



SRC ENERGY

**SECTION 15, T6N, R66W
HARVESTERS STATE 7-15 PAD
HARVESTERS STATE 31C-16-M**

**OH
PLAN #1**

Anticollision Report

04 October, 2017





Anticollision Report



Company:	SRC ENERGY	Local Co-ordinate Reference:	Well HARVESTERS STATE 31C-16-M
Project:	SECTION 15, T6N, R66W	TVD Reference:	KB @ 4821.00ft
Reference Site:	HARVESTERS STATE 7-15 PAD	MD Reference:	KB @ 4821.00ft
Site Error:	3.28 ft	North Reference:	True
Reference Well:	HARVESTERS STATE 31C-16-M	Survey Calculation Method:	Minimum Curvature
Well Error:	3.28 ft	Output errors are at	2.45 sigma
Reference Wellbore	OH	Database:	EDM 5000.14 Single User Db
Reference Design:	PLAN #1	Offset TVD Reference:	Reference Datum

Reference	PLAN #1		
Filter type:	NO GLOBAL FILTER: Using user defined selection & filtering criteria		
Interpolation Method:	MD Interval 100.00ft	Error Model:	ISCWSA
Depth Range:	Unlimited	Scan Method:	Closest Approach 3D
Results Limited by:	Maximum center-center distance of 10,000.00 ft	Error Surface:	Pedal Curve
Warning Levels Evaluated at:	2.45 Sigma	Casing Method:	Not applied

Survey Tool Program	Date	10/4/2017		
From (ft)	To (ft)	Survey (Wellbore)	Tool Name	Description
0.00	15,004.86	PLAN #1 (OH)	MWD+IFR1	OWSG MWD + IFR1

Summary						
Site Name	Reference Measured Depth (ft)	Offset Measured Depth (ft)	Distance Between Centres (ft)	Distance Between Ellipses (ft)	Separation Factor	Warning
Offset Well - Wellbore - Design						
HARVESTERS STATE 7-15 PAD						
BERG 33-15 (AB_150CC) - OH - OH	100.00	58.61	1,696.56	1,689.99	258.341	CC
BERG 33-15 (AB_150CC) - OH - OH	600.00	555.94	1,697.52	1,689.54	212.773	ES
BERG 33-15 (AB_150CC) - OH - OH	7,100.00	6,982.59	2,156.82	2,095.80	35.343	SF
BERRY 22-2(PR_75CC) - OH - OH	100.00	29.31	4,432.97	4,426.40	675.212	CC
BERRY 22-2(PR_75CC) - OH - OH	200.00	124.70	4,433.02	4,426.38	668.368	ES
BERRY 22-2(PR_75CC) - OH - OH	10,800.00	7,124.14	6,548.19	6,435.04	57.874	SF
BLACK GOLD PETROLEUM 1(PR_150CC) - OH - OH	0.00	20.20	4,432.97			
BLACK GOLD PETROLEUM 1(PR_150CC) - OH - OH	600.00	618.97	4,433.67	4,425.54	545.316	ES
BLACK GOLD PETROLEUM 1(PR_150CC) - OH - OH	10,800.00	7,400.00	6,553.43	6,438.86	57.197	SF
BLACKGOLD 3(AB_150CC) - OH - OH	8,058.01	7,261.49	1,806.55	1,732.99	24.558	CC
BLACKGOLD 3(AB_150CC) - OH - OH	8,100.00	7,261.78	1,807.04	1,732.69	24.302	ES
BLACKGOLD 3(AB_150CC) - OH - OH	8,700.00	7,266.00	1,917.23	1,831.73	22.423	SF
BURBACH 15-22(SI_150CC) - OH - OH	9,011.69	7,226.95	456.41	142.17	1.452	Level 3, CC, ES, SF
BURBACH 15-23(SI_150CC) - OH - OH	9,374.18	7,210.62	878.99	556.20	2.723	CC
BURBACH 15-23(SI_150CC) - OH - OH	9,400.00	7,210.53	879.37	555.99	2.719	ES, SF
BURMAN 16-42(PR_75CC) - OH - OH	11,629.06	7,208.64	2,060.87	1,677.23	5.372	CC
BURMAN 16-42(PR_75CC) - OH - OH	11,700.00	7,208.90	2,062.09	1,676.60	5.349	ES
BURMAN 16-42(PR_75CC) - OH - OH	11,900.00	7,209.63	2,078.61	1,688.74	5.332	SF
BURMAN 16-43(PR_75CC) - OH - OH	11,626.40	7,188.37	3,561.82	3,178.95	9.303	CC
BURMAN 16-43(PR_75CC) - OH - OH	11,700.00	7,188.10	3,562.58	3,177.74	9.257	ES
BURMAN 16-43(PR_75CC) - OH - OH	12,300.00	7,185.91	3,624.95	3,226.22	9.091	SF
DONN 30N 20A-L(SRC PLAN_75CC) - OH - SRC PLAN	9,886.36	7,242.33	4,071.86	3,951.63	33.867	CC
DONN 30N 20A-L(SRC PLAN_75CC) - OH - SRC PLAN	15,005.81	12,346.98	4,273.01	3,864.32	10.455	ES, SF
DONN 30N-20B-L(SRC PLAN_75CC) - OH - PLAN	9,833.75	7,305.22	4,262.17	4,143.19	35.824	CC
DONN 30N-20B-L(SRC PLAN_75CC) - OH - PLAN	15,005.81	12,351.66	4,409.73	4,003.50	10.855	ES, SF
FALKEN 34C-9-L(SRC PLAN_75CC) - OH - Plan 1	10,159.12	19,118.26	1,634.56	1,198.88	3.752	CC
FALKEN 34C-9-L(SRC PLAN_75CC) - OH - Plan 1	10,200.00	19,118.26	1,635.07	1,198.35	3.744	ES, SF
FALKEN 34N-9C-L(SRC PLAN_75CC) - OH - Plan 1	10,156.96	19,018.34	1,437.96	1,004.06	3.314	CC
FALKEN 34N-9C-L(SRC PLAN_75CC) - OH - Plan 1	10,200.00	19,018.34	1,438.60	1,003.76	3.308	ES, SF
FRITZLER 11-21-4(PR_150CC) - OH - OH	13,895.80	7,341.39	4,072.35	3,840.78	17.586	CC
FRITZLER 11-21-4(PR_150CC) - OH - OH	14,000.00	7,343.36	4,073.68	3,839.17	17.371	ES
FRITZLER 11-21-4(PR_150CC) - OH - OH	15,000.00	7,364.13	4,219.31	3,963.60	16.500	SF
FRITZLER 11-21(PR_150CC) - OH - OH	14,478.88	7,159.93	4,750.35	4,288.34	10.282	CC
FRITZLER 11-21(PR_150CC) - OH - OH	14,600.00	7,159.48	4,751.89	4,286.58	10.212	ES
FRITZLER 11-21(PR_150CC) - OH - OH	15,005.81	7,158.00	4,779.48	4,304.16	10.055	SF
FRITZLER 1-17(PR_150CC) - OH - OH	15,005.81	7,173.00	3,527.84	3,055.62	7.471	CC, ES, SF
FRITZLER 17-23-18(PR_150CC) - OH - OH	15,005.81	7,399.26	4,022.06	3,803.89	18.435	CC, ES, SF

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

Company:	SRC ENERGY	Local Co-ordinate Reference:	Well HARVESTERS STATE 31C-16-M
Project:	SECTION 15, T6N, R66W	TVD Reference:	KB @ 4821.00ft
Reference Site:	HARVESTERS STATE 7-15 PAD	MD Reference:	KB @ 4821.00ft
Site Error:	3.28 ft	North Reference:	True
Reference Well:	HARVESTERS STATE 31C-16-M	Survey Calculation Method:	Minimum Curvature
Well Error:	3.28 ft	Output errors are at	2.45 sigma
Reference Wellbore	OH	Database:	EDM 5000.14 Single User Db
Reference Design:	PLAN #1	Offset TVD Reference:	Reference Datum

Summary

Site Name	Reference Measured Depth (ft)	Offset Measured Depth (ft)	Distance Between Centres (ft)	Distance Between Ellipses (ft)	Separation Factor	Warning
Offset Well - Wellbore - Design						
HARVESTERS STATE 7-15 PAD						
FRITZLER 17-32-12(PR_150CC) - OH - OH	15,005.81	7,603.99	2,086.06	1,869.71	9.642	CC, ES, SF
FRITZLER 17-42-11(PR_150CC) - OH - MWD	15,005.81	7,584.58	1,465.12	1,200.74	5.542	CC, ES, SF
FRITZLER 34-17(PR_150CC) - OH - OH	15,005.81	7,165.85	4,081.81	3,844.71	17.216	CC, ES, SF
FRITZLER 43-17(PR_150CC) - OH - OH	15,005.81	7,380.80	2,261.10	2,012.63	9.100	CC, ES, SF
FRITZLER 6-6-17 (PR_150CC) - OH - OH	15,005.81	7,246.20	3,178.05	2,938.16	13.248	CC, ES, SF
FRITZLER 6-8-17(PR_150CC) - OH - OH	15,005.81	7,344.23	4,298.77	4,049.15	17.221	CC, ES, SF
FRITZLER 8-8-17(PR_150CC) - OH - OH	15,005.81	7,201.74	4,090.85	3,828.68	15.604	CC, ES, SF
GREELEY SWD #1(XX) - OH - OH	10,192.68	7,178.62	3,761.59	3,418.36	10.959	CC
GREELEY SWD #1(XX) - OH - OH	10,300.00	7,178.23	3,763.12	3,417.09	10.875	ES
GREELEY SWD #1(XX) - OH - OH	11,000.00	7,175.67	3,847.25	3,484.86	10.616	SF
HARVESTER 31-15(SI_150CC) - OH - OH	6,700.00	6,699.12	817.91	759.83	14.083	CC, ES
HARVESTER 31-15(SI_150CC) - OH - OH	6,800.00	6,796.87	825.45	766.52	14.007	SF
HARVESTER 32-15(SI_150CC) - OH - OH	495.22	474.26	540.26	532.71	71.554	CC
HARVESTER 32-15(SI_150CC) - OH - OH	600.00	578.94	540.32	532.28	67.214	ES
HARVESTER 32-15(SI_150CC) - OH - OH	6,700.00	6,667.66	825.77	767.85	14.259	SF
HARVESTERS RESOURCES 15M-303 (PR_150CC) - O	7,132.25	8,117.26	205.39	151.79	3.832	CC, ES
HARVESTERS RESOURCES 15M-303 (PR_150CC) - O	7,200.00	8,113.68	219.63	154.85	3.391	SF
HARVESTERS RESOURCES 15M-423(PR_150CC) - O	7,014.22	8,169.34	513.10	453.84	8.658	CC, ES
HARVESTERS RESOURCES 15M-423(PR_150CC) - O	7,100.00	8,157.75	525.74	461.36	8.166	SF
HARVESTERS RESOURCES 15R-243(PR_150CC) - OH	6,851.30	8,111.18	868.51	803.75	13.411	CC, ES
HARVESTERS RESOURCES 15R-243(PR_150CC) - OH	7,000.00	8,104.43	897.93	829.68	13.157	SF
HARVESTERS RESOURCES 15R-403(PR_150CC) - OH	6,853.46	8,233.73	1,221.11	1,153.49	18.058	CC, ES
HARVESTERS RESOURCES 15R-403(PR_150CC) - OH	6,900.00	8,229.50	1,223.68	1,155.31	17.898	SF
HARVESTERS STATE 30C-16-M - OH - PLAN #1	200.00	201.00	99.82	93.15	14.955	CC, ES
HARVESTERS STATE 30C-16-M - OH - PLAN #1	15,005.81	15,216.01	1,099.85	642.36	2.404	SF
HARVESTERS STATE 30N-16B-M - OH - PLAN #1	300.00	301.00	80.16	73.26	11.632	CC, ES
HARVESTERS STATE 30N-16B-M - OH - PLAN #1	15,005.81	14,942.37	898.29	447.18	1.991	SF
HARVESTERS STATE 33C-16-M - OH - PLAN #1	200.00	199.00	299.84	293.16	44.931	CC, ES
HARVESTERS STATE 33C-16-M - OH - PLAN #1	15,005.81	15,237.54	2,670.00	2,213.25	5.846	SF
HARVESTERS STATE 34C-16-M - OH - PLAN #1	200.00	198.00	420.05	413.38	62.953	CC, ES
HARVESTERS STATE 34C-16-M - OH - PLAN #1	15,005.81	15,756.60	3,932.18	3,475.07	8.602	SF
HARVESTERS STATE 5C-16-M - OH - PLAN #1	600.00	600.00	40.07	31.98	4.952	CC
HARVESTERS STATE 5C-16-M - OH - PLAN #1	15,005.81	14,985.05	440.10	-16.75	0.963	Level 1, ES, SF
HARVESTERS STATE 12N-16A-M - OH - PLAN #1	200.00	199.00	280.16	273.48	41.982	CC, ES
HARVESTERS STATE 12N-16A-M - OH - PLAN #1	15,005.81	14,896.91	2,478.67	2,024.83	5.462	SF
HARVESTERS STATE 12N-16B-M - OH - PLAN #1	200.00	199.00	260.13	253.45	38.981	CC, ES
HARVESTERS STATE 12N-16B-M - OH - PLAN #1	15,005.81	14,963.99	2,257.94	1,802.47	4.957	SF
HARVESTERS STATE 12N-16C-M - OH - PLAN #1	200.00	199.00	240.08	233.40	35.976	CC, ES
HARVESTERS STATE 12N-16C-M - OH - PLAN #1	15,005.81	14,967.29	2,045.49	1,590.34	4.494	SF
HARVESTERS STATE 13C-16-M - OH - PLAN #1	200.00	198.00	359.95	353.28	53.946	CC, ES
HARVESTERS STATE 13C-16-M - OH - PLAN #1	15,005.81	15,408.26	3,301.26	2,844.45	7.227	SF
HARVESTERS STATE 13N-16B-M - OH - PLAN #1	200.00	198.00	379.97	373.30	56.947	CC, ES
HARVESTERS STATE 13N-16B-M - OH - PLAN #1	15,005.81	15,311.53	3,515.50	3,059.01	7.701	SF
HARVESTERS STATE 31N-16B-M - OH - PLAN #1	748.80	749.59	15.64	6.72	1.752	CC, ES
HARVESTERS STATE 31N-16B-M - OH - PLAN #1	15,005.81	14,812.28	366.10	70.58	1.239	Level 2, SF
HARVESTERS STATE 32C-16-M - OH - PLAN #1	200.00	199.00	220.04	213.37	32.973	CC, ES
HARVESTERS STATE 32C-16-M - OH - PLAN #1	15,005.81	15,072.99	1,831.07	1,334.90	3.690	SF
HARVESTERS STATE 32C-16-M2 - OH - PLAN #1	500.00	500.00	100.18	92.57	13.161	CC, ES
HARVESTERS STATE 32C-16-M2 - OH - PLAN #1	15,005.81	14,997.30	1,101.36	644.72	2.412	SF
HARVESTERS STATE 32N-16B-M - OH - PLAN #1	300.00	299.00	200.00	193.11	29.034	CC, ES
HARVESTERS STATE 32N-16B-M - OH - PLAN #1	15,005.81	14,861.24	1,642.60	1,188.81	3.620	SF
HARVESTERS STATE 32N-16C-M - OH - PLAN #1	508.33	508.33	119.85	112.20	15.668	CC
HARVESTERS STATE 32N-16C-M - OH - PLAN #1	600.00	599.22	119.91	111.82	14.825	ES

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Reference Design:	PLAN #1	Offset TVD Reference:	Reference Datum

Summary

Site Name	Reference Measured Depth (ft)	Offset Measured Depth (ft)	Distance Between Centres (ft)	Distance Between Ellipses (ft)	Separation Factor	Warning
Offset Well - Wellbore - Design						
HARVESTERS STATE 7-15 PAD						
HARVESTERS STATE 32N-16C-M - OH - PLAN #1	15,005.81	14,903.17	1,325.24	870.59	2.915	SF
HARVESTERS STATE 33N-16B-M - OH - PLAN #1	200.00	199.00	319.86	313.18	47.931	CC, ES
HARVESTERS STATE 33N-16B-M - OH - PLAN #1	15,005.81	15,119.35	2,888.25	2,432.20	6.333	SF
HARVESTERS STATE 33N-16C-M - OH - PLAN #1	200.00	198.00	339.91	333.24	50.943	CC, ES
HARVESTERS STATE 33N-16C-M - OH - PLAN #1	15,005.81	15,247.51	3,092.34	2,635.77	6.773	SF
HARVESTERS STATE 34N-16C-M - OH - PLAN #1	200.00	198.00	400.01	393.34	59.950	CC, ES
HARVESTERS STATE 34N-16C-M - OH - PLAN #1	15,005.81	15,456.95	3,723.16	3,266.33	8.150	SF
HARVESTERS STATE 4C-16-M - OH - PLAN #1	500.00	501.00	60.11	54.37	10.471	CC, ES
HARVESTERS STATE 4C-16-M - OH - PLAN #1	15,005.81	15,116.21	695.58	238.33	1.521	SF
HARVESTERS STATE 4N-16A-M - OH - PLAN #1	600.00	600.00	20.04	11.95	2.477	CC
HARVESTERS STATE 4N-16A-M - OH - PLAN #1	800.00	798.65	20.42	11.18	2.210	ES
HARVESTERS STATE 4N-16A-M - OH - PLAN #1	15,005.81	14,732.11	370.71	67.20	1.221	Level 2, SF
HARVESTERS STATE 4N-16C-M - OH - PLAN #1	600.00	600.00	40.09	31.99	4.954	CC
HARVESTERS STATE 4N-16C-M - OH - PLAN #1	15,005.81	14,969.16	361.34	-75.64	0.827	Level 1, ES, SF
HARVESTERS STATE 5N-16B-M - OH - PLAN #1	400.00	400.00	80.14	72.93	11.120	CC, ES
HARVESTERS STATE 5N-16B-M - OH - PLAN #1	15,005.81	14,802.18	803.59	359.70	1.810	SF
HARVESTERS STATE 5N-16C-M - OH - PLAN #1	500.00	500.00	60.10	52.49	7.896	CC
HARVESTERS STATE 5N-16C-M - OH - PLAN #1	600.00	600.04	60.14	52.06	7.438	ES
HARVESTERS STATE 5N-16C-M - OH - PLAN #1	15,005.81	14,861.64	670.14	221.21	1.493	Level 3, SF
HOOD 41-20(PR_150CC) - OH - OH	15,005.81	7,165.00	4,850.20	4,375.91	10.226	CC, ES, SF
HOOD 6-2-20(PR_150CC) - OH - OH	15,005.81	7,570.25	5,593.57	5,336.61	21.768	CC, ES, SF
LEFFLER 1 21-2(SI_75CC) - OH - OH	11,832.51	7,100.01	4,693.36	4,523.70	27.664	CC
LEFFLER 1 21-2(SI_75CC) - OH - OH	12,000.00	7,109.33	4,696.34	4,522.11	26.955	ES
LEFFLER 1 21-2(SI_75CC) - OH - OH	13,600.00	7,204.99	5,014.04	4,806.47	24.156	SF
LEFFLER 26C-23-L(SRC PLAN_75CC) - OH - BAKER P	6,994.92	10,456.28	4,302.62	4,160.05	30.180	CC, ES
LEFFLER 26C-23-L(SRC PLAN_75CC) - OH - BAKER P	12,300.00	7,100.00	4,847.51	4,676.19	28.294	SF
LEFFLER 26N-23B-L(SRC PLAN_75CC) - OH - PLAN	6,847.53	10,350.02	4,028.11	3,885.38	28.222	CC, ES
LEFFLER 26N-23B-L(SRC PLAN_75CC) - OH - PLAN	12,100.00	7,035.01	4,530.71	4,363.90	27.161	SF
LEFFLER FARM 1-21(PA_75CC) - OH - OH	13,159.87	7,166.76	4,922.85	4,497.83	11.583	CC
LEFFLER FARM 1-21(PA_75CC) - OH - OH	13,300.00	7,166.24	4,924.84	4,496.01	11.484	ES
LEFFLER FARM 1-21(PA_75CC) - OH - OH	14,200.00	7,162.95	5,031.53	4,581.96	11.192	SF
LOVELY 1(AB_150CC) - OH - OH	13,210.85	7,213.57	1,876.00	1,447.91	4.382	CC
LOVELY 1(AB_150CC) - OH - OH	13,300.00	7,213.24	1,878.12	1,447.65	4.363	ES
LOVELY 1(AB_150CC) - OH - OH	13,400.00	7,212.88	1,885.52	1,452.85	4.358	SF
LOVELY 14-9(AB_150CC) - OH - OH	14,706.72	7,211.09	1,802.38	1,332.13	3.833	CC
LOVELY 14-9(AB_150CC) - OH - OH	14,800.00	7,210.75	1,804.79	1,332.12	3.818	ES, SF
LUCAS SCHOOL 1(TA_150CC) - OH - OH	10,482.88	7,243.56	1,941.92	1,588.58	5.496	CC
LUCAS SCHOOL 1(TA_150CC) - OH - OH	10,500.00	7,243.50	1,941.99	1,588.18	5.489	ES
LUCAS SCHOOL 1(TA_150CC) - OH - OH	10,700.00	7,242.76	1,954.02	1,595.22	5.446	SF
LUCAS SCHOOL 34-9(TA_150CC) - OH - OH	11,698.05	7,200.89	1,906.09	1,520.80	4.947	CC
LUCAS SCHOOL 34-9(TA_150CC) - OH - OH	11,700.00	7,200.90	1,906.10	1,520.75	4.946	ES
LUCAS SCHOOL 34-9(TA_150CC) - OH - OH	11,900.00	7,201.63	1,916.76	1,526.39	4.910	SF
MAURICE LEFFLER 1(AB_150CC) - OH - OH	13,177.56	4,452.00	5,448.45	5,159.90	18.882	CC
MAURICE LEFFLER 1(AB_150CC) - OH - OH	13,300.00	4,452.00	5,449.82	5,158.31	18.695	ES
MAURICE LEFFLER 1(AB_150CC) - OH - OH	14,800.00	4,452.00	5,684.88	5,362.60	17.640	SF
MCGLOTHLIN 8-6-17 (PR_150CC) - OH - OH	15,005.81	7,434.00	2,728.19	2,466.04	10.407	CC, ES, SF
MCGLOTHLIN 17-11(PR_75CC) - OH - OH	15,005.81	7,204.00	1,191.48	811.19	3.133	CC, ES, SF
MONTERA 10-34 (PR_75CC) - OH - OH	6,916.83	6,920.63	1,854.83	1,794.81	30.903	CC, ES
MONTERA 10-34 (PR_75CC) - OH - OH	7,400.00	7,261.28	1,911.88	1,847.61	29.746	SF
RUTT-ADAMS HEIRS 2-22 - OH - OH	600.00	540.00	4,386.52	4,365.06	204.368	CC
RUTT-ADAMS HEIRS 2-22 - OH - OH	700.00	639.98	4,387.92	4,362.75	174.308	ES
RUTT-ADAMS HEIRS 2-22 - OH - OH	9,400.00	7,186.53	4,908.87	4,589.70	15.380	SF
SENA 15-21(PR_75CC) - OH - OH	8,009.16	7,246.62	727.97	435.11	2.486	CC, ES, SF

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



Anticollision Report



Company:	SRC ENERGY	Local Co-ordinate Reference:	Well HARVESTERS STATE 31C-16-M
Project:	SECTION 15, T6N, R66W	TVD Reference:	KB @ 4821.00ft
Reference Site:	HARVESTERS STATE 7-15 PAD	MD Reference:	KB @ 4821.00ft
Site Error:	3.28 ft	North Reference:	True
Reference Well:	HARVESTERS STATE 31C-16-M	Survey Calculation Method:	Minimum Curvature
Well Error:	3.28 ft	Output errors are at	2.45 sigma
Reference Wellbore	OH	Database:	EDM 5000.14 Single User Db
Reference Design:	PLAN #1	Offset TVD Reference:	Reference Datum

Summary

Site Name	Reference Measured Depth (ft)	Offset Measured Depth (ft)	Distance Between Centres (ft)	Distance Between Ellipses (ft)	Separation Factor	Warning
Offset Well - Wellbore - Design						
HARVESTERS STATE 7-15 PAD						
SENA 15-24(PR_75CC) - OH - OH	7,943.42	7,232.86	575.89	284.66	1.977	CC, ES, SF
SENA 15-25(PR_75CC) - OH - OH	8,325.50	7,238.46	103.22	-195.56	0.345	Level 1, CC, ES, SF
STATE 1(AB_150CC) - OH - OH	11,836.32	7,188.60	591.27	202.56	1.521	CC, ES, SF
STATE BEATRICE 16-1(AB_150CC) - OH - OH	11,966.32	7,209.87	611.32	218.24	1.555	CC, ES
STATE BEATRICE 16-1(AB_150CC) - OH - OH	12,000.00	7,210.00	612.25	218.34	1.554	SF
STATE BEATRICE 32-16(PR_75CC) - OH - OH	11,755.24	7,183.90	859.34	473.05	2.225	CC, ES
STATE BEATRICE 32-16(PR_75CC) - OH - OH	11,800.00	7,183.74	860.50	473.23	2.222	SF
STATE-HOPPE 16-1(SI_75CC) - OH - OH	14,477.62	7,170.93	3,582.36	3,120.00	7.748	CC
STATE-HOPPE 16-1(SI_75CC) - OH - OH	14,600.00	7,170.48	3,584.45	3,118.82	7.698	ES
STATE-HOPPE 16-1(SI_75CC) - OH - OH	15,000.00	7,169.02	3,620.25	3,145.73	7.629	SF
STATE-HOPPE 16-2(PR_75CC) - OH - OH	13,350.47	7,188.06	2,084.08	1,652.95	4.834	CC
STATE-HOPPE 16-2(PR_75CC) - OH - OH	13,400.00	7,187.88	2,084.67	1,652.24	4.821	ES
STATE-HOPPE 16-2(PR_75CC) - OH - OH	13,500.00	7,187.51	2,089.44	1,654.69	4.806	SF
STATE-HOPPE 16-3(PR_150CC) - OH - OH	14,569.85	7,182.85	935.68	688.68	3.788	CC
STATE-HOPPE 16-3(PR_150CC) - OH - OH	14,600.00	7,183.33	936.17	688.48	3.780	ES, SF
STOCKOVER 16-1(PR_75CC) - OH - OH	10,399.24	7,180.87	2,021.69	1,672.80	5.795	CC
STOCKOVER 16-1(PR_75CC) - OH - OH	10,400.00	7,180.86	2,021.69	1,672.78	5.794	ES
STOCKOVER 16-1(PR_75CC) - OH - OH	10,600.00	7,180.13	2,031.63	1,677.94	5.744	SF
ULRICH PC I 17-07D(PR_75CC) - OH - OH	15,005.81	7,328.25	2,324.18	2,195.81	18.104	CC, ES, SF
ULRICH PC I 17-08(PR_75CC) - OH - OH	15,005.81	7,187.00	1,257.47	861.21	3.173	CC, ES, SF
ULRICH PC I 17-17D(PR_75CC) - OH - OH	15,005.81	7,398.51	1,703.14	1,631.77	23.866	CC, ES, SF

Offset Design												Offset Site Error:	0.00 ft
HARVESTERS STATE 7-15 PAD - BERG 33-15 (AB_150CC) - OH - OH												Offset Well Error:	3.28 ft
Survey Program: 100-GYRO-NS													
Reference		Offset		Semi Major Axis		Highside Toolface (°)	Distance		Minimum Separation (ft)	Separation Factor	Warning		
Measured Depth (ft)	Vertical Depth (ft)	Measured Depth (ft)	Vertical Depth (ft)	Reference (ft)	Offset (ft)		Offset Wellbore Centre +N/-S (ft)	+E/-W (ft)					
0.00	0.00	0.00	38.00	3.28	3.28	168.12	-1,660.14	349.36	1,696.92				
100.00	100.00	58.61	96.61	3.28	3.28	168.12	-1,660.19	349.37	1,696.56	1,689.99	6.57	258.341	CC
200.00	200.00	156.65	194.65	3.34	3.31	168.12	-1,660.50	349.35	1,696.86	1,690.21	6.65	255.212	
300.00	300.00	259.31	297.31	3.44	3.40	168.13	-1,660.82	349.14	1,697.12	1,690.28	6.85	247.921	
400.00	400.00	360.37	398.37	3.60	3.54	168.13	-1,660.93	349.06	1,697.22	1,690.07	7.14	237.615	
500.00	500.00	460.05	498.05	3.81	3.72	168.13	-1,661.04	349.09	1,697.33	1,689.80	7.53	225.500	
600.00	600.00	555.94	593.94	4.05	3.93	168.13	-1,661.19	349.22	1,697.52	1,689.54	7.98	212.773	ES
700.00	699.98	652.32	690.32	4.32	4.17	-168.98	-1,661.68	349.32	1,699.74	1,691.25	8.49	200.160	
800.00	799.84	754.43	792.43	4.62	4.46	-168.98	-1,662.27	349.17	1,705.39	1,696.31	9.08	187.888	
900.00	899.62	857.71	895.70	4.94	4.77	-169.00	-1,662.72	348.62	1,712.14	1,702.44	9.70	176.432	
1,000.00	999.41	959.51	997.50	5.27	5.09	-169.03	-1,663.01	348.09	1,718.74	1,708.38	10.36	165.835	
1,100.00	1,099.19	1,057.12	1,095.11	5.62	5.42	-169.04	-1,663.28	347.41	1,725.31	1,714.27	11.04	156.276	
1,200.00	1,198.98	1,155.04	1,193.03	5.99	5.76	-169.06	-1,663.73	346.84	1,732.08	1,720.34	11.74	147.520	
1,300.00	1,298.76	1,254.84	1,292.82	6.36	6.12	-169.08	-1,664.21	346.17	1,738.85	1,726.38	12.47	139.449	
1,400.00	1,398.55	1,356.50	1,394.47	6.74	6.49	-169.09	-1,664.72	345.34	1,745.61	1,732.39	13.22	132.029	
1,500.00	1,498.33	1,460.64	1,498.61	7.13	6.88	-169.11	-1,665.01	344.53	1,752.16	1,738.17	14.00	125.181	
1,600.00	1,598.12	1,563.14	1,601.11	7.52	7.27	-169.12	-1,665.06	343.76	1,758.49	1,743.71	14.78	118.988	
1,700.00	1,697.90	1,661.14	1,699.10	7.92	7.64	-169.13	-1,665.13	342.69	1,764.78	1,749.22	15.55	113.468	
1,800.00	1,797.69	1,757.76	1,795.72	8.33	8.02	-169.14	-1,665.35	341.78	1,771.24	1,754.91	16.33	108.462	
1,900.00	1,897.47	1,856.91	1,894.87	8.74	8.41	-169.14	-1,665.71	340.83	1,777.84	1,760.72	17.13	103.810	
2,000.00	1,997.26	1,955.02	1,992.97	9.15	8.80	-169.15	-1,666.09	339.83	1,784.44	1,766.52	17.92	99.558	
2,100.00	2,097.04	2,053.51	2,091.45	9.56	9.19	-169.15	-1,666.65	338.66	1,791.19	1,772.46	18.73	95.639	

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



Anticollision Report



Company:	SRC ENERGY	Local Co-ordinate Reference:	Well HARVESTERS STATE 31C-16-M
Project:	SECTION 15, T6N, R66W	TVD Reference:	KB @ 4821.00ft
Reference Site:	HARVESTERS STATE 7-15 PAD	MD Reference:	KB @ 4821.00ft
Site Error:	3.28 ft	North Reference:	True
Reference Well:	HARVESTERS STATE 31C-16-M	Survey Calculation Method:	Minimum Curvature
Well Error:	3.28 ft	Output errors are at	2.45 sigma
Reference Wellbore	OH	Database:	EDM 5000.14 Single User Db
Reference Design:	PLAN #1	Offset TVD Reference:	Reference Datum

Offset Design HARVESTERS STATE 7-15 PAD - BERG 33-15 (AB_150CC) - OH - OH												Offset Site Error:	0.00 ft
Survey Program: 100-GYRO-NS												Offset Well Error:	3.28 ft
Reference		Offset		Semi Major Axis			Distance						Warning
Measured Depth (ft)	Vertical Depth (ft)	Measured Depth (ft)	Vertical Depth (ft)	Reference (ft)	Offset (ft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (ft)	+E/-W (ft)	Between Centres (ft)	Between Ellipses (ft)	Minimum Separation (ft)	Separation Factor	
2,200.00	2,196.83	2,152.83	2,190.76	9.98	9.59	-169.15	-1,667.18	337.66	1,797.94	1,778.40	19.54	92.004	
2,300.00	2,296.61	2,250.83	2,288.76	10.40	9.99	-169.16	-1,667.70	337.00	1,804.76	1,784.41	20.35	88.669	
2,400.00	2,396.40	2,353.96	2,391.88	10.82	10.41	-169.17	-1,668.32	336.12	1,811.62	1,790.43	21.19	85.487	
2,500.00	2,496.18	2,458.31	2,496.23	11.24	10.83	-169.18	-1,668.62	335.11	1,818.13	1,796.10	22.04	82.499	
2,600.00	2,595.96	2,559.89	2,597.80	11.66	11.25	-169.20	-1,668.72	334.42	1,824.53	1,801.65	22.88	79.759	
2,700.00	2,695.75	2,657.37	2,695.29	12.09	11.65	-169.22	-1,668.75	333.90	1,830.89	1,807.19	23.70	77.260	
2,800.00	2,795.53	2,754.52	2,792.44	12.51	12.05	-169.24	-1,668.98	333.40	1,837.46	1,812.93	24.52	74.934	
2,900.00	2,895.32	2,855.21	2,893.13	12.94	12.46	-169.26	-1,669.26	332.87	1,844.06	1,818.70	25.36	72.708	
3,000.00	2,995.10	2,953.86	2,991.77	13.37	12.87	-169.28	-1,669.47	332.45	1,850.61	1,824.42	26.20	70.643	
3,100.00	3,094.89	3,050.16	3,088.07	13.80	13.27	-169.30	-1,669.84	331.99	1,857.34	1,830.31	27.02	68.734	
3,200.00	3,194.67	3,150.86	3,188.77	14.23	13.69	-169.32	-1,670.35	331.51	1,864.18	1,836.31	27.87	66.889	
3,300.00	3,294.46	3,258.33	3,296.24	14.66	14.14	-169.36	-1,670.55	331.29	1,870.76	1,842.01	28.75	65.073	
3,400.00	3,394.24	3,367.01	3,404.91	15.09	14.59	-169.38	-1,670.32	330.64	1,876.87	1,847.23	29.63	63.335	
3,500.00	3,494.03	3,465.10	3,503.00	15.52	15.00	-169.40	-1,669.85	330.00	1,882.71	1,852.24	30.47	61.784	
3,600.00	3,593.81	3,559.00	3,596.90	15.96	15.39	-169.41	-1,669.70	329.26	1,888.84	1,857.55	31.29	60.359	
3,700.00	3,693.60	3,649.57	3,687.46	16.39	15.77	-169.42	-1,669.88	328.60	1,895.33	1,863.23	32.10	59.044	
3,800.00	3,793.38	3,741.85	3,779.74	16.82	16.16	-169.43	-1,670.61	327.83	1,902.36	1,869.45	32.92	57.796	
3,900.00	3,893.17	3,843.91	3,881.79	17.26	16.59	-169.44	-1,671.53	327.03	1,909.52	1,875.74	33.78	56.532	
4,000.00	3,992.95	3,948.19	3,986.07	17.69	17.03	-169.45	-1,672.15	326.32	1,916.40	1,881.75	34.65	55.306	
4,100.00	4,092.74	4,048.49	4,086.36	18.13	17.45	-169.46	-1,672.67	325.56	1,923.19	1,887.68	35.51	54.164	
4,200.00	4,192.52	4,150.38	4,188.24	18.56	17.88	-169.47	-1,673.16	324.74	1,929.94	1,893.57	36.37	53.064	
4,300.00	4,292.31	4,266.27	4,304.13	19.00	18.37	-169.49	-1,673.25	323.98	1,936.34	1,899.04	37.30	51.914	
4,400.00	4,392.09	4,369.29	4,407.15	19.43	18.80	-169.50	-1,672.55	323.07	1,941.93	1,903.76	38.17	50.878	
4,500.00	4,491.88	4,468.86	4,506.71	19.87	19.22	-169.52	-1,671.99	322.24	1,947.65	1,908.63	39.02	49.912	
4,600.00	4,591.66	4,584.79	4,622.63	20.31	19.71	-169.53	-1,670.99	320.98	1,953.04	1,913.09	39.95	48.887	
4,700.00	4,691.44	4,678.50	4,716.33	20.74	20.10	-169.55	-1,669.66	320.38	1,957.97	1,917.19	40.78	48.014	
4,800.00	4,791.23	4,779.62	4,817.44	21.18	20.53	-169.59	-1,668.40	320.30	1,963.19	1,921.55	41.64	47.145	
4,900.00	4,891.01	4,861.43	4,899.24	21.62	20.87	-169.60	-1,667.77	319.31	1,968.65	1,926.24	42.42	46.413	
5,000.00	4,990.80	4,945.49	4,983.30	22.06	21.23	-169.60	-1,668.07	318.32	1,975.19	1,931.99	43.20	45.724	
5,100.00	5,090.58	5,056.73	5,094.53	22.50	21.70	-169.63	-1,668.46	318.36	1,982.01	1,937.90	44.11	44.931	
5,200.00	5,190.37	5,176.87	5,214.66	22.93	22.20	-169.69	-1,667.34	318.77	1,987.60	1,942.54	45.07	44.105	
5,300.00	5,290.15	5,278.27	5,316.06	23.37	22.63	-169.76	-1,665.80	319.58	1,992.75	1,946.81	45.93	43.385	
5,400.00	5,389.94	5,365.21	5,402.98	23.81	22.99	-169.82	-1,664.64	320.55	1,998.16	1,951.43	46.73	42.758	
5,500.00	5,489.72	5,450.55	5,488.31	24.25	23.35	-169.89	-1,664.13	321.74	2,004.34	1,956.82	47.52	42.177	
5,600.00	5,589.51	5,551.16	5,588.91	24.69	23.77	-169.94	-1,664.21	322.53	2,011.05	1,962.66	48.39	41.563	
5,700.00	5,689.29	5,656.50	5,694.25	25.13	24.22	-170.01	-1,663.72	323.51	2,017.26	1,967.99	49.27	40.940	
5,800.00	5,789.08	5,757.75	5,795.50	25.56	24.64	-170.08	-1,663.22	324.72	2,023.50	1,973.36	50.14	40.357	
5,900.00	5,888.86	5,856.61	5,894.35	26.00	25.06	-170.11	-1,662.82	324.83	2,029.60	1,978.60	51.00	39.799	
6,000.00	5,988.65	5,950.38	5,988.12	26.44	25.45	-170.16	-1,662.54	325.53	2,035.93	1,984.10	51.83	39.282	
6,100.00	6,088.43	6,040.04	6,077.76	26.88	25.83	-170.24	-1,662.34	327.23	2,042.62	1,989.98	52.64	38.805	
6,200.00	6,188.22	6,135.54	6,173.24	27.32	26.23	-170.32	-1,662.69	329.15	2,049.88	1,996.40	53.48	38.331	
6,300.00	6,288.00	6,246.52	6,284.21	27.76	26.70	-170.40	-1,662.73	330.68	2,056.69	2,002.29	54.40	37.809	
6,400.00	6,387.79	6,341.09	6,378.76	28.20	27.10	-170.48	-1,662.51	332.55	2,063.39	2,008.16	55.23	37.358	
6,500.00	6,487.57	6,424.38	6,462.04	28.64	27.45	-170.54	-1,662.79	334.06	2,070.62	2,014.61	56.01	36.970	
6,600.00	6,587.35	6,500.00	6,537.63	29.08	27.77	-170.60	-1,663.87	335.55	2,078.92	2,022.19	56.74	36.641	
6,700.00	6,687.02	6,622.11	6,659.72	29.52	28.29	-132.41	-1,665.96	336.97	2,087.87	2,030.15	57.72	36.170	
6,800.00	6,784.98	6,776.80	6,760.80	29.96	28.95	-115.85	-1,666.64	336.74	2,098.76	2,039.93	58.82	35.679	
6,900.00	6,878.81	6,816.85	6,854.45	30.41	29.12	-110.75	-1,667.67	337.04	2,113.98	2,054.55	59.43	35.571	
7,000.00	6,966.21	6,904.03	6,941.62	30.86	29.49	-108.05	-1,668.64	337.32	2,133.22	2,072.98	60.24	35.412	
7,100.00	7,045.03	6,982.59	7,020.17	31.35	29.83	-106.02	-1,669.51	337.58	2,156.82	2,095.80	61.03	35.343 SF	
7,200.00	7,113.32	7,050.58	7,088.16	31.90	30.12	-104.02	-1,670.26	337.80	2,185.09	2,123.29	61.80	35.355	
7,300.00	7,169.40	7,106.35	7,143.93	32.57	30.35	-101.68	-1,670.88	337.98	2,218.21	2,155.62	62.59	35.440	

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



Anticollision Report



Company:	SRC ENERGY	Local Co-ordinate Reference:	Well HARVESTERS STATE 31C-16-M
Project:	SECTION 15, T6N, R66W	TVD Reference:	KB @ 4821.00ft
Reference Site:	HARVESTERS STATE 7-15 PAD	MD Reference:	KB @ 4821.00ft
Site Error:	3.28 ft	North Reference:	True
Reference Well:	HARVESTERS STATE 31C-16-M	Survey Calculation Method:	Minimum Curvature
Well Error:	3.28 ft	Output errors are at	2.45 sigma
Reference Wellbore	OH	Database:	EDM 5000.14 Single User Db
Reference Design:	PLAN #1	Offset TVD Reference:	Reference Datum

Offset Design HARVESTERS STATE 7-15 PAD - BERG 33-15 (AB_150CC) - OH - OH													Offset Site Error:	0.00 ft
Survey Program: 100-GYRO-NS													Offset Well Error:	3.28 ft
Reference		Offset		Semi Major Axis			Distance							Warning
Measured Depth (ft)	Vertical Depth (ft)	Measured Depth (ft)	Vertical Depth (ft)	Reference (ft)	Offset (ft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (ft)	+E/-W (ft)	Between Centres (ft)	Between Ellipses (ft)	Minimum Separation (ft)	Separation Factor		
7,400.00	7,211.89	7,148.51	7,186.09	33.38	30.53	-98.77	-1,671.34	338.12	2,256.12	2,192.73	63.39	35.589		
7,500.00	7,239.75	7,176.03	7,213.61	34.35	30.65	-95.13	-1,671.65	338.21	2,298.44	2,234.24	64.21	35.796		
7,600.00	7,252.28	7,188.23	7,225.81	35.47	30.70	-90.73	-1,671.78	338.25	2,344.46	2,279.44	65.01	36.062		
7,700.00	7,252.75	7,188.37	7,225.94	36.73	30.70	-89.13	-1,671.78	338.25	2,393.37	2,327.57	65.80	36.373		
7,800.00	7,252.38	7,187.67	7,225.25	38.16	30.70	-89.11	-1,671.78	338.24	2,445.36	2,378.71	66.65	36.689		
7,900.00	7,252.02	7,186.98	7,224.55	39.74	30.70	-89.10	-1,671.77	338.24	2,500.26	2,432.72	67.54	37.016		
8,000.00	7,251.65	7,186.28	7,223.85	41.47	30.69	-89.08	-1,671.76	338.24	2,557.90	2,489.44	68.46	37.362		
8,100.00	7,251.29	7,185.59	7,223.16	43.31	30.69	-89.06	-1,671.75	338.24	2,618.09	2,548.70	69.39	37.730		
8,200.00	7,250.92	7,184.89	7,222.46	45.26	30.69	-89.04	-1,671.75	338.23	2,680.66	2,610.34	70.32	38.123		
8,300.00	7,250.55	7,184.19	7,221.76	47.30	30.68	-89.02	-1,671.74	338.23	2,745.44	2,674.21	71.23	38.544		
8,400.00	7,250.19	7,183.50	7,221.07	49.42	30.68	-89.00	-1,671.73	338.23	2,812.29	2,740.17	72.12	38.992		
8,500.00	7,249.82	7,182.80	7,220.37	51.62	30.68	-88.98	-1,671.72	338.23	2,881.06	2,808.06	73.00	39.468		
8,600.00	7,249.45	7,182.10	7,219.67	53.88	30.68	-88.96	-1,671.72	338.23	2,951.62	2,877.78	73.84	39.973		
8,700.00	7,249.09	7,181.41	7,218.98	56.19	30.67	-88.94	-1,671.71	338.22	3,023.83	2,949.18	74.66	40.504		
8,800.00	7,248.72	7,180.71	7,218.28	58.55	30.67	-88.92	-1,671.70	338.22	3,097.59	3,022.16	75.44	41.061		
8,900.00	7,248.36	7,180.01	7,217.59	60.96	30.67	-88.90	-1,671.69	338.22	3,172.79	3,096.60	76.19	41.643		
9,000.00	7,247.99	7,179.32	7,216.89	63.40	30.66	-88.88	-1,671.68	338.22	3,249.33	3,172.42	76.91	42.248		
9,100.00	7,247.62	7,178.62	7,216.19	65.87	30.66	-88.86	-1,671.68	338.21	3,327.11	3,249.51	77.60	42.875		
9,200.00	7,247.26	7,177.92	7,215.50	68.38	30.66	-88.84	-1,671.67	338.21	3,406.05	3,327.79	78.26	43.523		
9,300.00	7,246.89	7,177.23	7,214.80	70.91	30.66	-88.83	-1,671.66	338.21	3,486.07	3,407.19	78.89	44.191		
9,400.00	7,246.53	7,176.53	7,214.10	73.47	30.65	-88.81	-1,671.65	338.21	3,567.10	3,487.62	79.49	44.877		
9,500.00	7,246.16	7,175.84	7,213.41	76.05	30.65	-88.79	-1,671.65	338.21	3,649.08	3,569.02	80.06	45.580		
9,600.00	7,245.79	7,175.14	7,212.71	78.65	30.65	-88.77	-1,671.64	338.20	3,731.93	3,651.32	80.61	46.299		
9,700.00	7,245.43	7,174.44	7,212.01	81.27	30.64	-88.75	-1,671.63	338.20	3,815.60	3,734.47	81.13	47.033		
9,800.00	7,245.06	7,173.75	7,211.32	83.90	30.64	-88.73	-1,671.62	338.20	3,900.04	3,818.42	81.62	47.781		
9,900.00	7,244.69	7,173.05	7,210.62	86.55	30.64	-88.71	-1,671.62	338.20	3,985.20	3,903.10	82.10	48.542		
10,000.00	7,244.33	7,172.35	7,209.93	89.21	30.63	-88.69	-1,671.61	338.19	4,071.04	3,988.49	82.55	49.315		
10,100.00	7,243.96	7,171.66	7,209.23	91.88	30.63	-88.67	-1,671.60	338.19	4,157.51	4,074.52	82.98	50.100		
10,200.00	7,243.60	7,170.96	7,208.53	94.56	30.63	-88.65	-1,671.59	338.19	4,244.57	4,161.17	83.40	50.895		
10,300.00	7,243.23	7,170.26	7,207.84	97.26	30.63	-88.63	-1,671.58	338.19	4,332.19	4,248.40	83.80	51.700		
10,400.00	7,242.86	7,169.57	7,207.14	99.96	30.62	-88.61	-1,671.57	338.19	4,420.34	4,336.16	84.17	52.514		
10,500.00	7,242.50	7,168.87	7,206.44	102.67	30.62	-88.59	-1,671.57	338.18	4,508.98	4,424.44	84.54	53.337		
10,600.00	7,242.13	7,168.18	7,205.75	105.39	30.62	-88.57	-1,671.56	338.18	4,598.09	4,513.20	84.89	54.168		
10,700.00	7,241.76	7,167.48	7,205.05	108.12	30.61	-88.55	-1,671.55	338.18	4,687.64	4,602.42	85.22	55.006		
10,800.00	7,241.40	7,166.78	7,204.36	110.85	30.61	-88.54	-1,671.55	338.18	4,777.60	4,692.06	85.54	55.852		
10,900.00	7,241.03	7,166.09	7,203.66	113.59	30.61	-88.52	-1,671.54	338.17	4,867.95	4,782.10	85.85	56.704		
11,000.00	7,240.67	7,165.39	7,202.96	116.34	30.60	-88.50	-1,671.53	338.17	4,958.67	4,872.53	86.14	57.562		
11,100.00	7,240.30	7,164.69	7,202.27	119.09	30.60	-88.48	-1,671.52	338.17	5,049.75	4,963.32	86.43	58.426		
11,200.00	7,239.93	7,164.00	7,201.57	121.85	30.60	-88.46	-1,671.52	338.17	5,141.15	5,054.45	86.70	59.295		
11,300.00	7,239.57	7,163.30	7,200.87	124.61	30.60	-88.44	-1,671.51	338.16	5,232.87	5,145.90	86.97	60.169		
11,400.00	7,239.20	7,162.60	7,200.18	127.38	30.59	-88.42	-1,671.50	338.16	5,324.89	5,237.67	87.22	61.048		
11,500.00	7,238.84	7,161.91	7,199.48	130.15	30.59	-88.40	-1,671.49	338.16	5,417.19	5,329.72	87.47	61.932		
11,600.00	7,238.47	7,161.21	7,198.78	132.92	30.59	-88.38	-1,671.48	338.16	5,509.76	5,422.05	87.71	62.819		
11,700.00	7,238.10	7,160.52	7,198.09	135.70	30.58	-88.36	-1,671.48	338.16	5,602.58	5,514.65	87.94	63.711		
11,800.00	7,237.74	7,159.82	7,197.39	138.48	30.58	-88.34	-1,671.47	338.15	5,695.65	5,607.49	88.16	64.605		
11,900.00	7,237.37	7,159.12	7,196.70	141.26	30.58	-88.32	-1,671.46	338.15	5,788.95	5,700.57	88.38	65.504		
12,000.00	7,237.00	7,158.43	7,196.00	144.05	30.57	-88.30	-1,671.45	338.15	5,882.47	5,793.88	88.58	66.405		
12,100.00	7,236.64	7,157.73	7,195.30	146.84	30.57	-88.28	-1,671.45	338.15	5,976.20	5,887.41	88.79	67.309		
12,200.00	7,236.27	7,157.03	7,194.61	149.64	30.57	-88.27	-1,671.44	338.14	6,070.13	5,981.14	88.98	68.216		
12,300.00	7,235.91	7,156.34	7,193.91	152.43	30.57	-88.25	-1,671.43	338.14	6,164.25	6,075.07	89.18	69.125		
12,400.00	7,235.54	7,155.64	7,193.21	155.23	30.56	-88.23	-1,671.42	338.14	6,258.55	6,169.19	89.36	70.037		
12,500.00	7,235.17	7,154.94	7,192.52	158.03	30.56	-88.21	-1,671.41	338.14	6,353.02	6,263.48	89.54	70.951		

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



Anticollision Report



Company:	SRC ENERGY	Local Co-ordinate Reference:	Well HARVESTERS STATE 31C-16-M
Project:	SECTION 15, T6N, R66W	TVD Reference:	KB @ 4821.00ft
Reference Site:	HARVESTERS STATE 7-15 PAD	MD Reference:	KB @ 4821.00ft
Site Error:	3.28 ft	North Reference:	True
Reference Well:	HARVESTERS STATE 31C-16-M	Survey Calculation Method:	Minimum Curvature
Well Error:	3.28 ft	Output errors are at	2.45 sigma
Reference Wellbore	OH	Database:	EDM 5000.14 Single User Db
Reference Design:	PLAN #1	Offset TVD Reference:	Reference Datum

Offset Design HARVESTERS STATE 7-15 PAD - BERG 33-15 (AB_150CC) - OH - OH													Offset Site Error:	0.00 ft
Survey Program: 100-GYRO-NS													Offset Well Error:	3.28 ft
Reference		Offset		Semi Major Axis			Distance							Warning
Measured Depth (ft)	Vertical Depth (ft)	Measured Depth (ft)	Vertical Depth (ft)	Reference (ft)	Offset (ft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (ft)	+E/-W (ft)	Between Centres (ft)	Between Ellipses (ft)	Minimum Separation (ft)	Separation Factor		
12,600.00	7,234.81	7,154.25	7,191.82	160.83	30.56	-88.19	-1,671.41	338.14	6,447.67	6,357.95	89.72	71.867		
12,700.00	7,234.44	7,153.55	7,191.13	163.64	30.55	-88.17	-1,671.40	338.13	6,542.47	6,452.58	89.89	72.784		
12,800.00	7,234.07	7,152.86	7,190.43	166.44	30.55	-88.15	-1,671.39	338.13	6,637.42	6,547.37	90.06	73.704		
12,900.00	7,233.71	7,152.16	7,189.73	169.25	30.55	-88.13	-1,671.38	338.13	6,732.52	6,642.31	90.22	74.625		
13,000.00	7,233.34	7,151.46	7,189.04	172.06	30.55	-88.11	-1,671.38	338.13	6,827.76	6,737.39	90.38	75.547		
13,100.00	7,232.98	7,150.77	7,188.34	174.88	30.54	-88.09	-1,671.37	338.12	6,923.14	6,832.61	90.53	76.471		
13,200.00	7,232.61	7,150.07	7,187.64	177.69	30.54	-88.07	-1,671.36	338.12	7,018.64	6,927.96	90.68	77.396		
13,300.00	7,232.24	7,149.37	7,186.95	180.50	30.54	-88.05	-1,671.35	338.12	7,114.27	7,023.44	90.83	78.323		
13,400.00	7,231.88	7,148.68	7,186.25	183.32	30.53	-88.03	-1,671.35	338.12	7,210.01	7,119.03	90.98	79.250		
13,500.00	7,231.51	7,147.98	7,185.55	186.14	30.53	-88.01	-1,671.34	338.12	7,305.87	7,214.75	91.12	80.178		
13,600.00	7,231.15	7,147.28	7,184.86	188.96	30.53	-88.00	-1,671.33	338.11	7,401.84	7,310.58	91.26	81.107		
13,700.00	7,230.78	7,146.59	7,184.16	191.78	30.52	-87.98	-1,671.32	338.11	7,497.92	7,406.52	91.40	82.036		
13,800.00	7,230.41	7,145.89	7,183.47	194.60	30.52	-87.96	-1,671.31	338.11	7,594.09	7,502.56	91.53	82.966		
13,900.00	7,230.05	7,145.20	7,182.77	197.42	30.52	-87.94	-1,671.31	338.11	7,690.36	7,598.70	91.66	83.897		
14,000.00	7,229.68	7,144.50	7,182.07	200.25	30.52	-87.92	-1,671.30	338.10	7,786.73	7,694.94	91.79	84.828		
14,100.00	7,229.31	7,143.80	7,181.38	203.07	30.51	-87.90	-1,671.29	338.10	7,883.19	7,791.27	91.92	85.760		
14,200.00	7,228.95	7,143.11	7,180.68	205.90	30.51	-87.88	-1,671.28	338.10	7,979.73	7,887.68	92.05	86.692		
14,300.00	7,228.58	7,142.41	7,179.98	208.73	30.51	-87.86	-1,671.28	338.10	8,076.36	7,984.19	92.17	87.624		
14,400.00	7,228.22	7,141.71	7,179.29	211.55	30.50	-87.84	-1,671.27	338.09	8,173.07	8,080.78	92.29	88.557		
14,500.00	7,227.85	7,141.02	7,178.59	214.38	30.50	-87.82	-1,671.26	338.09	8,269.86	8,177.45	92.41	89.489		
14,600.00	7,227.48	7,140.32	7,177.90	217.21	30.50	-87.80	-1,671.25	338.09	8,366.72	8,274.19	92.53	90.422		
14,700.00	7,227.12	7,139.62	7,177.20	220.04	30.49	-87.78	-1,671.25	338.09	8,463.66	8,371.01	92.65	91.354		
14,800.00	7,226.75	7,138.93	7,176.50	222.88	30.49	-87.76	-1,671.24	338.09	8,560.66	8,467.90	92.76	92.287		
14,900.00	7,226.38	7,138.23	7,175.81	225.71	30.49	-87.74	-1,671.23	338.08	8,657.74	8,564.86	92.88	93.219		
15,000.00	7,226.02	7,137.54	7,175.11	228.54	30.49	-87.72	-1,671.22	338.08	8,754.88	8,661.89	92.99	94.151		
15,005.81	7,226.00	7,137.50	7,175.07	228.71	30.49	-87.72	-1,671.22	338.08	8,760.52	8,667.53	92.99	94.205		



Anticollision Report



Company:	SRC ENERGY	Local Co-ordinate Reference:	Well HARVESTERS STATE 31C-16-M
Project:	SECTION 15, T6N, R66W	TVD Reference:	KB @ 4821.00ft
Reference Site:	HARVESTERS STATE 7-15 PAD	MD Reference:	KB @ 4821.00ft
Site Error:	3.28 ft	North Reference:	True
Reference Well:	HARVESTERS STATE 31C-16-M	Survey Calculation Method:	Minimum Curvature
Well Error:	3.28 ft	Output errors are at	2.45 sigma
Reference Wellbore	OH	Database:	EDM 5000.14 Single User Db
Reference Design:	PLAN #1	Offset TVD Reference:	Reference Datum

Offset Design HARVESTERS STATE 7-15 PAD - BERRY 22-2(PR_75CC) - OH - OH													Offset Site Error:	0.00 ft
Survey Program: 100-GYRO-NS													Offset Well Error:	3.28 ft
Reference		Offset		Semi Major Axis			Distance							Warning
Measured Depth (ft)	Vertical Depth (ft)	Measured Depth (ft)	Vertical Depth (ft)	Reference (ft)	Offset (ft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (ft)	+E/-W (ft)	Between Centres (ft)	Between Ellipses (ft)	Minimum Separation (ft)	Separation Factor		
0.00	0.00	0.00	70.00	3.28	3.28	172.94	-4,399.34	544.97	4,433.52					
100.00	100.00	29.31	99.31	3.28	3.28	172.94	-4,399.34	544.96	4,432.97	4,426.40	6.57	675.212 CC		
200.00	200.00	124.70	194.70	3.34	3.30	172.94	-4,399.41	544.74	4,433.02	4,426.38	6.63	668.368 ES		
300.00	300.00	214.72	284.72	3.44	3.36	172.95	-4,399.66	544.48	4,433.25	4,426.45	6.80	651.956		
400.00	400.00	309.39	379.39	3.60	3.46	172.95	-4,400.07	544.39	4,433.67	4,426.60	7.07	627.432		
500.00	500.00	412.11	482.11	3.81	3.63	172.95	-4,400.51	544.43	4,434.10	4,426.66	7.43	596.439		
600.00	600.00	510.62	580.62	4.05	3.83	172.95	-4,400.93	544.43	4,434.52	4,426.65	7.87	563.166		
700.00	699.98	614.04	684.04	4.32	4.08	-164.14	-4,401.38	544.18	4,436.60	4,428.21	8.39	528.667		
800.00	799.84	717.85	787.84	4.62	4.35	-164.13	-4,401.74	543.69	4,441.90	4,432.93	8.97	495.145		
900.00	899.62	810.37	880.36	4.94	4.62	-164.14	-4,402.17	542.98	4,448.57	4,439.01	9.56	465.399		
1,000.00	999.41	910.58	980.56	5.27	4.94	-164.15	-4,402.71	541.92	4,455.28	4,445.07	10.21	436.528		
1,100.00	1,099.19	991.29	1,061.26	5.62	5.20	-164.16	-4,403.37	540.79	4,462.22	4,451.40	10.82	412.392		
1,200.00	1,198.98	1,079.71	1,149.66	5.99	5.50	-164.15	-4,404.43	539.31	4,469.52	4,458.04	11.48	389.234		
1,300.00	1,298.76	1,175.06	1,244.99	6.36	5.84	-164.15	-4,405.76	537.61	4,476.99	4,464.80	12.19	367.284		
1,400.00	1,398.55	1,283.86	1,353.76	6.74	6.23	-164.15	-4,407.26	535.54	4,484.43	4,471.47	12.96	345.937		
1,500.00	1,498.33	1,390.84	1,460.71	7.13	6.62	-164.14	-4,408.52	533.28	4,491.65	4,477.90	13.75	326.742		
1,600.00	1,598.12	1,490.01	1,559.85	7.52	7.00	-164.14	-4,409.61	531.24	4,498.79	4,484.28	14.51	309.966		
1,700.00	1,697.90	1,581.82	1,651.64	7.92	7.35	-164.13	-4,410.69	529.45	4,506.03	4,490.77	15.26	295.234		
1,800.00	1,797.69	1,703.38	1,773.16	8.33	7.82	-164.13	-4,412.01	527.16	4,513.19	4,497.06	16.14	279.679		
1,900.00	1,897.47	1,787.61	1,857.38	8.74	8.15	-164.13	-4,412.81	525.67	4,520.23	4,503.36	16.87	267.916		
2,000.00	1,997.26	1,881.20	1,950.95	9.15	8.52	-164.13	-4,413.91	524.16	4,527.50	4,509.85	17.65	256.518		
2,100.00	2,097.04	1,973.51	2,043.24	9.56	8.88	-164.13	-4,415.13	522.57	4,534.91	4,516.48	18.43	246.083		
2,200.00	2,196.83	2,063.06	2,132.77	9.98	9.24	-164.13	-4,416.51	520.89	4,542.51	4,523.30	19.20	236.583		
2,300.00	2,296.61	2,159.56	2,229.24	10.40	9.63	-164.12	-4,418.18	519.05	4,550.29	4,530.29	20.01	227.450		
2,400.00	2,396.40	2,300.96	2,370.59	10.82	10.20	-164.12	-4,420.13	516.40	4,557.79	4,536.79	21.00	217.019		
2,500.00	2,496.18	2,483.99	2,553.60	11.24	10.95	-164.13	-4,419.96	513.61	4,563.87	4,541.70	22.17	205.849		
2,600.00	2,595.96	2,593.73	2,663.32	11.66	11.39	-164.13	-4,418.57	511.97	4,568.73	4,545.69	23.04	198.291		
2,700.00	2,695.75	2,694.66	2,764.22	12.09	11.81	-164.14	-4,417.26	510.36	4,573.56	4,549.68	23.88	191.544		
2,800.00	2,795.53	2,788.51	2,858.05	12.51	12.20	-164.14	-4,416.10	508.73	4,578.44	4,553.75	24.69	185.455		
2,900.00	2,895.32	2,886.93	2,956.46	12.94	12.60	-164.14	-4,414.99	506.94	4,583.40	4,557.88	25.52	179.607		
3,000.00	2,995.10	2,979.60	3,049.10	13.37	12.99	-164.14	-4,414.02	505.20	4,588.45	4,562.12	26.33	174.275		
3,100.00	3,094.89	3,084.25	3,153.73	13.80	13.42	-164.14	-4,413.02	503.12	4,593.56	4,566.37	27.19	168.940		
3,200.00	3,194.67	3,193.52	3,262.97	14.23	13.88	-164.14	-4,411.77	500.94	4,598.49	4,570.42	28.07	163.801		
3,300.00	3,294.46	3,279.35	3,348.77	14.66	14.23	-164.14	-4,410.80	499.28	4,603.46	4,574.60	28.86	159.513		
3,400.00	3,394.24	3,365.36	3,434.76	15.09	14.59	-164.14	-4,410.14	497.49	4,608.74	4,579.09	29.65	155.453		
3,500.00	3,494.03	3,455.37	3,524.74	15.52	14.97	-164.13	-4,409.72	495.32	4,614.29	4,583.84	30.45	151.520		
3,600.00	3,593.81	3,547.28	3,616.62	15.96	15.35	-164.12	-4,409.49	492.87	4,620.02	4,588.75	31.27	147.752		
3,700.00	3,693.60	3,642.74	3,712.05	16.39	15.75	-164.12	-4,409.37	490.51	4,625.91	4,593.81	32.10	144.109		
3,800.00	3,793.38	3,738.87	3,808.17	16.82	16.16	-164.11	-4,409.23	488.60	4,631.83	4,598.90	32.94	140.635		
3,900.00	3,893.17	3,833.60	3,902.88	17.26	16.56	-164.11	-4,409.26	486.60	4,637.91	4,604.15	33.76	137.360		
4,000.00	3,992.95	3,937.57	4,006.82	17.69	16.99	-164.11	-4,409.22	484.71	4,643.96	4,609.32	34.64	134.083		
4,100.00	4,092.74	4,039.38	4,108.62	18.13	17.42	-164.11	-4,409.10	483.03	4,649.94	4,614.45	35.50	130.997		
4,200.00	4,192.52	4,145.45	4,214.69	18.56	17.87	-164.12	-4,408.83	481.93	4,655.88	4,619.50	36.38	127.989		
4,300.00	4,292.31	4,265.60	4,334.83	19.00	18.37	-164.16	-4,407.97	482.36	4,661.52	4,624.21	37.32	124.909		
4,400.00	4,392.09	4,413.00	4,482.21	19.43	18.98	-164.21	-4,405.72	483.45	4,666.41	4,628.04	38.38	121.590		
4,500.00	4,491.88	4,500.01	4,569.20	19.87	19.35	-164.24	-4,403.98	484.16	4,670.85	4,631.67	39.18	119.218		
4,600.00	4,591.66	4,577.97	4,647.15	20.31	19.67	-164.26	-4,402.71	484.75	4,675.67	4,635.73	39.94	117.064		
4,700.00	4,691.44	4,645.32	4,714.49	20.74	19.96	-164.28	-4,402.09	485.08	4,681.13	4,640.48	40.66	115.141		
4,800.00	4,791.23	4,716.57	4,785.74	21.18	20.25	-164.30	-4,401.96	485.42	4,687.31	4,645.93	41.39	113.259		
4,900.00	4,891.01	4,817.18	4,886.35	21.62	20.67	-164.33	-4,402.00	485.96	4,693.73	4,651.48	42.25	111.104		
5,000.00	4,990.80	4,915.81	4,984.98	22.06	21.09	-164.35	-4,402.07	486.25	4,700.16	4,657.06	43.10	109.056		
5,100.00	5,090.58	5,015.87	5,085.04	22.50	21.51	-164.38	-4,402.16	486.59	4,706.60	4,662.65	43.96	107.071		

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



Anticollision Report



Company:	SRC ENERGY	Local Co-ordinate Reference:	Well HARVESTERS STATE 31C-16-M
Project:	SECTION 15, T6N, R66W	TVD Reference:	KB @ 4821.00ft
Reference Site:	HARVESTERS STATE 7-15 PAD	MD Reference:	KB @ 4821.00ft
Site Error:	3.28 ft	North Reference:	True
Reference Well:	HARVESTERS STATE 31C-16-M	Survey Calculation Method:	Minimum Curvature
Well Error:	3.28 ft	Output errors are at	2.45 sigma
Reference Wellbore	OH	Database:	EDM 5000.14 Single User Db
Reference Design:	PLAN #1	Offset TVD Reference:	Reference Datum

Offset Design HARVESTERS STATE 7-15 PAD - BERRY 22-2(PR_75CC) - OH - OH													Offset Site Error:	0.00 ft
Survey Program: 100-GYRO-NS													Offset Well Error:	3.28 ft
Reference		Offset		Semi Major Axis			Distance							Warning
Measured Depth (ft)	Vertical Depth (ft)	Measured Depth (ft)	Vertical Depth (ft)	Reference (ft)	Offset (ft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (ft)	+E/-W (ft)	Between Centres (ft)	Between Ellipses (ft)	Minimum Separation (ft)	Separation Factor		
5,200.00	5,190.37	5,123.83	5,193.00	22.93	21.96	-164.41	-4,402.13	487.22	4,712.97	4,668.12	44.85	105.077		
5,300.00	5,290.15	5,257.95	5,327.11	23.37	22.52	-164.45	-4,401.57	488.16	4,718.99	4,673.13	45.86	102.891		
5,400.00	5,389.94	5,423.69	5,492.82	23.81	23.22	-164.52	-4,398.97	490.42	4,724.00	4,676.99	47.01	100.487		
5,500.00	5,489.72	5,560.50	5,629.47	24.25	23.80	-164.61	-4,394.11	494.60	4,726.99	4,678.96	48.03	98.416		
5,600.00	5,589.51	5,623.07	5,691.99	24.69	24.07	-164.64	-4,392.28	496.27	4,730.76	4,682.03	48.73	97.074		
5,700.00	5,689.29	5,686.43	5,755.32	25.13	24.34	-164.67	-4,390.97	497.54	4,735.31	4,685.87	49.44	95.786		
5,800.00	5,789.08	5,757.82	5,826.70	25.56	24.64	-164.70	-4,390.08	498.46	4,740.56	4,690.39	50.17	94.487		
5,900.00	5,888.86	5,839.15	5,908.03	26.00	24.98	-164.72	-4,389.57	498.89	4,746.34	4,695.39	50.95	93.157		
6,000.00	5,988.65	5,942.30	6,011.18	26.44	25.42	-164.75	-4,389.16	499.16	4,752.30	4,700.48	51.83	91.697		
6,100.00	6,088.43	6,049.40	6,118.28	26.88	25.87	-164.77	-4,388.48	499.13	4,757.99	4,705.27	52.72	90.249		
6,200.00	6,188.22	6,153.68	6,222.56	27.32	26.32	-164.79	-4,387.87	498.94	4,763.72	4,710.12	53.60	88.871		
6,300.00	6,288.00	6,270.02	6,338.89	27.76	26.81	-164.81	-4,386.84	498.67	4,769.14	4,714.61	54.54	87.445		
6,400.00	6,387.79	6,364.47	6,433.34	28.20	27.21	-164.83	-4,385.86	498.42	4,774.41	4,719.04	55.38	86.216		
6,500.00	6,487.57	6,456.57	6,525.43	28.64	27.60	-164.85	-4,385.10	498.18	4,779.89	4,723.69	56.21	85.043		
6,600.00	6,587.35	6,555.63	6,624.48	29.08	28.02	-164.86	-4,384.42	497.58	4,785.46	4,728.39	57.06	83.860		
6,700.00	6,687.02	6,670.40	6,739.25	29.52	28.51	-126.74	-4,383.42	497.39	4,791.22	4,733.23	58.00	82.614		
6,800.00	6,784.98	6,778.37	6,847.21	29.96	28.97	-110.31	-4,382.06	497.60	4,798.56	4,739.66	58.90	81.473		
6,900.00	6,878.81	6,871.02	6,939.86	30.41	29.36	-105.27	-4,380.88	497.32	4,807.99	4,748.25	59.73	80.490		
7,000.00	6,966.21	6,960.58	7,029.41	30.86	29.74	-102.65	-4,379.71	497.39	4,819.65	4,759.09	60.57	79.578		
7,100.00	7,045.03	7,026.62	7,095.44	31.35	30.02	-100.71	-4,378.73	498.16	4,833.65	4,772.33	61.32	78.830		
7,200.00	7,113.32	7,070.67	7,139.48	31.90	30.21	-98.87	-4,378.26	498.82	4,850.40	4,788.37	62.03	78.200		
7,300.00	7,169.40	7,109.90	7,178.70	32.57	30.38	-97.04	-4,378.01	499.46	4,869.82	4,807.01	62.81	77.538		
7,400.00	7,211.89	7,150.91	7,219.70	33.38	30.55	-95.19	-4,377.79	500.14	4,891.61	4,827.89	63.72	76.768		
7,500.00	7,239.75	7,177.18	7,245.97	34.35	30.66	-93.12	-4,377.65	500.58	4,915.49	4,850.79	64.70	75.970		
7,600.00	7,252.28	7,188.07	7,256.86	35.47	30.71	-90.80	-4,377.59	500.76	4,941.08	4,875.35	65.74	75.162		
7,700.00	7,252.75	7,186.88	7,256.67	36.73	30.70	-89.97	-4,377.60	500.74	4,968.09	4,901.26	66.83	74.341		
7,800.00	7,252.38	7,184.86	7,253.65	38.16	30.69	-89.95	-4,377.61	500.70	4,996.90	4,928.85	68.05	73.430		
7,900.00	7,252.02	7,182.84	7,251.62	39.74	30.69	-89.93	-4,377.62	500.67	5,027.54	4,958.15	69.39	72.456		
8,000.00	7,251.65	7,180.81	7,249.60	41.47	30.68	-89.90	-4,377.63	500.64	5,059.96	4,989.14	70.82	71.447		
8,100.00	7,251.29	7,178.79	7,247.58	43.31	30.67	-89.88	-4,377.64	500.60	5,094.15	5,021.81	72.33	70.427		
8,200.00	7,250.92	7,176.76	7,245.55	45.26	30.66	-89.85	-4,377.65	500.57	5,130.05	5,056.14	73.90	69.414		
8,300.00	7,250.55	7,174.74	7,243.53	47.30	30.65	-89.83	-4,377.66	500.54	5,167.64	5,092.11	75.52	68.423		
8,400.00	7,250.19	7,172.72	7,241.51	49.42	30.64	-89.80	-4,377.67	500.50	5,206.88	5,129.70	77.18	67.465		
8,500.00	7,249.82	7,170.69	7,239.48	51.62	30.63	-89.78	-4,377.68	500.47	5,247.73	5,168.87	78.86	66.547		
8,600.00	7,249.45	7,168.67	7,237.46	53.88	30.63	-89.76	-4,377.70	500.43	5,290.15	5,209.60	80.55	65.676		
8,700.00	7,249.09	7,166.64	7,235.44	56.19	30.62	-89.73	-4,377.71	500.40	5,334.11	5,251.86	82.25	64.854		
8,800.00	7,248.72	7,164.62	7,233.41	58.55	30.61	-89.71	-4,377.72	500.37	5,379.57	5,295.62	83.95	64.084		
8,900.00	7,248.36	7,162.60	7,231.39	60.96	30.60	-89.68	-4,377.73	500.33	5,426.49	5,340.85	85.64	63.366		
9,000.00	7,247.99	7,160.57	7,229.37	63.40	30.59	-89.66	-4,377.74	500.30	5,474.83	5,387.52	87.32	62.700		
9,100.00	7,247.62	7,158.55	7,227.34	65.87	30.58	-89.63	-4,377.75	500.27	5,524.57	5,435.58	88.98	62.086		
9,200.00	7,247.26	7,156.52	7,225.32	68.38	30.57	-89.61	-4,377.76	500.23	5,575.65	5,485.02	90.63	61.522		
9,300.00	7,246.89	7,154.50	7,223.29	70.91	30.57	-89.59	-4,377.77	500.20	5,628.04	5,535.79	92.25	61.006		
9,400.00	7,246.53	7,152.48	7,221.27	73.47	30.56	-89.56	-4,377.78	500.17	5,681.71	5,587.86	93.85	60.538		
9,500.00	7,246.16	7,150.45	7,219.25	76.05	30.55	-89.54	-4,377.79	500.13	5,736.62	5,641.19	95.43	60.115		
9,600.00	7,245.79	7,148.43	7,217.22	78.65	30.54	-89.51	-4,377.80	500.10	5,792.73	5,695.76	96.97	59.735		
9,700.00	7,245.43	7,146.40	7,215.20	81.27	30.53	-89.49	-4,377.81	500.07	5,850.02	5,751.53	98.49	59.396		
9,800.00	7,245.06	7,144.38	7,213.18	83.90	30.52	-89.46	-4,377.83	500.03	5,908.44	5,808.46	99.98	59.096		
9,900.00	7,244.69	7,142.36	7,211.15	86.55	30.51	-89.44	-4,377.84	500.00	5,967.97	5,866.53	101.44	58.834		
10,000.00	7,244.33	7,140.33	7,209.13	89.21	30.51	-89.42	-4,377.85	499.96	6,028.56	5,925.70	102.86	58.608		
10,100.00	7,243.96	7,138.31	7,207.11	91.88	30.50	-89.39	-4,377.86	499.93	6,090.20	5,985.94	104.26	58.415		
10,200.00	7,243.60	7,136.29	7,205.08	94.56	30.49	-89.37	-4,377.87	499.90	6,152.84	6,047.22	105.62	58.254		
10,300.00	7,243.23	7,134.26	7,203.06	97.26	30.48	-89.34	-4,377.88	499.86	6,216.46	6,109.50	106.95	58.123		

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



Anticollision Report



Company:	SRC ENERGY	Local Co-ordinate Reference:	Well HARVESTERS STATE 31C-16-M
Project:	SECTION 15, T6N, R66W	TVD Reference:	KB @ 4821.00ft
Reference Site:	HARVESTERS STATE 7-15 PAD	MD Reference:	KB @ 4821.00ft
Site Error:	3.28 ft	North Reference:	True
Reference Well:	HARVESTERS STATE 31C-16-M	Survey Calculation Method:	Minimum Curvature
Well Error:	3.28 ft	Output errors are at	2.45 sigma
Reference Wellbore	OH	Database:	EDM 5000.14 Single User Db
Reference Design:	PLAN #1	Offset TVD Reference:	Reference Datum

Offset Design HARVESTERS STATE 7-15 PAD - BERRY 22-2(PR_75CC) - OH - OH													Offset Site Error:	0.00 ft
Survey Program: 100-GYRO-NS													Offset Well Error:	3.28 ft
Reference		Offset		Semi Major Axis			Distance							Warning
Measured Depth (ft)	Vertical Depth (ft)	Measured Depth (ft)	Vertical Depth (ft)	Reference (ft)	Offset (ft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (ft)	+E/-W (ft)	Between Centres (ft)	Between Ellipses (ft)	Minimum Separation (ft)	Separation Factor		
10,400.00	7,242.86	7,132.24	7,201.03	99.96	30.47	-89.32	-4,377.89	499.83	6,281.02	6,172.77	108.25	58.021		
10,500.00	7,242.50	7,130.21	7,199.01	102.67	30.46	-89.29	-4,377.90	499.80	6,346.51	6,236.98	109.52	57.947		
10,600.00	7,242.13	7,128.19	7,196.99	105.39	30.45	-89.27	-4,377.91	499.76	6,412.88	6,302.12	110.76	57.898		
10,700.00	7,241.76	7,126.17	7,194.96	108.12	30.45	-89.25	-4,377.92	499.73	6,480.12	6,368.15	111.97	57.874		
10,800.00	7,241.40	7,124.14	7,192.94	110.85	30.44	-89.22	-4,377.93	499.70	6,548.19	6,435.04	113.15	57.874 SF		
10,900.00	7,241.03	7,122.12	7,190.92	113.59	30.43	-89.20	-4,377.94	499.66	6,617.07	6,502.78	114.29	57.895		
11,000.00	7,240.67	7,120.09	7,188.89	116.34	30.42	-89.17	-4,377.95	499.63	6,686.74	6,571.33	115.41	57.938		
11,100.00	7,240.30	7,118.07	7,186.87	119.09	30.41	-89.15	-4,377.97	499.59	6,757.17	6,640.67	116.50	58.000		
11,200.00	7,239.93	7,116.05	7,184.85	121.85	30.40	-89.12	-4,377.98	499.56	6,828.34	6,710.77	117.57	58.081		
11,300.00	7,239.57	7,114.02	7,182.82	124.61	30.39	-89.10	-4,377.99	499.53	6,900.22	6,781.62	118.60	58.181		
11,400.00	7,239.20	7,112.00	7,180.80	127.38	30.39	-89.08	-4,378.00	499.49	6,972.80	6,853.19	119.61	58.297		
11,500.00	7,238.84	7,109.97	7,178.77	130.15	30.38	-89.05	-4,378.01	499.46	7,046.04	6,925.45	120.59	58.430		
11,600.00	7,238.47	7,107.95	7,176.75	132.92	30.37	-89.03	-4,378.02	499.43	7,119.94	6,998.39	121.55	58.578		
11,700.00	7,238.10	7,105.93	7,174.73	135.70	30.36	-89.00	-4,378.03	499.39	7,194.46	7,071.99	122.48	58.742		
11,800.00	7,237.74	7,103.90	7,172.70	138.48	30.35	-88.98	-4,378.04	499.36	7,269.60	7,146.22	123.38	58.919		
11,900.00	7,237.37	7,101.88	7,170.68	141.26	30.34	-88.95	-4,378.05	499.33	7,345.33	7,221.06	124.27	59.109		
12,000.00	7,237.00	7,100.17	7,168.66	144.05	30.33	-88.93	-4,378.06	499.29	7,421.63	7,296.51	125.13	59.312		
12,100.00	7,236.64	7,102.20	7,166.63	146.84	30.34	-88.91	-4,378.07	499.26	7,498.49	7,372.51	125.98	59.520		
12,200.00	7,236.27	7,104.22	7,164.61	149.64	30.35	-88.88	-4,378.08	499.22	7,575.90	7,449.08	126.82	59.739		
12,300.00	7,235.91	7,106.25	7,162.59	152.43	30.36	-88.86	-4,378.09	499.19	7,653.82	7,526.19	127.63	59.969		
12,400.00	7,235.54	7,108.27	7,160.56	155.23	30.37	-88.83	-4,378.11	499.16	7,732.25	7,603.83	128.42	60.211		
12,500.00	7,235.17	7,110.29	7,158.54	158.03	30.38	-88.81	-4,378.12	499.12	7,811.17	7,681.98	129.19	60.462		
12,600.00	7,234.81	7,112.32	7,156.52	160.83	30.39	-88.78	-4,378.13	499.09	7,890.57	7,760.63	129.94	60.723		
12,700.00	7,234.44	7,114.34	7,154.49	163.64	30.39	-88.76	-4,378.14	499.06	7,970.44	7,839.76	130.68	60.993		
12,800.00	7,234.07	7,116.37	7,152.47	166.44	30.40	-88.74	-4,378.15	499.02	8,050.75	7,919.36	131.39	61.273		
12,900.00	7,233.71	7,118.39	7,150.44	169.25	30.41	-88.71	-4,378.16	498.99	8,131.50	7,999.41	132.09	61.560		
13,000.00	7,233.34	7,120.41	7,148.42	172.06	30.42	-88.69	-4,378.17	498.96	8,212.67	8,079.90	132.77	61.856		
13,100.00	7,232.98	7,122.44	7,146.40	174.88	30.43	-88.66	-4,378.18	498.92	8,294.25	8,160.82	133.43	62.160		
13,200.00	7,232.61	7,100.01	7,168.82	177.69	30.33	-88.93	-4,378.06	499.29	8,376.27	8,242.29	133.99	62.516		
13,300.00	7,232.24	7,084.71	7,153.52	180.50	30.27	-88.75	-4,378.16	499.04	8,458.62	8,324.08	134.54	62.871		
13,400.00	7,231.88	7,083.57	7,152.38	183.32	30.26	-88.73	-4,378.16	499.03	8,541.37	8,406.23	135.14	63.202		
13,500.00	7,231.51	7,082.44	7,151.24	186.14	30.26	-88.72	-4,378.17	499.01	8,624.48	8,488.75	135.73	63.540		
13,600.00	7,231.15	7,081.30	7,150.11	188.96	30.25	-88.71	-4,378.18	498.99	8,707.95	8,571.64	136.31	63.885		
13,700.00	7,230.78	7,080.18	7,148.98	191.78	30.25	-88.69	-4,378.19	498.97	8,791.76	8,654.90	136.87	64.236		
13,800.00	7,230.41	7,079.05	7,147.86	194.60	30.25	-88.68	-4,378.20	498.95	8,875.91	8,738.50	137.41	64.592		
13,900.00	7,230.05	7,077.93	7,146.74	197.42	30.24	-88.67	-4,378.20	498.94	8,960.38	8,822.44	137.95	64.954		
14,000.00	7,229.68	7,076.82	7,145.63	200.25	30.24	-88.65	-4,378.21	498.92	9,045.17	8,906.70	138.47	65.322		
14,100.00	7,229.31	7,075.71	7,144.51	203.07	30.23	-88.64	-4,378.22	498.90	9,130.27	8,991.29	138.98	65.695		
14,200.00	7,228.95	7,074.60	7,143.41	205.90	30.23	-88.63	-4,378.23	498.88	9,215.67	9,076.19	139.48	66.073		
14,300.00	7,228.58	7,073.50	7,142.31	208.73	30.22	-88.61	-4,378.24	498.87	9,301.35	9,161.39	139.96	66.455		
14,400.00	7,228.22	7,072.40	7,141.21	211.55	30.22	-88.60	-4,378.25	498.85	9,387.32	9,246.89	140.44	66.843		
14,500.00	7,227.85	7,071.31	7,140.11	214.38	30.21	-88.59	-4,378.26	498.83	9,473.57	9,332.67	140.90	67.235		
14,600.00	7,227.48	7,070.22	7,139.02	217.21	30.21	-88.57	-4,378.27	498.81	9,560.08	9,418.73	141.36	67.631		
14,700.00	7,227.12	7,069.13	7,137.94	220.04	30.20	-88.56	-4,378.28	498.80	9,646.86	9,505.06	141.80	68.031		
14,800.00	7,226.75	7,068.05	7,136.85	222.88	30.20	-88.55	-4,378.29	498.78	9,733.88	9,591.65	142.23	68.436		
14,900.00	7,226.38	7,066.97	7,135.78	225.71	30.19	-88.53	-4,378.29	498.76	9,821.16	9,678.50	142.66	68.844		
15,000.00	7,226.02	7,065.89	7,134.70	228.54	30.19	-88.52	-4,378.30	498.75	9,908.67	9,765.60	143.07	69.256		
15,005.81	7,226.00	7,065.83	7,134.64	228.71	30.19	-88.52	-4,378.31	498.75	9,913.76	9,770.66	143.10	69.280		



Anticollision Report



Company:	SRC ENERGY	Local Co-ordinate Reference:	Well HARVESTERS STATE 31C-16-M
Project:	SECTION 15, T6N, R66W	TVD Reference:	KB @ 4821.00ft
Reference Site:	HARVESTERS STATE 7-15 PAD	MD Reference:	KB @ 4821.00ft
Site Error:	3.28 ft	North Reference:	True
Reference Well:	HARVESTERS STATE 31C-16-M	Survey Calculation Method:	Minimum Curvature
Well Error:	3.28 ft	Output errors are at	2.45 sigma
Reference Wellbore	OH	Database:	EDM 5000.14 Single User Db
Reference Design:	PLAN #1	Offset TVD Reference:	Reference Datum

Offset Design HARVESTERS STATE 7-15 PAD - BLACK GOLD PETROLEUM 1(PR_150CC) - OH - OH													Offset Site Error:	0.00 ft
Survey Program: 100-GYRO-NS													Offset Well Error:	3.28 ft
Reference		Offset		Semi Major Axis			Distance							Warning
Measured Depth (ft)	Vertical Depth (ft)	Measured Depth (ft)	Vertical Depth (ft)	Reference (ft)	Offset (ft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (ft)	+E/-W (ft)	Between Centres (ft)	Between Ellipses (ft)	Minimum Separation (ft)	Separation Factor		
0.00	0.00	20.20	-1.80	3.28	3.28	172.94	-4,399.34	544.96	4,432.97					
100.00	100.00	112.78	90.78	3.28	3.29	172.94	-4,399.48	544.86	4,433.10	4,426.52	6.58	674.160		
200.00	200.00	211.60	189.59	3.34	3.35	172.94	-4,399.73	544.75	4,433.33	4,426.64	6.69	662.743		
300.00	300.00	318.12	296.12	3.44	3.48	172.94	-4,399.91	544.54	4,433.48	4,426.56	6.92	640.667		
400.00	400.00	418.33	396.33	3.60	3.64	172.95	-4,400.04	544.20	4,433.57	4,426.33	7.24	612.158		
500.00	500.00	520.79	498.79	3.81	3.85	172.95	-4,400.13	543.89	4,433.61	4,425.96	7.66	579.175		
600.00	600.00	618.97	596.97	4.05	4.09	172.96	-4,400.23	543.52	4,433.67	4,425.54	8.13	545.316 ES		
700.00	699.98	720.79	698.79	4.32	4.36	-164.14	-4,400.30	543.22	4,435.38	4,426.71	8.68	511.270		
800.00	799.84	817.10	795.09	4.62	4.65	-164.13	-4,400.40	543.02	4,440.47	4,431.21	9.26	479.684		
900.00	899.62	918.14	896.14	4.94	4.96	-164.15	-4,400.53	542.70	4,446.86	4,436.98	9.89	449.652		
1,000.00	999.41	1,016.57	994.57	5.27	5.29	-164.16	-4,400.67	542.42	4,453.28	4,442.73	10.55	422.198		
1,100.00	1,099.19	1,118.93	1,096.93	5.62	5.64	-164.18	-4,400.77	542.13	4,459.65	4,448.40	11.25	396.503		
1,200.00	1,198.98	1,213.36	1,191.35	5.99	5.97	-164.20	-4,400.91	541.77	4,466.07	4,454.12	11.94	373.966		
1,300.00	1,298.76	1,304.69	1,282.68	6.36	6.30	-164.22	-4,401.21	541.38	4,472.65	4,460.00	12.64	353.719		
1,400.00	1,398.55	1,407.23	1,385.22	6.74	6.68	-164.23	-4,401.62	540.88	4,479.29	4,465.89	13.40	334.179		
1,500.00	1,498.33	1,514.07	1,492.06	7.13	7.09	-164.25	-4,401.92	540.22	4,485.81	4,471.61	14.19	316.047		
1,600.00	1,598.12	1,612.09	1,590.07	7.52	7.46	-164.26	-4,402.16	539.56	4,492.28	4,477.32	14.96	300.263		
1,700.00	1,697.90	1,710.82	1,688.80	7.92	7.84	-164.28	-4,402.43	538.94	4,498.78	4,483.04	15.74	285.795		
1,800.00	1,797.69	1,805.65	1,783.63	8.33	8.22	-164.29	-4,402.76	538.28	4,505.35	4,488.84	16.51	272.815		
1,900.00	1,897.47	1,899.18	1,877.15	8.74	8.59	-164.30	-4,403.21	537.51	4,512.05	4,494.76	17.29	260.976		
2,000.00	1,997.26	1,997.68	1,975.65	9.15	8.98	-164.31	-4,403.81	536.47	4,518.82	4,500.73	18.09	249.793		
2,100.00	2,097.04	2,109.06	2,087.02	9.56	9.42	-164.32	-4,404.37	535.12	4,525.49	4,506.54	18.95	238.817		
2,200.00	2,196.83	2,215.04	2,192.99	9.98	9.85	-164.32	-4,404.74	533.73	4,531.98	4,512.19	19.79	228.980		
2,300.00	2,296.61	2,329.60	2,307.54	10.40	10.32	-164.33	-4,404.83	532.21	4,538.20	4,517.53	20.67	219.511		
2,400.00	2,396.40	2,435.63	2,413.57	10.82	10.75	-164.34	-4,404.63	530.91	4,544.18	4,522.65	21.52	211.113		
2,500.00	2,496.18	2,536.04	2,513.96	11.24	11.16	-164.35	-4,404.39	529.89	4,550.12	4,527.77	22.36	203.536		
2,600.00	2,595.96	2,638.38	2,616.30	11.66	11.58	-164.36	-4,404.05	529.02	4,556.01	4,532.81	23.20	196.406		
2,700.00	2,695.75	2,734.83	2,712.75	12.09	11.98	-164.37	-4,403.74	528.18	4,561.90	4,537.88	24.02	189.949		
2,800.00	2,795.53	2,830.44	2,808.35	12.51	12.37	-164.38	-4,403.56	527.40	4,567.92	4,543.09	24.83	183.933		
2,900.00	2,895.32	2,928.59	2,906.50	12.94	12.78	-164.39	-4,403.33	526.70	4,573.92	4,548.25	25.67	178.211		
3,000.00	2,995.10	3,012.39	2,990.30	13.37	13.12	-164.41	-4,403.34	526.26	4,580.17	4,553.74	26.44	173.245		
3,100.00	3,094.89	3,104.38	3,082.29	13.80	13.51	-164.42	-4,403.58	525.82	4,586.69	4,559.44	27.25	168.344		
3,200.00	3,194.67	3,209.63	3,187.53	14.23	13.95	-164.44	-4,403.88	525.26	4,593.22	4,565.11	28.11	163.385		
3,300.00	3,294.46	3,294.52	3,272.42	14.66	14.30	-164.45	-4,404.24	524.77	4,599.88	4,570.98	28.89	159.202		
3,400.00	3,394.24	3,384.39	3,362.29	15.09	14.67	-164.46	-4,404.84	524.20	4,606.78	4,577.09	29.70	155.129		
3,500.00	3,494.03	3,541.49	3,519.39	15.52	15.33	-164.49	-4,405.09	523.42	4,613.20	4,582.41	30.79	149.818		
3,600.00	3,593.81	3,664.48	3,642.37	15.96	15.84	-164.51	-4,404.05	523.29	4,618.66	4,586.92	31.74	145.517		
3,700.00	3,693.60	3,778.36	3,756.24	16.39	16.32	-164.54	-4,402.71	523.02	4,623.78	4,591.14	32.65	141.619		
3,800.00	3,793.38	3,869.42	3,847.30	16.82	16.70	-164.56	-4,401.53	522.83	4,628.80	4,595.34	33.46	138.327		
3,900.00	3,893.17	3,958.16	3,936.04	17.26	17.07	-164.57	-4,400.65	522.50	4,634.09	4,599.82	34.27	135.235		
4,000.00	3,992.95	4,050.01	4,027.88	17.69	17.45	-164.59	-4,399.93	522.09	4,639.58	4,604.50	35.09	132.237		
4,100.00	4,092.74	4,136.72	4,114.58	18.13	17.82	-164.60	-4,399.43	521.56	4,645.26	4,609.38	35.88	129.461		
4,200.00	4,192.52	4,220.99	4,198.85	18.56	18.17	-164.61	-4,399.28	521.06	4,651.32	4,614.66	36.67	126.851		
4,300.00	4,292.31	4,322.30	4,300.17	19.00	18.60	-164.63	-4,399.18	520.48	4,657.47	4,619.94	37.53	124.103		
4,400.00	4,392.09	4,416.93	4,394.79	19.43	19.00	-164.64	-4,399.15	520.00	4,663.70	4,625.34	38.36	121.573		
4,500.00	4,491.88	4,519.10	4,496.96	19.87	19.43	-164.66	-4,399.13	519.55	4,669.94	4,630.71	39.23	119.047		
4,600.00	4,591.66	4,619.56	4,597.42	20.31	19.86	-164.67	-4,399.05	519.07	4,676.13	4,636.04	40.09	116.650		
4,700.00	4,691.44	4,709.25	4,687.11	20.74	20.24	-164.69	-4,399.09	518.59	4,682.44	4,641.54	40.90	114.488		
4,800.00	4,791.23	4,797.37	4,775.22	21.18	20.61	-164.70	-4,399.31	518.39	4,688.98	4,647.27	41.70	112.435		
4,900.00	4,891.01	4,897.62	4,875.47	21.62	21.03	-164.72	-4,399.65	518.43	4,695.64	4,653.08	42.56	110.321		
5,000.00	4,990.80	4,997.37	4,975.22	22.06	21.45	-164.75	-4,399.98	518.46	4,702.30	4,658.88	43.42	108.295		
5,100.00	5,090.58	5,092.57	5,070.43	22.50	21.85	-164.77	-4,400.34	518.49	4,709.01	4,664.75	44.26	106.397		

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



Anticollision Report



Company:	SRC ENERGY	Local Co-ordinate Reference:	Well HARVESTERS STATE 31C-16-M
Project:	SECTION 15, T6N, R66W	TVD Reference:	KB @ 4821.00ft
Reference Site:	HARVESTERS STATE 7-15 PAD	MD Reference:	KB @ 4821.00ft
Site Error:	3.28 ft	North Reference:	True
Reference Well:	HARVESTERS STATE 31C-16-M	Survey Calculation Method:	Minimum Curvature
Well Error:	3.28 ft	Output errors are at	2.45 sigma
Reference Wellbore	OH	Database:	EDM 5000.14 Single User Db
Reference Design:	PLAN #1	Offset TVD Reference:	Reference Datum

Offset Design HARVESTERS STATE 7-15 PAD - BLACK GOLD PETROLEUM 1(PR_150CC) - OH - OH													Offset Site Error:	0.00 ft
Survey Program: 100-GYRO-NS													Offset Well Error:	3.28 ft
Reference		Offset		Semi Major Axis			Distance							Warning
Measured Depth (ft)	Vertical Depth (ft)	Measured Depth (ft)	Vertical Depth (ft)	Reference (ft)	Offset (ft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (ft)	+E/-W (ft)	Between Centres (ft)	Between Ellipses (ft)	Minimum Separation (ft)	Separation Factor		
5,200.00	5,190.37	5,189.95	5,167.80	22.93	22.26	-164.79	-4,400.78	518.57	4,715.79	4,670.68	45.11	104.547		
5,300.00	5,290.15	5,295.40	5,273.25	23.37	22.71	-164.81	-4,401.23	518.58	4,722.55	4,676.55	45.99	102.682		
5,400.00	5,389.94	5,396.81	5,374.66	23.81	23.14	-164.83	-4,401.59	518.49	4,729.21	4,682.35	46.86	100.924		
5,500.00	5,489.72	5,490.43	5,468.28	24.25	23.53	-164.85	-4,401.96	518.44	4,735.93	4,688.24	47.69	99.304		
5,600.00	5,589.51	5,645.98	5,623.82	24.69	24.19	-164.88	-4,401.53	518.70	4,741.94	4,693.14	48.80	97.167		
5,700.00	5,689.29	5,736.29	5,714.13	25.13	24.57	-164.90	-4,400.86	518.88	4,747.58	4,697.96	49.62	95.679		
5,800.00	5,789.08	5,814.72	5,792.56	25.56	24.90	-164.92	-4,400.65	518.88	4,753.63	4,703.25	50.38	94.347		
5,900.00	5,888.86	5,905.87	5,883.72	26.00	25.29	-164.94	-4,400.68	518.79	4,759.99	4,708.79	51.21	92.957		
6,000.00	5,988.65	6,011.35	5,989.19	26.44	25.74	-164.96	-4,400.78	518.47	4,766.37	4,714.28	52.09	91.496		
6,100.00	6,088.43	6,104.17	6,082.01	26.88	26.13	-164.97	-4,400.91	518.05	4,772.79	4,719.86	52.92	90.183		
6,200.00	6,188.22	6,206.61	6,184.45	27.32	26.57	-164.98	-4,401.12	517.49	4,779.24	4,725.45	53.80	88.838		
6,300.00	6,288.00	6,333.26	6,311.10	27.76	27.11	-165.00	-4,400.95	516.53	4,785.34	4,730.56	54.78	87.354		
6,400.00	6,387.79	6,440.21	6,418.04	28.20	27.56	-165.01	-4,400.46	515.43	4,791.08	4,735.40	55.68	86.053		
6,500.00	6,487.57	6,545.41	6,523.23	28.64	28.01	-165.02	-4,399.93	514.36	4,796.77	4,740.21	56.56	84.805		
6,600.00	6,587.35	6,652.09	6,629.90	29.08	28.46	-165.02	-4,399.19	512.96	4,802.24	4,744.79	57.46	83.581		
6,700.00	6,687.02	6,748.71	6,726.51	29.52	28.87	-126.87	-4,398.55	511.57	4,808.04	4,749.74	58.31	82.463		
6,800.00	6,784.98	6,854.75	6,832.52	29.96	29.33	-110.37	-4,397.94	509.51	4,815.80	4,756.60	59.20	81.349		
6,900.00	6,878.81	6,965.55	6,943.28	30.41	29.80	-105.36	-4,397.08	506.43	4,825.39	4,765.28	60.12	80.267		
7,000.00	6,966.21	7,066.79	7,044.46	30.86	30.23	-102.78	-4,396.07	503.17	4,836.93	4,775.93	61.00	79.293		
7,100.00	7,045.03	7,152.08	7,129.69	31.35	30.59	-100.97	-4,395.14	499.82	4,850.58	4,788.74	61.84	78.435		
7,200.00	7,113.32	7,223.27	7,200.81	31.90	30.90	-99.40	-4,394.37	496.98	4,866.61	4,803.93	62.68	77.643		
7,300.00	7,169.40	7,282.64	7,260.13	32.57	31.15	-97.83	-4,393.72	494.61	4,885.09	4,821.53	63.56	76.861		
7,400.00	7,211.89	7,328.73	7,306.18	33.38	31.35	-96.11	-4,393.22	492.77	4,905.98	4,841.48	64.50	76.062		
7,500.00	7,239.75	7,360.42	7,337.84	34.35	31.49	-94.16	-4,392.88	491.51	4,929.14	4,863.63	65.51	75.239		
7,600.00	7,252.28	7,376.91	7,354.32	35.47	31.56	-91.95	-4,392.70	490.85	4,954.24	4,887.66	66.58	74.411		
7,700.00	7,252.75	7,381.37	7,358.78	36.73	31.57	-91.21	-4,392.65	490.67	4,980.96	4,913.26	67.70	73.577		
7,800.00	7,252.38	7,385.00	7,362.41	38.16	31.59	-91.25	-4,392.61	490.53	5,009.51	4,940.56	68.95	72.655		
7,900.00	7,252.02	7,388.63	7,366.03	39.74	31.61	-91.30	-4,392.57	490.38	5,039.87	4,969.56	70.32	71.674		
8,000.00	7,251.65	7,392.26	7,369.66	41.47	31.62	-91.34	-4,392.53	490.24	5,072.03	5,000.25	71.78	70.661		
8,100.00	7,251.29	7,395.89	7,373.29	43.31	31.64	-91.38	-4,392.49	490.10	5,105.94	5,032.61	73.32	69.637		
8,200.00	7,250.92	7,399.52	7,376.91	45.26	31.65	-91.43	-4,392.45	489.95	5,141.56	5,066.64	74.93	68.623		
8,300.00	7,250.55	7,403.15	7,380.54	47.30	31.67	-91.47	-4,392.41	489.81	5,178.87	5,102.30	76.58	67.631		
8,400.00	7,250.19	7,406.78	7,384.17	49.42	31.68	-91.51	-4,392.37	489.66	5,217.83	5,139.57	78.26	66.672		
8,500.00	7,249.82	7,410.41	7,387.79	51.62	31.70	-91.56	-4,392.34	489.52	5,258.40	5,178.43	79.97	65.754		
8,600.00	7,249.45	7,414.04	7,391.42	53.88	31.71	-91.60	-4,392.30	489.37	5,300.54	5,218.85	81.69	64.882		
8,700.00	7,249.09	7,417.67	7,395.05	56.19	31.73	-91.64	-4,392.26	489.23	5,344.22	5,260.80	83.42	64.060		
8,800.00	7,248.72	7,421.30	7,398.67	58.55	31.75	-91.69	-4,392.22	489.08	5,389.40	5,304.24	85.16	63.289		
8,900.00	7,248.36	7,424.93	7,402.30	60.96	31.76	-91.73	-4,392.18	488.94	5,436.04	5,349.16	86.88	62.570		
9,000.00	7,247.99	7,428.56	7,405.93	63.40	31.78	-91.77	-4,392.14	488.79	5,484.10	5,395.51	88.59	61.903		
9,100.00	7,247.62	7,400.00	7,377.39	65.87	31.65	-91.43	-4,392.45	489.93	5,533.65	5,443.51	90.14	61.389		
9,200.00	7,247.26	7,400.00	7,377.39	68.38	31.65	-91.43	-4,392.45	489.93	5,584.47	5,492.67	91.80	60.831		
9,300.00	7,246.89	7,400.00	7,377.39	70.91	31.65	-91.43	-4,392.45	489.93	5,636.61	5,543.17	93.44	60.321		
9,400.00	7,246.53	7,400.00	7,377.39	73.47	31.65	-91.43	-4,392.45	489.93	5,690.03	5,594.98	95.06	59.858		
9,500.00	7,246.16	7,400.00	7,377.39	76.05	31.65	-91.43	-4,392.45	489.93	5,744.70	5,648.05	96.65	59.438		
9,600.00	7,245.79	7,400.00	7,377.39	78.65	31.65	-91.43	-4,392.45	489.93	5,800.57	5,702.36	98.21	59.062		
9,700.00	7,245.43	7,400.00	7,377.39	81.27	31.65	-91.43	-4,392.45	489.93	5,857.62	5,757.87	99.75	58.725		
9,800.00	7,245.06	7,400.00	7,377.39	83.90	31.65	-91.43	-4,392.45	489.93	5,915.81	5,814.56	101.25	58.428		
9,900.00	7,244.69	7,400.00	7,377.39	86.55	31.65	-91.43	-4,392.45	489.93	5,975.10	5,872.38	102.72	58.167		
10,000.00	7,244.33	7,400.00	7,377.39	89.21	31.65	-91.43	-4,392.45	489.93	6,035.47	5,931.31	104.17	57.941		
10,100.00	7,243.96	7,400.00	7,377.39	91.88	31.65	-91.43	-4,392.45	489.93	6,096.88	5,991.31	105.58	57.748		
10,200.00	7,243.60	7,400.00	7,377.39	94.56	31.65	-91.43	-4,392.45	489.93	6,159.31	6,052.35	106.96	57.587		
10,300.00	7,243.23	7,400.00	7,377.39	97.26	31.65	-91.43	-4,392.45	489.93	6,222.71	6,114.41	108.30	57.456		

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



Anticollision Report



Company:	SRC ENERGY	Local Co-ordinate Reference:	Well HARVESTERS STATE 31C-16-M
Project:	SECTION 15, T6N, R66W	TVD Reference:	KB @ 4821.00ft
Reference Site:	HARVESTERS STATE 7-15 PAD	MD Reference:	KB @ 4821.00ft
Site Error:	3.28 ft	North Reference:	True
Reference Well:	HARVESTERS STATE 31C-16-M	Survey Calculation Method:	Minimum Curvature
Well Error:	3.28 ft	Output errors are at	2.45 sigma
Reference Wellbore	OH	Database:	EDM 5000.14 Single User Db
Reference Design:	PLAN #1	Offset TVD Reference:	Reference Datum

Offset Design HARVESTERS STATE 7-15 PAD - BLACK GOLD PETROLEUM 1(PR_150CC) - OH - OH													Offset Site Error:	0.00 ft
Survey Program: 100-GYRO-NS													Offset Well Error:	3.28 ft
Reference		Offset		Semi Major Axis			Distance							Warning
Measured Depth (ft)	Vertical Depth (ft)	Measured Depth (ft)	Vertical Depth (ft)	Reference (ft)	Offset (ft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (ft)	+E/-W (ft)	Between Centres (ft)	Between Ellipses (ft)	Minimum Separation (ft)	Separation Factor		
10,400.00	7,242.86	7,400.00	7,377.39	99.96	31.65	-91.43	-4,392.45	489.93	6,287.06	6,177.44	109.62	57.353		
10,500.00	7,242.50	7,400.00	7,377.39	102.67	31.65	-91.43	-4,392.45	489.93	6,352.34	6,241.44	110.91	57.277		
10,600.00	7,242.13	7,400.00	7,377.39	105.39	31.65	-91.43	-4,392.45	489.93	6,418.51	6,306.35	112.16	57.227		
10,700.00	7,241.76	7,400.00	7,377.39	108.12	31.65	-91.43	-4,392.45	489.93	6,485.55	6,372.17	113.38	57.200		
10,800.00	7,241.40	7,400.00	7,377.39	110.85	31.65	-91.43	-4,392.45	489.93	6,553.43	6,438.86	114.58	57.197 SF		
10,900.00	7,241.03	7,400.00	7,377.39	113.59	31.65	-91.43	-4,392.45	489.93	6,622.12	6,506.38	115.74	57.216		
11,000.00	7,240.67	7,400.00	7,377.39	116.34	31.65	-91.43	-4,392.45	489.93	6,691.61	6,574.73	116.87	57.255		
11,100.00	7,240.30	7,400.00	7,377.39	119.09	31.65	-91.43	-4,392.45	489.93	6,761.85	6,643.87	117.98	57.314		
11,200.00	7,239.93	7,400.00	7,377.39	121.85	31.65	-91.43	-4,392.45	489.93	6,832.84	6,713.79	119.06	57.392		
11,300.00	7,239.57	7,400.00	7,377.39	124.61	31.65	-91.43	-4,392.45	489.93	6,904.55	6,784.44	120.11	57.487		
11,400.00	7,239.20	7,400.00	7,377.39	127.38	31.65	-91.43	-4,392.45	489.93	6,976.95	6,855.82	121.13	57.599		
11,500.00	7,238.84	7,400.00	7,377.39	130.15	31.65	-91.43	-4,392.45	489.93	7,050.03	6,927.91	122.13	57.728		
11,600.00	7,238.47	7,400.00	7,377.39	132.92	31.65	-91.43	-4,392.45	489.93	7,123.76	7,000.67	123.10	57.872		
11,700.00	7,238.10	7,400.00	7,377.39	135.70	31.65	-91.43	-4,392.45	489.93	7,198.13	7,074.09	124.04	58.030		
11,800.00	7,237.74	7,400.00	7,377.39	138.48	31.65	-91.43	-4,392.45	489.93	7,273.11	7,148.15	124.96	58.202		
11,900.00	7,237.37	7,400.00	7,377.39	141.26	31.65	-91.43	-4,392.45	489.93	7,348.69	7,222.83	125.86	58.387		
12,000.00	7,237.00	7,400.00	7,377.39	144.05	31.65	-91.43	-4,392.45	489.93	7,424.84	7,298.11	126.74	58.585		
12,100.00	7,236.64	7,400.00	7,377.39	146.84	31.65	-91.43	-4,392.45	489.93	7,501.56	7,373.97	127.59	58.796		
12,200.00	7,236.27	7,400.00	7,377.39	149.64	31.65	-91.43	-4,392.45	489.93	7,578.81	7,450.40	128.42	59.017		
12,300.00	7,235.91	7,400.00	7,377.39	152.43	31.65	-91.43	-4,392.45	489.93	7,656.60	7,527.37	129.23	59.250		
12,400.00	7,235.54	7,400.00	7,377.39	155.23	31.65	-91.43	-4,392.45	489.93	7,734.89	7,604.88	130.01	59.493		
12,500.00	7,235.17	7,400.00	7,377.39	158.03	31.65	-91.43	-4,392.45	489.93	7,813.68	7,682.90	130.78	59.746		
12,600.00	7,234.81	7,400.00	7,377.39	160.83	31.65	-91.43	-4,392.45	489.93	7,892.95	7,761.42	131.53	60.008		
12,700.00	7,234.44	7,400.00	7,377.39	163.64	31.65	-91.43	-4,392.45	489.93	7,972.69	7,840.43	132.26	60.280		
12,800.00	7,234.07	7,400.00	7,377.39	166.44	31.65	-91.43	-4,392.45	489.93	8,052.88	7,919.91	132.97	60.561		
12,900.00	7,233.71	7,400.00	7,377.39	169.25	31.65	-91.43	-4,392.45	489.93	8,133.51	7,999.84	133.66	60.850		
13,000.00	7,233.34	7,400.00	7,377.39	172.06	31.65	-91.43	-4,392.45	489.93	8,214.56	8,080.22	134.34	61.147		
13,100.00	7,232.98	7,400.00	7,377.39	174.88	31.65	-91.43	-4,392.45	489.93	8,296.03	8,161.03	135.00	61.452		
13,200.00	7,232.61	7,400.00	7,377.39	177.69	31.65	-91.43	-4,392.45	489.93	8,377.89	8,242.25	135.64	61.764		
13,300.00	7,232.24	7,400.00	7,377.39	180.50	31.65	-91.43	-4,392.45	489.93	8,460.15	8,323.88	136.27	62.083		
13,400.00	7,231.88	7,400.00	7,377.39	183.32	31.65	-91.43	-4,392.45	489.93	8,542.79	8,405.91	136.88	62.410		
13,500.00	7,231.51	7,400.00	7,377.39	186.14	31.65	-91.43	-4,392.45	489.93	8,625.79	8,488.31	137.48	62.742		
13,600.00	7,231.15	7,400.00	7,377.39	188.96	31.65	-91.43	-4,392.45	489.93	8,709.16	8,571.09	138.06	63.081		
13,700.00	7,230.78	7,400.00	7,377.39	191.78	31.65	-91.43	-4,392.45	489.93	8,792.86	8,654.23	138.63	63.426		
13,800.00	7,230.41	7,400.00	7,377.39	194.60	31.65	-91.43	-4,392.45	489.93	8,876.91	8,737.72	139.19	63.777		
13,900.00	7,230.05	7,400.00	7,377.39	197.42	31.65	-91.43	-4,392.45	489.93	8,961.28	8,821.55	139.73	64.133		
14,000.00	7,229.68	7,400.00	7,377.39	200.25	31.65	-91.43	-4,392.45	489.93	9,045.98	8,905.72	140.26	64.495		
14,100.00	7,229.31	7,400.00	7,377.39	203.07	31.65	-91.43	-4,392.45	489.93	9,130.98	8,990.20	140.78	64.862		
14,200.00	7,228.95	7,400.00	7,377.39	205.90	31.65	-91.43	-4,392.45	489.93	9,216.28	9,075.00	141.28	65.234		
14,300.00	7,228.58	7,400.00	7,377.39	208.73	31.65	-91.43	-4,392.45	489.93	9,301.88	9,160.10	141.77	65.610		
14,400.00	7,228.22	7,400.00	7,377.39	211.55	31.65	-91.43	-4,392.45	489.93	9,387.76	9,245.50	142.26	65.991		
14,500.00	7,227.85	7,400.00	7,377.39	214.38	31.65	-91.43	-4,392.45	489.93	9,473.91	9,331.18	142.73	66.377		
14,600.00	7,227.48	7,400.00	7,377.39	217.21	31.65	-91.43	-4,392.45	489.93	9,560.34	9,417.15	143.19	66.767		
14,700.00	7,227.12	7,400.00	7,377.39	220.04	31.65	-91.43	-4,392.45	489.93	9,647.03	9,503.39	143.64	67.161		
14,800.00	7,226.75	7,400.00	7,377.39	222.88	31.65	-91.43	-4,392.45	489.93	9,733.97	9,589.89	144.08	67.559		
14,900.00	7,226.38	7,400.00	7,377.39	225.71	31.65	-91.43	-4,392.45	489.93	9,821.17	9,676.65	144.51	67.960		
15,000.00	7,226.02	7,400.00	7,377.39	228.54	31.65	-91.43	-4,392.45	489.93	9,908.60	9,763.67	144.94	68.366		
15,005.81	7,226.00	7,400.00	7,377.39	228.71	31.65	-91.43	-4,392.45	489.93	9,913.69	9,768.73	144.96	68.389		



Anticollision Report



Company:	SRC ENERGY	Local Co-ordinate Reference:	Well HARVESTERS STATE 31C-16-M
Project:	SECTION 15, T6N, R66W	TVD Reference:	KB @ 4821.00ft
Reference Site:	HARVESTERS STATE 7-15 PAD	MD Reference:	KB @ 4821.00ft
Site Error:	3.28 ft	North Reference:	True
Reference Well:	HARVESTERS STATE 31C-16-M	Survey Calculation Method:	Minimum Curvature
Well Error:	3.28 ft	Output errors are at	2.45 sigma
Reference Wellbore	OH	Database:	EDM 5000.14 Single User Db
Reference Design:	PLAN #1	Offset TVD Reference:	Reference Datum

Offset Design HARVESTERS STATE 7-15 PAD - BLACKGOLD 3(AB_150CC) - OH - OH													Offset Site Error:	0.00 ft
Survey Program: 100-GYRO-NS													Offset Well Error:	3.28 ft
Reference		Offset		Semi Major Axis			Distance							Warning
Measured Depth (ft)	Vertical Depth (ft)	Measured Depth (ft)	Vertical Depth (ft)	Reference (ft)	Offset (ft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (ft)	+E/-W (ft)	Between Centres (ft)	Between Ellipses (ft)	Minimum Separation (ft)	Separation Factor		
0.00	0.00	22.80	-0.20	3.28	3.28	-26.87	2,282.77	-1,156.40	2,558.96					
100.00	100.00	120.85	97.85	3.28	3.29	-26.87	2,282.70	-1,156.60	2,558.99	2,552.41	6.58	388.981		
200.00	200.00	219.03	196.03	3.34	3.36	-26.87	2,282.86	-1,156.68	2,559.17	2,552.48	6.70	382.208		
300.00	300.00	328.25	305.25	3.44	3.49	-26.86	2,282.85	-1,156.33	2,559.01	2,552.08	6.93	369.054		
342.49	342.49	365.49	342.49	3.51	3.55	-26.86	2,282.86	-1,156.24	2,558.97	2,551.92	7.05	362.829		
400.00	400.00	420.10	397.10	3.60	3.64	-26.86	2,282.94	-1,156.21	2,559.04	2,551.79	7.24	353.219		
500.00	500.00	528.06	505.06	3.81	3.86	-26.86	2,282.88	-1,156.15	2,558.95	2,551.28	7.67	333.621		
600.00	600.00	634.72	611.72	4.05	4.12	-26.86	2,282.72	-1,155.88	2,558.71	2,550.54	8.17	313.195		
700.00	699.98	740.48	717.48	4.32	4.41	-3.96	2,282.16	-1,155.28	2,556.23	2,547.50	8.73	292.801		
800.00	799.84	838.41	815.40	4.62	4.70	-3.96	2,281.86	-1,154.79	2,550.53	2,541.21	9.32	273.618		
900.00	899.62	945.48	922.47	4.94	5.04	-3.97	2,281.21	-1,153.97	2,543.10	2,533.12	9.98	254.888		
1,000.00	999.41	1,038.17	1,015.15	5.27	5.35	-3.97	2,280.72	-1,153.39	2,535.80	2,525.18	10.62	238.785		
1,100.00	1,099.19	1,134.82	1,111.80	5.62	5.68	-3.97	2,280.42	-1,152.88	2,528.75	2,517.44	11.30	223.748		
1,200.00	1,198.98	1,237.19	1,214.17	5.99	6.05	-3.98	2,280.03	-1,152.36	2,521.64	2,509.61	12.03	209.668		
1,300.00	1,298.76	1,335.35	1,312.33	6.36	6.40	-3.98	2,279.60	-1,151.91	2,514.50	2,501.75	12.76	197.123		
1,400.00	1,398.55	1,432.17	1,409.14	6.74	6.76	-3.98	2,279.44	-1,151.27	2,507.50	2,494.01	13.50	185.799		
1,500.00	1,498.33	1,535.04	1,512.01	7.13	7.15	-3.98	2,279.21	-1,150.67	2,500.51	2,486.24	14.27	175.213		
1,600.00	1,598.12	1,637.56	1,614.53	7.52	7.55	-3.99	2,278.64	-1,150.31	2,493.31	2,478.25	15.06	165.589		
1,700.00	1,697.90	1,731.62	1,708.59	7.92	7.91	-4.01	2,277.94	-1,150.52	2,486.21	2,470.39	15.82	157.149		
1,800.00	1,797.69	1,831.28	1,808.25	8.33	8.30	-4.03	2,277.46	-1,150.77	2,479.35	2,462.74	16.61	149.238		
1,900.00	1,897.47	1,938.24	1,915.20	8.74	8.72	-4.06	2,276.52	-1,150.92	2,472.08	2,454.63	17.44	141.736		
2,000.00	1,997.26	2,030.60	2,007.56	9.15	9.09	-4.08	2,275.75	-1,151.41	2,465.03	2,446.81	18.22	135.295		
2,100.00	2,097.04	2,135.29	2,112.25	9.56	9.51	-4.11	2,274.94	-1,151.87	2,458.00	2,438.95	19.05	129.025		
2,200.00	2,196.83	2,238.28	2,215.22	9.98	9.92	-4.14	2,273.94	-1,152.11	2,450.70	2,430.82	19.88	123.274		
2,300.00	2,296.61	2,334.39	2,311.34	10.40	10.31	-4.17	2,273.04	-1,152.51	2,443.52	2,422.83	20.69	118.117		
2,400.00	2,396.40	2,434.11	2,411.05	10.82	10.72	-4.21	2,271.99	-1,153.20	2,436.36	2,414.85	21.51	113.257		
2,500.00	2,496.18	2,531.05	2,507.97	11.24	11.11	-4.25	2,270.94	-1,154.09	2,429.28	2,406.95	22.33	108.795		
2,600.00	2,595.96	2,626.79	2,603.70	11.66	11.51	-4.29	2,270.01	-1,155.02	2,422.32	2,399.17	23.14	104.663		
2,700.00	2,695.75	2,718.85	2,695.76	12.09	11.88	-4.32	2,269.43	-1,155.81	2,415.61	2,391.66	23.95	100.874		
2,800.00	2,795.53	2,809.67	2,786.58	12.51	12.26	-4.35	2,269.19	-1,156.70	2,409.28	2,384.53	24.75	97.358		
2,900.00	2,895.32	2,912.46	2,889.36	12.94	12.68	-4.39	2,268.99	-1,157.76	2,403.03	2,377.44	25.59	93.887		
3,000.00	2,995.10	3,010.06	2,986.95	13.37	13.08	-4.44	2,268.61	-1,159.12	2,396.79	2,370.37	26.43	90.701		
3,100.00	3,094.89	3,110.03	3,086.91	13.80	13.50	-4.49	2,268.18	-1,160.68	2,390.59	2,363.32	27.27	87.673		
3,200.00	3,194.67	3,202.16	3,179.02	14.23	13.88	-4.54	2,267.87	-1,162.32	2,384.57	2,356.49	28.08	84.922		
3,300.00	3,294.46	3,296.23	3,273.07	14.66	14.27	-4.60	2,267.60	-1,164.42	2,378.80	2,349.90	28.90	82.307		
3,400.00	3,394.24	3,394.53	3,371.34	15.09	14.68	-4.66	2,267.37	-1,166.85	2,373.20	2,343.46	29.74	79.794		
3,500.00	3,494.03	3,500.31	3,477.08	15.52	15.12	-4.73	2,267.07	-1,169.36	2,367.51	2,336.90	30.61	77.338		
3,600.00	3,593.81	3,595.79	3,572.54	15.96	15.52	-4.80	2,266.83	-1,171.49	2,361.79	2,330.34	31.44	75.112		
3,700.00	3,693.60	3,725.29	3,702.00	16.39	16.07	-4.89	2,265.63	-1,174.38	2,355.46	2,323.05	32.41	72.679		
3,800.00	3,793.38	3,832.86	3,809.54	16.82	16.52	-4.97	2,263.77	-1,176.62	2,348.36	2,315.07	33.29	70.543		
3,900.00	3,893.17	3,933.25	3,909.89	17.26	16.94	-5.05	2,261.90	-1,178.62	2,341.11	2,306.97	34.14	68.566		
4,000.00	3,992.95	4,032.38	4,008.98	17.69	17.36	-5.13	2,260.01	-1,180.72	2,333.90	2,298.90	34.99	66.693		
4,100.00	4,092.74	4,133.64	4,110.19	18.13	17.78	-5.22	2,258.01	-1,182.92	2,326.65	2,290.80	35.85	64.893		
4,200.00	4,192.52	4,234.97	4,211.48	18.56	18.21	-5.30	2,255.97	-1,185.06	2,319.34	2,282.63	36.71	63.173		
4,300.00	4,292.31	4,335.51	4,311.98	19.00	18.64	-5.39	2,253.89	-1,187.14	2,311.96	2,274.39	37.57	61.534		
4,400.00	4,392.09	4,434.65	4,411.07	19.43	19.05	-5.47	2,251.85	-1,189.19	2,304.61	2,266.18	38.43	59.977		
4,500.00	4,491.88	4,535.09	4,511.47	19.87	19.48	-5.56	2,249.70	-1,191.39	2,297.25	2,257.96	39.28	58.478		
4,600.00	4,591.66	4,634.84	4,611.17	20.31	19.90	-5.65	2,247.52	-1,193.59	2,289.85	2,249.71	40.14	57.046		
4,700.00	4,691.44	4,738.00	4,714.28	20.74	20.34	-5.75	2,245.28	-1,195.88	2,282.48	2,241.47	41.01	55.657		
4,800.00	4,791.23	4,846.66	4,822.88	21.18	20.80	-5.85	2,242.49	-1,198.14	2,274.70	2,232.80	41.90	54.290		
4,900.00	4,891.01	4,945.63	4,921.79	21.62	21.22	-5.94	2,239.81	-1,200.12	2,266.77	2,224.02	42.75	53.019		
5,000.00	4,990.80	5,041.97	5,018.09	22.06	21.63	-6.03	2,237.37	-1,202.01	2,258.98	2,215.38	43.60	51.811		

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



Anticollision Report



Company:	SRC ENERGY	Local Co-ordinate Reference:	Well HARVESTERS STATE 31C-16-M
Project:	SECTION 15, T6N, R66W	TVD Reference:	KB @ 4821.00ft
Reference Site:	HARVESTERS STATE 7-15 PAD	MD Reference:	KB @ 4821.00ft
Site Error:	3.28 ft	North Reference:	True
Reference Well:	HARVESTERS STATE 31C-16-M	Survey Calculation Method:	Minimum Curvature
Well Error:	3.28 ft	Output errors are at	2.45 sigma
Reference Wellbore	OH	Database:	EDM 5000.14 Single User Db
Reference Design:	PLAN #1	Offset TVD Reference:	Reference Datum

Offset Design HARVESTERS STATE 7-15 PAD - BLACKGOLD 3(AB_150CC) - OH - OH													Offset Site Error:	0.00 ft
Survey Program: 100-GYRO-NS													Offset Well Error:	3.28 ft
Reference		Offset		Semi Major Axis			Distance						Warning	
Measured Depth (ft)	Vertical Depth (ft)	Measured Depth (ft)	Vertical Depth (ft)	Reference (ft)	Offset (ft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (ft)	+E/-W (ft)	Between Centres (ft)	Between Ellipses (ft)	Minimum Separation (ft)	Separation Factor		
5,100.00	5,090.58	5,138.01	5,114.09	22.50	22.03	-6.12	2,235.14	-1,203.76	2,251.32	2,206.87	44.45	50.653		
5,200.00	5,190.37	5,232.71	5,208.75	22.93	22.43	-6.20	2,233.18	-1,205.49	2,243.88	2,198.59	45.29	49.548		
5,300.00	5,290.15	5,328.77	5,304.78	23.37	22.84	-6.27	2,231.45	-1,207.14	2,236.62	2,190.49	46.13	48.482		
5,400.00	5,389.94	5,425.38	5,401.38	23.81	23.25	-6.33	2,230.17	-1,208.32	2,229.54	2,182.56	46.98	47.457		
5,500.00	5,489.72	5,523.38	5,499.36	24.25	23.67	-6.39	2,229.00	-1,209.41	2,222.52	2,174.69	47.83	46.464		
5,600.00	5,589.51	5,616.80	5,592.77	24.69	24.06	-6.45	2,228.02	-1,210.59	2,215.71	2,167.04	48.67	45.526		
5,700.00	5,689.29	5,712.10	5,688.06	25.13	24.47	-6.49	2,227.52	-1,211.53	2,209.22	2,159.71	49.51	44.620		
5,800.00	5,789.08	5,832.43	5,808.39	25.56	24.98	-6.53	2,226.75	-1,211.57	2,202.14	2,151.70	50.45	43.654		
5,900.00	5,888.86	5,934.90	5,910.85	26.00	25.41	-6.55	2,225.82	-1,211.36	2,194.74	2,143.42	51.31	42.770		
6,000.00	5,988.65	6,068.72	6,044.65	26.44	25.98	-6.57	2,224.32	-1,209.86	2,186.78	2,134.50	52.28	41.825		
6,100.00	6,088.43	6,183.87	6,159.74	26.88	26.47	-6.56	2,221.64	-1,207.30	2,177.13	2,123.94	53.19	40.931		
6,200.00	6,188.22	6,327.78	6,303.50	27.32	27.08	-6.55	2,216.81	-1,202.88	2,166.13	2,111.97	54.16	39.993		
6,300.00	6,288.00	6,413.88	6,389.49	27.76	27.45	-6.57	2,213.04	-1,200.53	2,154.51	2,099.52	54.99	39.180		
6,400.00	6,387.79	6,477.52	6,453.08	28.20	27.72	-6.59	2,210.76	-1,199.56	2,144.13	2,088.37	55.76	38.456		
6,500.00	6,487.57	6,547.86	6,523.40	28.64	28.02	-6.61	2,209.12	-1,199.19	2,135.31	2,078.78	56.53	37.774		
6,600.00	6,587.35	6,627.40	6,602.93	29.08	28.36	-6.64	2,208.14	-1,199.17	2,127.69	2,070.36	57.33	37.116		
6,700.00	6,687.02	6,719.42	6,694.94	29.52	28.75	31.65	2,207.38	-1,199.45	2,119.51	2,061.35	58.16	36.442		
6,800.00	6,784.98	6,806.70	6,782.22	29.96	29.12	49.11	2,206.88	-1,200.07	2,104.98	2,046.00	58.98	35.691		
6,900.00	6,878.81	6,880.29	6,855.81	30.41	29.44	55.91	2,206.92	-1,200.95	2,084.14	2,024.41	59.74	34.889		
7,000.00	6,966.21	6,966.28	6,941.79	30.86	29.80	61.23	2,207.48	-1,202.21	2,057.83	1,997.30	60.53	33.994		
7,100.00	7,045.03	7,046.65	7,022.14	31.35	30.14	66.43	2,207.97	-1,203.26	2,026.70	1,965.38	61.32	33.050		
7,200.00	7,113.32	7,114.92	7,090.41	31.90	30.43	71.67	2,208.43	-1,204.13	1,992.58	1,930.47	62.11	32.081		
7,300.00	7,169.40	7,172.24	7,147.72	32.57	30.67	76.84	2,208.87	-1,204.73	1,957.31	1,894.37	62.95	31.095		
7,400.00	7,211.89	7,215.47	7,190.95	33.38	30.86	81.60	2,209.24	-1,205.09	1,922.87	1,859.00	63.87	30.104		
7,500.00	7,239.75	7,244.07	7,219.55	34.35	30.98	85.64	2,209.48	-1,205.35	1,891.14	1,826.22	64.93	29.128		
7,600.00	7,252.28	7,257.59	7,233.07	35.47	31.03	88.69	2,209.59	-1,205.48	1,863.74	1,797.64	66.11	28.193		
7,700.00	7,252.75	7,259.09	7,234.56	36.73	31.04	89.46	2,209.60	-1,205.50	1,841.68	1,774.26	67.42	27.316		
7,800.00	7,252.38	7,259.75	7,235.23	38.16	31.04	89.49	2,209.61	-1,205.50	1,824.88	1,755.95	68.94	26.471		
7,900.00	7,252.02	7,260.42	7,235.90	39.74	31.05	89.51	2,209.61	-1,205.51	1,813.45	1,742.82	70.63	25.676		
8,000.00	7,251.65	7,261.10	7,236.58	41.47	31.05	89.53	2,209.62	-1,205.52	1,807.49	1,735.04	72.45	24.948		
8,058.01	7,251.44	7,261.49	7,236.97	42.54	31.05	89.54	2,209.62	-1,205.52	1,806.55	1,732.99	73.56	24.558 CC		
8,100.00	7,251.29	7,261.78	7,237.26	43.31	31.05	89.55	2,209.63	-1,205.52	1,807.04	1,732.69	74.36	24.302 ES		
8,200.00	7,250.92	7,262.47	7,237.95	45.26	31.06	89.57	2,209.63	-1,205.53	1,812.13	1,735.82	76.31	23.747		
8,300.00	7,250.55	7,263.16	7,238.64	47.30	31.06	89.59	2,209.64	-1,205.54	1,822.69	1,744.42	78.27	23.288		
8,400.00	7,250.19	7,263.86	7,239.34	49.42	31.06	89.62	2,209.64	-1,205.55	1,838.64	1,758.45	80.19	22.929		
8,500.00	7,249.82	7,264.57	7,240.05	51.62	31.06	89.64	2,209.65	-1,205.55	1,859.84	1,777.78	82.05	22.666		
8,600.00	7,249.45	7,265.28	7,240.76	53.88	31.07	89.66	2,209.65	-1,205.56	1,886.10	1,802.27	83.83	22.499		
8,700.00	7,249.09	7,266.00	7,241.48	56.19	31.07	89.68	2,209.66	-1,205.57	1,917.23	1,831.73	85.50	22.423 SF		
8,800.00	7,248.72	7,266.72	7,242.20	58.55	31.07	89.71	2,209.67	-1,205.58	1,952.99	1,865.92	87.06	22.432		
8,900.00	7,248.36	7,267.45	7,242.93	60.96	31.08	89.73	2,209.67	-1,205.58	1,993.13	1,904.62	88.50	22.520		
9,000.00	7,247.99	7,268.19	7,243.67	63.40	31.08	89.75	2,209.68	-1,205.59	2,037.39	1,947.57	89.82	22.683		
9,100.00	7,247.62	7,268.93	7,244.41	65.87	31.08	89.78	2,209.68	-1,205.60	2,085.51	1,994.49	91.01	22.914		
9,200.00	7,247.26	7,269.68	7,245.16	68.38	31.09	89.80	2,209.69	-1,205.61	2,137.22	2,045.13	92.09	23.208		
9,300.00	7,246.89	7,270.44	7,245.92	70.91	31.09	89.82	2,209.70	-1,205.61	2,192.28	2,099.23	93.06	23.559		
9,400.00	7,246.53	7,271.20	7,246.68	73.47	31.09	89.85	2,209.70	-1,205.62	2,250.44	2,156.53	93.92	23.962		
9,500.00	7,246.16	7,271.97	7,247.45	76.05	31.10	89.87	2,209.71	-1,205.63	2,311.47	2,216.79	94.68	24.413		
9,600.00	7,245.79	7,272.75	7,248.23	78.65	31.10	89.90	2,209.71	-1,205.64	2,375.13	2,279.78	95.36	24.908		
9,700.00	7,245.43	7,273.53	7,249.01	81.27	31.10	89.92	2,209.72	-1,205.65	2,441.24	2,345.29	95.95	25.442		
9,800.00	7,245.06	7,274.33	7,249.80	83.90	31.11	89.95	2,209.73	-1,205.66	2,509.59	2,413.11	96.48	26.013		
9,900.00	7,244.69	7,275.12	7,250.60	86.55	31.11	89.97	2,209.73	-1,205.66	2,580.00	2,483.07	96.93	26.616		
10,000.00	7,244.33	7,275.93	7,251.41	89.21	31.11	90.00	2,209.74	-1,205.67	2,652.32	2,554.98	97.34	27.249		
10,100.00	7,243.96	7,276.74	7,252.22	91.88	31.12	90.02	2,209.75	-1,205.68	2,726.38	2,628.70	97.68	27.910		

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



Anticollision Report



Company:	SRC ENERGY	Local Co-ordinate Reference:	Well HARVESTERS STATE 31C-16-M
Project:	SECTION 15, T6N, R66W	TVD Reference:	KB @ 4821.00ft
Reference Site:	HARVESTERS STATE 7-15 PAD	MD Reference:	KB @ 4821.00ft
Site Error:	3.28 ft	North Reference:	True
Reference Well:	HARVESTERS STATE 31C-16-M	Survey Calculation Method:	Minimum Curvature
Well Error:	3.28 ft	Output errors are at	2.45 sigma
Reference Wellbore	OH	Database:	EDM 5000.14 Single User Db
Reference Design:	PLAN #1	Offset TVD Reference:	Reference Datum

Offset Design HARVESTERS STATE 7-15 PAD - BLACKGOLD 3(AB_150CC) - OH - OH													Offset Site Error:	0.00 ft
Survey Program: 100-GYRO-NS													Offset Well Error:	3.28 ft
Reference		Offset		Semi Major Axis			Distance							Warning
Measured Depth (ft)	Vertical Depth (ft)	Measured Depth (ft)	Vertical Depth (ft)	Reference (ft)	Offset (ft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (ft)	+E/-W (ft)	Between Centres (ft)	Between Ellipses (ft)	Minimum Separation (ft)	Separation Factor		
10,200.00	7,243.60	7,277.56	7,253.04	94.56	31.12	90.05	2,209.75	-1,205.69	2,802.06	2,704.07	97.99	28.596		
10,300.00	7,243.23	7,278.39	7,253.87	97.26	31.12	90.08	2,209.76	-1,205.70	2,879.22	2,780.97	98.25	29.305		
10,400.00	7,242.86	7,279.23	7,254.71	99.96	31.13	90.10	2,209.76	-1,205.71	2,957.75	2,859.27	98.48	30.034		
10,500.00	7,242.50	7,280.07	7,255.55	102.67	31.13	90.13	2,209.77	-1,205.72	3,037.54	2,938.87	98.68	30.783		
10,600.00	7,242.13	7,280.93	7,256.40	105.39	31.13	90.16	2,209.78	-1,205.73	3,118.50	3,019.65	98.84	31.550		
10,700.00	7,241.76	7,281.79	7,257.26	108.12	31.14	90.18	2,209.78	-1,205.74	3,200.53	3,101.54	98.99	32.332		
10,800.00	7,241.40	7,282.65	7,258.13	110.85	31.14	90.21	2,209.79	-1,205.75	3,283.56	3,184.45	99.11	33.130		
10,900.00	7,241.03	7,283.53	7,259.01	113.59	31.14	90.24	2,209.80	-1,205.76	3,367.51	3,268.30	99.22	33.941		
11,000.00	7,240.67	7,284.42	7,259.89	116.34	31.15	90.27	2,209.81	-1,205.77	3,452.32	3,353.01	99.31	34.764		
11,100.00	7,240.30	7,285.31	7,260.79	119.09	31.15	90.30	2,209.81	-1,205.78	3,537.92	3,438.54	99.38	35.599		
11,200.00	7,239.93	7,286.21	7,261.69	121.85	31.16	90.33	2,209.82	-1,205.79	3,624.26	3,524.81	99.44	36.445		
11,300.00	7,239.57	7,287.12	7,262.60	124.61	31.16	90.35	2,209.83	-1,205.80	3,711.28	3,611.78	99.50	37.301		
11,400.00	7,239.20	7,288.04	7,263.52	127.38	31.16	90.38	2,209.83	-1,205.81	3,798.94	3,699.40	99.54	38.166		
11,500.00	7,238.84	7,288.97	7,264.45	130.15	31.17	90.41	2,209.84	-1,205.82	3,887.20	3,787.63	99.57	39.039		
11,600.00	7,238.47	7,289.91	7,265.39	132.92	31.17	90.44	2,209.85	-1,205.83	3,976.01	3,876.41	99.60	39.920		
11,700.00	7,238.10	7,290.86	7,266.34	135.70	31.18	90.47	2,209.86	-1,205.84	4,065.35	3,965.72	99.62	40.808		
11,800.00	7,237.74	7,291.82	7,267.29	138.48	31.18	90.50	2,209.86	-1,205.85	4,155.16	4,055.53	99.64	41.702		
11,900.00	7,237.37	7,292.78	7,268.26	141.26	31.18	90.53	2,209.87	-1,205.86	4,245.44	4,145.79	99.65	42.603		
12,000.00	7,237.00	7,293.76	7,269.24	144.05	31.19	90.56	2,209.88	-1,205.87	4,336.14	4,236.48	99.66	43.510		
12,100.00	7,236.64	7,294.75	7,270.22	146.84	31.19	90.60	2,209.89	-1,205.89	4,427.24	4,327.57	99.66	44.422		
12,200.00	7,236.27	7,295.74	7,271.22	149.64	31.20	90.63	2,209.89	-1,205.90	4,518.72	4,419.05	99.67	45.338		
12,300.00	7,235.91	7,296.75	7,272.23	152.43	31.20	90.66	2,209.90	-1,205.91	4,610.55	4,510.88	99.67	46.259		
12,400.00	7,235.54	7,297.77	7,273.24	155.23	31.20	90.69	2,209.91	-1,205.92	4,702.71	4,603.04	99.67	47.185		
12,500.00	7,235.17	7,298.80	7,274.27	158.03	31.21	90.72	2,209.92	-1,205.93	4,795.19	4,695.52	99.66	48.114		
12,600.00	7,234.81	7,299.84	7,275.31	160.83	31.21	90.76	2,209.92	-1,205.95	4,887.96	4,788.30	99.66	49.046		
12,700.00	7,234.44	7,300.89	7,276.36	163.64	31.22	90.79	2,209.93	-1,205.96	4,981.02	4,881.36	99.66	49.982		
12,800.00	7,234.07	7,301.95	7,277.42	166.44	31.22	90.82	2,209.94	-1,205.97	5,074.33	4,974.68	99.65	50.921		
12,900.00	7,233.71	7,303.02	7,278.49	169.25	31.23	90.86	2,209.95	-1,205.98	5,167.90	5,068.25	99.65	51.863		
13,000.00	7,233.34	7,304.10	7,279.58	172.06	31.23	90.89	2,209.96	-1,206.00	5,261.70	5,162.06	99.64	52.807		
13,100.00	7,232.98	7,305.20	7,280.67	174.88	31.24	90.93	2,209.97	-1,206.01	5,355.73	5,256.10	99.63	53.754		
13,200.00	7,232.61	7,306.30	7,281.78	177.69	31.24	90.96	2,209.97	-1,206.02	5,449.97	5,350.34	99.63	54.703		
13,300.00	7,232.24	7,307.42	7,282.90	180.50	31.25	91.00	2,209.98	-1,206.04	5,544.41	5,444.79	99.62	55.653		
13,400.00	7,231.88	7,308.55	7,284.03	183.32	31.25	91.03	2,209.99	-1,206.05	5,639.05	5,539.43	99.62	56.606		
13,500.00	7,231.51	7,309.70	7,285.17	186.14	31.26	91.07	2,210.00	-1,206.07	5,733.86	5,634.25	99.62	57.560		
13,600.00	7,231.15	7,310.85	7,286.33	188.96	31.26	91.11	2,210.01	-1,206.08	5,828.85	5,729.24	99.61	58.515		
13,700.00	7,230.78	7,312.02	7,287.49	191.78	31.27	91.14	2,210.02	-1,206.09	5,924.00	5,824.39	99.61	59.472		
13,800.00	7,230.41	7,313.20	7,288.68	194.60	31.27	91.18	2,210.03	-1,206.11	6,019.31	5,919.71	99.61	60.430		
13,900.00	7,230.05	7,314.40	7,289.87	197.42	31.28	91.22	2,210.03	-1,206.12	6,114.77	6,015.17	99.61	61.390		
14,000.00	7,229.68	7,315.60	7,291.08	200.25	31.28	91.26	2,210.04	-1,206.14	6,210.38	6,110.77	99.61	62.350		
14,100.00	7,229.31	7,316.83	7,292.30	203.07	31.29	91.30	2,210.05	-1,206.15	6,306.11	6,206.51	99.61	63.310		
14,200.00	7,228.95	7,318.06	7,293.54	205.90	31.29	91.33	2,210.06	-1,206.17	6,401.98	6,302.38	99.61	64.272		
14,300.00	7,228.58	7,319.31	7,294.79	208.73	31.30	91.37	2,210.07	-1,206.19	6,497.98	6,398.37	99.61	65.234		
14,400.00	7,228.22	7,320.58	7,296.05	211.55	31.30	91.41	2,210.08	-1,206.20	6,594.09	6,494.48	99.61	66.197		
14,500.00	7,227.85	7,315.59	7,291.07	214.38	31.28	91.26	2,210.05	-1,206.13	6,690.32	6,590.73	99.59	67.180		
14,600.00	7,227.48	7,316.42	7,291.90	217.21	31.28	91.28	2,210.05	-1,206.14	6,786.66	6,687.07	99.59	68.145		
14,700.00	7,227.12	7,317.25	7,292.72	220.04	31.29	91.31	2,210.06	-1,206.15	6,883.10	6,783.50	99.60	69.111		
14,800.00	7,226.75	7,318.08	7,293.55	222.88	31.29	91.34	2,210.06	-1,206.16	6,979.64	6,880.04	99.60	70.076		
14,900.00	7,226.38	7,318.90	7,294.38	225.71	31.29	91.36	2,210.07	-1,206.17	7,076.27	6,976.67	99.61	71.042		
15,000.00	7,226.02	7,319.73	7,295.21	228.54	31.30	91.39	2,210.08	-1,206.18	7,173.00	7,073.39	99.61	72.008		
15,005.81	7,226.00	7,319.78	7,295.25	228.71	31.30	91.39	2,210.08	-1,206.18	7,178.62	7,079.01	99.61	72.064		



Anticollision Report



Company:	SRC ENERGY	Local Co-ordinate Reference:	Well HARVESTERS STATE 31C-16-M
Project:	SECTION 15, T6N, R66W	TVD Reference:	KB @ 4821.00ft
Reference Site:	HARVESTERS STATE 7-15 PAD	MD Reference:	KB @ 4821.00ft
Site Error:	3.28 ft	North Reference:	True
Reference Well:	HARVESTERS STATE 31C-16-M	Survey Calculation Method:	Minimum Curvature
Well Error:	3.28 ft	Output errors are at	2.45 sigma
Reference Wellbore	OH	Database:	EDM 5000.14 Single User Db
Reference Design:	PLAN #1	Offset TVD Reference:	Reference Datum

Offset Design HARVESTERS STATE 7-15 PAD - BURBACH 15-22(SI_150CC) - OH - OH													Offset Site Error: 0.00 ft	
Survey Program: 100-2" Cone@2.448 Sigma													Offset Well Error: 3.28 ft	
Reference		Offset		Semi Major Axis			Distance							Warning
Measured Depth	Vertical Depth	Measured Depth	Vertical Depth	Reference	Offset	Highside Toolface	Offset Wellbore Centre	Between Centres	Between Ellipses	Minimum Separation	Separation Factor			
(ft)	(ft)	(ft)	(ft)	(ft)	(ft)	(°)	+N/-S (ft)	+E/-W (ft)	(ft)	(ft)	(ft)			
0.00	0.00	0.00	21.00	3.28	3.28	-68.24	864.96	-2,166.89	2,333.24					
100.00	100.00	79.00	100.00	3.28	3.56	-68.24	864.96	-2,166.89	2,333.15	2,326.31	6.84	340.965		
200.00	200.00	179.00	200.00	3.34	5.57	-68.24	864.96	-2,166.89	2,333.15	2,324.24	8.91	261.908		
300.00	300.00	279.00	300.00	3.44	8.64	-68.24	864.96	-2,166.89	2,333.15	2,321.06	12.09	193.045		
400.00	400.00	379.00	400.00	3.60	11.94	-68.24	864.96	-2,166.89	2,333.15	2,317.60	15.55	150.062		
500.00	500.00	479.00	500.00	3.81	15.33	-68.24	864.96	-2,166.89	2,333.15	2,314.01	19.14	121.916		
600.00	600.00	579.00	600.00	4.05	18.76	-68.24	864.96	-2,166.89	2,333.15	2,310.35	22.80	102.319		
700.00	699.98	678.98	699.98	4.32	22.20	-45.39	864.96	-2,166.89	2,331.92	2,305.40	26.52	87.936		
800.00	799.84	778.84	799.84	4.62	25.65	-45.52	864.96	-2,166.89	2,328.27	2,298.00	30.27	76.920		
900.00	899.62	878.62	899.62	4.94	29.11	-45.64	864.96	-2,166.89	2,323.67	2,289.63	34.04	68.256		
1,000.00	999.41	978.41	999.41	5.27	32.58	-45.75	864.96	-2,166.89	2,319.09	2,281.24	37.84	61.285		
1,100.00	1,099.19	1,078.19	1,099.19	5.62	36.04	-45.87	864.96	-2,166.89	2,314.51	2,272.85	41.66	55.560		
1,200.00	1,198.98	1,177.98	1,198.98	5.99	39.51	-45.99	864.96	-2,166.89	2,309.94	2,264.45	45.49	50.780		
1,300.00	1,298.76	1,277.76	1,298.76	6.36	42.99	-46.10	864.96	-2,166.89	2,305.39	2,256.05	49.33	46.731		
1,400.00	1,398.55	1,377.55	1,398.55	6.74	46.46	-46.22	864.96	-2,166.89	2,300.84	2,247.65	53.19	43.260		
1,500.00	1,498.33	1,477.33	1,498.33	7.13	49.94	-46.34	864.96	-2,166.89	2,296.30	2,239.25	57.05	40.252		
1,600.00	1,598.12	1,577.12	1,598.12	7.52	53.41	-46.46	864.96	-2,166.89	2,291.78	2,230.86	60.92	37.621		
1,700.00	1,697.90	1,676.90	1,697.90	7.92	56.89	-46.58	864.96	-2,166.89	2,287.26	2,222.46	64.79	35.301		
1,800.00	1,797.69	1,776.69	1,797.69	8.33	60.37	-46.70	864.96	-2,166.89	2,282.75	2,214.08	68.67	33.241		
1,900.00	1,897.47	1,876.47	1,897.47	8.74	63.85	-46.82	864.96	-2,166.89	2,278.25	2,205.69	72.56	31.399		
2,000.00	1,997.26	1,976.26	1,997.26	9.15	67.33	-46.94	864.96	-2,166.89	2,273.76	2,197.32	76.45	29.743		
2,100.00	2,097.04	2,076.04	2,097.04	9.56	70.81	-47.06	864.96	-2,166.89	2,269.29	2,188.95	80.34	28.247		
2,200.00	2,196.83	2,175.83	2,196.83	9.98	74.29	-47.18	864.96	-2,166.89	2,264.82	2,180.59	84.23	26.888		
2,300.00	2,296.61	2,275.61	2,296.61	10.40	77.77	-47.30	864.96	-2,166.89	2,260.36	2,172.23	88.13	25.648		
2,400.00	2,396.40	2,375.40	2,396.40	10.82	81.25	-47.42	864.96	-2,166.89	2,255.91	2,163.89	92.03	24.513		
2,500.00	2,496.18	2,475.18	2,496.18	11.24	84.73	-47.55	864.96	-2,166.89	2,251.48	2,155.55	95.93	23.470		
2,600.00	2,595.96	2,574.96	2,595.96	11.66	88.21	-47.67	864.96	-2,166.89	2,247.05	2,147.22	99.83	22.508		
2,700.00	2,695.75	2,674.75	2,695.75	12.09	91.69	-47.79	864.96	-2,166.89	2,242.64	2,138.90	103.74	21.619		
2,800.00	2,795.53	2,774.53	2,795.53	12.51	95.17	-47.92	864.96	-2,166.89	2,238.23	2,130.59	107.64	20.793		
2,900.00	2,895.32	2,874.32	2,895.32	12.94	98.65	-48.04	864.96	-2,166.89	2,233.84	2,122.29	111.55	20.026		
3,000.00	2,995.10	2,974.10	2,995.10	13.37	102.13	-48.17	864.96	-2,166.89	2,229.45	2,113.99	115.46	19.310		
3,100.00	3,094.89	3,073.89	3,094.89	13.80	105.62	-48.29	864.96	-2,166.89	2,225.08	2,105.71	119.37	18.641		
3,200.00	3,194.67	3,173.67	3,194.67	14.23	109.10	-48.42	864.96	-2,166.89	2,220.71	2,097.44	123.28	18.014		
3,300.00	3,294.46	3,273.46	3,294.46	14.66	112.58	-48.55	864.96	-2,166.89	2,216.36	2,089.17	127.19	17.426		
3,400.00	3,394.24	3,373.24	3,394.24	15.09	116.06	-48.67	864.96	-2,166.89	2,212.02	2,080.92	131.10	16.873		
3,500.00	3,494.03	3,473.03	3,494.03	15.52	119.54	-48.80	864.96	-2,166.89	2,207.69	2,072.68	135.01	16.352		
3,600.00	3,593.81	3,572.81	3,593.81	15.96	123.03	-48.93	864.96	-2,166.89	2,203.37	2,064.45	138.93	15.860		
3,700.00	3,693.60	3,672.60	3,693.60	16.39	126.51	-49.06	864.96	-2,166.89	2,199.06	2,056.22	142.84	15.395		
3,800.00	3,793.38	3,772.38	3,793.38	16.82	129.99	-49.19	864.96	-2,166.89	2,194.77	2,048.01	146.75	14.955		
3,900.00	3,893.17	3,872.17	3,893.17	17.26	133.47	-49.32	864.96	-2,166.89	2,190.48	2,039.81	150.67	14.538		
4,000.00	3,992.95	3,971.95	3,992.95	17.69	136.95	-49.45	864.96	-2,166.89	2,186.21	2,031.62	154.58	14.142		
4,100.00	4,092.74	4,071.74	4,092.74	18.13	140.44	-49.58	864.96	-2,166.89	2,181.94	2,023.44	158.50	13.766		
4,200.00	4,192.52	4,171.52	4,192.52	18.56	143.92	-49.71	864.96	-2,166.89	2,177.69	2,015.27	162.42	13.408		
4,300.00	4,292.31	4,271.31	4,292.31	19.00	147.40	-49.84	864.96	-2,166.89	2,173.45	2,007.12	166.33	13.067		
4,400.00	4,392.09	4,371.09	4,392.09	19.43	150.89	-49.97	864.96	-2,166.89	2,169.22	1,998.97	170.25	12.741		
4,500.00	4,491.88	4,470.88	4,491.88	19.87	154.37	-50.10	864.96	-2,166.89	2,165.00	1,990.84	174.17	12.431		
4,600.00	4,591.66	4,570.66	4,591.66	20.31	157.85	-50.24	864.96	-2,166.89	2,160.80	1,982.71	178.09	12.134		
4,700.00	4,691.44	4,670.44	4,691.44	20.74	161.33	-50.37	864.96	-2,166.89	2,156.61	1,974.60	182.00	11.849		
4,800.00	4,791.23	4,770.23	4,791.23	21.18	164.82	-50.51	864.96	-2,166.89	2,152.42	1,966.50	185.92	11.577		
4,900.00	4,891.01	4,870.01	4,891.01	21.62	168.30	-50.64	864.96	-2,166.89	2,148.25	1,958.41	189.84	11.316		
5,000.00	4,990.80	4,969.80	4,990.80	22.06	171.78	-50.78	864.96	-2,166.89	2,144.10	1,950.34	193.76	11.066		
5,100.00	5,090.58	5,069.58	5,090.58	22.50	175.26	-50.91	864.96	-2,166.89	2,139.95	1,942.27	197.68	10.825		

