wellbore #1												Offset Site Error:	0.0 usft
Survey Program: 290-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
14,700.0	6,635.3	5,992.9	5,928.5	229.6	17.2	-62.12	-1,491.2	-296.8	7,875.0	7,656.5	218.49	36.043	
14,763.7	6,635.2	5,992.4	5,928.1	231.3	17.2	-62.10	-1,491.2	-296.8	7,937.6	7,717.5	220.05	36.071	
14,800.0	6,635.2	5,992.1	5,927.8	232.4	17.2	-62.09	-1,491.1	-296.9	7,973.2	7,752.2	220.95	36.087	
14,862.2	6,635.1	5,991.7	5,927.4	234.1	17.2	-62.08	-1,491.1	-296.9	8,034.2	7,811.8	222.47	36.114	
14,900.0	6,635.1	5,991.4	5,927.1	235.2	17.2	-62.07	-1,491.1	-296.9	8,071.4	7,848.0	223.40	36.129	
14,960.6	6,635.0	5,991.0	5,926.7	236.9	17.2	-62.06	-1,491.1	-297.0	8,131.0	7,906.1	224.89	36.155	
14,982.9	6,635.0	5,990.9	5,926.6	237.5	17.2	-62.05	-1,491.1	-297.0	8,152.8	7,927.4	225.44	36.164	

Anticollision Report



Company:	PDC ENERGY	Local Co-ordinate Reference:	Well WACKER 10G-214
Project:	WELD COUNTY, COLORADO	TVD Reference:	KB-EST @ 4624.0usft (Original Well Elev)
Reference Site:	SW NW SEC. 10 T5N R64W 6th P.M.	MD Reference:	KB-EST @ 4624.0usft (Original Well Elev)
Site Error:	0.0 usft	North Reference:	True
Reference Well:	WACKER 10G-214	Survey Calculation Method:	Minimum Curvature
Well Error:	0.0 usft	Output errors are at	2.00 sigma
Reference Wellbore	ORIGINAL WELLBORE	Database:	EDM 5000.1 Single User Db
Reference Design:	PROPOSAL #1	Offset TVD Reference:	Offset Datum

Offset Design SW NW SEC. 10 T5N R64W 6th P.M. - EXIST HZ SEYLROR STATE #B15-79HNM - Wellbore #1 - Wellb												Offset Site Error:	0.0 usft
Survey Program: 597-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	172.56	-911.1	118.9	919.0				
98.4	98.4	85.4	85.4	0.1	0.1	172.56	-911.1	118.9	918.9	918.7	0.17	5,276.115	
100.0	100.0	87.0	87.0	0.1	0.1	172.56	-911.1	118.9	918.9	918.7	0.18	5,180.599	
196.8	196.8	183.8	183.8	0.3	0.2	172.56	-911.1	118.9	918.9	918.4	0.48	1,899.830	
200.0	200.0	187.0	187.0	0.3	0.2	172.56	-911.1	118.9	918.9	918.4	0.49	1,861.489	
295.3	295.3	282.3	282.3	0.5	0.3	172.56	-911.1	118.9	918.9	918.1	0.79	1,155.911	
300.0	300.0	287.0	287.0	0.5	0.3	172.56	-911.1	118.9	918.9	918.1	0.81	1,134.583	
393.7	393.7	380.7	380.7	0.8	0.3	172.56	-911.1	118.9	918.9	917.8	1.11	830.651	
400.0	400.0	387.0	387.0	0.8	0.4	172.56	-911.1	118.9	918.9	917.7	1.13	815.955	
492.1	492.1	479.1	479.1	1.0	0.4	172.56	-911.1	118.9	918.9	917.5	1.42	648.243	
500.0	500.0	487.0	487.0	1.0	0.4	172.56	-911.1	118.9	918.9	917.4	1.44	637.051	
590.5	590.5	577.5	577.5	1.2	0.5	172.56	-911.1	118.9	918.9	917.1	1.73	531.523	
600.0	600.0	587.0	587.0	1.2	0.5	172.56	-911.1	118.9	918.9	917.1	1.76	522.490	
689.0	689.0	682.3	682.3	1.4	0.7	172.53	-910.7	119.4	918.5	916.3	2.15	426.375	
700.0	700.0	693.4	693.4	1.4	0.8	172.52	-910.6	119.5	918.4	916.2	2.20	416.932	
787.4	787.4	783.6	783.6	1.6	1.0	172.45	-909.7	120.6	917.7	915.1	2.59	353.782	
800.0	800.0	796.9	796.9	1.7	1.0	172.44	-909.6	120.7	917.6	914.9	2.65	346.078	
885.8	885.8	883.2	883.2	1.9	1.2	172.37	-908.4	121.8	916.5	913.5	3.02	303.125	
900.0	900.0	896.9	896.9	1.9	1.2	172.36	-908.2	121.9	916.4	913.3	3.08	297.244	
984.2	984.2	994.2	994.2	2.1	1.4	172.33	-906.7	122.1	915.2	911.7	3.47	264.015	
1,000.0	1,000.0	1,014.5	1,014.4	2.1	1.4	172.34	-906.2	121.8	914.7	911.2	3.54	258.253	
1,082.7	1,082.7	1,112.8	1,112.7	2.3	1.6	172.52	-902.8	118.6	911.5	907.6	3.94	231.318	
1,100.0	1,100.0	1,133.9	1,133.6	2.3	1.7	172.58	-901.9	117.5	910.7	906.6	4.03	226.119	
1,181.1	1,181.1	1,232.2	1,231.7	2.5	1.9	172.90	-896.5	111.7	905.7	901.3	4.44	204.043	
1,200.0	1,200.0	1,253.6	1,253.0	2.6	2.0	172.98	-895.2	110.2	904.3	899.8	4.53	199.481	
1,279.5	1,279.5	1,340.7	1,339.6	2.7	2.2	173.37	-889.2	103.3	898.1	893.2	4.93	182.144	
1,300.0	1,300.0	1,362.0	1,360.8	2.8	2.2	173.49	-887.7	101.3	896.5	891.4	5.03	178.148	
1,377.9	1,377.9	1,432.6	1,430.8	3.0	2.4	55.46	-882.7	93.6	889.5	884.2	5.34	166.553	
1,400.0	1,400.0	1,449.4	1,447.4	3.0	2.5	55.65	-881.8	91.4	887.6	882.2	5.43	163.488	
1,476.4	1,476.3	1,499.0	1,496.4	3.1	2.6	56.35	-879.6	84.0	881.2	875.5	5.70	154.546	
1,500.0	1,499.8	1,521.3	1,518.4	3.2	2.7	56.69	-879.0	80.3	879.3	873.5	5.81	151.447	
1,574.8	1,574.4	1,569.9	1,566.3	3.3	2.8	57.51	-878.6	72.3	874.4	868.3	6.09	143.635	
1,600.0	1,599.5	1,594.0	1,590.1	3.4	2.9	57.93	-878.9	68.4	873.1	866.9	6.20	140.779	
1,673.2	1,672.2	1,645.9	1,641.3	3.6	3.0	58.87	-880.1	60.2	869.5	863.0	6.50	133.755	
1,700.0	1,698.7	1,668.6	1,663.7	3.6	3.1	59.29	-880.8	56.7	868.3	861.7	6.62	131.158	
1,771.6	1,769.5	1,727.8	1,722.2	3.8	3.2	60.43	-882.9	48.0	865.1	858.1	6.95	124.414	
1,800.0	1,797.5	1,750.9	1,745.1	3.9	3.3	60.89	-883.9	44.8	864.0	856.9	7.08	121.942	
1,870.1	1,866.3	1,808.0	1,801.6	4.1	3.4	62.04	-886.9	37.3	861.4	854.0	7.43	115.911	
1,900.2	1,895.8	1,832.5	1,825.9	4.2	3.5	62.54	-888.3	34.3	860.4	852.9	7.58	113.510	
1,968.5	1,962.6	1,891.4	1,884.3	4.4	3.6	63.70	-892.4	27.5	858.9	851.0	7.95	107.983	
2,000.0	1,993.4	1,924.5	1,917.0	4.5	3.7	64.35	-894.6	23.8	858.4	850.3	8.15	105.385	
2,066.9	2,058.9	1,995.4	1,987.4	4.7	3.9	65.77	-899.1	15.4	857.3	848.7	8.57	100.014	
2,100.0	2,091.2	2,031.4	2,023.0	4.8	4.0	66.50	-901.1	11.0	856.7	847.9	8.79	97.470	
2,165.3	2,155.2	2,104.8	2,095.7	5.1	4.2	68.00	-904.5	1.9	855.3	846.1	9.24	92.597	
2,200.0	2,189.1	2,144.9	2,135.5	5.2	4.4	68.83	-905.9	-2.9	854.4	845.0	9.48	90.145	
2,263.8	2,251.4	2,216.0	2,206.1	5.5	4.6	70.28	-907.8	-11.3	852.5	842.5	9.92	85.922	
2,300.0	2,286.9	2,255.9	2,245.7	5.6	4.7	71.09	-908.4	-15.9	851.2	841.1	10.17	83.681	
2,362.2	2,347.7	2,316.5	2,305.9	5.8	4.8	72.36	-909.2	-23.0	849.2	838.6	10.59	80.167	
2,400.0	2,384.7	2,353.5	2,342.7	6.0	5.0	73.14	-909.5	-27.7	848.2	837.3	10.85	78.165	
2,460.6	2,444.0	2,416.6	2,405.1	6.2	5.2	74.53	-909.7	-36.1	846.6	835.3	11.29	74.963	
2,500.0	2,482.5	2,455.4	2,443.5	6.4	5.3	75.42	-909.5	-41.7	845.6	834.0	11.58	73.048	
2,559.0	2,540.3	2,508.0	2,495.6	6.6	5.5	76.65	-909.2	-49.7	844.6	832.6	11.99	70.432	

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

Anticollision Report



Company:	PDC ENERGY	Local Co-ordinate Reference:	Well WACKER 10G-214
Project:	WELD COUNTY, COLORADO	TVD Reference:	KB-EST @ 4624.0usft (Original Well Elev)
Reference Site:	SW NW SEC. 10 T5N R64W 6th P.M.	MD Reference:	KB-EST @ 4624.0usft (Original Well Elev)
Site Error:	0.0 usft	North Reference:	True
Reference Well:	WACKER 10G-214	Survey Calculation Method:	Minimum Curvature
Well Error:	0.0 usft	Output errors are at	2.00 sigma
Reference Wellbore	ORIGINAL WELLBORE	Database:	EDM 5000.1 Single User Db
Reference Design:	PROPOSAL #1	Offset TVD Reference:	Offset Datum

Offset Design												Offset Site Error:	0.0 usft
Survey Program: 597-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	2,580.3	2,544.4	2,531.5	6.8	5.6	77.51	-909.1	-55.4	844.4	832.1	12.28	68.750	
2,612.8	2,592.9	2,555.8	2,542.7	6.9	5.6	77.79	-909.1	-57.3	844.3	832.0	12.38	68.229 CC	
2,657.5	2,636.5	2,595.3	2,581.7	7.1	5.8	78.76	-908.9	-64.0	844.5	831.8	12.70	66.501 ES	
2,700.0	2,678.1	2,634.0	2,619.7	7.2	5.9	79.73	-908.7	-71.0	845.1	832.1	13.01	64.951	
2,755.9	2,732.8	2,683.7	2,668.5	7.5	6.1	80.99	-908.4	-80.2	846.5	833.0	13.42	63.062	
2,800.0	2,775.9	2,724.0	2,708.2	7.7	6.2	82.01	-908.3	-87.7	847.9	834.1	13.75	61.670	
2,854.3	2,829.1	2,770.8	2,754.1	7.9	6.4	83.19	-908.2	-96.4	850.2	836.1	14.14	60.144	
2,900.0	2,873.8	2,809.9	2,792.6	8.1	6.5	84.16	-908.3	-103.6	852.7	838.3	14.46	58.973	
2,952.7	2,925.4	2,856.9	2,838.8	8.3	6.7	85.32	-908.7	-112.2	856.2	841.3	14.84	57.714	
2,953.5	2,926.1	2,857.6	2,839.4	8.3	6.7	85.33	-908.7	-112.3	856.2	841.4	14.84	57.697	
3,000.0	2,971.6	2,899.9	2,881.1	8.5	6.9	86.40	-909.1	-120.0	859.7	844.6	15.15	56.764	
3,051.2	3,022.0	2,946.0	2,926.4	8.7	7.0	87.51	-909.7	-128.1	864.1	848.6	15.44	55.969	
3,100.0	3,070.1	2,989.8	2,969.5	8.8	7.2	88.50	-910.6	-135.7	868.6	852.9	15.72	55.272	
3,149.6	3,119.1	3,035.2	3,014.3	8.9	7.3	89.45	-911.7	-143.4	873.7	857.7	15.98	54.669	
3,200.0	3,169.1	3,082.4	3,060.8	9.1	7.5	90.36	-913.1	-151.0	879.1	862.9	16.25	54.106	
3,248.0	3,216.8	3,131.5	3,109.3	9.2	7.7	91.21	-914.8	-158.7	884.4	867.9	16.49	53.627	
3,300.0	3,268.5	3,190.5	3,167.6	9.3	7.9	92.12	-916.6	-167.5	890.0	873.2	16.77	53.073	
3,346.4	3,314.8	3,241.7	3,218.3	9.4	8.0	92.83	-917.8	-174.8	894.6	877.6	16.99	52.645	
3,400.0	3,368.3	3,300.4	3,276.5	9.6	8.2	93.56	-919.1	-182.7	899.6	882.4	17.25	52.151	
3,444.9	3,413.1	3,349.3	3,325.0	9.6	8.3	94.10	-919.9	-189.1	903.6	886.1	17.45	51.768	
3,500.0	3,468.2	3,410.7	3,385.7	9.7	8.5	94.73	-920.3	-197.5	908.1	890.4	17.71	51.277	
3,543.3	3,511.5	3,461.2	3,435.8	9.8	8.7	95.19	-920.2	-204.2	911.3	893.4	17.91	50.883	
3,553.7	3,521.9	3,473.3	3,447.8	9.8	8.7	-146.06	-920.1	-205.8	912.0	896.8	15.28	59.686	
3,600.0	3,568.2	3,519.2	3,493.2	9.9	8.9	-145.74	-919.7	-211.7	915.1	899.6	15.50	59.038	
3,641.7	3,609.9	3,557.9	3,531.6	10.0	9.0	-145.47	-919.5	-216.8	918.0	902.3	15.69	58.495	
3,700.0	3,668.2	3,611.8	3,585.1	10.1	9.2	-145.10	-919.3	-223.9	922.3	906.3	15.97	57.767	
3,740.1	3,708.4	3,648.8	3,621.7	10.1	9.3	-144.84	-919.3	-229.0	925.4	909.3	16.15	57.284	
3,800.0	3,768.2	3,705.6	3,678.0	10.2	9.5	-144.44	-919.3	-237.0	930.3	913.9	16.44	56.574	
3,838.6	3,806.8	3,743.4	3,715.4	10.3	9.6	-144.17	-919.3	-242.3	933.5	916.9	16.64	56.116	
3,900.0	3,868.2	3,805.1	3,776.5	10.4	9.8	-143.75	-919.4	-250.9	938.7	921.8	16.94	55.400	
3,937.0	3,905.2	3,843.0	3,814.0	10.5	9.9	-143.50	-919.5	-256.1	941.8	924.7	17.13	54.972	
4,000.0	3,968.2	3,916.1	3,886.5	10.6	10.1	-143.02	-919.5	-265.8	946.8	929.3	17.47	54.183	
4,035.4	4,003.6	3,959.9	3,929.9	10.6	10.3	-142.72	-918.8	-271.6	949.2	931.5	17.67	53.704	
4,100.0	4,068.2	4,020.2	3,989.6	10.7	10.5	-142.30	-917.8	-279.5	953.5	935.5	17.98	53.026	
4,133.8	4,102.1	4,051.6	4,020.8	10.8	10.6	-142.10	-917.4	-283.5	955.9	937.7	18.14	52.687	
4,200.0	4,168.2	4,124.8	4,093.4	10.9	10.8	-141.61	-916.3	-292.9	960.4	941.9	18.49	51.944	
4,232.3	4,200.5	4,160.6	4,128.9	11.0	10.9	-141.37	-915.5	-297.5	962.4	943.7	18.66	51.579	
4,300.0	4,268.2	4,234.4	4,202.1	11.1	11.1	-140.88	-913.7	-306.6	966.3	947.3	19.01	50.842	
4,330.7	4,298.9	4,263.5	4,231.0	11.1	11.2	-140.69	-912.9	-310.0	968.0	948.9	19.15	50.544	
4,400.0	4,368.2	4,324.4	4,291.4	11.3	11.4	-140.29	-911.4	-317.6	972.2	952.8	19.47	49.937	
4,429.1	4,397.3	4,340.0	4,306.9	11.3	11.4	-140.18	-911.1	-319.7	974.3	954.7	19.58	49.770	
4,500.0	4,468.2	4,405.7	4,372.0	11.4	11.6	-139.74	-910.0	-328.7	979.7	959.8	19.92	49.175	
4,527.5	4,495.8	4,435.0	4,400.9	11.5	11.7	-139.54	-909.8	-333.0	982.2	962.1	20.07	48.935	
4,600.0	4,568.2	4,508.1	4,473.3	11.6	12.0	-139.09	-909.6	-343.0	988.5	968.1	20.45	48.350	
4,626.0	4,594.2	4,537.3	4,502.3	11.7	12.1	-138.93	-909.6	-346.6	990.6	970.0	20.59	48.119	
4,700.0	4,668.2	4,613.7	4,578.2	11.8	12.3	-138.53	-909.5	-355.7	996.4	975.5	20.96	47.529	
4,724.4	4,692.6	4,637.3	4,601.6	11.9	12.4	-138.40	-909.4	-358.6	998.3	977.2	21.09	47.346	
4,800.0	4,768.2	4,706.3	4,670.0	12.0	12.6	-138.02	-909.1	-367.3	1,004.5	983.0	21.45	46.825	
4,822.8	4,791.0	4,726.8	4,690.3	12.0	12.6	-137.90	-909.0	-370.0	1,006.4	984.9	21.56	46.677	
4,900.0	4,868.2	4,794.7	4,757.7	12.2	12.9	-137.52	-909.1	-379.1	1,013.5	991.6	21.94	46.202	
4,921.2	4,889.5	4,814.0	4,776.7	12.2	12.9	-137.41	-909.2	-381.8	1,015.6	993.6	22.04	46.076	
5,000.0	4,968.2	4,880.6	4,842.7	12.4	13.1	-137.02	-909.6	-391.5	1,023.8	1,001.4	22.43	45.650	

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

Anticollision Report



Company:	PDC ENERGY	Local Co-ordinate Reference:	Well WACKER 10G-214
Project:	WELD COUNTY, COLORADO	TVD Reference:	KB-EST @ 4624.0usft (Original Well Elev)
Reference Site:	SW NW SEC. 10 T5N R64W 6th P.M.	MD Reference:	KB-EST @ 4624.0usft (Original Well Elev)
Site Error:	0.0 usft	North Reference:	True
Reference Well:	WACKER 10G-214	Survey Calculation Method:	Minimum Curvature
Well Error:	0.0 usft	Output errors are at	2.00 sigma
Reference Wellbore	ORIGINAL WELLBORE	Database:	EDM 5000.1 Single User Db
Reference Design:	PROPOSAL #1	Offset TVD Reference:	Offset Datum

Offset Design												Offset Site Error:	0.0 usft
Survey Program: 597-MWD												Offset Well Error:	0.0 usft
Reference		Offset		Semi Major Axis			Distance						Warning
Measured Depth (usft)	Vertical Depth (usft)	Measured Depth (usft)	Vertical Depth (usft)	Reference (usft)	Offset (usft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (usft)	+E/-W (usft)	Between Centres (usft)	Between Ellipses (usft)	Minimum Separation (usft)	Separation Factor	
5,019.7	4,987.9	4,987.4	4,859.2	12.4	13.2	-136.92	-909.7	-394.1	1,026.0	1,003.5	22.53	45.549	
5,100.0	5,068.2	4,978.6	4,939.4	12.6	13.5	-136.39	-909.9	-407.2	1,035.1	1,012.1	22.97	45.061	
5,118.1	5,086.3	4,997.5	4,958.1	12.6	13.5	-136.28	-910.0	-410.2	1,037.1	1,014.1	23.07	44.947	
5,200.0	5,168.2	5,087.6	5,047.2	12.7	13.8	-135.78	-910.6	-423.4	1,045.9	1,022.4	23.54	44.430	
5,216.5	5,184.7	5,106.2	5,065.6	12.8	13.9	-135.69	-910.9	-425.8	1,047.6	1,024.0	23.63	44.326	
5,300.0	5,268.2	5,204.6	5,163.3	12.9	14.2	-135.30	-912.6	-437.4	1,055.6	1,031.4	24.11	43.789	
5,314.9	5,283.2	5,225.7	5,184.3	13.0	14.2	-135.23	-912.9	-439.6	1,056.8	1,032.6	24.20	43.678	
5,400.0	5,368.2	5,330.6	5,288.8	13.1	14.5	-134.90	-913.7	-449.0	1,062.6	1,037.9	24.66	43.091	
5,413.4	5,381.6	5,344.5	5,302.6	13.2	14.5	-134.85	-913.7	-450.2	1,063.4	1,038.7	24.72	43.011	
5,500.0	5,468.2	5,437.2	5,394.9	13.3	14.8	-134.55	-913.6	-458.1	1,068.6	1,043.5	25.15	42.490	
5,511.8	5,480.0	5,450.1	5,407.9	13.3	14.8	-134.51	-913.6	-459.1	1,069.3	1,044.1	25.21	42.419	
5,600.0	5,568.2	5,547.4	5,504.9	13.5	15.0	-134.28	-914.0	-465.7	1,073.8	1,048.2	25.63	41.893	
5,610.2	5,578.4	5,558.7	5,516.1	13.5	15.1	-134.26	-914.1	-466.3	1,074.3	1,048.6	25.68	41.832	
5,700.0	5,668.2	5,665.4	5,622.7	13.7	15.3	-134.08	-914.4	-471.7	1,077.7	1,051.6	26.11	41.273	
5,708.6	5,676.9	5,676.4	5,633.8	13.7	15.3	-134.06	-914.5	-472.1	1,078.0	1,051.8	26.15	41.218	
5,800.0	5,768.2	5,792.0	5,749.3	13.9	15.5	-133.92	-913.9	-475.3	1,079.4	1,052.8	26.58	40.615	
5,807.1	5,775.3	5,800.5	5,757.7	13.9	15.5	-133.91	-913.8	-475.4	1,079.5	1,052.8	26.61	40.569	
5,874.1	5,842.3	5,870.9	5,828.2	14.0	15.7	-133.85	-912.8	-476.3	1,079.4	1,052.5	26.88	40.154	
5,900.0	5,868.2	5,889.3	5,846.5	14.1	15.7	-133.84	-912.8	-476.5	1,079.5	1,052.6	26.97	40.025	
5,905.5	5,873.7	5,893.2	5,850.4	14.1	15.7	-133.84	-912.8	-476.5	1,079.6	1,052.6	26.99	39.998	
5,960.7	5,928.9	5,932.2	5,889.5	14.2	15.8	-133.85	-913.4	-476.9	1,080.5	1,053.3	27.18	39.754	
6,000.0	5,968.2	5,952.0	5,909.2	14.3	15.8	-43.85	-914.0	-477.0	1,081.0	1,052.7	28.25	38.261	
6,003.9	5,972.1	5,952.0	5,909.2	14.3	15.8	-43.85	-914.0	-477.0	1,081.0	1,052.7	28.26	38.255	
6,050.0	6,018.0	5,985.2	5,942.4	14.4	15.9	-44.06	-915.8	-477.3	1,080.1	1,051.7	28.34	38.105	
6,100.0	6,067.3	6,011.9	5,969.0	14.4	15.9	-44.42	-918.1	-477.6	1,077.8	1,049.4	28.38	37.982	
6,102.3	6,069.6	6,013.1	5,970.2	14.4	15.9	-44.44	-918.3	-477.6	1,077.6	1,049.3	28.38	37.977	
6,150.0	6,116.0	6,046.0	6,002.8	14.4	16.0	-45.07	-922.2	-478.1	1,074.2	1,045.8	28.38	37.848	
6,200.0	6,163.8	6,046.0	6,002.8	14.5	16.0	-45.34	-922.2	-478.1	1,069.4	1,041.1	28.27	37.834	
6,200.8	6,164.5	6,046.0	6,002.8	14.5	16.0	-45.34	-922.2	-478.1	1,069.3	1,041.1	28.26	37.835	
6,250.0	6,210.4	6,086.4	6,042.7	14.5	16.0	-46.44	-928.5	-478.8	1,063.0	1,034.8	28.23	37.660	
6,299.2	6,254.9	6,108.9	6,064.9	14.5	16.1	-47.37	-932.7	-479.5	1,055.9	1,027.8	28.13	37.536	
6,300.0	6,255.6	6,109.3	6,065.2	14.5	16.1	-47.38	-932.8	-479.5	1,055.8	1,027.7	28.13	37.533	
6,350.0	6,299.3	6,141.0	6,096.2	14.5	16.1	-48.72	-939.5	-480.6	1,047.7	1,019.7	28.07	37.323	
6,397.6	6,339.2	6,141.0	6,096.2	14.6	16.1	-49.24	-939.5	-480.6	1,039.2	1,011.3	27.91	37.227	
6,400.0	6,341.2	6,141.0	6,096.2	14.6	16.1	-49.27	-939.5	-480.6	1,038.7	1,010.8	27.91	37.222	
6,450.0	6,381.0	6,168.2	6,122.4	14.6	16.2	-50.75	-946.3	-481.7	1,029.0	1,001.1	27.90	36.880	
6,496.0	6,415.8	6,183.1	6,136.8	14.7	16.2	-51.88	-950.4	-482.4	1,019.8	991.9	27.90	36.546	
6,500.0	6,418.7	6,184.4	6,138.0	14.7	16.2	-51.98	-950.8	-482.5	1,019.0	991.1	27.91	36.515	
6,550.0	6,453.9	6,199.5	6,152.4	14.8	16.3	-53.26	-955.4	-483.2	1,008.6	980.6	27.98	36.045	
6,594.5	6,483.1	6,236.0	6,186.7	15.0	16.4	-55.50	-967.6	-485.1	999.9	971.5	28.32	35.301	
6,600.0	6,486.6	6,236.0	6,186.7	15.1	16.4	-55.58	-967.6	-485.1	998.6	970.3	28.33	35.244	
6,650.0	6,516.6	6,236.0	6,186.7	15.3	16.4	-56.33	-967.6	-485.1	987.6	959.1	28.50	34.647	
6,692.9	6,540.0	6,236.0	6,186.7	15.7	16.4	-56.95	-967.6	-485.1	978.5	949.8	28.73	34.061	
6,700.0	6,543.7	6,236.0	6,186.7	15.7	16.4	-57.05	-967.6	-485.1	977.0	948.3	28.77	33.963	
6,750.0	6,567.8	6,236.0	6,186.7	16.2	16.4	-57.74	-967.6	-485.1	967.1	938.0	29.13	33.197	
6,791.3	6,585.4	6,236.0	6,186.7	16.7	16.4	-58.27	-967.6	-485.1	959.4	929.9	29.52	32.503	
6,800.0	6,588.8	6,236.0	6,186.7	16.8	16.4	-58.38	-967.6	-485.1	957.8	928.2	29.60	32.358	
6,850.0	6,606.6	6,265.7	6,214.1	17.4	16.4	-60.66	-979.0	-486.8	948.2	917.6	30.59	30.996	
6,889.7	6,618.4	6,271.1	6,219.0	18.0	16.4	-61.45	-981.2	-487.1	941.5	910.3	31.22	30.157	
6,900.0	6,621.1	6,272.3	6,220.1	18.2	16.4	-61.64	-981.8	-487.1	939.9	908.5	31.39	29.946	
6,950.0	6,632.2	6,277.6	6,224.9	19.0	16.5	-62.49	-984.0	-487.4	932.4	900.2	32.26	28.907	
6,988.2	6,638.4	6,280.8	6,227.8	19.7	16.5	-63.05	-985.3	-487.6	927.4	894.4	32.96	28.133	

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

Anticollision Report



Company:	PDC ENERGY	Local Co-ordinate Reference:	Well WACKER 10G-214
Project:	WELD COUNTY, COLORADO	TVD Reference:	KB-EST @ 4624.0usft (Original Well Elev)
Reference Site:	SW NW SEC. 10 T5N R64W 6th P.M.	MD Reference:	KB-EST @ 4624.0usft (Original Well Elev)
Site Error:	0.0 usft	North Reference:	True
Reference Well:	WACKER 10G-214	Survey Calculation Method:	Minimum Curvature
Well Error:	0.0 usft	Output errors are at	2.00 sigma
Reference Wellbore	ORIGINAL WELLBORE	Database:	EDM 5000.1 Single User Db
Reference Design:	PROPOSAL #1	Offset TVD Reference:	Offset Datum

Offset Design SW NW SEC. 10 T5N R64W 6th P.M. - EXIST HZ SEYLROR STATE #B15-79HNM - Wellbore #1 - Wellb												Offset Site Error:	0.0 usft
Survey Program: 597-MWD												Offset Well Error:	0.0 usft
Reference	Offset	Semi Major Axis		Distance									
Measured Depth (usft)	Vertical Depth (usft)	Measured Depth (usft)	Vertical Depth (usft)	Reference (usft)	Offset (usft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (usft)	+E/-W (usft)	Between Centres (usft)	Between Ellipses (usft)	Minimum Separation (usft)	Separation Factor	Warning
7,000.0	6,639.9	6,281.6	6,228.5	19.9	16.5	-63.20	-985.7	-487.7	925.9	892.7	33.18	27.904	
7,050.0	6,644.1	6,284.3	6,231.0	20.8	16.5	-63.76	-986.8	-487.8	920.5	886.4	34.15	26.956	
7,086.5	6,645.0	6,285.5	6,232.0	21.5	16.5	-64.06	-987.3	-487.9	917.3	882.4	34.87	26.305	
7,100.0	6,645.0	6,285.8	6,232.3	21.8	16.5	-64.08	-987.5	-487.9	916.3	881.2	35.11	26.094	
7,160.2	6,644.9	6,287.1	6,233.5	23.0	16.5	-64.17	-988.0	-488.0	914.3	878.0	36.26	25.214	
7,185.0	6,644.9	6,287.6	6,234.0	23.6	16.5	-64.20	-988.3	-488.0	914.6	877.9	36.74	24.898	
7,200.0	6,644.8	6,288.0	6,234.3	23.9	16.5	-64.22	-988.4	-488.0	915.2	878.2	37.02	24.720	
7,283.4	6,644.7	6,289.8	6,235.9	25.7	16.5	-64.34	-989.2	-488.1	922.6	883.9	38.72	23.826	
7,300.0	6,644.7	6,290.2	6,236.2	26.1	16.5	-64.36	-989.4	-488.1	924.9	885.9	39.06	23.681	
7,381.9	6,644.6	6,292.0	6,237.9	28.0	16.5	-64.47	-990.2	-488.2	940.8	900.0	40.81	23.054	
7,400.0	6,644.6	6,292.4	6,238.2	28.4	16.5	-64.50	-990.4	-488.2	945.2	904.0	41.20	22.944	
7,480.3	6,644.5	6,294.1	6,239.8	30.3	16.5	-64.61	-991.1	-488.3	968.7	925.7	42.98	22.540	
7,500.0	6,644.4	6,294.6	6,240.2	30.8	16.5	-64.63	-991.3	-488.4	975.4	931.9	43.41	22.467	
7,578.7	6,644.3	6,296.3	6,241.7	32.7	16.5	-64.74	-992.1	-488.5	1,005.5	960.3	45.21	22.240	
7,600.0	6,644.3	6,296.8	6,242.1	33.3	16.5	-64.77	-992.3	-488.5	1,014.5	968.8	45.69	22.202	
7,677.1	6,644.2	6,298.5	6,243.6	35.2	16.5	-64.88	-993.1	-488.6	1,050.2	1,002.7	47.49	22.112	
7,700.0	6,644.1	6,299.0	6,244.1	35.8	16.5	-64.91	-993.3	-488.6	1,061.6	1,013.6	48.03	22.104	
7,775.6	6,644.0	6,300.6	6,245.6	37.7	16.5	-65.01	-994.0	-488.7	1,101.9	1,052.1	49.82	22.117	
7,800.0	6,644.0	6,301.2	6,246.0	38.3	16.5	-65.05	-994.3	-488.7	1,115.7	1,065.3	50.40	22.136	
7,874.0	6,643.9	6,302.8	6,247.5	40.2	16.5	-65.15	-995.0	-488.8	1,159.7	1,107.5	52.19	22.222	
7,900.0	6,643.9	6,331.0	6,272.2	40.9	16.6	-66.91	-1,008.5	-490.3	1,176.7	1,123.2	53.48	22.001 SF	
7,972.4	6,643.8	6,331.0	6,272.2	42.8	16.6	-66.91	-1,008.5	-490.3	1,223.4	1,168.1	55.23	22.150	
8,000.0	6,643.7	6,331.0	6,272.2	43.5	16.6	-66.91	-1,008.5	-490.3	1,241.8	1,185.9	55.90	22.215	
8,070.8	6,643.6	6,331.0	6,272.2	45.4	16.6	-66.91	-1,008.5	-490.3	1,290.6	1,233.0	57.62	22.397	
8,100.0	6,643.6	6,331.0	6,272.2	46.2	16.6	-66.91	-1,008.5	-490.3	1,311.3	1,253.0	58.34	22.479	
8,169.3	6,643.5	6,331.0	6,272.2	48.0	16.6	-66.91	-1,008.5	-490.3	1,361.7	1,301.7	60.04	22.682	
8,200.0	6,643.5	6,331.0	6,272.2	48.8	16.6	-66.91	-1,008.5	-490.3	1,384.6	1,323.8	60.79	22.776	
8,267.7	6,643.4	6,331.0	6,272.2	50.6	16.6	-66.91	-1,008.5	-490.3	1,436.0	1,373.6	62.46	22.990	
8,300.0	6,643.3	6,331.0	6,272.2	51.5	16.6	-66.91	-1,008.5	-490.3	1,461.0	1,397.8	63.26	23.095	
8,366.1	6,643.2	6,331.0	6,272.2	53.3	16.6	-66.91	-1,008.5	-490.3	1,513.1	1,448.2	64.90	23.313	
8,400.0	6,643.2	6,331.0	6,272.2	54.2	16.6	-66.91	-1,008.5	-490.3	1,540.2	1,474.4	65.74	23.426	
8,464.5	6,643.1	6,331.0	6,272.2	55.9	16.6	-66.91	-1,008.5	-490.3	1,592.5	1,525.1	67.35	23.643	
8,500.0	6,643.1	6,331.0	6,272.2	56.9	16.6	-66.91	-1,008.5	-490.3	1,621.6	1,553.4	68.24	23.764	
8,563.0	6,643.0	6,331.0	6,272.2	58.6	16.6	-66.91	-1,008.5	-490.3	1,673.9	1,604.1	69.82	23.976	
8,600.0	6,642.9	6,331.0	6,272.2	59.6	16.6	-66.91	-1,008.5	-490.3	1,705.0	1,634.3	70.74	24.101	
8,661.4	6,642.8	6,331.0	6,272.2	61.3	16.6	-66.91	-1,008.5	-490.3	1,757.1	1,684.8	72.29	24.308	
8,700.0	6,642.8	6,331.0	6,272.2	62.3	16.6	-66.91	-1,008.5	-490.3	1,790.1	1,716.9	73.26	24.437	
8,759.8	6,642.7	6,331.0	6,272.2	64.0	16.6	-66.91	-1,008.5	-490.3	1,841.8	1,767.0	74.76	24.635	
8,800.0	6,642.7	6,331.0	6,272.2	65.1	16.6	-66.91	-1,008.5	-490.3	1,876.7	1,801.0	75.78	24.767	
8,858.2	6,642.6	6,331.0	6,272.2	66.6	16.6	-66.91	-1,008.5	-490.3	1,927.8	1,850.5	77.25	24.956	
8,900.0	6,642.5	6,331.0	6,272.2	67.8	16.6	-66.91	-1,008.5	-490.3	1,964.6	1,886.3	78.30	25.090	
8,956.7	6,642.4	6,331.0	6,272.2	69.3	16.6	-66.91	-1,008.5	-490.3	2,014.9	1,935.2	79.74	25.269	
9,000.0	6,642.4	6,331.0	6,272.2	70.5	16.6	-66.91	-1,008.5	-490.3	2,053.6	1,972.7	80.84	25.404	
9,055.1	6,642.3	6,331.0	6,272.2	72.0	16.6	-66.91	-1,008.5	-490.3	2,103.0	2,020.8	82.23	25.574	
9,100.0	6,642.3	6,331.0	6,272.2	73.3	16.6	-66.91	-1,008.5	-490.3	2,143.5	2,060.1	83.37	25.710	
9,153.5	6,642.2	6,331.0	6,272.2	74.7	16.6	-66.91	-1,008.5	-490.3	2,192.0	2,107.3	84.73	25.869	
9,200.0	6,642.1	6,331.0	6,272.2	76.0	16.6	-66.91	-1,008.5	-490.3	2,234.3	2,148.4	85.92	26.006	
9,251.9	6,642.1	6,331.0	6,272.2	77.5	16.6	-66.91	-1,008.5	-490.3	2,281.8	2,194.5	87.24	26.156	
9,300.0	6,642.0	6,331.0	6,272.2	78.8	16.6	-66.91	-1,008.5	-490.3	2,325.9	2,237.4	88.46	26.292	
9,350.4	6,641.9	6,331.0	6,272.2	80.2	16.6	-66.91	-1,008.5	-490.3	2,372.2	2,282.5	89.75	26.433	
9,400.0	6,641.9	6,331.0	6,272.2	81.5	16.6	-66.91	-1,008.5	-490.3	2,418.1	2,327.1	91.01	26.569	
9,448.8	6,641.8	6,331.0	6,272.2	82.9	16.6	-66.91	-1,008.5	-490.3	2,463.3	2,371.1	92.26	26.701	

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

Anticollision Report



Company:	PDC ENERGY	Local Co-ordinate Reference:	Well WACKER 10G-214
Project:	WELD COUNTY, COLORADO	TVD Reference:	KB-EST @ 4624.0usft (Original Well Elev)
Reference Site:	SW NW SEC. 10 T5N R64W 6th P.M.	MD Reference:	KB-EST @ 4624.0usft (Original Well Elev)
Site Error:	0.0 usft	North Reference:	True
Reference Well:	WACKER 10G-214	Survey Calculation Method:	Minimum Curvature
Well Error:	0.0 usft	Output errors are at	2.00 sigma
Reference Wellbore	ORIGINAL WELLBORE	Database:	EDM 5000.1 Single User Db
Reference Design:	PROPOSAL #1	Offset TVD Reference:	Offset Datum

Offset Design												Offset Site Error:	0.0 usft
Survey Program: 597-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	6,641.7	6,331.0	6,272.2	84.3	16.6	-66.91	-1,008.5	-490.3	2,510.9	2,417.3	93.56	26.836	
9,547.2	6,641.7	6,331.0	6,272.2	85.6	16.6	-66.91	-1,008.5	-490.3	2,554.9	2,460.2	94.77	26.959	
9,600.0	6,641.6	6,331.0	6,272.2	87.1	16.6	-66.91	-1,008.5	-490.3	2,604.3	2,508.1	96.12	27.094	
9,645.6	6,641.5	6,331.0	6,272.2	88.3	16.6	-66.91	-1,008.5	-490.3	2,647.0	2,549.8	97.29	27.208	
9,700.0	6,641.5	6,331.0	6,272.2	89.8	16.6	-66.91	-1,008.5	-490.3	2,698.1	2,599.4	98.68	27.342	
9,744.1	6,641.4	6,331.0	6,272.2	91.0	16.6	-66.91	-1,008.5	-490.3	2,739.6	2,639.8	99.81	27.449	
9,800.0	6,641.3	6,331.0	6,272.2	92.6	16.6	-66.91	-1,008.5	-490.3	2,792.3	2,691.1	101.24	27.581	
9,842.5	6,641.3	6,331.0	6,272.2	93.8	16.6	-66.91	-1,008.5	-490.3	2,832.5	2,730.2	102.33	27.680	
9,900.0	6,641.2	6,331.0	6,272.2	95.4	16.6	-66.91	-1,008.5	-490.3	2,887.0	2,783.2	103.80	27.812	
9,940.9	6,641.1	6,331.0	6,272.2	96.5	16.6	-66.91	-1,008.5	-490.3	2,925.8	2,821.0	104.85	27.904	
10,000.0	6,641.1	6,331.0	6,272.2	98.1	16.6	-66.91	-1,008.5	-490.3	2,982.0	2,875.6	106.37	28.034	
10,039.3	6,641.0	6,331.0	6,272.2	99.2	16.6	-66.91	-1,008.5	-490.3	3,019.5	2,912.1	107.38	28.119	
10,100.0	6,640.9	6,331.0	6,272.2	100.9	16.6	-66.91	-1,008.5	-490.3	3,077.3	2,968.4	108.94	28.248	
10,137.8	6,640.9	6,331.0	6,272.2	102.0	16.6	-66.91	-1,008.5	-490.3	3,113.4	3,003.5	109.91	28.327	
10,200.0	6,640.8	6,331.0	6,272.2	103.7	16.6	-66.91	-1,008.5	-490.3	3,172.9	3,061.4	111.51	28.455	
10,236.2	6,640.8	6,331.0	6,272.2	104.7	16.6	-66.91	-1,008.5	-490.3	3,207.6	3,095.1	112.44	28.527	
10,300.0	6,640.7	6,331.0	6,272.2	106.5	16.6	-66.91	-1,008.5	-490.3	3,268.8	3,154.7	114.08	28.654	
10,334.6	6,640.6	6,331.0	6,272.2	107.4	16.6	-66.91	-1,008.5	-490.3	3,302.0	3,187.0	114.97	28.721	
10,400.0	6,640.6	6,331.0	6,272.2	109.3	16.6	-66.91	-1,008.5	-490.3	3,364.9	3,248.2	116.65	28.845	
10,433.0	6,640.5	6,331.0	6,272.2	110.2	16.6	-66.91	-1,008.5	-490.3	3,396.7	3,279.2	117.50	28.907	
10,500.0	6,640.4	6,360.0	6,297.0	112.0	16.7	-68.70	-1,023.5	-491.9	3,460.9	3,340.2	120.66	28.684	
10,531.5	6,640.4	6,360.7	6,297.6	112.9	16.7	-68.74	-1,023.9	-492.0	3,491.2	3,369.7	121.51	28.732	
10,600.0	6,640.3	6,362.3	6,298.9	114.8	16.7	-68.84	-1,024.8	-492.1	3,557.4	3,434.0	123.37	28.834	
10,629.9	6,640.3	6,363.0	6,299.5	115.7	16.7	-68.88	-1,025.1	-492.1	3,586.3	3,462.1	124.19	28.878	
10,700.0	6,640.2	6,364.6	6,300.9	117.6	16.7	-68.98	-1,026.0	-492.2	3,654.1	3,528.0	126.09	28.979	
10,728.3	6,640.1	6,365.3	6,301.4	118.4	16.7	-69.02	-1,026.4	-492.2	3,681.5	3,554.6	126.87	29.018	
10,800.0	6,640.0	6,366.9	6,302.8	120.4	16.7	-69.12	-1,027.3	-492.3	3,750.9	3,622.1	128.82	29.117	
10,826.7	6,640.0	6,367.6	6,303.3	121.2	16.7	-69.16	-1,027.6	-492.4	3,776.8	3,647.3	129.55	29.153	
10,900.0	6,639.9	6,369.3	6,304.7	123.2	16.7	-69.26	-1,028.6	-492.5	3,847.9	3,716.3	131.55	29.250	
10,925.2	6,639.9	6,369.9	6,305.2	123.9	16.7	-69.30	-1,028.9	-492.5	3,872.3	3,740.1	132.24	29.282	
11,000.0	6,639.8	6,371.6	6,306.7	126.0	16.7	-69.40	-1,029.9	-492.6	3,945.1	3,810.8	134.29	29.377	
11,023.6	6,639.8	6,372.2	6,307.1	126.6	16.7	-69.44	-1,030.2	-492.6	3,968.0	3,833.1	134.94	29.406	
11,100.0	6,639.7	6,374.0	6,308.6	128.8	16.7	-69.55	-1,031.2	-492.7	4,042.3	3,905.3	137.04	29.499	
11,122.0	6,639.6	6,374.5	6,309.1	129.4	16.7	-69.58	-1,031.5	-492.7	4,063.8	3,926.1	137.64	29.525	
11,200.0	6,639.5	6,376.4	6,310.6	131.6	16.8	-69.69	-1,032.5	-492.9	4,139.8	4,000.0	139.78	29.616	
11,220.4	6,639.5	6,376.9	6,311.0	132.1	16.8	-69.72	-1,032.8	-492.9	4,159.7	4,019.3	140.35	29.639	
11,300.0	6,639.4	6,378.8	6,312.6	134.4	16.8	-69.84	-1,033.9	-493.0	4,237.3	4,094.7	142.54	29.728	
11,318.9	6,639.4	6,379.2	6,312.9	134.9	16.8	-69.86	-1,034.2	-493.0	4,255.7	4,112.6	143.06	29.748	
11,400.0	6,639.3	6,381.2	6,314.5	137.1	16.8	-69.98	-1,035.3	-493.1	4,334.9	4,189.6	145.29	29.835	
11,417.3	6,639.3	6,381.6	6,314.9	137.6	16.8	-70.00	-1,035.5	-493.2	4,351.8	4,206.0	145.77	29.854	
11,500.0	6,639.2	6,383.6	6,316.5	139.9	16.8	-70.12	-1,036.7	-493.3	4,432.7	4,284.6	148.06	29.939	
11,515.7	6,639.1	6,384.0	6,316.8	140.4	16.8	-70.15	-1,036.9	-493.3	4,448.0	4,299.5	148.49	29.955	
11,600.0	6,639.0	6,386.0	6,318.5	142.7	16.8	-70.27	-1,038.1	-493.4	4,530.5	4,379.7	150.83	30.038	
11,614.1	6,639.0	6,386.4	6,318.8	143.1	16.8	-70.29	-1,038.3	-493.4	4,544.3	4,393.1	151.22	30.052	
11,700.0	6,638.9	6,388.5	6,320.5	145.5	16.8	-70.42	-1,039.5	-493.6	4,628.4	4,474.8	153.60	30.133	
11,712.6	6,638.9	6,388.8	6,320.7	145.9	16.8	-70.43	-1,039.7	-493.6	4,640.7	4,486.8	153.95	30.145	
11,800.0	6,638.8	6,390.9	6,322.5	148.3	16.8	-70.56	-1,040.9	-493.7	4,726.4	4,570.1	156.38	30.225	
11,811.0	6,638.8	6,391.2	6,322.7	148.6	16.8	-70.58	-1,041.1	-493.7	4,737.2	4,580.5	156.68	30.235	
11,900.0	6,638.7	6,393.4	6,324.5	151.1	16.8	-70.71	-1,042.4	-493.8	4,824.5	4,665.4	159.16	30.313	
11,909.4	6,638.6	6,393.6	6,324.7	151.4	16.8	-70.72	-1,042.5	-493.9	4,833.8	4,674.4	159.42	30.321	
12,000.0	6,638.5	6,395.9	6,326.5	153.9	16.8	-70.86	-1,043.9	-494.0	4,922.7	4,760.7	161.94	30.398	
12,007.8	6,638.5	6,396.1	6,326.6	154.1	16.8	-70.87	-1,044.0	-494.0	4,930.4	4,768.2	162.16	30.404	

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

Anticollision Report



Company:	PDC ENERGY	Local Co-ordinate Reference:	Well WACKER 10G-214
Project:	WELD COUNTY, COLORADO	TVD Reference:	KB-EST @ 4624.0usft (Original Well Elev)
Reference Site:	SW NW SEC. 10 T5N R64W 6th P.M.	MD Reference:	KB-EST @ 4624.0usft (Original Well Elev)
Site Error:	0.0 usft	North Reference:	True
Reference Well:	WACKER 10G-214	Survey Calculation Method:	Minimum Curvature
Well Error:	0.0 usft	Output errors are at	2.00 sigma
Reference Wellbore	ORIGINAL WELLBORE	Database:	EDM 5000.1 Single User Db
Reference Design:	PROPOSAL #1	Offset TVD Reference:	Offset Datum

Offset Design												Offset Site Error:	0.0 usft
Survey Program: 597-MWD												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
12,100.0	6,638.4	6,398.4	6,328.5	156.7	16.8	-71.00	-1,045.4	-494.1	5,020.9	4,856.2	164.73	30.479	
12,106.3	6,638.4	6,398.6	6,328.6	156.9	16.8	-71.01	-1,045.5	-494.1	5,027.1	4,862.2	164.91	30.484	
12,200.0	6,638.3	6,426.0	6,350.1	159.5	16.9	-72.59	-1,062.4	-495.8	5,119.4	4,950.5	168.85	30.319	
12,204.7	6,638.3	6,426.0	6,350.1	159.6	16.9	-72.59	-1,062.4	-495.8	5,124.0	4,955.0	168.97	30.324	
12,300.0	6,638.2	6,426.0	6,350.1	162.3	16.9	-72.59	-1,062.4	-495.8	5,217.7	5,046.2	171.52	30.419	
12,303.1	6,638.2	6,426.0	6,350.1	162.4	16.9	-72.59	-1,062.4	-495.8	5,220.8	5,049.2	171.61	30.422	
12,400.0	6,638.0	6,426.0	6,350.1	165.1	16.9	-72.59	-1,062.4	-495.8	5,316.1	5,141.9	174.20	30.517	
12,401.5	6,638.0	6,426.0	6,350.1	165.2	16.9	-72.59	-1,062.4	-495.8	5,317.6	5,143.4	174.24	30.518	
12,500.0	6,637.9	6,426.0	6,350.1	167.9	16.9	-72.59	-1,062.4	-495.8	5,414.5	5,237.6	176.88	30.611	
12,598.4	6,637.8	6,426.0	6,350.1	170.7	16.9	-72.59	-1,062.4	-495.8	5,511.5	5,331.9	179.52	30.702	
12,600.0	6,637.8	6,426.0	6,350.1	170.7	16.9	-72.59	-1,062.4	-495.8	5,513.0	5,333.5	179.56	30.703	
12,696.8	6,637.7	6,426.0	6,350.1	173.4	16.9	-72.59	-1,062.4	-495.8	5,608.5	5,426.3	182.15	30.790	
12,700.0	6,637.7	6,426.0	6,350.1	173.5	16.9	-72.60	-1,062.4	-495.8	5,611.6	5,429.4	182.24	30.792	
12,795.2	6,637.6	6,426.0	6,350.1	176.2	16.9	-72.60	-1,062.4	-495.8	5,705.5	5,520.7	184.79	30.875	
12,800.0	6,637.6	6,426.0	6,350.1	176.3	16.9	-72.60	-1,062.4	-495.8	5,710.2	5,525.3	184.92	30.879	
12,893.7	6,637.4	6,426.0	6,350.1	178.9	16.9	-72.60	-1,062.4	-495.8	5,802.6	5,615.2	187.43	30.959	
12,900.0	6,637.4	6,426.0	6,350.1	179.1	16.9	-72.60	-1,062.4	-495.8	5,808.9	5,621.3	187.60	30.964	
12,992.1	6,637.3	6,426.0	6,350.1	181.7	16.9	-72.60	-1,062.4	-495.8	5,899.8	5,709.7	190.07	31.040	
13,000.0	6,637.3	6,426.0	6,350.1	181.9	16.9	-72.60	-1,062.4	-495.8	5,907.6	5,717.3	190.28	31.047	
13,090.5	6,637.2	6,426.0	6,350.1	184.4	16.9	-72.60	-1,062.4	-495.8	5,997.0	5,804.3	192.71	31.120	
13,100.0	6,637.2	6,426.0	6,350.1	184.7	16.9	-72.60	-1,062.4	-495.8	6,006.3	5,813.4	192.96	31.127	
13,188.9	6,637.1	6,426.0	6,350.1	187.2	16.9	-72.60	-1,062.4	-495.8	6,094.2	5,898.8	195.35	31.197	
13,200.0	6,637.1	6,426.0	6,350.1	187.5	16.9	-72.60	-1,062.4	-495.8	6,105.1	5,909.5	195.64	31.205	
13,287.4	6,637.0	6,426.0	6,350.1	190.0	16.9	-72.60	-1,062.4	-495.8	6,191.5	5,993.5	197.99	31.272	
13,300.0	6,637.0	6,426.0	6,350.1	190.3	16.9	-72.60	-1,062.4	-495.8	6,203.9	6,005.6	198.33	31.282	
13,385.8	6,636.9	6,426.0	6,350.1	192.7	16.9	-72.60	-1,062.4	-495.8	6,288.8	6,088.1	200.63	31.346	
13,400.0	6,636.8	6,426.0	6,350.1	193.1	16.9	-72.60	-1,062.4	-495.8	6,302.8	6,101.8	201.01	31.356	
13,484.2	6,636.7	6,426.0	6,350.1	195.5	16.9	-72.60	-1,062.4	-495.8	6,386.1	6,182.8	203.27	31.418	
13,500.0	6,636.7	6,426.0	6,350.1	195.9	16.9	-72.60	-1,062.4	-495.8	6,401.7	6,198.0	203.69	31.429	
13,582.6	6,636.6	6,426.0	6,350.1	198.2	16.9	-72.60	-1,062.4	-495.8	6,483.5	6,277.6	205.91	31.488	
13,600.0	6,636.6	6,426.0	6,350.1	198.7	16.9	-72.61	-1,062.4	-495.8	6,500.6	6,294.3	206.37	31.500	
13,681.1	6,636.5	6,426.0	6,350.1	201.0	16.9	-72.61	-1,062.4	-495.8	6,580.9	6,372.3	208.55	31.556	
13,700.0	6,636.5	6,426.0	6,350.1	201.5	16.9	-72.61	-1,062.4	-495.8	6,599.6	6,390.5	209.05	31.569	
13,779.5	6,636.4	6,426.0	6,350.1	203.7	16.9	-72.61	-1,062.4	-495.8	6,678.3	6,467.1	211.19	31.623	
13,800.0	6,636.4	6,426.0	6,350.1	204.3	16.9	-72.61	-1,062.4	-495.8	6,698.6	6,486.8	211.74	31.636	
13,877.9	6,636.3	6,426.0	6,350.1	206.5	16.9	-72.61	-1,062.4	-495.8	6,775.7	6,561.9	213.83	31.688	
13,900.0	6,636.3	6,426.0	6,350.1	207.1	16.9	-72.61	-1,062.4	-495.8	6,797.6	6,583.2	214.42	31.702	
13,976.3	6,636.2	6,426.0	6,350.1	209.3	16.9	-72.61	-1,062.4	-495.8	6,873.2	6,656.8	216.47	31.752	
14,000.0	6,636.1	6,426.0	6,350.1	209.9	16.9	-72.61	-1,062.4	-495.8	6,896.7	6,679.6	217.11	31.766	
14,074.8	6,636.0	6,426.0	6,350.1	212.0	16.9	-72.61	-1,062.4	-495.8	6,970.7	6,751.6	219.11	31.814	
14,100.0	6,636.0	6,426.0	6,350.1	212.7	16.9	-72.61	-1,062.4	-495.8	6,995.7	6,775.9	219.79	31.829	
14,173.2	6,635.9	6,426.0	6,350.1	214.8	16.9	-72.61	-1,062.4	-495.8	7,068.3	6,846.5	221.75	31.875	
14,200.0	6,635.9	6,426.0	6,350.1	215.5	16.9	-72.61	-1,062.4	-495.8	7,094.8	6,872.4	222.47	31.891	
14,271.6	6,635.8	6,426.0	6,350.1	217.5	16.9	-72.61	-1,062.4	-495.8	7,165.8	6,941.4	224.39	31.934	
14,300.0	6,635.8	6,426.0	6,350.1	218.3	16.9	-72.61	-1,062.4	-495.8	7,194.0	6,968.8	225.16	31.951	
14,370.0	6,635.7	6,426.0	6,350.1	220.3	16.9	-72.61	-1,062.4	-495.8	7,263.4	7,036.4	227.04	31.992	
14,400.0	6,635.7	6,426.0	6,350.1	221.1	16.9	-72.62	-1,062.4	-495.8	7,293.1	7,065.3	227.84	32.010	
14,468.5	6,635.6	6,426.0	6,350.1	223.1	16.9	-72.62	-1,062.4	-495.8	7,361.0	7,131.4	229.68	32.049	
14,500.0	6,635.6	6,426.0	6,350.1	223.9	16.9	-72.62	-1,062.4	-495.8	7,392.3	7,161.8	230.53	32.067	
14,566.9	6,635.5	6,426.0	6,350.1	225.8	16.9	-72.62	-1,062.4	-495.8	7,458.7	7,226.3	232.32	32.105	
14,600.0	6,635.4	6,426.0	6,350.1	226.8	16.9	-72.62	-1,062.4	-495.8	7,491.5	7,258.3	233.21	32.123	
14,665.3	6,635.4	6,426.0	6,350.1	228.6	16.9	-72.62	-1,062.4	-495.8	7,556.3	7,321.4	234.97	32.159	

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

Anticollision Report



Company:	PDC ENERGY	Local Co-ordinate Reference:	Well WACKER 10G-214
Project:	WELD COUNTY, COLORADO	TVD Reference:	KB-EST @ 4624.0usft (Original Well Elev)
Reference Site:	SW NW SEC. 10 T5N R64W 6th P.M.	MD Reference:	KB-EST @ 4624.0usft (Original Well Elev)
Site Error:	0.0 usft	North Reference:	True
Reference Well:	WACKER 10G-214	Survey Calculation Method:	Minimum Curvature
Well Error:	0.0 usft	Output errors are at	2.00 sigma
Reference Wellbore	ORIGINAL WELLBORE	Database:	EDM 5000.1 Single User Db
Reference Design:	PROPOSAL #1	Offset TVD Reference:	Offset Datum

Offset Design SW NW SEC. 10 T5N R64W 6th P.M. - EXIST HZ SEYLOR STATE #B15-79HNM - Wellbore #1 - Wellb												Offset Site Error:	0.0 usft
Survey Program: 597-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
14,700.0	6,635.3	6,426.0	6,350.1	229.6	16.9	-72.62	-1,062.4	-495.8	7,590.7	7,354.8	235.90	32.178	
14,763.7	6,635.2	6,426.0	6,350.1	231.3	16.9	-72.62	-1,062.4	-495.8	7,654.0	7,416.4	237.61	32.213	
14,800.0	6,635.2	6,426.0	6,350.1	232.4	16.9	-72.62	-1,062.4	-495.8	7,690.0	7,451.4	238.58	32.232	
14,862.2	6,635.1	6,426.0	6,350.1	234.1	16.9	-72.62	-1,062.4	-495.8	7,751.7	7,511.4	240.25	32.265	
14,900.0	6,635.1	6,426.0	6,350.1	235.2	16.9	-72.62	-1,062.4	-495.8	7,789.2	7,548.0	241.27	32.284	
14,960.6	6,635.0	6,426.0	6,350.1	236.9	16.9	-72.62	-1,062.4	-495.8	7,849.4	7,606.5	242.90	32.316	
14,982.9	6,635.0	6,426.0	6,350.1	237.5	16.9	-72.62	-1,062.4	-495.8	7,871.5	7,628.0	243.49	32.327	

Anticollision Report



Company:	PDC ENERGY	Local Co-ordinate Reference:	Well WACKER 10G-214
Project:	WELD COUNTY, COLORADO	TVD Reference:	KB-EST @ 4624.0usft (Original Well Elev)
Reference Site:	SW NW SEC. 10 T5N R64W 6th P.M.	MD Reference:	KB-EST @ 4624.0usft (Original Well Elev)
Site Error:	0.0 usft	North Reference:	True
Reference Well:	WACKER 10G-214	Survey Calculation Method:	Minimum Curvature
Well Error:	0.0 usft	Output errors are at	2.00 sigma
Reference Wellbore	ORIGINAL WELLBORE	Database:	EDM 5000.1 Single User Db
Reference Design:	PROPOSAL #1	Offset TVD Reference:	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	-117.74	-1,318.0	-2,506.5	2,832.2				
98.4	98.4	49.5	49.5	0.1	0.0	-117.74	-1,318.1	-2,506.5	2,832.0	2,831.9	0.11	N/A	
100.0	100.0	50.9	50.9	0.1	0.0	-117.74	-1,318.1	-2,506.5	2,832.0	2,831.9	0.11	N/A	
196.8	196.8	140.7	140.7	0.3	0.1	-117.76	-1,319.0	-2,506.5	2,832.5	2,832.0	0.42	6,821.883	
200.0	200.0	144.0	144.0	0.3	0.1	-117.76	-1,319.1	-2,506.5	2,832.5	2,832.1	0.43	6,612.506	
295.3	295.3	239.3	239.2	0.5	0.2	-117.77	-1,320.0	-2,506.6	2,833.0	2,832.2	0.78	3,622.771	
300.0	300.0	243.8	243.8	0.5	0.3	-117.77	-1,320.1	-2,506.6	2,833.0	2,832.2	0.80	3,556.619	
393.7	393.7	336.8	336.8	0.8	0.3	-117.78	-1,320.8	-2,506.8	2,833.5	2,832.4	1.08	2,623.646	
400.0	400.0	343.2	343.2	0.8	0.3	-117.78	-1,320.9	-2,506.8	2,833.6	2,832.5	1.10	2,579.468	
492.1	492.1	436.9	436.9	1.0	0.4	-117.80	-1,321.6	-2,507.0	2,834.0	2,832.7	1.36	2,076.440	
500.0	500.0	444.8	444.8	1.0	0.4	-117.80	-1,321.6	-2,507.0	2,834.1	2,832.7	1.39	2,043.202	
590.5	590.5	537.8	537.8	1.2	0.5	-117.81	-1,322.3	-2,507.2	2,834.5	2,832.9	1.64	1,726.925	
600.0	600.0	547.9	547.9	1.2	0.5	-117.81	-1,322.4	-2,507.2	2,834.6	2,832.9	1.67	1,699.668	
689.0	689.0	641.4	641.4	1.4	0.5	-117.82	-1,322.9	-2,507.2	2,834.8	2,832.9	1.91	1,481.630	
700.0	700.0	652.8	652.8	1.4	0.5	-117.82	-1,323.0	-2,507.2	2,834.8	2,832.9	1.94	1,458.722	
787.4	787.4	744.8	744.8	1.6	0.6	-117.83	-1,323.7	-2,507.0	2,835.0	2,832.8	2.18	1,299.216	
800.0	800.0	758.3	758.3	1.7	0.6	-117.84	-1,323.8	-2,506.9	2,835.0	2,832.8	2.22	1,279.041	
863.8	863.8	822.8	822.8	1.8	0.6	-117.85	-1,324.3	-2,506.7	2,835.0	2,832.6	2.39	1,186.871	
885.8	885.8	842.9	842.9	1.9	0.6	-117.85	-1,324.4	-2,506.6	2,835.0	2,832.5	2.45	1,158.681	
900.0	900.0	855.9	855.8	1.9	0.6	-117.85	-1,324.5	-2,506.5	2,835.0	2,832.5	2.48	1,141.340	
984.2	984.2	937.1	937.1	2.1	0.7	-117.87	-1,325.2	-2,506.4	2,835.2	2,832.5	2.71	1,047.600	
1,000.0	1,000.0	953.4	953.4	2.1	0.7	-117.87	-1,325.3	-2,506.3	2,835.2	2,832.4	2.75	1,031.581	
1,082.7	1,082.7	1,040.4	1,040.4	2.3	0.7	-117.88	-1,326.1	-2,506.1	2,835.3	2,832.3	2.97	954.816	
1,100.0	1,100.0	1,059.0	1,059.0	2.3	0.7	-117.89	-1,326.2	-2,506.0	2,835.3	2,832.3	3.02	940.125	
1,178.2	1,178.2	1,137.2	1,137.2	2.5	0.7	-117.90	-1,326.8	-2,505.7	2,835.3	2,832.1	3.22	879.880	
1,181.1	1,181.1	1,139.9	1,139.9	2.5	0.7	-117.90	-1,326.8	-2,505.7	2,835.3	2,832.0	3.23	877.797	
1,200.0	1,200.0	1,157.5	1,157.4	2.6	0.8	-117.91	-1,326.9	-2,505.6	2,835.3	2,832.0	3.28	864.626	
1,279.5	1,279.5	1,236.8	1,236.7	2.7	0.8	-117.92	-1,327.5	-2,505.4	2,835.4	2,831.9	3.49	812.906	
1,300.0	1,300.0	1,259.1	1,259.1	2.8	0.8	-117.92	-1,327.6	-2,505.3	2,835.4	2,831.8	3.54	800.442	
1,300.1	1,300.1	1,259.2	1,259.2	2.8	0.8	-117.92	-1,327.6	-2,505.3	2,835.4	2,831.8	3.54	800.376	
1,377.9	1,377.9	1,338.2	1,338.2	3.0	0.8	123.43	-1,328.1	-2,505.0	2,835.9	2,832.2	3.70	767.099	
1,400.0	1,400.0	1,359.1	1,359.0	3.0	0.8	123.43	-1,328.2	-2,505.0	2,836.3	2,832.5	3.75	756.722	
1,476.4	1,476.3	1,433.9	1,433.8	3.1	0.9	123.45	-1,328.7	-2,504.8	2,838.3	2,834.4	3.92	724.902	
1,500.0	1,499.8	1,458.0	1,458.0	3.2	0.9	123.46	-1,328.8	-2,504.7	2,839.2	2,835.2	3.97	715.584	
1,574.8	1,574.4	1,533.4	1,533.4	3.3	0.9	123.49	-1,329.2	-2,504.5	2,842.6	2,838.5	4.14	686.528	
1,600.0	1,599.5	1,558.3	1,558.3	3.4	0.9	123.51	-1,329.3	-2,504.4	2,844.0	2,839.8	4.20	677.323	
1,673.2	1,672.2	1,632.5	1,632.5	3.6	0.9	123.57	-1,329.7	-2,504.2	2,848.8	2,844.4	4.38	650.510	
1,700.0	1,698.7	1,660.6	1,660.5	3.6	1.0	123.59	-1,329.9	-2,504.1	2,850.8	2,846.3	4.45	641.225	
1,771.6	1,769.5	1,733.4	1,733.4	3.8	1.0	123.67	-1,330.4	-2,503.7	2,856.7	2,852.1	4.64	615.981	
1,800.0	1,797.5	1,761.2	1,761.2	3.9	1.0	123.70	-1,330.5	-2,503.6	2,859.4	2,854.7	4.71	606.554	
1,870.1	1,866.3	1,826.2	1,826.1	4.1	1.0	123.77	-1,331.0	-2,503.3	2,866.6	2,861.7	4.92	582.488	
1,900.2	1,895.8	1,852.1	1,852.0	4.2	1.0	123.79	-1,331.2	-2,503.2	2,870.1	2,865.0	5.01	572.714	
1,968.5	1,962.6	1,911.4	1,911.4	4.4	1.1	123.99	-1,331.7	-2,503.1	2,878.3	2,873.0	5.23	550.639	
2,000.0	1,993.4	1,940.7	1,940.6	4.5	1.1	124.08	-1,332.0	-2,503.0	2,882.1	2,876.8	5.33	540.840	
2,066.9	2,058.9	2,000.0	1,999.9	4.7	1.1	124.28	-1,332.7	-2,503.0	2,890.4	2,884.8	5.55	520.380	
2,100.0	2,091.2	2,033.2	2,033.2	4.8	1.1	124.38	-1,333.1	-2,503.0	2,894.5	2,888.8	5.67	510.772	
2,165.3	2,155.2	2,093.4	2,093.3	5.1	1.1	124.58	-1,333.9	-2,503.1	2,902.7	2,896.8	5.89	492.446	
2,200.0	2,189.1	2,126.0	2,125.9	5.2	1.1	124.68	-1,334.3	-2,503.1	2,907.1	2,901.1	6.02	483.072	
2,263.8	2,251.4	2,186.3	2,186.2	5.5	1.2	124.87	-1,335.2	-2,503.2	2,915.3	2,909.1	6.25	466.526	
2,300.0	2,286.9	2,219.8	2,219.7	5.6	1.2	124.97	-1,335.7	-2,503.3	2,920.0	2,913.6	6.38	457.650	
2,362.2	2,347.7	2,276.4	2,276.3	5.8	1.2	125.15	-1,336.6	-2,503.5	2,928.2	2,921.6	6.61	442.946	
2,400.0	2,384.7	2,311.8	2,311.7	6.0	1.2	125.26	-1,337.2	-2,503.6	2,933.2	2,926.4	6.75	434.473	

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

Anticollision Report



Company:	PDC ENERGY	Local Co-ordinate Reference:	Well WACKER 10G-214
Project:	WELD COUNTY, COLORADO	TVD Reference:	KB-EST @ 4624.0usft (Original Well Elev)
Reference Site:	SW NW SEC. 10 T5N R64W 6th P.M.	MD Reference:	KB-EST @ 4624.0usft (Original Well Elev)
Site Error:	0.0 usft	North Reference:	True
Reference Well:	WACKER 10G-214	Survey Calculation Method:	Minimum Curvature
Well Error:	0.0 usft	Output errors are at	2.00 sigma
Reference Wellbore	ORIGINAL WELLBORE	Database:	EDM 5000.1 Single User Db
Reference Design:	PROPOSAL #1	Offset TVD Reference:	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	2,444.0	2,371.9	2,371.8	6.2	1.2	125.44	-1,338.2	-2,503.9	2,941.2	2,934.3	6.98	421.351	
2,500.0	2,482.5	2,410.1	2,410.0	6.4	1.2	125.56	-1,338.9	-2,504.0	2,946.5	2,939.3	7.13	413.280	
2,559.0	2,540.3	2,463.8	2,463.6	6.6	1.3	125.72	-1,339.8	-2,504.2	2,954.4	2,947.1	7.36	401.685	
2,600.0	2,580.3	2,501.1	2,501.0	6.8	1.3	125.84	-1,340.4	-2,504.5	2,960.0	2,952.5	7.51	394.054	
2,657.5	2,636.5	2,561.4	2,561.3	7.1	1.3	126.02	-1,341.4	-2,504.8	2,967.8	2,960.1	7.73	383.688	
2,700.0	2,678.1	2,605.4	2,605.3	7.2	1.3	126.16	-1,342.2	-2,505.0	2,973.6	2,965.7	7.90	376.399	
2,755.9	2,732.8	2,658.0	2,657.8	7.5	1.3	126.31	-1,343.1	-2,505.2	2,981.2	2,973.0	8.12	367.245	
2,800.0	2,775.9	2,700.0	2,699.8	7.7	1.3	126.44	-1,343.9	-2,505.4	2,987.2	2,978.9	8.29	360.365	
2,854.3	2,829.1	2,754.0	2,753.9	7.9	1.4	126.60	-1,344.8	-2,505.7	2,994.7	2,986.1	8.50	352.188	
2,900.0	2,873.8	2,800.0	2,799.8	8.1	1.4	126.73	-1,345.7	-2,505.9	3,000.9	2,992.2	8.68	345.627	
2,952.7	2,925.4	2,853.4	2,853.2	8.3	1.4	126.89	-1,346.6	-2,506.1	3,008.2	2,999.3	8.89	338.368	
2,953.5	2,926.1	2,854.1	2,854.0	8.3	1.4	126.89	-1,346.6	-2,506.1	3,008.3	2,999.4	8.89	338.270	
3,000.0	2,971.6	2,901.7	2,901.5	8.5	1.4	127.12	-1,347.5	-2,506.2	3,014.4	3,005.3	9.05	333.199	
3,051.2	3,022.0	2,965.2	2,965.0	8.7	1.4	127.38	-1,348.6	-2,506.3	3,020.5	3,011.3	9.19	328.745	
3,100.0	3,070.1	3,019.1	3,018.9	8.8	1.5	127.58	-1,349.3	-2,506.2	3,025.7	3,016.4	9.32	324.543	
3,149.6	3,119.1	3,064.7	3,064.4	8.9	1.5	127.75	-1,350.0	-2,506.1	3,030.4	3,021.0	9.45	320.720	
3,200.0	3,169.1	3,112.1	3,111.9	9.1	1.5	127.90	-1,350.8	-2,506.0	3,034.8	3,025.2	9.58	316.873	
3,248.0	3,216.8	3,160.6	3,160.4	9.2	1.5	128.02	-1,351.6	-2,505.9	3,038.4	3,028.7	9.69	313.553	
3,300.0	3,268.5	3,211.2	3,211.0	9.3	1.5	128.13	-1,352.5	-2,505.8	3,041.8	3,032.0	9.81	309.977	
3,346.4	3,314.8	3,251.1	3,250.9	9.4	1.5	128.21	-1,353.2	-2,505.8	3,044.4	3,034.5	9.91	307.164	
3,400.0	3,368.3	3,300.0	3,299.7	9.6	1.6	128.28	-1,354.2	-2,505.9	3,047.0	3,037.0	10.03	303.908	
3,444.9	3,413.1	3,337.1	3,336.9	9.6	1.6	128.32	-1,355.0	-2,506.0	3,048.8	3,038.7	10.11	301.507	
3,500.0	3,468.2	3,386.4	3,386.2	9.7	1.6	128.35	-1,356.0	-2,506.2	3,050.4	3,040.2	10.22	298.516	
3,543.3	3,511.5	3,425.8	3,425.5	9.8	1.6	128.36	-1,356.9	-2,506.4	3,051.3	3,041.0	10.30	296.371	
3,553.7	3,521.9	3,435.4	3,435.1	9.8	1.6	-113.00	-1,357.1	-2,506.5	3,051.5	3,041.4	10.13	301.106	
3,600.0	3,568.2	3,477.9	3,477.6	9.9	1.6	-113.01	-1,358.0	-2,506.8	3,052.2	3,042.0	10.23	298.411	
3,641.7	3,609.9	3,517.1	3,516.8	10.0	1.6	-113.02	-1,358.8	-2,507.2	3,052.9	3,042.6	10.32	295.908	
3,700.0	3,668.2	3,573.7	3,573.4	10.1	1.6	-113.04	-1,360.1	-2,507.7	3,053.9	3,043.5	10.44	292.486	
3,740.1	3,708.4	3,613.9	3,613.6	10.1	1.7	-113.05	-1,361.0	-2,508.1	3,054.6	3,044.1	10.53	290.145	
3,800.0	3,768.2	3,677.4	3,677.1	10.2	1.7	-113.07	-1,362.4	-2,508.7	3,055.7	3,045.0	10.66	286.698	
3,838.6	3,806.8	3,716.6	3,716.3	10.3	1.7	-113.08	-1,363.3	-2,509.0	3,056.3	3,045.5	10.74	284.511	
3,900.0	3,868.2	3,775.7	3,775.3	10.4	1.7	-113.10	-1,364.6	-2,509.5	3,057.3	3,046.4	10.88	281.126	
3,937.0	3,905.2	3,812.9	3,812.5	10.5	1.7	-113.12	-1,365.4	-2,509.8	3,057.9	3,047.0	10.96	279.101	
4,000.0	3,968.2	3,882.4	3,882.0	10.6	1.7	-113.14	-1,366.9	-2,510.4	3,058.9	3,047.8	11.10	275.676	
4,035.4	4,003.6	3,920.1	3,919.6	10.6	1.8	-113.15	-1,367.7	-2,510.7	3,059.4	3,048.3	11.17	273.787	
4,100.0	4,068.2	3,986.6	3,986.2	10.7	1.8	-113.16	-1,368.8	-2,511.2	3,060.3	3,049.0	11.32	270.434	
4,133.8	4,102.1	4,020.5	4,020.1	10.8	1.8	-113.17	-1,369.2	-2,511.5	3,060.8	3,049.4	11.39	268.729	
4,200.0	4,168.2	4,085.7	4,085.3	10.9	1.8	-113.18	-1,370.1	-2,512.1	3,061.7	3,050.1	11.53	265.436	
4,232.3	4,200.5	4,117.9	4,117.4	11.0	1.8	-113.19	-1,370.6	-2,512.3	3,062.1	3,050.5	11.61	263.830	
4,300.0	4,268.2	4,185.8	4,185.3	11.1	1.8	-113.20	-1,371.5	-2,513.0	3,063.1	3,051.3	11.75	260.589	
4,330.7	4,298.9	4,217.8	4,217.4	11.1	1.9	-113.20	-1,371.8	-2,513.3	3,063.5	3,051.6	11.82	259.144	
4,400.0	4,368.2	4,292.8	4,292.3	11.3	1.9	-113.21	-1,372.6	-2,514.0	3,064.3	3,052.3	11.97	255.928	
4,429.1	4,397.3	4,323.0	4,322.6	11.3	1.9	-113.21	-1,372.8	-2,514.2	3,064.6	3,052.6	12.04	254.600	
4,500.0	4,468.2	4,395.8	4,395.3	11.4	1.9	-113.22	-1,373.4	-2,514.8	3,065.4	3,053.2	12.19	251.438	
4,527.5	4,495.8	4,424.3	4,423.8	11.5	1.9	-113.22	-1,373.6	-2,515.1	3,065.7	3,053.4	12.25	250.231	
4,600.0	4,568.2	4,499.1	4,498.7	11.6	1.9	-113.22	-1,374.1	-2,515.7	3,066.4	3,054.0	12.41	247.123	
4,626.0	4,594.2	4,522.0	4,521.5	11.7	1.9	-113.22	-1,374.2	-2,515.9	3,066.6	3,054.2	12.46	246.035	
4,700.0	4,668.2	4,586.9	4,586.4	11.8	2.0	-113.23	-1,374.7	-2,516.5	3,067.5	3,054.9	12.62	243.010	
4,724.4	4,692.6	4,610.5	4,610.0	11.9	2.0	-113.23	-1,374.9	-2,516.7	3,067.9	3,055.2	12.68	242.022	
4,800.0	4,768.2	4,694.3	4,693.8	12.0	2.0	-113.23	-1,375.5	-2,517.6	3,068.8	3,055.9	12.84	238.973	
4,822.8	4,791.0	4,716.5	4,716.0	12.0	2.0	-113.23	-1,375.6	-2,517.8	3,069.0	3,056.1	12.89	238.074	
4,900.0	4,868.2	4,788.3	4,787.8	12.2	2.0	-113.23	-1,376.1	-2,518.5	3,069.9	3,056.9	13.06	235.109	

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

Anticollision Report



Company:	PDC ENERGY	Local Co-ordinate Reference:	Well WACKER 10G-214
Project:	WELD COUNTY, COLORADO	TVD Reference:	KB-EST @ 4624.0usft (Original Well Elev)
Reference Site:	SW NW SEC. 10 T5N R64W 6th P.M.	MD Reference:	KB-EST @ 4624.0usft (Original Well Elev)
Site Error:	0.0 usft	North Reference:	True
Reference Well:	WACKER 10G-214	Survey Calculation Method:	Minimum Curvature
Well Error:	0.0 usft	Output errors are at	2.00 sigma
Reference Wellbore	ORIGINAL WELLBORE	Database:	EDM 5000.1 Single User Db
Reference Design:	PROPOSAL #1	Offset TVD Reference:	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		
4,921.2	4,889.5	4,808.5	4,808.0	12.2	2.0	-113.24	-1,376.2	-2,518.8	3,070.2	3,057.1	13.10	234.304		
5,000.0	4,968.2	4,885.4	4,884.9	12.4	2.0	-113.24	-1,376.8	-2,519.7	3,071.3	3,058.0	13.27	231.372		
5,019.7	4,987.9	4,905.6	4,905.1	12.4	2.0	-113.24	-1,376.9	-2,519.9	3,071.6	3,058.2	13.32	230.652		
5,100.0	5,068.2	5,001.3	5,000.8	12.6	2.1	-113.24	-1,377.2	-2,520.9	3,072.4	3,059.0	13.49	227.788		
5,118.1	5,086.3	5,021.2	5,020.7	12.6	2.1	-113.24	-1,377.2	-2,521.1	3,072.6	3,059.1	13.53	227.164		
5,200.0	5,168.2	5,110.3	5,109.8	12.7	2.1	-113.23	-1,377.2	-2,521.8	3,073.1	3,059.4	13.70	224.383		
5,216.5	5,184.7	5,126.9	5,126.4	12.8	2.1	-113.23	-1,377.2	-2,521.9	3,073.2	3,059.5	13.73	223.834		
5,300.0	5,268.2	5,210.4	5,209.8	12.9	2.1	-113.22	-1,377.1	-2,522.4	3,073.7	3,059.8	13.90	221.104		
5,314.9	5,283.2	5,224.9	5,224.4	13.0	2.1	-113.22	-1,377.1	-2,522.5	3,073.8	3,059.9	13.93	220.621		
5,400.0	5,368.2	5,307.6	5,307.0	13.1	2.1	-113.22	-1,377.0	-2,523.1	3,074.3	3,060.2	14.11	217.917		
5,413.4	5,381.6	5,320.4	5,319.9	13.2	2.1	-113.22	-1,377.0	-2,523.2	3,074.4	3,060.3	14.14	217.496		
5,500.0	5,468.2	5,400.0	5,399.5	13.3	2.1	-113.21	-1,376.8	-2,523.9	3,075.0	3,060.7	14.31	214.815		
5,511.8	5,480.0	5,413.5	5,412.9	13.3	2.1	-113.21	-1,376.8	-2,524.0	3,075.1	3,060.8	14.34	214.449		
5,600.0	5,568.2	5,489.4	5,488.9	13.5	2.1	-113.20	-1,376.8	-2,524.9	3,076.1	3,061.5	14.52	211.782		
5,610.2	5,578.4	5,500.0	5,499.5	13.5	2.1	-113.20	-1,376.8	-2,525.0	3,076.2	3,061.6	14.55	211.477		
5,700.0	5,668.2	5,577.9	5,577.4	13.7	2.1	-113.20	-1,377.2	-2,526.1	3,077.5	3,062.8	14.74	208.781		
5,708.6	5,676.9	5,585.6	5,585.1	13.7	2.1	-113.20	-1,377.2	-2,526.2	3,077.6	3,062.9	14.76	208.525		
5,800.0	5,768.2	5,668.8	5,668.3	13.9	2.2	-113.20	-1,377.9	-2,527.5	3,079.3	3,064.3	14.96	205.835		
5,807.1	5,775.3	5,675.3	5,674.7	13.9	2.2	-113.20	-1,378.0	-2,527.7	3,079.4	3,064.4	14.98	205.629		
5,900.0	5,868.2	5,758.6	5,758.0	14.1	2.2	-113.21	-1,378.9	-2,529.1	3,081.3	3,066.2	15.18	202.974		
5,905.5	5,873.7	5,763.5	5,762.9	14.1	2.2	-113.21	-1,379.0	-2,529.2	3,081.5	3,066.3	15.19	202.819		
5,960.7	5,928.9	5,817.2	5,816.6	14.2	2.2	-113.21	-1,379.6	-2,530.3	3,082.8	3,067.4	15.32	201.284		
6,000.0	5,968.2	5,865.2	5,864.6	14.3	2.2	-23.22	-1,380.0	-2,531.3	3,082.6	3,067.0	15.62	197.413		
6,003.9	5,972.1	5,870.0	5,869.4	14.3	2.2	-23.23	-1,380.0	-2,531.4	3,082.5	3,066.9	15.62	197.324		
6,050.0	6,018.0	5,924.5	5,923.8	14.4	2.2	-23.36	-1,380.3	-2,532.4	3,079.4	3,063.7	15.71	196.032		
6,100.0	6,067.3	5,981.0	5,980.3	14.4	2.2	-23.63	-1,380.4	-2,533.3	3,072.9	3,057.1	15.82	194.277		
6,102.3	6,069.6	5,983.6	5,983.0	14.4	2.2	-23.65	-1,380.4	-2,533.4	3,072.5	3,056.7	15.82	194.189		
6,150.0	6,116.0	6,034.8	6,034.2	14.4	2.2	-24.04	-1,380.3	-2,534.2	3,063.2	3,047.2	15.93	192.279		
6,200.0	6,163.8	6,086.7	6,086.0	14.5	2.3	-24.59	-1,380.1	-2,535.0	3,050.3	3,034.2	16.04	190.155		
6,200.8	6,164.5	6,087.5	6,086.8	14.5	2.3	-24.60	-1,380.1	-2,535.0	3,050.0	3,034.0	16.04	190.122		
6,250.0	6,210.4	6,136.1	6,135.4	14.5	2.3	-25.30	-1,379.9	-2,535.7	3,034.3	3,018.1	16.14	187.994		
6,299.2	6,254.9	6,182.8	6,182.2	14.5	2.3	-26.17	-1,379.8	-2,536.3	3,015.6	2,999.4	16.22	185.868		
6,300.0	6,255.6	6,183.6	6,182.9	14.5	2.3	-26.19	-1,379.8	-2,536.3	3,015.3	2,999.1	16.23	185.834		
6,350.0	6,299.3	6,229.1	6,228.4	14.5	2.3	-27.26	-1,379.7	-2,536.9	2,993.5	2,977.2	16.30	183.664		
6,397.6	6,339.2	6,270.6	6,269.9	14.6	2.3	-28.49	-1,379.6	-2,537.4	2,970.1	2,953.8	16.36	181.541		
6,400.0	6,341.2	6,272.6	6,271.9	14.6	2.3	-28.56	-1,379.6	-2,537.4	2,968.9	2,952.6	16.36	181.434		
6,450.0	6,381.0	6,313.1	6,312.4	14.6	2.3	-30.10	-1,379.5	-2,537.8	2,941.8	2,925.3	16.43	179.053		
6,496.0	6,415.8	6,346.8	6,346.1	14.7	2.3	-31.75	-1,379.5	-2,538.2	2,914.6	2,898.1	16.50	176.606		
6,500.0	6,418.7	6,349.6	6,348.9	14.7	2.3	-31.90	-1,379.5	-2,538.2	2,912.2	2,895.7	16.51	176.386		
6,550.0	6,453.9	6,383.9	6,383.2	14.8	2.3	-34.03	-1,379.3	-2,538.7	2,880.4	2,863.8	16.63	173.219		
6,594.5	6,483.1	6,413.6	6,412.9	15.0	2.3	-36.26	-1,379.2	-2,539.1	2,850.3	2,833.5	16.79	169.773		
6,600.0	6,486.6	6,417.3	6,416.6	15.1	2.3	-36.56	-1,379.2	-2,539.1	2,846.5	2,829.7	16.81	169.311		
6,650.0	6,516.6	6,449.4	6,448.7	15.3	2.3	-39.54	-1,379.1	-2,539.5	2,810.7	2,793.6	17.09	164.458		
6,692.9	6,540.0	6,474.5	6,473.9	15.7	2.3	-42.51	-1,379.0	-2,539.8	2,778.5	2,761.1	17.43	159.441		
6,700.0	6,543.7	6,478.5	6,477.8	15.7	2.3	-43.04	-1,379.0	-2,539.9	2,773.1	2,755.6	17.49	158.567		
6,750.0	6,567.8	6,504.8	6,504.1	16.2	2.3	-47.14	-1,378.9	-2,540.2	2,734.0	2,716.0	18.03	151.666		
6,791.3	6,585.4	6,525.6	6,525.0	16.7	2.3	-51.04	-1,378.9	-2,540.4	2,700.7	2,682.1	18.59	145.301		
6,800.0	6,588.8	6,529.7	6,529.0	16.8	2.3	-51.92	-1,378.8	-2,540.4	2,693.6	2,674.9	18.71	143.960		
6,850.0	6,606.6	6,550.8	6,550.1	17.4	2.3	-57.39	-1,378.8	-2,540.6	2,652.1	2,632.6	19.51	135.903		
6,889.7	6,618.4	6,564.7	6,564.0	18.0	2.3	-62.22	-1,378.7	-2,540.7	2,618.5	2,598.2	20.21	129.535		
6,900.0	6,621.1	6,567.9	6,567.2	18.2	2.3	-63.53	-1,378.7	-2,540.7	2,609.7	2,589.3	20.39	127.972		
6,950.0	6,632.2	6,581.1	6,580.4	19.0	2.3	-70.23	-1,378.7	-2,540.8	2,566.7	2,545.4	21.29	120.559		

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

Anticollision Report



Company:	PDC ENERGY	Local Co-ordinate Reference:	Well WACKER 10G-214
Project:	WELD COUNTY, COLORADO	TVD Reference:	KB-EST @ 4624.0usft (Original Well Elev)
Reference Site:	SW NW SEC. 10 T5N R64W 6th P.M.	MD Reference:	KB-EST @ 4624.0usft (Original Well Elev)
Site Error:	0.0 usft	North Reference:	True
Reference Well:	WACKER 10G-214	Survey Calculation Method:	Minimum Curvature
Well Error:	0.0 usft	Output errors are at	2.00 sigma
Reference Wellbore	ORIGINAL WELLBORE	Database:	EDM 5000.1 Single User Db
Reference Design:	PROPOSAL #1	Offset TVD Reference:	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	
6,988.2	6,638.4	6,588.5	6,587.8	19.7	2.3	-75.63	-1,378.6	-2,540.9	2,533.6	2,511.6	21.97	115.327	
7,000.0	6,639.9	6,590.3	6,589.6	19.9	2.3	-77.33	-1,378.6	-2,540.9	2,523.3	2,501.2	22.17	113.814	
7,050.0	6,644.1	6,595.4	6,594.8	20.8	2.3	-84.56	-1,378.6	-2,540.9	2,479.8	2,456.7	23.05	107.564	
7,086.5	6,645.0	6,596.7	6,596.0	21.5	2.3	-89.76	-1,378.6	-2,540.9	2,448.0	2,424.3	23.73	103.139	
7,100.0	6,645.0	6,596.8	6,596.1	21.8	2.3	-89.77	-1,378.6	-2,540.9	2,436.3	2,412.3	24.00	101.510	
7,185.0	6,644.9	6,597.2	6,596.5	23.6	2.3	-89.79	-1,378.6	-2,540.9	2,363.0	2,337.2	25.76	91.729	
7,200.0	6,644.8	6,597.3	6,596.6	23.9	2.3	-89.79	-1,378.6	-2,540.9	2,350.1	2,324.1	26.07	90.146	
7,283.4	6,644.7	6,597.7	6,597.0	25.7	2.3	-89.81	-1,378.6	-2,540.9	2,279.1	2,251.2	27.91	81.650	
7,300.0	6,644.7	6,597.8	6,597.1	26.1	2.3	-89.81	-1,378.6	-2,540.9	2,265.1	2,236.8	28.28	80.100	
7,381.9	6,644.6	6,598.2	6,597.5	28.0	2.3	-89.83	-1,378.6	-2,540.9	2,196.4	2,166.2	30.17	72.792	
7,400.0	6,644.6	6,598.3	6,597.6	28.4	2.3	-89.84	-1,378.6	-2,540.9	2,181.3	2,150.7	30.59	71.301	
7,480.3	6,644.5	6,598.7	6,598.0	30.3	2.3	-89.86	-1,378.6	-2,540.9	2,115.1	2,082.5	32.52	65.042	
7,500.0	6,644.4	6,598.8	6,598.1	30.8	2.3	-89.86	-1,378.6	-2,540.9	2,098.9	2,066.0	32.99	63.623	
7,578.7	6,644.3	6,599.1	6,598.5	32.7	2.3	-89.88	-1,378.6	-2,540.9	2,035.2	2,000.3	34.93	58.267	
7,600.0	6,644.3	6,599.2	6,598.6	33.3	2.3	-89.88	-1,378.6	-2,540.9	2,018.2	1,982.7	35.45	56.926	
7,677.1	6,644.2	6,599.6	6,598.9	35.2	2.3	-89.90	-1,378.6	-2,540.9	1,957.1	1,919.7	37.39	52.339	
7,700.0	6,644.1	6,599.7	6,599.0	35.8	2.3	-89.90	-1,378.6	-2,540.9	1,939.2	1,901.2	37.97	51.077	
7,775.6	6,644.0	6,600.1	6,599.4	37.7	2.3	-89.92	-1,378.6	-2,540.9	1,880.9	1,841.0	39.90	47.142	
7,800.0	6,644.0	6,600.2	6,599.5	38.3	2.3	-89.93	-1,378.6	-2,540.9	1,862.3	1,821.7	40.52	45.957	
7,874.0	6,643.9	6,600.5	6,599.8	40.2	2.3	-89.94	-1,378.6	-2,541.0	1,806.8	1,764.3	42.44	42.575	
7,900.0	6,643.9	6,600.6	6,599.9	40.9	2.3	-89.95	-1,378.6	-2,541.0	1,787.6	1,744.5	43.11	41.466	
7,972.4	6,643.8	6,600.9	6,600.3	42.8	2.3	-89.96	-1,378.6	-2,541.0	1,735.1	1,690.1	45.01	38.554	
8,000.0	6,643.7	6,601.1	6,600.4	43.5	2.3	-89.97	-1,378.6	-2,541.0	1,715.5	1,669.8	45.73	37.517	
8,070.8	6,643.6	6,601.4	6,600.7	45.4	2.3	-89.98	-1,378.6	-2,541.0	1,666.2	1,618.6	47.60	35.007	
8,100.0	6,643.6	6,601.5	6,600.8	46.2	2.3	-89.99	-1,378.6	-2,541.0	1,646.3	1,598.0	48.37	34.040	
8,169.3	6,643.5	6,601.8	6,601.1	48.0	2.3	-90.00	-1,378.6	-2,541.0	1,600.3	1,550.1	50.21	31.875	
8,200.0	6,643.5	6,601.9	6,601.2	48.8	2.3	-90.01	-1,378.6	-2,541.0	1,580.5	1,529.5	51.02	30.975	
8,267.7	6,643.4	6,602.2	6,601.5	50.6	2.3	-90.02	-1,378.6	-2,541.0	1,538.0	1,485.2	52.83	29.110	
8,300.0	6,643.3	6,602.4	6,601.7	51.5	2.3	-90.03	-1,378.6	-2,541.0	1,518.4	1,464.7	53.70	28.276	
8,366.1	6,643.2	6,602.6	6,602.0	53.3	2.3	-90.04	-1,378.6	-2,541.0	1,479.6	1,424.1	55.48	26.670	
8,400.0	6,643.2	6,602.8	6,602.1	54.2	2.3	-90.05	-1,378.6	-2,541.0	1,460.4	1,404.1	56.39	25.900	
8,464.5	6,643.1	6,603.1	6,602.4	55.9	2.3	-90.06	-1,378.6	-2,541.0	1,425.5	1,367.4	58.13	24.523	
8,500.0	6,643.1	6,603.2	6,602.5	56.9	2.3	-90.07	-1,378.6	-2,541.0	1,407.3	1,348.2	59.09	23.817	
8,563.0	6,643.0	6,603.5	6,602.8	58.6	2.3	-90.08	-1,378.6	-2,541.0	1,376.4	1,315.6	60.79	22.641	
8,600.0	6,642.9	6,603.6	6,603.0	59.6	2.3	-90.09	-1,378.6	-2,541.0	1,359.4	1,297.6	61.80	21.997	
8,661.4	6,642.8	6,603.9	6,603.2	61.3	2.3	-90.10	-1,378.6	-2,541.0	1,332.8	1,269.3	63.47	21.000	
8,700.0	6,642.8	6,604.0	6,603.4	62.3	2.3	-90.11	-1,378.6	-2,541.0	1,317.3	1,252.8	64.52	20.418	
8,759.8	6,642.7	6,604.3	6,603.6	64.0	2.3	-90.12	-1,378.6	-2,541.0	1,295.2	1,229.1	66.15	19.580	
8,800.0	6,642.7	6,604.5	6,603.8	65.1	2.3	-90.13	-1,378.6	-2,541.0	1,281.7	1,214.5	67.24	19.061	
8,858.2	6,642.6	6,604.7	6,604.0	66.6	2.3	-90.14	-1,378.6	-2,541.0	1,264.2	1,195.3	68.84	18.365	
8,900.0	6,642.5	6,604.9	6,604.2	67.8	2.3	-90.15	-1,378.6	-2,541.0	1,253.1	1,183.1	69.98	17.907	
8,956.7	6,642.4	6,605.1	6,604.4	69.3	2.3	-90.16	-1,378.6	-2,541.0	1,240.2	1,168.7	71.53	17.338	
9,000.0	6,642.4	6,605.3	6,604.6	70.5	2.3	-90.17	-1,378.6	-2,541.0	1,232.0	1,159.3	72.72	16.942	
9,055.1	6,642.3	6,605.5	6,604.8	72.0	2.3	-90.18	-1,378.6	-2,541.0	1,223.7	1,149.4	74.23	16.485	
9,100.0	6,642.3	6,605.7	6,605.0	73.3	2.3	-90.19	-1,378.6	-2,541.0	1,218.7	1,143.2	75.46	16.150	
9,153.5	6,642.2	6,605.9	6,605.2	74.7	2.3	-90.20	-1,378.6	-2,541.0	1,214.9	1,138.0	76.94	15.792	
9,200.0	6,642.1	6,606.1	6,605.4	76.0	2.3	-90.20	-1,378.6	-2,541.0	1,213.6	1,135.3	78.21	15.516	
9,212.6	6,642.1	6,606.2	6,605.5	76.4	2.3	-90.21	-1,378.6	-2,541.0	1,213.5	1,134.9	78.56	15.446 CC	
9,251.9	6,642.1	6,606.3	6,605.6	77.5	2.3	-90.21	-1,378.6	-2,541.0	1,214.1	1,134.5	79.64	15.244 ES	
9,300.0	6,642.0	6,606.5	6,605.8	78.8	2.3	-90.22	-1,378.6	-2,541.0	1,216.6	1,135.7	80.97	15.026	
9,350.4	6,641.9	6,606.7	6,606.0	80.2	2.3	-90.23	-1,378.6	-2,541.0	1,221.3	1,138.9	82.36	14.829	
9,400.0	6,641.9	6,606.9	6,606.2	81.5	2.3	-90.24	-1,378.6	-2,541.0	1,227.9	1,144.1	83.73	14.665	

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

Anticollision Report



Company:	PDC ENERGY	Local Co-ordinate Reference:	Well WACKER 10G-214
Project:	WELD COUNTY, COLORADO	TVD Reference:	KB-EST @ 4624.0usft (Original Well Elev)
Reference Site:	SW NW SEC. 10 T5N R64W 6th P.M.	MD Reference:	KB-EST @ 4624.0usft (Original Well Elev)
Site Error:	0.0 usft	North Reference:	True
Reference Well:	WACKER 10G-214	Survey Calculation Method:	Minimum Curvature
Well Error:	0.0 usft	Output errors are at	2.00 sigma
Reference Wellbore	ORIGINAL WELLBORE	Database:	EDM 5000.1 Single User Db
Reference Design:	PROPOSAL #1	Offset TVD Reference:	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	6,641.8	6,607.1	6,606.4	82.9	2.3	-90.25	-1,378.6	-2,541.0	1,236.3	1,151.2	85.07	14.532		
9,500.0	6,641.7	6,607.3	6,606.6	84.3	2.3	-90.26	-1,378.6	-2,541.0	1,247.1	1,160.6	86.49	14.419		
9,547.2	6,641.7	6,607.5	6,606.8	85.6	2.3	-90.27	-1,378.6	-2,541.0	1,258.8	1,171.0	87.79	14.338		
9,600.0	6,641.6	6,607.7	6,607.0	87.1	2.3	-90.28	-1,378.6	-2,541.0	1,273.8	1,184.6	89.25	14.272		
9,645.6	6,641.5	6,607.9	6,607.2	88.3	2.3	-90.29	-1,378.6	-2,541.0	1,288.4	1,197.9	90.52	14.234		
9,700.0	6,641.5	6,608.1	6,607.4	89.8	2.3	-90.30	-1,378.6	-2,541.0	1,307.7	1,215.7	92.02	14.211		
9,744.1	6,641.4	6,608.3	6,607.6	91.0	2.3	-90.31	-1,378.6	-2,541.0	1,324.8	1,231.5	93.24	14.208 SF		
9,800.0	6,641.3	6,608.5	6,607.8	92.6	2.3	-90.32	-1,378.6	-2,541.0	1,348.2	1,253.4	94.79	14.223		
9,842.5	6,641.3	6,608.7	6,608.0	93.8	2.3	-90.33	-1,378.6	-2,541.0	1,367.2	1,271.3	95.97	14.246		
9,900.0	6,641.2	6,608.9	6,608.2	95.4	2.3	-90.34	-1,378.6	-2,541.0	1,394.6	1,297.1	97.56	14.295		
9,940.9	6,641.1	6,609.1	6,608.4	96.5	2.3	-90.34	-1,378.6	-2,541.0	1,415.3	1,316.6	98.70	14.339		
10,000.0	6,641.1	6,609.3	6,608.6	98.1	2.3	-90.36	-1,378.6	-2,541.0	1,446.6	1,346.2	100.34	14.417		
10,039.3	6,641.0	6,609.4	6,608.8	99.2	2.3	-90.36	-1,378.6	-2,541.0	1,468.3	1,366.9	101.43	14.476		
10,100.0	6,640.9	6,609.7	6,609.0	100.9	2.3	-90.37	-1,378.6	-2,541.0	1,503.3	1,400.2	103.12	14.579		
10,137.8	6,640.9	6,609.8	6,609.2	102.0	2.3	-90.38	-1,378.6	-2,541.0	1,525.9	1,421.8	104.16	14.649		
10,200.0	6,640.8	6,610.1	6,609.4	103.7	2.3	-90.39	-1,378.6	-2,541.0	1,564.4	1,458.5	105.89	14.774		
10,236.2	6,640.8	6,610.2	6,609.5	104.7	2.3	-90.40	-1,378.6	-2,541.0	1,587.5	1,480.6	106.90	14.851		
10,300.0	6,640.7	6,610.5	6,609.8	106.5	2.3	-90.41	-1,378.6	-2,541.0	1,629.4	1,520.7	108.67	14.993		
10,334.6	6,640.6	6,610.6	6,609.9	107.4	2.3	-90.42	-1,378.6	-2,541.0	1,652.7	1,543.1	109.64	15.074		
10,400.0	6,640.6	6,610.8	6,610.2	109.3	2.3	-90.43	-1,378.6	-2,541.0	1,697.8	1,586.3	111.46	15.233		
10,433.0	6,640.5	6,611.0	6,610.3	110.2	2.3	-90.43	-1,378.6	-2,541.0	1,721.0	1,608.7	112.38	15.315		
10,500.0	6,640.4	6,611.2	6,610.5	112.0	2.3	-90.45	-1,378.6	-2,541.0	1,769.1	1,654.9	114.24	15.486		
10,531.5	6,640.4	6,611.3	6,610.7	112.9	2.3	-90.45	-1,378.6	-2,541.0	1,792.2	1,677.1	115.12	15.568		
10,600.0	6,640.3	6,611.6	6,610.9	114.8	2.3	-90.46	-1,378.6	-2,541.0	1,843.2	1,726.2	117.02	15.751		
10,629.9	6,640.3	6,611.7	6,611.0	115.7	2.3	-90.47	-1,378.6	-2,541.0	1,865.8	1,747.9	117.86	15.831		
10,700.0	6,640.2	6,612.0	6,611.3	117.6	2.3	-90.48	-1,378.6	-2,541.0	1,919.6	1,799.8	119.81	16.022		
10,728.3	6,640.1	6,612.1	6,611.4	118.4	2.3	-90.49	-1,378.6	-2,541.0	1,941.6	1,821.0	120.60	16.100		
10,800.0	6,640.0	6,612.3	6,611.7	120.4	2.3	-90.50	-1,378.6	-2,541.0	1,998.1	1,875.5	122.60	16.298		
10,826.7	6,640.0	6,612.4	6,611.8	121.2	2.3	-90.51	-1,378.6	-2,541.0	2,019.4	1,896.0	123.34	16.372		
10,900.0	6,639.9	6,612.7	6,612.0	123.2	2.3	-90.52	-1,378.6	-2,541.0	2,078.4	1,953.0	125.38	16.576		
10,925.2	6,639.9	6,612.8	6,612.1	123.9	2.3	-90.52	-1,378.6	-2,541.0	2,098.9	1,972.8	126.09	16.646		
11,000.0	6,639.8	6,613.1	6,612.4	126.0	2.3	-90.54	-1,378.6	-2,541.0	2,160.4	2,032.2	128.17	16.855		
11,023.6	6,639.8	6,613.2	6,612.5	126.6	2.3	-90.54	-1,378.6	-2,541.0	2,179.9	2,051.1	128.83	16.921		
11,100.0	6,639.7	6,613.5	6,612.8	128.8	2.3	-90.55	-1,378.6	-2,541.0	2,243.8	2,112.8	130.96	17.133		
11,122.0	6,639.6	6,613.5	6,612.9	129.4	2.3	-90.56	-1,378.6	-2,541.0	2,262.4	2,130.8	131.58	17.194		
11,200.0	6,639.5	6,613.8	6,613.1	131.6	2.3	-90.57	-1,378.6	-2,541.0	2,328.6	2,194.8	133.75	17.409		
11,220.4	6,639.5	6,613.9	6,613.2	132.1	2.3	-90.57	-1,378.6	-2,541.0	2,346.0	2,211.7	134.33	17.465		
11,300.0	6,639.4	6,614.2	6,613.5	134.4	2.3	-90.59	-1,378.6	-2,541.0	2,414.5	2,277.9	136.55	17.682		
11,318.9	6,639.4	6,614.3	6,613.6	134.9	2.3	-90.59	-1,378.6	-2,541.0	2,430.8	2,293.7	137.07	17.734		
11,400.0	6,639.3	6,614.5	6,613.9	137.1	2.3	-90.61	-1,378.6	-2,541.0	2,501.4	2,362.1	139.34	17.952		
11,417.3	6,639.3	6,614.6	6,613.9	137.6	2.3	-90.61	-1,378.6	-2,541.0	2,516.6	2,376.7	139.82	17.998		
11,500.0	6,639.2	6,614.9	6,614.2	139.9	2.3	-90.62	-1,378.5	-2,541.0	2,589.3	2,447.2	142.13	18.218		
11,515.7	6,639.1	6,615.0	6,614.3	140.4	2.3	-90.63	-1,378.5	-2,541.0	2,603.2	2,460.7	142.57	18.259		
11,600.0	6,639.0	6,615.3	6,614.6	142.7	2.3	-90.64	-1,378.5	-2,541.0	2,678.1	2,533.1	144.93	18.479		
11,614.1	6,639.0	6,615.3	6,614.6	143.1	2.3	-90.64	-1,378.5	-2,541.0	2,690.7	2,545.4	145.32	18.516		
11,700.0	6,638.9	6,615.6	6,614.9	145.5	2.3	-90.66	-1,378.5	-2,541.0	2,767.6	2,619.9	147.72	18.735		
11,712.6	6,638.9	6,615.7	6,615.0	145.9	2.3	-90.66	-1,378.5	-2,541.0	2,778.9	2,630.8	148.07	18.767		
11,800.0	6,638.8	6,616.0	6,615.3	148.3	2.3	-90.68	-1,378.5	-2,541.0	2,857.8	2,707.3	150.51	18.987		
11,811.0	6,638.8	6,616.0	6,615.3	148.6	2.3	-90.68	-1,378.5	-2,541.0	2,867.8	2,716.9	150.82	19.014		
11,900.0	6,638.7	6,616.3	6,615.7	151.1	2.3	-90.69	-1,378.5	-2,541.0	2,948.6	2,795.3	153.31	19.233		
11,909.4	6,638.6	6,616.4	6,615.7	151.4	2.3	-90.69	-1,378.5	-2,541.0	2,957.2	2,803.7	153.57	19.256		
12,000.0	6,638.5	6,616.7	6,616.0	153.9	2.3	-90.71	-1,378.5	-2,541.0	3,040.1	2,883.9	156.11	19.474		

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

Anticollision Report



Company:	PDC ENERGY	Local Co-ordinate Reference:	Well WACKER 10G-214
Project:	WELD COUNTY, COLORADO	TVD Reference:	KB-EST @ 4624.0usft (Original Well Elev)
Reference Site:	SW NW SEC. 10 T5N R64W 6th P.M.	MD Reference:	KB-EST @ 4624.0usft (Original Well Elev)
Site Error:	0.0 usft	North Reference:	True
Reference Well:	WACKER 10G-214	Survey Calculation Method:	Minimum Curvature
Well Error:	0.0 usft	Output errors are at	2.00 sigma
Reference Wellbore	ORIGINAL WELLBORE	Database:	EDM 5000.1 Single User Db
Reference Design:	PROPOSAL #1	Offset TVD Reference:	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
12,007.8	6,638.5	6,616.7	6,616.0	154.1	2.3	-90.71	-1,378.5	-2,541.0	3,047.3	2,890.9	156.33	19.493	
12,100.0	6,638.4	6,617.0	6,616.4	156.7	2.3	-90.73	-1,378.5	-2,541.0	3,132.0	2,973.1	158.90	19.710	
12,106.3	6,638.4	6,617.1	6,616.4	156.9	2.3	-90.73	-1,378.5	-2,541.0	3,137.8	2,978.7	159.08	19.725	
12,200.0	6,638.3	6,617.4	6,616.7	159.5	2.3	-90.74	-1,378.5	-2,541.0	3,224.4	3,062.7	161.70	19.941	
12,204.7	6,638.3	6,617.4	6,616.7	159.6	2.3	-90.74	-1,378.5	-2,541.0	3,228.8	3,066.9	161.83	19.951	
12,300.0	6,638.2	6,617.7	6,617.0	162.3	2.3	-90.76	-1,378.5	-2,541.0	3,317.3	3,152.8	164.50	20.166	
12,303.1	6,638.2	6,617.7	6,617.1	162.4	2.3	-90.76	-1,378.5	-2,541.0	3,320.2	3,155.6	164.58	20.173	
12,400.0	6,638.0	6,618.1	6,617.4	165.1	2.3	-90.78	-1,378.5	-2,541.0	3,410.5	3,243.2	167.29	20.386	
12,401.5	6,638.0	6,618.1	6,617.4	165.2	2.3	-90.78	-1,378.5	-2,541.0	3,412.0	3,244.7	167.34	20.390	
12,500.0	6,637.9	6,618.4	6,617.7	167.9	2.3	-90.79	-1,378.5	-2,541.0	3,504.2	3,334.1	170.09	20.602	
12,598.4	6,637.8	6,618.7	6,618.1	170.7	2.3	-90.81	-1,378.5	-2,541.0	3,596.6	3,423.8	172.85	20.808	
12,600.0	6,637.8	6,618.8	6,618.1	170.7	2.3	-90.81	-1,378.5	-2,541.0	3,598.2	3,425.3	172.89	20.812	
12,696.8	6,637.7	6,619.1	6,618.4	173.4	2.3	-90.83	-1,378.5	-2,541.1	3,689.5	3,513.8	175.60	21.010	
12,700.0	6,637.7	6,619.1	6,618.4	173.5	2.3	-90.83	-1,378.5	-2,541.1	3,692.4	3,516.8	175.69	21.017	
12,795.2	6,637.6	6,619.4	6,618.7	176.2	2.3	-90.84	-1,378.5	-2,541.1	3,782.5	3,604.2	178.36	21.208	
12,800.0	6,637.6	6,619.4	6,618.8	176.3	2.3	-90.84	-1,378.5	-2,541.1	3,787.0	3,608.5	178.49	21.217	
12,893.7	6,637.4	6,619.7	6,619.1	178.9	2.3	-90.86	-1,378.5	-2,541.1	3,875.9	3,694.8	181.11	21.400	
12,900.0	6,637.4	6,619.8	6,619.1	179.1	2.3	-90.86	-1,378.5	-2,541.1	3,881.9	3,700.6	181.29	21.413	
12,992.1	6,637.3	6,620.1	6,619.4	181.7	2.3	-90.87	-1,378.5	-2,541.1	3,969.5	3,785.6	183.87	21.589	
13,000.0	6,637.3	6,620.1	6,619.4	181.9	2.3	-90.88	-1,378.5	-2,541.1	3,977.0	3,792.9	184.09	21.604	
13,090.5	6,637.2	6,620.4	6,619.7	184.4	2.3	-90.89	-1,378.5	-2,541.1	4,063.3	3,876.7	186.62	21.773	
13,100.0	6,637.2	6,620.4	6,619.8	184.7	2.3	-90.89	-1,378.5	-2,541.1	4,072.4	3,885.5	186.89	21.790	
13,188.9	6,637.1	6,620.7	6,620.0	187.2	2.3	-90.91	-1,378.5	-2,541.1	4,157.3	3,968.0	189.38	21.952	
13,200.0	6,637.1	6,620.8	6,620.1	187.5	2.3	-90.91	-1,378.5	-2,541.1	4,167.9	3,978.2	189.69	21.972	
13,287.4	6,637.0	6,621.1	6,620.4	190.0	2.3	-90.92	-1,378.5	-2,541.1	4,251.6	4,059.4	192.14	22.128	
13,300.0	6,637.0	6,621.1	6,620.4	190.3	2.3	-90.92	-1,378.5	-2,541.1	4,263.7	4,071.2	192.49	22.150	
13,385.8	6,636.9	6,621.4	6,620.7	192.7	2.3	-90.94	-1,378.5	-2,541.1	4,346.0	4,151.1	194.89	22.299	
13,400.0	6,636.8	6,621.4	6,620.7	193.1	2.3	-90.94	-1,378.5	-2,541.1	4,359.6	4,164.3	195.29	22.324	
13,484.2	6,636.7	6,621.7	6,621.0	195.5	2.3	-90.95	-1,378.5	-2,541.1	4,440.6	4,242.9	197.65	22.467	
13,500.0	6,636.7	6,621.7	6,621.1	195.9	2.3	-90.96	-1,378.5	-2,541.1	4,455.8	4,257.7	198.09	22.493	
13,582.6	6,636.6	6,622.0	6,621.3	198.2	2.3	-90.97	-1,378.5	-2,541.1	4,535.4	4,334.9	200.41	22.631	
13,600.0	6,636.6	6,622.1	6,621.4	198.7	2.3	-90.97	-1,378.5	-2,541.1	4,552.1	4,351.2	200.89	22.659	
13,681.1	6,636.5	6,622.3	6,621.7	201.0	2.3	-90.99	-1,378.5	-2,541.1	4,630.3	4,427.1	203.17	22.791	
13,700.0	6,636.5	6,622.4	6,621.7	201.5	2.3	-90.99	-1,378.5	-2,541.1	4,648.5	4,444.8	203.70	22.821	
13,779.5	6,636.4	6,622.7	6,622.0	203.7	2.3	-91.00	-1,378.5	-2,541.1	4,725.3	4,519.4	205.92	22.947	
13,800.0	6,636.4	6,622.7	6,622.0	204.3	2.3	-91.00	-1,378.5	-2,541.1	4,745.1	4,538.6	206.50	22.979	
13,877.9	6,636.3	6,623.0	6,622.3	206.5	2.3	-91.02	-1,378.5	-2,541.1	4,820.5	4,611.8	208.68	23.100	
13,900.0	6,636.3	6,623.0	6,622.4	207.1	2.3	-91.02	-1,378.5	-2,541.1	4,841.9	4,632.6	209.30	23.134	
13,976.3	6,636.2	6,623.3	6,622.6	209.3	2.3	-91.03	-1,378.5	-2,541.1	4,915.8	4,704.4	211.44	23.249	
14,000.0	6,636.1	6,623.4	6,622.7	209.9	2.3	-91.04	-1,378.5	-2,541.1	4,938.7	4,726.6	212.10	23.285	
14,074.8	6,636.0	6,623.6	6,622.9	212.0	2.3	-91.05	-1,378.5	-2,541.1	5,011.3	4,797.1	214.20	23.396	
14,100.0	6,636.0	6,623.7	6,623.0	212.7	2.3	-91.05	-1,378.5	-2,541.1	5,035.7	4,820.8	214.90	23.433	
14,173.2	6,635.9	6,623.9	6,623.2	214.8	2.3	-91.06	-1,378.5	-2,541.1	5,106.8	4,889.9	216.96	23.539	
14,200.0	6,635.9	6,624.0	6,623.3	215.5	2.3	-91.07	-1,378.5	-2,541.1	5,132.8	4,915.1	217.71	23.577	
14,271.6	6,635.8	6,624.2	6,623.5	217.5	2.3	-91.08	-1,378.5	-2,541.1	5,202.5	4,982.8	219.71	23.678	
14,300.0	6,635.8	6,624.3	6,623.6	218.3	2.3	-91.08	-1,378.5	-2,541.1	5,230.1	5,009.6	220.51	23.718	
14,370.0	6,635.7	6,624.5	6,623.8	220.3	2.3	-91.09	-1,378.5	-2,541.1	5,298.2	5,075.8	222.47	23.815	
14,400.0	6,635.7	6,624.6	6,623.9	221.1	2.3	-91.10	-1,378.5	-2,541.1	5,327.4	5,104.1	223.31	23.856	
14,468.5	6,635.6	6,624.8	6,624.2	223.1	2.3	-91.11	-1,378.5	-2,541.1	5,394.1	5,168.9	225.23	23.949	
14,500.0	6,635.6	6,624.9	6,624.3	223.9	2.3	-91.11	-1,378.5	-2,541.1	5,424.8	5,198.7	226.11	23.991	
14,566.9	6,635.5	6,625.1	6,624.5	225.8	2.3	-91.12	-1,378.5	-2,541.1	5,490.0	5,262.0	227.99	24.080	
14,600.0	6,635.4	6,625.2	6,624.6	226.8	2.3	-91.13	-1,378.5	-2,541.1	5,522.3	5,293.4	228.92	24.124	

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

Anticollision Report



Company:	PDC ENERGY	Local Co-ordinate Reference:	Well WACKER 10G-214
Project:	WELD COUNTY, COLORADO	TVD Reference:	KB-EST @ 4624.0usft (Original Well Elev)
Reference Site:	SW NW SEC. 10 T5N R64W 6th P.M.	MD Reference:	KB-EST @ 4624.0usft (Original Well Elev)
Site Error:	0.0 usft	North Reference:	True
Reference Well:	WACKER 10G-214	Survey Calculation Method:	Minimum Curvature
Well Error:	0.0 usft	Output errors are at	2.00 sigma
Reference Wellbore	ORIGINAL WELLBORE	Database:	EDM 5000.1 Single User Db
Reference Design:	PROPOSAL #1	Offset TVD Reference:	Offset Datum

Offset Design SW NW SEC. 10 T5N R64W 6th P.M. - EXIST VERT BAUER #9-1 - 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
14,665.3	6,635.4	6,625.4	6,624.8	228.6	2.3	-91.14	-1,378.5	-2,541.1	5,586.1	5,355.3	230.75	24.208	
14,700.0	6,635.3	6,625.5	6,624.9	229.6	2.3	-91.15	-1,378.5	-2,541.1	5,619.9	5,388.2	231.72	24.253	
14,763.7	6,635.2	6,625.7	6,625.1	231.3	2.3	-91.15	-1,378.5	-2,541.1	5,682.2	5,448.7	233.51	24.334	
14,800.0	6,635.2	6,625.9	6,625.2	232.4	2.3	-91.16	-1,378.5	-2,541.1	5,717.6	5,483.1	234.52	24.380	
14,862.2	6,635.1	6,626.0	6,625.4	234.1	2.3	-91.17	-1,378.5	-2,541.1	5,778.4	5,542.1	236.27	24.457	
14,900.0	6,635.1	6,626.2	6,625.5	235.2	2.3	-91.18	-1,378.5	-2,541.1	5,815.4	5,578.0	237.33	24.503	
14,960.6	6,635.0	6,626.3	6,625.7	236.9	2.3	-91.18	-1,378.5	-2,541.1	5,874.6	5,635.6	239.03	24.577	
14,982.9	6,635.0	6,626.4	6,625.7	237.5	2.3	-91.19	-1,378.5	-2,541.1	5,896.4	5,656.8	239.65	24.604	

Anticollision Report



Company:	PDC ENERGY	Local Co-ordinate Reference:	Well WACKER 10G-214
Project:	WELD COUNTY, COLORADO	TVD Reference:	KB-EST @ 4624.0usft (Original Well Elev)
Reference Site:	SW NW SEC. 10 T5N R64W 6th P.M.	MD Reference:	KB-EST @ 4624.0usft (Original Well Elev)
Site Error:	0.0 usft	North Reference:	True
Reference Well:	WACKER 10G-214	Survey Calculation Method:	Minimum Curvature
Well Error:	0.0 usft	Output errors are at	2.00 sigma
Reference Wellbore	ORIGINAL WELLBORE	Database:	EDM 5000.1 Single User Db
Reference Design:	PROPOSAL #1	Offset TVD Reference:	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	-74.49	1,388.9	-5,003.3	5,192.6				
98.4	98.4	76.4	76.4	0.1	0.0	-74.49	1,388.9	-5,003.3	5,192.5	5,192.4	0.10	N/A	
100.0	100.0	78.0	78.0	0.1	0.0	-74.49	1,388.9	-5,003.3	5,192.5	5,192.4	0.10	N/A	
196.8	196.8	174.8	174.8	0.3	1.0	-74.49	1,388.9	-5,003.3	5,192.5	5,191.3	1.29	4,018.842	
200.0	200.0	178.0	178.0	0.3	1.0	-74.49	1,388.9	-5,003.3	5,192.5	5,191.2	1.34	3,874.370	
295.3	295.3	273.3	273.3	0.5	3.0	-74.49	1,388.9	-5,003.3	5,192.5	5,189.0	3.50	1,482.583	
300.0	300.0	278.0	278.0	0.5	3.1	-74.49	1,388.9	-5,003.3	5,192.5	5,188.9	3.62	1,434.370	
393.7	393.7	371.7	371.7	0.8	5.1	-74.49	1,388.9	-5,003.3	5,192.5	5,186.7	5.82	892.495	
400.0	400.0	378.0	378.0	0.8	5.2	-74.49	1,388.9	-5,003.3	5,192.5	5,186.6	5.96	870.798	
492.1	492.1	470.1	470.1	1.0	7.1	-74.49	1,388.9	-5,003.3	5,192.5	5,184.5	8.06	644.359	
500.0	500.0	478.0	478.0	1.0	7.2	-74.49	1,388.9	-5,003.3	5,192.5	5,184.3	8.24	630.397	
590.5	590.5	568.5	568.5	1.2	9.1	-74.49	1,388.9	-5,003.3	5,192.5	5,182.3	10.28	505.093	
600.0	600.0	578.0	578.0	1.2	9.3	-74.49	1,388.9	-5,003.3	5,192.5	5,182.1	10.49	494.842	
689.0	689.0	667.0	667.0	1.4	11.1	-74.49	1,388.9	-5,003.3	5,192.5	5,180.1	12.49	415.592	
700.0	700.0	678.0	678.0	1.4	11.3	-74.49	1,388.9	-5,003.3	5,192.5	5,179.8	12.74	407.510	
787.4	787.4	765.4	765.4	1.6	13.1	-74.49	1,388.9	-5,003.3	5,192.5	5,177.8	14.70	353.135	
800.0	800.0	778.0	778.0	1.7	13.3	-74.49	1,388.9	-5,003.3	5,192.5	5,177.6	14.99	346.473	
885.8	885.8	863.8	863.8	1.9	15.0	-74.49	1,388.9	-5,003.3	5,192.5	5,175.6	16.91	307.044	
900.0	900.0	878.0	878.0	1.9	15.3	-74.49	1,388.9	-5,003.3	5,192.5	5,175.3	17.23	301.380	
984.2	984.2	962.2	962.2	2.1	17.0	-74.49	1,388.9	-5,003.3	5,192.5	5,173.4	19.12	271.618	
1,000.0	1,000.0	978.0	978.0	2.1	17.3	-74.49	1,388.9	-5,003.3	5,192.5	5,173.1	19.47	266.695	
1,082.7	1,082.7	1,060.7	1,060.7	2.3	19.0	-74.49	1,388.9	-5,003.3	5,192.5	5,171.2	21.32	243.533	
1,100.0	1,100.0	1,078.0	1,078.0	2.3	19.4	-74.49	1,388.9	-5,003.3	5,192.5	5,170.8	21.71	239.181	
1,181.1	1,181.1	1,159.1	1,159.1	2.5	21.0	-74.49	1,388.9	-5,003.3	5,192.5	5,169.0	23.53	220.719	
1,200.0	1,200.0	1,178.0	1,178.0	2.6	21.4	-74.49	1,388.9	-5,003.3	5,192.5	5,168.6	23.95	216.820	
1,279.5	1,279.5	1,257.5	1,257.5	2.7	23.0	-74.49	1,388.9	-5,003.3	5,192.5	5,166.8	25.73	201.819	
1,300.0	1,300.0	1,278.0	1,278.0	2.8	23.4	-74.49	1,388.9	-5,003.3	5,192.5	5,166.4	26.19	198.287	
1,377.9	1,377.9	1,355.9	1,355.9	3.0	25.0	166.86	1,388.9	-5,003.3	5,193.6	5,165.7	27.91	186.112	
1,400.0	1,400.0	1,378.0	1,378.0	3.0	25.4	166.86	1,388.9	-5,003.3	5,194.2	5,165.9	28.39	182.975	
1,476.4	1,476.3	1,454.3	1,454.3	3.1	26.9	166.85	1,388.9	-5,003.3	5,197.8	5,167.8	30.03	173.090	
1,500.0	1,499.8	1,477.8	1,477.8	3.2	27.4	166.85	1,388.9	-5,003.3	5,199.3	5,168.8	30.53	170.292	
1,574.8	1,574.4	1,552.4	1,552.4	3.3	28.9	166.84	1,388.9	-5,003.3	5,205.4	5,173.3	32.11	162.117	
1,600.0	1,599.5	1,577.5	1,577.5	3.4	29.4	166.84	1,388.9	-5,003.3	5,207.8	5,175.2	32.63	159.590	
1,673.2	1,672.2	1,650.2	1,650.2	3.6	30.9	166.82	1,388.9	-5,003.3	5,216.2	5,182.1	34.14	152.792	
1,700.0	1,698.7	1,676.7	1,676.7	3.6	31.4	166.81	1,388.9	-5,003.3	5,219.7	5,185.0	34.68	150.506	
1,771.6	1,769.5	1,747.5	1,747.5	3.8	32.8	166.79	1,388.9	-5,003.3	5,230.3	5,194.2	36.11	144.828	
1,800.0	1,797.5	1,775.5	1,775.5	3.9	33.4	166.78	1,388.9	-5,003.3	5,234.9	5,198.3	36.67	142.760	
1,870.1	1,866.3	1,844.3	1,844.3	4.1	34.8	166.75	1,388.9	-5,003.3	5,247.6	5,209.6	38.03	138.004	
1,900.2	1,895.8	1,873.8	1,873.8	4.2	35.4	166.74	1,388.9	-5,003.3	5,253.6	5,215.0	38.59	136.121	
1,968.5	1,962.6	1,940.6	1,940.6	4.4	36.7	166.78	1,388.9	-5,003.3	5,267.4	5,227.3	40.06	131.473	
2,000.0	1,993.4	1,971.4	1,971.4	4.5	37.3	166.79	1,388.9	-5,003.3	5,273.8	5,233.1	40.74	129.446	
2,066.9	2,058.9	2,036.9	2,036.9	4.7	38.7	166.83	1,388.9	-5,003.3	5,287.4	5,245.2	42.19	125.332	
2,100.0	2,091.2	2,069.2	2,069.2	4.8	39.3	166.84	1,388.9	-5,003.3	5,294.1	5,251.2	42.90	123.408	
2,165.3	2,155.2	2,133.2	2,133.2	5.1	40.6	166.88	1,388.9	-5,003.3	5,307.3	5,263.0	44.31	119.774	
2,200.0	2,189.1	2,167.1	2,167.1	5.2	41.3	166.89	1,388.9	-5,003.3	5,314.3	5,269.3	45.06	117.932	
2,263.8	2,251.4	2,229.4	2,229.4	5.5	42.5	166.93	1,388.9	-5,003.3	5,327.3	5,280.8	46.45	114.700	
2,300.0	2,286.9	2,264.9	2,264.9	5.6	43.3	166.95	1,388.9	-5,003.3	5,334.6	5,287.4	47.23	112.947	
2,362.2	2,347.7	2,325.7	2,325.7	5.8	44.5	166.98	1,388.9	-5,003.3	5,347.2	5,298.7	48.58	110.065	
2,400.0	2,384.7	2,362.7	2,362.7	6.0	45.2	167.00	1,388.9	-5,003.3	5,354.9	5,305.5	49.40	108.390	
2,460.6	2,444.0	2,422.0	2,422.0	6.2	46.4	167.03	1,388.9	-5,003.3	5,367.2	5,316.5	50.72	105.813	
2,500.0	2,482.5	2,460.5	2,460.5	6.4	47.2	167.05	1,388.9	-5,003.3	5,375.2	5,323.6	51.58	104.210	
2,559.0	2,540.3	2,518.3	2,518.3	6.6	48.3	167.07	1,388.9	-5,003.3	5,387.2	5,334.3	52.87	101.900	

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

Anticollision Report



Company:	PDC ENERGY	Local Co-ordinate Reference:	Well WACKER 10G-214
Project:	WELD COUNTY, COLORADO	TVD Reference:	KB-EST @ 4624.0usft (Original Well Elev)
Reference Site:	SW NW SEC. 10 T5N R64W 6th P.M.	MD Reference:	KB-EST @ 4624.0usft (Original Well Elev)
Site Error:	0.0 usft	North Reference:	True
Reference Well:	WACKER 10G-214	Survey Calculation Method:	Minimum Curvature
Well Error:	0.0 usft	Output errors are at	2.00 sigma
Reference Wellbore	ORIGINAL WELLBORE	Database:	EDM 5000.1 Single User Db
Reference Design:	PROPOSAL #1	Offset TVD Reference:	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	2,580.3	2,558.3	2,558.3	6.8	49.2	167.09	1,388.9	-5,003.3	5,395.5	5,341.7	53.76	100.363	
2,657.5	2,636.5	2,614.5	2,614.5	7.1	50.3	167.12	1,388.9	-5,003.3	5,407.2	5,352.1	55.01	98.287	
2,700.0	2,678.1	2,656.1	2,656.1	7.2	51.1	167.14	1,388.9	-5,003.3	5,415.8	5,359.9	55.94	96.811	
2,755.9	2,732.8	2,710.8	2,710.8	7.5	52.2	167.17	1,388.9	-5,003.3	5,427.1	5,370.0	57.16	94.941	
2,800.0	2,775.9	2,753.9	2,753.9	7.7	53.1	167.19	1,388.9	-5,003.3	5,436.1	5,378.0	58.13	93.522	
2,854.3	2,829.1	2,807.1	2,807.1	7.9	54.2	167.22	1,388.9	-5,003.3	5,447.1	5,387.8	59.31	91.835	
2,900.0	2,873.8	2,851.8	2,851.8	8.1	55.1	167.24	1,388.9	-5,003.3	5,456.4	5,396.1	60.31	90.469	
2,952.7	2,925.4	2,903.4	2,903.4	8.3	56.1	167.27	1,388.9	-5,003.3	5,467.1	5,405.6	61.47	88.944	
2,953.5	2,926.1	2,904.1	2,904.1	8.3	56.1	167.27	1,388.9	-5,003.3	5,467.3	5,405.8	61.48	88.924	
3,000.0	2,971.6	2,949.6	2,949.6	8.5	57.0	167.33	1,388.9	-5,003.3	5,476.3	5,413.7	62.68	87.373	
3,051.2	3,022.0	3,000.0	3,000.0	8.7	58.0	167.39	1,388.9	-5,003.3	5,485.5	5,421.5	63.97	85.745	
3,100.0	3,070.1	3,048.1	3,048.1	8.8	59.0	167.44	1,388.9	-5,003.3	5,493.4	5,428.2	65.20	84.250	
3,149.6	3,119.1	3,097.1	3,097.1	8.9	60.0	167.49	1,388.9	-5,003.3	5,500.7	5,434.2	66.44	82.793	
3,200.0	3,169.1	3,147.1	3,147.1	9.1	61.0	167.54	1,388.9	-5,003.3	5,507.1	5,439.5	67.68	81.369	
3,248.0	3,216.8	3,194.8	3,194.8	9.2	62.0	167.57	1,388.9	-5,003.3	5,512.5	5,443.7	68.85	80.066	
3,300.0	3,268.5	3,246.5	3,246.5	9.3	63.0	167.60	1,388.9	-5,003.3	5,517.5	5,447.4	70.10	78.710	
3,346.4	3,314.8	3,292.8	3,292.8	9.4	63.9	167.63	1,388.9	-5,003.3	5,521.1	5,449.9	71.20	77.546	
3,400.0	3,368.3	3,346.3	3,346.3	9.6	65.0	167.65	1,388.9	-5,003.3	5,524.4	5,452.0	72.45	76.254	
3,444.9	3,413.1	3,391.1	3,391.1	9.6	65.9	167.66	1,388.9	-5,003.3	5,526.4	5,453.0	73.48	75.215	
3,500.0	3,468.2	3,446.2	3,446.2	9.7	67.0	167.67	1,388.9	-5,003.3	5,528.0	5,453.2	74.72	73.986	
3,543.3	3,511.5	3,489.5	3,489.5	9.8	67.9	167.68	1,388.9	-5,003.3	5,528.4	5,452.8	75.67	73.059	
3,553.7	3,521.9	3,499.9	3,499.9	9.8	68.1	-73.67	1,388.9	-5,003.3	5,528.4	5,450.6	77.82	71.039	
3,600.0	3,568.2	3,546.2	3,546.2	9.9	69.0	-73.67	1,388.9	-5,003.3	5,528.4	5,449.6	78.83	70.134	
3,641.7	3,609.9	3,587.9	3,587.9	10.0	69.9	-73.67	1,388.9	-5,003.3	5,528.4	5,448.7	79.74	69.335	
3,700.0	3,668.2	3,646.2	3,646.2	10.1	71.0	-73.67	1,388.9	-5,003.3	5,528.4	5,447.4	81.00	68.249	
3,740.1	3,708.4	3,686.4	3,686.4	10.1	71.8	-73.67	1,388.9	-5,003.3	5,528.4	5,446.6	81.88	67.519	
3,800.0	3,768.2	3,746.2	3,746.2	10.2	73.0	-73.67	1,388.9	-5,003.3	5,528.4	5,445.3	83.18	66.460	
3,838.6	3,806.8	3,784.8	3,784.8	10.3	73.8	-73.67	1,388.9	-5,003.3	5,528.4	5,444.4	84.03	65.795	
3,900.0	3,868.2	3,846.2	3,846.2	10.4	75.1	-73.67	1,388.9	-5,003.3	5,528.4	5,443.1	85.37	64.762	
3,937.0	3,905.2	3,883.2	3,883.2	10.5	75.8	-73.67	1,388.9	-5,003.3	5,528.4	5,442.3	86.17	64.155	
4,000.0	3,968.2	3,946.2	3,946.2	10.6	77.1	-73.67	1,388.9	-5,003.3	5,528.4	5,440.9	87.55	63.146	
4,035.4	4,003.6	3,981.6	3,981.6	10.6	77.8	-73.67	1,388.9	-5,003.3	5,528.4	5,440.1	88.32	62.593	
4,100.0	4,068.2	4,046.2	4,046.2	10.7	79.1	-73.67	1,388.9	-5,003.3	5,528.4	5,438.7	89.74	61.608	
4,133.8	4,102.1	4,080.1	4,080.1	10.8	79.8	-73.67	1,388.9	-5,003.3	5,528.4	5,438.0	90.48	61.104	
4,200.0	4,168.2	4,146.2	4,146.2	10.9	81.1	-73.67	1,388.9	-5,003.3	5,528.4	5,436.5	91.92	60.142	
4,232.3	4,200.5	4,178.5	4,178.5	11.0	81.7	-73.67	1,388.9	-5,003.3	5,528.4	5,435.8	92.63	59.683	
4,300.0	4,268.2	4,246.2	4,246.2	11.1	83.1	-73.67	1,388.9	-5,003.3	5,528.4	5,434.3	94.11	58.743	
4,330.7	4,298.9	4,276.9	4,276.9	11.1	83.7	-73.67	1,388.9	-5,003.3	5,528.4	5,433.7	94.78	58.326	
4,400.0	4,368.2	4,346.2	4,346.2	11.3	85.1	-73.67	1,388.9	-5,003.3	5,528.4	5,432.1	96.30	57.407	
4,429.1	4,397.3	4,375.3	4,375.3	11.3	85.7	-73.67	1,388.9	-5,003.3	5,528.4	5,431.5	96.94	57.028	
4,500.0	4,468.2	4,446.2	4,446.2	11.4	87.1	-73.67	1,388.9	-5,003.3	5,528.4	5,430.0	98.50	56.129	
4,527.5	4,495.8	4,473.8	4,473.8	11.5	87.7	-73.67	1,388.9	-5,003.3	5,528.4	5,429.3	99.10	55.786	
4,600.0	4,568.2	4,546.2	4,546.2	11.6	89.1	-73.67	1,388.9	-5,003.3	5,528.4	5,427.8	100.69	54.906	
4,626.0	4,594.2	4,572.2	4,572.2	11.7	89.7	-73.67	1,388.9	-5,003.3	5,528.4	5,427.2	101.26	54.596	
4,700.0	4,668.2	4,646.2	4,646.2	11.8	91.1	-73.67	1,388.9	-5,003.3	5,528.4	5,425.6	102.89	53.734	
4,724.4	4,692.6	4,670.6	4,670.6	11.9	91.6	-73.67	1,388.9	-5,003.3	5,528.4	5,425.0	103.42	53.455	
4,800.0	4,768.2	4,746.2	4,746.2	12.0	93.2	-73.67	1,388.9	-5,003.3	5,528.4	5,423.4	105.08	52.611	
4,822.8	4,791.0	4,769.0	4,769.0	12.0	93.6	-73.67	1,388.9	-5,003.3	5,528.4	5,422.9	105.58	52.361	
4,900.0	4,868.2	4,846.2	4,846.2	12.2	95.2	-73.67	1,388.9	-5,003.3	5,528.4	5,421.2	107.28	51.532	
4,921.2	4,889.5	4,867.5	4,867.5	12.2	95.6	-73.67	1,388.9	-5,003.3	5,528.4	5,420.7	107.75	51.309	
5,000.0	4,968.2	4,946.2	4,946.2	12.4	97.2	-73.67	1,388.9	-5,003.3	5,528.4	5,419.0	109.48	50.497	
5,019.7	4,987.9	4,965.9	4,965.9	12.4	97.6	-73.67	1,388.9	-5,003.3	5,528.4	5,418.5	109.91	50.298	

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

Anticollision Report



Company:	PDC ENERGY	Local Co-ordinate Reference:	Well WACKER 10G-214
Project:	WELD COUNTY, COLORADO	TVD Reference:	KB-EST @ 4624.0usft (Original Well Elev)
Reference Site:	SW NW SEC. 10 T5N R64W 6th P.M.	MD Reference:	KB-EST @ 4624.0usft (Original Well Elev)
Site Error:	0.0 usft	North Reference:	True
Reference Well:	WACKER 10G-214	Survey Calculation Method:	Minimum Curvature
Well Error:	0.0 usft	Output errors are at	2.00 sigma
Reference Wellbore	ORIGINAL WELLBORE	Database:	EDM 5000.1 Single User Db
Reference Design:	PROPOSAL #1	Offset TVD Reference:	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	5,068.2	5,046.2	5,046.2	12.6	99.2	-73.67	1,388.9	-5,003.3	5,528.4	5,416.8	111.68	49.502	
5,118.1	5,086.3	5,064.3	5,064.3	12.6	99.6	-73.67	1,388.9	-5,003.3	5,528.4	5,416.4	112.08	49.326	
5,200.0	5,168.2	5,146.2	5,146.2	12.7	101.2	-73.67	1,388.9	-5,003.3	5,528.4	5,414.6	113.88	48.545	
5,216.5	5,184.7	5,162.7	5,162.7	12.8	101.5	-73.67	1,388.9	-5,003.3	5,528.4	5,414.2	114.25	48.390	
5,300.0	5,268.2	5,246.2	5,246.2	12.9	103.2	-73.67	1,388.9	-5,003.3	5,528.4	5,412.4	116.09	47.624	
5,314.9	5,283.2	5,261.2	5,261.2	13.0	103.5	-73.67	1,388.9	-5,003.3	5,528.4	5,412.0	116.42	47.489	
5,400.0	5,368.2	5,346.2	5,346.2	13.1	105.2	-73.67	1,388.9	-5,003.3	5,528.4	5,410.2	118.29	46.736	
5,413.4	5,381.6	5,359.6	5,359.6	13.2	105.5	-73.67	1,388.9	-5,003.3	5,528.4	5,409.9	118.58	46.620	
5,500.0	5,468.2	5,446.2	5,446.2	13.3	107.2	-73.67	1,388.9	-5,003.3	5,528.4	5,408.0	120.49	45.881	
5,511.8	5,480.0	5,458.0	5,458.0	13.3	107.5	-73.67	1,388.9	-5,003.3	5,528.4	5,407.7	120.76	45.782	
5,600.0	5,568.2	5,546.2	5,546.2	13.5	109.2	-73.67	1,388.9	-5,003.3	5,528.4	5,405.7	122.70	45.056	
5,610.2	5,578.4	5,556.4	5,556.4	13.5	109.5	-73.67	1,388.9	-5,003.3	5,528.4	5,405.5	122.93	44.974	
5,700.0	5,668.2	5,646.2	5,646.2	13.7	111.3	-73.67	1,388.9	-5,003.3	5,528.4	5,403.5	124.91	44.260	
5,708.6	5,676.9	5,654.9	5,654.9	13.7	111.4	-73.67	1,388.9	-5,003.3	5,528.4	5,403.3	125.10	44.193	
5,800.0	5,768.2	5,746.2	5,746.2	13.9	113.3	-73.67	1,388.9	-5,003.3	5,528.4	5,401.3	127.12	43.492	
5,807.1	5,775.3	5,753.3	5,753.3	13.9	113.4	-73.67	1,388.9	-5,003.3	5,528.4	5,401.2	127.27	43.438	
5,900.0	5,868.2	5,846.2	5,846.2	14.1	115.3	-73.67	1,388.9	-5,003.3	5,528.4	5,399.1	129.32	42.749	
5,905.5	5,873.7	5,851.7	5,851.7	14.1	115.4	-73.67	1,388.9	-5,003.3	5,528.4	5,399.0	129.45	42.709	
5,960.7	5,928.9	5,906.9	5,906.9	14.2	116.5	-73.67	1,388.9	-5,003.3	5,528.4	5,397.8	130.66	42.310	
6,000.0	5,968.2	5,946.2	5,946.2	14.3	117.3	16.35	1,388.9	-5,003.3	5,527.4	5,397.4	130.00	42.520	
6,003.9	5,972.1	5,950.1	5,950.1	14.3	117.4	16.36	1,388.9	-5,003.3	5,527.2	5,397.2	130.04	42.503	
6,050.0	6,018.0	5,996.0	5,996.0	14.4	118.3	16.46	1,388.9	-5,003.3	5,523.1	5,392.8	130.31	42.386	
6,100.0	6,067.3	6,045.3	6,045.3	14.4	119.3	16.66	1,388.9	-5,003.3	5,515.5	5,385.5	130.02	42.420	
6,102.3	6,069.6	6,047.6	6,047.6	14.4	119.3	16.67	1,388.9	-5,003.3	5,515.0	5,385.1	129.99	42.426	
6,150.0	6,116.0	6,094.0	6,094.0	14.4	120.3	16.95	1,388.9	-5,003.3	5,504.6	5,375.4	129.14	42.624	
6,200.0	6,163.8	6,141.8	6,141.8	14.5	121.2	17.35	1,388.9	-5,003.3	5,490.4	5,362.8	127.68	43.002	
6,200.8	6,164.5	6,142.5	6,142.5	14.5	121.2	17.35	1,388.9	-5,003.3	5,490.2	5,362.5	127.65	43.009	
6,250.0	6,210.4	6,188.4	6,188.4	14.5	122.2	17.85	1,388.9	-5,003.3	5,473.1	5,347.5	125.65	43.559	
6,299.2	6,254.9	6,232.9	6,232.9	14.5	123.1	18.47	1,388.9	-5,003.3	5,453.1	5,330.0	123.14	44.285	
6,300.0	6,255.6	6,233.6	6,233.6	14.5	123.1	18.48	1,388.9	-5,003.3	5,452.8	5,329.7	123.09	44.298	
6,350.0	6,299.3	6,277.3	6,277.3	14.5	123.9	19.24	1,388.9	-5,003.3	5,429.4	5,309.4	120.07	45.221	
6,397.6	6,339.2	6,317.2	6,317.2	14.6	124.8	20.12	1,388.9	-5,003.3	5,404.6	5,287.8	116.82	46.265	
6,400.0	6,341.2	6,319.2	6,319.2	14.6	124.8	20.17	1,388.9	-5,003.3	5,403.3	5,286.6	116.65	46.321	
6,450.0	6,381.0	6,359.0	6,359.0	14.6	125.6	21.28	1,388.9	-5,003.3	5,374.4	5,261.4	112.96	47.579	
6,496.0	6,415.8	6,393.8	6,393.8	14.7	126.3	22.51	1,388.9	-5,003.3	5,345.5	5,236.0	109.46	48.836	
6,500.0	6,418.7	6,396.7	6,396.7	14.7	126.3	22.62	1,388.9	-5,003.3	5,342.9	5,233.7	109.16	48.946	
6,550.0	6,453.9	6,431.9	6,431.9	14.8	127.1	24.23	1,388.9	-5,003.3	5,309.0	5,203.5	105.48	50.331	
6,594.5	6,483.1	6,461.1	6,461.1	15.0	127.6	25.95	1,388.9	-5,003.3	5,276.9	5,174.4	102.57	51.449	
6,600.0	6,486.6	6,464.6	6,464.6	15.1	127.7	26.18	1,388.9	-5,003.3	5,272.8	5,170.6	102.24	51.572	
6,650.0	6,516.6	6,494.6	6,494.6	15.3	128.3	28.55	1,388.9	-5,003.3	5,234.6	5,134.8	99.86	52.419	
6,692.9	6,540.0	6,518.0	6,518.0	15.7	128.8	31.00	1,388.9	-5,003.3	5,200.3	5,101.4	98.91	52.576	
6,700.0	6,543.7	6,521.7	6,521.7	15.7	128.9	31.44	1,388.9	-5,003.3	5,194.5	5,095.7	98.88	52.536	
6,750.0	6,567.8	6,545.8	6,545.8	16.2	129.3	35.01	1,388.9	-5,003.3	5,152.8	5,052.9	99.90	51.580	
6,791.3	6,585.4	6,563.4	6,563.4	16.7	129.7	38.59	1,388.9	-5,003.3	5,117.1	5,014.4	102.69	49.831	
6,800.0	6,588.8	6,566.8	6,566.8	16.8	129.8	39.43	1,388.9	-5,003.3	5,109.5	5,006.0	103.52	49.357	
6,850.0	6,606.6	6,584.6	6,584.6	17.4	130.1	44.94	1,388.9	-5,003.3	5,065.0	4,954.9	110.12	45.994	
6,889.7	6,618.4	6,596.4	6,596.4	18.0	130.4	50.27	1,388.9	-5,003.3	5,028.9	4,911.5	117.45	42.819	
6,900.0	6,621.1	6,599.1	6,599.1	18.2	130.4	51.80	1,388.9	-5,003.3	5,019.5	4,899.9	119.58	41.976	
6,950.0	6,632.2	6,610.2	6,610.2	19.0	130.6	60.23	1,388.9	-5,003.3	4,973.2	4,842.3	130.93	37.984	
6,988.2	6,638.4	6,616.4	6,616.4	19.7	130.8	67.77	1,388.9	-5,003.3	4,937.4	4,797.8	139.61	35.365	
7,000.0	6,639.9	6,617.9	6,617.9	19.9	130.8	70.28	1,388.9	-5,003.3	4,926.3	4,784.2	142.08	34.674	
7,050.0	6,644.1	6,622.1	6,622.1	20.8	130.9	81.60	1,388.9	-5,003.3	4,879.1	4,729.0	150.08	32.511	

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

Anticollision Report



Company:	PDC ENERGY	Local Co-ordinate Reference:	Well WACKER 10G-214
Project:	WELD COUNTY, COLORADO	TVD Reference:	KB-EST @ 4624.0usft (Original Well Elev)
Reference Site:	SW NW SEC. 10 T5N R64W 6th P.M.	MD Reference:	KB-EST @ 4624.0usft (Original Well Elev)
Site Error:	0.0 usft	North Reference:	True
Reference Well:	WACKER 10G-214	Survey Calculation Method:	Minimum Curvature
Well Error:	0.0 usft	Output errors are at	2.00 sigma
Reference Wellbore	ORIGINAL WELLBORE	Database:	EDM 5000.1 Single User Db
Reference Design:	PROPOSAL #1	Offset TVD Reference:	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	
7,086.5	6,645.0	6,623.0	6,623.0	21.5	130.9	90.24	1,388.9	-5,003.3	4,844.5	4,692.0	152.43	31.781	
7,100.0	6,645.0	6,623.0	6,623.0	21.8	130.9	90.24	1,388.9	-5,003.3	4,831.7	4,679.0	152.70	31.642	
7,185.0	6,644.9	6,622.9	6,622.9	23.6	130.9	90.23	1,388.9	-5,003.3	4,751.3	4,596.8	154.46	30.762	
7,200.0	6,644.8	6,622.8	6,622.8	23.9	130.9	90.23	1,388.9	-5,003.3	4,737.1	4,582.4	154.76	30.609	
7,283.4	6,644.7	6,622.7	6,622.7	25.7	130.9	90.23	1,388.9	-5,003.3	4,658.4	4,501.8	156.61	29.746	
7,300.0	6,644.7	6,622.7	6,622.7	26.1	130.9	90.22	1,388.9	-5,003.3	4,642.8	4,485.8	156.97	29.578	
7,381.9	6,644.6	6,622.6	6,622.6	28.0	130.9	90.22	1,388.9	-5,003.3	4,565.7	4,406.9	158.86	28.740	
7,400.0	6,644.6	6,622.6	6,622.6	28.4	130.9	90.22	1,388.9	-5,003.3	4,548.7	4,389.4	159.28	28.557	
7,480.3	6,644.5	6,622.5	6,622.5	30.3	130.9	90.21	1,388.9	-5,003.3	4,473.3	4,312.1	161.21	27.749	
7,500.0	6,644.4	6,622.4	6,622.4	30.8	130.9	90.21	1,388.9	-5,003.3	4,454.8	4,293.1	161.68	27.554	
7,578.7	6,644.3	6,622.3	6,622.3	32.7	130.9	90.21	1,388.9	-5,003.3	4,381.1	4,217.5	163.61	26.777	
7,600.0	6,644.3	6,622.3	6,622.3	33.3	130.9	90.21	1,388.9	-5,003.3	4,361.2	4,197.1	164.14	26.571	
7,677.1	6,644.2	6,622.2	6,622.2	35.2	130.9	90.20	1,388.9	-5,003.3	4,289.2	4,123.2	166.07	25.827	
7,700.0	6,644.1	6,622.1	6,622.1	35.8	130.9	90.20	1,388.9	-5,003.3	4,268.0	4,101.3	166.65	25.611	
7,775.6	6,644.0	6,622.0	6,622.0	37.7	130.9	90.20	1,388.9	-5,003.3	4,197.7	4,029.1	168.58	24.901	
7,800.0	6,644.0	6,622.0	6,622.0	38.3	130.9	90.20	1,388.9	-5,003.3	4,175.0	4,005.8	169.20	24.675	
7,874.0	6,643.9	6,621.9	6,621.9	40.2	130.9	90.19	1,388.9	-5,003.3	4,106.4	3,935.3	171.11	23.998	
7,900.0	6,643.9	6,621.9	6,621.9	40.9	130.9	90.19	1,388.9	-5,003.3	4,082.3	3,910.6	171.79	23.764	
7,972.4	6,643.8	6,621.8	6,621.8	42.8	130.9	90.19	1,388.9	-5,003.3	4,015.5	3,841.8	173.68	23.120	
8,000.0	6,643.7	6,621.7	6,621.7	43.5	130.9	90.19	1,388.9	-5,003.3	3,990.0	3,815.6	174.40	22.879	
8,070.8	6,643.6	6,621.6	6,621.6	45.4	130.9	90.18	1,388.9	-5,003.3	3,924.9	3,748.6	176.27	22.671	
8,100.0	6,643.6	6,621.6	6,621.6	46.2	130.9	90.18	1,388.9	-5,003.3	3,898.1	3,721.1	177.04	22.019	
8,169.3	6,643.5	6,621.5	6,621.5	48.0	130.9	90.18	1,388.9	-5,003.3	3,834.7	3,655.8	178.88	21.438	
8,200.0	6,643.5	6,621.5	6,621.5	48.8	130.9	90.17	1,388.9	-5,003.3	3,806.6	3,626.9	179.69	21.184	
8,267.7	6,643.4	6,621.4	6,621.4	50.6	130.9	90.17	1,388.9	-5,003.3	3,744.9	3,563.4	181.50	20.633	
8,300.0	6,643.3	6,621.3	6,621.3	51.5	130.9	90.17	1,388.9	-5,003.3	3,715.6	3,533.2	182.36	20.375	
8,366.1	6,643.2	6,621.2	6,621.2	53.3	130.9	90.17	1,388.9	-5,003.3	3,655.6	3,471.5	184.14	19.852	
8,400.0	6,643.2	6,621.2	6,621.2	54.2	130.9	90.16	1,388.9	-5,003.3	3,625.0	3,439.9	185.05	19.589	
8,464.5	6,643.1	6,621.1	6,621.1	55.9	130.9	90.16	1,388.9	-5,003.3	3,566.8	3,380.0	186.79	19.095	
8,500.0	6,643.1	6,621.1	6,621.1	56.9	130.9	90.16	1,388.9	-5,003.3	3,534.9	3,347.1	187.75	18.828	
8,563.0	6,643.0	6,621.0	6,621.0	58.6	130.9	90.15	1,388.9	-5,003.3	3,478.4	3,289.0	189.45	18.361	
8,600.0	6,642.9	6,620.9	6,620.9	59.6	130.9	90.15	1,388.9	-5,003.3	3,445.4	3,254.9	190.45	18.090	
8,661.4	6,642.8	6,620.8	6,620.8	61.3	130.9	90.15	1,388.9	-5,003.3	3,390.7	3,198.5	192.12	17.649	
8,700.0	6,642.8	6,620.8	6,620.8	62.3	130.9	90.15	1,388.9	-5,003.3	3,356.4	3,163.2	193.17	17.375	
8,759.8	6,642.7	6,620.7	6,620.7	64.0	130.9	90.14	1,388.9	-5,003.3	3,303.5	3,108.7	194.80	16.958	
8,800.0	6,642.7	6,620.7	6,620.7	65.1	130.9	90.14	1,388.9	-5,003.3	3,268.1	3,072.2	195.90	16.683	
8,858.2	6,642.6	6,620.6	6,620.6	66.6	130.9	90.14	1,388.9	-5,003.3	3,217.0	3,019.5	197.49	16.290	
8,900.0	6,642.5	6,620.5	6,620.5	67.8	130.9	90.14	1,388.9	-5,003.3	3,180.5	2,981.9	198.63	16.012	
8,956.7	6,642.4	6,620.4	6,620.4	69.3	130.8	90.13	1,388.9	-5,003.3	3,131.2	2,931.0	200.18	15.642	
9,000.0	6,642.4	6,620.4	6,620.4	70.5	130.8	90.13	1,388.9	-5,003.3	3,093.6	2,892.3	201.36	15.363	
9,055.1	6,642.3	6,620.3	6,620.3	72.0	130.8	90.13	1,388.9	-5,003.3	3,046.1	2,843.2	202.88	15.015	
9,100.0	6,642.3	6,620.3	6,620.3	73.3	130.8	90.13	1,388.9	-5,003.3	3,007.6	2,803.5	204.11	14.735	
9,153.5	6,642.2	6,620.2	6,620.2	74.7	130.8	90.12	1,388.9	-5,003.3	2,961.9	2,756.3	205.58	14.408	
9,200.0	6,642.1	6,620.1	6,620.1	76.0	130.8	90.12	1,388.9	-5,003.3	2,922.4	2,715.6	206.85	14.128	
9,251.9	6,642.1	6,620.1	6,620.1	77.5	130.8	90.12	1,388.9	-5,003.3	2,878.5	2,670.3	208.28	13.820	
9,300.0	6,642.0	6,620.0	6,620.0	78.8	130.8	90.12	1,388.9	-5,003.3	2,838.2	2,628.6	209.61	13.541	
9,350.4	6,641.9	6,619.9	6,619.9	80.2	130.8	90.11	1,388.9	-5,003.3	2,796.2	2,585.2	210.99	13.253	
9,400.0	6,641.9	6,619.9	6,619.9	81.5	130.8	90.11	1,388.9	-5,003.3	2,755.1	2,542.7	212.36	12.974	
9,448.8	6,641.8	6,619.8	6,619.8	82.9	130.8	90.11	1,388.9	-5,003.3	2,714.9	2,501.2	213.71	12.704	
9,500.0	6,641.7	6,619.7	6,619.7	84.3	130.8	90.11	1,388.9	-5,003.3	2,673.1	2,458.0	215.12	12.426	
9,547.2	6,641.7	6,619.7	6,619.7	85.6	130.8	90.10	1,388.9	-5,003.3	2,634.8	2,418.4	216.43	12.174	
9,600.0	6,641.6	6,619.6	6,619.6	87.1	130.8	90.10	1,388.9	-5,003.3	2,592.4	2,374.5	217.88	11.898	

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

Anticollision Report



Company:	PDC ENERGY	Local Co-ordinate Reference:	Well WACKER 10G-214
Project:	WELD COUNTY, COLORADO	TVD Reference:	KB-EST @ 4624.0usft (Original Well Elev)
Reference Site:	SW NW SEC. 10 T5N R64W 6th P.M.	MD Reference:	KB-EST @ 4624.0usft (Original Well Elev)
Site Error:	0.0 usft	North Reference:	True
Reference Well:	WACKER 10G-214	Survey Calculation Method:	Minimum Curvature
Well Error:	0.0 usft	Output errors are at	2.00 sigma
Reference Wellbore	ORIGINAL WELLBORE	Database:	EDM 5000.1 Single User Db
Reference Design:	PROPOSAL #1	Offset TVD Reference:	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	
9,645.6	6,641.5	6,619.5	6,619.5	88.3	130.8	90.10	1,388.9	-5,003.3	2,556.0	2,336.9	219.15	11.663	
9,700.0	6,641.5	6,619.5	6,619.5	89.8	130.8	90.10	1,388.9	-5,003.3	2,513.1	2,292.4	220.65	11.389	
9,744.1	6,641.4	6,619.4	6,619.4	91.0	130.8	90.09	1,388.9	-5,003.3	2,478.6	2,256.7	221.87	11.171	
9,800.0	6,641.3	6,619.3	6,619.3	92.6	130.8	90.09	1,388.9	-5,003.3	2,435.3	2,211.8	223.42	10.900	
9,842.5	6,641.3	6,619.3	6,619.3	93.8	130.8	90.09	1,388.9	-5,003.3	2,402.7	2,178.1	224.59	10.698	
9,900.0	6,641.2	6,619.2	6,619.2	95.4	130.8	90.09	1,388.9	-5,003.3	2,359.1	2,132.9	226.19	10.430	
9,940.9	6,641.1	6,619.1	6,619.1	96.5	130.8	90.08	1,388.9	-5,003.3	2,328.5	2,101.2	227.32	10.243	
10,000.0	6,641.1	6,619.1	6,619.1	98.1	130.8	90.08	1,388.9	-5,003.3	2,284.8	2,055.9	228.96	9.979	
10,039.3	6,641.0	6,619.0	6,619.0	99.2	130.8	90.08	1,388.9	-5,003.3	2,256.2	2,026.1	230.05	9.807	
10,100.0	6,640.9	6,618.9	6,618.9	100.9	130.8	90.08	1,388.9	-5,003.3	2,212.6	1,980.8	231.73	9.548	
10,137.8	6,640.9	6,618.9	6,618.9	102.0	130.8	90.07	1,388.9	-5,003.3	2,185.9	1,953.1	232.78	9.390	
10,200.0	6,640.8	6,618.8	6,618.8	103.7	130.8	90.07	1,388.9	-5,003.3	2,142.5	1,908.0	234.51	9.136	
10,236.2	6,640.8	6,618.8	6,618.8	104.7	130.8	90.07	1,388.9	-5,003.3	2,117.8	1,882.3	235.52	8.992	
10,300.0	6,640.7	6,618.7	6,618.7	106.5	130.8	90.07	1,388.9	-5,003.3	2,075.0	1,837.7	237.29	8.745	
10,334.6	6,640.6	6,618.6	6,618.6	107.4	130.8	90.06	1,388.9	-5,003.3	2,052.2	1,813.9	238.25	8.614	
10,400.0	6,640.6	6,618.6	6,618.6	109.3	130.8	90.06	1,388.9	-5,003.3	2,010.1	1,770.0	240.07	8.373	
10,433.0	6,640.5	6,618.5	6,618.5	110.2	130.8	90.06	1,388.9	-5,003.3	1,989.3	1,748.3	240.99	8.255	
10,500.0	6,640.4	6,618.4	6,618.4	112.0	130.8	90.06	1,388.9	-5,003.3	1,948.2	1,705.4	242.85	8.022	
10,531.5	6,640.4	6,618.4	6,618.4	112.9	130.8	90.05	1,388.9	-5,003.3	1,929.4	1,685.7	243.72	7.916	
10,600.0	6,640.3	6,618.3	6,618.3	114.8	130.8	90.05	1,388.9	-5,003.3	1,889.6	1,644.0	245.63	7.693	
10,629.9	6,640.3	6,618.3	6,618.3	115.7	130.8	90.05	1,388.9	-5,003.3	1,872.7	1,626.3	246.46	7.598	
10,700.0	6,640.2	6,618.2	6,618.2	117.6	130.8	90.05	1,388.9	-5,003.3	1,834.5	1,586.1	248.41	7.385	
10,728.3	6,640.1	6,618.1	6,618.1	118.4	130.8	90.04	1,388.9	-5,003.3	1,819.6	1,570.4	249.20	7.302	
10,800.0	6,640.0	6,618.0	6,618.0	120.4	130.8	90.04	1,388.9	-5,003.3	1,783.4	1,532.2	251.20	7.100	
10,826.7	6,640.0	6,618.0	6,618.0	121.2	130.8	90.04	1,388.9	-5,003.3	1,770.4	1,518.5	251.94	7.027	
10,900.0	6,639.9	6,617.9	6,617.9	123.2	130.8	90.04	1,388.9	-5,003.3	1,736.5	1,482.5	253.98	6.837	
10,925.2	6,639.9	6,617.9	6,617.9	123.9	130.8	90.04	1,388.9	-5,003.3	1,725.4	1,470.8	254.69	6.775	
11,000.0	6,639.8	6,617.8	6,617.8	126.0	130.8	90.03	1,388.9	-5,003.3	1,694.3	1,437.5	256.77	6.598	
11,023.6	6,639.8	6,617.8	6,617.8	126.6	130.8	90.03	1,388.9	-5,003.3	1,685.0	1,427.6	257.43	6.545	
11,100.0	6,639.7	6,617.7	6,617.7	128.8	130.8	90.03	1,388.9	-5,003.3	1,657.0	1,397.4	259.56	6.384	
11,122.0	6,639.6	6,617.6	6,617.6	129.4	130.8	90.03	1,388.9	-5,003.3	1,649.4	1,389.3	260.17	6.340	
11,200.0	6,639.5	6,617.5	6,617.5	131.6	130.8	90.02	1,388.9	-5,003.3	1,625.0	1,362.6	262.35	6.194	
11,220.4	6,639.5	6,617.5	6,617.5	132.1	130.8	90.02	1,388.9	-5,003.3	1,619.1	1,356.2	262.92	6.158	
11,300.0	6,639.4	6,617.4	6,617.4	134.4	130.8	90.02	1,388.9	-5,003.3	1,598.6	1,333.5	265.14	6.029	
11,318.9	6,639.4	6,617.4	6,617.4	134.9	130.8	90.02	1,388.9	-5,003.3	1,594.3	1,328.6	265.66	6.001	
11,400.0	6,639.3	6,617.3	6,617.3	137.1	130.8	90.01	1,388.9	-5,003.3	1,578.1	1,310.2	267.93	5.890	
11,417.3	6,639.3	6,617.3	6,617.3	137.6	130.8	90.01	1,388.9	-5,003.3	1,575.2	1,306.8	268.41	5.869	
11,500.0	6,639.2	6,617.2	6,617.2	139.9	130.8	90.01	1,388.9	-5,003.3	1,563.8	1,293.1	270.72	5.777	
11,515.7	6,639.1	6,617.1	6,617.1	140.4	130.8	90.01	1,388.9	-5,003.3	1,562.1	1,291.0	271.16	5.761	
11,600.0	6,639.0	6,617.0	6,617.0	142.7	130.8	90.00	1,388.9	-5,003.3	1,555.8	1,282.3	273.51	5.688	
11,614.1	6,639.0	6,617.0	6,617.0	143.1	130.8	90.00	1,388.9	-5,003.3	1,555.2	1,281.3	273.90	5.678	
11,675.0	6,638.9	6,616.9	6,616.9	144.8	130.8	90.00	1,388.9	-5,003.3	1,554.0	1,278.4	275.60	5.639 CC	
11,700.0	6,638.9	6,616.9	6,616.9	145.5	130.8	90.00	1,388.9	-5,003.3	1,554.2	1,277.9	276.30	5.625	
11,712.6	6,638.9	6,616.9	6,616.9	145.9	130.8	90.00	1,388.9	-5,003.3	1,554.5	1,277.8	276.65	5.619 ES	
11,800.0	6,638.8	6,616.8	6,616.8	148.3	130.8	89.99	1,388.9	-5,003.3	1,559.0	1,279.9	279.10	5.586	
11,811.0	6,638.8	6,616.8	6,616.8	148.6	130.8	89.99	1,388.9	-5,003.3	1,559.9	1,280.5	279.40	5.583	
11,900.0	6,638.7	6,616.7	6,616.7	151.1	130.8	89.99	1,388.9	-5,003.3	1,570.2	1,288.3	281.89	5.570	
11,909.4	6,638.6	6,616.6	6,616.6	151.4	130.8	89.99	1,388.9	-5,003.3	1,571.6	1,289.4	282.15	5.570 SF	
12,000.0	6,638.5	6,616.5	6,616.5	153.9	130.8	89.99	1,388.9	-5,003.3	1,587.6	1,302.9	284.68	5.577	
12,007.8	6,638.5	6,616.5	6,616.5	154.1	130.8	89.98	1,388.9	-5,003.3	1,589.2	1,304.3	284.90	5.578	
12,100.0	6,638.4	6,616.4	6,616.4	156.7	130.8	89.98	1,388.9	-5,003.3	1,611.1	1,323.6	287.48	5.604	
12,106.3	6,638.4	6,616.4	6,616.4	156.9	130.8	89.98	1,388.9	-5,003.3	1,612.7	1,325.1	287.65	5.607	

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

Anticollision Report



Company:	PDC ENERGY	Local Co-ordinate Reference:	Well WACKER 10G-214
Project:	WELD COUNTY, COLORADO	TVD Reference:	KB-EST @ 4624.0usft (Original Well Elev)
Reference Site:	SW NW SEC. 10 T5N R64W 6th P.M.	MD Reference:	KB-EST @ 4624.0usft (Original Well Elev)
Site Error:	0.0 usft	North Reference:	True
Reference Well:	WACKER 10G-214	Survey Calculation Method:	Minimum Curvature
Well Error:	0.0 usft	Output errors are at	2.00 sigma
Reference Wellbore	ORIGINAL WELLBORE	Database:	EDM 5000.1 Single User Db
Reference Design:	PROPOSAL #1	Offset TVD Reference:	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	
12,200.0	6,638.3	6,616.3	6,616.3	159.5	130.8	89.98	1,388.9	-5,003.3	1,640.3	1,350.0	290.27	5.651	
12,204.7	6,638.3	6,616.3	6,616.3	159.6	130.8	89.98	1,388.9	-5,003.3	1,641.8	1,351.4	290.40	5.653	
12,300.0	6,638.2	6,616.2	6,616.2	162.3	130.8	89.97	1,388.9	-5,003.3	1,675.0	1,381.9	293.07	5.715	
12,303.1	6,638.2	6,616.2	6,616.2	162.4	130.8	89.97	1,388.9	-5,003.3	1,676.1	1,383.0	293.16	5.718	
12,400.0	6,638.0	6,616.0	6,616.0	165.1	130.8	89.97	1,388.9	-5,003.3	1,714.8	1,418.9	295.86	5.796	
12,401.5	6,638.0	6,616.0	6,616.0	165.2	130.8	89.97	1,388.9	-5,003.3	1,715.5	1,419.5	295.91	5.797	
12,500.0	6,637.9	6,615.9	6,615.9	167.9	130.8	89.96	1,388.9	-5,003.3	1,759.4	1,460.8	298.66	5.891	
12,598.4	6,637.8	6,615.8	6,615.8	170.7	130.8	89.96	1,388.9	-5,003.3	1,807.6	1,506.2	301.41	5.997	
12,600.0	6,637.8	6,615.8	6,615.8	170.7	130.8	89.96	1,388.9	-5,003.3	1,808.5	1,507.0	301.46	5.999	
12,696.8	6,637.7	6,615.7	6,615.7	173.4	130.8	89.95	1,388.9	-5,003.3	1,859.8	1,555.7	304.17	6.115	
12,700.0	6,637.7	6,615.7	6,615.7	173.5	130.8	89.95	1,388.9	-5,003.3	1,861.6	1,557.3	304.25	6.119	
12,795.2	6,637.6	6,615.6	6,615.6	176.2	130.8	89.95	1,388.9	-5,003.3	1,915.7	1,608.8	306.92	6.242	
12,800.0	6,637.6	6,615.6	6,615.6	176.3	130.8	89.95	1,388.9	-5,003.3	1,918.5	1,611.4	307.05	6.248	
12,893.7	6,637.4	6,615.4	6,615.4	178.9	130.7	89.95	1,388.9	-5,003.3	1,974.9	1,665.2	309.67	6.377	
12,900.0	6,637.4	6,615.4	6,615.4	179.1	130.7	89.95	1,388.9	-5,003.3	1,978.8	1,668.9	309.85	6.386	
12,992.1	6,637.3	6,615.3	6,615.3	181.7	130.7	89.94	1,388.9	-5,003.3	2,037.1	1,724.6	312.43	6.520	
13,000.0	6,637.3	6,615.3	6,615.3	181.9	130.7	89.94	1,388.9	-5,003.3	2,042.2	1,729.5	312.65	6.532	
13,090.5	6,637.2	6,615.2	6,615.2	184.4	130.7	89.94	1,388.9	-5,003.3	2,102.1	1,786.9	315.18	6.669	
13,100.0	6,637.2	6,615.2	6,615.2	184.7	130.7	89.94	1,388.9	-5,003.3	2,108.4	1,793.0	315.45	6.684	
13,188.9	6,637.1	6,615.1	6,615.1	187.2	130.7	89.93	1,388.9	-5,003.3	2,169.6	1,851.6	317.94	6.824	
13,200.0	6,637.1	6,615.1	6,615.1	187.5	130.7	89.93	1,388.9	-5,003.3	2,177.3	1,859.0	318.25	6.841	
13,287.4	6,637.0	6,615.0	6,615.0	190.0	130.7	89.93	1,388.9	-5,003.3	2,239.3	1,918.7	320.69	6.983	
13,300.0	6,637.0	6,615.0	6,615.0	190.3	130.7	89.93	1,388.9	-5,003.3	2,248.5	1,927.4	321.04	7.004	
13,385.8	6,636.9	6,614.9	6,614.9	192.7	130.7	89.92	1,388.9	-5,003.3	2,311.2	1,987.8	323.45	7.146	
13,400.0	6,636.8	6,614.8	6,614.8	193.1	130.7	89.92	1,388.9	-5,003.3	2,321.8	1,997.9	323.84	7.169	
13,484.2	6,636.7	6,614.7	6,614.7	195.5	130.7	89.92	1,388.9	-5,003.3	2,385.0	2,058.8	326.20	7.311	
13,500.0	6,636.7	6,614.7	6,614.7	195.9	130.7	89.92	1,388.9	-5,003.3	2,397.0	2,070.3	326.64	7.338	
13,582.6	6,636.6	6,614.6	6,614.6	198.2	130.7	89.92	1,388.9	-5,003.3	2,460.5	2,131.5	328.96	7.480	
13,600.0	6,636.6	6,614.6	6,614.6	198.7	130.7	89.92	1,388.9	-5,003.3	2,474.0	2,144.5	329.44	7.510	
13,681.1	6,636.5	6,614.5	6,614.5	201.0	130.7	89.91	1,388.9	-5,003.3	2,537.6	2,205.9	331.71	7.650	
13,700.0	6,636.5	6,614.5	6,614.5	201.5	130.7	89.91	1,388.9	-5,003.3	2,552.6	2,220.3	332.24	7.683	
13,779.5	6,636.4	6,614.4	6,614.4	203.7	130.7	89.91	1,388.9	-5,003.3	2,616.1	2,281.6	334.47	7.822	
13,800.0	6,636.4	6,614.4	6,614.4	204.3	130.7	89.91	1,388.9	-5,003.3	2,632.6	2,297.5	335.04	7.857	
13,877.9	6,636.3	6,614.3	6,614.3	206.5	130.7	89.90	1,388.9	-5,003.3	2,695.9	2,358.7	337.23	7.994	
13,900.0	6,636.3	6,614.3	6,614.3	207.1	130.7	89.90	1,388.9	-5,003.3	2,714.0	2,376.1	337.85	8.033	
13,976.3	6,636.2	6,614.2	6,614.2	209.3	130.7	89.90	1,388.9	-5,003.3	2,776.9	2,436.9	339.98	8.168	
14,000.0	6,636.1	6,614.1	6,614.1	209.9	130.7	89.90	1,388.9	-5,003.3	2,796.5	2,455.9	340.65	8.209	
14,074.8	6,636.0	6,614.0	6,614.0	212.0	130.7	89.90	1,388.9	-5,003.3	2,859.0	2,516.2	342.74	8.342	
14,100.0	6,636.0	6,614.0	6,614.0	212.7	130.7	89.90	1,388.9	-5,003.3	2,880.2	2,536.7	343.45	8.386	
14,173.2	6,635.9	6,613.9	6,613.9	214.8	130.7	89.89	1,388.9	-5,003.3	2,942.1	2,596.6	345.50	8.516	
14,200.0	6,635.9	6,613.9	6,613.9	215.5	130.7	89.89	1,388.9	-5,003.3	2,964.9	2,618.6	346.25	8.563	
14,271.6	6,635.8	6,613.8	6,613.8	217.5	130.7	89.89	1,388.9	-5,003.3	3,026.1	2,677.9	348.26	8.689	
14,300.0	6,635.8	6,613.8	6,613.8	218.3	130.7	89.89	1,388.9	-5,003.3	3,050.5	2,701.4	349.05	8.739	
14,370.0	6,635.7	6,613.7	6,613.7	220.3	130.7	89.88	1,388.9	-5,003.3	3,111.0	2,760.0	351.01	8.863	
14,400.0	6,635.7	6,613.7	6,613.7	221.1	130.7	89.88	1,388.9	-5,003.3	3,137.0	2,785.1	351.85	8.916	
14,468.5	6,635.6	6,613.6	6,613.6	223.1	130.7	89.88	1,388.9	-5,003.3	3,196.6	2,842.9	353.77	9.036	
14,500.0	6,635.6	6,613.6	6,613.6	223.9	130.7	89.88	1,388.9	-5,003.3	3,224.2	2,869.6	354.65	9.091	
14,566.9	6,635.5	6,613.5	6,613.5	225.8	130.7	89.88	1,388.9	-5,003.3	3,283.0	2,926.5	356.53	9.208	
14,600.0	6,635.4	6,613.4	6,613.4	226.8	130.7	89.88	1,388.9	-5,003.3	3,312.2	2,954.7	357.46	9.266	
14,665.3	6,635.4	6,613.4	6,613.4	228.6	130.7	89.87	1,388.9	-5,003.3	3,370.0	3,010.7	359.29	9.380	
14,700.0	6,635.3	6,613.3	6,613.3	229.6	130.7	89.87	1,388.9	-5,003.3	3,400.8	3,040.6	360.26	9.440	
14,763.7	6,635.2	6,613.2	6,613.2	231.3	130.7	89.87	1,388.9	-5,003.3	3,457.6	3,095.6	362.04	9.550	

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

Anticollision Report



Company:	PDC ENERGY	Local Co-ordinate Reference:	Well WACKER 10G-214
Project:	WELD COUNTY, COLORADO	TVD Reference:	KB-EST @ 4624.0usft (Original Well Elev)
Reference Site:	SW NW SEC. 10 T5N R64W 6th P.M.	MD Reference:	KB-EST @ 4624.0usft (Original Well Elev)
Site Error:	0.0 usft	North Reference:	True
Reference Well:	WACKER 10G-214	Survey Calculation Method:	Minimum Curvature
Well Error:	0.0 usft	Output errors are at	2.00 sigma
Reference Wellbore	ORIGINAL WELLBORE	Database:	EDM 5000.1 Single User Db
Reference Design:	PROPOSAL #1	Offset TVD Reference:	Offset Datum

Offset Design SW NW SEC. 10 T5N R64W 6th P.M. - EXIST VERT BLOSKAS #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									
Measured Depth (usft)	Vertical Depth (usft)	Measured Depth (usft)	Vertical Depth (usft)	Reference (usft)	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
14,800.0	6,635.2	6,613.2	6,613.2	232.4	130.7	89.87	1,388.9	-5,003.3	3,490.1	3,127.0	363.06	9.613	
14,862.2	6,635.1	6,613.1	6,613.1	234.1	130.7	89.87	1,388.9	-5,003.3	3,545.8	3,181.0	364.80	9.720	
14,900.0	6,635.1	6,613.1	6,613.1	235.2	130.7	89.86	1,388.9	-5,003.3	3,579.9	3,214.0	365.86	9.785	
14,960.6	6,635.0	6,613.0	6,613.0	236.9	130.7	89.86	1,388.9	-5,003.3	3,634.6	3,267.0	367.56	9.888	
14,982.9	6,635.0	6,613.0	6,613.0	237.5	130.7	89.86	1,388.9	-5,003.3	3,654.7	3,286.5	368.19	9.926	

Anticollision Report



Company:	PDC ENERGY	Local Co-ordinate Reference:	Well WACKER 10G-214
Project:	WELD COUNTY, COLORADO	TVD Reference:	KB-EST @ 4624.0usft (Original Well Elev)
Reference Site:	SW NW SEC. 10 T5N R64W 6th P.M.	MD Reference:	KB-EST @ 4624.0usft (Original Well Elev)
Site Error:	0.0 usft	North Reference:	True
Reference Well:	WACKER 10G-214	Survey Calculation Method:	Minimum Curvature
Well Error:	0.0 usft	Output errors are at	2.00 sigma
Reference Wellbore	ORIGINAL WELLBORE	Database:	EDM 5000.1 Single User Db
Reference Design:	PROPOSAL #1	Offset TVD Reference:	Offset Datum

Offset Design SW NW SEC. 10 T5N R64W 6th P.M. - EXIST VERT BLOSKAS #12-9 - 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									
Measured Depth (usft)	Vertical Depth (usft)	Measured Depth (usft)	Vertical Depth (usft)	Reference (usft)	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	-86.51	303.6	-4,983.5	4,992.9				
98.4	98.4	66.4	66.4	0.1	0.1	-86.51	303.6	-4,983.5	4,992.8	4,992.6	0.17	N/A	
100.0	100.0	68.0	68.0	0.1	0.1	-86.51	303.6	-4,983.5	4,992.8	4,992.6	0.17	N/A	
196.8	196.8	164.8	164.8	0.3	1.8	-86.51	303.6	-4,983.5	4,992.8	4,990.6	2.12	2,355.104	
200.0	200.0	168.0	168.0	0.3	1.9	-86.51	303.6	-4,983.5	4,992.8	4,990.5	2.21	2,259.645	
295.3	295.3	263.3	263.3	0.5	4.0	-86.51	303.6	-4,983.5	4,992.8	4,988.2	4.57	1,093.205	
300.0	300.0	268.0	268.0	0.5	4.1	-86.51	303.6	-4,983.5	4,992.8	4,988.1	4.68	1,067.926	
393.7	393.7	361.7	361.7	0.8	6.0	-86.51	303.6	-4,983.5	4,992.8	4,986.0	6.80	734.247	
400.0	400.0	368.0	368.0	0.8	6.2	-86.51	303.6	-4,983.5	4,992.8	4,985.8	6.94	719.209	
492.1	492.1	460.1	460.1	1.0	8.0	-86.51	303.6	-4,983.5	4,992.8	4,983.7	9.02	553.808	
500.0	500.0	468.0	468.0	1.0	8.2	-86.51	303.6	-4,983.5	4,992.8	4,983.6	9.19	543.146	
590.5	590.5	558.5	558.5	1.2	10.0	-86.51	303.6	-4,983.5	4,992.8	4,981.5	11.22	444.804	
600.0	600.0	568.0	568.0	1.2	10.2	-86.51	303.6	-4,983.5	4,992.8	4,981.3	11.44	436.561	
689.0	689.0	657.0	657.0	1.4	12.0	-86.51	303.6	-4,983.5	4,992.8	4,979.3	13.43	371.736	
700.0	700.0	668.0	668.0	1.4	12.2	-86.51	303.6	-4,983.5	4,992.8	4,979.1	13.68	365.022	
787.4	787.4	755.4	755.4	1.6	14.0	-86.51	303.6	-4,983.5	4,992.8	4,977.1	15.64	319.321	
800.0	800.0	768.0	768.0	1.7	14.2	-86.51	303.6	-4,983.5	4,992.8	4,976.8	15.92	313.661	
885.8	885.8	853.8	853.8	1.9	16.0	-86.51	303.6	-4,983.5	4,992.8	4,974.9	17.84	279.877	
900.0	900.0	868.0	868.0	1.9	16.3	-86.51	303.6	-4,983.5	4,992.8	4,974.6	18.16	274.986	
984.2	984.2	952.2	952.2	2.1	18.0	-86.51	303.6	-4,983.5	4,992.8	4,972.7	20.04	249.114	
1,000.0	1,000.0	968.0	968.0	2.1	18.3	-86.51	303.6	-4,983.5	4,992.8	4,972.4	20.39	244.809	
1,082.7	1,082.7	1,050.7	1,050.7	2.3	19.9	-86.51	303.6	-4,983.5	4,992.8	4,970.5	22.24	224.450	
1,100.0	1,100.0	1,068.0	1,068.0	2.3	20.3	-86.51	303.6	-4,983.5	4,992.8	4,970.1	22.63	220.605	
1,181.1	1,181.1	1,149.1	1,149.1	2.5	21.9	-86.51	303.6	-4,983.5	4,992.8	4,968.3	24.45	204.232	
1,200.0	1,200.0	1,168.0	1,168.0	2.6	22.3	-86.51	303.6	-4,983.5	4,992.8	4,967.9	24.87	200.760	
1,279.5	1,279.5	1,247.5	1,247.5	2.7	23.9	-86.51	303.6	-4,983.5	4,992.8	4,966.1	26.65	187.357	
1,300.0	1,300.0	1,268.0	1,268.0	2.8	24.3	-86.51	303.6	-4,983.5	4,992.8	4,965.7	27.11	184.192	
1,377.9	1,377.9	1,345.9	1,345.9	3.0	25.9	154.83	303.6	-4,983.5	4,993.7	4,964.9	28.82	173.243	
1,400.0	1,400.0	1,368.0	1,368.0	3.0	26.3	154.83	303.6	-4,983.5	4,994.3	4,965.0	29.31	170.412	
1,476.4	1,476.3	1,444.3	1,444.3	3.1	27.9	154.82	303.6	-4,983.5	4,997.7	4,966.7	30.95	161.461	
1,500.0	1,499.8	1,467.8	1,467.8	3.2	28.3	154.82	303.6	-4,983.5	4,999.1	4,967.6	31.46	158.919	
1,574.8	1,574.4	1,542.4	1,542.4	3.3	29.8	154.80	303.6	-4,983.5	5,004.7	4,971.6	33.04	151.468	
1,600.0	1,599.5	1,567.5	1,567.5	3.4	30.3	154.79	303.6	-4,983.5	5,007.0	4,973.4	33.57	149.156	
1,673.2	1,672.2	1,640.2	1,640.2	3.6	31.8	154.77	303.6	-4,983.5	5,014.7	4,979.7	35.09	142.916	
1,700.0	1,698.7	1,666.7	1,666.7	3.6	32.3	154.76	303.6	-4,983.5	5,018.0	4,982.4	35.64	140.810	
1,771.6	1,769.5	1,737.5	1,737.5	3.8	33.8	154.73	303.6	-4,983.5	5,027.8	4,990.8	37.09	135.558	
1,800.0	1,797.5	1,765.5	1,765.5	3.9	34.3	154.71	303.6	-4,983.5	5,032.2	4,994.5	37.66	133.637	
1,870.1	1,866.3	1,834.3	1,834.3	4.1	35.7	154.67	303.6	-4,983.5	5,044.0	5,004.9	39.04	129.199	
1,900.2	1,895.8	1,863.8	1,863.8	4.2	36.3	154.65	303.6	-4,983.5	5,049.5	5,009.9	39.62	127.434	
1,968.5	1,962.6	1,930.6	1,930.6	4.4	37.6	154.72	303.6	-4,983.5	5,062.4	5,021.3	41.11	123.152	
2,000.0	1,993.4	1,961.4	1,961.4	4.5	38.3	154.75	303.6	-4,983.5	5,068.4	5,026.6	41.79	121.281	
2,066.9	2,058.9	2,026.9	2,026.9	4.7	39.6	154.82	303.6	-4,983.5	5,081.0	5,037.8	43.25	117.480	
2,100.0	2,091.2	2,059.2	2,059.2	4.8	40.2	154.85	303.6	-4,983.5	5,087.3	5,043.3	43.97	115.698	
2,165.3	2,155.2	2,123.2	2,123.2	5.1	41.5	154.92	303.6	-4,983.5	5,099.6	5,054.2	45.40	112.332	
2,200.0	2,189.1	2,157.1	2,157.1	5.2	42.2	154.95	303.6	-4,983.5	5,106.2	5,060.0	46.16	110.625	
2,263.8	2,251.4	2,219.4	2,219.4	5.5	43.5	155.01	303.6	-4,983.5	5,118.2	5,070.7	47.56	107.624	
2,300.0	2,286.9	2,254.9	2,254.9	5.6	44.2	155.05	303.6	-4,983.5	5,125.1	5,076.7	48.35	105.996	
2,362.2	2,347.7	2,315.7	2,315.7	5.8	45.4	155.11	303.6	-4,983.5	5,136.9	5,087.2	49.72	103.317	
2,400.0	2,384.7	2,352.7	2,352.7	6.0	46.1	155.15	303.6	-4,983.5	5,144.0	5,093.5	50.55	101.759	
2,460.6	2,444.0	2,412.0	2,412.0	6.2	47.3	155.21	303.6	-4,983.5	5,155.5	5,103.6	51.89	99.360	
2,500.0	2,482.5	2,450.5	2,450.5	6.4	48.1	155.24	303.6	-4,983.5	5,163.0	5,110.2	52.75	97.867	
2,559.0	2,540.3	2,508.3	2,508.3	6.6	49.3	155.30	303.6	-4,983.5	5,174.2	5,120.1	54.06	95.714	

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

Anticollision Report



Company:	PDC ENERGY	Local Co-ordinate Reference:	Well WACKER 10G-214
Project:	WELD COUNTY, COLORADO	TVD Reference:	KB-EST @ 4624.0usft (Original Well Elev)
Reference Site:	SW NW SEC. 10 T5N R64W 6th P.M.	MD Reference:	KB-EST @ 4624.0usft (Original Well Elev)
Site Error:	0.0 usft	North Reference:	True
Reference Well:	WACKER 10G-214	Survey Calculation Method:	Minimum Curvature
Well Error:	0.0 usft	Output errors are at	2.00 sigma
Reference Wellbore	ORIGINAL WELLBORE	Database:	EDM 5000.1 Single User Db
Reference Design:	PROPOSAL #1	Offset TVD Reference:	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	2,580.3	2,548.3	2,548.3	6.8	50.1	155.34	303.6	-4,983.5	5,181.9	5,127.0	54.96	94.281	
2,657.5	2,636.5	2,604.5	2,604.5	7.1	51.2	155.39	303.6	-4,983.5	5,192.9	5,136.6	56.23	92.345	
2,700.0	2,678.1	2,646.1	2,646.1	7.2	52.0	155.43	303.6	-4,983.5	5,200.9	5,143.8	57.17	90.968	
2,755.9	2,732.8	2,700.8	2,700.8	7.5	53.1	155.49	303.6	-4,983.5	5,211.5	5,153.1	58.41	89.223	
2,800.0	2,775.9	2,743.9	2,743.9	7.7	54.0	155.53	303.6	-4,983.5	5,219.9	5,160.5	59.39	87.897	
2,854.3	2,829.1	2,797.1	2,797.1	7.9	55.1	155.58	303.6	-4,983.5	5,230.2	5,169.7	60.59	86.321	
2,900.0	2,873.8	2,841.8	2,841.8	8.1	56.0	155.62	303.6	-4,983.5	5,238.9	5,177.3	61.60	85.044	
2,952.7	2,925.4	2,893.4	2,893.4	8.3	57.0	155.67	303.6	-4,983.5	5,249.0	5,186.2	62.77	83.620	
2,953.5	2,926.1	2,894.1	2,894.1	8.3	57.0	155.67	303.6	-4,983.5	5,249.1	5,186.3	62.79	83.601	
3,000.0	2,971.6	2,939.6	2,939.6	8.5	57.9	155.79	303.6	-4,983.5	5,257.6	5,193.6	63.97	82.190	
3,051.2	3,022.0	2,990.0	2,990.0	8.7	58.9	155.90	303.6	-4,983.5	5,266.2	5,200.9	65.25	80.709	
3,100.0	3,070.1	3,038.1	3,038.1	8.8	59.9	156.00	303.6	-4,983.5	5,273.6	5,207.2	66.46	79.347	
3,149.6	3,119.1	3,087.1	3,087.1	8.9	60.9	156.08	303.6	-4,983.5	5,280.4	5,212.7	67.68	78.016	
3,200.0	3,169.1	3,137.1	3,137.1	9.1	61.9	156.16	303.6	-4,983.5	5,286.5	5,217.6	68.91	76.712	
3,248.0	3,216.8	3,184.8	3,184.8	9.2	62.9	156.23	303.6	-4,983.5	5,291.5	5,221.5	70.07	75.517	
3,300.0	3,268.5	3,236.5	3,236.5	9.3	63.9	156.29	303.6	-4,983.5	5,296.2	5,224.9	71.31	74.270	
3,346.4	3,314.8	3,282.8	3,282.8	9.4	64.8	156.33	303.6	-4,983.5	5,299.6	5,227.2	72.40	73.199	
3,400.0	3,368.3	3,336.3	3,336.3	9.6	65.9	156.37	303.6	-4,983.5	5,302.7	5,229.0	73.64	72.007	
3,444.9	3,413.1	3,381.1	3,381.1	9.6	66.8	156.39	303.6	-4,983.5	5,304.6	5,229.9	74.66	71.047	
3,500.0	3,468.2	3,436.2	3,436.2	9.7	67.9	156.41	303.6	-4,983.5	5,306.0	5,230.1	75.90	69.909	
3,543.3	3,511.5	3,479.5	3,479.5	9.8	68.8	156.42	303.6	-4,983.5	5,306.4	5,229.6	76.85	69.048	
3,553.7	3,521.9	3,489.9	3,489.9	9.8	69.0	-84.93	303.6	-4,983.5	5,306.5	5,227.9	78.51	67.590	
3,600.0	3,568.2	3,536.2	3,536.2	9.9	69.9	-84.93	303.6	-4,983.5	5,306.5	5,226.9	79.51	66.735	
3,641.7	3,609.9	3,577.9	3,577.9	10.0	70.8	-84.93	303.6	-4,983.5	5,306.5	5,226.0	80.42	65.980	
3,700.0	3,668.2	3,636.2	3,636.2	10.1	71.9	-84.93	303.6	-4,983.5	5,306.5	5,224.8	81.70	64.954	
3,740.1	3,708.4	3,676.4	3,676.4	10.1	72.8	-84.93	303.6	-4,983.5	5,306.5	5,223.9	82.57	64.264	
3,800.0	3,768.2	3,736.2	3,736.2	10.2	74.0	-84.93	303.6	-4,983.5	5,306.5	5,222.6	83.88	63.263	
3,838.6	3,806.8	3,774.8	3,774.8	10.3	74.7	-84.93	303.6	-4,983.5	5,306.5	5,221.7	84.72	62.634	
3,900.0	3,868.2	3,836.2	3,836.2	10.4	76.0	-84.93	303.6	-4,983.5	5,306.5	5,220.4	86.06	61.657	
3,937.0	3,905.2	3,873.2	3,873.2	10.5	76.7	-84.93	303.6	-4,983.5	5,306.5	5,219.6	86.87	61.082	
4,000.0	3,968.2	3,936.2	3,936.2	10.6	78.0	-84.93	303.6	-4,983.5	5,306.5	5,218.2	88.25	60.129	
4,035.4	4,003.6	3,971.6	3,971.6	10.6	78.7	-84.93	303.6	-4,983.5	5,306.5	5,217.4	89.03	59.605	
4,100.0	4,068.2	4,036.2	4,036.2	10.7	80.0	-84.93	303.6	-4,983.5	5,306.5	5,216.0	90.44	58.673	
4,133.8	4,102.1	4,070.1	4,070.1	10.8	80.7	-84.93	303.6	-4,983.5	5,306.5	5,215.3	91.18	58.196	
4,200.0	4,168.2	4,136.2	4,136.2	10.9	82.0	-84.93	303.6	-4,983.5	5,306.5	5,213.8	92.63	57.285	
4,232.3	4,200.5	4,168.5	4,168.5	11.0	82.6	-84.93	303.6	-4,983.5	5,306.5	5,213.1	93.34	56.851	
4,300.0	4,268.2	4,236.2	4,236.2	11.1	84.0	-84.93	303.6	-4,983.5	5,306.5	5,211.6	94.82	55.961	
4,330.7	4,298.9	4,266.9	4,266.9	11.1	84.6	-84.93	303.6	-4,983.5	5,306.5	5,211.0	95.50	55.566	
4,400.0	4,368.2	4,336.2	4,336.2	11.3	86.0	-84.93	303.6	-4,983.5	5,306.5	5,209.4	97.02	54.695	
4,429.1	4,397.3	4,365.3	4,365.3	11.3	86.6	-84.93	303.6	-4,983.5	5,306.5	5,208.8	97.66	54.337	
4,500.0	4,468.2	4,436.2	4,436.2	11.4	88.0	-84.93	303.6	-4,983.5	5,306.5	5,207.2	99.21	53.485	
4,527.5	4,495.8	4,463.8	4,463.8	11.5	88.6	-84.93	303.6	-4,983.5	5,306.5	5,206.6	99.82	53.160	
4,600.0	4,568.2	4,536.2	4,536.2	11.6	90.0	-84.93	303.6	-4,983.5	5,306.5	5,205.0	101.41	52.326	
4,626.0	4,594.2	4,562.2	4,562.2	11.7	90.6	-84.93	303.6	-4,983.5	5,306.5	5,204.5	101.98	52.033	
4,700.0	4,668.2	4,636.2	4,636.2	11.8	92.1	-84.93	303.6	-4,983.5	5,306.5	5,202.8	103.61	51.216	
4,724.4	4,692.6	4,660.6	4,660.6	11.9	92.5	-84.93	303.6	-4,983.5	5,306.5	5,202.3	104.15	50.952	
4,800.0	4,768.2	4,736.2	4,736.2	12.0	94.1	-84.93	303.6	-4,983.5	5,306.5	5,200.6	105.81	50.151	
4,822.8	4,791.0	4,759.0	4,759.0	12.0	94.5	-84.93	303.6	-4,983.5	5,306.5	5,200.1	106.31	49.914	
4,900.0	4,868.2	4,836.2	4,836.2	12.2	96.1	-84.93	303.6	-4,983.5	5,306.5	5,198.4	108.01	49.129	
4,921.2	4,889.5	4,857.5	4,857.5	12.2	96.5	-84.93	303.6	-4,983.5	5,306.5	5,198.0	108.48	48.917	
5,000.0	4,968.2	4,936.2	4,936.2	12.4	98.1	-84.93	303.6	-4,983.5	5,306.5	5,196.2	110.21	48.147	
5,019.7	4,987.9	4,955.9	4,955.9	12.4	98.5	-84.93	303.6	-4,983.5	5,306.5	5,195.8	110.65	47.959	

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

Anticollision Report



Company:	PDC ENERGY	Local Co-ordinate Reference:	Well WACKER 10G-214
Project:	WELD COUNTY, COLORADO	TVD Reference:	KB-EST @ 4624.0usft (Original Well Elev)
Reference Site:	SW NW SEC. 10 T5N R64W 6th P.M.	MD Reference:	KB-EST @ 4624.0usft (Original Well Elev)
Site Error:	0.0 usft	North Reference:	True
Reference Well:	WACKER 10G-214	Survey Calculation Method:	Minimum Curvature
Well Error:	0.0 usft	Output errors are at	2.00 sigma
Reference Wellbore	ORIGINAL WELLBORE	Database:	EDM 5000.1 Single User Db
Reference Design:	PROPOSAL #1	Offset TVD Reference:	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	5,068.2	5,036.2	5,036.2	12.6	100.1	-84.93	303.6	-4,983.5	5,306.5	5,194.0	112.42	47.204	
5,118.1	5,086.3	5,054.3	5,054.3	12.6	100.5	-84.93	303.6	-4,983.5	5,306.5	5,193.6	112.82	47.037	
5,200.0	5,168.2	5,136.2	5,136.2	12.7	102.1	-84.93	303.6	-4,983.5	5,306.5	5,191.8	114.62	46.296	
5,216.5	5,184.7	5,152.7	5,152.7	12.8	102.4	-84.93	303.6	-4,983.5	5,306.5	5,191.5	114.99	46.149	
5,300.0	5,268.2	5,236.2	5,236.2	12.9	104.1	-84.93	303.6	-4,983.5	5,306.5	5,189.6	116.83	45.422	
5,314.9	5,283.2	5,251.2	5,251.2	13.0	104.4	-84.93	303.6	-4,983.5	5,306.5	5,189.3	117.16	45.294	
5,400.0	5,368.2	5,336.2	5,336.2	13.1	106.1	-84.93	303.6	-4,983.5	5,306.5	5,187.4	119.03	44.580	
5,413.4	5,381.6	5,349.6	5,349.6	13.2	106.4	-84.93	303.6	-4,983.5	5,306.5	5,187.1	119.33	44.470	
5,500.0	5,468.2	5,436.2	5,436.2	13.3	108.1	-84.93	303.6	-4,983.5	5,306.5	5,185.2	121.24	43.768	
5,511.8	5,480.0	5,448.0	5,448.0	13.3	108.4	-84.93	303.6	-4,983.5	5,306.5	5,185.0	121.50	43.674	
5,600.0	5,568.2	5,536.2	5,536.2	13.5	110.2	-84.93	303.6	-4,983.5	5,306.5	5,183.0	123.45	42.985	
5,610.2	5,578.4	5,546.4	5,546.4	13.5	110.4	-84.93	303.6	-4,983.5	5,306.5	5,182.8	123.67	42.907	
5,700.0	5,668.2	5,636.2	5,636.2	13.7	112.2	-84.93	303.6	-4,983.5	5,306.5	5,180.8	125.66	42.230	
5,708.6	5,676.9	5,644.9	5,644.9	13.7	112.3	-84.93	303.6	-4,983.5	5,306.5	5,180.6	125.85	42.165	
5,800.0	5,768.2	5,736.2	5,736.2	13.9	114.2	-84.93	303.6	-4,983.5	5,306.5	5,178.6	127.87	41.500	
5,807.1	5,775.3	5,743.3	5,743.3	13.9	114.3	-84.93	303.6	-4,983.5	5,306.5	5,178.4	128.02	41.449	
5,900.0	5,868.2	5,836.2	5,836.2	14.1	116.2	-84.93	303.6	-4,983.5	5,306.5	5,176.4	130.08	40.794	
5,905.5	5,873.7	5,841.7	5,841.7	14.1	116.3	-84.93	303.6	-4,983.5	5,306.5	5,176.3	130.20	40.756	
5,960.7	5,928.9	5,896.9	5,896.9	14.2	117.4	-84.93	303.6	-4,983.5	5,306.5	5,175.0	131.42	40.378	
6,000.0	5,968.2	5,936.2	5,936.2	14.3	118.2	5.08	303.6	-4,983.5	5,305.4	5,174.3	131.05	40.483	
6,003.9	5,972.1	5,940.1	5,940.1	14.3	118.3	5.08	303.6	-4,983.5	5,305.2	5,174.1	131.10	40.468	
6,050.0	6,018.0	5,986.0	5,986.0	14.4	119.2	5.11	303.6	-4,983.5	5,300.9	5,169.6	131.30	40.373	
6,100.0	6,067.3	6,035.3	6,035.3	14.4	120.2	5.18	303.6	-4,983.5	5,293.0	5,162.1	130.89	40.438	
6,102.3	6,069.6	6,037.6	6,037.6	14.4	120.2	5.18	303.6	-4,983.5	5,292.5	5,161.7	130.86	40.445	
6,150.0	6,116.0	6,084.0	6,084.0	14.4	121.2	5.27	303.6	-4,983.5	5,281.7	5,151.9	129.83	40.683	
6,200.0	6,163.8	6,131.8	6,131.8	14.5	122.1	5.40	303.6	-4,983.5	5,267.0	5,138.9	128.09	41.118	
6,200.8	6,164.5	6,132.5	6,132.5	14.5	122.1	5.41	303.6	-4,983.5	5,266.7	5,138.7	128.06	41.126	
6,250.0	6,210.4	6,178.4	6,178.4	14.5	123.1	5.57	303.6	-4,983.5	5,249.0	5,123.3	125.70	41.759	
6,299.2	6,254.9	6,222.9	6,222.9	14.5	124.0	5.77	303.6	-4,983.5	5,228.2	5,105.5	122.70	42.610	
6,300.0	6,255.6	6,223.6	6,223.6	14.5	124.0	5.78	303.6	-4,983.5	5,227.9	5,105.2	122.65	42.625	
6,350.0	6,299.3	6,267.3	6,267.3	14.5	124.9	6.03	303.6	-4,983.5	5,203.6	5,084.7	118.95	43.745	
6,397.6	6,339.2	6,307.2	6,307.2	14.6	125.7	6.33	303.6	-4,983.5	5,177.8	5,062.9	114.86	45.079	
6,400.0	6,341.2	6,309.2	6,309.2	14.6	125.7	6.35	303.6	-4,983.5	5,176.4	5,061.8	114.64	45.153	
6,450.0	6,381.0	6,349.0	6,349.0	14.6	126.5	6.73	303.6	-4,983.5	5,146.3	5,036.6	109.74	46.895	
6,496.0	6,415.8	6,383.8	6,383.8	14.7	127.2	7.15	303.6	-4,983.5	5,116.3	5,011.5	104.75	48.841	
6,500.0	6,418.7	6,386.7	6,386.7	14.7	127.3	7.19	303.6	-4,983.5	5,113.6	5,009.3	104.31	49.025	
6,550.0	6,453.9	6,421.9	6,421.9	14.8	128.0	7.76	303.6	-4,983.5	5,078.3	4,979.9	98.40	51.610	
6,594.5	6,483.1	6,451.1	6,451.1	15.0	128.6	8.38	303.6	-4,983.5	5,044.9	4,952.1	92.82	54.352	
6,600.0	6,486.6	6,454.6	6,454.6	15.1	128.6	8.47	303.6	-4,983.5	5,040.6	4,948.5	92.11	54.724	
6,650.0	6,516.6	6,484.6	6,484.6	15.3	129.2	9.36	303.6	-4,983.5	5,000.8	4,915.2	85.59	58.430	
6,692.9	6,540.0	6,508.0	6,508.0	15.7	129.7	10.31	303.6	-4,983.5	4,965.1	4,885.1	79.97	62.088	
6,700.0	6,543.7	6,511.7	6,511.7	15.7	129.8	10.49	303.6	-4,983.5	4,959.0	4,880.0	79.05	62.732	
6,750.0	6,567.8	6,535.8	6,535.8	16.2	130.3	11.98	303.6	-4,983.5	4,915.4	4,842.5	72.88	67.444	
6,791.3	6,585.4	6,553.4	6,553.4	16.7	130.6	13.59	303.6	-4,983.5	4,878.2	4,809.7	68.53	71.182	
6,800.0	6,588.8	6,556.8	6,556.8	16.8	130.7	13.98	303.6	-4,983.5	4,870.3	4,802.5	67.76	71.874	
6,850.0	6,606.6	6,574.6	6,574.6	17.4	131.0	16.82	303.6	-4,983.5	4,823.8	4,758.8	64.95	74.264	
6,889.7	6,618.4	6,586.4	6,586.4	18.0	131.3	20.02	303.6	-4,983.5	4,786.0	4,720.2	65.83	72.698	
6,900.0	6,621.1	6,589.1	6,589.1	18.2	131.3	21.05	303.6	-4,983.5	4,776.1	4,709.4	66.72	71.585	
6,950.0	6,632.2	6,600.2	6,600.2	19.0	131.6	27.90	303.6	-4,983.5	4,727.6	4,650.9	76.70	61.638	
6,988.2	6,638.4	6,606.4	6,606.4	19.7	131.7	36.54	303.6	-4,983.5	4,690.2	4,597.2	92.99	50.435	
7,000.0	6,639.9	6,607.9	6,607.9	19.9	131.7	40.19	303.6	-4,983.5	4,678.5	4,578.5	99.98	46.794	
7,050.0	6,644.1	6,612.1	6,612.1	20.8	131.8	64.01	303.6	-4,983.5	4,628.9	4,491.5	137.45	33.677	

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

Anticollision Report



Company:	PDC ENERGY	Local Co-ordinate Reference:	Well WACKER 10G-214
Project:	WELD COUNTY, COLORADO	TVD Reference:	KB-EST @ 4624.0usft (Original Well Elev)
Reference Site:	SW NW SEC. 10 T5N R64W 6th P.M.	MD Reference:	KB-EST @ 4624.0usft (Original Well Elev)
Site Error:	0.0 usft	North Reference:	True
Reference Well:	WACKER 10G-214	Survey Calculation Method:	Minimum Curvature
Well Error:	0.0 usft	Output errors are at	2.00 sigma
Reference Wellbore	ORIGINAL WELLBORE	Database:	EDM 5000.1 Single User Db
Reference Design:	PROPOSAL #1	Offset TVD Reference:	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	
7,086.5	6,645.0	6,613.0	6,613.0	21.5	131.8	90.78	303.6	-4,983.5	4,592.6	4,439.3	153.33	29.952	
7,100.0	6,645.0	6,613.0	6,613.0	21.8	131.8	90.78	303.6	-4,983.5	4,579.2	4,425.6	153.60	29.813	
7,185.0	6,644.9	6,612.9	6,612.9	23.6	131.8	90.76	303.6	-4,983.5	4,494.6	4,339.3	155.35	28.932	
7,200.0	6,644.8	6,612.8	6,612.8	23.9	131.8	90.76	303.6	-4,983.5	4,479.7	4,324.1	155.66	28.779	
7,283.4	6,644.7	6,612.7	6,612.7	25.7	131.8	90.74	303.6	-4,983.5	4,396.8	4,239.3	157.50	27.915	
7,300.0	6,644.7	6,612.7	6,612.7	26.1	131.8	90.74	303.6	-4,983.5	4,380.3	4,222.4	157.87	27.747	
7,381.9	6,644.6	6,612.6	6,612.6	28.0	131.8	90.73	303.6	-4,983.5	4,298.9	4,139.2	159.76	26.908	
7,400.0	6,644.6	6,612.6	6,612.6	28.4	131.8	90.72	303.6	-4,983.5	4,280.9	4,120.7	160.18	26.725	
7,480.3	6,644.5	6,612.5	6,612.5	30.3	131.8	90.71	303.6	-4,983.5	4,201.1	4,039.0	162.10	25.916	
7,500.0	6,644.4	6,612.4	6,612.4	30.8	131.8	90.70	303.6	-4,983.5	4,181.5	4,018.9	162.58	25.720	
7,578.7	6,644.3	6,612.3	6,612.3	32.7	131.8	90.69	303.6	-4,983.5	4,103.3	3,938.8	164.51	24.942	
7,600.0	6,644.3	6,612.3	6,612.3	33.3	131.8	90.68	303.6	-4,983.5	4,082.2	3,917.1	165.04	24.735	
7,677.1	6,644.2	6,612.2	6,612.2	35.2	131.8	90.67	303.6	-4,983.5	4,005.5	3,838.6	166.97	23.989	
7,700.0	6,644.1	6,612.1	6,612.1	35.8	131.8	90.66	303.6	-4,983.5	3,982.8	3,815.3	167.55	23.771	
7,775.6	6,644.0	6,612.0	6,612.0	37.7	131.8	90.65	303.6	-4,983.5	3,907.8	3,738.3	169.48	23.058	
7,800.0	6,644.0	6,612.0	6,612.0	38.3	131.8	90.65	303.6	-4,983.5	3,883.5	3,713.5	170.10	22.831	
7,874.0	6,643.9	6,611.9	6,611.9	40.2	131.8	90.63	303.6	-4,983.5	3,810.1	3,638.1	172.01	22.150	
7,900.0	6,643.9	6,611.9	6,611.9	40.9	131.8	90.63	303.6	-4,983.5	3,784.3	3,611.6	172.69	21.914	
7,972.4	6,643.8	6,611.8	6,611.8	42.8	131.8	90.62	303.6	-4,983.5	3,712.4	3,537.9	174.58	21.265	
8,000.0	6,643.7	6,611.7	6,611.7	43.5	131.8	90.61	303.6	-4,983.5	3,685.1	3,509.8	175.30	21.022	
8,070.8	6,643.6	6,611.6	6,611.6	45.4	131.8	90.60	303.6	-4,983.5	3,614.8	3,437.7	177.17	20.403	
8,100.0	6,643.6	6,611.6	6,611.6	46.2	131.8	90.59	303.6	-4,983.5	3,585.9	3,408.0	177.94	20.153	
8,169.3	6,643.5	6,611.5	6,611.5	48.0	131.8	90.58	303.6	-4,983.5	3,517.3	3,337.5	179.78	19.565	
8,200.0	6,643.5	6,611.5	6,611.5	48.8	131.8	90.57	303.6	-4,983.5	3,486.8	3,306.2	180.59	19.308	
8,267.7	6,643.4	6,611.4	6,611.4	50.6	131.8	90.56	303.6	-4,983.5	3,419.7	3,237.3	182.40	18.748	
8,300.0	6,643.3	6,611.3	6,611.3	51.5	131.8	90.56	303.6	-4,983.5	3,387.7	3,204.5	183.26	18.486	
8,366.1	6,643.2	6,611.2	6,611.2	53.3	131.8	90.55	303.6	-4,983.5	3,322.3	3,137.2	185.04	17.954	
8,400.0	6,643.2	6,611.2	6,611.2	54.2	131.8	90.54	303.6	-4,983.5	3,288.7	3,102.8	185.95	17.686	
8,464.5	6,643.1	6,611.1	6,611.1	55.9	131.8	90.53	303.6	-4,983.5	3,224.9	3,037.2	187.69	17.182	
8,500.0	6,643.1	6,611.1	6,611.1	56.9	131.8	90.52	303.6	-4,983.5	3,189.8	3,001.1	188.65	16.909	
8,563.0	6,643.0	6,611.0	6,611.0	58.6	131.8	90.51	303.6	-4,983.5	3,127.5	2,937.2	190.35	16.430	
8,600.0	6,642.9	6,610.9	6,610.9	59.6	131.8	90.50	303.6	-4,983.5	3,090.9	2,899.6	191.36	16.153	
8,661.4	6,642.8	6,610.8	6,610.8	61.3	131.8	90.49	303.6	-4,983.5	3,030.2	2,837.2	193.02	15.699	
8,700.0	6,642.8	6,610.8	6,610.8	62.3	131.8	90.49	303.6	-4,983.5	2,992.1	2,798.0	194.07	15.417	
8,759.8	6,642.7	6,610.7	6,610.7	64.0	131.8	90.48	303.6	-4,983.5	2,933.0	2,737.3	195.70	14.987	
8,800.0	6,642.7	6,610.7	6,610.7	65.1	131.8	90.47	303.6	-4,983.5	2,893.4	2,696.6	196.80	14.702	
8,858.2	6,642.6	6,610.6	6,610.6	66.6	131.8	90.46	303.6	-4,983.5	2,835.9	2,637.5	198.39	14.295	
8,900.0	6,642.5	6,610.5	6,610.5	67.8	131.8	90.45	303.6	-4,983.5	2,794.7	2,595.2	199.53	14.007	
8,956.7	6,642.4	6,610.4	6,610.4	69.3	131.8	90.44	303.6	-4,983.5	2,738.9	2,537.8	201.08	13.621	
9,000.0	6,642.4	6,610.4	6,610.4	70.5	131.8	90.43	303.6	-4,983.5	2,696.2	2,493.9	202.27	13.330	
9,055.1	6,642.3	6,610.3	6,610.3	72.0	131.8	90.42	303.6	-4,983.5	2,642.0	2,438.2	203.78	12.965	
9,100.0	6,642.3	6,610.3	6,610.3	73.3	131.8	90.42	303.6	-4,983.5	2,597.8	2,392.8	205.01	12.672	
9,153.5	6,642.2	6,610.2	6,610.2	74.7	131.8	90.41	303.6	-4,983.5	2,545.2	2,338.7	206.48	12.326	
9,200.0	6,642.1	6,610.1	6,610.1	76.0	131.7	90.40	303.6	-4,983.5	2,499.5	2,291.7	207.76	12.031	
9,251.9	6,642.1	6,610.1	6,610.1	77.5	131.7	90.39	303.6	-4,983.5	2,448.5	2,239.3	209.19	11.705	
9,300.0	6,642.0	6,610.0	6,610.0	78.8	131.7	90.38	303.6	-4,983.5	2,401.3	2,190.8	210.51	11.407	
9,350.4	6,641.9	6,609.9	6,609.9	80.2	131.7	90.37	303.6	-4,983.5	2,352.0	2,140.1	211.90	11.099	
9,400.0	6,641.9	6,609.9	6,609.9	81.5	131.7	90.36	303.6	-4,983.5	2,303.4	2,090.1	213.27	10.800	
9,448.8	6,641.8	6,609.8	6,609.8	82.9	131.7	90.36	303.6	-4,983.5	2,255.6	2,041.0	214.61	10.510	
9,500.0	6,641.7	6,609.7	6,609.7	84.3	131.7	90.35	303.6	-4,983.5	2,205.5	1,989.5	216.03	10.210	
9,547.2	6,641.7	6,609.7	6,609.7	85.6	131.7	90.34	303.6	-4,983.5	2,159.4	1,942.1	217.33	9.936	
9,600.0	6,641.6	6,609.6	6,609.6	87.1	131.7	90.33	303.6	-4,983.5	2,107.9	1,889.1	218.79	9.635	

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

Anticollision Report



Company:	PDC ENERGY	Local Co-ordinate Reference:	Well WACKER 10G-214
Project:	WELD COUNTY, COLORADO	TVD Reference:	KB-EST @ 4624.0usft (Original Well Elev)
Reference Site:	SW NW SEC. 10 T5N R64W 6th P.M.	MD Reference:	KB-EST @ 4624.0usft (Original Well Elev)
Site Error:	0.0 usft	North Reference:	True
Reference Well:	WACKER 10G-214	Survey Calculation Method:	Minimum Curvature
Well Error:	0.0 usft	Output errors are at	2.00 sigma
Reference Wellbore	ORIGINAL WELLBORE	Database:	EDM 5000.1 Single User Db
Reference Design:	PROPOSAL #1	Offset TVD Reference:	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	
9,645.6	6,641.5	6,609.5	6,609.5	88.3	131.7	90.32	303.6	-4,983.5	2,063.5	1,843.4	220.05	9.377	
9,700.0	6,641.5	6,609.5	6,609.5	89.8	131.7	90.31	303.6	-4,983.5	2,010.6	1,789.0	221.55	9.075	
9,744.1	6,641.4	6,609.4	6,609.4	91.0	131.7	90.31	303.6	-4,983.5	1,967.7	1,745.0	222.77	8.833	
9,800.0	6,641.3	6,609.3	6,609.3	92.6	131.7	90.30	303.6	-4,983.5	1,913.5	1,689.1	224.32	8.530	
9,842.5	6,641.3	6,609.3	6,609.3	93.8	131.7	90.29	303.6	-4,983.5	1,872.3	1,646.8	225.50	8.303	
9,900.0	6,641.2	6,609.2	6,609.2	95.4	131.7	90.28	303.6	-4,983.5	1,816.7	1,589.6	227.09	8.000	
9,940.9	6,641.1	6,609.1	6,609.1	96.5	131.7	90.27	303.6	-4,983.5	1,777.2	1,548.9	228.23	7.787	
10,000.0	6,641.1	6,609.1	6,609.1	98.1	131.7	90.26	303.6	-4,983.5	1,720.2	1,490.4	229.86	7.484	
10,039.3	6,641.0	6,609.0	6,609.0	99.2	131.7	90.26	303.6	-4,983.5	1,682.4	1,451.5	230.96	7.285	
10,100.0	6,640.9	6,608.9	6,608.9	100.9	131.7	90.25	303.6	-4,983.5	1,624.3	1,391.6	232.64	6.982	
10,137.8	6,640.9	6,608.9	6,608.9	102.0	131.7	90.24	303.6	-4,983.5	1,588.1	1,354.4	233.69	6.796	
10,200.0	6,640.8	6,608.8	6,608.8	103.7	131.7	90.23	303.6	-4,983.5	1,528.8	1,293.4	235.42	6.494	
10,236.2	6,640.8	6,608.8	6,608.8	104.7	131.7	90.22	303.6	-4,983.5	1,494.4	1,257.9	236.42	6.321	
10,300.0	6,640.7	6,608.7	6,608.7	106.5	131.7	90.21	303.6	-4,983.5	1,433.9	1,195.7	238.19	6.020	
10,334.6	6,640.6	6,608.6	6,608.6	107.4	131.7	90.21	303.6	-4,983.5	1,401.3	1,162.1	239.16	5.859	
10,400.0	6,640.6	6,608.6	6,608.6	109.3	131.7	90.20	303.6	-4,983.5	1,339.8	1,098.8	240.97	5.560	
10,433.0	6,640.5	6,608.5	6,608.5	110.2	131.7	90.19	303.6	-4,983.5	1,308.9	1,067.0	241.89	5.411	
10,500.0	6,640.4	6,608.4	6,608.4	112.0	131.7	90.18	303.6	-4,983.5	1,246.6	1,002.9	243.75	5.114	
10,531.5	6,640.4	6,608.4	6,608.4	112.9	131.7	90.18	303.6	-4,983.5	1,217.5	972.9	244.63	4.977	
10,600.0	6,640.3	6,608.3	6,608.3	114.8	131.7	90.17	303.6	-4,983.5	1,154.6	908.0	246.54	4.683	
10,629.9	6,640.3	6,608.3	6,608.3	115.7	131.7	90.16	303.6	-4,983.5	1,127.3	880.0	247.37	4.557	
10,700.0	6,640.2	6,608.2	6,608.2	117.6	131.7	90.15	303.6	-4,983.5	1,064.0	814.6	249.32	4.267	
10,728.3	6,640.1	6,608.1	6,608.1	118.4	131.7	90.14	303.6	-4,983.5	1,038.6	788.5	250.11	4.153	
10,800.0	6,640.0	6,608.0	6,608.0	120.4	131.7	90.13	303.6	-4,983.5	975.2	723.1	252.11	3.868	
10,826.7	6,640.0	6,608.0	6,608.0	121.2	131.7	90.13	303.6	-4,983.5	951.8	699.0	252.85	3.764	
10,900.0	6,639.9	6,607.9	6,607.9	123.2	131.7	90.12	303.6	-4,983.5	888.8	633.9	254.89	3.487	
10,925.2	6,639.9	6,607.9	6,607.9	123.9	131.7	90.11	303.6	-4,983.5	867.5	611.9	255.59	3.394	
11,000.0	6,639.8	6,607.8	6,607.8	126.0	131.7	90.10	303.6	-4,983.5	805.6	547.9	257.68	3.126	
11,023.6	6,639.8	6,607.8	6,607.8	126.6	131.7	90.10	303.6	-4,983.5	786.5	528.1	258.34	3.044	
11,100.0	6,639.7	6,607.7	6,607.7	128.8	131.7	90.09	303.6	-4,983.5	726.6	466.1	260.47	2.789	
11,122.0	6,639.6	6,607.6	6,607.6	129.4	131.7	90.08	303.6	-4,983.5	709.9	448.8	261.08	2.719	
11,200.0	6,639.5	6,607.5	6,607.5	131.6	131.7	90.07	303.6	-4,983.5	653.3	390.1	263.25	2.482	
11,220.4	6,639.5	6,607.5	6,607.5	132.1	131.7	90.07	303.6	-4,983.5	639.3	375.4	263.83	2.423	
11,300.0	6,639.4	6,607.4	6,607.4	134.4	131.7	90.05	303.6	-4,983.5	588.1	322.0	266.04	2.210	
11,318.9	6,639.4	6,607.4	6,607.4	134.9	131.7	90.05	303.6	-4,983.5	576.9	310.3	266.57	2.164	
11,400.0	6,639.3	6,607.3	6,607.3	137.1	131.7	90.04	303.6	-4,983.5	533.7	264.8	268.83	1.985	
11,417.3	6,639.3	6,607.3	6,607.3	137.6	131.7	90.04	303.6	-4,983.5	525.6	256.3	269.32	1.952	
11,500.0	6,639.2	6,607.2	6,607.2	139.9	131.7	90.02	303.6	-4,983.5	493.7	222.1	271.63	1.818	
11,515.7	6,639.1	6,607.1	6,607.1	140.4	131.7	90.02	303.6	-4,983.5	489.0	216.9	272.06	1.797	
11,600.0	6,639.0	6,607.0	6,607.0	142.7	131.7	90.01	303.6	-4,983.5	471.9	197.5	274.42	1.720	
11,614.1	6,639.0	6,607.0	6,607.0	143.1	131.7	90.01	303.6	-4,983.5	470.5	195.7	274.81	1.712	
11,655.2	6,639.0	6,607.0	6,607.0	144.3	131.7	90.00	303.6	-4,983.5	468.7	192.7	275.96	1.698 CC, ES, SF	
11,700.0	6,638.9	6,606.9	6,606.9	145.5	131.7	89.99	303.6	-4,983.5	470.8	193.6	277.21	1.699	
11,712.6	6,638.9	6,606.9	6,606.9	145.9	131.7	89.99	303.6	-4,983.5	472.2	194.6	277.56	1.701	
11,800.0	6,638.8	6,606.8	6,606.8	148.3	131.7	89.98	303.6	-4,983.5	490.6	210.6	280.00	1.752	
11,811.0	6,638.8	6,606.8	6,606.8	148.6	131.7	89.98	303.6	-4,983.5	493.9	213.6	280.31	1.762	
11,900.0	6,638.7	6,606.7	6,606.7	151.1	131.7	89.96	303.6	-4,983.5	528.8	246.0	282.80	1.870	
11,909.4	6,638.6	6,606.6	6,606.6	151.4	131.7	89.96	303.6	-4,983.5	533.2	250.2	283.06	1.884	
12,000.0	6,638.5	6,606.5	6,606.5	153.9	131.7	89.95	303.6	-4,983.5	581.9	296.3	285.59	2.037	
12,007.8	6,638.5	6,606.5	6,606.5	154.1	131.7	89.95	303.6	-4,983.5	586.6	300.8	285.81	2.052	
12,100.0	6,638.4	6,606.4	6,606.4	156.7	131.7	89.93	303.6	-4,983.5	646.2	357.8	288.38	2.241	
12,106.3	6,638.4	6,606.4	6,606.4	156.9	131.7	89.93	303.6	-4,983.5	650.5	362.0	288.56	2.254	

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

Anticollision Report



Company:	PDC ENERGY	Local Co-ordinate Reference:	Well WACKER 10G-214
Project:	WELD COUNTY, COLORADO	TVD Reference:	KB-EST @ 4624.0usft (Original Well Elev)
Reference Site:	SW NW SEC. 10 T5N R64W 6th P.M.	MD Reference:	KB-EST @ 4624.0usft (Original Well Elev)
Site Error:	0.0 usft	North Reference:	True
Reference Well:	WACKER 10G-214	Survey Calculation Method:	Minimum Curvature
Well Error:	0.0 usft	Output errors are at	2.00 sigma
Reference Wellbore	ORIGINAL WELLBORE	Database:	EDM 5000.1 Single User Db
Reference Design:	PROPOSAL #1	Offset TVD Reference:	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	
12,200.0	6,638.3	6,606.3	6,606.3	159.5	131.7	89.92	303.6	-4,983.5	718.7	427.5	291.18	2.468	
12,204.7	6,638.3	6,606.3	6,606.3	159.6	131.7	89.92	303.6	-4,983.5	722.3	431.0	291.31	2.479	
12,300.0	6,638.2	6,606.2	6,606.2	162.3	131.7	89.90	303.6	-4,983.5	797.2	503.2	293.97	2.712	
12,303.1	6,638.2	6,606.2	6,606.2	162.4	131.7	89.90	303.6	-4,983.5	799.7	505.6	294.06	2.720	
12,400.0	6,638.0	6,606.0	6,606.0	165.1	131.7	89.89	303.6	-4,983.5	880.0	583.3	296.77	2.965	
12,401.5	6,638.0	6,606.0	6,606.0	165.2	131.7	89.89	303.6	-4,983.5	881.3	584.5	296.81	2.969	
12,500.0	6,637.9	6,605.9	6,605.9	167.9	131.7	89.87	303.6	-4,983.5	966.1	666.6	299.57	3.225	
12,598.4	6,637.8	6,605.8	6,605.8	170.7	131.7	89.86	303.6	-4,983.5	1,053.3	750.9	302.32	3.484	
12,600.0	6,637.8	6,605.8	6,605.8	170.7	131.7	89.86	303.6	-4,983.5	1,054.7	752.3	302.36	3.488	
12,696.8	6,637.7	6,605.7	6,605.7	173.4	131.7	89.85	303.6	-4,983.5	1,142.3	837.2	305.07	3.744	
12,700.0	6,637.7	6,605.7	6,605.7	173.5	131.7	89.85	303.6	-4,983.5	1,145.1	840.0	305.16	3.753	
12,795.2	6,637.6	6,605.6	6,605.6	176.2	131.7	89.83	303.6	-4,983.5	1,232.7	924.8	307.83	4.004	
12,800.0	6,637.6	6,605.6	6,605.6	176.3	131.7	89.83	303.6	-4,983.5	1,237.1	929.1	307.96	4.017	
12,893.7	6,637.4	6,605.4	6,605.4	178.9	131.7	89.82	303.6	-4,983.5	1,324.2	1,013.7	310.58	4.264	
12,900.0	6,637.4	6,605.4	6,605.4	179.1	131.7	89.82	303.6	-4,983.5	1,330.1	1,019.4	310.76	4.280	
12,992.1	6,637.3	6,605.3	6,605.3	181.7	131.7	89.80	303.6	-4,983.5	1,416.7	1,103.4	313.33	4.521	
13,000.0	6,637.3	6,605.3	6,605.3	181.9	131.7	89.80	303.6	-4,983.5	1,424.2	1,110.6	313.55	4.542	
13,090.5	6,637.2	6,605.2	6,605.2	184.4	131.7	89.79	303.6	-4,983.5	1,509.9	1,193.9	316.09	4.777	
13,100.0	6,637.2	6,605.2	6,605.2	184.7	131.7	89.79	303.6	-4,983.5	1,519.0	1,202.6	316.35	4.801	
13,188.9	6,637.1	6,605.1	6,605.1	187.2	131.6	89.78	303.6	-4,983.5	1,603.8	1,285.0	318.84	5.030	
13,200.0	6,637.1	6,605.1	6,605.1	187.5	131.6	89.77	303.6	-4,983.5	1,614.4	1,295.2	319.15	5.058	
13,287.4	6,637.0	6,605.0	6,605.0	190.0	131.6	89.76	303.6	-4,983.5	1,698.2	1,376.6	321.60	5.280	
13,300.0	6,637.0	6,605.0	6,605.0	190.3	131.6	89.76	303.6	-4,983.5	1,710.3	1,388.4	321.95	5.312	
13,385.8	6,636.9	6,604.9	6,604.9	192.7	131.6	89.75	303.6	-4,983.5	1,793.0	1,468.6	324.35	5.528	
13,400.0	6,636.8	6,604.8	6,604.8	193.1	131.6	89.75	303.6	-4,983.5	1,806.7	1,481.9	324.75	5.563	
13,484.2	6,636.7	6,604.7	6,604.7	195.5	131.6	89.73	303.6	-4,983.5	1,888.2	1,561.0	327.11	5.772	
13,500.0	6,636.7	6,604.7	6,604.7	195.9	131.6	89.73	303.6	-4,983.5	1,903.4	1,575.9	327.55	5.811	
13,582.6	6,636.6	6,604.6	6,604.6	198.2	131.6	89.72	303.6	-4,983.5	1,983.7	1,653.8	329.86	6.014	
13,600.0	6,636.6	6,604.6	6,604.6	198.7	131.6	89.72	303.6	-4,983.5	2,000.5	1,670.2	330.35	6.056	
13,681.1	6,636.5	6,604.5	6,604.5	201.0	131.6	89.71	303.6	-4,983.5	2,079.4	1,746.8	332.62	6.252	
13,700.0	6,636.5	6,604.5	6,604.5	201.5	131.6	89.71	303.6	-4,983.5	2,097.9	1,764.7	333.15	6.297	
13,779.5	6,636.4	6,604.4	6,604.4	203.7	131.6	89.69	303.6	-4,983.5	2,175.4	1,840.1	335.37	6.487	
13,800.0	6,636.4	6,604.4	6,604.4	204.3	131.6	89.69	303.6	-4,983.5	2,195.4	1,859.5	335.95	6.535	
13,877.9	6,636.3	6,604.3	6,604.3	206.5	131.6	89.68	303.6	-4,983.5	2,271.6	1,933.5	338.13	6.718	
13,900.0	6,636.3	6,604.3	6,604.3	207.1	131.6	89.68	303.6	-4,983.5	2,293.2	1,954.5	338.75	6.770	
13,976.3	6,636.2	6,604.2	6,604.2	209.3	131.6	89.67	303.6	-4,983.5	2,368.0	2,027.1	340.89	6.947	
14,000.0	6,636.1	6,604.1	6,604.1	209.9	131.6	89.66	303.6	-4,983.5	2,391.2	2,049.7	341.55	7.001	
14,074.8	6,636.0	6,604.0	6,604.0	212.0	131.6	89.65	303.6	-4,983.5	2,464.6	2,120.9	343.64	7.172	
14,100.0	6,636.0	6,604.0	6,604.0	212.7	131.6	89.65	303.6	-4,983.5	2,489.4	2,145.0	344.35	7.229	
14,173.2	6,635.9	6,603.9	6,603.9	214.8	131.6	89.64	303.6	-4,983.5	2,561.3	2,214.9	346.40	7.394	
14,200.0	6,635.9	6,603.9	6,603.9	215.5	131.6	89.64	303.6	-4,983.5	2,587.6	2,240.5	347.15	7.454	
14,271.6	6,635.8	6,603.8	6,603.8	217.5	131.6	89.63	303.6	-4,983.5	2,658.1	2,308.9	349.16	7.613	
14,300.0	6,635.8	6,603.8	6,603.8	218.3	131.6	89.63	303.6	-4,983.5	2,686.0	2,336.1	349.95	7.675	
14,370.0	6,635.7	6,603.7	6,603.7	220.3	131.6	89.62	303.6	-4,983.5	2,755.0	2,403.1	351.91	7.829	
14,400.0	6,635.7	6,603.7	6,603.7	221.1	131.6	89.61	303.6	-4,983.5	2,784.6	2,431.8	352.75	7.894	
14,468.5	6,635.6	6,603.6	6,603.6	223.1	131.6	89.60	303.6	-4,983.5	2,852.1	2,497.4	354.67	8.041	
14,500.0	6,635.6	6,603.6	6,603.6	223.9	131.6	89.60	303.6	-4,983.5	2,883.2	2,527.6	355.55	8.109	
14,566.9	6,635.5	6,603.5	6,603.5	225.8	131.6	89.59	303.6	-4,983.5	2,949.2	2,591.8	357.43	8.251	
14,600.0	6,635.4	6,603.4	6,603.4	226.8	131.6	89.59	303.6	-4,983.5	2,981.9	2,623.5	358.36	8.321	
14,665.3	6,635.4	6,603.4	6,603.4	228.6	131.6	89.58	303.6	-4,983.5	3,046.4	2,686.2	360.19	8.458	
14,700.0	6,635.3	6,603.3	6,603.3	229.6	131.6	89.57	303.6	-4,983.5	3,080.7	2,719.5	361.16	8.530	
14,763.7	6,635.2	6,603.2	6,603.2	231.3	131.6	89.56	303.6	-4,983.5	3,143.7	2,780.8	362.94	8.662	

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

Anticollision Report



Company:	PDC ENERGY	Local Co-ordinate Reference:	Well WACKER 10G-214
Project:	WELD COUNTY, COLORADO	TVD Reference:	KB-EST @ 4624.0usft (Original Well Elev)
Reference Site:	SW NW SEC. 10 T5N R64W 6th P.M.	MD Reference:	KB-EST @ 4624.0usft (Original Well Elev)
Site Error:	0.0 usft	North Reference:	True
Reference Well:	WACKER 10G-214	Survey Calculation Method:	Minimum Curvature
Well Error:	0.0 usft	Output errors are at	2.00 sigma
Reference Wellbore	ORIGINAL WELLBORE	Database:	EDM 5000.1 Single User Db
Reference Design:	PROPOSAL #1	Offset TVD Reference:	Offset Datum

Offset Design SW NW SEC. 10 T5N R64W 6th P.M. - EXIST VERT BLOSKAS #12-9 - 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									
Measured Depth (usft)	Vertical Depth (usft)	Measured Depth (usft)	Vertical Depth (usft)	Reference (usft)	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
14,800.0	6,635.2	6,603.2	6,603.2	232.4	131.6	89.56	303.6	-4,983.5	3,179.6	2,815.6	363.96	8.736	
14,862.2	6,635.1	6,603.1	6,603.1	234.1	131.6	89.55	303.6	-4,983.5	3,241.1	2,875.4	365.70	8.863	
14,900.0	6,635.1	6,603.1	6,603.1	235.2	131.6	89.55	303.6	-4,983.5	3,278.5	2,911.7	366.76	8.939	
14,960.6	6,635.0	6,603.0	6,603.0	236.9	131.6	89.54	303.6	-4,983.5	3,338.5	2,970.0	368.46	9.061	
14,982.9	6,635.0	6,603.0	6,603.0	237.5	131.6	89.54	303.6	-4,983.5	3,360.5	2,991.5	369.08	9.105	

Anticollision Report



Company:	PDC ENERGY	Local Co-ordinate Reference:	Well WACKER 10G-214
Project:	WELD COUNTY, COLORADO	TVD Reference:	KB-EST @ 4624.0usft (Original Well Elev)
Reference Site:	SW NW SEC. 10 T5N R64W 6th P.M.	MD Reference:	KB-EST @ 4624.0usft (Original Well Elev)
Site Error:	0.0 usft	North Reference:	True
Reference Well:	WACKER 10G-214	Survey Calculation Method:	Minimum Curvature
Well Error:	0.0 usft	Output errors are at	2.00 sigma
Reference Wellbore	ORIGINAL WELLBORE	Database:	EDM 5000.1 Single User Db
Reference Design:	PROPOSAL #1	Offset TVD Reference:	Offset Datum

Offset Design												Offset Site Error:	0.0 usft
Survey Program: 100-GYD_CT												Offset Well Error:	0.0 usft
Measured Depth (usft)	Vertical Depth (usft)	Measured Depth (usft)	Vertical Depth (usft)	Reference (usft)	Offset (usft)	Semi Major Axis Highside Toolface (°)	Offset Wellbore Centre +N/-S (usft)	+E/-W (usft)	Between Centres (usft)	Between Ellipses (usft)	Minimum Separation (usft)	Separation Factor	Warning
0.0	0.0	0.0	0.0	0.0	0.0	-105.35	-1,055.1	-3,843.7	3,986.1				
98.4	98.4	63.1	63.1	0.1	0.0	-105.35	-1,055.0	-3,843.7	3,985.9	3,985.8	0.11	N/A	
100.0	100.0	64.8	64.8	0.1	0.0	-105.35	-1,055.0	-3,843.7	3,985.9	3,985.8	0.11	N/A	
175.5	175.5	135.5	135.5	0.3	0.1	-105.34	-1,054.7	-3,843.7	3,985.8	3,985.4	0.35	N/A	
196.8	196.8	153.1	153.1	0.3	0.1	-105.34	-1,054.6	-3,843.8	3,985.8	3,985.4	0.42	9,418.436	
200.0	200.0	155.7	155.7	0.3	0.1	-105.34	-1,054.6	-3,843.8	3,985.8	3,985.4	0.43	9,170.569	
295.3	295.3	246.5	246.5	0.5	0.2	-105.34	-1,054.3	-3,844.1	3,986.0	3,985.3	0.74	5,370.435	
300.0	300.0	251.7	251.7	0.5	0.2	-105.34	-1,054.3	-3,844.1	3,986.1	3,985.3	0.76	5,279.347	
393.7	393.7	346.6	346.6	0.8	0.3	-105.34	-1,054.4	-3,844.2	3,986.2	3,985.2	1.02	3,898.287	
400.0	400.0	352.5	352.5	0.8	0.3	-105.34	-1,054.4	-3,844.2	3,986.2	3,985.2	1.04	3,827.503	
492.1	492.1	443.0	443.0	1.0	0.3	-105.34	-1,054.7	-3,844.3	3,986.4	3,985.1	1.31	3,036.575	
500.0	500.0	451.3	451.3	1.0	0.3	-105.34	-1,054.8	-3,844.4	3,986.4	3,985.1	1.34	2,985.120	
590.5	590.5	546.0	546.0	1.2	0.4	-105.35	-1,055.3	-3,844.4	3,986.6	3,985.0	1.59	2,502.066	
600.0	600.0	555.7	555.7	1.2	0.4	-105.35	-1,055.4	-3,844.4	3,986.6	3,985.0	1.62	2,460.855	
689.0	689.0	651.9	651.9	1.4	0.5	-105.36	-1,055.7	-3,844.3	3,986.6	3,984.8	1.87	2,134.418	
700.0	700.0	664.2	664.2	1.4	0.5	-105.36	-1,055.7	-3,844.3	3,986.6	3,984.7	1.90	2,100.334	
787.4	787.4	757.1	757.1	1.6	0.5	-105.36	-1,056.1	-3,844.0	3,986.4	3,984.3	2.14	1,864.411	
800.0	800.0	770.1	770.1	1.7	0.5	-105.36	-1,056.1	-3,844.0	3,986.4	3,984.2	2.17	1,834.741	
885.8	885.8	850.3	850.3	1.9	0.5	-105.37	-1,056.7	-3,843.6	3,986.2	3,983.8	2.40	1,659.113	
900.0	900.0	862.9	862.9	1.9	0.6	-105.37	-1,056.8	-3,843.6	3,986.2	3,983.8	2.44	1,633.625	
925.2	925.2	885.2	885.2	2.0	0.6	-105.38	-1,057.0	-3,843.5	3,986.2	3,983.7	2.51	1,590.226	
984.2	984.2	939.0	938.9	2.1	0.6	-105.38	-1,057.5	-3,843.4	3,986.2	3,983.6	2.66	1,497.492	
1,000.0	1,000.0	953.4	953.4	2.1	0.6	-105.39	-1,057.6	-3,843.4	3,986.3	3,983.6	2.70	1,474.604	
1,082.7	1,082.7	1,032.5	1,032.5	2.3	0.6	-105.39	-1,058.1	-3,843.5	3,986.5	3,983.5	2.92	1,364.698	
1,100.0	1,100.0	1,050.0	1,050.0	2.3	0.6	-105.39	-1,058.2	-3,843.5	3,986.5	3,983.5	2.97	1,343.587	
1,181.1	1,181.1	1,140.1	1,140.1	2.5	0.7	-105.40	-1,058.8	-3,843.5	3,986.7	3,983.5	3.18	1,252.443	
1,200.0	1,200.0	1,163.9	1,163.9	2.6	0.7	-105.40	-1,058.9	-3,843.5	3,986.7	3,983.4	3.23	1,232.956	
1,279.5	1,279.5	1,256.9	1,256.9	2.7	0.7	-105.41	-1,059.2	-3,843.1	3,986.4	3,983.0	3.45	1,156.907	
1,300.0	1,300.0	1,279.8	1,279.8	2.8	0.7	-105.41	-1,059.3	-3,842.9	3,986.3	3,982.8	3.50	1,138.525	
1,320.0	1,320.0	1,300.0	1,300.0	2.8	0.7	135.94	-1,059.4	-3,842.8	3,986.3	3,982.8	3.52	1,132.319	
1,377.9	1,377.9	1,353.0	1,353.0	3.0	0.8	135.94	-1,059.6	-3,842.5	3,986.7	3,983.1	3.66	1,090.687	
1,400.0	1,400.0	1,372.5	1,372.5	3.0	0.8	135.94	-1,059.6	-3,842.4	3,987.1	3,983.4	3.71	1,075.738	
1,476.4	1,476.3	1,456.5	1,456.5	3.1	0.8	135.94	-1,059.8	-3,842.1	3,989.5	3,985.7	3.88	1,028.957	
1,500.0	1,499.8	1,486.0	1,486.0	3.2	0.8	135.95	-1,059.8	-3,841.9	3,990.5	3,986.6	3.93	1,015.139	
1,574.8	1,574.4	1,552.0	1,552.0	3.3	0.8	135.94	-1,060.0	-3,841.4	3,994.5	3,990.4	4.10	974.389	
1,600.0	1,599.5	1,572.6	1,572.6	3.4	0.8	135.94	-1,060.1	-3,841.3	3,996.2	3,992.1	4.16	961.551	
1,673.2	1,672.2	1,633.5	1,633.4	3.6	0.8	135.92	-1,060.4	-3,841.2	4,002.3	3,998.0	4.33	924.123	
1,700.0	1,698.7	1,656.0	1,656.0	3.6	0.9	135.91	-1,060.5	-3,841.1	4,004.9	4,000.5	4.40	911.120	
1,771.6	1,769.5	1,720.7	1,720.6	3.8	0.9	135.89	-1,060.8	-3,841.2	4,012.9	4,008.3	4.58	875.731	
1,800.0	1,797.5	1,750.9	1,750.9	3.9	0.9	135.89	-1,060.9	-3,841.2	4,016.4	4,011.7	4.66	862.234	
1,870.1	1,866.3	1,822.9	1,822.8	4.1	0.9	135.89	-1,061.3	-3,841.2	4,025.9	4,021.0	4.86	828.376	
1,900.2	1,895.8	1,851.6	1,851.6	4.2	0.9	135.88	-1,061.4	-3,841.2	4,030.4	4,025.4	4.95	814.709	
1,968.5	1,962.6	1,916.9	1,916.9	4.4	1.0	136.01	-1,061.9	-3,841.1	4,040.8	4,035.6	5.15	784.714	
2,000.0	1,993.4	1,947.4	1,947.3	4.5	1.0	136.07	-1,062.1	-3,841.1	4,045.6	4,040.3	5.24	771.552	
2,066.9	2,058.9	2,000.0	2,000.0	4.7	1.0	136.17	-1,062.5	-3,841.1	4,055.8	4,050.4	5.45	744.251	
2,100.0	2,091.2	2,035.7	2,035.7	4.8	1.0	136.24	-1,062.8	-3,841.1	4,060.9	4,055.4	5.55	731.204	
2,165.3	2,155.2	2,086.8	2,086.8	5.1	1.0	136.34	-1,063.5	-3,841.2	4,071.2	4,065.5	5.76	706.631	
2,200.0	2,189.1	2,121.6	2,121.5	5.2	1.0	136.40	-1,064.0	-3,841.4	4,076.7	4,070.9	5.88	693.754	
2,263.8	2,251.4	2,198.9	2,198.9	5.5	1.1	136.55	-1,065.1	-3,841.5	4,086.8	4,080.7	6.09	670.863	
2,300.0	2,286.9	2,232.7	2,232.6	5.6	1.1	136.61	-1,065.6	-3,841.5	4,092.4	4,086.2	6.21	658.842	
2,362.2	2,347.7	2,290.3	2,290.2	5.8	1.1	136.71	-1,066.4	-3,841.5	4,102.2	4,095.7	6.42	638.823	
2,400.0	2,384.7	2,324.7	2,324.6	6.0	1.1	136.78	-1,067.0	-3,841.5	4,108.1	4,101.6	6.55	627.225	

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

Anticollision Report



Company:	PDC ENERGY	Local Co-ordinate Reference:	Well WACKER 10G-214
Project:	WELD COUNTY, COLORADO	TVD Reference:	KB-EST @ 4624.0usft (Original Well Elev)
Reference Site:	SW NW SEC. 10 T5N R64W 6th P.M.	MD Reference:	KB-EST @ 4624.0usft (Original Well Elev)
Site Error:	0.0 usft	North Reference:	True
Reference Well:	WACKER 10G-214	Survey Calculation Method:	Minimum Curvature
Well Error:	0.0 usft	Output errors are at	2.00 sigma
Reference Wellbore	ORIGINAL WELLBORE	Database:	EDM 5000.1 Single User Db
Reference Design:	PROPOSAL #1	Offset TVD Reference:	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	2,444.0	2,379.4	2,379.3	6.2	1.1	136.88	-1,067.8	-3,841.6	4,117.7	4,111.0	6.76	609.222	
2,500.0	2,482.5	2,420.3	2,420.3	6.4	1.1	136.95	-1,068.3	-3,841.8	4,124.0	4,117.1	6.90	598.052	
2,559.0	2,540.3	2,493.0	2,493.0	6.6	1.2	137.08	-1,069.3	-3,841.8	4,133.3	4,126.2	7.10	581.798	
2,600.0	2,580.3	2,533.2	2,533.1	6.8	1.2	137.15	-1,069.9	-3,841.7	4,139.7	4,132.4	7.25	571.227	
2,657.5	2,636.5	2,587.1	2,587.0	7.1	1.2	137.25	-1,070.3	-3,841.7	4,148.7	4,141.2	7.45	556.926	
2,700.0	2,678.1	2,623.7	2,623.6	7.2	1.2	137.32	-1,070.5	-3,841.8	4,155.3	4,147.7	7.60	546.829	
2,755.9	2,732.8	2,669.8	2,669.7	7.5	1.2	137.41	-1,070.9	-3,841.9	4,164.2	4,156.4	7.80	534.014	
2,800.0	2,775.9	2,708.2	2,708.1	7.7	1.2	137.48	-1,071.2	-3,842.1	4,171.3	4,163.4	7.96	524.276	
2,854.3	2,829.1	2,768.2	2,768.1	7.9	1.3	137.59	-1,071.7	-3,842.3	4,180.1	4,171.9	8.15	512.643	
2,900.0	2,873.8	2,815.1	2,815.0	8.1	1.3	137.68	-1,071.9	-3,842.5	4,187.4	4,179.0	8.32	503.328	
2,952.7	2,925.4	2,862.1	2,862.0	8.3	1.3	137.77	-1,072.0	-3,842.7	4,195.8	4,187.3	8.51	493.037	
2,953.5	2,926.1	2,862.8	2,862.7	8.3	1.3	137.77	-1,072.0	-3,842.7	4,195.9	4,187.4	8.51	492.898	
3,000.0	2,971.6	2,905.8	2,905.7	8.5	1.3	137.95	-1,072.3	-3,842.9	4,203.2	4,194.5	8.65	485.746	
3,051.2	3,022.0	2,968.2	2,968.1	8.7	1.3	138.15	-1,072.6	-3,843.1	4,210.5	4,201.7	8.79	479.264	
3,100.0	3,070.1	3,020.3	3,020.2	8.8	1.3	138.31	-1,073.0	-3,843.2	4,216.7	4,207.7	8.91	473.206	
3,149.6	3,119.1	3,064.5	3,064.4	8.9	1.3	138.44	-1,073.4	-3,843.2	4,222.4	4,213.3	9.03	467.616	
3,200.0	3,169.1	3,110.1	3,110.0	9.1	1.4	138.55	-1,073.9	-3,843.3	4,227.6	4,218.4	9.15	461.987	
3,248.0	3,216.8	3,155.5	3,155.4	9.2	1.4	138.65	-1,074.3	-3,843.4	4,231.9	4,222.7	9.26	457.067	
3,300.0	3,268.5	3,204.9	3,204.8	9.3	1.4	138.75	-1,074.8	-3,843.6	4,236.0	4,226.6	9.38	451.805	
3,346.4	3,314.8	3,249.2	3,249.0	9.4	1.4	138.82	-1,075.0	-3,843.8	4,239.1	4,229.6	9.47	447.746	
3,400.0	3,368.3	3,300.3	3,300.2	9.6	1.4	138.88	-1,074.9	-3,844.2	4,242.0	4,232.4	9.57	443.150	
3,444.9	3,413.1	3,353.3	3,353.2	9.6	1.4	138.94	-1,074.4	-3,844.6	4,243.8	4,234.1	9.66	439.425	
3,500.0	3,468.2	3,412.2	3,412.1	9.7	1.4	138.99	-1,073.3	-3,845.1	4,245.2	4,235.4	9.76	434.825	
3,543.3	3,511.5	3,446.2	3,446.1	9.8	1.4	139.01	-1,072.4	-3,845.4	4,245.8	4,235.9	9.84	431.578	
3,553.7	3,521.9	3,454.4	3,454.3	9.8	1.4	-102.34	-1,072.2	-3,845.5	4,245.8	4,235.5	10.35	410.375	
3,600.0	3,568.2	3,500.0	3,499.8	9.9	1.4	-102.32	-1,070.9	-3,846.2	4,246.2	4,235.8	10.43	407.307	
3,641.7	3,609.9	3,533.5	3,533.3	10.0	1.4	-102.30	-1,069.9	-3,846.7	4,246.6	4,236.1	10.50	404.419	
3,700.0	3,668.2	3,598.7	3,598.5	10.1	1.4	-102.27	-1,067.8	-3,847.7	4,247.0	4,236.4	10.61	400.445	
3,740.1	3,708.4	3,638.5	3,638.3	10.1	1.4	-102.25	-1,066.5	-3,848.2	4,247.3	4,236.6	10.68	397.721	
3,800.0	3,768.2	3,697.6	3,697.3	10.2	1.4	-102.23	-1,064.7	-3,849.1	4,247.7	4,236.9	10.79	393.735	
3,838.6	3,806.8	3,730.4	3,730.1	10.3	1.4	-102.21	-1,063.7	-3,849.5	4,248.0	4,237.2	10.86	391.179	
3,900.0	3,868.2	3,782.0	3,781.7	10.4	1.4	-102.19	-1,062.4	-3,850.3	4,248.6	4,237.7	10.97	387.195	
3,937.0	3,905.2	3,825.2	3,824.9	10.5	1.4	-102.18	-1,061.5	-3,851.0	4,249.1	4,238.0	11.04	384.806	
4,000.0	3,968.2	3,917.6	3,917.3	10.6	1.4	-102.16	-1,060.2	-3,851.8	4,249.4	4,238.2	11.16	380.764	
4,035.4	4,003.6	3,954.7	3,954.4	10.6	1.4	-102.16	-1,059.9	-3,852.0	4,249.5	4,238.2	11.23	378.503	
4,100.0	4,068.2	4,000.0	3,999.6	10.7	1.4	-102.15	-1,059.6	-3,852.1	4,249.6	4,238.3	11.35	374.471	
4,133.8	4,102.1	4,034.5	4,034.2	10.8	1.4	-102.15	-1,059.4	-3,852.3	4,249.8	4,238.4	11.41	372.348	
4,200.0	4,168.2	4,075.9	4,075.6	10.9	1.4	-102.14	-1,059.1	-3,852.8	4,250.4	4,238.9	11.54	368.333	
4,232.3	4,200.5	4,100.0	4,099.6	11.0	1.4	-102.14	-1,058.9	-3,853.2	4,250.9	4,239.2	11.60	366.397	
4,300.0	4,268.2	4,160.2	4,159.8	11.1	1.4	-102.13	-1,058.2	-3,854.3	4,251.9	4,240.2	11.73	362.339	
4,330.7	4,298.9	4,190.2	4,189.8	11.1	1.4	-102.12	-1,057.8	-3,854.9	4,252.4	4,240.6	11.80	360.509	
4,400.0	4,368.2	4,270.9	4,270.5	11.3	1.4	-102.09	-1,056.2	-3,856.5	4,253.5	4,241.5	11.93	356.432	
4,429.1	4,397.3	4,300.0	4,299.6	11.3	1.4	-102.09	-1,055.6	-3,857.0	4,253.8	4,241.9	11.99	354.740	
4,500.0	4,468.2	4,349.8	4,349.4	11.4	1.4	-102.07	-1,054.6	-3,858.0	4,255.0	4,242.8	12.13	350.742	
4,527.5	4,495.8	4,368.0	4,367.5	11.5	1.4	-102.06	-1,054.2	-3,858.5	4,255.5	4,243.3	12.19	349.213	
4,600.0	4,568.2	4,400.0	4,399.5	11.6	1.4	-102.05	-1,053.5	-3,859.3	4,257.3	4,244.9	12.33	345.321	
4,626.0	4,594.2	4,426.6	4,426.1	11.7	1.4	-102.04	-1,053.0	-3,860.2	4,258.0	4,245.6	12.38	343.894	
4,700.0	4,668.2	4,466.1	4,465.5	11.8	1.5	-102.03	-1,052.5	-3,861.7	4,260.5	4,248.0	12.53	340.038	
4,724.4	4,692.6	4,500.0	4,499.4	11.9	1.5	-102.02	-1,052.2	-3,863.2	4,261.6	4,249.0	12.58	338.743	
4,800.0	4,768.2	4,726.9	4,726.2	12.0	1.5	-102.03	-1,054.0	-3,867.5	4,263.4	4,250.6	12.77	333.915	
4,822.8	4,791.0	4,767.1	4,766.4	12.0	1.5	-102.04	-1,054.5	-3,867.3	4,263.4	4,250.5	12.82	332.505	
4,900.0	4,868.2	4,861.4	4,860.7	12.2	1.5	-102.06	-1,055.5	-3,866.5	4,262.8	4,249.8	13.00	328.014	

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

Anticollision Report



Company:	PDC ENERGY	Local Co-ordinate Reference:	Well WACKER 10G-214
Project:	WELD COUNTY, COLORADO	TVD Reference:	KB-EST @ 4624.0usft (Original Well Elev)
Reference Site:	SW NW SEC. 10 T5N R64W 6th P.M.	MD Reference:	KB-EST @ 4624.0usft (Original Well Elev)
Site Error:	0.0 usft	North Reference:	True
Reference Well:	WACKER 10G-214	Survey Calculation Method:	Minimum Curvature
Well Error:	0.0 usft	Output errors are at	2.00 sigma
Reference Wellbore	ORIGINAL WELLBORE	Database:	EDM 5000.1 Single User Db
Reference Design:	PROPOSAL #1	Offset TVD Reference:	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	
4,921.2	4,889.5	4,883.7	4,883.0	12.2	1.5	-102.06	-1,055.7	-3,866.3	4,262.7	4,249.6	13.04	326.810	
5,000.0	4,968.2	4,955.3	4,954.7	12.4	1.6	-102.07	-1,056.2	-3,865.6	4,262.1	4,248.9	13.21	322.524	
5,019.7	4,987.9	4,972.6	4,971.9	12.4	1.6	-102.07	-1,056.3	-3,865.5	4,262.0	4,248.7	13.26	321.472	
5,100.0	5,068.2	5,060.8	5,060.1	12.6	1.6	-102.07	-1,056.3	-3,865.0	4,261.5	4,248.1	13.43	317.306	
5,118.1	5,086.3	5,083.2	5,082.5	12.6	1.6	-102.07	-1,056.3	-3,864.8	4,261.4	4,247.9	13.47	316.383	
5,200.0	5,168.2	5,172.5	5,171.8	12.7	1.6	-102.07	-1,055.8	-3,864.0	4,260.6	4,246.9	13.64	312.312	
5,216.5	5,184.7	5,190.0	5,189.3	12.8	1.6	-102.07	-1,055.7	-3,863.9	4,260.4	4,246.7	13.68	311.502	
5,300.0	5,268.2	5,258.2	5,257.5	12.9	1.6	-102.07	-1,055.4	-3,863.3	4,259.7	4,245.8	13.85	307.490	
5,314.9	5,283.2	5,269.9	5,269.2	13.0	1.6	-102.06	-1,055.4	-3,863.2	4,259.6	4,245.7	13.88	306.782	
5,400.0	5,368.2	5,346.3	5,345.6	13.1	1.6	-102.07	-1,055.4	-3,862.9	4,259.2	4,245.1	14.07	302.770	
5,413.4	5,381.6	5,359.6	5,358.9	13.2	1.6	-102.07	-1,055.4	-3,862.8	4,259.1	4,245.0	14.10	302.139	
5,500.0	5,468.2	5,465.6	5,464.9	13.3	1.6	-102.07	-1,055.8	-3,862.1	4,258.7	4,244.4	14.29	298.028	
5,511.8	5,480.0	5,482.5	5,481.8	13.3	1.6	-102.07	-1,055.8	-3,862.0	4,258.6	4,244.2	14.32	297.461	
5,600.0	5,568.2	5,608.1	5,607.4	13.5	1.6	-102.08	-1,056.0	-3,860.1	4,257.3	4,242.8	14.52	293.280	
5,610.2	5,578.4	5,620.6	5,619.9	13.5	1.6	-102.08	-1,056.0	-3,859.8	4,257.1	4,242.6	14.54	292.805	
5,700.0	5,668.2	5,731.9	5,731.2	13.7	1.6	-102.09	-1,055.9	-3,857.4	4,255.2	4,240.4	14.74	288.690	
5,708.6	5,676.9	5,743.1	5,742.3	13.7	1.6	-102.09	-1,055.9	-3,857.1	4,255.0	4,240.2	14.76	288.300	
5,800.0	5,768.2	5,847.9	5,847.2	13.9	1.7	-102.10	-1,056.1	-3,854.2	4,252.5	4,237.5	14.96	284.213	
5,807.1	5,775.3	5,855.1	5,854.4	13.9	1.7	-102.10	-1,056.1	-3,854.0	4,252.3	4,237.3	14.98	283.901	
5,900.0	5,868.2	5,953.1	5,952.3	14.1	1.7	-102.11	-1,056.3	-3,851.1	4,249.6	4,234.5	15.18	279.870	
5,905.5	5,873.7	5,959.1	5,958.3	14.1	1.7	-102.11	-1,056.3	-3,850.9	4,249.5	4,234.3	15.20	279.634	
5,960.7	5,928.9	6,034.3	6,033.4	14.2	1.7	-102.12	-1,056.2	-3,848.6	4,247.8	4,232.5	15.32	277.240	
6,000.0	5,968.2	6,106.9	6,105.9	14.3	1.7	-12.17	-1,056.2	-3,845.7	4,245.2	4,230.2	15.04	282.312	
6,003.9	5,972.1	6,111.7	6,110.8	14.3	1.7	-12.18	-1,056.2	-3,845.5	4,244.9	4,229.8	15.05	282.109	
6,050.0	6,018.0	6,168.2	6,167.2	14.4	1.7	-12.31	-1,056.2	-3,843.0	4,238.7	4,223.5	15.18	279.186	
6,100.0	6,067.3	6,223.4	6,222.4	14.4	1.7	-12.52	-1,056.4	-3,840.4	4,228.7	4,213.3	15.36	275.345	
6,102.3	6,069.6	6,225.7	6,224.7	14.4	1.7	-12.53	-1,056.4	-3,840.3	4,228.1	4,212.8	15.37	275.159	
6,150.0	6,116.0	6,271.8	6,270.7	14.4	1.7	-12.81	-1,056.5	-3,838.1	4,215.4	4,199.8	15.54	271.282	
6,200.0	6,163.8	6,320.0	6,318.9	14.5	1.7	-13.18	-1,056.5	-3,835.8	4,198.8	4,183.0	15.71	267.271	
6,200.8	6,164.5	6,320.8	6,319.6	14.5	1.7	-13.18	-1,056.5	-3,835.8	4,198.5	4,182.8	15.71	267.211	
6,250.0	6,210.4	6,368.1	6,366.9	14.5	1.7	-13.64	-1,056.3	-3,833.5	4,179.0	4,163.1	15.86	263.489	
6,299.2	6,254.9	6,400.0	6,398.8	14.5	1.7	-14.18	-1,056.1	-3,832.1	4,156.5	4,140.5	15.97	260.267	
6,300.0	6,255.6	6,400.0	6,398.8	14.5	1.7	-14.19	-1,056.1	-3,832.1	4,156.1	4,140.2	15.97	260.224	
6,350.0	6,299.3	6,438.9	6,437.6	14.5	1.7	-14.86	-1,055.9	-3,830.3	4,130.4	4,114.3	16.06	257.239	
6,397.6	6,339.2	6,465.6	6,464.3	14.6	1.7	-15.62	-1,055.8	-3,829.2	4,103.4	4,087.3	16.10	254.823	
6,400.0	6,341.2	6,466.9	6,465.6	14.6	1.7	-15.66	-1,055.8	-3,829.1	4,102.0	4,085.9	16.10	254.710	
6,450.0	6,381.0	6,500.0	6,498.7	14.6	1.8	-16.65	-1,055.9	-3,827.8	4,071.0	4,054.9	16.14	252.305	
6,496.0	6,415.8	6,500.0	6,498.7	14.7	1.8	-17.62	-1,055.9	-3,827.8	4,040.4	4,024.3	16.12	250.681	
6,500.0	6,418.7	6,500.0	6,498.7	14.7	1.8	-17.71	-1,055.9	-3,827.8	4,037.7	4,021.6	16.12	250.546	
6,550.0	6,453.9	6,500.0	6,498.7	14.8	1.8	-18.98	-1,055.9	-3,827.8	4,002.2	3,986.1	16.09	248.693	
6,594.5	6,483.1	6,532.6	6,531.3	15.0	1.8	-20.52	-1,056.1	-3,826.8	3,968.7	3,952.5	16.13	246.001	
6,600.0	6,486.6	6,533.9	6,532.5	15.1	1.8	-20.72	-1,056.1	-3,826.8	3,964.4	3,948.3	16.14	245.689	
6,650.0	6,516.6	6,544.6	6,543.2	15.3	1.8	-22.71	-1,056.1	-3,826.5	3,924.9	3,908.7	16.21	242.184	
6,692.9	6,540.0	6,553.0	6,551.7	15.7	1.8	-24.79	-1,056.2	-3,826.4	3,889.6	3,873.2	16.34	238.004	
6,700.0	6,543.7	6,554.4	6,553.0	15.7	1.8	-25.18	-1,056.2	-3,826.4	3,883.6	3,867.2	16.37	237.207	
6,750.0	6,567.8	6,563.1	6,561.8	16.2	1.8	-28.28	-1,056.3	-3,826.3	3,840.7	3,824.0	16.69	230.161	
6,791.3	6,585.4	6,600.0	6,598.7	16.7	1.8	-31.97	-1,056.6	-3,826.1	3,804.6	3,787.4	17.19	221.351	
6,800.0	6,588.8	6,600.0	6,598.7	16.8	1.8	-32.73	-1,056.6	-3,826.1	3,796.8	3,779.5	17.29	219.545	
6,850.0	6,606.6	6,600.0	6,598.7	17.4	1.8	-37.86	-1,056.6	-3,826.1	3,751.2	3,733.1	18.08	207.426	
6,889.7	6,618.4	6,600.0	6,598.7	18.0	1.8	-43.06	-1,056.6	-3,826.1	3,714.2	3,695.3	18.93	196.237	
6,900.0	6,621.1	6,600.0	6,598.7	18.2	1.8	-44.59	-1,056.6	-3,826.1	3,704.6	3,685.5	19.17	193.256	
6,950.0	6,632.2	6,600.0	6,598.7	19.0	1.8	-53.44	-1,056.6	-3,826.1	3,657.3	3,636.8	20.49	178.517	

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

Anticollision Report



Company:	PDC ENERGY	Local Co-ordinate Reference:	Well WACKER 10G-214
Project:	WELD COUNTY, COLORADO	TVD Reference:	KB-EST @ 4624.0usft (Original Well Elev)
Reference Site:	SW NW SEC. 10 T5N R64W 6th P.M.	MD Reference:	KB-EST @ 4624.0usft (Original Well Elev)
Site Error:	0.0 usft	North Reference:	True
Reference Well:	WACKER 10G-214	Survey Calculation Method:	Minimum Curvature
Well Error:	0.0 usft	Output errors are at	2.00 sigma
Reference Wellbore	ORIGINAL WELLBORE	Database:	EDM 5000.1 Single User Db
Reference Design:	PROPOSAL #1	Offset TVD Reference:	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	
6,988.2	6,638.4	6,600.0	6,598.7	19.7	1.8	-61.93	-1,056.6	-3,826.1	3,620.8	3,599.3	21.51	168.299	
7,000.0	6,639.9	6,600.0	6,598.7	19.9	1.8	-64.88	-1,056.6	-3,826.1	3,609.4	3,587.6	21.80	165.582	
7,050.0	6,644.1	6,600.0	6,598.7	20.8	1.8	-78.80	-1,056.6	-3,826.1	3,561.2	3,538.4	22.74	156.638	
7,086.5	6,645.0	6,600.0	6,598.7	21.5	1.8	-89.90	-1,056.6	-3,826.1	3,525.8	3,502.5	23.28	151.458	
7,100.0	6,645.0	6,600.0	6,598.7	21.8	1.8	-89.90	-1,056.6	-3,826.1	3,512.8	3,489.3	23.55	149.195	
7,185.0	6,644.9	6,600.0	6,598.7	23.6	1.8	-89.90	-1,056.6	-3,826.1	3,430.6	3,405.3	25.30	135.572	
7,200.0	6,644.8	6,600.0	6,598.7	23.9	1.8	-89.90	-1,056.6	-3,826.1	3,416.2	3,390.6	25.61	133.367	
7,283.4	6,644.7	6,600.0	6,598.7	25.7	1.8	-89.90	-1,056.6	-3,826.1	3,335.7	3,308.2	27.46	121.486	
7,300.0	6,644.7	6,600.0	6,598.7	26.1	1.8	-89.90	-1,056.6	-3,826.1	3,319.7	3,291.9	27.82	119.317	
7,381.9	6,644.6	6,600.0	6,598.7	28.0	1.8	-89.90	-1,056.6	-3,826.1	3,240.9	3,211.2	29.72	109.056	
7,400.0	6,644.6	6,600.0	6,598.7	28.4	1.8	-89.90	-1,056.6	-3,826.1	3,223.5	3,193.4	30.14	106.960	
7,480.3	6,644.5	6,600.0	6,598.7	30.3	1.8	-89.90	-1,056.6	-3,826.1	3,146.4	3,114.4	32.06	98.133	
7,500.0	6,644.4	6,600.0	6,598.7	30.8	1.8	-89.90	-1,056.6	-3,826.1	3,127.5	3,095.0	32.54	96.128	
7,578.7	6,644.3	6,600.0	6,598.7	32.7	1.8	-89.90	-1,056.6	-3,826.1	3,052.2	3,017.7	34.47	88.536	
7,600.0	6,644.3	6,600.0	6,598.7	33.3	1.8	-89.89	-1,056.6	-3,826.1	3,031.8	2,996.8	35.00	86.630	
7,677.1	6,644.2	6,600.0	6,598.7	35.2	1.8	-89.89	-1,056.6	-3,826.1	2,958.2	2,921.2	36.94	80.087	
7,700.0	6,644.1	6,600.0	6,598.7	35.8	1.8	-89.89	-1,056.6	-3,826.1	2,936.4	2,898.9	37.51	78.280	
7,775.6	6,644.0	6,600.0	6,598.7	37.7	1.8	-89.89	-1,056.6	-3,826.1	2,864.5	2,825.0	39.44	72.624	
7,800.0	6,644.0	6,600.0	6,598.7	38.3	1.8	-89.89	-1,056.6	-3,826.1	2,841.3	2,801.2	40.07	70.914	
7,874.0	6,643.9	6,600.0	6,598.7	40.2	1.8	-89.89	-1,056.6	-3,826.1	2,771.1	2,729.1	41.98	66.007	
7,900.0	6,643.9	6,600.0	6,598.7	40.9	1.8	-89.89	-1,056.6	-3,826.1	2,746.5	2,703.8	42.66	64.389	
7,972.4	6,643.8	6,600.0	6,598.7	42.8	1.8	-89.89	-1,056.6	-3,826.1	2,678.1	2,633.6	44.55	60.115	
8,000.0	6,643.7	6,600.0	6,598.7	43.5	1.8	-89.89	-1,056.6	-3,826.1	2,652.1	2,606.8	45.27	58.583	
8,070.8	6,643.6	6,600.0	6,598.7	45.4	1.8	-89.89	-1,056.6	-3,826.1	2,585.5	2,538.4	47.14	54.846	
8,100.0	6,643.6	6,600.0	6,598.7	46.2	1.8	-89.89	-1,056.6	-3,826.1	2,558.2	2,510.2	47.91	53.394	
8,169.3	6,643.5	6,600.0	6,598.7	48.0	1.8	-89.89	-1,056.6	-3,826.1	2,493.3	2,443.6	49.75	50.115	
8,200.0	6,643.5	6,600.0	6,598.7	48.8	1.8	-89.89	-1,056.6	-3,826.1	2,464.7	2,414.1	50.57	48.739	
8,267.7	6,643.4	6,600.0	6,598.7	50.6	1.8	-89.89	-1,056.6	-3,826.1	2,401.7	2,349.3	52.38	45.851	
8,300.0	6,643.3	6,600.0	6,598.7	51.5	1.8	-89.89	-1,056.6	-3,826.1	2,371.7	2,318.5	53.24	44.545	
8,366.1	6,643.2	6,600.0	6,598.7	53.3	1.8	-89.89	-1,056.6	-3,826.1	2,310.6	2,255.6	55.02	41.994	
8,400.0	6,643.2	6,600.0	6,598.7	54.2	1.8	-89.89	-1,056.6	-3,826.1	2,279.4	2,223.4	55.93	40.752	
8,464.5	6,643.1	6,600.0	6,598.7	55.9	1.8	-89.89	-1,056.6	-3,826.1	2,220.1	2,162.4	57.67	38.493	
8,500.0	6,643.1	6,600.0	6,598.7	56.9	1.8	-89.89	-1,056.6	-3,826.1	2,187.7	2,129.0	58.63	37.312	
8,563.0	6,643.0	6,600.0	6,598.7	58.6	1.8	-89.89	-1,056.6	-3,826.1	2,130.3	2,070.0	60.34	35.306	
8,600.0	6,642.9	6,600.0	6,598.7	59.6	1.8	-89.89	-1,056.6	-3,826.1	2,096.8	2,035.4	61.34	34.181	
8,661.4	6,642.8	6,600.0	6,598.7	61.3	1.8	-89.89	-1,056.6	-3,826.1	2,041.3	1,978.3	63.01	32.396	
8,700.0	6,642.8	6,600.0	6,598.7	62.3	1.8	-89.89	-1,056.6	-3,826.1	2,006.7	1,942.6	64.06	31.324	
8,759.8	6,642.7	6,600.0	6,598.7	64.0	1.8	-89.89	-1,056.6	-3,826.1	1,953.3	1,887.6	65.69	29.733	
8,800.0	6,642.7	6,600.0	6,598.7	65.1	1.8	-89.89	-1,056.6	-3,826.1	1,917.6	1,850.8	66.79	28.712	
8,858.2	6,642.6	6,600.0	6,598.7	66.6	1.8	-89.89	-1,056.6	-3,826.1	1,866.2	1,797.9	68.38	27.292	
8,900.0	6,642.5	6,600.0	6,598.7	67.8	1.8	-89.89	-1,056.6	-3,826.1	1,829.7	1,760.1	69.52	26.317	
8,956.7	6,642.4	6,600.0	6,598.7	69.3	1.8	-89.89	-1,056.6	-3,826.1	1,780.4	1,709.3	71.08	25.049	
9,000.0	6,642.4	6,600.0	6,598.7	70.5	1.8	-89.89	-1,056.6	-3,826.1	1,743.0	1,670.8	72.26	24.121	
9,055.1	6,642.3	6,600.0	6,598.7	72.0	1.8	-89.89	-1,056.6	-3,826.1	1,695.9	1,622.1	73.78	22.987	
9,100.0	6,642.3	6,600.0	6,598.7	73.3	1.8	-89.89	-1,056.6	-3,826.1	1,657.9	1,582.9	75.01	22.103	
9,153.5	6,642.2	6,600.0	6,598.7	74.7	1.8	-89.89	-1,056.6	-3,826.1	1,613.0	1,536.5	76.48	21.090	
9,200.0	6,642.1	6,600.0	6,598.7	76.0	1.8	-89.89	-1,056.6	-3,826.1	1,574.5	1,496.7	77.76	20.248	
9,251.9	6,642.1	6,600.0	6,598.7	77.5	1.8	-89.89	-1,056.6	-3,826.1	1,532.0	1,452.8	79.19	19.345	
9,300.0	6,642.0	6,600.0	6,598.7	78.8	1.8	-89.89	-1,056.6	-3,826.1	1,493.1	1,412.6	80.51	18.545	
9,350.4	6,641.9	6,600.0	6,598.7	80.2	1.8	-89.89	-1,056.6	-3,826.1	1,453.0	1,371.1	81.90	17.741	
9,400.0	6,641.9	6,600.0	6,598.7	81.5	1.8	-89.89	-1,056.6	-3,826.1	1,414.2	1,330.9	83.27	16.983	
9,448.8	6,641.8	6,600.0	6,598.7	82.9	1.8	-89.89	-1,056.6	-3,826.1	1,376.6	1,292.0	84.62	16.269	

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

Anticollision Report



Company:	PDC ENERGY	Local Co-ordinate Reference:	Well WACKER 10G-214
Project:	WELD COUNTY, COLORADO	TVD Reference:	KB-EST @ 4624.0usft (Original Well Elev)
Reference Site:	SW NW SEC. 10 T5N R64W 6th P.M.	MD Reference:	KB-EST @ 4624.0usft (Original Well Elev)
Site Error:	0.0 usft	North Reference:	True
Reference Well:	WACKER 10G-214	Survey Calculation Method:	Minimum Curvature
Well Error:	0.0 usft	Output errors are at	2.00 sigma
Reference Wellbore	ORIGINAL WELLBORE	Database:	EDM 5000.1 Single User Db
Reference Design:	PROPOSAL #1	Offset TVD Reference:	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	6,641.7	6,600.0	6,598.7	84.3	1.8	-89.89	-1,056.6	-3,826.1	1,338.0	1,252.0	86.03	15.552	
9,547.2	6,641.7	6,600.0	6,598.7	85.6	1.8	-89.89	-1,056.6	-3,826.1	1,303.2	1,215.9	87.34	14.921	
9,600.0	6,641.6	6,600.0	6,598.7	87.1	1.8	-89.89	-1,056.6	-3,826.1	1,265.2	1,176.4	88.80	14.248	
9,645.6	6,641.5	6,600.0	6,598.7	88.3	1.8	-89.89	-1,056.6	-3,826.1	1,233.2	1,143.2	90.06	13.693	
9,700.0	6,641.5	6,600.0	6,598.7	89.8	1.8	-89.89	-1,056.6	-3,826.1	1,196.3	1,104.8	91.57	13.065	
9,744.1	6,641.4	6,600.0	6,598.7	91.0	1.8	-89.89	-1,056.6	-3,826.1	1,167.4	1,074.6	92.79	12.582	
9,800.0	6,641.3	6,600.0	6,598.7	92.6	1.8	-89.89	-1,056.6	-3,826.1	1,132.1	1,037.8	94.34	12.001	
9,842.5	6,641.3	6,600.0	6,598.7	93.8	1.8	-89.89	-1,056.6	-3,826.1	1,106.4	1,010.9	95.52	11.584	
9,900.0	6,641.2	6,600.0	6,598.7	95.4	1.8	-89.89	-1,056.6	-3,826.1	1,073.4	976.3	97.11	11.053	
9,940.9	6,641.1	6,600.0	6,598.7	96.5	1.8	-89.89	-1,056.6	-3,826.1	1,051.1	952.9	98.25	10.699	
10,000.0	6,641.1	6,600.0	6,598.7	98.1	1.8	-89.89	-1,056.6	-3,826.1	1,021.1	921.2	99.88	10.222	
10,039.3	6,641.0	6,600.0	6,598.7	99.2	1.8	-89.89	-1,056.6	-3,826.1	1,002.5	901.5	100.98	9.928	
10,100.0	6,640.9	6,600.0	6,598.7	100.9	1.8	-89.89	-1,056.6	-3,826.1	976.2	873.6	102.66	9.509	
10,137.8	6,640.9	6,600.0	6,598.7	102.0	1.8	-89.89	-1,056.6	-3,826.1	961.4	857.7	103.71	9.270	
10,200.0	6,640.8	6,600.0	6,598.7	103.7	1.8	-89.89	-1,056.6	-3,826.1	939.9	834.5	105.44	8.914	
10,236.2	6,640.8	6,600.0	6,598.7	104.7	1.8	-89.89	-1,056.6	-3,826.1	929.1	822.6	106.45	8.728	
10,300.0	6,640.7	6,593.3	6,591.9	106.5	1.8	-89.45	-1,056.5	-3,826.1	913.1	804.9	108.22	8.438	
10,334.6	6,640.6	6,593.3	6,591.9	107.4	1.8	-89.45	-1,056.5	-3,826.1	906.3	797.1	109.18	8.301	
10,400.0	6,640.6	6,593.3	6,592.0	109.3	1.8	-89.46	-1,056.5	-3,826.1	896.8	785.8	111.00	8.079	
10,433.0	6,640.5	6,593.4	6,592.0	110.2	1.8	-89.46	-1,056.5	-3,826.1	893.8	781.9	111.92	7.986	
10,497.8	6,640.4	6,593.4	6,592.1	112.0	1.8	-89.46	-1,056.5	-3,826.1	891.5	777.7	113.72	7.839 CC	
10,500.0	6,640.4	6,593.4	6,592.1	112.0	1.8	-89.46	-1,056.5	-3,826.1	891.5	777.7	113.78	7.835	
10,531.5	6,640.4	6,593.5	6,592.1	112.9	1.8	-89.46	-1,056.5	-3,826.1	892.1	777.4	114.66	7.780 ES	
10,600.0	6,640.3	6,593.5	6,592.2	114.8	1.8	-89.47	-1,056.5	-3,826.1	897.3	780.7	116.57	7.698	
10,629.9	6,640.3	6,593.5	6,592.2	115.7	1.8	-89.47	-1,056.5	-3,826.1	901.2	783.8	117.40	7.676	
10,700.0	6,640.2	6,593.6	6,592.3	117.6	1.8	-89.48	-1,056.5	-3,826.1	914.1	794.8	119.35	7.659 SF	
10,728.3	6,640.1	6,593.6	6,592.3	118.4	1.8	-89.48	-1,056.5	-3,826.1	920.8	800.6	120.14	7.664	
10,800.0	6,640.0	6,593.7	6,592.4	120.4	1.8	-89.48	-1,056.5	-3,826.1	941.3	819.2	122.14	7.707	
10,826.7	6,640.0	6,593.8	6,592.4	121.2	1.8	-89.48	-1,056.5	-3,826.1	950.2	827.3	122.89	7.732	
10,900.0	6,639.9	6,593.8	6,592.5	123.2	1.8	-89.49	-1,056.5	-3,826.1	978.0	853.1	124.93	7.828	
10,925.2	6,639.9	6,593.9	6,592.5	123.9	1.8	-89.49	-1,056.5	-3,826.1	988.6	863.0	125.63	7.869	
11,000.0	6,639.8	6,594.0	6,592.6	126.0	1.8	-89.50	-1,056.5	-3,826.1	1,023.2	895.5	127.72	8.011	
11,023.6	6,639.8	6,594.0	6,592.7	126.6	1.8	-89.50	-1,056.5	-3,826.1	1,035.0	906.6	128.38	8.062	
11,100.0	6,639.7	6,594.1	6,592.8	128.8	1.8	-89.51	-1,056.5	-3,826.1	1,075.8	945.3	130.51	8.243	
11,122.0	6,639.6	6,594.2	6,592.8	129.4	1.8	-89.51	-1,056.5	-3,826.1	1,088.3	957.2	131.12	8.300	
11,200.0	6,639.5	6,594.3	6,592.9	131.6	1.8	-89.52	-1,056.5	-3,826.1	1,134.8	1,001.5	133.30	8.513	
11,220.4	6,639.5	6,594.3	6,593.0	132.1	1.8	-89.52	-1,056.5	-3,826.1	1,147.6	1,013.7	133.87	8.572	
11,300.0	6,639.4	6,594.5	6,593.1	134.4	1.8	-89.53	-1,056.5	-3,826.1	1,199.3	1,063.2	136.09	8.812	
11,318.9	6,639.4	6,594.5	6,593.2	134.9	1.8	-89.53	-1,056.5	-3,826.1	1,212.0	1,075.4	136.62	8.871	
11,400.0	6,639.3	6,594.7	6,593.3	137.1	1.8	-89.55	-1,056.5	-3,826.1	1,268.3	1,129.5	138.89	9.132	
11,417.3	6,639.3	6,594.7	6,593.4	137.6	1.8	-89.55	-1,056.5	-3,826.1	1,280.7	1,141.3	139.37	9.189	
11,500.0	6,639.2	6,594.9	6,593.6	139.9	1.8	-89.56	-1,056.5	-3,826.1	1,341.3	1,199.6	141.68	9.467	
11,515.7	6,639.1	6,595.0	6,593.6	140.4	1.8	-89.56	-1,056.5	-3,826.1	1,353.1	1,211.0	142.12	9.521	
11,600.0	6,639.0	6,595.2	6,593.9	142.7	1.8	-89.58	-1,056.5	-3,826.1	1,417.6	1,273.1	144.47	9.812	
11,614.1	6,639.0	6,595.3	6,593.9	143.1	1.8	-89.58	-1,056.5	-3,826.1	1,428.6	1,283.8	144.87	9.862	
11,700.0	6,638.9	6,595.5	6,594.2	145.5	1.8	-89.60	-1,056.5	-3,826.1	1,496.7	1,349.4	147.27	10.163	
11,712.6	6,638.9	6,595.6	6,594.2	145.9	1.8	-89.60	-1,056.5	-3,826.1	1,506.8	1,359.2	147.62	10.207	
11,800.0	6,638.8	6,595.9	6,594.6	148.3	1.8	-89.63	-1,056.5	-3,826.1	1,578.1	1,428.1	150.06	10.516	
11,811.0	6,638.8	6,596.0	6,594.6	148.6	1.8	-89.63	-1,056.5	-3,826.1	1,587.2	1,436.8	150.37	10.555	
11,900.0	6,638.7	6,596.4	6,595.0	151.1	1.8	-89.66	-1,056.5	-3,826.1	1,661.6	1,508.7	152.86	10.870	
11,909.4	6,638.6	6,596.4	6,595.1	151.4	1.8	-89.66	-1,056.5	-3,826.1	1,669.6	1,516.4	153.12	10.903	
12,000.0	6,638.5	6,596.9	6,595.6	153.9	1.8	-89.69	-1,056.6	-3,826.1	1,746.8	1,591.2	155.66	11.222	

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

Anticollision Report



Company:	PDC ENERGY	Local Co-ordinate Reference:	Well WACKER 10G-214
Project:	WELD COUNTY, COLORADO	TVD Reference:	KB-EST @ 4624.0usft (Original Well Elev)
Reference Site:	SW NW SEC. 10 T5N R64W 6th P.M.	MD Reference:	KB-EST @ 4624.0usft (Original Well Elev)
Site Error:	0.0 usft	North Reference:	True
Reference Well:	WACKER 10G-214	Survey Calculation Method:	Minimum Curvature
Well Error:	0.0 usft	Output errors are at	2.00 sigma
Reference Wellbore	ORIGINAL WELLBORE	Database:	EDM 5000.1 Single User Db
Reference Design:	PROPOSAL #1	Offset TVD Reference:	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	
12,007.8	6,638.5	6,597.0	6,595.6	154.1	1.8	-89.69	-1,056.6	-3,826.1	1,753.6	1,597.7	155.88	11.250	
12,100.0	6,638.4	6,597.6	6,596.3	156.7	1.8	-89.74	-1,056.6	-3,826.1	1,833.5	1,675.1	158.45	11.571	
12,106.3	6,638.4	6,597.7	6,596.3	156.9	1.8	-89.74	-1,056.6	-3,826.1	1,839.0	1,680.4	158.63	11.593	
12,200.0	6,638.3	6,598.5	6,597.2	159.5	1.8	-89.79	-1,056.6	-3,826.1	1,921.5	1,760.3	161.25	11.916	
12,204.7	6,638.3	6,598.6	6,597.2	159.6	1.8	-89.80	-1,056.6	-3,826.1	1,925.7	1,764.3	161.38	11.932	
12,300.0	6,638.2	6,599.7	6,598.3	162.3	1.8	-89.87	-1,056.6	-3,826.1	2,010.6	1,846.6	164.05	12.256	
12,303.1	6,638.2	6,599.7	6,598.4	162.4	1.8	-89.87	-1,056.6	-3,826.1	2,013.4	1,849.3	164.14	12.267	
12,400.0	6,638.0	6,600.4	6,599.1	165.1	1.8	-89.92	-1,056.6	-3,826.1	2,100.7	1,933.9	166.85	12.591	
12,401.5	6,638.0	6,600.4	6,599.1	165.2	1.8	-89.92	-1,056.6	-3,826.1	2,102.2	1,935.3	166.89	12.596	
12,500.0	6,637.9	6,601.0	6,599.7	167.9	1.8	-89.95	-1,056.6	-3,826.2	2,191.7	2,022.1	169.65	12.919	
12,598.4	6,637.8	6,601.6	6,600.2	170.7	1.8	-89.99	-1,056.6	-3,826.2	2,282.0	2,109.5	172.40	13.236	
12,600.0	6,637.8	6,601.6	6,600.3	170.7	1.8	-89.99	-1,056.6	-3,826.2	2,283.4	2,111.0	172.45	13.241	
12,696.8	6,637.7	6,602.2	6,600.9	173.4	1.8	-90.03	-1,056.6	-3,826.2	2,372.9	2,197.7	175.16	13.547	
12,700.0	6,637.7	6,602.2	6,600.9	173.5	1.8	-90.03	-1,056.6	-3,826.2	2,375.8	2,200.6	175.25	13.557	
12,795.2	6,637.6	6,602.8	6,601.5	176.2	1.8	-90.07	-1,056.6	-3,826.2	2,464.4	2,286.4	177.92	13.851	
12,800.0	6,637.6	6,602.9	6,601.5	176.3	1.8	-90.08	-1,056.6	-3,826.2	2,468.8	2,290.7	178.05	13.866	
12,893.7	6,637.4	6,603.5	6,602.2	178.9	1.8	-90.12	-1,056.6	-3,826.2	2,556.4	2,375.7	180.67	14.149	
12,900.0	6,637.4	6,603.6	6,602.2	179.1	1.8	-90.12	-1,056.6	-3,826.2	2,562.3	2,381.4	180.85	14.168	
12,992.1	6,637.3	6,604.2	6,602.8	181.7	1.8	-90.16	-1,056.6	-3,826.2	2,648.8	2,465.4	183.43	14.441	
13,000.0	6,637.3	6,604.3	6,602.9	181.9	1.8	-90.17	-1,056.6	-3,826.2	2,656.3	2,472.6	183.65	14.464	
13,090.5	6,637.2	6,495.6	6,494.3	184.4	1.8	-83.21	-1,055.9	-3,828.0	2,741.7	2,556.6	185.14	14.809	
13,100.0	6,637.2	6,495.2	6,493.9	184.7	1.8	-83.19	-1,055.9	-3,828.0	2,750.7	2,565.3	185.40	14.837	
13,188.9	6,637.1	6,491.1	6,489.8	187.2	1.8	-82.93	-1,055.9	-3,828.1	2,834.9	2,647.1	187.79	15.096	
13,200.0	6,637.1	6,490.6	6,489.3	187.5	1.8	-82.90	-1,055.9	-3,828.2	2,845.4	2,657.3	188.09	15.128	
13,287.4	6,637.0	6,486.6	6,485.3	190.0	1.8	-82.64	-1,055.9	-3,828.3	2,928.4	2,738.0	190.43	15.378	
13,300.0	6,637.0	6,486.0	6,484.7	190.3	1.8	-82.60	-1,055.9	-3,828.3	2,940.4	2,749.7	190.77	15.414	
13,385.8	6,636.9	6,481.9	6,480.6	192.7	1.8	-82.35	-1,055.9	-3,828.5	3,022.2	2,829.2	193.06	15.655	
13,400.0	6,636.8	6,481.2	6,479.9	193.1	1.8	-82.30	-1,055.9	-3,828.5	3,035.8	2,842.4	193.44	15.694	
13,484.2	6,636.7	6,477.2	6,475.9	195.5	1.8	-82.05	-1,055.9	-3,828.7	3,116.3	2,920.7	195.68	15.926	
13,500.0	6,636.7	6,476.4	6,475.1	195.9	1.8	-82.00	-1,055.9	-3,828.7	3,131.5	2,935.4	196.10	15.969	
13,582.6	6,636.6	6,472.3	6,471.0	198.2	1.7	-81.74	-1,055.9	-3,828.9	3,210.7	3,012.4	198.29	16.192	
13,600.0	6,636.6	6,471.4	6,470.1	198.7	1.7	-81.69	-1,055.8	-3,828.9	3,227.4	3,028.6	198.75	16.239	
13,681.1	6,636.5	6,467.4	6,466.1	201.0	1.7	-81.43	-1,055.8	-3,829.1	3,305.3	3,104.4	200.89	16.454	
13,700.0	6,636.5	6,466.4	6,465.1	201.5	1.7	-81.37	-1,055.8	-3,829.1	3,323.5	3,122.1	201.38	16.503	
13,779.5	6,636.4	6,462.3	6,461.0	203.7	1.7	-81.12	-1,055.9	-3,829.3	3,400.1	3,196.6	203.47	16.710	
13,800.0	6,636.4	6,461.3	6,460.0	204.3	1.7	-81.05	-1,055.9	-3,829.3	3,419.9	3,215.9	204.01	16.763	
13,877.9	6,636.3	6,457.2	6,455.9	206.5	1.7	-80.79	-1,055.9	-3,829.5	3,495.1	3,289.0	206.05	16.963	
13,900.0	6,636.3	6,456.0	6,454.7	207.1	1.7	-80.72	-1,055.9	-3,829.6	3,516.4	3,309.8	206.62	17.018	
13,976.3	6,636.2	6,451.9	6,450.6	209.3	1.7	-80.47	-1,055.9	-3,829.7	3,590.3	3,381.7	208.61	17.210	
14,000.0	6,636.1	6,450.6	6,449.3	209.9	1.7	-80.39	-1,055.9	-3,829.8	3,613.2	3,403.9	209.22	17.269	
14,074.8	6,636.0	6,446.5	6,445.3	212.0	1.7	-80.13	-1,055.9	-3,830.0	3,685.6	3,474.4	211.16	17.454	
14,100.0	6,636.0	6,445.1	6,443.9	212.7	1.7	-80.04	-1,055.9	-3,830.0	3,710.1	3,498.3	211.81	17.516	
14,173.2	6,635.9	6,441.0	6,439.8	214.8	1.7	-79.79	-1,055.9	-3,830.2	3,781.1	3,567.4	213.69	17.694	
14,200.0	6,635.9	6,439.5	6,438.3	215.5	1.7	-79.70	-1,055.9	-3,830.3	3,807.1	3,592.7	214.38	17.759	
14,271.6	6,635.8	6,435.4	6,434.2	217.5	1.7	-79.44	-1,055.9	-3,830.4	3,876.7	3,660.5	216.21	17.931	
14,300.0	6,635.8	6,433.8	6,432.5	218.3	1.7	-79.34	-1,055.9	-3,830.5	3,904.3	3,687.4	216.93	17.998	
14,370.0	6,635.7	6,429.7	6,428.5	220.3	1.7	-79.09	-1,055.9	-3,830.7	3,972.5	3,753.8	218.71	18.163	
14,400.0	6,635.7	6,427.9	6,426.7	221.1	1.7	-78.98	-1,055.9	-3,830.8	4,001.7	3,782.2	219.47	18.234	
14,468.5	6,635.6	6,423.9	6,422.6	223.1	1.7	-78.73	-1,056.0	-3,831.0	4,068.4	3,847.2	221.19	18.393	
14,500.0	6,635.6	6,422.0	6,420.7	223.9	1.7	-78.61	-1,056.0	-3,831.0	4,099.1	3,877.1	221.98	18.466	
14,566.9	6,635.5	6,417.9	6,416.6	225.8	1.7	-78.36	-1,056.0	-3,831.2	4,164.4	3,940.7	223.65	18.620	
14,600.0	6,635.4	6,415.8	6,414.6	226.8	1.7	-78.23	-1,056.0	-3,831.3	4,196.7	3,972.2	224.48	18.695	

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

Anticollision Report



Company:	PDC ENERGY	Local Co-ordinate Reference:	Well WACKER 10G-214
Project:	WELD COUNTY, COLORADO	TVD Reference:	KB-EST @ 4624.0usft (Original Well Elev)
Reference Site:	SW NW SEC. 10 T5N R64W 6th P.M.	MD Reference:	KB-EST @ 4624.0usft (Original Well Elev)
Site Error:	0.0 usft	North Reference:	True
Reference Well:	WACKER 10G-214	Survey Calculation Method:	Minimum Curvature
Well Error:	0.0 usft	Output errors are at	2.00 sigma
Reference Wellbore	ORIGINAL WELLBORE	Database:	EDM 5000.1 Single User Db
Reference Design:	PROPOSAL #1	Offset TVD Reference:	Offset Datum

Offset Design SW NW SEC. 10 T5N R64W 6th P.M. - EXIST VERT BLOSKAS #9-23 - 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
14,665.3	6,635.4	6,411.8	6,410.5	228.6	1.7	-77.98	-1,056.0	-3,831.5	4,260.5	4,034.4	226.10	18.843	
14,700.0	6,635.3	6,409.6	6,408.3	229.6	1.7	-77.85	-1,056.0	-3,831.6	4,294.3	4,067.4	226.96	18.922	
14,763.7	6,635.2	6,405.5	6,404.3	231.3	1.7	-77.60	-1,056.1	-3,831.8	4,356.7	4,128.1	228.52	19.065	
14,800.0	6,635.2	6,403.2	6,401.9	232.4	1.7	-77.46	-1,056.1	-3,831.9	4,392.1	4,162.7	229.41	19.145	
14,862.2	6,635.1	6,399.3	6,398.0	234.1	1.7	-77.22	-1,056.1	-3,832.1	4,453.0	4,222.0	230.93	19.283	
14,900.0	6,635.1	6,397.3	6,396.1	235.2	1.7	-77.10	-1,056.1	-3,832.2	4,490.0	4,258.1	231.87	19.364	
14,960.6	6,635.0	6,394.1	6,392.9	236.9	1.7	-76.91	-1,056.2	-3,832.3	4,549.3	4,315.9	233.38	19.494	
14,982.9	6,635.0	6,392.9	6,391.7	237.5	1.7	-76.84	-1,056.2	-3,832.4	4,571.1	4,337.2	233.93	19.541	

Anticollision Report



Company:	PDC ENERGY	Local Co-ordinate Reference:	Well WACKER 10G-214
Project:	WELD COUNTY, COLORADO	TVD Reference:	KB-EST @ 4624.0usft (Original Well Elev)
Reference Site:	SW NW SEC. 10 T5N R64W 6th P.M.	MD Reference:	KB-EST @ 4624.0usft (Original Well Elev)
Site Error:	0.0 usft	North Reference:	True
Reference Well:	WACKER 10G-214	Survey Calculation Method:	Minimum Curvature
Well Error:	0.0 usft	Output errors are at	2.00 sigma
Reference Wellbore	ORIGINAL WELLBORE	Database:	EDM 5000.1 Single User Db
Reference Design:	PROPOSAL #1	Offset TVD Reference:	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	-79.97	784.8	-4,437.9	4,506.9				
98.4	98.4	50.6	50.6	0.1	0.0	-79.97	784.9	-4,438.0	4,506.9	4,506.8	0.11	N/A	
100.0	100.0	51.9	51.9	0.1	0.0	-79.97	784.9	-4,438.0	4,506.9	4,506.8	0.11	N/A	
196.8	196.8	142.6	142.6	0.3	0.1	-79.96	785.6	-4,438.2	4,507.3	4,506.9	0.42	N/A	
200.0	200.0	146.2	146.2	0.3	0.1	-79.96	785.7	-4,438.3	4,507.3	4,506.9	0.43	N/A	
295.3	295.3	285.9	285.8	0.5	0.3	-79.93	788.4	-4,437.8	4,507.4	4,506.5	0.83	5,462.770	
300.0	300.0	294.3	294.3	0.5	0.3	-79.92	788.7	-4,437.7	4,507.3	4,506.5	0.84	5,344.555	
393.7	393.7	403.7	403.6	0.8	0.4	-79.87	792.3	-4,436.1	4,506.5	4,505.4	1.14	3,969.940	
400.0	400.0	409.6	409.5	0.8	0.4	-79.87	792.5	-4,436.0	4,506.4	4,505.3	1.15	3,908.174	
492.1	492.1	496.1	495.9	1.0	0.4	-79.82	796.1	-4,434.5	4,505.6	4,504.2	1.42	3,183.811	
500.0	500.0	503.8	503.6	1.0	0.5	-79.82	796.4	-4,434.4	4,505.5	4,504.1	1.44	3,134.286	
590.5	590.5	596.7	596.4	1.2	0.5	-79.76	800.6	-4,432.8	4,504.7	4,503.0	1.69	2,659.903	
600.0	600.0	606.6	606.3	1.2	0.5	-79.76	801.1	-4,432.6	4,504.6	4,502.9	1.72	2,619.006	
689.0	689.0	700.0	699.6	1.4	0.6	-79.70	805.4	-4,430.9	4,503.7	4,501.8	1.97	2,289.455	
700.0	700.0	710.6	710.2	1.4	0.6	-79.69	805.8	-4,430.7	4,503.6	4,501.6	2.00	2,255.257	
787.4	787.4	794.8	794.3	1.6	0.6	-79.64	809.6	-4,429.2	4,502.7	4,500.5	2.23	2,016.468	
800.0	800.0	807.4	806.8	1.7	0.6	-79.63	810.2	-4,428.9	4,502.6	4,500.4	2.27	1,986.159	
885.8	885.8	895.2	894.6	1.9	0.7	-79.58	813.8	-4,427.4	4,501.8	4,499.3	2.50	1,801.714	
900.0	900.0	909.3	908.6	1.9	0.7	-79.58	814.4	-4,427.1	4,501.7	4,499.1	2.54	1,774.762	
984.2	984.2	991.4	990.7	2.1	0.7	-79.53	817.6	-4,425.7	4,500.8	4,498.1	2.76	1,630.510	
1,000.0	1,000.0	1,006.6	1,005.9	2.1	0.7	-79.53	818.2	-4,425.5	4,500.7	4,497.9	2.80	1,606.184	
1,082.7	1,082.7	1,085.5	1,084.6	2.3	0.7	-79.49	821.1	-4,424.2	4,500.0	4,496.9	3.02	1,489.986	
1,100.0	1,100.0	1,100.0	1,099.2	2.3	0.7	-79.48	821.7	-4,424.0	4,499.8	4,496.7	3.07	1,468.119	
1,181.1	1,181.1	1,176.5	1,175.6	2.5	0.8	-79.44	824.4	-4,422.9	4,499.2	4,495.9	3.28	1,372.672	
1,200.0	1,200.0	1,193.9	1,193.0	2.6	0.8	-79.43	825.0	-4,422.7	4,499.1	4,495.8	3.33	1,352.259	
1,279.5	1,279.5	1,263.5	1,262.5	2.7	0.8	-79.40	827.5	-4,421.9	4,498.7	4,495.1	3.53	1,273.239	
1,300.0	1,300.0	1,281.3	1,280.3	2.8	0.8	-79.39	828.1	-4,421.7	4,498.6	4,495.0	3.59	1,254.387	
1,310.0	1,310.0	1,290.0	1,289.0	2.8	0.8	161.96	828.4	-4,421.6	4,498.6	4,495.0	3.55	1,268.351	
1,377.9	1,377.9	1,379.7	1,378.7	3.0	0.9	162.01	831.6	-4,420.5	4,499.2	4,495.5	3.71	1,211.735	
1,400.0	1,400.0	1,411.5	1,410.5	3.0	0.9	162.02	832.6	-4,420.0	4,499.6	4,495.9	3.77	1,194.260	
1,476.4	1,476.3	1,516.8	1,515.7	3.1	0.9	162.07	835.4	-4,418.0	4,502.1	4,498.1	3.94	1,141.777	
1,500.0	1,499.8	1,539.7	1,538.6	3.2	0.9	162.07	836.0	-4,417.5	4,503.1	4,499.1	3.99	1,127.322	
1,574.8	1,574.4	1,600.0	1,598.8	3.3	1.0	162.08	837.4	-4,416.2	4,507.8	4,503.7	4.16	1,083.462	
1,600.0	1,599.5	1,629.0	1,627.8	3.4	1.0	162.09	838.1	-4,415.6	4,509.8	4,505.6	4.22	1,068.827	
1,673.2	1,672.2	1,684.7	1,683.5	3.6	1.0	162.09	839.3	-4,414.7	4,517.1	4,512.7	4.39	1,029.052	
1,700.0	1,698.7	1,700.0	1,698.8	3.6	1.0	162.08	839.6	-4,414.5	4,520.3	4,515.8	4.45	1,015.756	
1,771.6	1,769.5	1,762.0	1,760.8	3.8	1.0	162.08	840.9	-4,413.7	4,530.1	4,525.5	4.63	978.885	
1,800.0	1,797.5	1,784.4	1,783.2	3.9	1.0	162.07	841.3	-4,413.5	4,534.5	4,529.8	4.70	965.390	
1,870.1	1,866.3	1,835.4	1,834.2	4.1	1.0	162.04	842.1	-4,413.2	4,546.7	4,541.8	4.88	932.392	
1,900.2	1,895.8	1,856.6	1,855.4	4.2	1.1	162.03	842.4	-4,413.1	4,552.5	4,547.6	4.95	919.242	
1,968.5	1,962.6	1,900.0	1,898.8	4.4	1.1	162.07	843.0	-4,413.2	4,566.3	4,561.1	5.12	891.638	
2,000.0	1,993.4	1,930.7	1,929.5	4.5	1.1	162.10	843.3	-4,413.3	4,572.7	4,567.5	5.20	879.218	
2,066.9	2,058.9	1,984.9	1,983.7	4.7	1.1	162.15	843.9	-4,413.6	4,586.4	4,581.1	5.37	853.374	
2,100.0	2,091.2	2,011.4	2,010.2	4.8	1.1	162.17	844.2	-4,413.8	4,593.3	4,587.8	5.46	841.332	
2,165.3	2,155.2	2,063.1	2,061.9	5.1	1.1	162.22	844.6	-4,414.3	4,607.0	4,601.3	5.63	818.331	
2,200.0	2,189.1	2,090.5	2,089.2	5.2	1.1	162.25	844.9	-4,414.6	4,614.3	4,608.6	5.72	806.268	
2,263.8	2,251.4	2,148.1	2,146.9	5.5	1.1	162.29	845.3	-4,415.3	4,627.9	4,622.0	5.90	785.006	
2,300.0	2,286.9	2,181.8	2,180.6	5.6	1.1	162.32	845.4	-4,415.8	4,635.6	4,629.6	5.99	773.386	
2,362.2	2,347.7	2,243.5	2,242.2	5.8	1.2	162.37	845.6	-4,416.7	4,648.9	4,642.7	6.17	753.998	
2,400.0	2,384.7	2,282.0	2,280.7	6.0	1.2	162.40	845.7	-4,417.3	4,656.9	4,650.6	6.27	742.728	
2,460.6	2,444.0	2,338.2	2,337.0	6.2	1.2	162.44	845.8	-4,418.1	4,669.8	4,663.4	6.44	725.215	
2,500.0	2,482.5	2,373.3	2,372.0	6.4	1.2	162.47	845.8	-4,418.7	4,678.3	4,671.7	6.55	714.365	

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

Anticollision Report



Company:	PDC ENERGY	Local Co-ordinate Reference:	Well WACKER 10G-214
Project:	WELD COUNTY, COLORADO	TVD Reference:	KB-EST @ 4624.0usft (Original Well Elev)
Reference Site:	SW NW SEC. 10 T5N R64W 6th P.M.	MD Reference:	KB-EST @ 4624.0usft (Original Well Elev)
Site Error:	0.0 usft	North Reference:	True
Reference Well:	WACKER 10G-214	Survey Calculation Method:	Minimum Curvature
Well Error:	0.0 usft	Output errors are at	2.00 sigma
Reference Wellbore	ORIGINAL WELLBORE	Database:	EDM 5000.1 Single User Db
Reference Design:	PROPOSAL #1	Offset TVD Reference:	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	2,540.3	2,427.9	2,426.6	6.6	1.2	162.51	845.7	-4,419.6	4,690.9	4,684.2	6.72	698.451		
2,600.0	2,580.3	2,467.1	2,465.8	6.8	1.2	162.54	845.6	-4,420.3	4,699.8	4,692.9	6.83	687.816		
2,657.5	2,636.5	2,522.5	2,521.2	7.1	1.2	162.58	845.3	-4,421.3	4,712.1	4,705.1	7.00	673.324		
2,700.0	2,678.1	2,563.9	2,562.6	7.2	1.2	162.60	845.1	-4,422.1	4,721.3	4,714.2	7.12	663.039		
2,755.9	2,732.8	2,619.2	2,617.8	7.5	1.2	162.64	844.8	-4,423.1	4,733.3	4,726.0	7.28	649.893		
2,800.0	2,775.9	2,664.2	2,662.8	7.7	1.2	162.67	844.5	-4,423.9	4,742.8	4,735.4	7.41	639.979		
2,854.3	2,829.1	2,721.0	2,719.7	7.9	1.2	162.70	844.0	-4,424.9	4,754.5	4,746.9	7.57	628.006		
2,900.0	2,873.8	2,770.9	2,769.6	8.1	1.2	162.73	843.4	-4,425.8	4,764.2	4,756.5	7.70	618.339		
2,952.7	2,925.4	2,826.2	2,824.8	8.3	1.2	162.76	842.7	-4,426.7	4,775.4	4,767.6	7.86	607.537		
2,953.5	2,926.1	2,826.9	2,825.5	8.3	1.2	162.76	842.6	-4,426.8	4,775.6	4,767.7	7.86	607.391		
3,000.0	2,971.6	2,873.5	2,872.1	8.5	1.2	162.84	841.9	-4,427.5	4,785.1	4,777.1	7.98	599.644		
3,051.2	3,022.0	2,926.6	2,925.2	8.7	1.2	162.92	841.1	-4,428.4	4,794.7	4,786.6	8.10	592.079		
3,100.0	3,070.1	2,979.2	2,977.8	8.8	1.2	162.99	840.3	-4,429.3	4,803.1	4,794.9	8.21	584.963		
3,149.6	3,119.1	3,041.6	3,040.1	8.9	1.2	163.06	839.3	-4,430.1	4,810.7	4,802.4	8.32	578.051		
3,200.0	3,169.1	3,108.9	3,107.4	9.1	1.3	163.11	838.1	-4,430.9	4,817.4	4,809.0	8.44	571.103		
3,248.0	3,216.8	3,162.8	3,161.4	9.2	1.3	163.15	837.0	-4,431.4	4,822.9	4,814.4	8.54	564.980		
3,300.0	3,268.5	3,223.6	3,222.1	9.3	1.3	163.19	835.8	-4,431.8	4,827.9	4,819.3	8.65	558.392		
3,346.4	3,314.8	3,281.6	3,280.1	9.4	1.3	163.21	834.6	-4,432.1	4,831.5	4,822.8	8.74	552.774		
3,400.0	3,368.3	3,346.7	3,345.2	9.6	1.3	163.22	833.1	-4,432.3	4,834.7	4,825.8	8.85	546.385		
3,444.9	3,413.1	3,400.6	3,399.1	9.6	1.3	163.23	831.9	-4,432.4	4,836.5	4,827.6	8.94	541.296		
3,500.0	3,468.2	3,461.2	3,459.6	9.7	1.3	163.22	830.5	-4,432.4	4,837.7	4,828.7	9.04	535.135		
3,543.3	3,511.5	3,508.1	3,506.6	9.8	1.3	163.21	829.4	-4,432.3	4,837.9	4,828.8	9.12	530.483		
3,553.7	3,521.9	3,518.8	3,517.2	9.8	1.3	-78.14	829.1	-4,432.3	4,837.9	4,826.9	10.92	442.905		
3,600.0	3,568.2	3,566.2	3,564.6	9.9	1.3	-78.15	828.0	-4,432.2	4,837.6	4,826.6	11.00	439.771		
3,641.7	3,609.9	3,608.9	3,607.3	10.0	1.3	-78.17	826.9	-4,432.1	4,837.3	4,826.2	11.07	436.821		
3,700.0	3,668.2	3,668.4	3,666.9	10.1	1.3	-78.18	825.4	-4,432.0	4,836.9	4,825.7	11.18	432.749		
3,740.1	3,708.4	3,709.7	3,708.1	10.1	1.3	-78.19	824.4	-4,431.9	4,836.6	4,825.3	11.25	429.950		
3,800.0	3,768.2	3,772.3	3,770.7	10.2	1.3	-78.21	822.8	-4,431.8	4,836.1	4,824.8	11.36	425.821		
3,838.6	3,806.8	3,813.4	3,811.8	10.3	1.3	-78.22	821.7	-4,431.7	4,835.8	4,824.4	11.43	423.165		
3,900.0	3,868.2	3,881.6	3,880.0	10.4	1.3	-78.24	820.0	-4,431.4	4,835.2	4,823.7	11.54	418.972		
3,937.0	3,905.2	3,921.8	3,920.1	10.5	1.3	-78.26	819.0	-4,431.2	4,834.9	4,823.2	11.61	416.455		
4,000.0	3,968.2	3,989.0	3,987.3	10.6	1.3	-78.27	817.4	-4,430.7	4,834.2	4,822.4	11.73	412.227		
4,035.4	4,003.6	4,023.3	4,021.6	10.6	1.3	-78.28	816.6	-4,430.5	4,833.8	4,822.0	11.79	409.871		
4,100.0	4,068.2	4,083.3	4,081.6	10.7	1.3	-78.30	815.3	-4,430.1	4,833.1	4,821.2	11.91	405.652		
4,133.8	4,102.1	4,114.3	4,112.5	10.8	1.3	-78.30	814.7	-4,429.9	4,832.7	4,820.8	11.98	403.457		
4,200.0	4,168.2	4,173.5	4,171.8	10.9	1.3	-78.31	813.6	-4,429.6	4,832.1	4,820.0	12.10	399.235		
4,232.3	4,200.5	4,200.0	4,198.3	11.0	1.4	-78.32	813.2	-4,429.5	4,831.9	4,819.7	12.16	397.203		
4,300.0	4,268.2	4,261.5	4,259.8	11.1	1.4	-78.33	812.2	-4,429.3	4,831.4	4,819.2	12.29	392.974		
4,330.7	4,298.9	4,288.3	4,286.6	11.1	1.4	-78.33	811.9	-4,429.2	4,831.3	4,818.9	12.35	391.079		
4,400.0	4,368.2	4,351.3	4,349.6	11.3	1.4	-78.34	811.1	-4,429.1	4,831.0	4,818.5	12.49	386.851		
4,429.1	4,397.3	4,378.1	4,376.4	11.3	1.4	-78.35	810.8	-4,429.1	4,830.9	4,818.3	12.54	385.088		
4,500.0	4,468.2	4,443.4	4,441.6	11.4	1.4	-78.35	810.1	-4,429.0	4,830.7	4,818.0	12.68	380.858		
4,527.5	4,495.8	4,468.8	4,467.0	11.5	1.4	-78.36	809.9	-4,429.0	4,830.7	4,817.9	12.74	379.227		
4,600.0	4,568.2	4,535.8	4,534.1	11.6	1.4	-78.36	809.2	-4,429.1	4,830.6	4,817.7	12.88	374.998		
4,625.6	4,593.8	4,559.6	4,557.8	11.7	1.4	-78.37	808.9	-4,429.2	4,830.6	4,817.7	12.93	373.513		
4,626.0	4,594.2	4,559.9	4,558.2	11.7	1.4	-78.37	808.9	-4,429.2	4,830.6	4,817.7	12.93	373.493		
4,700.0	4,668.2	4,629.3	4,627.5	11.8	1.4	-78.38	807.9	-4,429.4	4,830.6	4,817.6	13.08	369.262		
4,724.4	4,692.6	4,652.5	4,650.7	11.9	1.4	-78.39	807.4	-4,429.5	4,830.7	4,817.5	13.13	367.876		
4,800.0	4,768.2	4,734.8	4,733.0	12.0	1.4	-78.41	805.6	-4,430.0	4,830.8	4,817.5	13.29	363.595		
4,822.8	4,791.0	4,765.9	4,764.1	12.0	1.4	-78.42	804.9	-4,430.1	4,830.7	4,817.4	13.33	362.284		
4,900.0	4,868.2	4,866.1	4,864.3	12.2	1.5	-78.45	802.1	-4,430.2	4,830.4	4,816.9	13.50	357.911		
4,921.2	4,889.5	4,893.1	4,891.2	12.2	1.5	-78.46	801.4	-4,430.2	4,830.2	4,816.7	13.54	356.716		

