

APEX

POCO Brighton Lakes Expansion

Sec 20-T1S-R66W

***Brighton Lakes 20-17-2NAH**

Original Hole

Plan #1

Anticollision Report

22 September, 2022

Amazon.com
Anticollision Report

Company:	APEX	Local Co-ordinate Reference:	Well *Brighton Lakes 20-17-2NAH
Project:	POCO Brighton Lakes Expansion	TVD Reference:	RKB @ 5063.0usft
Reference Site:	Sec 20-T1S-R66W	MD Reference:	RKB @ 5063.0usft
Site Error:	0.0 usft	North Reference:	Grid
Reference Well:	*Brighton Lakes 20-17-2NAH	Survey Calculation Method:	Minimum Curvature
Well Error:	0.0 usft	Output errors are at	2.00 sigma
Reference Wellbore	Original Hole	Database:	WC365
Reference Design:	Plan #1	Offset TVD Reference:	Offset Datum

Reference	Plan #1		
Filter type:	NO GLOBAL FILTER: Using user defined selection & filtering criteria		
Interpolation Method:	Stations	Error Model:	ISCWSA
Depth Range:	Unlimited	Scan Method:	Closest Approach 3D
Results Limited by:	Maximum centre distance of 1,000.0usft	Error Surface:	Pedal Curve
Warning Levels Evaluated at:	2.00 Sigma	Casing Method:	Not applied

Survey Tool Program		Date	9/20/2022		
From (usft)	To (usft)	Survey (Wellbore)	Tool Name	Description	
0.0	18,031.9	Plan #1 (Original Hole)	MWD+HRGM+SAG+FDIR	OWSG MWD + HRGM + SAG + FDIR Correction	

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						
Sec 20-T1S-R66W						
*Barr Lake 21-23-1CDH - Original Hole - Plan #1	1,237.5	1,241.4	276.9	268.3	32.049	CC, ES
*Barr Lake 21-23-1CDH - Original Hole - Plan #1	2,191.6	2,100.0	305.9	290.8	20.257	SF
*Barr Lake 21-23-1NAH - Original Hole - Plan #1	500.0	500.0	30.0	24.7	5.693	CC, ES
*Barr Lake 21-23-1NAH - Original Hole - Plan #1	600.0	597.8	33.3	26.8	5.104	SF
*Barr Lake 21-23-1NBH - Original Hole - Plan #1	600.0	600.0	128.5	122.7	22.078	CC
*Barr Lake 21-23-1NBH - Original Hole - Plan #1	700.0	699.7	128.6	122.3	20.334	ES
*Barr Lake 21-23-1NBH - Original Hole - Plan #1	1,000.0	989.5	140.5	132.5	17.459	SF
*Barr Lake 21-23-1NCH - Original Hole - Plan #1	968.4	970.4	121.0	113.6	16.286	CC, ES
*Barr Lake 21-23-1NCH - Original Hole - Plan #1	1,200.0	1,190.2	135.2	126.4	15.339	SF
*Barr Lake 21-23-2CDH - Original Hole - Plan #1	1,014.2	1,014.6	296.2	288.5	38.376	CC
*Barr Lake 21-23-2CDH - Original Hole - Plan #1	1,100.0	1,099.4	296.4	288.3	36.751	ES
*Barr Lake 21-23-2CDH - Original Hole - Plan #1	2,191.6	2,081.5	347.3	332.3	23.206	SF
*Barr Lake 21-23-2NAH - Original Hole - Plan #1	500.0	500.0	33.5	28.3	6.364	CC, ES
*Barr Lake 21-23-2NAH - Original Hole - Plan #1	600.0	597.9	36.5	30.1	5.701	SF
*Barr Lake 21-23-2NBH - Original Hole - Plan #1	600.0	600.0	143.1	137.3	24.589	CC
*Barr Lake 21-23-2NBH - Original Hole - Plan #1	700.0	698.7	143.6	137.2	22.660	ES
*Barr Lake 21-23-2NBH - Original Hole - Plan #1	1,100.0	1,076.1	173.9	165.0	19.559	SF
*Barr Lake 21-23-2NCH - Original Hole - Plan #1	894.1	895.0	138.8	131.7	19.568	CC
*Barr Lake 21-23-2NCH - Original Hole - Plan #1	900.0	900.8	138.8	131.6	19.495	ES
*Barr Lake 21-23-2NCH - Original Hole - Plan #1	1,200.0	1,186.2	156.6	147.8	17.740	SF
*Barr Lake 21-23-3CDH - Original Hole - Plan #1	800.0	800.0	311.4	304.6	45.771	CC
*Barr Lake 21-23-3CDH - Original Hole - Plan #1	900.0	898.2	311.7	304.4	43.025	ES
*Barr Lake 21-23-3CDH - Original Hole - Plan #1	2,300.0	2,152.7	406.4	391.0	26.464	SF
*Barr Lake 21-23-3NAH - Original Hole - Plan #1	500.0	500.0	42.4	37.1	8.049	CC, ES
*Barr Lake 21-23-3NAH - Original Hole - Plan #1	600.0	597.7	45.0	38.7	7.167	SF
*Barr Lake 21-23-3NBH - Original Hole - Plan #1	600.0	600.0	157.8	152.0	27.114	CC, ES
*Barr Lake 21-23-3NBH - Original Hole - Plan #1	1,100.0	1,070.6	193.5	184.6	21.639	SF
*Barr Lake 21-23-3NCH - Original Hole - Plan #1	697.0	697.0	155.0	148.8	25.095	CC
*Barr Lake 21-23-3NCH - Original Hole - Plan #1	800.0	799.6	155.1	148.4	23.288	ES
*Barr Lake 21-23-3NCH - Original Hole - Plan #1	1,200.0	1,180.8	178.9	170.0	20.176	SF
*Brighton Lakes 20-17-3NCHx - Original Hole - Plan #1	1,110.0	1,110.0	229.9	221.8	28.362	CC
*Brighton Lakes 20-17-3NCHx - Original Hole - Plan #1	18,032.3	18,704.8	316.2	120.2	1.613	Collision Risk Procedures Recommended
*Buckley 21-16-1CDH - Original Hole - Plan #1	1,200.0	1,200.0	279.9	271.5	33.058	CC, ES
*Buckley 21-16-1CDH - Original Hole - Plan #1	4,500.0	4,432.7	413.9	382.6	13.218	SF
*Buckley 21-16-1NAH - Original Hole - Plan #1	1,200.0	1,200.0	15.0	6.5	1.770	Collision Risk Procedures Recommended
*Buckley 21-16-1NAH - Original Hole - Plan #1	1,204.4	1,204.4	15.0	6.5	1.767	Collision Risk Procedures Recommended
*Buckley 21-16-1NAH - Original Hole - Plan #1	1,300.0	1,299.8	15.4	6.6	1.742	Collision Risk Procedures Recommended

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

Amazon.com
Anticollision Report

Company:	APEX	Local Co-ordinate Reference:	Well *Brighton Lakes 20-17-2NAH
Project:	POCO Brighton Lakes Expansion	TVD Reference:	RKB @ 5063.0usft
Reference Site:	Sec 20-T1S-R66W	MD Reference:	RKB @ 5063.0usft
Site Error:	0.0 usft	North Reference:	Grid
Reference Well:	*Brighton Lakes 20-17-2NAH	Survey Calculation Method:	Minimum Curvature
Well Error:	0.0 usft	Output errors are at	2.00 sigma
Reference Wellbore	Original Hole	Database:	WC365
Reference Design:	Plan #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						
Sec 20-T1S-R66W						
*Buckley 21-16-1NBH - Original Hole - Plan #1	2,300.0	2,269.8	152.6	138.2	10.559	CC, ES
*Buckley 21-16-1NBH - Original Hole - Plan #1	2,500.0	2,461.1	159.0	143.0	9.938	SF
*Buckley 21-16-1NBHx - Original Hole - Plan #1	1,110.0	1,110.0	214.9	206.8	26.512	CC
*Buckley 21-16-1NBHx - Original Hole - Plan #1	1,200.0	1,198.6	215.1	206.7	25.734	ES
*Buckley 21-16-1NBHx - Original Hole - Plan #1	18,032.3	18,802.3	716.7	433.8	2.533	SF
*Buckley 21-16-1NCH - Original Hole - Plan #1	2,376.3	2,348.0	164.7	150.0	11.203	CC
*Buckley 21-16-1NCH - Original Hole - Plan #1	2,500.0	2,470.5	165.6	149.8	10.470	ES
*Buckley 21-16-1NCH - Original Hole - Plan #1	3,000.0	2,966.7	182.4	163.1	9.420	SF
*Buckley 21-16-2CDH - Original Hole - Plan #1	1,110.0	1,110.0	294.9	286.8	36.377	CC
*Buckley 21-16-2CDH - Original Hole - Plan #1	1,200.0	1,198.4	295.1	286.7	35.300	ES
*Buckley 21-16-2CDH - Original Hole - Plan #1	2,900.0	2,814.6	351.3	332.1	18.290	SF
*Buckley 21-16-2NAH - Original Hole - Plan #1	1,110.0	1,110.0	30.0	21.9	3.699	CC
*Buckley 21-16-2NAH - Original Hole - Plan #1	1,200.0	1,199.9	30.1	21.7	3.595	ES
*Buckley 21-16-2NAH - Original Hole - Plan #1	1,300.0	1,299.5	31.1	22.3	3.553	SF
*Buckley 21-16-2NBH - Original Hole - Plan #1	1,100.0	1,100.0	172.6	164.5	21.362	CC, ES
*Buckley 21-16-2NBH - Original Hole - Plan #1	2,300.0	2,236.2	193.7	178.8	13.025	SF
*Buckley 21-16-2NCH - Original Hole - Plan #1	2,267.0	2,226.5	194.5	180.2	13.642	CC
*Buckley 21-16-2NCH - Original Hole - Plan #1	2,300.0	2,257.5	194.6	180.1	13.395	ES
*Buckley 21-16-2NCH - Original Hole - Plan #1	2,500.0	2,442.5	205.3	189.4	12.915	SF
*Buckley 21-16-3CDH - Original Hole - Plan #1	1,000.0	1,000.0	309.9	302.2	40.388	CC, ES
*Buckley 21-16-3CDH - Original Hole - Plan #1	2,500.0	2,380.9	372.1	355.8	22.876	SF
*Buckley 21-16-3NAH - Original Hole - Plan #1	1,100.0	1,100.0	45.0	36.9	5.568	CC, ES
*Buckley 21-16-3NAH - Original Hole - Plan #1	1,200.0	1,199.6	45.4	36.9	5.357	SF
*Buckley 21-16-3NBH - Original Hole - Plan #1	1,100.0	1,100.0	187.4	179.3	23.193	CC, ES
*Buckley 21-16-3NBH - Original Hole - Plan #1	2,000.0	1,925.0	249.0	235.3	18.197	SF
*Buckley 21-16-3NCH - Original Hole - Plan #1	1,100.0	1,100.0	202.2	194.1	25.026	CC, ES
*Buckley 21-16-3NCH - Original Hole - Plan #1	2,400.0	2,323.2	227.3	211.9	14.788	SF
20-17-1CDH - Original Hole - Final Surveys	0.0	0.0	462.2			
20-17-1CDH - Original Hole - Final Surveys	900.0	897.9	462.5	455.7	67.524	ES
20-17-1CDH - Original Hole - Final Surveys	4,900.0	4,807.1	980.8	945.9	28.042	SF
20-17-1NAH - Original Hole - Final Survey	1,400.0	1,400.3	442.9	433.9	49.059	CC
20-17-1NAH - Original Hole - Final Survey	2,404.4	2,398.0	448.3	433.0	29.183	ES
20-17-1NAH - Original Hole - Final Survey	17,700.0	17,588.1	891.1	580.2	2.866	SF
20-17-1NBH - Original Hole - Final Surveys	449.3	449.3	450.5	445.7	92.766	CC
20-17-1NBH - Original Hole - Final Surveys	1,600.0	1,600.0	453.0	443.2	46.223	ES
20-17-1NBH - Original Hole - Final Surveys	6,100.0	6,026.5	932.2	881.6	18.447	SF
20-17-1NCH - Original Hole - Final Surveys	1,228.8	1,228.9	456.8	448.7	56.454	CC
20-17-1NCH - Original Hole - Final Surveys	1,549.4	1,554.0	457.2	448.1	49.939	ES
20-17-1NCH - Original Hole - Final Surveys	5,500.0	5,413.9	982.8	940.0	22.972	SF
20-17-2CDH - Original Hole - Final Survey	7,336.5	7,299.1	348.6	261.3	3.992	CC
20-17-2CDH - Original Hole - Final Survey	17,769.4	18,430.0	393.1	241.6	2.595	ES
20-17-2CDH - Original Hole - Final Survey	17,800.0	18,430.0	394.4	242.4	2.594	SF
20-17-2NBH (3CDH) - Original Hole - Final Surveys	1,121.7	1,121.8	432.2	424.4	55.298	CC
20-17-2NBH (3CDH) - Original Hole - Final Surveys	2,700.0	2,666.4	439.0	420.5	23.790	ES
20-17-2NBH (3CDH) - Original Hole - Final Surveys	17,704.4	18,114.8	723.9	434.0	2.497	SF
20-17-2NCH - Original Hole - Final Surveys	14,022.6	14,429.7	402.8	212.5	2.117	CC
20-17-2NCH - Original Hole - Final Surveys	17,704.4	18,112.5	420.0	130.0	1.448	Collision Risk Procedures R
20-17-3NBH - Original Hole - Final Surveys	9,038.5	9,390.5	231.8	157.1	3.104	CC
20-17-3NBH - Original Hole - Final Surveys	17,604.4	17,954.0	261.5	-12.0	0.956	Collision Risk Procedures R
Extraction PC-1S-66-2928-2CDH - Original Hole - Original	7,734.5	12,917.3	992.3	779.2	4.656	CC
Extraction PC-1S-66-2928-2CDH - Original Hole - Original	7,752.2	12,921.4	992.7	778.4	4.631	ES
Extraction PC-1S-66-2928-2CDH - Original Hole - Original	7,802.2	12,932.6	998.3	780.7	4.588	SF

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

Amazon.com

Anticollision Report

Company:	APEX	Local Co-ordinate Reference:	Well *Brighton Lakes 20-17-2NAH
Project:	POCO Brighton Lakes Expansion	TVD Reference:	RKB @ 5063.0usft
Reference Site:	Sec 20-T1S-R66W	MD Reference:	RKB @ 5063.0usft
Site Error:	0.0 usft	North Reference:	Grid
Reference Well:	*Brighton Lakes 20-17-2NAH	Survey Calculation Method:	Minimum Curvature
Well Error:	0.0 usft	Output errors are at	2.00 sigma
Reference Wellbore	Original Hole	Database:	WC365
Reference Design:	Plan #1	Offset TVD Reference:	Offset Datum

Offset Design: Sec 20-T1S-R66W - *Barr Lake 21-23-1CDH - Original Hole - Plan #1												Offset Site Error:	0.0 usft
Survey Program: 0-MWD+HRGM+SAG+FDIR												Offset Well Error:	0.0 usft
Reference		Offset		Semi Major Axis		Highside Toolface (°)	Offset Wellbore Centre		Distance		Minimum Separation (usft)	Separation Factor	Warning
Measured Depth (usft)	Vertical Depth (usft)	Measured Depth (usft)	Vertical Depth (usft)	Reference (usft)	Offset (usft)		+N/-S (usft)	+E/-W (usft)	Between Centres (usft)	Between Ellipses (usft)			
0.0	0.0	0.0	0.0	0.0	0.0	173.29	-279.6	32.9	281.5				
100.0	100.0	100.0	100.0	1.0	1.0	173.29	-279.6	32.9	281.5	279.6	1.96	143.784	
200.0	200.0	200.0	200.0	1.6	1.6	173.29	-279.6	32.9	281.5	278.4	3.12	90.219	
300.0	300.0	300.0	300.0	2.0	2.0	173.29	-279.6	32.9	281.5	277.6	3.96	71.064	
400.0	400.0	400.0	400.0	2.3	2.3	173.29	-279.6	32.9	281.5	276.9	4.66	60.429	
500.0	500.0	500.0	500.0	2.6	2.6	173.29	-279.6	32.9	281.5	276.3	5.27	53.426	
600.0	600.0	600.0	600.0	2.9	2.9	173.29	-279.6	32.9	281.5	275.7	5.82	48.364	
700.0	700.0	700.0	700.0	3.2	3.2	173.29	-279.6	32.9	281.5	275.2	6.33	44.483	
800.0	800.0	800.0	800.0	3.4	3.4	173.29	-279.6	32.9	281.5	274.7	6.80	41.384	
900.0	900.0	902.6	902.6	3.6	4.0	172.74	-278.8	35.5	281.1	273.8	7.26	38.707	
1,000.0	1,000.0	1,004.7	1,004.3	3.8	4.5	171.09	-276.4	43.4	279.8	272.1	7.69	36.401	
1,100.0	1,100.0	1,105.6	1,104.3	4.0	5.0	168.35	-272.4	56.2	278.2	270.1	8.09	34.387	
1,200.0	1,200.0	1,204.8	1,201.7	4.2	5.4	164.57	-267.0	73.7	277.0	268.5	8.49	32.641	
1,237.5	1,237.5	1,241.4	1,237.5	4.3	5.5	162.90	-264.7	81.4	276.9	268.3	8.64	32.049	CC, ES
1,300.0	1,300.0	1,301.8	1,296.0	4.4	5.7	159.85	-260.3	95.5	277.3	268.4	8.90	31.166	
1,400.0	1,400.0	1,396.8	1,387.2	4.9	6.1	48.37	-252.4	121.3	278.6	269.1	9.46	29.439	
1,500.0	1,499.6	1,490.4	1,475.5	5.3	6.4	43.13	-243.3	150.9	279.6	269.5	10.10	27.674	
1,600.0	1,598.8	1,582.4	1,560.7	5.7	6.7	37.82	-233.1	183.9	280.7	269.9	10.83	25.929	
1,700.0	1,697.1	1,672.9	1,642.8	6.0	7.0	32.41	-222.0	220.2	282.2	270.6	11.61	24.309	
1,800.0	1,794.3	1,761.7	1,721.6	6.4	7.3	26.91	-209.9	259.5	284.3	271.9	12.41	22.901	
1,900.0	1,890.2	1,849.0	1,797.1	6.7	7.5	21.33	-197.0	301.4	287.5	274.3	13.20	21.769	
2,000.0	1,984.4	1,934.8	1,869.2	7.0	7.8	15.70	-183.4	345.7	292.0	278.1	13.94	20.952	
2,100.0	2,076.8	2,018.9	1,937.9	7.3	8.0	10.09	-169.1	392.2	298.3	283.8	14.58	20.466	
2,191.6	2,159.6	2,100.0	2,001.9	7.5	8.3	4.67	-154.5	439.7	305.9	290.8	15.10	20.257	SF
2,200.0	2,167.1	2,100.0	2,001.9	7.5	8.3	4.67	-154.5	439.7	306.7	291.7	14.99	20.463	
2,300.0	2,256.4	2,182.4	2,064.8	7.7	8.9	-0.82	-138.8	490.6	320.3	305.0	15.30	20.938	
2,400.0	2,345.7	2,261.0	2,122.6	7.9	9.6	-5.86	-123.1	541.4	341.3	325.8	15.44	22.097	
2,500.0	2,435.0	2,337.1	2,176.5	8.0	10.3	-10.42	-107.3	592.9	369.3	353.8	15.50	23.821	
2,600.0	2,524.3	2,421.1	2,234.0	8.4	11.1	-14.91	-89.3	651.3	402.9	387.2	15.70	25.666	
2,700.0	2,613.6	2,509.6	2,294.6	9.0	12.0	-18.99	-70.4	713.0	439.0	423.0	16.07	27.325	
2,800.0	2,702.9	2,598.1	2,355.1	9.5	12.9	-22.48	-51.4	774.7	477.0	460.4	16.52	28.880	
2,900.0	2,792.2	2,686.6	2,415.6	10.1	13.9	-25.49	-32.4	836.4	516.3	499.3	17.04	30.292	
3,000.0	2,881.5	2,775.1	2,476.2	10.7	14.8	-28.10	-13.4	898.1	556.8	539.1	17.65	31.552	
3,100.0	2,970.8	2,863.6	2,536.7	11.3	15.7	-30.37	5.6	959.8	598.1	579.8	18.31	32.660	
3,200.0	3,060.1	2,952.1	2,597.3	11.9	16.7	-32.35	24.5	1,021.5	640.2	621.2	19.04	33.625	
3,300.0	3,149.4	3,040.6	2,657.8	12.5	17.6	-34.10	43.5	1,083.2	682.9	663.1	19.82	34.460	
3,400.0	3,238.7	3,129.1	2,718.3	13.1	18.6	-35.66	62.5	1,144.9	726.0	705.4	20.64	35.181	
3,500.0	3,328.0	3,217.6	2,778.9	13.7	19.6	-37.04	81.5	1,206.6	769.6	748.1	21.49	35.802	
3,600.0	3,417.3	3,306.1	2,839.4	14.3	20.5	-38.28	100.5	1,268.3	813.4	791.0	22.39	36.338	
3,700.0	3,506.6	3,394.5	2,900.0	15.0	21.5	-39.39	119.4	1,330.0	857.6	834.3	23.30	36.800	
3,800.0	3,595.9	3,483.0	2,960.5	15.6	22.5	-40.40	138.4	1,391.6	902.0	877.7	24.25	37.198	
3,900.0	3,685.1	3,571.5	3,021.0	16.2	23.5	-41.32	157.4	1,453.3	946.6	921.4	25.21	37.544	
4,000.0	3,774.4	3,660.0	3,081.6	16.8	24.5	-42.15	176.4	1,515.0	991.4	965.2	26.20	37.845	

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

Amazon.com

Anticollision Report

Company:	APEX	Local Co-ordinate Reference:	Well *Brighton Lakes 20-17-2NAH
Project:	POCO Brighton Lakes Expansion	TVD Reference:	RKB @ 5063.0usft
Reference Site:	Sec 20-T1S-R66W	MD Reference:	RKB @ 5063.0usft
Site Error:	0.0 usft	North Reference:	Grid
Reference Well:	*Brighton Lakes 20-17-2NAH	Survey Calculation Method:	Minimum Curvature
Well Error:	0.0 usft	Output errors are at	2.00 sigma
Reference Wellbore	Original Hole	Database:	WC365
Reference Design:	Plan #1	Offset TVD Reference:	Offset Datum

Offset Design: Sec 20-T1S-R66W - *Barr Lake 21-23-1NAH - Original Hole - Plan #1												Offset Site Error:	0.0 usft
Survey Program: 0-MWD+HRGM+SAG+FDIR												Offset Well Error:	0.0 usft
Reference		Offset		Semi Major Axis		Highside Toolface (°)	Offset Wellbore Centre		Distance		Minimum Separation (usft)	Separation Factor	Warning
Measured Depth (usft)	Vertical Depth (usft)	Measured Depth (usft)	Vertical Depth (usft)	Reference (usft)	Offset (usft)		+N/-S (usft)	+E/-W (usft)	Between Centres (usft)	Between Ellipses (usft)			
0.0	0.0	0.0	0.0	0.0	0.0	89.41	0.3	30.0	30.0				
100.0	100.0	100.0	100.0	1.0	1.0	89.41	0.3	30.0	30.0	28.0	1.96	15.323	
200.0	200.0	200.0	200.0	1.6	1.6	89.41	0.3	30.0	30.0	26.9	3.12	9.614	
300.0	300.0	300.0	300.0	2.0	2.0	89.41	0.3	30.0	30.0	26.0	3.96	7.573	
400.0	400.0	400.0	400.0	2.3	2.3	89.41	0.3	30.0	30.0	25.3	4.66	6.440	
466.7	466.7	466.7	466.7	2.5	2.5	89.41	0.3	30.0	30.0	24.9	5.07	5.922	
500.0	500.0	500.0	500.0	2.6	2.6	89.41	0.3	30.0	30.0	24.7	5.27	5.693 CC, ES	
600.0	600.0	597.8	597.8	2.9	3.7	88.11	1.1	33.2	33.3	26.8	6.53	5.104 SF	
700.0	700.0	694.8	694.2	3.2	4.4	85.42	3.4	42.9	43.4	35.8	7.56	5.741	
800.0	800.0	790.0	788.0	3.4	5.1	82.96	7.2	58.4	60.1	51.7	8.42	7.134	
900.0	900.0	882.6	878.1	3.6	5.6	81.19	12.3	79.4	83.2	74.1	9.16	9.086	
1,000.0	1,000.0	972.1	963.6	3.8	6.1	79.99	18.5	104.9	112.6	102.8	9.80	11.489	
1,100.0	1,100.0	1,058.0	1,044.0	4.0	6.5	79.19	25.6	134.3	147.7	137.4	10.35	14.273	
1,200.0	1,200.0	1,139.8	1,118.7	4.2	6.9	78.63	33.5	166.5	188.3	177.5	10.83	17.390	
1,300.0	1,300.0	1,217.3	1,187.7	4.4	7.2	78.24	41.8	200.9	233.9	222.7	11.25	20.802	
1,400.0	1,400.0	1,291.5	1,251.9	4.9	7.5	-27.82	50.6	237.2	282.2	270.4	11.78	23.952	
1,500.0	1,499.6	1,363.4	1,312.0	5.3	7.8	-27.83	59.9	275.3	330.9	318.7	12.24	27.042	
1,600.0	1,598.8	1,433.0	1,368.4	5.7	8.0	-27.98	69.5	315.0	380.0	367.3	12.65	30.044	
1,700.0	1,697.1	1,500.0	1,420.7	6.0	8.2	-28.18	79.4	355.6	429.3	416.3	13.01	32.991	
1,800.0	1,794.3	1,566.2	1,470.4	6.4	8.4	-28.42	89.7	398.1	478.8	465.4	13.36	35.831	
1,900.0	1,890.2	1,629.9	1,516.3	6.7	8.6	-28.66	100.2	441.1	528.4	514.7	13.70	38.564	
2,000.0	1,984.4	1,705.9	1,568.4	7.0	8.8	-29.13	113.2	494.8	578.3	564.0	14.28	40.490	
2,100.0	2,076.8	1,772.6	1,612.9	7.3	9.2	-29.47	125.0	543.2	626.6	612.1	14.50	43.213	
2,191.6	2,159.6	1,853.1	1,666.5	7.5	10.1	-30.18	139.2	601.5	667.9	653.0	14.93	44.746	
2,200.0	2,167.1	1,860.6	1,671.4	7.5	10.2	-30.31	140.5	606.9	671.5	656.6	14.95	44.927	
2,300.0	2,256.4	1,949.1	1,730.4	7.7	11.1	-31.74	156.1	671.1	715.2	699.7	15.45	46.297	
2,400.0	2,345.7	2,037.7	1,789.4	7.9	12.1	-33.01	171.7	735.3	759.2	743.2	15.94	47.630	
2,500.0	2,435.0	2,126.2	1,848.4	8.0	13.0	-34.15	187.3	799.5	803.4	787.0	16.48	48.750	
2,600.0	2,524.3	2,214.8	1,907.4	8.4	14.0	-35.17	202.8	863.7	847.9	830.9	17.07	49.673	
2,700.0	2,613.6	2,303.4	1,966.4	9.0	15.0	-36.09	218.4	927.9	892.6	874.9	17.70	50.422	
2,800.0	2,702.9	2,391.9	2,025.3	9.5	16.0	-36.92	234.0	992.1	937.5	919.1	18.38	51.014	
2,900.0	2,792.2	2,480.5	2,084.3	10.1	17.0	-37.68	249.6	1,056.3	982.5	963.4	19.09	51.474	

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

Amazon.com

Anticollision Report

Company:	APEX	Local Co-ordinate Reference:	Well *Brighton Lakes 20-17-2NAH
Project:	POCO Brighton Lakes Expansion	TVD Reference:	RKB @ 5063.0usft
Reference Site:	Sec 20-T1S-R66W	MD Reference:	RKB @ 5063.0usft
Site Error:	0.0 usft	North Reference:	Grid
Reference Well:	*Brighton Lakes 20-17-2NAH	Survey Calculation Method:	Minimum Curvature
Well Error:	0.0 usft	Output errors are at	2.00 sigma
Reference Wellbore	Original Hole	Database:	WC365
Reference Design:	Plan #1	Offset TVD Reference:	Offset Datum

Offset Design: Sec 20-T1S-R66W - *Barr Lake 21-23-1NBH - Original Hole - Plan #1												Offset Site Error:	0.0 usft
Survey Program: 0-MWD+HRGM+SAG+FDIR												Offset Well Error:	0.0 usft
Reference		Offset		Semi Major Axis		Highside Toolface (°)	Offset Wellbore Centre		Distance		Minimum Separation (usft)	Separation Factor	Warning
Measured Depth (usft)	Vertical Depth (usft)	Measured Depth (usft)	Vertical Depth (usft)	Reference (usft)	Offset (usft)		+N/-S (usft)	+E/-W (usft)	Between Centres (usft)	Between Ellipses (usft)			
0.0	0.0	0.0	0.0	0.0	0.0	165.91	-124.6	31.3	128.5				
100.0	100.0	100.0	100.0	1.0	1.0	165.91	-124.6	31.3	128.5	126.6	1.96	65.636	
200.0	200.0	200.0	200.0	1.6	1.6	165.91	-124.6	31.3	128.5	125.4	3.12	41.184	
300.0	300.0	300.0	300.0	2.0	2.0	165.91	-124.6	31.3	128.5	124.6	3.96	32.440	
400.0	400.0	400.0	400.0	2.3	2.3	165.91	-124.6	31.3	128.5	123.9	4.66	27.586	
500.0	500.0	500.0	500.0	2.6	2.6	165.91	-124.6	31.3	128.5	123.2	5.27	24.388	
566.7	566.7	566.7	566.7	2.8	2.8	165.91	-124.6	31.3	128.5	122.9	5.64	22.798	
600.0	600.0	600.0	600.0	2.9	2.9	165.91	-124.6	31.3	128.5	122.7	5.82	22.078 CC	
700.0	700.0	699.7	699.6	3.2	3.9	164.37	-123.9	34.7	128.6	122.3	6.33	20.334 ES	
800.0	800.0	798.4	797.8	3.4	4.6	159.83	-121.5	44.6	129.5	122.7	6.81	19.008	
900.0	900.0	895.3	893.2	3.6	5.3	152.69	-117.8	60.8	132.7	125.4	7.36	18.031	
1,000.0	1,000.0	989.5	984.7	3.8	5.8	143.79	-112.7	82.5	140.5	132.5	8.05	17.459 SF	
1,100.0	1,100.0	1,080.4	1,071.4	4.0	6.3	134.35	-106.6	109.0	155.1	146.2	8.87	17.485	
1,200.0	1,200.0	1,167.4	1,152.7	4.2	6.7	125.53	-99.5	139.3	177.6	167.9	9.71	18.295	
1,300.0	1,300.0	1,250.2	1,228.1	4.4	7.1	118.00	-91.7	172.6	208.2	197.8	10.46	19.912	
1,400.0	1,400.0	1,329.6	1,298.5	4.9	7.4	5.46	-83.4	208.4	244.0	232.6	11.33	21.541	
1,500.0	1,499.6	1,400.0	1,359.1	5.3	7.7	0.88	-75.3	243.3	281.8	269.8	11.92	23.631	
1,600.0	1,598.8	1,480.8	1,426.4	5.7	7.9	-3.51	-65.1	286.8	320.9	308.3	12.64	25.395	
1,700.0	1,697.1	1,553.0	1,484.2	6.0	8.2	-6.82	-55.4	328.8	361.4	348.2	13.14	27.495	
1,800.0	1,794.3	1,622.9	1,538.2	6.4	8.4	-9.60	-45.3	372.2	402.8	389.2	13.57	29.675	
1,900.0	1,890.2	1,700.0	1,595.0	6.7	8.6	-12.29	-33.5	422.8	445.1	431.0	14.10	31.558	
2,000.0	1,984.4	1,756.9	1,635.2	7.0	8.7	-13.98	-24.3	462.1	487.8	473.7	14.14	34.493	
2,100.0	2,076.8	1,840.8	1,692.8	7.3	9.0	-16.33	-10.5	521.6	529.8	515.2	14.53	36.467	
2,191.6	2,159.6	1,922.5	1,748.7	7.5	9.8	-18.38	3.0	579.5	565.1	550.2	14.91	37.908	
2,200.0	2,167.1	1,930.0	1,753.9	7.5	9.9	-18.59	4.2	584.8	568.2	553.3	14.92	38.079	
2,300.0	2,256.4	2,019.8	1,815.4	7.7	10.8	-20.94	19.1	648.4	605.8	590.4	15.33	39.510	
2,400.0	2,345.7	2,109.6	1,877.0	7.9	11.7	-23.04	33.9	712.1	644.1	628.4	15.72	40.967	
2,500.0	2,435.0	2,199.3	1,938.6	8.0	12.7	-24.91	48.7	775.7	683.1	667.0	16.16	42.267	
2,600.0	2,524.3	2,289.1	2,000.1	8.4	13.6	-26.58	63.5	839.4	722.8	706.1	16.65	43.399	
2,700.0	2,613.6	2,378.9	2,061.7	9.0	14.6	-28.09	78.3	903.0	762.9	745.7	17.19	44.369	
2,800.0	2,702.9	2,468.6	2,123.2	9.5	15.6	-29.45	93.2	966.6	803.4	785.6	17.78	45.186	
2,900.0	2,792.2	2,558.4	2,184.8	10.1	16.6	-30.68	108.0	1,030.3	844.3	825.9	18.41	45.861	
3,000.0	2,881.5	2,648.2	2,246.3	10.7	17.6	-31.80	122.8	1,093.9	885.4	866.4	19.08	46.409	
3,100.0	2,970.8	2,737.9	2,307.9	11.3	18.6	-32.83	137.6	1,157.6	926.9	907.1	19.79	46.845	
3,200.0	3,060.1	2,827.7	2,369.4	11.9	19.5	-33.77	152.4	1,221.2	968.6	948.0	20.53	47.183	

Amazon.com

Anticollision Report

Company:	APEX	Local Co-ordinate Reference:	Well *Brighton Lakes 20-17-2NAH
Project:	POCO Brighton Lakes Expansion	TVD Reference:	RKB @ 5063.0usft
Reference Site:	Sec 20-T1S-R66W	MD Reference:	RKB @ 5063.0usft
Site Error:	0.0 usft	North Reference:	Grid
Reference Well:	*Brighton Lakes 20-17-2NAH	Survey Calculation Method:	Minimum Curvature
Well Error:	0.0 usft	Output errors are at	2.00 sigma
Reference Wellbore	Original Hole	Database:	WC365
Reference Design:	Plan #1	Offset TVD Reference:	Offset Datum

Offset Design: Sec 20-T1S-R66W - *Barr Lake 21-23-1NCH - Original Hole - Plan #1												Offset Site Error:	0.0 usft
Survey Program: 0-MWD+HRGM+SAG+FDIR												Offset Well Error:	0.0 usft
Reference		Offset		Semi Major Axis		Highside Toolface (°)	Offset Wellbore Centre		Distance		Separation Factor	Warning	
Measured Depth (usft)	Vertical Depth (usft)	Measured Depth (usft)	Vertical Depth (usft)	Reference (usft)	Offset (usft)		+N/-S (usft)	+E/-W (usft)	Between Centres (usft)	Between Ellipses (usft)			
0.0	0.0	0.0	0.0	0.0	0.0	179.41	-125.0	1.3	125.0				
100.0	100.0	100.0	100.0	1.0	1.0	179.41	-125.0	1.3	125.0	123.0	1.96	63.824	
200.0	200.0	200.0	200.0	1.6	1.6	179.41	-125.0	1.3	125.0	121.8	3.12	40.047	
300.0	300.0	300.0	300.0	2.0	2.0	179.41	-125.0	1.3	125.0	121.0	3.96	31.545	
400.0	400.0	400.0	400.0	2.3	2.3	179.41	-125.0	1.3	125.0	120.3	4.66	26.824	
500.0	500.0	500.0	500.0	2.6	2.6	179.41	-125.0	1.3	125.0	119.7	5.27	23.715	
600.0	600.0	600.0	600.0	2.9	2.9	179.41	-125.0	1.3	125.0	119.1	5.82	21.468	
700.0	700.0	701.0	700.9	3.2	3.1	179.06	-124.8	2.1	124.8	118.6	6.19	20.152	
800.0	800.0	802.5	802.3	3.4	3.8	176.22	-123.1	8.1	123.4	116.7	6.69	18.438	
900.0	900.0	902.8	901.8	3.6	4.5	170.48	-119.9	20.1	121.6	114.4	7.14	17.039	
968.4	968.4	970.4	968.4	3.8	4.9	164.92	-116.8	31.5	121.0	113.6	7.43	16.286 CC, ES	
1,000.0	1,000.0	1,001.3	998.6	3.8	5.0	161.94	-115.2	37.6	121.2	113.6	7.57	16.001	
1,100.0	1,100.0	1,097.3	1,091.7	4.0	5.5	151.23	-109.2	59.9	124.8	116.7	8.11	15.386	
1,200.0	1,200.0	1,190.2	1,180.5	4.2	5.9	139.67	-102.0	86.6	135.2	126.4	8.81	15.339 SF	
1,300.0	1,300.0	1,279.6	1,264.2	4.4	6.3	128.79	-93.8	116.8	154.0	144.4	9.59	16.056	
1,400.0	1,400.0	1,366.1	1,343.5	4.9	6.7	13.16	-84.9	150.1	179.0	168.5	10.56	16.959	
1,500.0	1,499.6	1,450.5	1,418.9	5.3	7.0	5.70	-75.1	186.5	207.0	195.6	11.39	18.175	
1,600.0	1,598.8	1,532.7	1,490.5	5.7	7.3	-0.35	-64.5	225.5	237.2	225.1	12.10	19.613	
1,700.0	1,697.1	1,612.8	1,558.3	6.0	7.5	-5.34	-53.4	266.9	269.2	256.5	12.69	21.221	
1,800.0	1,794.3	1,691.0	1,622.2	6.4	7.8	-9.51	-41.7	310.2	302.6	289.4	13.18	22.961	
1,900.0	1,890.2	1,767.2	1,682.5	6.7	8.0	-13.06	-29.6	355.3	337.2	323.6	13.60	24.802	
2,000.0	1,984.4	1,841.6	1,739.1	7.0	8.2	-16.10	-17.1	401.9	372.8	358.9	13.96	26.712	
2,100.0	2,076.8	1,914.2	1,792.2	7.3	8.5	-18.74	-4.2	449.7	409.3	395.1	14.27	28.689	
2,191.6	2,159.6	1,981.9	1,839.7	7.5	9.1	-20.96	8.4	496.2	443.5	429.0	14.48	30.630	
2,200.0	2,167.1	1,986.1	1,842.6	7.5	9.2	-21.11	9.2	499.2	446.6	432.2	14.44	30.938	
2,300.0	2,256.4	2,075.3	1,903.9	7.7	10.0	-24.15	26.0	561.8	485.1	470.2	14.85	32.659	
2,400.0	2,345.7	2,164.6	1,965.2	7.9	11.0	-26.75	42.9	624.4	524.6	509.3	15.26	34.367	
2,500.0	2,435.0	2,253.9	2,026.5	8.0	11.9	-29.01	59.8	687.1	564.9	549.2	15.74	35.896	
2,600.0	2,524.3	2,343.1	2,087.9	8.4	12.8	-30.98	76.7	749.7	605.9	589.7	16.27	37.234	
2,700.0	2,613.6	2,432.4	2,149.2	9.0	13.8	-32.70	93.5	812.4	647.5	630.6	16.87	38.386	
2,800.0	2,702.9	2,521.6	2,210.5	9.5	14.7	-34.23	110.4	875.0	689.5	672.0	17.52	39.364	
2,900.0	2,792.2	2,610.9	2,271.8	10.1	15.7	-35.58	127.3	937.6	731.8	713.6	18.21	40.186	
3,000.0	2,881.5	2,700.2	2,333.1	10.7	16.7	-36.79	144.2	1,000.3	774.5	755.5	18.95	40.868	
3,100.0	2,970.8	2,789.4	2,394.4	11.3	17.6	-37.87	161.0	1,062.9	817.4	797.7	19.73	41.428	
3,200.0	3,060.1	2,878.7	2,455.7	11.9	18.6	-38.85	177.9	1,125.6	860.6	840.0	20.55	41.887	
3,300.0	3,149.4	2,968.0	2,517.1	12.5	19.6	-39.73	194.8	1,188.2	903.9	882.5	21.39	42.258	
3,400.0	3,238.7	3,057.2	2,578.4	13.1	20.6	-40.54	211.6	1,250.8	947.4	925.1	22.26	42.557	
3,500.0	3,328.0	3,146.5	2,639.7	13.7	21.6	-41.28	228.5	1,313.5	991.0	967.9	23.16	42.795	

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

Amazon.com

Anticollision Report

Company:	APEX	Local Co-ordinate Reference:	Well *Brighton Lakes 20-17-2NAH
Project:	POCO Brighton Lakes Expansion	TVD Reference:	RKB @ 5063.0usft
Reference Site:	Sec 20-T1S-R66W	MD Reference:	RKB @ 5063.0usft
Site Error:	0.0 usft	North Reference:	Grid
Reference Well:	*Brighton Lakes 20-17-2NAH	Survey Calculation Method:	Minimum Curvature
Well Error:	0.0 usft	Output errors are at	2.00 sigma
Reference Wellbore	Original Hole	Database:	WC365
Reference Design:	Plan #1	Offset TVD Reference:	Offset Datum

Offset Design: Sec 20-T1S-R66W - *Barr Lake 21-23-2CDH - Original Hole - Plan #1												Offset Site Error:	0.0 usft
Survey Program: 0-MWD+HRGM+SAG+FDIR												Offset Well Error:	0.0 usft
Reference		Offset		Semi Major Axis		Highside Toolface (°)	Offset Wellbore Centre		Distance		Separation Factor	Warning	
Measured Depth (usft)	Vertical Depth (usft)	Measured Depth (usft)	Vertical Depth (usft)	Reference (usft)	Offset (usft)		+N/-S (usft)	+E/-W (usft)	Between Centres (usft)	Between Ellipses (usft)			
0.0	0.0	0.0	0.0	0.0	0.0	173.60	-294.6	33.0	296.4				
100.0	100.0	100.0	100.0	1.0	1.0	173.60	-294.6	33.0	296.4	294.5	1.96	151.398	
200.0	200.0	200.0	200.0	1.6	1.6	173.60	-294.6	33.0	296.4	293.3	3.12	94.997	
300.0	300.0	300.0	300.0	2.0	2.0	173.60	-294.6	33.0	296.4	292.5	3.96	74.828	
400.0	400.0	400.0	400.0	2.3	2.3	173.60	-294.6	33.0	296.4	291.8	4.66	63.630	
500.0	500.0	500.0	500.0	2.6	2.6	173.60	-294.6	33.0	296.4	291.2	5.27	56.255	
600.0	600.0	600.0	600.0	2.9	2.9	173.60	-294.6	33.0	296.4	290.6	5.82	50.925	
700.0	700.0	700.0	700.0	3.2	3.2	173.60	-294.6	33.0	296.4	290.1	6.33	46.839	
766.7	766.7	766.7	766.7	3.3	3.3	173.60	-294.6	33.0	296.4	289.8	6.64	44.612	
800.0	800.0	800.0	800.0	3.4	3.4	173.60	-294.6	33.0	296.4	289.6	6.80	43.576	
900.0	900.0	900.5	900.5	3.6	4.0	173.09	-294.2	35.6	296.3	289.1	7.25	40.902	
1,000.0	1,000.0	1,000.5	1,000.2	3.8	4.5	171.57	-293.0	43.4	296.2	288.5	7.66	38.664	
1,014.2	1,014.2	1,014.6	1,014.2	3.9	4.5	171.27	-292.8	44.9	296.2	288.5	7.72	38.376 CC	
1,100.0	1,100.0	1,099.4	1,098.2	4.0	4.9	169.07	-291.0	56.2	296.4	288.3	8.07	36.751 ES	
1,200.0	1,200.0	1,196.7	1,193.9	4.2	5.3	165.68	-288.4	73.6	297.7	289.2	8.47	35.126	
1,300.0	1,300.0	1,292.0	1,286.6	4.4	5.7	161.51	-285.0	95.3	300.8	291.9	8.91	33.784	
1,400.0	1,400.0	1,385.5	1,376.3	4.9	6.0	50.64	-281.1	121.0	305.3	295.8	9.47	32.224	
1,500.0	1,499.6	1,477.7	1,463.5	5.3	6.4	46.15	-276.5	150.6	309.7	299.6	10.10	30.664	
1,600.0	1,598.8	1,568.6	1,548.0	5.7	6.7	41.73	-271.4	183.8	314.2	303.4	10.79	29.125	
1,700.0	1,697.1	1,658.3	1,629.7	6.0	6.9	37.36	-265.8	220.5	318.8	307.3	11.52	27.675	
1,800.0	1,794.3	1,746.7	1,708.4	6.4	7.2	33.03	-259.7	260.2	323.7	311.4	12.28	26.367	
1,900.0	1,890.2	1,833.9	1,784.1	6.7	7.5	28.74	-253.2	303.0	328.9	315.9	13.03	25.238	
2,000.0	1,984.4	1,919.9	1,856.8	7.0	7.7	24.49	-246.2	348.4	334.6	320.9	13.76	24.313	
2,100.0	2,076.8	2,000.0	1,922.6	7.3	7.9	20.52	-239.3	393.6	341.0	326.6	14.37	23.735	
2,191.6	2,159.6	2,081.5	1,987.5	7.5	8.2	16.49	-231.8	442.3	347.3	332.3	14.97	23.206 SF	
2,200.0	2,167.1	2,088.5	1,992.9	7.5	8.2	16.15	-231.1	446.6	347.9	332.9	14.99	23.210	
2,300.0	2,256.4	2,170.6	2,055.9	7.7	8.9	12.05	-223.1	498.6	358.7	343.3	15.40	23.286	
2,400.0	2,345.7	2,250.7	2,115.1	7.9	9.6	8.02	-214.9	551.9	375.5	359.8	15.66	23.975	
2,500.0	2,435.0	2,329.0	2,170.9	8.0	10.3	4.18	-206.6	606.4	398.3	382.5	15.80	25.204	
2,600.0	2,524.3	2,420.6	2,234.7	8.4	11.2	0.04	-196.6	671.2	425.1	409.0	16.10	26.409	
2,700.0	2,613.6	2,512.1	2,298.5	9.0	12.1	-3.63	-186.7	736.0	453.9	437.5	16.41	27.658	
2,800.0	2,702.9	2,603.6	2,362.3	9.5	13.0	-6.89	-176.7	800.8	484.4	467.6	16.75	28.914	
2,900.0	2,792.2	2,695.1	2,426.2	10.1	14.0	-9.78	-166.8	865.6	516.2	499.1	17.13	30.131	
3,000.0	2,881.5	2,786.6	2,490.0	10.7	15.0	-12.35	-156.8	930.5	549.1	531.6	17.56	31.277	
3,100.0	2,970.8	2,878.1	2,553.8	11.3	15.9	-14.64	-146.9	995.3	583.0	565.0	18.03	32.333	
3,200.0	3,060.1	2,969.6	2,617.7	11.9	16.9	-16.69	-136.9	1,060.1	617.6	599.1	18.55	33.290	
3,300.0	3,149.4	3,061.1	2,681.5	12.5	17.9	-18.53	-127.0	1,124.9	652.9	633.8	19.12	34.143	
3,400.0	3,238.7	3,152.6	2,745.3	13.1	18.9	-20.18	-117.1	1,189.7	688.8	669.0	19.74	34.896	
3,500.0	3,328.0	3,244.1	2,809.2	13.7	19.9	-21.68	-107.1	1,254.5	725.1	704.7	20.39	35.553	
3,600.0	3,417.3	3,335.7	2,873.0	14.3	20.9	-23.04	-97.2	1,319.3	761.8	740.7	21.09	36.122	
3,700.0	3,506.6	3,427.2	2,936.8	15.0	21.9	-24.28	-87.2	1,384.2	798.9	777.0	21.82	36.612	
3,800.0	3,595.9	3,518.7	3,000.6	15.6	22.9	-25.41	-77.3	1,449.0	836.2	813.6	22.58	37.032	
3,900.0	3,685.1	3,610.2	3,064.5	16.2	23.9	-26.44	-67.3	1,513.8	873.9	850.5	23.37	37.389	
4,000.0	3,774.4	3,701.7	3,128.3	16.8	24.9	-27.40	-57.4	1,578.6	911.7	887.5	24.19	37.693	
4,100.0	3,863.7	3,793.2	3,192.1	17.5	25.9	-28.27	-47.4	1,643.4	949.8	924.8	25.03	37.948	
4,200.0	3,953.0	3,884.7	3,256.0	18.1	26.9	-29.08	-37.5	1,708.2	988.0	962.1	25.89	38.164	

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

Amazon.com

Anticollision Report

Company:	APEX	Local Co-ordinate Reference:	Well *Brighton Lakes 20-17-2NAH
Project:	POCO Brighton Lakes Expansion	TVD Reference:	RKB @ 5063.0usft
Reference Site:	Sec 20-T1S-R66W	MD Reference:	RKB @ 5063.0usft
Site Error:	0.0 usft	North Reference:	Grid
Reference Well:	*Brighton Lakes 20-17-2NAH	Survey Calculation Method:	Minimum Curvature
Well Error:	0.0 usft	Output errors are at	2.00 sigma
Reference Wellbore	Original Hole	Database:	WC365
Reference Design:	Plan #1	Offset TVD Reference:	Offset Datum

Offset Design: Sec 20-T1S-R66W - *Barr Lake 21-23-2NAH - Original Hole - Plan #1												Offset Site Error:	0.0 usft
Survey Program: 0-MWD+HRGM+SAG+FDIR												Offset Well Error:	0.0 usft
Reference		Offset		Semi Major Axis		Highside Toolface (°)	Offset Wellbore Centre		Distance		Minimum Separation (usft)	Separation Factor	Warning
Measured Depth (usft)	Vertical Depth (usft)	Measured Depth (usft)	Vertical Depth (usft)	Reference (usft)	Offset (usft)		+N/-S (usft)	+E/-W (usft)	Between Centres (usft)	Between Ellipses (usft)			
0.0	0.0	0.0	0.0	0.0	0.0	115.96	-14.7	30.1	33.5				
100.0	100.0	100.0	100.0	1.0	1.0	115.96	-14.7	30.1	33.5	31.6	1.96	17.127	
200.0	200.0	200.0	200.0	1.6	1.6	115.96	-14.7	30.1	33.5	30.4	3.12	10.746	
300.0	300.0	300.0	300.0	2.0	2.0	115.96	-14.7	30.1	33.5	29.6	3.96	8.465	
400.0	400.0	400.0	400.0	2.3	2.3	115.96	-14.7	30.1	33.5	28.9	4.66	7.198	
466.7	466.7	466.7	466.7	2.5	2.5	115.96	-14.7	30.1	33.5	28.5	5.07	6.620	
500.0	500.0	500.0	500.0	2.6	2.6	115.96	-14.7	30.1	33.5	28.3	5.27	6.364 CC, ES	
600.0	600.0	597.9	597.8	2.9	3.7	113.19	-14.3	33.5	36.5	30.1	6.40	5.701 SF	
700.0	700.0	694.9	694.3	3.2	4.4	107.12	-13.3	43.3	45.7	38.3	7.42	6.161	
800.0	800.0	790.1	788.1	3.4	5.1	101.18	-11.7	59.3	61.6	53.3	8.32	7.399	
900.0	900.0	882.8	878.3	3.6	5.6	96.73	-9.5	80.7	84.2	75.1	9.10	9.247	
1,000.0	1,000.0	972.3	963.8	3.8	6.1	93.68	-6.9	106.9	113.1	103.3	9.76	11.585	
1,100.0	1,100.0	1,058.2	1,044.2	4.0	6.5	91.59	-3.8	137.0	148.0	137.7	10.33	14.330	
1,200.0	1,200.0	1,140.0	1,119.0	4.2	6.9	90.15	-0.4	170.1	188.4	177.6	10.81	17.422	
1,300.0	1,300.0	1,217.6	1,188.0	4.4	7.2	89.13	3.1	205.3	233.9	222.6	11.23	20.818	
1,400.0	1,400.0	1,300.0	1,259.1	4.9	7.6	-17.70	7.3	246.7	282.0	270.1	11.94	23.618	
1,500.0	1,499.6	1,364.0	1,312.6	5.3	7.8	-18.04	10.9	281.6	330.1	317.8	12.29	26.867	
1,600.0	1,598.8	1,434.0	1,369.2	5.7	8.0	-18.48	15.1	322.5	378.3	365.6	12.72	29.741	
1,700.0	1,697.1	1,500.0	1,420.7	6.0	8.2	-18.87	19.2	363.5	426.6	413.5	13.08	32.611	
1,800.0	1,794.3	1,568.5	1,472.1	6.4	8.4	-19.30	23.8	408.6	474.7	461.3	13.48	35.221	
1,900.0	1,890.2	1,633.2	1,518.7	6.7	8.6	-19.67	28.4	453.3	522.7	509.0	13.76	37.995	
2,000.0	1,984.4	1,704.4	1,567.6	7.0	8.7	-20.13	33.6	504.7	570.3	556.2	14.04	40.626	
2,100.0	2,076.8	1,793.3	1,628.2	7.3	9.5	-20.86	40.2	569.4	614.5	600.0	14.53	42.307	
2,191.6	2,159.6	1,876.3	1,684.7	7.5	10.3	-21.58	46.3	629.9	651.4	636.5	14.96	43.551	
2,200.0	2,167.1	1,883.9	1,689.9	7.5	10.4	-21.69	46.9	635.5	654.7	639.7	14.98	43.711	
2,300.0	2,256.4	1,975.3	1,752.2	7.7	11.4	-22.88	53.7	702.0	693.1	677.7	15.45	44.858	
2,400.0	2,345.7	2,066.7	1,814.4	7.9	12.4	-23.95	60.4	768.5	731.9	716.0	15.90	46.021	
2,500.0	2,435.0	2,158.0	1,876.7	8.0	13.4	-24.91	67.2	835.1	770.8	754.4	16.39	47.019	
2,600.0	2,524.3	2,249.4	1,938.9	8.4	14.4	-25.78	74.0	901.6	809.9	793.0	16.92	47.861	
2,700.0	2,613.6	2,340.8	2,001.2	9.0	15.4	-26.57	80.7	968.1	849.1	831.7	17.49	48.561	
2,800.0	2,702.9	2,432.1	2,063.4	9.5	16.4	-27.29	87.5	1,034.7	888.5	870.4	18.08	49.133	
2,900.0	2,792.2	2,523.5	2,125.7	10.1	17.4	-27.96	94.3	1,101.2	928.0	909.3	18.71	49.593	
3,000.0	2,881.5	2,614.8	2,187.9	10.7	18.4	-28.56	101.0	1,167.7	967.6	948.2	19.37	49.953	

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

Amazon.com

Anticollision Report

Company:	APEX	Local Co-ordinate Reference:	Well *Brighton Lakes 20-17-2NAH
Project:	POCO Brighton Lakes Expansion	TVD Reference:	RKB @ 5063.0usft
Reference Site:	Sec 20-T1S-R66W	MD Reference:	RKB @ 5063.0usft
Site Error:	0.0 usft	North Reference:	Grid
Reference Well:	*Brighton Lakes 20-17-2NAH	Survey Calculation Method:	Minimum Curvature
Well Error:	0.0 usft	Output errors are at	2.00 sigma
Reference Wellbore	Original Hole	Database:	WC365
Reference Design:	Plan #1	Offset TVD Reference:	Offset Datum

Offset Design: Sec 20-T1S-R66W - *Barr Lake 21-23-2NBH - Original Hole - Plan #1												Offset Site Error:	0.0 usft
Survey Program: 0-MWD+HRGM+SAG+FDIR												Offset Well Error:	0.0 usft
Reference		Offset		Semi Major Axis		Highside Toolface (°)	Offset Wellbore Centre		Distance		Minimum Separation (usft)	Separation Factor	Warning
Measured Depth (usft)	Vertical Depth (usft)	Measured Depth (usft)	Vertical Depth (usft)	Reference (usft)	Offset (usft)		+N/-S (usft)	+E/-W (usft)	Between Centres (usft)	Between Ellipses (usft)			
0.0	0.0	0.0	0.0	0.0	0.0	167.31	-139.6	31.4	143.1				
100.0	100.0	100.0	100.0	1.0	1.0	167.31	-139.6	31.4	143.1	141.2	1.96	73.103	
200.0	200.0	200.0	200.0	1.6	1.6	167.31	-139.6	31.4	143.1	140.0	3.12	45.870	
300.0	300.0	300.0	300.0	2.0	2.0	167.31	-139.6	31.4	143.1	139.2	3.96	36.131	
400.0	400.0	400.0	400.0	2.3	2.3	167.31	-139.6	31.4	143.1	138.5	4.66	30.724	
500.0	500.0	500.0	500.0	2.6	2.6	167.31	-139.6	31.4	143.1	137.9	5.27	27.163	
566.7	566.7	566.7	566.7	2.8	2.8	167.31	-139.6	31.4	143.1	137.5	5.64	25.391	
600.0	600.0	600.0	600.0	2.9	2.9	167.31	-139.6	31.4	143.1	137.3	5.82	24.589	CC
700.0	700.0	698.7	698.6	3.2	3.9	165.96	-139.3	34.8	143.6	137.2	6.34	22.660	ES
800.0	800.0	796.5	795.9	3.4	4.6	162.03	-138.2	44.8	145.3	138.5	6.85	21.233	
900.0	900.0	892.5	890.5	3.6	5.3	155.90	-136.4	61.0	149.8	142.4	7.42	20.191	
1,000.0	1,000.0	985.9	981.2	3.8	5.8	148.30	-134.1	82.8	158.7	150.6	8.11	19.579	
1,100.0	1,100.0	1,076.1	1,067.3	4.0	6.3	140.19	-131.2	109.4	173.9	165.0	8.89	19.559	SF
1,200.0	1,200.0	1,162.5	1,148.1	4.2	6.7	132.45	-127.9	139.8	196.5	186.8	9.69	20.279	
1,300.0	1,300.0	1,244.8	1,223.2	4.4	7.0	125.65	-124.3	173.3	226.7	216.3	10.41	21.764	
1,400.0	1,400.0	1,323.7	1,293.3	4.9	7.4	13.45	-120.4	209.4	261.7	250.4	11.26	23.234	
1,500.0	1,499.6	1,400.0	1,359.1	5.3	7.7	8.74	-116.2	247.8	298.6	286.6	11.97	24.934	
1,600.0	1,598.8	1,474.8	1,421.4	5.7	7.9	4.85	-111.8	288.8	336.8	324.2	12.60	26.736	
1,700.0	1,697.1	1,547.1	1,479.6	6.0	8.2	1.63	-107.2	331.6	376.0	362.9	13.13	28.639	
1,800.0	1,794.3	1,617.5	1,534.1	6.4	8.4	-1.09	-102.4	375.9	416.0	402.4	13.59	30.605	
1,900.0	1,890.2	1,686.1	1,585.0	6.7	8.6	-3.41	-97.5	421.6	456.5	442.5	13.99	32.616	
2,000.0	1,984.4	1,753.3	1,632.7	7.0	8.7	-5.43	-92.4	468.7	497.3	483.1	14.21	35.005	
2,100.0	2,076.8	1,842.9	1,694.8	7.3	9.0	-7.80	-85.4	532.8	536.2	521.6	14.67	36.549	
2,191.6	2,159.6	1,926.4	1,752.8	7.5	9.8	-9.73	-79.0	592.6	568.5	553.4	15.06	37.734	
2,200.0	2,167.1	1,934.1	1,758.1	7.5	9.9	-9.91	-78.4	598.1	571.2	556.2	15.08	37.882	
2,300.0	2,256.4	2,026.0	1,821.9	7.7	10.9	-11.97	-71.2	663.9	605.0	589.5	15.48	39.076	
2,400.0	2,345.7	2,117.9	1,885.6	7.9	11.8	-13.83	-64.1	729.7	639.4	623.5	15.85	40.348	
2,500.0	2,435.0	2,209.8	1,949.4	8.0	12.8	-15.49	-57.0	795.5	674.3	658.0	16.24	41.514	
2,600.0	2,524.3	2,301.7	2,013.1	8.4	13.8	-17.00	-49.9	861.4	709.7	693.0	16.67	42.565	
2,700.0	2,613.6	2,393.6	2,076.9	9.0	14.8	-18.37	-42.8	927.2	745.5	728.4	17.14	43.496	
2,800.0	2,702.9	2,485.5	2,140.6	9.5	15.8	-19.62	-35.7	993.0	781.7	764.0	17.64	44.309	
2,900.0	2,792.2	2,577.4	2,204.4	10.1	16.8	-20.76	-28.5	1,058.8	818.1	799.9	18.18	45.008	
3,000.0	2,881.5	2,669.3	2,268.1	10.7	17.8	-21.80	-21.4	1,124.6	854.8	836.1	18.75	45.601	
3,100.0	2,970.8	2,761.2	2,331.9	11.3	18.8	-22.76	-14.3	1,190.4	891.8	872.4	19.35	46.095	
3,200.0	3,060.1	2,853.1	2,395.6	11.9	19.8	-23.64	-7.2	1,256.2	928.9	909.0	19.98	46.499	
3,300.0	3,149.4	2,945.0	2,459.4	12.5	20.8	-24.46	-0.1	1,322.0	966.3	945.6	20.64	46.824	

Amazon.com

Anticollision Report

Company:	APEX	Local Co-ordinate Reference:	Well *Brighton Lakes 20-17-2NAH
Project:	POCO Brighton Lakes Expansion	TVD Reference:	RKB @ 5063.0usft
Reference Site:	Sec 20-T1S-R66W	MD Reference:	RKB @ 5063.0usft
Site Error:	0.0 usft	North Reference:	Grid
Reference Well:	*Brighton Lakes 20-17-2NAH	Survey Calculation Method:	Minimum Curvature
Well Error:	0.0 usft	Output errors are at	2.00 sigma
Reference Wellbore	Original Hole	Database:	WC365
Reference Design:	Plan #1	Offset TVD Reference:	Offset Datum

Offset Design: Sec 20-T1S-R66W - *Barr Lake 21-23-2NCH - Original Hole - Plan #1												Offset Site Error:	0.0 usft
Survey Program: 0-MWD+HRGM+SAG+FDIR												Offset Well Error:	0.0 usft
Reference		Offset		Semi Major Axis		Highside Toolface (°)	Offset Wellbore Centre		Distance		Separation Factor	Warning	
Measured Depth (usft)	Vertical Depth (usft)	Measured Depth (usft)	Vertical Depth (usft)	Reference (usft)	Offset (usft)		+N/-S (usft)	+E/-W (usft)	Between Centres (usft)	Between Ellipses (usft)			
0.0	0.0	0.0	0.0	0.0	0.0	179.41	-139.9	1.4	140.0				
100.0	100.0	100.0	100.0	1.0	1.0	179.41	-139.9	1.4	140.0	138.0	1.96	71.480	
200.0	200.0	200.0	200.0	1.6	1.6	179.41	-139.9	1.4	140.0	136.8	3.12	44.851	
300.0	300.0	300.0	300.0	2.0	2.0	179.41	-139.9	1.4	140.0	136.0	3.96	35.329	
400.0	400.0	400.0	400.0	2.3	2.3	179.41	-139.9	1.4	140.0	135.3	4.66	30.042	
500.0	500.0	500.0	500.0	2.6	2.6	179.41	-139.9	1.4	140.0	134.7	5.27	26.560	
600.0	600.0	600.0	600.0	2.9	2.9	179.41	-139.9	1.4	140.0	134.1	5.82	24.044	
700.0	700.0	700.5	700.5	3.2	3.1	179.09	-139.8	2.2	139.9	133.7	6.19	22.601	
800.0	800.0	801.3	801.0	3.4	3.8	176.56	-139.0	8.4	139.2	132.6	6.67	20.878	
894.1	894.1	895.0	894.1	3.6	4.4	171.89	-137.4	19.6	138.8	131.7	7.09	19.568 CC	
900.0	900.0	900.8	899.9	3.6	4.5	171.53	-137.2	20.4	138.8	131.6	7.12	19.495 ES	
1,000.0	1,000.0	998.6	996.0	3.8	5.0	164.23	-134.7	38.1	140.1	132.5	7.59	18.466	
1,100.0	1,100.0	1,093.9	1,088.5	4.0	5.5	155.24	-131.5	60.7	145.3	137.1	8.15	17.836	
1,200.0	1,200.0	1,186.2	1,176.6	4.2	5.9	145.54	-127.7	87.6	156.6	147.8	8.83	17.740 SF	
1,300.0	1,300.0	1,275.1	1,260.0	4.4	6.3	136.22	-123.3	118.2	175.4	165.9	9.56	18.341	
1,400.0	1,400.0	1,361.2	1,339.0	4.9	6.6	21.60	-118.5	152.0	199.8	189.3	10.48	19.066	
1,500.0	1,499.6	1,445.2	1,414.3	5.3	7.0	14.81	-113.2	188.9	226.8	215.5	11.30	20.070	
1,600.0	1,598.8	1,527.4	1,486.0	5.7	7.2	9.20	-107.6	228.7	255.7	243.7	12.03	21.268	
1,700.0	1,697.1	1,607.7	1,554.0	6.0	7.5	4.51	-101.5	271.0	286.1	273.5	12.65	22.615	
1,800.0	1,794.3	1,686.3	1,618.5	6.4	7.7	0.54	-95.2	315.5	317.6	304.4	13.19	24.073	
1,900.0	1,890.2	1,763.2	1,679.4	6.7	8.0	-2.87	-88.6	361.9	349.9	336.2	13.66	25.615	
2,000.0	1,984.4	1,838.5	1,736.8	7.0	8.2	-5.83	-81.7	410.1	382.9	368.8	14.07	27.217	
2,100.0	2,076.8	1,912.2	1,790.8	7.3	8.5	-8.43	-74.6	459.8	416.4	402.0	14.40	28.907	
2,191.6	2,159.6	1,984.4	1,841.6	7.5	9.2	-10.73	-67.4	510.6	447.3	432.7	14.60	30.642	
2,200.0	2,167.1	1,992.1	1,847.0	7.5	9.2	-10.98	-66.6	516.0	450.0	435.4	14.61	30.807	
2,300.0	2,256.4	2,083.8	1,911.0	7.7	10.1	-13.74	-57.4	581.0	483.5	468.5	15.00	32.231	
2,400.0	2,345.7	2,175.5	1,975.0	7.9	11.1	-16.17	-48.1	646.0	517.8	502.5	15.37	33.699	
2,500.0	2,435.0	2,267.1	2,039.0	8.0	12.0	-18.30	-38.8	711.0	553.0	537.2	15.78	35.052	
2,600.0	2,524.3	2,358.8	2,102.9	8.4	13.0	-20.18	-29.6	776.0	588.7	572.5	16.23	36.273	
2,700.0	2,613.6	2,450.5	2,166.9	9.0	14.0	-21.85	-20.3	841.0	625.0	608.2	16.73	37.356	
2,800.0	2,702.9	2,542.2	2,230.9	9.5	14.9	-23.34	-11.1	906.0	661.6	644.4	17.27	38.302	
2,900.0	2,792.2	2,633.8	2,294.9	10.1	15.9	-24.69	-1.8	971.0	698.7	680.8	17.86	39.118	
3,000.0	2,881.5	2,725.5	2,358.9	10.7	16.9	-25.89	7.5	1,036.0	736.0	717.5	18.49	39.813	
3,100.0	2,970.8	2,817.2	2,422.9	11.3	17.9	-26.99	16.7	1,101.0	773.6	754.4	19.15	40.397	
3,200.0	3,060.1	2,908.9	2,486.8	11.9	18.9	-27.98	26.0	1,166.0	811.4	791.6	19.85	40.884	
3,300.0	3,149.4	3,000.5	2,550.8	12.5	19.9	-28.89	35.2	1,231.0	849.4	828.9	20.58	41.284	
3,400.0	3,238.7	3,092.2	2,614.8	13.1	20.9	-29.72	44.5	1,296.0	887.6	866.3	21.33	41.609	
3,500.0	3,328.0	3,183.9	2,678.8	13.7	21.9	-30.48	53.8	1,361.0	926.0	903.8	22.12	41.870	
3,600.0	3,417.3	3,275.6	2,742.8	14.3	22.9	-31.18	63.0	1,426.0	964.4	941.5	22.92	42.075	

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

Amazon.com

Anticollision Report

Company:	APEX	Local Co-ordinate Reference:	Well *Brighton Lakes 20-17-2NAH
Project:	POCO Brighton Lakes Expansion	TVD Reference:	RKB @ 5063.0usft
Reference Site:	Sec 20-T1S-R66W	MD Reference:	RKB @ 5063.0usft
Site Error:	0.0 usft	North Reference:	Grid
Reference Well:	*Brighton Lakes 20-17-2NAH	Survey Calculation Method:	Minimum Curvature
Well Error:	0.0 usft	Output errors are at	2.00 sigma
Reference Wellbore	Original Hole	Database:	WC365
Reference Design:	Plan #1	Offset TVD Reference:	Offset Datum

Offset Design: Sec 20-T1S-R66W - *Barr Lake 21-23-3CDH - Original Hole - Plan #1												Offset Site Error:	0.0 usft
Survey Program: 0-MWD+HRGM+SAG+FDIR												Offset Well Error:	0.0 usft
Reference		Offset		Semi Major Axis		Highside Toolface (°)	Offset Wellbore Centre		Distance		Separation Factor	Warning	
Measured Depth (usft)	Vertical Depth (usft)	Measured Depth (usft)	Vertical Depth (usft)	Reference (usft)	Offset (usft)		+N/-S (usft)	+E/-W (usft)	Between Centres (usft)	Between Ellipses (usft)			
0.0	0.0	0.0	0.0	0.0	0.0	173.88	-309.6	33.2	311.4				
100.0	100.0	100.0	100.0	1.0	1.0	173.88	-309.6	33.2	311.4	309.4	1.96	159.023	
200.0	200.0	200.0	200.0	1.6	1.6	173.88	-309.6	33.2	311.4	308.2	3.12	99.781	
300.0	300.0	300.0	300.0	2.0	2.0	173.88	-309.6	33.2	311.4	307.4	3.96	78.596	
400.0	400.0	400.0	400.0	2.3	2.3	173.88	-309.6	33.2	311.4	306.7	4.66	66.834	
500.0	500.0	500.0	500.0	2.6	2.6	173.88	-309.6	33.2	311.4	306.1	5.27	59.088	
600.0	600.0	600.0	600.0	2.9	2.9	173.88	-309.6	33.2	311.4	305.5	5.82	53.490	
700.0	700.0	700.0	700.0	3.2	3.2	173.88	-309.6	33.2	311.4	305.0	6.33	49.198	
766.7	766.7	766.7	766.7	3.3	3.3	173.88	-309.6	33.2	311.4	304.7	6.64	46.859	
800.0	800.0	800.0	800.0	3.4	3.4	173.88	-309.6	33.2	311.4	304.6	6.80	45.771 CC	
900.0	900.0	898.2	898.1	3.6	4.0	173.42	-309.6	35.7	311.7	304.4	7.24	43.025 ES	
1,000.0	1,000.0	995.9	995.5	3.8	4.4	172.05	-309.6	43.2	312.6	305.0	7.66	40.807	
1,100.0	1,100.0	1,092.5	1,091.4	4.0	4.9	169.83	-309.6	55.5	314.7	306.6	8.08	38.968	
1,200.0	1,200.0	1,187.7	1,185.0	4.2	5.3	166.84	-309.6	72.4	318.3	309.8	8.50	37.456	
1,300.0	1,300.0	1,281.0	1,275.9	4.4	5.7	163.21	-309.6	93.4	324.3	315.4	8.94	36.259	
1,400.0	1,400.0	1,372.6	1,364.1	4.9	6.0	52.91	-309.7	118.4	331.9	322.4	9.51	34.899	
1,500.0	1,499.6	1,463.2	1,449.9	5.3	6.3	49.09	-309.7	147.2	339.7	329.5	10.11	33.586	
1,600.0	1,598.8	1,552.7	1,533.4	5.7	6.6	45.43	-309.7	179.6	347.6	336.8	10.76	32.304	
1,700.0	1,697.1	1,641.2	1,614.3	6.0	6.9	41.92	-309.7	215.5	355.6	344.2	11.44	31.087	
1,800.0	1,794.3	1,728.8	1,692.6	6.4	7.2	38.54	-309.8	254.6	363.6	351.5	12.14	29.960	
1,900.0	1,890.2	1,815.4	1,768.2	6.7	7.4	35.29	-309.8	296.8	371.7	358.9	12.84	28.939	
2,000.0	1,984.4	1,900.0	1,840.2	7.0	7.6	32.18	-309.8	341.3	379.8	366.2	13.53	28.066	
2,100.0	2,076.8	1,986.0	1,911.2	7.3	7.9	29.11	-309.9	389.7	387.8	373.5	14.24	27.238	
2,191.6	2,159.6	2,063.0	1,972.9	7.5	8.1	26.40	-309.9	435.8	395.0	380.2	14.80	26.692	
2,200.0	2,167.1	2,070.0	1,978.5	7.5	8.1	26.17	-309.9	440.1	395.7	380.9	14.83	26.679	
2,300.0	2,256.4	2,152.7	2,042.4	7.7	8.8	23.28	-310.0	492.5	406.4	391.0	15.36	26.464 SF	
2,400.0	2,345.7	2,233.6	2,102.7	7.9	9.5	20.33	-310.0	546.4	421.9	406.1	15.74	26.801	
2,500.0	2,435.0	2,313.4	2,159.9	8.0	10.2	17.37	-310.1	602.1	442.4	426.3	16.05	27.571	
2,600.0	2,524.3	2,405.7	2,224.7	8.4	11.1	14.11	-310.1	667.8	466.2	449.8	16.45	28.347	
2,700.0	2,613.6	2,499.1	2,290.3	9.0	12.0	11.12	-310.2	734.3	491.5	474.6	16.83	29.194	
2,800.0	2,702.9	2,592.6	2,355.9	9.5	13.0	8.41	-310.2	800.9	517.9	500.7	17.21	30.101	
2,900.0	2,792.2	2,686.1	2,421.6	10.1	14.0	5.95	-310.3	867.4	545.4	527.8	17.57	31.038	
3,000.0	2,881.5	2,779.5	2,487.2	10.7	15.0	3.72	-310.3	934.0	573.8	555.8	17.94	31.981	
3,100.0	2,970.8	2,873.0	2,552.8	11.3	15.9	1.69	-310.4	1,000.5	602.9	584.6	18.32	32.909	
3,200.0	3,060.1	2,966.5	2,618.4	11.9	16.9	-0.15	-310.4	1,067.1	632.7	614.0	18.72	33.807	
3,300.0	3,149.4	3,059.9	2,684.1	12.5	17.9	-1.84	-310.5	1,133.7	663.1	644.0	19.13	34.663	
3,400.0	3,238.7	3,153.4	2,749.7	13.1	18.9	-3.38	-310.6	1,200.2	693.9	674.4	19.56	35.469	
3,500.0	3,328.0	3,246.9	2,815.3	13.7	20.0	-4.79	-310.6	1,266.8	725.2	705.2	20.02	36.221	
3,600.0	3,417.3	3,340.3	2,880.9	14.3	21.0	-6.09	-310.7	1,333.3	756.9	736.4	20.50	36.915	
3,700.0	3,506.6	3,433.8	2,946.6	15.0	22.0	-7.29	-310.7	1,399.9	788.9	767.9	21.01	37.551	
3,800.0	3,595.9	3,527.3	3,012.2	15.6	23.0	-8.39	-310.8	1,466.4	821.2	799.6	21.54	38.129	
3,900.0	3,685.1	3,620.7	3,077.8	16.2	24.0	-9.42	-310.8	1,533.0	853.7	831.6	22.09	38.652	
4,000.0	3,774.4	3,714.2	3,143.4	16.8	25.1	-10.37	-310.9	1,599.5	886.5	863.9	22.66	39.121	
4,100.0	3,863.7	3,807.7	3,209.1	17.5	26.1	-11.25	-310.9	1,666.1	919.5	896.2	23.25	39.541	
4,200.0	3,953.0	3,901.1	3,274.7	18.1	27.1	-12.07	-311.0	1,732.6	952.7	928.8	23.87	39.914	
4,300.0	4,042.3	3,994.6	3,340.3	18.8	28.1	-12.84	-311.1	1,799.2	986.0	961.5	24.50	40.245	

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

Amazon.com

Anticollision Report

Company:	APEX	Local Co-ordinate Reference:	Well *Brighton Lakes 20-17-2NAH
Project:	POCO Brighton Lakes Expansion	TVD Reference:	RKB @ 5063.0usft
Reference Site:	Sec 20-T1S-R66W	MD Reference:	RKB @ 5063.0usft
Site Error:	0.0 usft	North Reference:	Grid
Reference Well:	*Brighton Lakes 20-17-2NAH	Survey Calculation Method:	Minimum Curvature
Well Error:	0.0 usft	Output errors are at	2.00 sigma
Reference Wellbore	Original Hole	Database:	WC365
Reference Design:	Plan #1	Offset TVD Reference:	Offset Datum

Offset Design: Sec 20-T1S-R66W - *Barr Lake 21-23-3NAH - Original Hole - Plan #1												Offset Site Error:	0.0 usft
Survey Program: 0-MWD+HRGM+SAG+FDIR												Offset Well Error:	0.0 usft
Reference		Offset		Semi Major Axis		Highside Toolface (°)	Offset Wellbore Centre		Distance		Minimum Separation (usft)	Separation Factor	Warning
Measured Depth (usft)	Vertical Depth (usft)	Measured Depth (usft)	Vertical Depth (usft)	Reference (usft)	Offset (usft)		+N/-S (usft)	+E/-W (usft)	Between Centres (usft)	Between Ellipses (usft)			
0.0	0.0	0.0	0.0	0.0	0.0	134.41	-29.7	30.3	42.4				
100.0	100.0	100.0	100.0	1.0	1.0	134.41	-29.7	30.3	42.4	40.5	1.96	21.662	
200.0	200.0	200.0	200.0	1.6	1.6	134.41	-29.7	30.3	42.4	39.3	3.12	13.592	
300.0	300.0	300.0	300.0	2.0	2.0	134.41	-29.7	30.3	42.4	38.5	3.96	10.706	
400.0	400.0	400.0	400.0	2.3	2.3	134.41	-29.7	30.3	42.4	37.8	4.66	9.104	
466.7	466.7	466.7	466.7	2.5	2.5	134.41	-29.7	30.3	42.4	37.3	5.07	8.373	
500.0	500.0	500.0	500.0	2.6	2.6	134.41	-29.7	30.3	42.4	37.1	5.27	8.049 CC, ES	
600.0	600.0	597.7	597.6	2.9	3.6	131.57	-29.8	33.6	45.0	38.7	6.28	7.167 SF	
700.0	700.0	694.5	693.9	3.2	4.4	124.83	-30.3	43.5	53.3	46.1	7.26	7.345	
800.0	800.0	789.5	787.6	3.4	5.1	117.50	-30.9	59.4	68.2	60.0	8.19	8.324	
900.0	900.0	882.1	877.5	3.6	5.6	111.50	-31.9	80.9	89.8	80.8	9.00	9.974	
1,000.0	1,000.0	971.4	963.0	3.8	6.1	107.13	-33.0	107.1	118.0	108.3	9.70	12.173	
1,100.0	1,100.0	1,057.2	1,043.2	4.0	6.5	104.04	-34.3	137.2	152.4	142.1	10.28	14.820	
1,200.0	1,200.0	1,138.9	1,117.9	4.2	6.9	101.85	-35.7	170.3	192.4	181.6	10.78	17.843	
1,300.0	1,300.0	1,216.4	1,186.9	4.4	7.2	100.28	-37.3	205.6	237.6	226.4	11.21	21.189	
1,400.0	1,400.0	1,290.6	1,251.1	4.9	7.5	-7.07	-38.9	242.8	285.2	273.4	11.80	24.163	
1,500.0	1,499.6	1,362.8	1,311.6	5.3	7.8	-7.91	-40.6	282.2	332.9	320.6	12.31	27.049	
1,600.0	1,598.8	1,433.1	1,368.5	5.7	8.0	-8.61	-42.4	323.3	380.5	367.7	12.76	29.813	
1,700.0	1,697.1	1,500.0	1,420.7	6.0	8.2	-9.19	-44.2	365.1	427.9	414.7	13.15	32.535	
1,800.0	1,794.3	1,568.5	1,472.1	6.4	8.4	-9.73	-46.1	410.3	475.0	461.4	13.56	35.039	
1,900.0	1,890.2	1,633.8	1,519.1	6.7	8.6	-10.20	-48.1	455.7	521.7	507.8	13.84	37.689	
2,000.0	1,984.4	1,707.6	1,569.8	7.0	8.7	-10.72	-50.4	509.1	567.6	553.5	14.14	40.142	
2,100.0	2,076.8	1,797.8	1,631.5	7.3	9.5	-11.38	-53.3	575.0	609.8	595.2	14.64	41.668	
2,191.6	2,159.6	1,882.2	1,689.1	7.5	10.4	-11.99	-55.9	636.6	644.5	629.4	15.06	42.790	
2,200.0	2,167.1	1,890.0	1,694.4	7.5	10.5	-12.06	-56.2	642.2	647.5	632.4	15.08	42.939	
2,300.0	2,256.4	1,982.9	1,757.9	7.7	11.5	-12.92	-59.1	710.0	683.2	667.7	15.52	44.017	
2,400.0	2,345.7	2,075.8	1,821.3	7.9	12.5	-13.69	-62.1	777.9	719.1	703.2	15.93	45.153	
2,500.0	2,435.0	2,168.7	1,884.8	8.0	13.5	-14.39	-65.0	845.7	755.1	738.8	16.36	46.165	
2,600.0	2,524.3	2,261.6	1,948.2	8.4	14.6	-15.02	-67.9	913.5	791.2	774.4	16.81	47.059	
2,700.0	2,613.6	2,354.5	2,011.7	9.0	15.6	-15.60	-70.9	981.3	827.4	810.1	17.29	47.844	
2,800.0	2,702.9	2,447.4	2,075.2	9.5	16.6	-16.14	-73.8	1,049.1	863.6	845.8	17.80	48.528	
2,900.0	2,792.2	2,540.4	2,138.6	10.1	17.7	-16.62	-76.7	1,116.9	899.9	881.6	18.32	49.119	
3,000.0	2,881.5	2,633.3	2,202.1	10.7	18.7	-17.08	-79.7	1,184.7	936.3	917.4	18.87	49.627	
3,100.0	2,970.8	2,726.2	2,265.5	11.3	19.8	-17.49	-82.6	1,252.5	972.7	953.3	19.43	50.059	

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

Amazon.com

Anticollision Report

Company:	APEX	Local Co-ordinate Reference:	Well *Brighton Lakes 20-17-2NAH
Project:	POCO Brighton Lakes Expansion	TVD Reference:	RKB @ 5063.0usft
Reference Site:	Sec 20-T1S-R66W	MD Reference:	RKB @ 5063.0usft
Site Error:	0.0 usft	North Reference:	Grid
Reference Well:	*Brighton Lakes 20-17-2NAH	Survey Calculation Method:	Minimum Curvature
Well Error:	0.0 usft	Output errors are at	2.00 sigma
Reference Wellbore	Original Hole	Database:	WC365
Reference Design:	Plan #1	Offset TVD Reference:	Offset Datum

Offset Design: Sec 20-T1S-R66W - *Barr Lake 21-23-3NBH - Original Hole - Plan #1												Offset Site Error:	0.0 usft
Survey Program: 0-MWD+HRGM+SAG+FDIR												Offset Well Error:	0.0 usft
Reference		Offset		Semi Major Axis		Highside Toolface (°)	Offset Wellbore Centre		Distance		Minimum Separation (usft)	Separation Factor	Warning
Measured Depth (usft)	Vertical Depth (usft)	Measured Depth (usft)	Vertical Depth (usft)	Reference (usft)	Offset (usft)		+N/-S (usft)	+E/-W (usft)	Between Centres (usft)	Between Ellipses (usft)			
0.0	0.0	0.0	0.0	0.0	0.0	168.45	-154.6	31.6	157.8				
100.0	100.0	100.0	100.0	1.0	1.0	168.45	-154.6	31.6	157.8	155.9	1.96	80.610	
200.0	200.0	200.0	200.0	1.6	1.6	168.45	-154.6	31.6	157.8	154.7	3.12	50.580	
300.0	300.0	300.0	300.0	2.0	2.0	168.45	-154.6	31.6	157.8	153.9	3.96	39.841	
400.0	400.0	400.0	400.0	2.3	2.3	168.45	-154.6	31.6	157.8	153.2	4.66	33.879	
500.0	500.0	500.0	500.0	2.6	2.6	168.45	-154.6	31.6	157.8	152.6	5.27	29.952	
566.7	566.7	566.7	566.7	2.8	2.8	168.45	-154.6	31.6	157.8	152.2	5.64	27.999	
600.0	600.0	600.0	600.0	2.9	2.9	168.45	-154.6	31.6	157.8	152.0	5.82	27.114	CC, ES
700.0	700.0	697.5	697.4	3.2	3.9	167.28	-154.7	34.9	158.6	152.2	6.36	24.938	
800.0	800.0	794.1	793.5	3.4	4.6	163.89	-154.9	44.7	161.3	154.4	6.90	23.383	
900.0	900.0	889.0	887.1	3.6	5.2	158.65	-155.1	60.6	167.1	159.6	7.50	22.282	
1,000.0	1,000.0	981.4	976.9	3.8	5.8	152.18	-155.5	82.1	177.3	169.1	8.19	21.661	
1,100.0	1,100.0	1,070.6	1,062.2	4.0	6.2	145.25	-155.9	108.2	193.5	184.6	8.94	21.639	SF
1,200.0	1,200.0	1,156.2	1,142.4	4.2	6.6	138.54	-156.5	138.2	216.6	206.9	9.70	22.325	
1,300.0	1,300.0	1,237.9	1,217.0	4.4	7.0	132.52	-157.0	171.3	246.7	236.3	10.40	23.731	
1,400.0	1,400.0	1,316.3	1,286.8	4.9	7.3	20.76	-157.6	207.0	281.5	270.2	11.21	25.104	
1,500.0	1,499.6	1,400.0	1,359.1	5.3	7.7	15.98	-158.4	249.2	318.0	306.0	12.03	26.432	
1,600.0	1,598.8	1,466.8	1,414.8	5.7	7.9	12.71	-159.0	285.9	355.5	343.0	12.53	28.369	
1,700.0	1,697.1	1,539.1	1,473.3	6.0	8.1	9.68	-159.7	328.5	394.0	380.9	13.08	30.125	
1,800.0	1,794.3	1,600.0	1,520.7	6.4	8.3	7.42	-160.4	366.7	433.1	419.7	13.39	32.339	
1,900.0	1,890.2	1,678.7	1,579.6	6.7	8.5	4.91	-161.2	418.8	472.3	458.3	13.99	33.761	
2,000.0	1,984.4	1,747.5	1,628.6	7.0	8.7	2.97	-162.1	467.1	511.7	497.5	14.26	35.887	
2,100.0	2,076.8	1,836.4	1,690.5	7.3	9.0	0.84	-163.2	530.9	549.2	534.5	14.72	37.298	
2,191.6	2,159.6	1,921.2	1,749.5	7.5	9.8	-0.89	-164.2	591.8	579.8	564.6	15.14	38.282	
2,200.0	2,167.1	1,929.0	1,754.9	7.5	9.9	-1.04	-164.3	597.4	582.4	567.2	15.16	38.414	
2,300.0	2,256.4	2,022.3	1,819.9	7.7	10.9	-2.73	-165.4	664.4	614.0	598.5	15.57	39.429	
2,400.0	2,345.7	2,115.6	1,884.8	7.9	11.8	-4.26	-166.6	731.4	646.1	630.2	15.93	40.553	
2,500.0	2,435.0	2,208.9	1,949.8	8.0	12.8	-5.65	-167.7	798.4	678.6	662.3	16.31	41.608	
2,600.0	2,524.3	2,302.2	2,014.7	8.4	13.8	-6.92	-168.9	865.4	711.4	694.7	16.71	42.586	
2,700.0	2,613.6	2,395.6	2,079.6	9.0	14.8	-8.07	-170.0	932.4	744.5	727.4	17.12	43.484	
2,800.0	2,702.9	2,488.9	2,144.6	9.5	15.9	-9.13	-171.2	999.4	777.9	760.3	17.56	44.301	
2,900.0	2,792.2	2,582.2	2,209.5	10.1	16.9	-10.10	-172.3	1,066.4	811.5	793.5	18.02	45.036	
3,000.0	2,881.5	2,675.5	2,274.5	10.7	17.9	-11.00	-173.4	1,133.4	845.3	826.8	18.50	45.692	
3,100.0	2,970.8	2,768.8	2,339.4	11.3	18.9	-11.83	-174.6	1,200.4	879.2	860.2	19.00	46.273	
3,200.0	3,060.1	2,862.1	2,404.3	11.9	20.0	-12.59	-175.7	1,267.4	913.3	893.8	19.52	46.783	
3,300.0	3,149.4	2,955.5	2,469.3	12.5	21.0	-13.31	-176.9	1,334.4	947.6	927.5	20.06	47.226	
3,400.0	3,238.7	3,048.8	2,534.2	13.1	22.0	-13.97	-178.0	1,401.4	981.9	961.3	20.63	47.607	

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

Amazon.com

Anticollision Report

Company:	APEX	Local Co-ordinate Reference:	Well *Brighton Lakes 20-17-2NAH
Project:	POCO Brighton Lakes Expansion	TVD Reference:	RKB @ 5063.0usft
Reference Site:	Sec 20-T1S-R66W	MD Reference:	RKB @ 5063.0usft
Site Error:	0.0 usft	North Reference:	Grid
Reference Well:	*Brighton Lakes 20-17-2NAH	Survey Calculation Method:	Minimum Curvature
Well Error:	0.0 usft	Output errors are at	2.00 sigma
Reference Wellbore	Original Hole	Database:	WC365
Reference Design:	Plan #1	Offset TVD Reference:	Offset Datum