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



Anticollision Report



Company:	SRC ENERGY	Local Co-ordinate Reference:	Well HARVESTERS STATE 31C-16-M
Project:	SECTION 15, T6N, R66W	TVD Reference:	KB @ 4821.00ft
Reference Site:	HARVESTERS STATE 7-15 PAD	MD Reference:	KB @ 4821.00ft
Site Error:	3.28 ft	North Reference:	True
Reference Well:	HARVESTERS STATE 31C-16-M	Survey Calculation Method:	Minimum Curvature
Well Error:	3.28 ft	Output errors are at	2.45 sigma
Reference Wellbore	OH	Database:	EDM 5000.14 Single User Db
Reference Design:	PLAN #1	Offset TVD Reference:	Reference Datum

Offset Design HARVESTERS STATE 7-15 PAD - BURBACH 15-22(SI_150CC) - OH - OH													Offset Site Error:	0.00 ft
Survey Program: 100-2" Cone@2.448 Sigma													Offset Well Error:	3.28 ft
Reference		Offset		Semi Major Axis			Distance						Warning	
Measured Depth (ft)	Vertical Depth (ft)	Measured Depth (ft)	Vertical Depth (ft)	Reference (ft)	Offset (ft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (ft)	+E/-W (ft)	Between Centres (ft)	Between Ellipses (ft)	Minimum Separation (ft)	Separation Factor		
5,200.00	5,190.37	5,169.37	5,190.37	22.93	178.75	-51.05	864.96	-2,166.89	2,135.82	1,934.22	201.60	10.594		
5,300.00	5,290.15	5,269.15	5,290.15	23.37	182.23	-51.19	864.96	-2,166.89	2,131.69	1,926.18	205.52	10.372		
5,400.00	5,389.94	5,368.94	5,389.94	23.81	185.71	-51.32	864.96	-2,166.89	2,127.58	1,918.15	209.44	10.159		
5,500.00	5,489.72	5,468.72	5,489.72	24.25	189.20	-51.46	864.96	-2,166.89	2,123.49	1,910.13	213.36	9.953		
5,600.00	5,589.51	5,568.51	5,589.51	24.69	192.68	-51.60	864.96	-2,166.89	2,119.40	1,902.13	217.28	9.754		
5,700.00	5,689.29	5,668.29	5,689.29	25.13	196.16	-51.74	864.96	-2,166.89	2,115.33	1,894.13	221.20	9.563		
5,800.00	5,789.08	5,768.08	5,789.08	25.56	199.65	-51.88	864.96	-2,166.89	2,111.27	1,886.15	225.12	9.379		
5,900.00	5,888.86	5,867.86	5,888.86	26.00	203.13	-52.02	864.96	-2,166.89	2,107.22	1,878.18	229.04	9.200		
6,000.00	5,988.65	5,967.65	5,988.65	26.44	206.61	-52.16	864.96	-2,166.89	2,103.19	1,870.23	232.96	9.028		
6,100.00	6,088.43	6,067.43	6,088.43	26.88	210.09	-52.30	864.96	-2,166.89	2,099.16	1,862.29	236.88	8.862		
6,200.00	6,188.22	6,167.22	6,188.22	27.32	213.58	-52.44	864.96	-2,166.89	2,095.16	1,854.36	240.80	8.701		
6,300.00	6,288.00	6,267.00	6,288.00	27.76	217.06	-52.58	864.96	-2,166.89	2,091.16	1,846.44	244.72	8.545		
6,400.00	6,387.79	6,366.79	6,387.79	28.20	220.54	-52.73	864.96	-2,166.89	2,087.18	1,838.53	248.64	8.394		
6,500.00	6,487.57	6,466.57	6,487.57	28.64	224.03	-52.87	864.96	-2,166.89	2,083.20	1,830.64	252.56	8.248		
6,600.00	6,587.35	6,566.35	6,587.35	29.08	227.51	-53.01	864.96	-2,166.89	2,079.25	1,822.76	256.48	8.107		
6,700.00	6,687.02	6,666.02	6,687.02	29.52	230.99	-15.16	864.96	-2,166.89	2,075.14	1,812.74	260.40	7.961		
6,800.00	6,784.98	6,763.98	6,784.98	29.96	234.41	1.24	864.96	-2,166.89	2,053.59	1,789.34	264.25	7.771		
6,900.00	6,878.81	6,857.81	6,878.81	30.41	237.68	6.70	864.96	-2,166.89	2,019.41	1,751.48	267.94	7.537		
7,000.00	6,966.21	6,945.21	6,966.21	30.86	240.73	10.33	864.96	-2,166.89	1,971.45	1,700.09	271.36	7.265		
7,100.00	7,045.03	7,024.03	7,045.03	31.35	243.49	13.96	864.96	-2,166.89	1,910.93	1,636.49	274.44	6.963		
7,200.00	7,113.32	7,107.69	7,113.32	31.90	246.41	18.59	864.96	-2,166.89	1,839.40	1,561.76	277.64	6.625		
7,300.00	7,169.40	7,148.40	7,169.40	32.57	247.83	25.41	864.96	-2,166.89	1,758.71	1,479.43	279.28	6.297		
7,400.00	7,211.89	7,209.11	7,211.89	33.38	249.95	36.45	864.96	-2,166.89	1,670.96	1,389.39	281.57	5.934		
7,500.00	7,239.75	7,218.75	7,239.75	34.35	250.28	54.92	864.96	-2,166.89	1,578.45	1,296.40	282.05	5.596		
7,600.00	7,252.28	7,231.28	7,252.28	35.47	250.72	81.57	864.96	-2,166.89	1,483.64	1,201.02	282.62	5.250		
7,700.00	7,252.75	7,231.75	7,252.75	36.73	250.74	90.60	864.96	-2,166.89	1,388.82	1,106.03	282.79	4.911		
7,800.00	7,252.38	7,231.38	7,252.38	38.16	250.72	90.56	864.96	-2,166.89	1,294.79	1,011.78	283.01	4.575		
7,900.00	7,252.02	7,231.02	7,252.02	39.74	250.71	90.51	864.96	-2,166.89	1,201.73	918.38	283.35	4.241		
8,000.00	7,251.65	7,230.65	7,251.65	41.47	250.70	90.47	864.96	-2,166.89	1,109.87	826.04	283.84	3.910		
8,100.00	7,251.29	7,230.29	7,251.29	43.31	250.69	90.42	864.96	-2,166.89	1,019.55	735.01	284.54	3.583		
8,200.00	7,250.92	7,229.92	7,250.92	45.26	250.67	90.37	864.96	-2,166.89	931.21	645.66	285.55	3.261		
8,300.00	7,250.55	7,229.55	7,250.55	47.30	250.66	90.33	864.96	-2,166.89	845.46	558.50	286.96	2.946		
8,400.00	7,250.19	7,229.19	7,250.19	49.42	250.65	90.28	864.96	-2,166.89	763.20	474.27	288.93	2.641		
8,500.00	7,249.82	7,228.82	7,249.82	51.62	250.63	90.24	864.96	-2,166.89	685.66	394.05	291.61	2.351		
8,600.00	7,249.45	7,228.45	7,249.45	53.88	250.62	90.19	864.96	-2,166.89	614.65	319.48	295.17	2.082		
8,700.00	7,249.09	7,228.09	7,249.09	56.19	250.61	90.14	864.96	-2,166.89	552.69	253.04	299.65	1.844		
8,800.00	7,248.72	7,227.72	7,248.72	58.55	250.60	90.10	864.96	-2,166.89	503.11	198.31	304.80	1.651		
8,900.00	7,248.36	7,227.36	7,248.36	60.96	250.58	90.05	864.96	-2,166.89	469.88	159.95	309.93	1.516		
9,000.00	7,247.99	7,226.99	7,247.99	63.40	250.57	90.01	864.96	-2,166.89	456.56	142.66	313.90	1.454 Level 3		
9,011.69	7,247.95	7,226.95	7,247.95	63.69	250.57	90.00	864.96	-2,166.89	456.41	142.17	314.24	1.452 Level 3, CC, ES, SF		
9,100.00	7,247.62	7,226.62	7,247.62	65.87	250.56	89.96	864.96	-2,166.89	464.87	149.10	315.77	1.472 Level 3		
9,200.00	7,247.26	7,226.26	7,247.26	68.38	250.55	89.91	864.96	-2,166.89	493.73	178.28	315.45	1.565		
9,300.00	7,246.89	7,225.89	7,246.89	70.91	250.53	89.87	864.96	-2,166.89	539.84	226.23	313.62	1.721		
9,400.00	7,246.53	7,225.53	7,246.53	73.47	250.52	89.82	864.96	-2,166.89	599.24	288.15	311.10	1.926		
9,500.00	7,246.16	7,225.16	7,246.16	76.05	250.51	89.78	864.96	-2,166.89	668.39	359.93	308.46	2.167		
9,600.00	7,245.79	7,224.79	7,245.79	78.65	250.49	89.73	864.96	-2,166.89	744.59	438.57	306.02	2.433		
9,700.00	7,245.43	7,224.43	7,245.43	81.27	250.48	89.68	864.96	-2,166.89	825.87	522.02	303.85	2.718		
9,800.00	7,245.06	7,224.06	7,245.06	83.90	250.47	89.64	864.96	-2,166.89	910.89	608.91	301.99	3.016		
9,900.00	7,244.69	7,223.69	7,244.69	86.55	250.46	89.59	864.96	-2,166.89	998.69	698.30	300.39	3.325		
10,000.00	7,244.33	7,223.33	7,244.33	89.21	250.44	89.55	864.96	-2,166.89	1,088.60	789.56	299.04	3.640		
10,100.00	7,243.96	7,222.96	7,243.96	91.88	250.43	89.50	864.96	-2,166.89	1,180.13	882.25	297.88	3.962		
10,200.00	7,243.60	7,222.60	7,243.60	94.56	250.42	89.45	864.96	-2,166.89	1,272.93	976.05	296.89	4.288		

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



Anticollision Report



Company:	SRC ENERGY	Local Co-ordinate Reference:	Well HARVESTERS STATE 31C-16-M
Project:	SECTION 15, T6N, R66W	TVD Reference:	KB @ 4821.00ft
Reference Site:	HARVESTERS STATE 7-15 PAD	MD Reference:	KB @ 4821.00ft
Site Error:	3.28 ft	North Reference:	True
Reference Well:	HARVESTERS STATE 31C-16-M	Survey Calculation Method:	Minimum Curvature
Well Error:	3.28 ft	Output errors are at	2.45 sigma
Reference Wellbore	OH	Database:	EDM 5000.14 Single User Db
Reference Design:	PLAN #1	Offset TVD Reference:	Reference Datum

Offset Design HARVESTERS STATE 7-15 PAD - BURBACH 15-22(SI_150CC) - OH - OH													Offset Site Error:	0.00 ft
Survey Program: 100-2" Cone@2.448 Sigma													Offset Well Error:	3.28 ft
Reference		Offset		Semi Major Axis			Distance						Warning	
Measured Depth (ft)	Vertical Depth (ft)	Measured Depth (ft)	Vertical Depth (ft)	Reference (ft)	Offset (ft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (ft)	+E/-W (ft)	Between Centres (ft)	Between Ellipses (ft)	Minimum Separation (ft)	Separation Factor		
10,300.00	7,243.23	7,222.23	7,243.23	97.26	250.40	89.41	864.96	-2,166.89	1,366.76	1,070.73	296.03	4.617		
10,400.00	7,242.86	7,221.86	7,242.86	99.96	250.39	89.36	864.96	-2,166.89	1,461.40	1,166.11	295.29	4.949		
10,500.00	7,242.50	7,221.50	7,242.50	102.67	250.38	89.32	864.96	-2,166.89	1,556.71	1,262.06	294.65	5.283		
10,600.00	7,242.13	7,221.13	7,242.13	105.39	250.37	89.27	864.96	-2,166.89	1,652.57	1,358.49	294.08	5.619		
10,700.00	7,241.76	7,220.76	7,241.76	108.12	250.35	89.22	864.96	-2,166.89	1,748.90	1,455.31	293.59	5.957		
10,800.00	7,241.40	7,220.40	7,241.40	110.85	250.34	89.18	864.96	-2,166.89	1,845.62	1,552.47	293.15	6.296		
10,900.00	7,241.03	7,220.03	7,241.03	113.59	250.33	89.13	864.96	-2,166.89	1,942.67	1,649.91	292.76	6.636		
11,000.00	7,240.67	7,219.67	7,240.67	116.34	250.32	89.09	864.96	-2,166.89	2,040.00	1,747.59	292.42	6.976		
11,100.00	7,240.30	7,219.30	7,240.30	119.09	250.30	89.04	864.96	-2,166.89	2,137.59	1,845.48	292.11	7.318		
11,200.00	7,239.93	7,218.93	7,239.93	121.85	250.29	88.99	864.96	-2,166.89	2,235.38	1,943.55	291.84	7.660		
11,300.00	7,239.57	7,218.57	7,239.57	124.61	250.28	88.95	864.96	-2,166.89	2,333.36	2,041.77	291.59	8.002		
11,400.00	7,239.20	7,218.20	7,239.20	127.38	250.26	88.90	864.96	-2,166.89	2,431.51	2,140.14	291.37	8.345		
11,500.00	7,238.84	7,217.84	7,238.84	130.15	250.25	88.86	864.96	-2,166.89	2,529.80	2,238.63	291.17	8.688		
11,600.00	7,238.47	7,217.47	7,238.47	132.92	250.24	88.81	864.96	-2,166.89	2,628.22	2,337.23	290.99	9.032		
11,700.00	7,238.10	7,217.10	7,238.10	135.70	250.23	88.76	864.96	-2,166.89	2,726.76	2,435.93	290.83	9.376		
11,800.00	7,237.74	7,216.74	7,237.74	138.48	250.21	88.72	864.96	-2,166.89	2,825.40	2,534.72	290.68	9.720		
11,900.00	7,237.37	7,216.37	7,237.37	141.26	250.20	88.67	864.96	-2,166.89	2,924.13	2,633.58	290.55	10.064		
12,000.00	7,237.00	7,216.00	7,237.00	144.05	250.19	88.63	864.96	-2,166.89	3,022.94	2,732.51	290.43	10.409		
12,100.00	7,236.64	7,215.64	7,236.64	146.84	250.17	88.58	864.96	-2,166.89	3,121.83	2,831.51	290.32	10.753		
12,200.00	7,236.27	7,215.27	7,236.27	149.64	250.16	88.53	864.96	-2,166.89	3,220.79	2,930.56	290.22	11.098		
12,300.00	7,235.91	7,214.91	7,235.91	152.43	250.15	88.49	864.96	-2,166.89	3,319.81	3,029.67	290.14	11.442		
12,400.00	7,235.54	7,214.54	7,235.54	155.23	250.14	88.44	864.96	-2,166.89	3,418.89	3,128.83	290.06	11.787		
12,500.00	7,235.17	7,214.17	7,235.17	158.03	250.12	88.40	864.96	-2,166.89	3,518.01	3,228.03	289.99	12.132		
12,600.00	7,234.81	7,213.81	7,234.81	160.83	250.11	88.35	864.96	-2,166.89	3,617.19	3,327.27	289.93	12.476		
12,700.00	7,234.44	7,213.44	7,234.44	163.64	250.10	88.30	864.96	-2,166.89	3,716.41	3,426.54	289.87	12.821		
12,800.00	7,234.07	7,213.07	7,234.07	166.44	250.08	88.26	864.96	-2,166.89	3,815.68	3,525.86	289.82	13.166		
12,900.00	7,233.71	7,212.71	7,233.71	169.25	250.07	88.21	864.96	-2,166.89	3,914.98	3,625.20	289.78	13.510		
13,000.00	7,233.34	7,212.34	7,233.34	172.06	250.06	88.17	864.96	-2,166.89	4,014.31	3,724.57	289.74	13.855		
13,100.00	7,232.98	7,211.98	7,232.98	174.88	250.05	88.12	864.96	-2,166.89	4,113.68	3,823.97	289.71	14.199		
13,200.00	7,232.61	7,211.61	7,232.61	177.69	250.03	88.08	864.96	-2,166.89	4,213.07	3,923.39	289.68	14.544		
13,300.00	7,232.24	7,211.24	7,232.24	180.50	250.02	88.03	864.96	-2,166.89	4,312.50	4,022.84	289.66	14.888		
13,400.00	7,231.88	7,210.88	7,231.88	183.32	250.01	87.98	864.96	-2,166.89	4,411.95	4,122.31	289.64	15.232		
13,500.00	7,231.51	7,210.51	7,231.51	186.14	250.00	87.94	864.96	-2,166.89	4,511.42	4,221.80	289.63	15.577		
13,600.00	7,231.15	7,210.15	7,231.15	188.96	249.98	87.89	864.96	-2,166.89	4,610.92	4,321.30	289.62	15.921		
13,700.00	7,230.78	7,209.78	7,230.78	191.78	249.97	87.85	864.96	-2,166.89	4,710.44	4,420.83	289.61	16.265		
13,800.00	7,230.41	7,209.41	7,230.41	194.60	249.96	87.80	864.96	-2,166.89	4,809.98	4,520.37	289.61	16.609		
13,900.00	7,230.05	7,209.05	7,230.05	197.42	249.94	87.75	864.96	-2,166.89	4,909.53	4,619.93	289.61	16.952		
14,000.00	7,229.68	7,208.68	7,229.68	200.25	249.93	87.71	864.96	-2,166.89	5,009.11	4,719.50	289.61	17.296		
14,100.00	7,229.31	7,208.31	7,229.31	203.07	249.92	87.66	864.96	-2,166.89	5,108.70	4,819.08	289.62	17.639		
14,200.00	7,228.95	7,207.95	7,228.95	205.90	249.91	87.62	864.96	-2,166.89	5,208.31	4,918.68	289.63	17.983		
14,300.00	7,228.58	7,207.58	7,228.58	208.73	249.89	87.57	864.96	-2,166.89	5,307.93	5,018.29	289.64	18.326		
14,400.00	7,228.22	7,207.22	7,228.22	211.55	249.88	87.52	864.96	-2,166.89	5,407.57	5,117.91	289.66	18.669		
14,500.00	7,227.85	7,206.85	7,227.85	214.38	249.87	87.48	864.96	-2,166.89	5,507.21	5,217.54	289.67	19.012		
14,600.00	7,227.48	7,206.48	7,227.48	217.21	249.85	87.43	864.96	-2,166.89	5,606.88	5,317.18	289.69	19.355		
14,700.00	7,227.12	7,206.12	7,227.12	220.04	249.84	87.39	864.96	-2,166.89	5,706.55	5,416.83	289.72	19.697		
14,800.00	7,226.75	7,205.75	7,226.75	222.88	249.83	87.34	864.96	-2,166.89	5,806.23	5,516.49	289.74	20.039		
14,900.00	7,226.38	7,205.38	7,226.38	225.71	249.82	87.30	864.96	-2,166.89	5,905.93	5,616.16	289.77	20.382		
15,000.00	7,226.02	7,205.02	7,226.02	228.54	249.80	87.25	864.96	-2,166.89	6,005.63	5,715.84	289.80	20.724		
15,005.81	7,226.00	7,205.00	7,226.00	228.71	249.80	87.25	864.96	-2,166.89	6,011.43	5,721.63	289.80	20.744		



Anticollision Report



Company:	SRC ENERGY	Local Co-ordinate Reference:	Well HARVESTERS STATE 31C-16-M
Project:	SECTION 15, T6N, R66W	TVD Reference:	KB @ 4821.00ft
Reference Site:	HARVESTERS STATE 7-15 PAD	MD Reference:	KB @ 4821.00ft
Site Error:	3.28 ft	North Reference:	True
Reference Well:	HARVESTERS STATE 31C-16-M	Survey Calculation Method:	Minimum Curvature
Well Error:	3.28 ft	Output errors are at	2.45 sigma
Reference Wellbore	OH	Database:	EDM 5000.14 Single User Db
Reference Design:	PLAN #1	Offset TVD Reference:	Reference Datum

Offset Design HARVESTERS STATE 7-15 PAD - BURBACH 15-23(SI_150CC - OH - OH)													Offset Site Error:	0.00 ft
Survey Program: 100-2" Cone@2.448 Sigma													Offset Well Error:	3.28 ft
Reference		Offset		Semi Major Axis			Distance							Warning
Measured Depth (ft)	Vertical Depth (ft)	Measured Depth (ft)	Vertical Depth (ft)	Reference (ft)	Offset (ft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (ft)	+E/-W (ft)	Between Centres (ft)	Between Ellipses (ft)	Minimum Separation (ft)	Separation Factor		
0.00	0.00	0.00	36.00	3.28	3.28	-100.46	-468.36	-2,536.94	2,580.06					
100.00	100.00	64.00	100.00	3.28	3.47	-100.46	-468.36	-2,536.94	2,579.81	2,573.06	6.75	382.209		
200.00	200.00	164.00	200.00	3.34	5.16	-100.46	-468.36	-2,536.94	2,579.81	2,571.31	8.49	303.713		
300.00	300.00	264.00	300.00	3.44	8.16	-100.46	-468.36	-2,536.94	2,579.81	2,568.20	11.60	222.321		
400.00	400.00	364.00	400.00	3.60	11.44	-100.46	-468.36	-2,536.94	2,579.81	2,564.76	15.05	171.470		
500.00	500.00	464.00	500.00	3.81	14.82	-100.46	-468.36	-2,536.94	2,579.81	2,561.18	18.63	138.504		
600.00	600.00	564.00	600.00	4.05	18.24	-100.46	-468.36	-2,536.94	2,579.81	2,557.52	22.29	115.752		
700.00	699.98	663.98	699.98	4.32	21.68	-77.61	-468.36	-2,536.94	2,579.43	2,553.43	26.00	99.207		
800.00	799.84	763.84	799.84	4.62	25.14	-77.74	-468.36	-2,536.94	2,578.32	2,548.57	29.75	86.674		
900.00	899.62	863.62	899.62	4.94	28.59	-77.88	-468.36	-2,536.94	2,576.93	2,543.41	33.52	76.874		
1,000.00	999.41	963.41	999.41	5.27	32.06	-78.02	-468.36	-2,536.94	2,575.56	2,538.24	37.32	69.014		
1,100.00	1,099.19	1,063.19	1,099.19	5.62	35.52	-78.16	-468.36	-2,536.94	2,574.20	2,533.07	41.14	62.578		
1,200.00	1,198.98	1,162.98	1,198.98	5.99	38.99	-78.31	-468.36	-2,536.94	2,572.86	2,527.90	44.97	57.215		
1,300.00	1,298.76	1,262.76	1,298.76	6.36	42.46	-78.45	-468.36	-2,536.94	2,571.54	2,522.73	48.81	52.682		
1,400.00	1,398.55	1,362.55	1,398.55	6.74	45.94	-78.59	-468.36	-2,536.94	2,570.23	2,517.57	52.67	48.802		
1,500.00	1,498.33	1,462.33	1,498.33	7.13	49.41	-78.74	-468.36	-2,536.94	2,568.94	2,512.41	56.53	45.444		
1,600.00	1,598.12	1,562.12	1,598.12	7.52	52.89	-78.88	-468.36	-2,536.94	2,567.67	2,507.27	60.40	42.512		
1,700.00	1,697.90	1,661.90	1,697.90	7.92	56.37	-79.02	-468.36	-2,536.94	2,566.41	2,502.13	64.28	39.929		
1,800.00	1,797.69	1,761.69	1,797.69	8.33	59.85	-79.17	-468.36	-2,536.94	2,565.16	2,497.01	68.16	37.637		
1,900.00	1,897.47	1,861.47	1,897.47	8.74	63.32	-79.31	-468.36	-2,536.94	2,563.94	2,491.90	72.04	35.590		
2,000.00	1,997.26	1,961.26	1,997.26	9.15	66.80	-79.45	-468.36	-2,536.94	2,562.73	2,486.80	75.93	33.751		
2,100.00	2,097.04	2,061.04	2,097.04	9.56	70.28	-79.60	-468.36	-2,536.94	2,561.53	2,481.71	79.82	32.090		
2,200.00	2,196.83	2,160.83	2,196.83	9.98	73.76	-79.74	-468.36	-2,536.94	2,560.35	2,476.63	83.72	30.583		
2,300.00	2,296.61	2,260.61	2,296.61	10.40	77.24	-79.89	-468.36	-2,536.94	2,559.19	2,471.57	87.62	29.209		
2,400.00	2,396.40	2,360.40	2,396.40	10.82	80.72	-80.03	-468.36	-2,536.94	2,558.04	2,466.53	91.52	27.952		
2,500.00	2,496.18	2,460.18	2,496.18	11.24	84.20	-80.17	-468.36	-2,536.94	2,556.91	2,461.50	95.42	26.797		
2,600.00	2,595.96	2,559.96	2,595.96	11.66	87.68	-80.32	-468.36	-2,536.94	2,555.80	2,456.48	99.32	25.733		
2,700.00	2,695.75	2,659.75	2,695.75	12.09	91.17	-80.46	-468.36	-2,536.94	2,554.70	2,451.48	103.23	24.748		
2,800.00	2,795.53	2,759.53	2,795.53	12.51	94.65	-80.61	-468.36	-2,536.94	2,553.62	2,446.49	107.13	23.836		
2,900.00	2,895.32	2,859.32	2,895.32	12.94	98.13	-80.75	-468.36	-2,536.94	2,552.56	2,441.52	111.04	22.987		
3,000.00	2,995.10	2,959.10	2,995.10	13.37	101.61	-80.90	-468.36	-2,536.94	2,551.51	2,436.56	114.95	22.197		
3,100.00	3,094.89	3,058.89	3,094.89	13.80	105.09	-81.04	-468.36	-2,536.94	2,550.48	2,431.62	118.86	21.458		
3,200.00	3,194.67	3,158.67	3,194.67	14.23	108.57	-81.19	-468.36	-2,536.94	2,549.47	2,426.69	122.77	20.766		
3,300.00	3,294.46	3,258.46	3,294.46	14.66	112.06	-81.33	-468.36	-2,536.94	2,548.47	2,421.78	126.68	20.117		
3,400.00	3,394.24	3,358.24	3,394.24	15.09	115.54	-81.48	-468.36	-2,536.94	2,547.49	2,416.89	130.60	19.506		
3,500.00	3,494.03	3,458.03	3,494.03	15.52	119.02	-81.63	-468.36	-2,536.94	2,546.52	2,412.01	134.51	18.932		
3,600.00	3,593.81	3,557.81	3,593.81	15.96	122.50	-81.77	-468.36	-2,536.94	2,545.57	2,407.15	138.42	18.390		
3,700.00	3,693.60	3,657.60	3,693.60	16.39	125.98	-81.92	-468.36	-2,536.94	2,544.64	2,402.30	142.34	17.877		
3,800.00	3,793.38	3,757.38	3,793.38	16.82	129.47	-82.06	-468.36	-2,536.94	2,543.72	2,397.47	146.25	17.392		
3,900.00	3,893.17	3,857.17	3,893.17	17.26	132.95	-82.21	-468.36	-2,536.94	2,542.82	2,392.65	150.17	16.933		
4,000.00	3,992.95	3,956.95	3,992.95	17.69	136.43	-82.35	-468.36	-2,536.94	2,541.94	2,387.85	154.09	16.497		
4,100.00	4,092.74	4,056.74	4,092.74	18.13	139.91	-82.50	-468.36	-2,536.94	2,541.08	2,383.07	158.00	16.082		
4,200.00	4,192.52	4,156.52	4,192.52	18.56	143.40	-82.65	-468.36	-2,536.94	2,540.23	2,378.30	161.92	15.688		
4,300.00	4,292.31	4,256.31	4,292.31	19.00	146.88	-82.79	-468.36	-2,536.94	2,539.39	2,373.55	165.84	15.312		
4,400.00	4,392.09	4,356.09	4,392.09	19.43	150.36	-82.94	-468.36	-2,536.94	2,538.58	2,368.82	169.76	14.954		
4,500.00	4,491.88	4,455.88	4,491.88	19.87	153.84	-83.09	-468.36	-2,536.94	2,537.78	2,364.10	173.68	14.612		
4,600.00	4,591.66	4,555.66	4,591.66	20.31	157.33	-83.23	-468.36	-2,536.94	2,537.00	2,359.40	177.59	14.285		
4,700.00	4,691.44	4,655.44	4,691.44	20.74	160.81	-83.38	-468.36	-2,536.94	2,536.23	2,354.72	181.51	13.973		
4,800.00	4,791.23	4,755.23	4,791.23	21.18	164.29	-83.53	-468.36	-2,536.94	2,535.48	2,350.05	185.43	13.673		
4,900.00	4,891.01	4,855.01	4,891.01	21.62	167.78	-83.67	-468.36	-2,536.94	2,534.75	2,345.40	189.35	13.386		
5,000.00	4,990.80	4,954.80	4,990.80	22.06	171.26	-83.82	-468.36	-2,536.94	2,534.03	2,340.76	193.27	13.111		
5,100.00	5,090.58	5,054.58	5,090.58	22.50	174.74	-83.97	-468.36	-2,536.94	2,533.33	2,336.14	197.19	12.847		

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



Anticollision Report



Company:	SRC ENERGY	Local Co-ordinate Reference:	Well HARVESTERS STATE 31C-16-M
Project:	SECTION 15, T6N, R66W	TVD Reference:	KB @ 4821.00ft
Reference Site:	HARVESTERS STATE 7-15 PAD	MD Reference:	KB @ 4821.00ft
Site Error:	3.28 ft	North Reference:	True
Reference Well:	HARVESTERS STATE 31C-16-M	Survey Calculation Method:	Minimum Curvature
Well Error:	3.28 ft	Output errors are at	2.45 sigma
Reference Wellbore	OH	Database:	EDM 5000.14 Single User Db
Reference Design:	PLAN #1	Offset TVD Reference:	Reference Datum

Offset Design												HARVESTERS STATE 7-15 PAD - BURBACH 15-23(SI_150CC - OH - OH		Offset Site Error:	0.00 ft
Survey Program: 100-2" Cone@2.448 Sigma														Offset Well Error:	3.28 ft
Reference		Offset		Semi Major Axis			Distance						Warning		
Measured Depth (ft)	Vertical Depth (ft)	Measured Depth (ft)	Vertical Depth (ft)	Reference (ft)	Offset (ft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (ft)	+E/-W (ft)	Between Centres (ft)	Between Ellipses (ft)	Minimum Separation (ft)	Separation Factor			
5,200.00	5,190.37	5,154.37	5,190.37	22.93	178.22	-84.12	-468.36	-2,536.94	2,532.65	2,331.54	201.11	12.593			
5,300.00	5,290.15	5,254.15	5,290.15	23.37	181.71	-84.26	-468.36	-2,536.94	2,531.99	2,326.95	205.03	12.349			
5,400.00	5,389.94	5,353.94	5,389.94	23.81	185.19	-84.41	-468.36	-2,536.94	2,531.34	2,322.38	208.95	12.114			
5,500.00	5,489.72	5,453.72	5,489.72	24.25	188.67	-84.56	-468.36	-2,536.94	2,530.71	2,317.83	212.87	11.888			
5,600.00	5,589.51	5,553.51	5,589.51	24.69	192.16	-84.71	-468.36	-2,536.94	2,530.09	2,313.30	216.79	11.670			
5,700.00	5,689.29	5,653.29	5,689.29	25.13	195.64	-84.85	-468.36	-2,536.94	2,529.49	2,308.78	220.72	11.460			
5,800.00	5,789.08	5,753.08	5,789.08	25.56	199.12	-85.00	-468.36	-2,536.94	2,528.91	2,304.27	224.64	11.258			
5,900.00	5,888.86	5,852.86	5,888.86	26.00	202.60	-85.15	-468.36	-2,536.94	2,528.35	2,299.79	228.56	11.062			
6,000.00	5,988.65	5,952.65	5,988.65	26.44	206.09	-85.30	-468.36	-2,536.94	2,527.80	2,295.32	232.48	10.873			
6,100.00	6,088.43	6,052.43	6,088.43	26.88	209.57	-85.44	-468.36	-2,536.94	2,527.27	2,290.87	236.40	10.691			
6,200.00	6,188.22	6,152.22	6,188.22	27.32	213.05	-85.59	-468.36	-2,536.94	2,526.76	2,286.43	240.32	10.514			
6,300.00	6,288.00	6,252.00	6,288.00	27.76	216.54	-85.74	-468.36	-2,536.94	2,526.26	2,282.01	244.25	10.343			
6,400.00	6,387.79	6,351.79	6,387.79	28.20	220.02	-85.89	-468.36	-2,536.94	2,525.78	2,277.61	248.17	10.178			
6,500.00	6,487.57	6,451.57	6,487.57	28.64	223.50	-86.04	-468.36	-2,536.94	2,525.32	2,273.23	252.09	10.017			
6,600.00	6,587.35	6,551.35	6,587.35	29.08	226.99	-86.18	-468.36	-2,536.94	2,524.87	2,268.86	256.01	9.862			
6,700.00	6,687.02	6,651.02	6,687.02	29.52	230.47	-48.52	-468.36	-2,536.94	2,522.34	2,262.41	259.93	9.704			
6,800.00	6,784.98	6,748.98	6,784.98	29.96	233.88	-33.28	-468.36	-2,536.94	2,506.75	2,242.97	263.78	9.503			
6,900.00	6,878.81	6,842.81	6,878.81	30.41	237.16	-30.14	-468.36	-2,536.94	2,476.94	2,209.46	267.48	9.260			
7,000.00	6,966.21	6,930.21	6,966.21	30.86	240.21	-30.30	-468.36	-2,536.94	2,433.74	2,162.81	270.93	8.983			
7,100.00	7,045.03	7,009.03	7,045.03	31.35	242.96	-32.46	-468.36	-2,536.94	2,378.34	2,104.30	274.04	8.679			
7,200.00	7,113.32	7,077.32	7,113.32	31.90	245.35	-36.62	-468.36	-2,536.94	2,312.25	2,035.49	276.77	8.355			
7,300.00	7,169.40	7,133.40	7,169.40	32.57	247.30	-43.26	-468.36	-2,536.94	2,237.28	1,958.23	279.05	8.018			
7,400.00	7,211.89	7,175.89	7,211.89	33.38	248.79	-53.25	-468.36	-2,536.94	2,155.42	1,874.57	280.85	7.675			
7,500.00	7,239.75	7,203.75	7,239.75	34.35	249.76	-67.28	-468.36	-2,536.94	2,068.88	1,786.72	282.16	7.332			
7,600.00	7,252.28	7,216.28	7,252.28	35.47	250.20	-84.57	-468.36	-2,536.94	1,979.94	1,696.96	282.98	6.997			
7,700.00	7,252.75	7,216.75	7,252.75	36.73	250.21	-90.40	-468.36	-2,536.94	1,890.89	1,607.45	283.44	6.671			
7,800.00	7,252.38	7,216.38	7,252.38	38.16	250.20	-90.38	-468.36	-2,536.94	1,802.95	1,518.95	284.00	6.348			
7,900.00	7,252.02	7,216.02	7,252.02	39.74	250.19	-90.35	-468.36	-2,536.94	1,716.33	1,431.63	284.70	6.029			
8,000.00	7,251.65	7,215.65	7,251.65	41.47	250.17	-90.33	-468.36	-2,536.94	1,631.25	1,345.66	285.58	5.712			
8,100.00	7,251.29	7,215.29	7,251.29	43.31	250.16	-90.30	-468.36	-2,536.94	1,547.94	1,261.27	286.67	5.400			
8,200.00	7,250.92	7,214.92	7,250.92	45.26	250.15	-90.28	-468.36	-2,536.94	1,466.73	1,178.73	288.00	5.093			
8,300.00	7,250.55	7,214.55	7,250.55	47.30	250.14	-90.26	-468.36	-2,536.94	1,387.97	1,098.36	289.61	4.793			
8,400.00	7,250.19	7,214.19	7,250.19	49.42	250.12	-90.23	-468.36	-2,536.94	1,312.11	1,020.57	291.54	4.501			
8,500.00	7,249.82	7,213.82	7,249.82	51.62	250.11	-90.21	-468.36	-2,536.94	1,239.68	945.87	293.80	4.219			
8,600.00	7,249.45	7,213.45	7,249.45	53.88	250.10	-90.18	-468.36	-2,536.94	1,171.31	874.87	296.44	3.951			
8,700.00	7,249.09	7,213.09	7,249.09	56.19	250.09	-90.16	-468.36	-2,536.94	1,107.76	808.32	299.44	3.699			
8,800.00	7,248.72	7,212.72	7,248.72	58.55	250.07	-90.14	-468.36	-2,536.94	1,049.90	747.11	302.79	3.467			
8,900.00	7,248.36	7,212.36	7,248.36	60.96	250.06	-90.11	-468.36	-2,536.94	998.73	692.31	306.43	3.259			
9,000.00	7,247.99	7,211.99	7,247.99	63.40	250.05	-90.09	-468.36	-2,536.94	955.32	645.09	310.23	3.079			
9,100.00	7,247.62	7,211.62	7,247.62	65.87	250.03	-90.07	-468.36	-2,536.94	920.76	606.72	314.04	2.932			
9,200.00	7,247.26	7,211.26	7,247.26	68.38	250.02	-90.04	-468.36	-2,536.94	896.08	578.43	317.65	2.821			
9,300.00	7,246.89	7,210.89	7,246.89	70.91	250.01	-90.02	-468.36	-2,536.94	882.11	561.29	320.83	2.749			
9,374.18	7,246.62	7,210.62	7,246.62	72.81	250.00	-90.00	-468.36	-2,536.94	878.99	556.20	322.79	2.723 CC			
9,400.00	7,246.53	7,210.53	7,246.53	73.47	250.00	-89.99	-468.36	-2,536.94	879.37	555.99	323.38	2.719 ES, SF			
9,500.00	7,246.16	7,210.16	7,246.16	76.05	249.98	-89.97	-468.36	-2,536.94	887.95	562.77	325.17	2.731			
9,600.00	7,245.79	7,209.79	7,245.79	78.65	249.97	-89.95	-468.36	-2,536.94	907.53	581.36	326.17	2.782			
9,700.00	7,245.43	7,209.43	7,245.43	81.27	249.96	-89.92	-468.36	-2,536.94	937.43	611.00	326.43	2.872			
9,800.00	7,245.06	7,209.06	7,245.06	83.90	249.94	-89.90	-468.36	-2,536.94	976.70	650.63	326.07	2.995			
9,900.00	7,244.69	7,208.69	7,244.69	86.55	249.93	-89.87	-468.36	-2,536.94	1,024.26	699.02	325.24	3.149			
10,000.00	7,244.33	7,208.33	7,244.33	89.21	249.92	-89.85	-468.36	-2,536.94	1,079.01	754.94	324.08	3.329			
10,100.00	7,243.96	7,207.96	7,243.96	91.88	249.91	-89.83	-468.36	-2,536.94	1,139.93	817.21	322.71	3.532			
10,200.00	7,243.60	7,207.60	7,243.60	94.56	249.89	-89.80	-468.36	-2,536.94	1,206.07	884.81	321.25	3.754			



Anticollision Report



Company:	SRC ENERGY	Local Co-ordinate Reference:	Well HARVESTERS STATE 31C-16-M
Project:	SECTION 15, T6N, R66W	TVD Reference:	KB @ 4821.00ft
Reference Site:	HARVESTERS STATE 7-15 PAD	MD Reference:	KB @ 4821.00ft
Site Error:	3.28 ft	North Reference:	True
Reference Well:	HARVESTERS STATE 31C-16-M	Survey Calculation Method:	Minimum Curvature
Well Error:	3.28 ft	Output errors are at	2.45 sigma
Reference Wellbore	OH	Database:	EDM 5000.14 Single User Db
Reference Design:	PLAN #1	Offset TVD Reference:	Reference Datum

Offset Design HARVESTERS STATE 7-15 PAD - BURBACH 15-23(SI_150CC - OH - OH													Offset Site Error:	0.00 ft
Survey Program: 100-2" Cone@2.448 Sigma													Offset Well Error:	3.28 ft
Reference		Offset		Semi Major Axis			Distance						Warning	
Measured Depth (ft)	Vertical Depth (ft)	Measured Depth (ft)	Vertical Depth (ft)	Reference (ft)	Offset (ft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (ft)	+E/-W (ft)	Between Centres (ft)	Between Ellipses (ft)	Minimum Separation (ft)	Separation Factor		
10,300.00	7,243.23	7,207.23	7,243.23	97.26	249.88	-89.78	-468.36	-2,536.94	1,276.62	956.86	319.76	3.992		
10,400.00	7,242.86	7,206.86	7,242.86	99.96	249.87	-89.76	-468.36	-2,536.94	1,350.90	1,032.61	318.28	4.244		
10,500.00	7,242.50	7,206.50	7,242.50	102.67	249.86	-89.73	-468.36	-2,536.94	1,428.31	1,111.46	316.86	4.508		
10,600.00	7,242.13	7,206.13	7,242.13	105.39	249.84	-89.71	-468.36	-2,536.94	1,508.39	1,192.89	315.50	4.781		
10,700.00	7,241.76	7,205.76	7,241.76	108.12	249.83	-89.68	-468.36	-2,536.94	1,590.72	1,276.50	314.23	5.062		
10,800.00	7,241.40	7,205.40	7,241.40	110.85	249.82	-89.66	-468.36	-2,536.94	1,674.98	1,361.95	313.03	5.351		
10,900.00	7,241.03	7,205.03	7,241.03	113.59	249.80	-89.64	-468.36	-2,536.94	1,760.89	1,448.97	311.92	5.645		
11,000.00	7,240.67	7,204.67	7,240.67	116.34	249.79	-89.61	-468.36	-2,536.94	1,848.21	1,537.33	310.88	5.945		
11,100.00	7,240.30	7,204.30	7,240.30	119.09	249.78	-89.59	-468.36	-2,536.94	1,936.76	1,626.84	309.92	6.249		
11,200.00	7,239.93	7,203.93	7,239.93	121.85	249.77	-89.56	-468.36	-2,536.94	2,026.38	1,717.34	309.04	6.557		
11,300.00	7,239.57	7,203.57	7,239.57	124.61	249.75	-89.54	-468.36	-2,536.94	2,116.92	1,808.71	308.21	6.868		
11,400.00	7,239.20	7,203.20	7,239.20	127.38	249.74	-89.52	-468.36	-2,536.94	2,208.28	1,900.84	307.45	7.183		
11,500.00	7,238.84	7,202.84	7,238.84	130.15	249.73	-89.49	-468.36	-2,536.94	2,300.37	1,993.62	306.74	7.499		
11,600.00	7,238.47	7,202.47	7,238.47	132.92	249.71	-89.47	-468.36	-2,536.94	2,393.08	2,086.99	306.09	7.818		
11,700.00	7,238.10	7,202.10	7,238.10	135.70	249.70	-89.44	-468.36	-2,536.94	2,486.36	2,180.88	305.48	8.139		
11,800.00	7,237.74	7,201.74	7,237.74	138.48	249.69	-89.42	-468.36	-2,536.94	2,580.15	2,275.23	304.91	8.462		
11,900.00	7,237.37	7,201.37	7,237.37	141.26	249.68	-89.40	-468.36	-2,536.94	2,674.38	2,369.99	304.39	8.786		
12,000.00	7,237.00	7,201.00	7,237.00	144.05	249.66	-89.37	-468.36	-2,536.94	2,769.02	2,465.12	303.90	9.112		
12,100.00	7,236.64	7,200.64	7,236.64	146.84	249.65	-89.35	-468.36	-2,536.94	2,864.02	2,560.58	303.44	9.438		
12,200.00	7,236.27	7,200.27	7,236.27	149.64	249.64	-89.33	-468.36	-2,536.94	2,959.36	2,656.34	303.02	9.766		
12,300.00	7,235.91	7,200.09	7,235.91	152.43	249.63	-89.30	-468.36	-2,536.94	3,054.99	2,752.36	302.63	10.095		
12,400.00	7,235.54	7,200.46	7,235.54	155.23	249.64	-89.28	-468.36	-2,536.94	3,150.89	2,848.61	302.28	10.424		
12,500.00	7,235.17	7,200.83	7,235.17	158.03	249.66	-89.25	-468.36	-2,536.94	3,247.04	2,945.08	301.96	10.753		
12,600.00	7,234.81	7,201.19	7,234.81	160.83	249.67	-89.23	-468.36	-2,536.94	3,343.41	3,041.75	301.66	11.083		
12,700.00	7,234.44	7,201.56	7,234.44	163.64	249.68	-89.21	-468.36	-2,536.94	3,439.99	3,138.61	301.38	11.414		
12,800.00	7,234.07	7,201.93	7,234.07	166.44	249.70	-89.18	-468.36	-2,536.94	3,536.77	3,235.64	301.12	11.745		
12,900.00	7,233.71	7,202.29	7,233.71	169.25	249.71	-89.16	-468.36	-2,536.94	3,633.71	3,332.83	300.88	12.077		
13,000.00	7,233.34	7,202.66	7,233.34	172.06	249.72	-89.13	-468.36	-2,536.94	3,730.82	3,430.16	300.66	12.409		
13,100.00	7,232.98	7,203.02	7,232.98	174.88	249.73	-89.11	-468.36	-2,536.94	3,828.08	3,527.63	300.45	12.741		
13,200.00	7,232.61	7,203.39	7,232.61	177.69	249.75	-89.09	-468.36	-2,536.94	3,925.47	3,625.22	300.25	13.074		
13,300.00	7,232.24	7,203.76	7,232.24	180.50	249.76	-89.06	-468.36	-2,536.94	4,023.00	3,722.92	300.07	13.407		
13,400.00	7,231.88	7,204.12	7,231.88	183.32	249.77	-89.04	-468.36	-2,536.94	4,120.64	3,820.73	299.90	13.740		
13,500.00	7,231.51	7,204.49	7,231.51	186.14	249.79	-89.02	-468.36	-2,536.94	4,218.39	3,918.64	299.75	14.073		
13,600.00	7,231.15	7,204.86	7,231.15	188.96	249.80	-88.99	-468.36	-2,536.94	4,316.24	4,016.64	299.60	14.407		
13,700.00	7,230.78	7,205.22	7,230.78	191.78	249.81	-88.97	-468.36	-2,536.94	4,414.19	4,114.73	299.46	14.740		
13,800.00	7,230.41	7,205.59	7,230.41	194.60	249.82	-88.94	-468.36	-2,536.94	4,512.23	4,212.89	299.34	15.074		
13,900.00	7,230.05	7,205.95	7,230.05	197.42	249.84	-88.92	-468.36	-2,536.94	4,610.36	4,311.14	299.22	15.408		
14,000.00	7,229.68	7,206.32	7,229.68	200.25	249.85	-88.90	-468.36	-2,536.94	4,708.56	4,409.45	299.12	15.742		
14,100.00	7,229.31	7,206.69	7,229.31	203.07	249.86	-88.87	-468.36	-2,536.94	4,806.84	4,507.82	299.02	16.075		
14,200.00	7,228.95	7,207.05	7,228.95	205.90	249.87	-88.85	-468.36	-2,536.94	4,905.19	4,606.26	298.93	16.409		
14,300.00	7,228.58	7,207.42	7,228.58	208.73	249.89	-88.82	-468.36	-2,536.94	5,003.60	4,704.76	298.84	16.743		
14,400.00	7,228.22	7,207.78	7,228.22	211.55	249.90	-88.80	-468.36	-2,536.94	5,102.07	4,803.31	298.76	17.077		
14,500.00	7,227.85	7,208.15	7,227.85	214.38	249.91	-88.78	-468.36	-2,536.94	5,200.61	4,901.91	298.69	17.411		
14,600.00	7,227.48	7,208.52	7,227.48	217.21	249.93	-88.75	-468.36	-2,536.94	5,299.20	5,000.56	298.63	17.745		
14,700.00	7,227.12	7,208.88	7,227.12	220.04	249.94	-88.73	-468.36	-2,536.94	5,397.83	5,099.26	298.57	18.079		
14,800.00	7,226.75	7,209.25	7,226.75	222.88	249.95	-88.71	-468.36	-2,536.94	5,496.52	5,198.00	298.52	18.413		
14,900.00	7,226.38	7,209.62	7,226.38	225.71	249.96	-88.68	-468.36	-2,536.94	5,595.26	5,296.78	298.47	18.746		
15,000.00	7,226.02	7,209.98	7,226.02	228.54	249.98	-88.66	-468.36	-2,536.94	5,694.04	5,395.60	298.43	19.080		
15,005.81	7,226.00	7,190.00	7,226.00	228.71	249.28	-88.66	-468.36	-2,536.94	5,699.78	5,402.04	297.73	19.144		



Anticollision Report



Company:	SRC ENERGY	Local Co-ordinate Reference:	Well HARVESTERS STATE 31C-16-M
Project:	SECTION 15, T6N, R66W	TVD Reference:	KB @ 4821.00ft
Reference Site:	HARVESTERS STATE 7-15 PAD	MD Reference:	KB @ 4821.00ft
Site Error:	3.28 ft	North Reference:	True
Reference Well:	HARVESTERS STATE 31C-16-M	Survey Calculation Method:	Minimum Curvature
Well Error:	3.28 ft	Output errors are at	2.45 sigma
Reference Wellbore	OH	Database:	EDM 5000.14 Single User Db
Reference Design:	PLAN #1	Offset TVD Reference:	Reference Datum

Offset Design HARVESTERS STATE 7-15 PAD - BURMAN 16-42(PR_75CC) - OH - OH													Offset Site Error:	0.00 ft
Survey Program: 100-2" Cone@2.448 Sigma													Offset Well Error:	3.28 ft
Reference		Offset		Semi Major Axis			Distance							Warning
Measured Depth Depth (ft)	Vertical Depth (ft)	Measured Depth (ft)	Vertical Depth (ft)	Reference (ft)	Offset (ft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (ft)	+E/-W (ft)	Between Centres (ft)	Between Ellipses (ft)	Minimum Separation (ft)	Separation Factor		
0.00	0.00	0.00	47.00	3.28	3.28	-108.84	-1,637.44	-4,798.46	5,070.37					
100.00	100.00	53.00	100.00	3.28	3.41	-108.84	-1,637.44	-4,798.46	5,070.16	5,063.46	6.69	757.566		
200.00	200.00	153.00	200.00	3.34	4.87	-108.84	-1,637.44	-4,798.46	5,070.16	5,061.95	8.20	618.008		
300.00	300.00	253.00	300.00	3.44	7.81	-108.84	-1,637.44	-4,798.46	5,070.16	5,058.90	11.25	450.525		
400.00	400.00	353.00	400.00	3.60	11.07	-108.84	-1,637.44	-4,798.46	5,070.16	5,055.48	14.68	345.427		
500.00	500.00	453.00	500.00	3.81	14.45	-108.84	-1,637.44	-4,798.46	5,070.16	5,051.90	18.25	277.786		
600.00	600.00	553.00	600.00	4.05	17.86	-108.84	-1,637.44	-4,798.46	5,070.16	5,048.25	21.91	231.411		
700.00	699.98	652.98	699.98	4.32	21.30	-85.96	-1,637.44	-4,798.46	5,070.03	5,044.41	25.62	197.886		
800.00	799.84	752.84	799.84	4.62	24.75	-86.03	-1,637.44	-4,798.46	5,069.67	5,040.30	29.37	172.633		
900.00	899.62	852.62	899.62	4.94	28.21	-86.10	-1,637.44	-4,798.46	5,069.22	5,036.08	33.14	152.962		
1,000.00	999.41	952.41	999.41	5.27	31.67	-86.18	-1,637.44	-4,798.46	5,068.77	5,031.84	36.94	137.224		
1,100.00	1,099.19	1,052.19	1,099.19	5.62	35.14	-86.25	-1,637.44	-4,798.46	5,068.34	5,027.59	40.75	124.362		
1,200.00	1,198.98	1,151.98	1,198.98	5.99	38.61	-86.32	-1,637.44	-4,798.46	5,067.92	5,023.33	44.59	113.665		
1,300.00	1,298.76	1,251.76	1,298.76	6.36	42.08	-86.40	-1,637.44	-4,798.46	5,067.50	5,019.07	48.43	104.634		
1,400.00	1,398.55	1,351.55	1,398.55	6.74	45.56	-86.47	-1,637.44	-4,798.46	5,067.09	5,014.80	52.29	96.913		
1,500.00	1,498.33	1,451.33	1,498.33	7.13	49.03	-86.55	-1,637.44	-4,798.46	5,066.69	5,010.54	56.15	90.238		
1,600.00	1,598.12	1,551.12	1,598.12	7.52	52.51	-86.62	-1,637.44	-4,798.46	5,066.30	5,006.28	60.02	84.413		
1,700.00	1,697.90	1,650.90	1,697.90	7.92	55.98	-86.69	-1,637.44	-4,798.46	5,065.91	5,002.02	63.89	79.286		
1,800.00	1,797.69	1,750.69	1,797.69	8.33	59.46	-86.77	-1,637.44	-4,798.46	5,065.54	4,997.76	67.78	74.740		
1,900.00	1,897.47	1,850.47	1,897.47	8.74	62.94	-86.84	-1,637.44	-4,798.46	5,065.17	4,993.51	71.66	70.683		
2,000.00	1,997.26	1,950.26	1,997.26	9.15	66.42	-86.92	-1,637.44	-4,798.46	5,064.82	4,989.27	75.55	67.039		
2,100.00	2,097.04	2,050.04	2,097.04	9.56	69.90	-86.99	-1,637.44	-4,798.46	5,064.47	4,985.02	79.44	63.750		
2,200.00	2,196.83	2,149.83	2,196.83	9.98	73.38	-87.06	-1,637.44	-4,798.46	5,064.13	4,980.79	83.34	60.766		
2,300.00	2,296.61	2,249.61	2,296.61	10.40	76.86	-87.14	-1,637.44	-4,798.46	5,063.79	4,976.56	87.24	58.047		
2,400.00	2,396.40	2,349.40	2,396.40	10.82	80.34	-87.21	-1,637.44	-4,798.46	5,063.47	4,972.33	91.14	55.559		
2,500.00	2,496.18	2,449.18	2,496.18	11.24	83.82	-87.29	-1,637.44	-4,798.46	5,063.15	4,968.12	95.04	53.275		
2,600.00	2,595.96	2,548.96	2,595.96	11.66	87.30	-87.36	-1,637.44	-4,798.46	5,062.85	4,963.90	98.94	51.170		
2,700.00	2,695.75	2,648.75	2,695.75	12.09	90.78	-87.43	-1,637.44	-4,798.46	5,062.55	4,959.70	102.85	49.224		
2,800.00	2,795.53	2,748.53	2,795.53	12.51	94.26	-87.51	-1,637.44	-4,798.46	5,062.26	4,955.50	106.75	47.419		
2,900.00	2,895.32	2,848.32	2,895.32	12.94	97.74	-87.58	-1,637.44	-4,798.46	5,061.98	4,951.31	110.66	45.742		
3,000.00	2,995.10	2,948.10	2,995.10	13.37	101.23	-87.66	-1,637.44	-4,798.46	5,061.70	4,947.13	114.57	44.179		
3,100.00	3,094.89	3,047.89	3,094.89	13.80	104.71	-87.73	-1,637.44	-4,798.46	5,061.44	4,942.96	118.48	42.719		
3,200.00	3,194.67	3,147.67	3,194.67	14.23	108.19	-87.80	-1,637.44	-4,798.46	5,061.18	4,938.79	122.39	41.352		
3,300.00	3,294.46	3,247.46	3,294.46	14.66	111.67	-87.88	-1,637.44	-4,798.46	5,060.94	4,934.63	126.31	40.069		
3,400.00	3,394.24	3,347.24	3,394.24	15.09	115.15	-87.95	-1,637.44	-4,798.46	5,060.70	4,930.48	130.22	38.863		
3,500.00	3,494.03	3,447.03	3,494.03	15.52	118.64	-88.03	-1,637.44	-4,798.46	5,060.47	4,926.33	134.13	37.727		
3,600.00	3,593.81	3,546.81	3,593.81	15.96	122.12	-88.10	-1,637.44	-4,798.46	5,060.24	4,922.20	138.05	36.656		
3,700.00	3,693.60	3,646.60	3,693.60	16.39	125.60	-88.17	-1,637.44	-4,798.46	5,060.03	4,918.07	141.96	35.644		
3,800.00	3,793.38	3,746.38	3,793.38	16.82	129.08	-88.25	-1,637.44	-4,798.46	5,059.82	4,913.95	145.88	34.685		
3,900.00	3,893.17	3,846.17	3,893.17	17.26	132.57	-88.32	-1,637.44	-4,798.46	5,059.63	4,909.83	149.79	33.777		
4,000.00	3,992.95	3,945.95	3,992.95	17.69	136.05	-88.40	-1,637.44	-4,798.46	5,059.44	4,905.73	153.71	32.915		
4,100.00	4,092.74	4,045.74	4,092.74	18.13	139.53	-88.47	-1,637.44	-4,798.46	5,059.26	4,901.63	157.63	32.096		
4,200.00	4,192.52	4,145.52	4,192.52	18.56	143.01	-88.54	-1,637.44	-4,798.46	5,059.09	4,897.54	161.54	31.317		
4,300.00	4,292.31	4,245.31	4,292.31	19.00	146.50	-88.62	-1,637.44	-4,798.46	5,058.93	4,893.46	165.46	30.575		
4,400.00	4,392.09	4,345.09	4,392.09	19.43	149.98	-88.69	-1,637.44	-4,798.46	5,058.77	4,889.39	169.38	29.866		
4,500.00	4,491.88	4,444.88	4,491.88	19.87	153.46	-88.77	-1,637.44	-4,798.46	5,058.63	4,885.33	173.30	29.190		
4,600.00	4,591.66	4,544.66	4,591.66	20.31	156.94	-88.84	-1,637.44	-4,798.46	5,058.49	4,881.27	177.22	28.544		
4,700.00	4,691.44	4,644.44	4,691.44	20.74	160.43	-88.91	-1,637.44	-4,798.46	5,058.36	4,877.22	181.14	27.926		
4,800.00	4,791.23	4,744.23	4,791.23	21.18	163.91	-88.99	-1,637.44	-4,798.46	5,058.24	4,873.18	185.06	27.334		
4,900.00	4,891.01	4,844.01	4,891.01	21.62	167.39	-89.06	-1,637.44	-4,798.46	5,058.13	4,869.15	188.98	26.766		
5,000.00	4,990.80	4,943.80	4,990.80	22.06	170.87	-89.14	-1,637.44	-4,798.46	5,058.03	4,865.13	192.90	26.222		
5,100.00	5,090.58	5,043.58	5,090.58	22.50	174.36	-89.21	-1,637.44	-4,798.46	5,057.93	4,861.12	196.82	25.699		

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



Anticollision Report



Company:	SRC ENERGY	Local Co-ordinate Reference:	Well HARVESTERS STATE 31C-16-M
Project:	SECTION 15, T6N, R66W	TVD Reference:	KB @ 4821.00ft
Reference Site:	HARVESTERS STATE 7-15 PAD	MD Reference:	KB @ 4821.00ft
Site Error:	3.28 ft	North Reference:	True
Reference Well:	HARVESTERS STATE 31C-16-M	Survey Calculation Method:	Minimum Curvature
Well Error:	3.28 ft	Output errors are at	2.45 sigma
Reference Wellbore	OH	Database:	EDM 5000.14 Single User Db
Reference Design:	PLAN #1	Offset TVD Reference:	Reference Datum

Offset Design HARVESTERS STATE 7-15 PAD - BURMAN 16-42(PR_75CC) - OH - OH													Offset Site Error:	0.00 ft
Survey Program: 100-2" Cone@2.448 Sigma													Offset Well Error:	3.28 ft
Reference		Offset		Semi Major Axis			Distance						Warning	
Measured Depth (ft)	Vertical Depth (ft)	Measured Depth (ft)	Vertical Depth (ft)	Reference (ft)	Offset (ft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (ft)	+E/-W (ft)	Between Centres (ft)	Between Ellipses (ft)	Minimum Separation (ft)	Separation Factor		
5,200.00	5,190.37	5,143.37	5,190.37	22.93	177.84	-89.29	-1,637.44	-4,798.46	5,057.84	4,857.11	200.74	25.197		
5,300.00	5,290.15	5,243.15	5,290.15	23.37	181.32	-89.36	-1,637.44	-4,798.46	5,057.77	4,853.11	204.66	24.713		
5,400.00	5,389.94	5,342.94	5,389.94	23.81	184.81	-89.43	-1,637.44	-4,798.46	5,057.70	4,849.12	208.58	24.249		
5,500.00	5,489.72	5,442.72	5,489.72	24.25	188.29	-89.51	-1,637.44	-4,798.46	5,057.64	4,845.14	212.50	23.801		
5,600.00	5,589.51	5,542.51	5,589.51	24.69	191.77	-89.58	-1,637.44	-4,798.46	5,057.58	4,841.17	216.42	23.369		
5,700.00	5,689.29	5,642.29	5,689.29	25.13	195.25	-89.66	-1,637.44	-4,798.46	5,057.54	4,837.20	220.34	22.953		
5,800.00	5,789.08	5,742.08	5,789.08	25.56	198.74	-89.73	-1,637.44	-4,798.46	5,057.51	4,833.24	224.26	22.552		
5,900.00	5,888.86	5,841.86	5,888.86	26.00	202.22	-89.80	-1,637.44	-4,798.46	5,057.48	4,829.30	228.18	22.164		
6,000.00	5,988.65	5,941.65	5,988.65	26.44	205.70	-89.88	-1,637.44	-4,798.46	5,057.46	4,825.36	232.10	21.790		
6,100.00	6,088.43	6,041.43	6,088.43	26.88	209.19	-89.95	-1,637.44	-4,798.46	5,057.45	4,821.42	236.03	21.427		
6,164.19	6,152.48	6,105.48	6,152.48	27.16	211.42	-90.00	-1,637.44	-4,798.46	5,057.45	4,818.91	238.54	21.201		
6,200.00	6,188.22	6,141.22	6,188.22	27.32	212.67	-90.03	-1,637.44	-4,798.46	5,057.45	4,817.50	239.95	21.077		
6,300.00	6,288.00	6,241.00	6,288.00	27.76	216.15	-90.10	-1,637.44	-4,798.46	5,057.46	4,813.59	243.87	20.738		
6,400.00	6,387.79	6,340.79	6,387.79	28.20	219.64	-90.17	-1,637.44	-4,798.46	5,057.47	4,809.68	247.79	20.410		
6,500.00	6,487.57	6,440.57	6,487.57	28.64	223.12	-90.25	-1,637.44	-4,798.46	5,057.50	4,805.78	251.71	20.092		
6,600.00	6,587.35	6,540.35	6,587.35	29.08	226.60	-90.32	-1,637.44	-4,798.46	5,057.53	4,801.89	255.64	19.784		
6,700.00	6,687.02	6,640.02	6,687.02	29.52	230.08	-52.58	-1,637.44	-4,798.46	5,055.53	4,795.97	259.56	19.478		
6,800.00	6,784.98	6,737.98	6,784.98	29.96	233.50	-37.27	-1,637.44	-4,798.46	5,040.81	4,777.40	263.41	19.137		
6,900.00	6,878.81	6,831.81	6,878.81	30.41	236.78	-34.08	-1,637.44	-4,798.46	5,012.20	4,745.09	267.11	18.765		
7,000.00	6,966.21	6,919.21	6,966.21	30.86	239.83	-34.17	-1,637.44	-4,798.46	4,970.47	4,699.92	270.56	18.371		
7,100.00	7,045.03	7,001.97	7,045.03	31.35	242.72	-36.24	-1,637.44	-4,798.46	4,916.74	4,642.92	273.82	17.956		
7,200.00	7,113.32	7,066.32	7,113.32	31.90	244.96	-40.18	-1,637.44	-4,798.46	4,852.41	4,575.99	276.41	17.555		
7,300.00	7,169.40	7,122.40	7,169.40	32.57	246.92	-46.40	-1,637.44	-4,798.46	4,779.15	4,500.44	278.71	17.148		
7,400.00	7,211.89	7,164.89	7,211.89	33.38	248.40	-55.61	-1,637.44	-4,798.46	4,698.86	4,418.34	280.52	16.750		
7,500.00	7,239.75	7,207.25	7,239.75	34.35	249.88	-68.51	-1,637.44	-4,798.46	4,613.59	4,331.24	282.34	16.340		
7,600.00	7,252.28	7,205.28	7,252.28	35.47	249.81	-84.74	-1,637.44	-4,798.46	4,525.48	4,242.84	282.64	16.012		
7,700.00	7,252.75	7,205.75	7,252.75	36.73	249.83	-90.40	-1,637.44	-4,798.46	4,436.72	4,153.66	283.06	15.674		
7,800.00	7,252.38	7,205.38	7,252.38	38.16	249.82	-90.39	-1,637.44	-4,798.46	4,348.41	4,064.89	283.52	15.337		
7,900.00	7,252.02	7,205.02	7,252.02	39.74	249.80	-90.38	-1,637.44	-4,798.46	4,260.62	3,976.55	284.07	14.999		
8,000.00	7,251.65	7,204.65	7,251.65	41.47	249.79	-90.37	-1,637.44	-4,798.46	4,173.38	3,888.68	284.70	14.659		
8,100.00	7,251.29	7,204.29	7,251.29	43.31	249.78	-90.36	-1,637.44	-4,798.46	4,086.72	3,801.29	285.43	14.318		
8,200.00	7,250.92	7,203.92	7,250.92	45.26	249.77	-90.35	-1,637.44	-4,798.46	4,000.68	3,714.42	286.26	13.976		
8,300.00	7,250.55	7,203.55	7,250.55	47.30	249.75	-90.34	-1,637.44	-4,798.46	3,915.31	3,628.12	287.20	13.633		
8,400.00	7,250.19	7,203.19	7,250.19	49.42	249.74	-90.33	-1,637.44	-4,798.46	3,830.65	3,542.41	288.24	13.290		
8,500.00	7,249.82	7,202.82	7,249.82	51.62	249.73	-90.32	-1,637.44	-4,798.46	3,746.74	3,457.34	289.40	12.947		
8,600.00	7,249.45	7,202.45	7,249.45	53.88	249.71	-90.31	-1,637.44	-4,798.46	3,663.64	3,372.96	290.68	12.604		
8,700.00	7,249.09	7,202.09	7,249.09	56.19	249.70	-90.30	-1,637.44	-4,798.46	3,581.40	3,289.32	292.09	12.261		
8,800.00	7,248.72	7,201.72	7,248.72	58.55	249.69	-90.29	-1,637.44	-4,798.46	3,500.09	3,206.47	293.62	11.921		
8,900.00	7,248.36	7,201.36	7,248.36	60.96	249.68	-90.28	-1,637.44	-4,798.46	3,419.77	3,124.49	295.28	11.581		
9,000.00	7,247.99	7,200.99	7,247.99	63.40	249.66	-90.27	-1,637.44	-4,798.46	3,340.52	3,043.43	297.09	11.244		
9,100.00	7,247.62	7,200.62	7,247.62	65.87	249.65	-90.26	-1,637.44	-4,798.46	3,262.40	2,963.37	299.03	10.910		
9,200.00	7,247.26	7,200.26	7,247.26	68.38	249.64	-90.25	-1,637.44	-4,798.46	3,185.50	2,884.39	301.12	10.579		
9,300.00	7,246.89	7,200.11	7,246.89	70.91	249.63	-90.24	-1,637.44	-4,798.46	3,109.92	2,806.57	303.36	10.252		
9,400.00	7,246.53	7,200.48	7,246.53	73.47	249.65	-90.23	-1,637.44	-4,798.46	3,035.76	2,729.99	305.77	9.928		
9,500.00	7,246.16	7,200.84	7,246.16	76.05	249.66	-90.22	-1,637.44	-4,798.46	2,963.11	2,654.78	308.33	9.610		
9,600.00	7,245.79	7,201.21	7,245.79	78.65	249.67	-90.21	-1,637.44	-4,798.46	2,892.10	2,581.05	311.04	9.298		
9,700.00	7,245.43	7,201.57	7,245.43	81.27	249.68	-90.20	-1,637.44	-4,798.46	2,822.84	2,508.93	313.91	8.993		
9,800.00	7,245.06	7,201.94	7,245.06	83.90	249.70	-90.19	-1,637.44	-4,798.46	2,755.47	2,438.54	316.93	8.694		
9,900.00	7,244.69	7,202.31	7,244.69	86.55	249.71	-90.18	-1,637.44	-4,798.46	2,690.13	2,370.03	320.10	8.404		
10,000.00	7,244.33	7,202.67	7,244.33	89.21	249.72	-90.17	-1,637.44	-4,798.46	2,626.97	2,303.56	323.41	8.123		
10,100.00	7,243.96	7,203.04	7,243.96	91.88	249.73	-90.16	-1,637.44	-4,798.46	2,566.16	2,239.29	326.87	7.851		
10,200.00	7,243.60	7,203.40	7,243.60	94.56	249.75	-90.15	-1,637.44	-4,798.46	2,507.86	2,177.40	330.46	7.589		

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



Anticollision Report



Company:	SRC ENERGY	Local Co-ordinate Reference:	Well HARVESTERS STATE 31C-16-M
Project:	SECTION 15, T6N, R66W	TVD Reference:	KB @ 4821.00ft
Reference Site:	HARVESTERS STATE 7-15 PAD	MD Reference:	KB @ 4821.00ft
Site Error:	3.28 ft	North Reference:	True
Reference Well:	HARVESTERS STATE 31C-16-M	Survey Calculation Method:	Minimum Curvature
Well Error:	3.28 ft	Output errors are at	2.45 sigma
Reference Wellbore	OH	Database:	EDM 5000.14 Single User Db
Reference Design:	PLAN #1	Offset TVD Reference:	Reference Datum

Offset Design HARVESTERS STATE 7-15 PAD - BURMAN 16-42(PR_75CC) - OH - OH													Offset Site Error:	0.00 ft
Survey Program: 100-2" Cone@2.448 Sigma													Offset Well Error:	3.28 ft
Reference		Offset		Semi Major Axis			Distance							Warning
Measured Depth (ft)	Vertical Depth (ft)	Measured Depth (ft)	Vertical Depth (ft)	Reference (ft)	Offset (ft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (ft)	+E/-W (ft)	Between Centres (ft)	Between Ellipses (ft)	Minimum Separation (ft)	Separation Factor		
10,300.00	7,243.23	7,203.77	7,243.23	97.26	249.76	-90.14	-1,637.44	-4,798.46	2,452.26	2,118.09	334.17	7.338		
10,400.00	7,242.86	7,204.14	7,242.86	99.96	249.77	-90.13	-1,637.44	-4,798.46	2,399.53	2,061.54	337.99	7.099		
10,500.00	7,242.50	7,204.50	7,242.50	102.67	249.79	-90.11	-1,637.44	-4,798.46	2,349.88	2,007.98	341.90	6.873		
10,600.00	7,242.13	7,204.87	7,242.13	105.39	249.80	-90.10	-1,637.44	-4,798.46	2,303.51	1,957.62	345.88	6.660		
10,700.00	7,241.76	7,205.24	7,241.76	108.12	249.81	-90.09	-1,637.44	-4,798.46	2,260.60	1,910.69	349.91	6.461		
10,800.00	7,241.40	7,205.60	7,241.40	110.85	249.82	-90.08	-1,637.44	-4,798.46	2,221.38	1,867.42	353.96	6.276		
10,900.00	7,241.03	7,205.97	7,241.03	113.59	249.84	-90.07	-1,637.44	-4,798.46	2,186.03	1,828.03	357.99	6.106		
11,000.00	7,240.67	7,206.33	7,240.67	116.34	249.85	-90.06	-1,637.44	-4,798.46	2,154.74	1,792.76	361.98	5.953		
11,100.00	7,240.30	7,206.70	7,240.30	119.09	249.86	-90.05	-1,637.44	-4,798.46	2,127.70	1,761.81	365.88	5.815		
11,200.00	7,239.93	7,207.07	7,239.93	121.85	249.88	-90.04	-1,637.44	-4,798.46	2,105.06	1,735.40	369.67	5.694		
11,300.00	7,239.57	7,207.43	7,239.57	124.61	249.89	-90.03	-1,637.44	-4,798.46	2,086.98	1,713.69	373.29	5.591		
11,400.00	7,239.20	7,207.80	7,239.20	127.38	249.90	-90.02	-1,637.44	-4,798.46	2,073.56	1,696.85	376.72	5.504		
11,500.00	7,238.84	7,208.17	7,238.84	130.15	249.91	-90.01	-1,637.44	-4,798.46	2,064.91	1,685.00	379.91	5.435		
11,600.00	7,238.47	7,208.53	7,238.47	132.92	249.93	-90.00	-1,637.44	-4,798.46	2,061.08	1,678.23	382.85	5.384		
11,629.06	7,238.36	7,208.64	7,238.36	133.73	249.93	-90.00	-1,637.44	-4,798.46	2,060.87	1,677.23	383.65	5.372 CC		
11,700.00	7,238.10	7,208.90	7,238.10	135.70	249.94	-89.99	-1,637.44	-4,798.46	2,062.09	1,676.60	385.50	5.349 ES		
11,800.00	7,237.74	7,209.26	7,237.74	138.48	249.95	-89.98	-1,637.44	-4,798.46	2,067.95	1,680.11	387.84	5.332		
11,900.00	7,237.37	7,209.63	7,237.37	141.26	249.96	-89.97	-1,637.44	-4,798.46	2,078.61	1,688.74	389.87	5.332 SF		
12,000.00	7,237.00	7,210.00	7,237.00	144.05	249.98	-89.96	-1,637.44	-4,798.46	2,093.99	1,702.41	391.58	5.348		
12,100.00	7,236.64	7,189.64	7,236.64	146.84	249.27	-89.95	-1,637.44	-4,798.46	2,114.00	1,721.76	392.24	5.390		
12,200.00	7,236.27	7,189.27	7,236.27	149.64	249.25	-89.94	-1,637.44	-4,798.46	2,138.50	1,745.21	393.29	5.437		
12,300.00	7,235.91	7,188.91	7,235.91	152.43	249.24	-89.93	-1,637.44	-4,798.46	2,167.34	1,773.30	394.04	5.500		
12,400.00	7,235.54	7,188.54	7,235.54	155.23	249.23	-89.92	-1,637.44	-4,798.46	2,200.35	1,805.84	394.51	5.577		
12,500.00	7,235.17	7,188.17	7,235.17	158.03	249.22	-89.91	-1,637.44	-4,798.46	2,237.35	1,842.63	394.72	5.668		
12,600.00	7,234.81	7,187.81	7,234.81	160.83	249.20	-89.90	-1,637.44	-4,798.46	2,278.14	1,883.44	394.70	5.772		
12,700.00	7,234.44	7,187.44	7,234.44	163.64	249.19	-89.89	-1,637.44	-4,798.46	2,322.52	1,928.06	394.46	5.888		
12,800.00	7,234.07	7,187.07	7,234.07	166.44	249.18	-89.88	-1,637.44	-4,798.46	2,370.29	1,976.26	394.04	6.015		
12,900.00	7,233.71	7,186.71	7,233.71	169.25	249.16	-89.87	-1,637.44	-4,798.46	2,421.26	2,027.80	393.45	6.154		
13,000.00	7,233.34	7,186.34	7,233.34	172.06	249.15	-89.86	-1,637.44	-4,798.46	2,475.21	2,082.48	392.73	6.303		
13,100.00	7,232.98	7,185.98	7,232.98	174.88	249.14	-89.85	-1,637.44	-4,798.46	2,531.97	2,140.08	391.88	6.461		
13,200.00	7,232.61	7,185.61	7,232.61	177.69	249.13	-89.84	-1,637.44	-4,798.46	2,591.34	2,200.40	390.94	6.628		
13,300.00	7,232.24	7,185.24	7,232.24	180.50	249.11	-89.83	-1,637.44	-4,798.46	2,653.15	2,263.23	389.92	6.804		
13,400.00	7,231.88	7,184.88	7,231.88	183.32	249.10	-89.82	-1,637.44	-4,798.46	2,717.24	2,328.40	388.84	6.988		
13,500.00	7,231.51	7,184.51	7,231.51	186.14	249.09	-89.81	-1,637.44	-4,798.46	2,783.45	2,395.74	387.71	7.179		
13,600.00	7,231.15	7,184.15	7,231.15	188.96	249.08	-89.80	-1,637.44	-4,798.46	2,851.63	2,465.08	386.54	7.377		
13,700.00	7,230.78	7,183.78	7,230.78	191.78	249.06	-89.79	-1,637.44	-4,798.46	2,921.64	2,536.28	385.35	7.582		
13,800.00	7,230.41	7,183.41	7,230.41	194.60	249.05	-89.78	-1,637.44	-4,798.46	2,993.35	2,609.20	384.15	7.792		
13,900.00	7,230.05	7,183.05	7,230.05	197.42	249.04	-89.77	-1,637.44	-4,798.46	3,066.65	2,683.71	382.94	8.008		
14,000.00	7,229.68	7,182.68	7,229.68	200.25	249.02	-89.76	-1,637.44	-4,798.46	3,141.42	2,759.69	381.73	8.229		
14,100.00	7,229.31	7,182.31	7,229.31	203.07	249.01	-89.75	-1,637.44	-4,798.46	3,217.56	2,837.04	380.52	8.456		
14,200.00	7,228.95	7,181.95	7,228.95	205.90	249.00	-89.74	-1,637.44	-4,798.46	3,294.98	2,915.65	379.33	8.686		
14,300.00	7,228.58	7,181.58	7,228.58	208.73	248.99	-89.73	-1,637.44	-4,798.46	3,373.58	2,995.43	378.15	8.921		
14,400.00	7,228.22	7,181.22	7,228.22	211.55	248.97	-89.72	-1,637.44	-4,798.46	3,453.29	3,076.31	376.98	9.160		
14,500.00	7,227.85	7,180.85	7,227.85	214.38	248.96	-89.71	-1,637.44	-4,798.46	3,534.04	3,158.19	375.84	9.403		
14,600.00	7,227.48	7,180.48	7,227.48	217.21	248.95	-89.70	-1,637.44	-4,798.46	3,615.74	3,241.02	374.72	9.649		
14,700.00	7,227.12	7,180.12	7,227.12	220.04	248.93	-89.69	-1,637.44	-4,798.46	3,698.35	3,324.72	373.62	9.899		
14,800.00	7,226.75	7,179.75	7,226.75	222.88	248.92	-89.68	-1,637.44	-4,798.46	3,781.79	3,409.24	372.55	10.151		
14,900.00	7,226.38	7,179.38	7,226.38	225.71	248.91	-89.67	-1,637.44	-4,798.46	3,866.02	3,494.52	371.51	10.406		
15,000.00	7,226.02	7,179.02	7,226.02	228.54	248.90	-89.66	-1,637.44	-4,798.46	3,950.99	3,580.50	370.48	10.664		
15,005.81	7,226.00	7,179.00	7,226.00	228.71	248.90	-89.66	-1,637.44	-4,798.46	3,955.95	3,585.52	370.43	10.679		

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



Anticollision Report



Company:	SRC ENERGY	Local Co-ordinate Reference:	Well HARVESTERS STATE 31C-16-M
Project:	SECTION 15, T6N, R66W	TVD Reference:	KB @ 4821.00ft
Reference Site:	HARVESTERS STATE 7-15 PAD	MD Reference:	KB @ 4821.00ft
Site Error:	3.28 ft	North Reference:	True
Reference Well:	HARVESTERS STATE 31C-16-M	Survey Calculation Method:	Minimum Curvature
Well Error:	3.28 ft	Output errors are at	2.45 sigma
Reference Wellbore	OH	Database:	EDM 5000.14 Single User Db
Reference Design:	PLAN #1	Offset TVD Reference:	Reference Datum

Offset Design HARVESTERS STATE 7-15 PAD - BURMAN 16-43(PR_75CC) - OH - OH													Offset Site Error:	0.00 ft
Survey Program: 100-2" Cone@2.448 Sigma													Offset Well Error:	3.28 ft
Reference		Offset		Semi Major Axis			Distance							Warning
Measured Depth (ft)	Vertical Depth (ft)	Measured Depth (ft)	Vertical Depth (ft)	Reference (ft)	Offset (ft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (ft)	+E/-W (ft)	Between Centres (ft)	Between Ellipses (ft)	Minimum Separation (ft)	Separation Factor		
0.00	0.00	0.00	50.00	3.28	3.28	-123.15	-3,138.38	-4,804.32	5,738.76					
100.00	100.00	50.00	100.00	3.28	3.39	-123.15	-3,138.38	-4,804.32	5,738.54	5,731.87	6.68	859.211		
200.00	200.00	150.00	200.00	3.34	4.79	-123.15	-3,138.38	-4,804.32	5,738.54	5,730.42	8.13	706.093		
300.00	300.00	250.00	300.00	3.44	7.71	-123.15	-3,138.38	-4,804.32	5,738.54	5,727.39	11.16	514.254		
400.00	400.00	350.00	400.00	3.60	10.97	-123.15	-3,138.38	-4,804.32	5,738.54	5,723.97	14.58	393.645		
500.00	500.00	450.00	500.00	3.81	14.34	-123.15	-3,138.38	-4,804.32	5,738.54	5,720.39	18.15	316.172		
600.00	600.00	550.00	600.00	4.05	17.76	-123.15	-3,138.38	-4,804.32	5,738.54	5,716.74	21.81	263.154		
700.00	699.98	649.98	699.98	4.32	21.20	-100.27	-3,138.38	-4,804.32	5,738.86	5,713.34	25.52	224.897		
800.00	799.84	749.84	799.84	4.62	24.65	-100.30	-3,138.38	-4,804.32	5,739.79	5,710.52	29.26	196.141		
900.00	899.62	849.62	899.62	4.94	28.11	-100.37	-3,138.38	-4,804.32	5,740.96	5,707.93	33.04	173.771		
1,000.00	999.41	949.41	999.41	5.27	31.57	-100.43	-3,138.38	-4,804.32	5,742.15	5,705.32	36.84	155.886		
1,100.00	1,099.19	1,049.19	1,099.19	5.62	35.04	-100.49	-3,138.38	-4,804.32	5,743.34	5,702.69	40.65	141.279		
1,200.00	1,198.98	1,148.98	1,198.98	5.99	38.51	-100.56	-3,138.38	-4,804.32	5,744.54	5,700.06	44.48	129.135		
1,300.00	1,298.76	1,248.76	1,298.76	6.36	41.98	-100.62	-3,138.38	-4,804.32	5,745.75	5,697.42	48.33	118.887		
1,400.00	1,398.55	1,348.55	1,398.55	6.74	45.45	-100.69	-3,138.38	-4,804.32	5,746.97	5,694.78	52.18	110.128		
1,500.00	1,498.33	1,448.33	1,498.33	7.13	48.93	-100.75	-3,138.38	-4,804.32	5,748.19	5,692.14	56.05	102.559		
1,600.00	1,598.12	1,548.12	1,598.12	7.52	52.40	-100.82	-3,138.38	-4,804.32	5,749.42	5,689.50	59.92	95.955		
1,700.00	1,697.90	1,647.90	1,697.90	7.92	55.88	-100.88	-3,138.38	-4,804.32	5,750.66	5,686.86	63.79	90.143		
1,800.00	1,797.69	1,747.69	1,797.69	8.33	59.36	-100.94	-3,138.38	-4,804.32	5,751.90	5,684.22	67.68	84.992		
1,900.00	1,897.47	1,847.47	1,897.47	8.74	62.84	-101.01	-3,138.38	-4,804.32	5,753.15	5,681.59	71.56	80.394		
2,000.00	1,997.26	1,947.26	1,997.26	9.15	66.31	-101.07	-3,138.38	-4,804.32	5,754.41	5,678.96	75.45	76.266		
2,100.00	2,097.04	2,047.04	2,097.04	9.56	69.79	-101.14	-3,138.38	-4,804.32	5,755.67	5,676.33	79.34	72.540		
2,200.00	2,196.83	2,146.83	2,196.83	9.98	73.27	-101.20	-3,138.38	-4,804.32	5,756.95	5,673.71	83.24	69.160		
2,300.00	2,296.61	2,246.61	2,296.61	10.40	76.75	-101.26	-3,138.38	-4,804.32	5,758.23	5,671.09	87.14	66.081		
2,400.00	2,396.40	2,346.40	2,396.40	10.82	80.23	-101.33	-3,138.38	-4,804.32	5,759.51	5,668.47	91.04	63.264		
2,500.00	2,496.18	2,446.18	2,496.18	11.24	83.72	-101.39	-3,138.38	-4,804.32	5,760.81	5,665.87	94.94	60.677		
2,600.00	2,595.96	2,545.96	2,595.96	11.66	87.20	-101.45	-3,138.38	-4,804.32	5,762.11	5,663.26	98.85	58.293		
2,700.00	2,695.75	2,645.75	2,695.75	12.09	90.68	-101.52	-3,138.38	-4,804.32	5,763.42	5,660.67	102.75	56.090		
2,800.00	2,795.53	2,745.53	2,795.53	12.51	94.16	-101.58	-3,138.38	-4,804.32	5,764.73	5,658.07	106.66	54.048		
2,900.00	2,895.32	2,845.32	2,895.32	12.94	97.64	-101.65	-3,138.38	-4,804.32	5,766.06	5,655.49	110.57	52.149		
3,000.00	2,995.10	2,945.10	2,995.10	13.37	101.12	-101.71	-3,138.38	-4,804.32	5,767.39	5,652.91	114.48	50.380		
3,100.00	3,094.89	3,044.89	3,094.89	13.80	104.60	-101.77	-3,138.38	-4,804.32	5,768.72	5,650.33	118.39	48.727		
3,200.00	3,194.67	3,144.67	3,194.67	14.23	108.09	-101.84	-3,138.38	-4,804.32	5,770.07	5,647.77	122.30	47.179		
3,300.00	3,294.46	3,244.46	3,294.46	14.66	111.57	-101.90	-3,138.38	-4,804.32	5,771.42	5,645.21	126.21	45.727		
3,400.00	3,394.24	3,344.24	3,394.24	15.09	115.05	-101.96	-3,138.38	-4,804.32	5,772.78	5,642.65	130.13	44.363		
3,500.00	3,494.03	3,444.03	3,494.03	15.52	118.53	-102.03	-3,138.38	-4,804.32	5,774.14	5,640.10	134.04	43.078		
3,600.00	3,593.81	3,543.81	3,593.81	15.96	122.01	-102.09	-3,138.38	-4,804.32	5,775.52	5,637.56	137.96	41.865		
3,700.00	3,693.60	3,643.60	3,693.60	16.39	125.50	-102.15	-3,138.38	-4,804.32	5,776.90	5,635.03	141.87	40.719		
3,800.00	3,793.38	3,743.38	3,793.38	16.82	128.98	-102.22	-3,138.38	-4,804.32	5,778.28	5,632.50	145.79	39.635		
3,900.00	3,893.17	3,843.17	3,893.17	17.26	132.46	-102.28	-3,138.38	-4,804.32	5,779.68	5,629.98	149.70	38.608		
4,000.00	3,992.95	3,942.95	3,992.95	17.69	135.94	-102.34	-3,138.38	-4,804.32	5,781.08	5,627.46	153.62	37.632		
4,100.00	4,092.74	4,042.74	4,092.74	18.13	139.43	-102.41	-3,138.38	-4,804.32	5,782.49	5,624.95	157.54	36.706		
4,200.00	4,192.52	4,142.52	4,192.52	18.56	142.91	-102.47	-3,138.38	-4,804.32	5,783.90	5,622.45	161.46	35.824		
4,300.00	4,292.31	4,242.31	4,292.31	19.00	146.39	-102.53	-3,138.38	-4,804.32	5,785.33	5,619.95	165.37	34.983		
4,400.00	4,392.09	4,342.09	4,392.09	19.43	149.87	-102.60	-3,138.38	-4,804.32	5,786.76	5,617.46	169.29	34.182		
4,500.00	4,491.88	4,441.88	4,491.88	19.87	153.36	-102.66	-3,138.38	-4,804.32	5,788.19	5,614.98	173.21	33.417		
4,600.00	4,591.66	4,541.66	4,591.66	20.31	156.84	-102.72	-3,138.38	-4,804.32	5,789.64	5,612.51	177.13	32.686		
4,700.00	4,691.44	4,641.44	4,691.44	20.74	160.32	-102.79	-3,138.38	-4,804.32	5,791.09	5,610.04	181.05	31.986		
4,800.00	4,791.23	4,741.23	4,791.23	21.18	163.80	-102.85	-3,138.38	-4,804.32	5,792.54	5,607.58	184.97	31.316		
4,900.00	4,891.01	4,841.01	4,891.01	21.62	167.29	-102.91	-3,138.38	-4,804.32	5,794.01	5,605.12	188.89	30.674		
5,000.00	4,990.80	4,940.80	4,990.80	22.06	170.77	-102.98	-3,138.38	-4,804.32	5,795.48	5,602.67	192.81	30.058		
5,100.00	5,090.58	5,040.58	5,090.58	22.50	174.25	-103.04	-3,138.38	-4,804.32	5,796.96	5,600.23	196.73	29.467		

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



Anticollision Report



Company:	SRC ENERGY	Local Co-ordinate Reference:	Well HARVESTERS STATE 31C-16-M
Project:	SECTION 15, T6N, R66W	TVD Reference:	KB @ 4821.00ft
Reference Site:	HARVESTERS STATE 7-15 PAD	MD Reference:	KB @ 4821.00ft
Site Error:	3.28 ft	North Reference:	True
Reference Well:	HARVESTERS STATE 31C-16-M	Survey Calculation Method:	Minimum Curvature
Well Error:	3.28 ft	Output errors are at	2.45 sigma
Reference Wellbore	OH	Database:	EDM 5000.14 Single User Db
Reference Design:	PLAN #1	Offset TVD Reference:	Reference Datum

Offset Design HARVESTERS STATE 7-15 PAD - BURMAN 16-43(PR_75CC) - OH - OH													Offset Site Error:	0.00 ft
Survey Program: 100-2" Cone@2.448 Sigma													Offset Well Error:	3.28 ft
Reference		Offset		Semi Major Axis			Distance							Warning
Measured Depth (ft)	Vertical Depth (ft)	Measured Depth (ft)	Vertical Depth (ft)	Reference (ft)	Offset (ft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (ft)	+E/-W (ft)	Between Centres (ft)	Between Ellipses (ft)	Minimum Separation (ft)	Separation Factor		
5,200.00	5,190.37	5,140.37	5,190.37	22.93	177.74	-103.10	-3,138.38	-4,804.32	5,798.45	5,597.80	200.65	28.898		
5,300.00	5,290.15	5,240.15	5,290.15	23.37	181.22	-103.17	-3,138.38	-4,804.32	5,799.94	5,595.37	204.57	28.352		
5,400.00	5,389.94	5,339.94	5,389.94	23.81	184.70	-103.23	-3,138.38	-4,804.32	5,801.44	5,592.95	208.49	27.826		
5,500.00	5,489.72	5,439.72	5,489.72	24.25	188.18	-103.29	-3,138.38	-4,804.32	5,802.95	5,590.53	212.41	27.319		
5,600.00	5,589.51	5,539.51	5,589.51	24.69	191.67	-103.35	-3,138.38	-4,804.32	5,804.46	5,588.13	216.33	26.831		
5,700.00	5,689.29	5,639.29	5,689.29	25.13	195.15	-103.42	-3,138.38	-4,804.32	5,805.98	5,585.73	220.26	26.360		
5,800.00	5,789.08	5,739.08	5,789.08	25.56	198.63	-103.48	-3,138.38	-4,804.32	5,807.51	5,583.33	224.18	25.906		
5,900.00	5,888.86	5,838.86	5,888.86	26.00	202.12	-103.54	-3,138.38	-4,804.32	5,809.05	5,580.95	228.10	25.467		
6,000.00	5,988.65	5,938.65	5,988.65	26.44	205.60	-103.61	-3,138.38	-4,804.32	5,810.59	5,578.57	232.02	25.043		
6,100.00	6,088.43	6,038.43	6,088.43	26.88	209.08	-103.67	-3,138.38	-4,804.32	5,812.14	5,576.19	235.94	24.634		
6,200.00	6,188.22	6,138.22	6,188.22	27.32	212.57	-103.73	-3,138.38	-4,804.32	5,813.69	5,573.83	239.87	24.237		
6,300.00	6,288.00	6,238.00	6,288.00	27.76	216.05	-103.79	-3,138.38	-4,804.32	5,815.26	5,571.47	243.79	23.854		
6,400.00	6,387.79	6,337.79	6,387.79	28.20	219.53	-103.86	-3,138.38	-4,804.32	5,816.83	5,569.12	247.71	23.482		
6,500.00	6,487.57	6,437.57	6,487.57	28.64	223.01	-103.92	-3,138.38	-4,804.32	5,818.40	5,566.77	251.63	23.122		
6,600.00	6,587.35	6,537.35	6,587.35	29.08	226.50	-103.98	-3,138.38	-4,804.32	5,819.99	5,564.43	255.56	22.774		
6,700.00	6,687.02	6,637.02	6,687.02	29.52	229.98	-66.21	-3,138.38	-4,804.32	5,819.81	5,560.33	259.48	22.429		
6,800.00	6,784.98	6,734.98	6,784.98	29.96	233.40	-50.99	-3,138.38	-4,804.32	5,808.56	5,545.23	263.33	22.058		
6,900.00	6,878.81	6,828.81	6,878.81	30.41	236.67	-48.04	-3,138.38	-4,804.32	5,785.24	5,518.20	267.04	21.665		
7,000.00	6,966.21	6,916.21	6,966.21	30.86	239.72	-48.48	-3,138.38	-4,804.32	5,750.53	5,480.02	270.51	21.258		
7,100.00	7,045.03	7,004.97	7,045.03	31.35	242.82	-50.91	-3,138.38	-4,804.32	5,705.43	5,431.42	274.02	20.821		
7,200.00	7,113.32	7,063.32	7,113.32	31.90	244.86	-55.01	-3,138.38	-4,804.32	5,651.22	5,374.75	276.47	20.440		
7,300.00	7,169.40	7,119.40	7,169.40	32.57	246.81	-60.78	-3,138.38	-4,804.32	5,589.40	5,310.52	278.87	20.043		
7,400.00	7,211.89	7,161.89	7,211.89	33.38	248.30	-68.21	-3,138.38	-4,804.32	5,521.65	5,240.80	280.85	19.660		
7,500.00	7,239.75	7,189.75	7,239.75	34.35	249.27	-77.10	-3,138.38	-4,804.32	5,449.78	5,167.40	282.39	19.299		
7,600.00	7,252.28	7,202.28	7,252.28	35.47	249.71	-86.95	-3,138.38	-4,804.32	5,375.67	5,092.20	283.46	18.964		
7,700.00	7,252.75	7,202.75	7,252.75	36.73	249.72	-90.23	-3,138.38	-4,804.32	5,301.22	5,017.02	284.20	18.653		
7,800.00	7,252.38	7,202.38	7,252.38	38.16	249.71	-90.23	-3,138.38	-4,804.32	5,227.59	4,942.55	285.04	18.340		
7,900.00	7,252.02	7,202.02	7,252.02	39.74	249.70	-90.22	-3,138.38	-4,804.32	5,154.85	4,868.85	286.00	18.024		
8,000.00	7,251.65	7,201.65	7,251.65	41.47	249.69	-90.21	-3,138.38	-4,804.32	5,083.03	4,795.93	287.09	17.705		
8,100.00	7,251.29	7,201.29	7,251.29	43.31	249.67	-90.21	-3,138.38	-4,804.32	5,012.17	4,723.86	288.32	17.384		
8,200.00	7,250.92	7,200.92	7,250.92	45.26	249.66	-90.20	-3,138.38	-4,804.32	4,942.33	4,652.66	289.67	17.062		
8,300.00	7,250.55	7,200.55	7,250.55	47.30	249.65	-90.20	-3,138.38	-4,804.32	4,873.54	4,582.39	291.14	16.739		
8,400.00	7,250.19	7,200.19	7,250.19	49.42	249.64	-90.19	-3,138.38	-4,804.32	4,805.84	4,513.09	292.74	16.417		
8,500.00	7,249.82	7,200.18	7,249.82	51.62	249.63	-90.18	-3,138.38	-4,804.32	4,739.28	4,444.81	294.48	16.094		
8,600.00	7,249.45	7,200.55	7,249.45	53.88	249.65	-90.18	-3,138.38	-4,804.32	4,673.92	4,377.58	296.34	15.772		
8,700.00	7,249.09	7,200.91	7,249.09	56.19	249.66	-90.17	-3,138.38	-4,804.32	4,609.80	4,311.48	298.32	15.453		
8,800.00	7,248.72	7,201.28	7,248.72	58.55	249.67	-90.17	-3,138.38	-4,804.32	4,546.98	4,246.57	300.41	15.136		
8,900.00	7,248.36	7,201.64	7,248.36	60.96	249.69	-90.16	-3,138.38	-4,804.32	4,485.50	4,182.90	302.60	14.823		
9,000.00	7,247.99	7,202.01	7,247.99	63.40	249.70	-90.15	-3,138.38	-4,804.32	4,425.43	4,120.53	304.91	14.514		
9,100.00	7,247.62	7,202.38	7,247.62	65.87	249.71	-90.15	-3,138.38	-4,804.32	4,366.83	4,059.52	307.31	14.210		
9,200.00	7,247.26	7,202.74	7,247.26	68.38	249.72	-90.14	-3,138.38	-4,804.32	4,309.74	3,999.94	309.80	13.911		
9,300.00	7,246.89	7,203.11	7,246.89	70.91	249.74	-90.14	-3,138.38	-4,804.32	4,254.25	3,941.86	312.39	13.618		
9,400.00	7,246.53	7,203.48	7,246.53	73.47	249.75	-90.13	-3,138.38	-4,804.32	4,200.40	3,885.33	315.07	13.332		
9,500.00	7,246.16	7,203.84	7,246.16	76.05	249.76	-90.13	-3,138.38	-4,804.32	4,148.26	3,830.43	317.83	13.052		
9,600.00	7,245.79	7,204.21	7,245.79	78.65	249.78	-90.12	-3,138.38	-4,804.32	4,097.90	3,777.24	320.67	12.779		
9,700.00	7,245.43	7,204.57	7,245.43	81.27	249.79	-90.11	-3,138.38	-4,804.32	4,049.39	3,725.81	323.58	12.514		
9,800.00	7,245.06	7,204.94	7,245.06	83.90	249.80	-90.11	-3,138.38	-4,804.32	4,002.78	3,676.22	326.56	12.258		
9,900.00	7,244.69	7,205.31	7,244.69	86.55	249.81	-90.10	-3,138.38	-4,804.32	3,958.15	3,628.56	329.59	12.009		
10,000.00	7,244.33	7,205.67	7,244.33	89.21	249.83	-90.10	-3,138.38	-4,804.32	3,915.57	3,582.88	332.69	11.769		
10,100.00	7,243.96	7,206.04	7,243.96	91.88	249.84	-90.09	-3,138.38	-4,804.32	3,875.10	3,539.27	335.83	11.539		
10,200.00	7,243.60	7,206.40	7,243.60	94.56	249.85	-90.08	-3,138.38	-4,804.32	3,836.81	3,497.80	339.01	11.318		
10,300.00	7,243.23	7,206.77	7,243.23	97.26	249.86	-90.08	-3,138.38	-4,804.32	3,800.77	3,458.54	342.23	11.106		

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



Anticollision Report



Company:	SRC ENERGY	Local Co-ordinate Reference:	Well HARVESTERS STATE 31C-16-M
Project:	SECTION 15, T6N, R66W	TVD Reference:	KB @ 4821.00ft
Reference Site:	HARVESTERS STATE 7-15 PAD	MD Reference:	KB @ 4821.00ft
Site Error:	3.28 ft	North Reference:	True
Reference Well:	HARVESTERS STATE 31C-16-M	Survey Calculation Method:	Minimum Curvature
Well Error:	3.28 ft	Output errors are at	2.45 sigma
Reference Wellbore	OH	Database:	EDM 5000.14 Single User Db
Reference Design:	PLAN #1	Offset TVD Reference:	Reference Datum

Offset Design HARVESTERS STATE 7-15 PAD - BURMAN 16-43(PR_75CC) - OH - OH													Offset Site Error:	0.00 ft
Survey Program: 100-2" Cone@2.448 Sigma													Offset Well Error:	3.28 ft
Reference		Offset		Semi Major Axis			Distance							Warning
Measured Depth (ft)	Vertical Depth (ft)	Measured Depth (ft)	Vertical Depth (ft)	Reference (ft)	Offset (ft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (ft)	+E/-W (ft)	Between Centres (ft)	Between Ellipses (ft)	Minimum Separation (ft)	Separation Factor		
10,400.00	7,242.86	7,207.14	7,242.86	99.96	249.88	-90.07	-3,138.38	-4,804.32	3,767.04	3,421.57	345.47	10.904		
10,500.00	7,242.50	7,207.50	7,242.50	102.67	249.89	-90.07	-3,138.38	-4,804.32	3,735.68	3,386.95	348.73	10.712		
10,600.00	7,242.13	7,207.87	7,242.13	105.39	249.90	-90.06	-3,138.38	-4,804.32	3,706.75	3,354.76	351.99	10.531		
10,700.00	7,241.76	7,208.24	7,241.76	108.12	249.92	-90.05	-3,138.38	-4,804.32	3,680.32	3,325.06	355.26	10.360		
10,800.00	7,241.40	7,208.60	7,241.40	110.85	249.93	-90.05	-3,138.38	-4,804.32	3,656.43	3,297.92	358.51	10.199		
10,900.00	7,241.03	7,208.97	7,241.03	113.59	249.94	-90.04	-3,138.38	-4,804.32	3,635.13	3,273.39	361.74	10.049		
11,000.00	7,240.67	7,209.33	7,240.67	116.34	249.95	-90.04	-3,138.38	-4,804.32	3,616.48	3,251.54	364.94	9.910		
11,100.00	7,240.30	7,209.70	7,240.30	119.09	249.97	-90.03	-3,138.38	-4,804.32	3,600.51	3,232.41	368.10	9.781		
11,200.00	7,239.93	7,189.93	7,239.93	121.85	249.28	-90.03	-3,138.38	-4,804.32	3,587.25	3,216.75	370.50	9.682		
11,300.00	7,239.57	7,189.57	7,239.57	124.61	249.26	-90.02	-3,138.38	-4,804.32	3,576.74	3,203.22	373.53	9.576		
11,400.00	7,239.20	7,189.20	7,239.20	127.38	249.25	-90.01	-3,138.38	-4,804.32	3,569.01	3,192.53	376.48	9.480		
11,500.00	7,238.84	7,188.84	7,238.84	130.15	249.24	-90.01	-3,138.38	-4,804.32	3,564.06	3,184.70	379.36	9.395		
11,600.00	7,238.47	7,188.47	7,238.47	132.92	249.23	-90.00	-3,138.38	-4,804.32	3,561.92	3,179.77	382.14	9.321		
11,626.40	7,238.37	7,188.37	7,238.37	133.65	249.22	-90.00	-3,138.38	-4,804.32	3,561.82	3,178.95	382.87	9.303 CC		
11,700.00	7,238.10	7,188.10	7,238.10	135.70	249.21	-90.00	-3,138.38	-4,804.32	3,562.58	3,177.74	384.84	9.257 ES		
11,800.00	7,237.74	7,187.74	7,237.74	138.48	249.20	-89.99	-3,138.38	-4,804.32	3,566.05	3,178.61	387.44	9.204		
11,900.00	7,237.37	7,187.37	7,237.37	141.26	249.19	-89.98	-3,138.38	-4,804.32	3,572.31	3,182.38	389.93	9.161		
12,000.00	7,237.00	7,187.00	7,237.00	144.05	249.17	-89.98	-3,138.38	-4,804.32	3,581.36	3,189.05	392.30	9.129		
12,100.00	7,236.64	7,186.64	7,236.64	146.84	249.16	-89.97	-3,138.38	-4,804.32	3,593.16	3,198.60	394.57	9.107		
12,200.00	7,236.27	7,186.27	7,236.27	149.64	249.15	-89.97	-3,138.38	-4,804.32	3,607.71	3,211.00	396.71	9.094		
12,300.00	7,235.91	7,185.91	7,235.91	152.43	249.14	-89.96	-3,138.38	-4,804.32	3,624.95	3,226.22	398.73	9.091 SF		
12,400.00	7,235.54	7,185.54	7,235.54	155.23	249.12	-89.95	-3,138.38	-4,804.32	3,644.86	3,244.23	400.63	9.098		
12,500.00	7,235.17	7,185.17	7,235.17	158.03	249.11	-89.95	-3,138.38	-4,804.32	3,667.38	3,264.98	402.40	9.114		
12,600.00	7,234.81	7,184.81	7,234.81	160.83	249.10	-89.94	-3,138.38	-4,804.32	3,692.48	3,288.43	404.05	9.139		
12,700.00	7,234.44	7,184.44	7,234.44	163.64	249.09	-89.94	-3,138.38	-4,804.32	3,720.10	3,314.52	405.58	9.172		
12,800.00	7,234.07	7,184.07	7,234.07	166.44	249.07	-89.93	-3,138.38	-4,804.32	3,750.18	3,343.19	406.99	9.214		
12,900.00	7,233.71	7,183.71	7,233.71	169.25	249.06	-89.92	-3,138.38	-4,804.32	3,782.67	3,374.39	408.28	9.265		
13,000.00	7,233.34	7,183.34	7,233.34	172.06	249.05	-89.92	-3,138.38	-4,804.32	3,817.50	3,408.04	409.45	9.323		
13,100.00	7,232.98	7,182.98	7,232.98	174.88	249.03	-89.91	-3,138.38	-4,804.32	3,854.61	3,444.09	410.51	9.390		
13,200.00	7,232.61	7,182.61	7,232.61	177.69	249.02	-89.91	-3,138.38	-4,804.32	3,893.93	3,482.47	411.47	9.464		
13,300.00	7,232.24	7,182.24	7,232.24	180.50	249.01	-89.90	-3,138.38	-4,804.32	3,935.41	3,523.09	412.32	9.545		
13,400.00	7,231.88	7,181.88	7,231.88	183.32	249.00	-89.90	-3,138.38	-4,804.32	3,978.96	3,565.90	413.07	9.633		
13,500.00	7,231.51	7,181.51	7,231.51	186.14	248.98	-89.89	-3,138.38	-4,804.32	4,024.53	3,610.81	413.72	9.728		
13,600.00	7,231.15	7,181.15	7,231.15	188.96	248.97	-89.88	-3,138.38	-4,804.32	4,072.05	3,657.76	414.28	9.829		
13,700.00	7,230.78	7,180.78	7,230.78	191.78	248.96	-89.88	-3,138.38	-4,804.32	4,121.44	3,706.68	414.76	9.937		
13,800.00	7,230.41	7,180.41	7,230.41	194.60	248.94	-89.87	-3,138.38	-4,804.32	4,172.65	3,757.49	415.16	10.051		
13,900.00	7,230.05	7,180.05	7,230.05	197.42	248.93	-89.87	-3,138.38	-4,804.32	4,225.60	3,810.12	415.49	10.170		
14,000.00	7,229.68	7,179.68	7,229.68	200.25	248.92	-89.86	-3,138.38	-4,804.32	4,280.24	3,864.50	415.74	10.295		
14,100.00	7,229.31	7,179.31	7,229.31	203.07	248.91	-89.85	-3,138.38	-4,804.32	4,336.49	3,920.56	415.93	10.426		
14,200.00	7,228.95	7,178.95	7,228.95	205.90	248.89	-89.85	-3,138.38	-4,804.32	4,394.30	3,978.24	416.05	10.562		
14,300.00	7,228.58	7,178.58	7,228.58	208.73	248.88	-89.84	-3,138.38	-4,804.32	4,453.60	4,037.48	416.12	10.703		
14,400.00	7,228.22	7,178.22	7,228.22	211.55	248.87	-89.84	-3,138.38	-4,804.32	4,514.34	4,098.20	416.14	10.848		
14,500.00	7,227.85	7,177.85	7,227.85	214.38	248.86	-89.83	-3,138.38	-4,804.32	4,576.46	4,160.35	416.11	10.998		
14,600.00	7,227.48	7,177.48	7,227.48	217.21	248.84	-89.82	-3,138.38	-4,804.32	4,639.90	4,223.87	416.04	11.153		
14,700.00	7,227.12	7,177.12	7,227.12	220.04	248.83	-89.82	-3,138.38	-4,804.32	4,704.62	4,288.70	415.92	11.311		
14,800.00	7,226.75	7,176.75	7,226.75	222.88	248.82	-89.81	-3,138.38	-4,804.32	4,770.55	4,354.78	415.77	11.474		
14,900.00	7,226.38	7,176.38	7,226.38	225.71	248.80	-89.81	-3,138.38	-4,804.32	4,837.65	4,422.07	415.58	11.641		
15,000.00	7,226.02	7,176.02	7,226.02	228.54	248.79	-89.80	-3,138.38	-4,804.32	4,905.87	4,490.51	415.36	11.811		
15,005.81	7,226.00	7,176.00	7,226.00	228.71	248.79	-89.80	-3,138.38	-4,804.32	4,909.86	4,494.52	415.35	11.821		

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



Anticollision Report



Company:	SRC ENERGY	Local Co-ordinate Reference:	Well HARVESTERS STATE 31C-16-M
Project:	SECTION 15, T6N, R66W	TVD Reference:	KB @ 4821.00ft
Reference Site:	HARVESTERS STATE 7-15 PAD	MD Reference:	KB @ 4821.00ft
Site Error:	3.28 ft	North Reference:	True
Reference Well:	HARVESTERS STATE 31C-16-M	Survey Calculation Method:	Minimum Curvature
Well Error:	3.28 ft	Output errors are at	2.45 sigma
Reference Wellbore	OH	Database:	EDM 5000.14 Single User Db
Reference Design:	PLAN #1	Offset TVD Reference:	Reference Datum

Offset Design HARVESTERS STATE 7-15 PAD - DONN 30N 20A-L(SRC PLAN_75CC) - OH - SRC PLAN													Offset Site Error:	0.00 ft
Survey Program: 25-MWD													Offset Well Error:	3.28 ft
Reference		Offset		Semi Major Axis			Distance							Warning
Measured Depth (ft)	Vertical Depth (ft)	Measured Depth (ft)	Vertical Depth (ft)	Reference (ft)	Offset (ft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (ft)	+E/-W (ft)	Between Centres (ft)	Between Ellipses (ft)	Minimum Separation (ft)	Separation Factor		
0.00	0.00	25.00	68.00	3.28	3.28	-142.82	-4,309.49	-3,268.96	5,409.48					
100.00	100.00	929.79	957.74	3.28	5.27	-143.02	-4,259.21	-3,207.60	5,400.49	5,391.92	8.56	630.699		
200.00	200.00	1,031.14	1,055.08	3.34	5.70	-143.06	-4,248.99	-3,195.13	5,384.60	5,375.64	8.97	600.489		
300.00	300.00	1,132.48	1,152.41	3.44	6.16	-143.10	-4,238.78	-3,182.67	5,368.73	5,359.29	9.44	568.716		
400.00	400.00	1,216.18	1,249.74	3.60	6.54	-143.14	-4,228.56	-3,170.21	5,352.85	5,342.94	9.91	540.364		
500.00	500.00	1,314.84	1,347.07	3.81	7.01	-143.18	-4,218.35	-3,157.74	5,336.98	5,326.49	10.48	509.135		
600.00	600.00	1,413.49	1,444.40	4.05	7.49	-143.22	-4,208.13	-3,145.28	5,321.11	5,310.00	11.11	479.158		
700.00	699.98	1,512.21	1,541.79	4.32	7.98	-120.65	-4,197.91	-3,132.81	5,306.11	5,294.35	11.76	451.014		
800.00	799.84	1,610.97	1,639.23	4.62	8.47	-120.94	-4,187.69	-3,120.33	5,292.88	5,280.42	12.46	424.937		
900.00	899.62	1,709.72	1,736.65	4.94	8.97	-121.04	-4,177.46	-3,107.85	5,280.35	5,267.16	13.18	400.604		
1,000.00	999.41	1,808.47	1,834.07	5.27	9.47	-121.15	-4,167.24	-3,095.38	5,267.83	5,253.90	13.93	378.170		
1,100.00	1,099.19	1,907.21	1,931.49	5.62	9.98	-121.25	-4,157.01	-3,082.90	5,255.33	5,240.64	14.70	357.546		
1,200.00	1,198.98	2,005.96	2,028.91	5.99	10.49	-121.36	-4,146.79	-3,070.43	5,242.85	5,227.37	15.48	338.611		
1,300.00	1,298.76	2,104.71	2,126.33	6.36	11.00	-121.47	-4,136.57	-3,057.95	5,230.39	5,214.11	16.28	321.231		
1,400.00	1,398.55	2,203.46	2,223.76	6.74	11.52	-121.57	-4,126.34	-3,045.48	5,217.95	5,200.86	17.09	305.267		
1,500.00	1,498.33	2,302.20	2,321.18	7.13	12.04	-121.68	-4,116.12	-3,033.00	5,205.52	5,187.61	17.91	290.586		
1,600.00	1,598.12	2,400.95	2,418.60	7.52	12.56	-121.79	-4,105.89	-3,020.53	5,193.12	5,174.37	18.74	277.065		
1,700.00	1,697.90	2,500.30	2,516.02	7.92	13.09	-121.90	-4,095.67	-3,008.05	5,180.73	5,161.14	19.58	264.553		
1,800.00	1,797.69	2,601.55	2,613.44	8.33	13.63	-122.00	-4,085.45	-2,995.57	5,168.36	5,147.92	20.44	252.884		
1,900.00	1,897.47	2,697.20	2,710.86	8.74	14.13	-122.11	-4,075.22	-2,983.10	5,156.00	5,134.73	21.27	242.376		
2,000.00	1,997.26	2,795.94	2,808.28	9.15	14.66	-122.22	-4,065.00	-2,970.62	5,143.67	5,121.54	22.13	232.462		
2,100.00	2,097.04	2,894.69	2,905.71	9.56	15.19	-122.33	-4,054.77	-2,958.15	5,131.36	5,108.37	22.99	223.243		
2,200.00	2,196.83	2,993.44	3,003.13	9.98	15.72	-122.44	-4,044.55	-2,945.67	5,119.06	5,095.21	23.85	214.653		
2,300.00	2,296.61	3,092.19	3,100.55	10.40	16.25	-122.56	-4,034.33	-2,933.20	5,106.78	5,082.07	24.71	206.634		
2,400.00	2,396.40	3,190.93	3,197.97	10.82	16.78	-122.67	-4,024.10	-2,920.72	5,094.53	5,068.94	25.58	199.133		
2,500.00	2,496.18	3,289.68	3,295.39	11.24	17.31	-122.78	-4,013.88	-2,908.25	5,082.29	5,055.83	26.46	192.106		
2,600.00	2,595.96	3,388.43	3,392.81	11.66	17.84	-122.89	-4,003.65	-2,895.77	5,070.07	5,042.74	27.33	185.510		
2,700.00	2,695.75	3,487.18	3,490.23	12.09	18.38	-123.01	-3,993.43	-2,883.29	5,057.87	5,029.67	28.21	179.308		
2,800.00	2,795.53	3,585.92	3,587.66	12.51	18.91	-123.12	-3,983.21	-2,870.82	5,045.69	5,016.61	29.09	173.468		
2,900.00	2,895.32	3,684.67	3,685.08	12.94	19.44	-123.24	-3,972.98	-2,858.34	5,033.54	5,003.57	29.97	167.960		
3,000.00	2,995.10	3,783.42	3,782.50	13.37	19.98	-123.35	-3,962.76	-2,845.87	5,021.40	4,990.55	30.85	162.758		
3,100.00	3,094.89	3,882.17	3,879.92	13.80	20.51	-123.47	-3,952.53	-2,833.39	5,009.28	4,977.54	31.74	157.838		
3,200.00	3,194.67	3,980.91	3,977.34	14.23	21.05	-123.58	-3,942.31	-2,820.92	4,997.18	4,964.56	32.62	153.177		
3,300.00	3,294.46	4,079.66	4,074.76	14.66	21.58	-123.70	-3,932.09	-2,808.44	4,985.10	4,951.59	33.51	148.757		
3,400.00	3,394.24	4,178.41	4,172.18	15.09	22.12	-123.82	-3,921.86	-2,795.97	4,973.05	4,938.65	34.40	144.560		
3,500.00	3,494.03	4,277.16	4,269.61	15.52	22.66	-123.93	-3,911.64	-2,783.49	4,961.01	4,925.72	35.29	140.569		
3,600.00	3,593.81	4,375.91	4,367.03	15.96	23.19	-124.05	-3,901.41	-2,771.01	4,949.00	4,912.81	36.18	136.771		
3,700.00	3,693.60	4,474.65	4,464.45	16.39	23.73	-124.17	-3,891.19	-2,758.54	4,937.00	4,899.93	37.08	133.152		
3,800.00	3,793.38	4,573.40	4,561.87	16.82	24.27	-124.29	-3,880.97	-2,746.06	4,925.03	4,887.06	37.97	129.700		
3,900.00	3,893.17	4,672.15	4,659.29	17.26	24.80	-124.41	-3,870.74	-2,733.59	4,913.08	4,874.21	38.87	126.404		
4,000.00	3,992.95	4,770.90	4,756.71	17.69	25.34	-124.53	-3,860.52	-2,721.11	4,901.15	4,861.39	39.76	123.254		
4,100.00	4,092.74	4,869.64	4,854.13	18.13	25.88	-124.65	-3,850.29	-2,708.64	4,889.25	4,848.58	40.66	120.241		
4,200.00	4,192.52	4,968.39	4,951.56	18.56	26.42	-124.78	-3,840.07	-2,696.16	4,877.36	4,835.80	41.56	117.355		
4,300.00	4,292.31	5,067.14	5,048.98	19.00	26.96	-124.90	-3,829.85	-2,683.69	4,865.50	4,823.04	42.46	114.590		
4,400.00	4,392.09	5,165.89	5,146.40	19.43	27.49	-125.02	-3,819.62	-2,671.21	4,853.66	4,810.30	43.36	111.937		
4,500.00	4,491.88	5,264.63	5,243.82	19.87	28.03	-125.14	-3,809.40	-2,658.73	4,841.84	4,797.58	44.26	109.391		
4,600.00	4,591.66	5,363.38	5,341.24	20.31	28.57	-125.27	-3,799.17	-2,646.26	4,830.04	4,784.88	45.16	106.945		
4,700.00	4,691.44	5,462.13	5,438.66	20.74	29.11	-125.39	-3,788.95	-2,633.78	4,818.27	4,772.20	46.07	104.594		
4,800.00	4,791.23	5,560.88	5,536.08	21.18	29.65	-125.52	-3,778.73	-2,621.31	4,806.52	4,759.55	46.97	102.332		
4,900.00	4,891.01	5,659.63	5,633.51	21.62	30.19	-125.65	-3,768.50	-2,608.83	4,794.79	4,746.92	47.87	100.154		
5,000.00	4,990.80	5,758.37	5,730.93	22.06	30.73	-125.77	-3,758.28	-2,596.36	4,783.09	4,734.31	48.78	98.055		
5,100.00	5,090.58	5,857.12	5,828.35	22.50	31.27	-125.90	-3,748.05	-2,583.88	4,771.41	4,721.72	49.69	96.033		

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



Anticollision Report



Company:	SRC ENERGY	Local Co-ordinate Reference:	Well HARVESTERS STATE 31C-16-M
Project:	SECTION 15, T6N, R66W	TVD Reference:	KB @ 4821.00ft
Reference Site:	HARVESTERS STATE 7-15 PAD	MD Reference:	KB @ 4821.00ft
Site Error:	3.28 ft	North Reference:	True
Reference Well:	HARVESTERS STATE 31C-16-M	Survey Calculation Method:	Minimum Curvature
Well Error:	3.28 ft	Output errors are at	2.45 sigma
Reference Wellbore	OH	Database:	EDM 5000.14 Single User Db
Reference Design:	PLAN #1	Offset TVD Reference:	Reference Datum

Offset Design HARVESTERS STATE 7-15 PAD - DONN 30N 20A-L(SRC PLAN_75CC) - OH - SRC PLAN													Offset Site Error:	0.00 ft
Survey Program: 25-MWD													Offset Well Error:	3.28 ft
Reference		Offset		Semi Major Axis			Distance							Warning
Measured Depth (ft)	Vertical Depth (ft)	Measured Depth (ft)	Vertical Depth (ft)	Reference (ft)	Offset (ft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (ft)	+E/-W (ft)	Between Centres (ft)	Between Ellipses (ft)	Minimum Separation (ft)	Separation Factor		
5,200.00	5,190.37	5,955.87	5,925.77	22.93	31.81	-126.03	-3,737.83	-2,571.41	4,759.75	4,709.16	50.59	94.081		
5,300.00	5,290.15	6,054.62	6,023.19	23.37	32.35	-126.16	-3,727.61	-2,558.93	4,748.12	4,696.62	51.50	92.198		
5,400.00	5,389.94	6,153.36	6,120.61	23.81	32.89	-126.29	-3,717.38	-2,546.45	4,736.51	4,684.10	52.41	90.379		
5,500.00	5,489.72	6,252.11	6,218.03	24.25	33.43	-126.42	-3,707.16	-2,533.98	4,724.93	4,671.61	53.32	88.622		
5,600.00	5,589.51	6,278.69	6,244.29	24.69	33.57	-126.45	-3,704.41	-2,530.88	4,714.06	4,660.13	53.93	87.417		
5,700.00	5,689.29	6,300.00	6,265.41	25.13	33.68	-126.47	-3,702.22	-2,529.15	4,704.86	4,650.36	54.50	86.325		
5,800.00	5,789.08	6,325.01	6,290.27	25.56	33.79	-126.48	-3,699.65	-2,528.03	4,697.37	4,642.30	55.07	85.294		
5,900.00	5,888.86	6,339.42	6,304.60	26.00	33.85	-126.48	-3,698.19	-2,527.83	4,691.53	4,635.95	55.58	84.407		
6,000.00	5,988.65	6,350.00	6,315.12	26.44	33.90	-126.48	-3,697.12	-2,527.90	4,687.45	4,631.39	56.06	83.616		
6,100.00	6,088.43	6,380.16	6,345.11	26.88	34.01	-126.47	-3,694.08	-2,529.03	4,684.96	4,628.37	56.59	82.785		
6,194.04	6,182.27	6,400.00	6,364.79	27.30	34.08	-126.45	-3,692.11	-2,530.56	4,684.22	4,627.18	57.05	82.114		
6,200.00	6,188.22	6,400.00	6,364.79	27.32	34.08	-126.45	-3,692.11	-2,530.56	4,684.23	4,627.16	57.07	82.081		
6,300.00	6,288.00	6,425.01	6,389.52	27.76	34.16	-126.42	-3,689.65	-2,533.36	4,685.21	4,627.66	57.54	81.421		
6,400.00	6,387.79	6,450.00	6,414.10	28.20	34.23	-126.38	-3,687.23	-2,537.13	4,687.91	4,629.92	58.00	80.829		
6,500.00	6,487.57	6,450.00	6,414.10	28.64	34.23	-126.38	-3,687.23	-2,537.13	4,692.31	4,633.98	58.33	80.443		
6,600.00	6,587.35	6,480.53	6,443.91	29.08	34.30	-126.32	-3,684.32	-2,543.05	4,698.34	4,639.57	58.77	79.947		
6,700.00	6,687.02	6,500.00	6,462.76	29.52	34.34	-88.13	-3,682.50	-2,547.57	4,705.01	4,645.86	59.14	79.552		
6,800.00	6,784.98	6,525.01	6,486.76	29.96	34.39	-72.01	-3,680.21	-2,554.22	4,706.24	4,646.70	59.53	79.051		
6,900.00	6,878.81	6,539.73	6,500.75	30.41	34.42	-67.87	-3,678.88	-2,558.58	4,701.09	4,641.22	59.88	78.510		
7,000.00	6,966.21	6,550.00	6,510.46	30.86	34.44	-66.69	-3,677.96	-2,561.81	4,689.78	4,629.56	60.21	77.885		
7,100.00	7,045.03	6,578.50	6,537.11	31.35	34.48	-67.01	-3,675.47	-2,571.60	4,672.39	4,611.73	60.66	77.022		
7,200.00	7,113.32	6,600.00	6,556.91	31.90	34.51	-68.29	-3,673.63	-2,579.76	4,649.50	4,588.35	61.15	76.030		
7,300.00	7,169.40	6,614.44	6,570.05	32.57	34.52	-70.31	-3,672.43	-2,585.63	4,621.59	4,559.86	61.73	74.871		
7,400.00	7,211.89	6,625.01	6,579.58	33.38	34.53	-72.94	-3,671.56	-2,590.11	4,589.36	4,526.91	62.44	73.497		
7,500.00	7,239.75	6,650.00	6,601.82	34.35	34.55	-76.26	-3,669.54	-2,601.32	4,553.57	4,490.17	63.40	71.818		
7,600.00	7,252.28	6,650.00	6,601.82	35.47	34.55	-79.80	-3,669.54	-2,601.32	4,515.19	4,450.74	64.45	70.059		
7,700.00	7,252.75	6,669.17	6,618.57	36.73	34.56	-81.25	-3,668.04	-2,610.51	4,475.75	4,410.00	65.75	68.077		
7,800.00	7,252.38	6,680.86	6,628.65	38.16	34.57	-81.39	-3,667.15	-2,616.37	4,437.94	4,370.75	67.19	66.046		
7,900.00	7,252.02	6,700.00	6,644.92	39.74	34.58	-81.61	-3,665.72	-2,626.35	4,401.97	4,333.13	68.84	63.944		
8,000.00	7,251.65	6,700.00	6,644.92	41.47	34.58	-81.61	-3,665.72	-2,626.35	4,367.82	4,297.24	70.58	61.888		
8,100.00	7,251.29	6,725.01	6,665.72	43.31	34.59	-81.89	-3,663.91	-2,640.13	4,335.51	4,262.97	72.54	59.766		
8,200.00	7,250.92	6,736.19	6,674.83	45.26	34.59	-82.02	-3,663.13	-2,646.54	4,305.11	4,230.52	74.59	57.716		
8,300.00	7,250.55	6,750.00	6,685.94	47.30	34.59	-82.17	-3,662.18	-2,654.70	4,276.62	4,199.85	76.76	55.711		
8,400.00	7,250.19	6,770.14	6,701.81	49.42	34.59	-82.39	-3,660.84	-2,667.01	4,250.05	4,170.99	79.06	53.756		
8,500.00	7,249.82	6,800.00	6,724.63	51.62	34.59	-82.70	-3,658.95	-2,686.19	4,225.46	4,143.98	81.47	51.863		
8,600.00	7,249.45	6,809.35	6,731.58	53.88	34.59	-82.79	-3,658.39	-2,692.41	4,202.71	4,118.80	83.91	50.087		
8,700.00	7,249.09	6,825.01	6,743.03	56.19	34.59	-82.95	-3,657.46	-2,703.06	4,181.95	4,095.53	86.43	48.386		
8,800.00	7,248.72	6,850.00	6,760.75	58.55	34.59	-83.20	-3,656.05	-2,720.62	4,163.10	4,074.06	89.03	46.758		
8,900.00	7,248.36	6,880.13	6,781.18	60.96	34.58	-83.48	-3,654.47	-2,742.71	4,146.14	4,054.43	91.71	45.210		
9,000.00	7,247.99	6,907.42	6,798.77	63.40	34.58	-83.72	-3,653.16	-2,763.53	4,131.07	4,036.66	94.41	43.755		
9,100.00	7,247.62	6,936.77	6,816.68	65.87	34.57	-83.97	-3,651.86	-2,786.74	4,117.84	4,020.67	97.16	42.380		
9,200.00	7,247.26	6,968.27	6,834.69	68.38	34.58	-84.22	-3,650.61	-2,812.55	4,106.41	4,006.45	99.96	41.080		
9,300.00	7,246.89	7,000.00	6,851.54	70.91	34.58	-84.46	-3,649.50	-2,839.41	4,096.72	3,993.94	102.78	39.860		
9,400.00	7,246.53	7,037.99	6,869.92	73.47	34.61	-84.72	-3,648.39	-2,872.62	4,088.72	3,983.07	105.66	38.698		
9,500.00	7,246.16	7,076.21	6,886.40	76.05	34.65	-84.95	-3,647.49	-2,907.09	4,082.36	3,973.78	108.57	37.600		
9,600.00	7,245.79	7,116.59	6,901.55	78.65	34.72	-85.16	-3,646.80	-2,944.51	4,077.55	3,966.03	111.52	36.563		
9,700.00	7,245.43	7,150.00	6,912.27	81.27	34.81	-85.31	-3,646.43	-2,976.15	4,074.26	3,959.81	114.45	35.598		
9,800.00	7,245.06	7,200.00	6,925.21	83.90	35.00	-85.50	-3,646.21	-3,024.43	4,072.37	3,954.83	117.54	34.647		
9,886.36	7,244.74	7,242.33	6,933.19	86.18	35.23	-85.61	-3,646.35	-3,066.00	4,071.86	3,951.63	120.23	33.867 CC		
9,900.00	7,244.69	7,250.00	6,934.34	86.55	35.27	-85.63	-3,646.40	-3,073.58	4,071.88	3,951.21	120.67	33.745		
10,000.00	7,244.33	7,300.00	6,939.60	89.21	35.64	-85.71	-3,647.00	-3,123.28	4,072.73	3,948.90	123.83	32.890		
10,100.00	7,243.96	7,345.19	6,941.01	91.88	36.04	-85.73	-3,647.89	-3,168.44	4,074.88	3,947.91	126.97	32.094		

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



Anticollision Report



Company:	SRC ENERGY	Local Co-ordinate Reference:	Well HARVESTERS STATE 31C-16-M
Project:	SECTION 15, T6N, R66W	TVD Reference:	KB @ 4821.00ft
Reference Site:	HARVESTERS STATE 7-15 PAD	MD Reference:	KB @ 4821.00ft
Site Error:	3.28 ft	North Reference:	True
Reference Well:	HARVESTERS STATE 31C-16-M	Survey Calculation Method:	Minimum Curvature
Well Error:	3.28 ft	Output errors are at	2.45 sigma
Reference Wellbore	OH	Database:	EDM 5000.14 Single User Db
Reference Design:	PLAN #1	Offset TVD Reference:	Reference Datum

Offset Design HARVESTERS STATE 7-15 PAD - DONN 30N 20A-L(SRC PLAN_75CC) - OH - SRC PLAN													Offset Site Error:	0.00 ft
Survey Program: 25-MWD													Offset Well Error:	3.28 ft
Reference		Offset		Semi Major Axis			Distance							Warning
Measured Depth (ft)	Vertical Depth (ft)	Measured Depth (ft)	Vertical Depth (ft)	Reference (ft)	Offset (ft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (ft)	+E/-W (ft)	Between Centres (ft)	Between Ellipses (ft)	Minimum Separation (ft)	Separation Factor		
10,200.00	7,243.60	7,438.72	6,940.62	94.56	37.11	-85.73	-3,650.06	-3,261.94	4,077.76	3,946.96	130.81	31.174		
10,300.00	7,243.23	7,538.68	6,940.20	97.26	38.57	-85.73	-3,652.39	-3,361.87	4,080.65	3,945.68	134.97	30.233		
10,400.00	7,242.86	7,638.64	6,939.78	99.96	40.27	-85.74	-3,654.71	-3,461.80	4,083.54	3,944.17	139.37	29.300		
10,500.00	7,242.50	7,738.59	6,939.37	102.67	42.19	-85.74	-3,657.04	-3,561.73	4,086.43	3,942.46	143.97	28.384		
10,600.00	7,242.13	7,838.55	6,938.95	105.39	44.27	-85.74	-3,659.36	-3,661.66	4,089.31	3,940.57	148.74	27.492		
10,700.00	7,241.76	7,938.51	6,938.53	108.12	46.50	-85.74	-3,661.68	-3,761.59	4,092.20	3,938.53	153.67	26.629		
10,800.00	7,241.40	8,038.47	6,938.12	110.85	48.86	-85.74	-3,664.01	-3,861.52	4,095.09	3,936.35	158.74	25.798		
10,900.00	7,241.03	8,138.43	6,937.70	113.59	51.32	-85.75	-3,666.33	-3,961.45	4,097.98	3,934.06	163.92	25.000		
11,000.00	7,240.67	8,238.39	6,937.28	116.34	53.88	-85.75	-3,668.66	-4,061.38	4,100.86	3,931.67	169.20	24.237		
11,100.00	7,240.30	8,338.34	6,936.87	119.09	56.51	-85.75	-3,670.98	-4,161.31	4,103.75	3,929.19	174.56	23.509		
11,200.00	7,239.93	8,438.30	6,936.45	121.85	59.21	-85.75	-3,673.31	-4,261.24	4,106.64	3,926.64	180.00	22.814		
11,300.00	7,239.57	8,538.26	6,936.03	124.61	61.98	-85.76	-3,675.63	-4,361.17	4,109.53	3,924.02	185.51	22.152		
11,400.00	7,239.20	8,638.22	6,935.61	127.38	64.79	-85.76	-3,677.95	-4,461.10	4,112.42	3,921.34	191.08	21.522		
11,500.00	7,238.84	8,738.18	6,935.20	130.15	67.65	-85.76	-3,680.28	-4,561.03	4,115.30	3,918.61	196.69	20.922		
11,600.00	7,238.47	8,838.13	6,934.78	132.92	70.55	-85.76	-3,682.60	-4,660.96	4,118.19	3,915.84	202.35	20.351		
11,700.00	7,238.10	8,938.09	6,934.36	135.70	73.49	-85.77	-3,684.93	-4,760.89	4,121.08	3,913.02	208.06	19.808		
11,800.00	7,237.74	9,038.05	6,933.95	138.48	76.46	-85.77	-3,687.25	-4,860.82	4,123.97	3,910.18	213.79	19.290		
11,900.00	7,237.37	9,138.01	6,933.53	141.26	79.45	-85.77	-3,689.58	-4,960.75	4,126.85	3,907.30	219.56	18.796		
12,000.00	7,237.00	9,237.97	6,933.11	144.05	82.47	-85.77	-3,691.90	-5,060.68	4,129.74	3,904.39	225.35	18.326		
12,100.00	7,236.64	9,337.93	6,932.70	146.84	85.51	-85.77	-3,694.22	-5,160.61	4,132.63	3,901.45	231.18	17.877		
12,200.00	7,236.27	9,437.88	6,932.28	149.64	88.58	-85.78	-3,696.55	-5,260.54	4,135.52	3,898.50	237.02	17.448		
12,300.00	7,235.91	9,537.84	6,931.86	152.43	91.66	-85.78	-3,698.87	-5,360.47	4,138.41	3,895.52	242.88	17.039		
12,400.00	7,235.54	9,637.80	6,931.44	155.23	94.76	-85.78	-3,701.20	-5,460.40	4,141.29	3,892.53	248.77	16.647		
12,500.00	7,235.17	9,737.76	6,931.03	158.03	97.87	-85.78	-3,703.52	-5,560.33	4,144.18	3,889.51	254.67	16.273		
12,600.00	7,234.81	9,837.72	6,930.61	160.83	100.99	-85.79	-3,705.85	-5,660.26	4,147.07	3,886.48	260.59	15.914		
12,700.00	7,234.44	9,937.67	6,930.19	163.64	104.13	-85.79	-3,708.17	-5,760.19	4,149.96	3,883.44	266.52	15.571		
12,800.00	7,234.07	10,037.63	6,929.78	166.44	107.28	-85.79	-3,710.49	-5,860.12	4,152.85	3,880.39	272.46	15.242		
12,900.00	7,233.71	10,137.59	6,929.36	169.25	110.44	-85.79	-3,712.82	-5,960.05	4,155.73	3,877.32	278.42	14.926		
13,000.00	7,233.34	10,237.55	6,928.94	172.06	113.61	-85.79	-3,715.14	-6,059.98	4,158.62	3,874.24	284.38	14.623		
13,100.00	7,232.98	10,337.51	6,928.53	174.88	116.79	-85.80	-3,717.47	-6,159.92	4,161.51	3,871.15	290.36	14.332		
13,200.00	7,232.61	10,437.47	6,928.11	177.69	119.97	-85.80	-3,719.79	-6,259.85	4,164.40	3,868.05	296.35	14.052		
13,300.00	7,232.24	10,500.00	6,927.85	180.50	121.97	-85.80	-3,721.48	-6,322.36	4,167.68	3,866.65	301.03	13.845		
13,400.00	7,231.88	10,525.02	6,927.74	183.32	122.76	-85.80	-3,722.61	-6,347.35	4,172.47	3,868.14	304.33	13.710		
13,500.00	7,231.51	10,616.67	6,927.36	186.14	125.68	-85.81	-3,727.40	-6,438.88	4,178.24	3,868.22	310.02	13.477		
13,600.00	7,231.15	10,716.50	6,926.95	188.96	128.87	-85.81	-3,732.61	-6,538.57	4,184.01	3,868.00	316.01	13.240		
13,700.00	7,230.78	10,754.01	6,926.79	191.78	130.06	-85.81	-3,734.78	-6,576.01	4,190.46	3,870.79	319.68	13.108		
13,800.00	7,230.41	10,800.00	6,926.60	194.60	131.53	-85.82	-3,738.42	-6,621.86	4,198.62	3,875.02	323.60	12.975		
13,900.00	7,230.05	10,816.40	6,926.53	197.42	132.05	-85.82	-3,739.98	-6,638.18	4,208.23	3,881.95	326.28	12.898		
14,000.00	7,229.68	10,825.02	6,926.49	200.25	132.32	-85.82	-3,740.86	-6,646.76	4,219.73	3,891.23	328.50	12.845		
14,100.00	7,229.31	10,900.00	6,926.18	203.07	134.68	-85.83	-3,750.13	-6,721.16	4,232.64	3,899.21	333.42	12.695		
14,200.00	7,228.95	10,909.14	6,926.14	205.90	134.96	-85.83	-3,751.46	-6,730.20	4,246.97	3,911.50	335.47	12.660		
14,300.00	7,228.58	10,925.02	6,926.07	208.73	135.46	-85.83	-3,753.87	-6,745.90	4,263.15	3,925.48	337.67	12.625		
14,400.00	7,228.22	11,741.18	6,922.67	211.55	161.50	-85.89	-3,819.59	-7,556.95	4,269.64	3,897.82	371.83	11.483		
14,500.00	7,227.85	11,841.18	6,922.25	214.38	164.76	-85.89	-3,819.58	-7,656.95	4,270.20	3,892.30	377.90	11.300		
14,600.00	7,227.48	11,941.18	6,921.83	217.21	168.02	-85.89	-3,819.56	-7,756.95	4,270.76	3,886.77	383.98	11.122		
14,700.00	7,227.12	12,041.18	6,921.41	220.04	171.29	-85.89	-3,819.55	-7,856.95	4,271.31	3,881.24	390.07	10.950		
14,800.00	7,226.75	12,141.18	6,921.00	222.88	174.56	-85.89	-3,819.54	-7,956.94	4,271.87	3,875.71	396.16	10.783		
14,900.00	7,226.38	12,241.18	6,920.58	225.71	177.84	-85.89	-3,819.52	-8,056.94	4,272.42	3,870.18	402.25	10.621		
15,000.00	7,226.02	12,341.17	6,920.16	228.54	181.11	-85.89	-3,819.51	-8,156.94	4,272.98	3,864.64	408.34	10.464		
15,005.81	7,226.00	12,346.98	6,920.14	228.71	181.30	-85.89	-3,819.51	-8,162.75	4,273.01	3,864.32	408.70	10.455 ES, SF		

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



Anticollision Report



Company:	SRC ENERGY	Local Co-ordinate Reference:	Well HARVESTERS STATE 31C-16-M
Project:	SECTION 15, T6N, R66W	TVD Reference:	KB @ 4821.00ft
Reference Site:	HARVESTERS STATE 7-15 PAD	MD Reference:	KB @ 4821.00ft
Site Error:	3.28 ft	North Reference:	True
Reference Well:	HARVESTERS STATE 31C-16-M	Survey Calculation Method:	Minimum Curvature
Well Error:	3.28 ft	Output errors are at	2.45 sigma
Reference Wellbore	OH	Database:	EDM 5000.14 Single User Db
Reference Design:	PLAN #1	Offset TVD Reference:	Reference Datum

Offset Design HARVESTERS STATE 7-15 PAD - DONN 30N-20B-L(SRC PLAN_75CC) - OH - PLAN													Offset Site Error:	0.00 ft
Survey Program: 25-MWD													Offset Well Error:	0.00 ft
Reference		Offset		Semi Major Axis			Distance							Warning
Measured Depth (ft)	Vertical Depth (ft)	Measured Depth (ft)	Vertical Depth (ft)	Reference (ft)	Offset (ft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (ft)	+E/-W (ft)	Between Centres (ft)	Between Ellipses (ft)	Minimum Separation (ft)	Separation Factor		
0.00	0.00	25.00	68.00	3.28	0.00	-142.95	-4,329.53	-3,268.97	5,425.46					
100.00	100.00	57.00	100.00	3.28	0.07	-142.95	-4,329.53	-3,268.97	5,425.03	5,421.68	3.36	1,616.982		
200.00	200.00	900.89	938.67	3.34	3.84	-143.17	-4,300.07	-3,220.15	5,422.69	5,415.46	7.23	749.570		
300.00	300.00	1,001.97	1,036.52	3.44	4.35	-143.23	-4,292.57	-3,207.72	5,409.07	5,401.28	7.79	694.360		
400.00	400.00	1,096.95	1,134.36	3.60	4.84	-143.29	-4,285.07	-3,195.29	5,395.46	5,387.09	8.37	644.583		
500.00	500.00	1,195.86	1,232.21	3.81	5.35	-143.35	-4,277.57	-3,182.86	5,381.85	5,372.84	9.01	596.991		
600.00	600.00	1,294.78	1,330.05	4.05	5.87	-143.41	-4,270.07	-3,170.43	5,368.25	5,358.55	9.70	553.490		
700.00	699.98	1,393.71	1,427.92	4.32	6.38	-120.80	-4,262.57	-3,158.00	5,355.54	5,345.12	10.41	514.260		
800.00	799.84	1,492.60	1,525.73	4.62	6.90	-121.08	-4,255.07	-3,145.58	5,344.60	5,333.44	11.16	479.116		
900.00	899.62	1,591.44	1,623.50	4.94	7.42	-121.20	-4,247.57	-3,133.16	5,334.37	5,322.45	11.92	447.329		
1,000.00	999.41	1,690.29	1,721.28	5.27	7.94	-121.32	-4,240.08	-3,120.74	5,324.17	5,311.46	12.71	418.750		
1,100.00	1,099.19	1,789.13	1,819.05	5.62	8.45	-121.44	-4,232.58	-3,108.32	5,313.99	5,300.47	13.52	393.041		
1,200.00	1,198.98	1,887.97	1,916.82	5.99	8.97	-121.56	-4,225.09	-3,095.90	5,303.84	5,289.50	14.34	369.877		
1,300.00	1,298.76	1,986.81	2,014.59	6.36	9.49	-121.68	-4,217.59	-3,083.48	5,293.71	5,278.54	15.17	348.958		
1,400.00	1,398.55	2,085.65	2,112.36	6.74	10.02	-121.81	-4,210.10	-3,071.06	5,283.61	5,267.60	16.01	330.016		
1,500.00	1,498.33	2,184.49	2,210.13	7.13	10.54	-121.93	-4,202.60	-3,058.64	5,273.53	5,256.67	16.86	312.815		
1,600.00	1,598.12	2,283.34	2,307.91	7.52	11.06	-122.05	-4,195.11	-3,046.22	5,263.47	5,245.76	17.71	297.148		
1,700.00	1,697.90	2,382.18	2,405.68	7.92	11.58	-122.18	-4,187.61	-3,033.80	5,253.44	5,234.86	18.57	282.835		
1,800.00	1,797.69	2,481.02	2,503.45	8.33	12.10	-122.30	-4,180.12	-3,021.38	5,243.43	5,223.99	19.44	269.721		
1,900.00	1,897.47	2,579.86	2,601.22	8.74	12.62	-122.43	-4,172.62	-3,008.96	5,233.45	5,213.14	20.31	257.670		
2,000.00	1,997.26	2,678.70	2,698.99	9.15	13.15	-122.55	-4,165.13	-2,996.54	5,223.49	5,202.31	21.18	246.566		
2,100.00	2,097.04	2,777.54	2,796.76	9.56	13.67	-122.68	-4,157.63	-2,984.12	5,213.56	5,191.50	22.06	236.305		
2,200.00	2,196.83	2,876.39	2,894.54	9.98	14.19	-122.80	-4,150.14	-2,971.71	5,203.65	5,180.71	22.94	226.801		
2,300.00	2,296.61	2,975.23	2,992.31	10.40	14.71	-122.93	-4,142.64	-2,959.29	5,193.77	5,169.94	23.83	217.976		
2,400.00	2,396.40	3,074.07	3,090.08	10.82	15.24	-123.06	-4,135.15	-2,946.87	5,183.91	5,159.20	24.71	209.762		
2,500.00	2,496.18	3,172.91	3,187.85	11.24	15.76	-123.19	-4,127.65	-2,934.45	5,174.08	5,148.48	25.60	202.100		
2,600.00	2,595.96	3,271.75	3,285.62	11.66	16.28	-123.31	-4,120.16	-2,922.03	5,164.28	5,137.79	26.49	194.938		
2,700.00	2,695.75	3,370.60	3,383.39	12.09	16.81	-123.44	-4,112.66	-2,909.61	5,154.50	5,127.12	27.38	188.230		
2,800.00	2,795.53	3,469.44	3,481.17	12.51	17.33	-123.57	-4,105.17	-2,897.19	5,144.75	5,116.47	28.28	181.935		
2,900.00	2,895.32	3,568.28	3,578.94	12.94	17.85	-123.70	-4,097.67	-2,884.77	5,135.02	5,105.85	29.17	176.018		
3,000.00	2,995.10	3,667.12	3,676.71	13.37	18.38	-123.83	-4,090.18	-2,872.35	5,125.33	5,095.26	30.07	170.445		
3,100.00	3,094.89	3,765.96	3,774.48	13.80	18.90	-123.96	-4,082.68	-2,859.93	5,115.65	5,084.68	30.97	165.189		
3,200.00	3,194.67	3,864.80	3,872.25	14.23	19.42	-124.09	-4,075.19	-2,847.51	5,106.01	5,074.14	31.87	160.224		
3,300.00	3,294.46	3,963.65	3,970.02	14.66	19.95	-124.22	-4,067.69	-2,835.09	5,096.39	5,063.62	32.77	155.526		
3,400.00	3,394.24	4,062.49	4,067.80	15.09	20.47	-124.36	-4,060.20	-2,822.67	5,086.80	5,053.13	33.67	151.076		
3,500.00	3,494.03	4,161.33	4,165.57	15.52	20.99	-124.49	-4,052.71	-2,810.25	5,077.23	5,042.66	34.57	146.854		
3,600.00	3,593.81	4,260.17	4,263.34	15.96	21.52	-124.62	-4,045.21	-2,797.83	5,067.70	5,032.22	35.48	142.844		
3,700.00	3,693.60	4,359.01	4,361.11	16.39	22.04	-124.76	-4,037.72	-2,785.42	5,058.19	5,021.80	36.38	139.030		
3,800.00	3,793.38	4,457.86	4,458.88	16.82	22.56	-124.89	-4,030.22	-2,773.00	5,048.70	5,011.42	37.29	135.399		
3,900.00	3,893.17	4,556.70	4,556.65	17.26	23.09	-125.02	-4,022.73	-2,760.58	5,039.25	5,001.06	38.19	131.937		
4,000.00	3,992.95	4,655.54	4,654.42	17.69	23.61	-125.16	-4,015.23	-2,748.16	5,029.82	4,990.72	39.10	128.634		
4,100.00	4,092.74	4,754.38	4,752.20	18.13	24.13	-125.29	-4,007.74	-2,735.74	5,020.43	4,980.42	40.01	125.479		
4,200.00	4,192.52	4,853.22	4,849.97	18.56	24.66	-125.43	-4,000.24	-2,723.32	5,011.06	4,970.14	40.92	122.463		
4,300.00	4,292.31	4,952.06	4,947.74	19.00	25.18	-125.57	-3,992.75	-2,710.90	5,001.72	4,959.89	41.83	119.576		
4,400.00	4,392.09	5,050.91	5,045.51	19.43	25.71	-125.70	-3,985.25	-2,698.48	4,992.40	4,949.66	42.74	116.811		
4,500.00	4,491.88	5,149.75	5,143.28	19.87	26.23	-125.84	-3,977.76	-2,686.06	4,983.12	4,939.47	43.65	114.159		
4,600.00	4,591.66	5,248.59	5,241.05	20.31	26.75	-125.98	-3,970.26	-2,673.64	4,973.87	4,929.30	44.56	111.616		
4,700.00	4,691.44	5,347.43	5,338.83	20.74	27.28	-126.12	-3,962.77	-2,661.22	4,964.64	4,919.17	45.48	109.173		
4,800.00	4,791.23	5,446.27	5,436.60	21.18	27.80	-126.26	-3,955.27	-2,648.80	4,955.45	4,909.06	46.39	106.825		
4,900.00	4,891.01	5,545.12	5,534.37	21.62	28.32	-126.40	-3,947.78	-2,636.38	4,946.28	4,898.98	47.30	104.567		
5,000.00	4,990.80	5,643.96	5,632.14	22.06	28.85	-126.54	-3,940.28	-2,623.96	4,937.14	4,888.92	48.22	102.395		
5,100.00	5,090.58	5,742.80	5,729.91	22.50	29.37	-126.68	-3,932.79	-2,611.54	4,928.03	4,878.90	49.13	100.302		

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



Anticollision Report



Company:	SRC ENERGY	Local Co-ordinate Reference:	Well HARVESTERS STATE 31C-16-M
Project:	SECTION 15, T6N, R66W	TVD Reference:	KB @ 4821.00ft
Reference Site:	HARVESTERS STATE 7-15 PAD	MD Reference:	KB @ 4821.00ft
Site Error:	3.28 ft	North Reference:	True
Reference Well:	HARVESTERS STATE 31C-16-M	Survey Calculation Method:	Minimum Curvature
Well Error:	3.28 ft	Output errors are at	2.45 sigma
Reference Wellbore	OH	Database:	EDM 5000.14 Single User Db
Reference Design:	PLAN #1	Offset TVD Reference:	Reference Datum