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

Anticollision Report



Company:	PDC ENERGY	Local Co-ordinate Reference:	Well WACKER 10G-214
Project:	WELD COUNTY, COLORADO	TVD Reference:	KB-EST @ 4624.0usft (Original Well Elev)
Reference Site:	SW NW SEC. 10 T5N R64W 6th P.M.	MD Reference:	KB-EST @ 4624.0usft (Original Well Elev)
Site Error:	0.0 usft	North Reference:	True
Reference Well:	WACKER 10G-214	Survey Calculation Method:	Minimum Curvature
Well Error:	0.0 usft	Output errors are at	2.00 sigma
Reference Wellbore	ORIGINAL WELLBORE	Database:	EDM 5000.1 Single User Db
Reference Design:	PROPOSAL #1	Offset TVD Reference:	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	4,968.2	5,005.7	5,003.8	12.4	1.5	-78.49	798.4	-4,429.5	4,829.3	4,815.6	13.71	352.279	
5,019.7	4,987.9	5,027.6	5,025.7	12.4	1.5	-78.50	797.9	-4,429.3	4,829.0	4,815.3	13.75	351.205	
5,100.0	5,068.2	5,117.2	5,115.2	12.6	1.5	-78.51	796.1	-4,428.2	4,827.7	4,813.8	13.92	346.876	
5,118.1	5,086.3	5,137.5	5,135.6	12.6	1.5	-78.52	795.7	-4,427.9	4,827.4	4,813.5	13.96	345.908	
5,200.0	5,168.2	5,234.5	5,232.5	12.7	1.5	-78.53	794.2	-4,426.3	4,825.9	4,811.7	14.13	341.569	
5,216.5	5,184.7	5,256.1	5,254.1	12.8	1.5	-78.54	793.8	-4,425.9	4,825.5	4,811.4	14.16	340.692	
5,300.0	5,268.2	5,355.2	5,353.2	12.9	1.5	-78.55	792.4	-4,423.8	4,823.5	4,809.2	14.34	336.342	
5,314.9	5,283.2	5,371.8	5,369.8	13.0	1.5	-78.55	792.1	-4,423.4	4,823.2	4,808.8	14.37	335.576	
5,400.0	5,368.2	5,463.3	5,461.2	13.1	1.5	-78.56	790.6	-4,421.3	4,820.9	4,806.4	14.55	331.283	
5,413.4	5,381.6	5,477.5	5,475.4	13.2	1.6	-78.56	790.4	-4,420.9	4,820.6	4,806.0	14.58	330.614	
5,500.0	5,468.2	5,563.1	5,561.1	13.3	1.6	-78.58	788.8	-4,418.9	4,818.2	4,803.5	14.76	326.363	
5,511.8	5,480.0	5,574.5	5,572.4	13.3	1.6	-78.58	788.6	-4,418.6	4,817.9	4,803.1	14.79	325.791	
5,600.0	5,568.2	5,668.2	5,666.1	13.5	1.6	-78.60	786.6	-4,416.4	4,815.5	4,800.6	14.98	321.537	
5,610.2	5,578.4	5,679.5	5,677.4	13.5	1.6	-78.60	786.4	-4,416.2	4,815.3	4,800.3	15.00	321.046	
5,700.0	5,668.2	5,776.8	5,774.6	13.7	1.6	-78.62	784.0	-4,413.8	4,812.7	4,797.5	15.19	316.796	
5,708.6	5,676.9	5,786.1	5,783.9	13.7	1.6	-78.62	783.8	-4,413.6	4,812.4	4,797.2	15.21	316.390	
5,800.0	5,768.2	5,879.0	5,876.7	13.9	1.6	-78.65	781.2	-4,411.2	4,809.7	4,794.3	15.41	312.178	
5,807.1	5,775.3	5,886.1	5,883.8	13.9	1.6	-78.65	781.0	-4,411.1	4,809.5	4,794.0	15.42	311.855	
5,900.0	5,868.2	5,985.1	5,982.8	14.1	1.7	-78.68	777.9	-4,408.6	4,806.6	4,791.0	15.62	307.645	
5,905.5	5,873.7	5,991.0	5,988.7	14.1	1.7	-78.68	777.7	-4,408.4	4,806.4	4,790.8	15.64	307.398	
5,960.7	5,928.9	6,059.3	6,056.8	14.2	1.7	-78.70	775.5	-4,406.6	4,804.6	4,788.9	15.76	304.909	
6,000.0	5,968.2	6,107.7	6,105.3	14.3	1.7	11.32	774.0	-4,405.2	4,802.2	4,787.6	14.62	328.457	
6,003.9	5,972.1	6,112.1	6,109.6	14.3	1.7	11.33	773.8	-4,405.0	4,801.8	4,787.2	14.63	328.220	
6,050.0	6,018.0	6,162.4	6,159.9	14.4	1.7	11.42	772.3	-4,403.5	4,796.0	4,781.2	14.76	324.922	
6,100.0	6,067.3	6,217.5	6,214.9	14.4	1.7	11.58	770.8	-4,401.7	4,786.3	4,771.4	14.93	320.617	
6,102.3	6,069.6	6,220.2	6,217.6	14.4	1.7	11.59	770.7	-4,401.6	4,785.8	4,770.9	14.94	320.404	
6,150.0	6,116.0	6,274.1	6,271.5	14.4	1.7	11.82	769.3	-4,399.7	4,773.3	4,758.2	15.11	316.002	
6,200.0	6,163.8	6,336.2	6,333.5	14.5	1.7	12.14	767.6	-4,397.4	4,756.9	4,741.6	15.28	311.359	
6,200.8	6,164.5	6,337.3	6,334.6	14.5	1.7	12.15	767.6	-4,397.4	4,756.6	4,741.3	15.28	311.287	
6,250.0	6,210.4	6,401.6	6,398.9	14.5	1.7	12.56	765.9	-4,394.7	4,737.1	4,721.7	15.44	306.898	
6,299.2	6,254.9	6,446.6	6,443.8	14.5	1.8	13.06	764.8	-4,392.8	4,714.5	4,699.0	15.55	303.131	
6,300.0	6,255.6	6,447.3	6,444.5	14.5	1.8	13.07	764.8	-4,392.7	4,714.1	4,698.6	15.55	303.073	
6,350.0	6,299.3	6,491.3	6,488.4	14.5	1.8	13.69	763.6	-4,390.8	4,688.2	4,672.6	15.64	299.699	
6,397.6	6,339.2	6,551.5	6,548.6	14.6	1.8	14.45	762.0	-4,388.1	4,660.8	4,645.1	15.72	296.456	
6,400.0	6,341.2	6,554.7	6,551.8	14.6	1.8	14.49	761.9	-4,387.9	4,659.4	4,643.6	15.73	296.298	
6,450.0	6,381.0	6,620.2	6,617.1	14.6	1.8	15.49	760.2	-4,384.5	4,627.6	4,611.8	15.79	293.014	
6,496.0	6,415.8	6,677.4	6,674.2	14.7	1.8	16.62	758.6	-4,381.3	4,595.9	4,580.1	15.85	290.010	
6,500.0	6,418.7	6,682.1	6,678.9	14.7	1.8	16.73	758.4	-4,381.0	4,593.1	4,577.3	15.85	289.756	
6,550.0	6,453.9	6,745.8	6,742.4	14.8	1.8	18.29	756.5	-4,377.0	4,556.1	4,540.2	15.92	286.129	
6,594.5	6,483.1	6,799.7	6,796.2	15.0	1.8	20.02	754.8	-4,373.3	4,521.2	4,505.2	16.01	282.335	
6,600.0	6,486.6	6,806.0	6,802.5	15.1	1.8	20.27	754.6	-4,372.8	4,516.7	4,500.7	16.03	281.831	
6,650.0	6,516.6	6,790.0	6,786.5	15.3	1.8	22.28	755.1	-4,374.0	4,475.6	4,459.5	16.07	278.426	
6,692.9	6,540.0	6,790.0	6,786.5	15.7	1.8	24.52	755.1	-4,374.0	4,439.0	4,422.7	16.22	273.686	
6,700.0	6,543.7	6,790.0	6,786.5	15.7	1.8	24.93	755.1	-4,374.0	4,432.8	4,416.5	16.25	272.776	
6,750.0	6,567.8	6,790.0	6,786.5	16.2	1.8	28.33	755.1	-4,374.0	4,388.6	4,372.0	16.59	264.498	
6,791.3	6,585.4	6,790.0	6,786.5	16.7	1.8	31.90	755.1	-4,374.0	4,351.1	4,334.1	17.05	255.125	
6,800.0	6,588.8	6,790.0	6,786.5	16.8	1.8	32.76	755.1	-4,374.0	4,343.1	4,326.0	17.17	252.912	
6,850.0	6,606.6	6,790.0	6,786.5	17.4	1.8	38.68	755.1	-4,374.0	4,296.6	4,278.6	18.06	237.878	
6,889.7	6,618.4	6,790.0	6,786.5	18.0	1.8	44.85	755.1	-4,374.0	4,259.0	4,240.0	19.01	223.992	
6,900.0	6,621.1	6,790.0	6,786.5	18.2	1.8	46.71	755.1	-4,374.0	4,249.3	4,230.0	19.28	220.361	
6,950.0	6,632.2	6,790.0	6,786.5	19.0	1.8	57.62	755.1	-4,374.0	4,201.2	4,180.5	20.70	202.943	
6,988.2	6,638.4	6,790.0	6,786.5	19.7	1.8	68.23	755.1	-4,374.0	4,164.3	4,142.6	21.67	192.176	

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

Anticollision Report



Company:	PDC ENERGY	Local Co-ordinate Reference:	Well WACKER 10G-214
Project:	WELD COUNTY, COLORADO	TVD Reference:	KB-EST @ 4624.0usft (Original Well Elev)
Reference Site:	SW NW SEC. 10 T5N R64W 6th P.M.	MD Reference:	KB-EST @ 4624.0usft (Original Well Elev)
Site Error:	0.0 usft	North Reference:	True
Reference Well:	WACKER 10G-214	Survey Calculation Method:	Minimum Curvature
Well Error:	0.0 usft	Output errors are at	2.00 sigma
Reference Wellbore	ORIGINAL WELLBORE	Database:	EDM 5000.1 Single User Db
Reference Design:	PROPOSAL #1	Offset TVD Reference:	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	6,639.9	6,790.0	6,786.5	19.9	1.8	71.90	755.1	-4,374.0	4,152.8	4,130.9	21.90	189.649	
7,050.0	6,644.1	6,790.0	6,786.5	20.8	1.8	88.75	755.1	-4,374.0	4,104.1	4,081.5	22.62	181.451	
7,086.5	6,645.0	6,790.0	6,786.5	21.5	1.8	101.25	755.1	-4,374.0	4,068.5	4,045.0	23.44	173.606	
7,100.0	6,645.0	6,790.0	6,786.5	21.8	1.8	101.25	755.1	-4,374.0	4,055.4	4,031.7	23.70	171.143	
7,185.0	6,644.9	6,790.0	6,786.5	23.6	1.8	101.25	755.1	-4,374.0	3,972.7	3,947.3	25.42	156.266	
7,200.0	6,644.8	6,790.0	6,786.5	23.9	1.8	101.25	755.1	-4,374.0	3,958.2	3,932.4	25.73	153.853	
7,283.4	6,644.7	6,790.0	6,786.5	25.7	1.8	101.25	755.1	-4,374.0	3,877.1	3,849.6	27.53	140.808	
7,300.0	6,644.7	6,790.0	6,786.5	26.1	1.8	101.25	755.1	-4,374.0	3,861.1	3,833.2	27.89	138.423	
7,381.9	6,644.6	6,790.0	6,786.5	28.0	1.8	101.25	755.1	-4,374.0	3,781.7	3,752.0	29.75	127.104	
7,400.0	6,644.6	6,790.0	6,786.5	28.4	1.8	101.25	755.1	-4,374.0	3,764.2	3,734.0	30.16	124.787	
7,480.3	6,644.5	6,790.0	6,786.5	30.3	1.8	101.25	755.1	-4,374.0	3,686.5	3,654.4	32.05	115.009	
7,500.0	6,644.4	6,790.0	6,786.5	30.8	1.8	101.25	755.1	-4,374.0	3,667.4	3,634.9	32.52	112.784	
7,578.7	6,644.3	6,790.0	6,786.5	32.7	1.8	101.25	755.1	-4,374.0	3,591.4	3,556.9	34.42	104.342	
7,600.0	6,644.3	6,790.0	6,786.5	33.3	1.8	101.25	755.1	-4,374.0	3,570.8	3,535.9	34.93	102.219	
7,677.1	6,644.2	6,790.0	6,786.5	35.2	1.8	101.25	755.1	-4,374.0	3,496.4	3,459.6	36.84	94.919	
7,700.0	6,644.1	6,790.0	6,786.5	35.8	1.8	101.25	755.1	-4,374.0	3,474.4	3,437.0	37.40	92.900	
7,775.6	6,644.0	6,790.0	6,786.5	37.7	1.8	101.25	755.1	-4,374.0	3,401.7	3,362.4	39.29	86.570	
7,800.0	6,644.0	6,790.0	6,786.5	38.3	1.8	101.24	755.1	-4,374.0	3,378.3	3,338.4	39.91	84.654	
7,874.0	6,643.9	6,790.0	6,786.5	40.2	1.8	101.24	755.1	-4,374.0	3,307.2	3,265.5	41.79	79.146	
7,900.0	6,643.9	6,790.0	6,786.5	40.9	1.8	101.24	755.1	-4,374.0	3,282.3	3,239.9	42.45	77.327	
7,972.4	6,643.8	6,790.0	6,786.5	42.8	1.8	101.24	755.1	-4,374.0	3,213.0	3,168.7	44.31	72.517	
8,000.0	6,643.7	6,790.0	6,786.5	43.5	1.8	101.24	755.1	-4,374.0	3,186.6	3,141.6	45.01	70.791	
8,070.8	6,643.6	6,790.0	6,786.5	45.4	1.8	101.24	755.1	-4,374.0	3,119.0	3,072.1	46.85	66.574	
8,100.0	6,643.6	6,790.0	6,786.5	46.2	1.8	101.24	755.1	-4,374.0	3,091.2	3,043.6	47.60	64.935	
8,169.3	6,643.5	6,790.0	6,786.5	48.0	1.8	101.24	755.1	-4,374.0	3,025.3	2,975.8	49.41	61.225	
8,200.0	6,643.5	6,790.0	6,786.5	48.8	1.8	101.24	755.1	-4,374.0	2,996.1	2,945.8	50.21	59.666	
8,267.7	6,643.4	6,790.0	6,786.5	50.6	1.8	101.24	755.1	-4,374.0	2,931.8	2,879.9	51.99	56.392	
8,300.0	6,643.3	6,790.0	6,786.5	51.5	1.8	101.24	755.1	-4,374.0	2,901.3	2,848.4	52.84	54.908	
8,366.1	6,643.2	6,790.0	6,786.5	53.3	1.8	101.24	755.1	-4,374.0	2,838.8	2,784.2	54.58	52.008	
8,400.0	6,643.2	6,790.0	6,786.5	54.2	1.8	101.24	755.1	-4,374.0	2,806.8	2,751.3	55.48	50.594	
8,464.5	6,643.1	6,790.0	6,786.5	55.9	1.8	101.24	755.1	-4,374.0	2,746.1	2,688.9	57.19	48.018	
8,500.0	6,643.1	6,790.0	6,786.5	56.9	1.8	101.24	755.1	-4,374.0	2,712.8	2,654.6	58.13	46.670	
8,563.0	6,643.0	6,790.0	6,786.5	58.6	1.8	101.24	755.1	-4,374.0	2,653.8	2,594.0	59.80	44.376	
8,600.0	6,642.9	6,790.0	6,786.5	59.6	1.8	101.24	755.1	-4,374.0	2,619.2	2,558.4	60.79	43.087	
8,661.4	6,642.8	6,790.0	6,786.5	61.3	1.8	101.24	755.1	-4,374.0	2,561.9	2,499.5	62.43	41.039	
8,700.0	6,642.8	6,790.0	6,786.5	62.3	1.8	101.24	755.1	-4,374.0	2,526.1	2,462.6	63.46	39.808	
8,759.8	6,642.7	6,790.0	6,786.5	64.0	1.8	101.24	755.1	-4,374.0	2,470.6	2,405.6	65.06	37.975	
8,800.0	6,642.7	6,803.3	6,799.7	65.1	1.8	102.03	754.7	-4,373.0	2,433.5	2,367.4	66.03	36.853	
8,858.2	6,642.6	6,797.4	6,793.9	66.6	1.8	101.69	754.9	-4,373.4	2,379.9	2,312.2	67.64	35.185	
8,900.0	6,642.5	6,793.3	6,789.8	67.8	1.8	101.44	755.0	-4,373.7	2,341.5	2,272.8	68.79	34.039	
8,956.7	6,642.4	6,787.8	6,784.4	69.3	1.8	101.11	755.2	-4,374.1	2,289.7	2,219.4	70.36	32.543	
9,000.0	6,642.4	6,783.7	6,780.2	70.5	1.8	100.86	755.3	-4,374.4	2,250.3	2,178.7	71.56	31.446	
9,055.1	6,642.3	6,778.5	6,775.0	72.0	1.8	100.55	755.5	-4,374.8	2,200.3	2,127.2	73.09	30.104	
9,100.0	6,642.3	6,774.3	6,770.9	73.3	1.8	100.29	755.6	-4,375.1	2,159.8	2,085.4	74.34	29.054	
9,153.5	6,642.2	6,769.4	6,766.0	74.7	1.8	100.00	755.8	-4,375.4	2,111.6	2,035.8	75.83	27.848	
9,200.0	6,642.1	6,765.2	6,761.8	76.0	1.8	99.74	755.9	-4,375.7	2,070.1	1,992.9	77.12	26.842	
9,251.9	6,642.1	6,760.6	6,757.2	77.5	1.8	99.46	756.1	-4,376.0	2,023.8	1,945.3	78.57	25.758	
9,300.0	6,642.0	6,756.4	6,753.0	78.8	1.8	99.20	756.2	-4,376.3	1,981.3	1,901.4	79.91	24.794	
9,350.4	6,641.9	6,752.0	6,748.6	80.2	1.8	98.94	756.3	-4,376.6	1,937.0	1,855.7	81.32	23.820	
9,400.0	6,641.9	6,747.7	6,744.4	81.5	1.8	98.68	756.5	-4,376.9	1,893.7	1,811.0	82.71	22.896	
9,448.8	6,641.8	6,743.6	6,740.3	82.9	1.8	98.43	756.6	-4,377.1	1,851.4	1,767.3	84.08	22.020	
9,500.0	6,641.7	6,739.3	6,736.0	84.3	1.8	98.17	756.7	-4,377.4	1,807.3	1,721.8	85.51	21.136	

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

Anticollision Report



Company:	PDC ENERGY	Local Co-ordinate Reference:	Well WACKER 10G-214
Project:	WELD COUNTY, COLORADO	TVD Reference:	KB-EST @ 4624.0usft (Original Well Elev)
Reference Site:	SW NW SEC. 10 T5N R64W 6th P.M.	MD Reference:	KB-EST @ 4624.0usft (Original Well Elev)
Site Error:	0.0 usft	North Reference:	True
Reference Well:	WACKER 10G-214	Survey Calculation Method:	Minimum Curvature
Well Error:	0.0 usft	Output errors are at	2.00 sigma
Reference Wellbore	ORIGINAL WELLBORE	Database:	EDM 5000.1 Single User Db
Reference Design:	PROPOSAL #1	Offset TVD Reference:	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	6,641.7	6,735.5	6,732.1	85.6	1.8	97.93	756.8	-4,377.7	1,767.0	1,680.2	86.83	20.349		
9,600.0	6,641.6	6,731.2	6,727.8	87.1	1.8	97.67	757.0	-4,378.0	1,722.4	1,634.0	88.31	19.503		
9,645.6	6,641.5	6,727.5	6,724.2	88.3	1.8	97.44	757.1	-4,378.2	1,684.1	1,594.5	89.60	18.797		
9,700.0	6,641.5	6,723.2	6,719.9	89.8	1.8	97.18	757.2	-4,378.5	1,639.1	1,548.0	91.12	17.988		
9,744.1	6,641.4	6,719.8	6,716.5	91.0	1.8	96.97	757.3	-4,378.7	1,603.0	1,510.6	92.36	17.355		
9,800.0	6,641.3	6,715.5	6,712.2	92.6	1.8	96.71	757.4	-4,379.0	1,557.7	1,463.8	93.93	16.584		
9,842.5	6,641.3	6,712.2	6,708.9	93.8	1.8	96.51	757.5	-4,379.2	1,523.8	1,428.7	95.13	16.019		
9,900.0	6,641.2	6,707.9	6,704.6	95.4	1.8	96.24	757.7	-4,379.4	1,478.6	1,381.9	96.74	15.284		
9,940.9	6,641.1	6,704.9	6,701.6	96.5	1.8	96.06	757.8	-4,379.6	1,447.0	1,349.1	97.90	14.781		
10,000.0	6,641.1	6,700.5	6,697.3	98.1	1.8	95.79	757.9	-4,379.9	1,402.2	1,302.6	99.56	14.084		
10,039.3	6,641.0	6,697.7	6,694.5	99.2	1.8	95.62	758.0	-4,380.1	1,372.9	1,272.3	100.66	13.639		
10,100.0	6,640.9	6,693.5	6,690.2	100.9	1.8	95.35	758.1	-4,380.3	1,328.8	1,226.5	102.37	12.981		
10,137.8	6,640.9	6,690.8	6,687.6	102.0	1.8	95.19	758.2	-4,380.5	1,302.0	1,198.6	103.43	12.588		
10,200.0	6,640.8	6,686.6	6,683.4	103.7	1.8	94.93	758.3	-4,380.7	1,259.1	1,153.9	105.18	11.971		
10,236.2	6,640.8	6,684.1	6,680.9	104.7	1.8	94.78	758.4	-4,380.9	1,234.9	1,128.7	106.20	11.628		
10,300.0	6,640.7	6,679.8	6,676.6	106.5	1.8	94.51	758.5	-4,381.1	1,193.7	1,085.7	108.00	11.053		
10,334.6	6,640.6	6,677.5	6,674.3	107.4	1.8	94.37	758.6	-4,381.3	1,172.2	1,063.2	108.97	10.756		
10,400.0	6,640.6	6,673.2	6,670.0	109.3	1.8	94.10	758.7	-4,381.5	1,133.3	1,022.5	110.81	10.227		
10,433.0	6,640.5	6,671.0	6,667.8	110.2	1.8	93.97	758.8	-4,381.7	1,114.6	1,002.8	111.74	9.974		
10,500.0	6,640.4	6,666.7	6,663.5	112.0	1.8	93.70	758.9	-4,381.9	1,078.7	965.1	113.63	9.494		
10,531.5	6,640.4	6,664.6	6,661.5	112.9	1.8	93.58	758.9	-4,382.0	1,062.9	948.4	114.51	9.282		
10,600.0	6,640.3	6,660.3	6,657.1	114.8	1.8	93.31	759.1	-4,382.3	1,031.0	914.5	116.44	8.854		
10,629.9	6,640.3	6,658.4	6,655.2	115.7	1.8	93.19	759.1	-4,382.4	1,018.2	900.9	117.28	8.681		
10,700.0	6,640.2	6,654.0	6,650.9	117.6	1.8	92.92	759.2	-4,382.7	991.0	871.8	119.25	8.310		
10,728.3	6,640.1	6,652.2	6,649.1	118.4	1.8	92.81	759.3	-4,382.8	981.2	861.2	120.05	8.174		
10,800.0	6,640.0	6,647.9	6,644.7	120.4	1.8	92.54	759.4	-4,383.0	959.8	837.7	122.07	7.863		
10,826.7	6,640.0	6,646.2	6,643.1	121.2	1.8	92.44	759.5	-4,383.1	953.1	830.2	122.82	7.760		
10,900.0	6,639.9	6,641.8	6,638.7	123.2	1.8	92.17	759.6	-4,383.4	938.2	813.3	124.88	7.513		
10,925.2	6,639.9	6,640.3	6,637.2	123.9	1.8	92.07	759.6	-4,383.4	934.4	808.8	125.58	7.440		
11,000.0	6,639.8	6,635.9	6,632.8	126.0	1.8	91.80	759.7	-4,383.7	927.0	799.3	127.68	7.260		
11,023.6	6,639.8	6,634.5	6,631.4	126.6	1.8	91.71	759.8	-4,383.8	925.8	797.5	128.35	7.214		
11,055.5	6,639.7	6,632.6	6,629.5	127.5	1.8	91.60	759.8	-4,383.9	925.3	796.1	129.24	7.159 CC		
11,100.0	6,639.7	6,630.1	6,627.0	128.8	1.8	91.44	759.9	-4,384.0	926.4	795.9	130.49	7.099 ES		
11,122.0	6,639.6	6,628.8	6,625.7	129.4	1.8	91.36	759.9	-4,384.1	927.7	796.6	131.11	7.076		
11,200.0	6,639.5	6,624.4	6,621.3	131.6	1.8	91.09	760.1	-4,384.3	936.5	803.2	133.29	7.026		
11,220.4	6,639.5	6,623.2	6,620.1	132.1	1.8	91.02	760.1	-4,384.4	939.8	806.0	133.87	7.021 SF		
11,300.0	6,639.4	6,618.7	6,615.7	134.4	1.8	90.74	760.2	-4,384.6	957.0	820.9	136.10	7.032		
11,318.9	6,639.4	6,617.7	6,614.6	134.9	1.8	90.67	760.3	-4,384.7	961.9	825.3	136.62	7.041		
11,400.0	6,639.3	6,613.2	6,610.2	137.1	1.8	90.40	760.4	-4,384.9	987.2	848.3	138.89	7.107		
11,417.3	6,639.3	6,612.3	6,609.2	137.6	1.8	90.34	760.4	-4,385.0	993.3	853.9	139.38	7.127		
11,500.0	6,639.2	6,607.8	6,604.7	139.9	1.8	90.06	760.5	-4,385.2	1,026.2	884.5	141.69	7.243		
11,515.7	6,639.1	6,607.0	6,603.9	140.4	1.8	90.01	760.5	-4,385.3	1,033.1	891.0	142.13	7.269		
11,600.0	6,639.0	6,602.5	6,599.4	142.7	1.8	89.73	760.7	-4,385.5	1,073.2	928.7	144.49	7.428		
11,614.1	6,639.0	6,601.7	6,598.7	143.1	1.8	89.69	760.7	-4,385.5	1,080.4	935.5	144.88	7.457		
11,700.0	6,638.9	6,597.3	6,594.2	145.5	1.8	89.41	760.8	-4,385.8	1,127.1	979.8	147.28	7.653		
11,712.6	6,638.9	6,596.6	6,593.6	145.9	1.8	89.37	760.8	-4,385.8	1,134.3	986.7	147.63	7.683		
11,800.0	6,638.8	6,592.2	6,589.2	148.3	1.8	89.10	760.9	-4,386.0	1,186.9	1,036.8	150.07	7.909		
11,811.0	6,638.8	6,591.7	6,588.6	148.6	1.8	89.07	761.0	-4,386.1	1,193.8	1,043.5	150.37	7.939		
11,900.0	6,638.7	6,587.2	6,584.2	151.1	1.8	88.79	761.1	-4,386.3	1,251.9	1,099.0	152.85	8.190		
11,909.4	6,638.6	6,586.8	6,583.7	151.4	1.8	88.77	761.1	-4,386.3	1,258.2	1,105.1	153.11	8.218		
12,000.0	6,638.5	6,582.3	6,579.3	153.9	1.8	88.49	761.2	-4,386.5	1,321.2	1,165.6	155.63	8.489		
12,007.8	6,638.5	6,581.9	6,578.9	154.1	1.8	88.47	761.2	-4,386.6	1,326.8	1,171.0	155.85	8.513		

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

Anticollision Report



Company:	PDC ENERGY	Local Co-ordinate Reference:	Well WACKER 10G-214
Project:	WELD COUNTY, COLORADO	TVD Reference:	KB-EST @ 4624.0usft (Original Well Elev)
Reference Site:	SW NW SEC. 10 T5N R64W 6th P.M.	MD Reference:	KB-EST @ 4624.0usft (Original Well Elev)
Site Error:	0.0 usft	North Reference:	True
Reference Well:	WACKER 10G-214	Survey Calculation Method:	Minimum Curvature
Well Error:	0.0 usft	Output errors are at	2.00 sigma
Reference Wellbore	ORIGINAL WELLBORE	Database:	EDM 5000.1 Single User Db
Reference Design:	PROPOSAL #1	Offset TVD Reference:	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	
12,100.0	6,638.4	6,577.5	6,574.5	156.7	1.8	88.19	761.3	-4,386.8	1,394.2	1,235.8	158.41	8.801	
12,106.3	6,638.4	6,577.2	6,574.2	156.9	1.8	88.18	761.3	-4,386.8	1,398.9	1,240.3	158.59	8.821	
12,200.0	6,638.3	6,572.8	6,569.8	159.5	1.8	87.90	761.5	-4,387.0	1,470.4	1,309.2	161.19	9.122	
12,204.7	6,638.3	6,572.5	6,569.5	159.6	1.8	87.89	761.5	-4,387.0	1,474.1	1,312.8	161.32	9.138	
12,300.0	6,638.2	6,568.1	6,565.1	162.3	1.8	87.62	761.6	-4,387.3	1,549.3	1,385.4	163.96	9.449	
12,303.1	6,638.2	6,567.9	6,565.0	162.4	1.8	87.61	761.6	-4,387.3	1,551.8	1,387.8	164.05	9.460	
12,400.0	6,638.0	6,563.5	6,560.5	165.1	1.8	87.33	761.7	-4,387.5	1,630.5	1,463.8	166.73	9.779	
12,401.5	6,638.0	6,563.4	6,560.4	165.2	1.8	87.33	761.7	-4,387.5	1,631.8	1,465.0	166.77	9.784	
12,500.0	6,637.9	6,559.0	6,556.0	167.9	1.8	87.06	761.8	-4,387.7	1,713.7	1,544.2	169.50	10.110	
12,598.4	6,637.8	6,554.6	6,551.6	170.7	1.8	86.79	762.0	-4,387.9	1,797.2	1,625.0	172.22	10.436	
12,600.0	6,637.8	6,554.5	6,551.6	170.7	1.8	86.78	762.0	-4,387.9	1,798.6	1,626.3	172.26	10.441	
12,696.8	6,637.7	6,550.3	6,547.3	173.4	1.8	86.52	762.1	-4,388.1	1,882.1	1,707.2	174.93	10.759	
12,700.0	6,637.7	6,550.1	6,547.2	173.5	1.8	86.51	762.1	-4,388.1	1,884.9	1,709.9	175.02	10.770	
12,795.2	6,637.6	6,546.0	6,543.1	176.2	1.8	86.26	762.2	-4,388.3	1,968.3	1,790.7	177.65	11.080	
12,800.0	6,637.6	6,545.8	6,542.9	176.3	1.8	86.25	762.2	-4,388.3	1,972.5	1,794.8	177.78	11.096	
12,893.7	6,637.4	6,541.9	6,538.9	178.9	1.8	86.01	762.3	-4,388.5	2,055.6	1,875.3	180.35	11.398	
12,900.0	6,637.4	6,541.6	6,538.6	179.1	1.8	85.99	762.3	-4,388.5	2,061.3	1,880.7	180.53	11.418	
12,992.1	6,637.3	6,537.7	6,534.8	181.7	1.8	85.75	762.4	-4,388.7	2,143.9	1,960.8	183.06	11.711	
13,000.0	6,637.3	6,537.4	6,534.5	181.9	1.8	85.73	762.4	-4,388.7	2,151.0	1,967.7	183.28	11.736	
13,090.5	6,637.2	6,533.7	6,530.7	184.4	1.8	85.51	762.5	-4,388.9	2,233.0	2,047.2	185.76	12.020	
13,100.0	6,637.2	6,533.3	6,530.4	184.7	1.8	85.48	762.5	-4,388.9	2,241.6	2,055.6	186.02	12.050	
13,188.9	6,637.1	6,529.7	6,526.7	187.2	1.8	85.26	762.6	-4,389.1	2,322.8	2,134.3	188.46	12.325	
13,200.0	6,637.1	6,529.2	6,526.3	187.5	1.8	85.23	762.6	-4,389.1	2,332.9	2,144.2	188.76	12.359	
13,287.4	6,637.0	6,525.7	6,522.8	190.0	1.8	85.02	762.7	-4,389.3	2,413.3	2,222.1	191.16	12.625	
13,300.0	6,637.0	6,525.2	6,522.3	190.3	1.8	84.99	762.7	-4,389.3	2,424.9	2,233.4	191.50	12.663	
13,385.8	6,636.9	6,521.9	6,518.9	192.7	1.8	84.79	762.8	-4,389.5	2,504.4	2,310.5	193.85	12.919	
13,400.0	6,636.8	6,521.3	6,518.4	193.1	1.8	84.75	762.8	-4,389.5	2,517.6	2,323.3	194.24	12.961	
13,484.2	6,636.7	6,518.0	6,515.1	195.5	1.8	84.55	762.9	-4,389.6	2,596.0	2,399.4	196.54	13.209	
13,500.0	6,636.7	6,517.4	6,514.5	195.9	1.8	84.52	762.9	-4,389.7	2,610.7	2,413.7	196.97	13.254	
13,582.6	6,636.6	6,514.3	6,511.4	198.2	1.8	84.32	763.0	-4,389.8	2,688.1	2,488.8	199.22	13.493	
13,600.0	6,636.6	6,513.6	6,510.7	198.7	1.8	84.28	763.0	-4,389.8	2,704.4	2,504.7	199.70	13.542	
13,681.1	6,636.5	6,510.5	6,507.6	201.0	1.8	84.10	763.1	-4,390.0	2,780.6	2,578.7	201.91	13.772	
13,700.0	6,636.5	6,509.8	6,506.9	201.5	1.8	84.05	763.1	-4,390.0	2,798.4	2,596.0	202.42	13.825	
13,779.5	6,636.4	6,500.0	6,497.1	203.7	1.8	83.46	763.4	-4,390.4	2,873.5	2,669.1	204.45	14.055	
13,800.0	6,636.4	6,500.0	6,497.1	204.3	1.8	83.46	763.4	-4,390.4	2,892.9	2,687.9	205.02	14.110	
13,877.9	6,636.3	6,500.0	6,497.1	206.5	1.8	83.46	763.4	-4,390.4	2,966.8	2,759.6	207.19	14.319	
13,900.0	6,636.3	6,500.0	6,497.1	207.1	1.8	83.46	763.4	-4,390.4	2,987.7	2,779.9	207.81	14.377	
13,976.3	6,636.2	6,500.0	6,497.1	209.3	1.8	83.46	763.4	-4,390.4	3,060.3	2,850.4	209.94	14.577	
14,000.0	6,636.1	6,498.6	6,495.7	209.9	1.8	83.37	763.4	-4,390.5	3,082.9	2,872.3	210.57	14.641	
14,074.8	6,636.0	6,495.3	6,492.4	212.0	1.8	83.17	763.5	-4,390.7	3,154.2	2,941.6	212.58	14.838	
14,100.0	6,636.0	6,494.2	6,491.3	212.7	1.8	83.11	763.5	-4,390.7	3,178.3	2,965.0	213.26	14.903	
14,173.2	6,635.9	6,490.9	6,488.1	214.8	1.8	82.91	763.6	-4,390.8	3,248.3	3,033.1	215.23	15.093	
14,200.0	6,635.9	6,489.8	6,486.9	215.5	1.8	82.84	763.7	-4,390.9	3,274.0	3,058.0	215.94	15.161	
14,271.6	6,635.8	6,486.6	6,483.7	217.5	1.8	82.65	763.7	-4,391.0	3,342.7	3,124.8	217.86	15.343	
14,300.0	6,635.8	6,485.3	6,482.5	218.3	1.8	82.57	763.8	-4,391.1	3,369.9	3,151.3	218.62	15.414	
14,370.0	6,635.7	6,482.3	6,479.4	220.3	1.8	82.39	763.9	-4,391.2	3,437.3	3,216.8	220.49	15.589	
14,400.0	6,635.7	6,480.9	6,478.1	221.1	1.8	82.31	763.9	-4,391.3	3,466.1	3,244.8	221.29	15.663	
14,468.5	6,635.6	6,477.9	6,475.1	223.1	1.8	82.13	764.0	-4,391.4	3,532.1	3,308.9	223.12	15.830	
14,500.0	6,635.6	6,476.5	6,473.7	223.9	1.8	82.04	764.0	-4,391.5	3,562.5	3,338.5	223.96	15.907	
14,566.9	6,635.5	6,473.6	6,470.7	225.8	1.8	81.87	764.1	-4,391.6	3,627.0	3,401.3	225.74	16.067	
14,600.0	6,635.4	6,472.1	6,469.3	226.8	1.8	81.78	764.1	-4,391.7	3,659.0	3,432.4	226.62	16.146	
14,665.3	6,635.4	6,469.3	6,466.4	228.6	1.8	81.61	764.2	-4,391.8	3,722.2	3,493.9	228.35	16.300	

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

Anticollision Report



Company:	PDC ENERGY	Local Co-ordinate Reference:	Well WACKER 10G-214
Project:	WELD COUNTY, COLORADO	TVD Reference:	KB-EST @ 4624.0usft (Original Well Elev)
Reference Site:	SW NW SEC. 10 T5N R64W 6th P.M.	MD Reference:	KB-EST @ 4624.0usft (Original Well Elev)
Site Error:	0.0 usft	North Reference:	True
Reference Well:	WACKER 10G-214	Survey Calculation Method:	Minimum Curvature
Well Error:	0.0 usft	Output errors are at	2.00 sigma
Reference Wellbore	ORIGINAL WELLBORE	Database:	EDM 5000.1 Single User Db
Reference Design:	PROPOSAL #1	Offset TVD Reference:	Offset Datum

Offset Design SW NW SEC. 10 T5N R64W 6th P.M. - EXIST VERT BLOSKAS BOND #9D - 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	
14,700.0	6,635.3	6,467.7	6,464.9	229.6	1.8	81.52	764.2	-4,391.9	3,755.8	3,526.5	229.27	16.382	
14,763.7	6,635.2	6,464.9	6,462.1	231.3	1.8	81.35	764.3	-4,392.0	3,817.5	3,586.6	230.95	16.529	
14,800.0	6,635.2	6,463.4	6,460.5	232.4	1.8	81.26	764.3	-4,392.0	3,852.7	3,620.8	231.91	16.613	
14,862.2	6,635.1	6,460.6	6,457.8	234.1	1.8	81.09	764.4	-4,392.2	3,913.0	3,679.4	233.55	16.754	
14,900.0	6,635.1	6,459.0	6,456.1	235.2	1.8	80.99	764.5	-4,392.2	3,949.7	3,715.2	234.55	16.840	
14,960.6	6,635.0	6,456.3	6,453.5	236.9	1.8	80.84	764.5	-4,392.4	4,008.6	3,772.5	236.14	16.975	
14,982.9	6,635.0	6,455.4	6,452.5	237.5	1.8	80.78	764.6	-4,392.4	4,030.2	3,793.5	236.73	17.025	

Anticollision Report



Company:	PDC ENERGY	Local Co-ordinate Reference:	Well WACKER 10G-214
Project:	WELD COUNTY, COLORADO	TVD Reference:	KB-EST @ 4624.0usft (Original Well Elev)
Reference Site:	SW NW SEC. 10 T5N R64W 6th P.M.	MD Reference:	KB-EST @ 4624.0usft (Original Well Elev)
Site Error:	0.0 usft	North Reference:	True
Reference Well:	WACKER 10G-214	Survey Calculation Method:	Minimum Curvature
Well Error:	0.0 usft	Output errors are at	2.00 sigma
Reference Wellbore	ORIGINAL WELLBORE	Database:	EDM 5000.1 Single User Db
Reference Design:	PROPOSAL #1	Offset TVD Reference:	Offset Datum

Offset Design SW NW SEC. 10 T5N R64W 6th P.M. - EXIST VERT BOND #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	-88.44	103.8	-3,798.4	3,800.0					
98.4	98.4	39.6	39.6	0.1	0.0	-88.44	103.7	-3,798.6	3,800.0	3,799.9	0.10	N/A		
100.0	100.0	40.6	40.6	0.1	0.0	-88.44	103.7	-3,798.6	3,800.0	3,799.9	0.10	N/A		
196.8	196.8	106.5	106.5	0.3	0.0	-88.44	103.6	-3,799.3	3,801.1	3,800.7	0.35	N/A		
200.0	200.0	111.0	111.0	0.3	0.1	-88.44	103.6	-3,799.3	3,801.1	3,800.7	0.36	N/A		
295.3	295.3	237.0	237.0	0.5	0.2	-88.45	103.2	-3,800.5	3,801.9	3,801.2	0.77	4,910.726		
300.0	300.0	242.4	242.4	0.5	0.2	-88.45	103.1	-3,800.5	3,802.0	3,801.2	0.79	4,819.541		
393.7	393.7	349.1	349.1	0.8	0.3	-88.46	102.3	-3,800.9	3,802.3	3,801.2	1.08	3,533.669		
400.0	400.0	356.2	356.2	0.8	0.3	-88.46	102.2	-3,800.9	3,802.3	3,801.2	1.10	3,472.221		
492.1	492.1	449.5	449.4	1.0	0.4	-88.47	101.4	-3,801.1	3,802.4	3,801.1	1.36	2,793.777		
500.0	500.0	456.8	456.7	1.0	0.4	-88.47	101.4	-3,801.1	3,802.4	3,801.0	1.38	2,749.434		
590.5	590.5	543.0	543.0	1.2	0.4	-88.48	100.8	-3,801.3	3,802.6	3,801.0	1.63	2,326.481		
600.0	600.0	552.2	552.2	1.2	0.5	-88.48	100.7	-3,801.3	3,802.7	3,801.0	1.66	2,289.871		
689.0	689.0	640.7	640.6	1.4	0.5	-88.49	100.1	-3,801.6	3,802.9	3,801.0	1.91	1,995.596		
700.0	700.0	651.8	651.8	1.4	0.5	-88.49	100.0	-3,801.6	3,803.0	3,801.0	1.94	1,964.489		
787.4	787.4	742.3	742.3	1.6	0.6	-88.50	99.3	-3,801.9	3,803.2	3,801.0	2.17	1,748.783		
800.0	800.0	755.7	755.7	1.7	0.6	-88.50	99.2	-3,801.9	3,803.2	3,801.0	2.21	1,721.585		
885.8	885.8	847.4	847.4	1.9	0.6	-88.52	98.3	-3,802.1	3,803.3	3,800.9	2.44	1,556.859		
900.0	900.0	862.6	862.6	1.9	0.6	-88.52	98.2	-3,802.1	3,803.3	3,800.9	2.48	1,532.662		
984.2	984.2	955.8	955.7	2.1	0.7	-88.53	97.5	-3,802.0	3,803.3	3,800.6	2.71	1,403.885		
1,000.0	1,000.0	973.6	973.5	2.1	0.7	-88.53	97.4	-3,802.0	3,803.2	3,800.5	2.75	1,382.278		
1,082.7	1,082.7	1,060.2	1,060.1	2.3	0.7	-88.54	97.0	-3,801.7	3,802.9	3,800.0	2.97	1,279.194		
1,100.0	1,100.0	1,077.8	1,077.7	2.3	0.7	-88.54	96.9	-3,801.6	3,802.9	3,799.8	3.02	1,259.541		
1,181.1	1,181.1	1,153.0	1,152.9	2.5	0.7	-88.55	96.4	-3,801.4	3,802.6	3,799.4	3.23	1,176.316		
1,200.0	1,200.0	1,169.9	1,169.8	2.6	0.7	-88.55	96.3	-3,801.3	3,802.6	3,799.3	3.28	1,158.591		
1,279.5	1,279.5	1,252.2	1,252.2	2.7	0.8	-88.55	96.0	-3,801.2	3,802.4	3,798.9	3.49	1,088.320		
1,300.0	1,300.0	1,275.5	1,275.5	2.8	0.8	-88.55	95.9	-3,801.1	3,802.4	3,798.8	3.55	1,071.364		
1,312.0	1,312.0	1,289.2	1,289.1	2.8	0.8	152.80	95.9	-3,801.1	3,802.4	3,798.8	3.53	1,077.039		
1,377.9	1,377.9	1,349.8	1,349.7	3.0	0.8	152.79	95.5	-3,800.9	3,803.1	3,799.4	3.68	1,032.712		
1,400.0	1,400.0	1,369.2	1,369.2	3.0	0.8	152.79	95.4	-3,800.9	3,803.6	3,799.9	3.73	1,018.798		
1,476.4	1,476.3	1,448.6	1,448.6	3.1	0.8	152.78	95.0	-3,800.8	3,806.8	3,802.9	3.90	975.863		
1,500.0	1,499.8	1,476.4	1,476.3	3.2	0.9	152.78	94.9	-3,800.7	3,808.1	3,804.2	3.95	963.270		
1,574.8	1,574.4	1,551.9	1,551.8	3.3	0.9	152.77	94.6	-3,800.4	3,813.3	3,809.2	4.12	924.707		
1,600.0	1,599.5	1,575.7	1,575.7	3.4	0.9	152.76	94.4	-3,800.3	3,815.5	3,811.3	4.18	912.588		
1,673.2	1,672.2	1,648.8	1,648.8	3.6	0.9	152.75	93.8	-3,800.1	3,822.9	3,818.5	4.36	877.518		
1,700.0	1,698.7	1,676.2	1,676.2	3.6	0.9	152.74	93.7	-3,800.0	3,826.0	3,821.6	4.42	865.420		
1,771.6	1,769.5	1,741.4	1,741.3	3.8	0.9	152.72	93.3	-3,799.8	3,835.4	3,830.8	4.60	833.759		
1,800.0	1,797.5	1,765.6	1,765.5	3.9	1.0	152.70	93.2	-3,799.7	3,839.6	3,835.0	4.67	822.104		
1,870.1	1,866.3	1,824.2	1,824.2	4.1	1.0	152.67	92.9	-3,799.7	3,851.2	3,846.4	4.86	793.204		
1,900.2	1,895.8	1,848.8	1,848.7	4.2	1.0	152.65	92.8	-3,799.8	3,856.7	3,851.8	4.93	781.723		
1,968.5	1,962.6	1,905.7	1,905.7	4.4	1.0	152.73	92.6	-3,800.0	3,869.7	3,864.6	5.11	756.777		
2,000.0	1,993.4	1,940.1	1,940.1	4.5	1.0	152.77	92.5	-3,800.2	3,875.7	3,870.5	5.20	745.631		
2,066.9	2,058.9	2,010.4	2,010.4	4.7	1.0	152.87	92.3	-3,800.4	3,888.3	3,883.0	5.38	722.161		
2,100.0	2,091.2	2,038.9	2,038.8	4.8	1.0	152.91	92.2	-3,800.5	3,894.6	3,889.1	5.47	711.633		
2,165.3	2,155.2	2,100.0	2,099.9	5.1	1.1	153.00	92.1	-3,800.8	3,907.1	3,901.4	5.65	691.080		
2,200.0	2,189.1	2,130.4	2,130.4	5.2	1.1	153.04	92.1	-3,801.0	3,913.7	3,908.0	5.75	680.310		
2,263.8	2,251.4	2,197.4	2,197.4	5.5	1.1	153.13	92.3	-3,801.3	3,925.9	3,920.0	5.94	661.144		
2,300.0	2,286.9	2,237.9	2,237.9	5.6	1.1	153.19	92.5	-3,801.5	3,932.8	3,926.8	6.04	650.804		
2,362.2	2,347.7	2,307.2	2,307.1	5.8	1.1	153.30	92.9	-3,801.6	3,944.5	3,938.3	6.23	633.553		
2,400.0	2,384.7	2,346.3	2,346.2	6.0	1.1	153.35	93.1	-3,801.6	3,951.6	3,945.3	6.34	623.570		
2,460.6	2,444.0	2,409.4	2,409.4	6.2	1.1	153.44	93.4	-3,801.6	3,962.9	3,956.4	6.52	607.963		
2,500.0	2,482.5	2,452.0	2,452.0	6.4	1.1	153.50	93.5	-3,801.5	3,970.2	3,963.6	6.64	598.255		

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

Anticollision Report



Company:	PDC ENERGY	Local Co-ordinate Reference:	Well WACKER 10G-214
Project:	WELD COUNTY, COLORADO	TVD Reference:	KB-EST @ 4624.0usft (Original Well Elev)
Reference Site:	SW NW SEC. 10 T5N R64W 6th P.M.	MD Reference:	KB-EST @ 4624.0usft (Original Well Elev)
Site Error:	0.0 usft	North Reference:	True
Reference Well:	WACKER 10G-214	Survey Calculation Method:	Minimum Curvature
Well Error:	0.0 usft	Output errors are at	2.00 sigma
Reference Wellbore	ORIGINAL WELLBORE	Database:	EDM 5000.1 Single User Db
Reference Design:	PROPOSAL #1	Offset TVD Reference:	Offset Datum

Offset Design SW NW SEC. 10 T5N R64W 6th P.M. - EXIST VERT BOND #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		
2,559.0	2,540.3	2,513.2	2,513.1	6.6	1.1	153.59	93.8	-3,801.4	3,981.2	3,974.3	6.81	584.249		
2,600.0	2,580.3	2,549.9	2,549.8	6.8	1.1	153.64	94.0	-3,801.3	3,988.7	3,981.8	6.94	574.987		
2,657.5	2,636.5	2,601.6	2,601.5	7.1	1.1	153.72	94.4	-3,801.2	3,999.4	3,992.3	7.11	562.385		
2,700.0	2,678.1	2,647.4	2,647.3	7.2	1.1	153.79	94.8	-3,801.2	4,007.4	4,000.1	7.24	553.348		
2,755.9	2,732.8	2,706.1	2,706.1	7.5	1.1	153.87	95.1	-3,801.0	4,017.7	4,010.3	7.41	541.850		
2,800.0	2,775.9	2,744.3	2,744.2	7.7	1.1	153.92	95.3	-3,800.9	4,025.9	4,018.4	7.55	533.273		
2,854.3	2,829.1	2,791.2	2,791.1	7.9	1.1	153.99	95.5	-3,800.9	4,036.1	4,028.3	7.72	523.038		
2,900.0	2,873.8	2,834.2	2,834.1	8.1	1.1	154.05	95.7	-3,800.9	4,044.7	4,036.8	7.86	514.656		
2,952.7	2,925.4	2,885.0	2,885.0	8.3	1.1	154.12	96.0	-3,800.9	4,054.6	4,046.6	8.02	505.307		
2,953.5	2,926.1	2,885.7	2,885.7	8.3	1.1	154.12	96.0	-3,800.9	4,054.8	4,046.7	8.03	505.180		
3,000.0	2,971.6	2,936.1	2,936.0	8.5	1.1	154.26	96.3	-3,800.9	4,063.2	4,055.0	8.15	498.623		
3,051.2	3,022.0	2,994.4	2,994.4	8.7	1.1	154.41	96.6	-3,800.8	4,071.6	4,063.3	8.27	492.435		
3,100.0	3,070.1	3,041.2	3,041.1	8.8	1.1	154.52	96.8	-3,800.7	4,078.8	4,070.4	8.38	486.662		
3,149.6	3,119.1	3,087.7	3,087.6	8.9	1.1	154.62	97.1	-3,800.6	4,085.4	4,076.9	8.49	481.162		
3,200.0	3,169.1	3,129.5	3,129.4	9.1	1.1	154.71	97.4	-3,800.6	4,091.4	4,082.8	8.60	475.656		
3,248.0	3,216.8	3,167.5	3,167.4	9.2	1.1	154.79	97.7	-3,800.6	4,096.5	4,087.8	8.70	470.814		
3,300.0	3,268.5	3,211.1	3,211.0	9.3	1.1	154.86	98.1	-3,800.8	4,101.3	4,092.5	8.81	465.570		
3,346.4	3,314.8	3,258.1	3,258.0	9.4	1.2	154.92	98.7	-3,801.0	4,104.9	4,096.0	8.90	461.103		
3,400.0	3,368.3	3,312.1	3,312.0	9.6	1.2	154.98	99.4	-3,801.2	4,108.2	4,099.2	9.01	455.979		
3,444.9	3,413.1	3,356.8	3,356.7	9.6	1.2	155.01	99.9	-3,801.4	4,110.3	4,101.2	9.09	451.977		
3,500.0	3,468.2	3,411.3	3,411.2	9.7	1.2	155.04	100.5	-3,801.6	4,112.0	4,102.8	9.20	447.045		
3,543.3	3,511.5	3,452.8	3,452.7	9.8	1.2	155.06	100.8	-3,801.8	4,112.6	4,103.4	9.28	443.356		
3,553.7	3,521.9	3,462.8	3,462.7	9.8	1.2	-86.29	100.9	-3,801.9	4,112.7	4,102.1	10.66	385.904		
3,600.0	3,568.2	3,507.3	3,507.2	9.9	1.2	-86.29	101.2	-3,802.1	4,113.0	4,102.2	10.74	383.009		
3,641.7	3,609.9	3,548.5	3,548.4	10.0	1.2	-86.28	101.6	-3,802.3	4,113.2	4,102.4	10.82	380.281		
3,700.0	3,668.2	3,605.8	3,605.7	10.1	1.2	-86.27	102.2	-3,802.6	4,113.6	4,102.7	10.92	376.535		
3,740.1	3,708.4	3,644.2	3,644.1	10.1	1.2	-86.27	102.7	-3,802.8	4,113.8	4,102.8	11.00	373.973		
3,800.0	3,768.2	3,701.6	3,701.5	10.2	1.2	-86.26	103.2	-3,803.2	4,114.3	4,103.1	11.11	370.222		
3,838.6	3,806.8	3,739.9	3,739.8	10.3	1.2	-86.26	103.5	-3,803.5	4,114.5	4,103.3	11.19	367.802		
3,900.0	3,868.2	3,801.2	3,801.1	10.4	1.2	-86.25	103.9	-3,803.9	4,115.0	4,103.7	11.30	364.014		
3,937.0	3,905.2	3,846.3	3,846.2	10.5	1.3	-86.25	104.2	-3,804.1	4,115.2	4,103.8	11.38	361.702		
4,000.0	3,968.2	3,922.8	3,922.7	10.6	1.3	-86.24	104.6	-3,804.4	4,115.5	4,104.0	11.50	357.842		
4,035.4	4,003.6	3,965.4	3,965.3	10.6	1.3	-86.24	104.8	-3,804.4	4,115.5	4,103.9	11.57	355.708		
4,100.0	4,068.2	4,036.1	4,036.0	10.7	1.3	-86.24	105.0	-3,804.4	4,115.4	4,103.7	11.70	351.857		
4,133.8	4,102.1	4,070.3	4,070.1	10.8	1.3	-86.24	105.1	-3,804.3	4,115.4	4,103.6	11.76	349.848		
4,200.0	4,168.2	4,151.4	4,151.3	10.9	1.3	-86.23	105.4	-3,804.1	4,115.3	4,103.4	11.90	345.943		
4,232.3	4,200.5	4,196.6	4,196.5	11.0	1.3	-86.23	105.6	-3,803.8	4,115.0	4,103.1	11.96	344.028		
4,300.0	4,268.2	4,257.2	4,257.0	11.1	1.3	-86.23	105.8	-3,803.3	4,114.5	4,102.5	12.09	340.187		
4,330.7	4,298.9	4,284.0	4,283.9	11.1	1.3	-86.22	105.9	-3,803.2	4,114.4	4,102.2	12.16	338.465		
4,400.0	4,368.2	4,358.2	4,358.1	11.3	1.3	-86.22	106.3	-3,802.7	4,114.0	4,101.7	12.30	334.566		
4,429.1	4,397.3	4,391.5	4,391.3	11.3	1.3	-86.21	106.5	-3,802.5	4,113.8	4,101.4	12.36	332.926		
4,500.0	4,468.2	4,446.3	4,446.2	11.4	1.3	-86.21	106.8	-3,802.1	4,113.4	4,100.9	12.50	329.187		
4,527.5	4,495.8	4,466.4	4,466.3	11.5	1.3	-86.21	106.9	-3,802.1	4,113.3	4,100.7	12.55	327.761		
4,555.0	4,523.2	4,486.4	4,486.3	11.5	1.3	-86.21	107.0	-3,802.1	4,113.3	4,100.7	12.60	326.357		
4,600.0	4,568.2	4,532.8	4,532.6	11.6	1.4	-86.20	107.1	-3,802.1	4,113.3	4,100.6	12.69	324.033		
4,626.0	4,594.2	4,564.9	4,564.8	11.7	1.4	-86.20	107.3	-3,802.0	4,113.3	4,100.5	12.75	322.676		
4,700.0	4,668.2	4,651.7	4,651.5	11.8	1.4	-86.20	107.5	-3,801.7	4,113.0	4,100.1	12.90	318.813		
4,724.4	4,692.6	4,679.3	4,679.1	11.9	1.4	-86.20	107.6	-3,801.5	4,112.9	4,099.9	12.95	317.540		
4,800.0	4,768.2	4,754.3	4,754.2	12.0	1.4	-86.19	108.0	-3,801.1	4,112.4	4,099.3	13.11	313.704		
4,822.8	4,791.0	4,776.0	4,775.8	12.0	1.4	-86.19	108.0	-3,800.9	4,112.3	4,099.1	13.16	312.565		
4,900.0	4,868.2	4,862.1	4,862.0	12.2	1.4	-86.19	108.3	-3,800.4	4,111.8	4,098.5	13.32	308.721		
4,921.2	4,889.5	4,887.6	4,887.5	12.2	1.4	-86.19	108.4	-3,800.2	4,111.7	4,098.3	13.36	307.663		

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

Anticollision Report



Company:	PDC ENERGY	Local Co-ordinate Reference:	Well WACKER 10G-214
Project:	WELD COUNTY, COLORADO	TVD Reference:	KB-EST @ 4624.0usft (Original Well Elev)
Reference Site:	SW NW SEC. 10 T5N R64W 6th P.M.	MD Reference:	KB-EST @ 4624.0usft (Original Well Elev)
Site Error:	0.0 usft	North Reference:	True
Reference Well:	WACKER 10G-214	Survey Calculation Method:	Minimum Curvature
Well Error:	0.0 usft	Output errors are at	2.00 sigma
Reference Wellbore	ORIGINAL WELLBORE	Database:	EDM 5000.1 Single User Db
Reference Design:	PROPOSAL #1	Offset TVD Reference:	Offset Datum

Offset Design SW NW SEC. 10 T5N R64W 6th P.M. - EXIST VERT BOND #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		
5,000.0	4,968.2	4,965.7	4,965.5	12.4	1.4	-86.18	108.6	-3,799.5	4,111.0	4,097.4	13.53	303.868		
5,019.7	4,987.9	4,984.6	4,984.4	12.4	1.4	-86.18	108.7	-3,799.3	4,110.8	4,097.2	13.57	302.932		
5,100.0	5,068.2	5,063.1	5,062.9	12.6	1.4	-86.18	109.1	-3,798.7	4,110.2	4,096.4	13.74	299.160		
5,118.1	5,086.3	5,080.8	5,080.7	12.6	1.5	-86.17	109.2	-3,798.6	4,110.0	4,096.3	13.78	298.318		
5,200.0	5,168.2	5,167.1	5,166.9	12.7	1.5	-86.16	109.8	-3,797.8	4,109.4	4,095.4	13.95	294.524		
5,216.5	5,184.7	5,184.8	5,184.7	12.8	1.5	-86.16	110.0	-3,797.7	4,109.2	4,095.3	13.99	293.763		
5,300.0	5,268.2	5,283.7	5,283.5	12.9	1.5	-86.15	110.9	-3,796.5	4,108.3	4,094.2	14.17	289.934		
5,314.9	5,283.2	5,300.0	5,299.8	13.0	1.5	-86.14	111.1	-3,796.3	4,108.2	4,093.9	14.20	289.259		
5,400.0	5,368.2	5,377.9	5,377.7	13.1	1.5	-86.13	111.8	-3,795.3	4,107.1	4,092.7	14.38	285.536		
5,413.4	5,381.6	5,390.0	5,389.8	13.2	1.5	-86.13	112.0	-3,795.1	4,107.0	4,092.5	14.41	284.958		
5,500.0	5,468.2	5,517.0	5,516.8	13.3	1.5	-86.12	112.9	-3,793.0	4,105.5	4,090.9	14.60	281.112		
5,511.8	5,480.0	5,528.0	5,527.8	13.3	1.5	-86.12	113.0	-3,792.8	4,105.3	4,090.7	14.63	280.614		
5,600.0	5,568.2	5,600.0	5,599.8	13.5	1.6	-86.11	113.1	-3,791.3	4,103.5	4,088.7	14.82	276.979		
5,610.2	5,578.4	5,616.7	5,616.5	13.5	1.6	-86.11	113.2	-3,791.0	4,103.3	4,088.5	14.84	276.537		
5,700.0	5,668.2	5,687.7	5,687.5	13.7	1.6	-86.11	113.3	-3,789.9	4,101.9	4,086.9	15.03	272.956		
5,708.6	5,676.9	5,700.0	5,699.8	13.7	1.6	-86.11	113.4	-3,789.7	4,101.8	4,086.7	15.05	272.600		
5,800.0	5,768.2	5,800.0	5,799.8	13.9	1.6	-86.10	113.6	-3,788.2	4,100.4	4,085.2	15.24	268.978		
5,807.1	5,775.3	5,800.0	5,799.8	13.9	1.6	-86.10	113.6	-3,788.2	4,100.3	4,085.1	15.26	268.721		
5,900.0	5,868.2	5,879.4	5,879.1	14.1	1.6	-86.10	113.5	-3,787.0	4,099.0	4,083.5	15.45	265.233		
5,905.5	5,873.7	5,883.7	5,883.4	14.1	1.6	-86.10	113.5	-3,787.0	4,098.9	4,083.5	15.47	265.030		
5,960.7	5,928.9	5,936.0	5,935.7	14.2	1.6	-86.11	113.3	-3,786.5	4,098.4	4,082.8	15.58	263.003		
6,000.0	5,968.2	5,977.0	5,976.8	14.3	1.6	3.90	113.1	-3,786.0	4,096.8	4,082.2	14.69	278.952		
6,003.9	5,972.1	5,981.1	5,980.9	14.3	1.6	3.90	113.1	-3,786.0	4,096.6	4,081.9	14.70	278.772		
6,050.0	6,018.0	6,030.6	6,030.3	14.4	1.6	3.93	113.0	-3,785.4	4,091.8	4,077.0	14.81	276.201		
6,100.0	6,067.3	6,084.9	6,084.6	14.4	1.6	3.99	112.8	-3,784.7	4,083.2	4,068.3	14.97	272.770		
6,102.3	6,069.6	6,087.4	6,087.1	14.4	1.7	3.99	112.8	-3,784.7	4,082.8	4,067.8	14.98	272.600		
6,150.0	6,116.0	6,147.3	6,147.0	14.4	1.7	4.07	112.6	-3,783.8	4,071.2	4,056.1	15.14	268.983		
6,200.0	6,163.8	6,224.7	6,224.4	14.5	1.7	4.18	111.8	-3,782.3	4,055.6	4,040.3	15.30	265.019		
6,200.8	6,164.5	6,226.8	6,226.5	14.5	1.7	4.18	111.8	-3,782.3	4,055.3	4,040.0	15.31	264.948		
6,250.0	6,210.4	6,323.8	6,323.5	14.5	1.7	4.33	110.7	-3,779.3	4,036.1	4,020.6	15.47	260.844		
6,299.2	6,254.9	6,377.5	6,377.1	14.5	1.7	4.50	109.8	-3,777.3	4,013.5	3,998.0	15.58	257.529		
6,300.0	6,255.6	6,378.4	6,378.0	14.5	1.7	4.51	109.7	-3,777.2	4,013.1	3,997.6	15.59	257.478		
6,350.0	6,299.3	6,443.8	6,443.3	14.5	1.7	4.73	108.3	-3,774.6	3,987.0	3,971.4	15.68	254.316		
6,397.6	6,339.2	6,510.1	6,509.5	14.6	1.7	4.99	106.7	-3,771.4	3,959.2	3,943.5	15.74	251.536		
6,400.0	6,341.2	6,513.1	6,512.5	14.6	1.7	5.00	106.6	-3,771.3	3,957.8	3,942.0	15.74	251.409		
6,450.0	6,381.0	6,573.5	6,572.8	14.6	1.7	5.34	104.7	-3,768.1	3,925.5	3,909.7	15.77	248.923		
6,496.0	6,415.8	6,612.3	6,611.5	14.7	1.8	5.71	103.3	-3,765.8	3,893.3	3,877.6	15.75	247.193		
6,500.0	6,418.7	6,614.3	6,613.6	14.7	1.8	5.74	103.3	-3,765.7	3,890.5	3,874.7	15.75	247.082		
6,550.0	6,453.9	6,639.6	6,638.8	14.8	1.8	6.24	102.3	-3,764.3	3,853.1	3,837.4	15.68	245.787		
6,594.5	6,483.1	6,660.4	6,659.6	15.0	1.8	6.78	101.6	-3,763.2	3,818.1	3,802.5	15.60	244.763		
6,600.0	6,486.6	6,662.9	6,662.0	15.1	1.8	6.86	101.5	-3,763.0	3,813.6	3,798.0	15.59	244.645		
6,650.0	6,516.6	6,684.2	6,683.3	15.3	1.8	7.65	100.8	-3,761.9	3,772.1	3,756.6	15.49	243.466		
6,692.9	6,540.0	6,700.0	6,699.0	15.7	1.8	8.52	100.2	-3,761.1	3,735.1	3,719.7	15.42	242.219		
6,700.0	6,543.7	6,700.0	6,699.0	15.7	1.8	8.67	100.2	-3,761.1	3,728.8	3,713.4	15.41	242.049		
6,750.0	6,567.8	6,700.0	6,699.0	16.2	1.8	9.98	100.2	-3,761.1	3,684.0	3,668.7	15.33	240.266		
6,791.3	6,585.4	6,700.0	6,699.0	16.7	1.8	11.42	100.2	-3,761.1	3,646.0	3,630.7	15.33	237.769		
6,800.0	6,588.8	6,700.0	6,699.0	16.8	1.8	11.78	100.2	-3,761.1	3,637.9	3,622.6	15.34	237.106		
6,850.0	6,606.6	6,700.0	6,699.0	17.4	1.8	14.40	100.2	-3,761.1	3,590.7	3,575.2	15.51	231.509		
6,889.7	6,618.4	6,700.0	6,699.0	18.0	1.8	17.47	100.2	-3,761.1	3,552.5	3,536.6	15.85	224.091		
6,900.0	6,621.1	6,700.0	6,699.0	18.2	1.8	18.49	100.2	-3,761.1	3,542.5	3,526.5	15.98	221.623		
6,950.0	6,632.2	6,700.0	6,699.0	19.0	1.8	25.62	100.2	-3,761.1	3,493.6	3,476.5	17.11	204.242		
6,988.2	6,638.4	6,700.0	6,699.0	19.7	1.8	35.63	100.2	-3,761.1	3,455.9	3,437.0	18.83	183.553		

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

Anticollision Report



Company:	PDC ENERGY	Local Co-ordinate Reference:	Well WACKER 10G-214
Project:	WELD COUNTY, COLORADO	TVD Reference:	KB-EST @ 4624.0usft (Original Well Elev)
Reference Site:	SW NW SEC. 10 T5N R64W 6th P.M.	MD Reference:	KB-EST @ 4624.0usft (Original Well Elev)
Site Error:	0.0 usft	North Reference:	True
Reference Well:	WACKER 10G-214	Survey Calculation Method:	Minimum Curvature
Well Error:	0.0 usft	Output errors are at	2.00 sigma
Reference Wellbore	ORIGINAL WELLBORE	Database:	EDM 5000.1 Single User Db
Reference Design:	PROPOSAL #1	Offset TVD Reference:	Offset Datum

Offset Design SW NW SEC. 10 T5N R64W 6th P.M. - EXIST VERT BOND #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	
7,000.0	6,639.9	6,700.0	6,699.0	19.9	1.8	40.23	100.2	-3,761.1	3,444.1	3,424.6	19.57	175.966		
7,050.0	6,644.1	6,700.0	6,699.0	20.8	1.8	74.01	100.2	-3,761.1	3,394.4	3,371.7	22.63	149.972		
7,086.5	6,645.0	6,700.0	6,699.0	21.5	1.8	109.84	100.2	-3,761.1	3,357.9	3,334.5	23.43	143.336		
7,100.0	6,645.0	6,700.0	6,699.0	21.8	1.8	109.84	100.2	-3,761.1	3,344.5	3,320.9	23.68	141.253		
7,185.0	6,644.9	6,700.0	6,699.0	23.6	1.8	109.84	100.2	-3,761.1	3,259.8	3,234.5	25.34	128.665		
7,200.0	6,644.8	6,700.0	6,699.0	23.9	1.8	109.84	100.2	-3,761.1	3,244.9	3,219.3	25.63	126.617		
7,283.4	6,644.7	6,700.0	6,699.0	25.7	1.8	109.84	100.2	-3,761.1	3,161.8	3,134.4	27.36	115.546		
7,300.0	6,644.7	6,700.0	6,699.0	26.1	1.8	109.83	100.2	-3,761.1	3,145.3	3,117.6	27.71	113.515		
7,381.9	6,644.6	6,700.0	6,699.0	28.0	1.8	109.83	100.2	-3,761.1	3,063.8	3,034.3	29.49	103.877		
7,400.0	6,644.6	6,700.0	6,699.0	28.4	1.8	109.83	100.2	-3,761.1	3,045.7	3,015.8	29.89	101.899		
7,480.3	6,644.5	6,700.0	6,699.0	30.3	1.8	109.83	100.2	-3,761.1	2,965.8	2,934.1	31.70	93.546		
7,500.0	6,644.4	6,700.0	6,699.0	30.8	1.8	109.83	100.2	-3,761.1	2,946.2	2,914.0	32.15	91.641		
7,578.7	6,644.3	6,700.0	6,699.0	32.7	1.8	109.83	100.2	-3,761.1	2,867.8	2,833.8	33.98	84.407		
7,600.0	6,644.3	6,700.0	6,699.0	33.3	1.8	109.83	100.2	-3,761.1	2,846.6	2,812.2	34.47	82.583		
7,677.1	6,644.2	6,700.0	6,699.0	35.2	1.8	109.83	100.2	-3,761.1	2,769.9	2,733.6	36.30	76.309		
7,700.0	6,644.1	6,700.0	6,699.0	35.8	1.8	109.83	100.2	-3,761.1	2,747.1	2,710.3	36.84	74.570		
7,775.6	6,644.0	6,700.0	6,699.0	37.7	1.8	109.83	100.2	-3,761.1	2,672.0	2,633.3	38.66	69.114		
7,800.0	6,644.0	6,700.0	6,699.0	38.3	1.8	109.82	100.2	-3,761.1	2,647.7	2,608.4	39.25	67.459		
7,874.0	6,643.9	6,700.0	6,699.0	40.2	1.8	109.82	100.2	-3,761.1	2,574.1	2,533.1	41.06	62.699		
7,900.0	6,643.9	6,700.0	6,699.0	40.9	1.8	109.82	100.2	-3,761.1	2,548.3	2,506.6	41.69	61.124		
7,972.4	6,643.8	6,700.0	6,699.0	42.8	1.8	109.82	100.2	-3,761.1	2,476.3	2,432.8	43.48	56.956		
8,000.0	6,643.7	6,700.0	6,699.0	43.5	1.8	109.82	100.2	-3,761.1	2,448.9	2,404.8	44.16	55.458		
8,070.8	6,643.6	6,700.0	6,699.0	45.4	1.8	109.82	100.2	-3,761.1	2,378.6	2,332.6	45.92	51.796		
8,100.0	6,643.6	6,700.0	6,699.0	46.2	1.8	109.82	100.2	-3,761.1	2,349.6	2,303.0	46.65	50.369		
8,169.3	6,643.5	6,700.0	6,699.0	48.0	1.8	109.82	100.2	-3,761.1	2,280.9	2,232.5	48.38	47.140		
8,200.0	6,643.5	6,700.0	6,699.0	48.8	1.8	109.82	100.2	-3,761.1	2,250.4	2,201.2	49.16	45.781		
8,267.7	6,643.4	6,700.0	6,699.0	50.6	1.8	109.82	100.2	-3,761.1	2,183.2	2,132.4	50.86	42.923		
8,300.0	6,643.3	6,700.0	6,699.0	51.5	1.8	109.82	100.2	-3,761.1	2,151.2	2,099.5	51.68	41.626		
8,366.1	6,643.2	6,700.0	6,699.0	53.3	1.8	109.82	100.2	-3,761.1	2,085.7	2,032.3	53.36	39.089		
8,400.0	6,643.2	6,700.0	6,699.0	54.2	1.8	109.82	100.2	-3,761.1	2,052.1	1,997.9	54.22	37.851		
8,464.5	6,643.1	6,700.0	6,699.0	55.9	1.8	109.82	100.2	-3,761.1	1,988.2	1,932.3	55.86	35.592		
8,500.0	6,643.1	6,700.0	6,699.0	56.9	1.8	109.81	100.2	-3,761.1	1,953.1	1,896.3	56.76	34.407		
8,563.0	6,643.0	6,700.0	6,699.0	58.6	1.8	109.81	100.2	-3,761.1	1,890.8	1,832.4	58.37	32.391		
8,600.0	6,642.9	6,700.0	6,699.0	59.6	1.8	109.81	100.2	-3,761.1	1,854.2	1,794.9	59.32	31.257		
8,661.4	6,642.8	6,700.0	6,699.0	61.3	1.8	109.81	100.2	-3,761.1	1,793.5	1,732.6	60.90	29.452		
8,700.0	6,642.8	6,700.0	6,699.0	62.3	1.8	109.81	100.2	-3,761.1	1,755.4	1,693.5	61.89	28.365		
8,759.8	6,642.7	6,700.0	6,699.0	64.0	1.8	109.81	100.2	-3,761.1	1,696.4	1,633.0	63.43	26.745		
8,800.0	6,642.7	6,700.0	6,699.0	65.1	1.8	109.81	100.2	-3,761.1	1,656.8	1,592.3	64.46	25.702		
8,858.2	6,642.6	6,700.0	6,699.0	66.6	1.8	109.81	100.2	-3,761.1	1,599.4	1,533.5	65.97	24.247		
8,900.0	6,642.5	6,693.8	6,692.9	67.8	1.8	108.61	100.4	-3,761.4	1,558.3	1,491.0	67.35	23.137		
8,956.7	6,642.4	6,691.2	6,690.3	69.3	1.8	108.09	100.5	-3,761.6	1,502.6	1,433.7	68.96	21.790		
9,000.0	6,642.4	6,689.2	6,688.2	70.5	1.8	107.69	100.6	-3,761.7	1,460.1	1,389.9	70.19	20.802		
9,055.1	6,642.3	6,686.6	6,685.6	72.0	1.8	107.18	100.7	-3,761.8	1,406.0	1,334.3	71.76	19.593		
9,100.0	6,642.3	6,684.4	6,683.5	73.3	1.8	106.75	100.8	-3,761.9	1,362.0	1,289.0	73.05	18.646		
9,153.5	6,642.2	6,681.9	6,681.0	74.7	1.8	106.24	100.8	-3,762.0	1,309.7	1,235.1	74.59	17.559		
9,200.0	6,642.1	6,679.6	6,678.7	76.0	1.8	105.79	100.9	-3,762.2	1,264.3	1,188.4	75.93	16.651		
9,251.9	6,642.1	6,677.1	6,676.2	77.5	1.8	105.29	101.0	-3,762.3	1,213.7	1,136.2	77.43	15.674		
9,300.0	6,642.0	6,674.8	6,673.9	78.8	1.8	104.81	101.1	-3,762.4	1,166.9	1,088.1	78.82	14.805		
9,350.4	6,641.9	6,672.3	6,671.4	80.2	1.8	104.31	101.2	-3,762.5	1,118.0	1,037.7	80.28	13.926		
9,400.0	6,641.9	6,669.9	6,669.0	81.5	1.8	103.81	101.3	-3,762.7	1,070.0	988.3	81.73	13.092		
9,448.8	6,641.8	6,667.4	6,666.5	82.9	1.8	103.31	101.4	-3,762.8	1,022.9	939.7	83.15	12.301		
9,500.0	6,641.7	6,664.9	6,664.0	84.3	1.8	102.78	101.4	-3,762.9	973.6	889.0	84.65	11.502		

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

Anticollision Report



Company:	PDC ENERGY	Local Co-ordinate Reference:	Well WACKER 10G-214
Project:	WELD COUNTY, COLORADO	TVD Reference:	KB-EST @ 4624.0usft (Original Well Elev)
Reference Site:	SW NW SEC. 10 T5N R64W 6th P.M.	MD Reference:	KB-EST @ 4624.0usft (Original Well Elev)
Site Error:	0.0 usft	North Reference:	True
Reference Well:	WACKER 10G-214	Survey Calculation Method:	Minimum Curvature
Well Error:	0.0 usft	Output errors are at	2.00 sigma
Reference Wellbore	ORIGINAL WELLBORE	Database:	EDM 5000.1 Single User Db
Reference Design:	PROPOSAL #1	Offset TVD Reference:	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	6,641.7	6,662.5	6,661.6	85.6	1.8	102.29	101.5	-3,763.1	928.4	842.4	86.03	10.792	
9,600.0	6,641.6	6,659.8	6,658.9	87.1	1.8	101.73	101.6	-3,763.2	878.1	790.5	87.57	10.027	
9,645.6	6,641.5	6,657.4	6,656.6	88.3	1.8	101.25	101.7	-3,763.3	834.8	745.9	88.91	9.389	
9,700.0	6,641.5	6,654.6	6,653.8	89.8	1.8	100.66	101.8	-3,763.5	783.6	693.1	90.50	8.659	
9,744.1	6,641.4	6,652.3	6,651.5	91.0	1.8	100.19	101.9	-3,763.6	742.4	650.6	91.80	8.088	
9,800.0	6,641.3	6,649.4	6,648.5	92.6	1.8	99.57	102.0	-3,763.8	690.7	597.2	93.44	7.392	
9,842.5	6,641.3	6,647.1	6,646.3	93.8	1.8	99.10	102.1	-3,763.9	651.8	557.1	94.68	6.884	
9,900.0	6,641.2	6,644.1	6,643.2	95.4	1.8	98.46	102.2	-3,764.1	599.9	503.6	96.37	6.226	
9,940.9	6,641.1	6,641.9	6,641.1	96.5	1.8	97.99	102.3	-3,764.2	563.7	466.1	97.56	5.778	
10,000.0	6,641.1	6,638.7	6,637.9	98.1	1.8	97.32	102.4	-3,764.4	512.6	413.3	99.29	5.163	
10,039.3	6,641.0	6,636.6	6,635.7	99.2	1.8	96.87	102.5	-3,764.5	479.6	379.2	100.44	4.775	
10,100.0	6,640.9	6,633.2	6,632.4	100.9	1.8	96.16	102.6	-3,764.7	430.8	328.6	102.20	4.215	
10,137.8	6,640.9	6,631.1	6,630.3	102.0	1.8	95.72	102.6	-3,764.8	402.0	298.7	103.30	3.891	
10,200.0	6,640.8	6,627.7	6,626.9	103.7	1.8	94.98	102.8	-3,765.0	358.2	253.0	105.10	3.408	
10,236.2	6,640.8	6,625.6	6,624.8	104.7	1.8	94.55	102.8	-3,765.1	335.3	229.2	106.15	3.159	
10,300.0	6,640.7	6,622.0	6,621.2	106.5	1.8	93.78	103.0	-3,765.3	301.5	193.5	107.99	2.792	
10,334.6	6,640.6	6,620.1	6,619.3	107.4	1.8	93.36	103.1	-3,765.4	287.5	178.5	108.98	2.638	
10,400.0	6,640.6	6,616.3	6,615.5	109.3	1.8	92.56	103.2	-3,765.6	271.1	160.3	110.85	2.446	
10,433.0	6,640.5	6,614.4	6,613.6	110.2	1.8	92.16	103.3	-3,765.7	268.6	156.8	111.79	2.403	
10,437.4	6,640.5	6,614.1	6,613.4	110.3	1.8	92.10	103.3	-3,765.7	268.5	156.6	111.91	2.400 CC, ES, SF	
10,500.0	6,640.4	6,610.5	6,609.7	112.0	1.8	91.32	103.4	-3,765.9	275.7	162.0	113.69	2.425	
10,531.5	6,640.4	6,608.6	6,607.9	112.9	1.8	90.93	103.5	-3,766.0	284.5	169.9	114.57	2.483	
10,600.0	6,640.3	6,604.6	6,603.8	114.8	1.8	90.07	103.6	-3,766.3	313.8	197.3	116.49	2.694	
10,629.9	6,640.3	6,602.8	6,602.0	115.7	1.8	89.69	103.7	-3,766.4	330.2	212.9	117.32	2.815	
10,700.0	6,640.2	6,598.6	6,597.8	117.6	1.8	88.79	103.8	-3,766.6	375.3	256.0	119.26	3.147	
10,728.3	6,640.1	6,596.9	6,596.1	118.4	1.8	88.43	103.9	-3,766.7	395.6	275.5	120.03	3.296	
10,800.0	6,640.0	6,592.6	6,591.9	120.4	1.7	87.53	104.1	-3,767.0	450.7	328.8	121.98	3.695	
10,826.7	6,640.0	6,591.1	6,590.3	121.2	1.7	87.20	104.1	-3,767.1	472.4	349.7	122.71	3.850	
10,900.0	6,639.9	6,586.8	6,586.1	123.2	1.7	86.30	104.3	-3,767.3	534.2	409.6	124.67	4.285	
10,925.2	6,639.9	6,585.3	6,584.6	123.9	1.7	85.99	104.3	-3,767.4	556.1	430.8	125.34	4.437	
11,000.0	6,639.8	6,581.1	6,580.4	126.0	1.7	85.09	104.5	-3,767.6	622.6	495.2	127.31	4.890	
11,023.6	6,639.8	6,579.7	6,579.0	126.6	1.7	84.81	104.5	-3,767.7	643.9	516.0	127.93	5.033	
11,100.0	6,639.7	6,575.4	6,574.7	128.8	1.7	83.91	104.7	-3,768.0	713.9	584.0	129.90	5.496	
11,122.0	6,639.6	6,574.2	6,573.5	129.4	1.7	83.66	104.7	-3,768.0	734.3	603.9	130.47	5.628	
11,200.0	6,639.5	6,569.9	6,569.2	131.6	1.7	82.76	104.9	-3,768.3	807.3	674.8	132.45	6.095	
11,220.4	6,639.5	6,568.8	6,568.1	132.1	1.7	82.53	104.9	-3,768.3	826.6	693.6	132.97	6.216	
11,300.0	6,639.4	6,564.4	6,563.8	134.4	1.7	81.63	105.0	-3,768.6	902.0	767.1	134.95	6.684	
11,318.9	6,639.4	6,563.4	6,562.7	134.9	1.7	81.42	105.1	-3,768.6	920.1	784.6	135.42	6.794	
11,400.0	6,639.3	6,559.1	6,558.4	137.1	1.7	80.53	105.2	-3,768.9	997.8	860.4	137.41	7.262	
11,417.3	6,639.3	6,558.1	6,557.5	137.6	1.7	80.34	105.2	-3,768.9	1,014.4	876.6	137.83	7.360	
11,500.0	6,639.2	6,553.8	6,553.1	139.9	1.7	79.46	105.4	-3,769.2	1,094.3	954.5	139.81	7.827	
11,515.7	6,639.1	6,553.0	6,552.3	140.4	1.7	79.29	105.4	-3,769.2	1,109.5	969.3	140.19	7.915	
11,600.0	6,639.0	6,548.6	6,548.0	142.7	1.7	78.41	105.5	-3,769.4	1,191.3	1,049.2	142.17	8.379	
11,614.1	6,639.0	6,547.9	6,547.2	143.1	1.7	78.26	105.6	-3,769.5	1,205.1	1,062.6	142.50	8.457	
11,700.0	6,638.9	6,543.5	6,542.9	145.5	1.7	77.38	105.7	-3,769.7	1,288.8	1,144.3	144.48	8.920	
11,712.6	6,638.9	6,542.8	6,542.2	145.9	1.7	77.25	105.7	-3,769.7	1,301.1	1,156.3	144.77	8.987	
11,800.0	6,638.8	6,538.4	6,537.8	148.3	1.7	76.38	105.9	-3,770.0	1,386.6	1,239.9	146.75	9.449	
11,811.0	6,638.8	6,537.9	6,537.3	148.6	1.7	76.27	105.9	-3,770.0	1,397.4	1,250.4	147.00	9.506	
11,900.0	6,638.7	6,533.5	6,532.9	151.1	1.7	75.41	106.0	-3,770.2	1,484.7	1,335.7	148.97	9.967	
11,909.4	6,638.6	6,533.0	6,532.4	151.4	1.7	75.32	106.0	-3,770.3	1,494.0	1,344.8	149.18	10.015	
12,000.0	6,638.5	6,528.6	6,528.0	153.9	1.7	74.46	106.2	-3,770.5	1,583.0	1,431.9	151.14	10.473	
12,007.8	6,638.5	6,528.2	6,527.7	154.1	1.7	74.39	106.2	-3,770.5	1,590.7	1,439.4	151.31	10.513	

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

Anticollision Report



Company:	PDC ENERGY	Local Co-ordinate Reference:	Well WACKER 10G-214
Project:	WELD COUNTY, COLORADO	TVD Reference:	KB-EST @ 4624.0usft (Original Well Elev)
Reference Site:	SW NW SEC. 10 T5N R64W 6th P.M.	MD Reference:	KB-EST @ 4624.0usft (Original Well Elev)
Site Error:	0.0 usft	North Reference:	True
Reference Well:	WACKER 10G-214	Survey Calculation Method:	Minimum Curvature
Well Error:	0.0 usft	Output errors are at	2.00 sigma
Reference Wellbore	ORIGINAL WELLBORE	Database:	EDM 5000.1 Single User Db
Reference Design:	PROPOSAL #1	Offset TVD Reference:	Offset Datum

Offset Design SW NW SEC. 10 T5N R64W 6th P.M. - EXIST VERT BOND #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)	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	6,638.4	6,523.8	6,523.2	156.7	1.7	73.53	106.3	-3,770.7	1,681.5	1,528.2	153.28	10.970		
12,106.3	6,638.4	6,523.5	6,522.9	156.9	1.7	73.48	106.3	-3,770.8	1,687.7	1,534.3	153.41	11.001		
12,200.0	6,638.3	6,519.1	6,518.5	159.5	1.7	72.63	106.4	-3,771.0	1,780.1	1,624.8	155.37	11.458		
12,204.7	6,638.3	6,518.9	6,518.3	159.6	1.7	72.59	106.4	-3,771.0	1,784.8	1,629.3	155.46	11.480		
12,300.0	6,638.2	6,514.5	6,513.9	162.3	1.7	71.75	106.6	-3,771.2	1,878.9	1,721.5	157.42	11.936		
12,303.1	6,638.2	6,514.3	6,513.7	162.4	1.7	71.73	106.6	-3,771.2	1,882.0	1,724.5	157.48	11.951		
12,400.0	6,638.0	6,509.9	6,509.3	165.1	1.7	70.90	106.7	-3,771.5	1,977.8	1,818.4	159.43	12.406		
12,401.5	6,638.0	6,509.8	6,509.2	165.2	1.7	70.88	106.7	-3,771.5	1,979.3	1,819.9	159.46	12.413		
12,500.0	6,637.9	6,500.0	6,499.5	167.9	1.7	69.08	106.9	-3,772.0	2,076.8	1,916.2	160.56	12.935		
12,598.4	6,637.8	6,500.0	6,499.5	170.7	1.7	69.08	106.9	-3,772.0	2,174.3	2,011.1	163.15	13.327		
12,600.0	6,637.8	6,500.0	6,499.5	170.7	1.7	69.08	106.9	-3,772.0	2,175.9	2,012.7	163.19	13.333		
12,696.8	6,637.7	6,500.0	6,499.5	173.4	1.7	69.08	106.9	-3,772.0	2,271.8	2,106.1	165.74	13.708		
12,700.0	6,637.7	6,500.0	6,499.5	173.5	1.7	69.09	106.9	-3,772.0	2,275.0	2,109.2	165.82	13.720		
12,795.2	6,637.6	6,500.0	6,499.5	176.2	1.7	69.09	106.9	-3,772.0	2,369.5	2,201.2	168.33	14.077		
12,800.0	6,637.6	6,500.0	6,499.5	176.3	1.7	69.09	106.9	-3,772.0	2,374.2	2,205.8	168.45	14.094		
12,893.7	6,637.4	6,488.8	6,488.3	178.9	1.7	67.08	107.2	-3,772.5	2,467.2	2,298.2	168.93	14.604		
12,900.0	6,637.4	6,488.5	6,488.0	179.1	1.7	67.04	107.2	-3,772.5	2,473.4	2,304.4	169.05	14.631		
12,992.1	6,637.3	6,484.9	6,484.4	181.7	1.7	66.40	107.3	-3,772.7	2,564.9	2,394.1	170.76	15.021		
13,000.0	6,637.3	6,484.6	6,484.1	181.9	1.7	66.35	107.3	-3,772.7	2,572.8	2,401.8	170.90	15.054		
13,090.5	6,637.2	6,481.0	6,480.5	184.4	1.7	65.73	107.4	-3,772.9	2,662.7	2,490.1	172.56	15.431		
13,100.0	6,637.2	6,480.7	6,480.2	184.7	1.7	65.67	107.4	-3,772.9	2,672.1	2,499.4	172.73	15.470		
13,188.9	6,637.1	6,477.3	6,476.7	187.2	1.7	65.08	107.5	-3,773.1	2,760.5	2,586.2	174.33	15.835		
13,200.0	6,637.1	6,476.8	6,476.3	187.5	1.7	65.01	107.5	-3,773.1	2,771.5	2,597.0	174.53	15.880		
13,287.4	6,637.0	6,473.5	6,473.0	190.0	1.7	64.45	107.6	-3,773.2	2,858.4	2,682.3	176.09	16.233		
13,300.0	6,637.0	6,473.1	6,472.6	190.3	1.7	64.38	107.6	-3,773.3	2,870.9	2,694.6	176.31	16.283		
13,385.8	6,636.9	6,469.9	6,469.4	192.7	1.7	63.84	107.7	-3,773.4	2,956.3	2,778.4	177.82	16.625		
13,400.0	6,636.8	6,469.3	6,468.8	193.1	1.7	63.75	107.7	-3,773.4	2,970.4	2,792.3	178.07	16.681		
13,484.2	6,636.7	6,466.3	6,465.8	195.5	1.7	63.24	107.8	-3,773.6	3,054.2	2,874.6	179.53	17.012		
13,500.0	6,636.7	6,465.7	6,465.2	195.9	1.7	63.15	107.8	-3,773.6	3,069.9	2,890.1	179.81	17.073		
13,582.6	6,636.6	6,462.7	6,462.2	198.2	1.7	62.66	107.9	-3,773.7	3,152.1	2,970.9	181.23	17.393		
13,600.0	6,636.6	6,462.1	6,461.6	198.7	1.7	62.56	107.9	-3,773.8	3,169.4	2,987.9	181.52	17.460		
13,681.1	6,636.5	6,459.2	6,458.7	201.0	1.7	62.09	108.0	-3,773.9	3,250.1	3,067.2	182.90	17.770		
13,700.0	6,636.5	6,458.5	6,458.1	201.5	1.7	61.99	108.0	-3,773.9	3,268.9	3,085.7	183.22	17.841		
13,779.5	6,636.4	6,455.8	6,455.3	203.7	1.7	61.54	108.1	-3,774.0	3,348.1	3,163.5	184.56	18.141		
13,800.0	6,636.4	6,455.0	6,454.6	204.3	1.7	61.43	108.1	-3,774.1	3,368.5	3,183.6	184.90	18.217		
13,877.9	6,636.3	6,452.4	6,451.9	206.5	1.7	61.01	108.1	-3,774.2	3,446.1	3,259.9	186.20	18.507		
13,900.0	6,636.3	6,451.6	6,451.1	207.1	1.7	60.89	108.1	-3,774.2	3,468.1	3,281.5	186.57	18.589		
13,976.3	6,636.2	6,449.0	6,448.6	209.3	1.7	60.48	108.2	-3,774.4	3,544.1	3,356.3	187.83	18.869		
14,000.0	6,636.1	6,448.2	6,447.8	209.9	1.7	60.36	108.2	-3,774.4	3,567.7	3,379.5	188.22	18.955		
14,074.8	6,636.0	6,445.7	6,445.3	212.0	1.7	59.97	108.3	-3,774.5	3,642.2	3,452.7	189.44	19.226		
14,100.0	6,636.0	6,444.9	6,444.4	212.7	1.7	59.84	108.3	-3,774.5	3,667.3	3,477.4	189.85	19.317		
14,173.2	6,635.9	6,442.5	6,442.0	214.8	1.7	59.47	108.4	-3,774.6	3,740.2	3,549.2	191.04	19.579		
14,200.0	6,635.9	6,441.6	6,441.2	215.5	1.7	59.34	108.4	-3,774.7	3,766.9	3,575.5	191.47	19.674		
14,271.6	6,635.8	6,439.3	6,438.8	217.5	1.7	58.99	108.4	-3,774.8	3,838.3	3,645.7	192.62	19.927		
14,300.0	6,635.8	6,438.4	6,437.9	218.3	1.7	58.85	108.5	-3,774.8	3,866.6	3,673.5	193.08	20.026		
14,370.0	6,635.7	6,436.2	6,435.7	220.3	1.7	58.52	108.5	-3,774.9	3,936.4	3,742.2	194.19	20.270		
14,400.0	6,635.7	6,435.2	6,434.8	221.1	1.7	58.38	108.5	-3,775.0	3,966.2	3,771.6	194.67	20.374		
14,468.5	6,635.6	6,433.1	6,432.6	223.1	1.7	58.06	108.6	-3,775.0	4,034.5	3,838.7	195.75	20.610		
14,500.0	6,635.6	6,432.1	6,431.6	223.9	1.7	57.91	108.6	-3,775.1	4,065.9	3,869.7	196.25	20.718		
14,566.9	6,635.5	6,430.0	6,429.6	225.8	1.7	57.61	108.7	-3,775.2	4,132.6	3,935.3	197.30	20.946		
14,600.0	6,635.4	6,429.0	6,428.5	226.8	1.7	57.46	108.7	-3,775.2	4,165.6	3,967.8	197.82	21.057		
14,665.3	6,635.4	6,427.0	6,426.5	228.6	1.7	57.17	108.7	-3,775.3	4,230.7	4,031.9	198.84	21.277		

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

Anticollision Report



Company:	PDC ENERGY	Local Co-ordinate Reference:	Well WACKER 10G-214
Project:	WELD COUNTY, COLORADO	TVD Reference:	KB-EST @ 4624.0usft (Original Well Elev)
Reference Site:	SW NW SEC. 10 T5N R64W 6th P.M.	MD Reference:	KB-EST @ 4624.0usft (Original Well Elev)
Site Error:	0.0 usft	North Reference:	True
Reference Well:	WACKER 10G-214	Survey Calculation Method:	Minimum Curvature
Well Error:	0.0 usft	Output errors are at	2.00 sigma
Reference Wellbore	ORIGINAL WELLBORE	Database:	EDM 5000.1 Single User Db
Reference Design:	PROPOSAL #1	Offset TVD Reference:	Offset Datum

Offset Design SW NW SEC. 10 T5N R64W 6th P.M. - EXIST VERT BOND #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)	Offset Wellbore Centre +E/-W (usft)	Between Centres (usft)	Between Ellipses (usft)	Minimum Separation (usft)	Separation Factor	Warning
14,700.0	6,635.3	6,425.9	6,425.5	229.6	1.7	57.02	108.7	-3,775.3	4,265.3	4,065.9	199.38	21.393	
14,763.7	6,635.2	6,424.0	6,423.6	231.3	1.7	56.74	108.8	-3,775.4	4,328.9	4,128.5	200.37	21.605	
14,800.0	6,635.2	6,422.9	6,422.5	232.4	1.7	56.59	108.8	-3,775.5	4,365.0	4,164.1	200.93	21.724	
14,862.2	6,635.1	6,421.1	6,420.7	234.1	1.7	56.33	108.9	-3,775.6	4,427.0	4,225.1	201.89	21.928	
14,900.0	6,635.1	6,420.0	6,419.6	235.2	1.7	56.17	108.9	-3,775.6	4,464.7	4,262.3	202.47	22.051	
14,960.6	6,635.0	6,418.2	6,417.8	236.9	1.7	55.92	108.9	-3,775.7	4,525.2	4,321.8	203.40	22.248	
14,982.9	6,635.0	6,417.6	6,417.1	237.5	1.7	55.83	108.9	-3,775.7	4,547.4	4,343.6	203.74	22.320	

Anticollision Report



Company:	PDC ENERGY	Local Co-ordinate Reference:	Well WACKER 10G-214
Project:	WELD COUNTY, COLORADO	TVD Reference:	KB-EST @ 4624.0usft (Original Well Elev)
Reference Site:	SW NW SEC. 10 T5N R64W 6th P.M.	MD Reference:	KB-EST @ 4624.0usft (Original Well Elev)
Site Error:	0.0 usft	North Reference:	True
Reference Well:	WACKER 10G-214	Survey Calculation Method:	Minimum Curvature
Well Error:	0.0 usft	Output errors are at	2.00 sigma
Reference Wellbore	ORIGINAL WELLBORE	Database:	EDM 5000.1 Single User Db
Reference Design:	PROPOSAL #1	Offset TVD Reference:	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	-68.99	1,416.7	-3,688.8	3,951.5				
98.4	98.4	84.4	84.4	0.1	0.0	-68.99	1,416.7	-3,688.8	3,951.5	3,951.4	0.10	N/A	
100.0	100.0	86.0	86.0	0.1	0.0	-68.99	1,416.7	-3,688.8	3,951.5	3,951.4	0.10	N/A	
196.8	196.8	182.8	182.8	0.3	1.0	-68.99	1,416.7	-3,688.8	3,951.5	3,950.2	1.31	3,020.602	
200.0	200.0	186.0	186.0	0.3	1.0	-68.99	1,416.7	-3,688.8	3,951.5	3,950.2	1.35	2,920.532	
295.3	295.3	281.3	281.3	0.5	3.1	-68.99	1,416.7	-3,688.8	3,951.5	3,947.9	3.60	1,098.917	
300.0	300.0	286.0	286.0	0.5	3.2	-68.99	1,416.7	-3,688.8	3,951.5	3,947.8	3.71	1,063.770	
393.7	393.7	379.7	379.7	0.8	5.1	-68.99	1,416.7	-3,688.8	3,951.5	3,945.6	5.90	669.497	
400.0	400.0	386.0	386.0	0.8	5.3	-68.99	1,416.7	-3,688.8	3,951.5	3,945.5	6.05	653.434	
492.1	492.1	478.1	478.1	1.0	7.2	-68.99	1,416.7	-3,688.8	3,951.5	3,943.4	8.14	485.396	
500.0	500.0	486.0	486.0	1.0	7.3	-68.99	1,416.7	-3,688.8	3,951.5	3,943.2	8.32	474.980	
590.5	590.5	576.5	576.5	1.2	9.2	-68.99	1,416.7	-3,688.8	3,951.5	3,941.1	10.36	381.347	
600.0	600.0	586.0	586.0	1.2	9.4	-68.99	1,416.7	-3,688.8	3,951.5	3,940.9	10.57	373.666	
689.0	689.0	675.0	675.0	1.4	11.2	-68.99	1,416.7	-3,688.8	3,951.5	3,938.9	12.58	314.220	
700.0	700.0	686.0	686.0	1.4	11.4	-68.99	1,416.7	-3,688.8	3,951.5	3,938.7	12.82	308.148	
787.4	787.4	773.4	773.4	1.6	13.1	-68.99	1,416.7	-3,688.8	3,951.5	3,936.7	14.79	267.261	
800.0	800.0	786.0	786.0	1.7	13.4	-68.99	1,416.7	-3,688.8	3,951.5	3,936.4	15.07	262.246	
885.8	885.8	871.8	871.8	1.9	15.1	-68.99	1,416.7	-3,688.8	3,951.5	3,934.5	16.99	232.546	
900.0	900.0	886.0	886.0	1.9	15.4	-68.99	1,416.7	-3,688.8	3,951.5	3,934.2	17.31	228.277	
984.2	984.2	970.2	970.2	2.1	17.1	-68.99	1,416.7	-3,688.8	3,951.5	3,932.3	19.20	205.830	
1,000.0	1,000.0	986.0	986.0	2.1	17.4	-68.99	1,416.7	-3,688.8	3,951.5	3,932.0	19.55	202.115	
1,082.7	1,082.7	1,068.7	1,068.7	2.3	19.1	-68.99	1,416.7	-3,688.8	3,951.5	3,930.1	21.40	184.628	
1,100.0	1,100.0	1,086.0	1,086.0	2.3	19.4	-68.99	1,416.7	-3,688.8	3,951.5	3,929.7	21.79	181.341	
1,181.1	1,181.1	1,167.1	1,167.1	2.5	21.1	-68.99	1,416.7	-3,688.8	3,951.5	3,927.9	23.61	167.392	
1,200.0	1,200.0	1,186.0	1,186.0	2.6	21.5	-68.99	1,416.7	-3,688.8	3,951.5	3,927.5	24.03	164.445	
1,279.5	1,279.5	1,265.5	1,265.5	2.7	23.1	-68.99	1,416.7	-3,688.8	3,951.5	3,925.7	25.81	153.103	
1,300.0	1,300.0	1,286.0	1,286.0	2.8	23.5	-68.99	1,416.7	-3,688.8	3,951.5	3,925.2	26.27	150.432	
1,377.9	1,377.9	1,363.9	1,363.9	3.0	25.0	172.36	1,416.7	-3,688.8	3,952.6	3,924.6	27.99	141.234	
1,400.0	1,400.0	1,386.0	1,386.0	3.0	25.5	172.36	1,416.7	-3,688.8	3,953.2	3,924.8	28.47	138.867	
1,476.4	1,476.3	1,462.3	1,462.3	3.1	27.0	172.36	1,416.7	-3,688.8	3,956.9	3,926.8	30.11	131.421	
1,500.0	1,499.8	1,485.8	1,485.8	3.2	27.5	172.36	1,416.7	-3,688.8	3,958.4	3,927.8	30.61	129.318	
1,574.8	1,574.4	1,560.4	1,560.4	3.3	29.0	172.35	1,416.7	-3,688.8	3,964.6	3,932.4	32.18	123.184	
1,600.0	1,599.5	1,585.5	1,585.5	3.4	29.5	172.35	1,416.7	-3,688.8	3,967.1	3,934.4	32.71	121.292	
1,673.2	1,672.2	1,658.2	1,658.2	3.6	31.0	172.34	1,416.7	-3,688.8	3,975.6	3,941.4	34.21	116.215	
1,700.0	1,698.7	1,684.7	1,684.7	3.6	31.5	172.34	1,416.7	-3,688.8	3,979.1	3,944.4	34.75	114.512	
1,771.6	1,769.5	1,755.5	1,755.5	3.8	32.9	172.33	1,416.7	-3,688.8	3,989.9	3,953.7	36.17	110.295	
1,800.0	1,797.5	1,783.5	1,783.5	3.9	33.5	172.33	1,416.7	-3,688.8	3,994.7	3,957.9	36.73	108.765	
1,870.1	1,866.3	1,852.3	1,852.3	4.1	34.9	172.32	1,416.7	-3,688.8	4,007.5	3,969.5	38.07	105.257	
1,900.2	1,895.8	1,881.8	1,881.8	4.2	35.5	172.31	1,416.7	-3,688.8	4,013.6	3,975.0	38.64	103.874	
1,968.5	1,962.6	1,948.6	1,948.6	4.4	36.8	172.34	1,416.7	-3,688.8	4,027.7	3,987.6	40.11	100.428	
2,000.0	1,993.4	1,979.4	1,979.4	4.5	37.4	172.35	1,416.7	-3,688.8	4,034.2	3,993.4	40.78	98.926	
2,066.9	2,058.9	2,044.9	2,044.9	4.7	38.7	172.38	1,416.7	-3,688.8	4,048.0	4,005.8	42.22	95.875	
2,100.0	2,091.2	2,077.2	2,077.2	4.8	39.4	172.39	1,416.7	-3,688.8	4,054.8	4,011.9	42.93	94.448	
2,165.3	2,155.2	2,141.2	2,141.2	5.1	40.7	172.42	1,416.7	-3,688.8	4,068.3	4,023.9	44.34	91.753	
2,200.0	2,189.1	2,175.1	2,175.1	5.2	41.4	172.43	1,416.7	-3,688.8	4,075.4	4,030.3	45.09	90.388	
2,263.8	2,251.4	2,237.4	2,237.4	5.5	42.6	172.46	1,416.7	-3,688.8	4,088.6	4,042.1	46.47	87.990	
2,300.0	2,286.9	2,272.9	2,272.9	5.6	43.3	172.47	1,416.7	-3,688.8	4,096.1	4,048.8	47.25	86.690	
2,362.2	2,347.7	2,333.7	2,333.7	5.8	44.6	172.49	1,416.7	-3,688.8	4,108.9	4,060.3	48.60	84.551	
2,400.0	2,384.7	2,370.7	2,370.7	6.0	45.3	172.51	1,416.7	-3,688.8	4,116.7	4,067.3	49.41	83.309	
2,460.6	2,444.0	2,430.0	2,430.0	6.2	46.5	172.53	1,416.7	-3,688.8	4,129.2	4,078.5	50.73	81.396	
2,500.0	2,482.5	2,468.5	2,468.5	6.4	47.3	172.54	1,416.7	-3,688.8	4,137.3	4,085.7	51.58	80.207	
2,559.0	2,540.3	2,526.3	2,526.3	6.6	48.4	172.57	1,416.7	-3,688.8	4,149.5	4,096.6	52.87	78.492	

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

Anticollision Report



Company:	PDC ENERGY	Local Co-ordinate Reference:	Well WACKER 10G-214
Project:	WELD COUNTY, COLORADO	TVD Reference:	KB-EST @ 4624.0usft (Original Well Elev)
Reference Site:	SW NW SEC. 10 T5N R64W 6th P.M.	MD Reference:	KB-EST @ 4624.0usft (Original Well Elev)
Site Error:	0.0 usft	North Reference:	True
Reference Well:	WACKER 10G-214	Survey Calculation Method:	Minimum Curvature
Well Error:	0.0 usft	Output errors are at	2.00 sigma
Reference Wellbore	ORIGINAL WELLBORE	Database:	EDM 5000.1 Single User Db
Reference Design:	PROPOSAL #1	Offset TVD Reference:	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	2,580.3	2,566.3	2,566.3	6.8	49.2	172.58	1,416.7	-3,688.8	4,157.9	4,104.2	53.75	77.351	
2,657.5	2,636.5	2,622.5	2,622.5	7.1	50.4	172.60	1,416.7	-3,688.8	4,169.8	4,114.8	55.00	75.809	
2,700.0	2,678.1	2,664.1	2,664.1	7.2	51.2	172.62	1,416.7	-3,688.8	4,178.6	4,122.7	55.93	74.714	
2,755.9	2,732.8	2,718.8	2,718.8	7.5	52.3	172.64	1,416.7	-3,688.8	4,190.1	4,133.0	57.14	73.325	
2,800.0	2,775.9	2,761.9	2,761.9	7.7	53.2	172.65	1,416.7	-3,688.8	4,199.2	4,141.1	58.10	72.271	
2,854.3	2,829.1	2,815.1	2,815.1	7.9	54.2	172.67	1,416.7	-3,688.8	4,210.4	4,151.1	59.29	71.018	
2,900.0	2,873.8	2,859.8	2,859.8	8.1	55.1	172.69	1,416.7	-3,688.8	4,219.9	4,159.6	60.28	70.002	
2,952.7	2,925.4	2,911.4	2,911.4	8.3	56.2	172.71	1,416.7	-3,688.8	4,230.7	4,169.3	61.43	68.870	
2,953.5	2,926.1	2,912.1	2,912.1	8.3	56.2	172.71	1,416.7	-3,688.8	4,230.9	4,169.4	61.45	68.854	
3,000.0	2,971.6	2,957.6	2,957.6	8.5	57.1	172.75	1,416.7	-3,688.8	4,240.1	4,177.5	62.65	67.683	
3,051.2	3,022.0	3,008.0	3,008.0	8.7	58.1	172.79	1,416.7	-3,688.8	4,249.4	4,185.5	63.95	66.450	
3,100.0	3,070.1	3,056.1	3,056.1	8.8	59.1	172.82	1,416.7	-3,688.8	4,257.5	4,192.3	65.18	65.315	
3,149.6	3,119.1	3,105.1	3,105.1	8.9	60.1	172.85	1,416.7	-3,688.8	4,264.8	4,198.4	66.42	64.207	
3,200.0	3,169.1	3,155.1	3,155.1	9.1	61.1	172.88	1,416.7	-3,688.8	4,271.4	4,203.7	67.67	63.121	
3,248.0	3,216.8	3,202.8	3,202.8	9.2	62.0	172.91	1,416.7	-3,688.8	4,276.9	4,208.0	68.84	62.126	
3,300.0	3,268.5	3,254.5	3,254.5	9.3	63.1	172.93	1,416.7	-3,688.8	4,281.9	4,211.8	70.10	61.087	
3,346.4	3,314.8	3,300.8	3,300.8	9.4	64.0	172.94	1,416.7	-3,688.8	4,285.6	4,214.4	71.20	60.193	
3,400.0	3,368.3	3,354.3	3,354.3	9.6	65.1	172.95	1,416.7	-3,688.8	4,289.0	4,216.5	72.45	59.200	
3,444.9	3,413.1	3,399.1	3,399.1	9.6	66.0	172.96	1,416.7	-3,688.8	4,291.0	4,217.5	73.48	58.398	
3,500.0	3,468.2	3,454.2	3,454.2	9.7	67.1	172.97	1,416.7	-3,688.8	4,292.6	4,217.8	74.72	57.448	
3,543.3	3,511.5	3,497.5	3,497.5	9.8	68.0	172.97	1,416.7	-3,688.8	4,293.0	4,217.4	75.68	56.729	
3,553.7	3,521.9	3,507.9	3,507.9	9.8	68.2	-68.38	1,416.7	-3,688.8	4,293.1	4,215.1	77.96	55.065	
3,600.0	3,568.2	3,554.2	3,554.2	9.9	69.1	-68.38	1,416.7	-3,688.8	4,293.1	4,214.1	78.97	54.366	
3,641.7	3,609.9	3,595.9	3,595.9	10.0	69.9	-68.38	1,416.7	-3,688.8	4,293.1	4,213.2	79.87	53.748	
3,700.0	3,668.2	3,654.2	3,654.2	10.1	71.1	-68.38	1,416.7	-3,688.8	4,293.1	4,211.9	81.14	52.908	
3,740.1	3,708.4	3,694.4	3,694.4	10.1	71.9	-68.38	1,416.7	-3,688.8	4,293.1	4,211.0	82.02	52.343	
3,800.0	3,768.2	3,754.2	3,754.2	10.2	73.1	-68.38	1,416.7	-3,688.8	4,293.1	4,209.7	83.32	51.524	
3,838.6	3,806.8	3,792.8	3,792.8	10.3	73.9	-68.38	1,416.7	-3,688.8	4,293.1	4,208.9	84.16	51.009	
3,900.0	3,868.2	3,854.2	3,854.2	10.4	75.1	-68.38	1,416.7	-3,688.8	4,293.1	4,207.6	85.50	50.210	
3,937.0	3,905.2	3,891.2	3,891.2	10.5	75.9	-68.38	1,416.7	-3,688.8	4,293.1	4,206.7	86.31	49.740	
4,000.0	3,968.2	3,954.2	3,954.2	10.6	77.1	-68.38	1,416.7	-3,688.8	4,293.1	4,205.4	87.68	48.960	
4,035.4	4,003.6	3,989.6	3,989.6	10.6	77.9	-68.38	1,416.7	-3,688.8	4,293.1	4,204.6	88.46	48.532	
4,100.0	4,068.2	4,054.2	4,054.2	10.7	79.2	-68.38	1,416.7	-3,688.8	4,293.1	4,203.2	89.87	47.770	
4,133.8	4,102.1	4,088.1	4,088.1	10.8	79.8	-68.38	1,416.7	-3,688.8	4,293.1	4,202.4	90.61	47.380	
4,200.0	4,168.2	4,154.2	4,154.2	10.9	81.2	-68.38	1,416.7	-3,688.8	4,293.1	4,201.0	92.06	46.635	
4,232.3	4,200.5	4,186.5	4,186.5	11.0	81.8	-68.38	1,416.7	-3,688.8	4,293.1	4,200.3	92.76	46.280	
4,300.0	4,268.2	4,254.2	4,254.2	11.1	83.2	-68.38	1,416.7	-3,688.8	4,293.1	4,198.8	94.24	45.552	
4,330.7	4,298.9	4,284.9	4,284.9	11.1	83.8	-68.38	1,416.7	-3,688.8	4,293.1	4,198.1	94.92	45.230	
4,400.0	4,368.2	4,354.2	4,354.2	11.3	85.2	-68.38	1,416.7	-3,688.8	4,293.1	4,196.6	96.43	44.518	
4,429.1	4,397.3	4,383.3	4,383.3	11.3	85.8	-68.38	1,416.7	-3,688.8	4,293.1	4,196.0	97.07	44.225	
4,500.0	4,468.2	4,454.2	4,454.2	11.4	87.2	-68.38	1,416.7	-3,688.8	4,293.1	4,194.4	98.63	43.529	
4,527.5	4,495.8	4,481.8	4,481.8	11.5	87.8	-68.38	1,416.7	-3,688.8	4,293.1	4,193.8	99.23	43.264	
4,600.0	4,568.2	4,554.2	4,554.2	11.6	89.2	-68.38	1,416.7	-3,688.8	4,293.1	4,192.2	100.82	42.582	
4,626.0	4,594.2	4,580.2	4,580.2	11.7	89.7	-68.38	1,416.7	-3,688.8	4,293.1	4,191.7	101.39	42.342	
4,700.0	4,668.2	4,654.2	4,654.2	11.8	91.2	-68.38	1,416.7	-3,688.8	4,293.1	4,190.0	103.01	41.674	
4,724.4	4,692.6	4,678.6	4,678.6	11.9	91.7	-68.38	1,416.7	-3,688.8	4,293.1	4,189.5	103.55	41.459	
4,800.0	4,768.2	4,754.2	4,754.2	12.0	93.2	-68.38	1,416.7	-3,688.8	4,293.1	4,187.8	105.21	40.805	
4,822.8	4,791.0	4,777.0	4,777.0	12.0	93.7	-68.38	1,416.7	-3,688.8	4,293.1	4,187.3	105.71	40.611	
4,900.0	4,868.2	4,854.2	4,854.2	12.2	95.2	-68.38	1,416.7	-3,688.8	4,293.1	4,185.6	107.41	39.970	
4,921.2	4,889.5	4,875.5	4,875.5	12.2	95.7	-68.38	1,416.7	-3,688.8	4,293.1	4,185.2	107.87	39.797	
5,000.0	4,968.2	4,954.2	4,954.2	12.4	97.3	-68.38	1,416.7	-3,688.8	4,293.1	4,183.5	109.61	39.168	
5,019.7	4,987.9	4,973.9	4,973.9	12.4	97.7	-68.38	1,416.7	-3,688.8	4,293.1	4,183.0	110.04	39.014	

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

Anticollision Report



Company:	PDC ENERGY	Local Co-ordinate Reference:	Well WACKER 10G-214
Project:	WELD COUNTY, COLORADO	TVD Reference:	KB-EST @ 4624.0usft (Original Well Elev)
Reference Site:	SW NW SEC. 10 T5N R64W 6th P.M.	MD Reference:	KB-EST @ 4624.0usft (Original Well Elev)
Site Error:	0.0 usft	North Reference:	True
Reference Well:	WACKER 10G-214	Survey Calculation Method:	Minimum Curvature
Well Error:	0.0 usft	Output errors are at	2.00 sigma
Reference Wellbore	ORIGINAL WELLBORE	Database:	EDM 5000.1 Single User Db
Reference Design:	PROPOSAL #1	Offset TVD Reference:	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	5,068.2	5,054.2	5,054.2	12.6	99.3	-68.38	1,416.7	-3,688.8	4,293.1	4,181.3	111.81	38.397	
5,118.1	5,086.3	5,072.3	5,072.3	12.6	99.6	-68.38	1,416.7	-3,688.8	4,293.1	4,180.9	112.20	38.261	
5,200.0	5,168.2	5,154.2	5,154.2	12.7	101.3	-68.38	1,416.7	-3,688.8	4,293.1	4,179.0	114.01	37.656	
5,216.5	5,184.7	5,170.7	5,170.7	12.8	101.6	-68.38	1,416.7	-3,688.8	4,293.1	4,178.7	114.37	37.536	
5,300.0	5,268.2	5,254.2	5,254.2	12.9	103.3	-68.38	1,416.7	-3,688.8	4,293.1	4,176.8	116.21	36.942	
5,314.9	5,283.2	5,269.2	5,269.2	13.0	103.6	-68.38	1,416.7	-3,688.8	4,293.1	4,176.5	116.54	36.838	
5,400.0	5,368.2	5,354.2	5,354.2	13.1	105.3	-68.38	1,416.7	-3,688.8	4,293.1	4,174.6	118.41	36.255	
5,413.4	5,381.6	5,367.6	5,367.6	13.2	105.6	-68.38	1,416.7	-3,688.8	4,293.1	4,174.3	118.71	36.165	
5,500.0	5,468.2	5,454.2	5,454.2	13.3	107.3	-68.38	1,416.7	-3,688.8	4,293.1	4,172.4	120.62	35.592	
5,511.8	5,480.0	5,466.0	5,466.0	13.3	107.6	-68.38	1,416.7	-3,688.8	4,293.1	4,172.2	120.88	35.516	
5,600.0	5,568.2	5,554.2	5,554.2	13.5	109.3	-68.38	1,416.7	-3,688.8	4,293.1	4,170.2	122.82	34.953	
5,610.2	5,578.4	5,564.4	5,564.4	13.5	109.5	-68.38	1,416.7	-3,688.8	4,293.1	4,170.0	123.05	34.889	
5,700.0	5,668.2	5,654.2	5,654.2	13.7	111.3	-68.38	1,416.7	-3,688.8	4,293.1	4,168.0	125.03	34.337	
5,708.6	5,676.9	5,662.9	5,662.9	13.7	111.5	-68.38	1,416.7	-3,688.8	4,293.1	4,167.8	125.22	34.284	
5,800.0	5,768.2	5,754.2	5,754.2	13.9	113.3	-68.38	1,416.7	-3,688.8	4,293.1	4,165.8	127.24	33.741	
5,807.1	5,775.3	5,761.3	5,761.3	13.9	113.5	-68.38	1,416.7	-3,688.8	4,293.1	4,165.7	127.39	33.700	
5,900.0	5,868.2	5,854.2	5,854.2	14.1	115.4	-68.38	1,416.7	-3,688.8	4,293.1	4,163.6	129.44	33.166	
5,905.5	5,873.7	5,859.7	5,859.7	14.1	115.5	-68.38	1,416.7	-3,688.8	4,293.1	4,163.5	129.56	33.134	
5,960.7	5,928.9	5,914.9	5,914.9	14.2	116.6	-68.38	1,416.7	-3,688.8	4,293.1	4,162.3	130.78	32.826	
6,000.0	5,968.2	5,954.2	5,954.2	14.3	117.4	21.66	1,416.7	-3,688.8	4,292.1	4,162.0	130.05	33.004	
6,003.9	5,972.1	5,958.1	5,958.1	14.3	117.4	21.66	1,416.7	-3,688.8	4,291.8	4,161.8	130.09	32.991	
6,050.0	6,018.0	6,004.0	6,004.0	14.4	118.4	21.80	1,416.7	-3,688.8	4,287.9	4,157.5	130.40	32.882	
6,100.0	6,067.3	6,053.3	6,053.3	14.4	119.4	22.06	1,416.7	-3,688.8	4,280.5	4,150.3	130.21	32.874	
6,102.3	6,069.6	6,055.6	6,055.6	14.4	119.4	22.08	1,416.7	-3,688.8	4,280.1	4,149.9	130.19	32.877	
6,150.0	6,116.0	6,102.0	6,102.0	14.4	120.3	22.45	1,416.7	-3,688.8	4,269.9	4,140.5	129.47	32.981	
6,200.0	6,163.8	6,149.8	6,149.8	14.5	121.3	22.97	1,416.7	-3,688.8	4,256.3	4,128.1	128.19	33.201	
6,200.8	6,164.5	6,150.5	6,150.5	14.5	121.3	22.97	1,416.7	-3,688.8	4,256.0	4,127.8	128.17	33.206	
6,250.0	6,210.4	6,196.4	6,196.4	14.5	122.2	23.62	1,416.7	-3,688.8	4,239.5	4,113.1	126.43	33.532	
6,299.2	6,254.9	6,240.9	6,240.9	14.5	123.1	24.42	1,416.7	-3,688.8	4,220.2	4,095.9	124.27	33.960	
6,300.0	6,255.6	6,241.6	6,241.6	14.5	123.2	24.44	1,416.7	-3,688.8	4,219.8	4,095.6	124.23	33.968	
6,350.0	6,299.3	6,285.3	6,285.3	14.5	124.0	25.43	1,416.7	-3,688.8	4,197.3	4,075.6	121.67	34.496	
6,397.6	6,339.2	6,325.2	6,325.2	14.6	124.8	26.56	1,416.7	-3,688.8	4,173.2	4,054.2	119.01	35.066	
6,400.0	6,341.2	6,327.2	6,327.2	14.6	124.9	26.62	1,416.7	-3,688.8	4,171.9	4,053.1	118.87	35.096	
6,450.0	6,381.0	6,367.0	6,367.0	14.6	125.7	28.04	1,416.7	-3,688.8	4,144.0	4,028.0	115.99	35.729	
6,496.0	6,415.8	6,401.8	6,401.8	14.7	126.4	29.58	1,416.7	-3,688.8	4,116.1	4,002.7	113.43	36.289	
6,500.0	6,418.7	6,404.7	6,404.7	14.7	126.4	29.73	1,416.7	-3,688.8	4,113.6	4,000.4	113.22	36.334	
6,550.0	6,453.9	6,439.9	6,439.9	14.8	127.1	31.73	1,416.7	-3,688.8	4,080.9	3,970.1	110.84	36.820	
6,594.5	6,483.1	6,469.1	6,469.1	15.0	127.7	33.82	1,416.7	-3,688.8	4,050.1	3,940.8	109.31	37.051	
6,600.0	6,486.6	6,472.6	6,472.6	15.1	127.8	34.10	1,416.7	-3,688.8	4,046.1	3,936.9	109.17	37.062	
6,650.0	6,516.6	6,502.6	6,502.6	15.3	128.4	36.92	1,416.7	-3,688.8	4,009.3	3,900.7	108.61	36.916	
6,692.9	6,540.0	6,526.0	6,526.0	15.7	128.9	39.76	1,416.7	-3,688.8	3,976.3	3,867.0	109.30	36.379	
6,700.0	6,543.7	6,529.7	6,529.7	15.7	128.9	40.27	1,416.7	-3,688.8	3,970.8	3,861.2	109.54	36.251	
6,750.0	6,567.8	6,553.8	6,553.8	16.2	129.4	44.23	1,416.7	-3,688.8	3,930.6	3,818.4	112.28	35.007	
6,791.3	6,585.4	6,571.4	6,571.4	16.7	129.8	48.04	1,416.7	-3,688.8	3,896.5	3,780.4	116.04	33.578	
6,800.0	6,588.8	6,574.8	6,574.8	16.8	129.9	48.91	1,416.7	-3,688.8	3,889.2	3,772.2	116.99	33.243	
6,850.0	6,606.6	6,592.6	6,592.6	17.4	130.2	54.40	1,416.7	-3,688.8	3,846.5	3,723.0	123.51	31.143	
6,889.7	6,618.4	6,604.4	6,604.4	18.0	130.4	59.37	1,416.7	-3,688.8	3,812.0	3,682.3	129.63	29.408	
6,900.0	6,621.1	6,607.1	6,607.1	18.2	130.5	60.74	1,416.7	-3,688.8	3,803.0	3,671.7	131.27	28.971	
6,950.0	6,632.2	6,618.2	6,618.2	19.0	130.7	67.92	1,416.7	-3,688.8	3,758.7	3,619.4	139.28	26.987	
6,988.2	6,638.4	6,624.4	6,624.4	19.7	130.8	73.88	1,416.7	-3,688.8	3,724.6	3,579.8	144.77	25.727	
7,000.0	6,639.9	6,625.9	6,625.9	19.9	130.9	75.79	1,416.7	-3,688.8	3,714.0	3,567.7	146.25	25.394	
7,050.0	6,644.1	6,630.1	6,630.1	20.8	131.0	84.07	1,416.7	-3,688.8	3,668.9	3,518.0	150.97	24.303	

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

Anticollision Report



Company:	PDC ENERGY	Local Co-ordinate Reference:	Well WACKER 10G-214
Project:	WELD COUNTY, COLORADO	TVD Reference:	KB-EST @ 4624.0usft (Original Well Elev)
Reference Site:	SW NW SEC. 10 T5N R64W 6th P.M.	MD Reference:	KB-EST @ 4624.0usft (Original Well Elev)
Site Error:	0.0 usft	North Reference:	True
Reference Well:	WACKER 10G-214	Survey Calculation Method:	Minimum Curvature
Well Error:	0.0 usft	Output errors are at	2.00 sigma
Reference Wellbore	ORIGINAL WELLBORE	Database:	EDM 5000.1 Single User Db
Reference Design:	PROPOSAL #1	Offset TVD Reference:	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		
7,086.5	6,645.0	6,631.0	6,631.0	21.5	131.0	90.17	1,416.7	-3,688.8	3,636.0	3,483.5	152.51	23.841		
7,100.0	6,645.0	6,631.0	6,631.0	21.8	131.0	90.16	1,416.7	-3,688.8	3,623.9	3,471.1	152.78	23.720		
7,185.0	6,644.9	6,630.9	6,630.9	23.6	131.0	90.16	1,416.7	-3,688.8	3,547.6	3,393.1	154.54	22.957		
7,200.0	6,644.8	6,630.8	6,630.8	23.9	131.0	90.16	1,416.7	-3,688.8	3,534.2	3,379.4	154.85	22.824		
7,283.4	6,644.7	6,630.7	6,630.7	25.7	131.0	90.16	1,416.7	-3,688.8	3,459.8	3,303.1	156.69	22.081		
7,300.0	6,644.7	6,630.7	6,630.7	26.1	131.0	90.15	1,416.7	-3,688.8	3,445.1	3,288.0	157.05	21.936		
7,381.9	6,644.6	6,630.6	6,630.6	28.0	131.0	90.15	1,416.7	-3,688.8	3,372.6	3,213.6	158.94	21.219		
7,400.0	6,644.6	6,630.6	6,630.6	28.4	131.0	90.15	1,416.7	-3,688.8	3,356.6	3,197.2	159.36	21.062		
7,480.3	6,644.5	6,630.5	6,630.5	30.3	131.0	90.14	1,416.7	-3,688.8	3,285.9	3,124.7	161.29	20.373		
7,500.0	6,644.4	6,630.4	6,630.4	30.8	131.0	90.14	1,416.7	-3,688.8	3,268.7	3,106.9	161.76	20.207		
7,578.7	6,644.3	6,630.3	6,630.3	32.7	131.0	90.14	1,416.7	-3,688.8	3,200.0	3,036.3	163.69	19.549		
7,600.0	6,644.3	6,630.3	6,630.3	33.3	131.0	90.14	1,416.7	-3,688.8	3,181.6	3,017.3	164.22	19.374		
7,677.1	6,644.2	6,630.2	6,630.2	35.2	131.0	90.13	1,416.7	-3,688.8	3,114.9	2,948.7	166.15	18.747		
7,700.0	6,644.1	6,630.1	6,630.1	35.8	131.0	90.13	1,416.7	-3,688.8	3,095.2	2,928.5	166.73	18.564		
7,775.6	6,644.0	6,630.0	6,630.0	37.7	131.0	90.13	1,416.7	-3,688.8	3,030.5	2,861.8	168.66	17.968		
7,800.0	6,644.0	6,630.0	6,630.0	38.3	131.0	90.13	1,416.7	-3,688.8	3,009.7	2,840.4	169.28	17.779		
7,874.0	6,643.9	6,629.9	6,629.9	40.2	131.0	90.12	1,416.7	-3,688.8	2,947.0	2,775.8	171.19	17.214		
7,900.0	6,643.9	6,629.9	6,629.9	40.9	131.0	90.12	1,416.7	-3,688.8	2,925.1	2,753.2	171.87	17.019		
7,972.4	6,643.8	6,629.8	6,629.8	42.8	131.0	90.12	1,416.7	-3,688.8	2,864.4	2,690.7	173.76	16.485		
8,000.0	6,643.7	6,629.7	6,629.7	43.5	131.0	90.12	1,416.7	-3,688.8	2,841.5	2,667.0	174.48	16.285		
8,070.8	6,643.6	6,629.6	6,629.6	45.4	131.0	90.11	1,416.7	-3,688.8	2,782.9	2,606.5	176.35	15.781		
8,100.0	6,643.6	6,629.6	6,629.6	46.2	131.0	90.11	1,416.7	-3,688.8	2,759.0	2,581.8	177.12	15.577		
8,169.3	6,643.5	6,629.5	6,629.5	48.0	131.0	90.11	1,416.7	-3,688.8	2,702.5	2,523.5	178.96	15.101		
8,200.0	6,643.5	6,629.5	6,629.5	48.8	130.9	90.11	1,416.7	-3,688.8	2,677.6	2,497.9	179.77	14.895		
8,267.7	6,643.4	6,629.4	6,629.4	50.6	130.9	90.10	1,416.7	-3,688.8	2,623.3	2,441.7	181.58	14.447		
8,300.0	6,643.3	6,629.3	6,629.3	51.5	130.9	90.10	1,416.7	-3,688.8	2,597.6	2,415.2	182.44	14.238		
8,366.1	6,643.2	6,629.2	6,629.2	53.3	130.9	90.10	1,416.7	-3,688.8	2,545.5	2,361.3	184.22	13.818		
8,400.0	6,643.2	6,629.2	6,629.2	54.2	130.9	90.10	1,416.7	-3,688.8	2,519.0	2,333.9	185.13	13.607		
8,464.5	6,643.1	6,629.1	6,629.1	55.9	130.9	90.09	1,416.7	-3,688.8	2,469.1	2,282.3	186.87	13.213		
8,500.0	6,643.1	6,629.1	6,629.1	56.9	130.9	90.09	1,416.7	-3,688.8	2,442.0	2,254.2	187.83	13.001		
8,563.0	6,643.0	6,629.0	6,629.0	58.6	130.9	90.09	1,416.7	-3,688.8	2,394.4	2,204.9	189.53	12.633		
8,600.0	6,642.9	6,628.9	6,628.9	59.6	130.9	90.09	1,416.7	-3,688.8	2,366.7	2,176.2	190.53	12.421		
8,661.4	6,642.8	6,628.8	6,628.8	61.3	130.9	90.08	1,416.7	-3,688.8	2,321.4	2,129.2	192.20	12.078		
8,700.0	6,642.8	6,628.8	6,628.8	62.3	130.9	90.08	1,416.7	-3,688.8	2,293.3	2,100.1	193.25	11.867		
8,759.8	6,642.7	6,628.7	6,628.7	64.0	130.9	90.08	1,416.7	-3,688.8	2,250.4	2,055.5	194.88	11.547		
8,800.0	6,642.7	6,628.7	6,628.7	65.1	130.9	90.08	1,416.7	-3,688.8	2,222.0	2,026.0	195.98	11.338		
8,858.2	6,642.6	6,628.6	6,628.6	66.6	130.9	90.07	1,416.7	-3,688.8	2,181.5	1,983.9	197.57	11.042		
8,900.0	6,642.5	6,628.5	6,628.5	67.8	130.9	90.07	1,416.7	-3,688.8	2,152.9	1,954.2	198.71	10.835		
8,956.7	6,642.4	6,628.4	6,628.4	69.3	130.9	90.07	1,416.7	-3,688.8	2,114.9	1,914.6	200.26	10.561		
9,000.0	6,642.4	6,628.4	6,628.4	70.5	130.9	90.07	1,416.7	-3,688.8	2,086.4	1,884.9	201.44	10.357		
9,055.1	6,642.3	6,628.3	6,628.3	72.0	130.9	90.06	1,416.7	-3,688.8	2,050.9	1,847.9	202.96	10.105		
9,100.0	6,642.3	6,628.3	6,628.3	73.3	130.9	90.06	1,416.7	-3,688.8	2,022.6	1,818.4	204.19	9.906		
9,153.5	6,642.2	6,628.2	6,628.2	74.7	130.9	90.06	1,416.7	-3,688.8	1,989.7	1,784.0	205.66	9.675		
9,200.0	6,642.1	6,628.1	6,628.1	76.0	130.9	90.06	1,416.7	-3,688.8	1,961.8	1,754.9	206.94	9.480		
9,251.9	6,642.1	6,628.1	6,628.1	77.5	130.9	90.05	1,416.7	-3,688.8	1,931.6	1,723.2	208.36	9.270		
9,300.0	6,642.0	6,628.0	6,628.0	78.8	130.9	90.05	1,416.7	-3,688.8	1,904.4	1,694.7	209.69	9.082		
9,350.4	6,641.9	6,627.9	6,627.9	80.2	130.9	90.05	1,416.7	-3,688.8	1,876.8	1,665.7	211.08	8.892		
9,400.0	6,641.9	6,627.9	6,627.9	81.5	130.9	90.05	1,416.7	-3,688.8	1,850.6	1,638.1	212.44	8.711		
9,448.8	6,641.8	6,627.8	6,627.8	82.9	130.9	90.04	1,416.7	-3,688.8	1,825.7	1,611.9	213.79	8.540		
9,500.0	6,641.7	6,627.7	6,627.7	84.3	130.9	90.04	1,416.7	-3,688.8	1,800.7	1,585.5	215.20	8.368		
9,547.2	6,641.7	6,627.7	6,627.7	85.6	130.9	90.04	1,416.7	-3,688.8	1,778.6	1,562.1	216.51	8.215		
9,600.0	6,641.6	6,627.6	6,627.6	87.1	130.9	90.04	1,416.7	-3,688.8	1,755.1	1,537.2	217.96	8.052		

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

Anticollision Report



Company:	PDC ENERGY	Local Co-ordinate Reference:	Well WACKER 10G-214
Project:	WELD COUNTY, COLORADO	TVD Reference:	KB-EST @ 4624.0usft (Original Well Elev)
Reference Site:	SW NW SEC. 10 T5N R64W 6th P.M.	MD Reference:	KB-EST @ 4624.0usft (Original Well Elev)
Site Error:	0.0 usft	North Reference:	True
Reference Well:	WACKER 10G-214	Survey Calculation Method:	Minimum Curvature
Well Error:	0.0 usft	Output errors are at	2.00 sigma
Reference Wellbore	ORIGINAL WELLBORE	Database:	EDM 5000.1 Single User Db
Reference Design:	PROPOSAL #1	Offset TVD Reference:	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	
9,645.6	6,641.5	6,627.5	6,627.5	88.3	130.9	90.03	1,416.7	-3,688.8	1,735.8	1,516.6	219.23	7.918	
9,700.0	6,641.5	6,627.5	6,627.5	89.8	130.9	90.03	1,416.7	-3,688.8	1,714.2	1,493.4	220.73	7.766	
9,744.1	6,641.4	6,627.4	6,627.4	91.0	130.9	90.03	1,416.7	-3,688.8	1,697.7	1,475.7	221.95	7.649	
9,800.0	6,641.3	6,627.3	6,627.3	92.6	130.9	90.03	1,416.7	-3,688.8	1,678.2	1,454.7	223.50	7.509	
9,842.5	6,641.3	6,627.3	6,627.3	93.8	130.9	90.02	1,416.7	-3,688.8	1,664.5	1,439.8	224.67	7.408	
9,900.0	6,641.2	6,627.2	6,627.2	95.4	130.9	90.02	1,416.7	-3,688.8	1,647.5	1,421.2	226.27	7.281	
9,940.9	6,641.1	6,627.1	6,627.1	96.5	130.9	90.02	1,416.7	-3,688.8	1,636.5	1,409.1	227.40	7.197	
10,000.0	6,641.1	6,627.1	6,627.1	98.1	130.9	90.02	1,416.7	-3,688.8	1,622.4	1,393.3	229.04	7.083	
10,039.3	6,641.0	6,627.0	6,627.0	99.2	130.9	90.02	1,416.7	-3,688.8	1,614.1	1,384.0	230.13	7.014	
10,100.0	6,640.9	6,626.9	6,626.9	100.9	130.9	90.01	1,416.7	-3,688.8	1,603.1	1,371.3	231.81	6.916	
10,137.8	6,640.9	6,626.9	6,626.9	102.0	130.9	90.01	1,416.7	-3,688.8	1,597.4	1,364.6	232.86	6.860	
10,200.0	6,640.8	6,626.8	6,626.8	103.7	130.9	90.01	1,416.7	-3,688.8	1,589.9	1,355.3	234.59	6.778	
10,236.2	6,640.8	6,626.8	6,626.8	104.7	130.9	90.01	1,416.7	-3,688.8	1,586.7	1,351.1	235.60	6.735	
10,300.0	6,640.7	6,626.7	6,626.7	106.5	130.9	90.00	1,416.7	-3,688.8	1,583.0	1,345.6	237.37	6.669	
10,334.6	6,640.6	6,626.6	6,626.6	107.4	130.9	90.00	1,416.7	-3,688.8	1,582.0	1,343.7	238.33	6.638	
10,360.5	6,640.6	6,626.6	6,626.6	108.2	130.9	90.00	1,416.7	-3,688.8	1,581.8	1,342.8	239.05	6.617 CC	
10,400.0	6,640.6	6,626.6	6,626.6	109.3	130.9	90.00	1,416.7	-3,688.8	1,582.3	1,342.2	240.15	6.589 ES	
10,433.0	6,640.5	6,626.5	6,626.5	110.2	130.9	90.00	1,416.7	-3,688.8	1,583.5	1,342.4	241.07	6.569	
10,500.0	6,640.4	6,626.4	6,626.4	112.0	130.9	89.99	1,416.7	-3,688.8	1,588.0	1,345.0	242.93	6.537	
10,531.5	6,640.4	6,626.4	6,626.4	112.9	130.9	89.99	1,416.7	-3,688.8	1,591.0	1,347.2	243.80	6.526	
10,600.0	6,640.3	6,626.3	6,626.3	114.8	130.9	89.99	1,416.7	-3,688.8	1,599.9	1,354.1	245.71	6.511	
10,629.9	6,640.3	6,626.3	6,626.3	115.7	130.9	89.99	1,416.7	-3,688.8	1,604.6	1,358.1	246.54	6.508 SF	
10,700.0	6,640.2	6,626.2	6,626.2	117.6	130.9	89.98	1,416.7	-3,688.8	1,617.9	1,369.4	248.49	6.511	
10,728.3	6,640.1	6,626.1	6,626.1	118.4	130.9	89.98	1,416.7	-3,688.8	1,624.0	1,374.7	249.28	6.515	
10,800.0	6,640.0	6,626.0	6,626.0	120.4	130.9	89.98	1,416.7	-3,688.8	1,641.8	1,390.5	251.28	6.534	
10,826.7	6,640.0	6,626.0	6,626.0	121.2	130.9	89.98	1,416.7	-3,688.8	1,649.1	1,397.1	252.02	6.543	
10,900.0	6,639.9	6,625.9	6,625.9	123.2	130.9	89.98	1,416.7	-3,688.8	1,671.3	1,417.2	254.06	6.578	
10,925.2	6,639.9	6,625.9	6,625.9	123.9	130.9	89.97	1,416.7	-3,688.8	1,679.6	1,424.8	254.77	6.593	
11,000.0	6,639.8	6,625.8	6,625.8	126.0	130.9	89.97	1,416.7	-3,688.8	1,706.2	1,449.4	256.85	6.643	
11,023.6	6,639.8	6,625.8	6,625.8	126.6	130.9	89.97	1,416.7	-3,688.8	1,715.2	1,457.7	257.51	6.661	
11,100.0	6,639.7	6,625.7	6,625.7	128.8	130.9	89.97	1,416.7	-3,688.8	1,746.2	1,486.5	259.64	6.725	
11,122.0	6,639.6	6,625.6	6,625.6	129.4	130.9	89.97	1,416.7	-3,688.8	1,755.6	1,495.3	260.25	6.746	
11,200.0	6,639.5	6,625.5	6,625.5	131.6	130.9	89.96	1,416.7	-3,688.8	1,790.8	1,528.4	262.43	6.824	
11,220.4	6,639.5	6,625.5	6,625.5	132.1	130.9	89.96	1,416.7	-3,688.8	1,800.5	1,537.5	263.00	6.846	
11,300.0	6,639.4	6,625.4	6,625.4	134.4	130.9	89.96	1,416.7	-3,688.8	1,839.8	1,574.6	265.22	6.937	
11,318.9	6,639.4	6,625.4	6,625.4	134.9	130.9	89.96	1,416.7	-3,688.8	1,849.5	1,583.8	265.74	6.960	
11,400.0	6,639.3	6,625.3	6,625.3	137.1	130.9	89.95	1,416.7	-3,688.8	1,892.8	1,624.8	268.01	7.063	
11,417.3	6,639.3	6,625.3	6,625.3	137.6	130.9	89.95	1,416.7	-3,688.8	1,902.4	1,633.9	268.49	7.085	
11,500.0	6,639.2	6,625.2	6,625.2	139.9	130.9	89.95	1,416.7	-3,688.8	1,949.5	1,678.7	270.80	7.199	
11,515.7	6,639.1	6,625.1	6,625.1	140.4	130.9	89.95	1,416.7	-3,688.8	1,958.8	1,687.5	271.24	7.222	
11,600.0	6,639.0	6,625.0	6,625.0	142.7	130.9	89.94	1,416.7	-3,688.8	2,009.6	1,736.0	273.59	7.345	
11,614.1	6,639.0	6,625.0	6,625.0	143.1	130.9	89.94	1,416.7	-3,688.8	2,018.4	1,744.4	273.99	7.367	
11,700.0	6,638.9	6,624.9	6,624.9	145.5	130.9	89.94	1,416.7	-3,688.8	2,072.8	1,796.4	276.38	7.500	
11,712.6	6,638.9	6,624.9	6,624.9	145.9	130.9	89.94	1,416.7	-3,688.8	2,081.0	1,804.2	276.73	7.520	
11,800.0	6,638.8	6,624.8	6,624.8	148.3	130.9	89.94	1,416.7	-3,688.8	2,138.8	1,859.6	279.18	7.661	
11,811.0	6,638.8	6,624.8	6,624.8	148.6	130.9	89.93	1,416.7	-3,688.8	2,146.2	1,866.7	279.48	7.679	
11,900.0	6,638.7	6,624.7	6,624.7	151.1	130.9	89.93	1,416.7	-3,688.8	2,207.3	1,925.4	281.97	7.828	
11,909.4	6,638.6	6,624.6	6,624.6	151.4	130.9	89.93	1,416.7	-3,688.8	2,213.9	1,931.7	282.23	7.844	
12,000.0	6,638.5	6,624.5	6,624.5	153.9	130.9	89.93	1,416.7	-3,688.8	2,278.2	1,993.4	284.76	8.000	
12,007.8	6,638.5	6,624.5	6,624.5	154.1	130.9	89.93	1,416.7	-3,688.8	2,283.9	1,998.9	284.98	8.014	
12,100.0	6,638.4	6,624.4	6,624.4	156.7	130.8	89.92	1,416.7	-3,688.8	2,351.2	2,063.6	287.56	8.176	
12,106.3	6,638.4	6,624.4	6,624.4	156.9	130.8	89.92	1,416.7	-3,688.8	2,355.8	2,068.1	287.73	8.188	

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

Anticollision Report



Company:	PDC ENERGY	Local Co-ordinate Reference:	Well WACKER 10G-214
Project:	WELD COUNTY, COLORADO	TVD Reference:	KB-EST @ 4624.0usft (Original Well Elev)
Reference Site:	SW NW SEC. 10 T5N R64W 6th P.M.	MD Reference:	KB-EST @ 4624.0usft (Original Well Elev)
Site Error:	0.0 usft	North Reference:	True
Reference Well:	WACKER 10G-214	Survey Calculation Method:	Minimum Curvature
Well Error:	0.0 usft	Output errors are at	2.00 sigma
Reference Wellbore	ORIGINAL WELLBORE	Database:	EDM 5000.1 Single User Db
Reference Design:	PROPOSAL #1	Offset TVD Reference:	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	
12,200.0	6,638.3	6,624.3	6,624.3	159.5	130.8	89.92	1,416.7	-3,688.8	2,426.1	2,135.8	290.35	8.356	
12,204.7	6,638.3	6,624.3	6,624.3	159.6	130.8	89.92	1,416.7	-3,688.8	2,429.7	2,139.2	290.48	8.364	
12,300.0	6,638.2	6,624.2	6,624.2	162.3	130.8	89.91	1,416.7	-3,688.8	2,502.8	2,209.6	293.15	8.538	
12,303.1	6,638.2	6,624.2	6,624.2	162.4	130.8	89.91	1,416.7	-3,688.8	2,505.2	2,212.0	293.24	8.543	
12,400.0	6,638.0	6,624.0	6,624.0	165.1	130.8	89.91	1,416.7	-3,688.8	2,581.1	2,285.1	295.94	8.721	
12,401.5	6,638.0	6,624.0	6,624.0	165.2	130.8	89.91	1,416.7	-3,688.8	2,582.3	2,286.3	295.99	8.724	
12,500.0	6,637.9	6,623.9	6,623.9	167.9	130.8	89.91	1,416.7	-3,688.8	2,660.8	2,362.0	298.74	8.907	
12,598.4	6,637.8	6,623.8	6,623.8	170.7	130.8	89.90	1,416.7	-3,688.8	2,740.5	2,439.0	301.49	9.090	
12,600.0	6,637.8	6,623.8	6,623.8	170.7	130.8	89.90	1,416.7	-3,688.8	2,741.8	2,440.3	301.54	9.093	
12,696.8	6,637.7	6,623.7	6,623.7	173.4	130.8	89.90	1,416.7	-3,688.8	2,821.5	2,517.2	304.25	9.274	
12,700.0	6,637.7	6,623.7	6,623.7	173.5	130.8	89.90	1,416.7	-3,688.8	2,824.1	2,519.8	304.33	9.280	
12,795.2	6,637.6	6,623.6	6,623.6	176.2	130.8	89.89	1,416.7	-3,688.8	2,903.5	2,596.5	307.00	9.458	
12,800.0	6,637.6	6,623.6	6,623.6	176.3	130.8	89.89	1,416.7	-3,688.8	2,907.5	2,600.4	307.13	9.467	
12,893.7	6,637.4	6,623.4	6,623.4	178.9	130.8	89.89	1,416.7	-3,688.8	2,986.5	2,676.8	309.75	9.642	
12,900.0	6,637.4	6,623.4	6,623.4	179.1	130.8	89.89	1,416.7	-3,688.8	2,991.9	2,682.0	309.93	9.653	
12,992.1	6,637.3	6,623.3	6,623.3	181.7	130.8	89.89	1,416.7	-3,688.8	3,070.4	2,757.9	312.51	9.825	
13,000.0	6,637.3	6,623.3	6,623.3	181.9	130.8	89.89	1,416.7	-3,688.8	3,077.2	2,764.5	312.73	9.840	
13,090.5	6,637.2	6,623.2	6,623.2	184.4	130.8	89.88	1,416.7	-3,688.8	3,155.2	2,840.0	315.26	10.008	
13,100.0	6,637.2	6,623.2	6,623.2	184.7	130.8	89.88	1,416.7	-3,688.8	3,163.4	2,847.9	315.53	10.026	
13,188.9	6,637.1	6,623.1	6,623.1	187.2	130.8	89.88	1,416.7	-3,688.8	3,240.8	2,922.7	318.02	10.191	
13,200.0	6,637.1	6,623.1	6,623.1	187.5	130.8	89.88	1,416.7	-3,688.8	3,250.4	2,932.1	318.33	10.211	
13,287.4	6,637.0	6,623.0	6,623.0	190.0	130.8	89.87	1,416.7	-3,688.8	3,327.0	3,006.2	320.77	10.372	
13,300.0	6,637.0	6,623.0	6,623.0	190.3	130.8	89.87	1,416.7	-3,688.8	3,338.1	3,017.0	321.12	10.395	
13,385.8	6,636.9	6,622.9	6,622.9	192.7	130.8	89.87	1,416.7	-3,688.8	3,413.9	3,090.4	323.53	10.552	
13,400.0	6,636.8	6,622.8	6,622.8	193.1	130.8	89.87	1,416.7	-3,688.8	3,426.5	3,102.6	323.92	10.578	
13,484.2	6,636.7	6,622.7	6,622.7	195.5	130.8	89.87	1,416.7	-3,688.8	3,501.4	3,175.2	326.28	10.731	
13,500.0	6,636.7	6,622.7	6,622.7	195.9	130.8	89.87	1,416.7	-3,688.8	3,515.5	3,188.8	326.72	10.760	
13,582.6	6,636.6	6,622.6	6,622.6	198.2	130.8	89.86	1,416.7	-3,688.8	3,589.5	3,260.5	329.04	10.909	
13,600.0	6,636.6	6,622.6	6,622.6	198.7	130.8	89.86	1,416.7	-3,688.8	3,605.1	3,275.6	329.52	10.940	
13,681.1	6,636.5	6,622.5	6,622.5	201.0	130.8	89.86	1,416.7	-3,688.8	3,678.1	3,346.3	331.79	11.086	
13,700.0	6,636.5	6,622.5	6,622.5	201.5	130.8	89.86	1,416.7	-3,688.8	3,695.2	3,362.9	332.32	11.119	
13,779.5	6,636.4	6,622.4	6,622.4	203.7	130.8	89.85	1,416.7	-3,688.8	3,767.2	3,432.7	334.55	11.261	
13,800.0	6,636.4	6,622.4	6,622.4	204.3	130.8	89.85	1,416.7	-3,688.8	3,785.8	3,450.7	335.12	11.297	
13,877.9	6,636.3	6,622.3	6,622.3	206.5	130.8	89.85	1,416.7	-3,688.8	3,856.8	3,519.5	337.31	11.434	
13,900.0	6,636.3	6,622.3	6,622.3	207.1	130.8	89.85	1,416.7	-3,688.8	3,876.9	3,539.0	337.93	11.473	
13,976.3	6,636.2	6,622.2	6,622.2	209.3	130.8	89.85	1,416.7	-3,688.8	3,946.7	3,606.7	340.06	11.606	
14,000.0	6,636.1	6,622.1	6,622.1	209.9	130.8	89.85	1,416.7	-3,688.8	3,968.4	3,627.7	340.73	11.647	
14,074.8	6,636.0	6,622.0	6,622.0	212.0	130.8	89.84	1,416.7	-3,688.8	4,037.1	3,694.3	342.82	11.776	
14,100.0	6,636.0	6,622.0	6,622.0	212.7	130.8	89.84	1,416.7	-3,688.8	4,060.3	3,716.8	343.53	11.820	
14,173.2	6,635.9	6,621.9	6,621.9	214.8	130.8	89.84	1,416.7	-3,688.8	4,127.8	3,782.3	345.58	11.945	
14,200.0	6,635.9	6,621.9	6,621.9	215.5	130.8	89.84	1,416.7	-3,688.8	4,152.6	3,806.3	346.33	11.990	
14,271.6	6,635.8	6,621.8	6,621.8	217.5	130.8	89.84	1,416.7	-3,688.8	4,218.9	3,870.6	348.33	12.112	
14,300.0	6,635.8	6,621.8	6,621.8	218.3	130.8	89.83	1,416.7	-3,688.8	4,245.2	3,896.1	349.13	12.159	
14,370.0	6,635.7	6,621.7	6,621.7	220.3	130.8	89.83	1,416.7	-3,688.8	4,310.3	3,959.2	351.09	12.277	
14,400.0	6,635.7	6,621.7	6,621.7	221.1	130.8	89.83	1,416.7	-3,688.8	4,338.2	3,986.3	351.93	12.327	
14,468.5	6,635.6	6,621.6	6,621.6	223.1	130.8	89.83	1,416.7	-3,688.8	4,402.0	4,048.2	353.85	12.440	
14,500.0	6,635.6	6,621.6	6,621.6	223.9	130.8	89.83	1,416.7	-3,688.8	4,431.5	4,076.7	354.73	12.492	
14,566.9	6,635.5	6,621.5	6,621.5	225.8	130.8	89.82	1,416.7	-3,688.8	4,494.0	4,137.4	356.61	12.602	
14,600.0	6,635.4	6,621.4	6,621.4	226.8	130.8	89.82	1,416.7	-3,688.8	4,525.0	4,167.5	357.54	12.656	
14,665.3	6,635.4	6,621.4	6,621.4	228.6	130.8	89.82	1,416.7	-3,688.8	4,586.3	4,226.9	359.37	12.762	
14,700.0	6,635.3	6,621.3	6,621.3	229.6	130.8	89.82	1,416.7	-3,688.8	4,618.8	4,258.5	360.34	12.818	
14,763.7	6,635.2	6,621.2	6,621.2	231.3	130.8	89.82	1,416.7	-3,688.8	4,678.8	4,316.7	362.12	12.920	

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

Anticollision Report



Company:	PDC ENERGY	Local Co-ordinate Reference:	Well WACKER 10G-214
Project:	WELD COUNTY, COLORADO	TVD Reference:	KB-EST @ 4624.0usft (Original Well Elev)
Reference Site:	SW NW SEC. 10 T5N R64W 6th P.M.	MD Reference:	KB-EST @ 4624.0usft (Original Well Elev)
Site Error:	0.0 usft	North Reference:	True
Reference Well:	WACKER 10G-214	Survey Calculation Method:	Minimum Curvature
Well Error:	0.0 usft	Output errors are at	2.00 sigma
Reference Wellbore	ORIGINAL WELLBORE	Database:	EDM 5000.1 Single User Db
Reference Design:	PROPOSAL #1	Offset TVD Reference:	Offset Datum

Offset Design SW NW SEC. 10 T5N R64W 6th P.M. - EXIST VERT BOND #21-9 - 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									
Measured Depth (usft)	Vertical Depth (usft)	Measured Depth (usft)	Vertical Depth (usft)	Reference (usft)	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
14,800.0	6,635.2	6,621.2	6,621.2	232.4	130.8	89.82	1,416.7	-3,688.8	4,712.9	4,349.8	363.14	12.978	
14,862.2	6,635.1	6,621.1	6,621.1	234.1	130.8	89.81	1,416.7	-3,688.8	4,771.5	4,406.7	364.88	13.077	
14,900.0	6,635.1	6,621.1	6,621.1	235.2	130.8	89.81	1,416.7	-3,688.8	4,807.2	4,441.3	365.94	13.137	
14,960.6	6,635.0	6,621.0	6,621.0	236.9	130.8	89.81	1,416.7	-3,688.8	4,864.5	4,496.9	367.64	13.232	
14,982.9	6,635.0	6,621.0	6,621.0	237.5	130.8	89.81	1,416.7	-3,688.8	4,885.6	4,517.3	368.26	13.266	

Anticollision Report



Company:	PDC ENERGY	Local Co-ordinate Reference:	Well WACKER 10G-214
Project:	WELD COUNTY, COLORADO	TVD Reference:	KB-EST @ 4624.0usft (Original Well Elev)
Reference Site:	SW NW SEC. 10 T5N R64W 6th P.M.	MD Reference:	KB-EST @ 4624.0usft (Original Well Elev)
Site Error:	0.0 usft	North Reference:	True
Reference Well:	WACKER 10G-214	Survey Calculation Method:	Minimum Curvature
Well Error:	0.0 usft	Output errors are at	2.00 sigma
Reference Wellbore	ORIGINAL WELLBORE	Database:	EDM 5000.1 Single User Db
Reference Design:	PROPOSAL #1	Offset TVD Reference:	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	-87.13	120.7	-2,404.5	2,407.8				
98.4	98.4	80.2	80.2	0.1	0.0	-87.13	120.5	-2,404.2	2,407.3	2,407.1	0.12	N/A	
100.0	100.0	82.2	82.2	0.1	0.0	-87.13	120.5	-2,404.1	2,407.2	2,407.1	0.12	N/A	
196.8	196.8	165.7	165.7	0.3	0.1	-87.14	120.2	-2,403.6	2,406.6	2,406.2	0.37	6,442.311	
200.0	200.0	168.2	168.2	0.3	0.1	-87.14	120.2	-2,403.6	2,406.6	2,406.2	0.38	6,300.292	
238.0	238.0	200.0	200.0	0.4	0.1	-87.14	120.2	-2,403.5	2,406.5	2,406.1	0.48	4,964.821	
295.3	295.3	258.9	258.9	0.5	0.1	-87.14	120.1	-2,403.5	2,406.5	2,405.9	0.66	3,629.689	
300.0	300.0	264.0	264.0	0.5	0.1	-87.14	120.1	-2,403.5	2,406.5	2,405.9	0.68	3,549.852	
393.7	393.7	374.2	374.1	0.8	0.2	-87.14	119.9	-2,403.1	2,406.2	2,405.3	0.96	2,513.088	
400.0	400.0	381.9	381.9	0.8	0.2	-87.14	120.0	-2,403.1	2,406.2	2,405.2	0.98	2,466.022	
492.1	492.1	461.4	461.4	1.0	0.2	-87.13	120.3	-2,402.5	2,405.5	2,404.3	1.22	1,972.441	
500.0	500.0	467.6	467.6	1.0	0.2	-87.13	120.4	-2,402.5	2,405.5	2,404.3	1.24	1,939.868	
590.5	590.5	566.1	566.1	1.2	0.3	-87.13	120.4	-2,402.3	2,405.4	2,403.9	1.46	1,645.381	
600.0	600.0	578.7	578.7	1.2	0.3	-87.13	120.4	-2,402.2	2,405.3	2,403.8	1.48	1,620.954	
689.0	689.0	659.9	659.9	1.4	0.3	-87.14	120.1	-2,401.7	2,404.7	2,403.0	1.70	1,412.404	
700.0	700.0	669.0	669.0	1.4	0.3	-87.14	120.1	-2,401.7	2,404.7	2,403.0	1.73	1,390.000	
787.4	787.4	770.7	770.6	1.6	0.3	-87.14	120.1	-2,401.3	2,404.4	2,402.4	1.97	1,222.237	
800.0	800.0	788.6	788.6	1.7	0.3	-87.14	120.1	-2,401.1	2,404.3	2,402.3	2.00	1,200.123	
885.8	885.8	871.2	871.2	1.9	0.4	-87.13	120.1	-2,400.2	2,403.3	2,401.1	2.24	1,070.830	
900.0	900.0	884.2	884.1	1.9	0.4	-87.13	120.1	-2,400.1	2,403.2	2,400.9	2.28	1,052.147	
984.2	984.2	959.8	959.8	2.1	0.4	-87.14	120.1	-2,399.5	2,402.6	2,400.1	2.51	957.195	
1,000.0	1,000.0	973.9	973.9	2.1	0.4	-87.14	120.0	-2,399.5	2,402.5	2,399.9	2.55	941.528	
1,081.0	1,081.0	1,043.0	1,043.0	2.3	0.5	-87.14	119.8	-2,399.3	2,402.3	2,399.5	2.75	874.968	
1,082.7	1,082.7	1,044.4	1,044.4	2.3	0.5	-87.14	119.8	-2,399.3	2,402.3	2,399.5	2.75	873.782	
1,100.0	1,100.0	1,058.8	1,058.8	2.3	0.5	-87.14	119.9	-2,399.3	2,402.3	2,399.5	2.79	861.566	
1,181.1	1,181.1	1,134.3	1,134.2	2.5	0.5	-87.13	120.3	-2,399.5	2,402.6	2,399.6	2.99	804.585	
1,200.0	1,200.0	1,154.8	1,154.8	2.6	0.5	-87.13	120.5	-2,399.6	2,402.6	2,399.6	3.04	790.948	
1,279.5	1,279.5	1,234.9	1,234.8	2.7	0.5	-87.12	120.9	-2,399.7	2,402.8	2,399.6	3.24	741.565	
1,300.0	1,300.0	1,253.7	1,253.7	2.8	0.5	-87.12	120.9	-2,399.8	2,402.9	2,399.6	3.29	730.703	
1,377.9	1,377.9	1,330.2	1,330.2	3.0	0.5	154.23	120.7	-2,400.2	2,404.2	2,400.7	3.48	691.714	
1,400.0	1,400.0	1,354.5	1,354.4	3.0	0.5	154.23	120.6	-2,400.2	2,404.9	2,401.3	3.53	681.121	
1,476.4	1,476.3	1,442.6	1,442.5	3.1	0.5	154.24	120.5	-2,400.3	2,408.3	2,404.6	3.70	651.287	
1,500.0	1,499.8	1,471.4	1,471.4	3.2	0.5	154.25	120.5	-2,400.3	2,409.6	2,405.8	3.75	643.374	
1,574.8	1,574.4	1,559.6	1,559.6	3.3	0.6	154.27	120.2	-2,399.7	2,414.7	2,410.7	3.92	615.857	
1,600.0	1,599.5	1,588.8	1,588.8	3.4	0.6	154.28	119.8	-2,399.4	2,416.7	2,412.7	3.98	606.825	
1,673.2	1,672.2	1,653.8	1,653.8	3.6	0.6	154.28	119.0	-2,398.8	2,423.7	2,419.5	4.17	581.570	
1,700.0	1,698.7	1,676.4	1,676.4	3.6	0.6	154.28	118.8	-2,398.6	2,426.7	2,422.5	4.24	573.010	
1,771.6	1,769.5	1,746.8	1,746.8	3.8	0.6	154.29	118.3	-2,398.2	2,436.1	2,431.7	4.42	550.760	
1,800.0	1,797.5	1,777.1	1,777.1	3.9	0.6	154.31	118.3	-2,398.0	2,440.3	2,435.8	4.50	542.625	
1,870.1	1,866.3	1,844.1	1,844.1	4.1	0.7	154.34	118.5	-2,397.5	2,451.5	2,446.8	4.69	522.359	
1,900.2	1,895.8	1,871.4	1,871.4	4.2	0.7	154.36	118.6	-2,397.4	2,456.9	2,452.1	4.78	514.253	
1,968.5	1,962.6	1,949.1	1,949.1	4.4	0.7	154.53	118.7	-2,396.9	2,469.3	2,464.4	4.96	497.372	
2,000.0	1,993.4	1,991.5	1,991.4	4.5	0.7	154.61	118.7	-2,396.3	2,474.9	2,469.8	5.05	489.949	
2,066.9	2,058.9	2,049.1	2,049.1	4.7	0.7	154.73	118.4	-2,395.6	2,486.6	2,481.4	5.24	474.938	
2,100.0	2,091.2	2,075.9	2,075.8	4.8	0.7	154.78	118.3	-2,395.3	2,492.5	2,487.2	5.32	468.092	
2,165.3	2,155.2	2,125.7	2,125.6	5.1	0.8	154.88	117.9	-2,395.0	2,504.5	2,499.0	5.50	454.984	
2,200.0	2,189.1	2,150.6	2,150.6	5.2	0.8	154.92	117.7	-2,395.0	2,511.0	2,505.4	5.60	448.320	
2,263.8	2,251.4	2,200.0	2,199.9	5.5	0.8	155.02	117.7	-2,395.2	2,523.2	2,517.5	5.77	436.927	
2,300.0	2,286.9	2,237.0	2,237.0	5.6	0.8	155.10	117.7	-2,395.4	2,530.3	2,524.4	5.88	430.653	
2,362.2	2,347.7	2,300.0	2,299.9	5.8	0.8	155.23	117.9	-2,395.5	2,542.3	2,536.2	6.05	420.000	
2,400.0	2,384.7	2,338.7	2,338.6	6.0	0.8	155.31	118.0	-2,395.6	2,549.5	2,543.3	6.16	413.947	
2,460.6	2,444.0	2,388.7	2,388.7	6.2	0.8	155.41	118.1	-2,395.8	2,561.3	2,555.0	6.33	404.611	

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

Anticollision Report



Company:	PDC ENERGY	Local Co-ordinate Reference:	Well WACKER 10G-214
Project:	WELD COUNTY, COLORADO	TVD Reference:	KB-EST @ 4624.0usft (Original Well Elev)
Reference Site:	SW NW SEC. 10 T5N R64W 6th P.M.	MD Reference:	KB-EST @ 4624.0usft (Original Well Elev)
Site Error:	0.0 usft	North Reference:	True
Reference Well:	WACKER 10G-214	Survey Calculation Method:	Minimum Curvature
Well Error:	0.0 usft	Output errors are at	2.00 sigma
Reference Wellbore	ORIGINAL WELLBORE	Database:	EDM 5000.1 Single User Db
Reference Design:	PROPOSAL #1	Offset TVD Reference:	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	2,482.5	2,424.2	2,424.1	6.4	0.8	155.48	118.1	-2,396.1	2,569.1	2,562.6	6.44	398.626		
2,559.0	2,540.3	2,479.7	2,479.6	6.6	0.8	155.59	118.0	-2,396.6	2,580.8	2,574.1	6.62	389.733		
2,600.0	2,580.3	2,520.8	2,520.7	6.8	0.8	155.66	118.0	-2,396.9	2,588.9	2,582.2	6.74	383.957		
2,657.5	2,636.5	2,582.6	2,582.5	7.1	0.8	155.79	118.2	-2,397.4	2,600.3	2,593.3	6.91	376.267		
2,700.0	2,678.1	2,623.3	2,623.2	7.2	0.8	155.87	118.6	-2,397.6	2,608.6	2,601.6	7.04	370.756		
2,755.9	2,732.8	2,672.7	2,672.6	7.5	0.8	155.97	118.9	-2,397.9	2,619.7	2,612.5	7.20	363.695		
2,800.0	2,775.9	2,715.3	2,715.2	7.7	0.8	156.06	119.0	-2,398.3	2,628.5	2,621.1	7.33	358.354		
2,854.3	2,829.1	2,778.1	2,778.0	7.9	0.8	156.18	119.4	-2,398.7	2,639.2	2,631.7	7.50	351.918		
2,900.0	2,873.8	2,823.7	2,823.6	8.1	0.9	156.27	119.7	-2,398.9	2,648.1	2,640.5	7.64	346.780		
2,952.7	2,925.4	2,870.4	2,870.3	8.3	0.9	156.36	120.0	-2,399.1	2,658.5	2,650.7	7.79	341.090		
2,953.5	2,926.1	2,871.1	2,871.0	8.3	0.9	156.36	120.0	-2,399.1	2,658.6	2,650.8	7.80	341.013		
3,000.0	2,971.6	2,918.1	2,918.0	8.5	0.9	156.52	120.1	-2,399.4	2,667.5	2,659.6	7.91	337.284		
3,051.2	3,022.0	2,985.0	2,984.9	8.7	0.9	156.71	120.6	-2,399.5	2,676.3	2,668.3	8.02	333.801		
3,100.0	3,070.1	3,032.2	3,032.1	8.8	0.9	156.85	121.1	-2,399.4	2,683.7	2,675.6	8.12	330.453		
3,149.6	3,119.1	3,075.0	3,075.0	8.9	0.9	156.96	121.5	-2,399.5	2,690.6	2,682.4	8.22	327.198		
3,200.0	3,169.1	3,126.6	3,126.5	9.1	0.9	157.07	121.6	-2,399.6	2,696.8	2,688.5	8.33	323.857		
3,248.0	3,216.8	3,185.9	3,185.8	9.2	0.9	157.17	122.0	-2,399.5	2,701.9	2,693.5	8.42	320.802		
3,300.0	3,268.5	3,244.1	3,244.0	9.3	0.9	157.27	122.6	-2,399.2	2,706.4	2,697.8	8.53	317.450		
3,346.4	3,314.8	3,294.7	3,294.6	9.4	0.9	157.33	122.7	-2,398.9	2,709.6	2,700.9	8.61	314.589		
3,400.0	3,368.3	3,344.3	3,344.2	9.6	0.9	157.38	122.7	-2,398.6	2,712.3	2,703.6	8.72	311.174		
3,444.9	3,413.1	3,385.2	3,385.1	9.6	0.9	157.41	122.8	-2,398.4	2,714.0	2,705.2	8.80	308.445		
3,500.0	3,468.2	3,432.9	3,432.8	9.7	1.0	157.43	123.0	-2,398.3	2,715.4	2,706.4	8.90	305.042		
3,543.3	3,511.5	3,469.6	3,469.5	9.8	1.0	157.45	123.3	-2,398.3	2,715.8	2,706.8	8.98	302.467		
3,553.7	3,521.9	3,478.4	3,478.2	9.8	1.0	-83.90	123.4	-2,398.3	2,715.8	2,705.3	10.50	258.685		
3,600.0	3,568.2	3,522.8	3,522.6	9.9	1.0	-83.90	123.7	-2,398.4	2,716.0	2,705.4	10.58	256.757		
3,641.7	3,609.9	3,568.6	3,568.5	10.0	1.0	-83.89	123.8	-2,398.5	2,716.1	2,705.4	10.65	255.046		
3,700.0	3,668.2	3,624.0	3,623.9	10.1	1.0	-83.90	123.7	-2,398.5	2,716.1	2,705.4	10.75	252.635		
3,740.1	3,708.4	3,656.5	3,656.4	10.1	1.0	-83.90	123.6	-2,398.7	2,716.3	2,705.5	10.82	250.953		
3,800.0	3,768.2	3,707.6	3,707.5	10.2	1.0	-83.90	123.5	-2,399.0	2,716.7	2,705.8	10.93	248.489		
3,838.6	3,806.8	3,756.3	3,756.2	10.3	1.0	-83.90	123.5	-2,399.4	2,717.0	2,706.0	11.01	246.817		
3,900.0	3,868.2	3,830.0	3,829.9	10.4	1.0	-83.90	123.6	-2,399.5	2,717.1	2,706.0	11.12	244.292		
3,937.0	3,905.2	3,871.3	3,871.2	10.5	1.0	-83.91	123.4	-2,399.5	2,717.1	2,705.9	11.19	242.867		
4,000.0	3,968.2	3,952.2	3,952.1	10.6	1.0	-83.93	122.4	-2,399.3	2,716.8	2,705.5	11.31	240.269		
4,035.4	4,003.6	4,001.7	4,001.6	10.6	1.0	-83.95	121.3	-2,398.8	2,716.4	2,705.0	11.38	238.728		
4,100.0	4,068.2	4,095.9	4,095.7	10.7	1.0	-84.00	118.5	-2,397.4	2,715.2	2,703.7	11.51	235.880		
4,133.8	4,102.1	4,136.7	4,136.5	10.8	1.0	-84.03	117.0	-2,396.5	2,714.4	2,702.8	11.58	234.415		
4,200.0	4,168.2	4,210.1	4,209.8	10.9	1.1	-84.09	114.1	-2,394.7	2,712.5	2,700.7	11.71	231.606		
4,232.3	4,200.5	4,236.0	4,235.7	11.0	1.1	-84.11	113.1	-2,394.0	2,711.5	2,699.8	11.77	230.288		
4,300.0	4,268.2	4,300.0	4,299.6	11.1	1.1	-84.16	110.6	-2,392.8	2,709.9	2,698.0	11.91	227.557		
4,330.7	4,298.9	4,317.6	4,317.2	11.1	1.1	-84.17	109.8	-2,392.5	2,709.2	2,697.3	11.97	226.374		
4,400.0	4,368.2	4,382.4	4,382.0	11.3	1.1	-84.23	107.3	-2,391.4	2,707.9	2,695.7	12.11	223.674		
4,429.1	4,397.3	4,409.8	4,409.3	11.3	1.1	-84.25	106.2	-2,391.0	2,707.3	2,695.1	12.16	222.553		
4,500.0	4,468.2	4,477.1	4,476.5	11.4	1.1	-84.29	104.1	-2,390.0	2,706.0	2,693.7	12.31	219.876		
4,527.5	4,495.8	4,503.8	4,503.3	11.5	1.1	-84.30	103.4	-2,389.6	2,705.6	2,693.2	12.36	218.844		
4,600.0	4,568.2	4,585.5	4,584.9	11.6	1.1	-84.34	101.6	-2,388.3	2,704.2	2,691.7	12.51	216.123		
4,626.0	4,594.2	4,611.5	4,610.9	11.7	1.1	-84.35	101.1	-2,387.8	2,703.7	2,691.1	12.57	215.160		
4,700.0	4,668.2	4,676.6	4,676.0	11.8	1.2	-84.38	99.6	-2,386.7	2,702.3	2,689.6	12.72	212.496		
4,724.4	4,692.6	4,700.0	4,699.4	11.9	1.2	-84.39	99.0	-2,386.4	2,701.9	2,689.2	12.77	211.625		
4,800.0	4,768.2	4,762.8	4,762.2	12.0	1.2	-84.42	97.5	-2,385.7	2,700.9	2,688.0	12.92	209.006		
4,822.8	4,791.0	4,782.4	4,781.7	12.0	1.2	-84.43	97.1	-2,385.5	2,700.6	2,687.7	12.97	208.225		
4,900.0	4,868.2	4,847.3	4,846.6	12.2	1.2	-84.45	96.1	-2,385.1	2,700.0	2,686.8	13.13	205.650		
4,921.2	4,889.5	4,865.1	4,864.4	12.2	1.2	-84.45	95.8	-2,385.0	2,699.9	2,686.7	13.17	204.953		

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

Anticollision Report



Company:	PDC ENERGY	Local Co-ordinate Reference:	Well WACKER 10G-214
Project:	WELD COUNTY, COLORADO	TVD Reference:	KB-EST @ 4624.0usft (Original Well Elev)
Reference Site:	SW NW SEC. 10 T5N R64W 6th P.M.	MD Reference:	KB-EST @ 4624.0usft (Original Well Elev)
Site Error:	0.0 usft	North Reference:	True
Reference Well:	WACKER 10G-214	Survey Calculation Method:	Minimum Curvature
Well Error:	0.0 usft	Output errors are at	2.00 sigma
Reference Wellbore	ORIGINAL WELLBORE	Database:	EDM 5000.1 Single User Db
Reference Design:	PROPOSAL #1	Offset TVD Reference:	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	4,968.2	4,950.4	4,949.8	12.4	1.2	-84.48	94.7	-2,384.7	2,699.5	2,686.2	13.34	202.382		
5,019.7	4,987.9	4,977.3	4,976.6	12.4	1.2	-84.48	94.4	-2,384.5	2,699.4	2,686.0	13.38	201.729		
5,100.0	5,068.2	5,057.2	5,056.5	12.6	1.2	-84.49	93.9	-2,383.7	2,698.5	2,684.9	13.55	199.147		
5,118.1	5,086.3	5,073.4	5,072.7	12.6	1.2	-84.49	93.8	-2,383.6	2,698.3	2,684.7	13.59	198.577		
5,200.0	5,168.2	5,148.8	5,148.1	12.7	1.3	-84.50	93.6	-2,383.0	2,697.7	2,683.9	13.76	196.075		
5,216.5	5,184.7	5,164.2	5,163.5	12.8	1.3	-84.50	93.6	-2,382.9	2,697.6	2,683.8	13.79	195.580		
5,300.0	5,268.2	5,245.1	5,244.4	12.9	1.3	-84.49	93.9	-2,382.4	2,697.1	2,683.2	13.97	193.110		
5,314.9	5,283.2	5,260.1	5,259.4	13.0	1.3	-84.49	94.0	-2,382.3	2,697.0	2,683.0	14.00	192.671		
5,400.0	5,368.2	5,343.3	5,342.6	13.1	1.3	-84.48	94.5	-2,381.9	2,696.6	2,682.4	14.18	190.215		
5,413.4	5,381.6	5,356.2	5,355.5	13.2	1.3	-84.47	94.6	-2,381.8	2,696.5	2,682.3	14.20	189.834		
5,500.0	5,468.2	5,444.1	5,443.4	13.3	1.3	-84.45	95.5	-2,381.3	2,696.2	2,681.8	14.39	187.390		
5,511.8	5,480.0	5,456.8	5,456.1	13.3	1.3	-84.45	95.7	-2,381.2	2,696.1	2,681.7	14.41	187.057		
5,600.0	5,568.2	5,560.6	5,559.9	13.5	1.3	-84.42	97.1	-2,380.3	2,695.5	2,680.9	14.60	184.589		
5,610.2	5,578.4	5,573.5	5,572.7	13.5	1.3	-84.42	97.2	-2,380.2	2,695.4	2,680.7	14.62	184.303		
5,700.0	5,668.2	5,654.5	5,653.7	13.7	1.4	-84.40	97.7	-2,379.2	2,694.3	2,679.5	14.81	181.875		
5,708.6	5,676.9	5,661.3	5,660.6	13.7	1.4	-84.40	97.7	-2,379.1	2,694.2	2,679.4	14.83	181.647		
5,800.0	5,768.2	5,760.4	5,759.7	13.9	1.4	-84.39	98.4	-2,378.3	2,693.6	2,678.6	15.03	179.234		
5,807.1	5,775.3	5,770.5	5,769.7	13.9	1.4	-84.39	98.4	-2,378.2	2,693.5	2,678.5	15.04	179.043		
5,900.0	5,868.2	5,851.3	5,850.5	14.1	1.4	-84.37	98.8	-2,377.2	2,692.4	2,677.2	15.24	176.670		
5,905.5	5,873.7	5,855.2	5,854.4	14.1	1.4	-84.37	98.8	-2,377.1	2,692.4	2,677.1	15.25	176.534		
5,960.7	5,928.9	5,900.0	5,899.3	14.2	1.4	-84.37	99.2	-2,376.9	2,692.2	2,676.8	15.37	175.191		
6,000.0	5,968.2	5,938.0	5,937.3	14.3	1.4	5.65	99.5	-2,376.9	2,691.0	2,676.6	14.47	185.949		
6,003.9	5,972.1	5,942.7	5,942.0	14.3	1.4	5.65	99.5	-2,376.8	2,690.8	2,676.3	14.48	185.812		
6,050.0	6,018.0	5,998.2	5,997.4	14.4	1.4	5.71	99.9	-2,376.5	2,686.3	2,671.7	14.61	183.821		
6,100.0	6,067.3	6,041.0	6,040.3	14.4	1.4	5.80	100.2	-2,376.3	2,678.2	2,663.4	14.78	181.177		
6,102.3	6,069.6	6,043.0	6,042.2	14.4	1.4	5.80	100.2	-2,376.3	2,677.7	2,662.9	14.79	181.047		
6,150.0	6,116.0	6,082.7	6,082.0	14.4	1.4	5.93	100.6	-2,376.1	2,666.7	2,651.8	14.95	178.339		
6,200.0	6,163.8	6,136.1	6,135.4	14.5	1.4	6.10	101.1	-2,376.0	2,652.0	2,636.9	15.11	175.459		
6,200.8	6,164.5	6,137.1	6,136.3	14.5	1.4	6.11	101.1	-2,376.0	2,651.7	2,636.6	15.12	175.415		
6,250.0	6,210.4	6,196.9	6,196.1	14.5	1.5	6.34	101.4	-2,375.6	2,633.7	2,618.5	15.26	172.637		
6,299.2	6,254.9	6,233.7	6,232.9	14.5	1.5	6.59	101.4	-2,375.3	2,612.6	2,597.3	15.35	170.201		
6,300.0	6,255.6	6,234.2	6,233.5	14.5	1.5	6.59	101.4	-2,375.3	2,612.3	2,596.9	15.35	170.163		
6,350.0	6,299.3	6,269.2	6,268.5	14.5	1.5	6.91	101.4	-2,375.1	2,587.9	2,572.4	15.41	167.942		
6,397.6	6,339.2	6,302.0	6,301.2	14.6	1.5	7.27	101.3	-2,375.1	2,562.0	2,546.5	15.43	166.039		
6,400.0	6,341.2	6,304.3	6,303.6	14.6	1.5	7.29	101.3	-2,375.1	2,560.6	2,545.2	15.43	165.941		
6,450.0	6,381.0	6,352.7	6,352.0	14.6	1.5	7.79	101.2	-2,375.0	2,530.5	2,515.1	15.43	163.971		
6,496.0	6,415.8	6,394.7	6,393.9	14.7	1.5	8.36	101.2	-2,374.8	2,500.3	2,484.9	15.41	162.260		
6,500.0	6,418.7	6,398.1	6,397.4	14.7	1.5	8.41	101.1	-2,374.8	2,497.6	2,482.2	15.41	162.118		
6,550.0	6,453.9	6,427.1	6,426.4	14.8	1.5	9.13	101.1	-2,374.6	2,462.2	2,446.8	15.34	160.473		
6,594.5	6,483.1	6,450.8	6,450.0	15.0	1.5	9.90	101.1	-2,374.6	2,428.8	2,413.5	15.28	158.968		
6,600.0	6,486.6	6,453.6	6,452.8	15.1	1.5	10.01	101.1	-2,374.5	2,424.5	2,409.2	15.27	158.778		
6,650.0	6,516.6	6,478.0	6,477.2	15.3	1.5	11.11	101.1	-2,374.5	2,384.7	2,369.5	15.20	156.856		
6,692.9	6,540.0	6,500.0	6,499.2	15.7	1.5	12.32	101.1	-2,374.6	2,349.1	2,333.9	15.18	154.786		
6,700.0	6,543.7	6,500.3	6,499.5	15.7	1.5	12.52	101.1	-2,374.6	2,343.0	2,327.9	15.17	154.461		
6,750.0	6,567.8	6,527.4	6,526.7	16.2	1.5	14.43	101.1	-2,374.6	2,299.6	2,284.4	15.22	151.086		
6,791.3	6,585.4	6,547.2	6,546.5	16.7	1.5	16.51	101.1	-2,374.6	2,262.5	2,247.1	15.36	147.272		
6,800.0	6,588.8	6,551.0	6,550.3	16.8	1.5	17.02	101.1	-2,374.6	2,254.5	2,239.1	15.41	146.340		
6,850.0	6,606.6	6,570.9	6,570.2	17.4	1.5	20.64	101.0	-2,374.6	2,208.2	2,192.3	15.83	139.513		
6,889.7	6,618.4	6,584.1	6,583.3	18.0	1.5	24.69	101.0	-2,374.6	2,170.5	2,154.0	16.44	132.026		
6,900.0	6,621.1	6,587.1	6,586.3	18.2	1.5	25.97	101.0	-2,374.6	2,160.7	2,144.0	16.65	129.791		
6,950.0	6,632.2	6,599.4	6,598.7	19.0	1.5	34.30	100.9	-2,374.6	2,112.3	2,094.2	18.10	116.697		
6,988.2	6,638.4	6,600.0	6,599.2	19.7	1.5	43.52	100.9	-2,374.6	2,074.9	2,055.2	19.67	105.478		

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

Anticollision Report



Company:	PDC ENERGY	Local Co-ordinate Reference:	Well WACKER 10G-214
Project:	WELD COUNTY, COLORADO	TVD Reference:	KB-EST @ 4624.0usft (Original Well Elev)
Reference Site:	SW NW SEC. 10 T5N R64W 6th P.M.	MD Reference:	KB-EST @ 4624.0usft (Original Well Elev)
Site Error:	0.0 usft	North Reference:	True
Reference Well:	WACKER 10G-214	Survey Calculation Method:	Minimum Curvature
Well Error:	0.0 usft	Output errors are at	2.00 sigma
Reference Wellbore	ORIGINAL WELLBORE	Database:	EDM 5000.1 Single User Db
Reference Design:	PROPOSAL #1	Offset TVD Reference:	Offset Datum

Offset Design SW NW SEC. 10 T5N R64W 6th P.M. - EXIST VERT BOND #32-9 - 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
7,000.0	6,639.9	6,600.0	6,599.2	19.9	1.5	47.18	100.9	-2,374.6	2,063.3	2,043.1	20.23	102.000	
7,050.0	6,644.1	6,600.0	6,599.2	20.8	1.5	68.29	100.9	-2,374.6	2,013.9	1,991.5	22.39	89.967	
7,086.5	6,645.0	6,600.0	6,599.2	21.5	1.5	88.92	100.9	-2,374.6	1,977.7	1,954.8	22.93	86.248	
7,100.0	6,645.0	6,600.0	6,599.2	21.8	1.5	88.92	100.9	-2,374.6	1,964.4	1,941.2	23.20	84.685	
7,185.0	6,644.9	6,600.0	6,599.2	23.6	1.5	88.92	100.9	-2,374.6	1,880.2	1,855.2	24.96	75.340	
7,200.0	6,644.8	6,600.0	6,599.2	23.9	1.5	88.92	100.9	-2,374.6	1,865.3	1,840.1	25.27	73.829	
7,283.4	6,644.7	6,600.0	6,599.2	25.7	1.5	88.92	100.9	-2,374.6	1,782.8	1,755.7	27.11	65.766	
7,300.0	6,644.7	6,600.0	6,599.2	26.1	1.5	88.92	100.9	-2,374.6	1,766.4	1,738.9	27.47	64.296	
7,381.9	6,644.6	6,600.0	6,599.2	28.0	1.5	88.92	100.9	-2,374.6	1,685.5	1,656.2	29.37	57.393	
7,400.0	6,644.6	6,600.0	6,599.2	28.4	1.5	88.92	100.9	-2,374.6	1,667.6	1,637.8	29.79	55.984	
7,480.3	6,644.5	6,600.0	6,599.2	30.3	1.5	88.92	100.9	-2,374.6	1,588.4	1,556.7	31.71	50.087	
7,500.0	6,644.4	6,600.0	6,599.2	30.8	1.5	88.91	100.9	-2,374.6	1,569.0	1,536.8	32.19	48.749	
7,578.7	6,644.3	6,600.0	6,599.2	32.7	1.5	88.91	100.9	-2,374.6	1,491.5	1,457.3	34.12	43.708	
7,600.0	6,644.3	6,600.0	6,599.2	33.3	1.5	88.91	100.9	-2,374.6	1,470.5	1,435.9	34.65	42.443	
7,677.1	6,644.2	6,600.0	6,599.2	35.2	1.5	88.91	100.9	-2,374.6	1,394.7	1,358.1	36.59	38.122	
7,700.0	6,644.1	6,600.0	6,599.2	35.8	1.5	88.91	100.9	-2,374.6	1,372.3	1,335.1	37.16	36.929	
7,775.6	6,644.0	6,600.0	6,599.2	37.7	1.5	88.91	100.9	-2,374.6	1,298.3	1,259.2	39.09	33.211	
7,800.0	6,644.0	6,600.0	6,599.2	38.3	1.5	88.91	100.9	-2,374.6	1,274.4	1,234.6	39.72	32.087	
7,874.0	6,643.9	6,600.0	6,599.2	40.2	1.5	88.91	100.9	-2,374.6	1,202.1	1,160.5	41.63	28.875	
7,900.0	6,643.9	6,600.0	6,599.2	40.9	1.5	88.91	100.9	-2,374.6	1,176.7	1,134.4	42.30	27.816	
7,972.4	6,643.8	6,600.0	6,599.2	42.8	1.5	88.91	100.9	-2,374.6	1,106.3	1,062.1	44.20	25.031	
8,000.0	6,643.7	6,600.0	6,599.2	43.5	1.5	88.91	100.9	-2,374.6	1,079.6	1,034.6	44.92	24.033	
8,070.8	6,643.6	6,600.0	6,599.2	45.4	1.5	88.91	100.9	-2,374.6	1,011.1	964.3	46.79	21.609	
8,100.0	6,643.6	6,600.0	6,599.2	46.2	1.5	88.91	100.9	-2,374.6	983.0	935.4	47.56	20.668	
8,169.3	6,643.5	6,600.0	6,599.2	48.0	1.5	88.91	100.9	-2,374.6	916.5	867.1	49.40	18.552	
8,200.0	6,643.5	6,600.0	6,599.2	48.8	1.5	88.91	100.9	-2,374.6	887.1	836.9	50.22	17.666	
8,267.7	6,643.4	6,600.0	6,599.2	50.6	1.5	88.91	100.9	-2,374.6	822.8	770.7	52.03	15.814	
8,300.0	6,643.3	6,600.0	6,599.2	51.5	1.5	88.91	100.9	-2,374.6	792.3	739.4	52.89	14.979	
8,366.1	6,643.2	6,600.0	6,599.2	53.3	1.5	88.91	100.9	-2,374.6	730.3	675.7	54.67	13.359	
8,400.0	6,643.2	6,600.0	6,599.2	54.2	1.5	88.91	100.9	-2,374.6	698.9	643.3	55.58	12.575	
8,464.5	6,643.1	6,600.0	6,599.2	55.9	1.5	88.91	100.9	-2,374.6	639.7	582.4	57.32	11.159	
8,500.0	6,643.1	6,600.0	6,599.2	56.9	1.5	88.91	100.9	-2,374.6	607.6	549.3	58.28	10.426	
8,563.0	6,643.0	6,600.0	6,599.2	58.6	1.5	88.91	100.9	-2,374.6	551.7	491.7	59.99	9.197	
8,600.0	6,642.9	6,600.0	6,599.2	59.6	1.5	88.91	100.9	-2,374.6	519.6	458.6	60.99	8.519	
8,661.4	6,642.8	6,600.0	6,599.2	61.3	1.5	88.91	100.9	-2,374.6	467.9	405.2	62.66	7.467	
8,700.0	6,642.8	6,600.0	6,599.2	62.3	1.5	88.91	100.9	-2,374.6	436.7	373.0	63.71	6.854	
8,759.8	6,642.7	6,600.0	6,599.2	64.0	1.5	88.91	100.9	-2,374.6	390.9	325.6	65.34	5.983	
8,800.0	6,642.7	6,600.0	6,599.2	65.1	1.5	88.91	100.9	-2,374.6	362.5	296.1	66.43	5.457	
8,858.2	6,642.6	6,600.0	6,599.2	66.6	1.5	88.91	100.9	-2,374.6	325.8	257.8	68.03	4.789	
8,900.0	6,642.5	6,600.0	6,599.2	67.8	1.5	88.91	100.9	-2,374.6	303.6	234.4	69.17	4.389	
8,956.7	6,642.4	6,600.0	6,599.2	69.3	1.5	88.91	100.9	-2,374.6	280.7	210.0	70.72	3.969	
9,000.0	6,642.4	6,600.0	6,599.2	70.5	1.5	88.91	100.9	-2,374.6	270.0	198.1	71.91	3.755	
9,046.3	6,642.3	6,600.0	6,599.2	71.8	1.5	88.91	100.9	-2,374.6	266.0	192.9	73.18	3.636 CC	
9,055.1	6,642.3	6,600.0	6,599.2	72.0	1.5	88.91	100.9	-2,374.6	266.2	192.8	73.42	3.626 ES, SF	
9,100.0	6,642.3	6,600.0	6,599.2	73.3	1.5	88.91	100.9	-2,374.6	271.4	196.8	74.65	3.636	
9,153.5	6,642.2	6,600.0	6,599.2	74.7	1.5	88.91	100.9	-2,374.6	286.9	210.7	76.13	3.768	
9,200.0	6,642.1	6,600.0	6,599.2	76.0	1.5	88.91	100.9	-2,374.6	307.3	229.9	77.40	3.970	
9,251.9	6,642.1	6,600.0	6,599.2	77.5	1.5	88.91	100.9	-2,374.6	336.3	257.4	78.83	4.266	
9,300.0	6,642.0	6,600.0	6,599.2	78.8	1.5	88.91	100.9	-2,374.6	367.6	287.5	80.16	4.586	
9,350.4	6,641.9	6,600.0	6,599.2	80.2	1.5	88.91	100.9	-2,374.6	404.1	322.5	81.55	4.955	
9,400.0	6,641.9	6,600.0	6,599.2	81.5	1.5	88.91	100.9	-2,374.6	442.6	359.7	82.92	5.338	
9,448.8	6,641.8	6,600.0	6,599.2	82.9	1.5	88.91	100.9	-2,374.6	482.5	398.2	84.26	5.726	

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

Anticollision Report



Company:	PDC ENERGY	Local Co-ordinate Reference:	Well WACKER 10G-214
Project:	WELD COUNTY, COLORADO	TVD Reference:	KB-EST @ 4624.0usft (Original Well Elev)
Reference Site:	SW NW SEC. 10 T5N R64W 6th P.M.	MD Reference:	KB-EST @ 4624.0usft (Original Well Elev)
Site Error:	0.0 usft	North Reference:	True
Reference Well:	WACKER 10G-214	Survey Calculation Method:	Minimum Curvature
Well Error:	0.0 usft	Output errors are at	2.00 sigma
Reference Wellbore	ORIGINAL WELLBORE	Database:	EDM 5000.1 Single User Db
Reference Design:	PROPOSAL #1	Offset TVD Reference:	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	6,641.7	6,600.0	6,599.2	84.3	1.5	88.91	100.9	-2,374.6	526.0	440.3	85.68	6.139	
9,547.2	6,641.7	6,600.0	6,599.2	85.6	1.5	88.91	100.9	-2,374.6	567.2	480.2	86.98	6.521	
9,600.0	6,641.6	6,600.0	6,599.2	87.1	1.5	88.91	100.9	-2,374.6	614.3	525.9	88.44	6.946	
9,645.6	6,641.5	6,600.0	6,599.2	88.3	1.5	88.91	100.9	-2,374.6	655.8	566.1	89.71	7.310	
9,700.0	6,641.5	6,600.0	6,599.2	89.8	1.5	88.91	100.9	-2,374.6	705.8	614.6	91.21	7.738	
9,744.1	6,641.4	6,600.0	6,599.2	91.0	1.5	88.91	100.9	-2,374.6	746.8	654.4	92.43	8.080	
9,800.0	6,641.3	6,600.0	6,599.2	92.6	1.5	88.91	100.9	-2,374.6	799.3	705.3	93.98	8.505	
9,842.5	6,641.3	6,600.0	6,599.2	93.8	1.5	88.91	100.9	-2,374.6	839.5	744.3	95.16	8.822	
9,900.0	6,641.2	6,600.0	6,599.2	95.4	1.5	88.91	100.9	-2,374.6	894.2	797.5	96.75	9.242	
9,940.9	6,641.1	6,600.0	6,599.2	96.5	1.5	88.91	100.9	-2,374.6	933.4	835.5	97.89	9.535	
10,000.0	6,641.1	6,600.0	6,599.2	98.1	1.5	88.91	100.9	-2,374.6	990.1	890.6	99.53	9.948	
10,039.3	6,641.0	6,600.0	6,599.2	99.2	1.5	88.91	100.9	-2,374.6	1,028.1	927.5	100.62	10.218	
10,100.0	6,640.9	6,600.0	6,599.2	100.9	1.5	88.91	100.9	-2,374.6	1,086.8	984.5	102.30	10.623	
10,137.8	6,640.9	6,600.0	6,599.2	102.0	1.5	88.91	100.9	-2,374.6	1,123.5	1,020.1	103.35	10.870	
10,200.0	6,640.8	6,600.0	6,599.2	103.7	1.5	88.91	100.9	-2,374.6	1,184.0	1,078.9	105.08	11.267	
10,236.2	6,640.8	6,600.0	6,599.2	104.7	1.5	88.91	100.9	-2,374.6	1,219.3	1,113.2	106.09	11.493	
10,300.0	6,640.7	6,600.0	6,599.2	106.5	1.5	88.91	100.9	-2,374.6	1,281.6	1,173.8	107.86	11.882	
10,334.6	6,640.6	6,600.0	6,599.2	107.4	1.5	88.91	100.9	-2,374.6	1,315.5	1,206.7	108.82	12.089	
10,400.0	6,640.6	6,600.0	6,599.2	109.3	1.5	88.91	100.9	-2,374.6	1,379.6	1,269.0	110.64	12.469	
10,433.0	6,640.5	6,600.0	6,599.2	110.2	1.5	88.91	100.9	-2,374.6	1,412.1	1,300.5	111.56	12.657	
10,500.0	6,640.4	6,600.0	6,599.2	112.0	1.5	88.91	100.9	-2,374.6	1,477.9	1,364.4	113.43	13.029	
10,531.5	6,640.4	6,600.0	6,599.2	112.9	1.5	88.91	100.9	-2,374.6	1,508.8	1,394.5	114.30	13.200	
10,600.0	6,640.3	6,600.0	6,599.2	114.8	1.5	88.91	100.9	-2,374.6	1,576.3	1,460.1	116.21	13.564	
10,629.9	6,640.3	6,600.0	6,599.2	115.7	1.5	88.91	100.9	-2,374.6	1,605.8	1,488.8	117.04	13.720	
10,700.0	6,640.2	6,600.0	6,599.2	117.6	1.5	88.92	100.9	-2,374.6	1,675.0	1,556.0	119.00	14.076	
10,728.3	6,640.1	6,600.0	6,599.2	118.4	1.5	88.92	100.9	-2,374.6	1,703.0	1,583.2	119.79	14.217	
10,800.0	6,640.0	6,600.0	6,599.2	120.4	1.5	88.92	100.9	-2,374.6	1,773.8	1,652.0	121.78	14.565	
10,826.7	6,640.0	6,600.0	6,599.2	121.2	1.5	88.92	100.9	-2,374.6	1,800.2	1,677.7	122.53	14.692	
10,900.0	6,639.9	6,600.0	6,599.2	123.2	1.5	88.92	100.9	-2,374.6	1,872.7	1,748.1	124.57	15.033	
10,925.2	6,639.9	6,600.0	6,599.2	123.9	1.5	88.92	100.9	-2,374.6	1,897.6	1,772.4	125.27	15.148	
11,000.0	6,639.8	6,600.0	6,599.2	126.0	1.5	88.92	100.9	-2,374.6	1,971.8	1,844.4	127.36	15.482	
11,023.6	6,639.8	6,600.0	6,599.2	126.6	1.5	88.92	100.9	-2,374.6	1,995.1	1,867.1	128.02	15.585	
11,100.0	6,639.7	6,600.0	6,599.2	128.8	1.5	88.92	100.9	-2,374.6	2,070.9	1,940.7	130.15	15.911	
11,122.0	6,639.6	6,600.0	6,599.2	129.4	1.5	88.92	100.9	-2,374.6	2,092.7	1,962.0	130.77	16.004	
11,200.0	6,639.5	6,600.0	6,599.2	131.6	1.5	88.92	100.9	-2,374.6	2,170.1	2,037.2	132.94	16.324	
11,220.4	6,639.5	6,600.0	6,599.2	132.1	1.5	88.92	100.9	-2,374.6	2,190.4	2,056.9	133.51	16.406	
11,300.0	6,639.4	6,600.0	6,599.2	134.4	1.5	88.92	100.9	-2,374.6	2,269.4	2,133.6	135.73	16.719	
11,318.9	6,639.4	6,600.0	6,599.2	134.9	1.5	88.92	100.9	-2,374.6	2,288.1	2,151.9	136.26	16.792	
11,400.0	6,639.3	6,600.0	6,599.2	137.1	1.5	88.93	100.9	-2,374.6	2,368.7	2,230.2	138.53	17.099	
11,417.3	6,639.3	6,600.0	6,599.2	137.6	1.5	88.93	100.9	-2,374.6	2,385.9	2,246.9	139.01	17.164	
11,500.0	6,639.2	6,600.0	6,599.2	139.9	1.5	88.93	100.9	-2,374.6	2,468.1	2,326.8	141.32	17.465	
11,515.7	6,639.1	6,600.0	6,599.2	140.4	1.5	88.93	100.9	-2,374.6	2,483.7	2,342.0	141.76	17.521	
11,600.0	6,639.0	6,600.0	6,599.2	142.7	1.5	88.93	100.9	-2,374.6	2,567.5	2,423.4	144.11	17.816	
11,614.1	6,639.0	6,600.0	6,599.2	143.1	1.5	88.93	100.9	-2,374.6	2,581.6	2,437.1	144.51	17.865	
11,700.0	6,638.9	6,600.0	6,599.2	145.5	1.5	88.93	100.9	-2,374.6	2,667.0	2,520.1	146.91	18.154	
11,712.6	6,638.9	6,600.0	6,599.2	145.9	1.5	88.93	100.9	-2,374.6	2,679.5	2,532.3	147.26	18.196	
11,800.0	6,638.8	6,600.0	6,599.2	148.3	1.5	88.93	100.9	-2,374.6	2,766.5	2,616.8	149.70	18.480	
11,811.0	6,638.8	6,600.0	6,599.2	148.6	1.5	88.93	100.9	-2,374.6	2,777.5	2,627.5	150.01	18.515	
11,900.0	6,638.7	6,600.0	6,599.2	151.1	1.5	88.93	100.9	-2,374.6	2,866.1	2,713.6	152.50	18.794	
11,909.4	6,638.6	6,600.0	6,599.2	151.4	1.5	88.93	100.9	-2,374.6	2,875.5	2,722.7	152.76	18.823	
12,000.0	6,638.5	6,600.0	6,599.2	153.9	1.5	88.94	100.9	-2,374.6	2,965.7	2,810.4	155.29	19.097	
12,007.8	6,638.5	6,600.0	6,599.2	154.1	1.5	88.94	100.9	-2,374.6	2,973.5	2,818.0	155.51	19.120	

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

Anticollision Report



Company:	PDC ENERGY	Local Co-ordinate Reference:	Well WACKER 10G-214
Project:	WELD COUNTY, COLORADO	TVD Reference:	KB-EST @ 4624.0usft (Original Well Elev)
Reference Site:	SW NW SEC. 10 T5N R64W 6th P.M.	MD Reference:	KB-EST @ 4624.0usft (Original Well Elev)
Site Error:	0.0 usft	North Reference:	True
Reference Well:	WACKER 10G-214	Survey Calculation Method:	Minimum Curvature
Well Error:	0.0 usft	Output errors are at	2.00 sigma
Reference Wellbore	ORIGINAL WELLBORE	Database:	EDM 5000.1 Single User Db
Reference Design:	PROPOSAL #1	Offset TVD Reference:	Offset Datum

Offset Design SW NW SEC. 10 T5N R64W 6th P.M. - EXIST VERT BOND #32-9 - 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)	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	6,638.4	6,600.0	6,599.2	156.7	1.5	88.94	100.9	-2,374.6	3,065.3	2,907.2	158.09	19.389	
12,106.3	6,638.4	6,600.0	6,599.2	156.9	1.5	88.94	100.9	-2,374.6	3,071.5	2,913.3	158.27	19.407	
12,200.0	6,638.3	6,600.0	6,599.2	159.5	1.5	88.94	100.9	-2,374.6	3,164.9	3,004.0	160.89	19.672	
12,204.7	6,638.3	6,600.0	6,599.2	159.6	1.5	88.94	100.9	-2,374.6	3,169.6	3,008.6	161.02	19.685	
12,300.0	6,638.2	6,600.0	6,599.2	162.3	1.5	88.94	100.9	-2,374.6	3,264.6	3,100.9	163.69	19.944	
12,303.1	6,638.2	6,600.0	6,599.2	162.4	1.5	88.94	100.9	-2,374.6	3,267.7	3,103.9	163.77	19.952	
12,400.0	6,638.0	6,600.0	6,599.2	165.1	1.5	88.95	100.9	-2,374.6	3,364.3	3,197.8	166.48	20.208	
12,401.5	6,638.0	6,600.0	6,599.2	165.2	1.5	88.95	100.9	-2,374.6	3,365.8	3,199.3	166.53	20.212	
12,500.0	6,637.9	6,600.0	6,599.2	167.9	1.5	88.95	100.9	-2,374.6	3,464.0	3,294.7	169.28	20.462	
12,598.4	6,637.8	6,600.0	6,599.2	170.7	1.5	88.95	100.9	-2,374.6	3,562.1	3,390.0	172.04	20.705	
12,600.0	6,637.8	6,600.0	6,599.2	170.7	1.5	88.95	100.9	-2,374.6	3,563.7	3,391.6	172.08	20.709	
12,696.8	6,637.7	6,600.0	6,599.2	173.4	1.5	88.95	100.9	-2,374.6	3,660.2	3,485.4	174.79	20.940	
12,700.0	6,637.7	6,600.0	6,599.2	173.5	1.5	88.95	100.9	-2,374.6	3,663.4	3,488.5	174.88	20.948	
12,795.2	6,637.6	6,600.0	6,599.2	176.2	1.5	88.95	100.9	-2,374.6	3,758.4	3,580.9	177.55	21.168	
12,800.0	6,637.6	6,600.0	6,599.2	176.3	1.5	88.96	100.9	-2,374.6	3,763.1	3,585.5	177.68	21.179	
12,893.7	6,637.4	6,600.0	6,599.2	178.9	1.5	88.96	100.9	-2,374.6	3,856.6	3,676.3	180.30	21.389	
12,900.0	6,637.4	6,600.0	6,599.2	179.1	1.5	88.96	100.9	-2,374.6	3,862.9	3,682.4	180.48	21.403	
12,992.1	6,637.3	6,600.0	6,599.2	181.7	1.5	88.96	100.9	-2,374.6	3,954.8	3,771.7	183.06	21.604	
13,000.0	6,637.3	6,600.0	6,599.2	181.9	1.5	88.96	100.9	-2,374.6	3,962.7	3,779.4	183.28	21.621	
13,090.5	6,637.2	6,600.0	6,599.2	184.4	1.5	88.96	100.9	-2,374.6	4,053.0	3,867.2	185.82	21.812	
13,100.0	6,637.2	6,600.0	6,599.2	184.7	1.5	88.96	100.9	-2,374.6	4,062.4	3,876.4	186.08	21.831	
13,188.9	6,637.1	6,600.0	6,599.2	187.2	1.5	88.96	100.9	-2,374.6	4,151.2	3,962.6	188.57	22.014	
13,200.0	6,637.1	6,600.0	6,599.2	187.5	1.5	88.97	100.9	-2,374.6	4,162.2	3,973.4	188.88	22.036	
13,287.4	6,637.0	6,600.0	6,599.2	190.0	1.5	88.97	100.9	-2,374.6	4,249.4	4,058.1	191.33	22.210	
13,300.0	6,637.0	6,600.0	6,599.2	190.3	1.5	88.97	100.9	-2,374.6	4,262.0	4,070.4	191.69	22.235	
13,385.8	6,636.9	6,600.0	6,599.2	192.7	1.5	88.97	100.9	-2,374.6	4,347.7	4,153.6	194.09	22.400	
13,400.0	6,636.8	6,600.0	6,599.2	193.1	1.5	88.97	100.9	-2,374.6	4,361.8	4,167.4	194.49	22.427	
13,484.2	6,636.7	6,600.0	6,599.2	195.5	1.5	88.97	100.9	-2,374.6	4,445.9	4,249.1	196.85	22.586	
13,500.0	6,636.7	6,600.0	6,599.2	195.9	1.5	88.98	100.9	-2,374.6	4,461.7	4,264.4	197.29	22.615	
13,582.6	6,636.6	6,600.0	6,599.2	198.2	1.5	88.98	100.9	-2,374.6	4,544.2	4,344.6	199.61	22.766	
13,600.0	6,636.6	6,600.0	6,599.2	198.7	1.5	88.98	100.9	-2,374.6	4,561.5	4,361.4	200.09	22.797	
13,681.1	6,636.5	6,600.0	6,599.2	201.0	1.5	88.98	100.9	-2,374.6	4,642.4	4,440.1	202.36	22.941	
13,700.0	6,636.5	6,600.0	6,599.2	201.5	1.5	88.98	100.9	-2,374.6	4,661.3	4,458.4	202.89	22.974	
13,779.5	6,636.4	6,600.0	6,599.2	203.7	1.5	88.98	100.9	-2,374.6	4,740.7	4,535.6	205.12	23.112	
13,800.0	6,636.4	6,600.0	6,599.2	204.3	1.5	88.99	100.9	-2,374.6	4,761.2	4,555.5	205.70	23.147	
13,877.9	6,636.3	6,600.0	6,599.2	206.5	1.5	88.99	100.9	-2,374.6	4,839.0	4,631.1	207.88	23.278	
13,900.0	6,636.3	6,600.0	6,599.2	207.1	1.5	88.99	100.9	-2,374.6	4,861.0	4,652.5	208.50	23.314	
13,976.3	6,636.2	6,600.0	6,599.2	209.3	1.5	88.99	100.9	-2,374.6	4,937.2	4,726.6	210.64	23.439	
14,000.0	6,636.1	6,600.0	6,599.2	209.9	1.5	88.99	100.9	-2,374.6	4,960.9	4,749.6	211.30	23.478	
14,074.8	6,636.0	6,600.0	6,599.2	212.0	1.5	88.99	100.9	-2,374.6	5,035.5	4,822.1	213.40	23.597	
14,100.0	6,636.0	6,600.0	6,599.2	212.7	1.5	89.00	100.9	-2,374.6	5,060.7	4,846.6	214.11	23.637	
14,173.2	6,635.9	6,600.0	6,599.2	214.8	1.5	89.00	100.9	-2,374.6	5,133.8	4,917.7	216.16	23.750	
14,200.0	6,635.9	6,600.0	6,599.2	215.5	1.5	89.00	100.9	-2,374.6	5,160.6	4,943.7	216.91	23.791	
14,271.6	6,635.8	6,600.0	6,599.2	217.5	1.5	89.00	100.9	-2,374.6	5,232.1	5,013.2	218.92	23.900	
14,300.0	6,635.8	6,600.0	6,599.2	218.3	1.5	89.00	100.9	-2,374.6	5,260.5	5,040.7	219.71	23.942	
14,370.0	6,635.7	6,600.0	6,599.2	220.3	1.5	89.00	100.9	-2,374.6	5,330.4	5,108.7	221.68	24.046	
14,400.0	6,635.7	6,600.0	6,599.2	221.1	1.5	89.01	100.9	-2,374.6	5,360.3	5,137.8	222.52	24.090	
14,468.5	6,635.6	6,600.0	6,599.2	223.1	1.5	89.01	100.9	-2,374.6	5,428.7	5,204.3	224.44	24.188	
14,500.0	6,635.6	6,600.0	6,599.2	223.9	1.5	89.01	100.9	-2,374.6	5,460.2	5,234.9	225.32	24.233	
14,566.9	6,635.5	6,600.0	6,599.2	225.8	1.5	89.01	100.9	-2,374.6	5,527.0	5,299.8	227.20	24.327	
14,600.0	6,635.4	6,600.0	6,599.2	226.8	1.5	89.01	100.9	-2,374.6	5,560.1	5,332.0	228.13	24.373	
14,665.3	6,635.4	6,600.0	6,599.2	228.6	1.5	89.01	100.9	-2,374.6	5,625.3	5,395.4	229.96	24.463	

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

Anticollision Report



Company:	PDC ENERGY	Local Co-ordinate Reference:	Well WACKER 10G-214
Project:	WELD COUNTY, COLORADO	TVD Reference:	KB-EST @ 4624.0usft (Original Well Elev)
Reference Site:	SW NW SEC. 10 T5N R64W 6th P.M.	MD Reference:	KB-EST @ 4624.0usft (Original Well Elev)
Site Error:	0.0 usft	North Reference:	True
Reference Well:	WACKER 10G-214	Survey Calculation Method:	Minimum Curvature
Well Error:	0.0 usft	Output errors are at	2.00 sigma
Reference Wellbore	ORIGINAL WELLBORE	Database:	EDM 5000.1 Single User Db
Reference Design:	PROPOSAL #1	Offset TVD Reference:	Offset Datum

Offset Design SW NW SEC. 10 T5N R64W 6th P.M. - EXIST VERT BOND #32-9 - 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)	Offset Wellbore Centre +E/-W (usft)	Between Centres (usft)	Between Ellipses (usft)	Minimum Separation (usft)	Separation Factor	
14,700.0	6,635.3	6,600.0	6,599.2	229.6	1.5	89.02	100.9	-2,374.6	5,660.0	5,429.1	230.93	24.510	
14,763.7	6,635.2	6,600.0	6,599.2	231.3	1.5	89.02	100.9	-2,374.6	5,723.7	5,490.9	232.72	24.595	
14,800.0	6,635.2	6,600.0	6,599.2	232.4	1.5	89.02	100.9	-2,374.6	5,759.9	5,526.1	233.73	24.643	
14,862.2	6,635.1	6,600.0	6,599.2	234.1	1.5	89.02	100.9	-2,374.6	5,822.0	5,586.5	235.48	24.724	
14,900.0	6,635.1	6,600.0	6,599.2	235.2	1.5	89.03	100.9	-2,374.6	5,859.8	5,623.2	236.54	24.773	
14,960.6	6,635.0	6,600.0	6,599.2	236.9	1.5	89.03	100.9	-2,374.6	5,920.3	5,682.1	238.24	24.850	
14,982.9	6,635.0	6,600.0	6,599.2	237.5	1.5	89.03	100.9	-2,374.6	5,942.6	5,703.7	238.86	24.878	

Anticollision Report



Company:	PDC ENERGY	Local Co-ordinate Reference:	Well WACKER 10G-214
Project:	WELD COUNTY, COLORADO	TVD Reference:	KB-EST @ 4624.0usft (Original Well Elev)
Reference Site:	SW NW SEC. 10 T5N R64W 6th P.M.	MD Reference:	KB-EST @ 4624.0usft (Original Well Elev)
Site Error:	0.0 usft	North Reference:	True
Reference Well:	WACKER 10G-214	Survey Calculation Method:	Minimum Curvature
Well Error:	0.0 usft	Output errors are at	2.00 sigma
Reference Wellbore	ORIGINAL WELLBORE	Database:	EDM 5000.1 Single User Db
Reference Design:	PROPOSAL #1	Offset TVD Reference:	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	173.01	-978.5	120.0	986.3				
98.4	98.4	68.2	68.2	0.1	0.0	173.01	-978.6	120.1	986.0	985.9	0.10	9,960.184	
100.0	100.0	69.7	69.7	0.1	0.0	173.01	-978.6	120.1	986.0	985.9	0.10	9,778.768	
196.8	196.8	169.3	169.3	0.3	0.0	173.00	-978.8	120.1	986.1	985.8	0.33	2,997.141	
200.0	200.0	172.7	172.7	0.3	0.0	173.00	-978.8	120.1	986.1	985.8	0.34	2,930.541	
281.2	281.2	253.2	253.2	0.5	0.1	173.01	-978.7	120.0	986.0	985.5	0.59	1,679.223	
295.3	295.3	266.7	266.7	0.5	0.1	173.01	-978.7	120.0	986.0	985.4	0.64	1,552.164	
300.0	300.0	271.3	271.3	0.5	0.1	173.01	-978.7	120.0	986.0	985.4	0.65	1,513.701	
393.7	393.7	363.9	363.9	0.8	0.2	173.02	-978.9	119.8	986.2	985.2	0.97	1,019.722	
400.0	400.0	370.2	370.2	0.8	0.2	173.02	-978.9	119.8	986.2	985.2	0.99	997.876	
492.1	492.1	462.6	462.6	1.0	0.3	173.02	-979.1	119.8	986.4	985.1	1.27	778.937	
500.0	500.0	470.5	470.5	1.0	0.3	173.02	-979.1	119.8	986.4	985.1	1.29	765.378	
590.5	590.5	560.6	560.6	1.2	0.3	173.02	-979.2	119.9	986.5	985.0	1.55	637.663	
600.0	600.0	570.0	570.0	1.2	0.4	173.02	-979.2	120.0	986.5	985.0	1.57	626.721	
689.0	689.0	656.8	656.8	1.4	0.4	173.00	-979.4	120.3	986.8	985.0	1.82	541.131	
700.0	700.0	667.5	667.5	1.4	0.4	173.00	-979.5	120.3	986.9	985.0	1.85	532.282	
787.4	787.4	751.7	751.7	1.6	0.5	172.97	-979.9	120.8	987.4	985.3	2.09	471.937	
800.0	800.0	763.8	763.8	1.7	0.5	172.97	-980.0	120.9	987.5	985.4	2.13	464.397	
885.8	885.8	847.0	846.9	1.9	0.5	172.94	-980.8	121.5	988.3	986.0	2.36	419.217	
900.0	900.0	860.8	860.8	1.9	0.5	172.93	-980.9	121.6	988.5	986.1	2.40	412.641	
984.2	984.2	943.1	943.1	2.1	0.6	172.89	-981.8	122.5	989.5	986.9	2.62	377.723	
1,000.0	1,000.0	958.5	958.5	2.1	0.6	172.88	-982.0	122.7	989.7	987.1	2.66	371.888	
1,082.7	1,082.7	1,041.5	1,041.4	2.3	0.6	172.83	-983.1	123.7	990.9	988.0	2.88	344.085	
1,100.0	1,100.0	1,059.3	1,059.3	2.3	0.6	172.82	-983.3	123.9	991.1	988.2	2.93	338.786	
1,181.1	1,181.1	1,141.6	1,141.5	2.5	0.7	172.77	-984.1	124.9	992.1	989.0	3.14	316.153	
1,200.0	1,200.0	1,160.4	1,160.4	2.6	0.7	172.76	-984.3	125.1	992.3	989.1	3.19	311.343	
1,279.5	1,279.5	1,241.0	1,240.9	2.7	0.7	172.72	-985.2	125.9	993.2	989.8	3.39	292.676	
1,300.0	1,300.0	1,262.1	1,262.0	2.8	0.7	172.71	-985.4	126.0	993.5	990.0	3.45	288.238	
1,377.9	1,377.9	1,342.7	1,342.7	3.0	0.7	54.10	-986.1	126.3	993.5	989.8	3.68	269.656	
1,400.0	1,400.0	1,365.7	1,365.6	3.0	0.8	54.14	-986.2	126.4	993.3	989.5	3.74	265.644	
1,476.4	1,476.3	1,444.1	1,444.0	3.1	0.8	54.35	-986.6	126.4	991.5	987.6	3.91	253.394	
1,500.0	1,499.8	1,468.0	1,468.0	3.2	0.8	54.44	-986.7	126.3	990.7	986.7	3.97	249.844	
1,574.8	1,574.4	1,546.0	1,545.9	3.3	0.8	54.84	-987.0	125.7	987.3	983.2	4.14	238.541	
1,600.0	1,599.5	1,572.8	1,572.7	3.4	0.8	55.00	-987.0	125.5	985.8	981.6	4.20	234.890	
1,673.2	1,672.2	1,645.2	1,645.1	3.6	0.8	55.51	-986.9	125.0	980.8	976.4	4.38	224.102	
1,700.0	1,698.7	1,670.6	1,670.5	3.6	0.8	55.72	-986.9	124.9	978.7	974.3	4.44	220.355	
1,771.6	1,769.5	1,739.8	1,739.7	3.8	0.8	56.35	-987.0	124.6	972.7	968.1	4.63	210.131	
1,800.0	1,797.5	1,767.6	1,767.5	3.9	0.8	56.63	-987.1	124.6	970.1	965.4	4.70	206.317	
1,870.1	1,866.3	1,834.6	1,834.6	4.1	0.9	57.36	-987.3	124.8	963.1	958.2	4.91	196.141	
1,900.2	1,895.8	1,862.9	1,862.8	4.2	0.9	57.70	-987.4	124.9	959.9	954.9	5.00	191.880	
1,968.5	1,962.6	1,927.7	1,927.7	4.4	0.9	58.37	-987.8	125.2	952.7	947.5	5.23	182.229	
2,000.0	1,993.4	1,958.3	1,958.2	4.5	0.9	58.69	-988.0	125.4	949.5	944.2	5.33	178.050	
2,066.9	2,058.9	2,024.3	2,024.2	4.7	0.9	59.37	-988.5	126.0	942.7	937.2	5.57	169.301	
2,100.0	2,091.2	2,057.8	2,057.7	4.8	0.9	59.71	-988.7	126.4	939.4	933.7	5.69	165.239	
2,165.3	2,155.2	2,122.8	2,122.8	5.1	1.0	60.38	-989.0	127.3	932.8	926.9	5.93	157.403	
2,200.0	2,189.1	2,156.2	2,156.1	5.2	1.0	60.72	-989.1	127.8	929.4	923.3	6.05	153.522	
2,263.8	2,251.4	2,218.0	2,217.9	5.5	1.0	61.36	-989.5	128.8	923.2	916.9	6.30	146.611	
2,300.0	2,286.9	2,253.7	2,253.6	5.6	1.0	61.73	-989.7	129.4	919.8	913.4	6.44	142.898	
2,362.2	2,347.7	2,314.6	2,314.5	5.8	1.0	62.37	-990.0	130.5	914.0	907.3	6.68	136.767	
2,400.0	2,384.7	2,351.0	2,350.8	6.0	1.0	62.75	-990.3	131.1	910.5	903.7	6.83	133.254	
2,460.6	2,444.0	2,409.7	2,409.5	6.2	1.1	63.38	-990.7	132.1	905.1	898.1	7.08	127.840	
2,500.0	2,482.5	2,449.1	2,449.0	6.4	1.1	63.81	-991.0	132.7	901.7	894.5	7.24	124.502	

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

Anticollision Report



Company:	PDC ENERGY	Local Co-ordinate Reference:	Well WACKER 10G-214
Project:	WELD COUNTY, COLORADO	TVD Reference:	KB-EST @ 4624.0usft (Original Well Elev)
Reference Site:	SW NW SEC. 10 T5N R64W 6th P.M.	MD Reference:	KB-EST @ 4624.0usft (Original Well Elev)
Site Error:	0.0 usft	North Reference:	True
Reference Well:	WACKER 10G-214	Survey Calculation Method:	Minimum Curvature
Well Error:	0.0 usft	Output errors are at	2.00 sigma
Reference Wellbore	ORIGINAL WELLBORE	Database:	EDM 5000.1 Single User Db
Reference Design:	PROPOSAL #1	Offset TVD Reference:	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	2,540.3	2,508.2	2,508.0	6.6	1.1	64.47	-991.3	133.5	896.6	889.1	7.49	119.687	
2,600.0	2,580.3	2,548.6	2,548.5	6.8	1.1	64.92	-991.5	134.0	893.1	885.4	7.66	116.530	
2,657.5	2,636.5	2,605.3	2,605.1	7.1	1.1	65.56	-991.8	134.8	888.2	880.3	7.91	112.280	
2,700.0	2,678.1	2,646.5	2,646.3	7.2	1.1	66.03	-992.0	135.4	884.7	876.6	8.09	109.309	
2,755.9	2,732.8	2,700.7	2,700.5	7.5	1.1	66.65	-992.3	136.2	880.2	871.8	8.34	105.571	
2,800.0	2,775.9	2,743.8	2,743.6	7.7	1.2	67.15	-992.6	136.7	876.7	868.2	8.53	102.767	
2,854.3	2,829.1	2,796.8	2,796.7	7.9	1.2	67.78	-992.9	137.3	872.6	863.8	8.77	99.457	
2,900.0	2,873.8	2,840.2	2,840.1	8.1	1.2	68.31	-993.2	137.7	869.2	860.3	8.98	96.819	
2,952.7	2,925.4	2,890.3	2,890.2	8.3	1.2	68.90	-993.7	138.3	865.6	856.3	9.22	93.917	
2,953.5	2,926.1	2,891.0	2,890.8	8.3	1.2	68.91	-993.7	138.4	865.5	856.3	9.22	93.878	
3,000.0	2,971.6	2,936.3	2,936.1	8.5	1.2	69.37	-994.2	139.0	862.5	853.1	9.41	91.698	
3,051.2	3,022.0	2,986.4	2,986.2	8.7	1.2	69.84	-994.7	139.7	859.7	850.1	9.58	89.728	
3,100.0	3,070.1	3,035.5	3,035.3	8.8	1.3	70.27	-995.2	140.2	857.3	847.6	9.75	87.949	
3,149.6	3,119.1	3,086.0	3,085.8	8.9	1.3	70.66	-995.7	140.8	855.2	845.3	9.90	86.351	
3,200.0	3,169.1	3,136.1	3,135.9	9.1	1.3	71.00	-996.1	141.5	853.3	843.2	10.06	84.820	
3,248.0	3,216.8	3,183.6	3,183.3	9.2	1.3	71.27	-996.5	142.1	851.8	841.6	10.19	83.560	
3,300.0	3,268.5	3,237.0	3,236.7	9.3	1.3	71.52	-996.9	142.8	850.5	840.1	10.34	82.272	
3,346.4	3,314.8	3,285.6	3,285.4	9.4	1.3	71.69	-997.3	143.8	849.4	839.0	10.45	81.286	
3,400.0	3,368.3	3,339.9	3,339.6	9.6	1.4	71.80	-997.6	145.1	848.4	837.8	10.58	80.212	
3,444.9	3,413.1	3,384.8	3,384.6	9.6	1.4	71.83	-997.8	146.4	847.8	837.1	10.67	79.466	
3,500.0	3,468.2	3,440.6	3,440.3	9.7	1.4	71.80	-998.2	148.2	847.3	836.6	10.78	78.603	
3,543.3	3,511.5	3,484.5	3,484.2	9.8	1.4	71.73	-998.4	149.6	847.2	836.3	10.86	78.043	
3,553.7	3,521.9	3,495.0	3,494.7	9.8	1.4	-169.65	-998.5	150.0	847.2	837.9	9.27	91.383	
3,600.0	3,568.2	3,542.2	3,541.8	9.9	1.4	-169.76	-998.7	151.6	847.1	837.7	9.38	90.342	
3,641.7	3,609.9	3,584.7	3,584.3	10.0	1.4	-169.86	-998.9	153.0	847.0	837.5	9.47	89.395	
3,700.0	3,668.2	3,641.4	3,641.0	10.1	1.5	-169.99	-999.1	155.0	846.9	837.3	9.61	88.116	
3,717.8	3,686.0	3,658.5	3,658.0	10.1	1.5	-170.03	-999.2	155.6	846.9	837.2	9.65	87.733	
3,740.1	3,708.4	3,679.9	3,679.4	10.1	1.5	-170.08	-999.3	156.3	846.9	837.2	9.71	87.261	
3,800.0	3,768.2	3,739.9	3,739.4	10.2	1.5	-170.23	-999.8	158.4	847.0	837.1	9.85	86.018	
3,838.6	3,806.8	3,779.5	3,779.0	10.3	1.5	-170.33	-1,000.0	159.9	847.0	837.0	9.94	85.222	
3,900.0	3,868.2	3,842.2	3,841.6	10.4	1.5	-170.49	-1,000.4	162.3	846.9	836.8	10.09	83.977	
3,937.0	3,905.2	3,879.8	3,879.2	10.5	1.5	-170.59	-1,000.6	163.8	846.8	836.7	10.17	83.237	
4,000.0	3,968.2	3,943.2	3,942.5	10.6	1.6	-170.76	-1,000.8	166.3	846.7	836.4	10.32	82.007	
4,035.4	4,003.6	3,978.7	3,978.0	10.6	1.6	-170.86	-1,000.9	167.7	846.6	836.2	10.41	81.329	
4,100.0	4,068.2	4,043.7	4,042.9	10.7	1.6	-171.03	-1,001.1	170.2	846.4	835.8	10.56	80.122	
4,133.8	4,102.1	4,077.8	4,077.1	10.8	1.6	-171.11	-1,001.2	171.4	846.3	835.6	10.65	79.499	
4,200.0	4,168.2	4,146.3	4,145.5	10.9	1.6	-171.26	-1,001.2	173.7	846.0	835.2	10.80	78.304	
4,232.3	4,200.5	4,180.1	4,179.3	11.0	1.6	-171.33	-1,001.2	174.7	845.7	834.9	10.88	77.724	
4,300.0	4,268.2	4,250.9	4,250.1	11.1	1.6	-171.46	-1,000.7	176.7	845.1	834.0	11.04	76.524	
4,330.7	4,298.9	4,282.9	4,282.1	11.1	1.7	-171.51	-1,000.5	177.5	844.7	833.6	11.12	75.984	
4,400.0	4,368.2	4,356.1	4,355.2	11.3	1.7	-171.63	-999.6	179.4	843.6	832.3	11.28	74.779	
4,429.1	4,397.3	4,387.0	4,386.1	11.3	1.7	-171.67	-999.1	180.2	843.1	831.7	11.35	74.274	
4,500.0	4,468.2	4,460.4	4,459.4	11.4	1.7	-171.78	-997.8	181.9	841.5	830.0	11.52	73.066	
4,527.5	4,495.8	4,488.7	4,487.8	11.5	1.7	-171.82	-997.2	182.5	840.9	829.3	11.58	72.601	
4,600.0	4,568.2	4,561.9	4,560.9	11.6	1.7	-171.91	-995.6	184.2	839.1	827.4	11.75	71.404	
4,626.0	4,594.2	4,588.0	4,587.0	11.7	1.7	-171.95	-995.1	184.8	838.5	826.7	11.81	70.982	
4,700.0	4,668.2	4,663.6	4,662.5	11.8	1.7	-172.04	-993.3	186.4	836.6	824.6	11.99	69.799	
4,724.4	4,692.6	4,688.5	4,687.5	11.9	1.7	-172.07	-992.7	187.0	835.9	823.9	12.04	69.413	
4,800.0	4,768.2	4,765.4	4,764.3	12.0	1.7	-172.16	-990.8	188.6	833.8	821.6	12.22	68.238	
4,822.8	4,791.0	4,788.5	4,787.5	12.0	1.8	-172.19	-990.2	189.1	833.1	820.9	12.27	67.887	
4,900.0	4,868.2	4,863.0	4,861.9	12.2	1.8	-172.28	-988.3	190.6	831.0	818.5	12.45	66.737	
4,921.2	4,889.5	4,883.3	4,882.2	12.2	1.8	-172.30	-987.8	191.0	830.4	817.9	12.50	66.430	

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

Anticollision Report



Company:	PDC ENERGY	Local Co-ordinate Reference:	Well WACKER 10G-214
Project:	WELD COUNTY, COLORADO	TVD Reference:	KB-EST @ 4624.0usft (Original Well Elev)
Reference Site:	SW NW SEC. 10 T5N R64W 6th P.M.	MD Reference:	KB-EST @ 4624.0usft (Original Well Elev)
Site Error:	0.0 usft	North Reference:	True
Reference Well:	WACKER 10G-214	Survey Calculation Method:	Minimum Curvature
Well Error:	0.0 usft	Output errors are at	2.00 sigma
Reference Wellbore	ORIGINAL WELLBORE	Database:	EDM 5000.1 Single User Db
Reference Design:	PROPOSAL #1	Offset TVD Reference:	Offset Datum

Offset Design SW NW SEC. 10 T5N R64W 6th P.M. - EXIST VERT DR B #10-12 - 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	4,968.2	4,956.3	4,955.1	12.4	1.8	-172.37	-986.4	192.2	828.7	816.0	12.68	65.335	
5,019.7	4,987.9	4,974.3	4,973.2	12.4	1.8	-172.39	-986.1	192.5	828.4	815.6	12.73	65.073	
5,100.0	5,068.2	5,050.5	5,049.3	12.6	1.8	-172.46	-985.2	193.7	827.3	814.4	12.92	64.037	
5,118.1	5,086.3	5,068.0	5,066.8	12.6	1.8	-172.48	-985.1	194.0	827.1	814.2	12.96	63.809	
5,200.0	5,168.2	5,146.5	5,145.3	12.7	1.8	-172.55	-984.6	195.0	826.5	813.3	13.16	62.809	
5,216.5	5,184.7	5,162.2	5,161.0	12.8	1.8	-172.56	-984.5	195.3	826.4	813.2	13.20	62.613	
5,300.0	5,268.2	5,241.4	5,240.2	12.9	1.9	-172.63	-984.4	196.2	826.1	812.7	13.40	61.661	
5,300.2	5,268.4	5,241.6	5,240.4	12.9	1.9	-172.63	-984.4	196.2	826.1	812.7	13.40	61.659 CC	
5,314.9	5,283.2	5,255.5	5,254.3	13.0	1.9	-172.64	-984.4	196.4	826.1	812.7	13.43	61.497 ES	
5,400.0	5,368.2	5,337.3	5,336.1	13.1	1.9	-172.70	-984.8	197.2	826.4	812.8	13.64	60.597	
5,413.4	5,381.6	5,350.4	5,349.2	13.2	1.9	-172.71	-984.9	197.3	826.5	812.8	13.67	60.459	
5,500.0	5,468.2	5,435.5	5,434.3	13.3	1.9	-172.76	-985.5	197.9	827.1	813.2	13.88	59.595	
5,511.8	5,480.0	5,447.1	5,445.9	13.3	1.9	-172.76	-985.6	198.0	827.1	813.2	13.91	59.481	
5,600.0	5,568.2	5,533.4	5,532.2	13.5	1.9	-172.80	-986.4	198.5	827.9	813.8	14.11	58.657	
5,610.2	5,578.4	5,543.3	5,542.1	13.5	1.9	-172.80	-986.5	198.5	828.0	813.8	14.14	58.566	
5,700.0	5,668.2	5,630.4	5,629.2	13.7	2.0	-172.84	-987.6	198.8	829.0	814.7	14.35	57.787	
5,708.6	5,676.9	5,638.8	5,637.6	13.7	2.0	-172.84	-987.7	198.9	829.1	814.8	14.37	57.714	
5,800.0	5,768.2	5,728.5	5,727.3	13.9	2.0	-172.88	-989.1	199.3	830.5	815.9	14.58	56.966	
5,807.1	5,775.3	5,735.6	5,734.3	13.9	2.0	-172.88	-989.2	199.3	830.6	816.0	14.60	56.909	
5,900.0	5,868.2	5,829.1	5,827.9	14.1	2.0	-172.93	-990.7	199.8	832.1	817.2	14.81	56.173	
5,905.5	5,873.7	5,834.8	5,833.5	14.1	2.0	-172.93	-990.8	199.8	832.1	817.3	14.83	56.129	
5,960.7	5,928.9	5,891.4	5,890.2	14.2	2.0	-172.96	-991.6	200.1	832.9	817.9	14.95	55.694	
6,000.0	5,968.2	5,930.4	5,929.2	14.3	2.0	-83.02	-992.2	200.3	833.3	817.5	15.73	52.983	
6,003.9	5,972.1	5,934.3	5,933.0	14.3	2.0	-83.04	-992.2	200.4	833.3	817.6	15.73	52.965	
6,050.0	6,018.0	5,979.3	5,978.1	14.4	2.1	-83.33	-992.9	200.6	833.4	817.6	15.80	52.747	
6,100.0	6,067.3	6,029.4	6,028.2	14.4	2.1	-83.92	-993.6	200.9	833.2	817.4	15.85	52.557	
6,102.3	6,069.6	6,031.8	6,030.5	14.4	2.1	-83.95	-993.7	200.9	833.2	817.4	15.86	52.550	
6,150.0	6,116.0	6,080.0	6,078.7	14.4	2.1	-84.77	-994.3	201.2	832.7	816.8	15.89	52.399	
6,200.0	6,163.8	6,129.6	6,128.4	14.5	2.1	-85.85	-994.8	201.4	832.0	816.1	15.92	52.268	
6,200.8	6,164.5	6,130.4	6,129.1	14.5	2.1	-85.87	-994.8	201.4	832.0	816.1	15.92	52.266	
6,250.0	6,210.4	6,178.1	6,176.9	14.5	2.1	-87.13	-995.2	201.6	831.2	815.3	15.94	52.155	
6,299.2	6,254.9	6,224.3	6,223.1	14.5	2.1	-88.53	-995.5	201.8	830.7	814.7	15.96	52.053	
6,300.0	6,255.6	6,225.1	6,223.8	14.5	2.1	-88.56	-995.5	201.8	830.7	814.7	15.96	52.052	
6,334.5	6,285.9	6,256.4	6,255.1	14.5	2.1	-89.61	-995.6	201.9	830.5	814.5	15.98	51.971	
6,350.0	6,299.3	6,270.2	6,268.9	14.5	2.1	-90.09	-995.6	202.0	830.5	814.6	15.99	51.940	
6,397.6	6,339.2	6,310.8	6,309.5	14.6	2.2	-91.58	-995.7	202.2	831.1	815.1	16.04	51.802	
6,400.0	6,341.2	6,312.6	6,311.4	14.6	2.2	-91.65	-995.7	202.2	831.2	815.1	16.05	51.797	
6,450.0	6,381.0	6,351.1	6,349.8	14.6	2.2	-93.12	-995.8	202.4	833.0	816.8	16.14	51.606	
6,496.0	6,415.8	6,384.5	6,383.2	14.7	2.2	-94.41	-996.0	202.7	835.9	819.6	16.27	51.368	
6,500.0	6,418.7	6,387.3	6,386.0	14.7	2.2	-94.51	-996.0	202.7	836.2	819.9	16.28	51.351	
6,550.0	6,453.9	6,420.3	6,419.0	14.8	2.2	-95.72	-996.1	203.1	841.2	824.7	16.49	51.016	
6,594.5	6,483.1	6,447.1	6,445.8	15.0	2.2	-96.62	-996.4	203.4	847.3	830.6	16.73	50.639	
6,600.0	6,486.6	6,450.3	6,449.0	15.1	2.2	-96.72	-996.4	203.4	848.2	831.4	16.76	50.600	
6,650.0	6,516.6	6,477.8	6,476.5	15.3	2.2	-97.48	-996.7	203.7	857.4	840.3	17.11	50.107	
6,692.9	6,540.0	6,500.0	6,498.7	15.7	2.2	-97.95	-997.0	204.0	867.2	849.7	17.48	49.612	
6,700.0	6,543.7	6,500.0	6,498.7	15.7	2.2	-97.80	-997.0	204.0	869.0	851.4	17.54	49.553	
6,750.0	6,567.8	6,523.0	6,521.7	16.2	2.2	-98.00	-997.3	204.3	883.1	865.0	18.05	48.934	
6,791.3	6,585.4	6,537.9	6,536.6	16.7	2.2	-97.78	-997.6	204.4	896.6	878.1	18.53	48.387	
6,800.0	6,588.8	6,540.8	6,539.5	16.8	2.2	-97.70	-997.6	204.5	899.7	881.0	18.63	48.289	
6,850.0	6,606.6	6,555.8	6,554.5	17.4	2.2	-97.00	-998.0	204.7	918.8	899.5	19.29	47.626	
6,889.7	6,618.4	6,565.6	6,564.3	18.0	2.2	-96.15	-998.2	204.8	935.8	915.9	19.88	47.080	
6,900.0	6,621.1	6,567.9	6,566.6	18.2	2.2	-95.88	-998.3	204.8	940.4	920.3	20.03	46.959	

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

Anticollision Report



Company:	PDC ENERGY	Local Co-ordinate Reference:	Well WACKER 10G-214
Project:	WELD COUNTY, COLORADO	TVD Reference:	KB-EST @ 4624.0usft (Original Well Elev)
Reference Site:	SW NW SEC. 10 T5N R64W 6th P.M.	MD Reference:	KB-EST @ 4624.0usft (Original Well Elev)
Site Error:	0.0 usft	North Reference:	True
Reference Well:	WACKER 10G-214	Survey Calculation Method:	Minimum Curvature
Well Error:	0.0 usft	Output errors are at	2.00 sigma
Reference Wellbore	ORIGINAL WELLBORE	Database:	EDM 5000.1 Single User Db
Reference Design:	PROPOSAL #1	Offset TVD Reference:	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	6,632.2	6,576.9	6,575.6	19.0	2.2	-94.32	-998.5	205.0	964.2	943.4	20.83	46.297	
6,988.2	6,638.4	6,581.9	6,580.5	19.7	2.2	-92.83	-998.6	205.0	983.9	962.4	21.49	45.786	
7,000.0	6,639.9	6,583.0	6,581.7	19.9	2.2	-92.31	-998.6	205.0	990.2	968.5	21.69	45.643	
7,050.0	6,644.1	6,586.1	6,584.7	20.8	2.2	-89.84	-998.7	205.1	1,018.0	995.4	22.63	44.993	
7,086.5	6,645.0	6,586.4	6,585.1	21.5	2.2	-87.75	-998.7	205.1	1,039.4	1,016.1	23.35	44.520	
7,100.0	6,645.0	6,586.2	6,584.9	21.8	2.2	-87.73	-998.7	205.1	1,047.5	1,023.9	23.61	44.362	
7,185.0	6,644.9	6,585.1	6,583.7	23.6	2.2	-87.66	-998.7	205.1	1,101.0	1,075.6	25.37	43.395	
7,200.0	6,644.8	6,584.9	6,583.5	23.9	2.2	-87.64	-998.7	205.1	1,110.8	1,085.1	25.68	43.255	
7,283.4	6,644.7	6,583.7	6,582.4	25.7	2.2	-87.57	-998.7	205.1	1,167.6	1,140.1	27.52	42.424	
7,300.0	6,644.7	6,583.5	6,582.2	26.1	2.2	-87.55	-998.7	205.1	1,179.2	1,151.3	27.89	42.286	
7,381.9	6,644.6	6,582.4	6,581.1	28.0	2.2	-87.48	-998.6	205.0	1,238.4	1,208.7	29.78	41.585	
7,400.0	6,644.6	6,582.2	6,580.9	28.4	2.2	-87.46	-998.6	205.0	1,251.9	1,221.7	30.20	41.454	
7,480.3	6,644.5	6,581.1	6,579.8	30.3	2.2	-87.39	-998.6	205.0	1,312.9	1,280.7	32.12	40.870	
7,500.0	6,644.4	6,580.9	6,579.5	30.8	2.2	-87.37	-998.6	205.0	1,328.1	1,295.5	32.59	40.747	
7,578.7	6,644.3	6,579.8	6,578.5	32.7	2.2	-87.30	-998.6	205.0	1,390.3	1,355.7	34.53	40.261	
7,600.0	6,644.3	6,579.6	6,578.2	33.3	2.2	-87.28	-998.6	205.0	1,407.3	1,372.3	35.05	40.147	
7,677.1	6,644.2	6,578.5	6,577.2	35.2	2.2	-87.21	-998.5	205.0	1,470.2	1,433.2	36.99	39.744	
7,700.0	6,644.1	6,578.2	6,576.9	35.8	2.2	-87.19	-998.5	205.0	1,489.0	1,451.5	37.56	39.640	
7,775.6	6,644.0	6,577.3	6,575.9	37.7	2.2	-87.12	-998.5	205.0	1,552.2	1,512.7	39.49	39.304	
7,800.0	6,644.0	6,576.9	6,575.6	38.3	2.2	-87.10	-998.5	205.0	1,572.9	1,532.7	40.12	39.208	
7,874.0	6,643.9	6,576.0	6,574.7	40.2	2.2	-87.03	-998.5	205.0	1,636.1	1,594.0	42.03	38.928	
7,900.0	6,643.9	6,575.6	6,574.3	40.9	2.2	-87.01	-998.5	204.9	1,658.5	1,615.8	42.70	38.840	
7,972.4	6,643.8	6,574.7	6,573.4	42.8	2.2	-86.95	-998.4	204.9	1,721.5	1,676.9	44.59	38.605	
8,000.0	6,643.7	6,574.3	6,573.0	43.5	2.2	-86.92	-998.4	204.9	1,745.6	1,700.3	45.31	38.525	
8,070.8	6,643.6	6,573.4	6,572.1	45.4	2.2	-86.86	-998.4	204.9	1,808.2	1,761.0	47.18	38.327	
8,100.0	6,643.6	6,573.1	6,571.7	46.2	2.2	-86.83	-998.4	204.9	1,834.1	1,786.1	47.94	38.254	
8,169.3	6,643.5	6,572.2	6,570.9	48.0	2.2	-86.77	-998.4	204.9	1,896.0	1,846.2	49.78	38.086	
8,200.0	6,643.5	6,571.8	6,570.5	48.8	2.2	-86.75	-998.4	204.9	1,923.7	1,873.1	50.60	38.019	
8,267.7	6,643.4	6,570.9	6,569.6	50.6	2.2	-86.69	-998.3	204.9	1,984.9	1,932.5	52.40	37.877	
8,300.0	6,643.3	6,570.5	6,569.2	51.5	2.2	-86.66	-998.3	204.9	2,014.2	1,961.0	53.27	37.815	
8,366.1	6,643.2	6,569.7	6,568.4	53.3	2.2	-86.60	-998.3	204.9	2,074.6	2,019.6	55.04	37.693	
8,400.0	6,643.2	6,569.2	6,567.9	54.2	2.2	-86.57	-998.3	204.9	2,105.6	2,049.7	55.95	37.637	
8,464.5	6,643.1	6,568.4	6,567.1	55.9	2.2	-86.52	-998.3	204.8	2,165.1	2,107.4	57.68	37.532	
8,500.0	6,643.1	6,568.0	6,566.7	56.9	2.2	-86.49	-998.3	204.8	2,197.8	2,139.2	58.64	37.480	
8,563.0	6,643.0	6,567.2	6,565.9	58.6	2.2	-86.43	-998.2	204.8	2,256.2	2,195.9	60.34	37.390	
8,600.0	6,642.9	6,566.7	6,565.4	59.6	2.2	-86.40	-998.2	204.8	2,290.6	2,229.3	61.34	37.342	
8,661.4	6,642.8	6,566.0	6,564.6	61.3	2.2	-86.35	-998.2	204.8	2,347.9	2,284.9	63.01	37.265	
8,700.0	6,642.8	6,565.5	6,564.2	62.3	2.2	-86.32	-998.2	204.8	2,384.0	2,320.0	64.05	37.220	
8,759.8	6,642.7	6,564.7	6,563.4	64.0	2.2	-86.27	-998.2	204.8	2,440.2	2,374.5	65.68	37.153	
8,800.0	6,642.7	6,564.2	6,562.9	65.1	2.2	-86.23	-998.2	204.8	2,478.0	2,411.2	66.77	37.111	
8,858.2	6,642.6	6,563.5	6,562.2	66.6	2.2	-86.18	-998.1	204.8	2,532.9	2,464.5	68.36	37.053	
8,900.0	6,642.5	6,563.0	6,561.7	67.8	2.2	-86.15	-998.1	204.8	2,572.3	2,502.8	69.49	37.015	
8,956.7	6,642.4	6,562.3	6,561.0	69.3	2.2	-86.10	-998.1	204.8	2,626.0	2,555.0	71.04	36.964	
9,000.0	6,642.4	6,561.8	6,560.5	70.5	2.2	-86.06	-998.1	204.8	2,667.1	2,594.9	72.22	36.928	
9,055.1	6,642.3	6,561.1	6,559.8	72.0	2.2	-86.02	-998.1	204.7	2,719.5	2,645.8	73.73	36.884	
9,100.0	6,642.3	6,560.5	6,559.2	73.3	2.2	-85.98	-998.1	204.7	2,762.3	2,687.3	74.96	36.850	
9,153.5	6,642.2	6,559.9	6,558.6	74.7	2.2	-85.94	-998.1	204.7	2,813.3	2,736.9	76.43	36.812	
9,200.0	6,642.1	6,559.3	6,558.0	76.0	2.2	-85.90	-998.0	204.7	2,857.7	2,780.0	77.70	36.780	
9,251.9	6,642.1	6,558.7	6,557.4	77.5	2.2	-85.85	-998.0	204.7	2,907.5	2,828.3	79.12	36.746	
9,300.0	6,642.0	6,558.1	6,556.8	78.8	2.2	-85.82	-998.0	204.7	2,953.5	2,873.1	80.44	36.717	
9,350.4	6,641.9	6,557.5	6,556.2	80.2	2.2	-85.77	-998.0	204.7	3,001.9	2,920.0	81.82	36.687	
9,400.0	6,641.9	6,556.9	6,555.6	81.5	2.2	-85.73	-998.0	204.7	3,049.6	2,966.4	83.19	36.660	

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

Anticollision Report



Company:	PDC ENERGY	Local Co-ordinate Reference:	Well WACKER 10G-214
Project:	WELD COUNTY, COLORADO	TVD Reference:	KB-EST @ 4624.0usft (Original Well Elev)
Reference Site:	SW NW SEC. 10 T5N R64W 6th P.M.	MD Reference:	KB-EST @ 4624.0usft (Original Well Elev)
Site Error:	0.0 usft	North Reference:	True
Reference Well:	WACKER 10G-214	Survey Calculation Method:	Minimum Curvature
Well Error:	0.0 usft	Output errors are at	2.00 sigma
Reference Wellbore	ORIGINAL WELLBORE	Database:	EDM 5000.1 Single User Db
Reference Design:	PROPOSAL #1	Offset TVD Reference:	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	6,641.8	6,556.3	6,555.0	82.9	2.2	-85.69	-998.0	204.7	3,096.5	3,012.0	84.53	36.634	
9,500.0	6,641.7	6,555.7	6,554.4	84.3	2.2	-85.65	-998.0	204.7	3,145.9	3,059.9	85.93	36.608	
9,547.2	6,641.7	6,555.1	6,553.8	85.6	2.2	-85.61	-998.0	204.7	3,191.4	3,104.2	87.23	36.585	
9,600.0	6,641.6	6,554.5	6,553.2	87.1	2.2	-85.57	-997.9	204.7	3,242.4	3,153.7	88.68	36.561	
9,645.6	6,641.5	6,554.0	6,552.6	88.3	2.2	-85.53	-997.9	204.7	3,286.5	3,196.6	89.94	36.541	
9,700.0	6,641.5	6,553.3	6,552.0	89.8	2.2	-85.49	-997.9	204.6	3,339.1	3,247.7	91.44	36.518	
9,744.1	6,641.4	6,552.8	6,551.5	91.0	2.2	-85.45	-997.9	204.6	3,381.8	3,289.1	92.65	36.500	
9,800.0	6,641.3	6,552.1	6,550.8	92.6	2.2	-85.41	-997.9	204.6	3,436.0	3,341.8	94.19	36.479	
9,842.5	6,641.3	6,551.6	6,550.3	93.8	2.2	-85.37	-997.9	204.6	3,477.3	3,381.9	95.36	36.463	
9,900.0	6,641.2	6,550.9	6,549.6	95.4	2.2	-85.33	-997.9	204.6	3,533.1	3,436.1	96.95	36.443	
9,940.9	6,641.1	6,550.5	6,549.2	96.5	2.2	-85.30	-997.8	204.6	3,572.9	3,474.8	98.08	36.429	
10,000.0	6,641.1	6,549.8	6,548.5	98.1	2.2	-85.25	-997.8	204.6	3,630.3	3,530.6	99.71	36.410	
10,039.3	6,641.0	6,549.3	6,548.0	99.2	2.2	-85.22	-997.8	204.6	3,668.6	3,567.9	100.79	36.398	
10,100.0	6,640.9	6,548.6	6,547.3	100.9	2.2	-85.17	-997.8	204.6	3,727.7	3,625.3	102.47	36.380	
10,137.8	6,640.9	6,548.2	6,546.9	102.0	2.2	-85.14	-997.8	204.6	3,764.5	3,661.0	103.51	36.369	
10,200.0	6,640.8	6,547.4	6,546.1	103.7	2.2	-85.09	-997.8	204.6	3,825.2	3,720.0	105.23	36.352	
10,236.2	6,640.8	6,547.0	6,545.7	104.7	2.2	-85.06	-997.8	204.6	3,860.6	3,754.4	106.23	36.343	
10,300.0	6,640.7	6,546.3	6,545.0	106.5	2.2	-85.01	-997.8	204.6	3,922.9	3,814.9	107.99	36.327	
10,334.6	6,640.6	6,545.9	6,544.6	107.4	2.2	-84.99	-997.8	204.5	3,956.7	3,847.8	108.95	36.319	
10,400.0	6,640.6	6,545.1	6,543.8	109.3	2.2	-84.94	-997.7	204.5	4,020.6	3,909.9	110.75	36.304	
10,433.0	6,640.5	6,544.8	6,543.4	110.2	2.2	-84.91	-997.7	204.5	4,053.0	3,941.3	111.66	36.296	
10,500.0	6,640.4	6,544.0	6,542.7	112.0	2.2	-84.86	-997.7	204.5	4,118.5	4,005.0	113.51	36.282	
10,531.5	6,640.4	6,543.6	6,542.3	112.9	2.2	-84.83	-997.7	204.5	4,149.3	4,035.0	114.38	36.276	
10,600.0	6,640.3	6,542.8	6,541.5	114.8	2.2	-84.78	-997.7	204.5	4,216.5	4,100.2	116.28	36.262	
10,629.9	6,640.3	6,542.5	6,541.2	115.7	2.2	-84.76	-997.7	204.5	4,245.8	4,128.7	117.10	36.257	
10,700.0	6,640.2	6,541.7	6,540.4	117.6	2.2	-84.70	-997.7	204.5	4,314.5	4,195.5	119.04	36.244	
10,728.3	6,640.1	6,541.4	6,540.1	118.4	2.2	-84.68	-997.7	204.5	4,342.3	4,222.5	119.82	36.239	
10,800.0	6,640.0	6,540.6	6,539.3	120.4	2.2	-84.63	-997.6	204.5	4,412.7	4,290.9	121.81	36.227	
10,826.7	6,640.0	6,540.3	6,539.0	121.2	2.2	-84.61	-997.6	204.5	4,439.0	4,316.4	122.55	36.223	
10,900.0	6,639.9	6,539.5	6,538.2	123.2	2.2	-84.55	-997.6	204.5	4,510.9	4,386.3	124.57	36.212	
10,925.2	6,639.9	6,539.2	6,537.9	123.9	2.2	-84.53	-997.6	204.5	4,535.7	4,410.4	125.27	36.208	
11,000.0	6,639.8	6,538.3	6,537.0	126.0	2.2	-84.48	-997.6	204.4	4,609.2	4,481.9	127.34	36.197	
11,023.6	6,639.8	6,538.1	6,536.8	126.6	2.2	-84.46	-997.6	204.4	4,632.4	4,504.4	127.99	36.194	
11,100.0	6,639.7	6,537.2	6,535.9	128.8	2.2	-84.40	-997.6	204.4	4,707.6	4,577.5	130.10	36.184	
11,122.0	6,639.6	6,537.0	6,535.7	129.4	2.2	-84.38	-997.6	204.4	4,729.3	4,598.6	130.71	36.181	
11,200.0	6,639.5	6,536.1	6,534.8	131.6	2.2	-84.33	-997.6	204.4	4,806.0	4,673.2	132.87	36.172	
11,220.4	6,639.5	6,535.9	6,534.6	132.1	2.2	-84.31	-997.5	204.4	4,826.2	4,692.7	133.43	36.170	
11,300.0	6,639.4	6,535.0	6,533.7	134.4	2.2	-84.25	-997.5	204.4	4,904.5	4,768.9	135.63	36.161	
11,318.9	6,639.4	6,534.8	6,533.5	134.9	2.2	-84.24	-997.5	204.4	4,923.1	4,787.0	136.15	36.159	
11,400.0	6,639.3	6,533.9	6,532.6	137.1	2.2	-84.18	-997.5	204.4	5,003.1	4,864.7	138.40	36.150	
11,417.3	6,639.3	6,533.7	6,532.4	137.6	2.2	-84.17	-997.5	204.4	5,020.2	4,881.3	138.88	36.149	
11,500.0	6,639.2	6,532.8	6,531.5	139.9	2.2	-84.10	-997.5	204.4	5,101.7	4,960.6	141.16	36.141	
11,515.7	6,639.1	6,532.6	6,531.3	140.4	2.2	-84.09	-997.5	204.4	5,117.2	4,975.6	141.60	36.140	
11,600.0	6,639.0	6,531.7	6,530.4	142.7	2.2	-84.03	-997.5	204.4	5,200.4	5,056.5	143.93	36.132	
11,614.1	6,639.0	6,531.6	6,530.3	143.1	2.2	-84.02	-997.5	204.4	5,214.4	5,070.0	144.32	36.131	
11,700.0	6,638.9	6,530.6	6,529.3	145.5	2.2	-83.96	-997.4	204.3	5,299.1	5,152.4	146.69	36.124	
11,712.6	6,638.9	6,530.5	6,529.2	145.9	2.2	-83.95	-997.4	204.3	5,311.5	5,164.5	147.04	36.123	
11,800.0	6,638.8	6,529.6	6,528.3	148.3	2.2	-83.89	-997.4	204.3	5,397.9	5,248.4	149.46	36.117	
11,811.0	6,638.8	6,529.4	6,528.1	148.6	2.2	-83.88	-997.4	204.3	5,408.8	5,259.0	149.76	36.116	
11,900.0	6,638.7	6,528.5	6,527.2	151.1	2.2	-83.81	-997.4	204.3	5,496.7	5,344.5	152.22	36.110	
11,909.4	6,638.6	6,528.4	6,527.1	151.4	2.2	-83.81	-997.4	204.3	5,506.0	5,353.5	152.48	36.109	
12,000.0	6,638.5	6,527.4	6,526.1	153.9	2.2	-83.74	-997.4	204.3	5,595.6	5,440.6	154.99	36.104	

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

Anticollision Report



Company:	PDC ENERGY	Local Co-ordinate Reference:	Well WACKER 10G-214
Project:	WELD COUNTY, COLORADO	TVD Reference:	KB-EST @ 4624.0usft (Original Well Elev)
Reference Site:	SW NW SEC. 10 T5N R64W 6th P.M.	MD Reference:	KB-EST @ 4624.0usft (Original Well Elev)
Site Error:	0.0 usft	North Reference:	True
Reference Well:	WACKER 10G-214	Survey Calculation Method:	Minimum Curvature
Well Error:	0.0 usft	Output errors are at	2.00 sigma
Reference Wellbore	ORIGINAL WELLBORE	Database:	EDM 5000.1 Single User Db
Reference Design:	PROPOSAL #1	Offset TVD Reference:	Offset Datum

Offset Design SW NW SEC. 10 T5N R64W 6th P.M. - EXIST VERT DR B #10-12 - 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	6,638.5	6,527.3	6,526.0	154.1	2.2	-83.74	-997.4	204.3	5,603.3	5,448.1	155.20	36.103		
12,100.0	6,638.4	6,526.3	6,525.0	156.7	2.2	-83.67	-997.4	204.3	5,694.4	5,536.7	157.75	36.098		
12,106.3	6,638.4	6,526.3	6,525.0	156.9	2.2	-83.67	-997.4	204.3	5,700.7	5,542.7	157.92	36.098		
12,200.0	6,638.3	6,525.3	6,524.0	159.5	2.2	-83.60	-997.4	204.3	5,793.4	5,632.9	160.51	36.093		
12,204.7	6,638.3	6,525.2	6,523.9	159.6	2.2	-83.60	-997.3	204.3	5,798.0	5,637.4	160.64	36.093		
12,300.0	6,638.2	6,524.2	6,522.9	162.3	2.2	-83.53	-997.3	204.3	5,892.3	5,729.1	163.28	36.088		
12,303.1	6,638.2	6,524.2	6,522.9	162.4	2.2	-83.53	-997.3	204.3	5,895.4	5,732.1	163.36	36.088		
12,400.0	6,638.0	6,523.2	6,521.9	165.1	2.2	-83.46	-997.3	204.3	5,991.3	5,825.3	166.04	36.084		
12,401.5	6,638.0	6,523.2	6,521.9	165.2	2.2	-83.46	-997.3	204.3	5,992.9	5,826.8	166.08	36.084		
12,500.0	6,637.9	6,522.1	6,520.8	167.9	2.2	-83.39	-997.3	204.2	6,090.4	5,921.6	168.80	36.080		
12,598.4	6,637.8	6,521.1	6,519.8	170.7	2.2	-83.32	-997.3	204.2	6,187.9	6,016.3	171.52	36.077		
12,600.0	6,637.8	6,521.1	6,519.8	170.7	2.2	-83.32	-997.3	204.2	6,189.4	6,017.9	171.56	36.077		
12,696.8	6,637.7	6,520.1	6,518.8	173.4	2.2	-83.25	-997.3	204.2	6,285.4	6,111.2	174.24	36.074		
12,700.0	6,637.7	6,520.1	6,518.8	173.5	2.2	-83.25	-997.3	204.2	6,288.5	6,114.2	174.32	36.074		
12,795.2	6,637.6	6,519.1	6,517.8	176.2	2.2	-83.18	-997.2	204.2	6,382.9	6,206.0	176.95	36.071		
12,800.0	6,637.6	6,519.0	6,517.7	176.3	2.2	-83.18	-997.2	204.2	6,387.7	6,210.6	177.08	36.071		
12,893.7	6,637.4	6,518.1	6,516.8	178.9	2.2	-83.12	-997.2	204.2	6,480.5	6,300.9	179.67	36.069		
12,900.0	6,637.4	6,518.0	6,516.7	179.1	2.2	-83.11	-997.2	204.2	6,486.8	6,307.0	179.85	36.069		
12,992.1	6,637.3	6,517.1	6,515.8	181.7	2.2	-83.05	-997.2	204.2	6,578.1	6,395.8	182.39	36.067		
13,000.0	6,637.3	6,517.0	6,515.7	181.9	2.2	-83.05	-997.2	204.2	6,586.0	6,403.4	182.61	36.067		
13,090.5	6,637.2	6,516.0	6,514.8	184.4	2.2	-82.98	-997.2	204.2	6,675.8	6,490.7	185.10	36.065		
13,100.0	6,637.2	6,516.0	6,514.7	184.7	2.2	-82.98	-997.2	204.2	6,685.2	6,499.8	185.36	36.065		
13,188.9	6,637.1	6,515.1	6,513.8	187.2	2.2	-82.92	-997.2	204.2	6,773.4	6,585.6	187.82	36.064		
13,200.0	6,637.1	6,514.9	6,513.6	187.5	2.2	-82.91	-997.2	204.2	6,784.4	6,596.3	188.12	36.064		
13,287.4	6,637.0	6,514.1	6,512.8	190.0	2.2	-82.85	-997.2	204.1	6,871.1	6,680.6	190.53	36.063		
13,300.0	6,637.0	6,513.9	6,512.6	190.3	2.2	-82.84	-997.2	204.1	6,883.6	6,692.8	190.88	36.062		
13,385.8	6,636.9	6,513.1	6,511.8	192.7	2.2	-82.78	-997.1	204.1	6,968.8	6,775.6	193.25	36.062		
13,400.0	6,636.8	6,512.9	6,511.6	193.1	2.2	-82.78	-997.1	204.1	6,982.9	6,789.3	193.64	36.062		
13,484.2	6,636.7	6,500.0	6,498.7	195.5	2.2	-81.90	-997.0	204.0	7,066.5	6,870.9	195.65	36.118		
13,500.0	6,636.7	6,500.0	6,498.7	195.9	2.2	-81.90	-997.0	204.0	7,082.2	6,886.1	196.09	36.117		
13,582.6	6,636.6	6,500.0	6,498.7	198.2	2.2	-81.90	-997.0	204.0	7,164.3	6,965.9	198.38	36.113		
13,600.0	6,636.6	6,500.0	6,498.7	198.7	2.2	-81.90	-997.0	204.0	7,181.5	6,982.7	198.86	36.113		
13,681.1	6,636.5	6,500.0	6,498.7	201.0	2.2	-81.90	-997.0	204.0	7,262.0	7,060.9	201.12	36.109		
13,700.0	6,636.5	6,500.0	6,498.7	201.5	2.2	-81.91	-997.0	204.0	7,280.8	7,079.2	201.64	36.108		
13,779.5	6,636.4	6,500.0	6,498.7	203.7	2.2	-81.91	-997.0	204.0	7,359.8	7,156.0	203.85	36.104		
13,800.0	6,636.4	6,500.0	6,498.7	204.3	2.2	-81.91	-997.0	204.0	7,380.2	7,175.8	204.42	36.103		
13,877.9	6,636.3	6,500.0	6,498.7	206.5	2.2	-81.91	-997.0	204.0	7,457.6	7,251.0	206.58	36.100		
13,900.0	6,636.3	6,500.0	6,498.7	207.1	2.2	-81.91	-997.0	204.0	7,479.5	7,272.3	207.19	36.099		
13,976.3	6,636.2	6,500.0	6,498.7	209.3	2.2	-81.91	-997.0	204.0	7,555.4	7,346.1	209.31	36.096		
14,000.0	6,636.1	6,500.0	6,498.7	209.9	2.2	-81.91	-997.0	204.0	7,578.9	7,368.9	209.97	36.095		
14,074.8	6,636.0	6,500.0	6,498.7	212.0	2.2	-81.91	-997.0	204.0	7,653.2	7,441.2	212.05	36.092		
14,100.0	6,636.0	6,500.0	6,498.7	212.7	2.2	-81.91	-997.0	204.0	7,678.3	7,465.6	212.75	36.091		
14,173.2	6,635.9	6,500.0	6,498.7	214.8	2.2	-81.91	-997.0	204.0	7,751.1	7,536.3	214.78	36.088		
14,200.0	6,635.9	6,500.0	6,498.7	215.5	2.2	-81.91	-997.0	204.0	7,777.7	7,562.2	215.53	36.087		
14,271.6	6,635.8	6,500.0	6,498.7	217.5	2.2	-81.91	-997.0	204.0	7,848.9	7,631.4	217.52	36.084		
14,300.0	6,635.8	6,500.0	6,498.7	218.3	2.2	-81.92	-997.0	204.0	7,877.1	7,658.8	218.30	36.083		
14,370.0	6,635.7	6,500.0	6,498.7	220.3	2.2	-81.92	-997.0	204.0	7,946.8	7,726.5	220.25	36.081		
14,400.0	6,635.7	6,500.0	6,498.7	221.1	2.2	-81.92	-997.0	204.0	7,976.6	7,755.5	221.08	36.080		
14,468.5	6,635.6	6,500.0	6,498.7	223.1	2.2	-81.92	-997.0	204.0	8,044.7	7,821.7	222.98	36.077		
14,500.0	6,635.6	6,500.0	6,498.7	223.9	2.2	-81.92	-997.0	204.0	8,076.0	7,852.2	223.86	36.076		
14,566.9	6,635.5	6,500.0	6,498.7	225.8	2.2	-81.92	-997.0	204.0	8,142.6	7,916.8	225.72	36.074		
14,600.0	6,635.4	6,500.0	6,498.7	226.8	2.2	-81.92	-997.0	204.0	8,175.5	7,948.8	226.64	36.073		

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

Anticollision Report



Company:	PDC ENERGY	Local Co-ordinate Reference:	Well WACKER 10G-214
Project:	WELD COUNTY, COLORADO	TVD Reference:	KB-EST @ 4624.0usft (Original Well Elev)
Reference Site:	SW NW SEC. 10 T5N R64W 6th P.M.	MD Reference:	KB-EST @ 4624.0usft (Original Well Elev)
Site Error:	0.0 usft	North Reference:	True
Reference Well:	WACKER 10G-214	Survey Calculation Method:	Minimum Curvature
Well Error:	0.0 usft	Output errors are at	2.00 sigma
Reference Wellbore	ORIGINAL WELLBORE	Database:	EDM 5000.1 Single User Db
Reference Design:	PROPOSAL #1	Offset TVD Reference:	Offset Datum

Offset Design SW NW SEC. 10 T5N R64W 6th P.M. - EXIST VERT DR B #10-12 - 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
14,665.3	6,635.4	6,500.0	6,498.7	228.6	2.2	-81.92	-997.0	204.0	8,240.5	8,012.0	228.45	36.071	
14,700.0	6,635.3	6,500.0	6,498.7	229.6	2.2	-81.92	-997.0	204.0	8,275.0	8,045.5	229.42	36.069	
14,763.7	6,635.2	6,500.0	6,498.7	231.3	2.2	-81.92	-997.0	204.0	8,338.4	8,107.2	231.19	36.067	
14,800.0	6,635.2	6,500.0	6,498.7	232.4	2.2	-81.92	-997.0	204.0	8,374.5	8,142.3	232.20	36.066	
14,862.2	6,635.1	6,500.0	6,498.7	234.1	2.2	-81.92	-997.0	204.0	8,436.3	8,202.4	233.92	36.064	
14,900.0	6,635.1	6,500.0	6,498.7	235.2	2.2	-81.93	-997.0	204.0	8,474.0	8,239.0	234.98	36.063	
14,960.6	6,635.0	6,500.0	6,498.7	236.9	2.2	-81.93	-997.0	204.0	8,534.3	8,297.6	236.66	36.061	
14,982.9	6,635.0	6,500.0	6,498.7	237.5	2.2	-81.93	-997.0	204.0	8,556.4	8,319.1	237.28	36.061 SF	

Anticollision Report



Company:	PDC ENERGY	Local Co-ordinate Reference:	Well WACKER 10G-214
Project:	WELD COUNTY, COLORADO	TVD Reference:	KB-EST @ 4624.0usft (Original Well Elev)
Reference Site:	SW NW SEC. 10 T5N R64W 6th P.M.	MD Reference:	KB-EST @ 4624.0usft (Original Well Elev)
Site Error:	0.0 usft	North Reference:	True
Reference Well:	WACKER 10G-214	Survey Calculation Method:	Minimum Curvature
Well Error:	0.0 usft	Output errors are at	2.00 sigma
Reference Wellbore	ORIGINAL WELLBORE	Database:	EDM 5000.1 Single User Db
Reference Design:	PROPOSAL #1	Offset TVD Reference:	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	-75.96	1,593.6	-6,373.0	6,569.2				
98.4	98.4	77.4	77.4	0.1	0.0	-75.96	1,593.6	-6,373.0	6,569.2	6,569.1	0.10	N/A	
100.0	100.0	79.0	79.0	0.1	0.0	-75.96	1,593.6	-6,373.0	6,569.2	6,569.1	0.10	N/A	
196.8	196.8	175.8	175.8	0.3	1.0	-75.96	1,593.6	-6,373.0	6,569.2	6,567.9	1.29	5,072.729	
200.0	200.0	179.0	179.0	0.3	1.0	-75.96	1,593.6	-6,373.0	6,569.2	6,567.8	1.34	4,892.300	
295.3	295.3	274.3	274.3	0.5	3.0	-75.96	1,593.6	-6,373.0	6,569.2	6,565.7	3.51	1,869.539	
300.0	300.0	279.0	279.0	0.5	3.1	-75.96	1,593.6	-6,373.0	6,569.2	6,565.5	3.63	1,808.868	
393.7	393.7	372.7	372.7	0.8	5.1	-75.96	1,593.6	-6,373.0	6,569.2	6,563.4	5.83	1,127.086	
400.0	400.0	379.0	379.0	0.8	5.2	-75.96	1,593.6	-6,373.0	6,569.2	6,563.2	5.97	1,099.730	
492.1	492.1	471.1	471.1	1.0	7.1	-75.96	1,593.6	-6,373.0	6,569.2	6,561.1	8.07	814.154	
500.0	500.0	479.0	479.0	1.0	7.3	-75.96	1,593.6	-6,373.0	6,569.2	6,560.9	8.25	796.535	
590.5	590.5	569.5	569.5	1.2	9.1	-75.96	1,593.6	-6,373.0	6,569.2	6,558.9	10.29	638.371	
600.0	600.0	579.0	579.0	1.2	9.3	-75.96	1,593.6	-6,373.0	6,569.2	6,558.7	10.50	625.427	
689.0	689.0	668.0	668.0	1.4	11.1	-75.96	1,593.6	-6,373.0	6,569.2	6,556.7	12.50	525.346	
700.0	700.0	679.0	679.0	1.4	11.3	-75.96	1,593.6	-6,373.0	6,569.2	6,556.4	12.75	515.139	
787.4	787.4	766.4	766.4	1.6	13.1	-75.96	1,593.6	-6,373.0	6,569.2	6,554.5	14.71	446.451	
800.0	800.0	779.0	779.0	1.7	13.3	-75.96	1,593.6	-6,373.0	6,569.2	6,554.2	15.00	438.034	
885.8	885.8	864.8	864.8	1.9	15.1	-75.96	1,593.6	-6,373.0	6,569.2	6,552.3	16.92	388.214	
900.0	900.0	879.0	879.0	1.9	15.3	-75.96	1,593.6	-6,373.0	6,569.2	6,551.9	17.24	381.058	
984.2	984.2	963.2	963.2	2.1	17.0	-75.96	1,593.6	-6,373.0	6,569.2	6,550.1	19.13	343.447	
1,000.0	1,000.0	979.0	979.0	2.1	17.4	-75.96	1,593.6	-6,373.0	6,569.2	6,549.7	19.48	337.225	
1,082.7	1,082.7	1,061.7	1,061.7	2.3	19.0	-75.96	1,593.6	-6,373.0	6,569.2	6,547.8	21.33	307.952	
1,100.0	1,100.0	1,079.0	1,079.0	2.3	19.4	-75.96	1,593.6	-6,373.0	6,569.2	6,547.5	21.72	302.451	
1,181.1	1,181.1	1,160.1	1,160.1	2.5	21.0	-75.96	1,593.6	-6,373.0	6,569.2	6,545.6	23.54	279.116	
1,200.0	1,200.0	1,179.0	1,179.0	2.6	21.4	-75.96	1,593.6	-6,373.0	6,569.2	6,545.2	23.96	274.187	
1,279.5	1,279.5	1,258.5	1,258.5	2.7	23.0	-75.96	1,593.6	-6,373.0	6,569.2	6,543.4	25.74	255.224	
1,300.0	1,300.0	1,279.0	1,279.0	2.8	23.4	-75.96	1,593.6	-6,373.0	6,569.2	6,543.0	26.20	250.759	
1,377.9	1,377.9	1,356.9	1,356.9	3.0	25.0	165.39	1,593.6	-6,373.0	6,570.2	6,542.3	27.92	235.358	
1,400.0	1,400.0	1,379.0	1,379.0	3.0	25.4	165.39	1,593.6	-6,373.0	6,570.9	6,542.5	28.40	231.385	
1,476.4	1,476.3	1,455.3	1,455.3	3.1	27.0	165.38	1,593.6	-6,373.0	6,574.4	6,544.4	30.04	218.853	
1,500.0	1,499.8	1,478.8	1,478.8	3.2	27.4	165.37	1,593.6	-6,373.0	6,575.9	6,545.4	30.54	215.302	
1,574.8	1,574.4	1,553.4	1,553.4	3.3	28.9	165.35	1,593.6	-6,373.0	6,581.9	6,549.8	32.12	204.913	
1,600.0	1,599.5	1,578.5	1,578.5	3.4	29.4	165.35	1,593.6	-6,373.0	6,584.4	6,551.7	32.64	201.697	
1,673.2	1,672.2	1,651.2	1,651.2	3.6	30.9	165.32	1,593.6	-6,373.0	6,592.7	6,558.5	34.15	193.034	
1,700.0	1,698.7	1,677.7	1,677.7	3.6	31.4	165.31	1,593.6	-6,373.0	6,596.2	6,561.5	34.70	190.116	
1,771.6	1,769.5	1,748.5	1,748.5	3.8	32.9	165.28	1,593.6	-6,373.0	6,606.7	6,570.5	36.13	182.856	
1,800.0	1,797.5	1,776.5	1,776.5	3.9	33.4	165.27	1,593.6	-6,373.0	6,611.3	6,574.6	36.69	180.207	
1,870.1	1,866.3	1,845.3	1,845.3	4.1	34.8	165.23	1,593.6	-6,373.0	6,623.9	6,585.9	38.05	174.102	
1,900.2	1,895.8	1,874.8	1,874.8	4.2	35.4	165.22	1,593.6	-6,373.0	6,629.8	6,591.2	38.62	171.680	
1,968.5	1,962.6	1,941.6	1,941.6	4.4	36.7	165.25	1,593.6	-6,373.0	6,643.6	6,603.5	40.09	165.724	
2,000.0	1,993.4	1,972.4	1,972.4	4.5	37.4	165.26	1,593.6	-6,373.0	6,649.9	6,609.2	40.77	163.125	
2,066.9	2,058.9	2,037.9	2,037.9	4.7	38.7	165.29	1,593.6	-6,373.0	6,663.4	6,621.2	42.21	157.853	
2,100.0	2,091.2	2,070.2	2,070.2	4.8	39.3	165.31	1,593.6	-6,373.0	6,670.1	6,627.1	42.93	155.386	
2,165.3	2,155.2	2,134.2	2,134.2	5.1	40.6	165.34	1,593.6	-6,373.0	6,683.2	6,638.9	44.34	150.728	
2,200.0	2,189.1	2,168.1	2,168.1	5.2	41.3	165.35	1,593.6	-6,373.0	6,690.2	6,645.1	45.09	148.368	
2,263.8	2,251.4	2,230.4	2,230.4	5.5	42.5	165.38	1,593.6	-6,373.0	6,703.1	6,656.6	46.48	144.225	
2,300.0	2,286.9	2,265.9	2,265.9	5.6	43.3	165.40	1,593.6	-6,373.0	6,710.4	6,663.1	47.26	141.978	
2,362.2	2,347.7	2,326.7	2,326.7	5.8	44.5	165.43	1,593.6	-6,373.0	6,722.9	6,674.3	48.62	138.284	
2,400.0	2,384.7	2,363.7	2,363.7	6.0	45.2	165.44	1,593.6	-6,373.0	6,730.5	6,681.1	49.44	136.138	
2,460.6	2,444.0	2,423.0	2,423.0	6.2	46.4	165.47	1,593.6	-6,373.0	6,742.7	6,692.0	50.76	132.834	
2,500.0	2,482.5	2,461.5	2,461.5	6.4	47.2	165.49	1,593.6	-6,373.0	6,750.7	6,699.1	51.62	130.780	
2,559.0	2,540.3	2,519.3	2,519.3	6.6	48.4	165.51	1,593.6	-6,373.0	6,762.6	6,709.7	52.91	127.819	

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

Anticollision Report



Company:	PDC ENERGY	Local Co-ordinate Reference:	Well WACKER 10G-214
Project:	WELD COUNTY, COLORADO	TVD Reference:	KB-EST @ 4624.0usft (Original Well Elev)
Reference Site:	SW NW SEC. 10 T5N R64W 6th P.M.	MD Reference:	KB-EST @ 4624.0usft (Original Well Elev)
Site Error:	0.0 usft	North Reference:	True
Reference Well:	WACKER 10G-214	Survey Calculation Method:	Minimum Curvature
Well Error:	0.0 usft	Output errors are at	2.00 sigma
Reference Wellbore	ORIGINAL WELLBORE	Database:	EDM 5000.1 Single User Db
Reference Design:	PROPOSAL #1	Offset TVD Reference:	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	2,580.3	2,559.3	2,559.3	6.8	49.2	165.53	1,593.6	-6,373.0	6,770.8	6,717.0	53.80	125.849		
2,657.5	2,636.5	2,615.5	2,615.5	7.1	50.3	165.56	1,593.6	-6,373.0	6,782.4	6,727.4	55.06	123.189		
2,700.0	2,678.1	2,657.1	2,657.1	7.2	51.1	165.57	1,593.6	-6,373.0	6,791.0	6,735.0	55.99	121.297		
2,755.9	2,732.8	2,711.8	2,711.8	7.5	52.2	165.60	1,593.6	-6,373.0	6,802.3	6,745.1	57.21	118.901		
2,800.0	2,775.9	2,754.9	2,754.9	7.7	53.1	165.62	1,593.6	-6,373.0	6,811.2	6,753.0	58.17	117.082		
2,854.3	2,829.1	2,808.1	2,808.1	7.9	54.2	165.64	1,593.6	-6,373.0	6,822.1	6,762.8	59.36	114.921		
2,900.0	2,873.8	2,852.8	2,852.8	8.1	55.1	165.66	1,593.6	-6,373.0	6,831.4	6,771.0	60.36	113.169		
2,952.7	2,925.4	2,904.4	2,904.4	8.3	56.1	165.68	1,593.6	-6,373.0	6,842.0	6,780.5	61.52	111.216		
2,953.5	2,926.1	2,905.1	2,905.1	8.3	56.1	165.68	1,593.6	-6,373.0	6,842.2	6,780.6	61.54	111.190		
3,000.0	2,971.6	2,950.6	2,950.6	8.5	57.0	165.75	1,593.6	-6,373.0	6,851.2	6,788.4	62.73	109.218		
3,051.2	3,022.0	3,001.0	3,001.0	8.7	58.0	165.81	1,593.6	-6,373.0	6,860.3	6,796.3	64.02	107.150		
3,100.0	3,070.1	3,049.1	3,049.1	8.8	59.0	165.87	1,593.6	-6,373.0	6,868.2	6,802.9	65.25	105.256		
3,149.6	3,119.1	3,098.1	3,098.1	8.9	60.0	165.92	1,593.6	-6,373.0	6,875.3	6,808.8	66.48	103.412		
3,200.0	3,169.1	3,148.1	3,148.1	9.1	61.0	165.97	1,593.6	-6,373.0	6,881.8	6,814.1	67.73	101.612		
3,248.0	3,216.8	3,195.8	3,195.8	9.2	62.0	166.00	1,593.6	-6,373.0	6,887.1	6,818.2	68.89	99.968		
3,300.0	3,268.5	3,247.5	3,247.5	9.3	63.0	166.04	1,593.6	-6,373.0	6,892.1	6,821.9	70.14	98.259		
3,346.4	3,314.8	3,293.8	3,293.8	9.4	63.9	166.06	1,593.6	-6,373.0	6,895.7	6,824.4	71.24	96.795		
3,400.0	3,368.3	3,347.3	3,347.3	9.6	65.0	166.08	1,593.6	-6,373.0	6,898.9	6,826.5	72.49	95.173		
3,444.9	3,413.1	3,392.1	3,392.1	9.6	65.9	166.10	1,593.6	-6,373.0	6,900.9	6,827.4	73.52	93.871		
3,500.0	3,468.2	3,447.2	3,447.2	9.7	67.0	166.11	1,593.6	-6,373.0	6,902.5	6,827.7	74.76	92.334		
3,543.3	3,511.5	3,490.5	3,490.5	9.8	67.9	166.11	1,593.6	-6,373.0	6,902.9	6,827.2	75.71	91.176		
3,553.7	3,521.9	3,500.9	3,500.9	9.8	68.1	-75.24	1,593.6	-6,373.0	6,902.9	6,825.1	77.81	88.716		
3,600.0	3,568.2	3,547.2	3,547.2	9.9	69.0	-75.24	1,593.6	-6,373.0	6,902.9	6,824.1	78.81	87.586		
3,641.7	3,609.9	3,588.9	3,588.9	10.0	69.9	-75.24	1,593.6	-6,373.0	6,902.9	6,823.2	79.72	86.587		
3,700.0	3,668.2	3,647.2	3,647.2	10.1	71.0	-75.24	1,593.6	-6,373.0	6,902.9	6,822.0	80.99	85.230		
3,740.1	3,708.4	3,687.4	3,687.4	10.1	71.9	-75.24	1,593.6	-6,373.0	6,902.9	6,821.1	81.87	84.319		
3,800.0	3,768.2	3,747.2	3,747.2	10.2	73.1	-75.24	1,593.6	-6,373.0	6,902.9	6,819.8	83.17	82.996		
3,838.6	3,806.8	3,785.8	3,785.8	10.3	73.8	-75.24	1,593.6	-6,373.0	6,902.9	6,818.9	84.01	82.165		
3,900.0	3,868.2	3,847.2	3,847.2	10.4	75.1	-75.24	1,593.6	-6,373.0	6,902.9	6,817.6	85.35	80.874		
3,937.0	3,905.2	3,884.2	3,884.2	10.5	75.8	-75.24	1,593.6	-6,373.0	6,902.9	6,816.8	86.16	80.116		
4,000.0	3,968.2	3,947.2	3,947.2	10.6	77.1	-75.24	1,593.6	-6,373.0	6,902.9	6,815.4	87.54	78.857		
4,035.4	4,003.6	3,982.6	3,982.6	10.6	77.8	-75.24	1,593.6	-6,373.0	6,902.9	6,814.6	88.31	78.165		
4,100.0	4,068.2	4,047.2	4,047.2	10.7	79.1	-75.24	1,593.6	-6,373.0	6,902.9	6,813.2	89.72	76.935		
4,133.8	4,102.1	4,081.1	4,081.1	10.8	79.8	-75.24	1,593.6	-6,373.0	6,902.9	6,812.5	90.46	76.305		
4,200.0	4,168.2	4,147.2	4,147.2	10.9	81.1	-75.24	1,593.6	-6,373.0	6,902.9	6,811.0	91.91	75.104		
4,232.3	4,200.5	4,179.5	4,179.5	11.0	81.7	-75.24	1,593.6	-6,373.0	6,902.9	6,810.3	92.62	74.531		
4,300.0	4,268.2	4,247.2	4,247.2	11.1	83.1	-75.24	1,593.6	-6,373.0	6,902.9	6,808.8	94.10	73.356		
4,330.7	4,298.9	4,277.9	4,277.9	11.1	83.7	-75.24	1,593.6	-6,373.0	6,902.9	6,808.2	94.77	72.835		
4,400.0	4,368.2	4,347.2	4,347.2	11.3	85.1	-75.24	1,593.6	-6,373.0	6,902.9	6,806.7	96.29	71.687		
4,429.1	4,397.3	4,376.3	4,376.3	11.3	85.7	-75.24	1,593.6	-6,373.0	6,902.9	6,806.0	96.93	71.214		
4,500.0	4,468.2	4,447.2	4,447.2	11.4	87.1	-75.24	1,593.6	-6,373.0	6,902.9	6,804.5	98.49	70.091		
4,527.5	4,495.8	4,474.8	4,474.8	11.5	87.7	-75.24	1,593.6	-6,373.0	6,902.9	6,803.9	99.09	69.663		
4,600.0	4,568.2	4,547.2	4,547.2	11.6	89.1	-75.24	1,593.6	-6,373.0	6,902.9	6,802.3	100.68	68.563		
4,626.0	4,594.2	4,573.2	4,573.2	11.7	89.7	-75.24	1,593.6	-6,373.0	6,902.9	6,801.7	101.25	68.177		
4,700.0	4,668.2	4,647.2	4,647.2	11.8	91.2	-75.24	1,593.6	-6,373.0	6,902.9	6,800.1	102.88	67.099		
4,724.4	4,692.6	4,671.6	4,671.6	11.9	91.6	-75.24	1,593.6	-6,373.0	6,902.9	6,799.5	103.41	66.751		
4,800.0	4,768.2	4,747.2	4,747.2	12.0	93.2	-75.24	1,593.6	-6,373.0	6,902.9	6,797.9	105.07	65.696		
4,822.8	4,791.0	4,770.0	4,770.0	12.0	93.6	-75.24	1,593.6	-6,373.0	6,902.9	6,797.4	105.58	65.384		
4,900.0	4,868.2	4,847.2	4,847.2	12.2	95.2	-75.24	1,593.6	-6,373.0	6,902.9	6,795.7	107.27	64.350		
4,921.2	4,889.5	4,868.5	4,868.5	12.2	95.6	-75.24	1,593.6	-6,373.0	6,902.9	6,795.2	107.74	64.071		
5,000.0	4,968.2	4,947.2	4,947.2	12.4	97.2	-75.24	1,593.6	-6,373.0	6,902.9	6,793.5	109.47	63.057		
5,019.7	4,987.9	4,966.9	4,966.9	12.4	97.6	-75.24	1,593.6	-6,373.0	6,902.9	6,793.0	109.91	62.808		

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

Anticollision Report



Company:	PDC ENERGY	Local Co-ordinate Reference:	Well WACKER 10G-214
Project:	WELD COUNTY, COLORADO	TVD Reference:	KB-EST @ 4624.0usft (Original Well Elev)
Reference Site:	SW NW SEC. 10 T5N R64W 6th P.M.	MD Reference:	KB-EST @ 4624.0usft (Original Well Elev)
Site Error:	0.0 usft	North Reference:	True
Reference Well:	WACKER 10G-214	Survey Calculation Method:	Minimum Curvature
Well Error:	0.0 usft	Output errors are at	2.00 sigma
Reference Wellbore	ORIGINAL WELLBORE	Database:	EDM 5000.1 Single User Db
Reference Design:	PROPOSAL #1	Offset TVD Reference:	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	5,068.2	5,047.2	5,047.2	12.6	99.2	-75.24	1,593.6	-6,373.0	6,902.9	6,791.3	111.67	61.814	
5,118.1	5,086.3	5,065.3	5,065.3	12.6	99.6	-75.24	1,593.6	-6,373.0	6,902.9	6,790.9	112.07	61.594	
5,200.0	5,168.2	5,147.2	5,147.2	12.7	101.2	-75.24	1,593.6	-6,373.0	6,902.9	6,789.1	113.88	60.618	
5,216.5	5,184.7	5,163.7	5,163.7	12.8	101.5	-75.24	1,593.6	-6,373.0	6,902.9	6,788.7	114.24	60.425	
5,300.0	5,268.2	5,247.2	5,247.2	12.9	103.2	-75.24	1,593.6	-6,373.0	6,902.9	6,786.9	116.08	59.468	
5,314.9	5,283.2	5,262.2	5,262.2	13.0	103.5	-75.24	1,593.6	-6,373.0	6,902.9	6,786.5	116.41	59.300	
5,400.0	5,368.2	5,347.2	5,347.2	13.1	105.2	-75.24	1,593.6	-6,373.0	6,902.9	6,784.7	118.28	58.360	
5,413.4	5,381.6	5,360.6	5,360.6	13.2	105.5	-75.24	1,593.6	-6,373.0	6,902.9	6,784.4	118.58	58.215	
5,500.0	5,468.2	5,447.2	5,447.2	13.3	107.2	-75.24	1,593.6	-6,373.0	6,902.9	6,782.5	120.49	57.292	
5,511.8	5,480.0	5,459.0	5,459.0	13.3	107.5	-75.24	1,593.6	-6,373.0	6,902.9	6,782.2	120.75	57.168	
5,600.0	5,568.2	5,547.2	5,547.2	13.5	109.3	-75.24	1,593.6	-6,373.0	6,902.9	6,780.3	122.69	56.261	
5,610.2	5,578.4	5,557.4	5,557.4	13.5	109.5	-75.24	1,593.6	-6,373.0	6,902.9	6,780.0	122.92	56.158	
5,700.0	5,668.2	5,647.2	5,647.2	13.7	111.3	-75.24	1,593.6	-6,373.0	6,902.9	6,778.0	124.90	55.267	
5,708.6	5,676.9	5,655.9	5,655.9	13.7	111.4	-75.24	1,593.6	-6,373.0	6,902.9	6,777.9	125.09	55.183	
5,800.0	5,768.2	5,747.2	5,747.2	13.9	113.3	-75.24	1,593.6	-6,373.0	6,902.9	6,775.8	127.11	54.307	
5,807.1	5,775.3	5,754.3	5,754.3	13.9	113.4	-75.24	1,593.6	-6,373.0	6,902.9	6,775.7	127.27	54.241	
5,900.0	5,868.2	5,847.2	5,847.2	14.1	115.3	-75.24	1,593.6	-6,373.0	6,902.9	6,773.6	129.32	53.380	
5,905.5	5,873.7	5,852.7	5,852.7	14.1	115.4	-75.24	1,593.6	-6,373.0	6,902.9	6,773.5	129.44	53.329	
5,960.7	5,928.9	5,907.9	5,907.9	14.2	116.5	-75.24	1,593.6	-6,373.0	6,902.9	6,772.3	130.66	52.832	
6,000.0	5,968.2	5,947.2	5,947.2	14.3	117.3	14.78	1,593.6	-6,373.0	6,901.9	6,771.9	130.02	53.084	
6,003.9	5,972.1	5,951.1	5,951.1	14.3	117.4	14.79	1,593.6	-6,373.0	6,901.7	6,771.6	130.06	53.063	
6,050.0	6,018.0	5,997.0	5,997.0	14.4	118.3	14.88	1,593.6	-6,373.0	6,897.6	6,767.3	130.32	52.929	
6,100.0	6,067.3	6,046.3	6,046.3	14.4	119.3	15.06	1,593.6	-6,373.0	6,889.9	6,759.9	130.01	52.994	
6,102.3	6,069.6	6,048.6	6,048.6	14.4	119.3	15.07	1,593.6	-6,373.0	6,889.4	6,759.5	129.98	53.003	
6,150.0	6,116.0	6,095.0	6,095.0	14.4	120.3	15.32	1,593.6	-6,373.0	6,878.9	6,749.8	129.10	53.284	
6,200.0	6,163.8	6,142.8	6,142.8	14.5	121.2	15.67	1,593.6	-6,373.0	6,864.7	6,737.1	127.58	53.805	
6,200.8	6,164.5	6,143.5	6,143.5	14.5	121.2	15.68	1,593.6	-6,373.0	6,864.4	6,736.8	127.56	53.815	
6,250.0	6,210.4	6,189.4	6,189.4	14.5	122.2	16.12	1,593.6	-6,373.0	6,847.2	6,721.7	125.49	54.565	
6,299.2	6,254.9	6,233.9	6,233.9	14.5	123.1	16.67	1,593.6	-6,373.0	6,827.0	6,704.2	122.88	55.557	
6,300.0	6,255.6	6,234.6	6,234.6	14.5	123.1	16.68	1,593.6	-6,373.0	6,826.7	6,703.9	122.84	55.575	
6,350.0	6,299.3	6,278.3	6,278.3	14.5	124.0	17.36	1,593.6	-6,373.0	6,803.2	6,683.5	119.68	56.844	
6,397.6	6,339.2	6,318.2	6,318.2	14.6	124.8	18.15	1,593.6	-6,373.0	6,778.1	6,661.8	116.27	58.295	
6,400.0	6,341.2	6,320.2	6,320.2	14.6	124.8	18.19	1,593.6	-6,373.0	6,776.8	6,660.7	116.09	58.373	
6,450.0	6,381.0	6,360.0	6,360.0	14.6	125.6	19.19	1,593.6	-6,373.0	6,747.6	6,635.4	112.17	60.153	
6,496.0	6,415.8	6,394.8	6,394.8	14.7	126.3	20.30	1,593.6	-6,373.0	6,718.5	6,610.1	108.40	61.980	
6,500.0	6,418.7	6,397.7	6,397.7	14.7	126.4	20.40	1,593.6	-6,373.0	6,715.9	6,607.8	108.07	62.144	
6,550.0	6,453.9	6,432.9	6,432.9	14.8	127.1	21.86	1,593.6	-6,373.0	6,681.7	6,577.7	103.99	64.255	
6,594.5	6,483.1	6,462.1	6,462.1	15.0	127.7	23.42	1,593.6	-6,373.0	6,649.3	6,548.7	100.61	66.091	
6,600.0	6,486.6	6,465.6	6,465.6	15.1	127.7	23.63	1,593.6	-6,373.0	6,645.2	6,545.0	100.22	66.308	
6,650.0	6,516.6	6,495.6	6,495.6	15.3	128.3	25.80	1,593.6	-6,373.0	6,606.6	6,509.5	97.17	67.992	
6,692.9	6,540.0	6,519.0	6,519.0	15.7	128.8	28.05	1,593.6	-6,373.0	6,572.0	6,476.5	95.53	68.792	
6,700.0	6,543.7	6,522.7	6,522.7	15.7	128.9	28.47	1,593.6	-6,373.0	6,566.2	6,470.8	95.38	68.842	
6,750.0	6,567.8	6,546.8	6,546.8	16.2	129.4	31.79	1,593.6	-6,373.0	6,524.0	6,428.4	95.53	68.291	
6,791.3	6,585.4	6,564.4	6,564.4	16.7	129.7	35.19	1,593.6	-6,373.0	6,488.0	6,390.3	97.66	66.436	
6,800.0	6,588.8	6,567.8	6,567.8	16.8	129.8	35.99	1,593.6	-6,373.0	6,480.3	6,381.9	98.37	65.878	
6,850.0	6,606.6	6,585.6	6,585.6	17.4	130.1	41.33	1,593.6	-6,373.0	6,435.4	6,330.8	104.52	61.570	
6,889.7	6,618.4	6,597.4	6,597.4	18.0	130.4	46.63	1,593.6	-6,373.0	6,398.8	6,286.9	111.94	57.161	
6,900.0	6,621.1	6,600.1	6,600.1	18.2	130.4	48.18	1,593.6	-6,373.0	6,389.3	6,275.2	114.19	55.953	
6,950.0	6,632.2	6,611.2	6,611.2	19.0	130.7	56.90	1,593.6	-6,373.0	6,342.5	6,215.8	126.68	50.069	
6,988.2	6,638.4	6,617.4	6,617.4	19.7	130.8	64.98	1,593.6	-6,373.0	6,306.3	6,169.5	136.80	46.099	
7,000.0	6,639.9	6,618.9	6,618.9	19.9	130.8	67.73	1,593.6	-6,373.0	6,295.1	6,155.3	139.76	45.042	
7,050.0	6,644.1	6,623.1	6,623.1	20.8	130.9	80.40	1,593.6	-6,373.0	6,247.2	6,097.6	149.60	41.761	

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

Anticollision Report



Company:	PDC ENERGY	Local Co-ordinate Reference:	Well WACKER 10G-214
Project:	WELD COUNTY, COLORADO	TVD Reference:	KB-EST @ 4624.0usft (Original Well Elev)
Reference Site:	SW NW SEC. 10 T5N R64W 6th P.M.	MD Reference:	KB-EST @ 4624.0usft (Original Well Elev)
Site Error:	0.0 usft	North Reference:	True
Reference Well:	WACKER 10G-214	Survey Calculation Method:	Minimum Curvature
Well Error:	0.0 usft	Output errors are at	2.00 sigma
Reference Wellbore	ORIGINAL WELLBORE	Database:	EDM 5000.1 Single User Db
Reference Design:	PROPOSAL #1	Offset TVD Reference:	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	
7,086.5	6,645.0	6,624.0	6,624.0	21.5	130.9	90.27	1,593.6	-6,373.0	6,212.2	6,059.8	152.44	40.751	
7,100.0	6,645.0	6,624.0	6,624.0	21.8	130.9	90.27	1,593.6	-6,373.0	6,199.3	6,046.6	152.71	40.596	
7,185.0	6,644.9	6,623.9	6,623.9	23.6	130.9	90.27	1,593.6	-6,373.0	6,117.8	5,963.3	154.47	39.606	
7,200.0	6,644.8	6,623.8	6,623.8	23.9	130.9	90.27	1,593.6	-6,373.0	6,103.5	5,948.7	154.77	39.435	
7,283.4	6,644.7	6,623.7	6,623.7	25.7	130.9	90.26	1,593.6	-6,373.0	6,023.6	5,867.0	156.61	38.461	
7,300.0	6,644.7	6,623.7	6,623.7	26.1	130.9	90.26	1,593.6	-6,373.0	6,007.8	5,850.8	156.98	38.271	
7,381.9	6,644.6	6,623.6	6,623.6	28.0	130.9	90.26	1,593.6	-6,373.0	5,929.5	5,770.7	158.87	37.323	
7,400.0	6,644.6	6,623.6	6,623.6	28.4	130.9	90.25	1,593.6	-6,373.0	5,912.2	5,752.9	159.29	37.116	
7,480.3	6,644.5	6,623.5	6,623.5	30.3	130.9	90.25	1,593.6	-6,373.0	5,835.6	5,674.4	161.21	36.198	
7,500.0	6,644.4	6,623.4	6,623.4	30.8	130.9	90.25	1,593.6	-6,373.0	5,816.8	5,655.2	161.69	35.976	
7,578.7	6,644.3	6,623.3	6,623.3	32.7	130.9	90.25	1,593.6	-6,373.0	5,741.8	5,578.2	163.62	35.092	
7,600.0	6,644.3	6,623.3	6,623.3	33.3	130.9	90.24	1,593.6	-6,373.0	5,721.6	5,557.5	164.15	34.857	
7,677.1	6,644.2	6,623.2	6,623.2	35.2	130.9	90.24	1,593.6	-6,373.0	5,648.2	5,482.1	166.08	34.008	
7,700.0	6,644.1	6,623.1	6,623.1	35.8	130.9	90.24	1,593.6	-6,373.0	5,626.5	5,459.9	166.66	33.761	
7,775.6	6,644.0	6,623.0	6,623.0	37.7	130.9	90.24	1,593.6	-6,373.0	5,554.8	5,386.2	168.59	32.949	
7,800.0	6,644.0	6,623.0	6,623.0	38.3	130.9	90.23	1,593.6	-6,373.0	5,531.6	5,362.4	169.21	32.691	
7,874.0	6,643.9	6,622.9	6,622.9	40.2	130.9	90.23	1,593.6	-6,373.0	5,461.5	5,290.4	171.12	31.916	
7,900.0	6,643.9	6,622.9	6,622.9	40.9	130.9	90.23	1,593.6	-6,373.0	5,436.9	5,265.1	171.80	31.648	
7,972.4	6,643.8	6,622.8	6,622.8	42.8	130.9	90.23	1,593.6	-6,373.0	5,368.4	5,194.7	173.69	30.908	
8,000.0	6,643.7	6,622.7	6,622.7	43.5	130.9	90.22	1,593.6	-6,373.0	5,342.4	5,168.0	174.41	30.631	
8,070.8	6,643.6	6,622.6	6,622.6	45.4	130.9	90.22	1,593.6	-6,373.0	5,275.5	5,099.3	176.28	29.927	
8,100.0	6,643.6	6,622.6	6,622.6	46.2	130.9	90.22	1,593.6	-6,373.0	5,248.1	5,071.0	177.05	29.642	
8,169.3	6,643.5	6,622.5	6,622.5	48.0	130.9	90.22	1,593.6	-6,373.0	5,182.8	5,004.0	178.89	28.973	
8,200.0	6,643.5	6,622.5	6,622.5	48.8	130.9	90.21	1,593.6	-6,373.0	5,153.9	4,974.2	179.70	28.681	
8,267.7	6,643.4	6,622.4	6,622.4	50.6	130.9	90.21	1,593.6	-6,373.0	5,090.4	4,908.9	181.51	28.045	
8,300.0	6,643.3	6,622.3	6,622.3	51.5	130.9	90.21	1,593.6	-6,373.0	5,060.1	4,877.7	182.37	27.746	
8,366.1	6,643.2	6,622.2	6,622.2	53.3	130.9	90.21	1,593.6	-6,373.0	4,998.1	4,814.0	184.15	27.142	
8,400.0	6,643.2	6,622.2	6,622.2	54.2	130.9	90.20	1,593.6	-6,373.0	4,966.4	4,781.4	185.06	26.837	
8,464.5	6,643.1	6,622.1	6,622.1	55.9	130.9	90.20	1,593.6	-6,373.0	4,906.1	4,719.3	186.80	26.264	
8,500.0	6,643.1	6,622.1	6,622.1	56.9	130.9	90.20	1,593.6	-6,373.0	4,873.0	4,685.3	187.76	25.954	
8,563.0	6,643.0	6,622.0	6,622.0	58.6	130.9	90.20	1,593.6	-6,373.0	4,814.4	4,624.9	189.46	25.411	
8,600.0	6,642.9	6,621.9	6,621.9	59.6	130.9	90.19	1,593.6	-6,373.0	4,779.9	4,589.4	190.46	25.096	
8,661.4	6,642.8	6,621.8	6,621.8	61.3	130.9	90.19	1,593.6	-6,373.0	4,722.9	4,530.7	192.13	24.581	
8,700.0	6,642.8	6,621.8	6,621.8	62.3	130.9	90.19	1,593.6	-6,373.0	4,687.1	4,493.9	193.18	24.263	
8,759.8	6,642.7	6,621.7	6,621.7	64.0	130.9	90.19	1,593.6	-6,373.0	4,631.7	4,436.9	194.81	23.775	
8,800.0	6,642.7	6,621.7	6,621.7	65.1	130.9	90.19	1,593.6	-6,373.0	4,594.5	4,398.6	195.91	23.453	
8,858.2	6,642.6	6,621.6	6,621.6	66.6	130.9	90.18	1,593.6	-6,373.0	4,540.8	4,343.3	197.50	22.992	
8,900.0	6,642.5	6,621.5	6,621.5	67.8	130.9	90.18	1,593.6	-6,373.0	4,502.3	4,303.7	198.64	22.666	
8,956.7	6,642.4	6,621.4	6,621.4	69.3	130.9	90.18	1,593.6	-6,373.0	4,450.2	4,250.0	200.19	22.230	
9,000.0	6,642.4	6,621.4	6,621.4	70.5	130.9	90.18	1,593.6	-6,373.0	4,410.4	4,209.0	201.37	21.902	
9,055.1	6,642.3	6,621.3	6,621.3	72.0	130.9	90.17	1,593.6	-6,373.0	4,359.9	4,157.1	202.89	21.490	
9,100.0	6,642.3	6,621.3	6,621.3	73.3	130.9	90.17	1,593.6	-6,373.0	4,318.9	4,114.8	204.12	21.159	
9,153.5	6,642.2	6,621.2	6,621.2	74.7	130.9	90.17	1,593.6	-6,373.0	4,270.1	4,064.5	205.59	20.770	
9,200.0	6,642.1	6,621.1	6,621.1	76.0	130.9	90.17	1,593.6	-6,373.0	4,227.8	4,020.9	206.86	20.437	
9,251.9	6,642.1	6,621.1	6,621.1	77.5	130.9	90.16	1,593.6	-6,373.0	4,180.6	3,972.3	208.29	20.071	
9,300.0	6,642.0	6,621.0	6,621.0	78.8	130.8	90.16	1,593.6	-6,373.0	4,137.0	3,927.4	209.62	19.736	
9,350.4	6,641.9	6,620.9	6,620.9	80.2	130.8	90.16	1,593.6	-6,373.0	4,091.5	3,880.5	211.00	19.391	
9,400.0	6,641.9	6,620.9	6,620.9	81.5	130.8	90.16	1,593.6	-6,373.0	4,046.7	3,834.4	212.37	19.055	
9,448.8	6,641.8	6,620.8	6,620.8	82.9	130.8	90.15	1,593.6	-6,373.0	4,002.8	3,789.1	213.72	18.730	
9,500.0	6,641.7	6,620.7	6,620.7	84.3	130.8	90.15	1,593.6	-6,373.0	3,956.9	3,741.8	215.13	18.393	
9,547.2	6,641.7	6,620.7	6,620.7	85.6	130.8	90.15	1,593.6	-6,373.0	3,914.7	3,698.2	216.44	18.087	
9,600.0	6,641.6	6,620.6	6,620.6	87.1	130.8	90.15	1,593.6	-6,373.0	3,867.6	3,649.7	217.89	17.750	

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

Anticollision Report



Company:	PDC ENERGY	Local Co-ordinate Reference:	Well WACKER 10G-214
Project:	WELD COUNTY, COLORADO	TVD Reference:	KB-EST @ 4624.0usft (Original Well Elev)
Reference Site:	SW NW SEC. 10 T5N R64W 6th P.M.	MD Reference:	KB-EST @ 4624.0usft (Original Well Elev)
Site Error:	0.0 usft	North Reference:	True
Reference Well:	WACKER 10G-214	Survey Calculation Method:	Minimum Curvature
Well Error:	0.0 usft	Output errors are at	2.00 sigma
Reference Wellbore	ORIGINAL WELLBORE	Database:	EDM 5000.1 Single User Db
Reference Design:	PROPOSAL #1	Offset TVD Reference:	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	
9,645.6	6,641.5	6,620.5	6,620.5	88.3	130.8	90.15	1,593.6	-6,373.0	3,827.0	3,607.8	219.16	17.462	
9,700.0	6,641.5	6,620.5	6,620.5	89.8	130.8	90.14	1,593.6	-6,373.0	3,778.8	3,558.1	220.66	17.125	
9,744.1	6,641.4	6,620.4	6,620.4	91.0	130.8	90.14	1,593.6	-6,373.0	3,739.9	3,518.0	221.88	16.855	
9,800.0	6,641.3	6,620.3	6,620.3	92.6	130.8	90.14	1,593.6	-6,373.0	3,690.6	3,467.2	223.43	16.518	
9,842.5	6,641.3	6,620.3	6,620.3	93.8	130.8	90.14	1,593.6	-6,373.0	3,653.3	3,428.7	224.60	16.265	
9,900.0	6,641.2	6,620.2	6,620.2	95.4	130.8	90.13	1,593.6	-6,373.0	3,603.0	3,376.8	226.20	15.929	
9,940.9	6,641.1	6,620.1	6,620.1	96.5	130.8	90.13	1,593.6	-6,373.0	3,567.3	3,340.0	227.33	15.692	
10,000.0	6,641.1	6,620.1	6,620.1	98.1	130.8	90.13	1,593.6	-6,373.0	3,516.0	3,287.1	228.97	15.356	
10,039.3	6,641.0	6,620.0	6,620.0	99.2	130.8	90.13	1,593.6	-6,373.0	3,482.0	3,252.0	230.06	15.135	
10,100.0	6,640.9	6,619.9	6,619.9	100.9	130.8	90.12	1,593.6	-6,373.0	3,429.8	3,198.1	231.74	14.800	
10,137.8	6,640.9	6,619.9	6,619.9	102.0	130.8	90.12	1,593.6	-6,373.0	3,397.4	3,164.7	232.79	14.594	
10,200.0	6,640.8	6,619.8	6,619.8	103.7	130.8	90.12	1,593.6	-6,373.0	3,344.4	3,109.8	234.52	14.260	
10,236.2	6,640.8	6,619.8	6,619.8	104.7	130.8	90.12	1,593.6	-6,373.0	3,313.6	3,078.1	235.53	14.069	
10,300.0	6,640.7	6,619.7	6,619.7	106.5	130.8	90.12	1,593.6	-6,373.0	3,259.7	3,022.4	237.30	13.737	
10,334.6	6,640.6	6,619.6	6,619.6	107.4	130.8	90.11	1,593.6	-6,373.0	3,230.6	2,992.4	238.26	13.559	
10,400.0	6,640.6	6,619.6	6,619.6	109.3	130.8	90.11	1,593.6	-6,373.0	3,176.0	2,935.9	240.08	13.229	
10,433.0	6,640.5	6,619.5	6,619.5	110.2	130.8	90.11	1,593.6	-6,373.0	3,148.5	2,907.5	241.00	13.065	
10,500.0	6,640.4	6,619.4	6,619.4	112.0	130.8	90.11	1,593.6	-6,373.0	3,093.2	2,850.4	242.86	12.737	
10,531.5	6,640.4	6,619.4	6,619.4	112.9	130.8	90.11	1,593.6	-6,373.0	3,067.4	2,823.6	243.73	12.585	
10,600.0	6,640.3	6,619.3	6,619.3	114.8	130.8	90.10	1,593.6	-6,373.0	3,011.5	2,765.9	245.64	12.260	
10,629.9	6,640.3	6,619.3	6,619.3	115.7	130.8	90.10	1,593.6	-6,373.0	2,987.3	2,740.8	246.47	12.120	
10,700.0	6,640.2	6,619.2	6,619.2	117.6	130.8	90.10	1,593.6	-6,373.0	2,930.9	2,682.5	248.42	11.798	
10,728.3	6,640.1	6,619.1	6,619.1	118.4	130.8	90.10	1,593.6	-6,373.0	2,908.3	2,659.1	249.21	11.670	
10,800.0	6,640.0	6,619.0	6,619.0	120.4	130.8	90.09	1,593.6	-6,373.0	2,851.5	2,600.3	251.21	11.351	
10,826.7	6,640.0	6,619.0	6,619.0	121.2	130.8	90.09	1,593.6	-6,373.0	2,830.5	2,578.6	251.95	11.234	
10,900.0	6,639.9	6,618.9	6,618.9	123.2	130.8	90.09	1,593.6	-6,373.0	2,773.5	2,519.5	253.99	10.920	
10,925.2	6,639.9	6,618.9	6,618.9	123.9	130.8	90.09	1,593.6	-6,373.0	2,754.1	2,499.4	254.70	10.813	
11,000.0	6,639.8	6,618.8	6,618.8	126.0	130.8	90.08	1,593.6	-6,373.0	2,696.9	2,440.1	256.78	10.503	
11,023.6	6,639.8	6,618.8	6,618.8	126.6	130.8	90.08	1,593.6	-6,373.0	2,679.1	2,421.6	257.44	10.407	
11,100.0	6,639.7	6,618.7	6,618.7	128.8	130.8	90.08	1,593.6	-6,373.0	2,621.9	2,362.4	259.57	10.101	
11,122.0	6,639.6	6,618.6	6,618.6	129.4	130.8	90.08	1,593.6	-6,373.0	2,605.6	2,345.4	260.18	10.015	
11,200.0	6,639.5	6,618.5	6,618.5	131.6	130.8	90.08	1,593.6	-6,373.0	2,548.6	2,286.3	262.36	9.714	
11,220.4	6,639.5	6,618.5	6,618.5	132.1	130.8	90.07	1,593.6	-6,373.0	2,533.9	2,270.9	262.93	9.637	
11,300.0	6,639.4	6,618.4	6,618.4	134.4	130.8	90.07	1,593.6	-6,373.0	2,477.2	2,212.1	265.15	9.343	
11,318.9	6,639.4	6,618.4	6,618.4	134.9	130.8	90.07	1,593.6	-6,373.0	2,464.0	2,198.3	265.67	9.274	
11,400.0	6,639.3	6,618.3	6,618.3	137.1	130.8	90.07	1,593.6	-6,373.0	2,407.8	2,139.9	267.94	8.987	
11,417.3	6,639.3	6,618.3	6,618.3	137.6	130.8	90.07	1,593.6	-6,373.0	2,396.1	2,127.6	268.42	8.927	
11,500.0	6,639.2	6,618.2	6,618.2	139.9	130.8	90.06	1,593.6	-6,373.0	2,340.7	2,070.0	270.73	8.646	
11,515.7	6,639.1	6,618.1	6,618.1	140.4	130.8	90.06	1,593.6	-6,373.0	2,330.3	2,059.2	271.17	8.594	
11,600.0	6,639.0	6,618.0	6,618.0	142.7	130.8	90.06	1,593.6	-6,373.0	2,275.9	2,002.4	273.52	8.321	
11,614.1	6,639.0	6,618.0	6,618.0	143.1	130.8	90.06	1,593.6	-6,373.0	2,267.0	1,993.1	273.91	8.276	
11,700.0	6,638.9	6,617.9	6,617.9	145.5	130.8	90.05	1,593.6	-6,373.0	2,213.8	1,937.5	276.31	8.012	
11,712.6	6,638.9	6,617.9	6,617.9	145.9	130.8	90.05	1,593.6	-6,373.0	2,206.2	1,929.5	276.66	7.974	
11,800.0	6,638.8	6,617.8	6,617.8	148.3	130.8	90.05	1,593.6	-6,373.0	2,154.5	1,875.4	279.11	7.719	
11,811.0	6,638.8	6,617.8	6,617.8	148.6	130.8	90.05	1,593.6	-6,373.0	2,148.2	1,868.8	279.41	7.688	
11,900.0	6,638.7	6,617.7	6,617.7	151.1	130.8	90.05	1,593.6	-6,373.0	2,098.4	1,816.5	281.90	7.444	
11,909.4	6,638.6	6,617.6	6,617.6	151.4	130.8	90.05	1,593.6	-6,373.0	2,093.2	1,811.1	282.16	7.419	
12,000.0	6,638.5	6,617.5	6,617.5	153.9	130.8	90.04	1,593.6	-6,373.0	2,045.5	1,760.8	284.69	7.185	
12,007.8	6,638.5	6,617.5	6,617.5	154.1	130.8	90.04	1,593.6	-6,373.0	2,041.5	1,756.6	284.91	7.165	
12,100.0	6,638.4	6,617.4	6,617.4	156.7	130.8	90.04	1,593.6	-6,373.0	1,996.3	1,708.8	287.49	6.944	
12,106.3	6,638.4	6,617.4	6,617.4	156.9	130.8	90.04	1,593.6	-6,373.0	1,993.4	1,705.7	287.66	6.929	
12,200.0	6,638.3	6,617.3	6,617.3	159.5	130.8	90.03	1,593.6	-6,373.0	1,951.0	1,660.7	290.28	6.721	

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

Anticollision Report



Company:	PDC ENERGY	Local Co-ordinate Reference:	Well WACKER 10G-214
Project:	WELD COUNTY, COLORADO	TVD Reference:	KB-EST @ 4624.0usft (Original Well Elev)
Reference Site:	SW NW SEC. 10 T5N R64W 6th P.M.	MD Reference:	KB-EST @ 4624.0usft (Original Well Elev)
Site Error:	0.0 usft	North Reference:	True
Reference Well:	WACKER 10G-214	Survey Calculation Method:	Minimum Curvature
Well Error:	0.0 usft	Output errors are at	2.00 sigma
Reference Wellbore	ORIGINAL WELLBORE	Database:	EDM 5000.1 Single User Db
Reference Design:	PROPOSAL #1	Offset TVD Reference:	Offset Datum

Offset Design SW NW SEC. 10 T5N R64W 6th P.M. - EXIST VERT HECKENDORF #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	
12,204.7	6,638.3	6,617.3	6,617.3	159.6	130.8	90.03	1,593.6	-6,373.0	1,949.0	1,658.5	290.41	6.711	
12,300.0	6,638.2	6,617.2	6,617.2	162.3	130.8	90.03	1,593.6	-6,373.0	1,909.8	1,616.7	293.08	6.516	
12,303.1	6,638.2	6,617.2	6,617.2	162.4	130.8	90.03	1,593.6	-6,373.0	1,908.6	1,615.4	293.17	6.510	
12,400.0	6,638.0	6,617.0	6,617.0	165.1	130.8	90.03	1,593.6	-6,373.0	1,873.1	1,577.2	295.87	6.331	
12,401.5	6,638.0	6,617.0	6,617.0	165.2	130.8	90.03	1,593.6	-6,373.0	1,872.6	1,576.6	295.92	6.328	
12,500.0	6,637.9	6,616.9	6,616.9	167.9	130.8	90.02	1,593.6	-6,373.0	1,841.1	1,542.4	298.67	6.164	
12,598.4	6,637.8	6,616.8	6,616.8	170.7	130.8	90.02	1,593.6	-6,373.0	1,814.4	1,513.0	301.42	6.019	
12,600.0	6,637.8	6,616.8	6,616.8	170.7	130.8	90.02	1,593.6	-6,373.0	1,814.0	1,512.6	301.47	6.017	
12,696.8	6,637.7	6,616.7	6,616.7	173.4	130.8	90.01	1,593.6	-6,373.0	1,792.7	1,488.6	304.18	5.894	
12,700.0	6,637.7	6,616.7	6,616.7	173.5	130.8	90.01	1,593.6	-6,373.0	1,792.1	1,487.9	304.26	5.890	
12,795.2	6,637.6	6,616.6	6,616.6	176.2	130.8	90.01	1,593.6	-6,373.0	1,776.3	1,469.3	306.93	5.787	
12,800.0	6,637.6	6,616.6	6,616.6	176.3	130.8	90.01	1,593.6	-6,373.0	1,775.6	1,468.6	307.06	5.783	
12,893.7	6,637.4	6,616.4	6,616.4	178.9	130.8	90.01	1,593.6	-6,373.0	1,765.2	1,455.5	309.68	5.700	
12,900.0	6,637.4	6,616.4	6,616.4	179.1	130.8	90.01	1,593.6	-6,373.0	1,764.6	1,454.8	309.86	5.695	
12,992.1	6,637.3	6,616.3	6,616.3	181.7	130.8	90.00	1,593.6	-6,373.0	1,759.5	1,447.0	312.44	5.631	
13,000.0	6,637.3	6,616.3	6,616.3	181.9	130.8	90.00	1,593.6	-6,373.0	1,759.3	1,446.6	312.66	5.627	
13,044.6	6,637.3	6,616.3	6,616.3	183.2	130.8	90.00	1,593.6	-6,373.0	1,758.7	1,444.8	313.91	5.603	CC
13,090.5	6,637.2	6,616.2	6,616.2	184.4	130.8	90.00	1,593.6	-6,373.0	1,759.3	1,444.1	315.19	5.582	ES
13,100.0	6,637.2	6,616.2	6,616.2	184.7	130.8	90.00	1,593.6	-6,373.0	1,759.6	1,444.1	315.46	5.578	
13,188.9	6,637.1	6,616.1	6,616.1	187.2	130.8	89.99	1,593.6	-6,373.0	1,764.6	1,446.7	317.95	5.550	
13,200.0	6,637.1	6,616.1	6,616.1	187.5	130.8	89.99	1,593.6	-6,373.0	1,765.5	1,447.3	318.26	5.548	
13,287.4	6,637.0	6,616.0	6,616.0	190.0	130.7	89.99	1,593.6	-6,373.0	1,775.4	1,454.7	320.70	5.536	
13,300.0	6,637.0	6,616.0	6,616.0	190.3	130.7	89.99	1,593.6	-6,373.0	1,777.1	1,456.1	321.05	5.535	SF
13,385.8	6,636.9	6,615.9	6,615.9	192.7	130.7	89.99	1,593.6	-6,373.0	1,791.5	1,468.0	323.46	5.539	
13,400.0	6,636.8	6,615.8	6,615.8	193.1	130.7	89.99	1,593.6	-6,373.0	1,794.2	1,470.4	323.85	5.540	
13,484.2	6,636.7	6,615.7	6,615.7	195.5	130.7	89.98	1,593.6	-6,373.0	1,812.8	1,486.6	326.21	5.557	
13,500.0	6,636.7	6,615.7	6,615.7	195.9	130.7	89.98	1,593.6	-6,373.0	1,816.7	1,490.0	326.65	5.562	
13,582.6	6,636.6	6,615.6	6,615.6	198.2	130.7	89.98	1,593.6	-6,373.0	1,839.1	1,510.2	328.97	5.591	
13,600.0	6,636.6	6,615.6	6,615.6	198.7	130.7	89.98	1,593.6	-6,373.0	1,844.3	1,514.8	329.45	5.598	
13,681.1	6,636.5	6,615.5	6,615.5	201.0	130.7	89.98	1,593.6	-6,373.0	1,870.3	1,538.6	331.72	5.638	
13,700.0	6,636.5	6,615.5	6,615.5	201.5	130.7	89.97	1,593.6	-6,373.0	1,876.8	1,544.6	332.25	5.649	
13,779.5	6,636.4	6,615.4	6,615.4	203.7	130.7	89.97	1,593.6	-6,373.0	1,906.1	1,571.6	334.48	5.699	
13,800.0	6,636.4	6,615.4	6,615.4	204.3	130.7	89.97	1,593.6	-6,373.0	1,914.1	1,579.0	335.05	5.713	
13,877.9	6,636.3	6,615.3	6,615.3	206.5	130.7	89.97	1,593.6	-6,373.0	1,946.1	1,608.9	337.24	5.771	
13,900.0	6,636.3	6,615.3	6,615.3	207.1	130.7	89.97	1,593.6	-6,373.0	1,955.7	1,617.8	337.86	5.789	
13,976.3	6,636.2	6,615.2	6,615.2	209.3	130.7	89.96	1,593.6	-6,373.0	1,990.3	1,650.3	339.99	5.854	
14,000.0	6,636.1	6,615.1	6,615.1	209.9	130.7	89.96	1,593.6	-6,373.0	2,001.4	1,660.8	340.66	5.875	
14,074.8	6,636.0	6,615.0	6,615.0	212.0	130.7	89.96	1,593.6	-6,373.0	2,038.2	1,695.4	342.75	5.947	
14,100.0	6,636.0	6,615.0	6,615.0	212.7	130.7	89.96	1,593.6	-6,373.0	2,051.1	1,707.6	343.46	5.972	
14,173.2	6,635.9	6,614.9	6,614.9	214.8	130.7	89.96	1,593.6	-6,373.0	2,089.7	1,744.2	345.51	6.048	
14,200.0	6,635.9	6,614.9	6,614.9	215.5	130.7	89.96	1,593.6	-6,373.0	2,104.3	1,758.0	346.26	6.077	
14,271.6	6,635.8	6,614.8	6,614.8	217.5	130.7	89.95	1,593.6	-6,373.0	2,144.4	1,796.2	348.27	6.157	
14,300.0	6,635.8	6,614.8	6,614.8	218.3	130.7	89.95	1,593.6	-6,373.0	2,160.8	1,811.7	349.06	6.190	
14,370.0	6,635.7	6,614.7	6,614.7	220.3	130.7	89.95	1,593.6	-6,373.0	2,202.2	1,851.2	351.02	6.274	
14,400.0	6,635.7	6,614.7	6,614.7	221.1	130.7	89.95	1,593.6	-6,373.0	2,220.4	1,868.5	351.86	6.310	
14,468.5	6,635.6	6,614.6	6,614.6	223.1	130.7	89.95	1,593.6	-6,373.0	2,262.8	1,909.0	353.78	6.396	
14,500.0	6,635.6	6,614.6	6,614.6	223.9	130.7	89.95	1,593.6	-6,373.0	2,282.8	1,928.1	354.66	6.436	
14,566.9	6,635.5	6,614.5	6,614.5	225.8	130.7	89.94	1,593.6	-6,373.0	2,326.0	1,969.5	356.54	6.524	
14,600.0	6,635.4	6,614.4	6,614.4	226.8	130.7	89.94	1,593.6	-6,373.0	2,347.8	1,990.3	357.47	6.568	
14,665.3	6,635.4	6,614.4	6,614.4	228.6	130.7	89.94	1,593.6	-6,373.0	2,391.6	2,032.3	359.30	6.656	
14,700.0	6,635.3	6,614.3	6,614.3	229.6	130.7	89.94	1,593.6	-6,373.0	2,415.2	2,055.0	360.27	6.704	
14,763.7	6,635.2	6,614.2	6,614.2	231.3	130.7	89.94	1,593.6	-6,373.0	2,459.4	2,097.3	362.05	6.793	