Offset Design: Sec 20-T1S-R66W - *Barr Lake 21-23-3NCH - Original Hole - Plan #1												Offset Site Error:	0.0 usft
Survey Program: 0-MWD+HRGM+SAG+FDIR												Offset Well Error:	0.0 usft
Reference		Offset		Semi Major Axis		Highside Toolface (°)	Offset Wellbore Centre		Distance		Separation Factor	Warning	
Measured Depth (usft)	Vertical Depth (usft)	Measured Depth (usft)	Vertical Depth (usft)	Reference (usft)	Offset (usft)		+N/-S (usft)	+E/-W (usft)	Between Centres (usft)	Between Ellipses (usft)			
0.0	0.0	0.0	0.0	0.0	0.0	179.41	-154.9	1.6	155.0				
100.0	100.0	100.0	100.0	1.0	1.0	179.41	-154.9	1.6	155.0	153.0	1.96	79.142	
200.0	200.0	200.0	200.0	1.6	1.6	179.41	-154.9	1.6	155.0	151.8	3.12	49.659	
300.0	300.0	300.0	300.0	2.0	2.0	179.41	-154.9	1.6	155.0	151.0	3.96	39.115	
400.0	400.0	400.0	400.0	2.3	2.3	179.41	-154.9	1.6	155.0	150.3	4.66	33.262	
500.0	500.0	500.0	500.0	2.6	2.6	179.41	-154.9	1.6	155.0	149.7	5.27	29.407	
600.0	600.0	600.0	600.0	2.9	2.9	179.41	-154.9	1.6	155.0	149.1	5.82	26.621	
697.0	697.0	697.0	697.0	3.2	3.1	179.16	-154.9	2.3	155.0	148.8	6.17	25.095 CC	
700.0	700.0	700.0	700.0	3.2	3.1	179.13	-154.9	2.4	155.0	148.8	6.19	25.051	
800.0	800.0	799.6	799.4	3.4	3.8	176.88	-154.9	8.4	155.1	148.4	6.66	23.288 ES	
900.0	900.0	898.2	897.2	3.6	4.5	172.50	-154.7	20.4	156.0	148.9	7.12	21.907	
1,000.0	1,000.0	994.9	992.4	3.8	5.0	166.25	-154.4	37.8	159.2	151.6	7.62	20.889	
1,100.0	1,100.0	1,089.3	1,084.1	4.0	5.5	158.67	-154.1	60.2	166.2	158.0	8.20	20.273	
1,200.0	1,200.0	1,180.8	1,171.5	4.2	5.9	150.52	-153.7	86.9	178.9	170.0	8.87	20.176 SF	
1,300.0	1,300.0	1,269.0	1,254.3	4.4	6.3	142.60	-153.3	117.2	198.3	188.7	9.57	20.729	
1,400.0	1,400.0	1,354.4	1,332.9	4.9	6.6	28.99	-152.8	150.8	222.8	212.3	10.42	21.367	
1,500.0	1,499.6	1,438.1	1,408.0	5.3	6.9	22.95	-152.3	187.6	249.5	238.3	11.21	22.249	
1,600.0	1,598.8	1,520.0	1,479.6	5.7	7.2	17.91	-151.7	227.4	277.8	265.9	11.93	23.291	
1,700.0	1,697.1	1,600.0	1,547.6	6.0	7.5	13.68	-151.1	269.6	307.3	294.8	12.56	24.462	
1,800.0	1,794.3	1,679.0	1,612.5	6.4	7.7	10.06	-150.5	314.4	337.7	324.5	13.14	25.699	
1,900.0	1,890.2	1,756.2	1,673.9	6.7	7.9	6.94	-149.8	361.3	368.5	354.9	13.64	27.007	
2,000.0	1,984.4	1,832.0	1,732.0	7.0	8.2	4.22	-149.1	410.1	399.7	385.6	14.09	28.357	
2,100.0	2,076.8	1,906.5	1,786.7	7.3	8.5	1.83	-148.4	460.6	431.1	416.6	14.48	29.762	
2,191.6	2,159.6	1,980.8	1,839.2	7.5	9.2	-0.31	-147.6	513.1	459.6	444.9	14.72	31.229	
2,200.0	2,167.1	1,988.6	1,844.7	7.5	9.2	-0.52	-147.5	518.7	462.1	447.4	14.73	31.371	
2,300.0	2,256.4	2,081.9	1,910.2	7.7	10.2	-2.89	-146.6	585.1	492.6	477.4	15.14	32.543	
2,400.0	2,345.7	2,175.2	1,975.7	7.9	11.1	-4.98	-145.6	651.6	523.7	508.2	15.49	33.807	
2,500.0	2,435.0	2,268.5	2,041.2	8.0	12.1	-6.85	-144.6	718.1	555.4	539.6	15.87	35.008	
2,600.0	2,524.3	2,361.9	2,106.7	8.4	13.1	-8.52	-143.7	784.5	587.6	571.4	16.26	36.132	
2,700.0	2,613.6	2,455.2	2,172.1	9.0	14.1	-10.02	-142.7	851.0	620.3	603.6	16.69	37.169	
2,800.0	2,702.9	2,548.5	2,237.6	9.5	15.0	-11.37	-141.8	917.5	653.2	636.1	17.14	38.116	
2,900.0	2,792.2	2,641.8	2,303.1	10.1	16.0	-12.59	-140.8	983.9	686.5	668.9	17.62	38.970	
3,000.0	2,881.5	2,735.1	2,368.6	10.7	17.1	-13.70	-139.9	1,050.4	720.0	701.9	18.12	39.733	
3,100.0	2,970.8	2,828.4	2,434.1	11.3	18.1	-14.72	-138.9	1,116.9	753.8	735.1	18.65	40.409	
3,200.0	3,060.1	2,921.7	2,499.6	11.9	19.1	-15.65	-138.0	1,183.3	787.8	768.5	19.21	41.002	
3,300.0	3,149.4	3,015.0	2,565.1	12.5	20.1	-16.50	-137.0	1,249.8	821.9	802.1	19.79	41.519	
3,400.0	3,238.7	3,108.3	2,630.5	13.1	21.1	-17.29	-136.0	1,316.2	856.1	835.7	20.40	41.966	
3,500.0	3,328.0	3,201.7	2,696.0	13.7	22.1	-18.01	-135.1	1,382.7	890.6	869.5	21.03	42.350	
3,600.0	3,417.3	3,295.0	2,761.5	14.3	23.2	-18.68	-134.1	1,449.2	925.1	903.4	21.68	42.676	
3,700.0	3,506.6	3,388.3	2,827.0	15.0	24.2	-19.31	-133.2	1,515.6	959.7	937.4	22.34	42.951	
3,800.0	3,595.9	3,481.6	2,892.5	15.6	25.2	-19.89	-132.2	1,582.1	994.4	971.4	23.03	43.180	

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

Amazon.com

Anticollision Report

Company:	APEX	Local Co-ordinate Reference:	Well *Brighton Lakes 20-17-2NAH
Project:	POCO Brighton Lakes Expansion	TVD Reference:	RKB @ 5063.0usft
Reference Site:	Sec 20-T1S-R66W	MD Reference:	RKB @ 5063.0usft
Site Error:	0.0 usft	North Reference:	Grid
Reference Well:	*Brighton Lakes 20-17-2NAH	Survey Calculation Method:	Minimum Curvature
Well Error:	0.0 usft	Output errors are at	2.00 sigma
Reference Wellbore	Original Hole	Database:	WC365
Reference Design:	Plan #1	Offset TVD Reference:	Offset Datum

Offset Design: Sec 20-T1S-R66W - *Brighton Lakes 20-17-3NCHx - Original Hole - Plan #1												Offset Site Error:	0.0 usft
Survey Program: 0-MWD+HRGM+SAG+FDIR												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)	Distance Between Centres (usft)	Between Ellipses (usft)	Minimum Separation (usft)	Separation Factor	Warning
0.0	0.0	0.0	0.0	0.0	0.0	179.49	-229.9	2.1	229.9				
100.0	100.0	100.0	100.0	1.0	1.0	179.49	-229.9	2.1	229.9	228.0	1.96	117.437	
200.0	200.0	200.0	200.0	1.6	1.6	179.49	-229.9	2.1	229.9	226.8	3.12	73.687	
300.0	300.0	300.0	300.0	2.0	2.0	179.49	-229.9	2.1	229.9	226.0	3.96	58.042	
400.0	400.0	400.0	400.0	2.3	2.3	179.49	-229.9	2.1	229.9	225.3	4.66	49.356	
500.0	500.0	500.0	500.0	2.6	2.6	179.49	-229.9	2.1	229.9	224.7	5.27	43.636	
600.0	600.0	600.0	600.0	2.9	2.9	179.49	-229.9	2.1	229.9	224.1	5.82	39.502	
700.0	700.0	700.0	700.0	3.2	3.2	179.49	-229.9	2.1	229.9	223.6	6.33	36.332	
800.0	800.0	800.0	800.0	3.4	3.4	179.49	-229.9	2.1	229.9	223.1	6.80	33.801	
900.0	900.0	900.0	900.0	3.6	3.6	179.49	-229.9	2.1	229.9	222.7	7.25	31.719	
1,000.0	1,000.0	1,000.0	1,000.0	3.8	3.8	179.49	-229.9	2.1	229.9	222.3	7.67	29.965	
1,100.0	1,100.0	1,100.0	1,100.0	4.0	4.0	179.49	-229.9	2.1	229.9	221.9	8.08	28.462	
1,110.0	1,110.0	1,110.0	1,110.0	4.1	4.0	179.49	-229.9	2.1	229.9	221.8	8.11	28.362 CC	
1,200.0	1,200.0	1,198.2	1,198.2	4.2	4.1	179.34	-230.1	2.6	230.1	221.8	8.36	27.532	
1,300.0	1,300.0	1,294.2	1,294.1	4.4	4.6	178.21	-231.6	7.2	231.8	223.0	8.74	26.517	
1,400.0	1,400.0	1,389.9	1,389.2	4.9	5.0	70.20	-234.5	16.4	234.5	225.3	9.15	25.635	
1,500.0	1,499.6	1,485.1	1,483.4	5.3	5.4	68.59	-238.9	30.0	237.4	227.8	9.55	24.848	
1,600.0	1,598.8	1,580.1	1,576.5	5.7	5.8	67.09	-244.7	48.0	240.5	230.5	9.98	24.099	
1,700.0	1,697.1	1,674.8	1,668.2	6.0	6.1	65.69	-251.9	70.2	243.8	233.4	10.44	23.364	
1,800.0	1,794.3	1,769.2	1,758.4	6.4	6.4	64.40	-260.5	96.7	247.2	236.3	10.93	22.627	
1,900.0	1,890.2	1,863.3	1,846.8	6.7	6.7	63.21	-270.3	127.4	250.8	239.3	11.46	21.872	
2,000.0	1,984.4	1,957.1	1,933.3	7.0	7.0	62.13	-281.5	162.0	254.3	242.3	12.06	21.090	
2,100.0	2,076.8	2,050.9	2,017.8	7.3	7.2	61.15	-293.9	200.6	258.0	245.3	12.66	20.370	
2,191.6	2,159.6	2,142.3	2,099.2	7.5	7.3	60.71	-306.7	240.1	260.2	246.9	13.30	19.568	
2,200.0	2,167.1	2,150.6	2,106.7	7.5	7.3	60.72	-307.8	243.7	260.3	247.0	13.35	19.497	
2,300.0	2,256.4	2,250.6	2,195.8	7.7	7.5	60.76	-321.8	286.9	261.7	247.5	14.18	18.447	
2,400.0	2,345.7	2,350.6	2,284.8	7.9	7.6	60.80	-335.7	330.2	263.0	248.0	15.01	17.520	
2,500.0	2,435.0	2,450.6	2,373.9	8.0	8.2	60.84	-349.7	373.4	264.3	248.4	15.87	16.652	
2,600.0	2,524.3	2,550.6	2,463.0	8.4	8.7	60.89	-363.6	416.7	265.6	248.8	16.78	15.833	
2,700.0	2,613.6	2,650.6	2,552.1	9.0	9.3	60.93	-377.6	459.9	266.9	249.2	17.71	15.068	
2,800.0	2,702.9	2,750.6	2,641.1	9.5	9.9	60.97	-391.5	503.2	268.2	249.5	18.68	14.358	
2,900.0	2,792.2	2,850.6	2,730.2	10.1	10.5	61.01	-405.4	546.4	269.5	249.9	19.67	13.700	
3,000.0	2,881.5	2,950.6	2,819.3	10.7	11.1	61.05	-419.4	589.6	270.9	250.2	20.69	13.092	
3,100.0	2,970.8	3,050.6	2,908.4	11.3	11.7	61.09	-433.3	632.9	272.2	250.5	21.72	12.529	
3,200.0	3,060.1	3,150.5	2,997.4	11.9	12.3	61.13	-447.3	676.1	273.5	250.7	22.77	12.010	
3,300.0	3,149.4	3,250.5	3,086.5	12.5	13.0	61.17	-461.2	719.4	274.8	251.0	23.84	11.529	
3,400.0	3,238.7	3,350.5	3,175.6	13.1	13.6	61.21	-475.2	762.6	276.1	251.2	24.91	11.084	
3,500.0	3,328.0	3,450.5	3,264.6	13.7	14.2	61.25	-489.1	805.9	277.4	251.4	26.00	10.671	
3,600.0	3,417.3	3,550.5	3,353.7	14.3	14.9	61.29	-503.0	849.1	278.8	251.7	27.10	10.288	
3,700.0	3,506.6	3,650.5	3,442.8	15.0	15.5	61.33	-517.0	892.3	280.1	251.9	28.20	9.931	
3,800.0	3,595.9	3,750.5	3,531.9	15.6	16.2	61.36	-530.9	935.6	281.4	252.1	29.31	9.599	
3,900.0	3,685.1	3,850.5	3,620.9	16.2	16.8	61.40	-544.9	978.8	282.7	252.3	30.43	9.289	
4,000.0	3,774.4	3,950.5	3,710.0	16.8	17.5	61.44	-558.8	1,022.1	284.0	252.5	31.56	8.999	
4,100.0	3,863.7	4,050.5	3,799.1	17.5	18.1	61.47	-572.8	1,065.3	285.3	252.6	32.69	8.728	
4,200.0	3,953.0	4,150.5	3,888.1	18.1	18.8	61.51	-586.7	1,108.6	286.6	252.8	33.83	8.473	
4,300.0	4,042.3	4,250.4	3,977.2	18.8	19.4	61.55	-600.7	1,151.8	288.0	253.0	34.97	8.234	
4,400.0	4,131.6	4,350.4	4,066.3	19.4	20.1	61.58	-614.6	1,195.0	289.3	253.2	36.12	8.009	
4,500.0	4,220.9	4,450.4	4,155.4	20.1	20.7	61.62	-628.5	1,238.3	290.6	253.3	37.27	7.797	
4,600.0	4,310.2	4,550.4	4,244.4	20.7	21.4	61.65	-642.5	1,281.5	291.9	253.5	38.42	7.597	
4,700.0	4,399.5	4,650.4	4,333.5	21.3	22.0	61.69	-656.4	1,324.8	293.2	253.7	39.58	7.409	
4,800.0	4,488.8	4,750.4	4,422.6	22.0	22.7	61.72	-670.4	1,368.0	294.5	253.8	40.74	7.230	
4,900.0	4,578.1	4,850.4	4,511.6	22.6	23.4	61.76	-684.3	1,411.3	295.9	254.0	41.90	7.060	

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

Amazon.com

Anticollision Report

Company:	APEX	Local Co-ordinate Reference:	Well *Brighton Lakes 20-17-2NAH
Project:	POCO Brighton Lakes Expansion	TVD Reference:	RKB @ 5063.0usft
Reference Site:	Sec 20-T1S-R66W	MD Reference:	RKB @ 5063.0usft
Site Error:	0.0 usft	North Reference:	Grid
Reference Well:	*Brighton Lakes 20-17-2NAH	Survey Calculation Method:	Minimum Curvature
Well Error:	0.0 usft	Output errors are at	2.00 sigma
Reference Wellbore	Original Hole	Database:	WC365
Reference Design:	Plan #1	Offset TVD Reference:	Offset Datum

Offset Design: Sec 20-T1S-R66W - *Brighton Lakes 20-17-3NCHx - Original Hole - Plan #1													Offset Site Error: 0.0 usft
Survey Program: 0-MWD+HRGM+SAG+FDIR													Offset Well Error: 0.0 usft
Reference		Offset		Semi Major Axis		Highside Toolface (°)	Offset Wellbore Centre		Distance		Minimum Separation (usft)	Separation Factor	Warning
Measured Depth (usft)	Vertical Depth (usft)	Measured Depth (usft)	Vertical Depth (usft)	Reference (usft)	Offset (usft)		+N/-S (usft)	+E/-W (usft)	Between Centres (usft)	Between Ellipses (usft)			
5,000.0	4,667.4	4,950.4	4,600.7	23.3	24.0	61.79	-698.3	1,454.5	297.2	254.1	43.07	6.900	
5,100.0	4,756.7	5,050.4	4,689.8	23.9	24.7	61.82	-712.2	1,497.7	298.5	254.3	44.24	6.747	
5,200.0	4,846.0	5,150.4	4,778.9	24.6	25.4	61.86	-726.1	1,541.0	299.8	254.4	45.41	6.602	
5,300.0	4,935.3	5,250.4	4,867.9	25.2	26.0	61.89	-740.1	1,584.2	301.1	254.6	46.58	6.464	
5,400.0	5,024.6	5,350.3	4,957.0	25.9	26.7	61.92	-754.0	1,627.5	302.5	254.7	47.76	6.333	
5,500.0	5,113.9	5,450.3	5,046.1	26.6	27.3	61.95	-768.0	1,670.7	303.8	254.8	48.94	6.207	
5,600.0	5,203.2	5,550.3	5,135.2	27.2	28.0	61.99	-781.9	1,714.0	305.1	255.0	50.12	6.088	
5,700.0	5,292.5	5,650.3	5,224.2	27.9	28.7	62.02	-795.9	1,757.2	306.4	255.1	51.30	5.973	
5,800.0	5,381.8	5,750.3	5,313.3	28.5	29.3	62.05	-809.8	1,800.4	307.7	255.2	52.48	5.864	
5,900.0	5,471.1	5,850.3	5,402.4	29.2	30.0	62.08	-823.7	1,843.7	309.0	255.4	53.66	5.759	
6,000.0	5,560.4	5,950.3	5,491.4	29.8	30.7	62.11	-837.7	1,886.9	310.4	255.5	54.85	5.658	
6,100.0	5,649.7	6,050.3	5,580.5	30.5	31.3	62.14	-851.6	1,930.2	311.7	255.6	56.04	5.562	
6,200.0	5,739.0	6,150.3	5,669.6	31.2	32.0	62.17	-865.6	1,973.4	313.0	255.8	57.23	5.470	
6,300.0	5,828.3	6,250.3	5,758.7	31.8	32.7	62.20	-879.5	2,016.7	314.3	255.9	58.42	5.381	
6,400.0	5,917.6	6,350.3	5,847.7	32.5	33.3	62.23	-893.5	2,059.9	315.6	256.0	59.61	5.295	
6,500.0	6,006.9	6,450.3	5,936.8	33.1	34.0	62.26	-907.4	2,103.2	317.0	256.2	60.80	5.213	
6,600.0	6,096.2	6,550.2	6,025.9	33.8	34.7	62.29	-921.3	2,146.4	318.3	256.3	61.99	5.134	
6,700.0	6,185.5	6,650.2	6,114.9	34.4	35.3	62.32	-935.3	2,189.6	319.6	256.4	63.19	5.058	
6,800.0	6,274.8	6,750.2	6,204.0	35.1	36.0	62.35	-949.2	2,232.9	320.9	256.5	64.38	4.984	
6,900.0	6,364.1	6,850.2	6,293.1	35.8	36.7	62.38	-963.2	2,276.1	322.2	256.6	65.58	4.914	
7,000.0	6,453.4	6,950.2	6,382.2	36.4	37.3	62.41	-977.1	2,319.4	323.5	256.8	66.78	4.845	
7,100.0	6,542.7	7,050.2	6,471.2	37.1	38.0	62.44	-991.1	2,362.6	324.9	256.9	67.98	4.779	
7,200.0	6,632.0	7,150.2	6,560.3	37.7	38.7	62.46	-1,005.0	2,405.9	326.2	257.0	69.18	4.715	
7,300.0	6,721.3	7,250.2	6,649.4	38.4	39.4	62.49	-1,018.9	2,449.1	327.5	257.1	70.38	4.654	
7,314.2	6,734.0	7,264.4	6,662.0	38.5	39.5	62.50	-1,020.9	2,455.2	327.7	257.1	70.54	4.645	
7,350.0	6,766.1	7,300.1	6,693.9	38.7	39.7	69.60	-1,025.9	2,470.7	329.3	258.3	71.00	4.637	
7,400.0	6,811.1	7,349.8	6,738.1	39.1	40.0	79.97	-1,032.8	2,492.2	335.1	263.4	71.72	4.672	
7,450.0	6,856.0	7,398.7	6,781.7	39.4	40.3	90.20	-1,039.7	2,513.3	345.1	272.6	72.51	4.759	
7,500.0	6,900.4	7,446.5	6,824.3	39.6	40.7	99.65	-1,046.3	2,534.0	359.3	285.9	73.34	4.899	
7,550.0	6,944.1	7,492.9	6,865.6	39.9	41.0	107.90	-1,052.8	2,554.1	377.5	303.3	74.19	5.088	
7,600.0	6,986.7	7,537.5	6,905.4	40.1	41.3	114.84	-1,059.0	2,573.4	399.7	324.6	75.04	5.326	
7,650.0	7,027.9	7,580.0	6,943.2	40.3	41.6	120.54	-1,064.9	2,591.7	425.6	349.8	75.87	5.610	
7,700.0	7,067.3	7,644.9	7,001.1	40.5	42.0	125.60	-1,073.1	2,619.8	455.0	378.2	76.78	5.926	
7,750.0	7,104.7	7,633.5	7,169.3	40.6	43.1	131.12	-1,057.6	2,701.5	477.9	403.7	74.20	6.440	
7,800.0	7,139.7	8,132.1	7,401.5	40.8	44.1	134.95	-914.8	2,814.2	483.2	427.7	55.50	8.707	
7,850.0	7,172.2	8,436.8	7,540.9	40.9	44.2	135.92	-656.8	2,881.8	468.6	439.1	29.48	15.894	
7,900.0	7,201.8	8,601.2	7,560.0	40.9	44.1	135.84	-494.3	2,891.1	440.2	412.2	27.98	15.734	
7,950.0	7,228.4	8,641.6	7,560.0	41.0	44.0	137.38	-453.9	2,891.1	411.1	383.1	28.05	14.657	
8,000.0	7,251.7	8,684.3	7,560.0	41.0	44.0	138.52	-411.2	2,891.1	385.7	357.6	28.12	13.716	
8,050.0	7,271.5	8,729.2	7,560.0	41.1	43.9	139.34	-366.3	2,891.1	364.1	335.9	28.21	12.908	
8,100.0	7,287.8	8,775.8	7,560.0	41.1	43.9	139.90	-319.7	2,891.1	346.4	318.1	28.30	12.242	
8,150.0	7,300.3	8,823.8	7,560.0	41.1	43.8	140.28	-271.7	2,891.1	332.8	304.4	28.40	11.721	
8,200.0	7,309.1	8,872.8	7,560.0	41.0	43.8	140.50	-222.7	2,891.0	323.4	294.9	28.50	11.345	
8,212.7	7,310.7	8,885.4	7,560.0	41.0	43.8	140.54	-210.0	2,891.0	321.6	293.1	28.53	11.273	
8,250.0	7,313.9	8,922.5	7,560.0	41.0	43.8	140.61	-173.0	2,891.0	318.1	289.5	28.62	11.117	
8,258.3	7,314.3	8,930.8	7,560.0	41.0	43.8	140.62	-164.7	2,891.0	317.7	289.0	28.63	11.095	
8,286.8	7,315.0	8,959.3	7,560.0	41.0	43.7	140.64	-136.2	2,891.0	317.0	288.3	28.69	11.050	
8,289.6	7,315.0	8,962.1	7,560.0	41.0	43.7	140.64	-133.4	2,891.0	317.0	288.3	28.69	11.048	
8,300.0	7,315.0	8,972.5	7,560.0	41.0	43.7	140.64	-123.0	2,891.0	317.0	288.3	28.71	11.042	
8,321.1	7,315.0	8,993.6	7,560.0	40.9	43.7	140.64	-101.9	2,891.0	317.0	288.2	28.75	11.025	
8,400.0	7,315.0	9,072.5	7,560.0	40.9	43.7	140.64	-23.0	2,891.0	317.0	288.0	28.96	10.945	
8,421.1	7,315.0	9,093.6	7,560.0	40.9	43.7	140.64	-1.9	2,891.0	317.0	287.9	29.03	10.918	

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

Amazon.com

Anticollision Report

Company:	APEX	Local Co-ordinate Reference:	Well *Brighton Lakes 20-17-2NAH
Project:	POCO Brighton Lakes Expansion	TVD Reference:	RKB @ 5063.0usft
Reference Site:	Sec 20-T1S-R66W	MD Reference:	RKB @ 5063.0usft
Site Error:	0.0 usft	North Reference:	Grid
Reference Well:	*Brighton Lakes 20-17-2NAH	Survey Calculation Method:	Minimum Curvature
Well Error:	0.0 usft	Output errors are at	2.00 sigma
Reference Wellbore	Original Hole	Database:	WC365
Reference Design:	Plan #1	Offset TVD Reference:	Offset Datum

Offset Design: Sec 20-T1S-R66W - *Brighton Lakes 20-17-3NCHx - Original Hole - Plan #1												Offset Site Error:	0.0 usft
Survey Program: 0-MWD+HRGM+SAG+FDIR												Offset Well Error:	0.0 usft
Reference		Offset		Semi Major Axis		Highside Toolface (°)	Offset Wellbore Centre		Distance		Separation Factor	Warning	
Measured Depth (usft)	Vertical Depth (usft)	Measured Depth (usft)	Vertical Depth (usft)	Reference (usft)	Offset (usft)		+N/-S (usft)	+E/-W (usft)	Between Centres (usft)	Between Ellipses (usft)			
8,500.0	7,315.0	9,172.5	7,560.0	40.8	43.7	140.64	77.0	2,891.0	317.0	287.6	29.34	10.802	
8,521.1	7,315.0	9,193.6	7,560.0	40.8	43.7	140.64	98.1	2,891.0	317.0	287.5	29.44	10.766	
8,600.0	7,315.0	9,272.5	7,560.0	40.8	43.8	140.64	177.0	2,891.0	317.0	287.1	29.85	10.618	
8,621.1	7,315.0	9,293.6	7,560.0	40.8	43.8	140.64	198.1	2,891.0	317.0	287.0	29.98	10.574	
8,700.0	7,315.0	9,372.5	7,560.0	40.8	43.8	140.64	277.0	2,891.0	317.0	286.5	30.48	10.399	
8,721.1	7,315.0	9,393.6	7,560.0	40.8	43.8	140.64	298.1	2,891.0	317.0	286.3	30.63	10.348	
8,800.0	7,315.0	9,472.5	7,560.0	40.9	43.9	140.65	377.0	2,890.9	316.9	285.7	31.22	10.153	
8,821.1	7,315.0	9,493.6	7,560.0	40.9	43.9	140.65	398.1	2,890.9	316.9	285.6	31.39	10.097	
8,900.0	7,315.0	9,572.5	7,560.0	41.0	44.1	140.65	477.0	2,890.9	316.9	284.9	32.06	9.886	
8,921.1	7,315.0	9,593.6	7,560.0	41.0	44.1	140.65	498.1	2,890.9	316.9	284.7	32.25	9.827	
9,000.0	7,315.0	9,672.5	7,560.0	41.1	44.2	140.65	577.0	2,890.9	316.9	283.9	33.00	9.604	
9,021.1	7,315.0	9,693.6	7,560.0	41.1	44.3	140.65	598.1	2,890.9	316.9	283.7	33.21	9.543	
9,100.0	7,315.0	9,772.5	7,560.0	41.2	44.4	140.65	677.0	2,890.9	316.9	282.9	34.03	9.314	
9,121.1	7,315.0	9,793.6	7,560.0	41.3	44.5	140.65	698.1	2,890.9	316.9	282.7	34.26	9.251	
9,200.0	7,315.0	9,872.5	7,560.0	41.4	44.7	140.65	777.0	2,890.9	316.9	281.8	35.14	9.020	
9,221.1	7,315.0	9,893.6	7,560.0	41.4	44.7	140.65	798.1	2,890.9	316.9	281.5	35.38	8.957	
9,300.0	7,315.0	9,972.5	7,560.0	41.6	45.0	140.65	877.0	2,890.9	316.9	280.6	36.32	8.726	
9,321.1	7,315.0	9,993.6	7,560.0	41.7	45.0	140.65	898.1	2,890.9	316.9	280.3	36.58	8.664	
9,400.0	7,315.0	10,072.5	7,560.0	41.9	45.3	140.65	977.0	2,890.8	316.9	279.3	37.56	8.436	
9,421.1	7,315.0	10,093.6	7,560.0	42.0	45.4	140.66	998.1	2,890.8	316.9	279.1	37.84	8.375	
9,500.0	7,315.0	10,172.5	7,560.0	42.2	45.7	140.66	1,077.0	2,890.8	316.9	278.0	38.87	8.152	
9,521.1	7,315.0	10,193.6	7,560.0	42.3	45.8	140.66	1,098.1	2,890.8	316.9	277.7	39.16	8.093	
9,600.0	7,315.0	10,272.5	7,560.0	42.6	46.1	140.66	1,177.0	2,890.8	316.9	276.6	40.23	7.876	
9,621.1	7,315.0	10,293.6	7,560.0	42.7	46.2	140.66	1,198.1	2,890.8	316.9	276.4	40.53	7.819	
9,700.0	7,315.0	10,372.5	7,560.0	43.0	46.6	140.66	1,277.0	2,890.8	316.9	275.2	41.64	7.609	
9,721.1	7,315.0	10,393.6	7,560.0	43.1	46.7	140.66	1,298.1	2,890.8	316.9	274.9	41.95	7.554	
9,800.0	7,315.0	10,472.5	7,560.0	43.5	47.2	140.66	1,377.0	2,890.8	316.9	273.8	43.10	7.352	
9,821.1	7,315.0	10,493.6	7,560.0	43.6	47.3	140.66	1,398.1	2,890.8	316.9	273.5	43.41	7.299	
9,900.0	7,315.0	10,572.5	7,560.0	44.0	47.8	140.66	1,477.0	2,890.8	316.9	272.3	44.59	7.106	
9,921.1	7,315.0	10,593.6	7,560.0	44.1	47.9	140.66	1,498.1	2,890.8	316.9	271.9	44.91	7.055	
10,000.0	7,315.0	10,672.5	7,560.0	44.6	48.4	140.66	1,577.0	2,890.7	316.9	270.7	46.12	6.870	
10,021.1	7,315.0	10,693.6	7,560.0	44.7	48.6	140.66	1,598.1	2,890.7	316.9	270.4	46.45	6.821	
10,100.0	7,315.0	10,772.5	7,560.0	45.2	49.1	140.67	1,677.0	2,890.7	316.8	269.2	47.68	6.645	
10,121.1	7,315.0	10,793.6	7,560.0	45.4	49.3	140.67	1,698.1	2,890.7	316.8	268.8	48.02	6.598	
10,200.0	7,315.0	10,872.5	7,560.0	45.9	49.9	140.67	1,777.0	2,890.7	316.8	267.6	49.28	6.430	
10,221.1	7,315.0	10,893.6	7,560.0	46.0	50.0	140.67	1,798.1	2,890.7	316.8	267.2	49.62	6.386	
10,300.0	7,315.0	10,972.5	7,560.0	46.6	50.6	140.67	1,877.0	2,890.7	316.8	265.9	50.89	6.225	
10,321.1	7,315.0	10,993.6	7,560.0	46.8	50.8	140.67	1,898.1	2,890.7	316.8	265.6	51.24	6.183	
10,400.0	7,315.0	11,072.5	7,560.0	47.4	51.5	140.67	1,977.0	2,890.7	316.8	264.3	52.53	6.031	
10,421.1	7,315.0	11,093.6	7,560.0	47.6	51.7	140.67	1,998.1	2,890.7	316.8	263.9	52.88	5.991	
10,500.0	7,315.0	11,172.5	7,560.0	48.2	52.3	140.67	2,077.0	2,890.7	316.8	262.6	54.20	5.846	
10,521.1	7,315.0	11,193.6	7,560.0	48.4	52.5	140.67	2,098.1	2,890.7	316.8	262.3	54.55	5.808	
10,600.0	7,315.0	11,272.5	7,560.0	49.1	53.3	140.67	2,177.0	2,890.6	316.8	260.9	55.88	5.669	
10,621.1	7,315.0	11,293.6	7,560.0	49.3	53.5	140.67	2,198.1	2,890.6	316.8	260.6	56.24	5.633	
10,700.0	7,315.0	11,372.5	7,560.0	50.0	54.2	140.67	2,277.0	2,890.6	316.8	259.2	57.58	5.502	
10,721.1	7,315.0	11,393.6	7,560.0	50.2	54.4	140.67	2,298.1	2,890.6	316.8	258.9	57.94	5.468	
10,800.0	7,315.0	11,472.5	7,560.0	50.9	55.2	140.68	2,377.0	2,890.6	316.8	257.5	59.30	5.342	
10,821.1	7,315.0	11,493.6	7,560.0	51.1	55.4	140.68	2,398.1	2,890.6	316.8	257.1	59.66	5.310	
10,900.0	7,315.0	11,572.5	7,560.0	51.9	56.2	140.68	2,477.0	2,890.6	316.8	255.8	61.03	5.191	
10,921.1	7,315.0	11,593.6	7,560.0	52.1	56.4	140.68	2,498.1	2,890.6	316.8	255.4	61.40	5.160	
11,000.0	7,315.0	11,672.5	7,560.0	52.9	57.2	140.68	2,577.0	2,890.6	316.8	254.0	62.77	5.046	
11,021.1	7,315.0	11,693.6	7,560.0	53.1	57.4	140.68	2,598.1	2,890.6	316.8	253.6	63.14	5.017	

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

Amazon.com

Anticollision Report

Company:	APEX	Local Co-ordinate Reference:	Well *Brighton Lakes 20-17-2NAH
Project:	POCO Brighton Lakes Expansion	TVD Reference:	RKB @ 5063.0usft
Reference Site:	Sec 20-T1S-R66W	MD Reference:	RKB @ 5063.0usft
Site Error:	0.0 usft	North Reference:	Grid
Reference Well:	*Brighton Lakes 20-17-2NAH	Survey Calculation Method:	Minimum Curvature
Well Error:	0.0 usft	Output errors are at	2.00 sigma
Reference Wellbore	Original Hole	Database:	WC365
Reference Design:	Plan #1	Offset TVD Reference:	Offset Datum

Offset Design: Sec 20-T1S-R66W - *Brighton Lakes 20-17-3NCHx - Original Hole - Plan #1												Offset Site Error:	0.0 usft
Survey Program: 0-MWD+HRGM+SAG+FDIR												Offset Well Error:	0.0 usft
Reference		Offset		Semi Major Axis		Highside Toolface (°)	Offset Wellbore Centre		Distance		Minimum Separation (usft)	Separation Factor	Warning
Measured Depth (usft)	Vertical Depth (usft)	Measured Depth (usft)	Vertical Depth (usft)	Reference (usft)	Offset (usft)		+N/-S (usft)	+E/-W (usft)	Between Centres (usft)	Between Ellipses (usft)			
11,100.0	7,315.0	11,772.5	7,560.0	54.0	58.3	140.68	2,677.0	2,890.6	316.8	252.2	64.53	4.909	
11,121.1	7,315.0	11,793.6	7,560.0	54.2	58.5	140.68	2,698.1	2,890.6	316.8	251.9	64.91	4.880	
11,200.0	7,315.0	11,872.5	7,560.0	55.0	59.4	140.68	2,777.0	2,890.5	316.8	250.5	66.30	4.778	
11,221.1	7,315.0	11,893.6	7,560.0	55.2	59.6	140.68	2,798.1	2,890.5	316.8	250.1	66.68	4.751	
11,300.0	7,315.0	11,972.5	7,560.0	56.1	60.5	140.68	2,877.0	2,890.5	316.8	248.7	68.08	4.652	
11,321.1	7,315.0	11,993.6	7,560.0	56.3	60.7	140.68	2,898.1	2,890.5	316.8	248.3	68.46	4.627	
11,400.0	7,315.0	12,072.5	7,560.0	57.2	61.6	140.68	2,977.0	2,890.5	316.7	246.9	69.87	4.533	
11,421.1	7,315.0	12,093.6	7,560.0	57.4	61.8	140.68	2,998.1	2,890.5	316.7	246.5	70.25	4.509	
11,500.0	7,315.0	12,172.5	7,560.0	58.3	62.7	140.69	3,077.0	2,890.5	316.7	245.1	71.67	4.419	
11,521.1	7,315.0	12,193.6	7,560.0	58.6	63.0	140.69	3,098.1	2,890.5	316.7	244.7	72.05	4.396	
11,600.0	7,315.0	12,272.5	7,560.0	59.5	63.9	140.69	3,177.0	2,890.5	316.7	243.2	73.48	4.310	
11,621.1	7,315.0	12,293.6	7,560.0	59.7	64.2	140.69	3,198.1	2,890.5	316.7	242.9	73.86	4.288	
11,700.0	7,315.0	12,372.5	7,560.0	60.6	65.1	140.69	3,277.0	2,890.5	316.7	241.4	75.30	4.206	
11,721.1	7,315.0	12,393.6	7,560.0	60.9	65.3	140.69	3,298.1	2,890.5	316.7	241.0	75.68	4.185	
11,800.0	7,315.0	12,472.5	7,560.0	61.8	66.3	140.69	3,377.0	2,890.4	316.7	239.6	77.12	4.107	
11,821.1	7,315.0	12,493.6	7,560.0	62.1	66.5	140.69	3,398.1	2,890.4	316.7	239.2	77.51	4.086	
11,900.0	7,315.0	12,572.5	7,560.0	63.0	67.5	140.69	3,477.0	2,890.4	316.7	237.8	78.95	4.012	
11,921.1	7,315.0	12,593.6	7,560.0	63.3	67.7	140.69	3,498.1	2,890.4	316.7	237.4	79.34	3.992	
12,000.0	7,315.0	12,672.5	7,560.0	64.2	68.7	140.69	3,577.0	2,890.4	316.7	235.9	80.79	3.920	
12,021.1	7,315.0	12,693.6	7,560.0	64.5	69.0	140.69	3,598.1	2,890.4	316.7	235.5	81.17	3.901	
12,100.0	7,315.0	12,772.5	7,560.0	65.4	69.9	140.69	3,677.0	2,890.4	316.7	234.1	82.63	3.833	
12,121.1	7,315.0	12,793.6	7,560.0	65.7	70.2	140.70	3,698.1	2,890.4	316.7	233.7	83.02	3.815	
12,200.0	7,315.0	12,872.5	7,560.0	66.7	71.2	140.70	3,777.0	2,890.4	316.7	232.2	84.47	3.749	
12,221.1	7,315.0	12,893.6	7,560.0	66.9	71.4	140.70	3,798.1	2,890.4	316.7	231.8	84.87	3.732	
12,300.0	7,315.0	12,972.5	7,560.0	67.9	72.4	140.70	3,877.0	2,890.4	316.7	230.3	86.33	3.668	
12,321.1	7,315.0	12,993.6	7,560.0	68.2	72.7	140.70	3,898.1	2,890.4	316.7	230.0	86.72	3.652	
12,400.0	7,315.0	13,072.5	7,560.0	69.2	73.7	140.70	3,977.0	2,890.3	316.7	228.5	88.18	3.591	
12,421.1	7,315.0	13,093.6	7,560.0	69.4	73.9	140.70	3,998.1	2,890.3	316.7	228.1	88.58	3.575	
12,500.0	7,315.0	13,172.5	7,560.0	70.4	74.9	140.70	4,077.0	2,890.3	316.7	226.6	90.05	3.517	
12,521.1	7,315.0	13,193.6	7,560.0	70.7	75.2	140.70	4,098.1	2,890.3	316.7	226.2	90.44	3.501	
12,600.0	7,315.0	13,272.5	7,560.0	71.7	76.2	140.70	4,177.0	2,890.3	316.7	224.7	91.91	3.445	
12,621.1	7,315.0	13,293.6	7,560.0	72.0	76.5	140.70	4,198.1	2,890.3	316.6	224.3	92.31	3.430	
12,700.0	7,315.0	13,372.5	7,560.0	73.0	77.5	140.70	4,277.0	2,890.3	316.6	222.9	93.78	3.376	
12,721.1	7,315.0	13,393.6	7,560.0	73.2	77.7	140.70	4,298.1	2,890.3	316.6	222.5	94.18	3.362	
12,800.0	7,315.0	13,472.5	7,560.0	74.3	78.8	140.71	4,377.0	2,890.3	316.6	221.0	95.65	3.310	
12,821.1	7,315.0	13,493.6	7,560.0	74.5	79.0	140.71	4,398.1	2,890.3	316.6	220.6	96.05	3.297	
12,900.0	7,315.0	13,572.5	7,560.0	75.5	80.1	140.71	4,477.0	2,890.3	316.6	219.1	97.53	3.246	
12,921.1	7,315.0	13,593.6	7,560.0	75.8	80.3	140.71	4,498.1	2,890.3	316.6	218.7	97.93	3.233	
13,000.0	7,315.0	13,672.5	7,560.0	76.8	81.4	140.71	4,577.0	2,890.2	316.6	217.2	99.41	3.185	
13,021.1	7,315.0	13,693.6	7,560.0	77.1	81.6	140.71	4,598.1	2,890.2	316.6	216.8	99.81	3.172	
13,100.0	7,315.0	13,772.5	7,560.0	78.1	82.7	140.71	4,677.0	2,890.2	316.6	215.3	101.29	3.126	
13,121.1	7,315.0	13,793.6	7,560.0	78.4	82.9	140.71	4,698.1	2,890.2	316.6	214.9	101.69	3.113	
13,200.0	7,315.0	13,872.5	7,560.0	79.5	84.0	140.71	4,777.0	2,890.2	316.6	213.4	103.18	3.068	
13,221.1	7,315.0	13,893.6	7,560.0	79.7	84.2	140.71	4,798.1	2,890.2	316.6	213.0	103.58	3.057	
13,300.0	7,315.0	13,972.5	7,560.0	80.8	85.3	140.71	4,877.0	2,890.2	316.6	211.5	105.07	3.013	
13,321.1	7,315.0	13,993.6	7,560.0	81.1	85.6	140.71	4,898.1	2,890.2	316.6	211.1	105.47	3.002	
13,400.0	7,315.0	14,072.5	7,560.0	82.1	86.6	140.71	4,977.0	2,890.2	316.6	209.6	106.96	2.960	
13,421.1	7,315.0	14,093.6	7,560.0	82.4	86.9	140.71	4,998.1	2,890.2	316.6	209.2	107.36	2.949	
13,500.0	7,315.0	14,172.5	7,560.0	83.4	87.9	140.72	5,077.0	2,890.2	316.6	207.7	108.86	2.908	
13,521.1	7,315.0	14,193.6	7,560.0	83.7	88.2	140.72	5,098.1	2,890.2	316.6	207.3	109.26	2.898	
13,600.0	7,315.0	14,272.5	7,560.0	84.7	89.3	140.72	5,177.0	2,890.1	316.6	205.8	110.75	2.858	
13,621.1	7,315.0	14,293.6	7,560.0	85.0	89.5	140.72	5,198.1	2,890.1	316.6	205.4	111.15	2.848	

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

Amazon.com

Anticollision Report

Company:	APEX	Local Co-ordinate Reference:	Well *Brighton Lakes 20-17-2NAH
Project:	POCO Brighton Lakes Expansion	TVD Reference:	RKB @ 5063.0usft
Reference Site:	Sec 20-T1S-R66W	MD Reference:	RKB @ 5063.0usft
Site Error:	0.0 usft	North Reference:	Grid
Reference Well:	*Brighton Lakes 20-17-2NAH	Survey Calculation Method:	Minimum Curvature
Well Error:	0.0 usft	Output errors are at	2.00 sigma
Reference Wellbore	Original Hole	Database:	WC365
Reference Design:	Plan #1	Offset TVD Reference:	Offset Datum

Offset Design: Sec 20-T1S-R66W - *Brighton Lakes 20-17-3NCHx - Original Hole - Plan #1												Offset Site Error:	0.0 usft
Survey Program: 0-MWD+HRGM+SAG+FDIR												Offset Well Error:	0.0 usft
Reference		Offset		Semi Major Axis		Highside Toolface (°)	Offset Wellbore Centre		Distance				Warning
Measured Depth (usft)	Vertical Depth (usft)	Measured Depth (usft)	Vertical Depth (usft)	Reference (usft)	Offset (usft)		+N/-S (usft)	+E/-W (usft)	Between Centres (usft)	Between Ellipses (usft)	Minimum Separation (usft)	Separation Factor	
13,700.0	7,315.0	14,372.5	7,560.0	86.1	90.6	140.72	5,277.0	2,890.1	316.6	203.9	112.65	2.810	
13,721.1	7,315.0	14,393.6	7,560.0	86.4	90.9	140.72	5,298.1	2,890.1	316.6	203.5	113.05	2.800	
13,800.0	7,315.0	14,472.5	7,560.0	87.4	91.9	140.72	5,377.0	2,890.1	316.6	202.0	114.55	2.763	
13,821.1	7,315.0	14,493.6	7,560.0	87.7	92.2	140.72	5,398.1	2,890.1	316.6	201.6	114.95	2.754	
13,900.0	7,315.0	14,572.5	7,560.0	88.8	93.3	140.72	5,477.0	2,890.1	316.5	200.1	116.45	2.718	
13,921.1	7,315.0	14,593.6	7,560.0	89.0	93.5	140.72	5,498.1	2,890.1	316.5	199.7	116.86	2.709	
14,000.0	7,315.0	14,672.5	7,560.0	90.1	94.6	140.72	5,577.0	2,890.1	316.5	198.2	118.36	2.674	
14,021.1	7,315.0	14,693.6	7,560.0	90.4	94.9	140.72	5,598.1	2,890.1	316.5	197.8	118.76	2.665	
14,100.0	7,315.0	14,772.5	7,560.0	91.5	96.0	140.72	5,677.0	2,890.1	316.5	196.3	120.26	2.632	
14,121.1	7,315.0	14,793.6	7,560.0	91.7	96.2	140.72	5,698.1	2,890.1	316.5	195.9	120.67	2.623	
14,200.0	7,315.0	14,872.5	7,560.0	92.8	97.3	140.73	5,777.0	2,890.0	316.5	194.4	122.17	2.591	
14,221.1	7,315.0	14,893.6	7,560.0	93.1	97.6	140.73	5,798.1	2,890.0	316.5	193.9	122.58	2.582	
14,300.0	7,315.0	14,972.5	7,560.0	94.2	98.7	140.73	5,877.0	2,890.0	316.5	192.4	124.08	2.551	
14,321.1	7,315.0	14,993.6	7,560.0	94.4	98.9	140.73	5,898.1	2,890.0	316.5	192.0	124.49	2.543	
14,400.0	7,315.0	15,072.5	7,560.0	95.5	100.0	140.73	5,977.0	2,890.0	316.5	190.5	125.99	2.512	
14,421.1	7,315.0	15,093.6	7,560.0	95.8	100.3	140.73	5,998.1	2,890.0	316.5	190.1	126.40	2.504	
14,500.0	7,315.0	15,172.5	7,560.0	96.9	101.4	140.73	6,077.0	2,890.0	316.5	188.6	127.91	2.475	
14,521.1	7,315.0	15,193.6	7,560.0	97.2	101.7	140.73	6,098.1	2,890.0	316.5	188.2	128.31	2.467	
14,600.0	7,315.0	15,272.5	7,560.0	98.2	102.7	140.73	6,177.0	2,890.0	316.5	186.7	129.82	2.438	
14,621.1	7,315.0	15,293.6	7,560.0	98.5	103.0	140.73	6,198.1	2,890.0	316.5	186.3	130.22	2.430	
14,700.0	7,315.0	15,372.5	7,560.0	99.6	104.1	140.73	6,277.0	2,890.0	316.5	184.8	131.73	2.402	
14,721.1	7,315.0	15,393.6	7,560.0	99.9	104.4	140.73	6,298.1	2,889.9	316.5	184.3	132.14	2.395	
14,800.0	7,315.0	15,472.5	7,560.0	101.0	105.5	140.73	6,377.0	2,889.9	316.5	182.8	133.65	2.368	
14,821.1	7,315.0	15,493.6	7,560.0	101.3	105.8	140.74	6,398.1	2,889.9	316.5	182.4	134.06	2.361	
14,900.0	7,315.0	15,572.5	7,560.0	102.3	106.8	140.74	6,477.0	2,889.9	316.5	180.9	135.57	2.334	
14,921.1	7,315.0	15,593.6	7,560.0	102.6	107.1	140.74	6,498.1	2,889.9	316.5	180.5	135.97	2.327	
15,000.0	7,315.0	15,672.5	7,560.0	103.7	108.2	140.74	6,577.0	2,889.9	316.5	179.0	137.49	2.302	
15,021.1	7,315.0	15,693.6	7,560.0	104.0	108.5	140.74	6,598.1	2,889.9	316.5	178.6	137.89	2.295	
15,100.0	7,315.0	15,772.5	7,560.0	105.1	109.6	140.74	6,677.0	2,889.9	316.5	177.0	139.41	2.270	
15,121.1	7,315.0	15,793.6	7,560.0	105.4	109.9	140.74	6,698.1	2,889.9	316.5	176.6	139.81	2.263	
15,200.0	7,315.0	15,872.5	7,560.0	106.5	111.0	140.74	6,777.0	2,889.9	316.4	175.1	141.33	2.239	
15,221.1	7,315.0	15,893.6	7,560.0	106.8	111.2	140.74	6,798.1	2,889.9	316.4	174.7	141.73	2.233	
15,300.0	7,315.0	15,972.5	7,560.0	107.9	112.3	140.74	6,877.0	2,889.9	316.4	173.2	143.25	2.209	
15,321.1	7,315.0	15,993.6	7,560.0	108.1	112.6	140.74	6,898.1	2,889.8	316.4	172.8	143.66	2.203	
15,400.0	7,315.0	16,072.5	7,560.0	109.2	113.7	140.74	6,977.0	2,889.8	316.4	171.3	145.17	2.180	
15,421.1	7,315.0	16,093.6	7,560.0	109.5	114.0	140.74	6,998.1	2,889.8	316.4	170.9	145.58	2.174	
15,500.0	7,315.0	16,172.5	7,560.0	110.6	115.1	140.75	7,077.0	2,889.8	316.4	169.3	147.10	2.151	
15,521.1	7,315.0	16,193.6	7,560.0	110.9	115.4	140.75	7,098.1	2,889.8	316.4	168.9	147.50	2.145	
15,600.0	7,315.0	16,272.5	7,560.0	112.0	116.5	140.75	7,177.0	2,889.8	316.4	167.4	149.02	2.123	
15,621.1	7,315.0	16,293.6	7,560.0	112.3	116.8	140.75	7,198.1	2,889.8	316.4	167.0	149.43	2.118	
15,700.0	7,315.0	16,372.5	7,560.0	113.4	117.9	140.75	7,277.0	2,889.8	316.4	165.5	150.95	2.096	
15,721.1	7,315.0	16,393.6	7,560.0	113.7	118.2	140.75	7,298.1	2,889.8	316.4	165.1	151.35	2.091	
15,800.0	7,315.0	16,472.5	7,560.0	114.8	119.2	140.75	7,377.0	2,889.8	316.4	163.5	152.87	2.070	
15,821.1	7,315.0	16,493.6	7,560.0	115.1	119.5	140.75	7,398.1	2,889.8	316.4	163.1	153.28	2.064	
15,900.0	7,315.0	16,572.5	7,560.0	116.2	120.6	140.75	7,477.0	2,889.7	316.4	161.6	154.80	2.044	
15,921.1	7,315.0	16,593.6	7,560.0	116.5	120.9	140.75	7,498.1	2,889.7	316.4	161.2	155.21	2.038	
16,000.0	7,315.0	16,672.5	7,560.0	117.6	122.0	140.75	7,577.0	2,889.7	316.4	159.7	156.73	2.019	
16,021.1	7,315.0	16,693.6	7,560.0	117.9	122.3	140.75	7,598.1	2,889.7	316.4	159.2	157.14	2.013	
16,100.0	7,315.0	16,772.5	7,560.0	119.0	123.4	140.75	7,677.0	2,889.7	316.4	157.7	158.66	1.994 Collision Risk Procedures Req.	
16,121.1	7,315.0	16,793.6	7,560.0	119.3	123.7	140.75	7,698.1	2,889.7	316.4	157.3	159.07	1.989 Collision Risk Procedures Req.	
16,200.0	7,315.0	16,872.5	7,560.0	120.4	124.8	140.76	7,777.0	2,889.7	316.4	155.8	160.59	1.970 Collision Risk Procedures Req.	
16,221.1	7,315.0	16,893.6	7,560.0	120.6	125.1	140.76	7,798.1	2,889.7	316.4	155.4	161.00	1.965 Collision Risk Procedures Req.	

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

Amazon.com

Anticollision Report

Company:	APEX	Local Co-ordinate Reference:	Well *Brighton Lakes 20-17-2NAH
Project:	POCO Brighton Lakes Expansion	TVD Reference:	RKB @ 5063.0usft
Reference Site:	Sec 20-T1S-R66W	MD Reference:	RKB @ 5063.0usft
Site Error:	0.0 usft	North Reference:	Grid
Reference Well:	*Brighton Lakes 20-17-2NAH	Survey Calculation Method:	Minimum Curvature
Well Error:	0.0 usft	Output errors are at	2.00 sigma
Reference Wellbore	Original Hole	Database:	WC365
Reference Design:	Plan #1	Offset TVD Reference:	Offset Datum

Offset Design: Sec 20-T1S-R66W - *Brighton Lakes 20-17-3NCHx - Original Hole - Plan #1													Offset Site Error: 0.0 usft
Survey Program: 0-MWD+HRGM+SAG+FDIR								Rule Assigned:					Offset Well Error: 0.0 usft
Measured Depth (usft)	Vertical Depth (usft)	Measured Depth (usft)	Vertical Depth (usft)	Reference (usft)	Semi Major Axis Offset (usft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (usft)	+E/-W (usft)	Distance Between Centres (usft)	Between Ellipses (usft)	Minimum Separation (usft)	Separation Factor	Warning
16,300.0	7,315.0	16,972.5	7,560.0	121.7	126.2	140.76	7,877.0	2,889.7	316.4	153.8	162.52	1.947	Collision Risk Procedures Req.
16,321.1	7,315.0	16,993.6	7,560.0	122.0	126.5	140.76	7,898.1	2,889.7	316.4	153.4	162.93	1.942	Collision Risk Procedures Req.
16,400.0	7,315.0	17,072.5	7,560.0	123.1	127.6	140.76	7,977.0	2,889.7	316.4	151.9	164.45	1.924	Collision Risk Procedures Req.
16,421.1	7,315.0	17,093.6	7,560.0	123.4	127.9	140.76	7,998.1	2,889.7	316.4	151.5	164.86	1.919	Collision Risk Procedures Req.
16,500.0	7,315.0	17,172.5	7,560.0	124.5	129.0	140.76	8,077.0	2,889.6	316.3	150.0	166.38	1.901	Collision Risk Procedures Req.
16,521.1	7,315.0	17,193.6	7,560.0	124.8	129.3	140.76	8,098.1	2,889.6	316.3	149.6	166.79	1.897	Collision Risk Procedures Req.
16,600.0	7,315.0	17,272.5	7,560.0	125.9	130.4	140.76	8,177.0	2,889.6	316.3	148.0	168.31	1.879	Collision Risk Procedures Req.
16,621.1	7,315.0	17,293.6	7,560.0	126.2	130.7	140.76	8,198.1	2,889.6	316.3	147.6	168.72	1.875	Collision Risk Procedures Req.
16,700.0	7,315.0	17,372.5	7,560.0	127.3	131.8	140.76	8,277.0	2,889.6	316.3	146.1	170.24	1.858	Collision Risk Procedures Req.
16,721.1	7,315.0	17,393.6	7,560.0	127.6	132.1	140.76	8,298.1	2,889.6	316.3	145.7	170.65	1.854	Collision Risk Procedures Req.
16,800.0	7,315.0	17,472.5	7,560.0	128.7	133.2	140.76	8,377.0	2,889.6	316.3	144.1	172.18	1.837	Collision Risk Procedures Req.
16,821.1	7,315.0	17,493.6	7,560.0	129.0	133.5	140.76	8,398.1	2,889.6	316.3	143.7	172.58	1.833	Collision Risk Procedures Req.
16,900.0	7,315.0	17,572.5	7,560.0	130.1	134.6	140.77	8,477.0	2,889.6	316.3	142.2	174.11	1.817	Collision Risk Procedures Req.
16,921.1	7,315.0	17,593.6	7,560.0	130.4	134.9	140.77	8,498.1	2,889.6	316.3	141.8	174.52	1.813	Collision Risk Procedures Req.
17,000.0	7,315.0	17,672.5	7,560.0	131.6	136.0	140.77	8,577.0	2,889.6	316.3	140.3	176.04	1.797	Collision Risk Procedures Req.
17,021.1	7,315.0	17,693.6	7,560.0	131.8	136.3	140.77	8,598.1	2,889.6	316.3	139.9	176.45	1.793	Collision Risk Procedures Req.
17,100.0	7,315.0	17,772.5	7,560.0	133.0	137.4	140.77	8,677.0	2,889.5	316.3	138.3	177.98	1.777	Collision Risk Procedures Req.
17,121.1	7,315.0	17,793.6	7,560.0	133.3	137.7	140.77	8,698.1	2,889.5	316.3	137.9	178.39	1.773	Collision Risk Procedures Req.
17,200.0	7,315.0	17,872.5	7,560.0	134.4	138.8	140.77	8,777.0	2,889.5	316.3	136.4	179.91	1.758	Collision Risk Procedures Req.
17,221.1	7,315.0	17,893.6	7,560.0	134.7	139.1	140.77	8,798.1	2,889.5	316.3	136.0	180.32	1.754	Collision Risk Procedures Req.
17,300.0	7,315.0	17,972.5	7,560.0	135.8	140.2	140.77	8,877.0	2,889.5	316.3	134.4	181.85	1.739	Collision Risk Procedures Req.
17,321.1	7,315.0	17,993.6	7,560.0	136.1	140.5	140.77	8,898.1	2,889.5	316.3	134.0	182.26	1.735	Collision Risk Procedures Req.
17,400.0	7,315.0	18,072.5	7,560.0	137.2	141.6	140.77	8,977.0	2,889.5	316.3	132.5	183.78	1.721	Collision Risk Procedures Req.
17,421.1	7,315.0	18,093.6	7,560.0	137.5	141.9	140.77	8,998.1	2,889.5	316.3	132.1	184.19	1.717	Collision Risk Procedures Req.
17,500.0	7,315.0	18,172.5	7,560.0	138.6	143.0	140.77	9,077.0	2,889.5	316.3	130.6	185.72	1.703	Collision Risk Procedures Req.
17,521.1	7,315.0	18,193.6	7,560.0	138.9	143.3	140.78	9,098.1	2,889.5	316.3	130.1	186.13	1.699	Collision Risk Procedures Req.
17,600.0	7,315.0	18,272.5	7,560.0	140.0	144.4	140.78	9,177.0	2,889.5	316.3	128.6	187.66	1.685	Collision Risk Procedures Req.
17,621.1	7,315.0	18,293.6	7,560.0	140.3	144.7	140.78	9,198.1	2,889.5	316.3	128.2	188.07	1.682	Collision Risk Procedures Req.
17,700.0	7,315.0	18,372.5	7,560.0	141.4	145.8	140.78	9,277.0	2,889.4	316.3	126.7	189.59	1.668	Collision Risk Procedures Req.
17,721.1	7,315.0	18,393.6	7,560.0	141.7	146.1	140.78	9,298.1	2,889.4	316.3	126.3	190.00	1.664	Collision Risk Procedures Req.
17,800.0	7,315.0	18,472.5	7,560.0	142.8	147.2	140.78	9,377.0	2,889.4	316.2	124.7	191.53	1.651	Collision Risk Procedures Req.
17,821.1	7,315.0	18,493.6	7,560.0	143.1	147.5	140.78	9,398.1	2,889.4	316.2	124.3	191.94	1.648	Collision Risk Procedures Req.
17,900.0	7,315.0	18,572.5	7,560.0	144.2	148.6	140.78	9,477.0	2,889.4	316.2	122.8	193.47	1.635	Collision Risk Procedures Req.
17,921.1	7,315.0	18,593.6	7,560.0	144.5	148.9	140.78	9,498.1	2,889.4	316.2	122.4	193.88	1.631	Collision Risk Procedures Req.
18,000.0	7,315.0	18,672.5	7,560.0	145.6	150.1	140.78	9,577.0	2,889.4	316.2	120.8	195.41	1.618	Collision Risk Procedures Req.
18,006.8	7,315.0	18,679.3	7,560.0	145.7	150.2	140.78	9,583.8	2,889.4	316.2	120.7	195.54	1.617	Collision Risk Procedures Req.
18,032.3	7,315.0	18,704.8	7,560.0	146.1	150.5	140.78	9,609.3	2,889.4	316.2	120.2	196.03	1.613	Collision Risk Procedures Req., ES, SF

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

Amazon.com

Anticollision Report

Company:	APEX	Local Co-ordinate Reference:	Well *Brighton Lakes 20-17-2NAH
Project:	POCO Brighton Lakes Expansion	TVD Reference:	RKB @ 5063.0usft
Reference Site:	Sec 20-T1S-R66W	MD Reference:	RKB @ 5063.0usft
Site Error:	0.0 usft	North Reference:	Grid
Reference Well:	*Brighton Lakes 20-17-2NAH	Survey Calculation Method:	Minimum Curvature
Well Error:	0.0 usft	Output errors are at	2.00 sigma
Reference Wellbore	Original Hole	Database:	WC365
Reference Design:	Plan #1	Offset TVD Reference:	Offset Datum

Offset Design: Sec 20-T1S-R66W - *Buckley 21-16-1CDH - Original Hole - Plan #1												Offset Site Error:	0.0 usft
Survey Program: 0-MWD+HRGM+SAG+FDIR												Offset Well Error:	0.0 usft
Reference		Offset		Semi Major Axis		Highside Toolface (°)	Offset Wellbore Centre		Distance		Separation Factor	Warning	
Measured Depth (usft)	Vertical Depth (usft)	Measured Depth (usft)	Vertical Depth (usft)	Reference (usft)	Offset (usft)		+N/-S (usft)	+E/-W (usft)	Between Centres (usft)	Between Ellipses (usft)			
0.0	0.0	0.0	0.0	0.0	0.0	179.41	-279.9	2.9	279.9				
100.0	100.0	100.0	100.0	1.0	1.0	179.41	-279.9	2.9	279.9	278.0	1.96	142.966	
200.0	200.0	200.0	200.0	1.6	1.6	179.41	-279.9	2.9	279.9	276.8	3.12	89.706	
300.0	300.0	300.0	300.0	2.0	2.0	179.41	-279.9	2.9	279.9	276.0	3.96	70.660	
400.0	400.0	400.0	400.0	2.3	2.3	179.41	-279.9	2.9	279.9	275.3	4.66	60.085	
500.0	500.0	500.0	500.0	2.6	2.6	179.41	-279.9	2.9	279.9	274.7	5.27	53.122	
600.0	600.0	600.0	600.0	2.9	2.9	179.41	-279.9	2.9	279.9	274.1	5.82	48.089	
700.0	700.0	700.0	700.0	3.2	3.2	179.41	-279.9	2.9	279.9	273.6	6.33	44.230	
800.0	800.0	800.0	800.0	3.4	3.4	179.41	-279.9	2.9	279.9	273.1	6.80	41.149	
900.0	900.0	900.0	900.0	3.6	3.6	179.41	-279.9	2.9	279.9	272.7	7.25	38.614	
1,000.0	1,000.0	1,000.0	1,000.0	3.8	3.8	179.41	-279.9	2.9	279.9	272.3	7.67	36.479	
1,100.0	1,100.0	1,100.0	1,100.0	4.0	4.0	179.41	-279.9	2.9	279.9	271.8	8.08	34.650	
1,166.7	1,166.7	1,166.7	1,166.7	4.2	4.2	179.41	-279.9	2.9	279.9	271.6	8.34	33.572	
1,200.0	1,200.0	1,200.0	1,200.0	4.2	4.2	179.41	-279.9	2.9	279.9	271.5	8.47	33.058 CC, ES	
1,300.0	1,300.0	1,296.2	1,296.2	4.4	4.7	178.93	-280.5	5.2	280.6	271.8	8.85	31.720	
1,400.0	1,400.0	1,392.1	1,391.8	4.9	5.1	71.66	-282.4	12.2	281.9	272.7	9.23	30.557	
1,500.0	1,499.6	1,487.9	1,486.8	5.3	5.5	70.74	-285.4	23.8	283.1	273.5	9.60	29.493	
1,600.0	1,598.8	1,583.3	1,580.8	5.7	5.8	69.86	-289.6	40.0	284.1	274.1	9.98	28.456	
1,700.0	1,697.1	1,678.6	1,673.7	6.0	6.2	69.04	-295.0	60.6	285.0	274.6	10.40	27.415	
1,800.0	1,794.3	1,773.8	1,765.2	6.4	6.5	68.25	-301.5	85.6	285.7	274.9	10.84	26.346	
1,900.0	1,890.2	1,868.7	1,855.1	6.7	6.8	67.52	-309.2	115.0	286.2	274.9	11.35	25.230	
2,000.0	1,984.4	1,963.5	1,943.3	7.0	7.1	66.83	-318.0	148.6	286.6	274.7	11.91	24.056	
2,017.0	2,000.3	1,979.6	1,958.1	7.1	7.1	66.71	-319.6	154.7	286.7	274.6	12.02	23.848	
2,100.0	2,076.8	2,058.1	2,029.5	7.3	7.4	66.18	-327.8	186.3	286.8	274.2	12.56	22.824	
2,171.0	2,141.1	2,125.2	2,089.4	7.5	7.6	65.75	-335.5	215.5	286.8	273.7	13.07	21.939	
2,191.6	2,159.6	2,144.7	2,106.6	7.5	7.6	65.63	-337.8	224.4	286.8	273.5	13.23	21.682	
2,197.4	2,164.7	2,150.1	2,111.4	7.5	7.6	65.60	-338.4	226.9	286.8	273.5	13.26	21.618	
2,200.0	2,167.1	2,152.6	2,113.6	7.5	7.6	65.58	-338.7	228.0	286.8	273.5	13.28	21.589	
2,300.0	2,256.4	2,246.8	2,195.2	7.7	7.9	64.51	-350.6	273.6	287.8	273.7	14.14	20.349	
2,400.0	2,345.7	2,343.8	2,277.1	7.9	8.0	62.70	-363.8	323.8	290.8	275.7	15.02	19.354	
2,500.0	2,435.0	2,443.3	2,360.9	8.0	8.2	60.81	-377.3	375.6	294.2	278.2	15.99	18.402	
2,600.0	2,524.3	2,542.8	2,444.7	8.4	8.9	58.97	-390.9	427.5	298.0	281.1	16.92	17.608	
2,700.0	2,613.6	2,642.2	2,528.5	9.0	9.6	57.17	-404.4	479.3	302.1	284.2	17.86	16.909	
2,800.0	2,702.9	2,741.7	2,612.4	9.5	10.3	55.42	-418.0	531.1	306.4	287.6	18.79	16.303	
2,900.0	2,792.2	2,841.2	2,696.2	10.1	11.0	53.73	-431.5	583.0	311.1	291.3	19.71	15.781	
3,000.0	2,881.5	2,940.6	2,780.0	10.7	11.7	52.08	-445.0	634.8	316.0	295.4	20.61	15.333	
3,100.0	2,970.8	3,040.1	2,863.8	11.3	12.4	50.48	-458.6	686.7	321.1	299.6	21.48	14.949	
3,200.0	3,060.1	3,139.6	2,947.6	11.9	13.2	48.94	-472.1	738.5	326.5	304.2	22.33	14.621	
3,300.0	3,149.4	3,239.0	3,031.4	12.5	13.9	47.45	-485.7	790.3	332.2	309.0	23.16	14.343	
3,400.0	3,238.7	3,338.5	3,115.2	13.1	14.7	46.01	-499.2	842.2	338.0	314.1	23.96	14.108	
3,500.0	3,328.0	3,438.0	3,199.0	13.7	15.4	44.61	-512.8	894.0	344.1	319.3	24.73	13.911	
3,600.0	3,417.3	3,537.5	3,282.8	14.3	16.2	43.27	-526.3	945.9	350.3	324.8	25.49	13.746	
3,700.0	3,506.6	3,636.9	3,366.6	15.0	17.0	41.97	-539.9	997.7	356.8	330.6	26.21	13.610	
3,800.0	3,595.9	3,736.4	3,450.4	15.6	17.7	40.72	-553.4	1,049.5	363.4	336.5	26.92	13.500	
3,900.0	3,685.1	3,835.9	3,534.2	16.2	18.5	39.52	-567.0	1,101.4	370.2	342.6	27.60	13.412	
4,000.0	3,774.4	3,935.3	3,618.0	16.8	19.3	38.35	-580.5	1,153.2	377.1	348.9	28.26	13.343	
4,100.0	3,863.7	4,034.8	3,701.8	17.5	20.1	37.23	-594.1	1,205.0	384.2	355.3	28.91	13.291	
4,200.0	3,953.0	4,134.3	3,785.6	18.1	20.9	36.16	-607.6	1,256.9	391.4	361.9	29.53	13.254	
4,300.0	4,042.3	4,233.8	3,869.5	18.8	21.7	35.12	-621.1	1,308.7	398.8	368.7	30.14	13.231	
4,400.0	4,131.6	4,333.2	3,953.3	19.4	22.4	34.11	-634.7	1,360.6	406.3	375.6	30.74	13.219	
4,500.0	4,220.9	4,432.7	4,037.1	20.1	23.2	33.15	-648.2	1,412.4	413.9	382.6	31.32	13.218 SF	
4,600.0	4,310.2	4,532.2	4,120.9	20.7	24.0	32.22	-661.8	1,464.2	421.6	389.8	31.88	13.225	

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

Amazon.com

Anticollision Report

Company:	APEX	Local Co-ordinate Reference:	Well *Brighton Lakes 20-17-2NAH
Project:	POCO Brighton Lakes Expansion	TVD Reference:	RKB @ 5063.0usft
Reference Site:	Sec 20-T1S-R66W	MD Reference:	RKB @ 5063.0usft
Site Error:	0.0 usft	North Reference:	Grid
Reference Well:	*Brighton Lakes 20-17-2NAH	Survey Calculation Method:	Minimum Curvature
Well Error:	0.0 usft	Output errors are at	2.00 sigma
Reference Wellbore	Original Hole	Database:	WC365
Reference Design:	Plan #1	Offset TVD Reference:	Offset Datum

Offset Design: Sec 20-T1S-R66W - *Buckley 21-16-1CDH - Original Hole - Plan #1												Offset Site Error:	0.0 usft
Survey Program: 0-MWD+HRGM+SAG+FDIR												Offset Well Error:	0.0 usft
Reference		Offset		Semi Major Axis		Highside Toolface (°)	Offset Wellbore Centre		Distance		Minimum Separation (usft)	Separation Factor	Warning
Measured Depth (usft)	Vertical Depth (usft)	Measured Depth (usft)	Vertical Depth (usft)	Reference (usft)	Offset (usft)		+N/-S (usft)	+E/-W (usft)	Between Centres (usft)	Between Ellipses (usft)			
4,700.0	4,399.5	4,631.6	4,204.7	21.3	24.8	31.32	-675.3	1,516.1	429.5	397.0	32.44	13.240	
4,800.0	4,488.8	4,731.1	4,288.5	22.0	25.6	30.46	-688.9	1,567.9	437.4	404.4	32.98	13.262	
4,900.0	4,578.1	4,830.6	4,372.3	22.6	26.4	29.62	-702.4	1,619.8	445.5	411.9	33.52	13.290	
5,000.0	4,667.4	4,930.0	4,456.1	23.3	27.2	28.82	-716.0	1,671.6	453.6	419.5	34.04	13.324	
5,100.0	4,756.7	5,029.5	4,539.9	23.9	28.0	28.04	-729.5	1,723.4	461.8	427.2	34.56	13.361	
5,200.0	4,846.0	5,129.0	4,623.7	24.6	28.8	27.30	-743.1	1,775.3	470.1	435.0	35.07	13.403	
5,300.0	4,935.3	5,228.5	4,707.5	25.2	29.6	26.57	-756.6	1,827.1	478.4	442.9	35.58	13.448	
5,400.0	5,024.6	5,327.9	4,791.3	25.9	30.4	25.88	-770.2	1,879.0	486.9	450.8	36.08	13.496	
5,500.0	5,113.9	5,427.4	4,875.1	26.6	31.2	25.20	-783.7	1,930.8	495.4	458.8	36.57	13.546	
5,600.0	5,203.2	5,526.9	4,958.9	27.2	32.0	24.55	-797.2	1,982.6	504.0	466.9	37.06	13.598	
5,700.0	5,292.5	5,626.3	5,042.8	27.9	32.8	23.92	-810.8	2,034.5	512.6	475.1	37.55	13.652	
5,800.0	5,381.8	5,725.8	5,126.6	28.5	33.6	23.31	-824.3	2,086.3	521.3	483.3	38.03	13.707	
5,900.0	5,471.1	5,825.3	5,210.4	29.2	34.4	22.72	-837.9	2,138.1	530.1	491.5	38.51	13.763	
6,000.0	5,560.4	5,924.7	5,294.2	29.8	35.2	22.15	-851.4	2,190.0	538.9	499.9	38.99	13.820	
6,100.0	5,649.7	6,024.2	5,378.0	30.5	36.0	21.60	-865.0	2,241.8	547.7	508.3	39.47	13.877	
6,200.0	5,739.0	6,123.7	5,461.8	31.2	36.8	21.07	-878.5	2,293.7	556.6	516.7	39.95	13.935	
6,300.0	5,828.3	6,223.2	5,545.6	31.8	37.6	20.55	-892.1	2,345.5	565.6	525.2	40.42	13.992	
6,400.0	5,917.6	6,322.6	5,629.4	32.5	38.4	20.05	-905.6	2,397.3	574.6	533.7	40.90	14.050	
6,500.0	6,006.9	6,422.1	5,713.2	33.1	39.2	19.57	-919.2	2,449.2	583.6	542.3	41.37	14.107	
6,600.0	6,096.2	6,521.6	5,797.0	33.8	40.0	19.10	-932.7	2,501.0	592.7	550.9	41.84	14.165	
6,700.0	6,185.5	6,621.0	5,880.8	34.4	40.8	18.64	-946.3	2,552.9	601.8	559.5	42.32	14.221	
6,800.0	6,274.8	6,720.5	5,964.6	35.1	41.6	18.20	-959.8	2,604.7	611.0	568.2	42.79	14.277	
6,900.0	6,364.1	6,820.0	6,048.4	35.8	42.4	17.77	-973.4	2,656.5	620.2	576.9	43.27	14.333	
7,000.0	6,453.4	6,919.4	6,132.2	36.4	43.2	17.35	-986.9	2,708.4	629.4	585.7	43.75	14.388	
7,100.0	6,542.7	7,018.9	6,216.0	37.1	44.0	16.95	-1,000.4	2,760.2	638.7	594.4	44.22	14.442	
7,200.0	6,632.0	7,118.4	6,299.9	37.7	44.8	16.55	-1,014.0	2,812.0	648.0	603.3	44.70	14.495	
7,300.0	6,721.3	7,217.9	6,383.7	38.4	45.6	16.17	-1,027.5	2,863.9	657.3	612.1	45.18	14.548	
7,314.2	6,734.0	7,232.0	6,395.6	38.5	45.7	16.12	-1,029.5	2,871.3	658.6	613.4	45.24	14.556	
7,350.0	6,766.1	7,267.6	6,425.5	38.7	46.0	22.81	-1,034.3	2,889.8	662.5	617.0	45.46	14.573	
7,400.0	6,811.1	7,316.9	6,467.1	39.1	46.4	32.66	-1,041.0	2,915.5	669.8	623.9	45.94	14.582	
7,450.0	6,856.0	7,365.6	6,508.2	39.4	46.8	42.44	-1,047.7	2,940.9	679.4	632.7	46.61	14.575	
7,500.0	6,900.4	7,413.3	6,548.3	39.6	47.2	51.47	-1,054.1	2,965.7	691.1	643.6	47.48	14.554	
7,550.0	6,944.1	7,459.5	6,587.2	39.9	47.6	59.33	-1,060.4	2,989.8	705.1	656.5	48.56	14.520	
7,600.0	6,986.7	7,503.9	6,624.6	40.1	47.9	65.88	-1,066.5	3,013.0	721.4	671.5	49.82	14.479	
7,650.0	7,027.9	7,546.2	6,660.3	40.3	48.3	71.16	-1,072.2	3,035.0	740.1	688.8	51.27	14.434	
7,700.0	7,067.3	7,586.1	6,693.9	40.5	48.6	75.24	-1,077.7	3,055.8	761.2	708.3	52.89	14.392	
7,750.0	7,104.7	7,623.2	6,725.2	40.6	48.9	78.24	-1,082.7	3,075.1	784.9	730.3	54.65	14.362	
7,800.0	7,139.7	7,657.3	6,753.9	40.8	49.2	80.23	-1,087.4	3,092.9	811.1	754.6	56.52	14.351	
7,850.0	7,172.2	7,688.1	6,779.9	40.9	49.4	81.25	-1,091.6	3,109.0	839.8	781.3	58.46	14.366	
7,900.0	7,201.8	7,733.2	6,817.9	40.9	49.8	82.40	-1,097.3	3,132.5	870.8	810.2	60.53	14.386	
7,950.0	7,228.4	7,786.5	6,863.1	41.0	50.2	83.43	-1,101.3	3,160.4	902.7	840.2	62.55	14.433	
8,000.0	7,251.7	7,899.9	6,959.5	41.0	51.1	87.57	-1,100.6	3,220.1	935.4	871.2	64.20	14.570	
8,050.0	7,271.5	8,007.2	7,050.0	41.1	51.8	90.66	-1,087.4	3,276.1	968.3	903.2	65.12	14.868	

Amazon.com

Anticollision Report

Company:	APEX	Local Co-ordinate Reference:	Well *Brighton Lakes 20-17-2NAH
Project:	POCO Brighton Lakes Expansion	TVD Reference:	RKB @ 5063.0usft
Reference Site:	Sec 20-T1S-R66W	MD Reference:	RKB @ 5063.0usft
Site Error:	0.0 usft	North Reference:	Grid
Reference Well:	*Brighton Lakes 20-17-2NAH	Survey Calculation Method:	Minimum Curvature
Well Error:	0.0 usft	Output errors are at	2.00 sigma
Reference Wellbore	Original Hole	Database:	WC365
Reference Design:	Plan #1	Offset TVD Reference:	Offset Datum

Offset Design: Sec 20-T1S-R66W - *Buckley 21-16-1NAH - Original Hole - Plan #1												Offset Site Error:	0.0 usft
Survey Program: 0-MWD+HRGM+SAG+FDIR												Offset Well Error:	0.0 usft
Reference		Offset		Semi Major Axis		Highside Toolface (°)	Offset Wellbore Centre		Distance		Minimum Separation (usft)	Separation Factor	Warning
Measured Depth (usft)	Vertical Depth (usft)	Measured Depth (usft)	Vertical Depth (usft)	Reference (usft)	Offset (usft)		+N/-S (usft)	+E/-W (usft)	Between Centres (usft)	Between Ellipses (usft)			
0.0	0.0	0.0	0.0	0.0	0.0	179.39	-15.0	0.2	15.0				
100.0	100.0	100.0	100.0	1.0	1.0	179.39	-15.0	0.2	15.0	13.0	1.96	7.656	
200.0	200.0	200.0	200.0	1.6	1.6	179.39	-15.0	0.2	15.0	11.9	3.12	4.804	
300.0	300.0	300.0	300.0	2.0	2.0	179.39	-15.0	0.2	15.0	11.0	3.96	3.784	
400.0	400.0	400.0	400.0	2.3	2.3	179.39	-15.0	0.2	15.0	10.3	4.66	3.218	
500.0	500.0	500.0	500.0	2.6	2.6	179.39	-15.0	0.2	15.0	9.7	5.27	2.845	
600.0	600.0	600.0	600.0	2.9	2.9	179.39	-15.0	0.2	15.0	9.2	5.82	2.575	
700.0	700.0	700.0	700.0	3.2	3.2	179.39	-15.0	0.2	15.0	8.7	6.33	2.369	
800.0	800.0	800.0	800.0	3.4	3.4	179.39	-15.0	0.2	15.0	8.2	6.80	2.204	
900.0	900.0	900.0	900.0	3.6	3.6	179.39	-15.0	0.2	15.0	7.7	7.25	2.068	
1,000.0	1,000.0	1,000.0	1,000.0	3.8	3.8	179.39	-15.0	0.2	15.0	7.3	7.67	1.954	Collision Risk Procedures Req.
1,100.0	1,100.0	1,100.0	1,100.0	4.0	4.0	179.39	-15.0	0.2	15.0	6.9	8.08	1.856	Collision Risk Procedures Req.
1,166.7	1,166.7	1,166.7	1,166.7	4.2	4.2	179.39	-15.0	0.2	15.0	6.7	8.34	1.798	Collision Risk Procedures Req.
1,200.0	1,200.0	1,200.0	1,200.0	4.2	4.2	179.39	-15.0	0.2	15.0	6.5	8.47	1.770	Collision Risk Procedures Req., CC
1,204.4	1,204.4	1,204.4	1,204.4	4.2	4.3	179.37	-15.0	0.2	15.0	6.5	8.48	1.767	Collision Risk Procedures Req., ES
1,300.0	1,300.0	1,299.8	1,299.8	4.4	4.7	169.67	-15.2	2.8	15.4	6.6	8.85	1.742	Collision Risk Procedures Req., SF
1,400.0	1,400.0	1,399.4	1,399.0	4.9	5.1	45.42	-15.7	10.5	17.0	7.5	9.47	1.796	Collision Risk Procedures Req.
1,500.0	1,499.6	1,498.6	1,497.4	5.3	5.5	29.07	-16.6	23.4	19.2	8.9	10.32	1.863	Collision Risk Procedures Req.
1,600.0	1,598.8	1,597.5	1,594.7	5.7	5.9	14.31	-17.8	41.3	22.2	11.0	11.23	1.976	Collision Risk Procedures Req.
1,700.0	1,697.1	1,696.1	1,690.6	6.0	6.2	1.26	-19.3	64.1	26.0	14.0	12.03	2.165	
1,800.0	1,794.3	1,794.4	1,784.9	6.4	6.6	-10.04	-21.2	91.7	30.9	18.2	12.64	2.442	
1,900.0	1,890.2	1,892.3	1,877.3	6.7	6.9	-19.66	-23.4	124.0	36.7	23.6	13.09	2.806	
2,000.0	1,984.4	1,989.9	1,967.6	7.0	7.2	-27.75	-25.9	160.8	43.6	30.2	13.44	3.246	
2,100.0	2,076.8	2,087.2	2,055.6	7.3	7.5	-34.55	-28.7	202.1	51.6	37.8	13.78	3.742	
2,191.6	2,159.6	2,176.0	2,134.0	7.5	7.7	-39.83	-31.6	243.6	59.7	45.6	14.11	4.234	
2,200.0	2,167.1	2,184.1	2,141.1	7.5	7.7	-40.27	-31.8	247.6	60.5	46.4	14.13	4.285	
2,300.0	2,256.4	2,280.4	2,223.7	7.7	8.0	-43.63	-35.2	297.0	72.6	58.0	14.64	4.961	
2,400.0	2,345.7	2,377.6	2,304.8	7.9	8.1	-44.47	-38.8	350.5	88.4	73.2	15.17	5.829	
2,500.0	2,435.0	2,476.3	2,386.8	8.0	8.5	-44.90	-42.6	405.2	104.7	88.8	15.85	6.603	
2,600.0	2,524.3	2,575.0	2,468.9	8.4	9.1	-45.21	-46.3	459.9	120.9	104.3	16.59	7.291	
2,700.0	2,613.6	2,673.6	2,550.9	9.0	9.8	-45.45	-50.0	514.6	137.2	119.8	17.36	7.902	
2,800.0	2,702.9	2,772.3	2,632.9	9.5	10.5	-45.63	-53.7	569.3	153.5	135.3	18.17	8.445	
2,900.0	2,792.2	2,871.0	2,714.9	10.1	11.3	-45.78	-57.5	624.0	169.7	150.7	19.01	8.928	
3,000.0	2,881.5	2,969.6	2,797.0	10.7	12.0	-45.91	-61.2	678.7	186.0	166.1	19.88	9.357	
3,100.0	2,970.8	3,068.3	2,879.0	11.3	12.8	-46.01	-64.9	733.5	202.3	181.5	20.77	9.740	
3,200.0	3,060.1	3,167.0	2,961.0	11.9	13.5	-46.10	-68.6	788.2	218.6	196.9	21.68	10.083	
3,300.0	3,149.4	3,265.6	3,043.0	12.5	14.3	-46.18	-72.3	842.9	234.8	212.2	22.60	10.390	
3,400.0	3,238.7	3,364.3	3,125.0	13.1	15.1	-46.25	-76.1	897.6	251.1	227.6	23.54	10.666	
3,500.0	3,328.0	3,463.0	3,207.1	13.7	15.9	-46.30	-79.8	952.3	267.4	242.9	24.50	10.915	
3,600.0	3,417.3	3,561.6	3,289.1	14.3	16.7	-46.36	-83.5	1,007.0	283.7	258.2	25.46	11.140	
3,700.0	3,506.6	3,660.3	3,371.1	15.0	17.5	-46.40	-87.2	1,061.7	299.9	273.5	26.44	11.344	
3,800.0	3,595.9	3,759.0	3,453.1	15.6	18.3	-46.44	-91.0	1,116.4	316.2	288.8	27.42	11.530	
3,900.0	3,685.1	3,857.6	3,535.2	16.2	19.1	-46.48	-94.7	1,171.1	332.5	304.1	28.42	11.699	
4,000.0	3,774.4	3,956.3	3,617.2	16.8	19.9	-46.52	-98.4	1,225.9	348.8	319.3	29.42	11.854	
4,100.0	3,863.7	4,055.0	3,699.2	17.5	20.7	-46.55	-102.1	1,280.6	365.0	334.6	30.43	11.996	
4,200.0	3,953.0	4,153.6	3,781.2	18.1	21.5	-46.58	-105.9	1,335.3	381.3	349.9	31.44	12.127	
4,300.0	4,042.3	4,252.3	3,863.3	18.8	22.3	-46.60	-109.6	1,390.0	397.6	365.1	32.46	12.247	
4,400.0	4,131.6	4,351.0	3,945.3	19.4	23.1	-46.62	-113.3	1,444.7	413.9	380.4	33.49	12.358	
4,500.0	4,220.9	4,449.6	4,027.3	20.1	23.9	-46.65	-117.0	1,499.4	430.1	395.6	34.52	12.461	
4,600.0	4,310.2	4,548.3	4,109.3	20.7	24.7	-46.67	-120.8	1,554.1	446.4	410.9	35.55	12.557	
4,700.0	4,399.5	4,647.0	4,191.3	21.3	25.5	-46.69	-124.5	1,608.8	462.7	426.1	36.59	12.646	
4,800.0	4,488.8	4,745.6	4,273.4	22.0	26.3	-46.70	-128.2	1,663.6	479.0	441.3	37.63	12.728	

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

Amazon.com

Anticollision Report

Company:	APEX	Local Co-ordinate Reference:	Well *Brighton Lakes 20-17-2NAH
Project:	POCO Brighton Lakes Expansion	TVD Reference:	RKB @ 5063.0usft
Reference Site:	Sec 20-T1S-R66W	MD Reference:	RKB @ 5063.0usft
Site Error:	0.0 usft	North Reference:	Grid
Reference Well:	*Brighton Lakes 20-17-2NAH	Survey Calculation Method:	Minimum Curvature
Well Error:	0.0 usft	Output errors are at	2.00 sigma
Reference Wellbore	Original Hole	Database:	WC365
Reference Design:	Plan #1	Offset TVD Reference:	Offset Datum