Offset Design HARVESTERS STATE 7-15 PAD - DONN 30N-20B-L(SRC PLAN_75CC) - OH - PLAN													Offset Site Error:	0.00 ft
Survey Program: 25-MWD													Offset Well Error:	0.00 ft
Reference		Offset		Semi Major Axis			Distance							Warning
Measured Depth (ft)	Vertical Depth (ft)	Measured Depth (ft)	Vertical Depth (ft)	Reference (ft)	Offset (ft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (ft)	+E/-W (ft)	Between Centres (ft)	Between Ellipses (ft)	Minimum Separation (ft)	Separation Factor		
5,200.00	5,190.37	5,841.64	5,827.68	22.93	29.90	-126.82	-3,925.29	-2,599.12	4,918.96	4,868.91	50.05	98.285		
5,300.00	5,290.15	5,940.48	5,925.46	23.37	30.42	-126.96	-3,917.80	-2,586.71	4,909.91	4,858.95	50.96	96.340		
5,400.00	5,389.94	6,039.32	6,023.23	23.81	30.94	-127.10	-3,910.30	-2,574.29	4,900.89	4,849.01	51.88	94.464		
5,500.00	5,489.72	6,138.17	6,121.00	24.25	31.47	-127.24	-3,902.81	-2,561.87	4,891.91	4,839.11	52.80	92.652		
5,600.00	5,589.51	6,237.01	6,218.77	24.69	31.99	-127.39	-3,895.31	-2,549.45	4,882.95	4,829.23	53.72	90.901		
5,700.00	5,689.29	6,335.85	6,316.54	25.13	32.52	-127.53	-3,887.82	-2,537.03	4,874.03	4,819.39	54.64	89.209		
5,800.00	5,789.08	6,387.06	6,367.22	25.56	32.79	-127.60	-3,883.94	-2,530.71	4,865.42	4,810.08	55.35	87.903		
5,900.00	5,888.86	6,400.00	6,380.05	26.00	32.85	-127.62	-3,882.96	-2,529.46	4,858.36	4,802.47	55.89	86.932		
6,000.00	5,988.65	6,425.01	6,404.94	26.44	32.97	-127.64	-3,881.09	-2,527.78	4,852.88	4,796.42	56.46	85.958		
6,100.00	6,088.43	6,450.00	6,429.85	26.88	33.08	-127.65	-3,879.23	-2,527.08	4,849.06	4,792.05	57.01	85.063		
6,200.00	6,188.22	6,450.00	6,429.85	27.32	33.08	-127.65	-3,879.23	-2,527.08	4,847.05	4,789.61	57.43	84.394		
6,262.55	6,250.63	6,480.91	6,460.67	27.60	33.19	-127.65	-3,876.97	-2,527.58	4,846.35	4,788.54	57.81	83.825		
6,300.00	6,288.00	6,500.00	6,479.68	27.76	33.26	-127.65	-3,875.60	-2,528.64	4,846.41	4,788.37	58.04	83.496		
6,400.00	6,387.79	6,500.00	6,479.68	28.20	33.26	-127.65	-3,875.60	-2,528.64	4,847.50	4,789.06	58.44	82.954		
6,500.00	6,487.57	6,525.01	6,504.52	28.64	33.34	-127.63	-3,873.82	-2,530.89	4,850.22	4,791.31	58.91	82.338		
6,600.00	6,587.35	6,550.00	6,529.24	29.08	33.41	-127.60	-3,872.07	-2,534.11	4,854.60	4,795.25	59.36	81.787		
6,700.00	6,687.02	6,569.44	6,548.37	29.52	33.46	-89.50	-3,870.73	-2,537.28	4,859.55	4,799.79	59.77	81.310		
6,800.00	6,784.98	6,600.00	6,578.23	29.96	33.53	-73.52	-3,868.68	-2,543.45	4,859.33	4,799.12	60.22	80.699		
6,900.00	6,878.81	6,609.64	6,587.58	30.41	33.55	-69.48	-3,868.04	-2,545.70	4,852.95	4,792.37	60.58	80.108		
7,000.00	6,966.21	6,625.01	6,602.42	30.86	33.58	-68.42	-3,867.03	-2,549.57	4,840.73	4,779.75	60.98	79.386		
7,100.00	7,045.03	6,650.00	6,626.34	31.35	33.63	-68.81	-3,865.43	-2,556.62	4,822.89	4,761.44	61.45	78.491		
7,200.00	7,113.32	6,650.00	6,626.34	31.90	33.63	-70.02	-3,865.43	-2,556.62	4,800.02	4,738.14	61.88	77.569		
7,300.00	7,169.40	6,700.00	6,673.28	32.57	33.70	-72.29	-3,862.36	-2,573.54	4,772.40	4,709.77	62.63	76.199		
7,400.00	7,211.89	6,700.00	6,673.28	33.38	33.70	-74.82	-3,862.36	-2,573.54	4,740.74	4,677.40	63.34	74.849		
7,500.00	7,239.75	6,713.41	6,685.63	34.35	33.72	-77.96	-3,861.57	-2,578.70	4,706.09	4,641.81	64.28	73.218		
7,600.00	7,252.28	6,725.01	6,696.23	35.47	33.73	-81.49	-3,860.90	-2,583.37	4,669.20	4,603.81	65.39	71.407		
7,700.00	7,252.75	6,735.13	6,705.40	36.73	33.74	-82.78	-3,860.32	-2,587.60	4,631.60	4,564.94	66.66	69.478		
7,800.00	7,252.38	6,750.00	6,718.75	38.16	33.75	-82.96	-3,859.49	-2,594.09	4,595.63	4,527.49	68.14	67.449		
7,900.00	7,252.02	6,750.00	6,718.75	39.74	33.75	-82.96	-3,859.49	-2,594.09	4,561.47	4,491.74	69.73	65.421		
8,000.00	7,251.65	6,768.96	6,735.56	41.47	33.77	-83.18	-3,858.45	-2,602.81	4,529.11	4,457.58	71.53	63.315		
8,100.00	7,251.29	6,781.98	6,746.94	43.31	33.78	-83.33	-3,857.76	-2,609.08	4,498.63	4,425.17	73.46	61.238		
8,200.00	7,250.92	6,800.00	6,762.49	45.26	33.79	-83.53	-3,856.82	-2,618.15	4,470.04	4,394.51	75.53	59.183		
8,300.00	7,250.55	6,811.20	6,772.02	47.30	33.80	-83.66	-3,856.25	-2,624.01	4,443.34	4,365.65	77.69	57.193		
8,400.00	7,250.19	6,825.01	6,783.63	49.42	33.81	-83.81	-3,855.57	-2,631.46	4,418.56	4,338.60	79.96	55.261		
8,500.00	7,249.82	6,850.00	6,804.21	51.62	33.82	-84.08	-3,854.38	-2,645.57	4,395.70	4,313.36	82.34	53.385		
8,600.00	7,249.45	6,864.90	6,816.21	53.88	33.82	-84.24	-3,853.70	-2,654.37	4,374.76	4,289.99	84.77	51.607		
8,700.00	7,249.09	6,900.00	6,843.66	56.19	33.84	-84.61	-3,852.18	-2,676.19	4,355.80	4,268.49	87.31	49.888		
8,800.00	7,248.72	6,909.08	6,850.56	58.55	33.84	-84.70	-3,851.81	-2,682.08	4,338.62	4,248.77	89.85	48.289		
8,900.00	7,248.36	6,934.25	6,869.25	60.96	33.85	-84.95	-3,850.82	-2,698.91	4,323.39	4,230.92	92.47	46.757		
9,000.00	7,247.99	6,950.00	6,880.60	63.40	33.85	-85.10	-3,850.23	-2,709.81	4,310.04	4,214.95	95.10	45.322		
9,100.00	7,247.62	7,000.00	6,914.80	65.87	33.88	-85.56	-3,848.55	-2,746.23	4,298.45	4,200.60	97.85	43.929		
9,200.00	7,247.26	7,025.01	6,930.82	68.38	33.90	-85.77	-3,847.82	-2,765.43	4,288.61	4,188.04	100.57	42.645		
9,300.00	7,246.89	7,050.00	6,946.05	70.91	33.92	-85.97	-3,847.15	-2,785.22	4,280.51	4,177.20	103.30	41.437		
9,400.00	7,246.53	7,100.00	6,974.16	73.47	33.98	-86.35	-3,846.04	-2,826.54	4,273.96	4,167.81	106.15	40.263		
9,500.00	7,246.16	7,141.70	6,995.07	76.05	34.06	-86.63	-3,845.33	-2,862.61	4,268.98	4,159.97	109.01	39.162		
9,600.00	7,245.79	7,187.20	7,015.14	78.65	34.19	-86.90	-3,844.79	-2,903.42	4,265.42	4,153.50	111.92	38.111		
9,700.00	7,245.43	7,235.83	7,033.33	81.27	34.38	-87.15	-3,844.50	-2,948.51	4,263.21	4,148.32	114.89	37.107		
9,800.00	7,245.06	7,287.29	7,048.78	83.90	34.65	-87.36	-3,844.49	-2,997.58	4,262.23	4,144.30	117.93	36.141		
9,833.75	7,244.94	7,305.22	7,053.23	84.79	34.76	-87.42	-3,844.57	-3,014.95	4,262.17	4,143.19	118.97	35.824 CC		
9,900.00	7,244.69	7,341.13	7,060.66	86.55	35.01	-87.52	-3,844.83	-3,050.07	4,262.41	4,141.36	121.05	35.213		
10,000.00	7,244.33	7,400.00	7,068.54	89.21	35.50	-87.63	-3,845.60	-3,108.39	4,263.67	4,139.41	124.27	34.311		
10,100.00	7,243.96	7,453.23	7,071.01	91.88	36.02	-87.67	-3,846.65	-3,161.53	4,265.97	4,138.49	127.48	33.464		

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



Anticollision Report



Company:	SRC ENERGY	Local Co-ordinate Reference:	Well HARVESTERS STATE 31C-16-M
Project:	SECTION 15, T6N, R66W	TVD Reference:	KB @ 4821.00ft
Reference Site:	HARVESTERS STATE 7-15 PAD	MD Reference:	KB @ 4821.00ft
Site Error:	3.28 ft	North Reference:	True
Reference Well:	HARVESTERS STATE 31C-16-M	Survey Calculation Method:	Minimum Curvature
Well Error:	3.28 ft	Output errors are at	2.45 sigma
Reference Wellbore	OH	Database:	EDM 5000.14 Single User Db
Reference Design:	PLAN #1	Offset TVD Reference:	Reference Datum

Offset Design HARVESTERS STATE 7-15 PAD - DONN 30N-20B-L(SRC PLAN_75CC) - OH - PLAN													Offset Site Error:	0.00 ft
Survey Program: 25-MWD													Offset Well Error:	0.00 ft
Reference		Offset		Semi Major Axis			Distance						Warning	
Measured Depth (ft)	Vertical Depth (ft)	Measured Depth (ft)	Vertical Depth (ft)	Reference (ft)	Offset (ft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (ft)	+E/-W (ft)	Between Centres (ft)	Between Ellipses (ft)	Minimum Separation (ft)	Separation Factor		
10,200.00	7,243.60	7,547.92	7,070.48	94.56	37.16	-87.67	-3,848.87	-3,256.19	4,268.89	4,137.56	131.33	32.505		
10,300.00	7,243.23	7,647.87	7,069.88	97.26	38.62	-87.67	-3,851.23	-3,356.12	4,271.82	4,136.34	135.49	31.529		
10,400.00	7,242.86	7,747.83	7,069.28	99.96	40.31	-87.67	-3,853.59	-3,456.05	4,274.75	4,134.88	139.88	30.561		
10,500.00	7,242.50	7,847.79	7,068.67	102.67	42.20	-87.66	-3,855.94	-3,555.98	4,277.69	4,133.22	144.47	29.610		
10,600.00	7,242.13	7,947.74	7,068.07	105.39	44.27	-87.66	-3,858.30	-3,655.90	4,280.62	4,131.38	149.24	28.683		
10,700.00	7,241.76	8,047.70	7,067.47	108.12	46.48	-87.66	-3,860.65	-3,755.83	4,283.55	4,129.38	154.17	27.785		
10,800.00	7,241.40	8,147.66	7,066.87	110.85	48.82	-87.66	-3,863.01	-3,855.76	4,286.48	4,127.25	159.23	26.921		
10,900.00	7,241.03	8,247.62	7,066.27	113.59	51.27	-87.66	-3,865.36	-3,955.69	4,289.41	4,125.01	164.40	26.091		
11,000.00	7,240.67	8,347.57	7,065.66	116.34	53.81	-87.66	-3,867.72	-4,055.61	4,292.34	4,122.66	169.68	25.297		
11,100.00	7,240.30	8,447.53	7,065.06	119.09	56.43	-87.65	-3,870.08	-4,155.54	4,295.27	4,120.22	175.04	24.538		
11,200.00	7,239.93	8,547.49	7,064.46	121.85	59.12	-87.65	-3,872.43	-4,255.47	4,298.20	4,117.71	180.49	23.815		
11,300.00	7,239.57	8,647.44	7,063.86	124.61	61.88	-87.65	-3,874.79	-4,355.40	4,301.13	4,115.14	185.99	23.125		
11,400.00	7,239.20	8,747.40	7,063.26	127.38	64.68	-87.65	-3,877.14	-4,455.32	4,304.06	4,112.50	191.56	22.468		
11,500.00	7,238.84	8,847.36	7,062.66	130.15	67.54	-87.65	-3,879.50	-4,555.25	4,306.99	4,109.81	197.18	21.843		
11,600.00	7,238.47	8,947.31	7,062.05	132.92	70.43	-87.65	-3,881.85	-4,655.18	4,309.92	4,107.08	202.84	21.248		
11,700.00	7,238.10	9,047.27	7,061.45	135.70	73.37	-87.65	-3,884.21	-4,755.11	4,312.85	4,104.31	208.55	20.681		
11,800.00	7,237.74	9,147.23	7,060.85	138.48	76.33	-87.64	-3,886.56	-4,855.03	4,315.78	4,101.50	214.28	20.140		
11,900.00	7,237.37	9,247.19	7,060.25	141.26	79.32	-87.64	-3,888.92	-4,954.96	4,318.71	4,098.66	220.06	19.626		
12,000.00	7,237.00	9,347.14	7,059.65	144.05	82.34	-87.64	-3,891.28	-5,054.89	4,321.64	4,095.79	225.86	19.135		
12,100.00	7,236.64	9,447.10	7,059.04	146.84	85.38	-87.64	-3,893.63	-5,154.82	4,324.57	4,092.89	231.68	18.666		
12,200.00	7,236.27	9,547.06	7,058.44	149.64	88.44	-87.64	-3,895.99	-5,254.74	4,327.50	4,089.97	237.53	18.219		
12,300.00	7,235.91	9,647.01	7,057.84	152.43	91.52	-87.64	-3,898.34	-5,354.67	4,330.44	4,087.03	243.40	17.791		
12,400.00	7,235.54	9,746.97	7,057.24	155.23	94.61	-87.63	-3,900.70	-5,454.60	4,333.37	4,084.08	249.29	17.383		
12,500.00	7,235.17	9,846.93	7,056.64	158.03	97.72	-87.63	-3,903.05	-5,554.52	4,336.30	4,081.10	255.20	16.992		
12,600.00	7,234.81	9,946.88	7,056.03	160.83	100.85	-87.63	-3,905.41	-5,654.45	4,339.23	4,078.11	261.12	16.618		
12,700.00	7,234.44	10,046.84	7,055.43	163.64	103.99	-87.63	-3,907.77	-5,754.38	4,342.16	4,075.10	267.05	16.259		
12,800.00	7,234.07	10,146.80	7,054.83	166.44	107.13	-87.63	-3,910.12	-5,854.31	4,345.09	4,072.08	273.00	15.916		
12,900.00	7,233.71	10,246.76	7,054.23	169.25	110.29	-87.63	-3,912.48	-5,954.23	4,348.02	4,069.05	278.97	15.586		
13,000.00	7,233.34	10,346.71	7,053.63	172.06	113.46	-87.63	-3,914.83	-6,054.16	4,350.95	4,066.01	284.94	15.270		
13,100.00	7,232.98	10,446.67	7,053.03	174.88	116.64	-87.62	-3,917.19	-6,154.09	4,353.88	4,062.96	290.92	14.966		
13,200.00	7,232.61	10,546.63	7,052.42	177.69	119.82	-87.62	-3,919.54	-6,254.02	4,356.81	4,059.89	296.92	14.674		
13,300.00	7,232.24	10,646.58	7,051.82	180.50	123.01	-87.62	-3,921.90	-6,353.94	4,359.74	4,056.82	302.92	14.392		
13,400.00	7,231.88	10,746.54	7,051.22	183.32	126.21	-87.62	-3,924.25	-6,453.87	4,362.67	4,053.74	308.93	14.122		
13,500.00	7,231.51	10,846.50	7,050.62	186.14	129.42	-87.62	-3,926.61	-6,553.80	4,365.60	4,050.65	314.95	13.861		
13,600.00	7,231.15	10,946.45	7,050.02	188.96	132.63	-87.62	-3,928.97	-6,653.73	4,368.53	4,047.56	320.97	13.610		
13,700.00	7,230.78	11,046.41	7,049.41	191.78	135.85	-87.62	-3,931.32	-6,753.65	4,371.46	4,044.46	327.00	13.368		
13,800.00	7,230.41	11,146.37	7,048.81	194.60	139.07	-87.61	-3,933.68	-6,853.58	4,374.39	4,041.35	333.04	13.135		
13,900.00	7,230.05	11,246.33	7,048.21	197.42	142.30	-87.61	-3,936.03	-6,953.51	4,377.32	4,038.24	339.09	12.909		
14,000.00	7,229.68	11,346.28	7,047.61	200.25	145.53	-87.61	-3,938.39	-7,053.44	4,380.26	4,035.12	345.14	12.691		
14,100.00	7,229.31	11,446.24	7,047.01	203.07	148.76	-87.61	-3,940.74	-7,153.36	4,383.19	4,031.99	351.19	12.481		
14,200.00	7,228.95	11,546.20	7,046.40	205.90	152.00	-87.61	-3,943.10	-7,253.29	4,386.12	4,028.86	357.25	12.277		
14,300.00	7,228.58	11,646.15	7,045.80	208.73	155.24	-87.61	-3,945.46	-7,353.22	4,389.05	4,025.73	363.32	12.081		
14,400.00	7,228.22	11,746.11	7,045.20	211.55	158.49	-87.60	-3,947.81	-7,453.15	4,391.98	4,022.59	369.39	11.890		
14,500.00	7,227.85	11,846.07	7,044.60	214.38	161.74	-87.60	-3,950.17	-7,553.07	4,394.91	4,019.45	375.46	11.705		
14,600.00	7,227.48	11,946.02	7,044.00	217.21	164.99	-87.60	-3,952.52	-7,653.00	4,397.84	4,016.30	381.53	11.527		
14,700.00	7,227.12	12,045.98	7,043.40	220.04	168.25	-87.60	-3,954.88	-7,752.93	4,400.77	4,013.15	387.61	11.353		
14,800.00	7,226.75	12,145.94	7,042.79	222.88	171.51	-87.60	-3,957.23	-7,852.86	4,403.70	4,010.00	393.70	11.185		
14,900.00	7,226.38	12,245.90	7,042.19	225.71	174.77	-87.60	-3,959.59	-7,952.78	4,406.63	4,006.85	399.79	11.022		
15,000.00	7,226.02	12,345.85	7,041.59	228.54	178.03	-87.60	-3,961.94	-8,052.71	4,409.56	4,003.69	405.88	10.864		
15,005.81	7,226.00	12,351.66	7,041.55	228.71	178.22	-87.60	-3,962.08	-8,058.51	4,409.73	4,003.50	406.23	10.855 ES, SF		



Anticollision Report



Company:	SRC ENERGY	Local Co-ordinate Reference:	Well HARVESTERS STATE 31C-16-M
Project:	SECTION 15, T6N, R66W	TVD Reference:	KB @ 4821.00ft
Reference Site:	HARVESTERS STATE 7-15 PAD	MD Reference:	KB @ 4821.00ft
Site Error:	3.28 ft	North Reference:	True
Reference Well:	HARVESTERS STATE 31C-16-M	Survey Calculation Method:	Minimum Curvature
Well Error:	3.28 ft	Output errors are at	2.45 sigma
Reference Wellbore	OH	Database:	EDM 5000.14 Single User Db
Reference Design:	PLAN #1	Offset TVD Reference:	Reference Datum

Offset Design HARVESTERS STATE 7-15 PAD - FALKEN 34C-9-L(SRC PLAN_75CC) - OH - Plan 1													Offset Site Error:	0.00 ft
Survey Program: 0-MWD+IFR1													Offset Well Error:	3.28 ft
Reference		Offset		Semi Major Axis			Distance							Warning
Measured Depth (ft)	Vertical Depth (ft)	Measured Depth (ft)	Vertical Depth (ft)	Reference (ft)	Offset (ft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (ft)	+E/-W (ft)	Between Centres (ft)	Between Ellipses (ft)	Minimum Separation (ft)	Separation Factor		
0.00	0.00	15,789.24	7,243.40	3.28	247.77	0.60	2,043.60	21.37	7,526.20					
100.00	100.00	15,789.48	7,243.40	3.28	247.78	0.59	2,043.60	21.12	7,430.00	7,313.18	116.82	63.602		
200.00	200.00	15,789.73	7,243.40	3.34	247.79	0.59	2,043.60	20.88	7,333.91	7,216.69	117.22	62.565		
300.00	300.00	15,789.97	7,243.40	3.44	247.80	0.58	2,043.60	20.63	7,237.93	7,120.28	117.64	61.525		
400.00	400.00	15,809.85	7,243.40	3.60	248.36	0.57	2,043.60	20.39	7,142.05	7,023.73	118.32	60.360		
500.00	500.00	15,809.60	7,243.40	3.81	248.35	0.56	2,043.60	20.15	7,046.29	6,927.50	118.79	59.319		
600.00	600.00	15,809.36	7,243.40	4.05	248.34	0.56	2,043.61	19.90	6,950.65	6,831.38	119.27	58.275		
700.00	699.98	15,808.43	7,243.41	4.32	248.32	26.31	2,043.61	18.97	6,854.68	6,734.93	119.75	57.242		
800.00	799.84	15,806.15	7,243.41	4.62	248.25	29.33	2,043.61	16.70	6,757.97	6,637.80	120.17	56.235		
900.00	899.62	15,803.35	7,243.42	4.94	248.17	29.24	2,043.62	13.89	6,661.06	6,540.49	120.57	55.245		
1,000.00	999.41	15,800.54	7,243.43	5.27	248.09	29.14	2,043.62	11.08	6,564.24	6,443.24	121.00	54.251		
1,100.00	1,099.19	15,802.33	7,243.43	5.62	248.15	29.04	2,043.63	8.28	6,467.52	6,346.01	121.50	53.230		
1,200.00	1,198.98	15,805.14	7,243.44	5.99	248.22	28.95	2,043.63	5.47	6,370.89	6,248.85	122.05	52.201		
1,300.00	1,298.76	15,807.94	7,243.45	6.36	248.30	28.85	2,043.64	2.66	6,274.37	6,151.75	122.62	51.170		
1,400.00	1,398.55	15,810.75	7,243.45	6.74	248.38	28.75	2,043.64	-0.14	6,177.96	6,054.74	123.22	50.138		
1,500.00	1,498.33	15,813.55	7,243.46	7.13	248.46	28.66	2,043.65	-2.95	6,081.66	5,957.81	123.85	49.105		
1,600.00	1,598.12	15,816.36	7,243.47	7.52	248.54	28.56	2,043.65	-5.75	5,985.49	5,860.97	124.52	48.070		
1,700.00	1,697.90	15,819.17	7,243.47	7.92	248.62	28.46	2,043.66	-8.56	5,889.44	5,764.22	125.22	47.034		
1,800.00	1,797.69	15,821.97	7,243.48	8.33	248.70	28.36	2,043.66	-11.37	5,793.52	5,667.57	125.95	45.998		
1,900.00	1,897.47	15,824.78	7,243.49	8.74	248.78	28.27	2,043.67	-14.17	5,697.74	5,571.02	126.73	44.961		
2,000.00	1,997.26	15,827.59	7,243.49	9.15	248.86	28.17	2,043.67	-16.98	5,602.11	5,474.57	127.54	43.924		
2,100.00	2,097.04	15,830.39	7,243.50	9.56	248.94	28.07	2,043.68	-19.79	5,506.63	5,378.23	128.40	42.887		
2,200.00	2,196.83	15,833.20	7,243.51	9.98	249.02	27.98	2,043.68	-22.59	5,411.31	5,282.01	129.30	41.851		
2,300.00	2,296.61	15,836.01	7,243.51	10.40	249.10	27.88	2,043.69	-25.40	5,316.17	5,185.91	130.25	40.815		
2,400.00	2,396.40	15,838.81	7,243.52	10.82	249.18	27.78	2,043.69	-28.21	5,221.20	5,089.95	131.25	39.780		
2,500.00	2,496.18	15,841.62	7,243.53	11.24	249.26	27.69	2,043.70	-31.01	5,126.42	4,994.12	132.30	38.747		
2,600.00	2,595.96	15,844.42	7,243.53	11.66	249.34	27.59	2,043.70	-33.82	5,031.85	4,898.43	133.41	37.716		
2,700.00	2,695.75	15,847.23	7,243.54	12.09	249.42	27.49	2,043.71	-36.62	4,937.48	4,802.90	134.58	36.688		
2,800.00	2,795.53	15,850.04	7,243.55	12.51	249.49	27.39	2,043.71	-39.43	4,843.34	4,707.53	135.81	35.663		
2,900.00	2,895.32	15,852.84	7,243.56	12.94	249.57	27.30	2,043.72	-42.24	4,749.44	4,612.34	137.10	34.642		
3,000.00	2,995.10	15,855.65	7,243.56	13.37	249.65	27.20	2,043.72	-45.04	4,655.79	4,517.33	138.46	33.626		
3,100.00	3,094.89	15,858.46	7,243.57	13.80	249.73	27.10	2,043.73	-47.85	4,562.41	4,422.52	139.89	32.614		
3,200.00	3,194.67	15,861.26	7,243.58	14.23	249.81	27.01	2,043.73	-50.66	4,469.31	4,327.92	141.39	31.609		
3,300.00	3,294.46	15,864.07	7,243.58	14.66	249.89	26.91	2,043.74	-53.46	4,376.52	4,233.54	142.98	30.610		
3,400.00	3,394.24	15,866.87	7,243.59	15.09	249.97	26.81	2,043.74	-56.27	4,284.05	4,139.41	144.64	29.619		
3,500.00	3,494.03	15,869.68	7,243.60	15.52	250.05	26.71	2,043.75	-59.07	4,191.92	4,045.53	146.39	28.635		
3,600.00	3,593.81	15,872.49	7,243.60	15.96	250.13	26.62	2,043.75	-61.88	4,100.16	3,951.93	148.23	27.661		
3,700.00	3,693.60	15,875.29	7,243.61	16.39	250.21	26.52	2,043.76	-64.69	4,008.79	3,858.63	150.16	26.696		
3,800.00	3,793.38	15,878.10	7,243.62	16.82	250.29	26.42	2,043.76	-67.49	3,917.84	3,765.64	152.20	25.742		
3,900.00	3,893.17	15,880.91	7,243.62	17.26	250.37	26.32	2,043.77	-70.30	3,827.34	3,673.01	154.33	24.799		
4,000.00	3,992.95	15,883.71	7,243.63	17.69	250.45	26.23	2,043.77	-73.11	3,737.32	3,580.74	156.58	23.868		
4,100.00	4,092.74	15,886.52	7,243.64	18.13	250.53	26.13	2,043.78	-75.91	3,647.82	3,488.88	158.94	22.950		
4,200.00	4,192.52	15,889.33	7,243.64	18.56	250.61	26.03	2,043.78	-78.72	3,558.88	3,397.45	161.43	22.046		
4,300.00	4,292.31	15,907.93	7,243.65	19.00	251.13	25.93	2,043.79	-81.52	3,470.54	3,306.24	164.30	21.123		
4,400.00	4,392.09	15,905.13	7,243.66	19.43	251.05	25.84	2,043.79	-84.33	3,382.84	3,215.89	166.96	20.262		
4,500.00	4,491.88	15,902.32	7,243.67	19.87	250.97	25.74	2,043.80	-87.14	3,295.85	3,126.10	169.75	19.416		
4,600.00	4,591.66	15,900.55	7,243.67	20.31	250.92	25.64	2,043.80	-89.94	3,209.60	3,036.90	172.70	18.585		
4,700.00	4,691.44	15,903.36	7,243.68	20.74	251.00	25.54	2,043.81	-92.75	3,124.18	2,948.29	175.89	17.763		
4,800.00	4,791.23	15,906.16	7,243.69	21.18	251.08	25.45	2,043.81	-95.56	3,039.64	2,860.41	179.23	16.959		
4,900.00	4,891.01	15,908.97	7,243.69	21.62	251.16	25.35	2,043.82	-98.36	2,956.07	2,773.32	182.75	16.176		
5,000.00	4,990.80	15,911.78	7,243.70	22.06	251.24	25.25	2,043.82	-101.17	2,873.54	2,687.10	186.44	15.413		
5,100.00	5,090.58	15,914.58	7,243.71	22.50	251.32	25.15	2,043.83	-103.98	2,792.15	2,601.85	190.30	14.672		

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



Anticollision Report



Company:	SRC ENERGY	Local Co-ordinate Reference:	Well HARVESTERS STATE 31C-16-M
Project:	SECTION 15, T6N, R66W	TVD Reference:	KB @ 4821.00ft
Reference Site:	HARVESTERS STATE 7-15 PAD	MD Reference:	KB @ 4821.00ft
Site Error:	3.28 ft	North Reference:	True
Reference Well:	HARVESTERS STATE 31C-16-M	Survey Calculation Method:	Minimum Curvature
Well Error:	3.28 ft	Output errors are at	2.45 sigma
Reference Wellbore	OH	Database:	EDM 5000.14 Single User Db
Reference Design:	PLAN #1	Offset TVD Reference:	Reference Datum

Offset Design HARVESTERS STATE 7-15 PAD - FALKEN 34C-9-L(SRC PLAN_75CC) - OH - Plan 1													Offset Site Error:	0.00 ft
Survey Program: 0-MWD+IFR1													Offset Well Error:	3.28 ft
Reference		Offset		Semi Major Axis			Distance							Warning
Measured Depth (ft)	Vertical Depth (ft)	Measured Depth (ft)	Vertical Depth (ft)	Reference (ft)	Offset (ft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (ft)	+E/-W (ft)	Between Centres (ft)	Between Ellipses (ft)	Minimum Separation (ft)	Separation Factor		
5,200.00	5,190.37	15,917.39	7,243.71	22.93	251.40	25.06	2,043.83	-106.78	2,712.00	2,517.65	194.36	13.954		
5,300.00	5,290.15	15,920.19	7,243.72	23.37	251.48	24.96	2,043.84	-109.59	2,633.21	2,434.62	198.60	13.259		
5,400.00	5,389.94	15,923.00	7,243.73	23.81	251.56	24.86	2,043.84	-112.39	2,555.90	2,352.88	203.02	12.589		
5,500.00	5,489.72	15,925.81	7,243.73	24.25	251.64	24.76	2,043.85	-115.20	2,480.21	2,272.57	207.64	11.945		
5,600.00	5,589.51	15,928.61	7,243.74	24.69	251.72	24.67	2,043.85	-118.01	2,406.29	2,193.84	212.45	11.327		
5,700.00	5,689.29	15,931.42	7,243.75	25.13	251.80	24.57	2,043.86	-120.81	2,334.31	2,116.89	217.43	10.736		
5,800.00	5,789.08	15,934.23	7,243.75	25.56	251.88	24.47	2,043.86	-123.62	2,264.46	2,041.89	222.57	10.174		
5,900.00	5,888.86	15,937.03	7,243.76	26.00	251.96	24.37	2,043.87	-126.43	2,196.94	1,969.07	227.86	9.641		
6,000.00	5,988.65	15,939.84	7,243.77	26.44	252.03	24.28	2,043.87	-129.23	2,131.96	1,898.69	233.28	9.139		
6,100.00	6,088.43	15,942.65	7,243.77	26.88	252.11	24.18	2,043.88	-132.04	2,069.78	1,831.00	238.77	8.668		
6,200.00	6,188.22	15,945.45	7,243.78	27.32	252.19	24.08	2,043.88	-134.84	2,010.64	1,766.33	244.31	8.230		
6,300.00	6,288.00	15,948.26	7,243.79	27.76	252.27	23.98	2,043.89	-137.65	1,954.83	1,705.00	249.84	7.824		
6,400.00	6,387.79	15,951.06	7,243.80	28.20	252.35	23.88	2,043.89	-140.46	1,902.64	1,647.36	255.28	7.453		
6,500.00	6,487.57	15,953.87	7,243.80	28.64	252.43	23.79	2,043.90	-143.26	1,854.37	1,593.81	260.56	7.117		
6,600.00	6,587.35	15,956.68	7,243.81	29.08	252.51	23.69	2,043.90	-146.07	1,810.34	1,544.76	265.59	6.816		
6,700.00	6,687.02	15,961.71	7,243.82	29.52	252.65	63.40	2,043.91	-151.10	1,770.90	1,500.59	270.32	6.551		
6,800.00	6,784.98	15,980.60	7,243.87	29.96	253.19	82.02	2,043.95	-170.00	1,736.82	1,461.91	274.91	6.318		
6,900.00	6,878.81	16,014.61	7,243.95	30.41	254.15	88.09	2,044.01	-204.00	1,708.76	1,429.51	279.26	6.119		
7,000.00	6,966.21	16,062.89	7,244.07	30.86	255.52	90.73	2,044.09	-252.29	1,686.86	1,403.56	283.30	5.954		
7,100.00	7,045.03	16,124.26	7,244.22	31.35	257.25	91.68	2,044.20	-313.65	1,670.73	1,383.69	287.04	5.821		
7,200.00	7,113.32	16,202.86	7,244.40	31.90	259.48	91.68	2,044.34	-386.60	1,659.57	1,368.84	290.73	5.708		
7,300.00	7,169.40	16,279.93	7,244.60	32.57	261.66	91.18	2,044.48	-469.32	1,652.38	1,358.35	294.02	5.620		
7,400.00	7,211.89	16,370.39	7,244.82	33.38	264.22	90.53	2,044.65	-559.78	1,648.06	1,350.51	297.55	5.539		
7,500.00	7,239.75	16,466.37	7,245.05	34.35	266.94	89.99	2,044.82	-655.76	1,645.66	1,344.41	301.25	5.463		
7,600.00	7,252.28	16,565.50	7,245.30	35.47	269.75	89.74	2,045.00	-754.89	1,644.50	1,339.35	305.16	5.389		
7,700.00	7,252.75	16,665.49	7,245.54	36.73	272.58	89.75	2,045.18	-854.88	1,644.07	1,334.82	309.25	5.316		
7,800.00	7,252.38	16,765.49	7,245.79	38.16	275.41	89.77	2,045.36	-954.88	1,643.68	1,330.16	313.51	5.243		
7,900.00	7,252.02	16,865.49	7,246.03	39.74	278.25	89.79	2,045.53	-1,054.88	1,643.29	1,325.35	317.93	5.169		
8,000.00	7,251.65	16,965.48	7,246.27	41.47	281.08	89.81	2,045.71	-1,154.87	1,642.90	1,320.40	322.49	5.094		
8,100.00	7,251.29	17,065.48	7,246.52	43.31	283.92	89.83	2,045.89	-1,254.87	1,642.51	1,315.33	327.17	5.020		
8,200.00	7,250.92	17,165.48	7,246.76	45.26	286.76	89.86	2,046.07	-1,354.87	1,642.12	1,310.16	331.96	4.947		
8,300.00	7,250.55	17,265.48	7,247.01	47.30	289.59	89.88	2,046.25	-1,454.86	1,641.73	1,304.89	336.84	4.874		
8,400.00	7,250.19	17,365.47	7,247.25	49.42	292.43	89.90	2,046.43	-1,554.86	1,641.34	1,299.54	341.80	4.802		
8,500.00	7,249.82	17,465.47	7,247.50	51.62	295.27	89.92	2,046.61	-1,654.86	1,640.95	1,294.12	346.84	4.731		
8,600.00	7,249.45	17,565.47	7,247.74	53.88	298.10	89.94	2,046.79	-1,754.85	1,640.57	1,288.63	351.94	4.662		
8,700.00	7,249.09	17,665.47	7,247.98	56.19	300.94	89.96	2,046.97	-1,854.85	1,640.18	1,283.09	357.09	4.593		
8,800.00	7,248.72	17,765.46	7,248.23	58.55	303.78	89.98	2,047.15	-1,954.85	1,639.79	1,277.50	362.29	4.526		
8,900.00	7,248.36	17,865.46	7,248.47	60.96	306.62	90.00	2,047.33	-2,054.84	1,639.40	1,271.87	367.54	4.461		
9,000.00	7,247.99	17,965.46	7,248.72	63.40	309.46	90.03	2,047.51	-2,154.84	1,639.02	1,266.20	372.82	4.396		
9,100.00	7,247.62	18,065.46	7,248.96	65.87	312.30	90.05	2,047.69	-2,254.84	1,638.63	1,260.49	378.14	4.333		
9,200.00	7,247.26	18,165.45	7,249.21	68.38	315.14	90.07	2,047.87	-2,354.84	1,638.24	1,254.76	383.48	4.272		
9,300.00	7,246.89	18,265.45	7,249.45	70.91	317.98	90.09	2,048.05	-2,454.83	1,637.86	1,249.00	388.86	4.212		
9,400.00	7,246.53	18,365.45	7,249.69	73.47	320.82	90.11	2,048.23	-2,554.83	1,637.47	1,243.21	394.26	4.153		
9,500.00	7,246.16	18,465.44	7,249.94	76.05	323.66	90.13	2,048.41	-2,654.83	1,637.08	1,237.40	399.68	4.096		
9,600.00	7,245.79	18,565.44	7,250.18	78.65	326.50	90.15	2,048.59	-2,754.82	1,636.70	1,231.57	405.12	4.040		
9,700.00	7,245.43	18,665.44	7,250.43	81.27	329.35	90.18	2,048.77	-2,854.82	1,636.31	1,225.73	410.58	3.985		
9,800.00	7,245.06	18,765.44	7,250.67	83.90	332.19	90.20	2,048.94	-2,954.82	1,635.93	1,219.87	416.06	3.932		
9,900.00	7,244.69	18,865.43	7,250.92	86.55	335.03	90.22	2,049.12	-3,054.81	1,635.54	1,213.99	421.55	3.880		
10,000.00	7,244.33	18,965.43	7,251.16	89.21	337.87	90.24	2,049.30	-3,154.81	1,635.16	1,208.10	427.05	3.829		
10,100.00	7,243.96	19,065.43	7,251.41	91.88	340.72	90.26	2,049.48	-3,254.81	1,634.77	1,202.20	432.57	3.779		
10,159.12	7,243.75	19,118.26	7,251.53	93.47	342.22	90.27	2,049.58	-3,307.64	1,634.56	1,198.88	435.67	3.752 CC		
10,200.00	7,243.60	19,118.26	7,251.53	94.56	342.22	90.27	2,049.58	-3,307.64	1,635.07	1,198.35	436.71	3.744 ES, SF		

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



Anticollision Report



Company:	SRC ENERGY	Local Co-ordinate Reference:	Well HARVESTERS STATE 31C-16-M
Project:	SECTION 15, T6N, R66W	TVD Reference:	KB @ 4821.00ft
Reference Site:	HARVESTERS STATE 7-15 PAD	MD Reference:	KB @ 4821.00ft
Site Error:	3.28 ft	North Reference:	True
Reference Well:	HARVESTERS STATE 31C-16-M	Survey Calculation Method:	Minimum Curvature
Well Error:	3.28 ft	Output errors are at	2.45 sigma
Reference Wellbore	OH	Database:	EDM 5000.14 Single User Db
Reference Design:	PLAN #1	Offset TVD Reference:	Reference Datum

Offset Design HARVESTERS STATE 7-15 PAD - FALKEN 34C-9-L(SRC PLAN_75CC) - OH - Plan 1													Offset Site Error:	0.00 ft
Survey Program: 0-MWD+IFR1													Offset Well Error:	3.28 ft
Reference		Offset		Semi Major Axis			Distance						Warning	
Measured Depth (ft)	Vertical Depth (ft)	Measured Depth (ft)	Vertical Depth (ft)	Reference (ft)	Offset (ft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (ft)	+E/-W (ft)	Between Centres (ft)	Between Ellipses (ft)	Minimum Separation (ft)	Separation Factor		
10,300.00	7,243.23	19,118.26	7,251.53	97.26	342.22	90.27	2,049.58	-3,307.64	1,640.62	1,202.46	438.16	3.744		
10,400.00	7,242.86	19,118.26	7,251.53	99.96	342.22	90.27	2,049.58	-3,307.64	1,652.21	1,214.15	438.06	3.772		
10,500.00	7,242.50	19,118.26	7,251.53	102.67	342.22	90.27	2,049.58	-3,307.64	1,669.72	1,233.26	436.46	3.826		
10,600.00	7,242.13	19,118.26	7,251.53	105.39	342.22	90.27	2,049.58	-3,307.64	1,692.97	1,259.49	433.48	3.906		
10,700.00	7,241.76	19,118.26	7,251.53	108.12	342.22	90.27	2,049.58	-3,307.64	1,721.72	1,292.46	429.26	4.011		
10,800.00	7,241.40	19,118.26	7,251.53	110.85	342.22	90.27	2,049.58	-3,307.64	1,755.71	1,331.74	423.97	4.141		
10,900.00	7,241.03	19,118.26	7,251.53	113.59	342.22	90.27	2,049.58	-3,307.64	1,794.63	1,376.86	417.77	4.296		
11,000.00	7,240.67	19,118.26	7,251.53	116.34	342.22	90.27	2,049.58	-3,307.64	1,838.17	1,427.33	410.84	4.474		
11,100.00	7,240.30	19,118.26	7,251.53	119.09	342.22	90.27	2,049.58	-3,307.64	1,886.01	1,482.66	403.35	4.676		
11,200.00	7,239.93	19,118.26	7,251.53	121.85	342.22	90.27	2,049.58	-3,307.64	1,937.84	1,542.39	395.45	4.900		
11,300.00	7,239.57	19,118.26	7,251.53	124.61	342.22	90.27	2,049.58	-3,307.64	1,993.34	1,606.05	387.29	5.147		
11,400.00	7,239.20	19,118.26	7,251.53	127.38	342.22	90.27	2,049.58	-3,307.64	2,052.21	1,673.23	378.98	5.415		
11,500.00	7,238.84	19,118.26	7,251.53	130.15	342.22	90.27	2,049.58	-3,307.64	2,114.18	1,743.56	370.62	5.704		
11,600.00	7,238.47	19,118.26	7,251.53	132.92	342.22	90.27	2,049.58	-3,307.64	2,178.97	1,816.68	362.29	6.014		
11,700.00	7,238.10	19,118.26	7,251.53	135.70	342.22	90.27	2,049.58	-3,307.64	2,246.35	1,892.28	354.07	6.344		
11,800.00	7,237.74	19,118.26	7,251.53	138.48	342.22	90.27	2,049.58	-3,307.64	2,316.09	1,970.09	346.00	6.694		
11,900.00	7,237.37	19,118.26	7,251.53	141.26	342.22	90.27	2,049.58	-3,307.64	2,387.98	2,049.86	338.12	7.062		
12,000.00	7,237.00	19,118.26	7,251.53	144.05	342.22	90.27	2,049.58	-3,307.64	2,461.83	2,131.37	330.47	7.450		
12,100.00	7,236.64	19,118.26	7,251.53	146.84	342.22	90.27	2,049.58	-3,307.64	2,537.48	2,214.43	323.05	7.855		
12,200.00	7,236.27	19,118.26	7,251.53	149.64	342.22	90.27	2,049.58	-3,307.64	2,614.76	2,298.88	315.89	8.278		
12,300.00	7,235.91	19,118.26	7,251.53	152.43	342.22	90.27	2,049.58	-3,307.64	2,693.54	2,384.56	308.98	8.717		
12,400.00	7,235.54	19,118.26	7,251.53	155.23	342.22	90.27	2,049.58	-3,307.64	2,773.69	2,471.35	302.34	9.174		
12,500.00	7,235.17	19,118.26	7,251.53	158.03	342.22	90.27	2,049.58	-3,307.64	2,855.09	2,559.13	295.96	9.647		
12,600.00	7,234.81	19,118.26	7,251.53	160.83	342.22	90.27	2,049.58	-3,307.64	2,937.63	2,647.80	289.84	10.135		
12,700.00	7,234.44	19,118.26	7,251.53	163.64	342.22	90.27	2,049.58	-3,307.64	3,021.24	2,737.27	283.97	10.639		
12,800.00	7,234.07	19,118.26	7,251.53	166.44	342.22	90.27	2,049.58	-3,307.64	3,105.81	2,827.46	278.34	11.158		
12,900.00	7,233.71	19,118.26	7,251.53	169.25	342.22	90.27	2,049.58	-3,307.64	3,191.27	2,918.31	272.96	11.691		
13,000.00	7,233.34	19,118.26	7,251.53	172.06	342.22	90.27	2,049.58	-3,307.64	3,277.56	3,009.76	267.80	12.239		
13,100.00	7,232.98	19,118.26	7,251.53	174.88	342.22	90.27	2,049.58	-3,307.64	3,364.61	3,101.74	262.86	12.800		
13,200.00	7,232.61	19,118.26	7,251.53	177.69	342.22	90.27	2,049.58	-3,307.64	3,452.35	3,194.22	258.13	13.374		
13,300.00	7,232.24	19,118.26	7,251.53	180.50	342.22	90.27	2,049.58	-3,307.64	3,540.75	3,287.15	253.61	13.962		
13,400.00	7,231.88	19,118.26	7,251.53	183.32	342.22	90.27	2,049.58	-3,307.64	3,629.75	3,380.48	249.27	14.561		
13,500.00	7,231.51	19,118.26	7,251.53	186.14	342.22	90.27	2,049.58	-3,307.64	3,719.31	3,474.19	245.12	15.173		
13,600.00	7,231.15	19,118.26	7,251.53	188.96	342.22	90.27	2,049.58	-3,307.64	3,809.39	3,568.25	241.14	15.797		
13,700.00	7,230.78	19,118.26	7,251.53	191.78	342.22	90.27	2,049.58	-3,307.64	3,899.95	3,662.62	237.33	16.432		
13,800.00	7,230.41	19,118.26	7,251.53	194.60	342.22	90.27	2,049.58	-3,307.64	3,990.97	3,757.29	233.68	17.079		
13,900.00	7,230.05	19,118.26	7,251.53	197.42	342.22	90.27	2,049.58	-3,307.64	4,082.40	3,852.22	230.18	17.736		
14,000.00	7,229.68	19,118.26	7,251.53	200.25	342.22	90.27	2,049.58	-3,307.64	4,174.23	3,947.41	226.82	18.403		
14,100.00	7,229.31	19,118.26	7,251.53	203.07	342.22	90.27	2,049.58	-3,307.64	4,266.42	4,042.83	223.59	19.081		
14,200.00	7,228.95	19,118.26	7,251.53	205.90	342.22	90.27	2,049.58	-3,307.64	4,358.96	4,138.46	220.50	19.769		
14,300.00	7,228.58	19,118.26	7,251.53	208.73	342.22	90.27	2,049.58	-3,307.64	4,451.82	4,234.29	217.52	20.466		
14,400.00	7,228.22	19,118.26	7,251.53	211.55	342.22	90.27	2,049.58	-3,307.64	4,544.98	4,330.31	214.67	21.172		
14,500.00	7,227.85	19,118.26	7,251.53	214.38	342.22	90.27	2,049.58	-3,307.64	4,638.43	4,426.51	211.92	21.887		
14,600.00	7,227.48	19,118.26	7,251.53	217.21	342.22	90.27	2,049.58	-3,307.64	4,732.15	4,522.86	209.28	22.611		
14,700.00	7,227.12	19,118.26	7,251.53	220.04	342.22	90.27	2,049.58	-3,307.64	4,826.12	4,619.37	206.75	23.343		
14,800.00	7,226.75	19,118.26	7,251.53	222.88	342.22	90.27	2,049.58	-3,307.64	4,920.32	4,716.02	204.30	24.084		
14,900.00	7,226.38	19,118.26	7,251.53	225.71	342.22	90.27	2,049.58	-3,307.64	5,014.75	4,812.80	201.95	24.832		
15,000.00	7,226.02	19,118.26	7,251.53	228.54	342.22	90.27	2,049.58	-3,307.64	5,109.40	4,909.71	199.68	25.587		
15,005.81	7,226.00	19,118.26	7,251.53	228.71	342.22	90.27	2,049.58	-3,307.64	5,114.90	4,915.34	199.56	25.631		



Anticollision Report



Company:	SRC ENERGY	Local Co-ordinate Reference:	Well HARVESTERS STATE 31C-16-M
Project:	SECTION 15, T6N, R66W	TVD Reference:	KB @ 4821.00ft
Reference Site:	HARVESTERS STATE 7-15 PAD	MD Reference:	KB @ 4821.00ft
Site Error:	3.28 ft	North Reference:	True
Reference Well:	HARVESTERS STATE 31C-16-M	Survey Calculation Method:	Minimum Curvature
Well Error:	3.28 ft	Output errors are at	2.45 sigma
Reference Wellbore	OH	Database:	EDM 5000.14 Single User Db
Reference Design:	PLAN #1	Offset TVD Reference:	Reference Datum

Offset Design HARVESTERS STATE 7-15 PAD - FALKEN 34N-9C-L(SRC PLAN_75CC) - OH - Plan 1													Offset Site Error:	0.00 ft
Survey Program: 0-MWD+IFR1													Offset Well Error:	3.28 ft
Reference		Offset		Semi Major Axis			Distance							Warning
Measured Depth (ft)	Vertical Depth (ft)	Measured Depth (ft)	Vertical Depth (ft)	Reference (ft)	Offset (ft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (ft)	+E/-W (ft)	Between Centres (ft)	Between Ellipses (ft)	Minimum Separation (ft)	Separation Factor		
0.00	0.00	15,713.74	7,135.44	3.28	247.96	-0.06	1,883.36	-1.86	7,379.81					
100.00	100.00	15,713.98	7,135.44	3.28	247.96	-0.06	1,883.36	-2.11	7,283.17	7,168.21	114.96	63.357		
200.00	200.00	15,714.23	7,135.45	3.34	247.97	-0.07	1,883.35	-2.35	7,186.61	7,071.30	115.32	62.320		
300.00	300.00	15,714.47	7,135.45	3.44	247.98	-0.08	1,883.35	-2.60	7,090.16	6,974.46	115.70	61.279		
400.00	400.00	15,714.71	7,135.45	3.60	247.98	-0.09	1,883.35	-2.84	6,993.80	6,877.69	116.11	60.236		
500.00	500.00	15,714.96	7,135.45	3.81	247.99	-0.09	1,883.35	-3.09	6,897.55	6,781.01	116.53	59.189		
600.00	600.00	15,715.20	7,135.45	4.05	248.00	-0.10	1,883.34	-3.33	6,801.40	6,684.42	116.99	58.139		
700.00	699.98	15,716.11	7,135.45	4.32	248.02	25.78	1,883.33	-4.24	6,704.94	6,587.50	117.44	57.092		
800.00	799.84	15,718.33	7,135.46	4.62	248.09	29.00	1,883.31	-6.46	6,607.79	6,489.91	117.88	56.057		
900.00	899.62	15,721.06	7,135.46	4.94	248.16	28.90	1,883.28	-9.19	6,510.43	6,392.13	118.30	55.033		
1,000.00	999.41	15,723.80	7,135.47	5.27	248.24	28.79	1,883.26	-11.93	6,413.16	6,294.41	118.75	54.008		
1,100.00	1,099.19	15,726.53	7,135.48	5.62	248.32	28.69	1,883.23	-14.66	6,315.97	6,196.76	119.21	52.980		
1,200.00	1,198.98	15,729.26	7,135.48	5.99	248.40	28.59	1,883.20	-17.39	6,218.87	6,099.16	119.71	51.950		
1,300.00	1,298.76	15,732.00	7,135.49	6.36	248.47	28.48	1,883.17	-20.13	6,121.86	6,001.63	120.23	50.918		
1,400.00	1,398.55	15,734.73	7,135.50	6.74	248.55	28.38	1,883.14	-22.86	6,024.95	5,904.17	120.78	49.885		
1,500.00	1,498.33	15,737.46	7,135.50	7.13	248.63	28.27	1,883.12	-25.59	5,928.14	5,806.78	121.36	48.849		
1,600.00	1,598.12	15,740.20	7,135.51	7.52	248.70	28.17	1,883.09	-28.33	5,831.43	5,709.47	121.96	47.813		
1,700.00	1,697.90	15,742.93	7,135.52	7.92	248.78	28.07	1,883.06	-31.06	5,734.84	5,612.23	122.61	46.774		
1,800.00	1,797.69	15,745.67	7,135.52	8.33	248.86	27.96	1,883.03	-33.79	5,638.37	5,515.08	123.28	45.735		
1,900.00	1,897.47	15,748.40	7,135.53	8.74	248.94	27.86	1,883.00	-36.53	5,542.01	5,418.02	124.00	44.695		
2,000.00	1,997.26	15,751.13	7,135.54	9.15	249.01	27.75	1,882.98	-39.26	5,445.79	5,321.04	124.75	43.654		
2,100.00	2,097.04	15,753.87	7,135.54	9.56	249.09	27.65	1,882.95	-41.99	5,349.71	5,224.16	125.54	42.612		
2,200.00	2,196.83	15,756.60	7,135.55	9.98	249.17	27.54	1,882.92	-44.72	5,253.77	5,127.39	126.38	41.570		
2,300.00	2,296.61	15,759.33	7,135.56	10.40	249.25	27.44	1,882.89	-47.46	5,157.98	5,030.71	127.27	40.529		
2,400.00	2,396.40	15,762.07	7,135.56	10.82	249.32	27.34	1,882.86	-50.19	5,062.36	4,934.15	128.20	39.488		
2,500.00	2,496.18	15,764.80	7,135.57	11.24	249.40	27.23	1,882.84	-52.92	4,966.90	4,837.71	129.19	38.447		
2,600.00	2,595.96	15,767.53	7,135.58	11.66	249.48	27.13	1,882.81	-55.66	4,871.63	4,741.40	130.23	37.409		
2,700.00	2,695.75	15,770.27	7,135.58	12.09	249.55	27.02	1,882.78	-58.39	4,776.55	4,645.22	131.33	36.372		
2,800.00	2,795.53	15,773.00	7,135.59	12.51	249.63	26.92	1,882.75	-61.12	4,681.67	4,549.18	132.49	35.337		
2,900.00	2,895.32	15,775.73	7,135.60	12.94	249.71	26.81	1,882.72	-63.86	4,587.00	4,453.29	133.71	34.305		
3,000.00	2,995.10	15,778.47	7,135.60	13.37	249.79	26.71	1,882.70	-66.59	4,492.57	4,357.57	135.00	33.278		
3,100.00	3,094.89	15,781.20	7,135.61	13.80	249.86	26.61	1,882.67	-69.32	4,398.38	4,262.02	136.37	32.254		
3,200.00	3,194.67	15,783.93	7,135.62	14.23	249.94	26.50	1,882.64	-72.06	4,304.45	4,166.65	137.81	31.236		
3,300.00	3,294.46	15,786.67	7,135.62	14.66	250.02	26.40	1,882.61	-74.79	4,210.80	4,071.48	139.33	30.223		
3,400.00	3,394.24	15,789.40	7,135.63	15.09	250.09	26.29	1,882.58	-77.52	4,117.45	3,976.52	140.93	29.217		
3,500.00	3,494.03	15,807.93	7,135.64	15.52	250.62	26.19	1,882.56	-80.26	4,024.41	3,881.56	142.85	28.172		
3,600.00	3,593.81	15,805.20	7,135.64	15.96	250.54	26.08	1,882.53	-82.99	3,931.72	3,787.16	144.56	27.198		
3,700.00	3,693.60	15,802.46	7,135.65	16.39	250.46	25.98	1,882.50	-85.72	3,839.39	3,693.02	146.36	26.232		
3,800.00	3,793.38	15,800.33	7,135.66	16.82	250.40	25.87	1,882.47	-88.46	3,747.45	3,599.17	148.28	25.273		
3,900.00	3,893.17	15,803.07	7,135.66	17.26	250.48	25.77	1,882.44	-91.19	3,655.93	3,505.55	150.38	24.312		
4,000.00	3,992.95	15,805.80	7,135.67	17.69	250.56	25.66	1,882.42	-93.92	3,564.86	3,412.27	152.59	23.362		
4,100.00	4,092.74	15,808.53	7,135.68	18.13	250.64	25.56	1,882.39	-96.66	3,474.29	3,319.36	154.93	22.425		
4,200.00	4,192.52	15,811.27	7,135.68	18.56	250.71	25.45	1,882.36	-99.39	3,384.24	3,226.84	157.40	21.501		
4,300.00	4,292.31	15,814.00	7,135.69	19.00	250.79	25.35	1,882.33	-102.12	3,294.76	3,134.76	160.01	20.591		
4,400.00	4,392.09	15,816.73	7,135.70	19.43	250.87	25.24	1,882.30	-104.86	3,205.91	3,043.15	162.76	19.697		
4,500.00	4,491.88	15,819.47	7,135.70	19.87	250.94	25.14	1,882.28	-107.59	3,117.73	2,952.06	165.67	18.819		
4,600.00	4,591.66	15,822.20	7,135.71	20.31	251.02	25.03	1,882.25	-110.32	3,030.27	2,861.53	168.74	17.958		
4,700.00	4,691.44	15,824.93	7,135.72	20.74	251.10	24.93	1,882.22	-113.06	2,943.62	2,771.64	171.98	17.116		
4,800.00	4,791.23	15,827.67	7,135.72	21.18	251.18	24.82	1,882.19	-115.79	2,857.83	2,682.42	175.41	16.292		
4,900.00	4,891.01	15,830.40	7,135.73	21.62	251.25	24.72	1,882.16	-118.52	2,773.00	2,593.97	179.03	15.489		
5,000.00	4,990.80	15,833.14	7,135.74	22.06	251.33	24.61	1,882.14	-121.26	2,689.20	2,506.36	182.84	14.708		
5,100.00	5,090.58	15,835.87	7,135.74	22.50	251.41	24.51	1,882.11	-123.99	2,606.55	2,419.68	186.87	13.949		

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



Anticollision Report



Company:	SRC ENERGY	Local Co-ordinate Reference:	Well HARVESTERS STATE 31C-16-M
Project:	SECTION 15, T6N, R66W	TVD Reference:	KB @ 4821.00ft
Reference Site:	HARVESTERS STATE 7-15 PAD	MD Reference:	KB @ 4821.00ft
Site Error:	3.28 ft	North Reference:	True
Reference Well:	HARVESTERS STATE 31C-16-M	Survey Calculation Method:	Minimum Curvature
Well Error:	3.28 ft	Output errors are at	2.45 sigma
Reference Wellbore	OH	Database:	EDM 5000.14 Single User Db
Reference Design:	PLAN #1	Offset TVD Reference:	Reference Datum

Offset Design HARVESTERS STATE 7-15 PAD - FALKEN 34N-9C-L(SRC PLAN_75CC) - OH - Plan 1													Offset Site Error:	0.00 ft
Survey Program: 0-MWD+IFR1													Offset Well Error:	3.28 ft
Reference		Offset		Semi Major Axis			Distance							Warning
Measured Depth (ft)	Vertical Depth (ft)	Measured Depth (ft)	Vertical Depth (ft)	Reference (ft)	Offset (ft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (ft)	+E/-W (ft)	Between Centres (ft)	Between Ellipses (ft)	Minimum Separation (ft)	Separation Factor		
5,200.00	5,190.37	15,838.60	7,135.75	22.93	251.49	24.40	1,882.08	-126.72	2,525.14	2,334.04	191.11	13.213		
5,300.00	5,290.15	15,841.34	7,135.76	23.37	251.56	24.30	1,882.05	-129.46	2,445.11	2,249.55	195.57	12.503		
5,400.00	5,389.94	15,844.07	7,135.76	23.81	251.64	24.19	1,882.02	-132.19	2,366.60	2,166.35	200.26	11.818		
5,500.00	5,489.72	15,846.80	7,135.77	24.25	251.72	24.09	1,882.00	-134.92	2,289.76	2,084.59	205.18	11.160		
5,600.00	5,589.51	15,849.54	7,135.78	24.69	251.79	23.98	1,881.97	-137.66	2,214.77	2,004.45	210.32	10.531		
5,700.00	5,689.29	15,852.27	7,135.78	25.13	251.87	23.88	1,881.94	-140.39	2,141.82	1,926.14	215.68	9.930		
5,800.00	5,789.08	15,855.00	7,135.79	25.56	251.95	23.77	1,881.91	-143.12	2,071.13	1,849.88	221.25	9.361		
5,900.00	5,888.86	15,857.74	7,135.80	26.00	252.03	23.67	1,881.88	-145.86	2,002.93	1,775.93	227.00	8.823		
6,000.00	5,988.65	15,860.47	7,135.80	26.44	252.10	23.56	1,881.86	-148.59	1,937.49	1,704.58	232.91	8.319		
6,100.00	6,088.43	15,863.20	7,135.81	26.88	252.18	23.46	1,881.83	-151.32	1,875.10	1,636.18	238.91	7.848		
6,200.00	6,188.22	15,865.94	7,135.82	27.32	252.26	23.35	1,881.80	-154.06	1,816.07	1,571.10	244.97	7.413		
6,300.00	6,288.00	15,868.67	7,135.82	27.76	252.33	23.25	1,881.77	-156.79	1,760.74	1,509.74	251.00	7.015		
6,400.00	6,387.79	15,871.40	7,135.83	28.20	252.41	23.14	1,881.74	-159.52	1,709.47	1,452.56	256.91	6.654		
6,500.00	6,487.57	15,874.14	7,135.84	28.64	252.49	23.04	1,881.72	-162.26	1,662.63	1,400.05	262.58	6.332		
6,600.00	6,587.35	15,876.87	7,135.84	29.08	252.57	22.93	1,881.69	-164.99	1,620.61	1,352.71	267.90	6.049		
6,700.00	6,687.02	15,881.83	7,135.86	29.52	252.71	22.82	1,881.64	-169.95	1,583.81	1,311.04	272.77	5.806		
6,800.00	6,784.98	15,900.65	7,135.90	29.96	253.24	22.71	1,881.44	-188.77	1,552.84	1,275.51	277.32	5.599		
6,900.00	6,878.81	15,934.58	7,135.98	30.41	254.20	22.60	1,881.10	-222.70	1,528.25	1,246.80	281.45	5.430		
7,000.00	6,966.21	15,982.80	7,136.10	30.86	255.56	22.49	1,880.60	-270.91	1,509.99	1,224.90	285.09	5.297		
7,100.00	7,045.03	16,044.10	7,136.25	31.35	257.29	22.38	1,879.97	-332.21	1,497.43	1,209.14	288.29	5.194		
7,200.00	7,113.32	16,116.99	7,136.43	31.90	259.35	22.27	1,879.23	-405.09	1,489.53	1,198.31	291.22	5.115		
7,300.00	7,169.40	16,200.41	7,136.63	32.57	261.71	22.16	1,878.38	-487.76	1,485.00	1,190.88	294.11	5.049		
7,400.00	7,211.89	16,309.98	7,136.85	33.38	264.81	22.05	1,877.45	-578.18	1,482.51	1,184.84	297.67	4.980		
7,500.00	7,239.75	16,386.03	7,137.09	34.35	266.96	21.94	1,876.47	-674.12	1,480.94	1,180.50	300.44	4.929		
7,600.00	7,252.28	16,485.14	7,137.33	35.47	269.77	21.83	1,875.45	-773.23	1,479.50	1,175.32	304.18	4.864		
7,700.00	7,252.75	16,585.11	7,137.57	36.73	272.60	21.72	1,874.43	-873.20	1,477.88	1,169.63	308.25	4.794		
7,800.00	7,252.38	16,685.10	7,137.82	38.16	275.43	21.61	1,873.40	-973.18	1,476.24	1,163.74	312.51	4.724		
7,900.00	7,252.02	16,785.09	7,138.06	39.74	278.26	21.50	1,872.38	-1,073.15	1,474.61	1,157.69	316.92	4.653		
8,000.00	7,251.65	16,885.07	7,138.31	41.47	281.09	21.39	1,871.36	-1,173.13	1,472.98	1,151.50	321.47	4.582		
8,100.00	7,251.29	16,985.06	7,138.55	43.31	283.92	21.28	1,870.33	-1,273.11	1,471.34	1,145.20	326.14	4.511		
8,200.00	7,250.92	17,085.04	7,138.80	45.26	286.75	21.17	1,869.31	-1,373.09	1,469.71	1,138.79	330.92	4.441		
8,300.00	7,250.55	17,185.03	7,139.04	47.30	289.59	21.06	1,868.28	-1,473.07	1,468.07	1,132.28	335.79	4.372		
8,400.00	7,250.19	17,285.01	7,139.28	49.42	292.42	20.95	1,867.26	-1,573.05	1,466.44	1,125.69	340.75	4.304		
8,500.00	7,249.82	17,385.00	7,139.53	51.62	295.25	20.84	1,866.23	-1,673.03	1,464.81	1,119.04	345.77	4.236		
8,600.00	7,249.45	17,484.98	7,139.77	53.88	298.09	20.73	1,865.21	-1,773.01	1,463.18	1,112.31	350.86	4.170		
8,700.00	7,249.09	17,584.97	7,140.02	56.19	300.92	20.62	1,864.18	-1,872.99	1,461.54	1,105.54	356.00	4.105		
8,800.00	7,248.72	17,684.96	7,140.26	58.55	303.76	20.51	1,863.16	-1,972.97	1,459.91	1,098.71	361.20	4.042		
8,900.00	7,248.36	17,784.94	7,140.51	60.96	306.59	20.40	1,862.13	-2,072.95	1,458.28	1,091.84	366.43	3.980		
9,000.00	7,247.99	17,884.93	7,140.75	63.40	309.43	20.29	1,861.11	-2,172.93	1,456.65	1,084.94	371.71	3.919		
9,100.00	7,247.62	17,984.91	7,140.99	65.87	312.26	20.18	1,860.08	-2,272.91	1,455.01	1,078.00	377.02	3.859		
9,200.00	7,247.26	18,084.90	7,141.24	68.38	315.10	20.07	1,859.06	-2,372.89	1,453.38	1,071.02	382.36	3.801		
9,300.00	7,246.89	18,184.88	7,141.48	70.91	317.94	19.96	1,858.04	-2,472.87	1,451.75	1,064.02	387.72	3.744		
9,400.00	7,246.53	18,284.87	7,141.73	73.47	320.77	19.85	1,857.01	-2,572.85	1,450.12	1,057.00	393.12	3.689		
9,500.00	7,246.16	18,384.85	7,141.97	76.05	323.61	19.74	1,855.99	-2,672.83	1,448.49	1,049.95	398.53	3.635		
9,600.00	7,245.79	18,484.84	7,142.22	78.65	326.45	19.63	1,854.96	-2,772.81	1,446.85	1,042.89	403.97	3.582		
9,700.00	7,245.43	18,584.82	7,142.46	81.27	329.29	19.52	1,853.94	-2,872.79	1,445.22	1,035.81	409.42	3.530		
9,800.00	7,245.06	18,684.81	7,142.70	83.90	332.12	19.41	1,852.91	-2,972.77	1,443.59	1,028.71	414.89	3.479		
9,900.00	7,244.69	18,784.80	7,142.95	86.55	334.96	19.30	1,851.89	-3,072.75	1,441.96	1,021.59	420.37	3.430		
10,000.00	7,244.33	18,884.78	7,143.19	89.21	337.80	19.19	1,850.86	-3,172.73	1,440.33	1,014.46	425.87	3.382		
10,100.00	7,243.96	18,984.77	7,143.44	91.88	340.64	19.08	1,849.84	-3,272.71	1,438.70	1,007.32	431.38	3.335		
10,156.96	7,243.75	19,018.34	7,143.52	93.41	341.60	19.00	1,849.49	-3,306.28	1,437.96	1,004.06	433.90	3.314 CC		
10,200.00	7,243.60	19,018.34	7,143.52	94.56	341.60	19.00	1,849.49	-3,306.28	1,438.60	1,003.76	434.84	3.308 ES, SF		

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



Anticollision Report



Company:	SRC ENERGY	Local Co-ordinate Reference:	Well HARVESTERS STATE 31C-16-M
Project:	SECTION 15, T6N, R66W	TVD Reference:	KB @ 4821.00ft
Reference Site:	HARVESTERS STATE 7-15 PAD	MD Reference:	KB @ 4821.00ft
Site Error:	3.28 ft	North Reference:	True
Reference Well:	HARVESTERS STATE 31C-16-M	Survey Calculation Method:	Minimum Curvature
Well Error:	3.28 ft	Output errors are at	2.45 sigma
Reference Wellbore	OH	Database:	EDM 5000.14 Single User Db
Reference Design:	PLAN #1	Offset TVD Reference:	Reference Datum

Offset Design HARVESTERS STATE 7-15 PAD - FALKEN 34N-9C-L(SRC PLAN_75CC) - OH - Plan 1													Offset Site Error:	0.00 ft
Survey Program: 0-MWD+IFR1													Offset Well Error:	3.28 ft
Reference		Offset		Semi Major Axis			Distance						Warning	
Measured Depth (ft)	Vertical Depth (ft)	Measured Depth (ft)	Vertical Depth (ft)	Reference (ft)	Offset (ft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (ft)	+E/-W (ft)	Between Centres (ft)	Between Ellipses (ft)	Minimum Separation (ft)	Separation Factor		
10,300.00	7,243.23	19,018.34	7,143.52	97.26	341.60	86.00	1,849.49	-3,306.28	1,445.05	1,009.46	435.59	3.317		
10,400.00	7,242.86	19,018.34	7,143.52	99.96	341.60	86.00	1,849.49	-3,306.28	1,458.35	1,023.98	434.37	3.357		
10,500.00	7,242.50	19,018.34	7,143.52	102.67	341.60	86.00	1,849.49	-3,306.28	1,478.30	1,047.01	431.29	3.428		
10,600.00	7,242.13	19,018.34	7,143.52	105.39	341.60	86.00	1,849.49	-3,306.28	1,504.65	1,078.10	426.55	3.527		
10,700.00	7,241.76	19,018.34	7,143.52	108.12	341.60	86.00	1,849.49	-3,306.28	1,537.06	1,116.69	420.37	3.656		
10,800.00	7,241.40	19,018.34	7,143.52	110.85	341.60	86.00	1,849.49	-3,306.28	1,575.17	1,162.15	413.01	3.814		
10,900.00	7,241.03	19,018.34	7,143.52	113.59	341.60	86.00	1,849.49	-3,306.28	1,618.56	1,213.83	404.73	3.999		
11,000.00	7,240.67	19,018.34	7,143.52	116.34	341.60	86.00	1,849.49	-3,306.28	1,666.84	1,271.06	395.78	4.212		
11,100.00	7,240.30	19,018.34	7,143.52	119.09	341.60	86.00	1,849.49	-3,306.28	1,719.58	1,333.20	386.37	4.451		
11,200.00	7,239.93	19,018.34	7,143.52	121.85	341.60	86.00	1,849.49	-3,306.28	1,776.38	1,399.68	376.71	4.716		
11,300.00	7,239.57	19,018.34	7,143.52	124.61	341.60	86.00	1,849.49	-3,306.28	1,836.88	1,469.93	366.95	5.006		
11,400.00	7,239.20	19,018.34	7,143.52	127.38	341.60	86.00	1,849.49	-3,306.28	1,900.72	1,543.50	357.22	5.321		
11,500.00	7,238.84	19,018.34	7,143.52	130.15	341.60	86.00	1,849.49	-3,306.28	1,967.57	1,619.94	347.63	5.660		
11,600.00	7,238.47	19,018.34	7,143.52	132.92	341.60	86.00	1,849.49	-3,306.28	2,037.13	1,698.88	338.26	6.022		
11,700.00	7,238.10	19,018.34	7,143.52	135.70	341.60	86.00	1,849.49	-3,306.28	2,109.15	1,780.00	329.15	6.408		
11,800.00	7,237.74	19,018.34	7,143.52	138.48	341.60	86.00	1,849.49	-3,306.28	2,183.37	1,863.02	320.36	6.815		
11,900.00	7,237.37	19,018.34	7,143.52	141.26	341.60	86.00	1,849.49	-3,306.28	2,259.58	1,947.69	311.89	7.245		
12,000.00	7,237.00	19,018.34	7,143.52	144.05	341.60	86.00	1,849.49	-3,306.28	2,337.58	2,033.81	303.78	7.695		
12,100.00	7,236.64	19,018.34	7,143.52	146.84	341.60	86.00	1,849.49	-3,306.28	2,417.21	2,121.19	296.01	8.166		
12,200.00	7,236.27	19,018.34	7,143.52	149.64	341.60	86.00	1,849.49	-3,306.28	2,498.30	2,209.70	288.60	8.657		
12,300.00	7,235.91	19,018.34	7,143.52	152.43	341.60	86.00	1,849.49	-3,306.28	2,580.71	2,299.18	281.54	9.167		
12,400.00	7,235.54	19,018.34	7,143.52	155.23	341.60	86.00	1,849.49	-3,306.28	2,664.33	2,389.53	274.80	9.695		
12,500.00	7,235.17	19,018.34	7,143.52	158.03	341.60	86.00	1,849.49	-3,306.28	2,749.05	2,480.65	268.40	10.242		
12,600.00	7,234.81	19,018.34	7,143.52	160.83	341.60	86.00	1,849.49	-3,306.28	2,834.76	2,572.46	262.30	10.807		
12,700.00	7,234.44	19,018.34	7,143.52	163.64	341.60	86.00	1,849.49	-3,306.28	2,921.38	2,664.88	256.51	11.389		
12,800.00	7,234.07	19,018.34	7,143.52	166.44	341.60	86.00	1,849.49	-3,306.28	3,008.83	2,757.84	250.99	11.988		
12,900.00	7,233.71	19,018.34	7,143.52	169.25	341.60	86.00	1,849.49	-3,306.28	3,097.04	2,851.29	245.75	12.602		
13,000.00	7,233.34	19,018.34	7,143.52	172.06	341.60	86.00	1,849.49	-3,306.28	3,185.95	2,945.19	240.76	13.233		
13,100.00	7,232.98	19,018.34	7,143.52	174.88	341.60	86.00	1,849.49	-3,306.28	3,275.49	3,039.48	236.01	13.878		
13,200.00	7,232.61	19,018.34	7,143.52	177.69	341.60	86.00	1,849.49	-3,306.28	3,365.63	3,134.13	231.49	14.539		
13,300.00	7,232.24	19,018.34	7,143.52	180.50	341.60	86.00	1,849.49	-3,306.28	3,456.30	3,229.11	227.19	15.213		
13,400.00	7,231.88	19,018.34	7,143.52	183.32	341.60	86.00	1,849.49	-3,306.28	3,547.48	3,324.39	223.09	15.902		
13,500.00	7,231.51	19,018.34	7,143.52	186.14	341.60	86.00	1,849.49	-3,306.28	3,639.12	3,419.94	219.18	16.603		
13,600.00	7,231.15	19,018.34	7,143.52	188.96	341.60	86.00	1,849.49	-3,306.28	3,731.20	3,515.74	215.46	17.318		
13,700.00	7,230.78	19,018.34	7,143.52	191.78	341.60	86.00	1,849.49	-3,306.28	3,823.67	3,611.76	211.90	18.044		
13,800.00	7,230.41	19,018.34	7,143.52	194.60	341.60	86.00	1,849.49	-3,306.28	3,916.51	3,708.00	208.51	18.783		
13,900.00	7,230.05	19,018.34	7,143.52	197.42	341.60	86.00	1,849.49	-3,306.28	4,009.69	3,804.42	205.27	19.534		
14,000.00	7,229.68	19,018.34	7,143.52	200.25	341.60	86.00	1,849.49	-3,306.28	4,103.19	3,901.03	202.17	20.296		
14,100.00	7,229.31	19,018.34	7,143.52	203.07	341.60	86.00	1,849.49	-3,306.28	4,197.00	3,997.79	199.21	21.068		
14,200.00	7,228.95	19,018.34	7,143.52	205.90	341.60	86.00	1,849.49	-3,306.28	4,291.08	4,094.71	196.37	21.852		
14,300.00	7,228.58	19,018.34	7,143.52	208.73	341.60	86.00	1,849.49	-3,306.28	4,385.43	4,191.77	193.66	22.645		
14,400.00	7,228.22	19,018.34	7,143.52	211.55	341.60	86.00	1,849.49	-3,306.28	4,480.02	4,288.96	191.06	23.448		
14,500.00	7,227.85	19,018.34	7,143.52	214.38	341.60	86.00	1,849.49	-3,306.28	4,574.84	4,386.27	188.58	24.260		
14,600.00	7,227.48	19,018.34	7,143.52	217.21	341.60	86.00	1,849.49	-3,306.28	4,669.88	4,483.69	186.19	25.081		
14,700.00	7,227.12	19,018.34	7,143.52	220.04	341.60	86.00	1,849.49	-3,306.28	4,765.12	4,581.22	183.90	25.911		
14,800.00	7,226.75	19,018.34	7,143.52	222.88	341.60	86.00	1,849.49	-3,306.28	4,860.55	4,678.85	181.71	26.750		
14,900.00	7,226.38	19,018.34	7,143.52	225.71	341.60	86.00	1,849.49	-3,306.28	4,956.16	4,776.57	179.60	27.596		
15,000.00	7,226.02	19,018.34	7,143.52	228.54	341.60	86.00	1,849.49	-3,306.28	5,051.95	4,874.37	177.57	28.450		
15,005.81	7,226.00	19,018.34	7,143.52	228.71	341.60	86.00	1,849.49	-3,306.28	5,057.51	4,880.06	177.46	28.500		



Anticollision Report



Company:	SRC ENERGY	Local Co-ordinate Reference:	Well HARVESTERS STATE 31C-16-M
Project:	SECTION 15, T6N, R66W	TVD Reference:	KB @ 4821.00ft
Reference Site:	HARVESTERS STATE 7-15 PAD	MD Reference:	KB @ 4821.00ft
Site Error:	3.28 ft	North Reference:	True
Reference Well:	HARVESTERS STATE 31C-16-M	Survey Calculation Method:	Minimum Curvature
Well Error:	3.28 ft	Output errors are at	2.45 sigma
Reference Wellbore	OH	Database:	EDM 5000.14 Single User Db
Reference Design:	PLAN #1	Offset TVD Reference:	Reference Datum

Offset Design HARVESTERS STATE 7-15 PAD - FRITZLER 11-21-4(PR_150CC) - OH - OH													Offset Site Error:	0.00 ft
Survey Program: 172-MWD													Offset Well Error:	3.28 ft
Reference		Offset		Semi Major Axis			Distance							Warning
Measured Depth (ft)	Vertical Depth (ft)	Measured Depth (ft)	Vertical Depth (ft)	Reference (ft)	Offset (ft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (ft)	+E/-W (ft)	Between Centres (ft)	Between Ellipses (ft)	Minimum Separation (ft)	Separation Factor		
0.00	0.00	1,505.41	1,553.71	3.28	8.09	-118.92	-4,154.94	-7,519.65	8,730.56					
100.00	100.00	1,584.00	1,631.02	3.28	8.51	-118.89	-4,144.32	-7,510.44	8,713.56	8,702.47	11.08	786.304		
200.00	200.00	1,584.00	1,631.02	3.34	8.51	-118.89	-4,144.32	-7,510.44	8,696.54	8,685.44	11.10	783.440		
300.00	300.00	1,690.60	1,735.96	3.44	9.06	-118.84	-4,129.51	-7,498.93	8,680.37	8,668.71	11.65	744.907		
400.00	400.00	1,731.69	1,776.41	3.60	9.28	-118.82	-4,123.78	-7,494.56	8,664.20	8,652.24	11.96	724.241		
500.00	500.00	1,793.85	1,837.69	3.81	9.60	-118.79	-4,115.56	-7,488.04	8,648.58	8,636.17	12.41	696.666		
600.00	600.00	1,888.39	1,930.92	4.05	10.09	-118.76	-4,103.72	-7,477.83	8,633.06	8,620.01	13.05	661.559		
700.00	699.98	1,943.97	1,985.75	4.32	10.37	-96.14	-4,096.60	-7,472.13	8,618.07	8,604.53	13.54	636.305		
800.00	799.84	800.00	2,262.25	4.62	4.71	-96.41	-4,061.02	-7,440.37	8,602.41	8,593.13	9.28	927.349		
900.00	899.62	2,487.55	2,520.57	4.94	13.32	-96.43	-4,026.41	-7,405.35	8,584.94	8,568.37	16.57	518.009		
1,000.00	999.41	2,543.95	2,575.91	5.27	13.64	-96.44	-4,018.95	-7,397.46	8,566.98	8,549.84	17.15	499.654		
1,100.00	1,099.19	2,877.97	2,902.89	5.62	15.59	-96.46	-3,971.25	-7,348.99	8,548.39	8,529.38	19.01	449.594		
1,200.00	1,198.98	2,924.33	2,948.15	5.99	15.87	-96.46	-3,964.13	-7,341.91	8,528.27	8,508.69	19.58	435.628		
1,300.00	1,298.76	3,010.00	3,031.96	6.36	16.39	-96.47	-3,951.69	-7,329.24	8,508.92	8,488.59	20.33	418.443		
1,400.00	1,398.55	3,135.86	3,154.99	6.74	17.13	-96.49	-3,934.19	-7,309.31	8,489.01	8,467.73	21.28	398.917		
1,500.00	1,498.33	3,167.81	3,186.24	7.13	17.32	-96.49	-3,929.91	-7,304.26	8,469.39	8,447.58	21.81	388.355		
1,600.00	1,598.12	3,200.00	3,217.79	7.52	17.52	-96.50	-3,925.72	-7,299.39	8,450.53	8,428.18	22.35	378.169		
1,700.00	1,697.90	3,342.15	3,357.04	7.92	18.35	-96.52	-3,907.05	-7,277.74	8,431.42	8,408.04	23.38	360.567		
1,800.00	1,797.69	3,391.00	3,404.90	8.33	18.64	-96.53	-3,900.66	-7,270.39	8,412.67	8,388.66	24.01	350.396		
1,900.00	1,897.47	3,391.00	3,404.90	8.74	18.64	-96.53	-3,900.66	-7,270.39	8,394.83	8,370.41	24.42	343.766		
2,000.00	1,997.26	3,446.97	3,459.85	9.15	18.95	-96.54	-3,893.38	-7,262.66	8,377.44	8,352.35	25.09	333.946		
2,100.00	2,097.04	3,486.00	3,498.27	9.56	19.18	-96.54	-3,888.31	-7,257.97	8,361.15	8,335.47	25.68	325.588		
2,200.00	2,196.83	2,200.00	3,587.17	9.98	12.09	-96.54	-3,876.25	-7,247.46	8,345.19	8,325.00	20.19	413.328		
2,300.00	2,296.61	3,617.42	3,627.60	10.40	19.90	-96.54	-3,870.58	-7,242.82	8,329.46	8,302.34	27.12	307.135		
2,400.00	2,396.40	3,643.85	3,653.63	10.82	20.05	-96.54	-3,866.86	-7,240.20	8,314.62	8,286.95	27.67	300.530		
2,500.00	2,496.18	4,098.77	4,099.63	11.24	22.67	-96.48	-3,793.93	-7,189.08	8,296.21	8,266.02	30.19	274.805		
2,600.00	2,595.96	2,600.00	4,229.95	11.66	13.88	-96.50	-3,776.15	-7,169.40	8,277.52	8,253.90	23.63	350.365		
2,700.00	2,695.75	4,292.13	4,289.04	12.09	23.82	-96.51	-3,768.06	-7,160.08	8,258.40	8,226.47	31.93	258.675		
2,800.00	2,795.53	4,343.00	4,338.99	12.51	24.11	-96.51	-3,761.53	-7,153.01	8,240.41	8,207.81	32.59	252.815		
2,900.00	2,895.32	4,343.00	4,338.99	12.94	24.11	-96.51	-3,761.53	-7,153.01	8,222.96	8,189.92	33.04	248.872		
3,000.00	2,995.10	4,439.00	4,433.35	13.37	24.66	-96.52	-3,749.00	-7,140.57	8,206.00	8,172.09	33.91	241.987		
3,100.00	3,094.89	4,498.58	4,491.92	13.80	25.00	-96.53	-3,741.00	-7,133.11	8,189.30	8,154.67	34.62	236.531		
3,200.00	3,194.67	4,549.13	4,541.67	14.23	25.28	-96.53	-3,734.38	-7,127.12	8,173.25	8,137.96	35.29	231.574		
3,300.00	3,294.46	4,614.86	4,606.44	14.66	25.65	-96.54	-3,726.37	-7,119.32	8,157.67	8,121.64	36.03	226.405		
3,400.00	3,394.24	4,629.00	4,620.39	15.09	25.72	-96.54	-3,724.75	-7,117.63	8,142.74	8,106.20	36.54	222.834		
3,500.00	3,494.03	4,680.72	4,671.46	15.52	26.00	-96.55	-3,719.05	-7,111.78	8,128.43	8,091.22	37.21	218.425		
3,600.00	3,593.81	4,724.00	4,714.28	15.96	26.23	-96.56	-3,714.51	-7,107.44	8,115.13	8,077.28	37.85	214.407		
3,700.00	3,693.60	4,814.81	4,804.19	16.39	26.69	-96.57	-3,705.56	-7,098.44	8,102.35	8,063.67	38.69	209.424		
3,800.00	3,793.38	4,854.36	4,843.38	16.82	26.89	-96.58	-3,701.87	-7,094.43	8,089.71	8,050.40	39.30	205.820		
3,900.00	3,893.17	4,915.00	4,903.51	17.26	27.19	-96.60	-3,696.45	-7,088.89	8,077.94	8,037.92	40.01	201.889		
4,000.00	3,992.95	4,915.00	4,903.51	17.69	27.19	-96.60	-3,696.45	-7,088.89	8,066.76	8,026.31	40.45	199.408		
4,100.00	4,092.74	4,979.94	4,968.00	18.13	27.50	-96.61	-3,690.88	-7,083.61	8,056.28	8,015.11	41.18	195.656		
4,200.00	4,192.52	5,028.84	5,016.59	18.56	27.74	-96.62	-3,686.78	-7,080.00	8,046.46	8,004.63	41.83	192.372		
4,300.00	4,292.31	5,104.00	5,091.34	19.00	28.09	-96.63	-3,680.64	-7,075.02	8,037.35	7,994.76	42.59	188.694		
4,400.00	4,392.09	5,104.00	5,091.34	19.43	28.09	-96.63	-3,680.64	-7,075.02	8,028.76	7,985.73	43.03	186.592		
4,500.00	4,491.88	5,159.97	5,147.05	19.87	28.34	-96.65	-3,676.43	-7,071.79	8,020.90	7,977.20	43.70	183.532		
4,600.00	4,591.66	5,198.21	5,185.15	20.31	28.50	-96.65	-3,673.87	-7,069.81	8,013.86	7,969.56	44.30	180.906		
4,700.00	4,691.44	5,236.47	5,223.31	20.74	28.67	-96.66	-3,671.57	-7,068.02	8,007.58	7,962.68	44.89	178.373		
4,800.00	4,791.23	5,294.00	5,280.71	21.18	28.92	-96.68	-3,668.60	-7,065.69	8,002.13	7,956.56	45.57	175.599		
4,900.00	4,891.01	5,294.00	5,280.71	21.62	28.92	-96.68	-3,668.60	-7,065.69	7,997.38	7,951.40	45.99	173.903		
5,000.00	4,990.80	5,383.41	5,369.99	22.06	29.28	-96.71	-3,664.74	-7,062.61	7,993.05	7,946.26	46.80	170.805		
5,100.00	5,090.58	5,443.12	5,429.62	22.50	29.51	-96.73	-3,662.49	-7,060.80	7,989.32	7,941.84	47.47	168.291		

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



Anticollision Report



Company:	SRC ENERGY	Local Co-ordinate Reference:	Well HARVESTERS STATE 31C-16-M
Project:	SECTION 15, T6N, R66W	TVD Reference:	KB @ 4821.00ft
Reference Site:	HARVESTERS STATE 7-15 PAD	MD Reference:	KB @ 4821.00ft
Site Error:	3.28 ft	North Reference:	True
Reference Well:	HARVESTERS STATE 31C-16-M	Survey Calculation Method:	Minimum Curvature
Well Error:	3.28 ft	Output errors are at	2.45 sigma
Reference Wellbore	OH	Database:	EDM 5000.14 Single User Db
Reference Design:	PLAN #1	Offset TVD Reference:	Reference Datum

Offset Design HARVESTERS STATE 7-15 PAD - FRITZLER 11-21-4(PR_150CC) - OH - OH													Offset Site Error:	0.00 ft
Survey Program: 172-MWD													Offset Well Error:	3.28 ft
Reference		Offset		Semi Major Axis			Distance							Warning
Measured Depth (ft)	Vertical Depth (ft)	Measured Depth (ft)	Vertical Depth (ft)	Reference (ft)	Offset (ft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (ft)	+E/-W (ft)	Between Centres (ft)	Between Ellipses (ft)	Minimum Separation (ft)	Separation Factor		
5,200.00	5,190.37	5,502.83	5,489.28	22.93	29.75	-96.75	-3,660.50	-7,059.19	7,986.09	7,937.94	48.15	165.862		
5,300.00	5,290.15	5,579.00	5,565.40	23.37	30.05	-96.78	-3,658.35	-7,057.41	7,983.39	7,934.49	48.90	163.267		
5,400.00	5,389.94	5,623.01	5,609.39	23.81	30.21	-96.80	-3,657.28	-7,056.54	7,981.14	7,931.64	49.50	161.242		
5,500.00	5,489.72	5,683.76	5,670.11	24.25	30.44	-96.82	-3,655.98	-7,055.52	7,979.40	7,929.23	50.17	159.045		
5,600.00	5,589.51	5,744.51	5,730.85	24.69	30.66	-96.84	-3,654.89	-7,054.74	7,978.16	7,927.32	50.84	156.920		
5,700.00	5,689.29	5,805.26	5,791.59	25.13	30.89	-96.87	-3,654.00	-7,054.18	7,977.42	7,925.91	51.51	154.863		
5,798.45	5,787.53	5,864.00	5,850.32	25.56	31.11	-96.89	-3,653.33	-7,053.85	7,977.17	7,925.00	52.17	152.917		
5,800.00	5,789.08	5,864.00	5,850.32	25.56	31.11	-96.89	-3,653.33	-7,053.85	7,977.17	7,924.99	52.17	152.900		
5,900.00	5,888.86	5,940.91	5,927.23	26.00	31.37	-96.93	-3,652.59	-7,053.70	7,977.32	7,924.41	52.91	150.783		
6,000.00	5,988.65	6,015.36	6,001.68	26.44	31.64	-96.96	-3,651.92	-7,053.81	7,977.79	7,924.16	53.63	148.763		
6,100.00	6,088.43	6,089.83	6,076.14	26.88	31.90	-96.99	-3,651.28	-7,054.17	7,978.58	7,924.23	54.35	146.804		
6,200.00	6,188.22	6,171.50	6,157.80	27.32	32.18	-97.02	-3,650.62	-7,054.85	7,979.69	7,924.59	55.10	144.819		
6,300.00	6,288.00	6,286.32	6,272.62	27.76	32.59	-97.06	-3,649.58	-7,055.83	7,980.78	7,924.78	56.00	142.508		
6,400.00	6,387.79	6,401.17	6,387.46	28.20	32.99	-97.10	-3,648.33	-7,056.68	7,981.69	7,924.79	56.90	140.269		
6,500.00	6,487.57	6,498.06	6,484.34	28.64	33.33	-97.14	-3,647.13	-7,057.36	7,982.49	7,924.76	57.73	138.280		
6,600.00	6,587.35	6,586.82	6,573.09	29.08	33.65	-97.17	-3,645.97	-7,058.15	7,983.42	7,924.90	58.52	136.430		
6,700.00	6,687.02	6,675.50	6,661.76	29.52	33.97	-59.37	-3,644.76	-7,059.10	7,982.57	7,923.26	59.31	134.602		
6,800.00	6,784.98	6,723.00	6,709.25	29.96	34.14	-43.99	-3,644.08	-7,059.69	7,969.97	7,910.07	59.90	133.053		
6,900.00	6,878.81	6,814.36	6,800.59	30.41	34.46	-40.83	-3,642.91	-7,061.10	7,944.43	7,883.75	60.68	130.922		
7,000.00	6,966.21	6,872.44	6,858.65	30.86	34.66	-40.91	-3,642.31	-7,062.24	7,906.86	7,845.56	61.29	128.999		
7,100.00	7,045.03	6,925.25	6,911.45	31.35	34.85	-42.90	-3,641.86	-7,063.45	7,858.09	7,796.22	61.87	127.010		
7,200.00	7,113.32	6,971.56	6,957.74	31.90	35.01	-46.61	-3,641.54	-7,064.64	7,799.32	7,736.91	62.41	124.969		
7,300.00	7,169.40	7,010.38	6,996.54	32.57	35.14	-52.23	-3,641.32	-7,065.73	7,731.98	7,669.05	62.92	122.877		
7,400.00	7,211.89	7,065.77	7,051.91	33.38	35.34	-60.33	-3,640.90	-7,067.40	7,657.62	7,594.08	63.54	120.514		
7,500.00	7,239.75	7,103.75	7,089.86	34.35	35.47	-71.00	-3,640.45	-7,068.59	7,578.08	7,513.97	64.11	118.199		
7,600.00	7,252.28	7,123.17	7,109.28	35.47	35.54	-83.86	-3,640.17	-7,069.22	7,495.41	7,430.77	64.64	115.950		
7,700.00	7,252.75	7,127.79	7,113.90	36.73	35.56	-88.37	-3,640.10	-7,069.37	7,411.76	7,346.60	65.16	113.747		
7,800.00	7,252.38	7,131.41	7,117.51	38.16	35.57	-88.42	-3,640.04	-7,069.49	7,328.46	7,262.71	65.76	111.449		
7,900.00	7,252.02	7,135.06	7,121.16	39.74	35.58	-88.47	-3,639.98	-7,069.61	7,245.59	7,179.15	66.44	109.052		
8,000.00	7,251.65	7,138.73	7,124.83	41.47	35.60	-88.52	-3,639.92	-7,069.73	7,163.15	7,095.93	67.22	106.570		
8,100.00	7,251.29	7,142.43	7,128.53	43.31	35.61	-88.57	-3,639.86	-7,069.85	7,081.16	7,013.08	68.08	104.013		
8,200.00	7,250.92	7,146.16	7,132.25	45.26	35.62	-88.63	-3,639.79	-7,069.97	6,999.64	6,930.60	69.03	101.394		
8,300.00	7,250.55	7,149.92	7,136.00	47.30	35.63	-88.68	-3,639.73	-7,070.10	6,918.60	6,848.52	70.08	98.727		
8,400.00	7,250.19	7,153.70	7,139.78	49.42	35.65	-88.73	-3,639.66	-7,070.22	6,838.06	6,766.85	71.21	96.024		
8,500.00	7,249.82	7,157.51	7,143.59	51.62	35.66	-88.78	-3,639.59	-7,070.35	6,758.04	6,685.60	72.43	93.299		
8,600.00	7,249.45	7,161.35	7,147.43	53.88	35.67	-88.84	-3,639.51	-7,070.48	6,678.55	6,604.81	73.75	90.563		
8,700.00	7,249.09	7,165.22	7,151.29	56.19	35.69	-88.89	-3,639.44	-7,070.61	6,599.63	6,524.48	75.14	87.827		
8,800.00	7,248.72	7,169.12	7,155.19	58.55	35.70	-88.95	-3,639.36	-7,070.74	6,521.27	6,444.65	76.63	85.103		
8,900.00	7,248.36	7,173.05	7,159.11	60.96	35.72	-89.00	-3,639.29	-7,070.87	6,443.52	6,365.32	78.20	82.400		
9,000.00	7,247.99	7,177.00	7,163.07	63.40	35.73	-89.06	-3,639.21	-7,071.01	6,366.39	6,286.53	79.85	79.727		
9,100.00	7,247.62	7,180.99	7,167.05	65.87	35.74	-89.11	-3,639.13	-7,071.15	6,289.89	6,208.30	81.59	77.090		
9,200.00	7,247.26	7,185.01	7,171.07	68.38	35.76	-89.17	-3,639.04	-7,071.28	6,214.07	6,130.66	83.41	74.498		
9,300.00	7,246.89	7,189.06	7,175.12	70.91	35.77	-89.23	-3,638.95	-7,071.42	6,138.93	6,053.62	85.32	71.955		
9,400.00	7,246.53	7,193.14	7,179.19	73.47	35.79	-89.28	-3,638.87	-7,071.56	6,064.51	5,977.21	87.30	69.467		
9,500.00	7,246.16	7,197.25	7,183.30	76.05	35.80	-89.34	-3,638.78	-7,071.70	5,990.83	5,901.47	89.37	67.038		
9,600.00	7,245.79	7,201.40	7,187.44	78.65	35.82	-89.40	-3,638.68	-7,071.85	5,917.93	5,826.42	91.51	64.669		
9,700.00	7,245.43	7,205.57	7,191.62	81.27	35.83	-89.46	-3,638.59	-7,071.99	5,845.82	5,752.08	93.73	62.366		
9,800.00	7,245.06	7,209.78	7,195.82	83.90	35.85	-89.52	-3,638.49	-7,072.14	5,774.54	5,678.50	96.04	60.128		
9,900.00	7,244.69	7,214.03	7,200.06	86.55	35.86	-89.58	-3,638.39	-7,072.29	5,704.12	5,605.70	98.42	57.958		
10,000.00	7,244.33	7,218.30	7,204.33	89.21	35.88	-89.64	-3,638.29	-7,072.44	5,634.60	5,533.72	100.88	55.856		
10,100.00	7,243.96	7,222.61	7,208.64	91.88	35.89	-89.70	-3,638.18	-7,072.59	5,566.00	5,462.58	103.41	53.823		
10,200.00	7,243.60	7,226.96	7,212.98	94.56	35.91	-89.76	-3,638.07	-7,072.75	5,498.36	5,392.33	106.02	51.859		

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



Anticollision Report



Company:	SRC ENERGY	Local Co-ordinate Reference:	Well HARVESTERS STATE 31C-16-M
Project:	SECTION 15, T6N, R66W	TVD Reference:	KB @ 4821.00ft
Reference Site:	HARVESTERS STATE 7-15 PAD	MD Reference:	KB @ 4821.00ft
Site Error:	3.28 ft	North Reference:	True
Reference Well:	HARVESTERS STATE 31C-16-M	Survey Calculation Method:	Minimum Curvature
Well Error:	3.28 ft	Output errors are at	2.45 sigma
Reference Wellbore	OH	Database:	EDM 5000.14 Single User Db
Reference Design:	PLAN #1	Offset TVD Reference:	Reference Datum

Offset Design HARVESTERS STATE 7-15 PAD - FRITZLER 11-21-4(PR_150CC) - OH - OH													Offset Site Error:	0.00 ft
Survey Program: 172-MWD													Offset Well Error:	3.28 ft
Reference		Offset		Semi Major Axis			Distance							Warning
Measured Depth (ft)	Vertical Depth (ft)	Measured Depth (ft)	Vertical Depth (ft)	Reference (ft)	Offset (ft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (ft)	+E/-W (ft)	Between Centres (ft)	Between Ellipses (ft)	Minimum Separation (ft)	Separation Factor		
10,300.00	7,243.23	7,231.34	7,217.36	97.26	35.92	-89.82	-3,637.96	-7,072.90	5,431.71	5,323.00	108.71	49.964		
10,400.00	7,242.86	7,235.75	7,221.77	99.96	35.94	-89.88	-3,637.85	-7,073.06	5,366.10	5,254.63	111.47	48.138		
10,500.00	7,242.50	7,240.21	7,226.22	102.67	35.95	-89.95	-3,637.74	-7,073.22	5,301.56	5,187.25	114.31	46.379		
10,600.00	7,242.13	7,244.69	7,230.70	105.39	35.97	-90.01	-3,637.62	-7,073.38	5,238.13	5,120.92	117.22	44.687		
10,700.00	7,241.76	7,249.22	7,235.22	108.12	35.98	-90.07	-3,637.50	-7,073.54	5,175.86	5,055.66	120.20	43.060		
10,800.00	7,241.40	7,253.78	7,239.77	110.85	36.00	-90.14	-3,637.37	-7,073.71	5,114.78	4,991.53	123.25	41.499		
10,900.00	7,241.03	7,258.37	7,244.37	113.59	36.02	-90.20	-3,637.24	-7,073.88	5,054.93	4,928.56	126.37	40.000		
11,000.00	7,240.67	7,263.01	7,249.00	116.34	36.03	-90.27	-3,637.11	-7,074.04	4,996.37	4,866.81	129.56	38.564		
11,100.00	7,240.30	7,267.68	7,253.67	119.09	36.05	-90.33	-3,636.98	-7,074.22	4,939.14	4,806.32	132.81	37.188		
11,200.00	7,239.93	7,272.40	7,258.37	121.85	36.07	-90.40	-3,636.84	-7,074.39	4,883.28	4,747.14	136.13	35.872		
11,300.00	7,239.57	7,277.15	7,263.12	124.61	36.08	-90.46	-3,636.70	-7,074.56	4,828.84	4,689.33	139.51	34.613		
11,400.00	7,239.20	7,281.94	7,267.91	127.38	36.10	-90.53	-3,636.56	-7,074.74	4,775.87	4,632.92	142.94	33.411		
11,500.00	7,238.84	7,286.77	7,272.73	130.15	36.12	-90.60	-3,636.42	-7,074.92	4,724.42	4,577.98	146.44	32.263		
11,600.00	7,238.47	7,291.65	7,277.60	132.92	36.13	-90.67	-3,636.27	-7,075.10	4,674.54	4,524.56	149.98	31.168		
11,700.00	7,238.10	7,296.56	7,282.51	135.70	36.15	-90.74	-3,636.11	-7,075.29	4,626.28	4,472.71	153.57	30.126		
11,800.00	7,237.74	7,301.52	7,287.46	138.48	36.17	-90.81	-3,635.96	-7,075.47	4,579.69	4,422.49	157.20	29.133		
11,900.00	7,237.37	7,306.52	7,292.45	141.26	36.19	-90.88	-3,635.80	-7,075.66	4,534.83	4,373.96	160.87	28.190		
12,000.00	7,237.00	7,311.56	7,297.49	144.05	36.20	-90.95	-3,635.63	-7,075.85	4,491.74	4,327.17	164.57	27.293		
12,100.00	7,236.64	7,316.64	7,302.57	146.84	36.22	-91.02	-3,635.46	-7,076.04	4,450.47	4,282.17	168.30	26.443		
12,200.00	7,236.27	7,321.77	7,307.69	149.64	36.24	-91.09	-3,635.29	-7,076.24	4,411.09	4,239.03	172.06	25.638		
12,300.00	7,235.91	7,326.95	7,312.86	152.43	36.26	-91.16	-3,635.12	-7,076.44	4,373.63	4,197.81	175.82	24.875		
12,400.00	7,235.54	7,332.17	7,318.07	155.23	36.28	-91.24	-3,634.94	-7,076.64	4,338.15	4,158.55	179.60	24.154		
12,500.00	7,235.17	7,337.43	7,323.33	158.03	36.30	-91.31	-3,634.75	-7,076.84	4,304.70	4,121.32	183.38	23.474		
12,600.00	7,234.81	7,342.74	7,328.63	160.83	36.31	-91.39	-3,634.56	-7,077.05	4,273.32	4,086.17	187.15	22.834		
12,700.00	7,234.44	7,348.10	7,333.98	163.64	36.33	-91.46	-3,634.37	-7,077.26	4,244.06	4,053.15	190.91	22.231		
12,800.00	7,234.07	7,353.51	7,339.38	166.44	36.35	-91.54	-3,634.18	-7,077.47	4,216.96	4,022.32	194.65	21.665		
12,900.00	7,233.71	7,321.81	7,307.73	169.25	36.24	-91.09	-3,635.37	-7,076.21	4,192.26	3,994.04	198.22	21.149		
13,000.00	7,233.34	7,323.84	7,309.76	172.06	36.25	-91.12	-3,635.32	-7,076.29	4,169.65	3,967.77	201.88	20.654		
13,100.00	7,232.98	7,325.85	7,311.77	174.88	36.26	-91.15	-3,635.27	-7,076.36	4,149.33	3,943.84	205.49	20.193		
13,200.00	7,232.61	7,327.85	7,313.77	177.69	36.26	-91.18	-3,635.21	-7,076.43	4,131.33	3,922.29	209.04	19.763		
13,300.00	7,232.24	7,329.84	7,315.75	180.50	36.27	-91.21	-3,635.16	-7,076.50	4,115.68	3,903.14	212.53	19.365		
13,400.00	7,231.88	7,331.81	7,317.72	183.32	36.28	-91.23	-3,635.11	-7,076.57	4,102.40	3,886.45	215.95	18.997		
13,500.00	7,231.51	7,333.77	7,319.68	186.14	36.29	-91.26	-3,635.06	-7,076.64	4,091.53	3,872.24	219.29	18.658		
13,600.00	7,231.15	7,335.72	7,321.62	188.96	36.29	-91.29	-3,635.01	-7,076.71	4,083.07	3,860.53	222.54	18.348		
13,700.00	7,230.78	7,337.65	7,323.55	191.78	36.30	-91.32	-3,634.96	-7,076.78	4,077.05	3,851.36	225.69	18.065		
13,800.00	7,230.41	7,339.56	7,325.47	194.60	36.31	-91.34	-3,634.92	-7,076.84	4,073.48	3,844.73	228.74	17.808		
13,895.80	7,230.06	7,341.39	7,327.29	197.31	36.31	-91.37	-3,634.87	-7,076.91	4,072.35	3,840.78	231.57	17.586 CC		
13,900.00	7,230.05	7,341.47	7,327.37	197.42	36.31	-91.37	-3,634.87	-7,076.91	4,072.35	3,840.67	231.69	17.577		
14,000.00	7,229.68	7,343.36	7,329.26	200.25	36.32	-91.40	-3,634.83	-7,076.98	4,073.68	3,839.17	234.52	17.371 ES		
14,100.00	7,229.31	7,345.24	7,331.14	203.07	36.33	-91.42	-3,634.78	-7,077.04	4,077.46	3,840.24	237.22	17.188		
14,200.00	7,228.95	7,347.10	7,333.00	205.90	36.33	-91.45	-3,634.74	-7,077.11	4,083.69	3,843.88	239.81	17.029		
14,300.00	7,228.58	7,348.95	7,334.85	208.73	36.34	-91.47	-3,634.70	-7,077.17	4,092.35	3,850.09	242.26	16.892		
14,400.00	7,228.22	7,350.80	7,343.89	211.55	36.37	-91.60	-3,634.50	-7,077.48	4,103.44	3,858.82	244.61	16.775		
14,500.00	7,227.85	7,350.00	7,343.89	214.38	36.37	-91.60	-3,634.50	-7,077.48	4,116.91	3,870.11	246.80	16.681		
14,600.00	7,227.48	7,350.00	7,343.89	217.21	36.37	-91.60	-3,634.50	-7,077.48	4,132.76	3,883.91	248.85	16.608		
14,700.00	7,227.12	7,360.99	7,340.90	220.04	36.38	-91.56	-3,634.56	-7,077.38	4,150.95	3,900.18	250.77	16.553		
14,800.00	7,226.75	7,358.05	7,343.94	222.88	36.37	-91.60	-3,634.49	-7,077.48	4,171.47	3,918.93	252.54	16.518		
14,900.00	7,226.38	7,361.09	7,346.97	225.71	36.38	-91.65	-3,634.43	-7,077.58	4,194.27	3,940.07	254.20	16.500		
15,000.00	7,226.02	7,364.13	7,350.01	228.54	36.40	-91.69	-3,634.36	-7,077.69	4,219.31	3,963.60	255.72	16.500 SF		
15,005.81	7,226.00	7,364.31	7,350.19	228.71	36.40	-91.69	-3,634.36	-7,077.69	4,220.83	3,965.03	255.80	16.501		

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



Anticollision Report



Company:	SRC ENERGY	Local Co-ordinate Reference:	Well HARVESTERS STATE 31C-16-M
Project:	SECTION 15, T6N, R66W	TVD Reference:	KB @ 4821.00ft
Reference Site:	HARVESTERS STATE 7-15 PAD	MD Reference:	KB @ 4821.00ft
Site Error:	3.28 ft	North Reference:	True
Reference Well:	HARVESTERS STATE 31C-16-M	Survey Calculation Method:	Minimum Curvature
Well Error:	3.28 ft	Output errors are at	2.45 sigma
Reference Wellbore	OH	Database:	EDM 5000.14 Single User Db
Reference Design:	PLAN #1	Offset TVD Reference:	Reference Datum

Offset Design HARVESTERS STATE 7-15 PAD - FRITZLER 11-21(PR_150CC) - OH - OH													Offset Site Error:	0.00 ft
Survey Program: 100-2" Cone@2.448 Sigma													Offset Well Error:	3.28 ft
Reference		Offset		Semi Major Axis			Distance							Warning
Measured Depth (ft)	Vertical Depth (ft)	Measured Depth (ft)	Vertical Depth (ft)	Reference (ft)	Offset (ft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (ft)	+E/-W (ft)	Between Centres (ft)	Between Ellipses (ft)	Minimum Separation (ft)	Separation Factor		
0.00	0.00	0.00	68.00	3.28	3.28	-119.36	-4,310.72	-7,663.46	8,792.93					
100.00	100.00	32.00	100.00	3.28	3.33	-119.36	-4,310.72	-7,663.46	8,792.67	8,786.05	6.61	1,329.816		
200.00	200.00	132.00	200.00	3.34	4.35	-119.36	-4,310.72	-7,663.46	8,792.67	8,784.98	7.69	1,143.310		
300.00	300.00	232.00	300.00	3.44	7.15	-119.36	-4,310.72	-7,663.46	8,792.67	8,782.07	10.60	829.871		
400.00	400.00	332.00	400.00	3.60	10.38	-119.36	-4,310.72	-7,663.46	8,792.67	8,778.69	13.98	628.946		
500.00	500.00	432.00	500.00	3.81	13.73	-119.36	-4,310.72	-7,663.46	8,792.67	8,775.13	17.54	501.318		
600.00	600.00	532.00	600.00	4.05	17.14	-119.36	-4,310.72	-7,663.46	8,792.67	8,771.48	21.19	414.952		
700.00	699.98	631.98	699.98	4.32	20.58	-96.47	-4,310.72	-7,663.46	8,792.86	8,767.97	24.90	353.169		
800.00	799.84	731.84	799.84	4.62	24.03	-96.49	-4,310.72	-7,663.46	8,793.45	8,764.81	28.64	307.026		
900.00	899.62	831.62	899.62	4.94	27.48	-96.53	-4,310.72	-7,663.46	8,794.20	8,761.78	32.41	271.315		
1,000.00	999.41	931.41	999.41	5.27	30.94	-96.57	-4,310.72	-7,663.46	8,794.95	8,758.74	36.21	242.887		
1,100.00	1,099.19	1,031.19	1,099.19	5.62	34.41	-96.62	-4,310.72	-7,663.46	8,795.70	8,755.67	40.03	219.748		
1,200.00	1,198.98	1,130.98	1,198.98	5.99	37.88	-96.66	-4,310.72	-7,663.46	8,796.46	8,752.60	43.86	200.567		
1,300.00	1,298.76	1,230.76	1,298.76	6.36	41.35	-96.70	-4,310.72	-7,663.46	8,797.22	8,749.52	47.70	184.420		
1,400.00	1,398.55	1,330.55	1,398.55	6.74	44.82	-96.74	-4,310.72	-7,663.46	8,797.99	8,746.44	51.56	170.648		
1,500.00	1,498.33	1,430.33	1,498.33	7.13	48.30	-96.79	-4,310.72	-7,663.46	8,798.77	8,743.35	55.42	158.767		
1,600.00	1,598.12	1,530.12	1,598.12	7.52	51.77	-96.83	-4,310.72	-7,663.46	8,799.55	8,740.26	59.29	148.416		
1,700.00	1,697.90	1,629.90	1,697.90	7.92	55.25	-96.87	-4,310.72	-7,663.46	8,800.33	8,737.17	63.17	139.321		
1,800.00	1,797.69	1,729.69	1,797.69	8.33	58.73	-96.91	-4,310.72	-7,663.46	8,801.12	8,734.07	67.05	131.268		
1,900.00	1,897.47	1,829.47	1,897.47	8.74	62.21	-96.96	-4,310.72	-7,663.46	8,801.91	8,730.98	70.93	124.088		
2,000.00	1,997.26	1,929.26	1,997.26	9.15	65.69	-97.00	-4,310.72	-7,663.46	8,802.71	8,727.89	74.82	117.648		
2,100.00	2,097.04	2,029.04	2,097.04	9.56	69.17	-97.04	-4,310.72	-7,663.46	8,803.51	8,724.80	78.72	111.840		
2,200.00	2,196.83	2,128.83	2,196.83	9.98	72.65	-97.08	-4,310.72	-7,663.46	8,804.32	8,721.71	82.61	106.576		
2,300.00	2,296.61	2,228.61	2,296.61	10.40	76.13	-97.12	-4,310.72	-7,663.46	8,805.13	8,718.63	86.51	101.783		
2,400.00	2,396.40	2,328.40	2,396.40	10.82	79.61	-97.17	-4,310.72	-7,663.46	8,805.95	8,715.54	90.41	97.401		
2,500.00	2,496.18	2,428.18	2,496.18	11.24	83.09	-97.21	-4,310.72	-7,663.46	8,806.77	8,712.46	94.31	93.379		
2,600.00	2,595.96	2,527.96	2,595.96	11.66	86.57	-97.25	-4,310.72	-7,663.46	8,807.60	8,709.39	98.22	89.676		
2,700.00	2,695.75	2,627.75	2,695.75	12.09	90.05	-97.29	-4,310.72	-7,663.46	8,808.43	8,706.31	102.12	86.254		
2,800.00	2,795.53	2,727.53	2,795.53	12.51	93.53	-97.34	-4,310.72	-7,663.46	8,809.27	8,703.24	106.03	83.083		
2,900.00	2,895.32	2,827.32	2,895.32	12.94	97.01	-97.38	-4,310.72	-7,663.46	8,810.11	8,700.17	109.94	80.137		
3,000.00	2,995.10	2,927.10	2,995.10	13.37	100.49	-97.42	-4,310.72	-7,663.46	8,810.96	8,697.11	113.85	77.393		
3,100.00	3,094.89	3,026.89	3,094.89	13.80	103.98	-97.46	-4,310.72	-7,663.46	8,811.81	8,694.05	117.76	74.830		
3,200.00	3,194.67	3,126.67	3,194.67	14.23	107.46	-97.50	-4,310.72	-7,663.46	8,812.67	8,691.00	121.67	72.431		
3,300.00	3,294.46	3,226.46	3,294.46	14.66	110.94	-97.55	-4,310.72	-7,663.46	8,813.53	8,687.94	125.58	70.182		
3,400.00	3,394.24	3,326.24	3,394.24	15.09	114.42	-97.59	-4,310.72	-7,663.46	8,814.39	8,684.90	129.49	68.067		
3,500.00	3,494.03	3,426.03	3,494.03	15.52	117.90	-97.63	-4,310.72	-7,663.46	8,815.26	8,681.85	133.41	66.077		
3,600.00	3,593.81	3,525.81	3,593.81	15.96	121.39	-97.67	-4,310.72	-7,663.46	8,816.14	8,678.81	137.32	64.200		
3,700.00	3,693.60	3,625.60	3,693.60	16.39	124.87	-97.72	-4,310.72	-7,663.46	8,817.02	8,675.78	141.24	62.426		
3,800.00	3,793.38	3,725.38	3,793.38	16.82	128.35	-97.76	-4,310.72	-7,663.46	8,817.90	8,672.75	145.15	60.748		
3,900.00	3,893.17	3,825.17	3,893.17	17.26	131.83	-97.80	-4,310.72	-7,663.46	8,818.79	8,669.72	149.07	59.158		
4,000.00	3,992.95	3,924.95	3,992.95	17.69	135.31	-97.84	-4,310.72	-7,663.46	8,819.68	8,666.70	152.99	57.650		
4,100.00	4,092.74	4,024.74	4,092.74	18.13	138.80	-97.88	-4,310.72	-7,663.46	8,820.58	8,663.68	156.90	56.216		
4,200.00	4,192.52	4,124.52	4,192.52	18.56	142.28	-97.93	-4,310.72	-7,663.46	8,821.49	8,660.67	160.82	54.852		
4,300.00	4,292.31	4,224.31	4,292.31	19.00	145.76	-97.97	-4,310.72	-7,663.46	8,822.40	8,657.66	164.74	53.553		
4,400.00	4,392.09	4,324.09	4,392.09	19.43	149.24	-98.01	-4,310.72	-7,663.46	8,823.31	8,654.65	168.66	52.315		
4,500.00	4,491.88	4,423.88	4,491.88	19.87	152.73	-98.05	-4,310.72	-7,663.46	8,824.23	8,651.65	172.58	51.132		
4,600.00	4,591.66	4,523.66	4,591.66	20.31	156.21	-98.09	-4,310.72	-7,663.46	8,825.15	8,648.65	176.50	50.002		
4,700.00	4,691.44	4,623.44	4,691.44	20.74	159.69	-98.14	-4,310.72	-7,663.46	8,826.08	8,645.66	180.42	48.921		
4,800.00	4,791.23	4,723.23	4,791.23	21.18	163.18	-98.18	-4,310.72	-7,663.46	8,827.01	8,642.68	184.34	47.886		
4,900.00	4,891.01	4,823.01	4,891.01	21.62	166.66	-98.22	-4,310.72	-7,663.46	8,827.95	8,639.69	188.25	46.894		
5,000.00	4,990.80	4,922.80	4,990.80	22.06	170.14	-98.26	-4,310.72	-7,663.46	8,828.89	8,636.71	192.17	45.942		
5,100.00	5,090.58	5,022.58	5,090.58	22.50	173.62	-98.30	-4,310.72	-7,663.46	8,829.84	8,633.74	196.10	45.028		

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



Anticollision Report



Company:	SRC ENERGY	Local Co-ordinate Reference:	Well HARVESTERS STATE 31C-16-M
Project:	SECTION 15, T6N, R66W	TVD Reference:	KB @ 4821.00ft
Reference Site:	HARVESTERS STATE 7-15 PAD	MD Reference:	KB @ 4821.00ft
Site Error:	3.28 ft	North Reference:	True
Reference Well:	HARVESTERS STATE 31C-16-M	Survey Calculation Method:	Minimum Curvature
Well Error:	3.28 ft	Output errors are at	2.45 sigma
Reference Wellbore	OH	Database:	EDM 5000.14 Single User Db
Reference Design:	PLAN #1	Offset TVD Reference:	Reference Datum

Offset Design HARVESTERS STATE 7-15 PAD - FRITZLER 11-21(PR_150CC) - OH - OH													Offset Site Error:	0.00 ft
Survey Program: 100-2" Cone@2.448 Sigma													Offset Well Error:	3.28 ft
Reference		Offset		Semi Major Axis			Distance						Warning	
Measured Depth (ft)	Vertical Depth (ft)	Measured Depth (ft)	Vertical Depth (ft)	Reference (ft)	Offset (ft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (ft)	+E/-W (ft)	Between Centres (ft)	Between Ellipses (ft)	Minimum Separation (ft)	Separation Factor		
5,200.00	5,190.37	5,122.37	5,190.37	22.93	177.11	-98.35	-4,310.72	-7,663.46	8,830.79	8,630.77	200.02	44.150		
5,300.00	5,290.15	5,222.15	5,290.15	23.37	180.59	-98.39	-4,310.72	-7,663.46	8,831.74	8,627.81	203.94	43.306		
5,400.00	5,389.94	5,321.94	5,389.94	23.81	184.07	-98.43	-4,310.72	-7,663.46	8,832.71	8,624.85	207.86	42.494		
5,500.00	5,489.72	5,421.72	5,489.72	24.25	187.56	-98.47	-4,310.72	-7,663.46	8,833.67	8,621.89	211.78	41.712		
5,600.00	5,589.51	5,521.51	5,589.51	24.69	191.04	-98.51	-4,310.72	-7,663.46	8,834.64	8,618.94	215.70	40.958		
5,700.00	5,689.29	5,621.29	5,689.29	25.13	194.52	-98.56	-4,310.72	-7,663.46	8,835.62	8,616.00	219.62	40.231		
5,800.00	5,789.08	5,721.08	5,789.08	25.56	198.00	-98.60	-4,310.72	-7,663.46	8,836.60	8,613.05	223.54	39.530		
5,900.00	5,888.86	5,820.86	5,888.86	26.00	201.49	-98.64	-4,310.72	-7,663.46	8,837.58	8,610.12	227.46	38.853		
6,000.00	5,988.65	5,920.65	5,988.65	26.44	204.97	-98.68	-4,310.72	-7,663.46	8,838.57	8,607.19	231.39	38.198		
6,100.00	6,088.43	6,020.43	6,088.43	26.88	208.45	-98.72	-4,310.72	-7,663.46	8,839.57	8,604.26	235.31	37.566		
6,200.00	6,188.22	6,120.22	6,188.22	27.32	211.94	-98.77	-4,310.72	-7,663.46	8,840.57	8,601.33	239.23	36.954		
6,300.00	6,288.00	6,220.00	6,288.00	27.76	215.42	-98.81	-4,310.72	-7,663.46	8,841.57	8,598.42	243.15	36.362		
6,400.00	6,387.79	6,319.79	6,387.79	28.20	218.90	-98.85	-4,310.72	-7,663.46	8,842.58	8,595.50	247.08	35.789		
6,500.00	6,487.57	6,419.57	6,487.57	28.64	222.39	-98.89	-4,310.72	-7,663.46	8,843.59	8,592.59	251.00	35.234		
6,600.00	6,587.35	6,519.35	6,587.35	29.08	225.87	-98.93	-4,310.72	-7,663.46	8,844.61	8,589.69	254.92	34.696		
6,700.00	6,687.02	6,619.02	6,687.02	29.52	229.35	-61.15	-4,310.72	-7,663.46	8,843.75	8,584.91	258.84	34.167		
6,800.00	6,784.98	6,716.98	6,784.98	29.96	232.77	-45.86	-4,310.72	-7,663.46	8,831.11	8,568.42	262.69	33.617		
6,900.00	6,878.81	6,810.81	6,878.81	30.41	236.04	-42.78	-4,310.72	-7,663.46	8,805.62	8,539.22	266.40	33.055		
7,000.00	6,966.21	6,901.79	6,966.21	30.86	239.22	-43.04	-4,310.72	-7,663.46	8,767.94	8,497.95	269.98	32.476		
7,100.00	7,045.03	6,977.03	7,045.03	31.35	241.85	-45.28	-4,310.72	-7,663.46	8,719.08	8,446.07	273.00	31.938		
7,200.00	7,113.32	7,045.32	7,113.32	31.90	244.23	-49.30	-4,310.72	-7,663.46	8,660.32	8,384.55	275.78	31.403		
7,300.00	7,169.40	7,101.40	7,169.40	32.57	246.19	-55.25	-4,310.72	-7,663.46	8,593.20	8,315.08	278.13	30.897		
7,400.00	7,211.89	7,143.89	7,211.89	33.38	247.67	-63.39	-4,310.72	-7,663.46	8,519.45	8,239.42	280.03	30.423		
7,500.00	7,239.75	7,171.75	7,239.75	34.35	248.64	-73.83	-4,310.72	-7,663.46	8,440.93	8,159.48	281.45	29.991		
7,600.00	7,252.28	7,184.28	7,252.28	35.47	249.08	-86.10	-4,310.72	-7,663.46	8,359.63	8,077.25	282.38	29.604		
7,700.00	7,252.75	7,184.75	7,252.75	36.73	249.10	-90.30	-4,310.72	-7,663.46	8,277.58	7,994.64	282.94	29.255		
7,800.00	7,252.38	7,184.38	7,252.38	38.16	249.08	-90.29	-4,310.72	-7,663.46	8,195.89	7,912.32	283.57	28.903		
7,900.00	7,252.02	7,184.02	7,252.02	39.74	249.07	-90.29	-4,310.72	-7,663.46	8,114.61	7,830.33	284.28	28.545		
8,000.00	7,251.65	7,183.65	7,251.65	41.47	249.06	-90.29	-4,310.72	-7,663.46	8,033.75	7,748.67	285.08	28.181		
8,100.00	7,251.29	7,183.29	7,251.29	43.31	249.05	-90.28	-4,310.72	-7,663.46	7,953.32	7,667.35	285.97	27.812		
8,200.00	7,250.92	7,182.92	7,250.92	45.26	249.03	-90.28	-4,310.72	-7,663.46	7,873.34	7,586.39	286.95	27.438		
8,300.00	7,250.55	7,182.55	7,250.55	47.30	249.02	-90.27	-4,310.72	-7,663.46	7,793.83	7,505.81	288.03	27.060		
8,400.00	7,250.19	7,182.19	7,250.19	49.42	249.01	-90.27	-4,310.72	-7,663.46	7,714.79	7,425.61	289.18	26.678		
8,500.00	7,249.82	7,181.82	7,249.82	51.62	248.99	-90.26	-4,310.72	-7,663.46	7,636.25	7,345.82	290.43	26.293		
8,600.00	7,249.45	7,181.45	7,249.45	53.88	248.98	-90.26	-4,310.72	-7,663.46	7,558.21	7,266.45	291.76	25.906		
8,700.00	7,249.09	7,181.09	7,249.09	56.19	248.97	-90.26	-4,310.72	-7,663.46	7,480.69	7,187.52	293.17	25.517		
8,800.00	7,248.72	7,180.72	7,248.72	58.55	248.96	-90.25	-4,310.72	-7,663.46	7,403.71	7,109.06	294.66	25.126		
8,900.00	7,248.36	7,180.36	7,248.36	60.96	248.94	-90.25	-4,310.72	-7,663.46	7,327.29	7,031.06	296.23	24.735		
9,000.00	7,247.99	7,179.99	7,247.99	63.40	248.93	-90.24	-4,310.72	-7,663.46	7,251.45	6,953.57	297.88	24.344		
9,100.00	7,247.62	7,179.62	7,247.62	65.87	248.92	-90.24	-4,310.72	-7,663.46	7,176.19	6,876.59	299.61	23.952		
9,200.00	7,247.26	7,179.26	7,247.26	68.38	248.90	-90.23	-4,310.72	-7,663.46	7,101.55	6,800.14	301.41	23.561		
9,300.00	7,246.89	7,178.89	7,246.89	70.91	248.89	-90.23	-4,310.72	-7,663.46	7,027.53	6,724.25	303.28	23.172		
9,400.00	7,246.53	7,178.53	7,246.53	73.47	248.88	-90.22	-4,310.72	-7,663.46	6,954.17	6,648.94	305.23	22.784		
9,500.00	7,246.16	7,178.16	7,246.16	76.05	248.87	-90.22	-4,310.72	-7,663.46	6,881.47	6,574.23	307.24	22.397		
9,600.00	7,245.79	7,177.79	7,245.79	78.65	248.85	-90.22	-4,310.72	-7,663.46	6,809.47	6,500.14	309.33	22.014		
9,700.00	7,245.43	7,177.43	7,245.43	81.27	248.84	-90.21	-4,310.72	-7,663.46	6,738.19	6,426.70	311.49	21.632		
9,800.00	7,245.06	7,177.06	7,245.06	83.90	248.83	-90.21	-4,310.72	-7,663.46	6,667.64	6,353.92	313.71	21.254		
9,900.00	7,244.69	7,176.69	7,244.69	86.55	248.82	-90.20	-4,310.72	-7,663.46	6,597.85	6,281.84	316.00	20.879		
10,000.00	7,244.33	7,176.33	7,244.33	89.21	248.80	-90.20	-4,310.72	-7,663.46	6,528.85	6,210.49	318.36	20.508		
10,100.00	7,243.96	7,175.96	7,243.96	91.88	248.79	-90.19	-4,310.72	-7,663.46	6,460.66	6,139.87	320.79	20.140		
10,200.00	7,243.60	7,175.60	7,243.60	94.56	248.78	-90.19	-4,310.72	-7,663.46	6,393.30	6,070.03	323.28	19.777		
10,300.00	7,243.23	7,175.23	7,243.23	97.26	248.76	-90.18	-4,310.72	-7,663.46	6,326.81	6,000.99	325.83	19.418		

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



Anticollision Report



Company:	SRC ENERGY	Local Co-ordinate Reference:	Well HARVESTERS STATE 31C-16-M
Project:	SECTION 15, T6N, R66W	TVD Reference:	KB @ 4821.00ft
Reference Site:	HARVESTERS STATE 7-15 PAD	MD Reference:	KB @ 4821.00ft
Site Error:	3.28 ft	North Reference:	True
Reference Well:	HARVESTERS STATE 31C-16-M	Survey Calculation Method:	Minimum Curvature
Well Error:	3.28 ft	Output errors are at	2.45 sigma
Reference Wellbore	OH	Database:	EDM 5000.14 Single User Db
Reference Design:	PLAN #1	Offset TVD Reference:	Reference Datum

Offset Design HARVESTERS STATE 7-15 PAD - FRITZLER 11-21(PR_150CC) - OH - OH													Offset Site Error:	0.00 ft
Survey Program: 100-2" Cone@2.448 Sigma													Offset Well Error:	3.28 ft
Reference		Offset		Semi Major Axis			Distance							Warning
Measured Depth (ft)	Vertical Depth (ft)	Measured Depth (ft)	Vertical Depth (ft)	Reference (ft)	Offset (ft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (ft)	+E/-W (ft)	Between Centres (ft)	Between Ellipses (ft)	Minimum Separation (ft)	Separation Factor		
10,400.00	7,242.86	7,174.86	7,242.86	99.96	248.75	-90.18	-4,310.72	-7,663.46	6,261.21	5,932.77	328.44	19.063		
10,500.00	7,242.50	7,174.50	7,242.50	102.67	248.74	-90.18	-4,310.72	-7,663.46	6,196.53	5,865.41	331.12	18.714		
10,600.00	7,242.13	7,174.13	7,242.13	105.39	248.73	-90.17	-4,310.72	-7,663.46	6,132.80	5,798.94	333.86	18.369		
10,700.00	7,241.76	7,173.76	7,241.76	108.12	248.71	-90.17	-4,310.72	-7,663.46	6,070.05	5,733.39	336.66	18.030		
10,800.00	7,241.40	7,173.40	7,241.40	110.85	248.70	-90.16	-4,310.72	-7,663.46	6,008.31	5,668.79	339.52	17.697		
10,900.00	7,241.03	7,173.03	7,241.03	113.59	248.69	-90.16	-4,310.72	-7,663.46	5,947.60	5,605.17	342.44	17.369		
11,000.00	7,240.67	7,172.67	7,240.67	116.34	248.67	-90.15	-4,310.72	-7,663.46	5,887.97	5,542.56	345.41	17.046		
11,100.00	7,240.30	7,172.30	7,240.30	119.09	248.66	-90.15	-4,310.72	-7,663.46	5,829.45	5,481.01	348.44	16.730		
11,200.00	7,239.93	7,171.93	7,239.93	121.85	248.65	-90.14	-4,310.72	-7,663.46	5,772.06	5,420.54	351.52	16.420		
11,300.00	7,239.57	7,171.57	7,239.57	124.61	248.64	-90.14	-4,310.72	-7,663.46	5,715.85	5,361.19	354.66	16.116		
11,400.00	7,239.20	7,171.20	7,239.20	127.38	248.62	-90.14	-4,310.72	-7,663.46	5,660.84	5,303.00	357.85	15.819		
11,500.00	7,238.84	7,170.84	7,238.84	130.15	248.61	-90.13	-4,310.72	-7,663.46	5,607.08	5,246.00	361.08	15.529		
11,600.00	7,238.47	7,170.47	7,238.47	132.92	248.60	-90.13	-4,310.72	-7,663.46	5,554.60	5,190.24	364.36	15.245		
11,700.00	7,238.10	7,170.10	7,238.10	135.70	248.58	-90.12	-4,310.72	-7,663.46	5,503.44	5,135.75	367.69	14.968		
11,800.00	7,237.74	7,169.74	7,237.74	138.48	248.57	-90.12	-4,310.72	-7,663.46	5,453.63	5,082.57	371.06	14.697		
11,900.00	7,237.37	7,169.37	7,237.37	141.26	248.56	-90.11	-4,310.72	-7,663.46	5,405.21	5,030.75	374.47	14.434		
12,000.00	7,237.00	7,169.00	7,237.00	144.05	248.55	-90.11	-4,310.72	-7,663.46	5,358.22	4,980.31	377.91	14.179		
12,100.00	7,236.64	7,168.64	7,236.64	146.84	248.53	-90.11	-4,310.72	-7,663.46	5,312.70	4,931.31	381.38	13.930		
12,200.00	7,236.27	7,168.27	7,236.27	149.64	248.52	-90.10	-4,310.72	-7,663.46	5,268.68	4,883.79	384.89	13.689		
12,300.00	7,235.91	7,167.91	7,235.91	152.43	248.51	-90.10	-4,310.72	-7,663.46	5,226.21	4,837.79	388.42	13.455		
12,400.00	7,235.54	7,167.54	7,235.54	155.23	248.50	-90.09	-4,310.72	-7,663.46	5,185.31	4,793.34	391.97	13.229		
12,500.00	7,235.17	7,167.17	7,235.17	158.03	248.48	-90.09	-4,310.72	-7,663.46	5,146.04	4,750.50	395.54	13.010		
12,600.00	7,234.81	7,166.81	7,234.81	160.83	248.47	-90.08	-4,310.72	-7,663.46	5,108.42	4,709.29	399.12	12.799		
12,700.00	7,234.44	7,166.44	7,234.44	163.64	248.46	-90.08	-4,310.72	-7,663.46	5,072.49	4,669.77	402.72	12.596		
12,800.00	7,234.07	7,166.07	7,234.07	166.44	248.44	-90.07	-4,310.72	-7,663.46	5,038.29	4,631.98	406.31	12.400		
12,900.00	7,233.71	7,165.71	7,233.71	169.25	248.43	-90.07	-4,310.72	-7,663.46	5,005.86	4,595.96	409.90	12.212		
13,000.00	7,233.34	7,165.34	7,233.34	172.06	248.42	-90.07	-4,310.72	-7,663.46	4,975.22	4,561.74	413.49	12.032		
13,100.00	7,232.98	7,164.98	7,232.98	174.88	248.41	-90.06	-4,310.72	-7,663.46	4,946.42	4,529.36	417.06	11.860		
13,200.00	7,232.61	7,164.61	7,232.61	177.69	248.39	-90.06	-4,310.72	-7,663.46	4,919.48	4,498.87	420.62	11.696		
13,300.00	7,232.24	7,164.24	7,232.24	180.50	248.38	-90.05	-4,310.72	-7,663.46	4,894.44	4,470.29	424.15	11.539		
13,400.00	7,231.88	7,163.88	7,231.88	183.32	248.37	-90.05	-4,310.72	-7,663.46	4,871.32	4,443.67	427.65	11.391		
13,500.00	7,231.51	7,163.51	7,231.51	186.14	248.35	-90.04	-4,310.72	-7,663.46	4,850.15	4,419.04	431.12	11.250		
13,600.00	7,231.15	7,163.15	7,231.15	188.96	248.34	-90.04	-4,310.72	-7,663.46	4,830.96	4,396.42	434.54	11.117		
13,700.00	7,230.78	7,162.78	7,230.78	191.78	248.33	-90.03	-4,310.72	-7,663.46	4,813.78	4,375.86	437.92	10.992		
13,800.00	7,230.41	7,162.41	7,230.41	194.60	248.32	-90.03	-4,310.72	-7,663.46	4,798.61	4,357.37	441.25	10.875		
13,900.00	7,230.05	7,162.05	7,230.05	197.42	248.30	-90.03	-4,310.72	-7,663.46	4,785.49	4,340.97	444.51	10.766		
14,000.00	7,229.68	7,161.68	7,229.68	200.25	248.29	-90.02	-4,310.72	-7,663.46	4,774.42	4,326.71	447.72	10.664		
14,100.00	7,229.31	7,161.31	7,229.31	203.07	248.28	-90.02	-4,310.72	-7,663.46	4,765.43	4,314.58	450.85	10.570		
14,200.00	7,228.95	7,160.95	7,228.95	205.90	248.27	-90.01	-4,310.72	-7,663.46	4,758.53	4,304.62	453.91	10.483		
14,300.00	7,228.58	7,160.58	7,228.58	208.73	248.25	-90.01	-4,310.72	-7,663.46	4,753.71	4,296.82	456.89	10.404		
14,400.00	7,228.22	7,160.22	7,228.22	211.55	248.24	-90.00	-4,310.72	-7,663.46	4,751.00	4,291.22	459.79	10.333		
14,478.88	7,227.93	7,159.93	7,227.93	213.79	248.23	-90.00	-4,310.72	-7,663.46	4,750.35	4,288.34	462.01	10.282 CC		
14,500.00	7,227.85	7,159.85	7,227.85	214.38	248.23	-90.00	-4,310.72	-7,663.46	4,750.39	4,287.80	462.60	10.269		
14,600.00	7,227.48	7,159.48	7,227.48	217.21	248.21	-89.99	-4,310.72	-7,663.46	4,751.89	4,286.58	465.31	10.212 ES		
14,700.00	7,227.12	7,159.12	7,227.12	220.04	248.20	-89.99	-4,310.72	-7,663.46	4,755.49	4,287.56	467.93	10.163		
14,800.00	7,226.75	7,158.75	7,226.75	222.88	248.19	-89.99	-4,310.72	-7,663.46	4,761.19	4,290.74	470.45	10.120		
14,900.00	7,226.38	7,158.38	7,226.38	225.71	248.18	-89.98	-4,310.72	-7,663.46	4,768.98	4,296.10	472.87	10.085		
15,000.00	7,226.02	7,158.02	7,226.02	228.54	248.16	-89.98	-4,310.72	-7,663.46	4,778.85	4,303.66	475.19	10.057		
15,005.81	7,226.00	7,158.00	7,226.00	228.71	248.16	-89.98	-4,310.72	-7,663.46	4,779.48	4,304.16	475.32	10.055 SF		

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



Anticollision Report



Company:	SRC ENERGY	Local Co-ordinate Reference:	Well HARVESTERS STATE 31C-16-M
Project:	SECTION 15, T6N, R66W	TVD Reference:	KB @ 4821.00ft
Reference Site:	HARVESTERS STATE 7-15 PAD	MD Reference:	KB @ 4821.00ft
Site Error:	3.28 ft	North Reference:	True
Reference Well:	HARVESTERS STATE 31C-16-M	Survey Calculation Method:	Minimum Curvature
Well Error:	3.28 ft	Output errors are at	2.45 sigma
Reference Wellbore	OH	Database:	EDM 5000.14 Single User Db
Reference Design:	PLAN #1	Offset TVD Reference:	Reference Datum

Offset Design HARVESTERS STATE 7-15 PAD - FRITZLER 1-17(PR_150CC) - OH - OH												Offset Site Error:	0.00 ft
Survey Program: 100-2" Cone@2.448 Sigma												Offset Well Error:	3.28 ft
Reference		Offset		Semi Major Axis			Distance						Warning
Measured Depth (ft)	Vertical Depth (ft)	Measured Depth (ft)	Vertical Depth (ft)	Reference (ft)	Offset (ft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (ft)	+E/-W (ft)	Between Centres (ft)	Between Ellipses (ft)	Minimum Separation (ft)	Separation Factor	
0.00	0.00	0.00	53.00	3.28	3.28	-108.47	-2,993.31	-8,963.78	9,450.51				
100.00	100.00	47.00	100.00	3.28	3.38	-108.47	-2,993.31	-8,963.78	9,450.36	9,443.70	6.67	1,417.746	
200.00	200.00	147.00	200.00	3.34	4.71	-108.47	-2,993.31	-8,963.78	9,450.36	9,442.31	8.05	1,173.755	
300.00	300.00	247.00	300.00	3.44	7.62	-108.47	-2,993.31	-8,963.78	9,450.36	9,439.30	11.06	854.130	
400.00	400.00	347.00	400.00	3.60	10.87	-108.47	-2,993.31	-8,963.78	9,450.36	9,435.88	14.48	652.737	
500.00	500.00	447.00	500.00	3.81	14.24	-108.47	-2,993.31	-8,963.78	9,450.36	9,432.31	18.05	523.620	
600.00	600.00	547.00	600.00	4.05	17.66	-108.47	-2,993.31	-8,963.78	9,450.36	9,428.66	21.70	435.423	
700.00	699.98	646.98	699.98	4.32	21.10	-85.58	-2,993.31	-8,963.78	9,450.23	9,424.81	25.41	371.850	
800.00	799.84	746.84	799.84	4.62	24.55	-85.62	-2,993.31	-8,963.78	9,449.83	9,420.67	29.16	324.077	
900.00	899.62	846.62	899.62	4.94	28.00	-85.66	-2,993.31	-8,963.78	9,449.33	9,416.39	32.93	286.931	
1,000.00	999.41	946.41	999.41	5.27	31.47	-85.70	-2,993.31	-8,963.78	9,448.83	9,412.10	36.73	257.253	
1,100.00	1,099.19	1,046.19	1,099.19	5.62	34.93	-85.74	-2,993.31	-8,963.78	9,448.34	9,407.79	40.55	233.027	
1,200.00	1,198.98	1,145.98	1,198.98	5.99	38.40	-85.78	-2,993.31	-8,963.78	9,447.85	9,403.48	44.38	212.896	
1,300.00	1,298.76	1,245.76	1,298.76	6.36	41.87	-85.82	-2,993.31	-8,963.78	9,447.37	9,399.15	48.22	195.915	
1,400.00	1,398.55	1,345.55	1,398.55	6.74	45.35	-85.86	-2,993.31	-8,963.78	9,446.90	9,394.82	52.08	181.406	
1,500.00	1,498.33	1,445.33	1,498.33	7.13	48.82	-85.90	-2,993.31	-8,963.78	9,446.42	9,390.48	55.94	168.870	
1,600.00	1,598.12	1,545.12	1,598.12	7.52	52.30	-85.93	-2,993.31	-8,963.78	9,445.95	9,386.15	59.81	157.936	
1,700.00	1,697.90	1,644.90	1,697.90	7.92	55.77	-85.97	-2,993.31	-8,963.78	9,445.49	9,381.81	63.68	148.316	
1,800.00	1,797.69	1,744.69	1,797.69	8.33	59.25	-86.01	-2,993.31	-8,963.78	9,445.03	9,377.47	67.57	139.790	
1,900.00	1,897.47	1,844.47	1,897.47	8.74	62.73	-86.05	-2,993.31	-8,963.78	9,444.58	9,373.13	71.45	132.182	
2,000.00	1,997.26	1,944.26	1,997.26	9.15	66.21	-86.09	-2,993.31	-8,963.78	9,444.13	9,368.79	75.34	125.353	
2,100.00	2,097.04	2,044.04	2,097.04	9.56	69.69	-86.13	-2,993.31	-8,963.78	9,443.68	9,364.45	79.23	119.189	
2,200.00	2,196.83	2,143.83	2,196.83	9.98	73.17	-86.17	-2,993.31	-8,963.78	9,443.24	9,360.11	83.13	113.598	
2,300.00	2,296.61	2,243.61	2,296.61	10.40	76.65	-86.21	-2,993.31	-8,963.78	9,442.80	9,355.78	87.03	108.505	
2,400.00	2,396.40	2,343.40	2,396.40	10.82	80.13	-86.25	-2,993.31	-8,963.78	9,442.37	9,351.45	90.93	103.846	
2,500.00	2,496.18	2,443.18	2,496.18	11.24	83.61	-86.29	-2,993.31	-8,963.78	9,441.95	9,347.12	94.83	99.569	
2,600.00	2,595.96	2,542.96	2,595.96	11.66	87.09	-86.33	-2,993.31	-8,963.78	9,441.52	9,342.79	98.73	95.627	
2,700.00	2,695.75	2,642.75	2,695.75	12.09	90.57	-86.37	-2,993.31	-8,963.78	9,441.10	9,338.47	102.64	91.985	
2,800.00	2,795.53	2,742.53	2,795.53	12.51	94.05	-86.41	-2,993.31	-8,963.78	9,440.69	9,334.15	106.54	88.608	
2,900.00	2,895.32	2,842.32	2,895.32	12.94	97.54	-86.45	-2,993.31	-8,963.78	9,440.28	9,329.83	110.45	85.469	
3,000.00	2,995.10	2,942.10	2,995.10	13.37	101.02	-86.49	-2,993.31	-8,963.78	9,439.88	9,325.51	114.36	82.544	
3,100.00	3,094.89	3,041.89	3,094.89	13.80	104.50	-86.53	-2,993.31	-8,963.78	9,439.48	9,321.20	118.27	79.811	
3,200.00	3,194.67	3,141.67	3,194.67	14.23	107.98	-86.57	-2,993.31	-8,963.78	9,439.08	9,316.90	122.18	77.253	
3,300.00	3,294.46	3,241.46	3,294.46	14.66	111.46	-86.61	-2,993.31	-8,963.78	9,438.69	9,312.59	126.10	74.853	
3,400.00	3,394.24	3,341.24	3,394.24	15.09	114.94	-86.65	-2,993.31	-8,963.78	9,438.30	9,308.30	130.01	72.598	
3,500.00	3,494.03	3,441.03	3,494.03	15.52	118.43	-86.69	-2,993.31	-8,963.78	9,437.92	9,304.00	133.92	70.473	
3,600.00	3,593.81	3,540.81	3,593.81	15.96	121.91	-86.73	-2,993.31	-8,963.78	9,437.54	9,299.71	137.84	68.469	
3,700.00	3,693.60	3,640.60	3,693.60	16.39	125.39	-86.77	-2,993.31	-8,963.78	9,437.17	9,295.42	141.75	66.576	
3,800.00	3,793.38	3,740.38	3,793.38	16.82	128.87	-86.81	-2,993.31	-8,963.78	9,436.80	9,291.14	145.67	64.784	
3,900.00	3,893.17	3,840.17	3,893.17	17.26	132.36	-86.85	-2,993.31	-8,963.78	9,436.44	9,286.86	149.58	63.085	
4,000.00	3,992.95	3,939.95	3,992.95	17.69	135.84	-86.89	-2,993.31	-8,963.78	9,436.08	9,282.58	153.50	61.473	
4,100.00	4,092.74	4,039.74	4,092.74	18.13	139.32	-86.93	-2,993.31	-8,963.78	9,435.73	9,278.31	157.42	59.941	
4,200.00	4,192.52	4,139.52	4,192.52	18.56	142.80	-86.97	-2,993.31	-8,963.78	9,435.38	9,274.04	161.33	58.484	
4,300.00	4,292.31	4,239.31	4,292.31	19.00	146.29	-87.01	-2,993.31	-8,963.78	9,435.03	9,269.78	165.25	57.095	
4,400.00	4,392.09	4,339.09	4,392.09	19.43	149.77	-87.04	-2,993.31	-8,963.78	9,434.69	9,265.52	169.17	55.771	
4,500.00	4,491.88	4,438.88	4,491.88	19.87	153.25	-87.08	-2,993.31	-8,963.78	9,434.35	9,261.26	173.09	54.506	
4,600.00	4,591.66	4,538.66	4,591.66	20.31	156.73	-87.12	-2,993.31	-8,963.78	9,434.02	9,257.01	177.01	53.298	
4,700.00	4,691.44	4,638.44	4,691.44	20.74	160.22	-87.16	-2,993.31	-8,963.78	9,433.69	9,252.77	180.92	52.142	
4,800.00	4,791.23	4,738.23	4,791.23	21.18	163.70	-87.20	-2,993.31	-8,963.78	9,433.37	9,248.53	184.84	51.034	
4,900.00	4,891.01	4,838.01	4,891.01	21.62	167.18	-87.24	-2,993.31	-8,963.78	9,433.05	9,244.29	188.76	49.973	
5,000.00	4,990.80	4,937.80	4,990.80	22.06	170.66	-87.28	-2,993.31	-8,963.78	9,432.74	9,240.05	192.68	48.955	
5,100.00	5,090.58	5,037.58	5,090.58	22.50	174.15	-87.32	-2,993.31	-8,963.78	9,432.43	9,235.83	196.60	47.977	

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



Anticollision Report



Company:	SRC ENERGY	Local Co-ordinate Reference:	Well HARVESTERS STATE 31C-16-M
Project:	SECTION 15, T6N, R66W	TVD Reference:	KB @ 4821.00ft
Reference Site:	HARVESTERS STATE 7-15 PAD	MD Reference:	KB @ 4821.00ft
Site Error:	3.28 ft	North Reference:	True
Reference Well:	HARVESTERS STATE 31C-16-M	Survey Calculation Method:	Minimum Curvature
Well Error:	3.28 ft	Output errors are at	2.45 sigma
Reference Wellbore	OH	Database:	EDM 5000.14 Single User Db
Reference Design:	PLAN #1	Offset TVD Reference:	Reference Datum