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

Anticollision Report



Company:	PDC ENERGY	Local Co-ordinate Reference:	Well WACKER 10G-214
Project:	WELD COUNTY, COLORADO	TVD Reference:	KB-EST @ 4624.0usft (Original Well Elev)
Reference Site:	SW NW SEC. 10 T5N R64W 6th P.M.	MD Reference:	KB-EST @ 4624.0usft (Original Well Elev)
Site Error:	0.0 usft	North Reference:	True
Reference Well:	WACKER 10G-214	Survey Calculation Method:	Minimum Curvature
Well Error:	0.0 usft	Output errors are at	2.00 sigma
Reference Wellbore	ORIGINAL WELLBORE	Database:	EDM 5000.1 Single User Db
Reference Design:	PROPOSAL #1	Offset TVD Reference:	Offset Datum

Offset Design SW NW SEC. 10 T5N R64W 6th P.M. - EXIST VERT HECKENDORF #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									
Measured Depth (usft)	Vertical Depth (usft)	Measured Depth (usft)	Vertical Depth (usft)	Reference (usft)	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
14,800.0	6,635.2	6,614.2	6,614.2	232.4	130.7	89.93	1,593.6	-6,373.0	2,484.8	2,121.8	363.07	6.844	
14,862.2	6,635.1	6,614.1	6,614.1	234.1	130.7	89.93	1,593.6	-6,373.0	2,529.1	2,164.3	364.81	6.933	
14,900.0	6,635.1	6,614.1	6,614.1	235.2	130.7	89.93	1,593.6	-6,373.0	2,556.5	2,190.6	365.87	6.987	
14,960.6	6,635.0	6,614.0	6,614.0	236.9	130.7	89.93	1,593.6	-6,373.0	2,600.8	2,233.2	367.57	7.076	
14,982.9	6,635.0	6,614.0	6,614.0	237.5	130.7	89.93	1,593.6	-6,373.0	2,617.2	2,249.0	368.20	7.108	

Anticollision Report



Company:	PDC ENERGY	Local Co-ordinate Reference:	Well WACKER 10G-214
Project:	WELD COUNTY, COLORADO	TVD Reference:	KB-EST @ 4624.0usft (Original Well Elev)
Reference Site:	SW NW SEC. 10 T5N R64W 6th P.M.	MD Reference:	KB-EST @ 4624.0usft (Original Well Elev)
Site Error:	0.0 usft	North Reference:	True
Reference Well:	WACKER 10G-214	Survey Calculation Method:	Minimum Curvature
Well Error:	0.0 usft	Output errors are at	2.00 sigma
Reference Wellbore	ORIGINAL WELLBORE	Database:	EDM 5000.1 Single User Db
Reference Design:	PROPOSAL #1	Offset TVD Reference:	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	-34.12	1,458.7	-988.5	1,762.1				
98.4	98.4	102.4	102.4	0.1	0.0	-34.12	1,458.7	-988.5	1,762.1	1,762.0	0.12	N/A	
100.0	100.0	104.0	104.0	0.1	0.0	-34.12	1,458.7	-988.5	1,762.1	1,762.0	0.14	N/A	
196.8	196.8	200.8	200.8	0.3	1.0	-34.12	1,458.7	-988.5	1,762.1	1,760.8	1.29	1,361.761	
200.0	200.0	204.0	204.0	0.3	1.1	-34.12	1,458.7	-988.5	1,762.1	1,760.7	1.37	1,281.558	
295.3	295.3	299.3	299.3	0.5	3.3	-34.12	1,458.7	-988.5	1,762.1	1,758.3	3.82	460.762	
300.0	300.0	304.0	304.0	0.5	3.4	-34.12	1,458.7	-988.5	1,762.1	1,758.2	3.94	447.778	
393.7	393.7	397.7	397.7	0.8	5.3	-34.12	1,458.7	-988.5	1,762.1	1,756.0	6.10	289.051	
400.0	400.0	404.0	404.0	0.8	5.5	-34.12	1,458.7	-988.5	1,762.1	1,755.8	6.24	282.392	
492.1	492.1	496.1	496.1	1.0	7.3	-34.12	1,458.7	-988.5	1,762.1	1,753.8	8.33	211.566	
500.0	500.0	504.0	504.0	1.0	7.5	-34.12	1,458.7	-988.5	1,762.1	1,753.6	8.51	207.139	
590.5	590.5	594.5	594.5	1.2	9.3	-34.12	1,458.7	-988.5	1,762.1	1,751.5	10.55	167.060	
600.0	600.0	604.0	604.0	1.2	9.5	-34.12	1,458.7	-988.5	1,762.1	1,751.3	10.76	163.757	
689.0	689.0	693.0	693.0	1.4	11.3	-34.12	1,458.7	-988.5	1,762.1	1,749.3	12.76	138.094	
700.0	700.0	704.0	704.0	1.4	11.6	-34.12	1,458.7	-988.5	1,762.1	1,749.1	13.01	135.465	
787.4	787.4	791.4	791.4	1.6	13.3	-34.12	1,458.7	-988.5	1,762.1	1,747.1	14.97	117.716	
800.0	800.0	804.0	804.0	1.7	13.6	-34.12	1,458.7	-988.5	1,762.1	1,746.8	15.25	115.535	
885.8	885.8	889.8	889.8	1.9	15.3	-34.12	1,458.7	-988.5	1,762.1	1,744.9	17.18	102.592	
900.0	900.0	904.0	904.0	1.9	15.6	-34.12	1,458.7	-988.5	1,762.1	1,744.6	17.49	100.729	
984.2	984.2	988.2	988.2	2.1	17.3	-34.12	1,458.7	-988.5	1,762.1	1,742.7	19.38	90.919	
1,000.0	1,000.0	1,004.0	1,004.0	2.1	17.6	-34.12	1,458.7	-988.5	1,762.1	1,742.4	19.73	89.293	
1,082.7	1,082.7	1,086.7	1,086.7	2.3	19.3	-34.12	1,458.7	-988.5	1,762.1	1,740.5	21.59	81.634	
1,100.0	1,100.0	1,104.0	1,104.0	2.3	19.6	-34.12	1,458.7	-988.5	1,762.1	1,740.1	21.97	80.193	
1,181.1	1,181.1	1,185.1	1,185.1	2.5	21.3	-34.12	1,458.7	-988.5	1,762.1	1,738.3	23.79	74.072	
1,200.0	1,200.0	1,204.0	1,204.0	2.6	21.6	-34.12	1,458.7	-988.5	1,762.1	1,737.9	24.21	72.778	
1,279.5	1,279.5	1,283.5	1,283.5	2.7	23.2	-34.12	1,458.7	-988.5	1,762.1	1,736.1	25.99	67.794	
1,300.0	1,300.0	1,304.0	1,304.0	2.8	23.7	-34.12	1,458.7	-988.5	1,762.1	1,735.6	26.45	66.619	
1,377.9	1,377.9	1,381.9	1,381.9	3.0	25.2	-152.78	1,458.7	-988.5	1,763.0	1,734.9	28.17	62.584	
1,400.0	1,400.0	1,404.0	1,404.0	3.0	25.7	-152.78	1,458.7	-988.5	1,763.6	1,735.0	28.65	61.550	
1,476.4	1,476.3	1,480.3	1,480.3	3.1	27.2	-152.81	1,458.7	-988.5	1,766.9	1,736.6	30.30	58.309	
1,500.0	1,499.8	1,503.8	1,503.8	3.2	27.7	-152.82	1,458.7	-988.5	1,768.3	1,737.5	30.81	57.397	
1,574.8	1,574.4	1,578.4	1,578.4	3.3	29.2	-152.86	1,458.7	-988.5	1,773.8	1,741.4	32.40	54.751	
1,600.0	1,599.5	1,603.5	1,603.5	3.4	29.7	-152.88	1,458.7	-988.5	1,776.1	1,743.1	32.93	53.939	
1,673.2	1,672.2	1,676.2	1,676.2	3.6	31.1	-152.93	1,458.7	-988.5	1,783.7	1,749.3	34.45	51.771	
1,700.0	1,698.7	1,702.7	1,702.7	3.6	31.7	-152.95	1,458.7	-988.5	1,786.9	1,751.9	35.00	51.049	
1,771.6	1,769.5	1,773.5	1,773.5	3.8	33.1	-153.02	1,458.7	-988.5	1,796.6	1,760.2	36.47	49.270	
1,800.0	1,797.5	1,801.5	1,801.5	3.9	33.7	-153.05	1,458.7	-988.5	1,800.9	1,763.9	37.03	48.630	
1,870.1	1,866.3	1,870.3	1,870.3	4.1	35.1	-153.13	1,458.7	-988.5	1,812.5	1,774.1	38.43	47.170	
1,900.2	1,895.8	1,899.8	1,899.8	4.2	35.6	-153.17	1,458.7	-988.5	1,818.0	1,779.0	39.01	46.601	
1,968.5	1,962.6	1,966.6	1,966.6	4.4	37.0	-153.37	1,458.7	-988.5	1,830.8	1,790.3	40.50	45.209	
2,000.0	1,993.4	1,997.4	1,997.4	4.5	37.6	-153.46	1,458.7	-988.5	1,836.6	1,795.5	41.18	44.603	
2,066.9	2,058.9	2,062.9	2,062.9	4.7	38.9	-153.65	1,458.7	-988.5	1,849.2	1,806.5	42.64	43.370	
2,100.0	2,091.2	2,095.2	2,095.2	4.8	39.6	-153.74	1,458.7	-988.5	1,855.4	1,812.0	43.36	42.794	
2,165.3	2,155.2	2,159.2	2,159.2	5.1	40.9	-153.93	1,458.7	-988.5	1,867.6	1,822.8	44.78	41.704	
2,200.0	2,189.1	2,193.1	2,193.1	5.2	41.5	-154.02	1,458.7	-988.5	1,874.1	1,828.6	45.54	41.154	
2,263.8	2,251.4	2,255.4	2,255.4	5.5	42.8	-154.20	1,458.7	-988.5	1,886.1	1,839.2	46.94	40.185	
2,300.0	2,286.9	2,290.9	2,290.9	5.6	43.5	-154.30	1,458.7	-988.5	1,892.9	1,845.2	47.73	39.660	
2,362.2	2,347.7	2,351.7	2,351.7	5.8	44.7	-154.47	1,458.7	-988.5	1,904.6	1,855.5	49.09	38.796	
2,400.0	2,384.7	2,388.7	2,388.7	6.0	45.5	-154.57	1,458.7	-988.5	1,911.7	1,861.8	49.92	38.295	
2,460.6	2,444.0	2,448.0	2,448.0	6.2	46.7	-154.73	1,458.7	-988.5	1,923.2	1,871.9	51.25	37.523	
2,500.0	2,482.5	2,486.5	2,486.5	6.4	47.4	-154.83	1,458.7	-988.5	1,930.6	1,878.5	52.12	37.043	
2,559.0	2,540.3	2,544.3	2,544.3	6.6	48.6	-154.99	1,458.7	-988.5	1,941.8	1,888.4	53.42	36.352	

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

Anticollision Report



Company:	PDC ENERGY	Local Co-ordinate Reference:	Well WACKER 10G-214
Project:	WELD COUNTY, COLORADO	TVD Reference:	KB-EST @ 4624.0usft (Original Well Elev)
Reference Site:	SW NW SEC. 10 T5N R64W 6th P.M.	MD Reference:	KB-EST @ 4624.0usft (Original Well Elev)
Site Error:	0.0 usft	North Reference:	True
Reference Well:	WACKER 10G-214	Survey Calculation Method:	Minimum Curvature
Well Error:	0.0 usft	Output errors are at	2.00 sigma
Reference Wellbore	ORIGINAL WELLBORE	Database:	EDM 5000.1 Single User Db
Reference Design:	PROPOSAL #1	Offset TVD Reference:	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	2,580.3	2,584.3	2,584.3	6.8	49.4	-155.09	1,458.7	-988.5	1,949.5	1,895.2	54.32	35.892	
2,657.5	2,636.5	2,640.5	2,640.5	7.1	50.5	-155.24	1,458.7	-988.5	1,960.4	1,904.8	55.58	35.271	
2,700.0	2,678.1	2,682.1	2,682.1	7.2	51.4	-155.35	1,458.7	-988.5	1,968.5	1,912.0	56.52	34.830	
2,755.9	2,732.8	2,736.8	2,736.8	7.5	52.5	-155.49	1,458.7	-988.5	1,979.1	1,921.4	57.75	34.271	
2,800.0	2,775.9	2,779.9	2,779.9	7.7	53.4	-155.59	1,458.7	-988.5	1,987.5	1,928.8	58.72	33.847	
2,854.3	2,829.1	2,833.1	2,833.1	7.9	54.4	-155.73	1,458.7	-988.5	1,997.8	1,937.9	59.92	33.343	
2,900.0	2,873.8	2,877.8	2,877.8	8.1	55.3	-155.84	1,458.7	-988.5	2,006.5	1,945.6	60.92	32.935	
2,952.7	2,925.4	2,929.4	2,929.4	8.3	56.4	-155.97	1,458.7	-988.5	2,016.6	1,954.5	62.09	32.480	
2,953.5	2,926.1	2,930.1	2,930.1	8.3	56.4	-155.97	1,458.7	-988.5	2,016.7	1,954.6	62.10	32.474	
3,000.0	2,971.6	2,975.6	2,975.6	8.5	57.3	-156.15	1,458.7	-988.5	2,025.2	1,962.0	63.28	32.004	
3,051.2	3,022.0	3,026.0	3,026.0	8.7	58.3	-156.32	1,458.7	-988.5	2,033.8	1,969.3	64.56	31.503	
3,100.0	3,070.1	3,074.1	3,074.1	8.8	59.3	-156.47	1,458.7	-988.5	2,041.3	1,975.5	65.77	31.035	
3,149.6	3,119.1	3,123.1	3,123.1	8.9	60.3	-156.61	1,458.7	-988.5	2,048.1	1,981.1	66.99	30.571	
3,200.0	3,169.1	3,173.1	3,173.1	9.1	61.3	-156.73	1,458.7	-988.5	2,054.2	1,986.0	68.23	30.109	
3,248.0	3,216.8	3,220.8	3,220.8	9.2	62.2	-156.83	1,458.7	-988.5	2,059.3	1,989.9	69.38	29.680	
3,300.0	3,268.5	3,272.5	3,272.5	9.3	63.3	-156.93	1,458.7	-988.5	2,063.9	1,993.3	70.62	29.224	
3,346.4	3,314.8	3,318.8	3,318.8	9.4	64.2	-156.99	1,458.7	-988.5	2,067.4	1,995.7	71.72	28.827	
3,400.0	3,368.3	3,372.3	3,372.3	9.6	65.3	-157.05	1,458.7	-988.5	2,070.5	1,997.5	72.96	28.379	
3,444.9	3,413.1	3,417.1	3,417.1	9.6	66.2	-157.09	1,458.7	-988.5	2,072.4	1,998.4	73.98	28.012	
3,500.0	3,468.2	3,472.2	3,472.2	9.7	67.3	-157.12	1,458.7	-988.5	2,073.8	1,998.6	75.22	27.570	
3,543.3	3,511.5	3,515.5	3,515.5	9.8	68.1	-157.13	1,458.7	-988.5	2,074.3	1,998.1	76.17	27.231	
3,553.7	3,521.9	3,525.9	3,525.9	9.8	68.4	-38.48	1,458.7	-988.5	2,074.3	1,996.4	77.89	26.632	
3,600.0	3,568.2	3,572.2	3,572.2	9.9	69.3	-38.48	1,458.7	-988.5	2,074.3	1,995.4	78.89	26.293	
3,641.7	3,609.9	3,613.9	3,613.9	10.0	70.1	-38.48	1,458.7	-988.5	2,074.3	1,994.5	79.80	25.993	
3,700.0	3,668.2	3,672.2	3,672.2	10.1	71.3	-38.48	1,458.7	-988.5	2,074.3	1,993.2	81.07	25.586	
3,740.1	3,708.4	3,712.4	3,712.4	10.1	72.1	-38.48	1,458.7	-988.5	2,074.3	1,992.3	81.95	25.313	
3,800.0	3,768.2	3,772.2	3,772.2	10.2	73.3	-38.48	1,458.7	-988.5	2,074.3	1,991.0	83.25	24.916	
3,838.6	3,806.8	3,810.8	3,810.8	10.3	74.1	-38.48	1,458.7	-988.5	2,074.3	1,990.2	84.09	24.666	
3,900.0	3,868.2	3,872.2	3,872.2	10.4	75.3	-38.48	1,458.7	-988.5	2,074.3	1,988.8	85.44	24.279	
3,937.0	3,905.2	3,909.2	3,909.2	10.5	76.1	-38.48	1,458.7	-988.5	2,074.3	1,988.0	86.24	24.051	
4,000.0	3,968.2	3,972.2	3,972.2	10.6	77.3	-38.48	1,458.7	-988.5	2,074.3	1,986.7	87.62	23.674	
4,035.4	4,003.6	4,007.6	4,007.6	10.6	78.0	-38.48	1,458.7	-988.5	2,074.3	1,985.9	88.39	23.466	
4,100.0	4,068.2	4,072.2	4,072.2	10.7	79.3	-38.48	1,458.7	-988.5	2,074.3	1,984.5	89.81	23.097	
4,133.8	4,102.1	4,106.1	4,106.1	10.8	80.0	-38.48	1,458.7	-988.5	2,074.3	1,983.7	90.55	22.908	
4,200.0	4,168.2	4,172.2	4,172.2	10.9	81.4	-38.48	1,458.7	-988.5	2,074.3	1,982.3	92.00	22.547	
4,232.3	4,200.5	4,204.5	4,204.5	11.0	82.0	-38.48	1,458.7	-988.5	2,074.3	1,981.6	92.70	22.376	
4,300.0	4,268.2	4,272.2	4,272.2	11.1	83.4	-38.48	1,458.7	-988.5	2,074.3	1,980.1	94.19	22.023	
4,330.7	4,298.9	4,302.9	4,302.9	11.1	84.0	-38.48	1,458.7	-988.5	2,074.3	1,979.4	94.86	21.867	
4,400.0	4,368.2	4,372.2	4,372.2	11.3	85.4	-38.48	1,458.7	-988.5	2,074.3	1,977.9	96.38	21.522	
4,429.1	4,397.3	4,401.3	4,401.3	11.3	86.0	-38.48	1,458.7	-988.5	2,074.3	1,977.3	97.02	21.380	
4,500.0	4,468.2	4,472.2	4,472.2	11.4	87.4	-38.48	1,458.7	-988.5	2,074.3	1,975.7	98.57	21.043	
4,527.5	4,495.8	4,499.8	4,499.8	11.5	87.9	-38.48	1,458.7	-988.5	2,074.3	1,975.1	99.18	20.915	
4,600.0	4,568.2	4,572.2	4,572.2	11.6	89.4	-38.48	1,458.7	-988.5	2,074.3	1,973.5	100.77	20.585	
4,626.0	4,594.2	4,598.2	4,598.2	11.7	89.9	-38.48	1,458.7	-988.5	2,074.3	1,972.9	101.34	20.469	
4,700.0	4,668.2	4,672.2	4,672.2	11.8	91.4	-38.48	1,458.7	-988.5	2,074.3	1,971.3	102.97	20.145	
4,724.4	4,692.6	4,696.6	4,696.6	11.9	91.9	-38.48	1,458.7	-988.5	2,074.3	1,970.8	103.50	20.041	
4,800.0	4,768.2	4,772.2	4,772.2	12.0	93.4	-38.48	1,458.7	-988.5	2,074.3	1,969.1	105.16	19.724	
4,822.8	4,791.0	4,795.0	4,795.0	12.0	93.9	-38.48	1,458.7	-988.5	2,074.3	1,968.6	105.67	19.631	
4,900.0	4,868.2	4,872.2	4,872.2	12.2	95.4	-38.48	1,458.7	-988.5	2,074.3	1,966.9	107.36	19.320	
4,921.2	4,889.5	4,893.5	4,893.5	12.2	95.9	-38.48	1,458.7	-988.5	2,074.3	1,966.5	107.83	19.237	
5,000.0	4,968.2	4,972.2	4,972.2	12.4	97.4	-38.48	1,458.7	-988.5	2,074.3	1,964.7	109.56	18.932	
5,019.7	4,987.9	4,991.9	4,991.9	12.4	97.8	-38.48	1,458.7	-988.5	2,074.3	1,964.3	110.00	18.858	

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

Anticollision Report



Company:	PDC ENERGY	Local Co-ordinate Reference:	Well WACKER 10G-214
Project:	WELD COUNTY, COLORADO	TVD Reference:	KB-EST @ 4624.0usft (Original Well Elev)
Reference Site:	SW NW SEC. 10 T5N R64W 6th P.M.	MD Reference:	KB-EST @ 4624.0usft (Original Well Elev)
Site Error:	0.0 usft	North Reference:	True
Reference Well:	WACKER 10G-214	Survey Calculation Method:	Minimum Curvature
Well Error:	0.0 usft	Output errors are at	2.00 sigma
Reference Wellbore	ORIGINAL WELLBORE	Database:	EDM 5000.1 Single User Db
Reference Design:	PROPOSAL #1	Offset TVD Reference:	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	5,068.2	5,072.2	5,072.2	12.6	99.5	-38.48	1,458.7	-988.5	2,074.3	1,962.5	111.77	18.559	
5,118.1	5,086.3	5,090.3	5,090.3	12.6	99.8	-38.48	1,458.7	-988.5	2,074.3	1,962.1	112.16	18.493	
5,200.0	5,168.2	5,172.2	5,172.2	12.7	101.5	-38.48	1,458.7	-988.5	2,074.3	1,960.3	113.97	18.201	
5,216.5	5,184.7	5,188.7	5,188.7	12.8	101.8	-38.48	1,458.7	-988.5	2,074.3	1,959.9	114.33	18.143	
5,300.0	5,268.2	5,272.2	5,272.2	12.9	103.5	-38.48	1,458.7	-988.5	2,074.3	1,958.1	116.17	17.855	
5,314.9	5,283.2	5,287.2	5,287.2	13.0	103.8	-38.48	1,458.7	-988.5	2,074.3	1,957.8	116.50	17.805	
5,400.0	5,368.2	5,372.2	5,372.2	13.1	105.5	-38.48	1,458.7	-988.5	2,074.3	1,955.9	118.38	17.523	
5,413.4	5,381.6	5,385.6	5,385.6	13.2	105.8	-38.48	1,458.7	-988.5	2,074.3	1,955.6	118.67	17.479	
5,500.0	5,468.2	5,472.2	5,472.2	13.3	107.5	-38.48	1,458.7	-988.5	2,074.3	1,953.7	120.58	17.202	
5,511.8	5,480.0	5,484.0	5,484.0	13.3	107.7	-38.48	1,458.7	-988.5	2,074.3	1,953.4	120.84	17.165	
5,600.0	5,568.2	5,572.2	5,572.2	13.5	109.5	-38.48	1,458.7	-988.5	2,074.3	1,951.5	122.79	16.893	
5,610.2	5,578.4	5,582.4	5,582.4	13.5	109.7	-38.48	1,458.7	-988.5	2,074.3	1,951.3	123.02	16.862	
5,700.0	5,668.2	5,672.2	5,672.2	13.7	111.5	-38.48	1,458.7	-988.5	2,074.3	1,949.3	125.00	16.594	
5,708.6	5,676.9	5,680.9	5,680.9	13.7	111.7	-38.48	1,458.7	-988.5	2,074.3	1,949.1	125.19	16.569	
5,800.0	5,768.2	5,772.2	5,772.2	13.9	113.5	-38.48	1,458.7	-988.5	2,074.3	1,947.1	127.21	16.306	
5,807.1	5,775.3	5,779.3	5,779.3	13.9	113.7	-38.48	1,458.7	-988.5	2,074.3	1,946.9	127.36	16.286	
5,900.0	5,868.2	5,872.2	5,872.2	14.1	115.5	-38.48	1,458.7	-988.5	2,074.3	1,944.9	129.42	16.028	
5,905.5	5,873.7	5,877.7	5,877.7	14.1	115.7	-38.48	1,458.7	-988.5	2,074.3	1,944.7	129.54	16.013	
5,960.7	5,928.9	5,932.9	5,932.9	14.2	116.8	-38.48	1,458.7	-988.5	2,074.3	1,943.5	130.76	15.864	
6,000.0	5,968.2	5,972.2	5,972.2	14.3	117.6	51.59	1,458.7	-988.5	2,073.6	1,943.1	130.56	15.883	
6,003.9	5,972.1	5,976.1	5,976.1	14.3	117.6	51.60	1,458.7	-988.5	2,073.5	1,942.8	130.63	15.873	
6,050.0	6,018.0	6,022.0	6,022.0	14.4	118.6	51.86	1,458.7	-988.5	2,070.8	1,939.5	131.32	15.769	
6,100.0	6,067.3	6,071.3	6,071.3	14.4	119.5	52.34	1,458.7	-988.5	2,065.9	1,934.1	131.85	15.668	
6,102.3	6,069.6	6,073.6	6,073.6	14.4	119.6	52.37	1,458.7	-988.5	2,065.6	1,933.8	131.87	15.664	
6,150.0	6,116.0	6,120.0	6,120.0	14.4	120.5	53.04	1,458.7	-988.5	2,058.9	1,926.7	132.18	15.576	
6,200.0	6,163.8	6,167.8	6,167.8	14.5	121.5	53.95	1,458.7	-988.5	2,049.9	1,917.5	132.36	15.487	
6,200.8	6,164.5	6,168.5	6,168.5	14.5	121.5	53.97	1,458.7	-988.5	2,049.7	1,917.4	132.36	15.486	
6,250.0	6,210.4	6,214.4	6,214.4	14.5	122.4	55.08	1,458.7	-988.5	2,038.9	1,906.5	132.44	15.394	
6,299.2	6,254.9	6,258.9	6,258.9	14.5	123.3	56.39	1,458.7	-988.5	2,026.4	1,893.8	132.51	15.292	
6,300.0	6,255.6	6,259.6	6,259.6	14.5	123.3	56.41	1,458.7	-988.5	2,026.1	1,893.6	132.52	15.290	
6,350.0	6,299.3	6,303.3	6,303.3	14.5	124.2	57.96	1,458.7	-988.5	2,011.7	1,879.0	132.66	15.164	
6,397.6	6,339.2	6,343.2	6,343.2	14.6	125.0	59.62	1,458.7	-988.5	1,996.4	1,863.5	132.93	15.018	
6,400.0	6,341.2	6,345.2	6,345.2	14.6	125.1	59.71	1,458.7	-988.5	1,995.7	1,862.7	132.95	15.010	
6,450.0	6,381.0	6,385.0	6,385.0	14.6	125.9	61.65	1,458.7	-988.5	1,978.3	1,844.8	133.48	14.821	
6,496.0	6,415.8	6,419.8	6,419.8	14.7	126.6	63.59	1,458.7	-988.5	1,961.2	1,827.0	134.21	14.613	
6,500.0	6,418.7	6,422.7	6,422.7	14.7	126.6	63.76	1,458.7	-988.5	1,959.7	1,825.4	134.28	14.593	
6,550.0	6,453.9	6,457.9	6,457.9	14.8	127.3	66.03	1,458.7	-988.5	1,940.0	1,804.6	135.40	14.328	
6,594.5	6,483.1	6,487.1	6,487.1	15.0	127.9	68.15	1,458.7	-988.5	1,921.9	1,785.2	136.65	14.064	
6,600.0	6,486.6	6,490.6	6,490.6	15.1	128.0	68.42	1,458.7	-988.5	1,919.6	1,782.8	136.82	14.030	
6,650.0	6,516.6	6,520.6	6,520.6	15.3	128.6	70.91	1,458.7	-988.5	1,898.6	1,760.1	138.50	13.708	
6,692.9	6,540.0	6,544.0	6,544.0	15.7	129.1	73.08	1,458.7	-988.5	1,880.2	1,740.1	140.10	13.421	
6,700.0	6,543.7	6,547.7	6,547.7	15.7	129.1	73.44	1,458.7	-988.5	1,877.2	1,736.8	140.36	13.374	
6,750.0	6,567.8	6,571.8	6,571.8	16.2	129.6	75.98	1,458.7	-988.5	1,855.6	1,713.3	142.32	13.038	
6,791.3	6,585.4	6,589.4	6,589.4	16.7	130.0	78.05	1,458.7	-988.5	1,837.8	1,693.8	143.95	12.767	
6,800.0	6,588.8	6,592.8	6,592.8	16.8	130.0	78.48	1,458.7	-988.5	1,834.1	1,689.8	144.28	12.712	
6,850.0	6,606.6	6,610.6	6,610.6	17.4	130.4	80.89	1,458.7	-988.5	1,812.8	1,666.7	146.15	12.404	
6,889.7	6,618.4	6,622.4	6,622.4	18.0	130.6	82.72	1,458.7	-988.5	1,796.3	1,648.7	147.54	12.175	
6,900.0	6,621.1	6,625.1	6,625.1	18.2	130.7	83.18	1,458.7	-988.5	1,792.1	1,644.2	147.87	12.119	
6,950.0	6,632.2	6,636.2	6,636.2	19.0	130.9	85.30	1,458.7	-988.5	1,772.0	1,622.6	149.42	11.859	
6,988.2	6,638.4	6,642.4	6,642.4	19.7	131.0	86.79	1,458.7	-988.5	1,757.2	1,606.8	150.47	11.678	
7,000.0	6,639.9	6,643.9	6,643.9	19.9	131.1	87.23	1,458.7	-988.5	1,752.8	1,602.0	150.77	11.626	
7,050.0	6,644.1	6,648.1	6,648.1	20.8	131.1	88.93	1,458.7	-988.5	1,734.7	1,582.7	151.94	11.417	

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

Anticollision Report



Company:	PDC ENERGY	Local Co-ordinate Reference:	Well WACKER 10G-214
Project:	WELD COUNTY, COLORADO	TVD Reference:	KB-EST @ 4624.0usft (Original Well Elev)
Reference Site:	SW NW SEC. 10 T5N R64W 6th P.M.	MD Reference:	KB-EST @ 4624.0usft (Original Well Elev)
Site Error:	0.0 usft	North Reference:	True
Reference Well:	WACKER 10G-214	Survey Calculation Method:	Minimum Curvature
Well Error:	0.0 usft	Output errors are at	2.00 sigma
Reference Wellbore	ORIGINAL WELLBORE	Database:	EDM 5000.1 Single User Db
Reference Design:	PROPOSAL #1	Offset TVD Reference:	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	
7,086.5	6,645.0	6,649.0	6,649.0	21.5	131.2	90.03	1,458.7	-988.5	1,722.1	1,569.5	152.69	11.278	
7,100.0	6,645.0	6,649.0	6,649.0	21.8	131.2	90.03	1,458.7	-988.5	1,717.7	1,564.8	152.96	11.230	
7,185.0	6,644.9	6,648.9	6,648.9	23.6	131.2	90.02	1,458.7	-988.5	1,691.9	1,537.2	154.72	10.935	
7,200.0	6,644.8	6,648.8	6,648.8	23.9	131.2	90.02	1,458.7	-988.5	1,687.8	1,532.7	155.03	10.887	
7,283.4	6,644.7	6,648.7	6,648.7	25.7	131.2	90.02	1,458.7	-988.5	1,666.9	1,510.1	156.87	10.626	
7,300.0	6,644.7	6,648.7	6,648.7	26.1	131.2	90.02	1,458.7	-988.5	1,663.3	1,506.0	157.23	10.579	
7,381.9	6,644.6	6,648.6	6,648.6	28.0	131.2	90.01	1,458.7	-988.5	1,647.5	1,488.4	159.12	10.353	
7,400.0	6,644.6	6,648.6	6,648.6	28.4	131.2	90.01	1,458.7	-988.5	1,644.5	1,485.0	159.54	10.308	
7,480.3	6,644.5	6,648.5	6,648.5	30.3	131.2	90.01	1,458.7	-988.5	1,633.8	1,472.3	161.47	10.118	
7,500.0	6,644.4	6,648.4	6,648.4	30.8	131.2	90.01	1,458.7	-988.5	1,631.7	1,469.8	161.94	10.076	
7,578.7	6,644.3	6,648.3	6,648.3	32.7	131.1	90.00	1,458.7	-988.5	1,625.9	1,462.0	163.87	9.921	
7,600.0	6,644.3	6,648.3	6,648.3	33.3	131.1	90.00	1,458.7	-988.5	1,624.9	1,460.5	164.40	9.884	
7,660.1	6,644.2	6,648.2	6,648.2	34.8	131.1	90.00	1,458.7	-988.5	1,623.8	1,457.9	165.91	9.788 CC	
7,677.1	6,644.2	6,648.2	6,648.2	35.2	131.1	90.00	1,458.7	-988.5	1,623.9	1,457.6	166.34	9.763	
7,700.0	6,644.1	6,648.1	6,648.1	35.8	131.1	90.00	1,458.7	-988.5	1,624.3	1,457.4	166.91	9.732 ES	
7,775.6	6,644.0	6,648.0	6,648.0	37.7	131.1	89.99	1,458.7	-988.5	1,627.9	1,459.1	168.84	9.642	
7,800.0	6,644.0	6,648.0	6,648.0	38.3	131.1	89.99	1,458.7	-988.5	1,629.8	1,460.4	169.46	9.618	
7,874.0	6,643.9	6,647.9	6,647.9	40.2	131.1	89.99	1,458.7	-988.5	1,637.9	1,466.5	171.38	9.557	
7,900.0	6,643.9	6,647.9	6,647.9	40.9	131.1	89.99	1,458.7	-988.5	1,641.5	1,469.4	172.05	9.541	
7,972.4	6,643.8	6,647.8	6,647.8	42.8	131.1	89.98	1,458.7	-988.5	1,653.6	1,479.6	173.94	9.507	
8,000.0	6,643.7	6,647.7	6,647.7	43.5	131.1	89.98	1,458.7	-988.5	1,659.0	1,484.4	174.66	9.498	
8,070.8	6,643.6	6,647.6	6,647.6	45.4	131.1	89.98	1,458.7	-988.5	1,675.0	1,498.4	176.53	9.488 SF	
8,100.0	6,643.6	6,647.6	6,647.6	46.2	131.1	89.98	1,458.7	-988.5	1,682.4	1,505.1	177.30	9.489	
8,169.3	6,643.5	6,647.5	6,647.5	48.0	131.1	89.98	1,458.7	-988.5	1,701.8	1,522.6	179.14	9.500	
8,200.0	6,643.5	6,647.5	6,647.5	48.8	131.1	89.97	1,458.7	-988.5	1,711.2	1,531.3	179.95	9.509	
8,267.7	6,643.4	6,647.4	6,647.4	50.6	131.1	89.97	1,458.7	-988.5	1,733.8	1,552.0	181.76	9.539	
8,300.0	6,643.3	6,647.3	6,647.3	51.5	131.1	89.97	1,458.7	-988.5	1,745.4	1,562.7	182.62	9.557	
8,366.1	6,643.2	6,647.2	6,647.2	53.3	131.1	89.97	1,458.7	-988.5	1,770.7	1,586.3	184.40	9.602	
8,400.0	6,643.2	6,647.2	6,647.2	54.2	131.1	89.96	1,458.7	-988.5	1,784.4	1,599.1	185.31	9.629	
8,464.5	6,643.1	6,647.1	6,647.1	55.9	131.1	89.96	1,458.7	-988.5	1,812.2	1,625.1	187.05	9.688	
8,500.0	6,643.1	6,647.1	6,647.1	56.9	131.1	89.96	1,458.7	-988.5	1,828.2	1,640.2	188.01	9.724	
8,563.0	6,643.0	6,647.0	6,647.0	58.6	131.1	89.96	1,458.7	-988.5	1,857.9	1,668.2	189.71	9.793	
8,600.0	6,642.9	6,646.9	6,646.9	59.6	131.1	89.96	1,458.7	-988.5	1,876.2	1,685.5	190.72	9.838	
8,661.4	6,642.8	6,646.8	6,646.8	61.3	131.1	89.95	1,458.7	-988.5	1,907.7	1,715.3	192.38	9.916	
8,700.0	6,642.8	6,646.8	6,646.8	62.3	131.1	89.95	1,458.7	-988.5	1,928.3	1,734.8	193.43	9.969	
8,759.8	6,642.7	6,646.7	6,646.7	64.0	131.1	89.95	1,458.7	-988.5	1,961.2	1,766.1	195.06	10.054	
8,800.0	6,642.7	6,646.7	6,646.7	65.1	131.1	89.95	1,458.7	-988.5	1,984.0	1,787.8	196.16	10.114	
8,858.2	6,642.6	6,646.6	6,646.6	66.6	131.1	89.94	1,458.7	-988.5	2,018.0	1,820.3	197.75	10.205	
8,900.0	6,642.5	6,646.5	6,646.5	67.8	131.1	89.94	1,458.7	-988.5	2,043.1	1,844.2	198.89	10.272	
8,956.7	6,642.4	6,646.4	6,646.4	69.3	131.1	89.94	1,458.7	-988.5	2,077.9	1,877.5	200.44	10.367	
9,000.0	6,642.4	6,646.4	6,646.4	70.5	131.1	89.94	1,458.7	-988.5	2,105.3	1,903.6	201.63	10.441	
9,055.1	6,642.3	6,646.3	6,646.3	72.0	131.1	89.93	1,458.7	-988.5	2,140.7	1,937.6	203.14	10.538	
9,100.0	6,642.3	6,646.3	6,646.3	73.3	131.1	89.93	1,458.7	-988.5	2,170.3	1,965.9	204.37	10.619	
9,153.5	6,642.2	6,646.2	6,646.2	74.7	131.1	89.93	1,458.7	-988.5	2,206.1	2,000.3	205.84	10.718	
9,200.0	6,642.1	6,646.1	6,646.1	76.0	131.1	89.93	1,458.7	-988.5	2,237.9	2,030.8	207.12	10.805	
9,251.9	6,642.1	6,646.1	6,646.1	77.5	131.1	89.93	1,458.7	-988.5	2,273.9	2,065.4	208.55	10.904	
9,300.0	6,642.0	6,646.0	6,646.0	78.8	131.1	89.92	1,458.7	-988.5	2,307.8	2,098.0	209.87	10.997	
9,350.4	6,641.9	6,645.9	6,645.9	80.2	131.1	89.92	1,458.7	-988.5	2,343.9	2,132.6	211.26	11.095	
9,400.0	6,641.9	6,645.9	6,645.9	81.5	131.1	89.92	1,458.7	-988.5	2,379.9	2,167.3	212.62	11.193	
9,448.8	6,641.8	6,645.8	6,645.8	82.9	131.1	89.92	1,458.7	-988.5	2,415.8	2,201.9	213.97	11.290	
9,500.0	6,641.7	6,645.7	6,645.7	84.3	131.1	89.91	1,458.7	-988.5	2,454.0	2,238.6	215.38	11.394	
9,547.2	6,641.7	6,645.7	6,645.7	85.6	131.1	89.91	1,458.7	-988.5	2,489.6	2,272.9	216.69	11.489	

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

Anticollision Report



Company:	PDC ENERGY	Local Co-ordinate Reference:	Well WACKER 10G-214
Project:	WELD COUNTY, COLORADO	TVD Reference:	KB-EST @ 4624.0usft (Original Well Elev)
Reference Site:	SW NW SEC. 10 T5N R64W 6th P.M.	MD Reference:	KB-EST @ 4624.0usft (Original Well Elev)
Site Error:	0.0 usft	North Reference:	True
Reference Well:	WACKER 10G-214	Survey Calculation Method:	Minimum Curvature
Well Error:	0.0 usft	Output errors are at	2.00 sigma
Reference Wellbore	ORIGINAL WELLBORE	Database:	EDM 5000.1 Single User Db
Reference Design:	PROPOSAL #1	Offset TVD Reference:	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	6,641.6	6,645.6	6,645.6	87.1	131.1	89.91	1,458.7	-988.5	2,529.8	2,311.7	218.14	11.597	
9,645.6	6,641.5	6,645.5	6,645.5	88.3	131.1	89.91	1,458.7	-988.5	2,565.0	2,345.6	219.41	11.691	
9,700.0	6,641.5	6,645.5	6,645.5	89.8	131.1	89.91	1,458.7	-988.5	2,607.3	2,386.4	220.91	11.802	
9,744.1	6,641.4	6,645.4	6,645.4	91.0	131.1	89.90	1,458.7	-988.5	2,641.9	2,419.8	222.13	11.894	
9,800.0	6,641.3	6,645.3	6,645.3	92.6	131.1	89.90	1,458.7	-988.5	2,686.2	2,462.6	223.68	12.009	
9,842.5	6,641.3	6,645.3	6,645.3	93.8	131.1	89.90	1,458.7	-988.5	2,720.2	2,495.4	224.86	12.098	
9,900.0	6,641.2	6,645.2	6,645.2	95.4	131.1	89.90	1,458.7	-988.5	2,766.6	2,540.1	226.45	12.217	
9,940.9	6,641.1	6,645.1	6,645.1	96.5	131.1	89.90	1,458.7	-988.5	2,799.8	2,572.2	227.58	12.302	
10,000.0	6,641.1	6,645.1	6,645.1	98.1	131.1	89.89	1,458.7	-988.5	2,848.1	2,618.9	229.22	12.425	
10,039.3	6,641.0	6,645.0	6,645.0	99.2	131.1	89.89	1,458.7	-988.5	2,880.5	2,650.2	230.31	12.507	
10,100.0	6,640.9	6,644.9	6,644.9	100.9	131.1	89.89	1,458.7	-988.5	2,930.8	2,698.8	231.99	12.633	
10,137.8	6,640.9	6,644.9	6,644.9	102.0	131.1	89.89	1,458.7	-988.5	2,962.4	2,729.3	233.04	12.712	
10,200.0	6,640.8	6,644.8	6,644.8	103.7	131.1	89.88	1,458.7	-988.5	3,014.6	2,779.8	234.77	12.841	
10,236.2	6,640.8	6,644.8	6,644.8	104.7	131.1	89.88	1,458.7	-988.5	3,045.2	2,809.4	235.78	12.915	
10,300.0	6,640.7	6,644.7	6,644.7	106.5	131.1	89.88	1,458.7	-988.5	3,099.3	2,861.8	237.55	13.047	
10,334.6	6,640.6	6,644.6	6,644.6	107.4	131.1	89.88	1,458.7	-988.5	3,128.9	2,890.4	238.51	13.118	
10,400.0	6,640.6	6,644.6	6,644.6	109.3	131.1	89.88	1,458.7	-988.5	3,184.9	2,944.6	240.33	13.252	
10,433.0	6,640.5	6,644.5	6,644.5	110.2	131.1	89.87	1,458.7	-988.5	3,213.4	2,972.2	241.25	13.320	
10,500.0	6,640.4	6,644.4	6,644.4	112.0	131.1	89.87	1,458.7	-988.5	3,271.4	3,028.2	243.11	13.456	
10,531.5	6,640.4	6,644.4	6,644.4	112.9	131.1	89.87	1,458.7	-988.5	3,298.7	3,054.7	243.98	13.520	
10,600.0	6,640.3	6,644.3	6,644.3	114.8	131.1	89.87	1,458.7	-988.5	3,358.5	3,112.6	245.89	13.659	
10,629.9	6,640.3	6,644.3	6,644.3	115.7	131.1	89.87	1,458.7	-988.5	3,384.7	3,138.0	246.72	13.719	
10,700.0	6,640.2	6,644.2	6,644.2	117.6	131.1	89.86	1,458.7	-988.5	3,446.4	3,197.7	248.67	13.859	
10,728.3	6,640.1	6,644.1	6,644.1	118.4	131.1	89.86	1,458.7	-988.5	3,471.4	3,221.9	249.46	13.916	
10,800.0	6,640.0	6,644.0	6,644.0	120.4	131.1	89.86	1,458.7	-988.5	3,534.9	3,283.5	251.46	14.058	
10,826.7	6,640.0	6,644.0	6,644.0	121.2	131.1	89.86	1,458.7	-988.5	3,558.7	3,306.5	252.20	14.110	
10,900.0	6,639.9	6,643.9	6,643.9	123.2	131.1	89.85	1,458.7	-988.5	3,624.0	3,369.8	254.25	14.254	
10,925.2	6,639.9	6,643.9	6,643.9	123.9	131.1	89.85	1,458.7	-988.5	3,646.6	3,391.6	254.95	14.303	
11,000.0	6,639.8	6,643.8	6,643.8	126.0	131.1	89.85	1,458.7	-988.5	3,713.7	3,456.7	257.03	14.448	
11,023.6	6,639.8	6,643.8	6,643.8	126.6	131.1	89.85	1,458.7	-988.5	3,734.9	3,477.3	257.69	14.494	
11,100.0	6,639.7	6,643.7	6,643.7	128.8	131.1	89.85	1,458.7	-988.5	3,803.9	3,544.1	259.82	14.641	
11,122.0	6,639.6	6,643.6	6,643.6	129.4	131.1	89.85	1,458.7	-988.5	3,823.8	3,563.4	260.43	14.683	
11,200.0	6,639.5	6,643.5	6,643.5	131.6	131.1	89.84	1,458.7	-988.5	3,894.6	3,631.9	262.61	14.830	
11,220.4	6,639.5	6,643.5	6,643.5	132.1	131.1	89.84	1,458.7	-988.5	3,913.2	3,650.0	263.18	14.869	
11,300.0	6,639.4	6,643.4	6,643.4	134.4	131.0	89.84	1,458.7	-988.5	3,985.7	3,720.3	265.40	15.018	
11,318.9	6,639.4	6,643.4	6,643.4	134.9	131.0	89.84	1,458.7	-988.5	4,002.9	3,737.0	265.92	15.053	
11,400.0	6,639.3	6,643.3	6,643.3	137.1	131.0	89.83	1,458.7	-988.5	4,077.2	3,809.0	268.19	15.203	
11,417.3	6,639.3	6,643.3	6,643.3	137.6	131.0	89.83	1,458.7	-988.5	4,093.1	3,824.4	268.67	15.235	
11,500.0	6,639.2	6,643.2	6,643.2	139.9	131.0	89.83	1,458.7	-988.5	4,169.1	3,898.1	270.98	15.385	
11,515.7	6,639.1	6,643.1	6,643.1	140.4	131.0	89.83	1,458.7	-988.5	4,183.6	3,912.2	271.42	15.414	
11,600.0	6,639.0	6,643.0	6,643.0	142.7	131.0	89.83	1,458.7	-988.5	4,261.4	3,987.6	273.77	15.566	
11,614.1	6,639.0	6,643.0	6,643.0	143.1	131.0	89.83	1,458.7	-988.5	4,274.5	4,000.3	274.17	15.591	
11,700.0	6,638.9	6,642.9	6,642.9	145.5	131.0	89.82	1,458.7	-988.5	4,354.0	4,077.5	276.56	15.743	
11,712.6	6,638.9	6,642.9	6,642.9	145.9	131.0	89.82	1,458.7	-988.5	4,365.7	4,088.8	276.91	15.766	
11,800.0	6,638.8	6,642.8	6,642.8	148.3	131.0	89.82	1,458.7	-988.5	4,447.0	4,167.6	279.36	15.919	
11,811.0	6,638.8	6,642.8	6,642.8	148.6	131.0	89.82	1,458.7	-988.5	4,457.2	4,177.5	279.66	15.938	
11,900.0	6,638.7	6,642.7	6,642.7	151.1	131.0	89.81	1,458.7	-988.5	4,540.2	4,258.0	282.15	16.091	
11,909.4	6,638.6	6,642.6	6,642.6	151.4	131.0	89.81	1,458.7	-988.5	4,549.0	4,266.6	282.41	16.108	
12,000.0	6,638.5	6,642.5	6,642.5	153.9	131.0	89.81	1,458.7	-988.5	4,633.7	4,348.8	284.94	16.262	
12,007.8	6,638.5	6,642.5	6,642.5	154.1	131.0	89.81	1,458.7	-988.5	4,641.1	4,355.9	285.16	16.275	
12,100.0	6,638.4	6,642.4	6,642.4	156.7	131.0	89.81	1,458.7	-988.5	4,727.5	4,439.8	287.74	16.430	
12,106.3	6,638.4	6,642.4	6,642.4	156.9	131.0	89.81	1,458.7	-988.5	4,733.4	4,445.5	287.91	16.440	

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

Anticollision Report



Company:	PDC ENERGY	Local Co-ordinate Reference:	Well WACKER 10G-214
Project:	WELD COUNTY, COLORADO	TVD Reference:	KB-EST @ 4624.0usft (Original Well Elev)
Reference Site:	SW NW SEC. 10 T5N R64W 6th P.M.	MD Reference:	KB-EST @ 4624.0usft (Original Well Elev)
Site Error:	0.0 usft	North Reference:	True
Reference Well:	WACKER 10G-214	Survey Calculation Method:	Minimum Curvature
Well Error:	0.0 usft	Output errors are at	2.00 sigma
Reference Wellbore	ORIGINAL WELLBORE	Database:	EDM 5000.1 Single User Db
Reference Design:	PROPOSAL #1	Offset TVD Reference:	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	
12,200.0	6,638.3	6,642.3	6,642.3	159.5	131.0	89.80	1,458.7	-988.5	4,821.5	4,531.0	290.53	16.596	
12,204.7	6,638.3	6,642.3	6,642.3	159.6	131.0	89.80	1,458.7	-988.5	4,826.0	4,535.3	290.66	16.603	
12,300.0	6,638.2	6,642.2	6,642.2	162.3	131.0	89.80	1,458.7	-988.5	4,915.8	4,622.5	293.33	16.759	
12,303.1	6,638.2	6,642.2	6,642.2	162.4	131.0	89.80	1,458.7	-988.5	4,918.8	4,625.4	293.42	16.764	
12,400.0	6,638.0	6,642.0	6,642.0	165.1	131.0	89.80	1,458.7	-988.5	5,010.3	4,714.2	296.12	16.920	
12,401.5	6,638.0	6,642.0	6,642.0	165.2	131.0	89.80	1,458.7	-988.5	5,011.8	4,715.6	296.17	16.922	
12,500.0	6,637.9	6,641.9	6,641.9	167.9	131.0	89.79	1,458.7	-988.5	5,105.0	4,806.1	298.92	17.078	
12,598.4	6,637.8	6,641.8	6,641.8	170.7	131.0	89.79	1,458.7	-988.5	5,198.4	4,896.7	301.67	17.232	
12,600.0	6,637.8	6,641.8	6,641.8	170.7	131.0	89.79	1,458.7	-988.5	5,199.9	4,898.2	301.72	17.234	
12,696.8	6,637.7	6,641.7	6,641.7	173.4	131.0	89.78	1,458.7	-988.5	5,292.0	4,987.6	304.43	17.384	
12,700.0	6,637.7	6,641.7	6,641.7	173.5	131.0	89.78	1,458.7	-988.5	5,295.0	4,990.5	304.51	17.388	
12,795.2	6,637.6	6,641.6	6,641.6	176.2	131.0	89.78	1,458.7	-988.5	5,385.8	5,078.6	307.18	17.533	
12,800.0	6,637.6	6,641.6	6,641.6	176.3	131.0	89.78	1,458.7	-988.5	5,390.3	5,083.0	307.31	17.540	
12,893.7	6,637.4	6,641.4	6,641.4	178.9	131.0	89.78	1,458.7	-988.5	5,479.7	5,169.7	309.93	17.680	
12,900.0	6,637.4	6,641.4	6,641.4	179.1	131.0	89.78	1,458.7	-988.5	5,485.7	5,175.6	310.11	17.690	
12,992.1	6,637.3	6,641.3	6,641.3	181.7	131.0	89.77	1,458.7	-988.5	5,573.8	5,261.1	312.69	17.825	
13,000.0	6,637.3	6,641.3	6,641.3	181.9	131.0	89.77	1,458.7	-988.5	5,581.3	5,268.4	312.91	17.837	
13,090.5	6,637.2	6,641.2	6,641.2	184.4	131.0	89.77	1,458.7	-988.5	5,668.0	5,352.5	315.44	17.968	
13,100.0	6,637.2	6,641.2	6,641.2	184.7	131.0	89.77	1,458.7	-988.5	5,677.1	5,361.4	315.71	17.982	
13,188.9	6,637.1	6,641.1	6,641.1	187.2	131.0	89.77	1,458.7	-988.5	5,762.4	5,444.2	318.20	18.109	
13,200.0	6,637.1	6,641.1	6,641.1	187.5	131.0	89.77	1,458.7	-988.5	5,773.0	5,454.5	318.51	18.125	
13,287.4	6,637.0	6,641.0	6,641.0	190.0	131.0	89.76	1,458.7	-988.5	5,856.9	5,535.9	320.95	18.248	
13,300.0	6,637.0	6,641.0	6,641.0	190.3	131.0	89.76	1,458.7	-988.5	5,869.0	5,547.7	321.30	18.266	
13,385.8	6,636.9	6,640.9	6,640.9	192.7	131.0	89.76	1,458.7	-988.5	5,951.5	5,627.8	323.71	18.385	
13,400.0	6,636.8	6,640.8	6,640.8	193.1	131.0	89.76	1,458.7	-988.5	5,965.1	5,641.0	324.10	18.405	
13,484.2	6,636.7	6,640.7	6,640.7	195.5	131.0	89.76	1,458.7	-988.5	6,046.2	5,719.8	326.46	18.521	
13,500.0	6,636.7	6,640.7	6,640.7	195.9	131.0	89.76	1,458.7	-988.5	6,061.4	5,734.5	326.90	18.542	
13,582.6	6,636.6	6,640.6	6,640.6	198.2	131.0	89.75	1,458.7	-988.5	6,141.1	5,811.9	329.22	18.654	
13,600.0	6,636.6	6,640.6	6,640.6	198.7	131.0	89.75	1,458.7	-988.5	6,157.8	5,828.1	329.70	18.677	
13,681.1	6,636.5	6,640.5	6,640.5	201.0	131.0	89.75	1,458.7	-988.5	6,236.1	5,904.1	331.97	18.785	
13,700.0	6,636.5	6,640.5	6,640.5	201.5	131.0	89.75	1,458.7	-988.5	6,254.4	5,921.8	332.50	18.810	
13,779.5	6,636.4	6,640.4	6,640.4	203.7	131.0	89.75	1,458.7	-988.5	6,331.2	5,996.4	334.73	18.914	
13,800.0	6,636.4	6,640.4	6,640.4	204.3	131.0	89.75	1,458.7	-988.5	6,351.0	6,015.7	335.30	18.941	
13,877.9	6,636.3	6,640.3	6,640.3	206.5	131.0	89.74	1,458.7	-988.5	6,426.3	6,088.9	337.49	19.042	
13,900.0	6,636.3	6,640.3	6,640.3	207.1	131.0	89.74	1,458.7	-988.5	6,447.7	6,109.6	338.10	19.070	
13,976.3	6,636.2	6,640.2	6,640.2	209.3	131.0	89.74	1,458.7	-988.5	6,521.6	6,181.4	340.24	19.168	
14,000.0	6,636.1	6,640.1	6,640.1	209.9	131.0	89.74	1,458.7	-988.5	6,544.5	6,203.6	340.91	19.198	
14,074.8	6,636.0	6,640.0	6,640.0	212.0	131.0	89.74	1,458.7	-988.5	6,617.0	6,274.0	343.00	19.292	
14,100.0	6,636.0	6,640.0	6,640.0	212.7	131.0	89.74	1,458.7	-988.5	6,641.4	6,297.7	343.71	19.323	
14,173.2	6,635.9	6,639.9	6,639.9	214.8	131.0	89.73	1,458.7	-988.5	6,712.4	6,366.7	345.76	19.414	
14,200.0	6,635.9	6,639.9	6,639.9	215.5	131.0	89.73	1,458.7	-988.5	6,738.5	6,391.9	346.51	19.447	
14,271.6	6,635.8	6,639.8	6,639.8	217.5	131.0	89.73	1,458.7	-988.5	6,808.0	6,459.5	348.51	19.534	
14,300.0	6,635.8	6,639.8	6,639.8	218.3	131.0	89.73	1,458.7	-988.5	6,835.6	6,486.2	349.31	19.569	
14,370.0	6,635.7	6,639.7	6,639.7	220.3	131.0	89.73	1,458.7	-988.5	6,903.6	6,552.3	351.27	19.653	
14,400.0	6,635.7	6,639.7	6,639.7	221.1	131.0	89.72	1,458.7	-988.5	6,932.7	6,580.6	352.11	19.689	
14,468.5	6,635.6	6,639.6	6,639.6	223.1	131.0	89.72	1,458.7	-988.5	6,999.3	6,645.3	354.03	19.770	
14,500.0	6,635.6	6,639.6	6,639.6	223.9	131.0	89.72	1,458.7	-988.5	7,030.0	6,675.1	354.91	19.808	
14,566.9	6,635.5	6,639.5	6,639.5	225.8	131.0	89.72	1,458.7	-988.5	7,095.1	6,738.3	356.79	19.886	
14,600.0	6,635.4	6,639.4	6,639.4	226.8	131.0	89.72	1,458.7	-988.5	7,127.3	6,769.6	357.71	19.925	
14,665.3	6,635.4	6,639.4	6,639.4	228.6	131.0	89.72	1,458.7	-988.5	7,190.9	6,831.4	359.54	20.000	
14,700.0	6,635.3	6,639.3	6,639.3	229.6	131.0	89.72	1,458.7	-988.5	7,224.7	6,864.2	360.52	20.040	
14,763.7	6,635.2	6,639.2	6,639.2	231.3	131.0	89.71	1,458.7	-988.5	7,286.9	6,924.6	362.30	20.113	

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

Anticollision Report



Company:	PDC ENERGY	Local Co-ordinate Reference:	Well WACKER 10G-214
Project:	WELD COUNTY, COLORADO	TVD Reference:	KB-EST @ 4624.0usft (Original Well Elev)
Reference Site:	SW NW SEC. 10 T5N R64W 6th P.M.	MD Reference:	KB-EST @ 4624.0usft (Original Well Elev)
Site Error:	0.0 usft	North Reference:	True
Reference Well:	WACKER 10G-214	Survey Calculation Method:	Minimum Curvature
Well Error:	0.0 usft	Output errors are at	2.00 sigma
Reference Wellbore	ORIGINAL WELLBORE	Database:	EDM 5000.1 Single User Db
Reference Design:	PROPOSAL #1	Offset TVD Reference:	Offset Datum

Offset Design SW NW SEC. 10 T5N R64W 6th P.M. - EXIST VERT HEINRICH #41-9 - 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									
Measured Depth (usft)	Vertical Depth (usft)	Measured Depth (usft)	Vertical Depth (usft)	Reference (usft)	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
14,800.0	6,635.2	6,639.2	6,639.2	232.4	131.0	89.71	1,458.7	-988.5	7,322.2	6,958.9	363.32	20.154	
14,862.2	6,635.1	6,639.1	6,639.1	234.1	131.0	89.71	1,458.7	-988.5	7,382.8	7,017.8	365.06	20.224	
14,900.0	6,635.1	6,639.1	6,639.1	235.2	131.0	89.71	1,458.7	-988.5	7,419.7	7,053.6	366.12	20.266	
14,960.6	6,635.0	6,639.0	6,639.0	236.9	131.0	89.71	1,458.7	-988.5	7,478.9	7,111.1	367.82	20.333	
14,982.9	6,635.0	6,639.0	6,639.0	237.5	131.0	89.71	1,458.7	-988.5	7,500.6	7,132.2	368.44	20.358	

Anticollision Report



Company:	PDC ENERGY	Local Co-ordinate Reference:	Well WACKER 10G-214
Project:	WELD COUNTY, COLORADO	TVD Reference:	KB-EST @ 4624.0usft (Original Well Elev)
Reference Site:	SW NW SEC. 10 T5N R64W 6th P.M.	MD Reference:	KB-EST @ 4624.0usft (Original Well Elev)
Site Error:	0.0 usft	North Reference:	True
Reference Well:	WACKER 10G-214	Survey Calculation Method:	Minimum Curvature
Well Error:	0.0 usft	Output errors are at	2.00 sigma
Reference Wellbore	ORIGINAL WELLBORE	Database:	EDM 5000.1 Single User Db
Reference Design:	PROPOSAL #1	Offset TVD Reference:	Offset Datum

Offset Design SW NW SEC. 10 T5N R64W 6th P.M. - EXIST VERT JURGENS #8-1 - 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
0.0	0.0	0.0	0.0	0.0	0.0	-101.42	-1,268.5	-6,281.5	6,408.4				
98.4	98.4	79.0	79.0	0.1	0.0	-101.42	-1,268.4	-6,281.4	6,408.2	6,408.1	0.11	N/A	
100.0	100.0	81.0	81.0	0.1	0.0	-101.42	-1,268.4	-6,281.4	6,408.2	6,408.1	0.11	N/A	
196.8	196.8	197.3	197.3	0.3	0.2	-101.41	-1,267.9	-6,281.1	6,407.8	6,407.3	0.52	N/A	
200.0	200.0	200.9	200.9	0.3	0.2	-101.41	-1,267.8	-6,281.0	6,407.8	6,407.3	0.53	N/A	
295.3	295.3	299.1	299.1	0.5	0.3	-101.41	-1,267.3	-6,280.6	6,407.3	6,406.4	0.83	7,714.849	
300.0	300.0	300.0	300.0	0.5	0.3	-101.41	-1,267.3	-6,280.6	6,407.2	6,406.4	0.84	7,610.648	
393.7	393.7	373.6	373.5	0.8	0.3	-101.41	-1,267.1	-6,280.3	6,406.9	6,405.8	1.09	5,855.209	
400.0	400.0	378.3	378.3	0.8	0.4	-101.41	-1,267.1	-6,280.3	6,406.8	6,405.7	1.11	5,766.396	
492.1	492.1	488.2	488.2	1.0	0.4	-101.40	-1,266.6	-6,280.1	6,406.6	6,405.2	1.38	4,645.363	
500.0	500.0	499.2	499.2	1.0	0.4	-101.40	-1,266.5	-6,280.0	6,406.6	6,405.2	1.40	4,566.690	
590.5	590.5	592.3	592.3	1.2	0.5	-101.40	-1,266.1	-6,279.6	6,406.1	6,404.4	1.65	3,876.147	
600.0	600.0	600.0	600.0	1.2	0.5	-101.40	-1,266.0	-6,279.6	6,406.0	6,404.3	1.68	3,818.281	
689.0	689.0	674.4	674.3	1.4	0.5	-101.40	-1,265.8	-6,279.3	6,405.6	6,403.7	1.91	3,351.155	
700.0	700.0	683.4	683.4	1.4	0.5	-101.40	-1,265.8	-6,279.2	6,405.6	6,403.6	1.94	3,301.290	
787.4	787.4	759.6	759.6	1.6	0.6	-101.40	-1,265.6	-6,279.1	6,405.4	6,403.2	2.17	2,956.800	
800.0	800.0	770.8	770.8	1.7	0.6	-101.40	-1,265.6	-6,279.1	6,405.4	6,403.2	2.20	2,913.148	
885.8	885.8	852.2	852.2	1.9	0.6	-101.39	-1,265.4	-6,279.1	6,405.4	6,402.9	2.42	2,641.825	
900.0	900.0	866.1	866.1	1.9	0.6	-101.39	-1,265.4	-6,279.1	6,405.4	6,402.9	2.46	2,601.287	
984.2	984.2	970.8	970.8	2.1	0.6	-101.39	-1,265.3	-6,279.0	6,405.3	6,402.6	2.68	2,389.257	
1,000.0	1,000.0	993.1	993.1	2.1	0.7	-101.39	-1,265.3	-6,278.9	6,405.2	6,402.5	2.72	2,354.076	
1,082.7	1,082.7	1,057.3	1,057.3	2.3	0.7	-101.39	-1,265.3	-6,278.7	6,405.0	6,402.0	2.91	2,197.917	
1,100.0	1,100.0	1,070.1	1,070.0	2.3	0.7	-101.39	-1,265.4	-6,278.7	6,404.9	6,402.0	2.95	2,167.954	
1,119.1	1,119.1	1,084.1	1,084.1	2.4	0.7	-101.39	-1,265.4	-6,278.7	6,404.9	6,401.9	3.00	2,135.849	
1,181.1	1,181.1	1,136.5	1,136.5	2.5	0.7	-101.40	-1,265.5	-6,278.7	6,405.0	6,401.8	3.15	2,035.010	
1,200.0	1,200.0	1,153.5	1,153.5	2.6	0.7	-101.40	-1,265.5	-6,278.7	6,405.0	6,401.8	3.19	2,005.701	
1,279.5	1,279.5	1,249.4	1,249.4	2.7	0.7	-101.40	-1,265.6	-6,278.9	6,405.2	6,401.8	3.38	1,894.032	
1,300.0	1,300.0	1,285.5	1,285.5	2.8	0.7	-101.40	-1,265.5	-6,278.8	6,405.1	6,401.7	3.43	1,868.545	
1,315.4	1,315.4	1,306.7	1,306.6	2.8	0.7	139.96	-1,265.5	-6,278.7	6,405.1	6,401.6	3.48	1,839.337	
1,377.9	1,377.9	1,365.1	1,365.1	3.0	0.7	139.95	-1,265.5	-6,278.5	6,405.6	6,402.0	3.63	1,763.306	
1,400.0	1,400.0	1,385.6	1,385.6	3.0	0.7	139.95	-1,265.6	-6,278.4	6,406.1	6,402.4	3.69	1,738.029	
1,476.4	1,476.3	1,458.7	1,458.7	3.1	0.7	139.94	-1,265.7	-6,278.2	6,408.7	6,404.8	3.86	1,659.939	
1,500.0	1,499.8	1,481.4	1,481.4	3.2	0.7	139.93	-1,265.7	-6,278.1	6,409.8	6,405.9	3.92	1,637.174	
1,574.8	1,574.4	1,553.9	1,553.9	3.3	0.8	139.90	-1,265.9	-6,277.9	6,414.4	6,410.3	4.09	1,567.243	
1,600.0	1,599.5	1,578.4	1,578.4	3.4	0.8	139.89	-1,266.0	-6,277.8	6,416.2	6,412.1	4.15	1,545.117	
1,673.2	1,672.2	1,648.5	1,648.5	3.6	0.8	139.86	-1,266.1	-6,277.7	6,422.7	6,418.4	4.32	1,485.860	
1,700.0	1,698.7	1,673.9	1,673.9	3.6	0.8	139.84	-1,266.1	-6,277.6	6,425.4	6,421.0	4.38	1,465.924	
1,771.6	1,769.5	1,739.5	1,739.5	3.8	0.8	139.79	-1,265.7	-6,277.6	6,433.6	6,429.1	4.57	1,409.128	
1,800.0	1,797.5	1,764.8	1,764.8	3.9	0.8	139.77	-1,265.5	-6,277.6	6,437.3	6,432.7	4.64	1,387.380	
1,870.1	1,866.3	1,830.9	1,830.9	4.1	0.8	139.72	-1,264.9	-6,277.8	6,447.3	6,442.5	4.84	1,332.360	
1,900.2	1,895.8	1,861.3	1,861.3	4.2	0.8	139.70	-1,264.6	-6,277.8	6,452.0	6,447.1	4.93	1,309.903	
1,968.5	1,962.6	1,932.2	1,932.2	4.4	0.9	139.79	-1,263.8	-6,277.9	6,462.9	6,457.8	5.13	1,261.028	
2,000.0	1,993.4	1,966.2	1,966.2	4.5	0.9	139.83	-1,263.4	-6,278.0	6,467.9	6,462.7	5.22	1,239.623	
2,066.9	2,058.9	2,031.6	2,031.5	4.7	0.9	139.92	-1,262.6	-6,278.0	6,478.6	6,473.2	5.42	1,194.952	
2,100.0	2,091.2	2,060.8	2,060.8	4.8	0.9	139.96	-1,262.1	-6,278.1	6,483.9	6,478.4	5.52	1,174.355	
2,165.3	2,155.2	2,135.5	2,135.5	5.1	0.9	140.06	-1,260.5	-6,278.4	6,494.3	6,488.6	5.73	1,133.955	
2,200.0	2,189.1	2,194.5	2,194.5	5.2	0.9	140.14	-1,259.3	-6,278.3	6,499.8	6,493.9	5.84	1,112.310	
2,263.8	2,251.4	2,240.6	2,240.6	5.5	1.0	140.21	-1,258.4	-6,278.2	6,509.7	6,503.7	6.05	1,076.699	
2,300.0	2,286.9	2,264.9	2,264.8	5.6	1.0	140.24	-1,257.9	-6,278.3	6,515.5	6,509.3	6.16	1,057.501	
2,362.2	2,347.7	2,315.3	2,315.3	5.8	1.0	140.31	-1,256.9	-6,278.4	6,525.5	6,519.1	6.36	1,025.235	
2,400.0	2,384.7	2,374.7	2,374.6	6.0	1.0	140.39	-1,255.9	-6,278.5	6,531.5	6,525.0	6.50	1,005.527	
2,460.6	2,444.0	2,500.0	2,499.9	6.2	1.1	140.55	-1,254.1	-6,277.5	6,540.6	6,533.9	6.71	974.583	

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

Anticollision Report



Company:	PDC ENERGY	Local Co-ordinate Reference:	Well WACKER 10G-214
Project:	WELD COUNTY, COLORADO	TVD Reference:	KB-EST @ 4624.0usft (Original Well Elev)
Reference Site:	SW NW SEC. 10 T5N R64W 6th P.M.	MD Reference:	KB-EST @ 4624.0usft (Original Well Elev)
Site Error:	0.0 usft	North Reference:	True
Reference Well:	WACKER 10G-214	Survey Calculation Method:	Minimum Curvature
Well Error:	0.0 usft	Output errors are at	2.00 sigma
Reference Wellbore	ORIGINAL WELLBORE	Database:	EDM 5000.1 Single User Db
Reference Design:	PROPOSAL #1	Offset TVD Reference:	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	2,482.5	2,538.1	2,538.0	6.4	1.1	140.60	-1,253.4	-6,277.1	6,546.4	6,539.5	6.84	956.447		
2,559.0	2,540.3	2,573.1	2,572.9	6.6	1.1	140.64	-1,252.6	-6,276.8	6,555.2	6,548.2	7.04	930.907		
2,600.0	2,580.3	2,600.0	2,599.9	6.8	1.1	140.68	-1,252.0	-6,276.6	6,561.5	6,554.3	7.18	913.932		
2,657.5	2,636.5	2,646.2	2,646.0	7.1	1.1	140.74	-1,251.0	-6,276.5	6,570.4	6,563.1	7.38	890.406		
2,700.0	2,678.1	2,683.4	2,683.3	7.2	1.1	140.79	-1,250.4	-6,276.3	6,577.1	6,569.5	7.53	873.734		
2,755.9	2,732.8	2,756.8	2,756.7	7.5	1.1	140.89	-1,249.1	-6,276.0	6,585.8	6,578.1	7.73	852.194		
2,800.0	2,775.9	2,825.2	2,825.0	7.7	1.2	140.98	-1,247.5	-6,275.6	6,592.5	6,584.6	7.89	835.823		
2,854.3	2,829.1	2,907.3	2,907.1	7.9	1.2	141.09	-1,245.5	-6,274.7	6,600.5	6,592.5	8.08	816.498		
2,900.0	2,873.8	2,956.3	2,956.1	8.1	1.2	141.15	-1,244.5	-6,274.0	6,607.2	6,599.0	8.25	801.196		
2,952.7	2,925.4	3,013.8	3,013.6	8.3	1.2	141.22	-1,243.8	-6,273.0	6,614.9	6,606.4	8.44	784.109		
2,953.5	2,926.1	3,014.7	3,014.4	8.3	1.2	141.22	-1,243.7	-6,273.0	6,615.0	6,606.5	8.44	783.875		
3,000.0	2,971.6	3,067.5	3,067.2	8.5	1.2	141.37	-1,243.3	-6,272.1	6,621.4	6,612.8	8.58	771.543		
3,051.2	3,022.0	3,115.5	3,115.3	8.7	1.3	141.49	-1,243.2	-6,271.1	6,627.8	6,619.1	8.72	760.365		
3,100.0	3,070.1	3,149.0	3,148.8	8.8	1.3	141.59	-1,243.1	-6,270.5	6,633.3	6,624.4	8.84	750.159		
3,149.6	3,119.1	3,183.1	3,182.9	8.9	1.3	141.68	-1,242.9	-6,270.0	6,638.3	6,629.3	8.96	740.636		
3,200.0	3,169.1	3,200.0	3,199.7	9.1	1.3	141.75	-1,242.8	-6,269.8	6,642.9	6,633.8	9.08	731.570		
3,248.0	3,216.8	3,244.7	3,244.4	9.2	1.3	141.83	-1,242.6	-6,269.3	6,646.7	6,637.5	9.19	722.951		
3,300.0	3,268.5	3,276.2	3,275.9	9.3	1.3	141.89	-1,242.5	-6,269.0	6,650.3	6,640.9	9.31	714.227		
3,346.4	3,314.8	3,300.0	3,299.7	9.4	1.3	141.94	-1,242.5	-6,268.9	6,653.0	6,643.6	9.41	707.273		
3,400.0	3,368.3	3,332.1	3,331.9	9.6	1.3	141.98	-1,242.4	-6,268.9	6,655.5	6,646.0	9.51	699.862		
3,444.9	3,413.1	3,355.9	3,355.6	9.6	1.3	142.01	-1,242.4	-6,268.9	6,657.2	6,647.6	9.59	694.357		
3,500.0	3,468.2	3,400.0	3,399.7	9.7	1.3	142.03	-1,242.3	-6,269.2	6,658.8	6,649.1	9.68	687.646		
3,543.3	3,511.5	3,400.0	3,399.7	9.8	1.3	142.04	-1,242.3	-6,269.2	6,659.5	6,649.8	9.75	682.844		
3,553.7	3,521.9	3,417.0	3,416.7	9.8	1.3	-99.31	-1,242.3	-6,269.4	6,659.6	6,649.3	10.30	646.461		
3,600.0	3,568.2	3,447.8	3,447.6	9.9	1.3	-99.31	-1,242.3	-6,269.7	6,660.2	6,649.8	10.38	641.388		
3,641.7	3,609.9	3,475.6	3,475.3	10.0	1.3	-99.31	-1,242.4	-6,270.1	6,660.8	6,650.3	10.46	636.640		
3,700.0	3,668.2	3,523.3	3,523.0	10.1	1.3	-99.31	-1,242.8	-6,270.8	6,661.7	6,651.1	10.57	630.106		
3,740.1	3,708.4	3,566.5	3,566.2	10.1	1.3	-99.31	-1,243.2	-6,271.5	6,662.4	6,651.7	10.65	625.592		
3,800.0	3,768.2	3,600.0	3,599.7	10.2	1.3	-99.32	-1,243.5	-6,272.0	6,663.4	6,652.6	10.76	619.207		
3,838.6	3,806.8	3,642.5	3,642.2	10.3	1.3	-99.32	-1,243.9	-6,272.7	6,664.0	6,653.2	10.84	614.942		
3,900.0	3,868.2	3,681.2	3,680.9	10.4	1.3	-99.32	-1,244.2	-6,273.4	6,665.3	6,654.4	10.95	608.514		
3,937.0	3,905.2	3,710.0	3,709.7	10.5	1.3	-99.32	-1,244.4	-6,274.1	6,666.2	6,655.2	11.03	604.618		
4,000.0	3,968.2	3,797.4	3,797.1	10.6	1.3	-99.32	-1,244.7	-6,276.0	6,667.6	6,656.5	11.16	597.677		
4,035.4	4,003.6	3,833.1	3,832.7	10.6	1.3	-99.32	-1,244.7	-6,276.8	6,668.3	6,657.1	11.23	593.887		
4,100.0	4,068.2	3,896.6	3,896.3	10.7	1.3	-99.32	-1,244.6	-6,278.1	6,669.7	6,658.3	11.36	587.114		
4,133.8	4,102.1	3,942.4	3,942.1	10.8	1.4	-99.31	-1,244.5	-6,279.0	6,670.3	6,658.9	11.43	583.420		
4,200.0	4,168.2	4,063.1	4,062.7	10.9	1.4	-99.31	-1,243.9	-6,281.0	6,671.4	6,659.8	11.58	575.898		
4,232.3	4,200.5	4,124.8	4,124.4	11.0	1.4	-99.30	-1,243.5	-6,281.6	6,671.6	6,660.0	11.66	572.308		
4,300.0	4,268.2	4,213.4	4,213.0	11.1	1.4	-99.30	-1,243.5	-6,282.0	6,671.9	6,660.1	11.80	565.555		
4,330.7	4,298.9	4,242.8	4,242.3	11.1	1.4	-99.30	-1,243.5	-6,282.1	6,672.0	6,660.2	11.86	562.591		
4,400.0	4,368.2	4,309.6	4,309.2	11.3	1.4	-99.30	-1,243.4	-6,282.3	6,672.3	6,660.3	12.00	555.974		
4,429.1	4,397.3	4,339.2	4,338.8	11.3	1.4	-99.30	-1,243.4	-6,282.4	6,672.4	6,660.3	12.06	553.098		
4,500.0	4,468.2	4,400.0	4,399.6	11.4	1.4	-99.30	-1,243.3	-6,282.6	6,672.6	6,660.4	12.21	546.346		
4,527.5	4,495.8	4,429.3	4,428.9	11.5	1.4	-99.30	-1,243.2	-6,282.8	6,672.7	6,660.4	12.27	543.709		
4,600.0	4,568.2	4,484.5	4,484.1	11.6	1.4	-99.30	-1,243.1	-6,283.1	6,673.2	6,660.7	12.42	537.124		
4,626.0	4,594.2	4,505.9	4,505.4	11.7	1.4	-99.30	-1,243.1	-6,283.3	6,673.4	6,660.9	12.48	534.779		
4,700.0	4,668.2	4,582.2	4,581.8	11.8	1.4	-99.29	-1,242.9	-6,283.9	6,673.9	6,661.3	12.64	528.084		
4,724.4	4,692.6	4,600.0	4,599.6	11.9	1.5	-99.29	-1,242.8	-6,284.1	6,674.1	6,661.4	12.69	525.972		
4,800.0	4,768.2	4,644.6	4,644.2	12.0	1.5	-99.29	-1,242.8	-6,284.6	6,674.9	6,662.1	12.84	519.692		
4,822.8	4,791.0	4,657.0	4,656.5	12.0	1.5	-99.29	-1,242.8	-6,284.7	6,675.3	6,662.4	12.89	517.838		
4,900.0	4,868.2	4,700.0	4,699.6	12.2	1.5	-99.29	-1,242.9	-6,285.5	6,676.6	6,663.6	13.05	511.641		
4,921.2	4,889.5	4,726.0	4,725.6	12.2	1.5	-99.29	-1,243.0	-6,286.0	6,677.0	6,664.0	13.09	509.926		

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

Anticollision Report



Company:	PDC ENERGY	Local Co-ordinate Reference:	Well WACKER 10G-214
Project:	WELD COUNTY, COLORADO	TVD Reference:	KB-EST @ 4624.0usft (Original Well Elev)
Reference Site:	SW NW SEC. 10 T5N R64W 6th P.M.	MD Reference:	KB-EST @ 4624.0usft (Original Well Elev)
Site Error:	0.0 usft	North Reference:	True
Reference Well:	WACKER 10G-214	Survey Calculation Method:	Minimum Curvature
Well Error:	0.0 usft	Output errors are at	2.00 sigma
Reference Wellbore	ORIGINAL WELLBORE	Database:	EDM 5000.1 Single User Db
Reference Design:	PROPOSAL #1	Offset TVD Reference:	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	4,968.2	4,900.0	4,899.5	12.4	1.5	-99.30	-1,244.4	-6,288.1	6,678.2	6,664.9	13.26	503.594		
5,019.7	4,987.9	4,921.6	4,921.1	12.4	1.5	-99.30	-1,244.6	-6,288.1	6,678.2	6,664.9	13.30	502.099		
5,100.0	5,068.2	4,975.7	4,975.3	12.6	1.5	-99.31	-1,245.0	-6,288.4	6,678.8	6,665.3	13.46	496.150		
5,118.1	5,086.3	5,000.0	4,999.5	12.6	1.5	-99.31	-1,245.2	-6,288.6	6,679.0	6,665.5	13.50	494.810		
5,200.0	5,168.2	5,090.6	5,090.1	12.7	1.5	-99.31	-1,245.8	-6,289.3	6,679.7	6,666.0	13.67	488.737		
5,216.5	5,184.7	5,119.4	5,119.0	12.8	1.5	-99.31	-1,246.0	-6,289.5	6,679.8	6,666.1	13.70	487.535		
5,300.0	5,268.2	5,263.0	5,262.5	12.9	1.5	-99.32	-1,247.0	-6,289.2	6,679.7	6,665.8	13.87	481.587		
5,314.9	5,283.2	5,285.2	5,284.7	13.0	1.5	-99.32	-1,247.1	-6,289.1	6,679.6	6,665.7	13.90	480.522		
5,400.0	5,368.2	5,410.6	5,410.1	13.1	1.5	-99.33	-1,247.4	-6,288.0	6,678.9	6,664.8	14.08	474.274		
5,413.4	5,381.6	5,430.3	5,429.8	13.2	1.5	-99.33	-1,247.5	-6,287.7	6,678.8	6,664.6	14.11	473.291		
5,500.0	5,468.2	5,541.5	5,541.0	13.3	1.5	-99.33	-1,247.2	-6,286.1	6,677.5	6,663.2	14.30	467.024		
5,511.8	5,480.0	5,554.0	5,553.5	13.3	1.5	-99.33	-1,247.2	-6,285.9	6,677.3	6,662.9	14.32	466.177		
5,600.0	5,568.2	5,653.4	5,652.9	13.5	1.5	-99.33	-1,247.3	-6,284.2	6,675.8	6,661.3	14.51	459.970		
5,610.2	5,578.4	5,665.6	5,665.1	13.5	1.5	-99.33	-1,247.4	-6,283.9	6,675.6	6,661.1	14.54	459.265		
5,700.0	5,668.2	5,756.8	5,756.3	13.7	1.6	-99.34	-1,248.3	-6,282.1	6,673.9	6,659.2	14.72	453.238		
5,708.6	5,676.9	5,764.8	5,764.3	13.7	1.6	-99.34	-1,248.4	-6,281.9	6,673.8	6,659.0	14.74	452.667		
5,800.0	5,768.2	5,839.7	5,839.2	13.9	1.6	-99.35	-1,249.4	-6,280.4	6,672.2	6,657.2	14.93	446.768		
5,807.1	5,775.3	5,845.0	5,844.4	13.9	1.6	-99.35	-1,249.5	-6,280.3	6,672.0	6,657.1	14.95	446.319		
5,900.0	5,868.2	5,913.6	5,913.1	14.1	1.6	-99.37	-1,250.5	-6,279.2	6,670.8	6,655.6	15.14	440.516		
5,905.5	5,873.7	5,917.7	5,917.1	14.1	1.6	-99.37	-1,250.6	-6,279.1	6,670.7	6,655.5	15.15	440.178		
5,960.7	5,928.9	5,958.0	5,957.4	14.2	1.6	-99.37	-1,251.2	-6,278.6	6,670.1	6,654.8	15.27	436.816		
6,000.0	5,968.2	6,000.0	5,999.4	14.3	1.6	-9.40	-1,251.8	-6,278.1	6,668.7	6,653.8	14.91	447.229		
6,003.9	5,972.1	6,000.0	5,999.4	14.3	1.6	-9.40	-1,251.8	-6,278.1	6,668.5	6,653.5	14.92	446.977		
6,050.0	6,018.0	6,029.7	6,029.1	14.4	1.6	-9.47	-1,252.1	-6,277.9	6,663.9	6,648.9	15.04	443.168		
6,100.0	6,067.3	6,076.2	6,075.6	14.4	1.6	-9.59	-1,252.6	-6,277.5	6,655.8	6,640.6	15.19	438.066		
6,102.3	6,069.6	6,078.4	6,077.8	14.4	1.6	-9.60	-1,252.6	-6,277.5	6,655.3	6,640.1	15.20	437.818		
6,150.0	6,116.0	6,123.0	6,122.4	14.4	1.6	-9.77	-1,253.0	-6,277.1	6,644.2	6,628.9	15.36	432.664		
6,200.0	6,163.8	6,170.0	6,169.4	14.5	1.6	-10.01	-1,253.5	-6,276.7	6,629.4	6,613.9	15.51	427.450		
6,200.8	6,164.5	6,170.8	6,170.2	14.5	1.6	-10.02	-1,253.5	-6,276.7	6,629.1	6,613.6	15.51	427.373		
6,250.0	6,210.4	6,220.9	6,220.3	14.5	1.6	-10.33	-1,254.3	-6,276.3	6,611.3	6,595.7	15.64	422.649		
6,299.2	6,254.9	6,278.4	6,277.7	14.5	1.6	-10.71	-1,255.0	-6,275.7	6,590.4	6,574.6	15.75	418.348		
6,300.0	6,255.6	6,279.3	6,278.7	14.5	1.6	-10.72	-1,255.0	-6,275.7	6,590.0	6,574.3	15.75	418.282		
6,350.0	6,299.3	6,333.8	6,333.2	14.5	1.6	-11.21	-1,255.7	-6,275.0	6,565.6	6,549.7	15.84	414.569		
6,397.6	6,339.2	6,382.7	6,382.0	14.6	1.6	-11.76	-1,256.2	-6,274.4	6,539.5	6,523.6	15.89	411.620		
6,400.0	6,341.2	6,385.0	6,384.4	14.6	1.6	-11.79	-1,256.2	-6,274.4	6,538.2	6,522.3	15.89	411.486		
6,450.0	6,381.0	6,441.6	6,440.9	14.6	1.6	-12.52	-1,256.8	-6,273.5	6,507.9	6,492.0	15.92	408.687		
6,496.0	6,415.8	6,493.6	6,492.9	14.7	1.6	-13.34	-1,257.3	-6,272.6	6,477.6	6,461.6	15.94	406.300		
6,500.0	6,418.7	6,497.9	6,497.2	14.7	1.6	-13.42	-1,257.4	-6,272.5	6,474.8	6,458.9	15.94	406.106		
6,550.0	6,453.9	6,527.7	6,527.0	14.8	1.6	-14.46	-1,257.7	-6,271.9	6,439.3	6,423.4	15.93	404.314		
6,594.5	6,483.1	6,551.5	6,550.8	15.0	1.6	-15.59	-1,258.1	-6,271.5	6,405.8	6,389.9	15.92	402.478		
6,600.0	6,486.6	6,554.3	6,553.7	15.1	1.6	-15.75	-1,258.1	-6,271.4	6,401.5	6,385.6	15.92	402.226		
6,650.0	6,516.6	6,578.7	6,578.1	15.3	1.6	-17.34	-1,258.5	-6,271.0	6,361.7	6,345.7	15.94	399.192		
6,692.9	6,540.0	6,600.0	6,599.3	15.7	1.6	-19.05	-1,258.9	-6,270.6	6,325.9	6,309.9	16.01	395.063		
6,700.0	6,543.7	6,600.0	6,599.3	15.7	1.6	-19.36	-1,258.9	-6,270.6	6,319.9	6,303.9	16.03	394.374		
6,750.0	6,567.8	6,619.0	6,618.3	16.2	1.6	-21.95	-1,259.2	-6,270.2	6,276.4	6,260.2	16.24	386.589		
6,791.3	6,585.4	6,632.4	6,631.7	16.7	1.6	-24.71	-1,259.5	-6,270.0	6,239.4	6,222.8	16.55	376.950		
6,800.0	6,588.8	6,634.9	6,634.2	16.8	1.6	-25.37	-1,259.6	-6,270.0	6,231.5	6,214.9	16.64	374.539		
6,850.0	6,606.6	6,648.3	6,647.6	17.4	1.6	-30.02	-1,259.9	-6,269.7	6,185.3	6,168.0	17.33	356.976		
6,889.7	6,618.4	6,657.1	6,656.4	18.0	1.6	-35.01	-1,260.0	-6,269.6	6,147.8	6,129.6	18.15	338.720		
6,900.0	6,621.1	6,659.1	6,658.4	18.2	1.6	-36.54	-1,260.1	-6,269.6	6,138.0	6,119.6	18.40	333.514		
6,950.0	6,632.2	6,667.3	6,666.6	19.0	1.6	-45.96	-1,260.3	-6,269.4	6,090.0	6,070.0	19.91	305.870		
6,988.2	6,638.4	6,671.7	6,671.0	19.7	1.6	-55.96	-1,260.4	-6,269.4	6,052.8	6,031.6	21.22	285.217		

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

Anticollision Report



Company:	PDC ENERGY	Local Co-ordinate Reference:	Well WACKER 10G-214
Project:	WELD COUNTY, COLORADO	TVD Reference:	KB-EST @ 4624.0usft (Original Well Elev)
Reference Site:	SW NW SEC. 10 T5N R64W 6th P.M.	MD Reference:	KB-EST @ 4624.0usft (Original Well Elev)
Site Error:	0.0 usft	North Reference:	True
Reference Well:	WACKER 10G-214	Survey Calculation Method:	Minimum Curvature
Well Error:	0.0 usft	Output errors are at	2.00 sigma
Reference Wellbore	ORIGINAL WELLBORE	Database:	EDM 5000.1 Single User Db
Reference Design:	PROPOSAL #1	Offset TVD Reference:	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	6,639.9	6,672.7	6,672.0	19.9	1.6	-59.65	-1,260.4	-6,269.4	6,041.3	6,019.7	21.60	279.716	
7,050.0	6,644.1	6,675.5	6,674.8	20.8	1.6	-78.31	-1,260.5	-6,269.3	5,992.3	5,969.6	22.65	264.516	
7,086.5	6,645.0	6,675.7	6,675.0	21.5	1.6	-93.82	-1,260.5	-6,269.3	5,956.4	5,933.2	23.17	257.077	
7,100.0	6,645.0	6,675.5	6,674.8	21.8	1.6	-93.81	-1,260.5	-6,269.3	5,943.1	5,919.7	23.43	253.605	
7,185.0	6,644.9	6,674.4	6,673.7	23.6	1.6	-93.75	-1,260.4	-6,269.3	5,859.6	5,834.4	25.19	232.615	
7,200.0	6,644.8	6,674.2	6,673.5	23.9	1.6	-93.74	-1,260.4	-6,269.3	5,844.9	5,819.4	25.50	229.218	
7,283.4	6,644.7	6,673.1	6,672.3	25.7	1.6	-93.68	-1,260.4	-6,269.3	5,762.9	5,735.6	27.34	210.805	
7,300.0	6,644.7	6,672.8	6,672.1	26.1	1.6	-93.67	-1,260.4	-6,269.3	5,746.7	5,719.0	27.70	207.443	
7,381.9	6,644.6	6,671.7	6,671.0	28.0	1.6	-93.61	-1,260.4	-6,269.4	5,666.3	5,636.7	29.59	191.469	
7,400.0	6,644.6	6,671.5	6,670.8	28.4	1.6	-93.60	-1,260.4	-6,269.4	5,648.6	5,618.5	30.01	188.205	
7,480.3	6,644.5	6,670.4	6,669.7	30.3	1.6	-93.54	-1,260.3	-6,269.4	5,569.8	5,537.9	31.93	174.413	
7,500.0	6,644.4	6,670.1	6,669.4	30.8	1.6	-93.53	-1,260.3	-6,269.4	5,550.5	5,518.1	32.41	171.280	
7,578.7	6,644.3	6,669.0	6,668.3	32.7	1.6	-93.47	-1,260.3	-6,269.4	5,473.3	5,439.0	34.34	159.380	
7,600.0	6,644.3	6,668.7	6,668.0	33.3	1.6	-93.45	-1,260.3	-6,269.4	5,452.5	5,417.6	34.86	156.392	
7,677.1	6,644.2	6,667.7	6,667.0	35.2	1.6	-93.40	-1,260.3	-6,269.4	5,377.0	5,340.2	36.80	146.109	
7,700.0	6,644.1	6,667.4	6,666.6	35.8	1.6	-93.38	-1,260.3	-6,269.4	5,354.6	5,317.2	37.37	143.268	
7,775.6	6,644.0	6,666.3	6,665.6	37.7	1.6	-93.33	-1,260.3	-6,269.5	5,280.6	5,241.3	39.30	134.357	
7,800.0	6,644.0	6,666.0	6,665.3	38.3	1.6	-93.31	-1,260.2	-6,269.5	5,256.8	5,216.8	39.93	131.661	
7,874.0	6,643.9	6,664.9	6,664.2	40.2	1.6	-93.25	-1,260.2	-6,269.5	5,184.4	5,142.6	41.84	123.911	
7,900.0	6,643.9	6,664.6	6,663.9	40.9	1.6	-93.23	-1,260.2	-6,269.5	5,159.0	5,116.5	42.51	121.354	
7,972.4	6,643.8	6,663.6	6,662.9	42.8	1.6	-93.18	-1,260.2	-6,269.5	5,088.2	5,043.8	44.40	114.588	
8,000.0	6,643.7	6,663.2	6,662.5	43.5	1.6	-93.16	-1,260.2	-6,269.5	5,061.3	5,016.2	45.13	112.161	
8,070.8	6,643.6	6,662.2	6,661.5	45.4	1.6	-93.11	-1,260.2	-6,269.5	4,992.2	4,945.2	46.99	106.231	
8,100.0	6,643.6	6,661.8	6,661.1	46.2	1.6	-93.09	-1,260.2	-6,269.5	4,963.7	4,916.0	47.76	103.926	
8,169.3	6,643.5	6,660.8	6,660.1	48.0	1.6	-93.04	-1,260.1	-6,269.5	4,896.2	4,846.6	49.60	98.709	
8,200.0	6,643.5	6,660.4	6,659.7	48.8	1.6	-93.01	-1,260.1	-6,269.5	4,866.3	4,815.9	50.42	96.518	
8,267.7	6,643.4	6,659.4	6,658.7	50.6	1.6	-92.96	-1,260.1	-6,269.6	4,800.3	4,748.1	52.23	91.911	
8,300.0	6,643.3	6,658.9	6,658.2	51.5	1.6	-92.94	-1,260.1	-6,269.6	4,768.9	4,715.8	53.09	89.825	
8,366.1	6,643.2	6,658.0	6,657.3	53.3	1.6	-92.89	-1,260.1	-6,269.6	4,704.6	4,649.7	54.87	85.744	
8,400.0	6,643.2	6,657.5	6,656.8	54.2	1.6	-92.86	-1,260.1	-6,269.6	4,671.6	4,615.9	55.78	83.754	
8,464.5	6,643.1	6,656.6	6,655.9	55.9	1.6	-92.81	-1,260.0	-6,269.6	4,608.9	4,551.4	57.52	80.127	
8,500.0	6,643.1	6,656.1	6,655.4	56.9	1.6	-92.79	-1,260.0	-6,269.6	4,574.5	4,516.0	58.48	78.227	
8,563.0	6,643.0	6,655.2	6,654.5	58.6	1.6	-92.74	-1,260.0	-6,269.6	4,513.4	4,453.2	60.18	74.994	
8,600.0	6,642.9	6,654.6	6,653.9	59.6	1.6	-92.71	-1,260.0	-6,269.6	4,477.5	4,416.3	61.19	73.177	
8,661.4	6,642.8	6,653.8	6,653.0	61.3	1.6	-92.66	-1,260.0	-6,269.7	4,418.0	4,355.1	62.86	70.287	
8,700.0	6,642.8	6,653.2	6,652.5	62.3	1.6	-92.64	-1,260.0	-6,269.7	4,380.6	4,316.7	63.90	68.548	
8,759.8	6,642.7	6,652.3	6,651.6	64.0	1.6	-92.59	-1,259.9	-6,269.7	4,322.7	4,257.1	65.54	65.959	
8,800.0	6,642.7	6,651.7	6,651.0	65.1	1.6	-92.56	-1,259.9	-6,269.7	4,283.8	4,217.2	66.63	64.291	
8,858.2	6,642.6	6,650.9	6,650.2	66.6	1.6	-92.51	-1,259.9	-6,269.7	4,227.5	4,159.3	68.22	61.966	
8,900.0	6,642.5	6,650.3	6,649.6	67.8	1.6	-92.48	-1,259.9	-6,269.7	4,187.2	4,117.9	69.37	60.365	
8,956.7	6,642.4	6,649.4	6,648.7	69.3	1.6	-92.44	-1,259.9	-6,269.7	4,132.6	4,061.6	70.92	58.272	
9,000.0	6,642.4	6,648.8	6,648.1	70.5	1.6	-92.40	-1,259.9	-6,269.7	4,090.8	4,018.7	72.11	56.734	
9,055.1	6,642.3	6,648.0	6,647.3	72.0	1.6	-92.36	-1,259.8	-6,269.7	4,037.7	3,964.1	73.62	54.847	
9,100.0	6,642.3	6,647.3	6,646.6	73.3	1.6	-92.33	-1,259.8	-6,269.8	3,994.5	3,919.7	74.85	53.367	
9,153.5	6,642.2	6,646.5	6,645.8	74.7	1.6	-92.28	-1,259.8	-6,269.8	3,943.1	3,866.8	76.32	51.663	
9,200.0	6,642.1	6,645.8	6,645.1	76.0	1.6	-92.25	-1,259.8	-6,269.8	3,898.5	3,820.9	77.60	50.237	
9,251.9	6,642.1	6,645.1	6,644.4	77.5	1.6	-92.21	-1,259.8	-6,269.8	3,848.6	3,769.6	79.03	48.697	
9,300.0	6,642.0	6,644.3	6,643.6	78.8	1.6	-92.17	-1,259.8	-6,269.8	3,802.6	3,722.3	80.36	47.322	
9,350.4	6,641.9	6,643.6	6,642.9	80.2	1.6	-92.13	-1,259.7	-6,269.8	3,754.4	3,672.6	81.75	45.927	
9,400.0	6,641.9	6,642.8	6,642.1	81.5	1.6	-92.09	-1,259.7	-6,269.8	3,707.0	3,623.8	83.12	44.600	
9,448.8	6,641.8	6,642.1	6,641.4	82.9	1.6	-92.05	-1,259.7	-6,269.8	3,660.4	3,575.9	84.46	43.337	
9,500.0	6,641.7	6,641.3	6,640.6	84.3	1.6	-92.01	-1,259.7	-6,269.9	3,611.5	3,525.7	85.88	42.054	

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

Anticollision Report



Company:	PDC ENERGY	Local Co-ordinate Reference:	Well WACKER 10G-214
Project:	WELD COUNTY, COLORADO	TVD Reference:	KB-EST @ 4624.0usft (Original Well Elev)
Reference Site:	SW NW SEC. 10 T5N R64W 6th P.M.	MD Reference:	KB-EST @ 4624.0usft (Original Well Elev)
Site Error:	0.0 usft	North Reference:	True
Reference Well:	WACKER 10G-214	Survey Calculation Method:	Minimum Curvature
Well Error:	0.0 usft	Output errors are at	2.00 sigma
Reference Wellbore	ORIGINAL WELLBORE	Database:	EDM 5000.1 Single User Db
Reference Design:	PROPOSAL #1	Offset TVD Reference:	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	6,641.7	6,640.6	6,639.9	85.6	1.6	-91.97	-1,259.7	-6,269.9	3,566.6	3,479.4	87.18	40.908	
9,600.0	6,641.6	6,639.8	6,639.1	87.1	1.6	-91.93	-1,259.7	-6,269.9	3,516.4	3,427.7	88.64	39.669	
9,645.6	6,641.5	6,639.1	6,638.4	88.3	1.6	-91.89	-1,259.7	-6,269.9	3,473.0	3,383.1	89.91	38.629	
9,700.0	6,641.5	6,638.3	6,637.6	89.8	1.6	-91.85	-1,259.6	-6,269.9	3,421.5	3,330.1	91.41	37.429	
9,744.1	6,641.4	6,637.6	6,636.9	91.0	1.6	-91.82	-1,259.6	-6,269.9	3,379.8	3,287.1	92.63	36.485	
9,800.0	6,641.3	6,636.8	6,636.1	92.6	1.6	-91.77	-1,259.6	-6,269.9	3,326.9	3,232.7	94.18	35.323	
9,842.5	6,641.3	6,636.1	6,635.4	93.8	1.6	-91.74	-1,259.6	-6,269.9	3,286.8	3,191.4	95.36	34.466	
9,900.0	6,641.2	6,635.2	6,634.5	95.4	1.6	-91.69	-1,259.6	-6,270.0	3,232.7	3,135.7	96.96	33.340	
9,940.9	6,641.1	6,634.6	6,633.9	96.5	1.6	-91.66	-1,259.6	-6,270.0	3,194.2	3,096.1	98.10	32.562	
10,000.0	6,641.1	6,633.7	6,633.0	98.1	1.6	-91.61	-1,259.5	-6,270.0	3,138.7	3,039.0	99.74	31.471	
10,039.3	6,641.0	6,633.1	6,632.4	99.2	1.6	-91.58	-1,259.5	-6,270.0	3,101.9	3,001.1	100.83	30.764	
10,100.0	6,640.9	6,632.1	6,631.4	100.9	1.6	-91.53	-1,259.5	-6,270.0	3,045.2	2,942.7	102.51	29.705	
10,137.8	6,640.9	6,631.5	6,630.8	102.0	1.6	-91.50	-1,259.5	-6,270.0	3,010.0	2,906.4	103.56	29.064	
10,200.0	6,640.8	6,630.6	6,629.9	103.7	1.6	-91.44	-1,259.5	-6,270.0	2,952.1	2,846.8	105.29	28.037	
10,236.2	6,640.8	6,630.0	6,629.3	104.7	1.6	-91.41	-1,259.5	-6,270.0	2,918.5	2,812.2	106.30	27.455	
10,300.0	6,640.7	6,629.0	6,628.3	106.5	1.6	-91.36	-1,259.4	-6,270.1	2,859.5	2,751.4	108.08	26.458	
10,334.6	6,640.6	6,628.4	6,627.7	107.4	1.6	-91.33	-1,259.4	-6,270.1	2,827.5	2,718.5	109.04	25.931	
10,400.0	6,640.6	6,627.4	6,626.7	109.3	1.6	-91.28	-1,259.4	-6,270.1	2,767.4	2,656.5	110.86	24.963	
10,433.0	6,640.5	6,626.9	6,626.2	110.2	1.6	-91.25	-1,259.4	-6,270.1	2,737.1	2,625.3	111.78	24.486	
10,500.0	6,640.4	6,625.8	6,625.1	112.0	1.6	-91.19	-1,259.4	-6,270.1	2,675.8	2,562.2	113.65	23.545	
10,531.5	6,640.4	6,625.3	6,624.6	112.9	1.6	-91.17	-1,259.4	-6,270.1	2,647.1	2,532.6	114.52	23.115	
10,600.0	6,640.3	6,624.2	6,623.5	114.8	1.6	-91.11	-1,259.3	-6,270.1	2,584.9	2,468.5	116.43	22.201	
10,629.9	6,640.3	6,623.7	6,623.0	115.7	1.6	-91.09	-1,259.3	-6,270.2	2,557.8	2,440.6	117.27	21.812	
10,700.0	6,640.2	6,622.6	6,621.9	117.6	1.6	-91.03	-1,259.3	-6,270.2	2,494.7	2,375.4	119.22	20.925	
10,728.3	6,640.1	6,622.2	6,621.5	118.4	1.6	-91.00	-1,259.3	-6,270.2	2,469.2	2,349.2	120.01	20.575	
10,800.0	6,640.0	6,621.0	6,620.3	120.4	1.6	-90.94	-1,259.3	-6,270.2	2,405.2	2,283.2	122.01	19.713	
10,826.7	6,640.0	6,620.6	6,619.9	121.2	1.6	-90.92	-1,259.3	-6,270.2	2,381.4	2,258.7	122.76	19.400	
10,900.0	6,639.9	6,619.4	6,618.7	123.2	1.6	-90.86	-1,259.2	-6,270.2	2,316.6	2,191.8	124.80	18.563	
10,925.2	6,639.9	6,619.0	6,618.3	123.9	1.6	-90.84	-1,259.2	-6,270.2	2,294.4	2,168.9	125.50	18.282	
11,000.0	6,639.8	6,617.7	6,617.0	126.0	1.6	-90.77	-1,259.2	-6,270.3	2,229.0	2,101.4	127.59	17.470	
11,023.6	6,639.8	6,617.4	6,616.7	126.6	1.6	-90.75	-1,259.2	-6,270.3	2,208.4	2,080.2	128.25	17.220	
11,100.0	6,639.7	6,616.1	6,615.4	128.8	1.6	-90.68	-1,259.2	-6,270.3	2,142.4	2,012.0	130.38	16.432	
11,122.0	6,639.6	6,615.7	6,615.0	129.4	1.6	-90.67	-1,259.2	-6,270.3	2,123.5	1,992.5	131.00	16.210	
11,200.0	6,639.5	6,614.5	6,613.8	131.6	1.6	-90.60	-1,259.2	-6,270.3	2,057.1	1,923.9	133.17	15.446	
11,220.4	6,639.5	6,614.1	6,613.4	132.1	1.6	-90.58	-1,259.1	-6,270.3	2,039.8	1,906.0	133.74	15.251	
11,300.0	6,639.4	6,612.8	6,612.1	134.4	1.6	-90.51	-1,259.1	-6,270.3	1,973.1	1,837.1	135.97	14.512	
11,318.9	6,639.4	6,612.5	6,611.8	134.9	1.6	-90.49	-1,259.1	-6,270.4	1,957.4	1,820.9	136.49	14.341	
11,400.0	6,639.3	6,611.1	6,610.4	137.1	1.6	-90.42	-1,259.1	-6,270.4	1,890.7	1,751.9	138.76	13.626	
11,417.3	6,639.3	6,610.8	6,610.2	137.6	1.6	-90.41	-1,259.1	-6,270.4	1,876.6	1,737.4	139.24	13.477	
11,500.0	6,639.2	6,609.5	6,608.8	139.9	1.6	-90.34	-1,259.1	-6,270.4	1,810.1	1,668.5	141.55	12.787	
11,515.7	6,639.1	6,609.2	6,608.5	140.4	1.6	-90.32	-1,259.1	-6,270.4	1,797.5	1,655.6	141.99	12.659	
11,600.0	6,639.0	6,607.8	6,607.1	142.7	1.6	-90.25	-1,259.0	-6,270.4	1,731.4	1,587.1	144.35	11.995	
11,614.1	6,639.0	6,607.5	6,606.8	143.1	1.6	-90.23	-1,259.0	-6,270.4	1,720.5	1,575.7	144.75	11.886	
11,700.0	6,638.9	6,606.1	6,605.4	145.5	1.6	-90.16	-1,259.0	-6,270.5	1,655.1	1,508.0	147.14	11.248	
11,712.6	6,638.9	6,605.9	6,605.2	145.9	1.6	-90.15	-1,259.0	-6,270.5	1,645.7	1,498.2	147.50	11.158	
11,800.0	6,638.8	6,600.0	6,599.3	148.3	1.6	-89.84	-1,258.9	-6,270.6	1,581.5	1,431.5	149.94	10.547	
11,811.0	6,638.8	6,600.0	6,599.3	148.6	1.6	-89.84	-1,258.9	-6,270.6	1,573.5	1,423.3	150.25	10.473	
11,900.0	6,638.7	6,600.0	6,599.3	151.1	1.6	-89.84	-1,258.9	-6,270.6	1,510.8	1,358.1	152.74	9.892	
11,909.4	6,638.6	6,600.0	6,599.3	151.4	1.6	-89.84	-1,258.9	-6,270.6	1,504.3	1,351.3	153.00	9.832	
12,000.0	6,638.5	6,600.0	6,599.3	153.9	1.6	-89.84	-1,258.9	-6,270.6	1,443.7	1,288.1	155.53	9.282	
12,007.8	6,638.5	6,600.0	6,599.3	154.1	1.6	-89.84	-1,258.9	-6,270.6	1,438.6	1,282.8	155.75	9.236	
12,100.0	6,638.4	6,600.0	6,599.3	156.7	1.6	-89.84	-1,258.9	-6,270.6	1,380.5	1,222.1	158.33	8.719	

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

Anticollision Report



Company:	PDC ENERGY	Local Co-ordinate Reference:	Well WACKER 10G-214
Project:	WELD COUNTY, COLORADO	TVD Reference:	KB-EST @ 4624.0usft (Original Well Elev)
Reference Site:	SW NW SEC. 10 T5N R64W 6th P.M.	MD Reference:	KB-EST @ 4624.0usft (Original Well Elev)
Site Error:	0.0 usft	North Reference:	True
Reference Well:	WACKER 10G-214	Survey Calculation Method:	Minimum Curvature
Well Error:	0.0 usft	Output errors are at	2.00 sigma
Reference Wellbore	ORIGINAL WELLBORE	Database:	EDM 5000.1 Single User Db
Reference Design:	PROPOSAL #1	Offset TVD Reference:	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		
12,106.3	6,638.4	6,600.0	6,599.3	156.9	1.6	-89.84	-1,258.9	-6,270.6	1,376.7	1,218.2	158.50	8.685		
12,200.0	6,638.3	6,600.0	6,599.3	159.5	1.6	-89.84	-1,258.9	-6,270.6	1,321.8	1,160.7	161.13	8.204		
12,204.7	6,638.3	6,600.0	6,599.3	159.6	1.6	-89.84	-1,258.9	-6,270.6	1,319.2	1,158.0	161.26	8.181		
12,300.0	6,638.2	6,595.7	6,595.0	162.3	1.6	-89.61	-1,258.8	-6,270.6	1,268.4	1,104.5	163.92	7.738		
12,303.1	6,638.2	6,595.6	6,594.9	162.4	1.6	-89.61	-1,258.8	-6,270.7	1,266.8	1,102.8	164.01	7.724		
12,400.0	6,638.0	6,593.9	6,593.2	165.1	1.6	-89.52	-1,258.8	-6,270.7	1,220.8	1,054.1	166.72	7.323		
12,401.5	6,638.0	6,593.9	6,593.2	165.2	1.6	-89.52	-1,258.8	-6,270.7	1,220.1	1,053.3	166.76	7.317		
12,500.0	6,637.9	6,592.1	6,591.4	167.9	1.6	-89.43	-1,258.7	-6,270.7	1,179.8	1,010.3	169.51	6.960		
12,598.4	6,637.8	6,590.4	6,589.7	170.7	1.6	-89.34	-1,258.7	-6,270.7	1,146.5	974.2	172.27	6.655		
12,600.0	6,637.8	6,590.4	6,589.7	170.7	1.6	-89.33	-1,258.7	-6,270.7	1,146.0	973.7	172.31	6.651		
12,696.8	6,637.7	6,588.6	6,587.9	173.4	1.6	-89.24	-1,258.7	-6,270.8	1,120.9	945.9	175.02	6.405		
12,700.0	6,637.7	6,588.6	6,587.9	173.5	1.6	-89.24	-1,258.7	-6,270.8	1,120.2	945.1	175.11	6.397		
12,795.2	6,637.6	6,586.9	6,586.2	176.2	1.6	-89.15	-1,258.6	-6,270.8	1,103.5	925.8	177.77	6.208		
12,800.0	6,637.6	6,586.8	6,586.1	176.3	1.6	-89.15	-1,258.6	-6,270.8	1,102.9	925.0	177.90	6.200		
12,893.7	6,637.4	6,585.1	6,584.4	178.9	1.6	-89.06	-1,258.6	-6,270.8	1,094.8	914.2	180.52	6.064		
12,900.0	6,637.4	6,585.0	6,584.3	179.1	1.6	-89.05	-1,258.6	-6,270.8	1,094.5	913.8	180.70	6.057		
12,942.5	6,637.4	6,584.2	6,583.5	180.3	1.6	-89.01	-1,258.6	-6,270.9	1,093.7	911.8	181.89	6.013 CC		
12,992.1	6,637.3	6,583.3	6,582.6	181.7	1.6	-88.96	-1,258.6	-6,270.9	1,094.8	911.5	183.27	5.974 ES		
13,000.0	6,637.3	6,583.2	6,582.5	181.9	1.6	-88.96	-1,258.6	-6,270.9	1,095.2	911.7	183.50	5.968		
13,090.5	6,637.2	6,581.5	6,580.8	184.4	1.6	-88.87	-1,258.6	-6,270.9	1,103.6	917.6	186.03	5.933		
13,100.0	6,637.2	6,581.4	6,580.7	184.7	1.6	-88.86	-1,258.5	-6,270.9	1,104.9	918.7	186.29	5.931 SF		
13,188.9	6,637.1	6,579.7	6,579.1	187.2	1.6	-88.78	-1,258.5	-6,270.9	1,121.1	932.3	188.78	5.939		
13,200.0	6,637.1	6,579.5	6,578.9	187.5	1.6	-88.77	-1,258.5	-6,270.9	1,123.6	934.5	189.09	5.942		
13,287.4	6,637.0	6,577.9	6,577.3	190.0	1.6	-88.68	-1,258.5	-6,271.0	1,146.7	955.2	191.53	5.987		
13,300.0	6,637.0	6,577.7	6,577.0	190.3	1.6	-88.67	-1,258.5	-6,271.0	1,150.6	958.7	191.88	5.996		
13,385.8	6,636.9	6,576.1	6,575.5	192.7	1.6	-88.59	-1,258.5	-6,271.0	1,180.1	985.8	194.28	6.074		
13,400.0	6,636.8	6,575.9	6,575.2	193.1	1.6	-88.58	-1,258.5	-6,271.0	1,185.5	990.8	194.68	6.089		
13,484.2	6,636.7	6,574.3	6,573.7	195.5	1.6	-88.50	-1,258.4	-6,271.0	1,220.4	1,023.4	197.03	6.194		
13,500.0	6,636.7	6,574.1	6,573.4	195.9	1.6	-88.48	-1,258.4	-6,271.0	1,227.5	1,030.0	197.47	6.216		
13,582.6	6,636.6	6,572.5	6,571.8	198.2	1.6	-88.40	-1,258.4	-6,271.1	1,267.2	1,067.4	199.78	6.343		
13,600.0	6,636.6	6,572.2	6,571.5	198.7	1.6	-88.38	-1,258.4	-6,271.1	1,276.0	1,075.8	200.26	6.372		
13,681.1	6,636.5	6,570.7	6,570.0	201.0	1.6	-88.31	-1,258.4	-6,271.1	1,319.6	1,117.1	202.53	6.516		
13,700.0	6,636.5	6,570.4	6,569.7	201.5	1.6	-88.29	-1,258.4	-6,271.1	1,330.3	1,127.2	203.06	6.551		
13,779.5	6,636.4	6,568.9	6,568.2	203.7	1.6	-88.21	-1,258.3	-6,271.1	1,377.1	1,171.8	205.28	6.708		
13,800.0	6,636.4	6,568.5	6,567.8	204.3	1.6	-88.19	-1,258.3	-6,271.1	1,389.6	1,183.8	205.85	6.751		
13,877.9	6,636.3	6,567.1	6,566.4	206.5	1.6	-88.11	-1,258.3	-6,271.2	1,439.0	1,231.0	208.03	6.918		
13,900.0	6,636.3	6,566.6	6,566.0	207.1	1.6	-88.09	-1,258.3	-6,271.2	1,453.5	1,244.8	208.64	6.966		
13,976.3	6,636.2	6,565.2	6,564.5	209.3	1.6	-88.02	-1,258.3	-6,271.2	1,504.8	1,294.1	210.77	7.140		
14,000.0	6,636.1	6,564.8	6,564.1	209.9	1.6	-87.99	-1,258.3	-6,271.2	1,521.2	1,309.7	211.43	7.195		
14,074.8	6,636.0	6,563.4	6,562.7	212.0	1.6	-87.92	-1,258.3	-6,271.2	1,574.1	1,360.5	213.52	7.372		
14,100.0	6,636.0	6,562.9	6,562.2	212.7	1.6	-87.90	-1,258.2	-6,271.2	1,592.3	1,378.1	214.22	7.433		
14,173.2	6,635.9	6,561.5	6,560.8	214.8	1.6	-87.82	-1,258.2	-6,271.3	1,646.2	1,430.0	216.27	7.612		
14,200.0	6,635.9	6,561.0	6,560.3	215.5	1.6	-87.80	-1,258.2	-6,271.3	1,666.4	1,449.4	217.01	7.679		
14,271.6	6,635.8	6,559.7	6,559.0	217.5	1.6	-87.73	-1,258.2	-6,271.3	1,721.0	1,502.0	219.01	7.858		
14,300.0	6,635.8	6,559.1	6,558.5	218.3	1.6	-87.70	-1,258.2	-6,271.3	1,743.0	1,523.2	219.80	7.930		
14,370.0	6,635.7	6,557.8	6,557.1	220.3	1.6	-87.63	-1,258.2	-6,271.3	1,798.1	1,576.4	221.76	8.108		
14,400.0	6,635.7	6,557.2	6,556.6	221.1	1.6	-87.60	-1,258.2	-6,271.4	1,822.0	1,599.4	222.59	8.185		
14,468.5	6,635.6	6,555.9	6,555.3	223.1	1.6	-87.53	-1,258.1	-6,271.4	1,877.2	1,652.7	224.50	8.362		
14,500.0	6,635.6	6,555.3	6,554.7	223.9	1.6	-87.50	-1,258.1	-6,271.4	1,902.9	1,677.5	225.38	8.443		
14,566.9	6,635.5	6,554.1	6,553.4	225.8	1.6	-87.43	-1,258.1	-6,271.4	1,958.0	1,730.8	227.24	8.616		
14,600.0	6,635.4	6,553.4	6,552.7	226.8	1.6	-87.40	-1,258.1	-6,271.4	1,985.5	1,757.4	228.17	8.702		
14,665.3	6,635.4	6,552.2	6,551.5	228.6	1.6	-87.34	-1,258.1	-6,271.5	2,040.4	1,810.4	229.99	8.872		

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

Anticollision Report



Company:	PDC ENERGY	Local Co-ordinate Reference:	Well WACKER 10G-214
Project:	WELD COUNTY, COLORADO	TVD Reference:	KB-EST @ 4624.0usft (Original Well Elev)
Reference Site:	SW NW SEC. 10 T5N R64W 6th P.M.	MD Reference:	KB-EST @ 4624.0usft (Original Well Elev)
Site Error:	0.0 usft	North Reference:	True
Reference Well:	WACKER 10G-214	Survey Calculation Method:	Minimum Curvature
Well Error:	0.0 usft	Output errors are at	2.00 sigma
Reference Wellbore	ORIGINAL WELLBORE	Database:	EDM 5000.1 Single User Db
Reference Design:	PROPOSAL #1	Offset TVD Reference:	Offset Datum

Offset Design SW NW SEC. 10 T5N R64W 6th P.M. - EXIST VERT JURGENS #8-1 - 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
14,700.0	6,635.3	6,551.5	6,550.8	229.6	1.6	-87.30	-1,258.1	-6,271.5	2,069.7	1,838.8	230.95	8.962	
14,763.7	6,635.2	6,550.3	6,549.6	231.3	1.6	-87.24	-1,258.1	-6,271.5	2,124.1	1,891.4	232.73	9.127	
14,800.0	6,635.2	6,549.6	6,548.9	232.4	1.6	-87.20	-1,258.0	-6,271.5	2,155.2	1,921.5	233.74	9.221	
14,862.2	6,635.1	6,548.4	6,547.7	234.1	1.6	-87.14	-1,258.0	-6,271.5	2,209.0	1,973.6	235.47	9.381	
14,900.0	6,635.1	6,547.7	6,547.0	235.2	1.6	-87.10	-1,258.0	-6,271.5	2,242.0	2,005.4	236.52	9.479	
14,960.6	6,635.0	6,546.5	6,545.8	236.9	1.6	-87.04	-1,258.0	-6,271.6	2,295.1	2,056.8	238.21	9.635	
14,982.9	6,635.0	6,546.1	6,545.4	237.5	1.6	-87.02	-1,258.0	-6,271.6	2,314.7	2,075.8	238.83	9.692	

Anticollision Report



Company:	PDC ENERGY	Local Co-ordinate Reference:	Well WACKER 10G-214
Project:	WELD COUNTY, COLORADO	TVD Reference:	KB-EST @ 4624.0usft (Original Well Elev)
Reference Site:	SW NW SEC. 10 T5N R64W 6th P.M.	MD Reference:	KB-EST @ 4624.0usft (Original Well Elev)
Site Error:	0.0 usft	North Reference:	True
Reference Well:	WACKER 10G-214	Survey Calculation Method:	Minimum Curvature
Well Error:	0.0 usft	Output errors are at	2.00 sigma
Reference Wellbore	ORIGINAL WELLBORE	Database:	EDM 5000.1 Single User Db
Reference Design:	PROPOSAL #1	Offset TVD Reference:	Offset Datum

Offset Design												Offset Site Error:	0.0 usft
Survey Program: 100-GYD_CT												Offset Well Error:	0.0 usft
Measured Depth (usft)	Vertical Depth (usft)	Measured Depth (usft)	Vertical Depth (usft)	Reference (usft)	Offset (usft)	Semi Major Axis Highside Toolface (°)	Offset Wellbore Centre +N/-S (usft)	+E/-W (usft)	Between Centres (usft)	Between Ellipses (usft)	Minimum Separation (usft)	Separation Factor	Warning
0.0	0.0	0.0	0.0	0.0	0.0	-88.74	166.9	-7,598.0	7,599.9				
98.4	98.4	46.3	46.3	0.1	0.0	-88.74	166.9	-7,598.0	7,599.9	7,599.8	0.10	N/A	
100.0	100.0	47.5	47.5	0.1	0.0	-88.74	166.8	-7,598.0	7,599.9	7,599.8	0.10	N/A	
196.8	196.8	137.6	137.6	0.3	0.1	-88.75	166.3	-7,598.4	7,600.2	7,599.8	0.40	N/A	
200.0	200.0	142.4	142.4	0.3	0.1	-88.75	166.3	-7,598.4	7,600.3	7,599.8	0.42	N/A	
295.3	295.3	558.5	558.4	0.5	0.5	-88.77	162.4	-7,590.5	7,598.1	7,597.1	0.99	7,670.008	
300.0	300.0	563.9	563.8	0.5	0.5	-88.77	162.4	-7,590.3	7,597.9	7,596.9	1.00	7,565.344	
393.7	393.7	662.7	662.5	0.8	0.5	-88.78	161.3	-7,586.4	7,594.2	7,592.9	1.27	5,993.394	
400.0	400.0	669.1	668.8	0.8	0.5	-88.78	161.2	-7,586.1	7,593.9	7,592.6	1.28	5,912.102	
492.1	492.1	760.5	760.2	1.0	0.6	-88.79	160.1	-7,582.5	7,590.2	7,588.7	1.54	4,941.242	
500.0	500.0	768.3	768.0	1.0	0.6	-88.79	160.0	-7,582.2	7,589.9	7,588.4	1.56	4,873.134	
590.5	590.5	881.5	881.1	1.2	0.6	-88.80	158.5	-7,577.6	7,586.2	7,584.4	1.81	4,185.453	
600.0	600.0	894.7	894.3	1.2	0.6	-88.80	158.4	-7,577.0	7,585.8	7,584.0	1.84	4,123.508	
689.0	689.0	975.0	974.5	1.4	0.7	-88.81	157.5	-7,573.6	7,582.0	7,579.9	2.07	3,656.400	
700.0	700.0	984.7	984.1	1.4	0.7	-88.81	157.3	-7,573.2	7,581.5	7,579.4	2.10	3,605.960	
787.4	787.4	1,077.3	1,076.7	1.6	0.7	-88.82	156.0	-7,569.3	7,577.8	7,575.5	2.34	3,241.737	
800.0	800.0	1,091.2	1,090.6	1.7	0.7	-88.82	155.8	-7,568.7	7,577.3	7,574.9	2.37	3,194.875	
885.8	885.8	1,165.3	1,164.6	1.9	0.8	-88.83	154.7	-7,565.6	7,573.7	7,571.1	2.59	2,919.963	
900.0	900.0	1,177.2	1,176.5	1.9	0.8	-88.83	154.6	-7,565.1	7,573.1	7,570.5	2.63	2,879.217	
984.2	984.2	1,248.9	1,248.1	2.1	0.8	-88.83	153.8	-7,562.2	7,569.7	7,566.8	2.85	2,659.229	
1,000.0	1,000.0	1,262.4	1,261.6	2.1	0.8	-88.84	153.7	-7,561.7	7,569.1	7,566.2	2.89	2,621.817	
1,082.7	1,082.7	1,324.9	1,324.1	2.3	0.8	-88.84	153.0	-7,559.3	7,565.9	7,562.8	3.10	2,443.914	
1,100.0	1,100.0	1,336.1	1,335.2	2.3	0.8	-88.84	152.9	-7,558.9	7,565.3	7,562.2	3.14	2,410.208	
1,181.1	1,181.1	1,400.0	1,399.1	2.5	0.8	-88.85	152.1	-7,556.8	7,562.6	7,559.2	3.34	2,261.049	
1,200.0	1,200.0	1,400.0	1,399.1	2.6	0.8	-88.85	152.1	-7,556.8	7,562.0	7,558.6	3.39	2,232.512	
1,279.5	1,279.5	1,454.9	1,454.0	2.7	0.9	-88.85	151.3	-7,555.2	7,559.6	7,556.0	3.59	2,107.937	
1,300.0	1,300.0	1,469.0	1,468.1	2.8	0.9	-88.85	151.1	-7,554.8	7,559.1	7,555.4	3.64	2,078.091	
1,377.9	1,377.9	1,526.9	1,526.0	3.0	0.9	152.50	150.3	-7,553.4	7,558.0	7,554.2	3.83	1,972.963	
1,378.2	1,378.2	1,527.1	1,526.2	3.0	0.9	152.50	150.3	-7,553.4	7,558.0	7,554.2	3.83	1,972.669	
1,400.0	1,400.0	1,545.0	1,544.0	3.0	0.9	152.50	150.0	-7,552.9	7,558.1	7,554.2	3.88	1,946.941	
1,476.4	1,476.3	1,600.0	1,599.0	3.1	0.9	152.49	149.2	-7,551.7	7,559.6	7,555.6	4.05	1,868.325	
1,500.0	1,499.8	1,622.8	1,621.8	3.2	0.9	152.49	148.9	-7,551.2	7,560.5	7,556.4	4.10	1,844.598	
1,574.8	1,574.4	1,674.6	1,673.6	3.3	1.0	152.46	148.0	-7,550.2	7,564.6	7,560.3	4.26	1,773.671	
1,600.0	1,599.5	1,700.0	1,699.0	3.4	1.0	152.45	147.5	-7,549.8	7,566.4	7,562.1	4.32	1,749.921	
1,673.2	1,672.2	1,755.4	1,754.4	3.6	1.0	152.40	146.4	-7,549.0	7,572.8	7,568.3	4.49	1,684.756	
1,700.0	1,698.7	1,779.4	1,778.3	3.6	1.0	152.38	145.9	-7,548.6	7,575.6	7,571.1	4.56	1,661.781	
1,771.6	1,769.5	1,833.5	1,832.5	3.8	1.0	152.32	144.6	-7,547.9	7,584.2	7,579.5	4.73	1,601.829	
1,800.0	1,797.5	1,853.1	1,852.0	3.9	1.0	152.29	144.2	-7,547.6	7,588.1	7,583.3	4.80	1,579.684	
1,870.1	1,866.3	1,900.0	1,898.9	4.1	1.0	152.21	143.1	-7,547.2	7,599.0	7,594.0	4.98	1,524.503	
1,900.2	1,895.8	1,923.9	1,922.9	4.2	1.0	152.18	142.6	-7,547.0	7,604.2	7,599.1	5.06	1,501.797	
1,968.5	1,962.6	1,975.2	1,974.1	4.4	1.1	152.21	141.5	-7,546.6	7,616.3	7,611.1	5.25	1,452.056	
2,000.0	1,993.4	2,000.0	1,998.9	4.5	1.1	152.22	141.1	-7,546.5	7,621.9	7,616.6	5.33	1,430.280	
2,066.9	2,058.9	2,067.1	2,066.0	4.7	1.1	152.26	139.8	-7,546.2	7,634.0	7,628.5	5.52	1,383.615	
2,100.0	2,091.2	2,100.0	2,098.9	4.8	1.1	152.28	139.2	-7,546.0	7,639.9	7,634.3	5.61	1,362.037	
2,165.3	2,155.2	2,152.8	2,151.7	5.1	1.1	152.31	138.3	-7,545.8	7,651.7	7,645.9	5.79	1,321.128	
2,200.0	2,189.1	2,180.4	2,179.3	5.2	1.1	152.33	137.8	-7,545.7	7,658.0	7,652.1	5.89	1,299.782	
2,263.8	2,251.4	2,236.5	2,235.4	5.5	1.2	152.37	137.0	-7,545.5	7,669.6	7,663.5	6.08	1,262.043	
2,300.0	2,286.9	2,270.3	2,269.2	5.6	1.2	152.39	136.5	-7,545.5	7,676.2	7,670.0	6.18	1,241.426	
2,362.2	2,347.7	2,324.8	2,323.7	5.8	1.2	152.42	135.8	-7,545.4	7,687.6	7,681.2	6.37	1,207.328	
2,400.0	2,384.7	2,355.7	2,354.5	6.0	1.2	152.44	135.4	-7,545.4	7,694.6	7,688.1	6.48	1,187.668	
2,460.6	2,444.0	2,406.3	2,405.2	6.2	1.2	152.47	134.8	-7,545.4	7,705.8	7,699.2	6.66	1,157.019	
2,500.0	2,482.5	2,446.0	2,444.8	6.4	1.2	152.50	134.4	-7,545.4	7,713.1	7,706.3	6.78	1,137.818	

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

Anticollision Report



Company:	PDC ENERGY	Local Co-ordinate Reference:	Well WACKER 10G-214
Project:	WELD COUNTY, COLORADO	TVD Reference:	KB-EST @ 4624.0usft (Original Well Elev)
Reference Site:	SW NW SEC. 10 T5N R64W 6th P.M.	MD Reference:	KB-EST @ 4624.0usft (Original Well Elev)
Site Error:	0.0 usft	North Reference:	True
Reference Well:	WACKER 10G-214	Survey Calculation Method:	Minimum Curvature
Well Error:	0.0 usft	Output errors are at	2.00 sigma
Reference Wellbore	ORIGINAL WELLBORE	Database:	EDM 5000.1 Single User Db
Reference Design:	PROPOSAL #1	Offset TVD Reference:	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	2,540.3	2,505.3	2,504.1	6.6	1.2	152.54	133.8	-7,545.4	7,724.1	7,717.1	6.96	1,109.889	
2,600.0	2,580.3	2,545.6	2,544.5	6.8	1.2	152.56	133.4	-7,545.5	7,731.7	7,724.6	7.08	1,091.413	
2,657.5	2,636.5	2,602.4	2,601.2	7.1	1.3	152.60	132.7	-7,545.5	7,742.3	7,735.1	7.26	1,066.253	
2,700.0	2,678.1	2,645.8	2,644.6	7.2	1.3	152.63	132.2	-7,545.5	7,750.2	7,742.8	7.39	1,048.357	
2,755.9	2,732.8	2,702.6	2,701.4	7.5	1.3	152.66	131.4	-7,545.5	7,760.6	7,753.0	7.57	1,025.551	
2,800.0	2,775.9	2,744.8	2,743.6	7.7	1.3	152.69	130.9	-7,545.5	7,768.8	7,761.1	7.70	1,008.342	
2,854.3	2,829.1	2,796.8	2,795.6	7.9	1.3	152.72	130.1	-7,545.5	7,778.8	7,771.0	7.88	987.786	
2,900.0	2,873.8	2,838.3	2,837.1	8.1	1.3	152.75	129.5	-7,545.5	7,787.3	7,779.3	8.02	971.235	
2,952.7	2,925.4	2,886.1	2,884.9	8.3	1.4	152.77	128.8	-7,545.6	7,797.1	7,789.0	8.18	952.736	
2,953.5	2,926.1	2,886.7	2,885.6	8.3	1.4	152.77	128.8	-7,545.6	7,797.3	7,789.1	8.19	952.485	
3,000.0	2,971.6	2,937.2	2,936.0	8.5	1.4	152.88	128.1	-7,545.6	7,805.6	7,797.3	8.31	938.895	
3,051.2	3,022.0	2,997.2	2,996.0	8.7	1.4	152.99	127.1	-7,545.6	7,814.0	7,805.5	8.44	925.972	
3,100.0	3,070.1	3,052.7	3,051.5	8.8	1.4	153.08	126.2	-7,545.6	7,821.1	7,812.6	8.56	913.922	
3,149.6	3,119.1	3,100.0	3,098.8	8.9	1.4	153.16	125.6	-7,545.5	7,827.6	7,819.0	8.67	902.680	
3,200.0	3,169.1	3,147.9	3,146.7	9.1	1.4	153.23	125.0	-7,545.4	7,833.5	7,824.7	8.79	891.468	
3,248.0	3,216.8	3,187.4	3,186.2	9.2	1.4	153.28	124.6	-7,545.4	7,838.3	7,829.4	8.89	881.684	
3,300.0	3,268.5	3,240.9	3,239.7	9.3	1.5	153.34	124.4	-7,545.3	7,842.8	7,833.8	9.00	871.753	
3,346.4	3,314.8	3,292.9	3,291.6	9.4	1.5	153.38	124.5	-7,545.3	7,846.1	7,837.0	9.08	863.747	
3,400.0	3,368.3	3,372.1	3,370.9	9.6	1.5	153.43	125.3	-7,545.0	7,849.0	7,839.8	9.20	853.381	
3,444.9	3,413.1	3,431.9	3,430.7	9.6	1.5	153.46	126.2	-7,544.6	7,850.6	7,841.3	9.29	845.277	
3,500.0	3,468.2	3,498.1	3,496.8	9.7	1.5	153.48	127.5	-7,544.1	7,851.5	7,842.1	9.40	835.508	
3,543.3	3,511.5	3,531.6	3,530.3	9.8	1.5	153.49	128.2	-7,543.8	7,851.7	7,842.2	9.48	828.648	
3,553.7	3,521.9	3,539.5	3,538.2	9.8	1.5	-87.86	128.4	-7,543.7	7,851.6	7,840.8	10.79	727.644	
3,600.0	3,568.2	3,574.6	3,573.3	9.9	1.5	-87.85	129.2	-7,543.5	7,851.3	7,840.5	10.87	722.566	
3,641.7	3,609.9	3,613.1	3,611.9	10.0	1.5	-87.85	130.0	-7,543.3	7,851.1	7,840.2	10.94	717.768	
3,700.0	3,668.2	3,700.0	3,698.7	10.1	1.5	-87.83	132.0	-7,542.6	7,850.7	7,839.7	11.04	711.092	
3,740.1	3,708.4	3,731.2	3,729.9	10.1	1.5	-87.83	132.7	-7,542.4	7,850.4	7,839.3	11.11	706.542	
3,800.0	3,768.2	3,773.4	3,772.1	10.2	1.5	-87.82	133.6	-7,542.1	7,850.1	7,838.8	11.22	699.886	
3,838.6	3,806.8	3,801.0	3,799.7	10.3	1.5	-87.82	134.1	-7,541.9	7,849.9	7,838.6	11.28	695.620	
3,900.0	3,868.2	3,868.7	3,867.4	10.4	1.5	-87.81	135.4	-7,541.6	7,849.6	7,838.3	11.40	688.861	
3,937.0	3,905.2	3,900.0	3,898.7	10.5	1.5	-87.80	136.0	-7,541.5	7,849.5	7,838.0	11.46	684.831	
4,000.0	3,968.2	3,949.6	3,948.2	10.6	1.5	-87.80	136.8	-7,541.3	7,849.3	7,837.7	11.58	678.083	
4,035.4	4,003.6	3,974.1	3,972.7	10.6	1.5	-87.79	137.2	-7,541.2	7,849.2	7,837.6	11.64	674.324	
4,048.7	4,016.9	3,983.3	3,981.9	10.6	1.5	-87.79	137.3	-7,541.2	7,849.2	7,837.6	11.66	672.925	
4,100.0	4,068.2	4,000.0	3,998.6	10.7	1.5	-87.79	137.5	-7,541.2	7,849.3	7,837.6	11.76	667.634	
4,133.8	4,102.1	4,028.7	4,027.4	10.8	1.5	-87.79	137.8	-7,541.3	7,849.4	7,837.6	11.82	664.127	
4,200.0	4,168.2	4,059.9	4,058.5	10.9	1.5	-87.79	138.0	-7,541.5	7,849.9	7,838.0	11.94	657.449	
4,232.3	4,200.5	4,100.0	4,098.6	11.0	1.5	-87.79	138.2	-7,542.0	7,850.3	7,838.3	12.00	654.181	
4,300.0	4,268.2	4,100.0	4,098.6	11.1	1.5	-87.79	138.2	-7,542.0	7,851.2	7,839.1	12.12	647.579	
4,330.7	4,298.9	4,124.1	4,122.8	11.1	1.5	-87.79	138.3	-7,542.4	7,851.7	7,839.5	12.18	644.422	
4,400.0	4,368.2	4,160.9	4,159.6	11.3	1.5	-87.78	138.3	-7,543.1	7,853.1	7,840.8	12.32	637.565	
4,429.1	4,397.3	4,176.4	4,175.0	11.3	1.5	-87.78	138.4	-7,543.5	7,853.8	7,841.4	12.37	634.712	
4,500.0	4,468.2	4,200.0	4,198.6	11.4	1.5	-87.78	138.4	-7,544.1	7,855.6	7,843.1	12.51	628.002	
4,527.5	4,495.8	4,200.0	4,198.6	11.5	1.5	-87.78	138.4	-7,544.1	7,856.5	7,844.0	12.56	625.494	
4,600.0	4,568.2	4,258.3	4,256.9	11.6	1.5	-87.79	138.3	-7,545.9	7,858.8	7,846.1	12.71	618.507	
4,626.0	4,594.2	4,270.3	4,268.8	11.7	1.5	-87.79	138.2	-7,546.3	7,859.7	7,847.0	12.76	616.108	
4,700.0	4,668.2	4,300.0	4,298.6	11.8	1.5	-87.79	138.0	-7,547.5	7,862.7	7,849.8	12.90	609.430	
4,724.4	4,692.6	4,322.5	4,321.1	11.9	1.5	-87.79	137.9	-7,548.4	7,863.7	7,850.7	12.95	607.136	
4,800.0	4,768.2	4,372.7	4,371.2	12.0	1.5	-87.79	137.5	-7,550.7	7,867.0	7,853.9	13.10	600.318	
4,822.8	4,791.0	4,400.0	4,398.5	12.0	1.5	-87.80	137.2	-7,552.0	7,868.1	7,855.0	13.15	598.182	
4,900.0	4,868.2	4,430.1	4,428.5	12.2	1.5	-87.80	136.9	-7,553.5	7,871.9	7,858.6	13.31	591.581	
4,921.2	4,889.5	4,441.0	4,439.4	12.2	1.5	-87.80	136.8	-7,554.1	7,873.0	7,859.6	13.35	589.763	

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

Anticollision Report



Company:	PDC ENERGY	Local Co-ordinate Reference:	Well WACKER 10G-214
Project:	WELD COUNTY, COLORADO	TVD Reference:	KB-EST @ 4624.0usft (Original Well Elev)
Reference Site:	SW NW SEC. 10 T5N R64W 6th P.M.	MD Reference:	KB-EST @ 4624.0usft (Original Well Elev)
Site Error:	0.0 usft	North Reference:	True
Reference Well:	WACKER 10G-214	Survey Calculation Method:	Minimum Curvature
Well Error:	0.0 usft	Output errors are at	2.00 sigma
Reference Wellbore	ORIGINAL WELLBORE	Database:	EDM 5000.1 Single User Db
Reference Design:	PROPOSAL #1	Offset TVD Reference:	Offset Datum

Offset Design SW NW SEC. 10 T5N R64W 6th P.M. - EXIST VERT JURGENS #8-13 - 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)	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	4,968.2	4,500.0	4,498.3	12.4	1.5	-87.81	135.9	-7,557.4	7,877.4	7,863.9	13.51	582.993	
5,019.7	4,987.9	4,500.0	4,498.3	12.4	1.5	-87.81	135.9	-7,557.4	7,878.5	7,864.9	13.55	581.439	
5,100.0	5,068.2	4,559.3	4,557.5	12.6	1.5	-87.82	134.8	-7,561.0	7,883.3	7,869.6	13.72	574.714	
5,118.1	5,086.3	4,576.3	4,574.4	12.6	1.5	-87.82	134.5	-7,562.1	7,884.4	7,870.6	13.76	573.185	
5,200.0	5,168.2	4,801.2	4,799.1	12.7	1.5	-87.84	131.3	-7,573.3	7,888.2	7,874.2	13.96	565.211	
5,216.5	5,184.7	4,820.6	4,818.4	12.8	1.5	-87.85	131.2	-7,574.1	7,888.9	7,874.9	13.99	563.823	
5,300.0	5,268.2	4,921.1	4,918.8	12.9	1.6	-87.85	130.4	-7,578.3	7,892.3	7,878.1	14.17	556.893	
5,314.9	5,283.2	4,941.3	4,939.0	13.0	1.6	-87.85	130.2	-7,579.1	7,892.9	7,878.7	14.20	555.648	
5,400.0	5,368.2	5,096.0	5,093.6	13.1	1.6	-87.86	129.2	-7,584.6	7,895.9	7,881.5	14.40	548.414	
5,413.4	5,381.6	5,116.2	5,113.8	13.2	1.6	-87.86	129.2	-7,585.2	7,896.3	7,881.9	14.43	547.316	
5,500.0	5,468.2	5,228.8	5,226.4	13.3	1.6	-87.87	128.8	-7,588.3	7,898.7	7,884.1	14.62	540.420	
5,511.8	5,480.0	5,241.7	5,239.2	13.3	1.6	-87.87	128.8	-7,588.7	7,899.0	7,884.4	14.64	539.505	
5,600.0	5,568.2	5,362.8	5,360.4	13.5	1.6	-87.87	128.9	-7,591.7	7,901.2	7,886.4	14.83	532.738	
5,610.2	5,578.4	5,381.3	5,378.8	13.5	1.6	-87.87	129.0	-7,592.1	7,901.4	7,886.6	14.85	531.954	
5,700.0	5,668.2	5,504.3	5,501.7	13.7	1.6	-87.85	130.8	-7,594.3	7,903.1	7,888.1	15.04	525.394	
5,708.6	5,676.9	5,513.6	5,511.1	13.7	1.6	-87.85	130.9	-7,594.4	7,903.2	7,888.2	15.06	524.779	
5,800.0	5,768.2	5,612.8	5,610.2	13.9	1.6	-87.84	132.7	-7,595.9	7,904.7	7,889.5	15.25	518.370	
5,807.1	5,775.3	5,620.8	5,618.2	13.9	1.6	-87.84	132.9	-7,596.1	7,904.8	7,889.6	15.26	517.878	
5,900.0	5,868.2	5,722.9	5,720.3	14.1	1.6	-87.83	134.7	-7,597.5	7,906.2	7,890.7	15.46	511.499	
5,905.5	5,873.7	5,728.4	5,725.8	14.1	1.6	-87.83	134.8	-7,597.6	7,906.3	7,890.8	15.47	511.126	
5,960.7	5,928.9	5,784.1	5,781.5	14.2	1.6	-87.82	135.7	-7,598.3	7,907.1	7,891.5	15.58	507.412	
6,000.0	5,968.2	5,821.2	5,818.6	14.3	1.6	2.19	136.4	-7,598.8	7,906.5	7,891.9	14.67	538.931	
6,003.9	5,972.1	5,824.7	5,822.1	14.3	1.6	2.19	136.5	-7,598.9	7,906.4	7,891.7	14.68	538.693	
6,050.0	6,018.0	5,866.1	5,863.5	14.4	1.6	2.21	137.2	-7,599.5	7,902.8	7,888.0	14.77	535.161	
6,100.0	6,067.3	5,900.0	5,897.4	14.4	1.6	2.23	137.7	-7,600.0	7,895.6	7,880.7	14.89	530.389	
6,102.3	6,069.6	5,900.0	5,897.4	14.4	1.6	2.23	137.7	-7,600.0	7,895.2	7,880.3	14.89	530.169	
6,150.0	6,116.0	5,937.6	5,935.0	14.4	1.6	2.27	138.3	-7,600.6	7,885.1	7,870.1	15.01	525.279	
6,200.0	6,163.8	5,967.4	5,964.8	14.5	1.6	2.32	138.7	-7,601.2	7,871.3	7,856.2	15.12	520.542	
6,200.8	6,164.5	5,967.9	5,965.3	14.5	1.6	2.33	138.7	-7,601.2	7,871.1	7,856.0	15.12	520.474	
6,250.0	6,210.4	6,000.0	5,997.3	14.5	1.6	2.39	139.1	-7,601.9	7,854.3	7,839.1	15.21	516.453	
6,299.2	6,254.9	6,073.6	6,070.9	14.5	1.6	2.48	140.1	-7,603.4	7,834.4	7,819.1	15.29	512.360	
6,300.0	6,255.6	6,074.9	6,072.2	14.5	1.6	2.48	140.1	-7,603.4	7,834.1	7,818.8	15.29	512.295	
6,350.0	6,299.3	6,131.3	6,128.6	14.5	1.7	2.60	141.0	-7,604.4	7,810.5	7,795.2	15.34	509.252	
6,397.6	6,339.2	6,172.6	6,169.9	14.6	1.7	2.72	141.7	-7,605.1	7,785.3	7,769.9	15.34	507.459	
6,400.0	6,341.2	6,174.6	6,171.9	14.6	1.7	2.73	141.7	-7,605.1	7,783.9	7,768.6	15.34	507.393	
6,450.0	6,381.0	6,212.6	6,209.9	14.6	1.7	2.89	142.3	-7,605.7	7,754.5	7,739.2	15.31	506.578	
6,496.0	6,415.8	6,241.4	6,238.7	14.7	1.7	3.06	142.7	-7,606.2	7,724.9	7,709.7	15.24	506.758	
6,500.0	6,418.7	6,243.8	6,241.1	14.7	1.7	3.08	142.7	-7,606.3	7,722.3	7,707.0	15.24	506.809	
6,550.0	6,453.9	6,273.1	6,270.4	14.8	1.7	3.31	143.1	-7,606.8	7,687.5	7,672.4	15.14	507.790	
6,594.5	6,483.1	6,300.0	6,297.3	15.0	1.7	3.56	143.5	-7,607.3	7,654.6	7,639.6	15.04	509.018	
6,600.0	6,486.6	6,300.6	6,297.9	15.1	1.7	3.59	143.5	-7,607.3	7,650.4	7,635.4	15.02	509.308	
6,650.0	6,516.6	6,341.2	6,338.4	15.3	1.7	3.96	144.0	-7,608.1	7,611.0	7,596.1	14.91	510.388	
6,692.9	6,540.0	6,372.9	6,370.1	15.7	1.7	4.36	144.4	-7,608.7	7,575.6	7,560.8	14.82	511.205	
6,700.0	6,543.7	6,377.9	6,375.1	15.7	1.7	4.43	144.5	-7,608.8	7,569.6	7,554.8	14.80	511.338	
6,750.0	6,567.8	6,400.0	6,397.2	16.2	1.7	5.04	144.7	-7,609.1	7,526.2	7,511.5	14.69	512.194	
6,791.3	6,585.4	6,419.3	6,416.5	16.7	1.7	5.69	145.0	-7,609.5	7,489.2	7,474.6	14.63	511.744	
6,800.0	6,588.8	6,421.9	6,419.2	16.8	1.7	5.85	145.0	-7,609.5	7,481.3	7,466.7	14.62	511.602	
6,850.0	6,606.6	6,435.6	6,432.9	17.4	1.7	6.99	145.2	-7,609.8	7,434.9	7,420.3	14.61	509.053	
6,889.7	6,618.4	6,444.9	6,442.1	18.0	1.7	8.29	145.4	-7,609.9	7,397.3	7,382.6	14.67	504.387	
6,900.0	6,621.1	6,447.0	6,444.2	18.2	1.7	8.70	145.4	-7,610.0	7,387.4	7,372.7	14.69	502.739	
6,950.0	6,632.2	6,455.9	6,453.1	19.0	1.7	11.54	145.5	-7,610.1	7,339.0	7,324.0	14.99	489.585	
6,988.2	6,638.4	6,461.0	6,458.2	19.7	1.7	15.34	145.6	-7,610.2	7,301.5	7,285.9	15.53	470.126	

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

Anticollision Report



Company:	PDC ENERGY	Local Co-ordinate Reference:	Well WACKER 10G-214
Project:	WELD COUNTY, COLORADO	TVD Reference:	KB-EST @ 4624.0usft (Original Well Elev)
Reference Site:	SW NW SEC. 10 T5N R64W 6th P.M.	MD Reference:	KB-EST @ 4624.0usft (Original Well Elev)
Site Error:	0.0 usft	North Reference:	True
Reference Well:	WACKER 10G-214	Survey Calculation Method:	Minimum Curvature
Well Error:	0.0 usft	Output errors are at	2.00 sigma
Reference Wellbore	ORIGINAL WELLBORE	Database:	EDM 5000.1 Single User Db
Reference Design:	PROPOSAL #1	Offset TVD Reference:	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	6,639.9	6,462.3	6,459.5	19.9	1.7	17.07	145.6	-7,610.3	7,289.8	7,274.0	15.81	461.161	
7,050.0	6,644.1	6,466.1	6,463.3	20.8	1.7	31.64	145.7	-7,610.3	7,240.1	7,221.6	18.48	391.717	
7,086.5	6,645.0	6,467.3	6,464.5	21.5	1.7	66.46	145.7	-7,610.3	7,203.6	7,180.6	22.99	313.311	
7,100.0	6,645.0	6,467.5	6,464.7	21.8	1.7	66.48	145.7	-7,610.4	7,190.2	7,166.9	23.24	309.425	
7,185.0	6,644.9	6,468.6	6,465.9	23.6	1.7	66.66	145.7	-7,610.4	7,105.3	7,080.4	24.86	285.757	
7,200.0	6,644.8	6,468.8	6,466.1	23.9	1.7	66.69	145.7	-7,610.4	7,090.3	7,065.1	25.15	281.903	
7,283.4	6,644.7	6,470.0	6,467.2	25.7	1.7	66.87	145.7	-7,610.4	7,006.9	6,980.1	26.86	260.850	
7,300.0	6,644.7	6,470.2	6,467.4	26.1	1.7	66.90	145.8	-7,610.4	6,990.4	6,963.2	27.20	256.987	
7,381.9	6,644.6	6,471.3	6,468.5	28.0	1.7	67.08	145.8	-7,610.4	6,908.6	6,879.7	28.97	238.502	
7,400.0	6,644.6	6,471.6	6,468.8	28.4	1.7	67.11	145.8	-7,610.4	6,890.5	6,861.2	29.36	234.708	
7,480.3	6,644.5	6,472.7	6,469.9	30.3	1.7	67.29	145.8	-7,610.5	6,810.3	6,779.2	31.16	218.582	
7,500.0	6,644.4	6,473.0	6,470.2	30.8	1.7	67.33	145.8	-7,610.5	6,790.7	6,759.1	31.60	214.904	
7,578.7	6,644.3	6,474.1	6,471.3	32.7	1.7	67.50	145.8	-7,610.5	6,712.0	6,678.6	33.42	200.866	
7,600.0	6,644.3	6,474.4	6,471.6	33.3	1.7	67.54	145.8	-7,610.5	6,690.8	6,656.9	33.91	197.329	
7,677.1	6,644.2	6,475.4	6,472.7	35.2	1.7	67.72	145.8	-7,610.5	6,613.7	6,578.0	35.73	185.103	
7,700.0	6,644.1	6,475.8	6,473.0	35.8	1.7	67.76	145.8	-7,610.5	6,590.9	6,554.6	36.27	181.716	
7,775.6	6,644.0	6,476.8	6,474.0	37.7	1.7	67.93	145.9	-7,610.5	6,515.4	6,477.3	38.09	171.049	
7,800.0	6,644.0	6,477.2	6,474.4	38.3	1.7	67.98	145.9	-7,610.5	6,491.0	6,452.4	38.68	167.815	
7,874.0	6,643.9	6,478.2	6,475.4	40.2	1.7	68.15	145.9	-7,610.6	6,417.1	6,376.6	40.49	158.483	
7,900.0	6,643.9	6,478.6	6,475.8	40.9	1.7	68.21	145.9	-7,610.6	6,391.2	6,350.0	41.13	155.398	
7,972.4	6,643.8	6,479.6	6,476.8	42.8	1.7	68.37	145.9	-7,610.6	6,318.9	6,275.9	42.92	147.208	
8,000.0	6,643.7	6,480.0	6,477.2	43.5	1.7	68.43	145.9	-7,610.6	6,291.3	6,247.7	43.61	144.266	
8,070.8	6,643.6	6,481.0	6,478.3	45.4	1.7	68.60	145.9	-7,610.6	6,220.6	6,175.2	45.39	137.056	
8,100.0	6,643.6	6,481.5	6,478.7	46.2	1.7	68.66	145.9	-7,610.6	6,191.5	6,145.3	46.12	134.250	
8,169.3	6,643.5	6,482.5	6,479.7	48.0	1.7	68.82	146.0	-7,610.7	6,122.3	6,074.4	47.87	127.881	
8,200.0	6,643.5	6,482.9	6,480.1	48.8	1.7	68.89	146.0	-7,610.7	6,091.6	6,043.0	48.65	125.202	
8,267.7	6,643.4	6,483.9	6,481.1	50.6	1.7	69.05	146.0	-7,610.7	6,024.0	5,973.6	50.39	119.559	
8,300.0	6,643.3	6,484.4	6,481.6	51.5	1.7	69.13	146.0	-7,610.7	5,991.8	5,940.5	51.21	117.000	
8,366.1	6,643.2	6,485.4	6,482.6	53.3	1.7	69.28	146.0	-7,610.7	5,925.7	5,872.8	52.92	111.984	
8,400.0	6,643.2	6,485.9	6,483.1	54.2	1.7	69.36	146.0	-7,610.7	5,891.9	5,838.1	53.79	109.536	
8,464.5	6,643.1	6,486.8	6,484.0	55.9	1.7	69.52	146.0	-7,610.7	5,827.5	5,772.0	55.47	105.065	
8,500.0	6,643.1	6,487.3	6,484.6	56.9	1.7	69.60	146.0	-7,610.7	5,792.1	5,735.7	56.39	102.722	
8,563.0	6,643.0	6,488.3	6,485.5	58.6	1.7	69.75	146.1	-7,610.8	5,729.2	5,671.2	58.03	98.726	
8,600.0	6,642.9	6,488.8	6,486.0	59.6	1.7	69.84	146.1	-7,610.8	5,692.2	5,633.2	59.00	96.480	
8,661.4	6,642.8	6,500.0	6,497.2	61.3	1.7	71.68	146.3	-7,611.0	5,631.0	5,569.9	61.02	92.281	
8,700.0	6,642.8	6,500.0	6,497.2	62.3	1.7	71.68	146.3	-7,611.0	5,592.4	5,530.4	62.02	90.172	
8,759.8	6,642.7	6,500.0	6,497.2	64.0	1.7	71.68	146.3	-7,611.0	5,532.7	5,469.1	63.58	87.026	
8,800.0	6,642.7	6,500.0	6,497.2	65.1	1.7	71.68	146.3	-7,611.0	5,492.6	5,428.0	64.62	85.000	
8,858.2	6,642.6	6,500.0	6,497.2	66.6	1.7	71.68	146.3	-7,611.0	5,434.5	5,368.3	66.14	82.170	
8,900.0	6,642.5	6,500.0	6,497.2	67.8	1.7	71.67	146.3	-7,611.0	5,392.8	5,325.6	67.22	80.221	
8,956.7	6,642.4	6,500.0	6,497.2	69.3	1.7	71.67	146.3	-7,611.0	5,336.2	5,267.5	68.70	77.669	
9,000.0	6,642.4	6,500.0	6,497.2	70.5	1.7	71.67	146.3	-7,611.0	5,293.0	5,223.1	69.84	75.792	
9,055.1	6,642.3	6,500.0	6,497.2	72.0	1.7	71.67	146.3	-7,611.0	5,238.0	5,166.7	71.28	73.487	
9,100.0	6,642.3	6,500.0	6,497.2	73.3	1.7	71.67	146.3	-7,611.0	5,193.2	5,120.7	72.45	71.678	
9,153.5	6,642.2	6,500.0	6,497.2	74.7	1.7	71.67	146.3	-7,611.0	5,139.8	5,065.9	73.86	69.592	
9,200.0	6,642.1	6,500.0	6,497.2	76.0	1.7	71.67	146.3	-7,611.0	5,093.4	5,018.3	75.07	67.846	
9,251.9	6,642.1	6,500.0	6,497.2	77.5	1.7	71.67	146.3	-7,611.0	5,041.5	4,965.1	76.44	65.957	
9,300.0	6,642.0	6,500.0	6,497.2	78.8	1.7	71.66	146.3	-7,611.0	4,993.6	4,915.9	77.70	64.269	
9,350.4	6,641.9	6,500.8	6,498.0	80.2	1.7	71.80	146.3	-7,611.0	4,943.3	4,864.3	79.07	62.521	
9,400.0	6,641.9	6,502.3	6,499.6	81.5	1.7	72.05	146.3	-7,611.1	4,893.8	4,813.3	80.45	60.827	
9,448.8	6,641.8	6,503.8	6,501.0	82.9	1.7	72.30	146.3	-7,611.1	4,845.1	4,763.3	81.82	59.214	
9,500.0	6,641.7	6,505.4	6,502.6	84.3	1.7	72.56	146.4	-7,611.1	4,794.0	4,710.8	83.26	57.578	

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

Anticollision Report



Company:	PDC ENERGY	Local Co-ordinate Reference:	Well WACKER 10G-214
Project:	WELD COUNTY, COLORADO	TVD Reference:	KB-EST @ 4624.0usft (Original Well Elev)
Reference Site:	SW NW SEC. 10 T5N R64W 6th P.M.	MD Reference:	KB-EST @ 4624.0usft (Original Well Elev)
Site Error:	0.0 usft	North Reference:	True
Reference Well:	WACKER 10G-214	Survey Calculation Method:	Minimum Curvature
Well Error:	0.0 usft	Output errors are at	2.00 sigma
Reference Wellbore	ORIGINAL WELLBORE	Database:	EDM 5000.1 Single User Db
Reference Design:	PROPOSAL #1	Offset TVD Reference:	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	6,641.7	6,506.8	6,504.0	85.6	1.7	72.80	146.4	-7,611.2	4,746.9	4,662.3	84.59	56.117	
9,600.0	6,641.6	6,508.3	6,505.5	87.1	1.7	73.06	146.4	-7,611.2	4,694.3	4,608.2	86.08	54.537	
9,645.6	6,641.5	6,509.7	6,506.9	88.3	1.7	73.28	146.4	-7,611.2	4,648.7	4,561.4	87.36	53.211	
9,700.0	6,641.5	6,511.2	6,508.4	89.8	1.7	73.55	146.5	-7,611.2	4,594.5	4,505.6	88.90	51.683	
9,744.1	6,641.4	6,512.5	6,509.7	91.0	1.7	73.76	146.5	-7,611.3	4,550.5	4,460.4	90.14	50.481	
9,800.0	6,641.3	6,514.1	6,511.3	92.6	1.7	74.03	146.5	-7,611.3	4,494.8	4,403.0	91.73	49.002	
9,842.5	6,641.3	6,515.3	6,512.5	93.8	1.7	74.23	146.5	-7,611.3	4,452.4	4,359.4	92.93	47.910	
9,900.0	6,641.2	6,516.9	6,514.1	95.4	1.7	74.50	146.6	-7,611.4	4,395.0	4,300.5	94.56	46.478	
9,940.9	6,641.1	6,518.0	6,515.2	96.5	1.7	74.69	146.6	-7,611.4	4,354.2	4,258.5	95.72	45.487	
10,000.0	6,641.1	6,519.6	6,516.8	98.1	1.7	74.97	146.6	-7,611.4	4,295.3	4,197.9	97.40	44.098	
10,039.3	6,641.0	6,520.7	6,517.9	99.2	1.7	75.15	146.6	-7,611.4	4,256.1	4,157.6	98.52	43.199	
10,100.0	6,640.9	6,522.3	6,519.5	100.9	1.7	75.43	146.6	-7,611.5	4,195.6	4,095.4	100.25	41.852	
10,137.8	6,640.9	6,523.3	6,520.5	102.0	1.7	75.60	146.7	-7,611.5	4,157.9	4,056.6	101.33	41.036	
10,200.0	6,640.8	6,524.9	6,522.1	103.7	1.7	75.88	146.7	-7,611.5	4,095.9	3,992.8	103.10	39.728	
10,236.2	6,640.8	6,525.8	6,523.0	104.7	1.7	76.04	146.7	-7,611.5	4,059.8	3,955.7	104.13	38.987	
10,300.0	6,640.7	6,527.5	6,524.7	106.5	1.7	76.32	146.7	-7,611.6	3,996.2	3,890.3	105.95	37.717	
10,334.6	6,640.6	6,528.3	6,525.5	107.4	1.7	76.47	146.7	-7,611.6	3,961.7	3,854.8	106.94	37.045	
10,400.0	6,640.6	6,530.0	6,527.2	109.3	1.7	76.76	146.8	-7,611.6	3,896.5	3,787.7	108.81	35.811	
10,433.0	6,640.5	6,530.8	6,528.0	110.2	1.7	76.90	146.8	-7,611.6	3,863.6	3,753.9	109.76	35.202	
10,500.0	6,640.4	6,532.4	6,529.6	112.0	1.7	77.19	146.8	-7,611.7	3,796.9	3,685.2	111.67	34.001	
10,531.5	6,640.4	6,533.2	6,530.4	112.9	1.7	77.32	146.8	-7,611.7	3,765.5	3,653.0	112.57	33.450	
10,600.0	6,640.3	6,534.9	6,532.1	114.8	1.7	77.61	146.8	-7,611.7	3,697.3	3,582.7	114.53	32.281	
10,629.9	6,640.3	6,535.6	6,532.8	115.7	1.7	77.74	146.8	-7,611.7	3,667.5	3,552.1	115.39	31.783	
10,700.0	6,640.2	6,537.2	6,534.4	117.6	1.7	78.03	146.9	-7,611.7	3,597.6	3,480.2	117.40	30.645	
10,728.3	6,640.1	6,537.9	6,535.1	118.4	1.7	78.14	146.9	-7,611.8	3,569.4	3,451.2	118.21	30.196	
10,800.0	6,640.0	6,539.6	6,536.8	120.4	1.7	78.44	146.9	-7,611.8	3,498.0	3,377.8	120.26	29.087	
10,826.7	6,640.0	6,540.2	6,537.4	121.2	1.7	78.55	146.9	-7,611.8	3,471.4	3,350.4	121.03	28.682	
10,900.0	6,639.9	6,541.9	6,539.1	123.2	1.7	78.84	146.9	-7,611.8	3,398.5	3,275.3	123.13	27.600	
10,925.2	6,639.9	6,542.4	6,539.6	123.9	1.7	78.94	147.0	-7,611.8	3,373.4	3,249.6	123.85	27.237	
11,000.0	6,639.8	6,544.1	6,541.3	126.0	1.7	79.24	147.0	-7,611.9	3,298.9	3,172.9	126.00	26.182	
11,023.6	6,639.8	6,544.6	6,541.8	126.6	1.7	79.33	147.0	-7,611.9	3,275.4	3,148.8	126.68	25.857	
11,100.0	6,639.7	6,546.3	6,543.5	128.8	1.7	79.63	147.0	-7,611.9	3,199.4	3,070.5	128.87	24.827	
11,122.0	6,639.6	6,546.8	6,544.0	129.4	1.7	79.71	147.0	-7,611.9	3,177.5	3,048.0	129.50	24.536	
11,200.0	6,639.5	6,548.5	6,545.7	131.6	1.7	80.01	147.0	-7,611.9	3,099.9	2,968.2	131.74	23.531	
11,220.4	6,639.5	6,548.9	6,546.1	132.1	1.7	80.09	147.0	-7,612.0	3,079.6	2,947.2	132.33	23.273	
11,300.0	6,639.4	6,550.6	6,547.8	134.4	1.7	80.39	147.1	-7,612.0	3,000.5	2,865.8	134.61	22.290	
11,318.9	6,639.4	6,551.0	6,548.2	134.9	1.7	80.46	147.1	-7,612.0	2,981.7	2,846.5	135.15	22.062	
11,400.0	6,639.3	6,552.7	6,549.9	137.1	1.7	80.76	147.1	-7,612.0	2,901.0	2,763.6	137.48	21.102	
11,417.3	6,639.3	6,553.1	6,550.3	137.6	1.7	80.83	147.1	-7,612.0	2,883.8	2,745.9	137.98	20.901	
11,500.0	6,639.2	6,554.8	6,551.9	139.9	1.7	81.13	147.1	-7,612.1	2,801.6	2,661.3	140.35	19.962	
11,515.7	6,639.1	6,555.1	6,552.3	140.4	1.7	81.19	147.1	-7,612.1	2,786.0	2,645.2	140.80	19.787	
11,600.0	6,639.0	6,556.8	6,554.0	142.7	1.7	81.49	147.2	-7,612.1	2,702.3	2,559.1	143.22	18.869	
11,614.1	6,639.0	6,557.1	6,554.3	143.1	1.7	81.54	147.2	-7,612.1	2,688.3	2,544.6	143.62	18.717	
11,700.0	6,638.9	6,558.8	6,556.0	145.5	1.7	81.85	147.2	-7,612.1	2,603.0	2,456.9	146.09	17.818	
11,712.6	6,638.9	6,559.0	6,556.2	145.9	1.7	81.89	147.2	-7,612.1	2,590.5	2,444.1	146.45	17.689	
11,800.0	6,638.8	6,560.7	6,557.9	148.3	1.7	82.20	147.2	-7,612.2	2,503.8	2,354.8	148.95	16.809	
11,811.0	6,638.8	6,560.9	6,558.1	148.6	1.7	82.23	147.2	-7,612.2	2,492.9	2,343.6	149.27	16.700	
11,900.0	6,638.7	6,562.6	6,559.8	151.1	1.7	82.54	147.2	-7,612.2	2,404.6	2,252.8	151.82	15.839	
11,909.4	6,638.6	6,562.8	6,560.0	151.4	1.7	82.57	147.2	-7,612.2	2,395.3	2,243.2	152.09	15.749	
12,000.0	6,638.5	6,564.5	6,561.7	153.9	1.7	82.88	147.3	-7,612.2	2,305.5	2,150.8	154.69	14.904	
12,007.8	6,638.5	6,564.7	6,561.8	154.1	1.7	82.91	147.3	-7,612.2	2,297.7	2,142.8	154.91	14.833	
12,100.0	6,638.4	6,566.4	6,563.6	156.7	1.7	83.21	147.3	-7,612.3	2,206.5	2,048.9	157.55	14.005	

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

Anticollision Report



Company:	PDC ENERGY	Local Co-ordinate Reference:	Well WACKER 10G-214
Project:	WELD COUNTY, COLORADO	TVD Reference:	KB-EST @ 4624.0usft (Original Well Elev)
Reference Site:	SW NW SEC. 10 T5N R64W 6th P.M.	MD Reference:	KB-EST @ 4624.0usft (Original Well Elev)
Site Error:	0.0 usft	North Reference:	True
Reference Well:	WACKER 10G-214	Survey Calculation Method:	Minimum Curvature
Well Error:	0.0 usft	Output errors are at	2.00 sigma
Reference Wellbore	ORIGINAL WELLBORE	Database:	EDM 5000.1 Single User Db
Reference Design:	PROPOSAL #1	Offset TVD Reference:	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	
12,106.3	6,638.4	6,566.5	6,563.7	156.9	1.7	83.23	147.3	-7,612.3	2,200.3	2,042.5	157.73	13.950	
12,200.0	6,638.3	6,568.2	6,565.4	159.5	1.7	83.54	147.3	-7,612.3	2,107.6	1,947.1	160.41	13.138	
12,204.7	6,638.3	6,568.3	6,565.5	159.6	1.7	83.56	147.3	-7,612.3	2,102.9	1,942.4	160.55	13.098	
12,300.0	6,638.2	6,570.0	6,567.2	162.3	1.7	83.87	147.3	-7,612.3	2,008.7	1,845.5	163.27	12.303	
12,303.1	6,638.2	6,570.0	6,567.2	162.4	1.7	83.88	147.3	-7,612.3	2,005.6	1,842.3	163.36	12.277	
12,400.0	6,638.0	6,571.7	6,568.9	165.1	1.7	84.19	147.4	-7,612.3	1,910.0	1,743.9	166.13	11.497	
12,401.5	6,638.0	6,571.8	6,569.0	165.2	1.7	84.19	147.4	-7,612.3	1,908.5	1,742.3	166.18	11.485	
12,500.0	6,637.9	6,573.5	6,570.7	167.9	1.7	84.50	147.4	-7,612.4	1,811.5	1,642.5	168.99	10.719	
12,598.4	6,637.8	6,575.2	6,572.4	170.7	1.7	84.81	147.4	-7,612.4	1,714.6	1,542.8	171.80	9.980	
12,600.0	6,637.8	6,575.2	6,572.4	170.7	1.7	84.81	147.4	-7,612.4	1,713.1	1,541.2	171.85	9.969	
12,696.8	6,637.7	6,576.8	6,574.0	173.4	1.7	85.11	147.4	-7,612.4	1,618.0	1,443.4	174.61	9.266	
12,700.0	6,637.7	6,576.9	6,574.1	173.5	1.7	85.12	147.4	-7,612.4	1,614.9	1,440.2	174.70	9.244	
12,795.2	6,637.6	6,578.5	6,575.6	176.2	1.7	85.40	147.4	-7,612.4	1,521.5	1,344.1	177.41	8.576	
12,800.0	6,637.6	6,578.5	6,575.7	176.3	1.7	85.42	147.4	-7,612.4	1,516.9	1,339.3	177.55	8.543	
12,893.7	6,637.4	6,580.1	6,577.2	178.9	1.7	85.70	147.5	-7,612.5	1,425.4	1,245.1	180.22	7.909	
12,900.0	6,637.4	6,580.2	6,577.3	179.1	1.7	85.71	147.5	-7,612.5	1,419.2	1,238.8	180.40	7.867	
12,992.1	6,637.3	6,581.6	6,578.8	181.7	1.7	85.98	147.5	-7,612.5	1,329.5	1,146.5	183.02	7.264	
13,000.0	6,637.3	6,581.8	6,578.9	181.9	1.7	86.00	147.5	-7,612.5	1,321.8	1,138.6	183.25	7.214	
13,090.5	6,637.2	6,583.2	6,580.4	184.4	1.7	86.27	147.5	-7,612.5	1,234.1	1,048.3	185.82	6.641	
13,100.0	6,637.2	6,583.3	6,580.5	184.7	1.7	86.29	147.5	-7,612.5	1,224.9	1,038.8	186.09	6.582	
13,188.9	6,637.1	6,584.7	6,581.9	187.2	1.7	86.55	147.5	-7,612.5	1,139.2	950.5	188.62	6.039	
13,200.0	6,637.1	6,584.9	6,582.1	187.5	1.7	86.58	147.5	-7,612.5	1,128.5	939.6	188.93	5.973	
13,287.4	6,637.0	6,586.2	6,583.4	190.0	1.7	86.82	147.5	-7,612.6	1,044.9	853.5	191.41	5.459	
13,300.0	6,637.0	6,586.4	6,583.6	190.3	1.7	86.86	147.5	-7,612.6	1,032.8	841.1	191.77	5.386	
13,385.8	6,636.9	6,587.7	6,584.9	192.7	1.7	87.09	147.5	-7,612.6	951.4	757.2	194.21	4.899	
13,400.0	6,636.8	6,587.9	6,585.1	193.1	1.7	87.13	147.5	-7,612.6	938.0	743.4	194.61	4.820	
13,484.2	6,636.7	6,589.2	6,586.4	195.5	1.7	87.36	147.6	-7,612.6	859.1	662.1	197.00	4.361	
13,500.0	6,636.7	6,589.4	6,586.6	195.9	1.7	87.40	147.6	-7,612.6	844.4	647.0	197.44	4.277	
13,582.6	6,636.6	6,590.6	6,587.8	198.2	1.7	87.62	147.6	-7,612.6	768.3	568.5	199.78	3.845	
13,600.0	6,636.6	6,590.9	6,588.1	198.7	1.7	87.67	147.6	-7,612.6	752.5	552.2	200.27	3.757	
13,681.1	6,636.5	6,592.1	6,589.2	201.0	1.7	87.88	147.6	-7,612.7	679.6	477.0	202.57	3.355	
13,700.0	6,636.5	6,592.3	6,589.5	201.5	1.7	87.93	147.6	-7,612.7	662.8	459.7	203.10	3.263	
13,779.5	6,636.4	6,593.5	6,590.7	203.7	1.7	88.14	147.6	-7,612.7	593.9	388.6	205.35	2.892	
13,800.0	6,636.4	6,593.8	6,590.9	204.3	1.7	88.19	147.6	-7,612.7	576.6	370.7	205.93	2.800	
13,877.9	6,636.3	6,594.9	6,592.0	206.5	1.7	88.39	147.6	-7,612.7	512.9	304.7	208.13	2.464	
13,900.0	6,636.3	6,595.2	6,592.3	207.1	1.7	88.45	147.6	-7,612.7	495.6	286.8	208.75	2.374	
13,976.3	6,636.2	6,596.2	6,593.4	209.3	1.7	88.64	147.6	-7,612.7	439.0	228.1	210.91	2.082	
14,000.0	6,636.1	6,596.5	6,593.7	209.9	1.7	88.70	147.6	-7,612.7	422.7	211.2	211.58	1.998	
14,074.8	6,636.0	6,597.6	6,594.7	212.0	1.7	88.89	147.6	-7,612.7	376.5	162.9	213.68	1.762	
14,100.0	6,636.0	6,597.9	6,595.1	212.7	1.7	88.95	147.7	-7,612.7	363.1	148.7	214.39	1.694	
14,173.2	6,635.9	6,598.9	6,596.1	214.8	1.7	89.13	147.7	-7,612.7	332.0	115.5	216.45	1.534	
14,200.0	6,635.9	6,599.3	6,596.4	215.5	1.7	89.20	147.7	-7,612.8	324.0	106.8	217.21	1.492 Level 3	
14,271.6	6,635.8	6,600.2	6,597.4	217.5	1.7	89.37	147.7	-7,612.8	313.0	93.8	219.22	1.428 Level 3	
14,284.4	6,635.8	6,600.4	6,597.5	217.9	1.7	89.40	147.7	-7,612.8	312.8	93.2	219.58	1.424 Level 3, CC	
14,300.0	6,635.8	6,600.6	6,597.7	218.3	1.7	89.44	147.7	-7,612.8	313.2	93.1	220.02	1.423 Level 3, ES, SF	
14,370.0	6,635.7	6,601.4	6,598.6	220.3	1.7	89.60	147.7	-7,612.8	324.3	102.3	221.99	1.461 Level 3	
14,400.0	6,635.7	6,601.8	6,599.0	221.1	1.7	89.67	147.7	-7,612.8	333.4	110.6	222.83	1.496 Level 3	
14,468.5	6,635.6	6,602.7	6,599.8	223.1	1.7	89.82	147.7	-7,612.8	362.9	138.2	224.75	1.615	
14,500.0	6,635.6	6,603.0	6,600.2	223.9	1.7	89.89	147.7	-7,612.8	379.9	154.2	225.64	1.684	
14,566.9	6,635.5	6,603.9	6,601.0	225.8	1.7	90.04	147.7	-7,612.8	421.4	193.9	227.51	1.852	
14,600.0	6,635.4	6,604.2	6,601.4	226.8	1.7	90.11	147.7	-7,612.8	444.3	215.9	228.44	1.945	
14,665.3	6,635.4	6,605.0	6,602.2	228.6	1.7	90.25	147.7	-7,612.8	492.8	262.6	230.27	2.140	

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

Anticollision Report



Company:	PDC ENERGY	Local Co-ordinate Reference:	Well WACKER 10G-214
Project:	WELD COUNTY, COLORADO	TVD Reference:	KB-EST @ 4624.0usft (Original Well Elev)
Reference Site:	SW NW SEC. 10 T5N R64W 6th P.M.	MD Reference:	KB-EST @ 4624.0usft (Original Well Elev)
Site Error:	0.0 usft	North Reference:	True
Reference Well:	WACKER 10G-214	Survey Calculation Method:	Minimum Curvature
Well Error:	0.0 usft	Output errors are at	2.00 sigma
Reference Wellbore	ORIGINAL WELLBORE	Database:	EDM 5000.1 Single User Db
Reference Design:	PROPOSAL #1	Offset TVD Reference:	Offset Datum

Offset Design SW NW SEC. 10 T5N R64W 6th P.M. - EXIST VERT JURGENS #8-13 - 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	
14,700.0	6,635.3	6,605.4	6,602.6	229.6	1.7	90.33	147.7	-7,612.8	520.1	288.9	231.24	2.249	
14,763.7	6,635.2	6,606.1	6,603.3	231.3	1.7	90.46	147.7	-7,612.8	572.3	339.3	233.03	2.456	
14,800.0	6,635.2	6,606.6	6,603.7	232.4	1.7	90.54	147.7	-7,612.9	603.0	369.0	234.04	2.576	
14,862.2	6,635.1	6,607.3	6,604.4	234.1	1.7	90.67	147.8	-7,612.9	656.9	421.2	235.78	2.786	
14,900.0	6,635.1	6,607.7	6,604.9	235.2	1.7	90.74	147.8	-7,612.9	690.4	453.6	236.84	2.915	
14,960.6	6,635.0	6,608.3	6,605.5	236.9	1.7	90.86	147.8	-7,612.9	745.0	506.4	238.53	3.123	
14,982.9	6,635.0	6,608.6	6,605.8	237.5	1.7	90.91	147.8	-7,612.9	765.2	526.1	239.16	3.200	

Anticollision Report



Company:	PDC ENERGY	Local Co-ordinate Reference:	Well WACKER 10G-214
Project:	WELD COUNTY, COLORADO	TVD Reference:	KB-EST @ 4624.0usft (Original Well Elev)
Reference Site:	SW NW SEC. 10 T5N R64W 6th P.M.	MD Reference:	KB-EST @ 4624.0usft (Original Well Elev)
Site Error:	0.0 usft	North Reference:	True
Reference Well:	WACKER 10G-214	Survey Calculation Method:	Minimum Curvature
Well Error:	0.0 usft	Output errors are at	2.00 sigma
Reference Wellbore	ORIGINAL WELLBORE	Database:	EDM 5000.1 Single User Db
Reference Design:	PROPOSAL #1	Offset TVD Reference:	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	-90.43	-49.1	-6,519.3	6,519.6				
98.4	98.4	69.0	69.0	0.1	0.0	-90.43	-49.1	-6,519.3	6,519.4	6,519.3	0.11	N/A	
100.0	100.0	70.8	70.8	0.1	0.0	-90.43	-49.1	-6,519.3	6,519.4	6,519.3	0.11	N/A	
167.6	167.6	129.2	129.2	0.2	0.0	-90.43	-49.1	-6,519.2	6,519.4	6,519.1	0.30	N/A	
196.8	196.8	149.9	149.9	0.3	0.1	-90.43	-49.2	-6,519.2	6,519.4	6,519.0	0.39	N/A	
200.0	200.0	152.1	152.1	0.3	0.1	-90.43	-49.2	-6,519.2	6,519.4	6,519.0	0.40	N/A	
295.3	295.3	219.6	219.6	0.5	0.1	-90.43	-49.5	-6,519.5	6,519.8	6,519.1	0.69	9,492.960	
300.0	300.0	223.0	223.0	0.5	0.2	-90.43	-49.5	-6,519.5	6,519.8	6,519.1	0.70	9,297.269	
393.7	393.7	300.0	300.0	0.8	0.2	-90.44	-50.0	-6,520.2	6,520.6	6,519.6	1.00	6,519.195	
400.0	400.0	300.0	300.0	0.8	0.2	-90.44	-50.0	-6,520.2	6,520.7	6,519.7	1.01	6,428.249	
492.1	492.1	400.0	400.0	1.0	0.3	-90.45	-50.9	-6,521.1	6,521.5	6,520.2	1.30	5,016.770	
500.0	500.0	400.0	400.0	1.0	0.3	-90.45	-50.9	-6,521.1	6,521.6	6,520.3	1.32	4,949.433	
590.5	590.5	472.3	472.3	1.2	0.4	-90.45	-51.6	-6,521.8	6,522.5	6,520.9	1.57	4,161.325	
600.0	600.0	478.5	478.5	1.2	0.4	-90.45	-51.7	-6,521.9	6,522.6	6,521.0	1.59	4,095.463	
689.0	689.0	558.5	558.5	1.4	0.4	-90.46	-52.9	-6,523.0	6,523.9	6,522.1	1.84	3,548.341	
700.0	700.0	569.9	569.9	1.4	0.4	-90.47	-53.1	-6,523.2	6,524.1	6,522.2	1.87	3,489.501	
787.4	787.4	656.5	656.5	1.6	0.5	-90.48	-54.4	-6,524.4	6,525.3	6,523.2	2.11	3,092.088	
800.0	800.0	668.7	668.7	1.7	0.5	-90.48	-54.6	-6,524.6	6,525.5	6,523.4	2.14	3,042.713	
885.8	885.8	749.5	749.4	1.9	0.5	-90.49	-55.8	-6,525.8	6,526.8	6,524.4	2.37	2,748.369	
900.0	900.0	762.6	762.5	1.9	0.5	-90.49	-55.9	-6,526.0	6,527.0	6,524.6	2.41	2,705.559	
984.2	984.2	845.2	845.1	2.1	0.6	-90.50	-57.1	-6,527.3	6,528.3	6,525.7	2.64	2,475.763	
1,000.0	1,000.0	861.5	861.4	2.1	0.6	-90.50	-57.3	-6,527.5	6,528.6	6,525.9	2.68	2,436.978	
1,082.7	1,082.7	942.9	942.8	2.3	0.6	-90.51	-58.5	-6,528.8	6,529.9	6,527.0	2.91	2,243.521	
1,100.0	1,100.0	959.3	959.2	2.3	0.7	-90.52	-58.7	-6,529.1	6,530.2	6,527.2	2.96	2,205.439	
1,181.1	1,181.1	1,035.9	1,035.7	2.5	0.7	-90.53	-59.9	-6,530.3	6,531.5	6,528.3	3.20	2,043.149	
1,200.0	1,200.0	1,053.7	1,053.6	2.6	0.7	-90.53	-60.2	-6,530.6	6,531.8	6,528.6	3.25	2,008.714	
1,279.5	1,279.5	1,135.1	1,134.9	2.7	0.8	-90.54	-61.6	-6,532.0	6,533.2	6,529.7	3.47	1,880.560	
1,300.0	1,300.0	1,158.7	1,158.5	2.8	0.8	-90.54	-62.0	-6,532.4	6,533.5	6,530.0	3.53	1,852.119	
1,377.9	1,377.9	1,239.6	1,239.4	3.0	0.8	150.78	-63.4	-6,533.6	6,535.6	6,531.9	3.75	1,743.923	
1,400.0	1,400.0	1,260.3	1,260.1	3.0	0.8	150.77	-63.8	-6,533.9	6,536.6	6,532.8	3.81	1,717.355	
1,476.4	1,476.3	1,332.1	1,331.9	3.1	0.9	150.73	-65.0	-6,535.1	6,541.0	6,537.0	4.00	1,636.215	
1,500.0	1,499.8	1,354.3	1,354.1	3.2	0.9	150.72	-65.4	-6,535.5	6,542.8	6,538.7	4.06	1,612.829	
1,574.8	1,574.4	1,422.8	1,422.5	3.3	0.9	150.66	-66.6	-6,536.6	6,549.5	6,545.2	4.24	1,543.554	
1,600.0	1,599.5	1,444.7	1,444.5	3.4	1.0	150.64	-67.0	-6,537.0	6,552.1	6,547.8	4.30	1,523.225	
1,673.2	1,672.2	1,512.5	1,512.2	3.6	1.0	150.58	-68.2	-6,538.3	6,561.0	6,556.5	4.48	1,464.549	
1,700.0	1,698.7	1,547.2	1,546.9	3.6	1.0	150.56	-68.8	-6,538.9	6,564.6	6,560.1	4.55	1,443.635	
1,771.6	1,769.5	1,673.1	1,672.8	3.8	1.0	150.51	-71.4	-6,540.7	6,575.2	6,570.4	4.74	1,386.845	
1,800.0	1,797.5	1,727.5	1,727.2	3.9	1.1	150.50	-72.5	-6,541.0	6,579.5	6,574.7	4.82	1,366.263	
1,870.1	1,866.3	1,914.7	1,914.3	4.1	1.1	150.52	-75.5	-6,540.5	6,590.8	6,585.8	5.01	1,315.929	
1,900.2	1,895.8	1,963.5	1,963.1	4.2	1.1	150.50	-76.2	-6,539.8	6,595.8	6,590.7	5.09	1,297.094	
1,968.5	1,962.6	2,053.3	2,052.9	4.4	1.1	150.57	-77.7	-6,538.2	6,607.0	6,601.7	5.26	1,255.585	
2,000.0	1,993.4	2,090.0	2,089.5	4.5	1.1	150.60	-78.3	-6,537.5	6,612.1	6,606.8	5.34	1,237.339	
2,066.9	2,058.9	2,157.5	2,157.0	4.7	1.2	150.65	-79.5	-6,536.1	6,623.0	6,617.4	5.55	1,193.992	
2,100.0	2,091.2	2,190.1	2,189.6	4.8	1.2	150.67	-80.1	-6,535.5	6,628.3	6,622.7	5.65	1,173.635	
2,165.3	2,155.2	2,254.5	2,254.0	5.1	1.2	150.72	-81.4	-6,534.1	6,638.9	6,633.1	5.85	1,134.438	
2,200.0	2,189.1	2,288.6	2,288.1	5.2	1.3	150.74	-82.2	-6,533.5	6,644.6	6,638.6	5.96	1,114.131	
2,263.8	2,251.4	2,351.5	2,351.0	5.5	1.3	150.78	-83.6	-6,532.2	6,654.9	6,648.7	6.17	1,078.583	
2,300.0	2,286.9	2,387.3	2,386.7	5.6	1.3	150.81	-84.5	-6,531.4	6,660.8	6,654.5	6.29	1,059.324	
2,362.2	2,347.7	2,443.7	2,443.1	5.8	1.3	150.85	-85.9	-6,530.3	6,670.9	6,664.4	6.48	1,030.189	
2,400.0	2,384.7	2,477.1	2,476.5	6.0	1.3	150.87	-86.7	-6,529.6	6,677.1	6,670.5	6.59	1,013.687	
2,460.6	2,444.0	2,534.6	2,533.9	6.2	1.4	150.91	-87.9	-6,528.6	6,687.0	6,680.2	6.77	987.859	
2,500.0	2,482.5	2,573.6	2,573.0	6.4	1.4	150.94	-88.7	-6,527.8	6,693.5	6,686.6	6.89	971.752	

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

Anticollision Report



Company:	PDC ENERGY	Local Co-ordinate Reference:	Well WACKER 10G-214
Project:	WELD COUNTY, COLORADO	TVD Reference:	KB-EST @ 4624.0usft (Original Well Elev)
Reference Site:	SW NW SEC. 10 T5N R64W 6th P.M.	MD Reference:	KB-EST @ 4624.0usft (Original Well Elev)
Site Error:	0.0 usft	North Reference:	True
Reference Well:	WACKER 10G-214	Survey Calculation Method:	Minimum Curvature
Well Error:	0.0 usft	Output errors are at	2.00 sigma
Reference Wellbore	ORIGINAL WELLBORE	Database:	EDM 5000.1 Single User Db
Reference Design:	PROPOSAL #1	Offset TVD Reference:	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	2,540.3	2,626.6	2,625.9	6.6	1.4	150.97	-89.8	-6,526.8	6,703.2	6,696.1	7.07	947.805	
2,600.0	2,580.3	2,660.0	2,659.4	6.8	1.4	151.00	-90.5	-6,526.2	6,709.9	6,702.7	7.20	931.651	
2,657.5	2,636.5	2,707.0	2,706.3	7.1	1.4	151.03	-91.4	-6,525.5	6,719.5	6,712.1	7.39	909.695	
2,700.0	2,678.1	2,741.7	2,741.0	7.2	1.4	151.05	-92.1	-6,525.0	6,726.7	6,719.1	7.52	894.146	
2,755.9	2,732.8	2,800.0	2,799.3	7.5	1.5	151.09	-93.2	-6,524.1	6,736.1	6,728.4	7.71	873.896	
2,800.0	2,775.9	2,825.0	2,824.2	7.7	1.5	151.11	-93.6	-6,523.8	6,743.6	6,735.8	7.84	859.711	
2,854.3	2,829.1	2,872.5	2,871.8	7.9	1.5	151.15	-94.6	-6,523.3	6,752.9	6,744.9	8.02	842.432	
2,900.0	2,873.8	2,900.0	2,899.3	8.1	1.5	151.17	-95.1	-6,523.0	6,760.8	6,752.6	8.16	828.707	
2,952.7	2,925.4	2,950.9	2,950.1	8.3	1.5	151.20	-96.1	-6,522.4	6,769.9	6,761.6	8.33	813.013	
2,953.5	2,926.1	2,951.4	2,950.7	8.3	1.5	151.20	-96.1	-6,522.4	6,770.0	6,761.7	8.33	812.803	
3,000.0	2,971.6	2,986.8	2,986.1	8.5	1.5	151.30	-96.8	-6,522.2	6,777.9	6,769.4	8.46	801.532	
3,051.2	3,022.0	3,000.0	2,999.2	8.7	1.5	151.39	-97.1	-6,522.1	6,785.9	6,777.3	8.57	791.384	
3,100.0	3,070.1	3,047.1	3,046.3	8.8	1.5	151.48	-97.9	-6,521.9	6,792.8	6,784.1	8.69	781.284	
3,149.6	3,119.1	3,075.3	3,074.6	8.9	1.5	151.55	-98.3	-6,521.9	6,799.3	6,790.5	8.81	772.146	
3,200.0	3,169.1	3,106.9	3,106.2	9.1	1.5	151.63	-98.7	-6,522.0	6,805.3	6,796.4	8.92	762.952	
3,248.0	3,216.8	3,153.2	3,152.4	9.2	1.6	151.69	-99.2	-6,522.1	6,810.4	6,801.3	9.03	754.130	
3,300.0	3,268.5	3,203.4	3,202.6	9.3	1.6	151.75	-99.7	-6,522.4	6,815.0	6,805.9	9.15	744.797	
3,346.4	3,314.8	3,248.2	3,247.5	9.4	1.6	151.80	-100.0	-6,522.6	6,818.5	6,809.3	9.25	737.070	
3,400.0	3,368.3	3,300.0	3,299.2	9.6	1.6	151.84	-100.3	-6,522.8	6,821.8	6,812.4	9.37	728.277	
3,444.9	3,413.1	3,344.0	3,343.2	9.6	1.6	151.86	-100.5	-6,523.0	6,823.8	6,814.3	9.46	721.441	
3,500.0	3,468.2	3,398.0	3,397.2	9.7	1.7	151.88	-100.8	-6,523.3	6,825.5	6,815.9	9.57	713.136	
3,543.3	3,511.5	3,440.4	3,439.6	9.8	1.7	151.89	-101.0	-6,523.5	6,826.1	6,816.5	9.66	706.997	
3,553.7	3,521.9	3,450.6	3,449.8	9.8	1.7	-89.46	-101.0	-6,523.6	6,826.2	6,815.1	11.06	617.247	
3,600.0	3,568.2	3,495.9	3,495.2	9.9	1.7	-89.46	-101.2	-6,523.8	6,826.4	6,815.3	11.15	612.175	
3,641.7	3,609.9	3,539.2	3,538.4	10.0	1.7	-89.47	-101.4	-6,524.1	6,826.7	6,815.4	11.23	607.753	
3,700.0	3,668.2	3,599.9	3,599.1	10.1	1.7	-89.47	-101.5	-6,524.4	6,826.9	6,815.6	11.35	601.727	
3,740.1	3,708.4	3,635.0	3,634.3	10.1	1.7	-89.47	-101.6	-6,524.6	6,827.2	6,815.7	11.42	597.753	
3,800.0	3,768.2	3,687.4	3,686.6	10.2	1.7	-89.47	-101.7	-6,524.9	6,827.5	6,816.0	11.53	591.932	
3,838.6	3,806.8	3,724.9	3,724.1	10.3	1.7	-89.47	-101.7	-6,525.1	6,827.8	6,816.2	11.61	588.176	
3,900.0	3,868.2	3,788.0	3,787.2	10.4	1.8	-89.47	-101.8	-6,525.6	6,828.2	6,816.5	11.73	582.267	
3,937.0	3,905.2	3,822.8	3,822.0	10.5	1.8	-89.47	-101.9	-6,525.8	6,828.4	6,816.6	11.80	578.732	
4,000.0	3,968.2	3,879.5	3,878.8	10.6	1.8	-89.47	-102.0	-6,526.2	6,828.9	6,817.0	11.92	572.817	
4,035.4	4,003.6	3,912.6	3,911.8	10.6	1.8	-89.47	-102.1	-6,526.5	6,829.2	6,817.2	11.99	569.508	
4,100.0	4,068.2	3,976.6	3,975.8	10.7	1.8	-89.47	-102.3	-6,527.0	6,829.7	6,817.6	12.12	563.552	
4,133.8	4,102.1	4,012.3	4,011.5	10.8	1.8	-89.47	-102.4	-6,527.3	6,830.0	6,817.8	12.19	560.421	
4,200.0	4,168.2	4,092.1	4,091.3	10.9	1.8	-89.48	-102.8	-6,527.9	6,830.5	6,818.1	12.32	554.257	
4,232.3	4,200.5	4,122.9	4,122.1	11.0	1.8	-89.48	-103.0	-6,528.0	6,830.7	6,818.3	12.39	551.298	
4,300.0	4,268.2	4,183.1	4,182.3	11.1	1.9	-89.48	-103.5	-6,528.5	6,831.1	6,818.6	12.53	545.208	
4,330.7	4,298.9	4,200.0	4,199.2	11.1	1.9	-89.48	-103.6	-6,528.6	6,831.4	6,818.8	12.59	542.586	
4,400.0	4,368.2	4,251.8	4,251.0	11.3	1.9	-89.49	-104.1	-6,529.1	6,832.0	6,819.3	12.73	536.666	
4,429.1	4,397.3	4,270.5	4,269.7	11.3	1.9	-89.49	-104.3	-6,529.3	6,832.4	6,819.6	12.79	534.236	
4,500.0	4,468.2	4,324.9	4,324.1	11.4	1.9	-89.50	-104.9	-6,530.2	6,833.5	6,820.5	12.93	528.357	
4,527.5	4,495.8	4,352.7	4,351.8	11.5	1.9	-89.50	-105.2	-6,530.6	6,833.9	6,820.9	12.99	526.043	
4,600.0	4,568.2	4,462.1	4,461.2	11.6	1.9	-89.51	-106.3	-6,532.2	6,835.0	6,821.8	13.15	519.709	
4,626.0	4,594.2	4,511.5	4,510.7	11.7	1.9	-89.51	-106.7	-6,532.6	6,835.2	6,822.0	13.21	517.338	
4,700.0	4,668.2	4,593.0	4,592.1	11.8	2.0	-89.52	-107.4	-6,533.1	6,835.7	6,822.3	13.37	511.165	
4,724.4	4,692.6	4,618.2	4,617.3	11.9	2.0	-89.52	-107.6	-6,533.3	6,835.8	6,822.4	13.43	509.158	
4,800.0	4,768.2	4,694.3	4,693.4	12.0	2.0	-89.52	-108.3	-6,533.7	6,836.2	6,822.7	13.59	503.048	
4,822.8	4,791.0	4,716.2	4,715.4	12.0	2.0	-89.53	-108.5	-6,533.8	6,836.4	6,822.7	13.64	501.166	
4,900.0	4,868.2	4,789.2	4,788.3	12.2	2.0	-89.53	-109.2	-6,534.3	6,836.9	6,823.0	13.82	494.847	
4,921.2	4,889.5	4,809.3	4,808.4	12.2	2.0	-89.53	-109.4	-6,534.4	6,837.0	6,823.1	13.86	493.127	
5,000.0	4,968.2	4,883.8	4,882.9	12.4	2.1	-89.54	-110.2	-6,534.9	6,837.5	6,823.5	14.04	486.860	

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

Anticollision Report



Company:	PDC ENERGY	Local Co-ordinate Reference:	Well WACKER 10G-214
Project:	WELD COUNTY, COLORADO	TVD Reference:	KB-EST @ 4624.0usft (Original Well Elev)
Reference Site:	SW NW SEC. 10 T5N R64W 6th P.M.	MD Reference:	KB-EST @ 4624.0usft (Original Well Elev)
Site Error:	0.0 usft	North Reference:	True
Reference Well:	WACKER 10G-214	Survey Calculation Method:	Minimum Curvature
Well Error:	0.0 usft	Output errors are at	2.00 sigma
Reference Wellbore	ORIGINAL WELLBORE	Database:	EDM 5000.1 Single User Db
Reference Design:	PROPOSAL #1	Offset TVD Reference:	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	4,987.9	4,900.0	4,899.1	12.4	2.1	-89.54	-110.4	-6,535.1	6,837.7	6,823.6	14.09	485.343		
5,100.0	5,068.2	4,976.4	4,975.5	12.6	2.1	-89.55	-111.3	-6,535.7	6,838.3	6,824.0	14.27	479.175		
5,118.1	5,086.3	4,993.1	4,992.2	12.6	2.1	-89.55	-111.5	-6,535.8	6,838.5	6,824.1	14.31	477.808		
5,200.0	5,168.2	5,068.6	5,067.7	12.7	2.2	-89.56	-112.2	-6,536.5	6,839.2	6,824.7	14.50	471.720		
5,216.5	5,184.7	5,083.8	5,082.9	12.8	2.2	-89.56	-112.4	-6,536.6	6,839.3	6,824.8	14.54	470.505		
5,300.0	5,268.2	5,173.7	5,172.8	12.9	2.2	-89.57	-113.2	-6,537.5	6,840.1	6,825.4	14.72	464.620		
5,314.9	5,283.2	5,190.4	5,189.5	13.0	2.2	-89.57	-113.3	-6,537.6	6,840.3	6,825.5	14.76	463.584		
5,400.0	5,368.2	5,273.1	5,272.2	13.1	2.2	-89.57	-113.8	-6,538.3	6,841.0	6,826.0	14.94	457.900		
5,413.4	5,381.6	5,285.9	5,285.0	13.2	2.2	-89.57	-113.9	-6,538.4	6,841.1	6,826.1	14.97	457.018		
5,500.0	5,468.2	5,365.1	5,364.2	13.3	2.2	-89.57	-114.2	-6,539.2	6,841.9	6,826.8	15.15	451.531		
5,511.8	5,480.0	5,375.8	5,374.9	13.3	2.2	-89.57	-114.2	-6,539.3	6,842.0	6,826.8	15.18	450.795		
5,600.0	5,568.2	5,467.4	5,466.5	13.5	2.3	-89.57	-114.2	-6,540.2	6,842.9	6,827.6	15.37	445.305		
5,610.2	5,578.4	5,478.6	5,477.7	13.5	2.3	-89.57	-114.2	-6,540.3	6,843.0	6,827.6	15.39	444.671		
5,700.0	5,668.2	5,577.0	5,576.1	13.7	2.3	-89.57	-114.0	-6,541.2	6,843.8	6,828.2	15.58	439.176		
5,708.6	5,676.9	5,586.5	5,585.6	13.7	2.3	-89.57	-113.9	-6,541.3	6,843.9	6,828.3	15.60	438.652		
5,800.0	5,768.2	5,650.7	5,649.8	13.9	2.3	-89.57	-113.6	-6,541.9	6,844.8	6,829.0	15.79	433.562		
5,807.1	5,775.3	5,655.2	5,654.3	13.9	2.3	-89.57	-113.5	-6,541.9	6,844.9	6,829.1	15.80	433.176		
5,900.0	5,868.2	5,700.0	5,699.1	14.1	2.3	-89.56	-113.0	-6,542.6	6,846.3	6,830.3	15.99	428.198		
5,905.5	5,873.7	5,700.0	5,699.1	14.1	2.3	-89.56	-113.0	-6,542.6	6,846.4	6,830.4	16.00	427.908		
5,960.7	5,928.9	5,743.8	5,742.8	14.2	2.3	-89.56	-112.3	-6,543.4	6,847.4	6,831.3	16.11	425.028		
6,000.0	5,968.2	5,764.3	5,763.3	14.3	2.3	0.45	-111.9	-6,543.9	6,847.3	6,832.2	15.12	452.717		
6,003.9	5,972.1	5,766.3	5,765.4	14.3	2.3	0.45	-111.9	-6,543.9	6,847.1	6,832.0	15.13	452.558		
6,050.0	6,018.0	5,800.0	5,799.0	14.4	2.3	0.45	-111.1	-6,544.8	6,844.1	6,828.9	15.20	450.360		
6,100.0	6,067.3	5,821.0	5,820.0	14.4	2.3	0.46	-110.5	-6,545.5	6,837.6	6,822.4	15.27	447.722		
6,102.3	6,069.6	5,822.6	5,821.6	14.4	2.3	0.46	-110.5	-6,545.5	6,837.2	6,822.0	15.28	447.592		
6,150.0	6,116.0	5,854.2	5,853.2	14.4	2.3	0.48	-109.6	-6,546.5	6,827.8	6,812.5	15.35	444.923		
6,200.0	6,163.8	5,900.0	5,898.9	14.5	2.3	0.50	-108.2	-6,548.1	6,814.8	6,799.3	15.41	442.191		
6,200.8	6,164.5	5,900.0	5,898.9	14.5	2.3	0.50	-108.2	-6,548.1	6,814.5	6,799.1	15.41	442.160		
6,250.0	6,210.4	6,010.0	6,008.8	14.5	2.3	0.55	-104.1	-6,551.4	6,798.2	6,782.7	15.50	438.709		
6,299.2	6,254.9	6,072.2	6,070.9	14.5	2.3	0.60	-101.5	-6,552.8	6,778.4	6,762.8	15.54	436.192		
6,300.0	6,255.6	6,073.2	6,071.9	14.5	2.3	0.60	-101.4	-6,552.8	6,778.0	6,762.5	15.54	436.155		
6,350.0	6,299.3	6,126.8	6,125.5	14.5	2.3	0.65	-99.0	-6,553.9	6,754.6	6,739.0	15.55	434.317		
6,397.6	6,339.2	6,170.6	6,169.2	14.6	2.3	0.70	-97.2	-6,554.8	6,729.4	6,713.9	15.53	433.290		
6,400.0	6,341.2	6,172.8	6,171.4	14.6	2.3	0.70	-97.1	-6,554.8	6,728.1	6,712.6	15.53	433.255		
6,450.0	6,381.0	6,216.2	6,214.7	14.6	2.3	0.76	-95.6	-6,555.6	6,698.7	6,683.2	15.48	432.860		
6,496.0	6,415.8	6,253.5	6,252.0	14.7	2.3	0.81	-94.3	-6,556.3	6,669.2	6,653.8	15.40	433.056		
6,500.0	6,418.7	6,256.6	6,255.1	14.7	2.3	0.82	-94.3	-6,556.4	6,666.5	6,651.1	15.39	433.098		
6,550.0	6,453.9	6,294.5	6,293.0	14.8	2.3	0.90	-93.1	-6,557.1	6,631.8	6,616.5	15.28	433.876		
6,594.5	6,483.1	6,324.0	6,322.5	15.0	2.3	0.98	-92.3	-6,557.7	6,598.8	6,583.6	15.17	434.962		
6,600.0	6,486.6	6,327.4	6,325.9	15.1	2.3	0.99	-92.3	-6,557.7	6,594.6	6,579.4	15.16	435.124		
6,650.0	6,516.6	6,357.4	6,355.8	15.3	2.3	1.10	-91.5	-6,558.3	6,555.2	6,540.1	15.01	436.599		
6,692.9	6,540.0	6,380.9	6,379.3	15.7	2.3	1.21	-91.0	-6,558.7	6,519.7	6,504.8	14.89	437.824		
6,700.0	6,543.7	6,384.5	6,383.0	15.7	2.3	1.23	-90.9	-6,558.8	6,513.7	6,498.8	14.87	438.030		
6,750.0	6,567.8	6,409.9	6,408.4	16.2	2.3	1.41	-90.4	-6,559.3	6,470.4	6,455.6	14.74	439.034		
6,791.3	6,585.4	6,429.9	6,428.4	16.7	2.3	1.61	-90.0	-6,559.6	6,433.3	6,418.7	14.65	439.211		
6,800.0	6,588.8	6,433.8	6,432.3	16.8	2.3	1.65	-89.9	-6,559.7	6,425.4	6,410.8	14.63	439.195		
6,850.0	6,606.6	6,454.2	6,452.7	17.4	2.3	1.99	-89.5	-6,560.1	6,379.0	6,364.5	14.56	438.180		
6,889.7	6,618.4	6,467.9	6,466.3	18.0	2.3	2.38	-89.2	-6,560.3	6,341.3	6,326.8	14.54	436.205		
6,900.0	6,621.1	6,471.0	6,469.4	18.2	2.3	2.51	-89.2	-6,560.4	6,331.5	6,316.9	14.54	435.554		
6,950.0	6,632.2	6,484.1	6,482.5	19.0	2.3	3.37	-88.9	-6,560.6	6,283.0	6,268.4	14.58	430.831		
6,988.2	6,638.4	6,491.6	6,490.0	19.7	2.3	4.56	-88.8	-6,560.8	6,245.4	6,230.7	14.69	425.196		
7,000.0	6,639.9	6,493.4	6,491.9	19.9	2.3	5.11	-88.7	-6,560.8	6,233.7	6,219.0	14.74	422.938		

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

Anticollision Report



Company:	PDC ENERGY	Local Co-ordinate Reference:	Well WACKER 10G-214
Project:	WELD COUNTY, COLORADO	TVD Reference:	KB-EST @ 4624.0usft (Original Well Elev)
Reference Site:	SW NW SEC. 10 T5N R64W 6th P.M.	MD Reference:	KB-EST @ 4624.0usft (Original Well Elev)
Site Error:	0.0 usft	North Reference:	True
Reference Well:	WACKER 10G-214	Survey Calculation Method:	Minimum Curvature
Well Error:	0.0 usft	Output errors are at	2.00 sigma
Reference Wellbore	ORIGINAL WELLBORE	Database:	EDM 5000.1 Single User Db
Reference Design:	PROPOSAL #1	Offset TVD Reference:	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	6,644.1	6,499.0	6,497.4	20.8	2.3	10.39	-88.6	-6,560.9	6,184.0	6,168.7	15.31	403.970		
7,086.5	6,645.0	6,500.8	6,499.2	21.5	2.3	37.10	-88.6	-6,560.9	6,147.5	6,127.6	19.90	308.897		
7,100.0	6,645.0	6,501.1	6,499.5	21.8	2.3	37.18	-88.6	-6,560.9	6,134.0	6,113.9	20.08	305.499		
7,185.0	6,644.9	6,502.9	6,501.3	23.6	2.3	37.69	-88.5	-6,561.0	6,049.0	6,027.8	21.27	284.436		
7,200.0	6,644.8	6,503.2	6,501.7	23.9	2.3	37.78	-88.5	-6,561.0	6,034.0	6,012.6	21.48	280.948		
7,283.4	6,644.7	6,505.0	6,503.4	25.7	2.3	38.29	-88.5	-6,561.0	5,950.6	5,927.9	22.75	261.552		
7,300.0	6,644.7	6,505.3	6,503.8	26.1	2.3	38.39	-88.5	-6,561.0	5,934.1	5,911.1	23.01	257.939		
7,381.9	6,644.6	6,507.0	6,505.5	28.0	2.3	38.90	-88.5	-6,561.0	5,852.2	5,827.9	24.35	240.373		
7,400.0	6,644.6	6,507.4	6,505.9	28.4	2.3	39.01	-88.4	-6,561.0	5,834.1	5,809.4	24.65	236.722		
7,480.3	6,644.5	6,509.1	6,507.5	30.3	2.3	39.52	-88.4	-6,561.1	5,753.8	5,727.8	26.04	220.975		
7,500.0	6,644.4	6,509.5	6,507.9	30.8	2.3	39.64	-88.4	-6,561.1	5,734.1	5,707.7	26.38	217.347		
7,578.7	6,644.3	6,511.1	6,509.6	32.7	2.3	40.15	-88.4	-6,561.1	5,655.4	5,627.6	27.82	203.315		
7,600.0	6,644.3	6,511.6	6,510.0	33.3	2.3	40.28	-88.4	-6,561.1	5,634.1	5,605.9	28.21	199.750		
7,677.1	6,644.2	6,513.1	6,511.6	35.2	2.3	40.79	-88.3	-6,561.1	5,557.0	5,527.3	29.67	187.286		
7,700.0	6,644.1	6,513.6	6,512.0	35.8	2.3	40.93	-88.3	-6,561.1	5,534.2	5,504.0	30.11	183.811		
7,775.6	6,644.0	6,515.1	6,513.5	37.7	2.3	41.44	-88.3	-6,561.2	5,458.6	5,427.0	31.60	172.753		
7,800.0	6,644.0	6,515.6	6,514.0	38.3	2.3	41.59	-88.3	-6,561.2	5,434.2	5,402.1	32.08	169.383		
7,874.0	6,643.9	6,517.1	6,515.5	40.2	2.3	42.09	-88.3	-6,561.2	5,360.2	5,326.6	33.59	159.574		
7,900.0	6,643.9	6,517.6	6,516.0	40.9	2.3	42.27	-88.3	-6,561.2	5,334.2	5,300.1	34.12	156.319		
7,972.4	6,643.8	6,519.0	6,517.5	42.8	2.3	42.76	-88.2	-6,561.2	5,261.8	5,226.1	35.65	147.612		
8,000.0	6,643.7	6,519.6	6,518.0	43.5	2.3	42.95	-88.2	-6,561.2	5,234.2	5,198.0	36.23	144.476		
8,070.8	6,643.6	6,521.0	6,519.4	45.4	2.3	43.44	-88.2	-6,561.3	5,163.4	5,125.6	37.76	136.738		
8,100.0	6,643.6	6,521.5	6,520.0	46.2	2.3	43.64	-88.2	-6,561.3	5,134.2	5,095.9	38.40	133.722		
8,169.3	6,643.5	6,522.9	6,521.3	48.0	2.3	44.13	-88.2	-6,561.3	5,065.0	5,025.1	39.93	126.837		
8,200.0	6,643.5	6,523.5	6,521.9	48.8	2.3	44.34	-88.1	-6,561.3	5,034.3	4,993.7	40.62	123.938		
8,267.7	6,643.4	6,524.8	6,523.2	50.6	2.3	44.83	-88.1	-6,561.3	4,966.6	4,924.4	42.16	117.803		
8,300.0	6,643.3	6,525.4	6,523.8	51.5	2.3	45.05	-88.1	-6,561.3	4,934.3	4,891.4	42.90	115.020		
8,366.1	6,643.2	6,526.6	6,525.1	53.3	2.3	45.53	-88.1	-6,561.4	4,868.2	4,823.7	44.44	109.544		
8,400.0	6,643.2	6,527.3	6,525.7	54.2	2.3	45.78	-88.1	-6,561.4	4,834.3	4,789.1	45.23	106.873		
8,464.5	6,643.1	6,528.5	6,526.9	55.9	2.3	46.25	-88.1	-6,561.4	4,769.8	4,723.0	46.77	101.977		
8,500.0	6,643.1	6,529.1	6,527.6	56.9	2.3	46.51	-88.0	-6,561.4	4,734.3	4,686.7	47.62	99.414		
8,563.0	6,643.0	6,530.3	6,528.7	58.6	2.3	46.98	-88.0	-6,561.4	4,671.4	4,622.2	49.16	95.032		
8,600.0	6,642.9	6,531.0	6,529.4	59.6	2.3	47.25	-88.0	-6,561.4	4,634.4	4,584.3	50.06	92.572		
8,661.4	6,642.8	6,532.1	6,530.6	61.3	2.3	47.72	-88.0	-6,561.5	4,573.0	4,521.4	51.59	88.644		
8,700.0	6,642.8	6,532.9	6,531.3	62.3	2.3	48.01	-88.0	-6,561.5	4,534.4	4,481.8	52.55	86.283		
8,759.8	6,642.7	6,533.9	6,532.4	64.0	2.3	48.47	-88.0	-6,561.5	4,474.6	4,420.5	54.07	82.757		
8,800.0	6,642.7	6,534.7	6,533.1	65.1	2.3	48.77	-87.9	-6,561.5	4,434.4	4,379.3	55.09	80.491		
8,858.2	6,642.6	6,535.7	6,534.2	66.6	2.3	49.22	-87.9	-6,561.5	4,376.2	4,319.6	56.60	77.322		
8,900.0	6,642.5	6,536.5	6,534.9	67.8	2.3	49.55	-87.9	-6,561.5	4,334.5	4,276.8	57.68	75.146		
8,956.7	6,642.4	6,537.5	6,535.9	69.3	2.3	49.99	-87.9	-6,561.5	4,277.8	4,218.6	59.17	72.296		
9,000.0	6,642.4	6,538.3	6,536.7	70.5	2.3	50.33	-87.9	-6,561.6	4,234.5	4,174.2	60.32	70.206		
9,055.1	6,642.3	6,539.3	6,537.7	72.0	2.3	50.77	-87.9	-6,561.6	4,179.4	4,117.6	61.79	67.639		
9,100.0	6,642.3	6,540.1	6,538.5	73.3	2.3	51.12	-87.8	-6,561.6	4,134.5	4,071.5	63.00	65.631		
9,153.5	6,642.2	6,541.0	6,539.4	74.7	2.3	51.56	-87.8	-6,561.6	4,081.0	4,016.5	64.45	63.318		
9,200.0	6,642.1	6,541.8	6,540.2	76.0	2.3	51.93	-87.8	-6,561.6	4,034.5	3,968.8	65.72	61.387		
9,251.9	6,642.1	6,542.7	6,541.1	77.5	2.3	52.35	-87.8	-6,561.6	3,982.6	3,915.4	67.16	59.302		
9,300.0	6,642.0	6,543.6	6,542.0	78.8	2.3	52.74	-87.8	-6,561.6	3,934.6	3,866.1	68.49	57.446		
9,350.4	6,641.9	6,544.4	6,542.9	80.2	2.3	53.16	-87.8	-6,561.7	3,884.2	3,814.3	69.91	55.563		
9,400.0	6,641.9	6,545.3	6,543.7	81.5	2.3	53.57	-87.8	-6,561.7	3,834.6	3,763.3	71.30	53.778		
9,448.8	6,641.8	6,546.1	6,544.5	82.9	2.3	53.98	-87.7	-6,561.7	3,785.8	3,713.1	72.69	52.079		
9,500.0	6,641.7	6,547.0	6,545.4	84.3	2.3	54.40	-87.7	-6,561.7	3,734.6	3,660.5	74.16	50.361		
9,547.2	6,641.7	6,547.8	6,546.2	85.6	2.3	54.80	-87.7	-6,561.7	3,687.4	3,611.9	75.52	48.827		

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

Anticollision Report



Company:	PDC ENERGY	Local Co-ordinate Reference:	Well WACKER 10G-214
Project:	WELD COUNTY, COLORADO	TVD Reference:	KB-EST @ 4624.0usft (Original Well Elev)
Reference Site:	SW NW SEC. 10 T5N R64W 6th P.M.	MD Reference:	KB-EST @ 4624.0usft (Original Well Elev)
Site Error:	0.0 usft	North Reference:	True
Reference Well:	WACKER 10G-214	Survey Calculation Method:	Minimum Curvature
Well Error:	0.0 usft	Output errors are at	2.00 sigma
Reference Wellbore	ORIGINAL WELLBORE	Database:	EDM 5000.1 Single User Db
Reference Design:	PROPOSAL #1	Offset TVD Reference:	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		
9,600.0	6,641.6	6,548.7	6,547.1	87.1	2.3	55.24	-87.7	-6,561.7	3,634.7	3,557.6	77.05	47.174		
9,645.6	6,641.5	6,549.5	6,547.9	88.3	2.3	55.63	-87.7	-6,561.7	3,589.0	3,510.6	78.38	45.788		
9,700.0	6,641.5	6,550.4	6,548.8	89.8	2.3	56.10	-87.7	-6,561.7	3,534.7	3,454.7	79.98	44.195		
9,744.1	6,641.4	6,551.1	6,549.5	91.0	2.3	56.48	-87.6	-6,561.8	3,490.6	3,409.4	81.28	42.944		
9,800.0	6,641.3	6,552.0	6,550.5	92.6	2.3	56.96	-87.6	-6,561.8	3,434.7	3,351.8	82.95	41.410		
9,842.5	6,641.3	6,552.7	6,551.2	93.8	2.3	57.33	-87.6	-6,561.8	3,392.2	3,308.0	84.22	40.279		
9,900.0	6,641.2	6,553.7	6,552.1	95.4	2.3	57.83	-87.6	-6,561.8	3,334.8	3,248.8	85.95	38.801		
9,940.9	6,641.1	6,554.4	6,552.8	96.5	2.3	58.19	-87.6	-6,561.8	3,293.9	3,206.7	87.19	37.780		
10,000.0	6,641.1	6,555.3	6,553.7	98.1	2.3	58.71	-87.6	-6,561.8	3,234.8	3,145.8	88.98	36.354		
10,039.3	6,641.0	6,556.0	6,554.4	99.2	2.3	59.06	-87.6	-6,561.8	3,195.5	3,105.3	90.18	35.433		
10,100.0	6,640.9	6,556.9	6,555.4	100.9	2.3	59.59	-87.5	-6,561.8	3,134.8	3,042.8	92.04	34.058		
10,137.8	6,640.9	6,557.6	6,556.0	102.0	2.3	59.93	-87.5	-6,561.9	3,097.1	3,003.9	93.21	33.226		
10,200.0	6,640.8	6,558.6	6,557.0	103.7	2.3	60.49	-87.5	-6,561.9	3,034.9	2,939.8	95.14	31.900		
10,236.2	6,640.8	6,559.1	6,557.6	104.7	2.3	60.81	-87.5	-6,561.9	2,998.7	2,902.4	96.27	31.150		
10,300.0	6,640.7	6,560.1	6,558.6	106.5	2.3	61.39	-87.5	-6,561.9	2,934.9	2,836.7	98.26	29.870		
10,334.6	6,640.6	6,560.7	6,559.1	107.4	2.3	61.70	-87.5	-6,561.9	2,900.3	2,801.0	99.35	29.194		
10,400.0	6,640.6	6,561.7	6,560.1	109.3	2.3	62.30	-87.5	-6,561.9	2,835.0	2,733.6	101.40	27.957		
10,433.0	6,640.5	6,562.2	6,560.7	110.2	2.3	62.60	-87.5	-6,561.9	2,801.9	2,699.5	102.45	27.350		
10,500.0	6,640.4	6,563.3	6,561.7	112.0	2.3	63.21	-87.4	-6,561.9	2,735.0	2,630.5	104.57	26.155		
10,531.5	6,640.4	6,563.8	6,562.2	112.9	2.3	63.50	-87.4	-6,562.0	2,703.6	2,598.0	105.57	25.609		
10,600.0	6,640.3	6,564.8	6,563.3	114.8	2.3	64.13	-87.4	-6,562.0	2,635.1	2,527.3	107.76	24.454		
10,629.9	6,640.3	6,565.3	6,563.7	115.7	2.3	64.41	-87.4	-6,562.0	2,605.2	2,496.5	108.72	23.963		
10,700.0	6,640.2	6,566.4	6,564.8	117.6	2.3	65.06	-87.4	-6,562.0	2,535.1	2,424.2	110.96	22.847		
10,728.3	6,640.1	6,566.8	6,565.2	118.4	2.3	65.33	-87.4	-6,562.0	2,506.8	2,395.0	111.87	22.407		
10,800.0	6,640.0	6,567.9	6,566.3	120.4	2.3	65.99	-87.4	-6,562.0	2,435.2	2,321.0	114.18	21.327		
10,826.7	6,640.0	6,568.3	6,566.7	121.2	2.3	66.25	-87.4	-6,562.0	2,408.5	2,293.4	115.05	20.934		
10,900.0	6,639.9	6,569.4	6,567.8	123.2	2.3	66.93	-87.3	-6,562.0	2,335.3	2,217.8	117.42	19.889		
10,925.2	6,639.9	6,569.8	6,568.2	123.9	2.3	67.17	-87.3	-6,562.0	2,310.1	2,191.9	118.23	19.539		
11,000.0	6,639.8	6,570.9	6,569.3	126.0	2.3	67.88	-87.3	-6,562.1	2,235.3	2,114.7	120.66	18.526		
11,023.6	6,639.8	6,571.3	6,569.7	126.6	2.3	68.10	-87.3	-6,562.1	2,211.7	2,090.3	121.43	18.215		
11,100.0	6,639.7	6,572.4	6,570.8	128.8	2.3	68.82	-87.3	-6,562.1	2,135.4	2,011.5	123.91	17.233		
11,122.0	6,639.6	6,572.7	6,571.1	129.4	2.3	69.03	-87.3	-6,562.1	2,113.4	1,988.8	124.63	16.958		
11,200.0	6,639.5	6,573.9	6,572.3	131.6	2.3	69.77	-87.3	-6,562.1	2,035.5	1,908.3	127.17	16.006		
11,220.4	6,639.5	6,574.2	6,572.6	132.1	2.3	69.97	-87.3	-6,562.1	2,015.0	1,887.2	127.83	15.763		
11,300.0	6,639.4	6,575.3	6,573.8	134.4	2.3	70.73	-87.2	-6,562.1	1,935.6	1,805.1	130.43	14.840		
11,318.9	6,639.4	6,575.6	6,574.0	134.9	2.3	70.91	-87.2	-6,562.1	1,916.7	1,785.7	131.04	14.627		
11,400.0	6,639.3	6,576.8	6,575.2	137.1	2.3	71.69	-87.2	-6,562.1	1,835.7	1,702.0	133.68	13.731		
11,417.3	6,639.3	6,577.0	6,575.5	137.6	2.3	71.85	-87.2	-6,562.2	1,818.4	1,684.1	134.25	13.545		
11,500.0	6,639.2	6,578.2	6,576.6	139.9	2.3	72.65	-87.2	-6,562.2	1,735.8	1,598.8	136.94	12.675		
11,515.7	6,639.1	6,578.5	6,576.9	140.4	2.3	72.80	-87.2	-6,562.2	1,720.1	1,582.6	137.45	12.514		
11,600.0	6,639.0	6,579.7	6,578.1	142.7	2.3	73.61	-87.2	-6,562.2	1,635.9	1,495.7	140.19	11.669		
11,614.1	6,639.0	6,579.9	6,578.3	143.1	2.3	73.74	-87.2	-6,562.2	1,621.8	1,481.1	140.65	11.530		
11,700.0	6,638.9	6,581.1	6,579.5	145.5	2.3	74.57	-87.1	-6,562.2	1,536.0	1,392.6	143.43	10.709		
11,712.6	6,638.9	6,581.2	6,579.7	145.9	2.3	74.69	-87.1	-6,562.2	1,523.5	1,379.6	143.84	10.591		
11,800.0	6,638.8	6,582.5	6,580.9	148.3	2.3	75.53	-87.1	-6,562.2	1,436.2	1,289.5	146.66	9.792		
11,811.0	6,638.8	6,582.6	6,581.0	148.6	2.3	75.64	-87.1	-6,562.2	1,425.2	1,278.2	147.02	9.694		
11,900.0	6,638.7	6,583.9	6,582.3	151.1	2.3	76.49	-87.1	-6,562.2	1,336.3	1,186.4	149.88	8.916		
11,909.4	6,638.6	6,584.0	6,582.4	151.4	2.3	76.58	-87.1	-6,562.3	1,326.9	1,176.7	150.19	8.835		
12,000.0	6,638.5	6,585.2	6,583.7	153.9	2.3	77.46	-87.1	-6,562.3	1,236.5	1,083.4	153.09	8.077		
12,007.8	6,638.5	6,585.3	6,583.8	154.1	2.3	77.53	-87.1	-6,562.3	1,228.7	1,075.4	153.34	8.013		
12,100.0	6,638.4	6,586.6	6,585.0	156.7	2.3	78.42	-87.0	-6,562.3	1,136.8	980.5	156.28	7.274		
12,106.3	6,638.4	6,586.7	6,585.1	156.9	2.3	78.48	-87.0	-6,562.3	1,130.5	974.0	156.47	7.225		

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

Anticollision Report



Company:	PDC ENERGY	Local Co-ordinate Reference:	Well WACKER 10G-214
Project:	WELD COUNTY, COLORADO	TVD Reference:	KB-EST @ 4624.0usft (Original Well Elev)
Reference Site:	SW NW SEC. 10 T5N R64W 6th P.M.	MD Reference:	KB-EST @ 4624.0usft (Original Well Elev)
Site Error:	0.0 usft	North Reference:	True
Reference Well:	WACKER 10G-214	Survey Calculation Method:	Minimum Curvature
Well Error:	0.0 usft	Output errors are at	2.00 sigma
Reference Wellbore	ORIGINAL WELLBORE	Database:	EDM 5000.1 Single User Db
Reference Design:	PROPOSAL #1	Offset TVD Reference:	Offset Datum

Offset Design SW NW SEC. 10 T5N R64W 6th P.M. - EXIST VERT JURGENS #8-14 - 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
12,200.0	6,638.3	6,588.0	6,586.4	159.5	2.3	79.38	-87.0	-6,562.3	1,037.0	877.6	159.44	6.504	
12,204.7	6,638.3	6,588.0	6,586.4	159.6	2.3	79.42	-87.0	-6,562.3	1,032.3	872.7	159.59	6.469	
12,300.0	6,638.2	6,589.3	6,587.7	162.3	2.3	80.33	-87.0	-6,562.3	937.3	774.8	162.59	5.765	
12,303.1	6,638.2	6,589.4	6,587.8	162.4	2.3	80.36	-87.0	-6,562.3	934.2	771.5	162.69	5.743	
12,400.0	6,638.0	6,590.6	6,589.1	165.1	2.3	81.29	-87.0	-6,562.3	837.7	672.0	165.71	5.055	
12,401.5	6,638.0	6,590.7	6,589.1	165.2	2.3	81.30	-87.0	-6,562.3	836.2	670.4	165.76	5.045	
12,500.0	6,637.9	6,592.0	6,590.4	167.9	2.3	82.24	-87.0	-6,562.4	738.2	569.4	168.81	4.373	
12,598.4	6,637.8	6,593.3	6,591.7	170.7	2.3	83.18	-86.9	-6,562.4	640.5	468.7	171.83	3.728	
12,600.0	6,637.8	6,593.3	6,591.7	170.7	2.3	83.19	-86.9	-6,562.4	638.9	467.0	171.88	3.717	
12,696.8	6,637.7	6,594.6	6,593.0	173.4	2.3	84.11	-86.9	-6,562.4	543.0	368.1	174.82	3.106	
12,700.0	6,637.7	6,594.6	6,593.0	173.5	2.3	84.14	-86.9	-6,562.4	539.8	364.9	174.92	3.086	
12,795.2	6,637.6	6,595.8	6,594.2	176.2	2.3	85.03	-86.9	-6,562.4	445.8	268.0	177.78	2.507	
12,800.0	6,637.6	6,595.9	6,594.3	176.3	2.3	85.08	-86.9	-6,562.4	441.1	263.2	177.93	2.479	
12,893.7	6,637.4	6,597.1	6,595.5	178.9	2.3	85.95	-86.9	-6,562.4	349.3	168.6	180.72	1.933	
12,900.0	6,637.4	6,597.2	6,595.6	179.1	2.3	86.01	-86.9	-6,562.4	343.2	162.3	180.90	1.897	
12,992.1	6,637.3	6,598.3	6,596.8	181.7	2.3	86.87	-86.9	-6,562.5	254.4	70.8	183.62	1.385	Level 3
13,000.0	6,637.3	6,598.4	6,596.9	181.9	2.3	86.94	-86.9	-6,562.5	246.9	63.0	183.85	1.343	Level 3
13,090.5	6,637.2	6,599.6	6,598.0	184.4	2.3	87.78	-86.8	-6,562.5	163.6	-22.9	186.48	0.877	Level 1
13,100.0	6,637.2	6,599.7	6,598.1	184.7	2.3	87.86	-86.8	-6,562.5	155.3	-31.4	186.76	0.832	Level 1
13,188.9	6,637.1	6,600.0	6,598.4	187.2	2.3	88.08	-86.8	-6,562.5	90.4	-98.9	189.27	0.478	Level 1
13,200.0	6,637.1	6,600.0	6,598.4	187.5	2.3	88.08	-86.8	-6,562.5	85.4	-104.2	189.58	0.451	Level 1
13,234.1	6,637.0	6,600.0	6,598.4	188.5	2.3	88.08	-86.8	-6,562.5	78.3	-112.2	190.53	0.411	Level 1, CC, ES, SF
13,287.4	6,637.0	6,600.0	6,598.4	190.0	2.3	88.08	-86.8	-6,562.5	94.7	-97.3	192.02	0.493	Level 1
13,300.0	6,637.0	6,600.0	6,598.4	190.3	2.3	88.08	-86.8	-6,562.5	102.3	-90.0	192.38	0.532	Level 1
13,385.8	6,636.9	6,600.0	6,598.4	192.7	2.3	88.08	-86.8	-6,562.5	170.7	-24.1	194.78	0.876	Level 1
13,400.0	6,636.8	6,600.0	6,598.4	193.1	2.3	88.08	-86.8	-6,562.5	183.4	-11.8	195.18	0.940	Level 1
13,484.2	6,636.7	6,600.0	6,598.4	195.5	2.3	88.08	-86.8	-6,562.5	262.1	64.5	197.54	1.327	Level 3
13,500.0	6,636.7	6,600.0	6,598.4	195.9	2.3	88.08	-86.8	-6,562.5	277.2	79.2	197.98	1.400	Level 3
13,582.6	6,636.6	6,600.0	6,598.4	198.2	2.3	88.08	-86.8	-6,562.5	357.2	156.9	200.29	1.783	
13,600.0	6,636.6	6,600.0	6,598.4	198.7	2.3	88.08	-86.8	-6,562.5	374.2	173.4	200.78	1.864	
13,681.1	6,636.5	6,600.0	6,598.4	201.0	2.3	88.08	-86.8	-6,562.5	453.8	250.7	203.05	2.235	
13,700.0	6,636.5	6,600.0	6,598.4	201.5	2.3	88.08	-86.8	-6,562.5	472.4	268.8	203.58	2.321	
13,779.5	6,636.4	6,600.0	6,598.4	203.7	2.3	88.08	-86.8	-6,562.5	551.0	345.2	205.81	2.677	
13,800.0	6,636.4	6,600.0	6,598.4	204.3	2.3	88.08	-86.8	-6,562.5	571.3	364.9	206.38	2.768	
13,877.9	6,636.3	6,600.0	6,598.4	206.5	2.3	88.08	-86.8	-6,562.5	648.5	440.0	208.56	3.110	
13,900.0	6,636.3	6,600.0	6,598.4	207.1	2.3	88.08	-86.8	-6,562.5	670.5	461.3	209.18	3.205	
13,976.3	6,636.2	6,600.0	6,598.4	209.3	2.3	88.08	-86.8	-6,562.5	746.3	535.0	211.32	3.532	
14,000.0	6,636.1	6,600.0	6,598.4	209.9	2.3	88.08	-86.8	-6,562.5	769.9	557.9	211.99	3.632	
14,074.8	6,636.0	6,600.0	6,598.4	212.0	2.3	88.08	-86.8	-6,562.5	844.3	630.2	214.08	3.944	
14,100.0	6,636.0	6,600.0	6,598.4	212.7	2.3	88.08	-86.8	-6,562.5	869.4	654.6	214.79	4.048	
14,173.2	6,635.9	6,600.0	6,598.4	214.8	2.3	88.08	-86.8	-6,562.5	942.3	725.5	216.84	4.346	
14,200.0	6,635.9	6,600.0	6,598.4	215.5	2.3	88.09	-86.8	-6,562.5	969.0	751.5	217.59	4.454	
14,271.6	6,635.8	6,600.0	6,598.4	217.5	2.3	88.09	-86.8	-6,562.5	1,040.4	820.9	219.60	4.738	
14,300.0	6,635.8	6,600.0	6,598.4	218.3	2.3	88.09	-86.8	-6,562.5	1,068.7	848.4	220.39	4.849	
14,370.0	6,635.7	6,600.0	6,598.4	220.3	2.3	88.09	-86.8	-6,562.5	1,138.6	916.3	222.36	5.121	
14,400.0	6,635.7	6,600.0	6,598.4	221.1	2.3	88.09	-86.8	-6,562.5	1,168.5	945.3	223.20	5.235	
14,468.5	6,635.6	6,600.0	6,598.4	223.1	2.3	88.09	-86.8	-6,562.5	1,236.8	1,011.7	225.12	5.494	
14,500.0	6,635.6	6,600.0	6,598.4	223.9	2.3	88.09	-86.8	-6,562.5	1,268.3	1,042.3	226.00	5.612	
14,566.9	6,635.5	6,600.0	6,598.4	225.8	2.3	88.09	-86.8	-6,562.5	1,335.1	1,107.2	227.87	5.859	
14,600.0	6,635.4	6,600.0	6,598.4	226.8	2.3	88.10	-86.8	-6,562.5	1,368.1	1,139.3	228.80	5.979	
14,665.3	6,635.4	6,600.0	6,598.4	228.6	2.3	88.10	-86.8	-6,562.5	1,433.3	1,202.7	230.63	6.215	
14,700.0	6,635.3	6,600.0	6,598.4	229.6	2.3	88.10	-86.8	-6,562.5	1,468.0	1,236.4	231.61	6.338	

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

Anticollision Report



Company:	PDC ENERGY	Local Co-ordinate Reference:	Well WACKER 10G-214
Project:	WELD COUNTY, COLORADO	TVD Reference:	KB-EST @ 4624.0usft (Original Well Elev)
Reference Site:	SW NW SEC. 10 T5N R64W 6th P.M.	MD Reference:	KB-EST @ 4624.0usft (Original Well Elev)
Site Error:	0.0 usft	North Reference:	True
Reference Well:	WACKER 10G-214	Survey Calculation Method:	Minimum Curvature
Well Error:	0.0 usft	Output errors are at	2.00 sigma
Reference Wellbore	ORIGINAL WELLBORE	Database:	EDM 5000.1 Single User Db
Reference Design:	PROPOSAL #1	Offset TVD Reference:	Offset Datum

Offset Design												Offset Site Error:	0.0 usft
Survey Program: 100-GYD_CT												Offset Well Error:	0.0 usft
Reference		Offset		Semi Major Axis			Distance						
Measured Depth (usft)	Vertical Depth (usft)	Measured Depth (usft)	Vertical Depth (usft)	Reference (usft)	Offset (usft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (usft)	+E/-W (usft)	Between Centres (usft)	Between Ellipses (usft)	Minimum Separation (usft)	Separation Factor	Warning
14,763.7	6,635.2	6,600.0	6,598.4	231.3	2.3	88.10	-86.8	-6,562.5	1,531.6	1,298.2	233.39	6.562	
14,800.0	6,635.2	6,600.0	6,598.4	232.4	2.3	88.11	-86.8	-6,562.5	1,567.8	1,333.4	234.41	6.688	
14,862.2	6,635.1	6,600.0	6,598.4	234.1	2.3	88.11	-86.8	-6,562.5	1,629.9	1,393.8	236.15	6.902	
14,900.0	6,635.1	6,600.0	6,598.4	235.2	2.3	88.11	-86.8	-6,562.5	1,667.7	1,430.5	237.21	7.030	
14,960.6	6,635.0	6,600.0	6,598.4	236.9	2.3	88.11	-86.8	-6,562.5	1,728.2	1,489.3	238.91	7.234	
14,982.9	6,635.0	6,600.0	6,598.4	237.5	2.3	88.11	-86.8	-6,562.5	1,750.5	1,511.0	239.54	7.308	

Anticollision Report



Company:	PDC ENERGY	Local Co-ordinate Reference:	Well WACKER 10G-214
Project:	WELD COUNTY, COLORADO	TVD Reference:	KB-EST @ 4624.0usft (Original Well Elev)
Reference Site:	SW NW SEC. 10 T5N R64W 6th P.M.	MD Reference:	KB-EST @ 4624.0usft (Original Well Elev)
Site Error:	0.0 usft	North Reference:	True
Reference Well:	WACKER 10G-214	Survey Calculation Method:	Minimum Curvature
Well Error:	0.0 usft	Output errors are at	2.00 sigma
Reference Wellbore	ORIGINAL WELLBORE	Database:	EDM 5000.1 Single User Db
Reference Design:	PROPOSAL #1	Offset TVD Reference:	Offset Datum

Offset Design												Offset Site Error:	0.0 usft
Survey Program: 100-GYD_CT												Offset Well Error:	0.0 usft
Reference	Offset	Semi Major Axis		Distance									
Measured Depth (usft)	Vertical Depth (usft)	Measured Depth (usft)	Vertical Depth (usft)	Reference (usft)	Offset (usft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (usft)	+E/-W (usft)	Between Centres (usft)	Between Ellipses (usft)	Minimum Separation (usft)	Separation Factor	Warning
0.0	0.0	0.0	0.0	0.0	0.0	-104.68	-1,858.1	-7,091.8	7,331.2				
98.4	98.4	56.4	56.4	0.1	0.0	-104.68	-1,858.0	-7,091.8	7,331.2	7,331.1	0.11	N/A	
100.0	100.0	57.7	57.7	0.1	0.0	-104.68	-1,858.0	-7,091.8	7,331.2	7,331.1	0.11	N/A	
196.8	196.8	165.5	165.5	0.3	0.1	-104.68	-1,857.3	-7,092.1	7,331.3	7,330.9	0.46	N/A	
200.0	200.0	169.8	169.8	0.3	0.1	-104.68	-1,857.3	-7,092.1	7,331.3	7,330.8	0.47	N/A	
295.3	295.3	264.3	264.2	0.5	0.3	-104.67	-1,856.7	-7,092.2	7,331.2	7,330.4	0.80	9,160.716	
300.0	300.0	268.4	268.4	0.5	0.3	-104.67	-1,856.6	-7,092.2	7,331.2	7,330.4	0.81	8,999.071	
311.4	311.4	278.4	278.4	0.6	0.3	-104.67	-1,856.6	-7,092.2	7,331.2	7,330.4	0.85	8,631.385	
393.7	393.7	359.2	359.2	0.8	0.3	-104.67	-1,856.1	-7,092.4	7,331.2	7,330.1	1.10	6,684.123	
400.0	400.0	365.7	365.7	0.8	0.3	-104.67	-1,856.0	-7,092.4	7,331.2	7,330.1	1.12	6,571.171	
492.1	492.1	446.1	446.1	1.0	0.4	-104.66	-1,855.5	-7,092.6	7,331.3	7,329.9	1.38	5,329.292	
500.0	500.0	452.3	452.3	1.0	0.4	-104.66	-1,855.4	-7,092.6	7,331.3	7,329.9	1.40	5,247.421	
590.5	590.5	528.4	528.4	1.2	0.4	-104.66	-1,854.9	-7,093.0	7,331.6	7,330.0	1.65	4,454.134	
600.0	600.0	537.4	537.4	1.2	0.5	-104.65	-1,854.8	-7,093.1	7,331.6	7,330.0	1.67	4,383.826	
689.0	689.0	621.0	621.0	1.4	0.5	-104.65	-1,854.3	-7,093.6	7,332.0	7,330.1	1.92	3,820.170	
700.0	700.0	631.1	631.1	1.4	0.5	-104.65	-1,854.2	-7,093.7	7,332.1	7,330.1	1.95	3,761.570	
787.4	787.4	713.1	713.1	1.6	0.5	-104.65	-1,853.9	-7,094.2	7,332.6	7,330.4	2.19	3,352.262	
800.0	800.0	727.1	727.1	1.7	0.6	-104.65	-1,853.9	-7,094.3	7,332.6	7,330.4	2.22	3,299.305	
885.8	885.8	821.2	821.2	1.9	0.6	-104.64	-1,853.8	-7,094.8	7,333.0	7,330.6	2.46	2,980.418	
900.0	900.0	836.1	836.1	1.9	0.6	-104.64	-1,853.7	-7,094.9	7,333.1	7,330.6	2.50	2,934.525	
984.2	984.2	923.8	923.8	2.1	0.6	-104.64	-1,853.7	-7,095.2	7,333.4	7,330.7	2.73	2,689.775	
1,000.0	1,000.0	939.6	939.6	2.1	0.6	-104.64	-1,853.7	-7,095.3	7,333.5	7,330.7	2.77	2,649.101	
1,082.7	1,082.7	1,023.5	1,023.5	2.3	0.7	-104.64	-1,853.5	-7,095.7	7,333.8	7,330.8	2.99	2,456.609	
1,100.0	1,100.0	1,041.6	1,041.5	2.3	0.7	-104.64	-1,853.5	-7,095.7	7,333.9	7,330.8	3.03	2,421.044	
1,181.1	1,181.1	1,124.0	1,124.0	2.5	0.7	-104.64	-1,853.6	-7,096.0	7,334.1	7,330.9	3.23	2,267.146	
1,200.0	1,200.0	1,142.0	1,142.0	2.6	0.7	-104.64	-1,853.7	-7,096.0	7,334.2	7,330.9	3.28	2,233.934	
1,279.5	1,279.5	1,219.5	1,219.5	2.7	0.7	-104.64	-1,853.9	-7,096.3	7,334.5	7,331.0	3.49	2,103.921	
1,300.0	1,300.0	1,240.8	1,240.8	2.8	0.7	-104.64	-1,853.9	-7,096.3	7,334.6	7,331.0	3.54	2,072.624	
1,377.9	1,377.9	1,321.0	1,321.0	3.0	0.8	136.70	-1,854.0	-7,096.6	7,335.6	7,331.9	3.70	1,981.692	
1,400.0	1,400.0	1,343.1	1,343.0	3.0	0.8	136.70	-1,854.1	-7,096.6	7,336.2	7,332.4	3.76	1,953.679	
1,476.4	1,476.3	1,419.8	1,419.8	3.1	0.8	136.67	-1,854.3	-7,096.8	7,339.1	7,335.2	3.93	1,867.948	
1,500.0	1,499.8	1,443.9	1,443.9	3.2	0.8	136.67	-1,854.4	-7,096.9	7,340.3	7,336.3	3.98	1,843.047	
1,574.8	1,574.4	1,515.0	1,515.0	3.3	0.8	136.63	-1,854.8	-7,097.0	7,345.0	7,340.9	4.16	1,766.255	
1,600.0	1,599.5	1,534.1	1,534.1	3.4	0.8	136.61	-1,854.9	-7,097.1	7,347.0	7,342.8	4.22	1,742.484	
1,673.2	1,672.2	1,600.0	1,600.0	3.6	0.9	136.56	-1,855.2	-7,097.4	7,353.6	7,349.3	4.40	1,672.238	
1,700.0	1,698.7	1,610.2	1,610.2	3.6	0.9	136.53	-1,855.3	-7,097.5	7,356.5	7,352.0	4.46	1,649.499	
1,771.6	1,769.5	1,668.0	1,667.9	3.8	0.9	136.46	-1,855.7	-7,097.8	7,365.0	7,360.3	4.65	1,583.838	
1,800.0	1,797.5	1,690.7	1,690.7	3.9	0.9	136.42	-1,855.9	-7,098.0	7,368.7	7,364.0	4.73	1,559.207	
1,870.1	1,866.3	1,743.4	1,743.4	4.1	0.9	136.33	-1,856.4	-7,098.5	7,379.0	7,374.1	4.93	1,497.513	
1,900.2	1,895.8	1,765.7	1,765.7	4.2	0.9	136.28	-1,856.7	-7,098.7	7,383.9	7,378.8	5.01	1,472.412	
1,968.5	1,962.6	1,820.5	1,820.5	4.4	0.9	136.34	-1,857.4	-7,099.3	7,395.2	7,390.0	5.22	1,416.560	
2,000.0	1,993.4	1,850.1	1,850.0	4.5	0.9	136.37	-1,857.8	-7,099.7	7,400.5	7,395.1	5.32	1,391.822	
2,066.9	2,058.9	1,913.2	1,913.1	4.7	1.0	136.44	-1,858.7	-7,100.4	7,411.7	7,406.1	5.53	1,340.091	
2,100.0	2,091.2	1,944.8	1,944.7	4.8	1.0	136.47	-1,859.2	-7,100.8	7,417.2	7,411.6	5.64	1,316.097	
2,165.3	2,155.2	2,006.7	2,006.6	5.1	1.0	136.53	-1,860.2	-7,101.5	7,428.2	7,422.3	5.85	1,269.811	
2,200.0	2,189.1	2,037.0	2,036.9	5.2	1.0	136.57	-1,860.7	-7,101.9	7,434.0	7,428.0	5.97	1,246.134	
2,263.8	2,251.4	2,092.9	2,092.8	5.5	1.0	136.62	-1,861.6	-7,102.6	7,444.8	7,438.6	6.18	1,204.428	
2,300.0	2,286.9	2,139.0	2,138.9	5.6	1.0	136.67	-1,862.2	-7,103.3	7,450.9	7,444.6	6.31	1,181.124	
2,362.2	2,347.7	2,216.3	2,216.2	5.8	1.1	136.75	-1,862.9	-7,104.2	7,461.3	7,454.7	6.53	1,142.572	
2,400.0	2,384.7	2,250.2	2,250.1	6.0	1.1	136.79	-1,863.2	-7,104.6	7,467.6	7,460.9	6.66	1,120.978	
2,460.6	2,444.0	2,300.0	2,299.9	6.2	1.1	136.84	-1,863.6	-7,105.2	7,477.7	7,470.8	6.87	1,087.753	
2,500.0	2,482.5	2,335.4	2,335.3	6.4	1.1	136.88	-1,863.9	-7,105.7	7,484.3	7,477.3	7.01	1,066.924	

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

Anticollision Report



Company:	PDC ENERGY	Local Co-ordinate Reference:	Well WACKER 10G-214
Project:	WELD COUNTY, COLORADO	TVD Reference:	KB-EST @ 4624.0usft (Original Well Elev)
Reference Site:	SW NW SEC. 10 T5N R64W 6th P.M.	MD Reference:	KB-EST @ 4624.0usft (Original Well Elev)
Site Error:	0.0 usft	North Reference:	True
Reference Well:	WACKER 10G-214	Survey Calculation Method:	Minimum Curvature
Well Error:	0.0 usft	Output errors are at	2.00 sigma
Reference Wellbore	ORIGINAL WELLBORE	Database:	EDM 5000.1 Single User Db
Reference Design:	PROPOSAL #1	Offset TVD Reference:	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	2,540.3	2,382.3	2,382.2	6.6	1.1	136.93	-1,864.2	-7,106.4	7,494.3	7,487.1	7.23	1,037.103		
2,600.0	2,580.3	2,421.9	2,421.7	6.8	1.1	136.97	-1,864.4	-7,107.0	7,501.3	7,493.9	7.38	1,017.113		
2,657.5	2,636.5	2,489.0	2,488.9	7.1	1.1	137.05	-1,864.9	-7,108.0	7,511.1	7,503.5	7.59	989.622		
2,700.0	2,678.1	2,538.0	2,537.9	7.2	1.2	137.10	-1,865.4	-7,108.6	7,518.2	7,510.5	7.75	970.370		
2,755.9	2,732.8	2,601.9	2,601.7	7.5	1.2	137.16	-1,866.0	-7,109.4	7,527.6	7,519.6	7.96	946.040		
2,800.0	2,775.9	2,645.3	2,645.1	7.7	1.2	137.21	-1,866.4	-7,109.9	7,535.0	7,526.8	8.12	927.966		
2,854.3	2,829.1	2,698.8	2,698.7	7.9	1.2	137.26	-1,867.0	-7,110.4	7,544.0	7,535.7	8.32	906.494		
2,900.0	2,873.8	2,749.7	2,749.5	8.1	1.2	137.32	-1,867.7	-7,110.9	7,551.7	7,543.2	8.49	889.129		
2,952.7	2,925.4	2,807.8	2,807.6	8.3	1.3	137.37	-1,868.5	-7,111.4	7,560.4	7,551.7	8.69	869.837		
2,953.5	2,926.1	2,808.6	2,808.4	8.3	1.3	137.37	-1,868.5	-7,111.4	7,560.5	7,551.8	8.69	869.579		
3,000.0	2,971.6	2,855.6	2,855.4	8.5	1.3	137.52	-1,869.2	-7,111.8	7,568.0	7,559.1	8.84	855.929		
3,051.2	3,022.0	2,906.6	2,906.4	8.7	1.3	137.67	-1,869.9	-7,112.2	7,575.5	7,566.5	8.98	843.514		
3,100.0	3,070.1	2,950.7	2,950.5	8.8	1.3	137.79	-1,870.5	-7,112.6	7,582.1	7,573.0	9.11	832.027		
3,149.6	3,119.1	2,995.6	2,995.4	8.9	1.3	137.90	-1,871.0	-7,113.0	7,588.2	7,578.9	9.24	821.366		
3,200.0	3,169.1	3,088.3	3,088.1	9.1	1.3	138.03	-1,872.1	-7,113.6	7,593.6	7,584.2	9.38	809.831		
3,248.0	3,216.8	3,275.6	3,275.4	9.2	1.4	138.18	-1,873.7	-7,112.4	7,597.3	7,587.8	9.49	800.783		
3,300.0	3,268.5	3,341.8	3,341.6	9.3	1.4	138.25	-1,874.4	-7,111.4	7,600.4	7,590.8	9.60	791.780		
3,346.4	3,314.8	3,393.8	3,393.5	9.4	1.4	138.29	-1,875.1	-7,110.4	7,602.5	7,592.8	9.69	784.497		
3,400.0	3,368.3	3,476.8	3,476.5	9.6	1.4	138.32	-1,876.4	-7,108.7	7,604.2	7,594.4	9.80	776.011		
3,444.9	3,413.1	3,526.9	3,526.6	9.6	1.4	138.34	-1,877.3	-7,107.5	7,604.8	7,595.0	9.88	769.664		
3,500.0	3,468.2	3,575.7	3,575.3	9.7	1.4	138.34	-1,878.2	-7,106.4	7,605.0	7,595.0	9.98	761.935		
3,543.3	3,511.5	3,620.6	3,620.2	9.8	1.4	138.32	-1,879.2	-7,105.3	7,604.5	7,594.5	10.05	756.308		
3,553.7	3,521.9	3,634.1	3,633.8	9.8	1.4	-103.03	-1,879.4	-7,105.0	7,604.4	7,594.2	10.19	746.252		
3,600.0	3,568.2	3,694.4	3,694.0	9.9	1.4	-103.04	-1,880.8	-7,103.4	7,603.4	7,593.1	10.28	739.453		
3,641.7	3,609.9	3,735.6	3,735.2	10.0	1.4	-103.05	-1,881.7	-7,102.3	7,602.6	7,592.2	10.37	733.344		
3,700.0	3,668.2	3,791.1	3,790.6	10.1	1.4	-103.06	-1,883.0	-7,100.9	7,601.4	7,590.9	10.48	725.017		
3,740.1	3,708.4	3,819.4	3,818.9	10.1	1.4	-103.07	-1,883.6	-7,100.1	7,600.6	7,590.0	10.56	719.483		
3,800.0	3,768.2	3,857.2	3,856.7	10.2	1.4	-103.08	-1,884.5	-7,099.3	7,599.5	7,588.8	10.68	711.470		
3,838.6	3,806.8	3,881.5	3,881.0	10.3	1.4	-103.08	-1,885.1	-7,098.7	7,598.9	7,588.2	10.76	706.357		
3,900.0	3,868.2	3,922.3	3,921.8	10.4	1.4	-103.09	-1,886.1	-7,098.0	7,598.2	7,587.3	10.88	698.337		
3,937.0	3,905.2	3,948.0	3,947.4	10.5	1.4	-103.10	-1,886.8	-7,097.5	7,597.8	7,586.8	10.96	693.531		
4,000.0	3,968.2	4,000.0	3,999.4	10.6	1.4	-103.11	-1,888.2	-7,096.8	7,597.2	7,586.1	11.08	685.389		
4,035.4	4,003.6	4,020.6	4,020.0	10.6	1.5	-103.11	-1,888.7	-7,096.5	7,597.0	7,585.8	11.16	680.985		
4,100.0	4,068.2	4,077.1	4,076.5	10.7	1.5	-103.13	-1,890.2	-7,095.8	7,596.6	7,585.3	11.29	672.829		
4,133.8	4,102.1	4,109.9	4,109.3	10.8	1.5	-103.13	-1,891.0	-7,095.4	7,596.4	7,585.0	11.36	668.555		
4,200.0	4,168.2	4,195.9	4,195.2	10.9	1.5	-103.15	-1,892.7	-7,094.5	7,596.0	7,584.5	11.51	660.059		
4,232.3	4,200.5	4,228.1	4,227.5	11.0	1.5	-103.15	-1,893.2	-7,094.1	7,595.7	7,584.1	11.58	656.087		
4,300.0	4,268.2	4,293.6	4,292.9	11.1	1.5	-103.16	-1,894.2	-7,093.3	7,595.2	7,583.5	11.72	647.937		
4,330.7	4,298.9	4,321.6	4,321.0	11.1	1.5	-103.16	-1,894.6	-7,093.0	7,595.0	7,583.2	11.79	644.302		
4,400.0	4,368.2	4,384.0	4,383.3	11.3	1.5	-103.17	-1,895.5	-7,092.4	7,594.5	7,582.6	11.94	636.261		
4,429.1	4,397.3	4,400.0	4,399.3	11.3	1.5	-103.17	-1,895.7	-7,092.2	7,594.3	7,582.3	12.00	633.055		
4,500.0	4,468.2	4,453.9	4,453.2	11.4	1.5	-103.18	-1,896.3	-7,091.8	7,594.0	7,581.9	12.15	625.213		
4,527.5	4,495.8	4,472.0	4,471.3	11.5	1.5	-103.18	-1,896.6	-7,091.8	7,594.0	7,581.8	12.20	622.239		
4,556.8	4,525.0	4,500.0	4,499.3	11.5	1.6	-103.18	-1,896.9	-7,091.7	7,594.0	7,581.7	12.27	619.009		
4,600.0	4,568.2	4,523.2	4,522.5	11.6	1.6	-103.18	-1,897.2	-7,091.6	7,594.0	7,581.7	12.36	614.511		
4,626.0	4,594.2	4,543.5	4,542.8	11.7	1.6	-103.19	-1,897.5	-7,091.6	7,594.1	7,581.7	12.41	611.745		
4,700.0	4,668.2	4,600.0	4,599.3	11.8	1.6	-103.19	-1,898.2	-7,091.6	7,594.3	7,581.8	12.57	604.024		
4,724.4	4,692.6	4,623.1	4,622.4	11.9	1.6	-103.19	-1,898.5	-7,091.7	7,594.4	7,581.8	12.63	601.460		
4,800.0	4,768.2	4,690.2	4,689.5	12.0	1.6	-103.20	-1,899.4	-7,091.9	7,594.9	7,582.1	12.79	593.711		
4,822.8	4,791.0	4,710.8	4,710.1	12.0	1.6	-103.20	-1,899.6	-7,091.9	7,595.0	7,582.2	12.84	591.399		
4,900.0	4,868.2	4,781.4	4,780.7	12.2	1.6	-103.21	-1,900.5	-7,092.2	7,595.5	7,582.5	13.01	583.716		
4,921.2	4,889.5	4,800.0	4,799.3	12.2	1.6	-103.21	-1,900.7	-7,092.3	7,595.7	7,582.6	13.06	581.636		

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

Anticollision Report



Company:	PDC ENERGY	Local Co-ordinate Reference:	Well WACKER 10G-214
Project:	WELD COUNTY, COLORADO	TVD Reference:	KB-EST @ 4624.0usft (Original Well Elev)
Reference Site:	SW NW SEC. 10 T5N R64W 6th P.M.	MD Reference:	KB-EST @ 4624.0usft (Original Well Elev)
Site Error:	0.0 usft	North Reference:	True
Reference Well:	WACKER 10G-214	Survey Calculation Method:	Minimum Curvature
Well Error:	0.0 usft	Output errors are at	2.00 sigma
Reference Wellbore	ORIGINAL WELLBORE	Database:	EDM 5000.1 Single User Db
Reference Design:	PROPOSAL #1	Offset TVD Reference:	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
5,000.0	4,968.2	4,855.9	4,855.2	12.4	1.7	-103.21	-1,901.4	-7,092.6	7,596.4	7,583.2	13.23	574.246	
5,019.7	4,987.9	4,869.7	4,869.0	12.4	1.7	-103.21	-1,901.6	-7,092.8	7,596.6	7,583.3	13.27	572.425	
5,100.0	5,068.2	4,959.6	4,958.8	12.6	1.7	-103.22	-1,902.8	-7,093.6	7,597.5	7,584.1	13.45	564.795	
5,118.1	5,086.3	4,988.5	4,987.8	12.6	1.7	-103.22	-1,903.1	-7,093.8	7,597.7	7,584.2	13.49	563.009	
5,200.0	5,168.2	5,066.0	5,065.2	12.7	1.7	-103.23	-1,903.9	-7,094.3	7,598.4	7,584.7	13.68	555.623	
5,216.5	5,184.7	5,080.5	5,079.8	12.8	1.7	-103.23	-1,904.0	-7,094.4	7,598.6	7,584.9	13.71	554.162	
5,300.0	5,268.2	5,151.4	5,150.7	12.9	1.7	-103.23	-1,904.5	-7,095.0	7,599.4	7,585.5	13.89	546.995	
5,314.9	5,283.2	5,163.9	5,163.2	13.0	1.7	-103.23	-1,904.6	-7,095.1	7,599.6	7,585.7	13.93	545.733	
5,400.0	5,368.2	5,247.2	5,246.4	13.1	1.8	-103.23	-1,905.1	-7,096.0	7,600.6	7,586.5	14.11	538.601	
5,413.4	5,381.6	5,262.2	5,261.5	13.2	1.8	-103.24	-1,905.2	-7,096.2	7,600.8	7,586.6	14.14	537.481	
5,500.0	5,468.2	5,358.2	5,357.4	13.3	1.8	-103.24	-1,905.7	-7,097.1	7,601.7	7,587.4	14.33	530.406	
5,511.8	5,480.0	5,371.1	5,370.3	13.3	1.8	-103.24	-1,905.7	-7,097.3	7,601.8	7,587.5	14.36	529.458	
5,600.0	5,568.2	5,457.2	5,456.4	13.5	1.8	-103.24	-1,906.0	-7,098.1	7,602.7	7,588.2	14.55	522.530	
5,610.2	5,578.4	5,466.6	5,465.9	13.5	1.8	-103.24	-1,906.0	-7,098.2	7,602.8	7,588.2	14.57	521.739	
5,700.0	5,668.2	5,549.2	5,548.4	13.7	1.8	-103.24	-1,906.7	-7,099.0	7,603.8	7,589.0	14.77	514.810	
5,708.6	5,676.9	5,557.1	5,556.3	13.7	1.9	-103.24	-1,906.8	-7,099.0	7,603.9	7,589.1	14.79	514.144	
5,800.0	5,768.2	5,643.3	5,642.5	13.9	1.9	-103.25	-1,907.7	-7,099.9	7,605.0	7,590.0	14.99	507.193	
5,807.1	5,775.3	5,650.2	5,649.4	13.9	1.9	-103.25	-1,907.8	-7,099.9	7,605.1	7,590.1	15.01	506.658	
5,900.0	5,868.2	5,736.3	5,735.6	14.1	1.9	-103.25	-1,908.9	-7,100.8	7,606.2	7,591.0	15.22	499.758	
5,905.5	5,873.7	5,741.1	5,740.4	14.1	1.9	-103.25	-1,908.9	-7,100.8	7,606.3	7,591.1	15.23	499.356	
5,960.7	5,928.9	5,789.3	5,788.5	14.2	1.9	-103.26	-1,909.7	-7,101.3	7,607.1	7,591.7	15.36	495.359	
6,000.0	5,968.2	5,820.7	5,819.9	14.3	1.9	-13.27	-1,910.2	-7,101.7	7,606.6	7,591.3	15.24	499.033	
6,003.9	5,972.1	5,823.6	5,822.8	14.3	1.9	-13.28	-1,910.3	-7,101.7	7,606.4	7,591.2	15.25	498.813	
6,050.0	6,018.0	5,858.7	5,857.9	14.4	1.9	-13.35	-1,910.8	-7,102.2	7,603.0	7,587.7	15.34	495.739	
6,100.0	6,067.3	5,900.0	5,899.2	14.4	2.0	-13.49	-1,911.4	-7,102.8	7,596.1	7,580.7	15.45	491.774	
6,102.3	6,069.6	5,900.0	5,899.2	14.4	2.0	-13.50	-1,911.4	-7,102.8	7,595.7	7,580.3	15.45	491.603	
6,150.0	6,116.0	5,947.2	5,946.4	14.4	2.0	-13.71	-1,912.0	-7,103.5	7,586.0	7,570.4	15.56	487.474	
6,200.0	6,163.8	5,998.4	5,997.5	14.5	2.0	-14.01	-1,912.8	-7,104.3	7,572.5	7,556.8	15.67	483.235	
6,200.8	6,164.5	5,999.2	5,998.3	14.5	2.0	-14.02	-1,912.8	-7,104.3	7,572.2	7,556.6	15.67	483.173	
6,250.0	6,210.4	6,029.8	6,028.9	14.5	2.0	-14.38	-1,913.2	-7,104.7	7,555.8	7,540.1	15.75	479.725	
6,299.2	6,254.9	6,059.3	6,058.4	14.5	2.0	-14.84	-1,913.6	-7,105.3	7,536.4	7,520.6	15.80	476.890	
6,300.0	6,255.6	6,059.7	6,058.9	14.5	2.0	-14.85	-1,913.6	-7,105.3	7,536.1	7,520.3	15.80	476.849	
6,350.0	6,299.3	6,100.0	6,099.1	14.5	2.0	-15.43	-1,914.1	-7,106.1	7,513.4	7,497.6	15.84	474.370	
6,397.6	6,339.2	6,119.0	6,118.1	14.6	2.0	-16.07	-1,914.3	-7,106.6	7,489.1	7,473.3	15.83	472.977	
6,400.0	6,341.2	6,120.6	6,119.7	14.6	2.0	-16.10	-1,914.3	-7,106.6	7,487.9	7,472.0	15.83	472.903	
6,450.0	6,381.0	6,153.5	6,152.6	14.6	2.0	-16.94	-1,914.6	-7,107.4	7,459.5	7,443.7	15.82	471.518	
6,496.0	6,415.8	6,182.3	6,181.4	14.7	2.0	-17.86	-1,914.9	-7,108.1	7,431.1	7,415.3	15.80	470.362	
6,500.0	6,418.7	6,184.7	6,183.8	14.7	2.0	-17.94	-1,914.9	-7,108.2	7,428.6	7,412.8	15.80	470.266	
6,550.0	6,453.9	6,219.4	6,218.5	14.8	2.1	-19.18	-1,915.3	-7,109.1	7,395.1	7,379.3	15.78	468.522	
6,594.5	6,483.1	6,253.1	6,252.2	15.0	2.1	-20.51	-1,915.6	-7,109.9	7,363.4	7,347.6	15.80	466.017	
6,600.0	6,486.6	6,257.1	6,256.2	15.1	2.1	-20.69	-1,915.7	-7,110.0	7,359.3	7,343.5	15.80	465.652	
6,650.0	6,516.6	6,291.8	6,290.9	15.3	2.1	-22.54	-1,916.0	-7,110.9	7,321.3	7,305.4	15.88	461.057	
6,692.9	6,540.0	6,318.2	6,317.3	15.7	2.1	-24.47	-1,916.3	-7,111.5	7,287.0	7,271.0	16.02	454.945	
6,700.0	6,543.7	6,322.3	6,321.4	15.7	2.1	-24.83	-1,916.4	-7,111.6	7,281.2	7,265.2	16.05	453.740	
6,750.0	6,567.8	6,349.3	6,348.4	16.2	2.1	-27.69	-1,916.6	-7,112.3	7,239.4	7,223.0	16.36	442.564	
6,791.3	6,585.4	6,369.1	6,368.2	16.7	2.1	-30.63	-1,916.8	-7,112.8	7,203.5	7,186.8	16.77	429.633	
6,800.0	6,588.8	6,373.0	6,372.0	16.8	2.1	-31.32	-1,916.8	-7,112.9	7,195.9	7,179.0	16.87	426.542	
6,850.0	6,606.6	6,393.3	6,392.3	17.4	2.1	-36.01	-1,917.0	-7,113.4	7,151.1	7,133.4	17.65	405.274	
6,889.7	6,618.4	6,410.1	6,409.2	18.0	2.1	-40.78	-1,917.1	-7,113.8	7,114.6	7,096.1	18.49	384.808	
6,900.0	6,621.1	6,414.7	6,413.8	18.2	2.1	-42.20	-1,917.1	-7,113.9	7,105.1	7,086.3	18.74	379.220	
6,950.0	6,632.2	6,433.9	6,432.9	19.0	2.1	-50.40	-1,917.2	-7,114.3	7,058.1	7,038.0	20.11	350.921	
6,988.2	6,638.4	6,444.9	6,443.9	19.7	2.1	-58.32	-1,917.3	-7,114.6	7,021.8	7,000.5	21.26	330.337	

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

Anticollision Report



Company:	PDC ENERGY	Local Co-ordinate Reference:	Well WACKER 10G-214
Project:	WELD COUNTY, COLORADO	TVD Reference:	KB-EST @ 4624.0usft (Original Well Elev)
Reference Site:	SW NW SEC. 10 T5N R64W 6th P.M.	MD Reference:	KB-EST @ 4624.0usft (Original Well Elev)
Site Error:	0.0 usft	North Reference:	True
Reference Well:	WACKER 10G-214	Survey Calculation Method:	Minimum Curvature
Well Error:	0.0 usft	Output errors are at	2.00 sigma
Reference Wellbore	ORIGINAL WELLBORE	Database:	EDM 5000.1 Single User Db
Reference Design:	PROPOSAL #1	Offset TVD Reference:	Offset Datum

Offset Design SW NW SEC. 10 T5N R64W 6th P.M. - EXIST VERT JURGENS PC #B8-23 - 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		
7,000.0	6,639.9	6,447.6	6,446.7	19.9	2.1	-61.09	-1,917.3	-7,114.6	7,010.5	6,988.9	21.59	324.635		
7,050.0	6,644.1	6,455.9	6,454.9	20.8	2.1	-74.37	-1,917.3	-7,114.8	6,962.4	6,939.5	22.83	304.912		
7,086.5	6,645.0	6,458.5	6,457.5	21.5	2.1	-85.27	-1,917.4	-7,114.9	6,927.1	6,903.5	23.51	294.686		
7,100.0	6,645.0	6,458.9	6,458.0	21.8	2.1	-85.28	-1,917.4	-7,114.9	6,914.0	6,890.3	23.77	290.854		
7,185.0	6,644.9	6,461.6	6,460.6	23.6	2.1	-85.37	-1,917.4	-7,115.0	6,831.8	6,806.3	25.53	267.644		
7,200.0	6,644.8	6,462.1	6,461.1	23.9	2.1	-85.38	-1,917.4	-7,115.0	6,817.4	6,791.5	25.83	263.883		
7,283.4	6,644.7	6,464.7	6,463.7	25.7	2.1	-85.46	-1,917.4	-7,115.0	6,736.8	6,709.1	27.67	243.451		
7,300.0	6,644.7	6,465.2	6,464.2	26.1	2.1	-85.48	-1,917.4	-7,115.0	6,720.8	6,692.8	28.04	239.717		
7,381.9	6,644.6	6,467.7	6,466.7	28.0	2.1	-85.56	-1,917.4	-7,115.1	6,641.8	6,611.9	29.93	221.938		
7,400.0	6,644.6	6,468.2	6,467.2	28.4	2.1	-85.58	-1,917.4	-7,115.1	6,624.3	6,594.0	30.34	218.301		
7,480.3	6,644.5	6,470.6	6,469.6	30.3	2.1	-85.66	-1,917.4	-7,115.1	6,546.9	6,514.7	32.27	202.910		
7,500.0	6,644.4	6,471.2	6,470.2	30.8	2.1	-85.68	-1,917.4	-7,115.2	6,528.0	6,495.2	32.74	199.410		
7,578.7	6,644.3	6,473.6	6,472.6	32.7	2.1	-85.75	-1,917.4	-7,115.2	6,452.2	6,417.5	34.67	186.100		
7,600.0	6,644.3	6,474.2	6,473.2	33.3	2.1	-85.77	-1,917.4	-7,115.2	6,431.7	6,396.5	35.19	182.755		
7,677.1	6,644.2	6,476.4	6,475.5	35.2	2.1	-85.85	-1,917.4	-7,115.3	6,357.5	6,320.4	37.13	171.231		
7,700.0	6,644.1	6,477.1	6,476.1	35.8	2.1	-85.87	-1,917.4	-7,115.3	6,335.6	6,297.9	37.70	168.045		
7,775.6	6,644.0	6,479.3	6,478.3	37.7	2.1	-85.94	-1,917.4	-7,115.3	6,263.0	6,223.4	39.63	158.041		
7,800.0	6,644.0	6,480.0	6,479.0	38.3	2.1	-85.96	-1,917.5	-7,115.3	6,239.6	6,199.3	40.25	155.013		
7,874.0	6,643.9	6,482.1	6,481.1	40.2	2.1	-86.03	-1,917.5	-7,115.4	6,168.6	6,126.4	42.16	146.299		
7,900.0	6,643.9	6,482.9	6,481.9	40.9	2.1	-86.05	-1,917.5	-7,115.4	6,143.7	6,100.8	42.84	143.422		
7,972.4	6,643.8	6,484.9	6,483.9	42.8	2.1	-86.12	-1,917.5	-7,115.4	6,074.3	6,029.6	44.73	135.805		
8,000.0	6,643.7	6,485.7	6,484.7	43.5	2.1	-86.14	-1,917.5	-7,115.5	6,047.9	6,002.5	45.45	133.072		
8,070.8	6,643.6	6,487.7	6,486.7	45.4	2.1	-86.21	-1,917.5	-7,115.5	5,980.2	5,932.8	47.32	126.388		
8,100.0	6,643.6	6,488.5	6,487.5	46.2	2.1	-86.23	-1,917.5	-7,115.5	5,952.3	5,904.2	48.08	123.789		
8,169.3	6,643.5	6,490.4	6,489.4	48.0	2.1	-86.30	-1,917.5	-7,115.6	5,886.1	5,836.2	49.92	117.903		
8,200.0	6,643.5	6,491.2	6,490.2	48.8	2.1	-86.32	-1,917.5	-7,115.6	5,856.8	5,806.1	50.74	115.429		
8,267.7	6,643.4	6,493.1	6,492.1	50.6	2.1	-86.38	-1,917.5	-7,115.6	5,792.3	5,739.7	52.55	110.228		
8,300.0	6,643.3	6,493.9	6,493.0	51.5	2.1	-86.41	-1,917.5	-7,115.6	5,761.5	5,708.1	53.41	107.870		
8,366.1	6,643.2	6,495.7	6,494.7	53.3	2.1	-86.47	-1,917.5	-7,115.7	5,698.6	5,643.4	55.19	103.258		
8,400.0	6,643.2	6,496.6	6,495.6	54.2	2.1	-86.50	-1,917.5	-7,115.7	5,666.3	5,610.2	56.10	101.009		
8,464.5	6,643.1	6,498.3	6,497.3	55.9	2.1	-86.55	-1,917.5	-7,115.7	5,605.0	5,547.2	57.84	96.907		
8,500.0	6,643.1	6,499.3	6,498.3	56.9	2.1	-86.58	-1,917.5	-7,115.7	5,571.3	5,512.5	58.80	94.758		
8,563.0	6,643.0	6,500.9	6,499.9	58.6	2.1	-86.63	-1,917.5	-7,115.8	5,511.6	5,451.1	60.50	91.099		
8,600.0	6,642.9	6,501.8	6,500.8	59.6	2.1	-86.66	-1,917.5	-7,115.8	5,476.5	5,415.0	61.50	89.043		
8,661.4	6,642.8	6,503.3	6,502.3	61.3	2.1	-86.71	-1,917.5	-7,115.8	5,418.4	5,355.2	63.17	85.771		
8,700.0	6,642.8	6,504.2	6,503.2	62.3	2.1	-86.74	-1,917.5	-7,115.8	5,381.9	5,317.7	64.22	83.801		
8,759.8	6,642.7	6,505.6	6,504.6	64.0	2.1	-86.79	-1,917.5	-7,115.9	5,325.4	5,259.5	65.85	80.868		
8,800.0	6,642.7	6,506.5	6,505.6	65.1	2.1	-86.82	-1,917.6	-7,115.9	5,287.5	5,220.5	66.95	78.978		
8,858.2	6,642.6	6,507.9	6,506.9	66.6	2.1	-86.86	-1,917.6	-7,115.9	5,232.6	5,164.0	68.54	76.343		
8,900.0	6,642.5	6,508.9	6,507.9	67.8	2.1	-86.89	-1,917.6	-7,115.9	5,193.2	5,123.6	69.68	74.529		
8,956.7	6,642.4	6,510.2	6,509.2	69.3	2.1	-86.94	-1,917.6	-7,115.9	5,139.9	5,068.7	71.23	72.156		
9,000.0	6,642.4	6,511.1	6,510.1	70.5	2.1	-86.97	-1,917.6	-7,116.0	5,099.2	5,026.8	72.42	70.411		
9,055.1	6,642.3	6,512.4	6,511.4	72.0	2.1	-87.01	-1,917.6	-7,116.0	5,047.5	4,973.6	73.93	68.272		
9,100.0	6,642.3	6,513.4	6,512.4	73.3	2.1	-87.04	-1,917.6	-7,116.0	5,005.5	4,930.3	75.17	66.592		
9,153.5	6,642.2	6,514.5	6,513.5	74.7	2.1	-87.08	-1,917.6	-7,116.0	4,955.4	4,878.7	76.64	64.660		
9,200.0	6,642.1	6,515.5	6,514.6	76.0	2.1	-87.11	-1,917.6	-7,116.0	4,911.9	4,834.0	77.92	63.042		
9,251.9	6,642.1	6,516.7	6,515.7	77.5	2.1	-87.15	-1,917.6	-7,116.1	4,863.4	4,784.1	79.35	61.294		
9,300.0	6,642.0	6,517.7	6,516.7	78.8	2.1	-87.18	-1,917.6	-7,116.1	4,818.7	4,738.0	80.67	59.733		
9,350.4	6,641.9	6,518.8	6,517.8	80.2	2.1	-87.21	-1,917.6	-7,116.1	4,771.8	4,689.7	82.06	58.150		
9,400.0	6,641.9	6,519.8	6,518.8	81.5	2.1	-87.25	-1,917.6	-7,116.1	4,725.7	4,642.2	83.43	56.643		
9,448.8	6,641.8	6,520.8	6,519.8	82.9	2.1	-87.28	-1,917.6	-7,116.1	4,680.4	4,595.6	84.78	55.209		
9,500.0	6,641.7	6,521.9	6,520.9	84.3	2.1	-87.31	-1,917.6	-7,116.2	4,633.0	4,546.8	86.19	53.753		

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

Anticollision Report



Company:	PDC ENERGY	Local Co-ordinate Reference:	Well WACKER 10G-214
Project:	WELD COUNTY, COLORADO	TVD Reference:	KB-EST @ 4624.0usft (Original Well Elev)
Reference Site:	SW NW SEC. 10 T5N R64W 6th P.M.	MD Reference:	KB-EST @ 4624.0usft (Original Well Elev)
Site Error:	0.0 usft	North Reference:	True
Reference Well:	WACKER 10G-214	Survey Calculation Method:	Minimum Curvature
Well Error:	0.0 usft	Output errors are at	2.00 sigma
Reference Wellbore	ORIGINAL WELLBORE	Database:	EDM 5000.1 Single User Db
Reference Design:	PROPOSAL #1	Offset TVD Reference:	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	6,641.7	6,522.8	6,521.8	85.6	2.1	-87.35	-1,917.6	-7,116.2	4,589.3	4,501.8	87.50	52.451	
9,600.0	6,641.6	6,523.9	6,522.9	87.1	2.1	-87.38	-1,917.6	-7,116.2	4,540.6	4,451.6	88.96	51.043	
9,645.6	6,641.5	6,524.8	6,523.8	88.3	2.1	-87.41	-1,917.6	-7,116.2	4,498.5	4,408.3	90.22	49.862	
9,700.0	6,641.5	6,525.9	6,524.9	89.8	2.1	-87.44	-1,917.6	-7,116.2	4,448.5	4,356.8	91.72	48.499	
9,744.1	6,641.4	6,526.8	6,525.8	91.0	2.1	-87.47	-1,917.7	-7,116.3	4,408.0	4,315.1	92.95	47.426	
9,800.0	6,641.3	6,527.8	6,526.8	92.6	2.1	-87.51	-1,917.7	-7,116.3	4,356.8	4,262.3	94.50	46.106	
9,842.5	6,641.3	6,528.7	6,527.7	93.8	2.1	-87.53	-1,917.7	-7,116.3	4,317.9	4,222.2	95.67	45.131	
9,900.0	6,641.2	6,529.8	6,528.8	95.4	2.1	-87.57	-1,917.7	-7,116.3	4,265.4	4,168.2	97.27	43.852	
9,940.9	6,641.1	6,530.5	6,529.5	96.5	2.1	-87.60	-1,917.7	-7,116.3	4,228.2	4,129.8	98.41	42.967	
10,000.0	6,641.1	6,531.7	6,530.7	98.1	2.1	-87.63	-1,917.7	-7,116.3	4,174.5	4,074.4	100.05	41.726	
10,039.3	6,641.0	6,532.4	6,531.4	99.2	2.1	-87.66	-1,917.7	-7,116.4	4,138.8	4,037.7	101.14	40.922	
10,100.0	6,640.9	6,533.5	6,532.5	100.9	2.1	-87.69	-1,917.7	-7,116.4	4,084.0	3,981.1	102.82	39.718	
10,137.8	6,640.9	6,534.2	6,533.2	102.0	2.1	-87.71	-1,917.7	-7,116.4	4,049.9	3,946.0	103.87	38.989	
10,200.0	6,640.8	6,535.3	6,534.3	103.7	2.1	-87.75	-1,917.7	-7,116.4	3,993.9	3,888.3	105.60	37.820	
10,236.2	6,640.8	6,536.0	6,535.0	104.7	2.1	-87.77	-1,917.7	-7,116.4	3,961.4	3,854.8	106.61	37.158	
10,300.0	6,640.7	6,537.1	6,536.1	106.5	2.1	-87.81	-1,917.7	-7,116.4	3,904.3	3,795.9	108.38	36.023	
10,334.6	6,640.6	6,537.7	6,536.7	107.4	2.1	-87.83	-1,917.7	-7,116.4	3,873.4	3,764.0	109.35	35.422	
10,400.0	6,640.6	6,538.9	6,537.9	109.3	2.1	-87.87	-1,917.7	-7,116.5	3,815.2	3,704.0	111.17	34.319	
10,433.0	6,640.5	6,539.5	6,538.5	110.2	2.1	-87.88	-1,917.7	-7,116.5	3,785.9	3,673.8	112.09	33.776	
10,500.0	6,640.4	6,540.6	6,539.6	112.0	2.1	-87.92	-1,917.7	-7,116.5	3,726.7	3,612.7	113.95	32.704	
10,531.5	6,640.4	6,541.2	6,540.2	112.9	2.1	-87.94	-1,917.7	-7,116.5	3,699.0	3,584.1	114.83	32.212	
10,600.0	6,640.3	6,542.3	6,541.3	114.8	2.1	-87.98	-1,917.8	-7,116.5	3,638.8	3,522.0	116.74	31.170	
10,629.9	6,640.3	6,542.8	6,541.8	115.7	2.1	-87.99	-1,917.8	-7,116.5	3,612.6	3,495.0	117.57	30.726	
10,700.0	6,640.2	6,544.0	6,543.0	117.6	2.1	-88.03	-1,917.8	-7,116.6	3,551.5	3,431.9	119.53	29.713	
10,728.3	6,640.1	6,544.5	6,543.5	118.4	2.1	-88.05	-1,917.8	-7,116.6	3,526.9	3,406.6	120.32	29.313	
10,800.0	6,640.0	6,545.7	6,544.7	120.4	2.1	-88.09	-1,917.8	-7,116.6	3,464.9	3,342.5	122.32	28.327	
10,826.7	6,640.0	6,546.1	6,545.1	121.2	2.1	-88.10	-1,917.8	-7,116.6	3,441.8	3,318.8	123.06	27.968	
10,900.0	6,639.9	6,547.3	6,546.3	123.2	2.1	-88.14	-1,917.8	-7,116.6	3,379.0	3,253.9	125.11	27.009	
10,925.2	6,639.9	6,547.7	6,546.7	123.9	2.1	-88.15	-1,917.8	-7,116.6	3,357.5	3,231.7	125.81	26.688	
11,000.0	6,639.8	6,548.9	6,547.9	126.0	2.1	-88.19	-1,917.8	-7,116.6	3,293.9	3,166.0	127.90	25.755	
11,023.6	6,639.8	6,549.2	6,548.2	126.6	2.1	-88.20	-1,917.8	-7,116.6	3,274.0	3,145.4	128.56	25.467	
11,100.0	6,639.7	6,550.4	6,549.4	128.8	2.1	-88.24	-1,917.8	-7,116.7	3,209.7	3,079.0	130.69	24.560	
11,122.0	6,639.6	6,550.8	6,549.8	129.4	2.1	-88.25	-1,917.8	-7,116.7	3,191.3	3,060.0	131.30	24.305	
11,200.0	6,639.5	6,552.0	6,551.0	131.6	2.1	-88.29	-1,917.8	-7,116.7	3,126.4	2,993.0	133.48	23.422	
11,220.4	6,639.5	6,552.3	6,551.3	132.1	2.1	-88.30	-1,917.8	-7,116.7	3,109.5	2,975.5	134.05	23.196	
11,300.0	6,639.4	6,553.5	6,552.5	134.4	2.1	-88.34	-1,917.8	-7,116.7	3,044.2	2,907.9	136.27	22.338	
11,318.9	6,639.4	6,553.8	6,552.8	134.9	2.1	-88.35	-1,917.8	-7,116.7	3,028.8	2,892.0	136.80	22.140	
11,400.0	6,639.3	6,555.0	6,554.0	137.1	2.1	-88.39	-1,917.9	-7,116.7	2,963.0	2,823.9	139.07	21.306	
11,417.3	6,639.3	6,555.3	6,554.3	137.6	2.1	-88.40	-1,917.9	-7,116.7	2,949.1	2,809.5	139.55	21.132	
11,500.0	6,639.2	6,556.5	6,555.5	139.9	2.1	-88.44	-1,917.9	-7,116.8	2,883.0	2,741.1	141.86	20.322	
11,515.7	6,639.1	6,556.7	6,555.7	140.4	2.1	-88.45	-1,917.9	-7,116.8	2,870.5	2,728.2	142.30	20.172	
11,600.0	6,639.0	6,557.9	6,556.9	142.7	2.1	-88.48	-1,917.9	-7,116.8	2,804.3	2,659.6	144.66	19.385	
11,614.1	6,639.0	6,558.1	6,557.1	143.1	2.1	-88.49	-1,917.9	-7,116.8	2,793.2	2,648.2	145.06	19.256	
11,700.0	6,638.9	6,559.4	6,558.4	145.5	2.1	-88.53	-1,917.9	-7,116.8	2,726.9	2,579.5	147.46	18.493	
11,712.6	6,638.9	6,559.6	6,558.6	145.9	2.1	-88.54	-1,917.9	-7,116.8	2,717.3	2,569.5	147.81	18.384	
11,800.0	6,638.8	6,560.8	6,559.8	148.3	2.1	-88.58	-1,917.9	-7,116.8	2,651.1	2,500.9	150.25	17.644	
11,811.0	6,638.8	6,560.9	6,559.9	148.6	2.1	-88.58	-1,917.9	-7,116.8	2,642.9	2,492.3	150.56	17.553	
11,900.0	6,638.7	6,562.2	6,561.2	151.1	2.1	-88.62	-1,917.9	-7,116.8	2,577.0	2,423.9	153.05	16.837	
11,909.4	6,638.6	6,562.3	6,561.3	151.4	2.1	-88.63	-1,917.9	-7,116.8	2,570.1	2,416.8	153.32	16.763	
12,000.0	6,638.5	6,563.5	6,562.5	153.9	2.1	-88.67	-1,917.9	-7,116.9	2,504.6	2,348.8	155.85	16.071	
12,007.8	6,638.5	6,563.6	6,562.6	154.1	2.1	-88.67	-1,917.9	-7,116.9	2,499.0	2,342.9	156.07	16.012	
12,100.0	6,638.4	6,564.9	6,563.9	156.7	2.1	-88.71	-1,917.9	-7,116.9	2,434.2	2,275.6	158.65	15.343	

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

Anticollision Report



Company:	PDC ENERGY	Local Co-ordinate Reference:	Well WACKER 10G-214
Project:	WELD COUNTY, COLORADO	TVD Reference:	KB-EST @ 4624.0usft (Original Well Elev)
Reference Site:	SW NW SEC. 10 T5N R64W 6th P.M.	MD Reference:	KB-EST @ 4624.0usft (Original Well Elev)
Site Error:	0.0 usft	North Reference:	True
Reference Well:	WACKER 10G-214	Survey Calculation Method:	Minimum Curvature
Well Error:	0.0 usft	Output errors are at	2.00 sigma
Reference Wellbore	ORIGINAL WELLBORE	Database:	EDM 5000.1 Single User Db
Reference Design:	PROPOSAL #1	Offset TVD Reference:	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	
12,106.3	6,638.4	6,565.0	6,564.0	156.9	2.1	-88.71	-1,917.9	-7,116.9	2,429.9	2,271.0	158.82	15.299	
12,200.0	6,638.3	6,566.2	6,565.2	159.5	2.1	-88.75	-1,918.0	-7,116.9	2,365.9	2,204.5	161.45	14.654	
12,204.7	6,638.3	6,566.3	6,565.3	159.6	2.1	-88.76	-1,918.0	-7,116.9	2,362.8	2,201.2	161.58	14.623	
12,300.0	6,638.2	6,567.5	6,566.5	162.3	2.1	-88.80	-1,918.0	-7,116.9	2,300.0	2,135.7	164.25	14.003	
12,303.1	6,638.2	6,567.6	6,566.6	162.4	2.1	-88.80	-1,918.0	-7,116.9	2,298.0	2,133.6	164.34	13.983	
12,400.0	6,638.0	6,568.8	6,567.8	165.1	2.1	-88.84	-1,918.0	-7,116.9	2,236.6	2,069.5	167.05	13.389	
12,401.5	6,638.0	6,568.8	6,567.8	165.2	2.1	-88.84	-1,918.0	-7,116.9	2,235.6	2,068.5	167.09	13.379	
12,500.0	6,637.9	6,570.1	6,569.1	167.9	2.1	-88.88	-1,918.0	-7,117.0	2,175.9	2,006.0	169.85	12.811	
12,598.4	6,637.8	6,571.3	6,570.3	170.7	2.1	-88.92	-1,918.0	-7,117.0	2,119.1	1,946.5	172.60	12.277	
12,600.0	6,637.8	6,571.3	6,570.3	170.7	2.1	-88.92	-1,918.0	-7,117.0	2,118.2	1,945.5	172.65	12.269	
12,696.8	6,637.7	6,572.5	6,571.5	173.4	2.1	-88.96	-1,918.0	-7,117.0	2,065.4	1,890.0	175.36	11.778	
12,700.0	6,637.7	6,572.6	6,571.6	173.5	2.1	-88.96	-1,918.0	-7,117.0	2,063.7	1,888.3	175.45	11.762	
12,795.2	6,637.6	6,573.7	6,572.7	176.2	2.1	-89.00	-1,918.0	-7,117.0	2,015.1	1,837.0	178.12	11.313	
12,800.0	6,637.6	6,573.8	6,572.8	176.3	2.1	-89.00	-1,918.0	-7,117.0	2,012.8	1,834.5	178.25	11.292	
12,893.7	6,637.4	6,574.9	6,573.9	178.9	2.1	-89.04	-1,918.0	-7,117.0	1,968.4	1,787.6	180.88	10.883	
12,900.0	6,637.4	6,575.0	6,574.0	179.1	2.1	-89.04	-1,918.0	-7,117.0	1,965.6	1,784.5	181.05	10.856	
12,992.1	6,637.3	6,576.1	6,575.1	181.7	2.1	-89.08	-1,918.1	-7,117.0	1,925.7	1,742.1	183.64	10.487	
13,000.0	6,637.3	6,576.2	6,575.2	181.9	2.1	-89.08	-1,918.1	-7,117.0	1,922.4	1,738.6	183.86	10.456	
13,090.5	6,637.2	6,577.2	6,576.2	184.4	2.1	-89.11	-1,918.1	-7,117.1	1,887.1	1,700.7	186.39	10.124	
13,100.0	6,637.2	6,577.4	6,576.4	184.7	2.1	-89.12	-1,918.1	-7,117.1	1,883.6	1,697.0	186.66	10.091	
13,188.9	6,637.1	6,578.4	6,577.4	187.2	2.1	-89.15	-1,918.1	-7,117.1	1,852.9	1,663.8	189.15	9.796	
13,200.0	6,637.1	6,578.5	6,577.5	187.5	2.1	-89.15	-1,918.1	-7,117.1	1,849.4	1,659.9	189.46	9.761	
13,287.4	6,637.0	6,579.5	6,578.5	190.0	2.1	-89.19	-1,918.1	-7,117.1	1,823.5	1,631.6	191.91	9.502	
13,300.0	6,637.0	6,579.6	6,578.6	190.3	2.1	-89.19	-1,918.1	-7,117.1	1,820.0	1,627.8	192.26	9.466	
13,385.8	6,636.9	6,580.6	6,579.6	192.7	2.1	-89.22	-1,918.1	-7,117.1	1,798.9	1,604.2	194.67	9.241	
13,400.0	6,636.8	6,580.8	6,579.8	193.1	2.1	-89.23	-1,918.1	-7,117.1	1,795.8	1,600.7	195.07	9.206	
13,484.2	6,636.7	6,581.7	6,580.7	195.5	2.1	-89.26	-1,918.1	-7,117.1	1,779.4	1,582.0	197.43	9.013	
13,500.0	6,636.7	6,581.9	6,580.9	195.9	2.1	-89.26	-1,918.1	-7,117.1	1,776.8	1,578.9	197.87	8.980	
13,582.6	6,636.6	6,582.8	6,581.8	198.2	2.1	-89.29	-1,918.1	-7,117.1	1,765.2	1,565.1	200.19	8.818	
13,600.0	6,636.6	6,583.0	6,582.0	198.7	2.1	-89.30	-1,918.1	-7,117.1	1,763.3	1,562.6	200.68	8.787	
13,681.1	6,636.5	6,583.9	6,582.8	201.0	2.2	-89.33	-1,918.1	-7,117.2	1,756.5	1,553.5	202.95	8.655	
13,700.0	6,636.5	6,584.1	6,583.0	201.5	2.2	-89.34	-1,918.1	-7,117.2	1,755.4	1,551.9	203.48	8.627	
13,779.5	6,636.4	6,584.9	6,583.9	203.7	2.2	-89.36	-1,918.1	-7,117.2	1,753.2	1,547.5	205.71	8.523	
13,788.8	6,636.4	6,585.0	6,584.0	204.0	2.2	-89.37	-1,918.1	-7,117.2	1,753.2	1,547.2	205.97	8.512 CC	
13,800.0	6,636.4	6,585.1	6,584.1	204.3	2.2	-89.37	-1,918.1	-7,117.2	1,753.2	1,546.9	206.28	8.499 ES	
13,877.9	6,636.3	6,585.9	6,584.9	206.5	2.2	-89.40	-1,918.2	-7,117.2	1,755.4	1,547.0	208.47	8.421	
13,900.0	6,636.3	6,586.2	6,585.2	207.1	2.2	-89.40	-1,918.2	-7,117.2	1,756.7	1,547.6	209.09	8.402	
13,976.3	6,636.2	6,587.0	6,586.0	209.3	2.2	-89.43	-1,918.2	-7,117.2	1,763.2	1,551.9	211.23	8.347	
14,000.0	6,636.1	6,587.2	6,586.2	209.9	2.2	-89.44	-1,918.2	-7,117.2	1,765.8	1,553.9	211.89	8.334	
14,074.8	6,636.0	6,588.0	6,587.0	212.0	2.2	-89.46	-1,918.2	-7,117.2	1,776.3	1,562.3	213.99	8.301	
14,100.0	6,636.0	6,588.2	6,587.2	212.7	2.2	-89.47	-1,918.2	-7,117.2	1,780.6	1,565.9	214.70	8.293	
14,173.2	6,635.9	6,589.0	6,588.0	214.8	2.2	-89.50	-1,918.2	-7,117.2	1,794.8	1,578.1	216.75	8.281	
14,200.0	6,635.9	6,589.2	6,588.2	215.5	2.2	-89.51	-1,918.2	-7,117.2	1,800.7	1,583.2	217.50	8.279 SF	
14,271.6	6,635.8	6,590.0	6,589.0	217.5	2.2	-89.53	-1,918.2	-7,117.2	1,818.4	1,598.9	219.51	8.284	
14,300.0	6,635.8	6,590.2	6,589.2	218.3	2.2	-89.54	-1,918.2	-7,117.2	1,826.2	1,605.8	220.31	8.289	
14,370.0	6,635.7	6,590.9	6,589.9	220.3	2.2	-89.56	-1,918.2	-7,117.2	1,847.0	1,624.7	222.27	8.310	
14,400.0	6,635.7	6,591.2	6,590.2	221.1	2.2	-89.57	-1,918.2	-7,117.2	1,856.6	1,633.5	223.11	8.322	
14,468.5	6,635.6	6,600.0	6,599.0	223.1	2.2	-89.86	-1,918.3	-7,117.4	1,880.3	1,655.3	225.04	8.355	
14,500.0	6,635.6	6,600.0	6,599.0	223.9	2.2	-89.86	-1,918.3	-7,117.4	1,891.9	1,666.0	225.92	8.374	
14,566.9	6,635.5	6,600.0	6,599.0	225.8	2.2	-89.86	-1,918.3	-7,117.4	1,918.1	1,690.3	227.80	8.420	
14,600.0	6,635.4	6,600.0	6,599.0	226.8	2.2	-89.86	-1,918.3	-7,117.4	1,931.7	1,703.0	228.73	8.445	
14,665.3	6,635.4	6,600.0	6,599.0	228.6	2.2	-89.86	-1,918.3	-7,117.4	1,960.0	1,729.5	230.56	8.501	

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

Anticollision Report



Company:	PDC ENERGY	Local Co-ordinate Reference:	Well WACKER 10G-214
Project:	WELD COUNTY, COLORADO	TVD Reference:	KB-EST @ 4624.0usft (Original Well Elev)
Reference Site:	SW NW SEC. 10 T5N R64W 6th P.M.	MD Reference:	KB-EST @ 4624.0usft (Original Well Elev)
Site Error:	0.0 usft	North Reference:	True
Reference Well:	WACKER 10G-214	Survey Calculation Method:	Minimum Curvature
Well Error:	0.0 usft	Output errors are at	2.00 sigma
Reference Wellbore	ORIGINAL WELLBORE	Database:	EDM 5000.1 Single User Db
Reference Design:	PROPOSAL #1	Offset TVD Reference:	Offset Datum

Offset Design SW NW SEC. 10 T5N R64W 6th P.M. - EXIST VERT JURGENS PC #B8-23 - 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	
14,700.0	6,635.3	6,600.0	6,599.0	229.6	2.2	-89.86	-1,918.3	-7,117.4	1,975.8	1,744.3	231.53	8.534	
14,763.7	6,635.2	6,600.0	6,599.0	231.3	2.2	-89.86	-1,918.3	-7,117.4	2,006.0	1,772.7	233.32	8.598	
14,800.0	6,635.2	6,600.0	6,599.0	232.4	2.2	-89.86	-1,918.3	-7,117.4	2,023.8	1,789.5	234.34	8.636	
14,862.2	6,635.1	6,600.0	6,599.0	234.1	2.2	-89.86	-1,918.3	-7,117.4	2,055.6	1,819.5	236.08	8.707	
14,900.0	6,635.1	6,600.0	6,599.0	235.2	2.2	-89.86	-1,918.3	-7,117.4	2,075.6	1,838.5	237.14	8.753	
14,960.6	6,635.0	6,600.0	6,599.0	236.9	2.2	-89.86	-1,918.3	-7,117.4	2,108.7	1,869.8	238.84	8.829	
14,982.9	6,635.0	6,600.0	6,599.0	237.5	2.2	-89.86	-1,918.3	-7,117.4	2,121.1	1,881.7	239.47	8.858	

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Project:	WELD COUNTY, COLORADO	TVD Reference:	KB-EST @ 4624.0usft (Original Well Elev)
Reference Site:	SW NW SEC. 10 T5N R64W 6th P.M.	MD Reference:	KB-EST @ 4624.0usft (Original Well Elev)
Site Error:	0.0 usft	North Reference:	True
Reference Well:	WACKER 10G-214	Survey Calculation Method:	Minimum Curvature
Well Error:	0.0 usft	Output errors are at	2.00 sigma
Reference Wellbore	ORIGINAL WELLBORE	Database:	EDM 5000.1 Single User Db
Reference Design:	PROPOSAL #1	Offset TVD Reference:	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	-98.57	-1,121.7	-7,447.2	7,531.2				
98.4	98.4	87.4	87.4	0.1	0.0	-98.57	-1,121.7	-7,447.2	7,531.2	7,531.1	0.10	N/A	
100.0	100.0	89.0	89.0	0.1	0.0	-98.57	-1,121.7	-7,447.2	7,531.2	7,531.1	0.10	N/A	
196.8	196.8	185.8	185.8	0.3	1.0	-98.57	-1,121.7	-7,447.2	7,531.2	7,529.9	1.31	5,749.666	
200.0	200.0	189.0	189.0	0.3	1.0	-98.57	-1,121.7	-7,447.2	7,531.2	7,529.8	1.35	5,564.585	
295.3	295.3	284.3	284.3	0.5	3.1	-98.57	-1,121.7	-7,447.2	7,531.2	7,527.5	3.63	2,073.509	
300.0	300.0	289.0	289.0	0.5	3.2	-98.57	-1,121.7	-7,447.2	7,531.2	7,527.4	3.75	2,007.607	
393.7	393.7	382.7	382.7	0.8	5.2	-98.57	-1,121.7	-7,447.2	7,531.2	7,525.2	5.93	1,269.133	
400.0	400.0	389.0	389.0	0.8	5.3	-98.57	-1,121.7	-7,447.2	7,531.2	7,525.1	6.08	1,238.833	
492.1	492.1	481.1	481.1	1.0	7.2	-98.57	-1,121.7	-7,447.2	7,531.2	7,523.0	8.17	921.597	
500.0	500.0	489.0	489.0	1.0	7.4	-98.57	-1,121.7	-7,447.2	7,531.2	7,522.8	8.35	901.893	
590.5	590.5	579.5	579.5	1.2	9.2	-98.57	-1,121.7	-7,447.2	7,531.2	7,520.8	10.39	724.656	
600.0	600.0	589.0	589.0	1.2	9.4	-98.57	-1,121.7	-7,447.2	7,531.2	7,520.6	10.61	710.103	
689.0	689.0	678.0	678.0	1.4	11.2	-98.57	-1,121.7	-7,447.2	7,531.2	7,518.6	12.61	597.418	
700.0	700.0	689.0	689.0	1.4	11.4	-98.57	-1,121.7	-7,447.2	7,531.2	7,518.3	12.85	585.901	
787.4	787.4	776.4	776.4	1.6	13.2	-98.57	-1,121.7	-7,447.2	7,531.2	7,516.3	14.82	508.324	
800.0	800.0	789.0	789.0	1.7	13.4	-98.57	-1,121.7	-7,447.2	7,531.2	7,516.1	15.10	498.804	
885.8	885.8	874.8	874.8	1.9	15.2	-98.57	-1,121.7	-7,447.2	7,531.2	7,514.1	17.02	442.416	
900.0	900.0	889.0	889.0	1.9	15.4	-98.57	-1,121.7	-7,447.2	7,531.2	7,513.8	17.34	434.309	
984.2	984.2	973.2	973.2	2.1	17.1	-98.57	-1,121.7	-7,447.2	7,531.2	7,511.9	19.23	391.670	
1,000.0	1,000.0	989.0	989.0	2.1	17.5	-98.57	-1,121.7	-7,447.2	7,531.2	7,511.6	19.58	384.611	
1,082.7	1,082.7	1,071.7	1,071.7	2.3	19.1	-98.57	-1,121.7	-7,447.2	7,531.2	7,509.7	21.43	351.384	
1,100.0	1,100.0	1,089.0	1,089.0	2.3	19.5	-98.57	-1,121.7	-7,447.2	7,531.2	7,509.3	21.82	345.136	
1,181.1	1,181.1	1,170.1	1,170.1	2.5	21.1	-98.57	-1,121.7	-7,447.2	7,531.2	7,507.5	23.64	318.623	
1,200.0	1,200.0	1,189.0	1,189.0	2.6	21.5	-98.57	-1,121.7	-7,447.2	7,531.2	7,507.1	24.06	313.019	
1,279.5	1,279.5	1,268.5	1,268.5	2.7	23.1	-98.57	-1,121.7	-7,447.2	7,531.2	7,505.3	25.84	291.456	
1,300.0	1,300.0	1,289.0	1,289.0	2.8	23.5	-98.57	-1,121.7	-7,447.2	7,531.2	7,504.9	26.30	286.377	
1,377.9	1,377.9	1,366.9	1,366.9	3.0	25.1	142.78	-1,121.7	-7,447.2	7,532.0	7,504.0	28.02	268.811	
1,400.0	1,400.0	1,389.0	1,389.0	3.0	25.5	142.78	-1,121.7	-7,447.2	7,532.6	7,504.1	28.50	264.264	
1,476.4	1,476.3	1,465.3	1,465.3	3.1	27.1	142.76	-1,121.7	-7,447.2	7,535.5	7,505.3	30.16	249.864	
1,500.0	1,499.8	1,488.8	1,488.8	3.2	27.5	142.75	-1,121.7	-7,447.2	7,536.7	7,506.1	30.67	245.767	
1,574.8	1,574.4	1,563.4	1,563.4	3.3	29.0	142.72	-1,121.7	-7,447.2	7,541.7	7,509.4	32.27	233.723	
1,600.0	1,599.5	1,588.5	1,588.5	3.4	29.5	142.71	-1,121.7	-7,447.2	7,543.7	7,510.9	32.80	229.975	
1,673.2	1,672.2	1,661.2	1,661.2	3.6	31.0	142.66	-1,121.7	-7,447.2	7,550.5	7,516.2	34.35	219.820	
1,700.0	1,698.7	1,687.7	1,687.7	3.6	31.5	142.64	-1,121.7	-7,447.2	7,553.4	7,518.5	34.91	216.379	
1,771.6	1,769.5	1,758.5	1,758.5	3.8	33.0	142.59	-1,121.7	-7,447.2	7,562.1	7,525.7	36.40	207.755	
1,800.0	1,797.5	1,786.5	1,786.5	3.9	33.5	142.56	-1,121.7	-7,447.2	7,565.9	7,528.9	36.98	204.584	
1,870.1	1,866.3	1,855.3	1,855.3	4.1	34.9	142.49	-1,121.7	-7,447.2	7,576.3	7,537.8	38.42	197.211	
1,900.2	1,895.8	1,884.8	1,884.8	4.2	35.5	142.46	-1,121.7	-7,447.2	7,581.1	7,542.1	39.03	194.258	
1,968.5	1,962.6	1,951.6	1,951.6	4.4	36.8	142.53	-1,121.7	-7,447.2	7,592.5	7,552.0	40.53	187.338	
2,000.0	1,993.4	1,982.4	1,982.4	4.5	37.5	142.56	-1,121.7	-7,447.2	7,597.8	7,556.5	41.22	184.315	
2,066.9	2,058.9	2,047.9	2,047.9	4.7	38.8	142.62	-1,121.7	-7,447.2	7,608.9	7,566.2	42.70	178.181	
2,100.0	2,091.2	2,080.2	2,080.2	4.8	39.4	142.65	-1,121.7	-7,447.2	7,614.4	7,571.0	43.43	175.307	
2,165.3	2,155.2	2,144.2	2,144.2	5.1	40.7	142.71	-1,121.7	-7,447.2	7,625.3	7,580.4	44.89	169.883	
2,200.0	2,189.1	2,178.1	2,178.1	5.2	41.4	142.74	-1,121.7	-7,447.2	7,631.1	7,585.4	45.66	167.135	
2,263.8	2,251.4	2,240.4	2,240.4	5.5	42.6	142.80	-1,121.7	-7,447.2	7,641.7	7,594.6	47.08	162.309	
2,300.0	2,286.9	2,275.9	2,275.9	5.6	43.4	142.84	-1,121.7	-7,447.2	7,647.8	7,599.9	47.89	159.694	
2,362.2	2,347.7	2,336.7	2,336.7	5.8	44.6	142.90	-1,121.7	-7,447.2	7,658.2	7,608.9	49.28	155.392	
2,400.0	2,384.7	2,373.7	2,373.7	6.0	45.3	142.93	-1,121.7	-7,447.2	7,664.5	7,614.4	50.13	152.894	
2,460.6	2,444.0	2,433.0	2,433.0	6.2	46.5	142.99	-1,121.7	-7,447.2	7,674.6	7,623.2	51.49	149.049	
2,500.0	2,482.5	2,471.5	2,471.5	6.4	47.3	143.02	-1,121.7	-7,447.2	7,681.2	7,628.9	52.37	146.659	
2,559.0	2,540.3	2,529.3	2,529.3	6.6	48.5	143.08	-1,121.7	-7,447.2	7,691.1	7,637.4	53.70	143.215	

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

Anticollision Report



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Reference Site:	SW NW SEC. 10 T5N R64W 6th P.M.	MD Reference:	KB-EST @ 4624.0usft (Original Well Elev)
Site Error:	0.0 usft	North Reference:	True
Reference Well:	WACKER 10G-214	Survey Calculation Method:	Minimum Curvature
Well Error:	0.0 usft	Output errors are at	2.00 sigma
Reference Wellbore	ORIGINAL WELLBORE	Database:	EDM 5000.1 Single User Db
Reference Design:	PROPOSAL #1	Offset TVD Reference:	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	2,580.3	2,569.3	2,569.3	6.8	49.3	143.12	-1,121.7	-7,447.2	7,698.0	7,643.4	54.62	140.925		
2,657.5	2,636.5	2,625.5	2,625.5	7.1	50.4	143.17	-1,121.7	-7,447.2	7,707.6	7,651.7	55.92	137.833		
2,700.0	2,678.1	2,667.1	2,667.1	7.2	51.2	143.21	-1,121.7	-7,447.2	7,714.8	7,657.9	56.88	135.636		
2,755.9	2,732.8	2,721.8	2,721.8	7.5	52.3	143.26	-1,121.7	-7,447.2	7,724.2	7,666.0	58.14	132.853		
2,800.0	2,775.9	2,764.9	2,764.9	7.7	53.2	143.30	-1,121.7	-7,447.2	7,731.6	7,672.4	59.14	130.742		
2,854.3	2,829.1	2,818.1	2,818.1	7.9	54.3	143.35	-1,121.7	-7,447.2	7,740.7	7,680.3	60.36	128.234		
2,900.0	2,873.8	2,862.8	2,862.8	8.1	55.2	143.39	-1,121.7	-7,447.2	7,748.4	7,687.0	61.40	126.203		
2,952.7	2,925.4	2,914.4	2,914.4	8.3	56.2	143.44	-1,121.7	-7,447.2	7,757.3	7,694.7	62.59	123.940		
2,953.5	2,926.1	2,915.1	2,915.1	8.3	56.2	143.44	-1,121.7	-7,447.2	7,757.4	7,694.8	62.61	123.909		
3,000.0	2,971.6	2,960.6	2,960.6	8.5	57.1	143.57	-1,121.7	-7,447.2	7,764.9	7,701.2	63.76	121.778		
3,051.2	3,022.0	3,011.0	3,011.0	8.7	58.1	143.70	-1,121.7	-7,447.2	7,772.5	7,707.5	65.01	119.552		
3,100.0	3,070.1	3,059.1	3,059.1	8.8	59.1	143.82	-1,121.7	-7,447.2	7,779.1	7,712.9	66.20	117.504		
3,149.6	3,119.1	3,108.1	3,108.1	8.9	60.1	143.92	-1,121.7	-7,447.2	7,785.1	7,717.7	67.40	115.509		
3,200.0	3,169.1	3,158.1	3,158.1	9.1	61.1	144.01	-1,121.7	-7,447.2	7,790.5	7,721.9	68.61	113.553		
3,248.0	3,216.8	3,205.8	3,205.8	9.2	62.1	144.09	-1,121.7	-7,447.2	7,795.0	7,725.2	69.74	111.765		
3,300.0	3,268.5	3,257.5	3,257.5	9.3	63.1	144.16	-1,121.7	-7,447.2	7,799.1	7,728.1	70.97	109.899		
3,346.4	3,314.8	3,303.8	3,303.8	9.4	64.0	144.21	-1,121.7	-7,447.2	7,802.1	7,730.1	72.04	108.301		
3,400.0	3,368.3	3,357.3	3,357.3	9.6	65.1	144.26	-1,121.7	-7,447.2	7,804.8	7,731.6	73.27	106.522		
3,444.9	3,413.1	3,402.1	3,402.1	9.6	66.0	144.29	-1,121.7	-7,447.2	7,806.5	7,732.2	74.28	105.093		
3,500.0	3,468.2	3,457.2	3,457.2	9.7	67.1	144.31	-1,121.7	-7,447.2	7,807.8	7,732.3	75.51	103.400		
3,543.3	3,511.5	3,500.5	3,500.5	9.8	68.0	144.31	-1,121.7	-7,447.2	7,808.2	7,731.7	76.46	102.122		
3,553.7	3,521.9	3,510.9	3,510.9	9.8	68.2	-97.04	-1,121.7	-7,447.2	7,808.2	7,730.8	77.35	100.947		
3,600.0	3,568.2	3,557.2	3,557.2	9.9	69.1	-97.04	-1,121.7	-7,447.2	7,808.2	7,729.8	78.36	99.648		
3,641.7	3,609.9	3,598.9	3,598.9	10.0	70.0	-97.04	-1,121.7	-7,447.2	7,808.2	7,728.9	79.27	98.501		
3,700.0	3,668.2	3,657.2	3,657.2	10.1	71.1	-97.04	-1,121.7	-7,447.2	7,808.2	7,727.6	80.54	96.942		
3,740.1	3,708.4	3,697.4	3,697.4	10.1	72.0	-97.04	-1,121.7	-7,447.2	7,808.2	7,726.8	81.42	95.896		
3,800.0	3,768.2	3,757.2	3,757.2	10.2	73.2	-97.04	-1,121.7	-7,447.2	7,808.2	7,725.4	82.73	94.377		
3,838.6	3,806.8	3,795.8	3,795.8	10.3	73.9	-97.04	-1,121.7	-7,447.2	7,808.2	7,724.6	83.58	93.422		
3,900.0	3,868.2	3,857.2	3,857.2	10.4	75.2	-97.04	-1,121.7	-7,447.2	7,808.2	7,723.3	84.93	91.942		
3,937.0	3,905.2	3,894.2	3,894.2	10.5	75.9	-97.04	-1,121.7	-7,447.2	7,808.2	7,722.4	85.74	91.071		
4,000.0	3,968.2	3,957.2	3,957.2	10.6	77.2	-97.04	-1,121.7	-7,447.2	7,808.2	7,721.1	87.12	89.627		
4,035.4	4,003.6	3,992.6	3,992.6	10.6	77.9	-97.04	-1,121.7	-7,447.2	7,808.2	7,720.3	87.90	88.834		
4,100.0	4,068.2	4,057.2	4,057.2	10.7	79.2	-97.04	-1,121.7	-7,447.2	7,808.2	7,718.9	89.31	87.425		
4,133.8	4,102.1	4,091.1	4,091.1	10.8	79.9	-97.04	-1,121.7	-7,447.2	7,808.2	7,718.1	90.06	86.703		
4,200.0	4,168.2	4,157.2	4,157.2	10.9	81.2	-97.04	-1,121.7	-7,447.2	7,808.2	7,716.7	91.51	85.326		
4,232.3	4,200.5	4,189.5	4,189.5	11.0	81.8	-97.04	-1,121.7	-7,447.2	7,808.2	7,716.0	92.22	84.670		
4,300.0	4,268.2	4,257.2	4,257.2	11.1	83.2	-97.04	-1,121.7	-7,447.2	7,808.2	7,714.5	93.71	83.325		
4,330.7	4,298.9	4,287.9	4,287.9	11.1	83.8	-97.04	-1,121.7	-7,447.2	7,808.2	7,713.8	94.38	82.729		
4,400.0	4,368.2	4,357.2	4,357.2	11.3	85.2	-97.04	-1,121.7	-7,447.2	7,808.2	7,712.3	95.91	81.414		
4,429.1	4,397.3	4,386.3	4,386.3	11.3	85.8	-97.04	-1,121.7	-7,447.2	7,808.2	7,711.6	96.55	80.873		
4,500.0	4,468.2	4,457.2	4,457.2	11.4	87.2	-97.04	-1,121.7	-7,447.2	7,808.2	7,710.1	98.11	79.588		
4,527.5	4,495.8	4,484.8	4,484.8	11.5	87.8	-97.04	-1,121.7	-7,447.2	7,808.2	7,709.5	98.71	79.099		
4,600.0	4,568.2	4,557.2	4,557.2	11.6	89.2	-97.04	-1,121.7	-7,447.2	7,808.2	7,707.9	100.31	77.841		
4,626.0	4,594.2	4,583.2	4,583.2	11.7	89.8	-97.04	-1,121.7	-7,447.2	7,808.2	7,707.3	100.88	77.399		
4,700.0	4,668.2	4,657.2	4,657.2	11.8	91.3	-97.04	-1,121.7	-7,447.2	7,808.2	7,705.7	102.51	76.167		
4,724.4	4,692.6	4,681.6	4,681.6	11.9	91.7	-97.04	-1,121.7	-7,447.2	7,808.2	7,705.1	103.05	75.770		
4,800.0	4,768.2	4,757.2	4,757.2	12.0	93.3	-97.04	-1,121.7	-7,447.2	7,808.2	7,703.5	104.72	74.564		
4,822.8	4,791.0	4,780.0	4,780.0	12.0	93.7	-97.04	-1,121.7	-7,447.2	7,808.2	7,703.0	105.22	74.207		
4,900.0	4,868.2	4,857.2	4,857.2	12.2	95.3	-97.04	-1,121.7	-7,447.2	7,808.2	7,701.3	106.92	73.026		
4,921.2	4,889.5	4,878.5	4,878.5	12.2	95.7	-97.04	-1,121.7	-7,447.2	7,808.2	7,700.8	107.39	72.707		
5,000.0	4,968.2	4,957.2	4,957.2	12.4	97.3	-97.04	-1,121.7	-7,447.2	7,808.2	7,699.1	109.13	71.549		
5,019.7	4,987.9	4,976.9	4,976.9	12.4	97.7	-97.04	-1,121.7	-7,447.2	7,808.2	7,698.6	109.56	71.266		