Offset Design: Sec 20-T1S-R66W - *Buckley 21-16-1NAH - Original Hole - Plan #1													Offset Site Error:	0.0 usft
Survey Program:		0-MWD+HRGM+SAG+FDIR						Rule Assigned:				Offset Well Error:	0.0 usft	
Reference		Offset		Semi Major Axis		Highside Toolface (°)	Offset Wellbore Centre		Distance			Separation Factor	Warning	
Measured Depth (usft)	Vertical Depth (usft)	Measured Depth (usft)	Vertical Depth (usft)	Reference (usft)	Offset (usft)		+N/-S (usft)	+E/-W (usft)	Between Centres (usft)	Between Ellipses (usft)	Minimum Separation (usft)			
4,900.0	4,578.1	4,844.3	4,355.4	22.6	27.1	-46.72	-131.9	1,718.3	495.2	456.6	38.67	12.805		
5,000.0	4,667.4	4,943.0	4,437.4	23.3	28.0	-46.74	-135.7	1,773.0	511.5	471.8	39.72	12.878		
5,100.0	4,756.7	5,041.6	4,519.4	23.9	28.8	-46.75	-139.4	1,827.7	527.8	487.0	40.77	12.945		
5,200.0	4,846.0	5,140.3	4,601.5	24.6	29.6	-46.76	-143.1	1,882.4	544.1	502.2	41.82	13.009		
5,300.0	4,935.3	5,239.0	4,683.5	25.2	30.4	-46.78	-146.8	1,937.1	560.3	517.5	42.88	13.068		
5,400.0	5,024.6	5,337.6	4,765.5	25.9	31.2	-46.79	-150.6	1,991.8	576.6	532.7	43.93	13.124		
5,500.0	5,113.9	5,436.3	4,847.5	26.6	32.1	-46.80	-154.3	2,046.5	592.9	547.9	44.99	13.177		
5,600.0	5,203.2	5,535.0	4,929.6	27.2	32.9	-46.81	-158.0	2,101.3	609.2	563.1	46.05	13.227		
5,700.0	5,292.5	5,633.6	5,011.6	27.9	33.7	-46.82	-161.7	2,156.0	625.4	578.3	47.12	13.274		
5,800.0	5,381.8	5,732.3	5,093.6	28.5	34.5	-46.83	-165.4	2,210.7	641.7	593.5	48.18	13.319		
5,900.0	5,471.1	5,831.0	5,175.6	29.2	35.3	-46.84	-169.2	2,265.4	658.0	608.7	49.25	13.361		
6,000.0	5,560.4	5,929.6	5,257.7	29.8	36.2	-46.85	-172.9	2,320.1	674.3	624.0	50.31	13.401		
6,100.0	5,649.7	6,028.3	5,339.7	30.5	37.0	-46.86	-176.6	2,374.8	690.5	639.2	51.38	13.439		
6,200.0	5,739.0	6,127.0	5,421.7	31.2	37.8	-46.87	-180.3	2,429.5	706.8	654.4	52.45	13.476		
6,300.0	5,828.3	6,225.6	5,503.7	31.8	38.6	-46.87	-184.1	2,484.2	723.1	669.6	53.52	13.510		
6,400.0	5,917.6	6,324.3	5,585.7	32.5	39.5	-46.88	-187.8	2,538.9	739.4	684.8	54.59	13.543		
6,500.0	6,006.9	6,423.0	5,667.8	33.1	40.3	-46.89	-191.5	2,593.7	755.6	700.0	55.67	13.574		
6,600.0	6,096.2	6,521.6	5,749.8	33.8	41.1	-46.90	-195.2	2,648.4	771.9	715.2	56.74	13.604		
6,700.0	6,185.5	6,620.3	5,831.8	34.4	41.9	-46.90	-199.0	2,703.1	788.2	730.4	57.82	13.633		
6,800.0	6,274.8	6,719.0	5,913.8	35.1	42.8	-46.91	-202.7	2,757.8	804.5	745.6	58.89	13.660		
6,900.0	6,364.1	6,817.6	5,995.9	35.8	43.6	-46.91	-206.4	2,812.5	820.7	760.8	59.97	13.686		
7,000.0	6,453.4	6,916.3	6,077.9	36.4	44.4	-46.92	-210.1	2,867.2	837.0	776.0	61.05	13.711		
7,100.0	6,542.7	7,015.0	6,159.9	37.1	45.2	-46.93	-213.9	2,921.9	853.3	791.2	62.13	13.735		
7,200.0	6,632.0	7,113.6	6,241.9	37.7	46.1	-46.93	-217.6	2,976.6	869.6	806.4	63.21	13.758		
7,300.0	6,721.3	7,212.3	6,324.0	38.4	46.9	-46.94	-221.3	3,031.4	885.9	821.6	64.29	13.780		
7,314.2	6,734.0	7,226.3	6,335.6	38.5	47.0	-46.94	-221.8	3,039.1	888.2	823.7	64.44	13.784		
7,350.0	6,766.1	7,261.7	6,365.0	38.7	47.3	-40.24	-223.2	3,058.8	893.4	828.6	64.77	13.794		
7,400.0	6,811.1	7,311.2	6,406.2	39.1	47.7	-30.12	-225.0	3,086.2	898.7	833.7	65.05	13.815		
7,450.0	6,856.0	7,360.4	6,447.1	39.4	48.1	-19.78	-226.9	3,113.5	901.7	836.6	65.11	13.849		
7,500.0	6,900.4	7,409.0	6,487.5	39.6	48.5	-9.86	-228.7	3,140.5	902.5	837.5	64.94	13.897		
7,547.3	6,941.8	7,454.1	6,525.0	39.9	48.9	-1.23	-230.4	3,165.4	901.3	836.7	64.57	13.959		
7,550.0	6,944.1	7,456.6	6,527.1	39.9	48.9	-0.76	-230.5	3,166.8	901.1	836.6	64.54	13.963		
7,600.0	6,986.7	7,502.9	6,565.5	40.1	49.3	7.41	-232.3	3,192.5	897.9	834.0	63.90	14.052		
7,650.0	7,027.9	7,547.4	6,602.5	40.3	49.7	14.70	-234.0	3,217.2	893.0	830.0	63.01	14.172		
7,700.0	7,067.3	7,589.8	6,637.8	40.5	50.0	21.24	-235.6	3,240.7	886.7	824.8	61.87	14.331		
7,750.0	7,104.7	7,629.8	6,671.1	40.6	50.4	27.16	-237.1	3,262.9	879.4	818.9	60.49	14.537		
7,800.0	7,139.7	7,667.2	6,702.1	40.8	50.7	32.53	-238.5	3,283.6	871.4	812.5	58.88	14.800		
7,848.6	7,171.3	7,700.7	6,730.0	40.9	51.0	37.29	-239.7	3,302.2	863.4	806.2	57.12	15.116		
7,850.0	7,172.2	7,701.6	6,730.7	40.9	51.0	37.42	-239.8	3,302.7	863.1	806.1	57.06	15.126		
7,897.1	7,200.2	7,731.0	6,755.2	40.9	51.2	41.58	-240.9	3,319.0	855.5	800.3	55.21	15.495		
7,900.0	7,201.8	7,732.8	6,756.6	40.9	51.2	41.82	-241.0	3,320.0	855.1	800.0	55.10	15.519		
7,945.5	7,226.1	7,758.1	6,777.7	41.0	51.5	45.39	-241.9	3,334.0	848.3	795.0	53.23	15.936		
7,950.0	7,228.4	7,760.4	6,779.6	41.0	51.5	45.72	-242.0	3,335.3	847.6	794.6	53.05	15.979		
7,993.9	7,249.0	7,781.7	6,797.3	41.0	51.7	48.70	-242.8	3,347.1	842.0	790.7	51.25	16.429		
8,000.0	7,251.7	7,784.4	6,799.6	41.0	51.7	49.08	-242.9	3,348.6	841.3	790.3	51.01	16.494		
8,042.3	7,268.7	7,801.7	6,814.0	41.1	51.8	51.47	-243.6	3,358.2	837.0	787.6	49.38	16.951		
8,050.0	7,271.5	7,803.5	6,815.4	41.1	51.8	51.78	-243.6	3,359.2	836.3	787.2	49.09	17.037		
8,090.7	7,285.0	7,816.1	6,825.9	41.1	51.9	53.53	-244.0	3,366.2	833.6	785.9	47.72	17.469		
8,100.0	7,287.8	7,818.7	6,828.1	41.1	52.0	53.87	-244.0	3,367.6	833.2	785.8	47.44	17.563		
8,139.2	7,298.0	7,828.8	6,836.5	41.1	52.1	55.11	-244.0	3,373.2	832.2	785.7	46.44	17.920		
8,150.0	7,300.3	7,831.3	6,838.6	41.1	52.1	55.40	-244.0	3,374.6	832.1	785.9	46.22	18.005		
8,160.1	7,302.4	7,833.6	6,840.5	41.1	52.1	55.64	-244.0	3,375.9	832.2	786.1	46.03	18.078		

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

Amazon.com

Anticollision Report

Company:	APEX	Local Co-ordinate Reference:	Well *Brighton Lakes 20-17-2NAH
Project:	POCO Brighton Lakes Expansion	TVD Reference:	RKB @ 5063.0usft
Reference Site:	Sec 20-T1S-R66W	MD Reference:	RKB @ 5063.0usft
Site Error:	0.0 usft	North Reference:	Grid
Reference Well:	*Brighton Lakes 20-17-2NAH	Survey Calculation Method:	Minimum Curvature
Well Error:	0.0 usft	Output errors are at	2.00 sigma
Reference Wellbore	Original Hole	Database:	WC365
Reference Design:	Plan #1	Offset TVD Reference:	Offset Datum

Offset Design: Sec 20-T1S-R66W - *Buckley 21-16-1NAH - Original Hole - Plan #1													Offset Site Error: 0.0 usft	
Survey Program: Reference		Offset		Semi Major Axis		Offset Wellbore Centre			Rule Assigned: Distance				Offset Well Error: 0.0 usft	
Measured Depth (usft)	Vertical Depth (usft)	Measured Depth (usft)	Vertical Depth (usft)	Reference (usft)	Offset (usft)	Highside Toolface (°)	+N/-S (usft)	+E/-W (usft)	Between Centres (usft)	Between Ellipses (usft)	Minimum Separation (usft)	Separation Factor	Warning	
8,200.0	7,309.1	7,841.8	6,847.3	41.0	52.2	56.38	-243.8	3,380.5	833.3	787.7	45.52	18.305		
8,208.9	7,310.2	7,843.4	6,848.7	41.0	52.2	56.50	-243.7	3,381.3	833.7	788.2	45.46	18.339		
8,250.0	7,313.9	7,849.6	6,853.8	41.0	52.2	56.78	-243.5	3,384.7	836.7	791.3	45.42	18.422		
8,286.8	7,315.0	7,852.9	6,856.6	41.0	52.3	56.65	-243.4	3,386.6	840.8	795.0	45.72	18.389		
8,300.0	7,315.0	7,853.8	6,857.2	41.0	52.3	56.71	-243.3	3,387.1	842.5	796.6	45.90	18.354		
8,400.0	7,315.0	7,861.9	6,864.0	40.9	52.3	57.27	-242.8	3,391.6	862.5	814.0	48.48	17.790		
8,500.0	7,315.0	7,876.4	6,876.0	40.8	52.5	58.26	-241.7	3,399.6	893.2	840.7	52.53	17.003		
8,600.0	7,315.0	7,909.8	6,903.6	40.8	52.7	60.53	-237.8	3,418.0	933.4	876.2	57.17	16.326		
8,700.0	7,315.0	8,060.4	7,023.7	40.8	53.9	70.18	-196.4	3,498.1	980.8	920.5	60.32	16.260		
8,800.0	7,315.0	8,773.1	7,310.0	40.9	56.3	89.72	377.0	3,689.1	999.1	953.6	45.53	21.945		
8,823.0	7,315.0	8,796.1	7,310.0	40.9	56.4	89.72	399.9	3,689.1	999.1	953.4	45.75	21.840		
8,900.0	7,315.0	8,873.1	7,310.0	41.0	56.4	89.72	477.0	3,689.1	999.2	952.6	46.54	21.470		
8,923.0	7,315.0	8,896.1	7,310.0	41.0	56.4	89.72	499.9	3,689.1	999.2	952.4	46.79	21.353		
9,000.0	7,315.0	8,973.1	7,310.0	41.1	56.5	89.72	577.0	3,689.1	999.2	951.5	47.70	20.946		
9,023.0	7,315.0	8,996.1	7,310.0	41.1	56.5	89.72	599.9	3,689.1	999.2	951.2	47.99	20.821		
9,100.0	7,315.0	9,073.1	7,310.0	41.2	56.6	89.72	677.0	3,689.1	999.2	950.2	49.01	20.388		
9,123.0	7,315.0	9,096.1	7,310.0	41.3	56.7	89.72	699.9	3,689.1	999.2	949.8	49.33	20.256		
9,200.0	7,315.0	9,173.1	7,310.0	41.4	56.8	89.72	777.0	3,689.1	999.2	948.7	50.45	19.807		
9,223.0	7,315.0	9,196.1	7,310.0	41.5	56.8	89.72	799.9	3,689.1	999.2	948.4	50.79	19.671		
9,300.0	7,315.0	9,273.1	7,310.0	41.6	56.9	89.72	877.0	3,689.1	999.2	947.2	52.01	19.212		
9,323.0	7,315.0	9,296.1	7,310.0	41.7	57.0	89.72	899.9	3,689.1	999.2	946.8	52.38	19.075		
9,400.0	7,315.0	9,373.1	7,310.0	41.9	57.1	89.72	977.0	3,689.1	999.2	945.5	53.68	18.613		
9,423.0	7,315.0	9,396.1	7,310.0	42.0	57.2	89.72	999.9	3,689.1	999.2	945.1	54.08	18.476		
9,500.0	7,315.0	9,473.1	7,310.0	42.2	57.3	89.72	1,077.0	3,689.1	999.2	943.7	55.45	18.018		
9,523.0	7,315.0	9,496.1	7,310.0	42.3	57.4	89.72	1,099.9	3,689.1	999.2	943.3	55.88	17.883		
9,600.0	7,315.0	9,573.1	7,310.0	42.6	57.6	89.72	1,177.0	3,689.1	999.2	941.9	57.32	17.432		
9,623.0	7,315.0	9,596.1	7,310.0	42.7	57.6	89.72	1,199.9	3,689.1	999.2	941.4	57.76	17.299		
9,700.0	7,315.0	9,673.1	7,310.0	43.0	57.8	89.72	1,277.0	3,689.1	999.2	939.9	59.27	16.858		
9,723.0	7,315.0	9,696.1	7,310.0	43.1	57.9	89.72	1,299.9	3,689.1	999.2	939.5	59.73	16.729		
9,800.0	7,315.0	9,773.1	7,310.0	43.5	58.1	89.72	1,377.0	3,689.1	999.2	937.9	61.29	16.302		
9,823.0	7,315.0	9,796.1	7,310.0	43.6	58.2	89.72	1,399.9	3,689.1	999.2	937.4	61.77	16.176		
9,900.0	7,315.0	9,873.1	7,310.0	44.0	58.4	89.72	1,477.0	3,689.1	999.2	935.8	63.39	15.763		
9,923.0	7,315.0	9,896.1	7,310.0	44.1	58.5	89.72	1,499.9	3,689.1	999.2	935.3	63.88	15.643		
10,000.0	7,315.0	9,973.1	7,310.0	44.6	58.8	89.72	1,577.0	3,689.1	999.2	933.7	65.54	15.245		
10,023.0	7,315.0	9,996.1	7,310.0	44.7	58.8	89.72	1,599.9	3,689.1	999.2	933.2	66.05	15.129		
10,100.0	7,315.0	10,073.1	7,310.0	45.2	59.1	89.72	1,677.0	3,689.1	999.2	931.5	67.75	14.748		
10,123.0	7,315.0	10,096.1	7,310.0	45.4	59.2	89.72	1,699.9	3,689.1	999.2	931.0	68.27	14.637		
10,200.0	7,315.0	10,173.1	7,310.0	45.9	59.5	89.72	1,777.0	3,689.1	999.2	929.2	70.01	14.272		
10,223.0	7,315.0	10,196.1	7,310.0	46.1	59.6	89.72	1,799.9	3,689.1	999.2	928.7	70.54	14.165		
10,300.0	7,315.0	10,273.1	7,310.0	46.6	59.9	89.72	1,877.0	3,689.1	999.2	926.9	72.32	13.817		
10,323.0	7,315.0	10,296.1	7,310.0	46.8	60.0	89.72	1,899.9	3,689.1	999.2	926.4	72.86	13.715		
10,400.0	7,315.0	10,373.1	7,310.0	47.4	60.4	89.72	1,977.0	3,689.1	999.2	924.6	74.67	13.382		
10,423.0	7,315.0	10,396.1	7,310.0	47.6	60.5	89.72	1,999.9	3,689.1	999.2	924.0	75.21	13.285		
10,500.0	7,315.0	10,473.1	7,310.0	48.2	60.9	89.72	2,077.0	3,689.1	999.2	922.2	77.06	12.968		
10,523.0	7,315.0	10,496.1	7,310.0	48.4	61.0	89.72	2,099.9	3,689.1	999.2	921.6	77.61	12.876		
10,600.0	7,315.0	10,573.1	7,310.0	49.1	61.4	89.72	2,177.0	3,689.1	999.3	919.8	79.48	12.573		
10,623.0	7,315.0	10,596.1	7,310.0	49.3	61.5	89.72	2,199.9	3,689.1	999.3	919.2	80.04	12.485		
10,700.0	7,315.0	10,673.1	7,310.0	50.0	61.9	89.72	2,277.0	3,689.1	999.3	917.3	81.93	12.197		
10,723.0	7,315.0	10,696.1	7,310.0	50.2	62.0	89.72	2,299.9	3,689.1	999.3	916.8	82.49	12.113		
10,800.0	7,315.0	10,773.1	7,310.0	50.9	62.5	89.72	2,377.0	3,689.1	999.3	914.9	84.41	11.838		
10,823.0	7,315.0	10,796.1	7,310.0	51.2	62.6	89.72	2,399.9	3,689.1	999.3	914.3	84.98	11.759		
10,900.0	7,315.0	10,873.1	7,310.0	51.9	63.1	89.72	2,477.0	3,689.1	999.3	912.4	86.91	11.497		

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

Amazon.com

Anticollision Report

Company:	APEX	Local Co-ordinate Reference:	Well *Brighton Lakes 20-17-2NAH
Project:	POCO Brighton Lakes Expansion	TVD Reference:	RKB @ 5063.0usft
Reference Site:	Sec 20-T1S-R66W	MD Reference:	RKB @ 5063.0usft
Site Error:	0.0 usft	North Reference:	Grid
Reference Well:	*Brighton Lakes 20-17-2NAH	Survey Calculation Method:	Minimum Curvature
Well Error:	0.0 usft	Output errors are at	2.00 sigma
Reference Wellbore	Original Hole	Database:	WC365
Reference Design:	Plan #1	Offset TVD Reference:	Offset Datum

Offset Design: Sec 20-T1S-R66W - *Buckley 21-16-1NAH - Original Hole - Plan #1												Offset Site Error:	0.0 usft
Survey Program: 0-MWD+HRGM+SAG+FDIR												Offset Well Error:	0.0 usft
Reference		Offset		Semi Major Axis		Highside Toolface (°)	Offset Wellbore Centre		Distance		Minimum Separation (usft)	Separation Factor	Warning
Measured Depth (usft)	Vertical Depth (usft)	Measured Depth (usft)	Vertical Depth (usft)	Reference (usft)	Offset (usft)		+N/-S (usft)	+E/-W (usft)	Between Centres (usft)	Between Ellipses (usft)			
10,923.0	7,315.0	10,896.1	7,310.0	52.1	63.2	89.72	2,499.9	3,689.1	999.3	911.8	87.49	11.421	
11,000.0	7,315.0	10,973.1	7,310.0	52.9	63.7	89.72	2,577.0	3,689.1	999.3	909.8	89.45	11.172	
11,023.0	7,315.0	10,996.1	7,310.0	53.2	63.9	89.72	2,599.9	3,689.1	999.3	909.2	90.03	11.099	
11,100.0	7,315.0	11,073.1	7,310.0	54.0	64.4	89.72	2,677.0	3,689.1	999.3	907.3	92.00	10.862	
11,123.0	7,315.0	11,096.1	7,310.0	54.2	64.6	89.72	2,699.9	3,689.1	999.3	906.7	92.59	10.793	
11,200.0	7,315.0	11,173.1	7,310.0	55.0	65.1	89.72	2,777.0	3,689.1	999.3	904.7	94.57	10.567	
11,223.0	7,315.0	11,196.1	7,310.0	55.3	65.3	89.72	2,799.9	3,689.1	999.3	904.1	95.16	10.501	
11,300.0	7,315.0	11,273.1	7,310.0	56.1	65.8	89.72	2,877.0	3,689.1	999.3	902.1	97.16	10.285	
11,323.0	7,315.0	11,296.1	7,310.0	56.4	66.0	89.72	2,899.9	3,689.1	999.3	901.5	97.76	10.222	
11,400.0	7,315.0	11,373.1	7,310.0	57.2	66.6	89.72	2,977.0	3,689.1	999.3	899.5	99.77	10.016	
11,423.0	7,315.0	11,396.1	7,310.0	57.5	66.7	89.72	2,999.9	3,689.1	999.3	898.9	100.37	9.956	
11,500.0	7,315.0	11,473.1	7,310.0	58.3	67.4	89.72	3,077.0	3,689.1	999.3	896.9	102.39	9.759	
11,523.0	7,315.0	11,496.1	7,310.0	58.6	67.5	89.72	3,099.9	3,689.1	999.3	896.3	103.00	9.702	
11,600.0	7,315.0	11,573.1	7,310.0	59.5	68.2	89.72	3,177.0	3,689.1	999.3	894.3	105.03	9.514	
11,623.0	7,315.0	11,596.1	7,310.0	59.7	68.4	89.72	3,199.9	3,689.1	999.3	893.7	105.64	9.459	
11,700.0	7,315.0	11,673.1	7,310.0	60.6	69.0	89.72	3,277.0	3,689.1	999.3	891.6	107.69	9.280	
11,723.0	7,315.0	11,696.1	7,310.0	60.9	69.2	89.72	3,299.9	3,689.1	999.3	891.0	108.30	9.228	
11,800.0	7,315.0	11,773.1	7,310.0	61.8	69.9	89.72	3,377.0	3,689.1	999.3	889.0	110.35	9.056	
11,823.0	7,315.0	11,796.1	7,310.0	62.1	70.1	89.72	3,399.9	3,689.1	999.3	888.4	110.96	9.006	
11,900.0	7,315.0	11,873.1	7,310.0	63.0	70.8	89.72	3,477.0	3,689.1	999.3	886.3	113.03	8.841	
11,923.0	7,315.0	11,896.1	7,310.0	63.3	71.0	89.72	3,499.9	3,689.1	999.3	885.7	113.64	8.793	
12,000.0	7,315.0	11,973.1	7,310.0	64.2	71.7	89.72	3,577.0	3,689.1	999.3	883.6	115.72	8.636	
12,023.0	7,315.0	11,996.1	7,310.0	64.5	71.9	89.72	3,599.9	3,689.1	999.3	883.0	116.33	8.590	
12,100.0	7,315.0	12,073.1	7,310.0	65.4	72.6	89.72	3,677.0	3,689.1	999.3	880.9	118.41	8.439	
12,123.0	7,315.0	12,096.1	7,310.0	65.7	72.8	89.72	3,699.9	3,689.1	999.3	880.3	119.03	8.395	
12,200.0	7,315.0	12,173.1	7,310.0	66.7	73.6	89.72	3,777.0	3,689.1	999.3	878.2	121.12	8.251	
12,223.0	7,315.0	12,196.1	7,310.0	67.0	73.8	89.72	3,799.9	3,689.1	999.3	877.6	121.74	8.209	
12,300.0	7,315.0	12,273.1	7,310.0	67.9	74.6	89.72	3,877.0	3,689.1	999.4	875.5	123.84	8.070	
12,323.0	7,315.0	12,296.1	7,310.0	68.2	74.8	89.72	3,899.9	3,689.1	999.4	874.9	124.46	8.029	
12,400.0	7,315.0	12,373.1	7,310.0	69.2	75.6	89.72	3,977.0	3,689.1	999.4	872.8	126.56	7.896	
12,423.0	7,315.0	12,396.1	7,310.0	69.5	75.8	89.72	3,999.9	3,689.1	999.4	872.2	127.19	7.857	
12,500.0	7,315.0	12,473.1	7,310.0	70.4	76.6	89.72	4,077.0	3,689.1	999.4	870.1	129.29	7.729	
12,523.0	7,315.0	12,496.1	7,310.0	70.7	76.8	89.72	4,099.9	3,689.1	999.4	869.4	129.92	7.692	
12,600.0	7,315.0	12,573.1	7,310.0	71.7	77.6	89.72	4,177.0	3,689.1	999.4	867.3	132.03	7.569	
12,623.0	7,315.0	12,596.1	7,310.0	72.0	77.9	89.72	4,199.9	3,689.1	999.4	866.7	132.66	7.533	
12,700.0	7,315.0	12,673.1	7,310.0	73.0	78.7	89.72	4,277.0	3,689.1	999.4	864.6	134.78	7.415	
12,723.0	7,315.0	12,696.1	7,310.0	73.3	78.9	89.72	4,299.9	3,689.1	999.4	864.0	135.41	7.380	
12,800.0	7,315.0	12,773.1	7,310.0	74.3	79.8	89.72	4,377.0	3,689.1	999.4	861.9	137.53	7.267	
12,823.0	7,315.0	12,796.1	7,310.0	74.6	80.0	89.72	4,399.9	3,689.1	999.4	861.2	138.16	7.233	
12,900.0	7,315.0	12,873.1	7,310.0	75.5	80.8	89.72	4,477.0	3,689.1	999.4	859.1	140.29	7.124	
12,923.0	7,315.0	12,896.1	7,310.0	75.8	81.1	89.72	4,499.9	3,689.1	999.4	858.5	140.92	7.092	
13,000.0	7,315.0	12,973.1	7,310.0	76.8	81.9	89.72	4,577.0	3,689.1	999.4	856.3	143.05	6.986	
13,023.0	7,315.0	12,996.1	7,310.0	77.1	82.2	89.72	4,599.9	3,689.1	999.4	855.7	143.69	6.955	
13,100.0	7,315.0	13,073.1	7,310.0	78.1	83.1	89.72	4,677.0	3,689.1	999.4	853.6	145.82	6.853	
13,123.0	7,315.0	13,096.1	7,310.0	78.4	83.3	89.72	4,699.9	3,689.1	999.4	852.9	146.46	6.824	
13,200.0	7,315.0	13,173.1	7,310.0	79.5	84.2	89.72	4,777.0	3,689.1	999.4	850.8	148.60	6.726	
13,223.0	7,315.0	13,196.1	7,310.0	79.8	84.5	89.72	4,799.9	3,689.1	999.4	850.2	149.24	6.697	
13,300.0	7,315.0	13,273.1	7,310.0	80.8	85.3	89.72	4,877.0	3,689.1	999.4	848.0	151.38	6.602	
13,323.0	7,315.0	13,296.1	7,310.0	81.1	85.6	89.72	4,899.9	3,689.1	999.4	847.4	152.02	6.574	
13,400.0	7,315.0	13,373.1	7,310.0	82.1	86.5	89.72	4,977.0	3,689.1	999.4	845.3	154.16	6.483	
13,423.0	7,315.0	13,396.1	7,310.0	82.4	86.8	89.72	4,999.9	3,689.1	999.4	844.6	154.80	6.456	
13,500.0	7,315.0	13,473.1	7,310.0	83.4	87.7	89.72	5,077.0	3,689.1	999.4	842.5	156.95	6.368	

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

Amazon.com

Anticollision Report

Company:	APEX	Local Co-ordinate Reference:	Well *Brighton Lakes 20-17-2NAH
Project:	POCO Brighton Lakes Expansion	TVD Reference:	RKB @ 5063.0usft
Reference Site:	Sec 20-T1S-R66W	MD Reference:	RKB @ 5063.0usft
Site Error:	0.0 usft	North Reference:	Grid
Reference Well:	*Brighton Lakes 20-17-2NAH	Survey Calculation Method:	Minimum Curvature
Well Error:	0.0 usft	Output errors are at	2.00 sigma
Reference Wellbore	Original Hole	Database:	WC365
Reference Design:	Plan #1	Offset TVD Reference:	Offset Datum

Offset Design: Sec 20-T1S-R66W - *Buckley 21-16-1NAH - Original Hole - Plan #1											Offset Site Error:	0.0 usft
Survey Program: 0-MWD+HRGM+SAG+FDIR											Offset Well Error:	0.0 usft
Reference		Offset		Semi Major Axis		Highside Toolface (°)	Offset Wellbore Centre		Distance		Warning	
Measured Depth (usft)	Vertical Depth (usft)	Measured Depth (usft)	Vertical Depth (usft)	Reference (usft)	Offset (usft)		+N/-S (usft)	+E/-W (usft)	Between Centres (usft)	Between Ellipses (usft)	Minimum Separation (usft)	Separation Factor
13,523.0	7,315.0	13,496.1	7,310.0	83.7	87.9	89.72	5,099.9	3,689.1	999.4	841.8	157.59	6.342
13,600.0	7,315.0	13,573.1	7,310.0	84.7	88.9	89.72	5,177.0	3,689.1	999.4	839.7	159.74	6.256
13,623.0	7,315.0	13,596.1	7,310.0	85.1	89.1	89.72	5,199.9	3,689.1	999.4	839.0	160.38	6.231
13,700.0	7,315.0	13,673.1	7,310.0	86.1	90.0	89.72	5,277.0	3,689.1	999.4	836.9	162.54	6.149
13,723.0	7,315.0	13,696.1	7,310.0	86.4	90.3	89.72	5,299.9	3,689.1	999.4	836.3	163.18	6.125
13,800.0	7,315.0	13,773.1	7,310.0	87.4	91.3	89.72	5,377.0	3,689.1	999.4	834.1	165.34	6.045
13,823.0	7,315.0	13,796.1	7,310.0	87.7	91.5	89.72	5,399.9	3,689.1	999.4	833.5	165.98	6.021
13,900.0	7,315.0	13,873.1	7,310.0	88.8	92.5	89.72	5,477.0	3,689.1	999.4	831.3	168.14	5.944
13,923.0	7,315.0	13,896.1	7,310.0	89.1	92.7	89.72	5,499.9	3,689.1	999.4	830.7	168.79	5.921
14,000.0	7,315.0	13,973.1	7,310.0	90.1	93.7	89.72	5,577.0	3,689.1	999.5	828.5	170.95	5.846
14,023.0	7,315.0	13,996.1	7,310.0	90.4	94.0	89.72	5,599.9	3,689.1	999.5	827.9	171.59	5.825
14,100.0	7,315.0	14,073.1	7,310.0	91.5	94.9	89.72	5,677.0	3,689.1	999.5	825.7	173.76	5.752
14,123.0	7,315.0	14,096.1	7,310.0	91.8	95.2	89.72	5,699.9	3,689.1	999.5	825.1	174.40	5.731
14,200.0	7,315.0	14,173.1	7,310.0	92.8	96.1	89.72	5,777.0	3,689.1	999.5	822.9	176.57	5.660
14,223.0	7,315.0	14,196.1	7,310.0	93.1	96.4	89.72	5,799.9	3,689.1	999.5	822.2	177.22	5.640
14,300.0	7,315.0	14,273.1	7,310.0	94.2	97.4	89.72	5,877.0	3,689.1	999.5	820.1	179.39	5.572
14,323.0	7,315.0	14,296.1	7,310.0	94.5	97.7	89.72	5,899.9	3,689.1	999.5	819.4	180.03	5.552
14,400.0	7,315.0	14,373.1	7,310.0	95.5	98.6	89.72	5,977.0	3,689.1	999.5	817.3	182.21	5.485
14,423.0	7,315.0	14,396.1	7,310.0	95.8	98.9	89.72	5,999.9	3,689.1	999.5	816.6	182.85	5.466
14,500.0	7,315.0	14,473.1	7,310.0	96.9	99.9	89.72	6,077.0	3,689.1	999.5	814.5	185.03	5.402
14,523.0	7,315.0	14,496.1	7,310.0	97.2	100.2	89.72	6,099.9	3,689.1	999.5	813.8	185.68	5.383
14,600.0	7,315.0	14,573.1	7,310.0	98.2	101.2	89.71	6,177.0	3,689.1	999.5	811.6	187.85	5.321
14,623.0	7,315.0	14,596.1	7,310.0	98.6	101.5	89.71	6,199.9	3,689.1	999.5	811.0	188.50	5.302
14,700.0	7,315.0	14,673.1	7,310.0	99.6	102.4	89.71	6,277.0	3,689.1	999.5	808.8	190.68	5.242
14,723.0	7,315.0	14,696.1	7,310.0	99.9	102.7	89.71	6,299.9	3,689.1	999.5	808.2	191.33	5.224
14,800.0	7,315.0	14,773.1	7,310.0	101.0	103.7	89.71	6,377.0	3,689.1	999.5	806.0	193.50	5.165
14,823.0	7,315.0	14,796.1	7,310.0	101.3	104.0	89.71	6,399.9	3,689.1	999.5	805.3	194.15	5.148
14,900.0	7,315.0	14,873.1	7,310.0	102.3	105.0	89.71	6,477.0	3,689.1	999.5	803.2	196.33	5.091
14,923.0	7,315.0	14,896.1	7,310.0	102.7	105.3	89.71	6,499.9	3,689.1	999.5	802.5	196.98	5.074
15,000.0	7,315.0	14,973.1	7,310.0	103.7	106.3	89.71	6,577.0	3,689.1	999.5	800.3	199.17	5.018
15,023.0	7,315.0	14,996.1	7,310.0	104.0	106.6	89.71	6,599.9	3,689.1	999.5	799.7	199.82	5.002
15,100.0	7,315.0	15,073.1	7,310.0	105.1	107.6	89.71	6,677.0	3,689.1	999.5	797.5	202.00	4.948
15,123.0	7,315.0	15,096.1	7,310.0	105.4	107.9	89.71	6,699.9	3,689.1	999.5	796.9	202.65	4.932
15,200.0	7,315.0	15,173.1	7,310.0	106.5	108.9	89.71	6,777.0	3,689.1	999.5	794.7	204.84	4.880
15,223.0	7,315.0	15,196.1	7,310.0	106.8	109.2	89.71	6,799.9	3,689.1	999.5	794.0	205.49	4.864
15,300.0	7,315.0	15,273.1	7,310.0	107.9	110.2	89.71	6,877.0	3,689.1	999.5	791.9	207.68	4.813
15,323.0	7,315.0	15,296.1	7,310.0	108.2	110.5	89.71	6,899.9	3,689.1	999.5	791.2	208.33	4.798
15,400.0	7,315.0	15,373.1	7,310.0	109.2	111.5	89.71	6,977.0	3,689.1	999.5	789.0	210.52	4.748
15,423.0	7,315.0	15,396.1	7,310.0	109.6	111.8	89.71	6,999.9	3,689.1	999.5	788.4	211.17	4.733
15,500.0	7,315.0	15,473.1	7,310.0	110.6	112.8	89.71	7,077.0	3,689.1	999.5	786.2	213.36	4.685
15,523.0	7,315.0	15,496.1	7,310.0	110.9	113.1	89.71	7,099.9	3,689.1	999.5	785.5	214.01	4.671
15,600.0	7,315.0	15,573.1	7,310.0	112.0	114.1	89.71	7,177.0	3,689.1	999.5	783.3	216.20	4.623
15,623.0	7,315.0	15,596.1	7,310.0	112.3	114.4	89.71	7,199.9	3,689.1	999.5	782.7	216.85	4.609
15,700.0	7,315.0	15,673.1	7,310.0	113.4	115.4	89.71	7,277.0	3,689.1	999.6	780.5	219.04	4.563
15,723.0	7,315.0	15,696.1	7,310.0	113.7	115.7	89.71	7,299.9	3,689.1	999.6	779.9	219.70	4.550
15,800.0	7,315.0	15,773.1	7,310.0	114.8	116.7	89.71	7,377.0	3,689.1	999.6	777.7	221.89	4.505
15,823.0	7,315.0	15,796.1	7,310.0	115.1	117.1	89.71	7,399.9	3,689.1	999.6	777.0	222.54	4.492
15,900.0	7,315.0	15,873.1	7,310.0	116.2	118.1	89.71	7,477.0	3,689.1	999.6	774.8	224.74	4.448
15,923.0	7,315.0	15,896.1	7,310.0	116.5	118.4	89.71	7,499.9	3,689.1	999.6	774.2	225.39	4.435
16,000.0	7,315.0	15,973.1	7,310.0	117.6	119.4	89.71	7,577.0	3,689.1	999.6	772.0	227.59	4.392
16,023.0	7,315.0	15,996.1	7,310.0	117.9	119.7	89.71	7,599.9	3,689.1	999.6	771.3	228.24	4.379
16,100.0	7,315.0	16,073.1	7,310.0	119.0	120.7	89.71	7,677.0	3,689.1	999.6	769.1	230.44	4.338

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

Amazon.com

Anticollision Report

Company:	APEX	Local Co-ordinate Reference:	Well *Brighton Lakes 20-17-2NAH
Project:	POCO Brighton Lakes Expansion	TVD Reference:	RKB @ 5063.0usft
Reference Site:	Sec 20-T1S-R66W	MD Reference:	RKB @ 5063.0usft
Site Error:	0.0 usft	North Reference:	Grid
Reference Well:	*Brighton Lakes 20-17-2NAH	Survey Calculation Method:	Minimum Curvature
Well Error:	0.0 usft	Output errors are at	2.00 sigma
Reference Wellbore	Original Hole	Database:	WC365
Reference Design:	Plan #1	Offset TVD Reference:	Offset Datum

Offset Design: Sec 20-T1S-R66W - *Buckley 21-16-1NAH - Original Hole - Plan #1												Offset Site Error:	0.0 usft
Survey Program: 0-MWD+HRGM+SAG+FDIR												Offset Well Error:	0.0 usft
Reference		Offset		Semi Major Axis		Highside Toolface (°)	Offset Wellbore Centre		Distance		Minimum Separation (usft)	Separation Factor	Warning
Measured Depth (usft)	Vertical Depth (usft)	Measured Depth (usft)	Vertical Depth (usft)	Reference (usft)	Offset (usft)		+N/-S (usft)	+E/-W (usft)	Between Centres (usft)	Between Ellipses (usft)			
16,123.0	7,315.0	16,096.1	7,310.0	119.3	121.0	89.71	7,699.9	3,689.1	999.6	768.5	231.09	4.325	
16,200.0	7,315.0	16,173.1	7,310.0	120.4	122.1	89.71	7,777.0	3,689.1	999.6	766.3	233.29	4.285	
16,223.0	7,315.0	16,196.1	7,310.0	120.7	122.4	89.71	7,799.9	3,689.1	999.6	765.6	233.94	4.273	
16,300.0	7,315.0	16,273.1	7,310.0	121.7	123.4	89.71	7,877.0	3,689.1	999.6	763.4	236.14	4.233	
16,323.0	7,315.0	16,296.1	7,310.0	122.1	123.7	89.71	7,899.9	3,689.1	999.6	762.8	236.80	4.221	
16,400.0	7,315.0	16,373.1	7,310.0	123.1	124.8	89.71	7,977.0	3,689.1	999.6	760.6	239.00	4.182	
16,423.0	7,315.0	16,396.1	7,310.0	123.5	125.1	89.71	7,999.9	3,689.1	999.6	759.9	239.65	4.171	
16,500.0	7,315.0	16,473.1	7,310.0	124.5	126.1	89.71	8,077.0	3,689.1	999.6	757.8	241.85	4.133	
16,523.0	7,315.0	16,496.1	7,310.0	124.9	126.4	89.71	8,099.9	3,689.1	999.6	757.1	242.51	4.122	
16,600.0	7,315.0	16,573.1	7,310.0	125.9	127.4	89.71	8,177.0	3,689.1	999.6	754.9	244.71	4.085	
16,623.0	7,315.0	16,596.1	7,310.0	126.3	127.8	89.71	8,199.9	3,689.1	999.6	754.2	245.36	4.074	
16,700.0	7,315.0	16,673.1	7,310.0	127.3	128.8	89.71	8,277.0	3,689.1	999.6	752.0	247.56	4.038	
16,723.0	7,315.0	16,696.1	7,310.0	127.7	129.1	89.71	8,299.9	3,689.1	999.6	751.4	248.22	4.027	
16,800.0	7,315.0	16,773.1	7,310.0	128.7	130.1	89.71	8,377.0	3,689.1	999.6	749.2	250.42	3.992	
16,823.0	7,315.0	16,796.1	7,310.0	129.1	130.5	89.71	8,399.9	3,689.1	999.6	748.5	251.08	3.981	
16,900.0	7,315.0	16,873.1	7,310.0	130.1	131.5	89.71	8,477.0	3,689.1	999.6	746.3	253.28	3.947	
16,923.0	7,315.0	16,896.1	7,310.0	130.5	131.8	89.71	8,499.9	3,689.1	999.6	745.7	253.94	3.936	
17,000.0	7,315.0	16,973.1	7,310.0	131.6	132.9	89.71	8,577.0	3,689.1	999.6	743.5	256.14	3.903	
17,023.0	7,315.0	16,996.1	7,310.0	131.9	133.2	89.71	8,599.9	3,689.1	999.6	742.8	256.80	3.893	
17,100.0	7,315.0	17,073.1	7,310.0	133.0	134.2	89.71	8,677.0	3,689.1	999.6	740.6	259.00	3.860	
17,123.0	7,315.0	17,096.1	7,310.0	133.3	134.5	89.71	8,699.9	3,689.1	999.6	740.0	259.66	3.850	
17,200.0	7,315.0	17,173.1	7,310.0	134.4	135.6	89.71	8,777.0	3,689.1	999.6	737.8	261.87	3.817	
17,223.0	7,315.0	17,196.1	7,310.0	134.7	135.9	89.71	8,799.9	3,689.1	999.6	737.1	262.52	3.808	
17,300.0	7,315.0	17,273.1	7,310.0	135.8	136.9	89.71	8,877.0	3,689.1	999.6	734.9	264.73	3.776	
17,323.0	7,315.0	17,296.1	7,310.0	136.1	137.3	89.71	8,899.9	3,689.1	999.7	734.3	265.39	3.767	
17,400.0	7,315.0	17,373.1	7,310.0	137.2	138.3	89.71	8,977.0	3,689.1	999.7	732.1	267.59	3.736	
17,423.0	7,315.0	17,396.1	7,310.0	137.5	138.6	89.71	8,999.9	3,689.1	999.7	731.4	268.25	3.727	
17,500.0	7,315.0	17,473.1	7,310.0	138.6	139.7	89.71	9,077.0	3,689.1	999.7	729.2	270.46	3.696	
17,523.0	7,315.0	17,496.1	7,310.0	138.9	140.0	89.71	9,099.9	3,689.1	999.7	728.5	271.12	3.687	
17,600.0	7,315.0	17,573.1	7,310.0	140.0	141.1	89.71	9,177.0	3,689.1	999.7	726.3	273.32	3.657	
17,623.0	7,315.0	17,596.1	7,310.0	140.3	141.4	89.71	9,199.9	3,689.1	999.7	725.7	273.98	3.649	
17,700.0	7,315.0	17,673.1	7,310.0	141.4	142.4	89.71	9,277.0	3,689.1	999.7	723.5	276.19	3.620	
17,723.0	7,315.0	17,696.1	7,310.0	141.7	142.7	89.71	9,299.9	3,689.1	999.7	722.8	276.85	3.611	
17,800.0	7,315.0	17,773.1	7,310.0	142.8	143.8	89.71	9,377.0	3,689.1	999.7	720.6	279.06	3.582	
17,823.0	7,315.0	17,796.1	7,310.0	143.1	144.1	89.71	9,399.9	3,689.1	999.7	720.0	279.71	3.574	
17,900.0	7,315.0	17,873.1	7,310.0	144.2	145.2	89.71	9,477.0	3,689.1	999.7	717.8	281.92	3.546	
17,923.0	7,315.0	17,896.1	7,310.0	144.6	145.5	89.71	9,499.9	3,689.1	999.7	717.1	282.58	3.538	
18,000.0	7,315.0	17,973.1	7,310.0	145.6	146.5	89.71	9,577.0	3,689.1	999.7	714.9	284.79	3.510	
18,007.4	7,315.0	17,980.6	7,310.0	145.7	146.7	89.71	9,584.4	3,689.1	999.7	714.7	285.01	3.508	
18,032.3	7,315.0	18,005.5	7,310.0	146.1	147.0	89.71	9,609.3	3,689.1	999.7	714.0	285.72	3.499	

Amazon.com

Anticollision Report

Company:	APEX	Local Co-ordinate Reference:	Well *Brighton Lakes 20-17-2NAH
Project:	POCO Brighton Lakes Expansion	TVD Reference:	RKB @ 5063.0usft
Reference Site:	Sec 20-T1S-R66W	MD Reference:	RKB @ 5063.0usft
Site Error:	0.0 usft	North Reference:	Grid
Reference Well:	*Brighton Lakes 20-17-2NAH	Survey Calculation Method:	Minimum Curvature
Well Error:	0.0 usft	Output errors are at	2.00 sigma
Reference Wellbore	Original Hole	Database:	WC365
Reference Design:	Plan #1	Offset TVD Reference:	Offset Datum

Offset Design: Sec 20-T1S-R66W - *Buckley 21-16-1NBH - Original Hole - Plan #1												Offset Site Error:	0.0 usft
Survey Program: 0-MWD+HRGM+SAG+FDIR												Offset Well Error:	0.0 usft
Reference		Offset		Semi Major Axis		Highside Toolface (°)	Offset Wellbore Centre		Distance		Separation Factor	Warning	
Measured Depth (usft)	Vertical Depth (usft)	Measured Depth (usft)	Vertical Depth (usft)	Reference (usft)	Offset (usft)		+N/-S (usft)	+E/-W (usft)	Between Centres (usft)	Between Ellipses (usft)			
0.0	0.0	0.0	0.0	0.0	0.0	179.41	-169.9	1.7	169.9				
100.0	100.0	100.0	100.0	1.0	1.0	179.41	-169.9	1.7	169.9	168.0	1.96	86.798	
200.0	200.0	200.0	200.0	1.6	1.6	179.41	-169.9	1.7	169.9	166.8	3.12	54.463	
300.0	300.0	300.0	300.0	2.0	2.0	179.41	-169.9	1.7	169.9	166.0	3.96	42.899	
400.0	400.0	400.0	400.0	2.3	2.3	179.41	-169.9	1.7	169.9	165.3	4.66	36.479	
500.0	500.0	500.0	500.0	2.6	2.6	179.41	-169.9	1.7	169.9	164.7	5.27	32.251	
600.0	600.0	600.0	600.0	2.9	2.9	179.41	-169.9	1.7	169.9	164.1	5.82	29.196	
700.0	700.0	700.0	700.0	3.2	3.2	179.41	-169.9	1.7	169.9	163.6	6.33	26.853	
800.0	800.0	800.0	800.0	3.4	3.4	179.41	-169.9	1.7	169.9	163.1	6.80	24.983	
900.0	900.0	900.0	900.0	3.6	3.6	179.41	-169.9	1.7	169.9	162.7	7.25	23.443	
1,000.0	1,000.0	1,000.0	1,000.0	3.8	3.8	179.41	-169.9	1.7	169.9	162.3	7.67	22.147	
1,100.0	1,100.0	1,100.0	1,100.0	4.0	4.0	179.41	-169.9	1.7	169.9	161.9	8.08	21.037	
1,166.7	1,166.7	1,166.7	1,166.7	4.2	4.2	179.41	-169.9	1.7	169.9	161.6	8.34	20.382	
1,200.0	1,200.0	1,200.0	1,200.0	4.2	4.2	179.41	-169.9	1.7	169.9	161.5	8.47	20.070	
1,300.0	1,300.0	1,298.6	1,298.6	4.4	4.7	178.56	-170.3	4.3	170.3	161.5	8.84	19.274	
1,400.0	1,400.0	1,396.9	1,396.6	4.9	5.1	70.55	-171.3	11.8	170.9	161.7	9.22	18.541	
1,500.0	1,499.6	1,495.0	1,493.8	5.3	5.5	68.83	-173.0	24.3	170.8	161.2	9.60	17.799	
1,600.0	1,598.8	1,592.8	1,590.0	5.7	5.9	67.08	-175.4	41.6	170.1	160.1	10.00	17.010	
1,700.0	1,697.1	1,690.3	1,684.9	6.0	6.2	65.30	-178.5	63.8	168.9	158.4	10.45	16.168	
1,800.0	1,794.3	1,787.6	1,778.3	6.4	6.5	63.46	-182.2	90.6	167.1	156.2	10.94	15.273	
1,900.0	1,890.2	1,884.6	1,870.0	6.7	6.9	61.54	-186.5	122.0	164.8	153.3	11.50	14.328	
2,000.0	1,984.4	1,981.3	1,959.7	7.0	7.1	59.52	-191.5	157.9	161.9	149.8	12.13	13.347	
2,100.0	2,076.8	2,077.8	2,047.2	7.3	7.4	57.39	-197.0	198.1	158.6	145.8	12.84	12.350	
2,191.6	2,159.6	2,165.9	2,125.3	7.5	7.7	55.31	-202.6	238.6	155.2	141.6	13.54	11.461	
2,200.0	2,167.1	2,174.0	2,132.3	7.5	7.7	55.10	-203.2	242.5	154.9	141.3	13.60	11.390	
2,287.4	2,245.1	2,257.8	2,204.5	7.7	7.9	52.21	-209.0	284.6	152.7	138.4	14.35	10.646	
2,300.0	2,256.4	2,269.8	2,214.7	7.7	8.0	51.70	-209.8	290.9	152.6	138.2	14.45	10.559 CC, ES	
2,400.0	2,345.7	2,364.6	2,293.8	7.9	8.2	46.79	-217.0	342.7	153.8	138.6	15.24	10.091	
2,500.0	2,435.0	2,461.1	2,372.0	8.0	8.4	40.84	-224.7	398.8	159.0	143.0	16.00	9.938 SF	
2,600.0	2,524.3	2,559.5	2,451.4	8.4	9.1	35.10	-232.7	456.2	166.2	149.5	16.61	10.001	
2,700.0	2,613.6	2,657.9	2,530.9	9.0	9.9	29.87	-240.6	513.7	174.9	157.8	17.14	10.203	
2,800.0	2,702.9	2,756.2	2,610.3	9.5	10.6	25.17	-248.5	571.2	185.0	167.4	17.58	10.519	
2,900.0	2,792.2	2,854.6	2,689.8	10.1	11.4	20.96	-256.5	628.6	196.2	178.2	17.97	10.917	
3,000.0	2,881.5	2,953.0	2,769.2	10.7	12.2	17.22	-264.4	686.1	208.3	190.0	18.32	11.370	
3,100.0	2,970.8	3,051.4	2,848.7	11.3	13.0	13.89	-272.3	743.5	221.3	202.6	18.66	11.858	
3,200.0	3,060.1	3,149.7	2,928.1	11.9	13.8	10.94	-280.3	801.0	234.9	215.9	19.00	12.364	
3,300.0	3,149.4	3,248.1	3,007.6	12.5	14.7	8.31	-288.2	858.4	249.0	229.7	19.35	12.872	
3,400.0	3,238.7	3,346.5	3,087.0	13.1	15.5	5.97	-296.1	915.9	263.6	243.9	19.71	13.374	
3,500.0	3,328.0	3,444.9	3,166.5	13.7	16.3	3.87	-304.1	973.4	278.6	258.5	20.10	13.862	
3,600.0	3,417.3	3,543.2	3,246.0	14.3	17.2	1.99	-312.0	1,030.8	294.0	273.5	20.52	14.329	
3,700.0	3,506.6	3,641.6	3,325.4	15.0	18.0	0.29	-319.9	1,088.3	309.6	288.6	20.96	14.773	
3,800.0	3,595.9	3,740.0	3,404.9	15.6	18.9	-1.24	-327.9	1,145.7	325.5	304.0	21.42	15.191	
3,900.0	3,685.1	3,838.4	3,484.3	16.2	19.7	-2.63	-335.8	1,203.2	341.5	319.6	21.92	15.583	
4,000.0	3,774.4	3,936.7	3,563.8	16.8	20.6	-3.90	-343.7	1,260.7	357.8	335.3	22.43	15.948	
4,100.0	3,863.7	4,035.1	3,643.2	17.5	21.4	-5.06	-351.6	1,318.1	374.2	351.2	22.98	16.286	
4,200.0	3,953.0	4,133.5	3,722.7	18.1	22.3	-6.11	-359.6	1,375.6	390.7	367.2	23.54	16.599	
4,300.0	4,042.3	4,231.9	3,802.1	18.8	23.2	-7.09	-367.5	1,433.0	407.4	383.3	24.12	16.887	
4,400.0	4,131.6	4,330.2	3,881.6	19.4	24.0	-7.98	-375.4	1,490.5	424.2	399.4	24.73	17.153	
4,500.0	4,220.9	4,428.6	3,961.0	20.1	24.9	-8.81	-383.4	1,548.0	441.0	415.7	25.35	17.398	
4,600.0	4,310.2	4,527.0	4,040.5	20.7	25.8	-9.58	-391.3	1,605.4	458.0	432.0	25.99	17.622	
4,700.0	4,399.5	4,625.4	4,120.0	21.3	26.6	-10.29	-399.2	1,662.9	475.0	448.3	26.64	17.829	
4,800.0	4,488.8	4,723.7	4,199.4	22.0	27.5	-10.96	-407.2	1,720.3	492.1	464.8	27.31	18.018	

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

Amazon.com

Anticollision Report

Company:	APEX	Local Co-ordinate Reference:	Well *Brighton Lakes 20-17-2NAH
Project:	POCO Brighton Lakes Expansion	TVD Reference:	RKB @ 5063.0usft
Reference Site:	Sec 20-T1S-R66W	MD Reference:	RKB @ 5063.0usft
Site Error:	0.0 usft	North Reference:	Grid
Reference Well:	*Brighton Lakes 20-17-2NAH	Survey Calculation Method:	Minimum Curvature
Well Error:	0.0 usft	Output errors are at	2.00 sigma
Reference Wellbore	Original Hole	Database:	WC365
Reference Design:	Plan #1	Offset TVD Reference:	Offset Datum

Offset Design: Sec 20-T1S-R66W - *Buckley 21-16-1NBH - Original Hole - Plan #1												Offset Site Error: 0.0 usft	
Survey Program:		0-MWD+HRGM+SAG+FDIR						Rule Assigned:				Offset Well Error: 0.0 usft	
Reference		Offset		Semi Major Axis		Highside Toolface (°)	Offset Wellbore Centre		Distance		Separation Factor	Warning	
Measured Depth (usft)	Vertical Depth (usft)	Measured Depth (usft)	Vertical Depth (usft)	Reference (usft)	Offset (usft)		+N/-S (usft)	+E/-W (usft)	Between Centres (usft)	Between Ellipses (usft)			Minimum Separation (usft)
4,900.0	4,578.1	4,822.1	4,278.9	22.6	28.4	-11.58	-415.1	1,777.8	509.2	481.2	27.99	18.192	
5,000.0	4,667.4	4,920.5	4,358.3	23.3	29.2	-12.16	-423.0	1,835.3	526.4	497.7	28.68	18.353	
5,100.0	4,756.7	5,018.9	4,437.8	23.9	30.1	-12.70	-431.0	1,892.7	543.7	514.3	29.39	18.500	
5,200.0	4,846.0	5,117.2	4,517.2	24.6	31.0	-13.21	-438.9	1,950.2	561.0	530.8	30.10	18.635	
5,300.0	4,935.3	5,215.6	4,596.7	25.2	31.9	-13.69	-446.8	2,007.6	578.3	547.5	30.83	18.760	
5,400.0	5,024.6	5,314.0	4,676.1	25.9	32.7	-14.14	-454.8	2,065.1	595.7	564.1	31.56	18.874	
5,500.0	5,113.9	5,412.4	4,755.6	26.6	33.6	-14.56	-462.7	2,122.6	613.1	580.8	32.30	18.980	
5,600.0	5,203.2	5,510.7	4,835.0	27.2	34.5	-14.96	-470.6	2,180.0	630.5	597.4	33.05	19.078	
5,700.0	5,292.5	5,609.1	4,914.5	27.9	35.4	-15.34	-478.6	2,237.5	648.0	614.2	33.80	19.168	
5,800.0	5,381.8	5,707.5	4,994.0	28.5	36.2	-15.70	-486.5	2,294.9	665.4	630.9	34.57	19.252	
5,900.0	5,471.1	5,805.9	5,073.4	29.2	37.1	-16.05	-494.4	2,352.4	683.0	647.6	35.33	19.329	
6,000.0	5,560.4	5,904.2	5,152.9	29.8	38.0	-16.37	-502.3	2,409.9	700.5	664.4	36.11	19.401	
6,100.0	5,649.7	6,002.6	5,232.3	30.5	38.9	-16.68	-510.3	2,467.3	718.1	681.2	36.89	19.467	
6,200.0	5,739.0	6,101.0	5,311.8	31.2	39.8	-16.97	-518.2	2,524.8	735.6	698.0	37.67	19.529	
6,300.0	5,828.3	6,199.4	5,391.2	31.8	40.6	-17.25	-526.1	2,582.2	753.2	714.8	38.46	19.586	
6,400.0	5,917.6	6,297.7	5,470.7	32.5	41.5	-17.52	-534.1	2,639.7	770.8	731.6	39.25	19.640	
6,500.0	6,006.9	6,396.1	5,550.1	33.1	42.4	-17.78	-542.0	2,697.2	788.5	748.4	40.05	19.689	
6,600.0	6,096.2	6,494.5	5,629.6	33.8	43.3	-18.02	-549.9	2,754.6	806.1	765.3	40.84	19.736	
6,700.0	6,185.5	6,592.9	5,709.0	34.4	44.2	-18.26	-557.9	2,812.1	823.8	782.1	41.65	19.779	
6,800.0	6,274.8	6,691.2	5,788.5	35.1	45.0	-18.48	-565.8	2,869.5	841.4	799.0	42.45	19.819	
6,900.0	6,364.1	6,789.6	5,868.0	35.8	45.9	-18.69	-573.7	2,927.0	859.1	815.8	43.26	19.857	
7,000.0	6,453.4	6,888.0	5,947.4	36.4	46.8	-18.90	-581.7	2,984.5	876.8	832.7	44.08	19.893	
7,100.0	6,542.7	6,986.4	6,026.9	37.1	47.7	-19.10	-589.6	3,041.9	894.5	849.6	44.89	19.926	
7,200.0	6,632.0	7,084.7	6,106.3	37.7	48.6	-19.29	-597.5	3,099.4	912.2	866.5	45.71	19.957	
7,300.0	6,721.3	7,183.1	6,185.8	38.4	49.5	-19.47	-605.5	3,156.8	929.9	883.4	46.53	19.986	
7,314.2	6,734.0	7,197.1	6,197.1	38.5	49.6	-19.50	-606.6	3,165.0	932.4	885.8	46.64	19.991	
7,350.0	6,766.1	7,232.3	6,225.5	38.7	49.9	-13.04	-609.4	3,185.6	938.7	891.8	46.88	20.022	
7,400.0	6,811.1	7,281.4	6,265.2	39.1	50.3	-3.37	-613.4	3,214.3	947.1	900.0	47.06	20.126	
7,450.0	6,856.0	7,330.1	6,304.5	39.4	50.8	6.41	-617.3	3,242.7	955.0	908.0	47.05	20.299	
7,500.0	6,900.4	7,378.0	6,343.2	39.6	51.2	15.63	-621.2	3,270.7	962.6	915.8	46.87	20.537	
7,550.0	6,944.1	7,424.7	6,380.9	39.9	51.6	23.88	-624.9	3,297.9	970.0	923.4	46.56	20.835	
7,600.0	6,986.7	7,469.8	6,417.3	40.1	52.0	31.03	-628.6	3,324.3	977.2	931.0	46.13	21.184	
7,650.0	7,027.9	7,513.0	6,452.2	40.3	52.4	37.12	-632.1	3,349.6	984.4	938.8	45.63	21.573	
7,700.0	7,067.3	7,554.1	6,485.4	40.5	52.8	42.25	-635.4	3,373.5	992.0	946.8	45.12	21.985	

Amazon.com

Anticollision Report

Company:	APEX	Local Co-ordinate Reference:	Well *Brighton Lakes 20-17-2NAH
Project:	POCO Brighton Lakes Expansion	TVD Reference:	RKB @ 5063.0usft
Reference Site:	Sec 20-T1S-R66W	MD Reference:	RKB @ 5063.0usft
Site Error:	0.0 usft	North Reference:	Grid
Reference Well:	*Brighton Lakes 20-17-2NAH	Survey Calculation Method:	Minimum Curvature
Well Error:	0.0 usft	Output errors are at	2.00 sigma
Reference Wellbore	Original Hole	Database:	WC365
Reference Design:	Plan #1	Offset TVD Reference:	Offset Datum

Offset Design: Sec 20-T1S-R66W - *Buckley 21-16-1NBHx - Original Hole - Plan #1												Offset Site Error:	0.0 usft
Survey Program: 0-MWD+HRGM+SAG+FDIR												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)	Distance Between Centres (usft)	Between Ellipses (usft)	Minimum Separation (usft)	Separation Factor	Warning
0.0	0.0	0.0	0.0	0.0	0.0	179.45	-214.9	2.1	214.9				
100.0	100.0	100.0	100.0	1.0	1.0	179.45	-214.9	2.1	214.9	213.0	1.96	109.776	
200.0	200.0	200.0	200.0	1.6	1.6	179.45	-214.9	2.1	214.9	211.8	3.12	68.881	
300.0	300.0	300.0	300.0	2.0	2.0	179.45	-214.9	2.1	214.9	211.0	3.96	54.256	
400.0	400.0	400.0	400.0	2.3	2.3	179.45	-214.9	2.1	214.9	210.3	4.66	46.137	
500.0	500.0	500.0	500.0	2.6	2.6	179.45	-214.9	2.1	214.9	209.7	5.27	40.789	
600.0	600.0	600.0	600.0	2.9	2.9	179.45	-214.9	2.1	214.9	209.1	5.82	36.925	
700.0	700.0	700.0	700.0	3.2	3.2	179.45	-214.9	2.1	214.9	208.6	6.33	33.962	
800.0	800.0	800.0	800.0	3.4	3.4	179.45	-214.9	2.1	214.9	208.1	6.80	31.596	
900.0	900.0	900.0	900.0	3.6	3.6	179.45	-214.9	2.1	214.9	207.7	7.25	29.649	
1,000.0	1,000.0	1,000.0	1,000.0	3.8	3.8	179.45	-214.9	2.1	214.9	207.3	7.67	28.011	
1,100.0	1,100.0	1,100.0	1,100.0	4.0	4.0	179.45	-214.9	2.1	214.9	206.9	8.08	26.606	
1,110.0	1,110.0	1,110.0	1,110.0	4.1	4.0	179.45	-214.9	2.1	214.9	206.8	8.11	26.512 CC	
1,200.0	1,200.0	1,198.6	1,198.5	4.2	4.1	179.29	-215.1	2.7	215.1	206.7	8.36	25.734 ES	
1,300.0	1,300.0	1,295.4	1,295.3	4.4	4.6	178.04	-216.3	7.4	216.5	207.8	8.74	24.786	
1,400.0	1,400.0	1,391.8	1,391.1	4.9	5.0	69.85	-218.8	16.8	218.7	209.6	9.14	23.940	
1,500.0	1,499.6	1,487.8	1,486.1	5.3	5.4	68.04	-222.5	30.9	221.0	211.4	9.54	23.156	
1,600.0	1,598.8	1,583.5	1,579.8	5.7	5.8	66.31	-227.4	49.4	223.2	213.2	9.97	22.380	
1,700.0	1,697.1	1,678.9	1,672.2	6.0	6.1	64.66	-233.4	72.4	225.4	215.0	10.44	21.599	
1,800.0	1,794.3	1,774.0	1,762.9	6.4	6.4	63.09	-240.6	99.8	227.6	216.7	10.94	20.800	
1,900.0	1,890.2	1,868.8	1,851.9	6.7	6.7	61.59	-248.9	131.3	229.7	218.2	11.50	19.976	
2,000.0	1,984.4	1,963.3	1,938.9	7.0	7.0	60.17	-258.3	167.0	231.7	219.6	12.11	19.126	
2,100.0	2,076.8	2,057.5	2,023.8	7.3	7.3	58.83	-268.7	206.7	233.6	220.8	12.80	18.253	
2,191.6	2,159.6	2,143.7	2,099.4	7.5	7.5	57.66	-279.1	246.5	235.2	221.8	13.45	17.486	
2,200.0	2,167.1	2,151.5	2,106.2	7.5	7.6	57.56	-280.1	250.3	235.4	221.9	13.50	17.430	
2,300.0	2,256.4	2,248.8	2,189.7	7.7	7.7	55.93	-292.8	298.7	238.2	223.8	14.36	16.592	
2,400.0	2,345.7	2,348.5	2,275.0	7.9	7.9	54.23	-305.9	348.6	241.4	226.2	15.21	15.872	
2,500.0	2,435.0	2,448.2	2,360.2	8.0	8.5	52.57	-319.0	398.5	244.9	228.8	16.05	15.262	
2,600.0	2,524.3	2,547.9	2,445.5	8.4	9.1	50.96	-332.2	448.5	248.5	231.7	16.88	14.724	
2,700.0	2,613.6	2,647.6	2,530.8	9.0	9.8	49.40	-345.3	498.4	252.4	234.7	17.71	14.250	
2,800.0	2,702.9	2,747.3	2,616.1	9.5	10.4	47.89	-358.4	548.3	256.4	237.9	18.53	13.837	
2,900.0	2,792.2	2,847.0	2,701.4	10.1	11.1	46.42	-371.5	598.2	260.6	241.3	19.34	13.477	
3,000.0	2,881.5	2,946.6	2,786.7	10.7	11.8	45.00	-384.6	648.2	265.0	244.9	20.13	13.164	
3,100.0	2,970.8	3,046.3	2,872.0	11.3	12.5	43.63	-397.7	698.1	269.5	248.6	20.90	12.895	
3,200.0	3,060.1	3,146.0	2,957.3	11.9	13.3	42.30	-410.8	748.0	274.2	252.5	21.65	12.662	
3,300.0	3,149.4	3,245.7	3,042.6	12.5	14.0	41.02	-423.9	797.9	279.0	256.6	22.39	12.462	
3,400.0	3,238.7	3,345.4	3,127.8	13.1	14.7	39.78	-437.0	847.8	284.0	260.9	23.10	12.291	
3,500.0	3,328.0	3,445.1	3,213.1	13.7	15.4	38.59	-450.2	897.8	289.0	265.2	23.80	12.145	
3,600.0	3,417.3	3,544.8	3,298.4	14.3	16.2	37.43	-463.3	947.7	294.2	269.8	24.48	12.022	
3,700.0	3,506.6	3,644.5	3,383.7	15.0	16.9	36.32	-476.4	997.6	299.6	274.4	25.13	11.918	
3,800.0	3,595.9	3,744.2	3,469.0	15.6	17.7	35.25	-489.5	1,047.5	305.0	279.2	25.78	11.832	
3,900.0	3,685.1	3,843.9	3,554.3	16.2	18.4	34.21	-502.6	1,097.5	310.5	284.1	26.40	11.760	
4,000.0	3,774.4	3,943.6	3,639.6	16.8	19.2	33.21	-515.7	1,147.4	316.1	289.1	27.01	11.702	
4,100.0	3,863.7	4,043.3	3,724.9	17.5	19.9	32.24	-528.8	1,197.3	321.9	294.2	27.61	11.656	
4,200.0	3,953.0	4,142.9	3,810.1	18.1	20.7	31.31	-541.9	1,247.2	327.7	299.5	28.20	11.621	
4,300.0	4,042.3	4,242.6	3,895.4	18.8	21.4	30.42	-555.0	1,297.2	333.6	304.8	28.77	11.594	
4,400.0	4,131.6	4,342.3	3,980.7	19.4	22.2	29.55	-568.2	1,347.1	339.5	310.2	29.33	11.576	
4,500.0	4,220.9	4,442.0	4,066.0	20.1	22.9	28.71	-581.3	1,397.0	345.6	315.7	29.88	11.565	
4,600.0	4,310.2	4,541.7	4,151.3	20.7	23.7	27.90	-594.4	1,446.9	351.7	321.3	30.42	11.560	
4,700.0	4,399.5	4,641.4	4,236.6	21.3	24.5	27.12	-607.5	1,496.9	357.9	326.9	30.96	11.561	
4,800.0	4,488.8	4,741.1	4,321.9	22.0	25.2	26.37	-620.6	1,546.8	364.1	332.6	31.48	11.566	
4,900.0	4,578.1	4,840.8	4,407.2	22.6	26.0	25.64	-633.7	1,596.7	370.4	338.4	32.00	11.576	

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

Amazon.com

Anticollision Report

Company:	APEX	Local Co-ordinate Reference:	Well *Brighton Lakes 20-17-2NAH
Project:	POCO Brighton Lakes Expansion	TVD Reference:	RKB @ 5063.0usft
Reference Site:	Sec 20-T1S-R66W	MD Reference:	RKB @ 5063.0usft
Site Error:	0.0 usft	North Reference:	Grid
Reference Well:	*Brighton Lakes 20-17-2NAH	Survey Calculation Method:	Minimum Curvature
Well Error:	0.0 usft	Output errors are at	2.00 sigma
Reference Wellbore	Original Hole	Database:	WC365
Reference Design:	Plan #1	Offset TVD Reference:	Offset Datum

Offset Design: Sec 20-T1S-R66W - *Buckley 21-16-1NBHx - Original Hole - Plan #1												Offset Site Error:	0.0 usft
Survey Program: 0-MWD+HRGM+SAG+FDIR												Offset Well Error:	0.0 usft
Reference		Offset		Semi Major Axis		Highside Toolface (°)	Offset Wellbore Centre		Distance		Minimum Separation (usft)	Separation Factor	Warning
Measured Depth (usft)	Vertical Depth (usft)	Measured Depth (usft)	Vertical Depth (usft)	Reference (usft)	Offset (usft)		+N/-S (usft)	+E/-W (usft)	Between Centres (usft)	Between Ellipses (usft)			
5,000.0	4,667.4	4,940.5	4,492.5	23.3	26.7	24.94	-646.8	1,646.6	376.8	344.3	32.52	11.589	
5,100.0	4,756.7	5,040.2	4,577.7	23.9	27.5	24.26	-659.9	1,696.6	383.2	350.2	33.02	11.605	
5,200.0	4,846.0	5,139.9	4,663.0	24.6	28.3	23.60	-673.0	1,746.5	389.7	356.2	33.53	11.624	
5,300.0	4,935.3	5,239.6	4,748.3	25.2	29.0	22.96	-686.2	1,796.4	396.2	362.2	34.02	11.646	
5,400.0	5,024.6	5,339.2	4,833.6	25.9	29.8	22.35	-699.3	1,846.3	402.8	368.3	34.52	11.669	
5,500.0	5,113.9	5,438.9	4,918.9	26.6	30.6	21.75	-712.4	1,896.3	409.4	374.4	35.01	11.694	
5,600.0	5,203.2	5,538.6	5,004.2	27.2	31.3	21.18	-725.5	1,946.2	416.1	380.6	35.50	11.720	
5,700.0	5,292.5	5,638.3	5,089.5	27.9	32.1	20.62	-738.6	1,996.1	422.8	386.8	35.99	11.748	
5,800.0	5,381.8	5,738.0	5,174.8	28.5	32.9	20.08	-751.7	2,046.0	429.5	393.0	36.47	11.776	
5,900.0	5,471.1	5,837.7	5,260.0	29.2	33.6	19.55	-764.8	2,096.0	436.3	399.3	36.96	11.805	
6,000.0	5,560.4	5,937.4	5,345.3	29.8	34.4	19.04	-777.9	2,145.9	443.1	405.7	37.44	11.835	
6,100.0	5,649.7	6,037.1	5,430.6	30.5	35.2	18.55	-791.0	2,195.8	449.9	412.0	37.92	11.865	
6,200.0	5,739.0	6,136.8	5,515.9	31.2	35.9	18.07	-804.1	2,245.7	456.8	418.4	38.40	11.895	
6,300.0	5,828.3	6,236.5	5,601.2	31.8	36.7	17.61	-817.3	2,295.7	463.7	424.8	38.88	11.926	
6,400.0	5,917.6	6,336.2	5,686.5	32.5	37.5	17.16	-830.4	2,345.6	470.7	431.3	39.37	11.956	
6,500.0	6,006.9	6,435.9	5,771.8	33.1	38.3	16.72	-843.5	2,395.5	477.6	437.8	39.85	11.986	
6,600.0	6,096.2	6,535.5	5,857.1	33.8	39.0	16.30	-856.6	2,445.4	484.6	444.3	40.33	12.016	
6,700.0	6,185.5	6,635.2	5,942.4	34.4	39.8	15.88	-869.7	2,495.3	491.6	450.8	40.81	12.046	
6,800.0	6,274.8	6,734.9	6,027.6	35.1	40.6	15.48	-882.8	2,545.3	498.7	457.4	41.30	12.076	
6,900.0	6,364.1	6,834.6	6,112.9	35.8	41.3	15.09	-895.9	2,595.2	505.7	464.0	41.78	12.105	
7,000.0	6,453.4	6,934.3	6,198.2	36.4	42.1	14.71	-909.0	2,645.1	512.8	470.6	42.27	12.133	
7,100.0	6,542.7	7,034.0	6,283.5	37.1	42.9	14.35	-922.1	2,695.0	519.9	477.2	42.75	12.161	
7,200.0	6,632.0	7,133.7	6,368.8	37.7	43.7	13.99	-935.3	2,745.0	527.1	483.8	43.24	12.189	
7,300.0	6,721.3	7,233.4	6,454.1	38.4	44.4	13.64	-948.4	2,794.9	534.2	490.5	43.73	12.216	
7,314.2	6,734.0	7,247.6	6,466.2	38.5	44.5	13.59	-950.2	2,802.0	535.2	491.4	43.80	12.221	
7,350.0	6,766.1	7,283.2	6,496.7	38.7	44.8	20.38	-954.9	2,819.8	538.3	494.3	44.02	12.229	
7,400.0	6,811.1	7,332.7	6,539.1	39.1	45.2	30.45	-961.4	2,844.6	544.4	499.9	44.51	12.230	
7,450.0	6,856.0	7,381.6	6,580.9	39.4	45.6	40.53	-967.9	2,869.1	552.5	507.3	45.22	12.219	
7,500.0	6,900.4	7,429.4	6,621.8	39.6	45.9	49.93	-974.1	2,893.0	562.8	516.6	46.15	12.194	
7,550.0	6,944.1	7,475.8	6,661.5	39.9	46.3	58.23	-980.2	2,916.3	575.3	528.0	47.32	12.157	
7,600.0	6,986.7	7,520.4	6,699.6	40.1	46.6	65.26	-986.1	2,938.6	590.2	541.5	48.73	12.112	
7,650.0	7,027.9	7,562.9	6,736.0	40.3	47.0	71.02	-991.7	2,959.9	607.6	557.2	50.36	12.065	
7,700.0	7,067.3	7,603.0	6,770.3	40.5	47.3	75.60	-997.0	2,980.0	627.7	575.5	52.20	12.024	
7,750.0	7,104.7	7,640.4	6,802.3	40.6	47.6	79.09	-1,001.9	2,998.7	650.5	596.3	54.21	11.999	
7,800.0	7,139.7	7,674.8	6,831.7	40.8	47.8	81.55	-1,006.4	3,015.9	676.0	619.7	56.34	12.000	
7,850.0	7,172.2	7,705.9	6,858.3	40.9	48.1	83.00	-1,010.5	3,031.5	704.4	645.8	58.53	12.035	
7,900.0	7,201.8	7,733.4	6,881.9	40.9	48.3	83.43	-1,014.1	3,045.3	735.3	674.6	60.72	12.110	
7,950.0	7,228.4	7,757.3	6,902.3	41.0	48.5	82.81	-1,017.3	3,057.3	768.8	705.9	62.87	12.228	
8,000.0	7,251.7	7,781.8	6,920.0	41.0	51.7	99.89	-411.2	3,389.6	762.1	723.0	39.08	19.502	
8,050.0	7,271.5	7,826.7	6,940.0	41.1	51.6	100.89	-366.3	3,389.6	747.4	708.0	39.38	18.977	
8,100.0	7,287.8	7,873.3	6,970.0	41.1	51.6	101.59	-319.7	3,389.5	735.6	696.0	39.66	18.549	
8,150.0	7,300.3	7,921.3	6,970.0	41.1	51.6	102.05	-271.7	3,389.5	726.7	686.8	39.90	18.214	
8,200.0	7,309.1	7,970.3	6,970.0	41.0	51.5	102.33	-222.7	3,389.5	720.6	680.5	40.11	17.966	
8,250.0	7,313.9	8,020.0	6,970.0	41.0	51.5	102.47	-173.0	3,389.5	717.3	677.0	40.28	17.808	
8,259.2	7,314.4	8,029.2	6,970.0	41.0	51.5	102.48	-163.8	3,389.5	716.9	676.6	40.31	17.787	
8,286.8	7,315.0	8,056.8	6,970.0	41.0	51.5	102.50	-136.2	3,389.5	716.5	676.1	40.37	17.747	
8,287.4	7,315.0	8,057.4	6,970.0	41.0	51.5	102.50	-135.6	3,389.5	716.5	676.1	40.37	17.747	
8,300.0	7,315.0	8,070.0	6,970.0	41.0	51.5	102.50	-123.0	3,389.5	716.5	676.1	40.40	17.735	
8,304.4	7,315.0	8,074.4	6,970.0	41.0	51.5	102.50	-118.6	3,389.5	716.5	676.1	40.41	17.730	
8,400.0	7,315.0	8,170.0	6,970.0	40.9	51.4	102.50	-23.0	3,389.5	716.5	675.8	40.75	17.583	
8,404.4	7,315.0	8,174.4	6,970.0	40.9	51.4	102.50	-18.6	3,389.5	716.5	675.8	40.77	17.574	
8,500.0	7,315.0	8,270.0	6,970.0	40.8	51.4	102.50	77.0	3,389.5	716.5	675.2	41.29	17.352	

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

Amazon.com

Anticollision Report

Company:	APEX	Local Co-ordinate Reference:	Well *Brighton Lakes 20-17-2NAH
Project:	POCO Brighton Lakes Expansion	TVD Reference:	RKB @ 5063.0usft
Reference Site:	Sec 20-T1S-R66W	MD Reference:	RKB @ 5063.0usft
Site Error:	0.0 usft	North Reference:	Grid
Reference Well:	*Brighton Lakes 20-17-2NAH	Survey Calculation Method:	Minimum Curvature
Well Error:	0.0 usft	Output errors are at	2.00 sigma
Reference Wellbore	Original Hole	Database:	WC365
Reference Design:	Plan #1	Offset TVD Reference:	Offset Datum

Offset Design: Sec 20-T1S-R66W - *Buckley 21-16-1NBHx - Original Hole - Plan #1													Offset Site Error: 0.0 usft	
Survey Program: 0-MWD+HRGM+SAG+FDIR				Reference Offset				Rule Assigned: Distance				Offset Well Error: 0.0 usft		
Measured Depth (usft)	Vertical Depth (usft)	Measured Depth (usft)	Vertical Depth (usft)	Reference (usft)	Offset (usft)	Highside Toolface (°)	+N/-S (usft)	+E/-W (usft)	Between Centres (usft)	Between Ellipses (usft)	Minimum Separation (usft)	Separation Factor	Warning	
8,504.4	7,315.0	9,274.4	7,470.0	40.8	51.4	102.50	81.4	3,389.5	716.5	675.2	41.32	17.339		
8,600.0	7,315.0	9,370.0	7,470.0	40.8	51.5	102.50	177.0	3,389.5	716.5	674.5	42.02	17.051		
8,604.4	7,315.0	9,374.4	7,470.0	40.8	51.5	102.50	181.4	3,389.5	716.5	674.5	42.06	17.036		
8,700.0	7,315.0	9,470.0	7,470.0	40.8	51.5	102.50	277.0	3,389.5	716.5	673.6	42.93	16.692		
8,704.4	7,315.0	9,474.4	7,470.0	40.8	51.5	102.50	281.4	3,389.5	716.5	673.6	42.97	16.675		
8,800.0	7,315.0	9,570.0	7,470.0	40.9	51.6	102.50	377.0	3,389.5	716.5	672.5	44.00	16.286		
8,804.4	7,315.0	9,574.4	7,470.0	40.9	51.6	102.50	381.4	3,389.5	716.5	672.5	44.05	16.267		
8,900.0	7,315.0	9,670.0	7,470.0	41.0	51.6	102.50	477.0	3,389.5	716.5	671.3	45.22	15.846		
8,904.4	7,315.0	9,674.4	7,470.0	41.0	51.6	102.50	481.4	3,389.5	716.5	671.3	45.28	15.825		
9,000.0	7,315.0	9,770.0	7,470.0	41.1	51.8	102.50	577.0	3,389.5	716.5	670.0	46.59	15.381		
9,004.4	7,315.0	9,774.4	7,470.0	41.1	51.8	102.50	581.4	3,389.5	716.5	669.9	46.65	15.360		
9,100.0	7,315.0	9,870.0	7,470.0	41.2	51.9	102.50	677.0	3,389.5	716.5	668.5	48.08	14.903		
9,104.4	7,315.0	9,874.4	7,470.0	41.2	51.9	102.50	681.4	3,389.5	716.5	668.4	48.15	14.881		
9,200.0	7,315.0	9,970.0	7,470.0	41.4	52.1	102.50	777.0	3,389.5	716.5	666.8	49.70	14.419		
9,204.4	7,315.0	9,974.4	7,470.0	41.4	52.1	102.50	781.4	3,389.5	716.5	666.8	49.77	14.397		
9,300.0	7,315.0	10,070.0	7,470.0	41.6	52.3	102.50	877.0	3,389.5	716.5	665.1	51.42	13.936		
9,304.4	7,315.0	10,074.4	7,470.0	41.6	52.3	102.50	881.4	3,389.5	716.5	665.0	51.50	13.915		
9,400.0	7,315.0	10,170.0	7,470.0	41.9	52.5	102.50	977.0	3,389.5	716.5	663.3	53.23	13.460		
9,404.4	7,315.0	10,174.4	7,470.0	41.9	52.5	102.50	981.4	3,389.5	716.5	663.2	53.32	13.439		
9,500.0	7,315.0	10,270.0	7,470.0	42.2	52.8	102.50	1,077.0	3,389.5	716.5	661.4	55.14	12.995		
9,504.4	7,315.0	10,274.4	7,470.0	42.2	52.8	102.50	1,081.4	3,389.5	716.5	661.3	55.23	12.975		
9,600.0	7,315.0	10,370.0	7,470.0	42.6	53.1	102.50	1,177.0	3,389.5	716.6	659.4	57.12	12.544		
9,604.4	7,315.0	10,374.4	7,470.0	42.6	53.1	102.50	1,181.4	3,389.5	716.6	659.3	57.21	12.525		
9,700.0	7,315.0	10,470.0	7,470.0	43.0	53.4	102.50	1,277.0	3,389.5	716.6	657.4	59.17	12.109		
9,704.4	7,315.0	10,474.4	7,470.0	43.0	53.4	102.50	1,281.4	3,389.5	716.6	657.3	59.27	12.090		
9,800.0	7,315.0	10,570.0	7,470.0	43.5	53.8	102.50	1,377.0	3,389.5	716.6	655.3	61.29	11.691		
9,804.4	7,315.0	10,574.4	7,470.0	43.5	53.8	102.50	1,381.4	3,389.5	716.6	655.2	61.39	11.673		
9,900.0	7,315.0	10,670.0	7,470.0	44.0	54.2	102.50	1,477.0	3,389.5	716.6	653.1	63.46	11.291		
9,904.4	7,315.0	10,674.4	7,470.0	44.0	54.2	102.50	1,481.4	3,389.5	716.6	653.0	63.56	11.273		
10,000.0	7,315.0	10,770.0	7,470.0	44.6	54.7	102.50	1,577.0	3,389.5	716.6	650.9	65.69	10.909		
10,004.4	7,315.0	10,774.4	7,470.0	44.6	54.7	102.50	1,581.4	3,389.5	716.6	650.8	65.79	10.892		
10,100.0	7,315.0	10,870.0	7,470.0	45.2	55.2	102.50	1,677.0	3,389.5	716.6	648.6	67.96	10.544		
10,104.4	7,315.0	10,874.4	7,470.0	45.2	55.2	102.50	1,681.4	3,389.5	716.6	648.5	68.06	10.528		
10,200.0	7,315.0	10,970.0	7,470.0	45.9	55.7	102.50	1,777.0	3,389.5	716.6	646.3	70.27	10.197		
10,204.4	7,315.0	10,974.4	7,470.0	45.9	55.7	102.50	1,781.4	3,389.5	716.6	646.2	70.37	10.182		
10,300.0	7,315.0	11,070.0	7,470.0	46.6	56.3	102.50	1,877.0	3,389.5	716.6	643.9	72.62	9.867		
10,304.4	7,315.0	11,074.4	7,470.0	46.7	56.3	102.50	1,881.4	3,389.5	716.6	643.8	72.73	9.853		
10,400.0	7,315.0	11,170.0	7,470.0	47.4	56.9	102.50	1,977.0	3,389.5	716.6	641.6	75.00	9.554		
10,404.4	7,315.0	11,174.4	7,470.0	47.4	56.9	102.50	1,981.4	3,389.5	716.6	641.5	75.11	9.540		
10,500.0	7,315.0	11,270.0	7,470.0	48.2	57.6	102.50	2,077.0	3,389.5	716.6	639.2	77.42	9.256		
10,504.4	7,315.0	11,274.4	7,470.0	48.3	57.6	102.50	2,081.4	3,389.5	716.6	639.0	77.53	9.243		
10,600.0	7,315.0	11,370.0	7,470.0	49.1	58.3	102.50	2,177.0	3,389.5	716.6	636.7	79.86	8.973		
10,604.4	7,315.0	11,374.4	7,470.0	49.1	58.3	102.50	2,181.4	3,389.5	716.6	636.6	79.97	8.960		
10,700.0	7,315.0	11,470.0	7,470.0	50.0	59.0	102.50	2,277.0	3,389.5	716.6	634.2	82.33	8.704		
10,704.4	7,315.0	11,474.4	7,470.0	50.0	59.0	102.50	2,281.4	3,389.5	716.6	634.1	82.44	8.692		
10,800.0	7,315.0	11,570.0	7,470.0	50.9	59.8	102.50	2,377.0	3,389.5	716.6	631.8	84.82	8.448		
10,804.4	7,315.0	11,574.4	7,470.0	51.0	59.8	102.50	2,381.4	3,389.5	716.6	631.6	84.93	8.437		
10,900.0	7,315.0	11,670.0	7,470.0	51.9	60.6	102.50	2,477.0	3,389.5	716.6	629.2	87.33	8.205		
10,904.4	7,315.0	11,674.4	7,470.0	52.0	60.6	102.50	2,481.4	3,389.5	716.6	629.1	87.45	8.195		
11,000.0	7,315.0	11,770.0	7,470.0	52.9	61.5	102.49	2,577.0	3,389.5	716.6	626.7	89.87	7.974		
11,004.4	7,315.0	11,774.4	7,470.0	53.0	61.5	102.49	2,581.4	3,389.5	716.6	626.6	89.98	7.964		
11,100.0	7,315.0	11,870.0	7,470.0	54.0	62.3	102.49	2,677.0	3,389.5	716.6	624.2	92.42	7.754		

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

Amazon.com

Anticollision Report

Company:	APEX	Local Co-ordinate Reference:	Well *Brighton Lakes 20-17-2NAH
Project:	POCO Brighton Lakes Expansion	TVD Reference:	RKB @ 5063.0usft
Reference Site:	Sec 20-T1S-R66W	MD Reference:	RKB @ 5063.0usft
Site Error:	0.0 usft	North Reference:	Grid
Reference Well:	*Brighton Lakes 20-17-2NAH	Survey Calculation Method:	Minimum Curvature
Well Error:	0.0 usft	Output errors are at	2.00 sigma
Reference Wellbore	Original Hole	Database:	WC365
Reference Design:	Plan #1	Offset TVD Reference:	Offset Datum