Offset Design HARVESTERS STATE 7-15 PAD - FRITZLER 1-17(PR_150CC) - OH - OH													Offset Site Error:	0.00 ft
Survey Program: 100-2" Cone@2.448 Sigma													Offset Well Error:	3.28 ft
Reference		Offset		Semi Major Axis			Distance						Warning	
Measured Depth (ft)	Vertical Depth (ft)	Measured Depth (ft)	Vertical Depth (ft)	Reference (ft)	Offset (ft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (ft)	+E/-W (ft)	Between Centres (ft)	Between Ellipses (ft)	Minimum Separation (ft)	Separation Factor		
5,200.00	5,190.37	5,137.37	5,190.37	22.93	177.63	-87.36	-2,993.31	-8,963.78	9,432.12	9,231.60	200.52	47.038		
5,300.00	5,290.15	5,237.15	5,290.15	23.37	181.11	-87.40	-2,993.31	-8,963.78	9,431.82	9,227.38	204.44	46.134		
5,400.00	5,389.94	5,336.94	5,389.94	23.81	184.60	-87.44	-2,993.31	-8,963.78	9,431.53	9,223.16	208.36	45.265		
5,500.00	5,489.72	5,436.72	5,489.72	24.25	188.08	-87.48	-2,993.31	-8,963.78	9,431.24	9,218.95	212.29	44.427		
5,600.00	5,589.51	5,536.51	5,589.51	24.69	191.56	-87.52	-2,993.31	-8,963.78	9,430.95	9,214.74	216.21	43.620		
5,700.00	5,689.29	5,636.29	5,689.29	25.13	195.05	-87.56	-2,993.31	-8,963.78	9,430.67	9,210.54	220.13	42.842		
5,800.00	5,789.08	5,736.08	5,789.08	25.56	198.53	-87.60	-2,993.31	-8,963.78	9,430.39	9,206.34	224.05	42.091		
5,900.00	5,888.86	5,835.86	5,888.86	26.00	202.01	-87.64	-2,993.31	-8,963.78	9,430.12	9,202.15	227.97	41.366		
6,000.00	5,988.65	5,935.65	5,988.65	26.44	205.49	-87.68	-2,993.31	-8,963.78	9,429.85	9,197.96	231.89	40.665		
6,100.00	6,088.43	6,035.43	6,088.43	26.88	208.98	-87.72	-2,993.31	-8,963.78	9,429.59	9,193.77	235.81	39.988		
6,200.00	6,188.22	6,135.22	6,188.22	27.32	212.46	-87.76	-2,993.31	-8,963.78	9,429.33	9,189.59	239.73	39.332		
6,300.00	6,288.00	6,235.00	6,288.00	27.76	215.94	-87.80	-2,993.31	-8,963.78	9,429.07	9,185.42	243.66	38.698		
6,400.00	6,387.79	6,334.79	6,387.79	28.20	219.43	-87.84	-2,993.31	-8,963.78	9,428.82	9,181.24	247.58	38.084		
6,500.00	6,487.57	6,434.57	6,487.57	28.64	222.91	-87.88	-2,993.31	-8,963.78	9,428.58	9,177.08	251.50	37.489		
6,600.00	6,587.35	6,534.35	6,587.35	29.08	226.39	-87.92	-2,993.31	-8,963.78	9,428.34	9,172.91	255.42	36.913		
6,700.00	6,687.02	6,634.02	6,687.02	29.52	229.87	-50.14	-2,993.31	-8,963.78	9,426.02	9,166.68	259.34	36.346		
6,800.00	6,784.98	6,731.98	6,784.98	29.96	233.29	-34.72	-2,993.31	-8,963.78	9,410.75	9,147.56	263.19	35.756		
6,900.00	6,878.81	6,825.81	6,878.81	30.41	236.57	-31.34	-2,993.31	-8,963.78	9,381.33	9,114.44	266.89	35.151		
7,000.00	6,966.21	6,913.21	6,966.21	30.86	239.62	-31.15	-2,993.31	-8,963.78	9,338.49	9,068.16	270.34	34.544		
7,100.00	7,045.03	7,007.97	7,045.03	31.35	242.93	-32.82	-2,993.31	-8,963.78	9,283.35	9,009.34	274.01	33.880		
7,200.00	7,113.32	7,060.32	7,113.32	31.90	244.75	-36.30	-2,993.31	-8,963.78	9,217.28	8,941.10	276.17	33.375		
7,300.00	7,169.40	7,116.40	7,169.40	32.57	246.71	-42.05	-2,993.31	-8,963.78	9,141.95	8,863.51	278.44	32.833		
7,400.00	7,211.89	7,158.89	7,211.89	33.38	248.19	-51.07	-2,993.31	-8,963.78	9,059.24	8,779.03	280.21	32.330		
7,500.00	7,239.75	7,186.75	7,239.75	34.35	249.17	-64.76	-2,993.31	-8,963.78	8,971.22	8,689.76	281.46	31.873		
7,600.00	7,252.28	7,200.72	7,252.28	35.47	249.65	-83.62	-2,993.31	-8,963.78	8,880.07	8,597.85	282.23	31.464		
7,700.00	7,252.75	7,200.25	7,252.75	36.73	249.64	-90.49	-2,993.31	-8,963.78	8,788.00	8,505.50	282.50	31.108		
7,800.00	7,252.38	7,200.62	7,252.38	38.16	249.65	-90.49	-2,993.31	-8,963.78	8,696.07	8,413.22	282.85	30.745		
7,900.00	7,252.02	7,200.98	7,252.02	39.74	249.66	-90.48	-2,993.31	-8,963.78	8,604.32	8,321.08	283.24	30.378		
8,000.00	7,251.65	7,201.35	7,251.65	41.47	249.68	-90.47	-2,993.31	-8,963.78	8,512.76	8,229.07	283.69	30.008		
8,100.00	7,251.29	7,201.71	7,251.29	43.31	249.69	-90.47	-2,993.31	-8,963.78	8,421.38	8,137.20	284.18	29.634		
8,200.00	7,250.92	7,202.08	7,250.92	45.26	249.70	-90.46	-2,993.31	-8,963.78	8,330.21	8,045.48	284.73	29.256		
8,300.00	7,250.55	7,202.45	7,250.55	47.30	249.71	-90.46	-2,993.31	-8,963.78	8,239.24	7,953.91	285.33	28.876		
8,400.00	7,250.19	7,202.81	7,250.19	49.42	249.73	-90.45	-2,993.31	-8,963.78	8,148.48	7,862.49	285.99	28.492		
8,500.00	7,249.82	7,203.18	7,249.82	51.62	249.74	-90.44	-2,993.31	-8,963.78	8,057.94	7,771.24	286.70	28.106		
8,600.00	7,249.45	7,203.55	7,249.45	53.88	249.75	-90.44	-2,993.31	-8,963.78	7,967.63	7,680.16	287.47	27.716		
8,700.00	7,249.09	7,203.91	7,249.09	56.19	249.77	-90.43	-2,993.31	-8,963.78	7,877.55	7,589.26	288.30	27.325		
8,800.00	7,248.72	7,204.28	7,248.72	58.55	249.78	-90.43	-2,993.31	-8,963.78	7,787.72	7,498.54	289.18	26.931		
8,900.00	7,248.36	7,204.64	7,248.36	60.96	249.79	-90.42	-2,993.31	-8,963.78	7,698.13	7,408.01	290.12	26.534		
9,000.00	7,247.99	7,205.01	7,247.99	63.40	249.80	-90.41	-2,993.31	-8,963.78	7,608.81	7,317.69	291.12	26.137		
9,100.00	7,247.62	7,205.38	7,247.62	65.87	249.82	-90.41	-2,993.31	-8,963.78	7,519.75	7,227.57	292.17	25.737		
9,200.00	7,247.26	7,205.74	7,247.26	68.38	249.83	-90.40	-2,993.31	-8,963.78	7,430.97	7,137.68	293.29	25.337		
9,300.00	7,246.89	7,206.11	7,246.89	70.91	249.84	-90.40	-2,993.31	-8,963.78	7,342.48	7,048.01	294.47	24.935		
9,400.00	7,246.53	7,206.48	7,246.53	73.47	249.85	-90.39	-2,993.31	-8,963.78	7,254.29	6,958.58	295.70	24.532		
9,500.00	7,246.16	7,206.84	7,246.16	76.05	249.87	-90.38	-2,993.31	-8,963.78	7,166.40	6,869.41	297.00	24.129		
9,600.00	7,245.79	7,207.21	7,245.79	78.65	249.88	-90.38	-2,993.31	-8,963.78	7,078.84	6,780.49	298.36	23.726		
9,700.00	7,245.43	7,207.57	7,245.43	81.27	249.89	-90.37	-2,993.31	-8,963.78	6,991.62	6,691.84	299.77	23.323		
9,800.00	7,245.06	7,207.94	7,245.06	83.90	249.91	-90.37	-2,993.31	-8,963.78	6,904.74	6,603.48	301.26	22.920		
9,900.00	7,244.69	7,208.31	7,244.69	86.55	249.92	-90.36	-2,993.31	-8,963.78	6,818.22	6,515.42	302.80	22.517		
10,000.00	7,244.33	7,208.67	7,244.33	89.21	249.93	-90.35	-2,993.31	-8,963.78	6,732.07	6,427.66	304.41	22.115		
10,100.00	7,243.96	7,209.04	7,243.96	91.88	249.94	-90.35	-2,993.31	-8,963.78	6,646.31	6,340.23	306.08	21.714		
10,200.00	7,243.60	7,209.40	7,243.60	94.56	249.96	-90.34	-2,993.31	-8,963.78	6,560.96	6,253.14	307.82	21.314		
10,300.00	7,243.23	7,209.77	7,243.23	97.26	249.97	-90.33	-2,993.31	-8,963.78	6,476.02	6,166.40	309.62	20.916		

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



Anticollision Report



Company:	SRC ENERGY	Local Co-ordinate Reference:	Well HARVESTERS STATE 31C-16-M
Project:	SECTION 15, T6N, R66W	TVD Reference:	KB @ 4821.00ft
Reference Site:	HARVESTERS STATE 7-15 PAD	MD Reference:	KB @ 4821.00ft
Site Error:	3.28 ft	North Reference:	True
Reference Well:	HARVESTERS STATE 31C-16-M	Survey Calculation Method:	Minimum Curvature
Well Error:	3.28 ft	Output errors are at	2.45 sigma
Reference Wellbore	OH	Database:	EDM 5000.14 Single User Db
Reference Design:	PLAN #1	Offset TVD Reference:	Reference Datum

Offset Design HARVESTERS STATE 7-15 PAD - FRITZLER 1-17(PR_150CC) - OH - OH													Offset Site Error:	0.00 ft
Survey Program: 100-2" Cone@2.448 Sigma													Offset Well Error:	3.28 ft
Reference		Offset		Semi Major Axis			Distance						Warning	
Measured Depth (ft)	Vertical Depth (ft)	Measured Depth (ft)	Vertical Depth (ft)	Reference (ft)	Offset (ft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (ft)	+E/-W (ft)	Between Centres (ft)	Between Ellipses (ft)	Minimum Separation (ft)	Separation Factor		
10,400.00	7,242.86	7,189.86	7,242.86	99.96	249.27	-90.33	-2,993.31	-8,963.78	6,391.52	6,080.74	310.78	20.566		
10,500.00	7,242.50	7,189.50	7,242.50	102.67	249.26	-90.32	-2,993.31	-8,963.78	6,307.47	5,994.78	312.69	20.172		
10,600.00	7,242.13	7,189.13	7,242.13	105.39	249.25	-90.32	-2,993.31	-8,963.78	6,223.90	5,909.23	314.67	19.779		
10,700.00	7,241.76	7,188.76	7,241.76	108.12	249.24	-90.31	-2,993.31	-8,963.78	6,140.81	5,824.10	316.72	19.389		
10,800.00	7,241.40	7,188.40	7,241.40	110.85	249.22	-90.30	-2,993.31	-8,963.78	6,058.24	5,739.40	318.84	19.001		
10,900.00	7,241.03	7,188.03	7,241.03	113.59	249.21	-90.30	-2,993.31	-8,963.78	5,976.20	5,655.17	321.03	18.616		
11,000.00	7,240.67	7,187.67	7,240.67	116.34	249.20	-90.29	-2,993.31	-8,963.78	5,894.71	5,571.42	323.29	18.234		
11,100.00	7,240.30	7,187.30	7,240.30	119.09	249.19	-90.29	-2,993.31	-8,963.78	5,813.80	5,488.18	325.62	17.854		
11,200.00	7,239.93	7,186.93	7,239.93	121.85	249.17	-90.28	-2,993.31	-8,963.78	5,733.50	5,405.46	328.03	17.478		
11,300.00	7,239.57	7,186.57	7,239.57	124.61	249.16	-90.27	-2,993.31	-8,963.78	5,653.82	5,323.30	330.52	17.106		
11,400.00	7,239.20	7,186.20	7,239.20	127.38	249.15	-90.27	-2,993.31	-8,963.78	5,574.80	5,241.71	333.08	16.737		
11,500.00	7,238.84	7,185.84	7,238.84	130.15	249.13	-90.26	-2,993.31	-8,963.78	5,496.46	5,160.73	335.73	16.372		
11,600.00	7,238.47	7,185.47	7,238.47	132.92	249.12	-90.26	-2,993.31	-8,963.78	5,418.83	5,080.38	338.45	16.011		
11,700.00	7,238.10	7,185.10	7,238.10	135.70	249.11	-90.25	-2,993.31	-8,963.78	5,341.95	5,000.70	341.25	15.654		
11,800.00	7,237.74	7,184.74	7,237.74	138.48	249.10	-90.24	-2,993.31	-8,963.78	5,265.84	4,921.71	344.14	15.302		
11,900.00	7,237.37	7,184.37	7,237.37	141.26	249.08	-90.24	-2,993.31	-8,963.78	5,190.55	4,843.44	347.10	14.954		
12,000.00	7,237.00	7,184.00	7,237.00	144.05	249.07	-90.23	-2,993.31	-8,963.78	5,116.10	4,765.94	350.15	14.611		
12,100.00	7,236.64	7,183.64	7,236.64	146.84	249.06	-90.22	-2,993.31	-8,963.78	5,042.53	4,689.24	353.29	14.273		
12,200.00	7,236.27	7,183.27	7,236.27	149.64	249.04	-90.22	-2,993.31	-8,963.78	4,969.89	4,613.38	356.51	13.940		
12,300.00	7,235.91	7,182.91	7,235.91	152.43	249.03	-90.21	-2,993.31	-8,963.78	4,898.21	4,538.40	359.81	13.613		
12,400.00	7,235.54	7,182.54	7,235.54	155.23	249.02	-90.21	-2,993.31	-8,963.78	4,827.54	4,464.34	363.20	13.292		
12,500.00	7,235.17	7,182.17	7,235.17	158.03	249.01	-90.20	-2,993.31	-8,963.78	4,757.92	4,391.24	366.68	12.976		
12,600.00	7,234.81	7,181.81	7,234.81	160.83	248.99	-90.19	-2,993.31	-8,963.78	4,689.41	4,319.16	370.24	12.666		
12,700.00	7,234.44	7,181.44	7,234.44	163.64	248.98	-90.19	-2,993.31	-8,963.78	4,622.03	4,248.14	373.89	12.362		
12,800.00	7,234.07	7,181.07	7,234.07	166.44	248.97	-90.18	-2,993.31	-8,963.78	4,555.86	4,178.24	377.62	12.065		
12,900.00	7,233.71	7,180.71	7,233.71	169.25	248.96	-90.18	-2,993.31	-8,963.78	4,490.94	4,109.50	381.44	11.774		
13,000.00	7,233.34	7,180.34	7,233.34	172.06	248.94	-90.17	-2,993.31	-8,963.78	4,427.33	4,041.99	385.33	11.490		
13,100.00	7,232.98	7,179.98	7,232.98	174.88	248.93	-90.16	-2,993.31	-8,963.78	4,365.08	3,975.77	389.31	11.212		
13,200.00	7,232.61	7,179.61	7,232.61	177.69	248.92	-90.16	-2,993.31	-8,963.78	4,304.25	3,910.89	393.36	10.942		
13,300.00	7,232.24	7,179.24	7,232.24	180.50	248.90	-90.15	-2,993.31	-8,963.78	4,244.91	3,847.42	397.49	10.679		
13,400.00	7,231.88	7,178.88	7,231.88	183.32	248.89	-90.15	-2,993.31	-8,963.78	4,187.12	3,785.44	401.68	10.424		
13,500.00	7,231.51	7,178.51	7,231.51	186.14	248.88	-90.14	-2,993.31	-8,963.78	4,130.93	3,725.00	405.94	10.176		
13,600.00	7,231.15	7,178.15	7,231.15	188.96	248.87	-90.13	-2,993.31	-8,963.78	4,076.43	3,666.18	410.26	9.936		
13,700.00	7,230.78	7,177.78	7,230.78	191.78	248.85	-90.13	-2,993.31	-8,963.78	4,023.68	3,609.05	414.63	9.704		
13,800.00	7,230.41	7,177.41	7,230.41	194.60	248.84	-90.12	-2,993.31	-8,963.78	3,972.74	3,553.69	419.04	9.480		
13,900.00	7,230.05	7,177.05	7,230.05	197.42	248.83	-90.12	-2,993.31	-8,963.78	3,923.69	3,500.19	423.50	9.265		
14,000.00	7,229.68	7,176.68	7,229.68	200.25	248.81	-90.11	-2,993.31	-8,963.78	3,876.60	3,448.61	427.98	9.058		
14,100.00	7,229.31	7,176.31	7,229.31	203.07	248.80	-90.10	-2,993.31	-8,963.78	3,831.54	3,399.05	432.49	8.859		
14,200.00	7,228.95	7,175.95	7,228.95	205.90	248.79	-90.10	-2,993.31	-8,963.78	3,788.58	3,351.58	437.00	8.669		
14,300.00	7,228.58	7,175.58	7,228.58	208.73	248.78	-90.09	-2,993.31	-8,963.78	3,747.80	3,306.28	441.52	8.488		
14,400.00	7,228.22	7,175.22	7,228.22	211.55	248.76	-90.08	-2,993.31	-8,963.78	3,709.27	3,263.25	446.02	8.316		
14,500.00	7,227.85	7,174.85	7,227.85	214.38	248.75	-90.08	-2,993.31	-8,963.78	3,673.06	3,222.57	450.49	8.153		
14,600.00	7,227.48	7,174.48	7,227.48	217.21	248.74	-90.07	-2,993.31	-8,963.78	3,639.24	3,184.31	454.93	8.000		
14,700.00	7,227.12	7,174.12	7,227.12	220.04	248.73	-90.07	-2,993.31	-8,963.78	3,607.87	3,148.56	459.31	7.855		
14,800.00	7,226.75	7,173.75	7,226.75	222.88	248.71	-90.06	-2,993.31	-8,963.78	3,579.02	3,115.40	463.62	7.720		
14,900.00	7,226.38	7,173.38	7,226.38	225.71	248.70	-90.05	-2,993.31	-8,963.78	3,552.75	3,084.91	467.85	7.594		
15,000.00	7,226.02	7,173.02	7,226.02	228.54	248.69	-90.05	-2,993.31	-8,963.78	3,529.13	3,057.15	471.98	7.477		
15,005.81	7,226.00	7,173.00	7,226.00	228.71	248.69	-90.05	-2,993.31	-8,963.78	3,527.84	3,055.62	472.22	7.471	CC, ES, SF	



Anticollision Report



Company:	SRC ENERGY	Local Co-ordinate Reference:	Well HARVESTERS STATE 31C-16-M
Project:	SECTION 15, T6N, R66W	TVD Reference:	KB @ 4821.00ft
Reference Site:	HARVESTERS STATE 7-15 PAD	MD Reference:	KB @ 4821.00ft
Site Error:	3.28 ft	North Reference:	True
Reference Well:	HARVESTERS STATE 31C-16-M	Survey Calculation Method:	Minimum Curvature
Well Error:	3.28 ft	Output errors are at	2.45 sigma
Reference Wellbore	OH	Database:	EDM 5000.14 Single User Db
Reference Design:	PLAN #1	Offset TVD Reference:	Reference Datum

Offset Design HARVESTERS STATE 7-15 PAD - FRITZLER 17-23-18(PR_150CC) - OH - OH													Offset Site Error:	0.00 ft
Survey Program: 121-MWD													Offset Well Error:	3.28 ft
Reference		Offset		Semi Major Axis			Distance							Warning
Measured Depth (ft)	Vertical Depth (ft)	Measured Depth (ft)	Vertical Depth (ft)	Reference (ft)	Offset (ft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (ft)	+E/-W (ft)	Between Centres (ft)	Between Ellipses (ft)	Minimum Separation (ft)	Separation Factor		
0.00	0.00	0.00	36.00	3.28	3.28	-108.21	-2,960.16	-8,996.04	9,470.61					
100.00	100.00	28.53	64.53	3.28	3.28	-108.21	-2,960.22	-8,996.07	9,470.67	9,464.10	6.57	1,442.537		
200.00	200.00	73.10	109.10	3.34	3.28	-108.22	-2,960.55	-8,996.28	9,471.33	9,464.71	6.62	1,430.589		
300.00	300.00	121.00	156.99	3.44	3.29	-108.22	-2,961.24	-8,996.69	9,472.59	9,465.85	6.73	1,406.653		
400.00	400.00	163.00	198.98	3.60	3.31	-108.22	-2,961.97	-8,997.27	9,474.42	9,467.51	6.91	1,370.763		
500.00	500.00	208.00	243.97	3.81	3.34	-108.22	-2,962.70	-8,998.18	9,476.83	9,469.68	7.15	1,326.157		
600.00	600.00	208.00	243.97	4.05	3.34	-108.22	-2,962.70	-8,998.18	9,480.06	9,472.67	7.39	1,282.959		
700.00	699.98	256.37	292.31	4.32	3.39	-85.25	-2,963.30	-8,999.76	9,483.69	9,475.98	7.71	1,230.671		
800.00	799.84	300.00	335.88	4.62	3.44	-85.19	-2,963.59	-9,001.97	9,488.04	9,479.98	8.05	1,178.026		
900.00	899.62	300.00	335.88	4.94	3.44	-85.19	-2,963.59	-9,001.97	9,492.91	9,484.54	8.37	1,133.562		
1,000.00	999.41	300.00	335.88	5.27	3.44	-85.19	-2,963.59	-9,001.97	9,498.84	9,490.13	8.71	1,090.213		
1,100.00	1,099.19	355.36	391.10	5.62	3.52	-85.21	-2,963.50	-9,005.84	9,505.18	9,496.04	9.14	1,039.775		
1,200.00	1,198.98	391.00	426.60	5.99	3.59	-85.21	-2,963.12	-9,008.97	9,512.51	9,502.95	9.56	994.810		
1,300.00	1,298.76	391.00	426.60	6.36	3.59	-85.21	-2,963.12	-9,008.97	9,520.62	9,510.69	9.94	958.240		
1,400.00	1,398.55	432.59	467.96	6.74	3.67	-85.22	-2,962.32	-9,013.25	9,529.43	9,519.04	10.39	917.043		
1,500.00	1,498.33	481.00	516.00	7.13	3.78	-85.22	-2,960.90	-9,019.06	9,539.16	9,528.28	10.88	877.146		
1,600.00	1,598.12	481.00	516.00	7.52	3.78	-85.22	-2,960.90	-9,019.06	9,549.45	9,538.18	11.27	847.573		
1,700.00	1,697.90	512.98	547.66	7.92	3.86	-85.21	-2,959.72	-9,023.36	9,560.59	9,548.85	11.73	814.760		
1,800.00	1,797.69	540.91	575.28	8.33	3.93	-85.21	-2,958.58	-9,027.38	9,572.47	9,560.27	12.20	784.706		
1,900.00	1,897.47	572.00	605.97	8.74	4.02	-85.21	-2,957.20	-9,032.15	9,585.09	9,572.42	12.68	756.131		
2,000.00	1,997.26	572.00	605.97	9.15	4.02	-85.21	-2,957.20	-9,032.15	9,598.56	9,585.49	13.08	733.913		
2,100.00	2,097.04	572.00	605.97	9.56	4.02	-85.21	-2,957.20	-9,032.15	9,613.06	9,599.57	13.48	713.035		
2,200.00	2,196.83	636.99	669.93	9.98	4.24	-85.19	-2,954.07	-9,043.26	9,627.60	9,613.53	14.07	684.381		
2,300.00	2,296.61	693.00	724.80	10.40	4.44	-85.18	-2,951.21	-9,054.12	9,643.60	9,628.96	14.64	658.669		
2,400.00	2,396.40	693.00	724.80	10.82	4.44	-85.18	-2,951.21	-9,054.12	9,659.89	9,644.85	15.04	642.082		
2,500.00	2,496.18	693.00	724.80	11.24	4.44	-85.18	-2,951.21	-9,054.12	9,677.19	9,661.74	15.45	626.447		
2,600.00	2,595.96	730.48	761.40	11.66	4.59	-85.17	-2,949.34	-9,061.98	9,695.21	9,679.23	15.97	606.938		
2,700.00	2,695.75	761.00	791.15	12.09	4.72	-85.16	-2,947.97	-9,068.65	9,714.00	9,697.52	16.48	589.454		
2,800.00	2,795.53	791.64	820.96	12.51	4.86	-85.15	-2,946.53	-9,075.59	9,733.48	9,716.49	17.00	572.663		
2,900.00	2,895.32	855.00	882.38	12.94	5.16	-85.12	-2,942.70	-9,090.67	9,753.64	9,736.01	17.63	553.233		
3,000.00	2,995.10	855.00	882.38	13.37	5.16	-85.12	-2,942.70	-9,090.67	9,774.26	9,756.24	18.03	542.203		
3,100.00	3,094.89	855.00	882.38	13.80	5.16	-85.12	-2,942.70	-9,090.67	9,795.87	9,777.45	18.42	531.758		
3,200.00	3,194.67	911.16	936.52	14.23	5.46	-85.09	-2,938.71	-9,105.01	9,817.78	9,798.73	19.04	515.511		
3,300.00	3,294.46	949.00	972.84	14.66	5.67	-85.07	-2,935.95	-9,115.27	9,840.69	9,821.09	19.60	501.999		
3,400.00	3,394.24	971.49	994.37	15.09	5.81	-85.06	-2,934.22	-9,121.55	9,864.22	9,844.13	20.09	490.904		
3,500.00	3,494.03	1,030.52	1,050.72	15.52	6.17	-85.02	-2,929.05	-9,138.38	9,888.24	9,867.48	20.76	476.330		
3,600.00	3,593.81	1,044.00	1,063.55	15.96	6.25	-85.01	-2,927.75	-9,142.29	9,912.81	9,891.60	21.21	467.397		
3,700.00	3,693.60	1,089.31	1,106.55	16.39	6.56	-84.98	-2,923.19	-9,155.79	9,937.92	9,916.10	21.82	455.422		
3,800.00	3,793.38	1,139.00	1,153.47	16.82	6.90	-84.94	-2,918.00	-9,171.31	9,963.91	9,941.45	22.46	443.588		
3,900.00	3,893.17	1,139.00	1,153.47	17.26	6.90	-84.94	-2,918.00	-9,171.31	9,990.37	9,967.53	22.84	437.448		
8,300.00	7,250.55	7,301.97	6,922.74	47.30	57.62	-84.13	-2,388.47	-11,006.83	9,954.51	9,878.61	75.90	131.160		
8,400.00	7,250.19	7,302.93	6,923.70	49.42	57.62	-84.15	-2,388.50	-11,006.85	9,958.77	9,782.46	76.31	129.201		
8,500.00	7,249.82	7,303.91	6,924.68	51.62	57.63	-84.16	-2,388.52	-11,006.88	9,763.12	9,686.37	76.75	127.214		
8,600.00	7,249.45	7,304.89	6,925.66	53.88	57.63	-84.18	-2,388.55	-11,006.90	9,667.56	9,590.34	77.22	125.200		
8,700.00	7,249.09	7,305.88	6,926.65	56.19	57.63	-84.20	-2,388.57	-11,006.93	9,572.08	9,494.36	77.72	123.161		
8,800.00	7,248.72	7,306.88	6,927.65	58.55	57.63	-84.22	-2,388.60	-11,006.96	9,476.71	9,398.45	78.26	121.099		
8,900.00	7,248.36	7,307.89	6,928.66	60.96	57.64	-84.24	-2,388.63	-11,006.99	9,381.42	9,302.60	78.83	119.015		
9,000.00	7,247.99	7,308.91	6,929.68	63.40	57.64	-84.26	-2,388.66	-11,007.01	9,286.24	9,206.81	79.43	116.912		
9,100.00	7,247.62	7,309.94	6,930.70	65.87	57.64	-84.29	-2,388.68	-11,007.04	9,191.16	9,111.09	80.07	114.793		
9,200.00	7,247.26	7,310.98	6,931.74	68.38	57.64	-84.31	-2,388.71	-11,007.07	9,096.18	9,015.44	80.74	112.658		
9,300.00	7,246.89	7,312.03	6,932.79	70.91	57.65	-84.33	-2,388.74	-11,007.10	9,001.31	8,919.86	81.45	110.511		
9,400.00	7,246.53	7,313.09	6,933.85	73.47	57.65	-84.35	-2,388.77	-11,007.13	8,906.55	8,824.36	82.20	108.354		

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



Anticollision Report



Company:	SRC ENERGY	Local Co-ordinate Reference:	Well HARVESTERS STATE 31C-16-M
Project:	SECTION 15, T6N, R66W	TVD Reference:	KB @ 4821.00ft
Reference Site:	HARVESTERS STATE 7-15 PAD	MD Reference:	KB @ 4821.00ft
Site Error:	3.28 ft	North Reference:	True
Reference Well:	HARVESTERS STATE 31C-16-M	Survey Calculation Method:	Minimum Curvature
Well Error:	3.28 ft	Output errors are at	2.45 sigma
Reference Wellbore	OH	Database:	EDM 5000.14 Single User Db
Reference Design:	PLAN #1	Offset TVD Reference:	Reference Datum

Offset Design HARVESTERS STATE 7-15 PAD - FRITZLER 17-23-18(PR_150CC) - OH - OH													Offset Site Error:	0.00 ft
Survey Program: 121-MWD													Offset Well Error:	3.28 ft
Reference		Offset		Semi Major Axis			Distance							Warning
Measured Depth (ft)	Vertical Depth (ft)	Measured Depth (ft)	Vertical Depth (ft)	Reference (ft)	Offset (ft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (ft)	+E/-W (ft)	Between Centres (ft)	Between Ellipses (ft)	Minimum Separation (ft)	Separation Factor		
9,500.00	7,246.16	7,314.16	6,934.92	76.05	57.65	-84.37	-2,388.80	-11,007.16	8,811.91	8,728.93	82.98	106.189		
9,600.00	7,245.79	7,315.24	6,936.00	78.65	57.65	-84.39	-2,388.83	-11,007.19	8,717.39	8,633.59	83.81	104.019		
9,700.00	7,245.43	7,316.33	6,937.10	81.27	57.66	-84.41	-2,388.86	-11,007.22	8,622.99	8,538.33	84.67	101.845		
9,800.00	7,245.06	7,317.44	6,938.20	83.90	57.66	-84.44	-2,388.89	-11,007.25	8,528.72	8,443.15	85.57	99.670		
9,900.00	7,244.69	7,318.55	6,939.31	86.55	57.66	-84.46	-2,388.92	-11,007.28	8,434.58	8,348.07	86.51	97.497		
10,000.00	7,244.33	7,319.68	6,940.44	89.21	57.66	-84.48	-2,388.96	-11,007.31	8,340.58	8,253.09	87.49	95.327		
10,100.00	7,243.96	7,320.82	6,941.57	91.88	57.67	-84.50	-2,388.99	-11,007.35	8,246.72	8,158.20	88.52	93.163		
10,200.00	7,243.60	7,321.97	6,942.72	94.56	57.67	-84.53	-2,389.02	-11,007.38	8,153.00	8,063.42	89.59	91.007		
10,300.00	7,243.23	7,323.13	6,943.88	97.26	57.67	-84.55	-2,389.05	-11,007.41	8,059.44	7,968.74	90.70	88.861		
10,400.00	7,242.86	7,324.30	6,945.06	99.96	57.68	-84.57	-2,389.09	-11,007.45	7,966.03	7,874.18	91.85	86.727		
10,500.00	7,242.50	7,325.49	6,946.24	102.67	57.68	-84.60	-2,389.12	-11,007.48	7,872.78	7,779.73	93.05	84.607		
10,600.00	7,242.13	7,326.69	6,947.44	105.39	57.68	-84.62	-2,389.16	-11,007.52	7,779.70	7,685.40	94.30	82.502		
10,700.00	7,241.76	7,327.90	6,948.65	108.12	57.68	-84.64	-2,389.19	-11,007.55	7,686.79	7,591.20	95.59	80.415		
10,800.00	7,241.40	7,329.12	6,949.87	110.85	57.69	-84.67	-2,389.23	-11,007.59	7,594.06	7,497.13	96.93	78.347		
10,900.00	7,241.03	7,330.36	6,951.11	113.59	57.69	-84.69	-2,389.26	-11,007.63	7,501.52	7,403.20	98.32	76.298		
11,000.00	7,240.67	7,331.61	6,952.35	116.34	57.69	-84.72	-2,389.30	-11,007.66	7,409.17	7,309.41	99.76	74.272		
11,100.00	7,240.30	7,332.87	6,953.62	119.09	57.70	-84.74	-2,389.34	-11,007.70	7,317.02	7,215.78	101.25	72.269		
11,200.00	7,239.93	7,334.15	6,954.89	121.85	57.70	-84.77	-2,389.38	-11,007.74	7,225.08	7,122.30	102.79	70.291		
11,300.00	7,239.57	7,335.44	6,956.18	124.61	57.70	-84.79	-2,389.42	-11,007.78	7,133.36	7,028.98	104.38	68.338		
11,400.00	7,239.20	7,336.74	6,957.49	127.38	57.71	-84.82	-2,389.45	-11,007.82	7,041.86	6,935.83	106.03	66.412		
11,500.00	7,238.84	7,338.06	6,958.81	130.15	57.71	-84.85	-2,389.49	-11,007.86	6,950.60	6,842.86	107.74	64.514		
11,600.00	7,238.47	7,339.40	6,960.14	132.92	57.71	-84.87	-2,389.54	-11,007.90	6,859.58	6,750.08	109.50	62.644		
11,700.00	7,238.10	7,340.75	6,961.49	135.70	57.72	-84.90	-2,389.58	-11,007.94	6,768.81	6,657.49	111.32	60.803		
11,800.00	7,237.74	7,342.11	6,962.85	138.48	57.72	-84.93	-2,389.62	-11,007.98	6,678.30	6,565.10	113.20	58.993		
11,900.00	7,237.37	7,343.49	6,964.23	141.26	57.72	-84.96	-2,389.66	-11,008.03	6,588.07	6,472.93	115.15	57.214		
12,000.00	7,237.00	7,344.89	6,965.62	144.05	57.73	-84.98	-2,389.70	-11,008.07	6,498.13	6,380.97	117.16	55.466		
12,100.00	7,236.64	7,346.30	6,967.03	146.84	57.73	-85.01	-2,389.75	-11,008.11	6,408.48	6,289.25	119.23	53.749		
12,200.00	7,236.27	7,347.72	6,968.46	149.64	57.73	-85.04	-2,389.79	-11,008.16	6,319.14	6,197.77	121.37	52.066		
12,300.00	7,235.91	7,349.17	6,969.90	152.43	57.74	-85.07	-2,389.84	-11,008.21	6,230.13	6,106.55	123.58	50.415		
12,400.00	7,235.54	7,386.00	7,006.69	155.23	57.82	-85.81	-2,391.08	-11,009.45	6,141.64	6,015.70	125.94	48.765		
12,500.00	7,235.17	7,386.00	7,006.69	158.03	57.82	-85.81	-2,391.08	-11,009.45	6,053.31	5,925.01	128.30	47.183		
12,600.00	7,234.81	7,386.00	7,006.69	160.83	57.82	-85.81	-2,391.08	-11,009.45	5,965.33	5,834.61	130.72	45.634		
12,700.00	7,234.44	7,386.00	7,006.69	163.64	57.82	-85.81	-2,391.08	-11,009.45	5,877.75	5,744.52	133.22	44.119		
12,800.00	7,234.07	7,386.00	7,006.69	166.44	57.82	-85.81	-2,391.08	-11,009.45	5,790.56	5,654.76	135.81	42.638		
12,900.00	7,233.71	7,386.00	7,006.69	169.25	57.82	-85.81	-2,391.08	-11,009.45	5,703.80	5,565.33	138.47	41.191		
13,000.00	7,233.34	7,386.00	7,006.69	172.06	57.82	-85.81	-2,391.08	-11,009.45	5,617.47	5,476.25	141.22	39.778		
13,100.00	7,232.98	7,386.00	7,006.69	174.88	57.82	-85.81	-2,391.08	-11,009.45	5,531.61	5,387.56	144.06	38.399		
13,200.00	7,232.61	7,386.00	7,006.69	177.69	57.82	-85.81	-2,391.08	-11,009.45	5,446.23	5,299.25	146.98	37.054		
13,300.00	7,232.24	7,386.00	7,006.69	180.50	57.82	-85.81	-2,391.08	-11,009.45	5,361.36	5,211.36	150.00	35.742		
13,400.00	7,231.88	7,386.00	7,006.69	183.32	57.82	-85.81	-2,391.08	-11,009.45	5,277.01	5,123.90	153.11	34.465		
13,500.00	7,231.51	7,386.00	7,006.69	186.14	57.82	-85.81	-2,391.08	-11,009.45	5,193.22	5,036.90	156.32	33.221		
13,600.00	7,231.15	7,386.00	7,006.69	188.96	57.82	-85.81	-2,391.08	-11,009.45	5,110.01	4,950.38	159.63	32.011		
13,700.00	7,230.78	7,386.00	7,006.69	191.78	57.82	-85.81	-2,391.08	-11,009.45	5,027.42	4,864.38	163.04	30.835		
13,800.00	7,230.41	7,386.00	7,006.69	194.60	57.82	-85.81	-2,391.08	-11,009.45	4,945.47	4,778.91	166.56	29.692		
13,900.00	7,230.05	7,386.00	7,006.69	197.42	57.82	-85.81	-2,391.08	-11,009.45	4,864.19	4,694.00	170.19	28.581		
14,000.00	7,229.68	7,386.00	7,006.69	200.25	57.82	-85.81	-2,391.08	-11,009.45	4,783.62	4,609.70	173.92	27.504		
14,100.00	7,229.31	7,386.00	7,006.69	203.07	57.82	-85.81	-2,391.08	-11,009.45	4,703.80	4,526.03	177.77	26.460		
14,200.00	7,228.95	7,386.00	7,006.69	205.90	57.82	-85.81	-2,391.08	-11,009.45	4,624.77	4,443.03	181.74	25.447		
14,300.00	7,228.58	7,386.00	7,006.69	208.73	57.82	-85.81	-2,391.08	-11,009.45	4,546.56	4,360.74	185.82	24.467		
14,400.00	7,228.22	7,386.00	7,006.69	211.55	57.82	-85.81	-2,391.08	-11,009.45	4,469.21	4,279.19	190.02	23.519		
14,500.00	7,227.85	7,386.00	7,006.69	214.38	57.82	-85.81	-2,391.08	-11,009.45	4,392.79	4,198.44	194.35	22.603		
14,600.00	7,227.48	7,388.29	7,008.98	217.21	57.83	-85.85	-2,391.16	-11,009.54	4,317.32	4,118.52	198.80	21.717		

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



Anticollision Report



Company:	SRC ENERGY	Local Co-ordinate Reference:	Well HARVESTERS STATE 31C-16-M
Project:	SECTION 15, T6N, R66W	TVD Reference:	KB @ 4821.00ft
Reference Site:	HARVESTERS STATE 7-15 PAD	MD Reference:	KB @ 4821.00ft
Site Error:	3.28 ft	North Reference:	True
Reference Well:	HARVESTERS STATE 31C-16-M	Survey Calculation Method:	Minimum Curvature
Well Error:	3.28 ft	Output errors are at	2.45 sigma
Reference Wellbore	OH	Database:	EDM 5000.14 Single User Db
Reference Design:	PLAN #1	Offset TVD Reference:	Reference Datum

Offset Design HARVESTERS STATE 7-15 PAD - FRITZLER 17-23-18(PR_150CC) - OH - OH												Offset Site Error:	0.00 ft
Survey Program: 121-MWD												Offset Well Error:	3.28 ft
Reference		Offset		Semi Major Axis			Distance						
Measured Depth (ft)	Vertical Depth (ft)	Measured Depth (ft)	Vertical Depth (ft)	Reference (ft)	Offset (ft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (ft)	+E/-W (ft)	Between Centres (ft)	Between Ellipses (ft)	Minimum Separation (ft)	Separation Factor	Warning
14,700.00	7,227.12	7,390.94	7,011.62	220.04	57.84	-85.91	-2,391.25	-11,009.63	4,242.87	4,039.49	203.39	20.861	
14,800.00	7,226.75	7,393.62	7,014.30	222.88	57.84	-85.96	-2,391.35	-11,009.73	4,169.49	3,961.39	208.09	20.037	
14,900.00	7,226.38	7,396.34	7,017.02	225.71	57.85	-86.01	-2,391.44	-11,009.83	4,097.23	3,884.30	212.93	19.243	
15,000.00	7,226.02	7,399.10	7,019.77	228.54	57.86	-86.07	-2,391.54	-11,009.93	4,026.15	3,808.27	217.88	18.478	
15,005.81	7,226.00	7,399.26	7,019.93	228.71	57.86	-86.07	-2,391.55	-11,009.94	4,022.06	3,803.89	218.17	18.435 CC, ES, SF	



Anticollision Report



Company:	SRC ENERGY	Local Co-ordinate Reference:	Well HARVESTERS STATE 31C-16-M
Project:	SECTION 15, T6N, R66W	TVD Reference:	KB @ 4821.00ft
Reference Site:	HARVESTERS STATE 7-15 PAD	MD Reference:	KB @ 4821.00ft
Site Error:	3.28 ft	North Reference:	True
Reference Well:	HARVESTERS STATE 31C-16-M	Survey Calculation Method:	Minimum Curvature
Well Error:	3.28 ft	Output errors are at	2.45 sigma
Reference Wellbore	OH	Database:	EDM 5000.14 Single User Db
Reference Design:	PLAN #1	Offset TVD Reference:	Reference Datum

Offset Design HARVESTERS STATE 7-15 PAD - FRITZLER 17-32-12(PR_150CC) - OH - OH													Offset Site Error:	0.00 ft
Survey Program: 120-MWD													Offset Well Error:	3.28 ft
Reference		Offset		Semi Major Axis			Distance							Warning
Measured Depth (ft)	Vertical Depth (ft)	Measured Depth (ft)	Vertical Depth (ft)	Reference (ft)	Offset (ft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (ft)	+E/-W (ft)	Between Centres (ft)	Between Ellipses (ft)	Minimum Separation (ft)	Separation Factor		
0.00	0.00	0.00	36.00	3.28	3.28	-108.22	-2,951.06	-8,963.49	9,436.85					
100.00	100.00	0.00	36.00	3.28	3.28	-108.22	-2,951.06	-8,963.49	9,437.00	9,430.44	6.56	1,437.496		
200.00	200.00	56.62	92.61	3.34	3.28	-108.22	-2,951.42	-8,963.71	9,437.72	9,431.10	6.62	1,425.710		
300.00	300.00	577.00	612.23	3.44	3.96	-108.14	-2,936.86	-8,962.58	9,436.66	9,429.24	7.42	1,272.560		
400.00	400.00	605.74	640.75	3.60	4.03	-108.12	-2,933.36	-8,962.87	9,433.75	9,426.10	7.64	1,234.047		
500.00	500.00	639.94	674.66	3.81	4.13	-108.10	-2,928.92	-8,963.54	9,431.55	9,423.61	7.94	1,188.088		
600.00	600.00	695.22	729.36	4.05	4.29	-108.05	-2,921.15	-8,965.24	9,430.02	9,421.68	8.34	1,130.424		
700.00	699.98	897.60	928.82	4.32	5.02	-85.00	-2,887.62	-8,972.16	9,428.01	9,418.67	9.34	1,008.964		
800.00	799.84	1,007.63	1,036.54	4.62	5.50	-84.95	-2,865.68	-8,976.35	9,425.03	9,414.91	10.11	931.868		
900.00	899.62	1,119.76	1,145.46	4.94	6.05	-84.84	-2,839.60	-8,981.77	9,421.91	9,410.93	10.98	858.333		
1,000.00	999.41	1,195.29	1,218.26	5.27	6.46	-84.74	-2,819.96	-8,986.08	9,418.81	9,407.09	11.72	803.669		
1,100.00	1,099.19	1,281.45	1,300.68	5.62	6.96	-84.62	-2,795.54	-8,991.88	9,416.01	9,403.43	12.57	748.859		
1,200.00	1,198.98	1,374.20	1,388.49	5.99	7.56	-84.48	-2,766.56	-8,999.02	9,413.29	9,399.76	13.53	695.786		
1,300.00	1,298.76	1,417.00	1,428.69	6.36	7.85	-84.41	-2,752.30	-9,002.62	9,410.84	9,396.65	14.19	663.342		
1,400.00	1,398.55	1,470.72	1,478.91	6.74	8.23	-84.31	-2,733.88	-9,007.59	9,408.93	9,393.98	14.95	629.298		
1,500.00	1,498.33	1,512.00	1,517.35	7.13	8.53	-84.23	-2,719.47	-9,011.86	9,407.78	9,392.14	15.64	601.650		
1,600.00	1,598.12	1,571.59	1,572.65	7.52	8.98	-84.12	-2,698.25	-9,018.44	9,407.20	9,390.72	16.48	570.726		
1,692.67	1,690.59	1,629.51	1,626.18	7.89	9.43	-84.01	-2,677.17	-9,025.12	9,406.99	9,389.69	17.30	543.647		
1,700.00	1,697.90	1,633.36	1,629.73	7.92	9.46	-84.00	-2,675.75	-9,025.58	9,406.99	9,389.63	17.36	541.761		
1,800.00	1,797.69	1,701.00	1,691.87	8.33	10.01	-83.86	-2,650.38	-9,033.97	9,407.32	9,389.01	18.31	513.720		
1,900.00	1,897.47	1,737.46	1,725.19	8.74	10.32	-83.78	-2,636.37	-9,038.76	9,408.15	9,389.13	19.03	494.475		
2,000.00	1,997.26	1,796.00	1,778.41	9.15	10.81	-83.66	-2,613.39	-9,046.84	9,409.56	9,389.62	19.93	472.018		
2,100.00	2,097.04	1,951.72	1,918.89	9.56	12.22	-83.31	-2,549.80	-9,068.53	9,410.76	9,389.01	21.76	432.517		
2,200.00	2,196.83	2,016.85	1,977.31	9.98	12.83	-83.15	-2,522.51	-9,077.70	9,412.06	9,389.28	22.78	413.177		
2,300.00	2,296.61	2,064.93	2,020.40	10.40	13.28	-83.04	-2,502.34	-9,084.69	9,413.91	9,390.26	23.65	398.070		
2,400.00	2,396.40	2,400.00	2,111.67	10.82	16.52	-82.80	-2,459.44	-9,099.74	9,416.07	9,388.77	27.30	344.915		
2,500.00	2,496.18	2,255.70	2,191.03	11.24	15.13	-82.59	-2,421.80	-9,112.78	9,418.26	9,391.93	26.33	357.720		
2,600.00	2,595.96	2,313.63	2,242.75	11.66	15.69	-82.45	-2,397.21	-9,121.49	9,420.90	9,393.58	27.31	344.899		
2,700.00	2,695.75	2,369.00	2,292.24	12.09	16.24	-82.32	-2,373.87	-9,129.99	9,424.05	9,395.77	28.28	333.260		
2,800.00	2,795.53	2,409.18	2,328.18	12.51	16.64	-82.23	-2,357.04	-9,136.33	9,427.80	9,398.71	29.09	324.075		
2,900.00	2,895.32	2,464.00	2,377.22	12.94	17.18	-82.10	-2,334.26	-9,145.29	9,432.24	9,402.19	30.05	313.878		
3,000.00	2,995.10	2,529.64	2,435.98	13.37	17.83	-81.95	-2,307.13	-9,156.22	9,437.16	9,406.04	31.12	303.260		
3,100.00	3,094.89	2,603.08	2,501.80	13.80	18.56	-81.78	-2,276.92	-9,168.43	9,442.31	9,410.05	32.26	292.655		
3,200.00	3,194.67	2,842.00	2,715.62	14.23	20.96	-81.22	-2,177.70	-9,207.33	9,447.52	9,412.42	35.10	269.193		
3,300.00	3,294.46	2,911.14	2,776.75	14.66	21.68	-81.05	-2,147.33	-9,218.28	9,451.72	9,415.49	36.24	260.827		
3,400.00	3,394.24	2,976.61	2,834.75	15.09	22.36	-80.89	-2,118.84	-9,228.85	9,456.42	9,419.09	37.33	253.308		
3,500.00	3,494.03	3,193.68	3,029.09	15.52	24.57	-80.39	-2,027.96	-9,261.82	9,460.72	9,420.75	39.97	236.716		
3,600.00	3,593.81	3,250.80	3,079.92	15.96	25.15	-80.25	-2,003.33	-9,270.35	9,464.76	9,423.79	40.97	231.018		
3,700.00	3,693.60	3,296.85	3,121.06	16.39	25.63	-80.14	-1,983.88	-9,277.38	9,469.39	9,427.54	41.86	226.230		
3,800.00	3,793.38	3,430.42	3,241.05	16.82	26.97	-79.84	-1,928.77	-9,297.51	9,474.20	9,430.57	43.62	217.174		
3,900.00	3,893.17	3,481.22	3,286.81	17.26	27.48	-79.72	-1,908.06	-9,305.12	9,479.16	9,434.61	44.55	212.789		
4,000.00	3,992.95	3,545.06	3,344.35	17.69	28.12	-79.58	-1,882.20	-9,314.92	9,484.64	9,439.04	45.60	207.994		
4,100.00	4,092.74	3,648.88	3,437.72	18.13	29.17	-79.34	-1,839.78	-9,331.10	9,490.43	9,443.37	47.06	201.663		
4,200.00	4,192.52	3,754.13	3,532.48	18.56	30.22	-79.11	-1,796.89	-9,347.14	9,496.06	9,447.53	48.53	195.667		
4,300.00	4,292.31	3,889.21	3,654.25	19.00	31.58	-78.81	-1,742.07	-9,367.52	9,501.75	9,451.45	50.30	188.895		
4,400.00	4,392.09	3,928.09	3,689.00	19.43	31.99	-78.72	-1,725.70	-9,373.51	9,507.57	9,456.45	51.12	185.990		
4,500.00	4,491.88	3,976.00	3,731.52	19.87	32.49	-78.60	-1,705.01	-9,381.21	9,514.01	9,461.99	52.02	182.874		
4,600.00	4,591.66	4,017.87	3,768.40	20.31	32.94	-78.50	-1,686.47	-9,388.22	9,521.06	9,468.18	52.89	180.030		
4,700.00	4,691.44	4,071.00	3,814.84	20.74	33.53	-78.36	-1,662.39	-9,397.47	9,528.74	9,474.87	53.87	176.888		
4,800.00	4,791.23	4,121.98	3,859.06	21.18	34.11	-78.23	-1,638.72	-9,406.64	9,536.96	9,482.11	54.85	173.882		
4,900.00	4,891.01	4,165.00	3,896.12	21.62	34.60	-78.11	-1,618.36	-9,414.53	9,545.68	9,489.94	55.73	171.280		
5,000.00	4,990.80	4,217.45	3,941.13	22.06	35.21	-77.97	-1,593.30	-9,424.41	9,554.97	9,498.24	56.73	168.415		

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



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Site Error:	3.28 ft	North Reference:	True
Reference Well:	HARVESTERS STATE 31C-16-M	Survey Calculation Method:	Minimum Curvature
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Reference Wellbore	OH	Database:	EDM 5000.14 Single User Db
Reference Design:	PLAN #1	Offset TVD Reference:	Reference Datum

Offset Design HARVESTERS STATE 7-15 PAD - FRITZLER 17-32-12(PR_150CC) - OH - OH													Offset Site Error:	0.00 ft
Survey Program: 120-MWD													Offset Well Error:	3.28 ft
Reference		Offset		Semi Major Axis			Distance							Warning
Measured Depth (ft)	Vertical Depth (ft)	Measured Depth (ft)	Vertical Depth (ft)	Reference (ft)	Offset (ft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (ft)	+E/-W (ft)	Between Centres (ft)	Between Ellipses (ft)	Minimum Separation (ft)	Separation Factor		
5,100.00	5,090.58	4,260.00	3,977.55	22.50	35.71	-77.86	-1,572.93	-9,432.68	9,564.95	9,507.33	57.62	166.006		
5,200.00	5,190.37	4,628.03	4,303.22	22.93	39.65	-76.98	-1,414.31	-9,496.64	9,573.24	9,511.24	61.99	154.424		
5,300.00	5,290.15	4,756.09	4,420.20	23.37	40.88	-76.72	-1,365.99	-9,516.09	9,580.88	9,517.26	63.63	150.580		
5,400.00	5,389.94	5,400.00	4,992.02	23.81	46.09	-75.75	-1,176.66	-9,587.54	9,587.78	9,518.53	69.25	138.461		
5,500.00	5,489.72	5,569.47	5,191.97	24.25	47.15	-75.53	-1,128.47	-9,601.83	9,589.41	9,518.69	70.72	135.595		
5,600.00	5,589.51	5,929.96	5,547.71	24.69	48.89	-75.33	-1,073.26	-9,616.33	9,589.55	9,516.68	72.87	131.605		
5,700.00	5,689.29	6,000.52	5,617.98	25.13	49.15	-75.32	-1,067.10	-9,617.67	9,588.51	9,514.94	73.57	130.338		
5,800.00	5,789.08	6,104.72	5,721.92	25.56	49.50	-75.31	-1,060.12	-9,619.48	9,587.61	9,513.26	74.35	128.953		
5,900.00	5,888.86	6,210.72	5,827.76	26.00	49.82	-75.32	-1,054.39	-9,620.97	9,586.57	9,511.45	75.12	127.624		
6,000.00	5,988.65	6,000.00	5,949.23	26.44	49.22	-75.33	-1,049.16	-9,622.34	9,585.40	9,510.45	74.95	127.897		
6,100.00	6,088.43	6,440.29	6,057.13	26.88	50.48	-75.35	-1,045.19	-9,623.20	9,583.98	9,507.33	76.65	125.030		
6,200.00	6,188.22	6,512.80	6,129.61	27.32	50.68	-75.36	-1,043.04	-9,623.85	9,582.79	9,505.50	77.29	123.981		
6,300.00	6,288.00	6,584.94	6,201.72	27.76	50.87	-75.38	-1,041.28	-9,624.65	9,581.89	9,503.96	77.93	122.956		
6,400.00	6,387.79	6,665.79	6,282.55	28.20	51.08	-75.40	-1,039.76	-9,625.72	9,581.26	9,502.68	78.58	121.924		
6,500.00	6,487.57	6,763.00	6,379.75	28.64	51.33	-75.43	-1,038.39	-9,627.02	9,580.72	9,501.45	79.27	120.860		
6,600.00	6,587.35	6,859.57	6,476.30	29.08	51.57	-75.46	-1,037.45	-9,628.27	9,580.21	9,500.26	79.95	119.821		
6,700.00	6,687.02	6,955.12	6,571.84	29.52	51.80	-37.63	-1,036.78	-9,629.51	9,577.54	9,496.91	80.63	118.783		
6,800.00	6,784.98	7,050.91	6,667.63	29.96	52.03	-21.90	-1,036.28	-9,630.76	9,561.18	9,479.88	81.30	117.599		
6,900.00	6,878.81	7,145.21	6,761.91	30.41	52.27	-17.89	-1,035.83	-9,632.00	9,529.80	9,447.85	81.96	116.280		
7,000.00	6,966.21	7,233.26	6,849.95	30.86	52.48	-16.70	-1,035.41	-9,633.15	9,484.18	9,401.61	82.56	114.870		
7,100.00	7,045.03	7,312.89	6,929.58	31.35	52.68	-16.91	-1,035.03	-9,634.20	9,425.44	9,342.33	83.11	113.403		
7,200.00	7,113.32	7,382.15	6,998.83	31.90	52.86	-18.33	-1,034.70	-9,635.11	9,355.04	9,271.45	83.59	111.915		
7,300.00	7,169.40	7,457.63	7,074.30	32.57	53.05	-21.39	-1,034.34	-9,636.03	9,274.67	9,190.64	84.03	110.374		
7,400.00	7,211.89	7,516.73	7,133.40	33.38	53.20	-27.39	-1,034.07	-9,636.63	9,186.29	9,101.91	84.38	108.874		
7,500.00	7,239.75	7,555.66	7,172.33	34.35	53.29	-40.35	-1,033.90	-9,636.97	9,092.14	9,007.52	84.62	107.444		
7,600.00	7,252.28	7,573.67	7,190.34	35.47	53.34	-72.31	-1,033.82	-9,637.12	8,994.60	8,909.83	84.78	106.096		
7,700.00	7,252.75	7,575.33	7,192.00	36.73	53.34	-88.90	-1,033.81	-9,637.13	8,896.02	8,811.14	84.87	104.817		
7,800.00	7,252.38	7,575.87	7,192.53	38.16	53.35	-88.92	-1,033.81	-9,637.13	8,797.44	8,712.46	84.97	103.534		
7,900.00	7,252.02	7,576.40	7,193.06	39.74	53.35	-88.94	-1,033.81	-9,637.14	8,698.89	8,613.81	85.08	102.241		
8,000.00	7,251.65	7,576.92	7,193.59	41.47	53.35	-88.96	-1,033.81	-9,637.14	8,600.37	8,515.17	85.20	100.939		
8,100.00	7,251.29	7,577.44	7,194.11	43.31	53.35	-88.98	-1,033.81	-9,637.15	8,501.89	8,416.55	85.34	99.626		
8,200.00	7,250.92	7,577.96	7,194.63	45.26	53.35	-89.00	-1,033.80	-9,637.15	8,403.45	8,317.96	85.49	98.302		
8,300.00	7,250.55	7,578.48	7,195.14	47.30	53.35	-89.02	-1,033.80	-9,637.15	8,305.04	8,219.39	85.65	96.969		
8,400.00	7,250.19	7,578.99	7,195.65	49.42	53.35	-89.04	-1,033.80	-9,637.16	8,206.67	8,120.85	85.82	95.625		
8,500.00	7,249.82	7,579.49	7,196.16	51.62	53.36	-89.06	-1,033.80	-9,637.16	8,108.34	8,022.33	86.01	94.270		
8,600.00	7,249.45	7,580.00	7,196.66	53.88	53.36	-89.08	-1,033.79	-9,637.17	8,010.05	7,923.84	86.22	92.906		
8,700.00	7,249.09	7,580.49	7,197.16	56.19	53.36	-89.09	-1,033.79	-9,637.17	7,911.81	7,825.37	86.44	91.531		
8,800.00	7,248.72	7,580.99	7,197.65	58.55	53.36	-89.11	-1,033.79	-9,637.17	7,813.61	7,726.93	86.68	90.146		
8,900.00	7,248.36	7,581.48	7,198.15	60.96	53.36	-89.13	-1,033.79	-9,637.18	7,715.45	7,628.52	86.93	88.751		
9,000.00	7,247.99	7,581.97	7,198.63	63.40	53.36	-89.15	-1,033.79	-9,637.18	7,617.35	7,530.14	87.21	87.347		
9,100.00	7,247.62	7,582.45	7,199.12	65.87	53.36	-89.17	-1,033.78	-9,637.18	7,519.29	7,431.79	87.50	85.932		
9,200.00	7,247.26	7,582.93	7,199.60	68.38	53.36	-89.19	-1,033.78	-9,637.19	7,421.28	7,333.47	87.82	84.508		
9,300.00	7,246.89	7,583.41	7,200.07	70.91	53.37	-89.21	-1,033.78	-9,637.19	7,323.33	7,235.18	88.15	83.076		
9,400.00	7,246.53	7,583.88	7,200.55	73.47	53.37	-89.22	-1,033.78	-9,637.19	7,225.44	7,136.93	88.51	81.634		
9,500.00	7,246.16	7,584.35	7,201.02	76.05	53.37	-89.24	-1,033.78	-9,637.20	7,127.60	7,038.71	88.89	80.183		
9,600.00	7,245.79	7,584.82	7,201.48	78.65	53.37	-89.26	-1,033.77	-9,637.20	7,029.83	6,940.53	89.30	78.725		
9,700.00	7,245.43	7,585.28	7,201.94	81.27	53.37	-89.28	-1,033.77	-9,637.20	6,932.12	6,842.39	89.73	77.258		
9,800.00	7,245.06	7,585.74	7,202.40	83.90	53.37	-89.30	-1,033.77	-9,637.21	6,834.47	6,744.29	90.18	75.784		
9,900.00	7,244.69	7,586.19	7,202.86	86.55	53.37	-89.31	-1,033.77	-9,637.21	6,736.89	6,646.23	90.67	74.304		
10,000.00	7,244.33	7,586.65	7,203.31	89.21	53.37	-89.33	-1,033.77	-9,637.21	6,639.39	6,548.21	91.18	72.817		
10,100.00	7,243.96	7,587.10	7,203.76	91.88	53.37	-89.35	-1,033.76	-9,637.22	6,541.96	6,450.24	91.72	71.324		
10,200.00	7,243.60	7,587.54	7,204.21	94.56	53.38	-89.37	-1,033.76	-9,637.22	6,444.61	6,352.31	92.30	69.826		

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



Anticollision Report



Company:	SRC ENERGY	Local Co-ordinate Reference:	Well HARVESTERS STATE 31C-16-M
Project:	SECTION 15, T6N, R66W	TVD Reference:	KB @ 4821.00ft
Reference Site:	HARVESTERS STATE 7-15 PAD	MD Reference:	KB @ 4821.00ft
Site Error:	3.28 ft	North Reference:	True
Reference Well:	HARVESTERS STATE 31C-16-M	Survey Calculation Method:	Minimum Curvature
Well Error:	3.28 ft	Output errors are at	2.45 sigma
Reference Wellbore	OH	Database:	EDM 5000.14 Single User Db
Reference Design:	PLAN #1	Offset TVD Reference:	Reference Datum

Offset Design HARVESTERS STATE 7-15 PAD - FRITZLER 17-32-12(PR_150CC) - OH - OH													Offset Site Error:	0.00 ft
Survey Program: 120-MWD													Offset Well Error:	3.28 ft
Reference		Offset		Semi Major Axis			Distance							Warning
Measured Depth (ft)	Vertical Depth (ft)	Measured Depth (ft)	Vertical Depth (ft)	Reference (ft)	Offset (ft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (ft)	+E/-W (ft)	Between Centres (ft)	Between Ellipses (ft)	Minimum Separation (ft)	Separation Factor		
10,300.00	7,243.23	7,587.99	7,204.65	97.26	53.38	-89.38	-1,033.76	-9,637.22	6,347.34	6,254.44	92.90	68.323		
10,400.00	7,242.86	7,588.42	7,205.09	99.96	53.38	-89.40	-1,033.76	-9,637.23	6,250.16	6,156.62	93.54	66.817		
10,500.00	7,242.50	7,588.86	7,205.53	102.67	53.38	-89.42	-1,033.76	-9,637.23	6,153.07	6,058.85	94.22	65.307		
10,600.00	7,242.13	7,589.29	7,205.96	105.39	53.38	-89.43	-1,033.75	-9,637.23	6,056.07	5,961.14	94.93	63.795		
10,700.00	7,241.76	7,589.73	7,206.39	108.12	53.38	-89.45	-1,033.75	-9,637.24	5,959.17	5,863.49	95.68	62.282		
10,800.00	7,241.40	7,590.15	7,206.82	110.85	53.38	-89.47	-1,033.75	-9,637.24	5,862.38	5,765.91	96.47	60.767		
10,900.00	7,241.03	7,590.58	7,207.24	113.59	53.38	-89.48	-1,033.75	-9,637.24	5,765.69	5,668.39	97.31	59.253		
11,000.00	7,240.67	7,591.00	7,207.66	116.34	53.38	-89.50	-1,033.75	-9,637.25	5,669.12	5,570.94	98.18	57.740		
11,100.00	7,240.30	7,591.42	7,208.08	119.09	53.39	-89.52	-1,033.74	-9,637.25	5,572.68	5,473.57	99.11	56.229		
11,200.00	7,239.93	7,591.83	7,208.50	121.85	53.39	-89.53	-1,033.74	-9,637.25	5,476.35	5,376.28	100.08	54.720		
11,300.00	7,239.57	7,592.25	7,208.91	124.61	53.39	-89.55	-1,033.74	-9,637.25	5,380.17	5,279.07	101.10	53.215		
11,400.00	7,239.20	7,592.66	7,209.32	127.38	53.39	-89.56	-1,033.74	-9,637.26	5,284.12	5,181.95	102.18	51.715		
11,500.00	7,238.84	7,593.06	7,209.73	130.15	53.39	-89.58	-1,033.74	-9,637.26	5,188.23	5,084.92	103.31	50.221		
11,600.00	7,238.47	7,593.47	7,210.13	132.92	53.39	-89.59	-1,033.74	-9,637.26	5,092.49	4,987.99	104.50	48.734		
11,700.00	7,238.10	7,593.87	7,210.53	135.70	53.39	-89.61	-1,033.73	-9,637.27	4,996.92	4,891.17	105.75	47.254		
11,800.00	7,237.74	7,594.27	7,210.93	138.48	53.39	-89.63	-1,033.73	-9,637.27	4,901.52	4,794.47	107.06	45.784		
11,900.00	7,237.37	7,594.66	7,211.33	141.26	53.39	-89.64	-1,033.73	-9,637.27	4,806.32	4,697.88	108.44	44.323		
12,000.00	7,237.00	7,595.06	7,211.72	144.05	53.39	-89.66	-1,033.73	-9,637.27	4,711.31	4,601.42	109.89	42.874		
12,100.00	7,236.64	7,595.45	7,212.11	146.84	53.40	-89.67	-1,033.73	-9,637.28	4,616.51	4,505.10	111.41	41.437		
12,200.00	7,236.27	7,595.84	7,212.50	149.64	53.40	-89.69	-1,033.73	-9,637.28	4,521.94	4,408.92	113.01	40.013		
12,300.00	7,235.91	7,596.22	7,212.89	152.43	53.40	-89.70	-1,033.72	-9,637.28	4,427.60	4,312.91	114.70	38.603		
12,400.00	7,235.54	7,596.60	7,213.27	155.23	53.40	-89.72	-1,033.72	-9,637.29	4,333.52	4,217.06	116.47	37.209		
12,500.00	7,235.17	7,596.98	7,213.65	158.03	53.40	-89.73	-1,033.72	-9,637.29	4,239.71	4,121.39	118.33	35.831		
12,600.00	7,234.81	7,597.36	7,214.03	160.83	53.40	-89.75	-1,033.72	-9,637.29	4,146.19	4,025.91	120.28	34.471		
12,700.00	7,234.44	7,597.74	7,214.40	163.64	53.40	-89.76	-1,033.72	-9,637.29	4,052.98	3,930.64	122.34	33.129		
12,800.00	7,234.07	7,598.11	7,214.78	166.44	53.40	-89.77	-1,033.72	-9,637.30	3,960.10	3,835.59	124.50	31.807		
12,900.00	7,233.71	7,598.48	7,215.15	169.25	53.40	-89.79	-1,033.71	-9,637.30	3,867.57	3,740.79	126.78	30.506		
13,000.00	7,233.34	7,598.85	7,215.51	172.06	53.40	-89.80	-1,033.71	-9,637.30	3,775.43	3,646.25	129.18	29.227		
13,100.00	7,232.98	7,599.21	7,215.88	174.88	53.41	-89.82	-1,033.71	-9,637.30	3,683.69	3,551.99	131.70	27.970		
13,200.00	7,232.61	7,599.58	7,216.24	177.69	53.41	-89.83	-1,033.71	-9,637.31	3,592.40	3,458.04	134.36	26.737		
13,300.00	7,232.24	7,599.94	7,216.60	180.50	53.41	-89.84	-1,033.71	-9,637.31	3,501.58	3,364.43	137.16	25.530		
13,400.00	7,231.88	7,600.30	7,216.96	183.32	53.41	-89.86	-1,033.71	-9,637.31	3,411.28	3,271.17	140.11	24.348		
13,500.00	7,231.51	7,600.65	7,217.32	186.14	53.41	-89.87	-1,033.70	-9,637.31	3,321.53	3,178.31	143.22	23.192		
13,600.00	7,231.15	7,601.01	7,217.67	188.96	53.41	-89.89	-1,033.70	-9,637.32	3,232.39	3,085.89	146.49	22.065		
13,700.00	7,230.78	7,601.36	7,218.02	191.78	53.41	-89.90	-1,033.70	-9,637.32	3,143.89	2,993.94	149.95	20.966		
13,800.00	7,230.41	7,601.71	7,218.37	194.60	53.41	-89.91	-1,033.70	-9,637.32	3,056.11	2,902.51	153.60	19.897		
13,900.00	7,230.05	7,602.06	7,218.72	197.42	53.41	-89.93	-1,033.70	-9,637.32	2,969.10	2,811.65	157.44	18.858		
14,000.00	7,229.68	7,602.40	7,219.07	200.25	53.41	-89.94	-1,033.70	-9,637.33	2,882.93	2,721.43	161.50	17.851		
14,100.00	7,229.31	7,602.74	7,219.41	203.07	53.41	-89.95	-1,033.70	-9,637.33	2,797.68	2,631.90	165.78	16.876		
14,200.00	7,228.95	7,603.09	7,219.75	205.90	53.41	-89.97	-1,033.69	-9,637.33	2,713.44	2,543.15	170.29	15.934		
14,300.00	7,228.58	7,603.42	7,220.09	208.73	53.42	-89.98	-1,033.69	-9,637.33	2,630.30	2,455.25	175.05	15.026		
14,400.00	7,228.22	7,603.76	7,220.43	211.55	53.42	-89.99	-1,033.69	-9,637.33	2,548.38	2,368.31	180.07	14.152		
14,500.00	7,227.85	7,604.09	7,218.66	214.38	53.41	-89.92	-1,033.70	-9,637.33	2,467.80	2,282.45	185.35	13.314		
14,600.00	7,227.48	7,602.39	7,219.05	217.21	53.41	-89.94	-1,033.70	-9,637.34	2,388.67	2,197.77	190.91	12.512		
14,700.00	7,227.12	7,602.78	7,219.45	220.04	53.41	-89.95	-1,033.70	-9,637.34	2,311.17	2,114.42	196.75	11.747		
14,800.00	7,226.75	7,603.18	7,219.84	222.88	53.42	-89.97	-1,033.70	-9,637.34	2,235.45	2,032.58	202.87	11.019		
14,900.00	7,226.38	7,603.57	7,220.24	225.71	53.42	-89.98	-1,033.70	-9,637.34	2,161.71	1,952.43	209.28	10.329		
15,000.00	7,226.02	7,603.97	7,220.63	228.54	53.42	-90.00	-1,033.69	-9,637.35	2,090.15	1,874.19	215.96	9.678		
15,005.81	7,226.00	7,603.99	7,220.65	228.71	53.42	-90.00	-1,033.69	-9,637.35	2,086.06	1,869.71	216.36	9.642 CC, ES, SF		



Anticollision Report



Company:	SRC ENERGY	Local Co-ordinate Reference:	Well HARVESTERS STATE 31C-16-M
Project:	SECTION 15, T6N, R66W	TVD Reference:	KB @ 4821.00ft
Reference Site:	HARVESTERS STATE 7-15 PAD	MD Reference:	KB @ 4821.00ft
Site Error:	3.28 ft	North Reference:	True
Reference Well:	HARVESTERS STATE 31C-16-M	Survey Calculation Method:	Minimum Curvature
Well Error:	3.28 ft	Output errors are at	2.45 sigma
Reference Wellbore	OH	Database:	EDM 5000.14 Single User Db
Reference Design:	PLAN #1	Offset TVD Reference:	Reference Datum

Offset Design HARVESTERS STATE 7-15 PAD - FRITZLER 17-42-11(PR_150CC) - OH - MWD													Offset Site Error:	0.00 ft
Survey Program: 57-MWD													Offset Well Error:	3.28 ft
Reference		Offset		Semi Major Axis			Distance							Warning
Measured Depth (ft)	Vertical Depth (ft)	Measured Depth (ft)	Vertical Depth (ft)	Reference (ft)	Offset (ft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (ft)	+E/-W (ft)	Between Centres (ft)	Between Ellipses (ft)	Minimum Separation (ft)	Separation Factor		
0.00	0.00	2,239.69	2,170.78	3.28	15.69	-105.25	-2,384.59	-8,747.14	9,322.61					
100.00	100.00	2,275.67	2,203.72	3.28	16.01	-105.17	-2,370.80	-8,742.84	9,299.65	9,281.47	18.19	511.301		
200.00	200.00	2,326.24	2,250.12	3.34	16.45	-105.06	-2,351.53	-8,737.07	9,277.35	9,258.72	18.62	498.198		
300.00	300.00	2,529.15	2,436.03	3.44	18.27	-104.63	-2,273.89	-8,712.93	9,254.64	9,234.29	20.35	454.849		
400.00	400.00	2,585.00	2,486.87	3.60	18.78	-104.50	-2,251.70	-8,706.46	9,231.89	9,210.95	20.94	440.878		
500.00	500.00	2,640.76	2,537.59	3.81	19.29	-104.37	-2,229.35	-8,700.30	9,209.61	9,188.03	21.58	426.676		
600.00	600.00	600.00	2,716.78	4.05	3.75	-103.91	-2,149.45	-8,677.68	9,187.11	9,179.58	7.54	1,218.746		
700.00	699.98	2,926.07	2,796.21	4.32	21.96	-81.29	-2,113.57	-8,667.08	9,163.77	9,139.29	24.47	374.444		
800.00	799.84	2,985.67	2,850.42	4.62	22.52	-81.59	-2,089.86	-8,659.89	9,140.35	9,115.10	25.25	361.955		
900.00	899.62	3,062.32	2,920.64	4.94	23.22	-81.45	-2,060.66	-8,650.41	9,117.07	9,090.88	26.18	348.222		
1,000.00	999.41	3,156.99	3,007.51	5.27	24.07	-81.28	-2,024.90	-8,638.67	9,093.93	9,066.66	27.27	333.464		
1,100.00	1,099.19	3,262.14	3,103.80	5.62	25.03	-81.09	-1,984.67	-8,625.72	9,070.82	9,042.34	28.47	318.577		
1,200.00	1,198.98	3,298.78	3,137.51	5.99	25.35	-81.03	-1,971.04	-8,621.22	9,048.06	9,018.94	29.12	310.686		
1,300.00	1,298.76	3,346.00	3,181.19	6.36	25.77	-80.95	-1,954.04	-8,615.48	9,025.88	8,996.01	29.87	302.142		
1,400.00	1,398.55	3,381.58	3,214.24	6.74	26.08	-80.89	-1,941.57	-8,611.27	9,004.32	8,973.79	30.53	294.911		
1,500.00	1,498.33	3,440.00	3,268.68	7.13	26.57	-80.79	-1,921.40	-8,604.73	8,983.49	8,952.12	31.38	286.326		
1,600.00	1,598.12	3,528.09	3,351.05	7.52	27.31	-80.66	-1,891.77	-8,594.85	8,963.05	8,930.61	32.44	276.325		
1,700.00	1,697.90	3,795.77	3,601.81	7.92	29.52	-80.25	-1,804.21	-8,561.79	8,942.51	8,907.72	34.79	257.037		
1,800.00	1,797.69	1,800.00	3,704.42	8.33	12.64	-80.08	-1,767.03	-8,546.91	8,920.01	8,899.88	20.13	443.101		
1,900.00	1,897.47	3,973.87	3,767.34	8.74	31.05	-79.97	-1,742.99	-8,537.98	8,897.54	8,860.56	36.98	240.593		
2,000.00	1,997.26	4,023.76	3,813.40	9.15	31.50	-79.88	-1,724.80	-8,531.89	8,875.66	8,837.85	37.81	234.750		
2,100.00	2,097.04	4,107.54	3,890.59	9.56	32.24	-79.73	-1,693.79	-8,522.03	8,854.12	8,815.20	38.92	227.516		
2,200.00	2,196.83	4,174.27	3,952.06	9.98	32.84	-79.60	-1,668.99	-8,514.34	8,832.86	8,792.96	39.90	221.399		
2,300.00	2,296.61	4,676.25	4,407.90	10.40	37.59	-78.59	-1,469.91	-8,449.10	8,809.62	8,765.11	44.51	197.946		
2,400.00	2,396.40	4,713.93	4,441.44	10.82	37.96	-78.51	-1,453.57	-8,443.84	8,784.67	8,739.36	45.31	193.881		
2,500.00	2,496.18	4,774.00	4,495.17	11.24	38.57	-78.37	-1,427.95	-8,435.83	8,760.50	8,714.19	46.31	189.159		
2,600.00	2,595.96	4,774.00	4,495.17	11.66	38.57	-78.37	-1,427.95	-8,435.83	8,736.89	8,690.10	46.79	186.716		
2,700.00	2,695.75	4,820.10	4,536.72	12.09	39.01	-78.27	-1,408.84	-8,429.98	8,714.03	8,666.37	47.66	182.829		
2,800.00	2,795.53	4,869.00	4,581.16	12.51	39.48	-78.17	-1,389.34	-8,424.02	8,691.95	8,643.39	48.56	179.004		
2,900.00	2,895.32	4,914.91	4,623.16	12.94	39.90	-78.08	-1,371.63	-8,418.50	8,670.45	8,621.04	49.41	175.479		
3,000.00	2,995.10	5,023.36	4,722.77	13.37	40.89	-77.87	-1,330.82	-8,405.28	8,649.22	8,598.45	50.77	170.365		
3,100.00	3,094.89	5,089.22	4,783.02	13.80	41.49	-77.73	-1,305.48	-8,397.27	8,627.95	8,576.16	51.79	166.604		
3,200.00	3,194.67	5,152.00	4,840.75	14.23	42.06	-77.61	-1,281.92	-8,389.98	8,607.37	8,554.58	52.78	163.074		
3,300.00	3,294.46	5,152.00	4,840.75	14.66	42.06	-77.61	-1,281.92	-8,389.98	8,587.38	8,534.11	53.27	161.205		
3,400.00	3,394.24	5,211.71	4,896.03	15.09	42.58	-77.50	-1,260.31	-8,383.41	8,568.03	8,513.81	54.22	158.018		
3,500.00	3,494.03	5,247.00	4,928.86	15.52	42.89	-77.43	-1,247.93	-8,379.70	8,549.41	8,494.42	54.98	155.490		
3,600.00	3,593.81	5,292.25	4,971.17	15.96	43.27	-77.36	-1,232.53	-8,375.12	8,531.46	8,475.66	55.81	152.879		
3,700.00	3,693.60	5,342.00	5,017.93	16.39	43.68	-77.27	-1,216.25	-8,370.33	8,514.22	8,457.56	56.66	150.269		
3,800.00	3,793.38	5,342.00	5,017.93	16.82	43.68	-77.27	-1,216.25	-8,370.33	8,497.78	8,440.64	57.14	148.717		
3,900.00	3,893.17	5,391.56	5,064.86	17.26	44.05	-77.20	-1,200.95	-8,365.91	8,481.99	8,424.03	57.96	146.333		
4,000.00	3,992.95	5,437.00	5,108.25	17.69	44.40	-77.13	-1,187.95	-8,362.26	8,467.18	8,408.43	58.76	144.108		
4,100.00	4,092.74	5,437.00	5,108.25	18.13	44.40	-77.13	-1,187.95	-8,362.26	8,453.11	8,393.88	59.23	142.722		
4,200.00	4,192.52	5,485.60	5,154.97	18.56	44.73	-77.07	-1,175.04	-8,358.73	8,439.81	8,379.81	60.01	140.650		
4,300.00	4,292.31	5,531.00	5,198.87	19.00	45.04	-77.02	-1,163.86	-8,355.72	8,427.32	8,366.56	60.76	138.696		
4,400.00	4,392.09	5,595.94	5,261.95	19.43	45.44	-76.95	-1,149.04	-8,351.52	8,415.40	8,353.79	61.61	136.601		
4,500.00	4,491.88	5,657.84	5,322.34	19.87	45.81	-76.89	-1,136.07	-8,347.40	8,403.73	8,341.32	62.41	134.647		
4,600.00	4,591.66	5,720.00	5,383.30	20.31	46.17	-76.85	-1,124.60	-8,343.42	8,392.69	8,329.48	63.20	132.788		
4,700.00	4,691.44	4,700.00	5,468.70	20.74	40.80	-76.80	-1,110.35	-8,337.70	8,381.89	8,323.33	58.56	143.137		
4,800.00	4,791.23	5,846.98	5,508.34	21.18	46.82	-76.77	-1,104.18	-8,335.05	8,371.39	8,306.67	64.72	129.340		
4,900.00	4,891.01	5,876.59	5,537.61	21.62	46.96	-76.76	-1,100.07	-8,333.30	8,361.73	8,296.42	65.31	128.033		
5,000.00	4,990.80	5,909.00	5,569.71	22.06	47.12	-76.75	-1,095.94	-8,331.61	8,352.90	8,286.99	65.90	126.744		
5,100.00	5,090.58	5,974.53	5,634.71	22.50	47.41	-76.73	-1,088.28	-8,328.46	8,344.69	8,278.07	66.62	125.255		

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



Anticollision Report



Company:	SRC ENERGY	Local Co-ordinate Reference:	Well HARVESTERS STATE 31C-16-M
Project:	SECTION 15, T6N, R66W	TVD Reference:	KB @ 4821.00ft
Reference Site:	HARVESTERS STATE 7-15 PAD	MD Reference:	KB @ 4821.00ft
Site Error:	3.28 ft	North Reference:	True
Reference Well:	HARVESTERS STATE 31C-16-M	Survey Calculation Method:	Minimum Curvature
Well Error:	3.28 ft	Output errors are at	2.45 sigma
Reference Wellbore	OH	Database:	EDM 5000.14 Single User Db
Reference Design:	PLAN #1	Offset TVD Reference:	Reference Datum

Offset Design HARVESTERS STATE 7-15 PAD - FRITZLER 17-42-11(PR_150CC) - OH - MWD													Offset Site Error:	0.00 ft
Survey Program: 57-MWD													Offset Well Error:	3.28 ft
Reference		Offset		Semi Major Axis			Distance							Warning
Measured Depth (ft)	Vertical Depth (ft)	Measured Depth (ft)	Vertical Depth (ft)	Reference (ft)	Offset (ft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (ft)	+E/-W (ft)	Between Centres (ft)	Between Ellipses (ft)	Minimum Separation (ft)	Separation Factor		
5,200.00	5,190.37	6,035.88	5,695.64	22.93	47.66	-76.71	-1,081.64	-8,325.64	8,336.86	8,269.54	67.31	123.851		
5,300.00	5,290.15	6,097.00	5,756.41	23.37	47.92	-76.70	-1,075.64	-8,323.08	8,329.55	8,261.56	68.00	122.500		
5,400.00	5,389.94	6,136.89	5,796.11	23.81	48.07	-76.70	-1,072.01	-8,321.60	8,322.82	8,254.24	68.58	121.352		
5,500.00	5,489.72	6,192.00	5,850.98	24.25	48.28	-76.69	-1,067.21	-8,319.90	8,316.76	8,247.53	69.23	120.135		
5,600.00	5,589.51	6,245.49	5,904.26	24.69	48.49	-76.69	-1,062.61	-8,318.53	8,311.24	8,241.38	69.87	118.961		
5,700.00	5,689.29	6,314.49	5,972.97	25.13	48.75	-76.68	-1,056.50	-8,317.04	8,306.13	8,235.57	70.56	117.716		
5,800.00	5,789.08	6,385.91	6,044.14	25.56	49.01	-76.67	-1,050.74	-8,315.65	8,301.36	8,230.10	71.26	116.491		
5,900.00	5,888.86	6,460.71	6,118.74	26.00	49.28	-76.67	-1,045.38	-8,314.33	8,296.92	8,224.96	71.96	115.296		
6,000.00	5,988.65	6,537.54	6,195.40	26.44	49.54	-76.67	-1,040.52	-8,313.10	8,292.77	8,220.11	72.66	114.133		
6,100.00	6,088.43	6,598.82	6,256.58	26.88	49.74	-76.67	-1,037.10	-8,312.22	8,288.95	8,215.66	73.29	113.096		
6,200.00	6,188.22	6,665.00	6,322.68	27.32	49.95	-76.68	-1,033.87	-8,311.67	8,285.74	8,211.81	73.93	112.070		
6,300.00	6,288.00	6,716.13	6,373.76	27.76	50.10	-76.69	-1,031.71	-8,311.45	8,283.00	8,208.49	74.51	111.161		
6,400.00	6,387.79	6,805.85	6,463.43	28.20	50.37	-76.71	-1,028.59	-8,311.13	8,280.56	8,205.34	75.22	110.088		
6,500.00	6,487.57	6,907.74	6,565.28	28.64	50.65	-76.74	-1,025.90	-8,310.62	8,278.11	8,202.16	75.95	108.993		
6,600.00	6,587.35	7,005.79	6,663.30	29.08	50.93	-76.76	-1,023.58	-8,310.09	8,275.67	8,199.00	76.67	107.941		
6,700.00	6,687.02	7,102.01	6,759.50	29.52	51.20	-38.95	-1,021.51	-8,309.56	8,271.07	8,193.70	77.38	106.895		
6,800.00	6,784.98	7,195.46	6,852.94	29.96	51.45	-23.30	-1,019.84	-8,309.04	8,252.87	8,174.81	78.06	105.720		
6,900.00	6,878.81	7,284.27	6,941.73	30.41	51.69	-19.40	-1,018.55	-8,308.54	8,219.83	8,141.12	78.71	104.430		
7,000.00	6,966.21	7,366.51	7,023.96	30.86	51.92	-18.39	-1,017.57	-8,308.10	8,172.78	8,093.48	79.30	103.057		
7,100.00	7,045.03	7,448.15	7,105.60	31.35	52.14	-18.89	-1,016.78	-8,307.66	8,112.86	8,033.01	79.85	101.600		
7,200.00	7,113.32	7,538.02	7,195.46	31.90	52.38	-20.80	-1,015.93	-8,307.00	8,041.39	7,961.02	80.38	100.048		
7,300.00	7,169.40	7,611.10	7,268.54	32.57	52.58	-24.63	-1,015.22	-8,306.29	7,960.15	7,879.35	80.80	98.520		
7,400.00	7,211.89	7,637.56	7,295.00	33.38	52.65	-31.73	-1,014.89	-8,306.08	7,871.35	7,790.32	81.03	97.136		
7,500.00	7,239.75	7,664.68	7,318.76	34.35	52.73	-46.63	-1,014.58	-8,305.89	7,777.14	7,695.91	81.23	95.744		
7,600.00	7,252.28	7,673.10	7,330.53	35.47	52.75	-79.33	-1,014.42	-8,305.80	7,679.84	7,598.51	81.33	94.424		
7,700.00	7,252.75	7,672.80	7,330.23	36.73	52.75	-94.11	-1,014.42	-8,305.80	7,581.70	7,500.31	81.40	93.146		
7,800.00	7,252.38	7,671.66	7,329.09	38.16	52.75	-94.06	-1,014.44	-8,305.81	7,483.61	7,402.14	81.47	91.860		
7,900.00	7,252.02	7,670.52	7,327.95	39.74	52.74	-94.02	-1,014.45	-8,305.82	7,385.56	7,304.00	81.55	90.563		
8,000.00	7,251.65	7,669.38	7,326.81	41.47	52.74	-93.98	-1,014.47	-8,305.83	7,287.56	7,205.91	81.65	89.252		
8,100.00	7,251.29	7,668.24	7,325.67	43.31	52.74	-93.93	-1,014.48	-8,305.83	7,189.62	7,107.85	81.77	87.928		
8,200.00	7,250.92	7,667.10	7,324.53	45.26	52.73	-93.89	-1,014.50	-8,305.84	7,091.74	7,009.84	81.90	86.592		
8,300.00	7,250.55	7,665.96	7,323.39	47.30	52.73	-93.84	-1,014.51	-8,305.85	6,993.91	6,911.86	82.05	85.242		
8,400.00	7,250.19	7,664.82	7,322.25	49.42	52.73	-93.80	-1,014.53	-8,305.86	6,896.15	6,813.93	82.22	83.879		
8,500.00	7,249.82	7,663.68	7,321.11	51.62	52.72	-93.75	-1,014.54	-8,305.87	6,798.45	6,716.05	82.40	82.503		
8,600.00	7,249.45	7,663.46	7,319.97	53.88	52.72	-93.71	-1,014.56	-8,305.88	6,700.82	6,618.21	82.61	81.111		
8,700.00	7,249.09	7,664.60	7,318.83	56.19	52.73	-93.66	-1,014.58	-8,305.89	6,603.26	6,520.42	82.85	79.702		
8,800.00	7,248.72	7,665.74	7,317.69	58.55	52.73	-93.62	-1,014.59	-8,305.90	6,505.78	6,422.67	83.11	78.281		
8,900.00	7,248.36	7,666.88	7,316.55	60.96	52.73	-93.57	-1,014.61	-8,305.91	6,408.37	6,324.98	83.39	76.847		
9,000.00	7,247.99	7,658.40	7,315.84	63.40	52.71	-93.55	-1,014.62	-8,305.91	6,311.05	6,227.37	83.67	75.426		
9,100.00	7,247.62	7,657.35	7,314.78	65.87	52.71	-93.50	-1,014.63	-8,305.92	6,213.81	6,129.80	84.00	73.972		
9,200.00	7,247.26	7,656.28	7,313.72	68.38	52.70	-93.46	-1,014.64	-8,305.93	6,116.65	6,032.29	84.36	72.507		
9,300.00	7,246.89	7,655.22	7,312.65	70.91	52.70	-93.42	-1,014.66	-8,305.94	6,019.59	5,934.85	84.75	71.031		
9,400.00	7,246.53	7,654.14	7,311.58	73.47	52.70	-93.38	-1,014.67	-8,305.95	5,922.63	5,837.47	85.16	69.543		
9,500.00	7,246.16	7,653.07	7,310.50	76.05	52.69	-93.34	-1,014.69	-8,305.95	5,825.77	5,740.16	85.62	68.046		
9,600.00	7,245.79	7,651.98	7,309.42	78.65	52.69	-93.29	-1,014.70	-8,305.96	5,729.02	5,642.92	86.10	66.538		
9,700.00	7,245.43	7,650.89	7,308.33	81.27	52.69	-93.25	-1,014.72	-8,305.97	5,632.38	5,545.76	86.62	65.021		
9,800.00	7,245.06	7,649.80	7,307.24	83.90	52.69	-93.21	-1,014.73	-8,305.98	5,535.86	5,448.68	87.18	63.496		
9,900.00	7,244.69	7,648.70	7,306.14	86.55	52.68	-93.17	-1,014.74	-8,305.99	5,439.47	5,351.68	87.78	61.964		
10,000.00	7,244.33	7,647.60	7,305.03	89.21	52.68	-93.12	-1,014.76	-8,306.00	5,343.21	5,254.78	88.43	60.425		
10,100.00	7,243.96	7,646.49	7,303.92	91.88	52.68	-93.08	-1,014.77	-8,306.01	5,247.08	5,157.97	89.11	58.880		
10,200.00	7,243.60	7,645.38	7,302.81	94.56	52.67	-93.03	-1,014.79	-8,306.02	5,151.11	5,061.26	89.85	57.331		
10,300.00	7,243.23	7,644.26	7,301.69	97.26	52.67	-92.99	-1,014.80	-8,306.03	5,055.29	4,964.66	90.63	55.779		

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



Anticollision Report



Company:	SRC ENERGY	Local Co-ordinate Reference:	Well HARVESTERS STATE 31C-16-M
Project:	SECTION 15, T6N, R66W	TVD Reference:	KB @ 4821.00ft
Reference Site:	HARVESTERS STATE 7-15 PAD	MD Reference:	KB @ 4821.00ft
Site Error:	3.28 ft	North Reference:	True
Reference Well:	HARVESTERS STATE 31C-16-M	Survey Calculation Method:	Minimum Curvature
Well Error:	3.28 ft	Output errors are at	2.45 sigma
Reference Wellbore	OH	Database:	EDM 5000.14 Single User Db
Reference Design:	PLAN #1	Offset TVD Reference:	Reference Datum

Offset Design HARVESTERS STATE 7-15 PAD - FRITZLER 17-42-11(PR_150CC) - OH - MWD												Offset Site Error:	0.00 ft
Survey Program: 57-MWD												Offset Well Error:	3.28 ft
Reference		Offset		Semi Major Axis			Distance						Warning
Measured Depth (ft)	Vertical Depth (ft)	Measured Depth (ft)	Vertical Depth (ft)	Reference (ft)	Offset (ft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (ft)	+E/-W (ft)	Between Centres (ft)	Between Ellipses (ft)	Minimum Separation (ft)	Separation Factor	
10,400.00	7,242.86	7,643.13	7,300.56	99.96	52.67	-92.95	-1,014.82	-8,306.04	4,959.64	4,868.17	91.47	54.224	
10,500.00	7,242.50	7,642.00	7,299.43	102.67	52.66	-92.90	-1,014.83	-8,306.05	4,864.16	4,771.80	92.35	52.669	
10,600.00	7,242.13	7,640.86	7,298.30	105.39	52.66	-92.86	-1,014.84	-8,306.06	4,768.86	4,675.56	93.30	51.114	
10,700.00	7,241.76	7,639.72	7,297.15	108.12	52.66	-92.81	-1,014.86	-8,306.06	4,673.76	4,579.46	94.30	49.560	
10,800.00	7,241.40	7,638.57	7,296.01	110.85	52.65	-92.77	-1,014.87	-8,306.07	4,578.87	4,483.50	95.37	48.010	
10,900.00	7,241.03	7,637.42	7,294.85	113.59	52.65	-92.72	-1,014.89	-8,306.08	4,484.21	4,387.70	96.51	46.464	
11,000.00	7,240.67	7,636.26	7,293.69	116.34	52.65	-92.68	-1,014.90	-8,306.09	4,389.77	4,292.06	97.71	44.925	
11,100.00	7,240.30	7,635.09	7,292.53	119.09	52.64	-92.63	-1,014.92	-8,306.10	4,295.59	4,196.60	98.99	43.393	
11,200.00	7,239.93	7,633.92	7,291.36	121.85	52.64	-92.59	-1,014.93	-8,306.11	4,201.68	4,101.33	100.35	41.871	
11,300.00	7,239.57	7,632.75	7,290.18	124.61	52.64	-92.54	-1,014.94	-8,306.12	4,108.06	4,006.27	101.79	40.359	
11,400.00	7,239.20	7,631.57	7,289.00	127.38	52.63	-92.49	-1,014.96	-8,306.13	4,014.74	3,911.43	103.31	38.860	
11,500.00	7,238.84	7,630.38	7,287.81	130.15	52.63	-92.45	-1,014.97	-8,306.14	3,921.75	3,816.82	104.93	37.374	
11,600.00	7,238.47	7,629.18	7,286.62	132.92	52.63	-92.40	-1,014.99	-8,306.15	3,829.12	3,722.47	106.65	35.905	
11,700.00	7,238.10	7,627.98	7,285.42	135.70	52.62	-92.35	-1,015.00	-8,306.17	3,736.86	3,628.40	108.46	34.453	
11,800.00	7,237.74	7,626.78	7,284.21	138.48	52.62	-92.31	-1,015.02	-8,306.18	3,645.02	3,534.62	110.39	33.019	
11,900.00	7,237.37	7,625.56	7,283.00	141.26	52.62	-92.26	-1,015.03	-8,306.19	3,553.61	3,441.17	112.43	31.606	
12,000.00	7,237.00	7,624.34	7,281.78	144.05	52.61	-92.21	-1,015.05	-8,306.20	3,462.67	3,348.08	114.60	30.216	
12,100.00	7,236.64	7,623.12	7,280.56	146.84	52.61	-92.16	-1,015.06	-8,306.21	3,372.25	3,255.36	116.89	28.849	
12,200.00	7,236.27	7,621.89	7,279.33	149.64	52.61	-92.11	-1,015.07	-8,306.22	3,282.39	3,163.06	119.33	27.508	
12,300.00	7,235.91	7,620.65	7,278.09	152.43	52.60	-92.06	-1,015.09	-8,306.23	3,193.13	3,071.22	121.91	26.193	
12,400.00	7,235.54	7,619.41	7,276.84	155.23	52.60	-92.02	-1,015.10	-8,306.24	3,104.52	2,979.87	124.64	24.907	
12,500.00	7,235.17	7,618.16	7,275.59	158.03	52.60	-91.97	-1,015.12	-8,306.25	3,016.62	2,889.08	127.54	23.652	
12,600.00	7,234.81	7,616.90	7,274.34	160.83	52.59	-91.92	-1,015.13	-8,306.26	2,929.50	2,798.88	130.62	22.427	
12,700.00	7,234.44	7,615.64	7,273.07	163.64	52.59	-91.87	-1,015.15	-8,306.27	2,843.22	2,709.34	133.89	21.236	
12,800.00	7,234.07	7,614.37	7,271.80	166.44	52.59	-91.82	-1,015.16	-8,306.29	2,757.88	2,620.53	137.35	20.080	
12,900.00	7,233.71	7,613.09	7,270.53	169.25	52.58	-91.77	-1,015.18	-8,306.30	2,673.55	2,532.53	141.02	18.959	
13,000.00	7,233.34	7,611.81	7,269.25	172.06	52.58	-91.72	-1,015.19	-8,306.31	2,590.33	2,445.41	144.91	17.875	
13,100.00	7,232.98	7,610.52	7,267.96	174.88	52.58	-91.67	-1,015.21	-8,306.32	2,508.34	2,359.30	149.04	16.830	
13,200.00	7,232.61	7,609.22	7,266.66	177.69	52.57	-91.62	-1,015.22	-8,306.33	2,427.69	2,274.28	153.41	15.825	
13,300.00	7,232.24	7,607.92	7,265.36	180.50	52.57	-91.57	-1,015.23	-8,306.34	2,348.54	2,190.50	158.04	14.860	
13,400.00	7,231.88	7,606.61	7,264.05	183.32	52.57	-91.51	-1,015.25	-8,306.36	2,271.03	2,108.09	162.94	13.938	
13,500.00	7,231.51	7,605.29	7,262.73	186.14	52.56	-91.46	-1,015.26	-8,306.37	2,195.34	2,027.23	168.11	13.059	
13,600.00	7,231.15	7,603.97	7,261.41	188.96	52.56	-91.41	-1,015.28	-8,306.38	2,121.66	1,948.10	173.56	12.224	
13,700.00	7,230.78	7,602.64	7,260.07	191.78	52.55	-91.36	-1,015.29	-8,306.39	2,050.22	1,870.92	179.30	11.435	
13,800.00	7,230.41	7,601.30	7,258.74	194.60	52.55	-91.31	-1,015.31	-8,306.41	1,981.24	1,795.93	185.31	10.691	
13,900.00	7,230.05	7,600.15	7,257.59	197.42	52.55	-91.26	-1,015.33	-8,306.41	1,915.00	1,723.40	191.60	9.995	
14,000.00	7,229.68	7,598.67	7,256.11	200.25	52.54	-91.20	-1,015.34	-8,306.42	1,851.80	1,653.66	198.14	9.346	
14,100.00	7,229.31	7,597.24	7,254.68	203.07	52.54	-91.15	-1,015.35	-8,306.44	1,791.95	1,587.05	204.90	8.745	
14,200.00	7,228.95	7,595.87	7,253.31	205.90	52.54	-91.09	-1,015.36	-8,306.46	1,735.80	1,523.95	211.85	8.193	
14,300.00	7,228.58	7,594.50	7,251.94	208.73	52.53	-91.04	-1,015.38	-8,306.47	1,683.72	1,464.78	218.93	7.691	
14,400.00	7,228.22	7,593.12	7,250.56	211.55	52.53	-90.98	-1,015.39	-8,306.48	1,636.09	1,410.02	226.07	7.237	
14,500.00	7,227.85	7,591.73	7,249.17	214.38	52.52	-90.93	-1,015.41	-8,306.50	1,593.33	1,360.15	233.18	6.833	
14,600.00	7,227.48	7,590.33	7,247.77	217.21	52.52	-90.87	-1,015.42	-8,306.51	1,555.83	1,315.68	240.15	6.478	
14,700.00	7,227.12	7,588.93	7,246.37	220.04	52.52	-90.82	-1,015.44	-8,306.52	1,523.98	1,277.11	246.87	6.173	
14,800.00	7,226.75	7,587.51	7,244.95	222.88	52.51	-90.76	-1,015.45	-8,306.54	1,498.13	1,244.94	253.19	5.917	
14,900.00	7,226.38	7,586.09	7,243.53	225.71	52.51	-90.71	-1,015.47	-8,306.55	1,478.61	1,219.63	258.98	5.709	
15,000.00	7,226.02	7,584.67	7,242.11	228.54	52.50	-90.65	-1,015.48	-8,306.57	1,465.66	1,201.56	264.10	5.550	
15,005.81	7,226.00	7,584.58	7,242.02	228.71	52.50	-90.65	-1,015.48	-8,306.57	1,465.12	1,200.74	264.37	5.542 CC, ES, SF	



Anticollision Report



Company:	SRC ENERGY	Local Co-ordinate Reference:	Well HARVESTERS STATE 31C-16-M
Project:	SECTION 15, T6N, R66W	TVD Reference:	KB @ 4821.00ft
Reference Site:	HARVESTERS STATE 7-15 PAD	MD Reference:	KB @ 4821.00ft
Site Error:	3.28 ft	North Reference:	True
Reference Well:	HARVESTERS STATE 31C-16-M	Survey Calculation Method:	Minimum Curvature
Well Error:	3.28 ft	Output errors are at	2.45 sigma
Reference Wellbore	OH	Database:	EDM 5000.14 Single User Db
Reference Design:	PLAN #1	Offset TVD Reference:	Reference Datum

Offset Design HARVESTERS STATE 7-15 PAD - FRITZLER 34-17(PR_150CC) - OH - OH													Offset Site Error:	0.00 ft
Survey Program: 168-MWD													Offset Well Error:	3.28 ft
Reference		Offset		Semi Major Axis			Distance							Warning
Measured Depth (ft)	Vertical Depth (ft)	Measured Depth (ft)	Vertical Depth (ft)	Reference (ft)	Offset (ft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (ft)	+E/-W (ft)	Between Centres (ft)	Between Ellipses (ft)	Minimum Separation (ft)	Separation Factor		
0.00	0.00	0.00	36.00	3.28	3.28	-108.52	-3,016.98	-9,004.68	9,496.73					
100.00	100.00	37.20	73.20	3.28	3.28	-108.52	-3,016.90	-9,004.76	9,496.75	9,490.18	6.57	1,446.435		
200.00	200.00	95.31	131.31	3.34	3.29	-108.52	-3,016.46	-9,005.22	9,497.25	9,490.63	6.62	1,433.990		
300.00	300.00	168.00	203.98	3.44	3.30	-108.51	-3,015.34	-9,006.36	9,498.21	9,491.47	6.74	1,408.639		
400.00	400.00	168.00	203.98	3.60	3.30	-108.51	-3,015.34	-9,006.36	9,499.75	9,492.85	6.90	1,376.279		
500.00	500.00	213.06	249.02	3.81	3.33	-108.50	-3,014.47	-9,007.58	9,501.93	9,494.79	7.13	1,332.090		
600.00	600.00	259.00	294.90	4.05	3.37	-108.49	-3,013.60	-9,009.49	9,505.04	9,497.63	7.41	1,282.214		
700.00	699.98	259.00	294.90	4.32	3.37	-85.52	-3,013.60	-9,009.49	9,508.64	9,500.95	7.69	1,237.004		
800.00	799.84	292.92	328.77	4.62	3.40	-85.45	-3,013.06	-9,011.28	9,512.80	9,504.78	8.02	1,186.098		
900.00	899.62	350.00	385.74	4.94	3.48	-85.47	-3,012.58	-9,014.88	9,517.79	9,509.37	8.41	1,131.401		
1,000.00	999.41	350.00	385.74	5.27	3.48	-85.47	-3,012.58	-9,014.88	9,523.20	9,514.45	8.75	1,088.307		
1,100.00	1,099.19	409.70	445.28	5.62	3.58	-85.48	-3,012.42	-9,019.15	9,529.37	9,520.17	9.20	1,036.307		
1,200.00	1,198.98	486.97	522.34	5.99	3.74	-85.50	-3,012.26	-9,024.93	9,535.88	9,526.18	9.70	982.666		
1,300.00	1,298.76	532.00	567.24	6.36	3.84	-85.51	-3,012.10	-9,028.36	9,542.65	9,532.47	10.17	938.007		
1,400.00	1,398.55	587.00	622.06	6.74	3.98	-85.52	-3,012.06	-9,032.81	9,549.90	9,539.22	10.68	893.958		
1,500.00	1,498.33	644.00	678.83	7.13	4.14	-85.54	-3,012.39	-9,037.90	9,557.93	9,546.72	11.21	852.324		
1,600.00	1,598.12	672.58	707.28	7.52	4.22	-85.55	-3,012.66	-9,040.59	9,566.47	9,554.79	11.68	818.892		
1,700.00	1,697.90	760.77	795.06	7.92	4.50	-85.57	-3,013.72	-9,049.05	9,575.44	9,563.11	12.33	776.578		
1,800.00	1,797.69	869.57	903.36	8.33	4.87	-85.60	-3,015.03	-9,059.31	9,584.26	9,571.20	13.07	733.417		
1,900.00	1,897.47	1,900.00	1,098.48	8.74	9.11	-85.65	-3,015.53	-9,077.62	9,592.80	9,575.34	17.46	549.406		
2,000.00	1,997.26	1,129.26	1,161.95	9.15	5.85	-85.66	-3,015.46	-9,083.21	9,600.68	9,585.91	14.78	649.685		
2,100.00	2,097.04	1,155.43	1,187.99	9.56	5.95	-85.66	-3,015.36	-9,085.75	9,609.29	9,594.01	15.28	628.844		
2,200.00	2,196.83	1,190.00	1,222.36	9.98	6.09	-85.67	-3,015.15	-9,089.46	9,618.67	9,602.85	15.82	608.082		
2,300.00	2,296.61	1,190.00	1,222.36	10.40	6.09	-85.67	-3,015.15	-9,089.46	9,628.84	9,612.62	16.23	593.433		
2,400.00	2,396.40	1,244.64	1,276.61	10.82	6.33	-85.68	-3,014.78	-9,095.96	9,639.57	9,622.72	16.84	572.251		
2,500.00	2,496.18	1,285.00	1,316.63	11.24	6.50	-85.68	-3,014.52	-9,101.18	9,651.07	9,633.66	17.41	554.295		
2,600.00	2,595.96	1,285.00	1,316.63	11.66	6.50	-85.68	-3,014.52	-9,101.18	9,663.34	9,645.52	17.82	542.324		
2,700.00	2,695.75	1,343.28	1,374.36	12.09	6.76	-85.69	-3,014.54	-9,109.22	9,676.10	9,657.64	18.46	524.192		
2,800.00	2,795.53	1,379.00	1,409.70	12.51	6.92	-85.69	-3,014.92	-9,114.39	9,689.63	9,670.62	19.01	509.704		
2,900.00	2,895.32	1,414.53	1,444.81	12.94	7.09	-85.70	-3,015.34	-9,119.75	9,703.82	9,684.25	19.56	496.047		
3,000.00	2,995.10	1,475.00	1,504.49	13.37	7.38	-85.71	-3,015.58	-9,129.54	9,718.68	9,698.46	20.22	480.643		
3,100.00	3,094.89	1,475.00	1,504.49	13.80	7.38	-85.71	-3,015.58	-9,129.54	9,734.07	9,713.44	20.62	472.028		
3,200.00	3,194.67	1,528.39	1,557.08	14.23	7.64	-85.71	-3,015.67	-9,138.73	9,750.07	9,728.81	21.25	458.765		
3,300.00	3,294.46	1,570.00	1,598.02	14.66	7.85	-85.71	-3,015.94	-9,146.19	9,766.73	9,744.89	21.83	447.327		
3,400.00	3,394.24	1,611.36	1,638.67	15.09	8.06	-85.72	-3,016.26	-9,153.83	9,783.96	9,761.55	22.41	436.505		
3,500.00	3,494.03	1,665.00	1,691.32	15.52	8.34	-85.72	-3,016.60	-9,164.06	9,801.72	9,778.67	23.05	425.227		
3,600.00	3,593.81	1,665.00	1,691.32	15.96	8.34	-85.72	-3,016.60	-9,164.06	9,820.17	9,796.72	23.44	418.892		
3,700.00	3,693.60	1,722.63	1,747.77	16.39	8.65	-85.72	-3,016.86	-9,175.64	9,839.05	9,814.95	24.10	408.263		
3,800.00	3,793.38	1,759.00	1,783.31	16.82	8.85	-85.72	-3,016.99	-9,183.35	9,858.73	9,834.07	24.66	399.822		
3,900.00	3,893.17	1,759.00	1,783.31	17.26	8.85	-85.72	-3,016.99	-9,183.35	9,879.17	9,854.13	25.04	394.485		
4,000.00	3,992.95	1,815.81	1,838.72	17.69	9.18	-85.72	-3,017.63	-9,195.85	9,900.06	9,874.37	25.70	385.274		
4,100.00	4,092.74	1,853.00	1,874.94	18.13	9.39	-85.73	-3,018.57	-9,204.24	9,921.73	9,895.47	26.26	377.894		
4,200.00	4,192.52	1,899.24	1,919.93	18.56	9.66	-85.73	-3,019.98	-9,214.86	9,943.95	9,917.09	26.86	370.249		
4,300.00	4,292.31	1,958.09	1,977.12	19.00	10.01	-85.74	-3,021.76	-9,228.61	9,966.57	9,939.04	27.52	362.141		
4,400.00	4,392.09	2,022.52	2,039.68	19.43	10.40	-85.74	-3,023.67	-9,243.90	9,989.53	9,961.32	28.21	354.054		
7,800.00	7,252.38	7,106.14	6,990.82	38.16	40.99	-86.29	-3,057.88	-10,251.02	9,919.71	9,853.86	65.86	150.621		
7,900.00	7,252.02	7,107.03	6,991.71	39.74	40.99	-86.31	-3,057.91	-10,251.03	9,826.28	9,760.09	66.20	148.438		
8,000.00	7,251.65	7,107.91	6,992.59	41.47	40.99	-86.32	-3,057.94	-10,251.05	9,732.98	9,666.41	66.58	146.190		
8,100.00	7,251.29	7,108.79	6,993.47	43.31	40.99	-86.34	-3,057.97	-10,251.06	9,639.82	9,572.82	67.00	143.880		
8,200.00	7,250.92	7,109.67	6,994.35	45.26	41.00	-86.35	-3,058.00	-10,251.07	9,546.79	9,479.33	67.46	141.512		
8,300.00	7,250.55	7,110.54	6,995.22	47.30	41.00	-86.36	-3,058.03	-10,251.09	9,453.91	9,385.94	67.97	139.090		
8,400.00	7,250.19	7,111.42	6,996.10	49.42	41.00	-86.38	-3,058.06	-10,251.10	9,361.17	9,292.65	68.52	136.618		

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



Anticollision Report



Company:	SRC ENERGY	Local Co-ordinate Reference:	Well HARVESTERS STATE 31C-16-M
Project:	SECTION 15, T6N, R66W	TVD Reference:	KB @ 4821.00ft
Reference Site:	HARVESTERS STATE 7-15 PAD	MD Reference:	KB @ 4821.00ft
Site Error:	3.28 ft	North Reference:	True
Reference Well:	HARVESTERS STATE 31C-16-M	Survey Calculation Method:	Minimum Curvature
Well Error:	3.28 ft	Output errors are at	2.45 sigma
Reference Wellbore	OH	Database:	EDM 5000.14 Single User Db
Reference Design:	PLAN #1	Offset TVD Reference:	Reference Datum

Offset Design HARVESTERS STATE 7-15 PAD - FRITZLER 34-17(PR_150CC) - OH - OH													Offset Site Error:	0.00 ft
Survey Program: 168-MWD													Offset Well Error:	3.28 ft
Reference		Offset		Semi Major Axis			Distance							Warning
Measured Depth (ft)	Vertical Depth (ft)	Measured Depth (ft)	Vertical Depth (ft)	Reference (ft)	Offset (ft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (ft)	+E/-W (ft)	Between Centres (ft)	Between Ellipses (ft)	Minimum Separation (ft)	Separation Factor		
8,500.00	7,249.82	7,112.29	6,996.97	51.62	41.01	-86.39	-3,058.09	-10,251.11	9,268.58	9,199.46	69.12	134.101		
8,600.00	7,249.45	7,113.17	6,997.84	53.88	41.01	-86.41	-3,058.12	-10,251.13	9,176.15	9,106.39	69.76	131.543		
8,700.00	7,249.09	7,114.04	6,998.71	56.19	41.01	-86.42	-3,058.15	-10,251.14	9,083.88	9,013.43	70.44	128.950		
8,800.00	7,248.72	7,114.90	6,999.58	58.55	41.01	-86.43	-3,058.18	-10,251.15	8,991.77	8,920.59	71.18	126.327		
8,900.00	7,248.36	7,115.77	7,000.45	60.96	41.02	-86.45	-3,058.21	-10,251.17	8,899.83	8,827.87	71.96	123.678		
9,000.00	7,247.99	7,116.64	7,001.31	63.40	41.02	-86.46	-3,058.24	-10,251.18	8,808.07	8,735.29	72.79	121.010		
9,100.00	7,247.62	7,117.50	7,002.17	65.87	41.02	-86.48	-3,058.27	-10,251.19	8,716.49	8,642.83	73.66	118.327		
9,200.00	7,247.26	7,118.36	7,003.04	68.38	41.03	-86.49	-3,058.30	-10,251.21	8,625.10	8,550.51	74.59	115.635		
9,300.00	7,246.89	7,119.23	7,003.90	70.91	41.03	-86.51	-3,058.33	-10,251.22	8,533.90	8,458.34	75.56	112.938		
9,400.00	7,246.53	7,120.08	7,004.76	73.47	41.03	-86.52	-3,058.36	-10,251.23	8,442.90	8,366.31	76.59	110.241		
9,500.00	7,246.16	7,120.94	7,005.61	76.05	41.03	-86.53	-3,058.39	-10,251.25	8,352.11	8,274.45	77.66	107.549		
9,600.00	7,245.79	7,121.80	7,006.47	78.65	41.04	-86.55	-3,058.42	-10,251.26	8,261.52	8,182.74	78.78	104.867		
9,700.00	7,245.43	7,122.65	7,007.32	81.27	41.04	-86.56	-3,058.46	-10,251.27	8,171.16	8,091.21	79.95	102.198		
9,800.00	7,245.06	7,123.51	7,008.17	83.90	41.04	-86.57	-3,058.49	-10,251.29	8,081.02	7,999.85	81.18	99.547		
9,900.00	7,244.69	7,124.36	7,009.03	86.55	41.05	-86.59	-3,058.52	-10,251.30	7,991.12	7,908.67	82.45	96.916		
10,000.00	7,244.33	7,125.21	7,009.87	89.21	41.05	-86.60	-3,058.55	-10,251.31	7,901.46	7,817.68	83.78	94.311		
10,100.00	7,243.96	7,126.06	7,010.72	91.88	41.05	-86.62	-3,058.58	-10,251.32	7,812.06	7,726.90	85.16	91.733		
10,200.00	7,243.60	7,126.90	7,011.57	94.56	41.05	-86.63	-3,058.61	-10,251.34	7,722.91	7,636.31	86.59	89.185		
10,300.00	7,243.23	7,127.75	7,012.41	97.26	41.06	-86.64	-3,058.64	-10,251.35	7,634.03	7,545.95	88.08	86.671		
10,400.00	7,242.86	7,128.59	7,013.26	99.96	41.06	-86.66	-3,058.67	-10,251.36	7,545.43	7,455.81	89.62	84.192		
10,500.00	7,242.50	7,129.43	7,014.10	102.67	41.06	-86.67	-3,058.70	-10,251.38	7,457.11	7,365.90	91.22	81.751		
10,600.00	7,242.13	7,130.27	7,014.94	105.39	41.07	-86.68	-3,058.73	-10,251.39	7,369.10	7,276.23	92.87	79.349		
10,700.00	7,241.76	7,131.11	7,015.78	108.12	41.07	-86.70	-3,058.76	-10,251.40	7,281.39	7,186.82	94.58	76.989		
10,800.00	7,241.40	7,131.95	7,016.61	110.85	41.07	-86.71	-3,058.79	-10,251.41	7,194.01	7,097.67	96.34	74.671		
10,900.00	7,241.03	7,132.79	7,017.45	113.59	41.07	-86.73	-3,058.83	-10,251.43	7,106.96	7,008.79	98.17	72.396		
11,000.00	7,240.67	7,133.62	7,018.28	116.34	41.08	-86.74	-3,058.86	-10,251.44	7,020.25	6,920.20	100.05	70.167		
11,100.00	7,240.30	7,134.45	7,019.11	119.09	41.08	-86.75	-3,058.89	-10,251.45	6,933.90	6,831.91	102.00	67.983		
11,200.00	7,239.93	7,135.29	7,019.95	121.85	41.08	-86.77	-3,058.92	-10,251.47	6,847.92	6,743.92	104.00	65.845		
11,300.00	7,239.57	7,136.12	7,020.77	124.61	41.08	-86.78	-3,058.95	-10,251.48	6,762.33	6,656.26	106.07	63.754		
11,400.00	7,239.20	7,136.94	7,021.60	127.38	41.09	-86.79	-3,058.98	-10,251.49	6,677.14	6,568.94	108.20	61.711		
11,500.00	7,238.84	7,137.77	7,022.43	130.15	41.09	-86.81	-3,059.01	-10,251.50	6,592.36	6,481.97	110.40	59.715		
11,600.00	7,238.47	7,138.60	7,023.25	132.92	41.09	-86.82	-3,059.04	-10,251.52	6,508.02	6,395.36	112.66	57.767		
11,700.00	7,238.10	7,139.42	7,024.08	135.70	41.10	-86.83	-3,059.07	-10,251.53	6,424.12	6,309.13	114.99	55.866		
11,800.00	7,237.74	7,140.24	7,024.90	138.48	41.10	-86.85	-3,059.11	-10,251.54	6,340.69	6,223.30	117.39	54.014		
11,900.00	7,237.37	7,141.06	7,025.72	141.26	41.10	-86.86	-3,059.14	-10,251.55	6,257.75	6,137.89	119.86	52.209		
12,000.00	7,237.00	7,141.88	7,026.54	144.05	41.10	-86.87	-3,059.17	-10,251.57	6,175.31	6,052.91	122.40	50.451		
12,100.00	7,236.64	7,142.70	7,027.36	146.84	41.11	-86.89	-3,059.20	-10,251.58	6,093.40	5,968.39	125.02	48.741		
12,200.00	7,236.27	7,143.52	7,028.17	149.64	41.11	-86.90	-3,059.23	-10,251.59	6,012.04	5,884.33	127.71	47.077		
12,300.00	7,235.91	7,144.33	7,028.99	152.43	41.11	-86.91	-3,059.26	-10,251.60	5,931.24	5,800.77	130.47	45.460		
12,400.00	7,235.54	7,145.15	7,029.80	155.23	41.11	-86.93	-3,059.29	-10,251.61	5,851.04	5,717.73	133.31	43.890		
12,500.00	7,235.17	7,145.96	7,030.61	158.03	41.12	-86.94	-3,059.33	-10,251.63	5,771.46	5,635.22	136.23	42.364		
12,600.00	7,234.81	7,146.77	7,031.42	160.83	41.12	-86.95	-3,059.36	-10,251.64	5,692.52	5,553.28	139.24	40.884		
12,700.00	7,234.44	7,147.58	7,032.23	163.64	41.12	-86.97	-3,059.39	-10,251.65	5,614.25	5,471.93	142.32	39.448		
12,800.00	7,234.07	7,148.39	7,033.04	166.44	41.13	-86.98	-3,059.42	-10,251.66	5,536.68	5,391.20	145.49	38.056		
12,900.00	7,233.71	7,149.19	7,033.84	169.25	41.13	-86.99	-3,059.45	-10,251.68	5,459.84	5,311.11	148.74	36.708		
13,000.00	7,233.34	7,150.00	7,034.65	172.06	41.13	-87.01	-3,059.48	-10,251.69	5,383.76	5,231.69	152.08	35.402		
13,100.00	7,232.98	7,150.80	7,035.45	174.88	41.13	-87.02	-3,059.51	-10,251.70	5,308.48	5,152.98	155.50	34.138		
13,200.00	7,232.61	7,151.61	7,036.25	177.69	41.14	-87.03	-3,059.55	-10,251.71	5,234.02	5,075.01	159.01	32.916		
13,300.00	7,232.24	7,152.41	7,037.05	180.50	41.14	-87.05	-3,059.58	-10,251.72	5,160.43	4,997.82	162.61	31.735		
13,400.00	7,231.88	7,153.21	7,037.85	183.32	41.14	-87.06	-3,059.61	-10,251.74	5,087.73	4,921.43	166.30	30.594		
13,500.00	7,231.51	7,154.00	7,038.65	186.14	41.14	-87.07	-3,059.64	-10,251.75	5,015.98	4,845.90	170.08	29.492		
13,600.00	7,231.15	7,154.80	7,039.44	188.96	41.15	-87.08	-3,059.67	-10,251.76	4,945.21	4,771.26	173.95	28.429		

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



Anticollision Report



Company:	SRC ENERGY	Local Co-ordinate Reference:	Well HARVESTERS STATE 31C-16-M
Project:	SECTION 15, T6N, R66W	TVD Reference:	KB @ 4821.00ft
Reference Site:	HARVESTERS STATE 7-15 PAD	MD Reference:	KB @ 4821.00ft
Site Error:	3.28 ft	North Reference:	True
Reference Well:	HARVESTERS STATE 31C-16-M	Survey Calculation Method:	Minimum Curvature
Well Error:	3.28 ft	Output errors are at	2.45 sigma
Reference Wellbore	OH	Database:	EDM 5000.14 Single User Db
Reference Design:	PLAN #1	Offset TVD Reference:	Reference Datum

Offset Design HARVESTERS STATE 7-15 PAD - FRITZLER 34-17(PR_150CC) - OH - OH												Offset Site Error:	0.00 ft
Survey Program: 168-MWD												Offset Well Error:	3.28 ft
Reference		Offset		Semi Major Axis			Distance						Warning
Measured Depth (ft)	Vertical Depth (ft)	Measured Depth (ft)	Vertical Depth (ft)	Reference (ft)	Offset (ft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (ft)	+E/-W (ft)	Between Centres (ft)	Between Ellipses (ft)	Minimum Separation (ft)	Separation Factor	
13,700.00	7,230.78	7,155.59	7,040.24	191.78	41.15	-87.10	-3,059.70	-10,251.77	4,875.46	4,697.55	177.91	27.405	
13,800.00	7,230.41	7,156.39	7,041.03	194.60	41.15	-87.11	-3,059.74	-10,251.78	4,806.78	4,624.82	181.96	26.417	
13,900.00	7,230.05	7,157.18	7,041.82	197.42	41.15	-87.12	-3,059.77	-10,251.80	4,739.21	4,553.12	186.09	25.467	
14,000.00	7,229.68	7,157.97	7,042.61	200.25	41.16	-87.14	-3,059.80	-10,251.81	4,672.81	4,482.49	190.32	24.553	
14,100.00	7,229.31	7,158.76	7,043.40	203.07	41.16	-87.15	-3,059.83	-10,251.82	4,607.62	4,412.99	194.63	23.674	
14,200.00	7,228.95	7,159.55	7,044.19	205.90	41.16	-87.16	-3,059.86	-10,251.83	4,543.70	4,344.67	199.03	22.829	
14,300.00	7,228.58	7,160.34	7,044.97	208.73	41.17	-87.17	-3,059.90	-10,251.84	4,481.09	4,277.59	203.51	22.019	
14,400.00	7,228.22	7,161.12	7,045.76	211.55	41.17	-87.19	-3,059.93	-10,251.85	4,419.86	4,211.80	208.06	21.243	
14,500.00	7,227.85	7,161.90	7,046.54	214.38	41.17	-87.20	-3,059.96	-10,251.87	4,360.07	4,147.37	212.70	20.499	
14,600.00	7,227.48	7,162.69	7,047.32	217.21	41.17	-87.21	-3,059.99	-10,251.88	4,301.77	4,084.37	217.40	19.787	
14,700.00	7,227.12	7,163.47	7,048.10	220.04	41.18	-87.23	-3,060.02	-10,251.89	4,245.02	4,022.85	222.17	19.107	
14,800.00	7,226.75	7,164.25	7,048.88	222.88	41.18	-87.24	-3,060.05	-10,251.90	4,189.89	3,962.89	227.00	18.458	
14,900.00	7,226.38	7,165.03	7,049.66	225.71	41.18	-87.25	-3,060.09	-10,251.91	4,136.45	3,904.57	231.88	17.838	
15,000.00	7,226.02	7,165.80	7,050.44	228.54	41.18	-87.26	-3,060.12	-10,251.92	4,084.75	3,847.94	236.81	17.249	
15,005.81	7,226.00	7,165.85	7,050.48	228.71	41.18	-87.26	-3,060.12	-10,251.92	4,081.81	3,844.71	237.10	17.216 CC, ES, SF	



Anticollision Report



Company:	SRC ENERGY	Local Co-ordinate Reference:	Well HARVESTERS STATE 31C-16-M
Project:	SECTION 15, T6N, R66W	TVD Reference:	KB @ 4821.00ft
Reference Site:	HARVESTERS STATE 7-15 PAD	MD Reference:	KB @ 4821.00ft
Site Error:	3.28 ft	North Reference:	True
Reference Well:	HARVESTERS STATE 31C-16-M	Survey Calculation Method:	Minimum Curvature
Well Error:	3.28 ft	Output errors are at	2.45 sigma
Reference Wellbore	OH	Database:	EDM 5000.14 Single User Db
Reference Design:	PLAN #1	Offset TVD Reference:	Reference Datum

Offset Design HARVESTERS STATE 7-15 PAD - FRITZLER 43-17(PR_150CC) - OH - OH													Offset Site Error:	0.00 ft
Survey Program: 118-MWD													Offset Well Error:	3.28 ft
Reference		Offset		Semi Major Axis			Distance							Warning
Measured Depth (ft)	Vertical Depth (ft)	Measured Depth (ft)	Vertical Depth (ft)	Reference (ft)	Offset (ft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (ft)	+E/-W (ft)	Between Centres (ft)	Between Ellipses (ft)	Minimum Separation (ft)	Separation Factor		
0.00	0.00	0.00	36.00	3.28	3.28	-108.24	-2,949.24	-8,948.75	9,422.28					
100.00	100.00	37.20	73.20	3.28	3.28	-108.24	-2,949.17	-8,948.83	9,422.30	9,415.74	6.57	1,435.113		
200.00	200.00	95.31	131.30	3.34	3.29	-108.24	-2,948.73	-8,949.28	9,422.81	9,416.19	6.62	1,422.861		
300.00	300.00	468.05	503.89	3.44	3.72	-108.18	-2,939.11	-8,948.21	9,420.74	9,413.57	7.17	1,313.187		
400.00	400.00	736.93	772.57	3.60	4.41	-108.14	-2,930.52	-8,942.66	9,417.96	9,409.94	8.02	1,174.042		
500.00	500.00	795.49	831.05	3.81	4.59	-108.13	-2,928.06	-8,941.10	9,414.16	9,405.76	8.40	1,121.015		
600.00	600.00	850.00	885.47	4.05	4.76	-108.12	-2,925.04	-8,940.28	9,410.95	9,402.14	8.81	1,068.560		
700.00	699.98	889.63	925.02	4.32	4.89	-85.26	-2,922.40	-8,940.06	9,408.13	9,398.93	9.21	1,021.969		
800.00	799.84	945.00	980.22	4.62	5.08	-85.30	-2,918.13	-8,940.23	9,405.58	9,395.89	9.69	970.929		
900.00	899.62	1,022.49	1,057.33	4.94	5.36	-85.29	-2,910.56	-8,941.30	9,403.28	9,393.00	10.28	914.692		
1,000.00	999.41	1,172.48	1,206.01	5.27	5.94	-85.23	-2,891.08	-8,944.48	9,400.66	9,389.46	11.20	839.652		
1,100.00	1,099.19	1,839.75	1,857.09	5.62	9.28	-84.64	-2,747.88	-8,954.99	9,395.06	9,380.21	14.85	632.614		
1,200.00	1,198.98	2,021.05	2,031.18	5.99	10.39	-84.41	-2,697.26	-8,954.89	9,385.77	9,369.47	16.29	575.998		
1,300.00	1,298.76	2,081.00	2,088.61	6.36	10.77	-84.33	-2,680.08	-8,955.07	9,376.61	9,359.57	17.04	550.359		
1,400.00	1,398.55	2,105.14	2,111.72	6.74	10.93	-84.30	-2,673.10	-8,955.31	9,367.99	9,350.41	17.57	533.076		
1,500.00	1,498.33	2,151.68	2,156.21	7.13	11.23	-84.24	-2,659.44	-8,956.05	9,360.00	9,341.74	18.26	512.590		
1,600.00	1,598.12	2,374.74	2,368.58	7.52	12.74	-83.92	-2,591.34	-8,959.73	9,351.92	9,331.79	20.13	464.614		
1,700.00	1,697.90	2,459.39	2,449.06	7.92	13.33	-83.79	-2,565.10	-8,960.65	9,343.09	9,321.99	21.11	442.695		
1,800.00	1,797.69	2,586.18	2,569.83	8.33	14.21	-83.61	-2,526.52	-8,961.56	9,334.14	9,311.76	22.37	417.219		
1,900.00	1,897.47	1,900.00	2,693.83	8.74	9.32	-83.42	-2,485.66	-8,962.46	9,324.98	9,306.99	17.99	518.439		
2,000.00	1,997.26	2,822.47	2,793.74	9.15	15.92	-83.25	-2,451.12	-8,963.23	9,315.51	9,290.64	24.86	374.699		
2,100.00	2,097.04	2,877.43	2,845.80	9.56	16.32	-83.17	-2,433.52	-8,963.69	9,306.40	9,280.73	25.67	362.562		
2,200.00	2,196.83	2,933.00	2,898.91	9.98	16.71	-83.09	-2,417.16	-8,964.00	9,297.83	9,271.35	26.48	351.145		
2,300.00	2,296.61	2,995.64	2,958.95	10.40	17.15	-83.01	-2,399.31	-8,964.45	9,289.71	9,262.38	27.33	339.918		
2,400.00	2,396.40	3,171.24	3,127.18	10.82	18.37	-82.78	-2,348.98	-8,965.17	9,281.28	9,252.34	28.94	320.699		
2,500.00	2,496.18	2,500.00	3,244.31	11.24	13.78	-82.63	-2,315.11	-8,964.71	9,272.45	9,247.58	24.87	372.849		
2,600.00	2,595.96	3,364.83	3,313.08	11.66	19.71	-82.53	-2,294.95	-8,964.39	9,263.55	9,232.45	31.10	297.865		
2,700.00	2,695.75	3,410.68	3,357.01	12.09	20.03	-82.47	-2,281.85	-8,964.53	9,255.24	9,223.40	31.85	290.617		
2,800.00	2,795.53	3,520.26	3,462.13	12.51	20.79	-82.33	-2,250.91	-8,965.00	9,247.19	9,214.16	33.03	279.991		
2,900.00	2,895.32	3,595.96	3,534.69	12.94	21.32	-82.23	-2,229.33	-8,965.45	9,239.25	9,205.27	33.98	271.889		
3,000.00	2,995.10	3,673.41	3,608.80	13.37	21.87	-82.12	-2,206.86	-8,966.18	9,231.56	9,196.60	34.96	264.075		
3,100.00	3,094.89	3,785.62	3,715.78	13.80	22.69	-81.96	-2,173.04	-8,967.67	9,224.00	9,187.80	36.19	254.843		
3,200.00	3,194.67	3,889.01	3,813.79	14.23	23.47	-81.80	-2,140.18	-8,969.35	9,216.33	9,178.94	37.40	246.452		
3,300.00	3,294.46	3,992.61	3,911.93	14.66	24.25	-81.64	-2,107.02	-8,970.97	9,208.62	9,170.01	38.60	238.538		
3,400.00	3,394.24	4,059.67	3,975.54	15.09	24.76	-81.53	-2,085.83	-8,972.06	9,201.13	9,161.59	39.54	232.687		
3,500.00	3,494.03	4,110.00	4,023.39	15.52	25.13	-81.46	-2,070.24	-8,972.99	9,194.10	9,153.74	40.35	227.835		
3,600.00	3,593.81	4,166.00	4,076.76	15.96	25.55	-81.37	-2,053.33	-8,974.26	9,187.66	9,146.45	41.21	222.973		
3,700.00	3,693.60	4,588.91	4,477.32	16.39	28.77	-80.71	-1,917.88	-8,977.40	9,178.48	9,133.71	44.77	205.017		
3,800.00	3,793.38	4,639.00	4,524.56	16.82	29.16	-80.63	-1,901.23	-8,977.34	9,169.18	9,123.57	45.61	201.053		
3,900.00	3,893.17	4,679.30	4,562.71	17.26	29.47	-80.57	-1,888.24	-8,977.41	9,160.48	9,114.12	46.36	197.607		
4,000.00	3,992.95	4,736.00	4,616.68	17.69	29.89	-80.48	-1,870.86	-8,977.61	9,152.39	9,105.16	47.23	193.799		
4,100.00	4,092.74	4,775.82	4,654.72	18.13	30.18	-80.42	-1,859.12	-8,977.85	9,144.85	9,096.89	47.96	190.673		
4,200.00	4,192.52	4,830.00	4,706.59	18.56	30.57	-80.35	-1,843.47	-8,978.35	9,137.88	9,089.08	48.80	187.269		
4,300.00	4,292.31	4,892.34	4,766.57	19.00	31.00	-80.27	-1,826.49	-8,978.96	9,131.38	9,081.71	49.66	183.865		
4,400.00	4,392.09	4,957.23	4,829.44	19.43	31.43	-80.20	-1,810.43	-8,979.42	9,125.25	9,074.72	50.54	180.571		
4,500.00	4,491.88	5,020.00	4,890.43	19.87	31.84	-80.13	-1,795.61	-8,979.93	9,119.54	9,068.16	51.38	177.489		
4,600.00	4,591.66	5,084.02	4,952.79	20.31	32.24	-80.07	-1,781.16	-8,980.56	9,114.24	9,062.02	52.22	174.535		
4,700.00	4,691.44	5,150.07	5,017.33	20.74	32.64	-80.00	-1,767.12	-8,981.25	9,109.33	9,056.27	53.06	171.685		
4,800.00	4,791.23	5,209.00	5,075.15	21.18	32.98	-79.96	-1,755.73	-8,981.79	9,104.79	9,050.95	53.84	169.094		
4,900.00	4,891.01	5,283.23	5,148.28	21.62	33.38	-79.91	-1,743.03	-8,982.37	9,100.61	9,045.93	54.68	166.423		
5,000.00	4,990.80	5,350.27	5,214.56	22.06	33.73	-79.87	-1,733.00	-8,982.83	9,096.81	9,041.35	55.47	164.003		
5,100.00	5,090.58	5,415.72	5,279.39	22.50	34.05	-79.84	-1,724.01	-8,983.34	9,093.38	9,037.15	56.23	161.724		

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



Anticollision Report



Company:	SRC ENERGY	Local Co-ordinate Reference:	Well HARVESTERS STATE 31C-16-M
Project:	SECTION 15, T6N, R66W	TVD Reference:	KB @ 4821.00ft
Reference Site:	HARVESTERS STATE 7-15 PAD	MD Reference:	KB @ 4821.00ft
Site Error:	3.28 ft	North Reference:	True
Reference Well:	HARVESTERS STATE 31C-16-M	Survey Calculation Method:	Minimum Curvature
Well Error:	3.28 ft	Output errors are at	2.45 sigma
Reference Wellbore	OH	Database:	EDM 5000.14 Single User Db
Reference Design:	PLAN #1	Offset TVD Reference:	Reference Datum

Offset Design HARVESTERS STATE 7-15 PAD - FRITZLER 43-17(PR_150CC) - OH - OH													Offset Site Error:	0.00 ft
Survey Program: 118-MWD													Offset Well Error:	3.28 ft
Reference		Offset		Semi Major Axis			Distance							Warning
Measured Depth (ft)	Vertical Depth (ft)	Measured Depth (ft)	Vertical Depth (ft)	Reference (ft)	Offset (ft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (ft)	+E/-W (ft)	Between Centres (ft)	Between Ellipses (ft)	Minimum Separation (ft)	Separation Factor		
5,200.00	5,190.37	5,476.07	5,339.33	22.93	34.33	-79.83	-1,717.05	-8,983.76	9,090.36	9,033.41	56.94	159.634		
5,300.00	5,290.15	5,539.82	5,402.80	23.37	34.60	-79.81	-1,711.05	-8,984.17	9,087.76	9,030.10	57.66	157.614		
5,400.00	5,389.94	5,665.61	5,528.18	23.81	35.12	-79.80	-1,700.95	-8,984.92	9,085.46	9,026.84	58.61	155.005		
5,500.00	5,489.72	5,803.33	5,665.64	24.25	35.64	-79.81	-1,692.64	-8,984.04	9,082.27	9,022.70	59.57	152.454		
5,600.00	5,589.51	5,849.49	5,711.75	24.69	35.81	-79.81	-1,690.55	-8,983.73	9,079.46	9,019.28	60.18	150.877		
5,700.00	5,689.29	5,897.21	5,759.43	25.13	35.98	-79.82	-1,688.66	-8,983.64	9,077.24	9,016.46	60.78	149.341		
5,800.00	5,789.08	5,946.41	5,808.61	25.56	36.15	-79.83	-1,687.12	-8,983.74	9,075.59	9,014.20	61.39	147.846		
5,900.00	5,888.86	6,014.88	5,877.06	26.00	36.38	-79.85	-1,685.48	-8,984.12	9,074.43	9,012.38	62.05	146.243		
6,000.00	5,988.65	6,109.31	5,971.46	26.44	36.69	-79.88	-1,683.45	-8,984.78	9,073.47	9,010.67	62.80	144.481		
6,100.00	6,088.43	6,221.05	6,083.18	26.88	37.05	-79.91	-1,681.26	-8,985.42	9,072.44	9,008.83	63.61	142.627		
6,200.00	6,188.22	6,299.98	6,162.10	27.32	37.32	-79.93	-1,679.72	-8,985.91	9,071.46	9,007.15	64.31	141.058		
6,300.00	6,288.00	6,379.00	6,241.09	27.76	37.58	-79.95	-1,678.05	-8,986.62	9,070.72	9,005.71	65.01	139.526		
6,400.00	6,387.79	6,459.35	6,321.42	28.20	37.85	-79.97	-1,676.32	-8,987.53	9,070.20	9,004.48	65.72	138.014		
6,500.00	6,487.57	6,541.18	6,403.23	28.64	38.13	-79.99	-1,674.64	-8,988.61	9,069.90	9,003.47	66.43	136.528		
6,600.00	6,587.35	6,651.38	6,513.40	29.08	38.50	-80.02	-1,672.48	-8,990.10	9,069.63	9,002.39	67.25	134.869		
6,700.00	6,687.02	6,742.85	6,604.84	29.52	38.81	-42.20	-1,670.74	-8,991.26	9,067.15	8,999.15	68.00	133.348		
6,800.00	6,784.98	6,820.92	6,682.89	29.96	39.07	-26.57	-1,669.30	-8,992.41	9,051.33	8,982.64	68.69	131.768		
6,900.00	6,878.81	6,908.88	6,770.82	30.41	39.38	-22.79	-1,667.64	-8,993.87	9,020.88	8,951.47	69.41	129.967		
7,000.00	6,966.21	6,999.71	6,861.61	30.86	39.69	-21.99	-1,665.56	-8,995.46	8,976.38	8,906.27	70.11	128.031		
7,100.00	7,045.03	7,092.11	6,953.97	31.35	40.02	-22.81	-1,663.22	-8,997.05	8,918.88	8,848.09	70.79	125.997		
7,200.00	7,113.32	7,173.55	7,035.38	31.90	40.30	-25.14	-1,661.26	-8,998.31	8,849.78	8,778.40	71.38	123.982		
7,300.00	7,169.40	7,219.74	7,081.55	32.57	40.47	-29.40	-1,660.22	-8,999.01	8,770.91	8,699.11	71.80	122.163		
7,400.00	7,211.89	7,256.36	7,118.16	33.38	40.59	-37.03	-1,659.48	-8,999.59	8,684.27	8,612.13	72.14	120.384		
7,500.00	7,239.75	7,280.91	7,142.70	34.35	40.68	-51.19	-1,659.01	-8,999.98	8,591.97	8,519.57	72.40	118.674		
7,600.00	7,252.28	7,292.74	7,154.52	35.47	40.72	-77.11	-1,658.79	-9,000.17	8,496.26	8,423.68	72.59	117.048		
7,700.00	7,252.75	7,294.50	7,156.28	36.73	40.73	-88.19	-1,658.76	-9,000.20	8,399.46	8,326.73	72.73	115.490		
7,800.00	7,252.38	7,295.57	7,157.35	38.16	40.73	-88.22	-1,658.74	-9,000.22	8,302.69	8,229.81	72.89	113.913		
7,900.00	7,252.02	7,296.64	7,158.43	39.74	40.73	-88.24	-1,658.72	-9,000.24	8,206.01	8,132.94	73.07	112.310		
8,000.00	7,251.65	7,297.72	7,159.50	41.47	40.74	-88.27	-1,658.71	-9,000.25	8,109.40	8,036.13	73.27	110.679		
8,100.00	7,251.29	7,298.79	7,160.58	43.31	40.74	-88.30	-1,658.69	-9,000.27	8,012.88	7,939.38	73.50	109.023		
8,200.00	7,250.92	7,299.87	7,161.65	45.26	40.75	-88.33	-1,658.67	-9,000.29	7,916.44	7,842.69	73.75	107.340		
8,300.00	7,250.55	7,300.95	7,162.73	47.30	40.75	-88.36	-1,658.65	-9,000.31	7,820.09	7,746.06	74.03	105.632		
8,400.00	7,250.19	7,302.03	7,163.82	49.42	40.75	-88.39	-1,658.63	-9,000.32	7,723.83	7,649.49	74.34	103.899		
8,500.00	7,249.82	7,303.12	7,164.90	51.62	40.76	-88.42	-1,658.61	-9,000.34	7,627.67	7,553.00	74.68	102.141		
8,600.00	7,249.45	7,304.21	7,165.99	53.88	40.76	-88.45	-1,658.59	-9,000.36	7,531.61	7,456.57	75.05	100.360		
8,700.00	7,249.09	7,305.30	7,167.08	56.19	40.76	-88.48	-1,658.57	-9,000.38	7,435.66	7,360.21	75.45	98.556		
8,800.00	7,248.72	7,306.39	7,168.17	58.55	40.77	-88.51	-1,658.55	-9,000.40	7,339.81	7,263.93	75.88	96.731		
8,900.00	7,248.36	7,307.48	7,169.26	60.96	40.77	-88.54	-1,658.54	-9,000.41	7,244.07	7,167.73	76.35	94.886		
9,000.00	7,247.99	7,308.58	7,170.36	63.40	40.78	-88.57	-1,658.52	-9,000.43	7,148.45	7,071.61	76.85	93.022		
9,100.00	7,247.62	7,309.68	7,171.46	65.87	40.78	-88.60	-1,658.50	-9,000.45	7,052.95	6,975.57	77.39	91.141		
9,200.00	7,247.26	7,310.78	7,172.56	68.38	40.78	-88.63	-1,658.48	-9,000.47	6,957.58	6,879.62	77.96	89.244		
9,300.00	7,246.89	7,311.88	7,173.66	70.91	40.79	-88.66	-1,658.46	-9,000.49	6,862.34	6,783.77	78.58	87.333		
9,400.00	7,246.53	7,312.99	7,174.77	73.47	40.79	-88.69	-1,658.44	-9,000.50	6,767.24	6,688.01	79.23	85.410		
9,500.00	7,246.16	7,314.10	7,175.88	76.05	40.79	-88.72	-1,658.42	-9,000.52	6,672.28	6,592.35	79.93	83.477		
9,600.00	7,245.79	7,315.21	7,176.99	78.65	40.80	-88.75	-1,658.40	-9,000.54	6,577.47	6,496.80	80.67	81.535		
9,700.00	7,245.43	7,316.32	7,178.10	81.27	40.80	-88.78	-1,658.39	-9,000.56	6,482.81	6,401.36	81.46	79.587		
9,800.00	7,245.06	7,317.43	7,179.21	83.90	40.81	-88.81	-1,658.37	-9,000.58	6,388.32	6,306.03	82.29	77.635		
9,900.00	7,244.69	7,318.55	7,180.33	86.55	40.81	-88.84	-1,658.35	-9,000.60	6,293.99	6,210.83	83.16	75.681		
10,000.00	7,244.33	7,319.67	7,181.45	89.21	40.81	-88.87	-1,658.33	-9,000.62	6,199.85	6,115.76	84.09	73.727		
10,100.00	7,243.96	7,320.79	7,182.57	91.88	40.82	-88.90	-1,658.31	-9,000.63	6,105.89	6,020.82	85.07	71.774		
10,200.00	7,243.60	7,321.91	7,183.69	94.56	40.82	-88.93	-1,658.29	-9,000.65	6,012.12	5,926.02	86.10	69.826		
10,300.00	7,243.23	7,323.04	7,184.82	97.26	40.83	-88.96	-1,658.27	-9,000.67	5,918.56	5,831.38	87.19	67.885		

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



Anticollision Report



Company:	SRC ENERGY	Local Co-ordinate Reference:	Well HARVESTERS STATE 31C-16-M
Project:	SECTION 15, T6N, R66W	TVD Reference:	KB @ 4821.00ft
Reference Site:	HARVESTERS STATE 7-15 PAD	MD Reference:	KB @ 4821.00ft
Site Error:	3.28 ft	North Reference:	True
Reference Well:	HARVESTERS STATE 31C-16-M	Survey Calculation Method:	Minimum Curvature
Well Error:	3.28 ft	Output errors are at	2.45 sigma
Reference Wellbore	OH	Database:	EDM 5000.14 Single User Db
Reference Design:	PLAN #1	Offset TVD Reference:	Reference Datum

Offset Design HARVESTERS STATE 7-15 PAD - FRITZLER 43-17(PR_150CC) - OH - OH													Offset Site Error:	0.00 ft
Survey Program: 118-MWD													Offset Well Error:	3.28 ft
Reference		Offset		Semi Major Axis			Distance							Warning
Measured Depth (ft)	Vertical Depth (ft)	Measured Depth (ft)	Vertical Depth (ft)	Reference (ft)	Offset (ft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (ft)	+E/-W (ft)	Between Centres (ft)	Between Ellipses (ft)	Minimum Separation (ft)	Separation Factor		
10,400.00	7,242.86	7,324.17	7,185.95	99.96	40.83	-88.99	-1,658.26	-9,000.69	5,825.22	5,736.89	88.33	65.952		
10,500.00	7,242.50	7,325.30	7,187.08	102.67	40.83	-89.02	-1,658.24	-9,000.71	5,732.09	5,642.57	89.52	64.029		
10,600.00	7,242.13	7,326.43	7,188.21	105.39	40.84	-89.05	-1,658.22	-9,000.73	5,639.20	5,548.42	90.78	62.119		
10,700.00	7,241.76	7,327.57	7,189.34	108.12	40.84	-89.08	-1,658.20	-9,000.75	5,546.56	5,454.46	92.10	60.223		
10,800.00	7,241.40	7,328.71	7,190.48	110.85	40.85	-89.12	-1,658.18	-9,000.77	5,454.18	5,360.70	93.48	58.344		
10,900.00	7,241.03	7,329.85	7,191.62	113.59	40.85	-89.15	-1,658.16	-9,000.79	5,362.07	5,267.14	94.93	56.484		
11,000.00	7,240.67	7,330.99	7,192.76	116.34	40.85	-89.18	-1,658.14	-9,000.81	5,270.25	5,173.80	96.45	54.643		
11,100.00	7,240.30	7,332.13	7,193.91	119.09	40.86	-89.21	-1,658.13	-9,000.82	5,178.74	5,080.70	98.04	52.825		
11,200.00	7,239.93	7,333.28	7,195.06	121.85	40.86	-89.24	-1,658.11	-9,000.84	5,087.54	4,987.84	99.70	51.030		
11,300.00	7,239.57	7,334.43	7,196.21	124.61	40.87	-89.27	-1,658.09	-9,000.86	4,996.67	4,895.24	101.44	49.260		
11,400.00	7,239.20	7,335.58	7,197.36	127.38	40.87	-89.30	-1,658.07	-9,000.88	4,906.17	4,802.91	103.25	47.516		
11,500.00	7,238.84	7,336.74	7,198.51	130.15	40.87	-89.33	-1,658.05	-9,000.90	4,816.03	4,710.88	105.15	45.801		
11,600.00	7,238.47	7,337.90	7,199.67	132.92	40.88	-89.37	-1,658.03	-9,000.92	4,726.30	4,619.16	107.14	44.115		
11,700.00	7,238.10	7,339.05	7,200.83	135.70	40.88	-89.40	-1,658.02	-9,000.94	4,636.98	4,527.77	109.21	42.459		
11,800.00	7,237.74	7,340.22	7,201.99	138.48	40.89	-89.43	-1,658.00	-9,000.96	4,548.11	4,436.74	111.38	40.836		
11,900.00	7,237.37	7,341.38	7,203.15	141.26	40.89	-89.46	-1,657.98	-9,000.98	4,459.71	4,346.07	113.64	39.245		
12,000.00	7,237.00	7,342.55	7,204.32	144.05	40.89	-89.49	-1,657.96	-9,001.00	4,371.81	4,255.81	116.00	37.688		
12,100.00	7,236.64	7,343.72	7,205.49	146.84	40.90	-89.52	-1,657.94	-9,001.02	4,284.44	4,165.97	118.46	36.166		
12,200.00	7,236.27	7,344.89	7,206.66	149.64	40.90	-89.56	-1,657.93	-9,001.04	4,197.63	4,076.59	121.04	34.680		
12,300.00	7,235.91	7,346.06	7,207.83	152.43	40.91	-89.59	-1,657.91	-9,001.06	4,111.42	3,987.70	123.72	33.230		
12,400.00	7,235.54	7,347.24	7,209.01	155.23	40.91	-89.62	-1,657.89	-9,001.08	4,025.85	3,899.32	126.53	31.818		
12,500.00	7,235.17	7,348.42	7,210.19	158.03	40.91	-89.65	-1,657.87	-9,001.10	3,940.96	3,811.51	129.45	30.443		
12,600.00	7,234.81	7,349.60	7,211.37	160.83	40.92	-89.68	-1,657.85	-9,001.12	3,856.79	3,724.29	132.50	29.107		
12,700.00	7,234.44	7,350.78	7,212.55	163.64	40.92	-89.72	-1,657.83	-9,001.14	3,773.40	3,637.71	135.69	27.809		
12,800.00	7,234.07	7,351.97	7,213.74	166.44	40.93	-89.75	-1,657.82	-9,001.16	3,690.83	3,551.82	139.01	26.552		
12,900.00	7,233.71	7,353.16	7,214.93	169.25	40.93	-89.78	-1,657.80	-9,001.18	3,609.14	3,466.67	142.47	25.333		
13,000.00	7,233.34	7,354.35	7,216.12	172.06	40.94	-89.81	-1,657.78	-9,001.20	3,528.39	3,382.32	146.07	24.155		
13,100.00	7,232.98	7,355.55	7,217.32	174.88	40.94	-89.85	-1,657.76	-9,001.22	3,448.65	3,298.83	149.83	23.018		
13,200.00	7,232.61	7,356.74	7,218.51	177.69	40.94	-89.88	-1,657.75	-9,001.24	3,370.00	3,216.26	153.74	21.921		
13,300.00	7,232.24	7,358.09	7,219.86	180.50	40.95	-89.92	-1,657.73	-9,001.26	3,292.50	3,134.69	157.80	20.864		
13,400.00	7,231.88	7,359.47	7,221.24	183.32	40.95	-89.95	-1,657.70	-9,001.29	3,216.24	3,054.20	162.03	19.849		
13,500.00	7,231.51	7,360.85	7,222.61	186.14	40.96	-89.99	-1,657.68	-9,001.31	3,141.31	2,974.88	166.43	18.875		
13,600.00	7,231.15	7,362.22	7,223.98	188.96	40.96	-90.03	-1,657.66	-9,001.34	3,067.82	2,896.83	170.99	17.942		
13,700.00	7,230.78	7,363.58	7,225.34	191.78	40.97	-90.06	-1,657.64	-9,001.36	2,995.85	2,820.14	175.71	17.050		
13,800.00	7,230.41	7,364.93	7,226.70	194.60	40.97	-90.10	-1,657.62	-9,001.38	2,925.54	2,744.94	180.60	16.199		
13,900.00	7,230.05	7,366.28	7,228.05	197.42	40.98	-90.14	-1,657.60	-9,001.40	2,856.99	2,671.34	185.65	15.389		
14,000.00	7,229.68	7,367.63	7,229.39	200.25	40.98	-90.17	-1,657.58	-9,001.43	2,790.35	2,599.49	190.86	14.620		
14,100.00	7,229.31	7,368.96	7,230.73	203.07	40.99	-90.21	-1,657.56	-9,001.45	2,725.74	2,529.52	196.22	13.891		
14,200.00	7,228.95	7,370.30	7,232.06	205.90	40.99	-90.25	-1,657.54	-9,001.47	2,663.33	2,461.61	201.72	13.203		
14,300.00	7,228.58	7,371.62	7,233.38	208.73	40.99	-90.28	-1,657.53	-9,001.49	2,603.25	2,395.91	207.34	12.555		
14,400.00	7,228.22	7,372.94	7,234.70	211.55	41.00	-90.32	-1,657.51	-9,001.52	2,545.69	2,332.62	213.07	11.948		
14,500.00	7,227.85	7,374.25	7,236.02	214.38	41.00	-90.36	-1,657.49	-9,001.54	2,490.81	2,271.93	218.89	11.379		
14,600.00	7,227.48	7,375.56	7,237.32	217.21	41.01	-90.39	-1,657.47	-9,001.56	2,438.81	2,214.05	224.76	10.851		
14,700.00	7,227.12	7,376.86	7,238.62	220.04	41.01	-90.43	-1,657.45	-9,001.58	2,389.85	2,159.19	230.66	10.361		
14,800.00	7,226.75	7,378.15	7,239.92	222.88	41.02	-90.46	-1,657.43	-9,001.60	2,344.14	2,107.59	236.55	9.910		
14,900.00	7,226.38	7,379.44	7,241.21	225.71	41.02	-90.50	-1,657.41	-9,001.62	2,301.87	2,059.48	242.39	9.497		
15,000.00	7,226.02	7,380.73	7,242.49	228.54	41.03	-90.53	-1,657.39	-9,001.65	2,263.22	2,015.09	248.13	9.121		
15,005.81	7,226.00	7,380.80	7,242.56	228.71	41.03	-90.53	-1,657.39	-9,001.65	2,261.10	2,012.63	248.46	9.100	CC, ES, SF	