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

Anticollision Report



Company:	PDC ENERGY	Local Co-ordinate Reference:	Well WACKER 10G-214
Project:	WELD COUNTY, COLORADO	TVD Reference:	KB-EST @ 4624.0usft (Original Well Elev)
Reference Site:	SW NW SEC. 10 T5N R64W 6th P.M.	MD Reference:	KB-EST @ 4624.0usft (Original Well Elev)
Site Error:	0.0 usft	North Reference:	True
Reference Well:	WACKER 10G-214	Survey Calculation Method:	Minimum Curvature
Well Error:	0.0 usft	Output errors are at	2.00 sigma
Reference Wellbore	ORIGINAL WELLBORE	Database:	EDM 5000.1 Single User Db
Reference Design:	PROPOSAL #1	Offset TVD Reference:	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	5,068.2	5,057.2	5,057.2	12.6	99.3	-97.04	-1,121.7	-7,447.2	7,808.2	7,696.8	111.34	70.131	
5,118.1	5,086.3	5,075.3	5,075.3	12.6	99.7	-97.04	-1,121.7	-7,447.2	7,808.2	7,696.4	111.74	69.880	
5,200.0	5,168.2	5,157.2	5,157.2	12.7	101.3	-97.04	-1,121.7	-7,447.2	7,808.2	7,694.6	113.55	68.766	
5,216.5	5,184.7	5,173.7	5,173.7	12.8	101.6	-97.04	-1,121.7	-7,447.2	7,808.2	7,694.3	113.91	68.546	
5,300.0	5,268.2	5,257.2	5,257.2	12.9	103.3	-97.04	-1,121.7	-7,447.2	7,808.2	7,692.4	115.76	67.454	
5,314.9	5,283.2	5,272.2	5,272.2	13.0	103.6	-97.04	-1,121.7	-7,447.2	7,808.2	7,692.1	116.09	67.262	
5,400.0	5,368.2	5,357.2	5,357.2	13.1	105.3	-97.04	-1,121.7	-7,447.2	7,808.2	7,690.2	117.97	66.190	
5,413.4	5,381.6	5,370.6	5,370.6	13.2	105.6	-97.04	-1,121.7	-7,447.2	7,808.2	7,689.9	118.26	66.024	
5,500.0	5,468.2	5,457.2	5,457.2	13.3	107.3	-97.04	-1,121.7	-7,447.2	7,808.2	7,688.0	120.18	64.972	
5,511.8	5,480.0	5,469.0	5,469.0	13.3	107.6	-97.04	-1,121.7	-7,447.2	7,808.2	7,687.7	120.44	64.831	
5,600.0	5,568.2	5,557.2	5,557.2	13.5	109.4	-97.04	-1,121.7	-7,447.2	7,808.2	7,685.8	122.39	63.798	
5,610.2	5,578.4	5,567.4	5,567.4	13.5	109.6	-97.04	-1,121.7	-7,447.2	7,808.2	7,685.6	122.62	63.680	
5,700.0	5,668.2	5,657.2	5,657.2	13.7	111.4	-97.04	-1,121.7	-7,447.2	7,808.2	7,683.6	124.60	62.665	
5,708.6	5,676.9	5,665.9	5,665.9	13.7	111.5	-97.04	-1,121.7	-7,447.2	7,808.2	7,683.4	124.79	62.568	
5,800.0	5,768.2	5,757.2	5,757.2	13.9	113.4	-97.04	-1,121.7	-7,447.2	7,808.2	7,681.4	126.82	61.571	
5,807.1	5,775.3	5,764.3	5,764.3	13.9	113.5	-97.04	-1,121.7	-7,447.2	7,808.2	7,681.2	126.97	61.495	
5,900.0	5,868.2	5,857.2	5,857.2	14.1	115.4	-97.04	-1,121.7	-7,447.2	7,808.2	7,679.2	129.03	60.514	
5,905.5	5,873.7	5,862.7	5,862.7	14.1	115.5	-97.04	-1,121.7	-7,447.2	7,808.2	7,679.0	129.15	60.457	
5,960.7	5,928.9	5,917.9	5,917.9	14.2	116.6	-97.04	-1,121.7	-7,447.2	7,808.2	7,677.8	130.37	59.890	
6,000.0	5,968.2	5,957.2	5,957.2	14.3	117.4	-7.05	-1,121.7	-7,447.2	7,807.1	7,676.6	130.52	59.814	
6,003.9	5,972.1	5,961.1	5,961.1	14.3	117.5	-7.05	-1,121.7	-7,447.2	7,806.9	7,676.3	130.57	59.792	
6,050.0	6,018.0	6,007.0	6,007.0	14.4	118.4	-7.10	-1,121.7	-7,447.2	7,802.7	7,671.9	130.78	59.662	
6,100.0	6,067.3	6,056.3	6,056.3	14.4	119.4	-7.18	-1,121.7	-7,447.2	7,794.8	7,664.4	130.40	59.777	
6,102.3	6,069.6	6,058.6	6,058.6	14.4	119.4	-7.19	-1,121.7	-7,447.2	7,794.3	7,664.0	130.36	59.789	
6,150.0	6,116.0	6,105.0	6,105.0	14.4	120.4	-7.31	-1,121.7	-7,447.2	7,783.5	7,654.1	129.36	60.168	
6,200.0	6,163.8	6,152.8	6,152.8	14.5	121.3	-7.48	-1,121.7	-7,447.2	7,768.9	7,641.2	127.67	60.850	
6,200.8	6,164.5	6,153.5	6,153.5	14.5	121.3	-7.49	-1,121.7	-7,447.2	7,768.6	7,641.0	127.64	60.863	
6,250.0	6,210.4	6,199.4	6,199.4	14.5	122.3	-7.70	-1,121.7	-7,447.2	7,751.0	7,625.6	125.33	61.842	
6,299.2	6,254.9	6,243.9	6,243.9	14.5	123.2	-7.97	-1,121.7	-7,447.2	7,730.3	7,607.8	122.41	63.152	
6,300.0	6,255.6	6,244.6	6,244.6	14.5	123.2	-7.98	-1,121.7	-7,447.2	7,729.9	7,607.5	122.35	63.176	
6,350.0	6,299.3	6,288.3	6,288.3	14.5	124.1	-8.32	-1,121.7	-7,447.2	7,705.7	7,587.0	118.75	64.888	
6,397.6	6,339.2	6,328.2	6,328.2	14.6	124.9	-8.71	-1,121.7	-7,447.2	7,680.0	7,565.2	114.77	66.913	
6,400.0	6,341.2	6,330.2	6,330.2	14.6	124.9	-8.73	-1,121.7	-7,447.2	7,678.6	7,564.0	114.56	67.025	
6,450.0	6,381.0	6,370.0	6,370.0	14.6	125.7	-9.23	-1,121.7	-7,447.2	7,648.7	7,538.8	109.82	69.645	
6,496.0	6,415.8	6,404.8	6,404.8	14.7	126.4	-9.79	-1,121.7	-7,447.2	7,618.7	7,513.7	105.03	72.539	
6,500.0	6,418.7	6,407.7	6,407.7	14.7	126.5	-9.84	-1,121.7	-7,447.2	7,616.0	7,511.4	104.60	72.811	
6,550.0	6,453.9	6,442.9	6,442.9	14.8	127.2	-10.59	-1,121.7	-7,447.2	7,580.9	7,481.9	98.98	76.589	
6,594.5	6,483.1	6,472.1	6,472.1	15.0	127.8	-11.41	-1,121.7	-7,447.2	7,547.6	7,453.8	93.76	80.503	
6,600.0	6,486.6	6,475.6	6,475.6	15.1	127.8	-11.52	-1,121.7	-7,447.2	7,543.3	7,450.3	93.10	81.026	
6,650.0	6,516.6	6,505.6	6,505.6	15.3	128.4	-12.68	-1,121.7	-7,447.2	7,503.7	7,416.5	87.15	86.097	
6,692.9	6,540.0	6,529.0	6,529.0	15.7	128.9	-13.92	-1,121.7	-7,447.2	7,468.0	7,385.8	82.24	90.804	
6,700.0	6,543.7	6,532.7	6,532.7	15.7	129.0	-14.15	-1,121.7	-7,447.2	7,462.0	7,380.5	81.47	91.594	
6,750.0	6,567.8	6,556.8	6,556.8	16.2	129.5	-16.06	-1,121.7	-7,447.2	7,418.6	7,342.0	76.57	96.887	
6,791.3	6,585.4	6,574.4	6,574.4	16.7	129.8	-18.12	-1,121.7	-7,447.2	7,381.5	7,307.8	73.73	100.116	
6,800.0	6,588.8	6,577.8	6,577.8	16.8	129.9	-18.62	-1,121.7	-7,447.2	7,373.6	7,300.3	73.34	100.538	
6,850.0	6,606.6	6,595.6	6,595.6	17.4	130.2	-22.18	-1,121.7	-7,447.2	7,327.3	7,254.1	73.22	100.068	
6,889.7	6,618.4	6,607.4	6,607.4	18.0	130.5	-26.11	-1,121.7	-7,447.2	7,289.7	7,212.9	76.74	94.987	
6,900.0	6,621.1	6,610.1	6,610.1	18.2	130.5	-27.35	-1,121.7	-7,447.2	7,279.9	7,201.5	78.35	92.920	
6,950.0	6,632.2	6,621.2	6,621.2	19.0	130.8	-35.35	-1,121.7	-7,447.2	7,231.5	7,140.2	91.40	79.123	
6,988.2	6,638.4	6,627.4	6,627.4	19.7	130.9	-44.70	-1,121.7	-7,447.2	7,194.2	7,086.0	108.17	66.506	
7,000.0	6,639.9	6,628.9	6,628.9	19.9	130.9	-48.43	-1,121.7	-7,447.2	7,182.6	7,068.0	114.55	62.705	
7,050.0	6,644.1	6,633.1	6,633.1	20.8	131.0	-69.87	-1,121.7	-7,447.2	7,133.2	6,990.3	142.88	49.926	

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

Anticollision Report



Company:	PDC ENERGY	Local Co-ordinate Reference:	Well WACKER 10G-214
Project:	WELD COUNTY, COLORADO	TVD Reference:	KB-EST @ 4624.0usft (Original Well Elev)
Reference Site:	SW NW SEC. 10 T5N R64W 6th P.M.	MD Reference:	KB-EST @ 4624.0usft (Original Well Elev)
Site Error:	0.0 usft	North Reference:	True
Reference Well:	WACKER 10G-214	Survey Calculation Method:	Minimum Curvature
Well Error:	0.0 usft	Output errors are at	2.00 sigma
Reference Wellbore	ORIGINAL WELLBORE	Database:	EDM 5000.1 Single User Db
Reference Design:	PROPOSAL #1	Offset TVD Reference:	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	
7,086.5	6,645.0	6,634.0	6,634.0	21.5	131.0	-90.59	-1,121.7	-7,447.2	7,097.0	6,944.5	152.53	46.528	
7,100.0	6,645.0	6,634.0	6,634.0	21.8	131.0	-90.59	-1,121.7	-7,447.2	7,083.7	6,930.9	152.80	46.360	
7,185.0	6,644.9	6,633.9	6,633.9	23.6	131.0	-90.58	-1,121.7	-7,447.2	6,999.5	6,844.9	154.56	45.288	
7,200.0	6,644.8	6,633.8	6,633.8	23.9	131.0	-90.58	-1,121.7	-7,447.2	6,984.6	6,829.8	154.86	45.101	
7,283.4	6,644.7	6,633.7	6,633.7	25.7	131.0	-90.57	-1,121.7	-7,447.2	6,902.0	6,745.3	156.71	44.044	
7,300.0	6,644.7	6,633.7	6,633.7	26.1	131.0	-90.57	-1,121.7	-7,447.2	6,885.6	6,728.5	157.07	43.838	
7,381.9	6,644.6	6,633.6	6,633.6	28.0	131.0	-90.56	-1,121.7	-7,447.2	6,804.5	6,645.5	158.96	42.806	
7,400.0	6,644.6	6,633.6	6,633.6	28.4	131.0	-90.56	-1,121.7	-7,447.2	6,786.6	6,627.2	159.38	42.580	
7,480.3	6,644.5	6,633.5	6,633.5	30.3	131.0	-90.55	-1,121.7	-7,447.2	6,707.1	6,545.8	161.31	41.580	
7,500.0	6,644.4	6,633.4	6,633.4	30.8	131.0	-90.55	-1,121.7	-7,447.2	6,687.6	6,525.8	161.78	41.338	
7,578.7	6,644.3	6,633.3	6,633.3	32.7	131.0	-90.54	-1,121.7	-7,447.2	6,609.7	6,446.0	163.71	40.373	
7,600.0	6,644.3	6,633.3	6,633.3	33.3	131.0	-90.54	-1,121.7	-7,447.2	6,588.6	6,424.4	164.24	40.116	
7,677.1	6,644.2	6,633.2	6,633.2	35.2	131.0	-90.53	-1,121.7	-7,447.2	6,512.3	6,346.1	166.17	39.189	
7,700.0	6,644.1	6,633.1	6,633.1	35.8	131.0	-90.53	-1,121.7	-7,447.2	6,489.7	6,322.9	166.75	38.919	
7,775.6	6,644.0	6,633.0	6,633.0	37.7	131.0	-90.52	-1,121.7	-7,447.2	6,415.0	6,246.3	168.68	38.031	
7,800.0	6,644.0	6,633.0	6,633.0	38.3	131.0	-90.52	-1,121.7	-7,447.2	6,390.8	6,221.5	169.30	37.748	
7,874.0	6,643.9	6,632.9	6,632.9	40.2	131.0	-90.51	-1,121.7	-7,447.2	6,317.6	6,146.4	171.21	36.899	
7,900.0	6,643.9	6,632.9	6,632.9	40.9	131.0	-90.51	-1,121.7	-7,447.2	6,292.0	6,120.1	171.89	36.605	
7,972.4	6,643.8	6,632.8	6,632.8	42.8	131.0	-90.50	-1,121.7	-7,447.2	6,220.4	6,046.6	173.78	35.794	
8,000.0	6,643.7	6,632.7	6,632.7	43.5	131.0	-90.50	-1,121.7	-7,447.2	6,193.1	6,018.6	174.50	35.490	
8,070.8	6,643.6	6,632.6	6,632.6	45.4	131.0	-90.49	-1,121.7	-7,447.2	6,123.1	5,946.8	176.37	34.718	
8,100.0	6,643.6	6,632.6	6,632.6	46.2	131.0	-90.49	-1,121.7	-7,447.2	6,094.4	5,917.2	177.14	34.405	
8,169.3	6,643.5	6,632.5	6,632.5	48.0	131.0	-90.49	-1,121.7	-7,447.2	6,025.9	5,847.0	178.98	33.669	
8,200.0	6,643.5	6,632.5	6,632.5	48.8	131.0	-90.48	-1,121.7	-7,447.2	5,995.6	5,815.8	179.79	33.347	
8,267.7	6,643.4	6,632.4	6,632.4	50.6	131.0	-90.48	-1,121.7	-7,447.2	5,928.8	5,747.2	181.60	32.647	
8,300.0	6,643.3	6,632.3	6,632.3	51.5	131.0	-90.47	-1,121.7	-7,447.2	5,896.9	5,714.4	182.47	32.318	
8,366.1	6,643.2	6,632.2	6,632.2	53.3	131.0	-90.47	-1,121.7	-7,447.2	5,831.7	5,647.4	184.24	31.652	
8,400.0	6,643.2	6,632.2	6,632.2	54.2	131.0	-90.46	-1,121.7	-7,447.2	5,798.3	5,613.1	185.15	31.316	
8,464.5	6,643.1	6,632.1	6,632.1	55.9	131.0	-90.46	-1,121.7	-7,447.2	5,734.6	5,547.7	186.89	30.684	
8,500.0	6,643.1	6,632.1	6,632.1	56.9	131.0	-90.45	-1,121.7	-7,447.2	5,699.7	5,511.8	187.85	30.342	
8,563.0	6,643.0	6,632.0	6,632.0	58.6	131.0	-90.45	-1,121.7	-7,447.2	5,637.6	5,448.0	189.55	29.741	
8,600.0	6,642.9	6,631.9	6,631.9	59.6	131.0	-90.44	-1,121.7	-7,447.2	5,601.1	5,410.5	190.56	29.393	
8,661.4	6,642.8	6,631.8	6,631.8	61.3	131.0	-90.44	-1,121.7	-7,447.2	5,540.6	5,348.4	192.23	28.823	
8,700.0	6,642.8	6,631.8	6,631.8	62.3	131.0	-90.44	-1,121.7	-7,447.2	5,502.6	5,309.3	193.27	28.470	
8,759.8	6,642.7	6,631.7	6,631.7	64.0	131.0	-90.43	-1,121.7	-7,447.2	5,443.7	5,248.8	194.90	27.930	
8,800.0	6,642.7	6,631.7	6,631.7	65.1	131.0	-90.43	-1,121.7	-7,447.2	5,404.1	5,208.1	196.00	27.572	
8,858.2	6,642.6	6,631.6	6,631.6	66.6	131.0	-90.42	-1,121.7	-7,447.2	5,346.8	5,149.2	197.59	27.060	
8,900.0	6,642.5	6,631.5	6,631.5	67.8	131.0	-90.42	-1,121.7	-7,447.2	5,305.8	5,107.0	198.73	26.698	
8,956.7	6,642.4	6,631.4	6,631.4	69.3	131.0	-90.41	-1,121.7	-7,447.2	5,250.0	5,049.7	200.28	26.213	
9,000.0	6,642.4	6,631.4	6,631.4	70.5	131.0	-90.41	-1,121.7	-7,447.2	5,207.4	5,006.0	201.47	25.847	
9,055.1	6,642.3	6,631.3	6,631.3	72.0	131.0	-90.40	-1,121.7	-7,447.2	5,153.3	4,950.3	202.98	25.388	
9,100.0	6,642.3	6,631.3	6,631.3	73.3	131.0	-90.40	-1,121.7	-7,447.2	5,109.2	4,904.9	204.21	25.019	
9,153.5	6,642.2	6,631.2	6,631.2	74.7	131.0	-90.40	-1,121.7	-7,447.2	5,056.6	4,850.9	205.68	24.584	
9,200.0	6,642.1	6,631.1	6,631.1	76.0	131.0	-90.39	-1,121.7	-7,447.2	5,011.0	4,804.0	206.96	24.212	
9,251.9	6,642.1	6,631.1	6,631.1	77.5	131.0	-90.39	-1,121.7	-7,447.2	4,960.0	4,751.6	208.39	23.802	
9,300.0	6,642.0	6,631.0	6,631.0	78.8	131.0	-90.38	-1,121.7	-7,447.2	4,912.8	4,703.1	209.71	23.427	
9,350.4	6,641.9	6,630.9	6,630.9	80.2	130.9	-90.38	-1,121.7	-7,447.2	4,863.4	4,652.3	211.10	23.039	
9,400.0	6,641.9	6,630.9	6,630.9	81.5	130.9	-90.37	-1,121.7	-7,447.2	4,814.8	4,602.3	212.47	22.661	
9,448.8	6,641.8	6,630.8	6,630.8	82.9	130.9	-90.37	-1,121.7	-7,447.2	4,767.0	4,553.2	213.81	22.295	
9,500.0	6,641.7	6,630.7	6,630.7	84.3	130.9	-90.36	-1,121.7	-7,447.2	4,716.8	4,501.6	215.23	21.916	
9,547.2	6,641.7	6,630.7	6,630.7	85.6	130.9	-90.36	-1,121.7	-7,447.2	4,670.6	4,454.1	216.53	21.570	
9,600.0	6,641.6	6,630.6	6,630.6	87.1	130.9	-90.36	-1,121.7	-7,447.2	4,619.0	4,401.0	217.99	21.189	

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

Anticollision Report



Company:	PDC ENERGY	Local Co-ordinate Reference:	Well WACKER 10G-214
Project:	WELD COUNTY, COLORADO	TVD Reference:	KB-EST @ 4624.0usft (Original Well Elev)
Reference Site:	SW NW SEC. 10 T5N R64W 6th P.M.	MD Reference:	KB-EST @ 4624.0usft (Original Well Elev)
Site Error:	0.0 usft	North Reference:	True
Reference Well:	WACKER 10G-214	Survey Calculation Method:	Minimum Curvature
Well Error:	0.0 usft	Output errors are at	2.00 sigma
Reference Wellbore	ORIGINAL WELLBORE	Database:	EDM 5000.1 Single User Db
Reference Design:	PROPOSAL #1	Offset TVD Reference:	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	
9,645.6	6,641.5	6,630.5	6,630.5	88.3	130.9	-90.35	-1,121.7	-7,447.2	4,574.3	4,355.0	219.25	20.863	
9,700.0	6,641.5	6,630.5	6,630.5	89.8	130.9	-90.35	-1,121.7	-7,447.2	4,521.2	4,300.4	220.75	20.481	
9,744.1	6,641.4	6,630.4	6,630.4	91.0	130.9	-90.34	-1,121.7	-7,447.2	4,478.1	4,256.1	221.97	20.174	
9,800.0	6,641.3	6,630.3	6,630.3	92.6	130.9	-90.34	-1,121.7	-7,447.2	4,423.5	4,200.0	223.52	19.790	
9,842.5	6,641.3	6,630.3	6,630.3	93.8	130.9	-90.33	-1,121.7	-7,447.2	4,382.0	4,157.3	224.70	19.502	
9,900.0	6,641.2	6,630.2	6,630.2	95.4	130.9	-90.33	-1,121.7	-7,447.2	4,325.9	4,099.6	226.29	19.116	
9,940.9	6,641.1	6,630.1	6,630.1	96.5	130.9	-90.33	-1,121.7	-7,447.2	4,286.0	4,058.6	227.43	18.846	
10,000.0	6,641.1	6,630.1	6,630.1	98.1	130.9	-90.32	-1,121.7	-7,447.2	4,228.4	3,999.4	229.07	18.459	
10,039.3	6,641.0	6,630.0	6,630.0	99.2	130.9	-90.32	-1,121.7	-7,447.2	4,190.1	3,960.0	230.16	18.205	
10,100.0	6,640.9	6,629.9	6,629.9	100.9	130.9	-90.31	-1,121.7	-7,447.2	4,131.1	3,899.2	231.84	17.819	
10,137.8	6,640.9	6,629.9	6,629.9	102.0	130.9	-90.31	-1,121.7	-7,447.2	4,094.4	3,861.5	232.89	17.581	
10,200.0	6,640.8	6,629.8	6,629.8	103.7	130.9	-90.30	-1,121.7	-7,447.2	4,033.9	3,799.3	234.62	17.193	
10,236.2	6,640.8	6,629.8	6,629.8	104.7	130.9	-90.30	-1,121.7	-7,447.2	3,998.7	3,763.1	235.62	16.971	
10,300.0	6,640.7	6,629.7	6,629.7	106.5	130.9	-90.30	-1,121.7	-7,447.2	3,936.8	3,699.4	237.39	16.583	
10,334.6	6,640.6	6,629.6	6,629.6	107.4	130.9	-90.29	-1,121.7	-7,447.2	3,903.2	3,664.9	238.36	16.376	
10,400.0	6,640.6	6,629.6	6,629.6	109.3	130.9	-90.29	-1,121.7	-7,447.2	3,839.9	3,599.7	240.17	15.988	
10,433.0	6,640.5	6,629.5	6,629.5	110.2	130.9	-90.28	-1,121.7	-7,447.2	3,807.9	3,566.8	241.09	15.794	
10,500.0	6,640.4	6,629.4	6,629.4	112.0	130.9	-90.28	-1,121.7	-7,447.2	3,743.1	3,500.2	242.96	15.407	
10,531.5	6,640.4	6,629.4	6,629.4	112.9	130.9	-90.28	-1,121.7	-7,447.2	3,712.7	3,468.9	243.83	15.226	
10,600.0	6,640.3	6,629.3	6,629.3	114.8	130.9	-90.27	-1,121.7	-7,447.2	3,646.5	3,400.8	245.74	14.839	
10,629.9	6,640.3	6,629.3	6,629.3	115.7	130.9	-90.27	-1,121.7	-7,447.2	3,617.7	3,371.1	246.57	14.672	
10,700.0	6,640.2	6,629.2	6,629.2	117.6	130.9	-90.26	-1,121.7	-7,447.2	3,550.1	3,301.6	248.52	14.285	
10,728.3	6,640.1	6,629.1	6,629.1	118.4	130.9	-90.26	-1,121.7	-7,447.2	3,522.8	3,273.5	249.31	14.130	
10,800.0	6,640.0	6,629.0	6,629.0	120.4	130.9	-90.25	-1,121.7	-7,447.2	3,453.9	3,202.6	251.31	13.744	
10,826.7	6,640.0	6,629.0	6,629.0	121.2	130.9	-90.25	-1,121.7	-7,447.2	3,428.2	3,176.2	252.05	13.601	
10,900.0	6,639.9	6,628.9	6,628.9	123.2	130.9	-90.25	-1,121.7	-7,447.2	3,357.9	3,103.9	254.09	13.215	
10,925.2	6,639.9	6,628.9	6,628.9	123.9	130.9	-90.24	-1,121.7	-7,447.2	3,333.8	3,079.0	254.79	13.084	
11,000.0	6,639.8	6,628.8	6,628.8	126.0	130.9	-90.24	-1,121.7	-7,447.2	3,262.2	3,005.3	256.88	12.699	
11,023.6	6,639.8	6,628.8	6,628.8	126.6	130.9	-90.23	-1,121.7	-7,447.2	3,239.7	2,982.1	257.54	12.579	
11,100.0	6,639.7	6,628.7	6,628.7	128.8	130.9	-90.23	-1,121.7	-7,447.2	3,166.7	2,907.1	259.67	12.195	
11,122.0	6,639.6	6,628.6	6,628.6	129.4	130.9	-90.23	-1,121.7	-7,447.2	3,145.8	2,885.5	260.28	12.086	
11,200.0	6,639.5	6,628.5	6,628.5	131.6	130.9	-90.22	-1,121.7	-7,447.2	3,071.6	2,809.1	262.46	11.703	
11,220.4	6,639.5	6,628.5	6,628.5	132.1	130.9	-90.22	-1,121.7	-7,447.2	3,052.1	2,789.1	263.03	11.604	
11,300.0	6,639.4	6,628.4	6,628.4	134.4	130.9	-90.21	-1,121.7	-7,447.2	2,976.7	2,711.5	265.25	11.222	
11,318.9	6,639.4	6,628.4	6,628.4	134.9	130.9	-90.21	-1,121.7	-7,447.2	2,958.8	2,693.1	265.77	11.133	
11,400.0	6,639.3	6,628.3	6,628.3	137.1	130.9	-90.20	-1,121.7	-7,447.2	2,882.2	2,614.2	268.04	10.753	
11,417.3	6,639.3	6,628.3	6,628.3	137.6	130.9	-90.20	-1,121.7	-7,447.2	2,865.9	2,597.4	268.52	10.673	
11,500.0	6,639.2	6,628.2	6,628.2	139.9	130.9	-90.20	-1,121.7	-7,447.2	2,788.1	2,517.2	270.83	10.295	
11,515.7	6,639.1	6,628.1	6,628.1	140.4	130.9	-90.20	-1,121.7	-7,447.2	2,773.3	2,502.0	271.27	10.223	
11,600.0	6,639.0	6,628.0	6,628.0	142.7	130.9	-90.19	-1,121.7	-7,447.2	2,694.3	2,420.7	273.62	9.847	
11,614.1	6,639.0	6,628.0	6,628.0	143.1	130.9	-90.19	-1,121.7	-7,447.2	2,681.1	2,407.1	274.01	9.785	
11,700.0	6,638.9	6,627.9	6,627.9	145.5	130.9	-90.18	-1,121.7	-7,447.2	2,601.1	2,324.7	276.41	9.410	
11,712.6	6,638.9	6,627.9	6,627.9	145.9	130.9	-90.18	-1,121.7	-7,447.2	2,589.4	2,312.6	276.76	9.356	
11,800.0	6,638.8	6,627.8	6,627.8	148.3	130.9	-90.17	-1,121.7	-7,447.2	2,508.4	2,229.2	279.20	8.984	
11,811.0	6,638.8	6,627.8	6,627.8	148.6	130.9	-90.17	-1,121.7	-7,447.2	2,498.2	2,218.7	279.51	8.938	
11,900.0	6,638.7	6,627.7	6,627.7	151.1	130.9	-90.16	-1,121.7	-7,447.2	2,416.2	2,134.2	282.00	8.568	
11,909.4	6,638.6	6,627.6	6,627.6	151.4	130.9	-90.16	-1,121.7	-7,447.2	2,407.6	2,125.3	282.26	8.530	
12,000.0	6,638.5	6,627.5	6,627.5	153.9	130.9	-90.16	-1,121.7	-7,447.2	2,324.7	2,040.0	284.79	8.163	
12,007.8	6,638.5	6,627.5	6,627.5	154.1	130.9	-90.16	-1,121.7	-7,447.2	2,317.6	2,032.6	285.01	8.132	
12,100.0	6,638.4	6,627.4	6,627.4	156.7	130.9	-90.15	-1,121.7	-7,447.2	2,234.0	1,946.4	287.59	7.768	
12,106.3	6,638.4	6,627.4	6,627.4	156.9	130.9	-90.15	-1,121.7	-7,447.2	2,228.3	1,940.6	287.76	7.744	
12,200.0	6,638.3	6,627.3	6,627.3	159.5	130.9	-90.14	-1,121.7	-7,447.2	2,144.0	1,853.7	290.38	7.384	

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

Anticollision Report



Company:	PDC ENERGY	Local Co-ordinate Reference:	Well WACKER 10G-214
Project:	WELD COUNTY, COLORADO	TVD Reference:	KB-EST @ 4624.0usft (Original Well Elev)
Reference Site:	SW NW SEC. 10 T5N R64W 6th P.M.	MD Reference:	KB-EST @ 4624.0usft (Original Well Elev)
Site Error:	0.0 usft	North Reference:	True
Reference Well:	WACKER 10G-214	Survey Calculation Method:	Minimum Curvature
Well Error:	0.0 usft	Output errors are at	2.00 sigma
Reference Wellbore	ORIGINAL WELLBORE	Database:	EDM 5000.1 Single User Db
Reference Design:	PROPOSAL #1	Offset TVD Reference:	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	
12,204.7	6,638.3	6,627.3	6,627.3	159.6	130.9	-90.14	-1,121.7	-7,447.2	2,139.8	1,849.3	290.51	7.366	
12,300.0	6,638.2	6,627.2	6,627.2	162.3	130.9	-90.13	-1,121.7	-7,447.2	2,055.0	1,761.9	293.18	7.010	
12,303.1	6,638.2	6,627.2	6,627.2	162.4	130.9	-90.13	-1,121.7	-7,447.2	2,052.3	1,759.0	293.27	6.998	
12,400.0	6,638.0	6,627.0	6,627.0	165.1	130.9	-90.13	-1,121.7	-7,447.2	1,967.1	1,671.1	295.97	6.646	
12,401.5	6,638.0	6,627.0	6,627.0	165.2	130.9	-90.13	-1,121.7	-7,447.2	1,965.7	1,669.7	296.02	6.641	
12,500.0	6,637.9	6,626.9	6,626.9	167.9	130.9	-90.12	-1,121.7	-7,447.2	1,880.3	1,581.6	298.77	6.294	
12,598.4	6,637.8	6,626.8	6,626.8	170.7	130.9	-90.11	-1,121.7	-7,447.2	1,796.3	1,494.8	301.52	5.957	
12,600.0	6,637.8	6,626.8	6,626.8	170.7	130.9	-90.11	-1,121.7	-7,447.2	1,795.0	1,493.4	301.57	5.952	
12,696.8	6,637.7	6,626.7	6,626.7	173.4	130.9	-90.10	-1,121.7	-7,447.2	1,713.8	1,409.5	304.28	5.632	
12,700.0	6,637.7	6,626.7	6,626.7	173.5	130.9	-90.10	-1,121.7	-7,447.2	1,711.2	1,406.8	304.36	5.622	
12,795.2	6,637.6	6,626.6	6,626.6	176.2	130.9	-90.10	-1,121.7	-7,447.2	1,633.1	1,326.0	307.03	5.319	
12,800.0	6,637.6	6,626.6	6,626.6	176.3	130.9	-90.10	-1,121.7	-7,447.2	1,629.2	1,322.1	307.16	5.304	
12,893.7	6,637.4	6,626.4	6,626.4	178.9	130.9	-90.09	-1,121.7	-7,447.2	1,554.4	1,244.6	309.78	5.018	
12,900.0	6,637.4	6,626.4	6,626.4	179.1	130.9	-90.09	-1,121.7	-7,447.2	1,549.4	1,239.4	309.96	4.999	
12,992.1	6,637.3	6,626.3	6,626.3	181.7	130.9	-90.08	-1,121.7	-7,447.2	1,478.0	1,165.5	312.54	4.729	
13,000.0	6,637.3	6,626.3	6,626.3	181.9	130.9	-90.08	-1,121.7	-7,447.2	1,472.0	1,159.3	312.76	4.707	
13,090.5	6,637.2	6,626.2	6,626.2	184.4	130.9	-90.07	-1,121.7	-7,447.2	1,404.4	1,089.1	315.29	4.454	
13,100.0	6,637.2	6,626.2	6,626.2	184.7	130.9	-90.07	-1,121.7	-7,447.2	1,397.5	1,082.0	315.56	4.429	
13,188.9	6,637.1	6,626.1	6,626.1	187.2	130.9	-90.07	-1,121.7	-7,447.2	1,334.1	1,016.0	318.05	4.195	
13,200.0	6,637.1	6,626.1	6,626.1	187.5	130.9	-90.07	-1,121.7	-7,447.2	1,326.4	1,008.0	318.36	4.166	
13,287.4	6,637.0	6,626.0	6,626.0	190.0	130.8	-90.06	-1,121.7	-7,447.2	1,267.4	946.6	320.80	3.951	
13,300.0	6,637.0	6,626.0	6,626.0	190.3	130.8	-90.06	-1,121.7	-7,447.2	1,259.2	938.0	321.16	3.921	
13,385.8	6,636.9	6,625.9	6,625.9	192.7	130.8	-90.05	-1,121.7	-7,447.2	1,205.2	881.6	323.56	3.725	
13,400.0	6,636.8	6,625.8	6,625.8	193.1	130.8	-90.05	-1,121.7	-7,447.2	1,196.6	872.6	323.95	3.694	
13,484.2	6,636.7	6,625.7	6,625.7	195.5	130.8	-90.05	-1,121.7	-7,447.2	1,147.9	821.6	326.31	3.518	
13,500.0	6,636.7	6,625.7	6,625.7	195.9	130.8	-90.04	-1,121.7	-7,447.2	1,139.3	812.5	326.75	3.487	
13,582.6	6,636.6	6,625.6	6,625.6	198.2	130.8	-90.04	-1,121.7	-7,447.2	1,096.6	767.5	329.07	3.332	
13,600.0	6,636.6	6,625.6	6,625.6	198.7	130.8	-90.04	-1,121.7	-7,447.2	1,088.2	758.7	329.55	3.302	
13,681.1	6,636.5	6,625.5	6,625.5	201.0	130.8	-90.03	-1,121.7	-7,447.2	1,052.0	720.2	331.83	3.170	
13,700.0	6,636.5	6,625.5	6,625.5	201.5	130.8	-90.03	-1,121.7	-7,447.2	1,044.3	711.9	332.35	3.142	
13,779.5	6,636.4	6,625.4	6,625.4	203.7	130.8	-90.02	-1,121.7	-7,447.2	1,015.0	680.4	334.58	3.034	
13,800.0	6,636.4	6,625.4	6,625.4	204.3	130.8	-90.02	-1,121.7	-7,447.2	1,008.3	673.2	335.16	3.009	
13,877.9	6,636.3	6,625.3	6,625.3	206.5	130.8	-90.02	-1,121.7	-7,447.2	986.5	649.1	337.34	2.924	
13,900.0	6,636.3	6,625.3	6,625.3	207.1	130.8	-90.02	-1,121.7	-7,447.2	981.3	643.3	337.96	2.904	
13,976.3	6,636.2	6,625.2	6,625.2	209.3	130.8	-90.01	-1,121.7	-7,447.2	967.1	627.1	340.09	2.844	
14,000.0	6,636.1	6,625.1	6,625.1	209.9	130.8	-90.01	-1,121.7	-7,447.2	963.9	623.2	340.76	2.829	
14,074.8	6,636.0	6,625.0	6,625.0	212.0	130.8	-90.00	-1,121.7	-7,447.2	957.6	614.8	342.85	2.793	
14,100.0	6,636.0	6,625.0	6,625.0	212.7	130.8	-90.00	-1,121.7	-7,447.2	956.8	613.2	343.56	2.785	
14,118.8	6,636.0	6,625.0	6,625.0	213.3	130.8	-90.00	-1,121.7	-7,447.2	956.6	612.5	344.09	2.780 CC, ES	
14,173.2	6,635.9	6,624.9	6,624.9	214.8	130.8	-90.00	-1,121.7	-7,447.2	958.1	612.5	345.61	2.772	
14,200.0	6,635.9	6,624.9	6,624.9	215.5	130.8	-89.99	-1,121.7	-7,447.2	960.0	613.7	346.36	2.772 SF	
14,271.6	6,635.8	6,624.8	6,624.8	217.5	130.8	-89.99	-1,121.7	-7,447.2	968.7	620.4	348.37	2.781	
14,300.0	6,635.8	6,624.8	6,624.8	218.3	130.8	-89.99	-1,121.7	-7,447.2	973.6	624.4	349.16	2.788	
14,370.0	6,635.7	6,624.7	6,624.7	220.3	130.8	-89.98	-1,121.7	-7,447.2	989.0	637.9	351.12	2.817	
14,400.0	6,635.7	6,624.7	6,624.7	221.1	130.8	-89.98	-1,121.7	-7,447.2	997.1	645.1	351.96	2.833	
14,468.5	6,635.6	6,624.6	6,624.6	223.1	130.8	-89.98	-1,121.7	-7,447.2	1,018.5	664.6	353.88	2.878	
14,500.0	6,635.6	6,624.6	6,624.6	223.9	130.8	-89.97	-1,121.7	-7,447.2	1,029.8	675.0	354.76	2.903	
14,566.9	6,635.5	6,624.5	6,624.5	225.8	130.8	-89.97	-1,121.7	-7,447.2	1,056.3	699.7	356.64	2.962	
14,600.0	6,635.4	6,624.4	6,624.4	226.8	130.8	-89.97	-1,121.7	-7,447.2	1,070.8	713.2	357.57	2.995	
14,665.3	6,635.4	6,624.4	6,624.4	228.6	130.8	-89.96	-1,121.7	-7,447.2	1,101.7	742.3	359.40	3.065	
14,700.0	6,635.3	6,624.3	6,624.3	229.6	130.8	-89.96	-1,121.7	-7,447.2	1,119.3	758.9	360.37	3.106	
14,763.7	6,635.2	6,624.2	6,624.2	231.3	130.8	-89.96	-1,121.7	-7,447.2	1,153.7	791.5	362.16	3.186	

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

Anticollision Report



Company:	PDC ENERGY	Local Co-ordinate Reference:	Well WACKER 10G-214
Project:	WELD COUNTY, COLORADO	TVD Reference:	KB-EST @ 4624.0usft (Original Well Elev)
Reference Site:	SW NW SEC. 10 T5N R64W 6th P.M.	MD Reference:	KB-EST @ 4624.0usft (Original Well Elev)
Site Error:	0.0 usft	North Reference:	True
Reference Well:	WACKER 10G-214	Survey Calculation Method:	Minimum Curvature
Well Error:	0.0 usft	Output errors are at	2.00 sigma
Reference Wellbore	ORIGINAL WELLBORE	Database:	EDM 5000.1 Single User Db
Reference Design:	PROPOSAL #1	Offset TVD Reference:	Offset Datum

Offset Design SW NW SEC. 10 T5N R64W 6th P.M. - EXIST VERT JURGENS PM B #B8-10 - Wellbore #1 - Design #												Offset Site Error:	0.0 usft
Survey Program: 0-INC												Offset Well Error:	0.0 usft
Reference	Offset	Semi Major Axis		Distance									
Measured Depth (usft)	Vertical Depth (usft)	Measured Depth (usft)	Vertical Depth (usft)	Reference (usft)	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
14,800.0	6,635.2	6,624.2	6,624.2	232.4	130.8	-89.95	-1,121.7	-7,447.2	1,174.4	811.2	363.17	3.234	
14,862.2	6,635.1	6,624.1	6,624.1	234.1	130.8	-89.95	-1,121.7	-7,447.2	1,211.5	846.6	364.91	3.320	
14,900.0	6,635.1	6,624.1	6,624.1	235.2	130.8	-89.95	-1,121.7	-7,447.2	1,235.0	869.1	365.97	3.375	
14,960.6	6,635.0	6,624.0	6,624.0	236.9	130.8	-89.94	-1,121.7	-7,447.2	1,274.2	906.6	367.67	3.466	
14,982.9	6,635.0	6,624.0	6,624.0	237.5	130.8	-89.94	-1,121.7	-7,447.2	1,289.1	920.8	368.30	3.500	

Anticollision Report



Company:	PDC ENERGY	Local Co-ordinate Reference:	Well WACKER 10G-214
Project:	WELD COUNTY, COLORADO	TVD Reference:	KB-EST @ 4624.0usft (Original Well Elev)
Reference Site:	SW NW SEC. 10 T5N R64W 6th P.M.	MD Reference:	KB-EST @ 4624.0usft (Original Well Elev)
Site Error:	0.0 usft	North Reference:	True
Reference Well:	WACKER 10G-214	Survey Calculation Method:	Minimum Curvature
Well Error:	0.0 usft	Output errors are at	2.00 sigma
Reference Wellbore	ORIGINAL WELLBORE	Database:	EDM 5000.1 Single User Db
Reference Design:	PROPOSAL #1	Offset TVD Reference:	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	-85.99	491.0	-7,001.2	7,018.4				
98.4	98.4	34.1	34.1	0.1	0.0	-85.99	490.9	-7,001.2	7,018.5	7,018.4	0.10	N/A	
100.0	100.0	35.0	35.0	0.1	0.0	-85.99	490.9	-7,001.2	7,018.5	7,018.4	0.10	N/A	
196.8	196.8	100.0	100.0	0.3	0.0	-85.99	490.6	-7,001.8	7,019.3	7,018.9	0.33	N/A	
200.0	200.0	100.0	100.0	0.3	0.0	-85.99	490.6	-7,001.8	7,019.3	7,019.0	0.33	N/A	
295.3	295.3	183.5	183.5	0.5	0.2	-86.00	490.0	-7,002.8	7,020.4	7,019.7	0.72	9,816.962	
300.0	300.0	188.9	188.9	0.5	0.2	-86.00	490.0	-7,002.9	7,020.5	7,019.7	0.74	9,538.355	
393.7	393.7	277.1	277.1	0.8	0.3	-86.00	489.7	-7,003.9	7,021.5	7,020.5	1.03	6,808.837	
400.0	400.0	282.9	282.9	0.8	0.3	-86.00	489.7	-7,004.0	7,021.6	7,020.5	1.05	6,686.143	
492.1	492.1	373.1	373.0	1.0	0.4	-86.00	489.8	-7,005.1	7,022.7	7,021.4	1.32	5,314.994	
500.0	500.0	380.9	380.9	1.0	0.4	-86.00	489.8	-7,005.2	7,022.8	7,021.4	1.34	5,223.937	
590.5	590.5	457.7	457.6	1.2	0.4	-86.00	489.9	-7,006.2	7,024.0	7,022.4	1.59	4,406.622	
600.0	600.0	465.3	465.3	1.2	0.4	-86.00	489.9	-7,006.3	7,024.1	7,022.5	1.62	4,337.008	
689.0	689.0	538.7	538.7	1.4	0.5	-86.00	489.9	-7,007.4	7,025.5	7,023.6	1.86	3,779.248	
700.0	700.0	548.0	547.9	1.4	0.5	-86.00	489.8	-7,007.6	7,025.7	7,023.8	1.89	3,720.399	
787.4	787.4	623.2	623.2	1.6	0.5	-86.00	489.6	-7,008.9	7,027.2	7,025.1	2.12	3,312.032	
800.0	800.0	634.7	634.7	1.7	0.5	-86.00	489.6	-7,009.1	7,027.4	7,025.3	2.16	3,260.553	
885.8	885.8	714.3	714.2	1.9	0.6	-86.01	489.2	-7,010.7	7,029.1	7,026.7	2.38	2,948.501	
900.0	900.0	728.5	728.4	1.9	0.6	-86.01	489.2	-7,011.0	7,029.4	7,026.9	2.42	2,902.596	
984.2	984.2	812.9	812.8	2.1	0.6	-86.01	488.7	-7,012.7	7,031.0	7,028.4	2.65	2,657.138	
1,000.0	1,000.0	828.9	828.8	2.1	0.6	-86.01	488.6	-7,013.0	7,031.3	7,028.6	2.69	2,616.075	
1,082.7	1,082.7	914.3	914.2	2.3	0.7	-86.02	488.1	-7,014.7	7,032.9	7,030.0	2.91	2,419.807	
1,100.0	1,100.0	933.6	933.4	2.3	0.7	-86.02	488.0	-7,015.1	7,033.3	7,030.3	2.95	2,382.296	
1,181.1	1,181.1	1,019.4	1,019.2	2.5	0.7	-86.03	487.3	-7,016.7	7,034.7	7,031.6	3.17	2,222.569	
1,200.0	1,200.0	1,036.5	1,036.4	2.6	0.7	-86.03	487.1	-7,017.0	7,035.1	7,031.9	3.21	2,189.260	
1,279.5	1,279.5	1,110.0	1,109.8	2.7	0.7	-86.04	486.4	-7,018.4	7,036.6	7,033.2	3.42	2,059.332	
1,300.0	1,300.0	1,131.2	1,131.1	2.8	0.8	-86.04	486.1	-7,018.9	7,037.0	7,033.5	3.47	2,028.064	
1,377.9	1,377.9	1,210.4	1,210.2	3.0	0.8	155.29	485.2	-7,020.4	7,039.4	7,035.7	3.74	1,884.460	
1,400.0	1,400.0	1,230.1	1,229.9	3.0	0.8	155.28	485.0	-7,020.8	7,040.5	7,036.7	3.79	1,857.709	
1,476.4	1,476.3	1,300.0	1,299.8	3.1	0.8	155.24	484.2	-7,022.3	7,045.3	7,041.4	3.97	1,775.606	
1,500.0	1,499.8	1,318.6	1,318.3	3.2	0.8	155.23	484.0	-7,022.7	7,047.2	7,043.2	4.02	1,752.329	
1,574.8	1,574.4	1,382.3	1,382.1	3.3	0.9	155.18	483.6	-7,024.1	7,054.5	7,050.3	4.20	1,679.386	
1,600.0	1,599.5	1,409.7	1,409.4	3.4	0.9	155.17	483.5	-7,024.7	7,057.3	7,053.1	4.26	1,655.546	
1,673.2	1,672.2	1,534.9	1,534.6	3.6	0.9	155.13	483.0	-7,027.0	7,066.4	7,061.9	4.46	1,582.767	
1,700.0	1,698.7	1,564.0	1,563.8	3.6	0.9	155.12	482.9	-7,027.4	7,070.0	7,065.5	4.53	1,560.211	
1,771.6	1,769.5	1,635.2	1,635.0	3.8	1.0	155.06	482.9	-7,028.4	7,080.9	7,076.2	4.72	1,500.834	
1,800.0	1,797.5	1,661.1	1,660.8	3.9	1.0	155.03	483.0	-7,028.8	7,085.6	7,080.8	4.79	1,478.906	
1,870.1	1,866.3	1,730.6	1,730.3	4.1	1.0	154.97	483.0	-7,029.8	7,098.5	7,093.5	4.98	1,424.369	
1,900.2	1,895.8	1,764.3	1,764.0	4.2	1.0	154.94	482.9	-7,030.3	7,104.5	7,099.4	5.07	1,402.111	
1,968.5	1,962.6	1,829.5	1,829.2	4.4	1.0	154.98	482.6	-7,031.2	7,118.3	7,113.0	5.25	1,355.032	
2,000.0	1,993.4	1,855.1	1,854.8	4.5	1.0	155.00	482.4	-7,031.6	7,124.7	7,119.4	5.34	1,334.933	
2,066.9	2,058.9	1,922.7	1,922.4	4.7	1.1	155.04	481.8	-7,032.6	7,138.4	7,132.8	5.53	1,291.596	
2,100.0	2,091.2	1,986.4	1,986.1	4.8	1.1	155.08	481.1	-7,033.5	7,145.0	7,139.4	5.63	1,269.817	
2,165.3	2,155.2	2,135.2	2,134.9	5.1	1.1	155.17	479.0	-7,034.2	7,157.6	7,151.8	5.82	1,230.853	
2,200.0	2,189.1	2,193.0	2,192.6	5.2	1.1	155.21	478.3	-7,034.0	7,164.1	7,158.1	5.91	1,211.470	
2,263.8	2,251.4	2,267.3	2,266.9	5.5	1.2	155.25	477.4	-7,033.6	7,175.8	7,169.7	6.09	1,178.648	
2,300.0	2,286.9	2,307.2	2,306.8	5.6	1.2	155.28	477.0	-7,033.4	7,182.4	7,176.2	6.19	1,160.793	
2,362.2	2,347.7	2,368.3	2,367.9	5.8	1.2	155.32	476.3	-7,033.0	7,193.7	7,187.3	6.36	1,130.829	
2,400.0	2,384.7	2,405.9	2,405.5	6.0	1.2	155.34	475.9	-7,032.7	7,200.6	7,194.1	6.47	1,113.364	
2,460.6	2,444.0	2,470.3	2,470.0	6.2	1.2	155.38	475.1	-7,032.2	7,211.6	7,205.0	6.64	1,085.977	
2,500.0	2,482.5	2,509.8	2,509.5	6.4	1.2	155.40	474.7	-7,031.9	7,218.8	7,212.0	6.75	1,068.949	
2,559.0	2,540.3	2,560.4	2,560.1	6.6	1.2	155.43	474.1	-7,031.6	7,229.5	7,222.6	6.92	1,044.168	

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

Anticollision Report



Company:	PDC ENERGY	Local Co-ordinate Reference:	Well WACKER 10G-214
Project:	WELD COUNTY, COLORADO	TVD Reference:	KB-EST @ 4624.0usft (Original Well Elev)
Reference Site:	SW NW SEC. 10 T5N R64W 6th P.M.	MD Reference:	KB-EST @ 4624.0usft (Original Well Elev)
Site Error:	0.0 usft	North Reference:	True
Reference Well:	WACKER 10G-214	Survey Calculation Method:	Minimum Curvature
Well Error:	0.0 usft	Output errors are at	2.00 sigma
Reference Wellbore	ORIGINAL WELLBORE	Database:	EDM 5000.1 Single User Db
Reference Design:	PROPOSAL #1	Offset TVD Reference:	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	2,580.3	2,600.0	2,599.6	6.8	1.2	155.46	473.7	-7,031.3	7,237.0	7,230.0	7.04	1,027.613	
2,657.5	2,636.5	2,639.9	2,639.5	7.1	1.2	155.48	473.2	-7,031.1	7,247.6	7,240.4	7.21	1,005.017	
2,700.0	2,678.1	2,672.4	2,672.0	7.2	1.2	155.50	472.8	-7,031.0	7,255.5	7,248.1	7.34	988.928	
2,755.9	2,732.8	2,724.4	2,724.0	7.5	1.2	155.53	472.2	-7,030.9	7,265.9	7,258.4	7.50	968.227	
2,800.0	2,775.9	2,779.0	2,778.7	7.7	1.3	155.57	471.6	-7,030.7	7,274.1	7,266.5	7.64	952.292	
2,854.3	2,829.1	2,834.4	2,834.0	7.9	1.3	155.60	470.9	-7,030.5	7,284.1	7,276.3	7.80	933.522	
2,900.0	2,873.8	2,876.4	2,876.0	8.1	1.3	155.62	470.3	-7,030.3	7,292.6	7,284.7	7.94	918.454	
2,952.7	2,925.4	2,920.6	2,920.2	8.3	1.3	155.65	469.8	-7,030.2	7,302.4	7,294.3	8.10	901.527	
2,953.5	2,926.1	2,921.1	2,920.7	8.3	1.3	155.65	469.8	-7,030.2	7,302.5	7,294.4	8.10	901.297	
3,000.0	2,971.6	2,956.5	2,956.1	8.5	1.3	155.74	469.3	-7,030.1	7,310.9	7,302.7	8.22	889.088	
3,051.2	3,022.0	3,000.0	2,999.6	8.7	1.3	155.83	468.7	-7,030.1	7,319.4	7,311.0	8.34	877.464	
3,100.0	3,070.1	3,060.2	3,059.8	8.8	1.3	155.92	467.9	-7,030.0	7,326.7	7,318.2	8.46	866.353	
3,149.6	3,119.1	3,279.7	3,279.2	8.9	1.4	156.04	463.6	-7,027.3	7,333.0	7,324.4	8.58	854.850	
3,200.0	3,169.1	3,401.5	3,400.9	9.1	1.4	156.10	460.4	-7,023.7	7,337.4	7,328.7	8.69	844.348	
3,248.0	3,216.8	3,461.6	3,460.9	9.2	1.4	156.14	458.7	-7,021.6	7,340.7	7,331.9	8.79	835.121	
3,300.0	3,268.5	3,527.1	3,526.4	9.3	1.4	156.17	456.9	-7,019.2	7,343.3	7,334.4	8.90	825.213	
3,346.4	3,314.8	3,586.3	3,585.5	9.4	1.4	156.19	455.2	-7,017.0	7,344.9	7,335.9	8.99	816.884	
3,400.0	3,368.3	3,655.9	3,655.1	9.6	1.4	156.19	453.3	-7,014.1	7,345.7	7,336.6	9.10	807.323	
3,444.9	3,413.1	3,717.4	3,716.5	9.6	1.5	156.19	451.8	-7,011.5	7,345.5	7,336.4	9.18	799.756	
3,500.0	3,468.2	3,800.0	3,799.0	9.7	1.5	156.18	449.8	-7,007.7	7,344.3	7,335.0	9.29	790.365	
3,543.3	3,511.5	3,835.7	3,834.6	9.8	1.5	156.16	448.8	-7,006.0	7,342.6	7,333.3	9.37	783.577	
3,553.7	3,521.9	3,843.9	3,842.8	9.8	1.5	-85.20	448.6	-7,005.6	7,342.1	7,331.2	10.95	670.403	
3,600.0	3,568.2	3,880.3	3,879.1	9.9	1.5	-85.21	447.5	-7,004.0	7,339.9	7,328.9	11.03	665.189	
3,641.7	3,609.9	3,914.2	3,913.0	10.0	1.5	-85.22	446.4	-7,002.5	7,338.0	7,326.9	11.11	660.294	
3,700.0	3,668.2	3,964.1	3,962.8	10.1	1.5	-85.23	444.7	-7,000.4	7,335.4	7,324.1	11.22	653.528	
3,740.1	3,708.4	4,000.0	3,998.7	10.1	1.5	-85.23	443.6	-6,998.9	7,333.6	7,322.3	11.30	648.876	
3,800.0	3,768.2	4,037.3	4,035.9	10.2	1.5	-85.24	442.5	-6,997.4	7,331.0	7,319.6	11.41	642.307	
3,838.6	3,806.8	4,062.1	4,060.7	10.3	1.5	-85.25	441.9	-6,996.4	7,329.5	7,318.0	11.49	638.096	
3,900.0	3,868.2	4,100.0	4,098.6	10.4	1.5	-85.25	440.9	-6,995.1	7,327.2	7,315.6	11.60	631.529	
3,937.0	3,905.2	4,129.2	4,127.8	10.5	1.5	-85.26	440.1	-6,994.1	7,325.8	7,314.2	11.67	627.538	
4,000.0	3,968.2	4,175.9	4,174.4	10.6	1.5	-85.27	439.1	-6,992.6	7,323.7	7,311.9	11.80	620.897	
4,035.4	4,003.6	4,200.0	4,198.5	10.6	1.5	-85.27	438.6	-6,991.8	7,322.6	7,310.7	11.86	617.217	
4,100.0	4,068.2	4,245.6	4,244.0	10.7	1.6	-85.27	437.8	-6,990.5	7,320.6	7,308.6	11.99	610.613	
4,133.8	4,102.1	4,268.5	4,266.9	10.8	1.6	-85.28	437.4	-6,989.9	7,319.7	7,307.6	12.05	607.194	
4,200.0	4,168.2	4,315.8	4,314.2	10.9	1.6	-85.28	436.5	-6,988.8	7,318.0	7,305.8	12.18	600.599	
4,232.3	4,200.5	4,341.9	4,340.3	11.0	1.6	-85.29	436.1	-6,988.2	7,317.2	7,304.9	12.25	597.376	
4,300.0	4,268.2	4,400.0	4,398.4	11.1	1.6	-85.29	435.2	-6,986.9	7,315.6	7,303.3	12.38	590.691	
4,330.7	4,298.9	4,420.2	4,418.6	11.1	1.6	-85.29	434.9	-6,986.5	7,315.0	7,302.5	12.45	587.765	
4,400.0	4,368.2	4,473.1	4,471.5	11.3	1.6	-85.30	434.3	-6,985.5	7,313.6	7,301.0	12.58	581.199	
4,429.1	4,397.3	4,500.0	4,498.4	11.3	1.6	-85.30	434.0	-6,985.0	7,313.1	7,300.4	12.64	578.421	
4,500.0	4,468.2	4,557.3	4,555.6	11.4	1.6	-85.30	433.5	-6,984.1	7,311.8	7,299.1	12.79	571.871	
4,527.5	4,495.8	4,581.6	4,580.0	11.5	1.6	-85.31	433.3	-6,983.7	7,311.4	7,298.6	12.84	569.329	
4,600.0	4,568.2	4,636.4	4,634.7	11.6	1.6	-85.31	432.8	-6,982.9	7,310.3	7,297.3	12.99	562.801	
4,626.0	4,594.2	4,654.7	4,653.0	11.7	1.6	-85.31	432.6	-6,982.7	7,310.0	7,296.9	13.04	560.492	
4,700.0	4,668.2	4,700.0	4,698.3	11.8	1.6	-85.31	432.0	-6,982.2	7,309.1	7,295.9	13.19	554.089	
4,724.4	4,692.6	4,723.8	4,722.2	11.9	1.7	-85.32	431.7	-6,982.0	7,308.9	7,295.7	13.24	551.870	
4,800.0	4,768.2	4,776.6	4,774.9	12.0	1.7	-85.32	430.9	-6,981.7	7,308.4	7,295.0	13.40	545.351	
4,822.8	4,791.0	4,800.0	4,798.3	12.0	1.7	-85.32	430.6	-6,981.6	7,308.3	7,294.8	13.45	543.323	
4,900.0	4,868.2	4,846.2	4,844.5	12.2	1.7	-85.33	429.9	-6,981.5	7,308.0	7,294.4	13.61	536.910	
4,921.2	4,889.5	4,860.9	4,859.2	12.2	1.7	-85.33	429.7	-6,981.5	7,308.0	7,294.3	13.66	535.141	
4,933.6	4,901.8	4,869.5	4,867.8	12.2	1.7	-85.33	429.6	-6,981.6	7,308.0	7,294.3	13.68	534.121	
5,000.0	4,968.2	4,919.9	4,918.2	12.4	1.7	-85.34	428.9	-6,981.7	7,308.1	7,294.3	13.82	528.642	

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

Anticollision Report



Company:	PDC ENERGY	Local Co-ordinate Reference:	Well WACKER 10G-214
Project:	WELD COUNTY, COLORADO	TVD Reference:	KB-EST @ 4624.0usft (Original Well Elev)
Reference Site:	SW NW SEC. 10 T5N R64W 6th P.M.	MD Reference:	KB-EST @ 4624.0usft (Original Well Elev)
Site Error:	0.0 usft	North Reference:	True
Reference Well:	WACKER 10G-214	Survey Calculation Method:	Minimum Curvature
Well Error:	0.0 usft	Output errors are at	2.00 sigma
Reference Wellbore	ORIGINAL WELLBORE	Database:	EDM 5000.1 Single User Db
Reference Design:	PROPOSAL #1	Offset TVD Reference:	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	4,987.9	4,937.4	4,935.7	12.4	1.7	-85.34	428.6	-6,981.7	7,308.1	7,294.3	13.87	527.003	
5,100.0	5,068.2	5,008.6	5,006.9	12.6	1.7	-85.35	427.6	-6,982.0	7,308.4	7,294.3	14.04	520.425	
5,118.1	5,086.3	5,024.5	5,022.7	12.6	1.7	-85.35	427.4	-6,982.1	7,308.4	7,294.4	14.08	518.968	
5,200.0	5,168.2	5,100.0	5,098.3	12.7	1.8	-85.36	426.6	-6,982.6	7,308.8	7,294.6	14.26	512.441	
5,216.5	5,184.7	5,100.0	5,098.3	12.8	1.8	-85.36	426.6	-6,982.6	7,308.9	7,294.6	14.29	511.295	
5,300.0	5,268.2	5,163.4	5,161.6	12.9	1.8	-85.36	426.0	-6,983.1	7,309.6	7,295.1	14.47	505.027	
5,314.9	5,283.2	5,173.3	5,171.6	13.0	1.8	-85.36	425.9	-6,983.2	7,309.7	7,295.2	14.51	503.931	
5,400.0	5,368.2	5,271.3	5,269.6	13.1	1.8	-85.37	425.0	-6,984.4	7,310.7	7,296.0	14.70	497.449	
5,413.4	5,381.6	5,292.6	5,290.9	13.2	1.8	-85.37	424.8	-6,984.5	7,310.8	7,296.1	14.73	496.390	
5,500.0	5,468.2	5,356.4	5,354.7	13.3	1.8	-85.38	424.4	-6,985.1	7,311.6	7,296.7	14.91	490.315	
5,511.8	5,480.0	5,364.5	5,362.8	13.3	1.8	-85.38	424.3	-6,985.2	7,311.7	7,296.8	14.94	489.502	
5,600.0	5,568.2	5,435.4	5,433.6	13.5	1.8	-85.38	424.0	-6,986.2	7,312.9	7,297.7	15.13	483.483	
5,610.2	5,578.4	5,445.2	5,443.5	13.5	1.8	-85.38	424.0	-6,986.3	7,313.0	7,297.9	15.15	482.786	
5,700.0	5,668.2	5,538.3	5,536.5	13.7	1.9	-85.38	423.5	-6,987.7	7,314.2	7,298.9	15.34	476.686	
5,708.6	5,676.9	5,548.3	5,546.5	13.7	1.9	-85.38	423.4	-6,987.8	7,314.4	7,299.0	15.36	476.093	
5,800.0	5,768.2	5,644.1	5,642.4	13.9	1.9	-85.39	422.6	-6,989.1	7,315.5	7,299.9	15.57	469.968	
5,807.1	5,775.3	5,650.8	5,649.1	13.9	1.9	-85.39	422.6	-6,989.2	7,315.6	7,300.0	15.58	469.502	
5,900.0	5,868.2	5,741.2	5,739.5	14.1	1.9	-85.40	422.0	-6,990.4	7,316.8	7,301.0	15.78	463.562	
5,905.5	5,873.7	5,746.8	5,745.0	14.1	1.9	-85.40	422.0	-6,990.4	7,316.9	7,301.1	15.80	463.221	
5,960.7	5,928.9	5,802.8	5,801.0	14.2	1.9	-85.40	422.1	-6,991.2	7,317.6	7,301.7	15.91	459.828	
6,000.0	5,968.2	5,846.0	5,844.2	14.3	1.9	4.61	422.2	-6,991.7	7,317.0	7,302.3	14.67	498.819	
6,003.9	5,972.1	5,850.3	5,848.5	14.3	1.9	4.61	422.2	-6,991.8	7,316.8	7,302.1	14.68	498.541	
6,050.0	6,018.0	5,900.8	5,899.0	14.4	1.9	4.64	422.5	-6,992.3	7,313.1	7,298.3	14.78	494.640	
6,100.0	6,067.3	5,950.5	5,948.7	14.4	1.9	4.69	422.9	-6,992.9	7,305.8	7,290.8	14.92	489.599	
6,102.3	6,069.6	5,952.8	5,951.0	14.4	1.9	4.70	422.9	-6,992.9	7,305.3	7,290.4	14.93	489.353	
6,150.0	6,116.0	5,999.6	5,997.8	14.4	1.9	4.78	423.4	-6,993.4	7,295.0	7,279.9	15.06	484.307	
6,200.0	6,163.8	6,045.5	6,043.7	14.5	1.9	4.89	423.9	-6,993.9	7,280.9	7,265.7	15.19	479.315	
6,200.8	6,164.5	6,046.2	6,044.4	14.5	1.9	4.89	423.9	-6,993.9	7,280.6	7,265.4	15.19	479.242	
6,250.0	6,210.4	6,090.3	6,088.4	14.5	1.9	5.04	424.5	-6,994.4	7,263.5	7,248.2	15.29	474.929	
6,299.2	6,254.9	6,127.6	6,125.8	14.5	1.9	5.21	425.0	-6,994.8	7,243.2	7,227.8	15.36	471.501	
6,300.0	6,255.6	6,128.2	6,126.4	14.5	1.9	5.21	425.0	-6,994.8	7,242.9	7,227.5	15.36	471.452	
6,350.0	6,299.3	6,163.3	6,161.5	14.5	1.9	5.43	425.6	-6,995.3	7,219.2	7,203.8	15.40	468.909	
6,397.6	6,339.2	6,200.0	6,198.2	14.6	1.9	5.69	426.3	-6,995.8	7,193.9	7,178.5	15.40	467.214	
6,400.0	6,341.2	6,200.0	6,198.2	14.6	1.9	5.70	426.3	-6,995.8	7,192.6	7,177.2	15.40	467.196	
6,450.0	6,381.0	6,240.5	6,238.7	14.6	1.9	6.03	427.1	-6,996.3	7,163.1	7,147.7	15.37	466.145	
6,496.0	6,415.8	6,279.5	6,277.7	14.7	1.9	6.40	427.9	-6,996.8	7,133.5	7,118.2	15.32	465.692	
6,500.0	6,418.7	6,282.8	6,280.9	14.7	1.9	6.44	428.0	-6,996.9	7,130.9	7,115.6	15.31	465.682	
6,550.0	6,453.9	6,319.7	6,317.8	14.8	1.9	6.93	428.8	-6,997.3	7,096.1	7,080.8	15.23	465.827	
6,594.5	6,483.1	6,348.7	6,346.8	15.0	1.9	7.47	429.5	-6,997.7	7,063.1	7,048.0	15.15	466.249	
6,600.0	6,486.6	6,352.1	6,350.2	15.1	1.9	7.54	429.6	-6,997.8	7,058.9	7,043.7	15.14	466.321	
6,650.0	6,516.6	6,381.9	6,380.0	15.3	1.9	8.30	430.3	-6,998.1	7,019.5	7,004.4	15.04	466.738	
6,692.9	6,540.0	6,405.5	6,403.6	15.7	1.9	9.12	431.0	-6,998.4	6,984.0	6,969.0	14.97	466.588	
6,700.0	6,543.7	6,409.3	6,407.4	15.7	1.9	9.27	431.1	-6,998.5	6,978.0	6,963.1	14.96	466.512	
6,750.0	6,567.8	6,434.4	6,432.5	16.2	1.9	10.53	431.8	-6,998.8	6,934.7	6,919.8	14.92	464.821	
6,791.3	6,585.4	6,452.7	6,450.8	16.7	1.9	11.89	432.3	-6,999.0	6,897.8	6,882.8	14.95	461.471	
6,800.0	6,588.8	6,456.3	6,454.4	16.8	1.9	12.23	432.4	-6,999.0	6,889.9	6,874.9	14.96	460.513	
6,850.0	6,606.6	6,474.9	6,473.0	17.4	1.9	14.60	433.0	-6,999.3	6,843.6	6,828.4	15.15	451.769	
6,889.7	6,618.4	6,487.4	6,485.4	18.0	1.9	17.26	433.3	-6,999.4	6,806.0	6,790.5	15.48	439.722	
6,900.0	6,621.1	6,490.2	6,488.3	18.2	1.9	18.11	433.4	-6,999.4	6,796.1	6,780.5	15.60	435.731	
6,950.0	6,632.2	6,500.0	6,498.0	19.0	1.9	23.72	433.7	-6,999.6	6,747.8	6,731.2	16.53	408.180	
6,988.2	6,638.4	6,508.0	6,506.0	19.7	1.9	30.84	434.0	-6,999.7	6,710.3	6,692.5	17.87	375.600	
7,000.0	6,639.9	6,509.5	6,507.5	19.9	1.9	33.87	434.0	-6,999.7	6,698.7	6,680.3	18.43	363.427	

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

Anticollision Report



Company:	PDC ENERGY	Local Co-ordinate Reference:	Well WACKER 10G-214
Project:	WELD COUNTY, COLORADO	TVD Reference:	KB-EST @ 4624.0usft (Original Well Elev)
Reference Site:	SW NW SEC. 10 T5N R64W 6th P.M.	MD Reference:	KB-EST @ 4624.0usft (Original Well Elev)
Site Error:	0.0 usft	North Reference:	True
Reference Well:	WACKER 10G-214	Survey Calculation Method:	Minimum Curvature
Well Error:	0.0 usft	Output errors are at	2.00 sigma
Reference Wellbore	ORIGINAL WELLBORE	Database:	EDM 5000.1 Single User Db
Reference Design:	PROPOSAL #1	Offset TVD Reference:	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
7,050.0	6,644.1	6,513.9	6,512.0	20.8	1.9	54.56	434.2	-6,999.7	6,649.1	6,627.4	21.70	306.409	
7,086.5	6,645.0	6,515.1	6,513.2	21.5	1.9	81.59	434.2	-6,999.7	6,612.8	6,589.4	23.42	282.370	
7,100.0	6,645.0	6,515.3	6,513.3	21.8	1.9	81.60	434.2	-6,999.7	6,599.4	6,575.7	23.68	278.669	
7,185.0	6,644.9	6,516.1	6,514.1	23.6	1.9	81.68	434.3	-6,999.7	6,514.7	6,489.3	25.42	256.249	
7,200.0	6,644.8	6,516.2	6,514.3	23.9	1.9	81.69	434.3	-6,999.7	6,499.8	6,474.1	25.73	252.614	
7,283.4	6,644.7	6,517.1	6,515.1	25.7	1.9	81.77	434.3	-6,999.8	6,416.7	6,389.2	27.56	232.869	
7,300.0	6,644.7	6,517.2	6,515.3	26.1	1.9	81.78	434.3	-6,999.8	6,400.2	6,372.3	27.92	229.259	
7,381.9	6,644.6	6,518.0	6,516.1	28.0	1.9	81.85	434.3	-6,999.8	6,318.7	6,289.0	29.80	212.073	
7,400.0	6,644.6	6,518.2	6,516.2	28.4	1.9	81.87	434.3	-6,999.8	6,300.7	6,270.5	30.21	208.557	
7,480.3	6,644.5	6,519.0	6,517.0	30.3	1.9	81.94	434.3	-6,999.8	6,220.8	6,188.7	32.12	193.674	
7,500.0	6,644.4	6,519.2	6,517.2	30.8	1.9	81.96	434.4	-6,999.8	6,201.2	6,168.6	32.59	190.289	
7,578.7	6,644.3	6,520.0	6,518.0	32.7	1.9	82.03	434.4	-6,999.8	6,122.8	6,088.3	34.51	177.417	
7,600.0	6,644.3	6,520.2	6,518.2	33.3	1.9	82.05	434.4	-6,999.8	6,101.7	6,066.6	35.03	174.181	
7,677.1	6,644.2	6,520.9	6,519.0	35.2	1.9	82.12	434.4	-6,999.8	6,024.9	5,987.9	36.96	163.032	
7,700.0	6,644.1	6,521.2	6,519.2	35.8	1.9	82.14	434.4	-6,999.8	6,002.2	5,964.6	37.53	159.950	
7,775.6	6,644.0	6,521.9	6,519.9	37.7	1.9	82.21	434.4	-6,999.8	5,927.0	5,887.5	39.44	150.269	
7,800.0	6,644.0	6,522.2	6,520.2	38.3	1.9	82.23	434.4	-6,999.8	5,902.7	5,862.6	40.06	147.339	
7,874.0	6,643.9	6,522.9	6,520.9	40.2	1.9	82.30	434.5	-6,999.8	5,829.1	5,787.1	41.96	138.905	
7,900.0	6,643.9	6,523.2	6,521.2	40.9	1.9	82.33	434.5	-6,999.8	5,803.2	5,760.6	42.63	136.120	
7,972.4	6,643.8	6,523.9	6,521.9	42.8	1.9	82.39	434.5	-6,999.8	5,731.2	5,686.7	44.52	128.746	
8,000.0	6,643.7	6,524.2	6,522.2	43.5	1.9	82.42	434.5	-6,999.8	5,703.8	5,658.5	45.23	126.099	
8,070.8	6,643.6	6,524.9	6,522.9	45.4	1.9	82.49	434.5	-6,999.9	5,633.3	5,586.2	47.09	119.627	
8,100.0	6,643.6	6,525.2	6,523.2	46.2	1.9	82.51	434.5	-6,999.9	5,604.3	5,556.5	47.86	117.110	
8,169.3	6,643.5	6,525.9	6,523.9	48.0	1.9	82.58	434.6	-6,999.9	5,535.5	5,485.8	49.69	111.408	
8,200.0	6,643.5	6,526.2	6,524.2	48.8	1.9	82.60	434.6	-6,999.9	5,504.9	5,454.4	50.50	109.011	
8,267.7	6,643.4	6,526.8	6,524.9	50.6	1.9	82.67	434.6	-6,999.9	5,437.7	5,385.4	52.30	103.971	
8,300.0	6,643.3	6,527.2	6,525.2	51.5	1.9	82.70	434.6	-6,999.9	5,405.6	5,352.4	53.16	101.686	
8,366.1	6,643.2	6,527.8	6,525.9	53.3	1.9	82.76	434.6	-6,999.9	5,339.8	5,284.9	54.93	97.216	
8,400.0	6,643.2	6,528.2	6,526.2	54.2	1.9	82.79	434.6	-6,999.9	5,306.2	5,250.4	55.83	95.035	
8,464.5	6,643.1	6,528.8	6,526.9	55.9	1.9	82.85	434.7	-6,999.9	5,242.1	5,184.5	57.57	91.057	
8,500.0	6,643.1	6,529.2	6,527.2	56.9	1.9	82.89	434.7	-6,999.9	5,206.9	5,148.3	58.52	88.973	
8,563.0	6,643.0	6,529.8	6,527.9	58.6	1.9	82.95	434.7	-6,999.9	5,144.3	5,084.1	60.22	85.423	
8,600.0	6,642.9	6,530.2	6,528.2	59.6	1.9	82.98	434.7	-6,999.9	5,107.5	5,046.3	61.22	83.429	
8,661.4	6,642.8	6,530.8	6,528.9	61.3	1.9	83.04	434.7	-6,999.9	5,046.6	4,983.7	62.88	80.253	
8,700.0	6,642.8	6,531.2	6,529.3	62.3	1.9	83.08	434.7	-6,999.9	5,008.3	4,944.3	63.93	78.341	
8,759.8	6,642.7	6,531.9	6,529.9	64.0	1.9	83.13	434.8	-6,999.9	4,948.9	4,883.3	65.55	75.492	
8,800.0	6,642.7	6,532.3	6,530.3	65.1	1.9	83.17	434.8	-6,999.9	4,909.0	4,842.4	66.65	73.657	
8,858.2	6,642.6	6,532.9	6,530.9	66.6	1.9	83.23	434.8	-7,000.0	4,851.2	4,783.0	68.23	71.097	
8,900.0	6,642.5	6,533.3	6,531.3	67.8	1.9	83.27	434.8	-7,000.0	4,809.8	4,740.4	69.37	69.334	
8,956.7	6,642.4	6,533.9	6,531.9	69.3	1.9	83.32	434.8	-7,000.0	4,753.6	4,682.6	70.92	67.027	
9,000.0	6,642.4	6,534.3	6,532.3	70.5	1.9	83.36	434.8	-7,000.0	4,710.6	4,638.5	72.10	65.331	
9,055.1	6,642.3	6,534.9	6,532.9	72.0	1.9	83.42	434.8	-7,000.0	4,656.0	4,582.3	73.61	63.250	
9,100.0	6,642.3	6,535.4	6,533.4	73.3	1.9	83.46	434.9	-7,000.0	4,611.4	4,536.6	74.84	61.616	
9,153.5	6,642.2	6,535.9	6,533.9	74.7	1.9	83.51	434.9	-7,000.0	4,558.4	4,482.1	76.31	59.735	
9,200.0	6,642.1	6,536.4	6,534.4	76.0	1.9	83.56	434.9	-7,000.0	4,512.3	4,434.7	77.59	58.160	
9,251.9	6,642.1	6,536.9	6,535.0	77.5	1.9	83.61	434.9	-7,000.0	4,460.8	4,381.8	79.01	56.457	
9,300.0	6,642.0	6,537.4	6,535.5	78.8	1.9	83.65	434.9	-7,000.0	4,413.2	4,332.9	80.33	54.936	
9,350.4	6,641.9	6,538.0	6,536.0	80.2	1.9	83.70	434.9	-7,000.0	4,363.3	4,281.6	81.72	53.393	
9,400.0	6,641.9	6,538.5	6,536.5	81.5	1.9	83.75	435.0	-7,000.0	4,314.2	4,231.1	83.09	51.924	
9,448.8	6,641.8	6,539.0	6,537.0	82.9	1.9	83.80	435.0	-7,000.0	4,265.9	4,181.4	84.43	50.524	
9,500.0	6,641.7	6,539.5	6,537.6	84.3	1.9	83.85	435.0	-7,000.0	4,215.2	4,129.4	85.85	49.102	
9,547.2	6,641.7	6,540.0	6,538.0	85.6	1.9	83.89	435.0	-7,000.0	4,168.5	4,081.3	87.15	47.831	

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

Anticollision Report



Company:	PDC ENERGY	Local Co-ordinate Reference:	Well WACKER 10G-214
Project:	WELD COUNTY, COLORADO	TVD Reference:	KB-EST @ 4624.0usft (Original Well Elev)
Reference Site:	SW NW SEC. 10 T5N R64W 6th P.M.	MD Reference:	KB-EST @ 4624.0usft (Original Well Elev)
Site Error:	0.0 usft	North Reference:	True
Reference Well:	WACKER 10G-214	Survey Calculation Method:	Minimum Curvature
Well Error:	0.0 usft	Output errors are at	2.00 sigma
Reference Wellbore	ORIGINAL WELLBORE	Database:	EDM 5000.1 Single User Db
Reference Design:	PROPOSAL #1	Offset TVD Reference:	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
9,600.0	6,641.6	6,540.6	6,538.6	87.1	1.9	83.95	435.0	-7,000.0	4,116.3	4,027.7	88.61	46.455	
9,645.6	6,641.5	6,541.1	6,539.1	88.3	1.9	83.99	435.0	-7,000.1	4,071.1	3,981.2	89.87	45.300	
9,700.0	6,641.5	6,541.6	6,539.7	89.8	1.9	84.04	435.1	-7,000.1	4,017.4	3,926.0	91.37	43.967	
9,744.1	6,641.4	6,542.1	6,540.1	91.0	1.9	84.09	435.1	-7,000.1	3,973.8	3,881.2	92.59	42.917	
9,800.0	6,641.3	6,542.7	6,540.7	92.6	1.9	84.14	435.1	-7,000.1	3,918.5	3,824.4	94.14	41.624	
9,842.5	6,641.3	6,543.1	6,541.2	93.8	1.9	84.19	435.1	-7,000.1	3,876.5	3,781.2	95.32	40.669	
9,900.0	6,641.2	6,543.8	6,541.8	95.4	1.9	84.24	435.1	-7,000.1	3,819.8	3,722.8	96.91	39.414	
9,940.9	6,641.1	6,544.2	6,542.2	96.5	1.9	84.28	435.1	-7,000.1	3,779.3	3,681.3	98.05	38.546	
10,000.0	6,641.1	6,544.8	6,542.8	98.1	1.9	84.34	435.2	-7,000.1	3,721.0	3,621.4	99.69	37.327	
10,039.3	6,641.0	6,545.2	6,543.3	99.2	1.9	84.38	435.2	-7,000.1	3,682.2	3,581.4	100.78	36.537	
10,100.0	6,640.9	6,545.9	6,543.9	100.9	1.9	84.44	435.2	-7,000.1	3,622.4	3,519.9	102.46	35.353	
10,137.8	6,640.9	6,546.3	6,544.3	102.0	1.9	84.48	435.2	-7,000.1	3,585.2	3,481.6	103.51	34.634	
10,200.0	6,640.8	6,547.0	6,545.0	103.7	1.9	84.54	435.2	-7,000.1	3,523.8	3,418.6	105.24	33.482	
10,236.2	6,640.8	6,547.3	6,545.4	104.7	1.9	84.58	435.2	-7,000.1	3,488.2	3,381.9	106.25	32.829	
10,300.0	6,640.7	6,548.0	6,546.0	106.5	1.9	84.64	435.3	-7,000.1	3,425.4	3,317.3	108.03	31.709	
10,334.6	6,640.6	6,548.4	6,546.4	107.4	1.9	84.68	435.3	-7,000.1	3,391.3	3,282.3	108.99	31.115	
10,400.0	6,640.6	6,549.1	6,547.1	109.3	1.9	84.75	435.3	-7,000.2	3,327.0	3,216.1	110.81	30.024	
10,433.0	6,640.5	6,549.5	6,547.5	110.2	1.9	84.78	435.3	-7,000.2	3,294.5	3,182.7	111.73	29.486	
10,500.0	6,640.4	6,550.2	6,548.2	112.0	1.9	84.85	435.3	-7,000.2	3,228.7	3,115.1	113.60	28.422	
10,531.5	6,640.4	6,550.5	6,548.5	112.9	1.9	84.88	435.3	-7,000.2	3,197.7	3,083.3	114.47	27.934	
10,600.0	6,640.3	6,551.3	6,549.3	114.8	1.9	84.95	435.4	-7,000.2	3,130.5	3,014.1	116.39	26.898	
10,629.9	6,640.3	6,551.6	6,549.6	115.7	1.9	84.98	435.4	-7,000.2	3,101.1	2,983.9	117.22	26.456	
10,700.0	6,640.2	6,552.4	6,550.4	117.6	1.9	85.05	435.4	-7,000.2	3,032.4	2,913.2	119.18	25.445	
10,728.3	6,640.1	6,552.7	6,550.7	118.4	1.9	85.08	435.4	-7,000.2	3,004.7	2,884.7	119.97	25.046	
10,800.0	6,640.0	6,553.5	6,551.5	120.4	1.9	85.15	435.4	-7,000.2	2,934.5	2,812.5	121.97	24.060	
10,826.7	6,640.0	6,553.7	6,551.8	121.2	1.9	85.18	435.4	-7,000.2	2,908.3	2,785.6	122.71	23.705	
10,900.0	6,639.9	6,554.6	6,552.6	123.2	1.9	85.26	435.5	-7,000.2	2,836.7	2,711.9	124.76	22.737	
10,925.2	6,639.9	6,554.8	6,552.8	123.9	1.9	85.28	435.5	-7,000.2	2,812.1	2,686.6	125.46	22.413	
11,000.0	6,639.8	6,555.7	6,553.7	126.0	1.9	85.36	435.5	-7,000.2	2,739.0	2,611.5	127.56	21.473	
11,023.6	6,639.8	6,555.9	6,553.9	126.6	1.9	85.39	435.5	-7,000.2	2,716.0	2,587.8	128.22	21.183	
11,100.0	6,639.7	6,556.8	6,554.8	128.8	1.9	85.46	435.5	-7,000.2	2,641.6	2,511.2	130.35	20.265	
11,122.0	6,639.6	6,557.0	6,555.0	129.4	1.9	85.49	435.5	-7,000.2	2,620.1	2,489.2	130.97	20.006	
11,200.0	6,639.5	6,557.9	6,555.9	131.6	1.9	85.57	435.6	-7,000.3	2,544.3	2,411.2	133.15	19.109	
11,220.4	6,639.5	6,558.1	6,556.1	132.1	1.9	85.59	435.6	-7,000.3	2,524.5	2,390.7	133.72	18.878	
11,300.0	6,639.4	6,559.0	6,557.0	134.4	1.9	85.67	435.6	-7,000.3	2,447.3	2,311.3	135.95	18.002	
11,318.9	6,639.4	6,559.2	6,557.2	134.9	1.9	85.69	435.6	-7,000.3	2,429.0	2,292.5	136.48	17.798	
11,400.0	6,639.3	6,560.1	6,558.1	137.1	1.9	85.78	435.6	-7,000.3	2,350.5	2,211.7	138.75	16.941	
11,417.3	6,639.3	6,560.3	6,558.3	137.6	1.9	85.80	435.6	-7,000.3	2,333.8	2,194.5	139.23	16.762	
11,500.0	6,639.2	6,561.2	6,559.2	139.9	1.9	85.88	435.7	-7,000.3	2,254.0	2,112.4	141.55	15.924	
11,515.7	6,639.1	6,561.4	6,559.4	140.4	1.9	85.90	435.7	-7,000.3	2,238.8	2,096.8	141.99	15.767	
11,600.0	6,639.0	6,562.3	6,560.3	142.7	1.9	85.99	435.7	-7,000.3	2,157.8	2,013.4	144.35	14.948	
11,614.1	6,639.0	6,562.5	6,560.5	143.1	1.9	86.00	435.7	-7,000.3	2,144.2	1,999.4	144.75	14.813	
11,700.0	6,638.9	6,563.4	6,561.4	145.5	1.9	86.10	435.7	-7,000.3	2,061.9	1,914.8	147.15	14.012	
11,712.6	6,638.9	6,563.6	6,561.6	145.9	1.9	86.11	435.7	-7,000.3	2,049.9	1,902.4	147.51	13.897	
11,800.0	6,638.8	6,564.6	6,562.6	148.3	1.9	86.20	435.8	-7,000.3	1,966.5	1,816.6	149.96	13.114	
11,811.0	6,638.8	6,564.7	6,562.7	148.6	1.9	86.21	435.8	-7,000.3	1,956.0	1,805.8	150.27	13.017	
11,900.0	6,638.7	6,565.7	6,563.7	151.1	1.9	86.31	435.8	-7,000.4	1,871.6	1,718.8	152.76	12.251	
11,909.4	6,638.6	6,565.8	6,563.8	151.4	1.9	86.32	435.8	-7,000.4	1,862.6	1,709.6	153.03	12.172	
12,000.0	6,638.5	6,566.8	6,564.8	153.9	1.9	86.42	435.8	-7,000.4	1,777.2	1,621.6	155.57	11.424	
12,007.8	6,638.5	6,566.9	6,564.9	154.1	1.9	86.43	435.8	-7,000.4	1,769.8	1,614.0	155.79	11.360	
12,100.0	6,638.4	6,568.0	6,566.0	156.7	1.9	86.52	435.9	-7,000.4	1,683.4	1,525.1	158.38	10.629	
12,106.3	6,638.4	6,568.0	6,566.1	156.9	1.9	86.53	435.9	-7,000.4	1,677.6	1,519.0	158.55	10.581	

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

Anticollision Report



Company:	PDC ENERGY	Local Co-ordinate Reference:	Well WACKER 10G-214
Project:	WELD COUNTY, COLORADO	TVD Reference:	KB-EST @ 4624.0usft (Original Well Elev)
Reference Site:	SW NW SEC. 10 T5N R64W 6th P.M.	MD Reference:	KB-EST @ 4624.0usft (Original Well Elev)
Site Error:	0.0 usft	North Reference:	True
Reference Well:	WACKER 10G-214	Survey Calculation Method:	Minimum Curvature
Well Error:	0.0 usft	Output errors are at	2.00 sigma
Reference Wellbore	ORIGINAL WELLBORE	Database:	EDM 5000.1 Single User Db
Reference Design:	PROPOSAL #1	Offset TVD Reference:	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	
12,200.0	6,638.3	6,569.1	6,567.1	159.5	1.9	86.63	435.9	-7,000.4	1,590.4	1,429.3	161.18	9.867	
12,204.7	6,638.3	6,569.2	6,567.2	159.6	1.9	86.64	435.9	-7,000.4	1,586.1	1,424.8	161.31	9.832	
12,300.0	6,638.2	6,570.3	6,568.3	162.3	1.9	86.74	435.9	-7,000.4	1,498.4	1,334.4	163.99	9.137	
12,303.1	6,638.2	6,570.3	6,568.3	162.4	1.9	86.74	435.9	-7,000.4	1,495.5	1,331.4	164.08	9.115	
12,400.0	6,638.0	6,571.4	6,569.4	165.1	1.9	86.85	436.0	-7,000.4	1,407.4	1,240.6	166.80	8.437	
12,401.5	6,638.0	6,571.4	6,569.4	165.2	1.9	86.85	436.0	-7,000.4	1,406.0	1,239.1	166.84	8.427	
12,500.0	6,637.9	6,572.6	6,570.6	167.9	1.9	86.96	436.0	-7,000.4	1,317.7	1,148.1	169.61	7.769	
12,598.4	6,637.8	6,573.7	6,571.7	170.7	1.9	87.07	436.0	-7,000.5	1,231.0	1,058.6	172.37	7.141	
12,600.0	6,637.8	6,573.7	6,571.7	170.7	1.9	87.07	436.0	-7,000.5	1,229.6	1,057.1	172.42	7.131	
12,696.8	6,637.7	6,574.8	6,572.9	173.4	1.9	87.18	436.1	-7,000.5	1,146.1	971.0	175.14	6.544	
12,700.0	6,637.7	6,574.9	6,572.9	173.5	1.9	87.18	436.1	-7,000.5	1,143.4	968.2	175.23	6.525	
12,795.2	6,637.6	6,576.0	6,574.0	176.2	1.9	87.29	436.1	-7,000.5	1,063.6	885.7	177.90	5.979	
12,800.0	6,637.6	6,576.1	6,574.1	176.3	1.9	87.29	436.1	-7,000.5	1,059.7	881.7	178.04	5.952	
12,893.7	6,637.4	6,577.1	6,575.1	178.9	1.9	87.39	436.1	-7,000.5	984.0	803.4	180.67	5.447	
12,900.0	6,637.4	6,577.2	6,575.2	179.1	1.9	87.40	436.2	-7,000.5	979.0	798.2	180.85	5.414	
12,992.1	6,637.3	6,578.3	6,576.3	181.7	1.9	87.50	436.2	-7,000.5	908.2	724.7	183.44	4.951	
13,000.0	6,637.3	6,578.4	6,576.4	181.9	1.9	87.51	436.2	-7,000.5	902.3	718.6	183.66	4.913	
13,090.5	6,637.2	6,579.5	6,577.5	184.4	1.9	87.61	436.2	-7,000.5	837.0	650.8	186.20	4.495	
13,100.0	6,637.2	6,579.6	6,577.6	184.7	1.9	87.62	436.2	-7,000.5	830.4	644.0	186.47	4.454	
13,188.9	6,637.1	6,580.6	6,578.6	187.2	1.9	87.72	436.3	-7,000.6	771.8	582.9	188.97	4.085	
13,200.0	6,637.1	6,580.7	6,578.7	187.5	1.9	87.74	436.3	-7,000.6	765.0	575.7	189.28	4.042	
13,287.4	6,637.0	6,581.8	6,579.8	190.0	1.9	87.84	436.3	-7,000.6	714.4	522.6	191.74	3.726	
13,300.0	6,637.0	6,581.9	6,579.9	190.3	1.9	87.85	436.3	-7,000.6	707.6	515.5	192.09	3.684	
13,385.8	6,636.9	6,583.0	6,581.0	192.7	1.9	87.95	436.3	-7,000.6	666.5	472.0	194.50	3.427	
13,400.0	6,636.8	6,583.1	6,581.1	193.1	1.9	87.96	436.3	-7,000.6	660.5	465.6	194.90	3.389	
13,484.2	6,636.7	6,584.1	6,582.1	195.5	1.9	88.06	436.4	-7,000.6	630.5	433.2	197.27	3.196	
13,500.0	6,636.7	6,584.3	6,582.3	195.9	1.9	88.08	436.4	-7,000.6	626.0	428.3	197.71	3.166	
13,582.6	6,636.6	6,585.3	6,583.3	198.2	1.9	88.17	436.4	-7,000.6	608.4	408.4	200.04	3.042	
13,600.0	6,636.6	6,585.5	6,583.5	198.7	1.9	88.19	436.4	-7,000.6	606.1	405.6	200.52	3.023	
13,672.3	6,636.5	6,586.4	6,584.4	200.7	1.9	88.27	436.4	-7,000.6	601.8	399.2	202.56	2.971 CC	
13,681.1	6,636.5	6,586.5	6,584.5	201.0	1.9	88.28	436.4	-7,000.6	601.9	399.1	202.80	2.968 ES	
13,700.0	6,636.5	6,586.7	6,584.7	201.5	1.9	88.30	436.4	-7,000.6	602.4	399.1	203.34	2.963 SF	
13,779.5	6,636.4	6,587.7	6,585.7	203.7	1.9	88.40	436.5	-7,000.6	611.3	405.7	205.57	2.973	
13,800.0	6,636.4	6,587.9	6,585.9	204.3	1.9	88.42	436.5	-7,000.6	615.2	409.0	206.15	2.984	
13,877.9	6,636.3	6,588.9	6,586.9	206.5	1.9	88.51	436.5	-7,000.7	635.9	427.6	208.34	3.052	
13,900.0	6,636.3	6,589.1	6,587.1	207.1	1.9	88.53	436.5	-7,000.7	643.4	434.5	208.96	3.079	
13,976.3	6,636.2	6,590.0	6,588.0	209.3	1.9	88.62	436.5	-7,000.7	674.2	463.1	211.10	3.194	
14,000.0	6,636.1	6,590.3	6,588.3	209.9	1.9	88.65	436.5	-7,000.7	685.2	473.5	211.77	3.236	
14,074.8	6,636.0	6,591.2	6,589.2	212.0	1.9	88.74	436.6	-7,000.7	724.0	510.1	213.87	3.385	
14,100.0	6,636.0	6,591.6	6,589.5	212.7	1.9	88.77	436.6	-7,000.7	738.3	523.7	214.58	3.441	
14,173.2	6,635.9	6,592.4	6,590.4	214.8	1.9	88.85	436.6	-7,000.7	783.0	566.3	216.64	3.614	
14,200.0	6,635.9	6,592.8	6,590.8	215.5	1.9	88.88	436.6	-7,000.7	800.4	583.0	217.39	3.682	
14,271.6	6,635.8	6,593.6	6,591.6	217.5	1.9	88.96	436.6	-7,000.7	849.3	629.9	219.40	3.871	
14,300.0	6,635.8	6,594.0	6,592.0	218.3	1.9	89.00	436.7	-7,000.7	869.5	649.3	220.20	3.949	
14,370.0	6,635.7	6,594.9	6,592.8	220.3	1.9	89.08	436.7	-7,000.7	921.4	699.2	222.17	4.147	
14,400.0	6,635.7	6,595.2	6,593.2	221.1	1.9	89.12	436.7	-7,000.7	944.3	721.3	223.01	4.234	
14,468.5	6,635.6	6,596.1	6,594.1	223.1	1.9	89.20	436.7	-7,000.8	998.0	773.0	224.93	4.437	
14,500.0	6,635.6	6,596.5	6,594.4	223.9	1.9	89.23	436.7	-7,000.8	1,023.3	797.5	225.82	4.532	
14,566.9	6,635.5	6,597.3	6,595.3	225.8	1.9	89.31	436.8	-7,000.8	1,078.1	850.4	227.70	4.735	
14,600.0	6,635.4	6,597.7	6,595.7	226.8	1.9	89.35	436.8	-7,000.8	1,105.7	877.1	228.63	4.836	
14,665.3	6,635.4	6,598.5	6,596.5	228.6	1.9	89.43	436.8	-7,000.8	1,161.1	930.6	230.46	5.038	
14,700.0	6,635.3	6,598.9	6,596.9	229.6	1.9	89.47	436.8	-7,000.8	1,190.9	959.4	231.43	5.146	

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

Anticollision Report



Company:	PDC ENERGY	Local Co-ordinate Reference:	Well WACKER 10G-214
Project:	WELD COUNTY, COLORADO	TVD Reference:	KB-EST @ 4624.0usft (Original Well Elev)
Reference Site:	SW NW SEC. 10 T5N R64W 6th P.M.	MD Reference:	KB-EST @ 4624.0usft (Original Well Elev)
Site Error:	0.0 usft	North Reference:	True
Reference Well:	WACKER 10G-214	Survey Calculation Method:	Minimum Curvature
Well Error:	0.0 usft	Output errors are at	2.00 sigma
Reference Wellbore	ORIGINAL WELLBORE	Database:	EDM 5000.1 Single User Db
Reference Design:	PROPOSAL #1	Offset TVD Reference:	Offset Datum

Offset Design SW NW SEC. 10 T5N R64W 6th P.M. - EXIST VERT LOWER LATHAM #8-15 - 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	
14,763.7	6,635.2	6,599.7	6,597.7	231.3	1.9	89.54	436.8	-7,000.8	1,246.3	1,013.1	233.22	5.344	
14,800.0	6,635.2	6,600.2	6,598.2	232.4	1.9	89.59	436.8	-7,000.8	1,278.2	1,043.9	234.24	5.457	
14,862.2	6,635.1	6,601.1	6,599.1	234.1	1.9	89.68	436.9	-7,000.8	1,333.3	1,097.3	235.99	5.650	
14,900.0	6,635.1	6,601.7	6,599.7	235.2	1.9	89.73	436.9	-7,000.8	1,367.2	1,130.1	237.05	5.768	
14,960.6	6,635.0	6,602.6	6,600.6	236.9	1.9	89.82	436.9	-7,000.8	1,421.8	1,183.1	238.75	5.955	
14,982.9	6,635.0	6,603.0	6,601.0	237.5	1.9	89.85	436.9	-7,000.8	1,442.0	1,202.7	239.37	6.024	

Anticollision Report



Company:	PDC ENERGY	Local Co-ordinate Reference:	Well WACKER 10G-214
Project:	WELD COUNTY, COLORADO	TVD Reference:	KB-EST @ 4624.0usft (Original Well Elev)
Reference Site:	SW NW SEC. 10 T5N R64W 6th P.M.	MD Reference:	KB-EST @ 4624.0usft (Original Well Elev)
Site Error:	0.0 usft	North Reference:	True
Reference Well:	WACKER 10G-214	Survey Calculation Method:	Minimum Curvature
Well Error:	0.0 usft	Output errors are at	2.00 sigma
Reference Wellbore	ORIGINAL WELLBORE	Database:	EDM 5000.1 Single User Db
Reference Design:	PROPOSAL #1	Offset TVD Reference:	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	5.36	1,793.9	168.5	1,801.8				
98.4	98.4	93.4	93.4	0.1	1.1	5.36	1,793.9	168.5	1,801.8	1,800.5	1.24	1,452.665	
100.0	100.0	95.0	95.0	0.1	1.2	5.36	1,793.9	168.5	1,801.8	1,800.5	1.26	1,428.410	
196.8	196.8	191.8	191.8	0.3	3.3	5.36	1,793.9	168.5	1,801.8	1,798.1	3.64	495.265	
200.0	200.0	195.0	195.0	0.3	3.4	5.36	1,793.9	168.5	1,801.8	1,798.1	3.72	484.737	
295.3	295.3	290.3	290.3	0.5	5.4	5.36	1,793.9	168.5	1,801.8	1,795.8	5.92	304.296	
300.0	300.0	295.0	295.0	0.5	5.5	5.36	1,793.9	168.5	1,801.8	1,795.7	6.03	298.806	
393.7	393.7	388.7	388.7	0.8	7.4	5.36	1,793.9	168.5	1,801.8	1,793.6	8.16	220.921	
400.0	400.0	395.0	395.0	0.8	7.5	5.36	1,793.9	168.5	1,801.8	1,793.5	8.30	217.119	
492.1	492.1	487.1	487.1	1.0	9.4	5.36	1,793.9	168.5	1,801.8	1,791.4	10.38	173.657	
500.0	500.0	495.0	495.0	1.0	9.6	5.36	1,793.9	168.5	1,801.8	1,791.2	10.55	170.736	
590.5	590.5	585.5	585.5	1.2	11.4	5.36	1,793.9	168.5	1,801.8	1,789.2	12.59	143.129	
600.0	600.0	595.0	595.0	1.2	11.6	5.36	1,793.9	168.5	1,801.8	1,789.0	12.80	140.755	
689.0	689.0	684.0	684.0	1.4	13.4	5.36	1,793.9	168.5	1,801.8	1,787.0	14.80	121.761	
700.0	700.0	695.0	695.0	1.4	13.6	5.36	1,793.9	168.5	1,801.8	1,786.7	15.04	119.759	
787.4	787.4	782.4	782.4	1.6	15.4	5.36	1,793.9	168.5	1,801.8	1,784.8	17.00	105.958	
800.0	800.0	795.0	795.0	1.7	15.6	5.36	1,793.9	168.5	1,801.8	1,784.5	17.29	104.227	
885.8	885.8	880.8	880.8	1.9	17.3	5.36	1,793.9	168.5	1,801.8	1,782.6	19.21	93.793	
900.0	900.0	895.0	895.0	1.9	17.6	5.36	1,793.9	168.5	1,801.8	1,782.2	19.53	92.268	
984.2	984.2	979.2	979.2	2.1	19.3	5.36	1,793.9	168.5	1,801.8	1,780.4	21.41	84.138	
1,000.0	1,000.0	995.0	995.0	2.1	19.6	5.36	1,793.9	168.5	1,801.8	1,780.0	21.77	82.775	
1,082.7	1,082.7	1,077.7	1,077.7	2.3	21.3	5.36	1,793.9	168.5	1,801.8	1,778.1	23.62	76.288	
1,100.0	1,100.0	1,095.0	1,095.0	2.3	21.7	5.36	1,793.9	168.5	1,801.8	1,777.8	24.01	75.055	
1,181.1	1,181.1	1,176.1	1,176.1	2.5	23.3	5.36	1,793.9	168.5	1,801.8	1,775.9	25.82	69.778	
1,200.0	1,200.0	1,195.0	1,195.0	2.6	23.7	5.36	1,793.9	168.5	1,801.8	1,775.5	26.24	68.654	
1,279.5	1,279.5	1,274.5	1,274.5	2.7	25.3	5.36	1,793.9	168.5	1,801.8	1,773.7	28.02	64.294	
1,300.0	1,300.0	1,295.0	1,295.0	2.8	25.7	5.36	1,793.9	168.5	1,801.8	1,773.3	28.48	63.259 CC	
1,377.9	1,377.9	1,372.9	1,372.9	3.0	27.3	-113.31	1,793.9	168.5	1,802.2	1,772.0	30.21	59.657	
1,400.0	1,400.0	1,395.0	1,395.0	3.0	27.7	-113.32	1,793.9	168.5	1,802.5	1,771.8	30.70	58.719	
1,476.4	1,476.3	1,471.3	1,471.3	3.1	29.2	-113.40	1,793.9	168.5	1,803.9	1,771.5	32.37	55.726 ES	
1,500.0	1,499.8	1,494.8	1,494.8	3.2	29.7	-113.44	1,793.9	168.5	1,804.5	1,771.6	32.89	54.869	
1,574.8	1,574.4	1,569.4	1,569.4	3.3	31.2	-113.57	1,793.9	168.5	1,807.0	1,772.5	34.53	52.335	
1,600.0	1,599.5	1,594.5	1,594.5	3.4	31.7	-113.63	1,793.9	168.5	1,808.0	1,773.0	35.08	51.543	
1,673.2	1,672.2	1,667.2	1,667.2	3.6	33.2	-113.81	1,793.9	168.5	1,811.5	1,774.8	36.68	49.381	
1,700.0	1,698.7	1,693.7	1,693.7	3.6	33.7	-113.89	1,793.9	168.5	1,813.0	1,775.7	37.27	48.645	
1,771.6	1,769.5	1,764.5	1,764.5	3.8	35.1	-114.11	1,793.9	168.5	1,817.4	1,778.6	38.84	46.789	
1,800.0	1,797.5	1,792.5	1,792.5	3.9	35.7	-114.21	1,793.9	168.5	1,819.4	1,779.9	39.46	46.105	
1,870.1	1,866.3	1,861.3	1,861.3	4.1	37.1	-114.48	1,793.9	168.5	1,824.9	1,783.8	41.01	44.501	
1,900.2	1,895.8	1,890.8	1,890.8	4.2	37.7	-114.61	1,793.9	168.5	1,827.4	1,785.8	41.67	43.858	
1,968.5	1,962.6	1,957.6	1,957.6	4.4	39.0	-115.00	1,793.9	168.5	1,833.5	1,790.3	43.21	42.432	
2,000.0	1,993.4	1,988.4	1,988.4	4.5	39.6	-115.18	1,793.9	168.5	1,836.3	1,792.4	43.92	41.808	
2,066.9	2,058.9	2,053.9	2,053.9	4.7	41.0	-115.57	1,793.9	168.5	1,842.4	1,797.0	45.45	40.539	
2,100.0	2,091.2	2,086.2	2,086.2	4.8	41.6	-115.76	1,793.9	168.5	1,845.4	1,799.2	46.20	39.944	
2,165.3	2,155.2	2,150.2	2,150.2	5.1	42.9	-116.13	1,793.9	168.5	1,851.5	1,803.8	47.70	38.816	
2,200.0	2,189.1	2,184.1	2,184.1	5.2	43.6	-116.33	1,793.9	168.5	1,854.7	1,806.2	48.49	38.248	
2,263.8	2,251.4	2,246.4	2,246.4	5.5	44.8	-116.69	1,793.9	168.5	1,860.8	1,810.8	49.96	37.246	
2,300.0	2,286.9	2,281.9	2,281.9	5.6	45.5	-116.89	1,793.9	168.5	1,864.2	1,813.4	50.79	36.702	
2,362.2	2,347.7	2,342.7	2,342.7	5.8	46.8	-117.24	1,793.9	168.5	1,870.2	1,818.0	52.23	35.808	
2,400.0	2,384.7	2,379.7	2,379.7	6.0	47.5	-117.45	1,793.9	168.5	1,873.9	1,820.8	53.10	35.289	
2,460.6	2,444.0	2,439.0	2,439.0	6.2	48.7	-117.78	1,793.9	168.5	1,879.8	1,825.3	54.50	34.490	
2,500.0	2,482.5	2,477.5	2,477.5	6.4	49.5	-118.00	1,793.9	168.5	1,883.7	1,828.3	55.41	33.994	
2,559.0	2,540.3	2,535.3	2,535.3	6.6	50.6	-118.32	1,793.9	168.5	1,889.6	1,832.8	56.78	33.278	

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

Anticollision Report



Company:	PDC ENERGY	Local Co-ordinate Reference:	Well WACKER 10G-214
Project:	WELD COUNTY, COLORADO	TVD Reference:	KB-EST @ 4624.0usft (Original Well Elev)
Reference Site:	SW NW SEC. 10 T5N R64W 6th P.M.	MD Reference:	KB-EST @ 4624.0usft (Original Well Elev)
Site Error:	0.0 usft	North Reference:	True
Reference Well:	WACKER 10G-214	Survey Calculation Method:	Minimum Curvature
Well Error:	0.0 usft	Output errors are at	2.00 sigma
Reference Wellbore	ORIGINAL WELLBORE	Database:	EDM 5000.1 Single User Db
Reference Design:	PROPOSAL #1	Offset TVD Reference:	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	2,580.3	2,575.3	2,575.3	6.8	51.4	-118.55	1,793.9	168.5	1,893.7	1,836.0	57.73	32.803	
2,657.5	2,636.5	2,631.5	2,631.5	7.1	52.6	-118.86	1,793.9	168.5	1,899.6	1,840.5	59.06	32.162	
2,700.0	2,678.1	2,673.1	2,673.1	7.2	53.4	-119.09	1,793.9	168.5	1,903.9	1,843.9	60.05	31.706	
2,755.9	2,732.8	2,727.8	2,727.8	7.5	54.5	-119.39	1,793.9	168.5	1,909.7	1,848.4	61.35	31.129	
2,800.0	2,775.9	2,770.9	2,770.9	7.7	55.4	-119.62	1,793.9	168.5	1,914.3	1,851.9	62.37	30.693	
2,854.3	2,829.1	2,824.1	2,824.1	7.9	56.5	-119.91	1,793.9	168.5	1,920.0	1,856.4	63.63	30.174	
2,900.0	2,873.8	2,868.8	2,868.8	8.1	57.3	-120.15	1,793.9	168.5	1,924.8	1,860.2	64.69	29.754	
2,952.7	2,925.4	2,920.4	2,920.4	8.3	58.4	-120.43	1,793.9	168.5	1,930.5	1,864.6	65.92	29.286	
2,953.5	2,926.1	2,921.1	2,921.1	8.3	58.4	-120.43	1,793.9	168.5	1,930.5	1,864.6	65.93	29.280	
3,000.0	2,971.6	2,966.6	2,966.6	8.5	59.3	-120.75	1,793.9	168.5	1,935.4	1,868.3	67.04	28.867	
3,051.2	3,022.0	3,017.0	3,017.0	8.7	60.3	-121.07	1,793.9	168.5	1,940.2	1,872.0	68.24	28.433	
3,100.0	3,070.1	3,065.1	3,065.1	8.8	61.3	-121.34	1,793.9	168.5	1,944.5	1,875.1	69.38	28.026	
3,149.6	3,119.1	3,114.1	3,114.1	8.9	62.3	-121.59	1,793.9	168.5	1,948.4	1,877.8	70.53	27.624	
3,200.0	3,169.1	3,164.1	3,164.1	9.1	63.3	-121.82	1,793.9	168.5	1,951.9	1,880.2	71.70	27.222	
3,248.0	3,216.8	3,211.8	3,211.8	9.2	64.2	-122.01	1,793.9	168.5	1,954.8	1,882.0	72.80	26.850	
3,300.0	3,268.5	3,263.5	3,263.5	9.3	65.3	-122.18	1,793.9	168.5	1,957.5	1,883.5	73.99	26.455	
3,346.4	3,314.8	3,309.8	3,309.8	9.4	66.2	-122.30	1,793.9	168.5	1,959.5	1,884.5	75.04	26.112	
3,400.0	3,368.3	3,363.3	3,363.3	9.6	67.3	-122.42	1,793.9	168.5	1,961.3	1,885.1	76.25	25.722	
3,444.9	3,413.1	3,408.1	3,408.1	9.6	68.2	-122.49	1,793.9	168.5	1,962.4	1,885.2	77.25	25.405	
3,500.0	3,468.2	3,463.2	3,463.2	9.7	69.3	-122.54	1,793.9	168.5	1,963.3	1,884.8	78.47	25.021	
3,543.3	3,511.5	3,506.5	3,506.5	9.8	70.2	-122.55	1,793.9	168.5	1,963.5	1,884.1	79.41	24.727	
3,553.7	3,521.9	3,516.9	3,516.9	9.8	70.4	-3.91	1,793.9	168.5	1,963.5	1,884.8	78.76	24.932	
3,600.0	3,568.2	3,563.2	3,563.2	9.9	71.3	-3.91	1,793.9	168.5	1,963.5	1,883.8	79.77	24.615	
3,641.7	3,609.9	3,604.9	3,604.9	10.0	72.2	-3.91	1,793.9	168.5	1,963.5	1,882.8	80.69	24.335	
3,700.0	3,668.2	3,663.2	3,663.2	10.1	73.3	-3.91	1,793.9	168.5	1,963.5	1,881.6	81.97	23.955	
3,740.1	3,708.4	3,703.4	3,703.4	10.1	74.1	-3.91	1,793.9	168.5	1,963.5	1,880.7	82.85	23.699	
3,800.0	3,768.2	3,763.2	3,763.2	10.2	75.3	-3.91	1,793.9	168.5	1,963.5	1,879.4	84.17	23.329	
3,838.6	3,806.8	3,801.8	3,801.8	10.3	76.1	-3.91	1,793.9	168.5	1,963.5	1,878.5	85.02	23.095	
3,900.0	3,868.2	3,863.2	3,863.2	10.4	77.3	-3.91	1,793.9	168.5	1,963.5	1,877.2	86.37	22.734	
3,937.0	3,905.2	3,900.2	3,900.2	10.5	78.1	-3.91	1,793.9	168.5	1,963.5	1,876.3	87.19	22.521	
4,000.0	3,968.2	3,963.2	3,963.2	10.6	79.4	-3.91	1,793.9	168.5	1,963.5	1,875.0	88.57	22.168	
4,035.4	4,003.6	3,998.6	3,998.6	10.6	80.1	-3.91	1,793.9	168.5	1,963.5	1,874.2	89.36	21.975	
4,100.0	4,068.2	4,063.2	4,063.2	10.7	81.4	-3.91	1,793.9	168.5	1,963.5	1,872.8	90.78	21.630	
4,133.8	4,102.1	4,097.1	4,097.1	10.8	82.1	-3.91	1,793.9	168.5	1,963.5	1,872.0	91.53	21.453	
4,200.0	4,168.2	4,163.2	4,163.2	10.9	83.4	-3.91	1,793.9	168.5	1,963.5	1,870.6	92.99	21.117	
4,232.3	4,200.5	4,195.5	4,195.5	11.0	84.0	-3.91	1,793.9	168.5	1,963.5	1,869.8	93.70	20.956	
4,300.0	4,268.2	4,263.2	4,263.2	11.1	85.4	-3.91	1,793.9	168.5	1,963.5	1,868.3	95.19	20.627	
4,330.7	4,298.9	4,293.9	4,293.9	11.1	86.0	-3.91	1,793.9	168.5	1,963.5	1,867.7	95.87	20.481	
4,400.0	4,368.2	4,363.2	4,363.2	11.3	87.4	-3.91	1,793.9	168.5	1,963.5	1,866.1	97.40	20.159	
4,429.1	4,397.3	4,392.3	4,392.3	11.3	88.0	-3.91	1,793.9	168.5	1,963.5	1,865.5	98.04	20.027	
4,500.0	4,468.2	4,463.2	4,463.2	11.4	89.4	-3.91	1,793.9	168.5	1,963.5	1,863.9	99.61	19.712	
4,527.5	4,495.8	4,490.8	4,490.8	11.5	90.0	-3.91	1,793.9	168.5	1,963.5	1,863.3	100.22	19.592	
4,600.0	4,568.2	4,563.2	4,563.2	11.6	91.4	-3.91	1,793.9	168.5	1,963.5	1,861.7	101.82	19.284	
4,626.0	4,594.2	4,589.2	4,589.2	11.7	91.9	-3.91	1,793.9	168.5	1,963.5	1,861.1	102.40	19.176	
4,700.0	4,668.2	4,663.2	4,663.2	11.8	93.4	-3.91	1,793.9	168.5	1,963.5	1,859.5	104.03	18.874	
4,724.4	4,692.6	4,687.6	4,687.6	11.9	93.9	-3.91	1,793.9	168.5	1,963.5	1,859.0	104.57	18.777	
4,800.0	4,768.2	4,763.2	4,763.2	12.0	95.4	-3.91	1,793.9	168.5	1,963.5	1,857.3	106.25	18.481	
4,822.8	4,791.0	4,786.0	4,786.0	12.0	95.9	-3.91	1,793.9	168.5	1,963.5	1,856.8	106.75	18.394	
4,900.0	4,868.2	4,863.2	4,863.2	12.2	97.5	-3.91	1,793.9	168.5	1,963.5	1,855.1	108.46	18.104	
4,921.2	4,889.5	4,884.5	4,884.5	12.2	97.9	-3.91	1,793.9	168.5	1,963.5	1,854.6	108.93	18.026	
5,000.0	4,968.2	4,963.2	4,963.2	12.4	99.5	-3.91	1,793.9	168.5	1,963.5	1,852.9	110.67	17.742	
5,019.7	4,987.9	4,982.9	4,982.9	12.4	99.9	-3.91	1,793.9	168.5	1,963.5	1,852.4	111.11	17.672	

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

Anticollision Report



Company:	PDC ENERGY	Local Co-ordinate Reference:	Well WACKER 10G-214
Project:	WELD COUNTY, COLORADO	TVD Reference:	KB-EST @ 4624.0usft (Original Well Elev)
Reference Site:	SW NW SEC. 10 T5N R64W 6th P.M.	MD Reference:	KB-EST @ 4624.0usft (Original Well Elev)
Site Error:	0.0 usft	North Reference:	True
Reference Well:	WACKER 10G-214	Survey Calculation Method:	Minimum Curvature
Well Error:	0.0 usft	Output errors are at	2.00 sigma
Reference Wellbore	ORIGINAL WELLBORE	Database:	EDM 5000.1 Single User Db
Reference Design:	PROPOSAL #1	Offset TVD Reference:	Offset Datum

Offset Design SW NW SEC. 10 T5N R64W 6th P.M. - EXIST VERT MILLAGE #11-10 - 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	5,068.2	5,063.2	5,063.2	12.6	101.5	-3.91	1,793.9	168.5	1,963.5	1,850.6	112.89	17.393		
5,118.1	5,086.3	5,081.3	5,081.3	12.6	101.8	-3.91	1,793.9	168.5	1,963.5	1,850.2	113.29	17.332		
5,200.0	5,168.2	5,163.2	5,163.2	12.7	103.5	-3.91	1,793.9	168.5	1,963.5	1,848.4	115.11	17.059		
5,216.5	5,184.7	5,179.7	5,179.7	12.8	103.8	-3.91	1,793.9	168.5	1,963.5	1,848.1	115.47	17.004		
5,300.0	5,268.2	5,263.2	5,263.2	12.9	105.5	-3.91	1,793.9	168.5	1,963.5	1,846.2	117.32	16.736		
5,314.9	5,283.2	5,278.2	5,278.2	13.0	105.8	-3.91	1,793.9	168.5	1,963.5	1,845.9	117.65	16.689		
5,400.0	5,368.2	5,363.2	5,363.2	13.1	107.5	-3.91	1,793.9	168.5	1,963.5	1,844.0	119.54	16.426		
5,413.4	5,381.6	5,376.6	5,376.6	13.2	107.8	-3.91	1,793.9	168.5	1,963.5	1,843.7	119.84	16.385		
5,500.0	5,468.2	5,463.2	5,463.2	13.3	109.5	-3.91	1,793.9	168.5	1,963.5	1,841.8	121.76	16.127		
5,511.8	5,480.0	5,475.0	5,475.0	13.3	109.8	-3.91	1,793.9	168.5	1,963.5	1,841.5	122.02	16.092		
5,600.0	5,568.2	5,563.2	5,563.2	13.5	111.5	-3.91	1,793.9	168.5	1,963.5	1,839.6	123.98	15.838		
5,610.2	5,578.4	5,573.4	5,573.4	13.5	111.7	-3.91	1,793.9	168.5	1,963.5	1,839.3	124.20	15.809		
5,700.0	5,668.2	5,663.2	5,663.2	13.7	113.5	-3.91	1,793.9	168.5	1,963.5	1,837.3	126.20	15.559		
5,708.6	5,676.9	5,671.9	5,671.9	13.7	113.7	-3.91	1,793.9	168.5	1,963.5	1,837.1	126.39	15.536		
5,800.0	5,768.2	5,763.2	5,763.2	13.9	115.6	-3.91	1,793.9	168.5	1,963.5	1,835.1	128.42	15.291		
5,807.1	5,775.3	5,770.3	5,770.3	13.9	115.7	-3.91	1,793.9	168.5	1,963.5	1,835.0	128.57	15.272		
5,900.0	5,868.2	5,863.2	5,863.2	14.1	117.6	-3.91	1,793.9	168.5	1,963.5	1,832.9	130.64	15.031		
5,905.5	5,873.7	5,868.7	5,868.7	14.1	117.7	-3.91	1,793.9	168.5	1,963.5	1,832.8	130.76	15.017		
5,960.7	5,928.9	5,923.9	5,923.9	14.2	118.8	-3.91	1,793.9	168.5	1,963.5	1,831.6	131.98	14.877		
6,000.0	5,968.2	5,963.2	5,963.2	14.3	119.6	86.13	1,793.9	168.5	1,963.5	1,830.0	133.49	14.709		
6,003.9	5,972.1	5,967.1	5,967.1	14.3	119.7	86.14	1,793.9	168.5	1,963.4	1,829.9	133.57	14.700		
6,050.0	6,018.0	6,013.0	6,013.0	14.4	120.6	86.29	1,793.9	168.5	1,963.2	1,828.6	134.55	14.590		
6,100.0	6,067.3	6,062.3	6,062.3	14.4	121.6	86.55	1,793.9	168.5	1,962.7	1,827.1	135.60	14.474		
6,102.3	6,069.6	6,064.6	6,064.6	14.4	121.6	86.57	1,793.9	168.5	1,962.6	1,827.0	135.65	14.469		
6,150.0	6,116.0	6,111.0	6,111.0	14.4	122.6	86.93	1,793.9	168.5	1,962.0	1,825.4	136.62	14.361		
6,200.0	6,163.8	6,158.8	6,158.8	14.5	123.5	87.40	1,793.9	168.5	1,961.2	1,823.6	137.62	14.252		
6,200.8	6,164.5	6,159.5	6,159.5	14.5	123.5	87.41	1,793.9	168.5	1,961.2	1,823.6	137.63	14.250		
6,250.0	6,210.4	6,205.4	6,205.4	14.5	124.5	87.95	1,793.9	168.5	1,960.5	1,821.9	138.59	14.146		
6,299.2	6,254.9	6,249.9	6,249.9	14.5	125.3	88.56	1,793.9	168.5	1,959.8	1,820.2	139.53	14.045		
6,300.0	6,255.6	6,250.6	6,250.6	14.5	125.4	88.57	1,793.9	168.5	1,959.7	1,820.2	139.55	14.044		
6,350.0	6,299.3	6,294.3	6,294.3	14.5	126.2	89.24	1,793.9	168.5	1,959.2	1,818.7	140.48	13.947		
6,397.6	6,339.2	6,334.2	6,334.2	14.6	127.0	89.89	1,793.9	168.5	1,959.0	1,817.6	141.35	13.859		
6,400.0	6,341.2	6,336.2	6,336.2	14.6	127.1	89.92	1,793.9	168.5	1,959.0	1,817.6	141.39	13.855		
6,405.5	6,345.6	6,340.6	6,340.6	14.6	127.2	90.00	1,793.9	168.5	1,959.0	1,817.5	141.50	13.845		
6,450.0	6,381.0	6,376.0	6,376.0	14.6	127.9	90.61	1,793.9	168.5	1,959.2	1,816.9	142.29	13.769		
6,496.0	6,415.8	6,410.8	6,410.8	14.7	128.6	91.23	1,793.9	168.5	1,959.8	1,816.7	143.11	13.695		
6,500.0	6,418.7	6,413.7	6,413.7	14.7	128.6	91.28	1,793.9	168.5	1,959.9	1,816.7	143.18	13.689		
6,550.0	6,453.9	6,448.9	6,448.9	14.8	129.3	91.90	1,793.9	168.5	1,961.3	1,817.2	144.05	13.615		
6,594.5	6,483.1	6,478.1	6,478.1	15.0	129.9	92.39	1,793.9	168.5	1,963.2	1,818.4	144.83	13.555		
6,600.0	6,486.6	6,481.6	6,481.6	15.1	130.0	92.44	1,793.9	168.5	1,963.5	1,818.6	144.93	13.548		
6,650.0	6,516.6	6,511.6	6,511.6	15.3	130.6	92.89	1,793.9	168.5	1,966.6	1,820.8	145.81	13.487		
6,692.9	6,540.0	6,535.0	6,535.0	15.7	131.1	93.18	1,793.9	168.5	1,970.1	1,823.5	146.60	13.439		
6,700.0	6,543.7	6,538.7	6,538.7	15.7	131.2	93.22	1,793.9	168.5	1,970.8	1,824.0	146.72	13.432		
6,750.0	6,567.8	6,562.8	6,562.8	16.2	131.6	93.42	1,793.9	168.5	1,976.0	1,828.4	147.66	13.382		
6,791.3	6,585.4	6,580.4	6,580.4	16.7	132.0	93.46	1,793.9	168.5	1,981.3	1,832.8	148.47	13.344		
6,800.0	6,588.8	6,583.8	6,583.8	16.8	132.1	93.45	1,793.9	168.5	1,982.5	1,833.8	148.64	13.337		
6,850.0	6,606.6	6,601.6	6,601.6	17.4	132.4	93.31	1,793.9	168.5	1,990.2	1,840.5	149.67	13.297		
6,889.7	6,618.4	6,613.4	6,613.4	18.0	132.7	93.07	1,793.9	168.5	1,997.2	1,846.7	150.52	13.269		
6,900.0	6,621.1	6,616.1	6,616.1	18.2	132.7	92.99	1,793.9	168.5	1,999.2	1,848.4	150.73	13.263		
6,950.0	6,632.2	6,627.2	6,627.2	19.0	132.9	92.46	1,793.9	168.5	2,009.5	1,857.6	151.83	13.235		
6,988.2	6,638.4	6,633.4	6,633.4	19.7	133.1	91.92	1,793.9	168.5	2,018.2	1,865.5	152.67	13.219		
7,000.0	6,639.9	6,634.9	6,634.9	19.9	133.1	91.73	1,793.9	168.5	2,021.0	1,868.1	152.92	13.216		

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

Anticollision Report



Company:	PDC ENERGY	Local Co-ordinate Reference:	Well WACKER 10G-214
Project:	WELD COUNTY, COLORADO	TVD Reference:	KB-EST @ 4624.0usft (Original Well Elev)
Reference Site:	SW NW SEC. 10 T5N R64W 6th P.M.	MD Reference:	KB-EST @ 4624.0usft (Original Well Elev)
Site Error:	0.0 usft	North Reference:	True
Reference Well:	WACKER 10G-214	Survey Calculation Method:	Minimum Curvature
Well Error:	0.0 usft	Output errors are at	2.00 sigma
Reference Wellbore	ORIGINAL WELLBORE	Database:	EDM 5000.1 Single User Db
Reference Design:	PROPOSAL #1	Offset TVD Reference:	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	6,644.1	6,639.1	6,639.1	20.8	133.2	90.79	1,793.9	168.5	2,033.9	1,879.9	153.99	13.208 SF		
7,086.5	6,645.0	6,640.0	6,640.0	21.5	133.2	89.98	1,793.9	168.5	2,044.0	1,889.3	154.72	13.210		
7,100.0	6,645.0	6,640.0	6,640.0	21.8	133.2	89.98	1,793.9	168.5	2,047.9	1,892.9	154.99	13.213		
7,185.0	6,644.9	6,639.9	6,639.9	23.6	133.2	89.97	1,793.9	168.5	2,074.2	1,917.5	156.75	13.233		
7,200.0	6,644.8	6,639.8	6,639.8	23.9	133.2	89.97	1,793.9	168.5	2,079.2	1,922.2	157.06	13.239		
7,283.4	6,644.7	6,639.7	6,639.7	25.7	133.2	89.97	1,793.9	168.5	2,108.6	1,949.7	158.90	13.270		
7,300.0	6,644.7	6,639.7	6,639.7	26.1	133.2	89.97	1,793.9	168.5	2,114.8	1,955.6	159.26	13.279		
7,381.9	6,644.6	6,639.6	6,639.6	28.0	133.2	89.96	1,793.9	168.5	2,147.0	1,985.9	161.16	13.323		
7,400.0	6,644.6	6,639.6	6,639.6	28.4	133.2	89.96	1,793.9	168.5	2,154.5	1,992.9	161.57	13.334		
7,480.3	6,644.5	6,639.5	6,639.5	30.3	133.2	89.96	1,793.9	168.5	2,189.1	2,025.6	163.50	13.389		
7,500.0	6,644.4	6,639.4	6,639.4	30.8	133.2	89.96	1,793.9	168.5	2,198.0	2,034.0	163.97	13.405		
7,578.7	6,644.3	6,639.3	6,639.3	32.7	133.2	89.96	1,793.9	168.5	2,234.8	2,068.9	165.91	13.470		
7,600.0	6,644.3	6,639.3	6,639.3	33.3	133.2	89.96	1,793.9	168.5	2,245.1	2,078.7	166.43	13.490		
7,677.1	6,644.2	6,639.2	6,639.2	35.2	133.2	89.95	1,793.9	168.5	2,283.8	2,115.4	168.37	13.565		
7,700.0	6,644.1	6,639.1	6,639.1	35.8	133.2	89.95	1,793.9	168.5	2,295.6	2,126.7	168.94	13.588		
7,775.6	6,644.0	6,639.0	6,639.0	37.7	133.2	89.95	1,793.9	168.5	2,335.9	2,165.1	170.87	13.671		
7,800.0	6,644.0	6,639.0	6,639.0	38.3	133.2	89.95	1,793.9	168.5	2,349.3	2,177.8	171.49	13.699		
7,874.0	6,643.9	6,638.9	6,638.9	40.2	133.2	89.94	1,793.9	168.5	2,391.0	2,217.6	173.41	13.788		
7,900.0	6,643.9	6,638.9	6,638.9	40.9	133.2	89.94	1,793.9	168.5	2,406.0	2,231.9	174.08	13.821		
7,972.4	6,643.8	6,638.8	6,638.8	42.8	133.2	89.94	1,793.9	168.5	2,448.7	2,272.8	175.97	13.915		
8,000.0	6,643.7	6,638.7	6,638.7	43.5	133.2	89.94	1,793.9	168.5	2,465.4	2,288.7	176.69	13.953		
8,070.8	6,643.6	6,638.6	6,638.6	45.4	133.2	89.94	1,793.9	168.5	2,509.0	2,330.5	178.56	14.051		
8,100.0	6,643.6	6,638.6	6,638.6	46.2	133.2	89.94	1,793.9	168.5	2,527.3	2,348.0	179.33	14.093		
8,169.3	6,643.5	6,638.5	6,638.5	48.0	133.2	89.93	1,793.9	168.5	2,571.7	2,390.5	181.17	14.195		
8,200.0	6,643.5	6,638.5	6,638.5	48.8	133.2	89.93	1,793.9	168.5	2,591.7	2,409.7	181.98	14.241		
8,267.7	6,643.4	6,638.4	6,638.4	50.6	133.2	89.93	1,793.9	168.5	2,636.5	2,452.7	183.79	14.345		
8,300.0	6,643.3	6,638.3	6,638.3	51.5	133.2	89.93	1,793.9	168.5	2,658.2	2,473.6	184.66	14.396		
8,366.1	6,643.2	6,638.2	6,638.2	53.3	133.2	89.93	1,793.9	168.5	2,703.4	2,516.9	186.43	14.501		
8,400.0	6,643.2	6,638.2	6,638.2	54.2	133.2	89.92	1,793.9	168.5	2,726.8	2,539.5	187.34	14.555		
8,464.5	6,643.1	6,638.1	6,638.1	55.9	133.2	89.92	1,793.9	168.5	2,772.1	2,583.0	189.08	14.661		
8,500.0	6,643.1	6,638.1	6,638.1	56.9	133.2	89.92	1,793.9	168.5	2,797.3	2,607.3	190.04	14.720		
8,563.0	6,643.0	6,638.0	6,638.0	58.6	133.2	89.92	1,793.9	168.5	2,842.6	2,650.8	191.74	14.825		
8,600.0	6,642.9	6,637.9	6,637.9	59.6	133.2	89.92	1,793.9	168.5	2,869.5	2,676.8	192.75	14.888		
8,661.4	6,642.8	6,637.8	6,637.8	61.3	133.1	89.92	1,793.9	168.5	2,914.7	2,720.3	194.41	14.992		
8,700.0	6,642.8	6,637.8	6,637.8	62.3	133.1	89.91	1,793.9	168.5	2,943.4	2,747.9	195.46	15.059		
8,759.8	6,642.7	6,637.7	6,637.7	64.0	133.1	89.91	1,793.9	168.5	2,988.3	2,791.2	197.09	15.162		
8,800.0	6,642.7	6,637.7	6,637.7	65.1	133.1	89.91	1,793.9	168.5	3,018.8	2,820.6	198.19	15.232		
8,858.2	6,642.6	6,637.6	6,637.6	66.6	133.1	89.91	1,793.9	168.5	3,063.3	2,863.5	199.78	15.334		
8,900.0	6,642.5	6,637.5	6,637.5	67.8	133.1	89.91	1,793.9	168.5	3,095.5	2,894.6	200.92	15.407		
8,956.7	6,642.4	6,637.4	6,637.4	69.3	133.1	89.90	1,793.9	168.5	3,139.6	2,937.1	202.47	15.507		
9,000.0	6,642.4	6,637.4	6,637.4	70.5	133.1	89.90	1,793.9	168.5	3,173.6	2,969.9	203.66	15.583		
9,055.1	6,642.3	6,637.3	6,637.3	72.0	133.1	89.90	1,793.9	168.5	3,217.1	3,011.9	205.17	15.680		
9,100.0	6,642.3	6,637.3	6,637.3	73.3	133.1	89.90	1,793.9	168.5	3,252.8	3,046.4	206.40	15.760		
9,153.5	6,642.2	6,637.2	6,637.2	74.7	133.1	89.90	1,793.9	168.5	3,295.7	3,087.9	207.87	15.855		
9,200.0	6,642.1	6,637.1	6,637.1	76.0	133.1	89.90	1,793.9	168.5	3,333.2	3,124.1	209.15	15.937		
9,251.9	6,642.1	6,637.1	6,637.1	77.5	133.1	89.89	1,793.9	168.5	3,375.4	3,164.8	210.58	16.029		
9,300.0	6,642.0	6,637.0	6,637.0	78.8	133.1	89.89	1,793.9	168.5	3,414.6	3,202.7	211.90	16.115		
9,350.4	6,641.9	6,636.9	6,636.9	80.2	133.1	89.89	1,793.9	168.5	3,456.0	3,242.7	213.29	16.204		
9,400.0	6,641.9	6,636.9	6,636.9	81.5	133.1	89.89	1,793.9	168.5	3,497.0	3,282.4	214.65	16.291		
9,448.8	6,641.8	6,636.8	6,636.8	82.9	133.1	89.89	1,793.9	168.5	3,537.5	3,321.5	216.00	16.377		
9,500.0	6,641.7	6,636.7	6,636.7	84.3	133.1	89.88	1,793.9	168.5	3,580.3	3,362.9	217.41	16.468		
9,547.2	6,641.7	6,636.7	6,636.7	85.6	133.1	89.88	1,793.9	168.5	3,619.9	3,401.2	218.72	16.551		

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

Anticollision Report



Company:	PDC ENERGY	Local Co-ordinate Reference:	Well WACKER 10G-214
Project:	WELD COUNTY, COLORADO	TVD Reference:	KB-EST @ 4624.0usft (Original Well Elev)
Reference Site:	SW NW SEC. 10 T5N R64W 6th P.M.	MD Reference:	KB-EST @ 4624.0usft (Original Well Elev)
Site Error:	0.0 usft	North Reference:	True
Reference Well:	WACKER 10G-214	Survey Calculation Method:	Minimum Curvature
Well Error:	0.0 usft	Output errors are at	2.00 sigma
Reference Wellbore	ORIGINAL WELLBORE	Database:	EDM 5000.1 Single User Db
Reference Design:	PROPOSAL #1	Offset TVD Reference:	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	6,641.6	6,636.6	6,636.6	87.1	133.1	89.88	1,793.9	168.5	3,664.4	3,444.2	220.18	16.643	
9,645.6	6,641.5	6,636.5	6,636.5	88.3	133.1	89.88	1,793.9	168.5	3,703.1	3,481.6	221.44	16.723	
9,700.0	6,641.5	6,636.5	6,636.5	89.8	133.1	89.88	1,793.9	168.5	3,749.3	3,526.3	222.94	16.817	
9,744.1	6,641.4	6,636.4	6,636.4	91.0	133.1	89.88	1,793.9	168.5	3,786.9	3,562.8	224.16	16.894	
9,800.0	6,641.3	6,636.3	6,636.3	92.6	133.1	89.87	1,793.9	168.5	3,834.9	3,609.2	225.71	16.991	
9,842.5	6,641.3	6,636.3	6,636.3	93.8	133.1	89.87	1,793.9	168.5	3,871.5	3,644.6	226.89	17.064	
9,900.0	6,641.2	6,636.2	6,636.2	95.4	133.1	89.87	1,793.9	168.5	3,921.2	3,692.7	228.48	17.162	
9,940.9	6,641.1	6,636.1	6,636.1	96.5	133.1	89.87	1,793.9	168.5	3,956.7	3,727.1	229.61	17.232	
10,000.0	6,641.1	6,636.1	6,636.1	98.1	133.1	89.87	1,793.9	168.5	4,008.1	3,776.9	231.25	17.332	
10,039.3	6,641.0	6,636.0	6,636.0	99.2	133.1	89.87	1,793.9	168.5	4,042.5	3,810.2	232.34	17.399	
10,100.0	6,640.9	6,635.9	6,635.9	100.9	133.1	89.86	1,793.9	168.5	4,095.7	3,861.7	234.03	17.501	
10,137.8	6,640.9	6,635.9	6,635.9	102.0	133.1	89.86	1,793.9	168.5	4,128.9	3,893.8	235.07	17.564	
10,200.0	6,640.8	6,635.8	6,635.8	103.7	133.1	89.86	1,793.9	168.5	4,183.8	3,947.0	236.80	17.668	
10,236.2	6,640.8	6,635.8	6,635.8	104.7	133.1	89.86	1,793.9	168.5	4,215.8	3,978.0	237.81	17.728	
10,300.0	6,640.7	6,635.7	6,635.7	106.5	133.1	89.86	1,793.9	168.5	4,272.4	4,032.8	239.58	17.833	
10,334.6	6,640.6	6,635.6	6,635.6	107.4	133.1	89.86	1,793.9	168.5	4,303.2	4,062.6	240.54	17.890	
10,400.0	6,640.6	6,635.6	6,635.6	109.3	133.1	89.85	1,793.9	168.5	4,361.5	4,119.1	242.36	17.996	
10,433.0	6,640.5	6,635.5	6,635.5	110.2	133.1	89.85	1,793.9	168.5	4,391.1	4,147.8	243.28	18.050	
10,500.0	6,640.4	6,635.4	6,635.4	112.0	133.1	89.85	1,793.9	168.5	4,451.1	4,205.9	245.14	18.157	
10,531.5	6,640.4	6,635.4	6,635.4	112.9	133.1	89.85	1,793.9	168.5	4,479.4	4,233.3	246.02	18.208	
10,600.0	6,640.3	6,635.3	6,635.3	114.8	133.1	89.85	1,793.9	168.5	4,541.1	4,293.2	247.92	18.317	
10,629.9	6,640.3	6,635.3	6,635.3	115.7	133.1	89.85	1,793.9	168.5	4,568.1	4,319.3	248.75	18.364	
10,700.0	6,640.2	6,635.2	6,635.2	117.6	133.1	89.84	1,793.9	168.5	4,631.5	4,380.8	250.71	18.474	
10,728.3	6,640.1	6,635.1	6,635.1	118.4	133.1	89.84	1,793.9	168.5	4,657.2	4,405.7	251.49	18.518	
10,800.0	6,640.0	6,635.0	6,635.0	120.4	133.1	89.84	1,793.9	168.5	4,722.3	4,468.8	253.49	18.629	
10,826.7	6,640.0	6,635.0	6,635.0	121.2	133.1	89.84	1,793.9	168.5	4,746.7	4,492.4	254.24	18.670	
10,900.0	6,639.9	6,634.9	6,634.9	123.2	133.1	89.84	1,793.9	168.5	4,813.5	4,557.2	256.28	18.782	
10,925.2	6,639.9	6,634.9	6,634.9	123.9	133.1	89.84	1,793.9	168.5	4,836.5	4,579.5	256.98	18.821	
11,000.0	6,639.8	6,634.8	6,634.8	126.0	133.1	89.83	1,793.9	168.5	4,905.0	4,645.9	259.06	18.934	
11,023.6	6,639.8	6,634.8	6,634.8	126.6	133.1	89.83	1,793.9	168.5	4,926.6	4,666.9	259.72	18.969	
11,100.0	6,639.7	6,634.7	6,634.7	128.8	133.1	89.83	1,793.9	168.5	4,996.8	4,735.0	261.85	19.083	
11,122.0	6,639.6	6,634.6	6,634.6	129.4	133.1	89.83	1,793.9	168.5	5,017.1	4,754.6	262.46	19.115	
11,200.0	6,639.5	6,634.5	6,634.5	131.6	133.1	89.83	1,793.9	168.5	5,089.0	4,824.3	264.64	19.230	
11,220.4	6,639.5	6,634.5	6,634.5	132.1	133.1	89.83	1,793.9	168.5	5,107.8	4,842.6	265.21	19.260	
11,300.0	6,639.4	6,634.4	6,634.4	134.4	133.1	89.82	1,793.9	168.5	5,181.4	4,914.0	267.43	19.375	
11,318.9	6,639.4	6,634.4	6,634.4	134.9	133.1	89.82	1,793.9	168.5	5,198.9	4,930.9	267.95	19.402	
11,400.0	6,639.3	6,634.3	6,634.3	137.1	133.1	89.82	1,793.9	168.5	5,274.1	5,003.9	270.22	19.518	
11,417.3	6,639.3	6,634.3	6,634.3	137.6	133.1	89.82	1,793.9	168.5	5,290.2	5,019.5	270.70	19.543	
11,500.0	6,639.2	6,634.2	6,634.2	139.9	133.1	89.82	1,793.9	168.5	5,367.1	5,094.1	273.01	19.659	
11,515.7	6,639.1	6,634.1	6,634.1	140.4	133.1	89.82	1,793.9	168.5	5,381.7	5,108.3	273.45	19.681	
11,600.0	6,639.0	6,634.0	6,634.0	142.7	133.1	89.81	1,793.9	168.5	5,460.3	5,184.5	275.80	19.798	
11,614.1	6,639.0	6,634.0	6,634.0	143.1	133.1	89.81	1,793.9	168.5	5,473.5	5,197.3	276.20	19.818	
11,700.0	6,638.9	6,633.9	6,633.9	145.5	133.1	89.81	1,793.9	168.5	5,553.8	5,275.2	278.59	19.935	
11,712.6	6,638.9	6,633.9	6,633.9	145.9	133.1	89.81	1,793.9	168.5	5,565.5	5,286.6	278.94	19.952	
11,800.0	6,638.8	6,633.8	6,633.8	148.3	133.1	89.81	1,793.9	168.5	5,647.5	5,366.1	281.39	20.070	
11,811.0	6,638.8	6,633.8	6,633.8	148.6	133.1	89.81	1,793.9	168.5	5,657.8	5,376.1	281.69	20.085	
11,900.0	6,638.7	6,633.7	6,633.7	151.1	133.1	89.80	1,793.9	168.5	5,741.3	5,457.2	284.18	20.203	
11,909.4	6,638.6	6,633.6	6,633.6	151.4	133.1	89.80	1,793.9	168.5	5,750.2	5,465.8	284.44	20.216	
12,000.0	6,638.5	6,633.5	6,633.5	153.9	133.1	89.80	1,793.9	168.5	5,835.4	5,548.5	286.97	20.334	
12,007.8	6,638.5	6,633.5	6,633.5	154.1	133.1	89.80	1,793.9	168.5	5,842.8	5,555.6	287.19	20.345	
12,100.0	6,638.4	6,633.4	6,633.4	156.7	133.1	89.80	1,793.9	168.5	5,929.7	5,640.0	289.77	20.464	
12,106.3	6,638.4	6,633.4	6,633.4	156.9	133.1	89.80	1,793.9	168.5	5,935.7	5,645.7	289.94	20.472	

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

Anticollision Report



Company:	PDC ENERGY	Local Co-ordinate Reference:	Well WACKER 10G-214
Project:	WELD COUNTY, COLORADO	TVD Reference:	KB-EST @ 4624.0usft (Original Well Elev)
Reference Site:	SW NW SEC. 10 T5N R64W 6th P.M.	MD Reference:	KB-EST @ 4624.0usft (Original Well Elev)
Site Error:	0.0 usft	North Reference:	True
Reference Well:	WACKER 10G-214	Survey Calculation Method:	Minimum Curvature
Well Error:	0.0 usft	Output errors are at	2.00 sigma
Reference Wellbore	ORIGINAL WELLBORE	Database:	EDM 5000.1 Single User Db
Reference Design:	PROPOSAL #1	Offset TVD Reference:	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	
12,200.0	6,638.3	6,633.3	6,633.3	159.5	133.1	89.80	1,793.9	168.5	6,024.2	5,731.7	292.56	20.591	
12,204.7	6,638.3	6,633.3	6,633.3	159.6	133.1	89.80	1,793.9	168.5	6,028.7	5,736.0	292.69	20.597	
12,300.0	6,638.2	6,633.2	6,633.2	162.3	133.1	89.79	1,793.9	168.5	6,118.9	5,823.5	295.36	20.717	
12,303.1	6,638.2	6,633.2	6,633.2	162.4	133.1	89.79	1,793.9	168.5	6,121.8	5,826.4	295.45	20.721	
12,400.0	6,638.0	6,633.0	6,633.0	165.1	133.1	89.79	1,793.9	168.5	6,213.7	5,915.5	298.15	20.840	
12,401.5	6,638.0	6,633.0	6,633.0	165.2	133.1	89.79	1,793.9	168.5	6,215.2	5,917.0	298.20	20.842	
12,500.0	6,637.9	6,632.9	6,632.9	167.9	133.1	89.79	1,793.9	168.5	6,308.7	6,007.7	300.95	20.962	
12,598.4	6,637.8	6,632.8	6,632.8	170.7	133.0	89.78	1,793.9	168.5	6,402.3	6,098.6	303.70	21.081	
12,600.0	6,637.8	6,632.8	6,632.8	170.7	133.0	89.78	1,793.9	168.5	6,403.8	6,100.0	303.75	21.083	
12,696.8	6,637.7	6,632.7	6,632.7	173.4	133.0	89.78	1,793.9	168.5	6,496.0	6,189.6	306.46	21.197	
12,700.0	6,637.7	6,632.7	6,632.7	173.5	133.0	89.78	1,793.9	168.5	6,499.1	6,192.5	306.54	21.201	
12,795.2	6,637.6	6,632.6	6,632.6	176.2	133.0	89.78	1,793.9	168.5	6,590.0	6,280.7	309.21	21.312	
12,800.0	6,637.6	6,632.6	6,632.6	176.3	133.0	89.78	1,793.9	168.5	6,594.5	6,285.1	309.34	21.318	
12,893.7	6,637.4	6,632.4	6,632.4	178.9	133.0	89.77	1,793.9	168.5	6,684.0	6,372.0	311.96	21.426	
12,900.0	6,637.4	6,632.4	6,632.4	179.1	133.0	89.77	1,793.9	168.5	6,690.0	6,377.9	312.14	21.433	
12,992.1	6,637.3	6,632.3	6,632.3	181.7	133.0	89.77	1,793.9	168.5	6,778.2	6,463.4	314.72	21.537	
13,000.0	6,637.3	6,632.3	6,632.3	181.9	133.0	89.77	1,793.9	168.5	6,785.7	6,470.8	314.94	21.546	
13,090.5	6,637.2	6,632.2	6,632.2	184.4	133.0	89.77	1,793.9	168.5	6,872.4	6,555.0	317.47	21.647	
13,100.0	6,637.2	6,632.2	6,632.2	184.7	133.0	89.77	1,793.9	168.5	6,881.5	6,563.8	317.74	21.658	
13,188.9	6,637.1	6,632.1	6,632.1	187.2	133.0	89.77	1,793.9	168.5	6,966.8	6,646.6	320.23	21.756	
13,200.0	6,637.1	6,632.1	6,632.1	187.5	133.0	89.77	1,793.9	168.5	6,977.4	6,656.9	320.54	21.768	
13,287.4	6,637.0	6,632.0	6,632.0	190.0	133.0	89.76	1,793.9	168.5	7,061.3	6,738.4	322.98	21.863	
13,300.0	6,637.0	6,632.0	6,632.0	190.3	133.0	89.76	1,793.9	168.5	7,073.5	6,750.1	323.34	21.877	
13,385.8	6,636.9	6,631.9	6,631.9	192.7	133.0	89.76	1,793.9	168.5	7,156.0	6,830.2	325.74	21.969	
13,400.0	6,636.8	6,631.8	6,631.8	193.1	133.0	89.76	1,793.9	168.5	7,169.6	6,843.5	326.13	21.984	
13,484.2	6,636.7	6,631.7	6,631.7	195.5	133.0	89.76	1,793.9	168.5	7,250.7	6,922.2	328.49	22.073	
13,500.0	6,636.7	6,631.7	6,631.7	195.9	133.0	89.76	1,793.9	168.5	7,265.9	6,936.9	328.93	22.089	
13,582.6	6,636.6	6,631.6	6,631.6	198.2	133.0	89.75	1,793.9	168.5	7,345.5	7,014.2	331.25	22.175	
13,600.0	6,636.6	6,631.6	6,631.6	198.7	133.0	89.75	1,793.9	168.5	7,362.2	7,030.5	331.73	22.193	
13,681.1	6,636.5	6,631.5	6,631.5	201.0	133.0	89.75	1,793.9	168.5	7,440.4	7,106.4	334.00	22.276	
13,700.0	6,636.5	6,631.5	6,631.5	201.5	133.0	89.75	1,793.9	168.5	7,458.7	7,124.1	334.53	22.296	
13,779.5	6,636.4	6,631.4	6,631.4	203.7	133.0	89.75	1,793.9	168.5	7,535.4	7,198.6	336.76	22.376	
13,800.0	6,636.4	6,631.4	6,631.4	204.3	133.0	89.75	1,793.9	168.5	7,555.2	7,217.9	337.33	22.397	
13,877.9	6,636.3	6,631.3	6,631.3	206.5	133.0	89.75	1,793.9	168.5	7,630.5	7,291.0	339.52	22.475	
13,900.0	6,636.3	6,631.3	6,631.3	207.1	133.0	89.75	1,793.9	168.5	7,651.8	7,311.7	340.14	22.496	
13,976.3	6,636.2	6,631.2	6,631.2	209.3	133.0	89.74	1,793.9	168.5	7,725.6	7,383.4	342.27	22.572	
14,000.0	6,636.1	6,631.1	6,631.1	209.9	133.0	89.74	1,793.9	168.5	7,748.5	7,405.6	342.94	22.595	
14,074.8	6,636.0	6,631.0	6,631.0	212.0	133.0	89.74	1,793.9	168.5	7,820.9	7,475.9	345.03	22.667	
14,100.0	6,636.0	6,631.0	6,631.0	212.7	133.0	89.74	1,793.9	168.5	7,845.3	7,499.6	345.74	22.692	
14,173.2	6,635.9	6,630.9	6,630.9	214.8	133.0	89.74	1,793.9	168.5	7,916.2	7,568.4	347.79	22.762	
14,200.0	6,635.9	6,630.9	6,630.9	215.5	133.0	89.74	1,793.9	168.5	7,942.2	7,593.6	348.54	22.787	
14,271.6	6,635.8	6,630.8	6,630.8	217.5	133.0	89.74	1,793.9	168.5	8,011.6	7,661.1	350.55	22.855	
14,300.0	6,635.8	6,630.8	6,630.8	218.3	133.0	89.74	1,793.9	168.5	8,039.1	7,687.8	351.34	22.881	
14,370.0	6,635.7	6,630.7	6,630.7	220.3	133.0	89.73	1,793.9	168.5	8,107.1	7,753.8	353.30	22.947	
14,400.0	6,635.7	6,630.7	6,630.7	221.1	133.0	89.73	1,793.9	168.5	8,136.2	7,782.0	354.14	22.974	
14,468.5	6,635.6	6,630.6	6,630.6	223.1	133.0	89.73	1,793.9	168.5	8,202.6	7,846.6	356.06	23.037	
14,500.0	6,635.6	6,630.6	6,630.6	223.9	133.0	89.73	1,793.9	168.5	8,233.3	7,876.3	356.94	23.066	
14,566.9	6,635.5	6,630.5	6,630.5	225.8	133.0	89.73	1,793.9	168.5	8,298.2	7,939.4	358.82	23.127	
14,600.0	6,635.4	6,630.4	6,630.4	226.8	133.0	89.73	1,793.9	168.5	8,330.4	7,970.7	359.75	23.156	
14,665.3	6,635.4	6,630.4	6,630.4	228.6	133.0	89.73	1,793.9	168.5	8,393.9	8,032.3	361.58	23.215	
14,700.0	6,635.3	6,630.3	6,630.3	229.6	133.0	89.73	1,793.9	168.5	8,427.6	8,065.1	362.55	23.246	
14,763.7	6,635.2	6,630.2	6,630.2	231.3	133.0	89.72	1,793.9	168.5	8,489.7	8,125.3	364.33	23.302	

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

Anticollision Report



Company:	PDC ENERGY	Local Co-ordinate Reference:	Well WACKER 10G-214
Project:	WELD COUNTY, COLORADO	TVD Reference:	KB-EST @ 4624.0usft (Original Well Elev)
Reference Site:	SW NW SEC. 10 T5N R64W 6th P.M.	MD Reference:	KB-EST @ 4624.0usft (Original Well Elev)
Site Error:	0.0 usft	North Reference:	True
Reference Well:	WACKER 10G-214	Survey Calculation Method:	Minimum Curvature
Well Error:	0.0 usft	Output errors are at	2.00 sigma
Reference Wellbore	ORIGINAL WELLBORE	Database:	EDM 5000.1 Single User Db
Reference Design:	PROPOSAL #1	Offset TVD Reference:	Offset Datum

Offset Design SW NW SEC. 10 T5N R64W 6th P.M. - EXIST VERT MILLAGE #11-10 - 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									
Measured Depth (usft)	Vertical Depth (usft)	Measured Depth (usft)	Vertical Depth (usft)	Reference (usft)	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
14,800.0	6,635.2	6,630.2	6,630.2	232.4	133.0	89.72	1,793.9	168.5	8,524.9	8,159.6	365.35	23.334	
14,862.2	6,635.1	6,630.1	6,630.1	234.1	133.0	89.72	1,793.9	168.5	8,585.5	8,218.4	367.09	23.388	
14,900.0	6,635.1	6,630.1	6,630.1	235.2	133.0	89.72	1,793.9	168.5	8,622.3	8,254.1	368.15	23.420	
14,960.6	6,635.0	6,630.0	6,630.0	236.9	133.0	89.72	1,793.9	168.5	8,681.3	8,311.5	369.85	23.472	
14,982.9	6,635.0	6,630.0	6,630.0	237.5	133.0	89.72	1,793.9	168.5	8,703.0	8,332.5	370.47	23.491	

Anticollision Report



Company:	PDC ENERGY	Local Co-ordinate Reference:	Well WACKER 10G-214
Project:	WELD COUNTY, COLORADO	TVD Reference:	KB-EST @ 4624.0usft (Original Well Elev)
Reference Site:	SW NW SEC. 10 T5N R64W 6th P.M.	MD Reference:	KB-EST @ 4624.0usft (Original Well Elev)
Site Error:	0.0 usft	North Reference:	True
Reference Well:	WACKER 10G-214	Survey Calculation Method:	Minimum Curvature
Well Error:	0.0 usft	Output errors are at	2.00 sigma
Reference Wellbore	ORIGINAL WELLBORE	Database:	EDM 5000.1 Single User Db
Reference Design:	PROPOSAL #1	Offset TVD Reference:	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	-52.98	1,647.2	-2,184.1	2,735.6				
98.4	98.4	94.4	94.4	0.1	0.0	-52.98	1,647.2	-2,184.1	2,735.6	2,735.5	0.10	N/A	
100.0	100.0	96.0	96.0	0.1	0.0	-52.98	1,647.2	-2,184.1	2,735.6	2,735.5	0.10	N/A	
196.8	196.8	192.8	192.8	0.3	1.0	-52.98	1,647.2	-2,184.1	2,735.6	2,734.3	1.30	2,097.200	
200.0	200.0	196.0	196.0	0.3	1.0	-52.98	1,647.2	-2,184.1	2,735.6	2,734.2	1.35	2,033.847	
295.3	295.3	291.3	291.3	0.5	3.2	-52.98	1,647.2	-2,184.1	2,735.6	2,731.9	3.72	735.477	
300.0	300.0	296.0	296.0	0.5	3.3	-52.98	1,647.2	-2,184.1	2,735.6	2,731.7	3.84	712.444	
393.7	393.7	389.7	389.7	0.8	5.3	-52.98	1,647.2	-2,184.1	2,735.6	2,729.6	6.01	455.230	
400.0	400.0	396.0	396.0	0.8	5.4	-52.98	1,647.2	-2,184.1	2,735.6	2,729.4	6.15	444.489	
492.1	492.1	488.1	488.1	1.0	7.3	-52.98	1,647.2	-2,184.1	2,735.6	2,727.3	8.24	331.795	
500.0	500.0	496.0	496.0	1.0	7.4	-52.98	1,647.2	-2,184.1	2,735.6	2,727.1	8.42	324.761	
590.5	590.5	586.5	586.5	1.2	9.3	-52.98	1,647.2	-2,184.1	2,735.6	2,725.1	10.46	261.407	
600.0	600.0	596.0	596.0	1.2	9.5	-52.98	1,647.2	-2,184.1	2,735.6	2,724.9	10.68	256.192	
689.0	689.0	685.0	685.0	1.4	11.3	-52.98	1,647.2	-2,184.1	2,735.6	2,722.9	12.68	215.776	
700.0	700.0	696.0	696.0	1.4	11.5	-52.98	1,647.2	-2,184.1	2,735.6	2,722.6	12.93	211.639	
787.4	787.4	783.4	783.4	1.6	13.2	-52.98	1,647.2	-2,184.1	2,735.6	2,720.7	14.89	183.755	
800.0	800.0	796.0	796.0	1.7	13.5	-52.98	1,647.2	-2,184.1	2,735.6	2,720.4	15.17	180.330	
885.8	885.8	881.8	881.8	1.9	15.2	-52.98	1,647.2	-2,184.1	2,735.6	2,718.5	17.09	160.031	
900.0	900.0	896.0	896.0	1.9	15.5	-52.98	1,647.2	-2,184.1	2,735.6	2,718.2	17.41	157.110	
984.2	984.2	980.2	980.2	2.1	17.2	-52.98	1,647.2	-2,184.1	2,735.6	2,716.3	19.30	141.744	
1,000.0	1,000.0	996.0	996.0	2.1	17.5	-52.98	1,647.2	-2,184.1	2,735.6	2,715.9	19.65	139.198	
1,082.7	1,082.7	1,078.7	1,078.7	2.3	19.2	-52.98	1,647.2	-2,184.1	2,735.6	2,714.1	21.50	127.213	
1,100.0	1,100.0	1,096.0	1,096.0	2.3	19.5	-52.98	1,647.2	-2,184.1	2,735.6	2,713.7	21.89	124.958	
1,181.1	1,181.1	1,177.1	1,177.1	2.5	21.2	-52.98	1,647.2	-2,184.1	2,735.6	2,711.9	23.71	115.388	
1,200.0	1,200.0	1,196.0	1,196.0	2.6	21.6	-52.98	1,647.2	-2,184.1	2,735.6	2,711.4	24.13	113.365	
1,279.5	1,279.5	1,275.5	1,275.5	2.7	23.2	-52.98	1,647.2	-2,184.1	2,735.6	2,709.7	25.91	105.577	
1,300.0	1,300.0	1,296.0	1,296.0	2.8	23.6	-52.98	1,647.2	-2,184.1	2,735.6	2,709.2	26.37	103.742	
1,377.9	1,377.9	1,373.9	1,373.9	3.0	25.1	-171.63	1,647.2	-2,184.1	2,736.6	2,708.5	28.09	97.433	
1,400.0	1,400.0	1,396.0	1,396.0	3.0	25.6	-171.63	1,647.2	-2,184.1	2,737.3	2,708.7	28.57	95.813	
1,476.4	1,476.3	1,472.3	1,472.3	3.1	27.1	-171.63	1,647.2	-2,184.1	2,740.9	2,710.7	30.21	90.729	
1,500.0	1,499.8	1,495.8	1,495.8	3.2	27.6	-171.63	1,647.2	-2,184.1	2,742.5	2,711.8	30.71	89.297	
1,574.8	1,574.4	1,570.4	1,570.4	3.3	29.1	-171.63	1,647.2	-2,184.1	2,748.6	2,716.3	32.29	85.132	
1,600.0	1,599.5	1,595.5	1,595.5	3.4	29.6	-171.63	1,647.2	-2,184.1	2,751.1	2,718.3	32.81	83.851	
1,673.2	1,672.2	1,668.2	1,668.2	3.6	31.1	-171.63	1,647.2	-2,184.1	2,759.6	2,725.3	34.31	80.426	
1,700.0	1,698.7	1,694.7	1,694.7	3.6	31.6	-171.63	1,647.2	-2,184.1	2,763.2	2,728.3	34.85	79.283	
1,771.6	1,769.5	1,765.5	1,765.5	3.8	33.0	-171.63	1,647.2	-2,184.1	2,773.9	2,737.6	36.28	76.461	
1,800.0	1,797.5	1,793.5	1,793.5	3.9	33.6	-171.63	1,647.2	-2,184.1	2,778.6	2,741.8	36.83	75.442	
1,870.1	1,866.3	1,862.3	1,862.3	4.1	35.0	-171.63	1,647.2	-2,184.1	2,791.5	2,753.3	38.18	73.117	
1,900.2	1,895.8	1,891.8	1,891.8	4.2	35.6	-171.63	1,647.2	-2,184.1	2,797.6	2,758.8	38.74	72.207	
1,968.5	1,962.6	1,958.6	1,958.6	4.4	36.9	-171.68	1,647.2	-2,184.1	2,811.6	2,771.4	40.21	69.924	
2,000.0	1,993.4	1,989.4	1,989.4	4.5	37.5	-171.69	1,647.2	-2,184.1	2,818.1	2,777.2	40.88	68.928	
2,066.9	2,058.9	2,054.9	2,054.9	4.7	38.8	-171.74	1,647.2	-2,184.1	2,831.9	2,789.6	42.33	66.906	
2,100.0	2,091.2	2,087.2	2,087.2	4.8	39.5	-171.76	1,647.2	-2,184.1	2,838.7	2,795.7	43.04	65.961	
2,165.3	2,155.2	2,151.2	2,151.2	5.1	40.8	-171.79	1,647.2	-2,184.1	2,852.2	2,807.7	44.44	64.174	
2,200.0	2,189.1	2,185.1	2,185.1	5.2	41.5	-171.81	1,647.2	-2,184.1	2,859.3	2,814.1	45.19	63.270	
2,263.8	2,251.4	2,247.4	2,247.4	5.5	42.7	-171.85	1,647.2	-2,184.1	2,872.4	2,825.9	46.57	61.680	
2,300.0	2,286.9	2,282.9	2,282.9	5.6	43.4	-171.87	1,647.2	-2,184.1	2,879.9	2,832.5	47.35	60.818	
2,362.2	2,347.7	2,343.7	2,343.7	5.8	44.7	-171.91	1,647.2	-2,184.1	2,892.7	2,844.0	48.70	59.400	
2,400.0	2,384.7	2,380.7	2,380.7	6.0	45.4	-171.93	1,647.2	-2,184.1	2,900.5	2,851.0	49.52	58.576	
2,460.6	2,444.0	2,440.0	2,440.0	6.2	46.6	-171.97	1,647.2	-2,184.1	2,913.0	2,862.2	50.83	57.308	
2,500.0	2,482.5	2,478.5	2,478.5	6.4	47.4	-171.99	1,647.2	-2,184.1	2,921.1	2,869.4	51.68	56.519	
2,559.0	2,540.3	2,536.3	2,536.3	6.6	48.5	-172.02	1,647.2	-2,184.1	2,933.3	2,880.3	52.97	55.381	

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

Anticollision Report



Company:	PDC ENERGY	Local Co-ordinate Reference:	Well WACKER 10G-214
Project:	WELD COUNTY, COLORADO	TVD Reference:	KB-EST @ 4624.0usft (Original Well Elev)
Reference Site:	SW NW SEC. 10 T5N R64W 6th P.M.	MD Reference:	KB-EST @ 4624.0usft (Original Well Elev)
Site Error:	0.0 usft	North Reference:	True
Reference Well:	WACKER 10G-214	Survey Calculation Method:	Minimum Curvature
Well Error:	0.0 usft	Output errors are at	2.00 sigma
Reference Wellbore	ORIGINAL WELLBORE	Database:	EDM 5000.1 Single User Db
Reference Design:	PROPOSAL #1	Offset TVD Reference:	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	2,580.3	2,576.3	2,576.3	6.8	49.3	-172.05	1,647.2	-2,184.1	2,941.7	2,887.8	53.85	54.624	
2,657.5	2,636.5	2,632.5	2,632.5	7.1	50.5	-172.08	1,647.2	-2,184.1	2,953.5	2,898.4	55.10	53.601	
2,700.0	2,678.1	2,674.1	2,674.1	7.2	51.3	-172.10	1,647.2	-2,184.1	2,962.3	2,906.3	56.03	52.874	
2,755.9	2,732.8	2,728.8	2,728.8	7.5	52.4	-172.13	1,647.2	-2,184.1	2,973.8	2,916.6	57.24	51.953	
2,800.0	2,775.9	2,771.9	2,771.9	7.7	53.3	-172.16	1,647.2	-2,184.1	2,982.9	2,924.7	58.20	51.253	
2,854.3	2,829.1	2,825.1	2,825.1	7.9	54.3	-172.19	1,647.2	-2,184.1	2,994.1	2,934.7	59.38	50.422	
2,900.0	2,873.8	2,869.8	2,869.8	8.1	55.2	-172.21	1,647.2	-2,184.1	3,003.5	2,943.2	60.38	49.748	
2,952.7	2,925.4	2,921.4	2,921.4	8.3	56.3	-172.24	1,647.2	-2,184.1	3,014.4	2,952.9	61.52	48.996	
2,953.5	2,926.1	2,922.1	2,922.1	8.3	56.3	-172.24	1,647.2	-2,184.1	3,014.6	2,953.0	61.54	48.986	
3,000.0	2,971.6	2,967.6	2,967.6	8.5	57.2	-172.29	1,647.2	-2,184.1	3,023.8	2,961.0	62.74	48.196	
3,051.2	3,022.0	3,018.0	3,018.0	8.7	58.2	-172.34	1,647.2	-2,184.1	3,033.1	2,969.0	64.04	47.360	
3,100.0	3,070.1	3,066.1	3,066.1	8.8	59.2	-172.38	1,647.2	-2,184.1	3,041.1	2,975.8	65.28	46.587	
3,149.6	3,119.1	3,115.1	3,115.1	8.9	60.2	-172.42	1,647.2	-2,184.1	3,048.5	2,981.9	66.52	45.828	
3,200.0	3,169.1	3,165.1	3,165.1	9.1	61.2	-172.45	1,647.2	-2,184.1	3,055.0	2,987.3	67.77	45.082	
3,248.0	3,216.8	3,212.8	3,212.8	9.2	62.1	-172.48	1,647.2	-2,184.1	3,060.5	2,991.6	68.94	44.394	
3,300.0	3,268.5	3,264.5	3,264.5	9.3	63.2	-172.50	1,647.2	-2,184.1	3,065.5	2,995.3	70.19	43.672	
3,346.4	3,314.8	3,310.8	3,310.8	9.4	64.1	-172.52	1,647.2	-2,184.1	3,069.2	2,997.9	71.30	43.049	
3,400.0	3,368.3	3,364.3	3,364.3	9.6	65.2	-172.54	1,647.2	-2,184.1	3,072.6	3,000.0	72.55	42.352	
3,444.9	3,413.1	3,409.1	3,409.1	9.6	66.1	-172.55	1,647.2	-2,184.1	3,074.6	3,001.0	73.58	41.786	
3,500.0	3,468.2	3,464.2	3,464.2	9.7	67.2	-172.56	1,647.2	-2,184.1	3,076.2	3,001.3	74.82	41.113	
3,543.3	3,511.5	3,507.5	3,507.5	9.8	68.1	-172.56	1,647.2	-2,184.1	3,076.6	3,000.9	75.78	40.601	
3,553.7	3,521.9	3,517.9	3,517.9	9.8	68.3	-53.91	1,647.2	-2,184.1	3,076.7	2,998.6	78.06	39.413	
3,600.0	3,568.2	3,564.2	3,564.2	9.9	69.2	-53.91	1,647.2	-2,184.1	3,076.7	2,997.6	79.07	38.913	
3,641.7	3,609.9	3,605.9	3,605.9	10.0	70.0	-53.91	1,647.2	-2,184.1	3,076.7	2,996.7	79.97	38.471	
3,700.0	3,668.2	3,664.2	3,664.2	10.1	71.2	-53.91	1,647.2	-2,184.1	3,076.7	2,995.4	81.24	37.870	
3,740.1	3,708.4	3,704.4	3,704.4	10.1	72.0	-53.91	1,647.2	-2,184.1	3,076.7	2,994.6	82.12	37.467	
3,800.0	3,768.2	3,764.2	3,764.2	10.2	73.2	-53.91	1,647.2	-2,184.1	3,076.7	2,993.2	83.42	36.882	
3,838.6	3,806.8	3,802.8	3,802.8	10.3	74.0	-53.91	1,647.2	-2,184.1	3,076.7	2,992.4	84.26	36.514	
3,900.0	3,868.2	3,864.2	3,864.2	10.4	75.2	-53.91	1,647.2	-2,184.1	3,076.7	2,991.1	85.60	35.942	
3,937.0	3,905.2	3,901.2	3,901.2	10.5	76.0	-53.91	1,647.2	-2,184.1	3,076.7	2,990.3	86.41	35.607	
4,000.0	3,968.2	3,964.2	3,964.2	10.6	77.2	-53.91	1,647.2	-2,184.1	3,076.7	2,988.9	87.78	35.049	
4,035.4	4,003.6	3,999.6	3,999.6	10.6	78.0	-53.91	1,647.2	-2,184.1	3,076.7	2,988.1	88.56	34.743	
4,100.0	4,068.2	4,064.2	4,064.2	10.7	79.3	-53.91	1,647.2	-2,184.1	3,076.7	2,986.7	89.97	34.198	
4,133.8	4,102.1	4,098.1	4,098.1	10.8	79.9	-53.91	1,647.2	-2,184.1	3,076.7	2,986.0	90.71	33.919	
4,200.0	4,168.2	4,164.2	4,164.2	10.9	81.3	-53.91	1,647.2	-2,184.1	3,076.7	2,984.5	92.15	33.387	
4,232.3	4,200.5	4,196.5	4,196.5	11.0	81.9	-53.91	1,647.2	-2,184.1	3,076.7	2,983.8	92.86	33.133	
4,300.0	4,268.2	4,264.2	4,264.2	11.1	83.3	-53.91	1,647.2	-2,184.1	3,076.7	2,982.3	94.34	32.613	
4,330.7	4,298.9	4,294.9	4,294.9	11.1	83.9	-53.91	1,647.2	-2,184.1	3,076.7	2,981.7	95.01	32.382	
4,400.0	4,368.2	4,364.2	4,364.2	11.3	85.3	-53.91	1,647.2	-2,184.1	3,076.7	2,980.1	96.53	31.873	
4,429.1	4,397.3	4,393.3	4,393.3	11.3	85.9	-53.91	1,647.2	-2,184.1	3,076.7	2,979.5	97.17	31.663	
4,500.0	4,468.2	4,464.2	4,464.2	11.4	87.3	-53.91	1,647.2	-2,184.1	3,076.7	2,977.9	98.72	31.165	
4,527.5	4,495.8	4,491.8	4,491.8	11.5	87.9	-53.91	1,647.2	-2,184.1	3,076.7	2,977.3	99.32	30.976	
4,600.0	4,568.2	4,564.2	4,564.2	11.6	89.3	-53.91	1,647.2	-2,184.1	3,076.7	2,975.8	100.91	30.488	
4,626.0	4,594.2	4,590.2	4,590.2	11.7	89.8	-53.91	1,647.2	-2,184.1	3,076.7	2,975.2	101.48	30.317	
4,700.0	4,668.2	4,664.2	4,664.2	11.8	91.3	-53.91	1,647.2	-2,184.1	3,076.7	2,973.6	103.11	29.839	
4,724.4	4,692.6	4,688.6	4,688.6	11.9	91.8	-53.91	1,647.2	-2,184.1	3,076.7	2,973.0	103.64	29.685	
4,800.0	4,768.2	4,764.2	4,764.2	12.0	93.3	-53.91	1,647.2	-2,184.1	3,076.7	2,971.4	105.30	29.217	
4,822.8	4,791.0	4,787.0	4,787.0	12.0	93.8	-53.91	1,647.2	-2,184.1	3,076.7	2,970.9	105.80	29.079	
4,900.0	4,868.2	4,864.2	4,864.2	12.2	95.3	-53.91	1,647.2	-2,184.1	3,076.7	2,969.2	107.50	28.620	
4,921.2	4,889.5	4,885.5	4,885.5	12.2	95.8	-53.91	1,647.2	-2,184.1	3,076.7	2,968.7	107.97	28.496	
5,000.0	4,968.2	4,964.2	4,964.2	12.4	97.4	-53.91	1,647.2	-2,184.1	3,076.7	2,967.0	109.70	28.047	
5,019.7	4,987.9	4,983.9	4,983.9	12.4	97.8	-53.91	1,647.2	-2,184.1	3,076.7	2,966.5	110.13	27.936	

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

Anticollision Report



Company:	PDC ENERGY	Local Co-ordinate Reference:	Well WACKER 10G-214
Project:	WELD COUNTY, COLORADO	TVD Reference:	KB-EST @ 4624.0usft (Original Well Elev)
Reference Site:	SW NW SEC. 10 T5N R64W 6th P.M.	MD Reference:	KB-EST @ 4624.0usft (Original Well Elev)
Site Error:	0.0 usft	North Reference:	True
Reference Well:	WACKER 10G-214	Survey Calculation Method:	Minimum Curvature
Well Error:	0.0 usft	Output errors are at	2.00 sigma
Reference Wellbore	ORIGINAL WELLBORE	Database:	EDM 5000.1 Single User Db
Reference Design:	PROPOSAL #1	Offset TVD Reference:	Offset Datum

Offset Design SW NW SEC. 10 T5N R64W 6th P.M. - EXIST VERT OGRADY #31-9 - 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	5,068.2	5,064.2	5,064.2	12.6	99.4	-53.91	1,647.2	-2,184.1	3,076.7	2,964.8	111.90	27.495	
5,118.1	5,086.3	5,082.3	5,082.3	12.6	99.7	-53.91	1,647.2	-2,184.1	3,076.7	2,964.4	112.30	27.398	
5,200.0	5,168.2	5,164.2	5,164.2	12.7	101.4	-53.91	1,647.2	-2,184.1	3,076.7	2,962.6	114.10	26.965	
5,216.5	5,184.7	5,180.7	5,180.7	12.8	101.7	-53.91	1,647.2	-2,184.1	3,076.7	2,962.2	114.46	26.879	
5,300.0	5,268.2	5,264.2	5,264.2	12.9	103.4	-53.91	1,647.2	-2,184.1	3,076.7	2,960.4	116.30	26.455	
5,314.9	5,283.2	5,279.2	5,279.2	13.0	103.7	-53.91	1,647.2	-2,184.1	3,076.7	2,960.0	116.63	26.380	
5,400.0	5,368.2	5,364.2	5,364.2	13.1	105.4	-53.91	1,647.2	-2,184.1	3,076.7	2,958.2	118.50	25.963	
5,413.4	5,381.6	5,377.6	5,377.6	13.2	105.7	-53.91	1,647.2	-2,184.1	3,076.7	2,957.9	118.80	25.898	
5,500.0	5,468.2	5,464.2	5,464.2	13.3	107.4	-53.91	1,647.2	-2,184.1	3,076.7	2,956.0	120.71	25.489	
5,511.8	5,480.0	5,476.0	5,476.0	13.3	107.7	-53.91	1,647.2	-2,184.1	3,076.7	2,955.7	120.97	25.434	
5,600.0	5,568.2	5,564.2	5,564.2	13.5	109.4	-53.91	1,647.2	-2,184.1	3,076.7	2,953.8	122.91	25.032	
5,610.2	5,578.4	5,574.4	5,574.4	13.5	109.6	-53.91	1,647.2	-2,184.1	3,076.7	2,953.5	123.14	24.986	
5,700.0	5,668.2	5,664.2	5,664.2	13.7	111.4	-53.91	1,647.2	-2,184.1	3,076.7	2,951.5	125.12	24.590	
5,708.6	5,676.9	5,672.9	5,672.9	13.7	111.6	-53.91	1,647.2	-2,184.1	3,076.7	2,951.4	125.31	24.553	
5,800.0	5,768.2	5,764.2	5,764.2	13.9	113.4	-53.91	1,647.2	-2,184.1	3,076.7	2,949.3	127.32	24.164	
5,807.1	5,775.3	5,771.3	5,771.3	13.9	113.6	-53.91	1,647.2	-2,184.1	3,076.7	2,949.2	127.48	24.134	
5,900.0	5,868.2	5,864.2	5,864.2	14.1	115.5	-53.91	1,647.2	-2,184.1	3,076.7	2,947.1	129.53	23.752	
5,905.5	5,873.7	5,869.7	5,869.7	14.1	115.6	-53.91	1,647.2	-2,184.1	3,076.7	2,947.0	129.65	23.730	
5,960.7	5,928.9	5,924.9	5,924.9	14.2	116.7	-53.91	1,647.2	-2,184.1	3,076.7	2,945.8	130.87	23.509	
6,000.0	5,968.2	5,964.2	5,964.2	14.3	117.5	36.14	1,647.2	-2,184.1	3,075.8	2,945.6	130.21	23.623	
6,003.9	5,972.1	5,968.1	5,968.1	14.3	117.5	36.15	1,647.2	-2,184.1	3,075.6	2,945.4	130.26	23.611	
6,050.0	6,018.0	6,014.0	6,014.0	14.4	118.5	36.36	1,647.2	-2,184.1	3,072.2	2,941.4	130.74	23.498	
6,100.0	6,067.3	6,063.3	6,063.3	14.4	119.5	36.76	1,647.2	-2,184.1	3,065.8	2,934.9	130.88	23.425	
6,102.3	6,069.6	6,065.6	6,065.6	14.4	119.5	36.78	1,647.2	-2,184.1	3,065.4	2,934.5	130.87	23.423	
6,150.0	6,116.0	6,112.0	6,112.0	14.4	120.4	37.34	1,647.2	-2,184.1	3,056.6	2,926.0	130.63	23.400	
6,200.0	6,163.8	6,159.8	6,159.8	14.5	121.4	38.10	1,647.2	-2,184.1	3,044.7	2,914.7	130.04	23.414	
6,200.8	6,164.5	6,160.5	6,160.5	14.5	121.4	38.11	1,647.2	-2,184.1	3,044.5	2,914.5	130.03	23.415	
6,250.0	6,210.4	6,206.4	6,206.4	14.5	122.3	39.06	1,647.2	-2,184.1	3,030.3	2,901.1	129.17	23.459	
6,299.2	6,254.9	6,250.9	6,250.9	14.5	123.2	40.21	1,647.2	-2,184.1	3,013.6	2,885.4	128.14	23.518	
6,300.0	6,255.6	6,251.6	6,251.6	14.5	123.3	40.23	1,647.2	-2,184.1	3,013.3	2,885.2	128.12	23.519	
6,350.0	6,299.3	6,295.3	6,295.3	14.5	124.1	41.62	1,647.2	-2,184.1	2,993.9	2,866.9	127.00	23.574	
6,397.6	6,339.2	6,335.2	6,335.2	14.6	124.9	43.17	1,647.2	-2,184.1	2,973.2	2,847.2	125.99	23.600	
6,400.0	6,341.2	6,337.2	6,337.2	14.6	125.0	43.25	1,647.2	-2,184.1	2,972.1	2,846.2	125.94	23.600	
6,450.0	6,381.0	6,377.0	6,377.0	14.6	125.8	45.14	1,647.2	-2,184.1	2,948.3	2,823.2	125.11	23.566	
6,496.0	6,415.8	6,411.8	6,411.8	14.7	126.5	47.11	1,647.2	-2,184.1	2,924.5	2,799.8	124.69	23.454	
6,500.0	6,418.7	6,414.7	6,414.7	14.7	126.5	47.29	1,647.2	-2,184.1	2,922.4	2,797.7	124.67	23.440	
6,550.0	6,453.9	6,449.9	6,449.9	14.8	127.2	49.73	1,647.2	-2,184.1	2,894.7	2,769.9	124.81	23.193	
6,594.5	6,483.1	6,479.1	6,479.1	15.0	127.8	52.15	1,647.2	-2,184.1	2,868.6	2,743.1	125.52	22.855	
6,600.0	6,486.6	6,482.6	6,482.6	15.1	127.9	52.47	1,647.2	-2,184.1	2,865.3	2,739.6	125.64	22.805	
6,650.0	6,516.6	6,512.6	6,512.6	15.3	128.5	55.50	1,647.2	-2,184.1	2,834.4	2,707.2	127.26	22.272	
6,692.9	6,540.0	6,536.0	6,536.0	15.7	129.0	58.35	1,647.2	-2,184.1	2,806.9	2,677.6	129.29	21.710	
6,700.0	6,543.7	6,539.7	6,539.7	15.7	129.0	58.84	1,647.2	-2,184.1	2,802.3	2,672.6	129.67	21.610	
6,750.0	6,567.8	6,563.8	6,563.8	16.2	129.5	62.45	1,647.2	-2,184.1	2,769.0	2,636.2	132.76	20.857	
6,791.3	6,585.4	6,581.4	6,581.4	16.7	129.9	65.62	1,647.2	-2,184.1	2,740.8	2,605.1	135.70	20.198	
6,800.0	6,588.8	6,584.8	6,584.8	16.8	130.0	66.31	1,647.2	-2,184.1	2,734.9	2,598.5	136.34	20.060	
6,850.0	6,606.6	6,602.6	6,602.6	17.4	130.3	70.37	1,647.2	-2,184.1	2,700.1	2,559.9	140.12	19.270	
6,889.7	6,618.4	6,614.4	6,614.4	18.0	130.5	73.69	1,647.2	-2,184.1	2,672.0	2,529.0	143.08	18.676	
6,900.0	6,621.1	6,617.1	6,617.1	18.2	130.6	74.56	1,647.2	-2,184.1	2,664.8	2,521.0	143.80	18.531	
6,950.0	6,632.2	6,628.2	6,628.2	19.0	130.8	78.81	1,647.2	-2,184.1	2,629.3	2,482.2	147.09	17.875	
6,988.2	6,638.4	6,634.4	6,634.4	19.7	130.9	82.05	1,647.2	-2,184.1	2,602.1	2,452.9	149.20	17.440	
7,000.0	6,639.9	6,635.9	6,635.9	19.9	131.0	83.04	1,647.2	-2,184.1	2,593.7	2,443.9	149.76	17.318	
7,050.0	6,644.1	6,640.1	6,640.1	20.8	131.1	87.17	1,647.2	-2,184.1	2,558.3	2,406.6	151.69	16.865	

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

Anticollision Report



Company:	PDC ENERGY	Local Co-ordinate Reference:	Well WACKER 10G-214
Project:	WELD COUNTY, COLORADO	TVD Reference:	KB-EST @ 4624.0usft (Original Well Elev)
Reference Site:	SW NW SEC. 10 T5N R64W 6th P.M.	MD Reference:	KB-EST @ 4624.0usft (Original Well Elev)
Site Error:	0.0 usft	North Reference:	True
Reference Well:	WACKER 10G-214	Survey Calculation Method:	Minimum Curvature
Well Error:	0.0 usft	Output errors are at	2.00 sigma
Reference Wellbore	ORIGINAL WELLBORE	Database:	EDM 5000.1 Single User Db
Reference Design:	PROPOSAL #1	Offset TVD Reference:	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	
7,086.5	6,645.0	6,641.0	6,641.0	21.5	131.1	90.08	1,647.2	-2,184.1	2,532.6	2,380.0	152.61	16.595	
7,100.0	6,645.0	6,641.0	6,641.0	21.8	131.1	90.08	1,647.2	-2,184.1	2,523.3	2,370.4	152.88	16.505	
7,185.0	6,644.9	6,640.9	6,640.9	23.6	131.1	90.07	1,647.2	-2,184.1	2,464.9	2,310.2	154.64	15.940	
7,200.0	6,644.8	6,640.8	6,640.8	23.9	131.1	90.07	1,647.2	-2,184.1	2,454.7	2,299.8	154.95	15.842	
7,283.4	6,644.7	6,640.7	6,640.7	25.7	131.1	90.07	1,647.2	-2,184.1	2,399.2	2,242.4	156.79	15.303	
7,300.0	6,644.7	6,640.7	6,640.7	26.1	131.1	90.07	1,647.2	-2,184.1	2,388.4	2,231.3	157.15	15.198	
7,381.9	6,644.6	6,640.6	6,640.6	28.0	131.1	90.06	1,647.2	-2,184.1	2,335.9	2,176.9	159.04	14.687	
7,400.0	6,644.6	6,640.6	6,640.6	28.4	131.1	90.06	1,647.2	-2,184.1	2,324.5	2,165.1	159.46	14.577	
7,480.3	6,644.5	6,640.5	6,640.5	30.3	131.1	90.06	1,647.2	-2,184.1	2,275.1	2,113.7	161.39	14.097	
7,500.0	6,644.4	6,640.4	6,640.4	30.8	131.1	90.06	1,647.2	-2,184.1	2,263.2	2,101.4	161.86	13.983	
7,578.7	6,644.3	6,640.3	6,640.3	32.7	131.1	90.06	1,647.2	-2,184.1	2,217.0	2,053.2	163.79	13.535	
7,600.0	6,644.3	6,640.3	6,640.3	33.3	131.1	90.05	1,647.2	-2,184.1	2,204.8	2,040.5	164.32	13.418	
7,677.1	6,644.2	6,640.2	6,640.2	35.2	131.1	90.05	1,647.2	-2,184.1	2,161.8	1,995.5	166.26	13.003	
7,700.0	6,644.1	6,640.1	6,640.1	35.8	131.1	90.05	1,647.2	-2,184.1	2,149.4	1,982.6	166.83	12.884	
7,775.6	6,644.0	6,640.0	6,640.0	37.7	131.1	90.05	1,647.2	-2,184.1	2,109.7	1,941.0	168.76	12.502	
7,800.0	6,644.0	6,640.0	6,640.0	38.3	131.1	90.05	1,647.2	-2,184.1	2,097.3	1,928.0	169.38	12.382	
7,874.0	6,643.9	6,639.9	6,639.9	40.2	131.1	90.04	1,647.2	-2,184.1	2,061.1	1,889.8	171.29	12.032	
7,900.0	6,643.9	6,639.9	6,639.9	40.9	131.1	90.04	1,647.2	-2,184.1	2,048.8	1,876.9	171.97	11.914	
7,972.4	6,643.8	6,639.8	6,639.8	42.8	131.1	90.04	1,647.2	-2,184.1	2,016.1	1,842.2	173.86	11.596	
8,000.0	6,643.7	6,639.7	6,639.7	43.5	131.1	90.04	1,647.2	-2,184.1	2,004.1	1,829.5	174.58	11.480	
8,070.8	6,643.6	6,639.6	6,639.6	45.4	131.1	90.03	1,647.2	-2,184.1	1,974.9	1,798.5	176.45	11.193	
8,100.0	6,643.6	6,639.6	6,639.6	46.2	131.1	90.03	1,647.2	-2,184.1	1,963.5	1,786.3	177.22	11.080	
8,169.3	6,643.5	6,639.5	6,639.5	48.0	131.1	90.03	1,647.2	-2,184.1	1,937.9	1,758.9	179.06	10.823	
8,200.0	6,643.5	6,639.5	6,639.5	48.8	131.1	90.03	1,647.2	-2,184.1	1,927.2	1,747.4	179.87	10.714	
8,267.7	6,643.4	6,639.4	6,639.4	50.6	131.0	90.03	1,647.2	-2,184.1	1,905.3	1,723.6	181.68	10.487	
8,300.0	6,643.3	6,639.3	6,639.3	51.5	131.0	90.02	1,647.2	-2,184.1	1,895.5	1,713.0	182.54	10.384	
8,366.1	6,643.2	6,639.2	6,639.2	53.3	131.0	90.02	1,647.2	-2,184.1	1,877.2	1,692.9	184.32	10.185	
8,400.0	6,643.2	6,639.2	6,639.2	54.2	131.0	90.02	1,647.2	-2,184.1	1,868.7	1,683.4	185.23	10.088	
8,464.5	6,643.1	6,639.1	6,639.1	55.9	131.0	90.02	1,647.2	-2,184.1	1,854.0	1,667.0	186.97	9.916	
8,500.0	6,643.1	6,639.1	6,639.1	56.9	131.0	90.02	1,647.2	-2,184.1	1,846.8	1,658.9	187.93	9.827	
8,563.0	6,643.0	6,639.0	6,639.0	58.6	131.0	90.01	1,647.2	-2,184.1	1,835.7	1,646.1	189.63	9.681	
8,600.0	6,642.9	6,638.9	6,638.9	59.6	131.0	90.01	1,647.2	-2,184.1	1,830.2	1,639.6	190.64	9.601	
8,661.4	6,642.8	6,638.8	6,638.8	61.3	131.0	90.01	1,647.2	-2,184.1	1,822.6	1,630.3	192.30	9.478	
8,700.0	6,642.8	6,638.8	6,638.8	62.3	131.0	90.01	1,647.2	-2,184.1	1,818.9	1,625.6	193.35	9.407	
8,759.8	6,642.7	6,638.7	6,638.7	64.0	131.0	90.00	1,647.2	-2,184.1	1,814.8	1,619.8	194.98	9.307	
8,800.0	6,642.7	6,638.7	6,638.7	65.1	131.0	90.00	1,647.2	-2,184.1	1,813.1	1,617.0	196.08	9.247	
8,855.7	6,642.6	6,638.6	6,638.6	66.6	131.0	90.00	1,647.2	-2,184.1	1,812.3	1,614.7	197.60	9.171 CC	
8,858.2	6,642.6	6,638.6	6,638.6	66.6	131.0	90.00	1,647.2	-2,184.1	1,812.3	1,614.6	197.67	9.168	
8,900.0	6,642.5	6,638.5	6,638.5	67.8	131.0	90.00	1,647.2	-2,184.1	1,812.8	1,614.0	198.81	9.118 ES	
8,956.7	6,642.4	6,638.4	6,638.4	69.3	131.0	90.00	1,647.2	-2,184.1	1,815.1	1,614.7	200.36	9.059	
9,000.0	6,642.4	6,638.4	6,638.4	70.5	131.0	89.99	1,647.2	-2,184.1	1,818.0	1,616.4	201.55	9.020	
9,055.1	6,642.3	6,638.3	6,638.3	72.0	131.0	89.99	1,647.2	-2,184.1	1,823.2	1,620.1	203.06	8.979	
9,100.0	6,642.3	6,638.3	6,638.3	73.3	131.0	89.99	1,647.2	-2,184.1	1,828.6	1,624.4	204.29	8.951	
9,153.5	6,642.2	6,638.2	6,638.2	74.7	131.0	89.99	1,647.2	-2,184.1	1,836.6	1,630.8	205.76	8.926	
9,200.0	6,642.1	6,638.1	6,638.1	76.0	131.0	89.99	1,647.2	-2,184.1	1,844.7	1,637.6	207.04	8.910	
9,251.9	6,642.1	6,638.1	6,638.1	77.5	131.0	89.98	1,647.2	-2,184.1	1,855.1	1,646.6	208.47	8.899	
9,300.0	6,642.0	6,638.0	6,638.0	78.8	131.0	89.98	1,647.2	-2,184.1	1,865.9	1,656.1	209.79	8.894 SF	
9,350.4	6,641.9	6,637.9	6,637.9	80.2	131.0	89.98	1,647.2	-2,184.1	1,878.5	1,667.4	211.18	8.896	
9,400.0	6,641.9	6,637.9	6,637.9	81.5	131.0	89.98	1,647.2	-2,184.1	1,892.2	1,679.7	212.54	8.903	
9,448.8	6,641.8	6,637.8	6,637.8	82.9	131.0	89.98	1,647.2	-2,184.1	1,906.8	1,692.9	213.89	8.915	
9,500.0	6,641.7	6,637.7	6,637.7	84.3	131.0	89.97	1,647.2	-2,184.1	1,923.4	1,708.1	215.30	8.933	
9,547.2	6,641.7	6,637.7	6,637.7	85.6	131.0	89.97	1,647.2	-2,184.1	1,939.7	1,723.1	216.61	8.955	

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

Anticollision Report



Company:	PDC ENERGY	Local Co-ordinate Reference:	Well WACKER 10G-214
Project:	WELD COUNTY, COLORADO	TVD Reference:	KB-EST @ 4624.0usft (Original Well Elev)
Reference Site:	SW NW SEC. 10 T5N R64W 6th P.M.	MD Reference:	KB-EST @ 4624.0usft (Original Well Elev)
Site Error:	0.0 usft	North Reference:	True
Reference Well:	WACKER 10G-214	Survey Calculation Method:	Minimum Curvature
Well Error:	0.0 usft	Output errors are at	2.00 sigma
Reference Wellbore	ORIGINAL WELLBORE	Database:	EDM 5000.1 Single User Db
Reference Design:	PROPOSAL #1	Offset TVD Reference:	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	6,641.6	6,637.6	6,637.6	87.1	131.0	89.97	1,647.2	-2,184.1	1,959.1	1,741.1	218.06	8.984	
9,645.6	6,641.5	6,637.5	6,637.5	88.3	131.0	89.97	1,647.2	-2,184.1	1,976.9	1,757.6	219.33	9.014	
9,700.0	6,641.5	6,637.5	6,637.5	89.8	131.0	89.97	1,647.2	-2,184.1	1,999.3	1,778.4	220.83	9.053	
9,744.1	6,641.4	6,637.4	6,637.4	91.0	131.0	89.96	1,647.2	-2,184.1	2,018.3	1,796.2	222.05	9.089	
9,800.0	6,641.3	6,637.3	6,637.3	92.6	131.0	89.96	1,647.2	-2,184.1	2,043.5	1,819.9	223.60	9.139	
9,842.5	6,641.3	6,637.3	6,637.3	93.8	131.0	89.96	1,647.2	-2,184.1	2,063.5	1,838.7	224.77	9.180	
9,900.0	6,641.2	6,637.2	6,637.2	95.4	131.0	89.96	1,647.2	-2,184.1	2,091.6	1,865.2	226.37	9.240	
9,940.9	6,641.1	6,637.1	6,637.1	96.5	131.0	89.96	1,647.2	-2,184.1	2,112.3	1,884.8	227.50	9.285	
10,000.0	6,641.1	6,637.1	6,637.1	98.1	131.0	89.95	1,647.2	-2,184.1	2,143.3	1,914.1	229.14	9.354	
10,039.3	6,641.0	6,637.0	6,637.0	99.2	131.0	89.95	1,647.2	-2,184.1	2,164.5	1,934.3	230.23	9.402	
10,100.0	6,640.9	6,636.9	6,636.9	100.9	131.0	89.95	1,647.2	-2,184.1	2,198.3	1,966.4	231.91	9.479	
10,137.8	6,640.9	6,636.9	6,636.9	102.0	131.0	89.95	1,647.2	-2,184.1	2,219.9	1,986.9	232.96	9.529	
10,200.0	6,640.8	6,636.8	6,636.8	103.7	131.0	89.95	1,647.2	-2,184.1	2,256.4	2,021.7	234.69	9.614	
10,236.2	6,640.8	6,636.8	6,636.8	104.7	131.0	89.94	1,647.2	-2,184.1	2,278.1	2,042.4	235.70	9.666	
10,300.0	6,640.7	6,636.7	6,636.7	106.5	131.0	89.94	1,647.2	-2,184.1	2,317.4	2,079.9	237.47	9.759	
10,334.6	6,640.6	6,636.6	6,636.6	107.4	131.0	89.94	1,647.2	-2,184.1	2,339.1	2,100.7	238.43	9.810	
10,400.0	6,640.6	6,636.6	6,636.6	109.3	131.0	89.94	1,647.2	-2,184.1	2,381.0	2,140.7	240.25	9.910	
10,433.0	6,640.5	6,636.5	6,636.5	110.2	131.0	89.94	1,647.2	-2,184.1	2,402.5	2,161.4	241.17	9.962	
10,500.0	6,640.4	6,636.4	6,636.4	112.0	131.0	89.93	1,647.2	-2,184.1	2,447.0	2,204.0	243.03	10.069	
10,531.5	6,640.4	6,636.4	6,636.4	112.9	131.0	89.93	1,647.2	-2,184.1	2,468.3	2,224.4	243.90	10.120	
10,600.0	6,640.3	6,636.3	6,636.3	114.8	131.0	89.93	1,647.2	-2,184.1	2,515.3	2,269.5	245.81	10.233	
10,629.9	6,640.3	6,636.3	6,636.3	115.7	131.0	89.93	1,647.2	-2,184.1	2,536.1	2,289.5	246.64	10.283	
10,700.0	6,640.2	6,636.2	6,636.2	117.6	131.0	89.93	1,647.2	-2,184.1	2,585.6	2,337.1	248.59	10.401	
10,728.3	6,640.1	6,636.1	6,636.1	118.4	131.0	89.92	1,647.2	-2,184.1	2,605.9	2,356.5	249.38	10.449	
10,800.0	6,640.0	6,636.0	6,636.0	120.4	131.0	89.92	1,647.2	-2,184.1	2,657.9	2,406.5	251.38	10.573	
10,826.7	6,640.0	6,636.0	6,636.0	121.2	131.0	89.92	1,647.2	-2,184.1	2,677.5	2,425.4	252.12	10.620	
10,900.0	6,639.9	6,635.9	6,635.9	123.2	131.0	89.92	1,647.2	-2,184.1	2,731.9	2,477.7	254.17	10.749	
10,925.2	6,639.9	6,635.9	6,635.9	123.9	131.0	89.92	1,647.2	-2,184.1	2,750.8	2,495.9	254.87	10.793	
11,000.0	6,639.8	6,635.8	6,635.8	126.0	131.0	89.91	1,647.2	-2,184.1	2,807.5	2,550.6	256.95	10.926	
11,023.6	6,639.8	6,635.8	6,635.8	126.6	131.0	89.91	1,647.2	-2,184.1	2,825.6	2,568.0	257.61	10.968	
11,100.0	6,639.7	6,635.7	6,635.7	128.8	131.0	89.91	1,647.2	-2,184.1	2,884.6	2,624.9	259.74	11.106	
11,122.0	6,639.6	6,635.6	6,635.6	129.4	131.0	89.91	1,647.2	-2,184.1	2,901.8	2,641.4	260.35	11.146	
11,200.0	6,639.5	6,635.5	6,635.5	131.6	131.0	89.91	1,647.2	-2,184.1	2,963.1	2,700.6	262.53	11.287	
11,220.4	6,639.5	6,635.5	6,635.5	132.1	131.0	89.91	1,647.2	-2,184.1	2,979.3	2,716.2	263.10	11.324	
11,300.0	6,639.4	6,635.4	6,635.4	134.4	131.0	89.90	1,647.2	-2,184.1	3,042.8	2,777.5	265.32	11.469	
11,318.9	6,639.4	6,635.4	6,635.4	134.9	131.0	89.90	1,647.2	-2,184.1	3,058.0	2,792.1	265.84	11.503	
11,400.0	6,639.3	6,635.3	6,635.3	137.1	131.0	89.90	1,647.2	-2,184.1	3,123.7	2,855.6	268.11	11.651	
11,417.3	6,639.3	6,635.3	6,635.3	137.6	131.0	89.90	1,647.2	-2,184.1	3,137.8	2,869.2	268.59	11.683	
11,500.0	6,639.2	6,635.2	6,635.2	139.9	131.0	89.90	1,647.2	-2,184.1	3,205.7	2,934.8	270.90	11.833	
11,515.7	6,639.1	6,635.1	6,635.1	140.4	131.0	89.89	1,647.2	-2,184.1	3,218.7	2,947.3	271.34	11.862	
11,600.0	6,639.0	6,635.0	6,635.0	142.7	131.0	89.89	1,647.2	-2,184.1	3,288.7	3,015.0	273.69	12.016	
11,614.1	6,639.0	6,635.0	6,635.0	143.1	131.0	89.89	1,647.2	-2,184.1	3,300.5	3,026.4	274.09	12.042	
11,700.0	6,638.9	6,634.9	6,634.9	145.5	131.0	89.89	1,647.2	-2,184.1	3,372.6	3,096.1	276.48	12.198	
11,712.6	6,638.9	6,634.9	6,634.9	145.9	131.0	89.89	1,647.2	-2,184.1	3,383.2	3,106.3	276.83	12.221	
11,800.0	6,638.8	6,634.8	6,634.8	148.3	131.0	89.88	1,647.2	-2,184.1	3,457.3	3,178.0	279.28	12.380	
11,811.0	6,638.8	6,634.8	6,634.8	148.6	131.0	89.88	1,647.2	-2,184.1	3,466.7	3,187.1	279.58	12.399	
11,900.0	6,638.7	6,634.7	6,634.7	151.1	131.0	89.88	1,647.2	-2,184.1	3,542.9	3,260.8	282.07	12.560	
11,909.4	6,638.6	6,634.6	6,634.6	151.4	131.0	89.88	1,647.2	-2,184.1	3,551.0	3,268.6	282.33	12.577	
12,000.0	6,638.5	6,634.5	6,634.5	153.9	131.0	89.88	1,647.2	-2,184.1	3,629.1	3,344.3	284.86	12.740	
12,007.8	6,638.5	6,634.5	6,634.5	154.1	131.0	89.88	1,647.2	-2,184.1	3,635.9	3,350.9	285.08	12.754	
12,100.0	6,638.4	6,634.4	6,634.4	156.7	130.9	89.87	1,647.2	-2,184.1	3,716.1	3,428.5	287.66	12.919	
12,106.3	6,638.4	6,634.4	6,634.4	156.9	130.9	89.87	1,647.2	-2,184.1	3,721.6	3,433.8	287.83	12.930	

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

Anticollision Report



Company:	PDC ENERGY	Local Co-ordinate Reference:	Well WACKER 10G-214
Project:	WELD COUNTY, COLORADO	TVD Reference:	KB-EST @ 4624.0usft (Original Well Elev)
Reference Site:	SW NW SEC. 10 T5N R64W 6th P.M.	MD Reference:	KB-EST @ 4624.0usft (Original Well Elev)
Site Error:	0.0 usft	North Reference:	True
Reference Well:	WACKER 10G-214	Survey Calculation Method:	Minimum Curvature
Well Error:	0.0 usft	Output errors are at	2.00 sigma
Reference Wellbore	ORIGINAL WELLBORE	Database:	EDM 5000.1 Single User Db
Reference Design:	PROPOSAL #1	Offset TVD Reference:	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		
12,200.0	6,638.3	6,634.3	6,634.3	159.5	130.9	89.87	1,647.2	-2,184.1	3,803.7	3,513.3	290.45	13.096		
12,204.7	6,638.3	6,634.3	6,634.3	159.6	130.9	89.87	1,647.2	-2,184.1	3,807.9	3,517.3	290.58	13.104		
12,300.0	6,638.2	6,634.2	6,634.2	162.3	130.9	89.87	1,647.2	-2,184.1	3,891.9	3,598.7	293.25	13.272		
12,303.1	6,638.2	6,634.2	6,634.2	162.4	130.9	89.87	1,647.2	-2,184.1	3,894.7	3,601.4	293.34	13.277		
12,400.0	6,638.0	6,634.0	6,634.0	165.1	130.9	89.86	1,647.2	-2,184.1	3,980.7	3,684.7	296.04	13.446		
12,401.5	6,638.0	6,634.0	6,634.0	165.2	130.9	89.86	1,647.2	-2,184.1	3,982.1	3,686.0	296.09	13.449		
12,500.0	6,637.9	6,633.9	6,633.9	167.9	130.9	89.86	1,647.2	-2,184.1	4,070.0	3,771.2	298.84	13.619		
12,598.4	6,637.8	6,633.8	6,633.8	170.7	130.9	89.86	1,647.2	-2,184.1	4,158.3	3,856.7	301.59	13.788		
12,600.0	6,637.8	6,633.8	6,633.8	170.7	130.9	89.86	1,647.2	-2,184.1	4,159.8	3,858.1	301.64	13.791		
12,696.8	6,637.7	6,633.7	6,633.7	173.4	130.9	89.85	1,647.2	-2,184.1	4,247.1	3,942.8	304.35	13.955		
12,700.0	6,637.7	6,633.7	6,633.7	173.5	130.9	89.85	1,647.2	-2,184.1	4,250.0	3,945.6	304.43	13.960		
12,795.2	6,637.6	6,633.6	6,633.6	176.2	130.9	89.85	1,647.2	-2,184.1	4,336.4	4,029.3	307.10	14.120		
12,800.0	6,637.6	6,633.6	6,633.6	176.3	130.9	89.85	1,647.2	-2,184.1	4,340.7	4,033.4	307.23	14.128		
12,893.7	6,637.4	6,633.4	6,633.4	178.9	130.9	89.85	1,647.2	-2,184.1	4,426.0	4,116.1	309.85	14.284		
12,900.0	6,637.4	6,633.4	6,633.4	179.1	130.9	89.85	1,647.2	-2,184.1	4,431.7	4,121.7	310.03	14.295		
12,992.1	6,637.3	6,633.3	6,633.3	181.7	130.9	89.84	1,647.2	-2,184.1	4,515.9	4,203.3	312.61	14.446		
13,000.0	6,637.3	6,633.3	6,633.3	181.9	130.9	89.84	1,647.2	-2,184.1	4,523.2	4,210.4	312.83	14.459		
13,090.5	6,637.2	6,633.2	6,633.2	184.4	130.9	89.84	1,647.2	-2,184.1	4,606.3	4,290.9	315.36	14.606		
13,100.0	6,637.2	6,633.2	6,633.2	184.7	130.9	89.84	1,647.2	-2,184.1	4,615.0	4,299.4	315.63	14.622		
13,188.9	6,637.1	6,633.1	6,633.1	187.2	130.9	89.84	1,647.2	-2,184.1	4,696.9	4,378.8	318.12	14.765		
13,200.0	6,637.1	6,633.1	6,633.1	187.5	130.9	89.84	1,647.2	-2,184.1	4,707.1	4,388.7	318.43	14.782		
13,287.4	6,637.0	6,633.0	6,633.0	190.0	130.9	89.83	1,647.2	-2,184.1	4,787.9	4,467.0	320.87	14.921		
13,300.0	6,637.0	6,633.0	6,633.0	190.3	130.9	89.83	1,647.2	-2,184.1	4,799.6	4,478.3	321.22	14.941		
13,385.8	6,636.9	6,632.9	6,632.9	192.7	130.9	89.83	1,647.2	-2,184.1	4,879.1	4,555.5	323.63	15.076		
13,400.0	6,636.8	6,632.8	6,632.8	193.1	130.9	89.83	1,647.2	-2,184.1	4,892.3	4,568.3	324.02	15.099		
13,484.2	6,636.7	6,632.7	6,632.7	195.5	130.9	89.83	1,647.2	-2,184.1	4,970.6	4,644.2	326.38	15.229		
13,500.0	6,636.7	6,632.7	6,632.7	195.9	130.9	89.83	1,647.2	-2,184.1	4,985.3	4,658.5	326.82	15.254		
13,582.6	6,636.6	6,632.6	6,632.6	198.2	130.9	89.82	1,647.2	-2,184.1	5,062.4	4,733.3	329.14	15.381		
13,600.0	6,636.6	6,632.6	6,632.6	198.7	130.9	89.82	1,647.2	-2,184.1	5,078.6	4,749.0	329.62	15.407		
13,681.1	6,636.5	6,632.5	6,632.5	201.0	130.9	89.82	1,647.2	-2,184.1	5,154.4	4,822.5	331.89	15.530		
13,700.0	6,636.5	6,632.5	6,632.5	201.5	130.9	89.82	1,647.2	-2,184.1	5,172.1	4,839.7	332.42	15.559		
13,779.5	6,636.4	6,632.4	6,632.4	203.7	130.9	89.82	1,647.2	-2,184.1	5,246.7	4,912.0	334.65	15.678		
13,800.0	6,636.4	6,632.4	6,632.4	204.3	130.9	89.82	1,647.2	-2,184.1	5,265.9	4,930.7	335.22	15.709		
13,877.9	6,636.3	6,632.3	6,632.3	206.5	130.9	89.81	1,647.2	-2,184.1	5,339.2	5,001.8	337.41	15.824		
13,900.0	6,636.3	6,632.3	6,632.3	207.1	130.9	89.81	1,647.2	-2,184.1	5,359.9	5,021.9	338.03	15.857		
13,976.3	6,636.2	6,632.2	6,632.2	209.3	130.9	89.81	1,647.2	-2,184.1	5,431.8	5,091.7	340.16	15.968		
14,000.0	6,636.1	6,632.1	6,632.1	209.9	130.9	89.81	1,647.2	-2,184.1	5,454.1	5,113.3	340.83	16.003		
14,074.8	6,636.0	6,632.0	6,632.0	212.0	130.9	89.81	1,647.2	-2,184.1	5,524.7	5,181.8	342.92	16.111		
14,100.0	6,636.0	6,632.0	6,632.0	212.7	130.9	89.81	1,647.2	-2,184.1	5,548.6	5,204.9	343.63	16.147		
14,173.2	6,635.9	6,631.9	6,631.9	214.8	130.9	89.80	1,647.2	-2,184.1	5,617.8	5,272.1	345.68	16.252		
14,200.0	6,635.9	6,631.9	6,631.9	215.5	130.9	89.80	1,647.2	-2,184.1	5,643.2	5,296.7	346.43	16.290		
14,271.6	6,635.8	6,631.8	6,631.8	217.5	130.9	89.80	1,647.2	-2,184.1	5,711.0	5,362.6	348.43	16.391		
14,300.0	6,635.8	6,631.8	6,631.8	218.3	130.9	89.80	1,647.2	-2,184.1	5,738.0	5,388.7	349.23	16.430		
14,370.0	6,635.7	6,631.7	6,631.7	220.3	130.9	89.80	1,647.2	-2,184.1	5,804.5	5,453.3	351.19	16.528		
14,400.0	6,635.7	6,631.7	6,631.7	221.1	130.9	89.80	1,647.2	-2,184.1	5,832.9	5,480.9	352.03	16.569		
14,468.5	6,635.6	6,631.6	6,631.6	223.1	130.9	89.79	1,647.2	-2,184.1	5,898.1	5,544.1	353.95	16.664		
14,500.0	6,635.6	6,631.6	6,631.6	223.9	130.9	89.79	1,647.2	-2,184.1	5,928.1	5,573.2	354.83	16.707		
14,566.9	6,635.5	6,631.5	6,631.5	225.8	130.9	89.79	1,647.2	-2,184.1	5,991.8	5,635.1	356.71	16.797		
14,600.0	6,635.4	6,631.4	6,631.4	226.8	130.9	89.79	1,647.2	-2,184.1	6,023.4	5,665.7	357.64	16.842		
14,665.3	6,635.4	6,631.4	6,631.4	228.6	130.9	89.79	1,647.2	-2,184.1	6,085.7	5,726.2	359.47	16.930		
14,700.0	6,635.3	6,631.3	6,631.3	229.6	130.9	89.79	1,647.2	-2,184.1	6,118.8	5,758.4	360.44	16.976		
14,763.7	6,635.2	6,631.2	6,631.2	231.3	130.9	89.79	1,647.2	-2,184.1	6,179.7	5,817.5	362.22	17.060		

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

Anticollision Report



Company:	PDC ENERGY	Local Co-ordinate Reference:	Well WACKER 10G-214
Project:	WELD COUNTY, COLORADO	TVD Reference:	KB-EST @ 4624.0usft (Original Well Elev)
Reference Site:	SW NW SEC. 10 T5N R64W 6th P.M.	MD Reference:	KB-EST @ 4624.0usft (Original Well Elev)
Site Error:	0.0 usft	North Reference:	True
Reference Well:	WACKER 10G-214	Survey Calculation Method:	Minimum Curvature
Well Error:	0.0 usft	Output errors are at	2.00 sigma
Reference Wellbore	ORIGINAL WELLBORE	Database:	EDM 5000.1 Single User Db
Reference Design:	PROPOSAL #1	Offset TVD Reference:	Offset Datum

Offset Design SW NW SEC. 10 T5N R64W 6th P.M. - EXIST VERT OGRADY #31-9 - 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									
Measured Depth (usft)	Vertical Depth (usft)	Measured Depth (usft)	Vertical Depth (usft)	Reference (usft)	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
14,800.0	6,635.2	6,631.2	6,631.2	232.4	130.9	89.79	1,647.2	-2,184.1	6,214.4	5,851.1	363.24	17.108	
14,862.2	6,635.1	6,631.1	6,631.1	234.1	130.9	89.78	1,647.2	-2,184.1	6,273.9	5,908.9	364.98	17.190	
14,900.0	6,635.1	6,631.1	6,631.1	235.2	130.9	89.78	1,647.2	-2,184.1	6,310.1	5,944.1	366.04	17.239	
14,960.6	6,635.0	6,631.0	6,631.0	236.9	130.9	89.78	1,647.2	-2,184.1	6,368.2	6,000.4	367.74	17.317	
14,982.9	6,635.0	6,631.0	6,631.0	237.5	130.9	89.78	1,647.2	-2,184.1	6,389.5	6,021.2	368.36	17.346	

Anticollision Report



Company:	PDC ENERGY	Local Co-ordinate Reference:	Well WACKER 10G-214
Project:	WELD COUNTY, COLORADO	TVD Reference:	KB-EST @ 4624.0usft (Original Well Elev)
Reference Site:	SW NW SEC. 10 T5N R64W 6th P.M.	MD Reference:	KB-EST @ 4624.0usft (Original Well Elev)
Site Error:	0.0 usft	North Reference:	True
Reference Well:	WACKER 10G-214	Survey Calculation Method:	Minimum Curvature
Well Error:	0.0 usft	Output errors are at	2.00 sigma
Reference Wellbore	ORIGINAL WELLBORE	Database:	EDM 5000.1 Single User Db
Reference Design:	PROPOSAL #1	Offset TVD Reference:	Offset Datum

Offset Design SW NW SEC. 10 T5N R64W 6th P.M. - EXIST VERT PAULINE #5 - 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						
Measured Depth (usft)	Vertical Depth (usft)	Measured Depth (usft)	Vertical Depth (usft)	Reference (usft)	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	-90.35	-55.9	-9,146.0	9,146.2				
98.4	98.4	73.4	73.4	0.1	0.0	-90.35	-55.9	-9,146.0	9,146.2	9,146.1	0.11	N/A	
100.0	100.0	75.0	75.0	0.1	0.0	-90.35	-55.9	-9,146.0	9,146.2	9,146.1	0.11	N/A	
196.8	196.8	171.8	171.8	0.3	1.9	-90.35	-55.9	-9,146.0	9,146.2	9,143.9	2.24	4,087.056	
200.0	200.0	175.0	175.0	0.3	2.0	-90.35	-55.9	-9,146.0	9,146.2	9,143.8	2.33	3,927.731	
295.3	295.3	270.3	270.3	0.5	4.1	-90.35	-55.9	-9,146.0	9,146.2	9,141.5	4.65	1,965.793	
300.0	300.0	275.0	275.0	0.5	4.2	-90.35	-55.9	-9,146.0	9,146.2	9,141.4	4.76	1,921.270	
393.7	393.7	368.7	368.7	0.8	6.1	-90.35	-55.9	-9,146.0	9,146.2	9,139.3	6.88	1,329.472	
400.0	400.0	375.0	375.0	0.8	6.2	-90.35	-55.9	-9,146.0	9,146.2	9,139.2	7.02	1,302.584	
492.1	492.1	467.1	467.1	1.0	8.1	-90.35	-55.9	-9,146.0	9,146.2	9,137.1	9.09	1,005.904	
500.0	500.0	475.0	475.0	1.0	8.3	-90.35	-55.9	-9,146.0	9,146.2	9,136.9	9.27	986.712	
590.5	590.5	565.5	565.5	1.2	10.1	-90.35	-55.9	-9,146.0	9,146.2	9,134.9	11.30	809.371	
600.0	600.0	575.0	575.0	1.2	10.3	-90.35	-55.9	-9,146.0	9,146.2	9,134.7	11.51	794.476	
689.0	689.0	664.0	664.0	1.4	12.1	-90.35	-55.9	-9,146.0	9,146.2	9,132.7	13.51	677.207	
700.0	700.0	675.0	675.0	1.4	12.3	-90.35	-55.9	-9,146.0	9,146.2	9,132.4	13.75	665.047	
787.4	787.4	762.4	762.4	1.6	14.1	-90.35	-55.9	-9,146.0	9,146.2	9,130.5	15.71	582.199	
800.0	800.0	775.0	775.0	1.7	14.3	-90.35	-55.9	-9,146.0	9,146.2	9,130.2	15.99	571.929	
885.8	885.8	860.8	860.8	1.9	16.0	-90.35	-55.9	-9,146.0	9,146.2	9,128.3	17.91	510.594	
900.0	900.0	875.0	875.0	1.9	16.3	-90.35	-55.9	-9,146.0	9,146.2	9,127.9	18.23	501.709	
984.2	984.2	959.2	959.2	2.1	18.0	-90.35	-55.9	-9,146.0	9,146.2	9,126.1	20.12	454.687	
1,000.0	1,000.0	975.0	975.0	2.1	18.3	-90.35	-55.9	-9,146.0	9,146.2	9,125.7	20.47	446.858	
1,082.7	1,082.7	1,057.7	1,057.7	2.3	20.0	-90.35	-55.9	-9,146.0	9,146.2	9,123.9	22.32	409.822	
1,100.0	1,100.0	1,075.0	1,075.0	2.3	20.4	-90.35	-55.9	-9,146.0	9,146.2	9,123.5	22.71	402.826	
1,181.1	1,181.1	1,156.1	1,156.1	2.5	22.0	-90.35	-55.9	-9,146.0	9,146.2	9,121.7	24.52	373.020	
1,200.0	1,200.0	1,175.0	1,175.0	2.6	22.4	-90.35	-55.9	-9,146.0	9,146.2	9,121.2	24.94	366.697	
1,279.5	1,279.5	1,254.5	1,254.5	2.7	24.0	-90.35	-55.9	-9,146.0	9,146.2	9,119.5	26.72	342.286	
1,300.0	1,300.0	1,275.0	1,275.0	2.8	24.4	-90.35	-55.9	-9,146.0	9,146.2	9,119.0	27.18	336.518	
1,377.9	1,377.9	1,352.9	1,352.9	3.0	26.0	151.00	-55.9	-9,146.0	9,147.1	9,118.2	28.90	316.532	
1,400.0	1,400.0	1,375.0	1,375.0	3.0	26.4	150.99	-55.9	-9,146.0	9,147.7	9,118.3	29.38	311.351	
1,476.4	1,476.3	1,451.3	1,451.3	3.1	27.9	150.97	-55.9	-9,146.0	9,150.9	9,119.9	31.03	294.923	
1,500.0	1,499.8	1,474.8	1,474.8	3.2	28.4	150.96	-55.9	-9,146.0	9,152.3	9,120.7	31.53	290.245	
1,574.8	1,574.4	1,549.4	1,549.4	3.3	29.9	150.93	-55.9	-9,146.0	9,157.7	9,124.6	33.12	276.486	
1,600.0	1,599.5	1,574.5	1,574.5	3.4	30.4	150.92	-55.9	-9,146.0	9,159.9	9,126.3	33.65	272.203	
1,673.2	1,672.2	1,647.2	1,647.2	3.6	31.9	150.87	-55.9	-9,146.0	9,167.4	9,132.2	35.18	260.599	
1,700.0	1,698.7	1,673.7	1,673.7	3.6	32.4	150.85	-55.9	-9,146.0	9,170.6	9,134.8	35.73	256.668	
1,771.6	1,769.5	1,744.5	1,744.5	3.8	33.8	150.79	-55.9	-9,146.0	9,180.1	9,142.9	37.19	246.823	
1,800.0	1,797.5	1,772.5	1,772.5	3.9	34.4	150.76	-55.9	-9,146.0	9,184.3	9,146.5	37.76	243.206	
1,870.1	1,866.3	1,841.3	1,841.3	4.1	35.8	150.69	-55.9	-9,146.0	9,195.7	9,156.5	39.16	234.808	
1,900.2	1,895.8	1,870.8	1,870.8	4.2	36.4	150.65	-55.9	-9,146.0	9,201.0	9,161.3	39.75	231.448	
1,968.5	1,962.6	1,937.6	1,937.6	4.4	37.7	150.70	-55.9	-9,146.0	9,213.5	9,172.2	41.24	223.396	
2,000.0	1,993.4	1,968.4	1,968.4	4.5	38.3	150.71	-55.9	-9,146.0	9,219.2	9,177.3	41.93	219.876	
2,066.9	2,058.9	2,033.9	2,033.9	4.7	39.6	150.76	-55.9	-9,146.0	9,231.4	9,188.0	43.40	212.725	
2,100.0	2,091.2	2,066.2	2,066.2	4.8	40.3	150.78	-55.9	-9,146.0	9,237.4	9,193.3	44.12	209.373	
2,165.3	2,155.2	2,130.2	2,130.2	5.1	41.6	150.82	-55.9	-9,146.0	9,249.4	9,203.8	45.55	203.038	
2,200.0	2,189.1	2,164.1	2,164.1	5.2	42.3	150.84	-55.9	-9,146.0	9,255.7	9,209.4	46.32	199.825	
2,263.8	2,251.4	2,226.4	2,226.4	5.5	43.5	150.88	-55.9	-9,146.0	9,267.3	9,219.6	47.73	194.178	
2,300.0	2,286.9	2,261.9	2,261.9	5.6	44.2	150.90	-55.9	-9,146.0	9,274.0	9,225.4	48.53	191.114	
2,362.2	2,347.7	2,322.7	2,322.7	5.8	45.5	150.94	-55.9	-9,146.0	9,285.3	9,235.4	49.90	186.071	
2,400.0	2,384.7	2,359.7	2,359.7	6.0	46.2	150.96	-55.9	-9,146.0	9,292.2	9,241.5	50.74	183.139	
2,460.6	2,444.0	2,419.0	2,419.0	6.2	47.4	151.00	-55.9	-9,146.0	9,303.3	9,251.2	52.08	178.624	
2,500.0	2,482.5	2,457.5	2,457.5	6.4	48.2	151.03	-55.9	-9,146.0	9,310.5	9,257.6	52.96	175.814	
2,559.0	2,540.3	2,515.3	2,515.3	6.6	49.3	151.06	-55.9	-9,146.0	9,321.3	9,267.0	54.27	171.762	

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

Anticollision Report



Company:	PDC ENERGY	Local Co-ordinate Reference:	Well WACKER 10G-214
Project:	WELD COUNTY, COLORADO	TVD Reference:	KB-EST @ 4624.0usft (Original Well Elev)
Reference Site:	SW NW SEC. 10 T5N R64W 6th P.M.	MD Reference:	KB-EST @ 4624.0usft (Original Well Elev)
Site Error:	0.0 usft	North Reference:	True
Reference Well:	WACKER 10G-214	Survey Calculation Method:	Minimum Curvature
Well Error:	0.0 usft	Output errors are at	2.00 sigma
Reference Wellbore	ORIGINAL WELLBORE	Database:	EDM 5000.1 Single User Db
Reference Design:	PROPOSAL #1	Offset TVD Reference:	Offset Datum

Offset Design		SW NW SEC. 10 T5N R64W 6th P.M. - EXIST VERT PAULINE #5 - 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	2,580.3	2,555.3	2,555.3	6.8	50.1	151.09	-55.9	-9,146.0	9,328.8	9,273.6	55.18	169.064			
2,657.5	2,636.5	2,611.5	2,611.5	7.1	51.3	151.12	-55.9	-9,146.0	9,339.3	9,282.9	56.46	165.420			
2,700.0	2,678.1	2,653.1	2,653.1	7.2	52.1	151.15	-55.9	-9,146.0	9,347.1	9,289.7	57.41	162.827			
2,755.9	2,732.8	2,707.8	2,707.8	7.5	53.2	151.18	-55.9	-9,146.0	9,357.4	9,298.7	58.65	159.543			
2,800.0	2,775.9	2,750.9	2,750.9	7.7	54.1	151.21	-55.9	-9,146.0	9,365.4	9,305.8	59.63	157.048			
2,854.3	2,829.1	2,804.1	2,804.1	7.9	55.1	151.24	-55.9	-9,146.0	9,375.4	9,314.5	60.85	154.082			
2,900.0	2,873.8	2,848.8	2,848.8	8.1	56.0	151.27	-55.9	-9,146.0	9,383.8	9,321.9	61.87	151.679			
2,952.7	2,925.4	2,900.4	2,900.4	8.3	57.1	151.30	-55.9	-9,146.0	9,393.4	9,330.4	63.04	148.998			
2,953.5	2,926.1	2,901.1	2,901.1	8.3	57.1	151.30	-55.9	-9,146.0	9,393.6	9,330.5	63.06	148.962			
3,000.0	2,971.6	2,946.6	2,946.6	8.5	58.0	151.41	-55.9	-9,146.0	9,401.8	9,337.5	64.24	146.365			
3,051.2	3,022.0	2,997.0	2,997.0	8.7	59.0	151.52	-55.9	-9,146.0	9,410.0	9,344.5	65.51	143.651			
3,100.0	3,070.1	3,045.1	3,045.1	8.8	60.0	151.61	-55.9	-9,146.0	9,417.2	9,350.5	66.71	141.160			
3,149.6	3,119.1	3,094.1	3,094.1	8.9	61.0	151.69	-55.9	-9,146.0	9,423.7	9,355.8	67.93	138.736			
3,200.0	3,169.1	3,144.1	3,144.1	9.1	62.0	151.77	-55.9	-9,146.0	9,429.6	9,360.4	69.15	136.365			
3,248.0	3,216.8	3,191.8	3,191.8	9.2	62.9	151.83	-55.9	-9,146.0	9,434.5	9,364.2	70.30	134.202			
3,300.0	3,268.5	3,243.5	3,243.5	9.3	64.0	151.89	-55.9	-9,146.0	9,438.9	9,367.4	71.53	131.950			
3,346.4	3,314.8	3,289.8	3,289.8	9.4	64.9	151.93	-55.9	-9,146.0	9,442.2	9,369.6	72.62	130.023			
3,400.0	3,368.3	3,343.3	3,343.3	9.6	66.0	151.97	-55.9	-9,146.0	9,445.2	9,371.3	73.86	127.884			
3,444.9	3,413.1	3,388.1	3,388.1	9.6	66.9	151.99	-55.9	-9,146.0	9,447.0	9,372.1	74.88	126.169			
3,500.0	3,468.2	3,443.2	3,443.2	9.7	68.0	152.01	-55.9	-9,146.0	9,448.4	9,372.3	76.11	124.142			
3,543.3	3,511.5	3,486.5	3,486.5	9.8	68.9	152.01	-55.9	-9,146.0	9,448.8	9,371.8	77.06	122.615			
3,553.7	3,521.9	3,496.9	3,496.9	9.8	69.1	-89.34	-55.9	-9,146.0	9,448.8	9,370.4	78.46	120.426			
3,600.0	3,568.2	3,543.2	3,543.2	9.9	70.0	-89.34	-55.9	-9,146.0	9,448.8	9,369.4	79.47	118.902			
3,641.7	3,609.9	3,584.9	3,584.9	10.0	70.8	-89.34	-55.9	-9,146.0	9,448.8	9,368.5	80.38	117.554			
3,700.0	3,668.2	3,643.2	3,643.2	10.1	72.0	-89.34	-55.9	-9,146.0	9,448.8	9,367.2	81.65	115.723			
3,740.1	3,708.4	3,683.4	3,683.4	10.1	72.8	-89.34	-55.9	-9,146.0	9,448.8	9,366.3	82.53	114.492			
3,800.0	3,768.2	3,743.2	3,743.2	10.2	74.0	-89.34	-55.9	-9,146.0	9,448.8	9,365.0	83.84	112.706			
3,838.6	3,806.8	3,781.8	3,781.8	10.3	74.8	-89.34	-55.9	-9,146.0	9,448.8	9,364.2	84.68	111.583			
3,900.0	3,868.2	3,843.2	3,843.2	10.4	76.0	-89.34	-55.9	-9,146.0	9,448.8	9,362.8	86.02	109.841			
3,937.0	3,905.2	3,880.2	3,880.2	10.5	76.8	-89.34	-55.9	-9,146.0	9,448.8	9,362.0	86.83	108.816			
4,000.0	3,968.2	3,943.2	3,943.2	10.6	78.0	-89.34	-55.9	-9,146.0	9,448.8	9,360.6	88.21	107.115			
4,035.4	4,003.6	3,978.6	3,978.6	10.6	78.8	-89.34	-55.9	-9,146.0	9,448.8	9,359.8	88.99	106.180			
4,100.0	4,068.2	4,043.2	4,043.2	10.7	80.1	-89.34	-55.9	-9,146.0	9,448.8	9,358.4	90.40	104.519			
4,133.8	4,102.1	4,077.1	4,077.1	10.8	80.7	-89.34	-55.9	-9,146.0	9,448.8	9,357.7	91.15	103.668			
4,200.0	4,168.2	4,143.2	4,143.2	10.9	82.1	-89.34	-55.9	-9,146.0	9,448.8	9,356.2	92.60	102.044			
4,232.3	4,200.5	4,175.5	4,175.5	11.0	82.7	-89.34	-55.9	-9,146.0	9,448.8	9,355.5	93.30	101.269			
4,300.0	4,268.2	4,243.2	4,243.2	11.1	84.1	-89.34	-55.9	-9,146.0	9,448.8	9,354.0	94.79	99.682			
4,330.7	4,298.9	4,273.9	4,273.9	11.1	84.7	-89.34	-55.9	-9,146.0	9,448.8	9,353.4	95.46	98.978			
4,400.0	4,368.2	4,343.2	4,343.2	11.3	86.1	-89.34	-55.9	-9,146.0	9,448.8	9,351.8	96.99	97.425			
4,429.1	4,397.3	4,372.3	4,372.3	11.3	86.7	-89.34	-55.9	-9,146.0	9,448.8	9,351.2	97.63	96.786			
4,500.0	4,468.2	4,443.2	4,443.2	11.4	88.1	-89.34	-55.9	-9,146.0	9,448.8	9,349.7	99.18	95.266			
4,527.5	4,495.8	4,470.8	4,470.8	11.5	88.7	-89.34	-55.9	-9,146.0	9,448.8	9,349.0	99.79	94.688			
4,600.0	4,568.2	4,543.2	4,543.2	11.6	90.1	-89.34	-55.9	-9,146.0	9,448.8	9,347.5	101.38	93.200			
4,626.0	4,594.2	4,569.2	4,569.2	11.7	90.6	-89.34	-55.9	-9,146.0	9,448.8	9,346.9	101.95	92.678			
4,700.0	4,668.2	4,643.2	4,643.2	11.8	92.1	-89.34	-55.9	-9,146.0	9,448.8	9,345.3	103.58	91.221			
4,724.4	4,692.6	4,667.6	4,667.6	11.9	92.6	-89.34	-55.9	-9,146.0	9,448.8	9,344.7	104.12	90.750			
4,800.0	4,768.2	4,743.2	4,743.2	12.0	94.1	-89.34	-55.9	-9,146.0	9,448.8	9,343.1	105.78	89.322			
4,822.8	4,791.0	4,766.0	4,766.0	12.0	94.6	-89.34	-55.9	-9,146.0	9,448.8	9,342.5	106.29	88.900			
4,900.0	4,868.2	4,843.2	4,843.2	12.2	96.1	-89.34	-55.9	-9,146.0	9,448.8	9,340.8	107.99	87.501			
4,921.2	4,889.5	4,864.5	4,864.5	12.2	96.6	-89.34	-55.9	-9,146.0	9,448.8	9,340.4	108.45	87.123			
5,000.0	4,968.2	4,943.2	4,943.2	12.4	98.2	-89.34	-55.9	-9,146.0	9,448.8	9,338.6	110.19	85.751			
5,019.7	4,987.9	4,962.9	4,962.9	12.4	98.6	-89.34	-55.9	-9,146.0	9,448.8	9,338.2	110.62	85.414			

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

Anticollision Report



Company:	PDC ENERGY	Local Co-ordinate Reference:	Well WACKER 10G-214
Project:	WELD COUNTY, COLORADO	TVD Reference:	KB-EST @ 4624.0usft (Original Well Elev)
Reference Site:	SW NW SEC. 10 T5N R64W 6th P.M.	MD Reference:	KB-EST @ 4624.0usft (Original Well Elev)
Site Error:	0.0 usft	North Reference:	True
Reference Well:	WACKER 10G-214	Survey Calculation Method:	Minimum Curvature
Well Error:	0.0 usft	Output errors are at	2.00 sigma
Reference Wellbore	ORIGINAL WELLBORE	Database:	EDM 5000.1 Single User Db
Reference Design:	PROPOSAL #1	Offset TVD Reference:	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	5,068.2	5,043.2	5,043.2	12.6	100.2	-89.34	-55.9	-9,146.0	9,448.8	9,336.4	112.39	84.068	
5,118.1	5,086.3	5,061.3	5,061.3	12.6	100.5	-89.34	-55.9	-9,146.0	9,448.8	9,336.0	112.79	83.771	
5,200.0	5,168.2	5,143.2	5,143.2	12.7	102.2	-89.34	-55.9	-9,146.0	9,448.8	9,334.2	114.60	82.450	
5,216.5	5,184.7	5,159.7	5,159.7	12.8	102.5	-89.34	-55.9	-9,146.0	9,448.8	9,333.9	114.96	82.189	
5,300.0	5,268.2	5,243.2	5,243.2	12.9	104.2	-89.34	-55.9	-9,146.0	9,448.8	9,332.0	116.81	80.893	
5,314.9	5,283.2	5,258.2	5,258.2	13.0	104.5	-89.34	-55.9	-9,146.0	9,448.8	9,331.7	117.14	80.665	
5,400.0	5,368.2	5,343.2	5,343.2	13.1	106.2	-89.34	-55.9	-9,146.0	9,448.8	9,329.8	119.01	79.392	
5,413.4	5,381.6	5,356.6	5,356.6	13.2	106.5	-89.34	-55.9	-9,146.0	9,448.8	9,329.5	119.31	79.195	
5,500.0	5,468.2	5,443.2	5,443.2	13.3	108.2	-89.34	-55.9	-9,146.0	9,448.8	9,327.6	121.22	77.946	
5,511.8	5,480.0	5,455.0	5,455.0	13.3	108.5	-89.34	-55.9	-9,146.0	9,448.8	9,327.3	121.48	77.778	
5,600.0	5,568.2	5,543.2	5,543.2	13.5	110.2	-89.34	-55.9	-9,146.0	9,448.8	9,325.4	123.43	76.550	
5,610.2	5,578.4	5,553.4	5,553.4	13.5	110.4	-89.34	-55.9	-9,146.0	9,448.8	9,325.2	123.66	76.410	
5,700.0	5,668.2	5,643.2	5,643.2	13.7	112.2	-89.34	-55.9	-9,146.0	9,448.8	9,323.2	125.64	75.204	
5,708.6	5,676.9	5,651.9	5,651.9	13.7	112.4	-89.34	-55.9	-9,146.0	9,448.8	9,323.0	125.83	75.089	
5,800.0	5,768.2	5,743.2	5,743.2	13.9	114.2	-89.34	-55.9	-9,146.0	9,448.8	9,321.0	127.85	73.903	
5,807.1	5,775.3	5,750.3	5,750.3	13.9	114.4	-89.34	-55.9	-9,146.0	9,448.8	9,320.8	128.01	73.813	
5,900.0	5,868.2	5,843.2	5,843.2	14.1	116.3	-89.34	-55.9	-9,146.0	9,448.8	9,318.8	130.07	72.646	
5,905.5	5,873.7	5,848.7	5,848.7	14.1	116.4	-89.34	-55.9	-9,146.0	9,448.8	9,318.6	130.19	72.578	
5,960.7	5,928.9	5,903.9	5,903.9	14.2	117.5	-89.34	-55.9	-9,146.0	9,448.8	9,317.4	131.41	71.904	
6,000.0	5,968.2	5,943.2	5,943.2	14.3	118.3	0.66	-55.9	-9,146.0	9,447.8	9,316.5	131.21	72.004	
6,003.9	5,972.1	5,947.1	5,947.1	14.3	118.3	0.66	-55.9	-9,146.0	9,447.5	9,316.3	131.25	71.980	
6,050.0	6,018.0	5,993.0	5,993.0	14.4	119.3	0.67	-55.9	-9,146.0	9,443.3	9,311.8	131.45	71.840	
6,100.0	6,067.3	6,042.3	6,042.3	14.4	120.3	0.68	-55.9	-9,146.0	9,435.3	9,304.3	131.03	72.009	
6,102.3	6,069.6	6,044.6	6,044.6	14.4	120.3	0.68	-55.9	-9,146.0	9,434.9	9,303.9	130.99	72.025	
6,150.0	6,116.0	6,091.0	6,091.0	14.4	121.2	0.69	-55.9	-9,146.0	9,424.0	9,294.0	129.94	72.523	
6,200.0	6,163.8	6,138.8	6,138.8	14.5	122.2	0.70	-55.9	-9,146.0	9,409.2	9,281.0	128.18	73.403	
6,200.8	6,164.5	6,139.5	6,139.5	14.5	122.2	0.70	-55.9	-9,146.0	9,409.0	9,280.8	128.15	73.420	
6,250.0	6,210.4	6,185.4	6,185.4	14.5	123.1	0.72	-55.9	-9,146.0	9,391.2	9,265.4	125.75	74.681	
6,299.2	6,254.9	6,229.9	6,229.9	14.5	124.0	0.75	-55.9	-9,146.0	9,370.3	9,247.6	122.70	76.369	
6,300.0	6,255.6	6,230.6	6,230.6	14.5	124.0	0.75	-55.9	-9,146.0	9,369.9	9,247.3	122.64	76.400	
6,350.0	6,299.3	6,274.3	6,274.3	14.5	124.9	0.78	-55.9	-9,146.0	9,345.6	9,226.7	118.87	78.617	
6,397.6	6,339.2	6,314.2	6,314.2	14.6	125.7	0.82	-55.9	-9,146.0	9,319.6	9,204.9	114.68	81.265	
6,400.0	6,341.2	6,316.2	6,316.2	14.6	125.8	0.82	-55.9	-9,146.0	9,318.3	9,203.8	114.46	81.413	
6,450.0	6,381.0	6,356.0	6,356.0	14.6	126.6	0.87	-55.9	-9,146.0	9,288.1	9,178.7	109.41	84.890	
6,496.0	6,415.8	6,390.8	6,390.8	14.7	127.3	0.92	-55.9	-9,146.0	9,257.9	9,153.6	104.24	88.817	
6,500.0	6,418.7	6,393.7	6,393.7	14.7	127.3	0.93	-55.9	-9,146.0	9,255.2	9,151.4	103.77	89.191	
6,550.0	6,453.9	6,428.9	6,428.9	14.8	128.0	1.00	-55.9	-9,146.0	9,219.7	9,122.2	97.56	94.506	
6,594.5	6,483.1	6,458.1	6,458.1	15.0	128.6	1.08	-55.9	-9,146.0	9,186.2	9,094.6	91.59	100.299	
6,600.0	6,486.6	6,461.6	6,461.6	15.1	128.7	1.09	-55.9	-9,146.0	9,181.9	9,091.1	90.82	101.101	
6,650.0	6,516.6	6,491.6	6,491.6	15.3	129.3	1.20	-55.9	-9,146.0	9,141.9	9,058.3	83.60	109.350	
6,692.9	6,540.0	6,515.0	6,515.0	15.7	129.8	1.32	-55.9	-9,146.0	9,106.0	9,029.0	77.07	118.152	
6,700.0	6,543.7	6,518.7	6,518.7	15.7	129.8	1.34	-55.9	-9,146.0	9,099.9	9,024.0	75.96	119.797	
6,750.0	6,567.8	6,542.8	6,542.8	16.2	130.3	1.53	-55.9	-9,146.0	9,056.2	8,988.2	67.96	133.253	
6,791.3	6,585.4	6,560.4	6,560.4	16.7	130.7	1.74	-55.9	-9,146.0	9,018.8	8,957.6	61.14	147.513	
6,800.0	6,588.8	6,563.8	6,563.8	16.8	130.7	1.79	-55.9	-9,146.0	9,010.8	8,951.1	59.69	150.970	
6,850.0	6,606.6	6,581.6	6,581.6	17.4	131.1	2.16	-55.9	-9,146.0	8,964.1	8,912.8	51.24	174.932	
6,889.7	6,618.4	6,593.4	6,593.4	18.0	131.3	2.60	-55.9	-9,146.0	8,926.1	8,881.6	44.54	200.426	
6,900.0	6,621.1	6,596.1	6,596.1	18.2	131.4	2.74	-55.9	-9,146.0	8,916.2	8,873.4	42.83	208.190	
6,950.0	6,632.2	6,607.2	6,607.2	19.0	131.6	3.75	-55.9	-9,146.0	8,867.5	8,832.6	34.95	253.696	
6,988.2	6,638.4	6,613.4	6,613.4	19.7	131.7	5.21	-55.9	-9,146.0	8,829.8	8,799.3	30.50	289.494	
7,000.0	6,639.9	6,614.9	6,614.9	19.9	131.8	5.93	-55.9	-9,146.0	8,818.1	8,788.2	29.88	295.104	
7,050.0	6,644.1	6,619.1	6,619.1	20.8	131.9	14.10	-55.9	-9,146.0	8,768.3	8,725.8	42.53	206.182	

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

Anticollision Report



Company:	PDC ENERGY	Local Co-ordinate Reference:	Well WACKER 10G-214
Project:	WELD COUNTY, COLORADO	TVD Reference:	KB-EST @ 4624.0usft (Original Well Elev)
Reference Site:	SW NW SEC. 10 T5N R64W 6th P.M.	MD Reference:	KB-EST @ 4624.0usft (Original Well Elev)
Site Error:	0.0 usft	North Reference:	True
Reference Well:	WACKER 10G-214	Survey Calculation Method:	Minimum Curvature
Well Error:	0.0 usft	Output errors are at	2.00 sigma
Reference Wellbore	ORIGINAL WELLBORE	Database:	EDM 5000.1 Single User Db
Reference Design:	PROPOSAL #1	Offset TVD Reference:	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	
7,086.5	6,645.0	6,620.0	6,620.0	21.5	131.9	96.36	-55.9	-9,146.0	8,731.8	8,579.3	152.52	57.250	
7,100.0	6,645.0	6,620.0	6,620.0	21.8	131.9	96.35	-55.9	-9,146.0	8,718.3	8,565.5	152.79	57.062	
7,185.0	6,644.9	6,619.9	6,619.9	23.6	131.9	96.29	-55.9	-9,146.0	8,633.3	8,478.8	154.55	55.860	
7,200.0	6,644.8	6,619.8	6,619.8	23.9	131.9	96.27	-55.9	-9,146.0	8,618.3	8,463.5	154.87	55.650	
7,283.4	6,644.7	6,619.7	6,619.7	25.7	131.9	96.21	-55.9	-9,146.0	8,534.9	8,378.2	156.71	54.462	
7,300.0	6,644.7	6,619.7	6,619.7	26.1	131.9	96.18	-55.9	-9,146.0	8,518.3	8,361.3	157.08	54.228	
7,381.9	6,644.6	6,619.6	6,619.6	28.0	131.9	96.12	-55.9	-9,146.0	8,436.5	8,277.5	158.98	53.065	
7,400.0	6,644.6	6,619.6	6,619.6	28.4	131.9	96.09	-55.9	-9,146.0	8,418.4	8,258.9	159.41	52.810	
7,480.3	6,644.5	6,619.5	6,619.5	30.3	131.9	96.04	-55.9	-9,146.0	8,338.1	8,176.7	161.34	51.681	
7,500.0	6,644.4	6,619.4	6,619.4	30.8	131.9	96.01	-55.9	-9,146.0	8,318.4	8,156.6	161.81	51.407	
7,578.7	6,644.3	6,619.3	6,619.3	32.7	131.9	95.95	-55.9	-9,146.0	8,239.6	8,075.9	163.76	50.317	
7,600.0	6,644.3	6,619.3	6,619.3	33.3	131.9	95.92	-55.9	-9,146.0	8,218.4	8,054.1	164.28	50.025	
7,677.1	6,644.2	6,619.2	6,619.2	35.2	131.9	95.87	-55.9	-9,146.0	8,141.2	7,975.0	166.23	48.977	
7,700.0	6,644.1	6,619.1	6,619.1	35.8	131.9	95.84	-55.9	-9,146.0	8,118.4	7,951.6	166.81	48.669	
7,775.6	6,644.0	6,619.0	6,619.0	37.7	131.9	95.78	-55.9	-9,146.0	8,042.8	7,874.1	168.74	47.664	
7,800.0	6,644.0	6,619.0	6,619.0	38.3	131.9	95.75	-55.9	-9,146.0	8,018.4	7,849.0	169.37	47.342	
7,874.0	6,643.9	6,618.9	6,618.9	40.2	131.9	95.70	-55.9	-9,146.0	7,944.4	7,773.1	171.29	46.380	
7,900.0	6,643.9	6,618.9	6,618.9	40.9	131.9	95.67	-55.9	-9,146.0	7,918.4	7,746.4	171.97	46.046	
7,972.4	6,643.8	6,618.8	6,618.8	42.8	131.9	95.62	-55.9	-9,146.0	7,846.0	7,672.1	173.87	45.127	
8,000.0	6,643.7	6,618.7	6,618.7	43.5	131.9	95.58	-55.9	-9,146.0	7,818.4	7,643.8	174.59	44.781	
8,070.8	6,643.6	6,618.6	6,618.6	45.4	131.9	95.53	-55.9	-9,146.0	7,747.6	7,571.1	176.47	43.904	
8,100.0	6,643.6	6,618.6	6,618.6	46.2	131.9	95.50	-55.9	-9,146.0	7,718.4	7,541.2	177.24	43.548	
8,169.3	6,643.5	6,618.5	6,618.5	48.0	131.8	95.45	-55.9	-9,146.0	7,649.2	7,470.1	179.09	42.712	
8,200.0	6,643.5	6,618.5	6,618.5	48.8	131.8	95.41	-55.9	-9,146.0	7,618.4	7,438.5	179.91	42.346	
8,267.7	6,643.4	6,618.4	6,618.4	50.6	131.8	95.37	-55.9	-9,146.0	7,550.7	7,369.0	181.72	41.551	
8,300.0	6,643.3	6,618.3	6,618.3	51.5	131.8	95.33	-55.9	-9,146.0	7,518.4	7,335.8	182.59	41.176	
8,366.1	6,643.2	6,618.2	6,618.2	53.3	131.8	95.28	-55.9	-9,146.0	7,452.3	7,267.9	184.37	40.420	
8,400.0	6,643.2	6,618.2	6,618.2	54.2	131.8	95.25	-55.9	-9,146.0	7,418.5	7,233.2	185.29	40.037	
8,464.5	6,643.1	6,618.1	6,618.1	55.9	131.8	95.20	-55.9	-9,146.0	7,353.9	7,166.9	187.04	39.318	
8,500.0	6,643.1	6,618.1	6,618.1	56.9	131.8	95.17	-55.9	-9,146.0	7,318.5	7,130.5	188.00	38.928	
8,563.0	6,643.0	6,618.0	6,618.0	58.6	131.8	95.12	-55.9	-9,146.0	7,255.5	7,065.8	189.71	38.245	
8,600.0	6,642.9	6,617.9	6,617.9	59.6	131.8	95.08	-55.9	-9,146.0	7,218.5	7,027.8	190.72	37.848	
8,661.4	6,642.8	6,617.8	6,617.8	61.3	131.8	95.04	-55.9	-9,146.0	7,157.1	6,964.7	192.39	37.200	
8,700.0	6,642.8	6,617.8	6,617.8	62.3	131.8	95.00	-55.9	-9,146.0	7,118.5	6,925.0	193.45	36.798	
8,759.8	6,642.7	6,617.7	6,617.7	64.0	131.8	94.96	-55.9	-9,146.0	7,058.7	6,863.6	195.09	36.182	
8,800.0	6,642.7	6,617.7	6,617.7	65.1	131.8	94.92	-55.9	-9,146.0	7,018.5	6,822.3	196.19	35.774	
8,858.2	6,642.6	6,617.6	6,617.6	66.6	131.8	94.88	-55.9	-9,146.0	6,960.3	6,762.5	197.78	35.191	
8,900.0	6,642.5	6,617.5	6,617.5	67.8	131.8	94.84	-55.9	-9,146.0	6,918.5	6,719.6	198.93	34.778	
8,956.7	6,642.4	6,617.4	6,617.4	69.3	131.8	94.80	-55.9	-9,146.0	6,861.8	6,661.4	200.49	34.226	
9,000.0	6,642.4	6,617.4	6,617.4	70.5	131.8	94.76	-55.9	-9,146.0	6,818.5	6,616.8	201.68	33.808	
9,055.1	6,642.3	6,617.3	6,617.3	72.0	131.8	94.72	-55.9	-9,146.0	6,763.4	6,560.2	203.20	33.285	
9,100.0	6,642.3	6,617.3	6,617.3	73.3	131.8	94.68	-55.9	-9,146.0	6,718.5	6,514.1	204.44	32.863	
9,153.5	6,642.2	6,617.2	6,617.2	74.7	131.8	94.64	-55.9	-9,146.0	6,665.0	6,459.1	205.92	32.368	
9,200.0	6,642.1	6,617.1	6,617.1	76.0	131.8	94.59	-55.9	-9,146.0	6,618.5	6,411.3	207.20	31.943	
9,251.9	6,642.1	6,617.1	6,617.1	77.5	131.8	94.56	-55.9	-9,146.0	6,566.6	6,358.0	208.64	31.474	
9,300.0	6,642.0	6,617.0	6,617.0	78.8	131.8	94.51	-55.9	-9,146.0	6,518.6	6,308.6	209.97	31.046	
9,350.4	6,641.9	6,616.9	6,616.9	80.2	131.8	94.48	-55.9	-9,146.0	6,468.2	6,256.8	211.36	30.603	
9,400.0	6,641.9	6,616.9	6,616.9	81.5	131.8	94.43	-55.9	-9,146.0	6,418.6	6,205.8	212.73	30.172	
9,448.8	6,641.8	6,616.8	6,616.8	82.9	131.8	94.40	-55.9	-9,146.0	6,369.8	6,155.7	214.09	29.753	
9,500.0	6,641.7	6,616.7	6,616.7	84.3	131.8	94.35	-55.9	-9,146.0	6,318.6	6,103.1	215.51	29.320	
9,547.2	6,641.7	6,616.7	6,616.7	85.6	131.8	94.32	-55.9	-9,146.0	6,271.4	6,054.6	216.82	28.925	
9,600.0	6,641.6	6,616.6	6,616.6	87.1	131.8	94.28	-55.9	-9,146.0	6,218.6	6,000.3	218.28	28.489	

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

Anticollision Report



Company:	PDC ENERGY	Local Co-ordinate Reference:	Well WACKER 10G-214
Project:	WELD COUNTY, COLORADO	TVD Reference:	KB-EST @ 4624.0usft (Original Well Elev)
Reference Site:	SW NW SEC. 10 T5N R64W 6th P.M.	MD Reference:	KB-EST @ 4624.0usft (Original Well Elev)
Site Error:	0.0 usft	North Reference:	True
Reference Well:	WACKER 10G-214	Survey Calculation Method:	Minimum Curvature
Well Error:	0.0 usft	Output errors are at	2.00 sigma
Reference Wellbore	ORIGINAL WELLBORE	Database:	EDM 5000.1 Single User Db
Reference Design:	PROPOSAL #1	Offset TVD Reference:	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	
9,645.6	6,641.5	6,616.5	6,616.5	88.3	131.8	94.24	-55.9	-9,146.0	6,173.0	5,953.4	219.55	28.116	
9,700.0	6,641.5	6,616.5	6,616.5	89.8	131.8	94.20	-55.9	-9,146.0	6,118.6	5,897.6	221.06	27.678	
9,744.1	6,641.4	6,616.4	6,616.4	91.0	131.8	94.17	-55.9	-9,146.0	6,074.6	5,852.3	222.29	27.327	
9,800.0	6,641.3	6,616.3	6,616.3	92.6	131.8	94.12	-55.9	-9,146.0	6,018.6	5,794.8	223.85	26.888	
9,842.5	6,641.3	6,616.3	6,616.3	93.8	131.8	94.09	-55.9	-9,146.0	5,976.1	5,751.1	225.03	26.557	
9,900.0	6,641.2	6,616.2	6,616.2	95.4	131.8	94.04	-55.9	-9,146.0	5,918.7	5,692.0	226.63	26.116	
9,940.9	6,641.1	6,616.1	6,616.1	96.5	131.8	94.01	-55.9	-9,146.0	5,877.7	5,650.0	227.77	25.806	
10,000.0	6,641.1	6,616.1	6,616.1	98.1	131.8	93.96	-55.9	-9,146.0	5,818.7	5,589.3	229.42	25.363	
10,039.3	6,641.0	6,616.0	6,616.0	99.2	131.8	93.94	-55.9	-9,146.0	5,779.3	5,548.8	230.51	25.072	
10,100.0	6,640.9	6,615.9	6,615.9	100.9	131.8	93.88	-55.9	-9,146.0	5,718.7	5,486.5	232.20	24.628	
10,137.8	6,640.9	6,615.9	6,615.9	102.0	131.8	93.86	-55.9	-9,146.0	5,680.9	5,447.7	233.26	24.355	
10,200.0	6,640.8	6,615.8	6,615.8	103.7	131.8	93.81	-55.9	-9,146.0	5,618.7	5,383.7	234.99	23.910	
10,236.2	6,640.8	6,615.8	6,615.8	104.7	131.8	93.78	-55.9	-9,146.0	5,582.5	5,346.5	236.00	23.654	
10,300.0	6,640.7	6,615.7	6,615.7	106.5	131.8	93.73	-55.9	-9,146.0	5,518.7	5,280.9	237.79	23.209	
10,334.6	6,640.6	6,615.6	6,615.6	107.4	131.8	93.71	-55.9	-9,146.0	5,484.1	5,245.4	238.75	22.970	
10,400.0	6,640.6	6,615.6	6,615.6	109.3	131.8	93.65	-55.9	-9,146.0	5,418.8	5,178.2	240.58	22.524	
10,433.0	6,640.5	6,615.5	6,615.5	110.2	131.8	93.63	-55.9	-9,146.0	5,385.7	5,144.2	241.50	22.301	
10,500.0	6,640.4	6,615.4	6,615.4	112.0	131.8	93.58	-55.9	-9,146.0	5,318.8	5,075.4	243.37	21.854	
10,531.5	6,640.4	6,615.4	6,615.4	112.9	131.8	93.56	-55.9	-9,146.0	5,287.3	5,043.0	244.25	21.647	
10,600.0	6,640.3	6,615.3	6,615.3	114.8	131.8	93.50	-55.9	-9,146.0	5,218.8	4,972.6	246.17	21.200	
10,629.9	6,640.3	6,615.3	6,615.3	115.7	131.8	93.48	-55.9	-9,146.0	5,188.9	4,941.9	247.01	21.007	
10,700.0	6,640.2	6,615.2	6,615.2	117.6	131.8	93.43	-55.9	-9,146.0	5,118.8	4,869.8	248.97	20.560	
10,728.3	6,640.1	6,615.1	6,615.1	118.4	131.8	93.41	-55.9	-9,146.0	5,090.5	4,840.7	249.76	20.382	
10,800.0	6,640.0	6,615.0	6,615.0	120.4	131.8	93.35	-55.9	-9,146.0	5,018.8	4,767.1	251.77	19.934	
10,826.7	6,640.0	6,615.0	6,615.0	121.2	131.8	93.33	-55.9	-9,146.0	4,992.1	4,739.6	252.52	19.769	
10,900.0	6,639.9	6,614.9	6,614.9	123.2	131.8	93.27	-55.9	-9,146.0	4,918.9	4,664.3	254.57	19.323	
10,925.2	6,639.9	6,614.9	6,614.9	123.9	131.8	93.26	-55.9	-9,146.0	4,893.7	4,638.4	255.27	19.171	
11,000.0	6,639.8	6,614.8	6,614.8	126.0	131.8	93.20	-55.9	-9,146.0	4,818.9	4,561.5	257.37	18.724	
11,023.6	6,639.8	6,614.8	6,614.8	126.6	131.8	93.18	-55.9	-9,146.0	4,795.3	4,537.3	258.03	18.584	
11,100.0	6,639.7	6,614.7	6,614.7	128.8	131.8	93.13	-55.9	-9,146.0	4,718.9	4,458.7	260.17	18.138	
11,122.0	6,639.6	6,614.6	6,614.6	129.4	131.8	93.11	-55.9	-9,146.0	4,696.9	4,436.1	260.78	18.011	
11,200.0	6,639.5	6,614.5	6,614.5	131.6	131.8	93.05	-55.9	-9,146.0	4,618.9	4,356.0	262.97	17.565	
11,220.4	6,639.5	6,614.5	6,614.5	132.1	131.8	93.04	-55.9	-9,146.0	4,598.5	4,335.0	263.54	17.449	
11,300.0	6,639.4	6,614.4	6,614.4	134.4	131.8	92.98	-55.9	-9,146.0	4,519.0	4,253.2	265.77	17.003	
11,318.9	6,639.4	6,614.4	6,614.4	134.9	131.8	92.97	-55.9	-9,146.0	4,500.1	4,233.8	266.30	16.899	
11,400.0	6,639.3	6,614.3	6,614.3	137.1	131.8	92.90	-55.9	-9,146.0	4,419.0	4,150.4	268.58	16.453	
11,417.3	6,639.3	6,614.3	6,614.3	137.6	131.8	92.89	-55.9	-9,146.0	4,401.7	4,132.6	269.06	16.360	
11,500.0	6,639.2	6,614.2	6,614.2	139.9	131.8	92.83	-55.9	-9,146.0	4,319.0	4,047.7	271.38	15.915	
11,515.7	6,639.1	6,614.1	6,614.1	140.4	131.8	92.82	-55.9	-9,146.0	4,303.3	4,031.5	271.82	15.831	
11,600.0	6,639.0	6,614.0	6,614.0	142.7	131.8	92.76	-55.9	-9,146.0	4,219.1	3,944.9	274.18	15.388	
11,614.1	6,639.0	6,614.0	6,614.0	143.1	131.8	92.75	-55.9	-9,146.0	4,204.9	3,930.3	274.58	15.314	
11,700.0	6,638.9	6,613.9	6,613.9	145.5	131.8	92.69	-55.9	-9,146.0	4,119.1	3,842.1	276.99	14.871	
11,712.6	6,638.9	6,613.9	6,613.9	145.9	131.8	92.68	-55.9	-9,146.0	4,106.5	3,829.2	277.34	14.807	
11,800.0	6,638.8	6,613.8	6,613.8	148.3	131.8	92.61	-55.9	-9,146.0	4,019.1	3,739.3	279.79	14.365	
11,811.0	6,638.8	6,613.8	6,613.8	148.6	131.8	92.61	-55.9	-9,146.0	4,008.1	3,728.0	280.10	14.310	
11,900.0	6,638.7	6,613.7	6,613.7	151.1	131.8	92.54	-55.9	-9,146.0	3,919.2	3,636.6	282.60	13.868	
11,909.4	6,638.6	6,613.6	6,613.6	151.4	131.8	92.54	-55.9	-9,146.0	3,909.8	3,626.9	282.86	13.822	
12,000.0	6,638.5	6,613.5	6,613.5	153.9	131.7	92.47	-55.9	-9,146.0	3,819.2	3,533.8	285.41	13.382	
12,007.8	6,638.5	6,613.5	6,613.5	154.1	131.7	92.47	-55.9	-9,146.0	3,811.4	3,525.7	285.63	13.344	
12,100.0	6,638.4	6,613.4	6,613.4	156.7	131.7	92.40	-55.9	-9,146.0	3,719.3	3,431.0	288.21	12.905	
12,106.3	6,638.4	6,613.4	6,613.4	156.9	131.7	92.40	-55.9	-9,146.0	3,713.0	3,424.6	288.39	12.875	
12,200.0	6,638.3	6,613.3	6,613.3	159.5	131.7	92.33	-55.9	-9,146.0	3,619.3	3,328.3	291.02	12.437	

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

Anticollision Report



Company:	PDC ENERGY	Local Co-ordinate Reference:	Well WACKER 10G-214
Project:	WELD COUNTY, COLORADO	TVD Reference:	KB-EST @ 4624.0usft (Original Well Elev)
Reference Site:	SW NW SEC. 10 T5N R64W 6th P.M.	MD Reference:	KB-EST @ 4624.0usft (Original Well Elev)
Site Error:	0.0 usft	North Reference:	True
Reference Well:	WACKER 10G-214	Survey Calculation Method:	Minimum Curvature
Well Error:	0.0 usft	Output errors are at	2.00 sigma
Reference Wellbore	ORIGINAL WELLBORE	Database:	EDM 5000.1 Single User Db
Reference Design:	PROPOSAL #1	Offset TVD Reference:	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	
12,204.7	6,638.3	6,613.3	6,613.3	159.6	131.7	92.33	-55.9	-9,146.0	3,614.6	3,323.4	291.15	12.415	
12,300.0	6,638.2	6,613.2	6,613.2	162.3	131.7	92.26	-55.9	-9,146.0	3,519.3	3,225.5	293.83	11.978	
12,303.1	6,638.2	6,613.2	6,613.2	162.4	131.7	92.26	-55.9	-9,146.0	3,516.2	3,222.3	293.91	11.963	
12,400.0	6,638.0	6,613.0	6,613.0	165.1	131.7	92.19	-55.9	-9,146.0	3,419.4	3,122.8	296.63	11.527	
12,401.5	6,638.0	6,613.0	6,613.0	165.2	131.7	92.19	-55.9	-9,146.0	3,417.8	3,121.2	296.68	11.520	
12,500.0	6,637.9	6,612.9	6,612.9	167.9	131.7	92.12	-55.9	-9,146.0	3,319.4	3,020.0	299.44	11.085	
12,598.4	6,637.8	6,612.8	6,612.8	170.7	131.7	92.06	-55.9	-9,146.0	3,221.1	2,918.9	302.20	10.659	
12,600.0	6,637.8	6,612.8	6,612.8	170.7	131.7	92.05	-55.9	-9,146.0	3,219.5	2,917.3	302.25	10.652	
12,696.8	6,637.7	6,612.7	6,612.7	173.4	131.7	91.99	-55.9	-9,146.0	3,122.7	2,817.8	304.97	10.240	
12,700.0	6,637.7	6,612.7	6,612.7	173.5	131.7	91.98	-55.9	-9,146.0	3,119.6	2,814.5	305.06	10.226	
12,795.2	6,637.6	6,612.6	6,612.6	176.2	131.7	91.92	-55.9	-9,146.0	3,024.4	2,716.6	307.73	9.828	
12,800.0	6,637.6	6,612.6	6,612.6	176.3	131.7	91.91	-55.9	-9,146.0	3,019.6	2,711.8	307.86	9.808	
12,893.7	6,637.4	6,612.4	6,612.4	178.9	131.7	91.85	-55.9	-9,146.0	2,926.0	2,615.5	310.49	9.424	
12,900.0	6,637.4	6,612.4	6,612.4	179.1	131.7	91.84	-55.9	-9,146.0	2,919.7	2,609.0	310.67	9.398	
12,992.1	6,637.3	6,612.3	6,612.3	181.7	131.7	91.79	-55.9	-9,146.0	2,827.7	2,514.4	313.26	9.027	
13,000.0	6,637.3	6,612.3	6,612.3	181.9	131.7	91.78	-55.9	-9,146.0	2,819.8	2,506.3	313.48	8.995	
13,090.5	6,637.2	6,612.2	6,612.2	184.4	131.7	91.72	-55.9	-9,146.0	2,729.3	2,413.3	316.02	8.636	
13,100.0	6,637.2	6,612.2	6,612.2	184.7	131.7	91.71	-55.9	-9,146.0	2,719.8	2,403.6	316.29	8.599	
13,188.9	6,637.1	6,612.1	6,612.1	187.2	131.7	91.65	-55.9	-9,146.0	2,631.0	2,312.2	318.79	8.253	
13,200.0	6,637.1	6,612.1	6,612.1	187.5	131.7	91.64	-55.9	-9,146.0	2,619.9	2,300.8	319.10	8.210	
13,287.4	6,637.0	6,612.0	6,612.0	190.0	131.7	91.59	-55.9	-9,146.0	2,532.6	2,211.1	321.55	7.876	
13,300.0	6,637.0	6,612.0	6,612.0	190.3	131.7	91.57	-55.9	-9,146.0	2,520.0	2,198.1	321.91	7.828	
13,385.8	6,636.9	6,611.9	6,611.9	192.7	131.7	91.52	-55.9	-9,146.0	2,434.3	2,110.0	324.31	7.506	
13,400.0	6,636.8	6,611.8	6,611.8	193.1	131.7	91.51	-55.9	-9,146.0	2,420.1	2,095.4	324.71	7.453	
13,484.2	6,636.7	6,611.7	6,611.7	195.5	131.7	91.46	-55.9	-9,146.0	2,336.0	2,008.9	327.08	7.142	
13,500.0	6,636.7	6,611.7	6,611.7	195.9	131.7	91.44	-55.9	-9,146.0	2,320.2	1,992.7	327.52	7.084	
13,582.6	6,636.6	6,611.6	6,611.6	198.2	131.7	91.39	-55.9	-9,146.0	2,237.7	1,907.8	329.84	6.784	
13,600.0	6,636.6	6,611.6	6,611.6	198.7	131.7	91.38	-55.9	-9,146.0	2,220.3	1,890.0	330.33	6.722	
13,681.1	6,636.5	6,611.5	6,611.5	201.0	131.7	91.33	-55.9	-9,146.0	2,139.4	1,806.8	332.61	6.432	
13,700.0	6,636.5	6,611.5	6,611.5	201.5	131.7	91.31	-55.9	-9,146.0	2,120.5	1,787.3	333.14	6.365	
13,779.5	6,636.4	6,611.4	6,611.4	203.7	131.7	91.26	-55.9	-9,146.0	2,041.1	1,705.7	335.37	6.086	
13,800.0	6,636.4	6,611.4	6,611.4	204.3	131.7	91.24	-55.9	-9,146.0	2,020.6	1,684.7	335.95	6.015	
13,877.9	6,636.3	6,611.3	6,611.3	206.5	131.7	91.20	-55.9	-9,146.0	1,942.8	1,604.7	338.13	5.746	
13,900.0	6,636.3	6,611.3	6,611.3	207.1	131.7	91.18	-55.9	-9,146.0	1,920.8	1,582.0	338.75	5.670	
13,976.3	6,636.2	6,611.2	6,611.2	209.3	131.7	91.13	-55.9	-9,146.0	1,844.5	1,503.6	340.90	5.411	
14,000.0	6,636.1	6,611.1	6,611.1	209.9	131.7	91.12	-55.9	-9,146.0	1,820.9	1,479.4	341.56	5.331	
14,074.8	6,636.0	6,611.0	6,611.0	212.0	131.7	91.07	-55.9	-9,146.0	1,746.3	1,402.6	343.66	5.081	
14,100.0	6,636.0	6,611.0	6,611.0	212.7	131.7	91.05	-55.9	-9,146.0	1,721.1	1,376.8	344.37	4.998	
14,173.2	6,635.9	6,610.9	6,610.9	214.8	131.7	91.01	-55.9	-9,146.0	1,648.1	1,301.7	346.42	4.757	
14,200.0	6,635.9	6,610.9	6,610.9	215.5	131.7	90.99	-55.9	-9,146.0	1,621.3	1,274.2	347.18	4.670	
14,271.6	6,635.8	6,610.8	6,610.8	217.5	131.7	90.94	-55.9	-9,146.0	1,549.9	1,200.7	349.19	4.439	
14,300.0	6,635.8	6,610.8	6,610.8	218.3	131.7	90.92	-55.9	-9,146.0	1,521.6	1,171.6	349.98	4.348	
14,370.0	6,635.7	6,610.7	6,610.7	220.3	131.7	90.88	-55.9	-9,146.0	1,451.7	1,099.8	351.95	4.125	
14,400.0	6,635.7	6,610.7	6,610.7	221.1	131.7	90.86	-55.9	-9,146.0	1,421.9	1,069.1	352.79	4.030	
14,468.5	6,635.6	6,610.6	6,610.6	223.1	131.7	90.82	-55.9	-9,146.0	1,353.6	998.9	354.71	3.816	
14,500.0	6,635.6	6,610.6	6,610.6	223.9	131.7	90.80	-55.9	-9,146.0	1,322.2	966.6	355.60	3.718	
14,566.9	6,635.5	6,610.5	6,610.5	225.8	131.7	90.76	-55.9	-9,146.0	1,255.5	898.0	357.48	3.512	
14,600.0	6,635.4	6,610.4	6,610.4	226.8	131.7	90.73	-55.9	-9,146.0	1,222.5	864.1	358.40	3.411	
14,665.3	6,635.4	6,610.4	6,610.4	228.6	131.7	90.70	-55.9	-9,146.0	1,157.5	797.3	360.24	3.213	
14,700.0	6,635.3	6,610.3	6,610.3	229.6	131.7	90.67	-55.9	-9,146.0	1,123.0	761.8	361.21	3.109	
14,763.7	6,635.2	6,610.2	6,610.2	231.3	131.7	90.63	-55.9	-9,146.0	1,059.5	696.5	363.00	2.919	
14,800.0	6,635.2	6,610.2	6,610.2	232.4	131.7	90.61	-55.9	-9,146.0	1,023.5	659.5	364.02	2.812	

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

Anticollision Report



Company:	PDC ENERGY	Local Co-ordinate Reference:	Well WACKER 10G-214
Project:	WELD COUNTY, COLORADO	TVD Reference:	KB-EST @ 4624.0usft (Original Well Elev)
Reference Site:	SW NW SEC. 10 T5N R64W 6th P.M.	MD Reference:	KB-EST @ 4624.0usft (Original Well Elev)
Site Error:	0.0 usft	North Reference:	True
Reference Well:	WACKER 10G-214	Survey Calculation Method:	Minimum Curvature
Well Error:	0.0 usft	Output errors are at	2.00 sigma
Reference Wellbore	ORIGINAL WELLBORE	Database:	EDM 5000.1 Single User Db
Reference Design:	PROPOSAL #1	Offset TVD Reference:	Offset Datum

Offset Design SW NW SEC. 10 T5N R64W 6th P.M. - EXIST VERT PAULINE #5 - 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									
Measured Depth (usft)	Vertical Depth (usft)	Measured Depth (usft)	Vertical Depth (usft)	Reference (usft)	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
14,862.2	6,635.1	6,610.1	6,610.1	234.1	131.7	90.57	-55.9	-9,146.0	961.7	595.9	365.76	2.629	
14,900.0	6,635.1	6,610.1	6,610.1	235.2	131.7	90.55	-55.9	-9,146.0	924.1	557.3	366.82	2.519	
14,960.6	6,635.0	6,610.0	6,610.0	236.9	131.7	90.51	-55.9	-9,146.0	864.0	495.5	368.52	2.344	
14,982.9	6,635.0	6,610.0	6,610.0	237.5	131.7	90.50	-55.9	-9,146.0	841.9	472.7	369.15	2.281	CC, ES, SF

Anticollision Report



Company:	PDC ENERGY	Local Co-ordinate Reference:	Well WACKER 10G-214
Project:	WELD COUNTY, COLORADO	TVD Reference:	KB-EST @ 4624.0usft (Original Well Elev)
Reference Site:	SW NW SEC. 10 T5N R64W 6th P.M.	MD Reference:	KB-EST @ 4624.0usft (Original Well Elev)
Site Error:	0.0 usft	North Reference:	True
Reference Well:	WACKER 10G-214	Survey Calculation Method:	Minimum Curvature
Well Error:	0.0 usft	Output errors are at	2.00 sigma
Reference Wellbore	ORIGINAL WELLBORE	Database:	EDM 5000.1 Single User Db
Reference Design:	PROPOSAL #1	Offset TVD Reference:	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	-96.51	-1,001.0	-8,766.5	8,823.5				
98.4	98.4	108.2	108.2	0.1	0.0	-96.51	-1,000.9	-8,766.2	8,823.3	8,823.2	0.12	N/A	
100.0	100.0	109.8	109.8	0.1	0.0	-96.51	-1,000.9	-8,766.2	8,823.3	8,823.2	0.13	N/A	
196.8	196.8	200.0	200.0	0.3	0.2	-96.51	-1,001.0	-8,765.8	8,822.8	8,822.3	0.50	N/A	
200.0	200.0	200.0	200.0	0.3	0.2	-96.51	-1,001.0	-8,765.8	8,822.8	8,822.3	0.51	N/A	
295.3	295.3	282.5	282.5	0.5	0.2	-96.51	-1,000.9	-8,765.5	8,822.5	8,821.8	0.75	N/A	
300.0	300.0	286.3	286.3	0.5	0.2	-96.51	-1,000.9	-8,765.5	8,822.5	8,821.7	0.76	N/A	
366.1	366.1	333.1	333.1	0.7	0.2	-96.51	-1,000.6	-8,765.5	8,822.4	8,821.5	0.93	9,439.147	
393.7	393.7	351.7	351.7	0.8	0.3	-96.51	-1,000.5	-8,765.5	8,822.4	8,821.4	1.01	8,762.398	
400.0	400.0	355.9	355.9	0.8	0.3	-96.51	-1,000.5	-8,765.5	8,822.4	8,821.4	1.02	8,621.407	
492.1	492.1	507.7	507.7	1.0	0.3	-96.51	-1,000.2	-8,765.5	8,822.5	8,821.3	1.27	6,942.409	
500.0	500.0	515.3	515.3	1.0	0.3	-96.51	-1,000.1	-8,765.5	8,822.5	8,821.2	1.29	6,820.684	
590.5	590.5	602.1	602.1	1.2	0.4	-96.51	-999.8	-8,765.1	8,822.0	8,820.5	1.55	5,677.750	
600.0	600.0	611.2	611.2	1.2	0.4	-96.51	-999.8	-8,765.0	8,822.0	8,820.4	1.58	5,582.512	
689.0	689.0	696.4	696.4	1.4	0.4	-96.50	-999.4	-8,764.7	8,821.6	8,819.7	1.83	4,821.497	
700.0	700.0	707.3	707.3	1.4	0.4	-96.50	-999.3	-8,764.6	8,821.5	8,819.6	1.86	4,742.224	
787.4	787.4	795.0	795.0	1.6	0.5	-96.50	-998.9	-8,764.3	8,821.1	8,819.0	2.10	4,198.129	
800.0	800.0	800.0	800.0	1.7	0.5	-96.50	-998.9	-8,764.2	8,821.0	8,818.9	2.13	4,137.327	
885.8	885.8	876.3	876.3	1.9	0.5	-96.50	-998.7	-8,764.0	8,820.7	8,818.4	2.34	3,771.015	
900.0	900.0	887.9	887.9	1.9	0.5	-96.50	-998.8	-8,764.0	8,820.7	8,818.3	2.37	3,716.970	
976.3	976.3	943.4	943.3	2.1	0.5	-96.50	-998.9	-8,763.9	8,820.6	8,818.1	2.56	3,450.378	
984.2	984.2	948.9	948.9	2.1	0.5	-96.50	-998.9	-8,763.9	8,820.6	8,818.0	2.58	3,424.951	
1,000.0	1,000.0	960.0	960.0	2.1	0.5	-96.50	-999.0	-8,763.9	8,820.6	8,818.0	2.61	3,375.404	
1,082.7	1,082.7	1,100.0	1,100.0	2.3	0.5	-96.50	-999.1	-8,763.8	8,820.7	8,817.9	2.81	3,137.194	
1,100.0	1,100.0	1,100.0	1,100.0	2.3	0.5	-96.50	-999.1	-8,763.8	8,820.6	8,817.7	2.85	3,094.309	
1,181.1	1,181.1	1,162.6	1,162.6	2.5	0.5	-96.50	-999.0	-8,763.5	8,820.3	8,817.3	3.04	2,898.823	
1,200.0	1,200.0	1,174.6	1,174.6	2.6	0.5	-96.50	-999.0	-8,763.5	8,820.3	8,817.2	3.09	2,857.167	
1,279.5	1,279.5	1,262.2	1,262.2	2.7	0.6	-96.50	-998.8	-8,763.5	8,820.3	8,817.0	3.27	2,694.803	
1,300.0	1,300.0	1,294.6	1,294.6	2.8	0.6	-96.50	-998.8	-8,763.4	8,820.2	8,816.9	3.32	2,656.068	
1,311.6	1,311.6	1,307.9	1,307.9	2.8	0.6	144.85	-998.8	-8,763.4	8,820.2	8,816.8	3.37	2,617.506	
1,377.9	1,377.9	1,371.7	1,371.7	3.0	0.6	144.85	-998.8	-8,763.2	8,820.8	8,817.3	3.52	2,505.842	
1,400.0	1,400.0	1,392.9	1,392.9	3.0	0.6	144.84	-998.7	-8,763.1	8,821.3	8,817.8	3.57	2,470.679	
1,476.4	1,476.3	1,497.4	1,497.4	3.1	0.6	144.83	-998.4	-8,762.7	8,824.0	8,820.3	3.75	2,355.097	
1,500.0	1,499.8	1,526.8	1,526.7	3.2	0.6	144.83	-998.4	-8,762.5	8,825.1	8,821.3	3.80	2,320.001	
1,574.8	1,574.4	1,600.0	1,600.0	3.3	0.6	144.80	-998.2	-8,762.0	8,829.6	8,825.6	3.99	2,215.486	
1,600.0	1,599.5	1,627.5	1,627.5	3.4	0.7	144.79	-998.0	-8,761.8	8,831.5	8,827.4	4.05	2,181.106	
1,673.2	1,672.2	1,677.4	1,677.4	3.6	0.7	144.73	-997.8	-8,761.5	8,838.1	8,833.9	4.23	2,089.243	
1,700.0	1,698.7	1,700.0	1,700.0	3.6	0.7	144.71	-997.8	-8,761.5	8,841.0	8,836.7	4.30	2,056.697	
1,771.6	1,769.5	1,829.6	1,829.6	3.8	0.7	144.69	-997.1	-8,760.5	8,849.2	8,844.7	4.51	1,960.358	
1,800.0	1,797.5	1,850.7	1,850.7	3.9	0.8	144.66	-996.9	-8,760.3	8,852.8	8,848.3	4.59	1,929.605	
1,870.1	1,866.3	1,900.0	1,900.0	4.1	0.8	144.58	-996.4	-8,759.9	8,862.9	8,858.1	4.78	1,853.235	
1,900.2	1,895.8	1,928.9	1,928.9	4.2	0.8	144.55	-996.1	-8,759.7	8,867.7	8,862.8	4.87	1,820.928	
1,968.5	1,962.6	1,987.5	1,987.5	4.4	0.8	144.60	-995.8	-8,759.3	8,878.9	8,873.8	5.07	1,752.599	
2,000.0	1,993.4	2,035.8	2,035.8	4.5	0.8	144.64	-995.7	-8,759.0	8,884.0	8,878.9	5.16	1,720.221	
2,066.9	2,058.9	2,100.0	2,100.0	4.7	0.9	144.69	-995.6	-8,758.3	8,894.8	8,889.4	5.37	1,656.924	
2,100.0	2,091.2	2,133.9	2,133.8	4.8	0.9	144.71	-995.7	-8,758.0	8,900.1	8,894.6	5.47	1,628.117	
2,165.3	2,155.2	2,165.7	2,165.6	5.1	0.9	144.74	-995.7	-8,757.7	8,910.8	8,905.2	5.66	1,575.389	
2,200.0	2,189.1	2,200.0	2,200.0	5.2	0.9	144.77	-995.8	-8,757.6	8,916.7	8,910.9	5.77	1,546.668	
2,263.8	2,251.4	2,240.8	2,240.7	5.5	0.9	144.80	-996.0	-8,757.5	8,927.4	8,921.5	5.96	1,497.395	
2,300.0	2,286.9	2,294.0	2,293.9	5.6	0.9	144.83	-996.4	-8,757.3	8,933.5	8,927.4	6.08	1,468.406	
2,362.2	2,347.7	2,344.1	2,344.1	5.8	0.9	144.87	-996.8	-8,757.1	8,943.9	8,937.6	6.28	1,423.637	
2,400.0	2,384.7	2,372.8	2,372.8	6.0	0.9	144.89	-996.9	-8,757.0	8,950.3	8,943.9	6.40	1,397.841	

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

Anticollision Report



Company:	PDC ENERGY	Local Co-ordinate Reference:	Well WACKER 10G-214
Project:	WELD COUNTY, COLORADO	TVD Reference:	KB-EST @ 4624.0usft (Original Well Elev)
Reference Site:	SW NW SEC. 10 T5N R64W 6th P.M.	MD Reference:	KB-EST @ 4624.0usft (Original Well Elev)
Site Error:	0.0 usft	North Reference:	True
Reference Well:	WACKER 10G-214	Survey Calculation Method:	Minimum Curvature
Well Error:	0.0 usft	Output errors are at	2.00 sigma
Reference Wellbore	ORIGINAL WELLBORE	Database:	EDM 5000.1 Single User Db
Reference Design:	PROPOSAL #1	Offset TVD Reference:	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	2,444.0	2,400.0	2,399.9	6.2	0.9	144.91	-997.0	-8,756.9	8,960.6	8,954.0	6.59	1,358.919	
2,500.0	2,482.5	2,435.7	2,435.6	6.4	0.9	144.94	-997.0	-8,756.9	8,967.4	8,960.7	6.72	1,334.992	
2,559.0	2,540.3	2,468.4	2,468.4	6.6	0.9	144.97	-997.0	-8,757.0	8,977.7	8,970.8	6.90	1,301.063	
2,600.0	2,580.3	2,500.0	2,499.9	6.8	0.9	144.99	-997.1	-8,757.2	8,984.9	8,977.9	7.03	1,278.263	
2,657.5	2,636.5	2,600.0	2,599.9	7.1	0.9	145.07	-997.3	-8,757.5	8,995.0	8,987.8	7.22	1,246.294	
2,700.0	2,678.1	2,638.4	2,638.3	7.2	0.9	145.10	-997.3	-8,757.5	9,002.3	8,995.0	7.35	1,224.966	
2,755.9	2,732.8	2,686.5	2,686.5	7.5	0.9	145.13	-997.2	-8,757.6	9,012.0	9,004.5	7.52	1,197.697	
2,800.0	2,775.9	2,720.5	2,720.4	7.7	0.9	145.16	-997.0	-8,757.7	9,019.7	9,012.0	7.67	1,176.369	
2,854.3	2,829.1	2,759.5	2,759.4	7.9	0.9	145.19	-996.7	-8,757.8	9,029.2	9,021.3	7.85	1,150.479	
2,900.0	2,873.8	2,800.0	2,799.9	8.1	1.0	145.23	-996.1	-8,758.1	9,037.3	9,029.3	8.00	1,129.368	
2,952.7	2,925.4	2,831.3	2,831.2	8.3	1.0	145.25	-995.6	-8,758.3	9,046.7	9,038.5	8.18	1,106.284	
2,953.5	2,926.1	2,831.8	2,831.8	8.3	1.0	145.26	-995.6	-8,758.3	9,046.8	9,038.6	8.18	1,105.969	
3,000.0	2,971.6	2,866.6	2,866.5	8.5	1.0	145.38	-995.1	-8,758.6	9,054.8	9,046.5	8.31	1,089.803	
3,051.2	3,022.0	3,019.7	3,019.6	8.7	1.0	145.59	-992.4	-8,759.5	9,062.9	9,054.5	8.45	1,072.946	
3,100.0	3,070.1	3,100.0	3,099.9	8.8	1.0	145.72	-990.7	-8,759.2	9,069.4	9,060.8	8.57	1,058.043	
3,149.6	3,119.1	3,127.8	3,127.7	8.9	1.0	145.80	-990.2	-8,759.1	9,075.2	9,066.5	8.68	1,045.328	
3,200.0	3,169.1	3,152.9	3,152.8	9.1	1.0	145.88	-989.9	-8,759.0	9,080.6	9,071.8	8.79	1,032.728	
3,248.0	3,216.8	3,200.0	3,199.9	9.2	1.0	145.95	-989.5	-8,759.1	9,085.2	9,076.3	8.90	1,021.356	
3,300.0	3,268.5	3,206.9	3,206.8	9.3	1.1	146.00	-989.4	-8,759.1	9,089.4	9,080.4	9.00	1,009.981	
3,346.4	3,314.8	3,262.8	3,262.7	9.4	1.1	146.05	-989.2	-8,759.3	9,092.7	9,083.6	9.09	999.878	
3,400.0	3,368.3	3,316.8	3,316.7	9.6	1.1	146.10	-989.0	-8,759.4	9,095.6	9,086.4	9.20	988.490	
3,444.9	3,413.1	3,350.2	3,350.1	9.6	1.1	146.13	-988.7	-8,759.5	9,097.4	9,088.1	9.28	979.977	
3,500.0	3,468.2	3,400.0	3,399.9	9.7	1.1	146.15	-988.0	-8,759.8	9,098.9	9,089.5	9.39	969.423	
3,543.3	3,511.5	3,428.1	3,428.0	9.8	1.1	146.16	-987.5	-8,760.0	9,099.5	9,090.1	9.46	961.898	
3,553.7	3,521.9	3,437.3	3,437.2	9.8	1.1	-95.18	-987.3	-8,760.0	9,099.6	9,089.4	10.26	886.543	
3,600.0	3,568.2	3,478.5	3,478.4	9.9	1.1	-95.18	-986.6	-8,760.4	9,099.9	9,089.5	10.35	878.935	
3,641.7	3,609.9	3,580.5	3,580.4	10.0	1.1	-95.17	-984.7	-8,760.9	9,100.1	9,089.6	10.46	870.244	
3,700.0	3,668.2	3,646.8	3,646.6	10.1	1.2	-95.16	-983.4	-8,760.9	9,100.0	9,089.4	10.58	860.175	
3,740.1	3,708.4	3,681.6	3,681.4	10.1	1.2	-95.16	-982.9	-8,760.9	9,100.0	9,089.3	10.66	853.567	
3,800.0	3,768.2	3,742.6	3,742.4	10.2	1.2	-95.15	-982.2	-8,761.0	9,099.9	9,089.1	10.79	843.696	
3,838.6	3,806.8	3,785.2	3,785.0	10.3	1.2	-95.15	-981.8	-8,761.0	9,099.9	9,089.0	10.87	837.320	
3,900.0	3,868.2	3,865.8	3,865.6	10.4	1.2	-95.15	-981.2	-8,760.8	9,099.8	9,088.8	11.00	827.150	
3,937.0	3,905.2	3,900.0	3,899.8	10.5	1.2	-95.14	-981.0	-8,760.7	9,099.6	9,088.5	11.08	821.403	
3,997.1	3,965.3	3,932.5	3,932.3	10.6	1.2	-95.14	-980.9	-8,760.7	9,099.5	9,088.3	11.19	813.223	
4,000.0	3,968.2	3,933.8	3,933.6	10.6	1.2	-95.14	-980.9	-8,760.7	9,099.5	9,088.3	11.19	812.837	
4,035.4	4,003.6	3,949.8	3,949.6	10.6	1.2	-95.14	-980.8	-8,760.7	9,099.6	9,088.3	11.26	808.080	
4,100.0	4,068.2	4,000.0	3,999.8	10.7	1.2	-95.14	-980.8	-8,761.0	9,099.9	9,088.5	11.38	799.461	
4,133.8	4,102.1	4,000.0	3,999.8	10.8	1.2	-95.14	-980.8	-8,761.0	9,100.1	9,088.6	11.44	795.119	
4,200.0	4,168.2	4,026.6	4,026.4	10.9	1.2	-95.14	-980.9	-8,761.3	9,100.7	9,089.2	11.57	786.552	
4,232.3	4,200.5	4,042.7	4,042.5	11.0	1.2	-95.14	-981.0	-8,761.5	9,101.2	9,089.5	11.63	782.384	
4,300.0	4,268.2	4,100.0	4,099.8	11.1	1.3	-95.15	-981.6	-8,762.4	9,102.3	9,090.5	11.77	773.603	
4,330.7	4,298.9	4,100.0	4,099.8	11.1	1.3	-95.15	-981.6	-8,762.4	9,102.8	9,091.0	11.82	769.881	
4,400.0	4,368.2	4,143.4	4,143.2	11.3	1.3	-95.15	-982.2	-8,763.2	9,104.2	9,092.2	11.96	761.310	
4,429.1	4,397.3	4,167.1	4,166.9	11.3	1.3	-95.15	-982.6	-8,763.7	9,104.8	9,092.8	12.02	757.701	
4,500.0	4,468.2	4,224.8	4,224.5	11.4	1.3	-95.16	-983.4	-8,764.9	9,106.4	9,094.2	12.16	749.054	
4,527.5	4,495.8	4,247.1	4,246.9	11.5	1.3	-95.16	-983.7	-8,765.4	9,107.0	9,094.8	12.21	745.718	
4,600.0	4,568.2	4,300.0	4,299.7	11.6	1.3	-95.16	-984.3	-8,766.7	9,108.8	9,096.5	12.36	737.140	
4,626.0	4,594.2	4,323.8	4,323.5	11.7	1.3	-95.16	-984.5	-8,767.2	9,109.5	9,097.1	12.41	734.022	
4,700.0	4,668.2	4,376.8	4,376.5	11.8	1.3	-95.16	-984.9	-8,768.7	9,111.5	9,098.9	12.56	725.425	
4,724.4	4,692.6	4,400.0	4,399.7	11.9	1.3	-95.16	-985.0	-8,769.3	9,112.2	9,099.6	12.61	722.573	
4,800.0	4,768.2	4,448.9	4,448.6	12.0	1.3	-95.17	-985.4	-8,770.8	9,114.5	9,101.7	12.76	714.067	
4,822.8	4,791.0	4,465.4	4,465.1	12.0	1.3	-95.17	-985.5	-8,771.3	9,115.2	9,102.4	12.81	711.512	

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

Anticollision Report



Company:	PDC ENERGY	Local Co-ordinate Reference:	Well WACKER 10G-214
Project:	WELD COUNTY, COLORADO	TVD Reference:	KB-EST @ 4624.0usft (Original Well Elev)
Reference Site:	SW NW SEC. 10 T5N R64W 6th P.M.	MD Reference:	KB-EST @ 4624.0usft (Original Well Elev)
Site Error:	0.0 usft	North Reference:	True
Reference Well:	WACKER 10G-214	Survey Calculation Method:	Minimum Curvature
Well Error:	0.0 usft	Output errors are at	2.00 sigma
Reference Wellbore	ORIGINAL WELLBORE	Database:	EDM 5000.1 Single User Db
Reference Design:	PROPOSAL #1	Offset TVD Reference:	Offset Datum

Offset Design SW NW SEC. 10 T5N R64W 6th P.M. - EXIST VERT PJ #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	
4,900.0	4,868.2	4,600.0	4,599.6	12.2	1.3	-95.17	-986.6	-8,775.3	9,117.6	9,104.6	12.98	702.365		
4,921.2	4,889.5	4,620.6	4,620.2	12.2	1.3	-95.17	-986.7	-8,775.8	9,118.2	9,105.1	13.03	699.996		
5,000.0	4,968.2	4,677.5	4,677.1	12.4	1.3	-95.17	-987.0	-8,777.3	9,120.3	9,107.1	13.19	691.531		
5,019.7	4,987.9	4,700.0	4,699.6	12.4	1.3	-95.17	-987.0	-8,778.0	9,120.9	9,107.6	13.23	689.372		
5,100.0	5,068.2	4,758.8	4,758.3	12.6	1.3	-95.17	-987.2	-8,779.7	9,123.2	9,109.8	13.40	680.954		
5,118.1	5,086.3	4,774.3	4,773.8	12.6	1.3	-95.17	-987.2	-8,780.2	9,123.8	9,110.4	13.44	679.060		
5,200.0	5,168.2	4,933.0	4,932.5	12.7	1.3	-95.18	-988.4	-8,784.3	9,126.0	9,112.4	13.62	670.000		
5,216.5	5,184.7	4,951.9	4,951.3	12.8	1.3	-95.18	-988.5	-8,784.7	9,126.4	9,112.7	13.66	668.289		
5,300.0	5,268.2	5,028.2	5,027.6	12.9	1.4	-95.18	-988.4	-8,786.4	9,128.2	9,114.3	13.83	659.823		
5,314.9	5,283.2	5,038.4	5,037.8	13.0	1.4	-95.18	-988.3	-8,786.6	9,128.5	9,114.7	13.87	658.342		
5,400.0	5,368.2	5,100.0	5,099.4	13.1	1.4	-95.17	-988.0	-8,788.2	9,130.6	9,116.6	14.05	650.015		
5,413.4	5,381.6	5,100.0	5,099.4	13.2	1.4	-95.17	-988.0	-8,788.2	9,131.0	9,116.9	14.07	648.808		
5,500.0	5,468.2	5,174.0	5,173.4	13.3	1.4	-95.17	-987.6	-8,790.3	9,133.4	9,119.1	14.26	640.458		
5,511.8	5,480.0	5,183.3	5,182.6	13.3	1.4	-95.17	-987.5	-8,790.6	9,133.7	9,119.4	14.29	639.341		
5,600.0	5,568.2	5,377.1	5,376.5	13.5	1.4	-95.15	-984.8	-8,795.0	9,135.4	9,120.9	14.51	629.793		
5,610.2	5,578.4	5,386.9	5,386.2	13.5	1.4	-95.15	-984.6	-8,795.2	9,135.6	9,121.0	14.53	628.810		
5,700.0	5,668.2	5,493.1	5,492.4	13.7	1.5	-95.13	-982.7	-8,797.1	9,137.1	9,122.3	14.73	620.135		
5,708.6	5,676.9	5,504.3	5,503.6	13.7	1.5	-95.13	-982.6	-8,797.3	9,137.2	9,122.5	14.75	619.299		
5,800.0	5,768.2	5,600.0	5,599.2	13.9	1.5	-95.12	-980.8	-8,798.8	9,138.5	9,123.5	14.96	610.798		
5,807.1	5,775.3	5,600.0	5,599.2	13.9	1.5	-95.12	-980.8	-8,798.8	9,138.6	9,123.6	14.98	610.220		
5,900.0	5,868.2	5,672.9	5,672.1	14.1	1.5	-95.11	-979.3	-8,800.0	9,140.0	9,124.8	15.18	602.049		
5,905.5	5,873.7	5,676.1	5,675.3	14.1	1.5	-95.11	-979.2	-8,800.1	9,140.1	9,124.9	15.19	601.583		
5,960.7	5,928.9	5,725.3	5,724.5	14.2	1.5	-95.11	-978.4	-8,801.1	9,141.2	9,125.8	15.32	596.788		
6,000.0	5,968.2	5,794.5	5,793.7	14.3	1.5	-5.10	-977.0	-8,802.4	9,140.8	9,126.1	14.70	621.874		
6,003.9	5,972.1	5,824.7	5,823.9	14.3	1.5	-5.10	-976.2	-8,802.9	9,140.6	9,125.9	14.71	621.370		
6,050.0	6,018.0	5,944.7	5,943.8	14.4	1.6	-5.11	-972.4	-8,804.1	9,136.6	9,121.7	14.83	616.011		
6,100.0	6,067.3	5,995.5	5,994.6	14.4	1.6	-5.16	-971.2	-8,804.4	9,128.9	9,113.9	14.98	609.377		
6,102.3	6,069.6	5,997.9	5,997.0	14.4	1.6	-5.16	-971.1	-8,804.4	9,128.4	9,113.4	14.99	609.050		
6,150.0	6,116.0	6,024.7	6,023.8	14.4	1.6	-5.24	-970.6	-8,804.6	9,117.8	9,102.7	15.13	602.673		
6,200.0	6,163.8	6,051.3	6,050.4	14.5	1.6	-5.35	-970.1	-8,804.9	9,103.5	9,088.2	15.26	596.484		
6,200.8	6,164.5	6,051.7	6,050.8	14.5	1.6	-5.35	-970.1	-8,804.9	9,103.2	9,088.0	15.26	596.396		
6,250.0	6,210.4	6,077.4	6,076.4	14.5	1.6	-5.50	-969.5	-8,805.2	9,086.0	9,070.6	15.37	591.240		
6,299.2	6,254.9	6,100.0	6,099.0	14.5	1.6	-5.67	-969.0	-8,805.5	9,065.7	9,050.3	15.44	587.281		
6,300.0	6,255.6	6,100.0	6,099.0	14.5	1.6	-5.67	-969.0	-8,805.5	9,065.4	9,050.0	15.44	587.234		
6,350.0	6,299.3	6,141.1	6,140.2	14.5	1.6	-5.90	-968.1	-8,806.2	9,041.7	9,026.2	15.48	583.946		
6,397.6	6,339.2	6,175.0	6,174.0	14.6	1.6	-6.16	-967.3	-8,806.7	9,016.4	9,000.9	15.49	581.994		
6,400.0	6,341.2	6,176.7	6,175.7	14.6	1.6	-6.17	-967.2	-8,806.7	9,015.1	8,999.6	15.49	581.923		
6,450.0	6,381.0	6,226.7	6,225.6	14.6	1.7	-6.51	-966.0	-8,807.6	8,985.6	8,970.1	15.48	580.354		
6,496.0	6,415.8	6,300.0	6,299.0	14.7	1.7	-6.90	-964.0	-8,808.6	8,955.9	8,940.5	15.48	578.414		
6,500.0	6,418.7	6,300.0	6,299.0	14.7	1.7	-6.94	-964.0	-8,808.6	8,953.3	8,937.8	15.48	578.522		
6,550.0	6,453.9	6,325.7	6,324.7	14.8	1.7	-7.44	-963.3	-8,808.9	8,918.4	8,903.0	15.40	579.099		
6,594.5	6,483.1	6,345.3	6,344.2	15.0	1.7	-7.98	-962.6	-8,809.2	8,885.3	8,870.0	15.32	579.998		
6,600.0	6,486.6	6,347.6	6,346.6	15.1	1.7	-8.06	-962.5	-8,809.3	8,881.1	8,865.8	15.31	580.127		
6,650.0	6,516.6	6,367.9	6,366.8	15.3	1.7	-8.83	-961.8	-8,809.6	8,841.6	8,826.4	15.22	580.999		
6,692.9	6,540.0	6,400.0	6,398.9	15.7	1.7	-9.68	-960.6	-8,810.1	8,806.2	8,791.0	15.18	580.159		
6,700.0	6,543.7	6,400.0	6,398.9	15.7	1.7	-9.83	-960.6	-8,810.1	8,800.2	8,785.0	15.17	580.216		
6,750.0	6,567.8	6,400.0	6,398.9	16.2	1.7	-11.09	-960.6	-8,810.1	8,756.9	8,741.8	15.12	579.104		
6,791.3	6,585.4	6,400.0	6,398.9	16.7	1.7	-12.43	-960.6	-8,810.1	8,720.0	8,704.8	15.15	575.549		
6,800.0	6,588.8	6,400.0	6,398.9	16.8	1.7	-12.76	-960.6	-8,810.1	8,712.1	8,696.9	15.17	574.439		
6,850.0	6,606.6	6,400.0	6,398.9	17.4	1.7	-15.08	-960.6	-8,810.1	8,665.9	8,650.6	15.37	563.926		
6,889.7	6,618.4	6,400.0	6,398.9	18.0	1.7	-17.66	-960.6	-8,810.1	8,628.4	8,612.7	15.71	549.187		
6,900.0	6,621.1	6,400.0	6,398.9	18.2	1.7	-18.47	-960.6	-8,810.1	8,618.6	8,602.8	15.84	544.236		

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

Anticollision Report



Company:	PDC ENERGY	Local Co-ordinate Reference:	Well WACKER 10G-214
Project:	WELD COUNTY, COLORADO	TVD Reference:	KB-EST @ 4624.0usft (Original Well Elev)
Reference Site:	SW NW SEC. 10 T5N R64W 6th P.M.	MD Reference:	KB-EST @ 4624.0usft (Original Well Elev)
Site Error:	0.0 usft	North Reference:	True
Reference Well:	WACKER 10G-214	Survey Calculation Method:	Minimum Curvature
Well Error:	0.0 usft	Output errors are at	2.00 sigma
Reference Wellbore	ORIGINAL WELLBORE	Database:	EDM 5000.1 Single User Db
Reference Design:	PROPOSAL #1	Offset TVD Reference:	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	6,632.2	6,400.0	6,398.9	19.0	1.7	-23.82	-960.6	-8,810.1	8,570.3	8,553.6	16.78	510.698	
6,988.2	6,638.4	6,400.0	6,398.9	19.7	1.7	-30.40	-960.6	-8,810.1	8,533.0	8,514.9	18.06	472.446	
7,000.0	6,639.9	6,400.0	6,398.9	19.9	1.7	-33.16	-960.6	-8,810.1	8,521.3	8,502.8	18.59	458.297	
7,050.0	6,644.1	6,400.0	6,398.9	20.8	1.7	-51.61	-960.6	-8,810.1	8,471.9	8,450.2	21.64	391.549	
7,086.5	6,645.0	6,400.0	6,398.9	21.5	1.7	-75.79	-960.6	-8,810.1	8,435.5	8,412.1	23.40	360.467	
7,100.0	6,645.0	6,400.0	6,398.9	21.8	1.7	-75.79	-960.6	-8,810.1	8,422.2	8,398.5	23.66	355.971	
7,185.0	6,644.9	6,400.0	6,398.9	23.6	1.7	-75.79	-960.6	-8,810.1	8,337.5	8,312.2	25.37	328.676	
7,200.0	6,644.8	6,400.0	6,398.9	23.9	1.7	-75.79	-960.6	-8,810.1	8,322.6	8,297.0	25.67	324.244	
7,283.4	6,644.7	6,400.0	6,398.9	25.7	1.7	-75.79	-960.6	-8,810.1	8,239.6	8,212.1	27.46	300.110	
7,300.0	6,644.7	6,400.0	6,398.9	26.1	1.7	-75.79	-960.6	-8,810.1	8,223.1	8,195.3	27.81	295.692	
7,381.9	6,644.6	6,400.0	6,398.9	28.0	1.7	-75.79	-960.6	-8,810.1	8,141.7	8,112.0	29.65	274.608	
7,400.0	6,644.6	6,400.0	6,398.9	28.4	1.7	-75.79	-960.6	-8,810.1	8,123.6	8,093.6	30.06	270.290	
7,480.3	6,644.5	6,400.0	6,398.9	30.3	1.7	-75.79	-960.6	-8,810.1	8,043.7	8,011.8	31.92	251.974	
7,500.0	6,644.4	6,400.0	6,398.9	30.8	1.7	-75.79	-960.6	-8,810.1	8,024.1	7,991.8	32.38	247.804	
7,578.7	6,644.3	6,400.0	6,398.9	32.7	1.7	-75.79	-960.6	-8,810.1	7,945.8	7,911.6	34.26	231.917	
7,600.0	6,644.3	6,400.0	6,398.9	33.3	1.7	-75.78	-960.6	-8,810.1	7,924.7	7,889.9	34.77	227.919	
7,677.1	6,644.2	6,400.0	6,398.9	35.2	1.7	-75.78	-960.6	-8,810.1	7,847.9	7,811.3	36.65	214.124	
7,700.0	6,644.1	6,400.0	6,398.9	35.8	1.7	-75.78	-960.6	-8,810.1	7,825.2	7,788.0	37.21	210.307	
7,775.6	6,644.0	6,400.0	6,398.9	37.7	1.7	-75.78	-960.6	-8,810.1	7,750.1	7,711.0	39.08	198.302	
7,800.0	6,644.0	6,400.0	6,398.9	38.3	1.7	-75.78	-960.6	-8,810.1	7,725.8	7,686.1	39.69	194.665	
7,874.0	6,643.9	6,400.0	6,398.9	40.2	1.7	-75.78	-960.6	-8,810.1	7,652.2	7,610.7	41.55	184.185	
7,900.0	6,643.9	6,400.0	6,398.9	40.9	1.7	-75.78	-960.6	-8,810.1	7,626.4	7,584.2	42.20	180.722	
7,972.4	6,643.8	6,400.0	6,398.9	42.8	1.7	-75.78	-960.6	-8,810.1	7,554.4	7,510.3	44.04	171.542	
8,000.0	6,643.7	6,400.0	6,398.9	43.5	1.7	-75.78	-960.6	-8,810.1	7,526.9	7,482.2	44.74	168.245	
8,070.8	6,643.6	6,400.0	6,398.9	45.4	1.7	-75.78	-960.6	-8,810.1	7,456.5	7,410.0	46.55	160.175	
8,100.0	6,643.6	6,400.0	6,398.9	46.2	1.7	-75.78	-960.6	-8,810.1	7,427.5	7,380.2	47.30	157.034	
8,169.3	6,643.5	6,400.0	6,398.9	48.0	1.7	-75.78	-960.6	-8,810.1	7,358.7	7,309.6	49.09	149.914	
8,200.0	6,643.5	6,400.0	6,398.9	48.8	1.7	-75.77	-960.6	-8,810.1	7,328.2	7,278.3	49.88	146.920	
8,267.7	6,643.4	6,400.0	6,398.9	50.6	1.7	-75.77	-960.6	-8,810.1	7,260.9	7,209.3	51.64	140.618	
8,300.0	6,643.3	6,400.0	6,398.9	51.5	1.7	-75.77	-960.6	-8,810.1	7,228.8	7,176.3	52.47	137.760	
8,366.1	6,643.2	6,400.0	6,398.9	53.3	1.7	-75.77	-960.6	-8,810.1	7,163.1	7,108.9	54.20	132.163	
8,400.0	6,643.2	6,400.0	6,398.9	54.2	1.7	-75.77	-960.6	-8,810.1	7,129.5	7,074.4	55.08	129.431	
8,464.5	6,643.1	6,400.0	6,398.9	55.9	1.7	-75.77	-960.6	-8,810.1	7,065.3	7,008.6	56.77	124.446	
8,500.0	6,643.1	6,400.0	6,398.9	56.9	1.7	-75.77	-960.6	-8,810.1	7,030.1	6,972.4	57.70	121.832	
8,563.0	6,643.0	6,400.0	6,398.9	58.6	1.7	-75.77	-960.6	-8,810.1	6,967.6	6,908.2	59.36	117.378	
8,600.0	6,642.9	6,400.0	6,398.9	59.6	1.7	-75.77	-960.6	-8,810.1	6,930.8	6,870.5	60.33	114.875	
8,661.4	6,642.8	6,400.0	6,398.9	61.3	1.7	-75.77	-960.6	-8,810.1	6,869.9	6,807.9	61.95	110.886	
8,700.0	6,642.8	6,400.0	6,398.9	62.3	1.7	-75.77	-960.6	-8,810.1	6,831.5	6,768.6	62.97	108.484	
8,759.8	6,642.7	6,400.0	6,398.9	64.0	1.7	-75.77	-960.6	-8,810.1	6,772.2	6,707.6	64.56	104.903	
8,800.0	6,642.7	6,400.0	6,398.9	65.1	1.7	-75.76	-960.6	-8,810.1	6,732.3	6,666.7	65.62	102.595	
8,858.2	6,642.6	6,400.0	6,398.9	66.6	1.7	-75.76	-960.6	-8,810.1	6,674.5	6,607.3	67.17	99.373	
8,900.0	6,642.5	6,400.0	6,398.9	67.8	1.7	-75.76	-960.6	-8,810.1	6,633.0	6,564.8	68.27	97.154	
8,956.7	6,642.4	6,400.0	6,398.9	69.3	1.7	-75.76	-960.6	-8,810.1	6,576.8	6,507.0	69.78	94.250	
9,000.0	6,642.4	6,400.0	6,398.9	70.5	1.7	-75.76	-960.6	-8,810.1	6,533.8	6,462.9	70.93	92.113	
9,055.1	6,642.3	6,400.0	6,398.9	72.0	1.7	-75.76	-960.6	-8,810.1	6,479.2	6,406.8	72.40	89.490	
9,100.0	6,642.3	6,400.0	6,398.9	73.3	1.7	-75.76	-960.6	-8,810.1	6,434.6	6,361.0	73.60	87.430	
9,153.5	6,642.2	6,400.0	6,398.9	74.7	1.7	-75.76	-960.6	-8,810.1	6,381.5	6,306.5	75.03	85.057	
9,200.0	6,642.1	6,400.0	6,398.9	76.0	1.7	-75.76	-960.6	-8,810.1	6,335.5	6,259.2	76.27	83.070	
9,251.9	6,642.1	6,400.0	6,398.9	77.5	1.7	-75.76	-960.6	-8,810.1	6,283.9	6,206.3	77.66	80.921	
9,300.0	6,642.0	6,400.0	6,398.9	78.8	1.7	-75.76	-960.6	-8,810.1	6,236.3	6,157.4	78.94	79.001	
9,350.4	6,641.9	6,400.0	6,398.9	80.2	1.7	-75.76	-960.6	-8,810.1	6,186.4	6,106.1	80.29	77.051	
9,400.0	6,641.9	6,400.0	6,398.9	81.5	1.7	-75.76	-960.6	-8,810.1	6,137.2	6,055.6	81.62	75.195	

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

Anticollision Report



Company:	PDC ENERGY	Local Co-ordinate Reference:	Well WACKER 10G-214
Project:	WELD COUNTY, COLORADO	TVD Reference:	KB-EST @ 4624.0usft (Original Well Elev)
Reference Site:	SW NW SEC. 10 T5N R64W 6th P.M.	MD Reference:	KB-EST @ 4624.0usft (Original Well Elev)
Site Error:	0.0 usft	North Reference:	True
Reference Well:	WACKER 10G-214	Survey Calculation Method:	Minimum Curvature
Well Error:	0.0 usft	Output errors are at	2.00 sigma
Reference Wellbore	ORIGINAL WELLBORE	Database:	EDM 5000.1 Single User Db
Reference Design:	PROPOSAL #1	Offset TVD Reference:	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	6,641.8	6,400.0	6,398.9	82.9	1.7	-75.76	-960.6	-8,810.1	6,088.8	6,005.9	82.93	73.425	
9,500.0	6,641.7	6,400.0	6,398.9	84.3	1.7	-75.75	-960.6	-8,810.1	6,038.1	5,953.8	84.30	71.628	
9,547.2	6,641.7	6,400.0	6,398.9	85.6	1.7	-75.75	-960.6	-8,810.1	5,991.3	5,905.8	85.57	70.020	
9,600.0	6,641.6	6,400.0	6,398.9	87.1	1.7	-75.75	-960.6	-8,810.1	5,939.0	5,852.1	86.98	68.279	
9,645.6	6,641.5	6,400.0	6,398.9	88.3	1.7	-75.75	-960.6	-8,810.1	5,893.8	5,805.6	88.21	66.818	
9,700.0	6,641.5	6,400.0	6,398.9	89.8	1.7	-75.75	-960.6	-8,810.1	5,840.0	5,750.4	89.67	65.129	
9,744.1	6,641.4	6,400.0	6,398.9	91.0	1.7	-75.75	-960.6	-8,810.1	5,796.4	5,705.5	90.85	63.799	
9,800.0	6,641.3	6,400.0	6,398.9	92.6	1.7	-75.75	-960.6	-8,810.1	5,741.0	5,648.7	92.36	62.161	
9,842.5	6,641.3	6,400.0	6,398.9	93.8	1.7	-75.75	-960.6	-8,810.1	5,699.0	5,605.5	93.50	60.951	
9,900.0	6,641.2	6,400.0	6,398.9	95.4	1.7	-75.75	-960.6	-8,810.1	5,642.1	5,547.0	95.05	59.360	
9,940.9	6,641.1	6,400.0	6,398.9	96.5	1.7	-75.75	-960.6	-8,810.1	5,601.6	5,505.4	96.15	58.259	
10,000.0	6,641.1	6,400.0	6,398.9	98.1	1.7	-75.75	-960.6	-8,810.1	5,543.2	5,445.4	97.74	56.712	
10,039.3	6,641.0	6,400.0	6,398.9	99.2	1.7	-75.75	-960.6	-8,810.1	5,504.2	5,405.4	98.80	55.710	
10,100.0	6,640.9	6,400.0	6,398.9	100.9	1.7	-75.75	-960.6	-8,810.1	5,444.3	5,343.8	100.44	54.206	
10,137.8	6,640.9	6,400.0	6,398.9	102.0	1.7	-75.75	-960.6	-8,810.1	5,406.9	5,305.5	101.46	53.294	
10,200.0	6,640.8	6,400.0	6,398.9	103.7	1.7	-75.75	-960.6	-8,810.1	5,345.4	5,242.3	103.13	51.830	
10,236.2	6,640.8	6,400.0	6,398.9	104.7	1.7	-75.75	-960.6	-8,810.1	5,309.7	5,205.6	104.11	51.000	
10,300.0	6,640.7	6,400.0	6,398.9	106.5	1.7	-75.75	-960.6	-8,810.1	5,246.7	5,140.8	105.83	49.575	
10,334.6	6,640.6	6,400.0	6,398.9	107.4	1.7	-75.75	-960.6	-8,810.1	5,212.5	5,105.7	106.77	48.821	
10,400.0	6,640.6	6,400.0	6,398.9	109.3	1.7	-75.74	-960.6	-8,810.1	5,147.9	5,039.4	108.53	47.432	
10,433.0	6,640.5	6,400.0	6,398.9	110.2	1.7	-75.74	-960.6	-8,810.1	5,115.3	5,005.9	109.43	46.747	
10,500.0	6,640.4	6,400.0	6,398.9	112.0	1.7	-75.74	-960.6	-8,810.1	5,049.2	4,938.0	111.23	45.393	
10,531.5	6,640.4	6,400.0	6,398.9	112.9	1.7	-75.74	-960.6	-8,810.1	5,018.2	4,906.1	112.09	44.771	
10,600.0	6,640.3	6,400.0	6,398.9	114.8	1.7	-75.74	-960.6	-8,810.1	4,950.6	4,836.6	113.94	43.450	
10,629.9	6,640.3	6,400.0	6,398.9	115.7	1.7	-75.74	-960.6	-8,810.1	4,921.1	4,806.3	114.75	42.887	
10,700.0	6,640.2	6,400.0	6,398.9	117.6	1.7	-75.74	-960.6	-8,810.1	4,852.0	4,735.3	116.64	41.597	
10,728.3	6,640.1	6,400.0	6,398.9	118.4	1.7	-75.74	-960.6	-8,810.1	4,824.1	4,706.7	117.41	41.088	
10,800.0	6,640.0	6,400.0	6,398.9	120.4	1.7	-75.74	-960.6	-8,810.1	4,753.5	4,634.1	119.35	39.829	
10,826.7	6,640.0	6,400.0	6,398.9	121.2	1.7	-75.74	-960.6	-8,810.1	4,727.1	4,607.0	120.07	39.369	
10,900.0	6,639.9	6,400.0	6,398.9	123.2	1.7	-75.74	-960.6	-8,810.1	4,655.0	4,532.9	122.05	38.139	
10,925.2	6,639.9	6,400.0	6,398.9	123.9	1.7	-75.74	-960.6	-8,810.1	4,630.2	4,507.5	122.73	37.725	
11,000.0	6,639.8	6,400.0	6,398.9	126.0	1.7	-75.74	-960.6	-8,810.1	4,556.6	4,431.8	124.76	36.523	
11,023.6	6,639.8	6,400.0	6,398.9	126.6	1.7	-75.74	-960.6	-8,810.1	4,533.4	4,408.0	125.40	36.151	
11,100.0	6,639.7	6,400.0	6,398.9	128.8	1.7	-75.74	-960.6	-8,810.1	4,458.3	4,330.8	127.47	34.975	
11,122.0	6,639.6	6,400.0	6,398.9	129.4	1.7	-75.74	-960.6	-8,810.1	4,436.6	4,308.6	128.07	34.643	
11,200.0	6,639.5	6,400.0	6,398.9	131.6	1.7	-75.74	-960.6	-8,810.1	4,360.0	4,229.8	130.18	33.493	
11,220.4	6,639.5	6,400.0	6,398.9	132.1	1.7	-75.74	-960.6	-8,810.1	4,339.9	4,209.2	130.73	33.197	
11,300.0	6,639.4	6,400.0	6,398.9	134.4	1.7	-75.73	-960.6	-8,810.1	4,261.8	4,129.0	132.89	32.071	
11,318.9	6,639.4	6,400.0	6,398.9	134.9	1.7	-75.73	-960.6	-8,810.1	4,243.3	4,109.9	133.40	31.809	
11,400.0	6,639.3	6,400.0	6,398.9	137.1	1.7	-75.73	-960.6	-8,810.1	4,163.8	4,028.2	135.60	30.707	
11,417.3	6,639.3	6,400.0	6,398.9	137.6	1.7	-75.73	-960.6	-8,810.1	4,146.8	4,010.7	136.07	30.476	
11,500.0	6,639.2	6,400.0	6,398.9	139.9	1.7	-75.73	-960.6	-8,810.1	4,065.8	3,927.5	138.31	29.396	
11,515.7	6,639.1	6,400.0	6,398.9	140.4	1.7	-75.73	-960.6	-8,810.1	4,050.4	3,911.6	138.74	29.195	
11,600.0	6,639.0	6,400.0	6,398.9	142.7	1.7	-75.73	-960.6	-8,810.1	3,967.9	3,826.9	141.02	28.137	
11,614.1	6,639.0	6,400.0	6,398.9	143.1	1.7	-75.73	-960.6	-8,810.1	3,954.0	3,812.6	141.41	27.962	
11,700.0	6,638.9	6,400.0	6,398.9	145.5	1.7	-75.73	-960.6	-8,810.1	3,870.1	3,726.4	143.73	26.925	
11,712.6	6,638.9	6,400.0	6,398.9	145.9	1.7	-75.73	-960.6	-8,810.1	3,857.8	3,713.7	144.08	26.776	
11,800.0	6,638.8	6,400.0	6,398.9	148.3	1.7	-75.73	-960.6	-8,810.1	3,772.4	3,626.0	146.45	25.760	
11,811.0	6,638.8	6,400.0	6,398.9	148.6	1.7	-75.73	-960.6	-8,810.1	3,761.7	3,615.0	146.75	25.634	
11,900.0	6,638.7	6,400.0	6,398.9	151.1	1.7	-75.73	-960.6	-8,810.1	3,674.9	3,525.7	149.16	24.637	
11,909.4	6,638.6	6,400.0	6,398.9	151.4	1.7	-75.73	-960.6	-8,810.1	3,665.7	3,516.3	149.42	24.533	
12,000.0	6,638.5	6,400.0	6,398.9	153.9	1.7	-75.73	-960.6	-8,810.1	3,577.5	3,425.6	151.88	23.555	