Offset Design: Sec 20-T1S-R66W - *Buckley 21-16-1NBHx - Original Hole - Plan #1												Offset Site Error: 0.0 usft	
Survey Program: 0-MWD+HRGM+SAG+FDIR				Rule Assigned:								Offset Well Error: 0.0 usft	
Reference		Offset		Semi Major Axis		Highside Toolface (°)	Offset Wellbore Centre		Distance			Separation Factor	Warning
Measured Depth (usft)	Vertical Depth (usft)	Measured Depth (usft)	Vertical Depth (usft)	Reference (usft)	Offset (usft)		+N/-S (usft)	+E/-W (usft)	Between Centres (usft)	Between Ellipses (usft)	Minimum Separation (usft)		
11,104.4	7,315.0	11,874.4	7,470.0	54.0	62.4	102.49	2,681.4	3,389.5	716.6	624.1	92.53	7.744	
11,200.0	7,315.0	11,970.0	7,470.0	55.0	63.3	102.49	2,777.0	3,389.5	716.6	621.6	94.98	7.544	
11,204.4	7,315.0	11,974.4	7,470.0	55.1	63.3	102.49	2,781.4	3,389.4	716.6	621.5	95.10	7.535	
11,300.0	7,315.0	12,070.0	7,470.0	56.1	64.2	102.49	2,877.0	3,389.4	716.6	619.0	97.56	7.345	
11,304.4	7,315.0	12,074.4	7,470.0	56.2	64.2	102.49	2,881.4	3,389.4	716.6	618.9	97.68	7.336	
11,400.0	7,315.0	12,170.0	7,470.0	57.2	65.2	102.49	2,977.0	3,389.4	716.6	616.4	100.16	7.154	
11,404.4	7,315.0	12,174.4	7,470.0	57.3	65.2	102.49	2,981.4	3,389.4	716.6	616.3	100.28	7.146	
11,500.0	7,315.0	12,270.0	7,470.0	58.3	66.2	102.49	3,077.0	3,389.4	716.6	613.8	102.77	6.973	
11,504.4	7,315.0	12,274.4	7,470.0	58.4	66.2	102.49	3,081.4	3,389.4	716.6	613.7	102.89	6.965	
11,600.0	7,315.0	12,370.0	7,470.0	59.5	67.2	102.49	3,177.0	3,389.4	716.6	611.2	105.39	6.800	
11,604.4	7,315.0	12,374.4	7,470.0	59.5	67.3	102.49	3,181.4	3,389.4	716.6	611.1	105.51	6.792	
11,700.0	7,315.0	12,470.0	7,470.0	60.6	68.3	102.49	3,277.0	3,389.4	716.6	608.6	108.02	6.634	
11,704.4	7,315.0	12,474.4	7,470.0	60.7	68.3	102.49	3,281.4	3,389.4	716.6	608.5	108.14	6.627	
11,800.0	7,315.0	12,570.0	7,470.0	61.8	69.3	102.49	3,377.0	3,389.4	716.6	605.9	110.66	6.476	
11,804.4	7,315.0	12,574.4	7,470.0	61.9	69.4	102.49	3,381.4	3,389.4	716.6	605.8	110.78	6.469	
11,900.0	7,315.0	12,670.0	7,470.0	63.0	70.4	102.49	3,477.0	3,389.4	716.6	603.3	113.31	6.324	
11,904.4	7,315.0	12,674.4	7,470.0	63.1	70.5	102.49	3,481.4	3,389.4	716.6	603.2	113.43	6.317	
12,000.0	7,315.0	12,770.0	7,470.0	64.2	71.5	102.49	3,577.0	3,389.4	716.6	600.6	115.98	6.179	
12,004.4	7,315.0	12,774.4	7,470.0	64.3	71.6	102.49	3,581.4	3,389.4	716.6	600.5	116.09	6.173	
12,100.0	7,315.0	12,870.0	7,470.0	65.4	72.7	102.49	3,677.0	3,389.4	716.6	598.0	118.64	6.040	
12,104.4	7,315.0	12,874.4	7,470.0	65.5	72.7	102.49	3,681.4	3,389.4	716.6	597.8	118.76	6.034	
12,200.0	7,315.0	12,970.0	7,470.0	66.7	73.8	102.49	3,777.0	3,389.4	716.6	595.3	121.32	5.907	
12,204.4	7,315.0	12,974.4	7,470.0	66.7	73.8	102.49	3,781.4	3,389.4	716.6	595.2	121.44	5.901	
12,300.0	7,315.0	13,070.0	7,470.0	67.9	75.0	102.49	3,877.0	3,389.4	716.6	592.6	124.00	5.779	
12,304.4	7,315.0	13,074.4	7,470.0	68.0	75.0	102.49	3,881.4	3,389.4	716.6	592.5	124.12	5.773	
12,400.0	7,315.0	13,170.0	7,470.0	69.2	76.1	102.49	3,977.0	3,389.4	716.6	589.9	126.70	5.656	
12,404.4	7,315.0	13,174.4	7,470.0	69.2	76.2	102.49	3,981.4	3,389.4	716.6	589.8	126.82	5.651	
12,500.0	7,315.0	13,270.0	7,470.0	70.4	77.3	102.49	4,077.0	3,389.4	716.6	587.2	129.39	5.538	
12,504.4	7,315.0	13,274.4	7,470.0	70.5	77.4	102.49	4,081.4	3,389.4	716.6	587.1	129.51	5.533	
12,600.0	7,315.0	13,370.0	7,470.0	71.7	78.5	102.49	4,177.0	3,389.4	716.6	584.5	132.10	5.425	
12,604.4	7,315.0	13,374.4	7,470.0	71.8	78.6	102.49	4,181.4	3,389.4	716.6	584.4	132.22	5.420	
12,700.0	7,315.0	13,470.0	7,470.0	73.0	79.7	102.49	4,277.0	3,389.4	716.6	581.8	134.80	5.316	
12,704.4	7,315.0	13,474.4	7,470.0	73.0	79.8	102.49	4,281.4	3,389.4	716.6	581.7	134.92	5.311	
12,800.0	7,315.0	13,570.0	7,470.0	74.3	80.9	102.49	4,377.0	3,389.4	716.6	579.1	137.52	5.211	
12,804.4	7,315.0	13,574.4	7,470.0	74.3	81.0	102.49	4,381.4	3,389.4	716.6	579.0	137.64	5.207	
12,900.0	7,315.0	13,670.0	7,470.0	75.5	82.2	102.49	4,477.0	3,389.4	716.6	576.4	140.24	5.110	
12,904.4	7,315.0	13,674.4	7,470.0	75.6	82.2	102.49	4,481.4	3,389.4	716.6	576.3	140.36	5.106	
13,000.0	7,315.0	13,770.0	7,470.0	76.8	83.4	102.49	4,577.0	3,389.4	716.6	573.7	142.96	5.013	
13,004.4	7,315.0	13,774.4	7,470.0	76.9	83.5	102.49	4,581.4	3,389.4	716.6	573.5	143.08	5.009	
13,100.0	7,315.0	13,870.0	7,470.0	78.1	84.6	102.49	4,677.0	3,389.4	716.6	570.9	145.69	4.919	
13,104.4	7,315.0	13,874.4	7,470.0	78.2	84.7	102.49	4,681.4	3,389.4	716.6	570.8	145.81	4.915	
13,200.0	7,315.0	13,970.0	7,470.0	79.5	85.9	102.49	4,777.0	3,389.4	716.6	568.2	148.42	4.828	
13,204.4	7,315.0	13,974.4	7,470.0	79.5	86.0	102.49	4,781.4	3,389.4	716.6	568.1	148.54	4.824	
13,300.0	7,315.0	14,070.0	7,470.0	80.8	87.2	102.49	4,877.0	3,389.4	716.6	565.5	151.16	4.741	
13,304.4	7,315.0	14,074.4	7,470.0	80.8	87.2	102.49	4,881.4	3,389.4	716.6	565.4	151.28	4.737	
13,400.0	7,315.0	14,170.0	7,470.0	82.1	88.4	102.49	4,977.0	3,389.4	716.6	562.7	153.90	4.657	
13,404.4	7,315.0	14,174.4	7,470.0	82.2	88.5	102.49	4,981.4	3,389.4	716.6	562.6	154.02	4.653	
13,500.0	7,315.0	14,270.0	7,470.0	83.4	89.7	102.49	5,077.0	3,389.4	716.6	560.0	156.64	4.575	
13,504.4	7,315.0	14,274.4	7,470.0	83.5	89.8	102.49	5,081.4	3,389.4	716.6	559.9	156.76	4.571	
13,600.0	7,315.0	14,370.0	7,470.0	84.7	91.0	102.49	5,177.0	3,389.4	716.6	557.3	159.39	4.496	
13,604.4	7,315.0	14,374.4	7,470.0	84.8	91.0	102.49	5,181.4	3,389.4	716.6	557.1	159.51	4.493	
13,700.0	7,315.0	14,470.0	7,470.0	86.1	92.3	102.49	5,277.0	3,389.4	716.6	554.5	162.14	4.420	

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

Amazon.com

Anticollision Report

Company:	APEX	Local Co-ordinate Reference:	Well *Brighton Lakes 20-17-2NAH
Project:	POCO Brighton Lakes Expansion	TVD Reference:	RKB @ 5063.0usft
Reference Site:	Sec 20-T1S-R66W	MD Reference:	RKB @ 5063.0usft
Site Error:	0.0 usft	North Reference:	Grid
Reference Well:	*Brighton Lakes 20-17-2NAH	Survey Calculation Method:	Minimum Curvature
Well Error:	0.0 usft	Output errors are at	2.00 sigma
Reference Wellbore	Original Hole	Database:	WC365
Reference Design:	Plan #1	Offset TVD Reference:	Offset Datum

Offset Design: Sec 20-T1S-R66W - *Buckley 21-16-1NBHx - Original Hole - Plan #1												Offset Site Error: 0.0 usft	
Survey Program: 0-MWD+HRGM+SAG+FDIR				Rule Assigned:								Offset Well Error: 0.0 usft	
Reference		Offset		Semi Major Axis		Highside Toolface (°)	Offset Wellbore Centre		Distance		Separation Factor	Warning	
Measured Depth (usft)	Vertical Depth (usft)	Measured Depth (usft)	Vertical Depth (usft)	Reference (usft)	Offset (usft)		+N/-S (usft)	+E/-W (usft)	Between Centres (usft)	Between Ellipses (usft)			Minimum Separation (usft)
13,704.4	7,315.0	14,474.4	7,470.0	86.1	92.3	102.49	5,281.4	3,389.4	716.6	554.4	162.26	4.417	
13,800.0	7,315.0	14,570.0	7,470.0	87.4	93.6	102.49	5,377.0	3,389.4	716.6	551.8	164.89	4.346	
13,804.4	7,315.0	14,574.4	7,470.0	87.5	93.6	102.49	5,381.4	3,389.4	716.6	551.6	165.01	4.343	
13,900.0	7,315.0	14,670.0	7,470.0	88.8	94.9	102.49	5,477.0	3,389.4	716.6	549.0	167.65	4.275	
13,904.4	7,315.0	14,674.4	7,470.0	88.8	94.9	102.49	5,481.4	3,389.4	716.6	548.9	167.77	4.272	
14,000.0	7,315.0	14,770.0	7,470.0	90.1	96.2	102.49	5,577.0	3,389.4	716.7	546.2	170.41	4.206	
14,004.4	7,315.0	14,774.4	7,470.0	90.2	96.2	102.49	5,581.4	3,389.4	716.7	546.1	170.53	4.203	
14,100.0	7,315.0	14,870.0	7,470.0	91.5	97.5	102.49	5,677.0	3,389.4	716.7	543.5	173.17	4.139	
14,104.4	7,315.0	14,874.4	7,470.0	91.5	97.5	102.49	5,681.4	3,389.4	716.7	543.4	173.29	4.136	
14,200.0	7,315.0	14,970.0	7,470.0	92.8	98.8	102.49	5,777.0	3,389.4	716.7	540.7	175.93	4.074	
14,204.4	7,315.0	14,974.4	7,470.0	92.9	98.9	102.49	5,781.4	3,389.4	716.7	540.6	176.05	4.071	
14,300.0	7,315.0	15,070.0	7,470.0	94.2	100.1	102.49	5,877.0	3,389.4	716.7	538.0	178.70	4.010	
14,304.4	7,315.0	15,074.4	7,470.0	94.2	100.2	102.49	5,881.4	3,389.4	716.7	537.8	178.82	4.008	
14,400.0	7,315.0	15,170.0	7,470.0	95.5	101.4	102.49	5,977.0	3,389.3	716.7	535.2	181.47	3.949	
14,404.4	7,315.0	15,174.4	7,470.0	95.6	101.5	102.49	5,981.4	3,389.3	716.7	535.1	181.59	3.947	
14,500.0	7,315.0	15,270.0	7,470.0	96.9	102.8	102.49	6,077.0	3,389.3	716.7	532.4	184.24	3.890	
14,504.4	7,315.0	15,274.4	7,470.0	96.9	102.8	102.49	6,081.4	3,389.3	716.7	532.3	184.36	3.887	
14,600.0	7,315.0	15,370.0	7,470.0	98.2	104.1	102.49	6,177.0	3,389.3	716.7	529.7	187.01	3.832	
14,604.4	7,315.0	15,374.4	7,470.0	98.3	104.2	102.49	6,181.4	3,389.3	716.7	529.5	187.13	3.830	
14,700.0	7,315.0	15,470.0	7,470.0	99.6	105.4	102.49	6,277.0	3,389.3	716.7	526.9	189.78	3.776	
14,704.4	7,315.0	15,474.4	7,470.0	99.7	105.5	102.49	6,281.4	3,389.3	716.7	526.8	189.91	3.774	
14,800.0	7,315.0	15,570.0	7,470.0	101.0	106.8	102.49	6,377.0	3,389.3	716.7	524.1	192.56	3.722	
14,804.4	7,315.0	15,574.4	7,470.0	101.0	106.8	102.49	6,381.4	3,389.3	716.7	524.0	192.68	3.719	
14,900.0	7,315.0	15,670.0	7,470.0	102.3	108.1	102.49	6,477.0	3,389.3	716.7	521.3	195.34	3.669	
14,904.4	7,315.0	15,674.4	7,470.0	102.4	108.2	102.49	6,481.4	3,389.3	716.7	521.2	195.46	3.667	
15,000.0	7,315.0	15,770.0	7,470.0	103.7	109.5	102.49	6,577.0	3,389.3	716.7	518.6	198.12	3.617	
15,004.4	7,315.0	15,774.4	7,470.0	103.8	109.5	102.49	6,581.4	3,389.3	716.7	518.4	198.24	3.615	
15,100.0	7,315.0	15,870.0	7,470.0	105.1	110.8	102.49	6,677.0	3,389.3	716.7	515.8	200.90	3.567	
15,104.4	7,315.0	15,874.4	7,470.0	105.2	110.9	102.49	6,681.4	3,389.3	716.7	515.7	201.03	3.565	
15,200.0	7,315.0	15,970.0	7,470.0	106.5	112.2	102.49	6,777.0	3,389.3	716.7	513.0	203.68	3.519	
15,204.4	7,315.0	15,974.4	7,470.0	106.5	112.2	102.49	6,781.4	3,389.3	716.7	512.9	203.81	3.516	
15,300.0	7,315.0	16,070.0	7,470.0	107.9	113.5	102.49	6,877.0	3,389.3	716.7	510.2	206.47	3.471	
15,304.4	7,315.0	16,074.4	7,470.0	107.9	113.6	102.49	6,881.4	3,389.3	716.7	510.1	206.59	3.469	
15,400.0	7,315.0	16,170.0	7,470.0	109.2	114.9	102.49	6,977.0	3,389.3	716.7	507.4	209.26	3.425	
15,404.4	7,315.0	16,174.4	7,470.0	109.3	114.9	102.49	6,981.4	3,389.3	716.7	507.3	209.38	3.423	
15,500.0	7,315.0	16,270.0	7,470.0	110.6	116.2	102.49	7,077.0	3,389.3	716.7	504.6	212.04	3.380	
15,504.4	7,315.0	16,274.4	7,470.0	110.7	116.3	102.49	7,081.4	3,389.3	716.7	504.5	212.17	3.378	
15,600.0	7,315.0	16,370.0	7,470.0	112.0	117.6	102.49	7,177.0	3,389.3	716.7	501.9	214.83	3.336	
15,604.4	7,315.0	16,374.4	7,470.0	112.1	117.6	102.49	7,181.4	3,389.3	716.7	501.7	214.96	3.334	
15,700.0	7,315.0	16,470.0	7,470.0	113.4	118.9	102.49	7,277.0	3,389.3	716.7	499.1	217.62	3.293	
15,704.4	7,315.0	16,474.4	7,470.0	113.5	119.0	102.49	7,281.4	3,389.3	716.7	498.9	217.75	3.291	
15,800.0	7,315.0	16,570.0	7,470.0	114.8	120.3	102.49	7,377.0	3,389.3	716.7	496.3	220.42	3.252	
15,804.4	7,315.0	16,574.4	7,470.0	114.8	120.4	102.49	7,381.4	3,389.3	716.7	496.2	220.54	3.250	
15,900.0	7,315.0	16,670.0	7,470.0	116.2	121.7	102.49	7,477.0	3,389.3	716.7	493.5	223.21	3.211	
15,904.4	7,315.0	16,674.4	7,470.0	116.2	121.7	102.49	7,481.4	3,389.3	716.7	493.4	223.33	3.209	
16,000.0	7,315.0	16,770.0	7,470.0	117.6	123.0	102.49	7,577.0	3,389.3	716.7	490.7	226.00	3.171	
16,004.4	7,315.0	16,774.4	7,470.0	117.6	123.1	102.49	7,581.4	3,389.3	716.7	490.6	226.13	3.169	
16,100.0	7,315.0	16,870.0	7,470.0	119.0	124.4	102.49	7,677.0	3,389.3	716.7	487.9	228.80	3.132	
16,104.4	7,315.0	16,874.4	7,470.0	119.0	124.5	102.49	7,681.4	3,389.3	716.7	487.8	228.92	3.131	
16,200.0	7,315.0	16,970.0	7,470.0	120.4	125.8	102.49	7,777.0	3,389.3	716.7	485.1	231.59	3.095	
16,204.4	7,315.0	16,974.4	7,470.0	120.4	125.9	102.49	7,781.4	3,389.3	716.7	485.0	231.72	3.093	
16,300.0	7,315.0	17,070.0	7,470.0	121.7	127.2	102.49	7,877.0	3,389.3	716.7	482.3	234.39	3.058	

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

Amazon.com

Anticollision Report

Company:	APEX	Local Co-ordinate Reference:	Well *Brighton Lakes 20-17-2NAH
Project:	POCO Brighton Lakes Expansion	TVD Reference:	RKB @ 5063.0usft
Reference Site:	Sec 20-T1S-R66W	MD Reference:	RKB @ 5063.0usft
Site Error:	0.0 usft	North Reference:	Grid
Reference Well:	*Brighton Lakes 20-17-2NAH	Survey Calculation Method:	Minimum Curvature
Well Error:	0.0 usft	Output errors are at	2.00 sigma
Reference Wellbore	Original Hole	Database:	WC365
Reference Design:	Plan #1	Offset TVD Reference:	Offset Datum

Offset Design: Sec 20-T1S-R66W - *Buckley 21-16-1NBHx - Original Hole - Plan #1												Offset Site Error:	0.0 usft
Survey Program: 0-MWD+HRGM+SAG+FDIR												Offset Well Error:	0.0 usft
Reference		Offset		Semi Major Axis		Highside Toolface (°)	Offset Wellbore Centre		Distance		Separation Factor	Warning	
Measured Depth (usft)	Vertical Depth (usft)	Measured Depth (usft)	Vertical Depth (usft)	Reference (usft)	Offset (usft)		+N/-S (usft)	+E/-W (usft)	Between Centres (usft)	Between Ellipses (usft)			
16,304.4	7,315.0	17,074.4	7,470.0	121.8	127.2	102.49	7,881.4	3,389.3	716.7	482.2	234.52	3.056	
16,400.0	7,315.0	17,170.0	7,470.0	123.1	128.5	102.49	7,977.0	3,389.3	716.7	479.5	237.19	3.022	
16,404.4	7,315.0	17,174.4	7,470.0	123.2	128.6	102.49	7,981.4	3,389.3	716.7	479.4	237.32	3.020	
16,500.0	7,315.0	17,270.0	7,470.0	124.5	129.9	102.49	8,077.0	3,389.3	716.7	476.7	239.99	2.986	
16,504.4	7,315.0	17,274.4	7,470.0	124.6	130.0	102.49	8,081.4	3,389.3	716.7	476.6	240.11	2.985	
16,600.0	7,315.0	17,370.0	7,470.0	125.9	131.3	102.49	8,177.0	3,389.3	716.7	473.9	242.79	2.952	
16,604.4	7,315.0	17,374.4	7,470.0	126.0	131.4	102.49	8,181.4	3,389.3	716.7	473.8	242.92	2.950	
16,700.0	7,315.0	17,470.0	7,470.0	127.3	132.7	102.49	8,277.0	3,389.3	716.7	471.1	245.59	2.918	
16,704.4	7,315.0	17,474.4	7,470.0	127.4	132.7	102.49	8,281.4	3,389.3	716.7	471.0	245.72	2.917	
16,800.0	7,315.0	17,570.0	7,470.0	128.7	134.1	102.49	8,377.0	3,389.3	716.7	468.3	248.39	2.885	
16,804.4	7,315.0	17,574.4	7,470.0	128.8	134.1	102.49	8,381.4	3,389.3	716.7	468.2	248.52	2.884	
16,900.0	7,315.0	17,670.0	7,470.0	130.1	135.5	102.49	8,477.0	3,389.3	716.7	465.5	251.20	2.853	
16,904.4	7,315.0	17,674.4	7,470.0	130.2	135.5	102.49	8,481.4	3,389.3	716.7	465.4	251.32	2.852	
17,000.0	7,315.0	17,770.0	7,470.0	131.6	136.8	102.49	8,577.0	3,389.3	716.7	462.7	254.00	2.822	
17,004.4	7,315.0	17,774.4	7,470.0	131.6	136.9	102.49	8,581.4	3,389.3	716.7	462.6	254.13	2.820	
17,100.0	7,315.0	17,870.0	7,470.0	133.0	138.2	102.49	8,677.0	3,389.3	716.7	459.9	256.81	2.791	
17,104.4	7,315.0	17,874.4	7,470.0	133.0	138.3	102.49	8,681.4	3,389.3	716.7	459.8	256.93	2.790	
17,200.0	7,315.0	17,970.0	7,470.0	134.4	139.6	102.49	8,777.0	3,389.3	716.7	457.1	259.61	2.761	
17,204.4	7,315.0	17,974.4	7,470.0	134.4	139.7	102.49	8,781.4	3,389.3	716.7	457.0	259.74	2.759	
17,300.0	7,315.0	18,070.0	7,470.0	135.8	141.0	102.49	8,877.0	3,389.3	716.7	454.3	262.42	2.731	
17,304.4	7,315.0	18,074.4	7,470.0	135.8	141.1	102.49	8,881.4	3,389.3	716.7	454.2	262.54	2.730	
17,400.0	7,315.0	18,170.0	7,470.0	137.2	142.4	102.49	8,977.0	3,389.3	716.7	451.5	265.22	2.702	
17,404.4	7,315.0	18,174.4	7,470.0	137.2	142.5	102.49	8,981.4	3,389.3	716.7	451.4	265.35	2.701	
17,500.0	7,315.0	18,270.0	7,470.0	138.6	143.8	102.49	9,077.0	3,389.2	716.7	448.7	268.03	2.674	
17,504.4	7,315.0	18,274.4	7,470.0	138.6	143.9	102.49	9,081.4	3,389.2	716.7	448.6	268.16	2.673	
17,600.0	7,315.0	18,370.0	7,470.0	140.0	145.2	102.49	9,177.0	3,389.2	716.7	445.9	270.84	2.646	
17,604.4	7,315.0	18,374.4	7,470.0	140.1	145.3	102.49	9,181.4	3,389.2	716.7	445.8	270.96	2.645	
17,700.0	7,315.0	18,470.0	7,470.0	141.4	146.6	102.49	9,277.0	3,389.2	716.7	443.1	273.65	2.619	
17,704.4	7,315.0	18,474.4	7,470.0	141.5	146.6	102.49	9,281.4	3,389.2	716.7	443.0	273.77	2.618	
17,800.0	7,315.0	18,570.0	7,470.0	142.8	148.0	102.49	9,377.0	3,389.2	716.7	440.3	276.46	2.593	
17,804.4	7,315.0	18,574.4	7,470.0	142.9	148.0	102.49	9,381.4	3,389.2	716.7	440.2	276.58	2.591	
17,900.0	7,315.0	18,670.0	7,470.0	144.2	149.4	102.49	9,477.0	3,389.2	716.7	437.5	279.27	2.566	
17,904.4	7,315.0	18,674.4	7,470.0	144.3	149.4	102.49	9,481.4	3,389.2	716.7	437.3	279.39	2.565	
18,000.0	7,315.0	18,770.0	7,470.0	145.6	150.8	102.49	9,577.0	3,389.2	716.7	434.7	282.08	2.541	
18,001.5	7,315.0	18,771.5	7,470.0	145.7	150.8	102.49	9,578.5	3,389.2	716.7	434.6	282.12	2.541	
18,032.3	7,315.0	18,802.3	7,470.0	146.1	151.2	102.49	9,609.3	3,389.2	716.7	433.8	282.99	2.533 SF	

Amazon.com

Anticollision Report

Company:	APEX	Local Co-ordinate Reference:	Well *Brighton Lakes 20-17-2NAH
Project:	POCO Brighton Lakes Expansion	TVD Reference:	RKB @ 5063.0usft
Reference Site:	Sec 20-T1S-R66W	MD Reference:	RKB @ 5063.0usft
Site Error:	0.0 usft	North Reference:	Grid
Reference Well:	*Brighton Lakes 20-17-2NAH	Survey Calculation Method:	Minimum Curvature
Well Error:	0.0 usft	Output errors are at	2.00 sigma
Reference Wellbore	Original Hole	Database:	WC365
Reference Design:	Plan #1	Offset TVD Reference:	Offset Datum

Offset Design: Sec 20-T1S-R66W - *Buckley 21-16-1NCH - Original Hole - Plan #1												Offset Site Error:	0.0 usft
Survey Program: 0-MWD+HRGM+SAG+FDIR												Offset Well Error:	0.0 usft
Reference		Offset		Semi Major Axis		Highside Toolface (°)	Offset Wellbore Centre		Distance		Minimum Separation (usft)	Separation Factor	Warning
Measured Depth (usft)	Vertical Depth (usft)	Measured Depth (usft)	Vertical Depth (usft)	Reference (usft)	Offset (usft)		+N/-S (usft)	+E/-W (usft)	Between Centres (usft)	Between Ellipses (usft)			
0.0	0.0	0.0	0.0	0.0	0.0	179.41	-184.9	1.9	184.9				
100.0	100.0	100.0	100.0	1.0	1.0	179.41	-184.9	1.9	184.9	183.0	1.96	94.459	
200.0	200.0	200.0	200.0	1.6	1.6	179.41	-184.9	1.9	184.9	181.8	3.12	59.270	
300.0	300.0	300.0	300.0	2.0	2.0	179.41	-184.9	1.9	184.9	181.0	3.96	46.686	
400.0	400.0	400.0	400.0	2.3	2.3	179.41	-184.9	1.9	184.9	180.3	4.66	39.699	
500.0	500.0	500.0	500.0	2.6	2.6	179.41	-184.9	1.9	184.9	179.7	5.27	35.098	
600.0	600.0	600.0	600.0	2.9	2.9	179.41	-184.9	1.9	184.9	179.1	5.82	31.773	
700.0	700.0	700.0	700.0	3.2	3.2	179.41	-184.9	1.9	184.9	178.6	6.33	29.223	
800.0	800.0	800.0	800.0	3.4	3.4	179.41	-184.9	1.9	184.9	178.1	6.80	27.188	
900.0	900.0	900.0	900.0	3.6	3.6	179.41	-184.9	1.9	184.9	177.7	7.25	25.513	
1,000.0	1,000.0	1,000.0	1,000.0	3.8	3.8	179.41	-184.9	1.9	184.9	177.3	7.67	24.102	
1,100.0	1,100.0	1,100.0	1,100.0	4.0	4.0	179.41	-184.9	1.9	184.9	176.9	8.08	22.894	
1,200.0	1,200.0	1,200.0	1,200.0	4.2	4.2	179.41	-184.9	1.9	184.9	176.5	8.47	21.842	
1,210.0	1,210.0	1,210.0	1,210.0	4.3	4.2	179.41	-184.9	1.9	184.9	176.5	8.50	21.771	
1,300.0	1,300.0	1,299.1	1,299.1	4.4	4.3	179.22	-185.1	2.5	185.1	176.3	8.74	21.180	
1,400.0	1,400.0	1,397.2	1,397.1	4.9	4.8	72.13	-185.9	7.5	185.3	176.2	9.11	20.341	
1,500.0	1,499.6	1,495.2	1,494.5	5.3	5.2	71.36	-187.7	17.4	185.0	175.5	9.47	19.529	
1,600.0	1,598.8	1,593.0	1,591.2	5.7	5.6	70.58	-190.3	32.2	184.2	174.3	9.85	18.699	
1,700.0	1,697.1	1,690.7	1,686.8	6.0	5.9	69.80	-193.9	51.8	182.8	172.5	10.25	17.835	
1,800.0	1,794.3	1,788.3	1,781.2	6.4	6.3	69.00	-198.2	76.1	180.9	170.2	10.69	16.924	
1,900.0	1,890.2	1,885.8	1,874.1	6.7	6.6	68.18	-203.4	105.1	178.5	167.4	11.19	15.957	
2,000.0	1,984.4	1,983.2	1,965.3	7.0	6.9	67.34	-209.4	138.8	175.7	163.9	11.76	14.937	
2,100.0	2,076.8	2,080.4	2,054.5	7.3	7.2	66.47	-216.2	176.9	172.3	159.9	12.42	13.870	
2,191.6	2,159.6	2,169.4	2,134.3	7.5	7.5	65.64	-223.1	215.6	168.8	155.7	13.10	12.884	
2,200.0	2,167.1	2,177.6	2,141.5	7.5	7.5	65.54	-223.8	219.3	168.5	155.3	13.16	12.803	
2,299.9	2,256.2	2,274.3	2,225.9	7.7	7.8	63.54	-232.1	265.9	165.5	151.5	14.06	11.771	
2,300.0	2,256.4	2,274.5	2,226.0	7.7	7.8	63.54	-232.2	266.0	165.5	151.5	14.06	11.770	
2,376.3	2,324.5	2,348.0	2,288.5	7.8	7.9	60.93	-239.0	304.1	164.7	150.0	14.71	11.203 CC	
2,400.0	2,345.7	2,371.3	2,308.0	7.9	7.9	59.93	-241.2	316.7	164.8	149.9	14.91	11.054	
2,500.0	2,435.0	2,470.5	2,391.1	8.0	8.1	55.71	-250.8	370.0	165.6	149.8	15.82	10.470 ES	
2,600.0	2,524.3	2,569.8	2,474.2	8.4	8.7	51.54	-260.3	423.4	167.3	150.6	16.67	10.037	
2,700.0	2,613.6	2,669.0	2,557.4	9.0	9.4	47.48	-269.8	476.8	169.9	152.4	17.46	9.731	
2,800.0	2,702.9	2,768.2	2,640.5	9.5	10.1	43.56	-279.4	530.2	173.3	155.1	18.17	9.537	
2,900.0	2,792.2	2,867.5	2,723.6	10.1	10.8	39.80	-288.9	583.5	177.5	158.7	18.81	9.439	
3,000.0	2,881.5	2,966.7	2,806.7	10.7	11.5	36.23	-298.5	636.9	182.4	163.1	19.37	9.420 SF	
3,100.0	2,970.8	3,066.0	2,889.8	11.3	12.3	32.86	-308.0	690.3	188.0	168.2	19.86	9.468	
3,200.0	3,060.1	3,165.2	2,972.9	11.9	13.0	29.69	-317.6	743.7	194.3	174.0	20.30	9.570	
3,300.0	3,149.4	3,264.4	3,056.1	12.5	13.8	26.73	-327.1	797.0	201.1	180.4	20.70	9.715	
3,400.0	3,238.7	3,363.7	3,139.2	13.1	14.6	23.96	-336.7	850.4	208.4	187.3	21.06	9.894	
3,500.0	3,328.0	3,462.9	3,222.3	13.7	15.3	21.39	-346.2	903.8	216.1	194.7	21.40	10.098	
3,600.0	3,417.3	3,562.2	3,305.4	14.3	16.1	18.99	-355.7	957.2	224.3	202.5	21.73	10.321	
3,700.0	3,506.6	3,661.4	3,388.5	15.0	16.9	16.77	-365.3	1,010.5	232.8	210.7	22.05	10.556	
3,800.0	3,595.9	3,760.6	3,471.7	15.6	17.7	14.70	-374.8	1,063.9	241.6	219.3	22.38	10.797	
3,900.0	3,685.1	3,859.9	3,554.8	16.2	18.5	12.79	-384.4	1,117.3	250.8	228.1	22.71	11.041	
4,000.0	3,774.4	3,959.1	3,637.9	16.8	19.3	11.00	-393.9	1,170.7	260.2	237.1	23.06	11.283	
4,100.0	3,863.7	4,058.4	3,721.0	17.5	20.1	9.35	-403.5	1,224.0	269.8	246.4	23.42	11.521	
4,200.0	3,953.0	4,157.6	3,804.1	18.1	20.9	7.81	-413.0	1,277.4	279.7	255.9	23.80	11.752	
4,300.0	4,042.3	4,256.8	3,887.2	18.8	21.6	6.37	-422.5	1,330.8	289.7	265.5	24.19	11.974	
4,400.0	4,131.6	4,356.1	3,970.4	19.4	22.4	5.03	-432.1	1,384.2	299.9	275.3	24.61	12.186	
4,500.0	4,220.9	4,455.3	4,053.5	20.1	23.2	3.78	-441.6	1,437.5	310.3	285.2	25.05	12.386	
4,600.0	4,310.2	4,554.6	4,136.6	20.7	24.1	2.61	-451.2	1,490.9	320.7	295.2	25.51	12.575	
4,700.0	4,399.5	4,653.8	4,219.7	21.3	24.9	1.51	-460.7	1,544.3	331.4	305.4	25.98	12.753	

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

Amazon.com

Anticollision Report

Company:	APEX	Local Co-ordinate Reference:	Well *Brighton Lakes 20-17-2NAH
Project:	POCO Brighton Lakes Expansion	TVD Reference:	RKB @ 5063.0usft
Reference Site:	Sec 20-T1S-R66W	MD Reference:	RKB @ 5063.0usft
Site Error:	0.0 usft	North Reference:	Grid
Reference Well:	*Brighton Lakes 20-17-2NAH	Survey Calculation Method:	Minimum Curvature
Well Error:	0.0 usft	Output errors are at	2.00 sigma
Reference Wellbore	Original Hole	Database:	WC365
Reference Design:	Plan #1	Offset TVD Reference:	Offset Datum

Offset Design: Sec 20-T1S-R66W - *Buckley 21-16-1NCH - Original Hole - Plan #1													Offset Site Error: 0.0 usft	
Survey Program: 0-MWD+HRGM+SAG+FDIR				Reference				Rule Assigned:				Offset Well Error: 0.0 usft		
Reference		Offset		Semi Major Axis		Highside Toolface (°)	Offset Wellbore Centre		Distance		Minimum Separation (usft)	Separation Factor	Warning	
Measured Depth (usft)	Vertical Depth (usft)	Measured Depth (usft)	Vertical Depth (usft)	Reference (usft)	Offset (usft)		+N/-S (usft)	+E/-W (usft)	Between Centres (usft)	Between Ellipses (usft)				
4,800.0	4,488.8	4,753.0	4,302.8	22.0	25.7	0.48	-470.3	1,597.7	342.1	315.6	26.48	12.918		
4,900.0	4,578.1	4,852.3	4,386.0	22.6	26.5	-0.49	-479.8	1,651.0	352.9	325.9	27.00	13.072		
5,000.0	4,667.4	4,951.5	4,469.1	23.3	27.3	-1.39	-489.4	1,704.4	363.8	336.3	27.53	13.214		
5,100.0	4,756.7	5,050.8	4,552.2	23.9	28.1	-2.25	-498.9	1,757.8	374.9	346.8	28.09	13.346		
5,200.0	4,846.0	5,150.0	4,635.3	24.6	28.9	-3.06	-508.4	1,811.2	385.9	357.3	28.66	13.467		
5,300.0	4,935.3	5,249.2	4,718.4	25.2	29.7	-3.82	-518.0	1,864.5	397.1	367.9	29.24	13.579		
5,400.0	5,024.6	5,348.5	4,801.5	25.9	30.5	-4.54	-527.5	1,917.9	408.3	378.5	29.85	13.681		
5,500.0	5,113.9	5,447.7	4,884.7	26.6	31.3	-5.22	-537.1	1,971.3	419.6	389.2	30.46	13.775		
5,600.0	5,203.2	5,547.0	4,967.8	27.2	32.1	-5.86	-546.6	2,024.7	431.0	399.9	31.09	13.861		
5,700.0	5,292.5	5,646.2	5,050.9	27.9	32.9	-6.48	-556.2	2,078.0	442.4	410.6	31.73	13.939		
5,800.0	5,381.8	5,745.4	5,134.0	28.5	33.7	-7.06	-565.7	2,131.4	453.8	421.4	32.39	14.011		
5,900.0	5,471.1	5,844.7	5,217.1	29.2	34.6	-7.61	-575.2	2,184.8	465.3	432.2	33.05	14.076		
6,000.0	5,560.4	5,943.9	5,300.3	29.8	35.4	-8.14	-584.8	2,238.2	476.8	443.1	33.73	14.136		
6,100.0	5,649.7	6,043.2	5,383.4	30.5	36.2	-8.64	-594.3	2,291.5	488.4	453.9	34.42	14.190		
6,200.0	5,739.0	6,142.4	5,466.5	31.2	37.0	-9.12	-603.9	2,344.9	500.0	464.9	35.11	14.240		
6,300.0	5,828.3	6,241.6	5,549.6	31.8	37.8	-9.57	-613.4	2,398.3	511.6	475.8	35.81	14.284		
6,400.0	5,917.6	6,340.9	5,632.7	32.5	38.6	-10.01	-623.0	2,451.7	523.3	486.7	36.53	14.325		
6,500.0	6,006.9	6,440.1	5,715.8	33.1	39.4	-10.43	-632.5	2,505.0	534.9	497.7	37.25	14.362		
6,600.0	6,096.2	6,539.4	5,799.0	33.8	40.3	-10.83	-642.1	2,558.4	546.7	508.7	37.97	14.396		
6,700.0	6,185.5	6,638.6	5,882.1	34.4	41.1	-11.21	-651.6	2,611.8	558.4	519.7	38.71	14.426		
6,800.0	6,274.8	6,737.9	5,965.2	35.1	41.9	-11.58	-661.1	2,665.2	570.2	530.7	39.45	14.454		
6,900.0	6,364.1	6,837.1	6,048.3	35.8	42.7	-11.93	-670.7	2,718.5	582.0	541.8	40.19	14.479		
7,000.0	6,453.4	6,936.3	6,131.4	36.4	43.5	-12.27	-680.2	2,771.9	593.8	552.8	40.94	14.502		
7,100.0	6,542.7	7,035.6	6,214.6	37.1	44.3	-12.59	-689.8	2,825.3	605.6	563.9	41.70	14.522		
7,200.0	6,632.0	7,134.8	6,297.7	37.7	45.1	-12.90	-699.3	2,878.7	617.4	575.0	42.46	14.541		
7,300.0	6,721.3	7,234.1	6,380.8	38.4	46.0	-13.21	-708.9	2,932.1	629.3	586.1	43.23	14.558		
7,314.2	6,734.0	7,248.1	6,392.6	38.5	46.1	-13.25	-710.2	2,939.6	631.0	587.7	43.33	14.561		
7,350.0	6,766.1	7,283.7	6,422.4	38.7	46.4	-6.60	-713.6	2,958.7	635.3	591.7	43.56	14.585		
7,400.0	6,811.1	7,333.2	6,463.8	39.1	46.8	3.41	-718.4	2,985.4	641.3	597.6	43.70	14.675		
7,450.0	6,856.0	7,382.1	6,504.8	39.4	47.2	13.58	-723.1	3,011.7	647.5	603.8	43.67	14.826		
7,500.0	6,900.4	7,430.2	6,545.1	39.6	47.6	23.25	-727.7	3,037.5	653.8	610.3	43.51	15.029		
7,550.0	6,944.1	7,477.0	6,584.3	39.9	48.0	31.98	-732.2	3,062.7	660.6	617.3	43.26	15.271		
7,600.0	6,986.7	7,522.2	6,622.1	40.1	48.3	39.60	-736.6	3,087.0	668.0	625.0	43.00	15.534		
7,650.0	7,027.9	7,565.5	6,658.4	40.3	48.7	46.13	-740.7	3,110.3	676.3	633.5	42.83	15.793		
7,700.0	7,067.3	7,606.4	6,692.7	40.5	49.0	51.64	-744.7	3,132.3	685.9	643.1	42.82	16.017		
7,750.0	7,104.7	7,644.8	6,724.8	40.6	49.3	56.22	-748.4	3,153.0	697.0	653.9	43.10	16.173		
7,800.0	7,139.7	7,680.2	6,754.5	40.8	49.6	59.93	-751.8	3,172.0	709.9	666.2	43.72	16.237		
7,850.0	7,172.2	7,712.6	6,781.6	40.9	49.9	62.81	-754.9	3,189.4	724.9	680.1	44.74	16.200		
7,900.0	7,201.8	7,741.5	6,805.8	40.9	50.1	64.87	-757.7	3,205.0	742.1	695.9	46.17	16.072		
7,950.0	7,228.4	7,766.7	6,826.9	41.0	50.3	66.11	-760.1	3,218.5	761.7	713.8	47.97	15.879		
8,000.0	7,251.7	7,788.2	6,844.9	41.0	50.5	66.52	-762.1	3,230.1	783.8	733.7	50.07	15.654		
8,050.0	7,271.5	7,805.7	6,859.5	41.1	50.7	66.08	-763.8	3,239.5	808.2	755.8	52.37	15.431		
8,100.0	7,287.8	7,819.0	6,870.7	41.1	50.8	64.77	-765.1	3,246.7	834.9	780.1	54.79	15.236		
8,150.0	7,300.3	7,828.2	6,878.4	41.1	50.9	62.58	-766.0	3,251.6	863.5	806.3	57.24	15.086		
8,200.0	7,309.1	7,833.0	6,882.5	41.0	50.9	59.54	-766.5	3,254.2	894.0	834.3	59.64	14.989		
8,250.0	7,313.9	7,833.6	6,882.9	41.0	50.9	55.68	-766.5	3,254.5	925.9	863.9	61.94	14.947		
8,286.8	7,315.0	7,831.2	6,880.9	41.0	50.9	52.38	-766.3	3,253.2	950.0	886.5	63.54	14.952		
8,300.0	7,315.0	7,829.9	6,879.9	41.0	50.9	52.28	-766.2	3,252.5	958.8	894.8	64.09	14.961		

Amazon.com

Anticollision Report

Company:	APEX	Local Co-ordinate Reference:	Well *Brighton Lakes 20-17-2NAH
Project:	POCO Brighton Lakes Expansion	TVD Reference:	RKB @ 5063.0usft
Reference Site:	Sec 20-T1S-R66W	MD Reference:	RKB @ 5063.0usft
Site Error:	0.0 usft	North Reference:	Grid
Reference Well:	*Brighton Lakes 20-17-2NAH	Survey Calculation Method:	Minimum Curvature
Well Error:	0.0 usft	Output errors are at	2.00 sigma
Reference Wellbore	Original Hole	Database:	WC365
Reference Design:	Plan #1	Offset TVD Reference:	Offset Datum

Offset Design: Sec 20-T1S-R66W - *Buckley 21-16-2CDH - Original Hole - Plan #1												Offset Site Error:	0.0 usft
Survey Program: 0-MWD+HRGM+SAG+FDIR												Offset Well Error:	0.0 usft
Reference		Offset		Semi Major Axis		Highside Toolface (°)	Offset Wellbore Centre		Distance		Separation Factor	Warning	
Measured Depth (usft)	Vertical Depth (usft)	Measured Depth (usft)	Vertical Depth (usft)	Reference (usft)	Offset (usft)		+N/-S (usft)	+E/-W (usft)	Between Centres (usft)	Between Ellipses (usft)			
0.0	0.0	0.0	0.0	0.0	0.0	179.41	-294.9	3.0	294.9				
100.0	100.0	100.0	100.0	1.0	1.0	179.41	-294.9	3.0	294.9	293.0	1.96	150.622	
200.0	200.0	200.0	200.0	1.6	1.6	179.41	-294.9	3.0	294.9	291.8	3.12	94.510	
300.0	300.0	300.0	300.0	2.0	2.0	179.41	-294.9	3.0	294.9	291.0	3.96	74.444	
400.0	400.0	400.0	400.0	2.3	2.3	179.41	-294.9	3.0	294.9	290.3	4.66	63.303	
500.0	500.0	500.0	500.0	2.6	2.6	179.41	-294.9	3.0	294.9	289.6	5.27	55.967	
600.0	600.0	600.0	600.0	2.9	2.9	179.41	-294.9	3.0	294.9	289.1	5.82	50.664	
700.0	700.0	700.0	700.0	3.2	3.2	179.41	-294.9	3.0	294.9	288.6	6.33	46.599	
800.0	800.0	800.0	800.0	3.4	3.4	179.41	-294.9	3.0	294.9	288.1	6.80	43.353	
900.0	900.0	900.0	900.0	3.6	3.6	179.41	-294.9	3.0	294.9	287.7	7.25	40.682	
1,000.0	1,000.0	1,000.0	1,000.0	3.8	3.8	179.41	-294.9	3.0	294.9	287.2	7.67	38.433	
1,100.0	1,100.0	1,100.0	1,100.0	4.0	4.0	179.41	-294.9	3.0	294.9	286.8	8.08	36.505	
1,110.0	1,110.0	1,110.0	1,110.0	4.1	4.0	179.41	-294.9	3.0	294.9	286.8	8.11	36.377	CC
1,200.0	1,200.0	1,198.4	1,198.4	4.2	4.1	179.29	-295.0	3.6	295.1	286.7	8.36	35.300	ES
1,300.0	1,300.0	1,294.9	1,294.7	4.4	4.6	178.37	-296.0	8.4	296.2	287.5	8.73	33.941	
1,400.0	1,400.0	1,390.9	1,390.2	4.9	5.0	70.67	-298.0	17.9	297.9	288.7	9.12	32.678	
1,500.0	1,499.6	1,486.6	1,484.8	5.3	5.4	69.31	-301.0	32.0	299.3	289.8	9.50	31.490	
1,600.0	1,598.8	1,581.9	1,578.2	5.7	5.8	68.00	-305.0	50.6	300.4	290.5	9.91	30.301	
1,700.0	1,697.1	1,677.0	1,670.3	6.0	6.1	66.72	-309.8	73.7	301.2	290.9	10.36	29.087	
1,800.0	1,794.3	1,771.7	1,760.8	6.4	6.4	65.49	-315.7	101.2	301.8	290.9	10.84	27.831	
1,900.0	1,890.2	1,866.1	1,849.4	6.7	6.7	64.29	-322.4	132.9	302.0	290.6	11.39	26.524	
1,980.4	1,966.1	1,941.9	1,919.4	6.9	7.0	63.35	-328.4	161.4	302.0	290.1	11.88	25.427	
2,000.0	1,984.4	1,960.3	1,936.2	7.0	7.0	63.12	-329.9	168.7	301.9	289.9	12.00	25.164	
2,085.1	2,063.2	2,040.2	2,008.3	7.3	7.3	62.16	-337.1	202.3	301.6	289.0	12.58	23.970	
2,100.0	2,076.8	2,054.2	2,020.8	7.3	7.3	61.99	-338.4	208.5	301.5	288.8	12.69	23.763	
2,179.3	2,148.6	2,128.4	2,086.2	7.5	7.5	61.12	-345.6	242.9	301.0	287.7	13.28	22.663	
2,191.6	2,159.6	2,140.0	2,096.2	7.5	7.6	60.99	-346.8	248.5	300.9	287.5	13.38	22.493	
2,198.9	2,166.1	2,146.7	2,102.1	7.5	7.6	60.90	-347.5	251.8	300.8	287.4	13.43	22.405	
2,200.0	2,167.1	2,147.8	2,103.0	7.5	7.6	60.89	-347.6	252.3	300.8	287.4	13.43	22.392	
2,229.0	2,193.0	2,174.9	2,126.4	7.6	7.6	60.52	-350.5	265.7	300.7	287.0	13.68	21.977	
2,300.0	2,256.4	2,241.0	2,182.6	7.7	7.8	59.33	-357.7	299.7	301.3	287.0	14.31	21.051	
2,400.0	2,345.7	2,333.2	2,258.9	7.9	8.1	57.06	-368.4	350.3	304.4	289.2	15.16	20.078	
2,500.0	2,435.0	2,424.0	2,331.6	8.0	8.4	54.19	-379.6	403.6	310.6	294.6	15.99	19.416	
2,600.0	2,524.3	2,521.1	2,407.6	8.4	9.1	50.84	-392.1	462.7	319.2	302.4	16.85	18.942	
2,700.0	2,613.6	2,618.9	2,484.2	9.0	9.9	47.65	-404.7	522.2	329.0	311.3	17.69	18.594	
2,800.0	2,702.9	2,716.8	2,560.8	9.5	10.7	44.65	-417.3	581.8	339.7	321.2	18.48	18.384	
2,900.0	2,792.2	2,814.6	2,637.4	10.1	11.6	41.83	-429.9	641.3	351.3	332.1	19.21	18.290	SF
3,000.0	2,881.5	2,912.4	2,714.0	10.7	12.4	39.19	-442.5	700.9	363.8	343.9	19.89	18.291	
3,100.0	2,970.8	3,010.2	2,790.5	11.3	13.3	36.72	-455.1	760.4	377.0	356.4	20.52	18.370	
3,200.0	3,060.1	3,108.1	2,867.1	11.9	14.2	34.43	-467.7	820.0	390.8	369.7	21.11	18.511	
3,300.0	3,149.4	3,205.9	2,943.7	12.5	15.0	32.29	-480.3	879.6	405.2	383.5	21.66	18.703	
3,400.0	3,238.7	3,303.7	3,020.3	13.1	15.9	30.29	-492.9	939.1	420.1	398.0	22.19	18.935	
3,500.0	3,328.0	3,401.6	3,096.9	13.7	16.8	28.43	-505.5	998.7	435.6	412.9	22.69	19.198	
3,600.0	3,417.3	3,499.4	3,173.5	14.3	17.7	26.70	-518.1	1,058.2	451.4	428.2	23.17	19.486	
3,700.0	3,506.6	3,597.2	3,250.0	15.0	18.6	25.09	-530.7	1,117.8	467.6	444.0	23.63	19.792	
3,800.0	3,595.9	3,695.1	3,326.6	15.6	19.5	23.58	-543.3	1,177.3	484.2	460.1	24.08	20.110	
3,900.0	3,685.1	3,792.9	3,403.2	16.2	20.4	22.17	-555.9	1,236.9	501.1	476.5	24.52	20.437	
4,000.0	3,774.4	3,890.7	3,479.8	16.8	21.3	20.85	-568.5	1,296.4	518.2	493.3	24.95	20.769	
4,100.0	3,863.7	3,988.5	3,556.4	17.5	22.2	19.62	-581.1	1,356.0	535.6	510.2	25.38	21.103	
4,200.0	3,953.0	4,086.4	3,633.0	18.1	23.2	18.46	-593.7	1,415.6	553.2	527.4	25.81	21.436	
4,300.0	4,042.3	4,184.2	3,709.5	18.8	24.1	17.38	-606.3	1,475.1	571.1	544.8	26.24	21.767	
4,400.0	4,131.6	4,282.0	3,786.1	19.4	25.0	16.36	-618.9	1,534.7	589.1	562.4	26.67	22.093	

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

Amazon.com

Anticollision Report

Company:	APEX	Local Co-ordinate Reference:	Well *Brighton Lakes 20-17-2NAH
Project:	POCO Brighton Lakes Expansion	TVD Reference:	RKB @ 5063.0usft
Reference Site:	Sec 20-T1S-R66W	MD Reference:	RKB @ 5063.0usft
Site Error:	0.0 usft	North Reference:	Grid
Reference Well:	*Brighton Lakes 20-17-2NAH	Survey Calculation Method:	Minimum Curvature
Well Error:	0.0 usft	Output errors are at	2.00 sigma
Reference Wellbore	Original Hole	Database:	WC365
Reference Design:	Plan #1	Offset TVD Reference:	Offset Datum

Offset Design: Sec 20-T1S-R66W - *Buckley 21-16-2CDH - Original Hole - Plan #1													Offset Site Error:	0.0 usft
Survey Program: 0-MWD+HRGM+SAG+FDIR													Offset Well Error:	0.0 usft
Reference		Offset		Semi Major Axis		Highside Toolface (°)	Offset Wellbore Centre		Distance		Minimum Separation (usft)	Separation Factor	Warning	
Measured Depth (usft)	Vertical Depth (usft)	Measured Depth (usft)	Vertical Depth (usft)	Reference (usft)	Offset (usft)		+N/-S (usft)	+E/-W (usft)	Between Centres (usft)	Between Ellipses (usft)				
4,500.0	4,220.9	4,379.9	3,862.7	20.1	25.9	15.40	-631.5	1,594.2	607.3	580.2	27.10	22.413		
4,600.0	4,310.2	4,477.7	3,939.3	20.7	26.8	14.50	-644.1	1,653.8	625.7	598.1	27.53	22.726		
4,700.0	4,399.5	4,575.5	4,015.9	21.3	27.8	13.64	-656.7	1,713.3	644.2	616.2	27.97	23.031		
4,800.0	4,488.8	4,673.4	4,092.5	22.0	28.7	12.84	-669.3	1,772.9	662.8	634.4	28.41	23.328		
4,900.0	4,578.1	4,771.2	4,169.1	22.6	29.6	12.08	-681.9	1,832.5	681.6	652.7	28.86	23.616		
5,000.0	4,667.4	4,869.0	4,245.6	23.3	30.5	11.36	-694.5	1,892.0	700.4	671.1	29.31	23.894		
5,100.0	4,756.7	4,966.8	4,322.2	23.9	31.5	10.67	-707.1	1,951.6	719.4	689.6	29.77	24.163		
5,200.0	4,846.0	5,064.7	4,398.8	24.6	32.4	10.02	-719.7	2,011.1	738.4	708.2	30.24	24.422		
5,300.0	4,935.3	5,162.5	4,475.4	25.2	33.3	9.41	-732.3	2,070.7	757.6	726.9	30.71	24.672		
5,400.0	5,024.6	5,260.3	4,552.0	25.9	34.2	8.82	-744.9	2,130.2	776.8	745.6	31.18	24.911		
5,500.0	5,113.9	5,358.2	4,628.6	26.6	35.2	8.26	-757.5	2,189.8	796.1	764.5	31.67	25.141		
5,600.0	5,203.2	5,456.0	4,705.1	27.2	36.1	7.73	-770.1	2,249.3	815.5	783.3	32.15	25.362		
5,700.0	5,292.5	5,553.8	4,781.7	27.9	37.0	7.23	-782.7	2,308.9	834.9	802.3	32.65	25.573		
5,800.0	5,381.8	5,651.7	4,858.3	28.5	38.0	6.74	-795.3	2,368.5	854.4	821.3	33.15	25.776		
5,900.0	5,471.1	5,749.5	4,934.9	29.2	38.9	6.28	-807.9	2,428.0	874.0	840.3	33.65	25.969		
6,000.0	5,560.4	5,847.3	5,011.5	29.8	39.8	5.84	-820.5	2,487.6	893.6	859.4	34.17	26.154		
6,100.0	5,649.7	5,945.2	5,088.1	30.5	40.8	5.42	-833.1	2,547.1	913.2	878.6	34.68	26.331		
6,200.0	5,739.0	6,043.0	5,164.6	31.2	41.7	5.01	-845.7	2,606.7	932.9	897.7	35.21	26.500		
6,300.0	5,828.3	6,140.8	5,241.2	31.8	42.6	4.62	-858.3	2,666.2	952.7	916.9	35.73	26.661		
6,400.0	5,917.6	6,238.6	5,317.8	32.5	43.6	4.25	-870.9	2,725.8	972.5	936.2	36.27	26.815		
6,500.0	6,006.9	6,336.5	5,394.4	33.1	44.5	3.89	-883.5	2,785.3	992.3	955.5	36.80	26.961		

Amazon.com

Anticollision Report

Company:	APEX	Local Co-ordinate Reference:	Well *Brighton Lakes 20-17-2NAH
Project:	POCO Brighton Lakes Expansion	TVD Reference:	RKB @ 5063.0usft
Reference Site:	Sec 20-T1S-R66W	MD Reference:	RKB @ 5063.0usft
Site Error:	0.0 usft	North Reference:	Grid
Reference Well:	*Brighton Lakes 20-17-2NAH	Survey Calculation Method:	Minimum Curvature
Well Error:	0.0 usft	Output errors are at	2.00 sigma
Reference Wellbore	Original Hole	Database:	WC365
Reference Design:	Plan #1	Offset TVD Reference:	Offset Datum

Offset Design: Sec 20-T1S-R66W - *Buckley 21-16-2NAH - Original Hole - Plan #1												Offset Site Error:	0.0 usft
Survey Program: 0-MWD+HRGM+SAG+FDIR												Offset Well Error:	0.0 usft
Measured Depth (usft)	Vertical Depth (usft)	Measured Depth (usft)	Vertical Depth (usft)	Reference (usft)	Semi Major Axis Offset (usft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (usft)	+E/-W (usft)	Distance Between Centres (usft)	Between Ellipses (usft)	Minimum Separation (usft)	Separation Factor	Warning
0.0	0.0	0.0	0.0	0.0	0.0	179.41	-30.0	0.3	30.0				
100.0	100.0	100.0	100.0	1.0	1.0	179.41	-30.0	0.3	30.0	28.0	1.96	15.318	
200.0	200.0	200.0	200.0	1.6	1.6	179.41	-30.0	0.3	30.0	26.9	3.12	9.611	
300.0	300.0	300.0	300.0	2.0	2.0	179.41	-30.0	0.3	30.0	26.0	3.96	7.571	
400.0	400.0	400.0	400.0	2.3	2.3	179.41	-30.0	0.3	30.0	25.3	4.66	6.438	
500.0	500.0	500.0	500.0	2.6	2.6	179.41	-30.0	0.3	30.0	24.7	5.27	5.692	
600.0	600.0	600.0	600.0	2.9	2.9	179.41	-30.0	0.3	30.0	24.2	5.82	5.152	
700.0	700.0	700.0	700.0	3.2	3.2	179.41	-30.0	0.3	30.0	23.7	6.33	4.739	
800.0	800.0	800.0	800.0	3.4	3.4	179.41	-30.0	0.3	30.0	23.2	6.80	4.409	
900.0	900.0	900.0	900.0	3.6	3.6	179.41	-30.0	0.3	30.0	22.7	7.25	4.137	
1,000.0	1,000.0	1,000.0	1,000.0	3.8	3.8	179.41	-30.0	0.3	30.0	22.3	7.67	3.908	
1,100.0	1,100.0	1,100.0	1,100.0	4.0	4.0	179.41	-30.0	0.3	30.0	21.9	8.08	3.712	
1,110.0	1,110.0	1,110.0	1,110.0	4.1	4.0	179.41	-30.0	0.3	30.0	21.9	8.11	3.699 CC	
1,200.0	1,200.0	1,199.9	1,199.9	4.2	4.1	178.17	-30.0	1.0	30.1	21.7	8.36	3.595 ES	
1,300.0	1,300.0	1,299.5	1,299.3	4.4	4.6	168.60	-30.5	6.1	31.1	22.3	8.74	3.553 SF	
1,400.0	1,400.0	1,398.5	1,397.8	4.9	5.1	49.13	-31.3	16.4	33.6	24.3	9.32	3.607	
1,500.0	1,499.6	1,497.1	1,495.2	5.3	5.5	37.21	-32.5	31.7	36.9	26.8	10.06	3.665	
1,600.0	1,598.8	1,595.3	1,591.3	5.7	5.8	26.45	-34.1	51.8	40.8	29.9	10.90	3.748	
1,700.0	1,697.1	1,693.1	1,685.8	6.0	6.2	16.73	-36.1	76.8	45.5	33.8	11.72	3.880	
1,800.0	1,794.3	1,790.4	1,778.5	6.4	6.5	7.97	-38.4	106.4	50.8	38.4	12.47	4.075	
1,900.0	1,890.2	1,887.3	1,869.1	6.7	6.8	0.07	-41.2	140.4	56.9	43.8	13.11	4.339	
2,000.0	1,984.4	1,983.8	1,957.5	7.0	7.1	-7.03	-44.2	178.9	63.7	50.1	13.65	4.668	
2,100.0	2,076.8	2,079.8	2,043.5	7.3	7.4	-13.41	-47.6	221.5	71.3	57.2	14.10	5.055	
2,191.6	2,159.6	2,167.4	2,119.9	7.5	7.6	-18.69	-51.0	264.1	78.9	64.5	14.44	5.466	
2,200.0	2,167.1	2,175.4	2,126.8	7.5	7.7	-19.15	-51.3	268.2	79.7	65.2	14.45	5.512	
2,300.0	2,256.4	2,270.3	2,207.1	7.7	7.9	-23.63	-55.3	318.5	91.6	76.8	14.81	6.184	
2,400.0	2,345.7	2,364.0	2,283.9	7.9	8.2	-26.34	-59.6	372.1	108.6	93.4	15.15	7.167	
2,500.0	2,435.0	2,456.0	2,356.6	8.0	8.7	-27.67	-64.1	428.4	130.3	114.8	15.47	8.422	
2,600.0	2,524.3	2,551.9	2,430.5	8.4	9.4	-28.30	-68.9	489.3	155.0	139.0	15.97	9.707	
2,700.0	2,613.6	2,648.8	2,505.1	9.0	10.2	-28.76	-73.8	550.9	179.7	163.2	16.55	10.862	
2,800.0	2,702.9	2,745.7	2,579.7	9.5	11.0	-29.10	-78.8	612.5	204.5	187.3	17.16	11.917	
2,900.0	2,792.2	2,842.6	2,654.3	10.1	11.9	-29.37	-83.7	674.1	229.3	211.5	17.80	12.880	
3,000.0	2,881.5	2,939.5	2,729.0	10.7	12.8	-29.59	-88.6	735.7	254.0	235.6	18.46	13.758	
3,100.0	2,970.8	3,036.4	2,803.6	11.3	13.6	-29.77	-93.5	797.3	278.8	259.6	19.15	14.560	
3,200.0	3,060.1	3,133.2	2,878.2	11.9	14.5	-29.92	-98.4	858.9	303.6	283.7	19.85	15.291	
3,300.0	3,149.4	3,230.1	2,952.8	12.5	15.4	-30.05	-103.3	920.5	328.3	307.8	20.57	15.960	
3,400.0	3,238.7	3,327.0	3,027.4	13.1	16.3	-30.16	-108.2	982.1	353.1	331.8	21.31	16.572	
3,500.0	3,328.0	3,423.9	3,102.0	13.7	17.2	-30.25	-113.1	1,043.7	377.9	355.8	22.06	17.132	
3,600.0	3,417.3	3,520.8	3,176.6	14.3	18.2	-30.34	-118.0	1,105.3	402.6	379.8	22.82	17.646	
3,700.0	3,506.6	3,617.6	3,251.3	15.0	19.1	-30.41	-122.9	1,166.9	427.4	403.8	23.59	18.119	
3,800.0	3,595.9	3,714.5	3,325.9	15.6	20.0	-30.48	-127.8	1,228.5	452.2	427.8	24.37	18.555	
3,900.0	3,685.1	3,811.4	3,400.5	16.2	20.9	-30.54	-132.7	1,290.1	477.0	451.8	25.16	18.956	
4,000.0	3,774.4	3,908.3	3,475.1	16.8	21.9	-30.59	-137.6	1,351.7	501.8	475.8	25.96	19.328	
4,100.0	3,863.7	4,005.2	3,549.7	17.5	22.8	-30.64	-142.5	1,413.3	526.5	499.8	26.77	19.671	
4,200.0	3,953.0	4,102.0	3,624.3	18.1	23.7	-30.68	-147.4	1,474.9	551.3	523.7	27.58	19.990	
4,300.0	4,042.3	4,198.9	3,698.9	18.8	24.6	-30.72	-152.3	1,536.5	576.1	547.7	28.40	20.286	
4,400.0	4,131.6	4,295.8	3,773.6	19.4	25.6	-30.76	-157.3	1,598.1	600.9	571.6	29.22	20.562	
4,500.0	4,220.9	4,392.7	3,848.2	20.1	26.5	-30.79	-162.2	1,659.7	625.6	595.6	30.05	20.819	
4,600.0	4,310.2	4,489.6	3,922.8	20.7	27.5	-30.82	-167.1	1,721.3	650.4	619.5	30.89	21.058	
4,700.0	4,399.5	4,586.5	3,997.4	21.3	28.4	-30.85	-172.0	1,782.9	675.2	643.5	31.72	21.283	
4,800.0	4,488.8	4,683.3	4,072.0	22.0	29.3	-30.88	-176.9	1,844.5	700.0	667.4	32.57	21.493	
4,900.0	4,578.1	4,780.2	4,146.6	22.6	30.3	-30.90	-181.8	1,906.1	724.7	691.3	33.41	21.690	

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

Amazon.com
Anticollision Report

Company:	APEX	Local Co-ordinate Reference:	Well *Brighton Lakes 20-17-2NAH
Project:	POCO Brighton Lakes Expansion	TVD Reference:	RKB @ 5063.0usft
Reference Site:	Sec 20-T1S-R66W	MD Reference:	RKB @ 5063.0usft
Site Error:	0.0 usft	North Reference:	Grid
Reference Well:	*Brighton Lakes 20-17-2NAH	Survey Calculation Method:	Minimum Curvature
Well Error:	0.0 usft	Output errors are at	2.00 sigma
Reference Wellbore	Original Hole	Database:	WC365
Reference Design:	Plan #1	Offset TVD Reference:	Offset Datum

Offset Design: Sec 20-T1S-R66W - *Buckley 21-16-2NAH - Original Hole - Plan #1													Offset Site Error:	0.0 usft
Survey Program: 0-MWD+HRGM+SAG+FDIR													Offset Well Error:	0.0 usft
Reference		Offset		Semi Major Axis		Highside Toolface (°)	Offset Wellbore Centre		Distance		Rule Assigned:		Warning	
Measured Depth (usft)	Vertical Depth (usft)	Measured Depth (usft)	Vertical Depth (usft)	Reference (usft)	Offset (usft)		+N/-S (usft)	+E/-W (usft)	Between Centres (usft)	Between Ellipses (usft)	Minimum Separation (usft)	Separation Factor		
5,000.0	4,667.4	4,877.1	4,221.2	23.3	31.2	-30.93	-186.7	1,967.7	749.5	715.3	34.26	21.875		
5,100.0	4,756.7	4,974.0	4,295.8	23.9	32.2	-30.95	-191.6	2,029.3	774.3	739.2	35.12	22.050		
5,200.0	4,846.0	5,070.9	4,370.5	24.6	33.1	-30.97	-196.5	2,090.9	799.1	763.1	35.97	22.214		
5,300.0	4,935.3	5,167.7	4,445.1	25.2	34.1	-30.99	-201.4	2,152.5	823.9	787.0	36.83	22.369		
5,400.0	5,024.6	5,264.6	4,519.7	25.9	35.0	-31.01	-206.3	2,214.1	848.6	810.9	37.69	22.515		
5,500.0	5,113.9	5,361.5	4,594.3	26.6	35.9	-31.02	-211.2	2,275.7	873.4	834.9	38.56	22.653		
5,600.0	5,203.2	5,458.4	4,668.9	27.2	36.9	-31.04	-216.1	2,337.3	898.2	858.8	39.42	22.784		
5,700.0	5,292.5	5,555.3	4,743.5	27.9	37.8	-31.06	-221.0	2,398.9	923.0	882.7	40.29	22.908		
5,800.0	5,381.8	5,652.1	4,818.1	28.5	38.8	-31.07	-225.9	2,460.5	947.8	906.6	41.16	23.026		
5,900.0	5,471.1	5,749.0	4,892.8	29.2	39.7	-31.08	-230.9	2,522.1	972.5	930.5	42.03	23.138		
6,000.0	5,560.4	5,845.9	4,967.4	29.8	40.7	-31.10	-235.8	2,583.7	997.3	954.4	42.91	23.244		

Amazon.com

Anticollision Report

Company:	APEX	Local Co-ordinate Reference:	Well *Brighton Lakes 20-17-2NAH
Project:	POCO Brighton Lakes Expansion	TVD Reference:	RKB @ 5063.0usft
Reference Site:	Sec 20-T1S-R66W	MD Reference:	RKB @ 5063.0usft
Site Error:	0.0 usft	North Reference:	Grid
Reference Well:	*Brighton Lakes 20-17-2NAH	Survey Calculation Method:	Minimum Curvature
Well Error:	0.0 usft	Output errors are at	2.00 sigma
Reference Wellbore	Original Hole	Database:	WC365
Reference Design:	Plan #1	Offset TVD Reference:	Offset Datum

Offset Design: Sec 20-T1S-R66W - *Buckley 21-16-2NBH - Original Hole - Plan #1												Offset Site Error:	0.0 usft
Survey Program: 0-MWD+HRGM+SAG+FDIR												Offset Well Error:	0.0 usft
Reference		Offset		Semi Major Axis		Highside Toolface (°)	Offset Wellbore Centre		Distance		Minimum Separation (usft)	Separation Factor	Warning
Measured Depth (usft)	Vertical Depth (usft)	Measured Depth (usft)	Vertical Depth (usft)	Reference (usft)	Offset (usft)		+N/-S (usft)	+E/-W (usft)	Between Centres (usft)	Between Ellipses (usft)			
0.0	0.0	0.0	0.0	0.0	0.0	169.40	-169.6	31.7	172.6				
100.0	100.0	100.0	100.0	1.0	1.0	169.40	-169.6	31.7	172.6	170.6	1.96	88.138	
200.0	200.0	200.0	200.0	1.6	1.6	169.40	-169.6	31.7	172.6	169.5	3.12	55.304	
300.0	300.0	300.0	300.0	2.0	2.0	169.40	-169.6	31.7	172.6	168.6	3.96	43.562	
400.0	400.0	400.0	400.0	2.3	2.3	169.40	-169.6	31.7	172.6	167.9	4.66	37.043	
500.0	500.0	500.0	500.0	2.6	2.6	169.40	-169.6	31.7	172.6	167.3	5.27	32.750	
600.0	600.0	600.0	600.0	2.9	2.9	169.40	-169.6	31.7	172.6	166.8	5.82	29.647	
700.0	700.0	700.0	700.0	3.2	3.2	169.40	-169.6	31.7	172.6	166.2	6.33	27.268	
800.0	800.0	800.0	800.0	3.4	3.4	169.40	-169.6	31.7	172.6	165.8	6.80	25.368	
900.0	900.0	900.0	900.0	3.6	3.6	169.40	-169.6	31.7	172.6	165.3	7.25	23.805	
1,000.0	1,000.0	1,000.0	1,000.0	3.8	3.8	169.40	-169.6	31.7	172.6	164.9	7.67	22.490	
1,066.7	1,066.7	1,066.7	1,066.7	4.0	4.0	169.40	-169.6	31.7	172.6	164.6	7.94	21.725	
1,100.0	1,100.0	1,100.0	1,100.0	4.0	4.0	169.40	-169.6	31.7	172.6	164.5	8.08	21.362	CC, ES
1,200.0	1,200.0	1,197.5	1,197.4	4.2	4.5	168.61	-169.9	34.2	173.3	164.8	8.48	20.437	
1,300.0	1,300.0	1,294.5	1,294.1	4.4	4.9	166.30	-170.6	41.6	175.7	166.8	8.87	19.802	
1,400.0	1,400.0	1,390.8	1,389.6	4.9	5.3	56.91	-171.7	53.7	178.8	169.4	9.35	19.128	
1,500.0	1,499.6	1,486.6	1,484.0	5.3	5.7	53.87	-173.3	70.6	181.5	171.6	9.85	18.432	
1,600.0	1,598.8	1,581.9	1,576.8	5.7	6.1	50.85	-175.4	92.0	183.8	173.4	10.39	17.695	
1,700.0	1,697.1	1,676.8	1,668.1	6.0	6.4	47.83	-177.8	117.8	185.7	174.7	10.97	16.932	
1,800.0	1,794.3	1,771.2	1,757.5	6.4	6.7	44.79	-180.7	148.0	187.2	175.6	11.59	16.157	
1,900.0	1,890.2	1,865.1	1,844.8	6.7	7.0	41.72	-183.9	182.3	188.4	176.2	12.24	15.389	
2,000.0	1,984.4	1,958.6	1,930.0	7.0	7.3	38.59	-187.6	220.7	189.3	176.4	12.93	14.646	
2,100.0	2,076.8	2,051.7	2,012.8	7.3	7.5	35.40	-191.6	262.9	190.0	176.4	13.63	13.943	
2,114.8	2,090.3	2,065.4	2,024.8	7.3	7.6	34.92	-192.2	269.5	190.1	176.4	13.73	13.850	
2,191.6	2,159.6	2,136.5	2,086.4	7.5	7.8	32.41	-195.6	304.9	190.5	176.3	14.23	13.387	
2,200.0	2,167.1	2,144.3	2,093.0	7.5	7.8	32.13	-196.0	308.9	190.6	176.3	14.27	13.353	
2,300.0	2,256.4	2,236.2	2,170.3	7.7	8.0	28.40	-200.7	358.4	193.7	178.8	14.87	13.025	SF
2,400.0	2,345.7	2,326.9	2,244.2	7.9	8.3	24.16	-205.6	410.7	201.7	186.3	15.35	13.135	
2,500.0	2,435.0	2,416.1	2,314.3	8.0	8.7	19.74	-210.9	465.6	215.0	199.3	15.70	13.692	
2,600.0	2,524.3	2,510.7	2,386.8	8.4	9.5	15.27	-216.6	526.2	232.6	216.5	16.03	14.509	
2,700.0	2,613.6	2,607.5	2,460.8	9.0	10.3	11.32	-222.5	588.3	251.6	235.1	16.41	15.333	
2,800.0	2,702.9	2,704.2	2,534.8	9.5	11.1	7.93	-228.4	650.3	271.6	254.8	16.77	16.192	
2,900.0	2,792.2	2,801.0	2,608.8	10.1	12.0	5.00	-234.3	712.4	292.4	275.2	17.14	17.058	
3,000.0	2,881.5	2,897.8	2,682.8	10.7	12.9	2.46	-240.2	774.5	313.8	296.3	17.52	17.911	
3,100.0	2,970.8	2,994.5	2,756.8	11.3	13.8	0.24	-246.1	836.6	335.8	317.9	17.93	18.735	
3,200.0	3,060.1	3,091.3	2,830.8	11.9	14.7	-1.71	-252.0	898.7	358.2	339.9	18.35	19.520	
3,300.0	3,149.4	3,188.1	2,904.8	12.5	15.6	-3.43	-257.9	960.7	381.0	362.2	18.80	20.262	
3,400.0	3,238.7	3,284.8	2,978.8	13.1	16.5	-4.95	-263.8	1,022.8	404.1	384.8	19.28	20.956	
3,500.0	3,328.0	3,381.6	3,052.8	13.7	17.4	-6.31	-269.7	1,084.9	427.4	407.6	19.78	21.601	
3,600.0	3,417.3	3,478.4	3,126.7	14.3	18.3	-7.54	-275.6	1,147.0	450.9	430.6	20.31	22.198	
3,700.0	3,506.6	3,575.1	3,200.7	15.0	19.3	-8.64	-281.5	1,209.1	474.5	453.7	20.86	22.748	
3,800.0	3,595.9	3,671.9	3,274.7	15.6	20.2	-9.63	-287.4	1,271.1	498.4	477.0	21.43	23.252	
3,900.0	3,685.1	3,768.7	3,348.7	16.2	21.1	-10.54	-293.3	1,333.2	522.3	500.3	22.03	23.714	
4,000.0	3,774.4	3,865.4	3,422.7	16.8	22.1	-11.37	-299.2	1,395.3	546.4	523.8	22.64	24.137	
4,100.0	3,863.7	3,962.2	3,496.7	17.5	23.0	-12.13	-305.1	1,457.4	570.6	547.3	23.27	24.523	
4,200.0	3,953.0	4,059.0	3,570.7	18.1	24.0	-12.82	-311.0	1,519.5	594.9	571.0	23.91	24.875	
4,300.0	4,042.3	4,155.7	3,644.7	18.8	24.9	-13.46	-316.9	1,581.5	619.2	594.6	24.57	25.197	
4,400.0	4,131.6	4,252.5	3,718.7	19.4	25.8	-14.06	-322.8	1,643.6	643.6	618.4	25.25	25.490	
4,500.0	4,220.9	4,349.3	3,792.7	20.1	26.8	-14.61	-328.7	1,705.7	668.1	642.1	25.94	25.758	
4,600.0	4,310.2	4,446.0	3,866.7	20.7	27.7	-15.12	-334.6	1,767.8	692.6	666.0	26.64	26.002	
4,700.0	4,399.5	4,542.8	3,940.7	21.3	28.7	-15.59	-340.5	1,829.9	717.2	689.8	27.35	26.225	
4,800.0	4,488.8	4,639.6	4,014.7	22.0	29.6	-16.04	-346.4	1,891.9	741.8	713.7	28.07	26.429	

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

Amazon.com
Anticollision Report

Company:	APEX	Local Co-ordinate Reference:	Well *Brighton Lakes 20-17-2NAH
Project:	POCO Brighton Lakes Expansion	TVD Reference:	RKB @ 5063.0usft
Reference Site:	Sec 20-T1S-R66W	MD Reference:	RKB @ 5063.0usft
Site Error:	0.0 usft	North Reference:	Grid
Reference Well:	*Brighton Lakes 20-17-2NAH	Survey Calculation Method:	Minimum Curvature
Well Error:	0.0 usft	Output errors are at	2.00 sigma
Reference Wellbore	Original Hole	Database:	WC365
Reference Design:	Plan #1	Offset TVD Reference:	Offset Datum

Offset Design: Sec 20-T1S-R66W - *Buckley 21-16-2NBH - Original Hole - Plan #1													Offset Site Error:	0.0 usft
Survey Program: 0-MWD+HRGM+SAG+FDIR													Offset Well Error:	0.0 usft
Reference		Offset		Semi Major Axis		Highside Toolface (°)	Offset Wellbore Centre		Distance		Rule Assigned:		Warning	
Measured Depth (usft)	Vertical Depth (usft)	Measured Depth (usft)	Vertical Depth (usft)	Reference (usft)	Offset (usft)		+N/-S (usft)	+E/-W (usft)	Between Centres (usft)	Between Ellipses (usft)	Minimum Separation (usft)	Separation Factor		
4,900.0	4,578.1	4,736.3	4,088.7	22.6	30.6	-16.46	-352.3	1,954.0	766.4	737.6	28.80	26.615		
5,000.0	4,667.4	4,833.1	4,162.7	23.3	31.6	-16.85	-358.2	2,016.1	791.1	761.6	29.54	26.786		
5,100.0	4,756.7	4,929.9	4,236.7	23.9	32.5	-17.21	-364.1	2,078.2	815.9	785.6	30.28	26.942		
5,200.0	4,846.0	5,026.6	4,310.7	24.6	33.5	-17.56	-370.0	2,140.3	840.6	809.6	31.03	27.086		
5,300.0	4,935.3	5,123.4	4,384.7	25.2	34.4	-17.88	-375.9	2,202.3	865.4	833.6	31.80	27.217		
5,400.0	5,024.6	5,220.2	4,458.7	25.9	35.4	-18.19	-381.8	2,264.4	890.2	857.6	32.56	27.338		
5,500.0	5,113.9	5,317.0	4,532.6	26.6	36.3	-18.48	-387.7	2,326.5	915.0	881.7	33.33	27.450		
5,600.0	5,203.2	5,413.7	4,606.6	27.2	37.3	-18.76	-393.6	2,388.6	939.9	905.7	34.11	27.552		
5,700.0	5,292.5	5,510.5	4,680.6	27.9	38.2	-19.02	-399.5	2,450.7	964.7	929.8	34.90	27.646		
5,800.0	5,381.8	5,607.3	4,754.6	28.5	39.2	-19.27	-405.4	2,512.7	989.6	953.9	35.68	27.733		

Amazon.com

Anticollision Report

Company:	APEX	Local Co-ordinate Reference:	Well *Brighton Lakes 20-17-2NAH
Project:	POCO Brighton Lakes Expansion	TVD Reference:	RKB @ 5063.0usft
Reference Site:	Sec 20-T1S-R66W	MD Reference:	RKB @ 5063.0usft
Site Error:	0.0 usft	North Reference:	Grid
Reference Well:	*Brighton Lakes 20-17-2NAH	Survey Calculation Method:	Minimum Curvature
Well Error:	0.0 usft	Output errors are at	2.00 sigma
Reference Wellbore	Original Hole	Database:	WC365
Reference Design:	Plan #1	Offset TVD Reference:	Offset Datum

Offset Design: Sec 20-T1S-R66W - *Buckley 21-16-2NCH - Original Hole - Plan #1												Offset Site Error:	0.0 usft
Survey Program: 0-MWD+HRGM+SAG+FDIR												Offset Well Error:	0.0 usft
Reference		Offset		Semi Major Axis		Highside Toolface (°)	Offset Wellbore Centre		Distance		Separation Factor	Warning	
Measured Depth (usft)	Vertical Depth (usft)	Measured Depth (usft)	Vertical Depth (usft)	Reference (usft)	Offset (usft)		+N/-S (usft)	+E/-W (usft)	Between Centres (usft)	Between Ellipses (usft)			
0.0	0.0	0.0	0.0	0.0	0.0	179.41	-199.9	2.1	199.9				
100.0	100.0	100.0	100.0	1.0	1.0	179.41	-199.9	2.1	199.9	198.0	1.96	102.115	
200.0	200.0	200.0	200.0	1.6	1.6	179.41	-199.9	2.1	199.9	196.8	3.12	64.074	
300.0	300.0	300.0	300.0	2.0	2.0	179.41	-199.9	2.1	199.9	196.0	3.96	50.470	
400.0	400.0	400.0	400.0	2.3	2.3	179.41	-199.9	2.1	199.9	195.3	4.66	42.917	
500.0	500.0	500.0	500.0	2.6	2.6	179.41	-199.9	2.1	199.9	194.7	5.27	37.943	
600.0	600.0	600.0	600.0	2.9	2.9	179.41	-199.9	2.1	199.9	194.1	5.82	34.348	
700.0	700.0	700.0	700.0	3.2	3.2	179.41	-199.9	2.1	199.9	193.6	6.33	31.592	
800.0	800.0	800.0	800.0	3.4	3.4	179.41	-199.9	2.1	199.9	193.1	6.80	29.391	
900.0	900.0	900.0	900.0	3.6	3.6	179.41	-199.9	2.1	199.9	192.7	7.25	27.580	
1,000.0	1,000.0	1,000.0	1,000.0	3.8	3.8	179.41	-199.9	2.1	199.9	192.3	7.67	26.056	
1,100.0	1,100.0	1,100.0	1,100.0	4.0	4.0	179.41	-199.9	2.1	199.9	191.9	8.08	24.749	
1,110.0	1,110.0	1,110.0	1,110.0	4.1	4.0	179.41	-199.9	2.1	199.9	191.8	8.11	24.662	
1,200.0	1,200.0	1,199.2	1,199.2	4.2	4.1	179.23	-200.0	2.7	200.0	191.7	8.36	23.931	
1,300.0	1,300.0	1,297.4	1,297.3	4.4	4.6	177.81	-200.7	7.7	200.9	192.2	8.73	23.021	
1,400.0	1,400.0	1,395.1	1,394.4	4.9	5.0	69.36	-202.1	17.6	202.0	192.9	9.12	22.155	
1,500.0	1,499.6	1,492.4	1,490.6	5.3	5.4	67.23	-204.2	32.4	202.7	193.2	9.52	21.290	
1,600.0	1,598.8	1,589.3	1,585.5	5.7	5.8	65.10	-206.9	51.9	202.9	192.9	9.95	20.382	
1,700.0	1,697.1	1,685.9	1,678.9	6.0	6.1	62.97	-210.3	76.0	202.6	192.2	10.43	19.426	
1,800.0	1,794.3	1,782.1	1,770.6	6.4	6.5	60.82	-214.3	104.7	201.9	191.0	10.96	18.423	
1,900.0	1,890.2	1,877.9	1,860.4	6.7	6.8	58.63	-218.9	137.8	200.8	189.3	11.55	17.381	
2,000.0	1,984.4	1,973.4	1,948.1	7.0	7.1	56.40	-224.2	175.1	199.3	187.1	12.21	16.316	
2,100.0	2,076.8	2,068.5	2,033.5	7.3	7.4	54.12	-230.0	216.6	197.4	184.5	12.94	15.250	
2,189.2	2,157.4	2,153.1	2,107.6	7.5	7.6	52.02	-235.6	257.0	195.4	181.8	13.63	14.342	
2,191.6	2,159.6	2,155.3	2,109.6	7.5	7.6	51.96	-235.8	258.1	195.4	181.7	13.64	14.319	
2,199.7	2,166.8	2,163.0	2,116.1	7.5	7.6	51.76	-236.3	261.9	195.2	181.5	13.70	14.250	
2,200.0	2,167.1	2,163.3	2,116.4	7.5	7.6	51.76	-236.3	262.1	195.2	181.5	13.70	14.247	
2,267.0	2,226.9	2,226.5	2,170.4	7.7	7.8	49.79	-240.9	294.6	194.5	180.2	14.25	13.642 CC	
2,300.0	2,256.4	2,257.5	2,196.4	7.7	7.9	48.63	-243.2	311.2	194.6	180.1	14.53	13.395 ES	
2,400.0	2,345.7	2,350.6	2,273.1	7.9	8.1	44.49	-250.5	363.6	197.8	182.5	15.28	12.938	
2,500.0	2,435.0	2,442.5	2,346.0	8.0	8.5	39.63	-258.3	418.9	205.3	189.4	15.90	12.915 SF	
2,600.0	2,524.3	2,539.7	2,421.9	8.4	9.3	34.46	-266.7	479.2	216.2	199.7	16.50	13.102	
2,700.0	2,613.6	2,637.2	2,497.9	9.0	10.1	29.79	-275.2	539.7	228.7	211.7	17.03	13.429	
2,800.0	2,702.9	2,734.7	2,573.9	9.5	10.9	25.61	-283.7	600.1	242.7	225.2	17.49	13.871	
2,900.0	2,792.2	2,832.2	2,649.9	10.1	11.7	21.89	-292.1	660.6	257.8	239.9	17.90	14.396	
3,000.0	2,881.5	2,929.7	2,725.9	10.7	12.6	18.59	-300.6	721.1	273.8	255.5	18.28	14.977	
3,100.0	2,970.8	3,027.3	2,802.0	11.3	13.5	15.65	-309.1	781.6	290.7	272.0	18.64	15.591	
3,200.0	3,060.1	3,124.8	2,878.0	11.9	14.3	13.03	-317.5	842.0	308.2	289.2	19.00	16.221	
3,300.0	3,149.4	3,222.3	2,954.0	12.5	15.2	10.69	-326.0	902.5	326.3	307.0	19.36	16.854	
3,400.0	3,238.7	3,319.8	3,030.0	13.1	16.1	8.60	-334.5	963.0	344.9	325.2	19.73	17.478	
3,500.0	3,328.0	3,417.3	3,106.0	13.7	17.0	6.72	-342.9	1,023.5	363.9	343.8	20.12	18.086	
3,600.0	3,417.3	3,514.8	3,182.1	14.3	17.9	5.03	-351.4	1,083.9	383.2	362.7	20.52	18.673	
3,700.0	3,506.6	3,612.3	3,258.1	15.0	18.8	3.50	-359.9	1,144.4	402.8	381.9	20.94	19.234	
3,800.0	3,595.9	3,709.8	3,334.1	15.6	19.7	2.11	-368.3	1,204.9	422.7	401.3	21.39	19.766	
3,900.0	3,685.1	3,807.3	3,410.1	16.2	20.6	0.85	-376.8	1,265.4	442.8	421.0	21.85	20.269	
4,000.0	3,774.4	3,904.8	3,486.1	16.8	21.6	-0.31	-385.3	1,325.8	463.1	440.8	22.33	20.742	
4,100.0	3,863.7	4,002.3	3,562.2	17.5	22.5	-1.37	-393.7	1,386.3	483.6	460.7	22.83	21.184	
4,200.0	3,953.0	4,099.8	3,638.2	18.1	23.4	-2.34	-402.2	1,446.8	504.2	480.8	23.34	21.598	
4,300.0	4,042.3	4,197.3	3,714.2	18.8	24.3	-3.24	-410.6	1,507.3	524.9	501.0	23.88	21.983	
4,400.0	4,131.6	4,294.9	3,790.2	19.4	25.2	-4.07	-419.1	1,567.7	545.7	521.3	24.43	22.341	
4,500.0	4,220.9	4,392.4	3,866.2	20.1	26.2	-4.83	-427.6	1,628.2	566.7	541.7	24.99	22.673	
4,600.0	4,310.2	4,489.9	3,942.3	20.7	27.1	-5.55	-436.0	1,688.7	587.7	562.1	25.57	22.981	

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

Amazon.com

Anticollision Report

Company:	APEX	Local Co-ordinate Reference:	Well *Brighton Lakes 20-17-2NAH
Project:	POCO Brighton Lakes Expansion	TVD Reference:	RKB @ 5063.0usft
Reference Site:	Sec 20-T1S-R66W	MD Reference:	RKB @ 5063.0usft
Site Error:	0.0 usft	North Reference:	Grid
Reference Well:	*Brighton Lakes 20-17-2NAH	Survey Calculation Method:	Minimum Curvature
Well Error:	0.0 usft	Output errors are at	2.00 sigma
Reference Wellbore	Original Hole	Database:	WC365
Reference Design:	Plan #1	Offset TVD Reference:	Offset Datum

Offset Design: Sec 20-T1S-R66W - *Buckley 21-16-2NCH - Original Hole - Plan #1													Offset Site Error: 0.0 usft
Survey Program: 0-MWD+HRGM+SAG+FDIR													Offset Well Error: 0.0 usft
Reference		Offset		Semi Major Axis		Highside Toolface (°)	Offset Wellbore Centre		Distance		Minimum Separation (usft)	Separation Factor	Warning
Measured Depth (usft)	Vertical Depth (usft)	Measured Depth (usft)	Vertical Depth (usft)	Reference (usft)	Offset (usft)		+N/-S (usft)	+E/-W (usft)	Between Centres (usft)	Between Ellipses (usft)			
4,700.0	4,399.5	4,587.4	4,018.3	21.3	28.0	-6.21	-444.5	1,749.2	608.8	582.7	26.17	23.266	
4,800.0	4,488.8	4,684.9	4,094.3	22.0	28.9	-6.83	-453.0	1,809.6	630.0	603.2	26.77	23.530	
4,900.0	4,578.1	4,782.4	4,170.3	22.6	29.9	-7.41	-461.4	1,870.1	651.3	623.9	27.39	23.775	
5,000.0	4,667.4	4,879.9	4,246.3	23.3	30.8	-7.96	-469.9	1,930.6	672.6	644.6	28.02	24.002	
5,100.0	4,756.7	4,977.4	4,322.3	23.9	31.7	-8.47	-478.4	1,991.1	694.0	665.3	28.66	24.211	
5,200.0	4,846.0	5,074.9	4,398.4	24.6	32.7	-8.95	-486.8	2,051.5	715.4	686.1	29.31	24.405	
5,300.0	4,935.3	5,172.4	4,474.4	25.2	33.6	-9.40	-495.3	2,112.0	736.9	706.9	29.97	24.585	
5,400.0	5,024.6	5,269.9	4,550.4	25.9	34.5	-9.82	-503.8	2,172.5	758.4	727.7	30.64	24.752	
5,500.0	5,113.9	5,367.4	4,626.4	26.6	35.5	-10.23	-512.2	2,233.0	779.9	748.6	31.31	24.906	
5,600.0	5,203.2	5,465.0	4,702.4	27.2	36.4	-10.61	-520.7	2,293.4	801.5	769.5	32.00	25.050	
5,700.0	5,292.5	5,562.5	4,778.5	27.9	37.3	-10.97	-529.2	2,353.9	823.1	790.4	32.69	25.182	
5,800.0	5,381.8	5,660.0	4,854.5	28.5	38.3	-11.31	-537.6	2,414.4	844.8	811.4	33.38	25.306	
5,900.0	5,471.1	5,757.5	4,930.5	29.2	39.2	-11.64	-546.1	2,474.9	866.4	832.3	34.08	25.421	
6,000.0	5,560.4	5,855.0	5,006.5	29.8	40.1	-11.95	-554.6	2,535.3	888.1	853.3	34.79	25.527	
6,100.0	5,649.7	5,952.5	5,082.5	30.5	41.1	-12.24	-563.0	2,595.8	909.8	874.3	35.50	25.627	
6,200.0	5,739.0	6,050.0	5,158.6	31.2	42.0	-12.52	-571.5	2,656.3	931.6	895.4	36.22	25.719	
6,300.0	5,828.3	6,147.5	5,234.6	31.8	42.9	-12.79	-580.0	2,716.8	953.3	916.4	36.94	25.805	
6,400.0	5,917.6	6,245.0	5,310.6	32.5	43.9	-13.05	-588.4	2,777.2	975.1	937.5	37.67	25.886	
6,500.0	6,006.9	6,342.5	5,386.6	33.1	44.8	-13.29	-596.9	2,837.7	996.9	958.5	38.40	25.961	

Amazon.com

Anticollision Report

Company:	APEX	Local Co-ordinate Reference:	Well *Brighton Lakes 20-17-2NAH
Project:	POCO Brighton Lakes Expansion	TVD Reference:	RKB @ 5063.0usft
Reference Site:	Sec 20-T1S-R66W	MD Reference:	RKB @ 5063.0usft
Site Error:	0.0 usft	North Reference:	Grid
Reference Well:	*Brighton Lakes 20-17-2NAH	Survey Calculation Method:	Minimum Curvature
Well Error:	0.0 usft	Output errors are at	2.00 sigma
Reference Wellbore	Original Hole	Database:	WC365
Reference Design:	Plan #1	Offset TVD Reference:	Offset Datum