Anticollision Report



Company:	SRC ENERGY	Local Co-ordinate Reference:	Well HARVESTERS STATE 31C-16-M
Project:	SECTION 15, T6N, R66W	TVD Reference:	KB @ 4821.00ft
Reference Site:	HARVESTERS STATE 7-15 PAD	MD Reference:	KB @ 4821.00ft
Site Error:	3.28 ft	North Reference:	True
Reference Well:	HARVESTERS STATE 31C-16-M	Survey Calculation Method:	Minimum Curvature
Well Error:	3.28 ft	Output errors are at	2.45 sigma
Reference Wellbore	OH	Database:	EDM 5000.14 Single User Db
Reference Design:	PLAN #1	Offset TVD Reference:	Reference Datum

Offset Design HARVESTERS STATE 7-15 PAD - FRITZLER 6-6-17 (PR_150CC) - OH - OH													Offset Site Error: 0.00 ft	
Survey Program: 89-MWD													Offset Well Error: 3.28 ft	
Reference		Offset		Semi Major Axis			Distance							Warning
Measured Depth	Vertical Depth	Measured Depth	Vertical Depth	Reference	Offset	Highside Toolface	Offset Wellbore Centre	Between Centres	Between Ellipses	Minimum Separation	Separation Factor			
(ft)	(ft)	(ft)	(ft)	(ft)	(ft)	(°)	+N/-S (ft)	+E/-W (ft)	(ft)	(ft)	(ft)			
0.00	0.00	0.00	36.00	3.28	3.28	-108.22	-2,955.06	-8,979.62	9,453.43					
100.00	100.00	187.56	223.53	3.28	3.34	-108.20	-2,952.07	-8,979.26	9,452.89	9,446.27	6.62	1,427.977		
200.00	200.00	310.93	346.87	3.34	3.47	-108.18	-2,949.16	-8,978.30	9,451.40	9,444.59	6.81	1,387.628		
300.00	300.00	418.86	454.74	3.44	3.66	-108.17	-2,945.84	-8,977.62	9,449.85	9,442.74	7.10	1,330.364		
400.00	400.00	500.71	536.53	3.60	3.83	-108.15	-2,942.79	-8,977.23	9,448.25	9,440.81	7.44	1,270.774		
500.00	500.00	542.00	577.78	3.81	3.93	-108.14	-2,941.00	-8,977.24	9,447.03	9,439.29	7.73	1,221.408		
600.00	600.00	593.78	629.51	4.05	4.06	-108.13	-2,938.67	-8,977.58	9,446.36	9,438.25	8.11	1,165.419		
700.00	699.98	648.00	683.67	4.32	4.21	-85.22	-2,936.27	-8,978.46	9,446.27	9,437.75	8.52	1,108.409		
714.72	714.69	648.00	683.67	4.36	4.21	-85.22	-2,936.27	-8,978.46	9,446.26	9,437.70	8.56	1,102.954		
800.00	799.84	669.41	705.05	4.62	4.27	-85.22	-2,935.35	-8,978.95	9,446.47	9,437.59	8.88	1,064.003		
900.00	899.62	724.59	760.17	4.94	4.43	-85.23	-2,933.22	-8,980.43	9,447.23	9,437.87	9.35	1,009.878		
1,000.00	999.41	790.00	825.51	5.27	4.62	-85.23	-2,930.84	-8,982.26	9,448.25	9,438.36	9.89	955.456		
1,100.00	1,099.19	843.52	878.96	5.62	4.79	-85.24	-2,928.67	-8,984.07	9,449.72	9,439.31	10.41	907.822		
1,200.00	1,198.98	884.00	919.35	5.99	4.93	-85.24	-2,926.67	-8,985.84	9,451.82	9,440.91	10.90	866.815		
1,300.00	1,298.76	884.00	919.35	6.36	4.93	-85.24	-2,926.67	-8,985.84	9,454.77	9,443.49	11.28	838.446		
1,400.00	1,398.55	940.42	975.60	6.74	5.12	-85.24	-2,923.69	-8,989.01	9,458.16	9,446.31	11.85	798.308		
1,500.00	1,498.33	979.00	1,014.03	7.13	5.25	-85.24	-2,921.64	-8,991.72	9,462.50	9,450.14	12.37	765.068		
1,600.00	1,598.12	1,010.31	1,045.19	7.52	5.37	-85.24	-2,919.88	-8,994.17	9,467.52	9,454.64	12.87	735.513		
1,700.00	1,697.90	1,074.00	1,108.50	7.92	5.60	-85.23	-2,915.61	-8,999.70	9,473.09	9,459.59	13.50	701.657		
1,800.00	1,797.69	1,148.54	1,182.43	8.33	5.89	-85.21	-2,909.35	-9,006.82	9,479.00	9,464.81	14.19	668.062		
1,900.00	1,897.47	1,198.09	1,231.47	8.74	6.10	-85.19	-2,904.42	-9,011.90	9,485.17	9,470.38	14.79	641.285		
2,000.00	1,997.26	1,235.83	1,268.75	9.15	6.25	-85.17	-2,900.30	-9,016.16	9,491.98	9,476.63	15.35	618.307		
2,100.00	2,097.04	1,263.00	1,295.53	9.56	6.37	-85.16	-2,897.15	-9,019.45	9,499.46	9,483.59	15.87	598.540		
2,200.00	2,196.83	1,306.47	1,338.29	9.98	6.57	-85.13	-2,891.74	-9,025.13	9,507.60	9,491.13	16.47	577.276		
2,300.00	2,296.61	1,358.00	1,388.78	10.40	6.80	-85.10	-2,884.66	-9,032.58	9,516.48	9,499.38	17.11	556.243		
2,400.00	2,396.40	1,406.11	1,435.83	10.82	7.03	-85.06	-2,877.75	-9,039.90	9,525.89	9,508.15	17.74	536.916		
2,500.00	2,496.18	1,511.34	1,538.80	11.24	7.55	-84.99	-2,863.02	-9,055.75	9,535.41	9,516.76	18.66	511.141		
2,600.00	2,595.96	1,577.91	1,604.08	11.66	7.89	-84.95	-2,854.38	-9,065.58	9,545.01	9,525.62	19.39	492.277		
2,700.00	2,695.75	1,642.00	1,666.84	12.09	8.21	-84.91	-2,846.04	-9,075.49	9,555.16	9,535.05	20.12	475.002		
2,800.00	2,795.53	1,705.17	1,728.70	12.51	8.54	-84.87	-2,837.99	-9,085.45	9,565.69	9,544.85	20.84	458.960		
2,900.00	2,895.32	1,863.95	1,884.33	12.94	9.39	-84.77	-2,817.79	-9,109.59	9,575.65	9,553.59	22.07	433.919		
3,000.00	2,995.10	1,926.00	1,945.04	13.37	9.72	-84.73	-2,809.53	-9,119.37	9,586.00	9,563.19	22.80	420.374		
3,100.00	3,094.89	2,048.04	2,064.65	13.80	10.39	-84.65	-2,794.19	-9,138.12	9,596.31	9,572.46	23.86	402.234		
3,200.00	3,194.67	2,096.69	2,112.35	14.23	10.66	-84.62	-2,788.20	-9,145.61	9,606.73	9,582.20	24.52	391.726		
3,300.00	3,294.46	2,361.78	2,371.60	14.66	12.16	-84.44	-2,750.28	-9,185.66	9,615.91	9,589.51	26.40	364.302		
3,400.00	3,394.24	2,401.00	2,410.05	15.09	12.38	-84.41	-2,745.06	-9,191.39	9,625.24	9,598.22	27.03	356.158		
3,500.00	3,494.03	2,467.00	2,474.77	15.52	12.76	-84.37	-2,736.70	-9,201.22	9,635.09	9,607.29	27.80	346.625		
3,600.00	3,593.81	2,527.89	2,534.41	15.96	13.11	-84.33	-2,728.68	-9,210.53	9,645.22	9,616.67	28.54	337.903		
3,700.00	3,693.60	2,590.00	2,595.13	16.39	13.47	-84.29	-2,720.21	-9,220.47	9,655.85	9,626.55	29.30	329.531		
3,800.00	3,793.38	2,694.38	2,697.12	16.82	14.08	-84.22	-2,705.78	-9,237.37	9,666.67	9,636.37	30.31	318.976		
3,900.00	3,893.17	2,765.65	2,766.77	17.26	14.51	-84.17	-2,696.00	-9,248.90	9,677.53	9,646.41	31.12	310.973		
4,000.00	3,992.95	2,874.00	2,872.84	17.69	15.14	-84.10	-2,682.02	-9,266.02	9,688.23	9,656.09	32.14	301.434		
4,100.00	4,092.74	2,924.40	2,922.29	18.13	15.43	-84.08	-2,676.19	-9,273.85	9,699.25	9,666.42	32.82	295.492		
4,200.00	4,192.52	2,969.00	2,966.02	18.56	15.68	-84.05	-2,671.38	-9,281.16	9,711.04	9,677.57	33.47	290.104		
4,300.00	4,292.31	4,300.00	3,115.65	19.00	23.42	-83.97	-2,654.25	-9,306.54	9,723.21	9,682.18	41.04	236.946		
4,400.00	4,392.09	3,229.89	3,221.96	19.43	17.18	-83.92	-2,643.41	-9,323.12	9,734.30	9,698.58	35.73	272.451		
4,500.00	4,491.88	3,449.87	3,438.73	19.87	18.39	-83.84	-2,624.45	-9,355.40	9,745.38	9,708.08	37.30	261.263		
4,600.00	4,591.66	3,729.00	3,714.36	20.31	19.88	-83.74	-2,598.67	-9,390.97	9,753.62	9,714.45	39.18	248.968		
4,700.00	4,691.44	3,773.08	3,757.83	20.74	20.13	-83.72	-2,593.90	-9,396.61	9,762.15	9,722.32	39.83	245.095		
4,800.00	4,791.23	3,824.00	3,807.87	21.18	20.41	-83.70	-2,587.84	-9,403.74	9,771.38	9,730.86	40.52	241.151		
4,900.00	4,891.01	3,824.00	3,807.87	21.62	20.41	-83.70	-2,587.84	-9,403.74	9,781.26	9,740.33	40.93	238.997		
5,000.00	4,990.80	3,887.49	3,870.11	22.06	20.79	-83.66	-2,579.79	-9,413.38	9,791.64	9,749.95	41.70	234.832		

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



Anticollision Report



Company:	SRC ENERGY	Local Co-ordinate Reference:	Well HARVESTERS STATE 31C-16-M
Project:	SECTION 15, T6N, R66W	TVD Reference:	KB @ 4821.00ft
Reference Site:	HARVESTERS STATE 7-15 PAD	MD Reference:	KB @ 4821.00ft
Site Error:	3.28 ft	North Reference:	True
Reference Well:	HARVESTERS STATE 31C-16-M	Survey Calculation Method:	Minimum Curvature
Well Error:	3.28 ft	Output errors are at	2.45 sigma
Reference Wellbore	OH	Database:	EDM 5000.14 Single User Db
Reference Design:	PLAN #1	Offset TVD Reference:	Reference Datum

Offset Design HARVESTERS STATE 7-15 PAD - FRITZLER 6-6-17 (PR_150CC) - OH - OH													Offset Site Error: 0.00 ft	
Survey Program: 89-MWD													Offset Well Error: 3.28 ft	
Reference		Offset		Semi Major Axis			Distance							Warning
Measured Depth (ft)	Vertical Depth (ft)	Measured Depth (ft)	Vertical Depth (ft)	Reference (ft)	Offset (ft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (ft)	+E/-W (ft)	Between Centres (ft)	Between Ellipses (ft)	Minimum Separation (ft)	Separation Factor		
5,100.00	5,090.58	3,938.10	3,919.63	22.50	21.09	-83.63	-2,573.23	-9,421.52	9,802.67	9,760.28	42.39	231.239		
5,200.00	5,190.37	4,141.58	4,119.03	22.93	22.30	-83.51	-2,548.22	-9,453.39	9,813.69	9,769.72	43.97	223.194		
5,300.00	5,290.15	4,216.27	4,192.30	23.37	22.73	-83.47	-2,539.16	-9,464.66	9,824.05	9,779.25	44.80	219.287		
5,400.00	5,389.94	4,374.12	4,346.71	23.81	23.68	-83.36	-2,517.17	-9,488.99	9,834.27	9,788.14	46.14	213.155		
5,500.00	5,489.72	4,465.98	4,436.20	24.25	24.26	-83.29	-2,502.31	-9,503.39	9,844.15	9,797.05	47.11	208.983		
5,600.00	5,589.51	4,526.11	4,494.61	24.69	24.64	-83.24	-2,491.88	-9,513.15	9,854.29	9,806.40	47.89	205.789		
5,700.00	5,689.29	5,700.00	4,595.55	25.13	32.07	-83.15	-2,474.32	-9,530.24	9,864.76	9,809.48	55.28	178.444		
5,800.00	5,789.08	4,742.33	4,705.16	25.56	26.00	-83.07	-2,457.16	-9,547.82	9,874.89	9,824.86	50.02	197.399		
5,900.00	5,888.86	5,539.10	5,492.32	26.00	30.21	-82.79	-2,378.15	-9,635.00	9,884.26	9,829.67	54.58	181.093		
6,000.00	5,988.65	5,780.37	5,733.21	26.44	31.19	-82.82	-2,370.65	-9,646.00	9,887.33	9,831.34	56.00	176.568		
6,100.00	6,088.43	6,060.67	6,013.44	26.88	32.23	-82.90	-2,368.17	-9,651.55	9,888.17	9,830.69	57.48	172.035		
6,200.00	6,188.22	6,200.00	6,264.21	27.32	32.74	-82.98	-2,365.79	-9,651.80	9,886.97	9,828.56	58.41	169.269		
6,300.00	6,288.00	6,431.41	6,384.14	27.76	33.56	-83.02	-2,364.27	-9,650.96	9,885.11	9,825.41	59.71	165.556		
6,400.00	6,387.79	6,476.54	6,429.27	28.20	33.73	-83.03	-2,363.55	-9,650.84	9,883.62	9,823.28	60.34	163.812		
6,500.00	6,487.57	6,521.70	6,474.42	28.64	33.89	-83.05	-2,362.77	-9,650.99	9,882.68	9,821.72	60.96	162.116		
6,600.00	6,587.35	6,566.00	6,518.71	29.08	34.06	-83.06	-2,361.96	-9,651.41	9,882.30	9,820.71	61.58	160.477		
6,700.00	6,687.02	6,622.54	6,575.24	29.52	34.27	-45.23	-2,360.96	-9,652.23	9,880.27	9,818.02	62.25	158.716		
6,800.00	6,784.98	6,677.23	6,629.91	29.96	34.49	-29.64	-2,360.13	-9,653.24	9,865.34	9,802.43	62.91	156.817		
6,900.00	6,878.81	6,755.00	6,707.65	30.41	34.79	-25.97	-2,359.18	-9,655.04	9,836.26	9,772.62	63.64	154.556		
7,000.00	6,966.21	6,787.02	6,739.67	30.86	34.91	-25.28	-2,358.85	-9,655.88	9,793.51	9,729.34	64.17	152.611		
7,100.00	7,045.03	6,846.30	6,798.91	31.35	35.14	-26.29	-2,358.29	-9,657.54	9,738.17	9,673.40	64.77	150.339		
7,200.00	7,113.32	6,898.24	6,850.83	31.90	35.35	-28.85	-2,357.84	-9,659.09	9,671.48	9,606.17	65.31	148.082		
7,300.00	7,169.40	6,944.00	6,896.57	32.57	35.52	-33.43	-2,357.48	-9,660.54	9,595.04	9,529.25	65.79	145.850		
7,400.00	7,211.89	6,944.00	6,896.57	33.38	35.52	-40.91	-2,357.48	-9,660.54	9,510.76	9,444.71	66.05	143.984		
7,500.00	7,239.75	6,986.28	6,938.82	34.35	35.70	-54.16	-2,357.13	-9,661.99	9,420.53	9,354.07	66.46	141.755		
7,600.00	7,252.28	6,995.67	6,948.20	35.47	35.73	-75.66	-2,357.04	-9,662.33	9,326.67	9,259.96	66.71	139.814		
7,700.00	7,252.75	6,998.11	6,950.65	36.73	35.74	-84.51	-2,357.01	-9,662.42	9,231.45	9,164.53	66.93	137.936		
7,800.00	7,252.38	7,000.10	6,952.63	38.16	35.75	-84.55	-2,356.99	-9,662.50	9,136.29	9,069.12	67.17	136.022		
7,900.00	7,252.02	7,002.11	6,954.64	39.74	35.76	-84.59	-2,356.97	-9,662.57	9,041.22	8,973.78	67.44	134.060		
8,000.00	7,251.65	7,004.14	6,956.66	41.47	35.77	-84.63	-2,356.95	-9,662.65	8,946.27	8,878.52	67.75	132.052		
8,100.00	7,251.29	7,006.19	6,958.71	43.31	35.78	-84.67	-2,356.93	-9,662.73	8,851.42	8,783.34	68.09	130.000		
8,200.00	7,250.92	7,008.27	6,960.79	45.26	35.78	-84.71	-2,356.91	-9,662.81	8,756.69	8,688.23	68.46	127.905		
8,300.00	7,250.55	7,010.36	6,962.89	47.30	35.79	-84.76	-2,356.89	-9,662.89	8,662.08	8,593.21	68.87	125.769		
8,400.00	7,250.19	7,012.49	6,965.01	49.42	35.80	-84.80	-2,356.87	-9,662.97	8,567.59	8,498.27	69.32	123.594		
8,500.00	7,249.82	7,014.64	6,967.15	51.62	35.81	-84.84	-2,356.85	-9,663.05	8,473.22	8,403.41	69.81	121.383		
8,600.00	7,249.45	7,016.81	6,969.32	53.88	35.82	-84.89	-2,356.82	-9,663.14	8,378.98	8,308.65	70.33	119.138		
8,700.00	7,249.09	7,019.01	6,971.52	56.19	35.83	-84.93	-2,356.80	-9,663.22	8,284.88	8,213.99	70.89	116.863		
8,800.00	7,248.72	7,021.23	6,973.74	58.55	35.84	-84.98	-2,356.78	-9,663.31	8,190.92	8,119.42	71.50	114.561		
8,900.00	7,248.36	7,023.48	6,975.99	60.96	35.85	-85.02	-2,356.75	-9,663.40	8,097.10	8,024.95	72.14	112.234		
9,000.00	7,247.99	7,025.76	6,978.26	63.40	35.86	-85.07	-2,356.73	-9,663.49	8,003.43	7,930.59	72.83	109.886		
9,100.00	7,247.62	7,028.06	6,980.57	65.87	35.86	-85.11	-2,356.70	-9,663.58	7,909.91	7,836.34	73.57	107.521		
9,200.00	7,247.26	7,030.39	6,982.90	68.38	35.87	-85.16	-2,356.68	-9,663.68	7,816.55	7,742.21	74.34	105.141		
9,300.00	7,246.89	7,032.75	6,985.25	70.91	35.88	-85.21	-2,356.65	-9,663.77	7,723.36	7,648.19	75.17	102.751		
9,400.00	7,246.53	7,035.14	6,987.64	73.47	35.89	-85.26	-2,356.62	-9,663.87	7,630.33	7,554.30	76.03	100.354		
9,500.00	7,246.16	7,037.55	6,990.05	76.05	35.90	-85.31	-2,356.59	-9,663.97	7,537.49	7,460.54	76.95	97.954		
9,600.00	7,245.79	7,040.00	6,992.50	78.65	35.91	-85.36	-2,356.57	-9,664.07	7,444.83	7,366.92	77.91	95.554		
9,700.00	7,245.43	7,042.48	6,994.97	81.27	35.92	-85.41	-2,356.54	-9,664.17	7,352.36	7,273.44	78.92	93.157		
9,800.00	7,245.06	7,044.98	6,997.48	83.90	35.93	-85.46	-2,356.51	-9,664.28	7,260.09	7,180.10	79.99	90.767		
9,900.00	7,244.69	7,047.52	7,000.01	86.55	35.94	-85.51	-2,356.48	-9,664.38	7,168.02	7,086.93	81.10	88.387		
10,000.00	7,244.33	7,050.09	7,002.58	89.21	35.95	-85.56	-2,356.45	-9,664.49	7,076.17	6,993.91	82.26	86.020		
10,100.00	7,243.96	7,052.70	7,005.18	91.88	35.96	-85.61	-2,356.42	-9,664.60	6,984.55	6,901.07	83.48	83.669		
10,200.00	7,243.60	7,055.33	7,007.81	94.56	35.98	-85.67	-2,356.38	-9,664.71	6,893.15	6,808.40	84.75	81.337		

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



Anticollision Report



Company:	SRC ENERGY	Local Co-ordinate Reference:	Well HARVESTERS STATE 31C-16-M
Project:	SECTION 15, T6N, R66W	TVD Reference:	KB @ 4821.00ft
Reference Site:	HARVESTERS STATE 7-15 PAD	MD Reference:	KB @ 4821.00ft
Site Error:	3.28 ft	North Reference:	True
Reference Well:	HARVESTERS STATE 31C-16-M	Survey Calculation Method:	Minimum Curvature
Well Error:	3.28 ft	Output errors are at	2.45 sigma
Reference Wellbore	OH	Database:	EDM 5000.14 Single User Db
Reference Design:	PLAN #1	Offset TVD Reference:	Reference Datum

Offset Design HARVESTERS STATE 7-15 PAD - FRITZLER 6-6-17 (PR_150CC) - OH - OH													Offset Site Error:	0.00 ft
Survey Program: 89-MWD													Offset Well Error:	3.28 ft
Reference		Offset		Semi Major Axis			Distance							Warning
Measured Depth (ft)	Vertical Depth (ft)	Measured Depth (ft)	Vertical Depth (ft)	Reference (ft)	Offset (ft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (ft)	+E/-W (ft)	Between Centres (ft)	Between Ellipses (ft)	Minimum Separation (ft)	Separation Factor		
10,300.00	7,243.23	7,058.00	7,010.48	97.26	35.99	-85.72	-2,356.35	-9,664.83	6,801.99	6,715.92	86.07	79.026		
10,400.00	7,242.86	7,060.71	7,013.18	99.96	36.00	-85.78	-2,356.32	-9,664.94	6,711.09	6,623.63	87.45	76.739		
10,500.00	7,242.50	7,063.45	7,015.92	102.67	36.01	-85.83	-2,356.28	-9,665.06	6,620.44	6,531.55	88.89	74.478		
10,600.00	7,242.13	7,066.22	7,018.69	105.39	36.02	-85.89	-2,356.25	-9,665.18	6,530.07	6,439.68	90.39	72.246		
10,700.00	7,241.76	7,069.03	7,021.50	108.12	36.03	-85.94	-2,356.21	-9,665.31	6,439.97	6,348.03	91.94	70.044		
10,800.00	7,241.40	7,071.88	7,024.35	110.85	36.04	-86.00	-2,356.18	-9,665.43	6,350.18	6,256.62	93.56	67.874		
10,900.00	7,241.03	7,074.77	7,027.23	113.59	36.05	-86.06	-2,356.14	-9,665.56	6,260.69	6,165.45	95.24	65.738		
11,000.00	7,240.67	7,077.70	7,030.15	116.34	36.07	-86.12	-2,356.10	-9,665.69	6,171.52	6,074.54	96.98	63.638		
11,100.00	7,240.30	7,080.66	7,033.12	119.09	36.08	-86.18	-2,356.06	-9,665.82	6,082.69	5,983.90	98.79	61.574		
11,200.00	7,239.93	7,083.67	7,036.12	121.85	36.09	-86.24	-2,356.02	-9,665.96	5,994.20	5,893.54	100.66	59.548		
11,300.00	7,239.57	7,086.71	7,039.16	124.61	36.10	-86.30	-2,355.98	-9,666.10	5,906.08	5,803.48	102.61	57.561		
11,400.00	7,239.20	7,089.80	7,042.25	127.38	36.11	-86.37	-2,355.94	-9,666.24	5,818.35	5,713.73	104.62	55.614		
11,500.00	7,238.84	7,092.93	7,045.38	130.15	36.13	-86.43	-2,355.89	-9,666.39	5,731.01	5,624.30	106.71	53.708		
11,600.00	7,238.47	7,096.11	7,048.55	132.92	36.14	-86.49	-2,355.85	-9,666.53	5,644.09	5,535.22	108.87	51.843		
11,700.00	7,238.10	7,099.33	7,051.76	135.70	36.15	-86.56	-2,355.81	-9,666.68	5,557.61	5,446.50	111.11	50.020		
11,800.00	7,237.74	7,102.59	7,055.02	138.48	36.17	-86.63	-2,355.76	-9,666.84	5,471.59	5,358.16	113.42	48.240		
11,900.00	7,237.37	7,105.91	7,058.33	141.26	36.18	-86.69	-2,355.71	-9,666.99	5,386.04	5,270.22	115.82	46.503		
12,000.00	7,237.00	7,109.27	7,061.69	144.05	36.19	-86.76	-2,355.66	-9,667.15	5,301.00	5,182.70	118.30	44.809		
12,100.00	7,236.64	7,112.68	7,065.09	146.84	36.21	-86.83	-2,355.61	-9,667.32	5,216.49	5,095.62	120.87	43.159		
12,200.00	7,236.27	7,116.13	7,068.55	149.64	36.22	-86.90	-2,355.56	-9,667.48	5,132.53	5,009.01	123.52	41.552		
12,300.00	7,235.91	7,119.64	7,072.05	152.43	36.24	-86.97	-2,355.51	-9,667.65	5,049.15	4,922.89	126.26	39.989		
12,400.00	7,235.54	7,123.20	7,075.61	155.23	36.25	-87.04	-2,355.46	-9,667.83	4,966.39	4,837.29	129.10	38.469		
12,500.00	7,235.17	7,126.82	7,079.22	158.03	36.26	-87.12	-2,355.40	-9,668.01	4,884.26	4,752.23	132.03	36.993		
12,600.00	7,234.81	7,133.00	7,085.39	160.83	36.29	-87.24	-2,355.31	-9,668.31	4,802.81	4,667.74	135.07	35.558		
12,700.00	7,234.44	7,134.79	7,087.18	163.64	36.30	-87.28	-2,355.28	-9,668.40	4,722.07	4,583.88	138.19	34.171		
12,800.00	7,234.07	7,140.29	7,092.67	166.44	36.32	-87.39	-2,355.19	-9,668.68	4,642.08	4,500.65	141.43	32.823		
12,900.00	7,233.71	7,145.72	7,098.09	169.25	36.34	-87.50	-2,355.11	-9,668.94	4,562.86	4,418.09	144.77	31.518		
13,000.00	7,233.34	7,151.08	7,103.45	172.06	36.36	-87.61	-2,355.03	-9,669.21	4,484.47	4,336.26	148.22	30.256		
13,100.00	7,232.98	7,156.38	7,108.74	174.88	36.39	-87.72	-2,354.95	-9,669.47	4,406.96	4,255.18	151.77	29.036		
13,200.00	7,232.61	7,161.61	7,113.96	177.69	36.41	-87.82	-2,354.87	-9,669.72	4,330.35	4,174.91	155.44	27.859		
13,300.00	7,232.24	7,166.78	7,119.12	180.50	36.43	-87.93	-2,354.79	-9,669.97	4,254.72	4,095.50	159.22	26.722		
13,400.00	7,231.88	7,171.88	7,124.22	183.32	36.45	-88.03	-2,354.72	-9,670.22	4,180.10	4,016.99	163.11	25.627		
13,500.00	7,231.51	7,176.93	7,129.26	186.14	36.47	-88.14	-2,354.64	-9,670.46	4,106.56	3,939.44	167.12	24.573		
13,600.00	7,231.15	7,181.91	7,134.24	188.96	36.49	-88.24	-2,354.57	-9,670.70	4,034.15	3,862.91	171.24	23.558		
13,700.00	7,230.78	7,186.84	7,139.16	191.78	36.51	-88.34	-2,354.49	-9,670.93	3,962.93	3,787.45	175.48	22.584		
13,800.00	7,230.41	7,191.71	7,144.02	194.60	36.53	-88.44	-2,354.42	-9,671.16	3,892.97	3,713.14	179.83	21.648		
13,900.00	7,230.05	7,196.52	7,148.83	197.42	36.55	-88.54	-2,354.35	-9,671.38	3,824.35	3,640.05	184.30	20.751		
14,000.00	7,229.68	7,201.28	7,153.58	200.25	36.57	-88.63	-2,354.28	-9,671.60	3,757.13	3,568.25	188.88	19.892		
14,100.00	7,229.31	7,205.98	7,158.27	203.07	36.59	-88.73	-2,354.21	-9,671.82	3,691.38	3,497.82	193.56	19.071		
14,200.00	7,228.95	7,210.62	7,162.91	205.90	36.61	-88.82	-2,354.15	-9,672.03	3,627.20	3,428.85	198.36	18.286		
14,300.00	7,228.58	7,215.22	7,167.50	208.73	36.63	-88.92	-2,354.08	-9,672.25	3,564.66	3,361.41	203.25	17.538		
14,400.00	7,228.22	7,219.76	7,172.04	211.55	36.65	-89.01	-2,354.01	-9,672.45	3,503.86	3,295.62	208.24	16.826		
14,500.00	7,227.85	7,224.25	7,176.52	214.38	36.66	-89.10	-2,353.95	-9,672.66	3,444.88	3,231.57	213.31	16.150		
14,600.00	7,227.48	7,228.69	7,180.96	217.21	36.68	-89.19	-2,353.89	-9,672.86	3,387.82	3,169.36	218.46	15.508		
14,700.00	7,227.12	7,233.07	7,185.34	220.04	36.70	-89.28	-2,353.83	-9,673.05	3,332.77	3,109.10	223.67	14.900		
14,800.00	7,226.75	7,237.42	7,189.68	222.88	36.72	-89.37	-2,353.76	-9,673.25	3,279.85	3,050.91	228.94	14.326		
14,900.00	7,226.38	7,241.71	7,193.97	225.71	36.74	-89.46	-2,353.70	-9,673.44	3,229.16	2,994.90	234.25	13.785		
15,000.00	7,226.02	7,245.95	7,198.21	228.54	36.75	-89.54	-2,353.64	-9,673.62	3,180.79	2,941.21	239.58	13.276		
15,005.81	7,226.00	7,246.20	7,198.45	228.71	36.75	-89.55	-2,353.64	-9,673.64	3,178.05	2,938.16	239.89	13.248	CC, ES, SF	

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



Anticollision Report



Company:	SRC ENERGY	Local Co-ordinate Reference:	Well HARVESTERS STATE 31C-16-M
Project:	SECTION 15, T6N, R66W	TVD Reference:	KB @ 4821.00ft
Reference Site:	HARVESTERS STATE 7-15 PAD	MD Reference:	KB @ 4821.00ft
Site Error:	3.28 ft	North Reference:	True
Reference Well:	HARVESTERS STATE 31C-16-M	Survey Calculation Method:	Minimum Curvature
Well Error:	3.28 ft	Output errors are at	2.45 sigma
Reference Wellbore	OH	Database:	EDM 5000.14 Single User Db
Reference Design:	PLAN #1	Offset TVD Reference:	Reference Datum

Offset Design HARVESTERS STATE 7-15 PAD - FRITZLER 6-8-17(PR_150CC) - OH - OH													Offset Site Error:	0.00 ft
Survey Program: 82-MWVD													Offset Well Error:	3.28 ft
Reference		Offset		Semi Major Axis			Distance							Warning
Measured Depth (ft)	Vertical Depth (ft)	Measured Depth (ft)	Vertical Depth (ft)	Reference (ft)	Offset (ft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (ft)	+E/-W (ft)	Between Centres (ft)	Between Ellipses (ft)	Minimum Separation (ft)	Separation Factor		
0.00	0.00	0.00	36.00	3.28	3.28	-108.53	-3,013.35	-8,987.99	9,479.74					
100.00	100.00	43.33	79.33	3.28	3.28	-108.53	-3,013.24	-8,988.08	9,479.74	9,473.18	6.57	1,443.835		
200.00	200.00	114.18	150.17	3.34	3.29	-108.53	-3,012.59	-8,988.58	9,480.13	9,473.50	6.63	1,429.844		
300.00	300.00	171.00	206.98	3.44	3.33	-108.52	-3,011.64	-8,989.27	9,480.81	9,474.04	6.77	1,400.486		
400.00	400.00	210.07	246.04	3.60	3.36	-108.52	-3,010.95	-8,989.99	9,482.06	9,475.10	6.96	1,362.089		
500.00	500.00	263.00	298.94	3.81	3.41	-108.51	-3,010.26	-8,991.47	9,484.12	9,476.90	7.22	1,313.240		
600.00	600.00	263.00	298.94	4.05	3.41	-108.51	-3,010.26	-8,991.47	9,486.77	9,479.30	7.47	1,270.728		
700.00	699.98	263.00	298.94	4.32	3.41	-85.54	-3,010.26	-8,991.47	9,490.33	9,482.59	7.74	1,226.049		
800.00	799.84	305.06	340.97	4.62	3.47	-85.48	-3,010.15	-8,993.21	9,494.17	9,486.08	8.09	1,173.196		
900.00	899.62	354.00	389.82	4.94	3.55	-85.49	-3,010.82	-8,996.07	9,499.20	9,490.72	8.49	1,119.439		
1,000.00	999.41	354.00	389.82	5.27	3.55	-85.49	-3,010.82	-8,996.07	9,504.59	9,495.76	8.82	1,077.056		
1,100.00	1,099.19	354.00	389.82	5.62	3.55	-85.49	-3,010.82	-8,996.07	9,511.02	9,501.85	9.18	1,036.257		
1,200.00	1,198.98	354.00	389.82	5.99	3.55	-85.49	-3,010.82	-8,996.07	9,518.51	9,508.96	9.54	997.347		
1,300.00	1,298.76	409.46	445.09	6.36	3.65	-85.52	-3,012.76	-9,000.13	9,526.37	9,516.36	10.01	951.574		
1,400.00	1,398.55	445.00	480.46	6.74	3.73	-85.54	-3,014.73	-9,003.04	9,535.26	9,524.80	10.46	911.604		
1,500.00	1,498.33	541.56	576.44	7.13	3.96	-85.60	-3,021.89	-9,010.68	9,544.66	9,533.60	11.06	863.335		
1,600.00	1,598.12	605.78	640.24	7.52	4.13	-85.65	-3,027.62	-9,015.41	9,554.04	9,542.43	11.61	822.920		
1,700.00	1,697.90	709.48	743.14	7.92	4.46	-85.74	-3,038.11	-9,022.85	9,563.68	9,551.38	12.30	777.789		
1,800.00	1,797.69	798.32	831.27	8.33	4.76	-85.81	-3,047.33	-9,029.05	9,573.23	9,560.26	12.97	738.017		
1,900.00	1,897.47	1,383.00	1,413.90	8.74	7.01	-86.16	-3,080.00	-9,061.65	9,577.63	9,562.14	15.49	618.190		
2,000.00	1,997.26	1,383.00	1,413.90	9.15	7.01	-86.16	-3,080.00	-9,061.65	9,582.77	9,566.87	15.90	602.640		
2,100.00	2,097.04	1,383.00	1,413.90	9.56	7.01	-86.16	-3,080.00	-9,061.65	9,588.95	9,572.64	16.31	587.891		
2,200.00	2,196.83	1,383.00	1,413.90	9.98	7.01	-86.16	-3,080.00	-9,061.65	9,596.17	9,579.45	16.72	573.905		
2,300.00	2,296.61	1,383.00	1,413.90	10.40	7.01	-86.16	-3,080.00	-9,061.65	9,604.43	9,587.30	17.13	560.643		
2,400.00	2,396.40	1,445.00	1,475.62	10.82	7.27	-86.19	-3,081.71	-9,067.17	9,613.35	9,595.57	17.78	540.557		
2,500.00	2,496.18	1,445.00	1,475.62	11.24	7.27	-86.19	-3,081.71	-9,067.17	9,623.03	9,604.84	18.19	528.914		
2,600.00	2,595.96	1,445.00	1,475.62	11.66	7.27	-86.19	-3,081.71	-9,067.17	9,633.74	9,615.14	18.60	517.864		
2,700.00	2,695.75	1,445.00	1,475.62	12.09	7.27	-86.19	-3,081.71	-9,067.17	9,645.47	9,626.46	19.01	507.375		
2,800.00	2,795.53	1,514.11	1,544.17	12.51	7.58	-86.22	-3,084.78	-9,075.42	9,657.83	9,638.13	19.70	490.223		
2,900.00	2,895.32	1,569.00	1,598.58	12.94	7.83	-86.24	-3,087.82	-9,081.99	9,670.58	9,650.25	20.33	475.567		
3,000.00	2,995.10	1,569.00	1,598.58	13.37	7.83	-86.24	-3,087.82	-9,081.99	9,684.10	9,663.36	20.74	466.942		
3,100.00	3,094.89	1,627.01	1,655.99	13.80	8.10	-86.27	-3,092.06	-9,089.14	9,698.01	9,676.61	21.39	453.327		
3,200.00	3,194.67	1,665.00	1,693.49	14.23	8.29	-86.30	-3,095.65	-9,094.03	9,712.84	9,690.88	21.96	442.293		
3,300.00	3,294.46	1,665.00	1,693.49	14.66	8.29	-86.30	-3,095.65	-9,094.03	9,728.41	9,706.05	22.36	435.087		
3,400.00	3,394.24	1,665.00	1,693.49	15.09	8.29	-86.30	-3,095.65	-9,094.03	9,744.99	9,722.23	22.76	428.227		
3,500.00	3,494.03	1,714.23	1,741.93	15.52	8.54	-86.33	-3,101.12	-9,100.89	9,761.91	9,738.53	23.38	417.617		
3,600.00	3,593.81	1,884.77	1,909.36	15.96	9.43	-86.47	-3,121.99	-9,125.69	9,779.65	9,755.09	24.56	398.175		
3,700.00	3,693.60	3,700.00	2,003.82	16.39	19.55	-86.55	-3,134.52	-9,139.09	9,796.88	9,763.59	33.29	294.290		
3,800.00	3,793.38	2,079.71	2,100.82	16.82	10.48	-86.63	-3,147.24	-9,152.27	9,813.55	9,787.27	26.28	373.453		
3,900.00	3,893.17	2,136.00	2,156.05	17.26	10.79	-86.68	-3,154.35	-9,160.46	9,831.01	9,804.07	26.94	364.894		
4,000.00	3,992.95	2,136.00	2,156.05	17.69	10.79	-86.68	-3,154.35	-9,160.46	9,848.83	9,821.50	27.33	360.339		
4,100.00	4,092.74	2,200.43	2,219.17	18.13	11.15	-86.73	-3,162.65	-9,170.36	9,867.39	9,839.36	28.04	351.951		
4,200.00	4,192.52	2,394.66	2,409.55	18.56	12.25	-86.89	-3,188.65	-9,198.67	9,885.33	9,855.94	29.39	336.355		
4,300.00	4,292.31	2,419.00	2,433.42	19.00	12.38	-86.91	-3,192.03	-9,202.08	9,903.33	9,873.44	29.90	331.227		
4,400.00	4,392.09	2,481.05	2,494.16	19.43	12.74	-86.97	-3,201.03	-9,210.99	9,921.76	9,891.16	30.60	324.234		
4,500.00	4,491.88	2,517.00	2,529.27	19.87	12.95	-87.00	-3,206.59	-9,216.33	9,940.90	9,909.73	31.17	318.951		
4,600.00	4,591.66	2,592.74	2,603.17	20.31	13.40	-87.07	-3,218.53	-9,227.82	9,960.46	9,928.52	31.94	311.824		
4,700.00	4,691.44	4,700.00	3,384.24	20.74	25.03	-87.77	-3,329.48	-9,329.32	9,980.16	9,937.51	42.65	234.008		
4,800.00	4,791.23	3,496.69	3,490.98	21.18	18.54	-87.86	-3,343.35	-9,338.87	9,992.86	9,955.51	37.35	267.550		
7,300.00	7,169.40	7,229.00	7,187.74	32.57	36.43	-44.57	-3,603.09	-9,619.52	9,982.20	9,917.96	64.24	155.393		
7,400.00	7,211.89	7,245.83	7,204.57	33.38	36.49	-53.39	-3,602.86	-9,619.63	9,900.71	9,836.10	64.61	153.236		
7,500.00	7,239.75	7,268.46	7,227.19	34.35	36.57	-66.46	-3,602.51	-9,619.81	9,814.00	9,749.01	64.99	151.003		

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



Anticollision Report



Company:	SRC ENERGY	Local Co-ordinate Reference:	Well HARVESTERS STATE 31C-16-M
Project:	SECTION 15, T6N, R66W	TVD Reference:	KB @ 4821.00ft
Reference Site:	HARVESTERS STATE 7-15 PAD	MD Reference:	KB @ 4821.00ft
Site Error:	3.28 ft	North Reference:	True
Reference Well:	HARVESTERS STATE 31C-16-M	Survey Calculation Method:	Minimum Curvature
Well Error:	3.28 ft	Output errors are at	2.45 sigma
Reference Wellbore	OH	Database:	EDM 5000.14 Single User Db
Reference Design:	PLAN #1	Offset TVD Reference:	Reference Datum

Offset Design HARVESTERS STATE 7-15 PAD - FRITZLER 6-8-17(PR_150CC) - OH - OH													Offset Site Error:	0.00 ft
Survey Program: 82-MWD													Offset Well Error:	3.28 ft
Reference		Offset		Semi Major Axis			Distance							Warning
Measured Depth (ft)	Vertical Depth (ft)	Measured Depth (ft)	Vertical Depth (ft)	Reference (ft)	Offset (ft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (ft)	+E/-W (ft)	Between Centres (ft)	Between Ellipses (ft)	Minimum Separation (ft)	Separation Factor		
7,600.00	7,252.28	7,279.16	7,237.89	35.47	36.61	-83.94	-3,602.33	-9,619.91	9,724.16	9,658.84	65.33	148.851		
7,700.00	7,252.75	7,280.31	7,239.04	36.73	36.61	-90.26	-3,602.31	-9,619.92	9,633.39	9,567.74	65.64	146.754		
7,800.00	7,252.38	7,280.80	7,239.53	38.16	36.61	-90.27	-3,602.30	-9,619.92	9,542.76	9,476.76	66.00	144.577		
7,900.00	7,252.02	7,281.31	7,240.03	39.74	36.61	-90.27	-3,602.29	-9,619.93	9,452.32	9,385.90	66.42	142.311		
8,000.00	7,251.65	7,281.81	7,240.54	41.47	36.62	-90.28	-3,602.28	-9,619.93	9,362.08	9,295.19	66.89	139.963		
8,100.00	7,251.29	7,282.33	7,241.05	43.31	36.62	-90.29	-3,602.27	-9,619.94	9,272.04	9,204.63	67.41	137.537		
8,200.00	7,250.92	7,282.85	7,241.57	45.26	36.62	-90.29	-3,602.26	-9,619.94	9,182.20	9,114.21	68.00	135.041		
8,300.00	7,250.55	7,283.37	7,242.10	47.30	36.62	-90.30	-3,602.25	-9,619.95	9,092.58	9,023.95	68.63	132.481		
8,400.00	7,250.19	7,283.90	7,242.63	49.42	36.62	-90.31	-3,602.24	-9,619.96	9,003.18	8,933.85	69.33	129.864		
8,500.00	7,249.82	7,284.44	7,243.17	51.62	36.62	-90.32	-3,602.23	-9,619.96	8,914.00	8,843.92	70.08	127.198		
8,600.00	7,249.45	7,284.99	7,243.72	53.88	36.63	-90.32	-3,602.22	-9,619.97	8,825.05	8,754.16	70.89	124.491		
8,700.00	7,249.09	7,285.54	7,244.27	56.19	36.63	-90.33	-3,602.21	-9,619.97	8,736.34	8,664.58	71.76	121.751		
8,800.00	7,248.72	7,286.10	7,244.83	58.55	36.63	-90.34	-3,602.20	-9,619.98	8,647.87	8,575.19	72.68	118.985		
8,900.00	7,248.36	7,286.67	7,245.40	60.96	36.63	-90.35	-3,602.19	-9,619.98	8,559.67	8,486.00	73.66	116.200		
9,000.00	7,247.99	7,287.25	7,245.97	63.40	36.63	-90.36	-3,602.18	-9,619.99	8,471.72	8,397.02	74.70	113.405		
9,100.00	7,247.62	7,287.83	7,246.56	65.87	36.64	-90.36	-3,602.17	-9,619.99	8,384.04	8,308.24	75.80	110.606		
9,200.00	7,247.26	7,288.42	7,247.15	68.38	36.64	-90.37	-3,602.16	-9,620.00	8,296.64	8,219.69	76.96	107.810		
9,300.00	7,246.89	7,289.02	7,247.74	70.91	36.64	-90.38	-3,602.15	-9,620.01	8,209.53	8,131.36	78.17	105.023		
9,400.00	7,246.53	7,289.62	7,248.35	73.47	36.64	-90.39	-3,602.14	-9,620.01	8,122.72	8,043.28	79.44	102.251		
9,500.00	7,246.16	7,290.24	7,248.96	76.05	36.64	-90.40	-3,602.13	-9,620.02	8,036.21	7,955.45	80.77	99.499		
9,600.00	7,245.79	7,290.86	7,249.59	78.65	36.65	-90.41	-3,602.11	-9,620.03	7,950.02	7,867.87	82.15	96.772		
9,700.00	7,245.43	7,291.49	7,250.22	81.27	36.65	-90.42	-3,602.10	-9,620.03	7,864.16	7,780.56	83.59	94.075		
9,800.00	7,245.06	7,292.13	7,250.86	83.90	36.65	-90.43	-3,602.09	-9,620.04	7,778.63	7,693.54	85.10	91.411		
9,900.00	7,244.69	7,292.78	7,251.50	86.55	36.65	-90.43	-3,602.08	-9,620.05	7,693.45	7,606.80	86.65	88.784		
10,000.00	7,244.33	7,293.44	7,252.16	89.21	36.66	-90.44	-3,602.06	-9,620.05	7,608.64	7,520.37	88.27	86.197		
10,100.00	7,243.96	7,294.10	7,252.83	91.88	36.66	-90.45	-3,602.05	-9,620.06	7,524.19	7,434.25	89.94	83.654		
10,200.00	7,243.60	7,294.78	7,253.50	94.56	36.66	-90.46	-3,602.04	-9,620.07	7,440.14	7,348.46	91.68	81.156		
10,300.00	7,243.23	7,295.46	7,254.19	97.26	36.66	-90.47	-3,602.03	-9,620.08	7,356.48	7,263.01	93.47	78.705		
10,400.00	7,242.86	7,296.16	7,254.88	99.96	36.67	-90.48	-3,602.01	-9,620.08	7,273.23	7,177.91	95.32	76.303		
10,500.00	7,242.50	7,296.87	7,255.59	102.67	36.67	-90.49	-3,602.00	-9,620.09	7,190.41	7,093.18	97.23	73.952		
10,600.00	7,242.13	7,297.58	7,256.31	105.39	36.67	-90.50	-3,601.98	-9,620.10	7,108.03	7,008.83	99.20	71.652		
10,700.00	7,241.76	7,298.31	7,257.03	108.12	36.67	-90.51	-3,601.97	-9,620.11	7,026.11	6,924.88	101.23	69.405		
10,800.00	7,241.40	7,299.04	7,257.77	110.85	36.68	-90.52	-3,601.96	-9,620.11	6,944.67	6,841.34	103.33	67.210		
10,900.00	7,241.03	7,299.79	7,258.52	113.59	36.68	-90.53	-3,601.94	-9,620.12	6,863.71	6,758.23	105.48	65.070		
11,000.00	7,240.67	7,300.55	7,259.27	116.34	36.68	-90.54	-3,601.93	-9,620.13	6,783.26	6,675.56	107.70	62.983		
11,100.00	7,240.30	7,301.32	7,260.04	119.09	36.68	-90.56	-3,601.91	-9,620.14	6,703.34	6,593.36	109.98	60.950		
11,200.00	7,239.93	7,302.10	7,260.83	121.85	36.69	-90.57	-3,601.90	-9,620.15	6,623.96	6,511.63	112.33	58.970		
11,300.00	7,239.57	7,302.90	7,261.62	124.61	36.69	-90.58	-3,601.88	-9,620.16	6,545.15	6,430.41	114.74	57.045		
11,400.00	7,239.20	7,303.70	7,262.42	127.38	36.69	-90.59	-3,601.86	-9,620.17	6,466.92	6,349.71	117.21	55.173		
11,500.00	7,238.84	7,304.52	7,263.24	130.15	36.70	-90.60	-3,601.85	-9,620.18	6,389.30	6,269.55	119.75	53.353		
11,600.00	7,238.47	7,305.35	7,264.07	132.92	36.70	-90.61	-3,601.83	-9,620.19	6,312.31	6,189.95	122.36	51.587		
11,700.00	7,238.10	7,306.20	7,264.92	135.70	36.70	-90.62	-3,601.81	-9,620.20	6,235.98	6,110.94	125.04	49.872		
11,800.00	7,237.74	7,307.05	7,265.78	138.48	36.70	-90.64	-3,601.80	-9,620.21	6,160.32	6,032.53	127.78	48.209		
11,900.00	7,237.37	7,307.93	7,266.65	141.26	36.71	-90.65	-3,601.78	-9,620.22	6,085.36	5,954.76	130.60	46.596		
12,000.00	7,237.00	7,308.81	7,267.53	144.05	36.71	-90.66	-3,601.76	-9,620.23	6,011.14	5,877.65	133.48	45.033		
12,100.00	7,236.64	7,309.71	7,268.43	146.84	36.71	-90.67	-3,601.74	-9,620.24	5,937.66	5,801.23	136.44	43.519		
12,200.00	7,236.27	7,310.63	7,269.35	149.64	36.72	-90.69	-3,601.72	-9,620.25	5,864.98	5,725.51	139.46	42.054		
12,300.00	7,235.91	7,311.56	7,270.28	152.43	36.72	-90.70	-3,601.70	-9,620.26	5,793.11	5,650.55	142.56	40.636		
12,400.00	7,235.54	7,312.50	7,271.22	155.23	36.72	-90.71	-3,601.68	-9,620.27	5,722.08	5,576.35	145.73	39.265		
12,500.00	7,235.17	7,313.46	7,272.18	158.03	36.73	-90.73	-3,601.66	-9,620.28	5,651.93	5,502.96	148.97	37.940		
12,600.00	7,234.81	7,314.44	7,273.16	160.83	36.73	-90.74	-3,601.64	-9,620.29	5,582.68	5,430.40	152.28	36.660		
12,700.00	7,234.44	7,315.43	7,274.15	163.64	36.73	-90.76	-3,601.62	-9,620.31	5,514.39	5,358.72	155.67	35.424		

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



Anticollision Report



Company:	SRC ENERGY	Local Co-ordinate Reference:	Well HARVESTERS STATE 31C-16-M
Project:	SECTION 15, T6N, R66W	TVD Reference:	KB @ 4821.00ft
Reference Site:	HARVESTERS STATE 7-15 PAD	MD Reference:	KB @ 4821.00ft
Site Error:	3.28 ft	North Reference:	True
Reference Well:	HARVESTERS STATE 31C-16-M	Survey Calculation Method:	Minimum Curvature
Well Error:	3.28 ft	Output errors are at	2.45 sigma
Reference Wellbore	OH	Database:	EDM 5000.14 Single User Db
Reference Design:	PLAN #1	Offset TVD Reference:	Reference Datum

Offset Design HARVESTERS STATE 7-15 PAD - FRITZLER 6-8-17(PR_150CC) - OH - OH													Offset Site Error:	0.00 ft
Survey Program: 82-MWD													Offset Well Error:	3.28 ft
Reference		Offset		Semi Major Axis			Distance							Warning
Measured Depth (ft)	Vertical Depth (ft)	Measured Depth (ft)	Vertical Depth (ft)	Reference (ft)	Offset (ft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (ft)	+E/-W (ft)	Between Centres (ft)	Between Ellipses (ft)	Minimum Separation (ft)	Separation Factor		
12,800.00	7,234.07	7,316.45	7,275.16	166.44	36.74	-90.77	-3,601.60	-9,620.32	5,447.07	5,287.95	159.12	34.232		
12,900.00	7,233.71	7,317.47	7,276.19	169.25	36.74	-90.78	-3,601.58	-9,620.33	5,380.77	5,218.12	162.65	33.082		
13,000.00	7,233.34	7,318.52	7,277.24	172.06	36.74	-90.80	-3,601.55	-9,620.34	5,315.52	5,149.27	166.25	31.973		
13,100.00	7,232.98	7,319.59	7,278.31	174.88	36.75	-90.81	-3,601.53	-9,620.36	5,251.36	5,081.45	169.92	30.905		
13,200.00	7,232.61	7,320.67	7,279.39	177.69	36.75	-90.83	-3,601.51	-9,620.37	5,188.34	5,014.69	173.66	29.877		
13,300.00	7,232.24	7,321.78	7,280.49	180.50	36.76	-90.84	-3,601.48	-9,620.39	5,126.50	4,949.04	177.46	28.888		
13,400.00	7,231.88	7,322.90	7,281.62	183.32	36.76	-90.86	-3,601.46	-9,620.40	5,065.87	4,884.54	181.34	27.936		
13,500.00	7,231.51	7,324.05	7,282.76	186.14	36.76	-90.88	-3,601.43	-9,620.41	5,006.51	4,821.24	185.27	27.022		
13,600.00	7,231.15	7,325.21	7,283.93	188.96	36.77	-90.89	-3,601.41	-9,620.43	4,948.46	4,759.19	189.27	26.145		
13,700.00	7,230.78	7,326.40	7,285.12	191.78	36.77	-90.91	-3,601.38	-9,620.45	4,891.76	4,698.43	193.33	25.303		
13,800.00	7,230.41	7,327.61	7,286.33	194.60	36.78	-90.93	-3,601.35	-9,620.46	4,836.47	4,639.03	197.44	24.496		
13,900.00	7,230.05	7,328.84	7,287.56	197.42	36.78	-90.94	-3,601.32	-9,620.48	4,782.62	4,581.02	201.61	23.723		
14,000.00	7,229.68	7,330.10	7,288.81	200.25	36.79	-90.96	-3,601.30	-9,620.49	4,730.28	4,524.46	205.82	22.983		
14,100.00	7,229.31	7,331.38	7,290.10	203.07	36.79	-90.98	-3,601.27	-9,620.51	4,679.49	4,469.41	210.08	22.275		
14,200.00	7,228.95	7,332.69	7,291.40	205.90	36.80	-91.00	-3,601.24	-9,620.53	4,630.30	4,415.93	214.37	21.599		
14,300.00	7,228.58	7,334.02	7,292.73	208.73	36.80	-91.02	-3,601.21	-9,620.55	4,582.76	4,364.06	218.70	20.954		
14,400.00	7,228.22	7,335.38	7,294.09	211.55	36.80	-91.04	-3,601.17	-9,620.57	4,536.94	4,313.88	223.06	20.340		
14,500.00	7,227.85	7,336.77	7,295.48	214.38	36.81	-91.06	-3,601.14	-9,620.59	4,492.87	4,265.43	227.44	19.754		
14,600.00	7,227.48	7,338.18	7,296.89	217.21	36.81	-91.08	-3,601.11	-9,620.61	4,450.61	4,218.78	231.83	19.198		
14,700.00	7,227.12	7,339.63	7,298.34	220.04	36.82	-91.10	-3,601.07	-9,620.63	4,410.21	4,173.99	236.22	18.670		
14,800.00	7,226.75	7,341.10	7,299.81	222.88	36.82	-91.12	-3,601.04	-9,620.65	4,371.73	4,131.11	240.62	18.169		
14,900.00	7,226.38	7,342.61	7,301.32	225.71	36.83	-91.14	-3,601.00	-9,620.67	4,335.21	4,090.21	245.00	17.695		
15,000.00	7,226.02	7,344.14	7,302.85	228.54	36.84	-91.16	-3,600.97	-9,620.69	4,300.71	4,051.34	249.37	17.246		
15,005.81	7,226.00	7,344.23	7,302.94	228.71	36.84	-91.16	-3,600.96	-9,620.69	4,298.77	4,049.15	249.62	17.221	CC, ES, SF	



Anticollision Report



Company:	SRC ENERGY	Local Co-ordinate Reference:	Well HARVESTERS STATE 31C-16-M
Project:	SECTION 15, T6N, R66W	TVD Reference:	KB @ 4821.00ft
Reference Site:	HARVESTERS STATE 7-15 PAD	MD Reference:	KB @ 4821.00ft
Site Error:	3.28 ft	North Reference:	True
Reference Well:	HARVESTERS STATE 31C-16-M	Survey Calculation Method:	Minimum Curvature
Well Error:	3.28 ft	Output errors are at	2.45 sigma
Reference Wellbore	OH	Database:	EDM 5000.14 Single User Db
Reference Design:	PLAN #1	Offset TVD Reference:	Reference Datum

Offset Design HARVESTERS STATE 7-15 PAD - FRITZLER 8-8-17(PR_150CC) - OH - OH													Offset Site Error:	0.00 ft
Survey Program: 172-MWD													Offset Well Error:	3.28 ft
Reference		Offset		Semi Major Axis			Distance							Warning
Measured Depth (ft)	Vertical Depth (ft)	Measured Depth (ft)	Vertical Depth (ft)	Reference (ft)	Offset (ft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (ft)	+E/-W (ft)	Between Centres (ft)	Between Ellipses (ft)	Minimum Separation (ft)	Separation Factor		
0.00	0.00	906.74	934.08	3.28	5.42	-109.24	-3,087.66	-8,848.76	9,418.42					
100.00	100.00	987.21	1,012.52	3.28	5.83	-109.33	-3,100.42	-8,836.10	9,408.61	9,399.52	9.09	1,035.344		
200.00	200.00	1,040.27	1,064.16	3.34	6.12	-109.40	-3,109.33	-8,827.74	9,399.14	9,389.74	9.40	999.920		
300.00	300.00	1,098.00	1,120.48	3.44	6.43	-109.47	-3,118.63	-8,819.16	9,390.24	9,380.44	9.80	958.246		
400.00	400.00	1,098.00	1,120.48	3.60	6.43	-109.47	-3,118.63	-8,819.16	9,382.03	9,372.09	9.94	943.426		
500.00	500.00	1,160.22	1,181.40	3.81	6.76	-109.55	-3,128.06	-8,810.71	9,374.31	9,363.85	10.46	896.433		
600.00	600.00	1,193.00	1,213.58	4.05	6.93	-109.58	-3,132.75	-8,806.67	9,367.39	9,356.53	10.86	862.610		
700.00	699.98	1,267.34	1,286.53	4.32	7.33	-86.90	-3,143.92	-8,797.68	9,360.85	9,349.34	11.51	813.000		
800.00	799.84	1,340.22	1,357.89	4.62	7.73	-87.13	-3,155.75	-8,788.79	9,354.46	9,342.27	12.20	766.969		
900.00	899.62	1,414.60	1,430.87	4.94	8.13	-87.24	-3,167.22	-8,780.13	9,348.31	9,335.40	12.91	724.204		
1,000.00	999.41	1,719.75	1,731.29	5.27	9.77	-87.66	-3,206.04	-8,743.55	9,340.58	9,325.74	14.84	629.484		
1,100.00	1,099.19	1,757.00	1,767.95	5.62	9.97	-87.71	-3,210.76	-8,738.91	9,332.84	9,317.46	15.39	606.607		
1,200.00	1,198.98	1,802.86	1,813.08	5.99	10.22	-87.78	-3,216.76	-8,733.42	9,325.75	9,309.75	15.99	583.086		
1,300.00	1,298.76	2,211.80	2,214.38	6.36	12.57	-88.38	-3,271.99	-8,678.12	9,318.09	9,299.46	18.63	500.293		
1,400.00	1,398.55	2,282.33	2,283.59	6.74	12.97	-88.48	-3,280.64	-8,667.59	9,308.21	9,288.81	19.39	479.933		
1,500.00	1,498.33	2,321.00	2,321.65	7.13	13.19	-88.53	-3,284.80	-8,662.14	9,298.75	9,278.75	20.00	465.025		
1,600.00	1,598.12	2,369.12	2,369.05	7.52	13.46	-88.60	-3,289.91	-8,655.67	9,289.88	9,269.23	20.65	449.903		
1,700.00	1,697.90	2,416.00	2,415.25	7.92	13.72	-88.66	-3,295.24	-8,649.72	9,281.79	9,260.49	21.30	435.754		
1,800.00	1,797.69	2,538.13	2,535.23	8.33	14.42	-88.84	-3,311.16	-8,633.47	9,273.88	9,251.50	22.38	414.312		
1,900.00	1,897.47	2,624.46	2,620.12	8.74	14.92	-88.96	-3,322.00	-8,622.07	9,265.94	9,242.66	23.28	398.051		
2,000.00	1,997.26	2,772.84	2,765.37	9.15	15.81	-89.19	-3,343.45	-8,600.70	9,257.55	9,233.00	24.55	377.020		
2,100.00	2,097.04	2,865.83	2,856.16	9.56	16.38	-89.34	-3,357.93	-8,586.79	9,249.20	9,223.67	25.53	362.323		
2,200.00	2,196.83	2,918.12	2,907.41	9.98	16.70	-89.42	-3,365.22	-8,579.38	9,241.11	9,214.85	26.25	351.996		
2,300.00	2,296.61	2,956.24	2,944.86	10.40	16.92	-89.48	-3,370.25	-8,574.36	9,233.67	9,206.78	26.89	343.326		
2,400.00	2,396.40	3,003.99	2,991.86	10.82	17.20	-89.55	-3,376.33	-8,568.49	9,226.90	9,199.31	27.59	334.402		
2,500.00	2,496.18	3,078.00	3,064.54	11.24	17.63	-89.66	-3,386.76	-8,559.27	9,220.54	9,192.10	28.44	324.203		
2,600.00	2,595.96	3,126.85	3,112.56	11.66	17.90	-89.73	-3,393.57	-8,553.41	9,214.62	9,185.48	29.14	316.215		
2,700.00	2,695.75	3,169.00	3,154.18	12.09	18.14	-89.79	-3,398.51	-8,548.95	9,209.25	9,179.45	29.80	308.993		
2,800.00	2,795.53	3,224.08	3,208.70	12.51	18.42	-89.86	-3,404.27	-8,543.70	9,204.44	9,173.92	30.52	301.630		
2,900.00	2,895.32	3,262.00	3,246.28	12.94	18.62	-89.90	-3,408.09	-8,540.37	9,200.22	9,169.08	31.14	295.441		
3,000.00	2,995.10	3,334.14	3,317.75	13.37	18.99	-89.99	-3,415.78	-8,534.24	9,196.47	9,164.53	31.94	287.908		
3,100.00	3,094.89	3,404.97	3,387.86	13.80	19.35	-90.08	-3,423.93	-8,528.29	9,193.14	9,160.40	32.74	280.804		
3,200.00	3,194.67	3,579.58	3,560.83	14.23	20.25	-90.29	-3,442.56	-8,513.33	9,189.27	9,155.20	34.07	269.728		
3,300.00	3,294.46	3,640.00	3,620.64	14.66	20.57	-90.37	-3,449.36	-8,508.23	9,185.76	9,150.94	34.82	263.828		
3,400.00	3,394.24	4,083.94	4,057.00	15.09	23.13	-91.03	-3,509.81	-8,455.40	9,179.50	9,141.74	37.75	243.141		
3,500.00	3,494.03	4,134.32	4,106.41	15.52	23.43	-91.10	-3,516.91	-8,448.54	9,172.67	9,134.17	38.49	238.282		
3,600.00	3,593.81	4,189.78	4,160.95	15.96	23.75	-91.18	-3,524.12	-8,441.52	9,166.35	9,127.10	39.25	233.517		
3,700.00	3,693.60	4,241.84	4,212.20	16.39	24.06	-91.26	-3,530.73	-8,435.26	9,160.55	9,120.55	40.00	229.037		
3,800.00	3,793.38	4,301.00	4,270.26	16.82	24.40	-91.35	-3,539.47	-8,427.97	9,155.31	9,114.53	40.78	224.501		
3,900.00	3,893.17	4,339.90	4,308.40	17.26	24.63	-91.41	-3,545.54	-8,423.25	9,150.62	9,109.17	41.45	220.751		
4,000.00	3,992.95	4,396.00	4,363.53	17.69	24.96	-91.50	-3,553.80	-8,417.00	9,146.53	9,104.31	42.22	216.624		
4,100.00	4,092.74	4,453.25	4,419.90	18.13	25.29	-91.58	-3,561.80	-8,411.08	9,142.94	9,099.95	42.99	212.691		
4,200.00	4,192.52	4,512.03	4,477.86	18.56	25.62	-91.67	-3,569.76	-8,405.31	9,139.74	9,095.98	43.75	208.886		
4,300.00	4,292.31	4,558.62	4,523.88	19.00	25.87	-91.73	-3,575.73	-8,401.15	9,137.10	9,092.65	44.45	205.571		
4,400.00	4,392.09	4,585.00	4,549.97	19.43	26.01	-91.77	-3,578.97	-8,398.99	9,135.10	9,090.07	45.03	202.875		
4,500.00	4,491.88	4,642.71	4,607.15	19.87	26.30	-91.84	-3,585.57	-8,394.88	9,133.68	9,087.92	45.76	199.605		
4,600.00	4,591.66	4,680.00	4,644.17	20.31	26.49	-91.88	-3,589.45	-8,392.70	9,132.95	9,086.57	46.38	196.904		
4,660.91	4,652.44	4,708.43	4,672.43	20.57	26.62	-91.91	-3,592.25	-8,391.27	9,132.83	9,086.05	46.78	195.220		
4,700.00	4,691.44	4,724.64	4,688.54	20.74	26.70	-91.93	-3,593.82	-8,390.53	9,132.88	9,085.85	47.03	194.199		
4,800.00	4,791.23	4,924.09	4,887.20	21.18	27.59	-92.12	-3,609.43	-8,382.39	9,132.81	9,084.43	48.39	188.751		
4,900.00	4,891.01	4,982.02	4,944.98	21.62	27.84	-92.17	-3,613.00	-8,380.19	9,132.23	9,083.15	49.07	186.090		
4,968.34	4,959.20	5,019.34	4,982.22	21.92	27.99	-92.20	-3,615.16	-8,379.01	9,132.11	9,082.58	49.53	184.374		

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



Anticollision Report



Company:	SRC ENERGY	Local Co-ordinate Reference:	Well HARVESTERS STATE 31C-16-M
Project:	SECTION 15, T6N, R66W	TVD Reference:	KB @ 4821.00ft
Reference Site:	HARVESTERS STATE 7-15 PAD	MD Reference:	KB @ 4821.00ft
Site Error:	3.28 ft	North Reference:	True
Reference Well:	HARVESTERS STATE 31C-16-M	Survey Calculation Method:	Minimum Curvature
Well Error:	3.28 ft	Output errors are at	2.45 sigma
Reference Wellbore	OH	Database:	EDM 5000.14 Single User Db
Reference Design:	PLAN #1	Offset TVD Reference:	Reference Datum

Offset Design HARVESTERS STATE 7-15 PAD - FRITZLER 8-8-17(PR_150CC) - OH - OH													Offset Site Error:	0.00 ft
Survey Program: 172-MWD													Offset Well Error:	3.28 ft
Reference		Offset		Semi Major Axis			Distance							Warning
Measured Depth (ft)	Vertical Depth (ft)	Measured Depth (ft)	Vertical Depth (ft)	Reference (ft)	Offset (ft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (ft)	+E/-W (ft)	Between Centres (ft)	Between Ellipses (ft)	Minimum Separation (ft)	Separation Factor		
5,000.00	4,990.80	5,036.65	4,999.49	22.06	28.07	-92.22	-3,616.12	-8,378.53	9,132.14	9,082.40	49.74	183.591		
5,100.00	5,090.58	5,176.91	5,139.66	22.50	28.59	-92.30	-3,619.77	-8,376.38	9,132.13	9,081.41	50.72	180.061		
5,178.05	5,168.47	5,229.99	5,192.74	22.84	28.77	-92.32	-3,619.72	-8,376.16	9,132.02	9,080.78	51.24	178.236		
5,200.00	5,190.37	5,249.00	5,211.75	22.93	28.83	-92.33	-3,619.70	-8,376.13	9,132.03	9,080.63	51.40	177.681		
5,300.00	5,290.15	5,307.50	5,270.25	23.37	29.03	-92.35	-3,619.74	-8,376.13	9,132.31	9,080.29	52.02	175.541		
5,400.00	5,389.94	5,381.96	5,344.71	23.81	29.27	-92.39	-3,620.03	-8,376.32	9,132.98	9,080.27	52.71	173.275		
5,500.00	5,489.72	5,472.67	5,435.41	24.25	29.57	-92.43	-3,620.50	-8,376.65	9,133.80	9,080.35	53.45	170.881		
5,600.00	5,589.51	5,563.37	5,526.11	24.69	29.87	-92.46	-3,621.05	-8,377.03	9,134.72	9,080.53	54.19	168.553		
5,700.00	5,689.29	5,663.55	5,626.29	25.13	30.20	-92.51	-3,621.73	-8,377.52	9,135.74	9,080.77	54.97	166.195		
5,800.00	5,789.08	5,781.12	5,743.86	25.56	30.58	-92.56	-3,622.25	-8,378.04	9,136.62	9,080.82	55.80	163.734		
5,900.00	5,888.86	5,898.74	5,861.48	26.00	30.96	-92.61	-3,622.40	-8,378.49	9,137.32	9,080.68	56.63	161.340		
6,000.00	5,988.65	5,999.14	5,961.87	26.44	31.31	-92.65	-3,622.55	-8,378.74	9,137.91	9,080.49	57.42	159.131		
6,100.00	6,088.43	6,098.66	6,061.39	26.88	31.65	-92.69	-3,623.13	-8,378.78	9,138.51	9,080.30	58.21	156.986		
6,200.00	6,188.22	6,203.81	6,166.54	27.32	32.02	-92.74	-3,624.22	-8,378.60	9,139.12	9,080.09	59.03	154.829		
6,300.00	6,288.00	6,354.17	6,316.88	27.76	32.59	-92.82	-3,626.06	-8,377.65	9,139.40	9,079.34	60.05	152.195		
6,400.00	6,387.79	6,504.45	6,467.14	28.20	33.17	-92.89	-3,627.95	-8,375.75	9,139.13	9,078.06	61.07	149.642		
6,500.00	6,487.57	6,558.15	6,520.82	28.64	33.38	-92.92	-3,628.87	-8,375.08	9,138.97	9,077.24	61.73	148.049		
6,509.44	6,496.99	6,564.92	6,527.59	28.68	33.41	-92.93	-3,629.00	-8,374.99	9,138.96	9,077.17	61.80	147.885		
6,600.00	6,587.35	6,629.80	6,592.46	29.08	33.67	-92.96	-3,630.32	-8,374.20	9,139.09	9,076.64	62.45	146.335		
6,700.00	6,687.02	6,701.31	6,663.95	29.52	33.95	-55.18	-3,632.09	-8,373.43	9,137.53	9,074.36	63.18	144.636		
6,800.00	6,784.98	6,782.04	6,744.63	29.96	34.27	-39.82	-3,634.40	-8,372.66	9,123.79	9,059.86	63.93	142.705		
6,900.00	6,878.81	6,889.84	6,852.39	30.41	34.70	-36.63	-3,637.19	-8,371.73	9,096.39	9,031.60	64.80	140.386		
7,000.00	6,966.21	6,990.26	6,952.79	30.86	35.09	-36.72	-3,639.27	-8,370.95	9,055.95	8,990.34	65.61	138.033		
7,100.00	7,045.03	7,094.69	7,057.20	31.35	35.51	-38.83	-3,640.98	-8,370.14	9,003.50	8,937.09	66.41	135.569		
7,200.00	7,113.32	7,195.01	7,157.51	31.90	35.91	-42.86	-3,642.58	-8,368.98	8,940.31	8,873.13	67.18	133.075		
7,300.00	7,169.40	7,276.17	7,238.64	32.57	36.23	-49.15	-3,643.86	-8,367.75	8,868.10	8,800.24	67.86	130.678		
7,400.00	7,211.89	7,336.33	7,298.79	33.38	36.47	-58.30	-3,644.80	-8,366.67	8,788.80	8,720.35	68.46	128.385		
7,500.00	7,239.75	7,374.30	7,336.75	34.35	36.63	-70.86	-3,645.39	-8,365.91	8,704.51	8,635.54	68.97	126.203		
7,600.00	7,252.28	7,389.50	7,351.94	35.47	36.69	-86.39	-3,645.63	-8,365.59	8,617.38	8,547.96	69.41	124.144		
7,700.00	7,252.75	7,387.07	7,349.51	36.73	36.68	-91.74	-3,645.59	-8,365.64	8,529.52	8,459.70	69.82	122.169		
7,800.00	7,252.38	7,383.47	7,345.91	38.16	36.66	-91.69	-3,645.54	-8,365.72	8,441.91	8,371.63	70.28	120.117		
7,900.00	7,252.02	7,379.91	7,342.36	39.74	36.65	-91.64	-3,645.48	-8,365.79	8,354.58	8,283.77	70.81	117.982		
8,000.00	7,251.65	7,376.40	7,338.84	41.47	36.63	-91.59	-3,645.43	-8,365.86	8,267.53	8,196.12	71.41	115.769		
8,100.00	7,251.29	7,372.92	7,335.37	43.31	36.62	-91.54	-3,645.37	-8,365.94	8,180.78	8,108.69	72.09	113.487		
8,200.00	7,250.92	7,369.48	7,331.93	45.26	36.61	-91.49	-3,645.32	-8,366.01	8,094.33	8,021.50	72.83	111.142		
8,300.00	7,250.55	7,366.09	7,328.54	47.30	36.59	-91.45	-3,645.27	-8,366.08	8,008.20	7,934.55	73.64	108.744		
8,400.00	7,250.19	7,362.73	7,325.18	49.42	36.58	-91.40	-3,645.21	-8,366.15	7,922.39	7,847.86	74.53	106.300		
8,500.00	7,249.82	7,359.41	7,321.86	51.62	36.57	-91.35	-3,645.16	-8,366.21	7,836.91	7,761.43	75.49	103.820		
8,600.00	7,249.45	7,356.12	7,318.57	53.88	36.55	-91.31	-3,645.11	-8,366.28	7,751.79	7,675.27	76.51	101.312		
8,700.00	7,249.09	7,352.87	7,315.32	56.19	36.54	-91.26	-3,645.06	-8,366.34	7,667.02	7,589.40	77.61	98.784		
8,800.00	7,248.72	7,349.66	7,312.11	58.55	36.53	-91.22	-3,645.01	-8,366.41	7,582.62	7,503.84	78.78	96.245		
8,900.00	7,248.36	7,346.48	7,308.94	60.96	36.51	-91.17	-3,644.96	-8,366.47	7,498.60	7,418.58	80.02	93.703		
9,000.00	7,247.99	7,343.34	7,305.79	63.40	36.50	-91.13	-3,644.91	-8,366.53	7,414.98	7,333.65	81.34	91.165		
9,100.00	7,247.62	7,340.23	7,302.68	65.87	36.49	-91.08	-3,644.86	-8,366.59	7,331.77	7,249.06	82.72	88.638		
9,200.00	7,247.26	7,337.15	7,299.61	68.38	36.48	-91.04	-3,644.81	-8,366.65	7,248.99	7,164.82	84.17	86.128		
9,300.00	7,246.89	7,334.11	7,296.57	70.91	36.46	-91.00	-3,644.77	-8,366.71	7,166.64	7,080.95	85.68	83.640		
9,400.00	7,246.53	7,331.10	7,293.56	73.47	36.45	-90.96	-3,644.72	-8,366.77	7,084.74	6,997.47	87.27	81.181		
9,500.00	7,246.16	7,328.12	7,290.58	76.05	36.44	-90.91	-3,644.67	-8,366.83	7,003.31	6,914.39	88.93	78.754		
9,600.00	7,245.79	7,325.17	7,287.63	78.65	36.43	-90.87	-3,644.63	-8,366.88	6,922.37	6,831.72	90.65	76.364		
9,700.00	7,245.43	7,322.25	7,284.72	81.27	36.42	-90.83	-3,644.58	-8,366.94	6,841.93	6,749.49	92.44	74.014		
9,800.00	7,245.06	7,319.37	7,281.83	83.90	36.41	-90.79	-3,644.54	-8,366.99	6,762.02	6,667.72	94.30	71.707		
9,900.00	7,244.69	7,316.51	7,278.97	86.55	36.39	-90.75	-3,644.49	-8,367.04	6,682.64	6,586.41	96.23	69.447		

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



Anticollision Report



Company:	SRC ENERGY	Local Co-ordinate Reference:	Well HARVESTERS STATE 31C-16-M
Project:	SECTION 15, T6N, R66W	TVD Reference:	KB @ 4821.00ft
Reference Site:	HARVESTERS STATE 7-15 PAD	MD Reference:	KB @ 4821.00ft
Site Error:	3.28 ft	North Reference:	True
Reference Well:	HARVESTERS STATE 31C-16-M	Survey Calculation Method:	Minimum Curvature
Well Error:	3.28 ft	Output errors are at	2.45 sigma
Reference Wellbore	OH	Database:	EDM 5000.14 Single User Db
Reference Design:	PLAN #1	Offset TVD Reference:	Reference Datum

Offset Design HARVESTERS STATE 7-15 PAD - FRITZLER 8-8-17(PR_150CC) - OH - OH													Offset Site Error:	0.00 ft
Survey Program: 172-MWD													Offset Well Error:	3.28 ft
Reference		Offset		Semi Major Axis			Distance							Warning
Measured Depth (ft)	Vertical Depth (ft)	Measured Depth (ft)	Vertical Depth (ft)	Reference (ft)	Offset (ft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (ft)	+E/-W (ft)	Between Centres (ft)	Between Ellipses (ft)	Minimum Separation (ft)	Separation Factor		
10,000.00	7,244.33	7,313.68	7,276.15	89.21	36.38	-90.71	-3,644.45	-8,367.09	6,603.82	6,505.60	98.22	67.234		
10,100.00	7,243.96	7,310.88	7,273.35	91.88	36.37	-90.67	-3,644.40	-8,367.14	6,525.58	6,425.30	100.28	65.071		
10,200.00	7,243.60	7,308.11	7,270.58	94.56	36.36	-90.63	-3,644.36	-8,367.20	6,447.95	6,345.53	102.41	62.960		
10,300.00	7,243.23	7,305.37	7,267.84	97.26	36.35	-90.60	-3,644.32	-8,367.24	6,370.93	6,266.32	104.61	60.901		
10,400.00	7,242.86	7,302.66	7,265.13	99.96	36.34	-90.56	-3,644.27	-8,367.29	6,294.56	6,187.68	106.88	58.896		
10,500.00	7,242.50	7,299.97	7,262.44	102.67	36.33	-90.52	-3,644.23	-8,367.34	6,218.86	6,109.65	109.21	56.944		
10,600.00	7,242.13	7,297.31	7,259.78	105.39	36.32	-90.48	-3,644.19	-8,367.39	6,143.85	6,032.24	111.61	55.046		
10,700.00	7,241.76	7,294.68	7,257.15	108.12	36.31	-90.45	-3,644.15	-8,367.43	6,069.57	5,955.48	114.08	53.203		
10,800.00	7,241.40	7,292.07	7,254.54	110.85	36.30	-90.41	-3,644.11	-8,367.48	5,996.03	5,879.41	116.62	51.415		
10,900.00	7,241.03	7,289.49	7,251.96	113.59	36.29	-90.37	-3,644.07	-8,367.53	5,923.26	5,804.03	119.23	49.680		
11,000.00	7,240.67	7,286.93	7,249.40	116.34	36.28	-90.34	-3,644.03	-8,367.57	5,851.30	5,729.39	121.90	47.999		
11,100.00	7,240.30	7,284.40	7,246.87	119.09	36.27	-90.30	-3,643.99	-8,367.61	5,780.17	5,655.52	124.65	46.372		
11,200.00	7,239.93	7,281.89	7,244.37	121.85	36.26	-90.27	-3,643.95	-8,367.66	5,709.90	5,582.44	127.46	44.797		
11,300.00	7,239.57	7,279.41	7,241.89	124.61	36.25	-90.23	-3,643.91	-8,367.70	5,640.54	5,510.19	130.34	43.275		
11,400.00	7,239.20	7,276.95	7,239.43	127.38	36.24	-90.20	-3,643.87	-8,367.74	5,572.10	5,438.81	133.29	41.804		
11,500.00	7,238.84	7,274.52	7,236.99	130.15	36.23	-90.16	-3,643.83	-8,367.78	5,504.63	5,368.32	136.31	40.383		
11,600.00	7,238.47	7,272.10	7,234.58	132.92	36.22	-90.13	-3,643.79	-8,367.82	5,438.15	5,298.76	139.39	39.013		
11,700.00	7,238.10	7,269.71	7,232.19	135.70	36.21	-90.10	-3,643.76	-8,367.86	5,372.72	5,230.18	142.54	37.692		
11,800.00	7,237.74	7,267.35	7,229.82	138.48	36.20	-90.06	-3,643.72	-8,367.90	5,308.36	5,162.60	145.76	36.418		
11,900.00	7,237.37	7,265.00	7,227.48	141.26	36.19	-90.03	-3,643.68	-8,367.94	5,245.12	5,096.08	149.04	35.192		
12,000.00	7,237.00	7,262.68	7,225.16	144.05	36.18	-90.00	-3,643.64	-8,367.98	5,183.04	5,030.65	152.39	34.013		
12,100.00	7,236.64	7,260.38	7,222.86	146.84	36.17	-89.97	-3,643.61	-8,368.01	5,122.15	4,966.36	155.79	32.878		
12,200.00	7,236.27	7,258.10	7,220.58	149.64	36.16	-89.93	-3,643.57	-8,368.05	5,062.51	4,903.25	159.26	31.788		
12,300.00	7,235.91	7,255.84	7,218.32	152.43	36.15	-89.90	-3,643.54	-8,368.09	5,004.15	4,841.37	162.78	30.742		
12,400.00	7,235.54	7,253.60	7,216.08	155.23	36.14	-89.87	-3,643.50	-8,368.12	4,947.13	4,780.77	166.36	29.738		
12,500.00	7,235.17	7,251.38	7,213.86	158.03	36.13	-89.84	-3,643.47	-8,368.16	4,891.48	4,721.49	169.99	28.775		
12,600.00	7,234.81	7,249.19	7,211.67	160.83	36.13	-89.81	-3,643.43	-8,368.19	4,837.26	4,663.59	173.67	27.853		
12,700.00	7,234.44	7,247.01	7,209.49	163.64	36.12	-89.78	-3,643.40	-8,368.23	4,784.52	4,607.12	177.40	26.971		
12,800.00	7,234.07	7,244.85	7,207.33	166.44	36.11	-89.75	-3,643.36	-8,368.26	4,733.30	4,552.13	181.16	26.127		
12,900.00	7,233.71	7,242.71	7,205.19	169.25	36.10	-89.72	-3,643.33	-8,368.29	4,683.65	4,498.68	184.97	25.321		
13,000.00	7,233.34	7,240.59	7,203.07	172.06	36.09	-89.69	-3,643.30	-8,368.33	4,635.63	4,446.82	188.81	24.552		
13,100.00	7,232.98	7,238.49	7,200.97	174.88	36.08	-89.66	-3,643.26	-8,368.36	4,589.29	4,396.61	192.68	23.818		
13,200.00	7,232.61	7,236.41	7,198.89	177.69	36.07	-89.63	-3,643.23	-8,368.39	4,544.67	4,348.10	196.57	23.120		
13,300.00	7,232.24	7,234.34	7,196.83	180.50	36.07	-89.60	-3,643.20	-8,368.42	4,501.83	4,301.36	200.47	22.456		
13,400.00	7,231.88	7,232.30	7,194.78	183.32	36.06	-89.57	-3,643.17	-8,368.45	4,460.82	4,256.43	204.39	21.825		
13,500.00	7,231.51	7,230.27	7,192.76	186.14	36.05	-89.54	-3,643.13	-8,368.48	4,421.70	4,213.39	208.31	21.226		
13,600.00	7,231.15	7,228.26	7,190.75	188.96	36.04	-89.52	-3,643.10	-8,368.51	4,384.50	4,172.27	212.23	20.660		
13,700.00	7,230.78	7,226.27	7,188.75	191.78	36.03	-89.49	-3,643.07	-8,368.54	4,349.28	4,133.15	216.13	20.123		
13,800.00	7,230.41	7,224.29	7,186.78	194.60	36.03	-89.46	-3,643.04	-8,368.57	4,316.10	4,096.08	220.01	19.617		
13,900.00	7,230.05	7,222.33	7,184.82	197.42	36.02	-89.43	-3,643.01	-8,368.60	4,284.99	4,061.11	223.87	19.140		
14,000.00	7,229.68	7,220.39	7,182.88	200.25	36.01	-89.40	-3,642.98	-8,368.63	4,256.00	4,028.31	227.69	18.692		
14,100.00	7,229.31	7,218.46	7,180.95	203.07	36.00	-89.38	-3,642.95	-8,368.66	4,229.17	3,997.71	231.47	18.271		
14,200.00	7,228.95	7,216.55	7,179.04	205.90	36.00	-89.35	-3,642.92	-8,368.68	4,204.56	3,969.37	235.19	17.877		
14,300.00	7,228.58	7,214.66	7,177.15	208.73	35.99	-89.32	-3,642.89	-8,368.71	4,182.19	3,943.34	238.85	17.510		
14,400.00	7,228.22	7,212.78	7,175.27	211.55	35.98	-89.30	-3,642.86	-8,368.74	4,162.10	3,919.66	242.44	17.168		
14,500.00	7,227.85	7,210.92	7,173.41	214.38	35.97	-89.27	-3,642.83	-8,368.76	4,144.33	3,898.38	245.95	16.851		
14,600.00	7,227.48	7,209.07	7,171.56	217.21	35.97	-89.25	-3,642.80	-8,368.79	4,128.90	3,879.54	249.37	16.558		
14,700.00	7,227.12	7,207.24	7,169.73	220.04	35.96	-89.22	-3,642.77	-8,368.82	4,115.85	3,863.16	252.69	16.288		
14,800.00	7,226.75	7,205.43	7,167.92	222.88	35.95	-89.20	-3,642.74	-8,368.84	4,105.18	3,849.28	255.91	16.042		
14,900.00	7,226.38	7,203.63	7,166.12	225.71	35.94	-89.17	-3,642.71	-8,368.87	4,096.94	3,837.92	259.01	15.817		
15,000.00	7,226.02	7,201.84	7,164.33	228.54	35.94	-89.14	-3,642.68	-8,368.89	4,091.12	3,829.11	262.00	15.615		
15,005.81	7,226.00	7,201.74	7,164.23	228.71	35.94	-89.14	-3,642.68	-8,368.89	4,090.85	3,828.68	262.17	15.604	CC, ES, SF	

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



Company:	SRC ENERGY	Local Co-ordinate Reference:	Well HARVESTERS STATE 31C-16-M
Project:	SECTION 15, T6N, R66W	TVD Reference:	KB @ 4821.00ft
Reference Site:	HARVESTERS STATE 7-15 PAD	MD Reference:	KB @ 4821.00ft
Site Error:	3.28 ft	North Reference:	True
Reference Well:	HARVESTERS STATE 31C-16-M	Survey Calculation Method:	Minimum Curvature
Well Error:	3.28 ft	Output errors are at	2.45 sigma
Reference Wellbore	OH	Database:	EDM 5000.14 Single User Db
Reference Design:	PLAN #1	Offset TVD Reference:	Reference Datum



Anticollision Report



Company:	SRC ENERGY	Local Co-ordinate Reference:	Well HARVESTERS STATE 31C-16-M
Project:	SECTION 15, T6N, R66W	TVD Reference:	KB @ 4821.00ft
Reference Site:	HARVESTERS STATE 7-15 PAD	MD Reference:	KB @ 4821.00ft
Site Error:	3.28 ft	North Reference:	True
Reference Well:	HARVESTERS STATE 31C-16-M	Survey Calculation Method:	Minimum Curvature
Well Error:	3.28 ft	Output errors are at	2.45 sigma
Reference Wellbore	OH	Database:	EDM 5000.14 Single User Db
Reference Design:	PLAN #1	Offset TVD Reference:	Reference Datum

Offset Design HARVESTERS STATE 7-15 PAD - GREELEY SWD #1(XX) - OH - OH													Offset Site Error:	0.00 ft
Survey Program: 100-2" Cone@2.448 Sigma													Offset Well Error:	3.28 ft
Reference		Offset		Semi Major Axis			Distance							Warning
Measured Depth (ft)	Vertical Depth (ft)	Measured Depth (ft)	Vertical Depth (ft)	Reference (ft)	Offset (ft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (ft)	+E/-W (ft)	Between Centres (ft)	Between Ellipses (ft)	Minimum Separation (ft)	Separation Factor		
0.00	0.00	0.00	65.00	3.28	3.28	-134.78	-3,346.27	-3,371.76	4,750.85					
100.00	100.00	35.00	100.00	3.28	3.34	-134.78	-3,346.27	-3,371.76	4,750.40	4,743.78	6.62	717.461		
200.00	200.00	135.00	200.00	3.34	4.42	-134.78	-3,346.27	-3,371.76	4,750.40	4,742.64	7.76	612.157		
300.00	300.00	235.00	300.00	3.44	7.24	-134.78	-3,346.27	-3,371.76	4,750.40	4,739.71	10.69	444.443		
400.00	400.00	335.00	400.00	3.60	10.48	-134.78	-3,346.27	-3,371.76	4,750.40	4,736.32	14.08	337.401		
500.00	500.00	435.00	500.00	3.81	13.83	-134.78	-3,346.27	-3,371.76	4,750.40	4,732.76	17.64	269.285		
600.00	600.00	535.00	600.00	4.05	17.25	-134.78	-3,346.27	-3,371.76	4,750.40	4,729.11	21.29	223.103		
700.00	699.98	634.98	699.98	4.32	20.68	-111.89	-3,346.27	-3,371.76	4,751.05	4,726.05	25.00	190.037		
800.00	799.84	734.84	799.84	4.62	24.13	-111.92	-3,346.27	-3,371.76	4,753.00	4,724.25	28.75	165.346		
900.00	899.62	834.62	899.62	4.94	27.59	-111.99	-3,346.27	-3,371.76	4,755.45	4,722.93	32.52	146.237		
1,000.00	999.41	934.41	999.41	5.27	31.05	-112.06	-3,346.27	-3,371.76	4,757.92	4,721.60	36.32	131.013		
1,100.00	1,099.19	1,034.19	1,099.19	5.62	34.51	-112.14	-3,346.27	-3,371.76	4,760.39	4,720.26	40.13	118.615		
1,200.00	1,198.98	1,133.98	1,198.98	5.99	37.98	-112.21	-3,346.27	-3,371.76	4,762.87	4,718.90	43.97	108.333		
1,300.00	1,298.76	1,233.76	1,298.76	6.36	41.46	-112.28	-3,346.27	-3,371.76	4,765.36	4,717.55	47.81	99.673		
1,400.00	1,398.55	1,333.55	1,398.55	6.74	44.93	-112.36	-3,346.27	-3,371.76	4,767.85	4,716.19	51.66	92.284		
1,500.00	1,498.33	1,433.33	1,498.33	7.13	48.40	-112.43	-3,346.27	-3,371.76	4,770.35	4,714.83	55.53	85.909		
1,600.00	1,598.12	1,533.12	1,598.12	7.52	51.88	-112.50	-3,346.27	-3,371.76	4,772.87	4,713.47	59.40	80.353		
1,700.00	1,697.90	1,632.90	1,697.90	7.92	55.36	-112.57	-3,346.27	-3,371.76	4,775.38	4,712.11	63.28	75.470		
1,800.00	1,797.69	1,732.69	1,797.69	8.33	58.83	-112.65	-3,346.27	-3,371.76	4,777.91	4,710.75	67.16	71.145		
1,900.00	1,897.47	1,832.47	1,897.47	8.74	62.31	-112.72	-3,346.27	-3,371.76	4,780.44	4,709.40	71.04	67.289		
2,000.00	1,997.26	1,932.26	1,997.26	9.15	65.79	-112.79	-3,346.27	-3,371.76	4,782.98	4,708.05	74.93	63.830		
2,100.00	2,097.04	2,032.04	2,097.04	9.56	69.27	-112.86	-3,346.27	-3,371.76	4,785.53	4,706.71	78.83	60.710		
2,200.00	2,196.83	2,131.83	2,196.83	9.98	72.75	-112.94	-3,346.27	-3,371.76	4,788.09	4,705.37	82.72	57.881		
2,300.00	2,296.61	2,231.61	2,296.61	10.40	76.23	-113.01	-3,346.27	-3,371.76	4,790.65	4,704.03	86.62	55.306		
2,400.00	2,396.40	2,331.40	2,396.40	10.82	79.71	-113.08	-3,346.27	-3,371.76	4,793.22	4,702.70	90.52	52.951		
2,500.00	2,496.18	2,431.18	2,496.18	11.24	83.19	-113.15	-3,346.27	-3,371.76	4,795.80	4,701.38	94.43	50.790		
2,600.00	2,595.96	2,530.96	2,595.96	11.66	86.67	-113.22	-3,346.27	-3,371.76	4,798.39	4,700.06	98.33	48.799		
2,700.00	2,695.75	2,630.75	2,695.75	12.09	90.15	-113.30	-3,346.27	-3,371.76	4,800.99	4,698.75	102.24	46.960		
2,800.00	2,795.53	2,730.53	2,795.53	12.51	93.64	-113.37	-3,346.27	-3,371.76	4,803.59	4,697.44	106.14	45.256		
2,900.00	2,895.32	2,830.32	2,895.32	12.94	97.12	-113.44	-3,346.27	-3,371.76	4,806.20	4,696.14	110.05	43.672		
3,000.00	2,995.10	2,930.10	2,995.10	13.37	100.60	-113.51	-3,346.27	-3,371.76	4,808.81	4,694.85	113.96	42.197		
3,100.00	3,094.89	3,029.89	3,094.89	13.80	104.08	-113.58	-3,346.27	-3,371.76	4,811.44	4,693.57	117.87	40.819		
3,200.00	3,194.67	3,129.67	3,194.67	14.23	107.56	-113.65	-3,346.27	-3,371.76	4,814.07	4,692.29	121.79	39.529		
3,300.00	3,294.46	3,229.46	3,294.46	14.66	111.04	-113.72	-3,346.27	-3,371.76	4,816.71	4,691.01	125.70	38.320		
3,400.00	3,394.24	3,329.24	3,394.24	15.09	114.53	-113.80	-3,346.27	-3,371.76	4,819.36	4,689.75	129.61	37.183		
3,500.00	3,494.03	3,429.03	3,494.03	15.52	118.01	-113.87	-3,346.27	-3,371.76	4,822.01	4,688.49	133.53	36.113		
3,600.00	3,593.81	3,528.81	3,593.81	15.96	121.49	-113.94	-3,346.27	-3,371.76	4,824.67	4,687.23	137.44	35.104		
3,700.00	3,693.60	3,628.60	3,693.60	16.39	124.97	-114.01	-3,346.27	-3,371.76	4,827.34	4,685.99	141.36	34.150		
3,800.00	3,793.38	3,728.38	3,793.38	16.82	128.45	-114.08	-3,346.27	-3,371.76	4,830.02	4,684.75	145.27	33.248		
3,900.00	3,893.17	3,828.17	3,893.17	17.26	131.94	-114.15	-3,346.27	-3,371.76	4,832.70	4,683.51	149.19	32.393		
4,000.00	3,992.95	3,927.95	3,992.95	17.69	135.42	-114.22	-3,346.27	-3,371.76	4,835.39	4,682.29	153.11	31.582		
4,100.00	4,092.74	4,027.74	4,092.74	18.13	138.90	-114.29	-3,346.27	-3,371.76	4,838.09	4,681.07	157.02	30.811		
4,200.00	4,192.52	4,127.52	4,192.52	18.56	142.38	-114.36	-3,346.27	-3,371.76	4,840.80	4,679.86	160.94	30.078		
4,300.00	4,292.31	4,227.31	4,292.31	19.00	145.87	-114.43	-3,346.27	-3,371.76	4,843.51	4,678.65	164.86	29.380		
4,400.00	4,392.09	4,327.09	4,392.09	19.43	149.35	-114.50	-3,346.27	-3,371.76	4,846.23	4,677.46	168.78	28.714		
4,500.00	4,491.88	4,426.88	4,491.88	19.87	152.83	-114.57	-3,346.27	-3,371.76	4,848.96	4,676.27	172.70	28.078		
4,600.00	4,591.66	4,526.66	4,591.66	20.31	156.31	-114.64	-3,346.27	-3,371.76	4,851.70	4,675.08	176.62	27.470		
4,700.00	4,691.44	4,626.44	4,691.44	20.74	159.80	-114.72	-3,346.27	-3,371.76	4,854.44	4,673.91	180.54	26.889		
4,800.00	4,791.23	4,726.23	4,791.23	21.18	163.28	-114.79	-3,346.27	-3,371.76	4,857.19	4,672.74	184.46	26.332		
4,900.00	4,891.01	4,826.01	4,891.01	21.62	166.76	-114.86	-3,346.27	-3,371.76	4,859.95	4,671.57	188.38	25.799		
5,000.00	4,990.80	4,925.80	4,990.80	22.06	170.25	-114.93	-3,346.27	-3,371.76	4,862.72	4,670.42	192.30	25.287		
5,100.00	5,090.58	5,025.58	5,090.58	22.50	173.73	-115.00	-3,346.27	-3,371.76	4,865.49	4,669.27	196.22	24.796		

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



Anticollision Report



Company:	SRC ENERGY	Local Co-ordinate Reference:	Well HARVESTERS STATE 31C-16-M
Project:	SECTION 15, T6N, R66W	TVD Reference:	KB @ 4821.00ft
Reference Site:	HARVESTERS STATE 7-15 PAD	MD Reference:	KB @ 4821.00ft
Site Error:	3.28 ft	North Reference:	True
Reference Well:	HARVESTERS STATE 31C-16-M	Survey Calculation Method:	Minimum Curvature
Well Error:	3.28 ft	Output errors are at	2.45 sigma
Reference Wellbore	OH	Database:	EDM 5000.14 Single User Db
Reference Design:	PLAN #1	Offset TVD Reference:	Reference Datum

Offset Design HARVESTERS STATE 7-15 PAD - GREELEY SWD #1(XX) - OH - OH													Offset Site Error:	0.00 ft
Survey Program: 100-2" Cone@2.448 Sigma													Offset Well Error:	3.28 ft
Reference		Offset		Semi Major Axis			Distance							Warning
Measured Depth (ft)	Vertical Depth (ft)	Measured Depth (ft)	Vertical Depth (ft)	Reference (ft)	Offset (ft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (ft)	+E/-W (ft)	Between Centres (ft)	Between Ellipses (ft)	Minimum Separation (ft)	Separation Factor		
5,200.00	5,190.37	5,125.37	5,190.37	22.93	177.21	-115.07	-3,346.27	-3,371.76	4,868.27	4,668.13	200.14	24.324		
5,300.00	5,290.15	5,225.15	5,290.15	23.37	180.69	-115.13	-3,346.27	-3,371.76	4,871.05	4,666.99	204.06	23.871		
5,400.00	5,389.94	5,324.94	5,389.94	23.81	184.18	-115.20	-3,346.27	-3,371.76	4,873.85	4,665.87	207.98	23.434		
5,500.00	5,489.72	5,424.72	5,489.72	24.25	187.66	-115.27	-3,346.27	-3,371.76	4,876.65	4,664.75	211.90	23.014		
5,600.00	5,589.51	5,524.51	5,589.51	24.69	191.14	-115.34	-3,346.27	-3,371.76	4,879.46	4,663.63	215.82	22.608		
5,700.00	5,689.29	5,624.29	5,689.29	25.13	194.63	-115.41	-3,346.27	-3,371.76	4,882.27	4,662.53	219.75	22.218		
5,800.00	5,789.08	5,724.08	5,789.08	25.56	198.11	-115.48	-3,346.27	-3,371.76	4,885.10	4,661.43	223.67	21.841		
5,900.00	5,888.86	5,823.86	5,888.86	26.00	201.59	-115.55	-3,346.27	-3,371.76	4,887.93	4,660.33	227.59	21.477		
6,000.00	5,988.65	5,923.65	5,988.65	26.44	205.08	-115.62	-3,346.27	-3,371.76	4,890.76	4,659.25	231.51	21.125		
6,100.00	6,088.43	6,023.43	6,088.43	26.88	208.56	-115.69	-3,346.27	-3,371.76	4,893.61	4,658.17	235.43	20.785		
6,200.00	6,188.22	6,123.22	6,188.22	27.32	212.04	-115.76	-3,346.27	-3,371.76	4,896.46	4,657.10	239.36	20.457		
6,300.00	6,288.00	6,223.00	6,288.00	27.76	215.52	-115.83	-3,346.27	-3,371.76	4,899.32	4,656.04	243.28	20.139		
6,400.00	6,387.79	6,322.79	6,387.79	28.20	219.01	-115.90	-3,346.27	-3,371.76	4,902.18	4,654.98	247.20	19.831		
6,500.00	6,487.57	6,422.57	6,487.57	28.64	222.49	-115.97	-3,346.27	-3,371.76	4,905.05	4,653.93	251.13	19.532		
6,600.00	6,587.35	6,522.35	6,587.35	29.08	225.97	-116.03	-3,346.27	-3,371.76	4,907.93	4,652.89	255.05	19.243		
6,700.00	6,687.02	6,622.02	6,687.02	29.52	229.45	-78.22	-3,346.27	-3,371.76	4,909.37	4,650.40	258.97	18.957		
6,800.00	6,784.98	6,719.98	6,784.98	29.96	232.87	-62.95	-3,346.27	-3,371.76	4,901.74	4,638.91	262.83	18.650		
6,900.00	6,878.81	6,813.81	6,878.81	30.41	236.15	-59.97	-3,346.27	-3,371.76	4,884.24	4,617.70	266.54	18.325		
7,000.00	6,966.21	6,901.21	6,966.21	30.86	239.20	-60.34	-3,346.27	-3,371.76	4,857.52	4,587.49	270.03	17.989		
7,100.00	7,045.03	6,980.03	7,045.03	31.35	241.95	-62.50	-3,346.27	-3,371.76	4,822.47	4,549.25	273.22	17.650		
7,200.00	7,113.32	7,048.32	7,113.32	31.90	244.33	-66.00	-3,346.27	-3,371.76	4,780.27	4,504.18	276.09	17.314		
7,300.00	7,169.40	7,104.40	7,169.40	32.57	246.29	-70.57	-3,346.27	-3,371.76	4,732.25	4,453.66	278.59	16.986		
7,400.00	7,211.89	7,146.89	7,211.89	33.38	247.77	-75.99	-3,346.27	-3,371.76	4,679.92	4,399.20	280.72	16.671		
7,500.00	7,239.75	7,174.75	7,239.75	34.35	248.75	-81.96	-3,346.27	-3,371.76	4,624.81	4,342.35	282.46	16.373		
7,600.00	7,252.28	7,187.28	7,252.28	35.47	249.18	-88.14	-3,346.27	-3,371.76	4,568.48	4,284.69	283.79	16.098		
7,700.00	7,252.75	7,187.75	7,252.75	36.73	249.20	-90.14	-3,346.27	-3,371.76	4,512.53	4,227.71	284.82	15.843		
7,800.00	7,252.38	7,187.38	7,252.38	38.16	249.19	-90.13	-3,346.27	-3,371.76	4,458.07	4,172.07	286.00	15.588		
7,900.00	7,252.02	7,187.02	7,252.02	39.74	249.18	-90.13	-3,346.27	-3,371.76	4,405.21	4,117.87	287.34	15.331		
8,000.00	7,251.65	7,186.65	7,251.65	41.47	249.16	-90.12	-3,346.27	-3,371.76	4,354.00	4,065.16	288.84	15.074		
8,100.00	7,251.29	7,186.29	7,251.29	43.31	249.15	-90.12	-3,346.27	-3,371.76	4,304.51	4,014.02	290.49	14.818		
8,200.00	7,250.92	7,185.92	7,250.92	45.26	249.14	-90.11	-3,346.27	-3,371.76	4,256.79	3,964.50	292.29	14.564		
8,300.00	7,250.55	7,185.55	7,250.55	47.30	249.12	-90.11	-3,346.27	-3,371.76	4,210.91	3,916.69	294.22	14.312		
8,400.00	7,250.19	7,185.19	7,250.19	49.42	249.11	-90.10	-3,346.27	-3,371.76	4,166.92	3,870.65	296.27	14.065		
8,500.00	7,249.82	7,184.82	7,249.82	51.62	249.10	-90.09	-3,346.27	-3,371.76	4,124.89	3,826.45	298.43	13.822		
8,600.00	7,249.45	7,184.45	7,249.45	53.88	249.09	-90.09	-3,346.27	-3,371.76	4,084.87	3,784.16	300.71	13.584		
8,700.00	7,249.09	7,184.09	7,249.09	56.19	249.07	-90.08	-3,346.27	-3,371.76	4,046.93	3,743.86	303.07	13.353		
8,800.00	7,248.72	7,183.72	7,248.72	58.55	249.06	-90.08	-3,346.27	-3,371.76	4,011.12	3,705.60	305.52	13.129		
8,900.00	7,248.36	7,183.36	7,248.36	60.96	249.05	-90.07	-3,346.27	-3,371.76	3,977.51	3,669.46	308.05	12.912		
9,000.00	7,247.99	7,182.99	7,247.99	63.40	249.03	-90.07	-3,346.27	-3,371.76	3,946.14	3,635.50	310.64	12.703		
9,100.00	7,247.62	7,182.62	7,247.62	65.87	249.02	-90.06	-3,346.27	-3,371.76	3,917.08	3,603.79	313.28	12.503		
9,200.00	7,247.26	7,182.26	7,247.26	68.38	249.01	-90.06	-3,346.27	-3,371.76	3,890.37	3,574.39	315.98	12.312		
9,300.00	7,246.89	7,181.89	7,246.89	70.91	249.00	-90.05	-3,346.27	-3,371.76	3,866.06	3,547.35	318.71	12.130		
9,400.00	7,246.53	7,181.53	7,246.53	73.47	248.98	-90.04	-3,346.27	-3,371.76	3,844.20	3,522.74	321.47	11.958		
9,500.00	7,246.16	7,181.16	7,246.16	76.05	248.97	-90.04	-3,346.27	-3,371.76	3,824.84	3,500.59	324.24	11.796		
9,600.00	7,245.79	7,180.79	7,245.79	78.65	248.96	-90.03	-3,346.27	-3,371.76	3,808.00	3,480.97	327.03	11.644		
9,700.00	7,245.43	7,180.43	7,245.43	81.27	248.95	-90.03	-3,346.27	-3,371.76	3,793.72	3,463.91	329.81	11.503		
9,800.00	7,245.06	7,180.06	7,245.06	83.90	248.93	-90.02	-3,346.27	-3,371.76	3,782.03	3,449.45	332.59	11.372		
9,900.00	7,244.69	7,179.69	7,244.69	86.55	248.92	-90.02	-3,346.27	-3,371.76	3,772.96	3,437.62	335.34	11.251		
10,000.00	7,244.33	7,179.33	7,244.33	89.21	248.91	-90.01	-3,346.27	-3,371.76	3,766.52	3,428.45	338.08	11.141		
10,100.00	7,243.96	7,178.96	7,243.96	91.88	248.89	-90.01	-3,346.27	-3,371.76	3,762.73	3,421.96	340.77	11.042		
10,192.68	7,243.62	7,178.62	7,243.62	94.37	248.88	-90.00	-3,346.27	-3,371.76	3,761.59	3,418.36	343.23	10.959 CC		
10,200.00	7,243.60	7,178.60	7,243.60	94.56	248.88	-90.00	-3,346.27	-3,371.76	3,761.60	3,418.17	343.43	10.953		

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



Anticollision Report



Company:	SRC ENERGY	Local Co-ordinate Reference:	Well HARVESTERS STATE 31C-16-M
Project:	SECTION 15, T6N, R66W	TVD Reference:	KB @ 4821.00ft
Reference Site:	HARVESTERS STATE 7-15 PAD	MD Reference:	KB @ 4821.00ft
Site Error:	3.28 ft	North Reference:	True
Reference Well:	HARVESTERS STATE 31C-16-M	Survey Calculation Method:	Minimum Curvature
Well Error:	3.28 ft	Output errors are at	2.45 sigma
Reference Wellbore	OH	Database:	EDM 5000.14 Single User Db
Reference Design:	PLAN #1	Offset TVD Reference:	Reference Datum

Offset Design HARVESTERS STATE 7-15 PAD - GREELEY SWD #1(XX) - OH - OH													Offset Site Error:	0.00 ft
Survey Program: 100-2" Cone@2.448 Sigma													Offset Well Error:	3.28 ft
Reference		Offset		Semi Major Axis			Distance							Warning
Measured Depth (ft)	Vertical Depth (ft)	Measured Depth (ft)	Vertical Depth (ft)	Reference (ft)	Offset (ft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (ft)	+E/-W (ft)	Between Centres (ft)	Between Ellipses (ft)	Minimum Separation (ft)	Separation Factor		
10,300.00	7,243.23	7,178.23	7,243.23	97.26	248.87	-89.99	-3,346.27	-3,371.76	3,763.12	3,417.09	346.03	10.875	ES	
10,400.00	7,242.86	7,177.86	7,242.86	99.96	248.86	-89.99	-3,346.27	-3,371.76	3,767.30	3,418.72	348.58	10.808		
10,500.00	7,242.50	7,177.50	7,242.50	102.67	248.84	-89.98	-3,346.27	-3,371.76	3,774.13	3,423.06	351.07	10.750		
10,600.00	7,242.13	7,177.13	7,242.13	105.39	248.83	-89.98	-3,346.27	-3,371.76	3,783.58	3,430.10	353.49	10.704		
10,700.00	7,241.76	7,176.76	7,241.76	108.12	248.82	-89.97	-3,346.27	-3,371.76	3,795.65	3,439.82	355.83	10.667		
10,800.00	7,241.40	7,176.40	7,241.40	110.85	248.80	-89.97	-3,346.27	-3,371.76	3,810.30	3,452.20	358.10	10.640		
10,900.00	7,241.03	7,176.03	7,241.03	113.59	248.79	-89.96	-3,346.27	-3,371.76	3,827.52	3,467.23	360.29	10.624		
11,000.00	7,240.67	7,175.67	7,240.67	116.34	248.78	-89.95	-3,346.27	-3,371.76	3,847.25	3,484.86	362.39	10.616	SF	
11,100.00	7,240.30	7,175.30	7,240.30	119.09	248.77	-89.95	-3,346.27	-3,371.76	3,869.47	3,505.06	364.41	10.619		
11,200.00	7,239.93	7,174.93	7,239.93	121.85	248.75	-89.94	-3,346.27	-3,371.76	3,894.13	3,527.80	366.34	10.630		
11,300.00	7,239.57	7,174.57	7,239.57	124.61	248.74	-89.94	-3,346.27	-3,371.76	3,921.19	3,553.01	368.18	10.650		
11,400.00	7,239.20	7,174.20	7,239.20	127.38	248.73	-89.93	-3,346.27	-3,371.76	3,950.59	3,580.67	369.93	10.679		
11,500.00	7,238.84	7,173.84	7,238.84	130.15	248.72	-89.93	-3,346.27	-3,371.76	3,982.29	3,610.70	371.59	10.717		
11,600.00	7,238.47	7,173.47	7,238.47	132.92	248.70	-89.92	-3,346.27	-3,371.76	4,016.23	3,643.07	373.16	10.763		
11,700.00	7,238.10	7,173.10	7,238.10	135.70	248.69	-89.92	-3,346.27	-3,371.76	4,052.35	3,677.71	374.64	10.817		
11,800.00	7,237.74	7,172.74	7,237.74	138.48	248.68	-89.91	-3,346.27	-3,371.76	4,090.60	3,714.56	376.04	10.878		
11,900.00	7,237.37	7,172.37	7,237.37	141.26	248.66	-89.90	-3,346.27	-3,371.76	4,130.92	3,753.57	377.35	10.947		
12,000.00	7,237.00	7,172.00	7,237.00	144.05	248.65	-89.90	-3,346.27	-3,371.76	4,173.24	3,794.66	378.58	11.023		
12,100.00	7,236.64	7,171.64	7,236.64	146.84	248.64	-89.89	-3,346.27	-3,371.76	4,217.51	3,837.78	379.73	11.107		
12,200.00	7,236.27	7,171.27	7,236.27	149.64	248.63	-89.89	-3,346.27	-3,371.76	4,263.67	3,882.87	380.80	11.197		
12,300.00	7,235.91	7,170.91	7,235.91	152.43	248.61	-89.88	-3,346.27	-3,371.76	4,311.65	3,929.85	381.80	11.293		
12,400.00	7,235.54	7,170.54	7,235.54	155.23	248.60	-89.88	-3,346.27	-3,371.76	4,361.40	3,978.68	382.72	11.396		
12,500.00	7,235.17	7,170.17	7,235.17	158.03	248.59	-89.87	-3,346.27	-3,371.76	4,412.85	4,029.27	383.58	11.505		
12,600.00	7,234.81	7,169.81	7,234.81	160.83	248.57	-89.87	-3,346.27	-3,371.76	4,465.95	4,081.59	384.36	11.619		
12,700.00	7,234.44	7,169.44	7,234.44	163.64	248.56	-89.86	-3,346.27	-3,371.76	4,520.64	4,135.55	385.09	11.739		
12,800.00	7,234.07	7,169.07	7,234.07	166.44	248.55	-89.85	-3,346.27	-3,371.76	4,576.86	4,191.10	385.75	11.865		
12,900.00	7,233.71	7,168.71	7,233.71	169.25	248.54	-89.85	-3,346.27	-3,371.76	4,634.55	4,248.19	386.36	11.995		
13,000.00	7,233.34	7,168.34	7,233.34	172.06	248.52	-89.84	-3,346.27	-3,371.76	4,693.67	4,306.75	386.92	12.131		
13,100.00	7,232.98	7,167.98	7,232.98	174.88	248.51	-89.84	-3,346.27	-3,371.76	4,754.15	4,366.73	387.42	12.271		
13,200.00	7,232.61	7,167.61	7,232.61	177.69	248.50	-89.83	-3,346.27	-3,371.76	4,815.96	4,428.08	387.88	12.416		
13,300.00	7,232.24	7,167.24	7,232.24	180.50	248.49	-89.83	-3,346.27	-3,371.76	4,879.03	4,490.74	388.29	12.566		
13,400.00	7,231.88	7,166.88	7,231.88	183.32	248.47	-89.82	-3,346.27	-3,371.76	4,943.31	4,554.66	388.65	12.719		
13,500.00	7,231.51	7,166.51	7,231.51	186.14	248.46	-89.82	-3,346.27	-3,371.76	5,008.77	4,619.79	388.98	12.877		
13,600.00	7,231.15	7,166.15	7,231.15	188.96	248.45	-89.81	-3,346.27	-3,371.76	5,075.36	4,686.09	389.27	13.038		
13,700.00	7,230.78	7,165.78	7,230.78	191.78	248.43	-89.80	-3,346.27	-3,371.76	5,143.03	4,753.50	389.53	13.203		
13,800.00	7,230.41	7,165.41	7,230.41	194.60	248.42	-89.80	-3,346.27	-3,371.76	5,211.73	4,821.99	389.75	13.372		
13,900.00	7,230.05	7,165.05	7,230.05	197.42	248.41	-89.79	-3,346.27	-3,371.76	5,281.44	4,891.50	389.94	13.544		
14,000.00	7,229.68	7,164.68	7,229.68	200.25	248.40	-89.79	-3,346.27	-3,371.76	5,352.11	4,962.01	390.10	13.720		
14,100.00	7,229.31	7,164.31	7,229.31	203.07	248.38	-89.78	-3,346.27	-3,371.76	5,423.70	5,033.46	390.24	13.898		
14,200.00	7,228.95	7,163.95	7,228.95	205.90	248.37	-89.78	-3,346.27	-3,371.76	5,496.18	5,105.83	390.35	14.080		
14,300.00	7,228.58	7,163.58	7,228.58	208.73	248.36	-89.77	-3,346.27	-3,371.76	5,569.51	5,179.07	390.44	14.265		
14,400.00	7,228.22	7,163.22	7,228.22	211.55	248.34	-89.77	-3,346.27	-3,371.76	5,643.66	5,253.15	390.51	14.452		
14,500.00	7,227.85	7,162.85	7,227.85	214.38	248.33	-89.76	-3,346.27	-3,371.76	5,718.60	5,328.04	390.55	14.642		
14,600.00	7,227.48	7,162.48	7,227.48	217.21	248.32	-89.75	-3,346.27	-3,371.76	5,794.29	5,403.71	390.58	14.835		
14,700.00	7,227.12	7,162.12	7,227.12	220.04	248.31	-89.75	-3,346.27	-3,371.76	5,870.71	5,480.12	390.60	15.030		
14,800.00	7,226.75	7,161.75	7,226.75	222.88	248.29	-89.74	-3,346.27	-3,371.76	5,947.83	5,557.24	390.59	15.228		
14,900.00	7,226.38	7,161.38	7,226.38	225.71	248.28	-89.74	-3,346.27	-3,371.76	6,025.63	5,635.05	390.58	15.428		
15,000.00	7,226.02	7,161.02	7,226.02	228.54	248.27	-89.73	-3,346.27	-3,371.76	6,104.07	5,713.52	390.55	15.630		
15,005.81	7,226.00	7,161.00	7,226.00	228.71	248.27	-89.73	-3,346.27	-3,371.76	6,108.64	5,718.10	390.54	15.641		

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



Anticollision Report



Company:	SRC ENERGY	Local Co-ordinate Reference:	Well HARVESTERS STATE 31C-16-M
Project:	SECTION 15, T6N, R66W	TVD Reference:	KB @ 4821.00ft
Reference Site:	HARVESTERS STATE 7-15 PAD	MD Reference:	KB @ 4821.00ft
Site Error:	3.28 ft	North Reference:	True
Reference Well:	HARVESTERS STATE 31C-16-M	Survey Calculation Method:	Minimum Curvature
Well Error:	3.28 ft	Output errors are at	2.45 sigma
Reference Wellbore	OH	Database:	EDM 5000.14 Single User Db
Reference Design:	PLAN #1	Offset TVD Reference:	Reference Datum

Offset Design HARVESTERS STATE 7-15 PAD - HARVESTER 31-15(SI_150CC) - OH - OH													Offset Site Error:	0.00 ft
Survey Program: 100-GYRO-NS													Offset Well Error:	3.28 ft
Reference		Offset		Semi Major Axis			Distance							Warning
Measured Depth (ft)	Vertical Depth (ft)	Measured Depth (ft)	Vertical Depth (ft)	Reference (ft)	Offset (ft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (ft)	+E/-W (ft)	Between Centres (ft)	Between Ellipses (ft)	Minimum Separation (ft)	Separation Factor		
0.00	0.00	0.00	11.00	3.28	3.28	28.59	897.65	489.23	1,022.37					
100.00	100.00	86.70	97.70	3.28	3.29	28.59	897.73	489.28	1,022.41	1,015.84	6.57	155.619		
200.00	200.00	186.74	197.74	3.34	3.33	28.60	897.90	489.49	1,022.65	1,015.98	6.67	153.343		
300.00	300.00	289.39	300.39	3.44	3.44	28.61	897.91	489.69	1,022.76	1,015.88	6.88	148.630		
321.55	321.55	311.58	322.58	3.47	3.47	28.61	897.89	489.70	1,022.74	1,015.80	6.94	147.354		
400.00	400.00	382.95	393.94	3.60	3.58	28.63	897.91	490.12	1,022.99	1,015.81	7.18	142.487		
500.00	500.00	485.61	496.60	3.81	3.77	28.68	898.01	491.13	1,023.54	1,015.96	7.58	135.050		
600.00	600.00	581.23	592.22	4.05	3.99	28.72	898.02	492.07	1,024.03	1,015.99	8.04	127.396		
700.00	699.98	684.54	695.52	4.32	4.26	51.78	897.98	493.61	1,023.63	1,015.05	8.58	119.336		
800.00	799.84	786.18	797.15	4.62	4.55	52.13	897.63	494.91	1,020.74	1,011.58	9.17	111.359		
900.00	899.62	882.71	893.66	4.94	4.85	52.47	897.41	496.08	1,017.12	1,007.34	9.78	103.998		
1,000.00	999.41	985.38	996.32	5.27	5.18	52.86	897.15	497.57	1,013.64	1,003.20	10.45	97.010		
1,100.00	1,099.19	1,080.22	1,091.16	5.62	5.50	53.19	897.05	498.67	1,010.18	999.06	11.12	90.842		
1,200.00	1,198.98	1,180.82	1,191.75	5.99	5.86	53.56	897.16	500.12	1,007.10	995.26	11.83	85.095		
1,300.00	1,298.76	1,287.76	1,298.68	6.36	6.24	53.97	896.77	501.61	1,003.62	991.03	12.59	79.702		
1,400.00	1,398.55	1,388.24	1,399.15	6.74	6.61	54.34	896.17	502.48	999.70	986.36	13.34	74.927		
1,500.00	1,498.33	1,488.36	1,499.27	7.13	6.99	54.70	895.59	503.28	995.82	981.71	14.11	70.599		
1,600.00	1,598.12	1,587.28	1,598.18	7.52	7.36	55.09	894.81	504.43	991.98	977.11	14.88	66.684		
1,700.00	1,697.90	1,685.75	1,696.64	7.92	7.74	55.46	894.25	505.42	988.30	972.65	15.65	63.131		
1,800.00	1,797.69	1,787.08	1,797.97	8.33	8.14	55.83	893.84	506.19	984.67	968.21	16.45	59.849		
1,900.00	1,897.47	1,894.73	1,905.62	8.74	8.56	56.22	893.05	506.63	980.60	963.32	17.28	56.747		
2,000.00	1,997.26	1,990.90	2,001.79	9.15	8.94	56.53	892.42	506.39	976.29	958.22	18.07	54.022		
2,100.00	2,097.04	2,092.97	2,103.85	9.56	9.35	56.86	891.97	506.06	972.13	953.24	18.89	51.461		
2,200.00	2,196.83	2,187.28	2,198.16	9.98	9.72	57.17	891.62	505.82	968.11	948.42	19.69	49.177		
2,300.00	2,296.61	2,284.62	2,295.49	10.40	10.12	57.48	891.72	505.69	964.58	944.08	20.50	47.058		
2,400.00	2,396.40	2,383.23	2,394.10	10.82	10.52	57.81	891.79	505.92	961.24	939.93	21.32	45.091		
2,500.00	2,496.18	2,487.76	2,498.64	11.24	10.94	58.15	891.89	505.85	957.80	935.64	22.16	43.215		
2,600.00	2,595.96	2,584.51	2,595.39	11.66	11.33	58.45	892.02	505.40	954.20	931.22	22.98	41.518		
2,700.00	2,695.75	2,683.60	2,694.48	12.09	11.74	58.74	892.47	504.99	950.90	927.09	23.81	39.931		
2,800.00	2,795.53	2,786.56	2,797.44	12.51	12.16	59.05	892.90	504.39	947.51	922.84	24.66	38.420		
2,900.00	2,895.32	2,892.75	2,903.62	12.94	12.59	59.36	892.93	503.40	943.62	918.10	25.52	36.971		
3,000.00	2,995.10	2,990.27	3,001.13	13.37	12.99	59.65	892.79	502.30	939.49	913.14	26.35	35.648		
3,100.00	3,094.89	3,095.86	3,106.71	13.80	13.43	59.93	892.89	500.56	935.28	908.06	27.22	34.364		
3,200.00	3,194.67	3,191.14	3,201.97	14.23	13.82	60.17	892.96	498.81	930.95	902.91	28.05	33.195		
3,300.00	3,294.46	3,294.29	3,305.11	14.66	14.25	60.47	892.87	497.34	926.77	897.87	28.90	32.066		
3,400.00	3,394.24	3,395.48	3,406.29	15.09	14.67	60.77	892.40	495.90	922.31	892.56	29.75	30.999		
3,500.00	3,494.03	3,493.74	3,504.53	15.52	15.08	61.07	892.01	494.44	917.89	887.29	30.60	30.001		
3,600.00	3,593.81	3,588.15	3,598.94	15.96	15.48	61.37	891.75	493.45	913.86	882.43	31.43	29.080		
3,700.00	3,693.60	3,680.28	3,691.07	16.39	15.86	61.68	891.82	493.12	910.57	878.32	32.25	28.237		
3,800.00	3,793.38	3,780.19	3,790.98	16.82	16.28	62.02	892.36	493.04	907.84	874.74	33.10	27.429		
3,900.00	3,893.17	3,883.03	3,893.82	17.26	16.71	62.36	892.80	492.67	904.88	870.92	33.96	26.644		
4,000.00	3,992.95	3,982.93	3,993.71	17.69	17.13	62.68	893.20	492.01	901.74	866.92	34.81	25.901		
4,100.00	4,092.74	4,082.92	4,093.70	18.13	17.55	63.01	893.59	491.41	898.65	862.98	35.67	25.194		
4,200.00	4,192.52	4,184.42	4,195.20	18.56	17.97	63.36	893.78	490.89	895.50	858.97	36.53	24.515		
4,300.00	4,292.31	4,282.68	4,293.46	19.00	18.39	63.69	893.98	490.29	892.32	854.95	37.38	23.873		
4,400.00	4,392.09	4,382.29	4,393.06	19.43	18.81	64.03	894.26	489.82	889.33	851.10	38.23	23.261		
4,500.00	4,491.88	4,480.39	4,491.17	19.87	19.22	64.37	894.56	489.42	886.44	847.36	39.08	22.681		
4,600.00	4,591.66	4,576.82	4,587.59	20.31	19.62	64.72	894.99	489.31	883.87	843.94	39.93	22.138		
4,700.00	4,691.44	4,677.45	4,688.22	20.74	20.05	65.09	895.56	489.39	881.56	840.77	40.79	21.614		
4,800.00	4,791.23	4,773.16	4,783.93	21.18	20.45	65.44	896.12	489.51	879.33	837.70	41.63	21.124		
4,900.00	4,891.01	4,866.81	4,877.57	21.62	20.85	65.79	897.02	490.15	877.80	835.34	42.46	20.673		
5,000.00	4,990.80	4,967.70	4,978.45	22.06	21.27	66.17	898.45	491.01	876.74	833.42	43.32	20.237		

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



Anticollision Report



Company:	SRC ENERGY	Local Co-ordinate Reference:	Well HARVESTERS STATE 31C-16-M
Project:	SECTION 15, T6N, R66W	TVD Reference:	KB @ 4821.00ft
Reference Site:	HARVESTERS STATE 7-15 PAD	MD Reference:	KB @ 4821.00ft
Site Error:	3.28 ft	North Reference:	True
Reference Well:	HARVESTERS STATE 31C-16-M	Survey Calculation Method:	Minimum Curvature
Well Error:	3.28 ft	Output errors are at	2.45 sigma
Reference Wellbore	OH	Database:	EDM 5000.14 Single User Db
Reference Design:	PLAN #1	Offset TVD Reference:	Reference Datum

Offset Design HARVESTERS STATE 7-15 PAD - HARVESTER 31-15(SI_150CC) - OH - OH													Offset Site Error:	0.00 ft
Survey Program: 100-GYRO-NS													Offset Well Error:	3.28 ft
Reference		Offset		Semi Major Axis			Distance							Warning
Measured Depth (ft)	Vertical Depth (ft)	Measured Depth (ft)	Vertical Depth (ft)	Reference (ft)	Offset (ft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (ft)	+E/-W (ft)	Between Centres (ft)	Between Ellipses (ft)	Minimum Separation (ft)	Separation Factor		
5,100.00	5,090.58	5,073.70	5,084.44	22.50	21.72	66.54	899.73	491.32	875.18	830.97	44.21	19.797		
5,200.00	5,190.37	5,180.89	5,191.63	22.93	22.17	66.94	900.20	491.27	872.88	827.78	45.10	19.356		
5,300.00	5,290.15	5,282.50	5,293.24	23.37	22.60	67.30	900.38	490.64	870.02	824.05	45.96	18.930		
5,400.00	5,389.94	5,387.33	5,398.06	23.81	23.05	67.67	900.48	489.64	866.90	820.06	46.84	18.509		
5,500.00	5,489.72	5,492.06	5,502.78	24.25	23.49	68.05	900.08	488.21	863.19	815.48	47.71	18.092		
5,600.00	5,589.51	5,588.17	5,598.88	24.69	23.90	68.38	899.78	486.69	859.41	810.85	48.56	17.698		
5,700.00	5,689.29	5,688.32	5,699.02	25.13	24.32	68.74	899.51	485.45	855.93	806.50	49.42	17.319		
5,800.00	5,789.08	5,791.58	5,802.26	25.56	24.76	69.10	899.30	483.74	852.24	801.94	50.29	16.945		
5,900.00	5,888.86	5,888.93	5,899.60	26.00	25.17	69.41	899.29	481.81	848.47	797.32	51.15	16.589		
6,000.00	5,988.65	5,988.30	5,998.95	26.44	25.59	69.73	899.41	480.02	844.95	792.94	52.01	16.247		
6,100.00	6,088.43	6,090.51	6,101.13	26.88	26.03	70.05	899.63	477.93	841.34	788.47	52.88	15.911		
6,200.00	6,188.22	6,192.43	6,203.03	27.32	26.46	70.38	899.60	475.68	837.47	783.73	53.74	15.583		
6,300.00	6,288.00	6,291.49	6,302.07	27.76	26.88	70.71	899.46	473.47	833.54	778.94	54.60	15.265		
6,400.00	6,387.79	6,397.07	6,407.60	28.20	27.33	71.02	899.53	470.55	829.38	773.90	55.48	14.949		
6,500.00	6,487.57	6,492.90	6,503.40	28.64	27.74	71.29	899.71	467.60	825.09	768.75	56.34	14.646		
6,600.00	6,587.35	6,596.51	6,606.94	29.08	28.18	71.53	900.42	464.04	820.87	763.67	57.21	14.349		
6,689.25	6,676.24	6,688.09	6,698.44	29.47	28.57	107.72	901.09	460.34	819.25	761.27	57.98	14.129		
6,700.00	6,687.02	6,699.12	6,709.46	29.52	28.61	109.80	901.16	459.88	817.91	759.83	58.08	14.083 CC, ES		
6,800.00	6,784.98	6,796.87	6,807.14	29.96	29.03	126.31	901.57	456.03	825.45	766.52	58.93	14.007 SF		
6,900.00	6,878.81	6,895.64	6,905.81	30.41	29.45	131.33	901.99	451.94	845.06	785.29	59.77	14.138		
7,000.00	6,966.21	6,987.14	6,997.21	30.86	29.84	133.53	902.69	447.52	876.78	816.21	60.57	14.476		
7,100.00	7,045.03	7,071.65	7,081.60	31.35	30.20	134.28	903.37	443.14	920.67	859.35	61.32	15.015		
7,200.00	7,113.32	7,151.91	7,161.74	31.90	30.55	133.90	903.88	438.64	976.18	914.17	62.01	15.742		
7,300.00	7,169.40	7,220.25	7,229.90	32.57	30.84	131.90	904.57	433.87	1,042.10	979.47	62.63	16.640		
7,400.00	7,211.89	7,268.06	7,277.59	33.38	31.05	127.20	904.94	430.50	1,117.63	1,054.49	63.14	17.701		
7,500.00	7,239.75	7,302.51	7,311.96	34.35	31.20	118.81	905.16	428.12	1,201.03	1,137.49	63.55	18.900		
7,600.00	7,252.28	7,321.89	7,331.29	35.47	31.28	104.67	905.28	426.78	1,290.09	1,226.25	63.84	20.208		
7,700.00	7,252.75	7,329.29	7,338.67	36.73	31.31	99.02	905.33	426.26	1,382.19	1,318.16	64.04	21.584		
7,800.00	7,252.38	7,335.85	7,345.22	38.16	31.34	99.74	905.37	425.81	1,475.37	1,411.15	64.22	22.973		
7,900.00	7,252.02	7,342.42	7,351.77	39.74	31.37	100.45	905.42	425.35	1,569.36	1,504.96	64.40	24.369		
8,000.00	7,251.65	7,348.99	7,358.32	41.47	31.40	101.16	905.46	424.90	1,664.02	1,599.46	64.57	25.771		
8,100.00	7,251.29	7,355.55	7,364.87	43.31	31.43	101.86	905.50	424.44	1,759.25	1,694.52	64.73	27.178		
8,200.00	7,250.92	7,362.12	7,371.42	45.26	31.46	102.56	905.54	423.99	1,854.96	1,790.08	64.89	28.588		
8,300.00	7,250.55	7,368.68	7,377.97	47.30	31.49	103.26	905.59	423.53	1,951.08	1,886.05	65.04	30.000		
8,400.00	7,250.19	7,375.25	7,384.52	49.42	31.51	103.95	905.63	423.08	2,047.55	1,982.37	65.18	31.415		
8,500.00	7,249.82	7,381.82	7,391.08	51.62	31.54	104.63	905.67	422.62	2,144.32	2,079.01	65.32	32.830		
8,600.00	7,249.45	7,388.38	7,397.63	53.88	31.57	105.32	905.71	422.17	2,241.36	2,175.91	65.45	34.246		
8,700.00	7,249.09	7,394.95	7,404.18	56.19	31.60	106.00	905.76	421.71	2,338.62	2,273.05	65.58	35.663		
8,800.00	7,248.72	7,401.52	7,410.73	58.55	31.63	106.67	905.80	421.26	2,436.09	2,370.39	65.70	37.078		
8,900.00	7,248.36	7,408.08	7,417.28	60.96	31.66	107.34	905.84	420.80	2,533.75	2,467.92	65.82	38.494		
9,000.00	7,247.99	7,414.65	7,423.83	63.40	31.69	108.01	905.88	420.35	2,631.56	2,565.62	65.94	39.908		
9,100.00	7,247.62	7,421.22	7,430.38	65.87	31.72	108.66	905.93	419.89	2,729.51	2,663.45	66.06	41.321		
9,200.00	7,247.26	7,427.78	7,436.93	68.38	31.74	109.32	905.97	419.44	2,827.59	2,761.42	66.17	42.732		
9,300.00	7,246.89	7,434.35	7,443.48	70.91	31.77	109.97	906.01	418.98	2,925.79	2,859.51	66.28	44.142		
9,400.00	7,246.53	7,440.92	7,450.03	73.47	31.80	110.61	906.05	418.53	3,024.09	2,957.70	66.39	45.550		
9,500.00	7,246.16	7,447.48	7,456.58	76.05	31.83	111.25	906.09	418.07	3,122.48	3,055.99	66.50	46.956		
9,600.00	7,245.79	7,454.05	7,463.13	78.65	31.86	111.88	906.14	417.62	3,220.96	3,154.36	66.60	48.359		
9,700.00	7,245.43	7,460.62	7,469.68	81.27	31.89	112.51	906.18	417.16	3,319.52	3,252.81	66.71	49.760		
9,800.00	7,245.06	7,443.00	7,452.11	83.90	31.81	110.81	906.07	418.38	3,418.24	3,351.54	66.70	51.247		
9,900.00	7,244.69	7,443.00	7,452.11	86.55	31.81	110.81	906.07	418.38	3,516.98	3,450.21	66.77	52.671		
10,000.00	7,244.33	7,443.00	7,452.11	89.21	31.81	110.81	906.07	418.38	3,615.79	3,548.95	66.84	54.094		
10,100.00	7,243.96	7,443.00	7,452.11	91.88	31.81	110.81	906.07	418.38	3,714.67	3,647.76	66.91	55.516		

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



Anticollision Report



Company:	SRC ENERGY	Local Co-ordinate Reference:	Well HARVESTERS STATE 31C-16-M
Project:	SECTION 15, T6N, R66W	TVD Reference:	KB @ 4821.00ft
Reference Site:	HARVESTERS STATE 7-15 PAD	MD Reference:	KB @ 4821.00ft
Site Error:	3.28 ft	North Reference:	True
Reference Well:	HARVESTERS STATE 31C-16-M	Survey Calculation Method:	Minimum Curvature
Well Error:	3.28 ft	Output errors are at	2.45 sigma
Reference Wellbore	OH	Database:	EDM 5000.14 Single User Db
Reference Design:	PLAN #1	Offset TVD Reference:	Reference Datum

Offset Design HARVESTERS STATE 7-15 PAD - HARVESTER 31-15(SI_150CC) - OH - OH													Offset Site Error:	0.00 ft
Survey Program: 100-GYRO-NS													Offset Well Error:	3.28 ft
Reference		Offset		Semi Major Axis			Distance							Warning
Measured Depth (ft)	Vertical Depth (ft)	Measured Depth (ft)	Vertical Depth (ft)	Reference (ft)	Offset (ft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (ft)	+E/-W (ft)	Between Centres (ft)	Between Ellipses (ft)	Minimum Separation (ft)	Separation Factor		
10,200.00	7,243.60	7,443.00	7,452.11	94.56	31.81	110.81	906.07	418.38	3,813.60	3,746.62	66.98	56.936		
10,300.00	7,243.23	7,443.00	7,452.11	97.26	31.81	110.81	906.07	418.38	3,912.59	3,845.55	67.05	58.356		
10,400.00	7,242.86	7,443.00	7,452.11	99.96	31.81	110.81	906.07	418.38	4,011.63	3,944.52	67.11	59.773		
10,500.00	7,242.50	7,443.00	7,452.11	102.67	31.81	110.81	906.07	418.38	4,110.72	4,043.54	67.18	61.189		
10,600.00	7,242.13	7,443.00	7,452.11	105.39	31.81	110.81	906.07	418.38	4,209.85	4,142.60	67.25	62.604		
10,700.00	7,241.76	7,443.00	7,452.11	108.12	31.81	110.81	906.07	418.38	4,309.02	4,241.71	67.31	64.016		
10,800.00	7,241.40	7,443.00	7,452.11	110.85	31.81	110.81	906.07	418.38	4,408.22	4,340.85	67.38	65.427		
10,900.00	7,241.03	7,443.00	7,452.11	113.59	31.81	110.81	906.07	418.38	4,507.46	4,440.02	67.44	66.836		
11,000.00	7,240.67	7,443.00	7,452.11	116.34	31.81	110.81	906.07	418.38	4,606.74	4,539.23	67.51	68.242		
11,100.00	7,240.30	7,443.00	7,452.11	119.09	31.81	110.81	906.07	418.38	4,706.04	4,638.47	67.57	69.646		
11,200.00	7,239.93	7,443.00	7,452.11	121.85	31.81	110.81	906.07	418.38	4,805.38	4,737.74	67.64	71.048		
11,300.00	7,239.57	7,443.00	7,452.11	124.61	31.81	110.81	906.07	418.38	4,904.74	4,837.04	67.70	72.448		
11,400.00	7,239.20	7,443.00	7,452.11	127.38	31.81	110.81	906.07	418.38	5,004.13	4,936.36	67.77	73.845		
11,500.00	7,238.84	7,443.00	7,452.11	130.15	31.81	110.81	906.07	418.38	5,103.54	5,035.71	67.83	75.240		
11,600.00	7,238.47	7,443.00	7,452.11	132.92	31.81	110.81	906.07	418.38	5,202.97	5,135.07	67.90	76.632		
11,700.00	7,238.10	7,443.00	7,452.11	135.70	31.81	110.81	906.07	418.38	5,302.42	5,234.46	67.96	78.022		
11,800.00	7,237.74	7,443.00	7,452.11	138.48	31.81	110.81	906.07	418.38	5,401.90	5,333.87	68.03	79.409		
11,900.00	7,237.37	7,443.00	7,452.11	141.26	31.81	110.81	906.07	418.38	5,501.39	5,433.30	68.09	80.793		
12,000.00	7,237.00	7,443.00	7,452.11	144.05	31.81	110.81	906.07	418.38	5,600.90	5,532.74	68.16	82.174		
12,100.00	7,236.64	7,443.00	7,452.11	146.84	31.81	110.81	906.07	418.38	5,700.43	5,632.21	68.23	83.552		
12,200.00	7,236.27	7,443.00	7,452.11	149.64	31.81	110.81	906.07	418.38	5,799.98	5,731.68	68.29	84.928		
12,300.00	7,235.91	7,443.00	7,452.11	152.43	31.81	110.81	906.07	418.38	5,899.54	5,831.18	68.36	86.300		
12,400.00	7,235.54	7,443.00	7,452.11	155.23	31.81	110.81	906.07	418.38	5,999.11	5,930.68	68.43	87.669		
12,500.00	7,235.17	7,443.00	7,452.11	158.03	31.81	110.81	906.07	418.38	6,098.70	6,030.20	68.50	89.036		
12,600.00	7,234.81	7,443.00	7,452.11	160.83	31.81	110.81	906.07	418.38	6,198.30	6,129.74	68.57	90.399		
12,700.00	7,234.44	7,443.00	7,452.11	163.64	31.81	110.81	906.07	418.38	6,297.92	6,229.28	68.64	91.759		
12,800.00	7,234.07	7,443.00	7,452.11	166.44	31.81	110.81	906.07	418.38	6,397.54	6,328.84	68.71	93.115		
12,900.00	7,233.71	7,443.00	7,452.11	169.25	31.81	110.81	906.07	418.38	6,497.18	6,428.41	68.78	94.469		
13,000.00	7,233.34	7,443.00	7,452.11	172.06	31.81	110.81	906.07	418.38	6,596.83	6,527.99	68.85	95.819		
13,100.00	7,232.98	7,443.00	7,452.11	174.88	31.81	110.81	906.07	418.38	6,696.49	6,627.57	68.92	97.165		
13,200.00	7,232.61	7,443.00	7,452.11	177.69	31.81	110.81	906.07	418.38	6,796.16	6,727.17	68.99	98.508		
13,300.00	7,232.24	7,443.00	7,452.11	180.50	31.81	110.81	906.07	418.38	6,895.84	6,826.78	69.06	99.848		
13,400.00	7,231.88	7,443.00	7,452.11	183.32	31.81	110.81	906.07	418.38	6,995.53	6,926.39	69.14	101.184		
13,500.00	7,231.51	7,443.00	7,452.11	186.14	31.81	110.81	906.07	418.38	7,095.23	7,026.02	69.21	102.517		
13,600.00	7,231.15	7,443.00	7,452.11	188.96	31.81	110.81	906.07	418.38	7,194.93	7,125.65	69.28	103.846		
13,700.00	7,230.78	7,443.00	7,452.11	191.78	31.81	110.81	906.07	418.38	7,294.65	7,225.29	69.36	105.171		
13,800.00	7,230.41	7,443.00	7,452.11	194.60	31.81	110.81	906.07	418.38	7,394.37	7,324.93	69.44	106.493		
13,900.00	7,230.05	7,443.00	7,452.11	197.42	31.81	110.81	906.07	418.38	7,494.10	7,424.58	69.51	107.811		
14,000.00	7,229.68	7,443.00	7,452.11	200.25	31.81	110.81	906.07	418.38	7,593.83	7,524.24	69.59	109.126		
14,100.00	7,229.31	7,443.00	7,452.11	203.07	31.81	110.81	906.07	418.38	7,693.57	7,623.91	69.67	110.436		
14,200.00	7,228.95	7,443.00	7,452.11	205.90	31.81	110.81	906.07	418.38	7,793.32	7,723.58	69.74	111.743		
14,300.00	7,228.58	7,443.00	7,452.11	208.73	31.81	110.81	906.07	418.38	7,893.08	7,823.26	69.82	113.046		
14,400.00	7,228.22	7,443.00	7,452.11	211.55	31.81	110.81	906.07	418.38	7,992.84	7,922.94	69.90	114.345		
14,500.00	7,227.85	7,443.00	7,452.11	214.38	31.81	110.81	906.07	418.38	8,092.61	8,022.63	69.98	115.640		
14,600.00	7,227.48	7,443.00	7,452.11	217.21	31.81	110.81	906.07	418.38	8,192.38	8,122.32	70.06	116.932		
14,700.00	7,227.12	7,443.00	7,452.11	220.04	31.81	110.81	906.07	418.38	8,292.16	8,222.02	70.14	118.219		
14,800.00	7,226.75	7,443.00	7,452.11	222.88	31.81	110.81	906.07	418.38	8,391.94	8,321.72	70.22	119.502		
14,900.00	7,226.38	7,443.00	7,452.11	225.71	31.81	110.81	906.07	418.38	8,491.73	8,421.43	70.31	120.782		
15,000.00	7,226.02	7,443.00	7,452.11	228.54	31.81	110.81	906.07	418.38	8,591.53	8,521.14	70.39	122.057		
15,005.81	7,226.00	7,443.00	7,452.11	228.71	31.81	110.81	906.07	418.38	8,597.32	8,526.93	70.39	122.131		

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



Anticollision Report



Company:	SRC ENERGY	Local Co-ordinate Reference:	Well HARVESTERS STATE 31C-16-M
Project:	SECTION 15, T6N, R66W	TVD Reference:	KB @ 4821.00ft
Reference Site:	HARVESTERS STATE 7-15 PAD	MD Reference:	KB @ 4821.00ft
Site Error:	3.28 ft	North Reference:	True
Reference Well:	HARVESTERS STATE 31C-16-M	Survey Calculation Method:	Minimum Curvature
Well Error:	3.28 ft	Output errors are at	2.45 sigma
Reference Wellbore	OH	Database:	EDM 5000.14 Single User Db
Reference Design:	PLAN #1	Offset TVD Reference:	Reference Datum

Offset Design HARVESTERS STATE 7-15 PAD - HARVESTER 32-15(SI_150CC) - OH - OH													Offset Site Error:	0.00 ft
Survey Program: 100-GYRO-NS													Offset Well Error:	3.28 ft
Reference		Offset		Semi Major Axis			Distance							Warning
Measured Depth (ft)	Vertical Depth (ft)	Measured Depth (ft)	Vertical Depth (ft)	Reference (ft)	Offset (ft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (ft)	+E/-W (ft)	Between Centres (ft)	Between Ellipses (ft)	Minimum Separation (ft)	Separation Factor		
0.00	0.00	0.00	21.00	3.28	3.28	106.62	-155.18	519.84	542.92					
100.00	100.00	80.59	101.59	3.28	3.29	106.56	-154.63	519.89	542.39	535.82	6.57	82.558		
200.00	200.00	183.04	204.03	3.34	3.33	106.40	-153.02	519.82	541.88	535.22	6.67	81.250		
300.00	300.00	283.47	304.44	3.44	3.43	106.29	-151.73	519.34	541.07	534.19	6.88	78.661		
400.00	400.00	381.11	402.07	3.60	3.58	106.18	-150.58	519.03	540.43	533.25	7.18	75.251		
495.22	495.22	474.26	495.22	3.80	3.76	106.06	-149.47	519.17	540.26	532.71	7.55	71.554	CC	
500.00	500.00	478.94	499.90	3.81	3.77	106.05	-149.41	519.19	540.26	532.69	7.57	71.361		
600.00	600.00	578.94	599.89	4.05	3.99	105.91	-148.08	519.63	540.32	532.28	8.04	67.214	ES	
700.00	699.98	677.93	698.86	4.32	4.25	128.75	-146.52	520.16	541.49	532.93	8.57	63.218		
800.00	799.84	777.71	798.64	4.62	4.53	128.97	-145.12	520.81	545.01	535.86	9.15	59.589		
900.00	899.62	876.37	897.28	4.94	4.83	129.31	-143.46	521.60	549.44	539.68	9.76	56.273		
1,000.00	999.41	976.20	997.09	5.27	5.16	129.66	-141.97	522.52	554.08	543.66	10.42	53.174		
1,100.00	1,099.19	1,076.65	1,097.52	5.62	5.50	130.01	-140.50	523.35	558.64	547.54	11.11	50.295		
1,200.00	1,198.98	1,177.04	1,197.90	5.99	5.85	130.36	-138.98	524.08	563.12	551.30	11.82	47.647		
1,300.00	1,298.76	1,278.82	1,299.67	6.36	6.21	130.72	-137.54	524.59	567.44	554.88	12.55	45.196		
1,400.00	1,398.55	1,377.75	1,398.59	6.74	6.58	131.04	-135.92	524.97	571.59	558.29	13.30	42.984		
1,500.00	1,498.33	1,479.06	1,499.89	7.13	6.96	131.40	-134.51	525.35	575.84	561.78	14.06	40.947		
1,600.00	1,598.12	1,580.54	1,601.36	7.52	7.34	131.78	-133.28	525.31	579.77	564.93	14.84	39.066		
1,700.00	1,697.90	1,682.23	1,703.04	7.92	7.74	132.15	-131.99	524.99	583.45	567.82	15.63	37.329		
1,800.00	1,797.69	1,779.97	1,800.77	8.33	8.12	132.56	-131.14	524.50	587.11	570.70	16.41	35.774		
1,900.00	1,897.47	1,879.69	1,900.50	8.74	8.51	132.95	-130.30	524.31	591.10	573.89	17.21	34.349		
2,000.00	1,997.26	1,981.24	2,002.04	9.15	8.91	133.35	-129.38	523.95	594.95	576.93	18.02	33.016		
2,100.00	2,097.04	2,081.20	2,102.00	9.56	9.31	133.80	-128.99	523.20	598.63	579.80	18.83	31.791		
2,200.00	2,196.83	2,180.14	2,200.93	9.98	9.71	134.27	-128.99	522.39	602.43	582.78	19.64	30.671		
2,300.00	2,296.61	2,279.01	2,299.79	10.40	10.11	134.74	-129.05	521.72	606.43	585.97	20.46	29.644		
2,400.00	2,396.40	2,379.80	2,400.59	10.82	10.51	135.24	-129.46	520.93	610.49	589.21	21.28	28.682		
2,500.00	2,496.18	2,477.60	2,498.38	11.24	10.91	135.75	-130.04	520.07	614.60	592.49	22.10	27.807		
2,600.00	2,595.96	2,576.19	2,596.96	11.66	11.31	136.27	-130.97	519.43	619.09	596.17	22.93	27.004		
2,700.00	2,695.75	2,673.60	2,694.37	12.09	11.70	136.77	-131.97	518.99	623.85	600.11	23.75	26.272		
2,800.00	2,795.53	2,773.62	2,794.38	12.51	12.11	137.28	-133.01	518.82	628.93	604.35	24.58	25.586		
2,900.00	2,895.32	2,875.56	2,896.32	12.94	12.53	137.79	-134.11	518.35	633.80	608.37	25.43	24.926		
3,000.00	2,995.10	2,975.85	2,996.60	13.37	12.94	138.27	-134.77	517.78	638.45	612.18	26.27	24.305		
3,100.00	3,094.89	3,077.81	3,098.55	13.80	13.37	138.72	-135.22	517.16	643.00	615.88	27.12	23.710		
3,200.00	3,194.67	3,178.45	3,199.19	14.23	13.78	139.15	-135.37	516.34	647.28	619.32	27.97	23.145		
3,300.00	3,294.46	3,278.19	3,298.93	14.66	14.20	139.58	-135.56	515.46	651.57	622.76	28.81	22.616		
3,400.00	3,394.24	3,374.37	3,395.10	15.09	14.60	139.97	-135.76	514.86	656.11	626.48	29.64	22.138		
3,500.00	3,494.03	3,473.31	3,494.05	15.52	15.01	140.36	-136.05	514.72	661.16	630.68	30.48	21.692		
3,600.00	3,593.81	3,573.65	3,594.38	15.96	15.43	140.77	-136.44	514.46	666.19	634.86	31.33	21.263		
3,700.00	3,693.60	3,673.97	3,694.70	16.39	15.85	141.18	-136.94	514.05	671.16	638.98	32.18	20.855		
3,800.00	3,793.38	3,774.29	3,795.02	16.82	16.27	141.59	-137.54	513.50	676.09	643.05	33.04	20.465		
3,900.00	3,893.17	3,874.60	3,895.33	17.26	16.69	142.02	-138.23	512.79	680.96	647.07	33.89	20.093		
4,000.00	3,992.95	3,974.90	3,995.62	17.69	17.11	142.45	-139.03	511.93	685.80	651.05	34.75	19.738		
4,100.00	4,092.74	4,075.20	4,095.91	18.13	17.54	142.89	-139.93	510.93	690.59	654.99	35.60	19.398		
4,200.00	4,192.52	4,175.48	4,196.18	18.56	17.96	143.33	-140.93	509.77	695.35	658.89	36.46	19.073		
4,300.00	4,292.31	4,274.27	4,294.95	19.00	18.37	143.77	-141.98	508.60	700.15	662.85	37.31	18.768		
4,400.00	4,392.09	4,372.10	4,392.78	19.43	18.78	144.18	-142.94	507.74	705.21	667.06	38.15	18.486		
4,500.00	4,491.88	4,474.16	4,494.83	19.87	19.21	144.57	-143.62	507.12	710.38	671.36	39.02	18.208		
4,600.00	4,591.66	4,575.22	4,595.89	20.31	19.64	144.93	-143.83	506.33	715.19	675.31	39.88	17.934		
4,700.00	4,691.44	4,673.94	4,694.61	20.74	20.06	145.27	-144.02	505.58	720.03	679.30	40.73	17.679		
4,800.00	4,791.23	4,771.48	4,792.14	21.18	20.47	145.59	-144.20	505.12	725.14	683.57	41.57	17.443		
4,900.00	4,891.01	4,871.42	4,892.08	21.62	20.89	145.91	-144.43	504.87	730.48	688.05	42.43	17.216		
5,000.00	4,990.80	4,973.54	4,994.20	22.06	21.32	146.20	-144.24	504.65	735.64	692.34	43.30	16.990		