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

Anticollision Report



Company:	PDC ENERGY	Local Co-ordinate Reference:	Well WACKER 10G-214
Project:	WELD COUNTY, COLORADO	TVD Reference:	KB-EST @ 4624.0usft (Original Well Elev)
Reference Site:	SW NW SEC. 10 T5N R64W 6th P.M.	MD Reference:	KB-EST @ 4624.0usft (Original Well Elev)
Site Error:	0.0 usft	North Reference:	True
Reference Well:	WACKER 10G-214	Survey Calculation Method:	Minimum Curvature
Well Error:	0.0 usft	Output errors are at	2.00 sigma
Reference Wellbore	ORIGINAL WELLBORE	Database:	EDM 5000.1 Single User Db
Reference Design:	PROPOSAL #1	Offset TVD Reference:	Offset Datum

Offset Design SW NW SEC. 10 T5N R64W 6th P.M. - EXIST VERT PJ #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)	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	6,638.5	6,400.0	6,398.9	154.1	1.7	-75.73	-960.6	-8,810.1	3,569.9	3,417.8	152.09	23.472	
12,100.0	6,638.4	6,400.0	6,398.9	156.7	1.7	-75.73	-960.6	-8,810.1	3,480.2	3,325.6	154.59	22.513	
12,106.3	6,638.4	6,400.0	6,398.9	156.9	1.7	-75.73	-960.6	-8,810.1	3,474.1	3,319.4	154.76	22.448	
12,200.0	6,638.3	6,400.0	6,398.9	159.5	1.7	-75.73	-960.6	-8,810.1	3,383.1	3,225.8	157.31	21.507	
12,204.7	6,638.3	6,400.0	6,398.9	159.6	1.7	-75.73	-960.6	-8,810.1	3,378.6	3,221.1	157.43	21.460	
12,300.0	6,638.2	6,400.0	6,398.9	162.3	1.7	-75.73	-960.6	-8,810.1	3,286.2	3,126.2	160.02	20.536	
12,303.1	6,638.2	6,400.0	6,398.9	162.4	1.7	-75.73	-960.6	-8,810.1	3,283.2	3,123.1	160.11	20.506	
12,400.0	6,638.0	6,400.0	6,398.9	165.1	1.7	-75.73	-960.6	-8,810.1	3,189.5	3,026.7	162.74	19.599	
12,401.5	6,638.0	6,400.0	6,398.9	165.2	1.7	-75.73	-960.6	-8,810.1	3,188.0	3,025.2	162.78	19.585	
12,500.0	6,637.9	6,400.0	6,398.9	167.9	1.7	-75.73	-960.6	-8,810.1	3,093.0	2,927.5	165.45	18.694	
12,598.4	6,637.8	6,400.0	6,398.9	170.7	1.7	-75.73	-960.6	-8,810.1	2,998.2	2,830.1	168.13	17.833	
12,600.0	6,637.8	6,400.0	6,398.9	170.7	1.7	-75.72	-960.6	-8,810.1	2,996.7	2,828.5	168.17	17.819	
12,696.8	6,637.7	6,400.0	6,398.9	173.4	1.7	-75.72	-960.6	-8,810.1	2,903.7	2,732.9	170.80	17.000	
12,700.0	6,637.7	6,400.0	6,398.9	173.5	1.7	-75.72	-960.6	-8,810.1	2,900.6	2,729.7	170.89	16.974	
12,795.2	6,637.6	6,400.0	6,398.9	176.2	1.7	-75.72	-960.6	-8,810.1	2,809.4	2,635.9	173.48	16.195	
12,800.0	6,637.6	6,400.0	6,398.9	176.3	1.7	-75.72	-960.6	-8,810.1	2,804.8	2,631.2	173.61	16.156	
12,893.7	6,637.4	6,400.0	6,398.9	178.9	1.7	-75.72	-960.6	-8,810.1	2,715.4	2,539.3	176.15	15.415	
12,900.0	6,637.4	6,400.0	6,398.9	179.1	1.7	-75.72	-960.6	-8,810.1	2,709.4	2,533.1	176.32	15.366	
12,992.1	6,637.3	6,400.0	6,398.9	181.7	1.7	-75.72	-960.6	-8,810.1	2,621.8	2,442.9	178.83	14.661	
13,000.0	6,637.3	6,400.0	6,398.9	181.9	1.7	-75.72	-960.6	-8,810.1	2,614.3	2,435.2	179.04	14.601	
13,090.5	6,637.2	6,400.0	6,398.9	184.4	1.7	-75.72	-960.6	-8,810.1	2,528.5	2,347.0	181.50	13.931	
13,100.0	6,637.2	6,400.0	6,398.9	184.7	1.7	-75.72	-960.6	-8,810.1	2,519.5	2,337.8	181.76	13.862	
13,188.9	6,637.1	6,400.0	6,398.9	187.2	1.7	-75.72	-960.6	-8,810.1	2,435.6	2,251.4	184.18	13.224	
13,200.0	6,637.1	6,400.0	6,398.9	187.5	1.7	-75.72	-960.6	-8,810.1	2,425.2	2,240.7	184.48	13.146	
13,287.4	6,637.0	6,400.0	6,398.9	190.0	1.7	-75.72	-960.6	-8,810.1	2,343.2	2,156.3	186.86	12.540	
13,300.0	6,637.0	6,400.0	6,398.9	190.3	1.7	-75.72	-960.6	-8,810.1	2,331.3	2,144.1	187.20	12.454	
13,385.8	6,636.9	6,400.0	6,398.9	192.7	1.7	-75.72	-960.6	-8,810.1	2,251.2	2,061.7	189.53	11.878	
13,400.0	6,636.8	6,400.0	6,398.9	193.1	1.7	-75.72	-960.6	-8,810.1	2,238.0	2,048.1	189.92	11.784	
13,484.2	6,636.7	6,400.0	6,398.9	195.5	1.7	-75.72	-960.6	-8,810.1	2,159.9	1,967.7	192.21	11.237	
13,500.0	6,636.7	6,400.0	6,398.9	195.9	1.7	-75.72	-960.6	-8,810.1	2,145.3	1,952.7	192.64	11.136	
13,582.6	6,636.6	6,400.0	6,398.9	198.2	1.7	-75.72	-960.6	-8,810.1	2,069.2	1,874.3	194.89	10.617	
13,600.0	6,636.6	6,400.0	6,398.9	198.7	1.7	-75.72	-960.6	-8,810.1	2,053.3	1,857.9	195.36	10.510	
13,681.1	6,636.5	6,400.0	6,398.9	201.0	1.7	-75.72	-960.6	-8,810.1	1,979.2	1,781.7	197.56	10.018	
13,700.0	6,636.5	6,400.0	6,398.9	201.5	1.7	-75.72	-960.6	-8,810.1	1,962.0	1,763.9	198.08	9.905	
13,779.5	6,636.4	6,400.0	6,398.9	203.7	1.7	-75.72	-960.6	-8,810.1	1,890.1	1,689.9	200.24	9.439	
13,800.0	6,636.4	6,400.0	6,398.9	204.3	1.7	-75.72	-960.6	-8,810.1	1,871.7	1,670.9	200.80	9.321	
13,877.9	6,636.3	6,400.0	6,398.9	206.5	1.7	-75.72	-960.6	-8,810.1	1,802.0	1,599.0	202.92	8.880	
13,900.0	6,636.3	6,400.0	6,398.9	207.1	1.7	-75.72	-960.6	-8,810.1	1,782.3	1,578.8	203.52	8.758	
13,976.3	6,636.2	6,400.0	6,398.9	209.3	1.7	-75.72	-960.6	-8,810.1	1,714.9	1,509.3	205.60	8.341	
14,000.0	6,636.1	6,400.0	6,398.9	209.9	1.7	-75.72	-960.6	-8,810.1	1,694.2	1,488.0	206.24	8.215	
14,074.8	6,636.0	6,400.0	6,398.9	212.0	1.7	-75.72	-960.6	-8,810.1	1,629.2	1,420.9	208.28	7.822	
14,100.0	6,636.0	6,400.0	6,398.9	212.7	1.7	-75.72	-960.6	-8,810.1	1,607.5	1,398.5	208.96	7.693	
14,173.2	6,635.9	6,400.0	6,398.9	214.8	1.7	-75.72	-960.6	-8,810.1	1,545.0	1,334.0	210.95	7.324	
14,200.0	6,635.9	6,400.0	6,398.9	215.5	1.7	-75.72	-960.6	-8,810.1	1,522.3	1,310.6	211.68	7.192	
14,271.6	6,635.8	6,400.0	6,398.9	217.5	1.7	-75.72	-960.6	-8,810.1	1,462.5	1,248.9	213.63	6.846	
14,300.0	6,635.8	6,400.0	6,398.9	218.3	1.7	-75.72	-960.6	-8,810.1	1,439.1	1,224.7	214.40	6.712	
14,370.0	6,635.7	6,400.0	6,398.9	220.3	1.7	-75.72	-960.6	-8,810.1	1,382.2	1,165.9	216.31	6.390	
14,400.0	6,635.7	6,400.0	6,398.9	221.1	1.7	-75.72	-960.6	-8,810.1	1,358.2	1,141.1	217.13	6.255	
14,468.5	6,635.6	6,400.0	6,398.9	223.1	1.7	-75.72	-960.6	-8,810.1	1,304.3	1,085.3	218.99	5.956	
14,500.0	6,635.6	6,400.0	6,398.9	223.9	1.7	-75.72	-960.6	-8,810.1	1,280.0	1,060.1	219.85	5.822	
14,566.9	6,635.5	6,400.0	6,398.9	225.8	1.7	-75.72	-960.6	-8,810.1	1,229.4	1,007.7	221.67	5.546	
14,600.0	6,635.4	6,400.0	6,398.9	226.8	1.7	-75.72	-960.6	-8,810.1	1,204.9	982.4	222.57	5.414	

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

Anticollision Report



Company:	PDC ENERGY	Local Co-ordinate Reference:	Well WACKER 10G-214
Project:	WELD COUNTY, COLORADO	TVD Reference:	KB-EST @ 4624.0usft (Original Well Elev)
Reference Site:	SW NW SEC. 10 T5N R64W 6th P.M.	MD Reference:	KB-EST @ 4624.0usft (Original Well Elev)
Site Error:	0.0 usft	North Reference:	True
Reference Well:	WACKER 10G-214	Survey Calculation Method:	Minimum Curvature
Well Error:	0.0 usft	Output errors are at	2.00 sigma
Reference Wellbore	ORIGINAL WELLBORE	Database:	EDM 5000.1 Single User Db
Reference Design:	PROPOSAL #1	Offset TVD Reference:	Offset Datum

Offset Design SW NW SEC. 10 T5N R64W 6th P.M. - EXIST VERT PJ #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
14,665.3	6,635.4	6,400.0	6,398.9	228.6	1.7	-75.72	-960.6	-8,810.1	1,158.0	933.6	224.35	5.162	
14,700.0	6,635.3	6,400.0	6,398.9	229.6	1.7	-75.72	-960.6	-8,810.1	1,133.8	908.5	225.29	5.033	
14,763.7	6,635.2	6,400.0	6,398.9	231.3	1.7	-75.72	-960.6	-8,810.1	1,090.8	863.8	227.03	4.805	
14,800.0	6,635.2	6,400.0	6,398.9	232.4	1.7	-75.72	-960.6	-8,810.1	1,067.3	839.3	228.01	4.681	
14,862.2	6,635.1	6,400.0	6,398.9	234.1	1.7	-75.72	-960.6	-8,810.1	1,028.6	798.9	229.71	4.478	
14,900.0	6,635.1	6,400.0	6,398.9	235.2	1.7	-75.72	-960.6	-8,810.1	1,006.3	775.6	230.74	4.361	
14,960.6	6,635.0	6,400.0	6,398.9	236.9	1.7	-75.72	-960.6	-8,810.1	972.5	740.1	232.39	4.185	
14,982.9	6,635.0	6,400.0	6,398.9	237.5	1.7	-75.72	-960.6	-8,810.1	960.8	727.8	232.99	4.124 CC, ES, SF	

Anticollision Report



Company:	PDC ENERGY	Local Co-ordinate Reference:	Well WACKER 10G-214
Project:	WELD COUNTY, COLORADO	TVD Reference:	KB-EST @ 4624.0usft (Original Well Elev)
Reference Site:	SW NW SEC. 10 T5N R64W 6th P.M.	MD Reference:	KB-EST @ 4624.0usft (Original Well Elev)
Site Error:	0.0 usft	North Reference:	True
Reference Well:	WACKER 10G-214	Survey Calculation Method:	Minimum Curvature
Well Error:	0.0 usft	Output errors are at	2.00 sigma
Reference Wellbore	ORIGINAL WELLBORE	Database:	EDM 5000.1 Single User Db
Reference Design:	PROPOSAL #1	Offset TVD Reference:	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	-86.02	672.2	-9,673.7	9,697.0				
98.4	98.4	81.4	81.4	0.1	0.0	-86.02	672.2	-9,673.7	9,697.0				
100.0	100.0	83.0	83.0	0.1	0.0	-86.02	672.2	-9,673.7	9,697.0	9,696.9	0.10	N/A	
196.8	196.8	179.8	179.8	0.3	1.0	-86.02	672.2	-9,673.7	9,697.0	9,695.7	1.30	7,435.600	
200.0	200.0	183.0	183.0	0.3	1.0	-86.02	672.2	-9,673.7	9,697.0	9,695.7	1.35	7,181.826	
295.3	295.3	278.3	278.3	0.5	3.0	-86.02	672.2	-9,673.7	9,697.0	9,693.4	3.56	2,723.701	
300.0	300.0	283.0	283.0	0.5	3.1	-86.02	672.2	-9,673.7	9,697.0	9,693.3	3.68	2,636.041	
393.7	393.7	376.7	376.7	0.8	5.1	-86.02	672.2	-9,673.7	9,697.0	9,691.1	5.87	1,651.824	
400.0	400.0	383.0	383.0	0.8	5.2	-86.02	672.2	-9,673.7	9,697.0	9,691.0	6.02	1,611.995	
492.1	492.1	475.1	475.1	1.0	7.1	-86.02	672.2	-9,673.7	9,697.0	9,688.9	8.11	1,195.710	
500.0	500.0	483.0	483.0	1.0	7.3	-86.02	672.2	-9,673.7	9,697.0	9,688.7	8.29	1,169.958	
590.5	590.5	573.5	573.5	1.2	9.1	-86.02	672.2	-9,673.7	9,697.0	9,686.7	10.33	938.603	
600.0	600.0	583.0	583.0	1.2	9.3	-86.02	672.2	-9,673.7	9,697.0	9,686.5	10.54	919.645	
689.0	689.0	672.0	672.0	1.4	11.1	-86.02	672.2	-9,673.7	9,697.0	9,684.5	12.55	772.973	
700.0	700.0	683.0	683.0	1.4	11.3	-86.02	672.2	-9,673.7	9,697.0	9,684.2	12.79	758.001	
787.4	787.4	770.4	770.4	1.6	13.1	-86.02	672.2	-9,673.7	9,697.0	9,682.3	14.75	657.213	
800.0	800.0	783.0	783.0	1.7	13.4	-86.02	672.2	-9,673.7	9,697.0	9,682.0	15.04	644.855	
885.8	885.8	868.8	868.8	1.9	15.1	-86.02	672.2	-9,673.7	9,697.0	9,680.0	16.96	571.691	
900.0	900.0	883.0	883.0	1.9	15.4	-86.02	672.2	-9,673.7	9,697.0	9,679.7	17.28	561.177	
984.2	984.2	967.2	967.2	2.1	17.1	-86.02	672.2	-9,673.7	9,697.0	9,677.8	19.17	505.906	
1,000.0	1,000.0	983.0	983.0	2.1	17.4	-86.02	672.2	-9,673.7	9,697.0	9,677.5	19.52	496.760	
1,082.7	1,082.7	1,065.7	1,065.7	2.3	19.1	-86.02	672.2	-9,673.7	9,697.0	9,675.6	21.37	453.721	
1,100.0	1,100.0	1,083.0	1,083.0	2.3	19.4	-86.02	672.2	-9,673.7	9,697.0	9,675.2	21.76	445.631	
1,181.1	1,181.1	1,164.1	1,164.1	2.5	21.0	-86.02	672.2	-9,673.7	9,697.0	9,673.4	23.58	411.309	
1,200.0	1,200.0	1,183.0	1,183.0	2.6	21.4	-86.02	672.2	-9,673.7	9,697.0	9,673.0	24.00	404.057	
1,279.5	1,279.5	1,262.5	1,262.5	2.7	23.0	-86.02	672.2	-9,673.7	9,697.0	9,671.2	25.78	376.156	
1,300.0	1,300.0	1,283.0	1,283.0	2.8	23.4	-86.02	672.2	-9,673.7	9,697.0	9,670.8	26.24	369.586	
1,377.9	1,377.9	1,360.9	1,360.9	3.0	25.0	155.32	672.2	-9,673.7	9,698.0	9,670.0	27.96	346.886	
1,400.0	1,400.0	1,383.0	1,383.0	3.0	25.5	155.32	672.2	-9,673.7	9,698.6	9,670.2	28.44	341.019	
1,476.4	1,476.3	1,459.3	1,459.3	3.1	27.0	155.30	672.2	-9,673.7	9,701.9	9,671.9	30.09	322.464	
1,500.0	1,499.8	1,482.8	1,482.8	3.2	27.5	155.29	672.2	-9,673.7	9,703.3	9,672.8	30.59	317.194	
1,574.8	1,574.4	1,557.4	1,557.4	3.3	29.0	155.26	672.2	-9,673.7	9,709.0	9,676.8	32.18	301.732	
1,600.0	1,599.5	1,582.5	1,582.5	3.4	29.5	155.25	672.2	-9,673.7	9,711.3	9,678.6	32.71	296.930	
1,673.2	1,672.2	1,655.2	1,655.2	3.6	30.9	155.20	672.2	-9,673.7	9,719.1	9,684.8	34.23	283.953	
1,700.0	1,698.7	1,681.7	1,681.7	3.6	31.5	155.18	672.2	-9,673.7	9,722.3	9,687.6	34.78	279.566	
1,771.6	1,769.5	1,752.5	1,752.5	3.8	32.9	155.13	672.2	-9,673.7	9,732.2	9,696.0	36.23	268.608	
1,800.0	1,797.5	1,780.5	1,780.5	3.9	33.5	155.10	672.2	-9,673.7	9,736.6	9,699.8	36.80	264.590	
1,870.1	1,866.3	1,849.3	1,849.3	4.1	34.8	155.03	672.2	-9,673.7	9,748.4	9,710.2	38.19	255.288	
1,900.2	1,895.8	1,878.8	1,878.8	4.2	35.4	155.00	672.2	-9,673.7	9,754.0	9,715.2	38.77	251.575	
1,968.5	1,962.6	1,945.6	1,945.6	4.4	36.8	155.03	672.2	-9,673.7	9,766.9	9,726.6	40.25	242.630	
2,000.0	1,993.4	1,976.4	1,976.4	4.5	37.4	155.05	672.2	-9,673.7	9,772.9	9,731.9	40.94	238.725	
2,066.9	2,058.9	2,041.9	2,041.9	4.7	38.7	155.08	672.2	-9,673.7	9,785.5	9,743.1	42.40	230.802	
2,100.0	2,091.2	2,074.2	2,074.2	4.8	39.4	155.10	672.2	-9,673.7	9,791.8	9,748.7	43.12	227.092	
2,165.3	2,155.2	2,138.2	2,138.2	5.1	40.7	155.13	672.2	-9,673.7	9,804.2	9,759.6	44.55	220.090	
2,200.0	2,189.1	2,172.1	2,172.1	5.2	41.3	155.15	672.2	-9,673.7	9,810.7	9,765.4	45.31	216.542	
2,263.8	2,251.4	2,234.4	2,234.4	5.5	42.6	155.18	672.2	-9,673.7	9,822.8	9,776.1	46.71	210.312	
2,300.0	2,286.9	2,269.9	2,269.9	5.6	43.3	155.20	672.2	-9,673.7	9,829.7	9,782.2	47.50	206.934	
2,362.2	2,347.7	2,330.7	2,330.7	5.8	44.5	155.23	672.2	-9,673.7	9,841.5	9,792.6	48.87	201.380	
2,400.0	2,384.7	2,367.7	2,367.7	6.0	45.3	155.25	672.2	-9,673.7	9,848.6	9,798.9	49.70	198.154	
2,460.6	2,444.0	2,427.0	2,427.0	6.2	46.5	155.28	672.2	-9,673.7	9,860.1	9,809.1	51.04	193.189	
2,500.0	2,482.5	2,465.5	2,465.5	6.4	47.2	155.30	672.2	-9,673.7	9,867.6	9,815.7	51.91	190.101	
2,559.0	2,540.3	2,523.3	2,523.3	6.6	48.4	155.33	672.2	-9,673.7	9,878.8	9,825.6	53.21	185.651	

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

Anticollision Report



Company:	PDC ENERGY	Local Co-ordinate Reference:	Well WACKER 10G-214
Project:	WELD COUNTY, COLORADO	TVD Reference:	KB-EST @ 4624.0usft (Original Well Elev)
Reference Site:	SW NW SEC. 10 T5N R64W 6th P.M.	MD Reference:	KB-EST @ 4624.0usft (Original Well Elev)
Site Error:	0.0 usft	North Reference:	True
Reference Well:	WACKER 10G-214	Survey Calculation Method:	Minimum Curvature
Well Error:	0.0 usft	Output errors are at	2.00 sigma
Reference Wellbore	ORIGINAL WELLBORE	Database:	EDM 5000.1 Single User Db
Reference Design:	PROPOSAL #1	Offset TVD Reference:	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	2,580.3	2,563.3	2,563.3	6.8	49.2	155.35	672.2	-9,673.7	9,886.6	9,832.5	54.12	182.691	
2,657.5	2,636.5	2,619.5	2,619.5	7.1	50.3	155.38	672.2	-9,673.7	9,897.5	9,842.1	55.39	178.693	
2,700.0	2,678.1	2,661.1	2,661.1	7.2	51.2	155.40	672.2	-9,673.7	9,905.6	9,849.2	56.33	175.852	
2,755.9	2,732.8	2,715.8	2,715.8	7.5	52.3	155.43	672.2	-9,673.7	9,916.2	9,858.6	57.57	172.253	
2,800.0	2,775.9	2,758.9	2,758.9	7.7	53.1	155.45	672.2	-9,673.7	9,924.5	9,866.0	58.54	169.521	
2,854.3	2,829.1	2,812.1	2,812.1	7.9	54.2	155.48	672.2	-9,673.7	9,934.9	9,875.1	59.75	166.275	
2,900.0	2,873.8	2,856.8	2,856.8	8.1	55.1	155.50	672.2	-9,673.7	9,943.5	9,882.8	60.76	163.646	
2,952.7	2,925.4	2,908.4	2,908.4	8.3	56.1	155.53	672.2	-9,673.7	9,953.6	9,891.6	61.93	160.714	
2,953.5	2,926.1	2,909.1	2,909.1	8.3	56.2	155.53	672.2	-9,673.7	9,953.7	9,891.7	61.95	160.675	
3,000.0	2,971.6	2,954.6	2,954.6	8.5	57.1	155.62	672.2	-9,673.7	9,962.2	9,899.1	63.13	157.806	
3,051.2	3,022.0	3,005.0	3,005.0	8.7	58.1	155.72	672.2	-9,673.7	9,970.8	9,906.4	64.41	154.808	
3,100.0	3,070.1	3,053.1	3,053.1	8.8	59.1	155.80	672.2	-9,673.7	9,978.2	9,912.6	65.62	152.061	
3,149.6	3,119.1	3,102.1	3,102.1	8.9	60.0	155.87	672.2	-9,673.7	9,984.9	9,918.1	66.84	149.389	
3,200.0	3,169.1	3,152.1	3,152.1	9.1	61.0	155.94	672.2	-9,673.7	9,991.0	9,922.9	68.07	146.782	
3,248.0	3,216.8	3,199.8	3,199.8	9.2	62.0	155.99	672.2	-9,673.7	9,996.1	9,926.8	69.22	144.404	
6,100.0	6,067.3	6,050.3	6,050.3	14.4	119.3	4.90	672.2	-9,673.7	9,997.5	9,867.4	130.05	76.872	
6,102.3	6,069.6	6,052.6	6,052.6	14.4	119.4	4.90	672.2	-9,673.7	9,997.0	9,867.0	130.02	76.889	
6,150.0	6,116.0	6,099.0	6,099.0	14.4	120.3	4.98	672.2	-9,673.7	9,986.2	9,857.2	129.00	77.413	
6,200.0	6,163.8	6,146.8	6,146.8	14.5	121.3	5.10	672.2	-9,673.7	9,971.5	9,844.2	127.28	78.341	
6,200.8	6,164.5	6,147.5	6,147.5	14.5	121.3	5.10	672.2	-9,673.7	9,971.2	9,844.0	127.25	78.359	
6,250.0	6,210.4	6,193.4	6,193.4	14.5	122.2	5.25	672.2	-9,673.7	9,953.5	9,828.6	124.90	79.689	
6,299.2	6,254.9	6,237.9	6,237.9	14.5	123.1	5.43	672.2	-9,673.7	9,932.7	9,810.8	121.92	81.466	
6,300.0	6,255.6	6,238.6	6,238.6	14.5	123.1	5.43	672.2	-9,673.7	9,932.3	9,810.5	121.87	81.499	
6,350.0	6,299.3	6,282.3	6,282.3	14.5	124.0	5.66	672.2	-9,673.7	9,908.1	9,789.9	118.20	83.827	
6,397.6	6,339.2	6,322.2	6,322.2	14.6	124.8	5.92	672.2	-9,673.7	9,882.2	9,768.1	114.12	86.594	
6,400.0	6,341.2	6,324.2	6,324.2	14.6	124.8	5.94	672.2	-9,673.7	9,880.8	9,766.9	113.90	86.748	
6,450.0	6,381.0	6,364.0	6,364.0	14.6	125.6	6.28	672.2	-9,673.7	9,850.8	9,741.7	109.02	90.357	
6,496.0	6,415.8	6,398.8	6,398.8	14.7	126.3	6.66	672.2	-9,673.7	9,820.7	9,716.6	104.04	94.393	
6,500.0	6,418.7	6,401.7	6,401.7	14.7	126.4	6.69	672.2	-9,673.7	9,818.0	9,714.4	103.59	94.775	
6,550.0	6,453.9	6,436.9	6,436.9	14.8	127.1	7.20	672.2	-9,673.7	9,782.7	9,685.0	97.68	100.151	
6,594.5	6,483.1	6,466.1	6,466.1	15.0	127.7	7.75	672.2	-9,673.7	9,749.3	9,657.2	92.08	105.879	
6,600.0	6,486.6	6,469.6	6,469.6	15.1	127.8	7.83	672.2	-9,673.7	9,745.0	9,653.6	91.37	106.660	
6,650.0	6,516.6	6,499.6	6,499.6	15.3	128.4	8.62	672.2	-9,673.7	9,705.1	9,620.4	84.77	114.482	
6,692.9	6,540.0	6,523.0	6,523.0	15.7	128.8	9.47	672.2	-9,673.7	9,669.4	9,590.3	79.04	122.328	
6,700.0	6,543.7	6,526.7	6,526.7	15.7	128.9	9.63	672.2	-9,673.7	9,663.3	9,585.2	78.10	123.728	
6,750.0	6,567.8	6,550.8	6,550.8	16.2	129.4	10.95	672.2	-9,673.7	9,619.7	9,548.0	71.67	134.219	
6,791.3	6,585.4	6,568.4	6,568.4	16.7	129.8	12.39	672.2	-9,673.7	9,582.4	9,515.5	66.95	143.130	
6,800.0	6,588.8	6,571.8	6,571.8	16.8	129.8	12.74	672.2	-9,673.7	9,574.5	9,508.4	66.08	144.901	
6,850.0	6,606.6	6,589.6	6,589.6	17.4	130.2	15.28	672.2	-9,673.7	9,528.0	9,465.5	62.44	152.598	
6,889.7	6,618.4	6,601.4	6,601.4	18.0	130.4	18.16	672.2	-9,673.7	9,490.2	9,427.8	62.31	152.306	
6,900.0	6,621.1	6,604.1	6,604.1	18.2	130.5	19.09	672.2	-9,673.7	9,480.3	9,417.4	62.88	150.759	
6,950.0	6,632.2	6,615.2	6,615.2	19.0	130.7	25.35	672.2	-9,673.7	9,431.8	9,360.6	71.13	132.598	
6,988.2	6,638.4	6,621.4	6,621.4	19.7	130.8	33.43	672.2	-9,673.7	9,394.2	9,308.0	86.27	108.889	
7,000.0	6,639.9	6,622.9	6,622.9	19.9	130.8	36.94	672.2	-9,673.7	9,382.6	9,289.4	93.11	100.766	
7,050.0	6,644.1	6,627.1	6,627.1	20.8	130.9	61.15	672.2	-9,673.7	9,332.9	9,199.7	133.28	70.024	
7,086.5	6,645.0	6,628.0	6,628.0	21.5	131.0	90.88	672.2	-9,673.7	9,296.6	9,144.1	152.47	60.973	
7,100.0	6,645.0	6,628.0	6,628.0	21.8	131.0	90.88	672.2	-9,673.7	9,283.2	9,130.4	152.74	60.779	
7,185.0	6,644.9	6,627.9	6,627.9	23.6	130.9	90.87	672.2	-9,673.7	9,198.5	9,044.0	154.49	59.540	
7,200.0	6,644.8	6,627.8	6,627.8	23.9	130.9	90.87	672.2	-9,673.7	9,183.6	9,028.8	154.80	59.325	
7,283.4	6,644.7	6,627.7	6,627.7	25.7	130.9	90.86	672.2	-9,673.7	9,100.5	8,943.8	156.64	58.097	
7,300.0	6,644.7	6,627.7	6,627.7	26.1	130.9	90.86	672.2	-9,673.7	9,084.0	8,927.0	157.01	57.857	
7,381.9	6,644.6	6,627.6	6,627.6	28.0	130.9	90.85	672.2	-9,673.7	9,002.5	8,843.6	158.90	56.655	

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

Anticollision Report



Company:	PDC ENERGY	Local Co-ordinate Reference:	Well WACKER 10G-214
Project:	WELD COUNTY, COLORADO	TVD Reference:	KB-EST @ 4624.0usft (Original Well Elev)
Reference Site:	SW NW SEC. 10 T5N R64W 6th P.M.	MD Reference:	KB-EST @ 4624.0usft (Original Well Elev)
Site Error:	0.0 usft	North Reference:	True
Reference Well:	WACKER 10G-214	Survey Calculation Method:	Minimum Curvature
Well Error:	0.0 usft	Output errors are at	2.00 sigma
Reference Wellbore	ORIGINAL WELLBORE	Database:	EDM 5000.1 Single User Db
Reference Design:	PROPOSAL #1	Offset TVD Reference:	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	
7,400.0	6,644.6	6,627.6	6,627.6	28.4	130.9	90.85	672.2	-9,673.7	8,984.4	8,825.1	159.32	56.392	
7,480.3	6,644.5	6,627.5	6,627.5	30.3	130.9	90.84	672.2	-9,673.7	8,904.5	8,743.2	161.24	55.224	
7,500.0	6,644.4	6,627.4	6,627.4	30.8	130.9	90.84	672.2	-9,673.7	8,884.9	8,723.1	161.71	54.942	
7,578.7	6,644.3	6,627.3	6,627.3	32.7	130.9	90.83	672.2	-9,673.7	8,806.5	8,642.8	163.65	53.813	
7,600.0	6,644.3	6,627.3	6,627.3	33.3	130.9	90.82	672.2	-9,673.7	8,785.3	8,621.1	164.17	53.512	
7,677.1	6,644.2	6,627.2	6,627.2	35.2	130.9	90.82	672.2	-9,673.7	8,708.5	8,542.4	166.11	52.426	
7,700.0	6,644.1	6,627.1	6,627.1	35.8	130.9	90.81	672.2	-9,673.7	8,685.8	8,519.1	166.69	52.109	
7,775.6	6,644.0	6,627.0	6,627.0	37.7	130.9	90.81	672.2	-9,673.7	8,610.6	8,441.9	168.61	51.067	
7,800.0	6,644.0	6,627.0	6,627.0	38.3	130.9	90.80	672.2	-9,673.7	8,586.2	8,417.0	169.24	50.735	
7,874.0	6,643.9	6,626.9	6,626.9	40.2	130.9	90.80	672.2	-9,673.7	8,512.6	8,341.5	171.15	49.737	
7,900.0	6,643.9	6,626.9	6,626.9	40.9	130.9	90.79	672.2	-9,673.7	8,486.7	8,314.9	171.82	49.392	
7,972.4	6,643.8	6,626.8	6,626.8	42.8	130.9	90.78	672.2	-9,673.7	8,414.7	8,240.9	173.72	48.439	
8,000.0	6,643.7	6,626.7	6,626.7	43.5	130.9	90.78	672.2	-9,673.7	8,387.2	8,212.8	174.44	48.082	
8,070.8	6,643.6	6,626.6	6,626.6	45.4	130.9	90.77	672.2	-9,673.7	8,316.7	8,140.4	176.31	47.172	
8,100.0	6,643.6	6,626.6	6,626.6	46.2	130.9	90.77	672.2	-9,673.7	8,287.7	8,110.7	177.07	46.804	
8,169.3	6,643.5	6,626.5	6,626.5	48.0	130.9	90.76	672.2	-9,673.7	8,218.8	8,039.9	178.91	45.937	
8,200.0	6,643.5	6,626.5	6,626.5	48.8	130.9	90.76	672.2	-9,673.7	8,188.2	8,008.5	179.73	45.559	
8,267.7	6,643.4	6,626.4	6,626.4	50.6	130.9	90.75	672.2	-9,673.7	8,120.9	7,939.4	181.54	44.734	
8,300.0	6,643.3	6,626.3	6,626.3	51.5	130.9	90.75	672.2	-9,673.7	8,088.8	7,906.4	182.40	44.346	
8,366.1	6,643.2	6,626.2	6,626.2	53.3	130.9	90.74	672.2	-9,673.7	8,023.0	7,838.8	184.18	43.561	
8,400.0	6,643.2	6,626.2	6,626.2	54.2	130.9	90.74	672.2	-9,673.7	7,989.3	7,804.2	185.09	43.165	
8,464.5	6,643.1	6,626.1	6,626.1	55.9	130.9	90.73	672.2	-9,673.7	7,925.1	7,738.3	186.83	42.419	
8,500.0	6,643.1	6,626.1	6,626.1	56.9	130.9	90.72	672.2	-9,673.7	7,889.9	7,702.1	187.79	42.015	
8,563.0	6,643.0	6,626.0	6,626.0	58.6	130.9	90.72	672.2	-9,673.7	7,827.3	7,637.8	189.49	41.307	
8,600.0	6,642.9	6,625.9	6,625.9	59.6	130.9	90.71	672.2	-9,673.7	7,790.5	7,600.0	190.49	40.896	
8,661.4	6,642.8	6,625.8	6,625.8	61.3	130.9	90.71	672.2	-9,673.7	7,729.4	7,537.2	192.16	40.224	
8,700.0	6,642.8	6,625.8	6,625.8	62.3	130.9	90.70	672.2	-9,673.7	7,691.0	7,497.8	193.21	39.807	
8,759.8	6,642.7	6,625.7	6,625.7	64.0	130.9	90.70	672.2	-9,673.7	7,631.6	7,436.7	194.84	39.168	
8,800.0	6,642.7	6,625.7	6,625.7	65.1	130.9	90.69	672.2	-9,673.7	7,591.6	7,395.7	195.93	38.746	
8,858.2	6,642.6	6,625.6	6,625.6	66.6	130.9	90.69	672.2	-9,673.7	7,533.7	7,336.2	197.53	38.141	
8,900.0	6,642.5	6,625.5	6,625.5	67.8	130.9	90.68	672.2	-9,673.7	7,492.3	7,293.6	198.67	37.713	
8,956.7	6,642.4	6,625.4	6,625.4	69.3	130.9	90.68	672.2	-9,673.7	7,435.9	7,235.7	200.22	37.139	
9,000.0	6,642.4	6,625.4	6,625.4	70.5	130.9	90.67	672.2	-9,673.7	7,392.9	7,191.5	201.40	36.707	
9,055.1	6,642.3	6,625.3	6,625.3	72.0	130.9	90.66	672.2	-9,673.7	7,338.2	7,135.2	202.91	36.164	
9,100.0	6,642.3	6,625.3	6,625.3	73.3	130.9	90.66	672.2	-9,673.7	7,293.5	7,089.4	204.15	35.727	
9,153.5	6,642.2	6,625.2	6,625.2	74.7	130.9	90.65	672.2	-9,673.7	7,240.4	7,034.8	205.62	35.213	
9,200.0	6,642.1	6,625.1	6,625.1	76.0	130.9	90.65	672.2	-9,673.7	7,194.2	6,987.3	206.89	34.772	
9,251.9	6,642.1	6,625.1	6,625.1	77.5	130.9	90.64	672.2	-9,673.7	7,142.6	6,934.3	208.32	34.286	
9,300.0	6,642.0	6,625.0	6,625.0	78.8	130.9	90.64	672.2	-9,673.7	7,094.9	6,885.3	209.65	33.842	
9,350.4	6,641.9	6,624.9	6,624.9	80.2	130.9	90.63	672.2	-9,673.7	7,044.9	6,833.9	211.03	33.383	
9,400.0	6,641.9	6,624.9	6,624.9	81.5	130.9	90.63	672.2	-9,673.7	6,995.6	6,783.2	212.40	32.936	
9,448.8	6,641.8	6,624.8	6,624.8	82.9	130.9	90.62	672.2	-9,673.7	6,947.2	6,733.4	213.75	32.502	
9,500.0	6,641.7	6,624.7	6,624.7	84.3	130.9	90.62	672.2	-9,673.7	6,896.3	6,681.2	215.16	32.052	
9,547.2	6,641.7	6,624.7	6,624.7	85.6	130.9	90.61	672.2	-9,673.7	6,849.5	6,633.0	216.47	31.642	
9,600.0	6,641.6	6,624.6	6,624.6	87.1	130.9	90.61	672.2	-9,673.7	6,797.1	6,579.2	217.92	31.190	
9,645.6	6,641.5	6,624.5	6,624.5	88.3	130.9	90.60	672.2	-9,673.7	6,751.8	6,532.6	219.19	30.804	
9,700.0	6,641.5	6,624.5	6,624.5	89.8	130.9	90.60	672.2	-9,673.7	6,697.9	6,477.2	220.69	30.350	
9,744.1	6,641.4	6,624.4	6,624.4	91.0	130.9	90.59	672.2	-9,673.7	6,654.1	6,432.2	221.91	29.986	
9,800.0	6,641.3	6,624.3	6,624.3	92.6	130.9	90.59	672.2	-9,673.7	6,598.7	6,375.2	223.46	29.530	
9,842.5	6,641.3	6,624.3	6,624.3	93.8	130.9	90.58	672.2	-9,673.7	6,556.5	6,331.9	224.63	29.187	
9,900.0	6,641.2	6,624.2	6,624.2	95.4	130.9	90.57	672.2	-9,673.7	6,499.5	6,273.3	226.23	28.730	
9,940.9	6,641.1	6,624.1	6,624.1	96.5	130.9	90.57	672.2	-9,673.7	6,458.9	6,231.5	227.36	28.408	

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

Anticollision Report



Company:	PDC ENERGY	Local Co-ordinate Reference:	Well WACKER 10G-214
Project:	WELD COUNTY, COLORADO	TVD Reference:	KB-EST @ 4624.0usft (Original Well Elev)
Reference Site:	SW NW SEC. 10 T5N R64W 6th P.M.	MD Reference:	KB-EST @ 4624.0usft (Original Well Elev)
Site Error:	0.0 usft	North Reference:	True
Reference Well:	WACKER 10G-214	Survey Calculation Method:	Minimum Curvature
Well Error:	0.0 usft	Output errors are at	2.00 sigma
Reference Wellbore	ORIGINAL WELLBORE	Database:	EDM 5000.1 Single User Db
Reference Design:	PROPOSAL #1	Offset TVD Reference:	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	
10,000.0	6,641.1	6,624.1	6,624.1	98.1	130.9	90.56	672.2	-9,673.7	6,400.3	6,171.3	229.00	27.949	
10,039.3	6,641.0	6,624.0	6,624.0	99.2	130.9	90.56	672.2	-9,673.7	6,361.3	6,131.2	230.09	27.647	
10,100.0	6,640.9	6,623.9	6,623.9	100.9	130.9	90.55	672.2	-9,673.7	6,301.2	6,069.4	231.77	27.187	
10,137.8	6,640.9	6,623.9	6,623.9	102.0	130.9	90.55	672.2	-9,673.7	6,263.8	6,030.9	232.82	26.903	
10,200.0	6,640.8	6,623.8	6,623.8	103.7	130.9	90.54	672.2	-9,673.7	6,202.1	5,967.6	234.55	26.442	
10,236.2	6,640.8	6,623.8	6,623.8	104.7	130.9	90.54	672.2	-9,673.7	6,166.2	5,930.7	235.56	26.177	
10,300.0	6,640.7	6,623.7	6,623.7	106.5	130.9	90.53	672.2	-9,673.7	6,103.0	5,865.7	237.33	25.715	
10,334.6	6,640.6	6,623.6	6,623.6	107.4	130.9	90.53	672.2	-9,673.7	6,068.7	5,830.4	238.29	25.468	
10,400.0	6,640.6	6,623.6	6,623.6	109.3	130.9	90.52	672.2	-9,673.7	6,004.0	5,763.9	240.11	25.005	
10,433.0	6,640.5	6,623.5	6,623.5	110.2	130.9	90.52	672.2	-9,673.7	5,971.3	5,730.2	241.03	24.774	
10,500.0	6,640.4	6,623.4	6,623.4	112.0	130.9	90.51	672.2	-9,673.7	5,905.0	5,662.1	242.89	24.311	
10,531.5	6,640.4	6,623.4	6,623.4	112.9	130.9	90.51	672.2	-9,673.7	5,873.8	5,630.1	243.77	24.096	
10,600.0	6,640.3	6,623.3	6,623.3	114.8	130.9	90.50	672.2	-9,673.7	5,806.0	5,560.3	245.67	23.633	
10,629.9	6,640.3	6,623.3	6,623.3	115.7	130.9	90.50	672.2	-9,673.7	5,776.4	5,529.9	246.50	23.433	
10,700.0	6,640.2	6,623.2	6,623.2	117.6	130.9	90.49	672.2	-9,673.7	5,707.1	5,458.6	248.46	22.970	
10,728.3	6,640.1	6,623.1	6,623.1	118.4	130.9	90.49	672.2	-9,673.7	5,679.1	5,429.8	249.24	22.785	
10,800.0	6,640.0	6,623.0	6,623.0	120.4	130.9	90.48	672.2	-9,673.7	5,608.2	5,356.9	251.24	22.322	
10,826.7	6,640.0	6,623.0	6,623.0	121.2	130.9	90.48	672.2	-9,673.7	5,581.7	5,329.7	251.99	22.151	
10,900.0	6,639.9	6,622.9	6,622.9	123.2	130.8	90.47	672.2	-9,673.7	5,509.3	5,255.3	254.03	21.688	
10,925.2	6,639.9	6,622.9	6,622.9	123.9	130.8	90.47	672.2	-9,673.7	5,484.4	5,229.7	254.73	21.531	
11,000.0	6,639.8	6,622.8	6,622.8	126.0	130.8	90.46	672.2	-9,673.7	5,410.5	5,153.7	256.81	21.068	
11,023.6	6,639.8	6,622.8	6,622.8	126.6	130.8	90.46	672.2	-9,673.7	5,387.2	5,129.7	257.47	20.923	
11,100.0	6,639.7	6,622.7	6,622.7	128.8	130.8	90.45	672.2	-9,673.7	5,311.7	5,052.1	259.60	20.461	
11,122.0	6,639.6	6,622.6	6,622.6	129.4	130.8	90.45	672.2	-9,673.7	5,290.0	5,029.8	260.22	20.329	
11,200.0	6,639.5	6,622.5	6,622.5	131.6	130.8	90.44	672.2	-9,673.7	5,213.0	4,950.6	262.39	19.867	
11,220.4	6,639.5	6,622.5	6,622.5	132.1	130.8	90.44	672.2	-9,673.7	5,192.8	4,929.9	262.96	19.747	
11,300.0	6,639.4	6,622.4	6,622.4	134.4	130.8	90.43	672.2	-9,673.7	5,114.3	4,849.2	265.18	19.286	
11,318.9	6,639.4	6,622.4	6,622.4	134.9	130.8	90.43	672.2	-9,673.7	5,095.7	4,830.0	265.71	19.178	
11,400.0	6,639.3	6,622.3	6,622.3	137.1	130.8	90.42	672.2	-9,673.7	5,015.7	4,747.7	267.97	18.717	
11,417.3	6,639.3	6,622.3	6,622.3	137.6	130.8	90.42	672.2	-9,673.7	4,998.7	4,730.2	268.45	18.620	
11,500.0	6,639.2	6,622.2	6,622.2	139.9	130.8	90.41	672.2	-9,673.7	4,917.1	4,646.4	270.76	18.160	
11,515.7	6,639.1	6,622.1	6,622.1	140.4	130.8	90.41	672.2	-9,673.7	4,901.6	4,630.4	271.20	18.074	
11,600.0	6,639.0	6,622.0	6,622.0	142.7	130.8	90.41	672.2	-9,673.7	4,818.6	4,545.1	273.55	17.615	
11,614.1	6,639.0	6,622.0	6,622.0	143.1	130.8	90.40	672.2	-9,673.7	4,804.7	4,530.7	273.95	17.539	
11,700.0	6,638.9	6,621.9	6,621.9	145.5	130.8	90.40	672.2	-9,673.7	4,720.2	4,443.8	276.35	17.081	
11,712.6	6,638.9	6,621.9	6,621.9	145.9	130.8	90.39	672.2	-9,673.7	4,707.8	4,431.1	276.70	17.014	
11,800.0	6,638.8	6,621.8	6,621.8	148.3	130.8	90.39	672.2	-9,673.7	4,621.8	4,342.7	279.14	16.557	
11,811.0	6,638.8	6,621.8	6,621.8	148.6	130.8	90.39	672.2	-9,673.7	4,611.0	4,331.5	279.45	16.500	
11,900.0	6,638.7	6,621.7	6,621.7	151.1	130.8	90.38	672.2	-9,673.7	4,523.5	4,241.6	281.93	16.045	
11,909.4	6,638.6	6,621.6	6,621.6	151.4	130.8	90.38	672.2	-9,673.7	4,514.2	4,232.0	282.20	15.997	
12,000.0	6,638.5	6,621.5	6,621.5	153.9	130.8	90.37	672.2	-9,673.7	4,425.3	4,140.5	284.73	15.542	
12,007.8	6,638.5	6,621.5	6,621.5	154.1	130.8	90.37	672.2	-9,673.7	4,417.6	4,132.6	284.95	15.503	
12,100.0	6,638.4	6,621.4	6,621.4	156.7	130.8	90.36	672.2	-9,673.7	4,327.1	4,039.6	287.52	15.050	
12,106.3	6,638.4	6,621.4	6,621.4	156.9	130.8	90.36	672.2	-9,673.7	4,321.0	4,033.3	287.70	15.019	
12,200.0	6,638.3	6,621.3	6,621.3	159.5	130.8	90.35	672.2	-9,673.7	4,229.0	3,938.7	290.32	14.567	
12,204.7	6,638.3	6,621.3	6,621.3	159.6	130.8	90.35	672.2	-9,673.7	4,224.4	3,934.0	290.45	14.545	
12,300.0	6,638.2	6,621.2	6,621.2	162.3	130.8	90.34	672.2	-9,673.7	4,131.1	3,838.0	293.11	14.094	
12,303.1	6,638.2	6,621.2	6,621.2	162.4	130.8	90.34	672.2	-9,673.7	4,128.0	3,834.8	293.20	14.079	
12,400.0	6,638.0	6,621.0	6,621.0	165.1	130.8	90.33	672.2	-9,673.7	4,033.2	3,737.3	295.91	13.630	
12,401.5	6,638.0	6,621.0	6,621.0	165.2	130.8	90.33	672.2	-9,673.7	4,031.7	3,735.7	295.95	13.623	
12,500.0	6,637.9	6,620.9	6,620.9	167.9	130.8	90.32	672.2	-9,673.7	3,935.4	3,636.7	298.71	13.175	
12,598.4	6,637.8	6,620.8	6,620.8	170.7	130.8	90.31	672.2	-9,673.7	3,839.3	3,537.9	301.46	12.736	

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

Anticollision Report



Company:	PDC ENERGY	Local Co-ordinate Reference:	Well WACKER 10G-214
Project:	WELD COUNTY, COLORADO	TVD Reference:	KB-EST @ 4624.0usft (Original Well Elev)
Reference Site:	SW NW SEC. 10 T5N R64W 6th P.M.	MD Reference:	KB-EST @ 4624.0usft (Original Well Elev)
Site Error:	0.0 usft	North Reference:	True
Reference Well:	WACKER 10G-214	Survey Calculation Method:	Minimum Curvature
Well Error:	0.0 usft	Output errors are at	2.00 sigma
Reference Wellbore	ORIGINAL WELLBORE	Database:	EDM 5000.1 Single User Db
Reference Design:	PROPOSAL #1	Offset TVD Reference:	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	
12,600.0	6,637.8	6,620.8	6,620.8	170.7	130.8	90.31	672.2	-9,673.7	3,837.8	3,536.3	301.50	12.729	
12,696.8	6,637.7	6,620.7	6,620.7	173.4	130.8	90.30	672.2	-9,673.7	3,743.3	3,439.1	304.21	12.305	
12,700.0	6,637.7	6,620.7	6,620.7	173.5	130.8	90.30	672.2	-9,673.7	3,740.3	3,436.0	304.30	12.291	
12,795.2	6,637.6	6,620.6	6,620.6	176.2	130.8	90.29	672.2	-9,673.7	3,647.5	3,340.5	306.97	11.882	
12,800.0	6,637.6	6,620.6	6,620.6	176.3	130.8	90.29	672.2	-9,673.7	3,642.9	3,335.8	307.10	11.862	
12,893.7	6,637.4	6,620.4	6,620.4	178.9	130.8	90.29	672.2	-9,673.7	3,551.8	3,242.0	309.72	11.468	
12,900.0	6,637.4	6,620.4	6,620.4	179.1	130.8	90.28	672.2	-9,673.7	3,545.6	3,235.7	309.90	11.441	
12,992.1	6,637.3	6,620.3	6,620.3	181.7	130.8	90.28	672.2	-9,673.7	3,456.2	3,143.7	312.47	11.061	
13,000.0	6,637.3	6,620.3	6,620.3	181.9	130.8	90.28	672.2	-9,673.7	3,448.5	3,135.8	312.69	11.028	
13,090.5	6,637.2	6,620.2	6,620.2	184.4	130.8	90.27	672.2	-9,673.7	3,360.8	3,045.5	315.23	10.661	
13,100.0	6,637.2	6,620.2	6,620.2	184.7	130.8	90.27	672.2	-9,673.7	3,351.6	3,036.1	315.49	10.623	
13,188.9	6,637.1	6,620.1	6,620.1	187.2	130.8	90.26	672.2	-9,673.7	3,265.5	2,947.6	317.98	10.270	
13,200.0	6,637.1	6,620.1	6,620.1	187.5	130.8	90.26	672.2	-9,673.7	3,254.9	2,936.6	318.29	10.226	
13,287.4	6,637.0	6,620.0	6,620.0	190.0	130.8	90.25	672.2	-9,673.7	3,170.5	2,849.8	320.74	9.885	
13,300.0	6,637.0	6,620.0	6,620.0	190.3	130.8	90.25	672.2	-9,673.7	3,158.3	2,837.2	321.09	9.836	
13,385.8	6,636.9	6,619.9	6,619.9	192.7	130.8	90.24	672.2	-9,673.7	3,075.7	2,752.2	323.49	9.508	
13,400.0	6,636.8	6,619.8	6,619.8	193.1	130.8	90.24	672.2	-9,673.7	3,062.0	2,738.1	323.89	9.454	
13,484.2	6,636.7	6,619.7	6,619.7	195.5	130.8	90.23	672.2	-9,673.7	2,981.1	2,654.9	326.25	9.137	
13,500.0	6,636.7	6,619.7	6,619.7	195.9	130.8	90.23	672.2	-9,673.7	2,966.0	2,639.3	326.69	9.079	
13,582.6	6,636.6	6,619.6	6,619.6	198.2	130.8	90.22	672.2	-9,673.7	2,886.8	2,557.8	329.01	8.774	
13,600.0	6,636.6	6,619.6	6,619.6	198.7	130.8	90.22	672.2	-9,673.7	2,870.2	2,540.7	329.49	8.711	
13,681.1	6,636.5	6,619.5	6,619.5	201.0	130.8	90.22	672.2	-9,673.7	2,792.7	2,461.0	331.76	8.418	
13,700.0	6,636.5	6,619.5	6,619.5	201.5	130.8	90.21	672.2	-9,673.7	2,774.7	2,442.4	332.29	8.350	
13,779.5	6,636.4	6,619.4	6,619.4	203.7	130.8	90.21	672.2	-9,673.7	2,699.0	2,364.5	334.52	8.068	
13,800.0	6,636.4	6,619.4	6,619.4	204.3	130.8	90.20	672.2	-9,673.7	2,679.5	2,344.4	335.09	7.996	
13,877.9	6,636.3	6,619.3	6,619.3	206.5	130.8	90.20	672.2	-9,673.7	2,605.6	2,268.3	337.28	7.725	
13,900.0	6,636.3	6,619.3	6,619.3	207.1	130.8	90.20	672.2	-9,673.7	2,584.7	2,246.8	337.89	7.649	
13,976.3	6,636.2	6,619.2	6,619.2	209.3	130.8	90.19	672.2	-9,673.7	2,512.6	2,172.6	340.03	7.389	
14,000.0	6,636.1	6,619.1	6,619.1	209.9	130.8	90.19	672.2	-9,673.7	2,490.3	2,149.6	340.69	7.310	
14,074.8	6,636.0	6,619.0	6,619.0	212.0	130.8	90.18	672.2	-9,673.7	2,420.0	2,077.2	342.79	7.060	
14,100.0	6,636.0	6,619.0	6,619.0	212.7	130.8	90.18	672.2	-9,673.7	2,396.4	2,052.9	343.50	6.976	
14,173.2	6,635.9	6,618.9	6,618.9	214.8	130.8	90.17	672.2	-9,673.7	2,327.9	1,982.4	345.55	6.737	
14,200.0	6,635.9	6,618.9	6,618.9	215.5	130.8	90.17	672.2	-9,673.7	2,302.9	1,956.6	346.30	6.650	
14,271.6	6,635.8	6,618.8	6,618.8	217.5	130.8	90.17	672.2	-9,673.7	2,236.4	1,888.1	348.30	6.421	
14,300.0	6,635.8	6,618.8	6,618.8	218.3	130.8	90.16	672.2	-9,673.7	2,210.1	1,861.0	349.10	6.331	
14,370.0	6,635.7	6,618.7	6,618.7	220.3	130.8	90.16	672.2	-9,673.7	2,145.4	1,794.4	351.06	6.111	
14,400.0	6,635.7	6,618.7	6,618.7	221.1	130.8	90.15	672.2	-9,673.7	2,117.9	1,766.0	351.90	6.018	
14,468.5	6,635.6	6,618.6	6,618.6	223.1	130.8	90.15	672.2	-9,673.7	2,055.2	1,701.3	353.82	5.808	
14,500.0	6,635.6	6,618.6	6,618.6	223.9	130.8	90.15	672.2	-9,673.7	2,026.4	1,671.7	354.70	5.713	
14,566.9	6,635.5	6,618.5	6,618.5	225.8	130.8	90.14	672.2	-9,673.7	1,965.7	1,609.1	356.58	5.513	
14,600.0	6,635.4	6,618.4	6,618.4	226.8	130.8	90.14	672.2	-9,673.7	1,935.8	1,578.3	357.51	5.415	
14,665.3	6,635.4	6,618.4	6,618.4	228.6	130.8	90.13	672.2	-9,673.7	1,877.1	1,517.8	359.34	5.224	
14,700.0	6,635.3	6,618.3	6,618.3	229.6	130.8	90.13	672.2	-9,673.7	1,846.1	1,485.8	360.31	5.124	
14,763.7	6,635.2	6,618.2	6,618.2	231.3	130.8	90.12	672.2	-9,673.7	1,789.5	1,427.5	362.09	4.942	
14,800.0	6,635.2	6,618.2	6,618.2	232.4	130.8	90.12	672.2	-9,673.7	1,757.6	1,394.5	363.11	4.840	
14,862.2	6,635.1	6,618.1	6,618.1	234.1	130.8	90.12	672.2	-9,673.7	1,703.2	1,338.3	364.85	4.668	
14,900.0	6,635.1	6,618.1	6,618.1	235.2	130.8	90.11	672.2	-9,673.7	1,670.3	1,304.4	365.91	4.565	
14,960.6	6,635.0	6,618.0	6,618.0	236.9	130.7	90.11	672.2	-9,673.7	1,618.2	1,250.6	367.61	4.402	
14,982.9	6,635.0	6,618.0	6,618.0	237.5	130.7	90.11	672.2	-9,673.7	1,599.2	1,230.9	368.24	4.343 CC, ES, SF	

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

Anticollision Report



Company:	PDC ENERGY	Local Co-ordinate Reference:	Well WACKER 10G-214
Project:	WELD COUNTY, COLORADO	TVD Reference:	KB-EST @ 4624.0usft (Original Well Elev)
Reference Site:	SW NW SEC. 10 T5N R64W 6th P.M.	MD Reference:	KB-EST @ 4624.0usft (Original Well Elev)
Site Error:	0.0 usft	North Reference:	True
Reference Well:	WACKER 10G-214	Survey Calculation Method:	Minimum Curvature
Well Error:	0.0 usft	Output errors are at	2.00 sigma
Reference Wellbore	ORIGINAL WELLBORE	Database:	EDM 5000.1 Single User Db
Reference Design:	PROPOSAL #1	Offset TVD Reference:	Offset Datum

Offset Design												Offset Site Error:	0.0 usft
Survey Program: 100-GYD_CT												Offset Well Error:	0.0 usft
Reference	Offset	Semi Major Axis		Distance									
Measured Depth (usft)	Vertical Depth (usft)	Measured Depth (usft)	Vertical Depth (usft)	Reference (usft)	Offset (usft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (usft)	+E/-W (usft)	Between Centres (usft)	Between Ellipses (usft)	Minimum Separation (usft)	Separation Factor	Warning
0.0	0.0	0.0	0.0	0.0	0.0	100.80	-777.1	4,072.6	4,146.1				
98.4	98.4	88.8	88.8	0.1	0.0	100.80	-777.1	4,072.5	4,146.0	4,145.9	0.10	N/A	
100.0	100.0	90.5	90.5	0.1	0.0	100.80	-777.1	4,072.5	4,146.0	4,145.9	0.10	N/A	
182.5	182.5	168.5	168.5	0.3	0.1	100.80	-777.1	4,072.5	4,146.0	4,145.6	0.35	N/A	
196.8	196.8	181.9	181.9	0.3	0.1	100.80	-777.1	4,072.5	4,146.0	4,145.6	0.39	N/A	
200.0	200.0	184.8	184.8	0.3	0.1	100.80	-777.1	4,072.5	4,146.0	4,145.6	0.40	N/A	
295.3	295.3	283.2	283.2	0.5	0.2	100.80	-777.2	4,072.5	4,146.0	4,145.3	0.70	5,964.384	
300.0	300.0	288.2	288.2	0.5	0.2	100.80	-777.2	4,072.5	4,146.0	4,145.3	0.71	5,843.676	
344.6	344.6	330.6	330.6	0.6	0.2	100.80	-777.2	4,072.5	4,146.0	4,145.1	0.82	5,047.266	
393.7	393.7	375.6	375.6	0.8	0.2	100.80	-777.2	4,072.5	4,146.0	4,145.0	0.94	4,430.886	
400.0	400.0	381.4	381.4	0.8	0.2	100.80	-777.2	4,072.5	4,146.0	4,145.0	0.95	4,362.466	
492.1	492.1	476.7	476.7	1.0	0.2	100.80	-777.0	4,072.6	4,146.1	4,144.9	1.22	3,386.323	
500.0	500.0	485.1	485.1	1.0	0.3	100.80	-776.9	4,072.6	4,146.1	4,144.8	1.25	3,319.013	
590.5	590.5	567.6	567.6	1.2	0.3	100.80	-776.6	4,072.8	4,146.2	4,144.7	1.51	2,751.113	
600.0	600.0	576.0	576.0	1.2	0.3	100.80	-776.6	4,072.8	4,146.2	4,144.7	1.53	2,703.804	
689.0	689.0	663.0	663.0	1.4	0.4	100.79	-776.4	4,073.1	4,146.5	4,144.7	1.79	2,321.269	
700.0	700.0	674.3	674.2	1.4	0.4	100.79	-776.4	4,073.1	4,146.5	4,144.7	1.82	2,280.988	
787.4	787.4	760.9	760.9	1.6	0.4	100.79	-776.4	4,073.4	4,146.7	4,144.7	2.06	2,011.287	
800.0	800.0	773.2	773.2	1.7	0.4	100.79	-776.4	4,073.4	4,146.8	4,144.7	2.10	1,977.931	
885.8	885.8	860.8	860.8	1.9	0.5	100.79	-776.3	4,073.7	4,147.0	4,144.7	2.33	1,779.124	
900.0	900.0	875.5	875.5	1.9	0.5	100.79	-776.3	4,073.7	4,147.1	4,144.7	2.37	1,750.221	
984.2	984.2	960.4	960.4	2.1	0.5	100.79	-776.2	4,074.0	4,147.3	4,144.7	2.59	1,599.672	
1,000.0	1,000.0	976.0	976.0	2.1	0.5	100.79	-776.2	4,074.0	4,147.3	4,144.7	2.63	1,574.609	
1,082.7	1,082.7	1,061.8	1,061.8	2.3	0.6	100.79	-776.2	4,074.2	4,147.5	4,144.6	2.85	1,456.921	
1,100.0	1,100.0	1,080.1	1,080.1	2.3	0.6	100.79	-776.2	4,074.2	4,147.5	4,144.6	2.89	1,434.621	
1,181.1	1,181.1	1,159.4	1,159.3	2.5	0.6	100.79	-776.2	4,074.3	4,147.6	4,144.5	3.09	1,343.979	
1,200.0	1,200.0	1,177.4	1,177.4	2.6	0.6	100.79	-776.2	4,074.4	4,147.7	4,144.5	3.13	1,324.845	
1,279.5	1,279.5	1,266.6	1,266.6	2.7	0.6	100.79	-776.4	4,074.5	4,147.8	4,144.5	3.31	1,252.295	
1,300.0	1,300.0	1,291.0	1,291.0	2.8	0.6	100.79	-776.4	4,074.5	4,147.8	4,144.4	3.36	1,235.121	
1,377.9	1,377.9	1,367.0	1,367.0	3.0	0.6	-17.87	-776.3	4,074.4	4,146.7	4,143.1	3.56	1,165.345	
1,400.0	1,400.0	1,388.0	1,388.0	3.0	0.6	-17.88	-776.2	4,074.4	4,146.0	4,142.4	3.61	1,148.887	
1,476.4	1,476.3	1,459.0	1,459.0	3.1	0.6	-17.92	-776.3	4,074.4	4,142.5	4,138.7	3.77	1,099.631	
1,500.0	1,499.8	1,480.9	1,480.9	3.2	0.6	-17.93	-776.3	4,074.4	4,141.0	4,137.2	3.82	1,085.154	
1,574.8	1,574.4	1,563.7	1,563.7	3.3	0.6	-17.99	-776.5	4,074.4	4,135.2	4,131.2	3.99	1,037.488	
1,600.0	1,599.5	1,593.3	1,593.3	3.4	0.6	-18.02	-776.6	4,074.4	4,132.8	4,128.7	4.04	1,021.903	
1,673.2	1,672.2	1,679.4	1,679.3	3.6	0.7	-18.11	-776.7	4,074.0	4,124.3	4,120.1	4.23	975.353	
1,700.0	1,698.7	1,709.4	1,709.4	3.6	0.7	-18.15	-776.7	4,073.9	4,120.8	4,116.5	4.30	959.251	
1,771.6	1,769.5	1,783.1	1,783.1	3.8	0.7	-18.27	-776.5	4,073.4	4,110.0	4,105.5	4.48	917.333	
1,800.0	1,797.5	1,812.7	1,812.7	3.9	0.7	-18.33	-776.4	4,073.2	4,105.3	4,100.7	4.55	901.570	
1,870.1	1,866.3	1,887.0	1,887.0	4.1	0.7	-18.47	-776.2	4,072.7	4,092.3	4,087.6	4.74	862.630	
1,900.2	1,895.8	1,915.3	1,915.3	4.2	0.7	-18.54	-776.2	4,072.4	4,086.3	4,081.5	4.82	847.077	
1,968.5	1,962.6	1,973.8	1,973.8	4.4	0.7	-18.59	-776.0	4,072.0	4,072.3	4,067.3	5.00	815.253	
2,000.0	1,993.4	2,001.1	2,001.1	4.5	0.7	-18.62	-775.9	4,071.9	4,065.9	4,060.8	5.07	801.411	
2,066.9	2,058.9	2,076.5	2,076.5	4.7	0.8	-18.70	-775.6	4,071.4	4,052.3	4,047.0	5.25	771.242	
2,100.0	2,091.2	2,109.9	2,109.9	4.8	0.8	-18.73	-775.4	4,071.2	4,045.5	4,040.1	5.34	757.501	
2,165.3	2,155.2	2,163.0	2,163.0	5.1	0.8	-18.78	-775.2	4,070.9	4,032.1	4,026.6	5.51	731.477	
2,200.0	2,189.1	2,191.2	2,191.2	5.2	0.8	-18.81	-775.1	4,070.8	4,025.1	4,019.5	5.61	717.934	
2,263.8	2,251.4	2,247.8	2,247.7	5.5	0.8	-18.87	-774.8	4,070.6	4,012.4	4,006.6	5.78	694.308	
2,300.0	2,286.9	2,280.5	2,280.4	5.6	0.8	-18.91	-774.6	4,070.6	4,005.1	3,999.3	5.88	681.404	
2,362.2	2,347.7	2,339.7	2,339.7	5.8	0.8	-18.97	-774.1	4,070.6	3,992.8	3,986.7	6.05	659.729	
2,400.0	2,384.7	2,376.8	2,376.8	6.0	0.9	-19.01	-773.8	4,070.6	3,985.3	3,979.1	6.16	647.065	
2,460.6	2,444.0	2,434.2	2,434.1	6.2	0.9	-19.08	-773.5	4,070.6	3,973.2	3,966.9	6.33	627.459	

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

Anticollision Report



Company:	PDC ENERGY	Local Co-ordinate Reference:	Well WACKER 10G-214
Project:	WELD COUNTY, COLORADO	TVD Reference:	KB-EST @ 4624.0usft (Original Well Elev)
Reference Site:	SW NW SEC. 10 T5N R64W 6th P.M.	MD Reference:	KB-EST @ 4624.0usft (Original Well Elev)
Site Error:	0.0 usft	North Reference:	True
Reference Well:	WACKER 10G-214	Survey Calculation Method:	Minimum Curvature
Well Error:	0.0 usft	Output errors are at	2.00 sigma
Reference Wellbore	ORIGINAL WELLBORE	Database:	EDM 5000.1 Single User Db
Reference Design:	PROPOSAL #1	Offset TVD Reference:	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	2,482.5	2,470.6	2,470.6	6.4	0.9	-19.12	-773.2	4,070.6	3,965.4	3,959.0	6.44	615.294	
2,559.0	2,540.3	2,527.9	2,527.9	6.6	0.9	-19.18	-772.8	4,070.6	3,953.8	3,947.2	6.62	597.554	
2,600.0	2,580.3	2,569.8	2,569.7	6.8	0.9	-19.23	-772.5	4,070.7	3,945.7	3,939.0	6.74	585.725	
2,657.5	2,636.5	2,628.6	2,628.5	7.1	0.9	-19.29	-772.0	4,070.7	3,934.3	3,927.4	6.91	569.605	
2,700.0	2,678.1	2,672.1	2,672.1	7.2	1.0	-19.34	-771.7	4,070.6	3,925.9	3,918.9	7.03	558.168	
2,755.9	2,732.8	2,727.2	2,727.1	7.5	1.0	-19.41	-771.3	4,070.6	3,914.8	3,907.6	7.20	543.629	
2,800.0	2,775.9	2,769.0	2,769.0	7.7	1.0	-19.45	-771.0	4,070.6	3,906.0	3,898.7	7.33	532.686	
2,854.3	2,829.1	2,820.9	2,820.9	7.9	1.0	-19.51	-770.6	4,070.5	3,895.3	3,887.8	7.50	519.632	
2,900.0	2,873.8	2,865.2	2,865.2	8.1	1.0	-19.56	-770.3	4,070.5	3,886.2	3,878.6	7.63	509.093	
2,952.7	2,925.4	2,915.8	2,915.7	8.3	1.0	-19.62	-770.0	4,070.5	3,875.8	3,868.0	7.79	497.328	
2,953.5	2,926.1	2,916.4	2,916.4	8.3	1.0	-19.62	-770.0	4,070.5	3,875.6	3,867.9	7.80	497.169	
3,000.0	2,971.6	2,960.2	2,960.1	8.5	1.0	-19.61	-769.7	4,070.5	3,866.8	3,858.9	7.91	488.640	
3,051.2	3,022.0	3,009.1	3,009.0	8.7	1.1	-19.60	-769.5	4,070.5	3,857.9	3,849.9	8.03	480.372	
3,100.0	3,070.1	3,058.7	3,058.7	8.8	1.1	-19.59	-769.3	4,070.5	3,850.3	3,842.1	8.14	472.778	
3,149.6	3,119.1	3,108.5	3,108.4	8.9	1.1	-19.58	-769.1	4,070.5	3,843.3	3,835.0	8.25	465.632	
3,200.0	3,169.1	3,155.2	3,155.2	9.1	1.1	-19.58	-768.8	4,070.5	3,837.0	3,828.6	8.36	458.759	
3,248.0	3,216.8	3,200.0	3,200.0	9.2	1.1	-19.57	-768.6	4,070.6	3,831.8	3,823.3	8.46	452.708	
3,300.0	3,268.5	3,275.6	3,275.6	9.3	1.1	-19.58	-768.2	4,070.5	3,826.9	3,818.3	8.58	446.197	
3,346.4	3,314.8	3,318.9	3,318.9	9.4	1.1	-19.58	-767.9	4,070.3	3,823.1	3,814.4	8.67	441.193	
3,400.0	3,368.3	3,353.0	3,353.0	9.6	1.1	-19.57	-767.7	4,070.2	3,819.8	3,811.0	8.76	435.917	
3,444.9	3,413.1	3,381.7	3,381.6	9.6	1.2	-19.56	-767.6	4,070.3	3,818.0	3,809.1	8.84	431.880	
3,500.0	3,468.2	3,432.5	3,432.5	9.7	1.2	-19.57	-767.5	4,070.6	3,816.8	3,807.9	8.94	426.920	
3,543.3	3,511.5	3,485.9	3,485.9	9.8	1.2	-19.57	-767.3	4,070.9	3,816.6	3,807.5	9.02	423.128	
3,544.7	3,512.9	3,487.7	3,487.6	9.8	1.2	-19.57	-767.3	4,070.9	3,816.6	3,807.5	9.02	423.007	
3,553.7	3,521.9	3,498.8	3,498.7	9.8	1.2	99.08	-767.3	4,071.0	3,816.6	3,805.8	10.78	354.158	
3,600.0	3,568.2	3,536.7	3,536.7	9.9	1.2	99.07	-767.1	4,071.1	3,816.7	3,805.9	10.86	351.451	
3,641.7	3,609.9	3,570.5	3,570.5	10.0	1.2	99.07	-766.9	4,071.3	3,817.0	3,806.0	10.94	348.924	
3,700.0	3,668.2	3,623.9	3,623.9	10.1	1.2	99.07	-766.7	4,071.8	3,817.4	3,806.4	11.05	345.455	
3,740.1	3,708.4	3,667.8	3,667.7	10.1	1.2	99.07	-766.6	4,072.1	3,817.7	3,806.6	11.13	343.090	
3,800.0	3,768.2	3,732.9	3,732.8	10.2	1.2	99.06	-766.6	4,072.5	3,818.1	3,806.8	11.24	339.621	
3,838.6	3,806.8	3,774.7	3,774.7	10.3	1.2	99.06	-766.6	4,072.8	3,818.3	3,807.0	11.32	337.402	
3,900.0	3,868.2	3,842.2	3,842.1	10.4	1.2	99.06	-766.3	4,073.1	3,818.5	3,807.1	11.43	333.944	
3,937.0	3,905.2	3,883.1	3,883.0	10.5	1.3	99.06	-766.2	4,073.2	3,818.6	3,807.1	11.51	331.877	
4,000.0	3,968.2	3,953.3	3,953.2	10.6	1.3	99.06	-766.3	4,073.3	3,818.7	3,807.1	11.62	328.644	
4,035.4	4,003.6	3,992.8	3,992.8	10.6	1.3	99.06	-766.5	4,073.2	3,818.7	3,807.0	11.68	326.873	
4,066.8	4,035.0	4,021.1	4,021.0	10.7	1.3	99.06	-766.7	4,073.2	3,818.7	3,806.9	11.74	325.304	
4,100.0	4,068.2	4,049.1	4,049.0	10.7	1.3	99.07	-766.9	4,073.2	3,818.7	3,806.9	11.80	323.659	
4,133.8	4,102.1	4,077.7	4,077.6	10.8	1.3	99.07	-767.1	4,073.2	3,818.8	3,806.9	11.86	321.987	
4,200.0	4,168.2	4,149.4	4,149.4	10.9	1.3	99.08	-767.9	4,073.3	3,819.0	3,807.0	11.98	318.736	
4,232.3	4,200.5	4,189.6	4,189.5	11.0	1.3	99.09	-768.5	4,073.2	3,819.0	3,806.9	12.04	317.141	
4,300.0	4,268.2	4,277.4	4,277.3	11.1	1.3	99.12	-770.0	4,072.6	3,818.7	3,806.6	12.17	313.793	
4,330.7	4,298.9	4,311.1	4,311.0	11.1	1.3	99.12	-770.6	4,072.3	3,818.5	3,806.3	12.23	312.284	
4,400.0	4,368.2	4,368.5	4,368.4	11.3	1.3	99.14	-771.7	4,071.8	3,818.2	3,805.8	12.36	308.964	
4,429.1	4,397.3	4,400.0	4,399.9	11.3	1.3	99.15	-772.3	4,071.6	3,818.1	3,805.7	12.41	307.571	
4,500.0	4,468.2	4,476.4	4,476.3	11.4	1.3	99.17	-773.8	4,071.1	3,817.8	3,805.3	12.55	304.215	
4,527.5	4,495.8	4,508.4	4,508.3	11.5	1.3	99.18	-774.4	4,070.8	3,817.6	3,805.0	12.60	302.908	
4,600.0	4,568.2	4,580.7	4,580.6	11.6	1.3	99.20	-775.6	4,070.1	3,817.1	3,804.4	12.74	299.530	
4,626.0	4,594.2	4,607.9	4,607.8	11.7	1.3	99.21	-776.0	4,069.8	3,816.9	3,804.2	12.79	298.324	
4,700.0	4,668.2	4,696.0	4,695.8	11.8	1.3	99.23	-777.1	4,068.9	3,816.3	3,803.3	12.94	294.896	
4,724.4	4,692.6	4,722.4	4,722.3	11.9	1.3	99.23	-777.3	4,068.5	3,816.0	3,803.0	12.99	293.768	
4,800.0	4,768.2	4,803.0	4,802.8	12.0	1.3	99.25	-778.1	4,067.4	3,815.1	3,801.9	13.14	290.313	
4,822.8	4,791.0	4,826.1	4,825.9	12.0	1.3	99.25	-778.3	4,067.1	3,814.8	3,801.6	13.19	289.280	

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

Anticollision Report



Company:	PDC ENERGY	Local Co-ordinate Reference:	Well WACKER 10G-214
Project:	WELD COUNTY, COLORADO	TVD Reference:	KB-EST @ 4624.0usft (Original Well Elev)
Reference Site:	SW NW SEC. 10 T5N R64W 6th P.M.	MD Reference:	KB-EST @ 4624.0usft (Original Well Elev)
Site Error:	0.0 usft	North Reference:	True
Reference Well:	WACKER 10G-214	Survey Calculation Method:	Minimum Curvature
Well Error:	0.0 usft	Output errors are at	2.00 sigma
Reference Wellbore	ORIGINAL WELLBORE	Database:	EDM 5000.1 Single User Db
Reference Design:	PROPOSAL #1	Offset TVD Reference:	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		
4,900.0	4,868.2	4,904.4	4,904.2	12.2	1.3	99.26	-778.9	4,065.9	3,813.8	3,800.5	13.34	285.830		
4,921.2	4,889.5	4,926.3	4,926.1	12.2	1.3	99.27	-779.0	4,065.6	3,813.5	3,800.1	13.39	284.883		
5,000.0	4,968.2	5,007.4	5,007.2	12.4	1.3	99.27	-779.4	4,064.5	3,812.4	3,798.9	13.55	281.425		
5,019.7	4,987.9	5,028.0	5,027.8	12.4	1.4	99.28	-779.5	4,064.2	3,812.2	3,798.6	13.59	280.566		
5,100.0	5,068.2	5,112.0	5,111.7	12.6	1.4	99.28	-779.8	4,062.9	3,811.0	3,797.2	13.75	277.105		
5,118.1	5,086.3	5,130.9	5,130.7	12.6	1.4	99.29	-779.9	4,062.6	3,810.7	3,796.9	13.79	276.331		
5,200.0	5,168.2	5,231.8	5,231.6	12.7	1.4	99.29	-780.1	4,060.8	3,809.4	3,795.4	13.96	272.829		
5,216.5	5,184.7	5,264.9	5,264.7	12.8	1.4	99.29	-780.1	4,060.1	3,809.0	3,795.0	14.00	272.084		
5,300.0	5,268.2	5,418.2	5,417.9	12.9	1.4	99.29	-779.1	4,054.9	3,806.1	3,791.9	14.19	268.316		
5,314.9	5,283.2	5,436.8	5,436.5	13.0	1.4	99.29	-779.0	4,054.1	3,805.4	3,791.2	14.22	267.665		
5,400.0	5,368.2	5,545.9	5,545.4	13.1	1.5	99.29	-778.1	4,049.0	3,801.5	3,787.1	14.40	263.989		
5,413.4	5,381.6	5,563.7	5,563.2	13.2	1.5	99.29	-777.9	4,048.2	3,800.8	3,786.4	14.43	263.412		
5,500.0	5,468.2	5,662.5	5,661.8	13.3	1.5	99.29	-776.8	4,043.0	3,796.1	3,781.5	14.61	259.756		
5,511.8	5,480.0	5,674.9	5,674.2	13.3	1.5	99.29	-776.7	4,042.3	3,795.5	3,780.8	14.64	259.265		
5,600.0	5,568.2	5,754.2	5,753.4	13.5	1.5	99.28	-775.6	4,038.1	3,790.7	3,775.9	14.83	255.690		
5,610.2	5,578.4	5,762.8	5,762.0	13.5	1.5	99.28	-775.5	4,037.7	3,790.2	3,775.3	14.85	255.283		
5,700.0	5,668.2	5,830.0	5,829.1	13.7	1.5	99.27	-774.3	4,034.5	3,785.7	3,770.7	15.03	251.797		
5,708.6	5,676.9	5,835.7	5,834.8	13.7	1.5	99.27	-774.2	4,034.2	3,785.3	3,770.2	15.05	251.469		
5,800.0	5,768.2	5,900.0	5,899.1	13.9	1.5	99.26	-773.3	4,031.7	3,781.5	3,766.3	15.24	248.068		
5,807.1	5,775.3	5,900.0	5,899.1	13.9	1.5	99.26	-773.3	4,031.7	3,781.3	3,766.0	15.26	247.822		
5,900.0	5,868.2	5,965.9	5,964.9	14.1	1.5	99.26	-772.6	4,029.6	3,778.2	3,762.8	15.45	244.497		
5,905.5	5,873.7	5,969.7	5,968.8	14.1	1.6	99.26	-772.6	4,029.5	3,778.0	3,762.6	15.46	244.303		
5,960.7	5,928.9	6,009.8	6,008.9	14.2	1.6	99.25	-772.2	4,028.5	3,776.6	3,761.0	15.58	242.384 ES		
5,978.1	5,946.3	6,023.9	6,022.9	14.2	1.6	-170.75	-772.1	4,028.1	3,776.4	3,761.9	14.49	260.582 CC		
6,000.0	5,968.2	6,041.5	6,040.5	14.3	1.6	-170.75	-771.9	4,027.8	3,776.7	3,762.2	14.53	259.994		
6,003.9	5,972.1	6,044.7	6,043.7	14.3	1.6	-170.75	-771.9	4,027.7	3,776.8	3,762.3	14.53	259.883		
6,050.0	6,018.0	6,081.7	6,080.6	14.4	1.6	-170.72	-771.5	4,026.9	3,780.0	3,765.4	14.63	258.299		
6,100.0	6,067.3	6,121.3	6,120.2	14.4	1.6	-170.65	-771.0	4,026.3	3,787.0	3,772.2	14.78	256.270		
6,102.3	6,069.6	6,123.1	6,122.1	14.4	1.6	-170.65	-771.0	4,026.2	3,787.4	3,772.6	14.78	256.174		
6,150.0	6,116.0	6,160.1	6,159.1	14.4	1.6	-170.54	-770.6	4,025.7	3,797.4	3,782.4	14.93	254.325		
6,200.0	6,163.8	6,200.0	6,199.0	14.5	1.6	-170.38	-770.3	4,025.2	3,811.3	3,796.2	15.08	252.774		
6,200.8	6,164.5	6,200.0	6,199.0	14.5	1.6	-170.38	-770.3	4,025.2	3,811.5	3,796.4	15.08	252.760		
6,250.0	6,210.4	6,246.7	6,245.6	14.5	1.6	-170.18	-769.9	4,024.6	3,828.5	3,813.3	15.21	251.748		
6,299.2	6,254.9	6,293.5	6,292.5	14.5	1.6	-169.94	-769.6	4,024.1	3,848.5	3,833.2	15.31	251.373		
6,300.0	6,255.6	6,294.3	6,293.2	14.5	1.6	-169.94	-769.6	4,024.1	3,848.9	3,833.6	15.31	251.372		
6,350.0	6,299.3	6,334.0	6,332.9	14.5	1.6	-169.62	-769.3	4,023.6	3,872.3	3,857.0	15.38	251.795		
6,397.6	6,339.2	6,369.5	6,368.4	14.6	1.6	-169.25	-769.0	4,023.2	3,897.5	3,882.1	15.41	252.882		
6,400.0	6,341.2	6,371.2	6,370.1	14.6	1.6	-169.23	-769.0	4,023.2	3,898.9	3,883.4	15.41	252.954		
6,450.0	6,381.0	6,406.5	6,405.5	14.6	1.7	-168.75	-768.8	4,022.9	3,928.3	3,912.9	15.42	254.787		
6,496.0	6,415.8	6,437.2	6,436.2	14.7	1.7	-168.21	-768.6	4,022.6	3,957.8	3,942.4	15.40	256.983		
6,500.0	6,418.7	6,439.8	6,438.7	14.7	1.7	-168.16	-768.6	4,022.6	3,960.4	3,945.0	15.40	257.195		
6,550.0	6,453.9	6,470.9	6,469.8	14.8	1.7	-167.44	-768.4	4,022.4	3,995.2	3,979.8	15.36	260.045		
6,594.5	6,483.1	6,500.0	6,498.9	15.0	1.7	-166.67	-768.3	4,022.2	4,028.1	4,012.8	15.33	262.693		
6,600.0	6,486.6	6,500.0	6,498.9	15.1	1.7	-166.55	-768.3	4,022.2	4,032.3	4,017.0	15.33	263.106		
6,650.0	6,516.6	6,527.1	6,526.1	15.3	1.7	-165.43	-768.2	4,022.0	4,071.7	4,056.4	15.31	266.023		
6,692.9	6,540.0	6,548.6	6,547.5	15.7	1.7	-164.23	-768.1	4,021.9	4,107.1	4,091.8	15.32	268.025		
6,700.0	6,543.7	6,551.9	6,550.9	15.7	1.7	-164.01	-768.1	4,021.9	4,113.1	4,097.8	15.33	268.309		
6,750.0	6,567.8	6,574.0	6,572.9	16.2	1.7	-162.17	-768.0	4,021.8	4,156.3	4,140.9	15.44	269.248		
6,791.3	6,585.4	6,590.0	6,589.0	16.7	1.7	-160.19	-768.0	4,021.7	4,193.2	4,177.6	15.63	268.265		
6,800.0	6,588.8	6,593.1	6,592.1	16.8	1.7	-159.70	-768.0	4,021.7	4,201.1	4,185.4	15.69	267.837		
6,850.0	6,606.6	6,610.2	6,609.2	17.4	1.7	-156.31	-767.9	4,021.7	4,247.3	4,231.1	16.16	262.773		
6,889.7	6,618.4	6,622.0	6,621.0	18.0	1.7	-152.57	-767.9	4,021.6	4,284.8	4,268.0	16.80	255.123		

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

Anticollision Report



Company:	PDC ENERGY	Local Co-ordinate Reference:	Well WACKER 10G-214
Project:	WELD COUNTY, COLORADO	TVD Reference:	KB-EST @ 4624.0usft (Original Well Elev)
Reference Site:	SW NW SEC. 10 T5N R64W 6th P.M.	MD Reference:	KB-EST @ 4624.0usft (Original Well Elev)
Site Error:	0.0 usft	North Reference:	True
Reference Well:	WACKER 10G-214	Survey Calculation Method:	Minimum Curvature
Well Error:	0.0 usft	Output errors are at	2.00 sigma
Reference Wellbore	ORIGINAL WELLBORE	Database:	EDM 5000.1 Single User Db
Reference Design:	PROPOSAL #1	Offset TVD Reference:	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	
6,900.0	6,621.1	6,624.7	6,623.7	18.2	1.7	-151.40	-767.9	4,021.6	4,294.6	4,277.6	17.00	252.621	
6,950.0	6,632.2	6,635.9	6,634.8	19.0	1.7	-143.86	-767.9	4,021.6	4,342.8	4,324.4	18.38	236.329	
6,988.2	6,638.4	6,642.1	6,641.1	19.7	1.7	-135.09	-767.8	4,021.5	4,380.1	4,360.2	19.88	220.283	
7,000.0	6,639.9	6,643.6	6,642.6	19.9	1.7	-131.59	-767.8	4,021.5	4,391.7	4,371.3	20.41	215.130	
7,050.0	6,644.1	6,648.0	6,646.9	20.8	1.7	-111.31	-767.8	4,021.5	4,441.0	4,418.5	22.49	197.434	
7,086.5	6,645.0	6,649.0	6,647.9	21.5	1.7	-91.02	-767.8	4,021.5	4,477.2	4,454.0	23.16	193.357	
7,100.0	6,645.0	6,649.0	6,647.9	21.8	1.7	-91.02	-767.8	4,021.5	4,490.5	4,467.1	23.42	191.733	
7,185.0	6,644.9	6,649.2	6,648.1	23.6	1.7	-91.04	-767.8	4,021.5	4,574.8	4,549.6	25.18	181.682	
7,200.0	6,644.8	6,649.2	6,648.1	23.9	1.7	-91.04	-767.8	4,021.5	4,589.7	4,564.2	25.49	180.056	
7,283.4	6,644.7	6,649.4	6,648.3	25.7	1.7	-91.06	-767.8	4,021.5	4,672.4	4,645.1	27.33	170.946	
7,300.0	6,644.7	6,649.4	6,648.3	26.1	1.7	-91.06	-767.8	4,021.5	4,688.8	4,661.1	27.70	169.284	
7,381.9	6,644.6	6,649.6	6,648.5	28.0	1.7	-91.08	-767.8	4,021.5	4,770.0	4,740.4	29.59	161.188	
7,400.0	6,644.6	6,649.6	6,648.5	28.4	1.7	-91.08	-767.8	4,021.5	4,788.0	4,758.0	30.01	159.534	
7,480.3	6,644.5	6,649.8	6,648.7	30.3	1.7	-91.10	-767.8	4,021.5	4,867.7	4,835.7	31.94	152.413	
7,500.0	6,644.4	6,649.8	6,648.8	30.8	1.7	-91.10	-767.8	4,021.5	4,887.2	4,854.8	32.41	150.796	
7,578.7	6,644.3	6,650.0	6,648.9	32.7	1.7	-91.12	-767.8	4,021.5	4,965.3	4,931.0	34.35	144.561	
7,600.0	6,644.3	6,650.0	6,649.0	33.3	1.7	-91.13	-767.8	4,021.5	4,986.5	4,951.6	34.87	142.995	
7,677.1	6,644.2	6,650.2	6,649.1	35.2	1.7	-91.14	-767.8	4,021.5	5,063.1	5,026.2	36.81	137.544	
7,700.0	6,644.1	6,650.2	6,649.2	35.8	1.7	-91.15	-767.8	4,021.5	5,085.7	5,048.4	37.38	136.038	
7,775.6	6,644.0	6,650.4	6,649.3	37.7	1.7	-91.16	-767.8	4,021.5	5,160.8	5,121.5	39.32	131.266	
7,800.0	6,644.0	6,650.4	6,649.4	38.3	1.7	-91.17	-767.8	4,021.5	5,185.1	5,145.1	39.94	129.823	
7,874.0	6,643.9	6,650.6	6,649.5	40.2	1.7	-91.18	-767.8	4,021.5	5,258.6	5,216.7	41.85	125.638	
7,900.0	6,643.9	6,650.6	6,649.6	40.9	1.7	-91.19	-767.8	4,021.5	5,284.4	5,241.9	42.53	124.258	
7,972.4	6,643.8	6,650.8	6,649.7	42.8	1.7	-91.20	-767.8	4,021.5	5,356.3	5,311.9	44.42	120.578	
8,000.0	6,643.7	6,650.8	6,649.8	43.5	1.7	-91.21	-767.8	4,021.5	5,383.7	5,338.6	45.14	119.259	
8,070.8	6,643.6	6,651.0	6,649.9	45.4	1.7	-91.22	-767.8	4,021.5	5,454.2	5,407.1	47.01	116.014	
8,100.0	6,643.6	6,651.0	6,650.0	46.2	1.7	-91.23	-767.8	4,021.5	5,483.1	5,435.3	47.78	114.753	
8,169.3	6,643.5	6,651.2	6,650.1	48.0	1.7	-91.24	-767.8	4,021.5	5,552.0	5,502.4	49.62	111.883	
8,200.0	6,643.5	6,651.2	6,650.2	48.8	1.7	-91.25	-767.8	4,021.5	5,582.5	5,532.1	50.44	110.677	
8,267.7	6,643.4	6,651.4	6,650.3	50.6	1.7	-91.27	-767.8	4,021.5	5,649.8	5,597.6	52.25	108.131	
8,300.0	6,643.3	6,651.4	6,650.4	51.5	1.7	-91.27	-767.8	4,021.5	5,682.0	5,628.8	53.11	106.977	
8,366.1	6,643.2	6,651.6	6,650.5	53.3	1.7	-91.29	-767.8	4,021.5	5,747.7	5,692.8	54.89	104.712	
8,400.0	6,643.2	6,651.6	6,650.6	54.2	1.7	-91.29	-767.8	4,021.5	5,781.4	5,725.6	55.80	103.607	
8,464.5	6,643.1	6,651.8	6,650.7	55.9	1.7	-91.31	-767.8	4,021.5	5,845.6	5,788.1	57.54	101.585	
8,500.0	6,643.1	6,651.9	6,650.8	56.9	1.7	-91.32	-767.8	4,021.5	5,880.9	5,822.4	58.50	100.526	
8,563.0	6,643.0	6,652.0	6,650.9	58.6	1.7	-91.33	-767.8	4,021.5	5,943.5	5,883.3	60.21	98.717	
8,600.0	6,642.9	6,652.1	6,651.0	59.6	1.7	-91.34	-767.8	4,021.5	5,980.3	5,919.1	61.21	97.701	
8,661.4	6,642.8	6,652.2	6,651.1	61.3	1.7	-91.35	-767.8	4,021.5	6,041.4	5,978.6	62.88	96.079	
8,700.0	6,642.8	6,652.3	6,651.2	62.3	1.7	-91.36	-767.8	4,021.5	6,079.8	6,015.9	63.93	95.103	
8,759.8	6,642.7	6,652.4	6,651.3	64.0	1.7	-91.37	-767.8	4,021.5	6,139.4	6,073.8	65.56	93.645	
8,800.0	6,642.7	6,652.5	6,651.4	65.1	1.7	-91.38	-767.8	4,021.5	6,179.4	6,112.7	66.66	92.706	
8,858.2	6,642.6	6,652.6	6,651.5	66.6	1.7	-91.39	-767.8	4,021.5	6,237.3	6,169.1	68.25	91.393	
8,900.0	6,642.5	6,652.7	6,651.6	67.8	1.7	-91.40	-767.8	4,021.5	6,278.9	6,209.5	69.39	90.489	
8,956.7	6,642.4	6,652.8	6,651.7	69.3	1.7	-91.41	-767.8	4,021.5	6,335.3	6,264.4	70.94	89.304	
9,000.0	6,642.4	6,652.9	6,651.8	70.5	1.7	-91.42	-767.8	4,021.5	6,378.4	6,306.3	72.13	88.433	
9,055.1	6,642.3	6,653.0	6,651.9	72.0	1.7	-91.43	-767.8	4,021.5	6,433.3	6,359.7	73.64	87.362	
9,100.0	6,642.3	6,653.1	6,652.0	73.3	1.7	-91.44	-767.8	4,021.5	6,478.0	6,403.1	74.87	86.521	
9,153.5	6,642.2	6,653.2	6,652.1	74.7	1.7	-91.46	-767.8	4,021.5	6,531.3	6,454.9	76.34	85.551	
9,200.0	6,642.1	6,653.3	6,652.2	76.0	1.7	-91.47	-767.8	4,021.5	6,577.6	6,499.9	77.62	84.739	
9,251.9	6,642.1	6,653.4	6,652.3	77.5	1.7	-91.48	-767.8	4,021.5	6,629.3	6,550.3	79.05	83.861	
9,300.0	6,642.0	6,653.5	6,652.4	78.8	1.7	-91.49	-767.8	4,021.5	6,677.2	6,596.8	80.37	83.076	
9,350.4	6,641.9	6,653.6	6,652.6	80.2	1.7	-91.50	-767.8	4,021.5	6,727.3	6,645.6	81.76	82.278	

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

Anticollision Report



Company:	PDC ENERGY	Local Co-ordinate Reference:	Well WACKER 10G-214
Project:	WELD COUNTY, COLORADO	TVD Reference:	KB-EST @ 4624.0usft (Original Well Elev)
Reference Site:	SW NW SEC. 10 T5N R64W 6th P.M.	MD Reference:	KB-EST @ 4624.0usft (Original Well Elev)
Site Error:	0.0 usft	North Reference:	True
Reference Well:	WACKER 10G-214	Survey Calculation Method:	Minimum Curvature
Well Error:	0.0 usft	Output errors are at	2.00 sigma
Reference Wellbore	ORIGINAL WELLBORE	Database:	EDM 5000.1 Single User Db
Reference Design:	PROPOSAL #1	Offset TVD Reference:	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	6,641.9	6,653.7	6,652.7	81.5	1.7	-91.51	-767.8	4,021.5	6,776.8	6,693.6	83.13	81.518	
9,448.8	6,641.8	6,653.8	6,652.8	82.9	1.7	-91.52	-767.8	4,021.5	6,825.4	6,740.9	84.48	80.794	
9,500.0	6,641.7	6,653.9	6,652.9	84.3	1.7	-91.53	-767.8	4,021.5	6,876.4	6,790.5	85.89	80.058	
9,547.2	6,641.7	6,654.0	6,653.0	85.6	1.7	-91.54	-767.8	4,021.5	6,923.4	6,836.2	87.20	79.399	
9,600.0	6,641.6	6,654.1	6,653.1	87.1	1.7	-91.55	-767.8	4,021.5	6,976.0	6,887.3	88.66	78.686	
9,645.6	6,641.5	6,654.2	6,653.2	88.3	1.7	-91.56	-767.8	4,021.5	7,021.5	6,931.5	89.92	78.087	
9,700.0	6,641.5	6,654.3	6,653.3	89.8	1.7	-91.58	-767.8	4,021.5	7,075.6	6,984.2	91.42	77.395	
9,744.1	6,641.4	6,654.4	6,653.4	91.0	1.7	-91.58	-767.8	4,021.5	7,119.5	7,026.9	92.64	76.849	
9,800.0	6,641.3	6,654.5	6,653.5	92.6	1.7	-91.60	-767.8	4,021.5	7,175.3	7,081.1	94.19	76.177	
9,842.5	6,641.3	6,654.6	6,653.6	93.8	1.7	-91.61	-767.8	4,021.5	7,217.6	7,122.2	95.37	75.681	
9,900.0	6,641.2	6,654.7	6,653.7	95.4	1.7	-91.62	-767.8	4,021.5	7,274.9	7,177.9	96.96	75.028	
9,940.9	6,641.1	6,654.8	6,653.8	96.5	1.7	-91.63	-767.8	4,021.5	7,315.7	7,217.6	98.10	74.576	
10,000.0	6,641.1	6,655.0	6,653.9	98.1	1.7	-91.64	-767.8	4,021.5	7,374.6	7,274.8	99.74	73.941	
10,039.3	6,641.0	6,655.0	6,654.0	99.2	1.7	-91.65	-767.8	4,021.5	7,413.8	7,313.0	100.83	73.529	
10,100.0	6,640.9	6,655.2	6,654.1	100.9	1.7	-91.66	-767.8	4,021.5	7,474.2	7,371.7	102.51	72.911	
10,137.8	6,640.9	6,655.2	6,654.2	102.0	1.7	-91.67	-767.8	4,021.5	7,511.9	7,408.3	103.56	72.536	
10,200.0	6,640.8	6,655.4	6,654.3	103.7	1.7	-91.69	-767.8	4,021.5	7,573.9	7,468.6	105.29	71.935	
10,236.2	6,640.8	6,655.4	6,654.4	104.7	1.7	-91.69	-767.8	4,021.5	7,610.0	7,503.7	106.29	71.594	
10,300.0	6,640.7	6,655.6	6,654.5	106.5	1.7	-91.71	-767.8	4,021.5	7,673.6	7,565.5	108.07	71.008	
10,334.6	6,640.6	6,655.7	6,654.6	107.4	1.7	-91.71	-767.8	4,021.5	7,708.1	7,599.1	109.03	70.697	
10,400.0	6,640.6	6,655.8	6,654.7	109.3	1.7	-91.73	-767.8	4,021.5	7,773.3	7,662.4	110.85	70.126	
10,433.0	6,640.5	6,655.9	6,654.8	110.2	1.7	-91.74	-767.8	4,021.5	7,806.2	7,694.5	111.77	69.844	
10,500.0	6,640.4	6,656.0	6,654.9	112.0	1.7	-91.75	-767.8	4,021.5	7,873.0	7,759.4	113.63	69.287	
10,531.5	6,640.4	6,656.1	6,655.0	112.9	1.7	-91.76	-767.8	4,021.5	7,904.4	7,789.9	114.51	69.031	
10,600.0	6,640.3	6,656.2	6,655.2	114.8	1.7	-91.77	-767.8	4,021.5	7,972.7	7,856.3	116.41	68.487	
10,629.9	6,640.3	6,656.3	6,655.2	115.7	1.7	-91.78	-767.8	4,021.5	8,002.5	7,885.3	117.24	68.255	
10,700.0	6,640.2	6,656.4	6,655.4	117.6	1.7	-91.80	-767.8	4,021.5	8,072.4	7,953.2	119.20	67.724	
10,728.3	6,640.1	6,656.5	6,655.4	118.4	1.7	-91.80	-767.8	4,021.5	8,100.7	7,980.7	119.99	67.514	
10,800.0	6,640.0	6,656.6	6,655.6	120.4	1.7	-91.82	-767.8	4,021.5	8,172.2	8,050.2	121.98	66.995	
10,826.7	6,640.0	6,656.7	6,655.6	121.2	1.7	-91.82	-767.8	4,021.5	8,198.8	8,076.1	122.73	66.806	
10,900.0	6,639.9	6,656.8	6,655.8	123.2	1.7	-91.84	-767.8	4,021.5	8,271.9	8,147.1	124.77	66.298	
10,925.2	6,639.9	6,656.9	6,655.8	123.9	1.7	-91.85	-767.8	4,021.5	8,297.0	8,171.5	125.47	66.128	
11,000.0	6,639.8	6,657.0	6,656.0	126.0	1.7	-91.86	-767.8	4,021.5	8,371.6	8,244.1	127.55	65.632	
11,023.6	6,639.8	6,657.1	6,656.0	126.6	1.7	-91.87	-767.8	4,021.5	8,395.2	8,266.9	128.21	65.478	
11,100.0	6,639.7	6,657.3	6,656.2	128.8	1.7	-91.89	-767.8	4,021.5	8,471.4	8,341.0	130.34	64.993	
11,122.0	6,639.6	6,657.3	6,656.2	129.4	1.7	-91.89	-767.8	4,021.5	8,493.3	8,362.4	130.96	64.856	
11,200.0	6,639.5	6,657.5	6,656.4	131.6	1.7	-91.91	-767.8	4,021.5	8,571.1	8,438.0	133.13	64.381	
11,220.4	6,639.5	6,657.5	6,656.5	132.1	1.7	-91.91	-767.8	4,021.5	8,591.5	8,457.8	133.70	64.259	
11,300.0	6,639.4	6,657.7	6,656.6	134.4	1.7	-91.93	-767.8	4,021.5	8,670.9	8,534.9	135.92	63.794	
11,318.9	6,639.4	6,657.7	6,656.7	134.9	1.7	-91.94	-767.8	4,021.5	8,689.7	8,553.2	136.45	63.685	
11,400.0	6,639.3	6,657.9	6,656.8	137.1	1.7	-91.95	-767.8	4,021.5	8,770.6	8,631.9	138.71	63.230	
11,417.3	6,639.3	6,657.9	6,656.9	137.6	1.7	-91.96	-767.8	4,021.5	8,787.9	8,648.7	139.19	63.134	
11,500.0	6,639.2	6,658.1	6,657.0	139.9	1.7	-91.98	-767.8	4,021.5	8,870.4	8,728.9	141.50	62.688	
11,515.7	6,639.1	6,658.1	6,657.1	140.4	1.7	-91.98	-767.8	4,021.5	8,886.1	8,744.1	141.94	62.604	
11,600.0	6,639.0	6,658.3	6,657.3	142.7	1.7	-92.00	-767.8	4,021.5	8,970.2	8,825.9	144.29	62.166	
11,614.1	6,639.0	6,658.3	6,657.3	143.1	1.7	-92.00	-767.8	4,021.5	8,984.3	8,839.6	144.69	62.094	
11,700.0	6,638.9	6,658.5	6,657.5	145.5	1.7	-92.02	-767.8	4,021.5	9,069.9	8,922.9	147.08	61.665	
11,712.6	6,638.9	6,658.5	6,657.5	145.9	1.7	-92.03	-767.8	4,021.5	9,082.5	8,935.1	147.44	61.603	
11,800.0	6,638.8	6,658.7	6,657.7	148.3	1.7	-92.05	-767.8	4,021.5	9,169.7	9,019.8	149.88	61.181	
11,811.0	6,638.8	6,658.8	6,657.7	148.6	1.7	-92.05	-767.8	4,021.5	9,180.7	9,030.5	150.18	61.129	
11,900.0	6,638.7	6,658.9	6,657.9	151.1	1.7	-92.07	-767.8	4,021.5	9,269.5	9,116.8	152.67	60.716	
11,909.4	6,638.6	6,659.0	6,657.9	151.4	1.7	-92.07	-767.8	4,021.5	9,278.9	9,126.0	152.93	60.673	

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

Anticollision Report



Company:	PDC ENERGY	Local Co-ordinate Reference:	Well WACKER 10G-214
Project:	WELD COUNTY, COLORADO	TVD Reference:	KB-EST @ 4624.0usft (Original Well Elev)
Reference Site:	SW NW SEC. 10 T5N R64W 6th P.M.	MD Reference:	KB-EST @ 4624.0usft (Original Well Elev)
Site Error:	0.0 usft	North Reference:	True
Reference Well:	WACKER 10G-214	Survey Calculation Method:	Minimum Curvature
Well Error:	0.0 usft	Output errors are at	2.00 sigma
Reference Wellbore	ORIGINAL WELLBORE	Database:	EDM 5000.1 Single User Db
Reference Design:	PROPOSAL #1	Offset TVD Reference:	Offset Datum

Offset Design SW NW SEC. 10 T5N R64W 6th P.M. - EXIST VERT SLW RANCH #1-10 - 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
12,000.0	6,638.5	6,659.2	6,658.1	153.9	1.7	-92.09	-767.8	4,021.5	9,369.3	9,213.8	155.46	60.267	
12,007.8	6,638.5	6,659.2	6,658.1	154.1	1.7	-92.09	-767.8	4,021.5	9,377.1	9,221.4	155.68	60.232	
12,100.0	6,638.4	6,659.4	6,658.3	156.7	1.7	-92.11	-767.8	4,021.5	9,469.1	9,310.8	158.26	59.833	
12,106.3	6,638.4	6,659.4	6,658.3	156.9	1.7	-92.12	-767.8	4,021.5	9,475.4	9,316.9	158.43	59.807	
12,200.0	6,638.3	6,659.6	6,658.5	159.5	1.7	-92.14	-767.8	4,021.5	9,568.9	9,407.8	161.05	59.415	
12,204.7	6,638.3	6,659.6	6,658.5	159.6	1.7	-92.14	-767.8	4,021.5	9,573.6	9,412.4	161.18	59.396	
12,300.0	6,638.2	6,659.8	6,658.7	162.3	1.7	-92.16	-767.8	4,021.5	9,668.7	9,504.8	163.85	59.011	
12,303.1	6,638.2	6,659.8	6,658.7	162.4	1.7	-92.16	-767.8	4,021.5	9,671.8	9,507.9	163.93	58.998	
12,400.0	6,638.0	6,660.0	6,658.9	165.1	1.7	-92.18	-767.8	4,021.5	9,768.5	9,601.9	166.64	58.620	
12,401.5	6,638.0	6,660.0	6,658.9	165.2	1.7	-92.18	-767.8	4,021.5	9,770.0	9,603.4	166.68	58.614	
12,500.0	6,637.9	6,660.2	6,659.2	167.9	1.7	-92.21	-767.8	4,021.5	9,868.3	9,698.9	169.44	58.242	
12,598.4	6,637.8	6,660.4	6,659.4	170.7	1.7	-92.23	-767.8	4,021.5	9,966.5	9,794.3	172.19	57.882	
12,600.0	6,637.8	6,660.4	6,659.4	170.7	1.7	-92.23	-767.8	4,021.5	9,968.1	9,795.9	172.23	57.876 SF	

Anticollision Report



Company:	PDC ENERGY	Local Co-ordinate Reference:	Well WACKER 10G-214
Project:	WELD COUNTY, COLORADO	TVD Reference:	KB-EST @ 4624.0usft (Original Well Elev)
Reference Site:	SW NW SEC. 10 T5N R64W 6th P.M.	MD Reference:	KB-EST @ 4624.0usft (Original Well Elev)
Site Error:	0.0 usft	North Reference:	True
Reference Well:	WACKER 10G-214	Survey Calculation Method:	Minimum Curvature
Well Error:	0.0 usft	Output errors are at	2.00 sigma
Reference Wellbore	ORIGINAL WELLBORE	Database:	EDM 5000.1 Single User Db
Reference Design:	PROPOSAL #1	Offset TVD Reference:	Offset Datum

Offset Design												Offset Site Error:	0.0 usft
Survey Program: 100-GYD_CT												Offset Well Error:	0.0 usft
Measured Depth (usft)	Vertical Depth (usft)	Measured Depth (usft)	Vertical Depth (usft)	Reference (usft)	Offset (usft)	Semi Major Axis Highside Toolface (°)	Offset Wellbore Centre +N/-S (usft)	+E/-W (usft)	Between Centres (usft)	Between Ellipses (usft)	Minimum Separation (usft)	Separation Factor	Warning
0.0	0.0	0.0	0.0	0.0	0.0	124.14	-1,135.1	1,673.9	2,022.6				
98.4	98.4	77.5	77.5	0.1	0.0	124.15	-1,135.2	1,673.8	2,022.5	2,022.4	0.10	N/A	
100.0	100.0	79.1	79.1	0.1	0.0	124.15	-1,135.2	1,673.8	2,022.5	2,022.4	0.10	N/A	
166.4	166.4	144.3	144.3	0.2	0.0	124.15	-1,135.3	1,673.7	2,022.4	2,022.1	0.29	6,913.138	
196.8	196.8	173.9	173.9	0.3	0.1	124.15	-1,135.3	1,673.7	2,022.4	2,022.1	0.39	5,165.922	
200.0	200.0	177.0	177.0	0.3	0.1	124.15	-1,135.3	1,673.7	2,022.4	2,022.0	0.40	5,034.478	
295.3	295.3	261.6	261.6	0.5	0.2	124.15	-1,135.6	1,673.8	2,022.7	2,022.0	0.72	2,821.546	
300.0	300.0	265.6	265.6	0.5	0.2	124.15	-1,135.6	1,673.8	2,022.7	2,022.0	0.73	2,761.013	
393.7	393.7	356.9	356.9	0.8	0.3	124.17	-1,136.3	1,674.2	2,023.5	2,022.4	1.04	1,954.950	
400.0	400.0	363.5	363.5	0.8	0.3	124.17	-1,136.4	1,674.2	2,023.5	2,022.5	1.05	1,918.182	
492.1	492.1	454.9	454.9	1.0	0.4	124.18	-1,137.0	1,674.5	2,024.1	2,022.8	1.33	1,521.839	
500.0	500.0	462.4	462.4	1.0	0.4	124.18	-1,137.1	1,674.5	2,024.2	2,022.8	1.35	1,496.307	
590.5	590.5	548.9	548.9	1.2	0.4	124.19	-1,137.8	1,675.0	2,025.0	2,023.4	1.61	1,257.301	
600.0	600.0	557.9	557.9	1.2	0.4	124.19	-1,137.8	1,675.1	2,025.1	2,023.4	1.64	1,236.922	
689.0	689.0	646.5	646.5	1.4	0.5	124.20	-1,138.7	1,675.6	2,026.0	2,024.1	1.89	1,073.663	
700.0	700.0	658.0	657.9	1.4	0.5	124.20	-1,138.8	1,675.7	2,026.1	2,024.2	1.92	1,056.441	
787.4	787.4	747.3	747.2	1.6	0.5	124.21	-1,139.4	1,676.2	2,026.9	2,024.8	2.16	938.721	
800.0	800.0	760.0	760.0	1.7	0.5	124.21	-1,139.5	1,676.3	2,027.0	2,024.8	2.19	924.059	
885.8	885.8	846.5	846.5	1.9	0.6	124.21	-1,140.0	1,676.9	2,027.8	2,025.4	2.43	835.762	
900.0	900.0	860.8	860.8	1.9	0.6	124.21	-1,140.1	1,677.0	2,027.9	2,025.4	2.46	822.855	
984.2	984.2	945.0	945.0	2.1	0.6	124.22	-1,140.7	1,677.4	2,028.6	2,025.9	2.69	753.826	
1,000.0	1,000.0	960.6	960.6	2.1	0.6	124.22	-1,140.9	1,677.5	2,028.8	2,026.0	2.73	742.211	
1,082.7	1,082.7	1,046.7	1,046.7	2.3	0.7	124.23	-1,141.5	1,677.9	2,029.4	2,026.5	2.96	686.502	
1,100.0	1,100.0	1,065.6	1,065.5	2.3	0.7	124.23	-1,141.6	1,678.0	2,029.5	2,026.5	3.00	675.831	
1,181.1	1,181.1	1,153.6	1,153.5	2.5	0.7	124.24	-1,142.1	1,678.1	2,029.9	2,026.7	3.22	629.925	
1,200.0	1,200.0	1,174.1	1,174.0	2.6	0.7	124.24	-1,142.1	1,678.2	2,030.0	2,026.7	3.27	620.095	
1,279.5	1,279.5	1,255.9	1,255.9	2.7	0.8	124.24	-1,142.3	1,678.1	2,030.0	2,026.5	3.49	582.374	
1,300.0	1,300.0	1,276.5	1,276.4	2.8	0.8	124.25	-1,142.4	1,678.1	2,030.1	2,026.5	3.54	573.447	
1,377.9	1,377.9	1,357.1	1,357.1	3.0	0.8	5.61	-1,142.6	1,678.0	2,029.0	2,025.3	3.74	543.187	
1,400.0	1,400.0	1,380.2	1,380.1	3.0	0.8	5.62	-1,142.7	1,677.9	2,028.3	2,024.5	3.79	535.715	
1,476.4	1,476.3	1,457.0	1,457.0	3.1	0.8	5.64	-1,142.8	1,677.7	2,024.5	2,020.6	3.95	512.391	
1,500.0	1,499.8	1,480.5	1,480.4	3.2	0.8	5.65	-1,142.8	1,677.6	2,023.0	2,019.0	4.00	505.466	
1,574.8	1,574.4	1,554.7	1,554.7	3.3	0.9	5.68	-1,143.0	1,677.4	2,016.7	2,012.6	4.17	483.513	
1,600.0	1,599.5	1,579.8	1,579.7	3.4	0.9	5.70	-1,143.0	1,677.4	2,014.2	2,010.0	4.23	476.443	
1,673.2	1,672.2	1,652.5	1,652.5	3.6	0.9	5.75	-1,143.2	1,677.1	2,005.6	2,001.2	4.40	455.902	
1,700.0	1,698.7	1,679.1	1,679.0	3.6	0.9	5.77	-1,143.3	1,677.0	2,001.9	1,997.5	4.46	448.744	
1,771.6	1,769.5	1,754.0	1,753.9	3.8	0.9	5.84	-1,143.7	1,676.6	1,991.0	1,986.4	4.64	429.451	
1,800.0	1,797.5	1,784.2	1,784.1	3.9	0.9	5.87	-1,143.8	1,676.4	1,986.1	1,981.4	4.70	422.156	
1,870.1	1,866.3	1,857.1	1,857.1	4.1	0.9	5.96	-1,144.1	1,675.7	1,972.8	1,967.9	4.88	404.146	
1,900.2	1,895.8	1,888.2	1,888.2	4.2	1.0	6.00	-1,144.2	1,675.4	1,966.5	1,961.6	4.96	396.783	
1,968.5	1,962.6	1,950.1	1,950.1	4.4	1.0	6.06	-1,144.4	1,674.8	1,952.0	1,946.9	5.12	381.467	
2,000.0	1,993.4	1,977.9	1,977.9	4.5	1.0	6.08	-1,144.5	1,674.5	1,945.3	1,940.1	5.19	374.791	
2,066.9	2,058.9	2,036.0	2,035.9	4.7	1.0	6.14	-1,144.9	1,674.1	1,931.4	1,926.0	5.35	360.865	
2,100.0	2,091.2	2,064.4	2,064.3	4.8	1.0	6.17	-1,145.2	1,674.0	1,924.6	1,919.2	5.43	354.490	
2,165.3	2,155.2	2,122.6	2,122.5	5.1	1.0	6.22	-1,145.8	1,673.9	1,911.4	1,905.8	5.59	341.992	
2,200.0	2,189.1	2,155.3	2,155.2	5.2	1.0	6.26	-1,146.2	1,673.8	1,904.4	1,898.7	5.68	335.462	
2,263.8	2,251.4	2,215.5	2,215.5	5.5	1.1	6.33	-1,147.1	1,673.7	1,891.6	1,885.8	5.84	323.908	
2,300.0	2,286.9	2,249.9	2,249.8	5.6	1.1	6.36	-1,147.6	1,673.7	1,884.4	1,878.5	5.93	317.559	
2,362.2	2,347.7	2,309.1	2,309.0	5.8	1.1	6.43	-1,148.5	1,673.7	1,872.1	1,866.0	6.10	307.020	
2,400.0	2,384.7	2,346.2	2,346.1	6.0	1.1	6.47	-1,149.1	1,673.7	1,864.6	1,858.4	6.20	300.850	
2,460.6	2,444.0	2,405.6	2,405.5	6.2	1.1	6.53	-1,149.8	1,673.8	1,852.6	1,846.2	6.36	291.258	
2,500.0	2,482.5	2,444.6	2,444.5	6.4	1.1	6.57	-1,150.2	1,673.9	1,844.8	1,838.3	6.47	285.265	

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

Anticollision Report



Company:	PDC ENERGY	Local Co-ordinate Reference:	Well WACKER 10G-214
Project:	WELD COUNTY, COLORADO	TVD Reference:	KB-EST @ 4624.0usft (Original Well Elev)
Reference Site:	SW NW SEC. 10 T5N R64W 6th P.M.	MD Reference:	KB-EST @ 4624.0usft (Original Well Elev)
Site Error:	0.0 usft	North Reference:	True
Reference Well:	WACKER 10G-214	Survey Calculation Method:	Minimum Curvature
Well Error:	0.0 usft	Output errors are at	2.00 sigma
Reference Wellbore	ORIGINAL WELLBORE	Database:	EDM 5000.1 Single User Db
Reference Design:	PROPOSAL #1	Offset TVD Reference:	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	2,540.3	2,503.3	2,503.2	6.6	1.2	6.63	-1,150.9	1,674.1	1,833.1	1,826.5	6.63	276.540	
2,600.0	2,580.3	2,545.9	2,545.8	6.8	1.2	6.67	-1,151.4	1,674.1	1,824.9	1,818.2	6.74	270.710	
2,657.5	2,636.5	2,605.3	2,605.2	7.1	1.2	6.74	-1,152.1	1,674.1	1,813.4	1,806.5	6.90	262.809	
2,700.0	2,678.1	2,647.5	2,647.4	7.2	1.2	6.79	-1,152.6	1,674.0	1,804.8	1,797.8	7.02	257.235	
2,755.9	2,732.8	2,703.0	2,702.9	7.5	1.2	6.85	-1,153.3	1,673.8	1,793.5	1,786.3	7.17	250.093	
2,800.0	2,775.9	2,747.1	2,747.0	7.7	1.2	6.91	-1,153.8	1,673.6	1,784.6	1,777.3	7.29	244.703	
2,854.3	2,829.1	2,800.0	2,799.9	7.9	1.3	6.97	-1,154.4	1,673.5	1,773.5	1,766.1	7.44	238.270	
2,900.0	2,873.8	2,844.5	2,844.4	8.1	1.3	7.02	-1,154.7	1,673.4	1,764.3	1,756.7	7.57	233.085	
2,952.7	2,925.4	2,894.4	2,894.3	8.3	1.3	7.07	-1,155.0	1,673.5	1,753.6	1,745.9	7.72	227.276	
2,953.5	2,926.1	2,895.1	2,895.0	8.3	1.3	7.07	-1,155.0	1,673.5	1,753.5	1,745.8	7.72	227.197	
3,000.0	2,971.6	2,944.7	2,944.5	8.5	1.3	7.09	-1,155.3	1,673.6	1,744.4	1,736.6	7.83	222.786	
3,051.2	3,022.0	3,000.1	3,000.0	8.7	1.3	7.11	-1,155.3	1,673.7	1,735.2	1,727.3	7.94	218.432	
3,100.0	3,070.1	3,048.6	3,048.5	8.8	1.3	7.12	-1,155.3	1,673.7	1,727.1	1,719.1	8.05	214.628	
3,149.6	3,119.1	3,098.0	3,097.9	8.9	1.3	7.14	-1,155.4	1,673.6	1,719.8	1,711.6	8.15	211.072	
3,200.0	3,169.1	3,146.9	3,146.8	9.1	1.3	7.15	-1,155.5	1,673.5	1,713.2	1,704.9	8.26	207.493	
3,248.0	3,216.8	3,193.5	3,193.4	9.2	1.3	7.16	-1,155.5	1,673.5	1,707.7	1,699.4	8.36	204.354	
3,300.0	3,268.5	3,243.9	3,243.8	9.3	1.3	7.17	-1,155.6	1,673.5	1,702.8	1,694.3	8.47	201.092	
3,346.4	3,314.8	3,289.1	3,289.0	9.4	1.4	7.18	-1,155.8	1,673.5	1,699.2	1,690.6	8.56	198.410	
3,400.0	3,368.3	3,343.2	3,343.1	9.6	1.4	7.20	-1,156.1	1,673.4	1,695.9	1,687.3	8.67	195.516	
3,444.9	3,413.1	3,389.1	3,389.0	9.6	1.4	7.21	-1,156.2	1,673.4	1,694.0	1,685.2	8.76	193.304	
3,500.0	3,468.2	3,447.7	3,447.6	9.7	1.4	7.22	-1,156.5	1,673.3	1,692.4	1,683.6	8.87	190.812	
3,543.3	3,511.5	3,494.1	3,494.0	9.8	1.4	7.23	-1,156.6	1,673.0	1,691.9	1,682.9	8.95	189.056	
3,553.7	3,521.9	3,504.6	3,504.5	9.8	1.4	125.88	-1,156.7	1,673.0	1,691.8	1,680.7	11.15	151.780	
3,600.0	3,568.2	3,548.5	3,548.4	9.9	1.4	125.89	-1,156.9	1,672.7	1,691.7	1,680.5	11.23	150.610	
3,641.7	3,609.9	3,588.1	3,587.9	10.0	1.5	125.90	-1,157.1	1,672.5	1,691.7	1,680.4	11.31	149.527	
3,641.8	3,610.0	3,588.1	3,588.0	10.0	1.5	125.90	-1,157.1	1,672.5	1,691.7	1,680.4	11.31	149.526	
3,700.0	3,668.2	3,646.2	3,646.1	10.1	1.5	125.91	-1,157.4	1,672.3	1,691.7	1,680.3	11.43	148.024	
3,740.1	3,708.4	3,686.8	3,686.7	10.1	1.5	125.92	-1,157.6	1,672.2	1,691.7	1,680.2	11.51	146.989	
3,800.0	3,768.2	3,747.3	3,747.2	10.2	1.5	125.93	-1,157.8	1,672.0	1,691.7	1,680.1	11.63	145.472	
3,838.6	3,806.8	3,786.3	3,786.1	10.3	1.5	125.94	-1,158.0	1,671.8	1,691.7	1,680.0	11.71	144.500	
3,900.0	3,868.2	3,847.0	3,846.8	10.4	1.5	125.95	-1,158.3	1,671.6	1,691.6	1,679.8	11.83	142.984	
3,934.8	3,903.0	3,881.1	3,881.0	10.5	1.5	125.96	-1,158.5	1,671.4	1,691.6	1,679.7	11.90	142.133 CC	
3,937.0	3,905.2	3,883.3	3,883.2	10.5	1.5	125.96	-1,158.5	1,671.4	1,691.6	1,679.7	11.91	142.079	
4,000.0	3,968.2	3,943.6	3,943.5	10.6	1.6	125.98	-1,158.9	1,671.2	1,691.7	1,679.6	12.03	140.580 ES	
4,035.4	4,003.6	3,977.2	3,977.1	10.6	1.6	125.99	-1,159.2	1,671.1	1,691.7	1,679.6	12.11	139.750	
4,100.0	4,068.2	4,038.7	4,038.5	10.7	1.6	126.01	-1,159.7	1,670.9	1,692.0	1,679.7	12.24	138.275	
4,133.8	4,102.1	4,071.0	4,070.8	10.8	1.6	126.02	-1,160.1	1,670.9	1,692.1	1,679.8	12.31	137.513	
4,200.0	4,168.2	4,134.0	4,133.8	10.9	1.6	126.03	-1,160.8	1,670.9	1,692.6	1,680.1	12.44	136.062	
4,232.3	4,200.5	4,164.7	4,164.5	11.0	1.6	126.04	-1,161.1	1,670.9	1,692.8	1,680.3	12.51	135.367	
4,300.0	4,268.2	4,231.8	4,231.6	11.1	1.7	126.07	-1,162.0	1,671.0	1,693.4	1,680.8	12.64	133.928	
4,330.7	4,298.9	4,263.8	4,263.6	11.1	1.7	126.08	-1,162.4	1,671.0	1,693.7	1,681.0	12.71	133.275	
4,400.0	4,368.2	4,336.1	4,335.9	11.3	1.7	126.10	-1,163.3	1,671.0	1,694.2	1,681.3	12.85	131.812	
4,429.1	4,397.3	4,366.5	4,366.4	11.3	1.7	126.11	-1,163.6	1,671.0	1,694.3	1,681.4	12.91	131.198	
4,500.0	4,468.2	4,437.0	4,436.8	11.4	1.7	126.13	-1,164.3	1,670.9	1,694.7	1,681.6	13.06	129.732	
4,527.5	4,495.8	4,463.2	4,463.1	11.5	1.7	126.14	-1,164.6	1,670.9	1,694.8	1,681.7	13.12	129.173	
4,600.0	4,568.2	4,536.8	4,536.7	11.6	1.8	126.16	-1,165.5	1,670.9	1,695.3	1,682.0	13.27	127.715	
4,626.0	4,594.2	4,565.1	4,564.9	11.7	1.8	126.17	-1,165.8	1,670.8	1,695.4	1,682.1	13.33	127.189	
4,700.0	4,668.2	4,642.0	4,641.9	11.8	1.8	126.19	-1,166.3	1,670.7	1,695.7	1,682.2	13.49	125.715	
4,724.4	4,692.6	4,666.5	4,666.3	11.9	1.8	126.19	-1,166.4	1,670.7	1,695.7	1,682.2	13.54	125.238	
4,800.0	4,768.2	4,744.6	4,744.4	12.0	1.8	126.20	-1,166.7	1,670.7	1,695.9	1,682.2	13.70	123.776	
4,822.8	4,791.0	4,768.8	4,768.6	12.0	1.8	126.20	-1,166.8	1,670.6	1,695.9	1,682.1	13.75	123.336	
4,866.2	4,834.4	4,812.5	4,812.4	12.1	1.9	126.21	-1,167.0	1,670.5	1,695.9	1,682.0	13.84	122.519	

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

Anticollision Report



Company:	PDC ENERGY	Local Co-ordinate Reference:	Well WACKER 10G-214
Project:	WELD COUNTY, COLORADO	TVD Reference:	KB-EST @ 4624.0usft (Original Well Elev)
Reference Site:	SW NW SEC. 10 T5N R64W 6th P.M.	MD Reference:	KB-EST @ 4624.0usft (Original Well Elev)
Site Error:	0.0 usft	North Reference:	True
Reference Well:	WACKER 10G-214	Survey Calculation Method:	Minimum Curvature
Well Error:	0.0 usft	Output errors are at	2.00 sigma
Reference Wellbore	ORIGINAL WELLBORE	Database:	EDM 5000.1 Single User Db
Reference Design:	PROPOSAL #1	Offset TVD Reference:	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	
4,900.0	4,868.2	4,843.1	4,842.9	12.2	1.9	126.22	-1,167.1	1,670.4	1,695.9	1,682.0	13.91	121.910	
4,921.2	4,889.5	4,862.3	4,862.1	12.2	1.9	126.22	-1,167.2	1,670.4	1,696.0	1,682.0	13.96	121.531	
5,000.0	4,968.2	4,935.8	4,935.6	12.4	1.9	126.23	-1,167.6	1,670.6	1,696.4	1,682.3	14.12	120.172	
5,019.7	4,987.9	4,954.8	4,954.6	12.4	1.9	126.23	-1,167.7	1,670.7	1,696.5	1,682.3	14.16	119.840	
5,100.0	5,068.2	5,030.0	5,029.8	12.6	1.9	126.23	-1,168.0	1,671.2	1,697.1	1,682.8	14.32	118.518	
5,118.1	5,086.3	5,046.1	5,045.9	12.6	1.9	126.23	-1,168.2	1,671.3	1,697.3	1,682.9	14.36	118.228	
5,200.0	5,168.2	5,120.1	5,119.9	12.7	1.9	126.24	-1,168.9	1,671.9	1,698.4	1,683.9	14.52	116.946	
5,216.5	5,184.7	5,135.6	5,135.4	12.8	1.9	126.24	-1,169.1	1,672.1	1,698.7	1,684.1	14.56	116.691	
5,300.0	5,268.2	5,214.1	5,213.9	12.9	2.0	126.25	-1,170.2	1,673.1	1,700.1	1,685.4	14.73	115.428	
5,314.9	5,283.2	5,228.3	5,228.1	13.0	2.0	126.25	-1,170.4	1,673.2	1,700.4	1,685.7	14.76	115.206	
5,400.0	5,368.2	5,309.3	5,309.1	13.1	2.0	126.26	-1,171.7	1,674.4	1,702.2	1,687.2	14.94	113.962	
5,413.4	5,381.6	5,322.1	5,321.8	13.2	2.0	126.27	-1,171.9	1,674.5	1,702.5	1,687.5	14.96	113.769	
5,500.0	5,468.2	5,404.5	5,404.2	13.3	2.0	126.28	-1,173.5	1,675.8	1,704.5	1,689.3	15.15	112.540	
5,511.8	5,480.0	5,415.6	5,415.4	13.3	2.0	126.29	-1,173.7	1,675.9	1,704.8	1,689.6	15.17	112.375	
5,600.0	5,568.2	5,500.0	5,499.7	13.5	2.0	126.31	-1,175.6	1,677.3	1,707.1	1,691.8	15.36	111.165	
5,610.2	5,578.4	5,508.1	5,507.8	13.5	2.0	126.31	-1,175.8	1,677.4	1,707.4	1,692.0	15.38	111.030	
5,700.0	5,668.2	5,587.6	5,587.3	13.7	2.1	126.34	-1,178.0	1,679.0	1,710.2	1,694.7	15.57	109.864	
5,708.6	5,676.9	5,600.0	5,599.7	13.7	2.1	126.35	-1,178.3	1,679.2	1,710.5	1,694.9	15.59	109.748	
5,800.0	5,768.2	5,679.9	5,679.4	13.9	2.1	126.39	-1,181.1	1,680.9	1,713.9	1,698.1	15.78	108.614	
5,807.1	5,775.3	5,686.4	5,686.0	13.9	2.1	126.39	-1,181.4	1,681.0	1,714.2	1,698.4	15.79	108.527	
5,900.0	5,868.2	5,774.0	5,773.5	14.1	2.1	126.45	-1,184.9	1,682.8	1,718.0	1,702.0	16.00	107.401	
5,905.5	5,873.7	5,779.2	5,778.7	14.1	2.1	126.46	-1,185.1	1,682.9	1,718.2	1,702.2	16.01	107.337	
5,960.7	5,928.9	5,831.1	5,830.5	14.2	2.1	126.48	-1,187.1	1,684.3	1,720.6	1,704.5	16.13	106.703	
6,000.0	5,968.2	5,867.7	5,867.1	14.3	2.1	-143.39	-1,188.5	1,685.3	1,723.2	1,708.6	14.67	117.500	
6,003.9	5,972.1	5,871.4	5,870.8	14.3	2.1	-143.38	-1,188.7	1,685.4	1,723.6	1,708.9	14.67	117.457	
6,050.0	6,018.0	5,915.0	5,914.3	14.4	2.2	-143.17	-1,190.4	1,686.7	1,729.2	1,714.4	14.79	116.952	
6,100.0	6,067.3	5,963.8	5,963.0	14.4	2.2	-142.88	-1,192.2	1,688.2	1,737.9	1,723.0	14.92	116.485	
6,102.3	6,069.6	5,966.0	5,965.3	14.4	2.2	-142.87	-1,192.3	1,688.3	1,738.4	1,723.5	14.93	116.466	
6,150.0	6,116.0	6,012.2	6,011.4	14.4	2.2	-142.52	-1,193.9	1,689.8	1,749.4	1,734.3	15.06	116.151	
6,200.0	6,163.8	6,061.0	6,060.2	14.5	2.2	-142.09	-1,195.5	1,691.4	1,763.5	1,748.3	15.20	115.996	
6,200.8	6,164.5	6,061.8	6,060.9	14.5	2.2	-142.08	-1,195.6	1,691.5	1,763.8	1,748.6	15.21	115.995	
6,250.0	6,210.4	6,107.5	6,106.6	14.5	2.2	-141.55	-1,197.0	1,693.0	1,780.3	1,765.0	15.34	116.041	
6,299.2	6,254.9	6,147.1	6,146.1	14.5	2.2	-140.87	-1,198.3	1,694.4	1,799.4	1,784.0	15.47	116.294	
6,300.0	6,255.6	6,147.7	6,146.8	14.5	2.2	-140.86	-1,198.3	1,694.4	1,799.8	1,784.3	15.48	116.300	
6,350.0	6,299.3	6,186.2	6,185.3	14.5	2.2	-140.01	-1,199.6	1,695.8	1,821.9	1,806.3	15.61	116.734	
6,397.6	6,339.2	6,223.0	6,222.0	14.6	2.2	-139.08	-1,200.8	1,697.3	1,845.3	1,829.6	15.74	117.243	
6,400.0	6,341.2	6,224.9	6,223.9	14.6	2.2	-139.03	-1,200.9	1,697.3	1,846.5	1,830.8	15.75	117.273	
6,450.0	6,381.0	6,262.5	6,261.5	14.6	2.3	-137.86	-1,202.1	1,698.8	1,873.6	1,857.7	15.90	117.834	
6,496.0	6,415.8	6,295.2	6,294.1	14.7	2.3	-136.59	-1,203.2	1,700.2	1,900.6	1,884.6	16.07	118.274	
6,500.0	6,418.7	6,297.9	6,296.8	14.7	2.3	-136.47	-1,203.3	1,700.3	1,903.0	1,886.9	16.08	118.315	
6,550.0	6,453.9	6,330.0	6,328.9	14.8	2.3	-134.80	-1,204.4	1,701.6	1,934.6	1,918.3	16.31	118.584	
6,594.5	6,483.1	6,356.4	6,355.2	15.0	2.3	-133.03	-1,205.4	1,702.7	1,964.5	1,947.9	16.58	118.515	
6,600.0	6,486.6	6,359.6	6,358.4	15.1	2.3	-132.80	-1,205.5	1,702.8	1,968.3	1,951.7	16.61	118.503	
6,650.0	6,516.6	6,386.4	6,385.1	15.3	2.3	-130.41	-1,206.4	1,703.9	2,003.9	1,987.0	16.99	117.947	
6,692.9	6,540.0	6,406.8	6,405.5	15.7	2.3	-127.99	-1,207.2	1,704.8	2,035.9	2,018.5	17.40	116.997	
6,700.0	6,543.7	6,409.9	6,408.6	15.7	2.3	-127.55	-1,207.3	1,704.9	2,041.4	2,023.9	17.47	116.831	
6,750.0	6,567.8	6,429.9	6,428.6	16.2	2.3	-124.12	-1,208.1	1,705.7	2,080.4	2,062.3	18.07	115.144	
6,791.3	6,585.4	6,444.3	6,442.9	16.7	2.3	-120.80	-1,208.6	1,706.4	2,113.8	2,095.1	18.65	113.345	
6,800.0	6,588.8	6,447.0	6,445.7	16.8	2.3	-120.05	-1,208.7	1,706.5	2,120.9	2,102.1	18.77	112.974	
6,850.0	6,606.6	6,461.1	6,459.8	17.4	2.3	-115.24	-1,209.3	1,707.1	2,162.6	2,143.0	19.57	110.493	
6,889.7	6,618.4	6,470.2	6,468.8	18.0	2.3	-110.85	-1,209.7	1,707.5	2,196.5	2,176.3	20.26	108.417	
6,900.0	6,621.1	6,472.3	6,470.9	18.2	2.3	-109.63	-1,209.8	1,707.6	2,205.4	2,184.9	20.43	107.931	

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

Anticollision Report



Company:	PDC ENERGY	Local Co-ordinate Reference:	Well WACKER 10G-214
Project:	WELD COUNTY, COLORADO	TVD Reference:	KB-EST @ 4624.0usft (Original Well Elev)
Reference Site:	SW NW SEC. 10 T5N R64W 6th P.M.	MD Reference:	KB-EST @ 4624.0usft (Original Well Elev)
Site Error:	0.0 usft	North Reference:	True
Reference Well:	WACKER 10G-214	Survey Calculation Method:	Minimum Curvature
Well Error:	0.0 usft	Output errors are at	2.00 sigma
Reference Wellbore	ORIGINAL WELLBORE	Database:	EDM 5000.1 Single User Db
Reference Design:	PROPOSAL #1	Offset TVD Reference:	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	6,632.2	6,480.3	6,478.9	19.0	2.3	-103.19	-1,210.1	1,707.9	2,249.0	2,227.6	21.32	105.497	
6,988.2	6,638.4	6,484.3	6,482.9	19.7	2.3	-97.75	-1,210.3	1,708.1	2,282.7	2,260.7	22.00	103.746	
7,000.0	6,639.9	6,485.2	6,483.8	19.9	2.3	-95.98	-1,210.3	1,708.1	2,293.2	2,271.0	22.21	103.250	
7,050.0	6,644.1	6,487.0	6,485.6	20.8	2.3	-88.20	-1,210.4	1,708.2	2,337.8	2,314.6	23.14	101.044	
7,086.5	6,645.0	6,486.4	6,484.9	21.5	2.3	-82.32	-1,210.4	1,708.2	2,370.5	2,346.6	23.83	99.455	
7,100.0	6,645.0	6,485.8	6,484.4	21.8	2.3	-82.29	-1,210.3	1,708.2	2,382.5	2,358.4	24.10	98.869	
7,185.0	6,644.9	6,482.4	6,480.9	23.6	2.3	-82.10	-1,210.2	1,708.0	2,459.1	2,433.2	25.84	95.166	
7,200.0	6,644.8	6,481.8	6,480.3	23.9	2.3	-82.07	-1,210.2	1,708.0	2,472.6	2,446.4	26.15	94.567	
7,283.4	6,644.7	6,478.4	6,477.0	25.7	2.3	-81.89	-1,210.0	1,707.8	2,548.3	2,520.3	27.97	91.115	
7,300.0	6,644.7	6,477.7	6,476.3	26.1	2.3	-81.85	-1,210.0	1,707.8	2,563.4	2,535.1	28.33	90.485	
7,381.9	6,644.6	6,474.4	6,473.0	28.0	2.3	-81.67	-1,209.9	1,707.7	2,638.2	2,608.0	30.20	87.355	
7,400.0	6,644.6	6,473.7	6,472.3	28.4	2.3	-81.63	-1,209.8	1,707.6	2,654.8	2,624.2	30.62	86.716	
7,480.3	6,644.5	6,470.5	6,469.1	30.3	2.3	-81.46	-1,209.7	1,707.5	2,728.7	2,696.2	32.51	83.922	
7,500.0	6,644.4	6,469.7	6,468.3	30.8	2.3	-81.42	-1,209.7	1,707.5	2,746.9	2,713.9	32.98	83.288	
7,578.7	6,644.3	6,466.6	6,465.2	32.7	2.3	-81.25	-1,209.5	1,707.3	2,819.7	2,784.8	34.89	80.815	
7,600.0	6,644.3	6,465.7	6,464.3	33.3	2.3	-81.21	-1,209.5	1,707.3	2,839.4	2,804.0	35.41	80.194	
7,677.1	6,644.2	6,462.7	6,461.3	35.2	2.3	-81.04	-1,209.4	1,707.2	2,911.2	2,873.9	37.32	78.014	
7,700.0	6,644.1	6,461.8	6,460.4	35.8	2.3	-80.99	-1,209.3	1,707.1	2,932.5	2,894.6	37.88	77.412	
7,775.6	6,644.0	6,458.8	6,457.4	37.7	2.3	-80.83	-1,209.2	1,707.0	3,003.1	2,963.3	39.78	75.492	
7,800.0	6,644.0	6,457.8	6,456.5	38.3	2.3	-80.78	-1,209.2	1,706.9	3,026.0	2,985.6	40.39	74.912	
7,874.0	6,643.9	6,454.9	6,453.6	40.2	2.3	-80.63	-1,209.1	1,706.8	3,095.4	3,053.1	42.28	73.220	
7,900.0	6,643.9	6,453.9	6,452.5	40.9	2.3	-80.57	-1,209.0	1,706.8	3,119.8	3,076.9	42.94	72.663	
7,972.4	6,643.8	6,451.1	6,449.7	42.8	2.3	-80.42	-1,208.9	1,706.7	3,188.1	3,143.3	44.79	71.171	
8,000.0	6,643.7	6,450.0	6,448.6	43.5	2.3	-80.36	-1,208.9	1,706.6	3,214.1	3,168.6	45.50	70.636	
8,070.8	6,643.6	6,447.2	6,445.9	45.4	2.3	-80.21	-1,208.7	1,706.5	3,281.1	3,233.7	47.33	69.317	
8,100.0	6,643.6	6,446.1	6,444.8	46.2	2.3	-80.15	-1,208.7	1,706.4	3,308.7	3,260.6	48.09	68.805	
8,169.3	6,643.5	6,443.4	6,442.1	48.0	2.3	-80.01	-1,208.6	1,706.3	3,374.4	3,324.5	49.89	67.636	
8,200.0	6,643.5	6,442.2	6,440.9	48.8	2.3	-79.95	-1,208.5	1,706.3	3,403.6	3,352.9	50.69	67.146	
8,267.7	6,643.4	6,439.6	6,438.3	50.6	2.3	-79.81	-1,208.4	1,706.2	3,468.0	3,415.5	52.46	66.108	
8,300.0	6,643.3	6,438.4	6,437.0	51.5	2.3	-79.74	-1,208.4	1,706.1	3,498.7	3,445.4	53.30	65.639	
8,366.1	6,643.2	6,435.8	6,434.5	53.3	2.3	-79.61	-1,208.3	1,706.0	3,561.8	3,506.8	55.04	64.715	
8,400.0	6,643.2	6,434.6	6,433.2	54.2	2.3	-79.54	-1,208.2	1,705.9	3,594.1	3,538.2	55.93	64.266	
8,464.5	6,643.1	6,432.1	6,430.8	55.9	2.3	-79.41	-1,208.2	1,705.8	3,655.9	3,598.2	57.63	63.442	
8,500.0	6,643.1	6,430.7	6,429.4	56.9	2.3	-79.33	-1,208.1	1,705.8	3,689.8	3,631.3	58.56	63.011	
8,563.0	6,643.0	6,428.3	6,427.0	58.6	2.3	-79.21	-1,208.0	1,705.7	3,750.2	3,689.9	60.22	62.275	
8,600.0	6,642.9	6,426.9	6,425.6	59.6	2.3	-79.13	-1,208.0	1,705.6	3,785.7	3,724.5	61.20	61.861	
8,661.4	6,642.8	6,424.6	6,423.3	61.3	2.3	-79.01	-1,207.9	1,705.5	3,844.7	3,781.8	62.82	61.202	
8,700.0	6,642.8	6,423.1	6,421.8	62.3	2.3	-78.93	-1,207.8	1,705.5	3,881.8	3,817.9	63.84	60.805	
8,759.8	6,642.7	6,420.9	6,419.6	64.0	2.3	-78.81	-1,207.7	1,705.4	3,939.3	3,873.9	65.42	60.213	
8,800.0	6,642.7	6,419.4	6,418.1	65.1	2.3	-78.73	-1,207.7	1,705.3	3,978.0	3,911.6	66.49	59.833	
8,858.2	6,642.6	6,417.2	6,415.9	66.6	2.3	-78.62	-1,207.6	1,705.2	4,034.2	3,966.2	68.03	59.300	
8,900.0	6,642.5	6,415.6	6,414.3	67.8	2.3	-78.53	-1,207.5	1,705.1	4,074.5	4,005.4	69.14	58.934	
8,956.7	6,642.4	6,413.5	6,412.2	69.3	2.3	-78.42	-1,207.4	1,705.0	4,129.2	4,058.6	70.64	58.455	
9,000.0	6,642.4	6,411.9	6,410.6	70.5	2.3	-78.34	-1,207.4	1,705.0	4,171.1	4,099.3	71.79	58.103	
9,055.1	6,642.3	6,409.8	6,408.6	72.0	2.3	-78.23	-1,207.3	1,704.9	4,224.4	4,151.2	73.25	57.671	
9,100.0	6,642.3	6,408.2	6,406.9	73.3	2.3	-78.14	-1,207.2	1,704.8	4,267.9	4,193.4	74.44	57.332	
9,153.5	6,642.2	6,400.0	6,398.7	74.7	2.3	-77.71	-1,206.9	1,704.5	4,319.7	4,243.9	75.79	56.993	
9,200.0	6,642.1	6,400.0	6,398.7	76.0	2.3	-77.71	-1,206.9	1,704.5	4,364.8	4,287.7	77.04	56.653	
9,251.9	6,642.1	6,400.0	6,398.7	77.5	2.3	-77.71	-1,206.9	1,704.5	4,415.2	4,336.7	78.44	56.284	
9,300.0	6,642.0	6,400.0	6,398.7	78.8	2.3	-77.71	-1,206.9	1,704.5	4,461.8	4,382.1	79.74	55.955	
9,350.4	6,641.9	6,400.0	6,398.7	80.2	2.3	-77.71	-1,206.9	1,704.5	4,510.8	4,429.7	81.10	55.621	
9,400.0	6,641.9	6,400.0	6,398.7	81.5	2.3	-77.71	-1,206.9	1,704.5	4,559.0	4,476.5	82.44	55.303	

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

Anticollision Report



Company:	PDC ENERGY	Local Co-ordinate Reference:	Well WACKER 10G-214
Project:	WELD COUNTY, COLORADO	TVD Reference:	KB-EST @ 4624.0usft (Original Well Elev)
Reference Site:	SW NW SEC. 10 T5N R64W 6th P.M.	MD Reference:	KB-EST @ 4624.0usft (Original Well Elev)
Site Error:	0.0 usft	North Reference:	True
Reference Well:	WACKER 10G-214	Survey Calculation Method:	Minimum Curvature
Well Error:	0.0 usft	Output errors are at	2.00 sigma
Reference Wellbore	ORIGINAL WELLBORE	Database:	EDM 5000.1 Single User Db
Reference Design:	PROPOSAL #1	Offset TVD Reference:	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	6,641.8	6,395.0	6,393.7	82.9	2.3	-77.44	-1,206.8	1,704.3	4,606.4	4,522.8	83.69	55.041	
9,500.0	6,641.7	6,392.9	6,391.7	84.3	2.3	-77.34	-1,206.7	1,704.2	4,656.3	4,571.2	85.05	54.749	
9,547.2	6,641.7	6,391.1	6,389.8	85.6	2.3	-77.24	-1,206.6	1,704.1	4,702.2	4,615.9	86.30	54.489	
9,600.0	6,641.6	6,389.0	6,387.7	87.1	2.3	-77.13	-1,206.5	1,704.0	4,753.7	4,666.0	87.69	54.208	
9,645.6	6,641.5	6,387.2	6,385.9	88.3	2.3	-77.03	-1,206.5	1,703.9	4,798.1	4,709.2	88.90	53.972	
9,700.0	6,641.5	6,385.0	6,383.8	89.8	2.3	-76.92	-1,206.4	1,703.9	4,851.1	4,760.8	90.34	53.700	
9,744.1	6,641.4	6,383.3	6,382.1	91.0	2.3	-76.83	-1,206.3	1,703.8	4,894.1	4,802.6	91.50	53.486	
9,800.0	6,641.3	6,381.1	6,379.9	92.6	2.3	-76.72	-1,206.2	1,703.7	4,948.7	4,855.8	92.98	53.224	
9,842.5	6,641.3	6,379.4	6,378.2	93.8	2.3	-76.63	-1,206.2	1,703.6	4,990.2	4,896.1	94.10	53.030	
9,900.0	6,641.2	6,377.2	6,375.9	95.4	2.3	-76.51	-1,206.1	1,703.5	5,046.4	4,950.8	95.62	52.776	
9,940.9	6,641.1	6,375.6	6,374.3	96.5	2.3	-76.43	-1,206.0	1,703.5	5,086.4	4,989.7	96.70	52.601	
10,000.0	6,641.1	6,373.3	6,372.0	98.1	2.3	-76.31	-1,206.0	1,703.4	5,144.2	5,045.9	98.26	52.355	
10,039.3	6,641.0	6,371.7	6,370.5	99.2	2.3	-76.23	-1,205.9	1,703.3	5,182.7	5,083.4	99.29	52.196	
10,100.0	6,640.9	6,369.4	6,368.1	100.9	2.3	-76.10	-1,205.8	1,703.2	5,242.0	5,141.1	100.89	51.958	
10,137.8	6,640.9	6,367.9	6,366.7	102.0	2.3	-76.03	-1,205.8	1,703.1	5,279.0	5,177.1	101.88	51.814	
10,200.0	6,640.8	6,365.5	6,364.3	103.7	2.3	-75.90	-1,205.7	1,703.0	5,340.0	5,236.4	103.52	51.584	
10,236.2	6,640.8	6,364.1	6,362.8	104.7	2.3	-75.83	-1,205.6	1,703.0	5,375.4	5,271.0	104.47	51.454	
10,300.0	6,640.7	6,361.6	6,360.4	106.5	2.3	-75.70	-1,205.5	1,702.9	5,438.0	5,331.8	106.15	51.231	
10,334.6	6,640.6	6,360.3	6,359.0	107.4	2.3	-75.63	-1,205.5	1,702.8	5,471.9	5,364.8	107.05	51.114	
10,400.0	6,640.6	6,357.7	6,356.5	109.3	2.3	-75.50	-1,205.4	1,702.7	5,536.0	5,427.2	108.77	50.898	
10,433.0	6,640.5	6,356.4	6,355.2	110.2	2.3	-75.43	-1,205.4	1,702.7	5,568.4	5,458.8	109.63	50.791	
10,500.0	6,640.4	6,353.9	6,352.6	112.0	2.3	-75.30	-1,205.3	1,702.6	5,634.1	5,522.8	111.39	50.582	
10,531.5	6,640.4	6,352.6	6,351.4	112.9	2.3	-75.24	-1,205.2	1,702.5	5,665.0	5,552.8	112.21	50.486	
10,600.0	6,640.3	6,350.0	6,348.8	114.8	2.3	-75.10	-1,205.1	1,702.4	5,732.3	5,618.3	114.00	50.284	
10,629.9	6,640.3	6,348.8	6,347.6	115.7	2.3	-75.04	-1,205.1	1,702.4	5,761.7	5,646.9	114.78	50.197	
10,700.0	6,640.2	6,346.2	6,345.0	117.6	2.3	-74.90	-1,205.0	1,702.2	5,830.6	5,714.0	116.61	50.001	
10,728.3	6,640.1	6,345.1	6,343.9	118.4	2.3	-74.85	-1,205.0	1,702.2	5,858.4	5,741.1	117.35	49.923	
10,800.0	6,640.0	6,342.3	6,341.1	120.4	2.3	-74.70	-1,204.9	1,702.1	5,928.9	5,809.7	119.22	49.732	
10,826.7	6,640.0	6,341.3	6,340.1	121.2	2.3	-74.65	-1,204.8	1,702.0	5,955.2	5,835.3	119.91	49.663	
10,900.0	6,639.9	6,338.5	6,337.3	123.2	2.3	-74.51	-1,204.7	1,701.9	6,027.3	5,905.4	121.82	49.478	
10,925.2	6,639.9	6,337.5	6,336.3	123.9	2.3	-74.46	-1,204.7	1,701.9	6,052.0	5,929.6	122.47	49.416	
11,000.0	6,639.8	6,334.7	6,333.5	126.0	2.3	-74.31	-1,204.6	1,701.8	6,125.7	6,001.3	124.41	49.236	
11,023.6	6,639.8	6,333.8	6,332.6	126.6	2.3	-74.27	-1,204.6	1,701.7	6,148.9	6,023.9	125.03	49.181	
11,100.0	6,639.7	6,330.9	6,329.7	128.8	2.3	-74.12	-1,204.5	1,701.6	6,224.1	6,097.1	127.01	49.007	
11,122.0	6,639.6	6,330.0	6,328.8	129.4	2.3	-74.07	-1,204.4	1,701.6	6,245.8	6,118.2	127.58	48.958	
11,200.0	6,639.5	6,327.1	6,325.9	131.6	2.3	-73.92	-1,204.3	1,701.5	6,322.6	6,193.0	129.59	48.789	
11,220.4	6,639.5	6,326.3	6,325.1	132.1	2.3	-73.88	-1,204.3	1,701.4	6,342.8	6,212.7	130.12	48.745	
11,300.0	6,639.4	6,323.3	6,322.1	134.4	2.3	-73.73	-1,204.2	1,701.3	6,421.2	6,289.0	132.17	48.581	
11,318.9	6,639.4	6,322.6	6,321.4	134.9	2.3	-73.69	-1,204.2	1,701.3	6,439.8	6,307.1	132.66	48.543	
11,400.0	6,639.3	6,319.5	6,318.3	137.1	2.3	-73.54	-1,204.1	1,701.1	6,519.8	6,385.0	134.75	48.384	
11,417.3	6,639.3	6,318.8	6,317.7	137.6	2.3	-73.50	-1,204.0	1,701.1	6,536.8	6,401.6	135.20	48.351	
11,500.0	6,639.2	6,315.7	6,314.6	139.9	2.3	-73.35	-1,203.9	1,701.0	6,618.4	6,481.1	137.32	48.196	
11,515.7	6,639.1	6,315.1	6,314.0	140.4	2.3	-73.31	-1,203.9	1,701.0	6,633.9	6,496.2	137.73	48.167	
11,600.0	6,639.0	6,311.9	6,310.8	142.7	2.3	-73.15	-1,203.8	1,700.8	6,717.1	6,577.2	139.89	48.017	
11,614.1	6,639.0	6,311.4	6,310.3	143.1	2.3	-73.13	-1,203.8	1,700.8	6,731.0	6,590.8	140.25	47.992	
11,700.0	6,638.9	6,308.2	6,307.0	145.5	2.3	-72.96	-1,203.7	1,700.7	6,815.8	6,673.3	142.45	47.846	
11,712.6	6,638.9	6,307.7	6,306.6	145.9	2.3	-72.94	-1,203.7	1,700.7	6,828.2	6,685.4	142.77	47.826	
11,800.0	6,638.8	6,300.0	6,298.9	148.3	2.3	-72.55	-1,203.4	1,700.4	6,914.5	6,769.6	144.86	47.733	
11,811.0	6,638.8	6,300.0	6,298.9	148.6	2.3	-72.55	-1,203.4	1,700.4	6,925.4	6,780.2	145.15	47.711	
11,900.0	6,638.7	6,300.0	6,298.9	151.1	2.3	-72.55	-1,203.4	1,700.4	7,013.3	6,865.7	147.53	47.537	
11,909.4	6,638.6	6,300.0	6,298.9	151.4	2.3	-72.55	-1,203.4	1,700.4	7,022.6	6,874.8	147.79	47.519	
12,000.0	6,638.5	6,300.0	6,298.9	153.9	2.3	-72.55	-1,203.4	1,700.4	7,112.1	6,961.9	150.21	47.348	

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

Anticollision Report



Company:	PDC ENERGY	Local Co-ordinate Reference:	Well WACKER 10G-214
Project:	WELD COUNTY, COLORADO	TVD Reference:	KB-EST @ 4624.0usft (Original Well Elev)
Reference Site:	SW NW SEC. 10 T5N R64W 6th P.M.	MD Reference:	KB-EST @ 4624.0usft (Original Well Elev)
Site Error:	0.0 usft	North Reference:	True
Reference Well:	WACKER 10G-214	Survey Calculation Method:	Minimum Curvature
Well Error:	0.0 usft	Output errors are at	2.00 sigma
Reference Wellbore	ORIGINAL WELLBORE	Database:	EDM 5000.1 Single User Db
Reference Design:	PROPOSAL #1	Offset TVD Reference:	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		
12,007.8	6,638.5	6,300.0	6,298.9	154.1	2.3	-72.55	-1,203.4	1,700.4	7,119.8	6,969.4	150.42	47.333		
12,100.0	6,638.4	6,293.2	6,292.1	156.7	2.3	-72.21	-1,203.2	1,700.1	7,210.9	7,058.3	152.64	47.241		
12,106.3	6,638.4	6,292.9	6,291.8	156.9	2.3	-72.20	-1,203.2	1,700.1	7,217.1	7,064.3	152.80	47.233		
12,200.0	6,638.3	6,289.4	6,288.3	159.5	2.3	-72.02	-1,203.0	1,699.9	7,309.8	7,154.6	155.17	47.108		
12,204.7	6,638.3	6,289.3	6,288.1	159.6	2.3	-72.01	-1,203.0	1,699.9	7,314.4	7,159.1	155.29	47.101		
12,300.0	6,638.2	6,285.7	6,284.6	162.3	2.3	-71.83	-1,202.9	1,699.8	7,408.7	7,251.0	157.70	46.980		
12,303.1	6,638.2	6,285.6	6,284.5	162.4	2.3	-71.83	-1,202.9	1,699.8	7,411.8	7,254.0	157.78	46.976		
12,400.0	6,638.0	6,282.0	6,280.9	165.1	2.3	-71.65	-1,202.8	1,699.6	7,507.6	7,347.4	160.22	46.858		
12,401.5	6,638.0	6,281.9	6,280.8	165.2	2.3	-71.64	-1,202.8	1,699.6	7,509.1	7,348.9	160.26	46.856		
12,500.0	6,637.9	6,278.3	6,277.2	167.9	2.3	-71.46	-1,202.7	1,699.5	7,606.5	7,443.8	162.74	46.742		
12,598.4	6,637.8	6,274.6	6,273.5	170.7	2.3	-71.28	-1,202.5	1,699.3	7,703.9	7,538.7	165.20	46.633		
12,600.0	6,637.8	6,274.5	6,273.5	170.7	2.3	-71.28	-1,202.5	1,699.3	7,705.5	7,540.3	165.25	46.631		
12,696.8	6,637.7	6,271.0	6,269.9	173.4	2.3	-71.10	-1,202.4	1,699.2	7,801.4	7,633.7	167.67	46.528		
12,700.0	6,637.7	6,270.9	6,269.8	173.5	2.3	-71.09	-1,202.4	1,699.2	7,804.5	7,636.8	167.75	46.525		
12,795.2	6,637.6	6,267.3	6,266.3	176.2	2.3	-70.92	-1,202.3	1,699.0	7,898.8	7,728.7	170.13	46.429		
12,800.0	6,637.6	6,267.2	6,266.1	176.3	2.3	-70.91	-1,202.3	1,699.0	7,903.5	7,733.3	170.25	46.424		
12,893.7	6,637.4	6,263.7	6,262.6	178.9	2.3	-70.74	-1,202.2	1,698.9	7,996.3	7,823.7	172.58	46.333		
12,900.0	6,637.4	6,263.5	6,262.4	179.1	2.3	-70.73	-1,202.2	1,698.9	8,002.6	7,829.8	172.74	46.327		
12,992.1	6,637.3	6,260.1	6,259.0	181.7	2.3	-70.56	-1,202.1	1,698.7	8,093.8	7,918.8	175.03	46.242		
13,000.0	6,637.3	6,259.8	6,258.8	181.9	2.3	-70.55	-1,202.0	1,698.7	8,101.6	7,926.4	175.23	46.235		
13,090.5	6,637.2	6,256.5	6,255.4	184.4	2.3	-70.38	-1,201.9	1,698.6	8,191.3	8,013.9	177.47	46.156		
13,100.0	6,637.2	6,256.2	6,255.1	184.7	2.3	-70.37	-1,201.9	1,698.6	8,200.7	8,023.0	177.71	46.147		
13,188.9	6,637.1	6,252.9	6,251.9	187.2	2.3	-70.21	-1,201.8	1,698.5	8,288.9	8,109.0	179.91	46.073		
13,200.0	6,637.1	6,252.5	6,251.5	187.5	2.3	-70.19	-1,201.8	1,698.4	8,299.8	8,119.6	180.18	46.063		
13,287.4	6,637.0	6,249.4	6,248.3	190.0	2.3	-70.03	-1,201.7	1,698.3	8,386.4	8,204.1	182.34	45.994		
13,300.0	6,637.0	6,248.9	6,247.8	190.3	2.3	-70.01	-1,201.7	1,698.3	8,399.0	8,216.3	182.65	45.984		
13,385.8	6,636.9	6,245.8	6,244.7	192.7	2.3	-69.86	-1,201.6	1,698.2	8,484.0	8,299.3	184.76	45.918		
13,400.0	6,636.8	6,245.3	6,244.2	193.1	2.3	-69.83	-1,201.6	1,698.2	8,498.1	8,313.0	185.11	45.907		
13,484.2	6,636.7	6,242.2	6,241.2	195.5	2.3	-69.68	-1,201.4	1,698.0	8,581.6	8,394.4	187.18	45.846		
13,500.0	6,636.7	6,241.7	6,240.6	195.9	2.3	-69.66	-1,201.4	1,698.0	8,597.3	8,409.7	187.57	45.835		
13,582.6	6,636.6	6,238.7	6,237.6	198.2	2.3	-69.51	-1,201.3	1,697.9	8,679.2	8,489.6	189.60	45.778		
13,600.0	6,636.6	6,238.1	6,237.0	198.7	2.2	-69.48	-1,201.3	1,697.9	8,696.4	8,506.4	190.02	45.766		
13,681.1	6,636.5	6,235.1	6,234.1	201.0	2.2	-69.34	-1,201.2	1,697.8	8,776.9	8,584.9	192.00	45.712		
13,700.0	6,636.5	6,234.5	6,233.4	201.5	2.2	-69.31	-1,201.2	1,697.7	8,795.6	8,603.2	192.47	45.700		
13,779.5	6,636.4	6,231.6	6,230.6	203.7	2.2	-69.17	-1,201.1	1,697.6	8,874.5	8,680.1	194.40	45.650		
13,800.0	6,636.4	6,230.9	6,229.9	204.3	2.2	-69.13	-1,201.1	1,697.6	8,894.8	8,699.9	194.91	45.637		
13,877.9	6,636.3	6,228.1	6,227.1	206.5	2.2	-69.00	-1,201.0	1,697.5	8,972.2	8,775.4	196.80	45.590		
13,900.0	6,636.3	6,227.3	6,226.3	207.1	2.2	-68.96	-1,200.9	1,697.4	8,994.1	8,796.7	197.34	45.577		
13,976.3	6,636.2	6,224.6	6,223.6	209.3	2.2	-68.83	-1,200.9	1,697.3	9,069.8	8,870.7	199.19	45.534		
14,000.0	6,636.1	6,223.8	6,222.7	209.9	2.2	-68.79	-1,200.8	1,697.3	9,093.3	8,893.6	199.76	45.520		
14,074.8	6,636.0	6,221.1	6,220.1	212.0	2.2	-68.66	-1,200.7	1,697.2	9,167.5	8,966.0	201.57	45.480		
14,100.0	6,636.0	6,220.2	6,219.2	212.7	2.2	-68.62	-1,200.7	1,697.2	9,192.6	8,990.4	202.19	45.466		
14,173.2	6,635.9	6,217.6	6,216.6	214.8	2.2	-68.49	-1,200.6	1,697.1	9,265.2	9,061.3	203.95	45.429		
14,200.0	6,635.9	6,216.7	6,215.6	215.5	2.2	-68.45	-1,200.6	1,697.0	9,291.8	9,087.2	204.60	45.415		
14,271.6	6,635.8	6,214.1	6,213.1	217.5	2.2	-68.32	-1,200.5	1,696.9	9,363.0	9,156.6	206.32	45.380		
14,300.0	6,635.8	6,213.1	6,212.1	218.3	2.2	-68.28	-1,200.5	1,696.9	9,391.1	9,184.1	207.01	45.366		
14,370.0	6,635.7	6,210.7	6,209.7	220.3	2.2	-68.16	-1,200.4	1,696.8	9,460.7	9,252.0	208.69	45.334		
14,400.0	6,635.7	6,209.6	6,208.6	221.1	2.2	-68.11	-1,200.3	1,696.7	9,490.4	9,281.0	209.41	45.320		
14,468.5	6,635.6	6,207.2	6,206.2	223.1	2.2	-67.99	-1,200.3	1,696.7	9,558.4	9,347.4	211.05	45.290		
14,500.0	6,635.6	6,200.0	6,199.0	223.9	2.2	-67.65	-1,200.0	1,696.4	9,589.7	9,378.3	211.42	45.358		
14,566.9	6,635.5	6,200.0	6,199.0	225.8	2.2	-67.65	-1,200.0	1,696.4	9,656.2	9,443.0	213.17	45.299		
14,600.0	6,635.4	6,200.0	6,199.0	226.8	2.2	-67.65	-1,200.0	1,696.4	9,689.1	9,475.0	214.03	45.270		

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

Anticollision Report



Company:	PDC ENERGY	Local Co-ordinate Reference:	Well WACKER 10G-214
Project:	WELD COUNTY, COLORADO	TVD Reference:	KB-EST @ 4624.0usft (Original Well Elev)
Reference Site:	SW NW SEC. 10 T5N R64W 6th P.M.	MD Reference:	KB-EST @ 4624.0usft (Original Well Elev)
Site Error:	0.0 usft	North Reference:	True
Reference Well:	WACKER 10G-214	Survey Calculation Method:	Minimum Curvature
Well Error:	0.0 usft	Output errors are at	2.00 sigma
Reference Wellbore	ORIGINAL WELLBORE	Database:	EDM 5000.1 Single User Db
Reference Design:	PROPOSAL #1	Offset TVD Reference:	Offset Datum

Offset Design SW NW SEC. 10 T5N R64W 6th P.M. - EXIST VERT TREBOR #B10-11 - 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
14,665.3	6,635.4	6,200.0	6,199.0	228.6	2.2	-67.65	-1,200.0	1,696.4	9,754.0	9,538.2	215.73	45.213	
14,700.0	6,635.3	6,200.0	6,199.0	229.6	2.2	-67.65	-1,200.0	1,696.4	9,788.4	9,571.8	216.64	45.183	
14,763.7	6,635.2	6,200.0	6,199.0	231.3	2.2	-67.65	-1,200.0	1,696.4	9,851.7	9,633.4	218.30	45.129	
14,800.0	6,635.2	6,200.0	6,199.0	232.4	2.2	-67.65	-1,200.0	1,696.4	9,887.8	9,668.5	219.25	45.099	
14,862.2	6,635.1	6,200.0	6,199.0	234.1	2.2	-67.65	-1,200.0	1,696.4	9,949.5	9,728.7	220.87	45.047	
14,900.0	6,635.1	6,200.0	6,199.0	235.2	2.2	-67.65	-1,200.0	1,696.4	9,987.1	9,765.3	221.86	45.016 SF	

Anticollision Report



Company:	PDC ENERGY	Local Co-ordinate Reference:	Well WACKER 10G-214
Project:	WELD COUNTY, COLORADO	TVD Reference:	KB-EST @ 4624.0usft (Original Well Elev)
Reference Site:	SW NW SEC. 10 T5N R64W 6th P.M.	MD Reference:	KB-EST @ 4624.0usft (Original Well Elev)
Site Error:	0.0 usft	North Reference:	True
Reference Well:	WACKER 10G-214	Survey Calculation Method:	Minimum Curvature
Well Error:	0.0 usft	Output errors are at	2.00 sigma
Reference Wellbore	ORIGINAL WELLBORE	Database:	EDM 5000.1 Single User Db
Reference Design:	PROPOSAL #1	Offset TVD Reference:	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	111.46	-1,103.0	2,806.4	3,015.5				
98.4	98.4	85.6	85.6	0.1	0.0	111.45	-1,102.8	2,806.4	3,015.3	3,015.2	0.10	N/A	
100.0	100.0	87.3	87.3	0.1	0.0	111.45	-1,102.8	2,806.4	3,015.3	3,015.2	0.10	N/A	
196.8	196.8	181.0	181.0	0.3	0.1	111.45	-1,102.5	2,806.4	3,015.2	3,014.8	0.40	7,610.095	
200.0	200.0	184.0	184.0	0.3	0.1	111.45	-1,102.5	2,806.4	3,015.2	3,014.8	0.41	7,421.339	
295.3	295.3	294.0	294.0	0.5	0.2	111.44	-1,102.3	2,806.2	3,014.9	3,014.2	0.74	4,064.444	
300.0	300.0	299.7	299.7	0.5	0.2	111.44	-1,102.2	2,806.1	3,014.9	3,014.2	0.76	3,973.475	
363.9	363.9	345.9	345.9	0.7	0.2	111.44	-1,102.1	2,806.1	3,014.7	3,013.8	0.92	3,291.343	
393.7	393.7	367.4	367.4	0.8	0.2	111.44	-1,102.0	2,806.1	3,014.8	3,013.8	0.99	3,047.529	
400.0	400.0	371.9	371.9	0.8	0.2	111.44	-1,102.0	2,806.2	3,014.8	3,013.8	1.00	3,000.602	
492.1	492.1	459.9	459.9	1.0	0.3	111.43	-1,101.5	2,806.9	3,015.3	3,014.0	1.27	2,380.769	
500.0	500.0	468.8	468.8	1.0	0.3	111.42	-1,101.4	2,807.0	3,015.3	3,014.0	1.29	2,335.514	
590.5	590.5	551.3	551.2	1.2	0.4	111.40	-1,100.5	2,807.7	3,015.8	3,014.2	1.55	1,944.993	
600.0	600.0	559.0	558.9	1.2	0.4	111.40	-1,100.4	2,807.8	3,015.8	3,014.3	1.58	1,912.910	
689.0	689.0	646.6	646.5	1.4	0.4	111.38	-1,099.8	2,808.9	3,016.7	3,014.8	1.83	1,650.232	
700.0	700.0	659.9	659.8	1.4	0.4	111.38	-1,099.7	2,809.1	3,016.7	3,014.9	1.86	1,621.740	
787.4	787.4	756.5	756.5	1.6	0.5	111.36	-1,098.9	2,809.9	3,017.2	3,015.1	2.11	1,430.789	
800.0	800.0	769.7	769.6	1.7	0.5	111.36	-1,098.8	2,810.0	3,017.3	3,015.1	2.14	1,407.280	
885.8	885.8	863.5	863.5	1.9	0.5	111.34	-1,098.2	2,810.6	3,017.5	3,015.1	2.38	1,265.997	
900.0	900.0	879.4	879.3	1.9	0.5	111.34	-1,098.1	2,810.6	3,017.5	3,015.1	2.42	1,245.372	
984.2	984.2	951.4	951.4	2.1	0.6	111.33	-1,097.6	2,811.0	3,017.7	3,015.1	2.64	1,141.319	
1,000.0	1,000.0	963.7	963.7	2.1	0.6	111.33	-1,097.5	2,811.1	3,017.8	3,015.1	2.68	1,124.088	
1,082.7	1,082.7	1,039.4	1,039.4	2.3	0.6	111.31	-1,096.8	2,812.0	3,018.5	3,015.6	2.90	1,040.052	
1,100.0	1,100.0	1,058.3	1,058.2	2.3	0.6	111.30	-1,096.6	2,812.3	3,018.6	3,015.7	2.95	1,023.602	
1,181.1	1,181.1	1,146.0	1,145.9	2.5	0.7	111.28	-1,095.9	2,813.2	3,019.2	3,016.0	3.17	953.619	
1,200.0	1,200.0	1,166.3	1,166.2	2.6	0.7	111.28	-1,095.7	2,813.4	3,019.3	3,016.1	3.22	938.779	
1,279.5	1,279.5	1,249.2	1,249.1	2.7	0.7	111.27	-1,095.5	2,813.9	3,019.6	3,016.2	3.43	881.553	
1,300.0	1,300.0	1,270.1	1,270.0	2.8	0.7	111.27	-1,095.4	2,814.0	3,019.7	3,016.2	3.48	868.008	
1,377.9	1,377.9	1,348.6	1,348.6	3.0	0.8	-7.39	-1,095.0	2,814.5	3,019.0	3,015.3	3.64	829.329	
1,400.0	1,400.0	1,370.7	1,370.6	3.0	0.8	-7.40	-1,094.9	2,814.6	3,018.4	3,014.7	3.69	817.163	
1,476.4	1,476.3	1,445.1	1,445.0	3.1	0.8	-7.43	-1,094.6	2,815.0	3,015.0	3,011.1	3.87	779.601	
1,500.0	1,499.8	1,467.7	1,467.6	3.2	0.8	-7.43	-1,094.6	2,815.2	3,013.6	3,009.7	3.92	768.603	
1,574.8	1,574.4	1,541.4	1,541.3	3.3	0.8	-7.47	-1,094.5	2,815.6	3,007.8	3,003.7	4.10	733.962	
1,600.0	1,599.5	1,566.7	1,566.6	3.4	0.8	-7.48	-1,094.5	2,815.7	3,005.4	3,001.3	4.16	722.840	
1,673.2	1,672.2	1,644.1	1,644.0	3.6	0.9	-7.53	-1,094.4	2,816.1	2,997.2	2,992.9	4.34	690.980	
1,700.0	1,698.7	1,673.5	1,673.4	3.6	0.9	-7.55	-1,094.3	2,816.2	2,993.8	2,989.3	4.40	679.967	
1,771.6	1,769.5	1,742.5	1,742.4	3.8	0.9	-7.61	-1,094.1	2,816.5	2,983.1	2,978.6	4.58	651.099	
1,800.0	1,797.5	1,767.8	1,767.7	3.9	0.9	-7.64	-1,094.0	2,816.6	2,978.5	2,973.8	4.65	640.382	
1,870.1	1,866.3	1,837.1	1,837.0	4.1	0.9	-7.72	-1,093.7	2,817.1	2,965.9	2,961.1	4.83	613.744	
1,900.2	1,895.8	1,869.9	1,869.8	4.2	1.0	-7.76	-1,093.5	2,817.3	2,959.9	2,955.0	4.91	602.844	
1,968.5	1,962.6	1,933.8	1,933.8	4.4	1.0	-7.80	-1,093.3	2,817.5	2,946.0	2,941.0	5.08	580.218	
2,000.0	1,993.4	1,960.2	1,960.1	4.5	1.0	-7.81	-1,093.2	2,817.7	2,939.7	2,934.5	5.15	570.577	
2,066.9	2,058.9	2,018.9	2,018.8	4.7	1.0	-7.85	-1,093.2	2,818.1	2,926.3	2,921.0	5.32	550.053	
2,100.0	2,091.2	2,051.2	2,051.1	4.8	1.0	-7.87	-1,093.2	2,818.4	2,919.8	2,914.3	5.40	540.426	
2,165.3	2,155.2	2,116.4	2,116.3	5.1	1.0	-7.91	-1,093.2	2,818.9	2,906.8	2,901.2	5.57	521.642	
2,200.0	2,189.1	2,153.1	2,153.0	5.2	1.1	-7.93	-1,093.2	2,819.1	2,899.9	2,894.2	5.67	511.770	
2,263.8	2,251.4	2,217.9	2,217.8	5.5	1.1	-7.97	-1,093.4	2,819.5	2,887.1	2,881.2	5.84	494.562	
2,300.0	2,286.9	2,251.4	2,251.3	5.6	1.1	-7.99	-1,093.5	2,819.6	2,879.8	2,873.9	5.93	485.315	
2,362.2	2,347.7	2,308.4	2,308.3	5.8	1.1	-8.02	-1,093.9	2,819.9	2,867.4	2,861.3	6.10	470.028	
2,400.0	2,384.7	2,341.5	2,341.4	6.0	1.1	-8.03	-1,094.2	2,820.1	2,859.9	2,853.7	6.20	461.240	
2,460.6	2,444.0	2,394.6	2,394.5	6.2	1.1	-8.06	-1,094.5	2,820.5	2,848.0	2,841.6	6.36	447.582	
2,500.0	2,482.5	2,439.3	2,439.2	6.4	1.1	-8.09	-1,094.8	2,820.9	2,840.3	2,833.8	6.47	438.822	

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

Anticollision Report



Company:	PDC ENERGY	Local Co-ordinate Reference:	Well WACKER 10G-214
Project:	WELD COUNTY, COLORADO	TVD Reference:	KB-EST @ 4624.0usft (Original Well Elev)
Reference Site:	SW NW SEC. 10 T5N R64W 6th P.M.	MD Reference:	KB-EST @ 4624.0usft (Original Well Elev)
Site Error:	0.0 usft	North Reference:	True
Reference Well:	WACKER 10G-214	Survey Calculation Method:	Minimum Curvature
Well Error:	0.0 usft	Output errors are at	2.00 sigma
Reference Wellbore	ORIGINAL WELLBORE	Database:	EDM 5000.1 Single User Db
Reference Design:	PROPOSAL #1	Offset TVD Reference:	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	2,540.3	2,508.0	2,507.9	6.6	1.1	-8.12	-1,095.2	2,821.2	2,828.5	2,821.9	6.64	426.001	
2,600.0	2,580.3	2,550.5	2,550.4	6.8	1.1	-8.14	-1,095.5	2,821.3	2,820.3	2,813.5	6.75	417.540	
2,657.5	2,636.5	2,609.7	2,609.6	7.1	1.2	-8.17	-1,096.0	2,821.4	2,808.6	2,801.7	6.92	406.085	
2,700.0	2,678.1	2,651.9	2,651.8	7.2	1.2	-8.19	-1,096.3	2,821.4	2,800.0	2,793.0	7.03	398.042	
2,755.9	2,732.8	2,706.8	2,706.7	7.5	1.2	-8.22	-1,096.6	2,821.4	2,788.6	2,781.5	7.19	387.802	
2,800.0	2,775.9	2,747.4	2,747.3	7.7	1.2	-8.24	-1,096.9	2,821.5	2,779.7	2,772.4	7.31	380.099	
2,854.3	2,829.1	2,800.0	2,799.9	7.9	1.2	-8.27	-1,097.3	2,821.6	2,768.8	2,761.3	7.47	370.868	
2,900.0	2,873.8	2,841.9	2,841.8	8.1	1.2	-8.29	-1,097.6	2,821.7	2,759.6	2,752.0	7.59	363.429	
2,952.7	2,925.4	2,893.5	2,893.4	8.3	1.2	-8.31	-1,098.2	2,821.8	2,749.0	2,741.2	7.74	355.070	
2,953.5	2,926.1	2,894.2	2,894.1	8.3	1.2	-8.31	-1,098.2	2,821.8	2,748.8	2,741.1	7.74	354.957	
3,000.0	2,971.6	2,941.9	2,941.8	8.5	1.2	-8.30	-1,098.7	2,821.8	2,739.8	2,732.0	7.86	348.518	
3,051.2	3,022.0	2,994.9	2,994.8	8.7	1.2	-8.30	-1,099.1	2,821.9	2,730.7	2,722.8	7.98	342.131	
3,100.0	3,070.1	3,040.1	3,040.0	8.8	1.2	-8.29	-1,099.4	2,822.0	2,722.9	2,714.8	8.09	336.405	
3,149.6	3,119.1	3,085.5	3,085.4	8.9	1.2	-8.29	-1,099.8	2,822.1	2,715.8	2,707.6	8.20	331.006	
3,200.0	3,169.1	3,138.3	3,138.2	9.1	1.2	-8.28	-1,100.3	2,822.2	2,709.5	2,701.2	8.32	325.746	
3,248.0	3,216.8	3,191.6	3,191.4	9.2	1.2	-8.27	-1,100.8	2,822.2	2,704.3	2,695.8	8.42	321.076	
3,300.0	3,268.5	3,240.9	3,240.8	9.3	1.3	-8.26	-1,101.3	2,822.2	2,699.4	2,690.9	8.53	316.347	
3,346.4	3,314.8	3,283.9	3,283.7	9.4	1.3	-8.26	-1,101.7	2,822.2	2,695.9	2,687.3	8.63	312.475	
3,400.0	3,368.3	3,334.1	3,334.0	9.6	1.3	-8.25	-1,102.3	2,822.3	2,692.8	2,684.1	8.74	308.196	
3,444.9	3,413.1	3,376.6	3,376.4	9.6	1.3	-8.24	-1,102.8	2,822.4	2,691.1	2,682.3	8.82	304.944	
3,500.0	3,468.2	3,432.8	3,432.6	9.7	1.3	-8.23	-1,103.5	2,822.6	2,689.9	2,681.0	8.93	301.074	
3,538.0	3,506.2	3,473.7	3,473.6	9.8	1.3	-8.22	-1,104.0	2,822.6	2,689.7	2,680.7	9.01	298.595 CC	
3,543.3	3,511.5	3,479.5	3,479.3	9.8	1.3	-8.22	-1,104.1	2,822.7	2,689.7	2,680.7	9.02	298.255	
3,553.7	3,521.9	3,490.7	3,490.5	9.8	1.3	110.43	-1,104.2	2,822.7	2,689.8	2,678.8	10.96	245.485 ES	
3,600.0	3,568.2	3,532.8	3,532.7	9.9	1.3	110.44	-1,104.7	2,822.7	2,690.0	2,679.0	11.04	243.763	
3,641.7	3,609.9	3,569.2	3,569.1	10.0	1.3	110.45	-1,105.2	2,822.8	2,690.3	2,679.2	11.11	242.159	
3,700.0	3,668.2	3,623.8	3,623.7	10.1	1.3	110.47	-1,106.0	2,823.1	2,690.9	2,679.7	11.21	239.948	
3,740.1	3,708.4	3,665.6	3,665.4	10.1	1.3	110.48	-1,106.6	2,823.3	2,691.3	2,680.0	11.29	238.411	
3,800.0	3,768.2	3,725.3	3,725.1	10.2	1.4	110.49	-1,107.4	2,823.6	2,691.8	2,680.4	11.40	236.159	
3,838.6	3,806.8	3,761.9	3,761.7	10.3	1.4	110.50	-1,108.0	2,823.7	2,692.2	2,680.7	11.47	234.721	
3,900.0	3,868.2	3,822.5	3,822.3	10.4	1.4	110.52	-1,108.8	2,824.1	2,692.8	2,681.2	11.58	232.463	
3,937.0	3,905.2	3,861.7	3,861.5	10.5	1.4	110.53	-1,109.4	2,824.3	2,693.2	2,681.5	11.65	231.097	
4,000.0	3,968.2	3,927.3	3,927.2	10.6	1.4	110.54	-1,110.2	2,824.6	2,693.8	2,682.0	11.77	228.805	
4,035.4	4,003.6	3,963.5	3,963.3	10.6	1.4	110.55	-1,110.6	2,824.8	2,694.1	2,682.2	11.84	227.524	
4,100.0	4,068.2	4,033.2	4,033.0	10.7	1.4	110.56	-1,111.3	2,825.1	2,694.6	2,682.6	11.96	225.212	
4,133.8	4,102.1	4,072.4	4,072.2	10.8	1.4	110.56	-1,111.6	2,825.2	2,694.7	2,682.7	12.03	223.995	
4,200.0	4,168.2	4,144.7	4,144.5	10.9	1.5	110.58	-1,112.2	2,825.2	2,694.9	2,682.8	12.16	221.647	
4,232.3	4,200.5	4,178.9	4,178.7	11.0	1.5	110.58	-1,112.5	2,825.2	2,695.0	2,682.8	12.22	220.508	
4,300.0	4,268.2	4,240.1	4,239.9	11.1	1.5	110.59	-1,113.1	2,825.1	2,695.1	2,682.8	12.35	218.201	
4,330.7	4,298.9	4,265.8	4,265.6	11.1	1.5	110.60	-1,113.3	2,825.1	2,695.3	2,682.9	12.41	217.177	
4,400.0	4,368.2	4,329.6	4,329.3	11.3	1.5	110.61	-1,113.9	2,825.4	2,695.8	2,683.2	12.55	214.889	
4,429.1	4,397.3	4,359.6	4,359.4	11.3	1.5	110.61	-1,114.1	2,825.6	2,696.0	2,683.4	12.60	213.919	
4,500.0	4,468.2	4,435.2	4,434.9	11.4	1.5	110.62	-1,114.7	2,825.9	2,696.5	2,683.7	12.74	211.590	
4,527.5	4,495.8	4,465.6	4,465.4	11.5	1.5	110.62	-1,114.9	2,826.0	2,696.6	2,683.8	12.80	210.689	
4,600.0	4,568.2	4,538.9	4,538.7	11.6	1.5	110.64	-1,115.6	2,826.0	2,696.9	2,684.0	12.94	208.354	
4,626.0	4,594.2	4,563.4	4,563.2	11.7	1.6	110.64	-1,115.8	2,826.1	2,697.0	2,684.0	13.00	207.528	
4,700.0	4,668.2	4,639.4	4,639.1	11.8	1.6	110.65	-1,116.3	2,826.3	2,697.4	2,684.3	13.15	205.193	
4,724.4	4,692.6	4,666.7	4,666.5	11.9	1.6	110.65	-1,116.5	2,826.3	2,697.5	2,684.3	13.20	204.421	
4,800.0	4,768.2	4,740.0	4,739.8	12.0	1.6	110.66	-1,116.9	2,826.4	2,697.7	2,684.3	13.35	202.081	
4,822.8	4,791.0	4,759.9	4,759.7	12.0	1.6	110.66	-1,117.1	2,826.4	2,697.8	2,684.4	13.40	201.388	
4,900.0	4,868.2	4,832.7	4,832.4	12.2	1.6	110.68	-1,118.1	2,826.5	2,698.3	2,684.7	13.55	199.073	
4,921.2	4,889.5	4,854.9	4,854.7	12.2	1.6	110.69	-1,118.4	2,826.6	2,698.4	2,684.8	13.60	198.434	

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

Anticollision Report



Company:	PDC ENERGY	Local Co-ordinate Reference:	Well WACKER 10G-214
Project:	WELD COUNTY, COLORADO	TVD Reference:	KB-EST @ 4624.0usft (Original Well Elev)
Reference Site:	SW NW SEC. 10 T5N R64W 6th P.M.	MD Reference:	KB-EST @ 4624.0usft (Original Well Elev)
Site Error:	0.0 usft	North Reference:	True
Reference Well:	WACKER 10G-214	Survey Calculation Method:	Minimum Curvature
Well Error:	0.0 usft	Output errors are at	2.00 sigma
Reference Wellbore	ORIGINAL WELLBORE	Database:	EDM 5000.1 Single User Db
Reference Design:	PROPOSAL #1	Offset TVD Reference:	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	4,968.2	4,935.5	4,935.2	12.4	1.6	110.71	-1,119.6	2,826.6	2,698.9	2,685.1	13.76	196.101	
5,019.7	4,987.9	4,955.0	4,954.7	12.4	1.6	110.72	-1,119.8	2,826.6	2,699.0	2,685.2	13.80	195.524	
5,100.0	5,068.2	5,042.0	5,041.8	12.6	1.7	110.74	-1,121.0	2,826.7	2,699.4	2,685.4	13.97	193.185	
5,118.1	5,086.3	5,063.8	5,063.5	12.6	1.7	110.74	-1,121.2	2,826.6	2,699.4	2,685.4	14.01	192.655	
5,200.0	5,168.2	5,156.1	5,155.8	12.7	1.7	110.76	-1,121.9	2,826.3	2,699.4	2,685.2	14.18	190.331	
5,216.5	5,184.7	5,174.0	5,173.7	12.8	1.7	110.76	-1,122.0	2,826.2	2,699.3	2,685.1	14.22	189.871	
5,300.0	5,268.2	5,259.1	5,258.8	12.9	1.7	110.76	-1,122.0	2,825.9	2,699.1	2,684.7	14.39	187.565	
5,314.9	5,283.2	5,273.9	5,273.6	13.0	1.7	110.76	-1,122.0	2,825.9	2,699.0	2,684.6	14.42	187.156	
5,400.0	5,368.2	5,357.1	5,356.8	13.1	1.7	110.77	-1,121.9	2,825.7	2,698.8	2,684.2	14.59	184.935	
5,413.4	5,381.6	5,370.1	5,369.8	13.2	1.7	110.76	-1,121.9	2,825.6	2,698.8	2,684.1	14.62	184.595	
5,500.0	5,468.2	5,451.7	5,451.4	13.3	1.7	110.76	-1,121.6	2,825.6	2,698.6	2,683.8	14.79	182.425	
5,511.8	5,480.0	5,462.6	5,462.3	13.3	1.7	110.76	-1,121.5	2,825.6	2,698.6	2,683.8	14.82	182.133	
5,515.9	5,484.2	5,466.4	5,466.2	13.4	1.7	110.76	-1,121.5	2,825.6	2,698.6	2,683.8	14.83	182.030	
5,600.0	5,568.2	5,552.6	5,552.3	13.5	1.7	110.75	-1,121.1	2,825.8	2,698.6	2,683.6	15.00	179.966	
5,610.2	5,578.4	5,563.8	5,563.6	13.5	1.7	110.75	-1,121.0	2,825.9	2,698.6	2,683.6	15.02	179.714	
5,700.0	5,668.2	5,657.9	5,657.7	13.7	1.7	110.73	-1,120.1	2,826.0	2,698.4	2,683.2	15.20	177.524	
5,708.6	5,676.9	5,666.7	5,666.5	13.7	1.7	110.73	-1,120.1	2,826.0	2,698.4	2,683.2	15.22	177.314	
5,800.0	5,768.2	5,768.7	5,768.4	13.9	1.7	110.71	-1,119.2	2,825.8	2,698.0	2,682.6	15.41	175.115	
5,807.1	5,775.3	5,776.9	5,776.7	13.9	1.7	110.71	-1,119.1	2,825.8	2,698.0	2,682.5	15.42	174.944	
5,900.0	5,868.2	5,863.3	5,863.1	14.1	1.7	110.70	-1,118.5	2,825.4	2,697.3	2,681.7	15.61	172.763	
5,905.5	5,873.7	5,868.1	5,867.8	14.1	1.7	110.70	-1,118.4	2,825.4	2,697.3	2,681.7	15.62	172.636	
5,960.7	5,928.9	5,921.2	5,920.9	14.2	1.7	110.69	-1,117.8	2,825.4	2,697.1	2,681.4	15.74	171.370	
5,963.7	5,931.9	5,924.7	5,924.4	14.2	1.7	-159.32	-1,117.8	2,825.4	2,697.1	2,682.6	14.49	186.086	
6,000.0	5,968.2	5,966.8	5,966.5	14.3	1.7	-159.31	-1,117.3	2,825.4	2,697.9	2,683.4	14.55	185.382	
6,003.9	5,972.1	5,971.3	5,971.0	14.3	1.7	-159.31	-1,117.2	2,825.4	2,698.1	2,683.6	14.56	185.305	
6,050.0	6,018.0	6,016.4	6,016.2	14.4	1.7	-159.25	-1,116.7	2,825.3	2,701.8	2,687.1	14.66	184.311	
6,100.0	6,067.3	6,054.8	6,054.5	14.4	1.7	-159.09	-1,116.3	2,825.2	2,709.0	2,694.2	14.79	183.205	
6,102.3	6,069.6	6,056.6	6,056.3	14.4	1.7	-159.08	-1,116.3	2,825.2	2,709.5	2,694.7	14.79	183.156	
6,150.0	6,116.0	6,100.0	6,099.7	14.4	1.7	-158.87	-1,116.0	2,825.4	2,719.7	2,704.8	14.93	182.219	
6,200.0	6,163.8	6,133.8	6,133.6	14.5	1.7	-158.53	-1,115.9	2,825.6	2,733.7	2,718.6	15.06	181.551	
6,200.8	6,164.5	6,134.5	6,134.2	14.5	1.7	-158.52	-1,115.9	2,825.6	2,733.9	2,718.8	15.06	181.543	
6,250.0	6,210.4	6,175.1	6,174.8	14.5	1.7	-158.11	-1,116.0	2,825.7	2,750.8	2,735.6	15.18	181.228	
6,299.2	6,254.9	6,215.7	6,215.5	14.5	1.7	-157.59	-1,116.4	2,825.9	2,770.8	2,755.5	15.28	181.311	
6,300.0	6,255.6	6,216.4	6,216.1	14.5	1.7	-157.58	-1,116.4	2,825.9	2,771.1	2,755.8	15.28	181.316	
6,350.0	6,299.3	6,258.5	6,258.2	14.5	1.7	-156.94	-1,116.9	2,826.1	2,794.3	2,779.0	15.37	181.796	
6,397.6	6,339.2	6,296.9	6,296.6	14.6	1.7	-156.21	-1,117.5	2,826.2	2,819.1	2,803.7	15.44	182.594	
6,400.0	6,341.2	6,300.0	6,299.7	14.6	1.7	-156.18	-1,117.5	2,826.2	2,820.4	2,805.0	15.44	182.630	
6,450.0	6,381.0	6,337.5	6,337.2	14.6	1.7	-155.24	-1,118.1	2,826.4	2,849.2	2,833.7	15.51	183.758	
6,496.0	6,415.8	6,371.3	6,371.0	14.7	1.8	-154.21	-1,118.6	2,826.5	2,878.0	2,862.4	15.57	184.886	
6,500.0	6,418.7	6,374.1	6,373.8	14.7	1.8	-154.11	-1,118.6	2,826.6	2,880.6	2,865.0	15.57	184.990	
6,550.0	6,453.9	6,408.1	6,407.8	14.8	1.8	-152.75	-1,119.2	2,826.7	2,914.3	2,898.7	15.66	186.122	
6,594.5	6,483.1	6,435.6	6,435.2	15.0	1.8	-151.28	-1,119.6	2,826.9	2,946.3	2,930.6	15.77	186.796	
6,600.0	6,486.6	6,438.8	6,438.5	15.1	1.8	-151.08	-1,119.6	2,826.9	2,950.4	2,934.6	15.79	186.865	
6,650.0	6,516.6	6,467.0	6,466.6	15.3	1.8	-149.04	-1,120.0	2,827.1	2,988.6	2,972.6	15.99	186.855	
6,692.9	6,540.0	6,488.9	6,488.6	15.7	1.8	-146.92	-1,120.4	2,827.2	3,022.9	3,006.7	16.26	185.913	
6,700.0	6,543.7	6,492.3	6,492.0	15.7	1.8	-146.53	-1,120.4	2,827.2	3,028.7	3,012.4	16.31	185.694	
6,750.0	6,567.8	6,518.2	6,517.9	16.2	1.8	-143.45	-1,120.8	2,827.4	3,070.6	3,053.8	16.78	183.020	
6,791.3	6,585.4	6,538.4	6,538.1	16.7	1.8	-140.35	-1,121.1	2,827.5	3,106.3	3,089.0	17.31	179.494	
6,800.0	6,588.8	6,542.4	6,542.0	16.8	1.8	-139.62	-1,121.2	2,827.5	3,113.9	3,096.5	17.43	178.658	
6,850.0	6,606.6	6,562.9	6,562.6	17.4	1.8	-134.74	-1,121.5	2,827.6	3,158.6	3,140.3	18.29	172.682	
6,889.7	6,618.4	6,576.5	6,576.2	18.0	1.8	-129.90	-1,121.7	2,827.6	3,194.9	3,175.7	19.13	167.022	
6,900.0	6,621.1	6,579.7	6,579.3	18.2	1.8	-128.48	-1,121.8	2,827.6	3,204.3	3,185.0	19.35	165.556	

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

Anticollision Report



Company:	PDC ENERGY	Local Co-ordinate Reference:	Well WACKER 10G-214
Project:	WELD COUNTY, COLORADO	TVD Reference:	KB-EST @ 4624.0usft (Original Well Elev)
Reference Site:	SW NW SEC. 10 T5N R64W 6th P.M.	MD Reference:	KB-EST @ 4624.0usft (Original Well Elev)
Site Error:	0.0 usft	North Reference:	True
Reference Well:	WACKER 10G-214	Survey Calculation Method:	Minimum Curvature
Well Error:	0.0 usft	Output errors are at	2.00 sigma
Reference Wellbore	ORIGINAL WELLBORE	Database:	EDM 5000.1 Single User Db
Reference Design:	PROPOSAL #1	Offset TVD Reference:	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	
6,950.0	6,632.2	6,592.6	6,592.3	19.0	1.8	-120.47	-1,122.0	2,827.7	3,250.9	3,230.4	20.54	158.240		
6,988.2	6,638.4	6,599.8	6,599.5	19.7	1.8	-112.96	-1,122.1	2,827.7	3,287.0	3,265.6	21.43	153.360		
7,000.0	6,639.9	6,601.3	6,601.0	19.9	1.8	-110.37	-1,122.1	2,827.7	3,298.2	3,276.5	21.68	152.140		
7,050.0	6,644.1	6,605.5	6,605.2	20.8	1.8	-98.21	-1,122.2	2,827.7	3,345.9	3,323.4	22.56	148.297		
7,086.5	6,645.0	6,606.4	6,606.0	21.5	1.8	-88.47	-1,122.2	2,827.7	3,381.0	3,357.8	23.22	145.607		
7,100.0	6,645.0	6,606.3	6,606.0	21.8	1.8	-88.47	-1,122.2	2,827.7	3,393.9	3,370.4	23.49	144.510		
7,185.0	6,644.9	6,606.1	6,605.8	23.6	1.8	-88.46	-1,122.2	2,827.7	3,475.5	3,450.3	25.24	137.674		
7,200.0	6,644.8	6,606.1	6,605.7	23.9	1.8	-88.46	-1,122.2	2,827.7	3,489.9	3,464.4	25.55	136.568		
7,283.4	6,644.7	6,605.8	6,605.5	25.7	1.8	-88.44	-1,122.2	2,827.7	3,570.3	3,542.9	27.40	130.318		
7,300.0	6,644.7	6,605.8	6,605.5	26.1	1.8	-88.44	-1,122.2	2,827.7	3,586.2	3,558.4	27.76	129.177		
7,381.9	6,644.6	6,605.6	6,605.2	28.0	1.8	-88.43	-1,122.2	2,827.7	3,665.2	3,635.5	29.66	123.588		
7,400.0	6,644.6	6,605.5	6,605.2	28.4	1.8	-88.43	-1,122.2	2,827.7	3,682.7	3,652.6	30.08	122.446		
7,480.3	6,644.5	6,605.3	6,605.0	30.3	1.8	-88.41	-1,122.2	2,827.7	3,760.3	3,728.3	32.00	117.508		
7,500.0	6,644.4	6,605.2	6,604.9	30.8	1.8	-88.41	-1,122.2	2,827.7	3,779.3	3,746.8	32.47	116.386		
7,578.7	6,644.3	6,605.0	6,604.7	32.7	1.8	-88.40	-1,122.2	2,827.7	3,855.5	3,821.1	34.41	112.047		
7,600.0	6,644.3	6,605.0	6,604.6	33.3	1.8	-88.39	-1,122.2	2,827.7	3,876.1	3,841.2	34.93	110.958		
7,677.1	6,644.2	6,604.8	6,604.4	35.2	1.8	-88.38	-1,122.2	2,827.7	3,950.9	3,914.1	36.87	107.153		
7,700.0	6,644.1	6,604.7	6,604.4	35.8	1.8	-88.38	-1,122.2	2,827.7	3,973.1	3,935.7	37.45	106.102		
7,775.6	6,644.0	6,604.5	6,604.2	37.7	1.8	-88.37	-1,122.2	2,827.7	4,046.5	4,007.1	39.38	102.765		
7,800.0	6,644.0	6,604.4	6,604.1	38.3	1.8	-88.36	-1,122.2	2,827.7	4,070.2	4,030.2	40.00	101.756		
7,874.0	6,643.9	6,604.2	6,603.9	40.2	1.8	-88.35	-1,122.2	2,827.7	4,142.2	4,100.3	41.91	98.824		
7,900.0	6,643.9	6,604.1	6,603.8	40.9	1.8	-88.35	-1,122.2	2,827.7	4,167.5	4,124.9	42.59	97.857		
7,972.4	6,643.8	6,603.9	6,603.6	42.8	1.8	-88.34	-1,122.2	2,827.7	4,238.0	4,193.5	44.48	95.276		
8,000.0	6,643.7	6,603.9	6,603.5	43.5	1.8	-88.33	-1,122.2	2,827.7	4,264.9	4,219.7	45.20	94.351		
8,070.8	6,643.6	6,603.7	6,603.3	45.4	1.8	-88.32	-1,122.2	2,827.7	4,334.0	4,286.9	47.07	92.072		
8,100.0	6,643.6	6,603.6	6,603.3	46.2	1.8	-88.32	-1,122.2	2,827.7	4,362.4	4,314.6	47.84	91.187		
8,169.3	6,643.5	6,603.4	6,603.1	48.0	1.8	-88.30	-1,122.2	2,827.7	4,430.0	4,380.3	49.68	89.169		
8,200.0	6,643.5	6,603.3	6,603.0	48.8	1.8	-88.30	-1,122.2	2,827.7	4,460.0	4,409.5	50.50	88.322		
8,267.7	6,643.4	6,603.1	6,602.8	50.6	1.8	-88.29	-1,122.2	2,827.7	4,526.2	4,473.8	52.31	86.531		
8,300.0	6,643.3	6,603.1	6,602.7	51.5	1.8	-88.29	-1,122.2	2,827.7	4,557.7	4,504.6	53.17	85.720		
8,366.1	6,643.2	6,602.9	6,602.5	53.3	1.8	-88.27	-1,122.2	2,827.7	4,622.4	4,567.4	54.95	84.125		
8,400.0	6,643.2	6,602.8	6,602.4	54.2	1.8	-88.27	-1,122.2	2,827.7	4,655.5	4,599.7	55.86	83.348		
8,464.5	6,643.1	6,602.6	6,602.3	55.9	1.8	-88.26	-1,122.2	2,827.7	4,718.7	4,661.1	57.60	81.924		
8,500.0	6,643.1	6,602.5	6,602.2	56.9	1.8	-88.25	-1,122.2	2,827.7	4,753.4	4,694.9	58.56	81.178		
8,563.0	6,643.0	6,602.3	6,602.0	58.6	1.8	-88.24	-1,122.2	2,827.7	4,815.1	4,754.9	60.26	79.904		
8,600.0	6,642.9	6,602.2	6,601.9	59.6	1.8	-88.24	-1,122.2	2,827.7	4,851.4	4,790.2	61.26	79.189		
8,661.4	6,642.8	6,602.1	6,601.7	61.3	1.8	-88.23	-1,122.2	2,827.7	4,911.6	4,848.7	62.93	78.046		
8,700.0	6,642.8	6,602.0	6,601.6	62.3	1.8	-88.22	-1,122.2	2,827.7	4,949.5	4,885.5	63.98	77.358		
8,759.8	6,642.7	6,601.8	6,601.5	64.0	1.8	-88.21	-1,122.2	2,827.7	5,008.2	4,942.6	65.61	76.330		
8,800.0	6,642.7	6,601.7	6,601.3	65.1	1.8	-88.21	-1,122.2	2,827.7	5,047.7	4,981.0	66.71	75.668		
8,858.2	6,642.6	6,601.5	6,601.2	66.6	1.8	-88.20	-1,122.1	2,827.7	5,104.9	5,036.6	68.30	74.743		
8,900.0	6,642.5	6,601.4	6,601.1	67.8	1.8	-88.19	-1,122.1	2,827.7	5,145.9	5,076.4	69.44	74.106		
8,956.7	6,642.4	6,601.3	6,600.9	69.3	1.8	-88.18	-1,122.1	2,827.7	5,201.6	5,130.6	70.99	73.270		
9,000.0	6,642.4	6,601.1	6,600.8	70.5	1.8	-88.18	-1,122.1	2,827.7	5,244.2	5,172.0	72.18	72.656		
9,055.1	6,642.3	6,601.0	6,600.6	72.0	1.8	-88.17	-1,122.1	2,827.7	5,298.3	5,224.7	73.69	71.901		
9,100.0	6,642.3	6,600.9	6,600.5	73.3	1.8	-88.16	-1,122.1	2,827.7	5,342.5	5,267.6	74.92	71.308		
9,153.5	6,642.2	6,600.7	6,600.4	74.7	1.8	-88.15	-1,122.1	2,827.7	5,395.2	5,318.8	76.39	70.624		
9,200.0	6,642.1	6,600.6	6,600.2	76.0	1.8	-88.15	-1,122.1	2,827.7	5,440.9	5,363.3	77.67	70.052		
9,251.9	6,642.1	6,600.4	6,600.1	77.5	1.8	-88.14	-1,122.1	2,827.7	5,492.1	5,413.0	79.10	69.432		
9,300.0	6,642.0	6,600.3	6,600.0	78.8	1.8	-88.13	-1,122.1	2,827.7	5,539.4	5,459.0	80.42	68.879		
9,350.4	6,641.9	6,600.2	6,599.8	80.2	1.8	-88.12	-1,122.1	2,827.7	5,589.0	5,507.2	81.81	68.316		
9,400.0	6,641.9	6,600.0	6,599.7	81.5	1.8	-88.12	-1,122.1	2,827.7	5,637.9	5,554.7	83.18	67.781		

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

Anticollision Report



Company:	PDC ENERGY	Local Co-ordinate Reference:	Well WACKER 10G-214
Project:	WELD COUNTY, COLORADO	TVD Reference:	KB-EST @ 4624.0usft (Original Well Elev)
Reference Site:	SW NW SEC. 10 T5N R64W 6th P.M.	MD Reference:	KB-EST @ 4624.0usft (Original Well Elev)
Site Error:	0.0 usft	North Reference:	True
Reference Well:	WACKER 10G-214	Survey Calculation Method:	Minimum Curvature
Well Error:	0.0 usft	Output errors are at	2.00 sigma
Reference Wellbore	ORIGINAL WELLBORE	Database:	EDM 5000.1 Single User Db
Reference Design:	PROPOSAL #1	Offset TVD Reference:	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	6,641.8	6,599.9	6,599.5	82.9	1.8	-88.11	-1,122.1	2,827.7	5,686.0	5,601.5	84.53	67.270	
9,500.0	6,641.7	6,599.7	6,599.3	84.3	1.8	-88.09	-1,122.1	2,827.7	5,736.5	5,650.5	85.94	66.751	
9,547.2	6,641.7	6,599.5	6,599.2	85.6	1.8	-88.08	-1,122.1	2,827.7	5,783.1	5,695.8	87.24	66.287	
9,600.0	6,641.6	6,599.3	6,599.0	87.1	1.8	-88.07	-1,122.1	2,827.7	5,835.1	5,746.4	88.70	65.784	
9,645.6	6,641.5	6,599.1	6,598.8	88.3	1.8	-88.06	-1,122.1	2,827.7	5,880.1	5,790.2	89.96	65.362	
9,700.0	6,641.5	6,598.9	6,598.6	89.8	1.8	-88.05	-1,122.1	2,827.7	5,933.8	5,842.3	91.47	64.874	
9,744.1	6,641.4	6,598.7	6,598.4	91.0	1.8	-88.04	-1,122.1	2,827.7	5,977.3	5,884.6	92.69	64.489	
9,800.0	6,641.3	6,598.5	6,598.2	92.6	1.8	-88.03	-1,122.1	2,827.7	6,032.5	5,938.3	94.23	64.016	
9,842.5	6,641.3	6,598.3	6,598.0	93.8	1.8	-88.02	-1,122.1	2,827.7	6,074.5	5,979.0	95.41	63.666	
9,900.0	6,641.2	6,598.1	6,597.8	95.4	1.8	-88.01	-1,122.1	2,827.7	6,131.2	6,034.2	97.00	63.206	
9,940.9	6,641.1	6,597.9	6,597.6	96.5	1.8	-88.00	-1,122.1	2,827.7	6,171.7	6,073.5	98.14	62.887	
10,000.0	6,641.1	6,597.7	6,597.4	98.1	1.8	-87.98	-1,122.1	2,827.7	6,230.0	6,130.3	99.78	62.440	
10,039.3	6,641.0	6,597.5	6,597.2	99.2	1.8	-87.97	-1,122.1	2,827.7	6,268.9	6,168.0	100.87	62.150	
10,100.0	6,640.9	6,597.3	6,596.9	100.9	1.8	-87.96	-1,122.1	2,827.7	6,328.9	6,226.3	102.55	61.715	
10,137.8	6,640.9	6,597.1	6,596.8	102.0	1.8	-87.95	-1,122.1	2,827.7	6,366.2	6,262.6	103.60	61.450	
10,200.0	6,640.8	6,596.9	6,596.5	103.7	1.8	-87.93	-1,122.1	2,827.7	6,427.7	6,322.4	105.33	61.027	
10,236.2	6,640.8	6,596.7	6,596.4	104.7	1.8	-87.93	-1,122.1	2,827.7	6,463.5	6,357.2	106.33	60.786	
10,300.0	6,640.7	6,596.4	6,596.1	106.5	1.8	-87.91	-1,122.1	2,827.7	6,526.6	6,418.5	108.10	60.374	
10,334.6	6,640.6	6,596.3	6,596.0	107.4	1.8	-87.90	-1,122.1	2,827.7	6,560.9	6,451.8	109.07	60.155	
10,400.0	6,640.6	6,596.0	6,595.7	109.3	1.8	-87.89	-1,122.1	2,827.7	6,625.6	6,514.7	110.88	59.753	
10,433.0	6,640.5	6,595.9	6,595.5	110.2	1.8	-87.88	-1,122.0	2,827.7	6,658.3	6,546.5	111.80	59.554	
10,500.0	6,640.4	6,595.6	6,595.2	112.0	1.8	-87.86	-1,122.0	2,827.7	6,724.5	6,610.9	113.66	59.162	
10,531.5	6,640.4	6,595.4	6,595.1	112.9	1.8	-87.85	-1,122.0	2,827.7	6,755.7	6,641.1	114.54	58.982	
10,600.0	6,640.3	6,595.1	6,594.8	114.8	1.8	-87.84	-1,122.0	2,827.7	6,823.5	6,707.1	116.44	58.599	
10,629.9	6,640.3	6,595.0	6,594.6	115.7	1.8	-87.83	-1,122.0	2,827.7	6,853.1	6,735.9	117.28	58.436	
10,700.0	6,640.2	6,594.7	6,594.3	117.6	1.8	-87.81	-1,122.0	2,827.7	6,922.5	6,803.3	119.23	58.062	
10,728.3	6,640.1	6,594.5	6,594.2	118.4	1.8	-87.80	-1,122.0	2,827.7	6,950.6	6,830.6	120.02	57.914	
10,800.0	6,640.0	6,594.2	6,593.9	120.4	1.8	-87.78	-1,122.0	2,827.7	7,021.6	6,899.6	122.01	57.549	
10,826.7	6,640.0	6,594.1	6,593.7	121.2	1.8	-87.78	-1,122.0	2,827.7	7,048.1	6,925.3	122.76	57.416	
10,900.0	6,639.9	6,593.7	6,593.4	123.2	1.8	-87.76	-1,122.0	2,827.7	7,120.7	6,995.9	124.79	57.059	
10,925.2	6,639.9	6,593.6	6,593.3	123.9	1.8	-87.75	-1,122.0	2,827.7	7,145.6	7,020.1	125.50	56.939	
11,000.0	6,639.8	6,593.2	6,592.9	126.0	1.8	-87.73	-1,122.0	2,827.7	7,219.8	7,092.2	127.58	56.590	
11,023.6	6,639.8	6,593.1	6,592.8	126.6	1.8	-87.72	-1,122.0	2,827.7	7,243.2	7,114.9	128.24	56.483	
11,100.0	6,639.7	6,592.8	6,592.4	128.8	1.8	-87.70	-1,122.0	2,827.7	7,318.9	7,188.5	130.37	56.141	
11,122.0	6,639.6	6,592.6	6,592.3	129.4	1.8	-87.69	-1,122.0	2,827.7	7,340.7	7,209.8	130.98	56.045	
11,200.0	6,639.5	6,592.3	6,591.9	131.6	1.8	-87.67	-1,122.0	2,827.7	7,418.1	7,284.9	133.15	55.711	
11,220.4	6,639.5	6,592.2	6,591.8	132.1	1.8	-87.67	-1,122.0	2,827.7	7,438.3	7,304.6	133.72	55.625	
11,300.0	6,639.4	6,591.8	6,591.4	134.4	1.8	-87.64	-1,122.0	2,827.7	7,517.2	7,381.3	135.94	55.298	
11,318.9	6,639.4	6,591.7	6,591.3	134.9	1.8	-87.64	-1,122.0	2,827.7	7,536.0	7,399.5	136.47	55.222	
11,400.0	6,639.3	6,591.2	6,590.9	137.1	1.8	-87.61	-1,122.0	2,827.7	7,616.4	7,477.7	138.73	54.902	
11,417.3	6,639.3	6,591.2	6,590.8	137.6	1.8	-87.61	-1,122.0	2,827.7	7,633.6	7,494.4	139.21	54.835	
11,500.0	6,639.2	6,590.7	6,590.4	139.9	1.8	-87.59	-1,122.0	2,827.7	7,715.7	7,574.1	141.52	54.521	
11,515.7	6,639.1	6,590.6	6,590.3	140.4	1.8	-87.58	-1,122.0	2,827.7	7,731.3	7,589.3	141.96	54.463	
11,600.0	6,639.0	6,590.2	6,589.9	142.7	1.8	-87.55	-1,122.0	2,827.7	7,814.9	7,670.6	144.31	54.155	
11,614.1	6,639.0	6,590.1	6,589.8	143.1	1.8	-87.55	-1,122.0	2,827.7	7,828.9	7,684.2	144.70	54.104	
11,700.0	6,638.9	6,589.6	6,589.3	145.5	1.8	-87.52	-1,121.9	2,827.7	7,914.1	7,767.0	147.10	53.803	
11,712.6	6,638.9	6,589.6	6,589.2	145.9	1.8	-87.52	-1,121.9	2,827.7	7,926.6	7,779.2	147.45	53.759	
11,800.0	6,638.8	6,589.1	6,588.8	148.3	1.8	-87.49	-1,121.9	2,827.7	8,013.4	7,863.5	149.89	53.464	
11,811.0	6,638.8	6,589.0	6,588.7	148.6	1.8	-87.49	-1,121.9	2,827.7	8,024.3	7,874.1	150.19	53.427	
11,900.0	6,638.7	6,588.5	6,588.2	151.1	1.8	-87.46	-1,121.9	2,827.7	8,112.7	7,960.0	152.68	53.137	
11,909.4	6,638.6	6,588.5	6,588.1	151.4	1.8	-87.46	-1,121.9	2,827.7	8,122.1	7,969.1	152.94	53.107	
12,000.0	6,638.5	6,588.0	6,587.6	153.9	1.8	-87.43	-1,121.9	2,827.7	8,212.0	8,056.6	155.47	52.822	

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

Anticollision Report



Company:	PDC ENERGY	Local Co-ordinate Reference:	Well WACKER 10G-214
Project:	WELD COUNTY, COLORADO	TVD Reference:	KB-EST @ 4624.0usft (Original Well Elev)
Reference Site:	SW NW SEC. 10 T5N R64W 6th P.M.	MD Reference:	KB-EST @ 4624.0usft (Original Well Elev)
Site Error:	0.0 usft	North Reference:	True
Reference Well:	WACKER 10G-214	Survey Calculation Method:	Minimum Curvature
Well Error:	0.0 usft	Output errors are at	2.00 sigma
Reference Wellbore	ORIGINAL WELLBORE	Database:	EDM 5000.1 Single User Db
Reference Design:	PROPOSAL #1	Offset TVD Reference:	Offset Datum

Offset Design SW NW SEC. 10 T5N R64W 6th P.M. - EXIST VERT TREBOR B #10-10 - 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
12,007.8	6,638.5	6,587.9	6,587.6	154.1	1.8	-87.42	-1,121.9	2,827.7	8,219.8	8,064.1	155.69	52.798	
12,100.0	6,638.4	6,587.4	6,587.0	156.7	1.8	-87.39	-1,121.9	2,827.7	8,311.3	8,153.1	158.26	52.518	
12,106.3	6,638.4	6,587.3	6,587.0	156.9	1.8	-87.39	-1,121.9	2,827.7	8,317.6	8,159.1	158.43	52.499	
12,200.0	6,638.3	6,586.8	6,586.4	159.5	1.8	-87.36	-1,121.9	2,827.7	8,410.7	8,249.6	161.05	52.225	
12,204.7	6,638.3	6,586.7	6,586.4	159.6	1.8	-87.36	-1,121.9	2,827.7	8,415.4	8,254.2	161.18	52.211	
12,300.0	6,638.2	6,586.2	6,585.8	162.3	1.8	-87.33	-1,121.9	2,827.7	8,510.0	8,346.2	163.84	51.941	
12,303.1	6,638.2	6,586.1	6,585.8	162.4	1.8	-87.32	-1,121.9	2,827.7	8,513.1	8,349.2	163.93	51.933	
12,400.0	6,638.0	6,585.5	6,585.2	165.1	1.8	-87.29	-1,121.9	2,827.7	8,609.4	8,442.8	166.63	51.668	
12,401.5	6,638.0	6,585.5	6,585.2	165.2	1.8	-87.29	-1,121.9	2,827.7	8,611.0	8,444.3	166.67	51.663	
12,500.0	6,637.9	6,584.9	6,584.6	167.9	1.8	-87.25	-1,121.9	2,827.7	8,708.8	8,539.4	169.42	51.403	
12,598.4	6,637.8	6,584.3	6,583.9	170.7	1.8	-87.22	-1,121.9	2,827.7	8,806.6	8,634.4	172.17	51.151	
12,600.0	6,637.8	6,584.3	6,583.9	170.7	1.8	-87.22	-1,121.9	2,827.7	8,808.2	8,636.0	172.21	51.147	
12,696.8	6,637.7	6,583.6	6,583.3	173.4	1.8	-87.18	-1,121.8	2,827.7	8,904.5	8,729.5	174.92	50.907	
12,700.0	6,637.7	6,583.6	6,583.3	173.5	1.8	-87.18	-1,121.8	2,827.7	8,907.6	8,732.6	175.01	50.899	
12,795.2	6,637.6	6,583.0	6,582.6	176.2	1.8	-87.14	-1,121.8	2,827.7	9,002.3	8,824.7	177.67	50.670	
12,800.0	6,637.6	6,582.9	6,582.6	176.3	1.8	-87.14	-1,121.8	2,827.7	9,007.0	8,829.2	177.80	50.659	
12,893.7	6,637.4	6,582.3	6,582.0	178.9	1.8	-87.10	-1,121.8	2,827.7	9,100.2	8,919.8	180.41	50.441	
12,900.0	6,637.4	6,582.3	6,581.9	179.1	1.8	-87.10	-1,121.8	2,827.7	9,106.5	8,925.9	180.59	50.426	
12,992.1	6,637.3	6,581.6	6,581.3	181.7	1.8	-87.06	-1,121.8	2,827.7	9,198.1	9,014.9	183.16	50.219	
13,000.0	6,637.3	6,581.6	6,581.2	181.9	1.8	-87.06	-1,121.8	2,827.7	9,205.9	9,022.6	183.38	50.201	
13,090.5	6,637.2	6,580.9	6,580.6	184.4	1.8	-87.02	-1,121.8	2,827.7	9,296.0	9,110.1	185.91	50.003	
13,100.0	6,637.2	6,580.8	6,580.5	184.7	1.8	-87.02	-1,121.8	2,827.7	9,305.4	9,119.2	186.17	49.983	
13,188.9	6,637.1	6,580.2	6,579.9	187.2	1.8	-86.98	-1,121.8	2,827.7	9,393.9	9,205.2	188.66	49.794	
13,200.0	6,637.1	6,580.1	6,579.8	187.5	1.8	-86.98	-1,121.8	2,827.7	9,404.9	9,215.9	188.96	49.771	
13,287.4	6,637.0	6,579.4	6,579.1	190.0	1.8	-86.94	-1,121.8	2,827.6	9,491.8	9,300.4	191.40	49.591	
13,300.0	6,637.0	6,579.4	6,579.0	190.3	1.8	-86.94	-1,121.8	2,827.6	9,504.4	9,312.6	191.76	49.565	
13,385.8	6,636.9	6,578.7	6,578.4	192.7	1.8	-86.90	-1,121.8	2,827.6	9,589.7	9,395.6	194.15	49.393	
13,400.0	6,636.8	6,578.6	6,578.3	193.1	1.8	-86.89	-1,121.8	2,827.6	9,603.9	9,409.3	194.55	49.365	
13,484.2	6,636.7	6,577.9	6,577.6	195.5	1.8	-86.85	-1,121.7	2,827.6	9,687.7	9,490.8	196.90	49.201	
13,500.0	6,636.7	6,577.8	6,577.5	195.9	1.8	-86.85	-1,121.7	2,827.6	9,703.4	9,506.0	197.34	49.171	
13,582.6	6,636.6	6,577.1	6,576.8	198.2	1.8	-86.81	-1,121.7	2,827.6	9,785.6	9,586.0	199.64	49.015	
13,600.0	6,636.6	6,577.0	6,576.7	198.7	1.8	-86.80	-1,121.7	2,827.6	9,802.9	9,602.7	200.13	48.983	
13,681.1	6,636.5	6,576.3	6,576.0	201.0	1.8	-86.76	-1,121.7	2,827.6	9,883.6	9,681.2	202.39	48.834	
13,700.0	6,636.5	6,576.2	6,575.9	201.5	1.8	-86.75	-1,121.7	2,827.6	9,902.4	9,699.5	202.92	48.800	
13,779.5	6,636.4	6,575.5	6,575.2	203.7	1.8	-86.71	-1,121.7	2,827.6	9,981.5	9,776.4	205.14	48.658 SF	

Anticollision Report



Company:	PDC ENERGY	Local Co-ordinate Reference:	Well WACKER 10G-214
Project:	WELD COUNTY, COLORADO	TVD Reference:	KB-EST @ 4624.0usft (Original Well Elev)
Reference Site:	SW NW SEC. 10 T5N R64W 6th P.M.	MD Reference:	KB-EST @ 4624.0usft (Original Well Elev)
Site Error:	0.0 usft	North Reference:	True
Reference Well:	WACKER 10G-214	Survey Calculation Method:	Minimum Curvature
Well Error:	0.0 usft	Output errors are at	2.00 sigma
Reference Wellbore	ORIGINAL WELLBORE	Database:	EDM 5000.1 Single User Db
Reference Design:	PROPOSAL #1	Offset TVD Reference:	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	9.84	346.8	60.1	352.2				
98.4	98.4	86.6	86.6	0.1	0.0	9.83	346.7	60.1	351.9	351.8	0.10	3,665.118	
100.0	100.0	88.2	88.2	0.1	0.0	9.83	346.7	60.1	351.9	351.8	0.10	3,598.714	
196.8	196.8	185.3	185.3	0.3	0.1	9.80	346.4	59.8	351.5	351.1	0.40	887.284	
200.0	200.0	188.4	188.4	0.3	0.1	9.80	346.3	59.8	351.5	351.1	0.41	865.268	
295.3	295.3	283.6	283.6	0.5	0.2	9.76	346.0	59.5	351.1	350.3	0.75	469.956	
300.0	300.0	288.3	288.3	0.5	0.2	9.76	346.0	59.5	351.1	350.3	0.76	459.384	
393.7	393.7	381.4	381.4	0.8	0.3	9.71	345.8	59.2	350.8	349.8	1.05	332.609	
400.0	400.0	387.6	387.6	0.8	0.3	9.71	345.8	59.2	350.8	349.7	1.07	326.696	
492.1	492.1	479.9	479.9	1.0	0.4	9.64	345.7	58.7	350.6	349.3	1.35	260.168	
500.0	500.0	487.8	487.8	1.0	0.4	9.63	345.7	58.7	350.6	349.2	1.37	255.724	
590.5	590.5	578.5	578.5	1.2	0.4	9.56	345.5	58.2	350.4	348.8	1.63	214.683	
600.0	600.0	588.0	588.0	1.2	0.4	9.55	345.5	58.2	350.4	348.7	1.66	211.157	
689.0	689.0	676.7	676.7	1.4	0.5	9.50	345.3	57.8	350.1	348.2	1.91	183.306	
700.0	700.0	687.7	687.6	1.4	0.5	9.49	345.3	57.7	350.1	348.2	1.94	180.367	
787.4	787.4	775.3	775.3	1.6	0.5	9.44	345.2	57.4	349.9	347.7	2.18	160.192	
800.0	800.0	787.9	787.9	1.7	0.5	9.43	345.2	57.3	349.9	347.7	2.22	157.650	
885.8	885.8	873.5	873.5	1.9	0.6	9.37	345.0	56.9	349.7	347.2	2.46	142.414	
900.0	900.0	887.7	887.7	1.9	0.6	9.36	345.0	56.9	349.7	347.2	2.49	140.182	
984.2	984.2	972.3	972.3	2.1	0.6	9.30	344.9	56.5	349.5	346.7	2.72	128.292	
1,000.0	1,000.0	988.1	988.1	2.1	0.6	9.28	344.8	56.4	349.4	346.7	2.77	126.286	
1,082.7	1,082.7	1,070.9	1,070.8	2.3	0.7	9.23	344.6	56.0	349.1	346.2	2.99	116.742	
1,100.0	1,100.0	1,088.2	1,088.2	2.3	0.7	9.22	344.6	56.0	349.1	346.0	3.04	114.922	
1,181.1	1,181.1	1,169.0	1,169.0	2.5	0.7	9.18	344.4	55.7	348.8	345.6	3.26	107.158	
1,200.0	1,200.0	1,187.8	1,187.8	2.6	0.7	9.17	344.3	55.6	348.8	345.5	3.31	105.501	
1,279.5	1,279.5	1,267.5	1,267.5	2.7	0.8	9.11	344.2	55.2	348.6	345.1	3.52	99.041	
1,300.0	1,300.0	1,288.0	1,288.0	2.8	0.8	9.10	344.2	55.1	348.5	345.0	3.57	97.500	
1,327.0	1,327.0	1,315.1	1,315.1	2.9	0.8	-109.59	344.1	55.0	348.5	344.9	3.58	97.317 CC, ES	
1,377.9	1,377.9	1,366.3	1,366.3	3.0	0.8	-109.76	343.9	54.8	348.6	344.9	3.70	94.138	
1,400.0	1,400.0	1,388.4	1,388.4	3.0	0.8	-109.88	343.9	54.7	348.8	345.0	3.76	92.852	
1,476.4	1,476.3	1,464.3	1,464.2	3.1	0.8	-110.45	343.6	54.5	349.8	345.9	3.93	89.092	
1,500.0	1,499.8	1,487.7	1,487.6	3.2	0.9	-110.68	343.6	54.5	350.3	346.3	3.98	88.044	
1,574.8	1,574.4	1,561.2	1,561.2	3.3	0.9	-111.55	343.5	54.6	352.4	348.3	4.14	85.050	
1,600.0	1,599.5	1,585.9	1,585.9	3.4	0.9	-111.88	343.5	54.7	353.4	349.2	4.20	84.161	
1,673.2	1,672.2	1,657.9	1,657.8	3.6	0.9	-113.01	343.7	55.1	356.9	352.5	4.38	81.548	
1,700.0	1,698.7	1,684.1	1,684.1	3.6	0.9	-113.47	343.7	55.3	358.4	354.0	4.44	80.689	
1,771.6	1,769.5	1,754.5	1,754.4	3.8	0.9	-114.84	344.1	55.9	363.3	358.7	4.64	78.378	
1,800.0	1,797.5	1,782.2	1,782.2	3.9	0.9	-115.43	344.2	56.2	365.5	360.8	4.71	77.582	
1,870.1	1,866.3	1,850.2	1,850.1	4.1	0.9	-116.96	344.7	57.0	371.9	366.9	4.92	75.550	
1,900.2	1,895.8	1,879.2	1,879.2	4.2	0.9	-117.65	344.9	57.4	375.0	370.0	5.01	74.813	
1,968.5	1,962.6	1,945.5	1,945.4	4.4	0.9	-119.33	345.6	58.5	382.6	377.4	5.23	73.144	
2,000.0	1,993.4	1,976.2	1,976.1	4.5	0.9	-120.08	346.0	59.0	386.3	380.9	5.33	72.461	
2,066.9	2,058.9	2,041.4	2,041.3	4.7	0.9	-121.63	346.8	60.2	394.3	388.7	5.55	71.015	
2,100.0	2,091.2	2,073.7	2,073.6	4.8	0.9	-122.35	347.2	60.9	398.4	392.7	5.66	70.384	
2,165.3	2,155.2	2,137.7	2,137.6	5.1	0.9	-123.73	348.1	62.4	406.7	400.8	5.88	69.153	
2,200.0	2,189.1	2,171.8	2,171.7	5.2	0.9	-124.43	348.6	63.3	411.2	405.2	6.00	68.572	
2,263.8	2,251.4	2,235.2	2,235.0	5.5	1.0	-125.68	349.4	65.0	419.5	413.3	6.21	67.533	
2,300.0	2,286.9	2,271.5	2,271.3	5.6	1.0	-126.37	349.8	66.1	424.3	417.9	6.33	66.986	
2,362.2	2,347.7	2,333.7	2,333.5	5.8	1.0	-127.51	350.4	67.9	432.4	425.9	6.54	66.072	
2,400.0	2,384.7	2,371.4	2,371.2	6.0	1.0	-128.18	350.7	69.0	437.4	430.7	6.67	65.564	
2,460.6	2,444.0	2,431.5	2,431.2	6.2	1.0	-129.24	351.0	70.7	445.4	438.5	6.88	64.770	
2,500.0	2,482.5	2,470.2	2,470.0	6.4	1.0	-129.92	351.1	71.7	450.6	443.6	7.01	64.303	

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

Anticollision Report



Company:	PDC ENERGY	Local Co-ordinate Reference:	Well WACKER 10G-214
Project:	WELD COUNTY, COLORADO	TVD Reference:	KB-EST @ 4624.0usft (Original Well Elev)
Reference Site:	SW NW SEC. 10 T5N R64W 6th P.M.	MD Reference:	KB-EST @ 4624.0usft (Original Well Elev)
Site Error:	0.0 usft	North Reference:	True
Reference Well:	WACKER 10G-214	Survey Calculation Method:	Minimum Curvature
Well Error:	0.0 usft	Output errors are at	2.00 sigma
Reference Wellbore	ORIGINAL WELLBORE	Database:	EDM 5000.1 Single User Db
Reference Design:	PROPOSAL #1	Offset TVD Reference:	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	2,540.3	2,527.8	2,527.6	6.6	1.0	-130.92	351.4	72.9	458.6	451.4	7.21	63.637	
2,600.0	2,580.3	2,567.5	2,567.2	6.8	1.0	-131.59	351.5	73.7	464.3	457.0	7.34	63.228	
2,657.5	2,636.5	2,623.5	2,623.2	7.1	1.0	-132.53	351.8	74.8	472.5	464.9	7.54	62.699	
2,700.0	2,678.1	2,665.3	2,665.0	7.2	1.0	-133.21	352.1	75.5	478.6	470.9	7.68	62.351	
2,755.9	2,732.8	2,720.1	2,719.8	7.5	1.0	-134.09	352.3	76.4	486.7	478.8	7.86	61.922	
2,800.0	2,775.9	2,763.0	2,762.7	7.7	1.0	-134.76	352.5	77.0	493.2	485.2	8.00	61.627	
2,854.3	2,829.1	2,816.0	2,815.7	7.9	1.1	-135.59	352.8	77.7	501.3	493.2	8.18	61.296	
2,900.0	2,873.8	2,861.3	2,861.0	8.1	1.1	-136.28	352.9	78.2	508.2	499.9	8.32	61.053	
2,952.7	2,925.4	2,913.5	2,913.2	8.3	1.1	-137.06	353.0	78.7	516.3	507.8	8.49	60.792	
2,953.5	2,926.1	2,914.2	2,913.9	8.3	1.1	-137.07	353.0	78.7	516.4	507.9	8.49	60.788	
3,000.0	2,971.6	2,960.2	2,959.9	8.5	1.1	-137.81	353.1	79.2	523.2	514.6	8.62	60.708	
3,051.2	3,022.0	3,010.9	3,010.6	8.7	1.1	-138.53	353.2	79.7	530.1	521.4	8.74	60.679	
3,100.0	3,070.1	3,059.8	3,059.4	8.8	1.1	-139.14	353.1	80.2	536.1	527.2	8.85	60.573	
3,149.6	3,119.1	3,109.4	3,109.1	8.9	1.1	-139.69	353.0	80.6	541.5	532.5	8.96	60.442	
3,200.0	3,169.1	3,159.6	3,159.2	9.1	1.1	-140.17	352.9	81.0	546.3	537.2	9.07	60.222	
3,248.0	3,216.8	3,207.4	3,207.1	9.2	1.1	-140.55	352.7	81.4	550.3	541.1	9.17	59.995	
3,300.0	3,268.5	3,259.0	3,258.7	9.3	1.2	-140.89	352.6	81.8	553.9	544.6	9.28	59.666	
3,346.4	3,314.8	3,305.3	3,304.9	9.4	1.2	-141.14	352.5	82.2	556.5	547.1	9.38	59.357	
3,400.0	3,368.3	3,359.1	3,358.7	9.6	1.2	-141.36	352.3	82.6	558.8	549.4	9.49	58.915	
3,444.9	3,413.1	3,404.2	3,403.8	9.6	1.2	-141.48	352.1	82.9	560.2	550.6	9.57	58.524	
3,500.0	3,468.2	3,459.4	3,459.0	9.7	1.2	-141.56	351.9	83.4	561.0	551.3	9.68	57.958	
3,543.3	3,511.5	3,502.7	3,502.3	9.8	1.2	-141.56	351.7	83.8	561.1	551.3	9.76	57.491	
3,553.7	3,521.9	3,512.8	3,512.5	9.8	1.2	-22.90	351.7	83.9	561.0	550.8	10.27	54.653	
3,600.0	3,568.2	3,558.2	3,557.9	9.9	1.2	-22.87	351.6	84.3	560.8	550.4	10.35	54.172	
3,641.7	3,609.9	3,600.0	3,599.7	10.0	1.2	-22.84	351.6	84.6	560.6	550.2	10.43	53.736	
3,700.0	3,668.2	3,657.4	3,657.1	10.1	1.3	-22.79	351.5	85.1	560.4	549.9	10.55	53.138	
3,740.1	3,708.4	3,697.6	3,697.3	10.1	1.3	-22.76	351.5	85.4	560.3	549.7	10.63	52.730	
3,800.0	3,768.2	3,757.6	3,757.3	10.2	1.3	-22.71	351.5	86.0	560.1	549.3	10.74	52.129	
3,838.6	3,806.8	3,796.3	3,795.9	10.3	1.3	-22.68	351.5	86.3	559.9	549.1	10.82	51.745	
3,900.0	3,868.2	3,857.4	3,857.0	10.4	1.3	-22.62	351.5	86.9	559.7	548.8	10.94	51.145	
3,937.0	3,905.2	3,894.1	3,893.8	10.5	1.3	-22.59	351.6	87.2	559.6	548.6	11.02	50.789	
4,000.0	3,968.2	3,957.1	3,956.7	10.6	1.3	-22.53	351.6	87.8	559.4	548.3	11.15	50.193	
4,035.4	4,003.6	3,992.5	3,992.2	10.6	1.3	-22.49	351.7	88.2	559.3	548.1	11.22	49.861	
4,100.0	4,068.2	4,057.6	4,057.2	10.7	1.4	-22.42	351.7	88.9	559.1	547.8	11.35	49.264	
4,133.8	4,102.1	4,091.7	4,091.3	10.8	1.4	-22.39	351.8	89.3	559.0	547.6	11.42	48.953	
4,200.0	4,168.2	4,158.2	4,157.8	10.9	1.4	-22.32	351.7	90.0	558.7	547.1	11.56	48.351	
4,232.3	4,200.5	4,190.7	4,190.3	11.0	1.4	-22.29	351.7	90.4	558.5	546.9	11.62	48.059	
4,300.0	4,268.2	4,258.5	4,258.1	11.1	1.4	-22.23	351.6	91.0	558.2	546.4	11.76	47.455	
4,330.7	4,298.9	4,289.2	4,288.8	11.1	1.4	-22.20	351.5	91.3	558.0	546.2	11.83	47.184	
4,400.0	4,368.2	4,359.0	4,358.6	11.3	1.4	-22.14	351.4	92.0	557.6	545.7	11.97	46.579	
4,429.1	4,397.3	4,388.4	4,388.0	11.3	1.4	-22.11	351.3	92.4	557.5	545.4	12.03	46.326	
4,500.0	4,468.2	4,458.6	4,458.2	11.4	1.5	-22.04	351.2	93.2	557.0	544.8	12.18	45.723	
4,527.5	4,495.8	4,485.7	4,485.3	11.5	1.5	-22.02	351.2	93.4	556.9	544.6	12.24	45.494	
4,600.0	4,568.2	4,556.4	4,556.0	11.6	1.5	-21.96	351.2	94.1	556.6	544.3	12.39	44.911	
4,626.0	4,594.2	4,581.7	4,581.3	11.7	1.5	-21.93	351.2	94.3	556.6	544.2	12.45	44.710	
4,629.6	4,597.8	4,585.2	4,584.8	11.7	1.5	-21.93	351.3	94.3	556.6	544.2	12.46	44.682	
4,700.0	4,668.2	4,654.4	4,654.0	11.8	1.5	-21.87	351.6	94.9	556.7	544.1	12.61	44.154	
4,724.4	4,692.6	4,678.5	4,678.1	11.9	1.5	-21.84	351.7	95.0	556.8	544.1	12.66	43.975	
4,800.0	4,768.2	4,753.1	4,752.7	12.0	1.5	-21.78	352.2	95.5	557.0	544.2	12.82	43.436	
4,822.8	4,791.0	4,775.7	4,775.3	12.0	1.5	-21.76	352.3	95.6	557.2	544.3	12.87	43.277	
4,900.0	4,868.2	4,852.0	4,851.6	12.2	1.6	-21.69	353.0	96.1	557.6	544.6	13.04	42.756	
4,921.2	4,889.5	4,873.1	4,872.7	12.2	1.6	-21.67	353.2	96.3	557.7	544.6	13.09	42.616	

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

Anticollision Report



Company:	PDC ENERGY	Local Co-ordinate Reference:	Well WACKER 10G-214
Project:	WELD COUNTY, COLORADO	TVD Reference:	KB-EST @ 4624.0usft (Original Well Elev)
Reference Site:	SW NW SEC. 10 T5N R64W 6th P.M.	MD Reference:	KB-EST @ 4624.0usft (Original Well Elev)
Site Error:	0.0 usft	North Reference:	True
Reference Well:	WACKER 10G-214	Survey Calculation Method:	Minimum Curvature
Well Error:	0.0 usft	Output errors are at	2.00 sigma
Reference Wellbore	ORIGINAL WELLBORE	Database:	EDM 5000.1 Single User Db
Reference Design:	PROPOSAL #1	Offset TVD Reference:	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	4,968.2	4,950.9	4,950.5	12.4	1.6	-21.59	354.0	96.7	558.3	545.1	13.26	42.112	
5,019.7	4,987.9	4,970.3	4,969.9	12.4	1.6	-21.57	354.3	96.9	558.5	545.2	13.30	41.990	
5,100.0	5,068.2	5,050.4	5,050.0	12.6	1.6	-21.49	355.2	97.3	559.3	545.8	13.48	41.498	
5,118.1	5,086.3	5,068.6	5,068.1	12.6	1.6	-21.47	355.5	97.4	559.4	545.9	13.52	41.391	
5,200.0	5,168.2	5,150.2	5,149.8	12.7	1.6	-21.37	356.5	98.1	560.2	546.5	13.69	40.908	
5,216.5	5,184.7	5,166.6	5,166.2	12.8	1.6	-21.35	356.8	98.2	560.3	546.6	13.73	40.812	
5,300.0	5,268.2	5,250.5	5,250.0	12.9	1.6	-21.24	357.9	98.9	561.2	547.3	13.91	40.332	
5,314.9	5,283.2	5,265.6	5,265.2	13.0	1.6	-21.22	358.1	99.0	561.3	547.4	13.95	40.246	
5,400.0	5,368.2	5,350.5	5,350.1	13.1	1.7	-21.13	359.1	99.6	562.0	547.9	14.13	39.764	
5,413.4	5,381.6	5,363.8	5,363.3	13.2	1.7	-21.11	359.3	99.7	562.2	548.0	14.16	39.689	
5,500.0	5,468.2	5,449.7	5,449.3	13.3	1.7	-21.03	360.4	100.1	563.0	548.7	14.36	39.221	
5,511.8	5,480.0	5,461.5	5,461.0	13.3	1.7	-21.02	360.5	100.2	563.2	548.8	14.38	39.158	
5,600.0	5,568.2	5,549.2	5,548.7	13.5	1.7	-20.93	361.8	100.6	564.1	549.6	14.58	38.701	
5,610.2	5,578.4	5,559.3	5,558.9	13.5	1.7	-20.92	361.9	100.7	564.2	549.6	14.60	38.649	
5,700.0	5,668.2	5,649.4	5,648.9	13.7	1.7	-20.83	363.2	101.2	565.3	550.5	14.80	38.200	
5,708.6	5,676.9	5,658.1	5,657.6	13.7	1.7	-20.83	363.3	101.2	565.4	550.6	14.82	38.156	
5,800.0	5,768.2	5,750.4	5,749.9	13.9	1.7	-20.76	364.4	101.5	566.3	551.3	15.02	37.700	
5,807.1	5,775.3	5,757.5	5,757.0	13.9	1.7	-20.75	364.5	101.5	566.4	551.4	15.04	37.665	
5,900.0	5,868.2	5,851.2	5,850.7	14.1	1.8	-20.68	365.5	102.0	567.2	551.9	15.25	37.204	
5,905.5	5,873.7	5,856.8	5,856.3	14.1	1.8	-20.67	365.6	102.0	567.2	552.0	15.26	37.177	
5,960.7	5,928.9	5,912.3	5,911.8	14.2	1.8	-20.65	366.1	102.1	567.6	552.3	15.38	36.905	
6,000.0	5,968.2	5,951.7	5,951.2	14.3	1.8	69.48	366.4	102.1	567.5	552.5	15.07	37.649	
6,003.9	5,972.1	5,955.6	5,955.1	14.3	1.8	69.50	366.4	102.1	567.5	552.4	15.08	37.629	
6,050.0	6,018.0	6,001.6	6,001.1	14.4	1.8	70.01	366.8	102.1	566.3	551.2	15.17	37.338	
6,100.0	6,067.3	6,051.5	6,050.9	14.4	1.8	70.96	367.1	102.1	564.0	548.7	15.26	36.945	
6,102.3	6,069.6	6,053.8	6,053.3	14.4	1.8	71.01	367.1	102.1	563.8	548.6	15.27	36.925	
6,150.0	6,116.0	6,100.6	6,100.1	14.4	1.8	72.31	367.4	102.2	560.6	545.2	15.37	36.483	
6,200.0	6,163.8	6,148.4	6,147.9	14.5	1.8	74.03	367.7	102.2	556.4	540.9	15.47	35.977	
6,200.8	6,164.5	6,149.2	6,148.7	14.5	1.8	74.06	367.7	102.2	556.3	540.9	15.47	35.969	
6,250.0	6,210.4	6,195.2	6,194.7	14.5	1.8	76.09	367.9	102.1	551.7	536.1	15.56	35.445	
6,299.2	6,254.9	6,240.2	6,239.7	14.5	1.8	78.41	368.1	102.0	546.9	531.2	15.66	34.914	
6,300.0	6,255.6	6,240.9	6,240.4	14.5	1.8	78.45	368.1	102.0	546.8	531.1	15.67	34.906	
6,350.0	6,299.3	6,285.0	6,284.5	14.5	1.8	81.06	368.3	102.0	542.1	526.3	15.77	34.375	
6,397.6	6,339.2	6,325.5	6,325.0	14.6	1.8	83.71	368.4	102.0	538.2	522.3	15.88	33.895	
6,400.0	6,341.2	6,327.5	6,327.0	14.6	1.8	83.84	368.4	102.0	538.0	522.1	15.88	33.874	
6,450.0	6,381.0	6,368.1	6,367.6	14.6	1.8	86.70	368.4	102.1	535.0	519.0	16.02	33.401	
6,496.0	6,415.8	6,403.5	6,403.0	14.7	1.8	89.30	368.4	102.1	533.6	517.4	16.18	32.984	
6,500.0	6,418.7	6,406.5	6,405.9	14.7	1.8	89.51	368.4	102.1	533.6	517.4	16.19	32.953	
6,510.0	6,425.9	6,413.8	6,413.3	14.7	1.8	90.07	368.4	102.1	533.5	517.3	16.24	32.856	
6,550.0	6,453.9	6,442.3	6,441.7	14.8	1.8	92.18	368.4	102.1	534.3	517.9	16.43	32.529	
6,594.5	6,483.1	6,471.8	6,471.3	15.0	1.9	94.35	368.3	102.2	537.1	520.4	16.69	32.175	
6,600.0	6,486.6	6,475.3	6,474.8	15.1	1.9	94.60	368.3	102.2	537.6	520.9	16.73	32.141	
6,650.0	6,516.6	6,505.4	6,504.9	15.3	1.9	96.66	368.2	102.4	544.0	526.9	17.10	31.807	
6,692.9	6,540.0	6,528.7	6,528.2	15.7	1.9	98.07	368.1	102.5	552.1	534.6	17.49	31.568	
6,700.0	6,543.7	6,532.4	6,531.9	15.7	1.9	98.27	368.1	102.5	553.7	536.2	17.55	31.544	
6,750.0	6,567.8	6,556.4	6,555.8	16.2	1.9	99.39	368.0	102.7	567.1	549.0	18.08	31.367	
6,791.3	6,585.4	6,573.8	6,573.3	16.7	1.9	99.89	368.0	102.8	580.8	562.3	18.57	31.277	
6,800.0	6,588.8	6,577.2	6,576.7	16.8	1.9	99.94	368.0	102.8	584.0	565.4	18.67	31.278	
6,850.0	6,606.6	6,594.8	6,594.3	17.4	1.9	99.88	367.9	102.9	604.6	585.3	19.33	31.274 SF	
6,889.7	6,618.4	6,606.4	6,605.9	18.0	1.9	99.36	367.8	102.9	623.4	603.5	19.91	31.317	
6,900.0	6,621.1	6,609.0	6,608.5	18.2	1.9	99.15	367.8	103.0	628.6	608.6	20.05	31.346	
6,950.0	6,632.2	6,619.9	6,619.4	19.0	1.9	97.71	367.8	103.0	655.8	634.9	20.83	31.481	

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

Anticollision Report



Company:	PDC ENERGY	Local Co-ordinate Reference:	Well WACKER 10G-214
Project:	WELD COUNTY, COLORADO	TVD Reference:	KB-EST @ 4624.0usft (Original Well Elev)
Reference Site:	SW NW SEC. 10 T5N R64W 6th P.M.	MD Reference:	KB-EST @ 4624.0usft (Original Well Elev)
Site Error:	0.0 usft	North Reference:	True
Reference Well:	WACKER 10G-214	Survey Calculation Method:	Minimum Curvature
Well Error:	0.0 usft	Output errors are at	2.00 sigma
Reference Wellbore	ORIGINAL WELLBORE	Database:	EDM 5000.1 Single User Db
Reference Design:	PROPOSAL #1	Offset TVD Reference:	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	
6,988.2	6,638.4	6,625.9	6,625.4	19.7	1.9	96.10	367.8	103.0	678.4	656.9	21.46	31.610	
7,000.0	6,639.9	6,627.4	6,626.9	19.9	1.9	95.51	367.7	103.0	685.7	664.1	21.66	31.664	
7,050.0	6,644.1	6,631.4	6,630.9	20.8	1.9	92.54	367.7	103.1	718.1	695.6	22.53	31.870	
7,086.5	6,645.0	6,632.1	6,631.6	21.5	1.9	89.88	367.7	103.1	743.1	719.9	23.21	32.013	
7,100.0	6,645.0	6,632.0	6,631.5	21.8	1.9	89.87	367.7	103.1	752.5	729.1	23.48	32.053	
7,185.0	6,644.9	6,631.5	6,631.0	23.6	1.9	89.81	367.7	103.1	814.8	789.6	25.24	32.286	
7,200.0	6,644.8	6,631.4	6,630.9	23.9	1.9	89.80	367.7	103.1	826.2	800.7	25.55	32.340	
7,283.4	6,644.7	6,630.8	6,630.3	25.7	1.9	89.74	367.7	103.1	891.6	864.2	27.39	32.553	
7,300.0	6,644.7	6,630.7	6,630.2	26.1	1.9	89.73	367.7	103.1	904.9	877.2	27.75	32.604	
7,381.9	6,644.6	6,630.2	6,629.7	28.0	1.9	89.68	367.7	103.1	972.3	942.6	29.65	32.793	
7,400.0	6,644.6	6,630.1	6,629.6	28.4	1.9	89.66	367.7	103.1	987.5	957.4	30.07	32.841	
7,480.3	6,644.5	6,629.6	6,629.1	30.3	1.9	89.61	367.7	103.1	1,056.0	1,024.0	31.99	33.006	
7,500.0	6,644.4	6,629.5	6,628.9	30.8	1.9	89.59	367.7	103.1	1,073.1	1,040.6	32.47	33.052	
7,578.7	6,644.3	6,628.9	6,628.4	32.7	1.9	89.54	367.7	103.1	1,142.1	1,107.7	34.40	33.195	
7,600.0	6,644.3	6,628.8	6,628.3	33.3	1.9	89.52	367.7	103.1	1,160.9	1,126.0	34.93	33.238	
7,677.1	6,644.2	6,628.3	6,627.8	35.2	1.9	89.47	367.7	103.1	1,230.0	1,193.1	36.87	33.363	
7,700.0	6,644.1	6,628.2	6,627.6	35.8	1.9	89.46	367.7	103.1	1,250.6	1,213.2	37.44	33.402	
7,775.6	6,644.0	6,627.7	6,627.2	37.7	1.9	89.40	367.7	103.1	1,319.4	1,280.0	39.37	33.511	
7,800.0	6,644.0	6,627.5	6,627.0	38.3	1.9	89.39	367.7	103.0	1,341.8	1,301.8	40.00	33.547	
7,874.0	6,643.9	6,627.0	6,626.5	40.2	1.9	89.33	367.7	103.0	1,410.0	1,368.1	41.91	33.642	
7,900.0	6,643.9	6,626.9	6,626.3	40.9	1.9	89.32	367.8	103.0	1,434.1	1,391.5	42.58	33.677	
7,972.4	6,643.8	6,626.4	6,625.9	42.8	1.9	89.27	367.8	103.0	1,501.6	1,457.1	44.48	33.760	
8,000.0	6,643.7	6,626.2	6,625.7	43.5	1.9	89.25	367.8	103.0	1,527.4	1,482.2	45.20	33.792	
8,070.8	6,643.6	6,625.7	6,625.2	45.4	1.9	89.20	367.8	103.0	1,594.0	1,546.9	47.07	33.865	
8,100.0	6,643.6	6,625.5	6,625.0	46.2	1.9	89.18	367.8	103.0	1,621.5	1,573.6	47.84	33.895	
8,169.3	6,643.5	6,625.1	6,624.6	48.0	1.9	89.13	367.8	103.0	1,687.0	1,637.4	49.68	33.959	
8,200.0	6,643.5	6,624.9	6,624.4	48.8	1.9	89.11	367.8	103.0	1,716.2	1,665.7	50.50	33.988	
8,267.7	6,643.4	6,624.4	6,623.9	50.6	1.9	89.06	367.8	103.0	1,780.7	1,728.4	52.31	34.044	
8,300.0	6,643.3	6,624.2	6,623.7	51.5	1.9	89.04	367.8	103.0	1,811.5	1,758.4	53.17	34.072	
8,366.1	6,643.2	6,623.8	6,623.3	53.3	1.9	88.99	367.8	103.0	1,874.8	1,819.9	54.95	34.122	
8,400.0	6,643.2	6,623.6	6,623.0	54.2	1.9	88.96	367.8	103.0	1,907.3	1,851.5	55.86	34.148	
8,464.5	6,643.1	6,623.1	6,622.6	55.9	1.9	88.92	367.8	103.0	1,969.4	1,911.8	57.60	34.192	
8,500.0	6,643.1	6,622.9	6,622.4	56.9	1.9	88.89	367.8	103.0	2,003.6	1,945.0	58.55	34.217	
8,563.0	6,643.0	6,622.5	6,622.0	58.6	1.9	88.85	367.8	103.0	2,064.3	2,004.1	60.26	34.257	
8,600.0	6,642.9	6,622.2	6,621.7	59.6	1.9	88.82	367.8	103.0	2,100.1	2,038.9	61.26	34.280	
8,661.4	6,642.8	6,621.8	6,621.3	61.3	1.9	88.78	367.8	103.0	2,159.6	2,096.6	62.93	34.316	
8,700.0	6,642.8	6,621.6	6,621.0	62.3	1.9	88.75	367.8	103.0	2,197.0	2,133.0	63.98	34.338	
8,759.8	6,642.7	6,621.1	6,620.6	64.0	1.9	88.71	367.8	103.0	2,255.1	2,189.5	65.61	34.370	
8,800.0	6,642.7	6,620.9	6,620.4	65.1	1.9	88.68	367.8	103.0	2,294.1	2,227.4	66.71	34.391	
8,858.2	6,642.6	6,620.5	6,620.0	66.6	1.9	88.64	367.8	103.0	2,350.8	2,282.5	68.30	34.420	
8,900.0	6,642.5	6,620.2	6,619.7	67.8	1.9	88.61	367.8	103.0	2,391.5	2,322.1	69.44	34.441	
8,956.7	6,642.4	6,619.8	6,619.3	69.3	1.9	88.57	367.8	103.0	2,446.8	2,375.8	70.99	34.466	
9,000.0	6,642.4	6,619.5	6,619.0	70.5	1.9	88.54	367.8	103.0	2,489.1	2,416.9	72.18	34.486	
9,055.1	6,642.3	6,619.2	6,618.6	72.0	1.9	88.50	367.8	103.0	2,542.9	2,469.3	73.69	34.510	
9,100.0	6,642.3	6,618.8	6,618.3	73.3	1.9	88.46	367.8	103.0	2,586.9	2,511.9	74.92	34.528	
9,153.5	6,642.2	6,618.5	6,618.0	74.7	1.9	88.42	367.8	103.0	2,639.3	2,562.9	76.39	34.550	
9,200.0	6,642.1	6,618.2	6,617.7	76.0	1.9	88.39	367.8	103.0	2,684.8	2,607.1	77.67	34.568	
9,251.9	6,642.1	6,617.8	6,617.3	77.5	1.9	88.35	367.8	103.0	2,735.7	2,656.6	79.10	34.587	
9,300.0	6,642.0	6,617.5	6,617.0	78.8	1.9	88.32	367.8	103.0	2,782.9	2,702.5	80.42	34.605	
9,350.4	6,641.9	6,617.1	6,616.6	80.2	1.9	88.28	367.8	103.0	2,832.3	2,750.5	81.81	34.622	
9,400.0	6,641.9	6,616.8	6,616.3	81.5	1.9	88.25	367.8	103.0	2,881.1	2,797.9	83.17	34.639	
9,448.8	6,641.8	6,616.5	6,615.9	82.9	1.9	88.21	367.8	103.0	2,929.1	2,844.5	84.52	34.655	

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

Anticollision Report



Company:	PDC ENERGY	Local Co-ordinate Reference:	Well WACKER 10G-214
Project:	WELD COUNTY, COLORADO	TVD Reference:	KB-EST @ 4624.0usft (Original Well Elev)
Reference Site:	SW NW SEC. 10 T5N R64W 6th P.M.	MD Reference:	KB-EST @ 4624.0usft (Original Well Elev)
Site Error:	0.0 usft	North Reference:	True
Reference Well:	WACKER 10G-214	Survey Calculation Method:	Minimum Curvature
Well Error:	0.0 usft	Output errors are at	2.00 sigma
Reference Wellbore	ORIGINAL WELLBORE	Database:	EDM 5000.1 Single User Db
Reference Design:	PROPOSAL #1	Offset TVD Reference:	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	6,641.7	6,616.1	6,615.6	84.3	1.9	88.17	367.8	103.0	2,979.4	2,893.5	85.93	34.671	
9,547.2	6,641.7	6,615.8	6,615.3	85.6	1.9	88.14	367.8	103.0	3,025.9	2,938.7	87.24	34.686	
9,600.0	6,641.6	6,615.4	6,614.9	87.1	1.9	88.10	367.8	103.0	3,077.9	2,989.2	88.69	34.702	
9,645.6	6,641.5	6,615.1	6,614.6	88.3	1.9	88.07	367.8	103.0	3,122.8	3,032.9	89.96	34.715	
9,700.0	6,641.5	6,614.7	6,614.2	89.8	1.9	88.03	367.8	103.0	3,176.4	3,084.9	91.46	34.731	
9,744.1	6,641.4	6,614.4	6,613.9	91.0	1.9	87.99	367.8	103.0	3,219.8	3,127.2	92.68	34.743	
9,800.0	6,641.3	6,614.0	6,613.5	92.6	1.9	87.95	367.8	103.0	3,275.0	3,180.8	94.22	34.758	
9,842.5	6,641.3	6,613.7	6,613.2	93.8	1.9	87.92	367.8	103.0	3,317.0	3,221.6	95.40	34.769	
9,900.0	6,641.2	6,613.3	6,612.8	95.4	1.9	87.88	367.8	103.0	3,373.7	3,276.7	96.99	34.783	
9,940.9	6,641.1	6,613.0	6,612.5	96.5	1.9	87.85	367.8	103.0	3,414.1	3,316.0	98.13	34.793	
10,000.0	6,641.1	6,612.6	6,612.1	98.1	1.9	87.80	367.8	103.0	3,472.5	3,372.7	99.76	34.808	
10,039.3	6,641.0	6,612.3	6,611.8	99.2	1.9	87.77	367.8	103.0	3,511.4	3,410.5	100.85	34.817	
10,100.0	6,640.9	6,611.9	6,611.4	100.9	1.9	87.73	367.8	103.0	3,571.3	3,468.8	102.53	34.831	
10,137.8	6,640.9	6,611.6	6,611.1	102.0	1.9	87.70	367.8	103.0	3,608.7	3,505.1	103.58	34.839	
10,200.0	6,640.8	6,611.2	6,610.7	103.7	1.9	87.66	367.8	103.0	3,670.3	3,564.9	105.31	34.853	
10,236.2	6,640.8	6,610.9	6,610.4	104.7	1.9	87.63	367.8	103.0	3,706.1	3,599.8	106.31	34.861	
10,300.0	6,640.7	6,610.5	6,610.0	106.5	1.9	87.58	367.8	103.0	3,769.2	3,661.1	108.08	34.874	
10,334.6	6,640.6	6,610.3	6,609.7	107.4	1.9	87.55	367.8	103.0	3,803.5	3,694.5	109.04	34.881	
10,400.0	6,640.6	6,609.8	6,609.3	109.3	1.9	87.51	367.8	103.0	3,868.2	3,757.4	110.86	34.894	
10,433.0	6,640.5	6,609.5	6,609.0	110.2	1.9	87.48	367.8	103.0	3,901.0	3,789.2	111.77	34.900	
10,500.0	6,640.4	6,609.1	6,608.6	112.0	1.9	87.43	367.8	103.0	3,967.3	3,853.7	113.63	34.913	
10,531.5	6,640.4	6,608.8	6,608.3	112.9	1.9	87.41	367.8	103.0	3,998.5	3,884.0	114.51	34.919	
10,600.0	6,640.3	6,608.4	6,607.8	114.8	1.9	87.35	367.8	103.0	4,066.4	3,950.0	116.41	34.932	
10,629.9	6,640.3	6,608.1	6,607.6	115.7	1.9	87.33	367.8	102.9	4,096.1	3,978.8	117.24	34.937	
10,700.0	6,640.2	6,607.6	6,607.1	117.6	1.9	87.28	367.8	102.9	4,165.6	4,046.4	119.19	34.949	
10,728.3	6,640.1	6,607.4	6,606.9	118.4	1.9	87.26	367.8	102.9	4,193.7	4,073.7	119.98	34.954	
10,800.0	6,640.0	6,606.9	6,606.4	120.4	1.9	87.20	367.8	102.9	4,264.8	4,142.8	121.97	34.966	
10,826.7	6,640.0	6,606.7	6,606.2	121.2	1.9	87.18	367.8	102.9	4,291.3	4,168.6	122.71	34.971	
10,900.0	6,639.9	6,606.2	6,605.7	123.2	1.9	87.13	367.8	102.9	4,364.0	4,239.3	124.75	34.983	
10,925.2	6,639.9	6,606.0	6,605.5	123.9	1.9	87.11	367.8	102.9	4,389.0	4,263.5	125.45	34.987	
11,000.0	6,639.8	6,605.5	6,604.9	126.0	1.9	87.05	367.8	102.9	4,463.3	4,335.7	127.53	34.998	
11,023.6	6,639.8	6,605.3	6,604.8	126.6	1.9	87.03	367.8	102.9	4,486.7	4,358.5	128.18	35.002	
11,100.0	6,639.7	6,604.7	6,604.2	128.8	1.9	86.97	367.8	102.9	4,562.6	4,432.3	130.31	35.014	
11,122.0	6,639.6	6,604.6	6,604.1	129.4	1.9	86.96	367.8	102.9	4,584.4	4,453.5	130.92	35.017	
11,200.0	6,639.5	6,604.0	6,603.5	131.6	1.9	86.90	367.8	102.9	4,661.9	4,528.8	133.09	35.029	
11,220.4	6,639.5	6,603.8	6,603.3	132.1	1.9	86.88	367.8	102.9	4,682.2	4,548.6	133.66	35.031	
11,300.0	6,639.4	6,603.3	6,602.7	134.4	1.9	86.82	367.8	102.9	4,761.3	4,625.4	135.87	35.043	
11,318.9	6,639.4	6,603.1	6,602.6	134.9	1.9	86.80	367.8	102.9	4,780.0	4,643.6	136.39	35.045	
11,400.0	6,639.3	6,602.5	6,602.0	137.1	1.9	86.74	367.9	102.9	4,860.6	4,722.0	138.65	35.057	
11,417.3	6,639.3	6,602.4	6,601.9	137.6	1.9	86.73	367.9	102.9	4,877.8	4,738.7	139.13	35.059	
11,500.0	6,639.2	6,601.8	6,601.3	139.9	1.9	86.66	367.9	102.9	4,960.0	4,818.6	141.43	35.070	
11,515.7	6,639.1	6,601.7	6,601.2	140.4	1.9	86.65	367.9	102.9	4,975.7	4,833.8	141.87	35.072	
11,600.0	6,639.0	6,601.0	6,600.5	142.7	1.9	86.59	367.9	102.9	5,059.5	4,915.3	144.21	35.083	
11,614.1	6,639.0	6,600.9	6,600.4	143.1	1.9	86.58	367.9	102.9	5,073.5	4,928.9	144.61	35.085	
11,700.0	6,638.9	6,600.3	6,599.8	145.5	1.9	86.51	367.9	102.9	5,158.9	5,011.9	147.00	35.096	
11,712.6	6,638.9	6,600.2	6,599.7	145.9	1.9	86.50	367.9	102.9	5,171.4	5,024.1	147.34	35.097	
11,800.0	6,638.8	6,599.6	6,599.1	148.3	1.9	86.43	367.9	102.9	5,258.4	5,108.6	149.78	35.108	
11,811.0	6,638.8	6,599.5	6,599.0	148.6	1.9	86.43	367.9	102.9	5,269.3	5,119.3	150.08	35.110	
11,900.0	6,638.7	6,598.9	6,598.4	151.1	1.9	86.36	367.9	102.9	5,357.9	5,205.3	152.56	35.120	
11,909.4	6,638.6	6,598.8	6,598.3	151.4	1.9	86.36	367.9	102.9	5,367.3	5,214.5	152.82	35.121	
12,000.0	6,638.5	6,598.2	6,597.7	153.9	1.9	86.29	367.9	102.9	5,457.4	5,302.1	155.34	35.132	
12,007.8	6,638.5	6,598.2	6,597.6	154.1	1.9	86.29	367.9	102.9	5,465.2	5,309.7	155.56	35.133	

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

Anticollision Report



Company:	PDC ENERGY	Local Co-ordinate Reference:	Well WACKER 10G-214
Project:	WELD COUNTY, COLORADO	TVD Reference:	KB-EST @ 4624.0usft (Original Well Elev)
Reference Site:	SW NW SEC. 10 T5N R64W 6th P.M.	MD Reference:	KB-EST @ 4624.0usft (Original Well Elev)
Site Error:	0.0 usft	North Reference:	True
Reference Well:	WACKER 10G-214	Survey Calculation Method:	Minimum Curvature
Well Error:	0.0 usft	Output errors are at	2.00 sigma
Reference Wellbore	ORIGINAL WELLBORE	Database:	EDM 5000.1 Single User Db
Reference Design:	PROPOSAL #1	Offset TVD Reference:	Offset Datum

Offset Design												SW NW SEC. 10 T5N R64W 6th P.M. - EXIST VERT WACKER #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					
12,100.0	6,638.4	6,597.5	6,597.0	156.7	1.9	86.22	367.9	102.9	5,556.9	5,398.8	158.12	35.143					
12,106.3	6,638.4	6,597.5	6,597.0	156.9	1.9	86.22	367.9	102.9	5,563.2	5,404.9	158.30	35.144					
12,200.0	6,638.3	6,596.9	6,596.3	159.5	1.9	86.15	367.9	102.9	5,656.5	5,495.6	160.91	35.154					
12,204.7	6,638.3	6,596.8	6,596.3	159.6	1.9	86.15	367.9	102.9	5,661.2	5,500.1	161.04	35.155					
12,300.0	6,638.2	6,596.2	6,595.7	162.3	1.9	86.08	367.9	102.9	5,756.0	5,592.4	163.69	35.165					
12,303.1	6,638.2	6,596.1	6,595.6	162.4	1.9	86.08	367.9	102.9	5,759.2	5,595.4	163.77	35.165					
12,400.0	6,638.0	6,595.5	6,595.0	165.1	1.9	86.01	367.9	102.9	5,855.6	5,689.1	166.47	35.175					
12,401.5	6,638.0	6,595.5	6,595.0	165.2	1.9	86.01	367.9	102.9	5,857.2	5,690.6	166.51	35.175					
12,500.0	6,637.9	6,594.8	6,594.3	167.9	1.9	85.94	367.9	102.9	5,955.2	5,786.0	169.25	35.186					
12,598.4	6,637.8	6,594.1	6,593.6	170.7	1.9	85.87	367.9	102.9	6,053.2	5,881.2	171.99	35.196					
12,600.0	6,637.8	6,594.1	6,593.6	170.7	1.9	85.87	367.9	102.9	6,054.8	5,882.8	172.03	35.196					
12,696.8	6,637.7	6,593.5	6,593.0	173.4	1.9	85.80	367.9	102.9	6,151.3	5,976.5	174.72	35.205					
12,700.0	6,637.7	6,593.4	6,592.9	173.5	1.9	85.80	367.9	102.9	6,154.4	5,979.6	174.81	35.206					
12,795.2	6,637.6	6,592.8	6,592.3	176.2	1.9	85.73	367.9	102.9	6,249.3	6,071.9	177.46	35.215					
12,800.0	6,637.6	6,592.8	6,592.3	176.3	1.9	85.73	367.9	102.9	6,254.1	6,076.5	177.59	35.215					
12,893.7	6,637.4	6,592.1	6,591.6	178.9	1.9	85.66	367.9	102.9	6,347.4	6,167.2	180.20	35.224					
12,900.0	6,637.4	6,592.1	6,591.6	179.1	1.9	85.65	367.9	102.9	6,353.7	6,173.3	180.37	35.225					
12,992.1	6,637.3	6,591.5	6,590.9	181.7	1.9	85.59	367.9	102.9	6,445.5	6,262.5	182.93	35.234					
13,000.0	6,637.3	6,591.4	6,590.9	181.9	1.9	85.58	367.9	102.9	6,453.3	6,270.2	183.15	35.234					
13,090.5	6,637.2	6,590.8	6,590.3	184.4	1.9	85.52	367.9	102.9	6,543.6	6,357.9	185.67	35.243					
13,100.0	6,637.2	6,590.7	6,590.2	184.7	1.9	85.51	367.9	102.9	6,553.0	6,367.1	185.93	35.244					
13,188.9	6,637.1	6,590.1	6,589.6	187.2	1.9	85.45	367.9	102.8	6,641.7	6,453.3	188.41	35.252					
13,200.0	6,637.1	6,590.0	6,589.5	187.5	1.9	85.44	367.9	102.8	6,652.7	6,464.0	188.71	35.253					
13,287.4	6,637.0	6,589.4	6,588.9	190.0	1.9	85.38	367.9	102.8	6,739.8	6,548.6	191.14	35.261					
13,300.0	6,637.0	6,589.4	6,588.9	190.3	1.9	85.37	367.9	102.8	6,752.4	6,560.9	191.49	35.262					
13,385.8	6,636.9	6,588.8	6,588.3	192.7	1.9	85.31	367.9	102.8	6,837.9	6,644.0	193.88	35.269					
13,400.0	6,636.8	6,588.7	6,588.2	193.1	1.9	85.30	367.9	102.8	6,852.0	6,657.8	194.27	35.271					
13,484.2	6,636.7	6,588.1	6,587.6	195.5	1.9	85.24	367.9	102.8	6,936.0	6,739.4	196.61	35.278					
13,500.0	6,636.7	6,588.0	6,587.5	195.9	1.9	85.23	367.9	102.8	6,951.7	6,754.7	197.05	35.279					
13,582.6	6,636.6	6,587.4	6,586.9	198.2	1.9	85.17	367.9	102.8	7,034.2	6,834.8	199.34	35.286					
13,600.0	6,636.6	6,587.3	6,586.8	198.7	1.9	85.16	367.9	102.8	7,051.5	6,851.6	199.83	35.288					
13,681.1	6,636.5	6,586.8	6,586.3	201.0	1.9	85.10	367.9	102.8	7,132.3	6,930.2	202.08	35.295					
13,700.0	6,636.5	6,586.6	6,586.1	201.5	1.9	85.09	367.9	102.8	7,151.2	6,948.6	202.60	35.296					
13,779.5	6,636.4	6,586.1	6,585.6	203.7	1.9	85.04	367.9	102.8	7,230.4	7,025.6	204.81	35.303					
13,800.0	6,636.4	6,586.0	6,585.5	204.3	1.9	85.02	367.9	102.8	7,250.9	7,045.5	205.38	35.305					
13,877.9	6,636.3	6,585.4	6,584.9	206.5	1.9	84.97	367.9	102.8	7,328.6	7,121.1	207.54	35.311					
13,900.0	6,636.3	6,585.3	6,584.8	207.1	1.9	84.95	367.9	102.8	7,350.6	7,142.5	208.16	35.313					
13,976.3	6,636.2	6,584.8	6,584.3	209.3	1.9	84.90	367.9	102.8	7,426.8	7,216.5	210.27	35.319					
14,000.0	6,636.1	6,584.6	6,584.1	209.9	1.9	84.88	367.9	102.8	7,450.4	7,239.4	210.93	35.321					
14,074.8	6,636.0	6,584.1	6,583.6	212.0	1.9	84.83	367.9	102.8	7,524.9	7,311.9	213.01	35.327					
14,100.0	6,636.0	6,583.9	6,583.4	212.7	1.9	84.81	367.9	102.8	7,550.1	7,336.4	213.71	35.329					
14,173.2	6,635.9	6,583.4	6,582.9	214.8	1.9	84.76	367.9	102.8	7,623.1	7,407.4	215.74	35.335					
14,200.0	6,635.9	6,583.3	6,582.7	215.5	1.9	84.75	367.9	102.8	7,649.9	7,433.4	216.48	35.337					
14,271.6	6,635.8	6,582.8	6,582.3	217.5	1.9	84.69	367.9	102.8	7,721.3	7,502.8	218.47	35.343					
14,300.0	6,635.8	6,582.6	6,582.1	218.3	1.9	84.68	367.9	102.8	7,749.6	7,530.4	219.25	35.345					
14,370.0	6,635.7	6,582.1	6,581.6	220.3	1.9	84.63	367.9	102.8	7,819.5	7,598.3	221.20	35.351					
14,400.0	6,635.7	6,581.9	6,581.4	221.1	1.9	84.61	367.9	102.8	7,849.4	7,627.4	222.03	35.353					
14,468.5	6,635.6	6,581.4	6,580.9	223.1	1.9	84.56	367.9	102.8	7,917.7	7,693.8	223.92	35.359					
14,500.0	6,635.6	6,581.2	6,580.7	223.9	1.9	84.54	367.9	102.8	7,949.2	7,724.4	224.80	35.361					
14,566.9	6,635.5	6,580.8	6,580.3	225.8	1.9	84.49	367.9	102.8	8,015.9	7,789.2	226.65	35.366					
14,600.0	6,635.4	6,580.6	6,580.0	226.8	1.9	84.47	367.9	102.8	8,048.9	7,821.4	227.57	35.369					
14,665.3	6,635.4	6,580.1	6,579.6	228.6	1.9	84.42	367.9	102.8	8,114.1	7,884.7	229.38	35.374					

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

Anticollision Report



Company:	PDC ENERGY	Local Co-ordinate Reference:	Well WACKER 10G-214
Project:	WELD COUNTY, COLORADO	TVD Reference:	KB-EST @ 4624.0usft (Original Well Elev)
Reference Site:	SW NW SEC. 10 T5N R64W 6th P.M.	MD Reference:	KB-EST @ 4624.0usft (Original Well Elev)
Site Error:	0.0 usft	North Reference:	True
Reference Well:	WACKER 10G-214	Survey Calculation Method:	Minimum Curvature
Well Error:	0.0 usft	Output errors are at	2.00 sigma
Reference Wellbore	ORIGINAL WELLBORE	Database:	EDM 5000.1 Single User Db
Reference Design:	PROPOSAL #1	Offset TVD Reference:	Offset Datum

Offset Design SW NW SEC. 10 T5N R64W 6th P.M. - EXIST VERT WACKER #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	
14,700.0	6,635.3	6,579.9	6,579.4	229.6	1.9	84.40	367.9	102.8	8,148.7	7,918.4	230.34	35.377	
14,763.7	6,635.2	6,579.4	6,578.9	231.3	1.9	84.35	367.9	102.8	8,212.3	7,980.2	232.11	35.382	
14,800.0	6,635.2	6,579.2	6,578.7	232.4	1.9	84.33	367.9	102.8	8,248.5	8,015.4	233.11	35.384	
14,862.2	6,635.1	6,578.8	6,578.3	234.1	1.9	84.28	368.0	102.8	8,310.5	8,075.7	234.83	35.389	
14,900.0	6,635.1	6,578.5	6,578.0	235.2	1.9	84.26	368.0	102.8	8,348.3	8,112.4	235.88	35.392	
14,960.6	6,635.0	6,578.1	6,577.6	236.9	1.9	84.22	368.0	102.8	8,408.8	8,171.2	237.56	35.397	
14,982.9	6,635.0	6,578.0	6,577.5	237.5	1.9	84.20	368.0	102.8	8,431.0	8,192.8	238.18	35.398	

Anticollision Report



Company:	PDC ENERGY	Local Co-ordinate Reference:	Well WACKER 10G-214
Project:	WELD COUNTY, COLORADO	TVD Reference:	KB-EST @ 4624.0usft (Original Well Elev)
Reference Site:	SW NW SEC. 10 T5N R64W 6th P.M.	MD Reference:	KB-EST @ 4624.0usft (Original Well Elev)
Site Error:	0.0 usft	North Reference:	True
Reference Well:	WACKER 10G-214	Survey Calculation Method:	Minimum Curvature
Well Error:	0.0 usft	Output errors are at	2.00 sigma
Reference Wellbore	ORIGINAL WELLBORE	Database:	EDM 5000.1 Single User Db
Reference Design:	PROPOSAL #1	Offset TVD Reference:	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	48.32	799.3	897.7	1,202.1				
98.4	98.4	88.0	88.0	0.1	0.0	48.32	799.3	897.7	1,201.9	1,201.8	0.10	N/A	
100.0	100.0	89.6	89.6	0.1	0.0	48.32	799.2	897.7	1,201.9	1,201.8	0.10	N/A	
196.8	196.8	186.2	186.2	0.3	0.1	48.32	799.1	897.5	1,201.7	1,201.3	0.40	3,034.626	
200.0	200.0	189.4	189.4	0.3	0.1	48.32	799.1	897.5	1,201.7	1,201.3	0.41	2,959.842	
295.3	295.3	284.9	284.9	0.5	0.2	48.32	798.9	897.4	1,201.5	1,200.7	0.75	1,610.990	
300.0	300.0	289.6	289.6	0.5	0.2	48.32	798.9	897.4	1,201.5	1,200.7	0.76	1,574.899	
393.7	393.7	387.9	387.9	0.8	0.3	48.33	798.6	897.1	1,201.1	1,200.1	1.06	1,133.769	
400.0	400.0	394.6	394.6	0.8	0.3	48.33	798.6	897.1	1,201.1	1,200.0	1.08	1,113.161	
492.1	492.1	486.7	486.7	1.0	0.4	48.33	798.0	896.8	1,200.5	1,199.1	1.35	891.660	
500.0	500.0	494.6	494.6	1.0	0.4	48.34	798.0	896.8	1,200.4	1,199.1	1.37	876.805	
590.5	590.5	585.3	585.3	1.2	0.4	48.34	797.5	896.5	1,199.9	1,198.2	1.62	739.269	
600.0	600.0	594.8	594.8	1.2	0.5	48.35	797.4	896.4	1,199.8	1,198.1	1.65	727.380	
689.0	689.0	683.9	683.9	1.4	0.5	48.35	796.9	896.1	1,199.2	1,197.3	1.89	633.382	
700.0	700.0	694.9	694.9	1.4	0.5	48.35	796.8	896.1	1,199.1	1,197.2	1.92	623.409	
787.4	787.4	782.4	782.4	1.6	0.6	48.36	796.4	895.7	1,198.6	1,196.4	2.16	555.082	
800.0	800.0	795.0	795.0	1.7	0.6	48.36	796.3	895.7	1,198.5	1,196.3	2.19	546.452	
885.8	885.8	881.1	881.1	1.9	0.6	48.36	795.9	895.3	1,197.9	1,195.5	2.42	494.616	
900.0	900.0	895.4	895.3	1.9	0.6	48.36	795.8	895.2	1,197.8	1,195.3	2.46	486.988	
984.2	984.2	980.5	980.4	2.1	0.7	48.36	795.4	894.7	1,197.2	1,194.5	2.68	446.231	
1,000.0	1,000.0	996.4	996.4	2.1	0.7	48.36	795.3	894.6	1,197.1	1,194.3	2.72	439.354	
1,082.7	1,082.7	1,079.1	1,079.0	2.3	0.7	48.36	794.9	894.1	1,196.4	1,193.5	2.94	406.755	
1,100.0	1,100.0	1,096.4	1,096.4	2.3	0.7	48.36	794.8	894.0	1,196.3	1,193.3	2.99	400.528	
1,181.1	1,181.1	1,176.1	1,176.1	2.5	0.7	48.37	794.3	893.6	1,195.7	1,192.5	3.20	373.992	
1,200.0	1,200.0	1,194.7	1,194.7	2.6	0.7	48.37	794.3	893.6	1,195.6	1,192.3	3.25	368.311	
1,279.5	1,279.5	1,272.6	1,272.5	2.7	0.8	48.37	793.9	893.3	1,195.1	1,191.7	3.45	346.304	
1,300.0	1,300.0	1,292.6	1,292.6	2.8	0.8	48.37	793.8	893.2	1,195.0	1,191.5	3.50	341.063	
1,377.9	1,377.9	1,371.0	1,370.9	3.0	0.8	-70.34	793.6	892.9	1,194.3	1,190.5	3.78	316.138	
1,400.0	1,400.0	1,393.2	1,393.1	3.0	0.8	-70.38	793.5	892.8	1,193.9	1,190.1	3.83	311.540	
1,476.4	1,476.3	1,470.0	1,469.9	3.1	0.9	-70.58	793.2	892.5	1,192.3	1,188.3	4.01	297.337	
1,500.0	1,499.8	1,493.7	1,493.7	3.2	0.9	-70.66	793.1	892.5	1,191.6	1,187.6	4.06	293.157	
1,574.8	1,574.4	1,568.4	1,568.4	3.3	0.9	-70.98	792.8	892.2	1,189.2	1,184.9	4.25	279.958	
1,600.0	1,599.5	1,593.5	1,593.5	3.4	0.9	-71.11	792.7	892.1	1,188.2	1,183.9	4.31	275.702	
1,673.2	1,672.2	1,670.3	1,670.2	3.6	0.9	-71.59	792.3	891.7	1,184.9	1,180.4	4.50	263.050	
1,700.0	1,698.7	1,698.4	1,698.4	3.6	1.0	-71.79	792.0	891.5	1,183.5	1,178.9	4.58	258.602	
1,771.6	1,769.5	1,772.1	1,772.1	3.8	1.0	-72.38	791.4	890.9	1,179.2	1,174.4	4.79	246.385	
1,800.0	1,797.5	1,801.2	1,801.2	3.9	1.0	-72.65	791.1	890.6	1,177.4	1,172.5	4.87	241.748	
1,870.1	1,866.3	1,874.4	1,874.3	4.1	1.0	-73.37	790.2	889.9	1,172.4	1,167.3	5.10	229.815	
1,900.2	1,895.8	1,905.6	1,905.5	4.2	1.0	-73.71	789.7	889.5	1,170.0	1,164.8	5.20	224.908	
1,968.5	1,962.6	1,974.8	1,974.7	4.4	1.1	-74.37	788.4	888.8	1,164.6	1,159.2	5.45	213.743	
2,000.0	1,993.4	2,006.6	2,006.5	4.5	1.1	-74.67	787.7	888.6	1,162.1	1,156.6	5.56	208.865	
2,066.9	2,058.9	2,073.2	2,073.1	4.7	1.1	-75.30	786.2	887.9	1,156.9	1,151.1	5.82	198.762	
2,100.0	2,091.2	2,105.8	2,105.7	4.8	1.1	-75.62	785.4	887.6	1,154.3	1,148.4	5.95	194.056	
2,165.3	2,155.2	2,167.4	2,167.3	5.1	1.1	-76.22	784.1	886.9	1,149.4	1,143.2	6.21	185.120	
2,200.0	2,189.1	2,200.0	2,199.9	5.2	1.2	-76.54	783.5	886.5	1,146.9	1,140.6	6.35	180.641	
2,263.8	2,251.4	2,263.7	2,263.6	5.5	1.2	-77.19	782.5	885.6	1,142.5	1,135.9	6.62	172.687	
2,300.0	2,286.9	2,299.8	2,299.7	5.6	1.2	-77.56	782.0	885.0	1,140.0	1,133.2	6.77	168.428	
2,362.2	2,347.7	2,359.7	2,359.5	5.8	1.2	-78.19	781.2	883.8	1,135.8	1,128.7	7.04	161.435	
2,400.0	2,384.7	2,396.0	2,395.9	6.0	1.2	-78.58	780.8	883.1	1,133.3	1,126.1	7.20	157.432	
2,460.6	2,444.0	2,456.4	2,456.2	6.2	1.3	-79.23	780.1	881.9	1,129.5	1,122.0	7.47	151.275	
2,500.0	2,482.5	2,495.7	2,495.5	6.4	1.3	-79.65	779.6	881.1	1,127.1	1,119.4	7.64	147.499	
2,559.0	2,540.3	2,551.3	2,551.0	6.6	1.3	-80.26	779.0	880.0	1,123.5	1,115.6	7.90	142.129	

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

Anticollision Report



Company:	PDC ENERGY	Local Co-ordinate Reference:	Well WACKER 10G-214
Project:	WELD COUNTY, COLORADO	TVD Reference:	KB-EST @ 4624.0usft (Original Well Elev)
Reference Site:	SW NW SEC. 10 T5N R64W 6th P.M.	MD Reference:	KB-EST @ 4624.0usft (Original Well Elev)
Site Error:	0.0 usft	North Reference:	True
Reference Well:	WACKER 10G-214	Survey Calculation Method:	Minimum Curvature
Well Error:	0.0 usft	Output errors are at	2.00 sigma
Reference Wellbore	ORIGINAL WELLBORE	Database:	EDM 5000.1 Single User Db
Reference Design:	PROPOSAL #1	Offset TVD Reference:	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	2,580.3	2,589.6	2,589.3	6.8	1.3	-80.68	778.6	879.2	1,121.2	1,113.1	8.09	138.623	
2,657.5	2,636.5	2,645.1	2,644.9	7.1	1.3	-81.30	778.2	878.0	1,118.2	1,109.8	8.35	133.928	
2,700.0	2,678.1	2,686.6	2,686.3	7.2	1.3	-81.76	777.9	877.1	1,116.0	1,107.5	8.54	130.643	
2,755.9	2,732.8	2,741.6	2,741.3	7.5	1.4	-82.38	777.5	875.9	1,113.3	1,104.5	8.80	126.514	
2,800.0	2,775.9	2,785.2	2,784.9	7.7	1.4	-82.88	777.1	874.9	1,111.2	1,102.2	9.00	123.426	
2,854.3	2,829.1	2,839.0	2,838.7	7.9	1.4	-83.48	776.6	873.8	1,108.7	1,099.5	9.26	119.786	
2,900.0	2,873.8	2,884.3	2,884.0	8.1	1.4	-83.99	776.2	872.8	1,106.7	1,097.2	9.47	116.880	
2,952.7	2,925.4	2,936.0	2,935.7	8.3	1.4	-84.58	775.6	871.7	1,104.5	1,094.7	9.72	113.674	
2,953.5	2,926.1	2,936.8	2,936.4	8.3	1.4	-84.58	775.6	871.7	1,104.4	1,094.7	9.72	113.631	
3,000.0	2,971.6	2,982.4	2,982.0	8.5	1.4	-85.04	775.0	870.9	1,102.6	1,092.7	9.91	111.242	
3,051.2	3,022.0	3,032.0	3,031.6	8.7	1.5	-85.49	774.2	870.1	1,100.7	1,090.6	10.09	109.110	
3,100.0	3,070.1	3,079.1	3,078.8	8.8	1.5	-85.87	773.5	869.4	1,099.1	1,088.8	10.26	107.162	
3,149.6	3,119.1	3,127.2	3,126.9	8.9	1.5	-86.21	772.8	868.9	1,097.6	1,087.2	10.41	105.406	
3,200.0	3,169.1	3,176.2	3,175.9	9.1	1.5	-86.53	772.0	868.4	1,096.2	1,085.7	10.57	103.689	
3,248.0	3,216.8	3,223.0	3,222.7	9.2	1.5	-86.78	771.3	868.0	1,095.0	1,084.3	10.71	102.258	
3,300.0	3,268.5	3,273.8	3,273.4	9.3	1.5	-87.01	770.5	867.6	1,093.9	1,083.0	10.86	100.763	
3,346.4	3,314.8	3,319.1	3,318.7	9.4	1.6	-87.17	769.8	867.4	1,093.0	1,082.0	10.97	99.610	
3,400.0	3,368.3	3,371.3	3,370.8	9.6	1.6	-87.31	769.0	867.3	1,092.0	1,080.9	11.11	98.324	
3,444.9	3,413.1	3,415.2	3,414.8	9.6	1.6	-87.39	768.3	867.2	1,091.3	1,080.1	11.20	97.406	
3,500.0	3,468.2	3,469.6	3,469.2	9.7	1.6	-87.44	767.6	867.1	1,090.5	1,079.2	11.32	96.306	
3,543.3	3,511.5	3,512.8	3,512.3	9.8	1.6	-87.44	767.0	866.9	1,089.9	1,078.5	11.41	95.557	
3,553.7	3,521.9	3,523.4	3,522.9	9.8	1.6	31.21	766.9	866.9	1,089.8	1,080.9	8.92	122.145	
3,600.0	3,568.2	3,570.6	3,570.2	9.9	1.6	31.22	766.2	866.8	1,089.2	1,080.2	9.02	120.745	
3,641.7	3,609.9	3,612.6	3,612.2	10.0	1.6	31.24	765.6	866.6	1,088.6	1,079.5	9.11	119.464	
3,700.0	3,668.2	3,669.4	3,669.0	10.1	1.7	31.25	764.8	866.5	1,087.8	1,078.6	9.24	117.730	
3,740.1	3,708.4	3,709.0	3,708.5	10.1	1.7	31.26	764.3	866.3	1,087.3	1,078.0	9.33	116.558	
3,800.0	3,768.2	3,770.0	3,769.5	10.2	1.7	31.26	763.6	866.1	1,086.6	1,077.1	9.46	114.847	
3,838.6	3,806.8	3,809.1	3,808.7	10.3	1.7	31.27	763.1	865.8	1,086.0	1,076.5	9.55	113.760	
3,900.0	3,868.2	3,870.6	3,870.2	10.4	1.7	31.27	762.3	865.5	1,085.2	1,075.5	9.68	112.072	
3,937.0	3,905.2	3,907.4	3,906.9	10.5	1.7	31.28	761.8	865.3	1,084.7	1,074.9	9.77	111.072	
4,000.0	3,968.2	3,967.9	3,967.4	10.6	1.8	31.28	761.1	865.0	1,083.9	1,074.0	9.91	109.424	
4,035.4	4,003.6	4,002.1	4,001.6	10.6	1.8	31.28	760.8	864.8	1,083.5	1,073.5	9.98	108.519	
4,100.0	4,068.2	4,067.6	4,067.1	10.7	1.8	31.28	760.3	864.4	1,082.8	1,072.7	10.13	106.897	
4,133.8	4,102.1	4,102.0	4,101.5	10.8	1.8	31.28	760.0	864.1	1,082.5	1,072.3	10.21	106.059	
4,200.0	4,168.2	4,171.6	4,171.1	10.9	1.8	31.27	759.3	863.5	1,081.6	1,071.2	10.36	104.440	
4,232.3	4,200.5	4,205.3	4,204.8	11.0	1.9	31.26	759.0	863.1	1,081.1	1,070.7	10.43	103.657	
4,300.0	4,268.2	4,273.6	4,273.1	11.1	1.9	31.23	758.3	862.1	1,080.0	1,069.4	10.58	102.047	
4,330.7	4,298.9	4,304.4	4,303.9	11.1	1.9	31.21	758.0	861.5	1,079.5	1,068.8	10.65	101.328	
4,400.0	4,368.2	4,372.6	4,372.1	11.3	1.9	31.17	757.5	860.2	1,078.4	1,067.6	10.81	99.740	
4,429.1	4,397.3	4,400.0	4,399.5	11.3	1.9	31.15	757.3	859.7	1,077.9	1,067.0	10.88	99.088	
4,500.0	4,468.2	4,470.3	4,469.8	11.4	1.9	31.09	757.0	858.3	1,076.9	1,065.9	11.04	97.533	
4,527.5	4,495.8	4,497.2	4,496.6	11.5	1.9	31.07	756.9	857.8	1,076.5	1,065.4	11.10	96.942	
4,600.0	4,568.2	4,565.1	4,564.5	11.6	2.0	31.03	756.7	856.6	1,075.8	1,064.5	11.27	95.444	
4,626.0	4,594.2	4,589.4	4,588.8	11.7	2.0	31.02	756.6	856.4	1,075.5	1,064.2	11.33	94.922	
4,700.0	4,668.2	4,660.4	4,659.8	11.8	2.0	31.01	756.4	856.1	1,075.1	1,063.6	11.49	93.555	
4,724.4	4,692.6	4,683.9	4,683.3	11.9	2.0	31.02	756.2	856.1	1,075.0	1,063.5	11.54	93.119	
4,800.0	4,768.2	4,759.1	4,758.5	12.0	2.0	31.05	755.7	856.6	1,074.8	1,063.1	11.71	91.771	
4,822.8	4,791.0	4,781.9	4,781.4	12.0	2.0	31.06	755.5	856.7	1,074.7	1,063.0	11.76	91.367	
4,900.0	4,868.2	4,861.6	4,861.0	12.2	2.0	31.10	754.9	857.1	1,074.4	1,062.5	11.94	90.021	
4,921.2	4,889.5	4,883.7	4,883.2	12.2	2.0	31.11	754.7	857.2	1,074.3	1,062.3	11.98	89.653	
5,000.0	4,968.2	4,962.2	4,961.6	12.4	2.0	31.13	754.0	857.3	1,073.8	1,061.6	12.16	88.305	
5,019.7	4,987.9	4,981.6	4,981.0	12.4	2.0	31.14	753.9	857.4	1,073.7	1,061.5	12.20	87.973	

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

Anticollision Report



Company:	PDC ENERGY	Local Co-ordinate Reference:	Well WACKER 10G-214
Project:	WELD COUNTY, COLORADO	TVD Reference:	KB-EST @ 4624.0usft (Original Well Elev)
Reference Site:	SW NW SEC. 10 T5N R64W 6th P.M.	MD Reference:	KB-EST @ 4624.0usft (Original Well Elev)
Site Error:	0.0 usft	North Reference:	True
Reference Well:	WACKER 10G-214	Survey Calculation Method:	Minimum Curvature
Well Error:	0.0 usft	Output errors are at	2.00 sigma
Reference Wellbore	ORIGINAL WELLBORE	Database:	EDM 5000.1 Single User Db
Reference Design:	PROPOSAL #1	Offset TVD Reference:	Offset Datum

Offset Design										SW NW SEC. 10 T5N R64W 6th P.M. - EXIST VERT WACKER #10D - 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			
5,100.0	5,068.2	5,062.8	5,062.2	12.6	2.1	31.16	753.2	857.5	1,073.2	1,060.8	12.39	86.644				
5,118.1	5,086.3	5,081.2	5,080.7	12.6	2.1	31.17	753.1	857.5	1,073.1	1,060.7	12.43	86.347				
5,200.0	5,168.2	5,164.8	5,164.3	12.7	2.1	31.19	752.3	857.6	1,072.5	1,059.8	12.61	85.023				
5,216.5	5,184.7	5,181.7	5,181.1	12.8	2.1	31.20	752.1	857.6	1,072.3	1,059.7	12.65	84.759				
5,300.0	5,268.2	5,266.8	5,266.2	12.9	2.1	31.23	751.1	857.7	1,071.5	1,058.7	12.84	83.442				
5,314.9	5,283.2	5,282.0	5,281.4	13.0	2.1	31.23	751.0	857.6	1,071.4	1,058.5	12.88	83.209				
5,400.0	5,368.2	5,367.0	5,366.4	13.1	2.2	31.24	750.1	857.4	1,070.5	1,057.4	13.07	81.901				
5,413.4	5,381.6	5,380.3	5,379.7	13.2	2.2	31.24	749.9	857.3	1,070.3	1,057.2	13.10	81.698				
5,500.0	5,468.2	5,466.9	5,466.3	13.3	2.2	31.25	749.1	857.0	1,069.4	1,056.1	13.30	80.412				
5,511.8	5,480.0	5,478.8	5,478.2	13.3	2.2	31.25	749.0	856.9	1,069.3	1,056.0	13.33	80.239				
5,600.0	5,568.2	5,568.2	5,567.6	13.5	2.2	31.24	748.3	856.2	1,068.3	1,054.8	13.53	78.963				
5,610.2	5,578.4	5,578.6	5,578.0	13.5	2.2	31.24	748.2	856.2	1,068.2	1,054.7	13.55	78.816				
5,700.0	5,668.2	5,666.3	5,665.7	13.7	2.3	31.22	747.5	855.4	1,067.2	1,053.4	13.76	77.557				
5,708.6	5,676.9	5,674.7	5,674.1	13.7	2.3	31.22	747.4	855.3	1,067.1	1,053.3	13.78	77.439				
5,800.0	5,768.2	5,765.5	5,764.9	13.9	2.3	31.19	747.0	854.4	1,066.3	1,052.3	13.99	76.210				
5,807.1	5,775.3	5,772.6	5,772.0	13.9	2.3	31.19	747.0	854.4	1,066.2	1,052.2	14.01	76.116				
5,900.0	5,868.2	5,867.1	5,866.4	14.1	2.3	31.16	746.5	853.4	1,065.3	1,051.1	14.22	74.899				
5,905.5	5,873.7	5,872.7	5,872.1	14.1	2.3	31.16	746.4	853.4	1,065.3	1,051.0	14.24	74.827				
5,960.7	5,928.9	5,928.5	5,927.9	14.2	2.3	31.15	746.0	852.9	1,064.7	1,050.3	14.36	74.118				
5,976.4	5,944.6	5,944.2	5,943.6	14.2	2.3	121.16	745.9	852.8	1,064.6	1,048.0	16.58	64.201 CC, ES				
6,000.0	5,968.2	5,967.9	5,967.3	14.3	2.4	121.18	745.7	852.5	1,064.8	1,048.2	16.63	64.039				
6,003.9	5,972.1	5,971.9	5,971.3	14.3	2.4	121.19	745.7	852.5	1,064.9	1,048.2	16.63	64.021				
6,050.0	6,018.0	6,018.5	6,017.8	14.4	2.4	121.26	745.3	852.1	1,066.5	1,049.8	16.70	63.855				
6,100.0	6,067.3	6,069.5	6,068.9	14.4	2.4	121.38	744.8	851.6	1,070.1	1,053.3	16.76	63.831				
6,102.3	6,069.6	6,071.9	6,071.2	14.4	2.4	121.39	744.8	851.5	1,070.3	1,053.5	16.77	63.834				
6,150.0	6,116.0	6,120.1	6,119.5	14.4	2.4	121.53	744.4	851.0	1,075.4	1,058.6	16.81	63.954				
6,200.0	6,163.8	6,170.2	6,169.6	14.5	2.4	121.70	743.8	850.4	1,082.5	1,065.7	16.86	64.215				
6,200.8	6,164.5	6,171.0	6,170.3	14.5	2.4	121.71	743.8	850.4	1,082.7	1,065.8	16.86	64.220				
6,250.0	6,210.4	6,218.5	6,217.8	14.5	2.4	121.87	743.1	849.8	1,091.6	1,074.7	16.90	64.602				
6,299.2	6,254.9	6,263.6	6,263.0	14.5	2.5	121.98	742.4	849.3	1,102.5	1,085.5	16.94	65.096				
6,300.0	6,255.6	6,264.4	6,263.7	14.5	2.5	121.98	742.4	849.3	1,102.6	1,085.7	16.94	65.105				
6,350.0	6,299.3	6,308.8	6,308.2	14.5	2.5	122.04	741.7	848.8	1,115.8	1,098.8	16.98	65.706				
6,397.6	6,339.2	6,350.3	6,349.6	14.6	2.5	122.03	741.0	848.3	1,130.3	1,113.3	17.04	66.342				
6,400.0	6,341.2	6,352.3	6,351.6	14.6	2.5	122.03	740.9	848.3	1,131.1	1,114.1	17.04	66.376				
6,450.0	6,381.0	6,393.7	6,393.0	14.6	2.5	121.91	740.2	847.9	1,148.6	1,131.4	17.12	67.085				
6,496.0	6,415.8	6,430.4	6,429.7	14.7	2.5	121.68	739.4	847.5	1,166.6	1,149.4	17.22	67.731				
6,500.0	6,418.7	6,433.4	6,432.7	14.7	2.5	121.66	739.3	847.5	1,168.2	1,151.0	17.23	67.790				
6,550.0	6,453.9	6,470.8	6,470.1	14.8	2.5	121.22	738.5	847.1	1,190.1	1,172.8	17.39	68.443				
6,594.5	6,483.1	6,501.9	6,501.2	15.0	2.5	120.66	737.8	846.8	1,211.5	1,193.9	17.58	68.925				
6,600.0	6,486.6	6,505.9	6,505.1	15.1	2.5	120.58	737.7	846.7	1,214.3	1,196.7	17.60	68.989				
6,650.0	6,516.6	6,539.8	6,539.1	15.3	2.5	119.75	736.8	846.3	1,240.5	1,222.6	17.88	69.372				
6,692.9	6,540.0	6,566.6	6,565.9	15.7	2.6	118.79	736.0	845.9	1,264.7	1,246.6	18.19	69.523				
6,700.0	6,543.7	6,570.9	6,570.1	15.7	2.6	118.61	735.9	845.9	1,268.9	1,250.7	18.24	69.550				
6,750.0	6,567.8	6,598.7	6,598.0	16.2	2.6	117.13	735.1	845.4	1,299.3	1,280.6	18.70	69.495				
6,791.3	6,585.4	6,614.9	6,614.2	16.7	2.6	115.38	734.6	845.1	1,325.9	1,306.8	19.15	69.248				
6,800.0	6,588.8	6,618.0	6,617.2	16.8	2.6	114.98	734.6	845.1	1,331.7	1,312.4	19.24	69.200				
6,850.0	6,606.6	6,634.1	6,633.3	17.4	2.6	112.34	734.1	844.8	1,365.9	1,346.0	19.88	68.692				
6,889.7	6,618.4	6,644.8	6,644.0	18.0	2.6	109.86	733.8	844.7	1,394.4	1,373.9	20.46	68.150				
6,900.0	6,621.1	6,647.2	6,646.4	18.2	2.6	109.17	733.7	844.7	1,401.9	1,381.2	20.61	68.019				
6,950.0	6,632.2	6,657.3	6,656.5	19.0	2.6	105.43	733.5	844.5	1,439.3	1,417.9	21.40	67.240				
6,988.2	6,638.4	6,662.9	6,662.1	19.7	2.6	102.18	733.3	844.5	1,468.7	1,446.7	22.06	66.593				
7,000.0	6,639.9	6,664.3	6,663.5	19.9	2.6	101.10	733.3	844.5	1,478.0	1,455.7	22.26	66.409				

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

Anticollision Report



Company:	PDC ENERGY	Local Co-ordinate Reference:	Well WACKER 10G-214
Project:	WELD COUNTY, COLORADO	TVD Reference:	KB-EST @ 4624.0usft (Original Well Elev)
Reference Site:	SW NW SEC. 10 T5N R64W 6th P.M.	MD Reference:	KB-EST @ 4624.0usft (Original Well Elev)
Site Error:	0.0 usft	North Reference:	True
Reference Well:	WACKER 10G-214	Survey Calculation Method:	Minimum Curvature
Well Error:	0.0 usft	Output errors are at	2.00 sigma
Reference Wellbore	ORIGINAL WELLBORE	Database:	EDM 5000.1 Single User Db
Reference Design:	PROPOSAL #1	Offset TVD Reference:	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	6,644.1	6,668.4	6,667.6	20.8	2.6	96.17	733.2	844.4	1,517.7	1,494.5	23.16	65.544	
7,086.5	6,645.0	6,669.5	6,668.7	21.5	2.6	92.22	733.1	844.4	1,547.3	1,523.4	23.85	64.880	
7,100.0	6,645.0	6,669.6	6,668.8	21.8	2.6	92.23	733.1	844.4	1,558.2	1,534.1	24.11	64.620	
7,185.0	6,644.9	6,670.2	6,669.4	23.6	2.6	92.27	733.1	844.4	1,628.4	1,602.6	25.87	62.940	
7,200.0	6,644.8	6,670.3	6,669.5	23.9	2.6	92.28	733.1	844.4	1,640.9	1,614.8	26.18	62.673	
7,283.4	6,644.7	6,670.9	6,670.1	25.7	2.6	92.32	733.1	844.4	1,711.4	1,683.3	28.02	61.069	
7,300.0	6,644.7	6,671.0	6,670.2	26.1	2.6	92.32	733.1	844.4	1,725.5	1,697.1	28.39	60.780	
7,381.9	6,644.6	6,671.6	6,670.8	28.0	2.6	92.36	733.1	844.4	1,795.9	1,765.6	30.28	59.304	
7,400.0	6,644.6	6,671.7	6,670.9	28.4	2.6	92.37	733.1	844.4	1,811.6	1,780.9	30.70	59.006	
7,480.3	6,644.5	6,672.3	6,671.5	30.3	2.6	92.40	733.1	844.4	1,881.7	1,849.1	32.63	57.677	
7,500.0	6,644.4	6,672.4	6,671.6	30.8	2.6	92.41	733.1	844.4	1,899.0	1,865.9	33.10	57.378	
7,578.7	6,644.3	6,672.9	6,672.1	32.7	2.6	92.45	733.0	844.4	1,968.7	1,933.7	35.03	56.196	
7,600.0	6,644.3	6,673.1	6,672.3	33.3	2.6	92.46	733.0	844.4	1,987.7	1,952.1	35.56	55.902	
7,677.1	6,644.2	6,673.6	6,672.8	35.2	2.6	92.49	733.0	844.4	2,056.8	2,019.3	37.49	54.856	
7,700.0	6,644.1	6,673.8	6,673.0	35.8	2.6	92.50	733.0	844.4	2,077.4	2,039.3	38.07	54.570	
7,775.6	6,644.0	6,674.3	6,673.4	37.7	2.6	92.53	733.0	844.4	2,145.8	2,105.8	40.00	53.648	
7,800.0	6,644.0	6,674.4	6,673.6	38.3	2.6	92.54	733.0	844.4	2,168.0	2,127.3	40.62	53.371	
7,874.0	6,643.9	6,674.9	6,674.1	40.2	2.6	92.57	733.0	844.4	2,235.5	2,193.0	42.53	52.558	
7,900.0	6,643.9	6,675.1	6,674.3	40.9	2.6	92.58	733.0	844.4	2,259.3	2,216.1	43.21	52.292	
7,972.4	6,643.8	6,675.5	6,674.7	42.8	2.6	92.61	733.0	844.4	2,326.0	2,280.9	45.10	51.575	
8,000.0	6,643.7	6,675.7	6,674.9	43.5	2.6	92.63	733.0	844.4	2,351.4	2,305.6	45.82	51.319	
8,070.8	6,643.6	6,676.1	6,675.3	45.4	2.6	92.65	733.0	844.3	2,417.0	2,369.3	47.69	50.686	
8,100.0	6,643.6	6,676.3	6,675.5	46.2	2.6	92.67	732.9	844.3	2,444.1	2,395.7	48.45	50.441	
8,169.3	6,643.5	6,676.7	6,675.9	48.0	2.6	92.69	732.9	844.3	2,508.7	2,458.4	50.29	49.880	
8,200.0	6,643.5	6,676.9	6,676.1	48.8	2.6	92.71	732.9	844.3	2,537.4	2,486.3	51.11	49.646	
8,267.7	6,643.4	6,677.3	6,676.5	50.6	2.6	92.73	732.9	844.3	2,600.8	2,547.9	52.92	49.148	
8,300.0	6,643.3	6,677.5	6,676.7	51.5	2.6	92.74	732.9	844.3	2,631.1	2,577.3	53.78	48.923	
8,366.1	6,643.2	6,677.9	6,677.1	53.3	2.6	92.77	732.9	844.3	2,693.4	2,637.8	55.56	48.481	
8,400.0	6,643.2	6,678.1	6,677.3	54.2	2.6	92.78	732.9	844.3	2,725.3	2,668.9	56.46	48.266	
8,464.5	6,643.1	6,678.5	6,677.7	55.9	2.6	92.81	732.9	844.3	2,786.3	2,728.1	58.20	47.871	
8,500.0	6,643.1	6,678.7	6,677.9	56.9	2.6	92.82	732.9	844.3	2,819.9	2,760.7	59.16	47.665	
8,563.0	6,643.0	6,679.1	6,678.3	58.6	2.6	92.84	732.9	844.3	2,879.7	2,818.8	60.86	47.312	
8,600.0	6,642.9	6,679.3	6,678.5	59.6	2.6	92.86	732.9	844.3	2,914.9	2,853.0	61.87	47.115	
8,661.4	6,642.8	6,679.7	6,678.8	61.3	2.6	92.88	732.9	844.3	2,973.3	2,909.8	63.53	46.799	
8,700.0	6,642.8	6,679.9	6,679.1	62.3	2.6	92.90	732.9	844.3	3,010.1	2,945.6	64.58	46.610	
8,759.8	6,642.7	6,680.2	6,679.4	64.0	2.6	92.92	732.8	844.3	3,067.3	3,001.1	66.21	46.326	
8,800.0	6,642.7	6,680.4	6,679.6	65.1	2.6	92.93	732.8	844.3	3,105.7	3,038.4	67.30	46.145	
8,858.2	6,642.6	6,680.8	6,679.9	66.6	2.6	92.95	732.8	844.3	3,161.5	3,092.6	68.89	45.890	
8,900.0	6,642.5	6,681.0	6,680.2	67.8	2.6	92.97	732.8	844.3	3,201.6	3,131.5	70.03	45.715	
8,956.7	6,642.4	6,681.3	6,680.5	69.3	2.6	92.99	732.8	844.3	3,256.0	3,184.4	71.58	45.486	
9,000.0	6,642.4	6,681.5	6,680.7	70.5	2.6	93.00	732.8	844.3	3,297.7	3,224.9	72.77	45.317	
9,055.1	6,642.3	6,681.8	6,681.0	72.0	2.6	93.02	732.8	844.3	3,350.7	3,276.4	74.28	45.110	
9,100.0	6,642.3	6,682.1	6,681.2	73.3	2.6	93.04	732.8	844.3	3,394.0	3,318.5	75.51	44.949	
9,153.5	6,642.2	6,682.3	6,681.5	74.7	2.6	93.06	732.8	844.3	3,445.6	3,368.7	76.98	44.762	
9,200.0	6,642.1	6,682.6	6,681.8	76.0	2.6	93.07	732.8	844.3	3,490.5	3,412.3	78.25	44.605	
9,251.9	6,642.1	6,682.9	6,682.0	77.5	2.6	93.09	732.8	844.3	3,540.7	3,461.1	79.68	44.436	
9,300.0	6,642.0	6,683.1	6,682.3	78.8	2.6	93.10	732.8	844.3	3,587.2	3,506.2	81.00	44.286	
9,350.4	6,641.9	6,683.4	6,682.5	80.2	2.6	93.12	732.8	844.3	3,636.0	3,553.6	82.39	44.133	
9,400.0	6,641.9	6,683.6	6,682.8	81.5	2.6	93.14	732.8	844.3	3,684.1	3,600.4	83.75	43.987	
9,448.8	6,641.8	6,683.9	6,683.0	82.9	2.6	93.15	732.8	844.3	3,731.5	3,646.4	85.10	43.848	
9,500.0	6,641.7	6,684.1	6,683.3	84.3	2.6	93.17	732.7	844.3	3,781.2	3,694.7	86.51	43.708	
9,547.2	6,641.7	6,684.3	6,683.5	85.6	2.6	93.19	732.7	844.3	3,827.1	3,739.3	87.81	43.582	

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

Anticollision Report



Company:	PDC ENERGY	Local Co-ordinate Reference:	Well WACKER 10G-214
Project:	WELD COUNTY, COLORADO	TVD Reference:	KB-EST @ 4624.0usft (Original Well Elev)
Reference Site:	SW NW SEC. 10 T5N R64W 6th P.M.	MD Reference:	KB-EST @ 4624.0usft (Original Well Elev)
Site Error:	0.0 usft	North Reference:	True
Reference Well:	WACKER 10G-214	Survey Calculation Method:	Minimum Curvature
Well Error:	0.0 usft	Output errors are at	2.00 sigma
Reference Wellbore	ORIGINAL WELLBORE	Database:	EDM 5000.1 Single User Db
Reference Design:	PROPOSAL #1	Offset TVD Reference:	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	
9,600.0	6,641.6	6,700.0	6,699.2	87.1	2.6	94.18	732.3	844.2	3,878.4	3,789.2	89.21	43.477	
9,645.6	6,641.5	6,700.0	6,699.2	88.3	2.6	94.18	732.3	844.2	3,922.8	3,832.4	90.47	43.363	
9,700.0	6,641.5	6,700.0	6,699.2	89.8	2.6	94.18	732.3	844.2	3,975.8	3,883.8	91.97	43.231	
9,744.1	6,641.4	6,700.0	6,699.2	91.0	2.6	94.18	732.3	844.2	4,018.7	3,925.5	93.18	43.127	
9,800.0	6,641.3	6,700.0	6,699.2	92.6	2.6	94.18	732.3	844.2	4,073.2	3,978.5	94.73	42.999	
9,842.5	6,641.3	6,700.0	6,699.2	93.8	2.6	94.18	732.3	844.2	4,114.7	4,018.8	95.90	42.904	
9,900.0	6,641.2	6,700.0	6,699.2	95.4	2.6	94.19	732.3	844.2	4,170.8	4,073.3	97.49	42.780	
9,940.9	6,641.1	6,700.0	6,699.2	96.5	2.6	94.19	732.3	844.2	4,210.8	4,112.2	98.63	42.694	
10,000.0	6,641.1	6,700.0	6,699.2	98.1	2.6	94.19	732.3	844.2	4,268.5	4,168.3	100.26	42.574	
10,039.3	6,641.0	6,700.0	6,699.2	99.2	2.6	94.19	732.3	844.2	4,307.0	4,205.6	101.35	42.495	
10,100.0	6,640.9	6,700.0	6,699.2	100.9	2.6	94.19	732.3	844.2	4,366.3	4,263.3	103.03	42.378	
10,137.8	6,640.9	6,700.0	6,699.2	102.0	2.6	94.19	732.3	844.2	4,403.3	4,299.2	104.08	42.307	
10,200.0	6,640.8	6,700.0	6,699.2	103.7	2.6	94.19	732.3	844.2	4,464.2	4,358.4	105.80	42.194	
10,236.2	6,640.8	6,700.0	6,699.2	104.7	2.6	94.19	732.3	844.2	4,499.7	4,392.9	106.81	42.129	
10,300.0	6,640.7	6,700.0	6,699.2	106.5	2.6	94.19	732.3	844.2	4,562.2	4,453.6	108.58	42.019	
10,334.6	6,640.6	6,700.0	6,699.2	107.4	2.6	94.19	732.3	844.2	4,596.2	4,486.6	109.54	41.960	
10,400.0	6,640.6	6,700.0	6,699.2	109.3	2.6	94.19	732.3	844.2	4,660.3	4,548.9	111.35	41.852	
10,433.0	6,640.5	6,700.0	6,699.2	110.2	2.6	94.19	732.3	844.2	4,692.7	4,580.5	112.27	41.799	
10,500.0	6,640.4	6,700.0	6,699.2	112.0	2.6	94.19	732.3	844.2	4,758.5	4,644.3	114.13	41.694	
10,531.5	6,640.4	6,700.0	6,699.2	112.9	2.6	94.19	732.3	844.2	4,789.4	4,674.4	115.00	41.646	
10,600.0	6,640.3	6,700.0	6,699.2	114.8	2.6	94.19	732.3	844.2	4,856.7	4,739.8	116.90	41.544	
10,629.9	6,640.3	6,700.0	6,699.2	115.7	2.6	94.19	732.3	844.2	4,886.1	4,768.3	117.74	41.501	
10,700.0	6,640.2	6,700.0	6,699.2	117.6	2.6	94.19	732.3	844.2	4,955.0	4,835.3	119.68	41.401	
10,728.3	6,640.1	6,700.0	6,699.2	118.4	2.6	94.19	732.3	844.2	4,982.8	4,862.4	120.47	41.362	
10,800.0	6,640.0	6,700.0	6,699.2	120.4	2.6	94.19	732.3	844.2	5,053.4	4,930.9	122.46	41.265	
10,826.7	6,640.0	6,700.0	6,699.2	121.2	2.6	94.19	732.3	844.2	5,079.7	4,956.5	123.21	41.229	
10,900.0	6,639.9	6,700.0	6,699.2	123.2	2.6	94.19	732.3	844.2	5,151.8	5,026.5	125.24	41.134	
10,925.2	6,639.9	6,700.0	6,699.2	123.9	2.6	94.19	732.3	844.2	5,176.6	5,050.6	125.94	41.102	
11,000.0	6,639.8	6,700.0	6,699.2	126.0	2.6	94.20	732.3	844.2	5,250.3	5,122.3	128.03	41.010	
11,023.6	6,639.8	6,700.0	6,699.2	126.6	2.6	94.20	732.3	844.2	5,273.5	5,144.9	128.68	40.981	
11,100.0	6,639.7	6,700.0	6,699.2	128.8	2.6	94.20	732.3	844.2	5,348.8	5,218.0	130.81	40.891	
11,122.0	6,639.6	6,700.0	6,699.2	129.4	2.6	94.20	732.3	844.2	5,370.5	5,239.1	131.42	40.865	
11,200.0	6,639.5	6,700.0	6,699.2	131.6	2.6	94.20	732.3	844.2	5,447.4	5,313.8	133.59	40.777	
11,220.4	6,639.5	6,700.0	6,699.2	132.1	2.6	94.20	732.3	844.2	5,467.6	5,333.4	134.16	40.754	
11,300.0	6,639.4	6,700.0	6,699.2	134.4	2.6	94.20	732.3	844.2	5,546.1	5,409.7	136.38	40.668	
11,318.9	6,639.4	6,700.0	6,699.2	134.9	2.6	94.20	732.3	844.2	5,564.7	5,427.8	136.90	40.648	
11,400.0	6,639.3	6,700.0	6,699.2	137.1	2.6	94.20	732.3	844.2	5,644.8	5,505.6	139.16	40.563	
11,417.3	6,639.3	6,700.0	6,699.2	137.6	2.6	94.20	732.3	844.2	5,661.9	5,522.2	139.64	40.545	
11,500.0	6,639.2	6,700.0	6,699.2	139.9	2.6	94.20	732.3	844.2	5,743.5	5,601.6	141.95	40.462	
11,515.7	6,639.1	6,700.0	6,699.2	140.4	2.6	94.20	732.3	844.2	5,759.1	5,616.7	142.39	40.447	
11,600.0	6,639.0	6,700.0	6,699.2	142.7	2.6	94.20	732.3	844.2	5,842.3	5,697.6	144.73	40.366	
11,614.1	6,639.0	6,700.0	6,699.2	143.1	2.6	94.20	732.3	844.2	5,856.3	5,711.2	145.13	40.353	
11,700.0	6,638.9	6,700.0	6,699.2	145.5	2.6	94.20	732.3	844.2	5,941.1	5,793.6	147.52	40.273	
11,712.6	6,638.9	6,700.0	6,699.2	145.9	2.6	94.20	732.3	844.2	5,953.6	5,805.7	147.87	40.262	
11,800.0	6,638.8	6,700.0	6,699.2	148.3	2.6	94.21	732.3	844.2	6,040.0	5,889.7	150.31	40.184	
11,811.0	6,638.8	6,700.0	6,699.2	148.6	2.6	94.21	732.3	844.2	6,050.9	5,900.3	150.62	40.174	
11,900.0	6,638.7	6,700.0	6,699.2	151.1	2.6	94.21	732.3	844.2	6,138.9	5,985.8	153.10	40.098	
11,909.4	6,638.6	6,700.0	6,699.2	151.4	2.6	94.21	732.3	844.2	6,148.2	5,994.9	153.36	40.090	
12,000.0	6,638.5	6,700.0	6,699.2	153.9	2.6	94.21	732.3	844.2	6,237.8	6,082.0	155.89	40.015	
12,007.8	6,638.5	6,700.0	6,699.2	154.1	2.6	94.21	732.3	844.2	6,245.6	6,089.5	156.10	40.009	
12,100.0	6,638.4	6,700.0	6,699.2	156.7	2.6	94.21	732.3	844.2	6,336.8	6,178.1	158.68	39.936	
12,106.3	6,638.4	6,700.0	6,699.2	156.9	2.6	94.21	732.3	844.2	6,343.0	6,184.2	158.85	39.931	