Offset Design: Sec 20-T1S-R66W - *Buckley 21-16-3CDH - Original Hole - Plan #1												Offset Site Error:	0.0 usft
Survey Program: 0-MWD+HRGM+SAG+FDIR												Offset Well Error:	0.0 usft
Reference		Offset		Semi Major Axis		Highside Toolface (°)	Offset Wellbore Centre		Distance		Minimum Separation (usft)	Separation Factor	Warning
Measured Depth (usft)	Vertical Depth (usft)	Measured Depth (usft)	Vertical Depth (usft)	Reference (usft)	Offset (usft)		+N/-S (usft)	+E/-W (usft)	Between Centres (usft)	Between Ellipses (usft)			
0.0	0.0	0.0	0.0	0.0	0.0	179.41	-309.9	3.2	309.9				
100.0	100.0	100.0	100.0	1.0	1.0	179.41	-309.9	3.2	309.9	308.0	1.96	158.283	
200.0	200.0	200.0	200.0	1.6	1.6	179.41	-309.9	3.2	309.9	306.8	3.12	99.317	
300.0	300.0	300.0	300.0	2.0	2.0	179.41	-309.9	3.2	309.9	306.0	3.96	78.230	
400.0	400.0	400.0	400.0	2.3	2.3	179.41	-309.9	3.2	309.9	305.3	4.66	66.523	
500.0	500.0	500.0	500.0	2.6	2.6	179.41	-309.9	3.2	309.9	304.6	5.27	58.813	
600.0	600.0	600.0	600.0	2.9	2.9	179.41	-309.9	3.2	309.9	304.1	5.82	53.241	
700.0	700.0	700.0	700.0	3.2	3.2	179.41	-309.9	3.2	309.9	303.6	6.33	48.969	
800.0	800.0	800.0	800.0	3.4	3.4	179.41	-309.9	3.2	309.9	303.1	6.80	45.558	
900.0	900.0	900.0	900.0	3.6	3.6	179.41	-309.9	3.2	309.9	302.7	7.25	42.751	
966.7	966.7	966.7	966.7	3.8	3.8	179.41	-309.9	3.2	309.9	302.4	7.53	41.146	
1,000.0	1,000.0	1,000.0	1,000.0	3.8	3.8	179.41	-309.9	3.2	309.9	302.2	7.67	40.388 CC, ES	
1,100.0	1,100.0	1,097.0	1,097.0	4.0	4.3	178.96	-310.3	5.6	310.4	302.3	8.08	38.436	
1,200.0	1,200.0	1,193.5	1,193.2	4.2	4.8	177.64	-311.6	12.8	312.0	303.5	8.46	36.873	
1,300.0	1,300.0	1,289.0	1,287.9	4.4	5.2	175.50	-313.7	24.7	314.9	306.1	8.85	35.598	
1,400.0	1,400.0	1,383.6	1,381.0	4.9	5.6	66.62	-316.6	41.0	318.8	309.5	9.28	34.362	
1,500.0	1,499.6	1,477.4	1,472.5	5.3	5.9	64.13	-320.3	61.6	322.7	312.9	9.73	33.169	
1,600.0	1,598.8	1,570.7	1,562.2	5.7	6.2	61.73	-324.7	86.5	326.5	316.3	10.22	31.958	
1,700.0	1,697.1	1,663.3	1,650.1	6.0	6.5	59.42	-329.8	115.5	330.3	319.6	10.75	30.728	
1,800.0	1,794.3	1,755.4	1,735.8	6.4	6.8	57.19	-335.7	148.4	334.0	322.7	11.33	29.480	
1,900.0	1,890.2	1,846.8	1,819.4	6.7	7.1	55.05	-342.2	185.0	337.5	325.6	11.96	28.225	
2,000.0	1,984.4	1,937.8	1,900.5	7.0	7.4	52.98	-349.4	225.4	340.9	328.3	12.64	26.973	
2,100.0	2,076.8	2,028.2	1,979.3	7.3	7.6	50.99	-357.2	269.2	344.0	330.7	13.37	25.738	
2,191.6	2,159.6	2,110.6	2,049.1	7.5	7.9	49.23	-364.8	312.3	346.7	332.7	14.05	24.685	
2,200.0	2,167.1	2,118.1	2,055.4	7.5	7.9	49.07	-365.5	316.4	347.0	332.9	14.10	24.609	
2,300.0	2,256.4	2,207.2	2,128.4	7.7	8.1	46.96	-374.4	366.5	351.7	336.8	14.89	23.620	
2,400.0	2,345.7	2,300.0	2,201.9	7.9	8.5	44.28	-384.3	422.2	360.0	344.3	15.68	22.962	
2,500.0	2,435.0	2,380.9	2,263.7	8.0	9.2	41.63	-393.5	473.7	372.1	355.8	16.27	22.876 SF	
2,600.0	2,524.3	2,469.4	2,328.9	8.4	9.9	38.54	-404.0	532.6	388.3	371.5	16.85	23.049	
2,700.0	2,613.6	2,565.2	2,398.9	9.0	10.8	35.37	-415.4	597.0	406.5	389.0	17.50	23.233	
2,800.0	2,702.9	2,661.0	2,468.9	9.5	11.7	32.46	-426.8	661.4	425.8	407.7	18.10	23.529	
2,900.0	2,792.2	2,756.9	2,539.0	10.1	12.7	29.81	-438.3	725.8	446.1	427.5	18.65	23.918	
3,000.0	2,881.5	2,852.7	2,609.0	10.7	13.6	27.38	-449.7	790.1	467.3	448.1	19.17	24.377	
3,100.0	2,970.8	2,948.5	2,679.0	11.3	14.5	25.15	-461.1	854.5	489.3	469.6	19.66	24.889	
3,200.0	3,060.1	3,044.3	2,749.0	11.9	15.5	23.12	-472.6	918.9	511.9	491.8	20.12	25.438	
3,300.0	3,149.4	3,140.1	2,819.0	12.5	16.5	21.25	-484.0	983.3	535.1	514.5	20.57	26.011	
3,400.0	3,238.7	3,235.9	2,889.1	13.1	17.5	19.54	-495.4	1,047.7	558.8	537.8	21.01	26.598	
3,500.0	3,328.0	3,331.7	2,959.1	13.7	18.4	17.96	-506.9	1,112.0	582.9	561.5	21.44	27.192	
3,600.0	3,417.3	3,427.5	3,029.1	14.3	19.4	16.50	-518.3	1,176.4	607.5	585.6	21.86	27.786	
3,700.0	3,506.6	3,523.3	3,099.1	15.0	20.4	15.16	-529.8	1,240.8	632.4	610.1	22.29	28.374	
3,800.0	3,595.9	3,619.1	3,169.1	15.6	21.4	13.92	-541.2	1,305.2	657.6	634.9	22.71	28.952	
3,900.0	3,685.1	3,714.9	3,239.1	16.2	22.4	12.77	-552.6	1,369.6	683.1	659.9	23.14	29.518	
4,000.0	3,774.4	3,810.7	3,309.2	16.8	23.4	11.70	-564.1	1,433.9	708.8	685.2	23.57	30.067	
4,100.0	3,863.7	3,906.5	3,379.2	17.5	24.4	10.70	-575.5	1,498.3	734.7	710.7	24.01	30.599	
4,200.0	3,953.0	4,002.3	3,449.2	18.1	25.4	9.77	-586.9	1,562.7	760.9	736.4	24.46	31.111	
4,300.0	4,042.3	4,098.1	3,519.2	18.8	26.4	8.91	-598.4	1,627.1	787.2	762.3	24.91	31.604	
4,400.0	4,131.6	4,193.9	3,589.2	19.4	27.4	8.09	-609.8	1,691.5	813.6	788.3	25.37	32.076	
4,500.0	4,220.9	4,289.7	3,659.3	20.1	28.4	7.33	-621.3	1,755.8	840.2	814.4	25.83	32.528	
4,600.0	4,310.2	4,385.5	3,729.3	20.7	29.4	6.62	-632.7	1,820.2	867.0	840.7	26.31	32.959	
4,700.0	4,399.5	4,481.3	3,799.3	21.3	30.4	5.95	-644.1	1,884.6	893.9	867.1	26.79	33.370	
4,800.0	4,488.8	4,577.1	3,869.3	22.0	31.4	5.31	-655.6	1,949.0	920.8	893.6	27.28	33.760	
4,900.0	4,578.1	4,672.9	3,939.3	22.6	32.4	4.71	-667.0	2,013.4	947.9	920.1	27.77	34.131	

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

Amazon.com
Anticollision Report

Company:	APEX	Local Co-ordinate Reference:	Well *Brighton Lakes 20-17-2NAH
Project:	POCO Brighton Lakes Expansion	TVD Reference:	RKB @ 5063.0usft
Reference Site:	Sec 20-T1S-R66W	MD Reference:	RKB @ 5063.0usft
Site Error:	0.0 usft	North Reference:	Grid
Reference Well:	*Brighton Lakes 20-17-2NAH	Survey Calculation Method:	Minimum Curvature
Well Error:	0.0 usft	Output errors are at	2.00 sigma
Reference Wellbore	Original Hole	Database:	WC365
Reference Design:	Plan #1	Offset TVD Reference:	Offset Datum

Offset Design: Sec 20-T1S-R66W - *Buckley 21-16-3CDH - Original Hole - Plan #1													Offset Site Error:	0.0 usft
Survey Program: 0-MWD+HRGM+SAG+FDIR													Offset Well Error:	0.0 usft
Reference		Offset		Semi Major Axis		Highside Toolface (°)	Offset Wellbore Centre		Rule Assigned:				Warning	
Measured Depth (usft)	Vertical Depth (usft)	Measured Depth (usft)	Vertical Depth (usft)	Reference (usft)	Offset (usft)		+N/-S (usft)	+E/-W (usft)	Between Centres (usft)	Between Ellipses (usft)	Minimum Separation (usft)	Separation Factor		
5,000.0	4,667.4	4,768.7	4,009.4	23.3	33.4	4.15	-678.4	2,077.7	975.1	946.8	28.28	34.483		

Amazon.com

Anticollision Report

Company:	APEX	Local Co-ordinate Reference:	Well *Brighton Lakes 20-17-2NAH
Project:	POCO Brighton Lakes Expansion	TVD Reference:	RKB @ 5063.0usft
Reference Site:	Sec 20-T1S-R66W	MD Reference:	RKB @ 5063.0usft
Site Error:	0.0 usft	North Reference:	Grid
Reference Well:	*Brighton Lakes 20-17-2NAH	Survey Calculation Method:	Minimum Curvature
Well Error:	0.0 usft	Output errors are at	2.00 sigma
Reference Wellbore	Original Hole	Database:	WC365
Reference Design:	Plan #1	Offset TVD Reference:	Offset Datum

Offset Design: Sec 20-T1S-R66W - *Buckley 21-16-3NAH - Original Hole - Plan #1												Offset Site Error:	0.0 usft
Survey Program: 0-MWD+HRGM+SAG+FDIR												Offset Well Error:	0.0 usft
Measured Depth (usft)	Vertical Depth (usft)	Measured Depth (usft)	Vertical Depth (usft)	Reference (usft)	Semi Major Axis Offset (usft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (usft)	+E/-W (usft)	Distance Between Centres (usft)	Between Ellipses (usft)	Minimum Separation (usft)	Separation Factor	Warning
0.0	0.0	0.0	0.0	0.0	0.0	179.40	-45.0	0.5	45.0				
100.0	100.0	100.0	100.0	1.0	1.0	179.40	-45.0	0.5	45.0	43.0	1.96	22.974	
200.0	200.0	200.0	200.0	1.6	1.6	179.40	-45.0	0.5	45.0	41.9	3.12	14.415	
300.0	300.0	300.0	300.0	2.0	2.0	179.40	-45.0	0.5	45.0	41.0	3.96	11.355	
400.0	400.0	400.0	400.0	2.3	2.3	179.40	-45.0	0.5	45.0	40.3	4.66	9.655	
500.0	500.0	500.0	500.0	2.6	2.6	179.40	-45.0	0.5	45.0	39.7	5.27	8.536	
600.0	600.0	600.0	600.0	2.9	2.9	179.40	-45.0	0.5	45.0	39.2	5.82	7.728	
700.0	700.0	700.0	700.0	3.2	3.2	179.40	-45.0	0.5	45.0	38.7	6.33	7.108	
800.0	800.0	800.0	800.0	3.4	3.4	179.40	-45.0	0.5	45.0	38.2	6.80	6.612	
900.0	900.0	900.0	900.0	3.6	3.6	179.40	-45.0	0.5	45.0	37.7	7.25	6.205	
1,000.0	1,000.0	1,000.0	1,000.0	3.8	3.8	179.40	-45.0	0.5	45.0	37.3	7.67	5.862	
1,066.7	1,066.7	1,066.7	1,066.7	4.0	4.0	179.40	-45.0	0.5	45.0	37.0	7.94	5.663	
1,100.0	1,100.0	1,100.0	1,100.0	4.0	4.0	179.40	-45.0	0.5	45.0	36.9	8.08	5.568 CC, ES	
1,200.0	1,200.0	1,199.6	1,199.5	4.2	4.8	175.04	-45.2	3.9	45.4	36.9	8.47	5.357 SF	
1,300.0	1,300.0	1,298.2	1,297.6	4.4	5.4	162.88	-45.9	14.1	48.1	39.1	8.96	5.367	
1,400.0	1,400.0	1,395.5	1,393.4	4.9	6.0	42.08	-47.0	30.8	54.6	44.8	9.81	5.570	
1,500.0	1,499.6	1,491.5	1,486.6	5.3	6.5	29.58	-48.5	53.5	64.3	53.5	10.82	5.943	
1,600.0	1,598.8	1,586.1	1,576.8	5.7	6.9	19.45	-50.4	82.0	77.0	65.2	11.81	6.522	
1,700.0	1,697.1	1,679.2	1,663.6	6.0	7.3	11.45	-52.7	115.7	92.4	79.7	12.66	7.293	
1,800.0	1,794.3	1,770.9	1,746.6	6.4	7.7	5.15	-55.3	154.4	110.0	96.6	13.37	8.223	
1,900.0	1,890.2	1,861.0	1,825.7	6.7	8.0	0.17	-58.2	197.5	129.6	115.6	13.96	9.282	
2,000.0	1,984.4	1,949.6	1,900.7	7.0	8.3	-3.83	-61.3	244.6	150.9	136.4	14.45	10.444	
2,100.0	2,076.8	2,036.6	1,971.3	7.3	8.6	-7.08	-64.7	295.3	173.7	158.9	14.87	11.687	
2,191.6	2,159.6	2,115.0	2,032.1	7.5	8.8	-9.54	-68.0	344.5	195.9	180.7	15.14	12.934	
2,200.0	2,167.1	2,122.1	2,037.5	7.5	8.8	-9.76	-68.3	349.1	197.9	182.8	15.14	13.076	
2,300.0	2,256.4	2,208.1	2,100.9	7.7	9.0	-12.05	-72.2	407.1	226.1	210.7	15.34	14.738	
2,400.0	2,345.7	2,303.1	2,169.9	7.9	9.2	-14.02	-76.5	472.4	256.2	240.5	15.71	16.307	
2,500.0	2,435.0	2,398.1	2,238.8	8.0	10.0	-15.58	-80.9	537.6	286.5	270.4	16.10	17.795	
2,600.0	2,524.3	2,493.2	2,307.8	8.4	10.9	-16.84	-85.3	602.9	317.0	300.5	16.53	19.178	
2,700.0	2,613.6	2,588.2	2,376.7	9.0	11.8	-17.87	-89.6	668.1	347.6	330.6	16.99	20.456	
2,800.0	2,702.9	2,683.2	2,445.6	9.5	12.7	-18.75	-94.0	733.4	378.3	360.8	17.49	21.631	
2,900.0	2,792.2	2,778.3	2,514.6	10.1	13.7	-19.49	-98.3	798.7	409.0	391.0	18.01	22.709	
3,000.0	2,881.5	2,873.3	2,583.5	10.7	14.6	-20.12	-102.7	863.9	439.9	421.3	18.56	23.694	
3,100.0	2,970.8	2,968.3	2,652.5	11.3	15.6	-20.68	-107.1	929.2	470.7	451.6	19.14	24.593	
3,200.0	3,060.1	3,063.3	2,721.4	11.9	16.6	-21.16	-111.4	994.4	501.6	481.9	19.74	25.412	
3,300.0	3,149.4	3,158.4	2,790.3	12.5	17.5	-21.59	-115.8	1,059.7	532.5	512.2	20.36	26.159	
3,400.0	3,238.7	3,253.4	2,859.3	13.1	18.5	-21.97	-120.2	1,124.9	563.5	542.5	20.99	26.839	
3,500.0	3,328.0	3,348.4	2,928.2	13.7	19.5	-22.32	-124.5	1,190.2	594.4	572.8	21.65	27.459	
3,600.0	3,417.3	3,443.5	2,997.2	14.3	20.5	-22.62	-128.9	1,255.5	625.4	603.1	22.32	28.024	
3,700.0	3,506.6	3,538.5	3,066.1	15.0	21.5	-22.90	-133.2	1,320.7	656.4	633.4	23.00	28.540	
3,800.0	3,595.9	3,633.5	3,135.0	15.6	22.5	-23.16	-137.6	1,386.0	687.4	663.7	23.69	29.011	
3,900.0	3,685.1	3,728.6	3,204.0	16.2	23.5	-23.39	-142.0	1,451.2	718.4	694.0	24.40	29.442	
4,000.0	3,774.4	3,823.6	3,272.9	16.8	24.5	-23.60	-146.3	1,516.5	749.5	724.3	25.12	29.837	
4,100.0	3,863.7	3,918.6	3,341.9	17.5	25.5	-23.80	-150.7	1,581.7	780.5	754.6	25.85	30.198	
4,200.0	3,953.0	4,013.6	3,410.8	18.1	26.5	-23.98	-155.0	1,647.0	811.5	785.0	26.58	30.530	
4,300.0	4,042.3	4,108.7	3,479.8	18.8	27.5	-24.15	-159.4	1,712.3	842.6	815.3	27.33	30.835	
4,400.0	4,131.6	4,203.7	3,548.7	19.4	28.5	-24.31	-163.8	1,777.5	873.6	845.6	28.08	31.116	
4,500.0	4,220.9	4,298.7	3,617.6	20.1	29.5	-24.45	-168.1	1,842.8	904.7	875.9	28.84	31.375	
4,600.0	4,310.2	4,393.8	3,686.6	20.7	30.5	-24.59	-172.5	1,908.0	935.8	906.2	29.60	31.614	
4,700.0	4,399.5	4,488.8	3,755.5	21.3	31.6	-24.71	-176.9	1,973.3	966.8	936.5	30.37	31.835	
4,800.0	4,488.8	4,583.8	3,824.5	22.0	32.6	-24.83	-181.2	2,038.6	997.9	966.8	31.15	32.039	

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

Amazon.com

Anticollision Report

Company:	APEX	Local Co-ordinate Reference:	Well *Brighton Lakes 20-17-2NAH
Project:	POCO Brighton Lakes Expansion	TVD Reference:	RKB @ 5063.0usft
Reference Site:	Sec 20-T1S-R66W	MD Reference:	RKB @ 5063.0usft
Site Error:	0.0 usft	North Reference:	Grid
Reference Well:	*Brighton Lakes 20-17-2NAH	Survey Calculation Method:	Minimum Curvature
Well Error:	0.0 usft	Output errors are at	2.00 sigma
Reference Wellbore	Original Hole	Database:	WC365
Reference Design:	Plan #1	Offset TVD Reference:	Offset Datum

Offset Design: Sec 20-T1S-R66W - *Buckley 21-16-3NBH - Original Hole - Plan #1												Offset Site Error:	0.0 usft
Survey Program: 0-MWD+HRGM+SAG+FDIR												Offset Well Error:	0.0 usft
Reference		Offset		Semi Major Axis		Highside Toolface (°)	Offset Wellbore Centre		Distance		Minimum Separation (usft)	Separation Factor	Warning
Measured Depth (usft)	Vertical Depth (usft)	Measured Depth (usft)	Vertical Depth (usft)	Reference (usft)	Offset (usft)		+N/-S (usft)	+E/-W (usft)	Between Centres (usft)	Between Ellipses (usft)			
0.0	0.0	0.0	0.0	0.0	0.0	170.20	-184.6	31.9	187.4				
100.0	100.0	100.0	100.0	1.0	1.0	170.20	-184.6	31.9	187.4	185.4	1.96	95.693	
200.0	200.0	200.0	200.0	1.6	1.6	170.20	-184.6	31.9	187.4	184.2	3.12	60.044	
300.0	300.0	300.0	300.0	2.0	2.0	170.20	-184.6	31.9	187.4	183.4	3.96	47.296	
400.0	400.0	400.0	400.0	2.3	2.3	170.20	-184.6	31.9	187.4	182.7	4.66	40.218	
500.0	500.0	500.0	500.0	2.6	2.6	170.20	-184.6	31.9	187.4	182.1	5.27	35.557	
600.0	600.0	600.0	600.0	2.9	2.9	170.20	-184.6	31.9	187.4	181.5	5.82	32.188	
700.0	700.0	700.0	700.0	3.2	3.2	170.20	-184.6	31.9	187.4	181.0	6.33	29.605	
800.0	800.0	800.0	800.0	3.4	3.4	170.20	-184.6	31.9	187.4	180.6	6.80	27.543	
900.0	900.0	900.0	900.0	3.6	3.6	170.20	-184.6	31.9	187.4	180.1	7.25	25.846	
1,000.0	1,000.0	1,000.0	1,000.0	3.8	3.8	170.20	-184.6	31.9	187.4	179.7	7.67	24.417	
1,066.7	1,066.7	1,066.7	1,066.7	4.0	4.0	170.20	-184.6	31.9	187.4	179.4	7.94	23.587	
1,100.0	1,100.0	1,100.0	1,100.0	4.0	4.0	170.20	-184.6	31.9	187.4	179.3	8.08	23.193	CC, ES
1,200.0	1,200.0	1,196.2	1,196.1	4.2	4.8	169.26	-185.0	35.1	188.4	179.9	8.50	22.150	
1,300.0	1,300.0	1,291.5	1,290.9	4.4	5.4	166.54	-186.2	44.6	191.7	182.8	8.94	21.451	
1,400.0	1,400.0	1,385.6	1,383.7	4.9	5.9	56.46	-188.2	60.0	196.8	187.3	9.48	20.754	
1,500.0	1,499.6	1,478.5	1,474.1	5.3	6.4	52.50	-190.9	81.2	202.6	192.5	10.08	20.098	
1,600.0	1,598.8	1,570.3	1,561.9	5.7	6.8	48.41	-194.2	107.8	209.4	198.6	10.74	19.488	
1,700.0	1,697.1	1,660.9	1,646.7	6.0	7.2	44.27	-198.2	139.5	217.3	205.8	11.46	18.962	
1,800.0	1,794.3	1,750.2	1,728.1	6.4	7.6	40.15	-202.8	175.8	226.5	214.3	12.21	18.557	
1,900.0	1,890.2	1,838.3	1,806.0	6.7	7.9	36.12	-208.0	216.5	237.0	224.1	12.96	18.297	
2,000.0	1,984.4	1,925.0	1,880.1	7.0	8.2	32.23	-213.6	261.1	249.0	235.3	13.68	18.197	SF
2,100.0	2,076.8	2,010.4	1,950.3	7.3	8.5	28.52	-219.7	309.4	262.4	248.0	14.37	18.256	
2,191.6	2,159.6	2,087.5	2,011.1	7.5	8.7	25.32	-225.7	356.4	275.8	260.9	14.91	18.501	
2,200.0	2,167.1	2,100.0	2,020.7	7.5	8.8	24.83	-226.7	364.4	277.2	262.1	15.06	18.400	
2,300.0	2,256.4	2,176.6	2,078.1	7.7	8.9	21.80	-233.1	414.8	295.9	280.5	15.33	19.296	
2,400.0	2,345.7	2,270.1	2,145.9	7.9	9.1	18.26	-241.1	478.5	318.9	303.1	15.79	20.200	
2,500.0	2,435.0	2,365.5	2,215.1	8.0	9.7	15.12	-249.4	543.7	343.0	326.8	16.22	21.145	
2,600.0	2,524.3	2,460.8	2,284.3	8.4	10.6	12.38	-257.6	608.8	368.0	351.4	16.62	22.139	
2,700.0	2,613.6	2,556.2	2,353.5	9.0	11.5	9.99	-265.8	673.9	393.8	376.7	17.01	23.142	
2,800.0	2,702.9	2,651.6	2,422.7	9.5	12.4	7.89	-274.1	739.0	420.0	402.6	17.40	24.139	
2,900.0	2,792.2	2,747.0	2,491.9	10.1	13.4	6.03	-282.3	804.1	446.8	429.0	17.79	25.116	
3,000.0	2,881.5	2,842.4	2,561.2	10.7	14.3	4.38	-290.5	869.2	474.0	455.8	18.19	26.063	
3,100.0	2,970.8	2,937.7	2,630.4	11.3	15.3	2.91	-298.8	934.3	501.5	482.9	18.59	26.972	
3,200.0	3,060.1	3,033.1	2,699.6	11.9	16.3	1.59	-307.0	999.4	529.2	510.2	19.01	27.840	
3,300.0	3,149.4	3,128.5	2,768.8	12.5	17.2	0.40	-315.3	1,064.6	557.3	537.8	19.44	28.662	
3,400.0	3,238.7	3,223.9	2,838.0	13.1	18.2	-0.68	-323.5	1,129.7	585.5	565.6	19.89	29.437	
3,500.0	3,328.0	3,319.2	2,907.2	13.7	19.2	-1.66	-331.7	1,194.8	613.9	593.5	20.35	30.165	
3,600.0	3,417.3	3,414.6	2,976.4	14.3	20.2	-2.55	-340.0	1,259.9	642.4	621.6	20.83	30.846	
3,700.0	3,506.6	3,510.0	3,045.6	15.0	21.2	-3.37	-348.2	1,325.0	671.1	649.7	21.32	31.482	
3,800.0	3,595.9	3,605.4	3,114.8	15.6	22.2	-4.12	-356.4	1,390.1	699.8	678.0	21.82	32.074	
3,900.0	3,685.1	3,700.7	3,184.0	16.2	23.2	-4.81	-364.7	1,455.2	728.7	706.4	22.34	32.623	
4,000.0	3,774.4	3,796.1	3,253.2	16.8	24.2	-5.45	-372.9	1,520.3	757.7	734.9	22.87	33.132	
4,100.0	3,863.7	3,891.5	3,322.4	17.5	25.2	-6.04	-381.1	1,585.5	786.8	763.4	23.41	33.604	
4,200.0	3,953.0	3,986.9	3,391.6	18.1	26.2	-6.59	-389.4	1,650.6	815.9	791.9	23.97	34.040	
4,300.0	4,042.3	4,082.2	3,460.8	18.8	27.2	-7.11	-397.6	1,715.7	845.1	820.6	24.54	34.443	
4,400.0	4,131.6	4,177.6	3,530.0	19.4	28.3	-7.59	-405.9	1,780.8	874.4	849.3	25.12	34.815	
4,500.0	4,220.9	4,273.0	3,599.2	20.1	29.3	-8.03	-414.1	1,845.9	903.7	878.0	25.70	35.158	
4,600.0	4,310.2	4,368.4	3,668.4	20.7	30.3	-8.45	-422.3	1,911.0	933.0	906.7	26.30	35.475	
4,700.0	4,399.5	4,463.7	3,737.6	21.3	31.3	-8.85	-430.6	1,976.1	962.4	935.5	26.91	35.767	
4,800.0	4,488.8	4,559.1	3,806.8	22.0	32.3	-9.22	-438.8	2,041.2	991.9	964.4	27.52	36.037	

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

Amazon.com

Anticollision Report

Company:	APEX	Local Co-ordinate Reference:	Well *Brighton Lakes 20-17-2NAH
Project:	POCO Brighton Lakes Expansion	TVD Reference:	RKB @ 5063.0usft
Reference Site:	Sec 20-T1S-R66W	MD Reference:	RKB @ 5063.0usft
Site Error:	0.0 usft	North Reference:	Grid
Reference Well:	*Brighton Lakes 20-17-2NAH	Survey Calculation Method:	Minimum Curvature
Well Error:	0.0 usft	Output errors are at	2.00 sigma
Reference Wellbore	Original Hole	Database:	WC365
Reference Design:	Plan #1	Offset TVD Reference:	Offset Datum

Offset Design: Sec 20-T1S-R66W - *Buckley 21-16-3NCH - Original Hole - Plan #1												Offset Site Error:	0.0 usft
Survey Program: 0-MWD+HRGM+SAG+FDIR												Offset Well Error:	0.0 usft
Reference		Offset		Semi Major Axis		Highside Toolface (°)	Offset Wellbore Centre		Distance		Minimum Separation (usft)	Separation Factor	Warning
Measured Depth (usft)	Vertical Depth (usft)	Measured Depth (usft)	Vertical Depth (usft)	Reference (usft)	Offset (usft)		+N/-S (usft)	+E/-W (usft)	Between Centres (usft)	Between Ellipses (usft)			
0.0	0.0	0.0	0.0	0.0	0.0	170.88	-199.6	32.0	202.2				
100.0	100.0	100.0	100.0	1.0	1.0	170.88	-199.6	32.0	202.2	200.2	1.96	103.257	
200.0	200.0	200.0	200.0	1.6	1.6	170.88	-199.6	32.0	202.2	199.1	3.12	64.790	
300.0	300.0	300.0	300.0	2.0	2.0	170.88	-199.6	32.0	202.2	198.2	3.96	51.034	
400.0	400.0	400.0	400.0	2.3	2.3	170.88	-199.6	32.0	202.2	197.5	4.66	43.397	
500.0	500.0	500.0	500.0	2.6	2.6	170.88	-199.6	32.0	202.2	196.9	5.27	38.367	
600.0	600.0	600.0	600.0	2.9	2.9	170.88	-199.6	32.0	202.2	196.4	5.82	34.732	
700.0	700.0	700.0	700.0	3.2	3.2	170.88	-199.6	32.0	202.2	195.8	6.33	31.945	
800.0	800.0	800.0	800.0	3.4	3.4	170.88	-199.6	32.0	202.2	195.4	6.80	29.720	
900.0	900.0	900.0	900.0	3.6	3.6	170.88	-199.6	32.0	202.2	194.9	7.25	27.889	
1,000.0	1,000.0	1,000.0	1,000.0	3.8	3.8	170.88	-199.6	32.0	202.2	194.5	7.67	26.347	
1,066.7	1,066.7	1,066.7	1,066.7	4.0	4.0	170.88	-199.6	32.0	202.2	194.2	7.94	25.451	
1,100.0	1,100.0	1,100.0	1,100.0	4.0	4.0	170.88	-199.6	32.0	202.2	194.1	8.08	25.026	CC, ES
1,200.0	1,200.0	1,197.1	1,197.0	4.2	4.5	170.21	-199.9	34.5	202.9	194.4	8.48	23.932	
1,300.0	1,300.0	1,293.7	1,293.3	4.4	4.9	168.24	-200.8	41.8	205.2	196.3	8.87	23.146	
1,400.0	1,400.0	1,389.6	1,388.5	4.9	5.3	59.31	-202.2	53.8	208.2	198.9	9.32	22.334	
1,500.0	1,499.6	1,485.1	1,482.5	5.3	5.7	56.72	-204.2	70.5	210.9	201.1	9.80	21.519	
1,600.0	1,598.8	1,580.1	1,575.0	5.7	6.1	54.18	-206.8	91.6	213.1	202.8	10.31	20.670	
1,700.0	1,697.1	1,674.6	1,666.0	6.0	6.4	51.65	-209.9	117.2	214.9	204.1	10.86	19.794	
1,800.0	1,794.3	1,768.7	1,755.1	6.4	6.7	49.13	-213.5	147.1	216.3	204.9	11.45	18.899	
1,900.0	1,890.2	1,862.3	1,842.3	6.7	7.0	46.61	-217.6	181.1	217.4	205.3	12.08	17.999	
2,000.0	1,984.4	1,955.6	1,927.2	7.0	7.3	44.07	-222.1	219.2	218.1	205.3	12.75	17.108	
2,016.2	1,999.5	1,970.6	1,940.8	7.1	7.3	43.66	-222.9	225.7	218.1	205.3	12.86	16.966	
2,100.0	2,076.8	2,048.4	2,009.9	7.3	7.5	41.51	-227.2	261.1	218.4	205.0	13.45	16.243	
2,119.1	2,094.2	2,066.0	2,025.4	7.3	7.6	41.02	-228.2	269.5	218.4	204.9	13.58	16.089	
2,191.6	2,159.6	2,133.1	2,083.5	7.5	7.8	39.13	-232.2	302.8	218.5	204.4	14.07	15.523	
2,193.6	2,161.4	2,134.9	2,085.0	7.5	7.8	39.08	-232.3	303.7	218.5	204.4	14.08	15.511	
2,200.0	2,167.1	2,140.8	2,090.1	7.5	7.8	38.91	-232.7	306.7	218.5	204.3	14.12	15.474	
2,300.0	2,256.4	2,232.6	2,167.4	7.7	8.0	35.84	-238.6	355.8	220.7	205.9	14.79	14.926	
2,400.0	2,345.7	2,323.2	2,241.3	7.9	8.3	32.16	-244.8	407.8	227.3	211.9	15.37	14.788	SF
2,500.0	2,435.0	2,412.3	2,311.4	8.0	8.7	28.14	-251.4	462.3	238.7	222.9	15.84	15.066	
2,600.0	2,524.3	2,500.0	2,377.9	8.4	9.4	24.05	-258.2	519.1	255.3	239.0	16.23	15.724	
2,700.0	2,613.6	2,588.1	2,442.2	9.0	10.2	20.03	-265.4	578.9	276.9	260.4	16.46	16.817	
2,800.0	2,702.9	2,683.3	2,511.0	9.5	11.1	16.21	-273.3	644.3	300.8	283.9	16.84	17.861	
2,900.0	2,792.2	2,778.5	2,579.8	10.1	12.0	12.96	-281.1	709.6	325.8	308.6	17.20	18.937	
3,000.0	2,881.5	2,873.8	2,648.6	10.7	12.9	10.16	-289.0	775.0	351.7	334.1	17.57	20.020	
3,100.0	2,970.8	2,969.0	2,717.5	11.3	13.9	7.74	-296.9	840.3	378.3	360.3	17.94	21.089	
3,200.0	3,060.1	3,064.2	2,786.3	11.9	14.8	5.63	-304.7	905.6	405.4	387.1	18.32	22.129	
3,300.0	3,149.4	3,159.4	2,855.1	12.5	15.8	3.78	-312.6	971.0	433.0	414.3	18.72	23.130	
3,400.0	3,238.7	3,254.6	2,923.9	13.1	16.8	2.16	-320.5	1,036.3	461.0	441.8	19.14	24.085	
3,500.0	3,328.0	3,349.9	2,992.7	13.7	17.8	0.71	-328.3	1,101.7	489.3	469.7	19.58	24.989	
3,600.0	3,417.3	3,445.1	3,061.5	14.3	18.7	-0.57	-336.2	1,167.0	517.8	497.7	20.04	25.842	
3,700.0	3,506.6	3,540.3	3,130.3	15.0	19.7	-1.72	-344.0	1,232.4	546.5	526.0	20.51	26.643	
3,800.0	3,595.9	3,635.5	3,199.2	15.6	20.7	-2.76	-351.9	1,297.7	575.5	554.5	21.01	27.392	
3,900.0	3,685.1	3,730.8	3,268.0	16.2	21.7	-3.70	-359.8	1,363.1	604.6	583.0	21.52	28.091	
4,000.0	3,774.4	3,826.0	3,336.8	16.8	22.7	-4.56	-367.6	1,428.4	633.8	611.7	22.05	28.742	
4,100.0	3,863.7	3,921.2	3,405.6	17.5	23.7	-5.34	-375.5	1,493.7	663.1	640.5	22.60	29.348	
4,200.0	3,953.0	4,016.4	3,474.4	18.1	24.7	-6.05	-383.4	1,559.1	692.6	669.4	23.16	29.910	
4,300.0	4,042.3	4,111.6	3,543.2	18.8	25.7	-6.70	-391.2	1,624.4	722.1	698.4	23.73	30.432	
4,400.0	4,131.6	4,206.9	3,612.0	19.4	26.8	-7.31	-399.1	1,689.8	751.8	727.4	24.32	30.917	
4,500.0	4,220.9	4,302.1	3,680.9	20.1	27.8	-7.87	-406.9	1,755.1	781.4	756.5	24.91	31.367	
4,600.0	4,310.2	4,397.3	3,749.7	20.7	28.8	-8.39	-414.8	1,820.5	811.2	785.7	25.52	31.784	

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

Amazon.com
Anticollision Report

Company:	APEX	Local Co-ordinate Reference:	Well *Brighton Lakes 20-17-2NAH
Project:	POCO Brighton Lakes Expansion	TVD Reference:	RKB @ 5063.0usft
Reference Site:	Sec 20-T1S-R66W	MD Reference:	RKB @ 5063.0usft
Site Error:	0.0 usft	North Reference:	Grid
Reference Well:	*Brighton Lakes 20-17-2NAH	Survey Calculation Method:	Minimum Curvature
Well Error:	0.0 usft	Output errors are at	2.00 sigma
Reference Wellbore	Original Hole	Database:	WC365
Reference Design:	Plan #1	Offset TVD Reference:	Offset Datum

Offset Design: Sec 20-T1S-R66W - *Buckley 21-16-3NCH - Original Hole - Plan #1													Offset Site Error: 0.0 usft		
Survey Program: 0-MWD+HRGM+SAG+FDIR				Rule Assigned:										Offset Well Error: 0.0 usft	
Reference		Offset		Semi Major Axis		Highside Toolface (°)	Offset Wellbore Centre		Distance		Minimum Separation (usft)	Separation Factor	Warning		
Measured Depth (usft)	Vertical Depth (usft)	Measured Depth (usft)	Vertical Depth (usft)	Reference (usft)	Offset (usft)		+N/-S (usft)	+E/-W (usft)	Between Centres (usft)	Between Ellipses (usft)					
4,700.0	4,399.5	4,492.5	3,818.5	21.3	29.8	-8.87	-422.7	1,885.8	841.0	814.9	26.14	32.172			
4,800.0	4,488.8	4,587.7	3,887.3	22.0	30.8	-9.32	-430.5	1,951.2	870.9	844.1	26.77	32.531			
4,900.0	4,578.1	4,683.0	3,956.1	22.6	31.8	-9.73	-438.4	2,016.5	900.8	873.4	27.41	32.865			
5,000.0	4,667.4	4,778.2	4,024.9	23.3	32.8	-10.13	-446.3	2,081.8	930.7	902.7	28.05	33.176			
5,100.0	4,756.7	4,873.4	4,093.7	23.9	33.9	-10.49	-454.1	2,147.2	960.7	932.0	28.71	33.465			
5,200.0	4,846.0	4,968.6	4,162.6	24.6	34.9	-10.84	-462.0	2,212.5	990.7	961.4	29.37	33.734			

Amazon.com

Anticollision Report

Company:	APEX	Local Co-ordinate Reference:	Well *Brighton Lakes 20-17-2NAH
Project:	POCO Brighton Lakes Expansion	TVD Reference:	RKB @ 5063.0usft
Reference Site:	Sec 20-T1S-R66W	MD Reference:	RKB @ 5063.0usft
Site Error:	0.0 usft	North Reference:	Grid
Reference Well:	*Brighton Lakes 20-17-2NAH	Survey Calculation Method:	Minimum Curvature
Well Error:	0.0 usft	Output errors are at	2.00 sigma
Reference Wellbore	Original Hole	Database:	WC365
Reference Design:	Plan #1	Offset TVD Reference:	Offset Datum

Offset Design: Sec 20-T1S-R66W - 20-17-1CDH - Original Hole - Final Surveys													Offset Site Error: 0.0 usft
Survey Program: 126-MWD													Offset Well Error: 0.0 usft
Reference		Offset		Semi Major Axis		Highside Toolface (°)	Offset Wellbore Centre		Distance		Minimum Separation (usft)	Separation Factor	Warning
Measured Depth (usft)	Vertical Depth (usft)	Measured Depth (usft)	Vertical Depth (usft)	Reference (usft)	Offset (usft)		+N/-S (usft)	+E/-W (usft)	Between Centres (usft)	Between Ellipses (usft)			
0.0	0.0	0.0	0.0	0.0	0.0	-157.34	-426.6	-178.1	462.2				
100.0	100.0	99.2	99.2	1.0	0.7	-157.36	-426.7	-178.0	462.3	460.6	1.71	270.336	
200.0	200.0	196.8	196.8	1.6	1.3	-157.45	-427.3	-177.5	462.7	459.9	2.86	161.619	
300.0	300.0	298.4	298.4	2.0	1.8	-157.59	-428.3	-176.6	463.3	459.6	3.71	124.832	
400.0	400.0	398.7	398.7	2.3	2.2	-157.68	-428.9	-176.1	463.6	459.2	4.40	105.352	
500.0	500.0	497.4	497.4	2.6	2.5	-157.73	-429.4	-175.8	464.0	459.0	5.00	92.754	
600.0	600.0	598.8	598.8	2.9	2.8	-157.82	-430.3	-175.5	464.7	459.2	5.56	83.553	
700.0	700.0	707.4	707.4	3.2	3.0	-157.76	-429.4	-175.6	464.0	457.9	6.05	76.706	
800.0	800.0	803.0	802.9	3.4	3.1	-157.63	-427.7	-176.0	462.5	456.1	6.45	71.669	
846.4	846.4	846.4	846.4	3.5	3.2	-157.56	-427.4	-176.5	462.4	455.8	6.64	69.659	
900.0	900.0	897.9	897.9	3.6	3.3	-157.46	-427.2	-177.3	462.5	455.7	6.85	67.524 ES	
1,000.0	1,000.0	995.5	995.5	3.8	3.4	-157.23	-427.1	-179.3	463.3	456.0	7.24	63.969	
1,100.0	1,100.0	1,093.0	1,092.9	4.0	3.6	-156.98	-427.6	-181.6	464.6	457.0	7.63	60.908	
1,200.0	1,200.0	1,197.7	1,197.6	4.2	3.8	-156.96	-428.3	-182.2	465.5	457.5	8.02	58.030	
1,300.0	1,300.0	1,297.0	1,296.9	4.4	4.0	-157.15	-429.4	-181.0	466.0	457.6	8.38	55.601	
1,400.0	1,400.0	1,396.1	1,395.9	4.9	4.1	96.50	-431.3	-178.8	467.2	458.4	8.73	53.534	
1,500.0	1,499.6	1,498.6	1,498.3	5.3	4.5	96.72	-434.1	-173.7	468.7	459.7	9.05	51.773	
1,600.0	1,598.8	1,604.4	1,603.3	5.7	5.0	96.87	-438.6	-162.4	470.0	460.6	9.37	50.139	
1,700.0	1,697.1	1,702.4	1,699.9	6.0	5.4	96.96	-444.5	-146.7	471.4	461.7	9.71	48.545	
1,800.0	1,794.3	1,801.1	1,796.5	6.4	5.6	97.27	-451.9	-128.4	473.8	463.7	10.08	47.002	
1,900.0	1,890.2	1,899.3	1,892.4	6.7	5.9	97.98	-460.2	-108.9	477.2	466.7	10.52	45.353	
2,000.0	1,984.4	1,985.9	1,976.8	7.0	6.3	98.88	-468.9	-90.9	482.7	471.6	11.09	43.545	
2,100.0	2,076.8	2,080.3	2,068.0	7.3	6.6	100.07	-481.5	-70.5	491.8	480.1	11.71	41.992	
2,191.6	2,159.6	2,170.6	2,155.4	7.5	7.0	101.67	-493.4	-51.1	501.2	488.9	12.33	40.653	
2,200.0	2,167.1	2,178.8	2,163.3	7.5	7.0	101.86	-494.4	-49.4	502.2	489.8	12.38	40.554	
2,300.0	2,256.4	2,276.1	2,257.6	7.7	7.4	104.10	-507.0	-28.8	513.7	500.5	13.19	38.939	
2,400.0	2,345.7	2,374.2	2,352.9	7.9	7.7	106.32	-519.2	-8.5	525.9	512.0	13.97	37.658	
2,500.0	2,435.0	2,472.3	2,448.2	8.0	8.1	108.55	-530.8	11.1	538.7	524.0	14.76	36.497	
2,600.0	2,524.3	2,567.7	2,541.3	8.4	8.5	110.72	-541.4	29.3	552.4	536.8	15.56	35.509	
2,700.0	2,613.6	2,663.2	2,634.7	9.0	8.9	112.92	-551.6	46.3	567.3	551.0	16.35	34.691	
2,800.0	2,702.9	2,765.8	2,735.0	9.5	9.3	115.12	-562.0	65.7	582.0	564.8	17.19	33.846	
2,900.0	2,792.2	2,853.6	2,820.4	10.1	9.7	116.80	-572.1	82.7	598.0	580.0	17.99	33.238	
3,000.0	2,881.5	2,945.8	2,910.2	10.7	10.1	118.40	-584.2	100.1	616.0	597.2	18.82	32.727	
3,100.0	2,970.8	3,048.3	3,009.6	11.3	10.6	119.97	-598.3	120.7	634.1	614.4	19.72	32.141	
3,200.0	3,060.1	3,148.4	3,106.9	11.9	11.0	121.49	-611.1	140.7	652.0	631.4	20.59	31.660	
3,300.0	3,149.4	3,248.8	3,204.3	12.5	11.5	122.88	-624.0	161.6	669.7	648.3	21.47	31.193	
3,400.0	3,238.7	3,351.6	3,304.0	13.1	11.9	124.29	-636.3	182.8	687.4	665.1	22.36	30.745	
3,500.0	3,328.0	3,451.4	3,400.7	13.7	12.4	125.54	-648.2	204.5	704.6	681.3	23.24	30.319	
3,600.0	3,417.3	3,549.7	3,496.1	14.3	12.8	126.77	-659.3	225.5	722.0	697.9	24.11	29.947	
3,700.0	3,506.6	3,644.5	3,588.0	15.0	13.3	127.88	-670.2	245.8	739.7	714.8	24.96	29.640	
3,800.0	3,595.9	3,736.4	3,677.5	15.6	13.7	129.00	-680.1	264.5	758.3	732.5	25.77	29.424	
3,900.0	3,685.1	3,831.0	3,769.7	16.2	14.1	130.14	-690.0	283.1	777.7	751.1	26.58	29.252	
4,000.0	3,774.4	3,925.7	3,861.9	16.8	14.6	131.17	-700.9	301.9	797.5	770.1	27.40	29.104	
4,100.0	3,863.7	4,018.3	3,952.1	17.5	15.0	132.14	-711.6	319.8	818.2	790.0	28.20	29.012	
4,200.0	3,953.0	4,122.4	4,053.5	18.1	15.5	133.17	-723.6	340.2	838.9	809.8	29.07	28.861	
4,300.0	4,042.3	4,223.5	4,151.4	18.8	15.9	134.00	-736.3	361.5	858.9	829.0	29.94	28.691	
4,400.0	4,131.6	4,317.7	4,242.9	19.4	16.4	134.77	-747.9	381.0	879.3	848.6	30.76	28.585	
4,500.0	4,220.9	4,426.4	4,348.4	20.1	16.9	135.64	-760.9	403.8	899.6	868.0	31.67	28.407	
4,600.0	4,310.2	4,529.7	4,448.3	20.7	17.4	136.37	-773.2	427.0	918.6	886.1	32.56	28.213	
4,700.0	4,399.5	4,616.9	4,532.8	21.3	17.8	137.00	-783.3	446.1	938.1	904.8	33.35	28.130	
4,800.0	4,488.8	4,699.8	4,613.2	22.0	18.2	137.58	-793.4	463.2	959.1	925.0	34.09	28.131	
4,900.0	4,578.1	4,807.1	4,717.6	22.6	18.7	138.32	-806.3	484.5	980.8	945.9	34.98	28.042 SF	

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

Amazon.com
Anticollision Report

Company:	APEX	Local Co-ordinate Reference:	Well *Brighton Lakes 20-17-2NAH
Project:	POCO Brighton Lakes Expansion	TVD Reference:	RKB @ 5063.0usft
Reference Site:	Sec 20-T1S-R66W	MD Reference:	RKB @ 5063.0usft
Site Error:	0.0 usft	North Reference:	Grid
Reference Well:	*Brighton Lakes 20-17-2NAH	Survey Calculation Method:	Minimum Curvature
Well Error:	0.0 usft	Output errors are at	2.00 sigma
Reference Wellbore	Original Hole	Database:	WC365
Reference Design:	Plan #1	Offset TVD Reference:	Offset Datum

Amazon.com

Anticollision Report

Company:	APEX	Local Co-ordinate Reference:	Well *Brighton Lakes 20-17-2NAH
Project:	POCO Brighton Lakes Expansion	TVD Reference:	RKB @ 5063.0usft
Reference Site:	Sec 20-T1S-R66W	MD Reference:	RKB @ 5063.0usft
Site Error:	0.0 usft	North Reference:	Grid
Reference Well:	*Brighton Lakes 20-17-2NAH	Survey Calculation Method:	Minimum Curvature
Well Error:	0.0 usft	Output errors are at	2.00 sigma
Reference Wellbore	Original Hole	Database:	WC365
Reference Design:	Plan #1	Offset TVD Reference:	Offset Datum

Offset Design: Sec 20-T1S-R66W - 20-17-1NAH - Original Hole - Final Survey												Offset Site Error:	0.0 usft
Survey Program: 134-MWD												Offset Well Error:	0.0 usft
Reference		Offset		Semi Major Axis		Highside Toolface (°)	Offset Wellbore Centre		Distance		Minimum Separation (usft)	Separation Factor	Warning
Measured Depth (usft)	Vertical Depth (usft)	Measured Depth (usft)	Vertical Depth (usft)	Reference (usft)	Offset (usft)		+N/-S (usft)	+E/-W (usft)	Between Centres (usft)	Between Ellipses (usft)			
0.0	0.0	0.0	0.0	0.0	0.0	-162.70	-426.7	-132.9	447.0				
100.0	100.0	99.8	99.8	1.0	0.8	-162.75	-426.9	-132.6	447.0	445.2	1.76	254.473	
200.0	200.0	198.4	198.4	1.6	1.4	-162.89	-427.3	-131.6	447.1	444.2	2.92	153.377	
300.0	300.0	298.9	298.8	2.0	1.8	-163.07	-428.1	-130.3	447.5	443.8	3.74	119.718	
400.0	400.0	400.7	400.7	2.3	2.2	-163.22	-428.5	-129.2	447.5	443.1	4.42	101.287	
500.0	500.0	500.1	500.1	2.6	2.5	-163.28	-428.6	-128.7	447.5	442.4	5.08	88.147	
521.6	521.6	521.6	521.6	2.7	2.6	-163.27	-428.5	-128.8	447.5	442.2	5.28	84.829	
600.0	600.0	599.7	599.7	2.9	3.0	-163.13	-428.2	-129.8	447.5	441.6	5.87	76.291	
700.0	700.0	699.8	699.8	3.2	3.1	-162.92	-427.9	-131.5	447.6	441.3	6.31	70.942	
800.0	800.0	801.4	801.4	3.4	3.3	-162.70	-427.3	-133.1	447.5	440.8	6.73	66.454	
900.0	900.0	901.3	901.2	3.6	3.5	-162.69	-426.9	-133.0	447.1	440.0	7.14	62.656	
1,000.0	1,000.0	1,002.3	1,002.2	3.8	3.7	-162.73	-426.6	-132.7	446.8	439.3	7.53	59.357	
1,100.0	1,100.0	1,103.5	1,103.4	4.0	3.9	-162.76	-426.2	-132.2	446.2	438.3	7.91	56.400	
1,200.0	1,200.0	1,207.0	1,206.9	4.2	4.1	-162.89	-425.2	-130.9	444.9	436.6	8.31	53.570	
1,300.0	1,300.0	1,305.1	1,304.9	4.4	4.3	-163.34	-424.9	-127.1	443.5	434.8	8.69	51.018	
1,400.0	1,400.0	1,400.3	1,399.8	4.9	4.6	89.67	-426.5	-119.4	442.9	433.9	9.03	49.059 CC	
1,404.4	1,404.4	1,404.5	1,404.0	4.9	4.6	89.64	-426.6	-118.9	442.9	433.8	9.04	48.985	
1,500.0	1,499.6	1,495.7	1,494.3	5.3	5.0	88.95	-430.6	-107.2	443.5	434.1	9.34	47.484	
1,600.0	1,598.8	1,593.3	1,590.1	5.7	5.6	88.15	-436.9	-89.6	444.8	435.1	9.67	45.984	
1,700.0	1,697.1	1,692.0	1,685.6	6.0	6.0	87.21	-445.1	-66.1	446.3	436.3	10.05	44.391	
1,800.0	1,794.3	1,791.4	1,780.3	6.4	6.5	86.25	-454.6	-37.5	447.9	437.4	10.52	42.575	
1,900.0	1,890.2	1,894.6	1,877.6	6.7	6.9	85.57	-465.0	-4.9	449.0	437.9	11.09	40.493	
1,988.9	1,974.1	1,983.8	1,961.6	7.0	7.2	85.48	-473.4	24.1	449.0	437.3	11.68	38.437	
2,000.0	1,984.4	1,994.5	1,971.6	7.0	7.2	85.50	-474.5	27.6	449.0	437.3	11.75	38.199	
2,100.0	2,076.8	2,092.5	2,063.9	7.3	7.6	86.13	-484.2	59.0	449.1	436.6	12.50	35.937	
2,191.6	2,159.6	2,186.0	2,152.2	7.5	8.0	87.38	-493.3	88.7	449.0	435.8	13.27	33.839	
2,200.0	2,167.1	2,194.6	2,160.3	7.5	8.0	87.52	-494.1	91.5	449.0	435.7	13.34	33.663	
2,300.0	2,256.4	2,294.6	2,254.7	7.7	8.5	89.18	-503.3	123.1	448.6	434.2	14.34	31.286	
2,400.0	2,345.7	2,394.0	2,348.8	7.9	8.9	90.95	-512.0	153.8	448.3	433.0	15.32	29.270	
2,404.4	2,349.6	2,398.0	2,352.6	7.9	8.9	91.03	-512.4	155.0	448.3	433.0	15.36	29.183 ES	
2,500.0	2,435.0	2,485.5	2,435.3	8.0	9.3	92.52	-521.1	182.3	449.5	433.2	16.30	27.578	
2,600.0	2,524.3	2,585.0	2,529.4	8.4	9.7	94.21	-531.7	212.9	451.9	434.5	17.36	26.025	
2,700.0	2,613.6	2,685.0	2,623.8	9.0	10.2	95.85	-542.1	244.1	454.3	435.9	18.45	24.622	
2,800.0	2,702.9	2,780.7	2,714.5	9.5	10.7	97.52	-551.9	273.1	457.3	437.8	19.54	23.410	
2,900.0	2,792.2	2,877.3	2,805.7	10.1	11.1	99.04	-563.2	302.9	461.7	441.1	20.64	22.370	
3,000.0	2,881.5	2,979.6	2,902.5	10.7	11.7	100.71	-574.6	334.0	466.3	444.5	21.81	21.379	
3,100.0	2,970.8	3,084.6	3,001.2	11.3	12.2	102.20	-586.1	367.6	470.2	447.2	23.00	20.440	
3,200.0	3,060.1	3,176.7	3,088.3	11.9	12.7	103.63	-595.3	396.3	474.1	449.9	24.14	19.641	
3,300.0	3,149.4	3,273.8	3,179.9	12.5	13.2	105.02	-606.9	426.3	480.0	454.7	25.28	18.990	
3,400.0	3,238.7	3,371.1	3,272.1	13.1	13.7	106.50	-617.9	455.6	486.2	459.8	26.40	18.412	
3,500.0	3,328.0	3,470.4	3,365.8	13.7	14.2	107.89	-629.7	486.0	492.9	465.4	27.54	17.897	
3,600.0	3,417.3	3,565.0	3,455.2	14.3	14.8	109.16	-641.4	514.6	500.4	471.8	28.65	17.468	
3,700.0	3,506.6	3,667.9	3,552.6	15.0	15.3	110.55	-654.1	545.6	508.3	478.5	29.80	17.058	
3,800.0	3,595.9	3,774.6	3,653.1	15.6	15.9	111.86	-666.4	579.1	515.0	484.0	30.97	16.625	
3,900.0	3,685.1	3,877.4	3,750.1	16.2	16.5	113.14	-677.4	611.4	521.2	489.1	32.13	16.223	
4,000.0	3,774.4	3,982.1	3,848.1	16.8	17.1	114.25	-688.5	646.2	526.5	493.2	33.30	15.809	
4,100.0	3,863.7	4,081.5	3,942.0	17.5	17.7	115.58	-697.1	677.7	531.5	497.1	34.40	15.452	
4,200.0	3,953.0	4,169.9	4,025.9	18.1	18.2	116.82	-704.7	704.6	537.7	502.3	35.43	15.177	
4,300.0	4,042.3	4,264.0	4,114.9	18.8	18.7	117.95	-715.1	733.1	546.0	509.5	36.47	14.972	
4,400.0	4,131.6	4,373.3	4,218.8	19.4	19.3	119.38	-725.7	765.7	554.1	516.5	37.55	14.754	
4,500.0	4,220.9	4,469.3	4,310.0	20.1	19.9	120.67	-734.0	794.3	561.6	523.0	38.55	14.569	
4,600.0	4,310.2	4,569.2	4,404.5	20.7	20.4	121.83	-743.8	825.0	569.4	529.8	39.58	14.388	

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

Amazon.com

Anticollision Report

Company:	APEX	Local Co-ordinate Reference:	Well *Brighton Lakes 20-17-2NAH
Project:	POCO Brighton Lakes Expansion	TVD Reference:	RKB @ 5063.0usft
Reference Site:	Sec 20-T1S-R66W	MD Reference:	RKB @ 5063.0usft
Site Error:	0.0 usft	North Reference:	Grid
Reference Well:	*Brighton Lakes 20-17-2NAH	Survey Calculation Method:	Minimum Curvature
Well Error:	0.0 usft	Output errors are at	2.00 sigma
Reference Wellbore	Original Hole	Database:	WC365
Reference Design:	Plan #1	Offset TVD Reference:	Offset Datum

Offset Design: Sec 20-T1S-R66W - 20-17-1NAH - Original Hole - Final Survey													Offset Site Error: 0.0 usft
Survey Program: 134-MWD													Offset Well Error: 0.0 usft
Reference		Offset		Semi Major Axis		Highside Toolface (°)	Offset Wellbore Centre		Distance		Minimum Separation (usft)	Separation Factor	Warning
Measured Depth (usft)	Vertical Depth (usft)	Measured Depth (usft)	Vertical Depth (usft)	Reference (usft)	Offset (usft)		+N/-S (usft)	+E/-W (usft)	Between Centres (usft)	Between Ellipses (usft)			
4,700.0	4,399.5	4,666.4	4,496.5	21.3	21.0	122.89	-753.7	855.0	577.7	537.1	40.59	14.233	
4,800.0	4,488.8	4,764.9	4,589.0	22.0	21.6	123.71	-765.4	886.7	586.2	544.5	41.64	14.076	
4,900.0	4,578.1	4,858.0	4,676.8	22.6	22.1	124.54	-776.4	915.8	595.4	552.8	42.64	13.966	
5,000.0	4,667.4	4,962.6	4,776.1	23.3	22.7	125.65	-787.4	946.6	605.5	561.9	43.64	13.874	
5,100.0	4,756.7	5,058.6	4,867.1	23.9	23.3	126.67	-796.4	975.7	614.5	569.9	44.58	13.785	
5,200.0	4,846.0	5,158.4	4,962.3	24.6	23.8	127.81	-805.5	1,004.5	624.7	579.2	45.50	13.729	
5,300.0	4,935.3	5,274.7	5,071.8	25.2	24.5	128.77	-817.7	1,041.6	633.3	586.7	46.60	13.589	
5,400.0	5,024.6	5,368.4	5,159.5	25.9	25.1	129.43	-827.9	1,072.8	641.0	593.5	47.59	13.471	
5,500.0	5,113.9	5,459.2	5,245.2	26.6	25.7	130.18	-837.2	1,101.4	650.1	601.6	48.50	13.404	
5,600.0	5,203.2	5,552.4	5,333.4	27.2	26.2	130.94	-847.2	1,129.9	660.3	610.9	49.40	13.366	
5,700.0	5,292.5	5,640.0	5,416.7	27.9	26.7	131.71	-856.5	1,155.3	672.0	621.7	50.22	13.380	
5,800.0	5,381.8	5,735.9	5,508.1	28.5	27.2	132.50	-867.6	1,182.0	685.3	634.2	51.09	13.413	
5,900.0	5,471.1	5,849.5	5,615.1	29.2	27.9	133.12	-882.6	1,217.1	696.8	644.6	52.20	13.349	
6,000.0	5,560.4	5,943.4	5,703.7	29.8	28.5	133.66	-894.5	1,246.0	708.2	655.1	53.12	13.333	
6,100.0	5,649.7	6,057.7	5,811.8	30.5	29.1	134.41	-907.6	1,280.6	719.7	665.5	54.15	13.289	
6,200.0	5,739.0	6,150.5	5,899.4	31.2	29.7	135.02	-917.4	1,309.7	729.8	674.8	55.04	13.260	
6,300.0	5,828.3	6,262.7	6,005.4	31.8	30.4	135.79	-928.5	1,344.8	739.8	683.8	56.02	13.206	
6,400.0	5,917.6	6,360.0	6,096.8	32.5	31.0	136.35	-938.8	1,376.5	749.0	692.0	56.95	13.152	
6,500.0	6,006.9	6,445.7	6,177.9	33.1	31.5	136.95	-946.9	1,402.9	759.3	701.6	57.74	13.150	
6,600.0	6,096.2	6,529.7	6,258.1	33.8	31.9	137.62	-954.5	1,426.7	771.9	713.5	58.45	13.206	
6,700.0	6,185.5	6,643.2	6,366.1	34.4	32.6	138.38	-966.3	1,459.4	784.8	725.4	59.40	13.212	
6,800.0	6,274.8	6,759.1	6,475.1	35.1	33.3	138.90	-979.8	1,496.7	795.0	734.6	60.45	13.151	
6,900.0	6,364.1	6,846.8	6,557.6	35.8	33.8	139.35	-989.1	1,524.8	805.2	743.9	61.29	13.137	
7,000.0	6,453.4	7,036.0	6,735.9	36.4	35.1	141.81	-985.2	1,585.5	809.5	747.7	61.88	13.081	
7,100.0	6,542.7	7,166.4	6,855.6	37.1	35.6	145.48	-951.8	1,624.2	807.7	746.1	61.52	13.128	
7,200.0	6,632.0	7,270.8	6,945.8	37.7	35.9	149.73	-905.8	1,649.0	806.2	745.3	60.91	13.235	
7,300.0	6,721.3	7,445.2	7,080.4	38.4	36.4	158.29	-804.2	1,690.6	804.1	745.3	58.81	13.673	
7,314.2	6,734.0	7,455.0	7,087.2	38.5	36.4	158.83	-797.6	1,693.1	803.7	744.9	58.75	13.679	
7,340.2	6,757.3	7,473.2	7,099.7	38.7	36.5	164.88	-785.3	1,697.7	803.4	744.8	58.65	13.699	
7,350.0	6,766.1	7,480.2	7,104.6	38.7	36.5	167.23	-780.5	1,699.5	803.4	744.8	58.61	13.709	
7,352.2	6,768.1	7,481.8	7,105.7	38.7	36.5	167.77	-779.3	1,699.9	803.5	744.9	58.60	13.711	
7,400.0	6,811.1	7,538.4	7,143.3	39.1	36.6	-179.42	-739.6	1,714.2	804.5	746.4	58.11	13.844	
7,402.2	6,813.1	7,541.6	7,145.3	39.1	36.6	-178.79	-737.3	1,715.1	804.5	746.5	58.08	13.852	
7,450.0	6,856.0	7,593.3	7,176.2	39.4	36.8	-166.37	-698.1	1,728.4	806.0	748.2	57.76	13.953	
7,452.2	6,858.0	7,594.6	7,176.9	39.4	36.8	-165.86	-697.1	1,728.8	806.0	748.3	57.76	13.954	
7,500.0	6,900.4	7,621.6	7,191.8	39.6	36.8	-155.42	-675.5	1,735.3	808.9	751.1	57.77	14.001	
7,550.0	6,944.1	7,649.7	7,206.5	39.9	36.9	-145.58	-652.3	1,741.5	813.4	755.6	57.73	14.088	
7,600.0	6,986.7	7,674.0	7,218.4	40.1	37.0	-137.13	-631.7	1,746.3	819.3	761.6	57.68	14.205	
7,650.0	7,027.9	7,703.9	7,232.1	40.3	37.1	-129.58	-605.7	1,751.6	826.4	768.9	57.54	14.362	
7,700.0	7,067.3	7,730.2	7,243.2	40.5	37.1	-123.19	-582.2	1,755.5	834.6	777.3	57.38	14.546	
7,750.0	7,104.7	7,764.0	7,256.2	40.6	37.2	-117.37	-551.2	1,759.5	843.8	786.6	57.16	14.763	
7,800.0	7,139.7	7,789.3	7,264.4	40.8	37.3	-112.56	-527.4	1,761.9	853.4	796.5	56.92	14.994	
7,850.0	7,172.2	7,823.6	7,273.0	40.9	37.4	-108.01	-494.3	1,764.6	863.1	806.5	56.60	15.249	
7,900.0	7,201.8	7,853.0	7,277.8	40.9	37.5	-104.09	-465.4	1,766.3	872.8	816.5	56.27	15.510	
7,950.0	7,228.4	7,891.0	7,281.8	41.0	37.6	-100.38	-427.6	1,767.9	882.3	826.4	55.90	15.783	
8,000.0	7,251.7	7,926.3	7,284.6	41.0	37.7	-97.26	-392.5	1,768.9	891.3	835.8	55.56	16.041	
8,050.0	7,271.5	7,966.4	7,286.7	41.1	37.8	-94.53	-352.4	1,769.6	899.6	844.3	55.26	16.281	
8,100.0	7,287.8	8,011.1	7,288.7	41.1	38.0	-92.27	-307.8	1,770.3	906.7	851.6	55.01	16.481	
8,150.0	7,300.3	8,056.8	7,290.8	41.1	38.2	-90.57	-262.1	1,770.8	912.2	857.3	54.87	16.625	
8,200.0	7,309.1	8,103.3	7,292.7	41.0	38.5	-89.44	-215.7	1,771.2	916.1	861.3	54.84	16.706	
8,250.0	7,313.9	8,151.1	7,294.6	41.0	38.7	-88.87	-167.9	1,771.5	918.2	863.3	54.94	16.714	
8,286.8	7,315.0	8,186.7	7,296.0	41.0	38.9	-88.81	-132.3	1,771.6	918.6	863.5	55.08	16.676	

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

Amazon.com

Anticollision Report

Company:	APEX	Local Co-ordinate Reference:	Well *Brighton Lakes 20-17-2NAH
Project:	POCO Brighton Lakes Expansion	TVD Reference:	RKB @ 5063.0usft
Reference Site:	Sec 20-T1S-R66W	MD Reference:	RKB @ 5063.0usft
Site Error:	0.0 usft	North Reference:	Grid
Reference Well:	*Brighton Lakes 20-17-2NAH	Survey Calculation Method:	Minimum Curvature
Well Error:	0.0 usft	Output errors are at	2.00 sigma
Reference Wellbore	Original Hole	Database:	WC365
Reference Design:	Plan #1	Offset TVD Reference:	Offset Datum

Offset Design: Sec 20-T1S-R66W - 20-17-1NAH - Original Hole - Final Survey												Offset Site Error:	0.0 usft
Survey Program: 134-MWD												Offset Well Error:	0.0 usft
Reference		Offset		Semi Major Axis		Highside Toolface (°)	Offset Wellbore Centre		Distance		Minimum Separation (usft)	Separation Factor	Warning
Measured Depth (usft)	Vertical Depth (usft)	Measured Depth (usft)	Vertical Depth (usft)	Reference (usft)	Offset (usft)		+N/-S (usft)	+E/-W (usft)	Between Centres (usft)	Between Ellipses (usft)			
8,297.9	7,315.0	8,197.5	7,296.3	41.0	39.0	-88.84	-121.5	1,771.7	918.5	863.4	55.14	16.659	
8,300.0	7,315.0	8,199.5	7,296.4	41.0	39.0	-88.84	-119.5	1,771.7	918.5	863.4	55.15	16.656	
8,391.2	7,315.0	8,295.5	7,299.1	40.9	39.5	-89.01	-23.5	1,772.2	918.0	862.2	55.75	16.466	
8,400.0	7,315.0	8,304.2	7,299.3	40.9	39.6	-89.02	-14.9	1,772.3	917.9	862.1	55.81	16.448	
8,485.4	7,315.0	8,384.5	7,300.5	40.8	40.1	-89.10	65.4	1,772.7	917.4	860.9	56.42	16.260	
8,500.0	7,315.0	8,398.5	7,300.7	40.8	40.2	-89.11	79.4	1,772.8	917.3	860.8	56.53	16.228	
8,580.9	7,315.0	8,478.0	7,301.3	40.8	40.8	-89.15	158.9	1,772.9	917.2	860.0	57.24	16.023	
8,600.0	7,315.0	8,497.6	7,301.3	40.8	40.9	-89.15	178.5	1,772.9	917.2	859.8	57.43	15.970	
8,691.3	7,315.0	8,595.2	7,300.2	40.8	41.7	-89.08	276.1	1,773.5	916.6	858.1	58.50	15.670	
8,700.0	7,315.0	8,604.0	7,300.1	40.8	41.7	-89.07	284.9	1,773.6	916.6	858.0	58.59	15.643	
8,786.2	7,315.0	8,687.3	7,298.5	40.9	42.4	-88.97	368.1	1,774.3	915.9	856.3	59.55	15.380	
8,800.0	7,315.0	8,699.9	7,298.2	40.9	42.5	-88.95	380.8	1,774.3	915.8	856.1	59.69	15.343	
8,900.0	7,315.0	8,843.8	7,295.2	41.0	43.8	-88.76	524.6	1,777.0	914.5	852.3	62.21	14.699	
9,000.0	7,315.0	8,926.0	7,295.1	41.1	44.5	-88.75	606.7	1,779.9	910.8	847.5	63.28	14.394	
9,100.0	7,315.0	9,015.6	7,295.9	41.2	45.4	-88.80	696.3	1,781.9	908.5	843.8	64.65	14.051	
9,200.0	7,315.0	9,115.5	7,296.5	41.4	46.4	-88.83	796.2	1,784.0	906.3	839.9	66.46	13.638	
9,299.1	7,315.0	9,212.8	7,296.7	41.6	47.4	-88.84	893.5	1,786.0	904.3	836.0	68.27	13.246	
9,300.0	7,315.0	9,213.6	7,296.7	41.6	47.4	-88.84	894.2	1,786.0	904.2	836.0	68.28	13.243	
9,384.1	7,315.0	9,283.0	7,296.7	41.9	48.1	-88.84	963.7	1,787.1	903.0	833.6	69.36	13.020	
9,400.0	7,315.0	9,283.0	7,296.7	41.9	48.1	-88.84	963.7	1,787.1	903.1	834.1	69.04	13.081	
9,500.0	7,315.0	9,350.6	7,297.9	42.2	48.8	-88.92	1,031.3	1,785.8	905.5	835.6	69.83	12.967	
9,600.0	7,315.0	9,425.2	7,301.8	42.6	49.6	-89.17	1,105.5	1,780.4	912.4	841.5	70.93	12.862	
9,700.0	7,315.0	9,521.0	7,307.0	43.0	50.5	-89.51	1,200.9	1,772.6	920.6	847.6	72.99	12.612	
9,800.0	7,315.0	9,618.5	7,312.1	43.5	51.6	-89.82	1,297.9	1,764.4	928.9	853.7	75.18	12.355	
9,900.0	7,315.0	9,725.2	7,317.6	44.0	52.7	-90.16	1,404.1	1,755.6	937.2	859.3	77.88	12.034	
10,000.0	7,315.0	9,833.2	7,323.4	44.6	53.9	-90.51	1,511.7	1,747.6	944.6	863.8	80.72	11.702	
10,100.0	7,315.0	9,954.2	7,329.6	45.2	55.4	-90.88	1,632.3	1,740.6	950.4	866.2	84.29	11.276	
10,200.0	7,315.0	10,102.7	7,332.1	45.9	57.2	-91.03	1,780.7	1,737.4	952.7	863.5	89.22	10.678	
10,233.9	7,315.0	10,132.9	7,332.2	46.1	57.6	-91.04	1,810.9	1,737.4	952.6	862.7	89.89	10.598	
10,300.0	7,315.0	10,198.4	7,331.9	46.6	58.5	-91.02	1,876.4	1,737.2	952.8	861.3	91.53	10.411	
10,400.0	7,315.0	10,320.5	7,332.3	47.4	60.1	-91.04	1,998.4	1,739.0	951.2	856.0	95.23	9.989	
10,500.0	7,315.0	10,421.4	7,335.5	48.2	61.4	-91.24	2,099.2	1,741.5	948.9	850.9	97.97	9.686	
10,600.0	7,315.0	10,535.7	7,339.3	49.1	63.0	-91.47	2,213.5	1,744.9	946.0	844.5	101.44	9.325	
10,700.0	7,315.0	10,647.1	7,338.7	50.0	64.5	-91.45	2,324.7	1,749.9	941.5	836.8	104.71	8.992	
10,800.0	7,315.0	10,742.3	7,335.6	50.9	65.8	-91.26	2,419.8	1,754.8	936.2	829.1	107.10	8.742	
10,900.0	7,315.0	10,806.0	7,333.3	51.9	66.7	-91.12	2,483.4	1,756.9	933.1	825.3	107.80	8.656	
11,000.0	7,315.0	10,896.0	7,330.8	52.9	68.0	-90.97	2,573.3	1,757.4	932.5	822.6	109.93	8.483	
11,004.4	7,315.0	10,896.0	7,330.8	53.0	68.0	-90.97	2,573.3	1,757.4	932.6	822.8	109.79	8.494	
11,100.0	7,315.0	10,985.0	7,328.9	54.0	69.3	-90.86	2,662.3	1,756.2	933.9	821.9	112.01	8.337	
11,200.0	7,315.0	11,081.7	7,325.8	55.0	70.7	-90.67	2,758.9	1,754.4	935.7	821.2	114.53	8.170	
11,300.0	7,315.0	11,170.8	7,322.2	56.1	71.9	-90.44	2,847.9	1,752.1	938.2	821.6	116.59	8.047	
11,400.0	7,315.0	11,273.4	7,317.0	57.2	73.4	-90.13	2,950.3	1,748.8	941.4	822.0	119.44	7.882	
11,500.0	7,315.0	11,389.5	7,312.8	58.3	75.1	-89.87	3,066.4	1,747.0	942.9	819.8	123.16	7.656	
11,600.0	7,315.0	11,484.7	7,309.6	59.5	76.5	-89.68	3,161.5	1,745.7	944.3	818.6	125.65	7.515	
11,700.0	7,315.0	11,575.1	7,306.4	60.6	77.9	-89.48	3,251.8	1,743.8	946.3	818.5	127.86	7.402	
11,800.0	7,315.0	11,670.2	7,302.0	61.8	79.3	-89.22	3,346.8	1,741.0	949.4	819.1	130.33	7.284	
11,900.0	7,315.0	11,761.7	7,296.4	63.0	80.7	-88.88	3,438.0	1,737.9	952.9	820.4	132.54	7.189	
12,000.0	7,315.0	11,863.2	7,290.2	64.2	82.2	-88.52	3,539.3	1,733.7	957.1	821.7	135.39	7.069	
12,100.0	7,315.0	11,978.2	7,287.3	65.4	83.9	-88.35	3,654.2	1,730.3	960.2	821.0	139.21	6.897	
12,200.0	7,315.0	12,066.2	7,286.3	66.7	85.3	-88.29	3,742.1	1,727.6	963.3	821.9	141.36	6.814	
12,300.0	7,315.0	12,195.2	7,288.7	67.9	87.3	-88.44	3,871.1	1,724.3	965.8	819.6	146.21	6.605	
12,391.6	7,315.0	12,304.1	7,291.0	69.1	88.9	-88.57	3,979.9	1,725.1	965.1	815.1	150.02	6.433	

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

Amazon.com

Anticollision Report

Company:	APEX	Local Co-ordinate Reference:	Well *Brighton Lakes 20-17-2NAH
Project:	POCO Brighton Lakes Expansion	TVD Reference:	RKB @ 5063.0usft
Reference Site:	Sec 20-T1S-R66W	MD Reference:	RKB @ 5063.0usft
Site Error:	0.0 usft	North Reference:	Grid
Reference Well:	*Brighton Lakes 20-17-2NAH	Survey Calculation Method:	Minimum Curvature
Well Error:	0.0 usft	Output errors are at	2.00 sigma
Reference Wellbore	Original Hole	Database:	WC365
Reference Design:	Plan #1	Offset TVD Reference:	Offset Datum

Offset Design: Sec 20-T1S-R66W - 20-17-1NAH - Original Hole - Final Survey												Offset Site Error:	0.0 usft
Survey Program: 134-MWD												Offset Well Error:	0.0 usft
Reference		Offset		Semi Major Axis		Highside Toolface (°)	Offset Wellbore Centre		Distance		Separation Factor	Warning	
Measured Depth (usft)	Vertical Depth (usft)	Measured Depth (usft)	Vertical Depth (usft)	Reference (usft)	Offset (usft)		+N/-S (usft)	+E/-W (usft)	Between Centres (usft)	Between Ellipses (usft)			
12,400.0	7,315.0	12,312.7	7,291.2	69.2	89.1	-88.59	3,988.5	1,725.1	965.0	814.7	150.29	6.421	
12,483.0	7,315.0	12,384.1	7,292.2	70.2	90.2	-88.65	4,059.9	1,725.6	964.4	812.3	152.09	6.341	
12,500.0	7,315.0	12,398.2	7,292.2	70.4	90.4	-88.65	4,074.0	1,725.6	964.4	812.0	152.42	6.327	
12,600.0	7,315.0	12,494.6	7,291.1	71.7	91.9	-88.58	4,170.4	1,725.0	965.0	809.9	155.15	6.220	
12,700.0	7,315.0	12,591.4	7,289.3	73.0	93.4	-88.48	4,267.2	1,724.3	965.9	808.0	157.89	6.117	
12,800.0	7,315.0	12,683.0	7,288.8	74.3	94.9	-88.45	4,358.8	1,723.4	966.9	806.5	160.35	6.030	
12,900.0	7,315.0	12,752.6	7,289.5	75.5	96.0	-88.49	4,428.3	1,721.3	970.0	808.6	161.37	6.011	
13,000.0	7,315.0	12,910.4	7,288.6	76.8	98.5	-88.45	4,586.0	1,717.4	972.7	804.6	168.10	5.787	
13,094.8	7,315.0	13,017.6	7,284.7	78.1	100.2	-88.21	4,693.1	1,719.5	970.9	799.3	171.58	5.659	
13,100.0	7,315.0	13,023.0	7,284.4	78.1	100.3	-88.20	4,698.5	1,719.7	970.8	799.0	171.74	5.653	
13,199.7	7,315.0	13,135.2	7,280.5	79.5	102.1	-87.96	4,810.6	1,723.0	967.9	792.6	175.35	5.520	
13,200.0	7,315.0	13,135.5	7,280.5	79.5	102.1	-87.96	4,810.8	1,723.0	967.9	792.6	175.35	5.520	
13,293.8	7,315.0	13,218.2	7,279.0	80.7	103.4	-87.87	4,893.5	1,725.5	965.2	787.7	177.51	5.437	
13,300.0	7,315.0	13,224.8	7,278.9	80.8	103.5	-87.86	4,900.2	1,725.7	965.0	787.3	177.72	5.430	
13,399.0	7,315.0	13,335.3	7,278.2	82.1	105.3	-87.81	5,010.6	1,728.9	962.2	780.8	181.35	5.306	
13,400.0	7,315.0	13,336.5	7,278.2	82.1	105.3	-87.81	5,011.8	1,728.9	962.1	780.8	181.39	5.304	
13,500.0	7,315.0	13,460.6	7,277.7	83.4	107.3	-87.76	5,135.8	1,735.0	957.3	771.5	185.72	5.154	
13,600.0	7,315.0	13,562.2	7,278.1	84.7	108.9	-87.77	5,237.1	1,741.5	950.8	761.9	188.84	5.035	
13,700.0	7,315.0	13,661.1	7,281.9	86.1	110.5	-87.99	5,335.8	1,747.6	944.5	752.6	191.92	4.921	
13,800.0	7,315.0	13,760.2	7,284.9	87.4	112.1	-88.16	5,434.6	1,753.6	938.3	743.3	194.99	4.812	
13,900.0	7,315.0	13,855.3	7,287.1	88.8	113.6	-88.28	5,529.6	1,759.1	932.5	734.7	197.83	4.714	
14,000.0	7,315.0	13,963.8	7,287.4	90.1	115.4	-88.29	5,637.8	1,765.7	926.3	725.0	201.34	4.601	
14,100.0	7,315.0	14,053.2	7,286.0	91.5	116.9	-88.19	5,727.0	1,771.7	919.8	716.0	203.78	4.514	
14,194.9	7,315.0	14,119.1	7,284.6	92.7	117.9	-88.10	5,792.9	1,774.2	916.2	711.3	204.93	4.471	
14,200.0	7,315.0	14,123.8	7,284.5	92.8	118.0	-88.09	5,797.5	1,774.3	916.1	711.1	205.06	4.468	
14,289.0	7,315.0	14,205.2	7,282.7	94.0	119.3	-87.98	5,878.9	1,775.8	914.5	707.2	207.25	4.412	
14,300.0	7,315.0	14,216.6	7,282.4	94.2	119.5	-87.96	5,890.3	1,776.0	914.3	706.7	207.60	4.404	
14,388.5	7,315.0	14,306.3	7,279.9	95.4	121.0	-87.79	5,979.9	1,777.5	912.9	702.6	210.32	4.341	
14,400.0	7,315.0	14,317.2	7,279.5	95.5	121.2	-87.77	5,990.8	1,777.7	912.7	702.1	210.62	4.334	
14,485.0	7,315.0	14,397.6	7,277.7	96.7	122.5	-87.65	6,071.2	1,778.8	911.7	698.8	212.88	4.283	
14,500.0	7,315.0	14,411.9	7,277.5	96.9	122.7	-87.64	6,085.5	1,778.9	911.5	698.2	213.28	4.274	
14,590.9	7,315.0	14,494.5	7,277.4	98.1	124.1	-87.63	6,168.1	1,779.5	911.0	695.4	215.53	4.227	
14,600.0	7,315.0	14,502.0	7,277.4	98.2	124.2	-87.63	6,175.6	1,779.5	911.0	695.3	215.70	4.223	
14,700.0	7,315.0	14,587.9	7,277.1	99.6	125.6	-87.62	6,261.5	1,778.5	912.0	694.2	217.80	4.188	
14,800.0	7,315.0	14,690.9	7,275.7	101.0	127.3	-87.53	6,364.5	1,776.8	913.8	692.7	221.06	4.134	
14,900.0	7,315.0	14,801.3	7,274.5	102.3	129.1	-87.46	6,474.8	1,776.0	914.5	689.7	224.84	4.067	
15,000.0	7,315.0	14,881.5	7,274.4	103.7	130.4	-87.46	6,555.0	1,775.4	915.4	688.9	226.53	4.041	
15,100.0	7,315.0	14,980.5	7,273.6	105.1	132.1	-87.42	6,654.0	1,772.1	918.7	689.1	229.55	4.002	
15,200.0	7,315.0	15,109.7	7,275.6	106.5	134.2	-87.54	6,783.1	1,771.0	919.4	684.7	234.74	3.917	
15,286.5	7,315.0	15,200.8	7,276.0	107.7	135.7	-87.57	6,874.3	1,771.8	918.7	681.0	237.74	3.864	
15,300.0	7,315.0	15,217.5	7,276.1	107.9	136.0	-87.57	6,890.9	1,772.0	918.6	680.2	238.36	3.854	
15,388.7	7,315.0	15,306.4	7,276.6	109.1	137.5	-87.60	6,979.8	1,773.9	916.6	675.5	241.14	3.801	
15,400.0	7,315.0	15,314.6	7,276.6	109.2	137.6	-87.60	6,988.0	1,774.0	916.5	675.2	241.29	3.798	
15,440.5	7,315.0	15,343.9	7,276.8	109.8	138.1	-87.61	7,017.4	1,774.1	916.2	674.4	241.81	3.789	
15,500.0	7,315.0	15,395.5	7,276.8	110.6	139.0	-87.61	7,069.0	1,773.8	916.7	673.5	243.11	3.770	
15,600.0	7,315.0	15,503.8	7,276.1	112.0	140.8	-87.57	7,177.2	1,773.2	917.3	670.5	246.77	3.717	
15,684.2	7,315.0	15,593.9	7,278.0	113.2	142.3	-87.69	7,267.3	1,773.6	916.8	667.0	249.84	3.670	
15,700.0	7,315.0	15,609.7	7,278.3	113.4	142.5	-87.71	7,283.1	1,773.6	916.7	666.3	250.34	3.662	
15,787.5	7,315.0	15,703.0	7,280.0	114.6	144.1	-87.81	7,376.4	1,774.4	915.9	662.4	253.50	3.613	
15,800.0	7,315.0	15,716.7	7,280.1	114.8	144.3	-87.82	7,390.1	1,774.6	915.7	661.8	253.96	3.606	
15,890.4	7,315.0	15,810.2	7,280.4	116.0	145.9	-87.83	7,483.6	1,776.1	914.3	657.3	256.98	3.558	
15,900.0	7,315.0	15,820.3	7,280.4	116.2	146.0	-87.83	7,493.7	1,776.3	914.1	656.8	257.31	3.552	

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

Amazon.com

Anticollision Report

Company:	APEX	Local Co-ordinate Reference:	Well *Brighton Lakes 20-17-2NAH
Project:	POCO Brighton Lakes Expansion	TVD Reference:	RKB @ 5063.0usft
Reference Site:	Sec 20-T1S-R66W	MD Reference:	RKB @ 5063.0usft
Site Error:	0.0 usft	North Reference:	Grid
Reference Well:	*Brighton Lakes 20-17-2NAH	Survey Calculation Method:	Minimum Curvature
Well Error:	0.0 usft	Output errors are at	2.00 sigma
Reference Wellbore	Original Hole	Database:	WC365
Reference Design:	Plan #1	Offset TVD Reference:	Offset Datum

Offset Design: Sec 20-T1S-R66W - 20-17-1NAH - Original Hole - Final Survey													Offset Site Error:	0.0 usft
Survey Program:		134-MWD						Rule Assigned:					Offset Well Error:	0.0 usft
Reference		Offset		Semi Major Axis		Highside Toolface (°)	Offset Wellbore Centre		Distance			Separation Factor	Warning	
Measured Depth (usft)	Vertical Depth (usft)	Measured Depth (usft)	Vertical Depth (usft)	Reference (usft)	Offset (usft)		+N/-S (usft)	+E/-W (usft)	Between Centres (usft)	Between Ellipses (usft)	Minimum Separation (usft)			
15,992.7	7,315.0	15,917.9	7,279.3	117.5	147.6	-87.76	7,591.2	1,778.4	912.1	651.6	260.46	3.502		
16,000.0	7,315.0	15,925.3	7,279.2	117.6	147.8	-87.75	7,598.6	1,778.6	911.9	651.2	260.69	3.498		
16,091.5	7,315.0	16,014.4	7,279.1	118.8	149.3	-87.74	7,687.7	1,780.7	909.8	646.4	263.38	3.454		
16,100.0	7,315.0	16,021.7	7,279.1	119.0	149.4	-87.74	7,695.0	1,780.9	909.6	646.0	263.57	3.451		
16,185.8	7,315.0	16,098.3	7,279.4	120.2	150.7	-87.76	7,771.6	1,781.9	908.4	642.8	265.65	3.420		
16,200.0	7,315.0	16,113.2	7,279.6	120.4	150.9	-87.77	7,786.5	1,782.0	908.3	642.1	266.14	3.413		
16,290.8	7,315.0	16,209.9	7,282.7	121.6	152.5	-87.96	7,883.2	1,783.2	907.1	637.6	269.45	3.366		
16,300.0	7,315.0	16,220.0	7,283.0	121.7	152.7	-87.98	7,893.3	1,783.4	906.9	637.1	269.81	3.361		
16,393.5	7,315.0	16,315.3	7,285.6	123.1	154.3	-88.14	7,988.5	1,785.2	905.0	632.1	272.91	3.316		
16,400.0	7,315.0	16,321.5	7,285.7	123.1	154.4	-88.15	7,994.7	1,785.3	904.8	631.7	273.10	3.313		
16,492.5	7,315.0	16,412.7	7,286.8	124.4	155.9	-88.21	8,085.8	1,787.0	903.1	627.2	275.93	3.273		
16,500.0	7,315.0	16,420.1	7,286.8	124.5	156.0	-88.21	8,093.3	1,787.1	903.0	626.8	276.16	3.270		
16,590.9	7,315.0	16,508.8	7,286.8	125.8	157.5	-88.20	8,182.0	1,788.7	901.4	622.6	278.85	3.233		
16,600.0	7,315.0	16,517.7	7,286.7	125.9	157.7	-88.20	8,190.8	1,788.8	901.3	622.2	279.11	3.229		
16,689.7	7,315.0	16,606.6	7,286.0	127.2	159.2	-88.15	8,279.7	1,790.1	900.0	618.1	281.84	3.193		
16,700.0	7,315.0	16,616.9	7,285.8	127.3	159.3	-88.14	8,290.0	1,790.3	899.8	617.7	282.16	3.189		
16,789.0	7,315.0	16,706.0	7,284.6	128.6	160.8	-88.06	8,379.1	1,791.6	898.5	613.6	284.90	3.154		
16,800.0	7,315.0	16,716.6	7,284.5	128.7	161.0	-88.05	8,389.7	1,791.8	898.4	613.1	285.21	3.150		
16,885.6	7,315.0	16,797.0	7,283.2	129.9	162.4	-87.97	8,470.1	1,792.7	897.4	609.9	287.50	3.121		
16,900.0	7,315.0	16,812.5	7,283.0	130.1	162.6	-87.95	8,485.6	1,792.9	897.3	609.2	288.02	3.115		
16,991.0	7,315.0	16,911.1	7,282.9	131.4	164.3	-87.95	8,584.2	1,794.4	895.9	604.5	291.36	3.075		
17,000.0	7,315.0	16,920.1	7,283.0	131.6	164.4	-87.95	8,593.2	1,794.5	895.7	604.1	291.64	3.071		
17,091.0	7,315.0	17,011.6	7,282.5	132.8	166.0	-87.92	8,684.7	1,796.2	894.1	599.6	294.50	3.036		
17,100.0	7,315.0	17,020.9	7,282.4	133.0	166.1	-87.91	8,693.9	1,796.4	893.9	599.1	294.79	3.032		
17,190.2	7,315.0	17,110.2	7,281.0	134.2	167.6	-87.82	8,783.2	1,798.1	892.1	594.6	297.51	2.999		
17,200.0	7,315.0	17,119.5	7,281.0	134.4	167.8	-87.81	8,792.6	1,798.3	892.0	594.2	297.78	2.995		
17,287.3	7,315.0	17,202.1	7,281.7	135.6	169.2	-87.86	8,875.1	1,799.5	890.7	590.4	300.22	2.967		
17,300.0	7,315.0	17,214.0	7,281.8	135.8	169.4	-87.86	8,887.0	1,799.7	890.5	589.9	300.57	2.963		
17,384.9	7,315.0	17,296.6	7,281.9	137.0	170.8	-87.87	8,969.6	1,800.4	889.7	586.6	303.08	2.936		
17,400.0	7,315.0	17,311.6	7,281.8	137.2	171.0	-87.86	8,984.6	1,800.6	889.6	586.0	303.54	2.931		
17,490.2	7,315.0	17,394.1	7,280.7	138.4	172.4	-87.79	9,067.1	1,801.0	889.1	583.3	305.79	2.907		
17,500.0	7,315.0	17,402.8	7,280.5	138.6	172.5	-87.78	9,075.8	1,801.1	889.1	583.1	306.02	2.905		
17,516.3	7,315.0	17,417.2	7,280.3	138.8	172.8	-87.76	9,090.2	1,801.0	889.1	582.8	306.38	2.902		
17,600.0	7,315.0	17,495.3	7,278.0	140.0	174.1	-87.62	9,168.2	1,800.6	889.7	581.2	308.51	2.884		
17,700.0	7,315.0	17,588.1	7,273.9	141.4	175.7	-87.36	9,261.0	1,799.4	891.1	580.2	310.97	2.866 SF		
17,800.0	7,315.0	17,627.0	7,272.0	142.8	176.3	-87.24	9,299.8	1,798.8	895.0	586.4	308.65	2.900		
17,900.0	7,315.0	17,627.0	7,272.0	144.2	176.3	-87.24	9,299.8	1,798.8	909.1	608.9	300.23	3.028		
18,000.0	7,315.0	17,627.0	7,272.0	145.6	176.3	-87.24	9,299.8	1,798.8	933.8	644.8	288.96	3.231		
18,032.3	7,315.0	17,627.0	7,272.0	146.1	176.3	-87.24	9,299.8	1,798.8	943.9	659.0	284.84	3.314		