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



Anticollision Report



Company:	SRC ENERGY	Local Co-ordinate Reference:	Well HARVESTERS STATE 31C-16-M
Project:	SECTION 15, T6N, R66W	TVD Reference:	KB @ 4821.00ft
Reference Site:	HARVESTERS STATE 7-15 PAD	MD Reference:	KB @ 4821.00ft
Site Error:	3.28 ft	North Reference:	True
Reference Well:	HARVESTERS STATE 31C-16-M	Survey Calculation Method:	Minimum Curvature
Well Error:	3.28 ft	Output errors are at	2.45 sigma
Reference Wellbore	OH	Database:	EDM 5000.14 Single User Db
Reference Design:	PLAN #1	Offset TVD Reference:	Reference Datum

Offset Design HARVESTERS STATE 7-15 PAD - HARVESTER 32-15(SI_150CC) - OH - OH													Offset Site Error:	0.00 ft
Survey Program: 100-GYRO-NS													Offset Well Error:	3.28 ft
Reference		Offset		Semi Major Axis			Distance							Warning
Measured Depth (ft)	Vertical Depth (ft)	Measured Depth (ft)	Vertical Depth (ft)	Reference (ft)	Offset (ft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (ft)	+E/-W (ft)	Between Centres (ft)	Between Ellipses (ft)	Minimum Separation (ft)	Separation Factor		
5,100.00	5,090.58	5,073.45	5,094.12	22.50	21.74	146.48	-143.98	504.20	740.59	696.43	44.16	16.771		
5,200.00	5,190.37	5,173.45	5,194.11	22.93	22.17	146.77	-143.82	503.75	745.59	700.58	45.02	16.562		
5,300.00	5,290.15	5,275.52	5,296.18	23.37	22.60	147.06	-143.59	503.13	750.47	704.58	45.89	16.354		
5,400.00	5,389.94	5,375.67	5,396.32	23.81	23.02	147.37	-143.53	502.13	755.12	708.37	46.75	16.152		
5,500.00	5,489.72	5,474.50	5,495.14	24.25	23.44	147.68	-143.62	501.12	759.87	712.27	47.61	15.962		
5,600.00	5,589.51	5,572.37	5,593.01	24.69	23.86	147.98	-143.65	500.38	764.83	716.37	48.45	15.784		
5,700.00	5,689.29	5,670.28	5,690.93	25.13	24.27	148.26	-143.86	499.84	770.07	720.77	49.30	15.619		
5,800.00	5,789.08	5,769.53	5,790.17	25.56	24.69	148.57	-144.38	499.27	775.51	725.35	50.16	15.461		
5,900.00	5,888.86	5,869.69	5,890.33	26.00	25.12	148.87	-144.82	498.76	780.96	729.94	51.02	15.306		
6,000.00	5,988.65	5,971.51	5,992.14	26.44	25.55	149.14	-144.86	498.37	786.30	734.40	51.89	15.152		
6,100.00	6,088.43	6,071.79	6,092.42	26.88	25.98	149.42	-144.91	497.70	791.42	738.67	52.76	15.001		
6,200.00	6,188.22	6,170.96	6,191.59	27.32	26.40	149.70	-145.14	496.94	796.61	743.00	53.62	14.858		
6,300.00	6,288.00	6,269.54	6,290.17	27.76	26.82	149.97	-145.29	496.40	801.93	747.46	54.47	14.722		
6,400.00	6,387.79	6,368.80	6,389.43	28.20	27.24	150.21	-145.31	496.11	807.40	752.07	55.33	14.593		
6,500.00	6,487.57	6,468.46	6,489.09	28.64	27.66	150.46	-145.32	495.85	812.91	756.71	56.19	14.467		
6,600.00	6,587.35	6,568.12	6,588.74	29.08	28.09	150.69	-145.33	495.62	818.44	761.39	57.05	14.346		
6,700.00	6,687.02	6,667.66	6,688.28	29.52	28.51	-171.01	-145.33	495.41	825.77	767.85	57.91	14.259 SF		
6,800.00	6,784.98	6,765.51	6,786.14	29.96	28.93	-154.43	-145.34	495.23	844.05	785.29	58.76	14.364		
6,900.00	6,878.81	6,859.27	6,879.90	30.41	29.32	-149.14	-145.35	495.07	874.43	814.85	59.58	14.677		
7,000.00	6,966.21	6,946.61	6,967.24	30.86	29.70	-145.99	-145.35	494.94	916.58	856.24	60.34	15.191		
7,100.00	7,045.03	7,025.38	7,046.01	31.35	30.03	-143.09	-145.36	494.83	970.03	909.00	61.03	15.895		
7,200.00	7,113.32	7,093.63	7,114.26	31.90	30.32	-139.53	-145.36	494.75	1,033.99	972.36	61.63	16.777		
7,300.00	7,169.40	7,149.69	7,170.32	32.57	30.56	-134.42	-145.36	494.70	1,107.30	1,045.17	62.14	17.821		
7,400.00	7,211.89	7,192.17	7,212.80	33.38	30.74	-126.58	-145.36	494.66	1,188.42	1,125.88	62.53	19.004		
7,500.00	7,239.75	7,220.05	7,240.68	34.35	30.86	-114.35	-145.36	494.63	1,275.45	1,212.62	62.82	20.303		
7,600.00	7,252.28	7,232.63	7,253.26	35.47	30.92	-96.46	-145.36	494.62	1,366.24	1,303.24	63.00	21.688		
7,700.00	7,252.75	7,233.18	7,253.80	36.73	30.92	-89.58	-145.36	494.62	1,458.68	1,395.59	63.09	23.120		
7,800.00	7,252.38	7,232.89	7,253.52	38.16	30.92	-89.55	-145.36	494.62	1,552.04	1,488.86	63.18	24.565		
7,900.00	7,252.02	7,232.60	7,253.23	39.74	30.92	-89.52	-145.36	494.62	1,646.19	1,582.92	63.27	26.017		
8,000.00	7,251.65	7,232.32	7,252.95	41.47	30.91	-89.49	-145.36	494.62	1,740.99	1,677.62	63.37	27.475		
8,100.00	7,251.29	7,232.03	7,252.66	43.31	30.91	-89.46	-145.36	494.62	1,836.34	1,772.88	63.46	28.939		
8,200.00	7,250.92	7,231.75	7,252.38	45.26	30.91	-89.43	-145.36	494.62	1,932.16	1,868.62	63.54	30.407		
8,300.00	7,250.55	7,231.46	7,252.09	47.30	30.91	-89.40	-145.36	494.62	2,028.39	1,964.76	63.63	31.879		
8,400.00	7,250.19	7,231.18	7,251.80	49.42	30.91	-89.37	-145.36	494.62	2,124.96	2,061.25	63.71	33.354		
8,500.00	7,249.82	7,230.89	7,251.52	51.62	30.91	-89.34	-145.36	494.62	2,221.83	2,158.05	63.79	34.831		
8,600.00	7,249.45	7,230.61	7,251.23	53.88	30.91	-89.31	-145.36	494.62	2,318.98	2,255.11	63.87	36.310		
8,700.00	7,249.09	7,230.32	7,250.95	56.19	30.91	-89.28	-145.36	494.62	2,416.35	2,352.41	63.94	37.791		
8,800.00	7,248.72	7,230.04	7,250.66	58.55	30.90	-89.25	-145.36	494.62	2,513.93	2,449.92	64.01	39.272		
8,900.00	7,248.36	7,229.75	7,250.38	60.96	30.90	-89.22	-145.36	494.62	2,611.69	2,547.61	64.08	40.754		
9,000.00	7,247.99	7,229.47	7,250.09	63.40	30.90	-89.19	-145.36	494.63	2,709.62	2,645.47	64.15	42.237		
9,100.00	7,247.62	7,229.18	7,249.81	65.87	30.90	-89.16	-145.36	494.63	2,807.69	2,743.47	64.22	43.719		
9,200.00	7,247.26	7,228.90	7,249.53	68.38	30.90	-89.13	-145.36	494.63	2,905.90	2,841.61	64.29	45.202		
9,300.00	7,246.89	7,228.61	7,249.24	70.91	30.90	-89.10	-145.36	494.63	3,004.22	2,939.87	64.35	46.684		
9,400.00	7,246.53	7,228.33	7,248.96	73.47	30.90	-89.07	-145.36	494.63	3,102.65	3,038.23	64.42	48.166		
9,500.00	7,246.16	7,228.04	7,248.67	76.05	30.90	-89.04	-145.36	494.63	3,201.18	3,136.70	64.48	49.646		
9,600.00	7,245.79	7,227.76	7,248.39	78.65	30.89	-89.01	-145.36	494.63	3,299.79	3,235.25	64.54	51.126		
9,700.00	7,245.43	7,227.48	7,248.10	81.27	30.89	-88.98	-145.36	494.63	3,398.49	3,333.89	64.60	52.605		
9,800.00	7,245.06	7,227.19	7,247.82	83.90	30.89	-88.95	-145.36	494.63	3,497.26	3,432.60	64.66	54.083		
9,900.00	7,244.69	7,226.91	7,247.54	86.55	30.89	-88.92	-145.36	494.63	3,596.10	3,531.37	64.73	55.559		
10,000.00	7,244.33	7,226.63	7,247.25	89.21	30.89	-88.89	-145.36	494.63	3,695.00	3,630.22	64.79	57.034		
10,100.00	7,243.96	7,226.34	7,246.97	91.88	30.89	-88.86	-145.36	494.63	3,793.96	3,729.11	64.85	58.508		
10,200.00	7,243.60	7,226.06	7,246.69	94.56	30.89	-88.83	-145.36	494.63	3,892.97	3,828.07	64.91	59.979		

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



Anticollision Report



Company:	SRC ENERGY	Local Co-ordinate Reference:	Well HARVESTERS STATE 31C-16-M
Project:	SECTION 15, T6N, R66W	TVD Reference:	KB @ 4821.00ft
Reference Site:	HARVESTERS STATE 7-15 PAD	MD Reference:	KB @ 4821.00ft
Site Error:	3.28 ft	North Reference:	True
Reference Well:	HARVESTERS STATE 31C-16-M	Survey Calculation Method:	Minimum Curvature
Well Error:	3.28 ft	Output errors are at	2.45 sigma
Reference Wellbore	OH	Database:	EDM 5000.14 Single User Db
Reference Design:	PLAN #1	Offset TVD Reference:	Reference Datum

Offset Design HARVESTERS STATE 7-15 PAD - HARVESTER 32-15(SI_150CC) - OH - OH													Offset Site Error:	0.00 ft
Survey Program: 100-GYRO-NS													Offset Well Error:	3.28 ft
Reference		Offset		Semi Major Axis			Distance							Warning
Measured Depth (ft)	Vertical Depth (ft)	Measured Depth (ft)	Vertical Depth (ft)	Reference (ft)	Offset (ft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (ft)	+E/-W (ft)	Between Centres (ft)	Between Ellipses (ft)	Minimum Separation (ft)	Separation Factor		
10,300.00	7,243.23	7,225.78	7,246.40	97.26	30.89	-88.80	-145.36	494.63	3,992.03	3,927.07	64.97	61.449		
10,400.00	7,242.86	7,225.49	7,246.12	99.96	30.88	-88.77	-145.36	494.63	4,091.14	4,026.11	65.02	62.917		
10,500.00	7,242.50	7,225.21	7,245.84	102.67	30.88	-88.74	-145.36	494.63	4,190.29	4,125.20	65.08	64.382		
10,600.00	7,242.13	7,224.93	7,245.56	105.39	30.88	-88.71	-145.36	494.63	4,289.48	4,224.33	65.14	65.846		
10,700.00	7,241.76	7,224.65	7,245.27	108.12	30.88	-88.68	-145.36	494.63	4,388.70	4,323.50	65.20	67.307		
10,800.00	7,241.40	7,224.36	7,244.99	110.85	30.88	-88.65	-145.36	494.63	4,487.96	4,422.70	65.26	68.766		
10,900.00	7,241.03	7,224.08	7,244.71	113.59	30.88	-88.62	-145.36	494.63	4,587.25	4,521.93	65.32	70.223		
11,000.00	7,240.67	7,223.80	7,244.43	116.34	30.88	-88.59	-145.36	494.63	4,686.58	4,621.19	65.38	71.677		
11,100.00	7,240.30	7,223.52	7,244.14	119.09	30.88	-88.56	-145.36	494.63	4,785.93	4,720.48	65.45	73.129		
11,200.00	7,239.93	7,223.23	7,243.86	121.85	30.88	-88.53	-145.36	494.63	4,885.30	4,819.80	65.51	74.578		
11,300.00	7,239.57	7,222.95	7,243.58	124.61	30.87	-88.50	-145.36	494.63	4,984.71	4,919.14	65.57	76.024		
11,400.00	7,239.20	7,222.67	7,243.30	127.38	30.87	-88.47	-145.36	494.63	5,084.13	5,018.50	65.63	77.467		
11,500.00	7,238.84	7,222.39	7,243.02	130.15	30.87	-88.44	-145.36	494.63	5,183.58	5,117.89	65.69	78.908		
11,600.00	7,238.47	7,222.11	7,242.73	132.92	30.87	-88.41	-145.36	494.63	5,283.05	5,217.29	65.75	80.346		
11,700.00	7,238.10	7,221.83	7,242.45	135.70	30.87	-88.38	-145.36	494.63	5,382.53	5,316.72	65.82	81.780		
11,800.00	7,237.74	7,221.54	7,242.17	138.48	30.87	-88.35	-145.36	494.63	5,482.04	5,416.16	65.88	83.212		
11,900.00	7,237.37	7,221.26	7,241.89	141.26	30.87	-88.32	-145.36	494.63	5,581.56	5,515.62	65.94	84.640		
12,000.00	7,237.00	7,220.98	7,241.61	144.05	30.87	-88.29	-145.36	494.63	5,681.11	5,615.10	66.01	86.066		
12,100.00	7,236.64	7,220.70	7,241.33	146.84	30.86	-88.26	-145.36	494.63	5,780.66	5,714.59	66.07	87.488		
12,200.00	7,236.27	7,220.42	7,241.05	149.64	30.86	-88.23	-145.36	494.63	5,880.23	5,814.09	66.14	88.906		
12,300.00	7,235.91	7,220.14	7,240.77	152.43	30.86	-88.20	-145.36	494.63	5,979.82	5,913.61	66.21	90.322		
12,400.00	7,235.54	7,219.86	7,240.49	155.23	30.86	-88.17	-145.36	494.63	6,079.42	6,013.15	66.27	91.734		
12,500.00	7,235.17	7,219.58	7,240.21	158.03	30.86	-88.14	-145.36	494.63	6,179.03	6,112.69	66.34	93.143		
12,600.00	7,234.81	7,219.30	7,239.93	160.83	30.86	-88.11	-145.36	494.63	6,278.66	6,212.25	66.41	94.548		
12,700.00	7,234.44	7,219.02	7,239.65	163.64	30.86	-88.08	-145.36	494.63	6,378.29	6,311.82	66.48	95.949		
12,800.00	7,234.07	7,218.74	7,239.37	166.44	30.86	-88.05	-145.36	494.63	6,477.94	6,411.40	66.54	97.347		
12,900.00	7,233.71	7,218.46	7,239.08	169.25	30.85	-88.02	-145.36	494.63	6,577.60	6,510.98	66.61	98.741		
13,000.00	7,233.34	7,218.18	7,238.81	172.06	30.85	-87.99	-145.36	494.63	6,677.27	6,610.58	66.68	100.132		
13,100.00	7,232.98	7,217.90	7,238.53	174.88	30.85	-87.96	-145.36	494.63	6,776.95	6,710.19	66.76	101.519		
13,200.00	7,232.61	7,217.62	7,238.25	177.69	30.85	-87.93	-145.36	494.63	6,876.63	6,809.81	66.83	102.902		
13,300.00	7,232.24	7,217.34	7,237.97	180.50	30.85	-87.90	-145.36	494.63	6,976.33	6,909.43	66.90	104.281		
13,400.00	7,231.88	7,217.06	7,237.69	183.32	30.85	-87.87	-145.36	494.64	7,076.03	7,009.06	66.97	105.656		
13,500.00	7,231.51	7,216.78	7,237.41	186.14	30.85	-87.84	-145.36	494.64	7,175.75	7,108.70	67.05	107.028		
13,600.00	7,231.15	7,216.50	7,237.13	188.96	30.85	-87.81	-145.36	494.64	7,275.47	7,208.35	67.12	108.395		
13,700.00	7,230.78	7,216.22	7,236.85	191.78	30.85	-87.78	-145.36	494.64	7,375.20	7,308.00	67.19	109.759		
13,800.00	7,230.41	7,215.94	7,236.57	194.60	30.84	-87.75	-145.36	494.64	7,474.93	7,407.66	67.27	111.118		
13,900.00	7,230.05	7,215.66	7,236.29	197.42	30.84	-87.72	-145.36	494.64	7,574.68	7,507.33	67.35	112.474		
14,000.00	7,229.68	7,215.38	7,236.01	200.25	30.84	-87.69	-145.36	494.64	7,674.43	7,607.00	67.42	113.825		
14,100.00	7,229.31	7,215.11	7,235.73	203.07	30.84	-87.66	-145.36	494.64	7,774.18	7,706.68	67.50	115.173		
14,200.00	7,228.95	7,214.83	7,235.46	205.90	30.84	-87.63	-145.36	494.64	7,873.94	7,806.37	67.58	116.516		
14,300.00	7,228.58	7,214.55	7,235.18	208.73	30.84	-87.60	-145.36	494.64	7,973.71	7,906.06	67.66	117.855		
14,400.00	7,228.22	7,214.27	7,234.90	211.55	30.84	-87.58	-145.36	494.64	8,073.49	8,005.75	67.74	119.189		
14,500.00	7,227.85	7,213.99	7,234.62	214.38	30.84	-87.55	-145.36	494.64	8,173.27	8,105.45	67.82	120.520		
14,600.00	7,227.48	7,213.71	7,234.34	217.21	30.83	-87.52	-145.36	494.64	8,273.05	8,205.15	67.90	121.846		
14,700.00	7,227.12	7,213.44	7,234.06	220.04	30.83	-87.49	-145.36	494.64	8,372.84	8,304.86	67.98	123.168		
14,800.00	7,226.75	7,213.16	7,233.79	222.88	30.83	-87.46	-145.36	494.64	8,472.64	8,404.57	68.06	124.486		
14,900.00	7,226.38	7,212.88	7,233.51	225.71	30.83	-87.43	-145.36	494.64	8,572.43	8,504.29	68.14	125.799		
15,000.00	7,226.02	7,212.60	7,233.23	228.54	30.83	-87.40	-145.36	494.64	8,672.24	8,604.01	68.23	127.108		
15,005.81	7,226.00	7,212.59	7,233.22	228.71	30.83	-87.40	-145.36	494.64	8,678.04	8,609.80	68.23	127.184		

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



Anticollision Report



Company:	SRC ENERGY	Local Co-ordinate Reference:	Well HARVESTERS STATE 31C-16-M
Project:	SECTION 15, T6N, R66W	TVD Reference:	KB @ 4821.00ft
Reference Site:	HARVESTERS STATE 7-15 PAD	MD Reference:	KB @ 4821.00ft
Site Error:	3.28 ft	North Reference:	True
Reference Well:	HARVESTERS STATE 31C-16-M	Survey Calculation Method:	Minimum Curvature
Well Error:	3.28 ft	Output errors are at	2.45 sigma
Reference Wellbore	OH	Database:	EDM 5000.14 Single User Db
Reference Design:	PLAN #1	Offset TVD Reference:	Reference Datum

Offset Design HARVESTERS STATE 7-15 PAD - HARVESTERS RESOURCES 15M-303 (PR_150CC) - OH - OH												Offset Site Error:	0.00 ft
Survey Program: 146-MWD												Offset Well Error:	3.28 ft
Reference		Offset		Semi Major Axis			Distance						Warning
Measured Depth (ft)	Vertical Depth (ft)	Measured Depth (ft)	Vertical Depth (ft)	Reference (ft)	Offset (ft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (ft)	+E/-W (ft)	Between Centres (ft)	Between Ellipses (ft)	Minimum Separation (ft)	Separation Factor	
0.00	0.00	0.00	1.00	3.28	3.28	10.10	1,370.52	244.19	1,392.11				
100.00	100.00	107.38	108.38	3.28	3.29	10.11	1,370.18	244.25	1,391.81	1,385.24	6.57	211.736	
200.00	200.00	212.68	213.68	3.34	3.34	10.12	1,369.28	244.34	1,390.98	1,384.30	6.67	208.405	
300.00	300.00	315.44	316.42	3.44	3.45	10.12	1,368.16	244.24	1,389.89	1,382.99	6.89	201.612	
400.00	400.00	408.73	409.71	3.60	3.60	10.12	1,367.25	244.08	1,388.90	1,381.70	7.20	192.949	
500.00	500.00	504.66	505.64	3.81	3.79	10.11	1,366.80	243.67	1,388.37	1,380.78	7.59	182.910	
600.00	600.00	611.47	612.45	4.05	4.04	10.10	1,366.20	243.30	1,387.75	1,379.66	8.08	171.676	
700.00	699.98	708.22	709.19	4.32	4.30	33.04	1,365.57	242.68	1,385.53	1,376.92	8.61	160.840	
800.00	799.84	807.77	808.74	4.62	4.59	33.16	1,365.15	241.61	1,380.56	1,371.36	9.20	149.988	
900.00	899.62	911.14	912.10	4.94	4.92	33.27	1,364.44	240.43	1,374.19	1,364.34	9.85	139.549	
1,000.00	999.41	1,000.16	1,001.11	5.27	5.21	33.36	1,364.08	239.19	1,368.07	1,357.60	10.48	130.585	
1,100.00	1,099.19	1,081.44	1,082.35	5.62	5.48	33.38	1,364.99	236.86	1,363.17	1,352.07	11.10	122.787	
1,200.00	1,198.98	1,164.93	1,165.71	5.99	5.77	33.33	1,367.25	232.93	1,359.51	1,347.75	11.75	115.663	
1,300.00	1,298.76	1,243.67	1,244.20	6.36	6.05	33.20	1,370.78	227.74	1,357.25	1,344.84	12.41	109.382	
1,400.00	1,398.55	1,334.42	1,334.43	6.74	6.39	32.96	1,376.27	219.67	1,356.15	1,343.02	13.13	103.311	
1,467.24	1,465.65	1,391.36	1,390.87	7.00	6.61	32.76	1,380.29	213.46	1,355.87	1,342.27	13.61	99.647	
1,500.00	1,498.33	1,418.70	1,417.95	7.13	6.71	32.65	1,382.42	210.28	1,355.94	1,342.10	13.84	97.964	
1,600.00	1,598.12	1,509.69	1,507.92	7.52	7.08	32.27	1,390.13	199.09	1,356.76	1,342.16	14.60	92.919	
1,700.00	1,697.90	1,607.84	1,604.89	7.92	7.50	31.84	1,398.84	186.68	1,358.00	1,342.59	15.41	88.113	
1,800.00	1,797.69	1,723.52	1,719.22	8.33	8.00	31.33	1,408.54	171.95	1,358.85	1,342.53	16.32	83.263	
1,900.00	1,897.47	1,823.93	1,818.56	8.74	8.46	30.90	1,416.22	159.47	1,359.06	1,341.89	17.17	79.142	
2,000.00	1,997.26	1,940.70	1,934.17	9.15	8.99	30.42	1,424.18	145.19	1,358.55	1,340.43	18.11	75.008	
2,100.00	2,097.04	2,040.39	2,032.98	9.56	9.45	30.04	1,430.23	133.39	1,357.41	1,338.43	18.98	71.517	
2,200.00	2,196.83	2,128.47	2,120.24	9.98	9.86	29.69	1,436.07	122.93	1,356.90	1,337.10	19.80	68.530	
2,205.74	2,202.56	2,133.52	2,125.24	10.00	9.88	29.67	1,436.43	122.32	1,356.90	1,337.05	19.85	68.367	
2,300.00	2,296.61	2,219.93	2,210.75	10.40	10.29	29.31	1,442.95	111.76	1,357.29	1,336.64	20.64	65.752	
2,400.00	2,396.40	2,320.31	2,310.13	10.82	10.77	28.91	1,450.48	99.75	1,357.76	1,336.22	21.53	63.051	
2,500.00	2,496.18	2,412.53	2,401.42	11.24	11.22	28.54	1,457.84	88.98	1,358.79	1,336.40	22.39	60.695	
2,600.00	2,595.96	2,512.46	2,500.39	11.66	11.70	28.17	1,465.78	77.74	1,359.90	1,336.61	23.28	58.411	
2,700.00	2,695.75	2,609.04	2,596.03	12.09	12.17	27.81	1,473.83	66.95	1,361.46	1,337.30	24.16	56.350	
2,800.00	2,795.53	2,717.18	2,703.15	12.51	12.70	27.41	1,482.35	54.82	1,362.60	1,337.50	25.10	54.277	
2,900.00	2,895.32	2,815.83	2,800.83	12.94	13.19	27.03	1,489.90	43.31	1,363.57	1,337.56	26.00	52.437	
3,000.00	2,995.10	2,911.21	2,895.19	13.37	13.67	26.64	1,497.48	31.65	1,364.84	1,337.95	26.89	50.753	
3,100.00	3,094.89	3,016.45	2,999.28	13.80	14.19	26.20	1,505.95	18.67	1,366.31	1,338.47	27.83	49.086	
3,200.00	3,194.67	3,116.84	3,098.68	14.23	14.70	25.80	1,513.45	6.75	1,367.26	1,338.51	28.75	47.554	
3,300.00	3,294.46	3,213.83	3,194.68	14.66	15.19	25.41	1,520.94	-4.92	1,368.54	1,338.89	29.65	46.152	
3,400.00	3,394.24	3,338.15	3,317.74	15.09	15.82	24.91	1,529.77	-20.14	1,369.31	1,338.61	30.70	44.603	
3,500.00	3,494.03	3,440.47	3,419.20	15.52	16.32	24.52	1,535.79	-31.95	1,368.90	1,337.27	31.63	43.283	
3,600.00	3,593.81	3,536.59	3,514.63	15.96	16.80	24.21	1,541.38	-41.97	1,368.50	1,335.99	32.52	42.088	
3,615.40	3,609.18	3,549.35	3,527.30	16.02	16.86	24.17	1,542.16	-43.21	1,368.49	1,335.85	32.64	41.925	
3,700.00	3,693.60	3,619.40	3,596.86	16.39	17.20	23.95	1,546.86	-50.14	1,368.94	1,335.61	33.33	41.069	
3,800.00	3,793.38	3,709.33	3,686.08	16.82	17.64	23.67	1,553.68	-59.08	1,370.41	1,336.22	34.19	40.088	
3,900.00	3,893.17	3,814.67	3,790.59	17.26	18.16	23.35	1,561.88	-69.44	1,372.10	1,336.98	35.12	39.068	
4,000.00	3,992.95	3,895.94	3,871.21	17.69	18.57	23.11	1,568.56	-77.17	1,374.27	1,338.35	35.92	38.257	
4,100.00	4,092.74	3,994.48	3,968.90	18.13	19.06	22.82	1,577.42	-86.63	1,377.24	1,340.42	36.82	37.405	
4,200.00	4,192.52	4,087.04	4,060.55	18.56	19.53	22.51	1,585.91	-96.41	1,380.46	1,342.77	37.69	36.628	
4,300.00	4,292.31	4,181.50	4,154.00	19.00	20.01	22.19	1,595.02	-106.68	1,384.19	1,345.62	38.57	35.888	
4,400.00	4,392.09	4,306.88	4,278.18	19.43	20.64	21.78	1,606.21	-119.81	1,387.25	1,347.62	39.63	35.004	
4,500.00	4,491.88	4,419.66	4,390.05	19.87	21.21	21.42	1,614.69	-131.32	1,388.93	1,348.32	40.61	34.200	
4,600.00	4,591.66	4,545.58	4,515.12	20.31	21.83	21.05	1,622.63	-143.59	1,389.47	1,347.82	41.65	33.362	
4,700.00	4,691.44	4,671.05	4,640.01	20.74	22.42	20.74	1,627.93	-154.35	1,387.86	1,345.20	42.66	32.533	
4,800.00	4,791.23	4,785.13	4,753.62	21.18	22.95	20.45	1,631.19	-164.13	1,384.93	1,341.32	43.61	31.756	

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



Anticollision Report



Company:	SRC ENERGY	Local Co-ordinate Reference:	Well HARVESTERS STATE 31C-16-M
Project:	SECTION 15, T6N, R66W	TVD Reference:	KB @ 4821.00ft
Reference Site:	HARVESTERS STATE 7-15 PAD	MD Reference:	KB @ 4821.00ft
Site Error:	3.28 ft	North Reference:	True
Reference Well:	HARVESTERS STATE 31C-16-M	Survey Calculation Method:	Minimum Curvature
Well Error:	3.28 ft	Output errors are at	2.45 sigma
Reference Wellbore	OH	Database:	EDM 5000.14 Single User Db
Reference Design:	PLAN #1	Offset TVD Reference:	Reference Datum

Offset Design HARVESTERS STATE 7-15 PAD - HARVESTERS RESOURCES 15M-303 (PR_150CC) - OH - OH													Offset Site Error:	0.00 ft
Survey Program: 146-MWD													Offset Well Error:	3.28 ft
Reference		Offset		Semi Major Axis			Distance						Warning	
Measured Depth (ft)	Vertical Depth (ft)	Measured Depth (ft)	Vertical Depth (ft)	Reference (ft)	Offset (ft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (ft)	+E/-W (ft)	Between Centres (ft)	Between Ellipses (ft)	Minimum Separation (ft)	Separation Factor		
4,900.00	4,891.01	4,894.13	4,862.33	21.62	23.44	20.23	1,633.33	-171.96	1,381.06	1,336.53	44.53	31.014		
5,000.00	4,990.80	4,998.47	4,966.51	22.06	23.90	20.11	1,635.16	-177.28	1,376.90	1,331.49	45.42	30.317		
5,100.00	5,090.58	5,108.18	5,076.16	22.50	24.35	20.09	1,636.56	-180.29	1,372.15	1,325.85	46.31	29.632		
5,200.00	5,190.37	5,208.98	5,176.94	22.93	24.77	20.09	1,637.37	-182.72	1,366.91	1,319.74	47.17	28.981		
5,300.00	5,290.15	5,313.71	5,281.64	23.37	25.20	20.09	1,638.19	-184.89	1,361.63	1,313.60	48.03	28.348		
5,400.00	5,389.94	5,412.97	5,380.88	23.81	25.61	20.11	1,638.68	-186.91	1,356.07	1,307.18	48.89	27.739		
5,500.00	5,489.72	5,524.60	5,492.49	24.25	26.06	20.13	1,638.91	-188.92	1,350.21	1,300.44	49.77	27.130		
5,600.00	5,589.51	5,625.44	5,593.32	24.69	26.46	20.15	1,638.59	-190.58	1,343.82	1,293.20	50.62	26.547		
5,700.00	5,689.29	5,715.76	5,683.62	25.13	26.83	20.17	1,638.64	-192.21	1,337.79	1,286.34	51.45	26.000		
5,800.00	5,789.08	5,819.36	5,787.20	25.56	27.26	20.19	1,638.80	-194.08	1,331.88	1,279.56	52.32	25.457		
5,900.00	5,888.86	5,916.32	5,884.15	26.00	27.65	20.21	1,639.01	-195.76	1,326.02	1,272.85	53.17	24.940		
6,000.00	5,988.65	6,167.81	7,214.78	26.44	40.16	-130.23	343.40	-192.70	1,227.68	1,211.80	15.88	77.309		
6,100.00	6,088.43	6,163.60	7,214.69	26.88	40.10	-128.02	347.61	-192.91	1,127.79	1,111.83	15.96	70.644		
6,200.00	6,188.22	6,159.41	7,214.60	27.32	40.05	-125.51	351.80	-193.10	1,027.91	1,011.85	16.06	64.010		
6,300.00	6,288.00	6,155.22	7,214.51	27.76	39.99	-122.65	355.98	-193.28	928.04	911.87	16.16	57.415		
6,400.00	6,387.79	6,151.05	7,214.43	28.20	39.94	-119.38	360.15	-193.45	828.17	811.89	16.28	50.866		
6,500.00	6,487.57	6,146.89	7,214.34	28.64	39.88	-115.61	364.30	-193.61	728.32	711.90	16.41	44.369		
6,600.00	6,587.35	6,142.85	7,214.25	29.08	39.83	-111.39	368.34	-193.75	628.48	611.91	16.57	37.922		
6,700.00	6,687.02	6,138.93	7,214.17	29.52	39.78	-109.52	372.26	-193.89	528.64	511.91	16.73	31.600		
6,800.00	6,784.98	6,134.47	7,214.08	29.96	39.72	-107.05	376.71	-194.04	429.64	412.96	16.88	25.752		
6,900.00	6,878.81	6,129.55	7,213.99	30.41	39.65	-104.68	381.62	-194.20	335.53	317.74	17.79	18.859		
7,000.00	6,966.21	6,124.33	7,213.89	30.86	39.58	-102.31	386.84	-194.36	255.30	229.16	26.15	9.764		
7,100.00	7,045.03	6,118.98	7,213.79	31.35	39.51	-100.04	392.19	-194.53	208.70	162.34	46.36	4.502		
7,132.25	7,068.28	6,117.26	7,213.76	31.53	39.49	-100.04	393.91	-194.58	205.39	151.79	53.60	3.832 CC, ES		
7,200.00	7,113.32	6,113.68	7,213.70	31.90	39.44	-100.04	397.48	-194.69	219.63	154.85	64.77	3.391 SF		
7,300.00	7,169.40	6,108.56	7,213.61	32.57	39.38	-100.04	402.60	-194.84	281.26	211.04	70.22	4.005		
7,400.00	7,211.89	6,103.72	7,213.54	33.38	39.32	-100.04	407.44	-194.98	368.00	297.51	70.49	5.221		
7,500.00	7,239.75	6,099.34	7,213.48	34.35	39.26	-100.04	411.82	-195.10	464.54	394.41	70.13	6.624		
7,600.00	7,252.28	6,095.59	7,213.43	35.47	39.21	-100.04	415.57	-195.21	564.16	494.16	70.01	8.059		
7,700.00	7,252.75	6,092.42	7,213.39	36.73	39.17	-100.04	418.74	-195.29	663.92	593.86	70.07	9.476		
7,800.00	7,252.38	6,089.35	7,213.36	38.16	39.13	-100.04	421.80	-195.38	763.70	693.59	70.11	10.893		
7,900.00	7,252.02	6,086.35	7,213.33	39.74	39.09	-100.04	424.80	-195.46	863.52	793.38	70.14	12.311		
8,000.00	7,251.65	6,083.41	7,213.30	41.47	39.06	-100.04	427.74	-195.53	963.36	893.20	70.16	13.731		
8,100.00	7,251.29	6,080.54	7,213.28	43.31	39.02	-100.04	430.61	-195.61	1,063.22	993.05	70.17	15.152		
8,200.00	7,250.92	6,077.72	7,213.25	45.26	38.98	-100.04	433.43	-195.68	1,163.11	1,092.92	70.18	16.573		
8,300.00	7,250.55	6,074.96	7,213.23	47.30	38.95	-100.04	436.19	-195.75	1,263.00	1,192.81	70.19	17.994		
8,400.00	7,250.19	6,072.26	7,213.22	49.42	38.91	-100.04	438.89	-195.82	1,362.90	1,292.70	70.20	19.416		
8,500.00	7,249.82	6,069.60	7,213.20	51.62	38.88	-100.04	441.54	-195.89	1,462.81	1,392.61	70.20	20.837		
8,600.00	7,249.45	6,067.00	7,213.19	53.88	38.85	-100.04	444.14	-195.95	1,562.73	1,492.52	70.21	22.259		
8,700.00	7,249.09	6,064.45	7,213.17	56.19	38.82	-100.04	446.69	-196.01	1,662.65	1,592.43	70.21	23.680		
8,800.00	7,248.72	6,061.95	7,213.16	58.55	38.79	-100.04	449.19	-196.07	1,762.57	1,692.35	70.22	25.100		
8,900.00	7,248.36	6,059.50	7,213.15	60.96	38.75	-100.04	451.65	-196.13	1,862.50	1,792.28	70.23	26.521		
9,000.00	7,247.99	6,057.09	7,213.15	63.40	38.72	-100.04	454.05	-196.19	1,962.44	1,892.20	70.24	27.940		
9,100.00	7,247.62	6,054.72	7,213.14	65.87	38.69	-100.04	456.42	-196.24	2,062.37	1,992.13	70.25	29.359		
9,200.00	7,247.26	6,052.00	7,213.13	68.38	38.66	-100.04	459.14	-196.30	2,162.31	2,092.06	70.25	30.780		
9,300.00	7,246.89	6,052.00	7,213.13	70.91	38.66	-100.04	459.14	-196.30	2,262.26	2,191.97	70.29	32.186		
9,400.00	7,246.53	6,052.00	7,213.13	73.47	38.66	-100.04	459.14	-196.30	2,362.20	2,291.88	70.32	33.590		
9,500.00	7,246.16	6,052.00	7,213.13	76.05	38.66	-100.04	459.14	-196.30	2,462.16	2,391.79	70.36	34.993		
9,600.00	7,245.79	6,052.00	7,213.13	78.65	38.66	-100.04	459.14	-196.30	2,562.11	2,491.71	70.40	36.394		
9,700.00	7,245.43	6,045.39	7,213.13	81.27	38.58	-100.04	465.75	-196.44	2,662.05	2,591.69	70.37	37.830		
9,800.00	7,245.06	6,044.18	7,213.13	83.90	38.56	-100.04	466.96	-196.47	2,762.01	2,691.61	70.40	39.235		
9,900.00	7,244.69	6,043.01	7,213.14	86.55	38.55	-100.04	468.13	-196.49	2,861.97	2,791.54	70.42	40.639		

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



Anticollision Report



Company:	SRC ENERGY	Local Co-ordinate Reference:	Well HARVESTERS STATE 31C-16-M
Project:	SECTION 15, T6N, R66W	TVD Reference:	KB @ 4821.00ft
Reference Site:	HARVESTERS STATE 7-15 PAD	MD Reference:	KB @ 4821.00ft
Site Error:	3.28 ft	North Reference:	True
Reference Well:	HARVESTERS STATE 31C-16-M	Survey Calculation Method:	Minimum Curvature
Well Error:	3.28 ft	Output errors are at	2.45 sigma
Reference Wellbore	OH	Database:	EDM 5000.14 Single User Db
Reference Design:	PLAN #1	Offset TVD Reference:	Reference Datum

Offset Design HARVESTERS STATE 7-15 PAD - HARVESTERS RESOURCES 15M-303 (PR_150CC) - OH - OH													Offset Site Error:	0.00 ft
Survey Program: 146-MWD													Offset Well Error:	3.28 ft
Reference		Offset		Semi Major Axis			Distance							Warning
Measured Depth (ft)	Vertical Depth (ft)	Measured Depth (ft)	Vertical Depth (ft)	Reference (ft)	Offset (ft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (ft)	+E/-W (ft)	Between Centres (ft)	Between Ellipses (ft)	Minimum Separation (ft)	Separation Factor		
10,000.00	7,244.33	8,041.88	7,213.14	89.21	38.53	59.68	469.26	-196.51	2,961.93	2,891.47	70.45	42.041		
10,100.00	7,243.96	8,040.80	7,213.14	91.88	38.52	60.06	470.34	-196.53	3,061.89	2,991.41	70.48	43.441		
10,200.00	7,243.60	8,039.75	7,213.14	94.56	38.51	60.41	471.39	-196.55	3,161.85	3,091.34	70.52	44.839		
10,300.00	7,243.23	8,038.74	7,213.15	97.26	38.50	60.74	472.40	-196.57	3,261.82	3,191.27	70.55	46.235		
10,400.00	7,242.86	8,037.77	7,213.15	99.96	38.48	61.06	473.37	-196.58	3,361.78	3,291.20	70.58	47.629		
10,500.00	7,242.50	8,036.83	7,213.15	102.67	38.47	61.36	474.31	-196.60	3,461.75	3,391.13	70.62	49.021		
10,600.00	7,242.13	8,035.92	7,213.16	105.39	38.46	61.64	475.22	-196.62	3,561.72	3,491.06	70.65	50.410		
10,700.00	7,241.76	8,035.04	7,213.16	108.12	38.45	61.91	476.10	-196.63	3,661.69	3,591.00	70.69	51.798		
10,800.00	7,241.40	8,034.19	7,213.17	110.85	38.44	62.17	476.95	-196.64	3,761.66	3,690.93	70.73	53.182		
10,900.00	7,241.03	8,033.36	7,213.17	113.59	38.43	62.42	477.77	-196.66	3,861.63	3,790.86	70.77	54.565		
11,000.00	7,240.67	8,032.57	7,213.18	116.34	38.42	62.65	478.57	-196.67	3,961.60	3,890.79	70.81	55.945		
11,100.00	7,240.30	8,031.79	7,213.18	119.09	38.41	62.88	479.34	-196.68	4,061.58	3,990.72	70.86	57.322		
11,200.00	7,239.93	8,031.04	7,213.19	121.85	38.40	63.09	480.09	-196.69	4,161.55	4,090.65	70.90	58.697		
11,300.00	7,239.57	8,022.00	7,213.27	124.61	38.29	65.45	489.14	-196.80	4,261.55	4,190.68	70.87	60.136		
11,400.00	7,239.20	8,022.00	7,213.27	127.38	38.29	65.45	489.14	-196.80	4,361.52	4,290.60	70.92	61.501		
11,500.00	7,238.84	8,022.00	7,213.27	130.15	38.29	65.45	489.14	-196.80	4,461.50	4,390.52	70.97	62.863		
11,600.00	7,238.47	8,022.00	7,213.27	132.92	38.29	65.45	489.14	-196.80	4,561.47	4,490.44	71.03	64.222		
11,700.00	7,238.10	8,022.00	7,213.27	135.70	38.29	65.45	489.14	-196.80	4,661.45	4,590.37	71.08	65.578		
11,800.00	7,237.74	8,022.00	7,213.27	138.48	38.29	65.45	489.14	-196.80	4,761.42	4,690.29	71.14	66.931		
11,900.00	7,237.37	8,022.00	7,213.27	141.26	38.29	65.45	489.14	-196.80	4,861.40	4,790.21	71.20	68.282		
12,000.00	7,237.00	8,022.00	7,213.27	144.05	38.29	65.45	489.14	-196.80	4,961.38	4,890.13	71.25	69.629		
12,100.00	7,236.64	8,022.00	7,213.27	146.84	38.29	65.45	489.14	-196.80	5,061.36	4,990.05	71.31	70.973		
12,200.00	7,236.27	8,022.00	7,213.27	149.64	38.29	65.45	489.14	-196.80	5,161.34	5,089.97	71.37	72.314		
12,300.00	7,235.91	8,022.00	7,213.27	152.43	38.29	65.45	489.14	-196.80	5,261.32	5,189.89	71.44	73.652		
12,400.00	7,235.54	8,022.00	7,213.27	155.23	38.29	65.45	489.14	-196.80	5,361.30	5,289.81	71.50	74.986		
12,500.00	7,235.17	8,022.00	7,213.27	158.03	38.29	65.45	489.14	-196.80	5,461.29	5,389.73	71.56	76.318		
12,600.00	7,234.81	8,022.00	7,213.27	160.83	38.29	65.45	489.14	-196.80	5,561.27	5,489.65	71.62	77.646		
12,700.00	7,234.44	8,022.00	7,213.27	163.64	38.29	65.45	489.14	-196.80	5,661.25	5,589.57	71.69	78.970		
12,800.00	7,234.07	8,022.00	7,213.27	166.44	38.29	65.45	489.14	-196.80	5,761.24	5,689.48	71.75	80.291		
12,900.00	7,233.71	8,022.00	7,213.27	169.25	38.29	65.45	489.14	-196.80	5,861.22	5,789.40	71.82	81.609		
13,000.00	7,233.34	8,022.00	7,213.27	172.06	38.29	65.45	489.14	-196.80	5,961.21	5,889.32	71.89	82.923		
13,100.00	7,232.98	8,022.00	7,213.27	174.88	38.29	65.45	489.14	-196.80	6,061.20	5,989.24	71.96	84.234		
13,200.00	7,232.61	8,022.00	7,213.27	177.69	38.29	65.45	489.14	-196.80	6,161.18	6,089.16	72.03	85.541		
13,300.00	7,232.24	8,022.00	7,213.27	180.50	38.29	65.45	489.14	-196.80	6,261.17	6,189.07	72.10	86.845		
13,400.00	7,231.88	8,022.00	7,213.27	183.32	38.29	65.45	489.14	-196.80	6,361.16	6,288.99	72.17	88.145		
13,500.00	7,231.51	8,022.00	7,213.27	186.14	38.29	65.45	489.14	-196.80	6,461.14	6,388.90	72.24	89.442		
13,600.00	7,231.15	8,022.00	7,213.27	188.96	38.29	65.45	489.14	-196.80	6,561.13	6,488.82	72.31	90.734		
13,700.00	7,230.78	8,022.00	7,213.27	191.78	38.29	65.45	489.14	-196.80	6,661.12	6,588.73	72.39	92.023		
13,800.00	7,230.41	8,022.00	7,213.27	194.60	38.29	65.45	489.14	-196.80	6,761.11	6,688.65	72.46	93.309		
13,900.00	7,230.05	8,022.00	7,213.27	197.42	38.29	65.45	489.14	-196.80	6,861.10	6,788.56	72.53	94.590		
14,000.00	7,229.68	8,022.00	7,213.27	200.25	38.29	65.45	489.14	-196.80	6,961.09	6,888.48	72.61	95.868		
14,100.00	7,229.31	8,022.00	7,213.27	203.07	38.29	65.45	489.14	-196.80	7,061.08	6,988.39	72.69	97.142		
14,200.00	7,228.95	8,022.00	7,213.27	205.90	38.29	65.45	489.14	-196.80	7,161.07	7,088.30	72.77	98.412		
14,300.00	7,228.58	8,022.00	7,213.27	208.73	38.29	65.45	489.14	-196.80	7,261.06	7,188.21	72.85	99.678		
14,400.00	7,228.22	8,022.00	7,213.27	211.55	38.29	65.45	489.14	-196.80	7,361.05	7,288.12	72.92	100.940		
14,500.00	7,227.85	8,022.00	7,213.27	214.38	38.29	65.45	489.14	-196.80	7,461.04	7,388.03	73.01	102.199		
14,600.00	7,227.48	8,012.24	7,213.37	217.21	38.17	67.62	498.89	-196.89	7,561.01	7,488.01	73.00	103.575		
14,700.00	7,227.12	8,011.82	7,213.38	220.04	38.17	67.71	499.32	-196.89	7,661.00	7,587.92	73.08	104.832		
14,800.00	7,226.75	8,011.40	7,213.38	222.88	38.16	67.79	499.73	-196.90	7,760.99	7,687.83	73.16	106.085		
14,900.00	7,226.38	8,011.00	7,213.39	225.71	38.16	67.87	500.14	-196.90	7,860.98	7,787.74	73.24	107.335		
15,000.00	7,226.02	8,010.59	7,213.39	228.54	38.15	67.95	500.54	-196.90	7,960.97	7,887.65	73.32	108.580		
15,005.81	7,226.00	8,010.57	7,213.39	228.71	38.15	67.96	500.56	-196.90	7,966.78	7,893.45	73.32	108.652		

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



Company:	SRC ENERGY	Local Co-ordinate Reference:	Well HARVESTERS STATE 31C-16-M
Project:	SECTION 15, T6N, R66W	TVD Reference:	KB @ 4821.00ft
Reference Site:	HARVESTERS STATE 7-15 PAD	MD Reference:	KB @ 4821.00ft
Site Error:	3.28 ft	North Reference:	True
Reference Well:	HARVESTERS STATE 31C-16-M	Survey Calculation Method:	Minimum Curvature
Well Error:	3.28 ft	Output errors are at	2.45 sigma
Reference Wellbore	OH	Database:	EDM 5000.14 Single User Db
Reference Design:	PLAN #1	Offset TVD Reference:	Reference Datum



Anticollision Report



Company:	SRC ENERGY	Local Co-ordinate Reference:	Well HARVESTERS STATE 31C-16-M
Project:	SECTION 15, T6N, R66W	TVD Reference:	KB @ 4821.00ft
Reference Site:	HARVESTERS STATE 7-15 PAD	MD Reference:	KB @ 4821.00ft
Site Error:	3.28 ft	North Reference:	True
Reference Well:	HARVESTERS STATE 31C-16-M	Survey Calculation Method:	Minimum Curvature
Well Error:	3.28 ft	Output errors are at	2.45 sigma
Reference Wellbore	OH	Database:	EDM 5000.14 Single User Db
Reference Design:	PLAN #1	Offset TVD Reference:	Reference Datum

Offset Design HARVESTERS STATE 7-15 PAD - HARVESTERS RESOURCES 15M-423(PR_150CC) - OH - OH													Offset Site Error:	0.00 ft
Survey Program: 146-MWD													Offset Well Error:	3.28 ft
Reference		Offset		Semi Major Axis			Distance							Warning
Measured Depth (ft)	Vertical Depth (ft)	Measured Depth (ft)	Vertical Depth (ft)	Reference (ft)	Offset (ft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (ft)	+E/-W (ft)	Between Centres (ft)	Between Ellipses (ft)	Minimum Separation (ft)	Separation Factor		
0.00	0.00	0.00	1.00	3.28	3.28	11.35	1,371.98	275.34	1,399.34					
100.00	100.00	102.11	103.11	3.28	3.29	11.36	1,371.83	275.54	1,399.23	1,392.65	6.57	212.895		
200.00	200.00	208.97	209.97	3.34	3.33	11.38	1,371.27	276.04	1,398.82	1,392.14	6.67	209.681		
300.00	300.00	312.87	313.86	3.44	3.44	11.38	1,370.34	275.89	1,397.91	1,391.02	6.89	202.963		
400.00	400.00	415.83	416.81	3.60	3.60	11.35	1,369.39	274.92	1,396.82	1,389.61	7.20	193.870		
500.00	500.00	519.62	520.59	3.81	3.81	11.36	1,367.98	274.89	1,395.48	1,387.86	7.62	183.195		
600.00	600.00	612.56	613.52	4.05	4.04	11.38	1,366.83	275.12	1,394.31	1,386.23	8.08	172.574		
700.00	699.98	715.19	716.15	4.32	4.31	34.38	1,365.63	275.63	1,391.82	1,383.20	8.63	161.310		
800.00	799.84	818.21	819.15	4.62	4.62	34.60	1,364.08	276.26	1,386.17	1,376.94	9.23	150.111		
900.00	899.62	914.21	915.14	4.94	4.93	34.79	1,362.70	276.99	1,379.53	1,369.67	9.86	139.962		
1,000.00	999.41	1,008.16	1,009.08	5.27	5.24	34.99	1,361.51	278.15	1,373.16	1,362.66	10.50	130.722		
1,100.00	1,099.19	1,101.16	1,102.07	5.62	5.56	35.18	1,360.96	279.07	1,367.41	1,356.24	11.18	122.358		
1,200.00	1,198.98	1,200.07	1,200.98	5.99	5.91	35.37	1,360.64	279.76	1,361.89	1,350.00	11.89	114.541		
1,300.00	1,298.76	1,301.50	1,302.40	6.36	6.28	35.57	1,360.29	280.52	1,356.37	1,343.73	12.63	107.352		
1,400.00	1,398.55	1,398.56	1,399.46	6.74	6.65	35.75	1,359.90	281.06	1,350.77	1,337.39	13.38	100.956		
1,500.00	1,498.33	1,495.02	1,495.92	7.13	7.01	35.94	1,359.88	281.71	1,345.58	1,331.44	14.13	95.204		
1,600.00	1,598.12	1,594.23	1,595.13	7.52	7.39	36.13	1,359.90	282.43	1,340.46	1,325.55	14.91	89.913		
1,700.00	1,697.90	1,695.26	1,696.15	7.92	7.79	36.33	1,359.93	283.23	1,335.38	1,319.68	15.70	85.048		
1,800.00	1,797.69	1,800.60	1,801.49	8.33	8.20	36.54	1,359.72	283.89	1,330.05	1,313.53	16.52	80.499		
1,900.00	1,897.47	1,893.81	1,894.69	8.74	8.57	36.71	1,359.49	284.27	1,324.65	1,307.35	17.29	76.591		
2,000.00	1,997.26	1,982.43	1,983.31	9.15	8.90	36.82	1,360.25	283.46	1,320.01	1,301.97	18.04	73.160		
2,100.00	2,097.04	2,066.75	2,067.60	9.56	9.22	36.88	1,362.04	281.82	1,316.35	1,297.58	18.78	70.107		
2,200.00	2,196.83	2,147.25	2,148.01	9.98	9.53	36.89	1,365.00	279.70	1,314.05	1,294.55	19.50	67.390		
2,300.00	2,296.61	2,228.88	2,229.49	10.40	9.85	36.89	1,369.38	277.33	1,313.29	1,293.06	20.23	64.922		
2,315.15	2,311.72	2,242.27	2,242.84	10.46	9.90	36.89	1,370.19	276.94	1,313.28	1,292.94	20.34	64.554		
2,400.00	2,396.40	2,317.29	2,317.68	10.82	10.19	36.88	1,375.05	274.90	1,313.60	1,292.61	20.99	62.580		
2,500.00	2,496.18	2,406.65	2,406.77	11.24	10.55	36.86	1,381.55	272.53	1,314.78	1,293.02	21.76	60.419		
2,600.00	2,595.96	2,499.69	2,499.46	11.66	10.92	36.82	1,389.05	269.51	1,316.57	1,294.02	22.55	58.379		
2,700.00	2,695.75	2,587.84	2,587.20	12.09	11.29	36.75	1,396.89	266.38	1,319.11	1,295.79	23.32	56.556		
2,800.00	2,795.53	2,677.96	2,676.83	12.51	11.66	36.68	1,405.67	263.12	1,322.47	1,298.36	24.11	54.855		
2,900.00	2,895.32	2,764.02	2,762.33	12.94	12.02	36.58	1,414.94	259.62	1,326.72	1,301.85	24.87	53.337		
3,000.00	2,995.10	2,865.52	2,863.05	13.37	12.46	36.43	1,426.56	254.89	1,331.50	1,305.77	25.73	51.757		
3,100.00	3,094.89	2,979.47	2,976.19	13.80	12.95	36.27	1,438.90	249.38	1,335.64	1,308.99	26.65	50.119		
3,200.00	3,194.67	3,079.51	3,075.52	14.23	13.39	36.10	1,449.41	243.90	1,339.34	1,311.84	27.50	48.697		
3,300.00	3,294.46	3,184.76	3,180.04	14.66	13.85	35.92	1,460.28	237.81	1,342.80	1,314.42	28.39	47.300		
3,400.00	3,394.24	3,287.70	3,282.35	15.09	14.31	35.76	1,470.25	232.42	1,345.77	1,316.50	29.27	45.985		
3,500.00	3,494.03	3,381.43	3,375.53	15.52	14.72	35.65	1,479.45	228.12	1,349.01	1,318.91	30.09	44.826		
3,600.00	3,593.81	3,476.53	3,470.03	15.96	15.15	35.53	1,489.20	223.75	1,352.68	1,321.74	30.93	43.729		
3,700.00	3,693.60	3,575.51	3,568.37	16.39	15.60	35.42	1,499.53	219.42	1,356.59	1,324.80	31.79	42.667		
3,800.00	3,793.38	3,678.98	3,671.17	16.82	16.07	35.29	1,510.25	214.66	1,360.38	1,327.70	32.68	41.622		
3,900.00	3,893.17	3,783.50	3,775.01	17.26	16.54	35.14	1,520.87	209.22	1,363.86	1,330.28	33.58	40.613		
4,000.00	3,992.95	3,875.92	3,866.81	17.69	16.97	34.99	1,530.25	204.22	1,367.30	1,332.88	34.41	39.730		
4,100.00	4,092.74	3,968.35	3,958.48	18.13	17.40	34.81	1,540.55	198.40	1,371.54	1,336.29	35.25	38.909		
4,200.00	4,192.52	4,061.22	4,050.53	18.56	17.84	34.61	1,551.29	192.29	1,376.15	1,340.06	36.09	38.131		
4,300.00	4,292.31	4,157.41	4,145.81	19.00	18.29	34.41	1,562.93	186.10	1,381.34	1,344.38	36.95	37.383		
4,400.00	4,392.09	4,264.30	4,251.79	19.43	18.80	34.23	1,575.50	180.15	1,386.38	1,348.50	37.88	36.603		
4,500.00	4,491.88	4,373.08	4,359.74	19.87	19.31	34.06	1,587.54	174.21	1,390.76	1,351.95	38.81	35.833		
4,600.00	4,591.66	4,470.24	4,456.24	20.31	19.77	33.94	1,597.88	169.65	1,394.88	1,355.21	39.68	35.155		
4,700.00	4,691.44	4,570.17	4,555.53	20.74	20.24	33.85	1,608.53	165.82	1,399.19	1,358.63	40.56	34.497		
4,800.00	4,791.23	4,676.00	4,660.72	21.18	20.74	33.77	1,619.54	162.07	1,403.30	1,361.82	41.48	33.834		
4,900.00	4,891.01	4,807.85	4,791.98	21.62	21.34	33.71	1,631.17	157.91	1,405.89	1,363.37	42.53	33.058		
5,000.00	4,990.80	4,932.30	4,916.09	22.06	21.90	33.69	1,639.72	154.44	1,406.67	1,363.15	43.52	32.320		

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



Anticollision Report



Company:	SRC ENERGY	Local Co-ordinate Reference:	Well HARVESTERS STATE 31C-16-M
Project:	SECTION 15, T6N, R66W	TVD Reference:	KB @ 4821.00ft
Reference Site:	HARVESTERS STATE 7-15 PAD	MD Reference:	KB @ 4821.00ft
Site Error:	3.28 ft	North Reference:	True
Reference Well:	HARVESTERS STATE 31C-16-M	Survey Calculation Method:	Minimum Curvature
Well Error:	3.28 ft	Output errors are at	2.45 sigma
Reference Wellbore	OH	Database:	EDM 5000.14 Single User Db
Reference Design:	PLAN #1	Offset TVD Reference:	Reference Datum

Offset Design HARVESTERS STATE 7-15 PAD - HARVESTERS RESOURCES 15M-423(PR_150CC) - OH - OH													Offset Site Error:	0.00 ft
Survey Program: 146-MWD													Offset Well Error:	3.28 ft
Reference		Offset		Semi Major Axis			Distance						Warning	
Measured Depth (ft)	Vertical Depth (ft)	Measured Depth (ft)	Vertical Depth (ft)	Reference (ft)	Offset (ft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (ft)	+E/-W (ft)	Between Centres (ft)	Between Ellipses (ft)	Minimum Separation (ft)	Separation Factor		
5,100.00	5,090.58	5,061.48	5,045.07	22.50	22.47	33.71	1,645.94	151.36	1,405.50	1,360.98	44.52	31.571		
5,200.00	5,190.37	5,184.60	5,168.15	22.93	22.99	33.84	1,648.98	150.53	1,402.31	1,356.85	45.47	30.842		
5,300.00	5,290.15	5,294.96	5,278.50	23.37	23.46	33.97	1,650.43	149.95	1,398.06	1,351.70	46.36	30.154		
5,400.00	5,389.94	5,404.86	5,388.39	23.81	23.91	34.08	1,651.20	148.76	1,393.10	1,345.85	47.25	29.481		
5,500.00	5,489.72	5,512.61	5,496.12	24.25	24.36	34.16	1,651.41	146.63	1,387.47	1,339.34	48.13	28.825		
5,600.00	5,589.51	5,641.33	5,624.80	24.69	24.88	34.28	1,649.96	144.53	1,380.65	1,331.61	49.04	28.151		
5,700.00	5,689.29	5,735.54	5,718.99	25.13	25.25	34.43	1,647.91	144.15	1,373.01	1,323.14	49.88	27.528		
5,800.00	5,789.08	5,828.22	5,811.65	25.56	25.61	34.58	1,646.14	143.99	1,365.70	1,314.99	50.71	26.933		
5,900.00	5,888.86	5,921.56	5,904.99	26.00	25.99	34.73	1,644.84	143.75	1,358.90	1,307.36	51.54	26.365		
6,000.00	5,988.65	6,293.94	7,263.23	26.44	40.75	130.98	286.86	170.19	1,311.14	1,287.37	23.76	55.177		
6,100.00	6,088.43	8,287.36	7,263.49	26.88	40.65	129.99	293.43	169.83	1,215.15	1,190.33	24.82	48.956		
6,200.00	6,188.22	8,261.83	7,264.47	27.32	40.30	126.05	318.88	168.15	1,119.72	1,093.95	25.77	43.446		
6,300.00	6,288.00	8,244.98	7,265.01	27.76	40.06	123.36	335.67	166.80	1,024.97	997.85	27.12	37.797		
6,400.00	6,387.79	8,231.58	7,265.41	28.20	39.88	121.17	349.01	165.58	931.17	902.32	28.84	32.282		
6,500.00	6,487.57	8,219.21	7,265.76	28.64	39.71	119.12	361.32	164.35	838.66	807.64	31.02	27.040		
6,600.00	6,587.35	8,208.06	7,266.07	29.08	39.56	117.25	372.39	163.15	747.93	714.16	33.77	22.147		
6,700.00	6,687.02	8,196.37	7,266.41	29.52	39.40	115.89	384.00	161.79	660.92	623.51	37.41	17.669		
6,800.00	6,784.98	8,188.44	7,266.66	29.96	39.29	114.61	391.87	160.84	587.16	544.14	43.02	13.649		
6,900.00	6,878.81	8,180.25	7,266.98	30.41	39.19	113.41	400.00	159.89	535.33	484.90	50.44	10.614		
7,000.00	6,966.21	8,170.77	7,267.43	30.86	39.06	112.23	409.41	158.85	513.46	455.21	58.25	8.815		
7,014.22	6,977.99	8,169.34	7,267.50	30.93	39.04	112.27	410.83	158.70	513.10	453.84	59.26	8.658 CC, ES		
7,100.00	7,045.03	8,157.75	7,268.15	31.35	38.89	111.88	422.34	157.50	525.74	461.36	64.38	8.166 SF		
7,200.00	7,113.32	8,139.52	7,269.13	31.90	38.65	110.14	440.44	155.58	569.53	501.66	67.86	8.392		
7,300.00	7,169.40	8,122.27	7,269.99	32.57	38.42	107.34	457.57	153.72	637.41	568.08	69.33	9.194		
7,400.00	7,211.89	8,106.50	7,270.67	33.38	38.22	102.48	473.23	152.00	721.28	651.55	69.73	10.344		
7,500.00	7,239.75	8,091.15	7,271.24	34.35	38.03	101.83	488.48	150.31	814.56	744.84	69.72	11.684		
7,600.00	7,252.28	8,076.83	7,271.71	35.47	37.85	119.52	502.70	148.71	912.48	842.88	69.60	13.110		
7,700.00	7,252.75	8,066.81	7,272.01	36.73	37.72	97.57	512.64	147.58	1,011.74	942.22	69.52	14.553		
7,800.00	7,252.38	8,059.16	7,272.25	38.16	37.63	97.22	520.25	146.75	1,111.08	1,041.60	69.48	15.992		
7,900.00	7,252.02	8,051.96	7,272.48	39.74	37.54	96.94	527.41	145.99	1,210.46	1,141.02	69.44	17.433		
8,000.00	7,251.65	8,042.00	7,272.80	41.47	37.42	96.59	537.31	144.97	1,309.88	1,240.51	69.37	18.883		
8,100.00	7,251.29	8,042.00	7,272.80	43.31	37.42	96.59	537.31	144.97	1,409.32	1,339.92	69.41	20.305		
8,200.00	7,250.92	8,034.19	7,273.07	45.26	37.32	96.35	545.08	144.22	1,508.80	1,439.44	69.36	21.752		
8,300.00	7,250.55	8,029.44	7,273.25	47.30	37.27	96.23	549.81	143.78	1,608.32	1,538.96	69.36	23.190		
8,400.00	7,250.19	8,024.99	7,273.43	49.42	37.21	96.12	554.24	143.38	1,707.86	1,638.52	69.35	24.627		
8,500.00	7,249.82	8,020.80	7,273.61	51.62	37.16	96.02	558.40	143.02	1,807.44	1,738.09	69.35	26.064		
8,600.00	7,249.45	8,011.00	7,274.05	53.88	37.05	95.83	568.16	142.22	1,907.06	1,837.77	69.29	27.522		
8,700.00	7,249.09	8,011.00	7,274.05	56.19	37.05	95.83	568.16	142.22	2,006.67	1,937.34	69.33	28.944		
8,800.00	7,248.72	8,008.33	7,274.17	58.55	37.01	95.78	570.82	142.01	2,106.31	2,036.96	69.34	30.375		
8,900.00	7,248.36	8,001.61	7,274.48	60.96	36.94	95.67	577.51	141.49	2,205.96	2,136.64	69.32	31.821		
9,000.00	7,247.99	7,995.01	7,274.78	63.40	36.86	95.56	584.08	140.98	2,305.62	2,236.31	69.31	33.266		
9,100.00	7,247.62	7,988.53	7,275.06	65.87	36.78	95.46	590.54	140.49	2,405.28	2,335.99	69.30	34.711		
9,200.00	7,247.26	7,982.16	7,275.33	68.38	36.71	95.37	596.89	140.01	2,504.95	2,435.67	69.28	36.154		
9,300.00	7,246.89	7,975.38	7,275.62	70.91	36.63	95.27	603.64	139.50	2,604.63	2,535.35	69.28	37.598		
9,400.00	7,246.53	7,968.42	7,275.89	73.47	36.55	95.18	610.58	138.98	2,704.31	2,635.04	69.27	39.042		
9,500.00	7,246.16	7,961.52	7,276.16	76.05	36.47	95.09	617.46	138.47	2,803.99	2,734.73	69.26	40.485		
9,600.00	7,245.79	7,954.68	7,276.41	78.65	36.39	95.00	624.27	137.97	2,903.68	2,834.42	69.26	41.926		
9,700.00	7,245.43	7,947.91	7,276.65	81.27	36.32	94.92	631.02	137.47	3,003.36	2,934.11	69.26	43.365		
9,800.00	7,245.06	7,941.17	7,276.88	83.90	36.24	94.83	637.73	136.98	3,103.05	3,033.79	69.26	44.803		
9,900.00	7,244.69	7,934.50	7,277.09	86.55	36.17	94.76	644.38	136.49	3,202.75	3,133.48	69.27	46.238		
10,000.00	7,244.33	7,927.89	7,277.29	89.21	36.10	94.68	650.97	136.02	3,302.45	3,233.17	69.27	47.672		
10,100.00	7,243.96	7,921.35	7,277.48	91.88	36.02	94.60	657.50	135.55	3,402.15	3,332.86	69.29	49.104		

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



Anticollision Report



Company:	SRC ENERGY	Local Co-ordinate Reference:	Well HARVESTERS STATE 31C-16-M
Project:	SECTION 15, T6N, R66W	TVD Reference:	KB @ 4821.00ft
Reference Site:	HARVESTERS STATE 7-15 PAD	MD Reference:	KB @ 4821.00ft
Site Error:	3.28 ft	North Reference:	True
Reference Well:	HARVESTERS STATE 31C-16-M	Survey Calculation Method:	Minimum Curvature
Well Error:	3.28 ft	Output errors are at	2.45 sigma
Reference Wellbore	OH	Database:	EDM 5000.14 Single User Db
Reference Design:	PLAN #1	Offset TVD Reference:	Reference Datum

Offset Design HARVESTERS STATE 7-15 PAD - HARVESTERS RESOURCES 15M-423(PR_150CC) - OH - OH													Offset Site Error:	0.00 ft
Survey Program: 146-MWD													Offset Well Error:	3.28 ft
Reference		Offset		Semi Major Axis			Distance							Warning
Measured Depth (ft)	Vertical Depth (ft)	Measured Depth (ft)	Vertical Depth (ft)	Reference (ft)	Offset (ft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (ft)	+E/-W (ft)	Between Centres (ft)	Between Ellipses (ft)	Minimum Separation (ft)	Separation Factor		
10,200.00	7,243.60	7,919.00	7,277.55	94.56	36.00	94.58	659.84	135.38	3,501.85	3,432.53	69.32	50.518		
10,300.00	7,243.23	7,919.00	7,277.55	97.26	36.00	94.58	659.84	135.38	3,601.57	3,532.21	69.36	51.922		
10,400.00	7,242.86	7,919.00	7,277.55	99.96	36.00	94.58	659.84	135.38	3,701.31	3,631.90	69.41	53.324		
10,500.00	7,242.50	7,919.00	7,277.55	102.67	36.00	94.58	659.84	135.38	3,801.06	3,731.60	69.46	54.724		
10,600.00	7,242.13	7,919.00	7,277.55	105.39	36.00	94.58	659.84	135.38	3,900.82	3,831.31	69.51	56.122		
10,700.00	7,241.76	7,919.00	7,277.55	108.12	36.00	94.58	659.84	135.38	4,000.59	3,931.04	69.56	57.517		
10,800.00	7,241.40	7,919.00	7,277.55	110.85	36.00	94.58	659.84	135.38	4,100.38	4,030.78	69.60	58.910		
10,900.00	7,241.03	7,919.00	7,277.55	113.59	36.00	94.58	659.84	135.38	4,200.18	4,130.52	69.65	60.300		
11,000.00	7,240.67	7,906.31	7,277.89	116.34	35.86	94.44	672.50	134.55	4,299.88	4,230.23	69.65	61.735		
11,100.00	7,240.30	7,905.10	7,277.92	119.09	35.85	94.43	673.71	134.48	4,399.68	4,329.98	69.70	63.126		
11,200.00	7,239.93	7,903.93	7,277.94	121.85	35.83	94.41	674.87	134.41	4,499.48	4,429.74	69.74	64.514		
11,300.00	7,239.57	7,902.81	7,277.97	124.61	35.82	94.40	675.99	134.35	4,599.29	4,529.50	69.79	65.899		
11,400.00	7,239.20	7,901.73	7,278.00	127.38	35.81	94.39	677.07	134.29	4,699.11	4,629.26	69.84	67.281		
11,500.00	7,238.84	7,889.00	7,278.28	130.15	35.67	94.26	689.78	133.68	4,799.01	4,729.16	69.85	68.706		
11,600.00	7,238.47	7,889.00	7,278.28	132.92	35.67	94.26	689.78	133.68	4,898.82	4,828.92	69.90	70.079		
11,700.00	7,238.10	7,889.00	7,278.28	135.70	35.67	94.26	689.78	133.68	4,998.65	4,928.69	69.96	71.449		
11,800.00	7,237.74	7,889.00	7,278.28	138.48	35.67	94.26	689.78	133.68	5,098.47	5,028.46	70.02	72.817		
11,900.00	7,237.37	7,889.00	7,278.28	141.26	35.67	94.26	689.78	133.68	5,198.31	5,128.23	70.08	74.181		
12,000.00	7,237.00	7,889.00	7,278.28	144.05	35.67	94.26	689.78	133.68	5,298.15	5,228.02	70.13	75.542		
12,100.00	7,236.64	7,889.00	7,278.28	146.84	35.67	94.26	689.78	133.68	5,398.00	5,327.81	70.19	76.901		
12,200.00	7,236.27	7,889.00	7,278.28	149.64	35.67	94.26	689.78	133.68	5,497.85	5,427.60	70.25	78.256		
12,300.00	7,235.91	7,889.00	7,278.28	152.43	35.67	94.26	689.78	133.68	5,597.71	5,527.40	70.32	79.608		
12,400.00	7,235.54	7,889.00	7,278.28	155.23	35.67	94.26	689.78	133.68	5,697.57	5,627.20	70.38	80.956		
12,500.00	7,235.17	7,889.00	7,278.28	158.03	35.67	94.26	689.78	133.68	5,797.44	5,727.00	70.44	82.302		
12,600.00	7,234.81	7,889.00	7,278.28	160.83	35.67	94.26	689.78	133.68	5,897.32	5,826.81	70.50	83.644		
12,700.00	7,234.44	7,889.00	7,278.28	163.64	35.67	94.26	689.78	133.68	5,997.19	5,926.62	70.57	84.983		
12,800.00	7,234.07	7,889.00	7,278.28	166.44	35.67	94.26	689.78	133.68	6,097.07	6,026.44	70.63	86.319		
12,900.00	7,233.71	7,889.00	7,278.28	169.25	35.67	94.26	689.78	133.68	6,196.96	6,126.26	70.70	87.651		
13,000.00	7,233.34	7,889.00	7,278.28	172.06	35.67	94.26	689.78	133.68	6,296.85	6,226.08	70.77	88.979		
13,100.00	7,232.98	7,889.00	7,278.28	174.88	35.67	94.26	689.78	133.68	6,396.74	6,325.90	70.84	90.304		
13,200.00	7,232.61	7,889.00	7,278.28	177.69	35.67	94.26	689.78	133.68	6,496.63	6,425.73	70.90	91.626		
13,300.00	7,232.24	7,889.00	7,278.28	180.50	35.67	94.26	689.78	133.68	6,596.53	6,525.56	70.97	92.944		
13,400.00	7,231.88	7,889.00	7,278.28	183.32	35.67	94.26	689.78	133.68	6,696.43	6,625.39	71.04	94.258		
13,500.00	7,231.51	7,889.00	7,278.28	186.14	35.67	94.26	689.78	133.68	6,796.34	6,725.22	71.11	95.569		
13,600.00	7,231.15	7,889.00	7,278.28	188.96	35.67	94.26	689.78	133.68	6,896.24	6,825.06	71.19	96.876		
13,700.00	7,230.78	7,889.00	7,278.28	191.78	35.67	94.26	689.78	133.68	6,996.15	6,924.90	71.26	98.179		
13,800.00	7,230.41	7,889.00	7,278.28	194.60	35.67	94.26	689.78	133.68	7,096.07	7,024.73	71.33	99.479		
13,900.00	7,230.05	7,889.00	7,278.28	197.42	35.67	94.26	689.78	133.68	7,195.98	7,124.57	71.41	100.774		
14,000.00	7,229.68	7,889.00	7,278.28	200.25	35.67	94.26	689.78	133.68	7,295.90	7,224.42	71.48	102.066		
14,100.00	7,229.31	7,889.00	7,278.28	203.07	35.67	94.26	689.78	133.68	7,395.82	7,324.26	71.56	103.354		
14,200.00	7,228.95	7,889.00	7,278.28	205.90	35.67	94.26	689.78	133.68	7,495.74	7,424.10	71.63	104.639		
14,300.00	7,228.58	7,889.00	7,278.28	208.73	35.67	94.26	689.78	133.68	7,595.66	7,523.95	71.71	105.919		
14,400.00	7,228.22	7,889.00	7,278.28	211.55	35.67	94.26	689.78	133.68	7,695.59	7,623.80	71.79	107.195		
14,500.00	7,227.85	7,889.00	7,278.28	214.38	35.67	94.26	689.78	133.68	7,795.52	7,723.65	71.87	108.468		
14,600.00	7,227.48	7,889.00	7,278.28	217.21	35.67	94.26	689.78	133.68	7,895.44	7,823.50	71.95	109.737		
14,700.00	7,227.12	7,889.00	7,278.28	220.04	35.67	94.26	689.78	133.68	7,995.38	7,923.35	72.03	111.001		
14,800.00	7,226.75	7,889.00	7,278.28	222.88	35.67	94.26	689.78	133.68	8,095.31	8,023.20	72.11	112.262		
14,900.00	7,226.38	7,889.00	7,278.28	225.71	35.67	94.26	689.78	133.68	8,195.24	8,123.05	72.19	113.518		
15,000.00	7,226.02	7,889.00	7,278.28	228.54	35.67	94.26	689.78	133.68	8,295.18	8,222.90	72.28	114.770		
15,005.81	7,226.00	7,889.00	7,278.28	228.71	35.67	94.26	689.78	133.68	8,300.98	8,228.70	72.28	114.843		

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



Anticollision Report



Company:	SRC ENERGY	Local Co-ordinate Reference:	Well HARVESTERS STATE 31C-16-M
Project:	SECTION 15, T6N, R66W	TVD Reference:	KB @ 4821.00ft
Reference Site:	HARVESTERS STATE 7-15 PAD	MD Reference:	KB @ 4821.00ft
Site Error:	3.28 ft	North Reference:	True
Reference Well:	HARVESTERS STATE 31C-16-M	Survey Calculation Method:	Minimum Curvature
Well Error:	3.28 ft	Output errors are at	2.45 sigma
Reference Wellbore	OH	Database:	EDM 5000.14 Single User Db
Reference Design:	PLAN #1	Offset TVD Reference:	Reference Datum

Offset Design HARVESTERS STATE 7-15 PAD - HARVESTERS RESOURCES 15R-243(PR_150CC) - OH - OH												Offset Site Error:	0.00 ft
Survey Program: 146-MWD												Offset Well Error:	3.28 ft
Reference		Offset		Semi Major Axis			Distance						Warning
Measured Depth (ft)	Vertical Depth (ft)	Measured Depth (ft)	Vertical Depth (ft)	Reference (ft)	Offset (ft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (ft)	+E/-W (ft)	Between Centres (ft)	Between Ellipses (ft)	Minimum Separation (ft)	Separation Factor	
0.00	0.00	0.00	1.00	3.28	3.28	12.49	1,367.61	302.87	1,400.75				
100.00	100.00	79.80	80.80	3.28	3.29	12.51	1,368.03	303.51	1,401.42	1,394.85	6.57	213.298	
200.00	200.00	165.39	166.35	3.34	3.31	12.58	1,369.37	305.57	1,403.45	1,396.81	6.65	211.183	
300.00	300.00	281.60	282.49	3.44	3.41	12.71	1,370.93	309.08	1,405.45	1,398.60	6.85	205.087	
400.00	400.00	375.45	376.30	3.60	3.54	12.81	1,371.21	311.86	1,406.43	1,399.28	7.15	196.833	
500.00	500.00	473.40	474.22	3.81	3.72	12.83	1,373.39	312.72	1,408.78	1,401.25	7.53	187.144	
600.00	600.00	593.19	594.00	4.05	3.99	12.81	1,374.54	312.66	1,409.66	1,401.63	8.04	175.404	
700.00	699.98	683.41	684.22	4.32	4.23	35.77	1,375.09	313.02	1,408.94	1,400.40	8.54	164.897	
800.00	799.84	775.72	776.52	4.62	4.49	35.93	1,376.27	313.74	1,406.13	1,397.02	9.11	154.367	
900.00	899.62	884.58	885.37	4.94	4.83	36.12	1,377.60	314.57	1,402.19	1,392.42	9.77	143.579	
1,000.00	999.41	982.54	983.32	5.27	5.16	36.29	1,378.52	315.11	1,397.93	1,387.51	10.43	134.089	
1,100.00	1,099.19	1,071.98	1,072.75	5.62	5.46	36.44	1,379.83	315.63	1,394.21	1,383.12	11.08	125.781	
1,200.00	1,198.98	1,173.47	1,174.22	5.99	5.82	36.60	1,381.70	316.08	1,390.83	1,379.02	11.81	117.785	
1,300.00	1,298.76	1,279.81	1,280.55	6.36	6.21	36.74	1,383.38	315.69	1,387.01	1,374.44	12.57	110.371	
1,400.00	1,398.55	1,378.46	1,379.18	6.74	6.57	36.86	1,385.01	314.90	1,383.16	1,369.84	13.31	103.895	
1,500.00	1,498.33	1,472.28	1,472.99	7.13	6.93	36.97	1,386.52	314.25	1,379.32	1,365.27	14.06	98.126	
1,600.00	1,598.12	1,551.00	1,551.67	7.52	7.23	37.13	1,388.33	315.42	1,376.68	1,361.92	14.76	93.297	
1,700.00	1,697.90	1,628.04	1,628.62	7.92	7.54	37.34	1,390.94	318.28	1,375.66	1,360.20	15.46	88.997	
1,714.66	1,712.53	1,640.29	1,640.84	7.98	7.59	37.38	1,391.44	318.87	1,375.65	1,360.09	15.56	88.383	
1,800.00	1,797.69	1,714.55	1,714.90	8.33	7.89	37.65	1,394.57	323.33	1,376.00	1,359.80	16.20	84.916	
1,900.00	1,897.47	1,793.74	1,793.75	8.74	8.21	37.99	1,398.41	329.51	1,377.56	1,360.63	16.93	81.384	
2,000.00	1,997.26	1,871.50	1,871.05	9.15	8.54	38.35	1,403.20	336.46	1,380.75	1,363.10	17.65	78.246	
2,100.00	2,097.04	1,955.51	1,954.46	9.56	8.90	38.72	1,409.63	344.13	1,385.48	1,367.08	18.40	75.306	
2,200.00	2,196.83	2,049.14	2,047.36	9.98	9.30	39.14	1,417.32	352.96	1,390.94	1,371.73	19.20	72.441	
2,300.00	2,296.61	2,145.52	2,143.04	10.40	9.73	39.51	1,425.96	360.67	1,396.78	1,376.76	20.02	69.762	
2,400.00	2,396.40	2,245.11	2,241.85	10.82	10.18	39.92	1,434.76	369.41	1,402.79	1,381.93	20.87	67.232	
2,500.00	2,496.18	2,359.61	2,355.42	11.24	10.69	40.44	1,444.05	380.65	1,408.55	1,386.75	21.79	64.639	
2,600.00	2,595.96	2,464.24	2,459.34	11.66	11.17	40.91	1,451.45	390.40	1,413.20	1,390.53	22.67	62.337	
2,700.00	2,695.75	2,556.01	2,550.47	12.09	11.59	41.30	1,458.27	398.67	1,418.19	1,394.71	23.49	60.383	
2,800.00	2,795.53	2,642.77	2,636.56	12.51	11.99	41.67	1,465.24	406.84	1,423.97	1,399.69	24.28	58.652	
2,900.00	2,895.32	2,740.97	2,733.92	12.94	12.46	42.11	1,473.67	416.62	1,430.52	1,405.39	25.13	56.915	
3,000.00	2,995.10	2,865.66	2,857.52	13.37	13.05	42.72	1,482.76	430.20	1,436.31	1,410.17	26.14	54.950	
3,100.00	3,094.89	2,970.84	2,961.88	13.80	13.54	43.25	1,489.00	441.77	1,440.93	1,413.89	27.04	53.291	
3,200.00	3,194.67	3,076.74	3,067.15	14.23	14.04	43.70	1,495.47	451.24	1,445.07	1,417.13	27.94	51.718	
3,300.00	3,294.46	3,163.35	3,153.23	14.66	14.44	44.07	1,501.03	459.11	1,449.64	1,420.90	28.74	50.434	
3,400.00	3,394.24	3,252.85	3,242.06	15.09	14.87	44.47	1,507.29	468.03	1,455.15	1,425.59	29.56	49.224	
3,500.00	3,494.03	3,375.54	3,364.01	15.52	15.45	44.96	1,515.36	478.75	1,459.83	1,429.27	30.56	47.771	
3,600.00	3,593.81	3,469.97	3,457.91	15.96	15.89	45.33	1,521.37	486.70	1,464.33	1,432.92	31.40	46.628	
3,700.00	3,693.60	3,564.61	3,551.98	16.39	16.34	45.72	1,527.49	495.16	1,469.19	1,436.94	32.25	45.553	
3,800.00	3,793.38	3,659.75	3,646.51	16.82	16.79	46.09	1,534.09	503.50	1,474.49	1,441.39	33.10	44.542	
3,900.00	3,893.17	3,759.47	3,745.55	17.26	17.27	46.51	1,540.75	513.08	1,479.96	1,445.98	33.98	43.552	
4,000.00	3,992.95	3,848.88	3,834.30	17.69	17.71	46.91	1,546.48	522.29	1,485.59	1,450.79	34.81	42.683	
4,100.00	4,092.74	3,925.27	3,909.95	18.13	18.08	47.29	1,552.03	531.34	1,492.69	1,457.14	35.55	41.989	
4,200.00	4,192.52	4,016.58	4,000.24	18.56	18.54	47.74	1,559.23	542.92	1,500.82	1,464.43	36.38	41.249	
4,300.00	4,292.31	4,108.02	4,090.64	19.00	19.01	48.17	1,567.19	554.09	1,509.59	1,472.37	37.22	40.561	
4,400.00	4,392.09	4,231.64	4,213.07	19.43	19.62	48.66	1,578.34	567.00	1,517.98	1,479.73	38.25	39.685	
4,500.00	4,491.88	4,348.28	4,328.94	19.87	20.19	49.03	1,588.01	576.26	1,524.60	1,485.37	39.23	38.866	
4,600.00	4,591.66	4,448.94	4,428.99	20.31	20.67	49.31	1,596.54	583.24	1,531.01	1,490.91	40.11	38.174	
4,700.00	4,691.44	4,542.32	4,521.81	20.74	21.11	49.57	1,604.49	589.72	1,537.51	1,496.57	40.94	37.551	
4,800.00	4,791.23	4,645.46	4,624.27	21.18	21.61	49.86	1,613.43	597.37	1,544.39	1,502.55	41.84	36.912	
4,900.00	4,891.01	4,751.85	4,730.05	21.62	22.12	50.15	1,622.23	604.77	1,550.75	1,508.00	42.75	36.271	
5,000.00	4,990.80	4,872.05	4,849.62	22.06	22.69	50.49	1,631.20	612.99	1,556.38	1,512.64	43.74	35.580	

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



Anticollision Report



Company:	SRC ENERGY	Local Co-ordinate Reference:	Well HARVESTERS STATE 31C-16-M
Project:	SECTION 15, T6N, R66W	TVD Reference:	KB @ 4821.00ft
Reference Site:	HARVESTERS STATE 7-15 PAD	MD Reference:	KB @ 4821.00ft
Site Error:	3.28 ft	North Reference:	True
Reference Well:	HARVESTERS STATE 31C-16-M	Survey Calculation Method:	Minimum Curvature
Well Error:	3.28 ft	Output errors are at	2.45 sigma
Reference Wellbore	OH	Database:	EDM 5000.14 Single User Db
Reference Design:	PLAN #1	Offset TVD Reference:	Reference Datum

Offset Design HARVESTERS STATE 7-15 PAD - HARVESTERS RESOURCES 15R-243(PR_150CC) - OH - OH													Offset Site Error:	0.00 ft
Survey Program: 146-MWD													Offset Well Error:	3.28 ft
Reference		Offset		Semi Major Axis			Distance							Warning
Measured Depth (ft)	Vertical Depth (ft)	Measured Depth (ft)	Vertical Depth (ft)	Reference (ft)	Offset (ft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (ft)	+E/-W (ft)	Between Centres (ft)	Between Ellipses (ft)	Minimum Separation (ft)	Separation Factor		
5,100.00	5,090.58	5,004.18	4,981.24	22.50	23.30	50.88	1,639.19	621.50	1,560.70	1,515.92	44.78	34.850		
5,200.00	5,190.37	5,156.94	5,133.72	22.93	23.98	51.32	1,644.15	628.89	1,561.66	1,515.78	45.88	34.037		
5,300.00	5,290.15	5,354.92	5,331.61	23.37	24.79	51.68	1,647.56	630.46	1,560.84	1,513.85	46.99	33.217		
5,400.00	5,389.94	5,433.97	5,410.66	23.81	25.07	51.82	1,646.80	629.64	1,555.30	1,507.53	47.77	32.560		
5,500.00	5,489.72	5,528.68	5,505.37	24.25	25.42	51.99	1,645.99	628.82	1,550.08	1,501.51	48.58	31.911		
5,600.00	5,589.51	5,631.28	5,607.95	24.69	25.80	52.17	1,645.19	627.96	1,544.96	1,495.56	49.40	31.274		
5,700.00	5,689.29	5,737.15	5,713.81	25.13	26.19	52.36	1,644.13	626.71	1,539.48	1,489.25	50.23	30.648		
5,800.00	5,789.08	5,835.26	5,811.90	25.56	26.56	52.51	1,643.38	625.07	1,533.99	1,482.94	51.05	30.047		
5,900.00	5,888.86	5,943.00	5,919.46	26.00	26.95	52.69	1,642.08	623.48	1,528.50	1,477.50	51.88	29.446		
6,000.00	5,988.65	6,043.00	6,019.46	26.44	27.40	52.87	1,640.79	621.89	1,523.01	1,472.01	52.71	28.845		
6,100.00	6,088.43	6,143.00	6,119.46	26.88	27.84	53.05	1,639.50	620.30	1,517.52	1,466.52	53.54	28.244		
6,200.00	6,188.22	6,243.00	6,219.46	27.32	28.28	53.23	1,638.21	618.71	1,512.03	1,461.03	54.37	27.643		
6,300.00	6,288.00	6,343.00	6,319.46	27.76	28.72	53.41	1,636.92	617.12	1,506.54	1,455.54	55.20	27.042		
6,400.00	6,387.79	6,443.00	6,419.46	28.20	29.16	53.59	1,635.63	615.53	1,501.05	1,450.05	56.03	26.441		
6,500.00	6,487.57	6,543.00	6,519.46	28.64	29.60	53.77	1,634.34	613.94	1,495.56	1,444.56	56.86	25.840		
6,600.00	6,587.35	6,643.00	6,619.46	29.08	30.04	53.95	1,633.05	612.35	1,490.07	1,439.07	57.69	25.239		
6,700.00	6,687.02	6,743.00	6,719.46	29.52	30.48	54.13	1,631.76	610.76	1,484.58	1,433.58	58.52	24.638		
6,800.00	6,786.80	6,843.00	6,819.46	29.96	30.92	54.31	1,630.47	609.17	1,479.09	1,428.09	59.35	24.037		
6,851.30	6,833.78	6,890.00	6,866.81	30.19	31.16	54.44	1,629.18	607.58	1,477.50	1,426.50	59.58	23.836		
6,900.00	6,878.81	6,935.00	6,911.84	30.41	31.38	54.57	1,627.89	605.99	1,475.91	1,424.91	59.81	23.635		
7,000.00	6,966.21	7,023.00	7,000.00	30.86	31.83	54.75	1,626.60	604.40	1,474.32	1,423.32	60.04	23.434		
7,100.00	7,045.03	7,103.00	7,103.00	31.35	32.30	54.93	1,625.31	602.81	1,472.73	1,421.73	60.27	23.233		
7,200.00	7,113.32	7,161.00	7,161.00	31.90	32.85	55.11	1,624.02	601.22	1,471.14	1,420.14	60.50	23.032		
7,300.00	7,169.40	7,219.00	7,219.00	32.57	33.40	55.29	1,622.73	599.63	1,469.55	1,418.55	60.73	22.831		
7,400.00	7,211.89	7,261.00	7,261.00	33.38	33.95	55.47	1,621.44	598.04	1,467.96	1,416.96	60.96	22.630		
7,500.00	7,239.75	7,291.00	7,291.00	34.35	34.50	55.65	1,620.15	596.45	1,466.37	1,415.37	61.19	22.429		
7,600.00	7,252.28	7,304.00	7,304.00	35.47	35.05	55.83	1,618.86	594.86	1,464.78	1,413.78	61.42	22.228		
7,700.00	7,252.75	7,305.00	7,305.00	36.73	35.50	56.01	1,617.57	593.27	1,463.19	1,412.19	61.65	22.027		
7,800.00	7,252.38	7,306.00	7,306.00	38.16	35.95	56.19	1,616.28	591.68	1,461.60	1,410.60	61.88	21.826		
7,900.00	7,252.02	7,307.00	7,307.00	39.74	36.40	56.37	1,614.99	590.09	1,460.01	1,409.01	62.11	21.625		
8,000.00	7,251.65	7,308.00	7,308.00	41.47	36.85	56.55	1,613.70	588.50	1,458.42	1,407.42	62.34	21.424		
8,100.00	7,251.29	7,309.00	7,309.00	43.31	37.30	56.73	1,612.41	586.91	1,456.83	1,405.83	62.57	21.223		
8,200.00	7,250.92	7,310.00	7,310.00	45.26	37.75	56.91	1,611.12	585.32	1,455.24	1,404.24	62.80	21.022		
8,300.00	7,250.55	7,311.00	7,311.00	47.30	38.20	57.09	1,609.83	583.73	1,453.65	1,402.65	63.03	20.821		
8,400.00	7,250.19	7,312.00	7,312.00	49.42	38.65	57.27	1,608.54	582.14	1,452.06	1,401.06	63.26	20.620		
8,500.00	7,249.82	7,313.00	7,313.00	51.62	39.10	57.45	1,607.25	580.55	1,450.47	1,399.47	63.49	20.419		
8,600.00	7,249.45	7,314.00	7,314.00	53.88	39.55	57.63	1,605.96	578.96	1,448.88	1,397.88	63.72	20.218		
8,700.00	7,249.09	7,315.00	7,315.00	56.19	40.00	57.81	1,604.67	577.37	1,447.29	1,396.29	63.95	20.017		
8,800.00	7,248.72	7,316.00	7,316.00	58.55	40.45	57.99	1,603.38	575.78	1,445.70	1,394.70	64.18	19.816		
8,900.00	7,248.36	7,317.00	7,317.00	60.96	40.90	58.17	1,602.09	574.19	1,444.11	1,393.11	64.41	19.615		
9,000.00	7,247.99	7,318.00	7,318.00	63.40	41.35	58.35	1,600.80	572.60	1,442.52	1,391.52	64.64	19.414		
9,100.00	7,247.62	7,319.00	7,319.00	65.87	41.80	58.53	1,599.51	571.01	1,440.93	1,389.93	64.87	19.213		
9,200.00	7,247.26	7,320.00	7,320.00	68.38	42.25	58.71	1,598.22	569.42	1,439.34	1,388.34	65.10	19.012		
9,300.00	7,246.89	7,321.00	7,321.00	70.91	42.70	58.89	1,596.93	567.83	1,437.75	1,386.75	65.33	18.811		
9,400.00	7,246.53	7,322.00	7,322.00	73.47	43.15	59.07	1,595.64	566.24	1,436.16	1,385.16	65.56	18.610		
9,500.00	7,246.16	7,323.00	7,323.00	76.05	43.60	59.25	1,594.35	564.65	1,434.57	1,383.57	65.79	18.409		
9,600.00	7,245.79	7,324.00	7,324.00	78.65	44.05	59.43	1,593.06	563.06	1,432.98	1,381.98	66.02	18.208		
9,700.00	7,245.43	7,325.00	7,325.00	81.27	44.50	59.61	1,591.77	561.47	1,431.39	1,380.39	66.25	18.007		
9,800.00	7,245.06	7,326.00	7,326.00	83.90	44.95	59.79	1,590.48	559.88	1,429.80	1,378.80	66.48	17.806		
9,900.00	7,244.69	7,327.00	7,327.00	86.55	45.40	59.97	1,589.19	558.29	1,428.21	1,377.21	66.71	17.605		
10,000.00	7,244.33	7,328.00	7,328.00	89.21	45.85	60.15	1,587.90	556.70	1,426.62	1,375.62	66.94	17.404		
10,100.00	7,243.96	7,329.00	7,329.00	91.88	46.30	60.33	1,586.61	555.11	1,425.03	1,374.03	67.17	17.203		

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



Anticollision Report



Company:	SRC ENERGY	Local Co-ordinate Reference:	Well HARVESTERS STATE 31C-16-M
Project:	SECTION 15, T6N, R66W	TVD Reference:	KB @ 4821.00ft
Reference Site:	HARVESTERS STATE 7-15 PAD	MD Reference:	KB @ 4821.00ft
Site Error:	3.28 ft	North Reference:	True
Reference Well:	HARVESTERS STATE 31C-16-M	Survey Calculation Method:	Minimum Curvature
Well Error:	3.28 ft	Output errors are at	2.45 sigma
Reference Wellbore	OH	Database:	EDM 5000.14 Single User Db
Reference Design:	PLAN #1	Offset TVD Reference:	Reference Datum

Offset Design HARVESTERS STATE 7-15 PAD - HARVESTERS RESOURCES 15R-243(PR_150CC) - OH - OH													Offset Site Error:	0.00 ft
Survey Program: 146-MWD													Offset Well Error:	3.28 ft
Reference		Offset		Semi Major Axis			Distance							Warning
Measured Depth (ft)	Vertical Depth (ft)	Measured Depth (ft)	Vertical Depth (ft)	Reference (ft)	Offset (ft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (ft)	+E/-W (ft)	Between Centres (ft)	Between Ellipses (ft)	Minimum Separation (ft)	Separation Factor		
10,200.00	7,243.60	8,112.00	7,130.36	94.56	39.23	-16.41	355.08	626.53	3,986.35	3,915.16	71.19	55.998		
10,300.00	7,243.23	8,112.00	7,130.36	97.26	39.23	-16.41	355.08	626.53	4,086.29	4,015.07	71.23	57.370		
10,400.00	7,242.86	8,112.00	7,130.36	99.96	39.23	-16.41	355.08	626.53	4,186.24	4,114.97	71.27	58.739		
10,500.00	7,242.50	8,112.00	7,130.36	102.67	39.23	-16.41	355.08	626.53	4,286.19	4,214.88	71.31	60.106		
10,600.00	7,242.13	8,112.00	7,130.36	105.39	39.23	-16.41	355.08	626.53	4,386.15	4,314.79	71.35	61.470		
10,700.00	7,241.76	8,112.00	7,130.36	108.12	39.23	-16.41	355.08	626.53	4,486.10	4,414.70	71.40	62.832		
10,800.00	7,241.40	8,112.00	7,130.36	110.85	39.23	-16.41	355.08	626.53	4,586.06	4,514.61	71.44	64.191		
10,900.00	7,241.03	8,112.00	7,130.36	113.59	39.23	-16.41	355.08	626.53	4,686.02	4,614.53	71.49	65.548		
11,000.00	7,240.67	8,112.00	7,130.36	116.34	39.23	-16.41	355.08	626.53	4,785.98	4,714.44	71.54	66.902		
11,100.00	7,240.30	8,112.00	7,130.36	119.09	39.23	-16.41	355.08	626.53	4,885.94	4,814.35	71.59	68.253		
11,200.00	7,239.93	8,112.00	7,130.36	121.85	39.23	-16.41	355.08	626.53	4,985.90	4,914.27	71.63	69.602		
11,300.00	7,239.57	8,112.00	7,130.36	124.61	39.23	-16.41	355.08	626.53	5,085.87	5,014.18	71.68	70.948		
11,400.00	7,239.20	8,112.00	7,130.36	127.38	39.23	-16.41	355.08	626.53	5,185.83	5,114.10	71.74	72.290		
11,500.00	7,238.84	8,112.00	7,130.36	130.15	39.23	-16.41	355.08	626.53	5,285.80	5,214.01	71.79	73.630		
11,600.00	7,238.47	8,112.00	7,130.36	132.92	39.23	-16.41	355.08	626.53	5,385.77	5,313.93	71.84	74.967		
11,700.00	7,238.10	8,112.00	7,130.36	135.70	39.23	-16.41	355.08	626.53	5,485.74	5,413.84	71.90	76.301		
11,800.00	7,237.74	8,112.00	7,130.36	138.48	39.23	-16.41	355.08	626.53	5,585.71	5,513.76	71.95	77.632		
11,900.00	7,237.37	8,112.00	7,130.36	141.26	39.23	-16.41	355.08	626.53	5,685.68	5,613.67	72.01	78.959		
12,000.00	7,237.00	8,112.00	7,130.36	144.05	39.23	-16.41	355.08	626.53	5,785.66	5,713.59	72.06	80.284		
12,100.00	7,236.64	8,112.00	7,130.36	146.84	39.23	-16.41	355.08	626.53	5,885.63	5,813.51	72.12	81.605		
12,200.00	7,236.27	8,112.00	7,130.36	149.64	39.23	-16.41	355.08	626.53	5,985.60	5,913.42	72.18	82.923		
12,300.00	7,235.91	8,122.02	7,130.33	152.43	39.37	-20.44	345.06	626.37	6,085.55	6,013.18	72.37	84.092		
12,400.00	7,235.54	8,122.25	7,130.33	155.23	39.37	-20.53	344.83	626.37	6,185.53	6,113.10	72.43	85.398		
12,500.00	7,235.17	8,122.47	7,130.33	158.03	39.37	-20.62	344.60	626.37	6,285.50	6,213.01	72.50	86.700		
12,600.00	7,234.81	8,122.70	7,130.33	160.83	39.38	-20.71	344.38	626.36	6,385.48	6,312.92	72.56	87.999		
12,700.00	7,234.44	8,122.91	7,130.33	163.64	39.38	-20.79	344.17	626.36	6,485.46	6,412.83	72.63	89.295		
12,800.00	7,234.07	8,123.12	7,130.33	166.44	39.38	-20.87	343.95	626.36	6,585.44	6,512.74	72.70	90.587		
12,900.00	7,233.71	8,123.33	7,130.33	169.25	39.38	-20.96	343.75	626.35	6,685.41	6,612.65	72.77	91.875		
13,000.00	7,233.34	8,123.53	7,130.33	172.06	39.39	-21.03	343.55	626.35	6,785.39	6,712.56	72.84	93.160		
13,100.00	7,232.98	8,123.73	7,130.33	174.88	39.39	-21.11	343.35	626.35	6,885.37	6,812.47	72.91	94.441		
13,200.00	7,232.61	8,123.92	7,130.33	177.69	39.39	-21.19	343.16	626.35	6,985.35	6,912.38	72.98	95.719		
13,300.00	7,232.24	8,124.11	7,130.33	180.50	39.40	-21.26	342.97	626.34	7,085.34	7,012.29	73.05	96.993		
13,400.00	7,231.88	8,124.30	7,130.33	183.32	39.40	-21.33	342.78	626.34	7,185.32	7,112.19	73.12	98.263		
13,500.00	7,231.51	8,124.48	7,130.33	186.14	39.40	-21.40	342.60	626.34	7,285.30	7,212.10	73.20	99.530		
13,600.00	7,231.15	8,124.66	7,130.33	188.96	39.40	-21.47	342.42	626.34	7,385.28	7,312.01	73.27	100.793		
13,700.00	7,230.78	8,124.83	7,130.34	191.78	39.40	-21.54	342.25	626.34	7,485.26	7,411.92	73.35	102.052		
13,800.00	7,230.41	8,125.00	7,130.34	194.60	39.41	-21.61	342.08	626.33	7,585.25	7,511.82	73.42	103.307		
13,900.00	7,230.05	8,125.17	7,130.34	197.42	39.41	-21.67	341.91	626.33	7,685.23	7,611.73	73.50	104.559		
14,000.00	7,229.68	8,125.33	7,130.34	200.25	39.41	-21.73	341.75	626.33	7,785.22	7,711.64	73.58	105.806		
14,100.00	7,229.31	8,125.49	7,130.34	203.07	39.41	-21.80	341.59	626.33	7,885.20	7,811.54	73.66	107.050		
14,200.00	7,228.95	8,125.65	7,130.34	205.90	39.42	-21.86	341.43	626.33	7,985.18	7,911.45	73.74	108.290		
14,300.00	7,228.58	8,125.80	7,130.34	208.73	39.42	-21.92	341.27	626.32	8,085.17	8,011.35	73.82	109.526		
14,400.00	7,228.22	8,125.96	7,130.34	211.55	39.42	-21.98	341.12	626.32	8,185.16	8,111.25	73.90	110.758		
14,500.00	7,227.85	8,126.11	7,130.34	214.38	39.42	-22.03	340.97	626.32	8,285.14	8,211.16	73.98	111.986		
14,600.00	7,227.48	8,126.25	7,130.34	217.21	39.42	-22.09	340.83	626.32	8,385.13	8,311.06	74.07	113.210		
14,700.00	7,227.12	8,126.39	7,130.34	220.04	39.43	-22.14	340.68	626.32	8,485.11	8,410.96	74.15	114.430		
14,800.00	7,226.75	8,126.54	7,130.34	222.88	39.43	-22.20	340.54	626.31	8,585.10	8,510.87	74.24	115.646		
14,900.00	7,226.38	8,126.67	7,130.34	225.71	39.43	-22.25	340.40	626.31	8,685.09	8,610.77	74.32	116.858		
15,000.00	7,226.02	8,126.81	7,130.34	228.54	39.43	-22.30	340.27	626.31	8,785.08	8,710.67	74.41	118.065		
15,005.81	7,226.00	8,126.82	7,130.34	228.71	39.43	-22.31	340.26	626.31	8,790.88	8,716.47	74.41	118.135		



Anticollision Report



Company:	SRC ENERGY	Local Co-ordinate Reference:	Well HARVESTERS STATE 31C-16-M
Project:	SECTION 15, T6N, R66W	TVD Reference:	KB @ 4821.00ft
Reference Site:	HARVESTERS STATE 7-15 PAD	MD Reference:	KB @ 4821.00ft
Site Error:	3.28 ft	North Reference:	True
Reference Well:	HARVESTERS STATE 31C-16-M	Survey Calculation Method:	Minimum Curvature
Well Error:	3.28 ft	Output errors are at	2.45 sigma
Reference Wellbore	OH	Database:	EDM 5000.14 Single User Db
Reference Design:	PLAN #1	Offset TVD Reference:	Reference Datum

Offset Design HARVESTERS STATE 7-15 PAD - HARVESTERS RESOURCES 15R-403(PR_150CC) - OH - OH													Offset Site Error:	0.00 ft
Survey Program: 146-MWD													Offset Well Error:	3.28 ft
Reference		Offset		Semi Major Axis			Distance							Warning
Measured Depth (ft)	Vertical Depth (ft)	Measured Depth (ft)	Vertical Depth (ft)	Reference (ft)	Offset (ft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (ft)	+E/-W (ft)	Between Centres (ft)	Between Ellipses (ft)	Minimum Separation (ft)	Separation Factor		
0.00	0.00	11.78	2.78	3.28	3.28	51.15	1,364.01	1,693.47	2,174.49					
100.00	100.00	142.62	133.61	3.28	3.29	51.13	1,363.91	1,692.15	2,173.65	2,167.07	6.58	330.456		
200.00	200.00	257.44	248.39	3.34	3.37	51.08	1,364.16	1,689.15	2,171.75	2,165.04	6.71	323.644		
300.00	300.00	360.90	351.77	3.44	3.51	50.99	1,365.16	1,685.08	2,169.29	2,162.34	6.95	312.032		
400.00	400.00	451.24	442.00	3.60	3.67	50.88	1,366.99	1,681.17	2,167.20	2,159.93	7.27	298.096		
500.00	500.00	550.53	541.15	3.81	3.89	50.76	1,369.52	1,676.63	2,165.26	2,157.57	7.69	281.562		
600.00	600.00	648.10	638.54	4.05	4.14	50.61	1,372.73	1,671.69	2,163.43	2,155.25	8.18	264.434		
700.00	699.98	742.86	733.09	4.32	4.42	73.43	1,376.41	1,666.58	2,161.24	2,152.51	8.73	247.675		
800.00	799.84	845.19	835.16	4.62	4.75	73.42	1,381.06	1,660.80	2,158.28	2,148.93	9.35	230.916		
900.00	899.62	939.52	929.24	4.94	5.07	73.40	1,385.20	1,655.35	2,154.75	2,144.76	9.98	215.839		
1,000.00	999.41	1,031.90	1,021.32	5.27	5.40	73.36	1,390.14	1,649.92	2,151.74	2,141.09	10.65	202.031		
1,100.00	1,099.19	1,306.82	1,292.65	5.62	6.57	72.74	1,411.61	1,612.51	2,143.62	2,131.48	12.15	176.489		
1,200.00	1,198.98	1,418.01	1,401.72	5.99	7.11	72.41	1,419.35	1,592.35	2,132.30	2,119.28	13.02	163.763		
1,300.00	1,298.76	1,506.50	1,488.46	6.36	7.56	72.14	1,425.76	1,576.02	2,120.98	2,107.16	13.82	153.487		
1,400.00	1,398.55	1,687.90	1,666.12	6.74	8.51	71.61	1,435.87	1,540.94	2,107.84	2,092.76	15.07	139.868		
1,500.00	1,498.33	1,799.13	1,775.07	7.13	9.10	71.32	1,439.30	1,518.79	2,092.84	2,076.84	16.00	130.801		
1,600.00	1,598.12	1,874.74	1,849.20	7.52	9.51	71.13	1,441.25	1,504.03	2,077.89	2,061.12	16.78	123.860		
1,700.00	1,697.90	1,943.95	1,917.24	7.92	9.88	70.98	1,443.40	1,491.61	2,064.44	2,046.91	17.53	117.770		
1,800.00	1,797.69	2,011.00	1,983.31	8.33	10.23	70.83	1,445.76	1,480.42	2,052.30	2,034.03	18.28	112.290		
1,900.00	1,897.47	2,080.67	2,052.08	8.74	10.59	70.69	1,448.78	1,469.67	2,041.67	2,022.63	19.04	107.240		
2,000.00	1,997.26	2,164.02	2,134.42	9.15	11.02	70.50	1,453.42	1,457.63	2,032.51	2,012.64	19.87	102.290		
2,100.00	2,097.04	2,253.93	2,223.17	9.56	11.49	70.29	1,459.13	1,444.41	2,023.75	2,003.01	20.74	97.562		
2,200.00	2,196.83	2,340.58	2,308.63	9.98	11.95	70.06	1,465.49	1,431.60	2,015.63	1,994.02	21.61	93.265		
2,300.00	2,296.61	2,434.54	2,401.26	10.40	12.45	69.79	1,473.06	1,417.77	2,008.09	1,985.56	22.52	89.158		
2,400.00	2,396.40	2,529.53	2,495.08	10.82	12.95	69.56	1,479.91	1,404.59	2,000.62	1,977.19	23.44	85.366		
2,500.00	2,496.18	2,621.30	2,585.82	11.24	13.42	69.34	1,486.46	1,392.52	1,993.67	1,969.34	24.33	81.944		
2,600.00	2,595.96	2,724.42	2,687.87	11.66	13.95	69.12	1,493.45	1,379.41	1,986.83	1,961.55	25.28	78.602		
2,700.00	2,695.75	2,865.63	2,827.40	12.09	14.69	68.78	1,502.76	1,359.86	1,979.18	1,952.77	26.41	74.929		
2,800.00	2,795.53	2,986.85	2,946.65	12.51	15.37	68.41	1,510.77	1,339.62	1,969.39	1,941.90	27.48	71.658		
2,900.00	2,895.32	3,080.79	3,039.12	12.94	15.89	68.14	1,516.53	1,324.13	1,959.50	1,931.08	28.42	68.939		
3,000.00	2,995.10	3,181.87	3,138.72	13.37	16.45	67.86	1,522.29	1,307.86	1,949.65	1,920.26	29.39	66.330		
3,100.00	3,094.89	3,274.77	3,230.25	13.80	16.96	67.60	1,527.69	1,292.89	1,939.92	1,909.60	30.32	63.974		
3,200.00	3,194.67	3,373.10	3,327.49	14.23	17.48	67.39	1,532.07	1,279.09	1,930.72	1,899.46	31.26	61.762		
3,300.00	3,294.46	3,479.01	3,432.38	14.66	18.02	67.21	1,535.18	1,264.70	1,920.76	1,888.54	32.21	59.629		
3,400.00	3,394.24	3,558.71	3,511.42	15.09	18.42	67.09	1,537.51	1,254.73	1,911.57	1,878.52	33.05	57.837		
3,500.00	3,494.03	3,642.07	3,594.06	15.52	18.85	66.94	1,540.98	1,244.34	1,903.32	1,869.41	33.91	56.130		
3,600.00	3,593.81	3,730.14	3,681.25	15.96	19.30	66.75	1,545.93	1,233.00	1,895.85	1,861.05	34.80	54.476		
3,700.00	3,693.60	3,840.40	3,790.08	16.39	19.90	66.44	1,553.71	1,217.11	1,888.38	1,852.55	35.82	52.713		
3,800.00	3,793.38	3,954.89	3,902.71	16.82	20.54	66.05	1,562.66	1,198.62	1,880.32	1,843.43	36.89	50.971		
3,900.00	3,893.17	4,077.80	4,023.47	17.26	21.25	65.61	1,571.57	1,177.58	1,871.27	1,833.26	38.00	49.241		
4,000.00	3,992.95	4,202.20	4,145.60	17.69	21.97	65.17	1,579.32	1,155.20	1,860.94	1,821.83	39.12	47.574		
4,100.00	4,092.74	4,284.64	4,226.64	18.13	22.44	64.89	1,583.90	1,140.76	1,850.52	1,810.48	40.03	46.227		
4,200.00	4,192.52	4,369.75	4,310.52	18.56	22.92	64.63	1,588.35	1,127.11	1,840.89	1,799.93	40.96	44.948		
4,300.00	4,292.31	4,459.99	4,399.64	19.00	23.41	64.39	1,592.92	1,113.67	1,831.95	1,790.06	41.89	43.735		
4,400.00	4,392.09	4,551.49	4,490.05	19.43	23.90	64.15	1,597.72	1,100.44	1,823.48	1,780.66	42.82	42.583		
4,500.00	4,491.88	4,638.95	4,576.53	19.87	24.36	63.92	1,602.46	1,088.29	1,815.55	1,771.82	43.73	41.517		
4,600.00	4,591.66	4,725.08	4,661.81	20.31	24.81	63.72	1,607.23	1,077.17	1,808.38	1,763.75	44.63	40.521		
4,700.00	4,691.44	4,807.28	4,743.29	20.74	25.23	63.54	1,611.91	1,067.39	1,802.03	1,756.53	45.50	39.605		
4,800.00	4,791.23	4,888.32	4,823.73	21.18	25.64	63.38	1,616.80	1,058.81	1,796.80	1,750.44	46.35	38.765		
4,900.00	4,891.01	4,977.11	4,911.97	21.62	26.07	63.23	1,622.17	1,050.52	1,792.40	1,745.17	47.23	37.953		
5,000.00	4,990.80	5,074.54	5,008.84	22.06	26.53	63.08	1,628.01	1,041.98	1,788.35	1,740.21	48.14	37.150		
5,100.00	5,090.58	5,172.20	5,105.83	22.50	27.01	62.90	1,634.67	1,032.61	1,784.42	1,735.36	49.06	36.371		

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



Anticollision Report



Company:	SRC ENERGY	Local Co-ordinate Reference:	Well HARVESTERS STATE 31C-16-M
Project:	SECTION 15, T6N, R66W	TVD Reference:	KB @ 4821.00ft
Reference Site:	HARVESTERS STATE 7-15 PAD	MD Reference:	KB @ 4821.00ft
Site Error:	3.28 ft	North Reference:	True
Reference Well:	HARVESTERS STATE 31C-16-M	Survey Calculation Method:	Minimum Curvature
Well Error:	3.28 ft	Output errors are at	2.45 sigma
Reference Wellbore	OH	Database:	EDM 5000.14 Single User Db
Reference Design:	PLAN #1	Offset TVD Reference:	Reference Datum

Offset Design HARVESTERS STATE 7-15 PAD - HARVESTERS RESOURCES 15R-403(PR_150CC) - OH - OH													Offset Site Error:	0.00 ft
Survey Program: 146-MWD													Offset Well Error:	3.28 ft
Reference		Offset		Semi Major Axis			Distance							Warning
Measured Depth (ft)	Vertical Depth (ft)	Measured Depth (ft)	Vertical Depth (ft)	Reference (ft)	Offset (ft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (ft)	+E/-W (ft)	Between Centres (ft)	Between Ellipses (ft)	Minimum Separation (ft)	Separation Factor		
5,200.00	5,190.37	5,272.45	5,205.45	22.93	27.49	62.73	1,641.23	1,023.57	1,780.66	1,730.67	49.99	35.618		
5,300.00	5,290.15	5,379.00	5,311.48	23.37	27.99	62.59	1,646.95	1,014.83	1,776.52	1,725.59	50.94	34.877		
5,400.00	5,389.94	5,474.53	5,406.71	23.81	28.42	62.53	1,650.93	1,008.34	1,772.37	1,720.57	51.81	34.210		
5,500.00	5,489.72	5,569.28	5,501.27	24.25	28.83	62.52	1,654.11	1,003.37	1,768.59	1,715.93	52.66	33.586		
5,600.00	5,589.51	5,665.77	5,597.64	24.69	29.23	62.54	1,656.68	999.36	1,764.97	1,711.47	53.50	32.989		
5,700.00	5,689.29	5,763.89	5,695.65	25.13	29.64	62.58	1,659.42	995.51	1,761.59	1,707.24	54.35	32.413		
5,800.00	5,789.08	5,867.19	5,798.85	25.56	30.07	62.62	1,662.01	991.66	1,758.12	1,702.90	55.21	31.841		
5,900.00	5,888.86	5,966.90	5,899.90	26.00	30.46	62.66	1,664.59	987.81	1,754.69	1,698.47	56.06	31.268		
6,000.00	5,988.65	6,067.60	5,999.90	26.44	30.85	62.70	1,667.16	983.96	1,751.26	1,694.04	56.91	30.695		
6,100.00	6,088.43	6,167.39	6,099.90	26.88	31.24	62.74	1,669.73	980.11	1,747.83	1,689.61	57.76	30.122		
6,200.00	6,188.22	6,267.18	6,199.90	27.32	31.63	62.78	1,672.30	976.26	1,744.40	1,685.18	58.61	29.549		
6,300.00	6,288.00	6,366.97	6,299.90	27.76	32.02	62.82	1,674.87	972.41	1,740.97	1,680.75	59.46	28.976		
6,400.00	6,387.79	6,466.76	6,399.90	28.20	32.41	62.86	1,677.44	968.56	1,737.54	1,676.32	60.31	28.403		
6,500.00	6,487.57	6,566.55	6,499.90	28.64	32.80	62.90	1,680.01	964.71	1,734.11	1,671.89	61.16	27.830		
6,600.00	6,587.35	6,666.34	6,599.90	29.08	33.19	62.94	1,682.58	960.86	1,730.68	1,667.46	62.01	27.257		
6,700.00	6,687.02	6,766.13	6,699.90	29.52	33.58	62.98	1,685.15	957.01	1,727.25	1,663.03	62.86	26.684		
6,800.00	6,786.80	6,865.92	6,799.90	29.96	33.97	63.02	1,687.72	953.16	1,723.82	1,658.60	63.71	26.111		
6,853.46	6,835.81	6,915.71	6,848.86	30.20	34.16	63.04	1,688.86	952.02	1,722.11	1,657.09	64.00	25.900		
6,900.00	6,878.81	6,958.71	6,891.86	30.41	34.35	63.06	1,689.99	950.88	1,720.40	1,655.58	64.29	25.689		
7,000.00	6,966.21	7,046.11	6,999.90	30.86	34.74	63.10	1,692.56	947.03	1,716.97	1,652.15	65.14	25.116		
7,100.00	7,045.03	7,125.93	7,099.90	31.35	35.13	63.14	1,695.13	943.18	1,713.54	1,648.72	66.00	24.543		
7,200.00	7,113.32	7,204.22	7,199.90	31.90	35.52	63.18	1,697.70	939.33	1,710.11	1,645.29	66.85	23.970		
7,300.00	7,169.40	7,260.30	7,259.90	32.57	35.91	63.22	1,700.27	935.48	1,706.68	1,641.86	67.70	23.397		
7,400.00	7,211.89	7,302.79	7,301.90	33.38	36.30	63.26	1,702.84	931.63	1,703.25	1,638.43	68.55	22.824		
7,500.00	7,239.75	7,330.65	7,329.90	34.35	36.69	63.30	1,705.41	927.78	1,700.82	1,635.00	69.40	22.251		
7,600.00	7,252.28	7,343.18	7,342.90	35.47	37.08	63.34	1,707.98	923.93	1,697.39	1,631.57	70.25	21.678		
7,700.00	7,252.75	7,343.65	7,342.90	36.73	37.47	63.38	1,710.55	920.08	1,694.96	1,628.14	71.10	21.105		
7,800.00	7,252.38	7,343.28	7,342.90	38.16	37.86	63.42	1,713.12	916.23	1,692.53	1,624.71	71.95	20.532		
7,900.00	7,252.02	7,342.92	7,342.90	39.74	38.25	63.46	1,715.69	912.38	1,690.10	1,621.28	72.80	19.959		
8,000.00	7,251.65	7,342.55	7,342.90	41.47	38.64	63.50	1,718.26	908.53	1,687.67	1,617.85	73.65	19.386		
8,100.00	7,251.29	7,342.19	7,342.90	43.31	39.03	63.54	1,720.83	904.68	1,685.24	1,614.42	74.50	18.813		
8,200.00	7,250.92	7,341.82	7,342.90	45.26	39.42	63.58	1,723.40	900.83	1,682.81	1,610.99	75.35	18.240		
8,300.00	7,250.55	7,341.45	7,342.90	47.30	39.81	63.62	1,725.97	896.98	1,680.38	1,607.56	76.20	17.667		
8,400.00	7,250.19	7,341.09	7,342.90	49.42	40.20	63.66	1,728.54	893.13	1,677.95	1,604.13	77.05	17.094		
8,500.00	7,249.82	7,340.72	7,342.90	51.62	40.59	63.70	1,731.11	889.28	1,675.52	1,600.70	77.90	16.521		
8,600.00	7,249.45	7,340.35	7,342.90	53.88	40.98	63.74	1,733.68	885.43	1,673.09	1,597.27	78.75	15.948		
8,700.00	7,249.09	7,340.00	7,342.90	56.19	41.37	63.78	1,736.25	881.58	1,670.66	1,593.84	79.60	15.375		
8,800.00	7,248.72	7,339.63	7,342.90	58.55	41.76	63.82	1,738.82	877.73	1,668.23	1,590.41	80.45	14.802		
8,900.00	7,248.36	7,339.27	7,342.90	60.96	42.15	63.86	1,741.39	873.88	1,665.80	1,586.98	81.30	14.229		
9,000.00	7,247.99	7,338.90	7,342.90	63.40	42.54	63.90	1,743.96	869.99	1,663.37	1,583.55	82.15	13.656		
9,100.00	7,247.62	7,338.53	7,342.90	65.87	42.93	63.94	1,746.53	866.14	1,660.94	1,580.12	83.00	13.083		
9,200.00	7,247.26	7,338.17	7,342.90	68.38	43.32	63.98	1,749.10	862.29	1,658.51	1,576.69	83.85	12.510		
9,300.00	7,246.89	7,337.80	7,342.90	70.91	43.71	64.02	1,751.67	858.44	1,656.08	1,573.26	84.70	11.937		
9,400.00	7,246.53	7,337.44	7,342.90	73.47	44.10	64.06	1,754.24	854.59	1,653.65	1,569.83	85.55	11.364		
9,500.00	7,246.16	7,337.07	7,342.90	76.05	44.49	64.10	1,756.81	850.74	1,651.22	1,566.40	86.40	10.791		
9,600.00	7,245.79	7,336.71	7,342.90	78.65	44.88	64.14	1,759.38	846.89	1,648.79	1,562.97	87.25	10.218		
9,700.00	7,245.43	7,336.34	7,342.90	81.27	45.27	64.18	1,761.95	843.04	1,646.36	1,559.54	88.10	9.645		
9,800.00	7,245.06	7,335.98	7,342.90	83.90	45.66	64.22	1,764.52	839.19	1,643.93	1,556.11	88.95	9.072		
9,900.00	7,244.69	7,335.61	7,342.90	86.55	46.05	64.26	1,767.09	835.34	1,641.50	1,552.68	89.80	8.499		
10,000.00	7,244.33	7,335.25	7,342.90	89.21	46.44	64.30	1,769.66	831.49	1,639.07	1,549.25	90.65	7.926		
10,100.00	7,243.96	7,334.88	7,342.90	91.88	46.83	64.34	1,772.23	827.64	1,636.64	1,545.82	91.50	7.353		
10,200.00	7,243.60	7,334.52	7,342.90	94.56	47.22	64.38	1,774.80	823.79	1,634.21	1,542.39	92.35	6.780		

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



Anticollision Report



Company:	SRC ENERGY	Local Co-ordinate Reference:	Well HARVESTERS STATE 31C-16-M
Project:	SECTION 15, T6N, R66W	TVD Reference:	KB @ 4821.00ft
Reference Site:	HARVESTERS STATE 7-15 PAD	MD Reference:	KB @ 4821.00ft
Site Error:	3.28 ft	North Reference:	True
Reference Well:	HARVESTERS STATE 31C-16-M	Survey Calculation Method:	Minimum Curvature
Well Error:	3.28 ft	Output errors are at	2.45 sigma
Reference Wellbore	OH	Database:	EDM 5000.14 Single User Db
Reference Design:	PLAN #1	Offset TVD Reference:	Reference Datum

Offset Design HARVESTERS STATE 7-15 PAD - HARVESTERS RESOURCES 15R-403(PR_150CC) - OH - OH													Offset Site Error:	0.00 ft
Survey Program: 146-MWD													Offset Well Error:	3.28 ft
Reference		Offset		Semi Major Axis			Distance							Warning
Measured Depth (ft)	Vertical Depth (ft)	Measured Depth (ft)	Vertical Depth (ft)	Reference (ft)	Offset (ft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (ft)	+E/-W (ft)	Between Centres (ft)	Between Ellipses (ft)	Minimum Separation (ft)	Separation Factor		
10,300.00	7,243.23	8,074.90	7,258.15	97.26	39.12	89.55	545.87	951.99	4,411.69	4,341.30	70.39	62.679		
10,400.00	7,242.86	8,072.90	7,258.16	99.96	39.10	89.56	547.87	951.93	4,511.63	4,441.21	70.41	64.073		
10,500.00	7,242.50	8,066.00	7,258.20	102.67	39.02	89.59	554.76	951.73	4,611.57	4,541.17	70.40	65.506		
10,600.00	7,242.13	8,066.00	7,258.20	105.39	39.02	89.59	554.76	951.73	4,711.51	4,641.06	70.45	66.879		
10,700.00	7,241.76	8,066.00	7,258.20	108.12	39.02	89.59	554.76	951.73	4,811.45	4,740.95	70.50	68.249		
10,800.00	7,241.40	8,066.00	7,258.20	110.85	39.02	89.59	554.76	951.73	4,911.39	4,840.84	70.55	69.617		
10,900.00	7,241.03	8,066.00	7,258.20	113.59	39.02	89.59	554.76	951.73	5,011.34	4,940.74	70.60	70.982		
11,000.00	7,240.67	8,060.94	7,258.23	116.34	38.97	89.61	559.82	951.59	5,111.28	5,040.67	70.61	72.388		
11,100.00	7,240.30	8,058.88	7,258.23	119.09	38.95	89.62	561.88	951.54	5,211.23	5,140.58	70.65	73.766		
11,200.00	7,239.93	8,056.85	7,258.24	121.85	38.92	89.63	563.91	951.48	5,311.17	5,240.49	70.68	75.141		
11,300.00	7,239.57	8,054.85	7,258.25	124.61	38.90	89.63	565.91	951.43	5,411.12	5,340.40	70.72	76.513		
11,400.00	7,239.20	8,052.87	7,258.26	127.38	38.88	89.64	567.89	951.38	5,511.07	5,440.31	70.76	77.883		
11,500.00	7,238.84	8,050.93	7,258.26	130.15	38.86	89.64	569.83	951.33	5,611.02	5,540.22	70.80	79.249		
11,600.00	7,238.47	8,049.01	7,258.27	132.92	38.84	89.65	571.75	951.28	5,710.97	5,640.12	70.84	80.613		
11,700.00	7,238.10	8,047.11	7,258.27	135.70	38.82	89.65	573.64	951.23	5,810.92	5,740.03	70.89	81.973		
11,800.00	7,237.74	8,045.24	7,258.27	138.48	38.80	89.66	575.51	951.18	5,910.87	5,839.94	70.93	83.331		
11,900.00	7,237.37	8,043.40	7,258.28	141.26	38.78	89.66	577.35	951.13	6,010.82	5,939.84	70.98	84.685		
12,000.00	7,237.00	8,041.59	7,258.28	144.05	38.76	89.67	579.17	951.09	6,110.77	6,039.75	71.03	86.036		
12,100.00	7,236.64	8,036.00	7,258.28	146.84	38.70	89.68	584.75	950.95	6,210.73	6,139.68	71.04	87.420		
12,200.00	7,236.27	8,036.00	7,258.28	149.64	38.70	89.68	584.75	950.95	6,310.68	6,239.57	71.11	88.748		
12,300.00	7,235.91	8,036.00	7,258.28	152.43	38.70	89.68	584.75	950.95	6,410.63	6,339.46	71.17	90.073		
12,400.00	7,235.54	7,769.02	7,246.88	155.23	36.30	88.45	851.10	939.09	6,510.58	6,440.45	70.14	92.829		
12,500.00	7,235.17	7,764.00	7,246.51	158.03	36.26	88.42	856.10	938.76	6,610.33	6,540.13	70.21	94.156		
12,600.00	7,234.81	7,764.00	7,246.51	160.83	36.26	88.42	856.10	938.76	6,710.09	6,639.81	70.28	95.475		
12,700.00	7,234.44	7,764.00	7,246.51	163.64	36.26	88.42	856.10	938.76	6,809.85	6,739.50	70.36	96.791		
12,800.00	7,234.07	7,755.69	7,245.90	166.44	36.20	88.38	864.37	938.24	6,909.61	6,839.18	70.43	98.105		
12,900.00	7,233.71	7,753.03	7,245.70	169.25	36.19	88.36	867.01	938.07	7,009.38	6,938.87	70.51	99.414		
13,000.00	7,233.34	7,750.42	7,245.51	172.06	36.17	88.35	869.62	937.91	7,109.15	7,038.56	70.58	100.719		
13,100.00	7,232.98	7,747.85	7,245.32	174.88	36.15	88.33	872.17	937.75	7,208.92	7,138.26	70.66	102.020		
13,200.00	7,232.61	7,745.32	7,245.14	177.69	36.13	88.32	874.69	937.60	7,308.70	7,237.96	70.74	103.317		
13,300.00	7,232.24	7,742.84	7,244.96	180.50	36.12	88.31	877.16	937.45	7,408.48	7,337.66	70.82	104.610		
13,400.00	7,231.88	7,733.00	7,244.24	183.32	36.05	88.26	886.96	936.87	7,508.28	7,437.38	70.90	105.896		
13,500.00	7,231.51	7,733.00	7,244.24	186.14	36.05	88.26	886.96	936.87	7,608.06	7,537.08	70.98	107.182		
13,600.00	7,231.15	7,733.00	7,244.24	188.96	36.05	88.26	886.96	936.87	7,707.85	7,636.79	71.06	108.465		
13,700.00	7,230.78	7,733.00	7,244.24	191.78	36.05	88.26	886.96	936.87	7,807.65	7,736.50	71.14	109.744		
13,800.00	7,230.41	7,733.00	7,244.24	194.60	36.05	88.26	886.96	936.87	7,907.45	7,836.22	71.23	111.020		
13,900.00	7,230.05	7,733.00	7,244.24	197.42	36.05	88.26	886.96	936.87	8,007.25	7,935.95	71.31	112.292		
14,000.00	7,229.68	7,733.00	7,244.24	200.25	36.05	88.26	886.96	936.87	8,107.06	8,035.67	71.39	113.560		
14,100.00	7,229.31	7,733.00	7,244.24	203.07	36.05	88.26	886.96	936.87	8,206.88	8,135.41	71.47	114.825		
14,200.00	7,228.95	7,733.00	7,244.24	205.90	36.05	88.26	886.96	936.87	8,306.70	8,235.14	71.56	116.086		
14,300.00	7,228.58	7,733.00	7,244.24	208.73	36.05	88.26	886.96	936.87	8,406.52	8,334.88	71.64	117.343		
14,400.00	7,228.22	7,733.00	7,244.24	211.55	36.05	88.26	886.96	936.87	8,506.35	8,434.62	71.73	118.596		
14,500.00	7,227.85	7,733.00	7,244.24	214.38	36.05	88.26	886.96	936.87	8,606.18	8,534.37	71.81	119.845		
14,600.00	7,227.48	7,713.89	7,242.72	217.21	35.93	88.16	905.98	935.82	8,705.95	8,634.03	71.92	121.049		
14,700.00	7,227.12	7,711.89	7,242.55	220.04	35.92	88.14	907.96	935.71	8,805.78	8,733.77	72.01	122.284		
14,800.00	7,226.75	7,709.93	7,242.38	222.88	35.91	88.13	909.92	935.61	8,905.61	8,833.51	72.10	123.516		
14,900.00	7,226.38	7,707.99	7,242.20	225.71	35.89	88.12	911.84	935.51	9,005.44	8,933.25	72.19	124.744		
15,000.00	7,226.02	7,706.09	7,242.03	228.54	35.88	88.11	913.74	935.41	9,105.27	9,032.99	72.28	125.968		
15,005.81	7,226.00	7,705.98	7,242.02	228.71	35.88	88.11	913.85	935.40	9,111.07	9,038.79	72.29	126.039		



Anticollision Report



Company:	SRC ENERGY	Local Co-ordinate Reference:	Well HARVESTERS STATE 31C-16-M
Project:	SECTION 15, T6N, R66W	TVD Reference:	KB @ 4821.00ft
Reference Site:	HARVESTERS STATE 7-15 PAD	MD Reference:	KB @ 4821.00ft
Site Error:	3.28 ft	North Reference:	True
Reference Well:	HARVESTERS STATE 31C-16-M	Survey Calculation Method:	Minimum Curvature
Well Error:	3.28 ft	Output errors are at	2.45 sigma
Reference Wellbore	OH	Database:	EDM 5000.14 Single User Db
Reference Design:	PLAN #1	Offset TVD Reference:	Reference Datum

Offset Design HARVESTERS STATE 7-15 PAD - HARVESTERS STATE 30C-16-M - OH - PLAN #1													Offset Site Error:	0.00 ft
Survey Program: 0-MWD+IFR1													Offset Well Error:	3.28 ft
Reference		Offset		Semi Major Axis			Distance							Warning
Measured Depth (ft)	Vertical Depth (ft)	Measured Depth (ft)	Vertical Depth (ft)	Reference (ft)	Offset (ft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (ft)	+E/-W (ft)	Between Centres (ft)	Between Ellipses (ft)	Minimum Separation (ft)	Separation Factor		
0.00	0.00	1.00	0.00	3.28	3.28	0.48	99.82	0.83	99.82					
100.00	100.00	101.00	100.00	3.28	3.28	0.48	99.82	0.83	99.82	93.25	6.57	15.195		
200.00	200.00	201.00	200.00	3.34	3.34	0.48	99.82	0.83	99.82	93.15	6.67	14.955 CC, ES		
300.00	300.00	297.58	296.56	3.44	3.44	0.38	101.47	0.67	101.53	94.64	6.90	14.720		
400.00	400.00	393.97	392.83	3.60	3.60	0.10	106.35	0.18	106.59	99.36	7.23	14.734		
500.00	500.00	489.93	488.43	3.81	3.79	-0.32	114.40	-0.63	114.99	107.32	7.67	15.001		
600.00	600.00	585.24	583.08	4.05	4.03	-0.80	125.55	-1.75	126.70	118.53	8.17	15.506		
700.00	699.98	679.94	676.70	4.32	4.29	21.75	139.73	-3.17	140.09	131.36	8.73	16.047		
800.00	799.84	774.21	769.37	4.62	4.58	21.83	156.89	-4.89	153.55	144.22	9.33	16.460		
900.00	899.62	867.77	860.74	4.94	4.89	22.03	176.91	-6.90	169.00	159.04	9.97	16.960		
1,000.00	999.41	960.28	950.39	5.27	5.22	22.12	199.61	-9.18	187.65	177.01	10.63	17.649		
1,100.00	1,099.19	1,051.98	1,038.48	5.62	5.58	22.12	224.94	-11.73	209.41	198.10	11.31	18.516		
1,200.00	1,198.98	1,149.27	1,131.55	5.99	5.99	22.09	253.12	-14.56	232.55	220.53	12.02	19.354		
1,300.00	1,298.76	1,246.56	1,224.63	6.36	6.41	22.06	281.30	-17.39	255.68	242.93	12.75	20.054		
1,400.00	1,398.55	1,343.84	1,317.70	6.74	6.85	22.04	309.48	-20.21	278.81	265.30	13.51	20.642		
1,500.00	1,498.33	1,441.13	1,410.78	7.13	7.30	22.02	337.65	-23.04	301.94	287.66	14.28	21.138		
1,600.00	1,598.12	1,538.42	1,503.85	7.52	7.75	22.01	365.83	-25.87	325.08	310.00	15.08	21.559		
1,700.00	1,697.90	1,635.71	1,596.93	7.92	8.22	21.99	394.01	-28.70	348.21	332.32	15.89	21.918		
1,800.00	1,797.69	1,732.99	1,690.00	8.33	8.69	21.98	422.19	-31.53	371.34	354.64	16.71	22.226		
1,900.00	1,897.47	1,830.28	1,783.08	8.74	9.17	21.97	450.36	-34.36	394.48	376.94	17.54	22.492		
2,000.00	1,997.26	1,927.57	1,876.15	9.15	9.65	21.96	478.54	-37.19	417.61	399.23	18.38	22.723		
2,100.00	2,097.04	2,024.86	1,969.22	9.56	10.14	21.95	506.72	-40.02	440.74	421.52	19.23	22.924		
2,200.00	2,196.83	2,122.14	2,062.30	9.98	10.63	21.95	534.90	-42.85	463.87	443.79	20.08	23.100		
2,300.00	2,296.61	2,219.43	2,155.37	10.40	11.13	21.94	563.07	-45.67	487.01	466.07	20.94	23.256		
2,400.00	2,396.40	2,316.72	2,248.45	10.82	11.62	21.93	591.25	-48.50	510.14	488.33	21.81	23.393		
2,500.00	2,496.18	2,414.01	2,341.52	11.24	12.12	21.93	619.43	-51.33	533.27	510.60	22.68	23.515		
2,600.00	2,595.96	2,511.29	2,434.60	11.66	12.62	21.92	647.61	-54.16	556.41	532.85	23.55	23.624		
2,700.00	2,695.75	2,608.58	2,527.67	12.09	13.12	21.92	675.78	-56.99	579.54	555.11	24.43	23.721		
2,800.00	2,795.53	2,705.87	2,620.75	12.51	13.63	21.91	703.96	-59.82	602.67	577.36	25.31	23.809		
2,900.00	2,895.32	2,803.16	2,713.82	12.94	14.13	21.91	732.14	-62.65	625.81	599.61	26.20	23.888		
3,000.00	2,995.10	2,900.44	2,806.90	13.37	14.64	21.90	760.32	-65.48	648.94	621.85	27.08	23.959		
3,100.00	3,094.89	3,002.27	2,899.97	13.80	15.17	21.90	788.49	-68.31	672.07	644.07	28.00	24.005		
3,200.00	3,194.67	3,095.02	2,993.05	14.23	15.66	21.90	816.67	-71.13	695.20	666.34	28.87	24.083		
3,300.00	3,294.46	3,207.69	3,086.12	14.66	16.25	21.89	844.85	-73.96	718.34	688.50	29.84	24.076		
3,400.00	3,394.24	3,289.59	3,179.19	15.09	16.68	21.89	873.03	-76.79	741.47	710.81	30.66	24.186		
3,500.00	3,494.03	3,386.88	3,272.27	15.52	17.19	21.89	901.21	-79.62	764.60	733.05	31.55	24.231		
3,600.00	3,593.81	3,484.17	3,365.34	15.96	17.70	21.89	929.38	-82.45	787.74	755.28	32.45	24.273		
3,700.00	3,693.60	3,581.46	3,458.42	16.39	18.21	21.88	957.56	-85.28	810.87	777.51	33.35	24.311		
3,800.00	3,793.38	3,678.74	3,551.49	16.82	18.73	21.88	985.74	-88.11	834.00	799.75	34.26	24.346		
3,900.00	3,893.17	3,776.03	3,644.57	17.26	19.24	21.88	1,013.92	-90.94	857.14	821.98	35.16	24.379		
4,000.00	3,992.95	3,873.32	3,737.64	17.69	19.75	21.88	1,042.09	-93.77	880.27	844.20	36.06	24.409		
4,100.00	4,092.74	3,970.61	3,830.72	18.13	20.27	21.88	1,070.27	-96.59	903.40	866.43	36.97	24.437		
4,200.00	4,192.52	4,067.89	3,923.79	18.56	20.78	21.87	1,098.45	-99.42	926.53	888.66	37.88	24.463		
4,300.00	4,292.31	4,165.18	4,016.87	19.00	21.30	21.87	1,126.63	-102.25	949.67	910.88	38.78	24.487		
4,400.00	4,392.09	4,262.47	4,109.94	19.43	21.82	21.87	1,154.80	-105.08	972.80	933.11	39.69	24.510		
4,500.00	4,491.88	4,359.76	4,203.02	19.87	22.33	21.87	1,182.98	-107.91	995.93	955.33	40.60	24.531		
4,600.00	4,591.66	4,457.04	4,296.09	20.31	22.85	21.87	1,211.16	-110.74	1,019.07	977.56	41.51	24.551		
4,700.00	4,691.44	4,554.33	4,389.16	20.74	23.37	21.87	1,239.34	-113.57	1,042.20	999.78	42.42	24.569		
4,800.00	4,791.23	4,651.62	4,482.24	21.18	23.88	21.86	1,267.51	-116.40	1,065.33	1,022.00	43.33	24.586		
4,900.00	4,891.01	4,748.91	4,575.31	21.62	24.40	21.86	1,295.69	-119.23	1,088.47	1,044.22	44.24	24.603		
5,000.00	4,990.80	4,846.19	4,668.39	22.06	24.92	21.86	1,323.87	-122.06	1,111.60	1,066.44	45.15	24.618		
5,100.00	5,090.58	4,943.48	4,761.46	22.50	25.44	21.86	1,352.05	-124.88	1,134.73	1,088.66	46.07	24.632		

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



Anticollision Report



Company:	SRC ENERGY	Local Co-ordinate Reference:	Well HARVESTERS STATE 31C-16-M
Project:	SECTION 15, T6N, R66W	TVD Reference:	KB @ 4821.00ft
Reference Site:	HARVESTERS STATE 7-15 PAD	MD Reference:	KB @ 4821.00ft
Site Error:	3.28 ft	North Reference:	True
Reference Well:	HARVESTERS STATE 31C-16-M	Survey Calculation Method:	Minimum Curvature
Well Error:	3.28 ft	Output errors are at	2.45 sigma
Reference Wellbore	OH	Database:	EDM 5000.14 Single User Db
Reference Design:	PLAN #1	Offset TVD Reference:	Reference Datum

Offset Design HARVESTERS STATE 7-15 PAD - HARVESTERS STATE 30C-16-M - OH - PLAN #1													Offset Site Error:	0.00 ft
Survey Program: 0-MWD+IFR1													Offset Well Error:	3.28 ft
Reference		Offset		Semi Major Axis			Distance						Warning	
Measured Depth (ft)	Vertical Depth (ft)	Measured Depth (ft)	Vertical Depth (ft)	Reference (ft)	Offset (ft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (ft)	+E/-W (ft)	Between Centres (ft)	Between Ellipses (ft)	Minimum Separation (ft)	Separation Factor		
5,200.00	5,190.37	5,040.77	4,854.54	22.93	25.96	21.86	1,380.22	-127.71	1,157.86	1,110.88	46.98	24.646		
5,300.00	5,290.15	5,138.06	4,947.61	23.37	26.47	21.86	1,408.40	-130.54	1,181.00	1,133.10	47.89	24.659		
5,400.00	5,389.94	5,235.34	5,040.69	23.81	26.99	21.86	1,436.58	-133.37	1,204.13	1,155.32	48.81	24.671		
5,500.00	5,489.72	5,332.63	5,133.76	24.25	27.51	21.86	1,464.76	-136.20	1,227.26	1,177.54	49.72	24.682		
5,600.00	5,589.51	5,459.96	5,255.81	24.69	28.18	21.86	1,500.84	-139.82	1,249.93	1,199.00	50.93	24.543		
5,700.00	5,689.29	5,635.03	5,425.81	25.13	29.06	21.89	1,542.36	-143.99	1,267.74	1,215.29	52.44	24.173		
5,800.00	5,789.08	5,813.33	5,601.23	25.56	29.89	21.97	1,573.94	-147.16	1,279.47	1,225.72	53.75	23.805		
5,900.00	5,888.86	5,993.54	5,780.19	26.00	30.65	22.09	1,594.77	-149.25	1,284.99	1,230.18	54.81	23.444		
6,000.00	5,988.65	6,174.26	5,960.62	26.44	31.35	22.25	1,604.38	-150.22	1,284.23	1,228.62	55.61	23.092		
6,100.00	6,088.43	6,302.07	6,088.43	26.88	31.80	22.39	1,605.06	-150.29	1,278.54	1,222.18	56.37	22.682		
6,200.00	6,188.22	6,401.86	6,188.22	27.32	32.16	22.50	1,605.06	-150.29	1,272.48	1,215.29	57.19	22.251		
6,300.00	6,288.00	6,501.64	6,288.00	27.76	32.51	22.62	1,605.06	-150.29	1,266.42	1,208.41	58.01	21.831		
6,400.00	6,387.79	6,601.43	6,387.79	28.20	32.87	22.73	1,605.06	-150.29	1,260.37	1,201.54	58.84	21.422		
6,500.00	6,487.57	6,701.21	6,487.57	28.64	33.23	22.85	1,605.06	-150.29	1,254.32	1,194.66	59.66	21.024		
6,600.00	6,587.35	6,801.00	6,587.35	29.08	33.60	22.96	1,605.06	-150.29	1,248.28	1,187.79	60.49	20.637		
6,700.00	6,687.02	6,901.96	6,688.21	29.52	33.96	61.22	1,605.03	-153.59	1,242.21	1,180.91	61.30	20.263		
6,800.00	6,784.98	7,003.68	6,788.14	29.96	34.32	77.81	1,604.89	-171.98	1,236.04	1,173.93	62.12	19.898		
6,900.00	6,878.81	7,105.48	6,883.95	30.41	34.67	82.94	1,604.62	-206.05	1,229.92	1,166.97	62.95	19.539		
7,000.00	6,966.21	7,207.32	6,973.15	30.86	35.00	85.55	1,604.24	-254.97	1,223.98	1,160.18	63.80	19.184		
7,100.00	7,045.03	7,309.17	7,053.42	31.35	35.29	87.20	1,603.75	-317.48	1,218.38	1,153.65	64.73	18.823		
7,200.00	7,113.32	7,410.99	7,122.69	31.90	35.57	88.35	1,603.17	-391.96	1,213.26	1,147.46	65.80	18.440		
7,300.00	7,169.40	7,512.74	7,179.18	32.57	35.85	89.17	1,602.51	-476.46	1,208.73	1,141.65	67.09	18.018		
7,400.00	7,211.89	7,614.37	7,221.46	33.38	36.24	89.75	1,601.79	-568.75	1,204.92	1,136.25	68.67	17.546		
7,500.00	7,239.75	7,715.84	7,248.50	34.35	36.93	90.12	1,601.02	-666.44	1,201.91	1,131.33	70.58	17.028		
7,600.00	7,252.28	7,817.11	7,259.69	35.47	37.91	90.31	1,600.24	-766.98	1,199.78	1,126.99	72.80	16.481		
7,700.00	7,252.75	7,917.35	7,259.70	36.73	39.09	90.34	1,599.45	-867.21	1,198.38	1,123.10	75.29	15.918		
7,800.00	7,252.38	8,017.34	7,259.32	38.16	40.44	90.33	1,598.67	-967.20	1,197.03	1,118.94	78.10	15.327		
7,900.00	7,252.02	8,117.33	7,258.94	39.74	41.95	90.33	1,597.89	-1,067.19	1,195.69	1,114.47	81.22	14.722		
8,000.00	7,251.65	8,217.32	7,258.56	41.47	43.60	90.33	1,597.11	-1,167.17	1,194.34	1,109.73	84.61	14.117		
8,100.00	7,251.29	8,317.32	7,258.18	43.31	45.37	90.33	1,596.33	-1,267.16	1,192.99	1,104.75	88.24	13.520		
8,200.00	7,250.92	8,417.31	7,257.80	45.26	47.25	90.33	1,595.54	-1,367.15	1,191.64	1,099.56	92.08	12.941		
8,300.00	7,250.55	8,517.30	7,257.42	47.30	49.23	90.33	1,594.76	-1,467.14	1,190.29	1,094.18	96.11	12.385		
8,400.00	7,250.19	8,617.29	7,257.04	49.42	51.28	90.33	1,593.98	-1,567.12	1,188.94	1,088.64	100.31	11.853		
8,500.00	7,249.82	8,717.28	7,256.66	51.62	53.42	90.33	1,593.20	-1,667.11	1,187.59	1,082.95	104.64	11.349		
8,600.00	7,249.45	8,817.27	7,256.28	53.88	55.61	90.33	1,592.42	-1,767.10	1,186.24	1,077.13	109.11	10.872		
8,700.00	7,249.09	8,917.26	7,255.90	56.19	57.87	90.33	1,591.63	-1,867.08	1,184.89	1,071.20	113.69	10.422		
8,800.00	7,248.72	9,017.25	7,255.53	58.55	60.18	90.33	1,590.85	-1,967.07	1,183.55	1,065.18	118.37	9.999		
8,900.00	7,248.36	9,117.24	7,255.15	60.96	62.53	90.33	1,590.07	-2,067.06	1,182.20	1,059.06	123.14	9.601		
9,000.00	7,247.99	9,217.23	7,254.77	63.40	64.92	90.33	1,589.29	-2,167.05	1,180.85	1,052.87	127.98	9.227		
9,100.00	7,247.62	9,317.22	7,254.39	65.87	67.35	90.33	1,588.51	-2,267.03	1,179.50	1,046.60	132.89	8.876		
9,200.00	7,247.26	9,417.22	7,254.01	68.38	69.81	90.33	1,587.72	-2,367.02	1,178.15	1,040.28	137.87	8.545		
9,300.00	7,246.89	9,517.21	7,253.63	70.91	72.30	90.33	1,586.94	-2,467.01	1,176.80	1,033.90	142.90	8.235		
9,400.00	7,246.53	9,617.20	7,253.25	73.47	74.82	90.33	1,586.16	-2,566.99	1,175.45	1,027.47	147.98	7.943		
9,500.00	7,246.16	9,717.19	7,252.87	76.05	77.36	90.33	1,585.38	-2,666.98	1,174.10	1,020.99	153.11	7.668		
9,600.00	7,245.79	9,817.18	7,252.49	78.65	79.92	90.33	1,584.60	-2,766.97	1,172.75	1,014.48	158.28	7.409		
9,700.00	7,245.43	9,917.17	7,252.11	81.27	82.50	90.33	1,583.81	-2,866.96	1,171.40	1,007.92	163.48	7.165		
9,800.00	7,245.06	10,017.16	7,251.73	83.90	85.10	90.33	1,583.03	-2,966.94	1,170.06	1,001.34	168.72	6.935		
9,900.00	7,244.69	10,117.15	7,251.35	86.55	87.72	90.33	1,582.25	-3,066.93	1,168.71	994.72	173.99	6.717		
10,000.00	7,244.33	10,217.14	7,250.97	89.21	90.35	90.33	1,581.47	-3,166.92	1,167.36	988.07	179.28	6.511		
10,100.00	7,243.96	10,317.13	7,250.59	91.88	92.99	90.33	1,580.69	-3,266.90	1,166.01	981.40	184.61	6.316		
10,200.00	7,243.60	10,417.12	7,250.21	94.56	95.65	90.33	1,579.90	-3,366.89	1,164.66	974.71	189.95	6.131		
10,300.00	7,243.23	10,517.12	7,249.83	97.26	98.31	90.33	1,579.12	-3,466.88	1,163.31	968.00	195.32	5.956		