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

Anticollision Report



Company:	PDC ENERGY	Local Co-ordinate Reference:	Well WACKER 10G-214
Project:	WELD COUNTY, COLORADO	TVD Reference:	KB-EST @ 4624.0usft (Original Well Elev)
Reference Site:	SW NW SEC. 10 T5N R64W 6th P.M.	MD Reference:	KB-EST @ 4624.0usft (Original Well Elev)
Site Error:	0.0 usft	North Reference:	True
Reference Well:	WACKER 10G-214	Survey Calculation Method:	Minimum Curvature
Well Error:	0.0 usft	Output errors are at	2.00 sigma
Reference Wellbore	ORIGINAL WELLBORE	Database:	EDM 5000.1 Single User Db
Reference Design:	PROPOSAL #1	Offset TVD Reference:	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	
12,200.0	6,638.3	6,700.0	6,699.2	159.5	2.6	94.21	732.3	844.2	6,435.8	6,274.3	161.47	39.859		
12,204.7	6,638.3	6,700.0	6,699.2	159.6	2.6	94.21	732.3	844.2	6,440.5	6,278.9	161.60	39.855		
12,300.0	6,638.2	6,700.0	6,699.2	162.3	2.6	94.21	732.3	844.2	6,534.8	6,370.6	164.26	39.785		
12,303.1	6,638.2	6,700.0	6,699.2	162.4	2.6	94.21	732.3	844.2	6,537.9	6,373.6	164.34	39.782		
12,400.0	6,638.0	6,700.0	6,699.2	165.1	2.6	94.21	732.3	844.2	6,633.9	6,466.9	167.05	39.713		
12,401.5	6,638.0	6,700.0	6,699.2	165.2	2.6	94.21	732.3	844.2	6,635.4	6,468.4	167.09	39.712		
12,500.0	6,637.9	6,700.0	6,699.2	167.9	2.6	94.21	732.3	844.2	6,733.0	6,563.2	169.84	39.644		
12,598.4	6,637.8	6,700.0	6,699.2	170.7	2.6	94.21	732.3	844.2	6,830.5	6,657.9	172.58	39.578		
12,600.0	6,637.8	6,700.0	6,699.2	170.7	2.6	94.22	732.3	844.2	6,832.1	6,659.5	172.63	39.577		
12,696.8	6,637.7	6,700.0	6,699.2	173.4	2.6	94.22	732.3	844.2	6,928.1	6,752.8	175.33	39.514		
12,700.0	6,637.7	6,700.0	6,699.2	173.5	2.6	94.22	732.3	844.2	6,931.3	6,755.8	175.42	39.512		
12,795.2	6,637.6	6,700.0	6,699.2	176.2	2.6	94.22	732.3	844.2	7,025.7	6,847.6	178.08	39.452		
12,800.0	6,637.6	6,700.0	6,699.2	176.3	2.6	94.22	732.3	844.2	7,030.4	6,852.2	178.21	39.450		
12,893.7	6,637.4	6,700.0	6,699.2	178.9	2.6	94.22	732.3	844.2	7,123.3	6,942.5	180.83	39.393		
12,900.0	6,637.4	6,700.0	6,699.2	179.1	2.6	94.22	732.3	844.2	7,129.6	6,948.6	181.01	39.389		
12,992.1	6,637.3	6,700.0	6,699.2	181.7	2.6	94.22	732.3	844.2	7,221.0	7,037.4	183.58	39.335		
13,000.0	6,637.3	6,700.0	6,699.2	181.9	2.6	94.22	732.3	844.2	7,228.8	7,045.0	183.80	39.330		
13,090.5	6,637.2	6,700.0	6,699.2	184.4	2.6	94.22	732.3	844.2	7,318.7	7,132.3	186.33	39.278		
13,100.0	6,637.2	6,700.0	6,699.2	184.7	2.6	94.22	732.3	844.2	7,328.1	7,141.5	186.59	39.273		
13,188.9	6,637.1	6,700.0	6,699.2	187.2	2.6	94.22	732.3	844.2	7,416.3	7,227.3	189.08	39.224		
13,200.0	6,637.1	6,700.0	6,699.2	187.5	2.6	94.22	732.3	844.2	7,427.3	7,237.9	189.39	39.218		
13,287.4	6,637.0	6,700.0	6,699.2	190.0	2.6	94.22	732.3	844.2	7,514.0	7,322.2	191.83	39.171		
13,300.0	6,637.0	6,700.0	6,699.2	190.3	2.6	94.23	732.3	844.2	7,526.6	7,334.4	192.18	39.164		
13,385.8	6,636.9	6,700.0	6,699.2	192.7	2.6	94.23	732.3	844.2	7,611.8	7,417.2	194.58	39.120		
13,400.0	6,636.8	6,700.0	6,699.2	193.1	2.6	94.23	732.3	844.2	7,625.9	7,430.9	194.97	39.112		
13,484.2	6,636.7	6,700.0	6,699.2	195.5	2.6	94.23	732.3	844.2	7,709.5	7,512.2	197.33	39.070		
13,500.0	6,636.7	6,700.0	6,699.2	195.9	2.6	94.23	732.3	844.2	7,725.2	7,527.4	197.77	39.062		
13,582.6	6,636.6	6,700.0	6,699.2	198.2	2.6	94.23	732.3	844.2	7,807.3	7,607.2	200.08	39.021		
13,600.0	6,636.6	6,700.0	6,699.2	198.7	2.6	94.23	732.3	844.2	7,824.5	7,623.9	200.56	39.013		
13,681.1	6,636.5	6,700.0	6,699.2	201.0	2.6	94.23	732.3	844.2	7,905.1	7,702.2	202.83	38.974		
13,700.0	6,636.5	6,700.0	6,699.2	201.5	2.6	94.23	732.3	844.2	7,923.9	7,720.5	203.36	38.965		
13,779.5	6,636.4	6,700.0	6,699.2	203.7	2.6	94.23	732.3	844.2	8,002.8	7,797.3	205.58	38.928		
13,800.0	6,636.4	6,700.0	6,699.2	204.3	2.6	94.23	732.3	844.2	8,023.2	7,817.1	206.15	38.919		
13,877.9	6,636.3	6,700.0	6,699.2	206.5	2.6	94.23	732.3	844.2	8,100.7	7,892.3	208.33	38.884		
13,900.0	6,636.3	6,700.0	6,699.2	207.1	2.6	94.24	732.3	844.2	8,122.6	7,913.6	208.95	38.874		
13,976.3	6,636.2	6,700.0	6,699.2	209.3	2.6	94.24	732.3	844.2	8,198.5	7,987.4	211.08	38.840		
14,000.0	6,636.1	6,700.0	6,699.2	209.9	2.6	94.24	732.3	844.2	8,222.0	8,010.2	211.74	38.830		
14,074.8	6,636.0	6,700.0	6,699.2	212.0	2.6	94.24	732.3	844.2	8,296.3	8,082.5	213.83	38.798		
14,100.0	6,636.0	6,700.0	6,699.2	212.7	2.6	94.24	732.3	844.2	8,321.4	8,106.9	214.54	38.788		
14,173.2	6,635.9	6,700.0	6,699.2	214.8	2.6	94.24	732.3	844.2	8,394.2	8,177.6	216.58	38.757		
14,200.0	6,635.9	6,700.0	6,699.2	215.5	2.6	94.24	732.3	844.2	8,420.8	8,203.5	217.33	38.746		
14,271.6	6,635.8	6,700.0	6,699.2	217.5	2.6	94.24	732.3	844.2	8,492.0	8,272.7	219.34	38.717		
14,300.0	6,635.8	6,700.0	6,699.2	218.3	2.6	94.24	732.3	844.2	8,520.2	8,300.1	220.13	38.706		
14,370.0	6,635.7	6,700.0	6,699.2	220.3	2.6	94.24	732.3	844.2	8,589.9	8,367.8	222.09	38.678		
14,400.0	6,635.7	6,700.0	6,699.2	221.1	2.6	94.24	732.3	844.2	8,619.7	8,396.8	222.92	38.666		
14,468.5	6,635.6	6,700.0	6,699.2	223.1	2.6	94.24	732.3	844.2	8,687.8	8,463.0	224.84	38.640		
14,500.0	6,635.6	6,700.0	6,699.2	223.9	2.6	94.25	732.3	844.2	8,719.2	8,493.4	225.72	38.628		
14,566.9	6,635.5	6,700.0	6,699.2	225.8	2.6	94.25	732.3	844.2	8,785.7	8,558.1	227.59	38.603		
14,600.0	6,635.4	6,700.0	6,699.2	226.8	2.6	94.25	732.3	844.2	8,818.6	8,590.1	228.52	38.591		
14,665.3	6,635.4	6,700.0	6,699.2	228.6	2.6	94.25	732.3	844.2	8,883.6	8,653.3	230.34	38.567		
14,700.0	6,635.3	6,700.0	6,699.2	229.6	2.6	94.25	732.3	844.2	8,918.1	8,686.8	231.31	38.554		
14,763.7	6,635.2	6,700.0	6,699.2	231.3	2.6	94.25	732.3	844.2	8,981.5	8,748.4	233.10	38.531		

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

Anticollision Report



Company:	PDC ENERGY	Local Co-ordinate Reference:	Well WACKER 10G-214
Project:	WELD COUNTY, COLORADO	TVD Reference:	KB-EST @ 4624.0usft (Original Well Elev)
Reference Site:	SW NW SEC. 10 T5N R64W 6th P.M.	MD Reference:	KB-EST @ 4624.0usft (Original Well Elev)
Site Error:	0.0 usft	North Reference:	True
Reference Well:	WACKER 10G-214	Survey Calculation Method:	Minimum Curvature
Well Error:	0.0 usft	Output errors are at	2.00 sigma
Reference Wellbore	ORIGINAL WELLBORE	Database:	EDM 5000.1 Single User Db
Reference Design:	PROPOSAL #1	Offset TVD Reference:	Offset Datum

Offset Design SW NW SEC. 10 T5N R64W 6th P.M. - EXIST VERT WACKER #10D - 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
14,800.0	6,635.2	6,700.0	6,699.2	232.4	2.6	94.25	732.3	844.2	9,017.6	8,783.5	234.11	38.519	
14,862.2	6,635.1	6,700.0	6,699.2	234.1	2.6	94.25	732.3	844.2	9,079.5	8,843.6	235.85	38.497	
14,900.0	6,635.1	6,700.0	6,699.2	235.2	2.6	94.25	732.3	844.2	9,117.1	8,880.2	236.91	38.484	
14,960.6	6,635.0	6,700.0	6,699.2	236.9	2.6	94.25	732.3	844.2	9,177.4	8,938.8	238.60	38.463	
14,982.9	6,635.0	6,700.0	6,699.2	237.5	2.6	94.26	732.3	844.2	9,199.6	8,960.4	239.22	38.456 SF	

Anticollision Report



Company:	PDC ENERGY	Local Co-ordinate Reference:	Well WACKER 10G-214
Project:	WELD COUNTY, COLORADO	TVD Reference:	KB-EST @ 4624.0usft (Original Well Elev)
Reference Site:	SW NW SEC. 10 T5N R64W 6th P.M.	MD Reference:	KB-EST @ 4624.0usft (Original Well Elev)
Site Error:	0.0 usft	North Reference:	True
Reference Well:	WACKER 10G-214	Survey Calculation Method:	Minimum Curvature
Well Error:	0.0 usft	Output errors are at	2.00 sigma
Reference Wellbore	ORIGINAL WELLBORE	Database:	EDM 5000.1 Single User Db
Reference Design:	PROPOSAL #1	Offset TVD Reference:	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	54.18	1,261.7	1,748.1	2,155.8				
98.4	98.4	90.4	90.4	0.1	1.1	54.18	1,261.7	1,748.1	2,155.8	2,154.6	1.24	1,739.006	
100.0	100.0	92.0	92.0	0.1	1.2	54.18	1,261.7	1,748.1	2,155.8	2,154.6	1.26	1,709.103	
196.8	196.8	188.8	188.8	0.3	3.3	54.18	1,261.7	1,748.1	2,155.8	2,152.2	3.60	598.550	
200.0	200.0	192.0	192.0	0.3	3.4	54.18	1,261.7	1,748.1	2,155.8	2,152.1	3.68	585.744	
295.3	295.3	287.3	287.3	0.5	5.4	54.18	1,261.7	1,748.1	2,155.8	2,149.9	5.89	366.052	
300.0	300.0	292.0	292.0	0.5	5.5	54.18	1,261.7	1,748.1	2,155.8	2,149.8	6.00	359.415	
393.7	393.7	385.7	385.7	0.8	7.4	54.18	1,261.7	1,748.1	2,155.8	2,147.7	8.12	265.340	
400.0	400.0	392.0	392.0	0.8	7.5	54.18	1,261.7	1,748.1	2,155.8	2,147.6	8.27	260.757	
492.1	492.1	484.1	484.1	1.0	9.4	54.18	1,261.7	1,748.1	2,155.8	2,145.5	10.34	208.397	
500.0	500.0	492.0	492.0	1.0	9.5	54.18	1,261.7	1,748.1	2,155.8	2,145.3	10.52	204.882	
590.5	590.5	582.5	582.5	1.2	11.4	54.18	1,261.7	1,748.1	2,155.8	2,143.3	12.56	171.671	
600.0	600.0	592.0	592.0	1.2	11.5	54.18	1,261.7	1,748.1	2,155.8	2,143.1	12.77	168.816	
689.0	689.0	681.0	681.0	1.4	13.3	54.18	1,261.7	1,748.1	2,155.8	2,141.1	14.77	145.988	
700.0	700.0	692.0	692.0	1.4	13.6	54.18	1,261.7	1,748.1	2,155.8	2,140.8	15.01	143.582	
787.4	787.4	779.4	779.4	1.6	15.3	54.18	1,261.7	1,748.1	2,155.8	2,138.9	16.97	127.006	
800.0	800.0	792.0	792.0	1.7	15.6	54.18	1,261.7	1,748.1	2,155.8	2,138.6	17.26	124.927	
885.8	885.8	877.8	877.8	1.9	17.3	54.18	1,261.7	1,748.1	2,155.8	2,136.6	19.18	112.402	
900.0	900.0	892.0	892.0	1.9	17.6	54.18	1,261.7	1,748.1	2,155.8	2,136.3	19.50	110.571	
984.2	984.2	976.2	976.2	2.1	19.3	54.18	1,261.7	1,748.1	2,155.8	2,134.4	21.38	100.814	
1,000.0	1,000.0	992.0	992.0	2.1	19.6	54.18	1,261.7	1,748.1	2,155.8	2,134.1	21.74	99.179	
1,082.7	1,082.7	1,074.7	1,074.7	2.3	21.3	54.18	1,261.7	1,748.1	2,155.8	2,132.2	23.59	91.396	
1,100.0	1,100.0	1,092.0	1,092.0	2.3	21.6	54.18	1,261.7	1,748.1	2,155.8	2,131.9	23.98	89.917	
1,181.1	1,181.1	1,173.1	1,173.1	2.5	23.3	54.18	1,261.7	1,748.1	2,155.8	2,130.0	25.79	83.588	
1,200.0	1,200.0	1,192.0	1,192.0	2.6	23.6	54.18	1,261.7	1,748.1	2,155.8	2,129.6	26.21	82.239	
1,279.5	1,279.5	1,271.5	1,271.5	2.7	25.2	54.18	1,261.7	1,748.1	2,155.8	2,127.8	27.99	77.011	
1,300.0	1,300.0	1,292.0	1,292.0	2.8	25.7	54.18	1,261.7	1,748.1	2,155.8	2,127.4	28.45	75.771	
1,377.9	1,377.9	1,369.9	1,369.9	3.0	27.2	-64.50	1,261.7	1,748.1	2,155.4	2,125.2	30.18	71.422	
1,400.0	1,400.0	1,392.0	1,392.0	3.0	27.7	-64.52	1,261.7	1,748.1	2,155.1	2,124.4	30.67	70.278	
1,476.4	1,476.3	1,468.3	1,468.3	3.1	29.2	-64.64	1,261.7	1,748.1	2,153.5	2,121.2	32.34	66.594	
1,500.0	1,499.8	1,491.8	1,491.8	3.2	29.7	-64.69	1,261.7	1,748.1	2,152.8	2,120.0	32.85	65.528	
1,574.8	1,574.4	1,566.4	1,566.4	3.3	31.2	-64.89	1,261.7	1,748.1	2,150.2	2,115.7	34.49	62.341	
1,600.0	1,599.5	1,591.5	1,591.5	3.4	31.7	-64.97	1,261.7	1,748.1	2,149.1	2,114.1	35.04	61.332	
1,673.2	1,672.2	1,664.2	1,664.2	3.6	33.1	-65.24	1,261.7	1,748.1	2,145.5	2,108.8	36.64	58.548	
1,700.0	1,698.7	1,690.7	1,690.7	3.6	33.7	-65.35	1,261.7	1,748.1	2,144.0	2,106.7	37.23	57.587	
1,771.6	1,769.5	1,761.5	1,761.5	3.8	35.1	-65.70	1,261.7	1,748.1	2,139.4	2,100.6	38.81	55.132	
1,800.0	1,797.5	1,789.5	1,789.5	3.9	35.7	-65.85	1,261.7	1,748.1	2,137.4	2,098.0	39.43	54.212	
1,870.1	1,866.3	1,858.3	1,858.3	4.1	37.1	-66.26	1,261.7	1,748.1	2,132.1	2,091.1	40.98	52.029	
1,900.2	1,895.8	1,887.8	1,887.8	4.2	37.6	-66.46	1,261.7	1,748.1	2,129.6	2,087.9	41.64	51.136	
1,968.5	1,962.6	1,954.6	1,954.6	4.4	39.0	-66.80	1,261.7	1,748.1	2,123.8	2,080.6	43.20	49.162	
2,000.0	1,993.4	1,985.4	1,985.4	4.5	39.6	-66.96	1,261.7	1,748.1	2,121.2	2,077.3	43.92	48.296	
2,066.9	2,058.9	2,050.9	2,050.9	4.7	40.9	-67.30	1,261.7	1,748.1	2,115.7	2,070.2	45.46	46.538	
2,100.0	2,091.2	2,083.2	2,083.2	4.8	41.6	-67.47	1,261.7	1,748.1	2,113.0	2,066.8	46.22	45.712	
2,165.3	2,155.2	2,147.2	2,147.2	5.1	42.9	-67.81	1,261.7	1,748.1	2,107.7	2,060.0	47.74	44.150	
2,200.0	2,189.1	2,181.1	2,181.1	5.2	43.5	-67.98	1,261.7	1,748.1	2,105.0	2,056.4	48.55	43.360	
2,263.8	2,251.4	2,243.4	2,243.4	5.5	44.8	-68.31	1,261.7	1,748.1	2,099.9	2,049.9	50.04	41.967	
2,300.0	2,286.9	2,278.9	2,278.9	5.6	45.5	-68.50	1,261.7	1,748.1	2,097.1	2,046.2	50.89	41.213	
2,362.2	2,347.7	2,339.7	2,339.7	5.8	46.7	-68.82	1,261.7	1,748.1	2,092.3	2,040.0	52.35	39.970	
2,400.0	2,384.7	2,376.7	2,376.7	6.0	47.5	-69.02	1,261.7	1,748.1	2,089.4	2,036.2	53.24	39.248	
2,460.6	2,444.0	2,436.0	2,436.0	6.2	48.7	-69.34	1,261.7	1,748.1	2,084.9	2,030.2	54.67	38.137	
2,500.0	2,482.5	2,474.5	2,474.5	6.4	49.4	-69.55	1,261.7	1,748.1	2,081.9	2,026.3	55.60	37.445	
2,559.0	2,540.3	2,532.3	2,532.3	6.6	50.6	-69.86	1,261.7	1,748.1	2,077.6	2,020.6	57.00	36.449	

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

Anticollision Report



Company:	PDC ENERGY	Local Co-ordinate Reference:	Well WACKER 10G-214
Project:	WELD COUNTY, COLORADO	TVD Reference:	KB-EST @ 4624.0usft (Original Well Elev)
Reference Site:	SW NW SEC. 10 T5N R64W 6th P.M.	MD Reference:	KB-EST @ 4624.0usft (Original Well Elev)
Site Error:	0.0 usft	North Reference:	True
Reference Well:	WACKER 10G-214	Survey Calculation Method:	Minimum Curvature
Well Error:	0.0 usft	Output errors are at	2.00 sigma
Reference Wellbore	ORIGINAL WELLBORE	Database:	EDM 5000.1 Single User Db
Reference Design:	PROPOSAL #1	Offset TVD Reference:	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	2,580.3	2,572.3	2,572.3	6.8	51.4	-70.07	1,261.7	1,748.1	2,074.6	2,016.6	57.97	35.787	
2,657.5	2,636.5	2,628.5	2,628.5	7.1	52.5	-70.38	1,261.7	1,748.1	2,070.5	2,011.2	59.34	34.892	
2,700.0	2,678.1	2,670.1	2,670.1	7.2	53.4	-70.61	1,261.7	1,748.1	2,067.5	2,007.1	60.35	34.257	
2,755.9	2,732.8	2,724.8	2,724.8	7.5	54.5	-70.90	1,261.7	1,748.1	2,063.6	2,001.9	61.69	33.453	
2,800.0	2,775.9	2,767.9	2,767.9	7.7	55.4	-71.14	1,261.7	1,748.1	2,060.5	1,997.8	62.74	32.842	
2,854.3	2,829.1	2,821.1	2,821.1	7.9	56.4	-71.43	1,261.7	1,748.1	2,056.8	1,992.8	64.04	32.118	
2,900.0	2,873.8	2,865.8	2,865.8	8.1	57.3	-71.68	1,261.7	1,748.1	2,053.8	1,988.6	65.13	31.531	
2,952.7	2,925.4	2,917.4	2,917.4	8.3	58.4	-71.96	1,261.7	1,748.1	2,050.3	1,983.9	66.40	30.878	
2,953.5	2,926.1	2,918.1	2,918.1	8.3	58.4	-71.97	1,261.7	1,748.1	2,050.2	1,983.8	66.42	30.869	
3,000.0	2,971.6	2,963.6	2,963.6	8.5	59.3	-72.15	1,261.7	1,748.1	2,047.3	1,979.8	67.53	30.319	
3,051.2	3,022.0	3,014.0	3,014.0	8.7	60.3	-72.35	1,261.7	1,748.1	2,044.4	1,975.7	68.71	29.752	
3,100.0	3,070.1	3,062.1	3,062.1	8.8	61.3	-72.51	1,261.7	1,748.1	2,041.9	1,972.1	69.85	29.233	
3,149.6	3,119.1	3,111.1	3,111.1	8.9	62.3	-72.67	1,261.7	1,748.1	2,039.7	1,968.7	70.99	28.732	
3,200.0	3,169.1	3,161.1	3,161.1	9.1	63.3	-72.80	1,261.7	1,748.1	2,037.7	1,965.6	72.15	28.243	
3,248.0	3,216.8	3,208.8	3,208.8	9.2	64.2	-72.92	1,261.7	1,748.1	2,036.1	1,962.8	73.24	27.801	
3,300.0	3,268.5	3,260.5	3,260.5	9.3	65.3	-73.03	1,261.7	1,748.1	2,034.6	1,960.2	74.42	27.340	
3,346.4	3,314.8	3,306.8	3,306.8	9.4	66.2	-73.11	1,261.7	1,748.1	2,033.5	1,958.0	75.46	26.949	
3,400.0	3,368.3	3,360.3	3,360.3	9.6	67.3	-73.18	1,261.7	1,748.1	2,032.5	1,955.9	76.65	26.516	
3,444.9	3,413.1	3,405.1	3,405.1	9.6	68.2	-73.22	1,261.7	1,748.1	2,031.9	1,954.3	77.64	26.171	
3,500.0	3,468.2	3,460.2	3,460.2	9.7	69.3	-73.26	1,261.7	1,748.1	2,031.5	1,952.6	78.85	25.762	
3,543.3	3,511.5	3,503.5	3,503.5	9.8	70.1	-73.27	1,261.7	1,748.1	2,031.3	1,951.5	79.79	25.457	
3,553.7	3,521.9	3,513.9	3,513.9	9.8	70.4	45.38	1,261.7	1,748.1	2,031.3	1,953.1	78.24	25.962	
3,600.0	3,568.2	3,560.2	3,560.2	9.9	71.3	45.38	1,261.7	1,748.1	2,031.3	1,952.1	79.26	25.628	
3,641.7	3,609.9	3,601.9	3,601.9	10.0	72.1	45.38	1,261.7	1,748.1	2,031.3	1,951.1	80.18	25.333	
3,700.0	3,668.2	3,660.2	3,660.2	10.1	73.3	45.38	1,261.7	1,748.1	2,031.3	1,949.8	81.47	24.932	
3,740.1	3,708.4	3,700.4	3,700.4	10.1	74.1	45.38	1,261.7	1,748.1	2,031.3	1,949.0	82.36	24.663	
3,800.0	3,768.2	3,760.2	3,760.2	10.2	75.3	45.38	1,261.7	1,748.1	2,031.3	1,947.6	83.69	24.273	
3,838.6	3,806.8	3,798.8	3,798.8	10.3	76.1	45.38	1,261.7	1,748.1	2,031.3	1,946.8	84.54	24.028	
3,900.0	3,868.2	3,860.2	3,860.2	10.4	77.3	45.38	1,261.7	1,748.1	2,031.3	1,945.4	85.90	23.648	
3,937.0	3,905.2	3,897.2	3,897.2	10.5	78.1	45.38	1,261.7	1,748.1	2,031.3	1,944.6	86.72	23.424	
4,000.0	3,968.2	3,960.2	3,960.2	10.6	79.3	45.38	1,261.7	1,748.1	2,031.3	1,943.2	88.11	23.053	
4,035.4	4,003.6	3,995.6	3,995.6	10.6	80.0	45.38	1,261.7	1,748.1	2,031.3	1,942.4	88.90	22.850	
4,100.0	4,068.2	4,060.2	4,060.2	10.7	81.3	45.38	1,261.7	1,748.1	2,031.3	1,941.0	90.33	22.488	
4,133.8	4,102.1	4,094.1	4,094.1	10.8	82.0	45.38	1,261.7	1,748.1	2,031.3	1,940.2	91.08	22.303	
4,200.0	4,168.2	4,160.2	4,160.2	10.9	83.4	45.38	1,261.7	1,748.1	2,031.3	1,938.8	92.55	21.949	
4,232.3	4,200.5	4,192.5	4,192.5	11.0	84.0	45.38	1,261.7	1,748.1	2,031.3	1,938.1	93.26	21.781	
4,300.0	4,268.2	4,260.2	4,260.2	11.1	85.4	45.38	1,261.7	1,748.1	2,031.3	1,936.6	94.76	21.436	
4,330.7	4,298.9	4,290.9	4,290.9	11.1	86.0	45.38	1,261.7	1,748.1	2,031.3	1,935.9	95.44	21.283	
4,400.0	4,368.2	4,360.2	4,360.2	11.3	87.4	45.38	1,261.7	1,748.1	2,031.3	1,934.3	96.98	20.946	
4,429.1	4,397.3	4,389.3	4,389.3	11.3	88.0	45.38	1,261.7	1,748.1	2,031.3	1,933.7	97.63	20.807	
4,500.0	4,468.2	4,460.2	4,460.2	11.4	89.4	45.38	1,261.7	1,748.1	2,031.3	1,932.1	99.20	20.477	
4,527.5	4,495.8	4,487.8	4,487.8	11.5	89.9	45.38	1,261.7	1,748.1	2,031.3	1,931.5	99.81	20.352	
4,600.0	4,568.2	4,560.2	4,560.2	11.6	91.4	45.38	1,261.7	1,748.1	2,031.3	1,929.9	101.42	20.029	
4,626.0	4,594.2	4,586.2	4,586.2	11.7	91.9	45.38	1,261.7	1,748.1	2,031.3	1,929.3	102.00	19.916	
4,700.0	4,668.2	4,660.2	4,660.2	11.8	93.4	45.38	1,261.7	1,748.1	2,031.3	1,927.7	103.64	19.600	
4,724.4	4,692.6	4,684.6	4,684.6	11.9	93.9	45.38	1,261.7	1,748.1	2,031.3	1,927.1	104.18	19.498	
4,800.0	4,768.2	4,760.2	4,760.2	12.0	95.4	45.38	1,261.7	1,748.1	2,031.3	1,925.5	105.86	19.189	
4,822.8	4,791.0	4,783.0	4,783.0	12.0	95.9	45.38	1,261.7	1,748.1	2,031.3	1,924.9	106.37	19.097	
4,900.0	4,868.2	4,860.2	4,860.2	12.2	97.4	45.38	1,261.7	1,748.1	2,031.3	1,923.2	108.08	18.794	
4,921.2	4,889.5	4,881.5	4,881.5	12.2	97.9	45.38	1,261.7	1,748.1	2,031.3	1,922.8	108.55	18.712	
5,000.0	4,968.2	4,960.2	4,960.2	12.4	99.4	45.38	1,261.7	1,748.1	2,031.3	1,921.0	110.30	18.416	
5,019.7	4,987.9	4,979.9	4,979.9	12.4	99.8	45.38	1,261.7	1,748.1	2,031.3	1,920.6	110.74	18.343	

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

Anticollision Report



Company:	PDC ENERGY	Local Co-ordinate Reference:	Well WACKER 10G-214
Project:	WELD COUNTY, COLORADO	TVD Reference:	KB-EST @ 4624.0usft (Original Well Elev)
Reference Site:	SW NW SEC. 10 T5N R64W 6th P.M.	MD Reference:	KB-EST @ 4624.0usft (Original Well Elev)
Site Error:	0.0 usft	North Reference:	True
Reference Well:	WACKER 10G-214	Survey Calculation Method:	Minimum Curvature
Well Error:	0.0 usft	Output errors are at	2.00 sigma
Reference Wellbore	ORIGINAL WELLBORE	Database:	EDM 5000.1 Single User Db
Reference Design:	PROPOSAL #1	Offset TVD Reference:	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	5,068.2	5,060.2	5,060.2	12.6	101.5	45.38	1,261.7	1,748.1	2,031.3	1,918.8	112.53	18.052	
5,118.1	5,086.3	5,078.3	5,078.3	12.6	101.8	45.38	1,261.7	1,748.1	2,031.3	1,918.4	112.93	17.987	
5,200.0	5,168.2	5,160.2	5,160.2	12.7	103.5	45.38	1,261.7	1,748.1	2,031.3	1,916.6	114.75	17.702	
5,216.5	5,184.7	5,176.7	5,176.7	12.8	103.8	45.38	1,261.7	1,748.1	2,031.3	1,916.2	115.12	17.646	
5,300.0	5,268.2	5,260.2	5,260.2	12.9	105.5	45.38	1,261.7	1,748.1	2,031.3	1,914.3	116.97	17.366	
5,314.9	5,283.2	5,275.2	5,275.2	13.0	105.8	45.38	1,261.7	1,748.1	2,031.3	1,914.0	117.31	17.316	
5,400.0	5,368.2	5,360.2	5,360.2	13.1	107.5	45.38	1,261.7	1,748.1	2,031.3	1,912.1	119.20	17.041	
5,413.4	5,381.6	5,373.6	5,373.6	13.2	107.8	45.38	1,261.7	1,748.1	2,031.3	1,911.8	119.50	16.999	
5,500.0	5,468.2	5,460.2	5,460.2	13.3	109.5	45.38	1,261.7	1,748.1	2,031.3	1,909.9	121.42	16.729	
5,511.8	5,480.0	5,472.0	5,472.0	13.3	109.7	45.38	1,261.7	1,748.1	2,031.3	1,909.6	121.69	16.693	
5,600.0	5,568.2	5,560.2	5,560.2	13.5	111.5	45.38	1,261.7	1,748.1	2,031.3	1,907.7	123.65	16.428	
5,610.2	5,578.4	5,570.4	5,570.4	13.5	111.7	45.38	1,261.7	1,748.1	2,031.3	1,907.4	123.88	16.398	
5,700.0	5,668.2	5,660.2	5,660.2	13.7	113.5	45.38	1,261.7	1,748.1	2,031.3	1,905.4	125.87	16.138	
5,708.6	5,676.9	5,668.9	5,668.9	13.7	113.7	45.38	1,261.7	1,748.1	2,031.3	1,905.3	126.07	16.113	
5,800.0	5,768.2	5,760.2	5,760.2	13.9	115.5	45.38	1,261.7	1,748.1	2,031.3	1,903.2	128.10	15.857	
5,807.1	5,775.3	5,767.3	5,767.3	13.9	115.7	45.38	1,261.7	1,748.1	2,031.3	1,903.1	128.26	15.838	
5,900.0	5,868.2	5,860.2	5,860.2	14.1	117.5	45.38	1,261.7	1,748.1	2,031.3	1,901.0	130.32	15.587	
5,905.5	5,873.7	5,865.7	5,865.7	14.1	117.7	45.38	1,261.7	1,748.1	2,031.3	1,900.9	130.45	15.572	
5,960.7	5,928.9	5,920.9	5,920.9	14.2	118.8	45.38	1,261.7	1,748.1	2,031.3	1,899.6	131.68	15.427 CC	
6,000.0	5,968.2	5,960.2	5,960.2	14.3	119.6	135.36	1,261.7	1,748.1	2,032.1	1,898.5	133.61	15.209 ES	
6,003.9	5,972.1	5,964.1	5,964.1	14.3	119.6	135.35	1,261.7	1,748.1	2,032.2	1,898.6	133.67	15.203	
6,050.0	6,018.0	6,010.0	6,010.0	14.4	120.6	135.27	1,261.7	1,748.1	2,035.3	1,901.0	134.26	15.160 SF	
6,100.0	6,067.3	6,059.3	6,059.3	14.4	121.5	135.10	1,261.7	1,748.1	2,041.0	1,906.4	134.56	15.167	
6,102.3	6,069.6	6,061.6	6,061.6	14.4	121.6	135.09	1,261.7	1,748.1	2,041.3	1,906.7	134.57	15.169	
6,150.0	6,116.0	6,108.0	6,108.0	14.4	122.5	134.86	1,261.7	1,748.1	2,049.1	1,914.6	134.54	15.230	
6,200.0	6,163.8	6,155.8	6,155.8	14.5	123.5	134.53	1,261.7	1,748.1	2,059.7	1,925.5	134.22	15.346	
6,200.8	6,164.5	6,156.5	6,156.5	14.5	123.5	134.52	1,261.7	1,748.1	2,059.9	1,925.7	134.21	15.348	
6,250.0	6,210.4	6,202.4	6,202.4	14.5	124.4	134.10	1,261.7	1,748.1	2,072.7	1,939.1	133.62	15.512	
6,299.2	6,254.9	6,246.9	6,246.9	14.5	125.3	133.57	1,261.7	1,748.1	2,087.9	1,955.1	132.83	15.719	
6,300.0	6,255.6	6,247.6	6,247.6	14.5	125.3	133.56	1,261.7	1,748.1	2,088.2	1,955.4	132.81	15.723	
6,350.0	6,299.3	6,291.3	6,291.3	14.5	126.2	132.90	1,261.7	1,748.1	2,106.1	1,974.2	131.85	15.973	
6,397.6	6,339.2	6,331.2	6,331.2	14.6	127.0	132.14	1,261.7	1,748.1	2,125.2	1,994.3	130.88	16.238	
6,400.0	6,341.2	6,333.2	6,333.2	14.6	127.1	132.10	1,261.7	1,748.1	2,126.2	1,995.4	130.83	16.251	
6,450.0	6,381.0	6,373.0	6,373.0	14.6	127.9	131.13	1,261.7	1,748.1	2,148.7	2,018.9	129.86	16.546	
6,496.0	6,415.8	6,407.8	6,407.8	14.7	128.6	130.07	1,261.7	1,748.1	2,171.4	2,042.3	129.12	16.817	
6,500.0	6,418.7	6,410.7	6,410.7	14.7	128.6	129.97	1,261.7	1,748.1	2,173.4	2,044.4	129.06	16.840	
6,550.0	6,453.9	6,445.9	6,445.9	14.8	129.3	128.60	1,261.7	1,748.1	2,200.3	2,071.7	128.57	17.113	
6,594.5	6,483.1	6,475.1	6,475.1	15.0	129.9	127.17	1,261.7	1,748.1	2,225.9	2,097.4	128.52	17.319	
6,600.0	6,486.6	6,478.6	6,478.6	15.1	130.0	126.98	1,261.7	1,748.1	2,229.2	2,100.7	128.54	17.342	
6,650.0	6,516.6	6,508.6	6,508.6	15.3	130.6	125.07	1,261.7	1,748.1	2,260.1	2,131.0	129.12	17.504	
6,692.9	6,540.0	6,532.0	6,532.0	15.7	131.1	123.16	1,261.7	1,748.1	2,288.1	2,157.9	130.19	17.574	
6,700.0	6,543.7	6,535.7	6,535.7	15.7	131.1	122.82	1,261.7	1,748.1	2,292.8	2,162.4	130.42	17.580	
6,750.0	6,567.8	6,559.8	6,559.8	16.2	131.6	120.20	1,261.7	1,748.1	2,327.2	2,194.7	132.52	17.562	
6,791.3	6,585.4	6,577.4	6,577.4	16.7	132.0	117.71	1,261.7	1,748.1	2,356.9	2,222.0	134.86	17.477	
6,800.0	6,588.8	6,580.8	6,580.8	16.8	132.0	117.14	1,261.7	1,748.1	2,363.2	2,227.8	135.41	17.453	
6,850.0	6,606.6	6,598.6	6,598.6	17.4	132.4	113.61	1,261.7	1,748.1	2,400.7	2,261.7	138.98	17.273	
6,889.7	6,618.4	6,610.4	6,610.4	18.0	132.6	110.43	1,261.7	1,748.1	2,431.3	2,289.1	142.17	17.101	
6,900.0	6,621.1	6,613.1	6,613.1	18.2	132.7	109.56	1,261.7	1,748.1	2,439.3	2,296.3	143.01	17.057	
6,950.0	6,632.2	6,624.2	6,624.2	19.0	132.9	104.97	1,261.7	1,748.1	2,479.0	2,331.9	147.12	16.850	
6,988.2	6,638.4	6,630.4	6,630.4	19.7	133.0	101.10	1,261.7	1,748.1	2,509.9	2,359.9	150.02	16.730	
7,000.0	6,639.9	6,631.9	6,631.9	19.9	133.1	99.84	1,261.7	1,748.1	2,519.5	2,368.7	150.83	16.705	
7,050.0	6,644.1	6,636.1	6,636.1	20.8	133.1	94.23	1,261.7	1,748.1	2,560.8	2,407.2	153.58	16.674	

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

Anticollision Report



Company:	PDC ENERGY	Local Co-ordinate Reference:	Well WACKER 10G-214
Project:	WELD COUNTY, COLORADO	TVD Reference:	KB-EST @ 4624.0usft (Original Well Elev)
Reference Site:	SW NW SEC. 10 T5N R64W 6th P.M.	MD Reference:	KB-EST @ 4624.0usft (Original Well Elev)
Site Error:	0.0 usft	North Reference:	True
Reference Well:	WACKER 10G-214	Survey Calculation Method:	Minimum Curvature
Well Error:	0.0 usft	Output errors are at	2.00 sigma
Reference Wellbore	ORIGINAL WELLBORE	Database:	EDM 5000.1 Single User Db
Reference Design:	PROPOSAL #1	Offset TVD Reference:	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	
7,086.5	6,645.0	6,637.0	6,637.0	21.5	133.2	89.88	1,261.7	1,748.1	2,591.2	2,436.5	154.69	16.750	
7,100.0	6,645.0	6,637.0	6,637.0	21.8	133.2	89.88	1,261.7	1,748.1	2,602.4	2,447.5	154.96	16.794	
7,185.0	6,644.9	6,636.9	6,636.9	23.6	133.2	89.87	1,261.7	1,748.1	2,673.9	2,517.2	156.72	17.062	
7,200.0	6,644.8	6,636.8	6,636.8	23.9	133.2	89.87	1,261.7	1,748.1	2,686.6	2,529.6	157.03	17.109	
7,283.4	6,644.7	6,636.7	6,636.7	25.7	133.2	89.87	1,261.7	1,748.1	2,757.7	2,598.8	158.87	17.358	
7,300.0	6,644.7	6,636.7	6,636.7	26.1	133.2	89.87	1,261.7	1,748.1	2,771.8	2,612.6	159.23	17.408	
7,381.9	6,644.6	6,636.6	6,636.6	28.0	133.2	89.86	1,261.7	1,748.1	2,842.4	2,681.2	161.12	17.641	
7,400.0	6,644.6	6,636.6	6,636.6	28.4	133.2	89.86	1,261.7	1,748.1	2,858.0	2,696.5	161.54	17.692	
7,480.3	6,644.5	6,636.5	6,636.5	30.3	133.2	89.86	1,261.7	1,748.1	2,927.9	2,764.4	163.47	17.911	
7,500.0	6,644.4	6,636.4	6,636.4	30.8	133.2	89.86	1,261.7	1,748.1	2,945.1	2,781.2	163.94	17.965	
7,578.7	6,644.3	6,636.3	6,636.3	32.7	133.1	89.85	1,261.7	1,748.1	3,014.2	2,848.3	165.87	18.172	
7,600.0	6,644.3	6,636.3	6,636.3	33.3	133.1	89.85	1,261.7	1,748.1	3,033.0	2,866.6	166.40	18.227	
7,677.1	6,644.2	6,636.2	6,636.2	35.2	133.1	89.85	1,261.7	1,748.1	3,101.3	2,932.9	168.33	18.423	
7,700.0	6,644.1	6,636.1	6,636.1	35.8	133.1	89.85	1,261.7	1,748.1	3,121.6	2,952.7	168.91	18.481	
7,775.6	6,644.0	6,636.0	6,636.0	37.7	133.1	89.84	1,261.7	1,748.1	3,189.0	3,018.1	170.84	18.667	
7,800.0	6,644.0	6,636.0	6,636.0	38.3	133.1	89.84	1,261.7	1,748.1	3,210.8	3,039.4	171.46	18.726	
7,874.0	6,643.9	6,635.9	6,635.9	40.2	133.1	89.84	1,261.7	1,748.1	3,277.3	3,103.9	173.37	18.903	
7,900.0	6,643.9	6,635.9	6,635.9	40.9	133.1	89.84	1,261.7	1,748.1	3,300.7	3,126.7	174.05	18.965	
7,972.4	6,643.8	6,635.8	6,635.8	42.8	133.1	89.83	1,261.7	1,748.1	3,366.2	3,190.2	175.94	19.133	
8,000.0	6,643.7	6,635.7	6,635.7	43.5	133.1	89.83	1,261.7	1,748.1	3,391.2	3,214.5	176.66	19.196	
8,070.8	6,643.6	6,635.6	6,635.6	45.4	133.1	89.83	1,261.7	1,748.1	3,455.6	3,277.1	178.53	19.356	
8,100.0	6,643.6	6,635.6	6,635.6	46.2	133.1	89.83	1,261.7	1,748.1	3,482.2	3,302.9	179.30	19.421	
8,169.3	6,643.5	6,635.5	6,635.5	48.0	133.1	89.82	1,261.7	1,748.1	3,545.5	3,364.3	181.14	19.573	
8,200.0	6,643.5	6,635.5	6,635.5	48.8	133.1	89.82	1,261.7	1,748.1	3,573.6	3,391.7	181.95	19.640	
8,267.7	6,643.4	6,635.4	6,635.4	50.6	133.1	89.82	1,261.7	1,748.1	3,635.8	3,452.0	183.76	19.785	
8,300.0	6,643.3	6,635.3	6,635.3	51.5	133.1	89.82	1,261.7	1,748.1	3,665.5	3,480.9	184.62	19.854	
8,366.1	6,643.2	6,635.2	6,635.2	53.3	133.1	89.81	1,261.7	1,748.1	3,726.5	3,540.1	186.40	19.992	
8,400.0	6,643.2	6,635.2	6,635.2	54.2	133.1	89.81	1,261.7	1,748.1	3,757.8	3,570.5	187.31	20.062	
8,464.5	6,643.1	6,635.1	6,635.1	55.9	133.1	89.81	1,261.7	1,748.1	3,817.6	3,628.6	189.05	20.194	
8,500.0	6,643.1	6,635.1	6,635.1	56.9	133.1	89.81	1,261.7	1,748.1	3,850.5	3,660.5	190.01	20.265	
8,563.0	6,643.0	6,635.0	6,635.0	58.6	133.1	89.80	1,261.7	1,748.1	3,909.1	3,717.4	191.71	20.390	
8,600.0	6,642.9	6,634.9	6,634.9	59.6	133.1	89.80	1,261.7	1,748.1	3,943.6	3,750.9	192.71	20.463	
8,661.4	6,642.8	6,634.8	6,634.8	61.3	133.1	89.80	1,261.7	1,748.1	4,000.9	3,806.5	194.38	20.583	
8,700.0	6,642.8	6,634.8	6,634.8	62.3	133.1	89.80	1,261.7	1,748.1	4,037.0	3,841.5	195.43	20.657	
8,759.8	6,642.7	6,634.7	6,634.7	64.0	133.1	89.79	1,261.7	1,748.1	4,093.0	3,895.9	197.06	20.770	
8,800.0	6,642.7	6,634.7	6,634.7	65.1	133.1	89.79	1,261.7	1,748.1	4,130.7	3,932.5	198.16	20.846	
8,858.2	6,642.6	6,634.6	6,634.6	66.6	133.1	89.79	1,261.7	1,748.1	4,185.4	3,985.6	199.75	20.953	
8,900.0	6,642.5	6,634.5	6,634.5	67.8	133.1	89.79	1,261.7	1,748.1	4,224.7	4,023.8	200.89	21.030	
8,956.7	6,642.4	6,634.4	6,634.4	69.3	133.1	89.78	1,261.7	1,748.1	4,278.0	4,075.6	202.44	21.133	
9,000.0	6,642.4	6,634.4	6,634.4	70.5	133.1	89.78	1,261.7	1,748.1	4,318.9	4,115.3	203.62	21.210	
9,055.1	6,642.3	6,634.3	6,634.3	72.0	133.1	89.78	1,261.7	1,748.1	4,371.0	4,165.8	205.14	21.308	
9,100.0	6,642.3	6,634.3	6,634.3	73.3	133.1	89.78	1,261.7	1,748.1	4,413.4	4,207.1	206.37	21.386	
9,153.5	6,642.2	6,634.2	6,634.2	74.7	133.1	89.77	1,261.7	1,748.1	4,464.1	4,256.3	207.84	21.479	
9,200.0	6,642.1	6,634.1	6,634.1	76.0	133.1	89.77	1,261.7	1,748.1	4,508.2	4,299.0	209.11	21.558	
9,251.9	6,642.1	6,634.1	6,634.1	77.5	133.1	89.77	1,261.7	1,748.1	4,557.5	4,346.9	210.54	21.646	
9,300.0	6,642.0	6,634.0	6,634.0	78.8	133.1	89.77	1,261.7	1,748.1	4,603.1	4,391.3	211.87	21.727	
9,350.4	6,641.9	6,633.9	6,633.9	80.2	133.1	89.76	1,261.7	1,748.1	4,651.1	4,437.8	213.25	21.810	
9,400.0	6,641.9	6,633.9	6,633.9	81.5	133.1	89.76	1,261.7	1,748.1	4,698.3	4,483.7	214.62	21.891	
9,448.8	6,641.8	6,633.8	6,633.8	82.9	133.1	89.76	1,261.7	1,748.1	4,744.8	4,528.9	215.97	21.970	
9,500.0	6,641.7	6,633.7	6,633.7	84.3	133.1	89.76	1,261.7	1,748.1	4,793.7	4,576.3	217.38	22.052	
9,547.2	6,641.7	6,633.7	6,633.7	85.6	133.1	89.76	1,261.7	1,748.1	4,838.8	4,620.1	218.69	22.127	
9,600.0	6,641.6	6,633.6	6,633.6	87.1	133.1	89.75	1,261.7	1,748.1	4,889.2	4,669.1	220.14	22.209	

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

Anticollision Report



Company:	PDC ENERGY	Local Co-ordinate Reference:	Well WACKER 10G-214
Project:	WELD COUNTY, COLORADO	TVD Reference:	KB-EST @ 4624.0usft (Original Well Elev)
Reference Site:	SW NW SEC. 10 T5N R64W 6th P.M.	MD Reference:	KB-EST @ 4624.0usft (Original Well Elev)
Site Error:	0.0 usft	North Reference:	True
Reference Well:	WACKER 10G-214	Survey Calculation Method:	Minimum Curvature
Well Error:	0.0 usft	Output errors are at	2.00 sigma
Reference Wellbore	ORIGINAL WELLBORE	Database:	EDM 5000.1 Single User Db
Reference Design:	PROPOSAL #1	Offset TVD Reference:	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	
9,645.6	6,641.5	6,633.5	6,633.5	88.3	133.1	89.75	1,261.7	1,748.1	4,932.9	4,711.5	221.41	22.280	
9,700.0	6,641.5	6,633.5	6,633.5	89.8	133.1	89.75	1,261.7	1,748.1	4,985.0	4,762.1	222.91	22.363	
9,744.1	6,641.4	6,633.4	6,633.4	91.0	133.1	89.75	1,261.7	1,748.1	5,027.2	4,803.1	224.13	22.430	
9,800.0	6,641.3	6,633.3	6,633.3	92.6	133.1	89.74	1,261.7	1,748.1	5,080.9	4,855.2	225.68	22.514	
9,842.5	6,641.3	6,633.3	6,633.3	93.8	133.1	89.74	1,261.7	1,748.1	5,121.7	4,894.8	226.85	22.577	
9,900.0	6,641.2	6,633.2	6,633.2	95.4	133.1	89.74	1,261.7	1,748.1	5,176.9	4,948.5	228.45	22.661	
9,940.9	6,641.1	6,633.1	6,633.1	96.5	133.1	89.74	1,261.7	1,748.1	5,216.3	4,986.7	229.58	22.721	
10,000.0	6,641.1	6,633.1	6,633.1	98.1	133.1	89.73	1,261.7	1,748.1	5,273.1	5,041.9	231.22	22.806	
10,039.3	6,641.0	6,633.0	6,633.0	99.2	133.1	89.73	1,261.7	1,748.1	5,311.0	5,078.7	232.31	22.862	
10,100.0	6,640.9	6,632.9	6,632.9	100.9	133.1	89.73	1,261.7	1,748.1	5,369.5	5,135.5	233.99	22.947	
10,137.8	6,640.9	6,632.9	6,632.9	102.0	133.1	89.73	1,261.7	1,748.1	5,405.9	5,170.8	235.04	23.000	
10,200.0	6,640.8	6,632.8	6,632.8	103.7	133.1	89.73	1,261.7	1,748.1	5,465.9	5,229.2	236.77	23.085	
10,236.2	6,640.8	6,632.8	6,632.8	104.7	133.1	89.72	1,261.7	1,748.1	5,500.9	5,263.1	237.77	23.135	
10,300.0	6,640.7	6,632.7	6,632.7	106.5	133.1	89.72	1,261.7	1,748.1	5,562.5	5,323.0	239.55	23.221	
10,334.6	6,640.6	6,632.6	6,632.6	107.4	133.1	89.72	1,261.7	1,748.1	5,596.0	5,355.5	240.51	23.267	
10,400.0	6,640.6	6,632.6	6,632.6	109.3	133.1	89.72	1,261.7	1,748.1	5,659.2	5,416.9	242.33	23.354	
10,433.0	6,640.5	6,632.5	6,632.5	110.2	133.1	89.72	1,261.7	1,748.1	5,691.2	5,448.0	243.25	23.397	
10,500.0	6,640.4	6,632.4	6,632.4	112.0	133.1	89.71	1,261.7	1,748.1	5,756.1	5,511.0	245.11	23.484	
10,531.5	6,640.4	6,632.4	6,632.4	112.9	133.1	89.71	1,261.7	1,748.1	5,786.6	5,540.6	245.98	23.524	
10,600.0	6,640.3	6,632.3	6,632.3	114.8	133.1	89.71	1,261.7	1,748.1	5,853.0	5,605.1	247.89	23.611	
10,629.9	6,640.3	6,632.3	6,632.3	115.7	133.1	89.71	1,261.7	1,748.1	5,882.0	5,633.3	248.72	23.649	
10,700.0	6,640.2	6,632.2	6,632.2	117.6	133.1	89.70	1,261.7	1,748.1	5,950.0	5,699.4	250.67	23.736	
10,728.3	6,640.1	6,632.1	6,632.1	118.4	133.1	89.70	1,261.7	1,748.1	5,977.5	5,726.1	251.46	23.771	
10,800.0	6,640.0	6,632.0	6,632.0	120.4	133.1	89.70	1,261.7	1,748.1	6,047.2	5,793.7	253.46	23.859	
10,826.7	6,640.0	6,632.0	6,632.0	121.2	133.1	89.70	1,261.7	1,748.1	6,073.2	5,819.0	254.20	23.891	
10,900.0	6,639.9	6,631.9	6,631.9	123.2	133.1	89.70	1,261.7	1,748.1	6,144.4	5,888.1	256.24	23.979	
10,925.2	6,639.9	6,631.9	6,631.9	123.9	133.1	89.69	1,261.7	1,748.1	6,168.9	5,911.9	256.94	24.009	
11,000.0	6,639.8	6,631.8	6,631.8	126.0	133.1	89.69	1,261.7	1,748.1	6,241.7	5,982.7	259.03	24.096	
11,023.6	6,639.8	6,631.8	6,631.8	126.6	133.1	89.69	1,261.7	1,748.1	6,264.7	6,005.0	259.69	24.124	
11,100.0	6,639.7	6,631.7	6,631.7	128.8	133.1	89.69	1,261.7	1,748.1	6,339.1	6,077.3	261.82	24.212	
11,122.0	6,639.6	6,631.6	6,631.6	129.4	133.1	89.69	1,261.7	1,748.1	6,360.5	6,098.1	262.43	24.237	
11,200.0	6,639.5	6,631.5	6,631.5	131.6	133.1	89.68	1,261.7	1,748.1	6,436.6	6,171.9	264.61	24.325	
11,220.4	6,639.5	6,631.5	6,631.5	132.1	133.1	89.68	1,261.7	1,748.1	6,456.5	6,191.3	265.18	24.348	
11,300.0	6,639.4	6,631.4	6,631.4	134.4	133.1	89.68	1,261.7	1,748.1	6,534.1	6,266.7	267.39	24.436	
11,318.9	6,639.4	6,631.4	6,631.4	134.9	133.0	89.68	1,261.7	1,748.1	6,552.5	6,284.6	267.92	24.457	
11,400.0	6,639.3	6,631.3	6,631.3	137.1	133.0	89.67	1,261.7	1,748.1	6,631.7	6,361.5	270.19	24.545	
11,417.3	6,639.3	6,631.3	6,631.3	137.6	133.0	89.67	1,261.7	1,748.1	6,648.6	6,378.0	270.67	24.564	
11,500.0	6,639.2	6,631.2	6,631.2	139.9	133.0	89.67	1,261.7	1,748.1	6,729.4	6,456.4	272.98	24.652	
11,515.7	6,639.1	6,631.1	6,631.1	140.4	133.0	89.67	1,261.7	1,748.1	6,744.8	6,471.4	273.41	24.669	
11,600.0	6,639.0	6,631.0	6,631.0	142.7	133.0	89.67	1,261.7	1,748.1	6,827.2	6,551.4	275.77	24.757	
11,614.1	6,639.0	6,631.0	6,631.0	143.1	133.0	89.66	1,261.7	1,748.1	6,841.0	6,564.9	276.16	24.772	
11,700.0	6,638.9	6,630.9	6,630.9	145.5	133.0	89.66	1,261.7	1,748.1	6,925.0	6,646.4	278.56	24.860	
11,712.6	6,638.9	6,630.9	6,630.9	145.9	133.0	89.66	1,261.7	1,748.1	6,937.3	6,658.4	278.91	24.873	
11,800.0	6,638.8	6,630.8	6,630.8	148.3	133.0	89.66	1,261.7	1,748.1	7,022.9	6,741.5	281.35	24.961	
11,811.0	6,638.8	6,630.8	6,630.8	148.6	133.0	89.66	1,261.7	1,748.1	7,033.7	6,752.0	281.66	24.972	
11,900.0	6,638.7	6,630.7	6,630.7	151.1	133.0	89.65	1,261.7	1,748.1	7,120.8	6,836.7	284.15	25.060	
11,909.4	6,638.6	6,630.6	6,630.6	151.4	133.0	89.65	1,261.7	1,748.1	7,130.1	6,845.7	284.41	25.070	
12,000.0	6,638.5	6,630.5	6,630.5	153.9	133.0	89.65	1,261.7	1,748.1	7,218.8	6,931.9	286.94	25.158	
12,007.8	6,638.5	6,630.5	6,630.5	154.1	133.0	89.65	1,261.7	1,748.1	7,226.5	6,939.4	287.16	25.166	
12,100.0	6,638.4	6,630.4	6,630.4	156.7	133.0	89.65	1,261.7	1,748.1	7,316.9	7,027.1	289.73	25.254	
12,106.3	6,638.4	6,630.4	6,630.4	156.9	133.0	89.64	1,261.7	1,748.1	7,323.0	7,033.1	289.91	25.260	
12,200.0	6,638.3	6,630.3	6,630.3	159.5	133.0	89.64	1,261.7	1,748.1	7,415.0	7,122.5	292.53	25.348	

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

Anticollision Report



Company:	PDC ENERGY	Local Co-ordinate Reference:	Well WACKER 10G-214
Project:	WELD COUNTY, COLORADO	TVD Reference:	KB-EST @ 4624.0usft (Original Well Elev)
Reference Site:	SW NW SEC. 10 T5N R64W 6th P.M.	MD Reference:	KB-EST @ 4624.0usft (Original Well Elev)
Site Error:	0.0 usft	North Reference:	True
Reference Well:	WACKER 10G-214	Survey Calculation Method:	Minimum Curvature
Well Error:	0.0 usft	Output errors are at	2.00 sigma
Reference Wellbore	ORIGINAL WELLBORE	Database:	EDM 5000.1 Single User Db
Reference Design:	PROPOSAL #1	Offset TVD Reference:	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	
12,204.7	6,638.3	6,630.3	6,630.3	159.6	133.0	89.64	1,261.7	1,748.1	7,419.6	7,126.9	292.66	25.352	
12,300.0	6,638.2	6,630.2	6,630.2	162.3	133.0	89.64	1,261.7	1,748.1	7,513.1	7,217.8	295.32	25.440	
12,303.1	6,638.2	6,630.2	6,630.2	162.4	133.0	89.64	1,261.7	1,748.1	7,516.2	7,220.8	295.41	25.443	
12,400.0	6,638.0	6,630.0	6,630.0	165.1	133.0	89.63	1,261.7	1,748.1	7,611.3	7,313.2	298.12	25.531	
12,401.5	6,638.0	6,630.0	6,630.0	165.2	133.0	89.63	1,261.7	1,748.1	7,612.9	7,314.7	298.16	25.533	
12,500.0	6,637.9	6,629.9	6,629.9	167.9	133.0	89.63	1,261.7	1,748.1	7,709.6	7,408.7	300.92	25.620	
12,598.4	6,637.8	6,629.8	6,629.8	170.7	133.0	89.62	1,261.7	1,748.1	7,806.3	7,502.7	303.67	25.707	
12,600.0	6,637.8	6,629.8	6,629.8	170.7	133.0	89.63	1,261.7	1,748.1	7,807.9	7,504.2	303.71	25.708	
12,696.8	6,637.7	6,629.7	6,629.7	173.4	133.0	89.62	1,261.7	1,748.1	7,903.1	7,596.7	306.42	25.792	
12,700.0	6,637.7	6,629.7	6,629.7	173.5	133.0	89.62	1,261.7	1,748.1	7,906.2	7,599.7	306.51	25.794	
12,795.2	6,637.6	6,629.6	6,629.6	176.2	133.0	89.62	1,261.7	1,748.1	7,999.9	7,690.8	309.18	25.875	
12,800.0	6,637.6	6,629.6	6,629.6	176.3	133.0	89.62	1,261.7	1,748.1	8,004.6	7,695.3	309.31	25.879	
12,893.7	6,637.4	6,629.4	6,629.4	178.9	133.0	89.61	1,261.7	1,748.1	8,096.8	7,784.9	311.93	25.957	
12,900.0	6,637.4	6,629.4	6,629.4	179.1	133.0	89.61	1,261.7	1,748.1	8,103.0	7,790.9	312.11	25.962	
12,992.1	6,637.3	6,629.3	6,629.3	181.7	133.0	89.61	1,261.7	1,748.1	8,193.7	7,879.0	314.68	26.038	
13,000.0	6,637.3	6,629.3	6,629.3	181.9	133.0	89.61	1,261.7	1,748.1	8,201.5	7,886.6	314.90	26.044	
13,090.5	6,637.2	6,629.2	6,629.2	184.4	133.0	89.61	1,261.7	1,748.1	8,290.6	7,973.2	317.44	26.117	
13,100.0	6,637.2	6,629.2	6,629.2	184.7	133.0	89.61	1,261.7	1,748.1	8,300.0	7,982.3	317.70	26.125	
13,188.9	6,637.1	6,629.1	6,629.1	187.2	133.0	89.60	1,261.7	1,748.1	8,387.6	8,067.4	320.19	26.196	
13,200.0	6,637.1	6,629.1	6,629.1	187.5	133.0	89.60	1,261.7	1,748.1	8,398.5	8,078.0	320.50	26.204	
13,287.4	6,637.0	6,629.0	6,629.0	190.0	133.0	89.60	1,261.7	1,748.1	8,484.6	8,161.7	322.95	26.273	
13,300.0	6,637.0	6,629.0	6,629.0	190.3	133.0	89.60	1,261.7	1,748.1	8,497.1	8,173.8	323.30	26.282	
13,385.8	6,636.9	6,628.9	6,628.9	192.7	133.0	89.59	1,261.7	1,748.1	8,581.7	8,256.0	325.70	26.348	
13,400.0	6,636.8	6,628.8	6,628.8	193.1	133.0	89.60	1,261.7	1,748.1	8,595.7	8,269.6	326.10	26.359	
13,484.2	6,636.7	6,628.7	6,628.7	195.5	133.0	89.59	1,261.7	1,748.1	8,678.7	8,350.3	328.46	26.423	
13,500.0	6,636.7	6,628.7	6,628.7	195.9	133.0	89.59	1,261.7	1,748.1	8,694.3	8,365.4	328.90	26.435	
13,582.6	6,636.6	6,628.6	6,628.6	198.2	133.0	89.59	1,261.7	1,748.1	8,775.8	8,444.6	331.21	26.496	
13,600.0	6,636.6	6,628.6	6,628.6	198.7	133.0	89.59	1,261.7	1,748.1	8,793.0	8,461.3	331.70	26.509	
13,681.1	6,636.5	6,628.5	6,628.5	201.0	133.0	89.58	1,261.7	1,748.1	8,873.0	8,539.0	333.97	26.568	
13,700.0	6,636.5	6,628.5	6,628.5	201.5	133.0	89.58	1,261.7	1,748.1	8,891.6	8,557.1	334.50	26.582	
13,779.5	6,636.4	6,628.4	6,628.4	203.7	133.0	89.58	1,261.7	1,748.1	8,970.1	8,633.4	336.73	26.639	
13,800.0	6,636.4	6,628.4	6,628.4	204.3	133.0	89.58	1,261.7	1,748.1	8,990.4	8,653.1	337.30	26.654	
13,877.9	6,636.3	6,628.3	6,628.3	206.5	133.0	89.58	1,261.7	1,748.1	9,067.3	8,727.8	339.48	26.709	
13,900.0	6,636.3	6,628.3	6,628.3	207.1	133.0	89.58	1,261.7	1,748.1	9,089.1	8,749.0	340.10	26.725	
13,976.3	6,636.2	6,628.2	6,628.2	209.3	133.0	89.57	1,261.7	1,748.1	9,164.5	8,822.3	342.24	26.778	
14,000.0	6,636.1	6,628.1	6,628.1	209.9	133.0	89.57	1,261.7	1,748.1	9,187.9	8,845.0	342.90	26.795	
14,074.8	6,636.0	6,628.0	6,628.0	212.0	133.0	89.57	1,261.7	1,748.1	9,261.8	8,916.8	344.99	26.846	
14,100.0	6,636.0	6,628.0	6,628.0	212.7	133.0	89.57	1,261.7	1,748.1	9,286.7	8,941.0	345.70	26.863	
14,173.2	6,635.9	6,627.9	6,627.9	214.8	133.0	89.57	1,261.7	1,748.1	9,359.0	9,011.3	347.75	26.913	
14,200.0	6,635.9	6,627.9	6,627.9	215.5	133.0	89.57	1,261.7	1,748.1	9,385.5	9,037.0	348.50	26.931	
14,271.6	6,635.8	6,627.8	6,627.8	217.5	133.0	89.56	1,261.7	1,748.1	9,456.3	9,105.8	350.51	26.979	
14,300.0	6,635.8	6,627.8	6,627.8	218.3	133.0	89.56	1,261.7	1,748.1	9,484.4	9,133.1	351.30	26.998	
14,370.0	6,635.7	6,627.7	6,627.7	220.3	133.0	89.56	1,261.7	1,748.1	9,553.6	9,200.3	353.27	27.044	
14,400.0	6,635.7	6,627.7	6,627.7	221.1	133.0	89.56	1,261.7	1,748.1	9,583.2	9,229.1	354.11	27.063	
14,468.5	6,635.6	6,627.6	6,627.6	223.1	133.0	89.56	1,261.7	1,748.1	9,650.9	9,294.9	356.02	27.108	
14,500.0	6,635.6	6,627.6	6,627.6	223.9	133.0	89.56	1,261.7	1,748.1	9,682.1	9,325.2	356.91	27.128	
14,566.9	6,635.5	6,627.5	6,627.5	225.8	133.0	89.55	1,261.7	1,748.1	9,748.3	9,389.5	358.78	27.171	
14,600.0	6,635.4	6,627.4	6,627.4	226.8	133.0	89.55	1,261.7	1,748.1	9,781.0	9,421.3	359.71	27.192	
14,665.3	6,635.4	6,627.4	6,627.4	228.6	133.0	89.55	1,261.7	1,748.1	9,845.7	9,484.1	361.54	27.233	
14,700.0	6,635.3	6,627.3	6,627.3	229.6	133.0	89.55	1,261.7	1,748.1	9,880.0	9,517.5	362.51	27.254	
14,763.7	6,635.2	6,627.2	6,627.2	231.3	133.0	89.55	1,261.7	1,748.1	9,943.1	9,578.8	364.30	27.294	
14,800.0	6,635.2	6,627.2	6,627.2	232.4	133.0	89.55	1,261.7	1,748.1	9,978.9	9,613.6	365.31	27.316	

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

Anticollision Report



Company:	PDC ENERGY	Local Co-ordinate Reference:	Well WACKER 10G-214
Project:	WELD COUNTY, COLORADO	TVD Reference:	KB-EST @ 4624.0usft (Original Well Elev)
Reference Site:	SW NW SEC. 10 T5N R64W 6th P.M.	MD Reference:	KB-EST @ 4624.0usft (Original Well Elev)
Site Error:	0.0 usft	North Reference:	True
Reference Well:	WACKER 10G-214	Survey Calculation Method:	Minimum Curvature
Well Error:	0.0 usft	Output errors are at	2.00 sigma
Reference Wellbore	ORIGINAL WELLBORE	Database:	EDM 5000.1 Single User Db
Reference Design:	PROPOSAL #1	Offset TVD Reference:	Offset Datum

Anticollision Report



Company:	PDC ENERGY	Local Co-ordinate Reference:	Well WACKER 10G-214
Project:	WELD COUNTY, COLORADO	TVD Reference:	KB-EST @ 4624.0usft (Original Well Elev)
Reference Site:	SW NW SEC. 10 T5N R64W 6th P.M.	MD Reference:	KB-EST @ 4624.0usft (Original Well Elev)
Site Error:	0.0 usft	North Reference:	True
Reference Well:	WACKER 10G-214	Survey Calculation Method:	Minimum Curvature
Well Error:	0.0 usft	Output errors are at	2.00 sigma
Reference Wellbore	ORIGINAL WELLBORE	Database:	EDM 5000.1 Single User Db
Reference Design:	PROPOSAL #1	Offset TVD Reference:	Offset Datum

Offset Design												Offset Site Error:	0.0 usft
Survey Program: 100-GYD_CT												Offset Well Error:	0.0 usft
Measured Depth (usft)	Vertical Depth (usft)	Measured Depth (usft)	Vertical Depth (usft)	Reference (usft)	Offset (usft)	Semi Major Axis Highside Toolface (")	Offset Wellbore Centre +N/-S (usft)	+E/-W (usft)	Between Centres (usft)	Between Ellipses (usft)	Minimum Separation (usft)	Separation Factor	Warning
0.0	0.0	0.0	0.0	0.0	0.0	89.19	23.7	1,684.4	1,684.6				
98.4	98.4	86.1	86.1	0.1	0.0	89.20	23.6	1,684.5	1,684.7	1,684.6	0.10	N/A	
100.0	100.0	87.6	87.6	0.1	0.0	89.20	23.6	1,684.5	1,684.7	1,684.6	0.10	N/A	
196.8	196.8	183.8	183.8	0.3	0.1	89.21	23.3	1,684.7	1,684.9	1,684.5	0.39	4,307.594	
200.0	200.0	186.9	186.9	0.3	0.1	89.21	23.3	1,684.7	1,684.9	1,684.5	0.40	4,201.089	
295.3	295.3	282.2	282.2	0.5	0.2	89.22	23.0	1,685.0	1,685.1	1,684.4	0.74	2,265.924	
300.0	300.0	287.0	287.0	0.5	0.2	89.22	23.0	1,685.0	1,685.1	1,684.4	0.76	2,214.336	
393.7	393.7	377.3	377.3	0.8	0.3	89.23	22.5	1,685.3	1,685.4	1,684.4	1.06	1,595.655	
400.0	400.0	383.3	383.3	0.8	0.3	89.24	22.5	1,685.3	1,685.5	1,684.4	1.08	1,567.000	
492.1	492.1	474.3	474.3	1.0	0.4	89.27	21.5	1,685.8	1,685.9	1,684.6	1.35	1,248.577	
500.0	500.0	482.2	482.2	1.0	0.4	89.27	21.4	1,685.8	1,686.0	1,684.6	1.37	1,227.405	
590.5	590.5	573.8	573.8	1.2	0.4	89.31	20.3	1,686.3	1,686.4	1,684.8	1.64	1,030.982	
600.0	600.0	583.4	583.4	1.2	0.4	89.32	20.1	1,686.3	1,686.5	1,684.8	1.66	1,014.142	
689.0	689.0	670.9	670.8	1.4	0.5	89.36	18.8	1,686.8	1,686.9	1,685.0	1.91	881.554	
700.0	700.0	681.6	681.6	1.4	0.5	89.37	18.6	1,686.8	1,687.0	1,685.0	1.94	867.575	
787.4	787.4	769.0	768.9	1.6	0.5	89.42	17.2	1,687.3	1,687.5	1,685.3	2.19	771.266	
800.0	800.0	781.7	781.6	1.7	0.6	89.42	17.0	1,687.4	1,687.5	1,685.3	2.22	759.139	
885.8	885.8	866.9	866.9	1.9	0.6	89.47	15.6	1,687.9	1,688.0	1,685.5	2.46	686.434	
900.0	900.0	881.0	880.9	1.9	0.6	89.48	15.4	1,688.0	1,688.1	1,685.6	2.50	675.779	
984.2	984.2	964.5	964.4	2.1	0.6	89.53	14.0	1,688.5	1,688.6	1,685.9	2.73	619.032	
1,000.0	1,000.0	980.1	980.0	2.1	0.7	89.53	13.7	1,688.6	1,688.7	1,685.9	2.77	609.484	
1,082.7	1,082.7	1,062.9	1,062.8	2.3	0.7	89.58	12.4	1,689.2	1,689.3	1,686.3	3.00	564.002	
1,100.0	1,100.0	1,080.3	1,080.2	2.3	0.7	89.59	12.1	1,689.3	1,689.4	1,686.3	3.04	555.329	
1,181.1	1,181.1	1,159.9	1,159.8	2.5	0.7	89.63	10.9	1,689.8	1,689.9	1,686.7	3.26	518.323	
1,200.0	1,200.0	1,178.3	1,178.2	2.6	0.7	89.64	10.6	1,690.0	1,690.1	1,686.7	3.31	510.422	
1,279.5	1,279.5	1,254.3	1,254.2	2.7	0.8	89.68	9.5	1,690.6	1,690.7	1,687.2	3.52	479.887	
1,300.0	1,300.0	1,273.7	1,273.6	2.8	0.8	89.69	9.2	1,690.8	1,690.9	1,687.4	3.58	472.637	
1,377.9	1,377.9	1,349.4	1,349.3	3.0	0.8	-28.94	8.2	1,691.7	1,690.9	1,687.2	3.69	458.126	
1,400.0	1,400.0	1,371.1	1,371.0	3.0	0.8	-28.95	7.9	1,691.9	1,690.5	1,686.8	3.74	451.594	
1,476.4	1,476.3	1,447.0	1,446.8	3.1	0.9	-28.99	6.8	1,692.8	1,688.2	1,684.3	3.91	431.236	
1,500.0	1,499.8	1,470.6	1,470.4	3.2	0.9	-29.02	6.4	1,693.1	1,687.2	1,683.2	3.97	425.205	
1,574.8	1,574.4	1,545.7	1,545.6	3.3	0.9	-29.13	5.3	1,694.0	1,682.6	1,678.5	4.14	406.191	
1,600.0	1,599.5	1,571.1	1,570.9	3.4	0.9	-29.17	5.0	1,694.3	1,680.7	1,676.5	4.20	400.049	
1,673.2	1,672.2	1,647.8	1,647.6	3.6	0.9	-29.35	3.9	1,695.2	1,674.0	1,669.6	4.38	382.114	
1,700.0	1,698.7	1,676.5	1,676.3	3.6	1.0	-29.43	3.5	1,695.4	1,671.1	1,666.7	4.45	375.795	
1,771.6	1,769.5	1,750.8	1,750.6	3.8	1.0	-29.68	2.5	1,695.9	1,662.1	1,657.5	4.63	358.852	
1,800.0	1,797.5	1,779.7	1,779.5	3.9	1.0	-29.79	2.2	1,696.1	1,658.1	1,653.4	4.70	352.431	
1,870.1	1,866.3	1,851.2	1,851.0	4.1	1.0	-30.11	1.3	1,696.5	1,647.1	1,642.2	4.90	336.425	
1,900.2	1,895.8	1,882.0	1,881.8	4.2	1.0	-30.26	1.0	1,696.6	1,641.9	1,636.9	4.98	329.829	
1,968.5	1,962.6	1,952.0	1,951.8	4.4	1.1	-30.49	0.2	1,696.7	1,629.7	1,624.6	5.17	315.461	
2,000.0	1,993.4	1,984.3	1,984.1	4.5	1.1	-30.61	-0.1	1,696.8	1,624.1	1,618.8	5.25	309.185	
2,066.9	2,058.9	2,055.1	2,054.9	4.7	1.1	-30.86	-0.7	1,696.7	1,612.0	1,606.5	5.44	296.171	
2,100.0	2,091.2	2,090.4	2,090.2	4.8	1.1	-30.99	-0.9	1,696.6	1,605.9	1,600.3	5.54	290.086	
2,165.3	2,155.2	2,161.1	2,160.9	5.1	1.1	-31.25	-1.2	1,696.1	1,593.7	1,588.0	5.73	278.379	
2,200.0	2,189.1	2,198.6	2,198.4	5.2	1.1	-31.40	-1.2	1,695.7	1,587.2	1,581.3	5.83	272.280	
2,263.8	2,251.4	2,267.4	2,267.2	5.5	1.1	-31.69	-1.0	1,694.7	1,574.9	1,568.9	6.02	261.423	
2,300.0	2,286.9	2,306.0	2,305.7	5.6	1.1	-31.85	-0.8	1,694.1	1,567.9	1,561.8	6.14	255.501	
2,362.2	2,347.7	2,367.9	2,367.7	5.8	1.1	-32.12	-0.5	1,692.9	1,555.7	1,549.4	6.33	245.717	
2,400.0	2,384.7	2,405.4	2,405.1	6.0	1.1	-32.29	-0.3	1,692.2	1,548.3	1,541.9	6.45	240.031	
2,460.6	2,444.0	2,463.6	2,463.3	6.2	1.1	-32.55	0.1	1,691.1	1,536.5	1,529.9	6.64	231.266	
2,500.0	2,482.5	2,500.0	2,499.7	6.4	1.1	-32.72	0.3	1,690.4	1,528.9	1,522.1	6.77	225.831	
2,559.0	2,540.3	2,557.0	2,556.7	6.6	1.2	-32.98	0.8	1,689.4	1,517.5	1,510.5	6.96	217.942	

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

Anticollision Report



Company:	PDC ENERGY	Local Co-ordinate Reference:	Well WACKER 10G-214
Project:	WELD COUNTY, COLORADO	TVD Reference:	KB-EST @ 4624.0usft (Original Well Elev)
Reference Site:	SW NW SEC. 10 T5N R64W 6th P.M.	MD Reference:	KB-EST @ 4624.0usft (Original Well Elev)
Site Error:	0.0 usft	North Reference:	True
Reference Well:	WACKER 10G-214	Survey Calculation Method:	Minimum Curvature
Well Error:	0.0 usft	Output errors are at	2.00 sigma
Reference Wellbore	ORIGINAL WELLBORE	Database:	EDM 5000.1 Single User Db
Reference Design:	PROPOSAL #1	Offset TVD Reference:	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	2,580.3	2,595.6	2,595.4	6.8	1.2	-33.16	1.0	1,688.7	1,509.6	1,502.5	7.10	212.714	
2,657.5	2,636.5	2,651.7	2,651.4	7.1	1.2	-33.43	1.5	1,687.8	1,498.6	1,491.4	7.29	205.585	
2,700.0	2,678.1	2,693.4	2,693.1	7.2	1.2	-33.63	1.8	1,687.1	1,490.6	1,483.1	7.43	200.525	
2,755.9	2,732.8	2,745.7	2,745.3	7.5	1.2	-33.89	2.2	1,686.3	1,480.0	1,472.3	7.62	194.115	
2,800.0	2,775.9	2,786.7	2,786.4	7.7	1.2	-34.09	2.5	1,685.7	1,471.7	1,463.9	7.78	189.273	
2,854.3	2,829.1	2,837.3	2,837.0	7.9	1.2	-34.34	2.9	1,685.0	1,461.6	1,453.7	7.96	183.521	
2,900.0	2,873.8	2,879.9	2,879.6	8.1	1.2	-34.56	3.2	1,684.5	1,453.3	1,445.1	8.12	178.885	
2,952.7	2,925.4	2,928.4	2,928.0	8.3	1.2	-34.80	3.6	1,684.1	1,443.7	1,435.4	8.31	173.728	
2,953.5	2,926.1	2,929.0	2,928.7	8.3	1.2	-34.81	3.6	1,684.1	1,443.5	1,435.2	8.31	173.658	
3,000.0	2,971.6	2,971.4	2,971.0	8.5	1.2	-34.92	3.8	1,683.7	1,435.5	1,427.1	8.45	169.875	
3,051.2	3,022.0	3,017.5	3,017.2	8.7	1.2	-35.04	4.1	1,683.5	1,427.6	1,419.0	8.58	166.364	
3,100.0	3,070.1	3,060.7	3,060.4	8.8	1.2	-35.14	4.3	1,683.4	1,420.9	1,412.2	8.70	163.256	
3,149.6	3,119.1	3,100.0	3,099.7	8.9	1.2	-35.21	4.5	1,683.5	1,414.9	1,406.1	8.82	160.425	
3,200.0	3,169.1	3,146.8	3,146.5	9.1	1.2	-35.31	4.8	1,683.8	1,409.8	1,400.9	8.94	157.659	
3,248.0	3,216.8	3,187.3	3,186.9	9.2	1.2	-35.39	5.2	1,684.2	1,405.9	1,396.8	9.05	155.365	
3,300.0	3,268.5	3,233.5	3,233.2	9.3	1.2	-35.47	5.6	1,685.0	1,402.6	1,393.5	9.17	153.024	
3,346.4	3,314.8	3,275.8	3,275.5	9.4	1.2	-35.54	6.1	1,685.8	1,400.5	1,391.3	9.26	151.173	
3,400.0	3,368.3	3,324.3	3,323.9	9.6	1.2	-35.61	6.6	1,686.8	1,399.0	1,389.7	9.38	149.178	
3,444.9	3,413.1	3,364.6	3,364.2	9.6	1.2	-35.67	7.1	1,687.9	1,398.6	1,389.1	9.47	147.735	
3,451.4	3,419.6	3,370.5	3,370.1	9.6	1.2	-35.68	7.2	1,688.0	1,398.6	1,389.1	9.48	147.534 CC, ES	
3,500.0	3,468.2	3,415.2	3,414.8	9.7	1.2	-35.73	7.8	1,689.3	1,399.0	1,389.4	9.58	146.092	
3,543.3	3,511.5	3,457.0	3,456.6	9.8	1.2	-35.77	8.4	1,690.6	1,400.0	1,390.3	9.66	144.967	
3,553.7	3,521.9	3,467.1	3,466.6	9.8	1.2	82.87	8.5	1,690.9	1,400.3	1,389.9	10.39	134.767	
3,600.0	3,568.2	3,512.1	3,511.7	9.9	1.3	82.85	9.2	1,692.4	1,401.9	1,391.4	10.47	133.848	
3,641.7	3,609.9	3,553.6	3,553.1	10.0	1.3	82.83	9.9	1,693.7	1,403.3	1,392.7	10.55	132.981	
3,700.0	3,668.2	3,611.4	3,610.8	10.1	1.3	82.81	10.8	1,695.6	1,405.3	1,394.6	10.66	131.794	
3,740.1	3,708.4	3,650.7	3,650.1	10.1	1.3	82.78	11.5	1,696.9	1,406.7	1,395.9	10.74	130.984	
3,800.0	3,768.2	3,710.1	3,709.5	10.2	1.3	82.75	12.5	1,698.9	1,408.8	1,397.9	10.85	129.801	
3,838.6	3,806.8	3,751.0	3,750.3	10.3	1.3	82.73	13.2	1,700.2	1,410.1	1,399.2	10.93	129.036	
3,900.0	3,868.2	3,818.7	3,818.1	10.4	1.3	82.70	14.3	1,702.2	1,412.1	1,401.0	11.05	127.825	
3,937.0	3,905.2	3,864.6	3,863.9	10.5	1.3	82.68	15.0	1,703.4	1,413.1	1,401.9	11.12	127.076	
4,000.0	3,968.2	3,937.4	3,936.7	10.6	1.3	82.65	15.9	1,704.6	1,414.2	1,403.0	11.24	125.790	
4,035.4	4,003.6	3,975.8	3,975.1	10.6	1.3	82.63	16.4	1,705.1	1,414.8	1,403.4	11.31	125.065	
4,100.0	4,068.2	4,043.6	4,042.9	10.7	1.3	82.60	17.1	1,705.9	1,415.6	1,404.1	11.44	123.758	
4,133.8	4,102.1	4,078.5	4,077.8	10.8	1.3	82.59	17.4	1,706.2	1,415.9	1,404.4	11.50	123.075	
4,200.0	4,168.2	4,145.9	4,145.1	10.9	1.4	82.57	18.1	1,706.8	1,416.6	1,405.0	11.63	121.759	
4,232.3	4,200.5	4,178.5	4,177.8	11.0	1.4	82.56	18.4	1,707.1	1,416.9	1,405.2	11.70	121.120	
4,300.0	4,268.2	4,248.0	4,247.2	11.1	1.4	82.53	19.1	1,707.7	1,417.5	1,405.7	11.83	119.799	
4,330.7	4,298.9	4,279.7	4,278.9	11.1	1.4	82.52	19.4	1,707.9	1,417.8	1,405.9	11.89	119.202	
4,400.0	4,368.2	4,349.4	4,348.7	11.3	1.4	82.50	20.0	1,708.3	1,418.3	1,406.3	12.03	117.875	
4,429.1	4,397.3	4,378.4	4,377.7	11.3	1.4	82.49	20.2	1,708.5	1,418.5	1,406.4	12.09	117.322	
4,500.0	4,468.2	4,448.9	4,448.1	11.4	1.4	82.48	20.7	1,709.0	1,419.1	1,406.8	12.23	115.997	
4,527.5	4,495.8	4,476.2	4,475.5	11.5	1.4	82.47	20.9	1,709.2	1,419.3	1,407.0	12.29	115.486	
4,600.0	4,568.2	4,546.3	4,545.6	11.6	1.4	82.45	21.4	1,709.7	1,419.9	1,407.5	12.44	114.169	
4,626.0	4,594.2	4,571.1	4,570.3	11.7	1.4	82.45	21.5	1,710.0	1,420.2	1,407.7	12.49	113.703	
4,700.0	4,668.2	4,639.5	4,638.7	11.8	1.5	82.44	21.8	1,710.8	1,421.1	1,408.4	12.64	112.406	
4,724.4	4,692.6	4,661.5	4,660.7	11.9	1.5	82.44	21.8	1,711.1	1,421.4	1,408.7	12.69	111.988	
4,800.0	4,768.2	4,731.2	4,730.4	12.0	1.5	82.45	21.8	1,712.4	1,422.8	1,410.0	12.85	110.724	
4,822.8	4,791.0	4,752.8	4,752.0	12.0	1.5	82.45	21.8	1,712.9	1,423.3	1,410.4	12.90	110.348	
4,900.0	4,868.2	4,828.6	4,827.7	12.2	1.5	82.47	21.6	1,714.6	1,425.0	1,411.9	13.06	109.099	
4,921.2	4,889.5	4,850.7	4,849.9	12.2	1.5	82.48	21.5	1,715.1	1,425.5	1,412.4	13.11	108.756	
5,000.0	4,968.2	4,933.3	4,932.5	12.4	1.5	82.50	21.1	1,716.8	1,427.1	1,413.8	13.28	107.491	

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

Anticollision Report



Company:	PDC ENERGY	Local Co-ordinate Reference:	Well WACKER 10G-214
Project:	WELD COUNTY, COLORADO	TVD Reference:	KB-EST @ 4624.0usft (Original Well Elev)
Reference Site:	SW NW SEC. 10 T5N R64W 6th P.M.	MD Reference:	KB-EST @ 4624.0usft (Original Well Elev)
Site Error:	0.0 usft	North Reference:	True
Reference Well:	WACKER 10G-214	Survey Calculation Method:	Minimum Curvature
Well Error:	0.0 usft	Output errors are at	2.00 sigma
Reference Wellbore	ORIGINAL WELLBORE	Database:	EDM 5000.1 Single User Db
Reference Design:	PROPOSAL #1	Offset TVD Reference:	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	4,987.9	4,954.1	4,953.3	12.4	1.5	82.51	20.9	1,717.2	1,427.4	1,414.1	13.32	107.174	
5,100.0	5,068.2	5,040.2	5,039.4	12.6	1.6	82.55	20.2	1,718.7	1,428.7	1,415.2	13.49	105.886	
5,118.1	5,086.3	5,059.9	5,059.0	12.6	1.6	82.56	20.0	1,719.0	1,429.0	1,415.4	13.53	105.594	
5,200.0	5,168.2	5,146.0	5,145.1	12.7	1.6	82.61	18.9	1,720.1	1,429.8	1,416.1	13.71	104.276	
5,216.5	5,184.7	5,162.9	5,162.0	12.8	1.6	82.62	18.6	1,720.3	1,430.0	1,416.3	13.75	104.011	
5,300.0	5,268.2	5,247.0	5,246.1	12.9	1.6	82.68	17.3	1,721.2	1,430.8	1,416.8	13.93	102.691	
5,314.9	5,283.2	5,261.9	5,261.0	13.0	1.6	82.69	17.0	1,721.4	1,430.9	1,416.9	13.97	102.457	
5,400.0	5,368.2	5,348.0	5,347.1	13.1	1.6	82.76	15.4	1,722.4	1,431.7	1,417.5	14.15	101.143	
5,413.4	5,381.6	5,361.7	5,360.8	13.2	1.6	82.77	15.1	1,722.6	1,431.8	1,417.6	14.18	100.938	
5,500.0	5,468.2	5,447.9	5,447.0	13.3	1.7	82.84	13.5	1,723.5	1,432.5	1,418.1	14.38	99.632	
5,511.8	5,480.0	5,459.4	5,458.5	13.3	1.7	82.85	13.3	1,723.6	1,432.6	1,418.2	14.40	99.457	
5,600.0	5,568.2	5,543.0	5,542.1	13.5	1.7	82.90	12.1	1,724.6	1,433.5	1,418.9	14.60	98.188	
5,610.2	5,578.4	5,552.5	5,551.5	13.5	1.7	82.90	12.0	1,724.7	1,433.6	1,419.0	14.62	98.044	
5,700.0	5,668.2	5,636.8	5,635.8	13.7	1.7	82.95	11.1	1,726.1	1,434.9	1,420.1	14.82	96.822	
5,708.6	5,676.9	5,645.0	5,644.1	13.7	1.7	82.95	11.0	1,726.2	1,435.1	1,420.2	14.84	96.707	
5,800.0	5,768.2	5,730.5	5,729.5	13.9	1.7	82.99	10.1	1,727.9	1,436.7	1,421.7	15.04	95.523	
5,807.1	5,775.3	5,736.9	5,735.9	13.9	1.7	83.00	10.1	1,728.0	1,436.9	1,421.8	15.06	95.435	
5,900.0	5,868.2	5,823.3	5,822.2	14.1	1.7	83.02	9.7	1,730.2	1,439.1	1,423.8	15.26	94.309	
5,905.5	5,873.7	5,828.9	5,827.9	14.1	1.8	83.02	9.6	1,730.3	1,439.2	1,424.0	15.27	94.243	
5,960.7	5,928.9	5,885.5	5,884.5	14.2	1.8	83.04	9.5	1,731.8	1,440.6	1,425.2	15.39	93.590	
6,000.0	5,968.2	5,925.3	5,924.2	14.3	1.8	173.03	9.5	1,732.8	1,442.7	1,427.6	15.06	95.787	
6,003.9	5,972.1	5,929.2	5,928.1	14.3	1.8	173.03	9.4	1,732.9	1,443.0	1,427.9	15.07	95.753	
6,050.0	6,018.0	5,975.2	5,974.1	14.4	1.8	173.00	9.4	1,734.0	1,448.3	1,433.1	15.19	95.371	
6,100.0	6,067.3	6,025.9	6,024.8	14.4	1.8	172.97	9.2	1,735.2	1,457.4	1,442.0	15.33	95.082	
6,102.3	6,069.6	6,028.3	6,027.2	14.4	1.8	172.96	9.2	1,735.3	1,457.9	1,442.5	15.33	95.074	
6,150.0	6,116.0	6,077.1	6,075.9	14.4	1.8	172.92	8.8	1,736.4	1,469.7	1,454.3	15.47	95.009	
6,200.0	6,163.8	6,126.1	6,125.0	14.5	1.8	172.87	8.1	1,737.5	1,485.3	1,469.7	15.60	95.233	
6,200.8	6,164.5	6,126.8	6,125.7	14.5	1.8	172.86	8.1	1,737.5	1,485.6	1,470.0	15.60	95.239	
6,250.0	6,210.4	6,173.0	6,171.8	14.5	1.8	172.80	7.1	1,738.5	1,504.2	1,488.5	15.70	95.807	
6,299.2	6,254.9	6,216.3	6,215.1	14.5	1.9	172.71	5.8	1,739.5	1,525.8	1,510.0	15.77	96.743	
6,300.0	6,255.6	6,216.9	6,215.8	14.5	1.9	172.70	5.8	1,739.6	1,526.2	1,510.4	15.77	96.761	
6,350.0	6,299.3	6,257.1	6,255.9	14.5	1.9	172.58	4.4	1,740.6	1,551.3	1,535.5	15.81	98.117	
6,397.6	6,339.2	6,293.7	6,292.4	14.6	1.9	172.42	3.0	1,741.6	1,578.0	1,562.2	15.81	99.784	
6,400.0	6,341.2	6,295.4	6,294.2	14.6	1.9	172.42	2.9	1,741.6	1,579.4	1,563.6	15.81	99.877	
6,450.0	6,381.0	6,329.2	6,327.9	14.6	1.9	172.19	1.3	1,742.7	1,610.5	1,594.7	15.78	102.039	
6,496.0	6,415.8	6,358.0	6,356.6	14.7	1.9	171.93	-0.2	1,743.7	1,641.5	1,625.8	15.73	104.372	
6,500.0	6,418.7	6,360.3	6,359.0	14.7	1.9	171.91	-0.4	1,743.7	1,644.3	1,628.5	15.72	104.587	
6,550.0	6,453.9	6,389.1	6,387.7	14.8	1.9	171.54	-2.2	1,744.9	1,680.7	1,665.0	15.64	107.483	
6,594.5	6,483.1	6,413.3	6,411.7	15.0	1.9	171.12	-3.9	1,745.9	1,715.0	1,699.5	15.55	110.293	
6,600.0	6,486.6	6,416.2	6,414.6	15.1	1.9	171.06	-4.1	1,746.0	1,719.4	1,703.9	15.54	110.657	
6,650.0	6,516.6	6,441.1	6,439.5	15.3	1.9	170.44	-5.9	1,747.1	1,760.4	1,744.9	15.44	114.011	
6,692.9	6,540.0	6,460.3	6,458.5	15.7	1.9	169.74	-7.5	1,748.0	1,797.0	1,781.7	15.37	116.916	
6,700.0	6,543.7	6,463.2	6,461.5	15.7	1.9	169.60	-7.7	1,748.1	1,803.2	1,787.9	15.36	117.395	
6,750.0	6,567.8	6,482.5	6,480.7	16.2	1.9	168.43	-9.3	1,749.1	1,847.8	1,832.5	15.33	120.558	
6,791.3	6,585.4	6,500.0	6,498.1	16.7	1.9	167.19	-10.8	1,750.0	1,885.8	1,870.4	15.37	122.723	
6,800.0	6,588.8	6,500.0	6,498.1	16.8	1.9	166.78	-10.8	1,750.0	1,893.9	1,878.5	15.39	123.097	
6,850.0	6,606.6	6,511.8	6,509.8	17.4	1.9	164.20	-11.9	1,750.6	1,941.2	1,925.6	15.62	124.289	
6,889.7	6,618.4	6,520.0	6,517.9	18.0	1.9	161.06	-12.6	1,751.0	1,979.5	1,963.5	16.03	123.462	
6,900.0	6,621.1	6,521.8	6,519.7	18.2	1.9	160.00	-12.8	1,751.1	1,989.5	1,973.3	16.19	122.875	
6,950.0	6,632.2	6,528.8	6,526.7	19.0	1.9	152.17	-13.4	1,751.5	2,038.6	2,021.1	17.50	116.522	
6,988.2	6,638.4	6,532.2	6,530.1	19.7	2.0	140.26	-13.7	1,751.7	2,076.4	2,056.9	19.48	106.584	
7,000.0	6,639.9	6,533.0	6,530.9	19.9	2.0	134.48	-13.8	1,751.7	2,088.2	2,067.8	20.31	102.806	

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

Anticollision Report



Company:	PDC ENERGY	Local Co-ordinate Reference:	Well WACKER 10G-214
Project:	WELD COUNTY, COLORADO	TVD Reference:	KB-EST @ 4624.0usft (Original Well Elev)
Reference Site:	SW NW SEC. 10 T5N R64W 6th P.M.	MD Reference:	KB-EST @ 4624.0usft (Original Well Elev)
Site Error:	0.0 usft	North Reference:	True
Reference Well:	WACKER 10G-214	Survey Calculation Method:	Minimum Curvature
Well Error:	0.0 usft	Output errors are at	2.00 sigma
Reference Wellbore	ORIGINAL WELLBORE	Database:	EDM 5000.1 Single User Db
Reference Design:	PROPOSAL #1	Offset TVD Reference:	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
7,050.0	6,644.1	6,534.2	6,532.1	20.8	2.0	91.05	-13.9	1,751.8	2,138.0	2,115.4	22.56	94.766	
7,086.5	6,645.0	6,533.3	6,531.2	21.5	2.0	54.51	-13.8	1,751.7	2,174.4	2,152.1	22.31	97.463	
7,100.0	6,645.0	6,532.6	6,530.5	21.8	2.0	54.37	-13.8	1,751.7	2,187.8	2,165.3	22.51	97.185	
7,185.0	6,644.9	6,528.8	6,526.7	23.6	1.9	53.48	-13.4	1,751.5	2,272.6	2,248.7	23.84	95.335	
7,200.0	6,644.8	6,528.1	6,526.0	23.9	1.9	53.33	-13.4	1,751.4	2,287.5	2,263.4	24.07	95.042	
7,283.4	6,644.7	6,524.3	6,522.3	25.7	1.9	52.49	-13.0	1,751.2	2,370.6	2,345.2	25.43	93.220	
7,300.0	6,644.7	6,523.6	6,521.6	26.1	1.9	52.33	-12.9	1,751.2	2,387.1	2,361.4	25.70	92.893	
7,381.9	6,644.6	6,520.0	6,518.0	28.0	1.9	51.56	-12.6	1,751.0	2,468.8	2,441.7	27.07	91.189	
7,400.0	6,644.6	6,519.2	6,517.2	28.4	1.9	51.39	-12.5	1,751.0	2,486.8	2,459.5	27.37	90.846	
7,480.3	6,644.5	6,515.7	6,513.7	30.3	1.9	50.66	-12.2	1,750.8	2,566.9	2,538.1	28.74	89.300	
7,500.0	6,644.4	6,514.8	6,512.9	30.8	1.9	50.49	-12.2	1,750.7	2,586.5	2,557.4	29.08	88.954	
7,578.7	6,644.3	6,511.5	6,509.5	32.7	1.9	49.80	-11.9	1,750.6	2,665.0	2,634.6	30.43	87.577	
7,600.0	6,644.3	6,510.6	6,508.6	33.3	1.9	49.63	-11.8	1,750.5	2,686.2	2,655.4	30.79	87.237	
7,677.1	6,644.2	6,500.0	6,498.1	35.2	1.9	47.59	-10.8	1,750.0	2,763.2	2,731.5	31.73	87.096	
7,700.0	6,644.1	6,500.0	6,498.1	35.8	1.9	47.60	-10.8	1,750.0	2,786.0	2,753.8	32.16	86.630	
7,775.6	6,644.0	6,500.0	6,498.1	37.7	1.9	47.60	-10.8	1,750.0	2,861.3	2,827.7	33.62	85.114	
7,800.0	6,644.0	6,500.0	6,498.1	38.3	1.9	47.60	-10.8	1,750.0	2,885.7	2,851.6	34.09	84.651	
7,874.0	6,643.9	6,500.0	6,498.1	40.2	1.9	47.60	-10.8	1,750.0	2,959.5	2,924.0	35.54	83.279	
7,900.0	6,643.9	6,500.0	6,498.1	40.9	1.9	47.60	-10.8	1,750.0	2,985.4	2,949.4	36.05	82.822	
7,972.4	6,643.8	6,500.0	6,498.1	42.8	1.9	47.60	-10.8	1,750.0	3,057.7	3,020.2	37.48	81.582	
8,000.0	6,643.7	6,500.0	6,498.1	43.5	1.9	47.60	-10.8	1,750.0	3,085.2	3,047.2	38.03	81.134	
8,070.8	6,643.6	6,500.0	6,498.1	45.4	1.9	47.60	-10.8	1,750.0	3,155.9	3,116.5	39.44	80.015	
8,100.0	6,643.6	6,500.0	6,498.1	46.2	1.9	47.60	-10.8	1,750.0	3,185.0	3,145.0	40.02	79.576	
8,169.3	6,643.5	6,487.0	6,485.1	48.0	1.9	45.30	-9.7	1,749.3	3,254.1	3,213.7	40.41	80.534	
8,200.0	6,643.5	6,485.8	6,483.9	48.8	1.9	45.09	-9.6	1,749.2	3,284.7	3,243.8	40.91	80.295	
8,267.7	6,643.4	6,483.0	6,481.2	50.6	1.9	44.64	-9.4	1,749.1	3,352.3	3,310.3	42.01	79.796	
8,300.0	6,643.3	6,481.8	6,479.9	51.5	1.9	44.43	-9.2	1,749.0	3,384.5	3,342.0	42.53	79.574	
8,366.1	6,643.2	6,479.1	6,477.3	53.3	1.9	44.01	-9.0	1,748.9	3,450.5	3,406.9	43.60	79.146	
8,400.0	6,643.2	6,477.8	6,476.0	54.2	1.9	43.80	-8.9	1,748.9	3,484.3	3,440.2	44.14	78.942	
8,464.5	6,643.1	6,475.3	6,473.5	55.9	1.9	43.40	-8.7	1,748.7	3,548.7	3,503.6	45.16	78.575	
8,500.0	6,643.1	6,473.9	6,472.1	56.9	1.9	43.19	-8.6	1,748.7	3,584.1	3,538.4	45.72	78.387	
8,563.0	6,643.0	6,471.5	6,469.7	58.6	1.9	42.81	-8.4	1,748.5	3,646.9	3,600.2	46.71	78.074	
8,600.0	6,642.9	6,470.1	6,468.3	59.6	1.9	42.60	-8.3	1,748.5	3,683.9	3,636.6	47.29	77.902	
8,661.4	6,642.8	6,467.7	6,466.0	61.3	1.9	42.25	-8.1	1,748.4	3,745.2	3,696.9	48.24	77.635	
8,700.0	6,642.8	6,466.3	6,464.5	62.3	1.9	42.03	-8.0	1,748.3	3,783.7	3,734.9	48.84	77.479	
8,759.8	6,642.7	6,464.1	6,462.3	64.0	1.9	41.71	-7.8	1,748.2	3,843.4	3,793.7	49.75	77.252	
8,800.0	6,642.7	6,462.6	6,460.8	65.1	1.9	41.49	-7.7	1,748.1	3,883.5	3,833.2	50.36	77.110	
8,858.2	6,642.6	6,460.4	6,458.7	66.6	1.9	41.18	-7.5	1,748.0	3,941.7	3,890.4	51.24	76.919	
8,900.0	6,642.5	6,458.9	6,457.2	67.8	1.9	40.97	-7.4	1,747.9	3,983.3	3,931.5	51.87	76.791	
8,956.7	6,642.4	6,456.8	6,455.1	69.3	1.9	40.68	-7.2	1,747.8	4,039.9	3,987.2	52.72	76.630	
9,000.0	6,642.4	6,455.2	6,453.5	70.5	1.9	40.46	-7.1	1,747.8	4,083.1	4,029.8	53.36	76.515	
9,055.1	6,642.3	6,453.3	6,451.6	72.0	1.9	40.19	-6.9	1,747.7	4,138.2	4,084.0	54.18	76.381	
9,100.0	6,642.3	6,451.7	6,450.0	73.3	1.9	39.98	-6.8	1,747.6	4,183.0	4,128.1	54.84	76.279	
9,153.5	6,642.2	6,449.8	6,448.1	74.7	1.9	39.72	-6.6	1,747.5	4,236.4	4,180.8	55.62	76.167	
9,200.0	6,642.1	6,448.1	6,446.5	76.0	1.9	39.51	-6.5	1,747.4	4,282.8	4,226.5	56.30	76.077	
9,251.9	6,642.1	6,446.3	6,444.6	77.5	1.9	39.27	-6.4	1,747.4	4,334.7	4,277.6	57.05	75.986	
9,300.0	6,642.0	6,444.6	6,443.0	78.8	1.9	39.06	-6.2	1,747.3	4,382.6	4,324.9	57.74	75.907	
9,350.4	6,641.9	6,442.9	6,441.3	80.2	1.9	38.84	-6.1	1,747.2	4,432.9	4,374.5	58.46	75.832	
9,400.0	6,641.9	6,441.2	6,439.6	81.5	1.9	38.62	-6.0	1,747.1	4,482.5	4,423.3	59.16	75.765	
9,448.8	6,641.8	6,439.5	6,437.9	82.9	1.9	38.41	-5.8	1,747.0	4,531.2	4,471.3	59.85	75.705	
9,500.0	6,641.7	6,437.8	6,436.2	84.3	1.9	38.20	-5.7	1,747.0	4,582.3	4,521.7	60.57	75.648	
9,547.2	6,641.7	6,436.2	6,434.6	85.6	1.9	38.00	-5.6	1,746.9	4,629.5	4,568.2	61.24	75.601	

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

Anticollision Report



Company:	PDC ENERGY	Local Co-ordinate Reference:	Well WACKER 10G-214
Project:	WELD COUNTY, COLORADO	TVD Reference:	KB-EST @ 4624.0usft (Original Well Elev)
Reference Site:	SW NW SEC. 10 T5N R64W 6th P.M.	MD Reference:	KB-EST @ 4624.0usft (Original Well Elev)
Site Error:	0.0 usft	North Reference:	True
Reference Well:	WACKER 10G-214	Survey Calculation Method:	Minimum Curvature
Well Error:	0.0 usft	Output errors are at	2.00 sigma
Reference Wellbore	ORIGINAL WELLBORE	Database:	EDM 5000.1 Single User Db
Reference Design:	PROPOSAL #1	Offset TVD Reference:	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
9,600.0	6,641.6	6,434.4	6,432.8	87.1	1.9	37.79	-5.4	1,746.8	4,682.2	4,620.2	61.97	75.553	
9,645.6	6,641.5	6,432.9	6,431.3	88.3	1.9	37.61	-5.3	1,746.7	4,727.7	4,665.1	62.60	75.518	
9,700.0	6,641.5	6,431.1	6,429.5	89.8	1.9	37.40	-5.2	1,746.7	4,782.0	4,718.6	63.35	75.480	
9,744.1	6,641.4	6,429.7	6,428.1	91.0	1.9	37.23	-5.1	1,746.6	4,826.0	4,762.0	63.96	75.454	
9,800.0	6,641.3	6,427.9	6,426.3	92.6	1.9	37.02	-4.9	1,746.5	4,881.8	4,817.1	64.72	75.425	
9,842.5	6,641.3	6,426.5	6,424.9	93.8	1.9	36.86	-4.8	1,746.5	4,924.3	4,859.0	65.30	75.407	
9,900.0	6,641.2	6,424.6	6,423.1	95.4	1.9	36.65	-4.7	1,746.4	4,981.7	4,915.6	66.08	75.386	
9,940.9	6,641.1	6,423.3	6,421.8	96.5	1.9	36.50	-4.6	1,746.3	5,022.6	4,955.9	66.63	75.376	
10,000.0	6,641.1	6,421.5	6,419.9	98.1	1.9	36.29	-4.5	1,746.2	5,081.6	5,014.1	67.43	75.363	
10,039.3	6,641.0	6,420.2	6,418.7	99.2	1.9	36.15	-4.4	1,746.2	5,120.9	5,052.9	67.95	75.358	
10,100.0	6,640.9	6,418.3	6,416.8	100.9	1.9	35.94	-4.2	1,746.1	5,181.4	5,112.7	68.76	75.353	
10,137.8	6,640.9	6,417.1	6,415.6	102.0	1.9	35.81	-4.1	1,746.0	5,219.1	5,149.9	69.26	75.354	
10,200.0	6,640.8	6,400.0	6,398.5	103.7	1.9	34.03	-2.9	1,745.3	5,281.3	5,213.2	68.14	77.502	
10,236.2	6,640.8	6,400.0	6,398.5	104.7	1.9	34.03	-2.9	1,745.3	5,317.5	5,248.7	68.75	77.347	
10,300.0	6,640.7	6,400.0	6,398.5	106.5	1.9	34.04	-2.9	1,745.3	5,381.2	5,311.3	69.82	77.077	
10,334.6	6,640.6	6,400.0	6,398.5	107.4	1.9	34.04	-2.9	1,745.3	5,415.7	5,345.3	70.39	76.935	
10,400.0	6,640.6	6,400.0	6,398.5	109.3	1.9	34.04	-2.9	1,745.3	5,481.0	5,409.5	71.49	76.670	
10,433.0	6,640.5	6,400.0	6,398.5	110.2	1.9	34.04	-2.9	1,745.3	5,514.0	5,442.0	72.04	76.540	
10,500.0	6,640.4	6,400.0	6,398.5	112.0	1.9	34.04	-2.9	1,745.3	5,580.9	5,507.7	73.16	76.281	
10,531.5	6,640.4	6,400.0	6,398.5	112.9	1.9	34.04	-2.9	1,745.3	5,612.3	5,538.6	73.69	76.162	
10,600.0	6,640.3	6,400.0	6,398.5	114.8	1.9	34.04	-2.9	1,745.3	5,680.7	5,605.9	74.84	75.908	
10,629.9	6,640.3	6,400.0	6,398.5	115.7	1.9	34.04	-2.9	1,745.3	5,710.6	5,635.3	75.34	75.800	
10,700.0	6,640.2	6,400.0	6,398.5	117.6	1.9	34.04	-2.9	1,745.3	5,780.6	5,704.1	76.51	75.550	
10,728.3	6,640.1	6,400.0	6,398.5	118.4	1.9	34.04	-2.9	1,745.3	5,808.9	5,731.9	76.99	75.452	
10,800.0	6,640.0	6,400.0	6,398.5	120.4	1.9	34.05	-2.9	1,745.3	5,880.5	5,802.3	78.19	75.207	
10,826.7	6,640.0	6,400.0	6,398.5	121.2	1.9	34.05	-2.9	1,745.3	5,907.2	5,828.6	78.64	75.118	
10,900.0	6,639.9	6,400.0	6,398.5	123.2	1.9	34.05	-2.9	1,745.3	5,980.4	5,900.5	79.87	74.877	
10,925.2	6,639.9	6,400.0	6,398.5	123.9	1.9	34.05	-2.9	1,745.3	6,005.5	5,925.2	80.29	74.797	
11,000.0	6,639.8	6,400.0	6,398.5	126.0	1.9	34.05	-2.9	1,745.3	6,080.3	5,998.7	81.55	74.560	
11,023.6	6,639.8	6,400.0	6,398.5	126.6	1.9	34.05	-2.9	1,745.3	6,103.8	6,021.9	81.94	74.488	
11,100.0	6,639.7	6,400.0	6,398.5	128.8	1.9	34.05	-2.9	1,745.3	6,180.2	6,096.9	83.23	74.255	
11,122.0	6,639.6	6,400.0	6,398.5	129.4	1.9	34.05	-2.9	1,745.3	6,202.2	6,118.6	83.60	74.190	
11,200.0	6,639.5	6,400.0	6,398.5	131.6	1.9	34.06	-2.9	1,745.3	6,280.0	6,195.1	84.91	73.962	
11,220.4	6,639.5	6,400.0	6,398.5	132.1	1.9	34.06	-2.9	1,745.3	6,300.5	6,215.2	85.25	73.904	
11,300.0	6,639.4	6,400.0	6,398.5	134.4	1.9	34.06	-2.9	1,745.3	6,379.9	6,293.3	86.59	73.679	
11,318.9	6,639.4	6,400.0	6,398.5	134.9	1.9	34.06	-2.9	1,745.3	6,398.8	6,311.9	86.91	73.627	
11,400.0	6,639.3	6,400.0	6,398.5	137.1	1.9	34.06	-2.9	1,745.3	6,479.8	6,391.6	88.27	73.406	
11,417.3	6,639.3	6,400.0	6,398.5	137.6	1.9	34.06	-2.9	1,745.3	6,497.1	6,408.6	88.56	73.361	
11,500.0	6,639.2	6,400.0	6,398.5	139.9	1.9	34.06	-2.9	1,745.3	6,579.7	6,489.8	89.96	73.143	
11,515.7	6,639.1	6,400.0	6,398.5	140.4	1.9	34.06	-2.9	1,745.3	6,595.4	6,505.2	90.22	73.103	
11,600.0	6,639.0	6,400.0	6,398.5	142.7	1.9	34.07	-2.9	1,745.3	6,679.6	6,588.0	91.64	72.889	
11,614.1	6,639.0	6,400.0	6,398.5	143.1	1.9	34.07	-2.9	1,745.3	6,693.8	6,601.9	91.88	72.854 SF	
11,700.0	6,638.9	6,376.7	6,375.3	145.5	1.9	31.90	-1.4	1,744.4	6,779.5	6,690.0	89.46	75.785	
11,712.6	6,638.9	6,376.5	6,375.0	145.9	1.9	31.88	-1.4	1,744.4	6,792.0	6,702.4	89.61	75.791	
11,800.0	6,638.8	6,374.6	6,373.2	148.3	1.9	31.72	-1.2	1,744.3	6,879.4	6,788.7	90.72	75.832	
11,811.0	6,638.8	6,374.3	6,372.9	148.6	1.9	31.69	-1.2	1,744.3	6,890.4	6,799.5	90.86	75.838	
11,900.0	6,638.7	6,372.4	6,371.0	151.1	1.9	31.53	-1.1	1,744.2	6,979.3	6,887.3	91.98	75.881	
11,909.4	6,638.6	6,372.2	6,370.8	151.4	1.9	31.52	-1.1	1,744.2	6,988.7	6,896.6	92.09	75.886	
12,000.0	6,638.5	6,370.3	6,368.9	153.9	1.9	31.36	-1.0	1,744.1	7,079.2	6,985.9	93.23	75.933	
12,007.8	6,638.5	6,370.2	6,368.8	154.1	1.9	31.34	-1.0	1,744.1	7,087.0	6,993.7	93.33	75.937	
12,100.0	6,638.4	6,368.2	6,366.9	156.7	1.9	31.18	-0.9	1,744.0	7,179.1	7,084.6	94.48	75.987	
12,106.3	6,638.4	6,368.1	6,366.7	156.9	1.9	31.17	-0.8	1,744.0	7,185.3	7,090.8	94.56	75.990	

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

Anticollision Report



Company:	PDC ENERGY	Local Co-ordinate Reference:	Well WACKER 10G-214
Project:	WELD COUNTY, COLORADO	TVD Reference:	KB-EST @ 4624.0usft (Original Well Elev)
Reference Site:	SW NW SEC. 10 T5N R64W 6th P.M.	MD Reference:	KB-EST @ 4624.0usft (Original Well Elev)
Site Error:	0.0 usft	North Reference:	True
Reference Well:	WACKER 10G-214	Survey Calculation Method:	Minimum Curvature
Well Error:	0.0 usft	Output errors are at	2.00 sigma
Reference Wellbore	ORIGINAL WELLBORE	Database:	EDM 5000.1 Single User Db
Reference Design:	PROPOSAL #1	Offset TVD Reference:	Offset Datum

Offset Design SW NW SEC. 10 T5N R64W 6th P.M. - EXIST VERT WACKER #22-10 - 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
12,200.0	6,638.3	6,366.2	6,364.8	159.5	1.9	31.02	-0.7	1,744.0	7,279.0	7,183.3	95.72	76.042	
12,204.7	6,638.3	6,366.1	6,364.7	159.6	1.9	31.01	-0.7	1,744.0	7,283.7	7,187.9	95.78	76.045	
12,300.0	6,638.2	6,364.2	6,362.8	162.3	1.9	30.85	-0.6	1,743.9	7,378.9	7,281.9	96.96	76.099	
12,303.1	6,638.2	6,364.1	6,362.7	162.4	1.9	30.85	-0.6	1,743.9	7,382.0	7,285.0	97.00	76.101	
12,400.0	6,638.0	6,362.2	6,360.8	165.1	1.9	30.69	-0.5	1,743.8	7,478.8	7,380.6	98.20	76.158	
12,401.5	6,638.0	6,362.2	6,360.8	165.2	1.9	30.69	-0.5	1,743.8	7,480.3	7,382.1	98.22	76.159	
12,500.0	6,637.9	6,360.2	6,358.8	167.9	1.9	30.53	-0.4	1,743.7	7,578.7	7,479.3	99.44	76.217	
12,598.4	6,637.8	6,358.3	6,356.9	170.7	1.9	30.38	-0.3	1,743.7	7,677.0	7,576.4	100.64	76.281	
12,600.0	6,637.8	6,358.3	6,356.9	170.7	1.9	30.38	-0.3	1,743.7	7,678.6	7,577.9	100.67	76.279	
12,696.8	6,637.7	6,356.4	6,355.1	173.4	1.9	30.23	-0.1	1,743.6	7,775.3	7,673.5	101.85	76.342	
12,700.0	6,637.7	6,356.4	6,355.0	173.5	1.9	30.23	-0.1	1,743.6	7,778.5	7,676.6	101.89	76.341	
12,795.2	6,637.6	6,354.6	6,353.2	176.2	1.9	30.09	0.0	1,743.5	7,873.7	7,770.6	103.05	76.404	
12,800.0	6,637.6	6,354.5	6,353.1	176.3	1.9	30.08	0.0	1,743.5	7,878.4	7,775.3	103.12	76.404	
12,893.7	6,637.4	6,352.7	6,351.4	178.9	1.9	29.95	0.1	1,743.5	7,972.0	7,867.8	104.25	76.467	
12,900.0	6,637.4	6,352.6	6,351.3	179.1	1.9	29.94	0.1	1,743.5	7,978.3	7,874.0	104.34	76.468	
12,992.1	6,637.3	6,350.9	6,349.6	181.7	1.9	29.81	0.2	1,743.4	8,070.4	7,964.9	105.45	76.531	
13,000.0	6,637.3	6,350.8	6,349.4	181.9	1.9	29.80	0.2	1,743.4	8,078.3	7,972.7	105.55	76.532	
13,090.5	6,637.2	6,349.1	6,347.8	184.4	1.9	29.68	0.3	1,743.3	8,168.7	8,062.1	106.65	76.595	
13,100.0	6,637.2	6,349.0	6,347.6	184.7	1.9	29.66	0.3	1,743.3	8,178.2	8,071.4	106.77	76.598	
13,188.9	6,637.1	6,347.4	6,346.0	187.2	1.9	29.54	0.4	1,743.3	8,267.0	8,159.2	107.84	76.660	
13,200.0	6,637.1	6,347.2	6,345.8	187.5	1.9	29.53	0.4	1,743.3	8,278.1	8,170.1	107.98	76.663	
13,287.4	6,637.0	6,345.6	6,344.3	190.0	1.9	29.41	0.5	1,743.2	8,365.4	8,256.4	109.03	76.725	
13,300.0	6,637.0	6,345.4	6,344.1	190.3	1.9	29.40	0.5	1,743.2	8,378.0	8,268.8	109.19	76.730	
13,385.8	6,636.9	6,343.9	6,342.6	192.7	1.9	29.29	0.6	1,743.2	8,463.7	8,353.5	110.22	76.790	
13,400.0	6,636.8	6,343.7	6,342.3	193.1	1.9	29.27	0.6	1,743.1	8,477.9	8,367.5	110.39	76.796	
13,484.2	6,636.7	6,342.2	6,340.9	195.5	1.9	29.16	0.7	1,743.1	8,562.1	8,450.7	111.40	76.856	
13,500.0	6,636.7	6,341.9	6,340.6	195.9	1.9	29.15	0.7	1,743.1	8,577.8	8,466.2	111.60	76.863	
13,582.6	6,636.6	6,340.5	6,339.2	198.2	1.9	29.04	0.7	1,743.0	8,660.4	8,547.8	112.59	76.922	
13,600.0	6,636.6	6,340.2	6,338.9	198.7	1.9	29.02	0.8	1,743.0	8,677.8	8,565.0	112.80	76.931	
13,681.1	6,636.5	6,338.9	6,337.5	201.0	1.9	28.92	0.8	1,743.0	8,758.8	8,645.0	113.77	76.988	
13,700.0	6,636.5	6,338.5	6,337.2	201.5	1.9	28.90	0.9	1,743.0	8,777.7	8,663.7	114.00	76.998	
13,779.5	6,636.4	6,337.2	6,335.9	203.7	1.9	28.81	0.9	1,742.9	8,857.1	8,742.2	114.95	77.055	
13,800.0	6,636.4	6,336.9	6,335.6	204.3	1.9	28.79	0.9	1,742.9	8,877.6	8,762.4	115.20	77.066	
13,877.9	6,636.3	6,335.6	6,334.3	206.5	1.9	28.69	1.0	1,742.9	8,955.5	8,839.4	116.12	77.121	
13,900.0	6,636.3	6,335.2	6,333.9	207.1	1.9	28.67	1.0	1,742.9	8,977.5	8,861.1	116.39	77.133	
13,976.3	6,636.2	6,334.0	6,332.7	209.3	1.9	28.58	1.1	1,742.8	9,053.8	8,936.5	117.30	77.188	
14,000.0	6,636.1	6,333.6	6,332.3	209.9	1.9	28.56	1.1	1,742.8	9,077.5	8,959.9	117.58	77.201	
14,074.8	6,636.0	6,332.4	6,331.1	212.0	1.9	28.47	1.2	1,742.8	9,152.2	9,033.7	118.47	77.255	
14,100.0	6,636.0	6,332.0	6,330.7	212.7	1.9	28.45	1.2	1,742.8	9,177.4	9,058.6	118.77	77.269	
14,173.2	6,635.9	6,330.9	6,329.5	214.8	1.9	28.36	1.3	1,742.7	9,250.5	9,130.9	119.64	77.321	
14,200.0	6,635.9	6,330.4	6,329.1	215.5	1.9	28.34	1.3	1,742.7	9,277.3	9,157.4	119.96	77.336	
14,271.6	6,635.8	6,329.3	6,328.0	217.5	1.9	28.26	1.3	1,742.7	9,348.9	9,228.1	120.81	77.388	
14,300.0	6,635.8	6,328.9	6,327.6	218.3	1.9	28.23	1.4	1,742.6	9,377.3	9,256.1	121.15	77.404	
14,370.0	6,635.7	6,327.8	6,326.5	220.3	1.9	28.15	1.4	1,742.6	9,447.3	9,325.3	121.97	77.454	
14,400.0	6,635.7	6,327.3	6,326.0	221.1	1.9	28.13	1.4	1,742.6	9,477.2	9,354.8	122.33	77.471	
14,468.5	6,635.6	6,300.0	6,298.7	223.1	1.9	26.35	2.7	1,741.8	9,545.7	9,427.4	118.30	80.692	
14,500.0	6,635.6	6,300.0	6,298.7	223.9	1.9	26.35	2.7	1,741.8	9,577.2	9,458.4	118.75	80.651	
14,566.9	6,635.5	6,300.0	6,298.7	225.8	1.9	26.35	2.7	1,741.8	9,644.0	9,524.3	119.69	80.574	
14,600.0	6,635.4	6,300.0	6,298.7	226.8	1.9	26.35	2.7	1,741.8	9,677.1	9,556.9	120.17	80.532	
14,665.3	6,635.4	6,300.0	6,298.7	228.6	1.9	26.35	2.7	1,741.8	9,742.4	9,621.3	121.09	80.458	
14,700.0	6,635.3	6,300.0	6,298.7	229.6	1.9	26.35	2.7	1,741.8	9,777.0	9,655.5	121.58	80.415	
14,763.7	6,635.2	6,300.0	6,298.7	231.3	1.9	26.35	2.7	1,741.8	9,840.7	9,718.3	122.48	80.345	

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

Anticollision Report



Company:	PDC ENERGY	Local Co-ordinate Reference:	Well WACKER 10G-214
Project:	WELD COUNTY, COLORADO	TVD Reference:	KB-EST @ 4624.0usft (Original Well Elev)
Reference Site:	SW NW SEC. 10 T5N R64W 6th P.M.	MD Reference:	KB-EST @ 4624.0usft (Original Well Elev)
Site Error:	0.0 usft	North Reference:	True
Reference Well:	WACKER 10G-214	Survey Calculation Method:	Minimum Curvature
Well Error:	0.0 usft	Output errors are at	2.00 sigma
Reference Wellbore	ORIGINAL WELLBORE	Database:	EDM 5000.1 Single User Db
Reference Design:	PROPOSAL #1	Offset TVD Reference:	Offset Datum

Offset Design SW NW SEC. 10 T5N R64W 6th P.M. - EXIST VERT WACKER #22-10 - 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
14,800.0	6,635.2	6,300.0	6,298.7	232.4	1.9	26.36	2.7	1,741.8	9,877.0	9,754.0	123.00	80.301	
14,862.2	6,635.1	6,300.0	6,298.7	234.1	1.9	26.36	2.7	1,741.8	9,939.1	9,815.2	123.88	80.234	
14,900.0	6,635.1	6,300.0	6,298.7	235.2	1.9	26.36	2.7	1,741.8	9,976.9	9,852.5	124.42	80.190	

Anticollision Report



Company:	PDC ENERGY	Local Co-ordinate Reference:	Well WACKER 10G-214
Project:	WELD COUNTY, COLORADO	TVD Reference:	KB-EST @ 4624.0usft (Original Well Elev)
Reference Site:	SW NW SEC. 10 T5N R64W 6th P.M.	MD Reference:	KB-EST @ 4624.0usft (Original Well Elev)
Site Error:	0.0 usft	North Reference:	True
Reference Well:	WACKER 10G-214	Survey Calculation Method:	Minimum Curvature
Well Error:	0.0 usft	Output errors are at	2.00 sigma
Reference Wellbore	ORIGINAL WELLBORE	Database:	EDM 5000.1 Single User Db
Reference Design:	PROPOSAL #1	Offset TVD Reference:	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	59.82	1,548.1	2,662.2	3,079.9				
98.4	98.4	54.4	54.4	0.1	0.1	59.82	1,548.1	2,662.2	3,079.6	3,079.3	0.24	N/A	
100.0	100.0	56.0	56.0	0.1	0.1	59.82	1,548.1	2,662.2	3,079.6	3,079.3	0.25	N/A	
196.8	196.8	152.8	152.8	0.3	1.6	59.82	1,548.1	2,662.2	3,079.6	3,077.6	1.93	1,593.163	
200.0	200.0	156.0	156.0	0.3	1.7	59.82	1,548.1	2,662.2	3,079.6	3,077.6	2.02	1,524.080	
295.3	295.3	251.3	251.3	0.5	3.9	59.82	1,548.1	2,662.2	3,079.6	3,075.2	4.42	696.441	
300.0	300.0	256.0	256.0	0.5	4.0	59.82	1,548.1	2,662.2	3,079.6	3,075.1	4.53	679.762	
393.7	393.7	349.7	349.7	0.8	5.9	59.82	1,548.1	2,662.2	3,079.6	3,072.9	6.66	462.104	
400.0	400.0	356.0	356.0	0.8	6.0	59.82	1,548.1	2,662.2	3,079.6	3,072.8	6.81	452.435	
492.1	492.1	448.1	448.1	1.0	7.9	59.82	1,548.1	2,662.2	3,079.6	3,070.7	8.88	346.648	
500.0	500.0	456.0	456.0	1.0	8.1	59.82	1,548.1	2,662.2	3,079.6	3,070.5	9.06	339.871	
590.5	590.5	546.5	546.5	1.2	9.9	59.82	1,548.1	2,662.2	3,079.6	3,068.5	11.10	277.552	
600.0	600.0	556.0	556.0	1.2	10.1	59.82	1,548.1	2,662.2	3,079.6	3,068.3	11.31	272.346	
689.0	689.0	645.0	645.0	1.4	11.9	59.82	1,548.1	2,662.2	3,079.6	3,066.3	13.30	231.490	
700.0	700.0	656.0	656.0	1.4	12.1	59.82	1,548.1	2,662.2	3,079.6	3,066.0	13.55	227.268	
787.4	787.4	743.4	743.4	1.6	13.9	59.82	1,548.1	2,662.2	3,079.6	3,064.1	15.51	198.568	
800.0	800.0	756.0	756.0	1.7	14.1	59.82	1,548.1	2,662.2	3,079.6	3,063.8	15.79	195.019	
885.8	885.8	841.8	841.8	1.9	15.8	59.82	1,548.1	2,662.2	3,079.6	3,061.9	17.71	173.857	
900.0	900.0	856.0	856.0	1.9	16.1	59.82	1,548.1	2,662.2	3,079.6	3,061.6	18.03	170.796	
984.2	984.2	940.2	940.2	2.1	17.8	59.82	1,548.1	2,662.2	3,079.6	3,059.7	19.92	154.622	
1,000.0	1,000.0	956.0	956.0	2.1	18.1	59.82	1,548.1	2,662.2	3,079.6	3,059.3	20.27	151.933	
1,082.7	1,082.7	1,038.7	1,038.7	2.3	19.8	59.82	1,548.1	2,662.2	3,079.6	3,057.5	22.12	139.223	
1,100.0	1,100.0	1,056.0	1,056.0	2.3	20.2	59.82	1,548.1	2,662.2	3,079.6	3,057.1	22.51	136.825	
1,181.1	1,181.1	1,137.1	1,137.1	2.5	21.8	59.82	1,548.1	2,662.2	3,079.6	3,055.3	24.32	126.616	
1,200.0	1,200.0	1,156.0	1,156.0	2.6	22.2	59.82	1,548.1	2,662.2	3,079.6	3,054.8	24.75	124.453	
1,279.5	1,279.5	1,235.5	1,235.5	2.7	23.8	59.82	1,548.1	2,662.2	3,079.6	3,053.1	26.52	116.104	
1,300.0	1,300.0	1,256.0	1,256.0	2.8	24.2	59.82	1,548.1	2,662.2	3,079.6	3,052.6	26.98	114.133	
1,377.9	1,377.9	1,333.9	1,333.9	3.0	25.8	-58.85	1,548.1	2,662.2	3,079.0	3,050.3	28.71	107.257	
1,400.0	1,400.0	1,356.0	1,356.0	3.0	26.2	-58.87	1,548.1	2,662.2	3,078.7	3,049.5	29.19	105.457	
1,476.4	1,476.3	1,432.3	1,432.3	3.1	27.7	-58.96	1,548.1	2,662.2	3,076.8	3,045.9	30.86	99.693	
1,500.0	1,499.8	1,455.8	1,455.8	3.2	28.2	-59.00	1,548.1	2,662.2	3,076.0	3,044.6	31.38	98.033	
1,574.8	1,574.4	1,530.4	1,530.4	3.3	29.7	-59.15	1,548.1	2,662.2	3,072.8	3,039.8	33.01	93.094	
1,600.0	1,599.5	1,555.5	1,555.5	3.4	30.2	-59.22	1,548.1	2,662.2	3,071.5	3,037.9	33.55	91.537	
1,673.2	1,672.2	1,628.2	1,628.2	3.6	31.7	-59.43	1,548.1	2,662.2	3,067.1	3,031.9	35.15	87.262	
1,700.0	1,698.7	1,654.7	1,654.7	3.6	32.2	-59.52	1,548.1	2,662.2	3,065.2	3,029.5	35.73	85.792	
1,771.6	1,769.5	1,725.5	1,725.5	3.8	33.6	-59.79	1,548.1	2,662.2	3,059.7	3,022.4	37.29	82.054	
1,800.0	1,797.5	1,753.5	1,753.5	3.9	34.2	-59.91	1,548.1	2,662.2	3,057.3	3,019.4	37.90	80.659	
1,870.1	1,866.3	1,822.3	1,822.3	4.1	35.6	-60.23	1,548.1	2,662.2	3,050.7	3,011.3	39.44	77.360	
1,900.2	1,895.8	1,851.8	1,851.8	4.2	36.2	-60.38	1,548.1	2,662.2	3,047.6	3,007.5	40.09	76.017	
1,968.5	1,962.6	1,918.6	1,918.6	4.4	37.5	-60.61	1,548.1	2,662.2	3,040.5	2,998.9	41.64	73.023	
2,000.0	1,993.4	1,949.4	1,949.4	4.5	38.1	-60.72	1,548.1	2,662.2	3,037.3	2,994.9	42.35	71.713	
2,066.9	2,058.9	2,014.9	2,014.9	4.7	39.5	-60.94	1,548.1	2,662.2	3,030.4	2,986.5	43.88	69.055	
2,100.0	2,091.2	2,047.2	2,047.2	4.8	40.1	-61.06	1,548.1	2,662.2	3,027.0	2,982.3	44.64	67.808	
2,165.3	2,155.2	2,111.2	2,111.2	5.1	41.4	-61.28	1,548.1	2,662.2	3,020.3	2,974.1	46.14	65.453	
2,200.0	2,189.1	2,145.1	2,145.1	5.2	42.1	-61.40	1,548.1	2,662.2	3,016.8	2,969.8	46.95	64.262	
2,263.8	2,251.4	2,207.4	2,207.4	5.5	43.3	-61.61	1,548.1	2,662.2	3,010.3	2,961.9	48.42	62.166	
2,300.0	2,286.9	2,242.9	2,242.9	5.6	44.0	-61.74	1,548.1	2,662.2	3,006.7	2,957.4	49.27	61.031	
2,362.2	2,347.7	2,303.7	2,303.7	5.8	45.3	-61.95	1,548.1	2,662.2	3,000.5	2,949.8	50.72	59.163	
2,400.0	2,384.7	2,340.7	2,340.7	6.0	46.0	-62.08	1,548.1	2,662.2	2,996.7	2,945.1	51.60	58.079	
2,460.6	2,444.0	2,400.0	2,400.0	6.2	47.2	-62.29	1,548.1	2,662.2	2,990.8	2,937.7	53.02	56.411	
2,500.0	2,482.5	2,438.5	2,438.5	6.4	48.0	-62.43	1,548.1	2,662.2	2,986.9	2,933.0	53.94	55.374	
2,559.0	2,540.3	2,496.3	2,496.3	6.6	49.1	-62.63	1,548.1	2,662.2	2,981.1	2,925.8	55.33	53.880	

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

Anticollision Report



Company:	PDC ENERGY	Local Co-ordinate Reference:	Well WACKER 10G-214
Project:	WELD COUNTY, COLORADO	TVD Reference:	KB-EST @ 4624.0usft (Original Well Elev)
Reference Site:	SW NW SEC. 10 T5N R64W 6th P.M.	MD Reference:	KB-EST @ 4624.0usft (Original Well Elev)
Site Error:	0.0 usft	North Reference:	True
Reference Well:	WACKER 10G-214	Survey Calculation Method:	Minimum Curvature
Well Error:	0.0 usft	Output errors are at	2.00 sigma
Reference Wellbore	ORIGINAL WELLBORE	Database:	EDM 5000.1 Single User Db
Reference Design:	PROPOSAL #1	Offset TVD Reference:	Offset Datum

Offset Design SW NW SEC. 10 T5N R64W 6th P.M. - EXIST VERT WACKER #31-10 - 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	2,580.3	2,536.3	2,536.3	6.8	49.9	-62.78	1,548.1	2,662.2	2,977.2	2,920.9	56.29	52.887	
2,657.5	2,636.5	2,592.5	2,592.5	7.1	51.1	-62.98	1,548.1	2,662.2	2,971.6	2,914.0	57.65	51.546	
2,700.0	2,678.1	2,634.1	2,634.1	7.2	51.9	-63.13	1,548.1	2,662.2	2,967.5	2,908.9	58.65	50.594	
2,755.9	2,732.8	2,688.8	2,688.8	7.5	53.0	-63.32	1,548.1	2,662.2	2,962.2	2,902.2	59.98	49.389	
2,800.0	2,775.9	2,731.9	2,731.9	7.7	53.9	-63.48	1,548.1	2,662.2	2,958.0	2,897.0	61.02	48.476	
2,854.3	2,829.1	2,785.1	2,785.1	7.9	54.9	-63.67	1,548.1	2,662.2	2,952.9	2,890.6	62.31	47.391	
2,900.0	2,873.8	2,829.8	2,829.8	8.1	55.8	-63.84	1,548.1	2,662.2	2,948.6	2,885.2	63.39	46.512	
2,952.7	2,925.4	2,881.4	2,881.4	8.3	56.9	-64.02	1,548.1	2,662.2	2,943.7	2,879.1	64.65	45.534	
2,953.5	2,926.1	2,882.1	2,882.1	8.3	56.9	-64.03	1,548.1	2,662.2	2,943.7	2,879.0	64.67	45.521	
3,000.0	2,971.6	2,927.6	2,927.6	8.5	57.8	-64.11	1,548.1	2,662.2	2,939.5	2,873.7	65.78	44.684	
3,051.2	3,022.0	2,978.0	2,978.0	8.7	58.8	-64.20	1,548.1	2,662.2	2,935.4	2,868.4	66.98	43.823	
3,100.0	3,070.1	3,026.1	3,026.1	8.8	59.8	-64.28	1,548.1	2,662.2	2,931.8	2,863.7	68.13	43.035	
3,149.6	3,119.1	3,075.1	3,075.1	8.9	60.8	-64.35	1,548.1	2,662.2	2,928.6	2,859.3	69.28	42.274	
3,200.0	3,169.1	3,125.1	3,125.1	9.1	61.8	-64.41	1,548.1	2,662.2	2,925.7	2,855.2	70.44	41.532	
3,248.0	3,216.8	3,172.8	3,172.8	9.2	62.7	-64.47	1,548.1	2,662.2	2,923.3	2,851.7	71.54	40.861	
3,300.0	3,268.5	3,224.5	3,224.5	9.3	63.8	-64.51	1,548.1	2,662.2	2,921.1	2,848.4	72.73	40.165	
3,346.4	3,314.8	3,270.8	3,270.8	9.4	64.7	-64.55	1,548.1	2,662.2	2,919.5	2,845.7	73.77	39.574	
3,400.0	3,368.3	3,324.3	3,324.3	9.6	65.8	-64.59	1,548.1	2,662.2	2,918.0	2,843.1	74.98	38.920	
3,444.9	3,413.1	3,369.1	3,369.1	9.6	66.7	-64.61	1,548.1	2,662.2	2,917.1	2,841.2	75.97	38.400	
3,500.0	3,468.2	3,424.2	3,424.2	9.7	67.8	-64.62	1,548.1	2,662.2	2,916.5	2,839.3	77.18	37.787	
3,543.3	3,511.5	3,467.5	3,467.5	9.8	68.7	-64.63	1,548.1	2,662.2	2,916.3	2,838.1	78.12	37.329	
3,553.7	3,521.9	3,477.9	3,477.9	9.8	68.9	54.02	1,548.1	2,662.2	2,916.3	2,839.3	77.00	37.873	
3,600.0	3,568.2	3,524.2	3,524.2	9.9	69.8	54.02	1,548.1	2,662.2	2,916.3	2,838.2	78.02	37.379	
3,641.7	3,609.9	3,565.9	3,565.9	10.0	70.7	54.02	1,548.1	2,662.2	2,916.3	2,837.3	78.94	36.944	
3,700.0	3,668.2	3,624.2	3,624.2	10.1	71.8	54.02	1,548.1	2,662.2	2,916.3	2,836.0	80.22	36.351	
3,740.1	3,708.4	3,664.4	3,664.4	10.1	72.6	54.02	1,548.1	2,662.2	2,916.3	2,835.2	81.11	35.954	
3,800.0	3,768.2	3,724.2	3,724.2	10.2	73.8	54.02	1,548.1	2,662.2	2,916.3	2,833.8	82.43	35.378	
3,838.6	3,806.8	3,762.8	3,762.8	10.3	74.6	54.02	1,548.1	2,662.2	2,916.3	2,833.0	83.28	35.016	
3,900.0	3,868.2	3,824.2	3,824.2	10.4	75.8	54.02	1,548.1	2,662.2	2,916.3	2,831.6	84.64	34.455	
3,937.0	3,905.2	3,861.2	3,861.2	10.5	76.6	54.02	1,548.1	2,662.2	2,916.3	2,830.8	85.46	34.125	
4,000.0	3,968.2	3,924.2	3,924.2	10.6	77.9	54.02	1,548.1	2,662.2	2,916.3	2,829.4	86.85	33.578	
4,035.4	4,003.6	3,959.6	3,959.6	10.6	78.6	54.02	1,548.1	2,662.2	2,916.3	2,828.6	87.63	33.278	
4,100.0	4,068.2	4,024.2	4,024.2	10.7	79.9	54.02	1,548.1	2,662.2	2,916.3	2,827.2	89.06	32.744	
4,133.8	4,102.1	4,058.1	4,058.1	10.8	80.5	54.02	1,548.1	2,662.2	2,916.3	2,826.4	89.81	32.471	
4,200.0	4,168.2	4,124.2	4,124.2	10.9	81.9	54.02	1,548.1	2,662.2	2,916.3	2,825.0	91.28	31.950	
4,232.3	4,200.5	4,156.5	4,156.5	11.0	82.5	54.02	1,548.1	2,662.2	2,916.3	2,824.3	91.99	31.702	
4,300.0	4,268.2	4,224.2	4,224.2	11.1	83.9	54.02	1,548.1	2,662.2	2,916.3	2,822.8	93.49	31.194	
4,330.7	4,298.9	4,254.9	4,254.9	11.1	84.5	54.02	1,548.1	2,662.2	2,916.3	2,822.1	94.17	30.968	
4,400.0	4,368.2	4,324.2	4,324.2	11.3	85.9	54.02	1,548.1	2,662.2	2,916.3	2,820.6	95.70	30.472	
4,429.1	4,397.3	4,353.3	4,353.3	11.3	86.5	54.02	1,548.1	2,662.2	2,916.3	2,819.9	96.35	30.268	
4,500.0	4,468.2	4,424.2	4,424.2	11.4	87.9	54.02	1,548.1	2,662.2	2,916.3	2,818.3	97.92	29.782	
4,527.5	4,495.8	4,451.8	4,451.8	11.5	88.5	54.02	1,548.1	2,662.2	2,916.3	2,817.7	98.53	29.598	
4,600.0	4,568.2	4,524.2	4,524.2	11.6	89.9	54.02	1,548.1	2,662.2	2,916.3	2,816.1	100.14	29.123	
4,626.0	4,594.2	4,550.2	4,550.2	11.7	90.4	54.02	1,548.1	2,662.2	2,916.3	2,815.5	100.71	28.957	
4,700.0	4,668.2	4,624.2	4,624.2	11.8	91.9	54.02	1,548.1	2,662.2	2,916.3	2,813.9	102.35	28.492	
4,724.4	4,692.6	4,648.6	4,648.6	11.9	92.4	54.02	1,548.1	2,662.2	2,916.3	2,813.4	102.89	28.343	
4,800.0	4,768.2	4,724.2	4,724.2	12.0	93.9	54.02	1,548.1	2,662.2	2,916.3	2,811.7	104.57	27.888	
4,822.8	4,791.0	4,747.0	4,747.0	12.0	94.4	54.02	1,548.1	2,662.2	2,916.3	2,811.2	105.08	27.754	
4,900.0	4,868.2	4,824.2	4,824.2	12.2	96.0	54.02	1,548.1	2,662.2	2,916.3	2,809.5	106.79	27.309	
4,921.2	4,889.5	4,845.5	4,845.5	12.2	96.4	54.02	1,548.1	2,662.2	2,916.3	2,809.0	107.26	27.189	
5,000.0	4,968.2	4,924.2	4,924.2	12.4	98.0	54.02	1,548.1	2,662.2	2,916.3	2,807.3	109.01	26.753	
5,019.7	4,987.9	4,943.9	4,943.9	12.4	98.4	54.02	1,548.1	2,662.2	2,916.3	2,806.8	109.44	26.646	

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

Anticollision Report



Company:	PDC ENERGY	Local Co-ordinate Reference:	Well WACKER 10G-214
Project:	WELD COUNTY, COLORADO	TVD Reference:	KB-EST @ 4624.0usft (Original Well Elev)
Reference Site:	SW NW SEC. 10 T5N R64W 6th P.M.	MD Reference:	KB-EST @ 4624.0usft (Original Well Elev)
Site Error:	0.0 usft	North Reference:	True
Reference Well:	WACKER 10G-214	Survey Calculation Method:	Minimum Curvature
Well Error:	0.0 usft	Output errors are at	2.00 sigma
Reference Wellbore	ORIGINAL WELLBORE	Database:	EDM 5000.1 Single User Db
Reference Design:	PROPOSAL #1	Offset TVD Reference:	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	5,068.2	5,024.2	5,024.2	12.6	100.0	54.02	1,548.1	2,662.2	2,916.3	2,805.0	111.23	26.219	
5,118.1	5,086.3	5,042.3	5,042.3	12.6	100.3	54.02	1,548.1	2,662.2	2,916.3	2,804.6	111.63	26.124	
5,200.0	5,168.2	5,124.2	5,124.2	12.7	102.0	54.02	1,548.1	2,662.2	2,916.3	2,802.8	113.45	25.706	
5,216.5	5,184.7	5,140.7	5,140.7	12.8	102.3	54.02	1,548.1	2,662.2	2,916.3	2,802.4	113.82	25.623	
5,300.0	5,268.2	5,224.2	5,224.2	12.9	104.0	54.02	1,548.1	2,662.2	2,916.3	2,800.6	115.67	25.212	
5,314.9	5,283.2	5,239.2	5,239.2	13.0	104.3	54.02	1,548.1	2,662.2	2,916.3	2,800.3	116.00	25.140	
5,400.0	5,368.2	5,324.2	5,324.2	13.1	106.0	54.02	1,548.1	2,662.2	2,916.3	2,798.4	117.89	24.737	
5,413.4	5,381.6	5,337.6	5,337.6	13.2	106.3	54.02	1,548.1	2,662.2	2,916.3	2,798.1	118.19	24.675	
5,500.0	5,468.2	5,424.2	5,424.2	13.3	108.0	54.02	1,548.1	2,662.2	2,916.3	2,796.1	120.11	24.279	
5,511.8	5,480.0	5,436.0	5,436.0	13.3	108.3	54.02	1,548.1	2,662.2	2,916.3	2,795.9	120.38	24.226	
5,600.0	5,568.2	5,524.2	5,524.2	13.5	110.0	54.02	1,548.1	2,662.2	2,916.3	2,793.9	122.34	23.838	
5,610.2	5,578.4	5,534.4	5,534.4	13.5	110.2	54.02	1,548.1	2,662.2	2,916.3	2,793.7	122.56	23.794	
5,700.0	5,668.2	5,624.2	5,624.2	13.7	112.0	54.02	1,548.1	2,662.2	2,916.3	2,791.7	124.56	23.413	
5,708.6	5,676.9	5,632.9	5,632.9	13.7	112.2	54.02	1,548.1	2,662.2	2,916.3	2,791.5	124.75	23.377	
5,800.0	5,768.2	5,724.2	5,724.2	13.9	114.1	54.02	1,548.1	2,662.2	2,916.3	2,789.5	126.78	23.002	
5,807.1	5,775.3	5,731.3	5,731.3	13.9	114.2	54.02	1,548.1	2,662.2	2,916.3	2,789.3	126.94	22.974	
5,900.0	5,868.2	5,824.2	5,824.2	14.1	116.1	54.02	1,548.1	2,662.2	2,916.3	2,787.3	129.01	22.606	
5,905.5	5,873.7	5,829.7	5,829.7	14.1	116.2	54.02	1,548.1	2,662.2	2,916.3	2,787.1	129.13	22.584	
5,960.7	5,928.9	5,884.9	5,884.9	14.2	117.3	54.02	1,548.1	2,662.2	2,916.3	2,785.9	130.36	22.372 CC	
6,000.0	5,968.2	5,924.2	5,924.2	14.3	118.1	143.99	1,548.1	2,662.2	2,917.1	2,785.2	131.96	22.107 ES	
6,003.9	5,972.1	5,928.1	5,928.1	14.3	118.2	143.99	1,548.1	2,662.2	2,917.3	2,785.3	132.01	22.099	
6,050.0	6,018.0	5,974.0	5,974.0	14.4	119.1	143.87	1,548.1	2,662.2	2,920.8	2,788.3	132.49	22.045 SF	
6,100.0	6,067.3	6,023.3	6,023.3	14.4	120.1	143.66	1,548.1	2,662.2	2,927.2	2,794.6	132.59	22.077	
6,102.3	6,069.6	6,025.6	6,025.6	14.4	120.1	143.65	1,548.1	2,662.2	2,927.6	2,795.0	132.59	22.080	
6,150.0	6,116.0	6,072.0	6,072.0	14.4	121.0	143.34	1,548.1	2,662.2	2,936.4	2,804.1	132.28	22.198	
6,200.0	6,163.8	6,119.8	6,119.8	14.5	122.0	142.92	1,548.1	2,662.2	2,948.4	2,816.8	131.58	22.407	
6,200.8	6,164.5	6,120.5	6,120.5	14.5	122.0	142.91	1,548.1	2,662.2	2,948.6	2,817.0	131.57	22.411	
6,250.0	6,210.4	6,166.4	6,166.4	14.5	122.9	142.38	1,548.1	2,662.2	2,963.1	2,832.6	130.54	22.700	
6,299.2	6,254.9	6,210.9	6,210.9	14.5	123.8	141.72	1,548.1	2,662.2	2,980.2	2,850.9	129.22	23.062	
6,300.0	6,255.6	6,211.6	6,211.6	14.5	123.9	141.71	1,548.1	2,662.2	2,980.5	2,851.3	129.20	23.069	
6,350.0	6,299.3	6,255.3	6,255.3	14.5	124.7	140.90	1,548.1	2,662.2	3,000.4	2,872.8	127.65	23.504	
6,397.6	6,339.2	6,295.2	6,295.2	14.6	125.5	139.98	1,548.1	2,662.2	3,021.8	2,895.7	126.08	23.967	
6,400.0	6,341.2	6,297.2	6,297.2	14.6	125.6	139.93	1,548.1	2,662.2	3,022.9	2,896.9	126.00	23.991	
6,450.0	6,381.0	6,337.0	6,337.0	14.6	126.4	138.77	1,548.1	2,662.2	3,047.8	2,923.4	124.38	24.505	
6,496.0	6,415.8	6,371.8	6,371.8	14.7	127.1	137.52	1,548.1	2,662.2	3,072.8	2,949.8	123.04	24.975	
6,500.0	6,418.7	6,374.7	6,374.7	14.7	127.1	137.40	1,548.1	2,662.2	3,075.1	2,952.2	122.93	25.014	
6,550.0	6,453.9	6,409.9	6,409.9	14.8	127.8	135.78	1,548.1	2,662.2	3,104.6	2,982.7	121.86	25.477	
6,594.5	6,483.1	6,439.1	6,439.1	15.0	128.4	134.11	1,548.1	2,662.2	3,132.6	3,011.2	121.37	25.810	
6,600.0	6,486.6	6,442.6	6,442.6	15.1	128.5	133.88	1,548.1	2,662.2	3,136.2	3,014.8	121.35	25.844	
6,650.0	6,516.6	6,472.6	6,472.6	15.3	129.1	131.65	1,548.1	2,662.2	3,169.8	3,048.1	121.62	26.063	
6,692.9	6,540.0	6,496.0	6,496.0	15.7	129.6	129.43	1,548.1	2,662.2	3,200.0	3,077.4	122.62	26.098	
6,700.0	6,543.7	6,499.7	6,499.7	15.7	129.6	129.03	1,548.1	2,662.2	3,205.2	3,082.3	122.86	26.089	
6,750.0	6,567.8	6,523.8	6,523.8	16.2	130.1	125.97	1,548.1	2,662.2	3,242.3	3,117.1	125.19	25.899	
6,791.3	6,585.4	6,541.4	6,541.4	16.7	130.5	123.04	1,548.1	2,662.2	3,274.1	3,146.1	127.97	25.584	
6,800.0	6,588.8	6,544.8	6,544.8	16.8	130.6	122.38	1,548.1	2,662.2	3,280.9	3,152.2	128.65	25.503	
6,850.0	6,606.6	6,562.6	6,562.6	17.4	130.9	118.21	1,548.1	2,662.2	3,320.8	3,187.7	133.12	24.946	
6,889.7	6,618.4	6,574.4	6,574.4	18.0	131.2	114.43	1,548.1	2,662.2	3,353.4	3,216.2	137.21	24.440	
6,900.0	6,621.1	6,577.1	6,577.1	18.2	131.2	113.39	1,548.1	2,662.2	3,361.9	3,223.6	138.30	24.309	
6,950.0	6,632.2	6,588.2	6,588.2	19.0	131.4	107.90	1,548.1	2,662.2	3,403.9	3,260.3	143.65	23.695	
6,988.2	6,638.4	6,594.4	6,594.4	19.7	131.6	103.26	1,548.1	2,662.2	3,436.5	3,289.1	147.43	23.310	
7,000.0	6,639.9	6,595.9	6,595.9	19.9	131.6	101.75	1,548.1	2,662.2	3,446.7	3,298.2	148.47	23.214	
7,050.0	6,644.1	6,600.1	6,600.1	20.8	131.7	95.03	1,548.1	2,662.2	3,490.0	3,338.0	151.95	22.969	

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

Anticollision Report



Company:	PDC ENERGY	Local Co-ordinate Reference:	Well WACKER 10G-214
Project:	WELD COUNTY, COLORADO	TVD Reference:	KB-EST @ 4624.0usft (Original Well Elev)
Reference Site:	SW NW SEC. 10 T5N R64W 6th P.M.	MD Reference:	KB-EST @ 4624.0usft (Original Well Elev)
Site Error:	0.0 usft	North Reference:	True
Reference Well:	WACKER 10G-214	Survey Calculation Method:	Minimum Curvature
Well Error:	0.0 usft	Output errors are at	2.00 sigma
Reference Wellbore	ORIGINAL WELLBORE	Database:	EDM 5000.1 Single User Db
Reference Design:	PROPOSAL #1	Offset TVD Reference:	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	
7,086.5	6,645.0	6,601.0	6,601.0	21.5	131.7	89.86	1,548.1	2,662.2	3,521.9	3,368.6	153.22	22.986	
7,100.0	6,645.0	6,601.0	6,601.0	21.8	131.7	89.86	1,548.1	2,662.2	3,533.6	3,380.1	153.48	23.023	
7,185.0	6,644.9	6,600.9	6,600.9	23.6	131.7	89.85	1,548.1	2,662.2	3,608.2	3,453.0	155.24	23.243	
7,200.0	6,644.8	6,600.8	6,600.8	23.9	131.7	89.85	1,548.1	2,662.2	3,621.4	3,465.9	155.55	23.281	
7,283.4	6,644.7	6,600.7	6,600.7	25.7	131.7	89.85	1,548.1	2,662.2	3,695.1	3,537.7	157.39	23.478	
7,300.0	6,644.7	6,600.7	6,600.7	26.1	131.7	89.85	1,548.1	2,662.2	3,709.8	3,552.1	157.75	23.516	
7,381.9	6,644.6	6,600.6	6,600.6	28.0	131.7	89.84	1,548.1	2,662.2	3,782.6	3,623.0	159.65	23.694	
7,400.0	6,644.6	6,600.6	6,600.6	28.4	131.7	89.84	1,548.1	2,662.2	3,798.8	3,638.7	160.07	23.733	
7,480.3	6,644.5	6,600.5	6,600.5	30.3	131.7	89.84	1,548.1	2,662.2	3,870.6	3,708.6	161.99	23.894	
7,500.0	6,644.4	6,600.4	6,600.4	30.8	131.7	89.84	1,548.1	2,662.2	3,888.3	3,725.8	162.46	23.934	
7,578.7	6,644.3	6,600.3	6,600.3	32.7	131.7	89.84	1,548.1	2,662.2	3,959.1	3,794.7	164.40	24.083	
7,600.0	6,644.3	6,600.3	6,600.3	33.3	131.7	89.83	1,548.1	2,662.2	3,978.3	3,813.4	164.92	24.123	
7,677.1	6,644.2	6,600.2	6,600.2	35.2	131.7	89.83	1,548.1	2,662.2	4,048.1	3,881.2	166.86	24.261	
7,700.0	6,644.1	6,600.1	6,600.1	35.8	131.7	89.83	1,548.1	2,662.2	4,068.8	3,901.4	167.43	24.301	
7,775.6	6,644.0	6,600.0	6,600.0	37.7	131.7	89.83	1,548.1	2,662.2	4,137.5	3,968.1	169.36	24.430	
7,800.0	6,644.0	6,600.0	6,600.0	38.3	131.7	89.83	1,548.1	2,662.2	4,159.7	3,989.7	169.98	24.471	
7,874.0	6,643.9	6,599.9	6,599.9	40.2	131.7	89.82	1,548.1	2,662.2	4,227.3	4,055.4	171.90	24.592	
7,900.0	6,643.9	6,599.9	6,599.9	40.9	131.7	89.82	1,548.1	2,662.2	4,251.0	4,078.5	172.57	24.634	
7,972.4	6,643.8	6,599.8	6,599.8	42.8	131.7	89.82	1,548.1	2,662.2	4,317.4	4,143.0	174.46	24.747	
8,000.0	6,643.7	6,599.7	6,599.7	43.5	131.7	89.82	1,548.1	2,662.2	4,342.7	4,167.6	175.18	24.790	
8,070.8	6,643.6	6,599.6	6,599.6	45.4	131.7	89.81	1,548.1	2,662.2	4,407.9	4,230.9	177.05	24.896	
8,100.0	6,643.6	6,599.6	6,599.6	46.2	131.7	89.81	1,548.1	2,662.2	4,434.8	4,257.0	177.82	24.940	
8,169.3	6,643.5	6,599.5	6,599.5	48.0	131.7	89.81	1,548.1	2,662.2	4,498.8	4,319.1	179.66	25.041	
8,200.0	6,643.5	6,599.5	6,599.5	48.8	131.7	89.81	1,548.1	2,662.2	4,527.2	4,346.7	180.48	25.085	
8,267.7	6,643.4	6,599.4	6,599.4	50.6	131.7	89.81	1,548.1	2,662.2	4,589.9	4,407.7	182.28	25.180	
8,300.0	6,643.3	6,599.3	6,599.3	51.5	131.7	89.81	1,548.1	2,662.2	4,619.9	4,436.8	183.15	25.225	
8,366.1	6,643.2	6,599.2	6,599.2	53.3	131.7	89.80	1,548.1	2,662.2	4,681.4	4,496.5	184.92	25.315	
8,400.0	6,643.2	6,599.2	6,599.2	54.2	131.6	89.80	1,548.1	2,662.2	4,712.9	4,527.1	185.83	25.361	
8,464.5	6,643.1	6,599.1	6,599.1	55.9	131.6	89.80	1,548.1	2,662.2	4,773.1	4,585.6	187.57	25.447	
8,500.0	6,643.1	6,599.1	6,599.1	56.9	131.6	89.80	1,548.1	2,662.2	4,806.2	4,617.7	188.53	25.493	
8,563.0	6,643.0	6,599.0	6,599.0	58.6	131.6	89.79	1,548.1	2,662.2	4,865.1	4,674.9	190.24	25.574	
8,600.0	6,642.9	6,598.9	6,598.9	59.6	131.6	89.79	1,548.1	2,662.2	4,899.8	4,708.6	191.24	25.621	
8,661.4	6,642.8	6,598.8	6,598.8	61.3	131.6	89.79	1,548.1	2,662.2	4,957.4	4,764.5	192.91	25.698	
8,700.0	6,642.8	6,598.8	6,598.8	62.3	131.6	89.79	1,548.1	2,662.2	4,993.6	4,799.7	193.95	25.746	
8,759.8	6,642.7	6,598.7	6,598.7	64.0	131.6	89.79	1,548.1	2,662.2	5,049.8	4,854.3	195.58	25.819	
8,800.0	6,642.7	6,598.7	6,598.7	65.1	131.6	89.79	1,548.1	2,662.2	5,087.7	4,891.0	196.68	25.868	
8,858.2	6,642.6	6,598.6	6,598.6	66.6	131.6	89.78	1,548.1	2,662.2	5,142.5	4,944.3	198.27	25.937	
8,900.0	6,642.5	6,598.5	6,598.5	67.8	131.6	89.78	1,548.1	2,662.2	5,181.9	4,982.5	199.41	25.986	
8,956.7	6,642.4	6,598.4	6,598.4	69.3	131.6	89.78	1,548.1	2,662.2	5,235.5	5,034.5	200.96	26.052	
9,000.0	6,642.4	6,598.4	6,598.4	70.5	131.6	89.78	1,548.1	2,662.2	5,276.4	5,074.3	202.15	26.102	
9,055.1	6,642.3	6,598.3	6,598.3	72.0	131.6	89.78	1,548.1	2,662.2	5,328.6	5,124.9	203.66	26.164	
9,100.0	6,642.3	6,598.3	6,598.3	73.3	131.6	89.77	1,548.1	2,662.2	5,371.1	5,166.2	204.89	26.214	
9,153.5	6,642.2	6,598.2	6,598.2	74.7	131.6	89.77	1,548.1	2,662.2	5,421.8	5,215.5	206.36	26.274	
9,200.0	6,642.1	6,598.1	6,598.1	76.0	131.6	89.77	1,548.1	2,662.2	5,466.0	5,258.3	207.64	26.324	
9,251.9	6,642.1	6,598.1	6,598.1	77.5	131.6	89.77	1,548.1	2,662.2	5,515.3	5,306.2	209.07	26.381	
9,300.0	6,642.0	6,598.0	6,598.0	78.8	131.6	89.77	1,548.1	2,662.2	5,561.0	5,350.6	210.39	26.432	
9,350.4	6,641.9	6,597.9	6,597.9	80.2	131.6	89.76	1,548.1	2,662.2	5,609.0	5,397.2	211.78	26.485	
9,400.0	6,641.9	6,597.9	6,597.9	81.5	131.6	89.76	1,548.1	2,662.2	5,656.2	5,443.1	213.15	26.537	
9,448.8	6,641.8	6,597.8	6,597.8	82.9	131.6	89.76	1,548.1	2,662.2	5,702.8	5,488.3	214.49	26.587	
9,500.0	6,641.7	6,597.7	6,597.7	84.3	131.6	89.76	1,548.1	2,662.2	5,751.6	5,535.7	215.90	26.640	
9,547.2	6,641.7	6,597.7	6,597.7	85.6	131.6	89.76	1,548.1	2,662.2	5,796.7	5,579.5	217.21	26.687	
9,600.0	6,641.6	6,597.6	6,597.6	87.1	131.6	89.75	1,548.1	2,662.2	5,847.1	5,628.5	218.67	26.740	

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

Anticollision Report



Company:	PDC ENERGY	Local Co-ordinate Reference:	Well WACKER 10G-214
Project:	WELD COUNTY, COLORADO	TVD Reference:	KB-EST @ 4624.0usft (Original Well Elev)
Reference Site:	SW NW SEC. 10 T5N R64W 6th P.M.	MD Reference:	KB-EST @ 4624.0usft (Original Well Elev)
Site Error:	0.0 usft	North Reference:	True
Reference Well:	WACKER 10G-214	Survey Calculation Method:	Minimum Curvature
Well Error:	0.0 usft	Output errors are at	2.00 sigma
Reference Wellbore	ORIGINAL WELLBORE	Database:	EDM 5000.1 Single User Db
Reference Design:	PROPOSAL #1	Offset TVD Reference:	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	
9,645.6	6,641.5	6,597.5	6,597.5	88.3	131.6	89.75	1,548.1	2,662.2	5,890.8	5,670.9	219.93	26.785	
9,700.0	6,641.5	6,597.5	6,597.5	89.8	131.6	89.75	1,548.1	2,662.2	5,942.8	5,721.4	221.43	26.838	
9,744.1	6,641.4	6,597.4	6,597.4	91.0	131.6	89.75	1,548.1	2,662.2	5,985.0	5,762.4	222.65	26.881	
9,800.0	6,641.3	6,597.3	6,597.3	92.6	131.6	89.75	1,548.1	2,662.2	6,038.7	5,814.5	224.20	26.934	
9,842.5	6,641.3	6,597.3	6,597.3	93.8	131.6	89.75	1,548.1	2,662.2	6,079.4	5,854.0	225.38	26.974	
9,900.0	6,641.2	6,597.2	6,597.2	95.4	131.6	89.74	1,548.1	2,662.2	6,134.6	5,907.6	226.97	27.028	
9,940.9	6,641.1	6,597.1	6,597.1	96.5	131.6	89.74	1,548.1	2,662.2	6,173.9	5,945.8	228.10	27.066	
10,000.0	6,641.1	6,597.1	6,597.1	98.1	131.6	89.74	1,548.1	2,662.2	6,230.7	6,001.0	229.74	27.120	
10,039.3	6,641.0	6,597.0	6,597.0	99.2	131.6	89.74	1,548.1	2,662.2	6,268.5	6,037.7	230.83	27.156	
10,100.0	6,640.9	6,596.9	6,596.9	100.9	131.6	89.74	1,548.1	2,662.2	6,326.9	6,094.4	232.52	27.211	
10,137.8	6,640.9	6,596.9	6,596.9	102.0	131.6	89.73	1,548.1	2,662.2	6,363.3	6,129.7	233.57	27.244	
10,200.0	6,640.8	6,596.8	6,596.8	103.7	131.6	89.73	1,548.1	2,662.2	6,423.2	6,187.9	235.29	27.299	
10,236.2	6,640.8	6,596.8	6,596.8	104.7	131.6	89.73	1,548.1	2,662.2	6,458.1	6,221.8	236.30	27.330	
10,300.0	6,640.7	6,596.7	6,596.7	106.5	131.6	89.73	1,548.1	2,662.2	6,519.7	6,281.6	238.07	27.385	
10,334.6	6,640.6	6,596.6	6,596.6	107.4	131.6	89.73	1,548.1	2,662.2	6,553.1	6,314.0	239.03	27.415	
10,400.0	6,640.6	6,596.6	6,596.6	109.3	131.6	89.72	1,548.1	2,662.2	6,616.2	6,375.3	240.85	27.470	
10,433.0	6,640.5	6,596.5	6,596.5	110.2	131.6	89.72	1,548.1	2,662.2	6,648.1	6,406.3	241.77	27.498	
10,500.0	6,640.4	6,596.4	6,596.4	112.0	131.6	89.72	1,548.1	2,662.2	6,712.8	6,469.2	243.63	27.553	
10,531.5	6,640.4	6,596.4	6,596.4	112.9	131.6	89.72	1,548.1	2,662.2	6,743.3	6,498.8	244.51	27.579	
10,600.0	6,640.3	6,596.3	6,596.3	114.8	131.6	89.72	1,548.1	2,662.2	6,809.6	6,563.2	246.41	27.635	
10,629.9	6,640.3	6,596.3	6,596.3	115.7	131.6	89.72	1,548.1	2,662.2	6,838.5	6,591.3	247.25	27.659	
10,700.0	6,640.2	6,596.2	6,596.2	117.6	131.6	89.71	1,548.1	2,662.2	6,906.4	6,657.2	249.20	27.715	
10,728.3	6,640.1	6,596.1	6,596.1	118.4	131.6	89.71	1,548.1	2,662.2	6,933.8	6,683.9	249.99	27.737	
10,800.0	6,640.0	6,596.0	6,596.0	120.4	131.6	89.71	1,548.1	2,662.2	7,003.3	6,751.3	251.98	27.793	
10,826.7	6,640.0	6,596.0	6,596.0	121.2	131.6	89.71	1,548.1	2,662.2	7,029.3	6,776.5	252.73	27.814	
10,900.0	6,639.9	6,595.9	6,595.9	123.2	131.6	89.71	1,548.1	2,662.2	7,100.3	6,845.5	254.77	27.870	
10,925.2	6,639.9	6,595.9	6,595.9	123.9	131.6	89.71	1,548.1	2,662.2	7,124.7	6,869.3	255.47	27.889	
11,000.0	6,639.8	6,595.8	6,595.8	126.0	131.6	89.70	1,548.1	2,662.2	7,197.4	6,939.8	257.55	27.945	
11,023.6	6,639.8	6,595.8	6,595.8	126.6	131.6	89.70	1,548.1	2,662.2	7,220.3	6,962.1	258.21	27.963	
11,100.0	6,639.7	6,595.7	6,595.7	128.8	131.6	89.70	1,548.1	2,662.2	7,294.6	7,034.2	260.34	28.019	
11,122.0	6,639.6	6,595.6	6,595.6	129.4	131.6	89.70	1,548.1	2,662.2	7,316.0	7,055.0	260.96	28.035	
11,200.0	6,639.5	6,595.5	6,595.5	131.6	131.6	89.70	1,548.1	2,662.2	7,391.8	7,128.7	263.13	28.092	
11,220.4	6,639.5	6,595.5	6,595.5	132.1	131.6	89.70	1,548.1	2,662.2	7,411.7	7,148.0	263.70	28.107	
11,300.0	6,639.4	6,595.4	6,595.4	134.4	131.6	89.69	1,548.1	2,662.2	7,489.1	7,223.2	265.92	28.163	
11,318.9	6,639.4	6,595.4	6,595.4	134.9	131.6	89.69	1,548.1	2,662.2	7,507.5	7,241.0	266.45	28.176	
11,400.0	6,639.3	6,595.3	6,595.3	137.1	131.6	89.69	1,548.1	2,662.2	7,586.5	7,317.8	268.71	28.233	
11,417.3	6,639.3	6,595.3	6,595.3	137.6	131.6	89.69	1,548.1	2,662.2	7,603.4	7,334.2	269.19	28.245	
11,500.0	6,639.2	6,595.2	6,595.2	139.9	131.6	89.69	1,548.1	2,662.2	7,684.0	7,412.5	271.50	28.302	
11,515.7	6,639.1	6,595.1	6,595.1	140.4	131.6	89.69	1,548.1	2,662.2	7,699.3	7,427.3	271.94	28.313	
11,600.0	6,639.0	6,595.0	6,595.0	142.7	131.6	89.68	1,548.1	2,662.2	7,781.5	7,507.2	274.29	28.369	
11,614.1	6,639.0	6,595.0	6,595.0	143.1	131.6	89.68	1,548.1	2,662.2	7,795.3	7,520.6	274.69	28.379	
11,700.0	6,638.9	6,594.9	6,594.9	145.5	131.6	89.68	1,548.1	2,662.2	7,879.0	7,602.0	277.08	28.436	
11,712.6	6,638.9	6,594.9	6,594.9	145.9	131.6	89.68	1,548.1	2,662.2	7,891.3	7,613.9	277.44	28.444	
11,800.0	6,638.8	6,594.8	6,594.8	148.3	131.6	89.68	1,548.1	2,662.2	7,976.7	7,696.8	279.88	28.501	
11,811.0	6,638.8	6,594.8	6,594.8	148.6	131.6	89.68	1,548.1	2,662.2	7,987.4	7,707.2	280.18	28.508	
11,900.0	6,638.7	6,594.7	6,594.7	151.1	131.6	89.67	1,548.1	2,662.2	8,074.4	7,791.7	282.67	28.565	
11,909.4	6,638.6	6,594.6	6,594.6	151.4	131.6	89.67	1,548.1	2,662.2	8,083.6	7,800.7	282.93	28.571	
12,000.0	6,638.5	6,594.5	6,594.5	153.9	131.6	89.67	1,548.1	2,662.2	8,172.1	7,886.7	285.46	28.627	
12,007.8	6,638.5	6,594.5	6,594.5	154.1	131.6	89.67	1,548.1	2,662.2	8,179.8	7,894.1	285.68	28.632	
12,100.0	6,638.4	6,594.4	6,594.4	156.7	131.6	89.67	1,548.1	2,662.2	8,269.9	7,981.7	288.26	28.689	
12,106.3	6,638.4	6,594.4	6,594.4	156.9	131.6	89.67	1,548.1	2,662.2	8,276.1	7,987.6	288.43	28.693	
12,200.0	6,638.3	6,594.3	6,594.3	159.5	131.6	89.66	1,548.1	2,662.2	8,367.8	8,076.7	291.05	28.750	

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

Anticollision Report



Company:	PDC ENERGY	Local Co-ordinate Reference:	Well WACKER 10G-214
Project:	WELD COUNTY, COLORADO	TVD Reference:	KB-EST @ 4624.0usft (Original Well Elev)
Reference Site:	SW NW SEC. 10 T5N R64W 6th P.M.	MD Reference:	KB-EST @ 4624.0usft (Original Well Elev)
Site Error:	0.0 usft	North Reference:	True
Reference Well:	WACKER 10G-214	Survey Calculation Method:	Minimum Curvature
Well Error:	0.0 usft	Output errors are at	2.00 sigma
Reference Wellbore	ORIGINAL WELLBORE	Database:	EDM 5000.1 Single User Db
Reference Design:	PROPOSAL #1	Offset TVD Reference:	Offset Datum

Offset Design SW NW SEC. 10 T5N R64W 6th P.M. - EXIST VERT WACKER #31-10 - 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	
12,204.7	6,638.3	6,594.3	6,594.3	159.6	131.6	89.66	1,548.1	2,662.2	8,372.4	8,081.2	291.19	28.753	
12,300.0	6,638.2	6,594.2	6,594.2	162.3	131.5	89.66	1,548.1	2,662.2	8,465.7	8,171.8	293.85	28.810	
12,303.1	6,638.2	6,594.2	6,594.2	162.4	131.5	89.66	1,548.1	2,662.2	8,468.8	8,174.8	293.94	28.812	
12,400.0	6,638.0	6,594.0	6,594.0	165.1	131.5	89.66	1,548.1	2,662.2	8,563.6	8,267.0	296.65	28.868	
12,401.5	6,638.0	6,594.0	6,594.0	165.2	131.5	89.66	1,548.1	2,662.2	8,565.2	8,268.5	296.69	28.869	
12,500.0	6,637.9	6,593.9	6,593.9	167.9	131.5	89.65	1,548.1	2,662.2	8,661.6	8,362.2	299.44	28.926	
12,598.4	6,637.8	6,593.8	6,593.8	170.7	131.5	89.65	1,548.1	2,662.2	8,758.1	8,455.9	302.19	28.982	
12,600.0	6,637.8	6,593.8	6,593.8	170.7	131.5	89.65	1,548.1	2,662.2	8,759.7	8,457.5	302.24	28.983	
12,696.8	6,637.7	6,593.7	6,593.7	173.4	131.5	89.65	1,548.1	2,662.2	8,854.7	8,549.7	304.95	29.037	
12,700.0	6,637.7	6,593.7	6,593.7	173.5	131.5	89.65	1,548.1	2,662.2	8,857.8	8,552.7	305.04	29.039	
12,795.2	6,637.6	6,593.6	6,593.6	176.2	131.5	89.64	1,548.1	2,662.2	8,951.3	8,643.6	307.70	29.091	
12,800.0	6,637.6	6,593.6	6,593.6	176.3	131.5	89.64	1,548.1	2,662.2	8,955.9	8,648.1	307.83	29.093	
12,893.7	6,637.4	6,593.4	6,593.4	178.9	131.5	89.64	1,548.1	2,662.2	9,047.9	8,737.4	310.45	29.144	
12,900.0	6,637.4	6,593.4	6,593.4	179.1	131.5	89.64	1,548.1	2,662.2	9,054.1	8,743.5	310.63	29.147	
12,992.1	6,637.3	6,593.3	6,593.3	181.7	131.5	89.64	1,548.1	2,662.2	9,144.5	8,831.3	313.21	29.196	
13,000.0	6,637.3	6,593.3	6,593.3	181.9	131.5	89.64	1,548.1	2,662.2	9,152.3	8,838.9	313.43	29.201	
13,090.5	6,637.2	6,593.2	6,593.2	184.4	131.5	89.63	1,548.1	2,662.2	9,241.2	8,925.3	315.96	29.248	
13,100.0	6,637.2	6,593.2	6,593.2	184.7	131.5	89.64	1,548.1	2,662.2	9,250.6	8,934.3	316.23	29.253	
13,188.9	6,637.1	6,593.1	6,593.1	187.2	131.5	89.63	1,548.1	2,662.2	9,338.0	9,019.3	318.72	29.299	
13,200.0	6,637.1	6,593.1	6,593.1	187.5	131.5	89.63	1,548.1	2,662.2	9,348.8	9,029.8	319.03	29.304	
13,287.4	6,637.0	6,593.0	6,593.0	190.0	131.5	89.63	1,548.1	2,662.2	9,434.8	9,113.3	321.47	29.349	
13,300.0	6,637.0	6,593.0	6,593.0	190.3	131.5	89.63	1,548.1	2,662.2	9,447.2	9,125.3	321.82	29.355	
13,385.8	6,636.9	6,592.9	6,592.9	192.7	131.5	89.63	1,548.1	2,662.2	9,531.6	9,207.3	324.23	29.398	
13,400.0	6,636.8	6,592.8	6,592.8	193.1	131.5	89.63	1,548.1	2,662.2	9,545.5	9,220.9	324.62	29.405	
13,484.2	6,636.7	6,592.7	6,592.7	195.5	131.5	89.62	1,548.1	2,662.2	9,628.4	9,301.4	326.98	29.446	
13,500.0	6,636.7	6,592.7	6,592.7	195.9	131.5	89.62	1,548.1	2,662.2	9,643.9	9,316.5	327.42	29.454	
13,582.6	6,636.6	6,592.6	6,592.6	198.2	131.5	89.62	1,548.1	2,662.2	9,725.3	9,395.5	329.74	29.494	
13,600.0	6,636.6	6,592.6	6,592.6	198.7	131.5	89.62	1,548.1	2,662.2	9,742.3	9,412.1	330.22	29.502	
13,681.1	6,636.5	6,592.5	6,592.5	201.0	131.5	89.62	1,548.1	2,662.2	9,822.2	9,489.7	332.49	29.541	
13,700.0	6,636.5	6,592.5	6,592.5	201.5	131.5	89.62	1,548.1	2,662.2	9,840.8	9,507.8	333.02	29.550	
13,779.5	6,636.4	6,592.4	6,592.4	203.7	131.5	89.61	1,548.1	2,662.2	9,919.1	9,583.8	335.25	29.587	
13,800.0	6,636.4	6,592.4	6,592.4	204.3	131.5	89.61	1,548.1	2,662.2	9,939.3	9,603.5	335.82	29.597	

Anticollision Report



Company:	PDC ENERGY	Local Co-ordinate Reference:	Well WACKER 10G-214
Project:	WELD COUNTY, COLORADO	TVD Reference:	KB-EST @ 4624.0usft (Original Well Elev)
Reference Site:	SW NW SEC. 10 T5N R64W 6th P.M.	MD Reference:	KB-EST @ 4624.0usft (Original Well Elev)
Site Error:	0.0 usft	North Reference:	True
Reference Well:	WACKER 10G-214	Survey Calculation Method:	Minimum Curvature
Well Error:	0.0 usft	Output errors are at	2.00 sigma
Reference Wellbore	ORIGINAL WELLBORE	Database:	EDM 5000.1 Single User Db
Reference Design:	PROPOSAL #1	Offset TVD Reference:	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	82.48	350.2	2,651.4	2,674.5				
98.4	98.4	94.4	94.4	0.1	0.0	82.48	350.2	2,651.4	2,674.5	2,674.4	0.10	N/A	
100.0	100.0	96.0	96.0	0.1	0.0	82.48	350.2	2,651.4	2,674.5	2,674.4	0.10	N/A	
196.8	196.8	192.8	192.8	0.3	1.0	82.48	350.2	2,651.4	2,674.5	2,673.2	1.30	2,050.366	
200.0	200.0	196.0	196.0	0.3	1.0	82.48	350.2	2,651.4	2,674.5	2,673.1	1.35	1,988.429	
295.3	295.3	291.3	291.3	0.5	3.2	82.48	350.2	2,651.4	2,674.5	2,670.8	3.72	719.053	
300.0	300.0	296.0	296.0	0.5	3.3	82.48	350.2	2,651.4	2,674.5	2,670.6	3.84	696.535	
393.7	393.7	389.7	389.7	0.8	5.3	82.48	350.2	2,651.4	2,674.5	2,668.5	6.01	445.064	
400.0	400.0	396.0	396.0	0.8	5.4	82.48	350.2	2,651.4	2,674.5	2,668.3	6.15	434.562	
492.1	492.1	488.1	488.1	1.0	7.3	82.48	350.2	2,651.4	2,674.5	2,666.2	8.24	324.385	
500.0	500.0	496.0	496.0	1.0	7.4	82.48	350.2	2,651.4	2,674.5	2,666.1	8.42	317.509	
590.5	590.5	586.5	586.5	1.2	9.3	82.48	350.2	2,651.4	2,674.5	2,664.0	10.46	255.569	
600.0	600.0	596.0	596.0	1.2	9.5	82.48	350.2	2,651.4	2,674.5	2,663.8	10.68	250.471	
689.0	689.0	685.0	685.0	1.4	11.3	82.48	350.2	2,651.4	2,674.5	2,661.8	12.68	210.957	
700.0	700.0	696.0	696.0	1.4	11.5	82.48	350.2	2,651.4	2,674.5	2,661.6	12.93	206.913	
787.4	787.4	783.4	783.4	1.6	13.2	82.48	350.2	2,651.4	2,674.5	2,659.6	14.89	179.651	
800.0	800.0	796.0	796.0	1.7	13.5	82.48	350.2	2,651.4	2,674.5	2,659.3	15.17	176.303	
885.8	885.8	881.8	881.8	1.9	15.2	82.48	350.2	2,651.4	2,674.5	2,657.4	17.09	156.457	
900.0	900.0	896.0	896.0	1.9	15.5	82.48	350.2	2,651.4	2,674.5	2,657.1	17.41	153.602	
984.2	984.2	980.2	980.2	2.1	17.2	82.48	350.2	2,651.4	2,674.5	2,655.2	19.30	138.578	
1,000.0	1,000.0	996.0	996.0	2.1	17.5	82.48	350.2	2,651.4	2,674.5	2,654.8	19.65	136.090	
1,082.7	1,082.7	1,078.7	1,078.7	2.3	19.2	82.48	350.2	2,651.4	2,674.5	2,653.0	21.50	124.372	
1,100.0	1,100.0	1,096.0	1,096.0	2.3	19.5	82.48	350.2	2,651.4	2,674.5	2,652.6	21.89	122.168	
1,181.1	1,181.1	1,177.1	1,177.1	2.5	21.2	82.48	350.2	2,651.4	2,674.5	2,650.8	23.71	112.811	
1,200.0	1,200.0	1,196.0	1,196.0	2.6	21.6	82.48	350.2	2,651.4	2,674.5	2,650.4	24.13	110.833	
1,279.5	1,279.5	1,275.5	1,275.5	2.7	23.2	82.48	350.2	2,651.4	2,674.5	2,648.6	25.91	103.219	
1,300.0	1,300.0	1,296.0	1,296.0	2.8	23.6	82.48	350.2	2,651.4	2,674.5	2,648.1	26.37	101.425	
1,377.9	1,377.9	1,373.9	1,373.9	3.0	25.1	-36.20	350.2	2,651.4	2,673.6	2,645.5	28.09	95.180	
1,400.0	1,400.0	1,396.0	1,396.0	3.0	25.6	-36.21	350.2	2,651.4	2,673.1	2,644.5	28.57	93.548	
1,476.4	1,476.3	1,472.3	1,472.3	3.1	27.1	-36.29	350.2	2,651.4	2,670.1	2,639.9	30.23	88.332	
1,500.0	1,499.8	1,495.8	1,495.8	3.2	27.6	-36.33	350.2	2,651.4	2,668.9	2,638.1	30.74	86.832	
1,574.8	1,574.4	1,570.4	1,570.4	3.3	29.1	-36.47	350.2	2,651.4	2,663.9	2,631.5	32.34	82.381	
1,600.0	1,599.5	1,595.5	1,595.5	3.4	29.6	-36.52	350.2	2,651.4	2,661.8	2,629.0	32.87	80.980	
1,673.2	1,672.2	1,668.2	1,668.2	3.6	31.1	-36.72	350.2	2,651.4	2,654.9	2,620.5	34.42	77.143	
1,700.0	1,698.7	1,694.7	1,694.7	3.6	31.6	-36.80	350.2	2,651.4	2,652.0	2,617.1	34.97	75.827	
1,771.6	1,769.5	1,765.5	1,765.5	3.8	33.0	-37.04	350.2	2,651.4	2,643.3	2,606.8	36.47	72.488	
1,800.0	1,797.5	1,793.5	1,793.5	3.9	33.6	-37.15	350.2	2,651.4	2,639.5	2,602.4	37.05	71.243	
1,870.1	1,866.3	1,862.3	1,862.3	4.1	35.0	-37.45	350.2	2,651.4	2,629.1	2,590.6	38.49	68.312	
1,900.2	1,895.8	1,891.8	1,891.8	4.2	35.6	-37.59	350.2	2,651.4	2,624.2	2,585.1	39.10	67.120	
1,968.5	1,962.6	1,958.6	1,958.6	4.4	36.9	-37.78	350.2	2,651.4	2,612.8	2,572.2	40.60	64.350	
2,000.0	1,993.4	1,989.4	1,989.4	4.5	37.5	-37.87	350.2	2,651.4	2,607.6	2,566.3	41.30	63.139	
2,066.9	2,058.9	2,054.9	2,054.9	4.7	38.8	-38.05	350.2	2,651.4	2,596.6	2,553.8	42.79	60.685	
2,100.0	2,091.2	2,087.2	2,087.2	4.8	39.5	-38.15	350.2	2,651.4	2,591.1	2,547.6	43.52	59.535	
2,165.3	2,155.2	2,151.2	2,151.2	5.1	40.8	-38.33	350.2	2,651.4	2,580.3	2,535.4	44.98	57.365	
2,200.0	2,189.1	2,185.1	2,185.1	5.2	41.5	-38.43	350.2	2,651.4	2,574.6	2,528.9	45.76	56.266	
2,263.8	2,251.4	2,247.4	2,247.4	5.5	42.7	-38.61	350.2	2,651.4	2,564.2	2,517.0	47.19	54.336	
2,300.0	2,286.9	2,282.9	2,282.9	5.6	43.4	-38.72	350.2	2,651.4	2,558.2	2,510.2	48.01	53.290	
2,362.2	2,347.7	2,343.7	2,343.7	5.8	44.7	-38.90	350.2	2,651.4	2,548.1	2,498.7	49.41	51.571	
2,400.0	2,384.7	2,380.7	2,380.7	6.0	45.4	-39.01	350.2	2,651.4	2,541.9	2,491.6	50.26	50.572	
2,460.6	2,444.0	2,440.0	2,440.0	6.2	46.6	-39.19	350.2	2,651.4	2,532.0	2,480.4	51.64	49.036	
2,500.0	2,482.5	2,478.5	2,478.5	6.4	47.4	-39.30	350.2	2,651.4	2,525.6	2,473.1	52.53	48.081	
2,559.0	2,540.3	2,536.3	2,536.3	6.6	48.5	-39.48	350.2	2,651.4	2,516.1	2,462.2	53.87	46.705	

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

Anticollision Report



Company:	PDC ENERGY	Local Co-ordinate Reference:	Well WACKER 10G-214
Project:	WELD COUNTY, COLORADO	TVD Reference:	KB-EST @ 4624.0usft (Original Well Elev)
Reference Site:	SW NW SEC. 10 T5N R64W 6th P.M.	MD Reference:	KB-EST @ 4624.0usft (Original Well Elev)
Site Error:	0.0 usft	North Reference:	True
Reference Well:	WACKER 10G-214	Survey Calculation Method:	Minimum Curvature
Well Error:	0.0 usft	Output errors are at	2.00 sigma
Reference Wellbore	ORIGINAL WELLBORE	Database:	EDM 5000.1 Single User Db
Reference Design:	PROPOSAL #1	Offset TVD Reference:	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	2,580.3	2,576.3	2,576.3	6.8	49.3	-39.60	350.2	2,651.4	2,509.4	2,454.6	54.80	45.790	
2,657.5	2,636.5	2,632.5	2,632.5	7.1	50.5	-39.77	350.2	2,651.4	2,500.2	2,444.0	56.11	44.554	
2,700.0	2,678.1	2,674.1	2,674.1	7.2	51.3	-39.90	350.2	2,651.4	2,493.3	2,436.2	57.09	43.677	
2,755.9	2,732.8	2,728.8	2,728.8	7.5	52.4	-40.07	350.2	2,651.4	2,484.3	2,425.9	58.36	42.566	
2,800.0	2,775.9	2,771.9	2,771.9	7.7	53.3	-40.21	350.2	2,651.4	2,477.2	2,417.9	59.37	41.723	
2,854.3	2,829.1	2,825.1	2,825.1	7.9	54.3	-40.38	350.2	2,651.4	2,468.5	2,407.9	60.62	40.722	
2,900.0	2,873.8	2,869.8	2,869.8	8.1	55.2	-40.52	350.2	2,651.4	2,461.2	2,399.6	61.67	39.911	
2,952.7	2,925.4	2,921.4	2,921.4	8.3	56.3	-40.68	350.2	2,651.4	2,452.8	2,390.0	62.88	39.008	
2,953.5	2,926.1	2,922.1	2,922.1	8.3	56.3	-40.69	350.2	2,651.4	2,452.7	2,389.8	62.90	38.995	
3,000.0	2,971.6	2,967.6	2,967.6	8.5	57.2	-40.73	350.2	2,651.4	2,445.6	2,381.5	64.06	38.179	
3,051.2	3,022.0	3,018.0	3,018.0	8.7	58.2	-40.78	350.2	2,651.4	2,438.4	2,373.1	65.31	37.339	
3,100.0	3,070.1	3,066.1	3,066.1	8.8	59.2	-40.82	350.2	2,651.4	2,432.3	2,365.8	66.49	36.579	
3,149.6	3,119.1	3,115.1	3,115.1	8.9	60.2	-40.86	350.2	2,651.4	2,426.6	2,359.0	67.69	35.851	
3,200.0	3,169.1	3,165.1	3,165.1	9.1	61.2	-40.90	350.2	2,651.4	2,421.6	2,352.7	68.89	35.150	
3,248.0	3,216.8	3,212.8	3,212.8	9.2	62.1	-40.93	350.2	2,651.4	2,417.4	2,347.4	70.03	34.522	
3,300.0	3,268.5	3,264.5	3,264.5	9.3	63.2	-40.96	350.2	2,651.4	2,413.6	2,342.3	71.25	33.877	
3,346.4	3,314.8	3,310.8	3,310.8	9.4	64.1	-40.98	350.2	2,651.4	2,410.8	2,338.4	72.32	33.336	
3,400.0	3,368.3	3,364.3	3,364.3	9.6	65.2	-41.00	350.2	2,651.4	2,408.2	2,334.7	73.54	32.746	
3,444.9	3,413.1	3,409.1	3,409.1	9.6	66.1	-41.01	350.2	2,651.4	2,406.7	2,332.1	74.55	32.282	
3,500.0	3,468.2	3,464.2	3,464.2	9.7	67.2	-41.02	350.2	2,651.4	2,405.5	2,329.7	75.78	31.743	
3,543.3	3,511.5	3,507.5	3,507.5	9.8	68.1	-41.02	350.2	2,651.4	2,405.1	2,328.4	76.73	31.347	
3,553.7	3,521.9	3,517.9	3,517.9	9.8	68.3	77.63	350.2	2,651.4	2,405.1	2,327.9	77.23	31.141	
3,600.0	3,568.2	3,564.2	3,564.2	9.9	69.2	77.63	350.2	2,651.4	2,405.1	2,326.9	78.24	30.739	
3,641.7	3,609.9	3,605.9	3,605.9	10.0	70.0	77.63	350.2	2,651.4	2,405.1	2,326.0	79.16	30.384	
3,700.0	3,668.2	3,664.2	3,664.2	10.1	71.2	77.63	350.2	2,651.4	2,405.1	2,324.7	80.43	29.902	
3,740.1	3,708.4	3,704.4	3,704.4	10.1	72.0	77.63	350.2	2,651.4	2,405.1	2,323.8	81.31	29.578	
3,800.0	3,768.2	3,764.2	3,764.2	10.2	73.2	77.63	350.2	2,651.4	2,405.1	2,322.5	82.63	29.108	
3,838.6	3,806.8	3,802.8	3,802.8	10.3	74.0	77.63	350.2	2,651.4	2,405.1	2,321.6	83.47	28.813	
3,900.0	3,868.2	3,864.2	3,864.2	10.4	75.2	77.63	350.2	2,651.4	2,405.1	2,320.3	84.82	28.355	
3,937.0	3,905.2	3,901.2	3,901.2	10.5	76.0	77.63	350.2	2,651.4	2,405.1	2,319.5	85.63	28.086	
4,000.0	3,968.2	3,964.2	3,964.2	10.6	77.2	77.63	350.2	2,651.4	2,405.1	2,318.1	87.02	27.640	
4,035.4	4,003.6	3,999.6	3,999.6	10.6	78.0	77.63	350.2	2,651.4	2,405.1	2,317.3	87.80	27.395	
4,100.0	4,068.2	4,064.2	4,064.2	10.7	79.3	77.63	350.2	2,651.4	2,405.1	2,315.9	89.21	26.959	
4,133.8	4,102.1	4,098.1	4,098.1	10.8	79.9	77.63	350.2	2,651.4	2,405.1	2,315.1	89.96	26.736	
4,200.0	4,168.2	4,164.2	4,164.2	10.9	81.3	77.63	350.2	2,651.4	2,405.1	2,313.7	91.41	26.310	
4,232.3	4,200.5	4,196.5	4,196.5	11.0	81.9	77.63	350.2	2,651.4	2,405.1	2,313.0	92.12	26.107	
4,300.0	4,268.2	4,264.2	4,264.2	11.1	83.3	77.63	350.2	2,651.4	2,405.1	2,311.5	93.61	25.692	
4,330.7	4,298.9	4,294.9	4,294.9	11.1	83.9	77.63	350.2	2,651.4	2,405.1	2,310.8	94.29	25.507	
4,400.0	4,368.2	4,364.2	4,364.2	11.3	85.3	77.63	350.2	2,651.4	2,405.1	2,309.3	95.82	25.101	
4,429.1	4,397.3	4,393.3	4,393.3	11.3	85.9	77.63	350.2	2,651.4	2,405.1	2,308.7	96.46	24.934	
4,500.0	4,468.2	4,464.2	4,464.2	11.4	87.3	77.63	350.2	2,651.4	2,405.1	2,307.1	98.02	24.537	
4,527.5	4,495.8	4,491.8	4,491.8	11.5	87.9	77.63	350.2	2,651.4	2,405.1	2,306.5	98.63	24.386	
4,600.0	4,568.2	4,564.2	4,564.2	11.6	89.3	77.63	350.2	2,651.4	2,405.1	2,304.9	100.22	23.997	
4,626.0	4,594.2	4,590.2	4,590.2	11.7	89.8	77.63	350.2	2,651.4	2,405.1	2,304.3	100.80	23.861	
4,700.0	4,668.2	4,664.2	4,664.2	11.8	91.3	77.63	350.2	2,651.4	2,405.1	2,302.7	102.43	23.480	
4,724.4	4,692.6	4,688.6	4,688.6	11.9	91.8	77.63	350.2	2,651.4	2,405.1	2,302.1	102.97	23.358	
4,800.0	4,768.2	4,764.2	4,764.2	12.0	93.3	77.63	350.2	2,651.4	2,405.1	2,300.5	104.64	22.985	
4,822.8	4,791.0	4,787.0	4,787.0	12.0	93.8	77.63	350.2	2,651.4	2,405.1	2,300.0	105.14	22.875	
4,900.0	4,868.2	4,864.2	4,864.2	12.2	95.3	77.63	350.2	2,651.4	2,405.1	2,298.3	106.85	22.510	
4,921.2	4,889.5	4,885.5	4,885.5	12.2	95.8	77.63	350.2	2,651.4	2,405.1	2,297.8	107.31	22.412	
5,000.0	4,968.2	4,964.2	4,964.2	12.4	97.4	77.63	350.2	2,651.4	2,405.1	2,296.1	109.05	22.054	
5,019.7	4,987.9	4,983.9	4,983.9	12.4	97.8	77.63	350.2	2,651.4	2,405.1	2,295.6	109.49	21.967	

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

Anticollision Report



Company:	PDC ENERGY	Local Co-ordinate Reference:	Well WACKER 10G-214
Project:	WELD COUNTY, COLORADO	TVD Reference:	KB-EST @ 4624.0usft (Original Well Elev)
Reference Site:	SW NW SEC. 10 T5N R64W 6th P.M.	MD Reference:	KB-EST @ 4624.0usft (Original Well Elev)
Site Error:	0.0 usft	North Reference:	True
Reference Well:	WACKER 10G-214	Survey Calculation Method:	Minimum Curvature
Well Error:	0.0 usft	Output errors are at	2.00 sigma
Reference Wellbore	ORIGINAL WELLBORE	Database:	EDM 5000.1 Single User Db
Reference Design:	PROPOSAL #1	Offset TVD Reference:	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	5,068.2	5,064.2	5,064.2	12.6	99.4	77.63	350.2	2,651.4	2,405.1	2,293.8	111.26	21.616	
5,118.1	5,086.3	5,082.3	5,082.3	12.6	99.7	77.63	350.2	2,651.4	2,405.1	2,293.4	111.66	21.539	
5,200.0	5,168.2	5,164.2	5,164.2	12.7	101.4	77.63	350.2	2,651.4	2,405.1	2,291.6	113.47	21.195	
5,216.5	5,184.7	5,180.7	5,180.7	12.8	101.7	77.63	350.2	2,651.4	2,405.1	2,291.3	113.84	21.127	
5,300.0	5,268.2	5,264.2	5,264.2	12.9	103.4	77.63	350.2	2,651.4	2,405.1	2,289.4	115.69	20.790	
5,314.9	5,283.2	5,279.2	5,279.2	13.0	103.7	77.63	350.2	2,651.4	2,405.1	2,289.1	116.02	20.731	
5,400.0	5,368.2	5,364.2	5,364.2	13.1	105.4	77.63	350.2	2,651.4	2,405.1	2,287.2	117.90	20.400	
5,413.4	5,381.6	5,377.6	5,377.6	13.2	105.7	77.63	350.2	2,651.4	2,405.1	2,286.9	118.19	20.349	
5,500.0	5,468.2	5,464.2	5,464.2	13.3	107.4	77.63	350.2	2,651.4	2,405.1	2,285.0	120.11	20.024	
5,511.8	5,480.0	5,476.0	5,476.0	13.3	107.7	77.63	350.2	2,651.4	2,405.1	2,284.7	120.37	19.980	
5,600.0	5,568.2	5,564.2	5,564.2	13.5	109.4	77.63	350.2	2,651.4	2,405.1	2,282.8	122.33	19.661	
5,610.2	5,578.4	5,574.4	5,574.4	13.5	109.6	77.63	350.2	2,651.4	2,405.1	2,282.6	122.55	19.625	
5,700.0	5,668.2	5,664.2	5,664.2	13.7	111.4	77.63	350.2	2,651.4	2,405.1	2,280.6	124.54	19.312	
5,708.6	5,676.9	5,672.9	5,672.9	13.7	111.6	77.63	350.2	2,651.4	2,405.1	2,280.4	124.73	19.282	
5,800.0	5,768.2	5,764.2	5,764.2	13.9	113.4	77.63	350.2	2,651.4	2,405.1	2,278.4	126.76	18.974	
5,807.1	5,775.3	5,771.3	5,771.3	13.9	113.6	77.63	350.2	2,651.4	2,405.1	2,278.2	126.91	18.951	
5,900.0	5,868.2	5,864.2	5,864.2	14.1	115.5	77.63	350.2	2,651.4	2,405.1	2,276.1	128.97	18.648	
5,905.5	5,873.7	5,869.7	5,869.7	14.1	115.6	77.63	350.2	2,651.4	2,405.1	2,276.0	129.09	18.631	
5,960.7	5,928.9	5,924.9	5,924.9	14.2	116.7	77.63	350.2	2,651.4	2,405.1	2,274.8	130.32	18.456 CC, ES	
6,000.0	5,968.2	5,964.2	5,964.2	14.3	117.5	167.61	350.2	2,651.4	2,406.2	2,275.4	130.73	18.405	
6,003.9	5,972.1	5,968.1	5,968.1	14.3	117.5	167.61	350.2	2,651.4	2,406.4	2,275.6	130.78	18.401	
6,050.0	6,018.0	6,014.0	6,014.0	14.4	118.5	167.56	350.2	2,651.4	2,410.5	2,279.5	131.02	18.399 SF	
6,100.0	6,067.3	6,063.3	6,063.3	14.4	119.5	167.47	350.2	2,651.4	2,418.3	2,287.6	130.68	18.506	
6,102.3	6,069.6	6,065.6	6,065.6	14.4	119.5	167.46	350.2	2,651.4	2,418.8	2,288.1	130.65	18.514	
6,150.0	6,116.0	6,112.0	6,112.0	14.4	120.4	167.33	350.2	2,651.4	2,429.4	2,299.7	129.71	18.730	
6,200.0	6,163.8	6,159.8	6,159.8	14.5	121.4	167.14	350.2	2,651.4	2,443.8	2,315.7	128.11	19.075	
6,200.8	6,164.5	6,160.5	6,160.5	14.5	121.4	167.13	350.2	2,651.4	2,444.1	2,316.0	128.09	19.082	
6,250.0	6,210.4	6,206.4	6,206.4	14.5	122.3	166.89	350.2	2,651.4	2,461.4	2,335.5	125.90	19.551	
6,299.2	6,254.9	6,250.9	6,250.9	14.5	123.2	166.59	350.2	2,651.4	2,481.9	2,358.7	123.13	20.156	
6,300.0	6,255.6	6,251.6	6,251.6	14.5	123.3	166.58	350.2	2,651.4	2,482.2	2,359.1	123.08	20.167	
6,350.0	6,299.3	6,295.3	6,295.3	14.5	124.1	166.21	350.2	2,651.4	2,506.0	2,386.4	119.69	20.938	
6,397.6	6,339.2	6,335.2	6,335.2	14.6	124.9	165.76	350.2	2,651.4	2,531.5	2,415.5	115.96	21.830	
6,400.0	6,341.2	6,337.2	6,337.2	14.6	125.0	165.74	350.2	2,651.4	2,532.8	2,417.0	115.76	21.879	
6,450.0	6,381.0	6,377.0	6,377.0	14.6	125.8	165.17	350.2	2,651.4	2,562.4	2,451.0	111.37	23.008	
6,496.0	6,415.8	6,411.8	6,411.8	14.7	126.5	164.54	350.2	2,651.4	2,592.0	2,485.0	106.98	24.228	
6,500.0	6,418.7	6,414.7	6,414.7	14.7	126.5	164.48	350.2	2,651.4	2,594.6	2,488.0	106.59	24.341	
6,550.0	6,453.9	6,449.9	6,449.9	14.8	127.2	163.62	350.2	2,651.4	2,629.3	2,527.8	101.56	25.891	
6,594.5	6,483.1	6,479.1	6,479.1	15.0	127.8	162.69	350.2	2,651.4	2,662.2	2,565.2	97.01	27.444	
6,600.0	6,486.6	6,482.6	6,482.6	15.1	127.9	162.57	350.2	2,651.4	2,666.4	2,570.0	96.44	27.648	
6,650.0	6,516.6	6,512.6	6,512.6	15.3	128.5	161.25	350.2	2,651.4	2,705.7	2,614.2	91.52	29.563	
6,692.9	6,540.0	6,536.0	6,536.0	15.7	129.0	159.83	350.2	2,651.4	2,741.0	2,653.2	87.75	31.235	
6,700.0	6,543.7	6,539.7	6,539.7	15.7	129.0	159.57	350.2	2,651.4	2,746.9	2,659.7	87.19	31.504	
6,750.0	6,567.8	6,563.8	6,563.8	16.2	129.5	157.40	350.2	2,651.4	2,790.0	2,705.9	84.06	33.192	
6,791.3	6,585.4	6,581.4	6,581.4	16.7	129.9	155.10	350.2	2,651.4	2,826.7	2,743.7	82.99	34.062	
6,800.0	6,588.8	6,584.8	6,584.8	16.8	130.0	154.54	350.2	2,651.4	2,834.6	2,751.6	83.00	34.151	
6,850.0	6,606.6	6,602.6	6,602.6	17.4	130.3	150.62	350.2	2,651.4	2,880.5	2,795.3	85.25	33.789	
6,889.7	6,618.4	6,614.4	6,614.4	18.0	130.5	146.39	350.2	2,651.4	2,917.9	2,827.5	90.40	32.279	
6,900.0	6,621.1	6,617.1	6,617.1	18.2	130.6	145.09	350.2	2,651.4	2,927.6	2,835.3	92.31	31.715	
6,950.0	6,632.2	6,628.2	6,628.2	19.0	130.8	136.94	350.2	2,651.4	2,975.6	2,869.9	105.65	28.165	
6,988.2	6,638.4	6,634.4	6,634.4	19.7	130.9	127.98	350.2	2,651.4	3,012.7	2,892.4	120.30	25.043	
7,000.0	6,639.9	6,635.9	6,635.9	19.9	131.0	124.57	350.2	2,651.4	3,024.2	2,898.8	125.42	24.113	
7,050.0	6,644.1	6,640.1	6,640.1	20.8	131.1	106.26	350.2	2,651.4	3,073.3	2,927.3	146.05	21.044	

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

Anticollision Report



Company:	PDC ENERGY	Local Co-ordinate Reference:	Well WACKER 10G-214
Project:	WELD COUNTY, COLORADO	TVD Reference:	KB-EST @ 4624.0usft (Original Well Elev)
Reference Site:	SW NW SEC. 10 T5N R64W 6th P.M.	MD Reference:	KB-EST @ 4624.0usft (Original Well Elev)
Site Error:	0.0 usft	North Reference:	True
Reference Well:	WACKER 10G-214	Survey Calculation Method:	Minimum Curvature
Well Error:	0.0 usft	Output errors are at	2.00 sigma
Reference Wellbore	ORIGINAL WELLBORE	Database:	EDM 5000.1 Single User Db
Reference Design:	PROPOSAL #1	Offset TVD Reference:	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	
7,086.5	6,645.0	6,641.0	6,641.0	21.5	131.1	89.52	350.2	2,651.4	3,109.4	2,956.7	152.61	20.375	
7,100.0	6,645.0	6,641.0	6,641.0	21.8	131.1	89.52	350.2	2,651.4	3,122.6	2,969.8	152.87	20.427	
7,185.0	6,644.9	6,640.9	6,640.9	23.6	131.1	89.51	350.2	2,651.4	3,206.5	3,051.9	154.63	20.737	
7,200.0	6,644.8	6,640.8	6,640.8	23.9	131.1	89.51	350.2	2,651.4	3,221.3	3,066.4	154.94	20.791	
7,283.4	6,644.7	6,640.7	6,640.7	25.7	131.1	89.50	350.2	2,651.4	3,303.7	3,146.9	156.78	21.073	
7,300.0	6,644.7	6,640.7	6,640.7	26.1	131.1	89.49	350.2	2,651.4	3,320.0	3,162.9	157.14	21.128	
7,381.9	6,644.6	6,640.6	6,640.6	28.0	131.1	89.48	350.2	2,651.4	3,401.0	3,241.9	159.03	21.385	
7,400.0	6,644.6	6,640.6	6,640.6	28.4	131.1	89.48	350.2	2,651.4	3,418.9	3,259.4	159.45	21.441	
7,480.3	6,644.5	6,640.5	6,640.5	30.3	131.1	89.47	350.2	2,651.4	3,498.3	3,336.9	161.38	21.678	
7,500.0	6,644.4	6,640.4	6,640.4	30.8	131.1	89.47	350.2	2,651.4	3,517.8	3,355.9	161.85	21.735	
7,578.7	6,644.3	6,640.3	6,640.3	32.7	131.1	89.45	350.2	2,651.4	3,595.7	3,431.9	163.78	21.954	
7,600.0	6,644.3	6,640.3	6,640.3	33.3	131.1	89.45	350.2	2,651.4	3,616.7	3,452.4	164.31	22.012	
7,677.1	6,644.2	6,640.2	6,640.2	35.2	131.1	89.44	350.2	2,651.4	3,693.1	3,526.8	166.24	22.215	
7,700.0	6,644.1	6,640.1	6,640.1	35.8	131.1	89.44	350.2	2,651.4	3,715.7	3,548.9	166.82	22.274	
7,775.6	6,644.0	6,640.0	6,640.0	37.7	131.1	89.43	350.2	2,651.4	3,790.6	3,621.8	168.75	22.463	
7,800.0	6,644.0	6,640.0	6,640.0	38.3	131.1	89.42	350.2	2,651.4	3,814.8	3,645.4	169.37	22.523	
7,874.0	6,643.9	6,639.9	6,639.9	40.2	131.1	89.41	350.2	2,651.4	3,888.1	3,716.8	171.28	22.700	
7,900.0	6,643.9	6,639.9	6,639.9	40.9	131.1	89.41	350.2	2,651.4	3,913.9	3,741.9	171.96	22.761	
7,972.4	6,643.8	6,639.8	6,639.8	42.8	131.1	89.40	350.2	2,651.4	3,985.7	3,811.8	173.85	22.926	
8,000.0	6,643.7	6,639.7	6,639.7	43.5	131.1	89.40	350.2	2,651.4	4,013.0	3,838.5	174.57	22.988	
8,070.8	6,643.6	6,639.6	6,639.6	45.4	131.1	89.39	350.2	2,651.4	4,083.3	3,906.9	176.44	23.143	
8,100.0	6,643.6	6,639.6	6,639.6	46.2	131.1	89.38	350.2	2,651.4	4,112.2	3,935.0	177.20	23.206	
8,169.3	6,643.5	6,639.5	6,639.5	48.0	131.1	89.37	350.2	2,651.4	4,181.0	4,001.9	179.04	23.352	
8,200.0	6,643.5	6,639.5	6,639.5	48.8	131.1	89.37	350.2	2,651.4	4,211.5	4,031.6	179.86	23.415	
8,267.7	6,643.4	6,639.4	6,639.4	50.6	131.0	89.36	350.2	2,651.4	4,278.7	4,097.0	181.67	23.552	
8,300.0	6,643.3	6,639.3	6,639.3	51.5	131.0	89.35	350.2	2,651.4	4,310.7	4,128.2	182.53	23.616	
8,366.1	6,643.2	6,639.2	6,639.2	53.3	131.0	89.34	350.2	2,651.4	4,376.4	4,192.1	184.31	23.745	
8,400.0	6,643.2	6,639.2	6,639.2	54.2	131.0	89.34	350.2	2,651.4	4,410.0	4,224.8	185.22	23.810	
8,464.5	6,643.1	6,639.1	6,639.1	55.9	131.0	89.33	350.2	2,651.4	4,474.1	4,287.2	186.96	23.931	
8,500.0	6,643.1	6,639.1	6,639.1	56.9	131.0	89.33	350.2	2,651.4	4,509.3	4,321.4	187.91	23.997	
8,563.0	6,643.0	6,639.0	6,639.0	58.6	131.0	89.32	350.2	2,651.4	4,571.9	4,382.3	189.62	24.111	
8,600.0	6,642.9	6,638.9	6,638.9	59.6	131.0	89.31	350.2	2,651.4	4,608.7	4,418.1	190.62	24.178	
8,661.4	6,642.8	6,638.8	6,638.8	61.3	131.0	89.31	350.2	2,651.4	4,669.7	4,477.4	192.29	24.285	
8,700.0	6,642.8	6,638.8	6,638.8	62.3	131.0	89.30	350.2	2,651.4	4,708.1	4,514.8	193.34	24.352	
8,759.8	6,642.7	6,638.7	6,638.7	64.0	131.0	89.29	350.2	2,651.4	4,767.6	4,572.6	194.96	24.453	
8,800.0	6,642.7	6,638.7	6,638.7	65.1	131.0	89.29	350.2	2,651.4	4,807.5	4,611.4	196.06	24.521	
8,858.2	6,642.6	6,638.6	6,638.6	66.6	131.0	89.28	350.2	2,651.4	4,865.4	4,667.8	197.65	24.616	
8,900.0	6,642.5	6,638.5	6,638.5	67.8	131.0	89.28	350.2	2,651.4	4,906.9	4,708.1	198.79	24.684	
8,956.7	6,642.4	6,638.4	6,638.4	69.3	131.0	89.27	350.2	2,651.4	4,963.3	4,763.0	200.34	24.774	
9,000.0	6,642.4	6,638.4	6,638.4	70.5	131.0	89.26	350.2	2,651.4	5,006.4	4,804.9	201.53	24.842	
9,055.1	6,642.3	6,638.3	6,638.3	72.0	131.0	89.25	350.2	2,651.4	5,061.2	4,858.2	203.04	24.927	
9,100.0	6,642.3	6,638.3	6,638.3	73.3	131.0	89.25	350.2	2,651.4	5,105.9	4,901.6	204.27	24.996	
9,153.5	6,642.2	6,638.2	6,638.2	74.7	131.0	89.24	350.2	2,651.4	5,159.1	4,953.4	205.74	25.076	
9,200.0	6,642.1	6,638.1	6,638.1	76.0	131.0	89.24	350.2	2,651.4	5,205.4	4,998.4	207.02	25.145	
9,251.9	6,642.1	6,638.1	6,638.1	77.5	131.0	89.23	350.2	2,651.4	5,257.1	5,048.6	208.44	25.221	
9,300.0	6,642.0	6,638.0	6,638.0	78.8	131.0	89.22	350.2	2,651.4	5,304.9	5,095.1	209.77	25.290	
9,350.4	6,641.9	6,637.9	6,637.9	80.2	131.0	89.22	350.2	2,651.4	5,355.0	5,143.9	211.15	25.361	
9,400.0	6,641.9	6,637.9	6,637.9	81.5	131.0	89.21	350.2	2,651.4	5,404.4	5,191.9	212.52	25.430	
9,448.8	6,641.8	6,637.8	6,637.8	82.9	131.0	89.20	350.2	2,651.4	5,453.0	5,239.1	213.87	25.497	
9,500.0	6,641.7	6,637.7	6,637.7	84.3	131.0	89.20	350.2	2,651.4	5,504.0	5,288.7	215.28	25.567	
9,547.2	6,641.7	6,637.7	6,637.7	85.6	131.0	89.19	350.2	2,651.4	5,551.0	5,334.4	216.58	25.630	
9,600.0	6,641.6	6,637.6	6,637.6	87.1	131.0	89.19	350.2	2,651.4	5,603.5	5,385.5	218.04	25.700	

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

Anticollision Report



Company:	PDC ENERGY	Local Co-ordinate Reference:	Well WACKER 10G-214
Project:	WELD COUNTY, COLORADO	TVD Reference:	KB-EST @ 4624.0usft (Original Well Elev)
Reference Site:	SW NW SEC. 10 T5N R64W 6th P.M.	MD Reference:	KB-EST @ 4624.0usft (Original Well Elev)
Site Error:	0.0 usft	North Reference:	True
Reference Well:	WACKER 10G-214	Survey Calculation Method:	Minimum Curvature
Well Error:	0.0 usft	Output errors are at	2.00 sigma
Reference Wellbore	ORIGINAL WELLBORE	Database:	EDM 5000.1 Single User Db
Reference Design:	PROPOSAL #1	Offset TVD Reference:	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	
9,645.6	6,641.5	6,637.5	6,637.5	88.3	131.0	89.18	350.2	2,651.4	5,649.0	5,429.7	219.30	25.759	
9,700.0	6,641.5	6,637.5	6,637.5	89.8	131.0	89.17	350.2	2,651.4	5,703.1	5,482.3	220.81	25.829	
9,744.1	6,641.4	6,637.4	6,637.4	91.0	131.0	89.17	350.2	2,651.4	5,747.0	5,525.0	222.02	25.885	
9,800.0	6,641.3	6,637.3	6,637.3	92.6	131.0	89.16	350.2	2,651.4	5,802.7	5,579.2	223.57	25.955	
9,842.5	6,641.3	6,637.3	6,637.3	93.8	131.0	89.15	350.2	2,651.4	5,845.1	5,620.3	224.75	26.007	
9,900.0	6,641.2	6,637.2	6,637.2	95.4	131.0	89.15	350.2	2,651.4	5,902.3	5,676.0	226.34	26.077	
9,940.9	6,641.1	6,637.1	6,637.1	96.5	131.0	89.14	350.2	2,651.4	5,943.1	5,715.6	227.48	26.126	
10,000.0	6,641.1	6,637.1	6,637.1	98.1	131.0	89.14	350.2	2,651.4	6,002.0	5,772.9	229.11	26.197	
10,039.3	6,641.0	6,637.0	6,637.0	99.2	131.0	89.13	350.2	2,651.4	6,041.2	5,811.0	230.20	26.243	
10,100.0	6,640.9	6,636.9	6,636.9	100.9	131.0	89.12	350.2	2,651.4	6,101.6	5,869.7	231.89	26.313	
10,137.8	6,640.9	6,636.9	6,636.9	102.0	131.0	89.12	350.2	2,651.4	6,139.2	5,906.3	232.93	26.356	
10,200.0	6,640.8	6,636.8	6,636.8	103.7	131.0	89.11	350.2	2,651.4	6,201.3	5,966.6	234.66	26.426	
10,236.2	6,640.8	6,636.8	6,636.8	104.7	131.0	89.11	350.2	2,651.4	6,237.3	6,001.7	235.67	26.467	
10,300.0	6,640.7	6,636.7	6,636.7	106.5	131.0	89.10	350.2	2,651.4	6,300.9	6,063.5	237.44	26.537	
10,334.6	6,640.6	6,636.6	6,636.6	107.4	131.0	89.09	350.2	2,651.4	6,335.4	6,097.0	238.40	26.575	
10,400.0	6,640.6	6,636.6	6,636.6	109.3	131.0	89.09	350.2	2,651.4	6,400.6	6,160.4	240.22	26.645	
10,433.0	6,640.5	6,636.5	6,636.5	110.2	131.0	89.08	350.2	2,651.4	6,433.5	6,192.4	241.14	26.680	
10,500.0	6,640.4	6,636.4	6,636.4	112.0	131.0	89.08	350.2	2,651.4	6,500.3	6,257.3	243.00	26.750	
10,531.5	6,640.4	6,636.4	6,636.4	112.9	131.0	89.07	350.2	2,651.4	6,531.6	6,287.8	243.87	26.783	
10,600.0	6,640.3	6,636.3	6,636.3	114.8	131.0	89.06	350.2	2,651.4	6,600.0	6,354.2	245.78	26.853	
10,629.9	6,640.3	6,636.3	6,636.3	115.7	131.0	89.06	350.2	2,651.4	6,629.8	6,383.2	246.61	26.884	
10,700.0	6,640.2	6,636.2	6,636.2	117.6	131.0	89.05	350.2	2,651.4	6,699.7	6,451.1	248.56	26.954	
10,728.3	6,640.1	6,636.1	6,636.1	118.4	131.0	89.05	350.2	2,651.4	6,727.9	6,478.5	249.35	26.982	
10,800.0	6,640.0	6,636.0	6,636.0	120.4	131.0	89.04	350.2	2,651.4	6,799.4	6,548.0	251.34	27.052	
10,826.7	6,640.0	6,636.0	6,636.0	121.2	131.0	89.04	350.2	2,651.4	6,826.0	6,573.9	252.09	27.078	
10,900.0	6,639.9	6,635.9	6,635.9	123.2	131.0	89.03	350.2	2,651.4	6,899.1	6,644.9	254.13	27.148	
10,925.2	6,639.9	6,635.9	6,635.9	123.9	131.0	89.02	350.2	2,651.4	6,924.2	6,669.3	254.83	27.172	
11,000.0	6,639.8	6,635.8	6,635.8	126.0	131.0	89.02	350.2	2,651.4	6,998.8	6,741.9	256.91	27.242	
11,023.6	6,639.8	6,635.8	6,635.8	126.6	131.0	89.01	350.2	2,651.4	7,022.3	6,764.8	257.57	27.264	
11,100.0	6,639.7	6,635.7	6,635.7	128.8	131.0	89.00	350.2	2,651.4	7,098.5	6,838.8	259.70	27.333	
11,122.0	6,639.6	6,635.6	6,635.6	129.4	131.0	89.00	350.2	2,651.4	7,120.5	6,860.2	260.31	27.353	
11,200.0	6,639.5	6,635.5	6,635.5	131.6	131.0	88.99	350.2	2,651.4	7,198.3	6,935.8	262.49	27.423	
11,220.4	6,639.5	6,635.5	6,635.5	132.1	131.0	88.99	350.2	2,651.4	7,218.7	6,955.6	263.06	27.441	
11,300.0	6,639.4	6,635.4	6,635.4	134.4	131.0	88.98	350.2	2,651.4	7,298.0	7,032.7	265.28	27.511	
11,318.9	6,639.4	6,635.4	6,635.4	134.9	131.0	88.98	350.2	2,651.4	7,316.8	7,051.0	265.80	27.527	
11,400.0	6,639.3	6,635.3	6,635.3	137.1	131.0	88.97	350.2	2,651.4	7,397.8	7,129.7	268.07	27.597	
11,417.3	6,639.3	6,635.3	6,635.3	137.6	131.0	88.97	350.2	2,651.4	7,415.0	7,146.5	268.55	27.612	
11,500.0	6,639.2	6,635.2	6,635.2	139.9	131.0	88.96	350.2	2,651.4	7,497.5	7,226.7	270.86	27.681	
11,515.7	6,639.1	6,635.1	6,635.1	140.4	131.0	88.96	350.2	2,651.4	7,513.2	7,241.9	271.29	27.694	
11,600.0	6,639.0	6,635.0	6,635.0	142.7	131.0	88.95	350.2	2,651.4	7,597.3	7,323.7	273.65	27.763	
11,614.1	6,639.0	6,635.0	6,635.0	143.1	131.0	88.95	350.2	2,651.4	7,611.4	7,337.4	274.04	27.775	
11,700.0	6,638.9	6,634.9	6,634.9	145.5	131.0	88.94	350.2	2,651.4	7,697.1	7,420.6	276.44	27.844	
11,712.6	6,638.9	6,634.9	6,634.9	145.9	131.0	88.94	350.2	2,651.4	7,709.6	7,432.8	276.79	27.854	
11,800.0	6,638.8	6,634.8	6,634.8	148.3	131.0	88.93	350.2	2,651.4	7,796.8	7,517.6	279.23	27.923	
11,811.0	6,638.8	6,634.8	6,634.8	148.6	131.0	88.92	350.2	2,651.4	7,807.8	7,528.3	279.54	27.931	
11,900.0	6,638.7	6,634.7	6,634.7	151.1	131.0	88.92	350.2	2,651.4	7,896.6	7,614.6	282.02	28.000	
11,909.4	6,638.6	6,634.6	6,634.6	151.4	131.0	88.91	350.2	2,651.4	7,906.0	7,623.8	282.28	28.007	
12,000.0	6,638.5	6,634.5	6,634.5	153.9	131.0	88.90	350.2	2,651.4	7,996.4	7,711.6	284.81	28.076	
12,007.8	6,638.5	6,634.5	6,634.5	154.1	131.0	88.90	350.2	2,651.4	8,004.3	7,719.2	285.03	28.082	
12,100.0	6,638.4	6,634.4	6,634.4	156.7	130.9	88.89	350.2	2,651.4	8,096.2	7,808.6	287.61	28.150	
12,106.3	6,638.4	6,634.4	6,634.4	156.9	130.9	88.89	350.2	2,651.4	8,102.5	7,814.7	287.78	28.155	
12,200.0	6,638.3	6,634.3	6,634.3	159.5	130.9	88.88	350.2	2,651.4	8,196.0	7,905.6	290.40	28.223	

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

Anticollision Report



Company:	PDC ENERGY	Local Co-ordinate Reference:	Well WACKER 10G-214
Project:	WELD COUNTY, COLORADO	TVD Reference:	KB-EST @ 4624.0usft (Original Well Elev)
Reference Site:	SW NW SEC. 10 T5N R64W 6th P.M.	MD Reference:	KB-EST @ 4624.0usft (Original Well Elev)
Site Error:	0.0 usft	North Reference:	True
Reference Well:	WACKER 10G-214	Survey Calculation Method:	Minimum Curvature
Well Error:	0.0 usft	Output errors are at	2.00 sigma
Reference Wellbore	ORIGINAL WELLBORE	Database:	EDM 5000.1 Single User Db
Reference Design:	PROPOSAL #1	Offset TVD Reference:	Offset Datum

Offset Design SW NW SEC. 10 T5N R64W 6th P.M. - EXIST VERT WACKER #32-10 - 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									
Measured Depth (usft)	Vertical Depth (usft)	Measured Depth (usft)	Vertical Depth (usft)	Reference (usft)	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
12,204.7	6,638.3	6,634.3	6,634.3	159.6	130.9	88.88	350.2	2,651.4	8,200.7	7,910.2	290.53	28.227	
12,300.0	6,638.2	6,634.2	6,634.2	162.3	130.9	88.87	350.2	2,651.4	8,295.8	8,002.6	293.19	28.295	
12,303.1	6,638.2	6,634.2	6,634.2	162.4	130.9	88.87	350.2	2,651.4	8,298.9	8,005.7	293.28	28.297	
12,400.0	6,638.0	6,634.0	6,634.0	165.1	130.9	88.86	350.2	2,651.4	8,395.6	8,099.6	295.99	28.365	
12,401.5	6,638.0	6,634.0	6,634.0	165.2	130.9	88.86	350.2	2,651.4	8,397.2	8,101.1	296.03	28.366	
12,500.0	6,637.9	6,633.9	6,633.9	167.9	130.9	88.85	350.2	2,651.4	8,495.4	8,196.7	298.78	28.433	
12,598.4	6,637.8	6,633.8	6,633.8	170.7	130.9	88.84	350.2	2,651.4	8,593.7	8,292.1	301.53	28.500	
12,600.0	6,637.8	6,633.8	6,633.8	170.7	130.9	88.84	350.2	2,651.4	8,595.3	8,293.7	301.58	28.501	
12,696.8	6,637.7	6,633.7	6,633.7	173.4	130.9	88.83	350.2	2,651.4	8,691.9	8,387.6	304.29	28.565	
12,700.0	6,637.7	6,633.7	6,633.7	173.5	130.9	88.83	350.2	2,651.4	8,695.1	8,390.7	304.38	28.567	
12,795.2	6,637.6	6,633.6	6,633.6	176.2	130.9	88.82	350.2	2,651.4	8,790.2	8,483.1	307.04	28.629	
12,800.0	6,637.6	6,633.6	6,633.6	176.3	130.9	88.82	350.2	2,651.4	8,794.9	8,487.7	307.17	28.632	
12,893.7	6,637.4	6,633.4	6,633.4	178.9	130.9	88.81	350.2	2,651.4	8,888.4	8,578.6	309.79	28.692	
12,900.0	6,637.4	6,633.4	6,633.4	179.1	130.9	88.81	350.2	2,651.4	8,894.7	8,584.8	309.97	28.696	
12,992.1	6,637.3	6,633.3	6,633.3	181.7	130.9	88.80	350.2	2,651.4	8,986.7	8,674.1	312.54	28.753	
13,000.0	6,637.3	6,633.3	6,633.3	181.9	130.9	88.80	350.2	2,651.4	8,994.6	8,681.8	312.76	28.758	
13,090.5	6,637.2	6,633.2	6,633.2	184.4	130.9	88.79	350.2	2,651.4	9,085.0	8,769.7	315.30	28.814	
13,100.0	6,637.2	6,633.2	6,633.2	184.7	130.9	88.79	350.2	2,651.4	9,094.4	8,778.8	315.56	28.820	
13,188.9	6,637.1	6,633.1	6,633.1	187.2	130.9	88.78	350.2	2,651.4	9,183.2	8,865.2	318.05	28.874	
13,200.0	6,637.1	6,633.1	6,633.1	187.5	130.9	88.78	350.2	2,651.4	9,194.3	8,875.9	318.36	28.880	
13,287.4	6,637.0	6,633.0	6,633.0	190.0	130.9	88.77	350.2	2,651.4	9,281.5	8,960.7	320.80	28.932	
13,300.0	6,637.0	6,633.0	6,633.0	190.3	130.9	88.77	350.2	2,651.4	9,294.1	8,972.9	321.16	28.939	
13,385.8	6,636.9	6,632.9	6,632.9	192.7	130.9	88.76	350.2	2,651.4	9,379.8	9,056.2	323.56	28.990	
13,400.0	6,636.8	6,632.8	6,632.8	193.1	130.9	88.76	350.2	2,651.4	9,393.9	9,070.0	323.95	28.998	
13,484.2	6,636.7	6,632.7	6,632.7	195.5	130.9	88.75	350.2	2,651.4	9,478.0	9,151.7	326.31	29.046	
13,500.0	6,636.7	6,632.7	6,632.7	195.9	130.9	88.75	350.2	2,651.4	9,493.8	9,167.0	326.75	29.055	
13,582.6	6,636.6	6,632.6	6,632.6	198.2	130.9	88.74	350.2	2,651.4	9,576.3	9,247.3	329.06	29.102	
13,600.0	6,636.6	6,632.6	6,632.6	198.7	130.9	88.74	350.2	2,651.4	9,593.6	9,264.1	329.55	29.111	
13,681.1	6,636.5	6,632.5	6,632.5	201.0	130.9	88.73	350.2	2,651.4	9,674.6	9,342.8	331.82	29.156	
13,700.0	6,636.5	6,632.5	6,632.5	201.5	130.9	88.73	350.2	2,651.4	9,693.5	9,361.2	332.35	29.167	
13,779.5	6,636.4	6,632.4	6,632.4	203.7	130.9	88.72	350.2	2,651.4	9,772.9	9,438.3	334.57	29.210	
13,800.0	6,636.4	6,632.4	6,632.4	204.3	130.9	88.72	350.2	2,651.4	9,793.4	9,458.2	335.15	29.221	
13,877.9	6,636.3	6,632.3	6,632.3	206.5	130.9	88.71	350.2	2,651.4	9,871.2	9,533.9	337.33	29.263	
13,900.0	6,636.3	6,632.3	6,632.3	207.1	130.9	88.71	350.2	2,651.4	9,893.2	9,555.3	337.95	29.274	
13,976.3	6,636.2	6,632.2	6,632.2	209.3	130.9	88.70	350.2	2,651.4	9,969.5	9,629.4	340.08	29.315	
14,000.0	6,636.1	6,632.1	6,632.1	209.9	130.9	88.70	350.2	2,651.4	9,993.1	9,652.3	340.75	29.327	

Anticollision Report



Company:	PDC ENERGY	Local Co-ordinate Reference:	Well WACKER 10G-214
Project:	WELD COUNTY, COLORADO	TVD Reference:	KB-EST @ 4624.0usft (Original Well Elev)
Reference Site:	SW NW SEC. 10 T5N R64W 6th P.M.	MD Reference:	KB-EST @ 4624.0usft (Original Well Elev)
Site Error:	0.0 usft	North Reference:	True
Reference Well:	WACKER 10G-214	Survey Calculation Method:	Minimum Curvature
Well Error:	0.0 usft	Output errors are at	2.00 sigma
Reference Wellbore	ORIGINAL WELLBORE	Database:	EDM 5000.1 Single User Db
Reference Design:	PROPOSAL #1	Offset TVD Reference:	Offset Datum

Offset Design												Offset Site Error:	0.0 usft
Survey Program: 100-GYD_CT												Offset Well Error:	0.0 usft
Measured Depth (usft)	Vertical Depth (usft)	Measured Depth (usft)	Vertical Depth (usft)	Reference (usft)	Offset (usft)	Semi Major Axis Highside Toolface (")	Offset Wellbore Centre +N/-S (usft)	+E/-W (usft)	Between Centres (usft)	Between Ellipses (usft)	Minimum Separation (usft)	Separation Factor	Warning
0.0	0.0	0.0	0.0	0.0	0.0	71.08	1,479.9	4,317.5	4,564.1				
98.4	98.4	77.4	77.4	0.1	0.0	71.08	1,480.1	4,317.4	4,564.1	4,564.0	0.10	N/A	
100.0	100.0	79.0	79.0	0.1	0.0	71.08	1,480.1	4,317.4	4,564.1	4,564.0	0.10	N/A	
196.8	196.8	182.1	182.1	0.3	0.1	71.07	1,480.9	4,317.1	4,564.1	4,563.7	0.40	N/A	
200.0	200.0	185.6	185.6	0.3	0.1	71.07	1,480.9	4,317.1	4,564.1	4,563.7	0.41	N/A	
295.3	295.3	291.4	291.4	0.5	0.2	71.06	1,481.4	4,316.7	4,563.9	4,563.1	0.76	5,992.915	
300.0	300.0	296.7	296.7	0.5	0.2	71.06	1,481.4	4,316.7	4,563.8	4,563.1	0.78	5,856.906	
368.7	368.7	348.7	348.7	0.7	0.3	71.05	1,481.7	4,316.5	4,563.7	4,562.7	0.97	4,693.751	
393.7	393.7	367.2	367.2	0.8	0.3	71.05	1,481.9	4,316.4	4,563.7	4,562.7	1.04	4,381.757	
400.0	400.0	371.9	371.9	0.8	0.3	71.05	1,481.9	4,316.4	4,563.7	4,562.7	1.06	4,309.591	
492.1	492.1	458.8	458.8	1.0	0.3	71.04	1,482.7	4,316.4	4,564.0	4,562.7	1.33	3,440.105	
500.0	500.0	467.3	467.3	1.0	0.4	71.04	1,482.8	4,316.4	4,564.0	4,562.7	1.35	3,379.889	
590.5	590.5	557.7	557.7	1.2	0.4	71.03	1,483.4	4,316.5	4,564.3	4,562.7	1.60	2,850.873	
600.0	600.0	566.8	566.8	1.2	0.4	71.03	1,483.5	4,316.5	4,564.3	4,562.7	1.63	2,806.943	
689.0	689.0	690.3	690.3	1.4	0.4	71.03	1,483.8	4,316.4	4,564.4	4,562.5	1.85	2,463.116	
700.0	700.0	700.0	700.0	1.4	0.4	71.03	1,483.8	4,316.4	4,564.3	4,562.4	1.88	2,428.794	
787.4	787.4	769.4	769.4	1.6	0.5	71.02	1,484.1	4,316.0	4,564.1	4,562.0	2.11	2,167.091	
795.5	795.5	775.5	775.5	1.7	0.5	71.02	1,484.1	4,316.0	4,564.1	4,561.9	2.13	2,145.883	
800.0	800.0	778.9	778.9	1.7	0.5	71.02	1,484.2	4,316.0	4,564.1	4,561.9	2.14	2,134.184	
885.8	885.8	862.6	862.6	1.9	0.5	71.02	1,484.7	4,315.9	4,564.2	4,561.8	2.37	1,923.577	
900.0	900.0	878.0	878.0	1.9	0.5	71.02	1,484.7	4,315.9	4,564.2	4,561.8	2.41	1,891.902	
984.2	984.2	983.1	983.1	2.1	0.6	71.01	1,485.1	4,315.6	4,564.0	4,561.4	2.64	1,725.611	
1,000.0	1,000.0	1,000.0	1,000.0	2.1	0.6	71.01	1,485.1	4,315.6	4,564.0	4,561.3	2.69	1,698.670	
1,082.7	1,082.7	1,066.5	1,066.4	2.3	0.6	71.01	1,485.2	4,315.3	4,563.7	4,560.8	2.89	1,577.408	
1,099.7	1,099.7	1,079.7	1,079.7	2.3	0.6	71.01	1,485.2	4,315.3	4,563.7	4,560.8	2.94	1,554.679	
1,100.0	1,100.0	1,079.9	1,079.9	2.3	0.6	71.01	1,485.2	4,315.3	4,563.7	4,560.8	2.94	1,554.237	
1,181.1	1,181.1	1,148.4	1,148.3	2.5	0.6	71.00	1,485.5	4,315.3	4,563.9	4,560.7	3.14	1,452.908	
1,200.0	1,200.0	1,164.9	1,164.9	2.6	0.6	71.00	1,485.6	4,315.3	4,563.9	4,560.7	3.19	1,431.025	
1,279.5	1,279.5	1,239.5	1,239.5	2.7	0.7	71.00	1,485.8	4,315.6	4,564.2	4,560.9	3.39	1,345.208	
1,300.0	1,300.0	1,260.0	1,260.0	2.8	0.7	71.00	1,485.9	4,315.7	4,564.3	4,560.9	3.45	1,324.594	
1,377.9	1,377.9	1,335.8	1,335.8	3.0	0.7	-47.66	1,486.2	4,315.9	4,564.0	4,560.4	3.59	1,270.935	
1,400.0	1,400.0	1,356.5	1,356.5	3.0	0.7	-47.68	1,486.2	4,316.0	4,563.6	4,560.0	3.64	1,252.491	
1,476.4	1,476.3	1,431.9	1,431.9	3.1	0.7	-47.74	1,486.4	4,316.4	4,561.6	4,557.7	3.82	1,195.203	
1,500.0	1,499.8	1,456.9	1,456.9	3.2	0.7	-47.77	1,486.5	4,316.5	4,560.6	4,556.8	3.87	1,178.270	
1,574.8	1,574.4	1,528.3	1,528.2	3.3	0.8	-47.88	1,486.7	4,316.8	4,556.8	4,552.8	4.05	1,126.330	
1,600.0	1,599.5	1,549.2	1,549.1	3.4	0.8	-47.93	1,486.8	4,316.9	4,555.3	4,551.2	4.10	1,110.008	
1,673.2	1,672.2	1,611.3	1,611.3	3.6	0.8	-48.07	1,487.0	4,317.3	4,550.1	4,545.8	4.29	1,061.756	
1,700.0	1,698.7	1,636.9	1,636.9	3.6	0.8	-48.14	1,487.1	4,317.5	4,547.9	4,543.6	4.35	1,044.835	
1,771.6	1,769.5	1,706.9	1,706.8	3.8	0.8	-48.34	1,487.6	4,318.1	4,541.3	4,536.8	4.55	998.794	
1,800.0	1,797.5	1,741.7	1,741.7	3.9	0.8	-48.44	1,487.9	4,318.3	4,538.4	4,533.8	4.63	980.933	
1,870.1	1,866.3	1,819.1	1,819.1	4.1	0.9	-48.71	1,488.7	4,318.5	4,530.1	4,525.3	4.84	936.374	
1,900.2	1,895.8	1,844.8	1,844.7	4.2	0.9	-48.83	1,489.1	4,318.6	4,526.3	4,521.3	4.93	918.565	
1,968.5	1,962.6	1,903.5	1,903.4	4.4	0.9	-48.95	1,489.9	4,318.8	4,517.3	4,512.2	5.14	879.126	
2,000.0	1,993.4	1,936.7	1,936.6	4.5	0.9	-49.02	1,490.4	4,318.9	4,513.3	4,508.0	5.24	861.630	
2,066.9	2,058.9	2,008.1	2,008.0	4.7	0.9	-49.18	1,491.7	4,319.0	4,504.5	4,499.1	5.46	824.949	
2,100.0	2,091.2	2,047.2	2,047.1	4.8	1.0	-49.27	1,492.4	4,319.0	4,500.2	4,494.6	5.57	807.609	
2,165.3	2,155.2	2,100.0	2,099.9	5.1	1.0	-49.39	1,493.3	4,318.9	4,491.5	4,485.7	5.79	775.500	
2,200.0	2,189.1	2,138.3	2,138.2	5.2	1.0	-49.47	1,493.9	4,318.9	4,487.0	4,481.0	5.91	758.771	
2,263.8	2,251.4	2,182.4	2,182.3	5.5	1.0	-49.57	1,494.7	4,319.0	4,478.8	4,472.7	6.13	730.209	
2,300.0	2,286.9	2,210.7	2,210.6	5.6	1.0	-49.64	1,495.3	4,319.2	4,474.3	4,468.0	6.26	714.732	
2,362.2	2,347.7	2,272.4	2,272.3	5.8	1.0	-49.78	1,496.6	4,319.5	4,466.6	4,460.1	6.49	688.548	
2,400.0	2,384.7	2,300.0	2,299.9	6.0	1.1	-49.84	1,497.2	4,319.6	4,461.9	4,455.3	6.62	673.733	

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

Anticollision Report



Company:	PDC ENERGY	Local Co-ordinate Reference:	Well WACKER 10G-214
Project:	WELD COUNTY, COLORADO	TVD Reference:	KB-EST @ 4624.0usft (Original Well Elev)
Reference Site:	SW NW SEC. 10 T5N R64W 6th P.M.	MD Reference:	KB-EST @ 4624.0usft (Original Well Elev)
Site Error:	0.0 usft	North Reference:	True
Reference Well:	WACKER 10G-214	Survey Calculation Method:	Minimum Curvature
Well Error:	0.0 usft	Output errors are at	2.00 sigma
Reference Wellbore	ORIGINAL WELLBORE	Database:	EDM 5000.1 Single User Db
Reference Design:	PROPOSAL #1	Offset TVD Reference:	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	2,444.0	2,355.8	2,355.7	6.2	1.1	-49.97	1,498.5	4,320.0	4,454.6	4,447.7	6.85	650.406		
2,500.0	2,482.5	2,387.0	2,386.8	6.4	1.1	-50.04	1,499.2	4,320.2	4,449.9	4,442.9	6.99	636.155		
2,559.0	2,540.3	2,437.2	2,437.0	6.6	1.1	-50.16	1,500.4	4,320.7	4,443.0	4,435.7	7.22	615.485		
2,600.0	2,580.3	2,472.9	2,472.7	6.8	1.1	-50.24	1,501.4	4,321.1	4,438.2	4,430.9	7.37	601.816		
2,657.5	2,636.5	2,522.9	2,522.7	7.1	1.1	-50.36	1,502.7	4,321.7	4,431.7	4,424.1	7.60	583.350		
2,700.0	2,678.1	2,559.7	2,559.4	7.2	1.2	-50.45	1,503.8	4,322.1	4,426.9	4,419.1	7.76	570.323		
2,755.9	2,732.8	2,610.3	2,610.1	7.5	1.2	-50.57	1,505.2	4,322.8	4,420.7	4,412.7	7.98	553.787		
2,800.0	2,775.9	2,659.2	2,659.0	7.7	1.2	-50.68	1,506.6	4,323.5	4,415.8	4,407.6	8.16	541.091		
2,854.3	2,829.1	2,700.0	2,699.7	7.9	1.2	-50.78	1,507.8	4,323.9	4,409.8	4,401.4	8.38	526.493		
2,900.0	2,873.8	2,740.2	2,739.9	8.1	1.2	-50.88	1,509.0	4,324.5	4,404.8	4,396.2	8.56	514.687		
2,952.7	2,925.4	2,773.7	2,773.4	8.3	1.2	-50.96	1,510.0	4,325.1	4,399.2	4,390.5	8.77	501.858		
2,953.5	2,926.1	2,774.2	2,773.9	8.3	1.2	-50.96	1,510.0	4,325.1	4,399.2	4,390.4	8.77	501.685		
3,000.0	2,971.6	2,800.0	2,799.7	8.5	1.2	-50.95	1,510.9	4,325.6	4,394.7	4,385.8	8.92	492.437		
3,051.2	3,022.0	2,840.3	2,839.9	8.7	1.3	-50.97	1,512.4	4,326.5	4,390.6	4,381.5	9.07	483.897		
3,100.0	3,070.1	2,874.8	2,874.4	8.8	1.3	-50.99	1,513.8	4,327.4	4,387.3	4,378.1	9.21	476.122		
3,149.6	3,119.1	2,915.3	2,914.8	8.9	1.3	-51.03	1,515.7	4,328.4	4,384.7	4,375.3	9.35	468.902		
3,200.0	3,169.1	2,970.5	2,969.9	9.1	1.3	-51.10	1,518.3	4,329.8	4,382.6	4,373.1	9.50	461.549		
3,248.0	3,216.8	3,030.4	3,029.8	9.2	1.3	-51.17	1,521.0	4,331.3	4,381.0	4,371.4	9.63	455.165		
3,300.0	3,268.5	3,109.7	3,109.0	9.3	1.4	-51.26	1,524.3	4,332.9	4,379.7	4,369.9	9.77	448.253		
3,346.4	3,314.8	3,215.5	3,214.7	9.4	1.4	-51.36	1,527.5	4,334.4	4,378.5	4,368.6	9.90	442.236		
3,400.0	3,368.3	3,282.8	3,282.0	9.6	1.4	-51.39	1,528.6	4,335.1	4,377.2	4,367.2	10.03	436.375		
3,444.9	3,413.1	3,341.8	3,341.0	9.6	1.4	-51.41	1,529.3	4,335.7	4,376.6	4,366.4	10.13	432.051		
3,500.0	3,468.2	3,415.1	3,414.3	9.7	1.5	-51.43	1,529.7	4,336.4	4,376.1	4,365.9	10.25	426.888		
3,526.5	3,494.7	3,449.5	3,448.7	9.8	1.5	-51.43	1,529.8	4,336.6	4,376.1	4,365.8	10.30	424.667		
3,543.3	3,511.5	3,471.5	3,470.6	9.8	1.5	-51.44	1,529.8	4,336.7	4,376.1	4,365.8	10.34	423.272		
3,553.7	3,521.9	3,485.0	3,484.2	9.8	1.5	67.21	1,529.9	4,336.7	4,376.1	4,366.2	9.93	440.790		
3,600.0	3,568.2	3,545.6	3,544.8	9.9	1.5	67.21	1,529.9	4,336.9	4,376.3	4,366.2	10.01	437.145		
3,641.7	3,609.9	3,600.0	3,599.2	10.0	1.5	67.21	1,529.8	4,336.9	4,376.2	4,366.1	10.09	433.839		
3,700.0	3,668.2	3,652.5	3,651.7	10.1	1.5	67.22	1,529.6	4,336.9	4,376.1	4,365.9	10.20	429.235		
3,734.2	3,702.4	3,683.2	3,682.4	10.1	1.5	67.22	1,529.5	4,336.9	4,376.1	4,365.9	10.26	426.555		
3,740.1	3,708.4	3,688.6	3,687.7	10.1	1.5	67.22	1,529.5	4,336.9	4,376.1	4,365.9	10.27	426.090		
3,800.0	3,768.2	3,751.1	3,750.3	10.2	1.5	67.22	1,529.4	4,336.9	4,376.1	4,365.7	10.38	421.505		
3,838.6	3,806.8	3,793.0	3,792.2	10.3	1.5	67.22	1,529.4	4,336.9	4,376.1	4,365.6	10.45	418.572		
3,900.0	3,868.2	3,857.6	3,856.8	10.4	1.5	67.22	1,529.4	4,336.8	4,376.0	4,365.4	10.58	413.749		
3,937.0	3,905.2	3,896.4	3,895.6	10.5	1.5	67.22	1,529.3	4,336.8	4,375.9	4,365.3	10.65	410.856		
4,000.0	3,968.2	3,960.8	3,960.0	10.6	1.5	67.22	1,529.1	4,336.7	4,375.8	4,365.0	10.78	406.073		
4,035.4	4,003.6	3,997.0	3,996.2	10.6	1.5	67.22	1,529.0	4,336.6	4,375.7	4,364.8	10.85	403.413		
4,086.8	4,055.0	4,035.8	4,035.0	10.7	1.5	67.22	1,528.9	4,336.6	4,375.6	4,364.6	10.94	399.794		
4,100.0	4,068.2	4,045.6	4,044.7	10.7	1.5	67.22	1,528.9	4,336.6	4,375.6	4,364.6	10.97	398.877		
4,133.8	4,102.1	4,070.6	4,069.8	10.8	1.5	67.22	1,528.8	4,336.7	4,375.6	4,364.6	11.03	396.534		
4,200.0	4,168.2	4,133.9	4,133.1	10.9	1.5	67.23	1,528.7	4,337.0	4,375.9	4,364.8	11.16	391.957		
4,232.3	4,200.5	4,175.5	4,174.7	11.0	1.5	67.23	1,528.7	4,337.1	4,376.0	4,364.8	11.23	389.674		
4,300.0	4,268.2	4,251.1	4,250.3	11.1	1.5	67.23	1,528.8	4,337.1	4,376.0	4,364.6	11.38	384.606		
4,330.7	4,298.9	4,283.3	4,282.5	11.1	1.5	67.23	1,528.8	4,337.0	4,376.0	4,364.5	11.45	382.275		
4,365.0	4,333.2	4,314.1	4,313.2	11.2	1.5	67.23	1,528.9	4,337.0	4,376.0	4,364.4	11.52	379.838		
4,400.0	4,368.2	4,340.7	4,339.9	11.3	1.5	67.22	1,528.9	4,337.0	4,376.0	4,364.4	11.59	377.515		
4,429.1	4,397.3	4,363.0	4,362.2	11.3	1.5	67.22	1,528.9	4,337.0	4,376.1	4,364.4	11.65	375.592		
4,500.0	4,468.2	4,442.1	4,441.3	11.4	1.5	67.22	1,529.1	4,337.3	4,376.4	4,364.6	11.80	370.959		
4,527.5	4,495.8	4,494.1	4,493.3	11.5	1.5	67.22	1,529.2	4,337.2	4,376.4	4,364.5	11.86	369.126		
4,600.0	4,568.2	4,608.7	4,607.9	11.6	1.5	67.21	1,529.9	4,335.8	4,375.6	4,363.6	12.03	363.765		
4,626.0	4,594.2	4,631.6	4,630.8	11.7	1.5	67.20	1,530.0	4,335.4	4,375.3	4,363.2	12.08	362.050		
4,700.0	4,668.2	4,700.0	4,699.2	11.8	1.5	67.20	1,530.0	4,334.5	4,374.4	4,362.2	12.24	357.242		

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

Anticollision Report



Company:	PDC ENERGY	Local Co-ordinate Reference:	Well WACKER 10G-214
Project:	WELD COUNTY, COLORADO	TVD Reference:	KB-EST @ 4624.0usft (Original Well Elev)
Reference Site:	SW NW SEC. 10 T5N R64W 6th P.M.	MD Reference:	KB-EST @ 4624.0usft (Original Well Elev)
Site Error:	0.0 usft	North Reference:	True
Reference Well:	WACKER 10G-214	Survey Calculation Method:	Minimum Curvature
Well Error:	0.0 usft	Output errors are at	2.00 sigma
Reference Wellbore	ORIGINAL WELLBORE	Database:	EDM 5000.1 Single User Db
Reference Design:	PROPOSAL #1	Offset TVD Reference:	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		
4,724.4	4,692.6	4,722.3	4,721.5	11.9	1.5	67.20	1,529.9	4,334.3	4,374.2	4,361.9	12.30	355.686		
4,800.0	4,768.2	4,803.5	4,802.6	12.0	1.5	67.20	1,529.7	4,333.3	4,373.3	4,360.8	12.46	350.900		
4,822.8	4,791.0	4,827.1	4,826.3	12.0	1.5	67.20	1,529.7	4,333.0	4,373.0	4,360.5	12.51	349.468		
4,900.0	4,868.2	4,906.2	4,905.3	12.2	1.6	67.19	1,529.4	4,332.0	4,372.0	4,359.3	12.68	344.725		
4,921.2	4,889.5	4,925.4	4,924.6	12.2	1.6	67.19	1,529.3	4,331.8	4,371.7	4,359.0	12.73	343.457		
5,000.0	4,968.2	5,000.0	4,999.1	12.4	1.6	67.19	1,529.0	4,331.0	4,370.8	4,357.9	12.90	338.841		
5,019.7	4,987.9	5,015.9	5,015.1	12.4	1.6	67.19	1,528.9	4,330.8	4,370.6	4,357.6	12.94	337.723		
5,100.0	5,068.2	5,095.9	5,095.0	12.6	1.6	67.20	1,528.5	4,330.1	4,369.7	4,356.6	13.11	333.194		
5,118.1	5,086.3	5,111.9	5,111.1	12.6	1.6	67.20	1,528.4	4,329.9	4,369.5	4,356.4	13.15	332.209		
5,200.0	5,168.2	5,181.7	5,180.8	12.7	1.6	67.20	1,527.9	4,329.5	4,368.8	4,355.5	13.32	327.865		
5,216.5	5,184.7	5,200.0	5,199.1	12.8	1.6	67.20	1,527.7	4,329.4	4,368.7	4,355.3	13.36	326.995		
5,300.0	5,268.2	5,311.4	5,310.5	12.9	1.6	67.21	1,526.9	4,328.5	4,367.8	4,354.3	13.54	322.571		
5,314.9	5,283.2	5,339.4	5,338.6	13.0	1.6	67.21	1,526.7	4,328.1	4,367.6	4,354.0	13.58	321.719		
5,400.0	5,368.2	5,447.6	5,446.7	13.1	1.6	67.21	1,525.6	4,326.0	4,365.7	4,351.9	13.76	317.212		
5,413.4	5,381.6	5,459.7	5,458.8	13.2	1.6	67.21	1,525.5	4,325.8	4,365.4	4,351.6	13.79	316.518		
5,500.0	5,468.2	5,547.8	5,546.8	13.3	1.6	67.21	1,524.6	4,324.1	4,363.5	4,349.5	13.98	312.064		
5,511.8	5,480.0	5,561.2	5,560.2	13.3	1.6	67.21	1,524.5	4,323.8	4,363.3	4,349.2	14.01	311.460		
5,600.0	5,568.2	5,648.9	5,647.9	13.5	1.6	67.21	1,523.7	4,321.9	4,361.2	4,347.0	14.20	307.041		
5,610.2	5,578.4	5,658.2	5,657.2	13.5	1.6	67.21	1,523.6	4,321.7	4,360.9	4,346.7	14.23	306.538		
5,700.0	5,668.2	5,745.3	5,744.4	13.7	1.6	67.21	1,523.0	4,319.9	4,359.0	4,344.5	14.43	302.160		
5,708.6	5,676.9	5,754.3	5,753.4	13.7	1.6	67.21	1,523.0	4,319.7	4,358.8	4,344.3	14.45	301.740		
5,800.0	5,768.2	5,850.9	5,849.9	13.9	1.6	67.20	1,522.6	4,317.4	4,356.7	4,342.1	14.65	297.347		
5,807.1	5,775.3	5,858.5	5,857.5	13.9	1.6	67.20	1,522.6	4,317.3	4,356.5	4,341.9	14.67	297.009		
5,900.0	5,868.2	5,969.2	5,968.2	14.1	1.6	67.18	1,522.9	4,314.1	4,354.2	4,339.3	14.88	292.549		
5,905.5	5,873.7	5,976.2	5,975.2	14.1	1.6	67.18	1,522.9	4,313.9	4,354.1	4,339.2	14.90	292.284		
5,960.7	5,928.9	6,030.3	6,029.2	14.2	1.7	67.16	1,523.6	4,311.9	4,352.5	4,337.5	15.02	289.691		
5,981.5	5,949.7	6,047.5	6,046.4	14.3	1.7	157.16	1,524.0	4,311.3	4,352.2	4,337.0	15.18	286.747 CC, ES		
6,000.0	5,968.2	6,062.8	6,061.7	14.3	1.7	157.15	1,524.3	4,310.7	4,352.4	4,337.2	15.21	286.087		
6,003.9	5,972.1	6,066.1	6,064.9	14.3	1.7	157.15	1,524.4	4,310.6	4,352.5	4,337.3	15.22	285.952		
6,050.0	6,018.0	6,112.0	6,110.8	14.4	1.7	157.06	1,525.7	4,308.8	4,355.3	4,340.0	15.33	284.038		
6,100.0	6,067.3	6,212.4	6,210.9	14.4	1.7	156.87	1,531.1	4,303.0	4,361.0	4,345.5	15.50	281.433		
6,102.3	6,069.6	6,214.7	6,213.2	14.4	1.7	156.86	1,531.2	4,302.8	4,361.3	4,345.8	15.50	281.320		
6,150.0	6,116.0	6,260.4	6,258.6	14.4	1.7	156.59	1,534.6	4,299.6	4,369.6	4,354.0	15.66	279.044		
6,200.0	6,163.8	6,307.1	6,305.1	14.5	1.7	156.21	1,538.2	4,296.2	4,381.4	4,365.6	15.82	276.990		
6,200.8	6,164.5	6,307.8	6,305.8	14.5	1.7	156.20	1,538.2	4,296.1	4,381.6	4,365.8	15.82	276.963		
6,250.0	6,210.4	6,350.1	6,347.8	14.5	1.8	155.73	1,541.4	4,293.1	4,396.3	4,380.4	15.96	275.423		
6,299.2	6,254.9	6,391.2	6,388.7	14.5	1.8	155.15	1,544.3	4,290.3	4,414.0	4,397.9	16.08	274.434		
6,300.0	6,255.6	6,391.9	6,389.4	14.5	1.8	155.14	1,544.3	4,290.3	4,414.3	4,398.2	16.09	274.422		
6,350.0	6,299.3	6,433.9	6,431.3	14.5	1.8	154.43	1,547.0	4,287.6	4,435.3	4,419.1	16.19	273.948		
6,397.6	6,339.2	6,472.8	6,470.0	14.6	1.8	153.62	1,549.3	4,285.2	4,457.8	4,441.6	16.27	273.922		
6,400.0	6,341.2	6,474.7	6,471.9	14.6	1.8	153.58	1,549.4	4,285.1	4,459.0	4,442.8	16.28	273.932		
6,450.0	6,381.0	6,500.0	6,497.1	14.6	1.8	152.52	1,550.7	4,283.6	4,485.6	4,469.2	16.35	274.416		
6,496.0	6,415.8	6,535.7	6,532.8	14.7	1.8	151.41	1,552.5	4,281.7	4,512.4	4,495.9	16.42	274.751		
6,500.0	6,418.7	6,537.8	6,534.9	14.7	1.8	151.30	1,552.6	4,281.6	4,514.8	4,498.3	16.43	274.798		
6,550.0	6,453.9	6,563.7	6,560.7	14.8	1.8	149.81	1,553.8	4,280.3	4,546.5	4,530.0	16.53	275.129		
6,594.5	6,483.1	6,600.0	6,596.9	15.0	1.8	148.32	1,555.2	4,278.7	4,576.8	4,560.1	16.66	274.728		
6,600.0	6,486.6	6,600.0	6,596.9	15.1	1.8	148.09	1,555.2	4,278.7	4,580.7	4,564.0	16.67	274.712		
6,650.0	6,516.6	6,600.0	6,596.9	15.3	1.8	145.78	1,555.2	4,278.7	4,617.0	4,600.1	16.87	273.681		
6,692.9	6,540.0	6,628.2	6,625.1	15.7	1.8	143.67	1,556.3	4,277.5	4,649.8	4,632.6	17.15	271.185		
6,700.0	6,543.7	6,631.1	6,628.0	15.7	1.8	143.27	1,556.4	4,277.4	4,655.4	4,638.2	17.20	270.711		
6,750.0	6,567.8	6,649.8	6,646.7	16.2	1.8	140.11	1,557.0	4,276.7	4,695.5	4,677.9	17.65	265.982		
6,791.3	6,585.4	6,663.6	6,660.4	16.7	1.8	136.98	1,557.5	4,276.2	4,730.0	4,711.8	18.16	260.489		

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

Anticollision Report



Company:	PDC ENERGY	Local Co-ordinate Reference:	Well WACKER 10G-214
Project:	WELD COUNTY, COLORADO	TVD Reference:	KB-EST @ 4624.0usft (Original Well Elev)
Reference Site:	SW NW SEC. 10 T5N R64W 6th P.M.	MD Reference:	KB-EST @ 4624.0usft (Original Well Elev)
Site Error:	0.0 usft	North Reference:	True
Reference Well:	WACKER 10G-214	Survey Calculation Method:	Minimum Curvature
Well Error:	0.0 usft	Output errors are at	2.00 sigma
Reference Wellbore	ORIGINAL WELLBORE	Database:	EDM 5000.1 Single User Db
Reference Design:	PROPOSAL #1	Offset TVD Reference:	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
6,800.0	6,588.8	6,666.2	6,663.1	16.8	1.8	136.25	1,557.6	4,276.1	4,737.3	4,719.0	18.27	259.229	
6,850.0	6,606.6	6,680.3	6,677.1	17.4	1.8	131.52	1,558.1	4,275.6	4,780.5	4,761.4	19.07	250.684	
6,889.7	6,618.4	6,700.0	6,696.8	18.0	1.8	127.20	1,558.8	4,275.0	4,815.7	4,795.9	19.82	243.022	
6,900.0	6,621.1	6,700.0	6,696.8	18.2	1.8	125.88	1,558.8	4,275.0	4,824.9	4,804.9	20.02	241.048	
6,950.0	6,632.2	6,700.0	6,696.8	19.0	1.8	118.60	1,558.8	4,275.0	4,870.2	4,849.2	21.05	231.401	
6,988.2	6,638.4	6,707.6	6,704.4	19.7	1.8	112.31	1,559.1	4,274.7	4,905.4	4,883.6	21.81	224.863	
7,000.0	6,639.9	6,709.2	6,706.0	19.9	1.8	110.19	1,559.2	4,274.7	4,916.3	4,894.3	22.03	223.157	
7,050.0	6,644.1	6,714.2	6,711.0	20.8	1.8	100.44	1,559.3	4,274.5	4,962.9	4,940.1	22.85	217.237	
7,086.5	6,645.0	6,716.0	6,712.8	21.5	1.8	92.70	1,559.4	4,274.5	4,997.2	4,973.8	23.38	213.730	
7,100.0	6,645.0	6,716.3	6,713.1	21.8	1.8	92.71	1,559.4	4,274.5	5,009.8	4,986.1	23.65	211.862	
7,185.0	6,644.9	6,718.5	6,715.3	23.6	1.8	92.78	1,559.5	4,274.4	5,089.7	5,064.3	25.41	200.334	
7,200.0	6,644.8	6,718.9	6,715.7	23.9	1.8	92.79	1,559.5	4,274.4	5,103.8	5,078.1	25.72	198.468	
7,283.4	6,644.7	6,721.0	6,717.8	25.7	1.8	92.86	1,559.6	4,274.3	5,182.4	5,154.8	27.56	188.056	
7,300.0	6,644.7	6,721.4	6,718.2	26.1	1.8	92.88	1,559.6	4,274.3	5,198.0	5,170.1	27.92	186.154	
7,381.9	6,644.6	6,723.5	6,720.2	28.0	1.8	92.94	1,559.6	4,274.2	5,275.3	5,245.5	29.82	176.922	
7,400.0	6,644.6	6,723.9	6,720.7	28.4	1.8	92.96	1,559.7	4,274.2	5,292.4	5,262.2	30.24	175.035	
7,480.3	6,644.5	6,725.9	6,722.7	30.3	1.8	93.03	1,559.7	4,274.2	5,368.4	5,336.2	32.16	166.927	
7,500.0	6,644.4	6,726.4	6,723.2	30.8	1.8	93.04	1,559.7	4,274.1	5,387.0	5,354.4	32.63	165.085	
7,578.7	6,644.3	6,730.0	6,726.8	32.7	1.8	93.16	1,559.9	4,274.0	5,461.7	5,427.1	34.57	157.992	
7,600.0	6,644.3	6,730.0	6,726.8	33.3	1.8	93.16	1,559.9	4,274.0	5,481.9	5,446.8	35.09	156.213	
7,677.1	6,644.2	6,730.0	6,726.8	35.2	1.8	93.16	1,559.9	4,274.0	5,555.1	5,518.1	37.03	150.023	
7,700.0	6,644.1	6,730.0	6,726.8	35.8	1.8	93.16	1,559.9	4,274.0	5,576.9	5,539.3	37.60	148.312	
7,775.6	6,644.0	6,730.0	6,726.8	37.7	1.8	93.16	1,559.9	4,274.0	5,648.8	5,609.2	39.53	142.898	
7,800.0	6,644.0	6,730.0	6,726.8	38.3	1.8	93.16	1,559.9	4,274.0	5,672.0	5,631.9	40.15	141.259	
7,874.0	6,643.9	6,730.0	6,726.8	40.2	1.8	93.16	1,559.9	4,274.0	5,742.5	5,700.5	42.07	136.513	
7,900.0	6,643.9	6,730.0	6,726.8	40.9	1.8	93.16	1,559.9	4,274.0	5,767.3	5,724.6	42.74	134.947	
7,972.4	6,643.8	6,730.0	6,726.8	42.8	1.8	93.16	1,559.9	4,274.0	5,836.5	5,791.9	44.63	130.776	
8,000.0	6,643.7	6,730.0	6,726.8	43.5	1.8	93.16	1,559.9	4,274.0	5,862.8	5,817.5	45.35	129.280	
8,070.8	6,643.6	6,730.0	6,726.8	45.4	1.8	93.16	1,559.9	4,274.0	5,930.6	5,883.4	47.22	125.603	
8,100.0	6,643.6	6,730.0	6,726.8	46.2	1.8	93.16	1,559.9	4,274.0	5,958.5	5,910.5	47.98	124.174	
8,169.3	6,643.5	6,730.0	6,726.8	48.0	1.8	93.16	1,559.9	4,274.0	6,024.8	5,975.0	49.82	120.923	
8,200.0	6,643.5	6,730.0	6,726.8	48.8	1.8	93.17	1,559.9	4,274.0	6,054.2	6,003.6	50.64	119.557	
8,267.7	6,643.4	6,730.0	6,726.8	50.6	1.8	93.17	1,559.9	4,274.0	6,119.2	6,066.7	52.45	116.673	
8,300.0	6,643.3	6,730.0	6,726.8	51.5	1.8	93.17	1,559.9	4,274.0	6,150.1	6,096.8	53.31	115.367	
8,366.1	6,643.2	6,730.0	6,726.8	53.3	1.8	93.17	1,559.9	4,274.0	6,213.6	6,158.6	55.08	112.802	
8,400.0	6,643.2	6,730.0	6,726.8	54.2	1.8	93.17	1,559.9	4,274.0	6,246.2	6,190.2	55.99	111.552	
8,464.5	6,643.1	6,730.0	6,726.8	55.9	1.8	93.17	1,559.9	4,274.0	6,308.2	6,250.5	57.73	109.264	
8,500.0	6,643.1	6,730.0	6,726.8	56.9	1.8	93.17	1,559.9	4,274.0	6,342.3	6,283.7	58.69	108.066	
8,563.0	6,643.0	6,730.0	6,726.8	58.6	1.8	93.17	1,559.9	4,274.0	6,403.0	6,342.6	60.39	106.020	
8,600.0	6,642.9	6,730.0	6,726.8	59.6	1.8	93.17	1,559.9	4,274.0	6,438.6	6,377.2	61.40	104.871	
8,661.4	6,642.8	6,730.0	6,726.8	61.3	1.8	93.17	1,559.9	4,274.0	6,497.8	6,434.7	63.06	103.037	
8,700.0	6,642.8	6,730.0	6,726.8	62.3	1.8	93.17	1,559.9	4,274.0	6,535.0	6,470.9	64.11	101.933	
8,759.8	6,642.7	6,730.0	6,726.8	64.0	1.8	93.17	1,559.9	4,274.0	6,592.7	6,527.0	65.74	100.285	
8,800.0	6,642.7	6,730.0	6,726.8	65.1	1.8	93.17	1,559.9	4,274.0	6,631.5	6,564.7	66.83	99.224	
8,858.2	6,642.6	6,730.0	6,726.8	66.6	1.8	93.17	1,559.9	4,274.0	6,687.8	6,619.3	68.42	97.740	
8,900.0	6,642.5	6,730.0	6,726.8	67.8	1.8	93.17	1,559.9	4,274.0	6,728.1	6,658.5	69.56	96.719	
8,956.7	6,642.4	6,730.0	6,726.8	69.3	1.8	93.17	1,559.9	4,274.0	6,782.9	6,711.8	71.11	95.381	
9,000.0	6,642.4	6,730.0	6,726.8	70.5	1.8	93.17	1,559.9	4,274.0	6,824.8	6,752.5	72.30	94.397	
9,055.1	6,642.3	6,730.0	6,726.8	72.0	1.8	93.17	1,559.9	4,274.0	6,878.1	6,804.3	73.81	93.187	
9,100.0	6,642.3	6,730.0	6,726.8	73.3	1.8	93.17	1,559.9	4,274.0	6,921.6	6,846.5	75.04	92.238	
9,153.5	6,642.2	6,730.0	6,726.8	74.7	1.8	93.17	1,559.9	4,274.0	6,973.4	6,896.9	76.51	91.144	
9,200.0	6,642.1	6,730.0	6,726.8	76.0	1.8	93.17	1,559.9	4,274.0	7,018.5	6,940.7	77.79	90.228	

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

Anticollision Report



Company:	PDC ENERGY	Local Co-ordinate Reference:	Well WACKER 10G-214
Project:	WELD COUNTY, COLORADO	TVD Reference:	KB-EST @ 4624.0usft (Original Well Elev)
Reference Site:	SW NW SEC. 10 T5N R64W 6th P.M.	MD Reference:	KB-EST @ 4624.0usft (Original Well Elev)
Site Error:	0.0 usft	North Reference:	True
Reference Well:	WACKER 10G-214	Survey Calculation Method:	Minimum Curvature
Well Error:	0.0 usft	Output errors are at	2.00 sigma
Reference Wellbore	ORIGINAL WELLBORE	Database:	EDM 5000.1 Single User Db
Reference Design:	PROPOSAL #1	Offset TVD Reference:	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	
9,251.9	6,642.1	6,730.0	6,726.8	77.5	1.8	93.17	1,559.9	4,274.0	7,068.8	6,989.6	79.22	89.236	
9,300.0	6,642.0	6,730.0	6,726.8	78.8	1.8	93.17	1,559.9	4,274.0	7,115.4	7,034.9	80.54	88.350	
9,350.4	6,641.9	6,730.0	6,726.8	80.2	1.8	93.17	1,559.9	4,274.0	7,164.3	7,082.4	81.92	87.451	
9,400.0	6,641.9	6,730.0	6,726.8	81.5	1.8	93.17	1,559.9	4,274.0	7,212.5	7,129.2	83.29	86.594	
9,448.8	6,641.8	6,730.0	6,726.8	82.9	1.8	93.17	1,559.9	4,274.0	7,259.9	7,175.2	84.64	85.777	
9,500.0	6,641.7	6,730.0	6,726.8	84.3	1.8	93.17	1,559.9	4,274.0	7,309.6	7,223.6	86.05	84.948	
9,547.2	6,641.7	6,730.0	6,726.8	85.6	1.8	93.17	1,559.9	4,274.0	7,355.5	7,268.2	87.35	84.206	
9,600.0	6,641.6	6,730.0	6,726.8	87.1	1.8	93.18	1,559.9	4,274.0	7,406.8	7,318.0	88.81	83.402	
9,645.6	6,641.5	6,730.0	6,726.8	88.3	1.8	93.18	1,559.9	4,274.0	7,451.2	7,361.1	90.07	82.727	
9,700.0	6,641.5	6,730.0	6,726.8	89.8	1.8	93.18	1,559.9	4,274.0	7,504.1	7,412.5	91.57	81.947	
9,744.1	6,641.4	6,730.0	6,726.8	91.0	1.8	93.18	1,559.9	4,274.0	7,547.0	7,454.2	92.79	81.333	
9,800.0	6,641.3	6,730.0	6,726.8	92.6	1.8	93.18	1,559.9	4,274.0	7,601.4	7,507.1	94.34	80.576	
9,842.5	6,641.3	6,730.0	6,726.8	93.8	1.8	93.18	1,559.9	4,274.0	7,642.8	7,547.3	95.51	80.017	
9,900.0	6,641.2	6,730.0	6,726.8	95.4	1.8	93.18	1,559.9	4,274.0	7,698.9	7,601.7	97.11	79.282	
9,940.9	6,641.1	6,730.0	6,726.8	96.5	1.8	93.18	1,559.9	4,274.0	7,738.7	7,640.5	98.24	78.773	
10,000.0	6,641.1	6,730.0	6,726.8	98.1	1.8	93.18	1,559.9	4,274.0	7,796.3	7,696.5	99.88	78.059	
10,039.3	6,641.0	6,730.0	6,726.8	99.2	1.8	93.18	1,559.9	4,274.0	7,834.7	7,733.7	100.97	77.596	
10,100.0	6,640.9	6,730.0	6,726.8	100.9	1.8	93.18	1,559.9	4,274.0	7,893.9	7,791.2	102.65	76.901	
10,137.8	6,640.9	6,730.0	6,726.8	102.0	1.8	93.18	1,559.9	4,274.0	7,930.7	7,827.0	103.70	76.479	
10,200.0	6,640.8	6,730.0	6,726.8	103.7	1.8	93.18	1,559.9	4,274.0	7,991.5	7,886.1	105.42	75.803	
10,236.2	6,640.8	6,730.0	6,726.8	104.7	1.8	93.18	1,559.9	4,274.0	8,026.8	7,920.4	106.43	75.419	
10,300.0	6,640.7	6,730.0	6,726.8	106.5	1.8	93.18	1,559.9	4,274.0	8,089.2	7,981.0	108.20	74.761	
10,334.6	6,640.6	6,730.0	6,726.8	107.4	1.8	93.18	1,559.9	4,274.0	8,123.0	8,013.8	109.16	74.412	
10,400.0	6,640.6	6,730.0	6,726.8	109.3	1.8	93.18	1,559.9	4,274.0	8,186.9	8,075.9	110.98	73.770	
10,433.0	6,640.5	6,730.0	6,726.8	110.2	1.8	93.18	1,559.9	4,274.0	8,219.2	8,107.3	111.90	73.453	
10,500.0	6,640.4	6,730.0	6,726.8	112.0	1.8	93.18	1,559.9	4,274.0	8,284.6	8,170.9	113.76	72.827	
10,531.5	6,640.4	6,730.0	6,726.8	112.9	1.8	93.18	1,559.9	4,274.0	8,315.4	8,200.8	114.63	72.540	
10,600.0	6,640.3	6,730.0	6,726.8	114.8	1.8	93.18	1,559.9	4,274.0	8,382.5	8,265.9	116.54	71.929	
10,629.9	6,640.3	6,730.0	6,726.8	115.7	1.8	93.18	1,559.9	4,274.0	8,411.7	8,294.4	117.37	71.669	
10,700.0	6,640.2	6,730.0	6,726.8	117.6	1.8	93.18	1,559.9	4,274.0	8,480.4	8,361.0	119.32	71.073	
10,728.3	6,640.1	6,730.0	6,726.8	118.4	1.8	93.18	1,559.9	4,274.0	8,508.1	8,388.0	120.11	70.837	
10,800.0	6,640.0	6,730.0	6,726.8	120.4	1.8	93.19	1,559.9	4,274.0	8,578.3	8,456.2	122.10	70.255	
10,826.7	6,640.0	6,730.0	6,726.8	121.2	1.8	93.19	1,559.9	4,274.0	8,604.5	8,481.6	122.85	70.042	
10,900.0	6,639.9	6,730.0	6,726.8	123.2	1.8	93.19	1,559.9	4,274.0	8,676.3	8,551.4	124.89	69.473	
10,925.2	6,639.9	6,730.0	6,726.8	123.9	1.8	93.19	1,559.9	4,274.0	8,700.9	8,575.3	125.59	69.282	
11,000.0	6,639.8	6,730.0	6,726.8	126.0	1.8	93.19	1,559.9	4,274.0	8,774.3	8,646.6	127.67	68.726	
11,023.6	6,639.8	6,730.0	6,726.8	126.6	1.8	93.19	1,559.9	4,274.0	8,797.4	8,669.1	128.33	68.554	
11,100.0	6,639.7	6,730.0	6,726.8	128.8	1.8	93.19	1,559.9	4,274.0	8,872.3	8,741.9	130.46	68.010	
11,122.0	6,639.6	6,730.0	6,726.8	129.4	1.8	93.19	1,559.9	4,274.0	8,893.9	8,762.9	131.07	67.856	
11,200.0	6,639.5	6,730.0	6,726.8	131.6	1.8	93.19	1,559.9	4,274.0	8,970.4	8,837.2	133.24	67.324	
11,220.4	6,639.5	6,730.0	6,726.8	132.1	1.8	93.19	1,559.9	4,274.0	8,990.5	8,856.7	133.81	67.187	
11,300.0	6,639.4	6,730.0	6,726.8	134.4	1.8	93.19	1,559.9	4,274.0	9,068.6	8,932.6	136.03	66.666	
11,318.9	6,639.4	6,730.0	6,726.8	134.9	1.8	93.19	1,559.9	4,274.0	9,087.1	8,950.6	136.56	66.544	
11,400.0	6,639.3	6,730.0	6,726.8	137.1	1.8	93.19	1,559.9	4,274.0	9,166.8	9,028.0	138.82	66.034	
11,417.3	6,639.3	6,730.0	6,726.8	137.6	1.8	93.19	1,559.9	4,274.0	9,183.8	9,044.5	139.30	65.927	
11,500.0	6,639.2	6,730.0	6,726.8	139.9	1.8	93.19	1,559.9	4,274.0	9,265.0	9,123.4	141.61	65.427	
11,515.7	6,639.1	6,730.0	6,726.8	140.4	1.8	93.19	1,559.9	4,274.0	9,280.5	9,138.4	142.05	65.334	
11,600.0	6,639.0	6,730.0	6,726.8	142.7	1.8	93.19	1,559.9	4,274.0	9,363.3	9,218.9	144.40	64.843	
11,614.1	6,639.0	6,730.0	6,726.8	143.1	1.8	93.19	1,559.9	4,274.0	9,377.2	9,232.4	144.79	64.763	
11,700.0	6,638.9	6,730.0	6,726.8	145.5	1.8	93.19	1,559.9	4,274.0	9,461.6	9,314.4	147.19	64.282	
11,712.6	6,638.9	6,730.0	6,726.8	145.9	1.8	93.19	1,559.9	4,274.0	9,473.9	9,326.4	147.54	64.213	
11,800.0	6,638.8	6,730.0	6,726.8	148.3	1.8	93.20	1,559.9	4,274.0	9,559.9	9,409.9	149.98	63.741	

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

Anticollision Report



Company:	PDC ENERGY	Local Co-ordinate Reference:	Well WACKER 10G-214
Project:	WELD COUNTY, COLORADO	TVD Reference:	KB-EST @ 4624.0usft (Original Well Elev)
Reference Site:	SW NW SEC. 10 T5N R64W 6th P.M.	MD Reference:	KB-EST @ 4624.0usft (Original Well Elev)
Site Error:	0.0 usft	North Reference:	True
Reference Well:	WACKER 10G-214	Survey Calculation Method:	Minimum Curvature
Well Error:	0.0 usft	Output errors are at	2.00 sigma
Reference Wellbore	ORIGINAL WELLBORE	Database:	EDM 5000.1 Single User Db
Reference Design:	PROPOSAL #1	Offset TVD Reference:	Offset Datum

Offset Design SW NW SEC. 10 T5N R64W 6th P.M. - EXIST VERT WACKER #41-10 - 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
11,811.0	6,638.8	6,730.0	6,726.8	148.6	1.8	93.20	1,559.9	4,274.0	9,570.7	9,420.4	150.29	63.683	
11,900.0	6,638.7	6,730.0	6,726.8	151.1	1.8	93.20	1,559.9	4,274.0	9,658.3	9,505.5	152.77	63.221	
11,909.4	6,638.6	6,730.0	6,726.8	151.4	1.8	93.20	1,559.9	4,274.0	9,667.6	9,514.5	153.03	63.172	
12,000.0	6,638.5	6,730.0	6,726.8	153.9	1.8	93.20	1,559.9	4,274.0	9,756.7	9,601.1	155.56	62.718	
12,007.8	6,638.5	6,730.0	6,726.8	154.1	1.8	93.20	1,559.9	4,274.0	9,764.4	9,608.6	155.78	62.680	
12,100.0	6,638.4	6,730.0	6,726.8	156.7	1.8	93.20	1,559.9	4,274.0	9,855.1	9,696.8	158.36	62.234	
12,106.3	6,638.4	6,730.0	6,726.8	156.9	1.8	93.20	1,559.9	4,274.0	9,861.3	9,702.8	158.53	62.204	
12,200.0	6,638.3	6,730.0	6,726.8	159.5	1.8	93.20	1,559.9	4,274.0	9,953.6	9,792.4	161.15	61.766	
12,204.7	6,638.3	6,730.0	6,726.8	159.6	1.8	93.20	1,559.9	4,274.0	9,958.2	9,796.9	161.28	61.745 SF	

Anticollision Report



Company:	PDC ENERGY	Local Co-ordinate Reference:	Well WACKER 10G-214
Project:	WELD COUNTY, COLORADO	TVD Reference:	KB-EST @ 4624.0usft (Original Well Elev)
Reference Site:	SW NW SEC. 10 T5N R64W 6th P.M.	MD Reference:	KB-EST @ 4624.0usft (Original Well Elev)
Site Error:	0.0 usft	North Reference:	True
Reference Well:	WACKER 10G-214	Survey Calculation Method:	Minimum Curvature
Well Error:	0.0 usft	Output errors are at	2.00 sigma
Reference Wellbore	ORIGINAL WELLBORE	Database:	EDM 5000.1 Single User Db
Reference Design:	PROPOSAL #1	Offset TVD Reference:	Offset Datum

Offset Design												Offset Site Error:	0.0 usft
Survey Program: 100-GYD_CT												Offset Well Error:	0.0 usft
Reference	Offset	Semi Major Axis		Distance									
Measured Depth (usft)	Vertical Depth (usft)	Measured Depth (usft)	Vertical Depth (usft)	Reference (usft)	Offset (usft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (usft)	+E/-W (usft)	Between Centres (usft)	Between Ellipses (usft)	Minimum Separation (usft)	Separation Factor	Warning
0.0	0.0	0.0	0.0	0.0	0.0	86.35	264.8	4,152.1	4,160.5				
98.4	98.4	80.5	80.5	0.1	0.0	86.35	264.8	4,152.1	4,160.5	4,160.4	0.10	N/A	
100.0	100.0	82.1	82.1	0.1	0.0	86.35	264.8	4,152.1	4,160.5	4,160.4	0.10	N/A	
132.0	132.0	114.0	114.0	0.2	0.0	86.35	264.7	4,152.1	4,160.5	4,160.3	0.18	N/A	
196.8	196.8	178.3	178.3	0.3	0.1	86.35	264.6	4,152.1	4,160.5	4,160.1	0.39	N/A	
200.0	200.0	181.4	181.4	0.3	0.1	86.35	264.6	4,152.1	4,160.5	4,160.1	0.40	N/A	
295.3	295.3	275.7	275.7	0.5	0.2	86.36	264.4	4,152.1	4,160.5	4,159.8	0.74	5,634.740	
300.0	300.0	280.4	280.4	0.5	0.2	86.36	264.4	4,152.1	4,160.5	4,159.8	0.76	5,508.454	
393.7	393.7	374.0	374.0	0.8	0.3	86.36	264.2	4,152.2	4,160.6	4,159.5	1.06	3,939.514	
400.0	400.0	380.3	380.3	0.8	0.3	86.36	264.2	4,152.2	4,160.6	4,159.5	1.08	3,867.728	
492.1	492.1	471.9	471.9	1.0	0.4	86.36	264.0	4,152.2	4,160.6	4,159.3	1.35	3,081.906	
500.0	500.0	479.7	479.7	1.0	0.4	86.36	264.0	4,152.2	4,160.6	4,159.2	1.37	3,029.920	
590.5	590.5	570.0	570.0	1.2	0.4	86.37	263.7	4,152.3	4,160.7	4,159.0	1.63	2,546.538	
600.0	600.0	579.4	579.4	1.2	0.4	86.37	263.6	4,152.3	4,160.7	4,159.0	1.66	2,505.091	
689.0	689.0	671.5	671.5	1.4	0.5	86.37	263.3	4,152.4	4,160.7	4,158.8	1.91	2,175.550	
700.0	700.0	683.0	683.0	1.4	0.5	86.37	263.3	4,152.4	4,160.7	4,158.8	1.94	2,140.774	
787.4	787.4	772.3	772.3	1.6	0.5	86.38	262.8	4,152.3	4,160.7	4,158.5	2.19	1,903.463	
800.0	800.0	785.1	785.1	1.7	0.6	86.38	262.8	4,152.3	4,160.6	4,158.4	2.22	1,873.629	
885.8	885.8	879.4	879.4	1.9	0.6	86.39	262.2	4,152.2	4,160.5	4,158.0	2.46	1,693.128	
900.0	900.0	895.2	895.2	1.9	0.6	86.39	262.1	4,152.2	4,160.5	4,158.0	2.50	1,666.602	
984.2	984.2	978.5	978.5	2.1	0.6	86.40	261.4	4,152.0	4,160.2	4,157.5	2.72	1,528.579	
1,000.0	1,000.0	993.9	993.9	2.1	0.7	86.40	261.3	4,151.9	4,160.2	4,157.4	2.76	1,505.296	
1,082.7	1,082.7	1,077.8	1,077.8	2.3	0.7	86.41	260.6	4,151.7	4,159.9	4,156.9	2.98	1,393.982	
1,100.0	1,100.0	1,095.4	1,095.4	2.3	0.7	86.41	260.4	4,151.7	4,159.9	4,156.8	3.03	1,372.690	
1,181.1	1,181.1	1,169.8	1,169.8	2.5	0.7	86.42	259.8	4,151.5	4,159.7	4,156.4	3.24	1,282.782	
1,200.0	1,200.0	1,187.0	1,187.0	2.6	0.7	86.42	259.6	4,151.5	4,159.6	4,156.3	3.29	1,263.515	
1,264.2	1,264.2	1,246.2	1,246.2	2.7	0.8	86.43	259.2	4,151.5	4,159.6	4,156.1	3.46	1,202.039	
1,279.5	1,279.5	1,260.4	1,260.4	2.7	0.8	86.43	259.1	4,151.5	4,159.6	4,156.1	3.50	1,188.229	
1,300.0	1,300.0	1,279.3	1,279.3	2.8	0.8	86.43	258.9	4,151.5	4,159.6	4,156.0	3.55	1,170.268	
1,377.9	1,377.9	1,349.0	1,349.0	3.0	0.8	-32.23	258.5	4,151.7	4,158.8	4,155.2	3.67	1,134.033	
1,400.0	1,400.0	1,368.4	1,368.4	3.0	0.8	-32.24	258.4	4,151.7	4,158.3	4,154.6	3.72	1,118.435	
1,476.4	1,476.3	1,439.3	1,439.2	3.1	0.8	-32.29	258.2	4,152.0	4,155.5	4,151.6	3.88	1,069.662	
1,500.0	1,499.8	1,462.1	1,462.1	3.2	0.8	-32.31	258.1	4,152.2	4,154.3	4,150.4	3.94	1,055.168	
1,574.8	1,574.4	1,548.0	1,548.0	3.3	0.9	-32.41	257.9	4,152.5	4,149.4	4,145.3	4.11	1,010.184	
1,600.0	1,599.5	1,581.9	1,581.9	3.4	0.9	-32.46	257.8	4,152.6	4,147.3	4,143.1	4.16	995.876	
1,673.2	1,672.2	1,671.1	1,671.1	3.6	0.9	-32.61	257.5	4,152.4	4,139.9	4,135.5	4.35	952.663	
1,700.0	1,698.7	1,702.5	1,702.5	3.6	0.9	-32.68	257.4	4,152.2	4,136.7	4,132.3	4.41	937.294	
1,771.6	1,769.5	1,775.6	1,775.5	3.8	0.9	-32.86	257.0	4,151.9	4,127.1	4,122.5	4.60	897.221	
1,800.0	1,797.5	1,804.3	1,804.3	3.9	1.0	-32.94	256.8	4,151.7	4,122.9	4,118.3	4.67	882.107	
1,870.1	1,866.3	1,874.7	1,874.7	4.1	1.0	-33.16	256.3	4,151.3	4,111.5	4,106.7	4.87	844.511	
1,900.2	1,895.8	1,904.8	1,904.8	4.2	1.0	-33.27	256.1	4,151.1	4,106.2	4,101.3	4.95	829.153	
1,968.5	1,962.6	1,972.2	1,972.2	4.4	1.0	-33.37	255.5	4,150.7	4,093.8	4,088.7	5.14	796.046	
2,000.0	1,993.4	2,003.5	2,003.5	4.5	1.0	-33.41	255.1	4,150.5	4,088.1	4,082.9	5.23	781.533	
2,066.9	2,058.9	2,072.8	2,072.7	4.7	1.1	-33.51	254.1	4,150.1	4,075.9	4,070.5	5.43	750.929	
2,100.0	2,091.2	2,106.5	2,106.4	4.8	1.1	-33.56	253.6	4,149.8	4,069.9	4,064.4	5.52	736.724	
2,165.3	2,155.2	2,168.8	2,168.8	5.1	1.1	-33.65	252.7	4,149.4	4,058.0	4,052.2	5.72	709.526	
2,200.0	2,189.1	2,200.0	2,199.9	5.2	1.1	-33.70	252.2	4,149.2	4,051.7	4,045.8	5.83	695.492	
2,263.8	2,251.4	2,261.3	2,261.3	5.5	1.1	-33.79	251.6	4,148.8	4,040.1	4,034.1	6.02	671.176	
2,300.0	2,286.9	2,295.0	2,295.0	5.6	1.1	-33.85	251.5	4,148.6	4,033.6	4,027.4	6.13	657.978	
2,362.2	2,347.7	2,362.5	2,362.4	5.8	1.1	-33.96	251.8	4,148.1	4,022.3	4,016.0	6.33	635.528	
2,400.0	2,384.7	2,403.7	2,403.6	6.0	1.1	-34.04	252.3	4,147.7	4,015.4	4,009.0	6.45	622.466	
2,460.6	2,444.0	2,465.7	2,465.6	6.2	1.1	-34.16	253.3	4,147.0	4,004.3	3,997.7	6.65	602.095	

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

Anticollision Report



Company:	PDC ENERGY	Local Co-ordinate Reference:	Well WACKER 10G-214
Project:	WELD COUNTY, COLORADO	TVD Reference:	KB-EST @ 4624.0usft (Original Well Elev)
Reference Site:	SW NW SEC. 10 T5N R64W 6th P.M.	MD Reference:	KB-EST @ 4624.0usft (Original Well Elev)
Site Error:	0.0 usft	North Reference:	True
Reference Well:	WACKER 10G-214	Survey Calculation Method:	Minimum Curvature
Well Error:	0.0 usft	Output errors are at	2.00 sigma
Reference Wellbore	ORIGINAL WELLBORE	Database:	EDM 5000.1 Single User Db
Reference Design:	PROPOSAL #1	Offset TVD Reference:	Offset Datum

Offset Design SW NW SEC. 10 T5N R64W 6th P.M. - EXIST VERT WACKER #42-10 - 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	
2,500.0	2,482.5	2,505.8	2,505.7	6.4	1.1	-34.24	254.2	4,146.5	3,997.1	3,990.3	6.78	589.469	
2,559.0	2,540.3	2,564.4	2,564.2	6.6	1.1	-34.36	255.5	4,145.8	3,986.3	3,979.3	6.98	571.250	
2,600.0	2,580.3	2,604.7	2,604.5	6.8	1.2	-34.45	256.4	4,145.3	3,978.8	3,971.7	7.12	559.180	
2,657.5	2,636.5	2,658.1	2,658.0	7.1	1.2	-34.56	257.5	4,144.6	3,968.3	3,961.0	7.31	542.918	
2,700.0	2,678.1	2,697.7	2,697.5	7.2	1.2	-34.64	258.4	4,144.2	3,960.5	3,953.1	7.45	531.403	
2,755.9	2,732.8	2,749.6	2,749.5	7.5	1.2	-34.74	259.3	4,143.6	3,950.4	3,942.8	7.64	516.800	
2,800.0	2,775.9	2,790.7	2,790.5	7.7	1.2	-34.82	260.0	4,143.2	3,942.5	3,934.7	7.80	505.763	
2,854.3	2,829.1	2,836.4	2,836.2	7.9	1.2	-34.91	260.6	4,142.8	3,932.7	3,924.7	7.98	492.753	
2,900.0	2,873.8	2,874.0	2,873.8	8.1	1.2	-34.99	260.9	4,142.6	3,924.6	3,916.5	8.14	482.285	
2,952.7	2,925.4	2,915.1	2,914.9	8.3	1.2	-35.06	261.2	4,142.4	3,915.4	3,907.1	8.32	470.818	
2,953.5	2,926.1	2,915.6	2,915.4	8.3	1.2	-35.06	261.2	4,142.4	3,915.3	3,907.0	8.32	470.666	
3,000.0	2,971.6	2,948.9	2,948.7	8.5	1.2	-35.03	261.4	4,142.3	3,907.6	3,899.1	8.45	462.641	
3,051.2	3,022.0	2,985.7	2,985.5	8.7	1.2	-35.01	261.6	4,142.4	3,900.0	3,891.4	8.57	455.169	
3,100.0	3,070.1	3,019.5	3,019.3	8.8	1.2	-34.98	261.7	4,142.6	3,893.7	3,885.0	8.69	448.268	
3,149.6	3,119.1	3,052.9	3,052.7	8.9	1.2	-34.96	261.9	4,143.0	3,888.1	3,879.3	8.80	441.867	
3,200.0	3,169.1	3,100.0	3,099.8	9.1	1.2	-34.96	262.3	4,143.7	3,883.4	3,874.5	8.91	435.652	
3,248.0	3,216.8	3,124.1	3,123.9	9.2	1.2	-34.95	262.5	4,144.1	3,879.7	3,870.7	9.02	430.333	
3,300.0	3,268.5	3,167.8	3,167.6	9.3	1.2	-34.95	262.9	4,144.9	3,876.6	3,867.5	9.13	424.654	
3,346.4	3,314.8	3,200.0	3,199.8	9.4	1.2	-34.96	263.3	4,145.6	3,874.6	3,865.4	9.22	420.149	
3,400.0	3,368.3	3,250.8	3,250.6	9.6	1.2	-34.97	263.9	4,146.8	3,873.1	3,863.8	9.33	415.002	
3,444.9	3,413.1	3,287.8	3,287.5	9.6	1.2	-34.99	264.4	4,147.7	3,872.6	3,863.2	9.42	411.202	
3,456.8	3,425.0	3,300.0	3,299.7	9.7	1.2	-34.99	264.6	4,148.1	3,872.6	3,863.2	9.44	410.198 CC	
3,500.0	3,468.2	3,341.5	3,341.2	9.7	1.2	-35.01	265.2	4,149.2	3,872.9	3,863.4	9.52	406.625	
3,543.3	3,511.5	3,386.1	3,385.8	9.8	1.2	-35.04	265.9	4,150.4	3,873.7	3,864.1	9.60	403.351	
3,553.7	3,521.9	3,396.8	3,396.5	9.8	1.2	83.61	266.0	4,150.6	3,874.0	3,863.6	10.38	373.156	
3,600.0	3,568.2	3,437.0	3,436.6	9.9	1.2	83.60	266.7	4,151.7	3,875.3	3,864.9	10.46	370.346	
3,641.7	3,609.9	3,472.6	3,472.3	10.0	1.2	83.59	267.2	4,152.7	3,876.6	3,866.0	10.54	367.715	
3,700.0	3,668.2	3,526.1	3,525.7	10.1	1.2	83.58	268.1	4,154.3	3,878.4	3,867.8	10.65	364.094	
3,740.1	3,708.4	3,565.9	3,565.5	10.1	1.2	83.58	268.8	4,155.6	3,879.7	3,869.0	10.73	361.601	
3,800.0	3,768.2	3,629.3	3,628.8	10.2	1.2	83.56	269.8	4,157.5	3,881.6	3,870.8	10.84	357.939	
3,838.6	3,806.8	3,673.6	3,673.1	10.3	1.3	83.56	270.5	4,158.8	3,882.8	3,871.9	10.92	355.576	
3,900.0	3,868.2	3,737.7	3,737.2	10.4	1.3	83.54	271.5	4,160.5	3,884.6	3,873.6	11.04	351.885	
3,937.0	3,905.2	3,774.1	3,773.6	10.5	1.3	83.54	271.9	4,161.5	3,885.7	3,874.6	11.11	349.689	
4,000.0	3,968.2	3,862.6	3,862.1	10.6	1.3	83.53	272.7	4,163.9	3,887.4	3,876.2	11.24	345.858	
4,035.4	4,003.6	3,925.7	3,925.2	10.6	1.3	83.53	272.8	4,165.1	3,888.1	3,876.8	11.32	343.616	
4,100.0	4,068.2	4,036.3	4,035.7	10.7	1.3	83.54	272.2	4,166.2	3,888.6	3,877.2	11.45	339.481	
4,133.8	4,102.1	4,084.6	4,084.1	10.8	1.3	83.55	271.7	4,166.3	3,888.7	3,877.2	11.53	337.315	
4,200.0	4,168.2	4,162.6	4,162.1	10.9	1.3	83.56	270.9	4,166.2	3,888.6	3,876.9	11.67	333.244	
4,232.3	4,200.5	4,199.1	4,198.6	11.0	1.4	83.57	270.7	4,166.1	3,888.5	3,876.7	11.74	331.284	
4,300.0	4,268.2	4,292.9	4,292.3	11.1	1.4	83.57	270.3	4,165.5	3,888.0	3,876.1	11.88	327.262	
4,330.7	4,298.9	4,325.0	4,324.5	11.1	1.4	83.57	270.3	4,165.1	3,887.6	3,875.7	11.94	325.496	
4,400.0	4,368.2	4,393.0	4,392.4	11.3	1.4	83.57	270.0	4,164.4	3,886.9	3,874.8	12.09	321.599	
4,429.1	4,397.3	4,442.6	4,442.0	11.3	1.4	83.58	269.5	4,163.8	3,886.5	3,874.3	12.15	319.833	
4,500.0	4,468.2	4,541.1	4,540.5	11.4	1.4	83.60	267.6	4,161.9	3,884.9	3,872.6	12.31	315.638	
4,527.5	4,495.8	4,568.6	4,568.0	11.5	1.4	83.61	266.9	4,161.3	3,884.3	3,871.9	12.37	314.075	
4,600.0	4,568.2	4,634.5	4,633.8	11.6	1.4	83.64	265.2	4,160.0	3,882.6	3,870.1	12.52	310.096	
4,626.0	4,594.2	4,656.4	4,655.7	11.7	1.4	83.64	264.7	4,159.6	3,882.1	3,869.5	12.58	308.701	
4,700.0	4,668.2	4,700.0	4,699.3	11.8	1.5	83.65	264.0	4,158.8	3,880.8	3,868.0	12.73	304.916	
4,724.4	4,692.6	4,731.2	4,730.5	11.9	1.5	83.66	263.6	4,158.4	3,880.3	3,867.6	12.78	303.616	
4,800.0	4,768.2	4,781.6	4,780.9	12.0	1.5	83.66	263.3	4,157.8	3,879.5	3,866.6	12.94	299.902	
4,822.8	4,791.0	4,800.0	4,799.3	12.0	1.5	83.66	263.2	4,157.7	3,879.3	3,866.3	12.98	298.787	
4,887.0	4,855.2	4,837.9	4,837.2	12.2	1.5	83.66	263.1	4,157.6	3,879.1	3,866.0	13.11	295.836	

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

Anticollision Report



Company:	PDC ENERGY	Local Co-ordinate Reference:	Well WACKER 10G-214
Project:	WELD COUNTY, COLORADO	TVD Reference:	KB-EST @ 4624.0usft (Original Well Elev)
Reference Site:	SW NW SEC. 10 T5N R64W 6th P.M.	MD Reference:	KB-EST @ 4624.0usft (Original Well Elev)
Site Error:	0.0 usft	North Reference:	True
Reference Well:	WACKER 10G-214	Survey Calculation Method:	Minimum Curvature
Well Error:	0.0 usft	Output errors are at	2.00 sigma
Reference Wellbore	ORIGINAL WELLBORE	Database:	EDM 5000.1 Single User Db
Reference Design:	PROPOSAL #1	Offset TVD Reference:	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	
4,900.0	4,868.2	4,846.2	4,845.5	12.2	1.5	83.66	263.0	4,157.6	3,879.1	3,866.0	13.14	295.244	
4,921.2	4,889.5	4,859.7	4,859.0	12.2	1.5	83.67	262.9	4,157.7	3,879.2	3,866.0	13.18	294.283	
5,000.0	4,968.2	4,941.9	4,941.2	12.4	1.5	83.68	261.8	4,158.3	3,879.7	3,866.3	13.35	290.611	
5,019.7	4,987.9	4,965.3	4,964.6	12.4	1.5	83.70	260.9	4,158.3	3,879.6	3,866.2	13.40	289.501	
5,100.0	5,068.2	5,073.6	5,072.8	12.6	1.5	83.72	259.3	4,158.0	3,879.1	3,865.5	13.58	285.658	
5,118.1	5,086.3	5,090.5	5,089.8	12.6	1.5	83.72	258.9	4,157.9	3,879.0	3,865.4	13.62	284.806	
5,200.0	5,168.2	5,156.7	5,155.9	12.7	1.5	83.74	257.5	4,157.8	3,878.7	3,864.9	13.80	281.082	
5,216.5	5,184.7	5,169.7	5,169.0	12.8	1.6	83.75	257.2	4,157.8	3,878.7	3,864.9	13.84	280.343	
5,300.0	5,268.2	5,261.2	5,260.4	12.9	1.6	83.78	255.0	4,158.0	3,878.7	3,864.7	14.03	276.534	
5,314.9	5,283.2	5,281.4	5,280.6	13.0	1.6	83.79	254.5	4,158.0	3,878.6	3,864.6	14.06	275.835	
5,400.0	5,368.2	5,384.3	5,383.5	13.1	1.6	83.82	252.3	4,157.6	3,878.1	3,863.8	14.26	272.004	
5,413.4	5,381.6	5,400.0	5,399.2	13.2	1.6	83.82	252.1	4,157.5	3,878.0	3,863.7	14.29	271.412	
5,500.0	5,468.2	5,467.8	5,466.9	13.3	1.6	83.84	251.3	4,157.1	3,877.4	3,862.9	14.48	267.801	
5,511.8	5,480.0	5,477.0	5,476.2	13.3	1.6	83.84	251.2	4,157.1	3,877.3	3,862.8	14.50	267.317	
5,600.0	5,568.2	5,587.3	5,586.4	13.5	1.7	83.86	249.9	4,156.7	3,876.9	3,862.2	14.71	263.551	
5,610.2	5,578.4	5,600.0	5,599.2	13.5	1.7	83.86	249.7	4,156.6	3,876.8	3,862.1	14.73	263.115	
5,700.0	5,668.2	5,669.1	5,668.3	13.7	1.7	83.87	248.6	4,156.2	3,876.1	3,861.2	14.93	259.562	
5,708.6	5,676.9	5,675.7	5,674.8	13.7	1.7	83.87	248.5	4,156.1	3,876.1	3,861.1	14.95	259.226	
5,792.8	5,761.0	5,743.9	5,743.0	13.9	1.7	83.88	247.8	4,156.1	3,875.9	3,860.8	15.14	256.008	
5,800.0	5,768.2	5,749.9	5,749.1	13.9	1.7	83.89	247.8	4,156.1	3,875.9	3,860.8	15.16	255.737	
5,807.1	5,775.3	5,755.9	5,755.1	13.9	1.7	83.89	247.7	4,156.1	3,875.9	3,860.8	15.17	255.471	
5,900.0	5,868.2	5,838.6	5,837.7	14.1	1.7	83.89	247.3	4,156.3	3,876.2	3,860.8	15.38	252.010 ES	
5,905.5	5,873.7	5,843.8	5,842.9	14.1	1.7	83.89	247.3	4,156.3	3,876.2	3,860.8	15.39	251.806	
5,960.7	5,928.9	5,896.1	5,895.3	14.2	1.7	83.90	247.0	4,156.6	3,876.4	3,860.9	15.52	249.779	
6,000.0	5,968.2	5,960.0	5,959.1	14.3	1.8	173.90	246.5	4,156.7	3,877.5	3,862.6	14.86	261.012	
6,003.9	5,972.1	5,966.7	5,965.8	14.3	1.8	173.90	246.4	4,156.7	3,877.7	3,862.8	14.86	260.885	
6,050.0	6,018.0	6,019.9	6,019.1	14.4	1.8	173.88	245.9	4,156.5	3,881.7	3,866.7	14.98	259.170	
6,100.0	6,067.3	6,057.2	6,056.4	14.4	1.8	173.83	245.5	4,156.4	3,889.4	3,874.3	15.12	257.169	
6,102.3	6,069.6	6,059.0	6,058.1	14.4	1.8	173.82	245.5	4,156.4	3,889.9	3,874.8	15.13	257.079	
6,150.0	6,116.0	6,100.0	6,099.1	14.4	1.8	173.75	244.9	4,156.4	3,900.7	3,885.5	15.28	255.330	
6,200.0	6,163.8	6,135.0	6,134.1	14.5	1.8	173.64	244.3	4,156.6	3,915.5	3,900.1	15.42	253.973	
6,200.8	6,164.5	6,135.7	6,134.8	14.5	1.8	173.64	244.3	4,156.6	3,915.7	3,900.3	15.42	253.957	
6,250.0	6,210.4	6,176.0	6,175.1	14.5	1.8	173.50	243.7	4,156.8	3,933.6	3,918.1	15.54	253.198	
6,299.2	6,254.9	6,217.8	6,216.9	14.5	1.8	173.33	243.1	4,157.1	3,954.6	3,939.0	15.62	253.118	
6,300.0	6,255.6	6,218.6	6,217.7	14.5	1.8	173.33	243.1	4,157.1	3,954.9	3,939.3	15.62	253.122	
6,350.0	6,299.3	6,263.9	6,263.0	14.5	1.8	173.12	242.4	4,157.4	3,979.4	3,963.7	15.68	253.755	
6,397.6	6,339.2	6,304.8	6,303.9	14.6	1.8	172.88	241.8	4,157.6	4,005.4	3,989.7	15.70	255.054	
6,400.0	6,341.2	6,306.6	6,305.7	14.6	1.8	172.86	241.7	4,157.6	4,006.8	3,991.0	15.70	255.138	
6,450.0	6,381.0	6,344.3	6,343.3	14.6	1.9	172.54	241.1	4,157.9	4,037.0	4,021.3	15.69	257.280	
6,496.0	6,415.8	6,377.0	6,376.1	14.7	1.9	172.18	240.5	4,158.1	4,067.2	4,051.5	15.65	259.839	
6,500.0	6,418.7	6,379.7	6,378.8	14.7	1.9	172.14	240.5	4,158.1	4,069.9	4,054.2	15.65	260.084	
6,550.0	6,453.9	6,414.6	6,413.7	14.8	1.9	171.66	239.9	4,158.4	4,105.4	4,089.8	15.59	263.409	
6,594.5	6,483.1	6,445.8	6,444.9	15.0	1.9	171.13	239.3	4,158.6	4,138.9	4,123.3	15.52	266.648	
6,600.0	6,486.6	6,449.5	6,448.6	15.1	1.9	171.06	239.3	4,158.6	4,143.2	4,127.6	15.51	267.070	
6,650.0	6,516.6	6,481.6	6,480.6	15.3	1.9	170.31	238.7	4,158.8	4,183.1	4,167.7	15.44	270.880	
6,692.9	6,540.0	6,500.0	6,499.1	15.7	1.9	169.46	238.4	4,158.9	4,219.0	4,203.6	15.39	274.123	
6,700.0	6,543.7	6,500.0	6,499.1	15.7	1.9	169.29	238.4	4,158.9	4,225.0	4,209.6	15.38	274.696	
6,750.0	6,567.8	6,500.0	6,499.1	16.2	1.9	167.85	238.4	4,158.9	4,268.8	4,253.5	15.35	278.029	
6,791.3	6,585.4	6,500.0	6,499.1	16.7	1.9	166.25	238.4	4,158.9	4,306.3	4,290.9	15.41	279.418	
6,800.0	6,588.8	6,500.0	6,499.1	16.8	1.9	165.86	238.4	4,158.9	4,314.3	4,298.9	15.44	279.503	
6,850.0	6,606.6	6,500.0	6,499.1	17.4	1.9	162.97	238.4	4,158.9	4,361.1	4,345.4	15.71	277.541	
6,889.7	6,618.4	6,500.0	6,499.1	18.0	1.9	159.60	238.4	4,158.9	4,399.2	4,383.0	16.18	271.884	

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

Anticollision Report



Company:	PDC ENERGY	Local Co-ordinate Reference:	Well WACKER 10G-214
Project:	WELD COUNTY, COLORADO	TVD Reference:	KB-EST @ 4624.0usft (Original Well Elev)
Reference Site:	SW NW SEC. 10 T5N R64W 6th P.M.	MD Reference:	KB-EST @ 4624.0usft (Original Well Elev)
Site Error:	0.0 usft	North Reference:	True
Reference Well:	WACKER 10G-214	Survey Calculation Method:	Minimum Curvature
Well Error:	0.0 usft	Output errors are at	2.00 sigma
Reference Wellbore	ORIGINAL WELLBORE	Database:	EDM 5000.1 Single User Db
Reference Design:	PROPOSAL #1	Offset TVD Reference:	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	
6,900.0	6,621.1	6,500.0	6,499.1	18.2	1.9	158.49	238.4	4,158.9	4,409.1	4,392.7	16.35	269.638	
6,950.0	6,632.2	6,500.0	6,499.1	19.0	1.9	150.80	238.4	4,158.9	4,457.9	4,440.2	17.68	252.166	
6,988.2	6,638.4	6,500.0	6,499.1	19.7	1.9	140.33	238.4	4,158.9	4,495.5	4,476.0	19.49	230.647	
7,000.0	6,639.9	6,500.0	6,499.1	19.9	1.9	135.65	238.4	4,158.9	4,507.3	4,487.0	20.21	223.007	
7,050.0	6,644.1	6,500.0	6,499.1	20.8	1.9	103.68	238.4	4,158.9	4,557.0	4,534.1	22.82	199.710	
7,086.5	6,645.0	6,500.0	6,499.1	21.5	1.9	71.59	238.4	4,158.9	4,593.4	4,570.0	23.34	196.797	
7,100.0	6,645.0	6,500.0	6,499.1	21.8	1.9	71.59	238.4	4,158.9	4,606.8	4,583.2	23.59	195.260	
7,185.0	6,644.9	6,500.0	6,499.1	23.6	1.9	71.59	238.4	4,158.9	4,691.4	4,666.2	25.26	185.693	
7,200.0	6,644.8	6,500.0	6,499.1	23.9	1.9	71.59	238.4	4,158.9	4,706.3	4,680.8	25.56	184.137	
7,283.4	6,644.7	6,500.0	6,499.1	25.7	1.9	71.59	238.4	4,158.9	4,789.5	4,762.1	27.31	175.370	
7,300.0	6,644.7	6,500.0	6,499.1	26.1	1.9	71.59	238.4	4,158.9	4,805.9	4,778.3	27.66	173.763	
7,381.9	6,644.6	6,500.0	6,499.1	28.0	1.9	71.59	238.4	4,158.9	4,887.5	4,858.0	29.46	165.898	
7,400.0	6,644.6	6,500.0	6,499.1	28.4	1.9	71.60	238.4	4,158.9	4,905.6	4,875.7	29.86	164.285	
7,480.3	6,644.5	6,500.0	6,499.1	30.3	1.9	71.60	238.4	4,158.9	4,985.6	4,953.9	31.69	157.313	
7,500.0	6,644.4	6,500.0	6,499.1	30.8	1.9	71.60	238.4	4,158.9	5,005.2	4,973.0	32.14	155.723	
7,578.7	6,644.3	6,500.0	6,499.1	32.7	1.9	71.60	238.4	4,158.9	5,083.6	5,049.6	33.99	149.576	
7,600.0	6,644.3	6,500.0	6,499.1	33.3	1.9	71.60	238.4	4,158.9	5,104.8	5,070.3	34.49	148.028	
7,677.1	6,644.2	6,500.0	6,499.1	35.2	1.9	71.60	238.4	4,158.9	5,181.7	5,145.4	36.33	142.621	
7,700.0	6,644.1	6,500.0	6,499.1	35.8	1.9	71.60	238.4	4,158.9	5,204.5	5,167.6	36.88	141.122	
7,775.6	6,644.0	6,500.0	6,499.1	37.7	1.9	71.60	238.4	4,158.9	5,279.8	5,241.1	38.72	136.365	
7,800.0	6,644.0	6,500.0	6,499.1	38.3	1.9	71.60	238.4	4,158.9	5,304.2	5,264.9	39.31	134.922	
7,874.0	6,643.9	6,500.0	6,499.1	40.2	1.9	71.60	238.4	4,158.9	5,377.9	5,336.8	41.14	130.732	
7,900.0	6,643.9	6,500.0	6,499.1	40.9	1.9	71.61	238.4	4,158.9	5,403.8	5,362.1	41.78	129.345	
7,972.4	6,643.8	6,500.0	6,499.1	42.8	1.9	71.61	238.4	4,158.9	5,476.1	5,432.5	43.58	125.645	
8,000.0	6,643.7	6,500.0	6,499.1	43.5	1.9	71.61	238.4	4,158.9	5,503.5	5,459.3	44.27	124.315	
8,070.8	6,643.6	6,500.0	6,499.1	45.4	1.9	71.61	238.4	4,158.9	5,574.2	5,528.1	46.05	121.041	
8,100.0	6,643.6	6,500.0	6,499.1	46.2	1.9	71.61	238.4	4,158.9	5,603.3	5,556.5	46.79	119.765	
8,169.3	6,643.5	6,500.0	6,499.1	48.0	1.9	71.61	238.4	4,158.9	5,672.3	5,623.8	48.54	116.859	
8,200.0	6,643.5	6,500.0	6,499.1	48.8	1.9	71.61	238.4	4,158.9	5,703.0	5,653.6	49.32	115.636	
8,267.7	6,643.4	6,500.0	6,499.1	50.6	1.9	71.61	238.4	4,158.9	5,770.5	5,719.4	51.04	113.050	
8,300.0	6,643.3	6,500.0	6,499.1	51.5	1.9	71.62	238.4	4,158.9	5,802.7	5,750.8	51.87	111.876	
8,366.1	6,643.2	6,500.0	6,499.1	53.3	1.9	71.62	238.4	4,158.9	5,868.6	5,815.1	53.56	109.570	
8,400.0	6,643.2	6,500.0	6,499.1	54.2	1.9	71.62	238.4	4,158.9	5,902.4	5,848.0	54.43	108.443	
8,464.5	6,643.1	6,500.0	6,499.1	55.9	1.9	71.62	238.4	4,158.9	5,966.8	5,910.7	56.09	106.379	
8,500.0	6,643.1	6,500.0	6,499.1	56.9	1.9	71.62	238.4	4,158.9	6,002.2	5,945.2	57.00	105.297	
8,563.0	6,643.0	6,500.0	6,499.1	58.6	1.9	71.62	238.4	4,158.9	6,065.0	6,006.4	58.63	103.447	
8,600.0	6,642.9	6,500.0	6,499.1	59.6	1.9	71.62	238.4	4,158.9	6,101.9	6,042.3	59.59	102.406	
8,661.4	6,642.8	6,500.0	6,499.1	61.3	1.9	71.62	238.4	4,158.9	6,163.2	6,102.0	61.18	100.743	
8,700.0	6,642.8	6,500.0	6,499.1	62.3	1.9	71.63	238.4	4,158.9	6,201.7	6,139.5	62.18	99.741	
8,759.8	6,642.7	6,500.0	6,499.1	64.0	1.9	71.63	238.4	4,158.9	6,261.4	6,197.6	63.73	98.244	
8,800.0	6,642.7	6,500.0	6,499.1	65.1	1.9	71.63	238.4	4,158.9	6,301.5	6,236.7	64.78	97.278	
8,858.2	6,642.6	6,500.0	6,499.1	66.6	1.9	71.63	238.4	4,158.9	6,359.6	6,293.3	66.30	95.928	
8,900.0	6,642.5	6,500.0	6,499.1	67.8	1.9	71.63	238.4	4,158.9	6,401.2	6,333.8	67.38	94.997	
8,956.7	6,642.4	6,500.0	6,499.1	69.3	1.9	71.63	238.4	4,158.9	6,457.8	6,388.9	68.86	93.776	
9,000.0	6,642.4	6,500.0	6,499.1	70.5	1.9	71.63	238.4	4,158.9	6,501.0	6,431.0	70.00	92.877	
9,055.1	6,642.3	6,500.0	6,499.1	72.0	1.9	71.63	238.4	4,158.9	6,556.0	6,484.6	71.44	91.772	
9,100.0	6,642.3	6,500.0	6,499.1	73.3	1.9	71.64	238.4	4,158.9	6,600.8	6,528.2	72.61	90.903	
9,153.5	6,642.2	6,500.0	6,499.1	74.7	1.9	71.64	238.4	4,158.9	6,654.2	6,580.2	74.02	89.902	
9,200.0	6,642.1	6,500.0	6,499.1	76.0	1.9	71.64	238.4	4,158.9	6,700.6	6,625.4	75.24	89.062	
9,251.9	6,642.1	6,500.0	6,499.1	77.5	1.9	71.64	238.4	4,158.9	6,752.4	6,675.8	76.60	88.153	
9,300.0	6,642.0	6,500.0	6,499.1	78.8	1.9	71.64	238.4	4,158.9	6,800.4	6,722.5	77.86	87.339	
9,350.4	6,641.9	6,500.0	6,499.1	80.2	1.9	71.64	238.4	4,158.9	6,850.7	6,771.5	79.19	86.513	