Amazon.com

Anticollision Report

Company:	APEX	Local Co-ordinate Reference:	Well *Brighton Lakes 20-17-2NAH
Project:	POCO Brighton Lakes Expansion	TVD Reference:	RKB @ 5063.0usft
Reference Site:	Sec 20-T1S-R66W	MD Reference:	RKB @ 5063.0usft
Site Error:	0.0 usft	North Reference:	Grid
Reference Well:	*Brighton Lakes 20-17-2NAH	Survey Calculation Method:	Minimum Curvature
Well Error:	0.0 usft	Output errors are at	2.00 sigma
Reference Wellbore	Original Hole	Database:	WC365
Reference Design:	Plan #1	Offset TVD Reference:	Offset Datum

Offset Design: Sec 20-T1S-R66W - 20-17-1NBH - Original Hole - Final Surveys													Offset Site Error: 0.0 usft
Survey Program: 100-MWD													Offset Well Error: 0.0 usft
Reference		Offset		Semi Major Axis		Highside Toolface (°)	Offset Wellbore Centre		Distance		Minimum Separation (usft)	Separation Factor	Warning
Measured Depth (usft)	Vertical Depth (usft)	Measured Depth (usft)	Vertical Depth (usft)	Reference (usft)	Offset (usft)		+N/-S (usft)	+E/-W (usft)	Between Centres (usft)	Between Ellipses (usft)			
0.0	0.0	0.0	0.0	0.0	0.0	-161.00	-426.8	-147.0	451.4				
100.0	100.0	100.9	100.9	1.0	0.6	-161.00	-426.7	-147.0	451.3	449.7	1.60	281.898	
200.0	200.0	201.8	201.8	1.6	1.4	-160.97	-426.4	-147.0	451.0	448.1	2.94	153.252	
300.0	300.0	300.5	300.5	2.0	1.9	-160.91	-426.0	-147.4	450.8	446.9	3.83	117.689	
399.9	399.9	400.0	400.0	2.3	2.3	-160.84	-425.6	-147.9	450.6	446.0	4.55	98.951	
400.0	400.0	400.0	400.0	2.3	2.3	-160.84	-425.6	-147.9	450.6	446.0	4.55	98.942	
449.3	449.3	449.3	449.3	2.5	2.4	-160.84	-425.6	-147.9	450.5	445.7	4.86	92.766 CC	
500.0	500.0	499.0	499.0	2.6	2.6	-160.85	-425.7	-147.8	450.6	445.4	5.16	87.253	
600.0	600.0	598.3	598.3	2.9	2.8	-160.90	-426.1	-147.5	450.9	445.2	5.69	79.207	
700.0	700.0	697.5	697.5	3.2	3.0	-160.96	-426.7	-147.2	451.4	445.2	6.18	73.001	
800.0	800.0	796.4	796.4	3.4	3.2	-161.01	-427.4	-147.1	452.0	445.4	6.65	68.014	
900.0	900.0	894.9	894.9	3.6	3.5	-161.02	-428.3	-147.3	453.0	445.9	7.09	63.864	
1,000.0	1,000.0	998.5	998.4	3.8	3.7	-160.97	-429.0	-148.0	453.8	446.2	7.53	60.235	
1,100.0	1,100.0	1,100.0	1,100.0	4.0	3.9	-160.91	-428.8	-148.4	453.8	445.8	7.93	57.243	
1,135.4	1,135.4	1,135.4	1,135.4	4.1	4.0	-160.92	-428.8	-148.3	453.7	445.6	8.10	55.983	
1,200.0	1,200.0	1,197.4	1,197.4	4.2	4.2	-161.01	-429.2	-147.7	453.9	445.5	8.43	53.839	
1,300.0	1,300.0	1,299.6	1,299.5	4.4	4.4	-161.39	-430.5	-145.0	454.2	445.5	8.80	51.624	
1,400.0	1,400.0	1,404.2	1,403.9	4.9	4.6	91.86	-432.1	-138.8	453.9	444.8	9.14	49.650	
1,500.0	1,499.6	1,505.2	1,504.3	5.3	5.1	91.51	-434.5	-128.2	453.2	443.7	9.47	47.853	
1,563.3	1,562.5	1,565.5	1,563.8	5.5	5.5	91.26	-436.9	-119.2	452.9	443.3	9.69	46.764	
1,600.0	1,598.8	1,600.0	1,597.8	5.7	5.7	91.08	-438.9	-113.0	453.0	443.2	9.80	46.223 ES	
1,700.0	1,697.1	1,695.5	1,691.0	6.0	6.1	90.59	-445.7	-93.2	454.0	443.9	10.17	44.630	
1,800.0	1,794.3	1,799.2	1,790.9	6.4	6.6	90.12	-454.7	-67.2	455.3	444.7	10.63	42.842	
1,900.0	1,890.2	1,895.2	1,882.5	6.7	6.9	89.88	-464.0	-39.9	456.6	445.4	11.14	40.974	
2,000.0	1,984.4	1,993.3	1,975.7	7.0	7.2	90.12	-474.3	-11.1	458.5	446.7	11.75	39.024	
2,100.0	2,076.8	2,092.2	2,069.6	7.3	7.5	90.94	-485.2	18.1	460.8	448.3	12.45	37.017	
2,191.6	2,159.6	2,179.2	2,152.3	7.5	7.8	92.22	-495.0	43.4	463.5	450.4	13.14	35.277	
2,200.0	2,167.1	2,187.1	2,159.8	7.5	7.9	92.37	-495.9	45.6	463.9	450.7	13.20	35.141	
2,300.0	2,256.4	2,277.4	2,245.8	7.7	8.2	94.13	-506.9	70.6	468.8	454.7	14.10	33.259	
2,400.0	2,345.7	2,373.5	2,337.7	7.9	8.6	96.08	-519.5	95.9	475.6	460.7	14.98	31.756	
2,500.0	2,435.0	2,471.3	2,431.3	8.0	8.9	98.07	-532.3	121.0	483.2	467.3	15.90	30.391	
2,600.0	2,524.3	2,568.6	2,524.7	8.4	9.3	100.06	-544.9	145.5	491.5	474.6	16.84	29.185	
2,700.0	2,613.6	2,666.9	2,619.1	9.0	9.7	102.07	-557.4	169.7	500.5	482.7	17.80	28.120	
2,800.0	2,702.9	2,766.1	2,714.8	9.5	10.1	104.16	-569.2	193.1	509.9	491.2	18.76	27.183	
2,900.0	2,792.2	2,863.6	2,808.9	10.1	10.6	106.22	-580.4	215.6	519.9	500.2	19.72	26.369	
3,000.0	2,881.5	2,963.1	2,904.7	10.7	11.0	108.09	-592.6	239.8	530.5	509.8	20.70	25.632	
3,100.0	2,970.8	3,073.6	3,011.0	11.3	11.5	110.08	-605.1	267.3	540.6	518.9	21.76	24.848	
3,200.0	3,060.1	3,180.2	3,112.8	11.9	12.0	111.73	-616.4	296.9	548.8	526.0	22.82	24.048	
3,300.0	3,149.4	3,278.0	3,205.7	12.5	12.4	113.07	-627.0	325.2	556.8	532.9	23.86	23.340	
3,400.0	3,238.7	3,374.9	3,298.2	13.1	12.9	114.45	-637.3	352.5	565.5	540.6	24.88	22.731	
3,500.0	3,328.0	3,473.2	3,391.8	13.7	13.3	115.75	-648.2	380.4	574.7	548.8	25.90	22.187	
3,600.0	3,417.3	3,572.3	3,486.3	14.3	13.8	117.06	-658.9	408.2	584.2	557.2	26.93	21.695	
3,700.0	3,506.6	3,669.8	3,579.2	15.0	14.3	118.31	-669.5	435.6	594.0	566.0	27.93	21.264	
3,800.0	3,595.9	3,766.3	3,671.6	15.6	14.7	119.63	-679.2	461.7	604.4	575.5	28.91	20.905	
3,900.0	3,685.1	3,863.1	3,764.3	16.2	15.2	120.85	-689.7	488.1	615.4	585.5	29.89	20.591	
4,000.0	3,774.4	3,957.8	3,854.7	16.8	15.6	121.98	-700.3	513.7	627.0	596.2	30.85	20.328	
4,100.0	3,863.7	4,052.2	3,944.8	17.5	16.1	122.98	-712.0	539.3	639.7	607.9	31.80	20.114	
4,200.0	3,953.0	4,147.8	4,036.4	18.1	16.5	124.04	-723.6	564.4	653.0	620.3	32.75	19.939	
4,300.0	4,042.3	4,243.6	4,127.9	18.8	17.0	124.97	-736.2	589.8	666.9	633.2	33.70	19.791	
4,400.0	4,131.6	4,339.2	4,219.5	19.4	17.4	125.92	-748.4	614.5	681.5	646.9	34.63	19.677	
4,500.0	4,220.9	4,437.1	4,312.9	20.1	17.9	126.74	-762.1	640.2	696.4	660.8	35.60	19.565	
4,600.0	4,310.2	4,534.7	4,405.7	20.7	18.4	127.41	-777.0	666.8	711.5	674.9	36.58	19.451	

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

Amazon.com

Anticollision Report

Company:	APEX	Local Co-ordinate Reference:	Well *Brighton Lakes 20-17-2NAH
Project:	POCO Brighton Lakes Expansion	TVD Reference:	RKB @ 5063.0usft
Reference Site:	Sec 20-T1S-R66W	MD Reference:	RKB @ 5063.0usft
Site Error:	0.0 usft	North Reference:	Grid
Reference Well:	*Brighton Lakes 20-17-2NAH	Survey Calculation Method:	Minimum Curvature
Well Error:	0.0 usft	Output errors are at	2.00 sigma
Reference Wellbore	Original Hole	Database:	WC365
Reference Design:	Plan #1	Offset TVD Reference:	Offset Datum

Offset Design: Sec 20-T1S-R66W - 20-17-1NBH - Original Hole - Final Surveys												Offset Site Error:	0.0 usft
Survey Program: 100-MWD												Offset Well Error:	0.0 usft
Reference		Offset		Semi Major Axis		Highside Toolface (°)	Offset Wellbore Centre		Distance		Minimum Separation (usft)	Warning	
Measured Depth (usft)	Vertical Depth (usft)	Measured Depth (usft)	Vertical Depth (usft)	Reference (usft)	Offset (usft)		+N/-S (usft)	+E/-W (usft)	Between Centres (usft)	Between Ellipses (usft)			
4,700.0	4,399.5	4,632.8	4,499.1	21.3	18.9	128.12	-791.3	692.6	727.0	689.4	37.55	19.360	
4,800.0	4,488.8	4,735.7	4,597.1	22.0	19.4	128.82	-806.3	720.4	742.0	703.4	38.56	19.244	
4,900.0	4,578.1	4,831.0	4,687.8	22.6	19.9	129.45	-820.0	746.1	757.1	717.6	39.50	19.166	
5,000.0	4,667.4	4,930.6	4,783.2	23.3	20.4	130.21	-833.4	771.7	772.9	732.4	40.45	19.107	
5,100.0	4,756.7	5,041.9	4,889.3	23.9	20.9	131.01	-847.3	801.9	787.0	745.5	41.47	18.978	
5,200.0	4,846.0	5,137.4	4,980.7	24.6	21.4	131.73	-858.5	827.5	801.2	758.8	42.37	18.908	
5,300.0	4,935.3	5,237.5	5,076.6	25.2	21.9	132.50	-869.9	854.0	815.6	772.3	43.29	18.840	
5,400.0	5,024.6	5,336.6	5,171.2	25.9	22.4	133.17	-881.7	881.0	829.8	785.6	44.22	18.767	
5,500.0	5,113.9	5,428.9	5,259.4	26.6	22.9	133.77	-893.0	905.8	844.6	799.5	45.09	18.731	
5,600.0	5,203.2	5,525.8	5,352.2	27.2	23.4	134.41	-904.7	931.0	860.1	814.1	45.98	18.706	
5,700.0	5,292.5	5,633.1	5,454.8	27.9	23.9	135.08	-917.6	959.8	874.9	827.9	46.94	18.638	
5,800.0	5,381.8	5,729.5	5,547.0	28.5	24.4	135.70	-928.4	985.6	889.6	841.8	47.82	18.604	
5,900.0	5,471.1	5,833.4	5,646.5	29.2	25.0	136.37	-939.9	1,013.2	904.5	855.8	48.74	18.559	
6,000.0	5,560.4	5,940.9	5,748.7	29.8	25.5	136.92	-952.6	1,044.0	917.9	868.2	49.72	18.462	
6,100.0	5,649.7	6,026.5	5,830.5	30.5	26.0	137.41	-962.1	1,067.5	932.2	881.6	50.53	18.447 SF	
6,200.0	5,739.0	6,113.2	5,913.7	31.2	26.4	137.95	-971.3	1,090.0	947.8	896.5	51.31	18.473	
6,300.0	5,828.3	6,200.0	5,997.2	31.8	26.9	138.49	-980.9	1,111.6	964.6	912.5	52.06	18.527	
6,400.0	5,917.6	6,293.9	6,087.7	32.5	27.3	139.05	-991.6	1,134.3	982.3	929.4	52.86	18.582	

Amazon.com

Anticollision Report

Company:	APEX	Local Co-ordinate Reference:	Well *Brighton Lakes 20-17-2NAH
Project:	POCO Brighton Lakes Expansion	TVD Reference:	RKB @ 5063.0usft
Reference Site:	Sec 20-T1S-R66W	MD Reference:	RKB @ 5063.0usft
Site Error:	0.0 usft	North Reference:	Grid
Reference Well:	*Brighton Lakes 20-17-2NAH	Survey Calculation Method:	Minimum Curvature
Well Error:	0.0 usft	Output errors are at	2.00 sigma
Reference Wellbore	Original Hole	Database:	WC365
Reference Design:	Plan #1	Offset TVD Reference:	Offset Datum

Offset Design: Sec 20-T1S-R66W - 20-17-1NCH - Original Hole - Final Surveys												Offset Site Error:	0.0 usft
Survey Program: 134-MWD												Offset Well Error:	0.0 usft
Reference		Offset		Semi Major Axis		Highside Toolface (°)	Offset Wellbore Centre		Distance		Minimum Separation (usft)	Separation Factor	Warning
Measured Depth (usft)	Vertical Depth (usft)	Measured Depth (usft)	Vertical Depth (usft)	Reference (usft)	Offset (usft)		+N/-S (usft)	+E/-W (usft)	Between Centres (usft)	Between Ellipses (usft)			
0.0	0.0	0.0	0.0	0.0	0.0	-159.01	-427.0	-163.8	457.3				
100.0	100.0	100.5	100.5	1.0	0.8	-159.05	-427.0	-163.5	457.3	455.5	1.76	259.472	
162.4	162.4	162.4	162.4	1.3	1.2	-159.10	-427.1	-163.1	457.2	454.7	2.52	181.182	
200.0	200.0	199.1	199.1	1.6	1.4	-159.16	-427.3	-162.7	457.2	454.3	2.92	156.692	
300.0	300.0	299.0	299.0	2.0	1.8	-159.35	-428.1	-161.3	457.5	453.8	3.74	122.457	
400.0	400.0	396.6	396.6	2.3	2.2	-159.41	-428.7	-161.1	457.9	453.5	4.40	104.036	
500.0	500.0	497.3	497.3	2.6	2.4	-159.38	-429.2	-161.5	458.6	453.6	5.00	91.798	
600.0	600.0	596.2	596.1	2.9	2.7	-159.36	-429.9	-161.9	459.4	453.8	5.54	82.872	
700.0	700.0	696.4	696.3	3.2	2.9	-159.36	-430.6	-162.2	460.1	454.0	6.07	75.852	
800.0	800.0	801.3	801.3	3.4	3.2	-159.33	-431.0	-162.6	460.7	454.1	6.56	70.244	
900.0	900.0	905.2	905.1	3.6	3.3	-159.24	-429.9	-162.9	459.8	452.8	6.94	66.232	
1,000.0	1,000.0	1,006.3	1,006.2	3.8	3.5	-159.11	-428.2	-163.5	458.4	451.1	7.29	62.872	
1,100.0	1,100.0	1,103.2	1,103.1	4.0	3.6	-159.08	-427.2	-163.3	457.3	449.7	7.64	59.851	
1,200.0	1,200.0	1,201.1	1,201.0	4.2	3.8	-159.25	-427.2	-161.9	456.8	448.8	7.99	57.167	
1,228.8	1,228.8	1,228.9	1,228.8	4.3	3.8	-159.30	-427.3	-161.4	456.8	448.7	8.09	56.454 CC	
1,300.0	1,300.0	1,298.6	1,298.5	4.4	4.0	-159.44	-427.9	-160.5	457.0	448.6	8.34	54.823	
1,400.0	1,400.0	1,400.6	1,400.5	4.9	4.3	94.27	-428.9	-158.3	457.4	448.7	8.67	52.748	
1,500.0	1,499.6	1,504.9	1,504.5	5.3	4.8	94.37	-430.9	-151.1	457.4	448.4	8.99	50.847	
1,549.4	1,548.7	1,554.0	1,553.2	5.5	5.1	94.35	-432.5	-145.4	457.2	448.1	9.16	49.939 ES	
1,600.0	1,598.8	1,601.9	1,600.5	5.7	5.3	94.27	-434.8	-138.3	457.4	448.1	9.32	49.089	
1,700.0	1,697.1	1,701.0	1,697.6	6.0	5.8	94.00	-441.6	-119.6	458.6	448.9	9.68	47.399	
1,800.0	1,794.3	1,797.6	1,791.3	6.4	6.1	93.80	-450.1	-97.6	460.5	450.4	10.08	45.676	
1,900.0	1,890.2	1,896.4	1,886.6	6.7	6.4	93.98	-459.7	-73.5	463.1	452.6	10.55	43.909	
2,000.0	1,984.4	1,998.4	1,984.7	7.0	6.8	94.68	-470.2	-47.7	466.4	455.3	11.13	41.921	
2,100.0	2,076.8	2,089.0	2,071.9	7.3	7.1	95.83	-479.5	-24.9	470.4	458.6	11.79	39.902	
2,191.6	2,159.6	2,176.1	2,155.8	7.5	7.4	97.41	-489.9	-3.8	476.6	464.1	12.46	38.263	
2,200.0	2,167.1	2,184.4	2,163.8	7.5	7.4	97.60	-490.9	-1.9	477.2	464.7	12.51	38.134	
2,300.0	2,256.4	2,285.8	2,261.7	7.7	7.8	99.98	-502.4	21.9	484.7	471.3	13.40	36.170	
2,400.0	2,345.7	2,376.5	2,349.2	7.9	8.2	102.04	-512.8	43.1	493.2	479.0	14.22	34.684	
2,500.0	2,435.0	2,477.1	2,446.4	8.0	8.6	104.21	-525.0	66.6	503.0	487.8	15.11	33.285	
2,600.0	2,524.3	2,574.7	2,540.7	8.4	9.0	106.33	-536.0	88.9	513.0	496.9	16.01	32.040	
2,700.0	2,613.6	2,662.9	2,625.9	9.0	9.4	108.14	-547.0	108.8	524.8	507.9	16.89	31.069	
2,800.0	2,702.9	2,759.8	2,719.7	9.5	9.8	110.08	-559.6	129.8	538.1	520.3	17.81	30.219	
2,900.0	2,792.2	2,859.3	2,815.5	10.1	10.3	111.79	-573.4	152.9	551.8	533.0	18.76	29.420	
3,000.0	2,881.5	2,957.1	2,909.7	10.7	10.7	113.43	-586.7	175.4	565.8	546.1	19.71	28.705	
3,100.0	2,970.8	3,055.2	3,004.6	11.3	11.1	115.13	-599.1	197.0	580.3	559.6	20.66	28.082	
3,200.0	3,060.1	3,158.6	3,105.0	11.9	11.6	116.99	-610.9	218.9	595.0	573.4	21.61	27.534	
3,300.0	3,149.4	3,265.6	3,208.4	12.5	12.1	118.70	-622.4	243.7	608.4	585.8	22.58	26.937	
3,400.0	3,238.7	3,356.8	3,296.6	13.1	12.5	120.14	-631.9	264.8	622.0	598.5	23.50	26.466	
3,500.0	3,328.0	3,453.7	3,390.1	13.7	13.0	121.43	-644.0	287.5	637.1	612.7	24.44	26.067	
3,600.0	3,417.3	3,550.7	3,483.6	14.3	13.4	122.69	-655.9	310.3	652.3	626.9	25.38	25.705	
3,700.0	3,506.6	3,650.3	3,579.4	15.0	13.9	123.84	-668.7	334.2	667.9	641.5	26.33	25.367	
3,800.0	3,595.9	3,747.4	3,673.2	15.6	14.4	125.08	-679.6	356.4	683.6	656.3	27.24	25.097	
3,900.0	3,685.1	3,849.5	3,771.6	16.2	14.9	126.21	-692.1	380.9	699.3	671.1	28.19	24.806	
4,000.0	3,774.4	3,951.9	3,870.2	16.8	15.4	127.29	-704.3	405.9	714.8	685.6	29.15	24.516	
4,100.0	3,863.7	4,054.0	3,967.9	17.5	15.9	128.17	-717.5	432.4	729.6	699.5	30.13	24.211	
4,200.0	3,953.0	4,149.2	4,059.3	18.1	16.3	129.05	-728.9	456.5	744.7	713.6	31.06	23.978	
4,300.0	4,042.3	4,244.4	4,151.1	18.8	16.8	130.00	-739.3	479.5	760.4	728.4	31.96	23.792	
4,400.0	4,131.6	4,338.2	4,241.1	19.4	17.2	130.77	-751.3	502.8	776.6	743.8	32.86	23.635	
4,500.0	4,220.9	4,420.9	4,320.8	20.1	17.6	131.45	-762.0	522.4	794.1	760.4	33.69	23.569	
4,600.0	4,310.2	4,504.4	4,401.0	20.7	18.0	132.00	-775.2	541.4	813.9	779.4	34.52	23.580	
4,700.0	4,399.5	4,607.0	4,499.7	21.3	18.6	132.67	-791.4	563.8	834.6	799.2	35.46	23.536	

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

Amazon.com
Anticollision Report

Company:	APEX	Local Co-ordinate Reference:	Well *Brighton Lakes 20-17-2NAH
Project:	POCO Brighton Lakes Expansion	TVD Reference:	RKB @ 5063.0usft
Reference Site:	Sec 20-T1S-R66W	MD Reference:	RKB @ 5063.0usft
Site Error:	0.0 usft	North Reference:	Grid
Reference Well:	*Brighton Lakes 20-17-2NAH	Survey Calculation Method:	Minimum Curvature
Well Error:	0.0 usft	Output errors are at	2.00 sigma
Reference Wellbore	Original Hole	Database:	WC365
Reference Design:	Plan #1	Offset TVD Reference:	Offset Datum

Offset Design: Sec 20-T1S-R66W - 20-17-1NCH - Original Hole - Final Surveys													Offset Site Error:	0.0 usft
Survey Program: 134-MWD													Offset Well Error:	0.0 usft
Reference		Offset		Semi Major Axis		Highside Toolface (°)	Offset Wellbore Centre		Distance		Rule Assigned:		Warning	
Measured Depth (usft)	Vertical Depth (usft)	Measured Depth (usft)	Vertical Depth (usft)	Reference (usft)	Offset (usft)		+N/-S (usft)	+E/-W (usft)	Between Centres (usft)	Between Ellipses (usft)	Minimum Separation (usft)	Separation Factor		
4,800.0	4,488.8	4,702.4	4,591.0	22.0	19.0	133.10	-808.0	586.4	854.4	818.1	36.38	23.486		
4,900.0	4,578.1	4,797.3	4,682.2	22.6	19.5	133.62	-823.5	607.7	875.1	837.8	37.27	23.481		
5,000.0	4,667.4	4,923.8	4,804.0	23.3	20.1	134.42	-841.2	636.7	894.2	855.9	38.37	23.305		
5,100.0	4,756.7	5,020.9	4,897.8	23.9	20.6	135.15	-852.3	659.1	912.2	873.0	39.24	23.247		
5,200.0	4,846.0	5,127.9	5,000.6	24.6	21.1	135.81	-865.6	685.5	929.3	889.1	40.19	23.120		
5,300.0	4,935.3	5,221.3	5,090.4	25.2	21.6	136.37	-877.2	708.5	946.6	905.5	41.06	23.054		
5,400.0	5,024.6	5,314.2	5,180.0	25.9	22.0	136.94	-888.3	730.7	964.4	922.5	41.90	23.018		
5,500.0	5,113.9	5,413.9	5,276.2	26.6	22.5	137.57	-899.9	754.0	982.8	940.0	42.78	22.972 SF		

Amazon.com

Anticollision Report

Company:	APEX	Local Co-ordinate Reference:	Well *Brighton Lakes 20-17-2NAH
Project:	POCO Brighton Lakes Expansion	TVD Reference:	RKB @ 5063.0usft
Reference Site:	Sec 20-T1S-R66W	MD Reference:	RKB @ 5063.0usft
Site Error:	0.0 usft	North Reference:	Grid
Reference Well:	*Brighton Lakes 20-17-2NAH	Survey Calculation Method:	Minimum Curvature
Well Error:	0.0 usft	Output errors are at	2.00 sigma
Reference Wellbore	Original Hole	Database:	WC365
Reference Design:	Plan #1	Offset TVD Reference:	Offset Datum

Offset Design: Sec 20-T1S-R66W - 20-17-2CDH - Original Hole - Final Survey												Offset Site Error:	0.0 usft
Survey Program: 135-MWD												Offset Well Error:	0.0 usft
Measured Depth (usft)	Vertical Depth (usft)	Measured Depth (usft)	Vertical Depth (usft)	Reference (usft)	Semi Major Axis Offset (usft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (usft)	+E/-W (usft)	Distance Between Centres (usft)	Between Ellipses (usft)	Minimum Separation (usft)	Separation Factor	Warning
0.0	0.0	0.0	0.0	0.0	0.0	-170.23	-426.3	-73.4	432.5				
100.0	100.0	100.1	100.1	1.0	0.8	-170.26	-426.3	-73.2	432.5	430.8	1.76	245.651	
200.0	200.0	200.9	200.9	1.6	1.4	-170.33	-426.3	-72.7	432.5	429.5	2.93	147.615	
300.0	300.0	303.3	303.3	2.0	1.8	-170.41	-426.0	-72.0	432.0	428.3	3.76	114.909	
400.0	400.0	403.9	403.9	2.3	2.2	-170.54	-425.3	-70.9	431.1	426.7	4.45	96.932	
500.0	500.0	501.7	501.7	2.6	2.5	-170.63	-424.7	-70.1	430.5	425.4	5.04	85.417	
552.1	552.1	552.1	552.1	2.8	2.6	-170.63	-424.6	-70.1	430.4	425.1	5.31	81.061	
600.0	600.0	599.6	599.6	2.9	2.7	-170.60	-424.6	-70.3	430.4	424.9	5.55	77.570	
700.0	700.0	701.3	701.3	3.2	2.9	-170.54	-424.5	-70.7	430.4	424.4	6.02	71.469	
800.0	800.0	803.3	803.3	3.4	3.1	-170.45	-423.8	-71.3	429.8	423.3	6.49	66.246	
900.0	900.0	904.8	904.8	3.6	3.3	-170.35	-422.8	-71.9	428.9	421.9	6.94	61.767	
1,000.0	1,000.0	1,004.3	1,004.2	3.8	3.6	-170.29	-421.6	-72.1	427.8	420.4	7.39	57.896	
1,058.3	1,058.3	1,058.3	1,058.3	4.0	4.0	-170.36	-421.5	-71.6	427.5	419.6	7.90	54.105	
1,100.0	1,100.0	1,097.1	1,097.1	4.0	4.2	-170.51	-421.8	-70.5	427.6	419.4	8.26	51.753	
1,200.0	1,200.0	1,196.6	1,196.3	4.2	4.4	-171.51	-423.7	-63.3	428.4	419.8	8.59	49.866	
1,300.0	1,300.0	1,294.3	1,292.9	4.4	4.9	-173.37	-426.5	-49.6	429.5	420.5	8.92	48.163	
1,400.0	1,400.0	1,385.6	1,382.1	4.9	5.4	78.02	-430.9	-30.8	431.8	422.6	9.25	46.699	
1,500.0	1,499.6	1,482.2	1,475.9	5.3	5.6	75.84	-437.1	-8.1	435.2	425.5	9.61	45.284	
1,600.0	1,598.8	1,581.9	1,571.7	5.7	6.0	73.86	-443.1	18.7	437.4	427.3	10.04	43.545	
1,700.0	1,697.1	1,677.7	1,662.2	6.0	6.5	71.95	-449.3	49.2	439.1	428.5	10.56	41.595	
1,800.0	1,794.3	1,768.6	1,746.5	6.4	6.9	70.11	-456.0	82.8	440.8	429.6	11.15	39.546	
1,900.0	1,890.2	1,864.7	1,834.3	6.7	7.3	68.44	-464.3	120.8	442.7	430.9	11.83	37.408	
2,000.0	1,984.4	1,960.5	1,921.5	7.0	7.7	67.33	-472.9	159.4	443.4	430.8	12.63	35.117	
2,100.0	2,076.8	2,054.4	2,006.4	7.3	8.1	66.71	-482.7	198.3	443.8	430.3	13.49	32.891	
2,191.6	2,159.6	2,148.7	2,091.6	7.5	8.5	66.68	-492.7	237.4	442.5	428.1	14.41	30.702	
2,200.0	2,167.1	2,157.5	2,099.6	7.5	8.6	66.70	-493.6	241.1	442.3	427.8	14.49	30.512	
2,300.0	2,256.4	2,261.5	2,193.9	7.7	9.2	66.98	-503.5	283.8	438.9	423.2	15.64	28.069	
2,400.0	2,345.7	2,366.5	2,289.6	7.9	9.8	67.36	-512.8	326.2	434.6	417.9	16.76	25.936	
2,500.0	2,435.0	2,458.7	2,373.9	8.0	10.4	67.82	-521.0	362.5	430.3	412.5	17.81	24.156	
2,597.7	2,522.2	2,549.2	2,456.6	8.4	11.0	68.34	-530.9	398.0	428.1	409.3	18.88	22.681	
2,600.0	2,524.3	2,551.3	2,458.5	8.4	11.0	68.35	-531.2	398.8	428.1	409.2	18.90	22.649	
2,700.0	2,613.6	2,653.3	2,552.0	9.0	11.7	69.09	-543.2	437.7	426.6	406.5	20.10	21.227	
2,784.4	2,688.9	2,731.6	2,623.8	9.4	12.3	69.72	-552.7	467.2	425.7	404.7	21.06	20.215	
2,800.0	2,702.9	2,746.2	2,637.3	9.5	12.4	69.83	-554.6	472.8	425.7	404.4	21.24	20.041	
2,817.3	2,718.3	2,763.1	2,652.6	9.6	12.5	69.94	-556.8	479.3	425.7	404.2	21.46	19.840	
2,900.0	2,792.2	2,843.8	2,725.8	10.1	13.1	70.32	-567.5	511.7	425.9	403.4	22.48	18.943	
3,000.0	2,881.5	2,945.7	2,817.5	10.7	13.9	70.53	-580.8	554.3	426.2	402.4	23.82	17.897	
3,099.3	2,970.2	3,051.1	2,912.3	11.3	14.7	70.74	-593.6	598.3	425.6	400.4	25.21	16.885	
3,100.0	2,970.8	3,051.8	2,912.9	11.3	14.7	70.75	-593.7	598.6	425.6	400.4	25.22	16.878	
3,200.0	3,060.1	3,162.9	3,013.9	11.9	15.6	71.19	-605.1	643.6	423.0	396.4	26.64	15.878	
3,300.0	3,149.4	3,261.9	3,104.6	12.5	16.3	71.74	-613.3	682.6	418.3	390.4	27.97	14.954	
3,400.0	3,238.7	3,352.5	3,187.2	13.1	17.0	72.21	-622.7	718.6	415.8	386.6	29.26	14.213	
3,485.3	3,314.8	3,433.2	3,259.9	13.6	17.6	72.42	-632.2	752.1	415.1	384.7	30.39	13.659	
3,500.0	3,328.0	3,447.2	3,272.5	13.7	17.8	72.44	-634.0	758.1	415.0	384.4	30.59	13.568	
3,590.6	3,408.9	3,539.8	3,355.6	14.3	18.5	72.57	-645.5	797.1	414.8	383.0	31.87	13.017	
3,600.0	3,417.3	3,549.7	3,364.6	14.3	18.6	72.60	-646.7	801.3	414.7	382.7	32.01	12.959	
3,700.0	3,506.6	3,655.0	3,459.8	15.0	19.4	72.93	-658.5	844.6	413.2	379.8	33.46	12.352	
3,800.0	3,595.9	3,754.3	3,549.3	15.6	20.2	73.14	-669.1	886.1	411.2	376.3	34.86	11.795	
3,900.0	3,685.1	3,852.7	3,638.0	16.2	21.0	73.35	-679.9	927.3	409.5	373.2	36.27	11.291	
4,000.0	3,774.4	3,955.2	3,730.5	16.8	21.9	73.55	-691.1	970.4	407.7	370.0	37.72	10.809	
4,100.0	3,863.7	4,059.7	3,824.5	17.5	22.7	73.69	-701.5	1,014.7	404.9	365.8	39.18	10.336	
4,200.0	3,953.0	4,161.5	3,917.0	18.1	23.5	74.10	-710.7	1,056.1	401.3	360.6	40.62	9.877	

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

Amazon.com

Anticollision Report

Company:	APEX	Local Co-ordinate Reference:	Well *Brighton Lakes 20-17-2NAH
Project:	POCO Brighton Lakes Expansion	TVD Reference:	RKB @ 5063.0usft
Reference Site:	Sec 20-T1S-R66W	MD Reference:	RKB @ 5063.0usft
Site Error:	0.0 usft	North Reference:	Grid
Reference Well:	*Brighton Lakes 20-17-2NAH	Survey Calculation Method:	Minimum Curvature
Well Error:	0.0 usft	Output errors are at	2.00 sigma
Reference Wellbore	Original Hole	Database:	WC365
Reference Design:	Plan #1	Offset TVD Reference:	Offset Datum

Offset Design: Sec 20-T1S-R66W - 20-17-2CDH - Original Hole - Final Survey												Offset Site Error:	0.0 usft
Survey Program: 135-MWD												Offset Well Error:	0.0 usft
Measured Depth (usft)	Vertical Depth (usft)	Measured Depth (usft)	Vertical Depth (usft)	Reference (usft)	Semi Major Axis Offset (usft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (usft)	+E/-W (usft)	Distance Between Centres (usft)	Between Ellipses (usft)	Minimum Separation (usft)	Separation Factor	Warning
4,300.0	4,042.3	4,255.9	4,003.1	18.8	24.3	74.58	-719.6	1,094.0	398.0	356.0	42.02	9.471	
4,397.4	4,129.3	4,348.0	4,086.6	19.4	25.0	74.98	-729.9	1,131.3	396.5	353.1	43.38	9.140	
4,400.0	4,131.6	4,350.5	4,088.9	19.4	25.0	74.99	-730.1	1,132.3	396.5	353.0	43.42	9.131	
4,480.1	4,203.2	4,426.8	4,158.1	19.9	25.6	75.35	-739.4	1,163.0	396.0	351.5	44.55	8.890	
4,500.0	4,220.9	4,445.6	4,175.1	20.1	25.8	75.43	-741.8	1,170.7	396.1	351.2	44.83	8.836	
4,600.0	4,310.2	4,545.4	4,265.4	20.7	26.6	75.85	-754.8	1,211.1	396.5	350.2	46.28	8.568	
4,700.0	4,399.5	4,644.0	4,354.9	21.3	27.4	76.36	-767.7	1,250.5	397.0	349.3	47.73	8.318	
4,800.0	4,488.8	4,754.1	4,454.5	22.0	28.3	76.77	-780.9	1,295.5	396.5	347.2	49.31	8.041	
4,900.0	4,578.1	4,861.9	4,551.9	22.6	29.1	77.08	-791.5	1,340.3	393.6	342.8	50.83	7.744	
5,000.0	4,667.4	4,963.1	4,643.6	23.3	30.0	77.41	-799.8	1,382.4	389.3	337.0	52.31	7.442	
5,100.0	4,756.7	5,055.1	4,727.3	23.9	30.7	77.87	-808.3	1,419.6	386.0	332.3	53.74	7.183	
5,191.5	4,838.5	5,138.8	4,803.9	24.5	31.3	78.49	-817.9	1,452.0	385.2	330.1	55.03	6.999	
5,200.0	4,846.0	5,146.7	4,811.1	24.6	31.4	78.55	-818.9	1,455.0	385.2	330.0	55.15	6.984	
5,300.0	4,935.3	5,245.4	4,900.9	25.2	32.2	79.16	-831.7	1,493.9	385.8	329.2	56.63	6.813	
5,400.0	5,024.6	5,346.3	4,991.7	25.9	33.0	79.41	-844.7	1,535.9	386.1	328.0	58.13	6.643	
5,500.0	5,113.9	5,448.3	5,082.3	26.6	33.9	79.24	-857.7	1,581.0	386.2	326.5	59.65	6.474	
5,600.0	5,203.2	5,552.4	5,174.8	27.2	34.8	79.06	-870.2	1,627.1	385.5	324.3	61.19	6.300	
5,700.0	5,292.5	5,661.1	5,272.7	27.9	35.7	79.28	-881.1	1,673.0	383.0	320.2	62.74	6.104	
5,800.0	5,381.8	5,762.4	5,365.3	28.5	36.5	79.95	-889.6	1,713.2	378.9	314.7	64.26	5.897	
5,900.0	5,471.1	5,859.4	5,453.5	29.2	37.3	80.46	-898.2	1,752.5	375.5	309.7	65.74	5.712	
6,000.0	5,560.4	5,960.6	5,545.3	29.8	38.1	80.89	-907.7	1,794.2	372.4	305.2	67.25	5.538	
6,100.0	5,649.7	6,059.5	5,635.0	30.5	38.9	81.31	-916.5	1,834.9	369.0	300.2	68.75	5.367	
6,200.0	5,739.0	6,157.3	5,723.8	31.2	39.7	81.78	-925.8	1,874.9	366.1	295.9	70.25	5.212	
6,300.0	5,828.3	6,259.0	5,816.2	31.8	40.5	82.31	-935.5	1,916.2	363.4	291.7	71.76	5.064	
6,400.0	5,917.6	6,358.1	5,907.1	32.5	41.3	83.19	-944.5	1,954.5	360.6	287.3	73.26	4.922	
6,500.0	6,006.9	6,455.8	5,997.6	33.1	42.0	84.40	-953.4	1,990.3	358.1	283.3	74.74	4.791	
6,600.0	6,096.2	6,550.8	6,085.2	33.8	42.6	85.46	-963.2	2,025.6	357.0	280.8	76.18	4.686	
6,700.0	6,185.5	6,652.0	6,178.1	34.4	43.4	86.39	-974.4	2,064.4	356.4	278.7	77.68	4.588	
6,800.0	6,274.8	6,756.4	6,273.1	35.1	44.2	87.04	-985.4	2,106.2	355.0	275.8	79.20	4.483	
6,900.0	6,364.1	6,857.8	6,365.0	35.8	45.1	87.56	-995.1	2,147.8	352.6	271.9	80.70	4.369	
6,999.4	6,452.9	6,949.2	6,448.0	36.4	45.8	88.07	-1,004.5	2,184.9	351.0	268.8	82.14	4.273	
7,000.0	6,453.4	6,949.7	6,448.5	36.4	45.8	88.07	-1,004.6	2,185.1	351.0	268.8	82.14	4.273	
7,100.0	6,542.7	7,047.0	6,536.2	37.1	46.6	88.41	-1,017.0	2,225.2	351.6	268.0	83.62	4.205	
7,200.0	6,632.0	7,152.6	6,631.1	37.7	47.5	88.61	-1,030.1	2,269.7	351.6	266.4	85.19	4.127	
7,300.0	6,721.3	7,260.6	6,727.0	38.4	48.5	88.43	-1,041.8	2,317.9	349.5	262.7	86.78	4.027	
7,314.2	6,734.0	7,275.6	6,740.4	38.5	48.6	88.41	-1,043.2	2,324.6	349.0	262.0	87.00	4.012	
7,336.5	6,754.0	7,299.1	6,761.4	38.6	48.8	92.77	-1,045.3	2,334.9	348.6	261.3	87.34	3.992 CC	
7,350.0	6,766.1	7,313.4	6,774.2	38.7	48.9	95.50	-1,046.5	2,341.0	348.8	261.2	87.55	3.984	
7,400.0	6,811.1	7,365.4	6,821.4	39.1	49.4	105.91	-1,050.5	2,362.6	351.8	263.5	88.30	3.984	
7,450.0	6,856.0	7,416.4	6,867.7	39.4	49.8	116.08	-1,054.2	2,383.8	358.7	269.7	89.01	4.030	
7,500.0	6,900.4	7,466.7	6,913.4	39.6	50.2	125.41	-1,057.5	2,404.4	369.7	280.0	89.66	4.123	
7,550.0	6,944.1	7,515.9	6,958.7	39.9	50.5	133.68	-1,060.3	2,423.6	384.5	294.2	90.27	4.259	
7,600.0	6,986.7	7,611.5	7,047.1	40.1	51.3	140.68	-1,059.3	2,459.6	400.5	310.3	90.19	4.440	
7,650.0	7,027.9	7,720.7	7,147.1	40.3	52.0	146.63	-1,042.8	2,499.9	413.9	325.6	88.22	4.691	
7,700.0	7,067.3	7,807.5	7,223.9	40.5	52.5	151.41	-1,018.7	2,532.2	424.7	338.4	86.29	4.922	
7,750.0	7,104.7	7,860.6	7,270.4	40.6	52.7	155.38	-1,001.7	2,551.4	438.0	351.6	86.40	5.070	
7,800.0	7,139.7	7,937.2	7,337.1	40.8	53.1	158.74	-974.3	2,577.3	453.9	369.3	84.63	5.363	
7,850.0	7,172.2	8,044.5	7,427.0	40.9	53.5	161.82	-925.7	2,609.6	469.1	389.3	79.87	5.874	
7,900.0	7,201.8	8,140.9	7,502.2	40.9	53.8	164.35	-871.8	2,636.8	482.5	407.0	75.45	6.395	
7,950.0	7,228.4	8,265.7	7,683.4	41.0	54.8	164.72	-517.2	2,746.7	469.9	435.2	34.66	13.555	
8,000.0	7,251.7	8,354.3	7,689.1	41.0	54.9	166.00	-429.2	2,755.7	448.2	414.2	34.00	13.183	
8,050.0	7,271.5	8,414.1	7,689.6	41.1	54.9	167.06	-369.5	2,758.4	427.5	392.8	34.66	12.334	

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

Amazon.com

Anticollision Report

Company:	APEX	Local Co-ordinate Reference:	Well *Brighton Lakes 20-17-2NAH
Project:	POCO Brighton Lakes Expansion	TVD Reference:	RKB @ 5063.0usft
Reference Site:	Sec 20-T1S-R66W	MD Reference:	RKB @ 5063.0usft
Site Error:	0.0 usft	North Reference:	Grid
Reference Well:	*Brighton Lakes 20-17-2NAH	Survey Calculation Method:	Minimum Curvature
Well Error:	0.0 usft	Output errors are at	2.00 sigma
Reference Wellbore	Original Hole	Database:	WC365
Reference Design:	Plan #1	Offset TVD Reference:	Offset Datum

Offset Design: Sec 20-T1S-R66W - 20-17-2CDH - Original Hole - Final Survey												Offset Site Error:	0.0 usft
Survey Program: 135-MWD												Offset Well Error:	0.0 usft
Measured Depth (usft)	Vertical Depth (usft)	Measured Depth (usft)	Vertical Depth (usft)	Reference (usft)	Semi Major Axis Offset (usft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (usft)	+E/-W (usft)	Distance Between Centres (usft)	Between Ellipses (usft)	Minimum Separation (usft)	Separation Factor	Warning
8,100.0	7,287.8	8,764.2	7,689.4	41.1	55.0	167.83	-319.4	2,759.9	410.1	374.8	35.29	11.621	
8,150.0	7,300.3	8,811.3	7,689.2	41.1	55.0	168.39	-272.4	2,761.0	396.6	360.8	35.85	11.064	
8,200.0	7,309.1	8,858.5	7,689.1	41.0	55.0	168.73	-225.1	2,762.1	387.4	351.1	36.34	10.662	
8,211.9	7,310.6	8,869.8	7,689.2	41.0	55.1	168.78	-213.9	2,762.4	385.9	349.4	36.45	10.588	
8,250.0	7,313.9	8,905.9	7,689.4	41.0	55.1	168.88	-177.8	2,763.1	382.7	345.9	36.78	10.405	
8,275.8	7,314.9	8,930.4	7,689.7	41.0	55.1	168.90	-153.3	2,763.4	382.0	345.0	36.97	10.333	
8,286.8	7,315.0	8,940.9	7,689.8	41.0	55.1	168.90	-142.8	2,763.5	382.1	345.0	37.05	10.313	
8,287.4	7,315.0	8,941.4	7,689.9	41.0	55.1	168.90	-142.3	2,763.5	382.1	345.0	37.05	10.312	
8,300.0	7,315.0	8,953.5	7,690.1	41.0	55.1	168.89	-130.2	2,763.7	382.3	345.2	37.14	10.294	
8,304.4	7,315.0	8,958.0	7,690.1	41.0	55.1	168.89	-125.7	2,763.7	382.4	345.2	37.17	10.287	
8,400.0	7,315.0	9,055.1	7,691.7	40.9	55.3	168.82	-28.7	2,764.5	384.1	346.2	37.89	10.138	
8,404.4	7,315.0	9,059.9	7,691.8	40.9	55.3	168.82	-23.8	2,764.5	384.2	346.2	37.93	10.130	
8,500.0	7,315.0	9,160.4	7,692.4	40.8	55.5	168.89	76.7	2,764.1	384.6	345.8	38.78	9.918	
8,504.4	7,315.0	9,164.8	7,692.4	40.8	55.5	168.90	81.1	2,764.1	384.6	345.8	38.82	9.908	
8,600.0	7,315.0	9,254.3	7,693.2	40.8	55.7	169.17	170.5	2,762.3	385.1	345.4	39.76	9.687	
8,604.4	7,315.0	9,258.2	7,693.3	40.8	55.7	169.18	174.4	2,762.3	385.2	345.4	39.81	9.677	
8,700.0	7,315.0	9,349.5	7,696.4	40.8	55.9	169.50	265.7	2,760.6	388.1	347.3	40.87	9.497	
8,704.4	7,315.0	9,354.4	7,696.6	40.8	55.9	169.52	270.6	2,760.6	388.3	347.3	40.92	9.489	
8,800.0	7,315.0	9,456.4	7,698.8	40.9	56.2	169.84	372.6	2,758.8	389.9	348.0	41.97	9.290	
8,804.4	7,315.0	9,461.0	7,698.8	40.9	56.2	169.85	377.2	2,758.7	390.0	348.0	42.02	9.281	
8,900.0	7,315.0	9,549.4	7,700.4	41.0	56.6	169.99	465.5	2,758.0	391.5	348.5	43.02	9.102	
8,904.4	7,315.0	9,553.3	7,700.5	41.0	56.6	169.99	469.4	2,758.0	391.7	348.6	43.06	9.095	
9,000.0	7,315.0	9,656.5	7,703.5	41.1	57.0	170.11	572.5	2,757.7	394.4	350.4	44.04	8.957	
9,020.3	7,315.0	9,679.4	7,703.7	41.1	57.1	170.14	595.5	2,757.5	394.6	350.3	44.26	8.914	
9,100.0	7,315.0	9,765.0	7,703.6	41.2	57.5	170.27	681.0	2,756.6	394.3	349.2	45.15	8.734	
9,200.0	7,315.0	9,866.6	7,702.6	41.4	58.1	170.56	782.7	2,754.4	393.0	346.7	46.33	8.483	
9,300.0	7,315.0	9,968.3	7,701.4	41.6	58.6	170.81	884.3	2,752.4	391.5	344.0	47.51	8.241	
9,400.0	7,315.0	10,066.5	7,699.4	41.9	59.3	170.93	982.5	2,751.3	389.3	340.7	48.58	8.014	
9,500.0	7,315.0	10,160.9	7,699.4	42.2	59.9	171.09	1,076.9	2,750.2	389.1	339.4	49.68	7.832	
9,520.7	7,315.0	10,182.2	7,699.4	42.3	60.1	171.15	1,098.2	2,749.8	389.1	339.1	49.94	7.792	
9,600.0	7,315.0	10,264.5	7,699.2	42.6	60.7	171.37	1,180.4	2,748.3	388.7	337.8	50.92	7.634	
9,621.8	7,315.0	10,287.2	7,699.0	42.7	60.9	171.37	1,203.2	2,748.2	388.5	337.3	51.15	7.594	
9,700.0	7,315.0	10,359.8	7,698.5	43.0	61.4	171.26	1,275.7	2,748.9	388.1	336.2	51.87	7.481	
9,704.4	7,315.0	10,363.8	7,698.5	43.0	61.5	171.25	1,279.8	2,749.0	388.1	336.2	51.91	7.475	
9,800.0	7,315.0	10,462.6	7,698.7	43.5	62.3	171.01	1,378.5	2,750.6	388.5	335.7	52.78	7.360	
9,847.5	7,315.0	10,508.6	7,698.4	43.7	62.7	170.92	1,424.5	2,751.2	388.3	335.1	53.23	7.294	
9,900.0	7,315.0	10,557.2	7,698.5	44.0	63.2	170.83	1,473.1	2,751.8	388.5	334.8	53.74	7.230	
9,904.4	7,315.0	10,561.3	7,698.6	44.0	63.2	170.83	1,477.2	2,751.9	388.6	334.8	53.79	7.225	
10,000.0	7,315.0	10,663.8	7,698.4	44.6	64.2	170.52	1,579.7	2,754.0	388.8	334.1	54.63	7.116	
10,036.1	7,315.0	10,697.2	7,698.1	44.8	64.5	170.38	1,613.1	2,754.9	388.6	333.7	54.94	7.073	
10,100.0	7,315.0	10,757.9	7,698.2	45.2	65.2	170.12	1,673.8	2,756.6	389.0	333.5	55.51	7.008	
10,120.8	7,315.0	10,780.4	7,698.2	45.4	65.4	170.04	1,696.2	2,757.2	389.1	333.4	55.68	6.989	
10,200.0	7,315.0	10,862.3	7,697.7	45.9	66.2	169.77	1,778.1	2,759.0	388.9	332.6	56.40	6.897	
10,224.0	7,315.0	10,885.2	7,697.7	46.1	66.5	169.73	1,801.0	2,759.2	388.9	332.3	56.65	6.865	
10,300.0	7,315.0	10,959.5	7,697.9	46.6	67.2	169.73	1,875.3	2,759.3	389.2	331.7	57.51	6.767	
10,304.4	7,315.0	10,964.0	7,697.9	46.7	67.3	169.73	1,879.8	2,759.3	389.2	331.6	57.56	6.761	
10,400.0	7,315.0	11,063.9	7,698.1	47.4	68.4	169.79	1,979.8	2,758.9	389.3	330.6	58.66	6.636	
10,421.0	7,315.0	11,086.7	7,697.9	47.6	68.6	169.81	2,002.6	2,758.7	389.1	330.2	58.91	6.605	
10,500.0	7,315.0	11,166.6	7,696.9	48.2	69.5	169.93	2,082.4	2,757.7	387.9	328.1	59.88	6.479	
10,570.5	7,315.0	11,232.5	7,696.5	48.8	70.2	170.19	2,148.3	2,755.8	387.2	326.4	60.85	6.363	
10,600.0	7,315.0	11,258.9	7,696.7	49.1	70.5	170.33	2,174.7	2,754.9	387.3	326.0	61.28	6.319	
10,604.4	7,315.0	11,262.9	7,696.8	49.1	70.5	170.35	2,178.7	2,754.8	387.3	325.9	61.35	6.313	

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

Amazon.com

Anticollision Report

Company:	APEX	Local Co-ordinate Reference:	Well *Brighton Lakes 20-17-2NAH
Project:	POCO Brighton Lakes Expansion	TVD Reference:	RKB @ 5063.0usft
Reference Site:	Sec 20-T1S-R66W	MD Reference:	RKB @ 5063.0usft
Site Error:	0.0 usft	North Reference:	Grid
Reference Well:	*Brighton Lakes 20-17-2NAH	Survey Calculation Method:	Minimum Curvature
Well Error:	0.0 usft	Output errors are at	2.00 sigma
Reference Wellbore	Original Hole	Database:	WC365
Reference Design:	Plan #1	Offset TVD Reference:	Offset Datum

Offset Design: Sec 20-T1S-R66W - 20-17-2CDH - Original Hole - Final Survey													Offset Site Error: 0.0 usft
Survey Program: 135-MWD													Offset Well Error: 0.0 usft
Reference		Offset		Semi Major Axis		Highside Toolface (°)	Offset Wellbore Centre		Distance		Minimum Separation (usft)	Separation Factor	Warning
Measured Depth (usft)	Vertical Depth (usft)	Measured Depth (usft)	Vertical Depth (usft)	Reference (usft)	Offset (usft)		+N/-S (usft)	+E/-W (usft)	Between Centres (usft)	Between Ellipses (usft)			
10,700.0	7,315.0	11,362.7	7,698.0	50.0	71.7	170.84	2,278.4	2,751.6	387.9	325.2	62.71	6.187	
10,800.0	7,315.0	11,466.7	7,697.1	50.9	72.9	170.95	2,382.3	2,750.7	387.0	323.0	63.91	6.054	
10,900.0	7,315.0	11,569.3	7,695.1	51.9	74.2	170.99	2,485.0	2,750.2	385.0	319.9	65.09	5.915	
11,000.0	7,315.0	11,661.4	7,694.2	52.9	75.3	171.01	2,577.1	2,749.9	384.0	317.7	66.28	5.793	
11,004.4	7,315.0	11,665.6	7,694.2	53.0	75.3	171.00	2,581.2	2,749.9	384.0	317.6	66.33	5.789	
11,100.0	7,315.0	11,757.0	7,694.8	54.0	76.5	170.85	2,672.7	2,751.0	384.8	317.4	67.40	5.709	
11,104.4	7,315.0	11,761.7	7,694.9	54.0	76.6	170.84	2,677.4	2,751.1	384.8	317.4	67.45	5.706	
11,200.0	7,315.0	11,858.0	7,695.4	55.0	77.8	170.80	2,773.6	2,751.5	385.4	316.9	68.54	5.623	
11,204.4	7,315.0	11,862.1	7,695.4	55.1	77.8	170.79	2,777.8	2,751.5	385.4	316.8	68.60	5.619	
11,300.0	7,315.0	11,955.1	7,696.8	56.1	79.1	170.64	2,870.7	2,752.7	387.0	317.3	69.69	5.553	
11,304.4	7,315.0	11,959.8	7,696.8	56.2	79.1	170.64	2,875.4	2,752.8	387.1	317.3	69.73	5.551	
11,400.0	7,315.0	12,059.0	7,697.8	57.2	80.4	170.53	2,974.6	2,753.6	388.1	317.3	70.80	5.482	
11,404.4	7,315.0	12,063.6	7,697.8	57.3	80.5	170.53	2,979.2	2,753.7	388.1	317.3	70.85	5.478	
11,500.0	7,315.0	12,162.2	7,697.9	58.3	81.8	170.48	3,077.9	2,754.0	388.3	316.3	71.95	5.397	
11,600.0	7,315.0	12,268.0	7,697.0	59.5	83.2	170.49	3,183.6	2,753.8	387.4	314.3	73.12	5.298	
11,700.0	7,315.0	12,363.0	7,695.9	60.6	84.5	170.42	3,278.6	2,754.1	386.3	312.0	74.33	5.198	
11,721.0	7,315.0	12,384.2	7,695.8	60.9	84.8	170.39	3,299.8	2,754.3	386.3	311.7	74.57	5.180	
11,800.0	7,315.0	12,465.5	7,694.9	61.8	86.0	170.31	3,381.1	2,754.7	385.5	310.0	75.47	5.107	
11,841.3	7,315.0	12,502.7	7,694.7	62.3	86.5	170.28	3,418.3	2,754.9	385.2	309.2	76.00	5.069	
11,900.0	7,315.0	12,557.4	7,695.0	63.0	87.2	170.23	3,473.0	2,755.2	385.7	308.9	76.75	5.025	
11,904.4	7,315.0	12,561.9	7,695.1	63.1	87.3	170.23	3,477.5	2,755.3	385.7	308.9	76.80	5.022	
12,000.0	7,315.0	12,660.0	7,695.7	64.2	88.7	170.13	3,575.6	2,756.0	386.4	308.5	77.91	4.960	
12,021.0	7,315.0	12,682.0	7,695.7	64.5	89.0	170.11	3,597.6	2,756.2	386.5	308.3	78.15	4.945	
12,100.0	7,315.0	12,762.0	7,695.5	65.4	90.1	170.09	3,677.5	2,756.3	386.3	307.2	79.10	4.884	
12,121.0	7,315.0	12,782.6	7,695.5	65.7	90.4	170.10	3,698.1	2,756.2	386.3	306.9	79.37	4.867	
12,200.0	7,315.0	12,863.4	7,695.5	66.7	91.6	170.16	3,779.0	2,755.8	386.2	305.9	80.34	4.807	
12,269.4	7,315.0	12,930.3	7,695.1	67.5	92.5	170.14	3,845.9	2,755.9	385.8	304.6	81.23	4.750	
12,300.0	7,315.0	12,957.2	7,695.2	67.9	92.9	170.13	3,872.7	2,755.9	386.0	304.3	81.65	4.727	
12,304.4	7,315.0	12,961.1	7,695.3	68.0	93.0	170.13	3,876.7	2,755.9	386.0	304.3	81.71	4.724	
12,400.0	7,315.0	13,051.2	7,697.3	69.2	94.3	170.19	3,966.7	2,755.9	388.1	305.2	82.99	4.677	
12,404.4	7,315.0	13,055.5	7,697.4	69.2	94.3	170.19	3,971.1	2,755.9	388.3	305.2	83.04	4.675	
12,500.0	7,315.0	13,155.2	7,700.0	70.4	95.8	170.42	4,070.7	2,754.8	390.5	306.3	84.23	4.636	
12,504.4	7,315.0	13,159.9	7,700.1	70.5	95.9	170.43	4,075.4	2,754.7	390.6	306.3	84.29	4.634	
12,600.0	7,315.0	13,251.2	7,702.0	71.7	97.2	170.60	4,166.6	2,753.8	392.5	306.9	85.56	4.587	
12,604.4	7,315.0	13,255.4	7,702.2	71.8	97.2	170.60	4,170.8	2,753.9	392.6	307.0	85.62	4.585	
12,700.0	7,315.0	13,357.8	7,704.0	73.0	98.8	170.52	4,273.2	2,754.7	394.4	307.7	86.71	4.548	
12,720.5	7,315.0	13,380.0	7,704.1	73.2	99.1	170.49	4,295.5	2,755.0	394.5	307.6	86.94	4.538	
12,800.0	7,315.0	13,465.0	7,703.7	74.3	100.4	170.34	4,380.5	2,755.9	394.3	306.5	87.84	4.489	
12,900.0	7,315.0	13,569.0	7,702.2	75.5	101.9	170.25	4,484.4	2,756.3	392.9	303.9	89.01	4.414	
13,000.0	7,315.0	13,664.2	7,700.3	76.8	103.4	170.12	4,579.6	2,756.9	391.1	300.8	90.30	4.331	
13,021.5	7,315.0	13,683.1	7,700.2	77.1	103.6	170.08	4,598.5	2,757.1	391.1	300.5	90.61	4.316	
13,100.0	7,315.0	13,759.5	7,700.5	78.1	104.8	169.98	4,674.9	2,757.9	391.5	299.9	91.61	4.274	
13,104.4	7,315.0	13,764.1	7,700.5	78.2	104.9	169.97	4,679.5	2,757.9	391.5	299.9	91.66	4.271	
13,200.0	7,315.0	13,862.6	7,700.7	79.5	106.4	169.99	4,778.0	2,757.8	391.7	298.9	92.83	4.219	
13,300.0	7,315.0	13,969.0	7,699.7	80.8	108.0	170.03	4,884.4	2,757.3	390.7	296.7	94.01	4.156	
13,400.0	7,315.0	14,062.0	7,699.2	82.1	109.4	169.98	4,977.4	2,757.6	390.2	294.8	95.37	4.091	
13,420.8	7,315.0	14,079.8	7,699.3	82.4	109.7	169.95	4,995.2	2,757.8	390.4	294.7	95.68	4.080	
13,500.0	7,315.0	14,165.5	7,698.6	83.4	111.0	169.72	5,080.9	2,759.3	389.9	293.4	96.58	4.038	
13,542.1	7,315.0	14,203.7	7,698.3	84.0	111.6	169.62	5,119.1	2,759.9	389.7	292.6	97.17	4.011	
13,600.0	7,315.0	14,258.5	7,698.6	84.7	112.4	169.55	5,173.9	2,760.4	390.1	292.1	97.97	3.982	
13,604.4	7,315.0	14,263.1	7,698.6	84.8	112.5	169.55	5,178.5	2,760.5	390.1	292.1	98.02	3.980	
13,700.0	7,315.0	14,362.7	7,698.8	86.1	114.1	169.52	5,278.0	2,760.7	390.4	291.2	99.18	3.936	

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

Amazon.com

Anticollision Report

Company:	APEX	Local Co-ordinate Reference:	Well *Brighton Lakes 20-17-2NAH
Project:	POCO Brighton Lakes Expansion	TVD Reference:	RKB @ 5063.0usft
Reference Site:	Sec 20-T1S-R66W	MD Reference:	RKB @ 5063.0usft
Site Error:	0.0 usft	North Reference:	Grid
Reference Well:	*Brighton Lakes 20-17-2NAH	Survey Calculation Method:	Minimum Curvature
Well Error:	0.0 usft	Output errors are at	2.00 sigma
Reference Wellbore	Original Hole	Database:	WC365
Reference Design:	Plan #1	Offset TVD Reference:	Offset Datum

Offset Design: Sec 20-T1S-R66W - 20-17-2CDH - Original Hole - Final Survey													Offset Site Error:	0.0 usft
Survey Program: 135-MWD													Offset Well Error:	0.0 usft
Measured Depth (usft)	Vertical Depth (usft)	Measured Depth (usft)	Vertical Depth (usft)	Reference (usft)	Semi Major Axis Offset (usft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (usft)	+E/-W (usft)	Distance Between Centres (usft)	Between Ellipses (usft)	Minimum Separation (usft)	Separation Factor	Warning	
13,720.8	7,315.0	14,384.5	7,698.8	86.4	114.4	169.53	5,299.9	2,760.6	390.3	290.9	99.43	3.925		
13,800.0	7,315.0	14,466.3	7,698.2	87.4	115.7	169.67	5,381.7	2,759.5	389.6	289.2	100.40	3.880		
13,821.5	7,315.0	14,488.4	7,698.0	87.7	116.0	169.72	5,403.7	2,759.1	389.3	288.6	100.66	3.867		
13,900.0	7,315.0	14,565.3	7,697.2	88.8	117.2	169.90	5,480.7	2,757.8	388.3	286.6	101.69	3.818		
14,000.0	7,315.0	14,668.5	7,696.4	90.1	118.8	170.09	5,583.8	2,756.3	387.2	284.3	102.92	3.763		
14,100.0	7,315.0	14,761.5	7,695.5	91.5	120.3	170.26	5,676.8	2,755.0	386.0	281.7	104.31	3.701		
14,104.4	7,315.0	14,765.5	7,695.5	91.5	120.3	170.27	5,680.8	2,754.9	386.0	281.7	104.37	3.699		
14,200.0	7,315.0	14,850.8	7,696.8	92.8	121.7	170.37	5,766.1	2,754.4	387.5	281.7	105.73	3.664		
14,204.4	7,315.0	14,854.8	7,696.9	92.9	121.7	170.37	5,770.1	2,754.5	387.6	281.8	105.80	3.663		
14,300.0	7,315.0	14,952.0	7,699.6	94.2	123.3	170.24	5,867.2	2,755.8	390.4	283.4	107.01	3.648		
14,304.4	7,315.0	14,956.6	7,699.7	94.2	123.3	170.23	5,871.9	2,755.9	390.5	283.4	107.06	3.647		
14,400.0	7,315.0	15,056.5	7,701.5	95.5	124.9	170.24	5,971.7	2,756.1	392.3	284.0	108.23	3.624		
14,404.4	7,315.0	15,060.9	7,701.6	95.6	125.0	170.25	5,976.1	2,756.1	392.3	284.0	108.28	3.623		
14,500.0	7,315.0	15,155.2	7,702.8	96.9	126.5	170.10	6,070.4	2,757.3	393.7	284.2	109.55	3.594		
14,504.4	7,315.0	15,159.5	7,702.8	96.9	126.6	170.09	6,074.7	2,757.4	393.8	284.2	109.61	3.593		
14,600.0	7,315.0	15,254.8	7,704.4	98.2	128.1	169.87	6,170.0	2,759.2	395.7	284.8	110.88	3.569		
14,604.4	7,315.0	15,259.6	7,704.5	98.3	128.2	169.86	6,174.7	2,759.3	395.7	284.8	110.93	3.568		
14,700.0	7,315.0	15,361.7	7,705.1	99.6	129.8	169.57	6,276.8	2,761.5	396.6	284.5	112.11	3.538		
14,720.6	7,315.0	15,383.9	7,704.9	99.9	130.1	169.48	6,299.0	2,762.0	396.6	284.2	112.36	3.530		
14,800.0	7,315.0	15,468.2	7,703.6	101.0	131.5	169.12	6,383.3	2,764.3	395.8	282.4	113.37	3.493		
14,900.0	7,315.0	15,572.8	7,700.9	102.3	133.2	168.79	6,487.8	2,766.1	393.6	278.9	114.66	3.431		
15,000.0	7,315.0	15,669.9	7,698.3	103.7	134.7	168.61	6,584.9	2,766.8	391.1	275.0	116.10	3.369		
15,100.0	7,315.0	15,763.0	7,697.1	105.1	136.2	168.57	6,678.0	2,766.9	389.8	272.2	117.61	3.315		
15,143.9	7,315.0	15,805.9	7,697.0	105.7	136.9	168.58	6,720.9	2,766.8	389.7	271.5	118.21	3.297		
15,200.0	7,315.0	15,859.7	7,697.2	106.5	137.8	168.61	6,774.7	2,766.6	389.9	270.9	118.99	3.277		
15,204.4	7,315.0	15,864.2	7,697.2	106.5	137.9	168.61	6,779.2	2,766.6	389.9	270.9	119.05	3.275		
15,300.0	7,315.0	15,961.5	7,697.7	107.9	139.4	168.66	6,876.5	2,766.3	390.3	270.1	120.25	3.246		
15,320.8	7,315.0	15,983.4	7,697.7	108.1	139.8	168.68	6,898.4	2,766.2	390.3	269.8	120.49	3.239		
15,400.0	7,315.0	16,065.6	7,697.5	109.2	141.1	168.85	6,980.6	2,765.0	389.8	268.4	121.39	3.211		
15,421.6	7,315.0	16,087.8	7,697.3	109.5	141.5	168.91	7,002.8	2,764.5	389.6	268.0	121.64	3.203		
15,500.0	7,315.0	16,163.0	7,696.9	110.6	142.7	169.18	7,077.9	2,762.6	388.9	266.2	122.65	3.171		
15,510.5	7,315.0	16,172.6	7,697.0	110.8	142.8	169.22	7,087.5	2,762.3	388.9	266.1	122.79	3.167		
15,600.0	7,315.0	16,260.2	7,698.0	112.0	144.3	169.61	7,175.1	2,759.8	389.4	265.5	123.85	3.144		
15,620.5	7,315.0	16,281.4	7,698.2	112.3	144.6	169.70	7,196.3	2,759.2	389.5	265.4	124.07	3.139		
15,700.0	7,315.0	16,365.9	7,698.3	113.4	146.0	170.00	7,280.8	2,757.2	389.3	264.4	124.91	3.116		
15,721.6	7,315.0	16,389.1	7,698.1	113.7	146.3	170.04	7,304.0	2,756.8	389.0	263.9	125.14	3.108		
15,800.0	7,315.0	16,463.1	7,697.6	114.8	147.5	170.10	7,377.9	2,756.3	388.4	262.2	126.22	3.077		
15,821.2	7,315.0	16,483.5	7,697.6	115.1	147.9	170.10	7,398.3	2,756.4	388.4	261.8	126.52	3.070		
15,900.0	7,315.0	16,562.6	7,697.4	116.2	149.2	170.00	7,477.5	2,757.0	388.3	260.7	127.57	3.044		
15,920.9	7,315.0	16,584.3	7,697.3	116.5	149.5	169.96	7,499.1	2,757.3	388.2	260.4	127.84	3.037		
16,000.0	7,315.0	16,665.9	7,696.7	117.6	150.9	169.94	7,580.8	2,757.3	387.6	258.8	128.83	3.009		
16,021.5	7,315.0	16,686.4	7,696.5	117.9	151.2	169.94	7,601.3	2,757.2	387.5	258.3	129.13	3.001		
16,100.0	7,315.0	16,762.9	7,696.2	119.0	152.4	169.89	7,677.8	2,757.6	387.3	257.0	130.22	2.974		
16,121.3	7,315.0	16,785.6	7,696.1	119.3	152.8	169.85	7,700.4	2,757.8	387.2	256.7	130.48	2.967		
16,200.0	7,315.0	16,863.5	7,695.2	120.4	154.1	169.68	7,778.3	2,758.8	386.5	254.9	131.61	2.937		
16,211.5	7,315.0	16,873.7	7,695.2	120.5	154.3	169.66	7,788.5	2,758.9	386.4	254.7	131.79	2.932		
16,300.0	7,315.0	16,955.9	7,696.0	121.7	155.6	169.59	7,870.8	2,759.5	387.5	254.3	133.12	2.911		
16,304.4	7,315.0	16,960.4	7,696.1	121.8	155.7	169.59	7,875.3	2,759.5	387.5	254.4	133.17	2.910		
16,400.0	7,315.0	17,056.3	7,697.6	123.1	157.3	169.70	7,971.1	2,759.1	388.9	254.6	134.36	2.895		
16,404.4	7,315.0	17,060.7	7,697.7	123.2	157.3	169.70	7,975.5	2,759.1	389.0	254.6	134.42	2.894		
16,500.0	7,315.0	17,158.9	7,699.0	124.5	158.9	169.64	8,073.7	2,759.7	390.3	254.7	135.66	2.877		
16,504.4	7,315.0	17,163.6	7,699.0	124.6	159.0	169.64	8,078.4	2,759.7	390.4	254.7	135.71	2.877		

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

Amazon.com

Anticollision Report

Company:	APEX	Local Co-ordinate Reference:	Well *Brighton Lakes 20-17-2NAH
Project:	POCO Brighton Lakes Expansion	TVD Reference:	RKB @ 5063.0usft
Reference Site:	Sec 20-T1S-R66W	MD Reference:	RKB @ 5063.0usft
Site Error:	0.0 usft	North Reference:	Grid
Reference Well:	*Brighton Lakes 20-17-2NAH	Survey Calculation Method:	Minimum Curvature
Well Error:	0.0 usft	Output errors are at	2.00 sigma
Reference Wellbore	Original Hole	Database:	WC365
Reference Design:	Plan #1	Offset TVD Reference:	Offset Datum

Offset Design: Sec 20-T1S-R66W - 20-17-2CDH - Original Hole - Final Survey													Offset Site Error: 0.0 usft
Survey Program: 135-MWD													Offset Well Error: 0.0 usft
Reference		Offset		Semi Major Axis		Highside Toolface (°)	Offset Wellbore Centre		Distance		Minimum Separation (usft)	Separation Factor	Warning
Measured Depth (usft)	Vertical Depth (usft)	Measured Depth (usft)	Vertical Depth (usft)	Reference (usft)	Offset (usft)		+N/-S (usft)	+E/-W (usft)	Between Centres (usft)	Between Ellipses (usft)			
16,600.0	7,315.0	17,264.0	7,699.2	125.9	160.7	169.72	8,178.8	2,759.2	390.5	253.7	136.82	2.854	
16,669.4	7,315.0	17,331.6	7,699.1	126.9	161.8	169.82	8,246.4	2,758.5	390.2	252.5	137.72	2.833	
16,700.0	7,315.0	17,360.7	7,699.1	127.3	162.3	169.82	8,275.5	2,758.5	390.3	252.1	138.15	2.825	
16,704.4	7,315.0	17,364.9	7,699.1	127.4	162.3	169.81	8,279.7	2,758.6	390.3	252.1	138.22	2.824	
16,800.0	7,315.0	17,462.5	7,699.3	128.7	163.9	169.77	8,377.3	2,758.9	390.5	251.1	139.45	2.800	
16,825.2	7,315.0	17,487.4	7,699.3	129.1	164.4	169.77	8,402.2	2,758.9	390.5	250.7	139.79	2.793	
16,900.0	7,315.0	17,561.6	7,699.4	130.1	165.6	169.79	8,476.3	2,758.8	390.6	249.8	140.78	2.775	
16,904.4	7,315.0	17,566.1	7,699.4	130.2	165.7	169.79	8,480.9	2,758.8	390.6	249.8	140.83	2.773	
17,000.0	7,315.0	17,660.2	7,699.5	131.6	167.2	169.80	8,575.0	2,758.7	390.7	248.6	142.11	2.749	
17,004.4	7,315.0	17,664.3	7,699.5	131.6	167.3	169.80	8,579.1	2,758.7	390.7	248.5	142.17	2.748	
17,100.0	7,315.0	17,754.6	7,700.8	133.0	168.8	169.70	8,669.3	2,759.6	392.2	248.7	143.59	2.732	
17,104.4	7,315.0	17,759.3	7,700.9	133.0	168.8	169.69	8,674.0	2,759.7	392.3	248.7	143.65	2.731	
17,200.0	7,315.0	17,859.5	7,702.0	134.4	170.5	169.60	8,774.3	2,760.5	393.5	248.6	144.88	2.716	
17,220.6	7,315.0	17,880.9	7,702.2	134.7	170.9	169.60	8,795.7	2,760.6	393.6	248.5	145.14	2.712	
17,300.0	7,315.0	17,965.8	7,702.1	135.8	172.3	169.63	8,880.5	2,760.3	393.5	247.5	146.05	2.695	
17,321.7	7,315.0	17,989.2	7,701.9	136.1	172.7	169.65	8,903.9	2,760.1	393.3	247.0	146.28	2.689	
17,400.0	7,315.0	18,061.9	7,701.4	137.2	173.9	169.69	8,976.7	2,759.7	392.7	245.3	147.41	2.664	
17,404.4	7,315.0	18,066.0	7,701.4	137.2	173.9	169.69	8,980.7	2,759.7	392.7	245.2	147.47	2.663	
17,500.0	7,315.0	18,160.0	7,701.9	138.6	175.5	169.70	9,074.7	2,759.8	393.2	244.5	148.76	2.643	
17,504.4	7,315.0	18,164.5	7,701.9	138.6	175.6	169.70	9,079.2	2,759.8	393.3	244.4	148.82	2.643	
17,600.0	7,315.0	18,260.9	7,702.6	140.0	177.2	169.95	9,175.7	2,758.2	393.7	243.8	149.88	2.627	
17,620.8	7,315.0	18,282.5	7,702.8	140.3	177.5	170.04	9,197.2	2,757.5	393.7	243.7	150.07	2.624	
17,700.0	7,315.0	18,364.7	7,703.1	141.4	178.9	170.48	9,279.4	2,754.5	393.5	242.8	150.75	2.610	
17,769.4	7,315.0	18,430.0	7,703.1	142.4	180.0	170.87	9,344.6	2,751.8	393.1	241.6	151.48	2.595 ES	
17,800.0	7,315.0	18,430.0	7,703.1	142.8	180.0	170.87	9,344.6	2,751.8	394.4	242.4	152.06	2.594 SF	
17,804.4	7,315.0	18,430.0	7,703.1	142.9	180.0	170.87	9,344.6	2,751.8	394.8	242.7	152.10	2.596	
17,900.0	7,315.0	18,430.0	7,703.1	144.2	180.0	170.87	9,344.6	2,751.8	414.8	264.2	150.56	2.755	
17,904.4	7,315.0	18,430.0	7,703.1	144.3	180.0	170.87	9,344.6	2,751.8	416.2	265.9	150.39	2.768	
18,000.0	7,315.0	18,430.0	7,703.1	145.6	180.0	170.87	9,344.6	2,751.8	456.7	311.3	145.40	3.141	
18,001.5	7,315.0	18,430.0	7,703.1	145.7	180.0	170.87	9,344.6	2,751.8	457.4	312.1	145.31	3.148	
18,032.3	7,315.0	18,430.0	7,703.1	146.1	180.0	170.87	9,344.6	2,751.8	473.9	330.6	143.37	3.306	

Amazon.com

Anticollision Report

Company:	APEX	Local Co-ordinate Reference:	Well *Brighton Lakes 20-17-2NAH
Project:	POCO Brighton Lakes Expansion	TVD Reference:	RKB @ 5063.0usft
Reference Site:	Sec 20-T1S-R66W	MD Reference:	RKB @ 5063.0usft
Site Error:	0.0 usft	North Reference:	Grid
Reference Well:	*Brighton Lakes 20-17-2NAH	Survey Calculation Method:	Minimum Curvature
Well Error:	0.0 usft	Output errors are at	2.00 sigma
Reference Wellbore	Original Hole	Database:	WC365
Reference Design:	Plan #1	Offset TVD Reference:	Offset Datum

Offset Design: Sec 20-T1S-R66W - 20-17-2NBH (3CDH) - Original Hole - Final Surveys													Offset Site Error:	0.0 usft
Survey Program: 135-MWD													Offset Well Error:	0.0 usft
Measured Depth (usft)	Vertical Depth (usft)	Measured Depth (usft)	Vertical Depth (usft)	Reference (usft)	Semi Major Axis Offset (usft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (usft)	+E/-W (usft)	Distance Between Centres (usft)	Between Ellipses (usft)	Minimum Separation (usft)	Separation Factor	Warning	
0.0	0.0	0.0	0.0	0.0	0.0	-168.35	-426.4	-87.9	435.4					
100.0	100.0	100.9	100.9	1.0	0.8	-168.32	-426.2	-88.1	435.2	433.5	1.77	246.163		
200.0	200.0	201.9	201.9	1.6	1.4	-168.26	-425.8	-88.5	434.9	432.0	2.94	147.884		
300.0	300.0	306.1	306.1	2.0	1.8	-168.17	-424.8	-89.0	434.1	430.3	3.79	114.509		
400.0	400.0	401.5	401.5	2.3	2.2	-168.02	-423.8	-89.9	433.2	428.7	4.46	97.053		
500.0	500.0	500.3	500.3	2.6	2.5	-167.94	-423.5	-90.4	433.0	428.0	5.06	85.537		
600.0	600.0	600.7	600.7	2.9	2.8	-168.04	-423.5	-89.7	432.9	427.2	5.66	76.478		
700.0	700.0	700.7	700.7	3.2	3.0	-168.19	-423.6	-88.6	432.8	426.7	6.13	70.651		
800.0	800.0	801.2	801.2	3.4	3.2	-168.35	-423.6	-87.4	432.6	426.0	6.56	65.893		
900.0	900.0	900.8	900.7	3.6	3.4	-168.50	-423.6	-86.2	432.3	425.3	6.98	61.941		
957.1	957.1	957.1	957.1	3.7	3.5	-168.59	-423.7	-85.5	432.3	425.0	7.20	60.025		
1,000.0	1,000.0	999.4	999.4	3.8	3.5	-168.67	-423.9	-84.9	432.3	424.9	7.37	58.689		
1,100.0	1,100.0	1,100.9	1,100.8	4.0	3.7	-168.91	-424.2	-83.2	432.2	424.5	7.74	55.849		
1,121.7	1,121.7	1,121.8	1,121.7	4.1	3.8	-168.97	-424.2	-82.7	432.2	424.4	7.82	55.298 CC		
1,200.0	1,200.0	1,197.9	1,197.8	4.2	3.9	-169.30	-424.9	-80.3	432.5	424.4	8.09	53.440		
1,300.0	1,300.0	1,297.9	1,297.6	4.4	4.3	-170.11	-426.5	-74.3	433.0	424.5	8.43	51.342		
1,400.0	1,400.0	1,394.7	1,393.7	4.9	4.7	82.46	-429.1	-63.8	433.5	424.7	8.77	49.427		
1,500.0	1,499.6	1,489.0	1,486.9	5.3	5.1	81.50	-433.2	-49.9	434.6	425.5	9.10	47.758		
1,600.0	1,598.8	1,585.6	1,581.7	5.7	5.5	80.66	-438.9	-32.1	436.1	426.6	9.47	46.073		
1,700.0	1,697.1	1,683.8	1,676.7	6.0	6.1	79.74	-445.8	-8.5	437.3	427.4	9.89	44.205		
1,800.0	1,794.3	1,775.1	1,763.7	6.4	6.5	78.81	-453.6	18.4	438.6	428.2	10.38	42.259		
1,900.0	1,890.2	1,872.5	1,855.1	6.7	6.9	77.99	-463.7	50.3	440.6	429.7	10.97	40.178		
2,000.0	1,984.4	1,972.6	1,949.0	7.0	7.3	77.82	-474.3	83.3	441.7	430.1	11.68	37.835		
2,100.0	2,076.8	2,074.3	2,044.5	7.3	7.7	78.39	-484.7	116.6	441.5	429.0	12.46	35.441		
2,191.6	2,159.6	2,167.0	2,131.8	7.5	8.1	79.60	-493.8	146.6	440.1	426.9	13.23	33.266		
2,200.0	2,167.1	2,175.5	2,139.8	7.5	8.2	79.74	-494.6	149.3	439.9	426.6	13.30	33.085		
2,300.0	2,256.4	2,276.2	2,234.7	7.7	8.6	81.37	-504.1	181.6	437.9	423.6	14.29	30.638		
2,387.3	2,334.3	2,355.3	2,309.2	7.8	8.9	82.66	-511.9	206.9	436.8	421.7	15.11	28.902		
2,400.0	2,345.7	2,366.5	2,319.8	7.9	9.0	82.84	-513.2	210.5	436.9	421.6	15.23	28.679		
2,500.0	2,435.0	2,465.2	2,412.4	8.0	9.4	84.34	-524.7	242.5	437.7	421.4	16.27	26.898		
2,600.0	2,524.3	2,566.9	2,508.2	8.4	9.9	86.01	-536.0	274.8	438.4	421.0	17.36	25.255		
2,700.0	2,613.6	2,666.4	2,602.4	9.0	10.4	87.82	-546.2	305.2	439.0	420.5	18.45	23.790 ES		
2,800.0	2,702.9	2,758.2	2,689.3	9.5	10.8	89.47	-556.8	333.0	441.1	421.6	19.52	22.594		
2,900.0	2,792.2	2,857.7	2,783.7	10.1	11.3	91.37	-568.1	362.1	444.0	423.3	20.65	21.498		
3,000.0	2,881.5	2,953.1	2,873.9	10.7	11.8	93.03	-580.2	390.7	448.2	426.4	21.79	20.574		
3,100.0	2,970.8	3,057.7	2,972.1	11.3	12.3	94.57	-593.6	424.0	452.4	429.4	23.02	19.650		
3,200.0	3,060.1	3,161.5	3,069.9	11.9	12.9	96.17	-605.3	456.8	455.5	431.3	24.25	18.783		
3,300.0	3,149.4	3,264.0	3,166.0	12.5	13.4	97.58	-616.9	490.5	458.5	433.0	25.48	17.996		
3,400.0	3,238.7	3,364.5	3,260.5	13.1	14.0	99.02	-627.2	523.4	460.9	434.2	26.71	17.258		
3,500.0	3,328.0	3,466.7	3,356.2	13.7	14.5	100.38	-637.9	557.4	463.4	435.5	27.94	16.586		
3,600.0	3,417.3	3,559.7	3,443.5	14.3	15.1	101.65	-647.5	588.0	466.3	437.2	29.13	16.009		
3,700.0	3,506.6	3,661.7	3,539.0	15.0	15.7	102.92	-659.1	621.9	470.2	439.8	30.37	15.482		
3,800.0	3,595.9	3,750.0	3,621.7	15.6	16.2	103.99	-669.8	651.0	475.1	443.5	31.53	15.067		
3,900.0	3,685.1	3,848.1	3,713.4	16.2	16.8	105.06	-683.2	683.4	481.4	448.7	32.74	14.703		
4,000.0	3,774.4	3,947.6	3,806.8	16.8	17.4	106.29	-696.0	715.1	487.9	453.9	33.94	14.374		
4,100.0	3,863.7	4,041.5	3,894.8	17.5	18.0	107.35	-708.9	745.0	495.3	460.2	35.08	14.117		
4,200.0	3,953.0	4,139.7	3,987.3	18.1	18.6	108.54	-722.4	775.3	503.5	467.2	36.24	13.890		
4,300.0	4,042.3	4,240.6	4,082.0	18.8	19.2	109.65	-736.6	806.9	511.9	474.4	37.43	13.676		
4,400.0	4,131.6	4,342.4	4,177.2	19.4	19.8	110.60	-751.1	840.0	519.8	481.2	38.64	13.454		
4,500.0	4,220.9	4,442.2	4,270.5	20.1	20.5	111.51	-765.1	872.6	527.7	487.9	39.82	13.250		
4,600.0	4,310.2	4,549.6	4,370.8	20.7	21.1	112.46	-779.7	908.1	535.1	494.0	41.07	13.029		
4,700.0	4,399.5	4,646.0	4,460.8	21.3	21.8	113.31	-792.2	940.1	542.0	499.8	42.22	12.837		

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

Amazon.com

Anticollision Report

Company:	APEX	Local Co-ordinate Reference:	Well *Brighton Lakes 20-17-2NAH
Project:	POCO Brighton Lakes Expansion	TVD Reference:	RKB @ 5063.0usft
Reference Site:	Sec 20-T1S-R66W	MD Reference:	RKB @ 5063.0usft
Site Error:	0.0 usft	North Reference:	Grid
Reference Well:	*Brighton Lakes 20-17-2NAH	Survey Calculation Method:	Minimum Curvature
Well Error:	0.0 usft	Output errors are at	2.00 sigma
Reference Wellbore	Original Hole	Database:	WC365
Reference Design:	Plan #1	Offset TVD Reference:	Offset Datum