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



Anticollision Report



Company:	SRC ENERGY	Local Co-ordinate Reference:	Well HARVESTERS STATE 31C-16-M
Project:	SECTION 15, T6N, R66W	TVD Reference:	KB @ 4821.00ft
Reference Site:	HARVESTERS STATE 7-15 PAD	MD Reference:	KB @ 4821.00ft
Site Error:	3.28 ft	North Reference:	True
Reference Well:	HARVESTERS STATE 31C-16-M	Survey Calculation Method:	Minimum Curvature
Well Error:	3.28 ft	Output errors are at	2.45 sigma
Reference Wellbore	OH	Database:	EDM 5000.14 Single User Db
Reference Design:	PLAN #1	Offset TVD Reference:	Reference Datum

Offset Design HARVESTERS STATE 7-15 PAD - HARVESTERS STATE 30C-16-M - OH - PLAN #1													Offset Site Error:	0.00 ft
Survey Program: 0-MWD+IFR1													Offset Well Error:	3.28 ft
Reference		Offset		Semi Major Axis			Distance							Warning
Measured Depth (ft)	Vertical Depth (ft)	Measured Depth (ft)	Vertical Depth (ft)	Reference (ft)	Offset (ft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (ft)	+E/-W (ft)	Between Centres (ft)	Between Ellipses (ft)	Minimum Separation (ft)	Separation Factor		
10,400.00	7,242.86	10,617.11	7,249.45	99.96	100.99	90.33	1,578.34	-3,566.87	1,161.96	961.26	200.70	5.790		
10,500.00	7,242.50	10,717.10	7,249.07	102.67	103.68	90.33	1,577.56	-3,666.85	1,160.61	954.51	206.10	5.631		
10,600.00	7,242.13	10,817.09	7,248.69	105.39	106.37	90.33	1,576.78	-3,766.84	1,159.26	947.74	211.52	5.481		
10,700.00	7,241.76	10,917.08	7,248.32	108.12	109.08	90.33	1,575.99	-3,866.83	1,157.92	940.96	216.96	5.337		
10,800.00	7,241.40	11,017.07	7,247.94	110.85	111.79	90.33	1,575.21	-3,966.81	1,156.57	934.16	222.41	5.200		
10,900.00	7,241.03	11,117.06	7,247.56	113.59	114.51	90.33	1,574.43	-4,066.80	1,155.22	927.35	227.87	5.070		
11,000.00	7,240.67	11,217.05	7,247.18	116.34	117.24	90.33	1,573.65	-4,166.79	1,153.87	920.52	233.35	4.945		
11,100.00	7,240.30	11,317.04	7,246.80	119.09	119.97	90.33	1,572.87	-4,266.78	1,152.52	913.69	238.83	4.826		
11,200.00	7,239.93	11,417.03	7,246.42	121.85	122.70	90.33	1,572.08	-4,366.76	1,151.17	906.84	244.33	4.712		
11,300.00	7,239.57	11,517.02	7,246.04	124.61	125.45	90.33	1,571.30	-4,466.75	1,149.82	899.98	249.84	4.602		
11,400.00	7,239.20	11,617.02	7,245.66	127.38	128.20	90.33	1,570.52	-4,566.74	1,148.47	893.12	255.36	4.498		
11,500.00	7,238.84	11,717.01	7,245.28	130.15	130.95	90.32	1,569.74	-4,666.72	1,147.12	886.24	260.88	4.397		
11,600.00	7,238.47	11,817.00	7,244.90	132.92	133.71	90.32	1,568.96	-4,766.71	1,145.78	879.36	266.41	4.301		
11,700.00	7,238.10	11,916.99	7,244.52	135.70	136.47	90.32	1,568.18	-4,866.70	1,144.43	872.47	271.96	4.208		
11,800.00	7,237.74	12,016.98	7,244.14	138.48	139.23	90.32	1,567.39	-4,966.68	1,143.08	865.57	277.50	4.119		
11,900.00	7,237.37	12,116.97	7,243.76	141.26	142.00	90.32	1,566.61	-5,066.67	1,141.73	858.67	283.06	4.034		
12,000.00	7,237.00	12,216.96	7,243.38	144.05	144.77	90.32	1,565.83	-5,166.66	1,140.38	851.76	288.62	3.951		
12,100.00	7,236.64	12,316.95	7,243.00	146.84	147.55	90.32	1,565.05	-5,266.65	1,139.03	844.84	294.19	3.872		
12,200.00	7,236.27	12,416.94	7,242.62	149.64	150.33	90.32	1,564.27	-5,366.63	1,137.68	837.92	299.76	3.795		
12,300.00	7,235.91	12,516.93	7,242.24	152.43	153.11	90.32	1,563.48	-5,466.62	1,136.33	830.99	305.34	3.722		
12,400.00	7,235.54	12,616.92	7,241.86	155.23	155.89	90.32	1,562.70	-5,566.61	1,134.98	824.06	310.93	3.650		
12,500.00	7,235.17	12,716.92	7,241.48	158.03	158.68	90.32	1,561.92	-5,666.59	1,133.64	817.12	316.52	3.582		
12,600.00	7,234.81	12,816.91	7,241.11	160.83	161.47	90.32	1,561.14	-5,766.58	1,132.29	810.18	322.11	3.515		
12,700.00	7,234.44	12,916.90	7,240.73	163.64	164.26	90.32	1,560.36	-5,866.57	1,130.94	803.23	327.71	3.451		
12,800.00	7,234.07	13,016.89	7,240.35	166.44	167.06	90.32	1,559.57	-5,966.56	1,129.59	796.28	333.31	3.389		
12,900.00	7,233.71	13,116.88	7,239.97	169.25	169.85	90.32	1,558.79	-6,066.54	1,128.24	789.32	338.92	3.329		
13,000.00	7,233.34	13,216.87	7,239.59	172.06	172.65	90.32	1,558.01	-6,166.53	1,126.89	782.36	344.53	3.271		
13,100.00	7,232.98	13,316.86	7,239.21	174.88	175.45	90.32	1,557.23	-6,266.52	1,125.54	775.40	350.14	3.215		
13,200.00	7,232.61	13,416.85	7,238.83	177.69	178.25	90.32	1,556.45	-6,366.50	1,124.19	768.44	355.76	3.160		
13,300.00	7,232.24	13,516.84	7,238.45	180.50	181.06	90.32	1,555.66	-6,466.49	1,122.84	761.47	361.38	3.107		
13,400.00	7,231.88	13,616.83	7,238.07	183.32	183.86	90.32	1,554.88	-6,566.48	1,121.50	754.50	367.00	3.056		
13,500.00	7,231.51	13,716.82	7,237.69	186.14	186.67	90.32	1,554.10	-6,666.47	1,120.15	747.52	372.63	3.006		
13,600.00	7,231.15	13,816.82	7,237.31	188.96	189.48	90.32	1,553.32	-6,766.45	1,118.80	740.54	378.25	2.958		
13,700.00	7,230.78	13,916.81	7,236.93	191.78	192.29	90.32	1,552.54	-6,866.44	1,117.45	733.56	383.89	2.911		
13,800.00	7,230.41	14,016.80	7,236.55	194.60	195.10	90.32	1,551.75	-6,966.43	1,116.10	726.58	389.52	2.865		
13,900.00	7,230.05	14,116.79	7,236.17	197.42	197.91	90.32	1,550.97	-7,066.41	1,114.75	719.59	395.16	2.821		
14,000.00	7,229.68	14,216.78	7,235.79	200.25	200.72	90.32	1,550.19	-7,166.40	1,113.40	712.61	400.80	2.778		
14,100.00	7,229.31	14,316.77	7,235.41	203.07	203.54	90.32	1,549.41	-7,266.39	1,112.05	705.62	406.44	2.736		
14,200.00	7,228.95	14,416.76	7,235.03	205.90	206.36	90.32	1,548.63	-7,366.38	1,110.70	698.62	412.08	2.695		
14,300.00	7,228.58	14,516.75	7,234.65	208.73	209.17	90.32	1,547.84	-7,466.36	1,109.35	691.63	417.73	2.656		
14,400.00	7,228.22	14,616.74	7,234.27	211.55	211.99	90.32	1,547.06	-7,566.35	1,108.01	684.63	423.37	2.617		
14,500.00	7,227.85	14,716.73	7,233.90	214.38	214.81	90.32	1,546.28	-7,666.34	1,106.66	677.63	429.02	2.579		
14,600.00	7,227.48	14,816.72	7,233.52	217.21	217.63	90.32	1,545.50	-7,766.32	1,105.31	670.63	434.68	2.543		
14,700.00	7,227.12	14,916.71	7,233.14	220.04	220.45	90.32	1,544.72	-7,866.31	1,103.96	663.63	440.33	2.507		
14,800.00	7,226.75	15,016.71	7,232.76	222.88	223.28	90.31	1,543.93	-7,966.30	1,102.61	656.63	445.98	2.472		
14,900.00	7,226.38	15,116.70	7,232.38	225.71	226.10	90.31	1,543.15	-8,066.29	1,101.26	649.62	451.64	2.438		
15,000.00	7,226.02	15,216.69	7,232.00	228.54	228.92	90.31	1,542.37	-8,166.27	1,099.91	642.62	457.30	2.405		
15,005.81	7,226.00	15,216.01	7,232.00	228.71	228.91	90.31	1,542.38	-8,165.60	1,099.85	642.36	457.50	2.404 SF		



Anticollision Report



Company:	SRC ENERGY	Local Co-ordinate Reference:	Well HARVESTERS STATE 31C-16-M
Project:	SECTION 15, T6N, R66W	TVD Reference:	KB @ 4821.00ft
Reference Site:	HARVESTERS STATE 7-15 PAD	MD Reference:	KB @ 4821.00ft
Site Error:	3.28 ft	North Reference:	True
Reference Well:	HARVESTERS STATE 31C-16-M	Survey Calculation Method:	Minimum Curvature
Well Error:	3.28 ft	Output errors are at	2.45 sigma
Reference Wellbore	OH	Database:	EDM 5000.14 Single User Db
Reference Design:	PLAN #1	Offset TVD Reference:	Reference Datum

Offset Design HARVESTERS STATE 7-15 PAD - HARVESTERS STATE 30N-16B-M - OH - PLAN #1													Offset Site Error:	0.00 ft
Survey Program: 0-MWD+IFR1													Offset Well Error:	3.28 ft
Reference		Offset		Semi Major Axis			Distance							Warning
Measured Depth (ft)	Vertical Depth (ft)	Measured Depth (ft)	Vertical Depth (ft)	Reference (ft)	Offset (ft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (ft)	+E/-W (ft)	Between Centres (ft)	Between Ellipses (ft)	Minimum Separation (ft)	Separation Factor		
0.00	0.00	1.00	0.00	3.28	3.28	0.60	80.15	0.83	80.16					
100.00	100.00	101.00	100.00	3.28	3.28	0.60	80.15	0.83	80.16	73.59	6.57	12.201		
200.00	200.00	201.00	200.00	3.34	3.34	0.60	80.15	0.83	80.16	73.48	6.67	12.009		
300.00	300.00	301.00	300.00	3.44	3.45	0.60	80.15	0.83	80.16	73.26	6.89	11.632 CC, ES		
400.00	400.00	398.24	397.22	3.60	3.60	0.43	81.82	0.62	81.87	74.66	7.21	11.350		
500.00	500.00	495.28	494.13	3.81	3.80	-0.01	86.75	-0.01	86.95	79.31	7.63	11.388		
600.00	600.00	591.87	590.36	4.05	4.03	-0.64	94.89	-1.05	95.38	87.24	8.14	11.724		
700.00	699.98	688.00	685.81	4.32	4.30	21.81	106.17	-2.50	105.54	96.84	8.69	12.140		
800.00	799.84	783.79	780.50	4.62	4.59	21.88	120.57	-4.35	115.81	106.51	9.29	12.461		
900.00	899.62	879.29	874.35	4.94	4.91	22.05	138.04	-6.58	128.12	118.18	9.94	12.895		
1,000.00	999.41	978.34	971.43	5.27	5.25	22.13	157.55	-9.08	141.85	131.26	10.59	13.396		
1,100.00	1,099.19	1,077.39	1,068.51	5.62	5.61	22.20	177.06	-11.58	155.59	144.30	11.29	13.785		
1,200.00	1,198.98	1,176.45	1,165.59	5.99	5.99	22.25	196.56	-14.08	169.32	157.31	12.01	14.099		
1,300.00	1,298.76	1,275.50	1,262.67	6.36	6.39	22.30	216.07	-16.58	183.06	170.30	12.75	14.352		
1,400.00	1,398.55	1,374.55	1,359.75	6.74	6.80	22.34	235.58	-19.08	196.80	183.27	13.52	14.556		
1,500.00	1,498.33	1,473.60	1,456.83	7.13	7.21	22.37	255.09	-21.58	210.53	196.23	14.30	14.720		
1,600.00	1,598.12	1,572.65	1,553.91	7.52	7.64	22.40	274.60	-24.08	224.27	209.17	15.10	14.854		
1,700.00	1,697.90	1,671.71	1,650.99	7.92	8.07	22.43	294.11	-26.58	238.00	222.10	15.91	14.963		
1,800.00	1,797.69	1,770.76	1,748.07	8.33	8.51	22.45	313.61	-29.08	251.74	235.01	16.72	15.053		
1,900.00	1,897.47	1,869.81	1,845.15	8.74	8.95	22.48	333.12	-31.58	265.47	247.92	17.55	15.126		
2,000.00	1,997.26	1,968.86	1,942.23	9.15	9.39	22.50	352.63	-34.08	279.21	260.83	18.38	15.187		
2,100.00	2,097.04	2,067.91	2,039.31	9.56	9.84	22.51	372.14	-36.58	292.95	273.72	19.23	15.238		
2,200.00	2,196.83	2,166.97	2,136.39	9.98	10.29	22.53	391.65	-39.08	306.68	286.61	20.07	15.279		
2,300.00	2,296.61	2,266.02	2,233.47	10.40	10.74	22.54	411.15	-41.58	320.42	299.49	20.92	15.314		
2,400.00	2,396.40	2,365.07	2,330.55	10.82	11.20	22.56	430.66	-44.08	334.15	312.37	21.78	15.343		
2,500.00	2,496.18	2,464.12	2,427.63	11.24	11.65	22.57	450.17	-46.58	347.89	325.25	22.64	15.367		
2,600.00	2,595.96	2,563.18	2,524.71	11.66	12.11	22.58	469.68	-49.08	361.63	338.12	23.50	15.386		
2,700.00	2,695.75	2,662.23	2,621.79	12.09	12.57	22.59	489.19	-51.58	375.36	350.99	24.37	15.403		
2,800.00	2,795.53	2,761.28	2,718.87	12.51	13.03	22.60	508.70	-54.08	389.10	363.86	25.24	15.417		
2,900.00	2,895.32	2,860.33	2,815.95	12.94	13.50	22.61	528.20	-56.58	402.83	376.72	26.11	15.428		
3,000.00	2,995.10	2,959.38	2,913.03	13.37	13.96	22.62	547.71	-59.08	416.57	389.59	26.99	15.437		
3,100.00	3,094.89	3,058.44	3,010.11	13.80	14.43	22.63	567.22	-61.58	430.31	402.45	27.86	15.444		
3,200.00	3,194.67	3,157.49	3,107.19	14.23	14.89	22.63	586.73	-64.08	444.04	415.30	28.74	15.450		
3,300.00	3,294.46	3,256.54	3,204.27	14.66	15.36	22.64	606.24	-66.58	457.78	428.16	29.62	15.455		
3,400.00	3,394.24	3,355.59	3,301.35	15.09	15.83	22.65	625.74	-69.08	471.52	441.01	30.50	15.459		
3,500.00	3,494.03	3,454.64	3,398.43	15.52	16.30	22.65	645.25	-71.58	485.25	453.87	31.38	15.462		
3,600.00	3,593.81	3,553.70	3,495.51	15.96	16.76	22.66	664.76	-74.08	498.99	466.72	32.27	15.464		
3,700.00	3,693.60	3,652.75	3,592.59	16.39	17.23	22.67	684.27	-76.58	512.72	479.57	33.15	15.465		
3,800.00	3,793.38	3,751.80	3,689.67	16.82	17.70	22.67	703.78	-79.08	526.46	492.42	34.04	15.466		
3,900.00	3,893.17	3,850.85	3,786.75	17.26	18.17	22.68	723.28	-81.58	540.20	505.27	34.93	15.466		
4,000.00	3,992.95	3,949.90	3,883.83	17.69	18.65	22.68	742.79	-84.08	553.93	518.12	35.82	15.466		
4,100.00	4,092.74	4,048.96	3,980.91	18.13	19.12	22.69	762.30	-86.58	567.67	530.96	36.71	15.465		
4,200.00	4,192.52	4,148.01	4,077.99	18.56	19.59	22.69	781.81	-89.08	581.41	543.81	37.60	15.464		
4,300.00	4,292.31	4,247.06	4,175.07	19.00	20.06	22.69	801.32	-91.58	595.14	556.65	38.49	15.463		
4,400.00	4,392.09	4,346.11	4,272.15	19.43	20.53	22.70	820.83	-94.08	608.88	569.50	39.38	15.462		
4,500.00	4,491.88	4,445.16	4,369.23	19.87	21.01	22.70	840.33	-96.58	622.61	582.34	40.27	15.460		
4,600.00	4,591.66	4,544.22	4,466.31	20.31	21.48	22.71	859.84	-99.08	636.35	595.18	41.17	15.458		
4,700.00	4,691.44	4,643.27	4,563.39	20.74	21.95	22.71	879.35	-101.58	650.09	608.03	42.06	15.456		
4,800.00	4,791.23	4,742.32	4,660.47	21.18	22.43	22.71	898.86	-104.08	663.82	620.87	42.95	15.454		
4,900.00	4,891.01	4,841.37	4,757.55	21.62	22.90	22.72	918.37	-106.58	677.56	633.71	43.85	15.452		
5,000.00	4,990.80	4,940.43	4,854.63	22.06	23.38	22.72	937.87	-109.08	691.30	646.55	44.74	15.450		
5,100.00	5,090.58	5,039.48	4,951.71	22.50	23.85	22.72	957.38	-111.58	705.03	659.39	45.64	15.448		

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



Anticollision Report



Company:	SRC ENERGY	Local Co-ordinate Reference:	Well HARVESTERS STATE 31C-16-M
Project:	SECTION 15, T6N, R66W	TVD Reference:	KB @ 4821.00ft
Reference Site:	HARVESTERS STATE 7-15 PAD	MD Reference:	KB @ 4821.00ft
Site Error:	3.28 ft	North Reference:	True
Reference Well:	HARVESTERS STATE 31C-16-M	Survey Calculation Method:	Minimum Curvature
Well Error:	3.28 ft	Output errors are at	2.45 sigma
Reference Wellbore	OH	Database:	EDM 5000.14 Single User Db
Reference Design:	PLAN #1	Offset TVD Reference:	Reference Datum

Offset Design HARVESTERS STATE 7-15 PAD - HARVESTERS STATE 30N-16B-M - OH - PLAN #1													Offset Site Error:	0.00 ft
Survey Program: 0-MWD+IFR1													Offset Well Error:	3.28 ft
Reference		Offset		Semi Major Axis			Distance						Warning	
Measured Depth (ft)	Vertical Depth (ft)	Measured Depth (ft)	Vertical Depth (ft)	Reference (ft)	Offset (ft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (ft)	+E/-W (ft)	Between Centres (ft)	Between Ellipses (ft)	Minimum Separation (ft)	Separation Factor		
5,200.00	5,190.37	5,138.53	5,048.79	22.93	24.33	22.72	976.89	-114.08	718.77	672.23	46.54	15.446		
5,300.00	5,290.15	5,237.58	5,145.87	23.37	24.80	22.73	996.40	-116.58	732.50	685.07	47.43	15.443		
5,400.00	5,389.94	5,336.63	5,242.95	23.81	25.27	22.73	1,015.91	-119.08	746.24	697.91	48.33	15.441		
5,500.00	5,489.72	5,435.69	5,340.03	24.25	25.75	22.73	1,035.42	-121.58	759.98	710.75	49.23	15.438		
5,600.00	5,589.51	5,534.74	5,437.10	24.69	26.23	22.73	1,054.92	-124.08	773.71	723.59	50.12	15.436		
5,700.00	5,689.29	5,633.79	5,534.18	25.13	26.70	22.74	1,074.43	-126.58	787.45	736.43	51.02	15.433		
5,800.00	5,789.08	5,732.84	5,631.26	25.56	27.18	22.74	1,093.94	-129.08	801.19	749.26	51.92	15.431		
5,900.00	5,888.86	5,831.89	5,728.34	26.00	27.65	22.74	1,113.45	-131.58	814.92	762.10	52.82	15.428		
6,000.00	5,988.65	5,930.95	5,825.42	26.44	28.13	22.74	1,132.96	-134.08	828.66	774.94	53.72	15.426		
6,100.00	6,088.43	6,030.00	5,922.50	26.88	28.60	22.75	1,152.46	-136.58	842.39	787.78	54.62	15.423		
6,200.00	6,188.22	6,129.05	6,019.58	27.32	29.08	22.75	1,171.97	-139.08	856.13	800.61	55.52	15.421		
6,300.00	6,288.00	6,228.10	6,116.66	27.76	29.56	22.75	1,191.48	-141.58	869.87	813.45	56.42	15.419		
6,400.00	6,387.79	6,327.15	6,213.74	28.20	30.03	22.75	1,210.99	-144.08	883.60	826.29	57.32	15.416		
6,500.00	6,487.57	6,426.21	6,310.82	28.64	30.51	22.75	1,230.50	-146.58	897.34	839.12	58.22	15.414		
6,600.00	6,587.35	6,525.26	6,407.90	29.08	30.99	22.76	1,250.01	-149.08	911.08	851.96	59.12	15.411		
6,700.00	6,687.02	6,624.90	6,505.48	29.52	31.47	60.04	1,269.60	-153.15	924.77	864.75	60.03	15.406		
6,800.00	6,784.98	6,725.49	6,602.53	29.96	31.95	74.92	1,289.00	-170.59	938.07	877.12	60.95	15.390		
6,900.00	6,878.81	6,826.44	6,696.02	30.41	32.41	78.43	1,307.57	-203.53	950.61	888.72	61.89	15.359		
7,000.00	6,966.21	6,927.78	6,783.57	30.86	32.86	79.55	1,324.85	-251.31	962.08	899.22	62.86	15.305		
7,100.00	7,045.03	7,029.49	6,862.89	31.35	33.29	79.86	1,340.38	-312.88	972.20	908.31	63.89	15.216		
7,200.00	7,113.32	7,131.54	6,931.82	31.90	33.75	79.84	1,353.73	-386.79	980.72	915.66	65.06	15.074		
7,300.00	7,169.40	7,233.87	6,988.45	32.57	34.29	79.72	1,364.53	-471.20	987.43	920.99	66.44	14.862		
7,400.00	7,211.89	7,336.36	7,031.17	33.38	35.00	79.58	1,372.48	-563.90	992.15	924.05	68.10	14.568		
7,500.00	7,239.75	7,438.91	7,058.80	34.35	35.92	79.48	1,377.35	-662.42	994.78	924.71	70.08	14.196		
7,600.00	7,252.28	7,541.37	7,070.57	35.47	37.02	79.45	1,379.01	-764.08	995.25	922.92	72.33	13.760		
7,700.00	7,252.75	7,641.95	7,070.79	36.73	38.26	79.45	1,378.36	-864.65	994.05	919.20	74.85	13.281		
7,800.00	7,252.38	7,741.94	7,070.50	38.16	39.65	79.44	1,377.60	-964.64	992.74	915.07	77.67	12.781		
7,900.00	7,252.02	7,841.93	7,070.22	39.74	41.19	79.44	1,376.85	-1,064.63	991.43	910.64	80.79	12.272		
8,000.00	7,251.65	7,941.92	7,069.93	41.47	42.87	79.43	1,376.10	-1,164.61	990.11	905.94	84.17	11.763		
8,100.00	7,251.29	8,041.91	7,069.65	43.31	44.67	79.42	1,375.35	-1,264.60	988.80	901.02	87.78	11.264		
8,200.00	7,250.92	8,141.91	7,069.37	45.26	46.58	79.41	1,374.59	-1,364.59	987.49	895.89	91.60	10.780		
8,300.00	7,250.55	8,241.90	7,069.08	47.30	48.58	79.40	1,373.84	-1,464.58	986.18	890.58	95.60	10.316		
8,400.00	7,250.19	8,341.89	7,068.80	49.42	50.67	79.39	1,373.09	-1,564.57	984.87	885.11	99.75	9.873		
8,500.00	7,249.82	8,441.88	7,068.51	51.62	52.82	79.38	1,372.34	-1,664.55	983.55	879.51	104.05	9.453		
8,600.00	7,249.45	8,541.87	7,068.23	53.88	55.04	79.37	1,371.58	-1,764.54	982.24	873.78	108.46	9.056		
8,700.00	7,249.09	8,641.86	7,067.94	56.19	57.32	79.36	1,370.83	-1,864.53	980.93	867.94	112.99	8.682		
8,800.00	7,248.72	8,741.85	7,067.66	58.55	59.65	79.35	1,370.08	-1,964.52	979.62	862.01	117.61	8.329		
8,900.00	7,248.36	8,841.84	7,067.37	60.96	62.02	79.34	1,369.33	-2,064.51	978.31	855.99	122.32	7.998		
9,000.00	7,247.99	8,941.84	7,067.09	63.40	64.43	79.33	1,368.57	-2,164.49	977.00	849.90	127.10	7.687		
9,100.00	7,247.62	9,041.83	7,066.80	65.87	66.88	79.32	1,367.82	-2,264.48	975.68	843.74	131.95	7.395		
9,200.00	7,247.26	9,141.82	7,066.52	68.38	69.36	79.31	1,367.07	-2,364.47	974.37	837.52	136.85	7.120		
9,300.00	7,246.89	9,241.81	7,066.23	70.91	71.87	79.30	1,366.32	-2,464.46	973.06	831.25	141.82	6.861		
9,400.00	7,246.53	9,341.80	7,065.95	73.47	74.40	79.29	1,365.57	-2,564.45	971.75	824.92	146.83	6.618		
9,500.00	7,246.16	9,441.79	7,065.66	76.05	76.95	79.28	1,364.81	-2,664.43	970.44	818.56	151.88	6.390		
9,600.00	7,245.79	9,541.78	7,065.38	78.65	79.53	79.27	1,364.06	-2,764.42	969.13	812.16	156.97	6.174		
9,700.00	7,245.43	9,641.77	7,065.09	81.27	82.13	79.26	1,363.31	-2,864.41	967.82	805.72	162.10	5.971		
9,800.00	7,245.06	9,741.77	7,064.81	83.90	84.74	79.25	1,362.56	-2,964.40	966.50	799.25	167.26	5.778		
9,900.00	7,244.69	9,841.76	7,064.52	86.55	87.36	79.24	1,361.80	-3,064.39	965.19	792.75	172.45	5.597		
10,000.00	7,244.33	9,941.75	7,064.24	89.21	90.01	79.23	1,361.05	-3,164.37	963.88	786.22	177.66	5.425		
10,100.00	7,243.96	10,041.74	7,063.96	91.88	92.66	79.22	1,360.30	-3,264.36	962.57	779.67	182.90	5.263		
10,200.00	7,243.60	10,141.73	7,063.67	94.56	95.33	79.21	1,359.55	-3,364.35	961.26	773.09	188.17	5.109		
10,300.00	7,243.23	10,241.72	7,063.39	97.26	98.00	79.20	1,358.79	-3,464.34	959.95	766.50	193.45	4.962		

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



Anticollision Report



Company:	SRC ENERGY	Local Co-ordinate Reference:	Well HARVESTERS STATE 31C-16-M
Project:	SECTION 15, T6N, R66W	TVD Reference:	KB @ 4821.00ft
Reference Site:	HARVESTERS STATE 7-15 PAD	MD Reference:	KB @ 4821.00ft
Site Error:	3.28 ft	North Reference:	True
Reference Well:	HARVESTERS STATE 31C-16-M	Survey Calculation Method:	Minimum Curvature
Well Error:	3.28 ft	Output errors are at	2.45 sigma
Reference Wellbore	OH	Database:	EDM 5000.14 Single User Db
Reference Design:	PLAN #1	Offset TVD Reference:	Reference Datum

Offset Design HARVESTERS STATE 7-15 PAD - HARVESTERS STATE 30N-16B-M - OH - PLAN #1													Offset Site Error:	0.00 ft
Survey Program: 0-MWD+IFR1													Offset Well Error:	3.28 ft
Reference		Offset		Semi Major Axis			Distance							Warning
Measured Depth (ft)	Vertical Depth (ft)	Measured Depth (ft)	Vertical Depth (ft)	Reference (ft)	Offset (ft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (ft)	+E/-W (ft)	Between Centres (ft)	Between Ellipses (ft)	Minimum Separation (ft)	Separation Factor		
10,400.00	7,242.86	10,341.71	7,063.10	99.96	100.69	79.19	1,358.04	-3,564.33	958.64	759.89	198.75	4.823		
10,500.00	7,242.50	10,441.70	7,062.82	102.67	103.39	79.18	1,357.29	-3,664.31	957.33	753.26	204.07	4.691		
10,600.00	7,242.13	10,541.70	7,062.53	105.39	106.09	79.17	1,356.54	-3,764.30	956.02	746.61	209.40	4.565		
10,700.00	7,241.76	10,641.69	7,062.25	108.12	108.80	79.16	1,355.78	-3,864.29	954.70	739.95	214.75	4.446		
10,800.00	7,241.40	10,741.68	7,061.96	110.85	111.52	79.15	1,355.03	-3,964.28	953.39	733.28	220.11	4.331		
10,900.00	7,241.03	10,841.67	7,061.68	113.59	114.25	79.14	1,354.28	-4,064.27	952.08	726.59	225.49	4.222		
11,000.00	7,240.67	10,941.66	7,061.39	116.34	116.98	79.13	1,353.53	-4,164.26	950.77	719.89	230.88	4.118		
11,100.00	7,240.30	11,041.65	7,061.11	119.09	119.72	79.12	1,352.77	-4,264.24	949.46	713.19	236.27	4.018		
11,200.00	7,239.93	11,141.64	7,060.82	121.85	122.46	79.11	1,352.02	-4,364.23	948.15	706.47	241.68	3.923		
11,300.00	7,239.57	11,241.63	7,060.54	124.61	125.21	79.10	1,351.27	-4,464.22	946.84	699.74	247.10	3.832		
11,400.00	7,239.20	11,341.63	7,060.25	127.38	127.97	79.09	1,350.52	-4,564.21	945.53	693.00	252.53	3.744		
11,500.00	7,238.84	11,441.62	7,059.97	130.15	130.72	79.08	1,349.77	-4,664.20	944.22	686.26	257.96	3.660		
11,600.00	7,238.47	11,541.61	7,059.68	132.92	133.49	79.07	1,349.01	-4,764.18	942.91	679.50	263.40	3.580		
11,700.00	7,238.10	11,641.60	7,059.40	135.70	136.25	79.06	1,348.26	-4,864.17	941.59	672.74	268.85	3.502		
11,800.00	7,237.74	11,741.59	7,059.11	138.48	139.02	79.05	1,347.51	-4,964.16	940.28	665.98	274.31	3.428		
11,900.00	7,237.37	11,841.58	7,058.83	141.26	141.80	79.04	1,346.76	-5,064.15	938.97	659.20	279.77	3.356		
12,000.00	7,237.00	11,941.57	7,058.55	144.05	144.57	79.03	1,346.00	-5,164.14	937.66	652.43	285.24	3.287		
12,100.00	7,236.64	12,041.56	7,058.26	146.84	147.35	79.02	1,345.25	-5,264.12	936.35	645.64	290.71	3.221		
12,200.00	7,236.27	12,141.56	7,057.98	149.64	150.14	79.01	1,344.50	-5,364.11	935.04	638.85	296.19	3.157		
12,300.00	7,235.91	12,241.55	7,057.69	152.43	152.92	79.00	1,343.75	-5,464.10	933.73	632.06	301.67	3.095		
12,400.00	7,235.54	12,341.54	7,057.41	155.23	155.71	78.99	1,342.99	-5,564.09	932.42	625.26	307.16	3.036		
12,500.00	7,235.17	12,441.53	7,057.12	158.03	158.50	78.98	1,342.24	-5,664.08	931.11	618.46	312.65	2.978		
12,600.00	7,234.81	12,541.52	7,056.84	160.83	161.30	78.97	1,341.49	-5,764.06	929.80	611.65	318.15	2.923		
12,700.00	7,234.44	12,641.51	7,056.55	163.64	164.09	78.96	1,340.74	-5,864.05	928.49	604.84	323.65	2.869		
12,800.00	7,234.07	12,741.50	7,056.27	166.44	166.89	78.95	1,339.98	-5,964.04	927.18	598.02	329.16	2.817		
12,900.00	7,233.71	12,841.49	7,055.98	169.25	169.69	78.93	1,339.23	-6,064.03	925.87	591.20	334.66	2.767		
13,000.00	7,233.34	12,941.49	7,055.70	172.06	172.49	78.92	1,338.48	-6,164.02	924.56	584.38	340.18	2.718		
13,100.00	7,232.98	13,041.48	7,055.41	174.88	175.29	78.91	1,337.73	-6,264.00	923.25	577.56	345.69	2.671		
13,200.00	7,232.61	13,141.47	7,055.13	177.69	178.10	78.90	1,336.98	-6,363.99	921.94	570.73	351.21	2.625		
13,300.00	7,232.24	13,241.46	7,054.84	180.50	180.91	78.89	1,336.22	-6,463.98	920.63	563.90	356.73	2.581		
13,400.00	7,231.88	13,341.45	7,054.56	183.32	183.71	78.88	1,335.47	-6,563.97	919.32	557.07	362.25	2.538		
13,500.00	7,231.51	13,441.44	7,054.27	186.14	186.52	78.87	1,334.72	-6,663.96	918.01	550.23	367.77	2.496		
13,600.00	7,231.15	13,541.43	7,053.99	188.96	189.34	78.86	1,333.97	-6,763.94	916.70	543.39	373.30	2.456		
13,700.00	7,230.78	13,641.42	7,053.70	191.78	192.15	78.85	1,333.21	-6,863.93	915.39	536.55	378.83	2.416		
13,800.00	7,230.41	13,741.42	7,053.42	194.60	194.96	78.84	1,332.46	-6,963.92	914.08	529.71	384.36	2.378		
13,900.00	7,230.05	13,841.41	7,053.14	197.42	197.78	78.83	1,331.71	-7,063.91	912.77	522.87	389.90	2.341		
14,000.00	7,229.68	13,941.40	7,052.85	200.25	200.59	78.81	1,330.96	-7,163.90	911.46	516.02	395.43	2.305		
14,100.00	7,229.31	14,041.39	7,052.57	203.07	203.41	78.80	1,330.20	-7,263.88	910.15	509.17	400.97	2.270		
14,200.00	7,228.95	14,141.38	7,052.28	205.90	206.23	78.79	1,329.45	-7,363.87	908.84	502.33	406.51	2.236		
14,300.00	7,228.58	14,241.37	7,052.00	208.73	209.05	78.78	1,328.70	-7,463.86	907.53	495.47	412.05	2.202		
14,400.00	7,228.22	14,341.36	7,051.71	211.55	211.87	78.77	1,327.95	-7,563.85	906.22	488.62	417.59	2.170		
14,500.00	7,227.85	14,441.36	7,051.43	214.38	214.69	78.76	1,327.19	-7,663.84	904.91	481.77	423.14	2.139		
14,600.00	7,227.48	14,541.35	7,051.14	217.21	217.52	78.75	1,326.44	-7,763.82	903.60	474.91	428.68	2.108		
14,700.00	7,227.12	14,641.34	7,050.86	220.04	220.34	78.74	1,325.69	-7,863.81	902.29	468.06	434.23	2.078		
14,800.00	7,226.75	14,741.33	7,050.57	222.88	223.16	78.73	1,324.94	-7,963.80	900.98	461.20	439.78	2.049		
14,900.00	7,226.38	14,841.32	7,050.29	225.71	225.99	78.71	1,324.18	-8,063.79	899.67	454.34	445.33	2.020		
15,000.00	7,226.02	14,941.31	7,050.00	228.54	228.82	78.70	1,323.43	-8,163.78	898.36	447.48	450.88	1.992		
15,005.81	7,226.00	14,942.37	7,050.00	228.71	228.85	78.70	1,323.42	-8,164.84	898.29	447.18	451.11	1.991 SF		



Anticollision Report



Company:	SRC ENERGY	Local Co-ordinate Reference:	Well HARVESTERS STATE 31C-16-M
Project:	SECTION 15, T6N, R66W	TVD Reference:	KB @ 4821.00ft
Reference Site:	HARVESTERS STATE 7-15 PAD	MD Reference:	KB @ 4821.00ft
Site Error:	3.28 ft	North Reference:	True
Reference Well:	HARVESTERS STATE 31C-16-M	Survey Calculation Method:	Minimum Curvature
Well Error:	3.28 ft	Output errors are at	2.45 sigma
Reference Wellbore	OH	Database:	EDM 5000.14 Single User Db
Reference Design:	PLAN #1	Offset TVD Reference:	Reference Datum

Offset Design HARVESTERS STATE 7-15 PAD - HARVESTERS STATE 33C-16-M - OH - PLAN #1													Offset Site Error:	0.00 ft
Survey Program: 0-MWD+IFR1													Offset Well Error:	3.28 ft
Reference		Offset		Semi Major Axis			Distance							Warning
Measured Depth (ft)	Vertical Depth (ft)	Measured Depth (ft)	Vertical Depth (ft)	Reference (ft)	Offset (ft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (ft)	+E/-W (ft)	Between Centres (ft)	Between Ellipses (ft)	Minimum Separation (ft)	Separation Factor		
0.00	0.00	1.00	0.00	3.28	3.28	-179.52	-299.83	-2.50	299.84					
100.00	100.00	101.00	100.00	3.28	3.28	-179.52	-299.83	-2.50	299.84	293.27	6.57	45.640		
200.00	200.00	199.00	200.00	3.34	3.34	-179.52	-299.83	-2.50	299.84	293.16	6.67	44.931	CC, ES	
300.00	300.00	289.61	290.60	3.44	3.43	-179.50	-301.22	-2.62	301.38	294.50	6.88	43.800		
400.00	400.00	379.96	380.84	3.60	3.56	-179.44	-305.46	-2.97	306.07	298.88	7.19	42.558		
500.00	500.00	469.94	470.54	3.81	3.73	-179.35	-312.49	-3.56	313.90	306.31	7.59	41.345		
600.00	600.00	559.39	559.45	4.05	3.93	-179.22	-322.26	-4.37	324.83	316.77	8.07	40.277		
700.00	699.98	647.92	647.09	4.32	4.16	-156.16	-334.65	-5.40	340.43	331.83	8.60	39.599		
800.00	799.84	734.89	732.78	4.62	4.42	-156.14	-349.45	-6.63	362.14	352.96	9.18	39.458		
900.00	899.62	820.33	816.50	4.94	4.71	-156.30	-366.50	-8.05	387.96	378.20	9.77	39.719		
1,000.00	999.41	904.37	898.29	5.27	5.02	-156.42	-385.69	-9.64	416.64	406.26	10.37	40.161		
1,100.00	1,099.19	986.88	978.03	5.62	5.34	-156.50	-406.85	-11.40	448.07	437.08	10.99	40.761		
1,200.00	1,198.98	1,080.54	1,068.13	5.99	5.74	-156.56	-432.31	-13.52	481.02	469.37	11.66	41.271		
1,300.00	1,298.76	1,174.95	1,158.96	6.36	6.15	-156.61	-457.99	-15.66	513.97	501.63	12.35	41.619		
1,400.00	1,398.55	1,269.36	1,249.79	6.74	6.58	-156.66	-483.66	-17.79	546.93	533.86	13.07	41.854		
1,500.00	1,498.33	1,363.78	1,340.62	7.13	7.03	-156.70	-509.33	-19.93	579.88	566.08	13.81	42.002		
1,600.00	1,598.12	1,458.19	1,431.45	7.52	7.48	-156.74	-535.01	-22.06	612.84	598.28	14.56	42.086		
1,700.00	1,697.90	1,552.60	1,522.28	7.92	7.95	-156.77	-560.68	-24.20	645.79	630.46	15.33	42.120		
1,800.00	1,797.69	1,647.02	1,613.11	8.33	8.41	-156.80	-586.35	-26.33	678.75	662.63	16.12	42.119		
1,900.00	1,897.47	1,741.43	1,703.94	8.74	8.89	-156.83	-612.03	-28.47	711.71	694.80	16.91	42.091		
2,000.00	1,997.26	1,835.84	1,794.77	9.15	9.37	-156.86	-637.70	-30.60	744.66	726.95	17.71	42.043		
2,100.00	2,097.04	1,930.26	1,885.60	9.56	9.85	-156.88	-663.37	-32.74	777.62	759.09	18.52	41.981		
2,200.00	2,196.83	2,024.67	1,976.43	9.98	10.34	-156.90	-689.05	-34.87	810.57	791.23	19.34	41.909		
2,300.00	2,296.61	2,119.08	2,067.26	10.40	10.83	-156.92	-714.72	-37.01	843.53	823.36	20.17	41.829		
2,400.00	2,396.40	2,213.50	2,158.09	10.82	11.33	-156.94	-740.40	-39.14	876.48	855.49	21.00	41.745		
2,500.00	2,496.18	2,307.91	2,248.92	11.24	11.83	-156.96	-766.07	-41.28	909.44	887.61	21.83	41.658		
2,600.00	2,595.96	2,402.32	2,339.75	11.66	12.32	-156.97	-791.74	-43.41	942.40	919.73	22.67	41.570		
2,700.00	2,695.75	2,496.74	2,430.58	12.09	12.82	-156.99	-817.42	-45.55	975.35	951.84	23.51	41.481		
2,800.00	2,795.53	2,608.85	2,521.41	12.51	13.42	-157.00	-843.09	-47.68	1,008.31	983.87	24.44	41.250		
2,900.00	2,895.32	2,685.56	2,612.24	12.94	13.83	-157.01	-868.76	-49.82	1,041.27	1,016.06	25.21	41.305		
3,000.00	2,995.10	2,779.97	2,703.07	13.37	14.34	-157.02	-894.44	-51.95	1,074.22	1,048.16	26.06	41.218		
3,100.00	3,094.89	2,874.39	2,793.90	13.80	14.84	-157.04	-920.11	-54.09	1,107.18	1,080.26	26.92	41.133		
3,200.00	3,194.67	2,968.80	2,884.73	14.23	15.35	-157.05	-945.78	-56.22	1,140.14	1,112.36	27.77	41.050		
3,300.00	3,294.46	3,063.21	2,975.56	14.66	15.86	-157.06	-971.46	-58.36	1,173.09	1,144.46	28.63	40.969		
3,400.00	3,394.24	3,157.63	3,066.39	15.09	16.37	-157.07	-997.13	-60.49	1,206.05	1,176.55	29.49	40.890		
3,500.00	3,494.03	3,252.04	3,157.22	15.52	16.88	-157.07	-1,022.80	-62.63	1,239.00	1,208.65	30.36	40.813		
3,600.00	3,593.81	3,346.45	3,248.06	15.96	17.39	-157.08	-1,048.48	-64.76	1,271.96	1,240.74	31.22	40.738		
3,700.00	3,693.60	3,440.87	3,338.89	16.39	17.90	-157.09	-1,074.15	-66.90	1,304.92	1,272.83	32.09	40.666		
3,800.00	3,793.38	3,535.28	3,429.72	16.82	18.41	-157.10	-1,099.83	-69.03	1,337.87	1,304.92	32.96	40.595		
3,900.00	3,893.17	3,629.69	3,520.55	17.26	18.92	-157.11	-1,125.50	-71.17	1,370.83	1,337.01	33.83	40.527		
4,000.00	3,992.95	3,724.11	3,611.38	17.69	19.44	-157.11	-1,151.17	-73.30	1,403.79	1,369.09	34.70	40.460		
4,100.00	4,092.74	3,818.52	3,702.21	18.13	19.95	-157.12	-1,176.85	-75.44	1,436.74	1,401.18	35.57	40.396		
4,200.00	4,192.52	3,912.93	3,793.04	18.56	20.46	-157.13	-1,202.52	-77.57	1,469.70	1,433.26	36.44	40.334		
4,300.00	4,292.31	4,007.34	3,883.87	19.00	20.98	-157.13	-1,228.19	-79.71	1,502.66	1,465.35	37.31	40.273		
4,400.00	4,392.09	4,101.76	3,974.70	19.43	21.49	-157.14	-1,253.87	-81.84	1,535.61	1,497.43	38.19	40.214		
4,500.00	4,491.88	4,203.83	4,065.53	19.87	22.05	-157.14	-1,279.54	-83.98	1,568.57	1,529.47	39.10	40.119		
4,600.00	4,591.66	4,309.42	4,156.36	20.31	22.63	-157.15	-1,305.21	-86.11	1,601.53	1,561.50	40.03	40.009		
4,700.00	4,691.44	4,385.00	4,247.19	20.74	23.04	-157.15	-1,330.89	-88.25	1,634.48	1,593.67	40.81	40.048		
4,800.00	4,791.23	4,479.41	4,338.02	21.18	23.55	-157.16	-1,356.56	-90.38	1,667.44	1,625.75	41.69	39.996		
4,900.00	4,891.01	4,573.82	4,428.85	21.62	24.07	-157.16	-1,382.24	-92.52	1,700.40	1,657.83	42.57	39.946		
5,000.00	4,990.80	4,668.24	4,519.68	22.06	24.59	-157.17	-1,407.91	-94.65	1,733.36	1,689.91	43.45	39.897		
5,100.00	5,090.58	4,762.65	4,610.51	22.50	25.10	-157.17	-1,433.58	-96.79	1,766.31	1,721.99	44.32	39.849		

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



Anticollision Report



Company:	SRC ENERGY	Local Co-ordinate Reference:	Well HARVESTERS STATE 31C-16-M
Project:	SECTION 15, T6N, R66W	TVD Reference:	KB @ 4821.00ft
Reference Site:	HARVESTERS STATE 7-15 PAD	MD Reference:	KB @ 4821.00ft
Site Error:	3.28 ft	North Reference:	True
Reference Well:	HARVESTERS STATE 31C-16-M	Survey Calculation Method:	Minimum Curvature
Well Error:	3.28 ft	Output errors are at	2.45 sigma
Reference Wellbore	OH	Database:	EDM 5000.14 Single User Db
Reference Design:	PLAN #1	Offset TVD Reference:	Reference Datum

Offset Design HARVESTERS STATE 7-15 PAD - HARVESTERS STATE 33C-16-M - OH - PLAN #1													Offset Site Error:	0.00 ft
Survey Program: 0-MWD+IFR1													Offset Well Error:	3.28 ft
Reference		Offset		Semi Major Axis			Distance							Warning
Measured Depth (ft)	Vertical Depth (ft)	Measured Depth (ft)	Vertical Depth (ft)	Reference (ft)	Offset (ft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (ft)	+E/-W (ft)	Between Centres (ft)	Between Ellipses (ft)	Minimum Separation (ft)	Separation Factor		
5,200.00	5,190.37	4,857.06	4,701.34	22.93	25.62	-157.18	-1,459.26	-98.92	1,799.27	1,754.06	45.20	39.803		
5,300.00	5,290.15	4,951.48	4,792.17	23.37	26.14	-157.18	-1,484.93	-101.06	1,832.23	1,786.14	46.08	39.758		
5,400.00	5,389.94	5,045.89	4,883.00	23.81	26.66	-157.18	-1,510.60	-103.19	1,865.18	1,818.22	46.97	39.714		
5,500.00	5,489.72	5,140.30	4,973.83	24.25	27.17	-157.19	-1,536.28	-105.33	1,898.14	1,850.29	47.85	39.672		
5,600.00	5,589.51	5,234.71	5,064.66	24.69	27.69	-157.19	-1,561.95	-107.46	1,931.10	1,882.37	48.73	39.630		
5,700.00	5,689.29	5,329.13	5,155.49	25.13	28.21	-157.20	-1,587.62	-109.60	1,964.05	1,914.44	49.61	39.590		
5,800.00	5,789.08	5,423.54	5,246.32	25.56	28.73	-157.20	-1,613.30	-111.73	1,997.01	1,946.52	50.49	39.551		
5,900.00	5,888.86	5,517.95	5,337.15	26.00	29.25	-157.20	-1,638.97	-113.87	2,029.97	1,978.59	51.38	39.512		
6,000.00	5,988.65	5,612.37	5,427.98	26.44	29.76	-157.21	-1,664.65	-116.00	2,062.92	2,010.67	52.26	39.475		
6,100.00	6,088.43	5,706.78	5,518.81	26.88	30.28	-157.21	-1,690.32	-118.14	2,095.88	2,042.74	53.14	39.439		
6,200.00	6,188.22	5,801.19	5,609.64	27.32	30.80	-157.21	-1,715.99	-120.27	2,128.84	2,074.81	54.03	39.404		
6,300.00	6,288.00	5,895.61	5,700.47	27.76	31.32	-157.21	-1,741.67	-122.41	2,161.79	2,106.88	54.91	39.369		
6,400.00	6,387.79	6,009.98	5,791.30	28.20	31.95	-157.22	-1,767.34	-124.54	2,194.75	2,138.86	55.89	39.266		
6,500.00	6,487.57	6,084.43	5,882.13	28.64	32.36	-157.22	-1,793.01	-126.68	2,227.71	2,171.03	56.68	39.303		
6,600.00	6,587.35	6,178.85	5,973.96	29.08	32.88	-157.22	-1,818.69	-128.82	2,260.67	2,203.10	57.57	39.271		
6,700.00	6,687.02	6,273.19	6,063.73	29.52	33.40	-117.71	-1,844.34	-130.95	2,293.62	2,235.17	58.45	39.239		
6,800.00	6,784.98	6,366.22	6,153.22	29.96	33.91	-99.02	-1,869.64	-133.05	2,326.29	2,266.96	59.34	39.205		
6,900.00	6,878.81	6,455.66	6,239.27	30.41	34.40	-92.20	-1,893.96	-135.07	2,358.22	2,298.01	60.21	39.169		
7,000.00	6,966.21	6,539.32	6,319.75	30.86	34.86	-88.22	-1,916.71	-136.97	2,389.19	2,328.13	61.06	39.129		
7,100.00	7,045.03	6,615.13	6,392.69	31.35	35.28	-85.41	-1,937.32	-138.68	2,419.18	2,357.27	61.90	39.080		
7,200.00	7,113.32	6,681.24	6,456.29	31.90	35.64	-83.19	-1,955.30	-140.18	2,448.31	2,385.55	62.76	39.009		
7,300.00	7,169.40	6,736.00	6,508.98	32.57	35.94	-81.21	-1,970.19	-141.41	2,476.76	2,413.09	63.66	38.904		
7,400.00	7,211.89	6,778.08	6,549.46	33.38	36.17	-79.29	-1,981.64	-142.37	2,504.62	2,439.99	64.63	38.754		
7,500.00	7,239.75	6,806.44	6,576.74	34.35	36.33	-77.31	-1,989.35	-143.01	2,531.91	2,466.24	65.66	38.559		
7,600.00	7,252.28	6,820.38	6,590.15	35.47	36.41	-75.19	-1,993.14	-143.32	2,558.43	2,491.69	66.74	38.334		
7,700.00	7,252.75	6,822.92	6,592.60	36.73	36.42	-74.51	-1,993.83	-143.38	2,584.96	2,517.11	67.85	38.096		
7,800.00	7,252.38	8,032.23	7,249.05	38.16	41.94	-89.92	-2,185.27	-942.69	2,587.01	2,508.58	78.43	32.985		
7,900.00	7,252.02	8,132.22	7,248.46	39.74	43.06	-89.92	-2,185.86	-1,042.68	2,588.17	2,506.70	81.46	31.772		
8,000.00	7,251.65	8,232.21	7,247.86	41.47	44.43	-89.91	-2,186.44	-1,142.67	2,589.32	2,504.55	84.77	30.546		
8,100.00	7,251.29	8,332.20	7,247.26	43.31	45.99	-89.91	-2,187.03	-1,242.66	2,590.47	2,502.14	88.32	29.329		
8,200.00	7,250.92	8,432.20	7,246.67	45.26	47.70	-89.90	-2,187.61	-1,342.65	2,591.62	2,499.52	92.10	28.140		
8,300.00	7,250.55	8,532.19	7,246.07	47.30	49.54	-89.90	-2,188.19	-1,442.64	2,592.77	2,496.71	96.06	26.991		
8,400.00	7,250.19	8,632.18	7,245.48	49.42	51.48	-89.89	-2,188.78	-1,542.63	2,593.92	2,493.72	100.20	25.888		
8,500.00	7,249.82	8,732.18	7,244.88	51.62	53.52	-89.89	-2,189.36	-1,642.62	2,595.07	2,490.59	104.48	24.837		
8,600.00	7,249.45	8,832.17	7,244.29	53.88	55.63	-89.88	-2,189.94	-1,742.61	2,596.22	2,487.32	108.90	23.841		
8,700.00	7,249.09	8,932.16	7,243.69	56.19	57.81	-89.88	-2,190.53	-1,842.60	2,597.37	2,483.94	113.43	22.898		
8,800.00	7,248.72	9,032.16	7,243.09	58.55	60.05	-89.87	-2,191.11	-1,942.59	2,598.53	2,480.46	118.07	22.009		
8,900.00	7,248.36	9,132.15	7,242.50	60.96	62.34	-89.87	-2,191.70	-2,042.58	2,599.68	2,476.88	122.80	21.171		
9,000.00	7,247.99	9,232.14	7,241.90	63.40	64.68	-89.86	-2,192.28	-2,142.57	2,600.83	2,473.22	127.61	20.382		
9,100.00	7,247.62	9,332.14	7,241.31	65.87	67.07	-89.86	-2,192.86	-2,242.56	2,601.98	2,469.49	132.49	19.639		
9,200.00	7,247.26	9,432.13	7,240.71	68.38	69.48	-89.85	-2,193.45	-2,342.55	2,603.13	2,465.70	137.43	18.941		
9,300.00	7,246.89	9,532.12	7,240.12	70.91	71.94	-89.85	-2,194.03	-2,442.53	2,604.28	2,461.84	142.44	18.284		
9,400.00	7,246.53	9,632.12	7,239.52	73.47	74.42	-89.84	-2,194.61	-2,542.52	2,605.43	2,457.94	147.50	17.665		
9,500.00	7,246.16	9,732.11	7,238.92	76.05	76.92	-89.84	-2,195.20	-2,642.51	2,606.58	2,453.98	152.60	17.081		
9,600.00	7,245.79	9,832.10	7,238.33	78.65	79.46	-89.83	-2,195.78	-2,742.50	2,607.73	2,449.99	157.74	16.531		
9,700.00	7,245.43	9,932.09	7,237.73	81.27	82.01	-89.83	-2,196.37	-2,842.49	2,608.89	2,445.96	162.93	16.012		
9,800.00	7,245.06	10,032.09	7,237.14	83.90	84.58	-89.82	-2,196.95	-2,942.48	2,610.04	2,441.89	168.15	15.522		
9,900.00	7,244.69	10,132.08	7,236.54	86.55	87.18	-89.82	-2,197.53	-3,042.47	2,611.19	2,437.79	173.40	15.059		
10,000.00	7,244.33	10,232.07	7,235.94	89.21	89.78	-89.81	-2,198.12	-3,142.46	2,612.34	2,433.66	178.68	14.620		
10,100.00	7,243.96	10,332.07	7,235.35	91.88	92.41	-89.81	-2,198.70	-3,242.45	2,613.49	2,429.51	183.98	14.205		
10,200.00	7,243.60	10,432.06	7,234.75	94.56	95.04	-89.80	-2,199.28	-3,342.44	2,614.64	2,425.33	189.31	13.811		
10,300.00	7,243.23	10,532.05	7,234.16	97.26	97.69	-89.80	-2,199.87	-3,442.43	2,615.79	2,421.13	194.67	13.437		

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



Anticollision Report



Company:	SRC ENERGY	Local Co-ordinate Reference:	Well HARVESTERS STATE 31C-16-M
Project:	SECTION 15, T6N, R66W	TVD Reference:	KB @ 4821.00ft
Reference Site:	HARVESTERS STATE 7-15 PAD	MD Reference:	KB @ 4821.00ft
Site Error:	3.28 ft	North Reference:	True
Reference Well:	HARVESTERS STATE 31C-16-M	Survey Calculation Method:	Minimum Curvature
Well Error:	3.28 ft	Output errors are at	2.45 sigma
Reference Wellbore	OH	Database:	EDM 5000.14 Single User Db
Reference Design:	PLAN #1	Offset TVD Reference:	Reference Datum

Offset Design HARVESTERS STATE 7-15 PAD - HARVESTERS STATE 33C-16-M - OH - PLAN #1													Offset Site Error:	0.00 ft
Survey Program: 0-MWD+IFR1													Offset Well Error:	3.28 ft
Reference		Offset		Semi Major Axis			Distance							Warning
Measured Depth (ft)	Vertical Depth (ft)	Measured Depth (ft)	Vertical Depth (ft)	Reference (ft)	Offset (ft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (ft)	+E/-W (ft)	Between Centres (ft)	Between Ellipses (ft)	Minimum Separation (ft)	Separation Factor		
10,400.00	7,242.86	10,632.05	7,233.56	99.96	100.35	-89.79	-2,200.45	-3,542.42	2,616.95	2,416.91	200.04	13.082		
10,500.00	7,242.50	10,732.04	7,232.97	102.67	103.02	-89.79	-2,201.04	-3,642.41	2,618.10	2,412.67	205.43	12.744		
10,600.00	7,242.13	10,832.03	7,232.37	105.39	105.71	-89.78	-2,201.62	-3,742.40	2,619.25	2,408.41	210.84	12.423		
10,700.00	7,241.76	10,932.03	7,231.77	108.12	108.40	-89.78	-2,202.20	-3,842.39	2,620.40	2,404.14	216.26	12.117		
10,800.00	7,241.40	11,032.02	7,231.18	110.85	111.10	-89.77	-2,202.79	-3,942.38	2,621.55	2,399.85	221.70	11.825		
10,900.00	7,241.03	11,132.01	7,230.58	113.59	113.80	-89.77	-2,203.37	-4,042.37	2,622.70	2,395.54	227.16	11.546		
11,000.00	7,240.67	11,232.01	7,229.99	116.34	116.52	-89.76	-2,203.95	-4,142.36	2,623.85	2,391.23	232.62	11.279		
11,100.00	7,240.30	11,332.00	7,229.39	119.09	119.24	-89.76	-2,204.54	-4,242.35	2,625.01	2,386.90	238.10	11.025		
11,200.00	7,239.93	11,431.99	7,228.79	121.85	121.96	-89.75	-2,205.12	-4,342.34	2,626.16	2,382.57	243.59	10.781		
11,300.00	7,239.57	11,531.98	7,228.20	124.61	124.70	-89.75	-2,205.71	-4,442.33	2,627.31	2,378.22	249.09	10.548		
11,400.00	7,239.20	11,631.98	7,227.60	127.38	127.44	-89.74	-2,206.29	-4,542.32	2,628.46	2,373.86	254.60	10.324		
11,500.00	7,238.84	11,731.97	7,227.01	130.15	130.18	-89.74	-2,206.87	-4,642.31	2,629.61	2,369.49	260.12	10.109		
11,600.00	7,238.47	11,831.96	7,226.41	132.92	132.93	-89.73	-2,207.46	-4,742.30	2,630.76	2,365.12	265.65	9.903		
11,700.00	7,238.10	11,931.96	7,225.82	135.70	135.68	-89.73	-2,208.04	-4,842.29	2,631.92	2,360.73	271.18	9.705		
11,800.00	7,237.74	12,031.95	7,225.22	138.48	138.44	-89.73	-2,208.62	-4,942.28	2,633.07	2,356.34	276.73	9.515		
11,900.00	7,237.37	12,131.94	7,224.62	141.26	141.20	-89.72	-2,209.21	-5,042.27	2,634.22	2,351.94	282.28	9.332		
12,000.00	7,237.00	12,231.94	7,224.03	144.05	143.97	-89.72	-2,209.79	-5,142.26	2,635.37	2,347.54	287.83	9.156		
12,100.00	7,236.64	12,331.93	7,223.43	146.84	146.74	-89.71	-2,210.38	-5,242.24	2,636.52	2,343.13	293.40	8.986		
12,200.00	7,236.27	12,431.92	7,222.84	149.64	149.51	-89.71	-2,210.96	-5,342.23	2,637.67	2,338.71	298.97	8.823		
12,300.00	7,235.91	12,531.92	7,222.24	152.43	152.28	-89.70	-2,211.54	-5,442.22	2,638.83	2,334.29	304.54	8.665		
12,400.00	7,235.54	12,631.91	7,221.64	155.23	155.06	-89.70	-2,212.13	-5,542.21	2,639.98	2,329.86	310.12	8.513		
12,500.00	7,235.17	12,731.90	7,221.05	158.03	157.85	-89.69	-2,212.71	-5,642.20	2,641.13	2,325.42	315.71	8.366		
12,600.00	7,234.81	12,831.89	7,220.45	160.83	160.63	-89.69	-2,213.29	-5,742.19	2,642.28	2,320.99	321.30	8.224		
12,700.00	7,234.44	12,931.89	7,219.86	163.64	163.42	-89.68	-2,213.88	-5,842.18	2,643.43	2,316.54	326.89	8.087		
12,800.00	7,234.07	13,031.88	7,219.26	166.44	166.21	-89.68	-2,214.46	-5,942.17	2,644.59	2,312.10	332.49	7.954		
12,900.00	7,233.71	13,131.87	7,218.67	169.25	169.00	-89.67	-2,215.05	-6,042.16	2,645.74	2,307.65	338.09	7.826		
13,000.00	7,233.34	13,231.87	7,218.07	172.06	171.79	-89.67	-2,215.63	-6,142.15	2,646.89	2,303.19	343.70	7.701		
13,100.00	7,232.98	13,331.86	7,217.47	174.88	174.59	-89.66	-2,216.21	-6,242.14	2,648.04	2,298.73	349.31	7.581		
13,200.00	7,232.61	13,431.85	7,216.88	177.69	177.38	-89.66	-2,216.80	-6,342.13	2,649.19	2,294.27	354.92	7.464		
13,300.00	7,232.24	13,531.85	7,216.28	180.50	180.18	-89.65	-2,217.38	-6,442.12	2,650.35	2,289.81	360.54	7.351		
13,400.00	7,231.88	13,631.84	7,215.69	183.32	182.99	-89.65	-2,217.96	-6,542.11	2,651.50	2,285.34	366.16	7.241		
13,500.00	7,231.51	13,731.83	7,215.09	186.14	185.79	-89.64	-2,218.55	-6,642.10	2,652.65	2,280.87	371.78	7.135		
13,600.00	7,231.15	13,831.83	7,214.49	188.96	188.59	-89.64	-2,219.13	-6,742.09	2,653.80	2,276.39	377.41	7.032		
13,700.00	7,230.78	13,931.82	7,213.90	191.78	191.40	-89.63	-2,219.72	-6,842.08	2,654.95	2,271.92	383.04	6.931		
13,800.00	7,230.41	14,031.81	7,213.30	194.60	194.21	-89.63	-2,220.30	-6,942.07	2,656.11	2,267.44	388.67	6.834		
13,900.00	7,230.05	14,131.81	7,212.71	197.42	197.02	-89.62	-2,220.88	-7,042.06	2,657.26	2,262.95	394.30	6.739		
14,000.00	7,229.68	14,231.80	7,212.11	200.25	199.83	-89.62	-2,221.47	-7,142.05	2,658.41	2,258.47	399.94	6.647		
14,100.00	7,229.31	14,331.79	7,211.52	203.07	202.64	-89.61	-2,222.05	-7,242.04	2,659.56	2,253.98	405.58	6.557		
14,200.00	7,228.95	14,431.78	7,210.92	205.90	205.46	-89.61	-2,222.63	-7,342.03	2,660.71	2,249.49	411.22	6.470		
14,300.00	7,228.58	14,531.78	7,210.32	208.73	208.27	-89.60	-2,223.22	-7,442.02	2,661.87	2,245.00	416.87	6.385		
14,400.00	7,228.22	14,631.77	7,209.73	211.55	211.09	-89.60	-2,223.80	-7,542.01	2,663.02	2,240.51	422.51	6.303		
14,500.00	7,227.85	14,731.76	7,209.13	214.38	213.90	-89.60	-2,224.38	-7,642.00	2,664.17	2,236.01	428.16	6.222		
14,600.00	7,227.48	14,831.76	7,208.54	217.21	216.72	-89.59	-2,224.97	-7,741.99	2,665.32	2,231.52	433.81	6.144		
14,700.00	7,227.12	14,931.75	7,207.94	220.04	219.54	-89.59	-2,225.55	-7,841.98	2,666.48	2,227.02	439.46	6.068		
14,800.00	7,226.75	15,031.74	7,207.35	222.88	222.36	-89.58	-2,226.14	-7,941.96	2,667.63	2,222.52	445.11	5.993		
14,900.00	7,226.38	15,131.74	7,206.75	225.71	225.18	-89.58	-2,226.72	-8,041.95	2,668.78	2,218.01	450.77	5.921		
15,000.00	7,226.02	15,231.73	7,206.15	228.54	228.01	-89.57	-2,227.30	-8,141.94	2,669.93	2,213.51	456.42	5.850		
15,005.81	7,226.00	15,237.54	7,206.12	228.71	228.17	-89.57	-2,227.34	-8,147.75	2,670.00	2,213.25	456.75	5.846 SF		



Anticollision Report



Company:	SRC ENERGY	Local Co-ordinate Reference:	Well HARVESTERS STATE 31C-16-M
Project:	SECTION 15, T6N, R66W	TVD Reference:	KB @ 4821.00ft
Reference Site:	HARVESTERS STATE 7-15 PAD	MD Reference:	KB @ 4821.00ft
Site Error:	3.28 ft	North Reference:	True
Reference Well:	HARVESTERS STATE 31C-16-M	Survey Calculation Method:	Minimum Curvature
Well Error:	3.28 ft	Output errors are at	2.45 sigma
Reference Wellbore	OH	Database:	EDM 5000.14 Single User Db
Reference Design:	PLAN #1	Offset TVD Reference:	Reference Datum

Offset Design HARVESTERS STATE 7-15 PAD - HARVESTERS STATE 34C-16-M - OH - PLAN #1													Offset Site Error:	0.00 ft
Survey Program: 0-MWD+IFR1													Offset Well Error:	3.28 ft
Reference		Offset		Semi Major Axis			Distance							Warning
Measured Depth (ft)	Vertical Depth (ft)	Measured Depth (ft)	Vertical Depth (ft)	Reference (ft)	Offset (ft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (ft)	+E/-W (ft)	Between Centres (ft)	Between Ellipses (ft)	Minimum Separation (ft)	Separation Factor		
0.00	0.00	2.00	0.00	3.28	3.28	-179.54	-420.04	-3.34	420.05					
100.00	100.00	102.00	100.00	3.28	3.29	-179.54	-420.04	-3.34	420.05	413.48	6.57	63.936		
200.00	200.00	198.00	200.00	3.34	3.34	-179.54	-420.04	-3.34	420.05	413.38	6.67	62.953 CC, ES		
300.00	300.00	285.45	287.44	3.44	3.42	-179.54	-421.31	-3.40	421.51	414.64	6.88	61.310		
400.00	400.00	372.49	374.38	3.60	3.55	-179.52	-425.23	-3.58	426.01	418.83	7.18	59.354		
500.00	500.00	459.21	460.85	3.81	3.71	-179.49	-431.75	-3.88	433.53	425.97	7.57	57.300		
600.00	600.00	545.45	546.62	4.05	3.90	-179.44	-440.82	-4.30	444.06	436.04	8.03	55.331		
700.00	699.98	630.85	631.23	4.32	4.12	-156.44	-452.34	-4.83	459.15	450.60	8.54	53.745		
800.00	799.84	714.83	714.06	4.62	4.36	-156.45	-466.13	-5.47	480.26	471.15	9.11	52.724		
900.00	899.62	797.41	795.09	4.94	4.63	-156.63	-482.04	-6.21	505.41	495.73	9.68	52.186		
1,000.00	999.41	878.70	874.37	5.27	4.92	-156.78	-499.98	-7.03	533.33	523.05	10.28	51.894		
1,100.00	1,099.19	958.61	951.78	5.62	5.23	-156.91	-519.79	-7.95	563.93	553.05	10.89	51.802		
1,200.00	1,198.98	1,037.05	1,027.19	5.99	5.55	-157.01	-541.33	-8.95	597.16	585.66	11.50	51.931		
1,300.00	1,298.76	1,113.95	1,100.52	6.36	5.89	-157.09	-564.44	-10.02	632.92	620.81	12.11	52.255		
1,400.00	1,398.55	1,189.24	1,171.70	6.74	6.24	-157.16	-588.97	-11.15	671.15	658.43	12.72	52.754		
1,500.00	1,498.33	1,262.87	1,240.66	7.13	6.61	-157.20	-614.75	-12.34	711.77	698.45	13.33	53.407		
1,600.00	1,598.12	1,334.81	1,307.37	7.52	6.98	-157.23	-641.64	-13.59	754.70	740.77	13.92	54.202		
1,700.00	1,697.90	1,405.02	1,371.80	7.92	7.36	-157.26	-669.49	-14.88	799.84	785.33	14.51	55.126		
1,800.00	1,797.69	1,473.49	1,433.96	8.33	7.74	-157.27	-698.16	-16.20	847.13	832.05	15.09	56.157		
1,900.00	1,897.47	1,540.20	1,493.84	8.74	8.14	-157.27	-727.52	-17.56	896.49	880.84	15.65	57.291		
2,000.00	1,997.26	1,605.14	1,551.48	9.15	8.53	-157.27	-757.43	-18.94	947.82	931.63	16.20	58.522		
2,100.00	2,097.04	1,668.34	1,606.89	9.56	8.93	-157.26	-787.78	-20.35	1,001.06	984.33	16.73	59.828		
2,200.00	2,196.83	1,729.79	1,660.11	9.98	9.33	-157.25	-818.45	-21.76	1,056.12	1,038.87	17.25	61.214		
2,300.00	2,296.61	1,789.51	1,711.20	10.40	9.73	-157.23	-849.35	-23.19	1,112.94	1,095.18	17.76	62.671		
2,400.00	2,396.40	1,854.65	1,766.23	10.82	10.18	-157.21	-884.17	-24.80	1,171.36	1,153.03	18.33	63.913		
2,500.00	2,496.18	1,935.53	1,834.37	11.24	10.74	-157.19	-927.70	-26.82	1,230.17	1,211.09	19.08	64.478		
2,600.00	2,595.96	2,016.40	1,902.50	11.66	11.32	-157.17	-971.22	-28.83	1,288.98	1,269.14	19.84	64.965		
2,700.00	2,695.75	2,102.72	1,970.63	12.09	11.95	-157.15	-1,014.75	-30.84	1,347.80	1,327.15	20.64	65.288		
2,800.00	2,795.53	2,178.15	2,038.76	12.51	12.50	-157.13	-1,058.28	-32.86	1,406.61	1,385.22	21.40	65.745		
2,900.00	2,895.32	2,259.03	2,106.90	12.94	13.09	-157.12	-1,101.81	-34.87	1,465.43	1,443.24	22.18	66.056		
3,000.00	2,995.10	2,339.90	2,175.03	13.37	13.69	-157.10	-1,145.34	-36.88	1,524.24	1,501.26	22.98	66.327		
3,100.00	3,094.89	2,420.78	2,243.16	13.80	14.30	-157.09	-1,188.86	-38.90	1,583.06	1,559.27	23.78	66.562		
3,200.00	3,194.67	2,501.65	2,311.29	14.23	14.90	-157.08	-1,232.39	-40.91	1,641.87	1,617.28	24.59	66.766		
3,300.00	3,294.46	2,582.53	2,379.42	14.66	15.51	-157.06	-1,275.92	-42.92	1,700.68	1,675.28	25.40	66.943		
3,400.00	3,394.24	2,663.40	2,447.56	15.09	16.13	-157.05	-1,319.45	-44.94	1,759.50	1,733.28	26.22	67.097		
3,500.00	3,494.03	2,744.28	2,515.69	15.52	16.74	-157.04	-1,362.98	-46.95	1,818.31	1,791.27	27.05	67.232		
3,600.00	3,593.81	2,825.15	2,583.82	15.96	17.36	-157.03	-1,406.50	-48.96	1,877.13	1,849.26	27.87	67.349		
3,700.00	3,693.60	2,906.03	2,651.95	16.39	17.98	-157.02	-1,450.03	-50.98	1,935.94	1,907.24	28.70	67.452		
3,800.00	3,793.38	2,986.90	2,720.09	16.82	18.60	-157.01	-1,493.56	-52.99	1,994.76	1,965.22	29.53	67.541		
3,900.00	3,893.17	3,067.78	2,788.22	17.26	19.23	-157.01	-1,537.09	-55.00	2,053.57	2,023.20	30.37	67.618		
4,000.00	3,992.95	3,148.65	2,856.35	17.69	19.85	-157.00	-1,580.62	-57.01	2,112.39	2,081.18	31.21	67.685		
4,100.00	4,092.74	3,229.53	2,924.48	18.13	20.48	-156.99	-1,624.14	-59.03	2,171.20	2,139.15	32.05	67.744		
4,200.00	4,192.52	3,310.40	2,992.62	18.56	21.10	-156.98	-1,667.67	-61.04	2,230.02	2,197.12	32.89	67.795		
4,300.00	4,292.31	3,408.72	3,060.75	19.00	21.87	-156.98	-1,711.20	-63.05	2,288.83	2,254.99	33.85	67.823		
4,400.00	4,392.09	3,472.15	3,128.88	19.43	22.36	-156.97	-1,754.73	-65.07	2,347.65	2,313.06	34.59	67.876		
4,500.00	4,491.88	3,553.03	3,197.01	19.87	22.99	-156.97	-1,798.26	-67.08	2,406.46	2,371.03	35.44	67.908		
4,600.00	4,591.66	3,633.90	3,265.15	20.31	23.62	-156.96	-1,841.78	-69.09	2,465.28	2,428.99	36.29	67.935		
4,700.00	4,691.44	3,714.78	3,333.28	20.74	24.25	-156.96	-1,885.31	-71.11	2,524.09	2,486.95	37.14	67.957		
4,800.00	4,791.23	3,804.35	3,401.41	21.18	24.95	-156.95	-1,928.84	-73.12	2,582.91	2,544.86	38.05	67.880		
4,900.00	4,891.01	3,876.53	3,469.54	21.62	25.51	-156.95	-1,972.37	-75.13	2,641.72	2,602.87	38.85	67.992		
5,000.00	4,990.80	3,957.40	3,537.67	22.06	26.15	-156.94	-2,015.90	-77.15	2,700.54	2,660.83	39.71	68.004		
5,100.00	5,090.58	4,038.28	3,605.81	22.50	26.78	-156.94	-2,059.42	-79.16	2,759.35	2,718.78	40.57	68.013		

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



Anticollision Report



Company:	SRC ENERGY	Local Co-ordinate Reference:	Well HARVESTERS STATE 31C-16-M
Project:	SECTION 15, T6N, R66W	TVD Reference:	KB @ 4821.00ft
Reference Site:	HARVESTERS STATE 7-15 PAD	MD Reference:	KB @ 4821.00ft
Site Error:	3.28 ft	North Reference:	True
Reference Well:	HARVESTERS STATE 31C-16-M	Survey Calculation Method:	Minimum Curvature
Well Error:	3.28 ft	Output errors are at	2.45 sigma
Reference Wellbore	OH	Database:	EDM 5000.14 Single User Db
Reference Design:	PLAN #1	Offset TVD Reference:	Reference Datum

Offset Design HARVESTERS STATE 7-15 PAD - HARVESTERS STATE 34C-16-M - OH - PLAN #1													Offset Site Error:	0.00 ft
Survey Program: 0-MWD+IFR1													Offset Well Error:	3.28 ft
Reference		Offset		Semi Major Axis			Distance							Warning
Measured Depth (ft)	Vertical Depth (ft)	Measured Depth (ft)	Vertical Depth (ft)	Reference (ft)	Offset (ft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (ft)	+E/-W (ft)	Between Centres (ft)	Between Ellipses (ft)	Minimum Separation (ft)	Separation Factor		
5,200.00	5,190.37	4,119.15	3,673.94	22.93	27.42	-156.93	-2,102.95	-81.17	2,818.17	2,776.74	41.43	68.020		
5,300.00	5,290.15	4,200.03	3,742.07	23.37	28.05	-156.93	-2,146.48	-83.19	2,876.98	2,834.69	42.29	68.025		
5,400.00	5,389.94	4,280.90	3,810.20	23.81	28.69	-156.92	-2,190.01	-85.20	2,935.80	2,892.64	43.16	68.027		
5,500.00	5,489.72	4,361.78	3,878.34	24.25	29.32	-156.92	-2,233.54	-87.21	2,994.61	2,950.59	44.02	68.028		
5,600.00	5,589.51	4,442.65	3,946.47	24.69	29.96	-156.92	-2,277.06	-89.23	3,053.43	3,008.54	44.89	68.027		
5,700.00	5,689.29	4,523.53	4,014.60	25.13	30.59	-156.91	-2,320.59	-91.24	3,112.24	3,066.49	45.75	68.024		
5,800.00	5,789.08	4,604.40	4,082.73	25.56	31.23	-156.91	-2,364.12	-93.25	3,171.06	3,124.44	46.62	68.020		
5,900.00	5,888.86	4,685.28	4,150.87	26.00	31.87	-156.91	-2,407.65	-95.27	3,229.88	3,182.39	47.49	68.015		
6,000.00	5,988.65	4,766.15	4,219.00	26.44	32.51	-156.90	-2,451.18	-97.28	3,288.69	3,240.33	48.36	68.008		
6,100.00	6,088.43	4,847.03	4,287.13	26.88	33.14	-156.90	-2,494.70	-99.29	3,347.51	3,298.28	49.23	68.001		
6,200.00	6,188.22	4,927.90	4,355.26	27.32	33.78	-156.90	-2,538.23	-101.31	3,406.32	3,356.22	50.10	67.992		
6,300.00	6,288.00	5,008.78	4,423.39	27.76	34.42	-156.89	-2,581.76	-103.32	3,465.14	3,414.17	50.97	67.983		
6,400.00	6,387.79	5,089.65	4,491.53	28.20	35.06	-156.89	-2,625.29	-105.33	3,523.95	3,472.11	51.84	67.973		
6,500.00	6,487.57	5,170.53	4,559.66	28.64	35.70	-156.89	-2,668.82	-107.34	3,582.77	3,530.05	52.72	67.962		
6,600.00	6,587.35	5,251.40	4,627.79	29.08	36.34	-156.89	-2,712.34	-109.36	3,641.58	3,587.99	53.59	67.950		
6,700.00	6,687.02	5,332.23	4,695.88	29.52	36.97	-115.55	-2,755.85	-111.37	3,700.36	3,645.90	54.47	67.937		
6,800.00	6,784.98	5,411.97	4,763.06	29.96	37.61	-93.47	-2,798.77	-113.35	3,758.41	3,703.07	55.34	67.918		
6,900.00	6,878.81	5,488.70	4,827.71	30.41	38.21	-83.47	-2,840.06	-115.26	3,814.50	3,758.31	56.19	67.887		
7,000.00	6,966.21	5,565.58	4,892.86	30.86	38.81	-94.68	-2,881.27	-117.17	3,870.59	3,813.01	57.05	67.856		
7,100.00	7,045.03	5,642.44	4,958.01	31.31	39.41	-93.03	-2,922.48	-119.08	3,926.68	3,868.12	57.91	67.825		
7,200.00	7,113.32	5,719.31	5,023.16	31.76	40.01	-91.89	-2,963.69	-120.99	3,982.77	3,923.23	58.77	67.794		
7,300.00	7,169.40	5,795.19	5,088.31	32.21	40.61	-91.06	-3,004.90	-122.90	4,038.86	3,978.34	59.63	67.763		
7,400.00	7,211.89	5,870.07	5,153.46	32.66	41.21	-90.47	-3,046.11	-124.81	4,094.95	4,033.43	60.49	67.732		
7,500.00	7,239.75	5,944.95	5,218.61	33.11	41.81	-90.08	-3,087.32	-126.72	4,151.04	4,088.52	61.35	67.701		
7,600.00	7,252.28	6,019.83	5,283.76	33.56	42.41	-89.86	-3,128.53	-128.63	4,207.13	4,143.61	62.21	67.670		
7,700.00	7,252.75	6,094.71	5,348.91	34.01	43.01	-89.83	-3,169.74	-130.54	4,263.22	4,198.70	63.07	67.639		
7,800.00	7,252.38	6,169.59	5,414.06	34.46	43.61	-89.83	-3,210.95	-132.45	4,319.31	4,253.79	63.93	67.608		
7,900.00	7,252.02	6,244.47	5,479.21	34.91	44.21	-89.83	-3,252.16	-134.36	4,375.40	4,308.88	64.79	67.577		
8,000.00	7,251.65	6,319.35	5,544.36	35.36	44.81	-89.83	-3,293.37	-136.27	4,431.49	4,363.97	65.65	67.546		
8,100.00	7,251.29	6,394.23	5,609.51	35.81	45.41	-89.83	-3,334.58	-138.18	4,487.58	4,419.06	66.51	67.515		
8,200.00	7,250.92	6,469.11	5,674.66	36.26	46.01	-89.83	-3,375.79	-140.09	4,543.67	4,474.15	67.37	67.484		
8,300.00	7,250.55	6,544.00	5,739.81	36.71	46.61	-89.83	-3,416.99	-142.00	4,600.00	4,529.24	68.23	67.453		
8,400.00	7,250.19	6,618.88	5,804.96	37.16	47.21	-89.83	-3,458.20	-143.91	4,656.19	4,584.33	69.09	67.422		
8,500.00	7,249.82	6,693.76	5,870.11	37.61	47.81	-89.83	-3,499.41	-145.82	4,712.28	4,639.42	69.95	67.391		
8,600.00	7,249.45	6,768.64	5,935.26	38.06	48.41	-89.83	-3,540.62	-147.73	4,768.37	4,694.51	70.81	67.360		
8,700.00	7,249.09	6,843.52	5,999.41	38.51	49.01	-89.83	-3,581.83	-149.64	4,824.46	4,749.60	71.67	67.329		
8,800.00	7,248.72	6,918.40	6,063.56	38.96	49.61	-89.83	-3,623.04	-151.55	4,880.55	4,804.69	72.53	67.298		
8,900.00	7,248.36	6,993.28	6,127.71	39.41	50.21	-89.83	-3,664.25	-153.46	4,936.64	4,859.78	73.39	67.267		
9,000.00	7,247.99	7,068.16	6,191.86	39.86	50.81	-89.83	-3,705.46	-155.37	4,992.73	4,914.87	74.25	67.236		
9,100.00	7,247.62	7,143.04	6,256.01	40.31	51.41	-89.83	-3,746.67	-157.28	5,048.82	4,969.96	75.11	67.205		
9,200.00	7,247.26	7,217.92	6,320.16	40.76	52.01	-89.83	-3,787.88	-159.19	5,104.91	5,025.05	75.97	67.174		
9,300.00	7,246.89	7,292.80	6,384.31	41.21	52.61	-89.83	-3,829.09	-161.10	5,161.00	5,080.14	76.83	67.143		
9,400.00	7,246.53	7,367.68	6,448.46	41.66	53.21	-89.83	-3,870.30	-163.01	5,217.09	5,135.23	77.69	67.112		
9,500.00	7,246.16	7,442.56	6,512.61	42.11	53.81	-89.82	-3,911.51	-164.92	5,273.18	5,190.32	78.55	67.081		
9,600.00	7,245.79	7,517.44	6,576.76	42.56	54.41	-89.82	-3,952.72	-166.83	5,329.27	5,245.41	79.41	67.050		
9,700.00	7,245.43	7,592.32	6,640.91	43.01	55.01	-89.82	-3,993.93	-168.74	5,385.36	5,300.50	80.27	67.019		
9,800.00	7,245.06	7,667.20	6,705.06	43.46	55.61	-89.82	-4,035.14	-170.65	5,441.45	5,355.59	81.13	66.988		
9,900.00	7,244.69	7,742.08	6,769.21	43.91	56.21	-89.82	-4,076.35	-172.56	5,497.54	5,410.68	81.99	66.957		
10,000.00	7,244.33	7,816.96	6,833.36	44.36	56.81	-89.82	-4,117.56	-174.47	5,553.63	5,465.77	82.85	66.926		
10,100.00	7,243.96	7,891.84	6,897.51	44.81	57.41	-89.82	-4,158.77	-176.38	5,609.72	5,520.86	83.71	66.895		
10,200.00	7,243.60	7,966.72	6,961.66	45.26	58.01	-89.82	-4,199.98	-178.29	5,665.81	5,575.95	84.57	66.864		
10,300.00	7,243.23	8,041.60	7,025.81	45.71	58.61	-89.82	-4,241.19	-180.20	5,721.90	5,631.04	85.43	66.833		

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



Anticollision Report



Company:	SRC ENERGY	Local Co-ordinate Reference:	Well HARVESTERS STATE 31C-16-M
Project:	SECTION 15, T6N, R66W	TVD Reference:	KB @ 4821.00ft
Reference Site:	HARVESTERS STATE 7-15 PAD	MD Reference:	KB @ 4821.00ft
Site Error:	3.28 ft	North Reference:	True
Reference Well:	HARVESTERS STATE 31C-16-M	Survey Calculation Method:	Minimum Curvature
Well Error:	3.28 ft	Output errors are at	2.45 sigma
Reference Wellbore	OH	Database:	EDM 5000.14 Single User Db
Reference Design:	PLAN #1	Offset TVD Reference:	Reference Datum

Offset Design HARVESTERS STATE 7-15 PAD - HARVESTERS STATE 34C-16-M - OH - PLAN #1													Offset Site Error:	0.00 ft
Survey Program: 0-MWD+IFR1													Offset Well Error:	3.28 ft
Reference		Offset		Semi Major Axis			Distance							Warning
Measured Depth (ft)	Vertical Depth (ft)	Measured Depth (ft)	Vertical Depth (ft)	Reference (ft)	Offset (ft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (ft)	+E/-W (ft)	Between Centres (ft)	Between Ellipses (ft)	Minimum Separation (ft)	Separation Factor		
10,400.00	7,242.86	11,151.11	7,230.84	99.96	101.25	-89.82	-3,461.33	-3,533.95	3,877.85	3,676.78	201.07	19.286		
10,500.00	7,242.50	11,251.11	7,230.43	102.67	103.90	-89.82	-3,461.94	-3,633.94	3,879.03	3,672.60	206.43	18.791		
10,600.00	7,242.13	11,351.10	7,230.03	105.39	106.55	-89.82	-3,462.55	-3,733.93	3,880.21	3,668.40	211.81	18.319		
10,700.00	7,241.76	11,451.09	7,229.62	108.12	109.22	-89.82	-3,463.17	-3,833.93	3,881.39	3,664.18	217.21	17.870		
10,800.00	7,241.40	11,551.08	7,229.22	110.85	111.89	-89.82	-3,463.78	-3,933.92	3,882.57	3,659.95	222.62	17.440		
10,900.00	7,241.03	11,651.08	7,228.81	113.59	114.58	-89.82	-3,464.39	-4,033.91	3,883.75	3,655.70	228.05	17.030		
11,000.00	7,240.67	11,751.07	7,228.41	116.34	117.27	-89.82	-3,465.00	-4,133.90	3,884.93	3,651.44	233.49	16.639		
11,100.00	7,240.30	11,851.06	7,228.00	119.09	119.97	-89.82	-3,465.62	-4,233.89	3,886.11	3,647.16	238.94	16.264		
11,200.00	7,239.93	11,951.06	7,227.59	121.85	122.68	-89.82	-3,466.23	-4,333.88	3,887.29	3,642.88	244.41	15.905		
11,300.00	7,239.57	12,051.05	7,227.19	124.61	125.39	-89.82	-3,466.84	-4,433.87	3,888.47	3,638.58	249.89	15.561		
11,400.00	7,239.20	12,151.04	7,226.78	127.38	128.11	-89.81	-3,467.45	-4,533.86	3,889.65	3,634.27	255.38	15.231		
11,500.00	7,238.84	12,251.04	7,226.38	130.15	130.84	-89.81	-3,468.07	-4,633.85	3,890.83	3,629.95	260.88	14.914		
11,600.00	7,238.47	12,351.03	7,225.97	132.92	133.57	-89.81	-3,468.68	-4,733.84	3,892.01	3,625.62	266.38	14.610		
11,700.00	7,238.10	12,451.02	7,225.57	135.70	136.31	-89.81	-3,469.29	-4,833.83	3,893.19	3,621.28	271.90	14.318		
11,800.00	7,237.74	12,551.01	7,225.16	138.48	139.05	-89.81	-3,469.90	-4,933.82	3,894.36	3,616.94	277.43	14.037		
11,900.00	7,237.37	12,651.01	7,224.75	141.26	141.79	-89.81	-3,470.52	-5,033.81	3,895.54	3,612.58	282.96	13.767		
12,000.00	7,237.00	12,751.00	7,224.35	144.05	144.54	-89.81	-3,471.13	-5,133.80	3,896.72	3,608.22	288.50	13.507		
12,100.00	7,236.64	12,850.99	7,223.94	146.84	147.30	-89.81	-3,471.74	-5,233.79	3,897.90	3,603.86	294.05	13.256		
12,200.00	7,236.27	12,950.98	7,223.54	149.64	150.06	-89.81	-3,472.35	-5,333.78	3,899.08	3,599.48	299.60	13.014		
12,300.00	7,235.91	13,050.98	7,223.13	152.43	152.82	-89.81	-3,472.96	-5,433.77	3,900.26	3,595.10	305.16	12.781		
12,400.00	7,235.54	13,150.97	7,222.73	155.23	155.59	-89.81	-3,473.58	-5,533.76	3,901.44	3,590.72	310.73	12.556		
12,500.00	7,235.17	13,250.97	7,222.32	158.03	158.36	-89.81	-3,474.19	-5,633.75	3,902.62	3,586.32	316.30	12.338		
12,600.00	7,234.81	13,350.96	7,221.91	160.83	161.13	-89.81	-3,474.80	-5,733.74	3,903.80	3,581.93	321.87	12.128		
12,700.00	7,234.44	13,450.95	7,221.51	163.64	163.90	-89.81	-3,475.41	-5,833.73	3,904.98	3,577.52	327.46	11.925		
12,800.00	7,234.07	13,550.95	7,221.10	166.44	166.68	-89.81	-3,476.03	-5,933.72	3,906.16	3,573.12	333.04	11.729		
12,900.00	7,233.71	13,650.94	7,220.70	169.25	169.46	-89.81	-3,476.64	-6,033.71	3,907.34	3,568.71	338.63	11.539		
13,000.00	7,233.34	13,750.93	7,220.29	172.06	172.25	-89.81	-3,477.25	-6,133.70	3,908.52	3,564.29	344.23	11.354		
13,100.00	7,232.98	13,850.92	7,219.89	174.88	175.03	-89.81	-3,477.86	-6,233.69	3,909.70	3,559.87	349.83	11.176		
13,200.00	7,232.61	13,950.92	7,219.48	177.69	177.82	-89.81	-3,478.48	-6,333.68	3,910.88	3,555.45	355.43	11.003		
13,300.00	7,232.24	14,050.91	7,219.07	180.50	180.61	-89.80	-3,479.09	-6,433.67	3,912.06	3,551.02	361.04	10.836		
13,400.00	7,231.88	14,150.90	7,218.67	183.32	183.40	-89.80	-3,479.70	-6,533.66	3,913.24	3,546.59	366.65	10.673		
13,500.00	7,231.51	14,250.90	7,218.26	186.14	186.20	-89.80	-3,480.31	-6,633.65	3,914.42	3,542.16	372.26	10.515		
13,600.00	7,231.15	14,350.89	7,217.86	188.96	189.00	-89.80	-3,480.93	-6,733.65	3,915.59	3,537.72	377.88	10.362		
13,700.00	7,230.78	14,450.88	7,217.45	191.78	191.79	-89.80	-3,481.54	-6,833.64	3,916.77	3,533.28	383.50	10.213		
13,800.00	7,230.41	14,550.88	7,217.05	194.60	194.59	-89.80	-3,482.15	-6,933.63	3,917.95	3,528.84	389.12	10.069		
13,900.00	7,230.05	14,650.87	7,216.64	197.42	197.40	-89.80	-3,482.76	-7,033.62	3,919.13	3,524.39	394.74	9.928		
14,000.00	7,229.68	14,750.86	7,216.23	200.25	200.20	-89.80	-3,483.38	-7,133.61	3,920.31	3,519.94	400.37	9.792		
14,100.00	7,229.31	14,850.85	7,215.83	203.07	203.00	-89.80	-3,483.99	-7,233.60	3,921.49	3,515.49	406.00	9.659		
14,200.00	7,228.95	14,950.85	7,215.42	205.90	205.81	-89.80	-3,484.60	-7,333.59	3,922.67	3,511.04	411.64	9.529		
14,300.00	7,228.58	15,050.84	7,215.02	208.73	208.62	-89.80	-3,485.21	-7,433.58	3,923.85	3,506.58	417.27	9.404		
14,400.00	7,228.22	15,150.83	7,214.61	211.55	211.43	-89.80	-3,485.83	-7,533.57	3,925.03	3,502.12	422.91	9.281		
14,500.00	7,227.85	15,250.83	7,214.21	214.38	214.24	-89.80	-3,486.44	-7,633.56	3,926.21	3,497.66	428.55	9.162		
14,600.00	7,227.48	15,350.82	7,213.80	217.21	217.05	-89.80	-3,487.05	-7,733.55	3,927.39	3,493.20	434.19	9.045		
14,700.00	7,227.12	15,450.81	7,213.39	220.04	219.86	-89.80	-3,487.66	-7,833.54	3,928.57	3,488.73	439.84	8.932		
14,800.00	7,226.75	15,550.81	7,212.99	222.88	222.68	-89.80	-3,488.28	-7,933.53	3,929.75	3,484.27	445.48	8.821		
14,900.00	7,226.38	15,650.80	7,212.58	225.71	225.49	-89.80	-3,488.89	-8,033.52	3,930.93	3,479.80	451.13	8.713		
15,000.00	7,226.02	15,750.79	7,212.18	228.54	228.31	-89.80	-3,489.50	-8,133.51	3,932.11	3,475.33	456.78	8.608		
15,005.81	7,226.00	15,756.60	7,212.15	228.71	228.47	-89.80	-3,489.54	-8,139.32	3,932.18	3,475.07	457.11	8.602 SF		



Anticollision Report



Company:	SRC ENERGY	Local Co-ordinate Reference:	Well HARVESTERS STATE 31C-16-M
Project:	SECTION 15, T6N, R66W	TVD Reference:	KB @ 4821.00ft
Reference Site:	HARVESTERS STATE 7-15 PAD	MD Reference:	KB @ 4821.00ft
Site Error:	3.28 ft	North Reference:	True
Reference Well:	HARVESTERS STATE 31C-16-M	Survey Calculation Method:	Minimum Curvature
Well Error:	3.28 ft	Output errors are at	2.45 sigma
Reference Wellbore	OH	Database:	EDM 5000.14 Single User Db
Reference Design:	PLAN #1	Offset TVD Reference:	Reference Datum

Offset Design HARVESTERS STATE 7-15 PAD - HARVESTERS STATE 5C-16-M - OH - PLAN #1													Offset Site Error:	0.00 ft
Survey Program: 0-MWD+IFR1													Offset Well Error:	3.28 ft
Reference		Offset		Semi Major Axis			Distance							Warning
Measured Depth (ft)	Vertical Depth (ft)	Measured Depth (ft)	Vertical Depth (ft)	Reference (ft)	Offset (ft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (ft)	+E/-W (ft)	Between Centres (ft)	Between Ellipses (ft)	Minimum Separation (ft)	Separation Factor		
0.00	0.00	0.00	0.00	3.28	3.28	-179.60	-40.07	-0.28	40.07					
100.00	100.00	100.00	100.00	3.28	3.28	-179.60	-40.07	-0.28	40.07	33.51	6.57	6.100		
200.00	200.00	200.00	200.00	3.34	3.34	-179.60	-40.07	-0.28	40.07	33.40	6.67	6.005		
300.00	300.00	300.00	300.00	3.44	3.44	-179.60	-40.07	-0.28	40.07	33.18	6.89	5.817		
400.00	400.00	400.00	400.00	3.60	3.60	-179.60	-40.07	-0.28	40.07	32.87	7.21	5.561		
500.00	500.00	500.00	500.00	3.81	3.81	-179.60	-40.07	-0.28	40.07	32.46	7.61	5.265		
600.00	600.00	600.00	600.00	4.05	4.05	-179.60	-40.07	-0.28	40.07	31.98	8.09	4.952 CC		
700.00	699.98	700.61	700.59	4.32	4.32	-155.61	-39.16	-1.74	40.79	32.15	8.63	4.723		
800.00	799.84	800.56	800.49	4.62	4.61	-155.06	-37.59	-4.25	44.03	34.80	9.23	4.772		
900.00	899.62	900.46	900.35	4.94	4.92	-155.29	-36.02	-6.77	48.49	38.63	9.86	4.919		
1,000.00	999.41	1,000.36	1,000.20	5.27	5.26	-155.48	-34.45	-9.28	52.96	42.43	10.53	5.031		
1,100.00	1,099.19	1,100.26	1,100.06	5.62	5.60	-155.65	-32.88	-11.80	57.43	46.20	11.23	5.116		
1,200.00	1,198.98	1,200.16	1,199.92	5.99	5.96	-155.78	-31.31	-14.31	61.90	49.95	11.95	5.180		
1,300.00	1,298.76	1,300.06	1,299.77	6.36	6.33	-155.90	-29.74	-16.82	66.37	53.68	12.69	5.229		
1,400.00	1,398.55	1,400.04	1,399.63	6.74	6.71	-156.01	-28.16	-19.34	70.84	57.38	13.45	5.266		
1,500.00	1,498.33	1,500.14	1,499.48	7.13	7.10	-156.10	-26.59	-21.85	75.31	61.08	14.23	5.293		
1,600.00	1,598.12	1,600.24	1,599.34	7.52	7.49	-156.18	-25.02	-24.36	79.78	64.76	15.01	5.314		
1,700.00	1,697.90	1,700.34	1,699.20	7.92	7.88	-156.26	-23.45	-26.88	84.24	68.44	15.81	5.329		
1,800.00	1,797.69	1,800.44	1,799.05	8.33	8.29	-156.32	-21.88	-29.39	88.71	72.10	16.62	5.339		
1,900.00	1,897.47	1,900.54	1,898.91	8.74	8.69	-156.38	-20.31	-31.90	93.18	75.76	17.43	5.347		
2,000.00	1,997.26	2,000.64	1,998.76	9.15	9.10	-156.44	-18.74	-34.42	97.65	79.41	18.25	5.352		
2,100.00	2,097.04	2,100.74	2,098.62	9.56	9.51	-156.49	-17.17	-36.93	102.12	83.05	19.07	5.354		
2,200.00	2,196.83	2,200.84	2,198.48	9.98	9.93	-156.53	-15.60	-39.45	106.60	86.69	19.90	5.356		
2,300.00	2,296.61	2,300.94	2,298.33	10.40	10.34	-156.57	-14.03	-41.96	111.07	90.33	20.74	5.356		
2,400.00	2,396.40	2,401.04	2,398.19	10.82	10.76	-156.61	-12.46	-44.47	115.54	93.96	21.58	5.355		
2,500.00	2,496.18	2,501.14	2,498.04	11.24	11.18	-156.65	-10.89	-46.99	120.01	97.59	22.42	5.353		
2,600.00	2,595.96	2,601.24	2,597.90	11.66	11.60	-156.68	-9.32	-49.50	124.48	101.21	23.26	5.351		
2,700.00	2,695.75	2,701.34	2,697.76	12.09	12.02	-156.71	-7.75	-52.01	128.95	104.84	24.11	5.348		
2,800.00	2,795.53	2,801.44	2,797.61	12.51	12.45	-156.74	-6.17	-54.53	133.42	108.46	24.96	5.345		
2,900.00	2,895.32	2,901.54	2,897.47	12.94	12.87	-156.77	-4.60	-57.04	137.89	112.07	25.81	5.342		
3,000.00	2,995.10	3,001.64	2,997.32	13.37	13.30	-156.79	-3.03	-59.55	142.36	115.69	26.67	5.338		
3,100.00	3,094.89	3,101.74	3,097.18	13.80	13.72	-156.82	-1.46	-62.07	146.83	119.30	27.52	5.335		
3,200.00	3,194.67	3,201.84	3,197.04	14.23	14.15	-156.84	0.11	-64.58	151.30	122.92	28.38	5.331		
3,300.00	3,294.46	3,301.94	3,296.89	14.66	14.58	-156.86	1.68	-67.10	155.77	126.53	29.24	5.327		
3,400.00	3,394.24	3,402.04	3,396.75	15.09	15.01	-156.88	3.25	-69.61	160.24	130.14	30.10	5.323		
3,500.00	3,494.03	3,502.14	3,496.60	15.52	15.44	-156.90	4.82	-72.12	164.71	133.75	30.96	5.319		
3,600.00	3,593.81	3,602.24	3,596.46	15.96	15.87	-156.92	6.39	-74.64	169.18	137.35	31.83	5.316		
3,700.00	3,693.60	3,702.34	3,696.32	16.39	16.30	-156.93	7.96	-77.15	173.65	140.96	32.69	5.312		
3,800.00	3,793.38	3,802.44	3,796.17	16.82	16.73	-156.95	9.53	-79.66	178.12	144.57	33.56	5.308		
3,900.00	3,893.17	3,902.54	3,896.03	17.26	17.17	-156.96	11.10	-82.18	182.59	148.17	34.42	5.304		
4,000.00	3,992.95	4,002.64	3,995.89	17.69	17.60	-156.98	12.67	-84.69	187.07	151.78	35.29	5.301		
4,100.00	4,092.74	4,102.74	4,095.74	18.13	18.03	-156.99	14.24	-87.20	191.54	155.38	36.16	5.297		
4,200.00	4,192.52	4,202.84	4,195.60	18.56	18.46	-157.00	15.81	-89.72	196.01	158.98	37.03	5.294		
4,300.00	4,292.31	4,302.94	4,295.45	19.00	18.90	-157.02	17.39	-92.23	200.48	162.58	37.90	5.290		
4,400.00	4,392.09	4,403.04	4,395.31	19.43	19.33	-157.03	18.96	-94.75	204.95	166.18	38.77	5.287		
4,500.00	4,491.88	4,503.14	4,495.17	19.87	19.77	-157.04	20.53	-97.26	209.42	169.78	39.64	5.284		
4,600.00	4,591.66	4,603.24	4,595.02	20.31	20.20	-157.05	22.10	-99.77	213.89	173.38	40.51	5.280		
4,700.00	4,691.44	4,703.34	4,694.88	20.74	20.63	-157.06	23.67	-102.29	218.36	176.98	41.38	5.277		
4,800.00	4,791.23	4,803.44	4,794.73	21.18	21.07	-157.07	25.24	-104.80	222.83	180.58	42.25	5.274		
4,900.00	4,891.01	4,903.54	4,894.59	21.62	21.50	-157.08	26.81	-107.31	227.30	184.18	43.12	5.271		
5,000.00	4,990.80	5,003.64	4,994.45	22.06	21.94	-157.09	28.38	-109.83	231.77	187.78	44.00	5.268		
5,100.00	5,090.58	5,103.74	5,094.30	22.50	22.38	-157.10	29.95	-112.34	236.24	191.38	44.87	5.265		

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



Anticollision Report



Company:	SRC ENERGY	Local Co-ordinate Reference:	Well HARVESTERS STATE 31C-16-M
Project:	SECTION 15, T6N, R66W	TVD Reference:	KB @ 4821.00ft
Reference Site:	HARVESTERS STATE 7-15 PAD	MD Reference:	KB @ 4821.00ft
Site Error:	3.28 ft	North Reference:	True
Reference Well:	HARVESTERS STATE 31C-16-M	Survey Calculation Method:	Minimum Curvature
Well Error:	3.28 ft	Output errors are at	2.45 sigma
Reference Wellbore	OH	Database:	EDM 5000.14 Single User Db
Reference Design:	PLAN #1	Offset TVD Reference:	Reference Datum

Offset Design HARVESTERS STATE 7-15 PAD - HARVESTERS STATE 5C-16-M - OH - PLAN #1													Offset Site Error:	0.00 ft
Survey Program: 0-MWD+IFR1													Offset Well Error:	3.28 ft
Reference		Offset		Semi Major Axis			Distance						Warning	
Measured Depth (ft)	Vertical Depth (ft)	Measured Depth (ft)	Vertical Depth (ft)	Reference (ft)	Offset (ft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (ft)	+E/-W (ft)	Between Centres (ft)	Between Ellipses (ft)	Minimum Separation (ft)	Separation Factor		
5,200.00	5,190.37	5,203.84	5,194.16	22.93	22.81	-157.11	31.52	-114.85	240.71	194.97	45.74	5.262		
5,300.00	5,290.15	5,303.94	5,294.01	23.37	23.25	-157.12	33.09	-117.37	245.19	198.57	46.62	5.260		
5,400.00	5,389.94	5,404.04	5,393.87	23.81	23.68	-157.13	34.66	-119.88	249.66	202.17	47.49	5.257		
5,500.00	5,489.72	5,504.14	5,493.73	24.25	24.12	-157.13	36.23	-122.40	254.13	205.76	48.37	5.254		
5,600.00	5,589.51	5,604.24	5,593.58	24.69	24.56	-157.14	37.80	-124.91	258.60	209.36	49.24	5.252		
5,700.00	5,689.29	5,704.34	5,693.44	25.13	24.99	-157.15	39.37	-127.42	263.07	212.95	50.12	5.249		
5,800.00	5,789.08	5,804.44	5,793.29	25.56	25.43	-157.16	40.95	-129.94	267.54	216.55	50.99	5.247		
5,900.00	5,888.86	5,904.54	5,893.15	26.00	25.87	-157.16	42.52	-132.45	272.01	220.14	51.87	5.244		
6,000.00	5,988.65	6,004.64	5,993.01	26.44	26.30	-157.17	44.09	-134.96	276.48	223.74	52.74	5.242		
6,100.00	6,088.43	6,104.74	6,092.86	26.88	26.74	-157.18	45.66	-137.48	280.95	227.33	53.62	5.240		
6,200.00	6,188.22	6,204.84	6,192.72	27.32	27.18	-157.18	47.23	-139.99	285.42	230.93	54.50	5.238		
6,300.00	6,288.00	6,304.94	6,292.57	27.76	27.61	-157.19	48.80	-142.50	289.89	234.52	55.37	5.235		
6,400.00	6,387.79	6,405.04	6,392.43	28.20	28.05	-157.19	50.37	-145.02	294.36	238.12	56.25	5.233		
6,500.00	6,487.57	6,505.14	6,492.29	28.64	28.49	-157.20	51.94	-147.53	298.84	241.71	57.13	5.231		
6,600.00	6,587.35	6,594.76	6,592.14	29.08	28.88	-157.20	53.51	-150.04	303.31	245.35	57.96	5.233		
6,700.00	6,687.02	6,694.41	6,691.55	29.52	29.32	-118.86	55.05	-156.01	307.81	248.98	58.83	5.232		
6,800.00	6,784.98	6,793.68	6,788.58	29.96	29.76	-102.09	56.44	-176.43	312.44	252.73	59.72	5.232		
6,900.00	6,878.81	6,892.65	6,881.00	30.41	30.21	-96.80	57.64	-211.54	317.10	256.50	60.60	5.233		
7,000.00	6,966.21	6,991.36	6,966.65	30.86	30.66	-94.05	58.63	-260.40	321.68	260.17	61.50	5.230		
7,100.00	7,045.03	7,089.86	7,043.58	31.35	31.15	-92.28	59.39	-321.75	326.04	263.58	62.47	5.220		
7,200.00	7,113.32	7,188.18	7,110.02	31.90	31.70	-91.04	59.90	-394.08	330.10	266.54	63.56	5.194		
7,300.00	7,169.40	7,286.36	7,164.48	32.57	32.36	-90.14	60.14	-475.66	333.73	268.87	64.86	5.145		
7,400.00	7,211.89	7,384.46	7,205.74	33.38	33.15	-89.50	60.12	-564.55	336.86	270.41	66.45	5.070		
7,500.00	7,239.75	7,482.51	7,232.86	34.35	34.11	-89.08	59.83	-658.68	339.41	271.05	68.36	4.965		
7,600.00	7,252.28	7,580.56	7,245.22	35.47	35.20	-88.85	59.29	-755.85	341.30	270.73	70.57	4.837		
7,700.00	7,252.75	7,679.89	7,245.79	36.73	36.46	-88.83	58.54	-855.16	342.67	269.59	73.08	4.689		
7,800.00	7,252.38	7,779.88	7,245.48	38.16	37.89	-88.85	57.77	-955.15	344.00	268.07	75.93	4.530		
7,900.00	7,252.02	7,879.87	7,245.17	39.74	39.47	-88.86	57.01	-1,055.14	345.33	266.23	79.10	4.366		
8,000.00	7,251.65	7,979.87	7,244.86	41.47	41.19	-88.87	56.24	-1,155.13	346.67	264.12	82.54	4.200		
8,100.00	7,251.29	8,079.86	7,244.54	43.31	43.03	-88.89	55.47	-1,255.11	348.00	261.77	86.23	4.036		
8,200.00	7,250.92	8,179.85	7,244.23	45.26	44.98	-88.90	54.70	-1,355.10	349.33	259.21	90.12	3.876		
8,300.00	7,250.55	8,279.84	7,243.92	47.30	47.02	-88.91	53.94	-1,455.09	350.67	256.46	94.21	3.722		
8,400.00	7,250.19	8,379.83	7,243.61	49.42	49.14	-88.93	53.17	-1,555.08	352.00	253.54	98.45	3.575		
8,500.00	7,249.82	8,479.82	7,243.30	51.62	51.34	-88.94	52.40	-1,655.06	353.33	250.49	102.84	3.436		
8,600.00	7,249.45	8,579.81	7,242.98	53.88	53.59	-88.95	51.63	-1,755.05	354.67	247.31	107.36	3.304		
8,700.00	7,249.09	8,679.80	7,242.67	56.19	55.91	-88.96	50.87	-1,855.04	356.00	244.01	111.98	3.179		
8,800.00	7,248.72	8,779.79	7,242.36	58.55	58.27	-88.98	50.10	-1,955.03	357.33	240.63	116.71	3.062		
8,900.00	7,248.36	8,879.79	7,242.05	60.96	60.67	-88.99	49.33	-2,055.02	358.66	237.15	121.51	2.952		
9,000.00	7,247.99	8,979.78	7,241.74	63.40	63.11	-89.00	48.56	-2,155.00	360.00	233.60	126.40	2.848		
9,100.00	7,247.62	9,079.77	7,241.42	65.87	65.58	-89.01	47.80	-2,254.99	361.33	229.98	131.35	2.751		
9,200.00	7,247.26	9,179.76	7,241.11	68.38	68.09	-89.03	47.03	-2,354.98	362.66	226.30	136.36	2.660		
9,300.00	7,246.89	9,279.75	7,240.80	70.91	70.62	-89.04	46.26	-2,454.97	364.00	222.57	141.43	2.574		
9,400.00	7,246.53	9,379.74	7,240.49	73.47	73.18	-89.05	45.49	-2,554.95	365.33	218.79	146.54	2.493		
9,500.00	7,246.16	9,479.73	7,240.18	76.05	75.75	-89.06	44.73	-2,654.94	366.66	214.97	151.70	2.417		
9,600.00	7,245.79	9,579.72	7,239.87	78.65	78.35	-89.07	43.96	-2,754.93	368.00	211.10	156.89	2.346		
9,700.00	7,245.43	9,679.71	7,239.55	81.27	80.97	-89.09	43.19	-2,854.92	369.33	207.21	162.13	2.278		
9,800.00	7,245.06	9,779.71	7,239.24	83.90	83.60	-89.10	42.42	-2,954.90	370.66	203.28	167.39	2.214		
9,900.00	7,244.69	9,879.70	7,238.93	86.55	86.24	-89.11	41.66	-3,054.89	372.00	199.32	172.68	2.154		
10,000.00	7,244.33	9,979.69	7,238.62	89.21	88.90	-89.12	40.89	-3,154.88	373.33	195.33	178.00	2.097		
10,100.00	7,243.96	10,079.68	7,238.31	91.88	91.57	-89.13	40.12	-3,254.87	374.67	191.32	183.34	2.044		
10,200.00	7,243.60	10,179.67	7,237.99	94.56	94.25	-89.14	39.35	-3,354.85	376.00	187.29	188.71	1.992		
10,300.00	7,243.23	10,279.66	7,237.68	97.26	96.94	-89.15	38.59	-3,454.84	377.33	183.24	194.10	1.944		

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



Anticollision Report



Company:	SRC ENERGY	Local Co-ordinate Reference:	Well HARVESTERS STATE 31C-16-M
Project:	SECTION 15, T6N, R66W	TVD Reference:	KB @ 4821.00ft
Reference Site:	HARVESTERS STATE 7-15 PAD	MD Reference:	KB @ 4821.00ft
Site Error:	3.28 ft	North Reference:	True
Reference Well:	HARVESTERS STATE 31C-16-M	Survey Calculation Method:	Minimum Curvature
Well Error:	3.28 ft	Output errors are at	2.45 sigma
Reference Wellbore	OH	Database:	EDM 5000.14 Single User Db
Reference Design:	PLAN #1	Offset TVD Reference:	Reference Datum

Offset Design HARVESTERS STATE 7-15 PAD - HARVESTERS STATE 5C-16-M - OH - PLAN #1													Offset Site Error:	0.00 ft
Survey Program: 0-MWD+IFR1													Offset Well Error:	3.28 ft
Reference		Offset		Semi Major Axis			Distance							Warning
Measured Depth (ft)	Vertical Depth (ft)	Measured Depth (ft)	Vertical Depth (ft)	Reference (ft)	Offset (ft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (ft)	+E/-W (ft)	Between Centres (ft)	Between Ellipses (ft)	Minimum Separation (ft)	Separation Factor		
10,400.00	7,242.86	10,379.65	7,237.37	99.96	99.64	-89.17	37.82	-3,554.83	378.67	179.17	199.50	1.898		
10,500.00	7,242.50	10,479.64	7,237.06	102.67	102.35	-89.18	37.05	-3,654.82	380.00	175.08	204.92	1.854		
10,600.00	7,242.13	10,579.63	7,236.75	105.39	105.07	-89.19	36.28	-3,754.81	381.33	170.97	210.36	1.813		
10,700.00	7,241.76	10,679.63	7,236.43	108.12	107.79	-89.20	35.52	-3,854.79	382.67	166.86	215.81	1.773		
10,800.00	7,241.40	10,779.62	7,236.12	110.85	110.52	-89.21	34.75	-3,954.78	384.00	162.72	221.28	1.735		
10,900.00	7,241.03	10,879.61	7,235.81	113.59	113.26	-89.22	33.98	-4,054.77	385.33	158.58	226.75	1.699		
11,000.00	7,240.67	10,979.60	7,235.50	116.34	116.00	-89.23	33.21	-4,154.76	386.67	154.42	232.24	1.665		
11,100.00	7,240.30	11,079.59	7,235.19	119.09	118.75	-89.24	32.45	-4,254.74	388.00	150.25	237.75	1.632		
11,200.00	7,239.93	11,179.58	7,234.88	121.85	121.51	-89.25	31.68	-4,354.73	389.33	146.08	243.26	1.601		
11,300.00	7,239.57	11,279.57	7,234.56	124.61	124.26	-89.26	30.91	-4,454.72	390.67	141.89	248.78	1.570		
11,400.00	7,239.20	11,379.56	7,234.25	127.38	127.03	-89.27	30.14	-4,554.71	392.00	137.70	254.31	1.541		
11,500.00	7,238.84	11,479.55	7,233.94	130.15	129.79	-89.28	29.38	-4,654.69	393.33	133.49	259.84	1.514		
11,600.00	7,238.47	11,579.54	7,233.63	132.92	132.56	-89.29	28.61	-4,754.68	394.67	129.28	265.39	1.487 Level 3		
11,700.00	7,238.10	11,679.54	7,233.32	135.70	135.34	-89.30	27.84	-4,854.67	396.00	125.06	270.94	1.462 Level 3		
11,800.00	7,237.74	11,779.53	7,233.00	138.48	138.12	-89.31	27.07	-4,954.66	397.34	120.83	276.50	1.437 Level 3		
11,900.00	7,237.37	11,879.52	7,232.69	141.26	140.90	-89.32	26.31	-5,054.64	398.67	116.60	282.07	1.413 Level 3		
12,000.00	7,237.00	11,979.51	7,232.38	144.05	143.68	-89.33	25.54	-5,154.63	400.00	112.36	287.64	1.391 Level 3		
12,100.00	7,236.64	12,079.50	7,232.07	146.84	146.47	-89.34	24.77	-5,254.62	401.34	108.12	293.22	1.369 Level 3		
12,200.00	7,236.27	12,179.49	7,231.76	149.64	149.26	-89.35	24.00	-5,354.61	402.67	103.87	298.80	1.348 Level 3		
12,300.00	7,235.91	12,279.48	7,231.44	152.43	152.05	-89.36	23.24	-5,454.60	404.00	99.62	304.39	1.327 Level 3		
12,400.00	7,235.54	12,379.47	7,231.13	155.23	154.84	-89.37	22.47	-5,554.58	405.34	95.36	309.98	1.308 Level 3		
12,500.00	7,235.17	12,479.46	7,230.82	158.03	157.64	-89.38	21.70	-5,654.57	406.67	91.09	315.58	1.289 Level 3		
12,600.00	7,234.81	12,579.46	7,230.51	160.83	160.44	-89.39	20.93	-5,754.56	408.01	86.82	321.18	1.270 Level 3		
12,700.00	7,234.44	12,679.45	7,230.20	163.64	163.24	-89.40	20.17	-5,854.55	409.34	82.55	326.79	1.253 Level 3		
12,800.00	7,234.07	12,779.44	7,229.88	166.44	166.04	-89.41	19.40	-5,954.53	410.67	78.28	332.40	1.235 Level 2		
12,900.00	7,233.71	12,879.43	7,229.57	169.25	168.85	-89.42	18.63	-6,054.52	412.01	74.00	338.01	1.219 Level 2		
13,000.00	7,233.34	12,979.42	7,229.26	172.06	171.65	-89.43	17.86	-6,154.51	413.34	69.71	343.63	1.203 Level 2		
13,100.00	7,232.98	13,079.41	7,228.95	174.88	174.46	-89.44	17.10	-6,254.50	414.67	65.42	349.25	1.187 Level 2		
13,200.00	7,232.61	13,179.40	7,228.64	177.69	177.27	-89.45	16.33	-6,354.48	416.01	61.13	354.87	1.172 Level 2		
13,300.00	7,232.24	13,279.39	7,228.33	180.50	180.08	-89.46	15.56	-6,454.47	417.34	56.84	360.50	1.158 Level 2		
13,400.00	7,231.88	13,379.38	7,228.01	183.32	182.90	-89.47	14.79	-6,554.46	418.68	52.55	366.13	1.144 Level 2		
13,500.00	7,231.51	13,479.38	7,227.70	186.14	185.71	-89.48	14.02	-6,654.45	420.01	48.25	371.76	1.130 Level 2		
13,600.00	7,231.15	13,579.37	7,227.39	188.96	188.53	-89.49	13.26	-6,754.43	421.34	43.95	377.40	1.116 Level 2		
13,700.00	7,230.78	13,679.36	7,227.08	191.78	191.34	-89.50	12.49	-6,854.42	422.68	39.64	383.04	1.103 Level 2		
13,800.00	7,230.41	13,779.35	7,226.77	194.60	194.16	-89.50	11.72	-6,954.41	424.01	35.34	388.68	1.091 Level 2		
13,900.00	7,230.05	13,879.34	7,226.45	197.42	196.98	-89.51	10.95	-7,054.40	425.35	31.03	394.32	1.079 Level 2		
14,000.00	7,229.68	13,979.33	7,226.14	200.25	199.80	-89.52	10.19	-7,154.39	426.68	26.72	399.96	1.067 Level 2		
14,100.00	7,229.31	14,079.32	7,225.83	203.07	202.62	-89.53	9.42	-7,254.37	428.01	22.40	405.61	1.055 Level 2		
14,200.00	7,228.95	14,179.31	7,225.52	205.90	205.44	-89.54	8.65	-7,354.36	429.35	18.09	411.26	1.044 Level 2		
14,300.00	7,228.58	14,279.30	7,225.21	208.73	208.27	-89.55	7.88	-7,454.35	430.68	13.77	416.91	1.033 Level 2		
14,400.00	7,228.22	14,379.30	7,224.89	211.55	211.09	-89.56	7.12	-7,554.34	432.02	9.45	422.56	1.022 Level 2		
14,500.00	7,227.85	14,479.29	7,224.58	214.38	213.92	-89.57	6.35	-7,654.32	433.35	5.13	428.22	1.012 Level 2		
14,600.00	7,227.48	14,579.28	7,224.27	217.21	216.74	-89.57	5.58	-7,754.31	434.68	0.81	433.88	1.002 Level 2		
14,700.00	7,227.12	14,679.27	7,223.96	220.04	219.57	-89.58	4.81	-7,854.30	436.02	-3.52	439.53	0.992 Level 1		
14,800.00	7,226.75	14,779.26	7,223.65	222.88	222.40	-89.59	4.05	-7,954.29	437.35	-7.84	445.19	0.982 Level 1		
14,900.00	7,226.38	14,879.25	7,223.34	225.71	225.22	-89.60	3.28	-8,054.27	438.69	-12.17	450.85	0.973 Level 1		
15,000.00	7,226.02	14,979.24	7,223.02	228.54	228.05	-89.61	2.51	-8,154.26	440.02	-16.50	456.52	0.964 Level 1		
15,005.81	7,226.00	14,985.05	7,223.01	228.71	228.22	-89.61	2.47	-8,160.07	440.10	-16.75	456.85	0.963 Level 1, ES, SF		

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



Anticollision Report



Company:	SRC ENERGY	Local Co-ordinate Reference:	Well HARVESTERS STATE 31C-16-M
Project:	SECTION 15, T6N, R66W	TVD Reference:	KB @ 4821.00ft
Reference Site:	HARVESTERS STATE 7-15 PAD	MD Reference:	KB @ 4821.00ft
Site Error:	3.28 ft	North Reference:	True
Reference Well:	HARVESTERS STATE 31C-16-M	Survey Calculation Method:	Minimum Curvature
Well Error:	3.28 ft	Output errors are at	2.45 sigma
Reference Wellbore	OH	Database:	EDM 5000.14 Single User Db
Reference Design:	PLAN #1	Offset TVD Reference:	Reference Datum

Offset Design HARVESTERS STATE 7-15 PAD - HARVESTERS STATE 12N-16A-M - OH - PLAN #1													Offset Site Error:	0.00 ft
Survey Program: 0-MWD+IFR1													Offset Well Error:	3.28 ft
Reference		Offset		Semi Major Axis			Distance							Warning
Measured Depth (ft)	Vertical Depth (ft)	Measured Depth (ft)	Vertical Depth (ft)	Reference (ft)	Offset (ft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (ft)	+E/-W (ft)	Between Centres (ft)	Between Ellipses (ft)	Minimum Separation (ft)	Separation Factor		
0.00	0.00	1.00	0.00	3.28	3.28	-179.54	-280.15	-2.23	280.16					
100.00	100.00	101.00	100.00	3.28	3.28	-179.54	-280.15	-2.23	280.16	273.59	6.57	42.644		
200.00	200.00	199.00	200.00	3.34	3.34	-179.54	-280.15	-2.23	280.16	273.48	6.67	41.982 CC, ES		
300.00	300.00	290.18	291.17	3.44	3.43	-179.52	-281.56	-2.36	281.71	274.83	6.88	40.936		
400.00	400.00	381.09	381.97	3.60	3.56	-179.45	-285.84	-2.76	286.42	279.23	7.19	39.814		
500.00	500.00	471.64	472.23	3.81	3.73	-179.33	-292.96	-3.43	294.29	286.70	7.60	38.742		
600.00	600.00	561.64	561.68	4.05	3.94	-179.17	-302.84	-4.36	305.29	297.22	8.07	37.823		
700.00	699.98	650.70	649.84	4.32	4.17	-156.08	-315.37	-5.54	320.96	312.35	8.61	37.296		
800.00	799.84	738.19	736.03	4.62	4.43	-156.04	-330.33	-6.95	342.75	333.56	9.19	37.300		
900.00	899.62	824.13	820.21	4.94	4.72	-156.19	-347.57	-8.58	368.68	358.90	9.78	37.693		
1,000.00	999.41	908.64	902.44	5.27	5.03	-156.29	-366.96	-10.40	397.47	387.08	10.39	38.255		
1,100.00	1,099.19	1,001.44	989.39	5.62	5.40	-156.35	-389.76	-12.55	428.60	417.56	11.04	38.839		
1,200.00	1,198.98	1,106.50	1,081.14	5.99	5.84	-156.41	-414.07	-14.84	459.99	448.24	11.75	39.158		
1,300.00	1,298.76	1,188.45	1,172.89	6.36	6.20	-156.46	-438.37	-17.13	491.38	478.98	12.40	39.632		
1,400.00	1,398.55	1,283.39	1,264.65	6.74	6.63	-156.50	-462.68	-19.42	522.77	509.65	13.12	39.838		
1,500.00	1,498.33	1,378.34	1,356.40	7.13	7.07	-156.54	-486.98	-21.71	554.16	540.30	13.87	39.966		
1,600.00	1,598.12	1,473.28	1,448.15	7.52	7.52	-156.57	-511.29	-24.00	585.55	570.93	14.63	40.036		
1,700.00	1,697.90	1,568.23	1,539.90	7.92	7.98	-156.60	-535.60	-26.29	616.95	601.55	15.40	40.063		
1,800.00	1,797.69	1,663.17	1,631.65	8.33	8.44	-156.63	-559.90	-28.58	648.34	632.15	16.19	40.057		
1,900.00	1,897.47	1,758.11	1,723.40	8.74	8.91	-156.65	-584.21	-30.87	679.73	662.75	16.98	40.027		
2,000.00	1,997.26	1,853.06	1,815.16	9.15	9.39	-156.68	-608.51	-33.16	711.12	693.34	17.79	39.980		
2,100.00	2,097.04	1,948.00	1,906.91	9.56	9.86	-156.70	-632.82	-35.45	742.51	723.91	18.60	39.920		
2,200.00	2,196.83	2,042.95	1,998.66	9.98	10.35	-156.72	-657.13	-37.74	773.91	754.49	19.42	39.851		
2,300.00	2,296.61	2,137.89	2,090.41	10.40	10.83	-156.73	-681.43	-40.03	805.30	785.05	20.25	39.776		
2,400.00	2,396.40	2,232.84	2,182.16	10.82	11.32	-156.75	-705.74	-42.32	836.69	815.62	21.08	39.697		
2,500.00	2,496.18	2,327.78	2,273.92	11.24	11.81	-156.76	-730.05	-44.61	868.08	846.17	21.91	39.616		
2,600.00	2,595.96	2,422.73	2,365.67	11.66	12.30	-156.78	-754.35	-46.89	899.48	876.73	22.75	39.533		
2,700.00	2,695.75	2,517.67	2,457.42	12.09	12.79	-156.79	-778.66	-49.18	930.87	907.27	23.60	39.450		
2,800.00	2,795.53	2,612.62	2,549.17	12.51	13.29	-156.80	-802.96	-51.47	962.26	937.82	24.44	39.368		
2,900.00	2,895.32	2,707.56	2,640.92	12.94	13.79	-156.82	-827.27	-53.76	993.66	968.36	25.29	39.286		
3,000.00	2,995.10	2,802.50	2,732.68	13.37	14.28	-156.83	-851.58	-56.05	1,025.05	998.90	26.15	39.206		
3,100.00	3,094.89	2,902.55	2,824.43	13.80	14.81	-156.84	-875.88	-58.34	1,056.44	1,029.42	27.02	39.092		
3,200.00	3,194.67	3,007.61	2,916.18	14.23	15.36	-156.85	-900.19	-60.63	1,087.83	1,059.90	27.93	38.948		
3,300.00	3,294.46	3,087.34	3,007.93	14.66	15.78	-156.85	-924.50	-62.92	1,119.23	1,090.51	28.72	38.974		
3,400.00	3,394.24	3,182.28	3,099.68	15.09	16.29	-156.86	-948.80	-65.21	1,150.62	1,121.04	29.58	38.901		
3,500.00	3,494.03	3,277.23	3,191.44	15.52	16.79	-156.87	-973.11	-67.50	1,182.01	1,151.57	30.44	38.830		
3,600.00	3,593.81	3,372.17	3,283.19	15.96	17.29	-156.88	-997.41	-69.79	1,213.41	1,182.10	31.31	38.760		
3,700.00	3,693.60	3,467.12	3,374.94	16.39	17.80	-156.89	-1,021.72	-72.08	1,244.80	1,212.63	32.17	38.693		
3,800.00	3,793.38	3,562.06	3,466.69	16.82	18.30	-156.89	-1,046.03	-74.37	1,276.19	1,243.15	33.04	38.627		
3,900.00	3,893.17	3,657.00	3,558.44	17.26	18.80	-156.90	-1,070.33	-76.66	1,307.59	1,273.68	33.91	38.564		
4,000.00	3,992.95	3,751.95	3,650.20	17.69	19.31	-156.91	-1,094.64	-78.95	1,338.98	1,304.20	34.78	38.502		
4,100.00	4,092.74	3,846.89	3,741.95	18.13	19.82	-156.91	-1,118.95	-81.24	1,370.37	1,334.72	35.65	38.443		
4,200.00	4,192.52	3,941.84	3,833.70	18.56	20.32	-156.92	-1,143.25	-83.53	1,401.76	1,365.25	36.52	38.385		
4,300.00	4,292.31	4,036.78	3,925.45	19.00	20.83	-156.92	-1,167.56	-85.82	1,433.16	1,395.77	37.39	38.329		
4,400.00	4,392.09	4,131.73	4,017.20	19.43	21.34	-156.93	-1,191.86	-88.11	1,464.55	1,426.29	38.26	38.274		
4,500.00	4,491.88	4,226.67	4,108.96	19.87	21.84	-156.93	-1,216.17	-90.40	1,495.94	1,456.81	39.14	38.222		
4,600.00	4,591.66	4,321.62	4,200.71	20.31	22.35	-156.94	-1,240.48	-92.69	1,527.34	1,487.32	40.01	38.170		
4,700.00	4,691.44	4,416.56	4,292.46	20.74	22.86	-156.94	-1,264.78	-94.98	1,558.73	1,517.84	40.89	38.121		
4,800.00	4,791.23	4,511.51	4,384.21	21.18	23.37	-156.95	-1,289.09	-97.27	1,590.12	1,548.36	41.77	38.072		
4,900.00	4,891.01	4,606.45	4,475.96	21.62	23.88	-156.95	-1,313.40	-99.56	1,621.52	1,578.87	42.64	38.026		
5,000.00	4,990.80	4,701.39	4,567.72	22.06	24.39	-156.95	-1,337.70	-101.85	1,652.91	1,609.39	43.52	37.980		
5,100.00	5,090.58	4,803.66	4,659.47	22.50	24.93	-156.96	-1,362.01	-104.13	1,684.30	1,639.87	44.43	37.906		

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



Anticollision Report



Company:	SRC ENERGY	Local Co-ordinate Reference:	Well HARVESTERS STATE 31C-16-M
Project:	SECTION 15, T6N, R66W	TVD Reference:	KB @ 4821.00ft
Reference Site:	HARVESTERS STATE 7-15 PAD	MD Reference:	KB @ 4821.00ft
Site Error:	3.28 ft	North Reference:	True
Reference Well:	HARVESTERS STATE 31C-16-M	Survey Calculation Method:	Minimum Curvature
Well Error:	3.28 ft	Output errors are at	2.45 sigma
Reference Wellbore	OH	Database:	EDM 5000.14 Single User Db
Reference Design:	PLAN #1	Offset TVD Reference:	Reference Datum

Offset Design HARVESTERS STATE 7-15 PAD - HARVESTERS STATE 12N-16A-M - OH - PLAN #1													Offset Site Error:	0.00 ft
Survey Program: 0-MWD+IFR1													Offset Well Error:	3.28 ft
Reference		Offset		Semi Major Axis			Distance							Warning
Measured Depth (ft)	Vertical Depth (ft)	Measured Depth (ft)	Vertical Depth (ft)	Reference (ft)	Offset (ft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (ft)	+E/-W (ft)	Between Centres (ft)	Between Ellipses (ft)	Minimum Separation (ft)	Separation Factor		
5,200.00	5,190.37	4,908.72	4,751.22	22.93	25.50	-156.96	-1,386.31	-106.42	1,715.70	1,670.33	45.36	37.822		
5,300.00	5,290.15	4,986.23	4,842.97	23.37	25.91	-156.97	-1,410.62	-108.71	1,747.09	1,700.93	46.16	37.851		
5,400.00	5,389.94	5,081.17	4,934.72	23.81	26.42	-156.97	-1,434.93	-111.00	1,778.48	1,731.45	47.04	37.811		
5,500.00	5,489.72	5,176.12	5,026.48	24.25	26.93	-156.97	-1,459.23	-113.29	1,809.88	1,761.96	47.92	37.772		
5,600.00	5,589.51	5,271.06	5,118.23	24.69	27.44	-156.98	-1,483.54	-115.58	1,841.27	1,792.47	48.80	37.733		
5,700.00	5,689.29	5,366.01	5,209.98	25.13	27.95	-156.98	-1,507.85	-117.87	1,872.66	1,822.98	49.68	37.696		
5,800.00	5,789.08	5,460.95	5,301.73	25.56	28.46	-156.98	-1,532.15	-120.16	1,904.06	1,853.50	50.56	37.660		
5,900.00	5,888.86	5,555.89	5,393.48	26.00	28.98	-156.99	-1,556.46	-122.45	1,935.45	1,884.01	51.44	37.624		
6,000.00	5,988.65	5,650.84	5,485.24	26.44	29.49	-156.99	-1,580.76	-124.74	1,966.84	1,914.52	52.32	37.590		
6,100.00	6,088.43	5,745.78	5,576.99	26.88	30.00	-156.99	-1,605.07	-127.03	1,998.24	1,945.03	53.21	37.556		
6,200.00	6,188.22	5,840.73	5,668.74	27.32	30.51	-156.99	-1,629.38	-129.32	2,029.63	1,975.54	54.09	37.523		
6,300.00	6,288.00	5,935.67	5,760.49	27.76	31.02	-157.00	-1,653.68	-131.61	2,061.02	2,006.05	54.97	37.492		
6,400.00	6,387.79	6,030.62	5,852.24	28.20	31.53	-157.00	-1,677.99	-133.90	2,092.42	2,036.56	55.86	37.460		
6,500.00	6,487.57	6,125.56	5,943.99	28.64	32.04	-157.00	-1,702.29	-136.19	2,123.81	2,067.07	56.74	37.430		
6,600.00	6,587.35	6,220.51	6,035.75	29.08	32.55	-157.00	-1,726.60	-138.48	2,155.20	2,097.58	57.63	37.400		
6,700.00	6,687.02	6,315.39	6,127.44	29.52	33.06	-117.59	-1,750.89	-140.77	2,186.58	2,128.07	58.51	37.371		
6,800.00	6,784.98	6,408.96	6,217.86	29.96	33.57	-99.08	-1,774.85	-143.02	2,217.66	2,158.27	59.39	37.339		
6,900.00	6,878.81	6,501.05	6,304.83	30.41	34.06	-92.45	-1,797.88	-145.19	2,248.02	2,187.74	60.27	37.297		
7,000.00	6,966.21	6,589.25	6,392.03	30.86	34.54	-88.72	-1,820.99	-148.75	2,277.45	2,216.28	61.17	37.229		
7,100.00	7,045.03	6,692.27	6,490.03	31.35	35.08	-86.27	-1,847.06	-166.26	2,305.35	2,243.10	62.25	37.033		
7,200.00	7,113.32	6,807.33	6,594.60	31.90	35.63	-84.59	-1,875.01	-204.82	2,330.96	2,267.47	63.49	36.715		
7,300.00	7,169.40	6,938.20	6,703.10	32.57	36.18	-83.52	-1,904.20	-271.47	2,353.46	2,288.54	64.91	36.255		
7,400.00	7,211.89	7,088.67	6,808.47	33.38	36.72	-82.95	-1,932.82	-374.49	2,371.90	2,305.30	66.60	35.613		
7,500.00	7,239.75	7,260.67	6,896.44	34.35	37.26	-82.75	-1,957.12	-519.67	2,385.23	2,316.50	68.73	34.706		
7,600.00	7,252.28	7,450.92	6,946.17	35.47	38.00	-82.74	-1,971.56	-702.00	2,392.40	2,320.87	71.53	33.447		
7,700.00	7,252.75	7,608.40	6,950.78	36.73	39.10	-82.75	-1,973.77	-842.45	2,394.06	2,319.48	74.58	32.100		
7,800.00	7,252.38	7,691.59	6,950.40	38.16	39.96	-82.75	-1,974.37	-942.44	2,395.22	2,318.09	77.13	31.055		
7,900.00	7,252.02	7,808.42	6,950.02	39.74	41.48	-82.76	-1,974.96	-1,042.43	2,396.38	2,315.92	80.46	29.783		
8,000.00	7,251.65	7,908.42	6,949.64	41.47	43.00	-82.76	-1,975.56	-1,142.42	2,397.54	2,313.71	83.82	28.602		
8,100.00	7,251.29	8,008.43	6,949.26	43.31	44.68	-82.76	-1,976.16	-1,242.41	2,398.70	2,311.27	87.43	27.437		
8,200.00	7,250.92	8,108.44	6,948.89	45.26	46.50	-82.77	-1,976.76	-1,342.41	2,399.85	2,308.61	91.24	26.302		
8,300.00	7,250.55	8,191.56	6,948.51	47.30	48.10	-82.77	-1,977.36	-1,442.40	2,401.01	2,306.11	94.90	25.300		
8,400.00	7,250.19	8,308.45	6,948.13	49.42	50.46	-82.77	-1,977.96	-1,542.39	2,402.17	2,302.76	99.41	24.165		
8,500.00	7,249.82	8,408.46	6,947.75	51.62	52.57	-82.78	-1,978.56	-1,642.38	2,403.33	2,299.61	103.71	23.173		
8,600.00	7,249.45	8,508.46	6,947.37	53.88	54.75	-82.78	-1,979.15	-1,742.37	2,404.48	2,296.34	108.15	22.233		
8,700.00	7,249.09	8,608.47	6,946.99	56.19	57.00	-82.78	-1,979.75	-1,842.36	2,405.64	2,292.95	112.70	21.346		
8,800.00	7,248.72	8,708.48	6,946.61	58.55	59.30	-82.79	-1,980.35	-1,942.35	2,406.80	2,289.46	117.34	20.511		
8,900.00	7,248.36	8,808.48	6,946.23	60.96	61.64	-82.79	-1,980.95	-2,042.34	2,407.96	2,285.88	122.07	19.725		
9,000.00	7,247.99	8,908.49	6,945.85	63.40	64.03	-82.79	-1,981.55	-2,142.33	2,409.12	2,282.23	126.88	18.987		
9,100.00	7,247.62	9,008.50	6,945.47	65.87	66.46	-82.80	-1,982.15	-2,242.32	2,410.27	2,278.51	131.76	18.292		
9,200.00	7,247.26	9,108.51	6,945.09	68.38	68.92	-82.80	-1,982.75	-2,342.31	2,411.43	2,274.73	136.71	17.639		
9,300.00	7,246.89	9,208.51	6,944.71	70.91	71.41	-82.80	-1,983.34	-2,442.30	2,412.59	2,270.89	141.70	17.026		
9,400.00	7,246.53	9,308.52	6,944.33	73.47	73.93	-82.80	-1,983.94	-2,542.29	2,413.75	2,267.00	146.75	16.448		
9,500.00	7,246.16	9,408.53	6,943.95	76.05	76.48	-82.81	-1,984.54	-2,642.28	2,414.91	2,263.06	151.84	15.904		
9,600.00	7,245.79	9,508.53	6,943.58	78.65	79.04	-82.81	-1,985.14	-2,742.28	2,416.06	2,259.09	156.97	15.392		
9,700.00	7,245.43	9,591.46	6,943.20	81.27	81.18	-82.81	-1,985.74	-2,842.27	2,417.22	2,255.52	161.70	14.949		
9,800.00	7,245.06	9,708.55	6,942.82	83.90	84.23	-82.82	-1,986.34	-2,942.26	2,418.38	2,251.04	167.34	14.452		
9,900.00	7,244.69	9,808.55	6,942.44	86.55	86.85	-82.82	-1,986.94	-3,042.25	2,419.54	2,246.96	172.58	14.020		
10,000.00	7,244.33	9,908.56	6,942.06	89.21	89.48	-82.82	-1,987.53	-3,142.24	2,420.70	2,242.86	177.84	13.612		
10,100.00	7,243.96	10,008.57	6,941.68	91.88	92.13	-82.83	-1,988.13	-3,242.23	2,421.85	2,238.73	183.12	13.225		
10,200.00	7,243.60	10,108.57	6,941.30	94.56	94.79	-82.83	-1,988.73	-3,342.22	2,423.01	2,234.58	188.43	12.859		
10,300.00	7,243.23	10,208.58	6,940.92	97.26	97.46	-82.83	-1,989.33	-3,442.21	2,424.17	2,230.41	193.76	12.511		

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



Anticollision Report



Company:	SRC ENERGY	Local Co-ordinate Reference:	Well HARVESTERS STATE 31C-16-M
Project:	SECTION 15, T6N, R66W	TVD Reference:	KB @ 4821.00ft
Reference Site:	HARVESTERS STATE 7-15 PAD	MD Reference:	KB @ 4821.00ft
Site Error:	3.28 ft	North Reference:	True
Reference Well:	HARVESTERS STATE 31C-16-M	Survey Calculation Method:	Minimum Curvature
Well Error:	3.28 ft	Output errors are at	2.45 sigma
Reference Wellbore	OH	Database:	EDM 5000.14 Single User Db
Reference Design:	PLAN #1	Offset TVD Reference:	Reference Datum

Offset Design HARVESTERS STATE 7-15 PAD - HARVESTERS STATE 12N-16A-M - OH - PLAN #1												Offset Site Error:	0.00 ft
Survey Program: 0-MWD+IFR1												Offset Well Error:	3.28 ft
Reference		Offset		Semi Major Axis			Distance						Warning
Measured Depth (ft)	Vertical Depth (ft)	Measured Depth (ft)	Vertical Depth (ft)	Reference (ft)	Offset (ft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (ft)	+E/-W (ft)	Between Centres (ft)	Between Ellipses (ft)	Minimum Separation (ft)	Separation Factor	
10,400.00	7,242.86	10,308.59	6,940.54	99.96	100.14	-82.84	-1,989.93	-3,542.20	2,425.33	2,226.22	199.11	12.181	
10,500.00	7,242.50	10,408.59	6,940.16	102.67	102.83	-82.84	-1,990.53	-3,642.19	2,426.49	2,222.01	204.47	11.867	
10,600.00	7,242.13	10,508.60	6,939.78	105.39	105.53	-82.84	-1,991.13	-3,742.18	2,427.64	2,217.79	209.86	11.568	
10,700.00	7,241.76	10,591.39	6,939.40	108.12	107.77	-82.85	-1,991.72	-3,842.17	2,428.80	2,214.01	214.79	11.308	
10,800.00	7,241.40	10,708.61	6,939.02	110.85	110.95	-82.85	-1,992.32	-3,942.16	2,429.96	2,209.29	220.67	11.012	
10,900.00	7,241.03	10,808.62	6,938.64	113.59	113.68	-82.85	-1,992.92	-4,042.15	2,431.12	2,205.03	226.09	10.753	
11,000.00	7,240.67	10,908.63	6,938.26	116.34	116.41	-82.86	-1,993.52	-4,142.15	2,432.28	2,200.75	231.53	10.505	
11,100.00	7,240.30	11,008.63	6,937.89	119.09	119.14	-82.86	-1,994.12	-4,242.14	2,433.43	2,196.45	236.98	10.268	
11,200.00	7,239.93	11,108.64	6,937.51	121.85	121.88	-82.86	-1,994.72	-4,342.13	2,434.59	2,192.15	242.44	10.042	
11,300.00	7,239.57	11,191.35	6,937.13	124.61	124.15	-82.86	-1,995.32	-4,442.12	2,435.75	2,188.31	247.44	9.844	
11,400.00	7,239.20	11,308.65	6,936.75	127.38	127.38	-82.87	-1,995.91	-4,542.11	2,436.91	2,183.52	253.39	9.617	
11,500.00	7,238.84	11,408.66	6,936.37	130.15	130.14	-82.87	-1,996.51	-4,642.10	2,438.07	2,179.19	258.88	9.418	
11,600.00	7,238.47	11,508.67	6,935.99	132.92	132.90	-82.87	-1,997.11	-4,742.09	2,439.22	2,174.85	264.38	9.226	
11,700.00	7,238.10	11,608.68	6,935.61	135.70	135.66	-82.88	-1,997.71	-4,842.08	2,440.38	2,170.50	269.88	9.042	
11,800.00	7,237.74	11,708.68	6,935.23	138.48	138.43	-82.88	-1,998.31	-4,942.07	2,441.54	2,166.15	275.39	8.866	
11,900.00	7,237.37	11,808.69	6,934.85	141.26	141.20	-82.88	-1,998.91	-5,042.06	2,442.70	2,161.79	280.91	8.696	
12,000.00	7,237.00	11,908.70	6,934.47	144.05	143.98	-82.89	-1,999.51	-5,142.05	2,443.86	2,157.42	286.44	8.532	
12,100.00	7,236.64	12,008.70	6,934.09	146.84	146.76	-82.89	-2,000.11	-5,242.04	2,445.02	2,153.05	291.97	8.374	
12,200.00	7,236.27	12,108.71	6,933.71	149.64	149.54	-82.89	-2,000.70	-5,342.03	2,446.17	2,148.67	297.50	8.222	
12,300.00	7,235.91	12,208.72	6,933.33	152.43	152.32	-82.90	-2,001.30	-5,442.02	2,447.33	2,144.29	303.05	8.076	
12,400.00	7,235.54	12,308.72	6,932.95	155.23	155.11	-82.90	-2,001.90	-5,542.01	2,448.49	2,139.90	308.59	7.934	
12,500.00	7,235.17	12,408.73	6,932.58	158.03	157.90	-82.90	-2,002.50	-5,642.01	2,449.65	2,135.50	314.14	7.798	
12,600.00	7,234.81	12,508.74	6,932.20	160.83	160.69	-82.90	-2,003.10	-5,742.00	2,450.81	2,131.10	319.70	7.666	
12,700.00	7,234.44	12,608.74	6,931.82	163.64	163.49	-82.91	-2,003.70	-5,841.99	2,451.96	2,126.70	325.26	7.538	
12,800.00	7,234.07	12,708.75	6,931.44	166.44	166.28	-82.91	-2,004.30	-5,941.98	2,453.12	2,122.29	330.83	7.415	
12,900.00	7,233.71	12,808.76	6,931.06	169.25	169.08	-82.91	-2,004.89	-6,041.97	2,454.28	2,117.88	336.40	7.296	
13,000.00	7,233.34	12,908.76	6,930.68	172.06	171.88	-82.92	-2,005.49	-6,141.96	2,455.44	2,113.47	341.97	7.180	
13,100.00	7,232.98	13,008.77	6,930.30	174.88	174.69	-82.92	-2,006.09	-6,241.95	2,456.60	2,109.05	347.55	7.068	
13,200.00	7,232.61	13,108.78	6,929.92	177.69	177.49	-82.92	-2,006.69	-6,341.94	2,457.76	2,104.63	353.13	6.960	
13,300.00	7,232.24	13,208.78	6,929.54	180.50	180.30	-82.93	-2,007.29	-6,441.93	2,458.91	2,100.20	358.71	6.855	
13,400.00	7,231.88	13,308.79	6,929.16	183.32	183.10	-82.93	-2,007.89	-6,541.92	2,460.07	2,095.77	364.30	6.753	
13,500.00	7,231.51	13,408.80	6,928.78	186.14	185.91	-82.93	-2,008.49	-6,641.91	2,461.23	2,091.34	369.89	6.654	
13,600.00	7,231.15	13,508.80	6,928.40	188.96	188.72	-82.93	-2,009.08	-6,741.90	2,462.39	2,086.91	375.48	6.558	
13,700.00	7,230.78	13,608.81	6,928.02	191.78	191.54	-82.94	-2,009.68	-6,841.89	2,463.55	2,082.47	381.07	6.465	
13,800.00	7,230.41	13,708.82	6,927.64	194.60	194.35	-82.94	-2,010.28	-6,941.88	2,464.71	2,078.03	386.67	6.374	
13,900.00	7,230.05	13,808.82	6,927.27	197.42	197.17	-82.94	-2,010.88	-7,041.88	2,465.86	2,073.59	392.27	6.286	
14,000.00	7,229.68	13,908.83	6,926.89	200.25	199.98	-82.95	-2,011.48	-7,141.87	2,467.02	2,069.15	397.88	6.200	
14,100.00	7,229.31	14,008.84	6,926.51	203.07	202.80	-82.95	-2,012.08	-7,241.86	2,468.18	2,064.70	403.48	6.117	
14,200.00	7,228.95	14,108.84	6,926.13	205.90	205.62	-82.95	-2,012.68	-7,341.85	2,469.34	2,060.25	409.09	6.036	
14,300.00	7,228.58	14,208.85	6,925.75	208.73	208.44	-82.96	-2,013.27	-7,441.84	2,470.50	2,055.80	414.70	5.957	
14,400.00	7,228.22	14,308.86	6,925.37	211.55	211.26	-82.96	-2,013.87	-7,541.83	2,471.65	2,051.35	420.31	5.881	
14,500.00	7,227.85	14,408.87	6,924.99	214.38	214.08	-82.96	-2,014.47	-7,641.82	2,472.81	2,046.89	425.92	5.806	
14,600.00	7,227.48	14,491.13	6,924.61	217.21	216.40	-82.97	-2,015.07	-7,741.81	2,473.97	2,042.93	431.04	5.740	
14,700.00	7,227.12	14,608.88	6,924.23	220.04	219.73	-82.97	-2,015.67	-7,841.80	2,475.13	2,037.98	437.15	5.662	
14,800.00	7,226.75	14,691.11	6,923.85	222.88	222.05	-82.97	-2,016.27	-7,941.79	2,476.29	2,034.01	442.27	5.599	
14,900.00	7,226.38	14,808.89	6,923.47	225.71	225.38	-82.97	-2,016.87	-8,041.78	2,477.45	2,029.05	448.39	5.525	
15,000.00	7,226.02	14,891.10	6,923.09	228.54	227.70	-82.98	-2,017.46	-8,141.77	2,478.60	2,025.09	453.52	5.465	
15,005.81	7,226.00	14,896.91	6,923.07	228.71	227.87	-82.98	-2,017.50	-8,147.58	2,478.67	2,024.83	453.84	5.462 SF	



Anticollision Report



Company:	SRC ENERGY	Local Co-ordinate Reference:	Well HARVESTERS STATE 31C-16-M
Project:	SECTION 15, T6N, R66W	TVD Reference:	KB @ 4821.00ft
Reference Site:	HARVESTERS STATE 7-15 PAD	MD Reference:	KB @ 4821.00ft
Site Error:	3.28 ft	North Reference:	True
Reference Well:	HARVESTERS STATE 31C-16-M	Survey Calculation Method:	Minimum Curvature
Well Error:	3.28 ft	Output errors are at	2.45 sigma
Reference Wellbore	OH	Database:	EDM 5000.14 Single User Db
Reference Design:	PLAN #1	Offset TVD Reference:	Reference Datum