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

Anticollision Report



Company:	PDC ENERGY	Local Co-ordinate Reference:	Well WACKER 10G-214
Project:	WELD COUNTY, COLORADO	TVD Reference:	KB-EST @ 4624.0usft (Original Well Elev)
Reference Site:	SW NW SEC. 10 T5N R64W 6th P.M.	MD Reference:	KB-EST @ 4624.0usft (Original Well Elev)
Site Error:	0.0 usft	North Reference:	True
Reference Well:	WACKER 10G-214	Survey Calculation Method:	Minimum Curvature
Well Error:	0.0 usft	Output errors are at	2.00 sigma
Reference Wellbore	ORIGINAL WELLBORE	Database:	EDM 5000.1 Single User Db
Reference Design:	PROPOSAL #1	Offset TVD Reference:	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	6,641.9	6,500.0	6,499.1	81.5	1.9	71.65	238.4	4,158.9	6,900.2	6,819.7	80.49	85.725	
9,448.8	6,641.8	6,500.0	6,499.1	82.9	1.9	71.65	238.4	4,158.9	6,948.9	6,867.1	81.78	84.974	
9,500.0	6,641.7	6,500.0	6,499.1	84.3	1.9	71.65	238.4	4,158.9	7,000.0	6,916.9	83.13	84.210	
9,547.2	6,641.7	6,500.0	6,499.1	85.6	1.9	71.65	238.4	4,158.9	7,047.2	6,962.8	84.37	83.527	
9,600.0	6,641.6	6,500.0	6,499.1	87.1	1.9	71.65	238.4	4,158.9	7,099.8	7,014.1	85.76	82.785	
9,645.6	6,641.5	6,500.0	6,499.1	88.3	1.9	71.65	238.4	4,158.9	7,145.4	7,058.4	86.97	82.163	
9,700.0	6,641.5	6,500.0	6,499.1	89.8	1.9	71.65	238.4	4,158.9	7,199.7	7,111.3	88.40	81.443	
9,744.1	6,641.4	6,500.0	6,499.1	91.0	1.9	71.65	238.4	4,158.9	7,243.7	7,154.1	89.57	80.875	
9,800.0	6,641.3	6,500.0	6,499.1	92.6	1.9	71.66	238.4	4,158.9	7,299.5	7,208.4	91.04	80.176	
9,842.5	6,641.3	6,500.0	6,499.1	93.8	1.9	71.66	238.4	4,158.9	7,341.9	7,249.8	92.17	79.659	
9,900.0	6,641.2	6,500.0	6,499.1	95.4	1.9	71.66	238.4	4,158.9	7,399.3	7,305.6	93.69	78.978	
9,940.9	6,641.1	6,500.0	6,499.1	96.5	1.9	71.66	238.4	4,158.9	7,440.2	7,345.4	94.77	78.507	
10,000.0	6,641.1	6,500.0	6,499.1	98.1	1.9	71.66	238.4	4,158.9	7,499.2	7,402.8	96.33	77.845	
10,039.3	6,641.0	6,500.0	6,499.1	99.2	1.9	71.66	238.4	4,158.9	7,538.4	7,441.1	97.38	77.415	
10,100.0	6,640.9	6,500.0	6,499.1	100.9	1.9	71.67	238.4	4,158.9	7,599.0	7,500.0	98.98	76.770	
10,137.8	6,640.9	6,500.0	6,499.1	102.0	1.9	71.67	238.4	4,158.9	7,636.7	7,536.7	99.98	76.379	
10,200.0	6,640.8	6,500.0	6,499.1	103.7	1.9	71.67	238.4	4,158.9	7,698.8	7,597.2	101.63	75.751	
10,236.2	6,640.8	6,500.0	6,499.1	104.7	1.9	71.67	238.4	4,158.9	7,735.0	7,632.4	102.59	75.394	
10,300.0	6,640.7	6,500.0	6,499.1	106.5	1.9	71.67	238.4	4,158.9	7,798.7	7,694.4	104.29	74.781	
10,334.6	6,640.6	6,500.0	6,499.1	107.4	1.9	71.67	238.4	4,158.9	7,833.3	7,728.1	105.20	74.457	
10,400.0	6,640.6	6,500.0	6,499.1	109.3	1.9	71.68	238.4	4,158.9	7,898.5	7,791.6	106.94	73.859	
10,433.0	6,640.5	6,500.0	6,499.1	110.2	1.9	71.68	238.4	4,158.9	7,931.6	7,823.7	107.82	73.565	
10,500.0	6,640.4	6,500.0	6,499.1	112.0	1.9	71.68	238.4	4,158.9	7,998.4	7,888.8	109.60	72.981	
10,531.5	6,640.4	6,500.0	6,499.1	112.9	1.9	71.68	238.4	4,158.9	8,029.8	7,919.4	110.43	72.713	
10,600.0	6,640.3	6,500.0	6,499.1	114.8	1.9	71.68	238.4	4,158.9	8,098.3	7,986.0	112.25	72.143	
10,629.9	6,640.3	6,500.0	6,499.1	115.7	1.9	71.68	238.4	4,158.9	8,128.1	8,015.1	113.05	71.900	
10,700.0	6,640.2	6,500.0	6,499.1	117.6	1.9	71.69	238.4	4,158.9	8,198.1	8,083.2	114.91	71.343	
10,728.3	6,640.1	6,500.0	6,499.1	118.4	1.9	71.69	238.4	4,158.9	8,226.4	8,110.8	115.66	71.124	
10,800.0	6,640.0	6,500.0	6,499.1	120.4	1.9	71.69	238.4	4,158.9	8,298.0	8,180.4	117.57	70.579	
10,826.7	6,640.0	6,500.0	6,499.1	121.2	1.9	71.69	238.4	4,158.9	8,324.7	8,206.4	118.28	70.381	
10,900.0	6,639.9	6,500.0	6,499.1	123.2	1.9	71.69	238.4	4,158.9	8,397.9	8,277.6	120.23	69.848	
10,925.2	6,639.9	6,500.0	6,499.1	123.9	1.9	71.69	238.4	4,158.9	8,423.0	8,302.1	120.90	69.669	
11,000.0	6,639.8	6,500.0	6,499.1	126.0	1.9	71.70	238.4	4,158.9	8,497.7	8,374.8	122.89	69.148	
11,023.6	6,639.8	6,500.0	6,499.1	126.6	1.9	71.70	238.4	4,158.9	8,521.3	8,397.8	123.52	68.987	
11,100.0	6,639.7	6,500.0	6,499.1	128.8	1.9	71.70	238.4	4,158.9	8,597.6	8,472.1	125.55	68.477	
11,122.0	6,639.6	6,500.0	6,499.1	129.4	1.9	71.70	238.4	4,158.9	8,619.6	8,493.5	126.14	68.333	
11,200.0	6,639.5	6,500.0	6,499.1	131.6	1.9	71.70	238.4	4,158.9	8,697.5	8,569.3	128.22	67.833	
11,220.4	6,639.5	6,500.0	6,499.1	132.1	1.9	71.70	238.4	4,158.9	8,717.9	8,589.2	128.76	67.705	
11,300.0	6,639.4	6,500.0	6,499.1	134.4	1.9	71.71	238.4	4,158.9	8,797.4	8,666.5	130.88	67.216	
11,318.9	6,639.4	6,500.0	6,499.1	134.9	1.9	71.71	238.4	4,158.9	8,816.2	8,684.8	131.39	67.102	
11,400.0	6,639.3	6,500.0	6,499.1	137.1	1.9	71.71	238.4	4,158.9	8,897.3	8,763.7	133.55	66.622	
11,417.3	6,639.3	6,500.0	6,499.1	137.6	1.9	71.71	238.4	4,158.9	8,914.5	8,780.5	134.01	66.522	
11,500.0	6,639.2	6,500.0	6,499.1	139.9	1.9	71.72	238.4	4,158.9	8,997.1	8,860.9	136.21	66.051	
11,515.7	6,639.1	6,500.0	6,499.1	140.4	1.9	71.72	238.4	4,158.9	9,012.9	8,876.2	136.63	65.964	
11,600.0	6,639.0	6,500.0	6,499.1	142.7	1.9	71.72	238.4	4,158.9	9,097.0	8,958.2	138.88	65.502	
11,614.1	6,639.0	6,500.0	6,499.1	143.1	1.9	71.72	238.4	4,158.9	9,111.2	8,971.9	139.26	65.426	
11,700.0	6,638.9	6,500.0	6,499.1	145.5	1.9	71.72	238.4	4,158.9	9,196.9	9,055.4	141.55	64.973	
11,712.6	6,638.9	6,500.0	6,499.1	145.9	1.9	71.72	238.4	4,158.9	9,209.5	9,067.6	141.88	64.908	
11,800.0	6,638.8	6,500.0	6,499.1	148.3	1.9	71.73	238.4	4,158.9	9,296.8	9,152.6	144.22	64.464	
11,811.0	6,638.8	6,500.0	6,499.1	148.6	1.9	71.73	238.4	4,158.9	9,307.8	9,163.3	144.51	64.409	
11,900.0	6,638.7	6,500.0	6,499.1	151.1	1.9	71.73	238.4	4,158.9	9,396.7	9,249.8	146.89	63.973	
11,909.4	6,638.6	6,500.0	6,499.1	151.4	1.9	71.73	238.4	4,158.9	9,406.1	9,259.0	147.14	63.927	

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

Anticollision Report



Company:	PDC ENERGY	Local Co-ordinate Reference:	Well WACKER 10G-214
Project:	WELD COUNTY, COLORADO	TVD Reference:	KB-EST @ 4624.0usft (Original Well Elev)
Reference Site:	SW NW SEC. 10 T5N R64W 6th P.M.	MD Reference:	KB-EST @ 4624.0usft (Original Well Elev)
Site Error:	0.0 usft	North Reference:	True
Reference Well:	WACKER 10G-214	Survey Calculation Method:	Minimum Curvature
Well Error:	0.0 usft	Output errors are at	2.00 sigma
Reference Wellbore	ORIGINAL WELLBORE	Database:	EDM 5000.1 Single User Db
Reference Design:	PROPOSAL #1	Offset TVD Reference:	Offset Datum

Offset Design SW NW SEC. 10 T5N R64W 6th P.M. - EXIST VERT WACKER #42-10 - 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
12,000.0	6,638.5	6,500.0	6,499.1	153.9	1.9	71.73	238.4	4,158.9	9,496.6	9,347.1	149.56	63.499	
12,007.8	6,638.5	6,500.0	6,499.1	154.1	1.9	71.73	238.4	4,158.9	9,504.5	9,354.7	149.77	63.462	
12,100.0	6,638.4	6,500.0	6,499.1	156.7	1.9	71.74	238.4	4,158.9	9,596.5	9,444.3	152.23	63.041	
12,106.3	6,638.4	6,500.0	6,499.1	156.9	1.9	71.74	238.4	4,158.9	9,602.8	9,450.4	152.39	63.013	
12,200.0	6,638.3	6,500.0	6,499.1	159.5	1.9	71.74	238.4	4,158.9	9,696.4	9,541.5	154.90	62.599	
12,204.7	6,638.3	6,500.0	6,499.1	159.6	1.9	71.74	238.4	4,158.9	9,701.1	9,546.1	155.02	62.578	
12,300.0	6,638.2	6,500.0	6,499.1	162.3	1.9	71.75	238.4	4,158.9	9,796.3	9,638.8	157.57	62.171	
12,303.1	6,638.2	6,500.0	6,499.1	162.4	1.9	71.75	238.4	4,158.9	9,799.5	9,641.8	157.65	62.158	
12,400.0	6,638.0	6,500.0	6,499.1	165.1	1.9	71.75	238.4	4,158.9	9,896.2	9,736.0	160.24	61.758	
12,401.5	6,638.0	6,500.0	6,499.1	165.2	1.9	71.75	238.4	4,158.9	9,897.8	9,737.5	160.28	61.752	
12,500.0	6,637.9	6,500.0	6,499.1	167.9	1.9	71.76	238.4	4,158.9	9,996.1	9,833.2	162.91	61.358 SF	

Anticollision Report



Company:	PDC ENERGY	Local Co-ordinate Reference:	Well WACKER 10G-214
Project:	WELD COUNTY, COLORADO	TVD Reference:	KB-EST @ 4624.0usft (Original Well Elev)
Reference Site:	SW NW SEC. 10 T5N R64W 6th P.M.	MD Reference:	KB-EST @ 4624.0usft (Original Well Elev)
Site Error:	0.0 usft	North Reference:	True
Reference Well:	WACKER 10G-214	Survey Calculation Method:	Minimum Curvature
Well Error:	0.0 usft	Output errors are at	2.00 sigma
Reference Wellbore	ORIGINAL WELLBORE	Database:	EDM 5000.1 Single User Db
Reference Design:	PROPOSAL #1	Offset TVD Reference:	Offset Datum

Offset Design												SW NW SEC. 10 T5N R64W 6th P.M. - EXIST VERT WILLIAMS #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	-139.18	-1,096.2	-946.8	1,449.0							
98.4	98.4	60.2	60.2	0.1	0.0	-139.18	-1,096.1	-946.8	1,448.4	1,448.3	0.11	N/A				
100.0	100.0	61.8	61.8	0.1	0.0	-139.18	-1,096.1	-946.8	1,448.4	1,448.3	0.11	N/A				
196.8	196.8	156.8	156.8	0.3	0.0	-139.17	-1,095.9	-946.9	1,448.3	1,448.0	0.33	4,331.366				
196.8	196.8	156.8	156.8	0.3	0.0	-139.17	-1,095.9	-946.9	1,448.3	1,448.0	0.33	4,330.768				
200.0	200.0	159.8	159.8	0.3	0.0	-139.17	-1,095.9	-946.9	1,448.3	1,448.0	0.34	4,239.870				
295.3	295.3	254.0	254.0	0.5	0.1	-139.18	-1,096.2	-946.8	1,448.4	1,447.8	0.66	2,199.777				
300.0	300.0	258.8	258.8	0.5	0.1	-139.18	-1,096.2	-946.8	1,448.4	1,447.7	0.68	2,136.012				
393.7	393.7	361.1	361.1	0.8	0.3	-139.20	-1,096.3	-946.4	1,448.3	1,447.3	1.01	1,435.561				
400.0	400.0	368.3	368.3	0.8	0.3	-139.20	-1,096.3	-946.3	1,448.3	1,447.3	1.03	1,408.689				
492.1	492.1	465.3	465.3	1.0	0.3	-139.22	-1,096.0	-945.4	1,447.5	1,446.2	1.31	1,107.631				
500.0	500.0	473.3	473.3	1.0	0.3	-139.22	-1,096.0	-945.3	1,447.4	1,446.1	1.33	1,087.810				
590.5	590.5	570.8	570.7	1.2	0.4	-139.24	-1,095.5	-944.3	1,446.5	1,444.9	1.60	906.025				
600.0	600.0	581.2	581.2	1.2	0.4	-139.24	-1,095.4	-944.2	1,446.3	1,444.7	1.62	890.583				
689.0	689.0	665.2	665.2	1.4	0.4	-139.25	-1,094.6	-943.3	1,445.1	1,443.2	1.87	772.733				
700.0	700.0	675.2	675.2	1.4	0.5	-139.25	-1,094.6	-943.2	1,445.0	1,443.1	1.90	760.448				
787.4	787.4	759.9	759.9	1.6	0.5	-139.27	-1,094.3	-942.4	1,444.2	1,442.0	2.14	674.445				
800.0	800.0	772.5	772.5	1.7	0.5	-139.27	-1,094.2	-942.2	1,444.1	1,441.9	2.18	663.560				
885.8	885.8	858.9	858.9	1.9	0.6	-139.29	-1,094.0	-941.3	1,443.3	1,440.9	2.41	598.144				
900.0	900.0	873.3	873.3	1.9	0.6	-139.30	-1,094.0	-941.2	1,443.2	1,440.7	2.45	588.579				
984.2	984.2	955.0	955.0	2.1	0.6	-139.33	-1,094.0	-940.1	1,442.5	1,439.8	2.68	538.059				
1,000.0	1,000.0	970.0	970.0	2.1	0.6	-139.33	-1,094.0	-939.9	1,442.3	1,439.6	2.72	529.613				
1,082.7	1,082.7	1,051.9	1,051.8	2.3	0.6	-139.36	-1,094.1	-939.0	1,441.8	1,438.9	2.95	489.170				
1,100.0	1,100.0	1,069.4	1,069.4	2.3	0.7	-139.37	-1,094.1	-938.8	1,441.7	1,438.7	2.99	481.444				
1,181.1	1,181.1	1,146.1	1,146.0	2.5	0.7	-139.40	-1,094.3	-938.0	1,441.3	1,438.1	3.21	449.036				
1,200.0	1,200.0	1,163.2	1,163.1	2.6	0.7	-139.40	-1,094.3	-937.8	1,441.2	1,437.9	3.26	442.215				
1,232.9	1,232.9	1,193.0	1,192.9	2.6	0.7	-139.42	-1,094.5	-937.5	1,441.2	1,437.8	3.35	430.834				
1,279.5	1,279.5	1,238.7	1,238.7	2.7	0.7	-139.44	-1,094.9	-937.2	1,441.2	1,437.7	3.47	415.475				
1,300.0	1,300.0	1,259.1	1,259.1	2.8	0.7	-139.45	-1,095.0	-937.0	1,441.2	1,437.7	3.52	409.084				
1,377.9	1,377.9	1,337.0	1,336.9	3.0	0.8	101.91	-1,095.5	-936.5	1,441.5	1,437.8	3.67	392.690				
1,400.0	1,400.0	1,359.1	1,359.0	3.0	0.8	101.93	-1,095.7	-936.4	1,441.6	1,437.9	3.72	387.277				
1,476.4	1,476.3	1,433.5	1,433.5	3.1	0.8	102.03	-1,096.1	-935.9	1,442.5	1,438.6	3.89	370.903				
1,500.0	1,499.8	1,455.8	1,455.7	3.2	0.8	102.07	-1,096.3	-935.8	1,442.9	1,438.9	3.94	366.202				
1,574.8	1,574.4	1,527.7	1,527.6	3.3	0.8	102.25	-1,096.9	-935.6	1,444.5	1,440.4	4.11	351.373				
1,600.0	1,599.5	1,552.8	1,552.7	3.4	0.8	102.32	-1,097.1	-935.5	1,445.1	1,441.0	4.17	346.626				
1,673.2	1,672.2	1,626.2	1,626.1	3.6	0.9	102.59	-1,097.8	-935.3	1,447.3	1,443.0	4.35	332.629				
1,700.0	1,698.7	1,653.4	1,653.4	3.6	0.9	102.70	-1,098.0	-935.2	1,448.2	1,443.8	4.42	327.766				
1,771.6	1,769.5	1,724.9	1,724.8	3.8	0.9	103.05	-1,098.5	-934.9	1,450.9	1,446.3	4.62	314.323				
1,800.0	1,797.5	1,752.1	1,752.0	3.9	0.9	103.19	-1,098.7	-934.8	1,452.1	1,447.4	4.69	309.305				
1,870.1	1,866.3	1,820.9	1,820.8	4.1	0.9	103.60	-1,099.3	-934.7	1,455.5	1,450.6	4.91	296.257				
1,900.2	1,895.8	1,852.1	1,852.0	4.2	0.9	103.80	-1,099.5	-934.6	1,457.0	1,452.0	5.01	290.933				
1,968.5	1,962.6	1,922.0	1,921.9	4.4	1.0	104.34	-1,099.8	-934.4	1,460.7	1,455.4	5.24	278.581				
2,000.0	1,993.4	1,953.4	1,953.3	4.5	1.0	104.58	-1,100.0	-934.2	1,462.3	1,457.0	5.35	273.176				
2,066.9	2,058.9	2,019.8	2,019.7	4.7	1.0	105.09	-1,100.2	-934.0	1,466.0	1,460.4	5.60	261.868				
2,100.0	2,091.2	2,052.3	2,052.2	4.8	1.0	105.34	-1,100.3	-933.8	1,467.8	1,462.1	5.72	256.600				
2,165.3	2,155.2	2,117.5	2,117.4	5.1	1.0	105.83	-1,100.6	-933.5	1,471.5	1,465.5	5.97	246.487				
2,200.0	2,189.1	2,153.7	2,153.6	5.2	1.1	106.10	-1,100.7	-933.2	1,473.4	1,467.3	6.10	241.395				
2,263.8	2,251.4	2,220.0	2,219.9	5.5	1.1	106.60	-1,100.9	-932.6	1,476.9	1,470.6	6.36	232.354				
2,300.0	2,286.9	2,257.4	2,257.3	5.6	1.1	106.87	-1,101.0	-932.2	1,478.9	1,472.4	6.50	227.509				
2,362.2	2,347.7	2,319.4	2,319.3	5.8	1.1	107.34	-1,101.0	-931.5	1,482.3	1,475.5	6.75	219.502				
2,400.0	2,384.7	2,354.7	2,354.6	6.0	1.1	107.60	-1,101.0	-931.2	1,484.4	1,477.5	6.91	214.937				
2,460.6	2,444.0	2,411.5	2,411.4	6.2	1.1	108.01	-1,101.1	-930.6	1,488.0	1,480.8	7.16	207.921				

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

Anticollision Report



Company:	PDC ENERGY	Local Co-ordinate Reference:	Well WACKER 10G-214
Project:	WELD COUNTY, COLORADO	TVD Reference:	KB-EST @ 4624.0usft (Original Well Elev)
Reference Site:	SW NW SEC. 10 T5N R64W 6th P.M.	MD Reference:	KB-EST @ 4624.0usft (Original Well Elev)
Site Error:	0.0 usft	North Reference:	True
Reference Well:	WACKER 10G-214	Survey Calculation Method:	Minimum Curvature
Well Error:	0.0 usft	Output errors are at	2.00 sigma
Reference Wellbore	ORIGINAL WELLBORE	Database:	EDM 5000.1 Single User Db
Reference Design:	PROPOSAL #1	Offset TVD Reference:	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	2,482.5	2,449.2	2,449.1	6.4	1.2	108.29	-1,101.3	-930.2	1,490.4	1,483.1	7.32	203.618	
2,559.0	2,540.3	2,505.8	2,505.7	6.6	1.2	108.70	-1,101.3	-929.8	1,494.1	1,486.6	7.57	197.446	
2,600.0	2,580.3	2,545.8	2,545.7	6.8	1.2	109.00	-1,101.4	-929.6	1,496.8	1,489.1	7.74	193.408	
2,657.5	2,636.5	2,602.2	2,602.1	7.1	1.2	109.41	-1,101.5	-929.2	1,500.6	1,492.6	7.98	187.985	
2,700.0	2,678.1	2,646.1	2,646.0	7.2	1.2	109.73	-1,101.6	-928.9	1,503.4	1,495.3	8.16	184.186	
2,755.9	2,732.8	2,703.6	2,703.5	7.5	1.2	110.14	-1,101.8	-928.3	1,507.1	1,498.7	8.40	179.396	
2,800.0	2,775.9	2,746.4	2,746.3	7.7	1.3	110.44	-1,101.9	-927.8	1,510.0	1,501.4	8.59	175.813	
2,854.3	2,829.1	2,799.1	2,799.0	7.9	1.3	110.82	-1,101.9	-927.3	1,513.7	1,504.9	8.82	171.589	
2,900.0	2,873.8	2,845.0	2,844.9	8.1	1.3	111.14	-1,101.9	-926.9	1,516.9	1,507.9	9.02	168.202	
2,952.7	2,925.4	2,898.2	2,898.0	8.3	1.3	111.52	-1,101.9	-926.3	1,520.5	1,511.3	9.25	164.456	
2,953.5	2,926.1	2,898.9	2,898.8	8.3	1.3	111.52	-1,101.9	-926.3	1,520.6	1,511.3	9.25	164.406	
3,000.0	2,971.6	2,941.6	2,941.5	8.5	1.3	111.87	-1,102.0	-925.8	1,523.7	1,514.3	9.42	161.737	
3,051.2	3,022.0	2,988.6	2,988.4	8.7	1.3	112.22	-1,102.1	-925.4	1,527.0	1,517.4	9.58	159.433	
3,100.0	3,070.1	3,036.9	3,036.8	8.8	1.4	112.54	-1,102.3	-925.0	1,529.9	1,520.2	9.73	157.278	
3,149.6	3,119.1	3,087.4	3,087.2	8.9	1.4	112.83	-1,102.6	-924.5	1,532.6	1,522.7	9.87	155.317	
3,200.0	3,169.1	3,138.2	3,138.0	9.1	1.4	113.08	-1,102.8	-923.9	1,534.9	1,524.9	10.01	153.342	
3,248.0	3,216.8	3,186.5	3,186.4	9.2	1.4	113.28	-1,103.1	-923.4	1,536.8	1,526.7	10.13	151.675	
3,300.0	3,268.5	3,238.5	3,238.3	9.3	1.4	113.47	-1,103.3	-922.8	1,538.5	1,528.2	10.27	149.869	
3,346.4	3,314.8	3,284.8	3,284.6	9.4	1.5	113.60	-1,103.5	-922.3	1,539.7	1,529.3	10.37	148.449	
3,400.0	3,368.3	3,339.1	3,339.0	9.6	1.5	113.72	-1,103.6	-921.7	1,540.7	1,530.2	10.50	146.796	
3,444.9	3,413.1	3,385.0	3,384.9	9.6	1.5	113.78	-1,103.8	-921.2	1,541.2	1,530.6	10.59	145.578	
3,500.0	3,468.2	3,439.5	3,439.3	9.7	1.5	113.82	-1,103.9	-920.5	1,541.4	1,530.7	10.70	144.068	
3,543.3	3,511.5	3,481.7	3,481.5	9.8	1.5	113.82	-1,104.1	-920.0	1,541.3	1,530.5	10.78	143.004	
3,553.7	3,521.9	3,491.8	3,491.6	9.8	1.5	-127.54	-1,104.1	-919.9	1,541.2	1,531.7	9.51	162.005	
3,600.0	3,568.2	3,538.2	3,538.0	9.9	1.5	-127.55	-1,104.3	-919.4	1,541.0	1,531.3	9.61	160.282	
3,641.7	3,609.9	3,580.3	3,580.1	10.0	1.6	-127.57	-1,104.4	-919.0	1,540.7	1,531.0	9.71	158.695	
3,700.0	3,668.2	3,640.6	3,640.4	10.1	1.6	-127.59	-1,104.6	-918.3	1,540.3	1,530.4	9.84	156.537	
3,740.1	3,708.4	3,682.6	3,682.4	10.1	1.6	-127.60	-1,104.6	-917.8	1,539.9	1,530.0	9.93	155.068	
3,800.0	3,768.2	3,745.8	3,745.6	10.2	1.6	-127.62	-1,104.6	-917.0	1,539.3	1,529.3	10.06	152.938	
3,838.6	3,806.8	3,786.6	3,786.5	10.3	1.6	-127.63	-1,104.6	-916.4	1,538.9	1,528.7	10.15	151.582	
3,900.0	3,868.2	3,848.0	3,847.8	10.4	1.6	-127.65	-1,104.5	-915.5	1,538.1	1,527.8	10.29	149.483	
3,937.0	3,905.2	3,884.4	3,884.2	10.5	1.7	-127.66	-1,104.5	-914.9	1,537.6	1,527.2	10.37	148.241	
4,000.0	3,968.2	3,950.0	3,949.8	10.6	1.7	-127.68	-1,104.4	-913.9	1,536.8	1,526.3	10.51	146.170	
4,035.4	4,003.6	3,987.6	3,987.4	10.6	1.7	-127.69	-1,104.3	-913.3	1,536.3	1,525.7	10.59	145.016	
4,100.0	4,068.2	4,057.8	4,057.6	10.7	1.7	-127.71	-1,104.0	-912.0	1,535.1	1,524.4	10.74	142.963	
4,133.8	4,102.1	4,094.8	4,094.6	10.8	1.7	-127.72	-1,103.7	-911.3	1,534.5	1,523.6	10.81	141.896	
4,200.0	4,168.2	4,163.0	4,162.8	10.9	1.7	-127.73	-1,103.0	-909.9	1,533.0	1,522.0	10.96	139.892	
4,232.3	4,200.5	4,196.2	4,195.9	11.0	1.8	-127.73	-1,102.6	-909.3	1,532.3	1,521.2	11.03	138.925	
4,300.0	4,268.2	4,265.8	4,265.5	11.1	1.8	-127.73	-1,101.5	-908.1	1,530.7	1,519.5	11.18	136.963	
4,330.7	4,298.9	4,297.3	4,297.0	11.1	1.8	-127.73	-1,100.9	-907.5	1,529.9	1,518.7	11.24	136.083	
4,400.0	4,368.2	4,367.5	4,367.2	11.3	1.8	-127.72	-1,099.7	-906.3	1,528.2	1,516.8	11.39	134.146	
4,429.1	4,397.3	4,397.0	4,396.6	11.3	1.8	-127.71	-1,099.1	-905.7	1,527.4	1,516.0	11.45	133.342	
4,500.0	4,468.2	4,465.1	4,464.8	11.4	1.8	-127.70	-1,097.8	-904.6	1,525.6	1,514.0	11.61	131.435	
4,527.5	4,495.8	4,491.6	4,491.2	11.5	1.8	-127.70	-1,097.4	-904.1	1,525.0	1,513.3	11.67	130.707	
4,600.0	4,568.2	4,560.7	4,560.3	11.6	1.8	-127.69	-1,096.2	-903.1	1,523.4	1,511.6	11.82	128.846	
4,626.0	4,594.2	4,585.5	4,585.1	11.7	1.8	-127.68	-1,095.8	-902.7	1,522.9	1,511.0	11.88	128.191	
4,700.0	4,668.2	4,658.2	4,657.8	11.8	1.9	-127.67	-1,094.7	-901.8	1,521.4	1,509.3	12.04	126.360	
4,724.4	4,692.6	4,682.3	4,681.9	11.9	1.9	-127.67	-1,094.4	-901.5	1,520.9	1,508.8	12.09	125.766	
4,800.0	4,768.2	4,754.6	4,754.2	12.0	1.9	-127.67	-1,093.5	-900.5	1,519.5	1,507.3	12.26	123.956	
4,822.8	4,791.0	4,776.1	4,775.7	12.0	1.9	-127.67	-1,093.3	-900.2	1,519.1	1,506.8	12.31	123.420	
4,900.0	4,868.2	4,846.7	4,846.3	12.2	1.9	-127.66	-1,092.6	-899.4	1,518.0	1,505.6	12.48	121.671	
4,921.2	4,889.5	4,865.8	4,865.4	12.2	1.9	-127.66	-1,092.4	-899.3	1,517.8	1,505.3	12.52	121.203	

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

Anticollision Report



Company:	PDC ENERGY	Local Co-ordinate Reference:	Well WACKER 10G-214
Project:	WELD COUNTY, COLORADO	TVD Reference:	KB-EST @ 4624.0usft (Original Well Elev)
Reference Site:	SW NW SEC. 10 T5N R64W 6th P.M.	MD Reference:	KB-EST @ 4624.0usft (Original Well Elev)
Site Error:	0.0 usft	North Reference:	True
Reference Well:	WACKER 10G-214	Survey Calculation Method:	Minimum Curvature
Well Error:	0.0 usft	Output errors are at	2.00 sigma
Reference Wellbore	ORIGINAL WELLBORE	Database:	EDM 5000.1 Single User Db
Reference Design:	PROPOSAL #1	Offset TVD Reference:	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	4,968.2	4,938.6	4,938.2	12.4	1.9	-127.65	-1,091.9	-898.9	1,517.2	1,504.5	12.69	119.516	
5,019.7	4,987.9	4,957.3	4,956.9	12.4	1.9	-127.65	-1,091.8	-898.8	1,517.0	1,504.3	12.74	119.103	
5,100.0	5,068.2	5,035.3	5,034.9	12.6	2.0	-127.65	-1,091.6	-898.6	1,516.6	1,503.7	12.91	117.446	
5,118.1	5,086.3	5,053.4	5,053.0	12.6	2.0	-127.65	-1,091.5	-898.5	1,516.6	1,503.6	12.95	117.076	
5,200.0	5,168.2	5,133.6	5,133.1	12.7	2.0	-127.65	-1,091.2	-898.3	1,516.2	1,503.1	13.13	115.472	
5,216.5	5,184.7	5,149.2	5,148.8	12.8	2.0	-127.65	-1,091.2	-898.3	1,516.2	1,503.0	13.17	115.165	
5,289.1	5,257.3	5,217.7	5,217.3	12.9	2.0	-127.64	-1,090.9	-898.3	1,516.1	1,502.8	13.32	113.844	
5,300.0	5,268.2	5,227.9	5,227.5	12.9	2.0	-127.64	-1,090.9	-898.4	1,516.1	1,502.7	13.34	113.651	
5,314.9	5,283.2	5,241.8	5,241.4	13.0	2.0	-127.64	-1,090.9	-898.4	1,516.1	1,502.7	13.37	113.388	
5,400.0	5,368.2	5,323.8	5,323.4	13.1	2.0	-127.63	-1,090.9	-898.6	1,516.3	1,502.8	13.55	111.895	
5,413.4	5,381.6	5,337.8	5,337.4	13.2	2.0	-127.63	-1,091.0	-898.7	1,516.4	1,502.8	13.58	111.650	
5,500.0	5,468.2	5,428.3	5,427.9	13.3	2.0	-127.64	-1,091.2	-898.6	1,516.5	1,502.7	13.78	110.042	
5,511.8	5,480.0	5,440.5	5,440.1	13.3	2.0	-127.65	-1,091.3	-898.6	1,516.5	1,502.7	13.81	109.815	
5,600.0	5,568.2	5,535.5	5,535.1	13.5	2.0	-127.70	-1,092.4	-897.5	1,516.3	1,502.3	14.02	108.125	
5,610.2	5,578.4	5,547.3	5,546.9	13.5	2.0	-127.71	-1,092.6	-897.3	1,516.3	1,502.2	14.05	107.927	
5,700.0	5,668.2	5,645.1	5,644.6	13.7	2.0	-127.82	-1,094.4	-894.8	1,515.5	1,501.2	14.27	106.210	
5,708.6	5,676.9	5,654.0	5,653.5	13.7	2.0	-127.83	-1,094.6	-894.5	1,515.4	1,501.1	14.29	106.048	
5,800.0	5,768.2	5,751.9	5,751.4	13.9	2.1	-127.98	-1,096.9	-891.2	1,514.2	1,499.7	14.51	104.342	
5,807.1	5,775.3	5,759.9	5,759.3	13.9	2.1	-128.00	-1,097.1	-890.9	1,514.1	1,499.6	14.53	104.210	
5,900.0	5,868.2	5,858.6	5,857.9	14.1	2.1	-128.16	-1,099.3	-886.8	1,512.4	1,497.7	14.76	102.500	
5,905.5	5,873.7	5,864.3	5,863.6	14.1	2.1	-128.17	-1,099.4	-886.6	1,512.3	1,497.5	14.77	102.400	
5,960.7	5,928.9	5,918.9	5,918.1	14.2	2.1	-128.25	-1,100.4	-884.4	1,511.2	1,496.3	14.90	101.414	
6,000.0	5,968.2	5,955.2	5,954.4	14.3	2.1	-38.40	-1,101.0	-883.1	1,509.6	1,493.7	15.92	94.817	
6,003.9	5,972.1	5,958.8	5,958.0	14.3	2.1	-38.42	-1,101.1	-883.0	1,509.4	1,493.5	15.93	94.758	
6,050.0	6,018.0	6,000.0	5,999.2	14.4	2.2	-38.76	-1,101.7	-881.6	1,505.3	1,489.3	16.02	93.949	
6,100.0	6,067.3	6,047.2	6,046.3	14.4	2.2	-39.35	-1,102.4	-880.2	1,498.4	1,482.3	16.13	92.918	
6,102.3	6,069.6	6,049.3	6,048.5	14.4	2.2	-39.38	-1,102.4	-880.2	1,498.1	1,481.9	16.13	92.868	
6,150.0	6,116.0	6,092.6	6,091.7	14.4	2.2	-40.14	-1,103.0	-879.1	1,489.0	1,472.8	16.23	91.762	
6,200.0	6,163.8	6,132.3	6,131.5	14.5	2.2	-41.12	-1,103.6	-878.2	1,477.2	1,460.9	16.32	90.538	
6,200.8	6,164.5	6,132.9	6,132.0	14.5	2.2	-41.13	-1,103.6	-878.2	1,477.0	1,460.7	16.32	90.519	
6,250.0	6,210.4	6,170.2	6,169.3	14.5	2.2	-42.30	-1,104.2	-877.5	1,463.2	1,446.8	16.39	89.254	
6,299.2	6,254.9	6,208.0	6,207.1	14.5	2.2	-43.70	-1,105.1	-877.0	1,447.5	1,431.0	16.46	87.924	
6,300.0	6,255.6	6,208.7	6,207.8	14.5	2.2	-43.73	-1,105.1	-877.0	1,447.2	1,430.7	16.46	87.902	
6,350.0	6,299.3	6,252.8	6,251.9	14.5	2.2	-45.52	-1,106.1	-876.4	1,429.0	1,412.5	16.53	86.440	
6,397.6	6,339.2	6,293.0	6,292.1	14.6	2.2	-47.48	-1,107.0	-875.9	1,409.8	1,393.2	16.60	84.927	
6,400.0	6,341.2	6,295.0	6,294.0	14.6	2.2	-47.59	-1,107.1	-875.9	1,408.8	1,392.2	16.60	84.849	
6,450.0	6,381.0	6,333.9	6,332.9	14.6	2.2	-49.91	-1,108.0	-875.3	1,386.7	1,370.0	16.69	83.083	
6,496.0	6,415.8	6,367.5	6,366.6	14.7	2.3	-52.30	-1,108.8	-874.8	1,364.9	1,348.1	16.80	81.262	
6,500.0	6,418.7	6,370.3	6,369.4	14.7	2.3	-52.52	-1,108.9	-874.8	1,363.0	1,346.2	16.81	81.102	
6,550.0	6,453.9	6,404.6	6,403.7	14.8	2.3	-55.40	-1,109.8	-874.2	1,337.9	1,320.9	16.96	78.867	
6,594.5	6,483.1	6,434.4	6,433.4	15.0	2.3	-58.21	-1,110.6	-873.7	1,314.6	1,297.5	17.16	76.626	
6,600.0	6,486.6	6,437.9	6,436.9	15.1	2.3	-58.58	-1,110.7	-873.7	1,311.7	1,294.5	17.18	76.345	
6,650.0	6,516.6	6,468.3	6,467.3	15.3	2.3	-61.97	-1,111.5	-873.2	1,284.5	1,267.0	17.46	73.549	
6,692.9	6,540.0	6,491.9	6,490.9	15.7	2.3	-65.00	-1,112.1	-872.7	1,260.7	1,242.9	17.77	70.939	
6,700.0	6,543.7	6,495.6	6,494.6	15.7	2.3	-65.51	-1,112.2	-872.7	1,256.7	1,238.9	17.82	70.513	
6,750.0	6,567.8	6,518.1	6,517.1	16.2	2.3	-69.06	-1,112.8	-872.3	1,228.6	1,210.3	18.26	67.292	
6,791.3	6,585.4	6,534.3	6,533.2	16.7	2.3	-71.98	-1,113.2	-872.0	1,205.3	1,186.6	18.68	64.518	
6,800.0	6,588.8	6,537.4	6,536.4	16.8	2.3	-72.59	-1,113.2	-872.0	1,200.4	1,181.6	18.77	63.953	
6,850.0	6,606.6	6,553.8	6,552.7	17.4	2.3	-76.04	-1,113.6	-871.7	1,172.5	1,153.2	19.36	60.560	
6,889.7	6,618.4	6,564.6	6,563.5	18.0	2.3	-78.67	-1,113.9	-871.6	1,150.8	1,130.9	19.89	57.845	
6,900.0	6,621.1	6,567.0	6,566.0	18.2	2.3	-79.32	-1,114.0	-871.6	1,145.3	1,125.2	20.03	57.169	
6,950.0	6,632.2	6,577.2	6,576.1	19.0	2.3	-82.36	-1,114.2	-871.4	1,118.9	1,098.1	20.79	53.828	

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

Anticollision Report



Company:	PDC ENERGY	Local Co-ordinate Reference:	Well WACKER 10G-214
Project:	WELD COUNTY, COLORADO	TVD Reference:	KB-EST @ 4624.0usft (Original Well Elev)
Reference Site:	SW NW SEC. 10 T5N R64W 6th P.M.	MD Reference:	KB-EST @ 4624.0usft (Original Well Elev)
Site Error:	0.0 usft	North Reference:	True
Reference Well:	WACKER 10G-214	Survey Calculation Method:	Minimum Curvature
Well Error:	0.0 usft	Output errors are at	2.00 sigma
Reference Wellbore	ORIGINAL WELLBORE	Database:	EDM 5000.1 Single User Db
Reference Design:	PROPOSAL #1	Offset TVD Reference:	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	
6,988.2	6,638.4	6,582.7	6,581.7	19.7	2.3	-84.48	-1,114.3	-871.4	1,099.5	1,078.1	21.42	51.330	
7,000.0	6,639.9	6,584.0	6,583.0	19.9	2.3	-85.09	-1,114.4	-871.4	1,093.6	1,072.0	21.62	50.587	
7,050.0	6,644.1	6,587.6	6,586.5	20.8	2.3	-87.47	-1,114.5	-871.3	1,069.9	1,047.3	22.52	47.499	
7,086.5	6,645.0	6,588.1	6,587.0	21.5	2.3	-88.95	-1,114.5	-871.3	1,053.5	1,030.3	23.22	45.369	
7,100.0	6,645.0	6,587.9	6,586.9	21.8	2.3	-88.94	-1,114.5	-871.3	1,047.8	1,024.3	23.49	44.610	
7,185.0	6,644.9	6,586.9	6,585.9	23.6	2.3	-88.88	-1,114.4	-871.3	1,014.8	989.5	25.25	40.193	
7,200.0	6,644.8	6,586.7	6,585.7	23.9	2.3	-88.87	-1,114.4	-871.3	1,009.6	984.0	25.56	39.503	
7,283.4	6,644.7	6,585.7	6,584.7	25.7	2.3	-88.81	-1,114.4	-871.3	984.4	957.0	27.40	35.927	
7,300.0	6,644.7	6,585.5	6,584.5	26.1	2.3	-88.80	-1,114.4	-871.3	980.1	952.4	27.76	35.301	
7,381.9	6,644.6	6,584.5	6,583.5	28.0	2.3	-88.74	-1,114.4	-871.4	963.1	933.4	29.66	32.472	
7,400.0	6,644.6	6,584.3	6,583.2	28.4	2.3	-88.72	-1,114.4	-871.4	960.2	930.2	30.08	31.924	
7,480.3	6,644.5	6,583.3	6,582.2	30.3	2.3	-88.66	-1,114.4	-871.4	951.6	919.6	32.00	29.734	
7,500.0	6,644.4	6,583.0	6,582.0	30.8	2.3	-88.65	-1,114.4	-871.4	950.5	918.0	32.48	29.268	
7,543.1	6,644.4	6,582.5	6,581.4	31.9	2.3	-88.62	-1,114.3	-871.4	949.5	916.0	33.54	28.314 CC	
7,578.7	6,644.3	6,582.0	6,581.0	32.7	2.3	-88.59	-1,114.3	-871.4	950.2	915.8	34.41	27.611 ES	
7,600.0	6,644.3	6,581.8	6,580.7	33.3	2.3	-88.57	-1,114.3	-871.4	951.2	916.3	34.94	27.227	
7,677.1	6,644.2	6,580.8	6,579.7	35.2	2.3	-88.51	-1,114.3	-871.4	958.9	922.1	36.88	26.005	
7,700.0	6,644.1	6,580.5	6,579.4	35.8	2.3	-88.49	-1,114.3	-871.4	962.4	925.0	37.45	25.698	
7,775.6	6,644.0	6,579.5	6,578.4	37.7	2.3	-88.43	-1,114.3	-871.4	977.6	938.2	39.38	24.824	
7,800.0	6,644.0	6,579.1	6,578.1	38.3	2.3	-88.41	-1,114.3	-871.4	983.7	943.7	40.00	24.589	
7,874.0	6,643.9	6,578.1	6,577.1	40.2	2.3	-88.35	-1,114.2	-871.4	1,005.5	963.6	41.92	23.988	
7,900.0	6,643.9	6,577.8	6,576.7	40.9	2.3	-88.33	-1,114.2	-871.4	1,014.4	971.8	42.59	23.817	
7,972.4	6,643.8	6,576.8	6,575.8	42.8	2.3	-88.27	-1,114.2	-871.4	1,042.1	997.6	44.48	23.426	
8,000.0	6,643.7	6,576.4	6,575.4	43.5	2.3	-88.25	-1,114.2	-871.5	1,053.7	1,008.5	45.21	23.310	
8,070.8	6,643.6	6,575.4	6,574.4	45.4	2.3	-88.19	-1,114.2	-871.5	1,086.3	1,039.3	47.07	23.077	
8,100.0	6,643.6	6,575.0	6,574.0	46.2	2.3	-88.17	-1,114.2	-871.5	1,100.8	1,052.9	47.84	23.009	
8,169.3	6,643.5	6,574.1	6,573.0	48.0	2.3	-88.11	-1,114.1	-871.5	1,137.4	1,087.7	49.68	22.894	
8,200.0	6,643.5	6,573.6	6,572.6	48.8	2.3	-88.08	-1,114.1	-871.5	1,154.6	1,104.1	50.50	22.864	
8,267.7	6,643.4	6,572.7	6,571.6	50.6	2.3	-88.02	-1,114.1	-871.5	1,194.4	1,142.1	52.31	22.835 SF	
8,300.0	6,643.3	6,572.2	6,571.1	51.5	2.3	-88.00	-1,114.1	-871.5	1,214.3	1,161.1	53.17	22.838	
8,366.1	6,643.2	6,571.2	6,570.2	53.3	2.3	-87.94	-1,114.1	-871.5	1,256.5	1,201.6	54.95	22.869	
8,400.0	6,643.2	6,570.7	6,569.7	54.2	2.3	-87.91	-1,114.1	-871.5	1,279.0	1,223.1	55.85	22.898	
8,464.5	6,643.1	6,569.8	6,568.7	55.9	2.3	-87.85	-1,114.0	-871.5	1,323.1	1,265.5	57.60	22.972	
8,500.0	6,643.1	6,569.2	6,568.2	56.9	2.3	-87.82	-1,114.0	-871.5	1,348.0	1,289.5	58.55	23.023	
8,563.0	6,643.0	6,568.3	6,567.2	58.6	2.3	-87.76	-1,114.0	-871.5	1,393.4	1,333.2	60.26	23.125	
8,600.0	6,642.9	6,567.7	6,566.7	59.6	2.3	-87.73	-1,114.0	-871.6	1,420.7	1,359.5	61.26	23.193	
8,661.4	6,642.8	6,566.8	6,565.7	61.3	2.3	-87.67	-1,114.0	-871.6	1,467.0	1,404.1	62.92	23.313	
8,700.0	6,642.8	6,566.2	6,565.1	62.3	2.3	-87.63	-1,113.9	-871.6	1,496.6	1,432.6	63.97	23.395	
8,759.8	6,642.7	6,565.2	6,564.2	64.0	2.3	-87.58	-1,113.9	-871.6	1,543.3	1,477.7	65.60	23.526	
8,800.0	6,642.7	6,564.6	6,563.5	65.1	2.3	-87.54	-1,113.9	-871.6	1,575.2	1,508.5	66.70	23.618	
8,858.2	6,642.6	6,563.7	6,562.6	66.6	2.3	-87.48	-1,113.9	-871.6	1,622.0	1,553.8	68.28	23.754	
8,900.0	6,642.5	6,563.0	6,561.9	67.8	2.3	-87.44	-1,113.9	-871.6	1,656.1	1,586.6	69.42	23.855	
8,956.7	6,642.4	6,562.1	6,561.0	69.3	2.3	-87.39	-1,113.8	-871.6	1,702.8	1,631.8	70.97	23.992	
9,000.0	6,642.4	6,561.4	6,560.3	70.5	2.3	-87.34	-1,113.8	-871.6	1,738.9	1,666.8	72.16	24.099	
9,055.1	6,642.3	6,560.4	6,559.4	72.0	2.3	-87.29	-1,113.8	-871.6	1,785.3	1,711.7	73.67	24.235	
9,100.0	6,642.3	6,559.7	6,558.6	73.3	2.3	-87.24	-1,113.8	-871.7	1,823.5	1,748.6	74.90	24.347	
9,153.5	6,642.2	6,558.8	6,557.7	74.7	2.3	-87.19	-1,113.8	-871.7	1,869.4	1,793.1	76.36	24.480	
9,200.0	6,642.1	6,558.0	6,556.9	76.0	2.3	-87.14	-1,113.7	-871.7	1,909.6	1,832.0	77.64	24.596	
9,251.9	6,642.1	6,557.1	6,556.0	77.5	2.3	-87.09	-1,113.7	-871.7	1,954.8	1,875.8	79.07	24.724	
9,300.0	6,642.0	6,556.2	6,555.2	78.8	2.3	-87.04	-1,113.7	-871.7	1,997.0	1,916.6	80.39	24.842	
9,350.4	6,641.9	6,555.4	6,554.3	80.2	2.3	-86.98	-1,113.7	-871.7	2,041.4	1,959.6	81.77	24.965	
9,400.0	6,641.9	6,554.5	6,553.4	81.5	2.3	-86.93	-1,113.7	-871.7	2,085.5	2,002.3	83.14	25.085	

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

Anticollision Report



Company:	PDC ENERGY	Local Co-ordinate Reference:	Well WACKER 10G-214
Project:	WELD COUNTY, COLORADO	TVD Reference:	KB-EST @ 4624.0usft (Original Well Elev)
Reference Site:	SW NW SEC. 10 T5N R64W 6th P.M.	MD Reference:	KB-EST @ 4624.0usft (Original Well Elev)
Site Error:	0.0 usft	North Reference:	True
Reference Well:	WACKER 10G-214	Survey Calculation Method:	Minimum Curvature
Well Error:	0.0 usft	Output errors are at	2.00 sigma
Reference Wellbore	ORIGINAL WELLBORE	Database:	EDM 5000.1 Single User Db
Reference Design:	PROPOSAL #1	Offset TVD Reference:	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	6,641.8	6,553.6	6,552.6	82.9	2.3	-86.88	-1,113.6	-871.7	2,129.0	2,044.5	84.48	25.202	
9,500.0	6,641.7	6,552.7	6,551.6	84.3	2.3	-86.82	-1,113.6	-871.8	2,175.0	2,089.1	85.89	25.324	
9,547.2	6,641.7	6,551.8	6,550.8	85.6	2.3	-86.77	-1,113.6	-871.8	2,217.5	2,130.4	87.19	25.434	
9,600.0	6,641.6	6,550.8	6,549.8	87.1	2.3	-86.71	-1,113.6	-871.8	2,265.3	2,176.7	88.64	25.556	
9,645.6	6,641.5	6,550.0	6,548.9	88.3	2.3	-86.66	-1,113.6	-871.8	2,306.9	2,217.0	89.90	25.660	
9,700.0	6,641.5	6,549.0	6,547.9	89.8	2.3	-86.60	-1,113.5	-871.8	2,356.5	2,265.1	91.40	25.783	
9,744.1	6,641.4	6,548.1	6,547.1	91.0	2.3	-86.55	-1,113.5	-871.8	2,396.9	2,304.3	92.61	25.881	
9,800.0	6,641.3	6,547.0	6,546.0	92.6	2.3	-86.48	-1,113.5	-871.8	2,448.3	2,354.2	94.16	26.003	
9,842.5	6,641.3	6,546.2	6,545.2	93.8	2.3	-86.43	-1,113.5	-871.8	2,487.6	2,392.2	95.33	26.095	
9,900.0	6,641.2	6,545.1	6,544.0	95.4	2.3	-86.37	-1,113.4	-871.9	2,540.8	2,443.9	96.92	26.217	
9,940.9	6,641.1	6,544.3	6,543.2	96.5	2.3	-86.32	-1,113.4	-871.9	2,578.8	2,480.8	98.04	26.302	
10,000.0	6,641.1	6,543.1	6,542.0	98.1	2.3	-86.25	-1,113.4	-871.9	2,633.8	2,534.1	99.68	26.424	
10,039.3	6,641.0	6,542.3	6,541.2	99.2	2.3	-86.20	-1,113.4	-871.9	2,670.5	2,569.8	100.76	26.504	
10,100.0	6,640.9	6,541.0	6,540.0	100.9	2.3	-86.12	-1,113.3	-871.9	2,727.3	2,624.9	102.44	26.624	
10,137.8	6,640.9	6,540.2	6,539.2	102.0	2.3	-86.08	-1,113.3	-871.9	2,762.7	2,659.3	103.48	26.699	
10,200.0	6,640.8	6,538.9	6,537.9	103.7	2.3	-86.00	-1,113.3	-871.9	2,821.3	2,716.1	105.20	26.819	
10,236.2	6,640.8	6,538.2	6,537.1	104.7	2.3	-85.95	-1,113.3	-872.0	2,855.4	2,749.2	106.20	26.887	
10,300.0	6,640.7	6,536.8	6,535.8	106.5	2.3	-85.87	-1,113.2	-872.0	2,915.6	2,807.6	107.96	27.006	
10,334.6	6,640.6	6,536.1	6,535.0	107.4	2.3	-85.82	-1,113.2	-872.0	2,948.4	2,839.4	108.92	27.070	
10,400.0	6,640.6	6,534.6	6,533.6	109.3	2.3	-85.74	-1,113.2	-872.0	3,010.3	2,899.6	110.72	27.188	
10,433.0	6,640.5	6,533.9	6,532.9	110.2	2.3	-85.69	-1,113.2	-872.0	3,041.7	2,930.1	111.63	27.247	
10,500.0	6,640.4	6,532.4	6,531.4	112.0	2.3	-85.61	-1,113.1	-872.0	3,105.4	2,991.9	113.48	27.364	
10,531.5	6,640.4	6,531.7	6,530.6	112.9	2.3	-85.56	-1,113.1	-872.1	3,135.3	3,021.0	114.35	27.418	
10,600.0	6,640.3	6,530.1	6,529.1	114.8	2.3	-85.47	-1,113.1	-872.1	3,200.7	3,084.5	116.24	27.534	
10,629.9	6,640.3	6,529.4	6,528.4	115.7	2.3	-85.43	-1,113.0	-872.1	3,229.3	3,112.2	117.07	27.584	
10,700.0	6,640.2	6,527.8	6,526.7	117.6	2.3	-85.33	-1,113.0	-872.1	3,296.3	3,177.3	119.00	27.699	
10,728.3	6,640.1	6,527.1	6,526.1	118.4	2.3	-85.29	-1,113.0	-872.1	3,323.4	3,203.7	119.79	27.745	
10,800.0	6,640.0	6,525.4	6,524.4	120.4	2.3	-85.19	-1,112.9	-872.2	3,392.2	3,270.4	121.76	27.859	
10,826.7	6,640.0	6,524.7	6,523.7	121.2	2.3	-85.15	-1,112.9	-872.2	3,417.9	3,295.4	122.50	27.901	
10,900.0	6,639.9	6,522.9	6,521.9	123.2	2.3	-85.04	-1,112.9	-872.2	3,488.3	3,363.8	124.52	28.013	
10,925.2	6,639.9	6,522.3	6,521.3	123.9	2.3	-85.00	-1,112.9	-872.2	3,512.5	3,387.3	125.22	28.051	
11,000.0	6,639.8	6,520.4	6,519.4	126.0	2.3	-84.89	-1,112.8	-872.2	3,584.6	3,457.3	127.28	28.163	
11,023.6	6,639.8	6,519.8	6,518.8	126.6	2.3	-84.85	-1,112.8	-872.2	3,607.4	3,479.4	127.93	28.198	
11,100.0	6,639.7	6,517.9	6,516.9	128.8	2.3	-84.74	-1,112.8	-872.3	3,681.1	3,551.1	130.04	28.308	
11,122.0	6,639.6	6,517.3	6,516.3	129.4	2.3	-84.70	-1,112.7	-872.3	3,702.4	3,571.7	130.64	28.340	
11,200.0	6,639.5	6,515.3	6,514.2	131.6	2.3	-84.58	-1,112.7	-872.3	3,777.8	3,645.0	132.79	28.449	
11,220.4	6,639.5	6,514.7	6,513.7	132.1	2.3	-84.55	-1,112.7	-872.3	3,797.6	3,664.2	133.35	28.478	
11,300.0	6,639.4	6,512.6	6,511.5	134.4	2.3	-84.42	-1,112.6	-872.4	3,874.7	3,739.1	135.54	28.586	
11,318.9	6,639.4	6,512.0	6,511.0	134.9	2.3	-84.39	-1,112.6	-872.4	3,893.0	3,756.9	136.06	28.612	
11,400.0	6,639.3	6,509.8	6,508.8	137.1	2.3	-84.25	-1,112.6	-872.4	3,971.7	3,833.4	138.29	28.719	
11,417.3	6,639.3	6,509.3	6,508.3	137.6	2.3	-84.22	-1,112.5	-872.4	3,988.5	3,849.7	138.77	28.742	
11,500.0	6,639.2	6,507.0	6,505.9	139.9	2.3	-84.08	-1,112.5	-872.5	4,068.8	3,927.8	141.04	28.849	
11,515.7	6,639.1	6,506.5	6,505.5	140.4	2.3	-84.06	-1,112.5	-872.5	4,084.1	3,942.6	141.47	28.869	
11,600.0	6,639.0	6,504.1	6,503.0	142.7	2.3	-83.91	-1,112.4	-872.5	4,166.1	4,022.3	143.78	28.975	
11,614.1	6,639.0	6,503.7	6,502.6	143.1	2.3	-83.89	-1,112.4	-872.5	4,179.9	4,035.7	144.17	28.992	
11,700.0	6,638.9	6,501.1	6,500.1	145.5	2.3	-83.73	-1,112.3	-872.6	4,263.5	4,117.0	146.53	29.097	
11,712.6	6,638.9	6,500.7	6,499.7	145.9	2.3	-83.71	-1,112.3	-872.6	4,275.8	4,128.9	146.87	29.113	
11,800.0	6,638.8	6,500.0	6,499.0	148.3	2.3	-83.67	-1,112.3	-872.6	4,361.0	4,211.8	149.29	29.212	
11,811.0	6,638.8	6,500.0	6,499.0	148.6	2.3	-83.67	-1,112.3	-872.6	4,371.8	4,222.2	149.60	29.224	
11,900.0	6,638.7	6,497.0	6,496.0	151.1	2.3	-83.49	-1,112.2	-872.6	4,458.7	4,306.6	152.03	29.328	
11,909.4	6,638.6	6,496.8	6,495.8	151.4	2.3	-83.48	-1,112.2	-872.6	4,467.9	4,315.6	152.29	29.338	
12,000.0	6,638.5	6,495.2	6,494.2	153.9	2.3	-83.38	-1,112.2	-872.7	4,556.4	4,401.6	154.78	29.438	

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

Anticollision Report



Company:	PDC ENERGY	Local Co-ordinate Reference:	Well WACKER 10G-214
Project:	WELD COUNTY, COLORADO	TVD Reference:	KB-EST @ 4624.0usft (Original Well Elev)
Reference Site:	SW NW SEC. 10 T5N R64W 6th P.M.	MD Reference:	KB-EST @ 4624.0usft (Original Well Elev)
Site Error:	0.0 usft	North Reference:	True
Reference Well:	WACKER 10G-214	Survey Calculation Method:	Minimum Curvature
Well Error:	0.0 usft	Output errors are at	2.00 sigma
Reference Wellbore	ORIGINAL WELLBORE	Database:	EDM 5000.1 Single User Db
Reference Design:	PROPOSAL #1	Offset TVD Reference:	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	
12,007.8	6,638.5	6,495.1	6,494.0	154.1	2.3	-83.38	-1,112.2	-872.7	4,564.1	4,409.1	155.00	29.446	
12,100.0	6,638.4	6,493.4	6,492.4	156.7	2.3	-83.28	-1,112.1	-872.7	4,654.2	4,496.7	157.53	29.544	
12,106.3	6,638.4	6,493.3	6,492.3	156.9	2.3	-83.27	-1,112.1	-872.7	4,660.4	4,502.7	157.71	29.551	
12,200.0	6,638.3	6,491.6	6,490.6	159.5	2.3	-83.17	-1,112.1	-872.7	4,752.2	4,591.9	160.28	29.648	
12,204.7	6,638.3	6,491.5	6,490.5	159.6	2.3	-83.16	-1,112.1	-872.7	4,756.8	4,596.4	160.41	29.653	
12,300.0	6,638.2	6,489.8	6,488.8	162.3	2.3	-83.06	-1,112.0	-872.8	4,850.2	4,687.1	163.03	29.749	
12,303.1	6,638.2	6,489.7	6,488.7	162.4	2.3	-83.06	-1,112.0	-872.8	4,853.2	4,690.1	163.12	29.753	
12,400.0	6,638.0	6,488.0	6,487.0	165.1	2.3	-82.96	-1,112.0	-872.8	4,948.3	4,782.5	165.78	29.848	
12,401.5	6,638.0	6,488.0	6,487.0	165.2	2.3	-82.96	-1,112.0	-872.8	4,949.8	4,784.0	165.83	29.849	
12,500.0	6,637.9	6,486.2	6,485.2	167.9	2.3	-82.85	-1,112.0	-872.8	5,046.4	4,877.9	168.53	29.944	
12,598.4	6,637.8	6,484.5	6,483.5	170.7	2.3	-82.75	-1,111.9	-872.9	5,143.1	4,971.8	171.23	30.035	
12,600.0	6,637.8	6,484.5	6,483.5	170.7	2.3	-82.75	-1,111.9	-872.9	5,144.7	4,973.4	171.28	30.037	
12,696.8	6,637.7	6,482.8	6,481.7	173.4	2.3	-82.65	-1,111.9	-872.9	5,239.8	5,065.9	173.94	30.125	
12,700.0	6,637.7	6,482.7	6,481.7	173.5	2.3	-82.64	-1,111.9	-872.9	5,242.9	5,068.9	174.02	30.128	
12,795.2	6,637.6	6,481.0	6,480.0	176.2	2.3	-82.54	-1,111.8	-872.9	5,336.6	5,160.0	176.64	30.212	
12,800.0	6,637.6	6,480.9	6,479.9	176.3	2.3	-82.54	-1,111.8	-872.9	5,341.3	5,164.5	176.77	30.217	
12,893.7	6,637.4	6,479.3	6,478.3	178.9	2.3	-82.44	-1,111.8	-873.0	5,433.5	5,254.2	179.34	30.298	
12,900.0	6,637.4	6,479.2	6,478.2	179.1	2.3	-82.44	-1,111.8	-873.0	5,439.7	5,260.2	179.51	30.303	
12,992.1	6,637.3	6,477.6	6,476.6	181.7	2.3	-82.34	-1,111.7	-873.0	5,530.4	5,348.4	182.04	30.381	
13,000.0	6,637.3	6,477.4	6,476.4	181.9	2.3	-82.33	-1,111.7	-873.0	5,538.2	5,355.9	182.25	30.388	
13,090.5	6,637.2	6,475.9	6,474.9	184.4	2.3	-82.24	-1,111.7	-873.0	5,627.4	5,442.7	184.73	30.462	
13,100.0	6,637.2	6,475.7	6,474.7	184.7	2.3	-82.23	-1,111.7	-873.0	5,636.7	5,451.7	184.99	30.470	
13,188.9	6,637.1	6,474.2	6,473.2	187.2	2.3	-82.14	-1,111.6	-873.1	5,724.4	5,537.0	187.43	30.542	
13,200.0	6,637.1	6,474.0	6,473.0	187.5	2.3	-82.13	-1,111.6	-873.1	5,735.3	5,547.6	187.73	30.551	
13,287.4	6,637.0	6,472.5	6,471.4	190.0	2.3	-82.04	-1,111.6	-873.1	5,821.5	5,631.4	190.12	30.619	
13,300.0	6,637.0	6,472.2	6,471.2	190.3	2.3	-82.03	-1,111.6	-873.1	5,833.9	5,643.5	190.47	30.629	
13,385.8	6,636.9	6,470.8	6,469.8	192.7	2.3	-81.94	-1,111.6	-873.1	5,918.6	5,725.8	192.82	30.695	
13,400.0	6,636.8	6,470.5	6,469.5	193.1	2.3	-81.92	-1,111.6	-873.1	5,932.6	5,739.4	193.21	30.706	
13,484.2	6,636.7	6,469.1	6,468.1	195.5	2.3	-81.84	-1,111.5	-873.1	6,015.7	5,820.2	195.51	30.770	
13,500.0	6,636.7	6,468.8	6,467.8	195.9	2.3	-81.82	-1,111.5	-873.1	6,031.3	5,835.4	195.94	30.781	
13,582.6	6,636.6	6,467.4	6,466.4	198.2	2.3	-81.74	-1,111.5	-873.2	6,112.9	5,914.7	198.20	30.842	
13,600.0	6,636.6	6,467.1	6,466.1	198.7	2.3	-81.72	-1,111.5	-873.2	6,130.1	5,931.4	198.67	30.855	
13,681.1	6,636.5	6,465.7	6,464.7	201.0	2.3	-81.64	-1,111.4	-873.2	6,210.2	6,009.3	200.89	30.913	
13,700.0	6,636.5	6,465.4	6,464.4	201.5	2.3	-81.62	-1,111.4	-873.2	6,228.9	6,027.5	201.41	30.927	
13,779.5	6,636.4	6,464.0	6,463.0	203.7	2.3	-81.54	-1,111.4	-873.2	6,307.4	6,103.9	203.58	30.983	
13,800.0	6,636.4	6,463.7	6,462.7	204.3	2.3	-81.52	-1,111.4	-873.2	6,327.7	6,123.6	204.14	30.997	
13,877.9	6,636.3	6,462.4	6,461.4	206.5	2.3	-81.44	-1,111.3	-873.3	6,404.7	6,198.5	206.26	31.051	
13,900.0	6,636.3	6,462.0	6,461.0	207.1	2.3	-81.42	-1,111.3	-873.3	6,426.6	6,219.7	206.87	31.066	
13,976.3	6,636.2	6,460.7	6,459.7	209.3	2.3	-81.35	-1,111.3	-873.3	6,502.1	6,293.1	208.95	31.118	
14,000.0	6,636.1	6,460.3	6,459.3	209.9	2.3	-81.32	-1,111.3	-873.3	6,525.5	6,315.9	209.59	31.134	
14,074.8	6,636.0	6,459.1	6,458.1	212.0	2.3	-81.25	-1,111.3	-873.3	6,599.4	6,387.8	211.63	31.183	
14,100.0	6,636.0	6,458.6	6,457.6	212.7	2.3	-81.23	-1,111.2	-873.3	6,624.4	6,412.1	212.32	31.200	
14,173.2	6,635.9	6,457.4	6,456.4	214.8	2.3	-81.15	-1,111.2	-873.3	6,696.8	6,482.5	214.31	31.248	
14,200.0	6,635.9	6,457.0	6,456.0	215.5	2.3	-81.13	-1,111.2	-873.4	6,723.4	6,508.3	215.05	31.265	
14,271.6	6,635.8	6,455.8	6,454.8	217.5	2.3	-81.06	-1,111.2	-873.4	6,794.3	6,577.3	217.00	31.311	
14,300.0	6,635.8	6,455.3	6,454.3	218.3	2.3	-81.03	-1,111.2	-873.4	6,822.4	6,604.6	217.77	31.329	
14,370.0	6,635.7	6,454.1	6,453.1	220.3	2.3	-80.96	-1,111.1	-873.4	6,891.7	6,672.1	219.67	31.372	
14,400.0	6,635.7	6,453.6	6,452.6	221.1	2.3	-80.93	-1,111.1	-873.4	6,921.4	6,700.9	220.49	31.391	
14,468.5	6,635.6	6,452.5	6,451.5	223.1	2.3	-80.87	-1,111.1	-873.4	6,989.2	6,766.9	222.35	31.433	
14,500.0	6,635.6	6,452.0	6,451.0	223.9	2.3	-80.84	-1,111.1	-873.4	7,020.4	6,797.2	223.21	31.452	
14,566.9	6,635.5	6,450.9	6,449.9	225.8	2.3	-80.77	-1,111.0	-873.5	7,086.7	6,861.7	225.03	31.493	
14,600.0	6,635.4	6,450.3	6,449.3	226.8	2.3	-80.74	-1,111.0	-873.5	7,119.5	6,893.6	225.93	31.512	

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

Anticollision Report



Company:	PDC ENERGY	Local Co-ordinate Reference:	Well WACKER 10G-214
Project:	WELD COUNTY, COLORADO	TVD Reference:	KB-EST @ 4624.0usft (Original Well Elev)
Reference Site:	SW NW SEC. 10 T5N R64W 6th P.M.	MD Reference:	KB-EST @ 4624.0usft (Original Well Elev)
Site Error:	0.0 usft	North Reference:	True
Reference Well:	WACKER 10G-214	Survey Calculation Method:	Minimum Curvature
Well Error:	0.0 usft	Output errors are at	2.00 sigma
Reference Wellbore	ORIGINAL WELLBORE	Database:	EDM 5000.1 Single User Db
Reference Design:	PROPOSAL #1	Offset TVD Reference:	Offset Datum

Offset Design SW NW SEC. 10 T5N R64W 6th P.M. - EXIST VERT WILLIAMS #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
14,665.3	6,635.4	6,449.3	6,448.3	228.6	2.3	-80.68	-1,111.0	-873.5	7,184.3	6,956.5	227.70	31.551	
14,700.0	6,635.3	6,448.7	6,447.7	229.6	2.3	-80.64	-1,111.0	-873.5	7,218.6	6,990.0	228.65	31.571	
14,763.7	6,635.2	6,447.6	6,446.7	231.3	2.3	-80.58	-1,111.0	-873.5	7,281.8	7,051.4	230.38	31.608	
14,800.0	6,635.2	6,447.1	6,446.1	232.4	2.3	-80.55	-1,110.9	-873.5	7,317.7	7,086.4	231.36	31.629	
14,862.2	6,635.1	6,446.0	6,445.0	234.1	2.3	-80.49	-1,110.9	-873.5	7,379.4	7,146.3	233.05	31.665	
14,900.0	6,635.1	6,445.4	6,444.4	235.2	2.3	-80.45	-1,110.9	-873.6	7,416.9	7,182.8	234.07	31.686	
14,960.6	6,635.0	6,444.4	6,443.4	236.9	2.3	-80.40	-1,110.9	-873.6	7,477.0	7,241.3	235.72	31.720	
14,982.9	6,635.0	6,444.1	6,443.1	237.5	2.3	-80.38	-1,110.9	-873.6	7,499.1	7,262.8	236.32	31.732	

Anticollision Report



Company:	PDC ENERGY	Local Co-ordinate Reference:	Well WACKER 10G-214
Project:	WELD COUNTY, COLORADO	TVD Reference:	KB-EST @ 4624.0usft (Original Well Elev)
Reference Site:	SW NW SEC. 10 T5N R64W 6th P.M.	MD Reference:	KB-EST @ 4624.0usft (Original Well Elev)
Site Error:	0.0 usft	North Reference:	True
Reference Well:	WACKER 10G-214	Survey Calculation Method:	Minimum Curvature
Well Error:	0.0 usft	Output errors are at	2.00 sigma
Reference Wellbore	ORIGINAL WELLBORE	Database:	EDM 5000.1 Single User Db
Reference Design:	PROPOSAL #1	Offset TVD Reference:	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	0.61	104.9	1.1	104.9				
98.4	98.4	98.4	98.4	0.1	0.1	0.61	104.9	1.1	104.9	104.7	0.19	545.805	
100.0	100.0	100.0	100.0	0.1	0.1	0.61	104.9	1.1	104.9	104.7	0.20	536.566	
196.8	196.8	196.8	196.8	0.3	0.3	0.61	104.9	1.1	104.9	104.3	0.63	166.303	
200.0	200.0	200.0	200.0	0.3	0.3	0.61	104.9	1.1	104.9	104.3	0.65	162.653	
295.3	295.3	295.3	295.3	0.5	0.5	0.61	104.9	1.1	104.9	103.9	1.07	97.752	
300.0	300.0	300.0	300.0	0.5	0.5	0.61	104.9	1.1	104.9	103.8	1.09	95.855	
393.7	393.7	393.7	393.7	0.8	0.8	0.61	104.9	1.1	104.9	103.4	1.52	69.219	
400.0	400.0	400.0	400.0	0.8	0.8	0.61	104.9	1.1	104.9	103.4	1.54	67.950	
492.1	492.1	492.1	492.1	1.0	1.0	0.61	104.9	1.1	104.9	103.0	1.96	53.580	
500.0	500.0	500.0	500.0	1.0	1.0	0.61	104.9	1.1	104.9	102.9	1.99	52.628	
590.5	590.5	590.5	590.5	1.2	1.2	0.61	104.9	1.1	104.9	102.5	2.40	43.705	
600.0	600.0	600.0	600.0	1.2	1.2	0.61	104.9	1.1	104.9	102.5	2.44	42.945	
689.0	689.0	689.0	689.0	1.4	1.4	0.61	104.9	1.1	104.9	102.1	2.84	36.904	
700.0	700.0	700.0	700.0	1.4	1.4	0.61	104.9	1.1	104.9	102.0	2.89	36.271	
787.4	787.4	787.4	787.4	1.6	1.6	0.61	104.9	1.1	104.9	101.6	3.29	31.934	
800.0	800.0	800.0	800.0	1.7	1.7	0.61	104.9	1.1	104.9	101.6	3.34	31.393	
885.8	885.8	885.8	885.8	1.9	1.9	0.61	104.9	1.1	104.9	101.2	3.73	28.144	
900.0	900.0	900.0	900.0	1.9	1.9	0.61	104.9	1.1	104.9	101.1	3.79	27.671	
984.2	984.2	984.2	984.2	2.1	2.1	0.61	104.9	1.1	104.9	100.8	4.17	25.158	
1,000.0	1,000.0	1,000.0	1,000.0	2.1	2.1	0.61	104.9	1.1	104.9	100.7	4.24	24.738 CC, ES	
1,082.7	1,082.7	1,080.0	1,080.0	2.3	2.3	0.88	105.9	1.6	106.0	101.4	4.61	23.007	
1,100.0	1,100.0	1,096.8	1,096.8	2.3	2.3	1.00	106.4	1.9	106.4	101.8	4.68	22.734	
1,181.1	1,181.1	1,175.1	1,175.0	2.5	2.5	1.85	109.7	3.5	109.9	104.9	5.04	21.812	
1,200.0	1,200.0	1,193.4	1,193.2	2.6	2.6	2.11	110.7	4.1	111.0	105.9	5.12	21.673	
1,279.5	1,279.5	1,269.8	1,269.4	2.7	2.7	3.39	116.2	6.9	116.9	111.4	5.47	21.349	
1,300.0	1,300.0	1,289.5	1,289.0	2.8	2.8	3.76	117.9	7.7	118.7	113.1	5.56	21.331	
1,377.9	1,377.9	1,364.0	1,363.0	3.0	3.0	-113.63	125.5	11.6	127.3	121.4	5.91	21.559	
1,400.0	1,400.0	1,384.9	1,383.8	3.0	3.0	-113.39	127.9	12.8	130.3	124.3	6.00	21.710	
1,476.4	1,476.3	1,457.2	1,455.3	3.1	3.2	-112.87	137.4	17.6	142.1	135.8	6.32	22.484	
1,500.0	1,499.8	1,479.4	1,477.2	3.2	3.3	-112.80	140.6	19.3	146.3	139.9	6.42	22.790	
1,574.8	1,574.4	1,549.2	1,545.9	3.3	3.5	-112.80	151.7	24.9	161.1	154.4	6.74	23.890	
1,600.0	1,599.5	1,572.6	1,568.8	3.4	3.5	-112.86	155.7	27.0	166.6	159.8	6.85	24.317	
1,673.2	1,672.2	1,642.2	1,636.9	3.6	3.8	-113.25	168.5	33.5	184.0	176.8	7.19	25.593	
1,700.0	1,698.7	1,668.1	1,662.2	3.6	3.8	-113.48	173.3	36.0	190.6	183.2	7.31	26.058	
1,771.6	1,769.5	1,737.3	1,729.9	3.8	4.1	-114.30	186.1	42.5	208.7	201.0	7.66	27.235	
1,800.0	1,797.5	1,764.6	1,756.6	3.9	4.2	-114.69	191.2	45.1	216.1	208.3	7.80	27.700	
1,870.1	1,866.3	1,831.9	1,822.4	4.1	4.4	-115.78	203.7	51.4	234.9	226.7	8.16	28.773	
1,900.2	1,895.8	1,860.7	1,850.6	4.2	4.5	-116.29	209.0	54.1	243.3	234.9	8.32	29.233	
1,968.5	1,962.6	1,926.0	1,914.5	4.4	4.8	-117.71	221.1	60.3	262.5	253.8	8.70	30.156	
2,000.0	1,993.4	1,956.1	1,943.9	4.5	4.9	-118.29	226.7	63.1	271.4	262.5	8.88	30.556	
2,066.9	2,058.9	2,020.0	2,006.5	4.7	5.1	-119.42	238.5	69.2	290.4	281.1	9.27	31.319	
2,100.0	2,091.2	2,051.6	2,037.4	4.8	5.3	-119.93	244.4	72.2	299.8	290.4	9.47	31.674	
2,165.3	2,155.2	2,114.1	2,098.4	5.1	5.5	-120.84	255.9	78.1	318.5	308.7	9.86	32.305	
2,200.0	2,189.1	2,147.2	2,130.8	5.2	5.7	-121.28	262.1	81.2	328.5	318.4	10.07	32.620	
2,263.8	2,251.4	2,208.1	2,190.4	5.5	5.9	-122.03	273.3	86.9	346.8	336.3	10.46	33.148	
2,300.0	2,286.9	2,242.7	2,224.3	5.6	6.0	-122.42	279.8	90.2	357.2	346.5	10.69	33.427	
2,362.2	2,347.7	2,302.2	2,282.4	5.8	6.3	-123.03	290.8	95.8	375.2	364.1	11.08	33.867	
2,400.0	2,384.7	2,338.3	2,317.8	6.0	6.4	-123.38	297.5	99.2	386.1	374.8	11.32	34.118	
2,460.6	2,444.0	2,396.2	2,374.4	6.2	6.7	-123.90	308.2	104.7	403.6	391.9	11.70	34.488	
2,500.0	2,482.5	2,433.8	2,411.2	6.4	6.8	-124.22	315.2	108.2	415.1	403.1	11.96	34.714	
2,559.0	2,540.3	2,490.2	2,466.4	6.6	7.1	-124.65	325.6	113.6	432.2	419.9	12.34	35.027	

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

Anticollision Report



Company:	PDC ENERGY	Local Co-ordinate Reference:	Well WACKER 10G-214
Project:	WELD COUNTY, COLORADO	TVD Reference:	KB-EST @ 4624.0usft (Original Well Elev)
Reference Site:	SW NW SEC. 10 T5N R64W 6th P.M.	MD Reference:	KB-EST @ 4624.0usft (Original Well Elev)
Site Error:	0.0 usft	North Reference:	True
Reference Well:	WACKER 10G-214	Survey Calculation Method:	Minimum Curvature
Well Error:	0.0 usft	Output errors are at	2.00 sigma
Reference Wellbore	ORIGINAL WELLBORE	Database:	EDM 5000.1 Single User Db
Reference Design:	PROPOSAL #1	Offset TVD Reference:	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	2,580.3	2,529.4	2,504.7	6.8	7.2	-124.94	332.9	117.3	444.1	431.5	12.60	35.232	
2,657.5	2,636.5	2,581.5	2,555.7	7.1	7.4	-125.31	342.6	122.0	460.9	447.9	12.97	35.546	
2,700.0	2,678.1	2,618.8	2,592.2	7.2	7.6	-125.62	349.8	125.0	473.7	460.5	13.22	35.821	
2,755.9	2,732.8	2,670.3	2,642.5	7.5	7.8	-126.09	359.9	128.4	490.8	477.2	13.57	36.176	
2,800.0	2,775.9	2,712.1	2,683.5	7.7	7.9	-126.46	368.2	131.2	504.4	490.5	13.84	36.430	
2,854.3	2,829.1	2,763.7	2,733.9	7.9	8.2	-126.88	378.3	134.5	521.1	506.9	14.19	36.712	
2,900.0	2,873.8	2,807.0	2,776.3	8.1	8.3	-127.22	386.9	137.4	535.2	520.7	14.49	36.940	
2,952.7	2,925.4	2,857.1	2,825.3	8.3	8.6	-127.58	396.8	140.7	551.5	536.6	14.83	37.190	
2,953.5	2,926.1	2,857.8	2,825.9	8.3	8.6	-127.59	396.9	140.7	551.7	536.8	14.83	37.194	
3,000.0	2,971.6	2,902.0	2,869.2	8.5	8.8	-128.10	405.6	143.6	565.8	550.7	15.13	37.386	
3,051.2	3,022.0	2,950.9	2,917.0	8.7	9.0	-128.56	415.3	146.8	580.9	565.5	15.44	37.612	
3,100.0	3,070.1	2,997.7	2,962.8	8.8	9.2	-128.92	424.5	149.9	594.8	579.0	15.74	37.786	
3,149.6	3,119.1	3,045.4	3,009.4	8.9	9.4	-129.19	433.9	153.0	608.4	592.3	16.03	37.947	
3,200.0	3,169.1	3,094.0	3,057.0	9.1	9.6	-129.40	443.5	156.2	621.6	605.3	16.33	38.072	
3,248.0	3,216.8	3,140.5	3,102.4	9.2	9.8	-129.53	452.7	159.3	633.8	617.2	16.60	38.183	
3,300.0	3,268.5	3,190.9	3,151.7	9.3	10.0	-129.60	462.6	162.6	646.3	629.4	16.89	38.268	
3,346.4	3,314.8	3,236.0	3,195.9	9.4	10.2	-129.60	471.5	165.6	657.1	640.0	17.14	38.340	
3,400.0	3,368.3	3,288.2	3,246.9	9.6	10.4	-129.53	481.8	169.0	668.9	651.5	17.42	38.391	
3,444.9	3,413.1	3,332.0	3,289.7	9.6	10.6	-129.43	490.4	171.9	678.3	660.7	17.65	38.433	
3,500.0	3,468.2	3,385.8	3,342.4	9.7	10.8	-129.23	501.1	175.4	689.4	671.4	17.93	38.457	
3,543.3	3,511.5	3,428.1	3,383.8	9.8	11.0	-129.04	509.4	178.2	697.6	679.5	18.13	38.475	
3,553.7	3,521.9	3,438.3	3,393.8	9.8	11.0	-10.33	511.4	178.9	699.5	680.7	18.78	37.249	
3,600.0	3,568.2	3,483.6	3,438.1	9.9	11.2	-9.96	520.3	181.8	708.0	689.0	19.04	37.178	
3,641.7	3,609.9	3,524.4	3,478.0	10.0	11.4	-9.63	528.4	184.5	715.7	696.4	19.29	37.110	
3,700.0	3,668.2	3,581.4	3,533.7	10.1	11.7	-9.18	539.6	188.3	726.4	706.8	19.63	37.016	
3,740.1	3,708.4	3,620.7	3,572.1	10.1	11.8	-8.88	547.4	190.8	733.9	714.0	19.86	36.952	
3,800.0	3,768.2	3,679.2	3,629.4	10.2	12.1	-8.45	558.9	194.7	745.0	724.8	20.21	36.858	
3,838.6	3,806.8	3,717.0	3,666.3	10.3	12.3	-8.17	566.4	197.2	752.2	731.8	20.44	36.798	
3,900.0	3,868.2	3,777.0	3,725.1	10.4	12.5	-7.74	578.2	201.1	763.7	742.9	20.81	36.704	
3,937.0	3,905.2	3,813.2	3,760.5	10.5	12.7	-7.49	585.4	203.5	770.6	749.6	21.03	36.648	
4,000.0	3,968.2	3,874.9	3,820.8	10.6	12.9	-7.08	597.5	207.5	782.5	761.1	21.41	36.554	
4,035.4	4,003.6	3,909.5	3,854.7	10.6	13.1	-6.85	604.4	209.8	789.2	767.6	21.62	36.502	
4,100.0	4,068.2	3,972.7	3,916.4	10.7	13.4	-6.44	616.8	214.0	801.4	779.4	22.01	36.410	
4,133.8	4,102.1	4,005.8	3,948.8	10.8	13.5	-6.23	623.3	216.1	807.8	785.6	22.22	36.362	
4,200.0	4,168.2	4,070.5	4,012.1	10.9	13.8	-5.83	636.1	220.4	820.4	797.7	22.62	36.270	
4,232.3	4,200.5	4,102.1	4,043.0	11.0	13.9	-5.64	642.3	222.5	826.5	803.7	22.82	36.226	
4,300.0	4,268.2	4,168.3	4,107.8	11.1	14.2	-5.25	655.4	226.8	839.4	816.2	23.23	36.135	
4,330.7	4,298.9	4,198.3	4,137.2	11.1	14.4	-5.08	661.3	228.8	845.3	821.9	23.42	36.095	
4,400.0	4,368.2	4,266.1	4,203.5	11.3	14.7	-4.69	674.7	233.2	858.6	834.7	23.85	36.005	
4,429.1	4,397.3	4,294.6	4,231.3	11.3	14.8	-4.54	680.3	235.1	864.2	840.1	24.03	35.968	
4,500.0	4,468.2	4,363.9	4,299.2	11.4	15.1	-4.16	694.0	239.7	877.8	853.3	24.46	35.880	
4,527.5	4,495.8	4,390.9	4,325.5	11.5	15.2	-4.02	699.3	241.4	883.1	858.5	24.64	35.846	
4,600.0	4,568.2	4,461.7	4,394.8	11.6	15.5	-3.65	713.3	246.1	897.1	872.0	25.09	35.760	
4,626.0	4,594.2	4,487.2	4,419.7	11.7	15.6	-3.53	718.3	247.8	902.1	876.9	25.25	35.729	
4,700.0	4,668.2	4,559.6	4,490.5	11.8	15.9	-3.17	732.6	252.5	916.5	890.7	25.71	35.644	
4,724.4	4,692.6	4,583.4	4,513.9	11.9	16.0	-3.05	737.3	254.1	921.2	895.3	25.86	35.616	
4,800.0	4,768.2	4,657.4	4,586.2	12.0	16.4	-2.70	751.9	258.9	935.9	909.5	26.34	35.532	
4,822.8	4,791.0	4,679.7	4,608.0	12.0	16.5	-2.60	756.3	260.4	940.3	913.8	26.48	35.507	
4,900.0	4,868.2	4,755.2	4,681.9	12.2	16.8	-2.25	771.2	265.4	955.3	928.4	26.97	35.425	
4,921.2	4,889.5	4,776.0	4,702.2	12.2	16.9	-2.16	775.3	266.7	959.5	932.4	27.10	35.403	
5,000.0	4,968.2	4,853.0	4,777.5	12.4	17.2	-1.82	790.5	271.8	974.9	947.3	27.60	35.322	
5,019.7	4,987.9	4,872.2	4,796.4	12.4	17.3	-1.74	794.3	273.1	978.7	951.0	27.72	35.302	

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

Anticollision Report



Company:	PDC ENERGY	Local Co-ordinate Reference:	Well WACKER 10G-214
Project:	WELD COUNTY, COLORADO	TVD Reference:	KB-EST @ 4624.0usft (Original Well Elev)
Reference Site:	SW NW SEC. 10 T5N R64W 6th P.M.	MD Reference:	KB-EST @ 4624.0usft (Original Well Elev)
Site Error:	0.0 usft	North Reference:	True
Reference Well:	WACKER 10G-214	Survey Calculation Method:	Minimum Curvature
Well Error:	0.0 usft	Output errors are at	2.00 sigma
Reference Wellbore	ORIGINAL WELLBORE	Database:	EDM 5000.1 Single User Db
Reference Design:	PROPOSAL #1	Offset TVD Reference:	Offset Datum

Offset Design		SW NW SEC. 10 T5N R64W 6th P.M. - WACKER 10F-204 - ORIGINAL WELLBORE - PROPOSAL #1											Offset Site Error:		0.0 usft
Survey Program: 0-MWD													Offset Well Error:		0.0 usft
Reference		Offset		Semi Major Axis			Distance							Warning	
Measured Depth (usft)	Vertical Depth (usft)	Measured Depth (usft)	Vertical Depth (usft)	Reference (usft)	Offset (usft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (usft)	+E/-W (usft)	Between Centres (usft)	Between Ellipses (usft)	Minimum Separation (usft)	Separation Factor			
5,100.0	5,068.2	4,973.2	4,895.2	12.6	17.7	-1.33	813.4	279.4	993.9	965.7	28.29	35.134			
5,118.1	5,086.3	4,999.6	4,921.3	12.6	17.8	-1.24	817.9	280.9	997.0	968.6	28.43	35.073			
5,200.0	5,168.2	5,120.5	5,040.7	12.7	18.2	-0.88	835.7	286.9	1,009.0	980.0	28.95	34.853			
5,216.5	5,184.7	5,145.1	5,065.1	12.8	18.2	-0.82	838.7	287.9	1,011.0	982.0	29.05	34.805			
5,300.0	5,268.2	5,269.9	5,189.2	12.9	18.5	-0.58	851.0	291.9	1,019.2	989.7	29.52	34.527			
5,314.9	5,283.2	5,292.4	5,211.6	13.0	18.6	-0.55	852.6	292.5	1,020.3	990.7	29.60	34.471			
5,400.0	5,368.2	5,420.7	5,339.7	13.1	18.8	-0.43	858.9	294.6	1,024.4	994.4	30.00	34.146			
5,413.4	5,381.6	5,440.9	5,359.9	13.2	18.8	-0.42	859.4	294.8	1,024.8	994.7	30.06	34.092			
5,500.0	5,468.2	5,549.2	5,468.2	13.3	19.0	-0.40	860.1	295.0	1,025.2	994.8	30.39	33.739			
5,511.8	5,480.0	5,561.0	5,480.0	13.3	19.0	-0.40	860.1	295.0	1,025.2	994.8	30.43	33.695			
5,600.0	5,568.2	5,649.2	5,568.2	13.5	19.1	-0.40	860.1	295.0	1,025.2	994.5	30.73	33.362			
5,610.2	5,578.4	5,659.4	5,578.4	13.5	19.1	-0.40	860.1	295.0	1,025.2	994.5	30.77	33.323			
5,700.0	5,668.2	5,749.2	5,668.2	13.7	19.2	-0.40	860.1	295.0	1,025.2	994.1	31.08	32.985			
5,708.6	5,676.9	5,757.8	5,676.9	13.7	19.2	-0.40	860.1	295.0	1,025.2	994.1	31.11	32.953			
5,800.0	5,768.2	5,849.2	5,768.2	13.9	19.4	-0.40	860.1	295.0	1,025.2	993.8	31.43	32.615			
5,807.1	5,775.3	5,856.3	5,775.3	13.9	19.4	-0.40	860.1	295.0	1,025.2	993.8	31.46	32.589			
5,900.0	5,868.2	5,949.2	5,868.2	14.1	19.5	-0.40	860.1	295.0	1,025.2	993.4	31.79	32.250			
5,905.5	5,873.7	5,954.7	5,873.7	14.1	19.5	-0.40	860.1	295.0	1,025.2	993.4	31.81	32.230			
5,942.3	5,910.5	5,991.4	5,910.5	14.2	19.6	-0.40	860.1	295.0	1,025.2	993.3	31.94	32.098			
5,960.7	5,928.9	6,009.8	5,928.8	14.2	19.6	-0.40	860.1	295.0	1,025.2	993.2	32.01	32.032			
6,000.0	5,968.2	6,048.8	5,967.8	14.3	19.6	89.60	860.1	293.9	1,025.2	996.2	28.98	35.379			
6,003.9	5,972.1	6,052.7	5,971.7	14.3	19.6	89.60	860.1	293.7	1,025.2	996.2	28.99	35.366			
6,050.0	6,018.0	6,098.3	6,017.1	14.4	19.7	89.60	860.1	289.5	1,025.2	996.1	29.10	35.225			
6,100.0	6,067.3	6,147.8	6,066.0	14.4	19.7	89.60	860.1	281.7	1,025.2	996.0	29.20	35.113			
6,102.3	6,069.6	6,150.0	6,068.1	14.4	19.7	89.60	860.1	281.3	1,025.2	996.0	29.20	35.108			
6,106.6	6,073.8	6,154.3	6,072.4	14.4	19.7	89.60	860.1	280.4	1,025.2	996.0	29.21	35.102			
6,150.0	6,116.0	6,197.3	6,114.2	14.4	19.7	89.61	860.1	270.6	1,025.2	996.0	29.26	35.034			
6,200.0	6,163.8	6,246.8	6,161.5	14.5	19.7	89.62	860.1	256.1	1,025.2	995.9	29.31	34.979			
6,200.8	6,164.5	6,247.6	6,162.3	14.5	19.7	89.62	860.1	255.9	1,025.2	995.9	29.31	34.978			
6,250.0	6,210.4	6,296.3	6,207.8	14.5	19.7	89.63	860.1	238.4	1,025.2	995.9	29.35	34.937			
6,299.2	6,254.9	6,345.1	6,252.0	14.5	19.7	89.64	860.1	217.9	1,025.2	995.8	29.38	34.892			
6,300.0	6,255.6	6,345.9	6,252.7	14.5	19.7	89.64	860.1	217.6	1,025.2	995.8	29.38	34.891			
6,350.0	6,299.3	6,395.5	6,296.1	14.5	19.7	89.65	860.1	193.6	1,025.2	995.8	29.44	34.825			
6,397.6	6,339.2	6,442.7	6,335.8	14.6	19.7	89.67	860.1	168.1	1,025.2	995.7	29.53	34.722			
6,400.0	6,341.2	6,445.0	6,337.8	14.6	19.7	89.67	860.1	166.8	1,025.2	995.7	29.53	34.717			
6,450.0	6,381.0	6,494.6	6,377.5	14.6	19.7	89.68	860.1	137.0	1,025.2	995.5	29.68	34.544			
6,496.0	6,415.8	6,540.3	6,412.1	14.7	19.7	89.70	860.1	107.3	1,025.2	995.3	29.89	34.303			
6,500.0	6,418.7	6,544.2	6,415.0	14.7	19.7	89.70	860.1	104.6	1,025.2	995.3	29.90	34.282			
6,550.0	6,453.9	6,593.9	6,450.3	14.8	19.6	89.72	860.1	69.7	1,025.2	995.0	30.23	33.911			
6,594.5	6,483.1	6,638.1	6,479.5	15.0	19.6	89.74	860.1	36.6	1,025.2	994.6	30.63	33.469			
6,600.0	6,486.6	6,643.5	6,483.0	15.1	19.6	89.74	860.1	32.4	1,025.2	994.5	30.68	33.414			
6,650.0	6,516.6	6,693.2	6,513.2	15.3	19.6	89.77	860.1	-7.1	1,025.2	993.9	31.27	32.782			
6,692.9	6,540.0	6,735.9	6,536.8	15.7	19.6	89.79	860.1	-42.6	1,025.2	993.3	31.92	32.122			
6,700.0	6,543.7	6,743.0	6,540.5	15.7	19.6	89.79	860.1	-48.6	1,025.2	993.2	32.02	32.014			
6,750.0	6,567.8	6,792.7	6,564.9	16.2	19.7	89.81	860.1	-92.0	1,025.2	992.3	32.94	31.122			
6,791.3	6,585.4	6,833.9	6,582.7	16.7	19.7	89.84	860.1	-129.1	1,025.2	991.4	33.84	30.296			
6,796.5	6,587.5	6,839.0	6,584.8	16.7	19.7	89.84	860.1	-133.8	1,025.2	991.3	33.96	30.193			
6,800.0	6,588.8	6,842.5	6,586.2	16.8	19.7	89.84	860.1	-137.0	1,025.2	991.2	34.03	30.125			
6,850.0	6,606.6	6,892.3	6,604.3	17.4	19.9	89.87	860.1	-183.3	1,025.2	989.9	35.29	29.050			
6,889.7	6,618.4	6,931.9	6,616.5	18.0	20.1	89.89	860.1	-221.1	1,025.2	988.8	36.42	28.151			
6,900.0	6,621.1	6,942.2	6,619.3	18.2	20.2	89.89	860.1	-230.9	1,025.2	988.5	36.71	27.925			
6,950.0	6,632.2	6,992.0	6,630.8	19.0	20.6	89.92	860.1	-279.4	1,025.2	986.9	38.28	26.780			

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

Anticollision Report



Company:	PDC ENERGY	Local Co-ordinate Reference:	Well WACKER 10G-214
Project:	WELD COUNTY, COLORADO	TVD Reference:	KB-EST @ 4624.0usft (Original Well Elev)
Reference Site:	SW NW SEC. 10 T5N R64W 6th P.M.	MD Reference:	KB-EST @ 4624.0usft (Original Well Elev)
Site Error:	0.0 usft	North Reference:	True
Reference Well:	WACKER 10G-214	Survey Calculation Method:	Minimum Curvature
Well Error:	0.0 usft	Output errors are at	2.00 sigma
Reference Wellbore	ORIGINAL WELLBORE	Database:	EDM 5000.1 Single User Db
Reference Design:	PROPOSAL #1	Offset TVD Reference:	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	
6,988.2	6,638.4	7,030.1	6,637.4	19.7	21.1	89.94	860.1	-317.0	1,025.2	985.6	39.58	25.904	
7,000.0	6,639.9	7,042.0	6,639.0	19.9	21.2	89.95	860.1	-328.6	1,025.2	985.2	39.98	25.642	
7,050.0	6,644.1	7,091.9	6,643.7	20.8	22.0	89.98	860.1	-378.4	1,025.2	983.4	41.79	24.531	
7,086.5	6,645.0	7,128.4	6,645.0	21.5	22.6	90.00	860.1	-414.9	1,025.2	982.0	43.17	23.748	
7,100.0	6,645.0	7,141.9	6,645.0	21.8	22.9	90.00	860.1	-428.3	1,025.2	981.5	43.69	23.465	
7,185.0	6,644.9	7,226.9	6,644.9	23.6	24.5	90.00	860.1	-513.4	1,025.2	978.1	47.14	21.749	
7,200.0	6,644.8	7,241.9	6,644.9	23.9	24.8	90.00	860.1	-528.3	1,025.2	977.5	47.76	21.466	
7,283.4	6,644.7	7,325.3	6,644.8	25.7	26.5	90.00	860.1	-611.8	1,025.2	973.9	51.37	19.960	
7,300.0	6,644.7	7,341.9	6,644.7	26.1	26.8	90.00	860.1	-628.3	1,025.2	973.1	52.10	19.680	
7,381.9	6,644.6	7,423.8	6,644.6	28.0	28.6	90.00	860.1	-710.2	1,025.2	969.4	55.82	18.366	
7,400.0	6,644.6	7,441.9	6,644.6	28.4	29.0	90.00	860.1	-728.3	1,025.2	968.6	56.66	18.094	
7,480.3	6,644.5	7,522.2	6,644.5	30.3	30.9	90.00	860.1	-808.6	1,025.2	964.8	60.46	16.957	
7,500.0	6,644.4	7,541.9	6,644.5	30.8	31.3	90.00	860.1	-828.3	1,025.2	963.8	61.41	16.696	
7,578.7	6,644.3	7,620.6	6,644.4	32.7	33.2	90.01	860.1	-907.1	1,025.2	960.0	65.24	15.714	
7,600.0	6,644.3	7,641.9	6,644.4	33.3	33.7	90.01	860.1	-928.3	1,025.2	958.9	66.29	15.466	
7,677.1	6,644.2	7,719.0	6,644.3	35.2	35.6	90.01	860.1	-1,005.5	1,025.2	955.1	70.13	14.619	
7,700.0	6,644.1	7,741.9	6,644.3	35.8	36.2	90.01	860.1	-1,028.3	1,025.2	954.0	71.28	14.383	
7,775.6	6,644.0	7,817.5	6,644.2	37.7	38.0	90.01	860.1	-1,103.9	1,025.2	950.1	75.11	13.649	
7,800.0	6,644.0	7,841.9	6,644.1	38.3	38.6	90.01	860.1	-1,128.3	1,025.2	948.9	76.36	13.427	
7,874.0	6,643.9	7,915.9	6,644.0	40.2	40.5	90.01	860.1	-1,202.3	1,025.2	945.1	80.17	12.789	
7,900.0	6,643.9	7,941.9	6,644.0	40.9	41.2	90.01	860.1	-1,228.3	1,025.2	943.7	81.51	12.578	
7,972.4	6,643.8	8,014.3	6,643.9	42.8	43.0	90.01	860.1	-1,300.8	1,025.2	940.0	85.28	12.022	
8,000.0	6,643.7	8,041.9	6,643.9	43.5	43.7	90.01	860.1	-1,328.3	1,025.2	938.5	86.72	11.822	
8,070.8	6,643.6	8,112.8	6,643.8	45.4	45.6	90.01	860.1	-1,399.2	1,025.2	934.8	90.44	11.336	
8,100.0	6,643.6	8,141.9	6,643.8	46.2	46.3	90.01	860.1	-1,428.3	1,025.2	933.3	91.98	11.147	
8,169.3	6,643.5	8,211.2	6,643.7	48.0	48.1	90.01	860.1	-1,497.6	1,025.2	929.6	95.64	10.179	
8,200.0	6,643.5	8,241.9	6,643.6	48.8	49.0	90.01	860.1	-1,528.3	1,025.2	928.0	97.28	10.539	
8,267.7	6,643.4	8,309.6	6,643.6	50.6	50.7	90.01	860.1	-1,596.0	1,025.2	924.4	100.88	10.163	
8,300.0	6,643.3	8,341.9	6,643.5	51.5	51.6	90.01	860.1	-1,628.3	1,025.2	922.6	102.61	9.992	
8,366.1	6,643.2	8,408.0	6,643.4	53.3	53.3	90.01	860.1	-1,694.5	1,025.2	919.1	106.15	9.658	
8,400.0	6,643.2	8,441.9	6,643.4	54.2	54.2	90.01	860.1	-1,728.3	1,025.2	917.3	107.97	9.495	
8,464.5	6,643.1	8,506.5	6,643.3	55.9	56.0	90.01	860.1	-1,792.9	1,025.2	913.8	111.45	9.199	
8,500.0	6,643.1	8,541.9	6,643.3	56.9	56.9	90.01	860.2	-1,828.3	1,025.2	911.9	113.36	9.044	
8,563.0	6,643.0	8,604.9	6,643.2	58.6	58.6	90.01	860.2	-1,891.3	1,025.3	908.5	116.76	8.780	
8,600.0	6,642.9	8,641.9	6,643.1	59.6	59.6	90.01	860.2	-1,928.3	1,025.3	906.5	118.77	8.632	
8,661.4	6,642.8	8,703.3	6,643.1	61.3	61.2	90.01	860.2	-1,989.7	1,025.3	903.2	122.10	8.397	
8,700.0	6,642.8	8,741.9	6,643.0	62.3	62.3	90.01	860.2	-2,028.3	1,025.3	901.1	124.20	8.255	
8,759.8	6,642.7	8,801.7	6,643.0	64.0	63.9	90.01	860.2	-2,088.2	1,025.3	897.8	127.45	8.044	
8,800.0	6,642.7	8,841.9	6,642.9	65.1	65.0	90.01	860.2	-2,128.3	1,025.3	895.6	129.64	7.908	
8,858.2	6,642.6	8,900.2	6,642.8	66.6	66.6	90.01	860.2	-2,186.6	1,025.3	892.4	132.82	7.719	
8,900.0	6,642.5	8,941.9	6,642.8	67.8	67.7	90.01	860.2	-2,228.3	1,025.3	890.2	135.10	7.589	
8,956.7	6,642.4	8,998.6	6,642.7	69.3	69.2	90.01	860.2	-2,285.0	1,025.3	887.1	138.20	7.419	
9,000.0	6,642.4	9,041.9	6,642.7	70.5	70.4	90.01	860.2	-2,328.3	1,025.3	884.7	140.57	7.293	
9,055.1	6,642.3	9,097.0	6,642.6	72.0	71.9	90.02	860.2	-2,383.4	1,025.3	881.7	143.60	7.140	
9,100.0	6,642.3	9,141.9	6,642.5	73.3	73.1	90.02	860.2	-2,428.3	1,025.3	879.2	146.06	7.019	
9,153.5	6,642.2	9,195.4	6,642.5	74.7	74.6	90.02	860.2	-2,481.9	1,025.3	876.3	149.00	6.881	
9,200.0	6,642.1	9,241.9	6,642.4	76.0	75.9	90.02	860.2	-2,528.3	1,025.3	873.7	151.55	6.765	
9,251.9	6,642.1	9,293.9	6,642.3	77.5	77.3	90.02	860.2	-2,580.3	1,025.3	870.8	154.41	6.640	
9,300.0	6,642.0	9,341.9	6,642.3	78.8	78.6	90.02	860.2	-2,628.3	1,025.3	868.2	157.06	6.528	
9,350.4	6,641.9	9,392.3	6,642.2	80.2	80.0	90.02	860.2	-2,678.7	1,025.3	865.4	159.83	6.415	
9,400.0	6,641.9	9,441.9	6,642.2	81.5	81.4	90.02	860.2	-2,728.3	1,025.3	862.7	162.57	6.307	
9,448.8	6,641.8	9,490.7	6,642.1	82.9	82.7	90.02	860.2	-2,777.1	1,025.3	860.0	165.26	6.204	

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

Anticollision Report



Company:	PDC ENERGY	Local Co-ordinate Reference:	Well WACKER 10G-214
Project:	WELD COUNTY, COLORADO	TVD Reference:	KB-EST @ 4624.0usft (Original Well Elev)
Reference Site:	SW NW SEC. 10 T5N R64W 6th P.M.	MD Reference:	KB-EST @ 4624.0usft (Original Well Elev)
Site Error:	0.0 usft	North Reference:	True
Reference Well:	WACKER 10G-214	Survey Calculation Method:	Minimum Curvature
Well Error:	0.0 usft	Output errors are at	2.00 sigma
Reference Wellbore	ORIGINAL WELLBORE	Database:	EDM 5000.1 Single User Db
Reference Design:	PROPOSAL #1	Offset TVD Reference:	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	
9,500.0	6,641.7	9,541.9	6,642.0	84.3	84.1	90.02	860.2	-2,828.3	1,025.3	857.2	168.08	6.100	
9,547.2	6,641.7	9,589.1	6,642.0	85.6	85.4	90.02	860.2	-2,875.6	1,025.3	854.6	170.69	6.006	
9,600.0	6,641.6	9,641.9	6,641.9	87.1	86.9	90.02	860.2	-2,928.3	1,025.3	851.7	173.61	5.906	
9,645.6	6,641.5	9,687.6	6,641.8	88.3	88.1	90.02	860.2	-2,974.0	1,025.3	849.1	176.13	5.821	
9,700.0	6,641.5	9,741.9	6,641.8	89.8	89.6	90.02	860.2	-3,028.3	1,025.3	846.1	179.14	5.723	
9,744.1	6,641.4	9,786.0	6,641.7	91.0	90.8	90.02	860.2	-3,072.4	1,025.3	843.7	181.58	5.646	
9,800.0	6,641.3	9,841.9	6,641.7	92.6	92.4	90.02	860.2	-3,128.3	1,025.3	840.6	184.68	5.552	
9,842.5	6,641.3	9,884.4	6,641.6	93.8	93.5	90.02	860.2	-3,170.8	1,025.3	838.2	187.03	5.482	
9,900.0	6,641.2	9,941.9	6,641.5	95.4	95.1	90.02	860.2	-3,228.3	1,025.3	835.0	190.22	5.390	
9,940.9	6,641.1	9,982.8	6,641.5	96.5	96.3	90.02	860.2	-3,269.3	1,025.3	832.8	192.49	5.326	
10,000.0	6,641.1	10,041.9	6,641.4	98.1	97.9	90.02	860.2	-3,328.3	1,025.3	829.5	195.77	5.237	
10,039.3	6,641.0	10,081.3	6,641.4	99.2	99.0	90.02	860.2	-3,367.7	1,025.3	827.3	197.95	5.179	
10,100.0	6,640.9	10,141.9	6,641.3	100.9	100.7	90.02	860.2	-3,428.3	1,025.3	824.0	201.32	5.093	
10,137.8	6,640.9	10,179.7	6,641.2	102.0	101.7	90.02	860.2	-3,466.1	1,025.3	821.9	203.41	5.040	
10,200.0	6,640.8	10,241.9	6,641.2	103.7	103.4	90.02	860.2	-3,528.4	1,025.3	818.4	206.87	4.956	
10,236.2	6,640.8	10,278.1	6,641.1	104.7	104.4	90.02	860.2	-3,564.5	1,025.3	816.4	208.88	4.908	
10,300.0	6,640.7	10,341.9	6,641.0	106.5	106.2	90.02	860.2	-3,628.4	1,025.3	812.8	212.43	4.826	
10,334.6	6,640.6	10,376.5	6,641.0	107.4	107.2	90.02	860.2	-3,663.0	1,025.3	810.9	214.35	4.783	
10,400.0	6,640.6	10,441.9	6,640.9	109.3	109.0	90.02	860.2	-3,728.4	1,025.3	807.3	217.99	4.703	
10,433.0	6,640.5	10,475.0	6,640.9	110.2	109.9	90.02	860.2	-3,761.4	1,025.3	805.4	219.83	4.664	
10,500.0	6,640.4	10,541.9	6,640.8	112.0	111.8	90.02	860.2	-3,828.4	1,025.3	801.7	223.55	4.586	
10,531.5	6,640.4	10,573.4	6,640.7	112.9	112.6	90.02	860.2	-3,859.8	1,025.3	800.0	225.30	4.551	
10,600.0	6,640.3	10,641.9	6,640.7	114.8	114.5	90.02	860.2	-3,928.4	1,025.3	796.1	229.12	4.475	
10,629.9	6,640.3	10,671.8	6,640.6	115.7	115.4	90.02	860.2	-3,958.3	1,025.3	794.5	230.78	4.443	
10,700.0	6,640.2	10,741.9	6,640.5	117.6	117.3	90.02	860.2	-4,028.4	1,025.3	790.6	234.69	4.369	
10,728.3	6,640.1	10,770.2	6,640.5	118.4	118.1	90.02	860.2	-4,056.7	1,025.3	789.0	236.27	4.339	
10,800.0	6,640.0	10,841.9	6,640.4	120.4	120.1	90.02	860.2	-4,128.4	1,025.3	785.0	240.26	4.267	
10,826.7	6,640.0	10,868.7	6,640.4	121.2	120.8	90.02	860.2	-4,155.1	1,025.3	783.5	241.75	4.241	
10,900.0	6,639.9	10,941.9	6,640.3	123.2	122.9	90.02	860.2	-4,228.4	1,025.3	779.4	245.84	4.171	
10,925.2	6,639.9	10,967.1	6,640.2	123.9	123.6	90.02	860.2	-4,253.5	1,025.3	778.0	247.24	4.147	
11,000.0	6,639.8	11,041.9	6,640.1	126.0	125.7	90.02	860.2	-4,328.4	1,025.3	773.9	251.41	4.078	
11,023.6	6,639.8	11,065.5	6,640.1	126.6	126.3	90.02	860.2	-4,352.0	1,025.3	772.5	252.73	4.057	
11,100.0	6,639.7	11,141.9	6,640.0	128.8	128.4	90.02	860.2	-4,428.4	1,025.3	768.3	256.99	3.990	
11,122.0	6,639.6	11,164.0	6,640.0	129.4	129.0	90.02	860.2	-4,450.4	1,025.3	767.0	258.22	3.971	
11,200.0	6,639.5	11,241.9	6,639.9	131.6	131.2	90.02	860.2	-4,528.4	1,025.3	762.7	262.57	3.905	
11,220.4	6,639.5	11,262.4	6,639.9	132.1	131.8	90.02	860.2	-4,548.8	1,025.3	761.6	263.71	3.888	
11,300.0	6,639.4	11,341.9	6,639.8	134.4	134.0	90.02	860.2	-4,628.4	1,025.3	757.1	268.15	3.823	
11,318.9	6,639.4	11,360.8	6,639.7	134.9	134.5	90.02	860.2	-4,647.2	1,025.3	756.1	269.21	3.808	
11,400.0	6,639.3	11,441.9	6,639.6	137.1	136.8	90.02	860.2	-4,728.4	1,025.3	751.5	273.74	3.745	
11,417.3	6,639.3	11,459.2	6,639.6	137.6	137.3	90.02	860.2	-4,745.7	1,025.3	750.6	274.70	3.732	
11,500.0	6,639.2	11,541.9	6,639.5	139.9	139.6	90.02	860.2	-4,828.4	1,025.3	745.9	279.32	3.671	
11,515.7	6,639.1	11,557.7	6,639.5	140.4	140.0	90.02	860.2	-4,844.1	1,025.3	745.1	280.20	3.659	
11,600.0	6,639.0	11,641.9	6,639.4	142.7	142.4	90.02	860.2	-4,928.4	1,025.3	740.4	284.91	3.599	
11,614.1	6,639.0	11,656.1	6,639.4	143.1	142.8	90.02	860.2	-4,942.5	1,025.3	739.6	285.70	3.589	
11,700.0	6,638.9	11,741.9	6,639.3	145.5	145.2	90.02	860.2	-5,028.4	1,025.3	734.8	290.50	3.529	
11,712.6	6,638.9	11,754.5	6,639.2	145.9	145.5	90.02	860.2	-5,040.9	1,025.3	734.1	291.20	3.521	
11,800.0	6,638.8	11,841.9	6,639.1	148.3	148.0	90.02	860.2	-5,128.4	1,025.3	729.2	296.09	3.463	
11,811.0	6,638.8	11,852.9	6,639.1	148.6	148.3	90.02	860.2	-5,139.4	1,025.3	728.6	296.70	3.456	
11,900.0	6,638.7	11,941.9	6,639.0	151.1	150.7	90.02	860.2	-5,228.4	1,025.3	723.6	301.68	3.399	
11,909.4	6,638.6	11,951.4	6,639.0	151.4	151.0	90.02	860.2	-5,237.8	1,025.3	723.1	302.20	3.393	
12,000.0	6,638.5	12,041.9	6,638.9	153.9	153.5	90.02	860.2	-5,328.4	1,025.3	718.0	307.27	3.337	
12,007.8	6,638.5	12,049.8	6,638.9	154.1	153.8	90.02	860.2	-5,336.2	1,025.3	717.5	307.71	3.332	

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

Anticollision Report



Company:	PDC ENERGY	Local Co-ordinate Reference:	Well WACKER 10G-214
Project:	WELD COUNTY, COLORADO	TVD Reference:	KB-EST @ 4624.0usft (Original Well Elev)
Reference Site:	SW NW SEC. 10 T5N R64W 6th P.M.	MD Reference:	KB-EST @ 4624.0usft (Original Well Elev)
Site Error:	0.0 usft	North Reference:	True
Reference Well:	WACKER 10G-214	Survey Calculation Method:	Minimum Curvature
Well Error:	0.0 usft	Output errors are at	2.00 sigma
Reference Wellbore	ORIGINAL WELLBORE	Database:	EDM 5000.1 Single User Db
Reference Design:	PROPOSAL #1	Offset TVD Reference:	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	
12,100.0	6,638.4	12,141.9	6,638.7	156.7	156.3	90.02	860.2	-5,428.4	1,025.3	712.4	312.86	3.277	
12,106.3	6,638.4	12,148.2	6,638.7	156.9	156.5	90.02	860.2	-5,434.6	1,025.3	712.0	313.21	3.273	
12,200.0	6,638.3	12,241.9	6,638.6	159.5	159.1	90.02	860.2	-5,528.4	1,025.3	706.8	318.45	3.219	
12,204.7	6,638.3	12,246.6	6,638.6	159.6	159.3	90.02	860.2	-5,533.1	1,025.3	706.5	318.72	3.217	
12,300.0	6,638.2	12,341.9	6,638.5	162.3	161.9	90.02	860.2	-5,628.4	1,025.3	701.2	324.05	3.164	
12,303.1	6,638.2	12,345.1	6,638.5	162.4	162.0	90.02	860.2	-5,631.5	1,025.3	701.0	324.22	3.162	
12,400.0	6,638.0	12,441.9	6,638.4	165.1	164.7	90.02	860.2	-5,728.4	1,025.2	695.6	329.64	3.110	
12,401.5	6,638.0	12,443.5	6,638.4	165.2	164.8	90.02	860.2	-5,729.9	1,025.2	695.5	329.73	3.109	
12,500.0	6,637.9	12,541.9	6,638.2	167.9	167.5	90.02	860.2	-5,828.4	1,025.2	690.0	335.24	3.058	
12,598.4	6,637.8	12,640.3	6,638.1	170.7	170.3	90.02	860.2	-5,926.8	1,025.2	684.5	340.75	3.009	
12,600.0	6,637.8	12,641.9	6,638.1	170.7	170.3	90.02	860.2	-5,928.4	1,025.2	684.4	340.84	3.008	
12,696.8	6,637.7	12,738.8	6,638.0	173.4	173.0	90.02	860.2	-6,025.2	1,025.2	679.0	346.26	2.961	
12,700.0	6,637.7	12,741.9	6,638.0	173.5	173.1	90.02	860.2	-6,028.4	1,025.2	678.8	346.44	2.959	
12,795.2	6,637.6	12,837.2	6,637.9	176.2	175.8	90.02	860.2	-6,123.6	1,025.2	673.5	351.77	2.915	
12,800.0	6,637.6	12,841.9	6,637.8	176.3	175.9	90.02	860.2	-6,128.4	1,025.2	673.2	352.04	2.912	
12,893.7	6,637.4	12,935.6	6,637.7	178.9	178.5	90.02	860.1	-6,222.0	1,025.2	668.0	357.28	2.870	
12,900.0	6,637.4	12,941.9	6,637.7	179.1	178.7	90.02	860.1	-6,228.4	1,025.2	667.6	357.64	2.867	
12,992.1	6,637.3	13,034.0	6,637.6	181.7	181.3	90.02	860.1	-6,320.5	1,025.2	662.4	362.79	2.826	
13,000.0	6,637.3	13,041.9	6,637.6	181.9	181.5	90.02	860.1	-6,328.4	1,025.2	662.0	363.24	2.823	
13,090.5	6,637.2	13,132.5	6,637.5	184.4	184.0	90.01	860.1	-6,418.9	1,025.2	656.9	368.31	2.784	
13,100.0	6,637.2	13,141.9	6,637.5	184.7	184.3	90.01	860.1	-6,428.4	1,025.2	656.4	368.84	2.780	
13,188.9	6,637.1	13,230.9	6,637.3	187.2	186.8	90.01	860.1	-6,517.3	1,025.2	651.4	373.82	2.743	
13,200.0	6,637.1	13,241.9	6,637.3	187.5	187.1	90.01	860.1	-6,528.4	1,025.2	650.8	374.44	2.738	
13,287.4	6,637.0	13,329.3	6,637.2	190.0	189.5	90.01	860.1	-6,615.7	1,025.2	645.9	379.33	2.703	
13,300.0	6,637.0	13,341.9	6,637.2	190.3	189.9	90.01	860.1	-6,628.4	1,025.2	645.2	380.04	2.698	
13,385.8	6,636.9	13,427.7	6,637.1	192.7	192.3	90.01	860.1	-6,714.2	1,025.2	640.4	384.85	2.664	
13,400.0	6,636.8	13,441.9	6,637.1	193.1	192.7	90.01	860.1	-6,728.4	1,025.2	639.6	385.64	2.658	
13,484.2	6,636.7	13,526.2	6,637.0	195.5	195.0	90.01	860.1	-6,812.6	1,025.2	634.9	390.36	2.626	
13,500.0	6,636.7	13,541.9	6,636.9	195.9	195.5	90.01	860.1	-6,828.4	1,025.2	634.0	391.25	2.620	
13,582.6	6,636.6	13,624.6	6,636.8	198.2	197.8	90.01	860.1	-6,911.0	1,025.2	629.3	395.88	2.590	
13,600.0	6,636.6	13,641.9	6,636.8	198.7	198.3	90.01	860.1	-6,928.4	1,025.2	628.4	396.85	2.583	
13,681.1	6,636.5	13,723.0	6,636.7	201.0	200.5	90.01	860.1	-7,009.5	1,025.2	623.8	401.40	2.554	
13,700.0	6,636.5	13,741.9	6,636.7	201.5	201.1	90.01	860.1	-7,028.4	1,025.2	622.8	402.46	2.547	
13,779.5	6,636.4	13,821.4	6,636.6	203.7	203.3	90.01	860.1	-7,107.9	1,025.2	618.3	406.91	2.520	
13,800.0	6,636.4	13,841.9	6,636.6	204.3	203.9	90.01	860.1	-7,128.4	1,025.2	617.2	408.06	2.512	
13,877.9	6,636.3	13,919.9	6,636.5	206.5	206.1	90.01	860.1	-7,206.3	1,025.2	612.8	412.43	2.486	
13,900.0	6,636.3	13,941.9	6,636.4	207.1	206.7	90.01	860.1	-7,228.4	1,025.2	611.5	413.67	2.478	
13,976.3	6,636.2	14,018.3	6,636.3	209.3	208.8	90.01	860.1	-7,304.7	1,025.2	607.3	417.95	2.453	
14,000.0	6,636.1	14,041.9	6,636.3	209.9	209.5	90.01	860.1	-7,328.4	1,025.2	605.9	419.27	2.445	
14,074.8	6,636.0	14,116.7	6,636.2	212.0	211.6	90.01	860.1	-7,403.2	1,025.2	601.7	423.46	2.421	
14,100.0	6,636.0	14,142.0	6,636.2	212.7	212.3	90.01	860.1	-7,428.4	1,025.2	600.3	424.88	2.413	
14,173.2	6,635.9	14,215.2	6,636.1	214.8	214.3	90.01	860.1	-7,501.6	1,025.2	596.2	428.98	2.390	
14,200.0	6,635.9	14,242.0	6,636.0	215.5	215.1	90.01	860.1	-7,528.4	1,025.2	594.7	430.48	2.382	
14,271.6	6,635.8	14,313.6	6,635.9	217.5	217.1	90.01	860.1	-7,600.0	1,025.2	590.7	434.50	2.359	
14,300.0	6,635.8	14,342.0	6,635.9	218.3	217.9	90.01	860.1	-7,628.4	1,025.2	589.1	436.09	2.351	
14,370.0	6,635.7	14,412.0	6,635.8	220.3	219.8	90.01	860.1	-7,698.4	1,025.2	585.2	440.02	2.330	
14,400.0	6,635.7	14,442.0	6,635.8	221.1	220.7	90.01	860.1	-7,728.4	1,025.2	583.5	441.70	2.321	
14,468.5	6,635.6	14,510.4	6,635.7	223.1	222.6	90.01	860.1	-7,796.9	1,025.2	579.7	445.54	2.301	
14,500.0	6,635.6	14,542.0	6,635.6	223.9	223.5	90.01	860.1	-7,828.4	1,025.2	577.9	447.31	2.292	
14,566.9	6,635.5	14,608.9	6,635.6	225.8	225.4	90.00	860.1	-7,895.3	1,025.2	574.1	451.06	2.273	
14,600.0	6,635.4	14,642.0	6,635.5	226.8	226.3	90.00	860.1	-7,928.4	1,025.2	572.3	452.92	2.264	
14,665.3	6,635.4	14,707.3	6,635.4	228.6	228.1	90.00	860.1	-7,993.7	1,025.2	568.6	456.58	2.245	

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

Anticollision Report



Company:	PDC ENERGY	Local Co-ordinate Reference:	Well WACKER 10G-214
Project:	WELD COUNTY, COLORADO	TVD Reference:	KB-EST @ 4624.0usft (Original Well Elev)
Reference Site:	SW NW SEC. 10 T5N R64W 6th P.M.	MD Reference:	KB-EST @ 4624.0usft (Original Well Elev)
Site Error:	0.0 usft	North Reference:	True
Reference Well:	WACKER 10G-214	Survey Calculation Method:	Minimum Curvature
Well Error:	0.0 usft	Output errors are at	2.00 sigma
Reference Wellbore	ORIGINAL WELLBORE	Database:	EDM 5000.1 Single User Db
Reference Design:	PROPOSAL #1	Offset TVD Reference:	Offset Datum

Offset Design SW NW SEC. 10 T5N R64W 6th P.M. - WACKER 10F-204 - ORIGINAL WELLBORE - PROPOSAL #1												Offset Site Error:	0.0 usft
Survey Program: 0-MWD												Offset Well Error:	0.0 usft
Reference	Offset	Semi Major Axis		Distance									
Measured Depth (usft)	Vertical Depth (usft)	Measured Depth (usft)	Vertical Depth (usft)	Reference (usft)	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
14,700.0	6,635.3	14,742.0	6,635.4	229.6	229.1	90.00	860.1	-8,028.4	1,025.2	566.7	458.52	2.236	
14,763.7	6,635.2	14,805.7	6,635.3	231.3	230.9	90.00	860.1	-8,092.1	1,025.2	563.1	462.10	2.219	
14,800.0	6,635.2	14,842.0	6,635.3	232.4	231.9	90.00	860.1	-8,128.4	1,025.2	561.1	464.13	2.209	
14,862.2	6,635.1	14,904.1	6,635.2	234.1	233.6	90.00	860.1	-8,190.6	1,025.2	557.6	467.62	2.192	
14,900.0	6,635.1	14,942.0	6,635.1	235.2	234.7	90.00	860.1	-8,228.4	1,025.2	555.4	469.74	2.182	
14,960.6	6,635.0	15,002.6	6,635.0	236.9	236.4	90.00	860.1	-8,289.0	1,025.2	552.0	473.14	2.167	
14,982.9	6,635.0	15,024.8	6,635.0	237.5	237.0	90.00	860.1	-8,311.3	1,025.2	550.8	474.39	2.161 SF	

Anticollision Report



Company:	PDC ENERGY	Local Co-ordinate Reference:	Well WACKER 10G-214
Project:	WELD COUNTY, COLORADO	TVD Reference:	KB-EST @ 4624.0usft (Original Well Elev)
Reference Site:	SW NW SEC. 10 T5N R64W 6th P.M.	MD Reference:	KB-EST @ 4624.0usft (Original Well Elev)
Site Error:	0.0 usft	North Reference:	True
Reference Well:	WACKER 10G-214	Survey Calculation Method:	Minimum Curvature
Well Error:	0.0 usft	Output errors are at	2.00 sigma
Reference Wellbore	ORIGINAL WELLBORE	Database:	EDM 5000.1 Single User Db
Reference Design:	PROPOSAL #1	Offset TVD Reference:	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	0.71	45.2	0.6	45.2				
98.4	98.4	98.4	98.4	0.1	0.1	0.71	45.2	0.6	45.2	45.0	0.19	234.928	
100.0	100.0	100.0	100.0	0.1	0.1	0.71	45.2	0.6	45.2	45.0	0.20	230.952	
196.8	196.8	196.8	196.8	0.3	0.3	0.71	45.2	0.6	45.2	44.5	0.63	71.581	
200.0	200.0	200.0	200.0	0.3	0.3	0.71	45.2	0.6	45.2	44.5	0.65	70.010	
295.3	295.3	295.3	295.3	0.5	0.5	0.71	45.2	0.6	45.2	44.1	1.07	42.075	
300.0	300.0	300.0	300.0	0.5	0.5	0.71	45.2	0.6	45.2	44.1	1.09	41.258	
393.7	393.7	393.7	393.7	0.8	0.8	0.71	45.2	0.6	45.2	43.6	1.52	29.794	
400.0	400.0	400.0	400.0	0.8	0.8	0.71	45.2	0.6	45.2	43.6	1.54	29.247	
492.1	492.1	492.1	492.1	1.0	1.0	0.71	45.2	0.6	45.2	43.2	1.96	23.062	
500.0	500.0	500.0	500.0	1.0	1.0	0.71	45.2	0.6	45.2	43.2	1.99	22.653	
590.5	590.5	590.5	590.5	1.2	1.2	0.71	45.2	0.6	45.2	42.8	2.40	18.812	
600.0	600.0	600.0	600.0	1.2	1.2	0.71	45.2	0.6	45.2	42.7	2.44	18.485	
689.0	689.0	689.0	689.0	1.4	1.4	0.71	45.2	0.6	45.2	42.3	2.84	15.884	
700.0	700.0	700.0	700.0	1.4	1.4	0.71	45.2	0.6	45.2	42.3	2.89	15.612	
787.4	787.4	787.4	787.4	1.6	1.6	0.71	45.2	0.6	45.2	41.9	3.29	13.745	
800.0	800.0	800.0	800.0	1.7	1.7	0.71	45.2	0.6	45.2	41.8	3.34	13.512	
885.8	885.8	885.8	885.8	1.9	1.9	0.71	45.2	0.6	45.2	41.4	3.73	12.114	
900.0	900.0	900.0	900.0	1.9	1.9	0.71	45.2	0.6	45.2	41.4	3.79	11.910	
984.2	984.2	984.2	984.2	2.1	2.1	0.71	45.2	0.6	45.2	41.0	4.17	10.829	
1,000.0	1,000.0	1,000.0	1,000.0	2.1	2.1	0.71	45.2	0.6	45.2	40.9	4.24	10.648	
1,082.7	1,082.7	1,082.7	1,082.7	2.3	2.3	0.71	45.2	0.6	45.2	40.5	4.61	9.790	
1,100.0	1,100.0	1,100.0	1,100.0	2.3	2.3	0.71	45.2	0.6	45.2	40.5	4.69	9.628	
1,181.1	1,181.1	1,181.1	1,181.1	2.5	2.5	0.71	45.2	0.6	45.2	40.1	5.06	8.933	
1,200.0	1,200.0	1,200.0	1,200.0	2.6	2.6	0.71	45.2	0.6	45.2	40.0	5.14	8.786	
1,279.5	1,279.5	1,279.5	1,279.5	2.7	2.7	0.71	45.2	0.6	45.2	39.7	5.50	8.214	
1,300.0	1,300.0	1,300.0	1,300.0	2.8	2.8	0.71	45.2	0.6	45.2	39.6	5.59	8.079 CC, ES	
1,377.9	1,377.9	1,377.9	1,377.9	3.0	3.0	-119.11	45.2	0.6	45.7	39.7	5.92	7.708	
1,400.0	1,400.0	1,400.0	1,400.0	3.0	3.0	-119.85	45.2	0.6	46.0	40.0	6.02	7.644	
1,476.4	1,476.3	1,475.8	1,475.8	3.1	3.2	-124.72	45.4	-0.4	48.3	42.0	6.33	7.635 SF	
1,500.0	1,499.8	1,499.2	1,499.2	3.2	3.2	-126.94	45.6	-1.1	49.5	43.1	6.42	7.707	
1,574.8	1,574.4	1,572.7	1,572.6	3.3	3.4	-135.28	46.5	-4.5	55.2	48.5	6.72	8.217	
1,600.0	1,599.5	1,597.3	1,597.2	3.4	3.4	-138.31	46.9	-6.0	58.0	51.1	6.82	8.501	
1,673.2	1,672.2	1,668.1	1,667.7	3.6	3.6	-146.87	48.4	-11.6	68.6	61.5	7.11	9.643	
1,700.0	1,698.7	1,693.7	1,693.2	3.6	3.7	-149.75	49.0	-14.0	73.5	66.3	7.21	10.188	
1,771.6	1,769.5	1,761.4	1,760.5	3.8	3.8	-156.53	51.0	-21.4	89.4	81.9	7.49	11.932	
1,800.0	1,797.5	1,787.8	1,786.6	3.9	3.9	-158.83	51.9	-24.8	96.8	89.2	7.60	12.739	
1,870.1	1,866.3	1,852.0	1,850.2	4.1	4.0	-163.61	54.3	-33.8	117.7	109.8	7.87	14.955	
1,900.2	1,895.8	1,879.2	1,876.9	4.2	4.1	-165.33	55.4	-38.1	127.8	119.8	7.98	16.010	
1,968.5	1,962.6	1,939.8	1,936.6	4.4	4.3	-168.65	58.2	-48.5	152.1	143.8	8.26	18.412	
2,000.0	1,993.4	1,967.4	1,963.7	4.5	4.4	-169.91	59.5	-53.6	163.9	155.5	8.39	19.537	
2,066.9	2,058.9	2,025.4	2,020.4	4.7	4.6	-172.17	62.6	-65.1	190.0	181.3	8.67	21.920	
2,100.0	2,091.2	2,053.6	2,047.9	4.8	4.6	-173.12	64.2	-71.2	203.4	194.6	8.80	23.107	
2,165.3	2,155.2	2,108.7	2,101.5	5.1	4.8	-174.73	67.5	-83.7	230.8	221.7	9.07	25.442	
2,200.0	2,189.1	2,137.5	2,129.3	5.2	5.0	-175.48	69.4	-90.7	245.8	236.6	9.22	26.669	
2,263.8	2,251.4	2,189.7	2,179.7	5.5	5.2	-176.68	72.9	-104.0	274.4	264.9	9.48	28.931	
2,300.0	2,286.9	2,218.9	2,207.8	5.6	5.3	-177.28	75.0	-111.8	291.1	281.4	9.64	30.207	
2,362.2	2,347.7	2,268.4	2,255.2	5.8	5.5	-178.21	78.7	-125.7	320.5	310.6	9.90	32.380	
2,400.0	2,384.7	2,300.1	2,285.4	6.0	5.7	-178.74	81.1	-134.9	338.8	328.8	10.07	33.664	
2,460.6	2,444.0	2,352.9	2,335.7	6.2	5.9	-179.52	85.2	-150.4	368.3	358.0	10.34	35.636	
2,500.0	2,482.5	2,387.2	2,368.4	6.4	6.1	-179.96	87.9	-160.4	387.5	377.0	10.50	36.891	
2,559.0	2,540.3	2,438.7	2,417.5	6.6	6.4	179.45	91.9	-175.4	416.2	405.5	10.76	38.674	

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

Anticollision Report



Company:	PDC ENERGY	Local Co-ordinate Reference:	Well WACKER 10G-214
Project:	WELD COUNTY, COLORADO	TVD Reference:	KB-EST @ 4624.0usft (Original Well Elev)
Reference Site:	SW NW SEC. 10 T5N R64W 6th P.M.	MD Reference:	KB-EST @ 4624.0usft (Original Well Elev)
Site Error:	0.0 usft	North Reference:	True
Reference Well:	WACKER 10G-214	Survey Calculation Method:	Minimum Curvature
Well Error:	0.0 usft	Output errors are at	2.00 sigma
Reference Wellbore	ORIGINAL WELLBORE	Database:	EDM 5000.1 Single User Db
Reference Design:	PROPOSAL #1	Offset TVD Reference:	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	2,580.3	2,474.4	2,451.5	6.8	6.5	179.09	94.7	-185.8	436.2	425.2	10.94	39.859	
2,657.5	2,636.5	2,524.4	2,499.2	7.1	6.8	178.64	98.6	-200.5	464.2	453.0	11.20	41.449	
2,700.0	2,678.1	2,561.5	2,534.5	7.2	7.0	178.33	101.4	-211.3	485.0	473.6	11.39	42.576	
2,755.9	2,732.8	2,610.2	2,581.0	7.5	7.3	177.97	105.2	-225.5	512.3	500.6	11.64	43.997	
2,800.0	2,775.9	2,648.6	2,617.6	7.7	7.5	177.71	108.2	-236.8	533.8	522.0	11.84	45.069	
2,854.3	2,829.1	2,695.9	2,662.7	7.9	7.8	177.42	111.9	-250.6	560.4	548.3	12.09	46.340	
2,900.0	2,873.8	2,735.7	2,700.6	8.1	8.0	177.20	115.0	-262.2	582.7	570.4	12.30	47.362	
2,952.7	2,925.4	2,781.7	2,744.4	8.3	8.2	176.96	118.5	-275.7	608.5	596.0	12.55	48.498	
2,953.5	2,926.1	2,782.3	2,745.0	8.3	8.2	176.96	118.6	-275.9	608.9	596.3	12.55	48.514	
3,000.0	2,971.6	2,823.0	2,783.8	8.5	8.5	176.79	121.7	-287.8	631.3	618.5	12.80	49.338	
3,051.2	3,022.0	2,868.2	2,826.9	8.7	8.7	176.61	125.2	-301.0	655.2	642.1	13.06	50.177	
3,100.0	3,070.1	2,911.7	2,868.4	8.8	9.0	176.45	128.6	-313.7	677.3	664.0	13.31	50.892	
3,149.6	3,119.1	2,956.3	2,910.9	8.9	9.3	176.30	132.1	-326.7	698.9	685.4	13.56	51.541	
3,200.0	3,169.1	3,002.0	2,954.4	9.1	9.5	176.15	135.6	-340.0	720.1	706.3	13.82	52.125	
3,248.0	3,216.8	3,045.8	2,996.2	9.2	9.8	176.01	139.0	-352.9	739.6	725.6	14.06	52.616	
3,300.0	3,268.5	3,093.7	3,041.8	9.3	10.1	175.87	142.7	-366.8	759.9	745.6	14.32	53.077	
3,346.4	3,314.8	3,136.7	3,082.8	9.4	10.3	175.74	146.1	-379.4	777.2	762.7	14.55	53.436	
3,400.0	3,368.3	3,186.7	3,130.4	9.6	10.6	175.60	150.0	-394.0	796.4	781.6	14.81	53.785	
3,444.9	3,413.1	3,228.8	3,170.6	9.6	10.9	175.48	153.2	-406.3	811.8	796.7	15.02	54.032	
3,500.0	3,468.2	3,280.8	3,220.2	9.7	11.2	175.33	157.3	-421.5	829.7	814.4	15.29	54.275	
3,543.3	3,511.5	3,322.0	3,259.4	9.8	11.5	175.21	160.5	-433.6	843.1	827.6	15.49	54.429	
3,553.7	3,521.9	3,331.9	3,268.9	9.8	11.5	-66.17	161.2	-436.5	846.2	825.0	21.23	39.866	
3,600.0	3,568.2	3,376.0	3,310.9	9.9	11.8	-66.31	164.6	-449.4	860.1	838.5	21.57	39.878	
3,641.7	3,609.9	3,415.8	3,348.8	10.0	12.0	-66.44	167.7	-461.0	872.6	850.7	21.88	39.881	
3,700.0	3,668.2	3,471.3	3,401.8	10.1	12.4	-66.61	172.0	-477.2	890.0	867.7	22.32	39.882	
3,740.1	3,708.4	3,509.6	3,438.3	10.1	12.6	-66.72	175.0	-488.4	902.0	879.4	22.62	39.881	
3,800.0	3,768.2	3,566.6	3,492.6	10.2	13.0	-66.89	179.4	-505.1	920.0	896.9	23.07	39.877	
3,838.6	3,806.8	3,603.4	3,527.7	10.3	13.2	-66.99	182.3	-515.8	931.5	908.2	23.36	39.873	
3,900.0	3,868.2	3,662.0	3,583.5	10.4	13.6	-67.15	186.8	-532.9	949.9	926.1	23.83	39.865	
3,937.0	3,905.2	3,697.2	3,617.1	10.5	13.8	-67.24	189.6	-543.2	961.0	936.9	24.11	39.859	
4,000.0	3,968.2	3,757.3	3,674.4	10.6	14.2	-67.39	194.2	-560.8	979.9	955.3	24.59	39.847	
4,035.4	4,003.6	3,791.0	3,706.5	10.6	14.4	-67.48	196.9	-570.6	990.5	965.7	24.86	39.840	
4,100.0	4,068.2	3,852.6	3,765.2	10.7	14.8	-67.62	201.6	-588.6	1,009.9	984.5	25.36	39.824	
4,133.8	4,102.1	3,884.9	3,796.0	10.8	15.0	-67.70	204.1	-598.1	1,020.1	994.4	25.62	39.816	
4,200.0	4,168.2	3,947.9	3,856.1	10.9	15.3	-67.84	209.0	-616.5	1,039.9	1,013.8	26.13	39.798	
4,232.3	4,200.5	3,978.7	3,885.4	11.0	15.5	-67.91	211.4	-625.5	1,049.6	1,023.2	26.38	39.788	
4,300.0	4,268.2	4,043.2	3,946.9	11.1	15.9	-68.05	216.4	-644.3	1,069.9	1,043.0	26.90	39.768	
4,330.7	4,298.9	4,072.5	3,974.8	11.1	16.1	-68.11	218.7	-652.9	1,079.1	1,052.0	27.14	39.758	
4,400.0	4,368.2	4,138.6	4,037.8	11.3	16.5	-68.24	223.8	-672.2	1,100.0	1,072.3	27.68	39.736	
4,429.1	4,397.3	4,166.3	4,064.2	11.3	16.7	-68.29	226.0	-680.3	1,108.7	1,080.8	27.91	39.726	
4,500.0	4,468.2	4,233.9	4,128.6	11.4	17.1	-68.42	231.2	-700.1	1,130.0	1,101.5	28.46	39.701	
4,527.5	4,495.8	4,260.1	4,153.7	11.5	17.3	-68.47	233.3	-707.7	1,138.3	1,109.6	28.68	39.691	
4,600.0	4,568.2	4,329.2	4,219.5	11.6	17.7	-68.60	238.6	-727.9	1,160.1	1,130.8	29.25	39.665	
4,626.0	4,594.2	4,354.0	4,243.1	11.7	17.9	-68.64	240.6	-735.2	1,167.9	1,138.4	29.45	39.656	
4,700.0	4,668.2	4,424.5	4,310.4	11.8	18.4	-68.76	246.0	-755.8	1,190.1	1,160.1	30.03	39.628	
4,724.4	4,692.6	4,447.8	4,332.5	11.9	18.5	-68.80	247.8	-762.6	1,197.5	1,167.2	30.22	39.619	
4,800.0	4,768.2	4,519.8	4,401.2	12.0	19.0	-68.92	253.4	-783.6	1,220.2	1,189.4	30.82	39.590	
4,822.8	4,791.0	4,541.6	4,421.9	12.0	19.1	-68.96	255.1	-790.0	1,227.1	1,196.1	31.00	39.581	
4,900.0	4,868.2	4,615.2	4,492.1	12.2	19.6	-69.07	260.8	-811.5	1,250.3	1,218.7	31.61	39.552	
4,921.2	4,889.5	4,635.4	4,511.4	12.2	19.7	-69.10	262.4	-817.4	1,256.7	1,224.9	31.78	39.543	
5,000.0	4,968.2	4,710.5	4,582.9	12.4	20.2	-69.21	268.2	-839.3	1,280.4	1,248.0	32.40	39.512	
5,019.7	4,987.9	4,729.2	4,600.8	12.4	20.3	-69.24	269.7	-844.8	1,286.3	1,253.7	32.56	39.505	

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

Anticollision Report



Company:	PDC ENERGY	Local Co-ordinate Reference:	Well WACKER 10G-214
Project:	WELD COUNTY, COLORADO	TVD Reference:	KB-EST @ 4624.0usft (Original Well Elev)
Reference Site:	SW NW SEC. 10 T5N R64W 6th P.M.	MD Reference:	KB-EST @ 4624.0usft (Original Well Elev)
Site Error:	0.0 usft	North Reference:	True
Reference Well:	WACKER 10G-214	Survey Calculation Method:	Minimum Curvature
Well Error:	0.0 usft	Output errors are at	2.00 sigma
Reference Wellbore	ORIGINAL WELLBORE	Database:	EDM 5000.1 Single User Db
Reference Design:	PROPOSAL #1	Offset TVD Reference:	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	5,068.2	4,805.8	4,673.8	12.6	20.8	-69.35	275.6	-867.2	1,310.5	1,277.3	33.20	39.473	
5,118.1	5,086.3	4,823.0	4,690.2	12.6	20.9	-69.37	277.0	-872.2	1,315.9	1,282.6	33.34	39.466	
5,200.0	5,168.2	4,901.1	4,764.6	12.7	21.4	-69.48	283.0	-895.1	1,340.6	1,306.6	34.00	39.434	
5,216.5	5,184.7	4,916.9	4,779.6	12.8	21.5	-69.50	284.2	-899.7	1,345.5	1,311.4	34.13	39.427	
5,300.0	5,268.2	4,996.4	4,855.5	12.9	22.0	-69.60	290.4	-922.9	1,370.7	1,335.9	34.79	39.394	
5,314.9	5,283.2	5,010.7	4,869.1	13.0	22.1	-69.62	291.5	-927.1	1,375.2	1,340.3	34.91	39.388	
5,400.0	5,368.2	7,912.7	6,626.1	13.1	39.2	1.83	338.5	318.3	1,355.0	1,327.6	27.46	49.351	
5,413.4	5,381.6	7,912.6	6,626.1	13.2	39.2	1.81	338.5	318.1	1,342.6	1,315.1	27.49	48.849	
5,500.0	5,468.2	7,911.5	6,626.1	13.3	39.2	1.69	338.5	317.0	1,262.8	1,235.1	27.67	45.639	
5,511.8	5,480.0	7,911.3	6,626.1	13.3	39.2	1.67	338.5	316.9	1,251.9	1,224.2	27.69	45.207	
5,600.0	5,568.2	7,910.2	6,626.1	13.5	39.1	1.54	338.5	315.7	1,171.7	1,143.9	27.88	42.026	
5,610.2	5,578.4	7,910.0	6,626.1	13.5	39.1	1.52	338.5	315.6	1,162.5	1,134.6	27.90	41.663	
5,700.0	5,668.2	7,908.9	6,626.1	13.7	39.1	1.39	338.5	314.5	1,082.3	1,054.2	28.09	38.524	
5,708.6	5,676.9	7,908.8	6,626.1	13.7	39.1	1.38	338.5	314.3	1,074.7	1,046.5	28.11	38.226	
5,800.0	5,768.2	7,907.6	6,626.2	13.9	39.1	1.25	338.5	313.2	994.9	966.6	28.31	35.144	
5,807.1	5,775.3	7,907.5	6,626.2	13.9	39.1	1.24	338.5	313.1	988.8	960.5	28.32	34.910	
5,900.0	5,868.2	7,906.3	6,626.2	14.1	39.1	1.10	338.5	311.9	910.0	881.5	28.52	31.904	
5,905.5	5,873.7	7,906.3	6,626.2	14.1	39.1	1.10	338.5	311.8	905.5	876.9	28.54	31.731	
5,960.7	5,928.9	7,905.6	6,626.2	14.2	39.0	1.02	338.5	311.1	860.2	831.5	28.66	30.017	
6,000.0	5,968.2	7,904.0	6,626.2	14.3	39.0	95.05	338.5	309.5	828.6	775.6	53.03	15.627	
6,003.9	5,972.1	7,903.7	6,626.2	14.3	39.0	95.42	338.5	309.3	825.5	772.5	53.02	15.571	
6,050.0	6,018.0	7,898.9	6,626.3	14.4	38.9	99.40	338.5	304.4	789.7	736.9	52.80	14.958	
6,100.0	6,067.3	7,890.3	6,626.4	14.4	38.7	102.87	338.5	295.8	752.4	700.1	52.37	14.369	
6,102.3	6,069.6	7,889.8	6,626.4	14.4	38.7	103.02	338.5	295.4	750.7	698.4	52.34	14.343	
6,150.0	6,116.0	7,878.3	6,626.5	14.4	38.5	105.51	338.5	283.9	717.1	665.3	51.83	13.836	
6,200.0	6,163.8	7,862.9	6,626.7	14.5	38.1	107.36	338.5	268.5	684.1	632.8	51.26	13.345	
6,200.8	6,164.5	7,862.7	6,626.7	14.5	38.1	107.39	338.5	268.2	683.6	632.3	51.25	13.338	
6,250.0	6,210.4	7,844.3	6,627.0	14.5	37.7	108.52	338.5	249.9	653.6	602.9	50.69	12.894	
6,299.2	6,254.9	7,822.9	6,627.2	14.5	37.3	109.04	338.5	228.4	626.3	576.1	50.14	12.489	
6,300.0	6,255.6	7,822.5	6,627.2	14.5	37.3	109.04	338.5	228.1	625.8	575.7	50.14	12.483	
6,350.0	6,299.3	7,797.6	6,627.6	14.5	36.7	109.00	338.5	203.2	601.1	551.5	49.62	12.115	
6,397.6	6,339.2	7,771.1	6,627.9	14.6	36.2	108.50	338.5	176.7	580.5	531.3	49.18	11.803	
6,400.0	6,341.2	7,769.7	6,627.9	14.6	36.2	108.46	338.5	175.3	579.5	530.3	49.16	11.789	
6,450.0	6,381.0	7,739.0	6,628.3	14.6	35.6	107.48	338.5	144.6	561.0	512.3	48.73	11.512	
6,496.0	6,415.8	7,708.4	6,628.7	14.7	34.9	106.25	338.5	114.0	546.7	498.4	48.38	11.302	
6,500.0	6,418.7	7,705.6	6,628.7	14.7	34.9	106.13	338.5	111.2	545.6	497.3	48.35	11.286	
6,550.0	6,453.9	7,669.8	6,629.2	14.8	34.2	104.48	338.5	75.3	533.2	485.2	48.02	11.104	
6,594.5	6,483.1	7,635.9	6,629.6	15.0	33.6	102.82	338.5	41.4	524.4	476.7	47.77	10.980	
6,600.0	6,486.6	7,631.5	6,629.7	15.1	33.5	102.60	338.5	37.1	523.5	475.8	47.73	10.968	
6,650.0	6,516.6	7,591.1	6,630.2	15.3	32.7	100.58	338.5	-3.3	516.2	468.7	47.48	10.873	
6,692.9	6,540.0	7,554.9	6,630.7	15.7	32.1	98.80	338.5	-39.5	511.7	464.3	47.32	10.812	
6,700.0	6,543.7	7,548.8	6,630.7	15.7	32.0	98.51	338.5	-45.6	511.0	463.7	47.29	10.806	
6,750.0	6,567.8	7,504.7	6,631.3	16.2	31.2	96.46	338.5	-89.7	507.5	460.4	47.13	10.769	
6,791.3	6,585.4	7,467.1	6,631.8	16.7	30.6	94.85	338.5	-127.3	505.7	458.6	47.07	10.743	
6,800.0	6,588.8	7,459.1	6,631.9	16.8	30.5	94.53	338.5	-135.3	505.4	458.3	47.05	10.741	
6,850.0	6,606.6	7,412.1	6,632.5	17.4	29.7	92.80	338.5	-182.3	504.2	457.2	47.02	10.724	
6,889.7	6,618.4	7,374.0	6,633.0	18.0	29.2	91.60	338.5	-220.4	503.8	456.7	47.06	10.704	
6,900.0	6,621.1	7,364.1	6,633.1	18.2	29.0	91.33	338.5	-230.3	503.7	456.6	47.08	10.699	
6,950.0	6,632.2	7,315.2	6,633.7	19.0	28.3	90.17	338.5	-279.1	503.6	456.4	47.21	10.667	
6,959.0	6,633.8	7,306.4	6,633.8	19.2	28.2	90.00	338.5	-288.0	503.6	456.3	47.24	10.660	
6,988.2	6,638.4	7,277.5	6,634.2	19.7	27.9	89.53	338.5	-316.9	503.6	456.2	47.39	10.627	
7,000.0	6,639.9	7,265.8	6,634.4	19.9	27.7	89.37	338.5	-328.6	503.6	456.1	47.45	10.613	

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

Anticollision Report



Company:	PDC ENERGY	Local Co-ordinate Reference:	Well WACKER 10G-214
Project:	WELD COUNTY, COLORADO	TVD Reference:	KB-EST @ 4624.0usft (Original Well Elev)
Reference Site:	SW NW SEC. 10 T5N R64W 6th P.M.	MD Reference:	KB-EST @ 4624.0usft (Original Well Elev)
Site Error:	0.0 usft	North Reference:	True
Reference Well:	WACKER 10G-214	Survey Calculation Method:	Minimum Curvature
Well Error:	0.0 usft	Output errors are at	2.00 sigma
Reference Wellbore	ORIGINAL WELLBORE	Database:	EDM 5000.1 Single User Db
Reference Design:	PROPOSAL #1	Offset TVD Reference:	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	6,644.1	7,215.9	6,635.0	20.8	27.1	88.96	338.5	-378.5	503.6	455.9	47.77	10.544	
7,086.5	6,645.0	7,179.9	6,634.6	21.5	26.8	88.81	338.5	-414.5	503.7	455.6	48.09	10.474	
7,100.0	6,645.0	7,166.6	6,633.9	21.8	26.6	88.74	338.5	-427.7	503.7	455.5	48.21	10.447	
7,185.0	6,644.9	7,083.9	6,624.5	23.6	25.9	87.69	338.5	-509.9	504.0	454.8	49.17	10.250	
7,200.0	6,644.8	7,069.6	6,622.0	23.9	25.8	87.40	338.5	-523.9	504.1	454.7	49.35	10.214	
7,283.4	6,644.7	6,992.2	6,603.2	25.7	25.3	85.28	338.5	-599.0	505.4	454.9	50.54	10.000	
7,300.0	6,644.7	6,977.4	6,598.6	26.1	25.2	84.77	338.5	-613.1	505.9	455.1	50.79	9.960	
7,381.9	6,644.6	6,907.2	6,573.3	28.0	24.9	81.94	338.5	-678.5	509.6	457.5	52.09	9.782	
7,400.0	6,644.6	6,892.4	6,567.2	28.4	24.9	81.25	338.5	-692.0	510.8	458.4	52.37	9.752	
7,480.3	6,644.5	6,830.2	6,538.3	30.3	24.7	78.09	338.5	-747.1	518.3	464.6	53.65	9.661	
7,500.0	6,644.4	6,815.8	6,531.0	30.8	24.7	77.29	338.5	-759.4	520.8	466.8	53.95	9.653	
7,578.7	6,644.3	6,761.7	6,501.2	32.7	24.7	74.12	338.5	-804.6	533.5	478.3	55.10	9.681	
7,600.0	6,644.3	6,750.0	6,494.3	33.3	24.7	73.39	338.5	-814.0	537.7	482.3	55.42	9.702	
7,677.1	6,644.2	6,700.0	6,463.1	35.2	24.7	70.20	338.5	-853.1	556.4	500.0	56.38	9.868	
7,700.0	6,644.1	6,688.5	6,455.6	35.8	24.7	69.45	338.5	-861.8	562.9	506.2	56.70	9.929	
7,775.6	6,644.0	6,650.0	6,429.3	37.7	24.8	66.88	338.5	-890.0	587.8	530.1	57.63	10.199	
7,800.0	6,644.0	6,636.7	6,419.9	38.3	24.8	65.98	338.5	-899.4	596.9	539.0	57.88	10.313	
7,874.0	6,643.9	6,600.0	6,393.0	40.2	24.9	63.48	338.5	-924.4	627.5	568.9	58.62	10.705	
7,900.0	6,643.9	6,600.0	6,393.0	40.9	24.9	63.48	338.5	-924.4	639.5	580.2	59.23	10.797	
7,972.4	6,643.8	6,562.3	6,364.2	42.8	24.9	60.92	338.5	-948.5	675.2	615.4	59.75	11.299	
8,000.0	6,643.7	6,550.0	6,354.4	43.5	25.0	60.08	338.5	-956.1	689.8	629.8	59.97	11.502	
8,070.8	6,643.6	6,527.0	6,336.0	45.4	25.0	58.53	338.5	-969.8	729.8	669.0	60.79	12.005	
8,100.0	6,643.6	6,517.4	6,328.1	46.2	25.1	57.88	338.5	-975.3	747.2	686.1	61.10	12.229	
8,169.3	6,643.5	6,500.0	6,313.7	48.0	25.1	56.72	338.5	-985.1	790.6	728.6	62.00	12.750	
8,200.0	6,643.5	6,487.1	6,302.9	48.8	25.1	55.87	338.5	-992.1	810.6	748.4	62.18	13.036	
8,267.7	6,643.4	6,468.6	6,287.1	50.6	25.2	54.66	338.5	-1,001.9	856.5	793.5	62.93	13.610	
8,300.0	6,643.3	6,450.0	6,271.1	51.5	25.2	53.46	338.5	-1,011.2	879.2	816.4	62.85	13.990	
8,366.1	6,643.2	6,450.0	6,271.1	53.3	25.2	53.46	338.5	-1,011.2	926.8	862.5	64.30	14.413	
8,400.0	6,643.2	6,436.5	6,259.3	54.2	25.3	52.61	338.5	-1,017.7	951.8	887.4	64.44	14.771	
8,464.5	6,643.1	6,422.6	6,247.0	55.9	25.3	51.74	338.5	-1,024.2	1,000.7	935.5	65.20	15.348	
8,500.0	6,643.1	6,415.4	6,240.5	56.9	25.3	51.29	338.5	-1,027.5	1,028.1	962.5	65.62	15.666	
8,563.0	6,643.0	6,400.0	6,226.7	58.6	25.4	50.34	338.5	-1,034.3	1,077.7	1,011.5	66.24	16.270	
8,600.0	6,642.9	6,400.0	6,226.7	59.6	25.4	50.34	338.5	-1,034.3	1,107.3	1,040.3	67.03	16.521	
8,661.4	6,642.8	6,400.0	6,226.7	61.3	25.4	50.34	338.5	-1,034.3	1,157.5	1,089.1	68.34	16.936	
8,700.0	6,642.8	6,379.4	6,208.0	62.3	25.4	49.10	338.5	-1,042.8	1,189.1	1,120.9	68.11	17.457	
8,759.8	6,642.7	6,370.0	6,199.4	64.0	25.4	48.55	338.5	-1,046.6	1,239.0	1,170.1	68.89	17.985	
8,800.0	6,642.7	6,350.0	6,180.9	65.1	25.5	47.39	338.5	-1,054.2	1,273.1	1,204.4	68.68	18.538	
8,858.2	6,642.6	6,350.0	6,180.9	66.6	25.5	47.39	338.5	-1,054.2	1,322.6	1,252.7	69.88	18.926	
8,900.0	6,642.5	6,350.0	6,180.9	67.8	25.5	47.39	338.5	-1,054.2	1,358.5	1,287.7	70.74	19.203	
8,956.7	6,642.4	6,350.0	6,180.9	69.3	25.5	47.39	338.5	-1,054.2	1,407.7	1,335.8	71.92	19.574	
9,000.0	6,642.4	6,350.0	6,180.9	70.5	25.5	47.39	338.5	-1,054.2	1,445.7	1,372.9	72.82	19.854	
9,055.1	6,642.3	6,330.9	6,162.9	72.0	25.5	46.30	338.5	-1,060.9	1,494.1	1,421.3	72.87	20.504	
9,100.0	6,642.3	6,325.8	6,158.2	73.3	25.5	46.02	338.5	-1,062.6	1,534.0	1,460.5	73.50	20.872	
9,153.5	6,642.2	6,320.0	6,152.7	74.7	25.5	45.70	338.5	-1,064.5	1,581.8	1,507.5	74.25	21.303	
9,200.0	6,642.1	6,300.0	6,133.7	76.0	25.6	44.62	338.5	-1,070.8	1,623.7	1,549.7	74.02	21.936	
9,251.9	6,642.1	6,300.0	6,133.7	77.5	25.6	44.62	338.5	-1,070.8	1,670.5	1,595.4	75.06	22.255	
9,300.0	6,642.0	6,300.0	6,133.7	78.8	25.6	44.62	338.5	-1,070.8	1,714.0	1,638.0	76.02	22.546	
9,350.4	6,641.9	6,300.0	6,133.7	80.2	25.6	44.62	338.5	-1,070.8	1,759.9	1,682.9	77.03	22.846	
9,400.0	6,641.9	6,300.0	6,133.7	81.5	25.6	44.62	338.5	-1,070.8	1,805.3	1,727.3	78.03	23.137	
9,448.8	6,641.8	6,300.0	6,133.7	82.9	25.6	44.62	338.5	-1,070.8	1,850.2	1,771.2	79.01	23.419	
9,500.0	6,641.7	6,300.0	6,133.7	84.3	25.6	44.62	338.5	-1,070.8	1,897.5	1,817.5	80.03	23.709	
9,547.2	6,641.7	6,300.0	6,133.7	85.6	25.6	44.62	338.5	-1,070.8	1,941.3	1,860.4	80.98	23.972	

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

Anticollision Report



Company:	PDC ENERGY	Local Co-ordinate Reference:	Well WACKER 10G-214
Project:	WELD COUNTY, COLORADO	TVD Reference:	KB-EST @ 4624.0usft (Original Well Elev)
Reference Site:	SW NW SEC. 10 T5N R64W 6th P.M.	MD Reference:	KB-EST @ 4624.0usft (Original Well Elev)
Site Error:	0.0 usft	North Reference:	True
Reference Well:	WACKER 10G-214	Survey Calculation Method:	Minimum Curvature
Well Error:	0.0 usft	Output errors are at	2.00 sigma
Reference Wellbore	ORIGINAL WELLBORE	Database:	EDM 5000.1 Single User Db
Reference Design:	PROPOSAL #1	Offset TVD Reference:	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	
9,600.0	6,641.6	6,280.3	6,114.8	87.1	25.6	43.58	338.5	-1,076.5	1,990.1	1,909.4	80.77	24.641	
9,645.6	6,641.5	6,276.9	6,111.6	88.3	25.6	43.40	338.5	-1,077.4	2,032.6	1,951.2	81.45	24.955	
9,700.0	6,641.5	6,273.1	6,107.9	89.8	25.6	43.21	338.5	-1,078.4	2,083.4	2,001.1	82.27	25.324	
9,744.1	6,641.4	6,270.1	6,105.0	91.0	25.6	43.05	338.5	-1,079.2	2,124.7	2,041.8	82.94	25.618	
9,800.0	6,641.3	6,250.0	6,085.5	92.6	25.7	42.04	338.5	-1,084.1	2,177.5	2,094.8	82.70	26.330	
9,842.5	6,641.3	6,250.0	6,085.5	93.8	25.7	42.04	338.5	-1,084.1	2,217.4	2,133.9	83.52	26.549	
9,900.0	6,641.2	6,250.0	6,085.5	95.4	25.7	42.04	338.5	-1,084.1	2,271.6	2,186.9	84.63	26.840	
9,940.9	6,641.1	6,250.0	6,085.5	96.5	25.7	42.04	338.5	-1,084.1	2,310.2	2,224.8	85.43	27.044	
10,000.0	6,641.1	6,250.0	6,085.5	98.1	25.7	42.04	338.5	-1,084.1	2,366.2	2,279.6	86.57	27.332	
10,039.3	6,641.0	6,250.0	6,085.5	99.2	25.7	42.04	338.5	-1,084.1	2,403.5	2,316.2	87.33	27.521	
10,100.0	6,640.9	6,250.0	6,085.5	100.9	25.7	42.04	338.5	-1,084.1	2,461.2	2,372.7	88.51	27.807	
10,137.8	6,640.9	6,250.0	6,085.5	102.0	25.7	42.04	338.5	-1,084.1	2,497.2	2,407.9	89.24	27.983	
10,200.0	6,640.8	6,250.0	6,085.5	103.7	25.7	42.04	338.5	-1,084.1	2,556.6	2,466.1	90.45	28.266	
10,236.2	6,640.8	6,250.0	6,085.5	104.7	25.7	42.04	338.5	-1,084.1	2,591.2	2,500.1	91.15	28.428	
10,300.0	6,640.7	6,250.0	6,085.5	106.5	25.7	42.04	338.5	-1,084.1	2,652.3	2,559.9	92.39	28.709	
10,334.6	6,640.6	6,250.0	6,085.5	107.4	25.7	42.04	338.5	-1,084.1	2,685.6	2,592.5	93.06	28.858	
10,400.0	6,640.6	6,250.0	6,085.5	109.3	25.7	42.04	338.5	-1,084.1	2,748.4	2,654.0	94.33	29.136	
10,433.0	6,640.5	6,250.0	6,085.5	110.2	25.7	42.04	338.5	-1,084.1	2,780.2	2,685.2	94.97	29.274	
10,500.0	6,640.4	6,229.9	6,065.9	112.0	25.7	41.06	338.5	-1,088.5	2,844.3	2,749.6	94.72	30.028	
10,531.5	6,640.4	6,228.5	6,064.6	112.9	25.7	41.00	338.5	-1,088.8	2,874.7	2,779.4	95.23	30.188	
10,600.0	6,640.3	6,225.8	6,061.9	114.8	25.7	40.86	338.5	-1,089.4	2,940.8	2,844.4	96.32	30.531	
10,629.9	6,640.3	6,224.6	6,060.7	115.7	25.7	40.81	338.5	-1,089.6	2,969.6	2,872.8	96.80	30.679	
10,700.0	6,640.2	6,221.9	6,058.1	117.6	25.7	40.68	338.5	-1,090.1	3,037.4	2,939.4	97.92	31.019	
10,728.3	6,640.1	6,220.8	6,057.0	118.4	25.7	40.63	338.5	-1,090.3	3,064.8	2,966.4	98.37	31.154	
10,800.0	6,640.0	6,200.0	6,036.5	120.4	25.7	39.66	338.5	-1,094.0	3,134.4	3,036.4	98.09	31.956	
10,826.7	6,640.0	6,200.0	6,036.5	121.2	25.7	39.66	338.5	-1,094.0	3,160.3	3,061.8	98.59	32.057	
10,900.0	6,639.9	6,200.0	6,036.5	123.2	25.7	39.66	338.5	-1,094.0	3,231.3	3,131.4	99.96	32.328	
10,925.2	6,639.9	6,200.0	6,036.5	123.9	25.7	39.66	338.5	-1,094.0	3,255.7	3,155.3	100.43	32.419	
11,000.0	6,639.8	6,200.0	6,036.5	126.0	25.7	39.66	338.5	-1,094.0	3,328.4	3,226.6	101.82	32.687	
11,023.6	6,639.8	6,200.0	6,036.5	126.6	25.7	39.66	338.5	-1,094.0	3,351.3	3,249.1	102.27	32.771	
11,100.0	6,639.7	6,200.0	6,036.5	128.8	25.7	39.66	338.5	-1,094.0	3,425.6	3,321.9	103.70	33.036	
11,122.0	6,639.6	6,200.0	6,036.5	129.4	25.7	39.66	338.5	-1,094.0	3,447.1	3,343.0	104.11	33.111	
11,200.0	6,639.5	6,200.0	6,036.5	131.6	25.7	39.66	338.5	-1,094.0	3,523.0	3,417.4	105.57	33.373	
11,220.4	6,639.5	6,200.0	6,036.5	132.1	25.7	39.66	338.5	-1,094.0	3,542.9	3,437.0	105.95	33.440	
11,300.0	6,639.4	6,200.0	6,036.5	134.4	25.7	39.66	338.5	-1,094.0	3,620.5	3,513.1	107.44	33.699	
11,318.9	6,639.4	6,200.0	6,036.5	134.9	25.7	39.66	338.5	-1,094.0	3,639.0	3,531.2	107.79	33.760	
11,400.0	6,639.3	6,200.0	6,036.5	137.1	25.7	39.66	338.5	-1,094.0	3,718.2	3,608.9	109.31	34.015	
11,417.3	6,639.3	6,200.0	6,036.5	137.6	25.7	39.66	338.5	-1,094.0	3,735.1	3,625.5	109.63	34.069	
11,500.0	6,639.2	6,200.0	6,036.5	139.9	25.7	39.67	338.5	-1,094.0	3,816.0	3,704.8	111.18	34.322	
11,515.7	6,639.1	6,200.0	6,036.5	140.4	25.7	39.67	338.5	-1,094.0	3,831.4	3,719.9	111.48	34.369	
11,600.0	6,639.0	6,200.0	6,036.5	142.7	25.7	39.67	338.5	-1,094.0	3,913.9	3,800.8	113.06	34.619	
11,614.1	6,639.0	6,200.0	6,036.5	143.1	25.7	39.67	338.5	-1,094.0	3,927.7	3,814.4	113.32	34.660	
11,700.0	6,638.9	6,200.0	6,036.5	145.5	25.7	39.67	338.5	-1,094.0	4,011.9	3,896.9	114.93	34.907	
11,712.6	6,638.9	6,200.0	6,036.5	145.9	25.7	39.67	338.5	-1,094.0	4,024.2	3,909.0	115.17	34.943	
11,800.0	6,638.8	6,200.0	6,036.5	148.3	25.7	39.67	338.5	-1,094.0	4,110.0	3,993.2	116.80	35.187	
11,811.0	6,638.8	6,200.0	6,036.5	148.6	25.7	39.67	338.5	-1,094.0	4,120.8	4,003.8	117.01	35.217	
11,900.0	6,638.7	6,200.0	6,036.5	151.1	25.7	39.67	338.5	-1,094.0	4,208.2	4,089.5	118.68	35.458	
11,909.4	6,638.6	6,200.0	6,036.5	151.4	25.7	39.67	338.5	-1,094.0	4,217.4	4,098.6	118.86	35.483	
12,000.0	6,638.5	6,200.0	6,036.5	153.9	25.7	39.67	338.5	-1,094.0	4,306.4	4,185.9	120.56	35.722	
12,007.8	6,638.5	6,200.0	6,036.5	154.1	25.7	39.67	338.5	-1,094.0	4,314.1	4,193.4	120.70	35.742	
12,100.0	6,638.4	6,200.0	6,036.5	156.7	25.7	39.67	338.5	-1,094.0	4,404.8	4,282.3	122.43	35.978	
12,106.3	6,638.4	6,200.0	6,036.5	156.9	25.7	39.67	338.5	-1,094.0	4,410.9	4,288.4	122.55	35.993	

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

Anticollision Report



Company:	PDC ENERGY	Local Co-ordinate Reference:	Well WACKER 10G-214
Project:	WELD COUNTY, COLORADO	TVD Reference:	KB-EST @ 4624.0usft (Original Well Elev)
Reference Site:	SW NW SEC. 10 T5N R64W 6th P.M.	MD Reference:	KB-EST @ 4624.0usft (Original Well Elev)
Site Error:	0.0 usft	North Reference:	True
Reference Well:	WACKER 10G-214	Survey Calculation Method:	Minimum Curvature
Well Error:	0.0 usft	Output errors are at	2.00 sigma
Reference Wellbore	ORIGINAL WELLBORE	Database:	EDM 5000.1 Single User Db
Reference Design:	PROPOSAL #1	Offset TVD Reference:	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		
12,200.0	6,638.3	6,200.0	6,036.5	159.5	25.7	39.67	338.5	-1,094.0	4,503.2	4,378.9	124.31	36.226		
12,204.7	6,638.3	6,200.0	6,036.5	159.6	25.7	39.67	338.5	-1,094.0	4,507.8	4,383.4	124.40	36.238		
12,300.0	6,638.2	6,200.0	6,036.5	162.3	25.7	39.67	338.5	-1,094.0	4,601.7	4,475.5	126.18	36.468		
12,303.1	6,638.2	6,200.0	6,036.5	162.4	25.7	39.67	338.5	-1,094.0	4,604.8	4,478.5	126.24	36.475		
12,400.0	6,638.0	6,177.7	6,014.5	165.1	25.7	38.67	338.5	-1,097.4	4,699.8	4,574.0	125.79	37.362		
12,401.5	6,638.0	6,177.6	6,014.4	165.2	25.7	38.67	338.5	-1,097.4	4,701.4	4,575.5	125.82	37.367		
12,500.0	6,637.9	6,175.9	6,012.7	167.9	25.7	38.59	338.5	-1,097.6	4,798.4	4,670.9	127.46	37.648		
12,598.4	6,637.8	6,174.3	6,011.1	170.7	25.7	38.52	338.5	-1,097.8	4,895.4	4,766.3	129.09	37.921		
12,600.0	6,637.8	6,174.2	6,011.0	170.7	25.7	38.52	338.5	-1,097.8	4,897.0	4,767.9	129.12	37.925		
12,696.8	6,637.7	6,172.6	6,009.5	173.4	25.7	38.45	338.5	-1,098.0	4,992.5	4,861.8	130.74	38.187		
12,700.0	6,637.7	6,172.6	6,009.4	173.5	25.7	38.45	338.5	-1,098.0	4,995.6	4,864.8	130.79	38.195		
12,795.2	6,637.6	6,150.0	5,987.0	176.2	25.7	37.48	338.5	-1,100.5	5,090.0	4,959.8	130.19	39.097		
12,800.0	6,637.6	6,150.0	5,987.0	176.3	25.7	37.48	338.5	-1,100.5	5,094.7	4,964.4	130.28	39.107		
12,893.7	6,637.4	6,150.0	5,987.0	178.9	25.7	37.48	338.5	-1,100.5	5,187.1	5,055.2	131.97	39.307		
12,900.0	6,637.4	6,150.0	5,987.0	179.1	25.7	37.48	338.5	-1,100.5	5,193.4	5,061.3	132.08	39.319		
12,992.1	6,637.3	6,150.0	5,987.0	181.7	25.7	37.48	338.5	-1,100.5	5,284.3	5,150.6	133.74	39.511		
13,000.0	6,637.3	6,150.0	5,987.0	181.9	25.7	37.48	338.5	-1,100.5	5,292.1	5,158.2	133.89	39.527		
13,090.5	6,637.2	6,150.0	5,987.0	184.4	25.7	37.48	338.5	-1,100.5	5,381.6	5,246.0	135.52	39.711		
13,100.0	6,637.2	6,150.0	5,987.0	184.7	25.7	37.49	338.5	-1,100.5	5,390.9	5,255.2	135.69	39.729		
13,188.9	6,637.1	6,150.0	5,987.0	187.2	25.7	37.49	338.5	-1,100.5	5,478.8	5,341.5	137.30	39.905		
13,200.0	6,637.1	6,150.0	5,987.0	187.5	25.7	37.49	338.5	-1,100.5	5,489.8	5,352.3	137.50	39.926		
13,287.4	6,637.0	6,150.0	5,987.0	190.0	25.7	37.49	338.5	-1,100.5	5,576.1	5,437.1	139.07	40.095		
13,300.0	6,637.0	6,150.0	5,987.0	190.3	25.7	37.49	338.5	-1,100.5	5,588.6	5,449.3	139.30	40.118		
13,385.8	6,636.9	6,150.0	5,987.0	192.7	25.7	37.49	338.5	-1,100.5	5,673.5	5,532.6	140.85	40.280		
13,400.0	6,636.8	6,150.0	5,987.0	193.1	25.7	37.49	338.5	-1,100.5	5,687.5	5,546.4	141.11	40.306		
13,484.2	6,636.7	6,150.0	5,987.0	195.5	25.7	37.49	338.5	-1,100.5	5,770.9	5,628.3	142.63	40.460		
13,500.0	6,636.7	6,150.0	5,987.0	195.9	25.7	37.49	338.5	-1,100.5	5,786.5	5,643.6	142.92	40.488		
13,582.6	6,636.6	6,150.0	5,987.0	198.2	25.7	37.49	338.5	-1,100.5	5,868.3	5,723.9	144.41	40.637		
13,600.0	6,636.6	6,150.0	5,987.0	198.7	25.7	37.49	338.5	-1,100.5	5,885.5	5,740.8	144.72	40.667		
13,681.1	6,636.5	6,150.0	5,987.0	201.0	25.7	37.49	338.5	-1,100.5	5,965.8	5,819.6	146.19	40.809		
13,700.0	6,636.5	6,150.0	5,987.0	201.5	25.7	37.49	338.5	-1,100.5	5,984.5	5,838.0	146.53	40.841		
13,779.5	6,636.4	6,150.0	5,987.0	203.7	25.7	37.49	338.5	-1,100.5	6,063.3	5,915.3	147.97	40.977		
13,800.0	6,636.4	6,150.0	5,987.0	204.3	25.7	37.49	338.5	-1,100.5	6,083.6	5,935.2	148.34	41.011		
13,877.9	6,636.3	6,150.0	5,987.0	206.5	25.7	37.49	338.5	-1,100.5	6,160.8	6,011.0	149.75	41.142		
13,900.0	6,636.3	6,150.0	5,987.0	207.1	25.7	37.49	338.5	-1,100.5	6,182.7	6,032.5	150.15	41.177		
13,976.3	6,636.2	6,150.0	5,987.0	209.3	25.7	37.49	338.5	-1,100.5	6,258.3	6,106.8	151.53	41.302		
14,000.0	6,636.1	6,150.0	5,987.0	209.9	25.7	37.49	338.5	-1,100.5	6,281.8	6,129.8	151.95	41.340		
14,074.8	6,636.0	6,150.0	5,987.0	212.0	25.7	37.49	338.5	-1,100.5	6,355.9	6,202.6	153.31	41.459		
14,100.0	6,636.0	6,150.0	5,987.0	212.7	25.7	37.49	338.5	-1,100.5	6,380.9	6,227.1	153.76	41.498		
14,173.2	6,635.9	6,150.0	5,987.0	214.8	25.7	37.49	338.5	-1,100.5	6,453.5	6,298.4	155.09	41.613		
14,200.0	6,635.9	6,150.0	5,987.0	215.5	25.7	37.49	338.5	-1,100.5	6,480.1	6,324.5	155.57	41.653		
14,271.6	6,635.8	6,150.0	5,987.0	217.5	25.7	37.49	338.5	-1,100.5	6,551.1	6,394.3	156.87	41.763		
14,300.0	6,635.8	6,150.0	5,987.0	218.3	25.7	37.50	338.5	-1,100.5	6,579.3	6,421.9	157.38	41.805		
14,370.0	6,635.7	6,150.0	5,987.0	220.3	25.7	37.50	338.5	-1,100.5	6,648.8	6,490.1	158.65	41.910		
14,400.0	6,635.7	6,150.0	5,987.0	221.1	25.7	37.50	338.5	-1,100.5	6,678.5	6,519.3	159.19	41.953		
14,468.5	6,635.6	6,150.0	5,987.0	223.1	25.7	37.50	338.5	-1,100.5	6,746.4	6,586.0	160.43	42.053		
14,500.0	6,635.6	6,150.0	5,987.0	223.9	25.7	37.50	338.5	-1,100.5	6,777.7	6,616.7	161.00	42.098		
14,566.9	6,635.5	6,150.0	5,987.0	225.8	25.7	37.50	338.5	-1,100.5	6,844.1	6,681.9	162.21	42.194		
14,600.0	6,635.4	6,150.0	5,987.0	226.8	25.7	37.50	338.5	-1,100.5	6,877.0	6,714.2	162.81	42.240		
14,665.3	6,635.4	6,150.0	5,987.0	228.6	25.7	37.50	338.5	-1,100.5	6,941.9	6,777.9	163.99	42.331		
14,700.0	6,635.3	6,150.0	5,987.0	229.6	25.7	37.50	338.5	-1,100.5	6,976.3	6,811.7	164.62	42.379		
14,763.7	6,635.2	6,150.0	5,987.0	231.3	25.7	37.50	338.5	-1,100.5	7,039.6	6,873.8	165.77	42.466		

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

Anticollision Report



Company:	PDC ENERGY	Local Co-ordinate Reference:	Well WACKER 10G-214
Project:	WELD COUNTY, COLORADO	TVD Reference:	KB-EST @ 4624.0usft (Original Well Elev)
Reference Site:	SW NW SEC. 10 T5N R64W 6th P.M.	MD Reference:	KB-EST @ 4624.0usft (Original Well Elev)
Site Error:	0.0 usft	North Reference:	True
Reference Well:	WACKER 10G-214	Survey Calculation Method:	Minimum Curvature
Well Error:	0.0 usft	Output errors are at	2.00 sigma
Reference Wellbore	ORIGINAL WELLBORE	Database:	EDM 5000.1 Single User Db
Reference Design:	PROPOSAL #1	Offset TVD Reference:	Offset Datum

Offset Design SW NW SEC. 10 T5N R64W 6th P.M. - WACKER 10F-232 - ORIGINAL WELLBORE - PROPOSAL #1												Offset Site Error:	0.0 usft
Survey Program: 0-MWD												Offset Well Error:	0.0 usft
Reference	Offset	Semi Major Axis		Distance									
Measured Depth (usft)	Vertical Depth (usft)	Measured Depth (usft)	Vertical Depth (usft)	Reference (usft)	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
14,800.0	6,635.2	6,150.0	5,987.0	232.4	25.7	37.50	338.5	-1,100.5	7,075.6	6,909.2	166.43	42.514	
14,862.2	6,635.1	6,150.0	5,987.0	234.1	25.7	37.50	338.5	-1,100.5	7,137.3	6,969.8	167.55	42.598	
14,900.0	6,635.1	6,150.0	5,987.0	235.2	25.7	37.50	338.5	-1,100.5	7,174.9	7,006.7	168.24	42.647	
14,960.6	6,635.0	6,150.0	5,987.0	236.9	25.7	37.50	338.5	-1,100.5	7,235.1	7,065.8	169.33	42.727	
14,982.9	6,635.0	6,150.0	5,987.0	237.5	25.7	37.50	338.5	-1,100.5	7,257.2	7,087.5	169.74	42.755	

Anticollision Report



Company:	PDC ENERGY	Local Co-ordinate Reference:	Well WACKER 10G-214
Project:	WELD COUNTY, COLORADO	TVD Reference:	KB-EST @ 4624.0usft (Original Well Elev)
Reference Site:	SW NW SEC. 10 T5N R64W 6th P.M.	MD Reference:	KB-EST @ 4624.0usft (Original Well Elev)
Site Error:	0.0 usft	North Reference:	True
Reference Well:	WACKER 10G-214	Survey Calculation Method:	Minimum Curvature
Well Error:	0.0 usft	Output errors are at	2.00 sigma
Reference Wellbore	ORIGINAL WELLBORE	Database:	EDM 5000.1 Single User Db
Reference Design:	PROPOSAL #1	Offset TVD Reference:	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	0.80	60.1	0.8	60.1				
98.4	98.4	98.4	98.4	0.1	0.1	0.80	60.1	0.8	60.1	59.9	0.19	312.704	
100.0	100.0	100.0	100.0	0.1	0.1	0.80	60.1	0.8	60.1	59.9	0.20	307.411	
196.8	196.8	196.8	196.8	0.3	0.3	0.80	60.1	0.8	60.1	59.5	0.63	95.279	
200.0	200.0	200.0	200.0	0.3	0.3	0.80	60.1	0.8	60.1	59.5	0.65	93.187	
295.3	295.3	295.3	295.3	0.5	0.5	0.80	60.1	0.8	60.1	59.0	1.07	56.004	
300.0	300.0	300.0	300.0	0.5	0.5	0.80	60.1	0.8	60.1	59.0	1.09	54.917	
393.7	393.7	393.7	393.7	0.8	0.8	0.80	60.1	0.8	60.1	58.6	1.52	39.657	
400.0	400.0	400.0	400.0	0.8	0.8	0.80	60.1	0.8	60.1	58.6	1.54	38.930	
492.1	492.1	492.1	492.1	1.0	1.0	0.80	60.1	0.8	60.1	58.2	1.96	30.697	
500.0	500.0	500.0	500.0	1.0	1.0	0.80	60.1	0.8	60.1	58.1	1.99	30.152	
590.5	590.5	590.5	590.5	1.2	1.2	0.80	60.1	0.8	60.1	57.7	2.40	25.040	
600.0	600.0	600.0	600.0	1.2	1.2	0.80	60.1	0.8	60.1	57.7	2.44	24.604	
689.0	689.0	689.0	689.0	1.4	1.4	0.80	60.1	0.8	60.1	57.3	2.84	21.143	
700.0	700.0	700.0	700.0	1.4	1.4	0.80	60.1	0.8	60.1	57.2	2.89	20.781	
787.4	787.4	787.4	787.4	1.6	1.6	0.80	60.1	0.8	60.1	56.8	3.29	18.296	
800.0	800.0	800.0	800.0	1.7	1.7	0.80	60.1	0.8	60.1	56.8	3.34	17.986	
885.8	885.8	885.8	885.8	1.9	1.9	0.80	60.1	0.8	60.1	56.4	3.73	16.124	
900.0	900.0	900.0	900.0	1.9	1.9	0.80	60.1	0.8	60.1	56.3	3.79	15.853	
984.2	984.2	984.2	984.2	2.1	2.1	0.80	60.1	0.8	60.1	55.9	4.17	14.414	
1,000.0	1,000.0	1,000.0	1,000.0	2.1	2.1	0.80	60.1	0.8	60.1	55.9	4.24	14.173	
1,082.7	1,082.7	1,082.7	1,082.7	2.3	2.3	0.80	60.1	0.8	60.1	55.5	4.61	13.031	
1,100.0	1,100.0	1,100.0	1,100.0	2.3	2.3	0.80	60.1	0.8	60.1	55.4	4.69	12.815	
1,181.1	1,181.1	1,181.1	1,181.1	2.5	2.5	0.80	60.1	0.8	60.1	55.1	5.06	11.891	
1,200.0	1,200.0	1,200.0	1,200.0	2.6	2.6	0.80	60.1	0.8	60.1	55.0	5.14	11.694	
1,279.5	1,279.5	1,279.5	1,279.5	2.7	2.7	0.80	60.1	0.8	60.1	54.6	5.50	10.934	
1,300.0	1,300.0	1,300.0	1,300.0	2.8	2.8	0.80	60.1	0.8	60.1	54.5	5.59	10.754 CC, ES	
1,377.9	1,377.9	1,376.7	1,376.7	3.0	3.0	-118.07	60.9	1.5	61.4	55.5	5.92	10.373	
1,400.0	1,400.0	1,398.4	1,398.4	3.0	3.0	-118.21	61.4	1.9	62.2	56.2	6.01	10.351	
1,476.4	1,476.3	1,473.3	1,473.2	3.1	3.2	-118.87	64.1	4.3	66.7	60.4	6.32	10.550	
1,500.0	1,499.8	1,496.5	1,496.3	3.2	3.2	-119.12	65.2	5.3	68.6	62.2	6.42	10.686	
1,574.8	1,574.4	1,569.5	1,569.1	3.3	3.4	-120.00	69.6	9.2	76.2	69.4	6.74	11.306	
1,600.0	1,599.5	1,594.1	1,593.5	3.4	3.5	-120.30	71.5	10.8	79.3	72.4	6.84	11.581	
1,673.2	1,672.2	1,665.0	1,664.0	3.6	3.6	-121.17	77.6	16.1	89.7	82.6	7.17	12.521	
1,700.0	1,698.7	1,690.8	1,689.6	3.6	3.7	-121.47	80.1	18.4	94.1	86.9	7.29	12.922	
1,771.6	1,769.5	1,759.5	1,757.5	3.8	3.9	-122.20	87.8	25.1	107.4	99.8	7.62	14.090	
1,800.0	1,797.5	1,786.5	1,784.2	3.9	3.9	-122.46	91.1	28.0	113.2	105.5	7.75	14.602	
1,870.1	1,866.3	1,852.8	1,849.4	4.1	4.1	-123.02	100.1	35.9	129.1	121.0	8.11	15.917	
1,900.2	1,895.8	1,881.1	1,877.1	4.2	4.2	-123.23	104.3	39.5	136.5	128.3	8.26	16.523	
1,968.5	1,962.6	1,946.5	1,941.1	4.4	4.4	-123.80	114.5	48.4	154.0	145.4	8.64	17.824	
2,000.0	1,993.4	1,976.9	1,970.9	4.5	4.5	-124.02	119.3	52.6	162.1	153.3	8.82	18.385	
2,066.9	2,058.9	2,041.6	2,034.1	4.7	4.7	-124.41	129.4	61.4	179.4	170.2	9.21	19.475	
2,100.0	2,091.2	2,073.5	2,065.4	4.8	4.8	-124.58	134.4	65.8	187.9	178.5	9.41	19.975	
2,165.3	2,155.2	2,136.7	2,127.1	5.1	5.1	-124.87	144.2	74.5	204.7	194.9	9.81	20.878	
2,200.0	2,189.1	2,170.1	2,159.9	5.2	5.2	-125.01	149.5	79.0	213.6	203.6	10.02	21.327	
2,263.8	2,251.4	2,231.8	2,220.1	5.5	5.4	-125.23	159.1	87.5	230.1	219.7	10.42	22.084	
2,300.0	2,286.9	2,266.8	2,254.4	5.6	5.5	-125.35	164.6	92.3	239.4	228.8	10.65	22.484	
2,362.2	2,347.7	2,326.8	2,313.1	5.8	5.8	-125.52	174.0	100.5	255.4	244.4	11.05	23.116	
2,400.0	2,384.7	2,363.4	2,348.9	6.0	5.9	-125.62	179.7	105.5	265.2	253.9	11.30	23.476	
2,460.6	2,444.0	2,421.9	2,406.2	6.2	6.1	-125.76	188.9	113.5	280.8	269.1	11.70	24.008	
2,500.0	2,482.5	2,460.0	2,443.4	6.4	6.3	-125.84	194.8	118.7	291.0	279.0	11.96	24.332	
2,559.0	2,540.3	2,517.0	2,499.2	6.6	6.5	-125.95	203.8	126.5	306.2	293.8	12.35	24.782	

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

Anticollision Report



Company:	PDC ENERGY	Local Co-ordinate Reference:	Well WACKER 10G-214
Project:	WELD COUNTY, COLORADO	TVD Reference:	KB-EST @ 4624.0usft (Original Well Elev)
Reference Site:	SW NW SEC. 10 T5N R64W 6th P.M.	MD Reference:	KB-EST @ 4624.0usft (Original Well Elev)
Site Error:	0.0 usft	North Reference:	True
Reference Well:	WACKER 10G-214	Survey Calculation Method:	Minimum Curvature
Well Error:	0.0 usft	Output errors are at	2.00 sigma
Reference Wellbore	ORIGINAL WELLBORE	Database:	EDM 5000.1 Single User Db
Reference Design:	PROPOSAL #1	Offset TVD Reference:	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	2,580.3	2,556.6	2,537.9	6.8	6.7	-126.03	209.9	132.0	316.7	304.1	12.63	25.075	
2,657.5	2,636.5	2,612.1	2,592.2	7.1	6.9	-126.12	218.6	139.6	331.6	318.5	13.02	25.458	
2,700.0	2,678.1	2,653.2	2,632.4	7.2	7.1	-126.18	225.1	145.2	342.5	329.2	13.32	25.724	
2,755.9	2,732.8	2,707.2	2,685.2	7.5	7.3	-126.26	233.5	152.6	356.9	343.2	13.70	26.050	
2,800.0	2,775.9	2,749.8	2,726.9	7.7	7.4	-126.32	240.2	158.4	368.3	354.3	14.01	26.293	
2,854.3	2,829.1	2,802.3	2,778.2	7.9	7.7	-126.39	248.4	165.6	382.3	367.9	14.39	26.573	
2,900.0	2,873.8	2,846.4	2,821.4	8.1	7.8	-126.44	255.3	171.6	394.1	379.4	14.71	26.795	
2,952.7	2,925.4	2,897.4	2,871.2	8.3	8.1	-126.50	263.3	178.6	407.7	392.6	15.08	27.037	
2,953.5	2,926.1	2,898.1	2,871.9	8.3	8.1	-126.50	263.4	178.7	407.9	392.8	15.08	27.040	
3,000.0	2,971.6	2,943.1	2,915.9	8.5	8.2	-126.70	270.4	184.9	419.7	404.3	15.41	27.233	
3,051.2	3,022.0	2,992.7	2,964.5	8.7	8.5	-126.81	278.2	191.7	432.1	416.4	15.75	27.444	
3,100.0	3,070.1	3,040.2	3,010.9	8.8	8.7	-126.82	285.6	198.2	443.5	427.4	16.07	27.603	
3,149.6	3,119.1	3,088.5	3,058.2	8.9	8.9	-126.75	293.2	204.8	454.6	438.2	16.38	27.748	
3,200.0	3,169.1	3,137.7	3,106.3	9.1	9.1	-126.59	300.8	211.5	465.3	448.6	16.70	27.858	
3,248.0	3,216.8	3,184.6	3,152.2	9.2	9.3	-126.36	308.2	217.9	475.1	458.1	17.00	27.952	
3,300.0	3,268.5	3,235.4	3,201.9	9.3	9.5	-126.04	316.1	224.9	485.2	467.9	17.32	28.023	
3,346.4	3,314.8	3,280.9	3,246.3	9.4	9.7	-125.69	323.3	231.1	493.8	476.2	17.59	28.081	
3,400.0	3,368.3	3,333.3	3,297.6	9.6	9.9	-125.20	331.5	238.3	503.2	485.3	17.89	28.122	
3,444.9	3,413.1	3,377.2	3,340.6	9.6	10.1	-124.74	338.3	244.3	510.7	492.6	18.14	28.156	
3,500.0	3,468.2	3,431.2	3,393.4	9.7	10.3	-124.10	346.8	251.7	519.5	501.1	18.44	28.177	
3,543.3	3,511.5	3,473.7	3,434.9	9.8	10.5	-123.55	353.4	257.5	526.0	507.4	18.66	28.194	
3,553.7	3,521.9	3,485.4	3,446.4	9.8	10.5	-4.74	355.2	259.1	527.5	509.9	17.65	29.894	
3,600.0	3,568.2	3,537.6	3,497.6	9.9	10.7	-3.94	362.9	265.8	533.9	516.0	17.88	29.853	
3,641.7	3,609.9	3,585.0	3,544.3	10.0	10.9	-3.31	369.2	271.3	539.2	521.1	18.10	29.794	
3,700.0	3,668.2	3,651.7	3,610.1	10.1	11.1	-2.53	377.1	278.3	545.9	527.5	18.39	29.687	
3,740.1	3,708.4	3,697.9	3,655.9	10.1	11.2	-2.06	382.0	282.5	549.9	531.3	18.59	29.587	
3,800.0	3,768.2	3,767.1	3,724.6	10.2	11.4	-1.48	388.1	287.9	555.1	536.3	18.87	29.422	
3,838.6	3,806.8	3,812.0	3,769.2	10.3	11.5	-1.17	391.5	290.8	558.0	538.9	19.05	29.293	
3,900.0	3,868.2	3,883.6	3,840.6	10.4	11.6	-0.78	395.7	294.5	561.5	542.2	19.32	29.066	
3,937.0	3,905.2	3,926.9	3,883.8	10.5	11.7	-0.61	397.6	296.2	563.1	543.7	19.48	28.915	
4,000.0	3,968.2	4,000.7	3,957.5	10.6	11.8	-0.42	399.7	298.0	564.9	545.2	19.73	28.627	
4,035.4	4,003.6	4,042.2	3,999.1	10.6	11.9	-0.37	400.3	298.5	565.4	545.5	19.87	28.454	
4,100.0	4,068.2	4,111.3	4,068.2	10.7	12.0	-0.36	400.4	298.6	565.5	545.4	20.11	28.122	
4,133.8	4,102.1	4,145.2	4,102.1	10.8	12.1	-0.36	400.4	298.6	565.5	545.3	20.24	27.947	
4,200.0	4,168.2	4,211.3	4,168.2	10.9	12.2	-0.36	400.4	298.6	565.5	545.0	20.48	27.611	
4,232.3	4,200.5	4,243.6	4,200.5	11.0	12.2	-0.36	400.4	298.6	565.5	544.9	20.60	27.449	
4,300.0	4,268.2	4,311.3	4,268.2	11.1	12.3	-0.36	400.4	298.6	565.5	544.7	20.86	27.114	
4,330.7	4,298.9	4,342.0	4,298.9	11.1	12.4	-0.36	400.4	298.6	565.5	544.5	20.97	26.965	
4,400.0	4,368.2	4,411.3	4,368.2	11.3	12.5	-0.36	400.4	298.6	565.5	544.3	21.23	26.632	
4,429.1	4,397.3	4,440.4	4,397.3	11.3	12.5	-0.36	400.4	298.6	565.5	544.2	21.35	26.494	
4,500.0	4,468.2	4,511.3	4,468.2	11.4	12.7	-0.36	400.4	298.6	565.5	543.9	21.62	26.163	
4,527.5	4,495.8	4,538.9	4,495.8	11.5	12.7	-0.36	400.4	298.6	565.5	543.8	21.72	26.036	
4,600.0	4,568.2	4,611.3	4,568.2	11.6	12.8	-0.36	400.4	298.6	565.5	543.5	22.00	25.707	
4,626.0	4,594.2	4,637.3	4,594.2	11.7	12.9	-0.36	400.4	298.6	565.5	543.4	22.10	25.591	
4,700.0	4,668.2	4,711.3	4,668.2	11.8	13.0	-0.36	400.4	298.6	565.5	543.1	22.38	25.265	
4,724.4	4,692.6	4,735.7	4,692.6	11.9	13.0	-0.36	400.4	298.6	565.5	543.0	22.48	25.158	
4,800.0	4,768.2	4,811.3	4,768.2	12.0	13.2	-0.36	400.4	298.6	565.5	542.7	22.77	24.834	
4,822.8	4,791.0	4,834.1	4,791.0	12.0	13.2	-0.36	400.4	298.6	565.5	542.7	22.86	24.738	
4,900.0	4,868.2	4,911.3	4,868.2	12.2	13.3	-0.36	400.4	298.6	565.5	542.4	23.16	24.416	
4,921.2	4,889.5	4,932.6	4,889.5	12.2	13.4	-0.36	400.4	298.6	565.5	542.3	23.24	24.329	
5,000.0	4,968.2	5,011.3	4,968.2	12.4	13.5	-0.36	400.4	298.6	565.5	542.0	23.55	24.010	
5,019.7	4,987.9	5,031.0	4,987.9	12.4	13.5	-0.36	400.4	298.6	565.5	541.9	23.63	23.931	

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

Anticollision Report



Company:	PDC ENERGY	Local Co-ordinate Reference:	Well WACKER 10G-214
Project:	WELD COUNTY, COLORADO	TVD Reference:	KB-EST @ 4624.0usft (Original Well Elev)
Reference Site:	SW NW SEC. 10 T5N R64W 6th P.M.	MD Reference:	KB-EST @ 4624.0usft (Original Well Elev)
Site Error:	0.0 usft	North Reference:	True
Reference Well:	WACKER 10G-214	Survey Calculation Method:	Minimum Curvature
Well Error:	0.0 usft	Output errors are at	2.00 sigma
Reference Wellbore	ORIGINAL WELLBORE	Database:	EDM 5000.1 Single User Db
Reference Design:	PROPOSAL #1	Offset TVD Reference:	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	5,068.2	5,111.3	5,068.2	12.6	13.7	-0.36	400.4	298.6	565.5	541.6	23.95	23.615	
5,118.1	5,086.3	5,129.4	5,086.3	12.6	13.7	-0.36	400.4	298.6	565.5	541.5	24.02	23.544	
5,200.0	5,168.2	5,211.3	5,168.2	12.7	13.9	-0.36	400.4	298.6	565.5	541.2	24.34	23.231	
5,216.5	5,184.7	5,227.8	5,184.7	12.8	13.9	-0.36	400.4	298.6	565.5	541.1	24.41	23.168	
5,300.0	5,268.2	5,311.3	5,268.2	12.9	14.0	-0.36	400.4	298.6	565.5	540.8	24.74	22.857	
5,314.9	5,283.2	5,326.3	5,283.2	13.0	14.1	-0.36	400.4	298.6	565.5	540.7	24.80	22.802	
5,400.0	5,368.2	5,411.3	5,368.2	13.1	14.2	-0.36	400.4	298.6	565.5	540.4	25.14	22.494	
5,413.4	5,381.6	5,424.7	5,381.6	13.2	14.2	-0.36	400.4	298.6	565.5	540.3	25.19	22.446	
5,500.0	5,468.2	5,511.3	5,468.2	13.3	14.4	-0.36	400.4	298.6	565.5	540.0	25.54	22.141	
5,511.8	5,480.0	5,523.1	5,480.0	13.3	14.4	-0.36	400.4	298.6	565.5	539.9	25.59	22.100	
5,600.0	5,568.2	5,611.3	5,568.2	13.5	14.6	-0.36	400.4	298.6	565.5	539.6	25.94	21.797	
5,610.2	5,578.4	5,621.5	5,578.4	13.5	14.6	-0.36	400.4	298.6	565.5	539.5	25.99	21.763	
5,700.0	5,668.2	5,711.3	5,668.2	13.7	14.8	-0.36	400.4	298.6	565.5	539.2	26.35	21.463	
5,708.6	5,676.9	5,720.0	5,676.9	13.7	14.8	-0.36	400.4	298.6	565.5	539.1	26.38	21.434	
5,800.0	5,768.2	5,811.3	5,768.2	13.9	15.0	-0.36	400.4	298.6	565.5	538.8	26.75	21.138	
5,807.1	5,775.3	5,818.4	5,775.3	13.9	15.0	-0.36	400.4	298.6	565.5	538.7	26.78	21.115	
5,900.0	5,868.2	5,911.3	5,868.2	14.1	15.1	-0.36	400.4	298.6	565.5	538.4	27.16	20.821	
5,905.5	5,873.7	5,916.8	5,873.7	14.1	15.2	-0.36	400.4	298.6	565.5	538.3	27.18	20.804	
5,942.3	5,910.5	5,953.6	5,910.5	14.2	15.2	-0.36	400.4	298.6	565.5	538.2	27.33	20.690	
5,960.7	5,928.9	5,972.0	5,928.9	14.2	15.3	-0.36	400.4	298.6	565.5	538.1	27.41	20.633	
6,000.0	5,968.2	6,011.1	5,968.0	14.3	15.3	89.64	400.4	297.6	565.5	537.3	28.23	20.030	
6,003.9	5,972.1	6,015.0	5,971.9	14.3	15.3	89.64	400.4	297.3	565.5	537.3	28.24	20.022	
6,050.0	6,018.0	6,060.9	6,017.5	14.4	15.4	89.64	400.4	293.1	565.5	537.2	28.36	19.938	
6,100.0	6,067.3	6,110.6	6,066.7	14.4	15.4	89.64	400.4	285.2	565.5	537.1	28.46	19.869	
6,102.3	6,069.6	6,113.0	6,068.9	14.4	15.4	89.64	400.4	284.8	565.5	537.1	28.47	19.867	
6,150.0	6,116.0	6,160.4	6,115.1	14.4	15.4	89.65	400.4	274.0	565.5	537.0	28.53	19.820	
6,200.0	6,163.8	6,210.2	6,162.7	14.5	15.5	89.66	400.4	259.4	565.5	536.9	28.58	19.784	
6,200.8	6,164.5	6,210.9	6,163.4	14.5	15.5	89.66	400.4	259.1	565.5	536.9	28.59	19.784	
6,250.0	6,210.4	6,259.9	6,209.1	14.5	15.5	89.66	400.4	241.5	565.5	536.9	28.63	19.755	
6,299.2	6,254.9	6,308.9	6,253.5	14.5	15.5	89.67	400.4	220.8	565.5	536.8	28.67	19.723	
6,300.0	6,255.6	6,309.7	6,254.2	14.5	15.5	89.67	400.4	220.4	565.5	536.8	28.67	19.723	
6,350.0	6,299.3	6,359.5	6,297.7	14.5	15.5	89.69	400.4	196.3	565.5	536.8	28.74	19.677	
6,397.6	6,339.2	6,406.9	6,337.5	14.6	15.4	89.70	400.4	170.6	565.5	536.7	28.84	19.610	
6,400.0	6,341.2	6,409.3	6,339.5	14.6	15.4	89.70	400.4	169.2	565.5	536.7	28.84	19.606	
6,450.0	6,381.0	6,459.1	6,379.2	14.6	15.4	89.72	400.4	139.3	565.5	536.5	29.01	19.495	
6,496.0	6,415.8	6,504.9	6,414.0	14.7	15.4	89.73	400.4	109.3	565.5	536.3	29.23	19.346	
6,500.0	6,418.7	6,508.9	6,416.8	14.7	15.4	89.73	400.4	106.6	565.5	536.3	29.25	19.332	
6,550.0	6,453.9	6,558.7	6,452.1	14.8	15.4	89.75	400.4	71.4	565.5	535.9	29.60	19.103	
6,594.5	6,483.1	6,603.0	6,481.3	15.0	15.4	89.77	400.4	38.1	565.5	535.5	30.02	18.837	
6,600.0	6,486.6	6,608.5	6,484.8	15.1	15.5	89.77	400.4	33.8	565.5	535.4	30.08	18.800	
6,650.0	6,516.6	6,658.4	6,514.9	15.3	15.5	89.79	400.4	-5.9	565.5	534.8	30.70	18.418	
6,692.9	6,540.0	6,701.2	6,538.4	15.7	15.7	89.81	400.4	-41.6	565.5	534.1	31.37	18.029	
6,700.0	6,543.7	6,708.2	6,542.1	15.7	15.8	89.81	400.4	-47.7	565.5	534.0	31.49	17.959	
6,750.0	6,567.8	6,758.1	6,566.3	16.2	16.2	89.83	400.4	-91.3	565.5	533.1	32.44	17.431	
6,791.3	6,585.4	6,799.4	6,584.1	16.7	16.7	89.85	400.4	-128.5	565.5	532.1	33.36	16.949	
6,800.0	6,588.8	6,808.0	6,587.5	16.8	16.8	89.86	400.4	-136.4	565.5	531.9	33.57	16.845	
6,850.0	6,606.6	6,857.9	6,605.5	17.4	17.4	89.88	400.4	-183.0	565.5	530.6	34.87	16.217	
6,889.7	6,618.4	6,897.6	6,617.4	18.0	18.0	89.90	400.4	-220.8	565.5	529.5	36.02	15.698	
6,900.0	6,621.1	6,907.8	6,620.2	18.2	18.2	89.90	400.4	-230.7	565.5	529.2	36.33	15.564	
6,950.0	6,632.2	6,957.8	6,631.5	19.0	19.0	89.93	400.4	-279.3	565.5	527.6	37.94	14.905	
6,988.2	6,638.4	6,995.9	6,637.9	19.7	19.6	89.95	400.4	-316.9	565.5	526.2	39.26	14.404	
7,000.0	6,639.9	7,007.7	6,639.5	19.9	19.8	89.95	400.4	-328.6	565.5	525.8	39.68	14.252	

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

Anticollision Report



Company:	PDC ENERGY	Local Co-ordinate Reference:	Well WACKER 10G-214
Project:	WELD COUNTY, COLORADO	TVD Reference:	KB-EST @ 4624.0usft (Original Well Elev)
Reference Site:	SW NW SEC. 10 T5N R64W 6th P.M.	MD Reference:	KB-EST @ 4624.0usft (Original Well Elev)
Site Error:	0.0 usft	North Reference:	True
Reference Well:	WACKER 10G-214	Survey Calculation Method:	Minimum Curvature
Well Error:	0.0 usft	Output errors are at	2.00 sigma
Reference Wellbore	ORIGINAL WELLBORE	Database:	EDM 5000.1 Single User Db
Reference Design:	PROPOSAL #1	Offset TVD Reference:	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	6,644.1	7,057.7	6,643.9	20.8	20.8	89.98	400.4	-378.4	565.5	524.0	41.52	13.619	
7,086.5	6,645.0	7,094.3	6,645.0	21.5	21.5	90.00	400.4	-414.9	565.5	522.6	42.93	13.174	
7,100.0	6,645.0	7,107.7	6,645.0	21.8	21.7	90.00	400.4	-428.4	565.5	522.0	43.46	13.013	
7,185.0	6,644.9	7,192.7	6,644.9	23.6	23.5	90.00	400.4	-513.4	565.5	518.6	46.94	12.046	
7,200.0	6,644.8	7,207.7	6,644.9	23.9	23.8	90.00	400.4	-528.4	565.5	517.9	47.57	11.888	
7,283.4	6,644.7	7,291.2	6,644.8	25.7	25.6	90.00	400.4	-611.8	565.5	514.3	51.23	11.039	
7,300.0	6,644.7	7,307.7	6,644.7	26.1	26.0	90.00	400.4	-628.4	565.5	513.5	51.96	10.883	
7,381.9	6,644.6	7,389.6	6,644.6	28.0	27.9	90.00	400.4	-710.2	565.5	509.8	55.73	10.146	
7,400.0	6,644.6	7,407.7	6,644.6	28.4	28.3	90.00	400.4	-728.4	565.5	508.9	56.58	9.995	
7,480.3	6,644.5	7,488.0	6,644.5	30.3	30.2	90.01	400.4	-808.7	565.5	505.1	60.41	9.361	
7,500.0	6,644.4	7,507.7	6,644.5	30.8	30.7	90.01	400.4	-828.4	565.5	504.1	61.36	9.217	
7,578.7	6,644.3	7,586.4	6,644.4	32.7	32.6	90.01	400.4	-907.1	565.5	500.3	65.22	8.670	
7,600.0	6,644.3	7,607.7	6,644.4	33.3	33.1	90.01	400.4	-928.4	565.5	499.2	66.27	8.533	
7,677.1	6,644.2	7,684.9	6,644.3	35.2	35.0	90.01	400.4	-1,005.5	565.5	495.4	70.14	8.063	
7,700.0	6,644.1	7,707.7	6,644.2	35.8	35.6	90.01	400.4	-1,028.4	565.5	494.2	71.29	7.933	
7,775.6	6,644.0	7,783.3	6,644.1	37.7	37.5	90.01	400.4	-1,103.9	565.5	490.4	75.14	7.526	
7,800.0	6,644.0	7,807.7	6,644.1	38.3	38.2	90.01	400.4	-1,128.4	565.5	489.1	76.39	7.403	
7,874.0	6,643.9	7,881.7	6,644.0	40.2	40.1	90.01	400.4	-1,202.4	565.5	485.3	80.22	7.050	
7,900.0	6,643.9	7,907.7	6,644.0	40.9	40.7	90.01	400.4	-1,228.4	565.5	483.9	81.56	6.933	
7,972.4	6,643.8	7,980.1	6,643.9	42.8	42.6	90.01	400.4	-1,300.8	565.5	480.2	85.35	6.626	
8,000.0	6,643.7	8,007.7	6,643.9	43.5	43.3	90.01	400.4	-1,328.4	565.5	478.7	86.79	6.516	
8,070.8	6,643.6	8,078.6	6,643.8	45.4	45.2	90.01	400.4	-1,399.2	565.5	475.0	90.52	6.247	
8,100.0	6,643.6	8,107.7	6,643.7	46.2	46.0	90.01	400.4	-1,428.4	565.5	473.4	92.06	6.143	
8,169.3	6,643.5	8,177.0	6,643.6	48.0	47.8	90.01	400.4	-1,497.6	565.5	469.8	95.74	5.907	
8,200.0	6,643.5	8,207.7	6,643.6	48.8	48.6	90.01	400.4	-1,528.4	565.5	468.1	97.37	5.808	
8,267.7	6,643.4	8,275.4	6,643.5	50.6	50.4	90.01	400.4	-1,596.1	565.5	464.5	100.99	5.599	
8,300.0	6,643.3	8,307.7	6,643.5	51.5	51.3	90.02	400.4	-1,628.4	565.5	462.8	102.72	5.505	
8,366.1	6,643.2	8,373.8	6,643.4	53.3	53.1	90.02	400.4	-1,694.5	565.5	459.2	106.27	5.321	
8,400.0	6,643.2	8,407.7	6,643.4	54.2	54.0	90.02	400.4	-1,728.4	565.5	457.4	108.09	5.232	
8,464.5	6,643.1	8,472.3	6,643.3	55.9	55.7	90.02	400.4	-1,792.9	565.5	453.9	111.58	5.068	
8,500.0	6,643.1	8,507.7	6,643.2	56.9	56.7	90.02	400.4	-1,828.4	565.5	452.0	113.49	4.983	
8,563.0	6,643.0	8,570.7	6,643.2	58.6	58.4	90.02	400.4	-1,891.3	565.5	448.6	116.90	4.837	
8,600.0	6,642.9	8,607.7	6,643.1	59.6	59.4	90.02	400.4	-1,928.4	565.5	446.6	118.91	4.756	
8,661.4	6,642.8	8,669.1	6,643.0	61.3	61.0	90.02	400.4	-1,989.8	565.5	443.3	122.25	4.626	
8,700.0	6,642.8	8,707.7	6,643.0	62.3	62.1	90.02	400.4	-2,028.4	565.5	441.2	124.35	4.548	
8,759.8	6,642.7	8,767.5	6,642.9	64.0	63.7	90.02	400.4	-2,088.2	565.5	437.9	127.61	4.432	
8,800.0	6,642.7	8,807.7	6,642.9	65.1	64.8	90.02	400.4	-2,128.4	565.5	435.7	129.80	4.357	
8,858.2	6,642.6	8,866.0	6,642.8	66.6	66.4	90.02	400.4	-2,186.6	565.5	432.5	132.98	4.252	
8,900.0	6,642.5	8,907.7	6,642.7	67.8	67.5	90.02	400.4	-2,228.4	565.5	430.2	135.26	4.181	
8,956.7	6,642.4	8,964.4	6,642.7	69.3	69.1	90.02	400.4	-2,285.0	565.5	427.1	138.37	4.087	
9,000.0	6,642.4	9,007.7	6,642.6	70.5	70.3	90.02	400.4	-2,328.4	565.5	424.8	140.74	4.018	
9,055.1	6,642.3	9,062.8	6,642.5	72.0	71.8	90.02	400.4	-2,383.5	565.5	421.7	143.77	3.933	
9,100.0	6,642.3	9,107.7	6,642.5	73.3	73.0	90.02	400.4	-2,428.4	565.5	419.3	146.23	3.867	
9,153.5	6,642.2	9,161.2	6,642.4	74.7	74.5	90.02	400.4	-2,481.9	565.5	416.3	149.18	3.791	
9,200.0	6,642.1	9,207.7	6,642.4	76.0	75.8	90.02	400.4	-2,528.4	565.5	413.8	151.73	3.727	
9,251.9	6,642.1	9,259.7	6,642.3	77.5	77.2	90.02	400.4	-2,580.3	565.5	410.9	154.59	3.658	
9,300.0	6,642.0	9,307.7	6,642.2	78.8	78.5	90.02	400.4	-2,628.4	565.5	408.3	157.24	3.596	
9,350.4	6,641.9	9,358.1	6,642.2	80.2	79.9	90.02	400.4	-2,678.7	565.5	405.5	160.02	3.534	
9,400.0	6,641.9	9,407.7	6,642.1	81.5	81.3	90.02	400.4	-2,728.4	565.5	402.8	162.75	3.475	
9,448.8	6,641.8	9,456.5	6,642.0	82.9	82.6	90.02	400.4	-2,777.2	565.5	400.1	165.45	3.418	
9,500.0	6,641.7	9,507.7	6,642.0	84.3	84.0	90.02	400.4	-2,828.4	565.5	397.2	168.28	3.361	
9,547.2	6,641.7	9,554.9	6,641.9	85.6	85.3	90.03	400.4	-2,875.6	565.5	394.6	170.89	3.309	

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

Anticollision Report



Company:	PDC ENERGY	Local Co-ordinate Reference:	Well WACKER 10G-214
Project:	WELD COUNTY, COLORADO	TVD Reference:	KB-EST @ 4624.0usft (Original Well Elev)
Reference Site:	SW NW SEC. 10 T5N R64W 6th P.M.	MD Reference:	KB-EST @ 4624.0usft (Original Well Elev)
Site Error:	0.0 usft	North Reference:	True
Reference Well:	WACKER 10G-214	Survey Calculation Method:	Minimum Curvature
Well Error:	0.0 usft	Output errors are at	2.00 sigma
Reference Wellbore	ORIGINAL WELLBORE	Database:	EDM 5000.1 Single User Db
Reference Design:	PROPOSAL #1	Offset TVD Reference:	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	
9,600.0	6,641.6	9,607.7	6,641.8	87.1	86.8	90.03	400.4	-2,928.4	565.5	391.7	173.81	3.254	
9,645.6	6,641.5	9,653.4	6,641.8	88.3	88.1	90.03	400.4	-2,974.0	565.5	389.2	176.33	3.207	
9,700.0	6,641.5	9,707.7	6,641.7	89.8	89.6	90.03	400.4	-3,028.4	565.5	386.2	179.34	3.153	
9,744.1	6,641.4	9,751.8	6,641.7	91.0	90.8	90.03	400.4	-3,072.4	565.5	383.7	181.78	3.111	
9,800.0	6,641.3	9,807.7	6,641.6	92.6	92.3	90.03	400.4	-3,128.4	565.5	380.6	184.88	3.059	
9,842.5	6,641.3	9,850.2	6,641.5	93.8	93.5	90.03	400.4	-3,170.9	565.5	378.3	187.24	3.020	
9,900.0	6,641.2	9,907.7	6,641.5	95.4	95.1	90.03	400.4	-3,228.4	565.5	375.1	190.43	2.970	
9,940.9	6,641.1	9,948.6	6,641.4	96.5	96.2	90.03	400.4	-3,269.3	565.5	372.8	192.70	2.935	
10,000.0	6,641.1	10,007.7	6,641.3	98.1	97.9	90.03	400.4	-3,328.4	565.5	369.5	195.98	2.886	
10,039.3	6,641.0	10,047.1	6,641.3	99.2	99.0	90.03	400.4	-3,367.7	565.5	367.3	198.16	2.854	
10,100.0	6,640.9	10,107.7	6,641.2	100.9	100.7	90.03	400.4	-3,428.4	565.5	364.0	201.53	2.806	
10,137.8	6,640.9	10,145.5	6,641.2	102.0	101.7	90.03	400.4	-3,466.1	565.5	361.9	203.63	2.777	
10,200.0	6,640.8	10,207.7	6,641.1	103.7	103.4	90.03	400.4	-3,528.4	565.5	358.4	207.09	2.731	
10,236.2	6,640.8	10,243.9	6,641.0	104.7	104.4	90.03	400.4	-3,564.6	565.5	356.4	209.10	2.704	
10,300.0	6,640.7	10,307.7	6,641.0	106.5	106.2	90.03	400.4	-3,628.4	565.5	352.9	212.65	2.659	
10,334.6	6,640.6	10,342.3	6,640.9	107.4	107.2	90.03	400.4	-3,663.0	565.5	350.9	214.57	2.636	
10,400.0	6,640.6	10,407.7	6,640.8	109.3	109.0	90.03	400.4	-3,728.4	565.5	347.3	218.21	2.592	
10,433.0	6,640.5	10,440.8	6,640.8	110.2	109.9	90.03	400.4	-3,761.4	565.5	345.5	220.05	2.570	
10,500.0	6,640.4	10,507.7	6,640.7	112.0	111.8	90.03	400.4	-3,828.4	565.5	341.7	223.78	2.527	
10,531.5	6,640.4	10,539.2	6,640.7	112.9	112.7	90.03	400.4	-3,859.8	565.5	340.0	225.53	2.507	
10,600.0	6,640.3	10,607.7	6,640.6	114.8	114.6	90.03	400.4	-3,928.4	565.5	336.2	229.34	2.466	
10,629.9	6,640.3	10,637.6	6,640.6	115.7	115.4	90.03	400.4	-3,958.3	565.5	334.5	231.01	2.448	
10,700.0	6,640.2	10,707.7	6,640.5	117.6	117.3	90.03	400.4	-4,028.4	565.5	330.6	234.92	2.407	
10,728.3	6,640.1	10,736.0	6,640.4	118.4	118.1	90.03	400.4	-4,056.7	565.5	329.0	236.50	2.391	
10,800.0	6,640.0	10,807.7	6,640.3	120.4	120.1	90.03	400.4	-4,128.4	565.5	325.0	240.49	2.351	
10,826.7	6,640.0	10,834.5	6,640.3	121.2	120.9	90.03	400.4	-4,155.1	565.5	323.5	241.98	2.337	
10,900.0	6,639.9	10,907.7	6,640.2	123.2	122.9	90.03	400.4	-4,228.4	565.5	319.4	246.07	2.298	
10,925.2	6,639.9	10,932.9	6,640.2	123.9	123.6	90.03	400.4	-4,253.5	565.5	318.0	247.47	2.285	
11,000.0	6,639.8	11,007.7	6,640.1	126.0	125.7	90.03	400.4	-4,328.4	565.5	313.9	251.64	2.247	
11,023.6	6,639.8	11,031.3	6,640.1	126.6	126.4	90.03	400.4	-4,352.0	565.5	312.5	252.96	2.236	
11,100.0	6,639.7	11,107.7	6,640.0	128.8	128.5	90.03	400.4	-4,428.4	565.5	308.3	257.23	2.198	
11,122.0	6,639.6	11,129.7	6,639.9	129.4	129.1	90.03	400.4	-4,450.4	565.5	307.0	258.45	2.188	
11,200.0	6,639.5	11,207.7	6,639.8	131.6	131.3	90.03	400.4	-4,528.4	565.5	302.7	262.81	2.152	
11,220.4	6,639.5	11,228.2	6,639.8	132.1	131.9	90.03	400.4	-4,548.8	565.5	301.6	263.95	2.142	
11,300.0	6,639.4	11,307.7	6,639.7	134.4	134.1	90.03	400.4	-4,628.4	565.5	297.1	268.39	2.107	
11,318.9	6,639.4	11,326.6	6,639.7	134.9	134.6	90.03	400.4	-4,647.2	565.5	296.1	269.44	2.099	
11,400.0	6,639.3	11,407.7	6,639.6	137.1	136.9	90.03	400.4	-4,728.4	565.5	291.5	273.98	2.064	
11,417.3	6,639.3	11,425.0	6,639.6	137.6	137.3	90.03	400.4	-4,745.7	565.5	290.6	274.94	2.057	
11,500.0	6,639.2	11,507.7	6,639.5	139.9	139.7	90.03	400.4	-4,828.4	565.5	285.9	279.56	2.023	
11,515.7	6,639.1	11,523.4	6,639.4	140.4	140.1	90.03	400.4	-4,844.1	565.5	285.1	280.44	2.016	
11,600.0	6,639.0	11,607.7	6,639.3	142.7	142.5	90.03	400.4	-4,928.4	565.5	280.4	285.15	1.983	
11,614.1	6,639.0	11,621.9	6,639.3	143.1	142.8	90.03	400.4	-4,942.5	565.5	279.6	285.94	1.978	
11,700.0	6,638.9	11,707.7	6,639.2	145.5	145.2	90.03	400.4	-5,028.4	565.5	274.8	290.74	1.945	
11,712.6	6,638.9	11,720.3	6,639.2	145.9	145.6	90.03	400.4	-5,040.9	565.5	274.1	291.44	1.940	
11,800.0	6,638.8	11,807.7	6,639.1	148.3	148.0	90.03	400.4	-5,128.4	565.5	269.2	296.33	1.908	
11,811.0	6,638.8	11,818.7	6,639.1	148.6	148.3	90.03	400.4	-5,139.4	565.5	268.6	296.95	1.904	
11,900.0	6,638.7	11,907.7	6,639.0	151.1	150.8	90.03	400.4	-5,228.4	565.5	263.6	301.92	1.873	
11,909.4	6,638.6	11,917.1	6,638.9	151.4	151.1	90.03	400.4	-5,237.8	565.5	263.1	302.45	1.870	
12,000.0	6,638.5	12,007.7	6,638.8	153.9	153.6	90.03	400.4	-5,328.4	565.5	258.0	307.51	1.839	
12,007.8	6,638.5	12,015.6	6,638.8	154.1	153.9	90.03	400.4	-5,336.2	565.5	257.5	307.95	1.836	
12,100.0	6,638.4	12,107.7	6,638.7	156.7	156.4	90.03	400.4	-5,428.4	565.5	252.4	313.11	1.806	
12,106.3	6,638.4	12,114.0	6,638.7	156.9	156.6	90.03	400.4	-5,434.6	565.5	252.0	313.46	1.804	

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

Anticollision Report



Company:	PDC ENERGY	Local Co-ordinate Reference:	Well WACKER 10G-214
Project:	WELD COUNTY, COLORADO	TVD Reference:	KB-EST @ 4624.0usft (Original Well Elev)
Reference Site:	SW NW SEC. 10 T5N R64W 6th P.M.	MD Reference:	KB-EST @ 4624.0usft (Original Well Elev)
Site Error:	0.0 usft	North Reference:	True
Reference Well:	WACKER 10G-214	Survey Calculation Method:	Minimum Curvature
Well Error:	0.0 usft	Output errors are at	2.00 sigma
Reference Wellbore	ORIGINAL WELLBORE	Database:	EDM 5000.1 Single User Db
Reference Design:	PROPOSAL #1	Offset TVD Reference:	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		
12,200.0	6,638.3	12,207.7	6,638.6	159.5	159.2	90.03	400.4	-5,528.4	565.5	246.8	318.70	1.774		
12,204.7	6,638.3	12,212.4	6,638.6	159.6	159.4	90.03	400.4	-5,533.1	565.5	246.5	318.97	1.773		
12,300.0	6,638.2	12,307.7	6,638.5	162.3	162.0	90.03	400.4	-5,628.4	565.5	241.2	324.30	1.744		
12,303.1	6,638.2	12,310.8	6,638.5	162.4	162.1	90.03	400.4	-5,631.5	565.5	241.0	324.47	1.743		
12,400.0	6,638.0	12,407.7	6,638.3	165.1	164.8	90.03	400.4	-5,728.4	565.5	235.6	329.90	1.714		
12,401.5	6,638.0	12,409.3	6,638.3	165.2	164.9	90.03	400.4	-5,729.9	565.5	235.5	329.98	1.714		
12,500.0	6,637.9	12,507.7	6,638.2	167.9	167.6	90.03	400.4	-5,828.4	565.5	230.0	335.49	1.686		
12,598.4	6,637.8	12,606.1	6,638.1	170.7	170.4	90.03	400.4	-5,926.8	565.5	224.5	341.00	1.658		
12,600.0	6,637.8	12,607.7	6,638.1	170.7	170.4	90.03	400.4	-5,928.4	565.5	224.4	341.09	1.658		
12,696.8	6,637.7	12,704.5	6,638.0	173.4	173.1	90.03	400.4	-6,025.2	565.5	219.0	346.51	1.632		
12,700.0	6,637.7	12,707.7	6,638.0	173.5	173.2	90.03	400.4	-6,028.4	565.5	218.8	346.69	1.631		
12,795.2	6,637.6	12,803.0	6,637.8	176.2	175.9	90.03	400.4	-6,123.6	565.5	213.5	352.02	1.606		
12,800.0	6,637.6	12,807.7	6,637.8	176.3	176.0	90.03	400.4	-6,128.4	565.5	213.2	352.29	1.605		
12,893.7	6,637.4	12,901.4	6,637.7	178.9	178.6	90.03	400.4	-6,222.0	565.5	208.0	357.54	1.582		
12,900.0	6,637.4	12,907.7	6,637.7	179.1	178.8	90.03	400.4	-6,228.4	565.5	207.6	357.89	1.580		
12,992.1	6,637.3	12,999.8	6,637.6	181.7	181.4	90.03	400.4	-6,320.5	565.5	202.4	363.05	1.558		
13,000.0	6,637.3	13,007.7	6,637.6	181.9	181.6	90.03	400.4	-6,328.4	565.5	202.0	363.49	1.556		
13,090.5	6,637.2	13,098.2	6,637.5	184.4	184.2	90.03	400.4	-6,418.9	565.5	196.9	368.56	1.534		
13,100.0	6,637.2	13,107.7	6,637.5	184.7	184.4	90.03	400.4	-6,428.4	565.5	196.4	369.09	1.532		
13,188.9	6,637.1	13,196.7	6,637.3	187.2	186.9	90.03	400.4	-6,517.3	565.5	191.4	374.08	1.512		
13,200.0	6,637.1	13,207.7	6,637.3	187.5	187.2	90.03	400.4	-6,528.4	565.5	190.8	374.70	1.509		
13,287.4	6,637.0	13,295.1	6,637.2	190.0	189.7	90.02	400.4	-6,615.7	565.5	185.9	379.59	1.490 Level 3		
13,300.0	6,637.0	13,307.7	6,637.2	190.3	190.0	90.02	400.4	-6,628.4	565.5	185.2	380.30	1.487 Level 3		
13,385.8	6,636.9	13,393.5	6,637.1	192.7	192.4	90.02	400.4	-6,714.2	565.5	180.4	385.11	1.468 Level 3		
13,400.0	6,636.8	13,407.7	6,637.1	193.1	192.8	90.02	400.4	-6,728.4	565.5	179.6	385.90	1.465 Level 3		
13,484.2	6,636.7	13,491.9	6,637.0	195.5	195.2	90.02	400.4	-6,812.6	565.5	174.9	390.62	1.448 Level 3		
13,500.0	6,636.7	13,507.7	6,637.0	195.9	195.6	90.02	400.4	-6,828.4	565.5	174.0	391.51	1.444 Level 3		
13,582.6	6,636.6	13,590.4	6,636.8	198.2	197.9	90.02	400.4	-6,911.0	565.5	169.4	396.14	1.428 Level 3		
13,600.0	6,636.6	13,607.7	6,636.8	198.7	198.4	90.02	400.4	-6,928.4	565.5	168.4	397.11	1.424 Level 3		
13,681.1	6,636.5	13,688.8	6,636.7	201.0	200.7	90.02	400.4	-7,009.4	565.5	163.8	401.66	1.408 Level 3		
13,700.0	6,636.5	13,707.7	6,636.7	201.5	201.2	90.02	400.4	-7,028.4	565.5	162.8	402.72	1.404 Level 3		
13,779.5	6,636.4	13,787.2	6,636.6	203.7	203.5	90.02	400.4	-7,107.9	565.5	158.3	407.17	1.389 Level 3		
13,800.0	6,636.4	13,807.7	6,636.6	204.3	204.0	90.02	400.4	-7,128.4	565.5	157.2	408.32	1.385 Level 3		
13,877.9	6,636.3	13,885.6	6,636.5	206.5	206.2	90.02	400.4	-7,206.3	565.5	152.8	412.69	1.370 Level 3		
13,900.0	6,636.3	13,907.7	6,636.4	207.1	206.8	90.02	400.4	-7,228.4	565.5	151.6	413.93	1.366 Level 3		
13,976.3	6,636.2	13,984.1	6,636.4	209.3	209.0	90.02	400.4	-7,304.7	565.5	147.3	418.21	1.352 Level 3		
14,000.0	6,636.1	14,007.7	6,636.3	209.9	209.6	90.02	400.4	-7,328.4	565.5	146.0	419.54	1.348 Level 3		
14,074.8	6,636.0	14,082.5	6,636.2	212.0	211.7	90.02	400.4	-7,403.1	565.5	141.8	423.73	1.335 Level 3		
14,100.0	6,636.0	14,107.7	6,636.2	212.7	212.4	90.02	400.4	-7,428.4	565.5	140.4	425.14	1.330 Level 3		
14,173.2	6,635.9	14,180.9	6,636.1	214.8	214.5	90.02	400.4	-7,501.6	565.5	136.2	429.25	1.317 Level 3		
14,200.0	6,635.9	14,207.7	6,636.1	215.5	215.2	90.02	400.4	-7,528.4	565.5	134.7	430.75	1.313 Level 3		
14,271.6	6,635.8	14,279.3	6,636.0	217.5	217.2	90.02	400.4	-7,600.0	565.5	130.7	434.77	1.301 Level 3		
14,300.0	6,635.8	14,307.7	6,635.9	218.3	218.0	90.02	400.4	-7,628.4	565.5	129.1	436.36	1.296 Level 3		
14,370.0	6,635.7	14,377.8	6,635.9	220.3	220.0	90.02	400.4	-7,698.4	565.5	125.2	440.29	1.284 Level 3		
14,400.0	6,635.7	14,407.7	6,635.8	221.1	220.8	90.02	400.4	-7,728.4	565.5	123.5	441.96	1.279 Level 3		
14,468.5	6,635.6	14,476.2	6,635.7	223.1	222.8	90.01	400.4	-7,796.8	565.5	119.7	445.81	1.268 Level 3		
14,500.0	6,635.6	14,507.7	6,635.7	223.9	223.7	90.01	400.4	-7,828.4	565.5	117.9	447.57	1.263 Level 3		
14,566.9	6,635.5	14,574.6	6,635.6	225.8	225.5	90.01	400.4	-7,895.3	565.5	114.2	451.33	1.253 Level 3		
14,600.0	6,635.4	14,607.7	6,635.6	226.8	226.5	90.01	400.4	-7,928.4	565.5	112.3	453.18	1.248 Level 2		
14,665.3	6,635.4	14,673.0	6,635.5	228.6	228.3	90.01	400.4	-7,993.7	565.5	108.6	456.85	1.238 Level 2		
14,700.0	6,635.3	14,707.7	6,635.4	229.6	229.3	90.01	400.4	-8,028.4	565.5	106.7	458.79	1.233 Level 2		
14,763.7	6,635.2	14,771.5	6,635.4	231.3	231.0	90.01	400.4	-8,092.1	565.5	103.1	462.37	1.223 Level 2		

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

Anticollision Report



Company:	PDC ENERGY	Local Co-ordinate Reference:	Well WACKER 10G-214
Project:	WELD COUNTY, COLORADO	TVD Reference:	KB-EST @ 4624.0usft (Original Well Elev)
Reference Site:	SW NW SEC. 10 T5N R64W 6th P.M.	MD Reference:	KB-EST @ 4624.0usft (Original Well Elev)
Site Error:	0.0 usft	North Reference:	True
Reference Well:	WACKER 10G-214	Survey Calculation Method:	Minimum Curvature
Well Error:	0.0 usft	Output errors are at	2.00 sigma
Reference Wellbore	ORIGINAL WELLBORE	Database:	EDM 5000.1 Single User Db
Reference Design:	PROPOSAL #1	Offset TVD Reference:	Offset Datum

Offset Design SW NW SEC. 10 T5N R64W 6th P.M. - WACKER 10F-234 - ORIGINAL WELLBORE - PROPOSAL #1												Offset Site Error:	0.0 usft
Survey Program: 0-MWD												Offset Well Error:	0.0 usft
Reference	Offset	Semi Major Axis		Distance									
Measured Depth (usft)	Vertical Depth (usft)	Measured Depth (usft)	Vertical Depth (usft)	Reference (usft)	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
14,800.0	6,635.2	14,807.7	6,635.3	232.4	232.1	90.01	400.4	-8,128.4	565.5	101.1	464.40	1.218	Level 2
14,862.2	6,635.1	14,869.9	6,635.2	234.1	233.8	90.01	400.4	-8,190.5	565.5	97.6	467.89	1.209	Level 2
14,900.0	6,635.1	14,907.7	6,635.2	235.2	234.9	90.01	400.4	-8,228.4	565.5	95.5	470.01	1.203	Level 2
14,960.6	6,635.0	14,968.3	6,635.1	236.9	236.6	90.00	400.4	-8,288.9	565.5	92.1	473.41	1.195	Level 2
14,982.9	6,635.0	14,990.6	6,635.0	237.5	237.2	90.00	400.4	-8,311.2	565.5	90.8	474.66	1.191	Level 2, SF

Anticollision Report



Company:	PDC ENERGY	Local Co-ordinate Reference:	Well WACKER 10G-214
Project:	WELD COUNTY, COLORADO	TVD Reference:	KB-EST @ 4624.0usft (Original Well Elev)
Reference Site:	SW NW SEC. 10 T5N R64W 6th P.M.	MD Reference:	KB-EST @ 4624.0usft (Original Well Elev)
Site Error:	0.0 usft	North Reference:	True
Reference Well:	WACKER 10G-214	Survey Calculation Method:	Minimum Curvature
Well Error:	0.0 usft	Output errors are at	2.00 sigma
Reference Wellbore	ORIGINAL WELLBORE	Database:	EDM 5000.1 Single User Db
Reference Design:	PROPOSAL #1	Offset TVD Reference:	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	0.64	75.0	0.8	75.1				
98.4	98.4	98.4	98.4	0.1	0.1	0.64	75.0	0.8	75.1	74.9	0.19	390.420	
100.0	100.0	100.0	100.0	0.1	0.1	0.64	75.0	0.8	75.1	74.9	0.20	383.811	
196.8	196.8	196.8	196.8	0.3	0.3	0.64	75.0	0.8	75.1	74.4	0.63	118.958	
200.0	200.0	200.0	200.0	0.3	0.3	0.64	75.0	0.8	75.1	74.4	0.65	116.347	
295.3	295.3	295.3	295.3	0.5	0.5	0.64	75.0	0.8	75.1	74.0	1.07	69.923	
300.0	300.0	300.0	300.0	0.5	0.5	0.64	75.0	0.8	75.1	74.0	1.09	68.566	
393.7	393.7	393.7	393.7	0.8	0.8	0.64	75.0	0.8	75.1	73.5	1.52	49.513	
400.0	400.0	400.0	400.0	0.8	0.8	0.64	75.0	0.8	75.1	73.5	1.54	48.605	
492.1	492.1	492.1	492.1	1.0	1.0	0.64	75.0	0.8	75.1	73.1	1.96	38.326	
500.0	500.0	500.0	500.0	1.0	1.0	0.64	75.0	0.8	75.1	73.1	1.99	37.646	
590.5	590.5	590.5	590.5	1.2	1.2	0.64	75.0	0.8	75.1	72.7	2.40	31.263	
600.0	600.0	600.0	600.0	1.2	1.2	0.64	75.0	0.8	75.1	72.6	2.44	30.719	
689.0	689.0	689.0	689.0	1.4	1.4	0.64	75.0	0.8	75.1	72.2	2.84	26.398	
700.0	700.0	700.0	700.0	1.4	1.4	0.64	75.0	0.8	75.1	72.2	2.89	25.945	
787.4	787.4	787.4	787.4	1.6	1.6	0.64	75.0	0.8	75.1	71.8	3.29	22.843	
800.0	800.0	800.0	800.0	1.7	1.7	0.64	75.0	0.8	75.1	71.7	3.34	22.456	
885.8	885.8	885.8	885.8	1.9	1.9	0.64	75.0	0.8	75.1	71.3	3.73	20.132	
900.0	900.0	900.0	900.0	1.9	1.9	0.64	75.0	0.8	75.1	71.3	3.79	19.793	
984.2	984.2	984.2	984.2	2.1	2.1	0.64	75.0	0.8	75.1	70.9	4.17	17.996	
1,000.0	1,000.0	1,000.0	1,000.0	2.1	2.1	0.64	75.0	0.8	75.1	70.8	4.24	17.696	
1,082.7	1,082.7	1,082.7	1,082.7	2.3	2.3	0.64	75.0	0.8	75.1	70.4	4.61	16.270	
1,100.0	1,100.0	1,100.0	1,100.0	2.3	2.3	0.64	75.0	0.8	75.1	70.4	4.69	16.000	
1,181.1	1,181.1	1,181.1	1,181.1	2.5	2.5	0.64	75.0	0.8	75.1	70.0	5.06	14.846	
1,200.0	1,200.0	1,200.0	1,200.0	2.6	2.6	0.64	75.0	0.8	75.1	69.9	5.14	14.601 CC, ES	
1,279.5	1,279.5	1,278.7	1,278.7	2.7	2.7	-0.11	75.5	-0.1	75.5	70.0	5.49	13.753	
1,300.0	1,300.0	1,298.9	1,298.9	2.8	2.8	-0.54	75.8	-0.7	75.8	70.2	5.58	13.579	
1,377.9	1,377.9	1,375.8	1,375.7	3.0	3.0	-122.28	77.3	-4.1	78.0	72.1	5.91	13.205	
1,400.0	1,400.0	1,397.4	1,397.3	3.0	3.0	-123.58	77.9	-5.4	79.1	73.1	6.00	13.181	
1,476.4	1,476.3	1,472.0	1,471.6	3.1	3.2	-129.14	80.4	-10.9	84.6	78.3	6.31	13.408	
1,500.0	1,499.8	1,494.9	1,494.4	3.2	3.2	-131.10	81.3	-13.0	87.0	80.6	6.40	13.581	
1,574.8	1,574.4	1,566.8	1,565.8	3.3	3.4	-137.57	84.8	-20.5	96.9	90.2	6.72	14.432	
1,600.0	1,599.5	1,590.7	1,589.5	3.4	3.4	-139.75	86.1	-23.4	101.2	94.4	6.82	14.839	
1,673.2	1,672.2	1,659.4	1,657.4	3.6	3.6	-145.76	90.3	-32.6	116.3	109.1	7.13	16.314	
1,700.0	1,698.7	1,684.1	1,681.8	3.6	3.7	-147.78	92.0	-36.3	122.8	115.5	7.23	16.976	
1,771.6	1,769.5	1,749.3	1,745.9	3.8	3.9	-152.65	96.8	-46.9	142.9	135.4	7.53	18.991	
1,800.0	1,797.5	1,774.6	1,770.8	3.9	4.0	-154.35	98.9	-51.4	151.9	144.3	7.63	19.899	
1,870.1	1,866.3	1,836.1	1,830.9	4.1	4.2	-158.04	104.2	-63.2	176.7	168.8	7.91	22.334	
1,900.2	1,895.8	1,862.0	1,856.1	4.2	4.3	-159.41	106.6	-68.4	188.4	180.4	8.02	23.478	
1,968.5	1,962.6	1,919.6	1,912.1	4.4	4.5	-162.26	112.3	-81.0	216.4	208.1	8.31	26.055	
2,000.0	1,993.4	1,945.9	1,937.5	4.5	4.6	-163.38	115.1	-87.0	229.9	221.5	8.43	27.255	
2,066.9	2,058.9	2,000.0	1,989.6	4.7	4.8	-165.40	121.1	-100.1	259.5	250.8	8.71	29.801	
2,100.0	2,091.2	2,027.5	2,016.1	4.8	4.9	-166.30	124.3	-107.2	274.7	265.8	8.85	31.048	
2,165.3	2,155.2	2,080.9	2,067.1	5.1	5.2	-167.84	130.8	-121.4	305.5	296.4	9.12	33.498	
2,200.0	2,189.1	2,111.1	2,095.9	5.2	5.3	-168.60	134.5	-129.6	322.1	312.8	9.27	34.746	
2,263.8	2,251.4	2,166.7	2,149.0	5.5	5.6	-169.81	141.4	-144.7	352.7	343.1	9.54	36.953	
2,300.0	2,286.9	2,198.3	2,179.2	5.6	5.8	-170.41	145.3	-153.2	370.1	360.4	9.69	38.180	
2,362.2	2,347.7	2,252.5	2,230.9	5.8	6.1	-171.32	152.0	-167.9	400.1	390.1	9.96	40.155	
2,400.0	2,384.7	2,285.5	2,262.4	6.0	6.2	-171.81	156.1	-176.9	418.3	408.2	10.12	41.317	
2,460.6	2,444.0	2,338.4	2,312.9	6.2	6.5	-172.52	162.6	-191.2	447.6	437.2	10.39	43.084	
2,500.0	2,482.5	2,372.7	2,345.6	6.4	6.7	-172.93	166.8	-200.5	466.7	456.1	10.56	44.189	
2,559.0	2,540.3	2,424.2	2,394.8	6.6	7.0	-173.48	173.2	-214.5	495.3	484.5	10.82	45.769	

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

Anticollision Report



Company:	PDC ENERGY	Local Co-ordinate Reference:	Well WACKER 10G-214
Project:	WELD COUNTY, COLORADO	TVD Reference:	KB-EST @ 4624.0usft (Original Well Elev)
Reference Site:	SW NW SEC. 10 T5N R64W 6th P.M.	MD Reference:	KB-EST @ 4624.0usft (Original Well Elev)
Site Error:	0.0 usft	North Reference:	True
Reference Well:	WACKER 10G-214	Survey Calculation Method:	Minimum Curvature
Well Error:	0.0 usft	Output errors are at	2.00 sigma
Reference Wellbore	ORIGINAL WELLBORE	Database:	EDM 5000.1 Single User Db
Reference Design:	PROPOSAL #1	Offset TVD Reference:	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	2,580.3	2,459.9	2,428.9	6.8	7.2	-173.83	177.6	-224.1	515.2	504.2	11.00	46.819	
2,657.5	2,636.5	2,510.0	2,476.7	7.1	7.5	-174.28	183.8	-237.7	543.1	531.8	11.26	48.232	
2,700.0	2,678.1	2,547.1	2,512.1	7.2	7.7	-174.58	188.4	-247.8	563.8	552.3	11.45	49.232	
2,755.9	2,732.8	2,595.8	2,558.6	7.5	8.0	-174.95	194.4	-261.0	590.9	579.2	11.70	50.495	
2,800.0	2,775.9	2,634.3	2,595.3	7.7	8.2	-175.21	199.2	-271.4	612.4	600.5	11.90	51.448	
2,854.3	2,829.1	2,681.6	2,640.5	7.9	8.5	-175.52	205.0	-284.2	638.8	626.7	12.15	52.576	
2,900.0	2,873.8	2,721.5	2,678.6	8.1	8.7	-175.75	209.9	-295.0	661.1	648.7	12.36	53.488	
2,952.7	2,925.4	2,767.5	2,722.5	8.3	9.0	-176.01	215.6	-307.5	686.8	674.2	12.60	54.498	
2,953.5	2,926.1	2,768.1	2,723.1	8.3	9.0	-176.01	215.7	-307.7	687.1	674.5	12.61	54.512	
3,000.0	2,971.6	2,808.8	2,762.0	8.5	9.2	-176.25	220.7	-318.7	709.5	696.6	12.85	55.213	
3,051.2	3,022.0	2,854.1	2,805.2	8.7	9.5	-176.49	226.3	-331.0	733.3	720.2	13.11	55.917	
3,100.0	3,070.1	2,897.6	2,846.7	8.8	9.7	-176.70	231.7	-342.8	755.3	741.9	13.37	56.511	
3,149.6	3,119.1	2,942.2	2,889.3	8.9	10.0	-176.90	237.2	-354.9	776.8	763.2	13.62	57.040	
3,200.0	3,169.1	2,988.0	2,933.0	9.1	10.3	-177.08	242.9	-367.3	798.0	784.1	13.88	57.506	
3,248.0	3,216.8	3,031.9	2,974.9	9.2	10.5	-177.24	248.3	-379.2	817.3	803.2	14.12	57.892	
3,300.0	3,268.5	3,079.7	3,020.6	9.3	10.8	-177.41	254.2	-392.2	837.5	823.1	14.38	58.240	
3,346.4	3,314.8	3,122.8	3,061.7	9.4	11.1	-177.54	259.5	-403.8	854.8	840.1	14.61	58.505	
3,400.0	3,368.3	3,172.8	3,109.4	9.6	11.4	-177.69	265.7	-417.4	873.8	858.9	14.87	58.745	
3,444.9	3,413.1	3,215.0	3,149.7	9.6	11.6	-177.80	270.9	-428.8	889.0	874.0	15.09	58.907	
3,500.0	3,468.2	3,267.1	3,199.5	9.7	12.0	-177.93	277.4	-443.0	906.9	891.5	15.36	59.045	
3,543.3	3,511.5	3,308.3	3,238.8	9.8	12.2	-178.03	282.5	-454.1	920.2	904.6	15.56	59.122	
3,553.7	3,521.9	3,318.3	3,248.3	9.8	12.3	-59.41	283.7	-456.8	923.3	901.2	22.02	41.927	
3,600.0	3,568.2	3,362.5	3,290.5	9.9	12.5	-59.50	289.1	-468.8	937.0	914.6	22.36	41.900	
3,641.7	3,609.9	3,402.3	3,328.5	10.0	12.8	-59.57	294.1	-479.6	949.3	926.7	22.67	41.869	
3,700.0	3,668.2	3,457.9	3,381.6	10.1	13.1	-59.68	300.9	-494.7	966.6	943.5	23.11	41.826	
3,740.1	3,708.4	3,496.2	3,418.2	10.1	13.4	-59.75	305.7	-505.1	978.5	955.1	23.41	41.795	
3,800.0	3,768.2	3,553.4	3,472.7	10.2	13.7	-59.85	312.7	-520.6	996.3	972.4	23.86	41.749	
3,838.6	3,806.8	3,590.2	3,507.9	10.3	13.9	-59.92	317.3	-530.5	1,007.7	983.6	24.16	41.719	
3,900.0	3,868.2	3,648.8	3,563.8	10.4	14.3	-60.02	324.5	-546.4	1,025.9	1,001.3	24.62	41.671	
3,937.0	3,905.2	3,684.1	3,597.5	10.5	14.5	-60.07	328.9	-556.0	1,036.9	1,012.0	24.90	41.642	
4,000.0	3,968.2	3,744.3	3,654.9	10.6	14.9	-60.17	336.3	-572.3	1,055.6	1,030.2	25.38	41.592	
4,035.4	4,003.6	3,778.1	3,687.2	10.6	15.1	-60.22	340.5	-581.5	1,066.1	1,040.5	25.65	41.564	
4,100.0	4,068.2	3,839.7	3,746.1	10.7	15.5	-60.32	348.1	-598.2	1,085.3	1,059.2	26.14	41.513	
4,133.8	4,102.1	3,872.1	3,776.9	10.8	15.7	-60.36	352.1	-607.0	1,095.3	1,068.9	26.40	41.486	
4,200.0	4,168.2	3,935.2	3,837.2	10.9	16.1	-60.45	359.9	-624.1	1,115.0	1,088.1	26.91	41.434	
4,232.3	4,200.5	3,966.0	3,866.6	11.0	16.3	-60.50	363.7	-632.4	1,124.6	1,097.4	27.16	41.408	
4,300.0	4,268.2	4,030.7	3,928.3	11.1	16.7	-60.59	371.7	-649.9	1,144.7	1,117.0	27.68	41.355	
4,330.7	4,298.9	4,060.0	3,956.3	11.1	16.8	-60.62	375.3	-657.9	1,153.8	1,125.9	27.92	41.331	
4,400.0	4,368.2	4,126.1	4,019.4	11.3	17.3	-60.71	383.5	-675.8	1,174.4	1,145.9	28.45	41.277	
4,429.1	4,397.3	4,153.9	4,046.0	11.3	17.4	-60.75	386.9	-683.4	1,183.0	1,154.3	28.68	41.254	
4,500.0	4,468.2	4,221.6	4,110.6	11.4	17.8	-60.83	395.3	-701.7	1,204.1	1,174.8	29.23	41.200	
4,527.5	4,495.8	4,247.9	4,135.7	11.5	18.0	-60.86	398.6	-708.8	1,212.3	1,182.8	29.44	41.178	
4,600.0	4,568.2	4,317.0	4,201.7	11.6	18.4	-60.94	407.1	-727.6	1,233.8	1,203.8	30.00	41.123	
4,626.0	4,594.2	4,341.8	4,225.4	11.7	18.6	-60.97	410.2	-734.3	1,241.5	1,211.3	30.20	41.103	
4,700.0	4,668.2	4,412.5	4,292.8	11.8	19.0	-61.05	418.9	-753.5	1,263.5	1,232.7	30.78	41.048	
4,724.4	4,692.6	4,435.8	4,315.1	11.9	19.2	-61.07	421.8	-759.8	1,270.7	1,239.8	30.97	41.030	
4,800.0	4,768.2	4,508.0	4,383.9	12.0	19.6	-61.15	430.7	-779.3	1,293.2	1,261.6	31.56	40.974	
4,822.8	4,791.0	4,529.7	4,404.7	12.0	19.8	-61.17	433.4	-785.2	1,300.0	1,268.2	31.74	40.957	
4,900.0	4,868.2	4,603.4	4,475.1	12.2	20.2	-61.25	442.5	-805.2	1,322.9	1,290.6	32.34	40.901	
4,921.2	4,889.5	4,623.7	4,494.4	12.2	20.4	-61.27	445.0	-810.7	1,329.2	1,296.7	32.51	40.886	
5,000.0	4,968.2	4,698.9	4,566.2	12.4	20.8	-61.34	454.3	-831.1	1,352.6	1,319.5	33.13	40.830	
5,019.7	4,987.9	4,717.7	4,584.1	12.4	20.9	-61.36	456.6	-836.2	1,358.5	1,325.2	33.28	40.816	

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

Anticollision Report



Company:	PDC ENERGY	Local Co-ordinate Reference:	Well WACKER 10G-214
Project:	WELD COUNTY, COLORADO	TVD Reference:	KB-EST @ 4624.0usft (Original Well Elev)
Reference Site:	SW NW SEC. 10 T5N R64W 6th P.M.	MD Reference:	KB-EST @ 4624.0usft (Original Well Elev)
Site Error:	0.0 usft	North Reference:	True
Reference Well:	WACKER 10G-214	Survey Calculation Method:	Minimum Curvature
Well Error:	0.0 usft	Output errors are at	2.00 sigma
Reference Wellbore	ORIGINAL WELLBORE	Database:	EDM 5000.1 Single User Db
Reference Design:	PROPOSAL #1	Offset TVD Reference:	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	5,068.2	4,794.3	4,657.3	12.6	21.4	-61.43	466.1	-857.0	1,382.3	1,348.4	33.91	40.760	
5,118.1	5,086.3	4,811.6	4,673.8	12.6	21.5	-61.45	468.2	-861.6	1,387.7	1,353.7	34.06	40.747	
5,200.0	5,168.2	4,889.8	4,748.4	12.7	22.0	-61.52	477.9	-882.8	1,412.1	1,377.4	34.70	40.691	
5,216.5	5,184.7	4,905.6	4,763.5	12.8	22.1	-61.53	479.8	-887.1	1,417.0	1,382.2	34.83	40.680	
5,300.0	5,268.2	4,985.3	4,839.6	12.9	22.6	-61.60	489.7	-908.7	1,441.8	1,406.3	35.49	40.624	
5,314.9	5,283.2	4,999.5	4,853.2	13.0	22.7	-61.61	491.4	-912.6	1,446.2	1,410.6	35.61	40.614	
5,400.0	5,368.2	5,080.7	4,930.7	13.1	23.2	-61.68	501.5	-934.6	1,471.5	1,435.3	36.28	40.558	
5,413.4	5,381.6	5,093.5	4,942.9	13.2	23.3	-61.69	503.1	-938.1	1,475.5	1,439.1	36.39	40.549	
5,500.0	5,468.2	5,022.0	4,713.0	13.3	39.4	1.63	580.6	323.4	1,451.3	1,421.5	29.72	48.823	
5,511.8	5,480.0	5,021.8	4,713.0	13.3	39.4	1.62	580.6	323.2	1,441.1	1,411.4	29.75	48.442	
5,600.0	5,568.2	5,020.3	4,713.0	13.5	39.3	1.50	580.6	321.7	1,366.4	1,336.5	29.94	45.640	
5,610.2	5,578.4	5,020.1	4,713.0	13.5	39.3	1.49	580.6	321.6	1,357.9	1,327.9	29.96	45.320	
5,700.0	5,668.2	5,018.5	4,713.1	13.7	39.3	1.37	580.6	320.0	1,283.8	1,253.7	30.16	42.573	
5,708.6	5,676.9	5,018.4	4,713.1	13.7	39.3	1.36	580.6	319.9	1,276.8	1,246.6	30.17	42.313	
5,800.0	5,768.2	5,016.8	4,713.1	13.9	39.3	1.24	580.6	318.3	1,203.8	1,173.5	30.37	39.635	
5,807.1	5,775.3	5,016.7	4,713.1	13.9	39.3	1.23	580.6	318.2	1,198.3	1,167.9	30.39	39.432	
5,900.0	5,868.2	5,015.1	4,713.1	14.1	39.2	1.11	580.6	316.6	1,127.1	1,096.5	30.59	36.842	
5,905.5	5,873.7	5,015.0	4,713.1	14.1	39.2	1.10	580.6	316.5	1,122.9	1,092.3	30.60	36.693	
5,960.7	5,928.9	5,014.1	4,713.1	14.2	39.2	1.03	580.6	315.6	1,082.3	1,051.6	30.72	35.227	
6,000.0	5,968.2	5,012.4	4,713.2	14.3	39.2	94.11	580.6	313.8	1,054.2	1,001.0	53.21	19.813	
6,003.9	5,972.1	5,012.1	4,713.2	14.3	39.1	94.40	580.6	313.5	1,051.4	998.2	53.21	19.761	
6,050.0	6,018.0	5,007.0	4,713.3	14.4	39.0	97.51	580.6	308.5	1,019.7	966.6	53.10	19.203	
6,100.0	6,067.3	4,998.2	4,713.4	14.4	38.8	100.31	580.6	299.7	986.8	933.9	52.81	18.684	
6,102.3	6,069.6	4,997.7	4,713.4	14.4	38.8	100.43	580.6	299.2	985.3	932.5	52.80	18.662	
6,150.0	6,116.0	4,986.0	4,713.6	14.4	38.6	102.55	580.6	287.5	955.7	903.3	52.41	18.236	
6,200.0	6,163.8	4,970.5	4,713.9	14.5	38.3	104.24	580.6	272.0	926.7	874.8	51.93	17.848	
6,200.8	6,164.5	4,970.2	4,713.9	14.5	38.3	104.27	580.6	271.7	926.3	874.4	51.92	17.842	
6,250.0	6,210.4	4,951.7	4,714.2	14.5	37.9	105.44	580.6	253.1	900.0	848.6	51.39	17.513	
6,299.2	6,254.9	4,930.0	4,714.6	14.5	37.4	106.17	580.6	231.5	876.1	825.2	50.84	17.232	
6,300.0	6,255.6	4,929.6	4,714.6	14.5	37.4	106.18	580.6	231.1	875.7	824.9	50.83	17.228	
6,350.0	6,299.3	4,904.6	4,715.0	14.5	36.9	106.51	580.6	206.1	853.8	803.6	50.25	16.990	
6,397.6	6,339.2	4,877.9	4,715.5	14.6	36.4	106.50	580.6	179.4	835.3	785.6	49.73	16.799	
6,400.0	6,341.2	4,876.5	4,715.5	14.6	36.3	106.49	580.6	178.0	834.4	784.7	49.70	16.790	
6,450.0	6,381.0	4,845.6	4,716.0	14.6	35.7	106.15	580.6	147.1	817.6	768.4	49.16	16.631	
6,496.0	6,415.8	4,814.9	4,716.5	14.7	35.1	105.60	580.6	116.4	804.1	755.5	48.68	16.518	
6,500.0	6,418.7	4,812.1	4,716.6	14.7	35.1	105.55	580.6	113.6	803.1	754.4	48.64	16.510	
6,550.0	6,453.9	4,776.1	4,717.2	14.8	34.4	104.73	580.6	77.6	790.9	742.7	48.18	16.416	
6,594.5	6,483.1	4,742.1	4,717.8	15.0	33.7	103.87	580.6	43.6	781.8	734.0	47.81	16.352	
6,600.0	6,486.6	4,737.7	4,717.9	15.1	33.7	103.76	580.6	39.2	780.8	733.0	47.76	16.347	
6,650.0	6,516.6	4,697.2	4,718.5	15.3	32.9	102.67	580.6	-1.3	772.6	725.2	47.40	16.300	
6,692.9	6,540.0	4,660.9	4,719.2	15.7	32.3	101.70	580.6	-37.6	767.0	719.8	47.17	16.258	
6,700.0	6,543.7	4,654.7	4,719.3	15.7	32.2	101.54	580.6	-43.7	766.1	719.0	47.13	16.254	
6,750.0	6,567.8	4,610.6	4,720.0	16.2	31.5	100.41	580.6	-87.9	761.1	714.2	46.92	16.221	
6,791.3	6,585.4	4,572.9	4,720.7	16.7	30.9	99.51	580.6	-125.6	757.9	711.1	46.84	16.182	
6,800.0	6,588.8	4,564.8	4,720.8	16.8	30.8	99.33	580.6	-133.6	757.3	710.5	46.82	16.175	
6,850.0	6,606.6	4,517.8	4,721.6	17.4	30.1	98.35	580.6	-180.6	754.6	707.8	46.79	16.127	
6,889.7	6,618.4	4,479.7	4,722.3	18.0	29.5	97.67	580.6	-218.8	752.9	706.1	46.84	16.074	
6,900.0	6,621.1	4,469.7	4,722.4	18.2	29.4	97.52	580.6	-228.7	752.6	705.7	46.86	16.059	
6,950.0	6,632.2	4,420.8	4,723.3	19.0	28.8	96.86	580.6	-277.6	751.3	704.3	47.02	15.979	
6,988.2	6,638.4	4,383.1	4,723.9	19.7	28.4	96.50	580.6	-315.4	750.6	703.4	47.20	15.904	
7,000.0	6,639.9	4,371.3	4,724.1	19.9	28.2	96.41	580.6	-327.1	750.5	703.2	47.26	15.879	
7,050.0	6,644.1	4,321.4	4,725.0	20.8	27.7	96.18	580.6	-377.0	750.1	702.5	47.58	15.765	

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

Anticollision Report



Company:	PDC ENERGY	Local Co-ordinate Reference:	Well WACKER 10G-214
Project:	WELD COUNTY, COLORADO	TVD Reference:	KB-EST @ 4624.0usft (Original Well Elev)
Reference Site:	SW NW SEC. 10 T5N R64W 6th P.M.	MD Reference:	KB-EST @ 4624.0usft (Original Well Elev)
Site Error:	0.0 usft	North Reference:	True
Reference Well:	WACKER 10G-214	Survey Calculation Method:	Minimum Curvature
Well Error:	0.0 usft	Output errors are at	2.00 sigma
Reference Wellbore	ORIGINAL WELLBORE	Database:	EDM 5000.1 Single User Db
Reference Design:	PROPOSAL #1	Offset TVD Reference:	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	
7,086.5	6,645.0	7,280.7	6,724.6	21.5	27.4	96.10	580.6	-417.8	750.0	702.2	47.84	15.679	
7,100.0	6,645.0	7,265.5	6,723.9	21.8	27.2	96.04	580.6	-432.9	749.9	702.0	47.95	15.639	
7,185.0	6,644.9	7,171.4	6,712.4	23.6	26.6	95.18	580.6	-526.3	748.9	700.0	48.94	15.302	
7,200.0	6,644.8	7,155.1	6,709.2	23.9	26.5	94.93	580.6	-542.1	748.6	699.5	49.14	15.234	
7,283.4	6,644.7	7,068.0	6,685.8	25.7	26.1	93.16	580.6	-626.0	747.0	696.5	50.56	14.774	
7,300.0	6,644.7	7,051.5	6,680.2	26.1	26.0	92.73	580.6	-641.6	746.7	695.8	50.86	14.681	
7,381.9	6,644.6	6,974.0	6,649.4	28.0	25.9	90.37	580.6	-712.6	745.8	693.2	52.57	14.187	
7,393.7	6,644.6	6,963.5	6,644.6	28.3	25.9	90.00	580.6	-722.0	745.7	692.9	52.82	14.119	
7,400.0	6,644.6	6,957.8	6,642.0	28.4	25.9	89.80	580.6	-727.0	745.8	692.8	52.95	14.083	
7,480.3	6,644.5	6,890.8	6,607.9	30.3	25.9	87.19	580.6	-784.7	747.0	692.3	54.76	13.643	
7,500.0	6,644.4	6,875.5	6,599.4	30.8	25.9	86.54	580.6	-797.4	747.7	692.5	55.20	13.546	
7,578.7	6,644.3	6,818.5	6,565.3	32.7	25.9	83.94	580.6	-843.0	752.7	695.7	56.98	13.209	
7,600.0	6,644.3	6,804.3	6,556.2	33.3	25.9	83.26	580.6	-854.0	754.6	697.2	57.45	13.135	
7,677.1	6,644.2	6,756.4	6,524.1	35.2	26.0	80.84	580.6	-889.6	764.2	705.0	59.15	12.920	
7,700.0	6,644.1	6,743.3	6,514.9	35.8	26.0	80.16	580.6	-898.9	767.9	708.2	59.64	12.875	
7,775.6	6,644.0	6,700.0	6,483.4	37.7	26.1	77.83	580.6	-928.5	782.8	721.5	61.21	12.788	
7,800.0	6,644.0	6,691.1	6,476.7	38.3	26.2	77.34	580.6	-934.4	788.5	726.8	61.74	12.771 SF	
7,874.0	6,643.9	6,650.0	6,444.8	40.2	26.3	75.03	580.6	-960.3	808.9	745.8	63.16	12.807	
7,900.0	6,643.9	6,650.0	6,444.8	40.9	26.3	75.03	580.6	-960.3	817.1	753.3	63.82	12.803	
7,972.4	6,643.8	6,618.1	6,419.1	42.8	26.4	73.20	580.6	-979.2	842.7	777.4	65.21	12.922	
8,000.0	6,643.7	6,600.0	6,404.1	43.5	26.4	72.15	580.6	-989.3	853.5	787.9	65.62	13.007	
8,070.8	6,643.6	6,584.1	6,390.8	45.4	26.5	71.23	580.6	-998.0	883.8	816.7	67.13	13.165	
8,100.0	6,643.6	6,574.9	6,383.0	46.2	26.5	70.70	580.6	-1,002.8	897.3	829.6	67.70	13.255	
8,169.3	6,643.5	6,550.0	6,361.5	48.0	26.5	69.24	580.6	-1,015.5	931.8	862.8	68.94	13.516	
8,200.0	6,643.5	6,550.0	6,361.5	48.8	26.5	69.24	580.6	-1,015.5	948.0	878.3	69.71	13.600	
8,267.7	6,643.4	6,528.7	6,342.8	50.6	26.6	68.00	580.6	-1,025.7	985.8	914.9	70.92	13.899	
8,300.0	6,643.3	6,520.9	6,335.9	51.5	26.6	67.54	580.6	-1,029.3	1,004.8	933.2	71.54	14.044	
8,366.1	6,643.2	6,500.0	6,317.1	53.3	26.7	66.32	580.6	-1,038.5	1,045.3	972.7	72.66	14.386	
8,400.0	6,643.2	6,500.0	6,317.1	54.2	26.7	66.32	580.6	-1,038.5	1,066.9	993.4	73.50	14.516	
8,464.5	6,643.1	6,485.8	6,304.3	55.9	26.7	65.50	580.6	-1,044.5	1,109.5	1,034.8	74.71	14.850	
8,500.0	6,643.1	6,479.1	6,298.2	56.9	26.7	65.11	580.6	-1,047.2	1,133.7	1,058.3	75.40	15.036	
8,563.0	6,643.0	6,467.9	6,287.9	58.6	26.7	64.47	580.6	-1,051.7	1,177.8	1,101.2	76.62	15.372	
8,600.0	6,642.9	6,450.0	6,271.3	59.6	26.8	63.44	580.6	-1,058.5	1,204.6	1,127.6	76.97	15.650	
8,661.4	6,642.8	6,450.0	6,271.3	61.3	26.8	63.44	580.6	-1,058.5	1,249.6	1,171.1	78.48	15.923	
8,700.0	6,642.8	6,450.0	6,271.3	62.3	26.8	63.44	580.6	-1,058.5	1,278.6	1,199.2	79.42	16.099	
8,759.8	6,642.7	6,450.0	6,271.3	64.0	26.8	63.44	580.6	-1,058.5	1,324.5	1,243.6	80.90	16.373	
8,800.0	6,642.7	6,432.0	6,254.5	65.1	26.8	62.42	580.6	-1,064.8	1,355.7	1,274.4	81.26	16.684	
8,858.2	6,642.6	6,424.5	6,247.4	66.6	26.8	61.99	580.6	-1,067.4	1,401.8	1,319.4	82.41	17.010	
8,900.0	6,642.5	6,419.3	6,242.5	67.8	26.8	61.70	580.6	-1,069.1	1,435.3	1,352.0	83.23	17.244	
8,956.7	6,642.4	6,400.0	6,224.2	69.3	26.9	60.62	580.6	-1,075.1	1,481.5	1,397.6	83.87	17.664	
9,000.0	6,642.4	6,400.0	6,224.2	70.5	26.9	60.62	580.6	-1,075.1	1,517.1	1,432.2	84.92	17.865	
9,055.1	6,642.3	6,400.0	6,224.2	72.0	26.9	60.62	580.6	-1,075.1	1,562.9	1,476.6	86.25	18.120	
9,100.0	6,642.3	6,400.0	6,224.2	73.3	26.9	60.62	580.6	-1,075.1	1,600.7	1,513.3	87.34	18.327	
9,153.5	6,642.2	6,400.0	6,224.2	74.7	26.9	60.62	580.6	-1,075.1	1,646.1	1,557.5	88.64	18.572	
9,200.0	6,642.1	6,400.0	6,224.2	76.0	26.9	60.62	580.6	-1,075.1	1,686.0	1,596.2	89.76	18.783	
9,251.9	6,642.1	6,400.0	6,224.2	77.5	26.9	60.62	580.6	-1,075.1	1,731.0	1,639.9	91.02	19.017	
9,300.0	6,642.0	6,378.9	6,204.0	78.8	26.9	59.46	580.6	-1,081.2	1,772.5	1,681.2	91.27	19.421	
9,350.4	6,641.9	6,374.8	6,200.0	80.2	26.9	59.23	580.6	-1,082.3	1,816.6	1,724.3	92.29	19.684	
9,400.0	6,641.9	6,370.8	6,196.2	81.5	26.9	59.01	580.6	-1,083.3	1,860.3	1,767.0	93.30	19.939	
9,448.8	6,641.8	6,350.0	6,176.0	82.9	27.0	57.89	580.6	-1,088.5	1,903.9	1,810.4	93.49	20.364	
9,500.0	6,641.7	6,350.0	6,176.0	84.3	27.0	57.89	580.6	-1,088.5	1,949.4	1,854.7	94.71	20.583	
9,547.2	6,641.7	6,350.0	6,176.0	85.6	27.0	57.89	580.6	-1,088.5	1,991.6	1,895.8	95.83	20.783	

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

Anticollision Report



Company:	PDC ENERGY	Local Co-ordinate Reference:	Well WACKER 10G-214
Project:	WELD COUNTY, COLORADO	TVD Reference:	KB-EST @ 4624.0usft (Original Well Elev)
Reference Site:	SW NW SEC. 10 T5N R64W 6th P.M.	MD Reference:	KB-EST @ 4624.0usft (Original Well Elev)
Site Error:	0.0 usft	North Reference:	True
Reference Well:	WACKER 10G-214	Survey Calculation Method:	Minimum Curvature
Well Error:	0.0 usft	Output errors are at	2.00 sigma
Reference Wellbore	ORIGINAL WELLBORE	Database:	EDM 5000.1 Single User Db
Reference Design:	PROPOSAL #1	Offset TVD Reference:	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	
9,600.0	6,641.6	6,350.0	6,176.0	87.1	27.0	57.89	580.6	-1,088.5	2,039.1	1,942.0	97.08	21.004	
9,645.6	6,641.5	6,350.0	6,176.0	88.3	27.0	57.89	580.6	-1,088.5	2,080.4	1,982.2	98.17	21.192	
9,700.0	6,641.5	6,350.0	6,176.0	89.8	27.0	57.89	580.6	-1,088.5	2,129.7	2,030.3	99.46	21.413	
9,744.1	6,641.4	6,350.0	6,176.0	91.0	27.0	57.89	580.6	-1,088.5	2,170.0	2,069.4	100.51	21.590	
9,800.0	6,641.3	6,350.0	6,176.0	92.6	27.0	57.89	580.6	-1,088.5	2,221.2	2,119.3	101.84	21.810	
9,842.5	6,641.3	6,350.0	6,176.0	93.8	27.0	57.89	580.6	-1,088.5	2,260.3	2,157.4	102.85	21.976	
9,900.0	6,641.2	6,350.0	6,176.0	95.4	27.0	57.89	580.6	-1,088.5	2,313.3	2,209.1	104.22	22.196	
9,940.9	6,641.1	6,350.0	6,176.0	96.5	27.0	57.89	580.6	-1,088.5	2,351.2	2,246.0	105.20	22.351	
10,000.0	6,641.1	6,350.0	6,176.0	98.1	27.0	57.89	580.6	-1,088.5	2,406.1	2,299.5	106.61	22.570	
10,039.3	6,641.0	6,350.0	6,176.0	99.2	27.0	57.89	580.6	-1,088.5	2,442.8	2,335.2	107.55	22.714	
10,100.0	6,640.9	6,328.3	6,154.9	100.9	27.0	56.74	580.6	-1,093.2	2,499.0	2,391.3	107.77	23.188	
10,137.8	6,640.9	6,326.6	6,153.1	102.0	27.0	56.65	580.6	-1,093.6	2,534.4	2,425.8	108.56	23.345	
10,200.0	6,640.8	6,323.7	6,150.4	103.7	27.0	56.50	580.6	-1,094.2	2,592.7	2,482.8	109.87	23.599	
10,236.2	6,640.8	6,322.2	6,148.8	104.7	27.0	56.42	580.6	-1,094.5	2,626.7	2,516.1	110.62	23.744	
10,300.0	6,640.7	6,300.0	6,127.0	106.5	27.0	55.27	580.6	-1,098.5	2,687.1	2,576.3	110.80	24.250	
10,334.6	6,640.6	6,300.0	6,127.0	107.4	27.0	55.27	580.6	-1,098.5	2,719.7	2,608.1	111.61	24.368	
10,400.0	6,640.6	6,300.0	6,127.0	109.3	27.0	55.27	580.6	-1,098.5	2,781.4	2,668.3	113.13	24.586	
10,433.0	6,640.5	6,300.0	6,127.0	110.2	27.0	55.27	580.6	-1,098.5	2,812.7	2,698.8	113.90	24.694	
10,500.0	6,640.4	6,300.0	6,127.0	112.0	27.0	55.27	580.6	-1,098.5	2,876.1	2,760.7	115.46	24.910	
10,531.5	6,640.4	6,300.0	6,127.0	112.9	27.0	55.27	580.6	-1,098.5	2,906.0	2,789.8	116.19	25.010	
10,600.0	6,640.3	6,300.0	6,127.0	114.8	27.0	55.27	580.6	-1,098.5	2,971.2	2,853.4	117.79	25.225	
10,629.9	6,640.3	6,300.0	6,127.0	115.7	27.0	55.27	580.6	-1,098.5	2,999.7	2,881.2	118.48	25.317	
10,700.0	6,640.2	6,300.0	6,127.0	117.6	27.0	55.27	580.6	-1,098.5	3,066.6	2,946.4	120.12	25.530	
10,728.3	6,640.1	6,300.0	6,127.0	118.4	27.0	55.27	580.6	-1,098.5	3,093.6	2,972.8	120.78	25.614	
10,800.0	6,640.0	6,300.0	6,127.0	120.4	27.0	55.27	580.6	-1,098.5	3,162.2	3,039.8	122.45	25.825	
10,826.7	6,640.0	6,300.0	6,127.0	121.2	27.0	55.27	580.6	-1,098.5	3,187.8	3,064.8	123.07	25.902	
10,900.0	6,639.9	6,300.0	6,127.0	123.2	27.0	55.27	580.6	-1,098.5	3,258.1	3,133.4	124.78	26.111	
10,925.2	6,639.9	6,300.0	6,127.0	123.9	27.0	55.27	580.6	-1,098.5	3,282.3	3,157.0	125.37	26.182	
11,000.0	6,639.8	6,300.0	6,127.0	126.0	27.0	55.27	580.6	-1,098.5	3,354.3	3,227.2	127.11	26.388	
11,023.6	6,639.8	6,300.0	6,127.0	126.6	27.0	55.27	580.6	-1,098.5	3,377.0	3,249.4	127.66	26.453	
11,100.0	6,639.7	6,300.0	6,127.0	128.8	27.0	55.28	580.6	-1,098.5	3,450.7	3,321.2	129.45	26.657	
11,122.0	6,639.6	6,300.0	6,127.0	129.4	27.0	55.28	580.6	-1,098.5	3,471.9	3,342.0	129.96	26.715	
11,200.0	6,639.5	6,300.0	6,127.0	131.6	27.0	55.28	580.6	-1,098.5	3,547.3	3,415.5	131.78	26.918	
11,220.4	6,639.5	6,300.0	6,127.0	132.1	27.0	55.28	580.6	-1,098.5	3,567.0	3,434.8	132.26	26.970	
11,300.0	6,639.4	6,300.0	6,127.0	134.4	27.0	55.28	580.6	-1,098.5	3,644.0	3,509.9	134.12	27.171	
11,318.9	6,639.4	6,300.0	6,127.0	134.9	27.0	55.28	580.6	-1,098.5	3,662.3	3,527.7	134.56	27.218	
11,400.0	6,639.3	6,300.0	6,127.0	137.1	27.0	55.28	580.6	-1,098.5	3,740.9	3,604.5	136.45	27.416	
11,417.3	6,639.3	6,300.0	6,127.0	137.6	27.0	55.28	580.6	-1,098.5	3,757.7	3,620.9	136.86	27.458	
11,500.0	6,639.2	6,300.0	6,127.0	139.9	27.0	55.28	580.6	-1,098.5	3,838.0	3,699.2	138.79	27.654	
11,515.7	6,639.1	6,300.0	6,127.0	140.4	27.0	55.28	580.6	-1,098.5	3,853.3	3,714.2	139.16	27.691	
11,600.0	6,639.0	6,300.0	6,127.0	142.7	27.0	55.28	580.6	-1,098.5	3,935.3	3,794.1	141.13	27.885	
11,614.1	6,639.0	6,300.0	6,127.0	143.1	27.0	55.28	580.6	-1,098.5	3,949.0	3,807.6	141.46	27.917	
11,700.0	6,638.9	6,278.1	6,105.3	145.5	27.0	54.17	580.6	-1,101.7	4,032.3	3,890.5	141.74	28.449	
11,712.6	6,638.9	6,277.8	6,105.1	145.9	27.0	54.16	580.6	-1,101.8	4,044.5	3,902.5	142.01	28.481	
11,800.0	6,638.8	6,276.0	6,103.3	148.3	27.0	54.07	580.6	-1,102.0	4,129.7	3,985.8	143.88	28.701	
11,811.0	6,638.8	6,275.8	6,103.1	148.6	27.0	54.06	580.6	-1,102.0	4,140.4	3,996.3	144.12	28.729	
11,900.0	6,638.7	6,274.1	6,101.4	151.1	27.0	53.97	580.6	-1,102.3	4,227.2	4,081.2	146.03	28.947	
11,909.4	6,638.6	6,273.9	6,101.2	151.4	27.0	53.96	580.6	-1,102.3	4,236.4	4,090.2	146.23	28.970	
12,000.0	6,638.5	6,272.2	6,099.5	153.9	27.0	53.88	580.6	-1,102.5	4,324.9	4,176.7	148.18	29.186	
12,007.8	6,638.5	6,272.1	6,099.4	154.1	27.0	53.87	580.6	-1,102.5	4,332.5	4,184.2	148.35	29.204	
12,100.0	6,638.4	6,250.0	6,077.4	156.7	27.0	52.79	580.6	-1,105.0	4,422.9	4,274.3	148.62	29.761	
12,106.3	6,638.4	6,250.0	6,077.4	156.9	27.0	52.79	580.6	-1,105.0	4,429.1	4,280.3	148.76	29.773	

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

Anticollision Report



Company:	PDC ENERGY	Local Co-ordinate Reference:	Well WACKER 10G-214
Project:	WELD COUNTY, COLORADO	TVD Reference:	KB-EST @ 4624.0usft (Original Well Elev)
Reference Site:	SW NW SEC. 10 T5N R64W 6th P.M.	MD Reference:	KB-EST @ 4624.0usft (Original Well Elev)
Site Error:	0.0 usft	North Reference:	True
Reference Well:	WACKER 10G-214	Survey Calculation Method:	Minimum Curvature
Well Error:	0.0 usft	Output errors are at	2.00 sigma
Reference Wellbore	ORIGINAL WELLBORE	Database:	EDM 5000.1 Single User Db
Reference Design:	PROPOSAL #1	Offset TVD Reference:	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	
12,200.0	6,638.3	6,250.0	6,077.4	159.5	27.0	52.79	580.6	-1,105.0	4,520.7	4,369.8	150.89	29.960	
12,204.7	6,638.3	6,250.0	6,077.4	159.6	27.0	52.79	580.6	-1,105.0	4,525.3	4,374.3	151.00	29.969	
12,300.0	6,638.2	6,250.0	6,077.4	162.3	27.0	52.79	580.6	-1,105.0	4,618.6	4,465.4	153.17	30.154	
12,303.1	6,638.2	6,250.0	6,077.4	162.4	27.0	52.79	580.6	-1,105.0	4,621.7	4,468.4	153.24	30.160	
12,400.0	6,638.0	6,250.0	6,077.4	165.1	27.0	52.79	580.6	-1,105.0	4,716.6	4,561.1	155.44	30.342	
12,401.5	6,638.0	6,250.0	6,077.4	165.2	27.0	52.79	580.6	-1,105.0	4,718.1	4,562.6	155.48	30.345	
12,500.0	6,637.9	6,250.0	6,077.4	167.9	27.0	52.79	580.6	-1,105.0	4,814.6	4,656.9	157.72	30.526	
12,598.4	6,637.8	6,250.0	6,077.4	170.7	27.0	52.79	580.6	-1,105.0	4,911.2	4,751.2	159.96	30.703	
12,600.0	6,637.8	6,250.0	6,077.4	170.7	27.0	52.79	580.6	-1,105.0	4,912.7	4,752.7	160.00	30.705	
12,696.8	6,637.7	6,250.0	6,077.4	173.4	27.0	52.79	580.6	-1,105.0	5,007.8	4,845.6	162.20	30.874	
12,700.0	6,637.7	6,250.0	6,077.4	173.5	27.0	52.79	580.6	-1,105.0	5,010.9	4,848.7	162.28	30.879	
12,795.2	6,637.6	6,250.0	6,077.4	176.2	27.0	52.79	580.6	-1,105.0	5,104.6	4,940.1	164.44	31.041	
12,800.0	6,637.6	6,250.0	6,077.4	176.3	27.0	52.79	580.6	-1,105.0	5,109.2	4,944.7	164.55	31.049	
12,893.7	6,637.4	6,250.0	6,077.4	178.9	27.0	52.79	580.6	-1,105.0	5,201.3	5,034.7	166.69	31.204	
12,900.0	6,637.4	6,250.0	6,077.4	179.1	27.0	52.79	580.6	-1,105.0	5,207.6	5,040.7	166.83	31.215	
12,992.1	6,637.3	6,250.0	6,077.4	181.7	27.0	52.79	580.6	-1,105.0	5,298.2	5,129.3	168.93	31.364	
13,000.0	6,637.3	6,250.0	6,077.4	181.9	27.0	52.80	580.6	-1,105.0	5,306.0	5,136.9	169.11	31.376	
13,090.5	6,637.2	6,250.0	6,077.4	184.4	27.0	52.80	580.6	-1,105.0	5,395.1	5,223.9	171.17	31.519	
13,100.0	6,637.2	6,250.0	6,077.4	184.7	27.0	52.80	580.6	-1,105.0	5,404.4	5,233.0	171.39	31.533	
13,188.9	6,637.1	6,250.0	6,077.4	187.2	27.0	52.80	580.6	-1,105.0	5,492.0	5,318.6	173.41	31.670	
13,200.0	6,637.1	6,250.0	6,077.4	187.5	27.0	52.80	580.6	-1,105.0	5,502.9	5,329.3	173.67	31.687	
13,287.4	6,637.0	6,250.0	6,077.4	190.0	27.0	52.80	580.6	-1,105.0	5,589.1	5,413.4	175.66	31.818	
13,300.0	6,637.0	6,250.0	6,077.4	190.3	27.0	52.80	580.6	-1,105.0	5,601.5	5,425.6	175.95	31.836	
13,385.8	6,636.9	6,250.0	6,077.4	192.7	27.0	52.80	580.6	-1,105.0	5,686.1	5,508.2	177.90	31.962	
13,400.0	6,636.8	6,250.0	6,077.4	193.1	27.0	52.80	580.6	-1,105.0	5,700.1	5,521.9	178.23	31.982	
13,484.2	6,636.7	6,250.0	6,077.4	195.5	27.0	52.80	580.6	-1,105.0	5,783.2	5,603.1	180.15	32.103	
13,500.0	6,636.7	6,250.0	6,077.4	195.9	27.0	52.80	580.6	-1,105.0	5,798.8	5,618.3	180.51	32.125	
13,582.6	6,636.6	6,250.0	6,077.4	198.2	27.0	52.80	580.6	-1,105.0	5,880.4	5,698.0	182.39	32.241	
13,600.0	6,636.6	6,250.0	6,077.4	198.7	27.0	52.80	580.6	-1,105.0	5,897.5	5,714.7	182.79	32.264	
13,681.1	6,636.5	6,250.0	6,077.4	201.0	27.0	52.80	580.6	-1,105.0	5,977.6	5,792.9	184.63	32.375	
13,700.0	6,636.5	6,250.0	6,077.4	201.5	27.0	52.80	580.6	-1,105.0	5,996.2	5,811.2	185.07	32.400	
13,779.5	6,636.4	6,250.0	6,077.4	203.7	27.0	52.80	580.6	-1,105.0	6,074.8	5,887.9	186.88	32.506	
13,800.0	6,636.4	6,250.0	6,077.4	204.3	27.0	52.80	580.6	-1,105.0	6,095.0	5,907.7	187.35	32.533	
13,877.9	6,636.3	6,250.0	6,077.4	206.5	27.0	52.80	580.6	-1,105.0	6,172.1	5,982.9	189.13	32.635	
13,900.0	6,636.3	6,250.0	6,077.4	207.1	27.0	52.80	580.6	-1,105.0	6,193.9	6,004.2	189.63	32.663	
13,976.3	6,636.2	6,250.0	6,077.4	209.3	27.0	52.80	580.6	-1,105.0	6,269.4	6,078.0	191.37	32.760	
14,000.0	6,636.1	6,250.0	6,077.4	209.9	27.0	52.80	580.6	-1,105.0	6,292.7	6,100.8	191.91	32.790	
14,074.8	6,636.0	6,250.0	6,077.4	212.0	27.0	52.80	580.6	-1,105.0	6,366.7	6,173.1	193.62	32.883	
14,100.0	6,636.0	6,250.0	6,077.4	212.7	27.0	52.81	580.6	-1,105.0	6,391.6	6,197.5	194.19	32.914	
14,173.2	6,635.9	6,250.0	6,077.4	214.8	27.0	52.81	580.6	-1,105.0	6,464.1	6,268.2	195.86	33.003	
14,200.0	6,635.9	6,250.0	6,077.4	215.5	27.0	52.81	580.6	-1,105.0	6,490.6	6,294.1	196.48	33.035	
14,271.6	6,635.8	6,250.0	6,077.4	217.5	27.0	52.81	580.6	-1,105.0	6,561.5	6,363.4	198.11	33.121	
14,300.0	6,635.8	6,250.0	6,077.4	218.3	27.0	52.81	580.6	-1,105.0	6,589.6	6,390.8	198.76	33.154	
14,370.0	6,635.7	6,250.0	6,077.4	220.3	27.0	52.81	580.6	-1,105.0	6,658.9	6,458.5	200.36	33.235	
14,400.0	6,635.7	6,250.0	6,077.4	221.1	27.0	52.81	580.6	-1,105.0	6,688.6	6,487.5	201.04	33.270	
14,468.5	6,635.6	6,250.0	6,077.4	223.1	27.0	52.81	580.6	-1,105.0	6,756.4	6,553.8	202.60	33.348	
14,500.0	6,635.6	6,250.0	6,077.4	223.9	27.0	52.81	580.6	-1,105.0	6,787.6	6,584.3	203.32	33.383	
14,566.9	6,635.5	6,250.0	6,077.4	225.8	27.0	52.81	580.6	-1,105.0	6,853.9	6,649.0	204.85	33.458	
14,600.0	6,635.4	6,250.0	6,077.4	226.8	27.0	52.81	580.6	-1,105.0	6,886.6	6,681.0	205.61	33.494	
14,665.3	6,635.4	6,250.0	6,077.4	228.6	27.0	52.81	580.6	-1,105.0	6,951.4	6,744.3	207.10	33.566	
14,700.0	6,635.3	6,250.0	6,077.4	229.6	27.0	52.81	580.6	-1,105.0	6,985.7	6,777.8	207.89	33.603	
14,763.7	6,635.2	6,250.0	6,077.4	231.3	27.0	52.81	580.6	-1,105.0	7,048.9	6,839.6	209.34	33.671	

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

Anticollision Report



Company:	PDC ENERGY	Local Co-ordinate Reference:	Well WACKER 10G-214
Project:	WELD COUNTY, COLORADO	TVD Reference:	KB-EST @ 4624.0usft (Original Well Elev)
Reference Site:	SW NW SEC. 10 T5N R64W 6th P.M.	MD Reference:	KB-EST @ 4624.0usft (Original Well Elev)
Site Error:	0.0 usft	North Reference:	True
Reference Well:	WACKER 10G-214	Survey Calculation Method:	Minimum Curvature
Well Error:	0.0 usft	Output errors are at	2.00 sigma
Reference Wellbore	ORIGINAL WELLBORE	Database:	EDM 5000.1 Single User Db
Reference Design:	PROPOSAL #1	Offset TVD Reference:	Offset Datum

Offset Design SW NW SEC. 10 T5N R64W 6th P.M. - WACKER 10F-302 - ORIGINAL WELLBORE - PROPOSAL #1												Offset Site Error:	0.0 usft
Survey Program: 0-MWD												Offset Well Error:	0.0 usft
Reference	Offset	Semi Major Axis		Distance									
Measured Depth (usft)	Vertical Depth (usft)	Measured Depth (usft)	Vertical Depth (usft)	Reference (usft)	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
14,800.0	6,635.2	6,250.0	6,077.4	232.4	27.0	52.81	580.6	-1,105.0	7,084.8	6,874.7	210.17	33.710	
14,862.2	6,635.1	6,250.0	6,077.4	234.1	27.0	52.81	580.6	-1,105.0	7,146.5	6,934.9	211.59	33.775	
14,900.0	6,635.1	6,250.0	6,077.4	235.2	27.0	52.81	580.6	-1,105.0	7,184.0	6,971.5	212.46	33.814	
14,960.6	6,635.0	6,250.0	6,077.4	236.9	27.0	52.81	580.6	-1,105.0	7,244.1	7,030.2	213.84	33.876	
14,982.9	6,635.0	6,250.0	6,077.4	237.5	27.0	52.82	580.6	-1,105.0	7,266.1	7,051.8	214.35	33.899	

Anticollision Report



Company:	PDC ENERGY	Local Co-ordinate Reference:	Well WACKER 10G-214
Project:	WELD COUNTY, COLORADO	TVD Reference:	KB-EST @ 4624.0usft (Original Well Elev)
Reference Site:	SW NW SEC. 10 T5N R64W 6th P.M.	MD Reference:	KB-EST @ 4624.0usft (Original Well Elev)
Site Error:	0.0 usft	North Reference:	True
Reference Well:	WACKER 10G-214	Survey Calculation Method:	Minimum Curvature
Well Error:	0.0 usft	Output errors are at	2.00 sigma
Reference Wellbore	ORIGINAL WELLBORE	Database:	EDM 5000.1 Single User Db
Reference Design:	PROPOSAL #1	Offset TVD Reference:	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	0.71	90.0	1.1	90.0					
98.4	98.4	98.4	98.4	0.1	0.1	0.71	90.0	1.1	90.0	89.8	0.19	468.131		
100.0	100.0	100.0	100.0	0.1	0.1	0.71	90.0	1.1	90.0	89.8	0.20	460.207		
196.8	196.8	196.8	196.8	0.3	0.3	0.71	90.0	1.1	90.0	89.4	0.63	142.637		
200.0	200.0	200.0	200.0	0.3	0.3	0.71	90.0	1.1	90.0	89.3	0.65	139.506		
295.3	295.3	295.3	295.3	0.5	0.5	0.71	90.0	1.1	90.0	88.9	1.07	83.841		
300.0	300.0	300.0	300.0	0.5	0.5	0.71	90.0	1.1	90.0	88.9	1.09	82.214		
393.7	393.7	393.7	393.7	0.8	0.8	0.71	90.0	1.1	90.0	88.5	1.52	59.368		
400.0	400.0	400.0	400.0	0.8	0.8	0.71	90.0	1.1	90.0	88.4	1.54	58.280		
492.1	492.1	492.1	492.1	1.0	1.0	0.71	90.0	1.1	90.0	88.0	1.96	45.955		
500.0	500.0	500.0	500.0	1.0	1.0	0.71	90.0	1.1	90.0	88.0	1.99	45.139		
590.5	590.5	590.5	590.5	1.2	1.2	0.71	90.0	1.1	90.0	87.6	2.40	37.485		
600.0	600.0	600.0	600.0	1.2	1.2	0.71	90.0	1.1	90.0	87.5	2.44	36.834		
689.0	689.0	689.0	689.0	1.4	1.4	0.71	90.0	1.1	90.0	87.1	2.84	31.652		
700.0	700.0	700.0	700.0	1.4	1.4	0.71	90.0	1.1	90.0	87.1	2.89	31.110		
787.4	787.4	787.4	787.4	1.6	1.6	0.71	90.0	1.1	90.0	86.7	3.29	27.390		
800.0	800.0	800.0	800.0	1.7	1.7	0.71	90.0	1.1	90.0	86.6	3.34	26.925		
885.8	885.8	885.8	885.8	1.9	1.9	0.71	90.0	1.1	90.0	86.3	3.73	24.139		
900.0	900.0	900.0	900.0	1.9	1.9	0.71	90.0	1.1	90.0	86.2	3.79	23.733		
984.2	984.2	984.2	984.2	2.1	2.1	0.71	90.0	1.1	90.0	85.8	4.17	21.578		
1,000.0	1,000.0	1,000.0	1,000.0	2.1	2.1	0.71	90.0	1.1	90.0	85.8	4.24	21.218		
1,082.7	1,082.7	1,082.7	1,082.7	2.3	2.3	0.71	90.0	1.1	90.0	85.4	4.61	19.508		
1,100.0	1,100.0	1,100.0	1,100.0	2.3	2.3	0.71	90.0	1.1	90.0	85.3	4.69	19.185 CC, ES		
1,181.1	1,181.1	1,178.9	1,178.9	2.5	2.5	1.03	90.9	1.6	91.0	85.9	5.05	18.020		
1,200.0	1,200.0	1,197.3	1,197.2	2.6	2.6	1.20	91.4	1.9	91.5	86.4	5.13	17.827		
1,279.5	1,279.5	1,274.5	1,274.4	2.7	2.7	2.22	94.6	3.7	94.9	89.4	5.48	17.300		
1,300.0	1,300.0	1,294.3	1,294.2	2.8	2.8	2.56	95.8	4.3	96.0	90.5	5.57	17.232		
1,377.9	1,377.9	1,369.6	1,369.2	3.0	3.0	-114.98	101.1	7.2	102.2	96.3	5.91	17.291		
1,400.0	1,400.0	1,390.9	1,390.4	3.0	3.0	-114.79	102.9	8.2	104.4	98.4	6.00	17.393		
1,476.4	1,476.3	1,464.1	1,463.2	3.1	3.2	-114.45	110.3	12.2	113.9	107.5	6.32	18.012		
1,500.0	1,499.8	1,486.7	1,485.5	3.2	3.2	-114.45	112.8	13.6	117.3	110.9	6.42	18.274		
1,574.8	1,574.4	1,557.6	1,555.7	3.3	3.4	-114.66	122.0	18.6	129.8	123.1	6.74	19.260		
1,600.0	1,599.5	1,581.4	1,579.1	3.4	3.5	-114.79	125.4	20.5	134.6	127.8	6.85	19.652		
1,673.2	1,672.2	1,649.9	1,646.5	3.6	3.7	-115.31	136.1	26.4	150.1	142.9	7.18	20.900		
1,700.0	1,698.7	1,674.7	1,670.9	3.6	3.8	-115.53	140.4	28.7	156.3	149.0	7.30	21.408		
1,771.6	1,769.5	1,742.8	1,737.4	3.8	4.0	-116.25	152.7	35.5	174.2	166.6	7.65	22.788		
1,800.0	1,797.5	1,770.1	1,764.2	3.9	4.1	-116.61	157.7	38.2	181.6	173.8	7.78	23.332		
1,870.1	1,866.3	1,837.4	1,830.1	4.1	4.3	-117.66	169.9	44.9	200.4	192.3	8.14	24.606		
1,900.2	1,895.8	1,866.3	1,858.3	4.2	4.4	-118.16	175.2	47.8	208.8	200.5	8.30	25.155		
1,968.5	1,962.6	1,931.6	1,922.2	4.4	4.6	-119.55	187.1	54.4	228.0	219.3	8.68	26.267		
2,000.0	1,993.4	1,961.8	1,951.7	4.5	4.7	-120.11	192.6	57.4	236.9	228.0	8.86	26.747		
2,066.9	2,058.9	2,025.8	2,014.3	4.7	5.0	-121.18	204.3	63.8	255.8	246.6	9.24	27.681		
2,100.0	2,091.2	2,057.5	2,045.3	4.8	5.1	-121.65	210.1	66.9	265.2	255.8	9.43	28.113		
2,165.3	2,155.2	2,120.0	2,106.4	5.1	5.3	-122.49	221.5	73.2	283.8	274.0	9.82	28.889		
2,200.0	2,189.1	2,153.1	2,138.9	5.2	5.5	-122.89	227.5	76.5	293.7	283.6	10.03	29.276		
2,263.8	2,251.4	2,214.2	2,198.5	5.5	5.7	-123.57	238.6	82.6	311.9	301.5	10.42	29.928		
2,300.0	2,286.9	2,248.8	2,232.5	5.6	5.8	-123.92	245.0	86.1	322.3	311.6	10.65	30.273		
2,362.2	2,347.7	2,308.3	2,290.7	5.8	6.1	-124.47	255.8	92.0	340.1	329.1	11.03	30.820		
2,400.0	2,384.7	2,344.5	2,326.0	6.0	6.2	-124.77	262.4	95.6	350.9	339.7	11.27	31.132		
2,460.6	2,444.0	2,402.5	2,382.8	6.2	6.5	-125.23	273.0	101.4	368.4	356.7	11.66	31.594		
2,500.0	2,482.5	2,440.2	2,419.6	6.4	6.6	-125.50	279.9	105.2	379.7	367.8	11.91	31.876		
2,559.0	2,540.3	2,496.7	2,474.9	6.6	6.8	-125.88	290.2	110.8	396.7	384.4	12.29	32.268		

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

Anticollision Report



Company:	PDC ENERGY	Local Co-ordinate Reference:	Well WACKER 10G-214
Project:	WELD COUNTY, COLORADO	TVD Reference:	KB-EST @ 4624.0usft (Original Well Elev)
Reference Site:	SW NW SEC. 10 T5N R64W 6th P.M.	MD Reference:	KB-EST @ 4624.0usft (Original Well Elev)
Site Error:	0.0 usft	North Reference:	True
Reference Well:	WACKER 10G-214	Survey Calculation Method:	Minimum Curvature
Well Error:	0.0 usft	Output errors are at	2.00 sigma
Reference Wellbore	ORIGINAL WELLBORE	Database:	EDM 5000.1 Single User Db
Reference Design:	PROPOSAL #1	Offset TVD Reference:	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	2,580.3	2,535.9	2,513.2	6.8	7.0	-126.13	297.3	114.8	408.4	395.9	12.56	32.525	
2,657.5	2,636.5	2,590.9	2,567.0	7.1	7.2	-126.45	307.3	120.3	425.0	412.1	12.93	32.859	
2,700.0	2,678.1	2,631.6	2,606.8	7.2	7.4	-126.67	314.8	124.3	437.3	424.1	13.21	33.093	
2,755.9	2,732.8	2,685.0	2,659.1	7.5	7.6	-126.94	324.5	129.7	453.4	439.8	13.58	33.380	
2,800.0	2,775.9	2,727.2	2,700.4	7.7	7.8	-127.15	332.2	133.9	466.1	452.2	13.87	33.594	
2,854.3	2,829.1	2,779.2	2,751.2	7.9	8.0	-127.38	341.7	139.1	481.8	467.6	14.24	33.841	
2,900.0	2,873.8	2,822.9	2,794.0	8.1	8.2	-127.57	349.7	143.4	495.0	480.5	14.54	34.038	
2,952.7	2,925.4	2,873.4	2,843.4	8.3	8.4	-127.77	358.9	148.5	510.2	495.3	14.90	34.252	
2,953.5	2,926.1	2,874.1	2,844.0	8.3	8.4	-127.77	359.0	148.6	510.4	495.5	14.90	34.254	
3,000.0	2,971.6	2,918.7	2,887.6	8.5	8.6	-128.12	367.1	153.0	523.7	508.5	15.22	34.417	
3,051.2	3,022.0	2,967.9	2,935.8	8.7	8.8	-128.42	376.1	157.9	537.7	522.2	15.54	34.606	
3,100.0	3,070.1	3,015.0	2,981.8	8.8	9.0	-128.61	384.7	162.6	550.6	534.7	15.85	34.745	
3,149.6	3,119.1	3,062.9	3,028.8	8.9	9.2	-128.73	393.4	167.4	563.1	547.0	16.15	34.871	
3,200.0	3,169.1	3,111.8	3,076.6	9.1	9.4	-128.78	402.3	172.3	575.4	558.9	16.46	34.962	
3,248.0	3,216.8	3,158.5	3,122.2	9.2	9.6	-128.76	410.9	177.0	586.5	569.8	16.74	35.041	
3,300.0	3,268.5	3,209.1	3,171.7	9.3	9.9	-128.66	420.1	182.1	598.1	581.0	17.04	35.094	
3,346.4	3,314.8	3,254.4	3,216.0	9.4	10.1	-128.52	428.3	186.6	607.9	590.6	17.30	35.138	
3,400.0	3,368.3	3,306.6	3,267.1	9.6	10.3	-128.28	437.9	191.8	618.7	601.1	17.60	35.160	
3,444.9	3,413.1	3,350.5	3,310.0	9.6	10.5	-128.04	445.9	196.2	627.3	609.5	17.83	35.179	
3,500.0	3,468.2	3,404.4	3,362.7	9.7	10.7	-127.67	455.7	201.6	637.4	619.3	18.12	35.177	
3,543.3	3,511.5	3,446.7	3,404.2	9.8	10.9	-127.34	463.4	205.8	644.9	626.5	18.33	35.177	
3,553.7	3,521.9	3,456.9	3,414.1	9.8	10.9	-8.60	465.3	206.8	646.6	628.1	18.46	35.024	
3,600.0	3,568.2	3,502.2	3,458.4	9.9	11.1	-8.10	473.5	211.4	654.3	635.6	18.72	34.956	
3,641.7	3,609.9	3,543.0	3,498.3	10.0	11.3	-7.65	481.0	215.4	661.4	642.4	18.96	34.890	
3,700.0	3,668.2	3,600.0	3,554.1	10.1	11.5	-7.04	491.4	221.1	671.2	651.9	19.29	34.802	
3,740.1	3,708.4	3,639.3	3,592.5	10.1	11.7	-6.63	498.5	225.1	678.1	658.6	19.52	34.740	
3,800.0	3,768.2	3,697.8	3,649.8	10.2	12.0	-6.04	509.2	230.9	688.3	668.5	19.86	34.652	
3,838.6	3,806.8	3,735.6	3,686.7	10.3	12.1	-5.66	516.1	234.7	695.0	674.9	20.09	34.595	
3,900.0	3,868.2	3,795.6	3,745.4	10.4	12.4	-5.08	527.1	240.7	705.6	685.2	20.45	34.508	
3,937.0	3,905.2	3,831.8	3,780.8	10.5	12.6	-4.74	533.7	244.3	712.1	691.4	20.67	34.456	
4,000.0	3,968.2	3,893.5	3,841.1	10.6	12.8	-4.17	544.9	250.5	723.1	702.1	21.04	34.369	
4,035.4	4,003.6	3,928.1	3,875.0	10.6	13.0	-3.86	551.2	253.9	729.4	708.1	21.25	34.321	
4,100.0	4,068.2	3,991.3	3,936.8	10.7	13.3	-3.30	562.7	260.2	740.8	719.1	21.64	34.236	
4,133.8	4,102.1	4,024.4	3,969.2	10.8	13.4	-3.02	568.8	263.5	746.8	725.0	21.84	34.192	
4,200.0	4,168.2	4,097.7	4,040.9	10.9	13.7	-2.41	581.9	270.8	758.4	736.2	22.26	34.072	
4,232.3	4,200.5	4,138.8	4,081.3	11.0	13.8	-2.11	588.7	274.5	763.7	741.2	22.45	34.011	
4,300.0	4,268.2	4,225.7	4,167.0	11.1	14.1	-1.55	601.4	281.4	773.4	750.5	22.85	33.847	
4,330.7	4,298.9	4,265.4	4,206.3	11.1	14.2	-1.34	606.4	284.2	777.2	754.2	23.02	33.761	
4,400.0	4,368.2	4,355.5	4,295.7	11.3	14.4	-0.94	616.0	289.4	784.6	761.2	23.39	33.540	
4,429.1	4,397.3	4,393.6	4,333.6	11.3	14.5	-0.80	619.3	291.3	787.1	763.5	23.54	33.433	
4,500.0	4,468.2	4,466.6	4,426.4	11.4	14.7	-0.54	625.6	294.7	791.8	767.9	23.88	33.159	
4,527.5	4,495.8	4,522.9	4,462.6	11.5	14.8	-0.47	627.3	295.6	793.1	769.1	24.00	33.044	
4,600.0	4,568.2	4,618.4	4,558.1	11.6	14.9	-0.37	629.9	297.1	795.1	770.8	24.31	32.712	
4,626.0	4,594.2	4,652.7	4,592.4	11.7	15.0	-0.36	630.2	297.2	795.3	770.9	24.41	32.585	
4,700.0	4,668.2	4,728.6	4,668.2	11.8	15.1	-0.36	630.2	297.2	795.3	770.6	24.67	32.241	
4,724.4	4,692.6	4,753.0	4,692.6	11.9	15.1	-0.36	630.2	297.2	795.3	770.5	24.75	32.128	
4,800.0	4,768.2	4,828.6	4,768.2	12.0	15.2	-0.36	630.2	297.2	795.3	770.3	25.02	31.781	
4,822.8	4,791.0	4,851.4	4,791.0	12.0	15.3	-0.36	630.2	297.2	795.3	770.2	25.11	31.677	
4,900.0	4,868.2	4,928.6	4,868.2	12.2	15.4	-0.36	630.2	297.2	795.3	769.9	25.38	31.331	
4,921.2	4,889.5	4,949.8	4,889.5	12.2	15.4	-0.36	630.2	297.2	795.3	769.8	25.46	31.236	
5,000.0	4,968.2	5,028.6	4,968.2	12.4	15.5	-0.36	630.2	297.2	795.3	769.6	25.75	30.890	
5,019.7	4,987.9	5,048.2	4,987.9	12.4	15.6	-0.36	630.2	297.2	795.3	769.5	25.82	30.805	

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

Anticollision Report



Company:	PDC ENERGY	Local Co-ordinate Reference:	Well WACKER 10G-214
Project:	WELD COUNTY, COLORADO	TVD Reference:	KB-EST @ 4624.0usft (Original Well Elev)
Reference Site:	SW NW SEC. 10 T5N R64W 6th P.M.	MD Reference:	KB-EST @ 4624.0usft (Original Well Elev)
Site Error:	0.0 usft	North Reference:	True
Reference Well:	WACKER 10G-214	Survey Calculation Method:	Minimum Curvature
Well Error:	0.0 usft	Output errors are at	2.00 sigma
Reference Wellbore	ORIGINAL WELLBORE	Database:	EDM 5000.1 Single User Db
Reference Design:	PROPOSAL #1	Offset TVD Reference:	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	5,068.2	5,128.6	5,068.2	12.6	15.7	-0.36	630.2	297.2	795.3	769.2	26.11	30.459	
5,118.1	5,086.3	5,146.7	5,086.3	12.6	15.7	-0.36	630.2	297.2	795.3	769.1	26.18	30.382	
5,200.0	5,168.2	5,228.6	5,168.2	12.7	15.8	-0.36	630.2	297.2	795.3	768.8	26.48	30.037	
5,216.5	5,184.7	5,245.1	5,184.7	12.8	15.9	-0.36	630.2	297.2	795.3	768.8	26.54	29.968	
5,300.0	5,268.2	5,328.6	5,268.2	12.9	16.0	-0.36	630.2	297.2	795.3	768.5	26.85	29.623	
5,314.9	5,283.2	5,343.5	5,283.2	13.0	16.0	-0.36	630.2	297.2	795.3	768.4	26.90	29.562	
5,400.0	5,368.2	5,428.6	5,368.2	13.1	16.1	-0.36	630.2	297.2	795.3	768.1	27.22	29.219	
5,413.4	5,381.6	5,441.9	5,381.6	13.2	16.2	-0.36	630.2	297.2	795.3	768.0	27.27	29.166	
5,500.0	5,468.2	5,528.6	5,468.2	13.3	16.3	-0.36	630.2	297.2	795.3	767.7	27.59	28.823	
5,511.8	5,480.0	5,540.4	5,480.0	13.3	16.3	-0.36	630.2	297.2	795.3	767.7	27.64	28.777	
5,600.0	5,568.2	5,628.6	5,568.2	13.5	16.5	-0.36	630.2	297.2	795.3	767.3	27.97	28.436	
5,610.2	5,578.4	5,638.8	5,578.4	13.5	16.5	-0.36	630.2	297.2	795.3	767.3	28.01	28.397	
5,700.0	5,668.2	5,728.6	5,668.2	13.7	16.6	-0.36	630.2	297.2	795.3	767.0	28.35	28.057	
5,708.6	5,676.9	5,737.2	5,676.9	13.7	16.6	-0.36	630.2	297.2	795.3	766.9	28.38	28.025	
5,800.0	5,768.2	5,828.6	5,768.2	13.9	16.8	-0.36	630.2	297.2	795.3	766.6	28.73	27.686	
5,807.1	5,775.3	5,835.6	5,775.3	13.9	16.8	-0.36	630.2	297.2	795.3	766.5	28.75	27.660	
5,900.0	5,868.2	5,928.6	5,868.2	14.1	17.0	-0.36	630.2	297.2	795.3	766.2	29.11	27.323	
5,905.5	5,873.7	5,934.1	5,873.7	14.1	17.0	-0.36	630.2	297.2	795.3	766.2	29.13	27.304	
5,960.7	5,928.9	5,989.3	5,928.9	14.2	17.1	-0.36	630.2	297.2	795.3	766.0	29.34	27.107	
6,000.0	5,968.2	6,028.5	5,968.2	14.3	17.1	89.72	630.2	297.2	795.3	766.8	28.54	27.869	
6,003.9	5,972.1	6,032.5	5,972.1	14.3	17.1	89.74	630.2	297.2	795.3	766.7	28.55	27.857	
6,046.7	6,014.7	6,075.1	6,014.7	14.3	17.2	90.00	630.2	297.0	795.3	766.6	28.68	27.734	
6,050.0	6,018.0	6,078.3	6,018.0	14.4	17.2	90.02	630.2	297.0	795.3	766.6	28.68	27.725	
6,100.0	6,067.3	6,128.3	6,067.8	14.4	17.3	90.37	630.2	293.9	795.3	766.5	28.79	27.621	
6,102.3	6,069.6	6,130.6	6,070.2	14.4	17.3	90.39	630.2	293.6	795.3	766.5	28.80	27.617	
6,150.0	6,116.0	6,178.6	6,117.7	14.4	17.3	90.72	630.2	287.3	795.3	766.5	28.87	27.549	
6,200.0	6,163.8	6,229.2	6,167.3	14.5	17.3	91.07	630.2	277.1	795.4	766.5	28.92	27.501	
6,200.8	6,164.5	6,230.0	6,168.1	14.5	17.3	91.08	630.2	276.9	795.4	766.5	28.92	27.500	
6,250.0	6,210.4	6,280.2	6,216.4	14.5	17.3	91.42	630.2	263.4	795.5	766.6	28.96	27.468	
6,299.2	6,254.9	6,330.8	6,264.0	14.5	17.4	91.75	630.2	246.3	795.7	766.7	29.00	27.439	
6,300.0	6,255.6	6,331.6	6,264.7	14.5	17.4	91.75	630.2	246.0	795.7	766.7	29.00	27.439	
6,350.0	6,299.3	6,383.3	6,312.0	14.5	17.3	92.08	630.2	225.1	795.8	766.8	29.04	27.401	
6,397.6	6,339.2	6,432.9	6,355.8	14.6	17.3	92.39	630.2	201.9	796.0	766.9	29.11	27.341	
6,400.0	6,341.2	6,435.4	6,358.0	14.6	17.3	92.41	630.2	200.6	796.0	766.9	29.12	27.338	
6,450.0	6,381.0	6,487.8	6,402.3	14.6	17.3	92.72	630.2	172.7	796.2	766.9	29.24	27.231	
6,496.0	6,415.8	6,536.4	6,441.5	14.7	17.3	92.99	630.2	144.0	796.4	767.0	29.41	27.075	
6,500.0	6,418.7	6,540.6	6,444.8	14.7	17.3	93.01	630.2	141.4	796.4	767.0	29.43	27.061	
6,550.0	6,453.9	6,593.7	6,485.1	14.8	17.3	93.30	630.2	106.8	796.6	766.9	29.72	26.807	
6,594.5	6,483.1	6,641.2	6,518.9	15.0	17.2	93.53	630.2	73.4	796.8	766.7	30.08	26.492	
6,600.0	6,486.6	6,647.1	6,522.9	15.1	17.2	93.56	630.2	69.1	796.8	766.7	30.12	26.453	
6,650.0	6,516.6	6,700.9	6,558.0	15.3	17.2	93.81	630.2	28.4	797.1	766.4	30.67	25.985	
6,692.9	6,540.0	6,747.2	6,585.8	15.7	17.2	94.01	630.2	-8.6	797.2	766.0	31.28	25.485	
6,700.0	6,543.7	6,754.9	6,590.2	15.7	17.2	94.04	630.2	-15.0	797.3	765.9	31.39	25.398	
6,750.0	6,567.8	6,809.2	6,619.1	16.2	17.2	94.25	630.2	-60.9	797.5	765.2	32.29	24.698	
6,791.3	6,585.4	6,854.3	6,640.4	16.7	17.2	94.41	630.2	-100.6	797.6	764.5	33.17	24.046	
6,800.0	6,588.8	6,863.7	6,644.5	16.8	17.3	94.44	630.2	-109.1	797.7	764.3	33.37	23.903	
6,850.0	6,606.6	6,918.5	6,666.3	17.4	17.6	94.60	630.2	-159.4	797.9	763.2	34.64	23.031	
6,889.7	6,618.4	6,962.2	6,680.9	18.0	18.2	94.71	630.2	-200.5	798.0	762.2	35.78	22.299	
6,900.0	6,621.1	6,973.4	6,684.2	18.2	18.3	94.74	630.2	-211.3	798.0	761.9	36.09	22.110	
6,950.0	6,632.2	7,028.6	6,698.2	19.0	19.2	94.85	630.2	-264.6	798.1	760.4	37.71	21.165	
6,988.2	6,638.4	7,070.7	6,706.0	19.7	19.9	94.92	630.2	-306.0	798.2	759.2	39.05	20.441	
7,000.0	6,639.9	7,083.8	6,708.0	19.9	20.1	94.94	630.2	-319.0	798.3	758.8	39.48	20.222	