Offset Design: Sec 20-T1S-R66W - 20-17-2NBH (3CDH) - Original Hole - Final Surveys												Offset Site Error:	0.0 usft
Survey Program: 135-MWD												Offset Well Error:	0.0 usft
Reference		Offset		Semi Major Axis		Highside Toolface (°)	Offset Wellbore Centre		Distance		Minimum Separation (usft)	Separation Factor	Warning
Measured Depth (usft)	Vertical Depth (usft)	Measured Depth (usft)	Vertical Depth (usft)	Reference (usft)	Offset (usft)		+N/-S (usft)	+E/-W (usft)	Between Centres (usft)	Between Ellipses (usft)			
4,800.0	4,488.8	4,751.3	4,559.4	22.0	22.4	114.27	-805.3	974.9	548.8	505.3	43.42	12.638	
4,900.0	4,578.1	4,847.6	4,649.6	22.6	23.0	115.21	-816.6	1,006.3	555.4	510.8	44.53	12.473	
5,000.0	4,667.4	4,945.9	4,742.6	23.3	23.6	116.36	-827.2	1,036.7	562.8	517.2	45.59	12.344	
5,100.0	4,756.7	5,050.3	4,841.2	23.9	24.2	117.58	-837.6	1,069.1	569.7	523.0	46.66	12.208	
5,200.0	4,846.0	5,152.6	4,937.5	24.6	24.9	118.63	-848.2	1,102.1	576.2	528.4	47.75	12.067	
5,300.0	4,935.3	5,254.8	5,033.4	25.2	25.5	119.61	-858.8	1,135.8	582.3	533.5	48.84	11.924	
5,400.0	5,024.6	5,356.2	5,128.6	25.9	26.1	120.59	-868.7	1,169.3	588.2	538.3	49.90	11.787	
5,500.0	5,113.9	5,453.1	5,219.2	26.6	26.8	121.42	-878.9	1,201.9	594.3	543.3	50.96	11.662	
5,600.0	5,203.2	5,546.5	5,307.2	27.2	27.3	122.32	-888.2	1,232.0	601.3	549.3	51.95	11.575	
5,700.0	5,292.5	5,644.2	5,399.2	27.9	27.9	123.22	-898.6	1,263.3	608.9	556.0	52.94	11.501	
5,800.0	5,381.8	5,739.4	5,489.0	28.5	28.5	124.09	-908.9	1,293.2	617.4	563.5	53.91	11.452	
5,900.0	5,471.1	5,846.1	5,589.5	29.2	29.2	125.05	-920.3	1,327.0	625.7	570.8	54.94	11.388	
6,000.0	5,560.4	5,948.6	5,685.7	29.8	29.8	125.86	-931.0	1,360.9	632.8	576.9	55.96	11.308	
6,100.0	5,649.7	6,038.6	5,770.5	30.5	30.4	126.64	-940.0	1,389.7	640.8	583.9	56.87	11.267	
6,200.0	5,739.0	6,136.3	5,862.9	31.2	31.0	127.54	-950.1	1,419.5	650.2	592.4	57.78	11.253	
6,300.0	5,828.3	6,236.4	5,957.8	31.8	31.5	128.48	-959.6	1,450.2	659.3	600.6	58.68	11.236	
6,400.0	5,917.6	6,336.8	6,052.4	32.5	32.2	129.26	-970.5	1,481.8	668.5	608.9	59.63	11.212	
6,500.0	6,006.9	6,434.1	6,144.0	33.1	32.8	129.93	-981.6	1,512.8	677.9	617.3	60.57	11.192	
6,600.0	6,096.2	6,528.0	6,232.5	33.8	33.3	130.61	-991.9	1,542.3	687.5	626.0	61.46	11.187	
6,700.0	6,185.5	6,617.0	6,316.7	34.4	33.9	131.24	-1,002.4	1,569.3	698.6	636.3	62.29	11.215	
6,800.0	6,274.8	6,717.5	6,412.0	35.1	34.5	131.94	-1,014.6	1,598.9	710.7	647.5	63.20	11.247	
6,900.0	6,364.1	6,829.9	6,518.0	35.8	35.1	132.61	-1,028.7	1,633.1	722.3	658.1	64.25	11.243	
7,000.0	6,453.4	6,943.5	6,623.3	36.4	35.9	132.93	-1,044.6	1,672.9	730.4	665.0	65.45	11.160	
7,100.0	6,542.7	7,045.6	6,718.3	37.1	36.6	133.31	-1,057.9	1,708.0	738.7	672.2	66.51	11.107	
7,200.0	6,632.0	7,138.1	6,804.6	37.7	37.2	133.76	-1,068.5	1,739.2	746.9	679.4	67.44	11.074	
7,300.0	6,721.3	7,225.4	6,886.9	38.4	37.8	134.31	-1,077.7	1,767.0	756.5	688.3	68.26	11.084	
7,314.2	6,734.0	7,237.7	6,898.6	38.5	37.8	134.40	-1,078.9	1,770.7	758.1	689.7	68.36	11.089	
7,350.0	6,766.1	7,352.8	7,007.9	38.7	38.6	142.94	-1,080.1	1,806.0	761.2	692.5	68.64	11.089	
7,400.0	6,811.1	7,457.1	7,104.9	39.1	39.2	155.21	-1,060.8	1,838.7	761.1	692.9	68.14	11.169	
7,402.2	6,813.1	7,459.2	7,106.8	39.1	39.2	155.72	-1,060.3	1,839.3	761.1	693.0	68.15	11.168	
7,450.0	6,856.0	7,503.4	7,147.6	39.4	39.3	166.27	-1,048.9	1,852.3	762.8	694.5	68.23	11.179	
7,500.0	6,900.4	7,582.5	7,219.6	39.6	39.6	176.91	-1,025.8	1,875.2	765.9	698.2	67.77	11.302	
7,550.0	6,944.1	7,671.7	7,298.6	39.9	39.9	-173.76	-994.5	1,902.4	768.5	701.5	67.00	11.470	
7,552.2	6,946.1	7,675.7	7,302.0	39.9	39.9	-173.37	-992.9	1,903.7	768.6	701.7	66.96	11.478	
7,600.0	6,986.7	7,825.3	7,423.8	40.1	40.5	-164.75	-920.3	1,949.0	769.9	705.5	64.33	11.967	
7,650.0	7,027.9	7,950.4	7,508.7	40.3	40.9	-156.70	-836.7	1,985.7	765.4	703.4	62.08	12.329	
7,700.0	7,067.3	8,030.5	7,554.9	40.5	41.1	-150.52	-774.8	2,006.8	759.9	698.6	61.27	12.401	
7,750.0	7,104.7	8,098.3	7,587.8	40.6	41.2	-145.33	-717.4	2,021.7	754.2	693.3	60.95	12.375	
7,800.0	7,139.7	8,144.0	7,607.6	40.8	41.3	-141.43	-677.2	2,030.5	749.3	688.1	61.27	12.231	
7,850.0	7,172.2	8,186.8	7,624.7	40.9	41.3	-138.10	-638.6	2,037.3	746.2	684.5	61.66	12.103	
7,861.9	7,179.5	8,194.9	7,627.8	40.9	41.3	-137.42	-631.2	2,038.3	745.8	684.0	61.80	12.069	
7,900.0	7,201.8	8,221.0	7,637.7	40.9	41.4	-135.35	-607.2	2,041.2	745.4	683.2	62.22	11.981	
7,906.0	7,205.2	8,234.0	7,642.4	40.9	41.4	-134.84	-595.2	2,042.4	745.5	683.4	62.09	12.008	
7,950.0	7,228.4	8,268.3	7,654.4	41.0	41.4	-132.63	-563.1	2,044.9	746.5	684.1	62.45	11.954	
7,952.2	7,229.5	8,270.8	7,655.2	41.0	41.4	-132.51	-560.7	2,045.0	746.6	684.1	62.45	11.954	
8,000.0	7,251.7	8,323.3	7,671.1	41.0	41.5	-130.08	-510.8	2,047.5	748.5	685.9	62.54	11.967	
8,002.2	7,252.6	8,325.9	7,671.8	41.0	41.5	-129.97	-508.3	2,047.6	748.6	686.0	62.55	11.968	
8,050.0	7,271.5	8,380.8	7,685.4	41.1	41.5	-127.79	-455.2	2,048.7	750.9	688.3	62.66	11.985	
8,052.2	7,272.3	8,383.3	7,686.0	41.1	41.6	-127.69	-452.7	2,048.8	751.1	688.4	62.66	11.986	
8,100.0	7,287.8	8,445.6	7,697.6	41.1	41.7	-125.70	-391.5	2,048.4	753.7	690.9	62.75	12.011	
8,102.2	7,288.4	8,449.0	7,698.1	41.1	41.7	-125.61	-388.1	2,048.4	753.8	691.0	62.75	12.012	
8,150.0	7,300.3	8,526.4	7,706.5	41.1	41.9	-123.73	-311.3	2,047.0	755.6	692.8	62.88	12.018	

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

Amazon.com

Anticollision Report

Company:	APEX	Local Co-ordinate Reference:	Well *Brighton Lakes 20-17-2NAH
Project:	POCO Brighton Lakes Expansion	TVD Reference:	RKB @ 5063.0usft
Reference Site:	Sec 20-T1S-R66W	MD Reference:	RKB @ 5063.0usft
Site Error:	0.0 usft	North Reference:	Grid
Reference Well:	*Brighton Lakes 20-17-2NAH	Survey Calculation Method:	Minimum Curvature
Well Error:	0.0 usft	Output errors are at	2.00 sigma
Reference Wellbore	Original Hole	Database:	WC365
Reference Design:	Plan #1	Offset TVD Reference:	Offset Datum

Offset Design: Sec 20-T1S-R66W - 20-17-2NBH (3CDH) - Original Hole - Final Surveys													Offset Site Error: 0.0 usft
Survey Program: 135-MWD													Offset Well Error: 0.0 usft
Measured Depth (usft)	Vertical Depth (usft)	Measured Depth (usft)	Vertical Depth (usft)	Reference	Semi Major Axis Offset (usft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (usft)	+E/-W (usft)	Distance Between Centres (usft)	Between Ellipses (usft)	Minimum Separation (usft)	Separation Factor	Warning
8,159.8	7,302.3	8,546.2	7,707.8	41.1	41.9	-123.36	-291.5	2,046.7	755.8	692.9	62.93	12.011	
8,200.0	7,309.1	8,623.6	7,709.8	41.0	42.2	-122.13	-214.1	2,046.8	755.5	692.1	63.32	11.931	
8,211.4	7,310.5	8,643.9	7,709.4	41.0	42.3	-121.87	-193.8	2,047.0	755.1	691.6	63.47	11.896	
8,250.0	7,313.9	8,696.2	7,706.6	41.0	42.5	-121.33	-141.6	2,047.5	753.2	689.3	63.94	11.779	
8,258.5	7,314.3	8,703.1	7,706.2	41.0	42.6	-121.30	-134.8	2,047.6	752.8	688.8	64.01	11.761	
8,286.8	7,315.0	8,725.8	7,705.0	41.0	42.7	-121.27	-112.0	2,047.8	751.7	687.5	64.22	11.705	
8,289.8	7,315.0	8,728.2	7,704.9	41.0	42.7	-121.27	-109.6	2,047.9	751.6	687.4	64.24	11.700	
8,300.0	7,315.0	8,736.4	7,704.6	41.0	42.7	-121.25	-101.4	2,047.9	751.3	687.0	64.32	11.682	
8,322.4	7,315.0	8,754.5	7,704.0	40.9	42.8	-121.22	-83.3	2,048.2	750.8	686.3	64.49	11.642	
8,400.0	7,315.0	8,827.5	7,702.7	40.9	43.2	-121.16	-10.4	2,048.9	749.4	684.2	65.18	11.497	
8,422.1	7,315.0	8,849.4	7,702.2	40.9	43.4	-121.14	11.5	2,049.0	749.0	683.6	65.41	11.451	
8,500.0	7,315.0	8,921.7	7,701.1	40.8	43.8	-121.09	83.8	2,049.5	747.9	681.8	66.14	11.308	
8,521.5	7,315.0	8,941.3	7,701.2	40.8	43.9	-121.10	103.4	2,049.7	747.8	681.4	66.35	11.269	
8,600.0	7,315.0	9,017.6	7,701.6	40.8	44.4	-121.16	179.7	2,050.4	747.4	680.2	67.20	11.121	
8,649.8	7,315.0	9,064.6	7,701.8	40.8	44.8	-121.17	226.7	2,050.6	747.3	679.5	67.75	11.029	
8,700.0	7,315.0	9,110.2	7,701.9	40.8	45.1	-121.18	272.3	2,050.6	747.4	679.2	68.27	10.948	
8,704.4	7,315.0	9,114.2	7,702.0	40.8	45.1	-121.18	276.3	2,050.5	747.4	679.1	68.32	10.941	
8,800.0	7,315.0	9,220.9	7,701.5	40.9	45.9	-121.13	383.0	2,050.0	747.6	677.8	69.83	10.706	
8,821.5	7,315.0	9,241.8	7,701.2	40.9	46.1	-121.11	403.9	2,050.0	747.5	677.3	70.12	10.659	
8,900.0	7,315.0	9,317.2	7,701.0	41.0	46.7	-121.11	479.3	2,050.4	747.0	675.9	71.15	10.499	
8,925.3	7,315.0	9,340.1	7,701.1	41.0	46.8	-121.13	502.2	2,050.5	747.0	675.5	71.46	10.453	
9,000.0	7,315.0	9,408.6	7,701.4	41.1	47.4	-121.14	570.7	2,050.3	747.3	675.0	72.38	10.325	
9,004.4	7,315.0	9,412.9	7,701.4	41.1	47.5	-121.14	575.0	2,050.3	747.4	674.9	72.45	10.316	
9,100.0	7,315.0	9,506.5	7,701.4	41.2	48.3	-121.09	668.5	2,049.2	748.3	674.4	73.87	10.130	
9,104.4	7,315.0	9,510.7	7,701.4	41.2	48.3	-121.09	672.8	2,049.1	748.4	674.4	73.94	10.121	
9,200.0	7,315.0	9,607.1	7,700.8	41.4	49.2	-120.98	769.2	2,047.3	749.6	674.1	75.53	9.925	
9,204.4	7,315.0	9,612.2	7,700.7	41.4	49.2	-120.97	774.3	2,047.2	749.6	674.0	75.63	9.913	
9,300.0	7,315.0	9,711.3	7,700.4	41.6	50.1	-120.92	873.3	2,046.6	750.0	672.6	77.39	9.691	
9,304.4	7,315.0	9,715.4	7,700.4	41.6	50.2	-120.92	877.4	2,046.6	750.0	672.6	77.45	9.683	
9,400.0	7,315.0	9,809.4	7,700.4	41.9	51.1	-120.89	971.5	2,045.6	750.8	671.7	79.09	9.493	
9,404.4	7,315.0	9,814.1	7,700.4	41.9	51.1	-120.89	976.1	2,045.6	750.8	671.7	79.18	9.483	
9,500.0	7,315.0	9,906.7	7,701.6	42.2	52.1	-120.96	1,068.8	2,045.5	751.5	670.7	80.80	9.301	
9,504.4	7,315.0	9,910.9	7,701.6	42.2	52.1	-120.96	1,072.9	2,045.5	751.6	670.7	80.87	9.294	
9,600.0	7,315.0	10,011.6	7,702.6	42.6	53.2	-121.00	1,173.7	2,044.9	752.5	669.6	82.90	9.078	
9,621.0	7,315.0	10,034.6	7,702.5	42.7	53.4	-121.00	1,196.6	2,044.8	752.6	669.2	83.39	9.025	
9,700.0	7,315.0	10,118.3	7,701.5	43.0	54.3	-120.91	1,280.3	2,044.3	752.5	667.3	85.16	8.836	
9,734.0	7,315.0	10,149.0	7,701.0	43.2	54.7	-120.87	1,311.0	2,044.1	752.4	666.7	85.69	8.781	
9,800.0	7,315.0	10,209.2	7,700.5	43.5	55.3	-120.81	1,371.2	2,043.5	752.7	665.9	86.74	8.678	
9,804.4	7,315.0	10,213.7	7,700.5	43.5	55.4	-120.81	1,375.7	2,043.4	752.7	665.9	86.83	8.669	
9,900.0	7,315.0	10,308.9	7,701.3	44.0	56.5	-120.85	1,470.9	2,043.1	753.4	664.6	88.76	8.488	
9,904.4	7,315.0	10,312.9	7,701.4	44.0	56.5	-120.86	1,474.9	2,043.1	753.4	664.6	88.83	8.482	
10,000.0	7,315.0	10,405.9	7,702.0	44.6	57.6	-120.85	1,567.9	2,042.0	754.7	664.0	90.68	8.323	
10,020.9	7,315.0	10,433.3	7,702.1	44.7	57.9	-120.85	1,595.3	2,041.8	754.9	663.4	91.46	8.253	
10,100.0	7,315.0	10,525.3	7,702.1	45.2	59.0	-120.89	1,687.3	2,042.7	754.2	660.4	93.83	8.038	
10,122.0	7,315.0	10,548.6	7,701.8	45.4	59.3	-120.88	1,710.6	2,042.9	753.9	659.5	94.38	7.988	
10,200.0	7,315.0	10,623.3	7,701.0	45.9	60.2	-120.85	1,785.3	2,043.7	752.8	656.9	95.90	7.849	
10,221.6	7,315.0	10,643.5	7,701.0	46.1	60.5	-120.86	1,805.4	2,043.9	752.6	656.3	96.29	7.815	
10,300.0	7,315.0	10,721.5	7,701.3	46.6	61.4	-120.92	1,883.4	2,044.9	751.9	653.9	97.99	7.673	
10,321.6	7,315.0	10,743.3	7,701.3	46.8	61.7	-120.93	1,905.3	2,045.1	751.7	653.2	98.48	7.633	
10,400.0	7,315.0	10,829.2	7,700.5	47.4	62.8	-120.91	1,991.2	2,046.0	750.6	650.0	100.66	7.457	
10,422.1	7,315.0	10,850.1	7,700.3	47.6	63.1	-120.91	2,012.0	2,046.3	750.2	649.1	101.09	7.421	
10,500.0	7,315.0	10,919.9	7,700.5	48.2	64.0	-120.97	2,081.9	2,047.4	749.3	646.9	102.38	7.319	

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

Amazon.com

Anticollision Report

Company:	APEX	Local Co-ordinate Reference:	Well *Brighton Lakes 20-17-2NAH
Project:	POCO Brighton Lakes Expansion	TVD Reference:	RKB @ 5063.0usft
Reference Site:	Sec 20-T1S-R66W	MD Reference:	RKB @ 5063.0usft
Site Error:	0.0 usft	North Reference:	Grid
Reference Well:	*Brighton Lakes 20-17-2NAH	Survey Calculation Method:	Minimum Curvature
Well Error:	0.0 usft	Output errors are at	2.00 sigma
Reference Wellbore	Original Hole	Database:	WC365
Reference Design:	Plan #1	Offset TVD Reference:	Offset Datum

Offset Design: Sec 20-T1S-R66W - 20-17-2NBH (3CDH) - Original Hole - Final Surveys												Offset Site Error:	0.0 usft
Survey Program: 135-MWD												Offset Well Error:	0.0 usft
Reference		Offset		Semi Major Axis			Offset Wellbore Centre		Distance				Warning
Measured Depth (usft)	Vertical Depth (usft)	Measured Depth (usft)	Vertical Depth (usft)	Reference (usft)	Offset (usft)	Highside Toolface (°)	+N/-S (usft)	+E/-W (usft)	Between Centres (usft)	Between Ellipses (usft)	Minimum Separation (usft)	Separation Factor	
10,521.5	7,315.0	10,941.5	7,700.8	48.4	64.2	-121.00	2,103.5	2,047.8	749.1	646.3	102.87	7.283	
10,600.0	7,315.0	11,023.6	7,701.5	49.1	65.3	-121.10	2,185.5	2,049.0	748.4	643.6	104.85	7.138	
10,621.8	7,315.0	11,046.2	7,701.5	49.3	65.6	-121.11	2,208.2	2,049.3	748.2	642.8	105.40	7.098	
10,700.0	7,315.0	11,125.8	7,700.8	50.0	66.7	-121.10	2,287.7	2,050.3	747.0	639.8	107.29	6.963	
10,721.9	7,315.0	11,146.9	7,700.5	50.2	67.0	-121.09	2,308.8	2,050.4	746.7	639.0	107.76	6.930	
10,800.0	7,315.0	11,218.3	7,699.5	50.9	67.9	-121.03	2,380.2	2,050.7	745.9	636.7	109.19	6.831	
10,819.1	7,315.0	11,234.1	7,699.4	51.1	68.1	-121.03	2,396.0	2,050.7	745.9	636.4	109.44	6.816	
10,900.0	7,315.0	11,306.7	7,700.6	51.9	69.1	-121.10	2,468.6	2,050.6	746.6	635.8	110.79	6.738	
10,904.4	7,315.0	11,311.6	7,700.7	52.0	69.2	-121.11	2,473.5	2,050.6	746.6	635.7	110.93	6.731	
11,000.0	7,315.0	11,413.9	7,701.3	52.9	70.6	-121.14	2,575.8	2,050.5	747.0	633.4	113.61	6.576	
11,004.4	7,315.0	11,418.4	7,701.3	53.0	70.6	-121.14	2,580.3	2,050.5	747.1	633.3	113.72	6.569	
11,100.0	7,315.0	11,511.7	7,700.9	54.0	71.9	-121.09	2,673.6	2,050.0	747.2	631.4	115.87	6.449	
11,104.4	7,315.0	11,515.9	7,700.8	54.0	72.0	-121.09	2,677.7	2,049.9	747.3	631.3	115.96	6.444	
11,200.0	7,315.0	11,606.2	7,700.2	55.0	73.2	-120.99	2,768.1	2,048.6	748.1	630.1	117.96	6.342	
11,204.4	7,315.0	11,610.4	7,700.2	55.1	73.3	-120.99	2,772.3	2,048.6	748.1	630.1	118.05	6.337	
11,300.0	7,315.0	11,704.4	7,701.4	56.1	74.6	-121.04	2,866.2	2,047.7	749.5	629.2	120.24	6.233	
11,320.4	7,315.0	11,724.9	7,701.8	56.3	74.9	-121.07	2,886.7	2,047.7	749.8	629.0	120.73	6.210	
11,400.0	7,315.0	11,839.4	7,701.6	57.2	76.5	-121.08	3,001.3	2,048.5	749.3	624.3	124.96	5.996	
11,422.6	7,315.0	11,855.7	7,701.1	57.5	76.8	-121.06	3,017.6	2,048.6	748.7	623.6	125.13	5.984	
11,500.0	7,315.0	11,928.5	7,698.7	58.3	77.8	-120.91	3,090.3	2,049.0	747.1	620.3	126.80	5.892	
11,522.0	7,315.0	11,948.1	7,698.1	58.6	78.1	-120.88	3,109.9	2,049.0	746.7	619.5	127.20	5.870	
11,600.0	7,315.0	12,018.9	7,696.8	59.5	79.1	-120.79	3,180.6	2,049.0	746.0	617.3	128.69	5.797	
11,621.3	7,315.0	12,039.5	7,696.7	59.7	79.4	-120.79	3,201.2	2,049.0	745.9	616.7	129.18	5.774	
11,700.0	7,315.0	12,116.9	7,697.5	60.6	80.5	-120.86	3,278.6	2,049.7	745.7	614.7	131.02	5.692	
11,721.2	7,315.0	12,138.7	7,697.7	60.9	80.9	-120.88	3,300.4	2,049.9	745.6	614.1	131.58	5.667	
11,800.0	7,315.0	12,224.8	7,697.8	61.8	82.1	-120.92	3,386.5	2,050.6	745.2	611.1	134.03	5.560	
11,822.0	7,315.0	12,250.6	7,697.8	62.1	82.5	-120.94	3,412.4	2,051.0	744.8	610.0	134.84	5.524	
11,900.0	7,315.0	12,336.1	7,697.3	63.0	83.8	-120.98	3,497.8	2,053.1	743.0	605.7	137.28	5.412	
11,922.7	7,315.0	12,360.4	7,696.8	63.3	84.1	-120.97	3,522.1	2,053.6	742.3	604.3	137.97	5.380	
12,000.0	7,315.0	12,430.3	7,695.3	64.2	85.2	-120.92	3,592.0	2,054.8	740.3	600.9	139.46	5.309	
12,022.2	7,315.0	12,452.0	7,694.9	64.5	85.5	-120.91	3,613.7	2,055.1	739.9	599.9	139.99	5.285	
12,100.0	7,315.0	12,530.5	7,693.5	65.4	86.7	-120.85	3,692.2	2,055.9	738.4	596.4	142.05	5.198	
12,122.2	7,315.0	12,551.3	7,693.1	65.7	87.0	-120.83	3,712.9	2,056.2	738.0	595.5	142.53	5.178	
12,200.0	7,315.0	12,617.6	7,692.1	66.7	88.0	-120.77	3,779.3	2,056.4	737.1	593.4	143.74	5.128	
12,215.7	7,315.0	12,631.0	7,692.0	66.9	88.2	-120.76	3,792.6	2,056.4	737.1	593.1	143.98	5.120	
12,300.0	7,315.0	12,702.0	7,692.0	67.9	89.3	-120.73	3,863.6	2,055.6	737.9	592.7	145.17	5.083	
12,304.4	7,315.0	12,705.7	7,692.0	68.0	89.3	-120.73	3,867.4	2,055.6	737.9	592.7	145.23	5.081	
12,400.0	7,315.0	12,810.7	7,692.9	69.2	90.9	-120.74	3,972.4	2,054.3	739.4	591.0	148.39	4.983	
12,404.4	7,315.0	12,815.9	7,693.0	69.2	91.0	-120.74	3,977.5	2,054.2	739.5	590.9	148.55	4.978	
12,500.0	7,315.0	12,903.9	7,693.5	70.4	92.3	-120.74	4,065.5	2,053.3	740.6	590.2	150.45	4.922	
12,520.8	7,315.0	12,930.2	7,693.5	70.7	92.7	-120.73	4,091.8	2,052.9	740.9	589.4	151.41	4.893	
12,600.0	7,315.0	13,016.6	7,693.1	71.7	94.1	-120.70	4,178.2	2,052.9	740.7	586.7	154.02	4.809	
12,608.2	7,315.0	13,023.5	7,693.1	71.8	94.2	-120.69	4,185.1	2,052.9	740.7	586.5	154.14	4.805	
12,700.0	7,315.0	13,106.7	7,692.9	73.0	95.4	-120.65	4,268.4	2,051.9	741.4	585.5	155.91	4.756	
12,704.4	7,315.0	13,111.5	7,692.9	73.0	95.5	-120.65	4,273.1	2,051.9	741.5	585.5	156.05	4.752	
12,800.0	7,315.0	13,215.7	7,693.5	74.3	97.1	-120.67	4,377.3	2,051.4	742.1	583.0	159.17	4.662	
12,821.3	7,315.0	13,239.8	7,693.6	74.5	97.5	-120.68	4,401.4	2,051.6	742.1	582.2	159.92	4.640	
12,900.0	7,315.0	13,316.9	7,694.0	75.5	98.7	-120.73	4,478.5	2,052.2	741.7	579.9	161.82	4.583	
12,928.4	7,315.0	13,343.7	7,694.1	75.9	99.1	-120.74	4,505.3	2,052.3	741.7	579.2	162.44	4.566	
13,000.0	7,315.0	13,408.8	7,694.3	76.8	100.1	-120.75	4,570.4	2,052.1	742.0	578.2	163.81	4.529	
13,004.4	7,315.0	13,412.8	7,694.4	76.9	100.2	-120.75	4,574.4	2,052.1	742.0	578.1	163.90	4.527	
13,100.0	7,315.0	13,527.2	7,694.5	78.1	102.0	-120.76	4,688.8	2,052.0	742.2	574.4	167.80	4.423	

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

Amazon.com

Anticollision Report

Company:	APEX	Local Co-ordinate Reference:	Well *Brighton Lakes 20-17-2NAH
Project:	POCO Brighton Lakes Expansion	TVD Reference:	RKB @ 5063.0usft
Reference Site:	Sec 20-T1S-R66W	MD Reference:	RKB @ 5063.0usft
Site Error:	0.0 usft	North Reference:	Grid
Reference Well:	*Brighton Lakes 20-17-2NAH	Survey Calculation Method:	Minimum Curvature
Well Error:	0.0 usft	Output errors are at	2.00 sigma
Reference Wellbore	Original Hole	Database:	WC365
Reference Design:	Plan #1	Offset TVD Reference:	Offset Datum

Offset Design: Sec 20-T1S-R66W - 20-17-2NBH (3CDH) - Original Hole - Final Surveys													Offset Site Error:	0.0 usft
Survey Program:		135-MWD		Offset		Semi Major Axis		Offset Wellbore Centre		Rule Assigned:			Offset Well Error:	0.0 usft
Measured Depth (usft)	Vertical Depth (usft)	Measured Depth (usft)	Vertical Depth (usft)	Reference (usft)	Offset (usft)	Highside Toolface (°)	+N/-S (usft)	+E/-W (usft)	Distance Between Centres (usft)	Between Ellipses (usft)	Minimum Separation (usft)	Separation Factor	Warning	
13,121.9	7,315.0	13,547.9	7,694.5	78.4	102.3	-120.77	4,709.5	2,052.3	741.9	573.6	168.28	4.408		
13,200.0	7,315.0	13,622.9	7,694.2	79.5	103.5	-120.79	4,784.4	2,053.3	740.9	570.8	170.09	4.356		
13,269.4	7,315.0	13,684.6	7,694.0	80.4	104.5	-120.78	4,846.2	2,053.5	740.5	569.2	171.35	4.322		
13,300.0	7,315.0	13,715.1	7,693.8	80.8	104.9	-120.77	4,876.7	2,053.3	740.6	568.4	172.16	4.302		
13,321.6	7,315.0	13,742.4	7,693.8	81.1	105.4	-120.77	4,904.0	2,053.4	740.5	567.3	173.17	4.276		
13,400.0	7,315.0	13,828.6	7,694.1	82.1	106.7	-120.87	4,990.2	2,055.3	739.2	563.4	175.72	4.206		
13,421.9	7,315.0	13,848.9	7,694.2	82.4	107.1	-120.89	5,010.4	2,055.8	738.8	562.6	176.16	4.194		
13,500.0	7,315.0	13,926.9	7,694.2	83.4	108.3	-120.93	5,088.5	2,057.0	737.7	559.5	178.18	4.140		
13,522.1	7,315.0	13,950.5	7,693.9	83.7	108.7	-120.93	5,112.1	2,057.3	737.4	558.5	178.88	4.122		
13,600.0	7,315.0	14,035.8	7,692.7	84.7	110.0	-120.91	5,197.3	2,058.8	735.6	554.1	181.49	4.053		
13,622.7	7,315.0	14,060.8	7,692.3	85.0	110.4	-120.91	5,222.3	2,059.4	735.0	552.7	182.26	4.032		
13,700.0	7,315.0	14,126.3	7,692.0	86.1	111.5	-120.95	5,287.8	2,061.0	733.2	549.8	183.41	3.997		
13,770.5	7,315.0	14,187.5	7,693.0	87.0	112.5	-121.06	5,349.0	2,062.1	732.6	548.1	184.47	3.971		
13,800.0	7,315.0	14,213.7	7,693.5	87.4	112.9	-121.10	5,375.1	2,062.4	732.6	547.7	184.95	3.961		
13,804.4	7,315.0	14,217.6	7,693.5	87.5	112.9	-121.11	5,379.1	2,062.4	732.6	547.6	185.03	3.960		
13,900.0	7,315.0	14,320.9	7,694.9	88.8	114.6	-121.23	5,482.4	2,063.1	732.8	544.7	188.05	3.897		
13,921.6	7,315.0	14,344.2	7,695.0	89.0	115.0	-121.25	5,505.6	2,063.4	732.6	543.8	188.73	3.882		
14,000.0	7,315.0	14,424.0	7,695.0	90.1	116.2	-121.29	5,585.4	2,064.4	731.7	540.9	190.88	3.834		
14,021.8	7,315.0	14,445.8	7,694.9	90.4	116.6	-121.30	5,607.3	2,064.7	731.5	540.0	191.46	3.821		
14,100.0	7,315.0	14,524.4	7,694.3	91.5	117.9	-121.28	5,685.8	2,065.4	730.6	537.0	193.58	3.774		
14,121.8	7,315.0	14,546.3	7,694.0	91.7	118.2	-121.27	5,707.7	2,065.5	730.3	536.1	194.18	3.761		
14,200.0	7,315.0	14,624.9	7,692.9	92.8	119.5	-121.21	5,786.3	2,066.0	729.3	532.9	196.35	3.714		
14,221.8	7,315.0	14,646.8	7,692.6	93.1	119.8	-121.20	5,808.2	2,066.2	729.0	532.1	196.95	3.701		
14,300.0	7,315.0	14,725.6	7,692.0	94.2	121.1	-121.19	5,887.0	2,067.0	728.0	528.9	199.10	3.656		
14,321.9	7,315.0	14,747.8	7,691.8	94.5	121.5	-121.19	5,909.2	2,067.2	727.7	528.0	199.71	3.644		
14,400.0	7,315.0	14,825.1	7,691.1	95.5	122.7	-121.18	5,986.5	2,068.1	726.6	524.8	201.75	3.601		
14,421.8	7,315.0	14,846.4	7,691.1	95.8	123.1	-121.19	6,007.8	2,068.4	726.3	524.0	202.28	3.590		
14,500.0	7,315.0	14,923.2	7,691.0	96.9	124.3	-121.22	6,084.6	2,069.4	725.4	521.2	204.23	3.552		
14,570.5	7,315.0	14,986.6	7,690.9	97.8	125.3	-121.24	6,148.0	2,069.9	724.8	519.3	205.54	3.527		
14,600.0	7,315.0	15,010.7	7,691.2	98.2	125.7	-121.26	6,172.0	2,070.0	724.9	519.1	205.86	3.521		
14,604.4	7,315.0	15,014.3	7,691.2	98.3	125.8	-121.27	6,175.7	2,070.0	725.0	519.1	205.91	3.521		
14,700.0	7,315.0	15,103.1	7,693.9	99.6	127.2	-121.44	6,264.5	2,069.9	726.5	518.8	207.70	3.498		
14,704.4	7,315.0	15,107.6	7,694.0	99.7	127.3	-121.45	6,269.0	2,069.9	726.5	518.7	207.82	3.496		
14,800.0	7,315.0	15,201.1	7,696.7	101.0	128.8	-121.62	6,362.4	2,069.6	728.2	518.2	210.01	3.468		
14,804.4	7,315.0	15,205.4	7,696.8	101.0	128.9	-121.62	6,366.7	2,069.6	728.3	518.2	210.10	3.467		
14,900.0	7,315.0	15,302.2	7,699.1	102.3	130.5	-121.74	6,463.5	2,068.7	730.2	517.6	212.63	3.434		
14,904.4	7,315.0	15,306.8	7,699.2	102.4	130.5	-121.74	6,468.1	2,068.6	730.3	517.6	212.76	3.433		
15,000.0	7,315.0	15,419.0	7,699.1	103.7	132.4	-121.71	6,580.2	2,067.8	730.9	514.2	216.73	3.372		
15,021.3	7,315.0	15,440.1	7,698.7	104.0	132.7	-121.68	6,601.3	2,067.7	730.8	513.5	217.32	3.363		
15,100.0	7,315.0	15,521.2	7,697.5	105.1	134.1	-121.58	6,682.4	2,067.3	730.5	510.7	219.75	3.324		
15,121.8	7,315.0	15,545.9	7,697.0	105.4	134.5	-121.55	6,707.1	2,067.3	730.3	509.7	220.60	3.310		
15,200.0	7,315.0	15,626.9	7,695.4	106.5	135.8	-121.46	6,788.1	2,067.8	729.0	506.0	223.04	3.269		
15,221.9	7,315.0	15,647.9	7,695.2	106.8	136.1	-121.46	6,809.1	2,068.0	728.7	505.1	223.57	3.260		
15,300.0	7,315.0	15,725.6	7,695.3	107.9	137.4	-121.51	6,886.8	2,069.3	727.7	502.1	225.56	3.226		
15,321.9	7,315.0	15,747.7	7,695.3	108.2	137.8	-121.52	6,908.9	2,069.6	727.4	501.2	226.15	3.216		
15,400.0	7,315.0	15,821.2	7,694.9	109.2	139.0	-121.53	6,982.4	2,070.4	726.5	498.6	227.89	3.188		
15,421.5	7,315.0	15,841.1	7,694.7	109.5	139.3	-121.52	7,002.3	2,070.4	726.3	498.0	228.35	3.181		
15,500.0	7,315.0	15,919.6	7,693.7	110.6	140.6	-121.45	7,080.8	2,070.2	726.0	495.4	230.57	3.149		
15,544.0	7,315.0	15,959.8	7,693.1	111.2	141.3	-121.40	7,121.0	2,070.1	725.8	494.3	231.52	3.135		
15,600.0	7,315.0	16,005.9	7,692.9	112.0	142.0	-121.37	7,167.1	2,069.6	726.2	493.9	232.24	3.127		
15,604.4	7,315.0	16,009.5	7,693.0	112.1	142.1	-121.37	7,170.7	2,069.6	726.2	493.9	232.29	3.126		
15,700.0	7,315.0	16,100.9	7,693.9	113.4	143.6	-121.37	7,262.1	2,068.0	728.1	493.6	234.52	3.105		

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

Amazon.com

Anticollision Report

Company:	APEX	Local Co-ordinate Reference:	Well *Brighton Lakes 20-17-2NAH
Project:	POCO Brighton Lakes Expansion	TVD Reference:	RKB @ 5063.0usft
Reference Site:	Sec 20-T1S-R66W	MD Reference:	RKB @ 5063.0usft
Site Error:	0.0 usft	North Reference:	Grid
Reference Well:	*Brighton Lakes 20-17-2NAH	Survey Calculation Method:	Minimum Curvature
Well Error:	0.0 usft	Output errors are at	2.00 sigma
Reference Wellbore	Original Hole	Database:	WC365
Reference Design:	Plan #1	Offset TVD Reference:	Offset Datum

Offset Design: Sec 20-T1S-R66W - 20-17-2NBH (3CDH) - Original Hole - Final Surveys												Offset Site Error:	0.0 usft
Survey Program: 135-MWD												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)	Distance Between Ellipses (usft)	Minimum Separation (usft)	Separation Factor	Warning
15,704.4	7,315.0	16,105.4	7,693.9	113.5	143.7	-121.37	7,266.6	2,067.9	728.2	493.6	234.65	3.103	
15,800.0	7,315.0	16,198.5	7,694.3	114.8	145.2	-121.30	7,359.6	2,065.8	730.3	493.2	237.11	3.080	
15,804.4	7,315.0	16,202.8	7,694.3	114.8	145.3	-121.30	7,363.9	2,065.7	730.4	493.2	237.22	3.079	
15,900.0	7,315.0	16,312.2	7,692.5	116.2	147.1	-121.06	7,473.2	2,062.7	731.8	490.4	241.35	3.032	
15,904.4	7,315.0	16,316.8	7,692.4	116.2	147.2	-121.04	7,477.8	2,062.6	731.8	490.3	241.51	3.030	
16,000.0	7,315.0	16,419.1	7,689.3	117.6	148.9	-120.75	7,580.1	2,060.5	732.0	486.9	245.08	2.987	
16,021.6	7,315.0	16,444.2	7,688.6	117.9	149.3	-120.70	7,605.2	2,060.3	731.8	485.8	246.03	2.975	
16,100.0	7,315.0	16,540.1	7,685.9	119.0	150.9	-120.54	7,701.0	2,060.9	730.3	480.6	249.71	2.925	
16,123.2	7,315.0	16,569.3	7,685.0	119.3	151.3	-120.51	7,730.2	2,061.7	729.4	478.6	250.81	2.908	
16,200.0	7,315.0	16,646.9	7,684.8	120.4	152.6	-120.64	7,807.7	2,065.3	726.2	473.4	252.78	2.873	
16,223.1	7,315.0	16,657.0	7,685.0	120.7	152.8	-120.68	7,817.8	2,065.9	725.4	473.0	252.41	2.874	
16,300.0	7,315.0	16,720.9	7,687.2	121.7	153.9	-120.96	7,881.6	2,069.0	723.6	470.5	253.07	2.859	
16,314.0	7,315.0	16,730.8	7,687.6	121.9	154.0	-121.00	7,891.5	2,069.3	723.5	470.5	253.06	2.859	
16,400.0	7,315.0	16,806.4	7,690.6	123.1	155.3	-121.24	7,967.0	2,070.3	724.3	470.2	254.14	2.850	
16,404.4	7,315.0	16,810.5	7,690.8	123.2	155.4	-121.25	7,971.2	2,070.3	724.4	470.2	254.22	2.849	
16,500.0	7,315.0	16,908.8	7,693.5	124.5	157.0	-121.44	8,069.4	2,070.4	725.7	469.0	256.76	2.826	
16,504.4	7,315.0	16,913.5	7,693.6	124.6	157.1	-121.44	8,074.1	2,070.4	725.8	468.9	256.90	2.825	
16,600.0	7,315.0	17,017.3	7,695.3	125.9	158.8	-121.58	8,177.8	2,070.9	726.2	466.2	259.97	2.793	
16,621.2	7,315.0	17,038.1	7,695.5	126.2	159.1	-121.60	8,198.7	2,071.0	726.2	465.7	260.48	2.788	
16,700.0	7,315.0	17,116.4	7,695.9	127.3	160.5	-121.64	8,277.0	2,071.3	726.1	463.6	262.52	2.766	
16,704.4	7,315.0	17,120.8	7,695.9	127.4	160.5	-121.64	8,281.3	2,071.3	726.1	463.5	262.63	2.765	
16,800.0	7,315.0	17,216.6	7,695.8	128.7	162.1	-121.62	8,377.1	2,071.1	726.2	461.0	265.28	2.738	
16,821.3	7,315.0	17,239.8	7,695.6	129.0	162.5	-121.61	8,400.3	2,071.0	726.2	460.2	266.04	2.730	
16,900.0	7,315.0	17,318.8	7,694.6	130.1	163.8	-121.53	8,479.4	2,070.9	725.8	457.5	268.34	2.705	
16,933.2	7,315.0	17,349.6	7,694.3	130.6	164.3	-121.51	8,510.2	2,070.8	725.7	456.7	269.08	2.697	
17,000.0	7,315.0	17,418.9	7,694.0	131.6	165.5	-121.48	8,579.4	2,070.6	725.7	454.6	271.16	2.676	
17,021.5	7,315.0	17,442.4	7,693.8	131.9	165.9	-121.46	8,602.9	2,070.6	725.6	453.7	271.94	2.668	
17,100.0	7,315.0	17,522.1	7,693.1	133.0	167.2	-121.43	8,682.6	2,070.9	725.0	450.8	274.23	2.644	
17,121.5	7,315.0	17,543.5	7,693.1	133.3	167.6	-121.44	8,704.0	2,071.1	724.8	450.1	274.79	2.638	
17,200.0	7,315.0	17,627.2	7,693.2	134.4	169.0	-121.50	8,787.7	2,072.2	724.0	446.7	277.25	2.611	
17,221.9	7,315.0	17,649.2	7,693.2	134.7	169.4	-121.51	8,809.7	2,072.6	723.7	445.8	277.84	2.605	
17,300.0	7,315.0	17,722.6	7,692.8	135.8	170.6	-121.52	8,883.1	2,073.4	722.7	443.2	279.57	2.585	
17,321.7	7,315.0	17,744.9	7,692.6	136.1	171.0	-121.51	8,905.4	2,073.5	722.5	442.3	280.23	2.578	
17,400.0	7,315.0	17,826.2	7,691.6	137.2	172.3	-121.47	8,986.7	2,074.1	721.6	438.9	282.69	2.553	
17,470.5	7,315.0	17,887.2	7,691.2	138.2	173.4	-121.45	9,047.7	2,074.3	721.1	437.2	283.87	2.540	
17,500.0	7,315.0	17,913.0	7,691.3	138.6	173.8	-121.45	9,073.5	2,074.3	721.1	436.8	284.35	2.536	
17,504.4	7,315.0	17,917.0	7,691.3	138.6	173.9	-121.46	9,077.5	2,074.3	721.2	436.7	284.43	2.535	
17,600.0	7,315.0	18,003.2	7,691.7	140.0	175.3	-121.44	9,163.7	2,073.3	722.3	436.1	286.24	2.524	
17,604.4	7,315.0	18,007.8	7,691.7	140.1	175.4	-121.44	9,168.3	2,073.2	722.4	436.0	286.39	2.523	
17,700.0	7,315.0	18,109.5	7,691.6	141.4	177.1	-121.34	9,270.0	2,071.2	723.9	434.2	289.73	2.499	
17,704.4	7,315.0	18,114.8	7,691.5	141.5	177.2	-121.34	9,275.3	2,071.2	723.9	434.0	289.93	2.497 SF	
17,800.0	7,315.0	18,183.0	7,690.8	142.8	178.3	-121.26	9,343.5	2,070.2	725.1	435.0	290.12	2.499	
17,804.4	7,315.0	18,183.0	7,690.8	142.9	178.3	-121.26	9,343.5	2,070.2	725.4	435.6	289.79	2.503	
17,900.0	7,315.0	18,183.0	7,690.8	144.2	178.3	-121.26	9,343.5	2,070.2	736.6	456.2	280.31	2.628	
17,904.4	7,315.0	18,183.0	7,690.8	144.3	178.3	-121.26	9,343.5	2,070.2	737.4	457.6	279.77	2.636	
18,000.0	7,315.0	18,183.0	7,690.8	145.6	178.3	-121.26	9,343.5	2,070.2	761.1	494.6	266.49	2.856	
18,001.5	7,315.0	18,183.0	7,690.8	145.7	178.3	-121.26	9,343.5	2,070.2	761.5	495.2	266.27	2.860	
18,032.3	7,315.0	18,183.0	7,690.8	146.1	178.3	-121.26	9,343.5	2,070.2	771.6	510.2	261.41	2.952	

Amazon.com

Anticollision Report

Company:	APEX	Local Co-ordinate Reference:	Well *Brighton Lakes 20-17-2NAH
Project:	POCO Brighton Lakes Expansion	TVD Reference:	RKB @ 5063.0usft
Reference Site:	Sec 20-T1S-R66W	MD Reference:	RKB @ 5063.0usft
Site Error:	0.0 usft	North Reference:	Grid
Reference Well:	*Brighton Lakes 20-17-2NAH	Survey Calculation Method:	Minimum Curvature
Well Error:	0.0 usft	Output errors are at	2.00 sigma
Reference Wellbore	Original Hole	Database:	WC365
Reference Design:	Plan #1	Offset TVD Reference:	Offset Datum

Offset Design: Sec 20-T1S-R66W - 20-17-2NCH - Original Hole - Final Surveys													Offset Site Error:	0.0 usft
Survey Program: 134-MWD													Offset Well Error:	0.0 usft
Measured Depth (usft)	Vertical Depth (usft)	Measured Depth (usft)	Vertical Depth (usft)	Reference (usft)	Semi Major Axis Offset (usft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (usft)	+E/-W (usft)	Distance Between Centres (usft)	Between Ellipses (usft)	Minimum Separation (usft)	Separation Factor	Warning	
0.0	0.0	0.0	0.0	0.0	0.0	-166.54	-426.5	-102.1	438.5					
100.0	100.0	101.8	101.8	1.0	0.8	-166.47	-426.2	-102.6	438.3	436.6	1.77	247.227		
200.0	200.0	201.6	201.6	1.6	1.4	-166.34	-425.5	-103.4	437.9	434.9	2.94	149.126		
300.0	300.0	300.3	300.3	2.0	1.8	-166.35	-425.3	-103.3	437.7	433.9	3.75	116.699		
400.0	400.0	400.8	400.8	2.3	2.1	-166.41	-425.3	-102.8	437.5	433.1	4.42	98.937		
449.3	449.3	449.3	449.3	2.5	2.2	-166.44	-425.3	-102.6	437.5	432.8	4.71	92.958		
500.0	500.0	499.2	499.2	2.6	2.4	-166.48	-425.4	-102.3	437.5	432.5	4.99	87.627		
600.0	600.0	597.3	597.3	2.9	2.6	-166.55	-425.9	-101.9	437.9	432.4	5.50	79.683		
700.0	700.0	695.4	695.4	3.2	2.8	-166.64	-426.9	-101.4	438.8	432.9	5.97	73.548		
800.0	800.0	798.6	798.6	3.4	3.1	-166.73	-428.0	-100.9	439.7	433.3	6.42	68.502		
900.0	900.0	901.6	901.6	3.6	3.2	-166.71	-427.8	-101.1	439.6	432.7	6.84	64.290		
1,000.0	1,000.0	1,003.9	1,003.8	3.8	3.4	-166.56	-426.9	-102.0	439.0	431.7	7.23	60.697		
1,100.0	1,100.0	1,104.0	1,104.0	4.0	3.6	-166.51	-425.9	-102.1	438.0	430.4	7.64	57.310		
1,200.0	1,200.0	1,201.1	1,201.0	4.2	3.9	-166.94	-426.2	-98.8	437.5	429.3	8.16	53.608		
1,300.0	1,300.0	1,301.7	1,301.2	4.4	4.4	-168.02	-427.8	-90.7	437.3	428.8	8.51	51.359		
1,400.0	1,400.0	1,400.3	1,398.8	4.9	5.0	84.11	-430.4	-76.4	436.9	428.0	8.85	49.351		
1,437.0	1,436.9	1,435.5	1,433.3	5.0	5.2	83.50	-431.8	-69.8	436.8	427.8	8.97	48.671		
1,500.0	1,499.6	1,496.5	1,492.8	5.3	5.4	82.44	-434.6	-56.8	436.9	427.7	9.20	47.473		
1,600.0	1,598.8	1,592.2	1,585.5	5.7	5.7	80.92	-440.0	-33.6	437.2	427.6	9.59	45.571		
1,700.0	1,697.1	1,688.6	1,678.1	6.0	6.1	79.66	-446.6	-7.6	437.9	427.8	10.05	43.576		
1,800.0	1,794.3	1,783.9	1,768.0	6.4	6.7	78.36	-454.3	23.0	438.6	428.0	10.60	41.390		
1,900.0	1,890.2	1,881.5	1,858.8	6.7	7.0	77.23	-463.1	57.6	439.2	427.9	11.23	39.108		
2,000.0	1,984.4	1,977.0	1,947.5	7.0	7.4	76.75	-472.3	91.6	439.3	427.3	11.96	36.738		
2,100.0	2,076.8	2,073.0	2,036.2	7.3	7.7	76.71	-482.9	127.2	439.5	426.8	12.78	34.383		
2,191.6	2,159.6	2,165.0	2,120.8	7.5	8.1	77.21	-493.2	161.6	438.9	425.3	13.64	32.178		
2,200.0	2,167.1	2,173.5	2,128.6	7.5	8.1	77.28	-494.2	164.8	438.8	425.1	13.72	31.993		
2,300.0	2,256.4	2,272.1	2,219.3	7.7	8.6	78.07	-505.2	202.0	437.7	422.9	14.80	29.578		
2,399.3	2,345.0	2,371.1	2,310.3	7.9	9.0	78.89	-516.6	239.2	436.8	421.0	15.87	27.529		
2,400.0	2,345.7	2,371.8	2,311.0	7.9	9.0	78.90	-516.6	239.4	436.8	421.0	15.88	27.516		
2,490.0	2,426.0	2,460.1	2,392.3	8.0	9.4	79.69	-526.8	272.2	436.3	419.4	16.87	25.855		
2,500.0	2,435.0	2,469.9	2,401.3	8.0	9.5	79.78	-528.0	275.7	436.2	419.3	16.98	25.686		
2,596.5	2,521.1	2,567.9	2,492.1	8.4	10.0	80.80	-539.2	311.1	435.7	417.6	18.11	24.064		
2,600.0	2,524.3	2,571.2	2,495.2	8.4	10.0	80.83	-539.5	312.3	435.7	417.6	18.15	24.008		
2,643.2	2,562.9	2,612.2	2,533.0	8.7	10.3	81.24	-544.3	327.3	435.6	417.0	18.65	23.360		
2,700.0	2,613.6	2,666.7	2,583.1	9.0	10.6	81.69	-551.0	347.7	435.8	416.5	19.31	22.562		
2,800.0	2,702.9	2,767.1	2,675.5	9.5	11.2	82.55	-563.5	385.1	436.4	415.9	20.55	21.233		
2,900.0	2,792.2	2,869.8	2,770.4	10.1	11.9	83.59	-575.5	422.3	436.5	414.7	21.83	19.996		
2,985.5	2,868.5	2,955.7	2,849.1	10.6	12.5	84.20	-585.6	455.2	436.5	413.5	22.94	19.024		
3,000.0	2,881.5	2,970.3	2,862.4	10.7	12.6	84.30	-587.3	460.9	436.4	413.3	23.14	18.865		
3,100.0	2,970.8	3,072.1	2,955.9	11.3	13.3	85.06	-598.9	499.7	436.2	411.7	24.47	17.826		
3,200.0	3,060.1	3,174.2	3,050.2	11.9	14.0	86.04	-609.7	537.3	435.4	409.6	25.79	16.880		
3,300.0	3,149.4	3,277.8	3,145.7	12.5	14.8	86.99	-620.2	576.0	434.2	407.0	27.14	16.000		
3,400.0	3,238.7	3,375.9	3,236.4	13.1	15.4	87.96	-629.5	612.3	432.6	404.1	28.45	15.207		
3,495.2	3,323.6	3,466.4	3,319.6	13.7	16.1	88.73	-639.0	646.4	432.0	402.3	29.70	14.547		
3,500.0	3,328.0	3,471.0	3,323.8	13.7	16.1	88.76	-639.5	648.2	432.0	402.2	29.76	14.516		
3,600.0	3,417.3	3,573.8	3,418.1	14.3	16.9	89.54	-650.8	687.5	431.7	400.5	31.14	13.862		
3,700.0	3,506.6	3,673.2	3,510.0	15.0	17.6	90.54	-660.8	724.1	430.9	398.4	32.48	13.267		
3,718.4	3,523.0	3,689.8	3,525.4	15.1	17.7	90.71	-662.5	730.1	430.9	398.2	32.72	13.171		
3,800.0	3,595.9	3,765.9	3,595.8	15.6	18.2	91.51	-671.1	757.6	431.6	397.8	33.76	12.783		
3,900.0	3,685.1	3,866.2	3,688.9	16.2	18.9	92.62	-682.5	793.3	432.8	397.7	35.10	12.332		
4,000.0	3,774.4	3,965.7	3,780.9	16.8	19.6	93.62	-694.2	829.3	434.4	398.0	36.42	11.926		
4,100.0	3,863.7	4,064.6	3,872.6	17.5	20.3	94.72	-705.4	864.4	435.9	398.2	37.74	11.550		

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

Amazon.com

Anticollision Report

Company:	APEX	Local Co-ordinate Reference:	Well *Brighton Lakes 20-17-2NAH
Project:	POCO Brighton Lakes Expansion	TVD Reference:	RKB @ 5063.0usft
Reference Site:	Sec 20-T1S-R66W	MD Reference:	RKB @ 5063.0usft
Site Error:	0.0 usft	North Reference:	Grid
Reference Well:	*Brighton Lakes 20-17-2NAH	Survey Calculation Method:	Minimum Curvature
Well Error:	0.0 usft	Output errors are at	2.00 sigma
Reference Wellbore	Original Hole	Database:	WC365
Reference Design:	Plan #1	Offset TVD Reference:	Offset Datum

Offset Design: Sec 20-T1S-R66W - 20-17-2NCH - Original Hole - Final Surveys													Offset Site Error:	0.0 usft
Survey Program: 134-MWD													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)	Distance Between Ellipses (usft)	Minimum Separation (usft)	Separation Factor	Warning	
4,200.0	3,953.0	4,161.1	3,962.0	18.1	20.9	95.70	-717.1	898.9	438.2	399.2	39.04	11.224		
4,300.0	4,042.3	4,262.3	4,055.2	18.8	21.7	96.57	-730.1	936.0	441.0	400.6	40.40	10.916		
4,400.0	4,131.6	4,364.4	4,149.4	19.4	22.4	97.46	-742.5	973.5	443.2	401.5	41.76	10.614		
4,500.0	4,220.9	4,469.4	4,246.3	20.1	23.2	98.40	-754.3	1,012.3	444.6	401.5	43.13	10.308		
4,600.0	4,310.2	4,560.3	4,330.2	20.7	23.8	99.22	-765.0	1,045.5	446.7	402.4	44.39	10.064		
4,700.0	4,399.5	4,658.9	4,421.2	21.3	24.5	100.09	-777.5	1,081.2	450.0	404.3	45.70	9.847		
4,800.0	4,488.8	4,757.4	4,512.9	22.0	25.2	101.19	-789.5	1,115.1	453.7	406.7	46.96	9.662		
4,900.0	4,578.1	4,863.3	4,610.8	22.6	25.9	102.13	-802.8	1,153.3	457.1	408.8	48.31	9.463		
5,000.0	4,667.4	4,969.8	4,708.5	23.3	26.7	102.84	-815.3	1,194.0	458.8	409.2	49.69	9.234		
5,100.0	4,756.7	5,070.6	4,801.0	23.9	27.5	103.59	-826.2	1,232.3	459.9	408.9	51.03	9.013		
5,200.0	4,846.0	5,166.9	4,889.5	24.6	28.2	104.30	-836.8	1,268.9	461.3	409.0	52.31	8.818		
5,300.0	4,935.3	5,269.9	4,984.3	25.2	28.9	105.10	-848.1	1,307.5	462.9	409.3	53.63	8.631		
5,400.0	5,024.6	5,369.3	5,075.4	25.9	29.7	105.78	-859.0	1,345.6	464.3	409.3	54.94	8.451		
5,500.0	5,113.9	5,467.9	5,166.3	26.6	30.4	106.58	-869.5	1,382.4	465.9	409.7	56.20	8.290		
5,600.0	5,203.2	5,563.0	5,254.5	27.2	31.1	107.53	-879.1	1,416.6	468.0	410.6	57.38	8.156		
5,700.0	5,292.5	5,654.2	5,339.3	27.9	31.7	108.43	-889.8	1,448.5	472.1	413.6	58.51	8.069		
5,800.0	5,381.8	5,751.9	5,429.9	28.5	32.4	109.25	-902.4	1,483.0	477.2	417.5	59.69	7.994		
5,900.0	5,471.1	5,857.5	5,527.7	29.2	33.1	110.10	-916.2	1,520.4	482.3	421.4	60.95	7.913		
6,000.0	5,560.4	5,962.2	5,624.2	29.8	33.9	110.87	-928.6	1,558.9	485.8	423.6	62.21	7.809		
6,100.0	5,649.7	6,057.8	5,712.4	30.5	34.6	111.57	-940.0	1,593.9	489.4	426.0	63.39	7.721		
6,200.0	5,739.0	6,157.0	5,804.1	31.2	35.3	112.29	-952.2	1,630.0	493.7	429.1	64.58	7.645		
6,300.0	5,828.3	6,259.5	5,899.0	31.8	36.0	113.13	-964.0	1,666.7	497.8	432.0	65.75	7.570		
6,400.0	5,917.6	6,359.6	5,991.7	32.5	36.7	113.94	-975.4	1,702.6	501.7	434.8	66.90	7.500		
6,500.0	6,006.9	6,459.9	6,084.5	33.1	37.4	114.73	-986.5	1,739.0	505.4	437.3	68.04	7.428		
6,600.0	6,096.2	6,557.2	6,174.7	33.8	38.1	115.50	-997.7	1,773.8	509.7	440.6	69.14	7.373		
6,700.0	6,185.5	6,657.7	6,267.6	34.4	38.9	116.21	-1,009.6	1,810.2	514.1	443.8	70.28	7.315		
6,800.0	6,274.8	6,761.5	6,363.4	35.1	39.6	116.90	-1,021.8	1,848.2	518.2	446.8	71.45	7.253		
6,900.0	6,364.1	6,865.1	6,458.8	35.8	40.4	117.56	-1,033.4	1,886.9	521.5	448.9	72.62	7.181		
7,000.0	6,453.4	6,966.1	6,551.9	36.4	41.1	118.22	-1,044.2	1,924.8	524.4	450.6	73.75	7.110		
7,100.0	6,542.7	7,064.3	6,642.1	37.1	41.8	118.83	-1,054.9	1,961.8	527.3	452.5	74.87	7.043		
7,200.0	6,632.0	7,161.6	6,731.3	37.7	42.6	119.30	-1,066.6	1,998.9	530.8	454.8	76.02	6.982		
7,300.0	6,721.3	7,302.6	6,862.3	38.4	43.7	120.72	-1,076.9	2,049.8	533.4	456.3	77.03	6.924		
7,314.2	6,734.0	7,334.3	6,891.9	38.5	43.9	121.37	-1,075.4	2,060.8	532.6	455.6	76.94	6.922		
7,350.0	6,766.1	7,380.9	6,935.4	38.7	44.2	129.19	-1,072.1	2,077.4	530.8	453.8	76.92	6.900		
7,400.0	6,811.1	7,458.4	7,007.0	39.1	44.6	140.64	-1,062.6	2,105.4	528.7	452.2	76.56	6.906		
7,450.0	6,856.0	7,534.5	7,076.4	39.4	45.1	151.87	-1,047.3	2,132.6	527.0	451.1	75.93	6.941		
7,500.0	6,900.4	7,616.3	7,149.6	39.6	45.4	162.53	-1,023.3	2,159.8	525.9	451.2	74.75	7.036		
7,550.0	6,944.1	7,713.1	7,232.5	39.9	45.9	172.15	-985.9	2,192.7	523.6	451.1	72.49	7.223		
7,600.0	6,986.7	7,794.5	7,298.1	40.1	46.1	-179.54	-945.0	2,218.2	520.2	449.5	70.62	7.365		
7,650.0	7,027.9	7,906.3	7,380.9	40.3	46.5	-171.42	-876.9	2,249.4	517.0	450.4	66.58	7.766		
7,700.0	7,067.3	8,038.8	7,457.4	40.5	46.8	-162.59	-774.2	2,282.3	507.1	445.9	61.14	8.293		
7,750.0	7,104.7	8,104.6	7,483.7	40.6	46.8	-156.34	-715.1	2,293.2	494.5	433.7	60.76	8.138		
7,800.0	7,139.7	8,197.6	7,511.1	40.8	46.9	-148.73	-627.1	2,303.6	482.3	422.9	59.43	8.115		
7,850.0	7,172.2	8,262.9	7,522.8	40.9	46.9	-142.94	-563.0	2,307.8	471.1	411.2	59.92	7.863		
7,900.0	7,201.8	8,321.7	7,528.8	40.9	46.9	-137.93	-504.5	2,310.7	460.9	400.1	60.76	7.585		
7,950.0	7,228.4	8,374.4	7,532.1	41.0	46.9	-133.78	-452.0	2,313.2	452.2	390.5	61.67	7.332		
8,000.0	7,251.7	8,421.3	7,533.9	41.0	47.0	-130.45	-405.2	2,315.4	445.0	382.5	62.51	7.119		
8,050.0	7,271.5	8,467.1	7,535.3	41.1	47.0	-127.64	-359.5	2,317.4	439.6	376.4	63.21	6.955		
8,100.0	7,287.8	8,509.4	7,536.6	41.1	47.1	-125.46	-317.2	2,318.9	435.9	372.1	63.80	6.833		
8,112.0	7,291.1	8,519.3	7,536.9	41.1	47.1	-125.02	-307.3	2,319.2	435.3	371.4	63.92	6.810		
8,150.0	7,300.3	8,551.2	7,538.2	41.1	47.1	-123.80	-275.4	2,320.0	434.0	369.7	64.28	6.752		
8,160.8	7,302.5	8,560.4	7,538.6	41.1	47.1	-123.51	-266.3	2,320.1	433.8	369.4	64.37	6.739		

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

Amazon.com

Anticollision Report

Company:	APEX	Local Co-ordinate Reference:	Well *Brighton Lakes 20-17-2NAH
Project:	POCO Brighton Lakes Expansion	TVD Reference:	RKB @ 5063.0usft
Reference Site:	Sec 20-T1S-R66W	MD Reference:	RKB @ 5063.0usft
Site Error:	0.0 usft	North Reference:	Grid
Reference Well:	*Brighton Lakes 20-17-2NAH	Survey Calculation Method:	Minimum Curvature
Well Error:	0.0 usft	Output errors are at	2.00 sigma
Reference Wellbore	Original Hole	Database:	WC365
Reference Design:	Plan #1	Offset TVD Reference:	Offset Datum

Offset Design: Sec 20-T1S-R66W - 20-17-2NCH - Original Hole - Final Surveys													Offset Site Error:	0.0 usft
Survey Program: 134-MWD													Offset Well Error:	0.0 usft
Measured Depth (usft)	Vertical Depth (usft)	Measured Depth (usft)	Vertical Depth (usft)	Reference (usft)	Semi Major Axis Offset (usft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (usft)	+E/-W (usft)	Distance Between Centres (usft)	Between Ellipses (usft)	Minimum Separation (usft)	Separation Factor	Warning	
8,200.0	7,309.1	8,597.4	7,540.5	41.0	47.2	-122.59	-229.3	2,320.7	433.5	368.8	64.69	6.701		
8,207.0	7,310.0	8,604.2	7,540.8	41.0	47.2	-122.47	-222.5	2,320.8	433.5	368.7	64.74	6.695		
8,250.0	7,313.9	8,646.3	7,543.0	41.0	47.3	-121.99	-180.5	2,321.3	433.7	368.6	65.07	6.666		
8,251.7	7,314.0	8,647.9	7,543.1	41.0	47.3	-121.98	-178.9	2,321.3	433.7	368.6	65.08	6.665		
8,286.8	7,315.0	8,683.1	7,544.9	41.0	47.4	-121.98	-143.8	2,321.7	434.2	368.9	65.35	6.645		
8,287.4	7,315.0	8,683.7	7,544.9	41.0	47.4	-121.98	-143.2	2,321.7	434.2	368.9	65.35	6.645		
8,300.0	7,315.0	8,696.4	7,545.5	41.0	47.4	-122.05	-130.5	2,321.8	434.5	369.0	65.45	6.638		
8,304.4	7,315.0	8,700.9	7,545.7	41.0	47.4	-122.08	-126.0	2,321.9	434.5	369.0	65.48	6.636		
8,400.0	7,315.0	8,800.1	7,549.0	40.9	47.7	-122.48	-26.8	2,322.3	435.9	369.6	66.33	6.571		
8,420.8	7,315.0	8,822.3	7,549.4	40.9	47.8	-122.52	-4.7	2,322.3	436.1	369.5	66.55	6.552		
8,500.0	7,315.0	8,907.3	7,549.3	40.8	48.1	-122.52	80.3	2,322.4	436.0	368.5	67.46	6.463		
8,569.4	7,315.0	8,973.0	7,548.9	40.8	48.3	-122.48	146.0	2,322.5	435.6	367.4	68.16	6.391		
8,600.0	7,315.0	9,000.6	7,549.0	40.8	48.5	-122.49	173.6	2,322.5	435.7	367.3	68.43	6.367		
8,620.9	7,315.0	9,021.1	7,549.3	40.8	48.5	-122.52	194.2	2,322.4	435.9	367.2	68.66	6.348		
8,700.0	7,315.0	9,114.8	7,549.0	40.8	49.0	-122.57	287.8	2,323.5	435.0	364.9	70.07	6.207		
8,722.2	7,315.0	9,134.7	7,548.8	40.8	49.1	-122.57	307.7	2,323.9	434.5	364.2	70.30	6.180		
8,800.0	7,315.0	9,204.5	7,548.9	40.9	49.5	-122.65	377.5	2,324.9	433.6	362.6	71.05	6.104		
8,804.7	7,315.0	9,208.6	7,549.0	40.9	49.5	-122.66	381.6	2,324.9	433.6	362.5	71.09	6.100		
8,900.0	7,315.0	9,293.7	7,551.3	41.0	50.0	-122.94	466.6	2,325.1	434.8	362.8	72.00	6.039		
8,904.4	7,315.0	9,297.9	7,551.5	41.0	50.1	-122.95	470.9	2,325.1	434.9	362.9	72.06	6.036		
9,000.0	7,315.0	9,391.2	7,555.5	41.1	50.7	-123.35	564.1	2,324.5	437.7	364.4	73.31	5.970		
9,004.4	7,315.0	9,395.9	7,555.7	41.1	50.7	-123.37	568.8	2,324.5	437.8	364.4	73.39	5.966		
9,100.0	7,315.0	9,497.0	7,557.9	41.2	51.4	-123.52	669.9	2,323.3	439.9	364.8	75.07	5.859		
9,104.4	7,315.0	9,501.6	7,557.9	41.2	51.4	-123.52	674.5	2,323.3	439.9	364.8	75.15	5.854		
9,200.0	7,315.0	9,593.9	7,558.1	41.4	52.1	-123.44	766.8	2,321.7	441.4	364.9	76.51	5.769		
9,204.4	7,315.0	9,597.9	7,558.1	41.4	52.1	-123.43	770.8	2,321.6	441.5	364.9	76.56	5.767		
9,300.0	7,315.0	9,688.4	7,557.4	41.6	52.8	-123.06	861.1	2,317.5	444.7	366.8	77.87	5.710		
9,304.4	7,315.0	9,692.9	7,557.3	41.6	52.8	-123.04	865.6	2,317.3	444.8	366.9	77.95	5.706		
9,400.0	7,315.0	9,783.8	7,557.7	41.9	53.6	-122.81	956.5	2,313.4	448.5	369.2	79.32	5.654		
9,404.4	7,315.0	9,787.9	7,557.8	41.9	53.6	-122.81	960.5	2,313.2	448.7	369.3	79.37	5.653		
9,500.0	7,315.0	9,884.3	7,559.4	42.2	54.4	-122.66	1,056.9	2,308.6	453.4	372.3	81.11	5.589		
9,519.6	7,315.0	9,905.2	7,559.4	42.3	54.6	-122.59	1,077.7	2,307.6	454.2	372.7	81.55	5.570		
9,600.0	7,315.0	10,024.6	7,556.5	42.6	55.7	-122.23	1,197.0	2,306.7	453.4	367.8	85.67	5.293		
9,623.9	7,315.0	10,050.7	7,555.5	42.7	56.0	-122.17	1,223.1	2,307.5	452.3	366.0	86.30	5.241		
9,700.0	7,315.0	10,124.7	7,553.1	43.0	56.8	-122.11	1,297.0	2,310.5	448.4	360.7	87.67	5.114		
9,723.1	7,315.0	10,144.7	7,552.8	43.1	57.0	-122.13	1,317.0	2,311.3	447.4	359.5	87.91	5.089		
9,800.0	7,315.0	10,216.9	7,552.8	43.5	57.8	-122.31	1,389.1	2,313.8	445.1	356.1	89.09	4.997		
9,822.6	7,315.0	10,239.8	7,552.8	43.6	58.0	-122.36	1,412.0	2,314.6	444.5	355.0	89.56	4.963		
9,900.0	7,315.0	10,310.3	7,552.6	44.0	58.8	-122.47	1,482.5	2,316.4	442.7	352.1	90.60	4.886		
9,937.7	7,315.0	10,342.5	7,552.7	44.2	59.1	-122.50	1,514.7	2,316.7	442.5	351.5	90.94	4.866		
10,000.0	7,315.0	10,403.0	7,553.1	44.6	59.8	-122.53	1,575.2	2,316.6	442.7	350.7	92.07	4.809		
10,020.9	7,315.0	10,424.4	7,553.1	44.7	60.0	-122.53	1,596.6	2,316.6	442.8	350.3	92.54	4.785		
10,100.0	7,315.0	10,510.5	7,552.5	45.2	61.0	-122.46	1,682.7	2,316.5	442.6	347.8	94.79	4.669		
10,122.1	7,315.0	10,535.2	7,551.9	45.4	61.3	-122.41	1,707.4	2,316.6	442.2	346.7	95.48	4.631		
10,200.0	7,315.0	10,617.0	7,549.1	45.9	62.2	-122.13	1,789.1	2,317.1	440.4	342.9	97.53	4.516		
10,222.5	7,315.0	10,638.0	7,548.2	46.1	62.5	-122.04	1,810.1	2,317.2	439.8	341.9	97.91	4.492		
10,300.0	7,315.0	10,704.8	7,546.5	46.6	63.3	-121.85	1,876.9	2,317.1	438.9	340.2	98.70	4.446		
10,304.4	7,315.0	10,708.7	7,546.5	46.7	63.3	-121.84	1,880.7	2,317.1	438.9	340.1	98.74	4.445		
10,400.0	7,315.0	10,797.2	7,546.7	47.4	64.4	-121.80	1,969.2	2,316.1	439.8	339.6	100.21	4.389		
10,404.4	7,315.0	10,801.3	7,546.8	47.4	64.4	-121.80	1,973.4	2,316.1	439.9	339.6	100.28	4.387		
10,500.0	7,315.0	10,902.3	7,547.3	48.2	65.7	-121.78	2,074.3	2,314.9	441.1	338.2	102.91	4.286		
10,504.4	7,315.0	10,906.6	7,547.3	48.3	65.7	-121.78	2,078.6	2,314.9	441.1	338.1	103.00	4.283		

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

Amazon.com

Anticollision Report

Company:	APEX	Local Co-ordinate Reference:	Well *Brighton Lakes 20-17-2NAH
Project:	POCO Brighton Lakes Expansion	TVD Reference:	RKB @ 5063.0usft
Reference Site:	Sec 20-T1S-R66W	MD Reference:	RKB @ 5063.0usft
Site Error:	0.0 usft	North Reference:	Grid
Reference Well:	*Brighton Lakes 20-17-2NAH	Survey Calculation Method:	Minimum Curvature
Well Error:	0.0 usft	Output errors are at	2.00 sigma
Reference Wellbore	Original Hole	Database:	WC365
Reference Design:	Plan #1	Offset TVD Reference:	Offset Datum

Offset Design: Sec 20-T1S-R66W - 20-17-2NCH - Original Hole - Final Surveys													Offset Site Error: 0.0 usft
Survey Program: 134-MWD													Offset Well Error: 0.0 usft
Reference		Offset		Semi Major Axis			Offset Wellbore Centre		Distance				Warning
Measured Depth (usft)	Vertical Depth (usft)	Measured Depth (usft)	Vertical Depth (usft)	Reference (usft)	Offset (usft)	Highside Toolface (°)	+N/-S (usft)	+E/-W (usft)	Between Centres (usft)	Between Ellipses (usft)	Minimum Separation (usft)	Separation Factor	
10,600.0	7,315.0	11,000.5	7,546.6	49.1	66.9	-121.60	2,172.5	2,313.4	442.0	337.0	105.03	4.208	
10,604.4	7,315.0	11,005.2	7,546.5	49.1	66.9	-121.59	2,177.3	2,313.3	442.1	336.9	105.17	4.203	
10,700.0	7,315.0	11,105.3	7,546.4	50.0	68.2	-121.55	2,277.4	2,312.9	442.3	334.5	107.79	4.103	
10,770.5	7,315.0	11,175.7	7,546.3	50.7	69.1	-121.54	2,347.7	2,313.0	442.2	332.8	109.41	4.042	
10,800.0	7,315.0	11,204.0	7,546.3	50.9	69.5	-121.54	2,376.0	2,312.9	442.2	332.3	109.98	4.021	
10,804.4	7,315.0	11,208.3	7,546.3	51.0	69.5	-121.54	2,380.3	2,312.9	442.3	332.2	110.06	4.018	
10,900.0	7,315.0	11,299.2	7,547.3	51.9	70.7	-121.64	2,471.3	2,312.8	442.9	331.1	111.80	3.962	
10,904.4	7,315.0	11,303.4	7,547.4	52.0	70.8	-121.65	2,475.5	2,312.8	443.0	331.1	111.88	3.960	
11,000.0	7,315.0	11,405.8	7,549.1	52.9	72.1	-121.82	2,577.8	2,312.5	444.1	329.4	114.75	3.870	
11,021.4	7,315.0	11,430.6	7,549.3	53.1	72.5	-121.86	2,602.6	2,312.8	444.0	328.4	115.59	3.841	
11,100.0	7,315.0	11,507.3	7,549.9	54.0	73.5	-121.99	2,679.3	2,313.8	443.4	326.2	117.21	3.783	
11,121.5	7,315.0	11,529.2	7,550.1	54.2	73.8	-122.04	2,701.2	2,314.1	443.3	325.5	117.75	3.765	
11,200.0	7,315.0	11,614.5	7,550.1	55.0	75.0	-122.13	2,786.5	2,315.5	442.2	321.9	120.27	3.676	
11,222.3	7,315.0	11,636.8	7,549.9	55.3	75.3	-122.14	2,808.7	2,315.9	441.7	320.9	120.80	3.656	
11,300.0	7,315.0	11,712.0	7,549.0	56.1	76.3	-122.12	2,884.0	2,317.2	440.1	317.6	122.43	3.595	
11,347.9	7,315.0	11,752.9	7,548.6	56.6	76.9	-122.09	2,924.9	2,317.3	439.7	316.8	122.86	3.579	
11,400.0	7,315.0	11,797.4	7,548.4	57.2	77.5	-122.04	2,969.3	2,316.8	440.1	316.8	123.32	3.569	
11,404.4	7,315.0	11,801.2	7,548.4	57.3	77.6	-122.03	2,973.1	2,316.7	440.2	316.9	123.36	3.568	
11,500.0	7,315.0	11,884.1	7,547.8	58.3	78.7	-121.71	3,055.9	2,312.9	443.5	319.1	124.40	3.565	
11,504.4	7,315.0	11,888.8	7,547.8	58.4	78.8	-121.68	3,060.6	2,312.6	443.7	319.2	124.55	3.563	
11,600.0	7,315.0	11,996.2	7,547.7	59.5	80.3	-121.36	3,167.9	2,307.9	447.4	319.0	128.37	3.485	
11,620.7	7,315.0	12,023.5	7,547.7	59.7	80.7	-121.32	3,195.2	2,307.4	447.6	318.0	129.61	3.454	
11,700.0	7,315.0	12,123.8	7,546.6	60.6	82.1	-121.31	3,295.5	2,309.0	446.1	312.3	133.79	3.334	
11,723.5	7,315.0	12,153.0	7,546.1	60.9	82.5	-121.34	3,324.7	2,310.3	445.0	310.0	134.92	3.298	
11,800.0	7,315.0	12,212.5	7,545.5	61.8	83.4	-121.40	3,384.2	2,312.2	442.5	307.4	135.07	3.276	
11,821.6	7,315.0	12,236.0	7,545.5	62.1	83.8	-121.42	3,407.6	2,312.5	442.3	306.5	135.80	3.257	
11,900.0	7,315.0	12,323.2	7,545.3	63.0	85.0	-121.54	3,494.8	2,314.6	440.6	302.0	138.63	3.179	
11,923.6	7,315.0	12,346.9	7,545.1	63.3	85.4	-121.59	3,518.5	2,315.6	439.7	300.4	139.21	3.158	
12,000.0	7,315.0	12,414.0	7,544.6	64.2	86.4	-121.73	3,585.5	2,318.4	436.7	296.6	140.06	3.118	
12,061.1	7,315.0	12,466.6	7,544.4	65.0	87.2	-121.78	3,638.1	2,319.5	435.6	294.9	140.62	3.097	
12,100.0	7,315.0	12,503.0	7,544.5	65.4	87.7	-121.76	3,674.5	2,319.0	436.1	294.7	141.34	3.085	
12,104.4	7,315.0	12,503.0	7,544.5	65.5	87.7	-121.76	3,674.5	2,319.0	436.1	295.2	140.93	3.095	
12,200.0	7,315.0	12,607.0	7,544.1	66.7	89.3	-121.64	3,778.5	2,318.0	436.7	292.4	144.39	3.025	
12,209.7	7,315.0	12,615.1	7,544.0	66.8	89.4	-121.63	3,786.6	2,317.9	436.7	292.3	144.46	3.023	
12,300.0	7,315.0	12,691.7	7,543.7	67.9	90.5	-121.49	3,863.2	2,316.3	438.2	293.0	145.20	3.018	
12,304.4	7,315.0	12,695.7	7,543.7	68.0	90.6	-121.48	3,867.1	2,316.1	438.3	293.1	145.26	3.018	
12,400.0	7,315.0	12,788.2	7,544.3	69.2	92.0	-121.23	3,959.5	2,311.6	442.6	295.1	147.46	3.001	
12,420.8	7,315.0	12,825.5	7,544.1	69.4	92.5	-121.14	3,996.8	2,310.6	443.0	293.0	150.05	2.952	
12,500.0	7,315.0	12,931.7	7,541.0	70.4	94.1	-120.97	4,102.9	2,313.2	439.9	284.8	155.13	2.836	
12,524.7	7,315.0	12,959.2	7,539.8	70.7	94.6	-120.93	4,130.4	2,314.5	438.4	282.3	156.09	2.809	
12,600.0	7,315.0	13,034.5	7,537.5	71.7	95.7	-120.97	4,205.5	2,318.9	433.4	275.4	158.01	2.743	
12,624.2	7,315.0	13,056.4	7,537.1	72.0	96.1	-121.02	4,227.3	2,320.3	431.9	273.5	158.36	2.727	
12,700.0	7,315.0	13,128.0	7,536.5	73.0	97.2	-121.21	4,298.9	2,324.1	428.1	268.3	159.77	2.679	
12,723.3	7,315.0	13,144.8	7,536.5	73.3	97.4	-121.25	4,315.7	2,324.8	427.2	267.5	159.64	2.676	
12,800.0	7,315.0	13,217.0	7,536.4	74.3	98.5	-121.43	4,387.8	2,327.4	424.8	263.8	160.98	2.639	
12,822.5	7,315.0	13,239.3	7,536.4	74.5	98.9	-121.47	4,410.1	2,328.0	424.2	262.7	161.51	2.627	
12,900.0	7,315.0	13,315.1	7,536.1	75.5	100.0	-121.58	4,485.9	2,330.0	422.4	259.1	163.23	2.588	
12,970.5	7,315.0	13,377.4	7,535.9	76.5	101.0	-121.61	4,548.2	2,330.7	421.6	257.5	164.05	2.570	
13,000.0	7,315.0	13,403.3	7,535.9	76.8	101.4	-121.60	4,574.1	2,330.6	421.6	257.3	164.37	2.565	
13,004.4	7,315.0	13,407.2	7,535.9	76.9	101.5	-121.60	4,577.9	2,330.6	421.7	257.3	164.41	2.565	
13,100.0	7,315.0	13,490.9	7,535.8	78.1	102.7	-121.41	4,661.6	2,328.2	423.9	258.5	165.48	2.562	
13,104.4	7,315.0	13,495.8	7,535.8	78.2	102.8	-121.40	4,666.5	2,328.0	424.1	258.4	165.66	2.560	

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

Amazon.com

Anticollision Report

Company:	APEX	Local Co-ordinate Reference:	Well *Brighton Lakes 20-17-2NAH
Project:	POCO Brighton Lakes Expansion	TVD Reference:	RKB @ 5063.0usft
Reference Site:	Sec 20-T1S-R66W	MD Reference:	RKB @ 5063.0usft
Site Error:	0.0 usft	North Reference:	Grid
Reference Well:	*Brighton Lakes 20-17-2NAH	Survey Calculation Method:	Minimum Curvature
Well Error:	0.0 usft	Output errors are at	2.00 sigma
Reference Wellbore	Original Hole	Database:	WC365
Reference Design:	Plan #1	Offset TVD Reference:	Offset Datum

Offset Design: Sec 20-T1S-R66W - 20-17-2NCH - Original Hole - Final Surveys												Offset Site Error:	0.0 usft
Survey Program: 134-MWD												Offset Well Error:	0.0 usft
Measured Depth (usft)	Vertical Depth (usft)	Measured Depth (usft)	Vertical Depth (usft)	Reference	Offset	Highside Toolface (°)	+N/-S (usft)	+E/-W (usft)	Between Centres (usft)	Between Ellipses (usft)	Minimum Separation (usft)	Separation Factor	Warning
13,200.0	7,315.0	13,601.3	7,535.2	79.5	104.5	-121.10	4,772.0	2,324.6	426.4	256.7	169.71	2.512	
13,220.9	7,315.0	13,625.0	7,535.0	79.7	104.8	-121.05	4,795.7	2,324.3	426.6	255.9	170.65	2.500	
13,300.0	7,315.0	13,709.1	7,534.0	80.8	106.1	-120.92	4,879.7	2,324.0	426.3	252.8	173.45	2.458	
13,321.5	7,315.0	13,730.7	7,533.6	81.1	106.5	-120.87	4,901.4	2,324.0	426.1	252.1	174.07	2.448	
13,400.0	7,315.0	13,814.2	7,532.0	82.1	107.8	-120.69	4,984.8	2,324.1	425.3	248.4	176.89	2.404	
13,422.3	7,315.0	13,838.4	7,531.8	82.4	108.2	-120.70	5,009.0	2,324.5	424.8	247.1	177.70	2.391	
13,500.0	7,315.0	13,917.0	7,531.6	83.4	109.4	-120.83	5,087.6	2,326.7	422.9	243.2	179.75	2.353	
13,522.6	7,315.0	13,940.7	7,531.6	83.7	109.8	-120.88	5,111.3	2,327.4	422.3	241.9	180.43	2.341	
13,600.0	7,315.0	14,029.4	7,530.1	84.7	111.2	-120.92	5,199.9	2,330.7	419.1	235.4	183.73	2.281	
13,623.3	7,315.0	14,046.5	7,529.6	85.1	111.4	-120.92	5,217.0	2,331.3	418.1	234.4	183.66	2.277	
13,700.0	7,315.0	14,112.0	7,529.1	86.1	112.5	-120.96	5,282.5	2,332.7	416.4	232.1	184.31	2.259	
13,722.1	7,315.0	14,135.7	7,529.3	86.4	112.9	-121.00	5,306.2	2,333.1	416.1	231.1	185.06	2.249	
13,800.0	7,315.0	14,230.4	7,530.1	87.4	114.4	-121.45	5,400.7	2,338.1	412.9	224.2	188.67	2.188	
13,824.3	7,315.0	14,256.3	7,530.3	87.7	114.8	-121.63	5,426.5	2,340.0	411.4	222.1	189.32	2.173	
13,900.0	7,315.0	14,329.0	7,531.3	88.8	115.9	-122.19	5,499.0	2,346.0	406.7	216.3	190.44	2.136	
13,923.7	7,315.0	14,350.0	7,531.6	89.1	116.3	-122.34	5,519.9	2,347.4	405.5	214.9	190.60	2.128	
14,000.0	7,315.0	14,412.5	7,532.7	90.1	117.3	-122.71	5,582.3	2,350.6	403.0	212.5	190.52	2.115	
14,022.6	7,315.0	14,429.7	7,533.1	90.4	117.6	-122.79	5,599.5	2,351.0	402.8	212.5	190.32	2.117 CC	
14,100.0	7,315.0	14,490.1	7,534.9	91.5	118.5	-122.97	5,659.9	2,350.6	404.6	214.9	189.71	2.133	
14,104.4	7,315.0	14,493.7	7,535.1	91.5	118.6	-122.97	5,663.5	2,350.4	404.8	215.1	189.69	2.134	
14,200.0	7,315.0	14,575.1	7,537.7	92.8	119.9	-122.92	5,744.7	2,345.8	411.0	221.0	190.03	2.163	
14,204.4	7,315.0	14,579.9	7,537.8	92.9	120.0	-122.91	5,749.5	2,345.4	411.3	221.1	190.21	2.162	
14,300.0	7,315.0	14,687.0	7,539.0	94.2	121.7	-122.47	5,856.3	2,337.7	417.7	222.7	195.05	2.142	
14,304.4	7,315.0	14,692.4	7,539.0	94.2	121.7	-122.45	5,861.7	2,337.4	417.9	222.6	195.34	2.140	
14,400.0	7,315.0	14,798.5	7,537.6	95.5	123.4	-121.95	5,967.7	2,332.7	420.8	220.8	199.95	2.104	
14,404.4	7,315.0	14,803.2	7,537.5	95.6	123.5	-121.92	5,972.3	2,332.5	420.9	220.8	200.13	2.103	
14,500.0	7,315.0	14,901.7	7,535.5	96.9	125.1	-121.46	6,070.8	2,329.2	422.6	219.0	203.59	2.076	
14,504.4	7,315.0	14,906.3	7,535.5	96.9	125.2	-121.45	6,075.4	2,329.1	422.7	218.9	203.74	2.075	
14,600.0	7,315.0	14,996.8	7,535.3	98.2	126.6	-121.28	6,165.8	2,327.0	424.5	218.7	205.77	2.063	
14,604.4	7,315.0	15,000.9	7,535.3	98.3	126.7	-121.27	6,170.0	2,326.8	424.6	218.7	205.86	2.063	
14,700.0	7,315.0	15,099.7	7,536.2	99.6	128.3	-121.21	6,268.7	2,324.6	426.9	217.9	208.93	2.043	
14,704.4	7,315.0	15,104.2	7,536.2	99.7	128.3	-121.22	6,273.2	2,324.6	427.0	217.9	209.05	2.042	
14,800.0	7,315.0	15,200.4	7,538.1	101.0	129.9	-121.37	6,369.4	2,323.7	428.7	217.2	211.53	2.027	
14,804.4	7,315.0	15,204.9	7,538.2	101.0	130.0	-121.38	6,373.9	2,323.6	428.8	217.1	211.65	2.026	
14,900.0	7,315.0	15,302.2	7,539.6	102.3	131.5	-121.46	6,471.2	2,322.5	430.4	216.1	214.36	2.008	
14,904.4	7,315.0	15,307.1	7,539.7	102.4	131.6	-121.46	6,476.0	2,322.5	430.5	215.9	214.53	2.007	
15,000.0	7,315.0	15,409.7	7,539.4	103.7	133.3	-121.39	6,578.7	2,321.8	430.8	212.7	218.12	1.975 Collision Risk Procedures Req.	
15,021.4	7,315.0	15,432.6	7,539.5	104.0	133.7	-121.41	6,601.5	2,322.0	430.7	211.9	218.85	1.968 Collision Risk Procedures Req.	
15,100.0	7,315.0	15,517.2	7,540.0	105.1	135.0	-121.60	6,686.1	2,323.8	429.6	208.1	221.48	1.940 Collision Risk Procedures Req.	
15,122.3	7,315.0	15,541.3	7,540.0	105.4	135.4	-121.64	6,710.3	2,324.4	429.1	206.8	222.24	1.931 Collision Risk Procedures Req.	
15,200.0	7,315.0	15,612.9	7,540.1	106.5	136.6	-121.77	6,781.8	2,326.1	427.6	204.2	223.42	1.914 Collision Risk Procedures Req.	
15,221.5	7,315.0	15,635.0	7,540.3	106.8	137.0	-121.81	6,803.9	2,326.4	427.4	203.4	224.01	1.908 Collision Risk Procedures Req.	
15,300.0	7,315.0	15,711.1	7,540.8	107.9	138.2	-121.94	6,880.0	2,327.4	426.9	201.2	225.64	1.892 Collision Risk Procedures Req.	
15,321.7	7,315.0	15,733.8	7,540.9	108.2	138.6	-121.97	6,902.7	2,327.7	426.7	200.4	226.31	1.885 Collision Risk Procedures Req.	
15,400.0	7,315.0	15,821.1	7,540.2	109.2	140.0	-122.01	6,990.0	2,329.4	425.0	195.5	229.47	1.852 Collision Risk Procedures Req.	
15,422.7	7,315.0	15,843.3	7,539.8	109.6	140.4	-122.01	7,012.1	2,329.9	424.3	194.3	230.00	1.845 Collision Risk Procedures Req.	
15,500.0	7,315.0	15,916.8	7,539.1	110.6	141.6	-122.06	7,085.7	2,331.8	422.3	190.7	231.56	1.824 Collision Risk Procedures Req.	
15,563.4	7,315.0	15,971.5	7,539.5	111.5	142.5	-122.17	7,140.3	2,332.7	421.6	189.6	231.97	1.818 Collision Risk Procedures Req.	
15,600.0	7,315.0	16,004.7	7,540.2	112.0	143.0	-122.27	7,173.5	2,333.0	421.8	189.5	232.35	1.815 Collision Risk Procedures Req.	
15,604.4	7,315.0	16,009.2	7,540.3	112.1	143.1	-122.29	7,178.1	2,333.0	421.9	189.4	232.46	1.815 Collision Risk Procedures Req.	
15,700.0	7,315.0	16,107.8	7,542.4	113.4	144.7	-122.58	7,276.6	2,333.7	422.4	187.4	235.01	1.797 Collision Risk Procedures Req.	
15,721.3	7,315.0	16,130.5	7,542.7	113.7	145.1	-122.62	7,299.3	2,333.9	422.4	186.6	235.72	1.792 Collision Risk Procedures Req.	