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

Anticollision Report



Company:	PDC ENERGY	Local Co-ordinate Reference:	Well WACKER 10G-214
Project:	WELD COUNTY, COLORADO	TVD Reference:	KB-EST @ 4624.0usft (Original Well Elev)
Reference Site:	SW NW SEC. 10 T5N R64W 6th P.M.	MD Reference:	KB-EST @ 4624.0usft (Original Well Elev)
Site Error:	0.0 usft	North Reference:	True
Reference Well:	WACKER 10G-214	Survey Calculation Method:	Minimum Curvature
Well Error:	0.0 usft	Output errors are at	2.00 sigma
Reference Wellbore	ORIGINAL WELLBORE	Database:	EDM 5000.1 Single User Db
Reference Design:	PROPOSAL #1	Offset TVD Reference:	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	6,644.1	7,139.1	6,713.6	20.8	21.1	95.00	630.2	-374.0	798.3	757.0	41.36	19.300		
7,086.5	6,645.0	7,179.6	6,715.0	21.5	21.8	95.03	630.2	-414.5	798.4	755.6	42.81	18.650		
7,100.0	6,645.0	7,193.7	6,715.0	21.8	22.1	95.03	630.2	-428.5	798.4	755.0	43.34	18.421		
7,185.0	6,644.9	7,278.7	6,714.8	23.6	23.8	95.03	630.2	-513.5	798.4	751.6	46.79	17.062		
7,200.0	6,644.8	7,293.7	6,714.8	23.9	24.1	95.03	630.2	-528.5	798.4	751.0	47.40	16.843		
7,283.4	6,644.7	7,377.1	6,714.6	25.7	25.9	95.02	630.2	-611.9	798.4	747.3	51.02	15.649		
7,300.0	6,644.7	7,393.7	6,714.6	26.1	26.3	95.02	630.2	-628.5	798.4	746.6	51.74	15.431		
7,381.9	6,644.6	7,475.5	6,714.4	28.0	28.1	95.02	630.2	-710.4	798.3	742.9	55.47	14.393		
7,400.0	6,644.6	7,493.7	6,714.4	28.4	28.5	95.02	630.2	-728.5	798.3	742.1	56.29	14.182		
7,480.3	6,644.5	7,574.0	6,714.2	30.3	30.4	95.02	630.2	-808.8	798.3	738.2	60.09	13.285		
7,500.0	6,644.4	7,593.7	6,714.2	30.8	30.9	95.01	630.2	-828.5	798.3	737.3	61.03	13.082		
7,578.7	6,644.3	7,672.4	6,714.1	32.7	32.8	95.01	630.2	-907.2	798.3	733.5	64.86	12.309		
7,600.0	6,644.3	7,693.7	6,714.0	33.3	33.3	95.01	630.2	-928.5	798.3	732.4	65.90	12.115		
7,677.1	6,644.2	7,770.8	6,713.9	35.2	35.2	95.01	630.2	-1,005.6	798.3	728.6	69.74	11.448		
7,700.0	6,644.1	7,793.7	6,713.8	35.8	35.7	95.01	630.2	-1,028.5	798.3	727.5	70.87	11.264		
7,775.6	6,644.0	7,869.2	6,713.7	37.7	37.6	95.00	630.2	-1,104.1	798.3	723.6	74.70	10.687		
7,800.0	6,644.0	7,893.7	6,713.6	38.3	38.3	95.00	630.2	-1,128.5	798.3	722.4	75.94	10.513		
7,874.0	6,643.9	7,967.7	6,713.5	40.2	40.2	95.00	630.2	-1,202.5	798.3	718.6	79.74	10.012		
7,900.0	6,643.9	7,993.7	6,713.4	40.9	40.8	95.00	630.2	-1,228.5	798.3	717.2	81.07	9.847		
7,972.4	6,643.8	8,066.1	6,713.3	42.8	42.7	95.00	630.2	-1,300.9	798.3	713.5	84.83	9.410		
8,000.0	6,643.7	8,093.7	6,713.2	43.5	43.4	94.99	630.2	-1,328.5	798.3	712.0	86.27	9.254		
8,070.8	6,643.6	8,164.5	6,713.1	45.4	45.3	94.99	630.2	-1,399.3	798.3	708.3	89.98	8.872		
8,100.0	6,643.6	8,193.7	6,713.0	46.2	46.0	94.99	630.2	-1,428.5	798.3	706.8	91.51	8.724		
8,169.3	6,643.5	8,262.9	6,712.9	48.0	47.8	94.99	630.2	-1,497.8	798.3	703.1	95.17	8.388		
8,200.0	6,643.5	8,293.7	6,712.8	48.8	48.6	94.99	630.2	-1,528.5	798.3	701.5	96.79	8.248		
8,267.7	6,643.4	8,361.4	6,712.7	50.6	50.4	94.98	630.2	-1,596.2	798.3	697.9	100.39	7.952		
8,300.0	6,643.3	8,393.7	6,712.7	51.5	51.3	94.98	630.2	-1,628.5	798.3	696.2	102.11	7.818		
8,366.1	6,643.2	8,459.8	6,712.5	53.3	53.1	94.98	630.2	-1,694.6	798.3	692.7	105.64	7.557		
8,400.0	6,643.2	8,493.7	6,712.5	54.2	54.0	94.98	630.2	-1,728.5	798.3	690.8	107.45	7.429		
8,464.5	6,643.1	8,558.2	6,712.3	55.9	55.7	94.97	630.2	-1,793.0	798.3	687.4	110.92	7.197		
8,500.0	6,643.1	8,593.7	6,712.3	56.9	56.6	94.97	630.2	-1,828.5	798.3	685.5	112.82	7.076		
8,563.0	6,643.0	8,656.6	6,712.1	58.6	58.3	94.97	630.2	-1,891.5	798.3	682.1	116.22	6.869		
8,600.0	6,642.9	8,693.7	6,712.1	59.6	59.3	94.97	630.2	-1,928.5	798.3	680.1	118.22	6.753		
8,661.4	6,642.8	8,755.1	6,712.0	61.3	61.0	94.97	630.2	-1,989.9	798.3	676.7	121.54	6.568		
8,700.0	6,642.8	8,793.7	6,711.9	62.3	62.0	94.96	630.2	-2,028.5	798.3	674.7	123.63	6.457		
8,759.8	6,642.7	8,853.5	6,711.8	64.0	63.7	94.96	630.2	-2,088.3	798.3	671.4	126.87	6.292		
8,800.0	6,642.7	8,893.7	6,711.7	65.1	64.8	94.96	630.2	-2,128.5	798.3	669.2	129.05	6.186		
8,858.2	6,642.6	8,951.9	6,711.6	66.6	66.3	94.96	630.2	-2,186.7	798.3	666.0	132.22	6.037		
8,900.0	6,642.5	8,993.7	6,711.5	67.8	67.5	94.96	630.2	-2,228.5	798.3	663.8	134.49	5.935		
8,956.7	6,642.4	9,050.3	6,711.4	69.3	69.0	94.95	630.2	-2,285.2	798.3	660.7	137.59	5.802		
9,000.0	6,642.4	9,093.7	6,711.3	70.5	70.2	94.95	630.2	-2,328.5	798.3	658.3	139.95	5.704		
9,055.1	6,642.3	9,148.8	6,711.2	72.0	71.7	94.95	630.2	-2,383.6	798.3	655.3	142.96	5.584		
9,100.0	6,642.3	9,193.7	6,711.1	73.3	72.9	94.95	630.2	-2,428.5	798.3	652.8	145.41	5.490		
9,153.5	6,642.2	9,247.2	6,711.0	74.7	74.4	94.95	630.2	-2,482.0	798.3	649.9	148.35	5.381		
9,200.0	6,642.1	9,293.7	6,710.9	76.0	75.7	94.94	630.2	-2,528.5	798.3	647.4	150.89	5.290		
9,251.9	6,642.1	9,345.6	6,710.8	77.5	77.1	94.94	630.2	-2,580.4	798.3	644.5	153.74	5.192		
9,300.0	6,642.0	9,393.7	6,710.7	78.8	78.4	94.94	630.2	-2,628.5	798.3	641.9	156.38	5.105		
9,350.4	6,641.9	9,444.0	6,710.6	80.2	79.8	94.94	630.2	-2,678.9	798.2	639.1	159.14	5.016		
9,400.0	6,641.9	9,493.7	6,710.5	81.5	81.2	94.94	630.2	-2,728.5	798.2	636.4	161.87	4.931		
9,448.8	6,641.8	9,542.5	6,710.4	82.9	82.5	94.93	630.2	-2,777.3	798.2	633.7	164.55	4.851		
9,500.0	6,641.7	9,593.7	6,710.3	84.3	83.9	94.93	630.2	-2,828.5	798.2	630.9	167.37	4.769		
9,547.2	6,641.7	9,640.9	6,710.2	85.6	85.2	94.93	630.2	-2,875.7	798.2	628.3	169.97	4.696		

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

Anticollision Report



Company:	PDC ENERGY	Local Co-ordinate Reference:	Well WACKER 10G-214
Project:	WELD COUNTY, COLORADO	TVD Reference:	KB-EST @ 4624.0usft (Original Well Elev)
Reference Site:	SW NW SEC. 10 T5N R64W 6th P.M.	MD Reference:	KB-EST @ 4624.0usft (Original Well Elev)
Site Error:	0.0 usft	North Reference:	True
Reference Well:	WACKER 10G-214	Survey Calculation Method:	Minimum Curvature
Well Error:	0.0 usft	Output errors are at	2.00 sigma
Reference Wellbore	ORIGINAL WELLBORE	Database:	EDM 5000.1 Single User Db
Reference Design:	PROPOSAL #1	Offset TVD Reference:	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	
9,600.0	6,641.6	9,693.7	6,710.1	87.1	86.7	94.93	630.2	-2,928.5	798.2	625.4	172.88	4.617	
9,645.6	6,641.5	9,739.3	6,710.1	88.3	87.9	94.92	630.2	-2,974.1	798.2	622.8	175.39	4.551	
9,700.0	6,641.5	9,793.7	6,710.0	89.8	89.4	94.92	630.2	-3,028.5	798.2	619.8	178.39	4.475	
9,744.1	6,641.4	9,837.7	6,709.9	91.0	90.6	94.92	630.2	-3,072.6	798.2	617.4	180.82	4.414	
9,800.0	6,641.3	9,893.7	6,709.8	92.6	92.2	94.92	630.2	-3,128.5	798.2	614.3	183.91	4.340	
9,842.5	6,641.3	9,936.2	6,709.7	93.8	93.4	94.92	630.2	-3,171.0	798.2	612.0	186.25	4.286	
9,900.0	6,641.2	9,993.7	6,709.6	95.4	95.0	94.91	630.2	-3,228.5	798.2	608.8	189.43	4.214	
9,940.9	6,641.1	10,034.6	6,709.5	96.5	96.1	94.91	630.2	-3,269.4	798.2	606.5	191.69	4.164	
10,000.0	6,641.1	10,093.7	6,709.4	98.1	97.7	94.91	630.2	-3,328.5	798.2	603.3	194.96	4.094	
10,039.3	6,641.0	10,133.0	6,709.3	99.2	98.8	94.91	630.2	-3,367.8	798.2	601.1	197.14	4.049	
10,100.0	6,640.9	10,193.7	6,709.2	100.9	100.5	94.90	630.2	-3,428.5	798.2	597.7	200.49	3.981	
10,137.8	6,640.9	10,231.4	6,709.1	102.0	101.5	94.90	630.2	-3,466.3	798.2	595.6	202.58	3.940	
10,200.0	6,640.8	10,293.7	6,709.0	103.7	103.3	94.90	630.2	-3,528.5	798.2	592.2	206.03	3.874	
10,236.2	6,640.8	10,329.9	6,708.9	104.7	104.3	94.90	630.2	-3,564.7	798.2	590.2	208.03	3.837	
10,300.0	6,640.7	10,393.7	6,708.8	106.5	106.0	94.90	630.2	-3,628.5	798.2	586.6	211.57	3.773	
10,334.6	6,640.6	10,428.3	6,708.7	107.4	107.0	94.89	630.2	-3,663.1	798.2	584.7	213.49	3.739	
10,400.0	6,640.6	10,493.7	6,708.6	109.3	108.8	94.89	630.2	-3,728.5	798.2	581.1	217.11	3.676	
10,433.0	6,640.5	10,526.7	6,708.6	110.2	109.7	94.89	630.2	-3,761.5	798.2	579.2	218.94	3.646	
10,500.0	6,640.4	10,593.7	6,708.4	112.0	111.6	94.89	630.2	-3,828.5	798.2	575.5	222.66	3.585	
10,531.5	6,640.4	10,625.1	6,708.4	112.9	112.5	94.89	630.2	-3,860.0	798.2	573.8	224.40	3.557	
10,600.0	6,640.3	10,693.7	6,708.2	114.8	114.4	94.88	630.2	-3,928.5	798.2	570.0	228.21	3.498	
10,629.9	6,640.3	10,723.6	6,708.2	115.7	115.2	94.88	630.2	-3,958.4	798.2	568.3	229.87	3.472	
10,700.0	6,640.2	10,793.7	6,708.0	117.6	117.2	94.88	630.2	-4,028.5	798.2	564.4	233.76	3.415	
10,728.3	6,640.1	10,822.0	6,708.0	118.4	117.9	94.88	630.2	-4,056.8	798.2	562.8	235.33	3.392	
10,800.0	6,640.0	10,893.7	6,707.9	120.4	119.9	94.87	630.2	-4,128.5	798.2	558.9	239.31	3.335	
10,826.7	6,640.0	10,920.4	6,707.8	121.2	120.7	94.87	630.2	-4,155.2	798.2	557.4	240.80	3.315	
10,900.0	6,639.9	10,993.7	6,707.7	123.2	122.7	94.87	630.2	-4,228.5	798.2	553.3	244.87	3.260	
10,925.2	6,639.9	11,018.8	6,707.6	123.9	123.4	94.87	630.2	-4,253.7	798.2	551.9	246.27	3.241	
11,000.0	6,639.8	11,093.7	6,707.5	126.0	125.5	94.86	630.2	-4,328.5	798.2	547.7	250.43	3.187	
11,023.6	6,639.8	11,117.3	6,707.4	126.6	126.2	94.86	630.2	-4,352.1	798.2	546.4	251.74	3.171	
11,100.0	6,639.7	11,193.7	6,707.3	128.8	128.3	94.86	630.2	-4,428.5	798.2	542.2	255.99	3.118	
11,122.0	6,639.6	11,215.7	6,707.2	129.4	128.9	94.86	630.2	-4,450.5	798.2	540.9	257.21	3.103	
11,200.0	6,639.5	11,293.7	6,707.1	131.6	131.1	94.86	630.2	-4,528.5	798.2	536.6	261.55	3.052	
11,220.4	6,639.5	11,314.1	6,707.1	132.1	131.7	94.85	630.2	-4,548.9	798.2	535.5	262.69	3.038	
11,300.0	6,639.4	11,393.7	6,706.9	134.4	133.9	94.85	630.2	-4,628.5	798.1	531.0	267.11	2.988	
11,318.9	6,639.4	11,412.5	6,706.9	134.9	134.4	94.85	630.2	-4,647.4	798.1	530.0	268.17	2.976	
11,400.0	6,639.3	11,493.7	6,706.7	137.1	136.7	94.85	630.2	-4,728.5	798.1	525.5	272.68	2.927	
11,417.3	6,639.3	11,511.0	6,706.7	137.6	137.1	94.85	630.2	-4,745.8	798.1	524.5	273.64	2.917	
11,500.0	6,639.2	11,593.7	6,706.5	139.9	139.5	94.84	630.2	-4,828.5	798.1	519.9	278.25	2.868	
11,515.7	6,639.1	11,609.4	6,706.5	140.4	139.9	94.84	630.2	-4,844.2	798.1	519.0	279.12	2.859	
11,600.0	6,639.0	11,693.7	6,706.3	142.7	142.2	94.84	630.2	-4,928.5	798.1	514.3	283.82	2.812	
11,614.1	6,639.0	11,707.8	6,706.3	143.1	142.6	94.84	630.2	-4,942.6	798.1	513.5	284.61	2.804	
11,700.0	6,638.9	11,793.7	6,706.1	145.5	145.0	94.83	630.2	-5,028.5	798.1	508.7	289.39	2.758	
11,712.6	6,638.9	11,806.2	6,706.1	145.9	145.4	94.83	630.2	-5,041.1	798.1	508.0	290.09	2.751	
11,800.0	6,638.8	11,893.7	6,706.0	148.3	147.8	94.83	630.2	-5,128.5	798.1	503.2	294.96	2.706	
11,811.0	6,638.8	11,904.7	6,705.9	148.6	148.1	94.83	630.2	-5,139.5	798.1	502.5	295.57	2.700	
11,900.0	6,638.7	11,993.7	6,705.8	151.1	150.6	94.82	630.2	-5,228.5	798.1	497.6	300.53	2.656	
11,909.4	6,638.6	12,003.1	6,705.7	151.4	150.9	94.82	630.2	-5,237.9	798.1	497.1	301.06	2.651	
12,000.0	6,638.5	12,093.7	6,705.6	153.9	153.4	94.82	630.2	-5,328.5	798.1	492.0	306.11	2.607	
12,007.8	6,638.5	12,101.5	6,705.6	154.1	153.6	94.82	630.2	-5,336.3	798.1	491.6	306.55	2.604	
12,100.0	6,638.4	12,193.7	6,705.4	156.7	156.2	94.81	630.2	-5,428.5	798.1	486.4	311.68	2.561	
12,106.3	6,638.4	12,199.9	6,705.4	156.9	156.4	94.81	630.2	-5,434.7	798.1	486.1	312.03	2.558	

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

Anticollision Report



Company:	PDC ENERGY	Local Co-ordinate Reference:	Well WACKER 10G-214
Project:	WELD COUNTY, COLORADO	TVD Reference:	KB-EST @ 4624.0usft (Original Well Elev)
Reference Site:	SW NW SEC. 10 T5N R64W 6th P.M.	MD Reference:	KB-EST @ 4624.0usft (Original Well Elev)
Site Error:	0.0 usft	North Reference:	True
Reference Well:	WACKER 10G-214	Survey Calculation Method:	Minimum Curvature
Well Error:	0.0 usft	Output errors are at	2.00 sigma
Reference Wellbore	ORIGINAL WELLBORE	Database:	EDM 5000.1 Single User Db
Reference Design:	PROPOSAL #1	Offset TVD Reference:	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	
12,200.0	6,638.3	12,293.7	6,705.2	159.5	159.0	94.81	630.2	-5,528.5	798.1	480.8	317.26	2.516	
12,204.7	6,638.3	12,298.4	6,705.2	159.6	159.1	94.81	630.2	-5,533.2	798.1	480.6	317.52	2.514	
12,300.0	6,638.2	12,393.7	6,705.0	162.3	161.8	94.80	630.2	-5,628.5	798.1	475.3	322.84	2.472	
12,303.1	6,638.2	12,396.8	6,705.0	162.4	161.9	94.80	630.2	-5,631.6	798.1	475.1	323.01	2.471	
12,400.0	6,638.0	12,493.7	6,704.8	165.1	164.6	94.80	630.2	-5,728.5	798.1	469.7	328.42	2.430	
12,401.5	6,638.0	12,495.2	6,704.8	165.2	164.6	94.80	630.2	-5,730.0	798.1	469.6	328.50	2.429	
12,500.0	6,637.9	12,593.7	6,704.6	167.9	167.4	94.79	630.2	-5,828.5	798.1	464.1	334.00	2.389	
12,598.4	6,637.8	12,692.1	6,704.5	170.7	170.1	94.79	630.2	-5,926.9	798.1	458.6	339.49	2.351	
12,600.0	6,637.8	12,693.7	6,704.4	170.7	170.2	94.79	630.2	-5,928.5	798.1	458.5	339.58	2.350	
12,696.8	6,637.7	12,790.5	6,704.3	173.4	172.9	94.79	630.2	-6,025.3	798.1	453.1	344.98	2.313	
12,700.0	6,637.7	12,793.7	6,704.3	173.5	173.0	94.79	630.2	-6,028.5	798.1	452.9	345.16	2.312	
12,795.2	6,637.6	12,888.9	6,704.1	176.2	175.6	94.78	630.2	-6,123.7	798.1	447.6	350.48	2.277	
12,800.0	6,637.6	12,893.7	6,704.1	176.3	175.8	94.78	630.2	-6,128.5	798.1	447.3	350.74	2.275	
12,893.7	6,637.4	12,987.3	6,703.9	178.9	178.4	94.78	630.2	-6,222.1	798.1	442.1	355.97	2.242	
12,900.0	6,637.4	12,993.7	6,703.9	179.1	178.6	94.78	630.2	-6,228.5	798.1	441.7	356.33	2.240	
12,992.1	6,637.3	13,085.8	6,703.7	181.7	181.2	94.77	630.2	-6,320.6	798.1	436.6	361.47	2.208	
13,000.0	6,637.3	13,093.7	6,703.7	181.9	181.4	94.77	630.2	-6,328.5	798.1	436.1	361.91	2.205	
13,090.5	6,637.2	13,184.2	6,703.5	184.4	183.9	94.77	630.2	-6,419.0	798.1	431.1	366.97	2.175	
13,100.0	6,637.2	13,193.7	6,703.5	184.7	184.2	94.77	630.2	-6,428.5	798.1	430.6	367.49	2.172	
13,188.9	6,637.1	13,282.6	6,703.3	187.2	186.7	94.76	630.2	-6,517.4	798.0	425.6	372.46	2.143	
13,200.0	6,637.1	13,293.7	6,703.3	187.5	187.0	94.76	630.2	-6,528.5	798.0	425.0	373.08	2.139	
13,287.4	6,637.0	13,381.0	6,703.2	190.0	189.4	94.76	630.2	-6,615.8	798.0	420.1	377.96	2.111	
13,300.0	6,637.0	13,393.7	6,703.1	190.3	189.8	94.76	630.2	-6,628.5	798.0	419.4	378.67	2.108	
13,385.8	6,636.9	13,479.5	6,703.0	192.7	192.2	94.75	630.2	-6,714.3	798.0	414.6	383.46	2.081	
13,400.0	6,636.8	13,493.7	6,703.0	193.1	192.6	94.75	630.2	-6,728.5	798.0	413.8	384.25	2.077	
13,484.2	6,636.7	13,577.9	6,702.8	195.5	194.9	94.75	630.2	-6,812.7	798.0	409.1	388.96	2.052	
13,500.0	6,636.7	13,593.7	6,702.8	195.9	195.4	94.75	630.2	-6,828.5	798.0	408.2	389.84	2.047	
13,582.6	6,636.6	13,676.3	6,702.6	198.2	197.7	94.74	630.2	-6,911.1	798.0	403.6	394.46	2.023	
13,600.0	6,636.6	13,693.7	6,702.6	198.7	198.2	94.74	630.2	-6,928.5	798.0	402.6	395.43	2.018	
13,681.1	6,636.5	13,774.7	6,702.4	201.0	200.4	94.74	630.2	-7,009.5	798.0	398.1	399.96	1.995	
13,700.0	6,636.5	13,793.7	6,702.4	201.5	201.0	94.74	630.2	-7,028.5	798.0	397.0	401.02	1.990	
13,779.5	6,636.4	13,873.2	6,702.2	203.7	203.2	94.73	630.2	-7,108.0	798.0	392.6	405.46	1.968	
13,800.0	6,636.4	13,893.7	6,702.2	204.3	203.8	94.73	630.2	-7,128.5	798.0	391.4	406.61	1.963	
13,877.9	6,636.3	13,971.6	6,702.1	206.5	206.0	94.73	630.2	-7,206.4	798.0	387.0	410.96	1.942	
13,900.0	6,636.3	13,993.7	6,702.0	207.1	206.6	94.73	630.2	-7,228.5	798.0	385.8	412.20	1.936	
13,976.3	6,636.2	14,070.0	6,701.9	209.3	208.7	94.72	630.2	-7,304.8	798.0	381.5	416.46	1.916	
14,000.0	6,636.1	14,093.7	6,701.8	209.9	209.4	94.72	630.2	-7,328.5	798.0	380.2	417.79	1.910	
14,074.8	6,636.0	14,168.4	6,701.7	212.0	211.5	94.72	630.2	-7,403.2	798.0	376.0	421.97	1.891	
14,100.0	6,636.0	14,193.7	6,701.6	212.7	212.2	94.72	630.2	-7,428.5	798.0	374.6	423.38	1.885	
14,173.2	6,635.9	14,266.9	6,701.5	214.8	214.2	94.71	630.2	-7,501.7	798.0	370.5	427.47	1.867	
14,200.0	6,635.9	14,293.7	6,701.5	215.5	215.0	94.71	630.2	-7,528.5	798.0	369.0	428.97	1.860	
14,271.6	6,635.8	14,365.3	6,701.3	217.5	217.0	94.71	630.2	-7,600.1	798.0	365.0	432.97	1.843	
14,300.0	6,635.8	14,393.7	6,701.3	218.3	217.8	94.71	630.2	-7,628.5	798.0	363.4	434.56	1.836	
14,370.0	6,635.7	14,463.7	6,701.1	220.3	219.8	94.70	630.2	-7,698.5	798.0	359.5	438.48	1.820	
14,400.0	6,635.7	14,493.7	6,701.1	221.1	220.6	94.70	630.2	-7,728.5	798.0	357.8	440.15	1.813	
14,468.5	6,635.6	14,562.1	6,701.0	223.1	222.5	94.70	630.2	-7,796.9	798.0	354.0	443.98	1.797	
14,500.0	6,635.6	14,593.7	6,700.9	223.9	223.4	94.70	630.2	-7,828.5	798.0	352.2	445.74	1.790	
14,566.9	6,635.5	14,660.6	6,700.8	225.8	225.3	94.69	630.2	-7,895.4	798.0	348.5	449.48	1.775	
14,600.0	6,635.4	14,693.7	6,700.7	226.8	226.2	94.69	630.2	-7,928.5	798.0	346.6	451.34	1.768	
14,665.3	6,635.4	14,759.0	6,700.6	228.6	228.0	94.69	630.2	-7,993.8	798.0	343.0	454.99	1.754	
14,700.0	6,635.3	14,793.7	6,700.5	229.6	229.0	94.69	630.2	-8,028.5	798.0	341.0	456.93	1.746	
14,763.7	6,635.2	14,857.4	6,700.4	231.3	230.8	94.68	630.2	-8,092.2	798.0	337.5	460.50	1.733	

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

Anticollision Report



Company:	PDC ENERGY	Local Co-ordinate Reference:	Well WACKER 10G-214
Project:	WELD COUNTY, COLORADO	TVD Reference:	KB-EST @ 4624.0usft (Original Well Elev)
Reference Site:	SW NW SEC. 10 T5N R64W 6th P.M.	MD Reference:	KB-EST @ 4624.0usft (Original Well Elev)
Site Error:	0.0 usft	North Reference:	True
Reference Well:	WACKER 10G-214	Survey Calculation Method:	Minimum Curvature
Well Error:	0.0 usft	Output errors are at	2.00 sigma
Reference Wellbore	ORIGINAL WELLBORE	Database:	EDM 5000.1 Single User Db
Reference Design:	PROPOSAL #1	Offset TVD Reference:	Offset Datum

Offset Design SW NW SEC. 10 T5N R64W 6th P.M. - WACKER 10F-304 - ORIGINAL WELLBORE - PROPOSAL #1												Offset Site Error:	0.0 usft
Survey Program: 0-MWD												Offset Well Error:	0.0 usft
Reference	Offset	Semi Major Axis		Distance									
Measured Depth (usft)	Vertical Depth (usft)	Measured Depth (usft)	Vertical Depth (usft)	Reference (usft)	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
14,800.0	6,635.2	14,893.7	6,700.3	232.4	231.8	94.68	630.2	-8,128.5	798.0	335.4	462.52	1.725	
14,862.2	6,635.1	14,955.8	6,700.2	234.1	233.5	94.68	630.2	-8,190.6	798.0	332.0	466.00	1.712	
14,900.0	6,635.1	14,993.7	6,700.2	235.2	234.6	94.68	630.2	-8,228.5	798.0	329.8	468.12	1.705	
14,960.6	6,635.0	15,054.3	6,700.1	236.9	236.3	94.67	630.2	-8,289.1	798.0	326.4	471.51	1.692	
14,982.9	6,635.0	15,076.5	6,700.0	237.5	236.9	94.67	630.2	-8,311.3	797.9	325.2	472.75	1.688 SF	

Anticollision Report



Company:	PDC ENERGY	Local Co-ordinate Reference:	Well WACKER 10G-214
Project:	WELD COUNTY, COLORADO	TVD Reference:	KB-EST @ 4624.0usft (Original Well Elev)
Reference Site:	SW NW SEC. 10 T5N R64W 6th P.M.	MD Reference:	KB-EST @ 4624.0usft (Original Well Elev)
Site Error:	0.0 usft	North Reference:	True
Reference Well:	WACKER 10G-214	Survey Calculation Method:	Minimum Curvature
Well Error:	0.0 usft	Output errors are at	2.00 sigma
Reference Wellbore	ORIGINAL WELLBORE	Database:	EDM 5000.1 Single User Db
Reference Design:	PROPOSAL #1	Offset TVD Reference:	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	-180.00	-14.9	0.0	14.9				
98.4	98.4	98.4	98.4	0.1	0.1	-180.00	-14.9	0.0	14.9	14.7	0.19	77.700	
100.0	100.0	100.0	100.0	0.1	0.1	-180.00	-14.9	0.0	14.9	14.7	0.20	76.385	
196.8	196.8	196.8	196.8	0.3	0.3	-180.00	-14.9	0.0	14.9	14.3	0.63	23.675	
200.0	200.0	200.0	200.0	0.3	0.3	-180.00	-14.9	0.0	14.9	14.3	0.65	23.155	
295.3	295.3	295.3	295.3	0.5	0.5	-180.00	-14.9	0.0	14.9	13.9	1.07	13.916	
300.0	300.0	300.0	300.0	0.5	0.5	-180.00	-14.9	0.0	14.9	13.8	1.09	13.646	
393.7	393.7	393.7	393.7	0.8	0.8	-180.00	-14.9	0.0	14.9	13.4	1.52	9.854	
400.0	400.0	400.0	400.0	0.8	0.8	-180.00	-14.9	0.0	14.9	13.4	1.54	9.673	
492.1	492.1	492.1	492.1	1.0	1.0	-180.00	-14.9	0.0	14.9	13.0	1.96	7.628	
500.0	500.0	500.0	500.0	1.0	1.0	-180.00	-14.9	0.0	14.9	12.9	1.99	7.492	
590.5	590.5	590.5	590.5	1.2	1.2	-180.00	-14.9	0.0	14.9	12.5	2.40	6.222	
600.0	600.0	600.0	600.0	1.2	1.2	-180.00	-14.9	0.0	14.9	12.5	2.44	6.114	
689.0	689.0	689.0	689.0	1.4	1.4	-180.00	-14.9	0.0	14.9	12.1	2.84	5.254	
700.0	700.0	700.0	700.0	1.4	1.4	-180.00	-14.9	0.0	14.9	12.0	2.89	5.164	
787.4	787.4	787.4	787.4	1.6	1.6	-180.00	-14.9	0.0	14.9	11.7	3.29	4.546	
800.0	800.0	800.0	800.0	1.7	1.7	-180.00	-14.9	0.0	14.9	11.6	3.34	4.469	
885.8	885.8	885.8	885.8	1.9	1.9	-180.00	-14.9	0.0	14.9	11.2	3.73	4.007	
900.0	900.0	900.0	900.0	1.9	1.9	-180.00	-14.9	0.0	14.9	11.1	3.79	3.939	
984.2	984.2	984.2	984.2	2.1	2.1	-180.00	-14.9	0.0	14.9	10.8	4.17	3.582	
1,000.0	1,000.0	1,000.0	1,000.0	2.1	2.1	-180.00	-14.9	0.0	14.9	10.7	4.24	3.522	
1,082.7	1,082.7	1,082.7	1,082.7	2.3	2.3	-180.00	-14.9	0.0	14.9	10.3	4.61	3.238	
1,100.0	1,100.0	1,100.0	1,100.0	2.3	2.3	-180.00	-14.9	0.0	14.9	10.2	4.69	3.184	
1,181.1	1,181.1	1,181.1	1,181.1	2.5	2.5	-180.00	-14.9	0.0	14.9	9.9	5.06	2.955	
1,200.0	1,200.0	1,200.0	1,200.0	2.6	2.6	-180.00	-14.9	0.0	14.9	9.8	5.14	2.906 CC	
1,279.5	1,279.5	1,279.5	1,279.5	2.7	2.7	-175.83	-15.0	-1.1	15.1	9.6	5.49	2.748	
1,300.0	1,300.0	1,299.9	1,299.9	2.8	2.8	-173.44	-15.1	-1.7	15.2	9.6	5.57	2.725	
1,377.9	1,377.9	1,377.6	1,377.5	3.0	2.9	84.55	-15.4	-5.5	16.3	10.4	5.89	2.758	
1,400.0	1,400.0	1,399.5	1,399.3	3.0	3.0	91.10	-15.6	-6.9	17.0	11.0	5.98	2.841	
1,476.4	1,476.3	1,474.9	1,474.4	3.1	3.1	113.94	-16.1	-13.1	22.5	16.2	6.28	3.581	
1,500.0	1,499.8	1,498.0	1,497.5	3.2	3.2	119.87	-16.3	-15.4	25.3	18.9	6.37	3.965	
1,574.8	1,574.4	1,570.7	1,569.7	3.3	3.4	133.76	-17.1	-23.9	37.3	30.6	6.67	5.594	
1,600.0	1,599.5	1,594.9	1,593.7	3.4	3.4	137.04	-17.4	-27.1	42.4	35.6	6.77	6.266	
1,673.2	1,672.2	1,664.5	1,662.5	3.6	3.6	143.89	-18.3	-37.4	59.9	52.8	7.06	8.486	
1,700.0	1,698.7	1,689.6	1,687.3	3.6	3.7	145.68	-18.7	-41.6	67.2	60.1	7.16	9.387	
1,771.6	1,769.5	1,755.9	1,752.4	3.8	3.9	149.26	-19.8	-53.5	89.2	81.8	7.45	11.978	
1,800.0	1,797.5	1,781.6	1,777.6	3.9	3.9	150.32	-20.3	-58.6	98.8	91.2	7.56	13.074	
1,870.1	1,866.3	1,844.2	1,838.8	4.1	4.2	152.35	-21.5	-71.8	124.7	116.8	7.84	15.907	
1,900.2	1,895.8	1,870.6	1,864.5	4.2	4.3	153.02	-22.0	-77.8	136.7	128.7	7.95	17.183	
1,968.5	1,962.6	1,929.5	1,921.6	4.4	4.5	154.39	-23.3	-92.0	165.2	156.9	8.25	20.031	
2,000.0	1,993.4	1,956.3	1,947.5	4.5	4.6	154.85	-23.9	-98.8	178.8	170.4	8.38	21.330	
2,066.9	2,058.9	2,013.9	2,003.0	4.7	4.8	155.60	-25.3	-114.3	208.5	199.8	8.68	24.013	
2,100.0	2,091.2	2,043.4	2,031.4	4.8	5.0	155.90	-26.1	-122.3	223.3	214.4	8.82	25.303	
2,165.3	2,155.2	2,101.8	2,087.6	5.1	5.2	156.40	-27.5	-138.2	252.5	243.4	9.12	27.695	
2,200.0	2,189.1	2,132.8	2,117.4	5.2	5.4	156.62	-28.3	-146.6	268.0	258.8	9.28	28.881	
2,263.8	2,251.4	2,189.8	2,172.2	5.5	5.7	156.96	-29.7	-162.1	296.6	287.0	9.57	30.987	
2,300.0	2,286.9	2,222.2	2,203.4	5.6	5.8	157.13	-30.5	-170.9	312.8	303.1	9.74	32.121	
2,362.2	2,347.7	2,277.8	2,256.9	5.8	6.1	157.38	-31.8	-186.1	340.7	330.7	10.03	33.959	
2,400.0	2,384.7	2,311.6	2,289.4	6.0	6.3	157.51	-32.7	-195.3	357.6	347.4	10.21	35.023	
2,460.6	2,444.0	2,365.7	2,341.5	6.2	6.5	157.70	-34.0	-210.0	384.8	374.3	10.50	36.636	
2,500.0	2,482.5	2,400.9	2,375.3	6.4	6.7	157.81	-34.9	-219.6	402.5	391.8	10.69	37.637	
2,559.0	2,540.3	2,453.7	2,426.1	6.6	7.0	157.95	-36.2	-233.9	428.9	417.9	10.98	39.055	

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

Anticollision Report



Company:	PDC ENERGY	Local Co-ordinate Reference:	Well WACKER 10G-214
Project:	WELD COUNTY, COLORADO	TVD Reference:	KB-EST @ 4624.0usft (Original Well Elev)
Reference Site:	SW NW SEC. 10 T5N R64W 6th P.M.	MD Reference:	KB-EST @ 4624.0usft (Original Well Elev)
Site Error:	0.0 usft	North Reference:	True
Reference Well:	WACKER 10G-214	Survey Calculation Method:	Minimum Curvature
Well Error:	0.0 usft	Output errors are at	2.00 sigma
Reference Wellbore	ORIGINAL WELLBORE	Database:	EDM 5000.1 Single User Db
Reference Design:	PROPOSAL #1	Offset TVD Reference:	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	2,580.3	2,490.3	2,461.3	6.8	7.2	158.05	-37.1	-243.9	447.3	436.1	11.18	39.995	
2,657.5	2,636.5	2,541.7	2,510.7	7.1	7.5	158.16	-38.4	-257.8	473.0	461.6	11.47	41.246	
2,700.0	2,678.1	2,579.7	2,547.3	7.2	7.7	158.24	-39.3	-268.2	492.1	480.4	11.68	42.131	
2,755.9	2,732.8	2,629.7	2,595.4	7.5	7.9	158.33	-40.5	-281.8	517.2	505.2	11.96	43.237	
2,800.0	2,775.9	2,669.1	2,633.3	7.7	8.1	158.40	-41.5	-292.5	536.9	524.8	12.18	44.071	
2,854.3	2,829.1	2,717.6	2,680.0	7.9	8.4	158.48	-42.7	-305.7	561.3	548.8	12.46	45.051	
2,900.0	2,873.8	2,758.4	2,719.3	8.1	8.6	158.54	-43.7	-316.8	581.8	569.1	12.69	45.838	
2,952.7	2,925.4	2,805.6	2,764.6	8.3	8.9	158.60	-44.9	-329.6	605.4	592.5	12.96	46.709	
2,953.5	2,926.1	2,806.2	2,765.2	8.3	8.9	158.60	-44.9	-329.8	605.8	592.8	12.97	46.720	
3,000.0	2,971.6	2,848.0	2,805.4	8.5	9.1	158.81	-45.9	-341.1	626.3	613.1	13.23	47.347	
3,051.2	3,022.0	2,894.2	2,849.9	8.7	9.4	158.99	-47.1	-353.7	648.2	634.7	13.50	47.997	
3,100.0	3,070.1	2,938.7	2,892.7	8.8	9.6	159.13	-48.2	-365.8	668.3	654.5	13.77	48.536	
3,149.6	3,119.1	2,984.2	2,936.5	8.9	9.9	159.23	-49.3	-378.2	688.0	674.0	14.03	49.024	
3,200.0	3,169.1	3,030.8	2,981.2	9.1	10.1	159.31	-50.5	-390.9	707.3	693.0	14.30	49.449	
3,248.0	3,216.8	3,075.4	3,024.2	9.2	10.4	159.35	-51.6	-403.0	725.0	710.5	14.56	49.807	
3,300.0	3,268.5	3,124.0	3,070.9	9.3	10.7	159.37	-52.8	-416.2	743.3	728.5	14.83	50.130	
3,346.4	3,314.8	3,167.7	3,113.0	9.4	10.9	159.36	-53.8	-428.1	759.0	744.0	15.07	50.380	
3,400.0	3,368.3	3,218.4	3,161.7	9.6	11.2	159.32	-55.1	-441.9	776.3	761.0	15.34	50.611	
3,444.9	3,413.1	3,261.0	3,202.7	9.6	11.4	159.27	-56.2	-453.5	790.1	774.5	15.56	50.774	
3,500.0	3,468.2	3,313.7	3,253.4	9.7	11.7	159.19	-57.5	-467.8	806.2	790.3	15.83	50.921	
3,543.3	3,511.5	3,355.2	3,293.4	9.8	12.0	159.10	-58.5	-479.1	818.2	802.1	16.04	51.009	
3,553.7	3,521.9	3,365.2	3,303.0	9.8	12.0	-82.27	-58.7	-481.8	820.9	799.5	21.41	38.347	
3,600.0	3,568.2	3,409.8	3,345.8	9.9	12.3	-82.47	-59.8	-493.9	833.3	811.6	21.73	38.346	
3,641.7	3,609.9	3,449.9	3,384.4	10.0	12.5	-82.64	-60.8	-504.9	844.4	822.4	22.03	38.337	
3,700.0	3,668.2	3,506.0	3,438.4	10.1	12.8	-82.87	-62.2	-520.1	860.0	837.6	22.44	38.324	
3,740.1	3,708.4	3,544.6	3,475.5	10.1	13.1	-83.02	-63.2	-530.6	870.7	848.0	22.73	38.313	
3,800.0	3,768.2	3,602.2	3,530.9	10.2	13.4	-83.24	-64.6	-546.3	886.7	863.6	23.15	38.297	
3,838.6	3,806.8	3,639.3	3,566.6	10.3	13.6	-83.38	-65.5	-556.4	897.1	873.6	23.43	38.285	
3,900.0	3,868.2	3,698.4	3,623.4	10.4	13.9	-83.60	-67.0	-572.4	913.5	889.6	23.87	38.266	
3,937.0	3,905.2	3,734.0	3,657.7	10.5	14.2	-83.72	-67.8	-582.1	923.4	899.3	24.14	38.253	
4,000.0	3,968.2	3,794.6	3,716.0	10.6	14.5	-83.93	-69.3	-598.6	940.3	915.7	24.60	38.231	
4,035.4	4,003.6	3,828.6	3,748.8	10.6	14.7	-84.05	-70.2	-607.9	949.8	925.0	24.85	38.218	
4,100.0	4,068.2	3,890.8	3,808.5	10.7	15.1	-84.25	-71.7	-624.8	967.2	941.8	25.32	38.195	
4,133.8	4,102.1	3,923.3	3,839.8	10.8	15.2	-84.35	-72.5	-633.6	976.3	950.7	25.57	38.181	
4,200.0	4,168.2	3,987.0	3,901.1	10.9	15.6	-84.55	-74.1	-650.9	994.0	968.0	26.05	38.156	
4,232.3	4,200.5	4,018.0	3,930.9	11.0	15.8	-84.64	-74.9	-659.4	1,002.7	976.4	26.29	38.143	
4,300.0	4,268.2	4,083.2	3,993.6	11.1	16.2	-84.83	-76.5	-677.1	1,020.9	994.1	26.78	38.116	
4,330.7	4,298.9	4,112.7	4,022.0	11.1	16.3	-84.91	-77.2	-685.1	1,029.2	1,002.2	27.01	38.103	
4,400.0	4,368.2	4,179.4	4,086.1	11.3	16.7	-85.10	-78.9	-703.3	1,047.8	1,020.3	27.52	38.074	
4,429.1	4,397.3	4,207.4	4,113.1	11.3	16.9	-85.17	-79.5	-710.9	1,055.7	1,027.9	27.74	38.062	
4,500.0	4,468.2	4,275.6	4,178.7	11.4	17.3	-85.35	-81.2	-729.4	1,074.7	1,046.5	28.26	38.032	
4,527.5	4,495.8	4,302.1	4,204.2	11.5	17.4	-85.42	-81.9	-736.6	1,082.2	1,053.7	28.46	38.021	
4,600.0	4,568.2	4,371.7	4,271.2	11.6	17.8	-85.59	-83.6	-755.6	1,101.7	1,072.7	29.00	37.990	
4,626.0	4,594.2	4,396.7	4,295.3	11.7	18.0	-85.66	-84.2	-762.4	1,108.7	1,079.5	29.19	37.978	
4,700.0	4,668.2	4,467.9	4,363.8	11.8	18.4	-85.83	-86.0	-781.7	1,128.7	1,098.9	29.74	37.947	
4,724.4	4,692.6	4,491.4	4,386.4	11.9	18.5	-85.88	-86.6	-788.1	1,135.2	1,105.3	29.93	37.936	
4,800.0	4,768.2	4,564.1	4,456.3	12.0	19.0	-86.05	-88.4	-807.9	1,155.6	1,125.2	30.49	37.904	
4,822.8	4,791.0	4,586.1	4,477.4	12.0	19.1	-86.09	-88.9	-813.9	1,161.8	1,131.1	30.66	37.894	
4,900.0	4,868.2	4,660.3	4,548.9	12.2	19.5	-86.26	-90.7	-834.1	1,182.6	1,151.4	31.24	37.861	
4,921.2	4,889.5	4,680.8	4,568.5	12.2	19.6	-86.30	-91.3	-839.6	1,188.4	1,157.0	31.40	37.851	
5,000.0	4,968.2	4,756.5	4,641.4	12.4	20.1	-86.46	-93.1	-860.2	1,209.6	1,177.7	31.99	37.818	
5,019.7	4,987.9	4,775.5	4,659.6	12.4	20.2	-86.50	-93.6	-865.4	1,215.0	1,182.8	32.13	37.809	

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

Anticollision Report



Company:	PDC ENERGY	Local Co-ordinate Reference:	Well WACKER 10G-214
Project:	WELD COUNTY, COLORADO	TVD Reference:	KB-EST @ 4624.0usft (Original Well Elev)
Reference Site:	SW NW SEC. 10 T5N R64W 6th P.M.	MD Reference:	KB-EST @ 4624.0usft (Original Well Elev)
Site Error:	0.0 usft	North Reference:	True
Reference Well:	WACKER 10G-214	Survey Calculation Method:	Minimum Curvature
Well Error:	0.0 usft	Output errors are at	2.00 sigma
Reference Wellbore	ORIGINAL WELLBORE	Database:	EDM 5000.1 Single User Db
Reference Design:	PROPOSAL #1	Offset TVD Reference:	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	5,068.2	4,852.7	4,733.9	12.6	20.6	-86.65	-95.5	-886.4	1,236.7	1,203.9	32.74	37.775	
5,118.1	5,086.3	4,870.2	4,750.7	12.6	20.7	-86.68	-95.9	-891.1	1,241.6	1,208.7	32.87	37.767	
5,200.0	5,168.2	4,948.9	4,826.5	12.7	21.2	-86.83	-97.9	-912.6	1,263.7	1,230.2	33.49	37.733	
5,216.5	5,184.7	4,964.8	4,841.8	12.8	21.3	-86.86	-98.3	-916.9	1,268.2	1,234.6	33.62	37.726	
5,300.0	5,268.2	5,045.1	4,919.0	12.9	21.8	-87.01	-100.3	-938.7	1,290.8	1,256.5	34.25	37.691	
5,314.9	5,283.2	5,059.5	4,932.9	13.0	21.9	-87.03	-100.6	-942.6	1,294.8	1,260.4	34.36	37.685	
5,400.0	5,368.2	7,889.8	6,626.1	13.1	38.6	17.79	-114.9	318.3	1,259.0	1,228.8	30.26	41.612	
5,413.4	5,381.6	7,889.7	6,626.1	13.2	38.6	17.61	-114.9	318.1	1,245.7	1,215.5	30.22	41.217	
5,500.0	5,468.2	7,888.5	6,626.2	13.3	38.5	16.46	-114.9	317.0	1,159.1	1,129.1	30.01	38.629	
5,511.8	5,480.0	7,888.4	6,626.2	13.3	38.5	16.30	-114.9	316.9	1,147.3	1,117.4	29.98	38.272	
5,600.0	5,568.2	7,887.3	6,626.2	13.5	38.5	15.10	-114.9	315.7	1,059.2	1,029.5	29.77	35.577	
5,610.2	5,578.4	7,887.1	6,626.2	13.5	38.5	14.96	-114.9	315.6	1,049.0	1,019.3	29.75	35.261	
5,700.0	5,668.2	7,886.0	6,626.2	13.7	38.5	13.73	-114.9	314.5	959.4	929.8	29.56	32.455	
5,708.6	5,676.9	7,885.9	6,626.2	13.7	38.5	13.61	-114.9	314.3	950.7	921.2	29.54	32.182	
5,800.0	5,768.2	7,884.7	6,626.2	13.9	38.4	12.34	-114.9	313.2	859.5	830.2	29.37	29.266	
5,807.1	5,775.3	7,884.6	6,626.2	13.9	38.4	12.25	-114.9	313.1	852.5	823.1	29.36	29.037	
5,900.0	5,868.2	7,883.4	6,626.2	14.1	38.4	10.94	-114.9	311.9	759.7	730.5	29.21	26.011	
5,905.5	5,873.7	7,883.4	6,626.2	14.1	38.4	10.87	-114.9	311.8	754.3	725.0	29.20	25.830	
5,960.7	5,928.9	7,882.7	6,626.2	14.2	38.4	10.09	-114.9	311.1	699.2	670.1	29.13	24.006	
6,000.0	5,968.2	7,881.1	6,626.3	14.3	38.4	131.58	-114.9	309.5	660.0	615.8	44.25	14.915	
6,003.9	5,972.1	7,880.8	6,626.3	14.3	38.4	133.63	-114.9	309.3	656.1	612.6	43.48	15.089	
6,050.0	6,018.0	7,876.0	6,626.3	14.4	38.3	148.97	-114.9	304.4	610.5	573.2	37.25	16.386	
6,100.0	6,067.3	7,867.4	6,626.4	14.4	38.1	156.45	-114.9	295.8	561.4	527.1	34.27	16.383	
6,102.3	6,069.6	7,866.9	6,626.4	14.4	38.1	156.69	-114.9	295.4	559.1	524.9	34.18	16.360	
6,150.0	6,116.0	7,855.4	6,626.6	14.4	37.8	160.25	-114.9	283.9	513.1	480.2	32.87	15.608	
6,200.0	6,163.8	7,840.0	6,626.8	14.5	37.5	162.33	-114.9	268.5	465.7	433.6	32.11	14.504	
6,200.8	6,164.5	7,839.8	6,626.8	14.5	37.5	162.35	-114.9	268.2	465.0	432.9	32.10	14.486	
6,250.0	6,210.4	7,821.4	6,627.0	14.5	37.1	163.44	-114.9	249.9	419.7	388.0	31.61	13.275	
6,299.2	6,254.9	7,800.0	6,627.3	14.5	36.6	163.90	-114.9	228.4	375.7	344.5	31.23	12.032	
6,300.0	6,255.6	7,799.6	6,627.3	14.5	36.6	163.90	-114.9	228.1	375.0	343.8	31.22	12.011	
6,350.0	6,299.3	7,774.7	6,627.6	14.5	36.1	163.87	-114.9	203.2	332.1	301.3	30.88	10.755	
6,397.6	6,339.2	7,748.2	6,628.0	14.6	35.6	163.42	-114.9	176.7	293.1	262.5	30.58	9.585	
6,400.0	6,341.2	7,746.8	6,628.0	14.6	35.5	163.39	-114.9	175.3	291.2	260.6	30.56	9.527	
6,450.0	6,381.0	7,716.1	6,628.4	14.6	34.9	162.45	-114.9	144.6	252.4	222.1	30.28	8.336	
6,496.0	6,415.8	7,685.5	6,628.8	14.7	34.3	161.13	-114.9	114.0	218.8	188.7	30.09	7.272	
6,500.0	6,418.7	7,682.7	6,628.8	14.7	34.3	161.00	-114.9	111.2	216.1	186.0	30.08	7.182	
6,550.0	6,453.9	7,646.9	6,629.2	14.8	33.6	158.91	-114.9	75.3	182.4	152.3	30.05	6.070	
6,594.5	6,483.1	7,613.0	6,629.7	15.0	32.9	156.36	-114.9	41.4	154.9	124.7	30.26	5.119	
6,600.0	6,486.6	7,608.6	6,629.7	15.1	32.8	155.99	-114.9	37.1	151.7	121.4	30.31	5.005	
6,650.0	6,516.6	7,568.2	6,630.3	15.3	32.1	151.94	-114.9	-3.3	124.3	93.2	31.08	3.998	
6,692.9	6,540.0	7,532.0	6,630.7	15.7	31.4	147.25	-114.9	-39.5	103.6	71.3	32.36	3.203	
6,700.0	6,543.7	7,525.9	6,630.8	15.7	31.3	146.35	-114.9	-45.6	100.5	67.9	32.63	3.080	
6,750.0	6,567.8	7,481.8	6,631.4	16.2	30.6	138.68	-114.9	-89.7	81.0	45.7	35.23	2.298	
6,791.3	6,585.4	7,444.2	6,631.8	16.7	29.9	130.48	-114.9	-127.3	68.4	30.2	38.18	1.790	
6,800.0	6,588.8	7,436.2	6,631.9	16.8	29.8	128.53	-114.9	-135.3	66.2	27.3	38.86	1.702	
6,850.0	6,606.6	7,389.2	6,632.5	17.4	29.1	116.17	-114.9	-182.2	56.5	13.7	42.73	1.321 Level 3	
6,889.7	6,618.4	7,351.1	6,633.0	18.0	28.5	105.74	-114.9	-220.3	52.3	7.1	45.14	1.158 Level 2	
6,900.0	6,621.1	7,341.2	6,633.2	18.2	28.4	103.12	-114.9	-230.3	51.6	6.0	45.57	1.132 Level 2	
6,950.0	6,632.2	7,292.3	6,633.8	19.0	27.7	91.76	-114.9	-279.1	50.2	3.5	46.66	1.076 Level 2	
6,959.3	6,633.9	7,283.2	6,633.9	19.2	27.6	90.00	-114.9	-288.3	50.2	3.4	46.72	1.074 Level 2, ES, SF	
6,988.2	6,638.4	7,254.6	6,634.3	19.7	27.2	85.33	-114.9	-316.9	50.3	3.6	46.73	1.077 Level 2	
7,000.0	6,639.9	7,242.8	6,634.4	19.9	27.1	83.79	-114.9	-328.6	50.5	3.8	46.69	1.081 Level 2	

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

Anticollision Report



Company:	PDC ENERGY	Local Co-ordinate Reference:	Well WACKER 10G-214
Project:	WELD COUNTY, COLORADO	TVD Reference:	KB-EST @ 4624.0usft (Original Well Elev)
Reference Site:	SW NW SEC. 10 T5N R64W 6th P.M.	MD Reference:	KB-EST @ 4624.0usft (Original Well Elev)
Site Error:	0.0 usft	North Reference:	True
Reference Well:	WACKER 10G-214	Survey Calculation Method:	Minimum Curvature
Well Error:	0.0 usft	Output errors are at	2.00 sigma
Reference Wellbore	ORIGINAL WELLBORE	Database:	EDM 5000.1 Single User Db
Reference Design:	PROPOSAL #1	Offset TVD Reference:	Offset Datum

Offset Design												Offset Site Error:	0.0 usft
Survey Program: 0-MWD												Offset Well Error:	0.0 usft
Reference		Offset		Semi Major Axis			Distance						
Measured Depth (usft)	Vertical Depth (usft)	Measured Depth (usft)	Vertical Depth (usft)	Reference (usft)	Offset (usft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (usft)	+E/-W (usft)	Between Centres (usft)	Between Ellipses (usft)	Minimum Separation (usft)	Separation Factor	Warning
7,050.0	6,644.1	7,193.0	6,635.0	20.8	26.5	79.75	-114.9	-378.4	51.0	4.4	46.57	1.095 Level 2	
7,086.5	6,645.0	7,157.0	6,634.4	21.5	26.1	78.08	-114.9	-414.5	51.3	4.6	46.63	1.099 Level 2	
7,100.0	6,645.0	7,143.8	6,633.7	21.8	26.0	77.36	-114.9	-427.7	51.4	4.8	46.65	1.102 Level 2	
7,185.0	6,644.9	7,061.2	6,624.0	23.6	25.2	67.37	-114.9	-509.7	54.5	9.1	45.34	1.202 Level 2	
7,200.0	6,644.8	7,046.9	6,621.3	23.9	25.1	64.87	-114.9	-523.7	55.6	10.9	44.75	1.243 Level 2	
7,283.4	6,644.7	6,969.7	6,602.2	25.7	24.6	49.70	-114.9	-598.5	67.1	27.4	39.72	1.689	
7,300.0	6,644.7	6,954.9	6,597.6	26.1	24.5	46.81	-114.9	-612.5	70.6	32.1	38.48	1.834	
7,381.9	6,644.6	6,884.9	6,572.1	28.0	24.2	34.67	-114.9	-677.7	94.0	61.3	32.71	2.873	
7,400.0	6,644.6	6,870.2	6,565.9	28.4	24.2	32.51	-114.9	-691.0	100.5	68.9	31.61	3.178	
7,480.3	6,644.5	6,808.2	6,537.0	30.3	24.0	25.01	-114.9	-745.8	134.2	106.4	27.81	4.828	
7,500.0	6,644.4	6,793.9	6,529.6	30.8	24.0	23.59	-114.9	-758.1	143.7	116.5	27.11	5.299	
7,578.7	6,644.3	6,740.1	6,499.8	32.7	24.0	19.13	-114.9	-802.9	185.1	160.0	25.07	7.383	
7,600.0	6,644.3	6,726.4	6,491.7	33.3	24.0	18.18	-114.9	-813.9	197.2	172.5	24.68	7.992	
7,677.1	6,644.2	6,680.1	6,462.7	35.2	24.0	15.44	-114.9	-850.0	244.2	220.5	23.68	10.310	
7,700.0	6,644.1	6,667.2	6,454.3	35.8	24.0	14.78	-114.9	-859.7	258.9	235.4	23.48	11.023	
7,775.6	6,644.0	6,627.6	6,427.1	37.7	24.1	13.00	-114.9	-888.6	309.7	286.7	23.06	13.429	
7,800.0	6,644.0	6,615.6	6,418.6	38.3	24.1	12.53	-114.9	-897.0	326.8	303.9	22.99	14.220	
7,874.0	6,643.9	6,581.7	6,393.8	40.2	24.2	11.32	-114.9	-920.1	380.5	357.6	22.88	16.625	
7,900.0	6,643.9	6,570.6	6,385.4	40.9	24.2	10.97	-114.9	-927.4	399.9	377.0	22.89	17.472	
7,972.4	6,643.8	6,550.0	6,369.6	42.8	24.3	10.35	-114.9	-940.6	455.4	432.3	23.10	19.715	
8,000.0	6,643.7	6,531.3	6,355.0	43.5	24.3	9.84	-114.9	-952.1	476.9	453.9	23.03	20.712	
8,070.8	6,643.6	6,500.0	6,329.7	45.4	24.4	9.06	-114.9	-970.7	533.6	510.5	23.14	23.060	
8,100.0	6,643.6	6,500.0	6,329.7	46.2	24.4	9.06	-114.9	-970.7	557.3	533.9	23.36	23.856	
8,169.3	6,643.5	6,475.6	6,309.5	48.0	24.5	8.52	-114.9	-984.3	614.5	590.9	23.59	26.051	
8,200.0	6,643.5	6,466.7	6,302.0	48.8	24.5	8.34	-114.9	-989.1	640.2	616.5	23.72	26.994	
8,267.7	6,643.4	6,450.0	6,287.8	50.6	24.5	8.01	-114.9	-997.9	697.7	673.6	24.05	29.016	
8,300.0	6,643.3	6,450.0	6,287.8	51.5	24.5	8.01	-114.9	-997.9	725.5	701.3	24.29	29.874	
8,366.1	6,643.2	6,424.1	6,265.4	53.3	24.6	7.54	-114.9	-1,010.8	782.8	758.2	24.52	31.918	
8,400.0	6,643.2	6,416.4	6,258.6	54.2	24.6	7.41	-114.9	-1,014.5	812.4	787.7	24.70	32.886	
8,464.5	6,643.1	6,400.0	6,244.1	55.9	24.7	7.15	-114.9	-1,022.1	869.4	844.4	25.04	34.724	
8,500.0	6,643.1	6,400.0	6,244.1	56.9	24.7	7.15	-114.9	-1,022.1	901.0	875.7	25.30	35.610	
8,563.0	6,643.0	6,383.2	6,229.0	58.6	24.7	6.89	-114.9	-1,029.6	957.3	931.7	25.63	37.357	
8,600.0	6,642.9	6,376.5	6,222.9	59.6	24.7	6.79	-114.9	-1,032.5	990.7	964.9	25.85	38.331	
8,661.4	6,642.8	6,365.8	6,213.2	61.3	24.8	6.64	-114.9	-1,036.9	1,046.4	1,020.2	26.22	39.911	
8,700.0	6,642.8	6,350.0	6,198.7	62.3	24.8	6.43	-114.9	-1,043.3	1,081.7	1,055.3	26.38	41.000	
8,759.8	6,642.7	6,350.0	6,198.7	64.0	24.8	6.43	-114.9	-1,043.3	1,136.4	1,109.6	26.83	42.359	
8,800.0	6,642.7	6,350.0	6,198.7	65.1	24.8	6.43	-114.9	-1,043.3	1,173.5	1,146.3	27.13	43.258	
8,858.2	6,642.6	6,350.0	6,198.7	66.6	24.8	6.43	-114.9	-1,043.3	1,227.5	1,199.9	27.56	44.534	
8,900.0	6,642.5	6,330.3	6,180.5	67.8	24.8	6.18	-114.9	-1,050.7	1,266.0	1,238.3	27.73	45.663	
8,956.7	6,642.4	6,322.9	6,173.7	69.3	24.9	6.09	-114.9	-1,053.4	1,318.8	1,290.7	28.10	46.941	
9,000.0	6,642.4	6,317.6	6,168.7	70.5	24.9	6.02	-114.9	-1,055.2	1,359.3	1,330.9	28.38	47.897	
9,055.1	6,642.3	6,300.0	6,152.1	72.0	24.9	5.82	-114.9	-1,061.2	1,411.1	1,382.5	28.67	49.220	
9,100.0	6,642.3	6,300.0	6,152.1	73.3	24.9	5.82	-114.9	-1,061.2	1,453.3	1,424.3	29.00	50.106	
9,153.5	6,642.2	6,300.0	6,152.1	74.7	24.9	5.82	-114.9	-1,061.2	1,503.7	1,474.3	29.40	51.140	
9,200.0	6,642.1	6,300.0	6,152.1	76.0	24.9	5.82	-114.9	-1,061.2	1,547.7	1,517.9	29.75	52.021	
9,251.9	6,642.1	6,300.0	6,152.1	77.5	24.9	5.82	-114.9	-1,061.2	1,597.0	1,566.8	30.14	52.985	
9,300.0	6,642.0	6,300.0	6,152.1	78.8	24.9	5.82	-114.9	-1,061.2	1,642.7	1,612.2	30.50	53.860	
9,350.4	6,641.9	6,281.1	6,134.1	80.2	24.9	5.62	-114.9	-1,067.1	1,690.5	1,659.7	30.75	54.981	
9,400.0	6,641.9	6,276.7	6,129.9	81.5	24.9	5.57	-114.9	-1,068.4	1,737.8	1,706.7	31.09	55.898	
9,448.8	6,641.8	6,272.6	6,126.0	82.9	25.0	5.53	-114.9	-1,069.6	1,784.5	1,753.0	31.43	56.781	
9,500.0	6,641.7	6,268.4	6,122.0	84.3	25.0	5.49	-114.9	-1,070.8	1,833.5	1,801.7	31.78	57.688	
9,547.2	6,641.7	6,250.0	6,104.3	85.6	25.0	5.31	-114.9	-1,075.8	1,879.0	1,847.0	32.02	58.684	

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

Anticollision Report



Company:	PDC ENERGY	Local Co-ordinate Reference:	Well WACKER 10G-214
Project:	WELD COUNTY, COLORADO	TVD Reference:	KB-EST @ 4624.0usft (Original Well Elev)
Reference Site:	SW NW SEC. 10 T5N R64W 6th P.M.	MD Reference:	KB-EST @ 4624.0usft (Original Well Elev)
Site Error:	0.0 usft	North Reference:	True
Reference Well:	WACKER 10G-214	Survey Calculation Method:	Minimum Curvature
Well Error:	0.0 usft	Output errors are at	2.00 sigma
Reference Wellbore	ORIGINAL WELLBORE	Database:	EDM 5000.1 Single User Db
Reference Design:	PROPOSAL #1	Offset TVD Reference:	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	
9,600.0	6,641.6	6,250.0	6,104.3	87.1	25.0	5.31	-114.9	-1,075.8	1,929.6	1,897.2	32.41	59.531	
9,645.6	6,641.5	6,250.0	6,104.3	88.3	25.0	5.31	-114.9	-1,075.8	1,973.4	1,940.7	32.75	60.248	
9,700.0	6,641.5	6,250.0	6,104.3	89.8	25.0	5.31	-114.9	-1,075.8	2,025.7	1,992.6	33.16	61.086	
9,744.1	6,641.4	6,250.0	6,104.3	91.0	25.0	5.31	-114.9	-1,075.8	2,068.2	2,034.7	33.49	61.751	
9,800.0	6,641.3	6,250.0	6,104.3	92.6	25.0	5.31	-114.9	-1,075.8	2,122.3	2,088.3	33.91	62.580	
9,842.5	6,641.3	6,250.0	6,104.3	93.8	25.0	5.31	-114.9	-1,075.8	2,163.4	2,129.1	34.23	63.196	
9,900.0	6,641.2	6,250.0	6,104.3	95.4	25.0	5.31	-114.9	-1,075.8	2,219.1	2,184.4	34.67	64.015	
9,940.9	6,641.1	6,250.0	6,104.3	96.5	25.0	5.31	-114.9	-1,075.8	2,258.8	2,223.8	34.97	64.586	
10,000.0	6,641.1	6,250.0	6,104.3	98.1	25.0	5.31	-114.9	-1,075.8	2,316.2	2,280.8	35.42	65.394	
10,039.3	6,641.0	6,250.0	6,104.3	99.2	25.0	5.31	-114.9	-1,075.8	2,354.5	2,318.7	35.72	65.922	
10,100.0	6,640.9	6,229.3	6,084.2	100.9	25.0	5.12	-114.9	-1,080.9	2,413.1	2,377.1	36.03	66.970	
10,137.8	6,640.9	6,227.3	6,082.2	102.0	25.0	5.10	-114.9	-1,081.3	2,449.9	2,413.6	36.30	67.482	
10,200.0	6,640.8	6,224.1	6,079.2	103.7	25.0	5.08	-114.9	-1,082.0	2,510.5	2,473.7	36.75	68.308	
10,236.2	6,640.8	6,222.3	6,077.4	104.7	25.0	5.06	-114.9	-1,082.4	2,545.7	2,508.7	37.01	68.780	
10,300.0	6,640.7	6,200.0	6,055.6	106.5	25.1	4.87	-114.9	-1,087.0	2,608.3	2,570.9	37.35	69.830	
10,334.6	6,640.6	6,200.0	6,055.6	107.4	25.1	4.87	-114.9	-1,087.0	2,642.0	2,604.4	37.61	70.244	
10,400.0	6,640.6	6,200.0	6,055.6	109.3	25.1	4.87	-114.9	-1,087.0	2,705.8	2,667.7	38.10	71.012	
10,433.0	6,640.5	6,200.0	6,055.6	110.2	25.1	4.87	-114.9	-1,087.0	2,738.0	2,699.7	38.35	71.392	
10,500.0	6,640.4	6,200.0	6,055.6	112.0	25.1	4.87	-114.9	-1,087.0	2,803.5	2,764.6	38.86	72.150	
10,531.5	6,640.4	6,200.0	6,055.6	112.9	25.1	4.87	-114.9	-1,087.0	2,834.2	2,795.1	39.09	72.500	
10,600.0	6,640.3	6,200.0	6,055.6	114.8	25.1	4.87	-114.9	-1,087.0	2,901.3	2,861.7	39.61	73.248	
10,629.9	6,640.3	6,200.0	6,055.6	115.7	25.1	4.87	-114.9	-1,087.0	2,930.6	2,890.7	39.83	73.569	
10,700.0	6,640.2	6,200.0	6,055.6	117.6	25.1	4.87	-114.9	-1,087.0	2,999.3	2,958.9	40.36	74.307	
10,728.3	6,640.1	6,200.0	6,055.6	118.4	25.1	4.87	-114.9	-1,087.0	3,027.0	2,986.5	40.58	74.600	
10,800.0	6,640.0	6,200.0	6,055.6	120.4	25.1	4.87	-114.9	-1,087.0	3,097.4	3,056.3	41.12	75.329	
10,826.7	6,640.0	6,200.0	6,055.6	121.2	25.1	4.87	-114.9	-1,087.0	3,123.6	3,082.3	41.32	75.596	
10,900.0	6,639.9	6,200.0	6,055.6	123.2	25.1	4.87	-114.9	-1,087.0	3,195.6	3,153.7	41.87	76.316	
10,925.2	6,639.9	6,200.0	6,055.6	123.9	25.1	4.87	-114.9	-1,087.0	3,220.3	3,178.3	42.06	76.559	
11,000.0	6,639.8	6,200.0	6,055.6	126.0	25.1	4.87	-114.9	-1,087.0	3,293.9	3,251.3	42.63	77.269	
11,023.6	6,639.8	6,200.0	6,055.6	126.6	25.1	4.87	-114.9	-1,087.0	3,317.1	3,274.3	42.81	77.489	
11,100.0	6,639.7	6,200.0	6,055.6	128.8	25.1	4.87	-114.9	-1,087.0	3,392.4	3,349.0	43.39	78.189	
11,122.0	6,639.6	6,200.0	6,055.6	129.4	25.1	4.87	-114.9	-1,087.0	3,414.0	3,370.5	43.55	78.388	
11,200.0	6,639.5	6,200.0	6,055.6	131.6	25.1	4.87	-114.9	-1,087.0	3,490.9	3,446.7	44.14	79.080	
11,220.4	6,639.5	6,200.0	6,055.6	132.1	25.1	4.87	-114.9	-1,087.0	3,511.0	3,466.7	44.30	79.258	
11,300.0	6,639.4	6,200.0	6,055.6	134.4	25.1	4.87	-114.9	-1,087.0	3,589.5	3,544.6	44.90	79.941	
11,318.9	6,639.4	6,200.0	6,055.6	134.9	25.1	4.87	-114.9	-1,087.0	3,608.1	3,563.0	45.04	80.100	
11,400.0	6,639.3	6,200.0	6,055.6	137.1	25.1	4.87	-114.9	-1,087.0	3,688.1	3,642.5	45.66	80.774	
11,417.3	6,639.3	6,200.0	6,055.6	137.6	25.1	4.87	-114.9	-1,087.0	3,705.2	3,659.4	45.79	80.915	
11,500.0	6,639.2	6,177.6	6,033.5	139.9	25.1	4.70	-114.9	-1,091.0	3,786.5	3,740.2	46.26	81.858	
11,515.7	6,639.1	6,177.2	6,033.1	140.4	25.1	4.70	-114.9	-1,091.0	3,802.0	3,755.6	46.37	81.988	
11,600.0	6,639.0	6,175.0	6,031.0	142.7	25.1	4.68	-114.9	-1,091.4	3,885.2	3,838.2	47.00	82.671	
11,614.1	6,639.0	6,174.7	6,030.6	143.1	25.1	4.68	-114.9	-1,091.4	3,899.2	3,852.1	47.10	82.784	
11,700.0	6,638.9	6,172.6	6,028.6	145.5	25.1	4.66	-114.9	-1,091.7	3,983.9	3,936.2	47.74	83.459	
11,712.6	6,638.9	6,172.3	6,028.3	145.9	25.1	4.66	-114.9	-1,091.8	3,996.4	3,948.5	47.83	83.556	
11,800.0	6,638.8	6,150.0	6,006.2	148.3	25.1	4.50	-114.9	-1,094.9	4,083.1	4,034.8	48.34	84.470	
11,811.0	6,638.8	6,150.0	6,006.2	148.6	25.1	4.50	-114.9	-1,094.9	4,094.0	4,045.5	48.42	84.550	
11,900.0	6,638.7	6,150.0	6,006.2	151.1	25.1	4.50	-114.9	-1,094.9	4,181.9	4,132.8	49.09	85.183	
11,909.4	6,638.6	6,150.0	6,006.2	151.4	25.1	4.50	-114.9	-1,094.9	4,191.2	4,142.1	49.16	85.249	
12,000.0	6,638.5	6,150.0	6,006.2	153.9	25.1	4.50	-114.9	-1,094.9	4,280.8	4,230.9	49.85	85.875	
12,007.8	6,638.5	6,150.0	6,006.2	154.1	25.1	4.50	-114.9	-1,094.9	4,288.5	4,238.6	49.91	85.929	
12,100.0	6,638.4	6,150.0	6,006.2	156.7	25.1	4.50	-114.9	-1,094.9	4,379.7	4,329.0	50.60	86.547	
12,106.3	6,638.4	6,150.0	6,006.2	156.9	25.1	4.50	-114.9	-1,094.9	4,385.9	4,335.2	50.65	86.588	

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

Anticollision Report



Company:	PDC ENERGY	Local Co-ordinate Reference:	Well WACKER 10G-214
Project:	WELD COUNTY, COLORADO	TVD Reference:	KB-EST @ 4624.0usft (Original Well Elev)
Reference Site:	SW NW SEC. 10 T5N R64W 6th P.M.	MD Reference:	KB-EST @ 4624.0usft (Original Well Elev)
Site Error:	0.0 usft	North Reference:	True
Reference Well:	WACKER 10G-214	Survey Calculation Method:	Minimum Curvature
Well Error:	0.0 usft	Output errors are at	2.00 sigma
Reference Wellbore	ORIGINAL WELLBORE	Database:	EDM 5000.1 Single User Db
Reference Design:	PROPOSAL #1	Offset TVD Reference:	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	
12,200.0	6,638.3	6,150.0	6,006.2	159.5	25.1	4.50	-114.9	-1,094.9	4,478.6	4,427.2	51.36	87.199	
12,204.7	6,638.3	6,150.0	6,006.2	159.6	25.1	4.50	-114.9	-1,094.9	4,483.3	4,431.9	51.40	87.229	
12,300.0	6,638.2	6,150.0	6,006.2	162.3	25.1	4.50	-114.9	-1,094.9	4,577.6	4,525.5	52.12	87.832	
12,303.1	6,638.2	6,150.0	6,006.2	162.4	25.1	4.50	-114.9	-1,094.9	4,580.7	4,528.6	52.14	87.852	
12,400.0	6,638.0	6,150.0	6,006.2	165.1	25.1	4.50	-114.9	-1,094.9	4,676.6	4,623.8	52.87	88.448	
12,401.5	6,638.0	6,150.0	6,006.2	165.2	25.1	4.50	-114.9	-1,094.9	4,678.2	4,625.3	52.89	88.458	
12,500.0	6,637.9	6,150.0	6,006.2	167.9	25.1	4.50	-114.9	-1,094.9	4,775.7	4,722.1	53.63	89.047	
12,598.4	6,637.8	6,150.0	6,006.2	170.7	25.1	4.50	-114.9	-1,094.9	4,873.3	4,818.9	54.38	89.620	
12,600.0	6,637.8	6,150.0	6,006.2	170.7	25.1	4.50	-114.9	-1,094.9	4,874.8	4,820.5	54.39	89.629	
12,696.8	6,637.7	6,150.0	6,006.2	173.4	25.1	4.50	-114.9	-1,094.9	4,970.8	4,915.7	55.12	90.178	
12,700.0	6,637.7	6,150.0	6,006.2	173.5	25.1	4.50	-114.9	-1,094.9	4,974.0	4,918.8	55.15	90.196	
12,795.2	6,637.6	6,150.0	6,006.2	176.2	25.1	4.50	-114.9	-1,094.9	5,068.5	5,012.6	55.87	90.721	
12,800.0	6,637.6	6,150.0	6,006.2	176.3	25.1	4.50	-114.9	-1,094.9	5,073.2	5,017.3	55.90	90.747	
12,893.7	6,637.4	6,150.0	6,006.2	178.9	25.1	4.50	-114.9	-1,094.9	5,166.1	5,109.5	56.61	91.250	
12,900.0	6,637.4	6,150.0	6,006.2	179.1	25.1	4.50	-114.9	-1,094.9	5,172.4	5,115.7	56.66	91.284	
12,992.1	6,637.3	6,150.0	6,006.2	181.7	25.1	4.50	-114.9	-1,094.9	5,263.8	5,206.4	57.36	91.766	
13,000.0	6,637.3	6,150.0	6,006.2	181.9	25.1	4.50	-114.9	-1,094.9	5,271.6	5,214.2	57.42	91.806	
13,090.5	6,637.2	6,150.0	6,006.2	184.4	25.1	4.50	-114.9	-1,094.9	5,361.5	5,303.4	58.11	92.268	
13,100.0	6,637.2	6,150.0	6,006.2	184.7	25.1	4.50	-114.9	-1,094.9	5,370.9	5,312.7	58.18	92.316	
13,188.9	6,637.1	6,150.0	6,006.2	187.2	25.1	4.50	-114.9	-1,094.9	5,459.3	5,400.4	58.85	92.758	
13,200.0	6,637.1	6,150.0	6,006.2	187.5	25.1	4.50	-114.9	-1,094.9	5,470.2	5,411.3	58.94	92.812	
13,287.4	6,637.0	6,150.0	6,006.2	190.0	25.1	4.50	-114.9	-1,094.9	5,557.0	5,497.4	59.60	93.235	
13,300.0	6,637.0	6,150.0	6,006.2	190.3	25.1	4.50	-114.9	-1,094.9	5,569.6	5,509.9	59.70	93.296	
13,385.8	6,636.9	6,150.0	6,006.2	192.7	25.1	4.50	-114.9	-1,094.9	5,654.8	5,594.4	60.35	93.701	
13,400.0	6,636.8	6,150.0	6,006.2	193.1	25.1	4.50	-114.9	-1,094.9	5,668.9	5,608.4	60.46	93.767	
13,484.2	6,636.7	6,150.0	6,006.2	195.5	25.1	4.50	-114.9	-1,094.9	5,752.6	5,691.5	61.10	94.156	
13,500.0	6,636.7	6,150.0	6,006.2	195.9	25.1	4.50	-114.9	-1,094.9	5,768.3	5,707.1	61.22	94.227	
13,582.6	6,636.6	6,150.0	6,006.2	198.2	25.1	4.50	-114.9	-1,094.9	5,850.4	5,788.6	61.84	94.599	
13,600.0	6,636.6	6,150.0	6,006.2	198.7	25.1	4.50	-114.9	-1,094.9	5,867.7	5,805.7	61.98	94.676	
13,681.1	6,636.5	6,150.0	6,006.2	201.0	25.1	4.50	-114.9	-1,094.9	5,948.3	5,885.7	62.59	95.032	
13,700.0	6,636.5	6,150.0	6,006.2	201.5	25.1	4.50	-114.9	-1,094.9	5,967.1	5,904.3	62.74	95.114	
13,779.5	6,636.4	6,150.0	6,006.2	203.7	25.1	4.50	-114.9	-1,094.9	6,046.1	5,982.8	63.34	95.455	
13,800.0	6,636.4	6,150.0	6,006.2	204.3	25.1	4.50	-114.9	-1,094.9	6,066.5	6,003.0	63.50	95.542	
13,877.9	6,636.3	6,150.0	6,006.2	206.5	25.1	4.50	-114.9	-1,094.9	6,144.0	6,079.9	64.09	95.868	
13,900.0	6,636.3	6,150.0	6,006.2	207.1	25.1	4.50	-114.9	-1,094.9	6,166.0	6,101.7	64.26	95.959	
13,976.3	6,636.2	6,150.0	6,006.2	209.3	25.1	4.50	-114.9	-1,094.9	6,241.9	6,177.1	64.84	96.272	
14,000.0	6,636.1	6,150.0	6,006.2	209.9	25.1	4.50	-114.9	-1,094.9	6,265.4	6,200.4	65.02	96.367	
14,074.8	6,636.0	6,150.0	6,006.2	212.0	25.1	4.50	-114.9	-1,094.9	6,339.8	6,274.2	65.58	96.666	
14,100.0	6,636.0	6,150.0	6,006.2	212.7	25.1	4.50	-114.9	-1,094.9	6,364.9	6,299.2	65.78	96.766	
14,173.2	6,635.9	6,150.0	6,006.2	214.8	25.1	4.50	-114.9	-1,094.9	6,437.8	6,371.4	66.33	97.052	
14,200.0	6,635.9	6,150.0	6,006.2	215.5	25.1	4.50	-114.9	-1,094.9	6,464.4	6,397.9	66.54	97.155	
14,271.6	6,635.8	6,150.0	6,006.2	217.5	25.1	4.50	-114.9	-1,094.9	6,535.7	6,468.6	67.08	97.429	
14,300.0	6,635.8	6,150.0	6,006.2	218.3	25.1	4.50	-114.9	-1,094.9	6,563.9	6,496.6	67.30	97.536	
14,370.0	6,635.7	6,150.0	6,006.2	220.3	25.1	4.50	-114.9	-1,094.9	6,633.7	6,565.8	67.83	97.798	
14,400.0	6,635.7	6,150.0	6,006.2	221.1	25.1	4.50	-114.9	-1,094.9	6,663.5	6,595.4	68.06	97.908	
14,468.5	6,635.6	6,150.0	6,006.2	223.1	25.1	4.50	-114.9	-1,094.9	6,731.6	6,663.1	68.58	98.158	
14,500.0	6,635.6	6,150.0	6,006.2	223.9	25.1	4.50	-114.9	-1,094.9	6,763.0	6,694.2	68.82	98.272	
14,566.9	6,635.5	6,150.0	6,006.2	225.8	25.1	4.50	-114.9	-1,094.9	6,829.6	6,760.3	69.33	98.511	
14,600.0	6,635.4	6,150.0	6,006.2	226.8	25.1	4.50	-114.9	-1,094.9	6,862.6	6,793.0	69.58	98.628	
14,665.3	6,635.4	6,150.0	6,006.2	228.6	25.1	4.50	-114.9	-1,094.9	6,927.6	6,857.5	70.08	98.857	
14,700.0	6,635.3	6,150.0	6,006.2	229.6	25.1	4.50	-114.9	-1,094.9	6,962.2	6,891.8	70.34	98.976	
14,763.7	6,635.2	6,150.0	6,006.2	231.3	25.1	4.50	-114.9	-1,094.9	7,025.6	6,954.8	70.83	99.195	

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

Anticollision Report



Company:	PDC ENERGY	Local Co-ordinate Reference:	Well WACKER 10G-214
Project:	WELD COUNTY, COLORADO	TVD Reference:	KB-EST @ 4624.0usft (Original Well Elev)
Reference Site:	SW NW SEC. 10 T5N R64W 6th P.M.	MD Reference:	KB-EST @ 4624.0usft (Original Well Elev)
Site Error:	0.0 usft	North Reference:	True
Reference Well:	WACKER 10G-214	Survey Calculation Method:	Minimum Curvature
Well Error:	0.0 usft	Output errors are at	2.00 sigma
Reference Wellbore	ORIGINAL WELLBORE	Database:	EDM 5000.1 Single User Db
Reference Design:	PROPOSAL #1	Offset TVD Reference:	Offset Datum

Offset Design SW NW SEC. 10 T5N R64W 6th P.M. - WACKER 10G-212 - ORIGINAL WELLBORE - PROPOSAL #1												Offset Site Error:	0.0 usft
Survey Program: 0-MWD												Offset Well Error:	0.0 usft
Reference	Offset	Semi Major Axis		Distance									
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
14,800.0	6,635.2	6,150.0	6,006.2	232.4	25.1	4.50	-114.9	-1,094.9	7,061.7	6,990.6	71.10	99.317	
14,862.2	6,635.1	6,150.0	6,006.2	234.1	25.1	4.50	-114.9	-1,094.9	7,123.7	7,052.1	71.58	99.526	
14,900.0	6,635.1	6,150.0	6,006.2	235.2	25.1	4.50	-114.9	-1,094.9	7,161.3	7,089.5	71.86	99.651	
14,960.6	6,635.0	6,127.2	5,983.5	236.9	25.1	4.35	-114.9	-1,097.3	7,221.3	7,149.2	72.11	100.137	
14,982.9	6,635.0	6,127.0	5,983.3	237.5	25.1	4.35	-114.9	-1,097.3	7,243.5	7,171.2	72.28	100.211	

Anticollision Report



Company:	PDC ENERGY	Local Co-ordinate Reference:	Well WACKER 10G-214
Project:	WELD COUNTY, COLORADO	TVD Reference:	KB-EST @ 4624.0usft (Original Well Elev)
Reference Site:	SW NW SEC. 10 T5N R64W 6th P.M.	MD Reference:	KB-EST @ 4624.0usft (Original Well Elev)
Site Error:	0.0 usft	North Reference:	True
Reference Well:	WACKER 10G-214	Survey Calculation Method:	Minimum Curvature
Well Error:	0.0 usft	Output errors are at	2.00 sigma
Reference Wellbore	ORIGINAL WELLBORE	Database:	EDM 5000.1 Single User Db
Reference Design:	PROPOSAL #1	Offset TVD Reference:	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	-179.29	-44.8	-0.6	44.8				
98.4	98.4	98.4	98.4	0.1	0.1	-179.29	-44.8	-0.6	44.8	44.6	0.19	233.118	
100.0	100.0	100.0	100.0	0.1	0.1	-179.29	-44.8	-0.6	44.8	44.6	0.20	229.172	
196.8	196.8	196.8	196.8	0.3	0.3	-179.29	-44.8	-0.6	44.8	44.2	0.63	71.030	
200.0	200.0	200.0	200.0	0.3	0.3	-179.29	-44.8	-0.6	44.8	44.2	0.65	69.470	
295.3	295.3	295.3	295.3	0.5	0.5	-179.29	-44.8	-0.6	44.8	43.7	1.07	41.751	
300.0	300.0	300.0	300.0	0.5	0.5	-179.29	-44.8	-0.6	44.8	43.7	1.09	40.940	
393.7	393.7	393.7	393.7	0.8	0.8	-179.29	-44.8	-0.6	44.8	43.3	1.52	29.564	
400.0	400.0	400.0	400.0	0.8	0.8	-179.29	-44.8	-0.6	44.8	43.3	1.54	29.022	
492.1	492.1	492.1	492.1	1.0	1.0	-179.29	-44.8	-0.6	44.8	42.9	1.96	22.884	
500.0	500.0	500.0	500.0	1.0	1.0	-179.29	-44.8	-0.6	44.8	42.8	1.99	22.478	
590.5	590.5	590.5	590.5	1.2	1.2	-179.29	-44.8	-0.6	44.8	42.4	2.40	18.667	
600.0	600.0	600.0	600.0	1.2	1.2	-179.29	-44.8	-0.6	44.8	42.4	2.44	18.342	
689.0	689.0	689.0	689.0	1.4	1.4	-179.29	-44.8	-0.6	44.8	42.0	2.84	15.762	
700.0	700.0	700.0	700.0	1.4	1.4	-179.29	-44.8	-0.6	44.8	41.9	2.89	15.492	
787.4	787.4	787.4	787.4	1.6	1.6	-179.29	-44.8	-0.6	44.8	41.5	3.29	13.639	
800.0	800.0	800.0	800.0	1.7	1.7	-179.29	-44.8	-0.6	44.8	41.5	3.34	13.408	
885.8	885.8	885.8	885.8	1.9	1.9	-179.29	-44.8	-0.6	44.8	41.1	3.73	12.021	
900.0	900.0	900.0	900.0	1.9	1.9	-179.29	-44.8	-0.6	44.8	41.0	3.79	11.819	
984.2	984.2	984.2	984.2	2.1	2.1	-179.29	-44.8	-0.6	44.8	40.6	4.17	10.745	
1,000.0	1,000.0	1,000.0	1,000.0	2.1	2.1	-179.29	-44.8	-0.6	44.8	40.6	4.24	10.566 CC, ES	
1,082.7	1,082.7	1,082.2	1,082.2	2.3	2.3	-177.88	-45.2	-1.7	45.2	40.6	4.60	9.838	
1,100.0	1,100.0	1,099.4	1,099.4	2.3	2.3	-177.24	-45.4	-2.2	45.4	40.8	4.67	9.725	
1,181.1	1,181.1	1,179.9	1,179.8	2.5	2.5	-172.80	-46.7	-5.9	47.0	42.0	5.01	9.387	
1,200.0	1,200.0	1,198.6	1,198.5	2.6	2.5	-171.46	-47.1	-7.1	47.6	42.5	5.09	9.352	
1,279.5	1,279.5	1,277.2	1,276.8	2.7	2.7	-164.95	-49.2	-13.2	51.0	45.6	5.43	9.395	
1,300.0	1,300.0	1,297.4	1,296.8	2.8	2.7	-163.11	-49.8	-15.1	52.2	46.7	5.51	9.462	
1,377.9	1,377.9	1,373.7	1,372.7	3.0	2.9	86.34	-52.7	-23.6	57.9	52.1	5.85	9.896	
1,400.0	1,400.0	1,395.2	1,393.9	3.0	3.0	88.91	-53.7	-26.3	60.0	54.1	5.95	10.095	
1,476.4	1,476.3	1,468.9	1,466.8	3.1	3.2	98.06	-57.3	-36.8	69.3	63.1	6.26	11.074	
1,500.0	1,499.8	1,491.5	1,489.1	3.2	3.2	100.83	-58.5	-40.3	72.9	66.6	6.35	11.478	
1,574.8	1,574.4	1,562.3	1,558.7	3.3	3.4	108.96	-62.7	-52.6	86.8	80.2	6.66	13.036	
1,600.0	1,599.5	1,585.8	1,581.7	3.4	3.5	111.42	-64.3	-57.0	92.4	85.6	6.76	13.665	
1,673.2	1,672.2	1,653.3	1,647.7	3.6	3.8	117.70	-69.0	-70.7	111.1	104.1	7.07	15.724	
1,700.0	1,698.7	1,677.6	1,671.3	3.6	3.8	119.69	-70.8	-76.0	118.9	111.7	7.18	16.568	
1,771.6	1,769.5	1,741.6	1,733.3	3.8	4.1	124.24	-75.9	-90.8	142.0	134.5	7.48	18.988	
1,800.0	1,797.5	1,766.5	1,757.3	3.9	4.2	125.77	-78.0	-96.9	152.1	144.5	7.60	20.017	
1,870.1	1,866.3	1,830.0	1,818.6	4.1	4.5	129.17	-83.6	-113.0	178.6	170.7	7.91	22.590	
1,900.2	1,895.8	1,857.4	1,845.0	4.2	4.6	130.44	-86.0	-119.9	190.5	182.5	8.03	23.712	
1,968.5	1,962.6	1,919.2	1,904.5	4.4	4.9	133.26	-91.3	-135.5	218.0	209.6	8.34	26.123	
2,000.0	1,993.4	1,947.7	1,932.0	4.5	5.0	134.33	-93.8	-142.7	230.8	222.3	8.49	27.178	
2,066.9	2,058.9	2,008.3	1,990.4	4.7	5.3	136.27	-99.1	-158.0	258.2	249.4	8.81	29.318	
2,100.0	2,091.2	2,038.2	2,019.2	4.8	5.5	137.08	-101.7	-165.5	271.9	262.9	8.97	30.317	
2,165.3	2,155.2	2,097.3	2,076.2	5.1	5.8	138.47	-106.9	-180.5	298.9	289.6	9.29	32.189	
2,200.0	2,189.1	2,128.7	2,106.4	5.2	6.0	139.11	-109.6	-188.4	313.3	303.8	9.46	33.117	
2,263.8	2,251.4	2,186.4	2,162.1	5.5	6.2	140.15	-114.6	-203.0	339.9	330.1	9.78	34.741	
2,300.0	2,286.9	2,219.2	2,193.7	5.6	6.4	140.67	-117.5	-211.3	355.0	345.0	9.97	35.614	
2,362.2	2,347.7	2,275.5	2,247.9	5.8	6.7	141.47	-122.4	-225.5	381.0	370.7	10.29	37.026	
2,400.0	2,384.7	2,309.7	2,280.9	6.0	6.9	141.91	-125.4	-234.1	396.9	386.4	10.49	37.842	
2,460.6	2,444.0	2,364.6	2,333.8	6.2	7.2	142.54	-130.1	-248.0	422.3	411.5	10.81	39.073	
2,500.0	2,482.5	2,400.3	2,368.1	6.4	7.4	142.91	-133.2	-257.0	438.8	427.8	11.02	39.835	
2,559.0	2,540.3	2,453.7	2,419.6	6.6	7.7	143.41	-137.9	-270.5	463.7	452.4	11.33	40.909	

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

Anticollision Report



Company:	PDC ENERGY	Local Co-ordinate Reference:	Well WACKER 10G-214
Project:	WELD COUNTY, COLORADO	TVD Reference:	KB-EST @ 4624.0usft (Original Well Elev)
Reference Site:	SW NW SEC. 10 T5N R64W 6th P.M.	MD Reference:	KB-EST @ 4624.0usft (Original Well Elev)
Site Error:	0.0 usft	North Reference:	True
Reference Well:	WACKER 10G-214	Survey Calculation Method:	Minimum Curvature
Well Error:	0.0 usft	Output errors are at	2.00 sigma
Reference Wellbore	ORIGINAL WELLBORE	Database:	EDM 5000.1 Single User Db
Reference Design:	PROPOSAL #1	Offset TVD Reference:	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	2,580.3	2,490.8	2,455.3	6.8	7.9	143.73	-141.1	-279.9	480.9	469.4	11.56	41.620		
2,657.5	2,636.5	2,542.8	2,505.5	7.1	8.2	144.15	-145.7	-293.0	505.1	493.3	11.87	42.561		
2,700.0	2,678.1	2,581.3	2,542.6	7.2	8.4	144.43	-149.0	-302.7	523.1	511.0	12.10	43.225		
2,755.9	2,732.8	2,631.9	2,591.3	7.5	8.6	144.77	-153.4	-315.5	546.7	534.3	12.41	44.051		
2,800.0	2,775.9	2,671.8	2,629.8	7.7	8.9	145.02	-156.9	-325.6	565.3	552.6	12.65	44.673		
2,854.3	2,829.1	2,721.0	2,677.2	7.9	9.1	145.30	-161.2	-338.0	588.2	575.3	12.96	45.401		
2,900.0	2,873.8	2,762.3	2,717.0	8.1	9.4	145.52	-164.8	-348.4	607.5	594.3	13.21	45.984		
2,952.7	2,925.4	2,810.1	2,763.0	8.3	9.6	145.77	-168.9	-360.5	629.8	616.3	13.51	46.627		
2,953.5	2,926.1	2,810.7	2,763.7	8.3	9.6	145.77	-169.0	-360.7	630.1	616.6	13.51	46.636		
3,000.0	2,971.6	2,853.0	2,804.4	8.5	9.9	146.19	-172.7	-371.3	649.5	635.7	13.79	47.102		
3,051.2	3,022.0	2,899.8	2,849.5	8.7	10.1	146.57	-176.8	-383.2	670.2	656.1	14.08	47.603		
3,100.0	3,070.1	2,944.7	2,892.8	8.8	10.4	146.88	-180.7	-394.5	689.3	674.9	14.36	48.011		
3,149.6	3,119.1	2,990.6	2,937.0	8.9	10.6	147.14	-184.7	-406.1	708.0	693.4	14.63	48.382		
3,200.0	3,169.1	3,037.6	2,982.3	9.1	10.9	147.35	-188.8	-418.0	726.3	711.4	14.91	48.697		
3,248.0	3,216.8	3,082.6	3,025.6	9.2	11.1	147.50	-192.7	-429.3	743.1	728.0	15.18	48.966		
3,300.0	3,268.5	3,131.5	3,072.8	9.3	11.4	147.62	-196.9	-441.7	760.6	745.2	15.46	49.201		
3,346.4	3,314.8	3,175.4	3,115.1	9.4	11.7	147.69	-200.8	-452.8	775.6	759.9	15.70	49.388		
3,400.0	3,368.3	3,226.3	3,164.1	9.6	12.0	147.72	-205.2	-465.7	792.2	776.2	15.99	49.554		
3,444.9	3,413.1	3,269.2	3,205.4	9.6	12.2	147.72	-208.9	-476.5	805.4	789.2	16.21	49.675		
3,500.0	3,468.2	3,322.0	3,256.3	9.7	12.5	147.67	-213.5	-489.8	820.9	804.4	16.49	49.780		
3,543.3	3,511.5	3,363.6	3,296.4	9.8	12.7	147.61	-217.2	-500.3	832.5	815.8	16.70	49.845		
3,553.7	3,521.9	3,373.6	3,306.1	9.8	12.8	-93.76	-218.0	-502.9	835.2	813.4	21.74	38.418		
3,600.0	3,568.2	3,418.2	3,349.1	9.9	13.0	-93.98	-221.9	-514.1	847.1	825.1	22.06	38.400		
3,641.7	3,609.9	3,458.5	3,387.8	10.0	13.3	-94.17	-225.4	-524.3	857.9	835.6	22.36	38.377		
3,700.0	3,668.2	3,514.6	3,441.9	10.1	13.6	-94.44	-230.3	-538.5	873.0	850.3	22.77	38.344		
3,740.1	3,708.4	3,553.3	3,479.2	10.1	13.8	-94.61	-233.7	-548.2	883.4	860.4	23.05	38.321		
3,800.0	3,768.2	3,611.0	3,534.8	10.2	14.1	-94.86	-238.7	-562.8	899.0	875.5	23.48	38.286		
3,838.6	3,806.8	3,648.1	3,570.6	10.3	14.3	-95.02	-241.9	-572.2	909.0	885.2	23.76	38.263		
3,900.0	3,868.2	3,707.3	3,627.7	10.4	14.7	-95.27	-247.1	-587.2	925.0	900.8	24.20	38.227		
3,937.0	3,905.2	3,743.0	3,662.0	10.5	14.9	-95.41	-250.2	-596.2	934.6	910.1	24.46	38.205		
4,000.0	3,968.2	3,803.7	3,720.5	10.6	15.2	-95.65	-255.5	-611.5	951.0	926.1	24.92	38.167		
4,035.4	4,003.6	3,837.8	3,753.4	10.6	15.4	-95.78	-258.5	-620.1	960.2	935.0	25.17	38.146		
4,100.0	4,068.2	3,900.1	3,813.4	10.7	15.8	-96.01	-263.9	-635.8	977.0	951.4	25.64	38.107		
4,133.8	4,102.1	3,932.7	3,844.8	10.8	16.0	-96.13	-266.7	-644.1	985.9	960.0	25.89	38.086		
4,200.0	4,168.2	3,996.4	3,906.2	10.9	16.3	-96.35	-272.3	-660.2	1,003.1	976.8	26.37	38.047		
4,232.3	4,200.5	4,027.5	3,936.2	11.0	16.5	-96.46	-275.0	-668.0	1,011.6	985.0	26.60	38.027		
4,300.0	4,268.2	4,092.8	3,999.1	11.1	16.9	-96.68	-280.7	-684.5	1,029.3	1,002.2	27.10	37.987		
4,330.7	4,298.9	4,122.4	4,027.6	11.1	17.0	-96.78	-283.3	-692.0	1,037.3	1,010.0	27.32	37.968		
4,400.0	4,368.2	4,189.2	4,092.0	11.3	17.4	-96.99	-289.1	-708.9	1,055.4	1,027.6	27.83	37.927		
4,429.1	4,397.3	4,217.2	4,119.0	11.3	17.6	-97.08	-291.5	-716.0	1,063.1	1,035.0	28.04	37.910		
4,500.0	4,468.2	4,285.5	4,184.8	11.4	18.0	-97.29	-297.5	-733.2	1,081.6	1,053.1	28.56	37.868		
4,527.5	4,495.8	4,312.1	4,210.4	11.5	18.1	-97.36	-299.8	-739.9	1,088.8	1,060.1	28.77	37.852		
4,600.0	4,568.2	4,381.9	4,277.7	11.6	18.5	-97.57	-305.9	-757.5	1,107.8	1,078.5	29.30	37.810		
4,626.0	4,594.2	4,406.9	4,301.8	11.7	18.7	-97.64	-308.0	-763.9	1,114.6	1,085.1	29.49	37.795		
4,700.0	4,668.2	4,478.3	4,370.6	11.8	19.1	-97.83	-314.3	-781.9	1,134.1	1,104.0	30.04	37.753		
4,724.4	4,692.6	4,501.8	4,393.2	11.9	19.2	-97.90	-316.3	-787.8	1,140.5	1,110.2	30.22	37.739		
4,800.0	4,768.2	4,574.6	4,463.4	12.0	19.6	-98.09	-322.6	-806.2	1,160.3	1,129.5	30.78	37.697		
4,822.8	4,791.0	4,596.6	4,484.6	12.0	19.8	-98.15	-324.6	-811.8	1,166.3	1,135.4	30.95	37.684		
4,900.0	4,868.2	4,671.0	4,556.3	12.2	20.2	-98.33	-331.0	-830.6	1,186.6	1,155.1	31.52	37.641		
4,921.2	4,889.5	4,691.5	4,576.0	12.2	20.3	-98.38	-332.8	-835.7	1,192.2	1,160.5	31.68	37.630		
5,000.0	4,968.2	4,767.3	4,649.1	12.4	20.7	-98.57	-339.4	-854.9	1,212.9	1,180.6	32.27	37.587		
5,019.7	4,987.9	4,786.3	4,667.4	12.4	20.8	-98.61	-341.1	-859.7	1,218.1	1,185.7	32.42	37.576		

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

Anticollision Report



Company:	PDC ENERGY	Local Co-ordinate Reference:	Well WACKER 10G-214
Project:	WELD COUNTY, COLORADO	TVD Reference:	KB-EST @ 4624.0usft (Original Well Elev)
Reference Site:	SW NW SEC. 10 T5N R64W 6th P.M.	MD Reference:	KB-EST @ 4624.0usft (Original Well Elev)
Site Error:	0.0 usft	North Reference:	True
Reference Well:	WACKER 10G-214	Survey Calculation Method:	Minimum Curvature
Well Error:	0.0 usft	Output errors are at	2.00 sigma
Reference Wellbore	ORIGINAL WELLBORE	Database:	EDM 5000.1 Single User Db
Reference Design:	PROPOSAL #1	Offset TVD Reference:	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	5,068.2	4,863.7	4,742.0	12.6	21.3	-98.79	-347.8	-879.3	1,239.2	1,206.2	33.02	37.534	
5,118.1	5,086.3	4,881.2	4,758.8	12.6	21.4	-98.83	-349.3	-883.7	1,244.0	1,210.8	33.15	37.524	
5,200.0	5,168.2	4,960.1	4,834.9	12.7	21.8	-99.01	-356.2	-903.6	1,265.5	1,231.8	33.76	37.482	
5,216.5	5,184.7	4,976.0	4,850.2	12.8	21.9	-99.04	-357.6	-907.6	1,269.9	1,236.0	33.89	37.473	
5,300.0	5,268.2	5,056.4	4,927.7	12.9	22.4	-99.21	-364.6	-927.9	1,291.9	1,257.4	34.51	37.431	
5,314.9	5,283.2	5,070.8	4,941.6	13.0	22.5	-99.24	-365.9	-931.6	1,295.8	1,261.2	34.63	37.423	
5,400.0	5,368.2	5,152.8	5,020.6	13.1	23.0	-99.41	-373.0	-952.3	1,318.3	1,283.0	35.27	37.381	
5,413.4	5,381.6	5,165.7	5,033.0	13.2	23.0	-99.44	-374.1	-955.5	1,321.8	1,286.4	35.37	37.374	
5,500.0	5,468.2	7,991.5	6,713.1	13.3	38.4	175.32	-424.4	323.4	1,271.8	1,243.0	28.87	44.051	
5,511.8	5,480.0	7,991.3	6,713.1	13.3	38.4	175.36	-424.4	323.2	1,260.3	1,231.4	28.89	43.620	
5,600.0	5,568.2	7,989.8	6,713.2	13.5	38.3	175.69	-424.4	321.7	1,174.1	1,145.1	29.05	40.416	
5,610.2	5,578.4	7,989.6	6,713.2	13.5	38.3	175.73	-424.4	321.6	1,164.1	1,135.1	29.07	40.048	
5,700.0	5,668.2	7,988.1	6,713.2	13.7	38.3	176.07	-424.4	320.0	1,076.8	1,047.6	29.23	36.835	
5,708.6	5,676.9	7,987.9	6,713.2	13.7	38.3	176.10	-424.4	319.9	1,068.4	1,039.2	29.25	36.528	
5,800.0	5,768.2	7,986.4	6,713.2	13.9	38.2	176.44	-424.4	318.3	980.1	950.7	29.42	33.312	
5,807.1	5,775.3	7,986.2	6,713.2	13.9	38.2	176.47	-424.4	318.2	973.3	943.8	29.43	33.065	
5,900.0	5,868.2	7,984.6	6,713.2	14.1	38.2	176.82	-424.4	316.6	884.1	854.4	29.61	29.853	
5,905.5	5,873.7	7,984.6	6,713.2	14.1	38.2	176.84	-424.4	316.5	878.8	849.2	29.62	29.665	
5,960.7	5,928.9	7,983.6	6,713.3	14.2	38.2	177.05	-424.4	315.6	826.2	796.5	29.73	27.790	
6,000.0	5,968.2	7,981.9	6,713.3	14.3	38.2	-101.67	-424.4	313.8	789.0	737.6	51.47	15.331	
6,003.9	5,972.1	7,981.6	6,713.3	14.3	38.1	-102.47	-424.4	313.5	785.3	734.0	51.37	15.287	
6,050.0	6,018.0	7,976.5	6,713.4	14.4	38.0	-110.76	-424.4	308.5	742.3	692.3	50.03	14.837	
6,100.0	6,067.3	7,967.7	6,713.5	14.4	37.9	-117.63	-424.4	299.7	696.4	648.0	48.39	14.391	
6,102.3	6,069.6	7,967.2	6,713.5	14.4	37.8	-117.90	-424.4	299.2	694.3	645.9	48.31	14.370	
6,150.0	6,116.0	7,955.5	6,713.7	14.4	37.6	-122.63	-424.4	287.5	651.6	604.8	46.87	13.902	
6,200.0	6,163.8	7,940.0	6,714.0	14.5	37.3	-126.13	-424.4	272.0	608.3	562.8	45.59	13.345	
6,200.8	6,164.5	7,939.7	6,714.0	14.5	37.3	-126.18	-424.4	271.7	607.7	562.1	45.57	13.336	
6,250.0	6,210.4	7,921.2	6,714.3	14.5	36.9	-128.46	-424.4	253.2	566.8	522.3	44.53	12.729	
6,299.2	6,254.9	7,899.5	6,714.7	14.5	36.4	-129.83	-424.4	231.5	527.9	484.2	43.69	12.083	
6,300.0	6,255.6	7,899.1	6,714.7	14.5	36.4	-129.85	-424.4	231.1	527.3	483.6	43.68	12.072	
6,350.0	6,299.3	7,874.1	6,715.1	14.5	35.9	-130.46	-424.4	206.1	490.1	447.1	43.01	11.394	
6,397.6	6,339.2	7,847.4	6,715.6	14.6	35.4	-130.43	-424.4	179.4	457.1	414.6	42.52	10.750	
6,400.0	6,341.2	7,846.0	6,715.6	14.6	35.3	-130.41	-424.4	178.0	455.5	413.0	42.50	10.718	
6,450.0	6,381.0	7,815.2	6,716.1	14.6	34.7	-129.79	-424.4	147.2	423.8	381.7	42.12	10.061	
6,496.0	6,415.8	7,784.4	6,716.7	14.7	34.1	-128.78	-424.4	116.4	397.3	355.4	41.90	9.481	
6,500.0	6,418.7	7,781.6	6,716.7	14.7	34.1	-128.67	-424.4	113.6	395.1	353.2	41.88	9.433	
6,550.0	6,453.9	7,745.6	6,717.3	14.8	33.4	-127.11	-424.4	77.6	369.7	327.9	41.78	8.847	
6,594.5	6,483.1	7,711.6	6,717.9	15.0	32.7	-125.39	-424.4	43.6	349.8	308.0	41.79	8.370	
6,600.0	6,486.6	7,707.2	6,718.0	15.1	32.7	-125.16	-424.4	39.2	347.6	305.8	41.80	8.315	
6,650.0	6,516.6	7,666.7	6,718.7	15.3	31.9	-122.91	-424.4	-1.3	328.8	286.8	41.96	7.836	
6,692.9	6,540.0	7,630.4	6,719.3	15.7	31.3	-120.80	-424.4	-37.6	315.3	273.1	42.17	7.476	
6,700.0	6,543.7	7,624.2	6,719.4	15.7	31.2	-120.44	-424.4	-43.7	313.2	271.0	42.21	7.421	
6,750.0	6,567.8	7,580.1	6,720.1	16.2	30.5	-117.86	-424.4	-87.9	300.8	258.2	42.55	7.069	
6,791.3	6,585.4	7,542.4	6,720.8	16.7	29.9	-115.74	-424.4	-125.6	292.5	249.7	42.88	6.822	
6,800.0	6,588.8	7,534.3	6,720.9	16.8	29.8	-115.31	-424.4	-133.6	291.0	248.1	42.95	6.777	
6,850.0	6,606.6	7,487.3	6,721.7	17.4	29.1	-112.91	-424.4	-180.6	283.7	240.4	43.37	6.543	
6,889.7	6,618.4	7,449.2	6,722.4	18.0	28.6	-111.20	-424.4	-218.8	279.4	235.7	43.73	6.389	
6,900.0	6,621.1	7,439.2	6,722.5	18.2	28.4	-110.80	-424.4	-228.7	278.5	234.6	43.81	6.355	
6,950.0	6,632.2	7,390.3	6,723.4	19.0	27.8	-109.11	-424.4	-277.6	274.9	230.6	44.23	6.215	
6,988.2	6,638.4	7,352.6	6,724.0	19.7	27.4	-108.16	-424.4	-315.4	273.1	228.5	44.57	6.127	
7,000.0	6,639.9	7,340.8	6,724.2	19.9	27.3	-107.93	-424.4	-327.1	272.7	228.0	44.66	6.105	
7,050.0	6,644.1	7,290.4	6,725.1	20.8	26.7	-107.32	-424.4	-377.5	271.7	226.6	45.02	6.034	

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

Anticollision Report



Company:	PDC ENERGY	Local Co-ordinate Reference:	Well WACKER 10G-214
Project:	WELD COUNTY, COLORADO	TVD Reference:	KB-EST @ 4624.0usft (Original Well Elev)
Reference Site:	SW NW SEC. 10 T5N R64W 6th P.M.	MD Reference:	KB-EST @ 4624.0usft (Original Well Elev)
Site Error:	0.0 usft	North Reference:	True
Reference Well:	WACKER 10G-214	Survey Calculation Method:	Minimum Curvature
Well Error:	0.0 usft	Output errors are at	2.00 sigma
Reference Wellbore	ORIGINAL WELLBORE	Database:	EDM 5000.1 Single User Db
Reference Design:	PROPOSAL #1	Offset TVD Reference:	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	
7,086.5	6,645.0	7,249.3	6,724.3	21.5	26.4	-107.01	-424.4	-418.6	271.2	225.9	45.29	5.987	
7,100.0	6,645.0	7,234.2	6,723.5	21.8	26.2	-106.84	-424.4	-433.7	271.0	225.5	45.45	5.962	
7,185.0	6,644.9	7,140.3	6,711.0	23.6	25.6	-104.30	-424.4	-526.7	267.9	221.0	46.93	5.709	
7,200.0	6,644.8	7,124.1	6,707.6	23.9	25.5	-103.61	-424.4	-542.5	267.2	219.9	47.26	5.653	
7,283.4	6,644.7	7,037.5	6,683.5	25.7	25.1	-98.51	-424.4	-625.6	262.6	213.1	49.41	5.313	
7,300.0	6,644.7	7,021.1	6,677.8	26.1	25.1	-97.28	-424.4	-641.0	261.7	211.9	49.86	5.249	
7,381.9	6,644.6	6,944.2	6,646.5	28.0	24.9	-90.43	-424.4	-711.2	259.3	207.3	51.99	4.988	
7,386.7	6,644.6	6,939.9	6,644.6	28.1	24.9	-90.00	-424.4	-715.0	259.3	207.2	52.11	4.977	
7,400.0	6,644.6	6,928.2	6,639.1	28.4	24.9	-88.79	-424.4	-725.4	259.4	207.0	52.41	4.949	
7,480.3	6,644.5	6,861.8	6,604.9	30.3	24.9	-81.31	-424.4	-782.3	263.6	209.8	53.84	4.896 SF	
7,500.0	6,644.4	6,846.6	6,596.3	30.8	24.9	-79.48	-424.4	-794.8	265.9	211.8	54.08	4.916	
7,578.7	6,644.3	6,790.3	6,562.3	32.7	25.0	-72.43	-424.4	-839.7	280.2	225.6	54.61	5.131	
7,600.0	6,644.3	6,776.2	6,553.3	33.3	25.0	-70.63	-424.4	-850.5	285.6	231.0	54.64	5.227	
7,677.1	6,644.2	6,728.8	6,521.3	35.2	25.1	-64.61	-424.4	-885.5	311.0	256.5	54.51	5.706	
7,700.0	6,644.1	6,715.8	6,512.1	35.8	25.1	-62.99	-424.4	-894.7	320.2	265.8	54.41	5.885	
7,775.6	6,644.0	6,676.1	6,483.1	37.7	25.2	-58.14	-424.4	-921.8	355.4	301.4	53.97	6.585	
7,800.0	6,644.0	6,664.2	6,474.2	38.3	25.3	-56.73	-424.4	-929.6	368.2	314.4	53.81	6.843	
7,874.0	6,643.9	6,630.9	6,448.3	40.2	25.4	-52.93	-424.4	-950.6	410.9	357.6	53.35	7.703	
7,900.0	6,643.9	6,620.1	6,439.7	40.9	25.4	-51.74	-424.4	-957.2	427.1	373.9	53.19	8.030	
7,972.4	6,643.8	6,600.0	6,423.5	42.8	25.4	-49.60	-424.4	-969.1	475.2	421.8	53.35	8.906	
8,000.0	6,643.7	6,582.1	6,408.8	43.5	25.5	-47.76	-424.4	-979.3	494.3	441.6	52.70	9.379	
8,070.8	6,643.6	6,550.0	6,381.8	45.4	25.6	-44.66	-424.4	-996.6	545.8	493.9	51.90	10.517	
8,100.0	6,643.6	6,550.0	6,381.8	46.2	25.6	-44.66	-424.4	-996.6	567.6	515.2	52.45	10.822	
8,169.3	6,643.5	6,529.1	6,363.8	48.0	25.6	-42.76	-424.4	-1,007.2	621.3	569.0	52.31	11.877	
8,200.0	6,643.5	6,520.7	6,356.5	48.8	25.7	-42.03	-424.4	-1,011.3	645.7	593.4	52.30	12.347	
8,267.7	6,643.4	6,500.0	6,338.2	50.6	25.7	-40.28	-424.4	-1,021.1	700.7	648.6	52.09	13.450	
8,300.0	6,643.3	6,500.0	6,338.2	51.5	25.7	-40.28	-424.4	-1,021.1	727.4	674.7	52.67	13.810	
8,366.1	6,643.2	6,480.9	6,321.2	53.3	25.8	-38.76	-424.4	-1,029.6	782.9	730.4	52.52	14.908	
8,400.0	6,643.2	6,473.8	6,314.7	54.2	25.8	-38.21	-424.4	-1,032.7	811.8	759.2	52.61	15.430	
8,464.5	6,643.1	6,450.0	6,293.0	55.9	25.9	-36.45	-424.4	-1,042.5	867.7	815.6	52.08	16.659	
8,500.0	6,643.1	6,450.0	6,293.0	56.9	25.9	-36.45	-424.4	-1,042.5	898.5	845.8	52.68	17.055	
8,563.0	6,643.0	6,450.0	6,293.0	58.6	25.9	-36.45	-424.4	-1,042.5	954.0	900.3	53.75	17.750	
8,600.0	6,642.9	6,450.0	6,293.0	59.6	25.9	-36.45	-424.4	-1,042.5	987.1	932.7	54.37	18.154	
8,661.4	6,642.8	6,427.3	6,272.1	61.3	25.9	-34.87	-424.4	-1,051.2	1,041.9	988.1	53.80	19.365	
8,700.0	6,642.8	6,421.5	6,266.7	62.3	25.9	-34.49	-424.4	-1,053.3	1,076.8	1,022.7	54.03	19.927	
8,759.8	6,642.7	6,400.0	6,246.5	64.0	26.0	-33.11	-424.4	-1,060.7	1,131.3	1,077.8	53.53	21.133	
8,800.0	6,642.7	6,400.0	6,246.5	65.1	26.0	-33.11	-424.4	-1,060.7	1,167.9	1,113.7	54.17	21.559	
8,858.2	6,642.6	6,400.0	6,246.5	66.6	26.0	-33.11	-424.4	-1,060.7	1,221.3	1,166.2	55.10	22.166	
8,900.0	6,642.5	6,400.0	6,246.5	67.8	26.0	-33.11	-424.4	-1,060.7	1,259.9	1,204.2	55.77	22.593	
8,956.7	6,642.4	6,400.0	6,246.5	69.3	26.0	-33.11	-424.4	-1,060.7	1,312.6	1,255.9	56.67	23.161	
9,000.0	6,642.4	6,383.5	6,230.9	70.5	26.0	-32.11	-424.4	-1,066.0	1,352.8	1,296.6	56.19	24.074	
9,055.1	6,642.3	6,377.7	6,225.3	72.0	26.0	-31.77	-424.4	-1,067.8	1,404.3	1,347.6	56.64	24.792	
9,100.0	6,642.3	6,373.1	6,221.0	73.3	26.0	-31.50	-424.4	-1,069.2	1,446.4	1,389.4	57.02	25.366	
9,153.5	6,642.2	6,367.9	6,216.0	74.7	26.0	-31.20	-424.4	-1,070.7	1,496.8	1,439.3	57.48	26.039	
9,200.0	6,642.1	6,350.0	6,198.8	76.0	26.1	-30.21	-424.4	-1,075.7	1,540.8	1,483.8	56.96	27.053	
9,251.9	6,642.1	6,350.0	6,198.8	77.5	26.1	-30.21	-424.4	-1,075.7	1,589.9	1,532.1	57.74	27.536	
9,300.0	6,642.0	6,350.0	6,198.8	78.8	26.1	-30.21	-424.4	-1,075.7	1,635.4	1,576.9	58.46	27.974	
9,350.4	6,641.9	6,350.0	6,198.8	80.2	26.1	-30.21	-424.4	-1,075.7	1,683.3	1,624.1	59.22	28.423	
9,400.0	6,641.9	6,350.0	6,198.8	81.5	26.1	-30.21	-424.4	-1,075.7	1,730.6	1,670.6	59.97	28.857	
9,448.8	6,641.8	6,350.0	6,198.8	82.9	26.1	-30.21	-424.4	-1,075.7	1,777.2	1,716.5	60.71	29.275	
9,500.0	6,641.7	6,350.0	6,198.8	84.3	26.1	-30.22	-424.4	-1,075.7	1,826.3	1,764.8	61.48	29.705	
9,547.2	6,641.7	6,350.0	6,198.8	85.6	26.1	-30.22	-424.4	-1,075.7	1,871.6	1,809.4	62.20	30.093	

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

Anticollision Report



Company:	PDC ENERGY	Local Co-ordinate Reference:	Well WACKER 10G-214
Project:	WELD COUNTY, COLORADO	TVD Reference:	KB-EST @ 4624.0usft (Original Well Elev)
Reference Site:	SW NW SEC. 10 T5N R64W 6th P.M.	MD Reference:	KB-EST @ 4624.0usft (Original Well Elev)
Site Error:	0.0 usft	North Reference:	True
Reference Well:	WACKER 10G-214	Survey Calculation Method:	Minimum Curvature
Well Error:	0.0 usft	Output errors are at	2.00 sigma
Reference Wellbore	ORIGINAL WELLBORE	Database:	EDM 5000.1 Single User Db
Reference Design:	PROPOSAL #1	Offset TVD Reference:	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	
9,600.0	6,641.6	6,350.0	6,198.8	87.1	26.1	-30.22	-424.4	-1,075.7	1,922.4	1,859.4	63.00	30.517	
9,645.6	6,641.5	6,329.5	6,178.9	88.3	26.1	-29.14	-424.4	-1,080.8	1,966.1	1,903.9	62.16	31.631	
9,700.0	6,641.5	6,326.0	6,175.6	89.8	26.1	-28.97	-424.4	-1,081.6	2,018.4	1,955.7	62.71	32.188	
9,744.1	6,641.4	6,323.4	6,173.0	91.0	26.1	-28.83	-424.4	-1,082.3	2,060.9	1,997.8	63.16	32.630	
9,800.0	6,641.3	6,320.1	6,169.8	92.6	26.1	-28.67	-424.4	-1,083.0	2,115.0	2,051.2	63.74	33.182	
9,842.5	6,641.3	6,300.0	6,150.2	93.8	26.1	-27.70	-424.4	-1,087.2	2,156.4	2,093.5	62.91	34.278	
9,900.0	6,641.2	6,300.0	6,150.2	95.4	26.1	-27.70	-424.4	-1,087.2	2,212.0	2,148.2	63.73	34.708	
9,940.9	6,641.1	6,300.0	6,150.2	96.5	26.1	-27.70	-424.4	-1,087.2	2,251.6	2,187.3	64.32	35.008	
10,000.0	6,641.1	6,300.0	6,150.2	98.1	26.1	-27.70	-424.4	-1,087.2	2,308.9	2,243.7	65.16	35.434	
10,039.3	6,641.0	6,300.0	6,150.2	99.2	26.1	-27.70	-424.4	-1,087.2	2,347.1	2,281.3	65.72	35.711	
10,100.0	6,640.9	6,300.0	6,150.2	100.9	26.1	-27.70	-424.4	-1,087.2	2,406.0	2,339.4	66.59	36.131	
10,137.8	6,640.9	6,300.0	6,150.2	102.0	26.1	-27.70	-424.4	-1,087.2	2,442.8	2,375.7	67.13	36.387	
10,200.0	6,640.8	6,300.0	6,150.2	103.7	26.1	-27.70	-424.4	-1,087.2	2,503.4	2,435.4	68.03	36.801	
10,236.2	6,640.8	6,300.0	6,150.2	104.7	26.1	-27.70	-424.4	-1,087.2	2,538.7	2,470.2	68.54	37.038	
10,300.0	6,640.7	6,300.0	6,150.2	106.5	26.1	-27.70	-424.4	-1,087.2	2,601.0	2,531.5	69.46	37.446	
10,334.6	6,640.6	6,300.0	6,150.2	107.4	26.1	-27.70	-424.4	-1,087.2	2,634.8	2,564.9	69.96	37.664	
10,400.0	6,640.6	6,300.0	6,150.2	109.3	26.1	-27.70	-424.4	-1,087.2	2,698.7	2,627.9	70.89	38.067	
10,433.0	6,640.5	6,300.0	6,150.2	110.2	26.1	-27.70	-424.4	-1,087.2	2,731.1	2,659.7	71.37	38.267	
10,500.0	6,640.4	6,300.0	6,150.2	112.0	26.1	-27.70	-424.4	-1,087.2	2,796.7	2,724.3	72.33	38.665	
10,531.5	6,640.4	6,300.0	6,150.2	112.9	26.1	-27.70	-424.4	-1,087.2	2,827.5	2,754.7	72.78	38.849	
10,600.0	6,640.3	6,300.0	6,150.2	114.8	26.1	-27.70	-424.4	-1,087.2	2,894.7	2,821.0	73.77	39.241	
10,629.9	6,640.3	6,300.0	6,150.2	115.7	26.1	-27.70	-424.4	-1,087.2	2,924.1	2,849.9	74.20	39.409	
10,700.0	6,640.2	6,300.0	6,150.2	117.6	26.1	-27.71	-424.4	-1,087.2	2,992.9	2,917.7	75.21	39.796	
10,728.3	6,640.1	6,279.8	6,130.3	118.4	26.2	-26.78	-424.4	-1,090.9	3,020.4	2,946.5	73.93	40.855	
10,800.0	6,640.0	6,277.4	6,128.0	120.4	26.2	-26.68	-424.4	-1,091.3	3,090.8	3,016.0	74.75	41.349	
10,826.7	6,640.0	6,276.6	6,127.1	121.2	26.2	-26.65	-424.4	-1,091.5	3,117.1	3,042.0	75.06	41.530	
10,900.0	6,639.9	6,274.4	6,124.9	123.2	26.2	-26.55	-424.4	-1,091.8	3,189.1	3,113.2	75.90	42.018	
10,925.2	6,639.9	6,273.6	6,124.2	123.9	26.2	-26.52	-424.4	-1,092.0	3,213.8	3,137.6	76.19	42.183	
11,000.0	6,639.8	6,271.4	6,122.0	126.0	26.2	-26.42	-424.4	-1,092.3	3,287.4	3,210.4	77.05	42.666	
11,023.6	6,639.8	6,270.8	6,121.4	126.6	26.2	-26.39	-424.4	-1,092.4	3,310.7	3,233.3	77.32	42.815	
11,100.0	6,639.7	6,250.0	6,100.8	128.8	26.2	-25.52	-424.4	-1,095.4	3,386.2	3,309.5	76.68	44.159	
11,122.0	6,639.6	6,250.0	6,100.8	129.4	26.2	-25.52	-424.4	-1,095.4	3,407.9	3,330.9	76.98	44.268	
11,200.0	6,639.5	6,250.0	6,100.8	131.6	26.2	-25.52	-424.4	-1,095.4	3,484.6	3,406.6	78.05	44.649	
11,220.4	6,639.5	6,250.0	6,100.8	132.1	26.2	-25.52	-424.4	-1,095.4	3,504.8	3,426.5	78.32	44.748	
11,300.0	6,639.4	6,250.0	6,100.8	134.4	26.2	-25.52	-424.4	-1,095.4	3,583.2	3,503.8	79.41	45.123	
11,318.9	6,639.4	6,250.0	6,100.8	134.9	26.2	-25.52	-424.4	-1,095.4	3,601.8	3,522.1	79.67	45.211	
11,400.0	6,639.3	6,250.0	6,100.8	137.1	26.2	-25.53	-424.4	-1,095.4	3,681.8	3,601.0	80.77	45.582	
11,417.3	6,639.3	6,250.0	6,100.8	137.6	26.2	-25.53	-424.4	-1,095.4	3,698.9	3,617.9	81.01	45.660	
11,500.0	6,639.2	6,250.0	6,100.8	139.9	26.2	-25.53	-424.4	-1,095.4	3,780.5	3,698.4	82.14	46.026	
11,515.7	6,639.1	6,250.0	6,100.8	140.4	26.2	-25.53	-424.4	-1,095.4	3,796.0	3,713.7	82.35	46.095	
11,600.0	6,639.0	6,250.0	6,100.8	142.7	26.2	-25.53	-424.4	-1,095.4	3,879.3	3,795.8	83.50	46.456	
11,614.1	6,639.0	6,250.0	6,100.8	143.1	26.2	-25.53	-424.4	-1,095.4	3,893.2	3,809.5	83.70	46.516	
11,700.0	6,638.9	6,250.0	6,100.8	145.5	26.2	-25.53	-424.4	-1,095.4	3,978.1	3,893.2	84.87	46.873	
11,712.6	6,638.9	6,250.0	6,100.8	145.9	26.2	-25.53	-424.4	-1,095.4	3,990.5	3,905.5	85.04	46.925	
11,800.0	6,638.8	6,250.0	6,100.8	148.3	26.2	-25.53	-424.4	-1,095.4	4,077.0	3,990.7	86.24	47.277	
11,811.0	6,638.8	6,250.0	6,100.8	148.6	26.2	-25.53	-424.4	-1,095.4	4,087.8	4,001.4	86.39	47.321	
11,900.0	6,638.7	6,250.0	6,100.8	151.1	26.2	-25.53	-424.4	-1,095.4	4,175.9	4,088.3	87.60	47.669	
11,909.4	6,638.6	6,250.0	6,100.8	151.4	26.2	-25.53	-424.4	-1,095.4	4,185.2	4,097.5	87.73	47.705	
12,000.0	6,638.5	6,250.0	6,100.8	153.9	26.2	-25.53	-424.4	-1,095.4	4,274.9	4,185.9	88.97	48.049	
12,007.8	6,638.5	6,250.0	6,100.8	154.1	26.2	-25.53	-424.4	-1,095.4	4,282.6	4,193.6	89.08	48.078	
12,100.0	6,638.4	6,250.0	6,100.8	156.7	26.2	-25.53	-424.4	-1,095.4	4,373.9	4,283.6	90.34	48.418	
12,106.3	6,638.4	6,250.0	6,100.8	156.9	26.2	-25.53	-424.4	-1,095.4	4,380.1	4,289.7	90.42	48.441	

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

Anticollision Report



Company:	PDC ENERGY	Local Co-ordinate Reference:	Well WACKER 10G-214
Project:	WELD COUNTY, COLORADO	TVD Reference:	KB-EST @ 4624.0usft (Original Well Elev)
Reference Site:	SW NW SEC. 10 T5N R64W 6th P.M.	MD Reference:	KB-EST @ 4624.0usft (Original Well Elev)
Site Error:	0.0 usft	North Reference:	True
Reference Well:	WACKER 10G-214	Survey Calculation Method:	Minimum Curvature
Well Error:	0.0 usft	Output errors are at	2.00 sigma
Reference Wellbore	ORIGINAL WELLBORE	Database:	EDM 5000.1 Single User Db
Reference Design:	PROPOSAL #1	Offset TVD Reference:	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		
12,200.0	6,638.3	6,250.0	6,100.8	159.5	26.2	-25.53	-424.4	-1,095.4	4,473.0	4,381.3	91.70	48.776		
12,204.7	6,638.3	6,250.0	6,100.8	159.6	26.2	-25.53	-424.4	-1,095.4	4,477.6	4,385.8	91.77	48.792		
12,300.0	6,638.2	6,250.0	6,100.8	162.3	26.2	-25.53	-424.4	-1,095.4	4,572.1	4,479.0	93.07	49.123		
12,303.1	6,638.2	6,250.0	6,100.8	162.4	26.2	-25.53	-424.4	-1,095.4	4,575.2	4,482.1	93.12	49.134		
12,400.0	6,638.0	6,250.0	6,100.8	165.1	26.2	-25.53	-424.4	-1,095.4	4,671.2	4,576.8	94.44	49.461		
12,401.5	6,638.0	6,250.0	6,100.8	165.2	26.2	-25.53	-424.4	-1,095.4	4,672.8	4,578.3	94.46	49.466		
12,500.0	6,637.9	6,250.0	6,100.8	167.9	26.2	-25.53	-424.4	-1,095.4	4,770.4	4,674.6	95.81	49.790		
12,598.4	6,637.8	6,250.0	6,100.8	170.7	26.2	-25.53	-424.4	-1,095.4	4,868.0	4,770.9	97.16	50.105		
12,600.0	6,637.8	6,250.0	6,100.8	170.7	26.2	-25.53	-424.4	-1,095.4	4,869.6	4,772.4	97.18	50.109		
12,696.8	6,637.7	6,250.0	6,100.8	173.4	26.2	-25.53	-424.4	-1,095.4	4,965.7	4,867.2	98.51	50.411		
12,700.0	6,637.7	6,250.0	6,100.8	173.5	26.2	-25.53	-424.4	-1,095.4	4,968.9	4,870.3	98.55	50.420		
12,795.2	6,637.6	6,250.0	6,100.8	176.2	26.2	-25.53	-424.4	-1,095.4	5,063.4	4,963.6	99.85	50.708		
12,800.0	6,637.6	6,250.0	6,100.8	176.3	26.2	-25.53	-424.4	-1,095.4	5,068.2	4,968.2	99.92	50.722		
12,893.7	6,637.4	6,250.0	6,100.8	178.9	26.2	-25.53	-424.4	-1,095.4	5,161.2	5,060.0	101.20	50.998		
12,900.0	6,637.4	6,250.0	6,100.8	179.1	26.2	-25.53	-424.4	-1,095.4	5,167.5	5,066.2	101.29	51.016		
12,992.1	6,637.3	6,250.0	6,100.8	181.7	26.2	-25.53	-424.4	-1,095.4	5,258.9	5,156.4	102.55	51.281		
13,000.0	6,637.3	6,250.0	6,100.8	181.9	26.2	-25.53	-424.4	-1,095.4	5,266.8	5,164.1	102.66	51.302		
13,090.5	6,637.2	6,250.0	6,100.8	184.4	26.2	-25.53	-424.4	-1,095.4	5,356.7	5,252.8	103.90	51.556		
13,100.0	6,637.2	6,250.0	6,100.8	184.7	26.2	-25.54	-424.4	-1,095.4	5,366.1	5,262.1	104.03	51.581		
13,188.9	6,637.1	6,250.0	6,100.8	187.2	26.2	-25.54	-424.4	-1,095.4	5,454.5	5,349.3	105.25	51.824		
13,200.0	6,637.1	6,250.0	6,100.8	187.5	26.2	-25.54	-424.4	-1,095.4	5,465.5	5,360.1	105.40	51.853		
13,287.4	6,637.0	6,250.0	6,100.8	190.0	26.2	-25.54	-424.4	-1,095.4	5,552.4	5,445.8	106.60	52.085		
13,300.0	6,637.0	6,250.0	6,100.8	190.3	26.2	-25.54	-424.4	-1,095.4	5,564.9	5,458.2	106.78	52.118		
13,385.8	6,636.9	6,250.0	6,100.8	192.7	26.2	-25.54	-424.4	-1,095.4	5,650.2	5,542.3	107.95	52.340		
13,400.0	6,636.8	6,250.0	6,100.8	193.1	26.2	-25.54	-424.4	-1,095.4	5,664.4	5,556.2	108.15	52.376		
13,484.2	6,636.7	6,227.6	6,078.5	195.5	26.2	-24.65	-424.4	-1,097.9	5,747.7	5,640.9	106.80	53.819		
13,500.0	6,636.7	6,227.4	6,078.4	195.9	26.2	-24.65	-424.4	-1,097.9	5,763.4	5,656.4	106.99	53.868		
13,582.6	6,636.6	6,226.5	6,077.5	198.2	26.2	-24.61	-424.4	-1,098.0	5,845.6	5,737.6	108.00	54.126		
13,600.0	6,636.6	6,226.3	6,077.3	198.7	26.2	-24.61	-424.4	-1,098.0	5,862.8	5,754.6	108.21	54.178		
13,681.1	6,636.5	6,225.5	6,076.5	201.0	26.2	-24.57	-424.4	-1,098.1	5,943.4	5,834.2	109.21	54.425		
13,700.0	6,636.5	6,225.3	6,076.3	201.5	26.2	-24.57	-424.4	-1,098.1	5,962.3	5,852.8	109.44	54.481		
13,779.5	6,636.4	6,224.5	6,075.5	203.7	26.2	-24.54	-424.4	-1,098.2	6,041.3	5,930.9	110.41	54.717		
13,800.0	6,636.4	6,224.3	6,075.3	204.3	26.2	-24.53	-424.4	-1,098.2	6,061.7	5,951.1	110.66	54.776		
13,877.9	6,636.3	6,223.5	6,074.5	206.5	26.2	-24.50	-424.4	-1,098.3	6,139.2	6,027.6	111.62	55.002		
13,900.0	6,636.3	6,223.3	6,074.3	207.1	26.2	-24.49	-424.4	-1,098.3	6,161.2	6,049.3	111.89	55.065		
13,976.3	6,636.2	6,222.6	6,073.6	209.3	26.2	-24.47	-424.4	-1,098.4	6,237.2	6,124.3	112.83	55.281		
14,000.0	6,636.1	6,200.0	6,051.1	209.9	26.2	-23.64	-424.4	-1,100.1	6,261.1	6,150.4	110.66	56.579		
14,074.8	6,636.0	6,200.0	6,051.1	212.0	26.2	-23.64	-424.4	-1,100.1	6,335.5	6,223.8	111.64	56.751		
14,100.0	6,636.0	6,200.0	6,051.1	212.7	26.2	-23.64	-424.4	-1,100.1	6,360.6	6,248.6	111.97	56.808		
14,173.2	6,635.9	6,200.0	6,051.1	214.8	26.2	-23.64	-424.4	-1,100.1	6,433.4	6,320.5	112.92	56.973		
14,200.0	6,635.9	6,200.0	6,051.1	215.5	26.2	-23.64	-424.4	-1,100.1	6,460.0	6,346.8	113.27	57.032		
14,271.6	6,635.8	6,200.0	6,051.1	217.5	26.2	-23.64	-424.4	-1,100.1	6,531.3	6,417.1	114.20	57.190		
14,300.0	6,635.8	6,200.0	6,051.1	218.3	26.2	-23.64	-424.4	-1,100.1	6,559.6	6,445.0	114.58	57.250		
14,370.0	6,635.7	6,200.0	6,051.1	220.3	26.2	-23.64	-424.4	-1,100.1	6,629.3	6,513.8	115.49	57.401		
14,400.0	6,635.7	6,200.0	6,051.1	221.1	26.2	-23.64	-424.4	-1,100.1	6,659.1	6,543.2	115.88	57.464		
14,468.5	6,635.6	6,200.0	6,051.1	223.1	26.2	-23.64	-424.4	-1,100.1	6,727.2	6,610.5	116.77	57.609		
14,500.0	6,635.6	6,200.0	6,051.1	223.9	26.2	-23.64	-424.4	-1,100.1	6,758.6	6,641.4	117.19	57.673		
14,566.9	6,635.5	6,200.0	6,051.1	225.8	26.2	-23.64	-424.4	-1,100.1	6,825.2	6,707.1	118.06	57.811		
14,600.0	6,635.4	6,200.0	6,051.1	226.8	26.2	-23.64	-424.4	-1,100.1	6,858.2	6,739.7	118.49	57.878		
14,665.3	6,635.4	6,200.0	6,051.1	228.6	26.2	-23.64	-424.4	-1,100.1	6,923.2	6,803.8	119.35	58.010		
14,700.0	6,635.3	6,200.0	6,051.1	229.6	26.2	-23.65	-424.4	-1,100.1	6,957.7	6,837.9	119.80	58.078		
14,763.7	6,635.2	6,200.0	6,051.1	231.3	26.2	-23.65	-424.4	-1,100.1	7,021.2	6,900.6	120.63	58.204		

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

Anticollision Report



Company:	PDC ENERGY	Local Co-ordinate Reference:	Well WACKER 10G-214
Project:	WELD COUNTY, COLORADO	TVD Reference:	KB-EST @ 4624.0usft (Original Well Elev)
Reference Site:	SW NW SEC. 10 T5N R64W 6th P.M.	MD Reference:	KB-EST @ 4624.0usft (Original Well Elev)
Site Error:	0.0 usft	North Reference:	True
Reference Well:	WACKER 10G-214	Survey Calculation Method:	Minimum Curvature
Well Error:	0.0 usft	Output errors are at	2.00 sigma
Reference Wellbore	ORIGINAL WELLBORE	Database:	EDM 5000.1 Single User Db
Reference Design:	PROPOSAL #1	Offset TVD Reference:	Offset Datum

Offset Design SW NW SEC. 10 T5N R64W 6th P.M. - WACKER 10G-302 - ORIGINAL WELLBORE - PROPOSAL #1												Offset Site Error:	0.0 usft
Survey Program: 0-MWD												Offset Well Error:	0.0 usft
Reference	Offset	Semi Major Axis		Distance									
Measured Depth (usft)	Vertical Depth (usft)	Measured Depth (usft)	Vertical Depth (usft)	Reference (usft)	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
14,800.0	6,635.2	6,200.0	6,051.1	232.4	26.2	-23.65	-424.4	-1,100.1	7,057.3	6,936.2	121.11	58.274	
14,862.2	6,635.1	6,200.0	6,051.1	234.1	26.2	-23.65	-424.4	-1,100.1	7,119.2	6,997.3	121.92	58.394	
14,900.0	6,635.1	6,200.0	6,051.1	235.2	26.2	-23.65	-424.4	-1,100.1	7,156.9	7,034.5	122.41	58.465	
14,960.6	6,635.0	6,200.0	6,051.1	236.9	26.2	-23.65	-424.4	-1,100.1	7,217.2	7,094.0	123.20	58.580	
14,982.9	6,635.0	6,200.0	6,051.1	237.5	26.2	-23.65	-424.4	-1,100.1	7,239.4	7,115.9	123.50	58.621	

Anticollision Report



Company:	PDC ENERGY	Local Co-ordinate Reference:	Well WACKER 10G-214
Project:	WELD COUNTY, COLORADO	TVD Reference:	KB-EST @ 4624.0usft (Original Well Elev)
Reference Site:	SW NW SEC. 10 T5N R64W 6th P.M.	MD Reference:	KB-EST @ 4624.0usft (Original Well Elev)
Site Error:	0.0 usft	North Reference:	True
Reference Well:	WACKER 10G-214	Survey Calculation Method:	Minimum Curvature
Well Error:	0.0 usft	Output errors are at	2.00 sigma
Reference Wellbore	ORIGINAL WELLBORE	Database:	EDM 5000.1 Single User Db
Reference Design:	PROPOSAL #1	Offset TVD Reference:	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	-179.47	-29.9	-0.3	29.9					
98.4	98.4	98.4	98.4	0.1	0.1	-179.47	-29.9	-0.3	29.9	29.7	0.19	155.407		
100.0	100.0	100.0	100.0	0.1	0.1	-179.47	-29.9	-0.3	29.9	29.7	0.20	152.776		
196.8	196.8	196.8	196.8	0.3	0.3	-179.47	-29.9	-0.3	29.9	29.2	0.63	47.351		
200.0	200.0	200.0	200.0	0.3	0.3	-179.47	-29.9	-0.3	29.9	29.2	0.65	46.312		
295.3	295.3	295.3	295.3	0.5	0.5	-179.47	-29.9	-0.3	29.9	28.8	1.07	27.833		
300.0	300.0	300.0	300.0	0.5	0.5	-179.47	-29.9	-0.3	29.9	28.8	1.09	27.293		
393.7	393.7	393.7	393.7	0.8	0.8	-179.47	-29.9	-0.3	29.9	28.4	1.52	19.709		
400.0	400.0	400.0	400.0	0.8	0.8	-179.47	-29.9	-0.3	29.9	28.3	1.54	19.347		
492.1	492.1	492.1	492.1	1.0	1.0	-179.47	-29.9	-0.3	29.9	27.9	1.96	15.256		
500.0	500.0	500.0	500.0	1.0	1.0	-179.47	-29.9	-0.3	29.9	27.9	1.99	14.985		
590.5	590.5	590.5	590.5	1.2	1.2	-179.47	-29.9	-0.3	29.9	27.5	2.40	12.444		
600.0	600.0	600.0	600.0	1.2	1.2	-179.47	-29.9	-0.3	29.9	27.4	2.44	12.228		
689.0	689.0	689.0	689.0	1.4	1.4	-179.47	-29.9	-0.3	29.9	27.0	2.84	10.508		
700.0	700.0	700.0	700.0	1.4	1.4	-179.47	-29.9	-0.3	29.9	27.0	2.89	10.328		
787.4	787.4	787.4	787.4	1.6	1.6	-179.47	-29.9	-0.3	29.9	26.6	3.29	9.093		
800.0	800.0	800.0	800.0	1.7	1.7	-179.47	-29.9	-0.3	29.9	26.5	3.34	8.939		
885.8	885.8	885.8	885.8	1.9	1.9	-179.47	-29.9	-0.3	29.9	26.1	3.73	8.013		
900.0	900.0	900.0	900.0	1.9	1.9	-179.47	-29.9	-0.3	29.9	26.1	3.79	7.879		
984.2	984.2	984.2	984.2	2.1	2.1	-179.47	-29.9	-0.3	29.9	25.7	4.17	7.163		
1,000.0	1,000.0	1,000.0	1,000.0	2.1	2.1	-179.47	-29.9	-0.3	29.9	25.6	4.24	7.044		
1,082.7	1,082.7	1,082.7	1,082.7	2.3	2.3	-179.47	-29.9	-0.3	29.9	25.3	4.61	6.476		
1,100.0	1,100.0	1,100.0	1,100.0	2.3	2.3	-179.47	-29.9	-0.3	29.9	25.2	4.69	6.369 CC		
1,181.1	1,181.1	1,180.5	1,180.4	2.5	2.5	179.14	-30.7	0.5	30.7	25.7	5.03	6.106		
1,200.0	1,200.0	1,199.2	1,199.2	2.6	2.5	178.44	-31.2	0.8	31.2	26.1	5.11	6.100		
1,279.5	1,279.5	1,277.9	1,277.8	2.7	2.7	174.39	-34.0	3.3	34.2	28.8	5.44	6.299		
1,300.0	1,300.0	1,298.1	1,298.0	2.8	2.7	173.14	-35.0	4.2	35.4	29.8	5.52	6.404		
1,377.9	1,377.9	1,375.0	1,374.6	3.0	2.9	50.54	-39.8	8.4	40.2	34.3	5.83	6.888		
1,400.0	1,400.0	1,396.8	1,396.2	3.0	2.9	49.73	-41.5	9.8	41.6	35.7	5.92	7.036		
1,476.4	1,476.3	1,471.9	1,470.9	3.1	3.1	47.77	-48.1	15.5	47.0	40.8	6.21	7.573		
1,500.0	1,499.8	1,495.1	1,493.9	3.2	3.1	47.39	-50.4	17.6	48.8	42.5	6.30	7.744		
1,574.8	1,574.4	1,568.5	1,566.4	3.3	3.3	46.71	-58.7	24.8	54.6	48.0	6.60	8.274		
1,600.0	1,599.5	1,593.2	1,590.8	3.4	3.4	46.64	-61.8	27.5	56.7	50.0	6.70	8.456		
1,673.2	1,672.2	1,664.8	1,661.2	3.6	3.6	46.77	-71.8	36.1	62.9	55.9	7.02	8.961		
1,700.0	1,698.7	1,691.0	1,686.8	3.6	3.7	46.93	-75.7	39.6	65.2	58.1	7.13	9.148		
1,771.6	1,769.5	1,762.2	1,756.4	3.8	3.9	47.82	-86.9	49.3	71.2	63.7	7.47	9.535		
1,800.0	1,797.5	1,790.4	1,784.1	3.9	4.0	48.42	-91.3	53.1	73.2	65.6	7.60	9.635		
1,870.1	1,866.3	1,860.3	1,852.4	4.1	4.3	50.46	-102.3	62.7	77.6	69.6	7.97	9.729		
1,900.2	1,895.8	1,890.4	1,881.8	4.2	4.4	51.56	-107.0	66.8	79.1	71.0	8.14	9.723		
1,968.5	1,962.6	1,958.5	1,948.5	4.4	4.6	54.16	-117.7	76.1	82.5	74.0	8.56	9.646		
2,000.0	1,993.4	1,989.9	1,979.2	4.5	4.7	55.29	-122.6	80.3	84.2	75.4	8.75	9.615		
2,066.9	2,058.9	2,056.6	2,044.5	4.7	5.0	57.55	-133.1	89.4	87.7	78.5	9.20	9.540		
2,100.0	2,091.2	2,089.6	2,076.7	4.8	5.1	58.60	-138.3	93.9	89.5	80.1	9.42	9.506		
2,165.3	2,155.2	2,154.8	2,140.5	5.1	5.4	60.54	-148.5	102.8	93.2	83.3	9.88	9.431		
2,200.0	2,189.1	2,189.4	2,174.3	5.2	5.5	61.52	-153.9	107.6	95.2	85.0	10.13	9.395		
2,263.8	2,251.4	2,253.0	2,236.5	5.5	5.8	63.20	-163.9	116.2	98.9	88.3	10.60	9.326		
2,300.0	2,286.9	2,289.1	2,271.8	5.6	5.9	64.11	-169.6	121.2	101.0	90.2	10.88	9.289		
2,362.2	2,347.7	2,351.1	2,332.5	5.8	6.2	65.57	-179.3	129.6	104.8	93.4	11.36	9.225		
2,400.0	2,384.7	2,388.8	2,369.4	6.0	6.4	66.41	-185.2	134.8	107.1	95.4	11.65	9.189		
2,460.6	2,444.0	2,449.3	2,428.5	6.2	6.6	67.68	-194.7	143.0	110.8	98.7	12.14	9.131		
2,500.0	2,482.5	2,488.5	2,466.9	6.4	6.8	68.46	-200.9	148.4	113.3	100.8	12.45	9.096		
2,559.0	2,540.3	2,547.4	2,524.5	6.6	7.0	69.57	-210.1	156.4	117.0	104.1	12.94	9.043		

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

Anticollision Report



Company:	PDC ENERGY	Local Co-ordinate Reference:	Well WACKER 10G-214
Project:	WELD COUNTY, COLORADO	TVD Reference:	KB-EST @ 4624.0usft (Original Well Elev)
Reference Site:	SW NW SEC. 10 T5N R64W 6th P.M.	MD Reference:	KB-EST @ 4624.0usft (Original Well Elev)
Site Error:	0.0 usft	North Reference:	True
Reference Well:	WACKER 10G-214	Survey Calculation Method:	Minimum Curvature
Well Error:	0.0 usft	Output errors are at	2.00 sigma
Reference Wellbore	ORIGINAL WELLBORE	Database:	EDM 5000.1 Single User Db
Reference Design:	PROPOSAL #1	Offset TVD Reference:	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	2,580.3	2,588.3	2,564.5	6.8	7.2	70.30	-216.5	162.0	119.6	106.3	13.27	9.010	
2,657.5	2,636.5	2,645.6	2,620.5	7.1	7.5	71.27	-225.5	169.8	123.3	109.5	13.75	8.963	
2,700.0	2,678.1	2,688.0	2,662.0	7.2	7.7	71.95	-232.2	175.6	126.0	111.9	14.11	8.931	
2,755.9	2,732.8	2,743.8	2,716.6	7.5	7.9	72.80	-240.9	183.2	129.7	115.1	14.59	8.890	
2,800.0	2,775.9	2,787.7	2,759.6	7.7	8.1	73.44	-247.8	189.2	132.6	117.6	14.96	8.860	
2,854.3	2,829.1	2,841.9	2,812.6	7.9	8.3	74.19	-256.3	196.6	136.2	120.7	15.43	8.824	
2,900.0	2,873.8	2,887.5	2,857.1	8.1	8.5	74.79	-263.5	202.8	139.2	123.4	15.82	8.796	
2,952.7	2,925.4	2,940.1	2,908.6	8.3	8.8	75.45	-271.8	210.0	142.7	126.4	16.28	8.765	
2,953.5	2,926.1	2,940.8	2,909.3	8.3	8.8	75.46	-271.9	210.1	142.7	126.5	16.29	8.764	
3,000.0	2,971.6	2,987.2	2,954.7	8.5	9.0	75.94	-279.2	216.4	146.0	129.3	16.66	8.759	
3,051.2	3,022.0	3,038.2	3,004.6	8.7	9.2	76.12	-287.2	223.4	149.7	132.7	17.03	8.791	
3,100.0	3,070.1	3,086.9	3,052.2	8.8	9.4	75.98	-294.8	230.0	153.5	136.1	17.36	8.840	
3,149.6	3,119.1	3,136.3	3,100.5	8.9	9.6	75.55	-302.6	236.7	157.5	139.9	17.67	8.916	
3,200.0	3,169.1	3,186.5	3,149.6	9.1	9.9	74.85	-310.4	243.6	161.9	143.9	17.96	9.012	
3,248.0	3,216.8	3,234.2	3,196.3	9.2	10.1	73.95	-317.9	250.1	166.3	148.1	18.21	9.131	
3,300.0	3,268.5	3,285.8	3,246.8	9.3	10.3	72.75	-326.0	257.1	171.4	152.9	18.46	9.283	
3,346.4	3,314.8	3,331.9	3,291.9	9.4	10.5	71.50	-333.3	263.4	176.2	157.6	18.65	9.451	
3,400.0	3,368.3	3,387.2	3,346.0	9.6	10.7	69.94	-341.5	270.6	181.9	163.1	18.83	9.659	
3,444.9	3,413.1	3,433.6	3,391.7	9.6	10.9	68.67	-347.8	276.1	186.5	167.6	18.95	9.842	
3,500.0	3,468.2	3,490.7	3,448.1	9.7	11.1	67.14	-354.8	282.2	192.0	172.9	19.09	10.061	
3,543.3	3,511.5	3,535.8	3,492.6	9.8	11.2	65.96	-359.7	286.4	196.2	177.0	19.17	10.234	
3,553.7	3,521.9	3,546.6	3,503.4	9.8	11.2	-175.67	-360.8	287.4	197.2	179.4	17.80	11.077	
3,600.0	3,568.2	3,594.9	3,551.3	9.9	11.3	-176.90	-365.4	291.3	201.3	183.2	18.11	11.116	
3,641.7	3,609.9	3,638.7	3,594.8	10.0	11.4	-177.83	-369.0	294.5	204.6	186.2	18.36	11.140	
3,700.0	3,668.2	3,700.0	3,655.8	10.1	11.6	-178.87	-373.2	298.1	208.5	189.8	18.70	11.147	
3,740.1	3,708.4	3,742.3	3,698.1	10.1	11.7	-179.43	-375.5	300.1	210.6	191.7	18.91	11.139	
3,800.0	3,768.2	3,805.6	3,761.3	10.2	11.8	179.95	-378.1	302.4	213.1	193.9	19.20	11.099	
3,838.6	3,806.8	3,846.5	3,802.1	10.3	11.9	179.70	-379.2	303.3	214.1	194.8	19.36	11.058	
3,900.0	3,868.2	3,911.6	3,867.2	10.4	12.0	179.50	-380.0	304.1	214.9	195.3	19.61	10.963	
3,937.0	3,905.2	3,949.6	3,905.2	10.5	12.0	179.49	-380.1	304.1	215.0	195.2	19.74	10.891	
4,000.0	3,968.2	4,012.6	3,968.2	10.6	12.1	179.49	-380.1	304.1	215.0	195.0	19.96	10.771	
4,035.4	4,003.6	4,048.0	4,003.6	10.6	12.1	179.49	-380.1	304.1	215.0	194.9	20.08	10.704	
4,100.0	4,068.2	4,112.6	4,068.2	10.7	12.2	179.49	-380.1	304.1	215.0	194.7	20.31	10.584	
4,133.8	4,102.1	4,146.4	4,102.1	10.8	12.3	179.49	-380.1	304.1	215.0	194.6	20.43	10.522	
4,200.0	4,168.2	4,212.6	4,168.2	10.9	12.4	179.49	-380.1	304.1	215.0	194.3	20.67	10.403	
4,232.3	4,200.5	4,244.8	4,200.5	11.0	12.4	179.49	-380.1	304.1	215.0	194.2	20.78	10.345	
4,300.0	4,268.2	4,312.6	4,268.2	11.1	12.5	179.49	-380.1	304.1	215.0	194.0	21.02	10.226	
4,330.7	4,298.9	4,343.3	4,298.9	11.1	12.6	179.49	-380.1	304.1	215.0	193.8	21.13	10.172	
4,400.0	4,368.2	4,412.6	4,368.2	11.3	12.7	179.49	-380.1	304.1	215.0	193.6	21.39	10.053	
4,429.1	4,397.3	4,441.7	4,397.3	11.3	12.7	179.49	-380.1	304.1	215.0	193.5	21.49	10.003	
4,500.0	4,468.2	4,512.6	4,468.2	11.4	12.8	179.49	-380.1	304.1	215.0	193.2	21.75	9.884	
4,527.5	4,495.8	4,540.1	4,495.8	11.5	12.9	179.49	-380.1	304.1	215.0	193.1	21.85	9.839	
4,600.0	4,568.2	4,612.6	4,568.2	11.6	13.0	179.49	-380.1	304.1	215.0	192.9	22.12	9.720	
4,626.0	4,594.2	4,638.5	4,594.2	11.7	13.0	179.49	-380.1	304.1	215.0	192.8	22.21	9.678	
4,700.0	4,668.2	4,712.6	4,668.2	11.8	13.1	179.49	-380.1	304.1	215.0	192.5	22.49	9.560	
4,724.4	4,692.6	4,737.0	4,692.6	11.9	13.2	179.49	-380.1	304.1	215.0	192.4	22.58	9.521	
4,800.0	4,768.2	4,812.6	4,768.2	12.0	13.3	179.49	-380.1	304.1	215.0	192.1	22.86	9.404	
4,822.8	4,791.0	4,835.4	4,791.0	12.0	13.3	179.49	-380.1	304.1	215.0	192.0	22.95	9.369	
4,900.0	4,868.2	4,912.6	4,868.2	12.2	13.5	179.49	-380.1	304.1	215.0	191.7	23.24	9.252	
4,921.2	4,889.5	4,933.8	4,889.5	12.2	13.5	179.49	-380.1	304.1	215.0	191.7	23.32	9.220	
5,000.0	4,968.2	5,012.6	4,968.2	12.4	13.6	179.49	-380.1	304.1	215.0	191.4	23.62	9.104	
5,019.7	4,987.9	5,032.2	4,987.9	12.4	13.7	179.49	-380.1	304.1	215.0	191.3	23.69	9.075	

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

Anticollision Report



Company:	PDC ENERGY	Local Co-ordinate Reference:	Well WACKER 10G-214
Project:	WELD COUNTY, COLORADO	TVD Reference:	KB-EST @ 4624.0usft (Original Well Elev)
Reference Site:	SW NW SEC. 10 T5N R64W 6th P.M.	MD Reference:	KB-EST @ 4624.0usft (Original Well Elev)
Site Error:	0.0 usft	North Reference:	True
Reference Well:	WACKER 10G-214	Survey Calculation Method:	Minimum Curvature
Well Error:	0.0 usft	Output errors are at	2.00 sigma
Reference Wellbore	ORIGINAL WELLBORE	Database:	EDM 5000.1 Single User Db
Reference Design:	PROPOSAL #1	Offset TVD Reference:	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	5,068.2	5,112.6	5,068.2	12.6	13.8	179.49	-380.1	304.1	215.0	191.0	24.00	8.959	
5,118.1	5,086.3	5,130.7	5,086.3	12.6	13.8	179.49	-380.1	304.1	215.0	190.9	24.06	8.933	
5,200.0	5,168.2	5,212.6	5,168.2	12.7	13.9	179.49	-380.1	304.1	215.0	190.6	24.38	8.819	
5,216.5	5,184.7	5,229.1	5,184.7	12.8	14.0	179.49	-380.1	304.1	215.0	190.5	24.44	8.796	
5,300.0	5,268.2	5,312.6	5,268.2	12.9	14.1	179.49	-380.1	304.1	215.0	190.2	24.76	8.681	
5,314.9	5,283.2	5,327.5	5,283.2	13.0	14.1	179.49	-380.1	304.1	215.0	190.2	24.82	8.661	
5,400.0	5,368.2	5,412.6	5,368.2	13.1	14.3	179.49	-380.1	304.1	215.0	189.8	25.15	8.548	
5,413.4	5,381.6	5,425.9	5,381.6	13.2	14.3	179.49	-380.1	304.1	215.0	189.8	25.20	8.530	
5,500.0	5,468.2	5,512.6	5,468.2	13.3	14.5	179.49	-380.1	304.1	215.0	189.4	25.54	8.418	
5,511.8	5,480.0	5,524.4	5,480.0	13.3	14.5	179.49	-380.1	304.1	215.0	189.4	25.59	8.402	
5,600.0	5,568.2	5,612.6	5,568.2	13.5	14.6	179.49	-380.1	304.1	215.0	189.1	25.93	8.291	
5,610.2	5,578.4	5,622.8	5,578.4	13.5	14.6	179.49	-380.1	304.1	215.0	189.0	25.97	8.278	
5,700.0	5,668.2	5,712.6	5,668.2	13.7	14.8	179.49	-380.1	304.1	215.0	188.7	26.32	8.167	
5,708.6	5,676.9	5,721.2	5,676.9	13.7	14.8	179.49	-380.1	304.1	215.0	188.6	26.36	8.156	
5,800.0	5,768.2	5,812.6	5,768.2	13.9	15.0	179.49	-380.1	304.1	215.0	188.3	26.72	8.046	
5,807.1	5,775.3	5,819.6	5,775.3	13.9	15.0	179.49	-380.1	304.1	215.0	188.2	26.75	8.038	
5,900.0	5,868.2	5,912.6	5,868.2	14.1	15.1	179.49	-380.1	304.1	215.0	187.9	27.11	7.929	
5,905.5	5,873.7	5,918.1	5,873.7	14.1	15.2	179.49	-380.1	304.1	215.0	187.8	27.14	7.922	
5,960.7	5,928.9	5,973.3	5,928.9	14.2	15.3	179.49	-380.1	304.1	215.0	187.6	27.36	7.859	
6,000.0	5,968.2	6,012.6	5,968.2	14.3	15.3	-90.80	-380.1	304.1	215.0	187.0	27.95	7.691	
6,003.9	5,972.1	6,016.5	5,972.1	14.3	15.3	-90.86	-380.1	304.1	215.0	187.0	27.96	7.689	
6,050.0	6,018.0	6,062.5	6,018.2	14.4	15.4	-91.92	-380.1	303.9	215.1	187.1	28.04	7.672	
6,100.0	6,067.3	6,113.0	6,068.5	14.4	15.5	-93.20	-380.1	300.7	215.3	187.2	28.08	7.669	
6,102.3	6,069.6	6,115.4	6,070.9	14.4	15.5	-93.26	-380.1	300.5	215.3	187.2	28.08	7.669	
6,150.0	6,116.0	6,163.8	6,118.8	14.4	15.5	-94.48	-380.1	294.0	215.6	187.6	28.09	7.678	
6,200.0	6,163.8	6,214.9	6,168.9	14.5	15.6	-95.73	-380.1	283.6	216.1	188.0	28.08	7.696	
6,200.8	6,164.5	6,215.7	6,169.7	14.5	15.6	-95.75	-380.1	283.4	216.1	188.0	28.08	7.696	
6,250.0	6,210.4	6,266.4	6,218.5	14.5	15.6	-96.95	-380.1	269.6	216.6	188.5	28.05	7.721	
6,299.2	6,254.9	6,317.5	6,266.4	14.5	15.6	-98.12	-380.1	252.2	217.2	189.1	28.03	7.748	
6,300.0	6,255.6	6,318.3	6,267.2	14.5	15.6	-98.14	-380.1	251.9	217.2	189.1	28.03	7.748	
6,350.0	6,299.3	6,370.5	6,314.9	14.5	15.6	-99.28	-380.1	230.6	217.8	189.8	28.02	7.775	
6,397.6	6,339.2	6,420.6	6,359.0	14.6	15.6	-100.33	-380.1	207.0	218.5	190.5	28.04	7.794	
6,400.0	6,341.2	6,423.1	6,361.1	14.6	15.6	-100.38	-380.1	205.7	218.6	190.5	28.04	7.795	
6,450.0	6,381.0	6,476.0	6,405.8	14.6	15.6	-101.42	-380.1	177.3	219.3	191.2	28.11	7.803	
6,496.0	6,415.8	6,525.0	6,445.1	14.7	15.6	-102.32	-380.1	148.1	220.1	191.8	28.24	7.793	
6,500.0	6,418.7	6,529.2	6,448.4	14.7	15.6	-102.40	-380.1	145.4	220.1	191.9	28.25	7.792	
6,550.0	6,453.9	6,582.8	6,488.8	14.8	15.6	-103.31	-380.1	110.3	220.9	192.4	28.49	7.756	
6,594.5	6,483.1	6,630.7	6,522.6	15.0	15.6	-104.06	-380.1	76.4	221.6	192.8	28.80	7.696	
6,600.0	6,486.6	6,636.6	6,526.6	15.1	15.6	-104.15	-380.1	72.0	221.7	192.9	28.84	7.688	
6,650.0	6,516.6	6,690.8	6,561.7	15.3	15.6	-104.92	-380.1	30.8	222.5	193.2	29.34	7.585	
6,692.9	6,540.0	6,737.4	6,589.3	15.7	15.7	-105.52	-380.1	-6.8	223.1	193.2	29.90	7.464	
6,700.0	6,543.7	6,745.1	6,593.7	15.7	15.7	-105.61	-380.1	-13.2	223.2	193.2	29.99	7.443	
6,750.0	6,567.8	6,799.8	6,622.3	16.2	16.0	-106.22	-380.1	-59.7	223.9	193.1	30.82	7.265	
6,791.3	6,585.4	6,845.1	6,643.3	16.7	16.4	-106.66	-380.1	-99.8	224.4	192.8	31.65	7.089	
6,800.0	6,588.8	6,854.6	6,647.4	16.8	16.5	-106.74	-380.1	-108.4	224.5	192.7	31.84	7.052	
6,850.0	6,606.6	6,909.6	6,668.8	17.4	17.1	-107.18	-380.1	-159.1	225.0	192.0	33.04	6.810	
6,889.7	6,618.4	6,953.4	6,683.1	18.0	17.7	-107.47	-380.1	-200.6	225.4	191.3	34.12	6.605	
6,900.0	6,621.1	6,964.8	6,686.3	18.2	17.9	-107.53	-380.1	-211.4	225.5	191.0	34.41	6.551	
6,950.0	6,632.2	7,020.0	6,699.7	19.0	18.7	-107.79	-380.1	-265.0	225.8	189.8	35.96	6.279	
6,988.2	6,638.4	7,062.3	6,707.2	19.7	19.5	-107.93	-380.1	-306.6	225.9	188.7	37.24	6.067	
7,000.0	6,639.9	7,075.4	6,709.0	19.9	19.7	-107.96	-380.1	-319.6	226.0	188.3	37.65	6.003	
7,050.0	6,644.1	7,130.8	6,714.0	20.8	20.7	-108.04	-380.1	-374.7	226.1	186.6	39.47	5.729	

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

Anticollision Report



Company:	PDC ENERGY	Local Co-ordinate Reference:	Well WACKER 10G-214
Project:	WELD COUNTY, COLORADO	TVD Reference:	KB-EST @ 4624.0usft (Original Well Elev)
Reference Site:	SW NW SEC. 10 T5N R64W 6th P.M.	MD Reference:	KB-EST @ 4624.0usft (Original Well Elev)
Site Error:	0.0 usft	North Reference:	True
Reference Well:	WACKER 10G-214	Survey Calculation Method:	Minimum Curvature
Well Error:	0.0 usft	Output errors are at	2.00 sigma
Reference Wellbore	ORIGINAL WELLBORE	Database:	EDM 5000.1 Single User Db
Reference Design:	PROPOSAL #1	Offset TVD Reference:	Offset Datum

Offset Design												Offset Site Error:	0.0 usft
Survey Program: 0-MWD												Offset Well Error:	0.0 usft
Reference		Offset		Semi Major Axis			Distance						
Measured Depth (usft)	Vertical Depth (usft)	Measured Depth (usft)	Vertical Depth (usft)	Reference (usft)	Offset (usft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (usft)	+E/-W (usft)	Between Centres (usft)	Between Ellipses (usft)	Minimum Separation (usft)	Separation Factor	Warning
7,086.5	6,645.0	7,171.1	6,715.0	21.5	21.5	-108.04	-380.1	-415.0	226.1	185.2	40.86	5.534	
7,100.0	6,645.0	7,184.6	6,715.0	21.8	21.8	-108.03	-380.1	-428.5	226.1	184.7	41.36	5.466	
7,185.0	6,644.9	7,269.6	6,714.8	23.6	23.5	-108.02	-380.1	-513.5	226.1	181.4	44.71	5.056	
7,200.0	6,644.8	7,284.6	6,714.8	23.9	23.9	-108.02	-380.1	-528.5	226.1	180.8	45.31	4.990	
7,283.4	6,644.7	7,368.0	6,714.6	25.7	25.7	-108.01	-380.1	-611.9	226.0	177.2	48.81	4.631	
7,300.0	6,644.7	7,384.6	6,714.6	26.1	26.1	-108.01	-380.1	-628.5	226.0	176.5	49.51	4.565	
7,381.9	6,644.6	7,466.5	6,714.4	28.0	28.0	-108.00	-380.1	-710.4	226.0	172.9	53.12	4.255	
7,400.0	6,644.6	7,484.6	6,714.4	28.4	28.4	-107.99	-380.1	-728.5	226.0	172.1	53.93	4.191	
7,480.3	6,644.5	7,564.9	6,714.2	30.3	30.3	-107.98	-380.1	-808.8	226.0	168.4	57.60	3.924	
7,500.0	6,644.4	7,584.6	6,714.2	30.8	30.8	-107.98	-380.1	-828.5	226.0	167.5	58.50	3.863	
7,578.7	6,644.3	7,663.3	6,714.0	32.7	32.7	-107.97	-380.1	-907.2	226.0	163.8	62.20	3.633	
7,600.0	6,644.3	7,684.6	6,714.0	33.3	33.2	-107.97	-380.1	-928.5	226.0	162.8	63.20	3.576	
7,677.1	6,644.2	7,761.7	6,713.8	35.2	35.2	-107.96	-380.1	-1,005.6	226.0	159.1	66.91	3.377	
7,700.0	6,644.1	7,784.6	6,713.8	35.8	35.7	-107.95	-380.1	-1,028.5	226.0	158.0	68.01	3.323	
7,775.6	6,644.0	7,860.2	6,713.7	37.7	37.7	-107.94	-380.1	-1,104.1	226.0	154.3	71.70	3.152	
7,800.0	6,644.0	7,884.6	6,713.6	38.3	38.3	-107.94	-380.1	-1,128.5	226.0	153.1	72.89	3.100	
7,874.0	6,643.9	7,958.6	6,713.5	40.2	40.2	-107.93	-380.1	-1,202.5	225.9	149.4	76.55	2.952	
7,900.0	6,643.9	7,984.6	6,713.4	40.9	40.9	-107.92	-380.1	-1,228.5	225.9	148.1	77.84	2.903	
7,972.4	6,643.8	8,057.0	6,713.3	42.8	42.8	-107.91	-380.1	-1,300.9	225.9	144.5	81.46	2.773	
8,000.0	6,643.7	8,084.6	6,713.2	43.5	43.5	-107.91	-380.1	-1,328.5	225.9	143.1	82.84	2.727	
8,070.8	6,643.6	8,155.4	6,713.1	45.4	45.4	-107.90	-380.1	-1,399.3	225.9	139.5	86.42	2.614	
8,100.0	6,643.6	8,184.6	6,713.0	46.2	46.1	-107.90	-380.1	-1,428.5	225.9	138.0	87.89	2.570	
8,169.3	6,643.5	8,253.9	6,712.9	48.0	48.0	-107.89	-380.1	-1,497.8	225.9	134.5	91.41	2.471	
8,200.0	6,643.5	8,284.6	6,712.8	48.8	48.8	-107.88	-380.1	-1,528.5	225.9	132.9	92.98	2.429	
8,267.7	6,643.4	8,352.3	6,712.7	50.6	50.6	-107.87	-380.1	-1,596.2	225.9	129.4	96.44	2.342	
8,300.0	6,643.3	8,384.6	6,712.6	51.5	51.5	-107.87	-380.1	-1,628.5	225.9	127.8	98.10	2.303	
8,366.1	6,643.2	8,450.7	6,712.5	53.3	53.2	-107.86	-380.1	-1,694.6	225.9	124.4	101.50	2.225	
8,400.0	6,643.2	8,484.6	6,712.4	54.2	54.2	-107.86	-380.1	-1,728.5	225.9	122.6	103.24	2.188	
8,464.5	6,643.1	8,549.1	6,712.3	55.9	55.9	-107.85	-380.1	-1,793.0	225.8	119.3	106.58	2.119	
8,500.0	6,643.1	8,584.6	6,712.3	56.9	56.9	-107.84	-380.1	-1,828.5	225.8	117.4	108.41	2.083	
8,563.0	6,643.0	8,647.6	6,712.1	58.6	58.6	-107.83	-380.1	-1,891.5	225.8	114.1	111.68	2.022	
8,600.0	6,642.9	8,684.6	6,712.1	59.6	59.6	-107.83	-380.1	-1,928.5	225.8	112.2	113.60	1.988	
8,661.4	6,642.8	8,746.0	6,711.9	61.3	61.2	-107.82	-380.1	-1,989.9	225.8	109.0	116.80	1.933	
8,700.0	6,642.8	8,784.6	6,711.9	62.3	62.3	-107.81	-380.1	-2,028.5	225.8	107.0	118.81	1.901	
8,759.8	6,642.7	8,844.4	6,711.7	64.0	63.9	-107.80	-380.1	-2,088.3	225.8	103.9	121.93	1.852	
8,800.0	6,642.7	8,884.6	6,711.7	65.1	65.0	-107.80	-380.1	-2,128.5	225.8	101.7	124.03	1.820	
8,858.2	6,642.6	8,942.8	6,711.6	66.6	66.6	-107.79	-380.1	-2,186.7	225.8	98.7	127.08	1.777	
8,900.0	6,642.5	8,984.6	6,711.5	67.8	67.7	-107.78	-380.1	-2,228.5	225.8	96.5	129.27	1.746	
8,956.7	6,642.4	9,041.3	6,711.4	69.3	69.3	-107.78	-380.1	-2,285.2	225.8	93.5	132.24	1.707	
9,000.0	6,642.4	9,084.6	6,711.3	70.5	70.5	-107.77	-380.1	-2,328.5	225.7	91.2	134.52	1.678	
9,055.1	6,642.3	9,139.7	6,711.2	72.0	72.0	-107.76	-380.1	-2,383.6	225.7	88.3	137.41	1.643	
9,100.0	6,642.3	9,184.6	6,711.1	73.3	73.2	-107.76	-380.1	-2,428.5	225.7	85.9	139.78	1.615	
9,153.5	6,642.2	9,238.1	6,711.0	74.7	74.7	-107.75	-380.1	-2,482.0	225.7	83.1	142.60	1.583	
9,200.0	6,642.1	9,284.6	6,710.9	76.0	76.0	-107.74	-380.1	-2,528.5	225.7	80.7	145.05	1.556	
9,251.9	6,642.1	9,336.5	6,710.8	77.5	77.4	-107.73	-380.1	-2,580.4	225.7	77.9	147.79	1.527	
9,300.0	6,642.0	9,384.6	6,710.7	78.8	78.7	-107.73	-380.1	-2,628.5	225.7	75.4	150.33	1.501	
9,350.4	6,641.9	9,435.0	6,710.6	80.2	80.1	-107.72	-380.1	-2,678.9	225.7	72.7	152.99	1.475 Level 3	
9,400.0	6,641.9	9,484.6	6,710.5	81.5	81.5	-107.71	-380.1	-2,728.5	225.7	70.1	155.61	1.450 Level 3	
9,448.8	6,641.8	9,533.4	6,710.4	82.9	82.8	-107.71	-380.1	-2,777.3	225.7	67.5	158.20	1.426 Level 3	
9,500.0	6,641.7	9,584.6	6,710.3	84.3	84.2	-107.70	-380.1	-2,828.5	225.6	64.7	160.91	1.402 Level 3	
9,547.2	6,641.7	9,631.8	6,710.2	85.6	85.5	-107.69	-380.1	-2,875.7	225.6	62.2	163.41	1.381 Level 3	
9,600.0	6,641.6	9,684.6	6,710.1	87.1	87.0	-107.68	-380.1	-2,928.5	225.6	59.4	166.21	1.357 Level 3	

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

Anticollision Report



Company:	PDC ENERGY	Local Co-ordinate Reference:	Well WACKER 10G-214
Project:	WELD COUNTY, COLORADO	TVD Reference:	KB-EST @ 4624.0usft (Original Well Elev)
Reference Site:	SW NW SEC. 10 T5N R64W 6th P.M.	MD Reference:	KB-EST @ 4624.0usft (Original Well Elev)
Site Error:	0.0 usft	North Reference:	True
Reference Well:	WACKER 10G-214	Survey Calculation Method:	Minimum Curvature
Well Error:	0.0 usft	Output errors are at	2.00 sigma
Reference Wellbore	ORIGINAL WELLBORE	Database:	EDM 5000.1 Single User Db
Reference Design:	PROPOSAL #1	Offset TVD Reference:	Offset Datum

Offset Design												Offset Site Error:	0.0 usft
Survey Program: 0-MWD												Offset Well Error:	0.0 usft
Reference		Offset		Semi Major Axis			Distance						
Measured Depth (usft)	Vertical Depth (usft)	Measured Depth (usft)	Vertical Depth (usft)	Reference (usft)	Offset (usft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (usft)	+E/-W (usft)	Between Centres (usft)	Between Ellipses (usft)	Minimum Separation (usft)	Separation Factor	Warning
9,645.6	6,641.5	9,730.2	6,710.0	88.3	88.3	-107.68	-380.1	-2,974.1	225.6	57.0	168.64	1.338 Level 3	
9,700.0	6,641.5	9,784.6	6,709.9	89.8	89.8	-107.67	-380.1	-3,028.5	225.6	54.1	171.52	1.315 Level 3	
9,744.1	6,641.4	9,828.7	6,709.9	91.0	91.0	-107.66	-380.1	-3,072.6	225.6	51.7	173.86	1.298 Level 3	
9,800.0	6,641.3	9,884.6	6,709.7	92.6	92.5	-107.65	-380.1	-3,128.5	225.6	48.8	176.84	1.276 Level 3	
9,842.5	6,641.3	9,927.1	6,709.7	93.8	93.7	-107.65	-380.1	-3,171.0	225.6	46.5	179.10	1.260 Level 3	
9,900.0	6,641.2	9,984.6	6,709.6	95.4	95.3	-107.64	-380.1	-3,228.5	225.6	43.4	182.16	1.238 Level 2	
9,940.9	6,641.1	10,025.5	6,709.5	96.5	96.4	-107.63	-380.1	-3,269.4	225.6	41.2	184.33	1.224 Level 2	
10,000.0	6,641.1	10,084.6	6,709.4	98.1	98.1	-107.62	-380.1	-3,328.5	225.6	38.1	187.48	1.203 Level 2	
10,039.3	6,641.0	10,123.9	6,709.3	99.2	99.2	-107.62	-380.1	-3,367.8	225.5	36.0	189.58	1.190 Level 2	
10,100.0	6,640.9	10,184.6	6,709.2	100.9	100.9	-107.61	-380.1	-3,428.5	225.5	32.7	192.81	1.170 Level 2	
10,137.8	6,640.9	10,222.4	6,709.1	102.0	101.9	-107.60	-380.1	-3,466.3	225.5	30.7	194.82	1.158 Level 2	
10,200.0	6,640.8	10,284.6	6,709.0	103.7	103.6	-107.59	-380.1	-3,528.5	225.5	27.4	198.14	1.138 Level 2	
10,236.2	6,640.8	10,320.8	6,708.9	104.7	104.6	-107.59	-380.1	-3,564.7	225.5	25.4	200.08	1.127 Level 2	
10,300.0	6,640.7	10,384.6	6,708.8	106.5	106.4	-107.58	-380.1	-3,628.5	225.5	22.0	203.48	1.108 Level 2	
10,334.6	6,640.6	10,419.2	6,708.7	107.4	107.4	-107.57	-380.1	-3,663.1	225.5	20.2	205.33	1.098 Level 2	
10,400.0	6,640.6	10,484.6	6,708.6	109.3	109.2	-107.56	-380.1	-3,728.5	225.5	16.7	208.82	1.080 Level 2	
10,433.0	6,640.5	10,517.6	6,708.5	110.2	110.1	-107.56	-380.1	-3,761.5	225.5	14.9	210.59	1.071 Level 2	
10,500.0	6,640.4	10,584.6	6,708.4	112.0	112.0	-107.55	-380.1	-3,828.5	225.5	11.3	214.17	1.053 Level 2	
10,531.5	6,640.4	10,616.1	6,708.3	112.9	112.9	-107.54	-380.1	-3,860.0	225.5	9.6	215.85	1.044 Level 2	
10,600.0	6,640.3	10,684.6	6,708.2	114.8	114.8	-107.53	-380.1	-3,928.5	225.4	5.9	219.52	1.027 Level 2	
10,629.9	6,640.3	10,714.5	6,708.2	115.7	115.6	-107.53	-380.1	-3,958.4	225.4	4.3	221.12	1.020 Level 2	
10,700.0	6,640.2	10,784.6	6,708.0	117.6	117.6	-107.52	-380.1	-4,028.5	225.4	0.6	224.87	1.002 Level 2	
10,728.3	6,640.1	10,812.9	6,708.0	118.4	118.3	-107.51	-380.1	-4,056.8	225.4	-1.0	226.39	0.996 Level 1	
10,800.0	6,640.0	10,884.6	6,707.8	120.4	120.3	-107.50	-380.1	-4,128.5	225.4	-4.8	230.22	0.979 Level 1	
10,826.7	6,640.0	10,911.3	6,707.8	121.2	121.1	-107.50	-380.1	-4,155.2	225.4	-6.3	231.66	0.973 Level 1	
10,900.0	6,639.9	10,984.6	6,707.6	123.2	123.1	-107.49	-380.1	-4,228.5	225.4	-10.2	235.58	0.957 Level 1	
10,925.2	6,639.9	11,009.8	6,707.6	123.9	123.8	-107.48	-380.1	-4,253.7	225.4	-11.6	236.93	0.951 Level 1	
11,000.0	6,639.8	11,084.6	6,707.5	126.0	125.9	-107.47	-380.1	-4,328.5	225.4	-15.6	240.94	0.935 Level 1	
11,023.6	6,639.8	11,108.2	6,707.4	126.6	126.6	-107.47	-380.1	-4,352.1	225.4	-16.8	242.21	0.930 Level 1	
11,100.0	6,639.7	11,184.6	6,707.3	128.8	128.7	-107.46	-380.1	-4,428.5	225.3	-21.0	246.31	0.915 Level 1	
11,122.0	6,639.6	11,206.6	6,707.2	129.4	129.3	-107.45	-380.1	-4,450.5	225.3	-22.1	247.49	0.911 Level 1	
11,200.0	6,639.5	11,284.6	6,707.1	131.6	131.5	-107.44	-380.1	-4,528.5	225.3	-26.3	251.67	0.895 Level 1	
11,220.4	6,639.5	11,305.0	6,707.0	132.1	132.1	-107.44	-380.1	-4,548.9	225.3	-27.4	252.77	0.891 Level 1	
11,300.0	6,639.4	11,384.6	6,706.9	134.4	134.3	-107.43	-380.1	-4,628.5	225.3	-31.7	257.04	0.877 Level 1	
11,318.9	6,639.4	11,403.5	6,706.9	134.9	134.8	-107.42	-380.1	-4,647.4	225.3	-32.8	258.05	0.873 Level 1	
11,400.0	6,639.3	11,484.6	6,706.7	137.1	137.1	-107.41	-380.1	-4,728.5	225.3	-37.1	262.41	0.859 Level 1	
11,417.3	6,639.3	11,501.9	6,706.7	137.6	137.6	-107.41	-380.1	-4,745.8	225.3	-38.1	263.34	0.855 Level 1	
11,500.0	6,639.2	11,584.6	6,706.5	139.9	139.9	-107.40	-380.1	-4,828.5	225.3	-42.5	267.79	0.841 Level 1	
11,515.7	6,639.1	11,600.3	6,706.5	140.4	140.3	-107.39	-380.1	-4,844.2	225.3	-43.4	268.63	0.839 Level 1	
11,600.0	6,639.0	11,684.6	6,706.3	142.7	142.7	-107.38	-380.1	-4,928.5	225.2	-47.9	273.16	0.825 Level 1	
11,614.1	6,639.0	11,698.7	6,706.3	143.1	143.1	-107.38	-380.1	-4,942.6	225.2	-48.7	273.92	0.822 Level 1	
11,700.0	6,638.9	11,784.6	6,706.1	145.5	145.5	-107.36	-380.1	-5,028.5	225.2	-53.3	278.54	0.809 Level 1	
11,712.6	6,638.9	11,797.2	6,706.1	145.9	145.8	-107.36	-380.1	-5,041.1	225.2	-54.0	279.21	0.807 Level 1	
11,800.0	6,638.8	11,884.6	6,705.9	148.3	148.3	-107.35	-380.1	-5,128.5	225.2	-58.7	283.92	0.793 Level 1	
11,811.0	6,638.8	11,895.6	6,705.9	148.6	148.6	-107.35	-380.1	-5,139.5	225.2	-59.3	284.51	0.792 Level 1	
11,900.0	6,638.7	11,984.6	6,705.8	151.1	151.0	-107.33	-380.1	-5,228.5	225.2	-64.1	289.30	0.778 Level 1	
11,909.4	6,638.6	11,994.0	6,705.7	151.4	151.3	-107.33	-380.1	-5,237.9	225.2	-64.6	289.81	0.777 Level 1	
12,000.0	6,638.5	12,084.6	6,705.6	153.9	153.8	-107.32	-380.1	-5,328.5	225.2	-69.5	294.68	0.764 Level 1	
12,007.8	6,638.5	12,092.4	6,705.5	154.1	154.1	-107.32	-380.1	-5,336.3	225.2	-69.9	295.11	0.763 Level 1	
12,100.0	6,638.4	12,184.6	6,705.4	156.7	156.6	-107.30	-380.1	-5,428.5	225.1	-74.9	300.07	0.750 Level 1	
12,106.3	6,638.4	12,190.9	6,705.4	156.9	156.8	-107.30	-380.1	-5,434.8	225.1	-75.3	300.41	0.749 Level 1	
12,200.0	6,638.3	12,284.6	6,705.2	159.5	159.4	-107.29	-380.1	-5,528.5	225.1	-80.3	305.46	0.737 Level 1	

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

Anticollision Report



Company:	PDC ENERGY	Local Co-ordinate Reference:	Well WACKER 10G-214
Project:	WELD COUNTY, COLORADO	TVD Reference:	KB-EST @ 4624.0usft (Original Well Elev)
Reference Site:	SW NW SEC. 10 T5N R64W 6th P.M.	MD Reference:	KB-EST @ 4624.0usft (Original Well Elev)
Site Error:	0.0 usft	North Reference:	True
Reference Well:	WACKER 10G-214	Survey Calculation Method:	Minimum Curvature
Well Error:	0.0 usft	Output errors are at	2.00 sigma
Reference Wellbore	ORIGINAL WELLBORE	Database:	EDM 5000.1 Single User Db
Reference Design:	PROPOSAL #1	Offset TVD Reference:	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	
12,204.7	6,638.3	12,289.3	6,705.2	159.6	159.6	-107.29	-380.1	-5,533.2	225.1	-80.6	305.71	0.736	Level 1
12,300.0	6,638.2	12,384.6	6,705.0	162.3	162.2	-107.27	-380.1	-5,628.5	225.1	-85.7	310.84	0.724	Level 1
12,303.1	6,638.2	12,387.7	6,705.0	162.4	162.3	-107.27	-380.1	-5,631.6	225.1	-85.9	311.01	0.724	Level 1
12,400.0	6,638.0	12,484.6	6,704.8	165.1	165.0	-107.25	-380.1	-5,728.5	225.1	-91.1	316.24	0.712	Level 1
12,401.5	6,638.0	12,486.1	6,704.8	165.2	165.1	-107.25	-380.1	-5,730.0	225.1	-91.2	316.32	0.712	Level 1
12,500.0	6,637.9	12,584.6	6,704.6	167.9	167.8	-107.24	-380.1	-5,828.5	225.1	-96.6	321.63	0.700	Level 1
12,598.4	6,637.8	12,683.0	6,704.4	170.7	170.6	-107.22	-380.1	-5,926.9	225.1	-101.9	326.94	0.688	Level 1
12,600.0	6,637.8	12,684.6	6,704.4	170.7	170.6	-107.22	-380.1	-5,928.5	225.0	-102.0	327.02	0.688	Level 1
12,696.8	6,637.7	12,781.4	6,704.3	173.4	173.3	-107.21	-380.1	-6,025.3	225.0	-107.2	332.25	0.677	Level 1
12,700.0	6,637.7	12,784.6	6,704.2	173.5	173.4	-107.21	-380.1	-6,028.5	225.0	-107.4	332.42	0.677	Level 1
12,795.2	6,637.6	12,879.8	6,704.1	176.2	176.1	-107.19	-380.1	-6,123.7	225.0	-112.5	337.56	0.667	Level 1
12,800.0	6,637.6	12,884.6	6,704.1	176.3	176.2	-107.19	-380.1	-6,128.5	225.0	-112.8	337.82	0.666	Level 1
12,893.7	6,637.4	12,978.3	6,703.9	178.9	178.9	-107.17	-380.0	-6,222.2	225.0	-117.9	342.87	0.656	Level 1
12,900.0	6,637.4	12,984.6	6,703.9	179.1	179.0	-107.17	-380.0	-6,228.5	225.0	-118.2	343.21	0.656	Level 1
12,992.1	6,637.3	13,076.7	6,703.7	181.7	181.6	-107.16	-380.0	-6,320.6	225.0	-123.2	348.19	0.646	Level 1
13,000.0	6,637.3	13,084.6	6,703.7	181.9	181.8	-107.16	-380.0	-6,328.5	225.0	-123.6	348.61	0.645	Level 1
13,090.5	6,637.2	13,175.1	6,703.5	184.4	184.4	-107.14	-380.0	-6,419.0	225.0	-128.6	353.51	0.636	Level 1
13,100.0	6,637.2	13,184.6	6,703.5	184.7	184.6	-107.14	-380.0	-6,428.5	224.9	-129.1	354.02	0.635	Level 1
13,188.9	6,637.1	13,273.5	6,703.3	187.2	187.1	-107.13	-380.0	-6,517.4	224.9	-133.9	358.82	0.627	Level 1
13,200.0	6,637.1	13,284.6	6,703.3	187.5	187.4	-107.12	-380.0	-6,528.5	224.9	-134.5	359.42	0.626	Level 1
13,287.4	6,637.0	13,372.0	6,703.1	190.0	189.9	-107.11	-380.0	-6,615.9	224.9	-139.2	364.14	0.618	Level 1
13,300.0	6,637.0	13,384.6	6,703.1	190.3	190.2	-107.11	-380.0	-6,628.5	224.9	-139.9	364.83	0.616	Level 1
13,385.8	6,636.9	13,470.4	6,703.0	192.7	192.6	-107.09	-380.0	-6,714.3	224.9	-144.6	369.46	0.609	Level 1
13,400.0	6,636.8	13,484.6	6,702.9	193.1	193.0	-107.09	-380.0	-6,728.5	224.9	-145.3	370.23	0.607	Level 1
13,484.2	6,636.7	13,568.8	6,702.8	195.5	195.4	-107.08	-380.0	-6,812.7	224.9	-149.9	374.79	0.600	Level 1
13,500.0	6,636.7	13,584.6	6,702.7	195.9	195.8	-107.08	-380.0	-6,828.5	224.9	-150.8	375.64	0.599	Level 1
13,582.6	6,636.6	13,667.2	6,702.6	198.2	198.2	-107.06	-380.0	-6,911.1	224.8	-155.3	380.11	0.592	Level 1
13,600.0	6,636.6	13,684.6	6,702.6	198.7	198.6	-107.06	-380.0	-6,928.5	224.8	-156.2	381.05	0.590	Level 1
13,681.1	6,636.5	13,765.7	6,702.4	201.0	200.9	-107.05	-380.0	-7,009.6	224.8	-160.6	385.44	0.583	Level 1
13,700.0	6,636.5	13,784.6	6,702.4	201.5	201.4	-107.04	-380.0	-7,028.5	224.8	-161.6	386.46	0.582	Level 1
13,779.5	6,636.4	13,864.1	6,702.2	203.7	203.7	-107.03	-380.0	-7,108.0	224.8	-166.0	390.76	0.575	Level 1
13,800.0	6,636.4	13,884.6	6,702.2	204.3	204.2	-107.03	-380.0	-7,128.5	224.8	-167.1	391.87	0.574	Level 1
13,877.9	6,636.3	13,962.5	6,702.0	206.5	206.4	-107.01	-380.0	-7,206.4	224.8	-171.3	396.09	0.568	Level 1
13,900.0	6,636.3	13,984.6	6,702.0	207.1	207.0	-107.01	-380.0	-7,228.5	224.8	-172.5	397.29	0.566	Level 1
13,976.3	6,636.2	14,060.9	6,701.9	209.3	209.2	-107.00	-380.0	-7,304.8	224.8	-176.7	401.42	0.560	Level 1
14,000.0	6,636.1	14,084.6	6,701.8	209.9	209.9	-106.99	-380.0	-7,328.5	224.8	-177.9	402.70	0.558	Level 1
14,074.8	6,636.0	14,159.4	6,701.7	212.0	211.9	-106.98	-380.0	-7,403.2	224.7	-182.0	406.75	0.553	Level 1
14,100.0	6,636.0	14,184.6	6,701.6	212.7	212.7	-106.98	-380.0	-7,428.5	224.7	-183.4	408.12	0.551	Level 1
14,173.2	6,635.9	14,257.8	6,701.5	214.8	214.7	-106.96	-380.0	-7,501.7	224.7	-187.4	412.08	0.545	Level 1
14,200.0	6,635.9	14,284.6	6,701.4	215.5	215.5	-106.96	-380.0	-7,528.5	224.7	-188.8	413.53	0.543	Level 1
14,271.6	6,635.8	14,356.2	6,701.3	217.5	217.5	-106.95	-380.0	-7,600.1	224.7	-192.7	417.42	0.538	Level 1
14,300.0	6,635.8	14,384.6	6,701.3	218.3	218.3	-106.94	-380.0	-7,628.5	224.7	-194.3	418.95	0.536	Level 1
14,370.0	6,635.7	14,454.6	6,701.1	220.3	220.2	-106.93	-380.0	-7,698.5	224.7	-198.1	422.75	0.531	Level 1
14,400.0	6,635.7	14,484.6	6,701.1	221.1	221.1	-106.92	-380.0	-7,728.5	224.7	-199.7	424.37	0.529	Level 1
14,468.5	6,635.6	14,553.1	6,700.9	223.1	223.0	-106.91	-380.0	-7,796.9	224.7	-203.4	428.09	0.525	Level 1
14,500.0	6,635.6	14,584.6	6,700.9	223.9	223.9	-106.91	-380.0	-7,828.5	224.7	-205.1	429.80	0.523	Level 1
14,566.9	6,635.5	14,651.5	6,700.8	225.8	225.7	-106.90	-380.0	-7,895.4	224.6	-208.8	433.42	0.518	Level 1
14,600.0	6,635.4	14,684.6	6,700.7	226.8	226.7	-106.89	-380.0	-7,928.5	224.6	-210.6	435.22	0.516	Level 1
14,665.3	6,635.4	14,749.9	6,700.6	228.6	228.5	-106.88	-380.0	-7,993.8	224.6	-214.1	438.76	0.512	Level 1
14,700.0	6,635.3	14,784.6	6,700.5	229.6	229.5	-106.87	-380.0	-8,028.5	224.6	-216.0	440.64	0.510	Level 1
14,763.7	6,635.2	14,848.3	6,700.4	231.3	231.3	-106.86	-380.0	-8,092.2	224.6	-219.5	444.10	0.506	Level 1
14,800.0	6,635.2	14,884.6	6,700.3	232.4	232.3	-106.86	-380.0	-8,128.5	224.6	-221.5	446.07	0.504	Level 1

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

Anticollision Report



Company:	PDC ENERGY	Local Co-ordinate Reference:	Well WACKER 10G-214
Project:	WELD COUNTY, COLORADO	TVD Reference:	KB-EST @ 4624.0usft (Original Well Elev)
Reference Site:	SW NW SEC. 10 T5N R64W 6th P.M.	MD Reference:	KB-EST @ 4624.0usft (Original Well Elev)
Site Error:	0.0 usft	North Reference:	True
Reference Well:	WACKER 10G-214	Survey Calculation Method:	Minimum Curvature
Well Error:	0.0 usft	Output errors are at	2.00 sigma
Reference Wellbore	ORIGINAL WELLBORE	Database:	EDM 5000.1 Single User Db
Reference Design:	PROPOSAL #1	Offset TVD Reference:	Offset Datum

Offset Design SW NW SEC. 10 T5N R64W 6th P.M. - WACKER 10G-304 - ORIGINAL WELLBORE - PROPOSAL #1												Offset Site Error:	0.0 usft
Survey Program: 0-MWD												Offset Well Error:	0.0 usft
Reference	Offset	Semi Major Axis		Distance									
Measured Depth (usft)	Vertical Depth (usft)	Measured Depth (usft)	Vertical Depth (usft)	Reference (usft)	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
14,862.2	6,635.1	14,946.8	6,700.2	234.1	234.0	-106.85	-380.0	-8,190.6	224.6	-224.9	449.44	0.500	Level 1
14,900.0	6,635.1	14,984.6	6,700.1	235.2	235.1	-106.84	-380.0	-8,228.5	224.6	-226.9	451.49	0.497	Level 1
14,960.6	6,635.0	15,045.2	6,700.0	236.9	236.3	-106.83	-380.0	-8,289.1	224.6	-229.8	454.35	0.494	Level 1
14,980.2	6,635.0	15,064.8	6,700.0	237.4	236.7	-106.83	-380.0	-8,308.6	224.6	-230.7	455.22	0.493	Level 1
14,982.9	6,635.0	15,065.7	6,700.0	237.5	236.7	-106.83	-380.0	-8,309.6	224.6	-230.7	455.31	0.493	Level 1, ES, SF

Anticollision Report



Company:	PDC ENERGY	Local Co-ordinate Reference:	Well WACKER 10G-214
Project:	WELD COUNTY, COLORADO	TVD Reference:	KB-EST @ 4624.0usft (Original Well Elev)
Reference Site:	SW NW SEC. 10 T5N R64W 6th P.M.	MD Reference:	KB-EST @ 4624.0usft (Original Well Elev)
Site Error:	0.0 usft	North Reference:	True
Reference Well:	WACKER 10G-214	Survey Calculation Method:	Minimum Curvature
Well Error:	0.0 usft	Output errors are at	2.00 sigma
Reference Wellbore	ORIGINAL WELLBORE	Database:	EDM 5000.1 Single User Db
Reference Design:	PROPOSAL #1	Offset TVD Reference:	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	1.07	14.9	0.3	14.9				
98.4	98.4	98.4	98.4	0.1	0.1	1.07	14.9	0.3	14.9	14.7	0.19	77.714	
100.0	100.0	100.0	100.0	0.1	0.1	1.07	14.9	0.3	14.9	14.7	0.20	76.398	
196.8	196.8	196.8	196.8	0.3	0.3	1.07	14.9	0.3	14.9	14.3	0.63	23.679	
200.0	200.0	200.0	200.0	0.3	0.3	1.07	14.9	0.3	14.9	14.3	0.65	23.159	
295.3	295.3	295.3	295.3	0.5	0.5	1.07	14.9	0.3	14.9	13.9	1.07	13.918	
300.0	300.0	300.0	300.0	0.5	0.5	1.07	14.9	0.3	14.9	13.8	1.09	13.648	
393.7	393.7	393.7	393.7	0.8	0.8	1.07	14.9	0.3	14.9	13.4	1.52	9.856	
400.0	400.0	400.0	400.0	0.8	0.8	1.07	14.9	0.3	14.9	13.4	1.54	9.675	
492.1	492.1	492.1	492.1	1.0	1.0	1.07	14.9	0.3	14.9	13.0	1.96	7.629	
500.0	500.0	500.0	500.0	1.0	1.0	1.07	14.9	0.3	14.9	12.9	1.99	7.493	
590.5	590.5	590.5	590.5	1.2	1.2	1.07	14.9	0.3	14.9	12.5	2.40	6.223	
600.0	600.0	600.0	600.0	1.2	1.2	1.07	14.9	0.3	14.9	12.5	2.44	6.115	
689.0	689.0	689.0	689.0	1.4	1.4	1.07	14.9	0.3	14.9	12.1	2.84	5.254	
700.0	700.0	700.0	700.0	1.4	1.4	1.07	14.9	0.3	14.9	12.0	2.89	5.164	
787.4	787.4	787.4	787.4	1.6	1.6	1.07	14.9	0.3	14.9	11.7	3.29	4.547	
800.0	800.0	800.0	800.0	1.7	1.7	1.07	14.9	0.3	14.9	11.6	3.34	4.470	
885.8	885.8	885.8	885.8	1.9	1.9	1.07	14.9	0.3	14.9	11.2	3.73	4.007	
900.0	900.0	900.0	900.0	1.9	1.9	1.07	14.9	0.3	14.9	11.1	3.79	3.940	
984.2	984.2	984.2	984.2	2.1	2.1	1.07	14.9	0.3	14.9	10.8	4.17	3.582	
1,000.0	1,000.0	1,000.0	1,000.0	2.1	2.1	1.07	14.9	0.3	14.9	10.7	4.24	3.522	
1,082.7	1,082.7	1,082.7	1,082.7	2.3	2.3	1.07	14.9	0.3	14.9	10.3	4.61	3.239	
1,100.0	1,100.0	1,100.0	1,100.0	2.3	2.3	1.07	14.9	0.3	14.9	10.2	4.69	3.185	
1,181.1	1,181.1	1,181.1	1,181.1	2.5	2.5	1.07	14.9	0.3	14.9	9.9	5.06	2.955	
1,200.0	1,200.0	1,200.0	1,200.0	2.6	2.6	1.07	14.9	0.3	14.9	9.8	5.14	2.906	
1,279.5	1,279.5	1,279.5	1,279.5	2.7	2.7	1.07	14.9	0.3	14.9	9.4	5.50	2.717	
1,300.0	1,300.0	1,300.0	1,300.0	2.8	2.8	1.07	14.9	0.3	14.9	9.3	5.59	2.673 CC, ES	
1,377.9	1,377.9	1,377.9	1,377.9	3.0	3.0	-121.06	14.9	0.3	15.5	9.5	5.92	2.609 SF	
1,400.0	1,400.0	1,400.0	1,400.0	3.0	3.0	-123.17	14.9	0.3	15.8	9.8	6.02	2.629	
1,476.4	1,476.3	1,476.3	1,476.3	3.1	3.2	-132.94	14.9	0.3	18.1	11.8	6.33	2.859	
1,500.0	1,499.8	1,499.8	1,499.8	3.2	3.2	-136.31	14.9	0.3	19.2	12.8	6.43	2.986	
1,574.8	1,574.4	1,574.4	1,574.4	3.3	3.4	-146.48	14.9	0.3	24.1	17.3	6.73	3.572	
1,600.0	1,599.5	1,599.5	1,599.5	3.4	3.5	-149.51	14.9	0.3	26.2	19.4	6.84	3.833	
1,673.2	1,672.2	1,671.6	1,671.6	3.6	3.6	-157.84	15.0	-0.6	34.5	27.4	7.12	4.849	
1,700.0	1,698.7	1,697.7	1,697.7	3.6	3.7	-160.63	15.1	-1.4	38.5	31.3	7.22	5.328	
1,771.6	1,769.5	1,767.2	1,767.1	3.8	3.8	-166.94	15.5	-4.6	51.5	44.0	7.49	6.875	
1,800.0	1,797.5	1,794.3	1,794.2	3.9	3.9	-168.98	15.7	-6.3	57.6	50.0	7.59	7.589	
1,870.1	1,866.3	1,860.7	1,860.3	4.1	4.0	-173.07	16.2	-11.5	75.2	67.3	7.86	9.567	
1,900.2	1,895.8	1,888.9	1,888.4	4.2	4.1	-174.48	16.5	-14.2	83.7	75.7	7.96	10.510	
1,968.5	1,962.6	1,951.9	1,951.0	4.4	4.2	-177.11	17.3	-21.2	104.5	96.2	8.25	12.672	
2,000.0	1,993.4	1,980.7	1,979.6	4.5	4.3	-178.09	17.7	-24.8	114.6	106.2	8.37	13.683	
2,066.9	2,058.9	2,041.2	2,039.5	4.7	4.4	-179.86	18.6	-33.4	137.0	128.3	8.65	15.829	
2,100.0	2,091.2	2,070.8	2,068.7	4.8	4.5	179.39	19.1	-38.1	148.5	139.7	8.79	16.900	
2,165.3	2,155.2	2,128.5	2,125.5	5.1	4.7	178.10	20.2	-48.0	172.3	163.2	9.06	19.013	
2,200.0	2,189.1	2,158.8	2,155.2	5.2	4.8	177.50	20.8	-53.7	185.4	176.2	9.21	20.131	
2,263.8	2,251.4	2,213.8	2,209.1	5.5	4.9	176.51	22.0	-64.8	210.4	200.9	9.48	22.191	
2,300.0	2,286.9	2,244.6	2,239.2	5.6	5.0	176.00	22.8	-71.5	225.0	215.4	9.63	23.358	
2,362.2	2,347.7	2,300.0	2,293.1	5.8	5.2	175.17	24.2	-84.3	251.1	241.2	9.91	25.343	
2,400.0	2,384.7	2,328.2	2,320.4	6.0	5.3	174.78	24.9	-91.2	267.4	257.3	10.06	26.569	
2,460.6	2,444.0	2,377.8	2,368.3	6.2	5.5	174.14	26.3	-104.0	294.3	284.0	10.33	28.502	
2,500.0	2,482.5	2,409.6	2,398.8	6.4	5.6	173.76	27.3	-112.7	312.3	301.8	10.49	29.757	
2,559.0	2,540.3	2,456.5	2,443.8	6.6	5.8	173.23	28.7	-126.1	340.0	329.2	10.75	31.615	

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

Anticollision Report



Company:	PDC ENERGY	Local Co-ordinate Reference:	Well WACKER 10G-214
Project:	WELD COUNTY, COLORADO	TVD Reference:	KB-EST @ 4624.0usft (Original Well Elev)
Reference Site:	SW NW SEC. 10 T5N R64W 6th P.M.	MD Reference:	KB-EST @ 4624.0usft (Original Well Elev)
Site Error:	0.0 usft	North Reference:	True
Reference Well:	WACKER 10G-214	Survey Calculation Method:	Minimum Curvature
Well Error:	0.0 usft	Output errors are at	2.00 sigma
Reference Wellbore	ORIGINAL WELLBORE	Database:	EDM 5000.1 Single User Db
Reference Design:	PROPOSAL #1	Offset TVD Reference:	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	2,580.3	2,489.1	2,474.9	6.8	6.0	172.89	29.8	-135.8	359.6	348.7	10.93	32.895	
2,657.5	2,636.5	2,539.3	2,522.8	7.1	6.2	172.41	31.4	-150.9	387.5	376.3	11.20	34.602	
2,700.0	2,678.1	2,576.5	2,558.1	7.2	6.4	172.10	32.7	-162.2	408.1	396.7	11.39	35.831	
2,755.9	2,732.8	2,625.3	2,604.7	7.5	6.7	171.73	34.3	-176.9	435.2	423.6	11.64	37.377	
2,800.0	2,775.9	2,663.8	2,641.4	7.7	6.9	171.47	35.5	-188.5	456.6	444.7	11.85	38.544	
2,854.3	2,829.1	2,711.3	2,686.6	7.9	7.1	171.19	37.1	-202.9	483.0	470.9	12.10	39.925	
2,900.0	2,873.8	2,751.2	2,724.6	8.1	7.3	170.97	38.4	-214.9	505.1	492.8	12.31	41.035	
2,952.7	2,925.4	2,797.3	2,768.5	8.3	7.6	170.74	39.9	-228.8	530.7	518.2	12.56	42.271	
2,953.5	2,926.1	2,797.9	2,769.1	8.3	7.6	170.74	40.0	-229.0	531.1	518.5	12.56	42.288	
3,000.0	2,971.6	2,838.7	2,808.0	8.5	7.8	170.63	41.3	-241.3	553.4	540.6	12.80	43.222	
3,051.2	3,022.0	2,884.0	2,851.2	8.7	8.0	170.51	42.8	-255.0	577.1	564.0	13.06	44.182	
3,100.0	3,070.1	2,927.6	2,892.7	8.8	8.3	170.39	44.2	-268.2	599.0	585.7	13.31	45.005	
3,149.6	3,119.1	2,972.3	2,935.2	8.9	8.5	170.27	45.7	-281.6	620.5	607.0	13.56	45.763	
3,200.0	3,169.1	3,018.0	2,978.8	9.1	8.8	170.14	47.2	-295.4	641.6	627.8	13.81	46.451	
3,248.0	3,216.8	3,061.9	3,020.6	9.2	9.0	170.01	48.7	-308.7	660.9	646.9	14.05	47.041	
3,300.0	3,268.5	3,109.8	3,066.2	9.3	9.3	169.87	50.2	-323.2	681.1	666.8	14.31	47.604	
3,346.4	3,314.8	3,152.8	3,107.3	9.4	9.6	169.74	51.6	-336.2	698.3	683.8	14.53	48.051	
3,400.0	3,368.3	3,202.8	3,154.9	9.6	9.9	169.58	53.3	-351.2	717.4	702.6	14.79	48.499	
3,444.9	3,413.1	3,244.9	3,195.0	9.6	10.1	169.45	54.7	-364.0	732.7	717.7	15.01	48.826	
3,500.0	3,468.2	3,297.0	3,244.6	9.7	10.4	169.27	56.4	-379.7	750.5	735.3	15.27	49.166	
3,543.3	3,511.5	3,338.1	3,283.8	9.8	10.7	169.13	57.8	-392.1	763.9	748.4	15.47	49.393	
3,553.7	3,521.9	3,348.0	3,293.2	9.8	10.7	-72.25	58.1	-395.1	767.0	746.7	20.35	37.691	
3,600.0	3,568.2	3,392.1	3,335.3	9.9	11.0	-72.46	59.5	-408.4	780.8	760.1	20.68	37.750	
3,641.7	3,609.9	3,431.9	3,373.1	10.0	11.2	-72.64	60.8	-420.4	793.3	772.3	20.99	37.792	
3,700.0	3,668.2	3,487.4	3,426.0	10.1	11.6	-72.88	62.7	-437.2	810.7	789.3	21.42	37.847	
3,740.1	3,708.4	3,525.7	3,462.5	10.1	11.8	-73.04	63.9	-448.7	822.7	800.9	21.72	37.880	
3,800.0	3,768.2	3,582.7	3,516.8	10.2	12.2	-73.27	65.8	-465.9	840.6	818.4	22.16	37.927	
3,838.6	3,806.8	3,619.4	3,551.8	10.3	12.4	-73.41	67.0	-477.0	852.1	829.6	22.45	37.953	
3,900.0	3,868.2	3,678.0	3,607.6	10.4	12.7	-73.63	68.9	-494.7	870.5	847.6	22.91	37.991	
3,937.0	3,905.2	3,713.2	3,641.2	10.5	13.0	-73.76	70.1	-505.3	881.6	858.4	23.19	38.012	
4,000.0	3,968.2	3,773.2	3,698.4	10.6	13.3	-73.97	72.1	-523.5	900.4	876.8	23.67	38.043	
4,035.4	4,003.6	3,807.0	3,730.5	10.6	13.5	-74.09	73.2	-533.7	911.1	887.1	23.94	38.059	
4,100.0	4,068.2	3,868.5	3,789.1	10.7	13.9	-74.29	75.2	-552.2	930.4	906.0	24.43	38.085	
4,133.8	4,102.1	3,900.8	3,819.9	10.8	14.1	-74.39	76.3	-562.0	940.6	915.9	24.69	38.097	
4,200.0	4,168.2	3,963.8	3,879.9	10.9	14.5	-74.59	78.4	-581.0	960.4	935.2	25.20	38.117	
4,232.3	4,200.5	3,994.5	3,909.2	11.0	14.7	-74.68	79.4	-590.3	970.1	944.7	25.44	38.126	
4,300.0	4,268.2	4,059.1	3,970.7	11.1	15.1	-74.87	81.5	-609.8	990.4	964.5	25.97	38.142	
4,330.7	4,298.9	4,088.3	3,998.6	11.1	15.3	-74.95	82.5	-618.6	999.7	973.5	26.20	38.148	
4,400.0	4,368.2	4,154.3	4,061.5	11.3	15.7	-75.13	84.6	-638.5	1,020.5	993.8	26.74	38.160	
4,429.1	4,397.3	4,182.1	4,087.9	11.3	15.9	-75.21	85.6	-646.9	1,029.2	1,002.3	26.97	38.165	
4,500.0	4,468.2	4,249.6	4,152.3	11.4	16.3	-75.38	87.8	-667.3	1,050.6	1,023.0	27.52	38.173	
4,527.5	4,495.8	4,275.9	4,177.3	11.5	16.5	-75.45	88.6	-675.2	1,058.8	1,031.1	27.74	38.176	
4,600.0	4,568.2	4,344.9	4,243.0	11.6	16.9	-75.62	90.9	-696.0	1,080.6	1,052.3	28.30	38.181	
4,626.0	4,594.2	4,369.6	4,266.6	11.7	17.1	-75.67	91.7	-703.5	1,088.5	1,060.0	28.51	38.183	
4,700.0	4,668.2	4,440.2	4,333.8	11.8	17.5	-75.84	94.1	-724.8	1,110.7	1,081.7	29.09	38.185	
4,724.4	4,692.6	4,463.4	4,356.0	11.9	17.7	-75.89	94.8	-731.8	1,118.1	1,088.8	29.28	38.186	
4,800.0	4,768.2	4,535.4	4,424.6	12.0	18.1	-76.05	97.2	-753.6	1,140.9	1,111.0	29.88	38.186	
4,822.8	4,791.0	4,557.2	4,445.3	12.0	18.3	-76.09	97.9	-760.1	1,147.7	1,117.7	30.06	38.185	
4,900.0	4,868.2	4,630.7	4,515.4	12.2	18.7	-76.25	100.3	-782.3	1,171.0	1,140.3	30.67	38.183	
4,921.2	4,889.5	4,651.0	4,534.7	12.2	18.9	-76.29	101.0	-788.5	1,177.4	1,146.5	30.84	38.182	
5,000.0	4,968.2	4,726.0	4,606.1	12.4	19.3	-76.44	103.5	-811.1	1,201.1	1,169.7	31.46	38.178	
5,019.7	4,987.9	4,744.7	4,624.0	12.4	19.4	-76.47	104.1	-816.8	1,207.0	1,175.4	31.62	38.177	

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

Anticollision Report



Company:	PDC ENERGY	Local Co-ordinate Reference:	Well WACKER 10G-214
Project:	WELD COUNTY, COLORADO	TVD Reference:	KB-EST @ 4624.0usft (Original Well Elev)
Reference Site:	SW NW SEC. 10 T5N R64W 6th P.M.	MD Reference:	KB-EST @ 4624.0usft (Original Well Elev)
Site Error:	0.0 usft	North Reference:	True
Reference Well:	WACKER 10G-214	Survey Calculation Method:	Minimum Curvature
Well Error:	0.0 usft	Output errors are at	2.00 sigma
Reference Wellbore	ORIGINAL WELLBORE	Database:	EDM 5000.1 Single User Db
Reference Design:	PROPOSAL #1	Offset TVD Reference:	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	5,068.2	4,821.3	4,696.9	12.6	19.9	-76.62	106.6	-839.9	1,231.3	1,199.0	32.26	38.171	
5,118.1	5,086.3	4,838.5	4,713.3	12.6	20.0	-76.65	107.2	-845.1	1,236.7	1,204.3	32.40	38.170	
5,200.0	5,168.2	4,916.5	4,787.7	12.7	20.5	-76.79	109.8	-868.6	1,261.4	1,228.4	33.05	38.162	
5,216.5	5,184.7	4,932.3	4,802.7	12.8	20.6	-76.82	110.3	-873.4	1,266.4	1,233.2	33.19	38.160	
5,300.0	5,268.2	5,011.8	4,878.5	12.9	21.2	-76.95	112.9	-897.4	1,291.6	1,257.7	33.85	38.152	
5,314.9	5,283.2	5,026.1	4,892.0	13.0	21.2	-76.98	113.4	-901.7	1,296.1	1,262.1	33.97	38.150	
5,400.0	5,368.2	5,107.1	4,969.2	13.1	21.8	-77.11	116.0	-926.2	1,321.8	1,287.1	34.66	38.140	
5,413.4	5,381.6	5,119.8	4,981.4	13.2	21.8	-77.13	116.5	-930.0	1,325.8	1,291.0	34.76	38.138	
5,500.0	5,468.2	8,004.9	6,713.1	13.3	39.4	4.04	135.5	323.4	1,280.8	1,253.7	27.11	47.243	
5,511.8	5,480.0	8,004.7	6,713.1	13.3	39.4	4.00	135.5	323.2	1,269.4	1,242.2	27.13	46.782	
5,600.0	5,568.2	8,003.2	6,713.1	13.5	39.4	3.72	135.5	321.7	1,183.9	1,156.6	27.30	43.367	
5,610.2	5,578.4	8,003.0	6,713.1	13.5	39.4	3.69	135.5	321.6	1,174.0	1,146.7	27.32	42.975	
5,700.0	5,668.2	8,001.5	6,713.1	13.7	39.4	3.40	135.5	320.0	1,087.5	1,060.0	27.49	39.560	
5,708.6	5,676.9	8,001.4	6,713.1	13.7	39.3	3.37	135.5	319.9	1,079.1	1,051.6	27.51	39.234	
5,800.0	5,768.2	7,999.8	6,713.2	13.9	39.3	3.07	135.5	318.3	991.8	964.1	27.68	35.827	
5,807.1	5,775.3	7,999.7	6,713.2	13.9	39.3	3.05	135.5	318.2	985.0	957.3	27.70	35.565	
5,900.0	5,868.2	7,998.1	6,713.2	14.1	39.3	2.75	135.5	316.6	897.0	869.1	27.88	32.175	
5,905.5	5,873.7	7,998.0	6,713.2	14.1	39.3	2.73	135.5	316.5	891.8	863.9	27.89	31.976	
5,960.7	5,928.9	7,997.1	6,713.2	14.2	39.3	2.55	135.5	315.6	840.1	812.1	28.00	30.002	
6,000.0	5,968.2	7,995.3	6,713.2	14.3	39.2	100.10	135.5	313.8	803.5	750.6	52.91	15.187	
6,003.9	5,972.1	7,995.0	6,713.2	14.3	39.2	100.80	135.5	313.5	799.9	747.0	52.85	15.136	
6,050.0	6,018.0	7,990.0	6,713.3	14.4	39.1	108.10	135.5	308.5	757.6	705.8	51.85	14.611	
6,100.0	6,067.3	7,981.2	6,713.5	14.4	38.9	114.30	135.5	299.7	712.7	662.2	50.50	14.115	
6,102.3	6,069.6	7,980.7	6,713.5	14.4	38.9	114.55	135.5	299.2	710.7	660.2	50.43	14.092	
6,150.0	6,116.0	7,969.0	6,713.7	14.4	38.7	118.91	135.5	287.5	669.1	620.0	49.14	13.618	
6,200.0	6,163.8	7,953.4	6,713.9	14.5	38.3	122.20	135.5	272.0	627.0	579.1	47.91	13.088	
6,200.8	6,164.5	7,953.2	6,713.9	14.5	38.3	122.24	135.5	271.7	626.4	578.5	47.89	13.079	
6,250.0	6,210.4	7,934.6	6,714.3	14.5	37.9	124.42	135.5	253.1	586.8	539.9	46.86	12.522	
6,299.2	6,254.9	7,913.0	6,714.6	14.5	37.5	125.73	135.5	231.5	549.3	503.3	46.00	11.941	
6,300.0	6,255.6	7,912.6	6,714.6	14.5	37.4	125.75	135.5	231.1	548.7	502.8	45.99	11.932	
6,350.0	6,299.3	7,887.5	6,715.1	14.5	36.9	126.34	135.5	206.1	513.1	467.8	45.29	11.329	
6,397.6	6,339.2	7,860.9	6,715.5	14.6	36.4	126.31	135.5	179.4	481.7	436.9	44.77	10.760	
6,400.0	6,341.2	7,859.5	6,715.5	14.6	36.4	126.29	135.5	178.0	480.2	435.4	44.74	10.732	
6,450.0	6,381.0	7,828.6	6,716.1	14.6	35.7	125.69	135.5	147.2	450.2	405.9	44.33	10.156	
6,496.0	6,415.8	7,797.8	6,716.6	14.7	35.1	124.72	135.5	116.4	425.3	381.3	44.06	9.654	
6,500.0	6,418.7	7,795.1	6,716.6	14.7	35.0	124.61	135.5	113.6	423.3	379.3	44.04	9.612	
6,550.0	6,453.9	7,759.0	6,717.3	14.8	34.3	123.12	135.5	77.6	399.7	355.8	43.89	9.106	
6,594.5	6,483.1	7,725.0	6,717.8	15.0	33.7	121.50	135.5	43.6	381.4	337.6	43.85	8.698	
6,600.0	6,486.6	7,720.7	6,717.9	15.1	33.6	121.28	135.5	39.2	379.3	335.5	43.85	8.651	
6,650.0	6,516.6	7,680.2	6,718.6	15.3	32.8	119.16	135.5	-1.3	362.2	318.3	43.92	8.247	
6,692.9	6,540.0	7,643.8	6,719.2	15.7	32.2	117.20	135.5	-37.6	350.0	305.9	44.07	7.943	
6,700.0	6,543.7	7,637.7	6,719.3	15.7	32.1	116.87	135.5	-43.7	348.2	304.1	44.09	7.897	
6,750.0	6,567.8	7,593.5	6,720.1	16.2	31.3	114.50	135.5	-87.9	337.0	292.7	44.32	7.604	
6,791.3	6,585.4	7,555.8	6,720.7	16.7	30.7	112.57	135.5	-125.6	329.7	285.1	44.58	7.395	
6,800.0	6,588.8	7,547.8	6,720.9	16.8	30.5	112.18	135.5	-133.6	328.4	283.7	44.63	7.357	
6,850.0	6,606.6	7,500.8	6,721.7	17.4	29.8	110.02	135.5	-180.6	321.9	277.0	44.95	7.161	
6,889.7	6,618.4	7,462.6	6,722.3	18.0	29.2	108.49	135.5	-218.8	318.1	272.8	45.26	7.028	
6,900.0	6,621.1	7,452.7	6,722.5	18.2	29.1	108.13	135.5	-228.7	317.3	271.9	45.33	6.999	
6,950.0	6,632.2	7,403.8	6,723.3	19.0	28.4	106.63	135.5	-277.6	314.1	268.5	45.69	6.876	
6,988.2	6,638.4	7,366.0	6,724.0	19.7	27.9	105.78	135.5	-315.4	312.6	266.6	46.00	6.795	
7,000.0	6,639.9	7,354.3	6,724.2	19.9	27.7	105.58	135.5	-327.1	312.2	266.1	46.09	6.774	
7,050.0	6,644.1	7,304.3	6,725.0	20.8	27.1	105.05	135.5	-377.1	311.3	264.9	46.46	6.701	

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

Anticollision Report



Company:	PDC ENERGY	Local Co-ordinate Reference:	Well WACKER 10G-214
Project:	WELD COUNTY, COLORADO	TVD Reference:	KB-EST @ 4624.0usft (Original Well Elev)
Reference Site:	SW NW SEC. 10 T5N R64W 6th P.M.	MD Reference:	KB-EST @ 4624.0usft (Original Well Elev)
Site Error:	0.0 usft	North Reference:	True
Reference Well:	WACKER 10G-214	Survey Calculation Method:	Minimum Curvature
Well Error:	0.0 usft	Output errors are at	2.00 sigma
Reference Wellbore	ORIGINAL WELLBORE	Database:	EDM 5000.1 Single User Db
Reference Design:	PROPOSAL #1	Offset TVD Reference:	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	
7,086.5	6,645.0	7,263.2	6,724.5	21.5	26.7	104.81	135.5	-418.2	311.0	264.2	46.74	6.654	
7,100.0	6,645.0	7,248.1	6,723.7	21.8	26.5	104.68	135.5	-433.3	310.8	264.0	46.86	6.632	
7,185.0	6,644.9	7,154.0	6,711.7	23.6	25.6	102.54	135.5	-526.5	308.3	260.2	48.10	6.409	
7,200.0	6,644.8	7,137.8	6,708.4	23.9	25.5	101.95	135.5	-542.3	307.6	259.2	48.38	6.359	
7,283.4	6,644.7	7,051.0	6,684.7	25.7	24.9	97.58	135.5	-625.8	303.6	253.4	50.19	6.049	
7,300.0	6,644.7	7,034.5	6,679.1	26.1	24.9	96.53	135.5	-641.3	302.9	252.3	50.58	5.988	
7,381.9	6,644.6	6,957.3	6,648.0	28.0	24.6	90.65	135.5	-712.0	300.7	248.2	52.46	5.731	
7,390.3	6,644.6	6,949.8	6,644.6	28.2	24.5	90.00	135.5	-718.7	300.6	248.0	52.63	5.712	
7,400.0	6,644.6	6,941.2	6,640.6	28.4	24.5	89.24	135.5	-726.2	300.7	247.8	52.84	5.691	
7,480.3	6,644.5	6,874.5	6,606.4	30.3	24.4	82.79	135.5	-783.5	304.1	249.8	54.27	5.603	
7,500.0	6,644.4	6,859.2	6,597.9	30.8	24.4	81.20	135.5	-796.2	305.9	251.4	54.54	5.609	
7,578.7	6,644.3	6,800.0	6,562.2	32.7	24.4	74.71	135.5	-843.4	318.1	262.8	55.24	5.758	
7,600.0	6,644.3	6,788.4	6,554.8	33.3	24.4	73.40	135.5	-852.3	322.8	267.3	55.43	5.822	
7,677.1	6,644.2	6,740.7	6,522.8	35.2	24.4	67.98	135.5	-887.6	345.0	289.3	55.67	6.197	
7,700.0	6,644.1	6,727.7	6,513.6	35.8	24.4	66.50	135.5	-896.9	353.1	297.5	55.68	6.342	
7,775.6	6,644.0	6,687.7	6,484.5	37.7	24.5	62.00	135.5	-924.2	384.9	329.3	55.63	6.919	
7,800.0	6,644.0	6,675.8	6,475.5	38.3	24.5	60.69	135.5	-932.1	396.6	341.0	55.59	7.135	
7,874.0	6,643.9	6,642.3	6,449.5	40.2	24.6	57.07	135.5	-953.3	436.1	380.6	55.45	7.865	
7,900.0	6,643.9	6,631.4	6,440.9	40.9	24.6	55.93	135.5	-960.0	451.2	395.8	55.39	8.146	
7,972.4	6,643.8	6,600.0	6,415.5	42.8	24.7	52.73	135.5	-978.3	496.5	441.4	55.09	9.012	
8,000.0	6,643.7	6,600.0	6,415.5	43.5	24.7	52.73	135.5	-978.3	514.8	459.1	55.68	9.246	
8,070.8	6,643.6	6,569.3	6,389.9	45.4	24.8	49.77	135.5	-995.2	563.9	508.7	55.23	10.210	
8,100.0	6,643.6	6,550.0	6,373.4	46.2	24.8	47.99	135.5	-1,005.3	585.2	530.6	54.58	10.721	
8,169.3	6,643.5	6,550.0	6,373.4	48.0	24.8	47.99	135.5	-1,005.3	637.0	581.0	55.98	11.379	
8,200.0	6,643.5	6,531.5	6,357.3	48.8	24.9	46.34	135.5	-1,014.5	660.6	605.2	55.37	11.930	
8,267.7	6,643.4	6,514.2	6,342.1	50.6	24.9	44.86	135.5	-1,022.7	714.1	658.5	55.54	12.856	
8,300.0	6,643.3	6,500.0	6,329.5	51.5	25.0	43.69	135.5	-1,029.2	740.2	685.0	55.21	13.406	
8,366.1	6,643.2	6,500.0	6,329.5	53.3	25.0	43.69	135.5	-1,029.2	794.6	738.2	56.48	14.069	
8,400.0	6,643.2	6,484.4	6,315.4	54.2	25.0	42.44	135.5	-1,036.0	822.9	766.8	56.05	14.681	
8,464.5	6,643.1	6,471.5	6,303.7	55.9	25.0	41.45	135.5	-1,041.4	877.7	821.3	56.38	15.568	
8,500.0	6,643.1	6,464.8	6,297.6	56.9	25.0	40.95	135.5	-1,044.1	908.1	851.6	56.57	16.052	
8,563.0	6,643.0	6,450.0	6,284.0	58.6	25.1	39.86	135.5	-1,050.0	962.9	906.2	56.70	16.981	
8,600.0	6,642.9	6,450.0	6,284.0	59.6	25.1	39.86	135.5	-1,050.0	995.4	938.0	57.38	17.348	
8,661.4	6,642.8	6,450.0	6,284.0	61.3	25.1	39.86	135.5	-1,050.0	1,049.9	991.4	58.50	17.949	
8,700.0	6,642.8	6,431.9	6,267.2	62.3	25.1	38.58	135.5	-1,056.7	1,084.2	1,026.3	57.90	18.725	
8,759.8	6,642.7	6,423.3	6,259.2	64.0	25.1	37.99	135.5	-1,059.8	1,138.0	1,079.7	58.36	19.499	
8,800.0	6,642.7	6,417.9	6,254.1	65.1	25.1	37.63	135.5	-1,061.7	1,174.4	1,115.7	58.68	20.012	
8,858.2	6,642.6	6,400.0	6,237.2	66.6	25.2	36.46	135.5	-1,067.6	1,227.6	1,169.1	58.44	21.005	
8,900.0	6,642.5	6,400.0	6,237.2	67.8	25.2	36.46	135.5	-1,067.6	1,265.7	1,206.6	59.16	21.395	
8,956.7	6,642.4	6,400.0	6,237.2	69.3	25.2	36.46	135.5	-1,067.6	1,317.9	1,257.8	60.14	21.915	
9,000.0	6,642.4	6,400.0	6,237.2	70.5	25.2	36.46	135.5	-1,067.6	1,358.0	1,297.1	60.88	22.305	
9,055.1	6,642.3	6,400.0	6,237.2	72.0	25.2	36.46	135.5	-1,067.6	1,409.3	1,347.4	61.84	22.791	
9,100.0	6,642.3	6,383.3	6,221.3	73.3	25.2	35.42	135.5	-1,072.7	1,451.0	1,389.6	61.38	23.641	
9,153.5	6,642.2	6,378.1	6,216.3	74.7	25.2	35.10	135.5	-1,074.2	1,501.1	1,439.2	61.90	24.250	
9,200.0	6,642.1	6,373.7	6,212.1	76.0	25.2	34.84	135.5	-1,075.5	1,544.7	1,482.3	62.36	24.770	
9,251.9	6,642.1	6,369.1	6,207.7	77.5	25.2	34.57	135.5	-1,076.8	1,593.6	1,530.7	62.89	25.340	
9,300.0	6,642.0	6,350.0	6,189.3	78.8	25.3	33.47	135.5	-1,081.8	1,639.2	1,576.9	62.30	26.313	
9,350.4	6,641.9	6,350.0	6,189.3	80.2	25.3	33.47	135.5	-1,081.8	1,686.8	1,623.7	63.12	26.724	
9,400.0	6,641.9	6,350.0	6,189.3	81.5	25.3	33.47	135.5	-1,081.8	1,733.8	1,669.9	63.93	27.121	
9,448.8	6,641.8	6,350.0	6,189.3	82.9	25.3	33.47	135.5	-1,081.8	1,780.2	1,715.5	64.73	27.503	
9,500.0	6,641.7	6,350.0	6,189.3	84.3	25.3	33.47	135.5	-1,081.8	1,829.0	1,763.5	65.57	27.896	
9,547.2	6,641.7	6,350.0	6,189.3	85.6	25.3	33.47	135.5	-1,081.8	1,874.2	1,807.8	66.34	28.251	

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

Anticollision Report



Company:	PDC ENERGY	Local Co-ordinate Reference:	Well WACKER 10G-214
Project:	WELD COUNTY, COLORADO	TVD Reference:	KB-EST @ 4624.0usft (Original Well Elev)
Reference Site:	SW NW SEC. 10 T5N R64W 6th P.M.	MD Reference:	KB-EST @ 4624.0usft (Original Well Elev)
Site Error:	0.0 usft	North Reference:	True
Reference Well:	WACKER 10G-214	Survey Calculation Method:	Minimum Curvature
Well Error:	0.0 usft	Output errors are at	2.00 sigma
Reference Wellbore	ORIGINAL WELLBORE	Database:	EDM 5000.1 Single User Db
Reference Design:	PROPOSAL #1	Offset TVD Reference:	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	
9,600.0	6,641.6	6,350.0	6,189.3	87.1	25.3	33.47	135.5	-1,081.8	1,924.7	1,857.5	67.21	28.640	
9,645.6	6,641.5	6,350.0	6,189.3	88.3	25.3	33.47	135.5	-1,081.8	1,968.6	1,900.6	67.95	28.969	
9,700.0	6,641.5	6,350.0	6,189.3	89.8	25.3	33.47	135.5	-1,081.8	2,020.8	1,952.0	68.85	29.353	
9,744.1	6,641.4	6,350.0	6,189.3	91.0	25.3	33.47	135.5	-1,081.8	2,063.3	1,993.7	69.57	29.658	
9,800.0	6,641.3	6,330.1	6,170.0	92.6	25.3	32.38	135.5	-1,086.6	2,116.9	2,048.0	68.90	30.725	
9,842.5	6,641.3	6,327.7	6,167.6	93.8	25.3	32.26	135.5	-1,087.1	2,157.9	2,088.5	69.39	31.098	
9,900.0	6,641.2	6,324.6	6,164.6	95.4	25.3	32.09	135.5	-1,087.8	2,213.5	2,143.4	70.06	31.593	
9,940.9	6,641.1	6,322.4	6,162.4	96.5	25.3	31.98	135.5	-1,088.3	2,253.1	2,182.5	70.54	31.939	
10,000.0	6,641.1	6,319.4	6,159.5	98.1	25.3	31.82	135.5	-1,088.9	2,310.3	2,239.0	71.24	32.430	
10,039.3	6,641.0	6,300.0	6,140.5	99.2	25.3	30.84	135.5	-1,092.7	2,348.7	2,278.4	70.34	33.391	
10,100.0	6,640.9	6,300.0	6,140.5	100.9	25.3	30.84	135.5	-1,092.7	2,407.5	2,336.2	71.28	33.774	
10,137.8	6,640.9	6,300.0	6,140.5	102.0	25.3	30.84	135.5	-1,092.7	2,444.1	2,372.3	71.87	34.008	
10,200.0	6,640.8	6,300.0	6,140.5	103.7	25.3	30.84	135.5	-1,092.7	2,504.6	2,431.8	72.84	34.386	
10,236.2	6,640.8	6,300.0	6,140.5	104.7	25.3	30.84	135.5	-1,092.7	2,539.8	2,466.4	73.40	34.602	
10,300.0	6,640.7	6,300.0	6,140.5	106.5	25.3	30.84	135.5	-1,092.7	2,601.9	2,527.5	74.39	34.975	
10,334.6	6,640.6	6,300.0	6,140.5	107.4	25.3	30.84	135.5	-1,092.7	2,635.7	2,560.7	74.93	35.174	
10,400.0	6,640.6	6,300.0	6,140.5	109.3	25.3	30.84	135.5	-1,092.7	2,699.4	2,623.5	75.95	35.542	
10,433.0	6,640.5	6,300.0	6,140.5	110.2	25.3	30.84	135.5	-1,092.7	2,731.7	2,655.2	76.47	35.725	
10,500.0	6,640.4	6,300.0	6,140.5	112.0	25.3	30.84	135.5	-1,092.7	2,797.1	2,719.6	77.51	36.088	
10,531.5	6,640.4	6,300.0	6,140.5	112.9	25.3	30.84	135.5	-1,092.7	2,827.9	2,749.9	78.00	36.255	
10,600.0	6,640.3	6,300.0	6,140.5	114.8	25.3	30.85	135.5	-1,092.7	2,895.0	2,815.9	79.07	36.613	
10,629.9	6,640.3	6,300.0	6,140.5	115.7	25.3	30.85	135.5	-1,092.7	2,924.3	2,844.7	79.54	36.767	
10,700.0	6,640.2	6,300.0	6,140.5	117.6	25.3	30.85	135.5	-1,092.7	2,993.0	2,912.4	80.63	37.120	
10,728.3	6,640.1	6,300.0	6,140.5	118.4	25.3	30.85	135.5	-1,092.7	3,020.8	2,939.7	81.07	37.260	
10,800.0	6,640.0	6,300.0	6,140.5	120.4	25.3	30.85	135.5	-1,092.7	3,091.1	3,008.9	82.19	37.609	
10,826.7	6,640.0	6,300.0	6,140.5	121.2	25.3	30.85	135.5	-1,092.7	3,117.4	3,034.8	82.61	37.736	
10,900.0	6,639.9	6,300.0	6,140.5	123.2	25.3	30.85	135.5	-1,092.7	3,189.3	3,105.6	83.75	38.080	
10,925.2	6,639.9	6,300.0	6,140.5	123.9	25.3	30.85	135.5	-1,092.7	3,214.1	3,130.0	84.15	38.196	
11,000.0	6,639.8	6,300.0	6,140.5	126.0	25.3	30.85	135.5	-1,092.7	3,287.7	3,202.4	85.32	38.535	
11,023.6	6,639.8	6,300.0	6,140.5	126.6	25.3	30.85	135.5	-1,092.7	3,310.9	3,225.2	85.69	38.640	
11,100.0	6,639.7	6,278.6	6,119.4	128.8	25.3	29.82	135.5	-1,096.3	3,385.8	3,300.9	84.88	39.891	
11,122.0	6,639.6	6,278.0	6,118.8	129.4	25.3	29.79	135.5	-1,096.4	3,407.4	3,322.3	85.16	40.014	
11,200.0	6,639.5	6,275.9	6,116.8	131.6	25.3	29.70	135.5	-1,096.8	3,484.2	3,398.0	86.16	40.440	
11,220.4	6,639.5	6,275.4	6,116.2	132.1	25.3	29.67	135.5	-1,096.8	3,504.3	3,417.9	86.42	40.550	
11,300.0	6,639.4	6,273.4	6,114.3	134.4	25.3	29.58	135.5	-1,097.1	3,582.7	3,495.3	87.44	40.972	
11,318.9	6,639.4	6,272.9	6,113.8	134.9	25.3	29.56	135.5	-1,097.2	3,601.3	3,513.6	87.69	41.070	
11,400.0	6,639.3	6,271.0	6,111.9	137.1	25.4	29.47	135.5	-1,097.5	3,681.3	3,592.5	88.73	41.487	
11,417.3	6,639.3	6,250.0	6,091.1	137.6	25.4	28.54	135.5	-1,100.2	3,698.7	3,611.6	87.06	42.484	
11,500.0	6,639.2	6,250.0	6,091.1	139.9	25.4	28.54	135.5	-1,100.2	3,780.2	3,691.9	88.29	42.817	
11,515.7	6,639.1	6,250.0	6,091.1	140.4	25.4	28.54	135.5	-1,100.2	3,795.7	3,707.2	88.52	42.879	
11,600.0	6,639.0	6,250.0	6,091.1	142.7	25.4	28.54	135.5	-1,100.2	3,878.8	3,789.1	89.77	43.208	
11,614.1	6,639.0	6,250.0	6,091.1	143.1	25.4	28.54	135.5	-1,100.2	3,892.8	3,802.8	89.98	43.262	
11,700.0	6,638.9	6,250.0	6,091.1	145.5	25.4	28.54	135.5	-1,100.2	3,977.6	3,886.3	91.26	43.587	
11,712.6	6,638.9	6,250.0	6,091.1	145.9	25.4	28.54	135.5	-1,100.2	3,990.0	3,898.5	91.44	43.634	
11,800.0	6,638.8	6,250.0	6,091.1	148.3	25.4	28.54	135.5	-1,100.2	4,076.3	3,983.6	92.74	43.954	
11,811.0	6,638.8	6,250.0	6,091.1	148.6	25.4	28.54	135.5	-1,100.2	4,087.2	3,994.3	92.90	43.994	
11,900.0	6,638.7	6,250.0	6,091.1	151.1	25.4	28.54	135.5	-1,100.2	4,175.2	4,080.9	94.23	44.310	
11,909.4	6,638.6	6,250.0	6,091.1	151.4	25.4	28.54	135.5	-1,100.2	4,184.5	4,090.1	94.37	44.343	
12,000.0	6,638.5	6,250.0	6,091.1	153.9	25.4	28.54	135.5	-1,100.2	4,274.0	4,178.3	95.71	44.655	
12,007.8	6,638.5	6,250.0	6,091.1	154.1	25.4	28.54	135.5	-1,100.2	4,281.8	4,186.0	95.83	44.682	
12,100.0	6,638.4	6,250.0	6,091.1	156.7	25.4	28.55	135.5	-1,100.2	4,373.0	4,275.8	97.20	44.991	
12,106.3	6,638.4	6,250.0	6,091.1	156.9	25.4	28.55	135.5	-1,100.2	4,379.2	4,281.9	97.29	45.011	

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

Anticollision Report



Company:	PDC ENERGY	Local Co-ordinate Reference:	Well WACKER 10G-214
Project:	WELD COUNTY, COLORADO	TVD Reference:	KB-EST @ 4624.0usft (Original Well Elev)
Reference Site:	SW NW SEC. 10 T5N R64W 6th P.M.	MD Reference:	KB-EST @ 4624.0usft (Original Well Elev)
Site Error:	0.0 usft	North Reference:	True
Reference Well:	WACKER 10G-214	Survey Calculation Method:	Minimum Curvature
Well Error:	0.0 usft	Output errors are at	2.00 sigma
Reference Wellbore	ORIGINAL WELLBORE	Database:	EDM 5000.1 Single User Db
Reference Design:	PROPOSAL #1	Offset TVD Reference:	Offset Datum

Offset Design		SW NW SEC. 10 T5N R64W 6th P.M. - WACKER 10G-312 - ORIGINAL WELLBORE - PROPOSAL #1											Offset Site Error:		0.0 usft
Survey Program: 0-MWD													Offset Well Error:		0.0 usft
Reference		Offset		Semi Major Axis			Distance							Warning	
Measured Depth (usft)	Vertical Depth (usft)	Measured Depth (usft)	Vertical Depth (usft)	Reference (usft)	Offset (usft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (usft)	+E/-W (usft)	Between Centres (usft)	Between Ellipses (usft)	Minimum Separation (usft)	Separation Factor			
12,200.0	6,638.3	6,250.0	6,091.1	159.5	25.4	28.55	135.5	-1,100.2	4,472.0	4,373.3	98.68	45.316			
12,204.7	6,638.3	6,250.0	6,091.1	159.6	25.4	28.55	135.5	-1,100.2	4,476.6	4,377.9	98.75	45.331			
12,300.0	6,638.2	6,250.0	6,091.1	162.3	25.4	28.55	135.5	-1,100.2	4,571.0	4,470.8	100.17	45.632			
12,303.1	6,638.2	6,250.0	6,091.1	162.4	25.4	28.55	135.5	-1,100.2	4,574.1	4,473.9	100.22	45.642			
12,400.0	6,638.0	6,250.0	6,091.1	165.1	25.4	28.55	135.5	-1,100.2	4,670.1	4,568.4	101.66	45.939			
12,401.5	6,638.0	6,250.0	6,091.1	165.2	25.4	28.55	135.5	-1,100.2	4,671.6	4,569.9	101.68	45.944			
12,500.0	6,637.9	6,250.0	6,091.1	167.9	25.4	28.55	135.5	-1,100.2	4,769.2	4,666.0	103.15	46.237			
12,598.4	6,637.8	6,250.0	6,091.1	170.7	25.4	28.55	135.5	-1,100.2	4,866.7	4,762.1	104.61	46.523			
12,600.0	6,637.8	6,250.0	6,091.1	170.7	25.4	28.55	135.5	-1,100.2	4,868.3	4,763.7	104.63	46.527			
12,696.8	6,637.7	6,250.0	6,091.1	173.4	25.4	28.55	135.5	-1,100.2	4,964.3	4,858.3	106.07	46.801			
12,700.0	6,637.7	6,250.0	6,091.1	173.5	25.4	28.55	135.5	-1,100.2	4,967.5	4,861.4	106.12	46.809			
12,795.2	6,637.6	6,250.0	6,091.1	176.2	25.4	28.55	135.5	-1,100.2	5,062.0	4,954.4	107.54	47.072			
12,800.0	6,637.6	6,250.0	6,091.1	176.3	25.4	28.55	135.5	-1,100.2	5,066.7	4,959.1	107.61	47.084			
12,893.7	6,637.4	6,250.0	6,091.1	178.9	25.4	28.55	135.5	-1,100.2	5,159.7	5,050.7	109.00	47.335			
12,900.0	6,637.4	6,250.0	6,091.1	179.1	25.4	28.55	135.5	-1,100.2	5,165.9	5,056.8	109.10	47.351			
12,992.1	6,637.3	6,250.0	6,091.1	181.7	25.4	28.55	135.5	-1,100.2	5,257.4	5,146.9	110.47	47.591			
13,000.0	6,637.3	6,250.0	6,091.1	181.9	25.4	28.55	135.5	-1,100.2	5,265.2	5,154.6	110.59	47.611			
13,090.5	6,637.2	6,250.0	6,091.1	184.4	25.4	28.55	135.5	-1,100.2	5,355.1	5,243.2	111.94	47.841			
13,100.0	6,637.2	6,250.0	6,091.1	184.7	25.4	28.55	135.5	-1,100.2	5,364.5	5,252.4	112.08	47.864			
13,188.9	6,637.1	6,250.0	6,091.1	187.2	25.4	28.55	135.5	-1,100.2	5,452.9	5,339.4	113.40	48.084			
13,200.0	6,637.1	6,250.0	6,091.1	187.5	25.4	28.55	135.5	-1,100.2	5,463.8	5,350.3	113.57	48.111			
13,287.4	6,637.0	6,250.0	6,091.1	190.0	25.4	28.55	135.5	-1,100.2	5,550.6	5,435.8	114.87	48.322			
13,300.0	6,637.0	6,250.0	6,091.1	190.3	25.4	28.55	135.5	-1,100.2	5,563.2	5,448.1	115.06	48.351			
13,385.8	6,636.9	6,250.0	6,091.1	192.7	25.4	28.55	135.5	-1,100.2	5,648.4	5,532.1	116.34	48.553			
13,400.0	6,636.8	6,250.0	6,091.1	193.1	25.4	28.55	135.5	-1,100.2	5,662.5	5,546.0	116.55	48.585			
13,484.2	6,636.7	6,250.0	6,091.1	195.5	25.4	28.55	135.5	-1,100.2	5,746.3	5,628.5	117.80	48.779			
13,500.0	6,636.7	6,250.0	6,091.1	195.9	25.4	28.56	135.5	-1,100.2	5,761.9	5,643.9	118.04	48.814			
13,582.6	6,636.6	6,250.0	6,091.1	198.2	25.4	28.56	135.5	-1,100.2	5,844.1	5,724.8	119.27	48.999			
13,600.0	6,636.6	6,250.0	6,091.1	198.7	25.4	28.56	135.5	-1,100.2	5,861.3	5,741.8	119.53	49.036			
13,681.1	6,636.5	6,250.0	6,091.1	201.0	25.4	28.56	135.5	-1,100.2	5,942.0	5,821.2	120.74	49.214			
13,700.0	6,636.5	6,250.0	6,091.1	201.5	25.4	28.56	135.5	-1,100.2	5,960.8	5,839.8	121.02	49.254			
13,779.5	6,636.4	6,250.0	6,091.1	203.7	25.4	28.56	135.5	-1,100.2	6,039.8	5,917.6	122.21	49.424			
13,800.0	6,636.4	6,250.0	6,091.1	204.3	25.4	28.56	135.5	-1,100.2	6,060.2	5,937.7	122.51	49.466			
13,877.9	6,636.3	6,250.0	6,091.1	206.5	25.4	28.56	135.5	-1,100.2	6,137.7	6,014.1	123.67	49.629			
13,900.0	6,636.3	6,250.0	6,091.1	207.1	25.4	28.56	135.5	-1,100.2	6,159.7	6,035.7	124.01	49.673			
13,976.3	6,636.2	6,250.0	6,091.1	209.3	25.4	28.56	135.5	-1,100.2	6,235.7	6,110.5	125.14	49.829			
14,000.0	6,636.1	6,250.0	6,091.1	209.9	25.4	28.56	135.5	-1,100.2	6,259.2	6,133.7	125.50	49.875			
14,074.8	6,636.0	6,250.0	6,091.1	212.0	25.4	28.56	135.5	-1,100.2	6,333.6	6,207.0	126.61	50.024			
14,100.0	6,636.0	6,250.0	6,091.1	212.7	25.4	28.56	135.5	-1,100.2	6,358.7	6,231.7	126.99	50.073			
14,173.2	6,635.9	6,250.0	6,091.1	214.8	25.4	28.56	135.5	-1,100.2	6,431.5	6,303.5	128.08	50.215			
14,200.0	6,635.9	6,250.0	6,091.1	215.5	25.4	28.56	135.5	-1,100.2	6,458.2	6,329.7	128.48	50.265			
14,271.6	6,635.8	6,250.0	6,091.1	217.5	25.4	28.56	135.5	-1,100.2	6,529.5	6,399.9	129.55	50.402			
14,300.0	6,635.8	6,250.0	6,091.1	218.3	25.4	28.56	135.5	-1,100.2	6,557.7	6,427.8	129.97	50.454			
14,370.0	6,635.7	6,250.0	6,091.1	220.3	25.4	28.56	135.5	-1,100.2	6,627.5	6,496.5	131.02	50.584			
14,400.0	6,635.7	6,250.0	6,091.1	221.1	25.4	28.56	135.5	-1,100.2	6,657.3	6,525.8	131.47	50.638			
14,468.5	6,635.6	6,250.0	6,091.1	223.1	25.4	28.56	135.5	-1,100.2	6,725.5	6,593.0	132.49	50.763			
14,500.0	6,635.6	6,250.0	6,091.1	223.9	25.4	28.56	135.5	-1,100.2	6,756.8	6,623.9	132.96	50.818			
14,566.9	6,635.5	6,227.3	6,068.5	225.8	25.4	27.61	135.5	-1,102.4	6,823.1	6,692.2	130.88	52.134			
14,600.0	6,635.4	6,227.0	6,068.2	226.8	25.4	27.60	135.5	-1,102.5	6,856.0	6,724.7	131.33	52.206			
14,665.3	6,635.4	6,226.5	6,067.7	228.6	25.4	27.58	135.5	-1,102.5	6,921.0	6,788.8	132.21	52.349			
14,700.0	6,635.3	6,226.2	6,067.4	229.6	25.4	27.57	135.5	-1,102.5	6,955.6	6,822.9	132.68	52.423			
14,763.7	6,635.2	6,225.7	6,066.9	231.3	25.4	27.55	135.5	-1,102.6	7,019.0	6,885.5	133.54	52.561			

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

Anticollision Report



Company:	PDC ENERGY	Local Co-ordinate Reference:	Well WACKER 10G-214
Project:	WELD COUNTY, COLORADO	TVD Reference:	KB-EST @ 4624.0usft (Original Well Elev)
Reference Site:	SW NW SEC. 10 T5N R64W 6th P.M.	MD Reference:	KB-EST @ 4624.0usft (Original Well Elev)
Site Error:	0.0 usft	North Reference:	True
Reference Well:	WACKER 10G-214	Survey Calculation Method:	Minimum Curvature
Well Error:	0.0 usft	Output errors are at	2.00 sigma
Reference Wellbore	ORIGINAL WELLBORE	Database:	EDM 5000.1 Single User Db
Reference Design:	PROPOSAL #1	Offset TVD Reference:	Offset Datum

Offset Design SW NW SEC. 10 T5N R64W 6th P.M. - WACKER 10G-312 - ORIGINAL WELLBORE - PROPOSAL #1												Offset Site Error:	0.0 usft
Survey Program: 0-MWD												Offset Well Error:	0.0 usft
Reference	Offset	Semi Major Axis		Distance									
Measured Depth (usft)	Vertical Depth (usft)	Measured Depth (usft)	Vertical Depth (usft)	Reference (usft)	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
14,800.0	6,635.2	6,225.5	6,066.7	232.4	25.4	27.54	135.5	-1,102.6	7,055.1	6,921.1	134.03	52.637	
14,862.2	6,635.1	6,225.0	6,066.2	234.1	25.4	27.52	135.5	-1,102.6	7,117.0	6,982.2	134.88	52.767	
14,900.0	6,635.1	6,224.7	6,065.9	235.2	25.4	27.51	135.5	-1,102.6	7,154.7	7,019.3	135.39	52.845	
14,960.6	6,635.0	6,224.3	6,065.5	236.9	25.4	27.49	135.5	-1,102.7	7,215.1	7,078.9	136.21	52.970	
14,982.9	6,635.0	6,224.1	6,065.3	237.5	25.4	27.49	135.5	-1,102.7	7,237.2	7,100.7	136.51	53.015	

Anticollision Report



Company:	PDC ENERGY	Local Co-ordinate Reference:	Well WACKER 10G-214
Project:	WELD COUNTY, COLORADO	TVD Reference:	KB-EST @ 4624.0usft (Original Well Elev)
Reference Site:	SW NW SEC. 10 T5N R64W 6th P.M.	MD Reference:	KB-EST @ 4624.0usft (Original Well Elev)
Site Error:	0.0 usft	North Reference:	True
Reference Well:	WACKER 10G-214	Survey Calculation Method:	Minimum Curvature
Well Error:	0.0 usft	Output errors are at	2.00 sigma
Reference Wellbore	ORIGINAL WELLBORE	Database:	EDM 5000.1 Single User Db
Reference Design:	PROPOSAL #1	Offset TVD Reference:	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	0.53	29.9	0.3	29.9					
98.4	98.4	98.4	98.4	0.1	0.1	0.53	29.9	0.3	29.9	29.7	0.19	155.407		
100.0	100.0	100.0	100.0	0.1	0.1	0.53	29.9	0.3	29.9	29.7	0.20	152.776		
196.8	196.8	196.8	196.8	0.3	0.3	0.53	29.9	0.3	29.9	29.2	0.63	47.351		
200.0	200.0	200.0	200.0	0.3	0.3	0.53	29.9	0.3	29.9	29.2	0.65	46.312		
295.3	295.3	295.3	295.3	0.5	0.5	0.53	29.9	0.3	29.9	28.8	1.07	27.833		
300.0	300.0	300.0	300.0	0.5	0.5	0.53	29.9	0.3	29.9	28.8	1.09	27.293		
393.7	393.7	393.7	393.7	0.8	0.8	0.53	29.9	0.3	29.9	28.4	1.52	19.709		
400.0	400.0	400.0	400.0	0.8	0.8	0.53	29.9	0.3	29.9	28.3	1.54	19.347		
492.1	492.1	492.1	492.1	1.0	1.0	0.53	29.9	0.3	29.9	27.9	1.96	15.256		
500.0	500.0	500.0	500.0	1.0	1.0	0.53	29.9	0.3	29.9	27.9	1.99	14.985		
590.5	590.5	590.5	590.5	1.2	1.2	0.53	29.9	0.3	29.9	27.5	2.40	12.444		
600.0	600.0	600.0	600.0	1.2	1.2	0.53	29.9	0.3	29.9	27.4	2.44	12.228		
689.0	689.0	689.0	689.0	1.4	1.4	0.53	29.9	0.3	29.9	27.0	2.84	10.508		
700.0	700.0	700.0	700.0	1.4	1.4	0.53	29.9	0.3	29.9	27.0	2.89	10.328		
787.4	787.4	787.4	787.4	1.6	1.6	0.53	29.9	0.3	29.9	26.6	3.29	9.093		
800.0	800.0	800.0	800.0	1.7	1.7	0.53	29.9	0.3	29.9	26.5	3.34	8.939		
885.8	885.8	885.8	885.8	1.9	1.9	0.53	29.9	0.3	29.9	26.1	3.73	8.013		
900.0	900.0	900.0	900.0	1.9	1.9	0.53	29.9	0.3	29.9	26.1	3.79	7.879		
984.2	984.2	984.2	984.2	2.1	2.1	0.53	29.9	0.3	29.9	25.7	4.17	7.163		
1,000.0	1,000.0	1,000.0	1,000.0	2.1	2.1	0.53	29.9	0.3	29.9	25.6	4.24	7.044		
1,082.7	1,082.7	1,082.7	1,082.7	2.3	2.3	0.53	29.9	0.3	29.9	25.3	4.61	6.476		
1,100.0	1,100.0	1,100.0	1,100.0	2.3	2.3	0.53	29.9	0.3	29.9	25.2	4.69	6.369		
1,181.1	1,181.1	1,181.1	1,181.1	2.5	2.5	0.53	29.9	0.3	29.9	24.8	5.06	5.909		
1,200.0	1,200.0	1,200.0	1,200.0	2.6	2.6	0.53	29.9	0.3	29.9	24.7	5.14	5.812		
1,279.5	1,279.5	1,279.5	1,279.5	2.7	2.7	0.53	29.9	0.3	29.9	24.4	5.50	5.434		
1,300.0	1,300.0	1,300.0	1,300.0	2.8	2.8	0.53	29.9	0.3	29.9	24.3	5.59	5.344 CC		
1,377.9	1,377.9	1,377.9	1,377.9	3.0	3.0	-119.87	29.9	0.3	30.4	24.5	5.92	5.129		
1,400.0	1,400.0	1,400.0	1,400.0	3.0	3.0	-120.97	29.9	0.3	30.7	24.7	6.02	5.107		
1,476.4	1,476.3	1,476.3	1,476.3	3.1	3.2	-126.46	29.9	0.3	32.8	26.5	6.33	5.176		
1,500.0	1,499.8	1,499.8	1,499.8	3.2	3.2	-128.56	29.9	0.3	33.7	27.3	6.43	5.245		
1,574.8	1,574.4	1,574.5	1,574.5	3.3	3.4	-134.39	30.0	1.2	37.8	31.0	6.73	5.608		
1,600.0	1,599.5	1,599.7	1,599.7	3.4	3.5	-135.89	30.1	2.0	39.4	32.6	6.83	5.771		
1,673.2	1,672.2	1,672.9	1,672.8	3.6	3.6	-139.06	30.6	5.4	45.1	38.0	7.13	6.330		
1,700.0	1,698.7	1,699.6	1,699.5	3.6	3.7	-139.83	30.8	7.2	47.5	40.2	7.23	6.564		
1,771.6	1,769.5	1,771.2	1,770.8	3.8	3.8	-141.11	31.7	13.0	54.5	46.9	7.53	7.229		
1,800.0	1,797.5	1,799.6	1,799.0	3.9	3.9	-141.35	32.0	15.8	57.5	49.8	7.65	7.514		
1,870.1	1,866.3	1,869.6	1,868.5	4.1	4.0	-141.47	33.2	23.9	65.6	57.6	7.97	8.235		
1,900.2	1,895.8	1,899.7	1,898.4	4.2	4.1	-141.36	33.7	27.8	69.4	61.3	8.10	8.563		
1,968.5	1,962.6	1,967.9	1,965.8	4.4	4.3	-140.56	35.2	38.0	77.9	69.4	8.45	9.209		
2,000.0	1,993.4	1,999.3	1,996.8	4.5	4.4	-139.87	35.9	43.3	81.6	73.0	8.62	9.470		
2,066.9	2,058.9	2,066.2	2,062.5	4.7	4.6	-137.88	37.6	55.5	89.5	80.5	9.02	9.927		
2,100.0	2,091.2	2,099.2	2,094.8	4.8	4.7	-136.67	38.5	62.1	93.3	84.1	9.22	10.125		
2,165.3	2,155.2	2,164.0	2,158.2	5.1	4.9	-134.35	40.4	75.4	100.9	91.2	9.64	10.462		
2,200.0	2,189.1	2,198.3	2,191.8	5.2	5.0	-133.26	41.4	82.5	105.0	95.1	9.87	10.634		
2,263.8	2,251.4	2,261.5	2,253.6	5.5	5.2	-131.45	43.2	95.5	112.5	102.2	10.31	10.915		
2,300.0	2,286.9	2,297.5	2,288.8	5.6	5.3	-130.53	44.3	102.9	116.9	106.3	10.56	11.067		
2,362.2	2,347.7	2,359.1	2,349.1	5.8	5.5	-129.10	46.1	115.6	124.4	113.4	11.01	11.301		
2,400.0	2,384.7	2,396.6	2,385.8	6.0	5.7	-128.31	47.1	123.3	129.1	117.8	11.29	11.435		
2,460.6	2,444.0	2,456.7	2,444.5	6.2	5.9	-127.16	48.9	135.7	136.5	124.8	11.74	11.629		
2,500.0	2,482.5	2,495.8	2,482.7	6.4	6.0	-126.48	50.0	143.7	141.4	129.3	12.03	11.749		
2,559.0	2,540.3	2,554.3	2,540.0	6.6	6.3	-125.54	51.7	155.8	148.7	136.2	12.49	11.910		

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

Anticollision Report



Company:	PDC ENERGY	Local Co-ordinate Reference:	Well WACKER 10G-214
Project:	WELD COUNTY, COLORADO	TVD Reference:	KB-EST @ 4624.0usft (Original Well Elev)
Reference Site:	SW NW SEC. 10 T5N R64W 6th P.M.	MD Reference:	KB-EST @ 4624.0usft (Original Well Elev)
Site Error:	0.0 usft	North Reference:	True
Reference Well:	WACKER 10G-214	Survey Calculation Method:	Minimum Curvature
Well Error:	0.0 usft	Output errors are at	2.00 sigma
Reference Wellbore	ORIGINAL WELLBORE	Database:	EDM 5000.1 Single User Db
Reference Design:	PROPOSAL #1	Offset TVD Reference:	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	2,580.3	2,594.9	2,579.7	6.8	6.4	-124.94	52.9	164.2	153.8	141.0	12.80	12.016	
2,657.5	2,636.5	2,651.9	2,635.4	7.1	6.6	-124.16	54.5	175.9	161.0	147.7	13.25	12.151	
2,700.0	2,678.1	2,694.0	2,676.7	7.2	6.8	-123.63	55.7	184.6	166.3	152.7	13.58	12.246	
2,755.9	2,732.8	2,749.5	2,730.9	7.5	7.0	-122.98	57.3	196.0	173.4	159.3	14.03	12.360	
2,800.0	2,775.9	2,793.2	2,773.7	7.7	7.2	-122.50	58.6	205.0	178.9	164.6	14.38	12.445	
2,854.3	2,829.1	2,847.1	2,826.4	7.9	7.4	-121.95	60.1	216.1	185.8	171.0	14.82	12.541	
2,900.0	2,873.8	2,892.3	2,870.6	8.1	7.6	-121.52	61.5	225.4	191.6	176.4	15.18	12.617	
2,952.7	2,925.4	2,944.6	2,921.8	8.3	7.8	-121.06	63.0	236.2	198.3	182.7	15.61	12.699	
2,953.5	2,926.1	2,945.4	2,922.5	8.3	7.8	-121.05	63.0	236.3	198.4	182.8	15.62	12.701	
3,000.0	2,971.6	2,991.7	2,967.9	8.5	8.0	-120.73	64.3	245.7	204.1	188.1	15.97	12.779	
3,051.2	3,022.0	3,042.9	3,018.2	8.7	8.2	-120.40	65.6	255.2	209.9	193.6	16.30	12.878	
3,100.0	3,070.1	3,091.8	3,066.4	8.8	8.3	-120.14	66.8	263.5	214.9	198.3	16.60	12.944	
3,149.6	3,119.1	3,141.6	3,115.6	8.9	8.5	-119.90	67.9	271.0	219.4	202.6	16.88	12.996	
3,200.0	3,169.1	3,192.3	3,165.8	9.1	8.6	-119.69	68.8	277.9	223.6	206.4	17.17	13.020	
3,248.0	3,216.8	3,240.6	3,213.8	9.2	8.7	-119.52	69.6	283.6	227.0	209.6	17.42	13.032	
3,300.0	3,268.5	3,293.0	3,265.9	9.3	8.8	-119.37	70.4	288.9	230.1	212.4	17.68	13.016	
3,346.4	3,314.8	3,339.9	3,312.6	9.4	8.9	-119.25	70.9	292.8	232.4	214.6	17.89	12.993	
3,400.0	3,368.3	3,394.0	3,366.5	9.6	9.1	-119.13	71.4	296.4	234.6	216.4	18.13	12.939	
3,444.9	3,413.1	3,439.3	3,411.8	9.6	9.2	-119.05	71.7	298.6	235.8	217.5	18.30	12.887	
3,500.0	3,468.2	3,495.0	3,467.5	9.7	9.3	-118.98	72.0	300.4	236.8	218.3	18.51	12.794	
3,543.3	3,511.5	3,538.8	3,511.3	9.8	9.3	-118.93	72.1	301.0	237.2	218.5	18.65	12.713	
3,553.7	3,521.9	3,549.3	3,521.8	9.8	9.3	-0.27	72.1	301.1	237.2	221.2	15.96	14.864	
3,600.0	3,568.2	3,595.7	3,568.2	9.9	9.4	-0.27	72.1	301.1	237.2	221.0	16.13	14.703	
3,641.7	3,609.9	3,637.4	3,609.9	10.0	9.5	-0.27	72.1	301.1	237.2	220.9	16.30	14.553	
3,700.0	3,668.2	3,695.7	3,668.2	10.1	9.6	-0.27	72.1	301.1	237.2	220.6	16.53	14.348	
3,740.1	3,708.4	3,735.9	3,708.4	10.1	9.7	-0.27	72.1	301.1	237.2	220.5	16.69	14.209	
3,800.0	3,768.2	3,795.7	3,768.2	10.2	9.8	-0.27	72.1	301.1	237.2	220.2	16.93	14.007	
3,838.6	3,806.8	3,834.3	3,806.8	10.3	9.9	-0.27	72.1	301.1	237.2	220.1	17.09	13.879	
3,900.0	3,868.2	3,895.7	3,868.2	10.4	10.0	-0.27	72.1	301.1	237.2	219.8	17.34	13.680	
3,937.0	3,905.2	3,932.7	3,905.2	10.5	10.0	-0.27	72.1	301.1	237.2	219.7	17.49	13.563	
4,000.0	3,968.2	3,995.7	3,968.2	10.6	10.1	-0.27	72.1	301.1	237.2	219.4	17.74	13.367	
4,035.4	4,003.6	4,031.1	4,003.6	10.6	10.2	-0.27	72.1	301.1	237.2	219.3	17.89	13.259	
4,100.0	4,068.2	4,095.7	4,068.2	10.7	10.3	-0.27	72.1	301.1	237.2	219.0	18.15	13.066	
4,133.8	4,102.1	4,129.6	4,102.1	10.8	10.4	-0.27	72.1	301.1	237.2	218.9	18.29	12.967	
4,200.0	4,168.2	4,195.7	4,168.2	10.9	10.5	-0.27	72.1	301.1	237.2	218.6	18.56	12.777	
4,232.3	4,200.5	4,228.0	4,200.5	11.0	10.6	-0.27	72.1	301.1	237.2	218.5	18.70	12.687	
4,300.0	4,268.2	4,295.7	4,268.2	11.1	10.7	-0.27	72.1	301.1	237.2	218.2	18.97	12.500	
4,330.7	4,298.9	4,326.4	4,298.9	11.1	10.8	-0.27	72.1	301.1	237.2	218.1	19.10	12.417	
4,400.0	4,368.2	4,395.7	4,368.2	11.3	10.9	-0.27	72.1	301.1	237.2	217.8	19.39	12.233	
4,429.1	4,397.3	4,424.8	4,397.3	11.3	11.0	-0.27	72.1	301.1	237.2	217.7	19.51	12.157	
4,500.0	4,468.2	4,495.7	4,468.2	11.4	11.1	-0.27	72.1	301.1	237.2	217.4	19.80	11.977	
4,527.5	4,495.8	4,523.3	4,495.8	11.5	11.1	-0.27	72.1	301.1	237.2	217.3	19.92	11.908	
4,600.0	4,568.2	4,595.7	4,568.2	11.6	11.3	-0.27	72.1	301.1	237.2	217.0	20.22	11.730	
4,626.0	4,594.2	4,621.7	4,594.2	11.7	11.3	-0.27	72.1	301.1	237.2	216.8	20.33	11.667	
4,700.0	4,668.2	4,695.7	4,668.2	11.8	11.5	-0.27	72.1	301.1	237.2	216.5	20.64	11.492	
4,724.4	4,692.6	4,720.1	4,692.6	11.9	11.5	-0.27	72.1	301.1	237.2	216.4	20.74	11.435	
4,800.0	4,768.2	4,795.7	4,768.2	12.0	11.7	-0.27	72.1	301.1	237.2	216.1	21.06	11.263	
4,822.8	4,791.0	4,818.5	4,791.0	12.0	11.7	-0.27	72.1	301.1	237.2	216.0	21.15	11.212	
4,900.0	4,868.2	4,895.7	4,868.2	12.2	11.9	-0.27	72.1	301.1	237.2	215.7	21.48	11.043	
4,921.2	4,889.5	4,917.0	4,889.5	12.2	11.9	-0.27	72.1	301.1	237.2	215.6	21.57	10.997	
5,000.0	4,968.2	4,995.7	4,968.2	12.4	12.1	-0.27	72.1	301.1	237.2	215.3	21.90	10.830	
5,019.7	4,987.9	5,015.4	4,987.9	12.4	12.1	-0.27	72.1	301.1	237.2	215.2	21.98	10.789	

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

Anticollision Report



Company:	PDC ENERGY	Local Co-ordinate Reference:	Well WACKER 10G-214
Project:	WELD COUNTY, COLORADO	TVD Reference:	KB-EST @ 4624.0usft (Original Well Elev)
Reference Site:	SW NW SEC. 10 T5N R64W 6th P.M.	MD Reference:	KB-EST @ 4624.0usft (Original Well Elev)
Site Error:	0.0 usft	North Reference:	True
Reference Well:	WACKER 10G-214	Survey Calculation Method:	Minimum Curvature
Well Error:	0.0 usft	Output errors are at	2.00 sigma
Reference Wellbore	ORIGINAL WELLBORE	Database:	EDM 5000.1 Single User Db
Reference Design:	PROPOSAL #1	Offset TVD Reference:	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	5,068.2	5,095.7	5,068.2	12.6	12.3	-0.27	72.1	301.1	237.2	214.9	22.32	10.625	
5,118.1	5,086.3	5,113.8	5,086.3	12.6	12.3	-0.27	72.1	301.1	237.2	214.8	22.40	10.589	
5,200.0	5,168.2	5,195.7	5,168.2	12.7	12.5	-0.27	72.1	301.1	237.2	214.4	22.75	10.427	
5,216.5	5,184.7	5,212.2	5,184.7	12.8	12.5	-0.27	72.1	301.1	237.2	214.4	22.82	10.395	
5,300.0	5,268.2	5,295.7	5,268.2	12.9	12.7	-0.27	72.1	301.1	237.2	214.0	23.17	10.236	
5,314.9	5,283.2	5,310.7	5,283.2	13.0	12.7	-0.27	72.1	301.1	237.2	213.9	23.23	10.208	
5,400.0	5,368.2	5,395.7	5,368.2	13.1	12.9	-0.27	72.1	301.1	237.2	213.6	23.60	10.051	
5,413.4	5,381.6	5,409.1	5,381.6	13.2	12.9	-0.27	72.1	301.1	237.2	213.5	23.65	10.027	
5,500.0	5,468.2	5,495.7	5,468.2	13.3	13.1	-0.27	72.1	301.1	237.2	213.2	24.02	9.873	
5,511.8	5,480.0	5,507.5	5,480.0	13.3	13.1	-0.27	72.1	301.1	237.2	213.1	24.07	9.852	
5,600.0	5,568.2	5,595.7	5,568.2	13.5	13.3	-0.27	72.1	301.1	237.2	212.7	24.45	9.700	
5,610.2	5,578.4	5,605.9	5,578.4	13.5	13.3	-0.27	72.1	301.1	237.2	212.7	24.49	9.683	
5,700.0	5,668.2	5,695.7	5,668.2	13.7	13.5	-0.27	72.1	301.1	237.2	212.3	24.88	9.533	
5,708.6	5,676.9	5,704.4	5,676.9	13.7	13.5	-0.27	72.1	301.1	237.2	212.3	24.92	9.519	
5,800.0	5,768.2	5,795.7	5,768.2	13.9	13.7	-0.27	72.1	301.1	237.2	211.9	25.31	9.372	
5,807.1	5,775.3	5,802.8	5,775.3	13.9	13.7	-0.27	72.1	301.1	237.2	211.8	25.34	9.361	
5,900.0	5,868.2	5,895.7	5,868.2	14.1	13.9	-0.27	72.1	301.1	237.2	211.4	25.74	9.215	
5,905.5	5,873.7	5,901.2	5,873.7	14.1	13.9	-0.27	72.1	301.1	237.2	211.4	25.76	9.207	
5,960.7	5,928.9	5,956.4	5,928.9	14.2	14.0	-0.27	72.1	301.1	237.2	211.2	26.00	9.123	
6,000.0	5,968.2	5,995.7	5,968.2	14.3	14.1	89.99	72.1	301.1	237.2	209.1	28.05	8.456	
6,000.8	5,969.0	5,996.5	5,969.0	14.3	14.1	90.00	72.1	301.1	237.2	209.1	28.05	8.455	
6,003.9	5,972.1	5,999.6	5,972.1	14.3	14.1	90.04	72.1	301.1	237.2	209.1	28.06	8.452	
6,050.0	6,018.0	6,045.6	6,018.1	14.4	14.2	91.01	72.1	300.8	237.2	209.0	28.23	8.403	
6,100.0	6,067.3	6,095.8	6,068.2	14.4	14.2	92.18	72.1	297.7	237.3	209.0	28.37	8.367	
6,102.3	6,069.6	6,098.2	6,070.6	14.4	14.3	92.23	72.1	297.5	237.4	209.0	28.37	8.366	
6,150.0	6,116.0	6,146.4	6,118.3	14.4	14.3	93.34	72.1	291.0	237.6	209.1	28.47	8.344	
6,200.0	6,163.8	6,197.3	6,168.2	14.5	14.3	94.49	72.1	280.8	237.9	209.4	28.55	8.334	
6,200.8	6,164.5	6,198.1	6,169.0	14.5	14.4	94.51	72.1	280.6	237.9	209.4	28.55	8.334	
6,250.0	6,210.4	6,248.6	6,217.6	14.5	14.4	95.62	72.1	266.9	238.3	209.7	28.60	8.333	
6,299.2	6,254.9	6,299.4	6,265.3	14.5	14.4	96.70	72.1	249.6	238.8	210.2	28.64	8.338	
6,300.0	6,255.6	6,300.3	6,266.1	14.5	14.4	96.71	72.1	249.3	238.8	210.2	28.64	8.338	
6,350.0	6,299.3	6,352.3	6,313.6	14.5	14.4	97.78	72.1	228.2	239.4	210.7	28.69	8.345	
6,397.6	6,339.2	6,402.1	6,357.6	14.6	14.5	98.76	72.1	204.7	240.0	211.2	28.75	8.348	
6,400.0	6,341.2	6,404.6	6,359.7	14.6	14.5	98.81	72.1	203.5	240.0	211.3	28.75	8.348	
6,450.0	6,381.0	6,457.3	6,404.2	14.6	14.5	99.79	72.1	175.3	240.7	211.8	28.85	8.343	
6,496.0	6,415.8	6,506.1	6,443.5	14.7	14.6	100.64	72.1	146.3	241.3	212.4	29.00	8.323	
6,500.0	6,418.7	6,510.3	6,446.8	14.7	14.6	100.71	72.1	143.7	241.4	212.4	29.01	8.320	
6,550.0	6,453.9	6,563.7	6,487.2	14.8	14.8	101.59	72.1	108.8	242.1	212.9	29.26	8.275	
6,594.5	6,483.1	6,611.4	6,520.9	15.0	14.9	102.31	72.1	75.1	242.8	213.2	29.58	8.208	
6,600.0	6,486.6	6,617.4	6,525.0	15.1	15.0	102.40	72.1	70.7	242.9	213.2	29.62	8.199	
6,650.0	6,516.6	6,671.3	6,560.1	15.3	15.2	103.15	72.1	29.8	243.6	213.5	30.12	8.087	
6,692.9	6,540.0	6,717.8	6,587.8	15.7	15.5	103.73	72.1	-7.6	244.2	213.5	30.67	7.961	
6,700.0	6,543.7	6,725.5	6,592.1	15.7	15.6	103.82	72.1	-14.0	244.3	213.5	30.77	7.938	
6,750.0	6,567.8	6,780.0	6,620.9	16.2	16.1	104.43	72.1	-60.2	244.9	213.3	31.60	7.751	
6,791.3	6,585.4	6,825.2	6,642.0	16.7	16.5	104.87	72.1	-100.2	245.4	213.0	32.43	7.568	
6,800.0	6,588.8	6,834.7	6,646.2	16.8	16.6	104.96	72.1	-108.7	245.5	212.9	32.61	7.529	
6,850.0	6,606.6	6,889.6	6,667.7	17.4	17.3	105.41	72.1	-159.2	246.0	212.2	33.81	7.277	
6,889.7	6,618.4	6,933.4	6,682.1	18.0	17.9	105.71	72.1	-200.5	246.4	211.5	34.90	7.060	
6,900.0	6,621.1	6,944.7	6,685.4	18.2	18.1	105.78	72.1	-211.3	246.5	211.3	35.19	7.004	
6,950.0	6,632.2	6,999.9	6,699.1	19.0	18.9	106.08	72.1	-264.8	246.8	210.1	36.74	6.718	
6,988.2	6,638.4	7,042.1	6,706.7	19.7	19.7	106.24	72.1	-306.3	247.0	209.0	38.04	6.493	
7,000.0	6,639.9	7,055.2	6,708.6	19.9	19.9	106.28	72.1	-319.3	247.1	208.6	38.46	6.425	

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

Anticollision Report



Company:	PDC ENERGY	Local Co-ordinate Reference:	Well WACKER 10G-214
Project:	WELD COUNTY, COLORADO	TVD Reference:	KB-EST @ 4624.0usft (Original Well Elev)
Reference Site:	SW NW SEC. 10 T5N R64W 6th P.M.	MD Reference:	KB-EST @ 4624.0usft (Original Well Elev)
Site Error:	0.0 usft	North Reference:	True
Reference Well:	WACKER 10G-214	Survey Calculation Method:	Minimum Curvature
Well Error:	0.0 usft	Output errors are at	2.00 sigma
Reference Wellbore	ORIGINAL WELLBORE	Database:	EDM 5000.1 Single User Db
Reference Design:	PROPOSAL #1	Offset TVD Reference:	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	6,644.1	7,110.6	6,713.8	20.8	20.9	106.41	72.1	-374.4	247.2	206.9	40.30	6.134	
7,086.5	6,645.0	7,151.1	6,715.0	21.5	21.7	106.44	72.1	-414.9	247.3	205.6	41.72	5.927	
7,100.0	6,645.0	7,164.7	6,715.0	21.8	22.0	106.44	72.1	-428.5	247.3	205.0	42.24	5.855	
7,185.0	6,644.9	7,249.7	6,714.8	23.6	23.7	106.43	72.1	-513.5	247.3	201.7	45.61	5.421	
7,200.0	6,644.8	7,264.7	6,714.8	23.9	24.0	106.43	72.1	-528.5	247.3	201.1	46.21	5.350	
7,283.4	6,644.7	7,348.1	6,714.6	25.7	25.8	106.42	72.1	-611.9	247.3	197.5	49.73	4.972	
7,300.0	6,644.7	7,364.7	6,714.6	26.1	26.2	106.42	72.1	-628.5	247.3	196.8	50.44	4.902	
7,381.9	6,644.6	7,446.6	6,714.4	28.0	28.1	106.41	72.1	-710.4	247.2	193.2	54.06	4.573	
7,400.0	6,644.6	7,464.7	6,714.4	28.4	28.5	106.41	72.1	-728.5	247.2	192.4	54.87	4.506	
7,480.3	6,644.5	7,545.0	6,714.2	30.3	30.4	106.40	72.1	-808.8	247.2	188.7	58.56	4.222	
7,500.0	6,644.4	7,564.7	6,714.2	30.8	30.9	106.39	72.1	-828.5	247.2	187.8	59.47	4.157	
7,578.7	6,644.3	7,643.4	6,714.0	32.7	32.8	106.38	72.1	-907.2	247.2	184.0	63.18	3.913	
7,600.0	6,644.3	7,664.7	6,714.0	33.3	33.3	106.38	72.1	-928.5	247.2	183.0	64.19	3.851	
7,677.1	6,644.2	7,741.8	6,713.9	35.2	35.3	106.37	72.1	-1,005.6	247.2	179.3	67.91	3.640	
7,700.0	6,644.1	7,764.7	6,713.8	35.8	35.8	106.37	72.1	-1,028.5	247.2	178.2	69.02	3.582	
7,775.6	6,644.0	7,840.3	6,713.7	37.7	37.8	106.36	72.1	-1,104.1	247.2	174.5	72.72	3.399	
7,800.0	6,644.0	7,864.7	6,713.6	38.3	38.4	106.35	72.1	-1,128.5	247.2	173.3	73.92	3.344	
7,874.0	6,643.9	7,938.7	6,713.5	40.2	40.3	106.35	72.1	-1,202.5	247.2	169.6	77.60	3.185	
7,900.0	6,643.9	7,964.7	6,713.4	40.9	41.0	106.34	72.1	-1,228.5	247.2	168.3	78.90	3.133	
7,972.4	6,643.8	8,037.1	6,713.3	42.8	42.9	106.33	72.1	-1,300.9	247.1	164.6	82.54	2.994	
8,000.0	6,643.7	8,064.7	6,713.2	43.5	43.6	106.33	72.1	-1,328.5	247.1	163.2	83.93	2.945	
8,070.8	6,643.6	8,135.5	6,713.1	45.4	45.4	106.32	72.1	-1,399.3	247.1	159.6	87.52	2.824	
8,100.0	6,643.6	8,164.7	6,713.0	46.2	46.2	106.32	72.1	-1,428.5	247.1	158.1	89.00	2.777	
8,169.3	6,643.5	8,234.0	6,712.9	48.0	48.1	106.31	72.1	-1,497.8	247.1	154.6	92.54	2.670	
8,200.0	6,643.5	8,264.7	6,712.8	48.8	48.9	106.30	72.1	-1,528.5	247.1	153.0	94.11	2.626	
8,267.7	6,643.4	8,332.4	6,712.7	50.6	50.7	106.29	72.1	-1,596.2	247.1	149.5	97.59	2.532	
8,300.0	6,643.3	8,364.7	6,712.6	51.5	51.5	106.29	72.1	-1,628.5	247.1	147.8	99.26	2.489	
8,366.1	6,643.2	8,430.8	6,712.5	53.3	53.3	106.28	72.1	-1,694.6	247.1	144.4	102.68	2.406	
8,400.0	6,643.2	8,464.7	6,712.4	54.2	54.2	106.28	72.1	-1,728.5	247.1	142.6	104.43	2.366	
8,464.5	6,643.1	8,529.2	6,712.3	55.9	56.0	106.27	72.1	-1,793.0	247.1	139.3	107.78	2.292	
8,500.0	6,643.1	8,564.7	6,712.3	56.9	56.9	106.26	72.1	-1,828.5	247.1	137.4	109.63	2.254	
8,563.0	6,643.0	8,627.7	6,712.1	58.6	58.6	106.26	72.1	-1,891.5	247.1	134.1	112.91	2.188	
8,600.0	6,642.9	8,664.7	6,712.1	59.6	59.6	106.25	72.1	-1,928.5	247.0	132.2	114.85	2.151	
8,661.4	6,642.8	8,726.1	6,711.9	61.3	61.3	106.24	72.1	-1,989.9	247.0	129.0	118.06	2.092	
8,700.0	6,642.8	8,764.7	6,711.9	62.3	62.3	106.24	72.1	-2,028.5	247.0	126.9	120.08	2.057	
8,759.8	6,642.7	8,824.5	6,711.8	64.0	64.0	106.23	72.1	-2,088.3	247.0	123.8	123.22	2.005	
8,800.0	6,642.7	8,864.7	6,711.7	65.1	65.1	106.23	72.1	-2,128.5	247.0	121.7	125.33	1.971	
8,858.2	6,642.6	8,922.9	6,711.6	66.6	66.7	106.22	72.1	-2,186.7	247.0	118.6	128.40	1.924	
8,900.0	6,642.5	8,964.7	6,711.5	67.8	67.8	106.21	72.1	-2,228.5	247.0	116.4	130.60	1.891	
8,956.7	6,642.4	9,021.4	6,711.4	69.3	69.3	106.20	72.1	-2,285.2	247.0	113.4	133.59	1.849	
9,000.0	6,642.4	9,064.7	6,711.3	70.5	70.5	106.20	72.1	-2,328.5	247.0	111.1	135.88	1.818	
9,055.1	6,642.3	9,119.8	6,711.2	72.0	72.0	106.19	72.1	-2,383.6	247.0	108.2	138.79	1.779	
9,100.0	6,642.3	9,164.7	6,711.1	73.3	73.3	106.19	72.1	-2,428.5	247.0	105.8	141.17	1.749	
9,153.5	6,642.2	9,218.2	6,711.0	74.7	74.7	106.18	72.1	-2,482.0	247.0	102.9	144.01	1.715	
9,200.0	6,642.1	9,264.7	6,710.9	76.0	76.0	106.17	72.1	-2,528.5	246.9	100.5	146.47	1.686	
9,251.9	6,642.1	9,316.6	6,710.8	77.5	77.5	106.17	72.1	-2,580.4	246.9	97.7	149.23	1.655	
9,300.0	6,642.0	9,364.7	6,710.7	78.8	78.8	106.16	72.1	-2,628.5	246.9	95.1	151.78	1.627	
9,350.4	6,641.9	9,415.1	6,710.6	80.2	80.2	106.15	72.1	-2,678.9	246.9	92.5	154.46	1.599	
9,400.0	6,641.9	9,464.7	6,710.5	81.5	81.5	106.15	72.1	-2,728.5	246.9	89.8	157.10	1.572	
9,448.8	6,641.8	9,513.5	6,710.4	82.9	82.9	106.14	72.1	-2,777.3	246.9	87.2	159.70	1.546	
9,500.0	6,641.7	9,564.7	6,710.3	84.3	84.3	106.13	72.1	-2,828.5	246.9	84.5	162.42	1.520	
9,547.2	6,641.7	9,611.9	6,710.2	85.6	85.6	106.13	72.1	-2,875.7	246.9	81.9	164.94	1.497 Level 3	

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

Anticollision Report



Company:	PDC ENERGY	Local Co-ordinate Reference:	Well WACKER 10G-214
Project:	WELD COUNTY, COLORADO	TVD Reference:	KB-EST @ 4624.0usft (Original Well Elev)
Reference Site:	SW NW SEC. 10 T5N R64W 6th P.M.	MD Reference:	KB-EST @ 4624.0usft (Original Well Elev)
Site Error:	0.0 usft	North Reference:	True
Reference Well:	WACKER 10G-214	Survey Calculation Method:	Minimum Curvature
Well Error:	0.0 usft	Output errors are at	2.00 sigma
Reference Wellbore	ORIGINAL WELLBORE	Database:	EDM 5000.1 Single User Db
Reference Design:	PROPOSAL #1	Offset TVD Reference:	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	
9,600.0	6,641.6	9,664.7	6,710.1	87.1	87.1	106.12	72.1	-2,928.5	246.9	79.1	167.76	1.472	Level 3
9,645.6	6,641.5	9,710.3	6,710.0	88.3	88.3	106.11	72.1	-2,974.1	246.9	76.7	170.19	1.451	Level 3
9,700.0	6,641.5	9,764.7	6,709.9	89.8	89.8	106.11	72.1	-3,028.5	246.9	73.8	173.10	1.426	Level 3
9,744.1	6,641.4	9,808.8	6,709.9	91.0	91.0	106.10	72.1	-3,072.6	246.9	71.4	175.45	1.407	Level 3
9,800.0	6,641.3	9,864.7	6,709.8	92.6	92.6	106.09	72.1	-3,128.5	246.8	68.4	178.44	1.383	Level 3
9,842.5	6,641.3	9,907.2	6,709.7	93.8	93.8	106.09	72.1	-3,171.0	246.8	66.1	180.71	1.366	Level 3
9,900.0	6,641.2	9,964.7	6,709.6	95.4	95.4	106.08	72.1	-3,228.5	246.8	63.0	183.79	1.343	Level 3
9,940.9	6,641.1	10,005.6	6,709.5	96.5	96.5	106.07	72.1	-3,269.4	246.8	60.8	185.98	1.327	Level 3
10,000.0	6,641.1	10,064.7	6,709.4	98.1	98.1	106.06	72.1	-3,328.5	246.8	57.7	189.15	1.305	Level 3
10,039.3	6,641.0	10,104.0	6,709.3	99.2	99.2	106.06	72.1	-3,367.8	246.8	55.6	191.25	1.290	Level 3
10,100.0	6,640.9	10,164.7	6,709.2	100.9	100.9	106.05	72.1	-3,428.5	246.8	52.3	194.51	1.269	Level 3
10,137.8	6,640.9	10,202.5	6,709.1	102.0	102.0	106.05	72.1	-3,466.3	246.8	50.3	196.53	1.256	Level 3
10,200.0	6,640.8	10,264.7	6,709.0	103.7	103.7	106.04	72.1	-3,528.5	246.8	46.9	199.87	1.235	Level 2
10,236.2	6,640.8	10,300.9	6,708.9	104.7	104.7	106.03	72.1	-3,564.7	246.8	45.0	201.81	1.223	Level 2
10,300.0	6,640.7	10,364.7	6,708.8	106.5	106.5	106.02	72.1	-3,628.5	246.8	41.5	205.24	1.202	Level 2
10,334.6	6,640.6	10,399.3	6,708.7	107.4	107.4	106.02	72.1	-3,663.1	246.8	39.7	207.10	1.191	Level 2
10,400.0	6,640.6	10,464.7	6,708.6	109.3	109.3	106.01	72.1	-3,728.5	246.7	36.1	210.61	1.172	Level 2
10,433.0	6,640.5	10,497.7	6,708.5	110.2	110.2	106.00	72.1	-3,761.5	246.7	34.4	212.39	1.162	Level 2
10,500.0	6,640.4	10,564.7	6,708.4	112.0	112.0	106.00	72.1	-3,828.5	246.7	30.7	215.98	1.142	Level 2
10,531.5	6,640.4	10,596.2	6,708.4	112.9	112.9	105.99	72.1	-3,860.0	246.7	29.0	217.68	1.133	Level 2
10,600.0	6,640.3	10,664.7	6,708.2	114.8	114.8	105.98	72.1	-3,928.5	246.7	25.3	221.36	1.114	Level 2
10,629.9	6,640.3	10,694.6	6,708.2	115.7	115.7	105.98	72.1	-3,958.4	246.7	23.7	222.97	1.106	Level 2
10,700.0	6,640.2	10,764.7	6,708.0	117.6	117.6	105.97	72.1	-4,028.5	246.7	19.9	226.75	1.088	Level 2
10,728.3	6,640.1	10,793.0	6,708.0	118.4	118.4	105.96	72.1	-4,056.8	246.7	18.4	228.27	1.081	Level 2
10,800.0	6,640.0	10,864.7	6,707.8	120.4	120.4	105.95	72.1	-4,128.5	246.7	14.5	232.13	1.063	Level 2
10,826.7	6,640.0	10,891.4	6,707.8	121.2	121.1	105.95	72.1	-4,155.2	246.7	13.1	233.57	1.056	Level 2
10,900.0	6,639.9	10,964.7	6,707.7	123.2	123.2	105.94	72.1	-4,228.5	246.7	9.1	237.52	1.038	Level 2
10,925.2	6,639.9	10,989.9	6,707.6	123.9	123.9	105.94	72.1	-4,253.7	246.7	7.8	238.88	1.033	Level 2
11,000.0	6,639.8	11,064.7	6,707.5	126.0	126.0	105.93	72.1	-4,328.5	246.6	3.7	242.91	1.015	Level 2
11,023.6	6,639.8	11,088.3	6,707.4	126.6	126.6	105.92	72.1	-4,352.1	246.6	2.5	244.18	1.010	Level 2
11,100.0	6,639.7	11,164.7	6,707.3	128.8	128.8	105.91	72.1	-4,428.5	246.6	-1.7	248.30	0.993	Level 1
11,122.0	6,639.6	11,186.7	6,707.2	129.4	129.4	105.91	72.1	-4,450.5	246.6	-2.9	249.49	0.988	Level 1
11,200.0	6,639.5	11,264.7	6,707.1	131.6	131.5	105.90	72.1	-4,528.5	246.6	-7.1	253.70	0.972	Level 1
11,220.4	6,639.5	11,285.1	6,707.0	132.1	132.1	105.89	72.1	-4,548.9	246.6	-8.2	254.80	0.968	Level 1
11,300.0	6,639.4	11,364.7	6,706.9	134.4	134.3	105.88	72.1	-4,628.5	246.6	-12.5	259.10	0.952	Level 1
11,318.9	6,639.4	11,383.6	6,706.9	134.9	134.9	105.88	72.1	-4,647.4	246.6	-13.5	260.12	0.948	Level 1
11,400.0	6,639.3	11,464.7	6,706.7	137.1	137.1	105.87	72.1	-4,728.5	246.6	-17.9	264.50	0.932	Level 1
11,417.3	6,639.3	11,482.0	6,706.7	137.6	137.6	105.87	72.1	-4,745.8	246.6	-18.9	265.43	0.929	Level 1
11,500.0	6,639.2	11,564.7	6,706.5	139.9	139.9	105.85	72.1	-4,828.5	246.6	-23.3	269.90	0.913	Level 1
11,515.7	6,639.1	11,580.4	6,706.5	140.4	140.4	105.85	72.1	-4,844.2	246.5	-24.2	270.75	0.911	Level 1
11,600.0	6,639.0	11,664.7	6,706.3	142.7	142.7	105.84	72.1	-4,928.5	246.5	-28.8	275.31	0.895	Level 1
11,614.1	6,639.0	11,678.8	6,706.3	143.1	143.1	105.84	72.1	-4,942.6	246.5	-29.5	276.07	0.893	Level 1
11,700.0	6,638.9	11,764.7	6,706.1	145.5	145.5	105.83	72.1	-5,028.5	246.5	-34.2	280.71	0.878	Level 1
11,712.6	6,638.9	11,777.3	6,706.1	145.9	145.9	105.82	72.1	-5,041.1	246.5	-34.9	281.39	0.876	Level 1
11,800.0	6,638.8	11,864.7	6,705.9	148.3	148.3	105.81	72.1	-5,128.5	246.5	-39.6	286.12	0.862	Level 1
11,811.0	6,638.8	11,875.7	6,705.9	148.6	148.6	105.81	72.1	-5,139.5	246.5	-40.2	286.72	0.860	Level 1
11,900.0	6,638.7	11,964.7	6,705.8	151.1	151.1	105.80	72.1	-5,228.5	246.5	-45.1	291.53	0.845	Level 1
11,909.4	6,638.6	11,974.1	6,705.7	151.4	151.4	105.80	72.1	-5,237.9	246.5	-45.6	292.04	0.844	Level 1
12,000.0	6,638.5	12,064.7	6,705.6	153.9	153.9	105.78	72.1	-5,328.5	246.5	-50.5	296.94	0.830	Level 1
12,007.8	6,638.5	12,072.5	6,705.6	154.1	154.1	105.78	72.1	-5,336.3	246.5	-50.9	297.37	0.829	Level 1
12,100.0	6,638.4	12,164.7	6,705.4	156.7	156.7	105.77	72.1	-5,428.5	246.4	-55.9	302.36	0.815	Level 1
12,106.3	6,638.4	12,171.0	6,705.4	156.9	156.9	105.77	72.1	-5,434.8	246.4	-56.3	302.70	0.814	Level 1

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

Anticollision Report



Company:	PDC ENERGY	Local Co-ordinate Reference:	Well WACKER 10G-214
Project:	WELD COUNTY, COLORADO	TVD Reference:	KB-EST @ 4624.0usft (Original Well Elev)
Reference Site:	SW NW SEC. 10 T5N R64W 6th P.M.	MD Reference:	KB-EST @ 4624.0usft (Original Well Elev)
Site Error:	0.0 usft	North Reference:	True
Reference Well:	WACKER 10G-214	Survey Calculation Method:	Minimum Curvature
Well Error:	0.0 usft	Output errors are at	2.00 sigma
Reference Wellbore	ORIGINAL WELLBORE	Database:	EDM 5000.1 Single User Db
Reference Design:	PROPOSAL #1	Offset TVD Reference:	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	
12,200.0	6,638.3	12,264.7	6,705.2	159.5	159.5	105.75	72.1	-5,528.5	246.4	-61.3	307.77	0.801	Level 1
12,204.7	6,638.3	12,269.4	6,705.2	159.6	159.6	105.75	72.1	-5,533.2	246.4	-61.6	308.03	0.800	Level 1
12,300.0	6,638.2	12,364.7	6,705.0	162.3	162.3	105.74	72.1	-5,628.5	246.4	-66.8	313.19	0.787	Level 1
12,303.1	6,638.2	12,367.8	6,705.0	162.4	162.4	105.74	72.1	-5,631.6	246.4	-67.0	313.36	0.786	Level 1
12,400.0	6,638.0	12,464.7	6,704.8	165.1	165.1	105.72	72.1	-5,728.5	246.4	-72.2	318.61	0.773	Level 1
12,401.5	6,638.0	12,466.2	6,704.8	165.2	165.1	105.72	72.1	-5,730.0	246.4	-72.3	318.70	0.773	Level 1
12,500.0	6,637.9	12,564.7	6,704.6	167.9	167.9	105.71	72.1	-5,828.5	246.4	-77.7	324.03	0.760	Level 1
12,598.4	6,637.8	12,663.1	6,704.4	170.7	170.6	105.69	72.1	-5,926.9	246.4	-83.0	329.37	0.748	Level 1
12,600.0	6,637.8	12,664.7	6,704.4	170.7	170.7	105.69	72.1	-5,928.5	246.4	-83.1	329.46	0.748	Level 1
12,696.8	6,637.7	12,761.5	6,704.3	173.4	173.4	105.68	72.1	-6,025.3	246.3	-88.4	334.71	0.736	Level 1
12,700.0	6,637.7	12,764.7	6,704.3	173.5	173.5	105.68	72.1	-6,028.5	246.3	-88.5	334.88	0.736	Level 1
12,795.2	6,637.6	12,859.9	6,704.1	176.2	176.1	105.66	72.1	-6,123.7	246.3	-93.7	340.05	0.724	Level 1
12,800.0	6,637.6	12,864.7	6,704.1	176.3	176.3	105.66	72.1	-6,128.5	246.3	-94.0	340.31	0.724	Level 1
12,893.7	6,637.4	12,958.4	6,703.9	178.9	178.9	105.65	72.1	-6,222.2	246.3	-99.1	345.39	0.713	Level 1
12,900.0	6,637.4	12,964.7	6,703.9	179.1	179.1	105.65	72.1	-6,228.5	246.3	-99.4	345.73	0.712	Level 1
12,992.1	6,637.3	13,056.8	6,703.7	181.7	181.7	105.64	72.1	-6,320.6	246.3	-104.4	350.73	0.702	Level 1
13,000.0	6,637.3	13,064.7	6,703.7	181.9	181.9	105.63	72.1	-6,328.5	246.3	-104.9	351.16	0.701	Level 1
13,090.5	6,637.2	13,155.2	6,703.5	184.4	184.4	105.62	72.1	-6,419.0	246.3	-109.8	356.08	0.692	Level 1
13,100.0	6,637.2	13,164.7	6,703.5	184.7	184.7	105.62	72.1	-6,428.5	246.3	-110.3	356.59	0.691	Level 1
13,188.9	6,637.1	13,253.6	6,703.3	187.2	187.2	105.61	72.1	-6,517.4	246.2	-115.2	361.42	0.681	Level 1
13,200.0	6,637.1	13,264.7	6,703.3	187.5	187.5	105.60	72.1	-6,528.5	246.2	-115.8	362.02	0.680	Level 1
13,287.4	6,637.0	13,352.1	6,703.2	190.0	189.9	105.59	72.1	-6,615.8	246.2	-120.5	366.77	0.671	Level 1
13,300.0	6,637.0	13,364.7	6,703.1	190.3	190.3	105.59	72.1	-6,628.5	246.2	-121.2	367.46	0.670	Level 1
13,385.8	6,636.9	13,450.5	6,703.0	192.7	192.7	105.58	72.1	-6,714.3	246.2	-125.9	372.12	0.662	Level 1
13,400.0	6,636.8	13,464.7	6,702.9	193.1	193.1	105.57	72.1	-6,728.5	246.2	-126.7	372.89	0.660	Level 1
13,484.2	6,636.7	13,548.9	6,702.8	195.5	195.4	105.56	72.1	-6,812.7	246.2	-131.3	377.47	0.652	Level 1
13,500.0	6,636.7	13,564.7	6,702.8	195.9	195.9	105.56	72.1	-6,828.5	246.2	-132.1	378.32	0.651	Level 1
13,582.6	6,636.6	13,647.3	6,702.6	198.2	198.2	105.55	72.1	-6,911.1	246.2	-136.6	382.82	0.643	Level 1
13,600.0	6,636.6	13,664.7	6,702.6	198.7	198.7	105.54	72.1	-6,928.5	246.2	-137.6	383.76	0.641	Level 1
13,681.1	6,636.5	13,745.8	6,702.4	201.0	201.0	105.53	72.1	-7,009.5	246.2	-142.0	388.17	0.634	Level 1
13,700.0	6,636.5	13,764.7	6,702.4	201.5	201.5	105.53	72.1	-7,028.5	246.2	-143.0	389.20	0.632	Level 1
13,779.5	6,636.4	13,844.2	6,702.2	203.7	203.7	105.52	72.1	-7,108.0	246.1	-147.4	393.52	0.625	Level 1
13,800.0	6,636.4	13,864.7	6,702.2	204.3	204.3	105.51	72.1	-7,128.5	246.1	-148.5	394.64	0.624	Level 1
13,877.9	6,636.3	13,942.6	6,702.1	206.5	206.5	105.50	72.1	-7,206.4	246.1	-152.8	398.88	0.617	Level 1
13,900.0	6,636.3	13,964.7	6,702.0	207.1	207.1	105.50	72.1	-7,228.5	246.1	-154.0	400.08	0.615	Level 1
13,976.3	6,636.2	14,041.0	6,701.9	209.3	209.2	105.49	72.1	-7,304.8	246.1	-158.1	404.23	0.609	Level 1
14,000.0	6,636.1	14,064.7	6,701.8	209.9	209.9	105.48	72.1	-7,328.5	246.1	-159.4	405.52	0.607	Level 1
14,074.8	6,636.0	14,139.5	6,701.7	212.0	212.0	105.47	72.1	-7,403.2	246.1	-163.5	409.59	0.601	Level 1
14,100.0	6,636.0	14,164.7	6,701.6	212.7	212.7	105.47	72.1	-7,428.5	246.1	-164.9	410.96	0.599	Level 1
14,173.2	6,635.9	14,237.9	6,701.5	214.8	214.8	105.45	72.1	-7,501.7	246.1	-168.9	414.95	0.593	Level 1
14,200.0	6,635.9	14,264.7	6,701.5	215.5	215.5	105.45	72.1	-7,528.5	246.1	-170.3	416.41	0.591	Level 1
14,271.6	6,635.8	14,336.3	6,701.3	217.5	217.5	105.44	72.1	-7,600.1	246.0	-174.3	420.31	0.585	Level 1
14,300.0	6,635.8	14,364.7	6,701.3	218.3	218.3	105.43	72.1	-7,628.5	246.0	-175.8	421.85	0.583	Level 1
14,370.0	6,635.7	14,434.7	6,701.1	220.3	220.3	105.42	72.1	-7,698.5	246.0	-179.6	425.67	0.578	Level 1
14,400.0	6,635.7	14,464.7	6,701.1	221.1	221.1	105.42	72.1	-7,728.5	246.0	-181.3	427.30	0.576	Level 1
14,468.5	6,635.6	14,533.2	6,701.0	223.1	223.0	105.41	72.1	-7,796.9	246.0	-185.0	431.03	0.571	Level 1
14,500.0	6,635.6	14,564.7	6,700.9	223.9	223.9	105.40	72.1	-7,828.5	246.0	-186.7	432.75	0.568	Level 1
14,566.9	6,635.5	14,631.6	6,700.8	225.8	225.8	105.39	72.1	-7,895.4	246.0	-190.4	436.39	0.564	Level 1
14,600.0	6,635.4	14,664.7	6,700.7	226.8	226.7	105.39	72.1	-7,928.5	246.0	-192.2	438.20	0.561	Level 1
14,665.3	6,635.4	14,730.0	6,700.6	228.6	228.6	105.38	72.1	-7,993.8	246.0	-195.8	441.76	0.557	Level 1
14,700.0	6,635.3	14,764.7	6,700.5	229.6	229.5	105.37	72.1	-8,028.5	246.0	-197.7	443.65	0.554	Level 1
14,763.7	6,635.2	14,828.4	6,700.4	231.3	231.3	105.36	72.1	-8,092.2	246.0	-201.2	447.12	0.550	Level 1

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

Anticollision Report



Company:	PDC ENERGY	Local Co-ordinate Reference:	Well WACKER 10G-214
Project:	WELD COUNTY, COLORADO	TVD Reference:	KB-EST @ 4624.0usft (Original Well Elev)
Reference Site:	SW NW SEC. 10 T5N R64W 6th P.M.	MD Reference:	KB-EST @ 4624.0usft (Original Well Elev)
Site Error:	0.0 usft	North Reference:	True
Reference Well:	WACKER 10G-214	Survey Calculation Method:	Minimum Curvature
Well Error:	0.0 usft	Output errors are at	2.00 sigma
Reference Wellbore	ORIGINAL WELLBORE	Database:	EDM 5000.1 Single User Db
Reference Design:	PROPOSAL #1	Offset TVD Reference:	Offset Datum

Offset Design SW NW SEC. 10 T5N R64W 6th P.M. - WACKER 10G-314 - ORIGINAL WELLBORE - PROPOSAL #1												Offset Site Error:	0.0 usft
Survey Program: 0-MWD												Offset Well Error:	0.0 usft
Reference	Offset	Semi Major Axis		Distance									
Measured Depth (usft)	Vertical Depth (usft)	Measured Depth (usft)	Vertical Depth (usft)	Reference (usft)	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
14,800.0	6,635.2	14,864.7	6,700.3	232.4	232.3	105.36	72.1	-8,128.5	245.9	-203.1	449.10	0.548	Level 1
14,862.2	6,635.1	14,926.9	6,700.2	234.1	234.1	105.35	72.1	-8,190.6	245.9	-206.5	452.49	0.544	Level 1
14,900.0	6,635.1	14,964.7	6,700.2	235.2	235.1	105.34	72.1	-8,228.5	245.9	-208.6	454.55	0.541	Level 1
14,960.6	6,635.0	15,025.3	6,700.0	236.9	236.8	105.33	72.1	-8,289.1	245.9	-211.9	457.85	0.537	Level 1
14,982.9	6,635.0	15,047.6	6,700.0	237.5	237.5	105.33	72.1	-8,311.3	245.9	-213.2	459.07	0.536	Level 1, ES, SF

Anticollision Report



Company:	PDC ENERGY	Local Co-ordinate Reference:	Well WACKER 10G-214
Project:	WELD COUNTY, COLORADO	TVD Reference:	KB-EST @ 4624.0usft (Original Well Elev)
Reference Site:	SW NW SEC. 10 T5N R64W 6th P.M.	MD Reference:	KB-EST @ 4624.0usft (Original Well Elev)
Site Error:	0.0 usft	North Reference:	True
Reference Well:	WACKER 10G-214	Survey Calculation Method:	Minimum Curvature
Well Error:	0.0 usft	Output errors are at	2.00 sigma
Reference Wellbore	ORIGINAL WELLBORE	Database:	EDM 5000.1 Single User Db
Reference Design:	PROPOSAL #1	Offset TVD Reference:	Offset Datum

Reference Depths are relative to KB-EST @ 4624.0usft (Original Well ECoordinates are relative to: WACKER 10G-214

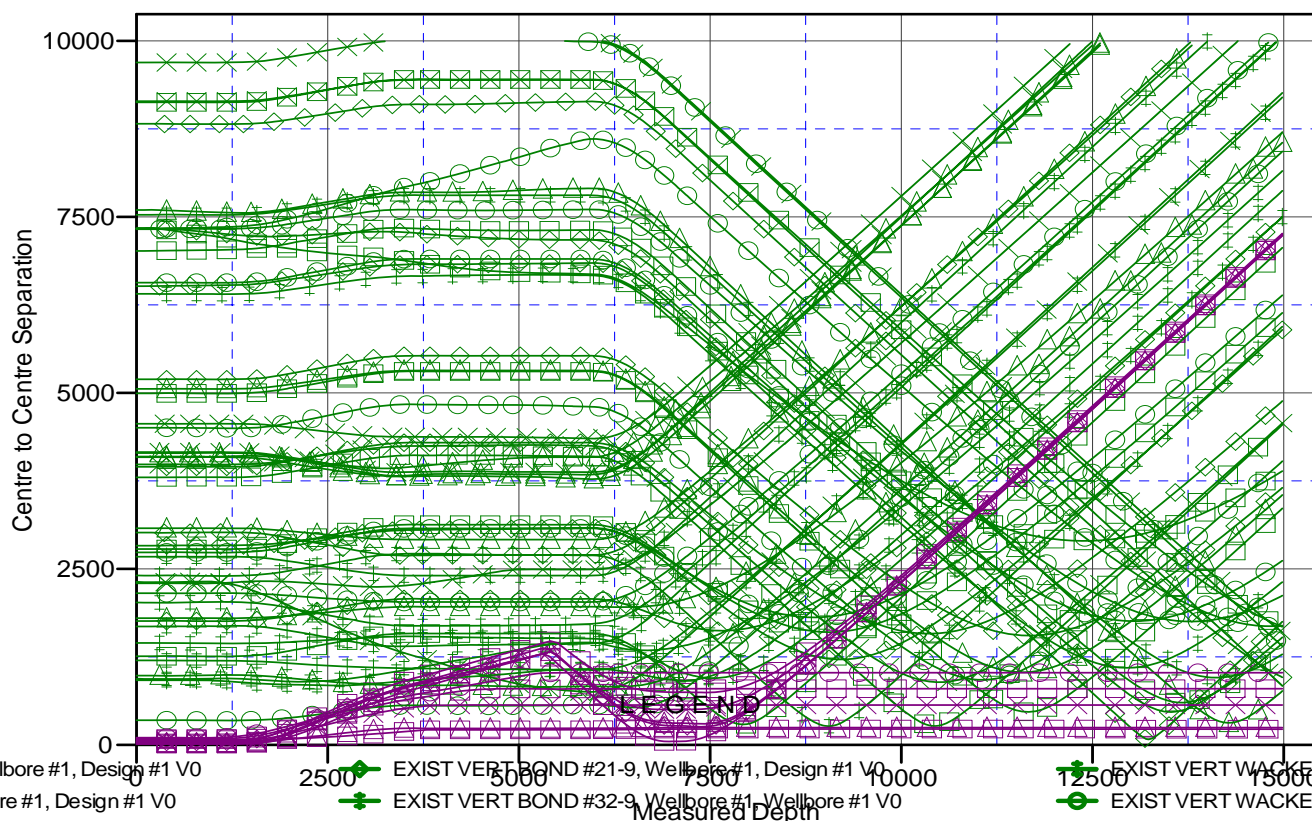
Offset Depths are relative to Offset Datum

Coordinate System is US State Plane 1983, Colorado Northern Zone

Central Meridian is -105.500000

Grid Convergence at Surface is: 0.62°

Ladder Plot



Wellbore #1, Design #1 V0	2500	EXIST VERT BOND #21-9, Wellbore #1, Design #1 V0	12500	EXIST VERT WACKER #10D, V
Wellbore #1, Design #1 V0		EXIST VERT BOND #32-9, Wellbore #1, Wellbore #1 V0		EXIST VERT WACKER #2, Well
Wellbore #1, Design #1 V0		EXIST VERT DR B #10-12, Wellbore #1, Wellbore #1 V0		EXIST VERT WACKER #22-10,
Wellbore #1, Design #1 V0		EXIST VERT HECKENDORF #1, Wellbore #1, Design #1 V0		EXIST VERT WACKER #31-10,
Wellbore #1, Design #1 V0		EXIST VERT HEINRICH #41-9, Wellbore #1, Design #1 V0		EXIST VERT WACKER #32-10,
Wellbore #1, Design #1 V0		EXIST VERT JURGENS #8-1, Wellbore #1, Wellbore #1 V0		EXIST VERT WACKER #41-10,
Wellbore #1, Design #1 V0		EXIST VERT JURGENS #8-13, Wellbore #1, Wellbore #1 V0		EXIST VERT WACKER #42-10,
Wellbore #1, Design #1 V0		EXIST VERT JURGENS #8-14, Wellbore #1, Wellbore #1 V0		EXIST VERT WILLIAMS #1, Wel
Wellbore #1, Design #1 V0		EXIST VERT JURGENS PC #B8-23, Wellbore #1, Wellbore #1 V0		WACKER 10F-204, ORIGINAL V
Wellbore #1, Design #1 V0		EXIST VERT JURGENS PMB #B8-10, Wellbore #1, Design #1 V0		WACKER 10F-232, ORIGINAL V
Wellbore #1, Design #1 V0		EXIST VERT LOWER LATHAM #8-15, Wellbore #1, Wellbore #1 V0		WACKER 10F-234, ORIGINAL V
Wellbore #1, Design #1 V0		EXIST VERT MILLAGE #11-10, Wellbore #1, Design #1 V0		WACKER 10F-302, ORIGINAL V
Wellbore #1, Design #1 V0		EXIST VERT OGRADY #31-9, Wellbore #1, Design #1 V0		WACKER 10F-304, ORIGINAL V
Wellbore #1, Design #1 V0		EXIST VERT PAULINE #5, Wellbore #1, Design #1 V0		WACKER 10G-212, ORIGINAL V
Wellbore #1, Design #1 V0		EXIST VERT PAULINE #5, Wellbore #1, Design #1 V0		WACKER 10G-212, ORIGINAL V

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

Company:	PDC ENERGY	Local Co-ordinate Reference:	Well WACKER 10G-214
Project:	WELD COUNTY, COLORADO	TVD Reference:	KB-EST @ 4624.0usft (Original Well Elev)
Reference Site:	SW NW SEC. 10 T5N R64W 6th P.M.	MD Reference:	KB-EST @ 4624.0usft (Original Well Elev)
Site Error:	0.0 usft	North Reference:	True
Reference Well:	WACKER 10G-214	Survey Calculation Method:	Minimum Curvature
Well Error:	0.0 usft	Output errors are at	2.00 sigma
Reference Wellbore	ORIGINAL WELLBORE	Database:	EDM 5000.1 Single User Db
Reference Design:	PROPOSAL #1	Offset TVD Reference:	Offset Datum

Reference Depths are relative to KB-EST @ 4624.0usft (Original Well ECoordinates are relative to: WACKER 10G-214

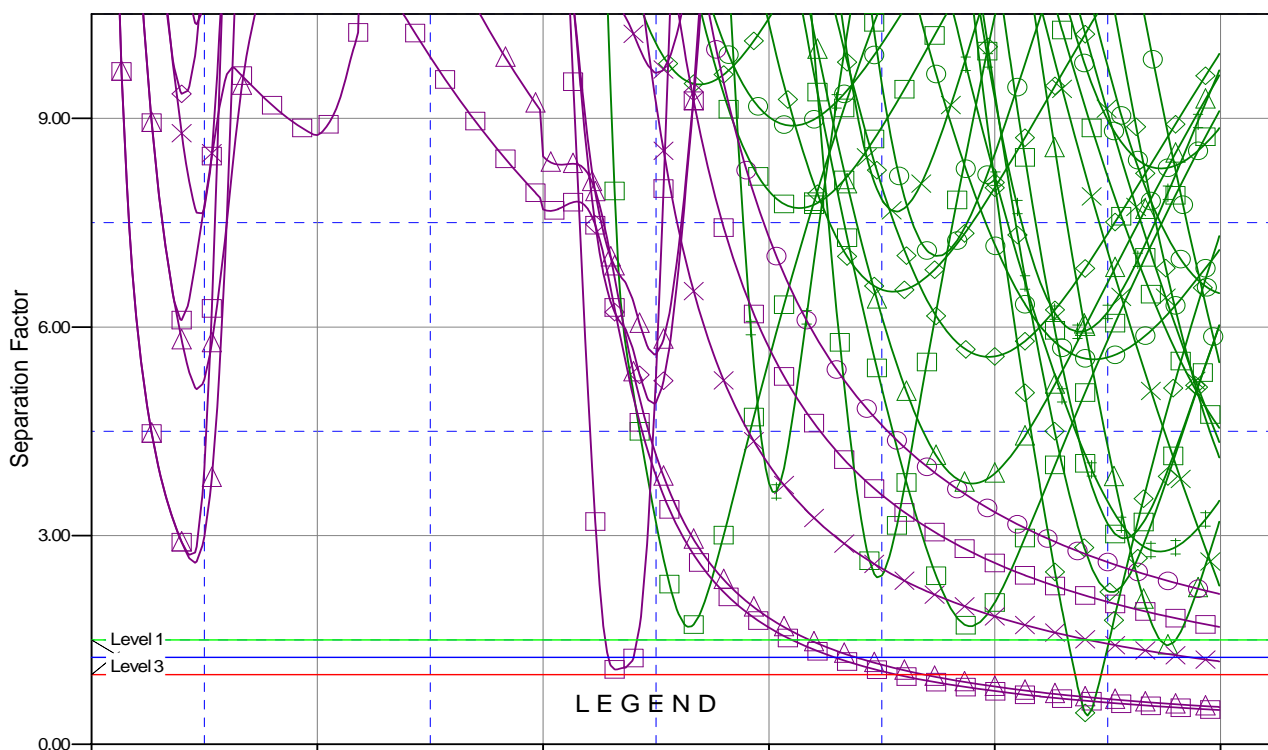
Offset Depths are relative to Offset Datum

Coordinate System is US State Plane 1983, Colorado Northern Zone

Central Meridian is -105.500000

Grid Convergence at Surface is: 0.62°

Separation Factor Plot



Wellbore #1, Design #1 V0	EXIST VERT BOND #21-9, Wellbore #1, Design #1 V0	EXIST VERT WACKER #10D, V
Wellbore #1, Design #1 V0	EXIST VERT BOND #32-9, Wellbore #1, Design #1 V0	EXIST VERT WACKER #2, Well
Wellbore #1, Design #1 V0	EXIST VERT DR B #10-12, Wellbore #1, Design #1 V0	EXIST VERT WACKER #22-10,
Wellbore #1, Design #1 V0	EXIST VERT HECKENDORF #1, Wellbore #1, Design #1 V0	EXIST VERT WACKER #31-10,
Wellbore #1, Design #1 V0	EXIST VERT HEINRICH #41-9, Wellbore #1, Design #1 V0	EXIST VERT WACKER #32-10,
Wellbore #1, Design #1 V0	EXIST VERT JURGENS #8-1, Wellbore #1, Design #1 V0	EXIST VERT WACKER #41-10,
Wellbore #1, Design #1 V0	EXIST VERT JURGENS #8-13, Wellbore #1, Design #1 V0	EXIST VERT WACKER #42-10,
Wellbore #1, Design #1 V0	EXIST VERT JURGENS #8-14, Wellbore #1, Design #1 V0	EXIST VERT WILLIAMS #1, Wel
Wellbore #1, Design #1 V0	EXIST VERT JURGENS PC #B8-23, Wellbore #1, Design #1 V0	WACKER 10F-204, ORIGINAL V
Wellbore #1, Design #1 V0	EXIST VERT JURGENS PMB #B8-10, Wellbore #1, Design #1 V0	WACKER 10F-232, ORIGINAL V
Wellbore #1, Design #1 V0	EXIST VERT LOWER LATHAM #8-15, Wellbore #1, Design #1 V0	WACKER 10F-234, ORIGINAL V
Wellbore #1, Design #1 V0	EXIST VERT MILLAGE #11-10, Wellbore #1, Design #1 V0	WACKER 10F-302, ORIGINAL V
Wellbore #1, Design #1 V0	EXIST VERT OGRADY #31-9, Wellbore #1, Design #1 V0	WACKER 10F-304, ORIGINAL V
Wellbore #1, Design #1 V0	EXIST VERT PAULINE #5, Wellbore #1, Design #1 V0	WACKER 10G-212, ORIGINAL V
Wellbore #1, Design #1 V0	EXIST VERT PAULINE #5, Wellbore #1, Design #1 V0	WACKER 10G-212, ORIGINAL V