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

Amazon.com

Anticollision Report

Company:	APEX	Local Co-ordinate Reference:	Well *Brighton Lakes 20-17-2NAH
Project:	POCO Brighton Lakes Expansion	TVD Reference:	RKB @ 5063.0usft
Reference Site:	Sec 20-T1S-R66W	MD Reference:	RKB @ 5063.0usft
Site Error:	0.0 usft	North Reference:	Grid
Reference Well:	*Brighton Lakes 20-17-2NAH	Survey Calculation Method:	Minimum Curvature
Well Error:	0.0 usft	Output errors are at	2.00 sigma
Reference Wellbore	Original Hole	Database:	WC365
Reference Design:	Plan #1	Offset TVD Reference:	Offset Datum

Offset Design: Sec 20-T1S-R66W - 20-17-2NCH - Original Hole - Final Surveys													Offset Site Error: 0.0 usft
Survey Program: 134-MWD													Offset Well Error: 0.0 usft
Reference		Offset		Semi Major Axis			Offset Wellbore Centre		Distance				Warning
Measured Depth (usft)	Vertical Depth (usft)	Measured Depth (usft)	Vertical Depth (usft)	Reference (usft)	Offset (usft)	Highside Toolface (°)	+N/-S (usft)	+E/-W (usft)	Between Centres (usft)	Between Ellipses (usft)	Minimum Separation (usft)	Separation Factor	
15,800.0	7,315.0	16,211.0	7,542.9	114.8	146.4	-122.71	7,379.8	2,334.7	421.8	183.9	237.93	1.773	Collision Risk Procedures Req.
15,821.4	7,315.0	16,231.9	7,542.8	115.1	146.8	-122.71	7,400.7	2,334.8	421.7	183.2	238.43	1.769	Collision Risk Procedures Req.
15,900.0	7,315.0	16,308.5	7,542.5	116.2	148.0	-122.67	7,477.3	2,334.8	421.4	181.1	240.32	1.754	Collision Risk Procedures Req.
15,921.1	7,315.0	16,329.0	7,542.5	116.5	148.4	-122.67	7,497.8	2,334.8	421.4	180.6	240.81	1.750	Collision Risk Procedures Req.
16,000.0	7,315.0	16,414.8	7,542.4	117.6	149.8	-122.69	7,583.6	2,335.2	421.1	177.3	243.80	1.727	Collision Risk Procedures Req.
16,022.1	7,315.0	16,439.8	7,542.0	117.9	150.2	-122.68	7,608.6	2,335.6	420.6	175.9	244.78	1.718	Collision Risk Procedures Req.
16,100.0	7,315.0	16,510.3	7,541.4	119.0	151.3	-122.65	7,679.1	2,336.3	419.5	173.6	245.95	1.706	Collision Risk Procedures Req.
16,121.3	7,315.0	16,530.0	7,541.4	119.3	151.7	-122.66	7,698.8	2,336.4	419.5	173.2	246.29	1.703	Collision Risk Procedures Req.
16,200.0	7,315.0	16,612.8	7,541.3	120.4	153.0	-122.68	7,781.6	2,336.9	419.0	170.1	248.90	1.684	Collision Risk Procedures Req.
16,222.0	7,315.0	16,636.9	7,541.2	120.7	153.4	-122.70	7,805.7	2,337.2	418.8	169.0	249.75	1.677	Collision Risk Procedures Req.
16,300.0	7,315.0	16,720.1	7,540.9	121.7	154.8	-122.84	7,888.8	2,339.6	416.7	164.5	252.26	1.652	Collision Risk Procedures Req.
16,370.5	7,315.0	16,778.8	7,540.8	122.7	155.8	-122.90	7,947.5	2,340.5	415.7	163.2	252.52	1.646	Collision Risk Procedures Req.
16,400.0	7,315.0	16,804.0	7,540.8	123.1	156.2	-122.89	7,972.8	2,340.3	415.9	163.2	252.74	1.646	Collision Risk Procedures Req.
16,404.4	7,315.0	16,808.4	7,540.8	123.2	156.3	-122.88	7,977.1	2,340.3	415.9	163.1	252.84	1.645	Collision Risk Procedures Req.
16,500.0	7,315.0	16,900.0	7,540.8	124.5	157.8	-122.76	8,068.7	2,338.7	417.3	162.2	255.04	1.636	Collision Risk Procedures Req.
16,504.4	7,315.0	16,904.1	7,540.8	124.6	157.9	-122.75	8,072.8	2,338.6	417.4	162.3	255.11	1.636	Collision Risk Procedures Req.
16,600.0	7,315.0	16,994.4	7,541.4	125.9	159.4	-122.61	8,163.1	2,335.7	420.3	163.2	257.11	1.635	Collision Risk Procedures Req.
16,604.4	7,315.0	16,999.5	7,541.5	126.0	159.4	-122.61	8,168.2	2,335.5	420.4	163.1	257.35	1.634	Collision Risk Procedures Req.
16,700.0	7,315.0	17,102.2	7,543.1	127.3	161.2	-122.72	8,270.9	2,334.4	422.1	161.3	260.82	1.618	Collision Risk Procedures Req.
16,704.4	7,315.0	17,106.4	7,543.2	127.4	161.2	-122.72	8,275.1	2,334.4	422.2	161.3	260.89	1.618	Collision Risk Procedures Req.
16,800.0	7,315.0	17,210.3	7,544.8	128.7	162.9	-122.86	8,379.0	2,333.8	423.5	159.1	264.39	1.602	Collision Risk Procedures Req.
16,821.7	7,315.0	17,237.5	7,545.0	129.0	163.4	-122.93	8,406.1	2,334.4	423.2	157.6	265.57	1.594	Collision Risk Procedures Req.
16,900.0	7,315.0	17,317.3	7,545.4	130.1	164.7	-123.14	8,485.9	2,336.6	421.6	154.1	267.50	1.576	Collision Risk Procedures Req.
16,922.2	7,315.0	17,339.8	7,545.5	130.5	165.1	-123.19	8,508.4	2,337.2	421.1	153.1	268.04	1.571	Collision Risk Procedures Req.
17,000.0	7,315.0	17,421.5	7,545.1	131.6	166.5	-123.32	8,590.0	2,339.5	419.0	148.7	270.36	1.550	Collision Risk Procedures Req.
17,022.7	7,315.0	17,444.0	7,544.8	131.9	166.8	-123.34	8,612.6	2,340.2	418.3	147.4	270.92	1.544	Collision Risk Procedures Req.
17,100.0	7,315.0	17,519.4	7,543.6	133.0	168.1	-123.34	8,687.9	2,342.0	416.1	143.3	272.76	1.525	Collision Risk Procedures Req.
17,122.2	7,315.0	17,539.1	7,543.3	133.3	168.4	-123.33	8,707.6	2,342.4	415.6	142.5	273.06	1.522	Collision Risk Procedures Req.
17,200.0	7,315.0	17,608.2	7,542.6	134.4	169.6	-123.27	8,776.7	2,342.7	414.8	140.7	274.09	1.513	Collision Risk Procedures Req.
17,204.4	7,315.0	17,612.5	7,542.5	134.4	169.6	-123.26	8,781.0	2,342.6	414.8	140.6	274.19	1.513	Collision Risk Procedures Req.
17,300.0	7,315.0	17,703.7	7,541.2	135.8	171.2	-123.00	8,872.1	2,341.1	415.4	138.8	276.62	1.502	Collision Risk Procedures Req.
17,304.4	7,315.0	17,707.8	7,541.2	135.8	171.2	-122.98	8,876.3	2,341.0	415.5	138.7	276.72	1.501	Collision Risk Procedures Req.
17,400.0	7,315.0	17,798.1	7,541.5	137.2	172.7	-122.89	8,966.5	2,339.1	417.4	138.7	278.69	1.498	Collision Risk Procedures Req.
17,404.4	7,315.0	17,802.6	7,541.6	137.2	172.8	-122.89	8,971.0	2,339.0	417.5	138.7	278.81	1.497	Collision Risk Procedures Req.
17,500.0	7,315.0	17,902.1	7,542.3	138.6	174.5	-122.79	9,070.5	2,336.8	419.6	137.5	282.16	1.487	Collision Risk Procedures Req.
17,504.4	7,315.0	17,907.0	7,542.2	138.6	174.6	-122.79	9,075.4	2,336.7	419.7	137.3	282.37	1.486	Collision Risk Procedures Req.
17,600.0	7,315.0	18,009.0	7,541.0	140.0	176.3	-122.54	9,177.4	2,335.4	420.1	133.7	286.33	1.467	Collision Risk Procedures Req.
17,662.1	7,315.0	18,070.7	7,539.2	140.9	177.3	-122.27	9,239.0	2,334.4	420.0	131.5	288.48	1.456	Collision Risk Procedures Req.
17,700.0	7,315.0	18,108.1	7,537.8	141.4	177.9	-122.04	9,276.4	2,333.4	420.0	130.1	289.86	1.449	Collision Risk Procedures Req.
17,704.4	7,315.0	18,112.5	7,537.7	141.5	178.0	-122.01	9,280.8	2,333.3	420.0	130.0	290.03	1.448	Collision Risk Procedures Req., ES, SF
17,800.0	7,315.0	18,140.0	7,536.6	142.8	178.5	-121.84	9,308.3	2,332.6	425.6	145.6	280.00	1.520	Collision Risk Procedures Req.
17,804.4	7,315.0	18,140.0	7,536.6	142.9	178.5	-121.84	9,308.3	2,332.6	426.4	147.3	279.06	1.528	Collision Risk Procedures Req.
17,900.0	7,315.0	18,140.0	7,536.6	144.2	178.5	-121.84	9,308.3	2,332.6	452.6	198.4	254.23	1.780	Collision Risk Procedures Req.
17,904.4	7,315.0	18,140.0	7,536.6	144.3	178.5	-121.84	9,308.3	2,332.6	454.3	201.4	252.91	1.796	Collision Risk Procedures Req.
18,000.0	7,315.0	18,140.0	7,536.6	145.6	178.5	-121.84	9,308.3	2,332.6	498.6	274.9	223.73	2.229	
18,032.3	7,315.0	18,140.0	7,536.6	146.1	178.5	-121.84	9,308.3	2,332.6	516.8	302.8	213.94	2.416	

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

Amazon.com

Anticollision Report

Company:	APEX	Local Co-ordinate Reference:	Well *Brighton Lakes 20-17-2NAH
Project:	POCO Brighton Lakes Expansion	TVD Reference:	RKB @ 5063.0usft
Reference Site:	Sec 20-T1S-R66W	MD Reference:	RKB @ 5063.0usft
Site Error:	0.0 usft	North Reference:	Grid
Reference Well:	*Brighton Lakes 20-17-2NAH	Survey Calculation Method:	Minimum Curvature
Well Error:	0.0 usft	Output errors are at	2.00 sigma
Reference Wellbore	Original Hole	Database:	WC365
Reference Design:	Plan #1	Offset TVD Reference:	Offset Datum

Offset Design: Sec 20-T1S-R66W - 20-17-3NBH - Original Hole - Final Surveys												Offset Site Error:	0.0 usft
Survey Program: 126-MWD												Offset Well Error:	0.0 usft
Reference		Offset		Semi Major Axis		Highside Toolface (°)	Offset Wellbore Centre		Distance		Minimum Separation (usft)	Separation Factor	Warning
Measured Depth (usft)	Vertical Depth (usft)	Measured Depth (usft)	Vertical Depth (usft)	Reference (usft)	Offset (usft)		+N/-S (usft)	+E/-W (usft)	Between Centres (usft)	Between Ellipses (usft)			
0.0	0.0	0.0	0.0	0.0	0.0	-168.41	-426.4	-87.4	435.3				
100.0	100.0	102.4	102.4	1.0	0.8	-168.40	-426.1	-87.5	435.0	433.2	1.74	250.187	
200.0	200.0	206.3	206.3	1.6	1.4	-168.37	-425.1	-87.5	434.0	431.1	2.94	147.745	
300.0	300.0	304.9	304.8	2.0	1.8	-168.36	-423.8	-87.3	432.7	428.9	3.79	114.046	
400.0	400.0	402.7	402.7	2.3	2.2	-168.34	-423.0	-87.3	431.9	427.4	4.51	95.857	
500.0	500.0	501.4	501.4	2.6	2.5	-168.28	-422.1	-87.6	431.1	426.0	5.11	84.293	
514.1	514.1	514.1	514.1	2.7	2.5	-168.27	-422.1	-87.6	431.1	425.9	5.18	83.171	
600.0	600.0	593.4	593.4	2.9	2.7	-168.27	-422.8	-87.8	431.9	426.3	5.58	77.427	
700.0	700.0	695.9	695.8	3.2	2.9	-168.25	-424.5	-88.3	433.6	427.6	6.00	72.245	
800.0	800.0	801.2	801.1	3.4	3.1	-168.31	-424.7	-87.9	433.7	427.2	6.45	67.235	
900.0	900.0	901.1	901.1	3.6	3.3	-168.38	-424.5	-87.3	433.4	426.5	6.88	62.976	
1,000.0	1,000.0	1,000.4	1,000.3	3.8	3.5	-168.48	-424.5	-86.5	433.2	425.9	7.29	59.446	
1,046.3	1,046.3	1,046.4	1,046.3	3.9	3.7	-168.61	-424.7	-85.5	433.2	425.7	7.46	58.057	
1,100.0	1,100.0	1,099.3	1,099.2	4.0	3.8	-168.90	-425.1	-83.4	433.2	425.6	7.66	56.562	
1,200.0	1,200.0	1,197.0	1,196.6	4.2	4.2	-169.86	-427.0	-76.4	433.8	425.8	8.02	54.078	
1,300.0	1,300.0	1,295.2	1,294.0	4.4	4.7	-171.48	-429.8	-64.4	434.7	426.3	8.38	51.898	
1,400.0	1,400.0	1,390.7	1,388.0	4.9	5.1	80.27	-434.1	-47.9	436.4	427.7	8.73	49.966	
1,500.0	1,499.6	1,487.6	1,482.4	5.3	5.5	78.35	-439.3	-26.8	438.3	429.1	9.12	48.043	
1,600.0	1,598.8	1,584.9	1,576.2	5.7	5.9	76.57	-445.3	-1.7	440.0	430.4	9.57	45.984	
1,700.0	1,697.1	1,685.6	1,672.0	6.0	6.4	74.84	-451.8	28.6	441.0	430.9	10.10	43.639	
1,800.0	1,794.3	1,776.4	1,756.8	6.4	6.9	73.28	-458.2	60.3	441.5	430.8	10.71	41.227	
1,900.0	1,890.2	1,869.0	1,841.6	6.7	7.3	71.73	-466.5	96.6	442.9	431.5	11.43	38.758	
2,000.0	1,984.4	1,968.2	1,932.3	7.0	7.7	70.71	-476.1	135.7	443.8	431.5	12.29	36.112	
2,100.0	2,076.8	2,070.7	2,026.2	7.3	8.1	70.42	-485.5	175.6	442.4	429.2	13.22	33.473	
2,191.6	2,159.6	2,153.9	2,102.6	7.5	8.5	70.77	-493.5	207.7	440.0	425.9	14.05	31.318	
2,200.0	2,167.1	2,160.9	2,109.0	7.5	8.5	70.81	-494.2	210.5	439.8	425.7	14.12	31.155	
2,249.7	2,211.5	2,202.8	2,147.1	7.6	8.7	71.04	-499.3	226.9	439.4	424.8	14.61	30.070	
2,300.0	2,256.4	2,252.7	2,192.5	7.7	8.9	71.28	-505.8	246.8	439.4	424.2	15.18	28.951	
2,400.0	2,345.7	2,351.0	2,281.5	7.9	9.5	71.70	-518.7	286.4	439.7	423.4	16.27	27.024	
2,500.0	2,435.0	2,451.3	2,372.6	8.0	10.0	72.20	-532.1	326.2	440.3	422.8	17.43	25.264	
2,600.0	2,524.3	2,551.2	2,463.6	8.4	10.7	72.79	-545.4	365.2	440.7	422.1	18.61	23.678	
2,700.0	2,613.6	2,654.8	2,558.3	9.0	11.4	73.48	-558.8	405.1	440.8	421.0	19.86	22.201	
2,794.4	2,697.9	2,752.1	2,648.0	9.5	12.0	74.38	-570.5	440.8	440.1	419.1	21.04	20.921	
2,800.0	2,702.9	2,757.2	2,652.7	9.5	12.0	74.43	-571.1	442.7	440.1	419.0	21.10	20.855	
2,835.5	2,734.6	2,789.4	2,682.5	9.7	12.3	74.74	-575.1	454.4	439.9	418.4	21.51	20.450	
2,900.0	2,792.2	2,851.0	2,739.0	10.1	12.7	75.27	-583.2	477.2	440.3	418.0	22.29	19.752	
3,000.0	2,881.5	2,954.1	2,833.8	10.7	13.4	76.15	-596.5	515.6	440.5	416.9	23.61	18.657	
3,023.8	2,902.7	2,977.9	2,855.6	10.8	13.6	76.31	-599.5	524.7	440.6	416.6	23.93	18.410	
3,100.0	2,970.8	3,054.8	2,925.5	11.3	14.1	76.70	-609.1	555.3	440.6	415.6	24.95	17.659	
3,194.7	3,055.4	3,152.2	3,014.5	11.8	14.9	77.29	-620.9	593.2	440.2	413.9	26.24	16.777	
3,200.0	3,060.1	3,157.6	3,019.4	11.9	14.9	77.34	-621.5	595.2	440.1	413.8	26.31	16.731	
3,286.1	3,136.9	3,241.8	3,097.0	12.4	15.5	78.07	-631.3	626.5	439.5	412.1	27.44	16.016	
3,300.0	3,149.4	3,254.7	3,108.8	12.5	15.6	78.17	-632.9	631.4	439.5	411.9	27.62	15.912	
3,400.0	3,238.7	3,356.7	3,201.9	13.1	16.3	78.80	-645.8	671.1	439.8	410.8	29.00	15.168	
3,500.0	3,328.0	3,461.3	3,297.4	13.7	17.1	79.41	-657.6	712.2	438.7	408.3	30.42	14.422	
3,600.0	3,417.3	3,564.3	3,390.7	14.3	17.9	79.78	-668.5	754.3	436.9	405.1	31.85	13.719	
3,700.0	3,506.6	3,665.3	3,483.0	15.0	18.7	80.38	-678.5	794.1	434.5	401.2	33.25	13.066	
3,780.9	3,578.8	3,736.1	3,547.6	15.5	19.2	80.81	-686.3	821.9	433.5	399.2	34.32	12.633	
3,800.0	3,595.9	3,754.4	3,564.2	15.6	19.4	80.91	-688.6	829.1	433.6	399.0	34.58	12.539	
3,892.4	3,678.3	3,847.8	3,649.5	16.2	20.1	81.47	-699.9	865.7	433.5	397.6	35.90	12.077	
3,900.0	3,685.1	3,855.0	3,656.1	16.2	20.2	81.51	-700.8	868.5	433.5	397.5	36.00	12.041	
4,000.0	3,774.4	3,953.0	3,744.9	16.8	20.9	81.96	-713.3	907.7	434.1	396.7	37.41	11.604	

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

Amazon.com

Anticollision Report

Company:	APEX	Local Co-ordinate Reference:	Well *Brighton Lakes 20-17-2NAH
Project:	POCO Brighton Lakes Expansion	TVD Reference:	RKB @ 5063.0usft
Reference Site:	Sec 20-T1S-R66W	MD Reference:	RKB @ 5063.0usft
Site Error:	0.0 usft	North Reference:	Grid
Reference Well:	*Brighton Lakes 20-17-2NAH	Survey Calculation Method:	Minimum Curvature
Well Error:	0.0 usft	Output errors are at	2.00 sigma
Reference Wellbore	Original Hole	Database:	WC365
Reference Design:	Plan #1	Offset TVD Reference:	Offset Datum

Offset Design: Sec 20-T1S-R66W - 20-17-3NBH - Original Hole - Final Surveys													Offset Site Error: 0.0 usft
Survey Program: 126-MWD													Offset Well Error: 0.0 usft
Reference		Offset		Semi Major Axis		Highside Toolface (°)	Offset Wellbore Centre		Distance		Minimum Separation (usft)	Separation Factor	Warning
Measured Depth (usft)	Vertical Depth (usft)	Measured Depth (usft)	Vertical Depth (usft)	Reference (usft)	Offset (usft)		+N/-S (usft)	+E/-W (usft)	Between Centres (usft)	Between Ellipses (usft)			
4,100.0	3,863.7	4,058.9	3,841.5	17.5	21.7	82.57	-726.0	949.3	433.9	395.1	38.89	11.160	
4,190.9	3,945.0	4,147.5	3,923.1	18.1	22.4	83.33	-735.7	982.6	433.2	393.0	40.16	10.787	
4,200.0	3,953.0	4,155.9	3,930.8	18.1	22.5	83.39	-736.7	985.7	433.2	392.9	40.28	10.754	
4,300.0	4,042.3	4,257.4	4,023.5	18.8	23.2	84.03	-749.0	1,025.3	433.4	391.7	41.72	10.390	
4,379.1	4,113.0	4,335.0	4,094.5	19.3	23.8	84.56	-757.8	1,055.3	433.1	390.2	42.84	10.108	
4,400.0	4,131.6	4,354.8	4,112.5	19.4	24.0	84.66	-760.2	1,063.1	433.1	390.0	43.13	10.041	
4,500.0	4,220.9	4,454.4	4,203.3	20.1	24.7	85.24	-772.5	1,102.1	433.5	389.0	44.57	9.728	
4,600.0	4,310.2	4,550.0	4,290.5	20.7	25.5	85.83	-784.6	1,139.4	434.4	388.5	45.97	9.450	
4,700.0	4,399.5	4,651.2	4,382.6	21.3	26.3	86.37	-797.9	1,179.1	435.8	388.3	47.43	9.188	
4,800.0	4,488.8	4,751.7	4,475.1	22.0	27.0	87.23	-810.4	1,216.5	436.8	388.0	48.86	8.940	
4,900.0	4,578.1	4,851.4	4,565.7	22.6	27.8	87.74	-823.3	1,255.8	438.1	387.8	50.30	8.708	
5,000.0	4,667.4	4,952.8	4,658.0	23.3	28.6	88.25	-836.2	1,295.9	439.0	387.3	51.77	8.480	
5,100.0	4,756.7	5,060.9	4,756.7	23.9	29.4	88.92	-849.1	1,338.1	439.4	386.1	53.30	8.245	
5,200.0	4,846.0	5,164.6	4,850.8	24.6	30.3	89.38	-859.7	1,380.2	437.8	383.0	54.78	7.992	
5,300.0	4,935.3	5,265.0	4,942.9	25.2	31.0	90.14	-869.1	1,419.1	435.8	379.6	56.21	7.754	
5,396.9	5,021.8	5,354.0	5,024.4	25.9	31.7	90.75	-878.3	1,453.8	434.9	377.3	57.55	7.556	
5,400.0	5,024.6	5,356.8	5,027.0	25.9	31.7	90.76	-878.6	1,454.9	434.9	377.3	57.59	7.551	
5,500.0	5,113.9	5,456.4	5,117.5	26.6	32.5	91.25	-890.3	1,494.7	435.0	376.0	59.04	7.368	
5,600.0	5,203.2	5,556.9	5,209.4	27.2	33.3	91.92	-901.7	1,533.7	435.1	374.7	60.48	7.195	
5,604.4	5,207.2	5,561.3	5,213.4	27.2	33.3	91.95	-902.2	1,535.4	435.1	374.6	60.54	7.188	
5,700.0	5,292.5	5,656.2	5,300.8	27.9	34.0	92.78	-912.5	1,570.9	435.4	373.5	61.88	7.035	
5,800.0	5,381.8	5,756.6	5,392.3	28.5	34.8	93.34	-924.2	1,610.6	435.7	372.4	63.31	6.881	
5,804.4	5,385.8	5,761.1	5,396.4	28.6	34.8	93.36	-924.7	1,612.4	435.7	372.3	63.38	6.874	
5,900.0	5,471.1	5,857.6	5,484.6	29.2	35.6	93.99	-935.6	1,650.0	435.8	371.1	64.74	6.732	
6,000.0	5,560.4	5,958.5	5,577.4	29.8	36.3	94.85	-946.1	1,688.0	435.8	369.6	66.14	6.589	
6,100.0	5,649.7	6,058.8	5,669.3	30.5	37.1	95.56	-956.8	1,726.9	435.6	368.1	67.53	6.450	
6,125.6	5,672.6	6,083.8	5,692.3	30.7	37.3	95.78	-959.4	1,736.3	435.6	367.7	67.89	6.416	
6,200.0	5,739.0	6,155.5	5,757.6	31.2	37.8	96.17	-967.6	1,764.7	435.8	366.9	68.92	6.324	
6,300.0	5,828.3	6,257.8	5,850.8	31.8	38.6	96.70	-979.4	1,805.4	436.2	365.9	70.36	6.200	
6,304.4	5,832.3	6,262.3	5,854.9	31.8	38.7	96.74	-979.9	1,807.1	436.2	365.8	70.42	6.194	
6,400.0	5,917.6	6,358.5	5,943.8	32.5	39.4	97.71	-989.4	1,842.5	436.3	364.6	71.70	6.085	
6,419.0	5,934.5	6,377.5	5,961.4	32.6	39.5	97.90	-991.2	1,849.5	436.3	364.3	71.95	6.064	
6,500.0	6,006.9	6,459.5	6,036.6	33.1	40.1	98.52	-999.7	1,881.1	436.3	363.2	73.05	5.972	
6,600.0	6,096.2	6,558.1	6,126.5	33.8	40.9	99.12	-1,010.2	1,920.0	436.1	361.7	74.43	5.859	
6,604.4	6,100.2	6,562.3	6,130.4	33.8	40.9	99.15	-1,010.6	1,921.6	436.1	361.6	74.49	5.854	
6,700.0	6,185.5	6,660.6	6,219.7	34.4	41.7	99.60	-1,022.0	1,961.2	436.4	360.6	75.86	5.753	
6,800.0	6,274.8	6,763.2	6,312.6	35.1	42.5	100.00	-1,032.8	2,003.4	435.5	358.2	77.30	5.634	
6,900.0	6,364.1	6,859.8	6,400.8	35.8	43.3	100.63	-1,042.5	2,041.6	434.9	356.3	78.65	5.530	
6,916.3	6,378.7	6,875.5	6,415.1	35.9	43.4	100.72	-1,044.2	2,047.9	434.9	356.0	78.87	5.514	
7,000.0	6,453.4	6,956.2	6,488.8	36.4	44.0	101.25	-1,052.9	2,079.3	435.2	355.2	79.98	5.442	
7,004.4	6,457.4	6,961.0	6,493.3	36.5	44.1	101.29	-1,053.4	2,081.1	435.2	355.2	80.04	5.438	
7,100.0	6,542.7	7,056.1	6,580.3	37.1	44.8	101.91	-1,064.0	2,118.2	436.0	354.7	81.32	5.361	
7,104.4	6,546.7	7,060.6	6,584.3	37.1	44.8	101.93	-1,064.5	2,119.9	436.0	354.6	81.38	5.358	
7,200.0	6,632.0	7,166.8	6,681.8	37.7	45.7	102.78	-1,075.5	2,160.5	436.6	353.9	82.68	5.281	
7,300.0	6,721.3	7,344.0	6,844.5	38.4	47.0	105.43	-1,072.0	2,229.9	425.9	343.2	82.70	5.150	
7,314.2	6,734.0	7,363.5	6,862.3	38.5	47.2	105.86	-1,069.5	2,237.6	423.1	340.4	82.63	5.120	
7,350.0	6,766.1	7,413.7	6,907.9	38.7	47.5	113.75	-1,061.6	2,257.1	416.1	333.8	82.33	5.055	
7,400.0	6,811.1	7,511.3	6,994.8	39.1	48.1	125.92	-1,038.0	2,294.5	406.2	326.3	79.97	5.080	
7,450.0	6,856.0	7,619.8	7,085.1	39.4	48.7	138.65	-994.5	2,335.6	391.7	316.4	75.28	5.203	
7,500.0	6,900.4	7,688.4	7,139.3	39.6	48.9	149.46	-960.6	2,360.3	377.7	304.4	73.33	5.152	
7,550.0	6,944.1	7,778.9	7,205.4	39.9	49.3	160.34	-906.5	2,390.3	362.4	293.9	68.48	5.292	
7,600.0	6,986.7	7,833.8	7,242.8	40.1	49.4	168.62	-870.2	2,407.1	348.0	280.2	67.72	5.138	

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

Amazon.com

Anticollision Report

Company:	APEX	Local Co-ordinate Reference:	Well *Brighton Lakes 20-17-2NAH
Project:	POCO Brighton Lakes Expansion	TVD Reference:	RKB @ 5063.0usft
Reference Site:	Sec 20-T1S-R66W	MD Reference:	RKB @ 5063.0usft
Site Error:	0.0 usft	North Reference:	Grid
Reference Well:	*Brighton Lakes 20-17-2NAH	Survey Calculation Method:	Minimum Curvature
Well Error:	0.0 usft	Output errors are at	2.00 sigma
Reference Wellbore	Original Hole	Database:	WC365
Reference Design:	Plan #1	Offset TVD Reference:	Offset Datum

Offset Design: Sec 20-T1S-R66W - 20-17-3NBH - Original Hole - Final Surveys													Offset Site Error: 0.0 usft
Survey Program: 126-MWD													Offset Well Error: 0.0 usft
Reference		Offset		Semi Major Axis			Offset Wellbore Centre		Distance				Warning
Measured Depth (usft)	Vertical Depth (usft)	Measured Depth (usft)	Vertical Depth (usft)	Reference (usft)	Offset (usft)	Highside Toolface (°)	+N/-S (usft)	+E/-W (usft)	Between Centres (usft)	Between Ellipses (usft)	Minimum Separation (usft)	Separation Factor	
7,650.0	7,027.9	7,892.1	7,281.3	40.3	49.6	175.91	-829.7	2,423.9	335.9	269.3	66.58	5.044	
7,700.0	7,067.3	7,954.1	7,320.2	40.5	49.7	-177.57	-784.2	2,440.2	325.6	260.5	65.03	5.006	
7,750.0	7,104.7	8,026.9	7,361.3	40.6	49.8	-171.26	-726.7	2,457.4	315.6	253.4	62.17	5.076	
7,800.0	7,139.7	8,125.2	7,404.3	40.8	50.0	-163.59	-640.7	2,477.0	303.2	246.3	56.93	5.327	
7,850.0	7,172.2	8,186.7	7,423.5	40.9	50.1	-158.11	-583.2	2,487.3	289.3	232.5	56.78	5.095	
7,900.0	7,201.8	8,244.7	7,437.8	40.9	50.1	-153.16	-527.7	2,495.8	276.1	218.7	57.39	4.811	
7,950.0	7,228.4	8,299.6	7,448.1	41.0	50.2	-148.63	-474.2	2,502.4	264.4	205.9	58.54	4.517	
8,000.0	7,251.7	8,349.9	7,455.1	41.0	50.3	-144.58	-424.6	2,506.8	254.7	194.6	60.04	4.241	
8,050.0	7,271.5	8,400.0	7,460.0	41.1	50.3	-140.70	-374.8	2,509.5	247.0	185.5	61.49	4.018	
8,100.0	7,287.8	8,450.2	7,462.5	41.1	50.3	-136.97	-324.7	2,510.4	241.4	178.6	62.84	3.842	
8,112.8	7,291.3	8,462.9	7,462.8	41.1	50.3	-136.06	-311.9	2,510.3	240.3	177.1	63.16	3.805	
8,150.0	7,300.3	8,497.9	7,463.0	41.1	50.4	-133.65	-277.0	2,509.6	237.8	173.7	64.03	3.713	
8,161.4	7,302.7	8,508.2	7,463.0	41.1	50.4	-133.01	-266.7	2,509.3	237.3	173.0	64.26	3.692	
8,200.0	7,309.1	8,543.6	7,463.4	41.0	50.4	-131.18	-231.3	2,508.2	236.5	171.6	64.93	3.642	
8,203.6	7,309.5	8,546.9	7,463.5	41.0	50.4	-131.03	-228.0	2,508.1	236.5	171.5	64.99	3.639	
8,250.0	7,313.9	8,594.6	7,464.4	41.0	50.4	-129.54	-180.3	2,506.4	237.1	171.6	65.54	3.618	
8,251.7	7,314.0	8,596.5	7,464.4	41.0	50.4	-129.50	-178.4	2,506.3	237.1	171.6	65.55	3.617	
8,286.8	7,315.0	8,636.3	7,465.0	41.0	50.5	-129.17	-138.6	2,505.8	237.6	171.7	65.87	3.607	
8,287.4	7,315.0	8,637.0	7,465.0	41.0	50.5	-129.18	-138.0	2,505.8	237.6	171.7	65.88	3.607	
8,300.0	7,315.0	8,651.3	7,465.2	41.0	50.5	-129.22	-123.7	2,505.9	237.7	171.7	65.99	3.602	
8,321.1	7,315.0	8,673.1	7,465.5	40.9	50.6	-129.30	-101.8	2,506.1	237.7	171.5	66.18	3.591	
8,400.0	7,315.0	8,752.7	7,465.6	40.9	50.7	-129.37	-22.2	2,506.4	237.5	170.6	66.94	3.548	
8,421.3	7,315.0	8,774.4	7,465.5	40.9	50.8	-129.35	-0.6	2,506.4	237.4	170.3	67.17	3.535	
8,500.0	7,315.0	8,853.8	7,465.1	40.8	51.0	-129.32	78.9	2,506.7	236.9	168.9	68.03	3.482	
8,521.3	7,315.0	8,875.0	7,465.1	40.8	51.1	-129.35	100.0	2,506.9	236.7	168.5	68.26	3.468	
8,600.0	7,315.0	8,953.5	7,465.8	40.8	51.3	-129.69	178.6	2,508.2	236.2	167.1	69.11	3.418	
8,621.3	7,315.0	8,975.1	7,466.1	40.8	51.4	-129.82	200.2	2,508.7	236.1	166.7	69.36	3.403	
8,700.0	7,315.0	9,054.4	7,467.3	40.8	51.7	-130.34	279.4	2,510.6	235.3	165.0	70.29	3.348	
8,721.4	7,315.0	9,075.9	7,467.5	40.8	51.8	-130.47	300.9	2,511.1	235.1	164.5	70.55	3.332	
8,800.0	7,315.0	9,156.6	7,468.0	40.9	52.2	-130.85	381.5	2,513.0	234.0	162.4	71.64	3.267	
8,822.0	7,315.0	9,179.5	7,467.9	40.9	52.3	-130.92	404.4	2,513.5	233.5	161.6	71.99	3.244	
8,900.0	7,315.0	9,253.8	7,467.4	41.0	52.7	-131.05	478.8	2,514.9	232.1	159.3	72.82	3.188	
8,921.3	7,315.0	9,273.7	7,467.4	41.0	52.8	-131.08	498.7	2,515.1	232.0	159.0	73.02	3.178	
9,000.0	7,315.0	9,353.0	7,467.5	41.1	53.3	-131.11	577.9	2,515.2	231.9	157.8	74.18	3.127	
9,038.5	7,315.0	9,390.5	7,467.2	41.1	53.5	-131.06	615.5	2,515.2	231.8	157.1	74.68	3.104 CC	
9,100.0	7,315.0	9,447.8	7,467.6	41.2	53.9	-131.07	672.7	2,514.8	232.3	157.1	75.26	3.087	
9,104.4	7,315.0	9,451.9	7,467.7	41.2	53.9	-131.07	676.8	2,514.8	232.4	157.1	75.30	3.087	
9,200.0	7,315.0	9,549.9	7,468.9	41.4	54.5	-131.13	774.8	2,513.7	234.0	157.1	76.94	3.042	
9,204.4	7,315.0	9,554.5	7,468.9	41.4	54.6	-131.13	779.4	2,513.6	234.1	157.1	77.03	3.039	
9,300.0	7,315.0	9,652.6	7,467.9	41.6	55.2	-130.79	877.5	2,512.7	234.1	155.3	78.84	2.970	
9,306.6	7,315.0	9,658.6	7,467.9	41.7	55.3	-130.77	883.5	2,512.6	234.1	155.2	78.91	2.967	
9,400.0	7,315.0	9,746.2	7,468.4	41.9	55.9	-130.68	971.1	2,511.4	235.5	155.6	79.89	2.948	
9,404.4	7,315.0	9,750.7	7,468.5	41.9	56.0	-130.69	975.5	2,511.3	235.6	155.6	79.96	2.946	
9,500.0	7,315.0	9,846.2	7,470.5	42.2	56.7	-130.81	1,071.0	2,509.8	238.0	156.5	81.52	2.920	
9,504.4	7,315.0	9,850.7	7,470.6	42.2	56.8	-130.82	1,075.5	2,509.8	238.1	156.5	81.60	2.918	
9,600.0	7,315.0	9,947.4	7,471.9	42.6	57.6	-130.80	1,172.3	2,508.1	240.3	156.9	83.38	2.881	
9,604.4	7,315.0	9,952.0	7,472.0	42.6	57.6	-130.80	1,176.8	2,508.0	240.3	156.9	83.47	2.879	
9,700.0	7,315.0	10,050.9	7,471.8	43.0	58.5	-130.46	1,275.7	2,506.0	241.7	156.1	85.63	2.823	
9,751.1	7,315.0	10,103.3	7,470.9	43.3	59.0	-130.17	1,328.1	2,505.2	241.7	154.9	86.78	2.785	
9,800.0	7,315.0	10,149.9	7,470.4	43.5	59.4	-129.98	1,374.7	2,504.5	242.0	154.5	87.45	2.765	
9,804.4	7,315.0	10,154.2	7,470.4	43.5	59.5	-129.97	1,378.9	2,504.5	242.0	154.5	87.51	2.765	
9,900.0	7,315.0	10,250.5	7,470.5	44.0	60.4	-129.77	1,475.3	2,503.0	243.1	153.6	89.46	2.718	

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

Amazon.com

Anticollision Report

Company:	APEX	Local Co-ordinate Reference:	Well *Brighton Lakes 20-17-2NAH
Project:	POCO Brighton Lakes Expansion	TVD Reference:	RKB @ 5063.0usft
Reference Site:	Sec 20-T1S-R66W	MD Reference:	RKB @ 5063.0usft
Site Error:	0.0 usft	North Reference:	Grid
Reference Well:	*Brighton Lakes 20-17-2NAH	Survey Calculation Method:	Minimum Curvature
Well Error:	0.0 usft	Output errors are at	2.00 sigma
Reference Wellbore	Original Hole	Database:	WC365
Reference Design:	Plan #1	Offset TVD Reference:	Offset Datum

Offset Design: Sec 20-T1S-R66W - 20-17-3NBH - Original Hole - Final Surveys													Offset Site Error:	0.0 usft
Survey Program: 126-MWD													Offset Well Error:	0.0 usft
Measured Depth (usft)	Vertical Depth (usft)	Measured Depth (usft)	Vertical Depth (usft)	Reference	Offset	Highside Toolface (°)	+N/-S (usft)	+E/-W (usft)	Between Centres (usft)	Between Ellipses (usft)	Minimum Separation (usft)	Separation Factor	Warning	
9,904.4	7,315.0	10,255.1	7,470.4	44.0	60.4	-129.75	1,479.9	2,503.0	243.1	153.6	89.56	2.715		
10,000.0	7,315.0	10,351.9	7,469.3	44.6	61.4	-129.33	1,576.7	2,501.6	243.5	151.8	91.67	2.656		
10,004.4	7,315.0	10,356.4	7,469.2	44.6	61.5	-129.30	1,581.2	2,501.5	243.5	151.7	91.77	2.653		
10,100.0	7,315.0	10,450.7	7,466.7	45.2	62.4	-128.48	1,675.4	2,499.0	243.8	150.1	93.70	2.602		
10,104.4	7,315.0	10,455.1	7,466.5	45.2	62.5	-128.43	1,679.8	2,498.9	243.8	150.0	93.79	2.600		
10,200.0	7,315.0	10,549.1	7,465.1	45.9	63.5	-127.81	1,773.7	2,496.4	244.9	149.2	95.65	2.560		
10,204.4	7,315.0	10,553.7	7,465.1	45.9	63.6	-127.79	1,778.3	2,496.3	244.9	149.2	95.76	2.558		
10,300.0	7,315.0	10,651.2	7,465.2	46.6	64.6	-127.70	1,875.8	2,495.5	245.7	147.7	98.03	2.506		
10,304.4	7,315.0	10,655.7	7,465.2	46.7	64.7	-127.69	1,880.3	2,495.4	245.7	147.6	98.13	2.504		
10,400.0	7,315.0	10,752.4	7,465.1	47.4	65.8	-127.61	1,977.0	2,495.0	246.0	145.7	100.31	2.452		
10,421.3	7,315.0	10,774.2	7,464.9	47.6	66.1	-127.55	1,998.8	2,494.9	246.0	145.1	100.85	2.439		
10,500.0	7,315.0	10,854.3	7,463.9	48.2	67.0	-127.35	2,078.9	2,494.7	245.6	142.8	102.79	2.389		
10,521.5	7,315.0	10,876.1	7,463.9	48.4	67.3	-127.38	2,100.7	2,494.9	245.4	142.1	103.29	2.376		
10,600.0	7,315.0	10,953.6	7,464.7	49.1	68.2	-127.71	2,178.2	2,496.3	244.7	140.0	104.70	2.337		
10,621.2	7,315.0	10,974.4	7,465.0	49.3	68.5	-127.84	2,199.0	2,496.7	244.6	139.6	105.04	2.329		
10,700.0	7,315.0	11,052.6	7,466.6	50.0	69.4	-128.35	2,277.2	2,498.1	244.5	138.0	106.44	2.297		
10,726.3	7,315.0	11,078.7	7,467.2	50.2	69.8	-128.51	2,303.2	2,498.6	244.5	137.6	106.91	2.287		
10,800.0	7,315.0	11,151.1	7,468.9	50.9	70.7	-129.00	2,375.6	2,499.7	244.7	136.6	108.07	2.264		
10,820.9	7,315.0	11,172.3	7,469.5	51.1	71.0	-129.15	2,396.9	2,500.0	244.8	136.3	108.52	2.256		
10,900.0	7,315.0	11,256.9	7,470.3	51.9	72.0	-129.49	2,481.4	2,501.4	244.2	133.2	110.94	2.201		
10,921.9	7,315.0	11,278.8	7,470.1	52.1	72.3	-129.52	2,503.2	2,501.8	243.8	132.4	111.40	2.188		
11,000.0	7,315.0	11,357.2	7,469.1	52.9	73.4	-129.51	2,581.6	2,502.9	242.4	129.2	113.16	2.142		
11,022.1	7,315.0	11,379.7	7,468.7	53.1	73.7	-129.47	2,604.2	2,503.1	241.9	128.2	113.74	2.127		
11,100.0	7,315.0	11,458.6	7,466.9	54.0	74.7	-129.27	2,683.0	2,504.1	240.1	124.3	115.71	2.075		
11,122.1	7,315.0	11,480.6	7,466.5	54.2	75.0	-129.26	2,705.1	2,504.5	239.5	123.3	116.20	2.061		
11,200.0	7,315.0	11,558.8	7,466.0	55.0	76.1	-129.49	2,783.2	2,506.6	237.6	119.7	117.86	2.016		
11,222.3	7,315.0	11,581.2	7,465.9	55.3	76.4	-129.57	2,805.6	2,507.2	237.0	118.6	118.35	2.002		
11,300.0	7,315.0	11,655.6	7,465.6	56.1	77.4	-129.84	2,880.0	2,509.3	235.2	115.8	119.34	1.971 Collision Risk Procedures Req.		
11,340.7	7,315.0	11,693.3	7,466.1	56.6	77.9	-130.04	2,917.7	2,510.0	234.9	115.3	119.60	1.964 Collision Risk Procedures Req.		
11,400.0	7,315.0	11,752.2	7,467.1	57.2	78.7	-130.35	2,976.5	2,510.7	235.0	114.4	120.66	1.948 Collision Risk Procedures Req.		
11,404.4	7,315.0	11,756.7	7,467.2	57.3	78.8	-130.37	2,981.0	2,510.7	235.0	114.3	120.74	1.947 Collision Risk Procedures Req.		
11,500.0	7,315.0	11,850.9	7,468.5	58.3	80.0	-130.70	3,075.2	2,511.4	235.4	113.0	122.41	1.923 Collision Risk Procedures Req.		
11,504.4	7,315.0	11,855.2	7,468.5	58.4	80.1	-130.71	3,079.5	2,511.4	235.4	112.9	122.48	1.922 Collision Risk Procedures Req.		
11,600.0	7,315.0	11,952.4	7,468.7	59.5	81.5	-130.65	3,176.7	2,510.7	236.0	111.1	124.96	1.889 Collision Risk Procedures Req.		
11,615.4	7,315.0	11,968.2	7,468.4	59.7	81.7	-130.56	3,192.6	2,510.5	236.0	110.6	125.45	1.882 Collision Risk Procedures Req.		
11,700.0	7,315.0	12,047.2	7,468.4	60.6	82.8	-130.37	3,271.5	2,509.3	237.0	110.6	126.41	1.875 Collision Risk Procedures Req.		
11,704.4	7,315.0	12,051.4	7,468.5	60.7	82.8	-130.38	3,275.6	2,509.2	237.1	110.7	126.45	1.875 Collision Risk Procedures Req.		
11,800.0	7,315.0	12,146.8	7,470.7	61.8	84.2	-130.57	3,371.0	2,507.9	239.5	111.1	128.45	1.865 Collision Risk Procedures Req.		
11,804.4	7,315.0	12,151.6	7,470.8	61.9	84.2	-130.57	3,375.8	2,507.8	239.6	111.0	128.61	1.863 Collision Risk Procedures Req.		
11,900.0	7,315.0	12,253.8	7,471.3	63.0	85.7	-130.57	3,478.0	2,507.2	240.4	108.3	132.05	1.820 Collision Risk Procedures Req.		
11,921.6	7,315.0	12,276.0	7,471.1	63.3	86.0	-130.54	3,500.3	2,507.2	240.3	107.6	132.70	1.811 Collision Risk Procedures Req.		
12,000.0	7,315.0	12,353.8	7,470.0	64.2	87.1	-130.33	3,578.0	2,507.2	239.5	105.0	134.51	1.780 Collision Risk Procedures Req.		
12,014.0	7,315.0	12,366.8	7,469.9	64.4	87.3	-130.31	3,591.0	2,507.2	239.5	104.8	134.66	1.778 Collision Risk Procedures Req.		
12,100.0	7,315.0	12,449.3	7,470.4	65.4	88.5	-130.30	3,673.6	2,506.5	240.3	104.4	135.98	1.768 Collision Risk Procedures Req.		
12,104.4	7,315.0	12,453.8	7,470.5	65.5	88.6	-130.30	3,678.0	2,506.5	240.4	104.3	136.09	1.767 Collision Risk Procedures Req.		
12,200.0	7,315.0	12,550.7	7,470.9	66.7	90.0	-130.20	3,774.9	2,505.3	241.6	102.9	138.64	1.742 Collision Risk Procedures Req.		
12,204.4	7,315.0	12,555.3	7,470.9	66.7	90.1	-130.19	3,779.5	2,505.2	241.6	102.8	138.77	1.741 Collision Risk Procedures Req.		
12,300.0	7,315.0	12,653.1	7,470.0	67.9	91.5	-129.85	3,877.3	2,504.1	241.9	100.2	141.69	1.707 Collision Risk Procedures Req.		
12,342.2	7,315.0	12,695.0	7,469.3	68.4	92.1	-129.67	3,919.2	2,503.6	241.8	99.0	142.77	1.694 Collision Risk Procedures Req.		
12,400.0	7,315.0	12,748.3	7,469.3	69.2	92.9	-129.57	3,972.5	2,503.0	242.3	99.0	143.33	1.691 Collision Risk Procedures Req.		
12,404.4	7,315.0	12,752.4	7,469.4	69.2	93.0	-129.57	3,976.6	2,502.9	242.4	99.1	143.36	1.691 Collision Risk Procedures Req.		
12,500.0	7,315.0	12,848.1	7,471.5	70.4	94.4	-129.77	4,072.3	2,501.8	244.6	99.2	145.46	1.682 Collision Risk Procedures Req.		

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

Amazon.com

Anticollision Report

Company:	APEX	Local Co-ordinate Reference:	Well *Brighton Lakes 20-17-2NAH
Project:	POCO Brighton Lakes Expansion	TVD Reference:	RKB @ 5063.0usft
Reference Site:	Sec 20-T1S-R66W	MD Reference:	RKB @ 5063.0usft
Site Error:	0.0 usft	North Reference:	Grid
Reference Well:	*Brighton Lakes 20-17-2NAH	Survey Calculation Method:	Minimum Curvature
Well Error:	0.0 usft	Output errors are at	2.00 sigma
Reference Wellbore	Original Hole	Database:	WC365
Reference Design:	Plan #1	Offset TVD Reference:	Offset Datum

Offset Design: Sec 20-T1S-R66W - 20-17-3NBH - Original Hole - Final Surveys													Offset Site Error:	0.0 usft
Survey Program: 126-MWD													Offset Well Error:	0.0 usft
Measured Depth (usft)	Vertical Depth (usft)	Measured Depth (usft)	Vertical Depth (usft)	Reference (usft)	Offset (usft)	Highside Toolface (°)	+N/-S (usft)	+E/-W (usft)	Between Centres (usft)	Between Ellipses (usft)	Minimum Separation (usft)	Separation Factor	Warning	
12,504.4	7,315.0	12,852.7	7,471.6	70.5	94.4	-129.79	4,076.9	2,501.7	244.7	99.1	145.58	1.681	Collision Risk Procedures Req.	
12,600.0	7,315.0	12,948.3	7,473.5	71.7	95.9	-130.03	4,172.4	2,501.1	246.4	98.8	147.62	1.669	Collision Risk Procedures Req.	
12,604.4	7,315.0	12,952.8	7,473.5	71.8	95.9	-130.03	4,176.9	2,501.0	246.5	98.8	147.73	1.669	Collision Risk Procedures Req.	
12,700.0	7,315.0	13,051.4	7,474.2	73.0	97.4	-130.01	4,275.5	2,500.1	247.6	97.0	150.60	1.644	Collision Risk Procedures Req.	
12,704.4	7,315.0	13,055.9	7,474.2	73.0	97.5	-130.00	4,280.0	2,500.0	247.7	96.9	150.73	1.643	Collision Risk Procedures Req.	
12,800.0	7,315.0	13,152.9	7,473.2	74.3	98.9	-129.64	4,377.0	2,498.8	248.0	94.3	153.62	1.614	Collision Risk Procedures Req.	
12,821.3	7,315.0	13,174.6	7,472.7	74.5	99.3	-129.51	4,398.7	2,498.5	247.9	93.6	154.33	1.607	Collision Risk Procedures Req.	
12,900.0	7,315.0	13,256.0	7,470.7	75.5	100.5	-129.02	4,480.1	2,497.5	247.4	90.3	157.19	1.574	Collision Risk Procedures Req.	
12,921.9	7,315.0	13,278.9	7,470.3	75.8	100.9	-128.96	4,503.0	2,497.6	247.1	89.1	157.98	1.564	Collision Risk Procedures Req.	
13,000.0	7,315.0	13,357.1	7,469.7	76.8	102.1	-129.05	4,581.1	2,499.0	245.6	85.8	159.77	1.537	Collision Risk Procedures Req.	
13,021.7	7,315.0	13,378.1	7,469.6	77.1	102.4	-129.10	4,602.2	2,499.4	245.2	85.1	160.13	1.532	Collision Risk Procedures Req.	
13,100.0	7,315.0	13,458.6	7,469.7	78.1	103.6	-129.38	4,682.6	2,501.2	243.9	81.8	162.13	1.505	Collision Risk Procedures Req.	
13,122.1	7,315.0	13,481.7	7,469.7	78.4	104.0	-129.49	4,705.7	2,502.0	243.4	80.6	162.74	1.496	Collision Risk Procedures Req.	
13,200.0	7,315.0	13,559.5	7,469.7	79.5	105.2	-129.92	4,783.4	2,504.8	241.2	77.1	164.13	1.470	Collision Risk Procedures Req.	
13,222.1	7,315.0	13,581.6	7,469.8	79.7	105.5	-130.06	4,805.6	2,505.6	240.6	76.1	164.52	1.463	Collision Risk Procedures Req.	
13,300.0	7,315.0	13,660.9	7,470.0	80.8	106.8	-130.60	4,884.8	2,508.9	238.3	72.2	166.06	1.435	Collision Risk Procedures Req.	
13,322.3	7,315.0	13,682.2	7,470.0	81.1	107.1	-130.74	4,906.1	2,509.7	237.6	71.4	166.24	1.429	Collision Risk Procedures Req.	
13,400.0	7,315.0	13,755.2	7,469.5	82.1	108.3	-130.85	4,979.0	2,511.1	236.2	69.2	167.02	1.414	Collision Risk Procedures Req.	
13,421.6	7,315.0	13,776.9	7,469.2	82.4	108.6	-130.80	5,000.8	2,511.1	236.0	68.4	167.62	1.408	Collision Risk Procedures Req.	
13,500.0	7,315.0	13,855.2	7,467.5	83.4	109.8	-130.43	5,079.0	2,510.7	235.2	65.3	169.89	1.384	Collision Risk Procedures Req.	
13,557.8	7,315.0	13,910.9	7,466.7	84.2	110.7	-130.22	5,134.7	2,510.3	235.0	63.9	171.08	1.373	Collision Risk Procedures Req.	
13,600.0	7,315.0	13,951.3	7,466.6	84.7	111.3	-130.17	5,175.2	2,510.1	235.1	63.3	171.78	1.369	Collision Risk Procedures Req.	
13,604.4	7,315.0	13,955.6	7,466.6	84.8	111.4	-130.16	5,179.4	2,510.0	235.1	63.3	171.84	1.368	Collision Risk Procedures Req.	
13,700.0	7,315.0	14,047.3	7,466.8	86.1	112.8	-129.89	5,271.1	2,508.0	236.9	63.3	173.62	1.364	Collision Risk Procedures Req.	
13,704.4	7,315.0	14,051.7	7,466.9	86.1	112.9	-129.87	5,275.5	2,507.9	237.0	63.2	173.74	1.364	Collision Risk Procedures Req.	
13,800.0	7,315.0	14,147.2	7,466.9	87.4	114.4	-129.38	5,370.9	2,504.6	239.5	62.9	176.63	1.356	Collision Risk Procedures Req.	
13,804.4	7,315.0	14,151.7	7,466.9	87.5	114.4	-129.35	5,375.5	2,504.4	239.6	62.8	176.79	1.355	Collision Risk Procedures Req.	
13,900.0	7,315.0	14,249.5	7,466.2	88.8	116.0	-128.74	5,473.2	2,501.2	241.6	61.3	180.35	1.340	Collision Risk Procedures Req.	
13,904.4	7,315.0	14,254.0	7,466.2	88.8	116.0	-128.73	5,477.7	2,501.2	241.7	61.2	180.51	1.339	Collision Risk Procedures Req.	
14,000.0	7,315.0	14,354.8	7,466.8	90.1	117.6	-128.79	5,578.5	2,500.8	242.3	58.4	183.90	1.317	Collision Risk Procedures Req.	
14,021.5	7,315.0	14,377.8	7,466.7	90.4	118.0	-128.82	5,601.5	2,501.1	242.1	57.4	184.70	1.311	Collision Risk Procedures Req.	
14,100.0	7,315.0	14,455.8	7,466.2	91.5	119.2	-128.84	5,679.4	2,501.8	241.2	54.7	186.51	1.293	Collision Risk Procedures Req.	
14,121.6	7,315.0	14,477.4	7,466.0	91.7	119.6	-128.81	5,701.0	2,501.9	240.9	53.9	187.06	1.288	Collision Risk Procedures Req.	
14,200.0	7,315.0	14,556.7	7,464.8	92.8	120.9	-128.63	5,780.4	2,502.2	240.0	50.5	189.44	1.267	Collision Risk Procedures Req.	
14,222.0	7,315.0	14,579.3	7,464.3	93.1	121.2	-128.55	5,803.0	2,502.3	239.6	49.4	190.21	1.260	Collision Risk Procedures Req.	
14,300.0	7,315.0	14,658.7	7,462.0	94.2	122.5	-128.18	5,882.3	2,502.7	238.0	45.1	192.90	1.234	Collision Risk Procedures Req.	
14,370.5	7,315.0	14,723.8	7,461.5	95.1	123.5	-128.16	5,947.5	2,503.2	237.2	43.6	193.56	1.225	Collision Risk Procedures Req.	
14,400.0	7,315.0	14,752.2	7,462.1	95.5	124.0	-128.31	5,975.8	2,503.5	237.3	43.4	193.83	1.224	Collision Risk Procedures Req.	
14,404.4	7,315.0	14,756.6	7,462.2	95.6	124.0	-128.33	5,980.2	2,503.5	237.3	43.4	193.91	1.224	Collision Risk Procedures Req.	
14,500.0	7,315.0	14,852.8	7,464.2	96.9	125.6	-128.88	6,076.4	2,504.6	237.7	42.0	195.68	1.215	Collision Risk Procedures Req.	
14,521.0	7,315.0	14,874.2	7,464.6	97.2	125.9	-128.99	6,097.7	2,504.9	237.7	41.6	196.12	1.212	Collision Risk Procedures Req.	
14,600.0	7,315.0	14,954.1	7,465.7	98.2	127.2	-129.35	6,177.7	2,505.9	237.6	39.8	197.77	1.201	Collision Risk Procedures Req.	
14,621.2	7,315.0	14,975.5	7,465.8	98.5	127.6	-129.42	6,199.1	2,506.1	237.5	39.3	198.23	1.198	Collision Risk Procedures Req.	
14,700.0	7,315.0	15,055.1	7,466.0	99.6	128.8	-129.56	6,278.6	2,506.8	237.1	37.0	200.14	1.185	Collision Risk Procedures Req.	
14,770.5	7,315.0	15,124.5	7,465.6	100.6	130.0	-129.54	6,348.0	2,507.1	236.6	35.0	201.67	1.173	Collision Risk Procedures Req.	
14,800.0	7,315.0	15,152.4	7,465.8	101.0	130.4	-129.58	6,375.9	2,507.2	236.7	34.7	201.99	1.172	Collision Risk Procedures Req.	
14,804.4	7,315.0	15,156.6	7,465.8	101.0	130.5	-129.59	6,380.1	2,507.2	236.7	34.7	202.03	1.172	Collision Risk Procedures Req.	
14,900.0	7,315.0	15,250.6	7,467.6	102.3	132.0	-129.93	6,474.1	2,507.3	237.8	34.2	203.51	1.168	Collision Risk Procedures Req.	
14,904.4	7,315.0	15,255.0	7,467.7	102.4	132.1	-129.95	6,478.6	2,507.3	237.8	34.2	203.60	1.168	Collision Risk Procedures Req.	
15,000.0	7,315.0	15,350.6	7,469.3	103.7	133.6	-130.24	6,574.1	2,507.2	238.9	33.5	205.48	1.163	Collision Risk Procedures Req.	
15,004.4	7,315.0	15,355.0	7,469.4	103.8	133.7	-130.26	6,578.5	2,507.2	239.0	33.4	205.57	1.163	Collision Risk Procedures Req.	
15,100.0	7,315.0	15,452.2	7,470.5	105.1	135.3	-130.41	6,675.7	2,507.0	239.9	31.8	208.04	1.153	Collision Risk Procedures Req.	

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

Amazon.com

Anticollision Report

Company:	APEX	Local Co-ordinate Reference:	Well *Brighton Lakes 20-17-2NAH
Project:	POCO Brighton Lakes Expansion	TVD Reference:	RKB @ 5063.0usft
Reference Site:	Sec 20-T1S-R66W	MD Reference:	RKB @ 5063.0usft
Site Error:	0.0 usft	North Reference:	Grid
Reference Well:	*Brighton Lakes 20-17-2NAH	Survey Calculation Method:	Minimum Curvature
Well Error:	0.0 usft	Output errors are at	2.00 sigma
Reference Wellbore	Original Hole	Database:	WC365
Reference Design:	Plan #1	Offset TVD Reference:	Offset Datum

Offset Design: Sec 20-T1S-R66W - 20-17-3NBH - Original Hole - Final Surveys													Offset Site Error: 0.0 usft
Survey Program: 126-MWD													Offset Well Error: 0.0 usft
Reference		Offset		Semi Major Axis			Offset Wellbore Centre		Distance		Minimum Separation	Separation Factor	Warning
Measured Depth (usft)	Vertical Depth (usft)	Measured Depth (usft)	Vertical Depth (usft)	Reference (usft)	Offset (usft)	Highside Toolface (°)	+N/-S (usft)	+E/-W (usft)	Between Centres (usft)	Between Ellipses (usft)			
15,121.1	7,315.0	15,474.4	7,470.5	105.4	135.6	-130.41	6,698.0	2,506.9	239.9	31.1	208.81	1.149	Collision Risk Procedures Req.
15,200.0	7,315.0	15,556.1	7,469.9	106.5	136.9	-130.34	6,779.6	2,507.2	239.3	27.8	211.46	1.132	Collision Risk Procedures Req.
15,237.5	7,315.0	15,591.0	7,469.7	107.0	137.5	-130.32	6,814.5	2,507.3	239.1	27.2	211.84	1.129	Collision Risk Procedures Req.
15,300.0	7,315.0	15,650.0	7,470.2	107.9	138.5	-130.38	6,873.5	2,507.1	239.6	27.1	212.51	1.128	Collision Risk Procedures Req.
15,304.4	7,315.0	15,654.4	7,470.3	107.9	138.5	-130.38	6,877.9	2,507.0	239.7	27.1	212.59	1.127	Collision Risk Procedures Req.
15,400.0	7,315.0	15,750.3	7,471.6	109.2	140.1	-130.51	6,973.8	2,506.2	241.2	26.4	214.81	1.123	Collision Risk Procedures Req.
15,404.4	7,315.0	15,755.0	7,471.7	109.3	140.2	-130.51	6,978.5	2,506.2	241.2	26.3	214.96	1.122	Collision Risk Procedures Req.
15,500.0	7,315.0	15,852.7	7,472.0	110.6	141.8	-130.48	7,076.2	2,505.7	241.8	23.9	217.86	1.110	Collision Risk Procedures Req.
15,504.4	7,315.0	15,857.1	7,471.9	110.7	141.8	-130.47	7,080.6	2,505.6	241.8	23.8	217.98	1.109	Collision Risk Procedures Req.
15,600.0	7,315.0	15,953.8	7,471.2	112.0	143.4	-130.19	7,177.3	2,504.7	242.0	21.0	221.06	1.095	Collision Risk Procedures Req.
15,621.4	7,315.0	15,975.6	7,470.9	112.3	143.8	-130.10	7,199.1	2,504.5	242.0	20.1	221.85	1.091	Collision Risk Procedures Req.
15,700.0	7,315.0	16,055.0	7,469.3	113.4	145.1	-129.70	7,278.5	2,503.7	241.6	16.9	224.67	1.075	Collision Risk Procedures Req.
15,759.0	7,315.0	16,112.5	7,467.9	114.2	146.0	-129.34	7,336.0	2,503.0	241.3	14.8	226.43	1.066	Collision Risk Procedures Req.
15,800.0	7,315.0	16,151.4	7,467.7	114.8	146.7	-129.23	7,374.9	2,502.6	241.4	14.3	227.16	1.063	Collision Risk Procedures Req.
15,804.4	7,315.0	16,155.7	7,467.7	114.8	146.7	-129.23	7,379.1	2,502.5	241.5	14.3	227.23	1.063	Collision Risk Procedures Req.
15,900.0	7,315.0	16,246.6	7,469.0	116.2	148.2	-129.28	7,470.0	2,501.3	243.3	14.9	228.42	1.065	Collision Risk Procedures Req.
15,904.4	7,315.0	16,250.8	7,469.1	116.2	148.3	-129.28	7,474.2	2,501.2	243.5	15.0	228.48	1.066	Collision Risk Procedures Req.
16,000.0	7,315.0	16,356.3	7,470.6	117.6	150.0	-129.48	7,579.7	2,500.7	244.7	11.9	232.78	1.051	Collision Risk Procedures Req.
16,021.5	7,315.0	16,377.2	7,470.7	117.9	150.4	-129.56	7,600.6	2,501.1	244.5	11.4	233.07	1.049	Collision Risk Procedures Req.
16,100.0	7,315.0	16,455.8	7,471.1	119.0	151.7	-129.81	7,679.2	2,502.3	243.8	9.2	234.57	1.039	Collision Risk Procedures Req.
16,121.5	7,315.0	16,477.6	7,471.2	119.3	152.0	-129.88	7,701.0	2,502.6	243.6	8.5	235.05	1.036	Collision Risk Procedures Req.
16,200.0	7,315.0	16,558.1	7,471.1	120.4	153.4	-130.07	7,781.5	2,504.0	242.6	5.5	237.05	1.023	Collision Risk Procedures Req.
16,222.0	7,315.0	16,581.1	7,471.0	120.7	153.7	-130.12	7,804.5	2,504.5	242.1	4.4	237.72	1.018	Collision Risk Procedures Req.
16,300.0	7,315.0	16,662.0	7,469.8	121.7	155.1	-130.23	7,885.3	2,506.6	239.8	-0.2	240.01	0.999	Collision Risk Procedures Req.
16,322.8	7,315.0	16,685.4	7,469.3	122.1	155.5	-130.24	7,908.7	2,507.2	239.0	-1.7	240.69	0.993	Collision Risk Procedures Req.
16,400.0	7,315.0	16,756.4	7,467.8	123.1	156.6	-130.22	7,979.7	2,508.8	236.7	-4.7	241.37	0.981	Collision Risk Procedures Req.
16,421.6	7,315.0	16,775.3	7,467.8	123.4	156.9	-130.23	7,998.5	2,508.9	236.6	-4.7	241.28	0.980	Collision Risk Procedures Req.
16,500.0	7,315.0	16,849.7	7,468.6	124.5	158.2	-130.28	8,072.9	2,508.3	237.6	-4.6	242.16	0.981	Collision Risk Procedures Req.
16,504.4	7,315.0	16,854.0	7,468.6	124.6	158.2	-130.29	8,077.3	2,508.3	237.6	-4.6	242.25	0.981	Collision Risk Procedures Req.
16,600.0	7,315.0	16,947.9	7,469.9	125.9	159.8	-130.31	8,171.2	2,506.9	239.6	-4.6	244.17	0.981	Collision Risk Procedures Req.
16,604.4	7,315.0	16,952.3	7,470.0	126.0	159.9	-130.31	8,175.5	2,506.8	239.7	-4.6	244.26	0.981	Collision Risk Procedures Req.
16,700.0	7,315.0	17,045.8	7,471.7	127.3	161.4	-130.30	8,269.0	2,504.7	242.4	-3.7	246.14	0.985	Collision Risk Procedures Req.
16,704.4	7,315.0	17,050.1	7,471.8	127.4	161.5	-130.30	8,273.3	2,504.6	242.6	-3.6	246.23	0.985	Collision Risk Procedures Req.
16,800.0	7,315.0	17,145.2	7,473.9	128.7	163.1	-130.30	8,368.3	2,502.1	245.9	-2.6	248.51	0.990	Collision Risk Procedures Req.
16,804.4	7,315.0	17,149.6	7,474.1	128.8	163.1	-130.30	8,372.8	2,502.0	246.1	-2.5	248.61	0.990	Collision Risk Procedures Req.
16,900.0	7,315.0	17,245.2	7,476.3	130.1	164.7	-130.31	8,468.3	2,499.4	249.4	-1.6	250.98	0.994	Collision Risk Procedures Req.
16,904.4	7,315.0	17,249.8	7,476.4	130.2	164.8	-130.31	8,472.8	2,499.3	249.6	-1.6	251.13	0.994	Collision Risk Procedures Req.
17,000.0	7,315.0	17,348.5	7,477.7	131.6	166.4	-130.19	8,571.6	2,496.9	252.2	-2.4	254.57	0.991	Collision Risk Procedures Req.
17,004.4	7,315.0	17,353.0	7,477.7	131.6	166.5	-130.18	8,576.1	2,496.8	252.3	-2.4	254.71	0.990	Collision Risk Procedures Req.
17,100.0	7,315.0	17,449.0	7,477.8	133.0	168.1	-129.84	8,672.0	2,494.4	254.2	-3.8	257.93	0.985	Collision Risk Procedures Req.
17,104.4	7,315.0	17,453.5	7,477.8	133.0	168.2	-129.82	8,676.5	2,494.3	254.2	-3.8	258.07	0.985	Collision Risk Procedures Req.
17,200.0	7,315.0	17,549.3	7,477.3	134.4	169.8	-129.33	8,772.2	2,491.4	256.1	-5.4	261.60	0.979	Collision Risk Procedures Req.
17,204.4	7,315.0	17,553.8	7,477.3	134.4	169.8	-129.30	8,776.7	2,491.2	256.2	-5.6	261.78	0.979	Collision Risk Procedures Req.
17,300.0	7,315.0	17,651.3	7,476.2	135.8	171.5	-128.73	8,874.2	2,488.5	257.7	-8.2	265.85	0.969	Collision Risk Procedures Req.
17,304.4	7,315.0	17,655.8	7,476.2	135.8	171.5	-128.72	8,878.7	2,488.4	257.7	-8.3	266.02	0.969	Collision Risk Procedures Req.
17,400.0	7,315.0	17,751.7	7,476.2	137.2	173.1	-128.60	8,974.6	2,487.5	258.5	-10.3	268.79	0.962	Collision Risk Procedures Req.
17,404.4	7,315.0	17,756.1	7,476.3	137.2	173.2	-128.59	8,979.0	2,487.4	258.5	-10.4	268.90	0.961	Collision Risk Procedures Req.
17,500.0	7,315.0	17,849.9	7,476.9	138.6	174.8	-128.56	9,072.8	2,486.5	259.7	-11.3	271.00	0.958	Collision Risk Procedures Req.
17,504.4	7,315.0	17,854.3	7,476.9	138.6	174.9	-128.57	9,077.2	2,486.4	259.8	-11.3	271.09	0.958	Collision Risk Procedures Req.
17,600.0	7,315.0	17,949.6	7,478.1	140.0	176.4	-128.60	9,172.5	2,485.2	261.4	-12.0	273.39	0.956	Collision Risk Procedures Req.
17,604.4	7,315.0	17,954.0	7,478.1	140.1	176.5	-128.61	9,176.9	2,485.2	261.5	-12.0	273.50	0.956	Collision Risk Procedures Req., ES, SF
17,700.0	7,315.0	18,047.3	7,479.6	141.4	178.1	-128.65	9,270.2	2,483.6	263.6	-11.7	275.32	0.958	Collision Risk Procedures Req.

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

Amazon.com
Anticollision Report

Company:	APEX	Local Co-ordinate Reference:	Well *Brighton Lakes 20-17-2NAH
Project:	POCO Brighton Lakes Expansion	TVD Reference:	RKB @ 5063.0usft
Reference Site:	Sec 20-T1S-R66W	MD Reference:	RKB @ 5063.0usft
Site Error:	0.0 usft	North Reference:	Grid
Reference Well:	*Brighton Lakes 20-17-2NAH	Survey Calculation Method:	Minimum Curvature
Well Error:	0.0 usft	Output errors are at	2.00 sigma
Reference Wellbore	Original Hole	Database:	WC365
Reference Design:	Plan #1	Offset TVD Reference:	Offset Datum

Offset Design: Sec 20-T1S-R66W - 20-17-3NBH - Original Hole - Final Surveys													Offset Site Error:	0.0 usft
Survey Program: 126-MWD													Offset Well Error:	0.0 usft
Reference		Offset		Semi Major Axis			Offset Wellbore Centre		Distance				Rule Assigned:	
Measured Depth (usft)	Vertical Depth (usft)	Measured Depth (usft)	Vertical Depth (usft)	Reference (usft)	Offset (usft)	Highside Toolface (°)	+N/-S (usft)	+E/-W (usft)	Between Centres (usft)	Between Ellipses (usft)	Minimum Separation (usft)	Separation Factor	Warning	
17,704.4	7,315.0	18,051.8	7,479.7	141.5	178.1	-128.65	9,274.6	2,483.5	263.8	-11.7	275.43	0.958	Collision Risk Procedures Req.	
17,800.0	7,315.0	18,080.0	7,480.2	142.8	178.6	-128.66	9,302.8	2,483.0	274.6	19.7	254.85	1.077	Collision Risk Procedures Req.	
17,804.4	7,315.0	18,080.0	7,480.2	142.9	178.6	-128.66	9,302.8	2,483.0	275.8	22.8	253.03	1.090	Collision Risk Procedures Req.	
17,900.0	7,315.0	18,080.0	7,480.2	144.2	178.6	-128.66	9,302.8	2,483.0	316.6	107.1	209.48	1.511	Collision Risk Procedures Req.	
18,000.0	7,315.0	18,080.0	7,480.2	145.6	178.6	-128.66	9,302.8	2,483.0	380.8	213.2	167.66	2.272		
18,032.3	7,315.0	18,080.0	7,480.2	146.1	178.6	-128.66	9,302.8	2,483.0	404.7	248.3	156.49	2.586		

Amazon.com
Anticollision Report

Company:	APEX	Local Co-ordinate Reference:	Well *Brighton Lakes 20-17-2NAH
Project:	POCO Brighton Lakes Expansion	TVD Reference:	RKB @ 5063.0usft
Reference Site:	Sec 20-T1S-R66W	MD Reference:	RKB @ 5063.0usft
Site Error:	0.0 usft	North Reference:	Grid
Reference Well:	*Brighton Lakes 20-17-2NAH	Survey Calculation Method:	Minimum Curvature
Well Error:	0.0 usft	Output errors are at	2.00 sigma
Reference Wellbore	Original Hole	Database:	WC365
Reference Design:	Plan #1	Offset TVD Reference:	Offset Datum

Offset Design: Sec 20-T1S-R66W - Extraction PC-1S-66-2928-2CDH - Original Hole - Original Hole													Offset Site Error:	0.0 usft
Survey Program: 1582-MWD													Offset Well Error:	0.0 usft
Reference		Offset		Semi Major Axis		Highside Toolface (°)	Offset Wellbore Centre		Rule Assigned:				Warning	
Measured Depth (usft)	Vertical Depth (usft)	Measured Depth (usft)	Vertical Depth (usft)	Reference (usft)	Offset (usft)		+N/-S (usft)	+E/-W (usft)	Between Centres (usft)	Between Ellipses (usft)	Minimum Separation (usft)	Separation Factor		
7,700.0	7,067.3	12,908.9	7,724.9	40.5	177.2	152.84	-1,393.1	2,576.8	993.9	783.3	210.57	4.720		
7,734.5	7,093.4	12,917.3	7,724.8	40.6	177.4	154.98	-1,393.1	2,585.1	992.3	779.2	213.12	4.656 CC		
7,750.0	7,104.7	12,920.9	7,724.7	40.6	177.4	155.86	-1,393.1	2,588.7	992.6	778.4	214.20	4.634		
7,752.2	7,106.3	12,921.4	7,724.7	40.6	177.4	155.98	-1,393.1	2,589.2	992.7	778.4	214.36	4.631 ES		
7,800.0	7,139.7	12,932.1	7,724.6	40.8	177.6	158.39	-1,393.2	2,599.9	997.9	780.5	217.43	4.589		
7,802.2	7,141.2	12,932.6	7,724.6	40.8	177.6	158.50	-1,393.2	2,600.4	998.3	780.7	217.57	4.588 SF		

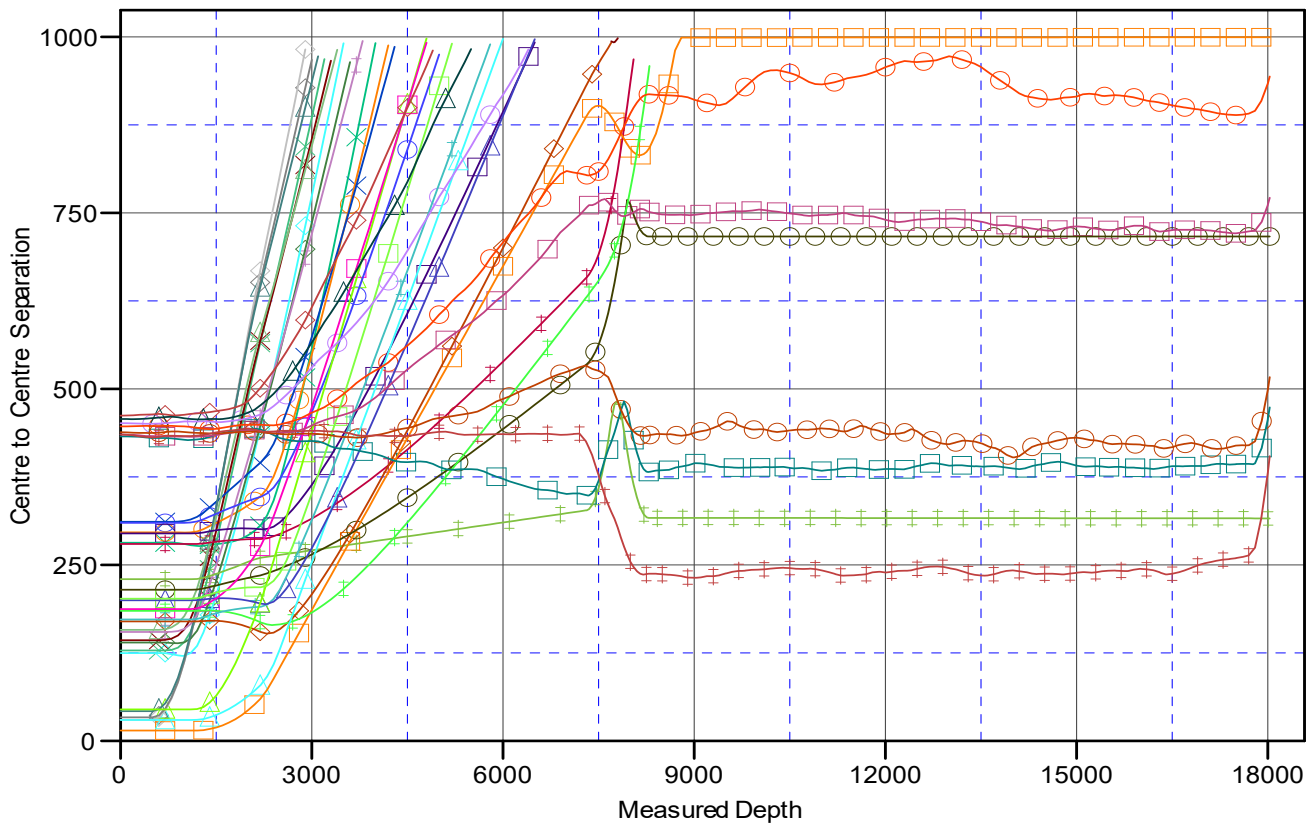
Amazon.com
Anticollision Report

Company:	APEX	Local Co-ordinate Reference:	Well *Brighton Lakes 20-17-2NAH
Project:	POCO Brighton Lakes Expansion	TVD Reference:	RKB @ 5063.0usft
Reference Site:	Sec 20-T1S-R66W	MD Reference:	RKB @ 5063.0usft
Site Error:	0.0 usft	North Reference:	Grid
Reference Well:	*Brighton Lakes 20-17-2NAH	Survey Calculation Method:	Minimum Curvature
Well Error:	0.0 usft	Output errors are at	2.00 sigma
Reference Wellbore	Original Hole	Database:	WC365
Reference Design:	Plan #1	Offset TVD Reference:	Offset Datum

Reference Depths are relative to RKB @ 5063.0usft
Offset Depths are relative to Offset Datum
Central Meridian is 105° 30' 0.000 W

Coordinates are relative to: *Brighton Lakes 20-17-2NAH
Coordinate System is US State Plane 1983, Colorado Central Zone
Grid Convergence at Surface is: 0.43°

Ladder Plot



LEGEND

*Barr Lake 21-23-1CDH, Original Hole, Plan #1 V0	*Brighton Lakes 20-17-3NCHx, Original Hole, Plan #1 V0	*Buckley 21-16-3NBH, Original Hole, Plan #1 V0
*Barr Lake 21-23-1NAH, Original Hole, Plan #1 V0	*Buckley 21-16-1CDH, Original Hole, Plan #1 V0	*Buckley 21-16-3NCH, Original Hole, Plan #1 V0
*Barr Lake 21-23-1NBH, Original Hole, Plan #1 V0	*Buckley 21-16-1NAH, Original Hole, Plan #1 V0	20-17-1CDH, Original Hole, Final Surveys V0
*Barr Lake 21-23-1NCH, Original Hole, Plan #1 V0	*Buckley 21-16-1NBH, Original Hole, Plan #1 V0	20-17-1NAH, Original Hole, Final Survey V0
*Barr Lake 21-23-2CDH, Original Hole, Plan #1 V0	*Buckley 21-16-1NBHx, Original Hole, Plan #1 V0	20-17-1NBH, Original Hole, Final Surveys V0
*Barr Lake 21-23-2NAH, Original Hole, Plan #1 V0	*Buckley 21-16-1NCH, Original Hole, Plan #1 V0	20-17-1NCH, Original Hole, Final Surveys V0
*Barr Lake 21-23-2NBH, Original Hole, Plan #1 V0	*Buckley 21-16-2CDH, Original Hole, Plan #1 V0	20-17-2CDH, Original Hole, Final Survey V0
*Barr Lake 21-23-2NCH, Original Hole, Plan #1 V0	*Buckley 21-16-2NAH, Original Hole, Plan #1 V0	20-17-2NBH (GCDH), Original Hole, Final Surveys V0
*Barr Lake 21-23-3CDH, Original Hole, Plan #1 V0	*Buckley 21-16-2NBH, Original Hole, Plan #1 V0	20-17-2NCH, Original Hole, Final Surveys V0
*Barr Lake 21-23-3NAH, Original Hole, Plan #1 V0	*Buckley 21-16-3CDH, Original Hole, Plan #1 V0	20-17-3NBH, Original Hole, Final Surveys V0
*Barr Lake 21-23-3NBH, Original Hole, Plan #1 V0		Extraction PC-1S-66-2928-2CDH, Original Hole, Original Hole V0
*Barr Lake 21-23-3NCH, Original Hole, Plan #1 V0		

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

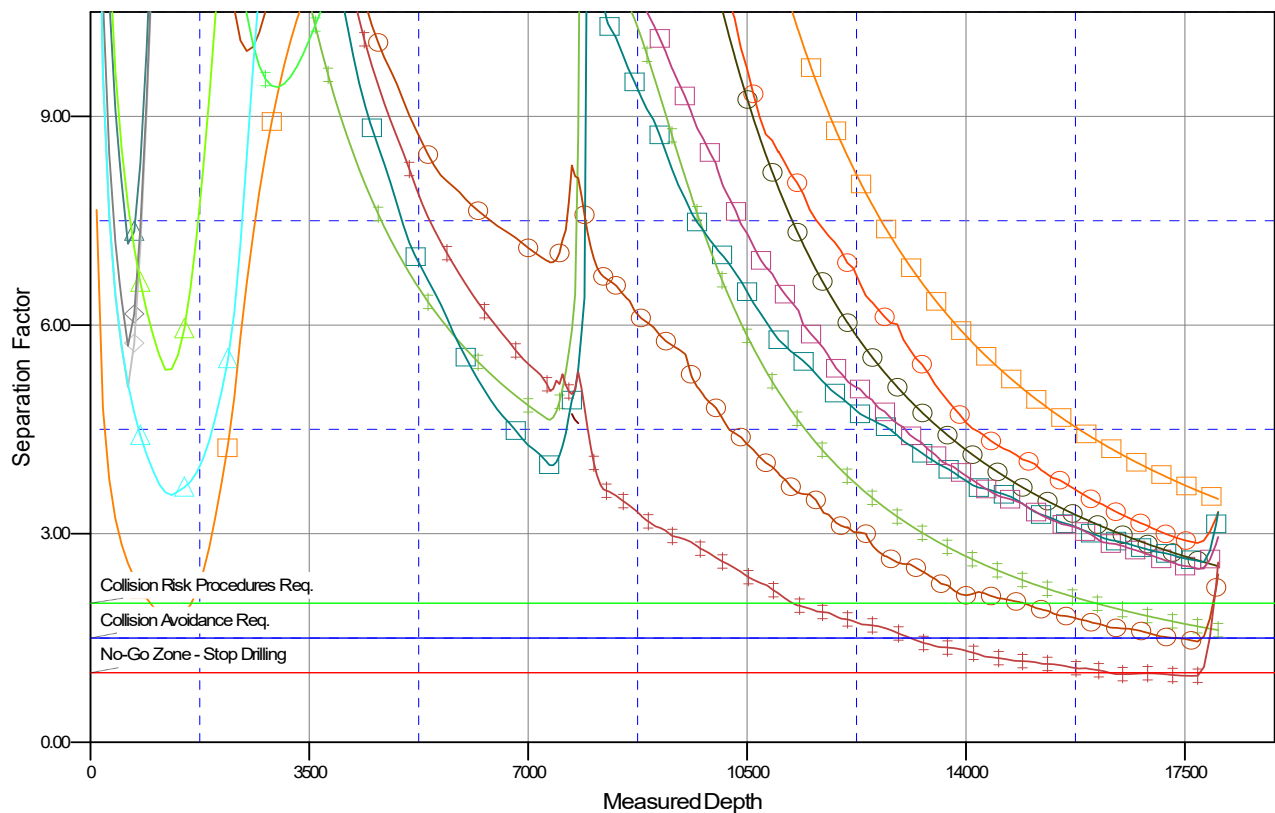
Amazon.com
Anticollision Report

Company:	APEX	Local Co-ordinate Reference:	Well *Brighton Lakes 20-17-2NAH
Project:	POCO Brighton Lakes Expansion	TVD Reference:	RKB @ 5063.0usft
Reference Site:	Sec 20-T1S-R66W	MD Reference:	RKB @ 5063.0usft
Site Error:	0.0 usft	North Reference:	Grid
Reference Well:	*Brighton Lakes 20-17-2NAH	Survey Calculation Method:	Minimum Curvature
Well Error:	0.0 usft	Output errors are at	2.00 sigma
Reference Wellbore	Original Hole	Database:	WC365
Reference Design:	Plan #1	Offset TVD Reference:	Offset Datum

Reference Depths are relative to RKB @ 5063.0usft
Offset Depths are relative to Offset Datum
Central Meridian is 105° 30' 0.000 W

Coordinates are relative to: *Brighton Lakes 20-17-2NAH
Coordinate System is US State Plane 1983, Colorado Central Zone
Grid Convergence at Surface is: 0.43°

Separation Factor Plot



LEGEND

*Barr Lake 21-23-1CDH, Original Hole, Plan #1 V0	*Brighton Lakes 20-17-3NCHx, Original Hole, Plan #1 V0	*Buckley 21-16-3NBH, Original Hole, Plan #1 V0
*Barr Lake 21-23-1NAH, Original Hole, Plan #1 V0	*Buckley 21-16-1CDH, Original Hole, Plan #1 V0	*Buckley 21-16-3NCH, Original Hole, Plan #1 V0
*Barr Lake 21-23-1NBH, Original Hole, Plan #1 V0	*Buckley 21-16-1NAH, Original Hole, Plan #1 V0	20-17-1CDH, Original Hole, Final Surveys V0
*Barr Lake 21-23-1NCH, Original Hole, Plan #1 V0	*Buckley 21-16-1NBH, Original Hole, Plan #1 V0	20-17-1NAH, Original Hole, Final Surveys V0
*Barr Lake 21-23-2CDH, Original Hole, Plan #1 V0	*Buckley 21-16-1NBHx, Original Hole, Plan #1 V0	20-17-1NBH, Original Hole, Final Surveys V0
*Barr Lake 21-23-2NAH, Original Hole, Plan #1 V0	*Buckley 21-16-1NCH, Original Hole, Plan #1 V0	20-17-1NCH, Original Hole, Final Surveys V0
*Barr Lake 21-23-2NBH, Original Hole, Plan #1 V0	*Buckley 21-16-2CDH, Original Hole, Plan #1 V0	20-17-2CDH, Original Hole, Final Surveys V0
*Barr Lake 21-23-2NCH, Original Hole, Plan #1 V0	*Buckley 21-16-2NAH, Original Hole, Plan #1 V0	20-17-2NBH (GCDH), Original Hole, Final Surveys V0
*Barr Lake 21-23-3CDH, Original Hole, Plan #1 V0	*Buckley 21-16-2NBH, Original Hole, Plan #1 V0	20-17-2NCH, Original Hole, Final Surveys V0
*Barr Lake 21-23-3NAH, Original Hole, Plan #1 V0	*Buckley 21-16-2NCH, Original Hole, Plan #1 V0	20-17-3NBH, Original Hole, Final Surveys V0
*Barr Lake 21-23-3NBH, Original Hole, Plan #1 V0	*Buckley 21-16-3CDH, Original Hole, Plan #1 V0	Extraction PC-1S-66-2928-2CDH, Original Hole, Original Hole V0
*Barr Lake 21-23-3NCH, Original Hole, Plan #1 V0		