Offset Design HARVESTERS STATE 7-15 PAD - HARVESTERS STATE 12N-16B-M - OH - PLAN #1													Offset Site Error:	0.00 ft
Survey Program: 0-MWD+IFR1													Offset Well Error:	3.28 ft
Reference		Offset		Semi Major Axis			Distance							Warning
Measured Depth (ft)	Vertical Depth (ft)	Measured Depth (ft)	Vertical Depth (ft)	Reference (ft)	Offset (ft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (ft)	+E/-W (ft)	Between Centres (ft)	Between Ellipses (ft)	Minimum Separation (ft)	Separation Factor		
0.00	0.00	1.00	0.00	3.28	3.28	-179.51	-260.12	-2.23	260.13					
100.00	100.00	101.00	100.00	3.28	3.28	-179.51	-260.12	-2.23	260.13	253.56	6.57	39.596		
200.00	200.00	199.00	200.00	3.34	3.34	-179.51	-260.12	-2.23	260.13	253.45	6.67	38.981	CC, ES	
300.00	300.00	290.76	291.75	3.44	3.43	-179.48	-261.55	-2.38	261.69	254.81	6.88	38.022		
400.00	400.00	382.26	383.14	3.60	3.56	-179.39	-265.88	-2.84	266.43	259.23	7.20	37.023		
500.00	500.00	473.39	473.97	3.81	3.74	-179.24	-273.08	-3.61	274.34	266.74	7.60	36.096		
600.00	600.00	563.96	563.98	4.05	3.94	-179.05	-283.08	-4.67	285.40	277.32	8.08	35.330		
700.00	699.98	653.57	652.68	4.32	4.18	-155.93	-295.75	-6.02	301.14	292.53	8.61	34.956		
800.00	799.84	741.59	739.37	4.62	4.45	-155.87	-310.87	-7.64	323.03	313.83	9.20	35.109		
900.00	899.62	828.05	824.03	4.94	4.74	-156.00	-328.30	-9.50	349.06	339.26	9.79	35.637		
1,000.00	999.41	921.37	914.98	5.27	5.08	-156.10	-349.08	-11.71	377.16	366.75	10.41	36.225		
1,100.00	1,099.19	1,017.32	1,008.47	5.62	5.45	-156.18	-370.53	-14.00	405.36	394.29	11.07	36.626		
1,200.00	1,198.98	1,113.26	1,101.95	5.99	5.85	-156.25	-391.98	-16.29	433.56	421.80	11.75	36.888		
1,300.00	1,298.76	1,209.20	1,195.44	6.36	6.26	-156.31	-413.43	-18.57	461.76	449.29	12.46	37.045		
1,400.00	1,398.55	1,305.14	1,288.92	6.74	6.68	-156.37	-434.87	-20.86	489.95	476.76	13.20	37.125		
1,500.00	1,498.33	1,401.08	1,382.41	7.13	7.11	-156.42	-456.32	-23.15	518.15	504.20	13.95	37.147		
1,600.00	1,598.12	1,502.98	1,475.89	7.52	7.58	-156.46	-477.77	-25.44	546.35	531.61	14.74	37.067		
1,700.00	1,697.90	1,607.04	1,569.38	7.92	8.06	-156.50	-499.22	-27.72	574.55	559.00	15.55	36.939		
1,800.00	1,797.69	1,688.90	1,662.86	8.33	8.45	-156.54	-520.66	-30.01	602.75	586.47	16.28	37.014		
1,900.00	1,897.47	1,784.84	1,756.35	8.74	8.91	-156.57	-542.11	-32.30	630.95	613.87	17.08	36.931		
2,000.00	1,997.26	1,880.78	1,849.83	9.15	9.37	-156.60	-563.56	-34.58	659.15	641.26	17.89	36.839		
2,100.00	2,097.04	1,976.72	1,943.32	9.56	9.83	-156.63	-585.00	-36.87	687.35	668.64	18.71	36.741		
2,200.00	2,196.83	2,072.66	2,036.80	9.98	10.30	-156.65	-606.45	-39.16	715.55	696.02	19.53	36.638		
2,300.00	2,296.61	2,168.61	2,130.29	10.40	10.77	-156.68	-627.90	-41.45	743.75	723.40	20.36	36.535		
2,400.00	2,396.40	2,264.55	2,223.77	10.82	11.25	-156.70	-649.35	-43.73	771.96	750.77	21.19	36.431		
2,500.00	2,496.18	2,360.49	2,317.26	11.24	11.72	-156.72	-670.79	-46.02	800.16	778.13	22.03	36.327		
2,600.00	2,595.96	2,456.43	2,410.74	11.66	12.20	-156.74	-692.24	-48.31	828.36	805.49	22.87	36.225		
2,700.00	2,695.75	2,552.37	2,504.23	12.09	12.68	-156.76	-713.69	-50.59	856.56	832.85	23.71	36.125		
2,800.00	2,795.53	2,648.31	2,597.71	12.51	13.16	-156.77	-735.14	-52.88	884.76	860.20	24.56	36.028		
2,900.00	2,895.32	2,744.25	2,691.20	12.94	13.64	-156.79	-756.58	-55.17	912.96	887.55	25.41	35.933		
3,000.00	2,995.10	2,840.19	2,784.68	13.37	14.13	-156.80	-778.03	-57.46	941.16	914.90	26.26	35.840		
3,100.00	3,094.89	2,936.13	2,878.17	13.80	14.61	-156.82	-799.48	-59.74	969.36	942.25	27.11	35.751		
3,200.00	3,194.67	3,032.07	2,971.65	14.23	15.10	-156.83	-820.93	-62.03	997.56	969.59	27.97	35.664		
3,300.00	3,294.46	3,128.01	3,065.14	14.66	15.58	-156.84	-842.37	-64.32	1,025.77	996.94	28.83	35.580		
3,400.00	3,394.24	3,223.95	3,158.62	15.09	16.07	-156.85	-863.82	-66.60	1,053.97	1,024.28	29.69	35.499		
3,500.00	3,494.03	3,319.89	3,252.11	15.52	16.56	-156.86	-885.27	-68.89	1,082.17	1,051.62	30.55	35.421		
3,600.00	3,593.81	3,415.84	3,345.59	15.96	17.05	-156.88	-906.71	-71.18	1,110.37	1,078.95	31.42	35.345		
3,700.00	3,693.60	3,511.78	3,439.08	16.39	17.54	-156.89	-928.16	-73.47	1,138.57	1,106.29	32.28	35.272		
3,800.00	3,793.38	3,607.72	3,532.56	16.82	18.03	-156.89	-949.61	-75.75	1,166.77	1,133.63	33.15	35.201		
3,900.00	3,893.17	3,703.66	3,626.05	17.26	18.52	-156.90	-971.06	-78.04	1,194.98	1,160.96	34.01	35.133		
4,000.00	3,992.95	3,800.40	3,719.53	17.69	19.01	-156.91	-992.50	-80.33	1,223.18	1,188.29	34.88	35.063		
4,100.00	4,092.74	3,895.54	3,813.02	18.13	19.50	-156.92	-1,013.95	-82.61	1,251.38	1,215.63	35.75	35.003		
4,200.00	4,192.52	4,008.52	3,906.50	18.56	20.08	-156.93	-1,035.40	-84.90	1,279.58	1,242.88	36.70	34.865		
4,300.00	4,292.31	4,087.42	3,999.99	19.00	20.48	-156.94	-1,056.85	-87.19	1,307.78	1,270.29	37.49	34.882		
4,400.00	4,392.09	4,183.36	4,093.47	19.43	20.97	-156.94	-1,078.29	-89.48	1,335.98	1,297.62	38.36	34.825		
4,500.00	4,491.88	4,279.30	4,186.96	19.87	21.47	-156.95	-1,099.74	-91.76	1,364.19	1,324.95	39.24	34.769		
4,600.00	4,591.66	4,375.24	4,280.44	20.31	21.96	-156.96	-1,121.19	-94.05	1,392.39	1,352.28	40.11	34.715		
4,700.00	4,691.44	4,471.18	4,373.92	20.74	22.45	-156.96	-1,142.64	-96.34	1,420.59	1,379.61	40.98	34.663		
4,800.00	4,791.23	4,567.13	4,467.41	21.18	22.94	-156.97	-1,164.08	-98.62	1,448.79	1,406.93	41.86	34.613		
4,900.00	4,891.01	4,663.07	4,560.89	21.62	23.44	-156.97	-1,185.53	-100.91	1,476.99	1,434.26	42.73	34.564		
5,000.00	4,990.80	4,759.01	4,654.38	22.06	23.93	-156.98	-1,206.98	-103.20	1,505.19	1,461.59	43.61	34.517		
5,100.00	5,090.58	4,854.95	4,747.86	22.50	24.43	-156.99	-1,228.42	-105.49	1,533.40	1,488.91	44.48	34.471		

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



Anticollision Report



Company:	SRC ENERGY	Local Co-ordinate Reference:	Well HARVESTERS STATE 31C-16-M
Project:	SECTION 15, T6N, R66W	TVD Reference:	KB @ 4821.00ft
Reference Site:	HARVESTERS STATE 7-15 PAD	MD Reference:	KB @ 4821.00ft
Site Error:	3.28 ft	North Reference:	True
Reference Well:	HARVESTERS STATE 31C-16-M	Survey Calculation Method:	Minimum Curvature
Well Error:	3.28 ft	Output errors are at	2.45 sigma
Reference Wellbore	OH	Database:	EDM 5000.14 Single User Db
Reference Design:	PLAN #1	Offset TVD Reference:	Reference Datum

Offset Design HARVESTERS STATE 7-15 PAD - HARVESTERS STATE 12N-16B-M - OH - PLAN #1													Offset Site Error:	0.00 ft
Survey Program: 0-MWD+IFR1													Offset Well Error:	3.28 ft
Reference		Offset		Semi Major Axis			Distance							Warning
Measured Depth (ft)	Vertical Depth (ft)	Measured Depth (ft)	Vertical Depth (ft)	Reference (ft)	Offset (ft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (ft)	+E/-W (ft)	Between Centres (ft)	Between Ellipses (ft)	Minimum Separation (ft)	Separation Factor		
5,200.00	5,190.37	4,950.89	4,841.35	22.93	24.92	-156.99	-1,249.87	-107.77	1,561.60	1,516.24	45.36	34.426		
5,300.00	5,290.15	5,046.83	4,934.83	23.37	25.41	-157.00	-1,271.32	-110.06	1,589.80	1,543.56	46.24	34.383		
5,400.00	5,389.94	5,142.77	5,028.32	23.81	25.91	-157.00	-1,292.77	-112.35	1,618.00	1,570.89	47.12	34.341		
5,500.00	5,489.72	5,238.71	5,121.80	24.25	26.40	-157.01	-1,314.21	-114.63	1,646.20	1,598.21	47.99	34.301		
5,600.00	5,589.51	5,334.65	5,215.29	24.69	26.90	-157.01	-1,335.66	-116.92	1,674.41	1,625.53	48.87	34.261		
5,700.00	5,689.29	5,430.59	5,308.77	25.13	27.39	-157.01	-1,357.11	-119.21	1,702.61	1,652.86	49.75	34.223		
5,800.00	5,789.08	5,526.53	5,402.26	25.56	27.89	-157.02	-1,378.56	-121.50	1,730.81	1,680.18	50.63	34.185		
5,900.00	5,888.86	5,622.47	5,495.74	26.00	28.38	-157.02	-1,400.00	-123.78	1,759.01	1,707.50	51.51	34.149		
6,000.00	5,988.65	5,718.41	5,589.23	26.44	28.88	-157.03	-1,421.45	-126.07	1,787.21	1,734.82	52.39	34.114		
6,100.00	6,088.43	5,814.36	5,682.71	26.88	29.38	-157.03	-1,442.90	-128.36	1,815.42	1,762.14	53.27	34.079		
6,200.00	6,188.22	5,910.30	5,776.20	27.32	29.87	-157.03	-1,464.35	-130.64	1,843.62	1,789.47	54.15	34.046		
6,300.00	6,288.00	6,006.24	5,869.68	27.76	30.37	-157.04	-1,485.79	-132.93	1,871.82	1,816.79	55.03	34.013		
6,400.00	6,387.79	6,102.18	5,963.17	28.20	30.86	-157.04	-1,507.24	-135.22	1,900.02	1,844.11	55.91	33.982		
6,500.00	6,487.57	6,198.12	6,056.65	28.64	31.36	-157.05	-1,528.69	-137.51	1,928.22	1,871.43	56.79	33.951		
6,600.00	6,587.35	6,305.94	6,150.14	29.08	31.92	-157.05	-1,550.13	-139.79	1,956.42	1,898.69	57.73	33.887		
6,700.00	6,687.02	6,389.94	6,243.56	29.52	32.35	-117.81	-1,571.57	-142.08	1,984.62	1,926.06	58.56	33.891		
6,800.00	6,784.98	6,484.48	6,335.69	29.96	32.84	-99.66	-1,592.70	-144.33	2,012.57	1,953.13	59.44	33.859		
6,900.00	6,878.81	6,575.41	6,424.28	30.41	33.31	-93.41	-1,613.03	-146.50	2,039.98	1,979.67	60.31	33.826		
7,000.00	6,966.21	6,668.55	6,514.91	30.86	33.79	-90.06	-1,633.84	-151.12	2,066.72	2,005.48	61.23	33.751		
7,100.00	7,045.03	6,773.62	6,615.28	31.35	34.31	-87.92	-1,656.98	-171.26	2,092.19	2,029.88	62.31	33.577		
7,200.00	7,113.32	6,890.34	6,712.25	31.90	34.85	-86.50	-1,681.55	-213.13	2,115.67	2,052.14	63.53	33.302		
7,300.00	7,169.40	7,021.93	6,829.46	32.57	35.37	-85.63	-1,706.81	-283.17	2,136.36	2,071.44	64.92	32.906		
7,400.00	7,211.89	7,171.31	6,932.27	33.38	35.89	-85.19	-1,731.07	-388.30	2,153.36	2,086.79	66.57	32.346		
7,500.00	7,239.75	7,339.47	7,015.86	34.35	36.43	-85.06	-1,751.17	-532.26	2,165.66	2,097.00	68.66	31.543		
7,600.00	7,252.28	7,522.94	7,061.79	35.47	37.27	-85.06	-1,762.85	-708.85	2,172.28	2,100.86	71.42	30.417		
7,700.00	7,252.75	7,658.68	7,065.87	36.73	38.39	-85.07	-1,764.67	-844.41	2,173.88	2,099.65	74.23	29.285		
7,800.00	7,252.38	7,758.68	7,065.64	38.16	39.53	-85.07	-1,765.27	-944.41	2,175.03	2,098.03	77.01	28.245		
7,900.00	7,252.02	7,858.67	7,065.40	39.74	40.91	-85.08	-1,765.86	-1,044.40	2,176.18	2,096.09	80.09	27.172		
8,000.00	7,251.65	7,958.66	7,065.17	41.47	42.46	-85.08	-1,766.46	-1,144.39	2,177.33	2,093.88	83.45	26.091		
8,100.00	7,251.29	8,058.66	7,064.94	43.31	44.17	-85.09	-1,767.06	-1,244.38	2,178.48	2,091.43	87.06	25.024		
8,200.00	7,250.92	8,158.65	7,064.71	45.26	46.00	-85.10	-1,767.66	-1,344.37	2,179.63	2,088.76	90.88	23.985		
8,300.00	7,250.55	8,258.64	7,064.48	47.30	47.94	-85.10	-1,768.26	-1,444.36	2,180.78	2,085.90	94.88	22.984		
8,400.00	7,250.19	8,358.64	7,064.25	49.42	49.97	-85.11	-1,768.86	-1,544.35	2,181.93	2,082.87	99.06	22.027		
8,500.00	7,249.82	8,458.63	7,064.02	51.62	52.08	-85.11	-1,769.46	-1,644.34	2,183.08	2,079.70	103.38	21.117		
8,600.00	7,249.45	8,558.62	7,063.79	53.88	54.27	-85.12	-1,770.06	-1,744.33	2,184.23	2,076.40	107.83	20.257		
8,700.00	7,249.09	8,658.62	7,063.56	56.19	56.51	-85.13	-1,770.65	-1,844.33	2,185.38	2,072.99	112.39	19.444		
8,800.00	7,248.72	8,758.61	7,063.33	58.55	58.82	-85.13	-1,771.25	-1,944.32	2,186.53	2,069.48	117.05	18.680		
8,900.00	7,248.36	8,858.60	7,063.10	60.96	61.16	-85.14	-1,771.85	-2,044.31	2,187.68	2,065.88	121.80	17.961		
9,000.00	7,247.99	8,958.59	7,062.87	63.40	63.56	-85.15	-1,772.45	-2,144.30	2,188.83	2,062.20	126.63	17.285		
9,100.00	7,247.62	9,058.59	7,062.64	65.87	65.98	-85.15	-1,773.05	-2,244.29	2,189.98	2,058.45	131.53	16.650		
9,200.00	7,247.26	9,158.58	7,062.41	68.38	68.45	-85.16	-1,773.65	-2,344.28	2,191.13	2,054.64	136.50	16.053		
9,300.00	7,246.89	9,258.57	7,062.18	70.91	70.94	-85.16	-1,774.25	-2,444.27	2,192.28	2,050.77	141.51	15.492		
9,400.00	7,246.53	9,358.57	7,061.95	73.47	73.46	-85.17	-1,774.85	-2,544.26	2,193.43	2,046.85	146.58	14.964		
9,500.00	7,246.16	9,458.56	7,061.72	76.05	76.00	-85.18	-1,775.45	-2,644.25	2,194.58	2,042.89	151.69	14.467		
9,600.00	7,245.79	9,558.55	7,061.49	78.65	78.57	-85.18	-1,776.04	-2,744.24	2,195.73	2,038.88	156.85	13.999		
9,700.00	7,245.43	9,658.55	7,061.26	81.27	81.15	-85.19	-1,776.64	-2,844.24	2,196.88	2,034.84	162.04	13.558		
9,800.00	7,245.06	9,758.54	7,061.03	83.90	83.76	-85.19	-1,777.24	-2,944.23	2,198.03	2,030.77	167.26	13.141		
9,900.00	7,244.69	9,858.53	7,060.80	86.55	86.38	-85.20	-1,777.84	-3,044.22	2,199.18	2,026.67	172.52	12.748		
10,000.00	7,244.33	9,958.53	7,060.57	89.21	89.01	-85.21	-1,778.44	-3,144.21	2,200.33	2,022.53	177.80	12.375		
10,100.00	7,243.96	10,058.52	7,060.34	91.88	91.66	-85.21	-1,779.04	-3,244.20	2,201.48	2,018.38	183.11	12.023		
10,200.00	7,243.60	10,158.51	7,060.11	94.56	94.32	-85.22	-1,779.64	-3,344.19	2,202.63	2,014.20	188.44	11.689		
10,300.00	7,243.23	10,258.51	7,059.88	97.26	96.99	-85.22	-1,780.24	-3,444.18	2,203.78	2,009.99	193.79	11.372		

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



Anticollision Report



Company:	SRC ENERGY	Local Co-ordinate Reference:	Well HARVESTERS STATE 31C-16-M
Project:	SECTION 15, T6N, R66W	TVD Reference:	KB @ 4821.00ft
Reference Site:	HARVESTERS STATE 7-15 PAD	MD Reference:	KB @ 4821.00ft
Site Error:	3.28 ft	North Reference:	True
Reference Well:	HARVESTERS STATE 31C-16-M	Survey Calculation Method:	Minimum Curvature
Well Error:	3.28 ft	Output errors are at	2.45 sigma
Reference Wellbore	OH	Database:	EDM 5000.14 Single User Db
Reference Design:	PLAN #1	Offset TVD Reference:	Reference Datum

Offset Design HARVESTERS STATE 7-15 PAD - HARVESTERS STATE 12N-16B-M - OH - PLAN #1												Offset Site Error:	0.00 ft
Survey Program: 0-MWD+IFR1												Offset Well Error:	3.28 ft
Reference		Offset		Semi Major Axis			Distance						Warning
Measured Depth (ft)	Vertical Depth (ft)	Measured Depth (ft)	Vertical Depth (ft)	Reference (ft)	Offset (ft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (ft)	+E/-W (ft)	Between Centres (ft)	Between Ellipses (ft)	Minimum Separation (ft)	Separation Factor	
10,400.00	7,242.86	10,358.50	7,059.65	99.96	99.67	-85.23	-1,780.83	-3,544.17	2,204.93	2,005.77	199.16	11.071	
10,500.00	7,242.50	10,458.49	7,059.42	102.67	102.36	-85.24	-1,781.43	-3,644.16	2,206.08	2,001.53	204.55	10.785	
10,600.00	7,242.13	10,558.48	7,059.18	105.39	105.06	-85.24	-1,782.03	-3,744.16	2,207.23	1,997.28	209.96	10.513	
10,700.00	7,241.76	10,658.48	7,058.95	108.12	107.77	-85.25	-1,782.63	-3,844.15	2,208.39	1,993.01	215.38	10.254	
10,800.00	7,241.40	10,758.47	7,058.72	110.85	110.49	-85.25	-1,783.23	-3,944.14	2,209.54	1,988.72	220.81	10.006	
10,900.00	7,241.03	10,858.46	7,058.49	113.59	113.21	-85.26	-1,783.83	-4,044.13	2,210.69	1,984.42	226.26	9.770	
11,000.00	7,240.67	10,958.46	7,058.26	116.34	115.94	-85.27	-1,784.43	-4,144.12	2,211.84	1,980.11	231.72	9.545	
11,100.00	7,240.30	11,058.45	7,058.03	119.09	118.68	-85.27	-1,785.03	-4,244.11	2,212.99	1,975.79	237.20	9.330	
11,200.00	7,239.93	11,158.44	7,057.80	121.85	121.42	-85.28	-1,785.62	-4,344.10	2,214.14	1,971.46	242.68	9.124	
11,300.00	7,239.57	11,258.44	7,057.57	124.61	124.17	-85.28	-1,786.22	-4,444.09	2,215.29	1,967.11	248.18	8.926	
11,400.00	7,239.20	11,358.43	7,057.34	127.38	126.92	-85.29	-1,786.82	-4,544.08	2,216.44	1,962.76	253.68	8.737	
11,500.00	7,238.84	11,458.42	7,057.11	130.15	129.68	-85.30	-1,787.42	-4,644.07	2,217.59	1,958.40	259.19	8.556	
11,600.00	7,238.47	11,558.42	7,056.88	132.92	132.44	-85.30	-1,788.02	-4,744.07	2,218.74	1,954.03	264.71	8.382	
11,700.00	7,238.10	11,658.41	7,056.65	135.70	135.20	-85.31	-1,788.62	-4,844.06	2,219.89	1,949.65	270.24	8.215	
11,800.00	7,237.74	11,758.40	7,056.42	138.48	137.97	-85.31	-1,789.22	-4,944.05	2,221.04	1,945.27	275.77	8.054	
11,900.00	7,237.37	11,858.39	7,056.19	141.26	140.74	-85.32	-1,789.82	-5,044.04	2,222.19	1,940.88	281.31	7.899	
12,000.00	7,237.00	11,958.39	7,055.96	144.05	143.52	-85.33	-1,790.41	-5,144.03	2,223.34	1,936.48	286.86	7.751	
12,100.00	7,236.64	12,058.38	7,055.73	146.84	146.30	-85.33	-1,791.01	-5,244.02	2,224.49	1,932.08	292.42	7.607	
12,200.00	7,236.27	12,158.37	7,055.50	149.64	149.08	-85.34	-1,791.61	-5,344.01	2,225.64	1,927.67	297.98	7.469	
12,300.00	7,235.91	12,258.37	7,055.27	152.43	151.86	-85.34	-1,792.21	-5,444.00	2,226.80	1,923.25	303.54	7.336	
12,400.00	7,235.54	12,358.36	7,055.04	155.23	154.65	-85.35	-1,792.81	-5,543.99	2,227.95	1,918.83	309.11	7.208	
12,500.00	7,235.17	12,458.35	7,054.81	158.03	157.44	-85.36	-1,793.41	-5,643.99	2,229.10	1,914.41	314.69	7.083	
12,600.00	7,234.81	12,558.35	7,054.58	160.83	160.23	-85.36	-1,794.01	-5,743.98	2,230.25	1,909.98	320.27	6.964	
12,700.00	7,234.44	12,658.34	7,054.35	163.64	163.03	-85.37	-1,794.61	-5,843.97	2,231.40	1,905.54	325.85	6.848	
12,800.00	7,234.07	12,758.33	7,054.12	166.44	165.83	-85.37	-1,795.21	-5,943.96	2,232.55	1,901.11	331.44	6.736	
12,900.00	7,233.71	12,858.33	7,053.89	169.25	168.62	-85.38	-1,795.80	-6,043.95	2,233.70	1,896.66	337.04	6.627	
13,000.00	7,233.34	12,958.32	7,053.66	172.06	171.43	-85.39	-1,796.40	-6,143.94	2,234.85	1,892.22	342.63	6.523	
13,100.00	7,232.98	13,058.31	7,053.43	174.88	174.23	-85.39	-1,797.00	-6,243.93	2,236.00	1,887.77	348.23	6.421	
13,200.00	7,232.61	13,158.31	7,053.20	177.69	177.03	-85.40	-1,797.60	-6,343.92	2,237.15	1,883.32	353.84	6.323	
13,300.00	7,232.24	13,258.30	7,052.96	180.50	179.84	-85.40	-1,798.20	-6,443.91	2,238.30	1,878.86	359.44	6.227	
13,400.00	7,231.88	13,358.29	7,052.73	183.32	182.65	-85.41	-1,798.80	-6,543.90	2,239.46	1,874.40	365.05	6.135	
13,500.00	7,231.51	13,458.28	7,052.50	186.14	185.46	-85.41	-1,799.40	-6,643.90	2,240.61	1,869.94	370.67	6.045	
13,600.00	7,231.15	13,558.28	7,052.27	188.96	188.27	-85.42	-1,800.00	-6,743.89	2,241.76	1,865.47	376.28	5.958	
13,700.00	7,230.78	13,658.27	7,052.04	191.78	191.08	-85.43	-1,800.59	-6,843.88	2,242.91	1,861.01	381.90	5.873	
13,800.00	7,230.41	13,758.26	7,051.81	194.60	193.89	-85.43	-1,801.19	-6,943.87	2,244.06	1,856.54	387.52	5.791	
13,900.00	7,230.05	13,858.26	7,051.58	197.42	196.71	-85.44	-1,801.79	-7,043.86	2,245.21	1,852.06	393.15	5.711	
14,000.00	7,229.68	13,958.25	7,051.35	200.25	199.53	-85.44	-1,802.39	-7,143.85	2,246.36	1,847.59	398.77	5.633	
14,100.00	7,229.31	14,058.24	7,051.12	203.07	202.34	-85.45	-1,802.99	-7,243.84	2,247.51	1,843.11	404.40	5.558	
14,200.00	7,228.95	14,158.24	7,050.89	205.90	205.16	-85.46	-1,803.59	-7,343.83	2,248.67	1,838.63	410.03	5.484	
14,300.00	7,228.58	14,258.23	7,050.66	208.73	207.98	-85.46	-1,804.19	-7,443.82	2,249.82	1,834.15	415.67	5.413	
14,400.00	7,228.22	14,358.22	7,050.43	211.55	210.80	-85.47	-1,804.79	-7,543.82	2,250.97	1,829.67	421.30	5.343	
14,500.00	7,227.85	14,458.22	7,050.20	214.38	213.62	-85.47	-1,805.38	-7,643.81	2,252.12	1,825.18	426.94	5.275	
14,600.00	7,227.48	14,558.21	7,049.97	217.21	216.45	-85.48	-1,805.98	-7,743.80	2,253.27	1,820.69	432.58	5.209	
14,700.00	7,227.12	14,658.20	7,049.74	220.04	219.27	-85.48	-1,806.58	-7,843.79	2,254.42	1,816.20	438.22	5.145	
14,800.00	7,226.75	14,758.20	7,049.51	222.88	222.09	-85.49	-1,807.18	-7,943.78	2,255.57	1,811.71	443.86	5.082	
14,900.00	7,226.38	14,858.19	7,049.28	225.71	224.92	-85.50	-1,807.78	-8,043.77	2,256.72	1,807.22	449.50	5.020	
15,000.00	7,226.02	14,958.18	7,049.05	228.54	227.75	-85.50	-1,808.38	-8,143.76	2,257.88	1,802.73	455.15	4.961	
15,005.81	7,226.00	14,963.99	7,049.04	228.71	227.91	-85.50	-1,808.41	-8,149.57	2,257.94	1,802.47	455.48	4.957 SF	



Anticollision Report



Company:	SRC ENERGY	Local Co-ordinate Reference:	Well HARVESTERS STATE 31C-16-M
Project:	SECTION 15, T6N, R66W	TVD Reference:	KB @ 4821.00ft
Reference Site:	HARVESTERS STATE 7-15 PAD	MD Reference:	KB @ 4821.00ft
Site Error:	3.28 ft	North Reference:	True
Reference Well:	HARVESTERS STATE 31C-16-M	Survey Calculation Method:	Minimum Curvature
Well Error:	3.28 ft	Output errors are at	2.45 sigma
Reference Wellbore	OH	Database:	EDM 5000.14 Single User Db
Reference Design:	PLAN #1	Offset TVD Reference:	Reference Datum

Offset Design HARVESTERS STATE 7-15 PAD - HARVESTERS STATE 12N-16C-M - OH - PLAN #1													Offset Site Error:	0.00 ft
Survey Program: 0-MWD+IFR1													Offset Well Error:	3.28 ft
Reference		Offset		Semi Major Axis			Distance							Warning
Measured Depth (ft)	Vertical Depth (ft)	Measured Depth (ft)	Vertical Depth (ft)	Reference (ft)	Offset (ft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (ft)	+E/-W (ft)	Between Centres (ft)	Between Ellipses (ft)	Minimum Separation (ft)	Separation Factor		
0.00	0.00	1.00	0.00	3.28	3.28	-179.54	-240.07	-1.95	240.08					
100.00	100.00	101.00	100.00	3.28	3.28	-179.54	-240.07	-1.95	240.08	233.51	6.57	36.543		
200.00	200.00	199.00	200.00	3.34	3.34	-179.54	-240.07	-1.95	240.08	233.40	6.67	35.976	CC, ES	
300.00	300.00	291.37	292.35	3.44	3.43	-179.49	-241.51	-2.13	241.64	234.76	6.88	35.106		
400.00	400.00	383.46	384.34	3.60	3.56	-179.37	-245.89	-2.70	246.41	239.21	7.20	34.230		
500.00	500.00	475.18	475.76	3.81	3.74	-179.18	-253.17	-3.64	254.35	246.75	7.60	33.447		
600.00	600.00	566.34	566.35	4.05	3.95	-178.93	-263.27	-4.94	265.46	257.37	8.08	32.835		
700.00	699.98	656.53	656.60	4.32	4.19	-155.74	-276.07	-6.59	281.26	272.64	8.62	32.614		
800.00	799.84	746.95	744.65	4.62	4.46	-155.63	-291.63	-8.60	303.16	293.95	9.21	32.923		
900.00	899.62	844.01	840.07	4.94	4.79	-155.77	-309.26	-10.87	327.22	317.42	9.80	33.402		
1,000.00	999.41	941.07	935.49	5.27	5.14	-155.89	-326.88	-13.14	351.27	340.84	10.44	33.663		
1,100.00	1,099.19	1,038.13	1,030.91	5.62	5.51	-155.99	-344.51	-15.42	375.33	364.23	11.10	33.799		
1,200.00	1,198.98	1,135.20	1,126.33	5.99	5.89	-156.08	-362.13	-17.69	399.39	387.59	11.80	33.839		
1,300.00	1,298.76	1,232.26	1,221.75	6.36	6.29	-156.15	-379.76	-19.97	423.45	410.93	12.52	33.811		
1,400.00	1,398.55	1,329.32	1,317.17	6.74	6.70	-156.23	-397.38	-22.24	447.52	434.25	13.27	33.735		
1,500.00	1,498.33	1,426.38	1,412.59	7.13	7.12	-156.29	-415.01	-24.51	471.58	457.55	14.02	33.628		
1,600.00	1,598.12	1,523.44	1,508.01	7.52	7.55	-156.35	-432.63	-26.79	495.64	480.84	14.80	33.499		
1,700.00	1,697.90	1,620.50	1,603.43	7.92	7.98	-156.40	-450.26	-29.06	519.70	504.12	15.58	33.358		
1,800.00	1,797.69	1,717.56	1,698.85	8.33	8.42	-156.44	-467.88	-31.33	543.77	527.39	16.37	33.210		
1,900.00	1,897.47	1,814.62	1,794.27	8.74	8.86	-156.49	-485.51	-33.61	567.83	550.65	17.18	33.058		
2,000.00	1,997.26	1,911.68	1,889.69	9.15	9.31	-156.53	-503.13	-35.88	591.89	573.90	17.99	32.905		
2,100.00	2,097.04	2,008.74	1,985.11	9.56	9.76	-156.56	-520.76	-38.15	615.96	597.15	18.81	32.755		
2,200.00	2,196.83	2,105.80	2,080.53	9.98	10.21	-156.60	-538.38	-40.43	640.02	620.39	19.63	32.607		
2,300.00	2,296.61	2,202.86	2,175.95	10.40	10.67	-156.63	-556.01	-42.70	664.08	643.63	20.46	32.463		
2,400.00	2,396.40	2,300.08	2,271.37	10.82	11.12	-156.66	-573.63	-44.97	688.15	666.86	21.29	32.322		
2,500.00	2,496.18	2,403.01	2,366.79	11.24	11.61	-156.69	-591.26	-47.25	712.21	690.06	22.15	32.149		
2,600.00	2,595.96	2,494.05	2,462.21	11.66	12.04	-156.71	-608.88	-49.52	736.28	713.31	22.97	32.058		
2,700.00	2,695.75	2,591.11	2,557.63	12.09	12.51	-156.74	-626.51	-51.79	760.34	736.53	23.81	31.932		
2,800.00	2,795.53	2,688.17	2,653.05	12.51	12.97	-156.76	-644.13	-54.07	784.41	759.75	24.66	31.812		
2,900.00	2,895.32	2,785.23	2,748.47	12.94	13.43	-156.78	-661.76	-56.34	808.47	782.97	25.51	31.696		
3,000.00	2,995.10	2,882.29	2,843.89	13.37	13.90	-156.80	-679.39	-58.61	832.54	806.18	26.36	31.586		
3,100.00	3,094.89	2,979.35	2,939.31	13.80	14.37	-156.82	-697.01	-60.89	856.60	829.39	27.21	31.479		
3,200.00	3,194.67	3,076.41	3,034.73	14.23	14.83	-156.84	-714.64	-63.16	880.67	852.60	28.07	31.377		
3,300.00	3,294.46	3,173.47	3,130.15	14.66	15.30	-156.85	-732.26	-65.43	904.74	875.81	28.92	31.279		
3,400.00	3,394.24	3,270.53	3,225.57	15.09	15.77	-156.87	-749.89	-67.71	928.80	899.02	29.78	31.185		
3,500.00	3,494.03	3,367.59	3,320.99	15.52	16.24	-156.88	-767.51	-69.98	952.87	922.22	30.64	31.095		
3,600.00	3,593.81	3,464.65	3,416.41	15.96	16.71	-156.90	-785.14	-72.26	976.93	945.43	31.51	31.008		
3,700.00	3,693.60	3,561.71	3,511.83	16.39	17.18	-156.91	-802.76	-74.53	1,001.00	968.63	32.37	30.925		
3,800.00	3,793.38	3,658.77	3,607.25	16.82	17.66	-156.92	-820.39	-76.80	1,025.06	991.83	33.23	30.845		
3,900.00	3,893.17	3,755.84	3,702.67	17.26	18.13	-156.94	-838.01	-79.08	1,049.13	1,015.03	34.10	30.768		
4,000.00	3,992.95	3,852.90	3,798.09	17.69	18.60	-156.95	-855.64	-81.35	1,073.20	1,038.23	34.96	30.694		
4,100.00	4,092.74	3,949.96	3,893.51	18.13	19.08	-156.96	-873.26	-83.62	1,097.26	1,061.43	35.83	30.623		
4,200.00	4,192.52	4,047.02	3,988.93	18.56	19.55	-156.97	-890.89	-85.90	1,121.33	1,084.63	36.70	30.555		
4,300.00	4,292.31	4,144.08	4,084.35	19.00	20.02	-156.98	-908.51	-88.17	1,145.39	1,107.83	37.57	30.489		
4,400.00	4,392.09	4,241.14	4,179.77	19.43	20.50	-156.99	-926.14	-90.44	1,169.46	1,131.02	38.44	30.425		
4,500.00	4,491.88	4,338.20	4,275.19	19.87	20.97	-157.00	-943.76	-92.72	1,193.53	1,154.22	39.31	30.364		
4,600.00	4,591.66	4,435.26	4,370.61	20.31	21.45	-157.01	-961.39	-94.99	1,217.59	1,177.41	40.18	30.305		
4,700.00	4,691.44	4,532.32	4,466.03	20.74	21.92	-157.02	-979.01	-97.26	1,241.66	1,200.61	41.05	30.247		
4,800.00	4,791.23	4,629.38	4,561.45	21.18	22.40	-157.03	-996.64	-99.54	1,265.72	1,223.80	41.92	30.192		
4,900.00	4,891.01	4,726.44	4,656.87	21.62	22.87	-157.04	-1,014.26	-101.81	1,289.79	1,247.00	42.79	30.139		
5,000.00	4,990.80	4,823.50	4,752.29	22.06	23.35	-157.04	-1,031.89	-104.08	1,313.86	1,270.19	43.67	30.088		
5,100.00	5,090.58	4,920.56	4,847.71	22.50	23.82	-157.05	-1,049.51	-106.36	1,337.92	1,293.38	44.54	30.038		

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



Anticollision Report



Company:	SRC ENERGY	Local Co-ordinate Reference:	Well HARVESTERS STATE 31C-16-M
Project:	SECTION 15, T6N, R66W	TVD Reference:	KB @ 4821.00ft
Reference Site:	HARVESTERS STATE 7-15 PAD	MD Reference:	KB @ 4821.00ft
Site Error:	3.28 ft	North Reference:	True
Reference Well:	HARVESTERS STATE 31C-16-M	Survey Calculation Method:	Minimum Curvature
Well Error:	3.28 ft	Output errors are at	2.45 sigma
Reference Wellbore	OH	Database:	EDM 5000.14 Single User Db
Reference Design:	PLAN #1	Offset TVD Reference:	Reference Datum

Offset Design HARVESTERS STATE 7-15 PAD - HARVESTERS STATE 12N-16C-M - OH - PLAN #1													Offset Site Error:	0.00 ft
Survey Program: 0-MWD+IFR1													Offset Well Error:	3.28 ft
Reference		Offset		Semi Major Axis			Distance							Warning
Measured Depth (ft)	Vertical Depth (ft)	Measured Depth (ft)	Vertical Depth (ft)	Reference (ft)	Offset (ft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (ft)	+E/-W (ft)	Between Centres (ft)	Between Ellipses (ft)	Minimum Separation (ft)	Separation Factor		
5,200.00	5,190.37	5,017.63	4,943.13	22.93	24.30	-157.06	-1,067.14	-108.63	1,361.99	1,316.57	45.42	29.990		
5,300.00	5,290.15	5,114.69	5,038.55	23.37	24.78	-157.06	-1,084.76	-110.90	1,386.06	1,339.77	46.29	29.943		
5,400.00	5,389.94	5,211.75	5,133.97	23.81	25.25	-157.07	-1,102.39	-113.18	1,410.12	1,362.96	47.16	29.898		
5,500.00	5,489.72	5,308.81	5,229.39	24.25	25.73	-157.08	-1,120.01	-115.45	1,434.19	1,386.15	48.04	29.854		
5,600.00	5,589.51	5,405.87	5,324.81	24.69	26.21	-157.08	-1,137.64	-117.72	1,458.25	1,409.34	48.92	29.811		
5,700.00	5,689.29	5,502.93	5,420.23	25.13	26.68	-157.09	-1,155.26	-120.00	1,482.32	1,432.53	49.79	29.770		
5,800.00	5,789.08	5,599.99	5,515.65	25.56	27.16	-157.10	-1,172.89	-122.27	1,506.39	1,455.72	50.67	29.730		
5,900.00	5,888.86	5,697.05	5,611.07	26.00	27.64	-157.10	-1,190.51	-124.55	1,530.45	1,478.91	51.55	29.691		
6,000.00	5,988.65	5,805.89	5,706.49	26.44	28.17	-157.11	-1,208.14	-126.82	1,554.52	1,502.04	52.48	29.623		
6,100.00	6,088.43	5,908.83	5,801.91	26.88	28.68	-157.11	-1,225.77	-129.09	1,578.59	1,525.20	53.38	29.572		
6,200.00	6,188.22	5,988.23	5,897.33	27.32	29.07	-157.12	-1,243.39	-131.37	1,602.65	1,548.47	54.18	29.582		
6,300.00	6,288.00	6,085.29	5,992.75	27.76	29.55	-157.12	-1,261.02	-133.64	1,626.72	1,571.66	55.06	29.547		
6,400.00	6,387.79	6,182.35	6,088.17	28.20	30.03	-157.13	-1,278.64	-135.91	1,650.79	1,594.85	55.93	29.513		
6,500.00	6,487.57	6,279.41	6,183.59	28.64	30.50	-157.13	-1,296.27	-138.19	1,674.85	1,618.04	56.81	29.480		
6,600.00	6,587.35	6,376.48	6,279.01	29.08	30.98	-157.14	-1,313.89	-140.46	1,698.92	1,641.23	57.69	29.449		
6,700.00	6,687.02	6,473.47	6,374.36	29.52	31.46	-118.13	-1,331.50	-142.73	1,722.98	1,664.41	58.57	29.417		
6,800.00	6,784.98	6,569.11	6,468.39	29.96	31.93	-100.45	-1,348.87	-144.97	1,746.90	1,687.45	59.45	29.385		
6,900.00	6,878.81	6,662.52	6,560.19	30.41	32.39	-94.70	-1,365.84	-147.83	1,770.50	1,710.17	60.33	29.348		
7,000.00	6,966.21	6,761.14	6,655.99	30.86	32.87	-91.65	-1,383.74	-162.24	1,793.54	1,732.26	61.28	29.268		
7,100.00	7,045.03	6,866.42	6,754.49	31.35	33.35	-89.67	-1,402.42	-194.01	1,815.45	1,753.14	62.31	29.134		
7,200.00	7,113.32	6,979.80	6,853.17	31.90	33.81	-88.34	-1,421.48	-246.15	1,835.65	1,772.20	63.46	28.928		
7,300.00	7,169.40	7,102.62	6,947.90	32.57	34.27	-87.45	-1,440.21	-321.73	1,853.49	1,788.74	64.76	28.622		
7,400.00	7,211.89	7,235.80	7,032.38	33.38	34.72	-86.91	-1,457.47	-422.91	1,868.30	1,801.98	66.32	28.169		
7,500.00	7,239.75	7,379.23	7,098.04	34.35	35.25	-86.64	-1,471.68	-549.30	1,879.39	1,811.09	68.30	27.516		
7,600.00	7,252.28	7,531.19	7,135.40	35.47	36.16	-86.56	-1,481.01	-695.92	1,886.17	1,815.36	70.81	26.637		
7,700.00	7,252.75	7,663.16	7,140.76	36.73	37.43	-86.60	-1,484.20	-827.60	1,888.89	1,815.32	73.57	25.674		
7,800.00	7,252.38	7,763.14	7,140.22	38.16	38.68	-86.59	-1,485.77	-927.57	1,891.04	1,814.69	76.35	24.769		
7,900.00	7,252.02	7,863.11	7,139.68	39.74	40.11	-86.59	-1,487.34	-1,027.53	1,893.18	1,813.75	79.43	23.835		
8,000.00	7,251.65	7,963.09	7,139.14	41.47	41.70	-86.59	-1,488.91	-1,127.49	1,895.32	1,812.53	82.79	22.893		
8,100.00	7,251.29	8,063.07	7,138.60	43.31	43.43	-86.59	-1,490.48	-1,227.46	1,897.47	1,811.07	86.40	21.962		
8,200.00	7,250.92	8,163.05	7,138.05	45.26	45.29	-86.59	-1,492.05	-1,327.42	1,899.61	1,809.39	90.22	21.054		
8,300.00	7,250.55	8,263.02	7,137.51	47.30	47.24	-86.59	-1,493.62	-1,427.38	1,901.75	1,807.51	94.24	20.180		
8,400.00	7,250.19	8,363.00	7,136.97	49.42	49.29	-86.59	-1,495.19	-1,527.35	1,903.90	1,805.47	98.42	19.344		
8,500.00	7,249.82	8,462.98	7,136.43	51.62	51.41	-86.58	-1,496.76	-1,627.31	1,906.04	1,803.29	102.75	18.550		
8,600.00	7,249.45	8,562.95	7,135.89	53.88	53.61	-86.58	-1,498.33	-1,727.27	1,908.18	1,800.97	107.21	17.798		
8,700.00	7,249.09	8,662.93	7,135.34	56.19	55.86	-86.58	-1,499.90	-1,827.24	1,910.33	1,798.54	111.78	17.090		
8,800.00	7,248.72	8,762.91	7,134.80	58.55	58.17	-86.58	-1,501.47	-1,927.20	1,912.47	1,796.01	116.46	16.422		
8,900.00	7,248.36	8,862.89	7,134.26	60.96	60.52	-86.58	-1,503.04	-2,027.16	1,914.61	1,793.40	121.22	15.795		
9,000.00	7,247.99	8,962.86	7,133.72	63.40	62.92	-86.58	-1,504.61	-2,127.13	1,916.76	1,790.70	126.06	15.206		
9,100.00	7,247.62	9,062.84	7,133.18	65.87	65.36	-86.58	-1,506.18	-2,227.09	1,918.90	1,787.94	130.97	14.652		
9,200.00	7,247.26	9,162.82	7,132.63	68.38	67.82	-86.57	-1,507.75	-2,327.05	1,921.04	1,785.11	135.94	14.132		
9,300.00	7,246.89	9,262.79	7,132.09	70.91	70.32	-86.57	-1,509.32	-2,427.02	1,923.19	1,782.22	140.96	13.643		
9,400.00	7,246.53	9,362.77	7,131.55	73.47	72.84	-86.57	-1,510.89	-2,526.98	1,925.33	1,779.29	146.04	13.183		
9,500.00	7,246.16	9,462.75	7,131.01	76.05	75.39	-86.57	-1,512.45	-2,626.94	1,927.48	1,776.31	151.16	12.751		
9,600.00	7,245.79	9,562.72	7,130.47	78.65	77.96	-86.57	-1,514.02	-2,726.90	1,929.62	1,773.29	156.33	12.343		
9,700.00	7,245.43	9,662.70	7,129.93	81.27	80.55	-86.57	-1,515.59	-2,826.87	1,931.76	1,770.24	161.53	11.959		
9,800.00	7,245.06	9,762.68	7,129.38	83.90	83.15	-86.57	-1,517.16	-2,926.83	1,933.91	1,767.15	166.76	11.597		
9,900.00	7,244.69	9,862.66	7,128.84	86.55	85.77	-86.56	-1,518.73	-3,026.79	1,936.05	1,764.03	172.02	11.255		
10,000.00	7,244.33	9,962.63	7,128.30	89.21	88.41	-86.56	-1,520.30	-3,126.76	1,938.19	1,760.88	177.31	10.931		
10,100.00	7,243.96	10,062.61	7,127.76	91.88	91.06	-86.56	-1,521.87	-3,226.72	1,940.34	1,757.71	182.63	10.625		
10,200.00	7,243.60	10,162.59	7,127.22	94.56	93.72	-86.56	-1,523.44	-3,326.68	1,942.48	1,754.51	187.96	10.334		
10,300.00	7,243.23	10,262.56	7,126.67	97.26	96.39	-86.56	-1,525.01	-3,426.65	1,944.62	1,751.30	193.32	10.059		

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



Anticollision Report



Company:	SRC ENERGY	Local Co-ordinate Reference:	Well HARVESTERS STATE 31C-16-M
Project:	SECTION 15, T6N, R66W	TVD Reference:	KB @ 4821.00ft
Reference Site:	HARVESTERS STATE 7-15 PAD	MD Reference:	KB @ 4821.00ft
Site Error:	3.28 ft	North Reference:	True
Reference Well:	HARVESTERS STATE 31C-16-M	Survey Calculation Method:	Minimum Curvature
Well Error:	3.28 ft	Output errors are at	2.45 sigma
Reference Wellbore	OH	Database:	EDM 5000.14 Single User Db
Reference Design:	PLAN #1	Offset TVD Reference:	Reference Datum

Offset Design HARVESTERS STATE 7-15 PAD - HARVESTERS STATE 12N-16C-M - OH - PLAN #1													Offset Site Error:	0.00 ft
Survey Program: 0-MWD+IFR1													Offset Well Error:	3.28 ft
Reference		Offset		Semi Major Axis			Distance							Warning
Measured Depth (ft)	Vertical Depth (ft)	Measured Depth (ft)	Vertical Depth (ft)	Reference (ft)	Offset (ft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (ft)	+E/-W (ft)	Between Centres (ft)	Between Ellipses (ft)	Minimum Separation (ft)	Separation Factor		
10,400.00	7,242.86	10,362.54	7,126.13	99.96	99.08	-86.56	-1,526.58	-3,526.61	1,946.77	1,748.06	198.70	9.797		
10,500.00	7,242.50	10,462.52	7,125.59	102.67	101.77	-86.56	-1,528.15	-3,626.57	1,948.91	1,744.81	204.10	9.549		
10,600.00	7,242.13	10,562.49	7,125.05	105.39	104.47	-86.55	-1,529.72	-3,726.54	1,951.05	1,741.54	209.51	9.312		
10,700.00	7,241.76	10,662.47	7,124.51	108.12	107.18	-86.55	-1,531.29	-3,826.50	1,953.20	1,738.26	214.94	9.087		
10,800.00	7,241.40	10,762.45	7,123.97	110.85	109.89	-86.55	-1,532.86	-3,926.46	1,955.34	1,734.96	220.38	8.873		
10,900.00	7,241.03	10,862.43	7,123.42	113.59	112.62	-86.55	-1,534.43	-4,026.43	1,957.48	1,731.65	225.84	8.668		
11,000.00	7,240.67	10,962.40	7,122.88	116.34	115.35	-86.55	-1,536.00	-4,126.39	1,959.63	1,728.32	231.30	8.472		
11,100.00	7,240.30	11,062.38	7,122.34	119.09	118.08	-86.55	-1,537.57	-4,226.35	1,961.77	1,724.99	236.78	8.285		
11,200.00	7,239.93	11,162.36	7,121.80	121.85	120.82	-86.55	-1,539.14	-4,326.32	1,963.91	1,721.64	242.27	8.106		
11,300.00	7,239.57	11,262.33	7,121.26	124.61	123.57	-86.54	-1,540.71	-4,426.28	1,966.06	1,718.29	247.77	7.935		
11,400.00	7,239.20	11,362.31	7,120.71	127.38	126.32	-86.54	-1,542.28	-4,526.24	1,968.20	1,714.92	253.28	7.771		
11,500.00	7,238.84	11,462.29	7,120.17	130.15	129.07	-86.54	-1,543.85	-4,626.21	1,970.35	1,711.55	258.79	7.614		
11,600.00	7,238.47	11,562.26	7,119.63	132.92	131.83	-86.54	-1,545.42	-4,726.17	1,972.49	1,708.17	264.32	7.463		
11,700.00	7,238.10	11,662.24	7,119.09	135.70	134.60	-86.54	-1,546.99	-4,826.13	1,974.63	1,704.78	269.85	7.318		
11,800.00	7,237.74	11,762.22	7,118.55	138.48	137.37	-86.54	-1,548.56	-4,926.10	1,976.78	1,701.39	275.39	7.178		
11,900.00	7,237.37	11,862.20	7,118.01	141.26	140.14	-86.54	-1,550.13	-5,026.06	1,978.92	1,697.98	280.94	7.044		
12,000.00	7,237.00	11,962.17	7,117.46	144.05	142.91	-86.54	-1,551.70	-5,126.02	1,981.06	1,694.58	286.49	6.915		
12,100.00	7,236.64	12,062.15	7,116.92	146.84	145.69	-86.53	-1,553.27	-5,225.99	1,983.21	1,691.16	292.05	6.791		
12,200.00	7,236.27	12,162.13	7,116.38	149.64	148.47	-86.53	-1,554.84	-5,325.95	1,985.35	1,687.74	297.61	6.671		
12,300.00	7,235.91	12,262.10	7,115.84	152.43	151.25	-86.53	-1,556.41	-5,425.91	1,987.49	1,684.32	303.18	6.556		
12,400.00	7,235.54	12,362.08	7,115.30	155.23	154.04	-86.53	-1,557.98	-5,525.88	1,989.64	1,680.89	308.75	6.444		
12,500.00	7,235.17	12,462.06	7,114.75	158.03	156.83	-86.53	-1,559.55	-5,625.84	1,991.78	1,677.45	314.33	6.337		
12,600.00	7,234.81	12,562.03	7,114.21	160.83	159.62	-86.53	-1,561.11	-5,725.80	1,993.92	1,674.01	319.91	6.233		
12,700.00	7,234.44	12,662.01	7,113.67	163.64	162.41	-86.53	-1,562.68	-5,825.76	1,996.07	1,670.57	325.50	6.132		
12,800.00	7,234.07	12,761.99	7,113.13	166.44	165.20	-86.52	-1,564.25	-5,925.73	1,998.21	1,667.12	331.09	6.035		
12,900.00	7,233.71	12,861.97	7,112.59	169.25	168.00	-86.52	-1,565.82	-6,025.69	2,000.35	1,663.67	336.69	5.941		
13,000.00	7,233.34	12,961.94	7,112.04	172.06	170.80	-86.52	-1,567.39	-6,125.65	2,002.50	1,660.21	342.29	5.850		
13,100.00	7,232.98	13,061.92	7,111.50	174.88	173.60	-86.52	-1,568.96	-6,225.62	2,004.64	1,656.75	347.89	5.762		
13,200.00	7,232.61	13,161.90	7,110.96	177.69	176.40	-86.52	-1,570.53	-6,325.58	2,006.79	1,653.29	353.49	5.677		
13,300.00	7,232.24	13,261.87	7,110.42	180.50	179.21	-86.52	-1,572.10	-6,425.54	2,008.93	1,649.83	359.10	5.594		
13,400.00	7,231.88	13,361.85	7,109.88	183.32	182.01	-86.52	-1,573.67	-6,525.51	2,011.07	1,646.36	364.72	5.514		
13,500.00	7,231.51	13,461.83	7,109.34	186.14	184.82	-86.52	-1,575.24	-6,625.47	2,013.22	1,642.89	370.33	5.436		
13,600.00	7,231.15	13,561.80	7,108.79	188.96	187.63	-86.51	-1,576.81	-6,725.43	2,015.36	1,639.41	375.95	5.361		
13,700.00	7,230.78	13,661.78	7,108.25	191.78	190.44	-86.51	-1,578.38	-6,825.40	2,017.50	1,635.94	381.57	5.287		
13,800.00	7,230.41	13,761.76	7,107.71	194.60	193.25	-86.51	-1,579.95	-6,925.36	2,019.65	1,632.46	387.19	5.216		
13,900.00	7,230.05	13,861.74	7,107.17	197.42	196.06	-86.51	-1,581.52	-7,025.32	2,021.79	1,628.98	392.81	5.147		
14,000.00	7,229.68	13,961.71	7,106.63	200.25	198.88	-86.51	-1,583.09	-7,125.29	2,023.93	1,625.49	398.44	5.080		
14,100.00	7,229.31	14,061.69	7,106.08	203.07	201.69	-86.51	-1,584.66	-7,225.25	2,026.08	1,622.01	404.07	5.014		
14,200.00	7,228.95	14,161.67	7,105.54	205.90	204.51	-86.51	-1,586.23	-7,325.21	2,028.22	1,618.52	409.70	4.950		
14,300.00	7,228.58	14,261.64	7,105.00	208.73	207.32	-86.51	-1,587.80	-7,425.18	2,030.36	1,615.03	415.34	4.888		
14,400.00	7,228.22	14,361.62	7,104.46	211.55	210.14	-86.50	-1,589.37	-7,525.14	2,032.51	1,611.54	420.97	4.828		
14,500.00	7,227.85	14,461.60	7,103.92	214.38	212.96	-86.50	-1,590.94	-7,625.10	2,034.65	1,608.04	426.61	4.769		
14,600.00	7,227.48	14,561.57	7,103.38	217.21	215.78	-86.50	-1,592.51	-7,725.07	2,036.80	1,604.55	432.25	4.712		
14,700.00	7,227.12	14,661.55	7,102.83	220.04	218.60	-86.50	-1,594.08	-7,825.03	2,038.94	1,601.05	437.89	4.656		
14,800.00	7,226.75	14,761.53	7,102.29	222.88	221.42	-86.50	-1,595.65	-7,924.99	2,041.08	1,597.55	443.53	4.602		
14,900.00	7,226.38	14,861.51	7,101.75	225.71	224.25	-86.50	-1,597.22	-8,024.96	2,043.23	1,594.05	449.18	4.549		
15,000.00	7,226.02	14,961.48	7,101.21	228.54	227.07	-86.50	-1,598.79	-8,124.92	2,045.37	1,590.55	454.82	4.497		
15,005.81	7,226.00	14,967.29	7,101.18	228.71	227.23	-86.50	-1,598.88	-8,130.73	2,045.49	1,590.34	455.15	4.494 SF		



Anticollision Report



Company:	SRC ENERGY	Local Co-ordinate Reference:	Well HARVESTERS STATE 31C-16-M
Project:	SECTION 15, T6N, R66W	TVD Reference:	KB @ 4821.00ft
Reference Site:	HARVESTERS STATE 7-15 PAD	MD Reference:	KB @ 4821.00ft
Site Error:	3.28 ft	North Reference:	True
Reference Well:	HARVESTERS STATE 31C-16-M	Survey Calculation Method:	Minimum Curvature
Well Error:	3.28 ft	Output errors are at	2.45 sigma
Reference Wellbore	OH	Database:	EDM 5000.14 Single User Db
Reference Design:	PLAN #1	Offset TVD Reference:	Reference Datum

Offset Design HARVESTERS STATE 7-15 PAD - HARVESTERS STATE 13C-16-M - OH - PLAN #1													Offset Site Error:	0.00 ft
Survey Program: 0-MWD+IFR1													Offset Well Error:	3.28 ft
Reference		Offset		Semi Major Axis			Distance							Warning
Measured Depth (ft)	Vertical Depth (ft)	Measured Depth (ft)	Vertical Depth (ft)	Reference (ft)	Offset (ft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (ft)	+E/-W (ft)	Between Centres (ft)	Between Ellipses (ft)	Minimum Separation (ft)	Separation Factor		
0.00	0.00	2.00	0.00	3.28	3.28	-179.51	-359.94	-3.06	359.95					
100.00	100.00	102.00	100.00	3.28	3.29	-179.51	-359.94	-3.06	359.95	353.38	6.57	54.788		
200.00	200.00	198.00	200.00	3.34	3.34	-179.51	-359.94	-3.06	359.95	353.28	6.67	53.946	CC, ES	
300.00	300.00	287.05	289.04	3.44	3.42	-179.50	-361.26	-3.14	361.44	354.56	6.88	52.555		
400.00	400.00	375.71	377.60	3.60	3.55	-179.47	-365.31	-3.40	366.02	358.83	7.18	50.951		
500.00	500.00	464.03	465.66	3.81	3.72	-179.41	-372.07	-3.83	373.67	366.10	7.58	49.312		
600.00	600.00	551.85	552.97	4.05	3.91	-179.33	-381.47	-4.43	384.39	376.34	8.04	47.788		
700.00	699.98	638.79	639.08	4.32	4.14	-156.31	-393.41	-5.19	399.71	391.14	8.57	46.651		
800.00	799.84	724.24	723.32	4.62	4.39	-156.31	-407.67	-6.09	421.10	411.96	9.14	46.067		
900.00	899.62	808.24	805.68	4.94	4.67	-156.49	-424.13	-7.14	446.58	436.85	9.72	45.926		
1,000.00	999.41	890.88	886.21	5.27	4.97	-156.63	-442.68	-8.32	474.85	464.53	10.32	46.000		
1,100.00	1,099.19	972.08	964.77	5.62	5.28	-156.73	-463.14	-9.62	505.86	494.92	10.94	46.253		
1,200.00	1,198.98	1,051.74	1,041.25	5.99	5.62	-156.81	-485.37	-11.03	539.52	527.96	11.55	46.692		
1,300.00	1,298.76	1,129.79	1,115.55	6.36	5.96	-156.87	-509.20	-12.55	575.75	563.58	12.17	47.298		
1,400.00	1,398.55	1,206.16	1,187.60	6.74	6.32	-156.90	-534.47	-14.15	614.47	601.69	12.79	48.055		
1,500.00	1,498.33	1,307.90	1,268.07	7.13	6.83	-156.92	-564.58	-16.07	655.09	641.56	13.53	48.425		
1,600.00	1,598.12	1,383.42	1,353.54	7.52	7.22	-156.94	-596.68	-18.11	695.83	681.65	14.19	49.049		
1,700.00	1,697.90	1,474.75	1,439.01	7.92	7.70	-156.96	-628.79	-20.15	736.58	721.65	14.93	49.333		
1,800.00	1,797.69	1,566.07	1,524.48	8.33	8.19	-156.98	-660.89	-22.19	777.33	761.64	15.69	49.539		
1,900.00	1,897.47	1,657.39	1,609.95	8.74	8.69	-156.99	-693.00	-24.23	818.07	801.61	16.47	49.685		
2,000.00	1,997.26	1,748.71	1,695.41	9.15	9.20	-157.01	-725.10	-26.27	858.82	841.57	17.25	49.782		
2,100.00	2,097.04	1,840.03	1,780.88	9.56	9.71	-157.02	-757.21	-28.31	899.57	881.52	18.05	49.843		
2,200.00	2,196.83	1,931.35	1,866.35	9.98	10.23	-157.03	-789.31	-30.35	940.31	921.46	18.85	49.874		
2,300.00	2,296.61	2,022.68	1,951.82	10.40	10.75	-157.04	-821.42	-32.39	981.06	961.39	19.67	49.883		
2,400.00	2,396.40	2,114.00	2,037.28	10.82	11.28	-157.05	-853.52	-34.43	1,021.81	1,001.32	20.49	49.874		
2,500.00	2,496.18	2,205.32	2,122.75	11.24	11.81	-157.06	-885.63	-36.47	1,062.56	1,041.24	21.31	49.851		
2,600.00	2,595.96	2,303.36	2,208.22	11.66	12.39	-157.07	-917.73	-38.51	1,103.30	1,081.12	22.18	49.743		
2,700.00	2,695.75	2,387.96	2,293.69	12.09	12.88	-157.08	-949.84	-40.55	1,144.05	1,121.07	22.98	49.777		
2,800.00	2,795.53	2,479.28	2,379.16	12.51	13.42	-157.08	-981.94	-42.59	1,184.80	1,160.97	23.82	49.729		
2,900.00	2,895.32	2,570.61	2,464.62	12.94	13.96	-157.09	-1,014.05	-44.63	1,225.54	1,200.87	24.67	49.677		
3,000.00	2,995.10	2,661.93	2,550.09	13.37	14.50	-157.10	-1,046.15	-46.67	1,266.29	1,240.77	25.52	49.622		
3,100.00	3,094.89	2,753.25	2,635.56	13.80	15.04	-157.10	-1,078.26	-48.71	1,307.04	1,280.67	26.37	49.564		
3,200.00	3,194.67	2,844.57	2,721.03	14.23	15.59	-157.11	-1,110.36	-50.75	1,347.78	1,320.56	27.23	49.504		
3,300.00	3,294.46	2,935.89	2,806.50	14.66	16.14	-157.11	-1,142.47	-52.80	1,388.53	1,360.45	28.08	49.444		
3,400.00	3,394.24	3,027.21	2,891.96	15.09	16.68	-157.12	-1,174.57	-54.84	1,429.28	1,400.34	28.94	49.383		
3,500.00	3,494.03	3,118.54	2,977.43	15.52	17.23	-157.12	-1,206.68	-56.88	1,470.03	1,440.22	29.80	49.322		
3,600.00	3,593.81	3,209.86	3,062.90	15.96	17.78	-157.13	-1,238.78	-58.92	1,510.77	1,480.10	30.67	49.261		
3,700.00	3,693.60	3,301.18	3,148.37	16.39	18.33	-157.13	-1,270.89	-60.96	1,551.52	1,519.99	31.53	49.200		
3,800.00	3,793.38	3,407.50	3,233.84	16.82	18.97	-157.13	-1,302.99	-63.00	1,592.27	1,559.79	32.48	49.023		
3,900.00	3,893.17	3,483.82	3,319.30	17.26	19.43	-157.14	-1,335.10	-65.04	1,633.01	1,599.74	33.27	49.081		
4,000.00	3,992.95	3,575.15	3,404.77	17.69	19.98	-157.14	-1,367.20	-67.08	1,673.76	1,639.62	34.14	49.023		
4,100.00	4,092.74	3,666.47	3,490.24	18.13	20.54	-157.14	-1,399.31	-69.12	1,714.51	1,679.49	35.01	48.966		
4,200.00	4,192.52	3,757.79	3,575.71	18.56	21.09	-157.15	-1,431.41	-71.16	1,755.26	1,719.37	35.89	48.910		
4,300.00	4,292.31	3,849.11	3,661.18	19.00	21.64	-157.15	-1,463.52	-73.20	1,796.00	1,759.24	36.76	48.855		
4,400.00	4,392.09	3,940.43	3,746.64	19.43	22.20	-157.15	-1,495.62	-75.24	1,836.75	1,799.11	37.64	48.801		
4,500.00	4,491.88	4,031.75	3,832.11	19.87	22.75	-157.16	-1,527.73	-77.28	1,877.50	1,838.98	38.51	48.749		
4,600.00	4,591.66	4,123.08	3,917.58	20.31	23.31	-157.16	-1,559.83	-79.32	1,918.24	1,878.85	39.39	48.697		
4,700.00	4,691.44	4,214.40	4,003.05	20.74	23.86	-157.16	-1,591.94	-81.36	1,958.99	1,918.72	40.27	48.647		
4,800.00	4,791.23	4,305.72	4,088.52	21.18	24.42	-157.16	-1,624.04	-83.40	1,999.74	1,958.59	41.15	48.597		
4,900.00	4,891.01	4,402.96	4,173.98	21.62	25.01	-157.17	-1,656.15	-85.44	2,040.49	1,998.43	42.06	48.513		
5,000.00	4,990.80	4,488.36	4,259.45	22.06	25.53	-157.17	-1,688.25	-87.48	2,081.23	2,038.32	42.91	48.502		
5,100.00	5,090.58	4,579.68	4,344.92	22.50	26.08	-157.17	-1,720.36	-89.52	2,121.98	2,078.19	43.79	48.456		

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



Anticollision Report



Company:	SRC ENERGY	Local Co-ordinate Reference:	Well HARVESTERS STATE 31C-16-M
Project:	SECTION 15, T6N, R66W	TVD Reference:	KB @ 4821.00ft
Reference Site:	HARVESTERS STATE 7-15 PAD	MD Reference:	KB @ 4821.00ft
Site Error:	3.28 ft	North Reference:	True
Reference Well:	HARVESTERS STATE 31C-16-M	Survey Calculation Method:	Minimum Curvature
Well Error:	3.28 ft	Output errors are at	2.45 sigma
Reference Wellbore	OH	Database:	EDM 5000.14 Single User Db
Reference Design:	PLAN #1	Offset TVD Reference:	Reference Datum

Offset Design HARVESTERS STATE 7-15 PAD - HARVESTERS STATE 13C-16-M - OH - PLAN #1													Offset Site Error:	0.00 ft
Survey Program: 0-MWD+IFR1													Offset Well Error:	3.28 ft
Reference		Offset		Semi Major Axis			Distance						Warning	
Measured Depth (ft)	Vertical Depth (ft)	Measured Depth (ft)	Vertical Depth (ft)	Reference (ft)	Offset (ft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (ft)	+E/-W (ft)	Between Centres (ft)	Between Ellipses (ft)	Minimum Separation (ft)	Separation Factor		
5,200.00	5,190.37	4,671.01	4,430.39	22.93	26.64	-157.17	-1,752.46	-91.57	2,162.73	2,118.05	44.67	48.411		
5,300.00	5,290.15	4,762.33	4,515.86	23.37	27.20	-157.17	-1,784.56	-93.61	2,203.48	2,157.92	45.56	48.367		
5,400.00	5,389.94	4,853.65	4,601.32	23.81	27.76	-157.18	-1,816.67	-95.65	2,244.22	2,197.78	46.44	48.324		
5,500.00	5,489.72	4,944.97	4,686.79	24.25	28.31	-157.18	-1,848.77	-97.69	2,284.97	2,237.64	47.33	48.282		
5,600.00	5,589.51	5,036.29	4,772.26	24.69	28.87	-157.18	-1,880.88	-99.73	2,325.72	2,277.51	48.21	48.241		
5,700.00	5,689.29	5,127.62	4,857.73	25.13	29.43	-157.18	-1,912.98	-101.77	2,366.46	2,317.37	49.10	48.201		
5,800.00	5,789.08	5,218.94	4,943.19	25.56	29.99	-157.18	-1,945.09	-103.81	2,407.21	2,357.23	49.98	48.161		
5,900.00	5,888.86	5,310.26	5,028.66	26.00	30.54	-157.18	-1,977.19	-105.85	2,447.96	2,397.09	50.87	48.123		
6,000.00	5,988.65	5,401.58	5,114.13	26.44	31.10	-157.19	-2,009.30	-107.89	2,488.71	2,436.95	51.76	48.086		
6,100.00	6,088.43	5,492.90	5,199.60	26.88	31.66	-157.19	-2,041.40	-109.93	2,529.45	2,476.81	52.64	48.049		
6,200.00	6,188.22	5,584.22	5,285.07	27.32	32.22	-157.19	-2,073.51	-111.97	2,570.20	2,516.67	53.53	48.013		
6,300.00	6,288.00	5,675.55	5,370.53	27.76	32.78	-157.19	-2,105.61	-114.01	2,610.95	2,556.53	54.42	47.978		
6,400.00	6,387.79	5,766.87	5,456.00	28.20	33.34	-157.19	-2,137.72	-116.05	2,651.69	2,596.39	55.31	47.943		
6,500.00	6,487.57	5,858.19	5,541.47	28.64	33.90	-157.19	-2,169.82	-118.09	2,692.44	2,636.24	56.20	47.909		
6,600.00	6,587.35	5,949.51	5,626.94	29.08	34.46	-157.19	-2,201.93	-120.13	2,733.19	2,676.10	57.09	47.876		
6,700.00	6,687.02	6,040.77	5,712.35	29.52	35.02	-117.21	-2,234.01	-122.17	2,773.93	2,715.95	57.98	47.843		
6,800.00	6,784.98	6,130.74	5,796.55	29.96	35.57	-97.60	-2,265.64	-124.18	2,814.26	2,755.39	58.87	47.807		
6,900.00	6,878.81	6,217.26	5,877.52	30.41	36.10	-89.88	-2,296.06	-126.12	2,853.47	2,793.73	59.74	47.766		
7,000.00	6,966.21	6,301.83	5,953.25	30.86	36.61	-85.05	-2,324.50	-127.92	2,891.08	2,830.47	60.61	47.699		
7,100.00	7,045.03	6,371.50	6,021.88	31.35	37.04	-81.49	-2,350.28	-129.56	2,926.77	2,865.33	61.43	47.642		
7,200.00	7,113.32	6,435.44	6,081.72	31.90	37.43	-78.65	-2,372.76	-130.99	2,960.37	2,898.09	62.28	47.530		
7,300.00	7,169.40	6,488.41	6,131.29	32.57	37.76	-76.24	-2,391.38	-132.17	2,991.79	2,928.62	63.18	47.354		
7,400.00	7,211.89	6,529.11	6,169.38	33.38	38.01	-74.09	-2,405.69	-133.08	3,020.95	2,956.81	64.14	47.099		
7,500.00	7,239.75	6,556.53	6,195.05	34.35	38.18	-72.10	-2,415.33	-133.70	3,047.70	2,982.53	65.17	46.762		
7,600.00	7,252.28	6,570.01	6,207.66	35.47	38.26	-70.21	-2,420.07	-134.00	3,071.82	3,005.56	66.26	46.358		
7,700.00	7,252.75	6,572.46	6,209.96	36.73	38.27	-69.64	-2,420.93	-134.05	3,094.39	3,026.99	67.40	45.909		
7,800.00	7,252.38	6,574.16	6,211.54	38.16	38.28	-69.68	-2,421.53	-134.09	3,119.69	3,051.02	68.67	45.431		
7,900.00	7,252.02	6,575.85	6,213.13	39.74	38.29	-69.71	-2,422.12	-134.13	3,147.96	3,077.92	70.04	44.946		
8,000.00	7,251.65	6,577.54	6,214.71	41.47	38.30	-69.74	-2,422.72	-134.17	3,179.12	3,107.63	71.49	44.471		
8,100.00	7,251.29	6,579.23	6,216.29	43.31	38.32	-69.77	-2,423.31	-134.20	3,213.09	3,140.10	72.99	44.019		
8,200.00	7,250.92	6,602.91	7,244.22	45.26	49.92	-89.88	-2,818.60	-1,338.82	3,222.62	3,129.15	93.47	34.477		
8,300.00	7,250.55	8,702.90	7,243.71	47.30	51.53	-89.88	-2,819.19	-1,438.81	3,223.78	3,126.41	97.37	33.108		
8,400.00	7,250.19	8,802.89	7,243.21	49.42	53.29	-89.87	-2,819.77	-1,538.80	3,224.93	3,123.49	101.44	31.791		
8,500.00	7,249.82	8,902.89	7,242.71	51.62	55.18	-89.87	-2,820.36	-1,638.79	3,226.09	3,120.42	105.66	30.531		
8,600.00	7,249.45	9,002.88	7,242.21	53.88	57.17	-89.87	-2,820.95	-1,738.78	3,227.24	3,117.22	110.02	29.333		
8,700.00	7,249.09	9,102.87	7,241.71	56.19	59.25	-89.87	-2,821.54	-1,838.77	3,228.40	3,113.90	114.50	28.195		
8,800.00	7,248.72	9,202.87	7,241.21	58.55	61.40	-89.86	-2,822.13	-1,938.76	3,229.55	3,110.47	119.09	27.120		
8,900.00	7,248.36	9,302.86	7,240.71	60.96	63.61	-89.86	-2,822.72	-2,038.75	3,230.71	3,106.95	123.76	26.104		
9,000.00	7,247.99	9,402.85	7,240.21	63.40	65.88	-89.86	-2,823.30	-2,138.74	3,231.86	3,103.34	128.53	25.146		
9,100.00	7,247.62	9,502.85	7,239.71	65.87	68.19	-89.86	-2,823.89	-2,238.73	3,233.02	3,099.66	133.36	24.242		
9,200.00	7,247.26	9,602.84	7,239.21	68.38	70.55	-89.85	-2,824.48	-2,338.72	3,234.18	3,095.91	138.27	23.390		
9,300.00	7,246.89	9,702.83	7,238.71	70.91	72.95	-89.85	-2,825.07	-2,438.71	3,235.33	3,092.10	143.23	22.588		
9,400.00	7,246.53	9,802.83	7,238.21	73.47	75.38	-89.85	-2,825.66	-2,538.70	3,236.49	3,088.23	148.25	21.831		
9,500.00	7,246.16	9,902.82	7,237.71	76.05	77.84	-89.85	-2,826.24	-2,638.69	3,237.64	3,084.32	153.32	21.116		
9,600.00	7,245.79	10,002.81	7,237.21	78.65	80.33	-89.85	-2,826.83	-2,738.68	3,238.80	3,080.36	158.44	20.442		
9,700.00	7,245.43	10,102.81	7,236.71	81.27	82.84	-89.84	-2,827.42	-2,838.67	3,239.95	3,076.36	163.59	19.805		
9,800.00	7,245.06	10,202.80	7,236.20	83.90	85.38	-89.84	-2,828.01	-2,938.66	3,241.11	3,072.33	168.78	19.203		
9,900.00	7,244.69	10,302.79	7,235.70	86.55	87.93	-89.84	-2,828.60	-3,038.65	3,242.26	3,068.26	174.00	18.633		
10,000.00	7,244.33	10,402.79	7,235.20	89.21	90.51	-89.84	-2,829.18	-3,138.64	3,243.42	3,064.16	179.26	18.094		
10,100.00	7,243.96	10,502.78	7,234.70	91.88	93.10	-89.83	-2,829.77	-3,238.63	3,244.57	3,060.04	184.54	17.582		
10,200.00	7,243.60	10,602.77	7,234.20	94.56	95.71	-89.83	-2,830.36	-3,338.62	3,245.73	3,055.88	189.84	17.097		
10,300.00	7,243.23	10,702.77	7,233.70	97.26	98.33	-89.83	-2,830.95	-3,438.61	3,246.88	3,051.71	195.17	16.636		

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



Anticollision Report



Company:	SRC ENERGY	Local Co-ordinate Reference:	Well HARVESTERS STATE 31C-16-M
Project:	SECTION 15, T6N, R66W	TVD Reference:	KB @ 4821.00ft
Reference Site:	HARVESTERS STATE 7-15 PAD	MD Reference:	KB @ 4821.00ft
Site Error:	3.28 ft	North Reference:	True
Reference Well:	HARVESTERS STATE 31C-16-M	Survey Calculation Method:	Minimum Curvature
Well Error:	3.28 ft	Output errors are at	2.45 sigma
Reference Wellbore	OH	Database:	EDM 5000.14 Single User Db
Reference Design:	PLAN #1	Offset TVD Reference:	Reference Datum

Offset Design HARVESTERS STATE 7-15 PAD - HARVESTERS STATE 13C-16-M - OH - PLAN #1													Offset Site Error:	0.00 ft
Survey Program: 0-MWD+IFR1													Offset Well Error:	3.28 ft
Reference		Offset		Semi Major Axis			Distance							Warning
Measured Depth (ft)	Vertical Depth (ft)	Measured Depth (ft)	Vertical Depth (ft)	Reference (ft)	Offset (ft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (ft)	+E/-W (ft)	Between Centres (ft)	Between Ellipses (ft)	Minimum Separation (ft)	Separation Factor		
10,400.00	7,242.86	10,802.76	7,233.20	99.96	100.97	-89.83	-2,831.54	-3,538.60	3,248.04	3,047.51	200.53	16.198		
10,500.00	7,242.50	10,902.75	7,232.70	102.67	103.61	-89.82	-2,832.13	-3,638.59	3,249.20	3,043.30	205.90	15.781		
10,600.00	7,242.13	11,002.75	7,232.20	105.39	106.27	-89.82	-2,832.71	-3,738.58	3,250.35	3,039.06	211.29	15.384		
10,700.00	7,241.76	11,102.74	7,231.70	108.12	108.94	-89.82	-2,833.30	-3,838.57	3,251.51	3,034.81	216.69	15.005		
10,800.00	7,241.40	11,202.73	7,231.20	110.85	111.62	-89.82	-2,833.89	-3,938.56	3,252.66	3,030.55	222.12	14.644		
10,900.00	7,241.03	11,302.73	7,230.70	113.59	114.30	-89.82	-2,834.48	-4,038.55	3,253.82	3,026.26	227.55	14.299		
11,000.00	7,240.67	11,402.72	7,230.20	116.34	117.00	-89.81	-2,835.07	-4,138.54	3,254.97	3,021.97	233.00	13.970		
11,100.00	7,240.30	11,502.71	7,229.70	119.09	119.70	-89.81	-2,835.65	-4,238.53	3,256.13	3,017.66	238.47	13.654		
11,200.00	7,239.93	11,602.71	7,229.20	121.85	122.41	-89.81	-2,836.24	-4,338.52	3,257.28	3,013.34	243.94	13.353		
11,300.00	7,239.57	11,702.70	7,228.70	124.61	125.13	-89.81	-2,836.83	-4,438.51	3,258.44	3,009.01	249.43	13.064		
11,400.00	7,239.20	11,802.69	7,228.19	127.38	127.85	-89.80	-2,837.42	-4,538.50	3,259.59	3,004.67	254.93	12.786		
11,500.00	7,238.84	11,902.69	7,227.69	130.15	130.58	-89.80	-2,838.01	-4,638.49	3,260.75	3,000.32	260.43	12.521		
11,600.00	7,238.47	12,002.68	7,227.19	132.92	133.31	-89.80	-2,838.59	-4,738.48	3,261.91	2,995.96	265.95	12.265		
11,700.00	7,238.10	12,102.67	7,226.69	135.70	136.05	-89.80	-2,839.18	-4,838.47	3,263.06	2,991.59	271.47	12.020		
11,800.00	7,237.74	12,202.67	7,226.19	138.48	138.80	-89.79	-2,839.77	-4,938.46	3,264.22	2,987.21	277.00	11.784		
11,900.00	7,237.37	12,302.66	7,225.69	141.26	141.55	-89.79	-2,840.36	-5,038.45	3,265.37	2,982.83	282.54	11.557		
12,000.00	7,237.00	12,402.65	7,225.19	144.05	144.30	-89.79	-2,840.95	-5,138.44	3,266.53	2,978.44	288.09	11.339		
12,100.00	7,236.64	12,502.64	7,224.69	146.84	147.06	-89.79	-2,841.54	-5,238.44	3,267.68	2,974.04	293.64	11.128		
12,200.00	7,236.27	12,602.64	7,224.19	149.64	149.82	-89.79	-2,842.12	-5,338.43	3,268.84	2,969.64	299.20	10.925		
12,300.00	7,235.91	12,702.63	7,223.69	152.43	152.58	-89.78	-2,842.71	-5,438.42	3,269.99	2,965.23	304.77	10.730		
12,400.00	7,235.54	12,802.62	7,223.19	155.23	155.35	-89.78	-2,843.30	-5,538.41	3,271.15	2,960.81	310.34	10.541		
12,500.00	7,235.17	12,902.62	7,222.69	158.03	158.12	-89.78	-2,843.89	-5,638.40	3,272.31	2,956.39	315.91	10.358		
12,600.00	7,234.81	13,002.61	7,222.19	160.83	160.90	-89.78	-2,844.48	-5,738.39	3,273.46	2,951.97	321.50	10.182		
12,700.00	7,234.44	13,102.60	7,221.69	163.64	163.67	-89.77	-2,845.06	-5,838.38	3,274.62	2,947.54	327.08	10.012		
12,800.00	7,234.07	13,202.60	7,221.19	166.44	166.45	-89.77	-2,845.65	-5,938.37	3,275.77	2,943.10	332.67	9.847		
12,900.00	7,233.71	13,302.59	7,220.68	169.25	169.24	-89.77	-2,846.24	-6,038.36	3,276.93	2,938.66	338.27	9.687		
13,000.00	7,233.34	13,402.58	7,220.18	172.06	172.02	-89.77	-2,846.83	-6,138.35	3,278.08	2,934.22	343.87	9.533		
13,100.00	7,232.98	13,502.58	7,219.68	174.88	174.81	-89.77	-2,847.42	-6,238.34	3,279.24	2,929.77	349.47	9.383		
13,200.00	7,232.61	13,602.57	7,219.18	177.69	177.60	-89.76	-2,848.00	-6,338.33	3,280.39	2,925.32	355.08	9.239		
13,300.00	7,232.24	13,702.56	7,218.68	180.50	180.39	-89.76	-2,848.59	-6,438.32	3,281.55	2,920.86	360.69	9.098		
13,400.00	7,231.88	13,802.56	7,218.18	183.32	183.19	-89.76	-2,849.18	-6,538.31	3,282.71	2,916.40	366.30	8.962		
13,500.00	7,231.51	13,902.55	7,217.68	186.14	185.98	-89.76	-2,849.77	-6,638.30	3,283.86	2,911.94	371.92	8.830		
13,600.00	7,231.15	14,002.54	7,217.18	188.96	188.78	-89.75	-2,850.36	-6,738.29	3,285.02	2,907.48	377.54	8.701		
13,700.00	7,230.78	14,102.54	7,216.68	191.78	191.58	-89.75	-2,850.95	-6,838.28	3,286.17	2,903.01	383.16	8.576		
13,800.00	7,230.41	14,202.53	7,216.18	194.60	194.38	-89.75	-2,851.53	-6,938.27	3,287.33	2,898.54	388.79	8.455		
13,900.00	7,230.05	14,302.52	7,215.68	197.42	197.18	-89.75	-2,852.12	-7,038.26	3,288.48	2,894.07	394.42	8.338		
14,000.00	7,229.68	14,402.52	7,215.18	200.25	199.99	-89.74	-2,852.71	-7,138.25	3,289.64	2,889.59	400.05	8.223		
14,100.00	7,229.31	14,502.51	7,214.68	203.07	202.80	-89.74	-2,853.30	-7,238.24	3,290.79	2,885.11	405.68	8.112		
14,200.00	7,228.95	14,602.50	7,214.18	205.90	205.60	-89.74	-2,853.89	-7,338.23	3,291.95	2,880.63	411.32	8.003		
14,300.00	7,228.58	14,702.50	7,213.68	208.73	208.41	-89.74	-2,854.47	-7,438.22	3,293.11	2,876.15	416.96	7.898		
14,400.00	7,228.22	14,802.49	7,213.18	211.55	211.22	-89.74	-2,855.06	-7,538.21	3,294.26	2,871.66	422.60	7.795		
14,500.00	7,227.85	14,902.48	7,212.67	214.38	214.03	-89.73	-2,855.65	-7,638.20	3,295.42	2,867.18	428.24	7.695		
14,600.00	7,227.48	15,002.48	7,212.17	217.21	216.85	-89.73	-2,856.24	-7,738.19	3,296.57	2,862.69	433.89	7.598		
14,700.00	7,227.12	15,102.47	7,211.67	220.04	219.66	-89.73	-2,856.83	-7,838.18	3,297.73	2,858.19	439.53	7.503		
14,800.00	7,226.75	15,202.46	7,211.17	222.88	222.48	-89.73	-2,857.42	-7,938.17	3,298.88	2,853.70	445.18	7.410		
14,900.00	7,226.38	15,302.46	7,210.67	225.71	225.29	-89.72	-2,858.00	-8,038.16	3,300.04	2,849.21	450.83	7.320		
15,000.00	7,226.02	15,402.45	7,210.17	228.54	228.11	-89.72	-2,858.59	-8,138.15	3,301.20	2,844.71	456.49	7.232		
15,005.81	7,226.00	15,408.26	7,210.14	228.71	228.27	-89.72	-2,858.63	-8,143.96	3,301.26	2,844.45	456.81	7.227 SF		

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



Anticollision Report



Company:	SRC ENERGY	Local Co-ordinate Reference:	Well HARVESTERS STATE 31C-16-M
Project:	SECTION 15, T6N, R66W	TVD Reference:	KB @ 4821.00ft
Reference Site:	HARVESTERS STATE 7-15 PAD	MD Reference:	KB @ 4821.00ft
Site Error:	3.28 ft	North Reference:	True
Reference Well:	HARVESTERS STATE 31C-16-M	Survey Calculation Method:	Minimum Curvature
Well Error:	3.28 ft	Output errors are at	2.45 sigma
Reference Wellbore	OH	Database:	EDM 5000.14 Single User Db
Reference Design:	PLAN #1	Offset TVD Reference:	Reference Datum

Offset Design HARVESTERS STATE 7-15 PAD - HARVESTERS STATE 13N-16B-M - OH - PLAN #1													Offset Site Error:	0.00 ft
Survey Program: 0-MWD+IFR1													Offset Well Error:	3.28 ft
Reference		Offset		Semi Major Axis			Distance							Warning
Measured Depth (ft)	Vertical Depth (ft)	Measured Depth (ft)	Vertical Depth (ft)	Reference (ft)	Offset (ft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (ft)	+E/-W (ft)	Between Centres (ft)	Between Ellipses (ft)	Minimum Separation (ft)	Separation Factor		
0.00	0.00	2.00	0.00	3.28	3.28	-179.54	-379.96	-3.06	379.97					
100.00	100.00	102.00	100.00	3.28	3.29	-179.54	-379.96	-3.06	379.97	373.40	6.57	57.836		
200.00	200.00	198.00	200.00	3.34	3.34	-179.54	-379.96	-3.06	379.97	373.30	6.67	56.947	CC, ES	
300.00	300.00	286.51	288.50	3.44	3.42	-179.53	-381.27	-3.14	381.45	374.58	6.88	55.471		
400.00	400.00	374.62	376.52	3.60	3.55	-179.50	-385.27	-3.38	386.00	378.82	7.18	53.749		
500.00	500.00	462.41	464.04	3.81	3.71	-179.45	-391.95	-3.77	393.61	386.04	7.57	51.971		
600.00	600.00	549.70	550.83	4.05	3.91	-179.38	-401.24	-4.33	404.27	396.23	8.04	50.297		
700.00	699.98	636.12	636.44	4.32	4.13	-156.36	-413.04	-5.03	419.51	410.95	8.56	49.010		
800.00	799.84	721.08	720.21	4.62	4.38	-156.36	-427.14	-5.87	440.81	431.68	9.13	48.279		
900.00	899.62	804.59	802.12	4.94	4.65	-156.54	-443.41	-6.84	466.17	456.46	9.71	48.006		
1,000.00	999.41	886.79	882.23	5.27	4.95	-156.68	-461.75	-7.93	494.32	484.02	10.31	47.958		
1,100.00	1,099.19	967.56	960.41	5.62	5.26	-156.79	-481.99	-9.14	525.19	514.27	10.92	48.096		
1,200.00	1,198.98	1,046.81	1,036.53	5.99	5.60	-156.87	-503.99	-10.45	558.70	547.17	11.54	48.431		
1,300.00	1,298.76	1,124.47	1,110.51	6.36	5.94	-156.93	-527.58	-11.85	594.77	582.62	12.15	48.943		
1,400.00	1,398.55	1,200.00	1,181.82	6.74	6.29	-156.97	-552.42	-13.34	633.33	620.57	12.76	49.624		
1,500.00	1,498.33	1,274.79	1,251.75	7.13	6.67	-157.00	-578.87	-14.91	674.29	660.92	13.37	50.424		
1,600.00	1,598.12	1,349.19	1,320.62	7.52	7.05	-157.01	-606.97	-16.59	717.56	703.58	13.98	51.318		
1,700.00	1,697.90	1,438.90	1,403.32	7.92	7.53	-157.01	-641.67	-18.65	761.74	747.03	14.71	51.789		
1,800.00	1,797.69	1,528.61	1,486.02	8.33	8.03	-157.02	-676.37	-20.72	805.93	790.47	15.45	52.152		
1,900.00	1,897.47	1,618.32	1,568.72	8.74	8.54	-157.03	-711.07	-22.79	850.11	833.90	16.21	52.432		
2,000.00	1,997.26	1,708.03	1,651.42	9.15	9.06	-157.03	-745.78	-24.86	894.29	877.30	16.99	52.644		
2,100.00	2,097.04	1,802.26	1,734.12	9.56	9.61	-157.03	-780.48	-26.92	938.48	920.68	17.80	52.737		
2,200.00	2,196.83	1,887.45	1,816.82	9.98	10.11	-157.04	-815.18	-28.99	982.66	964.09	18.57	52.918		
2,300.00	2,296.61	1,977.16	1,899.52	10.40	10.65	-157.04	-849.88	-31.06	1,026.84	1,007.47	19.37	52.999		
2,400.00	2,396.40	2,066.87	1,982.22	10.82	11.19	-157.05	-884.59	-33.13	1,071.02	1,050.84	20.19	53.054		
2,500.00	2,496.18	2,156.58	2,064.92	11.24	11.73	-157.05	-919.29	-35.19	1,115.21	1,094.20	21.01	53.087		
2,600.00	2,595.96	2,246.28	2,147.62	11.66	12.28	-157.05	-953.99	-37.26	1,159.39	1,137.56	21.83	53.102		
2,700.00	2,695.75	2,335.99	2,230.32	12.09	12.83	-157.05	-988.69	-39.33	1,203.57	1,180.91	22.66	53.103		
2,800.00	2,795.53	2,425.70	2,313.02	12.51	13.38	-157.06	-1,023.40	-41.40	1,247.76	1,224.26	23.50	53.094		
2,900.00	2,895.32	2,515.41	2,395.72	12.94	13.93	-157.06	-1,058.10	-43.46	1,291.94	1,267.60	24.34	53.075		
3,000.00	2,995.10	2,605.12	2,478.42	13.37	14.49	-157.06	-1,092.80	-45.53	1,336.12	1,310.94	25.19	53.049		
3,100.00	3,094.89	2,705.17	2,561.12	13.80	15.12	-157.06	-1,127.50	-47.60	1,380.31	1,354.22	26.09	52.908		
3,200.00	3,194.67	2,784.54	2,643.82	14.23	15.61	-157.07	-1,162.21	-49.67	1,424.49	1,397.60	26.89	52.983		
3,300.00	3,294.46	2,874.25	2,726.52	14.66	16.17	-157.07	-1,196.91	-51.74	1,468.67	1,440.93	27.74	52.943		
3,400.00	3,394.24	2,963.96	2,809.22	15.09	16.74	-157.07	-1,231.61	-53.80	1,512.86	1,484.26	28.60	52.902		
3,500.00	3,494.03	3,053.67	2,891.92	15.52	17.30	-157.07	-1,266.31	-55.87	1,557.04	1,527.58	29.46	52.858		
3,600.00	3,593.81	3,143.38	2,974.62	15.96	17.87	-157.07	-1,301.02	-57.94	1,601.22	1,570.90	30.32	52.813		
3,700.00	3,693.60	3,233.09	3,057.32	16.39	18.43	-157.07	-1,335.72	-60.01	1,645.41	1,614.22	31.18	52.767		
3,800.00	3,793.38	3,322.80	3,140.02	16.82	19.00	-157.07	-1,370.42	-62.07	1,689.59	1,657.54	32.05	52.721		
3,900.00	3,893.17	3,412.51	3,222.72	17.26	19.57	-157.08	-1,405.12	-64.14	1,733.77	1,700.86	32.92	52.674		
4,000.00	3,992.95	3,502.22	3,305.42	17.69	20.14	-157.08	-1,439.83	-66.21	1,777.95	1,744.17	33.78	52.627		
4,100.00	4,092.74	3,608.07	3,388.12	18.13	20.81	-157.08	-1,474.53	-68.28	1,822.14	1,787.40	34.74	52.448		
4,200.00	4,192.52	3,681.64	3,470.82	18.56	21.28	-157.08	-1,509.23	-70.34	1,866.32	1,830.79	35.53	52.533		
4,300.00	4,292.31	3,771.35	3,553.52	19.00	21.85	-157.08	-1,543.93	-72.41	1,910.50	1,874.10	36.40	52.486		
4,400.00	4,392.09	3,861.06	3,636.22	19.43	22.42	-157.08	-1,578.64	-74.48	1,954.69	1,917.41	37.27	52.440		
4,500.00	4,491.88	3,950.77	3,718.92	19.87	22.99	-157.08	-1,613.34	-76.55	1,998.87	1,960.72	38.15	52.395		
4,600.00	4,591.66	4,040.48	3,801.62	20.31	23.56	-157.08	-1,648.04	-78.62	2,043.05	2,004.03	39.03	52.350		
4,700.00	4,691.44	4,130.19	3,884.32	20.74	24.13	-157.08	-1,682.74	-80.68	2,087.24	2,047.33	39.90	52.305		
4,800.00	4,791.23	4,219.90	3,967.02	21.18	24.71	-157.09	-1,717.45	-82.75	2,131.42	2,090.64	40.78	52.262		
4,900.00	4,891.01	4,309.61	4,049.72	21.62	25.28	-157.09	-1,752.15	-84.82	2,175.60	2,133.94	41.66	52.219		
5,000.00	4,990.80	4,400.68	4,132.42	22.06	25.86	-157.09	-1,786.85	-86.89	2,219.79	2,177.23	42.55	52.167		
5,100.00	5,090.58	4,489.03	4,215.12	22.50	26.43	-157.09	-1,821.55	-88.95	2,263.97	2,220.54	43.43	52.135		

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



Anticollision Report



Company:	SRC ENERGY	Local Co-ordinate Reference:	Well HARVESTERS STATE 31C-16-M
Project:	SECTION 15, T6N, R66W	TVD Reference:	KB @ 4821.00ft
Reference Site:	HARVESTERS STATE 7-15 PAD	MD Reference:	KB @ 4821.00ft
Site Error:	3.28 ft	North Reference:	True
Reference Well:	HARVESTERS STATE 31C-16-M	Survey Calculation Method:	Minimum Curvature
Well Error:	3.28 ft	Output errors are at	2.45 sigma
Reference Wellbore	OH	Database:	EDM 5000.14 Single User Db
Reference Design:	PLAN #1	Offset TVD Reference:	Reference Datum

Offset Design HARVESTERS STATE 7-15 PAD - HARVESTERS STATE 13N-16B-M - OH - PLAN #1													Offset Site Error:	0.00 ft
Survey Program: 0-MWD+IFR1													Offset Well Error:	3.28 ft
Reference		Offset		Semi Major Axis			Distance						Warning	
Measured Depth (ft)	Vertical Depth (ft)	Measured Depth (ft)	Vertical Depth (ft)	Reference (ft)	Offset (ft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (ft)	+E/-W (ft)	Between Centres (ft)	Between Ellipses (ft)	Minimum Separation (ft)	Separation Factor		
5,200.00	5,190.37	4,578.74	4,297.82	22.93	27.00	-157.09	-1,856.26	-91.02	2,308.15	2,263.85	44.31	52.094		
5,300.00	5,290.15	4,668.45	4,380.52	23.37	27.58	-157.09	-1,890.96	-93.09	2,352.34	2,307.15	45.19	52.054		
5,400.00	5,389.94	4,758.16	4,463.22	23.81	28.15	-157.09	-1,925.66	-95.16	2,396.52	2,350.44	46.07	52.015		
5,500.00	5,489.72	4,847.87	4,545.92	24.25	28.73	-157.09	-1,960.36	-97.22	2,440.70	2,393.74	46.96	51.976		
5,600.00	5,589.51	4,937.58	4,628.62	24.69	29.30	-157.09	-1,995.07	-99.29	2,484.88	2,437.04	47.84	51.938		
5,700.00	5,689.29	5,027.29	4,711.32	25.13	29.88	-157.09	-2,029.77	-101.36	2,529.07	2,480.34	48.73	51.901		
5,800.00	5,789.08	5,117.00	4,794.02	25.56	30.45	-157.09	-2,064.47	-103.43	2,573.25	2,523.64	49.61	51.864		
5,900.00	5,888.86	5,206.71	4,876.72	26.00	31.03	-157.09	-2,099.18	-105.49	2,617.43	2,566.93	50.50	51.829		
6,000.00	5,988.65	5,296.42	4,959.42	26.44	31.60	-157.09	-2,133.88	-107.56	2,661.62	2,610.23	51.39	51.793		
6,100.00	6,088.43	5,386.13	5,042.12	26.88	32.18	-157.09	-2,168.58	-109.63	2,705.80	2,653.52	52.28	51.759		
6,200.00	6,188.22	5,475.84	5,124.82	27.32	32.76	-157.09	-2,203.28	-111.70	2,749.98	2,696.82	53.17	51.725		
6,300.00	6,288.00	5,565.55	5,207.52	27.76	33.33	-157.09	-2,237.99	-113.77	2,794.17	2,740.11	54.05	51.691		
6,400.00	6,387.79	5,655.26	5,290.22	28.20	33.91	-157.09	-2,272.69	-115.83	2,838.35	2,783.41	54.94	51.659		
6,500.00	6,487.57	5,744.97	5,372.92	28.64	34.48	-157.10	-2,307.39	-117.90	2,882.53	2,826.70	55.83	51.627		
6,600.00	6,587.35	5,834.68	5,455.62	29.08	35.06	-157.10	-2,342.09	-119.97	2,926.72	2,869.99	56.72	51.595		
6,700.00	6,687.02	5,924.33	5,538.27	29.52	35.64	-116.89	-2,376.77	-122.03	2,970.88	2,913.27	57.62	51.563		
6,800.00	6,784.98	6,012.73	5,619.76	29.96	36.21	-96.86	-2,410.97	-124.07	3,014.57	2,956.07	58.50	51.528		
6,900.00	6,878.81	6,097.74	5,698.13	30.41	36.75	-88.74	-2,443.85	-126.03	3,056.97	2,997.59	59.38	51.485		
7,000.00	6,966.21	6,177.27	5,771.45	30.86	37.27	-83.54	-2,474.62	-127.86	3,097.47	3,037.24	60.23	51.430		
7,100.00	7,045.03	6,249.35	5,837.90	31.35	37.73	-79.68	-2,502.50	-129.53	3,135.65	3,074.59	61.07	51.349		
7,200.00	7,113.32	6,312.22	5,895.86	31.90	38.13	-76.59	-2,526.82	-130.98	3,171.25	3,109.33	61.91	51.220		
7,300.00	7,169.40	6,364.33	5,943.89	32.57	38.47	-74.01	-2,546.98	-132.18	3,204.06	3,141.25	62.80	51.016		
7,400.00	7,211.89	6,404.38	5,980.81	33.38	38.73	-71.77	-2,562.47	-133.10	3,233.92	3,170.16	63.76	50.720		
7,500.00	7,239.75	6,431.41	6,005.73	34.35	38.90	-69.78	-2,572.93	-133.72	3,260.64	3,195.85	64.79	50.326		
7,600.00	7,252.28	6,444.73	6,018.01	35.47	38.99	-67.99	-2,578.08	-134.03	3,283.99	3,218.11	65.88	49.849		
7,700.00	7,252.75	6,447.22	6,020.31	36.73	39.00	-67.46	-2,579.04	-134.09	3,305.17	3,238.15	67.02	49.316		
7,800.00	7,252.38	6,448.97	6,021.92	38.16	39.01	-67.49	-2,579.72	-134.13	3,328.86	3,260.57	68.29	48.743		
7,900.00	7,252.02	6,450.72	6,023.53	39.74	39.03	-67.52	-2,580.40	-134.17	3,355.38	3,285.70	69.68	48.156		
8,000.00	7,251.65	6,452.47	6,025.14	41.47	39.04	-67.55	-2,581.07	-134.21	3,384.63	3,313.49	71.14	47.574		
8,100.00	7,251.29	6,454.22	6,026.75	43.31	39.05	-67.58	-2,581.75	-134.25	3,416.57	3,343.89	72.68	47.011		
8,200.00	7,250.92	6,456.19	6,028.36	45.26	39.06	-67.61	-2,582.43	-134.29	3,448.51	3,374.83	74.27	46.448		
8,300.00	7,250.55	6,458.18	6,029.97	47.30	39.07	-67.64	-2,583.11	-134.33	3,480.45	3,405.77	75.91	45.886		
8,400.00	7,250.19	6,460.17	6,031.58	49.42	39.08	-67.67	-2,583.79	-134.37	3,512.39	3,436.71	77.60	45.333		
8,500.00	7,249.82	6,462.16	6,033.19	51.62	39.09	-67.70	-2,584.47	-134.41	3,544.33	3,467.65	79.34	44.789		
8,600.00	7,249.45	6,464.15	6,034.80	53.88	39.10	-67.73	-2,585.15	-134.45	3,576.27	3,498.59	81.13	44.256		
8,700.00	7,249.09	6,466.14	6,036.41	56.19	39.11	-67.76	-2,585.83	-134.49	3,608.21	3,529.53	82.97	43.732		
8,800.00	7,248.72	6,468.13	6,038.02	58.55	39.12	-67.79	-2,586.51	-134.53	3,640.15	3,560.47	84.86	43.217		
8,900.00	7,248.36	6,470.12	6,039.63	60.96	39.13	-67.82	-2,587.19	-134.57	3,672.09	3,591.41	86.80	42.712		
9,000.00	7,247.99	6,472.11	6,041.24	63.40	39.14	-67.85	-2,587.87	-134.61	3,704.03	3,622.35	88.79	42.217		
9,100.00	7,247.62	6,474.10	6,042.85	65.87	39.15	-67.88	-2,588.55	-134.65	3,735.97	3,653.29	90.83	41.732		
9,200.00	7,247.26	6,476.09	6,044.46	68.38	39.16	-67.91	-2,589.23	-134.69	3,767.91	3,684.23	92.92	41.257		
9,300.00	7,246.89	6,478.08	6,046.07	70.91	39.17	-67.94	-2,589.91	-134.73	3,799.85	3,715.17	95.06	40.792		
9,400.00	7,246.53	6,480.07	6,047.68	73.47	39.18	-67.97	-2,590.59	-134.77	3,831.79	3,746.11	97.25	40.337		
9,500.00	7,246.16	6,482.06	6,049.29	76.05	39.19	-68.00	-2,591.27	-134.81	3,863.73	3,777.05	99.49	39.892		
9,600.00	7,245.79	6,484.05	6,050.90	78.65	39.20	-68.03	-2,591.95	-134.85	3,895.67	3,807.99	101.78	39.457		
9,700.00	7,245.43	6,486.04	6,052.51	81.27	39.21	-68.06	-2,592.63	-134.89	3,927.61	3,838.93	104.12	39.032		
9,800.00	7,245.06	6,488.03	6,054.12	83.90	39.22	-68.09	-2,593.31	-134.93	3,959.55	3,869.87	106.51	38.617		
9,900.00	7,244.69	6,490.02	6,055.73	86.55	39.23	-68.12	-2,593.99	-134.97	3,991.49	3,900.81	108.95	38.212		
10,000.00	7,244.33	6,492.01	6,057.34	89.21	39.24	-68.15	-2,594.67	-135.01	4,023.43	3,931.75	111.44	37.817		
10,100.00	7,243.96	6,494.00	6,058.95	91.88	39.25	-68.18	-2,595.35	-135.05	4,055.37	3,962.69	113.98	37.432		
10,200.00	7,243.60	6,496.00	6,060.56	94.56	39.26	-68.21	-2,596.03	-135.09	4,087.31	3,993.63	116.57	37.057		
10,300.00	7,243.23	6,498.00	6,062.17	97.26	39.27	-68.24	-2,596.71	-135.13	4,119.25	4,024.57	119.21	36.692		

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



Anticollision Report



Company:	SRC ENERGY	Local Co-ordinate Reference:	Well HARVESTERS STATE 31C-16-M
Project:	SECTION 15, T6N, R66W	TVD Reference:	KB @ 4821.00ft
Reference Site:	HARVESTERS STATE 7-15 PAD	MD Reference:	KB @ 4821.00ft
Site Error:	3.28 ft	North Reference:	True
Reference Well:	HARVESTERS STATE 31C-16-M	Survey Calculation Method:	Minimum Curvature
Well Error:	3.28 ft	Output errors are at	2.45 sigma
Reference Wellbore	OH	Database:	EDM 5000.14 Single User Db
Reference Design:	PLAN #1	Offset TVD Reference:	Reference Datum

Offset Design HARVESTERS STATE 7-15 PAD - HARVESTERS STATE 13N-16B-M - OH - PLAN #1													Offset Site Error:	0.00 ft
Survey Program: 0-MWD+IFR1													Offset Well Error:	3.28 ft
Reference		Offset		Semi Major Axis			Distance							Warning
Measured Depth (ft)	Vertical Depth (ft)	Measured Depth (ft)	Vertical Depth (ft)	Reference (ft)	Offset (ft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (ft)	+E/-W (ft)	Between Centres (ft)	Between Ellipses (ft)	Minimum Separation (ft)	Separation Factor		
10,400.00	7,242.86	10,706.04	7,062.80	99.96	100.88	-87.02	-3,040.90	-3,536.55	3,462.08	3,261.44	200.64	17.255		
10,500.00	7,242.50	10,806.03	7,062.50	102.67	103.53	-87.02	-3,041.50	-3,636.54	3,463.24	3,257.24	206.00	16.812		
10,600.00	7,242.13	10,906.02	7,062.21	105.39	106.18	-87.02	-3,042.09	-3,736.53	3,464.40	3,253.02	211.38	16.389		
10,700.00	7,241.76	11,006.02	7,061.91	108.12	108.85	-87.02	-3,042.69	-3,836.52	3,465.56	3,248.78	216.78	15.987		
10,800.00	7,241.40	11,106.01	7,061.61	110.85	111.52	-87.02	-3,043.29	-3,936.51	3,466.72	3,244.53	222.19	15.603		
10,900.00	7,241.03	11,206.00	7,061.31	113.59	114.21	-87.03	-3,043.89	-4,036.50	3,467.88	3,240.27	227.61	15.236		
11,000.00	7,240.67	11,306.00	7,061.02	116.34	116.90	-87.03	-3,044.49	-4,136.49	3,469.04	3,235.99	233.05	14.885		
11,100.00	7,240.30	11,405.99	7,060.72	119.09	119.60	-87.03	-3,045.08	-4,236.48	3,470.20	3,231.70	238.50	14.550		
11,200.00	7,239.93	11,505.98	7,060.42	121.85	122.31	-87.03	-3,045.68	-4,336.47	3,471.36	3,227.39	243.97	14.229		
11,300.00	7,239.57	11,605.97	7,060.12	124.61	125.02	-87.04	-3,046.28	-4,436.46	3,472.52	3,223.08	249.44	13.921		
11,400.00	7,239.20	11,705.97	7,059.83	127.38	127.74	-87.04	-3,046.88	-4,536.45	3,473.68	3,218.75	254.93	13.626		
11,500.00	7,238.84	11,805.96	7,059.53	130.15	130.47	-87.04	-3,047.47	-4,636.45	3,474.84	3,214.42	260.42	13.343		
11,600.00	7,238.47	11,905.95	7,059.23	132.92	133.20	-87.04	-3,048.07	-4,736.44	3,476.00	3,210.07	265.93	13.071		
11,700.00	7,238.10	12,005.95	7,058.93	135.70	135.94	-87.04	-3,048.67	-4,836.43	3,477.16	3,205.72	271.44	12.810		
11,800.00	7,237.74	12,105.94	7,058.64	138.48	138.69	-87.05	-3,049.27	-4,936.42	3,478.32	3,201.36	276.96	12.559		
11,900.00	7,237.37	12,205.93	7,058.34	141.26	141.43	-87.05	-3,049.87	-5,036.41	3,479.48	3,196.99	282.49	12.317		
12,000.00	7,237.00	12,305.93	7,058.04	144.05	144.19	-87.05	-3,050.46	-5,136.40	3,480.64	3,192.61	288.02	12.084		
12,100.00	7,236.64	12,405.92	7,057.74	146.84	146.94	-87.05	-3,051.06	-5,236.39	3,481.80	3,188.23	293.57	11.860		
12,200.00	7,236.27	12,505.91	7,057.45	149.64	149.70	-87.05	-3,051.66	-5,336.38	3,482.96	3,183.84	299.12	11.644		
12,300.00	7,235.91	12,605.91	7,057.15	152.43	152.46	-87.06	-3,052.26	-5,436.37	3,484.11	3,179.44	304.67	11.436		
12,400.00	7,235.54	12,705.90	7,056.85	155.23	155.23	-87.06	-3,052.86	-5,536.36	3,485.27	3,175.04	310.23	11.234		
12,500.00	7,235.17	12,805.89	7,056.55	158.03	158.00	-87.06	-3,053.45	-5,636.36	3,486.43	3,170.63	315.80	11.040		
12,600.00	7,234.81	12,905.89	7,056.25	160.83	160.78	-87.06	-3,054.05	-5,736.35	3,487.59	3,166.22	321.37	10.852		
12,700.00	7,234.44	13,005.88	7,055.96	163.64	163.55	-87.06	-3,054.65	-5,836.34	3,488.75	3,161.80	326.95	10.671		
12,800.00	7,234.07	13,105.87	7,055.66	166.44	166.33	-87.07	-3,055.25	-5,936.33	3,489.91	3,157.38	332.53	10.495		
12,900.00	7,233.71	13,205.87	7,055.36	169.25	169.11	-87.07	-3,055.85	-6,036.32	3,491.07	3,152.96	338.12	10.325		
13,000.00	7,233.34	13,305.86	7,055.06	172.06	171.90	-87.07	-3,056.44	-6,136.31	3,492.23	3,148.53	343.71	10.161		
13,100.00	7,232.98	13,405.85	7,054.77	174.88	174.69	-87.07	-3,057.04	-6,236.30	3,493.39	3,144.09	349.30	10.001		
13,200.00	7,232.61	13,505.85	7,054.47	177.69	177.47	-87.08	-3,057.64	-6,336.29	3,494.55	3,139.65	354.90	9.847		
13,300.00	7,232.24	13,605.84	7,054.17	180.50	180.27	-87.08	-3,058.24	-6,436.28	3,495.71	3,135.21	360.50	9.697		
13,400.00	7,231.88	13,705.83	7,053.87	183.32	183.06	-87.08	-3,058.83	-6,536.27	3,496.87	3,130.77	366.11	9.552		
13,500.00	7,231.51	13,805.83	7,053.58	186.14	185.85	-87.08	-3,059.43	-6,636.27	3,498.03	3,126.32	371.71	9.411		
13,600.00	7,231.15	13,905.82	7,053.28	188.96	188.65	-87.08	-3,060.03	-6,736.26	3,499.19	3,121.87	377.33	9.274		
13,700.00	7,230.78	14,005.81	7,052.98	191.78	191.45	-87.09	-3,060.63	-6,836.25	3,500.35	3,117.41	382.94	9.141		
13,800.00	7,230.41	14,105.80	7,052.68	194.60	194.25	-87.09	-3,061.23	-6,936.24	3,501.51	3,112.95	388.56	9.012		
13,900.00	7,230.05	14,205.80	7,052.39	197.42	197.05	-87.09	-3,061.82	-7,036.23	3,502.67	3,108.49	394.18	8.886		
14,000.00	7,229.68	14,305.79	7,052.09	200.25	199.86	-87.09	-3,062.42	-7,136.22	3,503.83	3,104.03	399.80	8.764		
14,100.00	7,229.31	14,405.78	7,051.79	203.07	202.66	-87.09	-3,063.02	-7,236.21	3,504.99	3,099.56	405.43	8.645		
14,200.00	7,228.95	14,505.78	7,051.49	205.90	205.47	-87.10	-3,063.62	-7,336.20	3,506.15	3,095.10	411.05	8.530		
14,300.00	7,228.58	14,605.77	7,051.20	208.73	208.28	-87.10	-3,064.22	-7,436.19	3,507.31	3,090.63	416.69	8.417		
14,400.00	7,228.22	14,705.76	7,050.90	211.55	211.09	-87.10	-3,064.81	-7,536.18	3,508.47	3,086.15	422.32	8.308		
14,500.00	7,227.85	14,805.76	7,050.60	214.38	213.90	-87.10	-3,065.41	-7,636.17	3,509.63	3,081.68	427.95	8.201		
14,600.00	7,227.48	14,905.75	7,050.30	217.21	216.71	-87.10	-3,066.01	-7,736.17	3,510.79	3,077.20	433.59	8.097		
14,700.00	7,227.12	15,005.74	7,050.01	220.04	219.53	-87.11	-3,066.61	-7,836.16	3,511.95	3,072.72	439.23	7.996		
14,800.00	7,226.75	15,105.74	7,049.71	222.88	222.34	-87.11	-3,067.20	-7,936.15	3,513.11	3,068.24	444.87	7.897		
14,900.00	7,226.38	15,205.73	7,049.41	225.71	225.16	-87.11	-3,067.80	-8,036.14	3,514.27	3,063.76	450.51	7.801		
15,000.00	7,226.02	15,305.72	7,049.11	228.54	227.98	-87.11	-3,068.40	-8,136.13	3,515.43	3,059.27	456.16	7.707		
15,005.81	7,226.00	15,311.53	7,049.10	228.71	228.14	-87.11	-3,068.44	-8,141.94	3,515.50	3,059.01	456.48	7.701 SF		

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



Anticollision Report



Company:	SRC ENERGY	Local Co-ordinate Reference:	Well HARVESTERS STATE 31C-16-M
Project:	SECTION 15, T6N, R66W	TVD Reference:	KB @ 4821.00ft
Reference Site:	HARVESTERS STATE 7-15 PAD	MD Reference:	KB @ 4821.00ft
Site Error:	3.28 ft	North Reference:	True
Reference Well:	HARVESTERS STATE 31C-16-M	Survey Calculation Method:	Minimum Curvature
Well Error:	3.28 ft	Output errors are at	2.45 sigma
Reference Wellbore	OH	Database:	EDM 5000.14 Single User Db
Reference Design:	PLAN #1	Offset TVD Reference:	Reference Datum

Offset Design HARVESTERS STATE 7-15 PAD - HARVESTERS STATE 31N-16B-M - OH - PLAN #1													Offset Site Error:	0.00 ft
Survey Program: 0-MWD+IFR1													Offset Well Error:	3.28 ft
Reference		Offset		Semi Major Axis			Distance							Warning
Measured Depth (ft)	Vertical Depth (ft)	Measured Depth (ft)	Vertical Depth (ft)	Reference (ft)	Offset (ft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (ft)	+E/-W (ft)	Between Centres (ft)	Between Ellipses (ft)	Minimum Separation (ft)	Separation Factor		
0.00	0.00	0.00	0.00	3.28	3.28	180.00	-20.02	0.00	20.02					
100.00	100.00	100.00	100.00	3.28	3.28	180.00	-20.02	0.00	20.02	13.46	6.57	3.048		
200.00	200.00	200.00	200.00	3.34	3.34	180.00	-20.02	0.00	20.02	13.35	6.67	3.000		
300.00	300.00	300.00	300.00	3.44	3.44	180.00	-20.02	0.00	20.02	13.13	6.89	2.906		
400.00	400.00	400.00	400.00	3.60	3.60	180.00	-20.02	0.00	20.02	12.82	7.21	2.779		
500.00	500.00	500.00	500.00	3.81	3.81	180.00	-20.02	0.00	20.02	12.41	7.61	2.631		
600.00	600.00	600.58	600.56	4.05	4.05	-177.48	-18.46	-0.81	18.48	10.38	8.10	2.282		
700.00	699.98	700.80	700.66	4.32	4.32	-148.62	-14.16	-3.04	15.96	7.31	8.64	1.846		
748.80	748.73	749.59	749.39	4.46	4.46	-147.05	-11.88	-4.22	15.64	6.72	8.93	1.752 CC, ES		
800.00	799.84	800.80	800.52	4.62	4.62	-147.29	-9.48	-5.46	16.14	6.90	9.24	1.747		
900.00	899.62	900.79	900.37	4.94	4.94	-148.46	-4.80	-7.89	17.46	7.58	9.88	1.768		
1,000.00	999.41	1,000.78	1,000.22	5.27	5.27	-149.47	-0.11	-10.31	18.79	8.24	10.55	1.781		
1,100.00	1,099.19	1,100.77	1,100.07	5.62	5.62	-150.34	4.57	-12.74	20.12	8.87	11.25	1.788		
1,200.00	1,198.98	1,200.76	1,199.92	5.99	5.99	-151.11	9.25	-15.16	21.46	9.48	11.98	1.792		
1,300.00	1,298.76	1,300.75	1,299.77	6.36	6.36	-151.79	13.93	-17.58	22.80	10.08	12.72	1.792		
1,400.00	1,398.55	1,400.74	1,399.63	6.74	6.74	-152.39	18.61	-20.01	24.15	10.66	13.49	1.790		
1,500.00	1,498.33	1,500.73	1,499.48	7.13	7.13	-152.92	23.29	-22.43	25.49	11.23	14.26	1.787		
1,600.00	1,598.12	1,600.72	1,599.33	7.52	7.52	-153.41	27.98	-24.86	26.84	11.79	15.05	1.783		
1,700.00	1,697.90	1,700.71	1,699.18	7.92	7.92	-153.84	32.66	-27.28	28.19	12.34	15.85	1.778		
1,800.00	1,797.69	1,800.70	1,799.03	8.33	8.33	-154.24	37.34	-29.71	29.54	12.88	16.66	1.773		
1,900.00	1,897.47	1,900.69	1,898.88	8.74	8.73	-154.60	42.02	-32.13	30.90	13.42	17.48	1.768		
2,000.00	1,997.26	2,000.68	1,998.74	9.15	9.14	-154.94	46.70	-34.56	32.25	13.95	18.30	1.763		
2,100.00	2,097.04	2,100.67	2,098.59	9.56	9.56	-155.24	51.38	-36.98	33.61	14.48	19.13	1.757		
2,200.00	2,196.83	2,200.66	2,198.44	9.98	9.97	-155.52	56.07	-39.41	34.96	15.01	19.96	1.752		
2,300.00	2,296.61	2,300.66	2,298.29	10.40	10.39	-155.78	60.75	-41.83	36.32	15.53	20.79	1.747		
2,400.00	2,396.40	2,400.65	2,398.14	10.82	10.81	-156.02	65.43	-44.26	37.68	16.04	21.63	1.742		
2,500.00	2,496.18	2,500.64	2,497.99	11.24	11.23	-156.25	70.11	-46.68	39.04	16.56	22.48	1.737		
2,600.00	2,595.96	2,600.63	2,597.85	11.66	11.65	-156.46	74.79	-49.10	40.40	17.07	23.32	1.732		
2,700.00	2,695.75	2,700.62	2,697.70	12.09	12.08	-156.66	79.47	-51.53	41.75	17.58	24.17	1.727		
2,800.00	2,795.53	2,800.61	2,797.55	12.51	12.50	-156.84	84.16	-53.95	43.11	18.09	25.03	1.723		
2,900.00	2,895.32	2,900.60	2,897.40	12.94	12.93	-157.01	88.84	-56.38	44.48	18.59	25.88	1.718		
3,000.00	2,995.10	3,000.59	2,997.25	13.37	13.35	-157.17	93.52	-58.80	45.84	19.10	26.74	1.714		
3,100.00	3,094.89	3,100.58	3,097.10	13.80	13.78	-157.33	98.20	-61.23	47.20	19.60	27.59	1.710		
3,200.00	3,194.67	3,200.57	3,196.95	14.23	14.21	-157.47	102.88	-63.65	48.56	20.10	28.45	1.707		
3,300.00	3,294.46	3,300.56	3,296.81	14.66	14.64	-157.61	107.57	-66.08	49.92	20.61	29.31	1.703		
3,400.00	3,394.24	3,400.55	3,396.66	15.09	15.07	-157.74	112.25	-68.50	51.28	21.11	30.18	1.699		
3,500.00	3,494.03	3,500.54	3,496.51	15.52	15.50	-157.86	116.93	-70.93	52.64	21.60	31.04	1.696		
3,600.00	3,593.81	3,600.53	3,596.36	15.96	15.93	-157.98	121.61	-73.35	54.01	22.10	31.91	1.693		
3,700.00	3,693.60	3,700.52	3,696.21	16.39	16.37	-158.09	126.29	-75.78	55.37	22.60	32.77	1.690		
3,800.00	3,793.38	3,800.52	3,796.06	16.82	16.80	-158.19	130.97	-78.20	56.73	23.09	33.64	1.687		
3,900.00	3,893.17	3,900.51	3,895.92	17.26	17.23	-158.29	135.66	-80.62	58.10	23.59	34.51	1.684		
4,000.00	3,992.95	4,000.50	3,995.77	17.69	17.66	-158.39	140.34	-83.05	59.46	24.08	35.37	1.681		
4,100.00	4,092.74	4,100.49	4,095.62	18.13	18.10	-158.48	145.02	-85.47	60.82	24.58	36.24	1.678		
4,200.00	4,192.52	4,200.48	4,195.47	18.56	18.53	-158.57	149.70	-87.90	62.19	25.07	37.11	1.676		
4,300.00	4,292.31	4,300.47	4,295.32	19.00	18.97	-158.65	154.38	-90.32	63.55	25.57	37.98	1.673		
4,400.00	4,392.09	4,400.46	4,395.17	19.43	19.40	-158.73	159.06	-92.75	64.91	26.06	38.86	1.671		
4,500.00	4,491.88	4,500.45	4,495.02	19.87	19.84	-158.81	163.75	-95.17	66.28	26.55	39.73	1.668		
4,600.00	4,591.66	4,600.44	4,594.88	20.31	20.27	-158.88	168.43	-97.60	67.64	27.04	40.60	1.666		
4,700.00	4,691.44	4,700.43	4,694.73	20.74	20.71	-158.95	173.11	-100.02	69.01	27.53	41.47	1.664		
4,800.00	4,791.23	4,800.42	4,794.58	21.18	21.14	-159.02	177.79	-102.45	70.37	28.02	42.35	1.662		
4,900.00	4,891.01	4,900.41	4,894.43	21.62	21.58	-159.09	182.47	-104.87	71.73	28.51	43.22	1.660		
5,000.00	4,990.80	5,000.40	4,994.28	22.06	22.02	-159.15	187.15	-107.30	73.10	29.00	44.09	1.658		

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



Anticollision Report



Company:	SRC ENERGY	Local Co-ordinate Reference:	Well HARVESTERS STATE 31C-16-M
Project:	SECTION 15, T6N, R66W	TVD Reference:	KB @ 4821.00ft
Reference Site:	HARVESTERS STATE 7-15 PAD	MD Reference:	KB @ 4821.00ft
Site Error:	3.28 ft	North Reference:	True
Reference Well:	HARVESTERS STATE 31C-16-M	Survey Calculation Method:	Minimum Curvature
Well Error:	3.28 ft	Output errors are at	2.45 sigma
Reference Wellbore	OH	Database:	EDM 5000.14 Single User Db
Reference Design:	PLAN #1	Offset TVD Reference:	Reference Datum

Offset Design HARVESTERS STATE 7-15 PAD - HARVESTERS STATE 31N-16B-M - OH - PLAN #1												Offset Site Error:	0.00 ft
Survey Program: 0-MWD+IFR1												Offset Well Error:	3.28 ft
Reference		Offset		Semi Major Axis			Distance						Warning
Measured Depth (ft)	Vertical Depth (ft)	Measured Depth (ft)	Vertical Depth (ft)	Reference (ft)	Offset (ft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (ft)	+E/-W (ft)	Between Centres (ft)	Between Ellipses (ft)	Minimum Separation (ft)	Separation Factor	
5,100.00	5,090.58	5,100.39	5,094.13	22.50	22.45	-159.21	191.84	-109.72	74.46	29.49	44.97	1.656	
5,200.00	5,190.37	5,200.38	5,193.99	22.93	22.89	-159.27	196.52	-112.14	75.83	29.98	45.84	1.654	
5,300.00	5,290.15	5,300.38	5,293.84	23.37	23.33	-159.32	201.20	-114.57	77.19	30.47	46.72	1.652	
5,400.00	5,389.94	5,400.37	5,393.69	23.81	23.76	-159.38	205.88	-116.99	78.56	30.96	47.60	1.651	
5,500.00	5,489.72	5,500.36	5,493.54	24.25	24.20	-159.43	210.56	-119.42	79.92	31.45	48.47	1.649	
5,600.00	5,589.51	5,600.35	5,593.39	24.69	24.64	-159.48	215.25	-121.84	81.29	31.94	49.35	1.647	
5,700.00	5,689.29	5,700.34	5,693.24	25.13	25.07	-159.53	219.93	-124.27	82.65	32.43	50.22	1.646	
5,800.00	5,789.08	5,800.33	5,793.10	25.56	25.51	-159.58	224.61	-126.69	84.02	32.92	51.10	1.644	
5,900.00	5,888.86	5,900.32	5,892.95	26.00	25.95	-159.63	229.29	-129.12	85.38	33.40	51.98	1.643	
6,000.00	5,988.65	6,000.31	5,992.80	26.44	26.39	-159.67	233.97	-131.54	86.75	33.89	52.86	1.641	
6,100.00	6,088.43	6,100.30	6,092.65	26.88	26.83	-159.71	238.65	-133.97	88.11	34.38	53.73	1.640	
6,200.00	6,188.22	6,200.29	6,192.50	27.32	27.26	-159.76	243.34	-136.39	89.48	34.87	54.61	1.638	
6,300.00	6,288.00	6,300.28	6,292.35	27.76	27.70	-159.80	248.02	-138.82	90.84	35.35	55.49	1.637	
6,400.00	6,387.79	6,400.27	6,392.20	28.20	28.14	-159.84	252.70	-141.24	92.21	35.84	56.37	1.636	
6,500.00	6,487.57	6,500.46	6,492.15	28.64	28.58	-158.58	257.37	-145.78	93.51	36.26	57.25	1.633	
6,600.00	6,587.35	6,598.38	6,588.24	29.08	29.01	-149.36	261.77	-163.56	95.88	37.78	58.10	1.650	
6,700.00	6,687.02	6,690.36	6,675.04	29.52	29.42	-96.82	265.66	-193.50	105.03	46.70	58.32	1.801	
6,800.00	6,784.98	6,778.50	6,753.35	29.96	29.82	-68.66	269.07	-233.65	120.41	63.13	57.28	2.102	
6,900.00	6,878.81	6,863.80	6,823.18	30.41	30.22	-55.38	272.03	-282.44	138.56	83.48	55.08	2.516	
7,000.00	6,966.21	6,946.77	6,884.26	30.86	30.65	-47.15	274.53	-338.45	157.18	105.11	52.07	3.019	
7,100.00	7,045.03	7,027.84	6,936.42	31.35	31.13	-41.65	276.57	-400.40	174.86	126.26	48.60	3.598	
7,200.00	7,113.32	7,107.38	6,979.57	31.90	31.68	-37.88	278.15	-467.15	190.67	145.68	44.99	4.238	
7,300.00	7,169.40	7,185.74	7,013.62	32.57	32.31	-35.31	279.28	-537.65	204.05	162.47	41.58	4.907	
7,400.00	7,211.89	7,263.20	7,038.53	33.38	33.04	-33.61	279.96	-610.94	214.59	175.84	38.75	5.538	
7,500.00	7,239.75	7,340.03	7,054.28	34.35	33.86	-32.61	280.20	-686.09	222.04	185.14	36.89	6.018	
7,600.00	7,252.28	7,416.49	7,060.87	35.47	34.76	-32.21	280.00	-762.22	226.23	189.84	36.39	6.217	
7,700.00	7,252.75	7,507.80	7,059.89	36.73	35.94	-32.26	279.34	-853.52	228.14	190.44	37.70	6.052	
7,800.00	7,252.38	7,607.79	7,058.14	38.16	37.40	-32.36	278.59	-953.49	230.01	190.37	39.64	5.802	
7,900.00	7,252.02	7,707.77	7,056.39	39.74	39.02	-32.45	277.83	-1,053.45	231.89	190.09	41.80	5.548	
8,000.00	7,251.65	7,807.75	7,054.64	41.47	40.78	-32.54	277.08	-1,153.41	233.76	189.63	44.13	5.297	
8,100.00	7,251.29	7,907.73	7,052.89	43.31	42.65	-32.63	276.33	-1,253.38	235.64	189.02	46.62	5.054	
8,200.00	7,250.92	8,007.71	7,051.14	45.26	44.63	-32.72	275.58	-1,353.34	237.51	188.27	49.24	4.823	
8,300.00	7,250.55	8,107.69	7,049.40	47.30	46.69	-32.81	274.82	-1,453.30	239.39	187.41	51.98	4.605	
8,400.00	7,250.19	8,207.68	7,047.65	49.42	48.84	-32.89	274.07	-1,553.27	241.27	186.45	54.82	4.401	
8,500.00	7,249.82	8,307.66	7,045.90	51.62	51.06	-32.98	273.32	-1,653.23	243.15	185.40	57.75	4.211	
8,600.00	7,249.45	8,407.64	7,044.15	53.88	53.33	-33.06	272.57	-1,753.20	245.03	184.28	60.75	4.034	
8,700.00	7,249.09	8,507.62	7,042.40	56.19	55.67	-33.14	271.81	-1,853.16	246.91	183.09	63.82	3.869	
8,800.00	7,248.72	8,607.60	7,040.65	58.55	58.05	-33.22	271.06	-1,953.12	248.79	181.84	66.95	3.716	
8,900.00	7,248.36	8,707.58	7,038.90	60.96	60.47	-33.30	270.31	-2,053.09	250.67	180.54	70.13	3.574	
9,000.00	7,247.99	8,807.57	7,037.15	63.40	62.93	-33.38	269.56	-2,153.05	252.55	179.19	73.36	3.443	
9,100.00	7,247.62	8,907.55	7,035.40	65.87	65.42	-33.45	268.80	-2,253.01	254.43	177.80	76.62	3.320	
9,200.00	7,247.26	9,007.53	7,033.65	68.38	67.93	-33.53	268.05	-2,352.98	256.31	176.38	79.93	3.207	
9,300.00	7,246.89	9,107.51	7,031.90	70.91	70.48	-33.60	267.30	-2,452.94	258.19	174.92	83.27	3.101	
9,400.00	7,246.53	9,207.49	7,030.15	73.47	73.05	-33.68	266.55	-2,552.90	260.08	173.43	86.64	3.002	
9,500.00	7,246.16	9,307.47	7,028.40	76.05	75.64	-33.75	265.79	-2,652.87	261.96	171.91	90.05	2.909	
9,600.00	7,245.79	9,407.46	7,026.66	78.65	78.24	-33.82	265.04	-2,752.83	263.84	170.37	93.47	2.823	
9,700.00	7,245.43	9,507.44	7,024.91	81.27	80.87	-33.89	264.29	-2,852.80	265.73	168.80	96.92	2.742	
9,800.00	7,245.06	9,607.42	7,023.16	83.90	83.51	-33.96	263.54	-2,952.76	267.61	167.21	100.40	2.666	
9,900.00	7,244.69	9,707.40	7,021.41	86.55	86.16	-34.03	262.78	-3,052.72	269.49	165.60	103.89	2.594	
10,000.00	7,244.33	9,807.38	7,019.66	89.21	88.83	-34.10	262.03	-3,152.69	271.38	163.97	107.40	2.527	
10,100.00	7,243.96	9,907.36	7,017.91	91.88	91.50	-34.16	261.28	-3,252.65	273.27	162.33	110.94	2.463	
10,200.00	7,243.60	10,007.35	7,016.16	94.56	94.19	-34.23	260.53	-3,352.61	275.15	160.67	114.48	2.403	

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



Anticollision Report



Company:	SRC ENERGY	Local Co-ordinate Reference:	Well HARVESTERS STATE 31C-16-M
Project:	SECTION 15, T6N, R66W	TVD Reference:	KB @ 4821.00ft
Reference Site:	HARVESTERS STATE 7-15 PAD	MD Reference:	KB @ 4821.00ft
Site Error:	3.28 ft	North Reference:	True
Reference Well:	HARVESTERS STATE 31C-16-M	Survey Calculation Method:	Minimum Curvature
Well Error:	3.28 ft	Output errors are at	2.45 sigma
Reference Wellbore	OH	Database:	EDM 5000.14 Single User Db
Reference Design:	PLAN #1	Offset TVD Reference:	Reference Datum

Offset Design HARVESTERS STATE 7-15 PAD - HARVESTERS STATE 31N-16B-M - OH - PLAN #1													Offset Site Error:	0.00 ft
Survey Program: 0-MWD+IFR1													Offset Well Error:	3.28 ft
Reference		Offset		Semi Major Axis			Distance							Warning
Measured Depth (ft)	Vertical Depth (ft)	Measured Depth (ft)	Vertical Depth (ft)	Reference (ft)	Offset (ft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (ft)	+E/-W (ft)	Between Centres (ft)	Between Ellipses (ft)	Minimum Separation (ft)	Separation Factor		
10,300.00	7,243.23	10,107.33	7,014.41	97.26	96.89	-34.29	259.77	-3,452.58	277.04	158.99	118.05	2.347		
10,400.00	7,242.86	10,207.31	7,012.66	99.96	99.60	-34.36	259.02	-3,552.54	278.92	157.30	121.63	2.293		
10,500.00	7,242.50	10,307.29	7,010.91	102.67	102.31	-34.42	258.27	-3,652.50	280.81	155.59	125.22	2.243		
10,600.00	7,242.13	10,407.27	7,009.16	105.39	105.03	-34.48	257.52	-3,752.47	282.70	153.87	128.83	2.194		
10,700.00	7,241.76	10,507.26	7,007.41	108.12	107.76	-34.54	256.76	-3,852.43	284.58	152.14	132.45	2.149		
10,800.00	7,241.40	10,607.24	7,005.66	110.85	110.50	-34.60	256.01	-3,952.39	286.47	150.39	136.08	2.105		
10,900.00	7,241.03	10,707.22	7,003.92	113.59	113.24	-34.66	255.26	-4,052.36	288.36	148.64	139.72	2.064		
11,000.00	7,240.67	10,807.20	7,002.17	116.34	115.99	-34.72	254.51	-4,152.32	290.25	146.87	143.38	2.024		
11,100.00	7,240.30	10,907.18	7,000.42	119.09	118.74	-34.78	253.75	-4,252.29	292.14	145.10	147.04	1.987		
11,200.00	7,239.93	11,007.16	6,998.67	121.85	121.50	-34.84	253.00	-4,352.25	294.03	143.31	150.72	1.951		
11,300.00	7,239.57	11,107.15	6,996.92	124.61	124.26	-34.89	252.25	-4,452.21	295.92	141.52	154.40	1.917		
11,400.00	7,239.20	11,207.13	6,995.17	127.38	127.03	-34.95	251.50	-4,552.18	297.81	139.71	158.09	1.884		
11,500.00	7,238.84	11,307.11	6,993.42	130.15	129.80	-35.01	250.74	-4,652.14	299.70	137.90	161.80	1.852		
11,600.00	7,238.47	11,407.09	6,991.67	132.92	132.57	-35.06	249.99	-4,752.10	301.59	136.08	165.51	1.822		
11,700.00	7,238.10	11,507.07	6,989.92	135.70	135.35	-35.11	249.24	-4,852.07	303.48	134.25	169.23	1.793		
11,800.00	7,237.74	11,607.05	6,988.17	138.48	138.13	-35.17	248.49	-4,952.03	305.37	132.41	172.95	1.766		
11,900.00	7,237.37	11,707.04	6,986.42	141.26	140.91	-35.22	247.73	-5,051.99	307.26	130.57	176.69	1.739		
12,000.00	7,237.00	11,807.02	6,984.67	144.05	143.70	-35.27	246.98	-5,151.96	309.15	128.72	180.43	1.713		
12,100.00	7,236.64	11,907.00	6,982.92	146.84	146.49	-35.32	246.23	-5,251.92	311.04	126.86	184.18	1.689		
12,200.00	7,236.27	12,006.98	6,981.18	149.64	149.28	-35.37	245.48	-5,351.89	312.93	124.99	187.94	1.665		
12,300.00	7,235.91	12,106.96	6,979.43	152.43	152.07	-35.42	244.72	-5,451.85	314.82	123.12	191.70	1.642		
12,400.00	7,235.54	12,206.94	6,977.68	155.23	154.87	-35.47	243.97	-5,551.81	316.72	121.25	195.47	1.620		
12,500.00	7,235.17	12,306.93	6,975.93	158.03	157.67	-35.52	243.22	-5,651.78	318.61	119.36	199.25	1.599		
12,600.00	7,234.81	12,406.91	6,974.18	160.83	160.47	-35.57	242.47	-5,751.74	320.50	117.47	203.03	1.579		
12,700.00	7,234.44	12,506.89	6,972.43	163.64	163.27	-35.62	241.71	-5,851.70	322.39	115.58	206.82	1.559		
12,800.00	7,234.07	12,606.87	6,970.68	166.44	166.08	-35.66	240.96	-5,951.67	324.29	113.68	210.61	1.540		
12,900.00	7,233.71	12,706.85	6,968.93	169.25	168.89	-35.71	240.21	-6,051.63	326.18	111.77	214.41	1.521		
13,000.00	7,233.34	12,806.84	6,967.18	172.06	171.69	-35.76	239.46	-6,151.59	328.07	109.86	218.22	1.503		
13,100.00	7,232.98	12,906.82	6,965.43	174.88	174.50	-35.80	238.70	-6,251.56	329.97	107.94	222.03	1.486 Level 3		
13,200.00	7,232.61	13,006.80	6,963.68	177.69	177.32	-35.85	237.95	-6,351.52	331.86	106.02	225.84	1.469 Level 3		
13,300.00	7,232.24	13,106.78	6,961.93	180.50	180.13	-35.89	237.20	-6,451.48	333.76	104.09	229.66	1.453 Level 3		
13,400.00	7,231.88	13,206.76	6,960.19	183.32	182.94	-35.94	236.45	-6,551.45	335.65	102.16	233.49	1.438 Level 3		
13,500.00	7,231.51	13,306.74	6,958.44	186.14	185.76	-35.98	235.69	-6,651.41	337.55	100.23	237.32	1.422 Level 3		
13,600.00	7,231.15	13,406.73	6,956.69	188.96	188.57	-36.02	234.94	-6,751.38	339.44	98.28	241.16	1.408 Level 3		
13,700.00	7,230.78	13,506.71	6,954.94	191.78	191.39	-36.07	234.19	-6,851.34	341.34	96.34	245.00	1.393 Level 3		
13,800.00	7,230.41	13,606.69	6,953.19	194.60	194.21	-36.11	233.44	-6,951.30	343.23	94.39	248.84	1.379 Level 3		
13,900.00	7,230.05	13,706.67	6,951.44	197.42	197.03	-36.15	232.68	-7,051.27	345.13	92.44	252.69	1.366 Level 3		
14,000.00	7,229.68	13,806.65	6,949.69	200.25	199.85	-36.19	231.93	-7,151.23	347.02	90.48	256.54	1.353 Level 3		
14,100.00	7,229.31	13,906.63	6,947.94	203.07	202.68	-36.23	231.18	-7,251.19	348.92	88.52	260.40	1.340 Level 3		
14,200.00	7,228.95	14,006.62	6,946.19	205.90	205.50	-36.27	230.43	-7,351.16	350.81	86.55	264.26	1.328 Level 3		
14,300.00	7,228.58	14,106.60	6,944.44	208.73	208.32	-36.31	229.67	-7,451.12	352.71	84.58	268.13	1.315 Level 3		
14,400.00	7,228.22	14,206.58	6,942.69	211.55	211.15	-36.35	228.92	-7,551.08	354.60	82.61	272.00	1.304 Level 3		
14,500.00	7,227.85	14,306.56	6,940.94	214.38	213.97	-36.39	228.17	-7,651.05	356.50	80.63	275.87	1.292 Level 3		
14,600.00	7,227.48	14,406.54	6,939.19	217.21	216.80	-36.43	227.42	-7,751.01	358.40	78.65	279.75	1.281 Level 3		
14,700.00	7,227.12	14,506.52	6,937.45	220.04	219.63	-36.47	226.66	-7,850.97	360.29	76.67	283.63	1.270 Level 3		
14,800.00	7,226.75	14,606.51	6,935.70	222.88	222.46	-36.50	225.91	-7,950.94	362.19	74.68	287.51	1.260 Level 3		
14,900.00	7,226.38	14,706.49	6,933.95	225.71	225.29	-36.54	225.16	-8,050.90	364.09	72.69	291.40	1.249 Level 2		
15,000.00	7,226.02	14,806.47	6,932.20	228.54	228.12	-36.58	224.41	-8,150.87	365.99	70.70	295.29	1.239 Level 2		
15,005.81	7,226.00	14,812.28	6,932.10	228.71	228.28	-36.58	224.36	-8,156.67	366.10	70.58	295.52	1.239 Level 2, SF		

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



Anticollision Report



Company:	SRC ENERGY	Local Co-ordinate Reference:	Well HARVESTERS STATE 31C-16-M
Project:	SECTION 15, T6N, R66W	TVD Reference:	KB @ 4821.00ft
Reference Site:	HARVESTERS STATE 7-15 PAD	MD Reference:	KB @ 4821.00ft
Site Error:	3.28 ft	North Reference:	True
Reference Well:	HARVESTERS STATE 31C-16-M	Survey Calculation Method:	Minimum Curvature
Well Error:	3.28 ft	Output errors are at	2.45 sigma
Reference Wellbore	OH	Database:	EDM 5000.14 Single User Db
Reference Design:	PLAN #1	Offset TVD Reference:	Reference Datum

Offset Design HARVESTERS STATE 7-15 PAD - HARVESTERS STATE 32C-16-M - OH - PLAN #1													Offset Site Error:	0.00 ft
Survey Program: 0-MWD													Offset Well Error:	3.28 ft
Reference		Offset		Semi Major Axis			Distance							Warning
Measured Depth (ft)	Vertical Depth (ft)	Measured Depth (ft)	Vertical Depth (ft)	Reference (ft)	Offset (ft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (ft)	+E/-W (ft)	Between Centres (ft)	Between Ellipses (ft)	Minimum Separation (ft)	Separation Factor		
0.00	0.00	1.00	0.00	3.28	3.28	-179.57	-220.03	-1.67	220.04					
100.00	100.00	101.00	100.00	3.28	3.28	-179.57	-220.03	-1.67	220.04	213.47	6.57	33.493		
200.00	200.00	199.00	200.00	3.34	3.34	-179.57	-220.03	-1.67	220.04	213.37	6.67	32.973 CC, ES		
300.00	300.00	291.96	292.95	3.44	3.43	-179.51	-221.49	-1.88	221.61	214.73	6.88	32.192		
400.00	400.00	384.67	385.54	3.60	3.57	-179.37	-225.92	-2.50	226.40	219.20	7.20	31.441		
500.00	500.00	476.98	477.55	3.81	3.74	-179.13	-233.28	-3.54	234.38	226.78	7.61	30.803		
600.00	600.00	568.72	568.71	4.05	3.97	-178.83	-243.50	-4.98	245.55	237.46	8.09	30.346		
700.00	699.98	659.47	658.51	4.32	4.24	-155.59	-256.44	-6.81	261.43	252.80	8.63	30.282		
800.00	799.84	756.11	753.84	4.62	4.58	-155.50	-272.11	-9.03	282.36	273.14	9.21	30.648		
900.00	899.62	853.62	850.03	4.94	4.96	-155.65	-287.94	-11.26	304.52	294.71	9.81	31.050		
1,000.00	999.41	951.13	946.22	5.27	5.36	-155.79	-303.78	-13.50	326.68	316.23	10.45	31.256		
1,100.00	1,099.19	1,048.64	1,042.41	5.62	5.79	-155.91	-319.62	-15.74	348.84	337.71	11.13	31.349		
1,200.00	1,198.98	1,146.15	1,138.60	5.99	6.24	-156.01	-335.45	-17.97	371.00	359.17	11.83	31.358		
1,300.00	1,298.76	1,243.66	1,234.79	6.36	6.71	-156.10	-351.29	-20.21	393.17	380.61	12.56	31.309		
1,400.00	1,398.55	1,341.17	1,330.98	6.74	7.18	-156.19	-367.13	-22.45	415.34	402.03	13.30	31.220		
1,500.00	1,498.33	1,438.68	1,427.17	7.13	7.67	-156.26	-382.97	-24.69	437.50	423.44	14.07	31.104		
1,600.00	1,598.12	1,536.19	1,523.36	7.52	8.16	-156.33	-398.80	-26.92	459.67	444.83	14.84	30.972		
1,700.00	1,697.90	1,633.71	1,619.55	7.92	8.66	-156.39	-414.64	-29.16	481.84	466.21	15.63	30.830		
1,800.00	1,797.69	1,731.22	1,715.74	8.33	9.16	-156.44	-430.48	-31.40	504.01	487.58	16.43	30.684		
1,900.00	1,897.47	1,828.73	1,811.93	8.74	9.67	-156.49	-446.31	-33.64	526.18	508.94	17.23	30.535		
2,000.00	1,997.26	1,926.24	1,908.12	9.15	10.18	-156.54	-462.15	-35.87	548.35	530.30	18.05	30.388		
2,100.00	2,097.04	2,023.75	2,004.31	9.56	10.70	-156.58	-477.99	-38.11	570.52	551.65	18.86	30.242		
2,200.00	2,196.83	2,121.26	2,100.50	9.98	11.22	-156.62	-493.82	-40.35	592.69	573.00	19.69	30.100		
2,300.00	2,296.61	2,218.77	2,196.69	10.40	11.74	-156.66	-509.66	-42.58	614.86	594.34	20.52	29.963		
2,400.00	2,396.40	2,316.28	2,292.88	10.82	12.27	-156.69	-525.50	-44.82	637.03	615.67	21.36	29.830		
2,500.00	2,496.18	2,413.79	2,389.07	11.24	12.79	-156.73	-541.33	-47.06	659.20	637.00	22.19	29.701		
2,600.00	2,595.96	2,511.30	2,485.26	11.66	13.32	-156.76	-557.17	-49.30	681.37	658.33	23.04	29.578		
2,700.00	2,695.75	2,608.81	2,581.45	12.09	13.85	-156.78	-573.01	-51.53	703.54	679.66	23.88	29.459		
2,800.00	2,795.53	2,706.32	2,677.64	12.51	14.38	-156.81	-588.85	-53.77	725.71	700.98	24.73	29.345		
2,900.00	2,895.32	2,803.83	2,773.83	12.94	14.91	-156.83	-604.68	-56.01	747.88	722.30	25.58	29.236		
3,000.00	2,995.10	2,901.34	2,870.02	13.37	15.45	-156.86	-620.52	-58.25	770.05	743.62	26.43	29.132		
3,100.00	3,094.89	3,001.14	2,966.21	13.80	15.99	-156.88	-636.36	-60.48	792.22	764.93	27.30	29.021		
3,200.00	3,194.67	3,103.63	3,062.40	14.23	16.55	-156.90	-652.19	-62.72	814.40	786.22	28.18	28.902		
3,300.00	3,294.46	3,206.12	3,158.59	14.66	17.12	-156.92	-668.03	-64.96	836.57	807.51	29.06	28.789		
3,400.00	3,394.24	3,308.61	3,254.78	15.09	17.68	-156.94	-683.87	-67.20	858.74	828.80	29.94	28.681		
3,500.00	3,494.03	3,388.90	3,350.97	15.52	18.12	-156.96	-699.70	-69.43	880.91	850.19	30.73	28.670		
3,600.00	3,593.81	3,486.41	3,447.16	15.96	18.66	-156.97	-715.54	-71.67	903.08	871.49	31.59	28.589		
3,700.00	3,693.60	3,583.92	3,543.35	16.39	19.20	-156.99	-731.38	-73.91	925.26	892.80	32.45	28.511		
3,800.00	3,793.38	3,681.43	3,639.54	16.82	19.74	-157.01	-747.21	-76.14	947.43	914.11	33.32	28.436		
3,900.00	3,893.17	3,778.94	3,735.73	17.26	20.28	-157.02	-763.05	-78.38	969.60	935.42	34.18	28.364		
4,000.00	3,992.95	3,876.45	3,831.92	17.69	20.82	-157.03	-778.89	-80.62	991.77	956.72	35.05	28.295		
4,100.00	4,092.74	3,973.96	3,928.11	18.13	21.36	-157.05	-794.73	-82.86	1,013.94	978.02	35.92	28.229		
4,200.00	4,192.52	4,071.47	4,024.30	18.56	21.90	-157.06	-810.56	-85.09	1,036.12	999.33	36.79	28.165		
4,300.00	4,292.31	4,168.98	4,120.49	19.00	22.44	-157.07	-826.40	-87.33	1,058.29	1,020.63	37.66	28.103		
4,400.00	4,392.09	4,266.49	4,216.68	19.43	22.98	-157.08	-842.24	-89.57	1,080.46	1,041.93	38.53	28.044		
4,500.00	4,491.88	4,364.01	4,312.87	19.87	23.52	-157.10	-858.07	-91.81	1,102.63	1,063.23	39.40	27.986		
4,600.00	4,591.66	4,461.52	4,409.06	20.31	24.06	-157.11	-873.91	-94.04	1,124.81	1,084.54	40.27	27.931		
4,700.00	4,691.44	4,559.03	4,505.25	20.74	24.60	-157.12	-889.75	-96.28	1,146.98	1,105.84	41.14	27.878		
4,800.00	4,791.23	4,656.54	4,601.44	21.18	25.14	-157.13	-905.58	-98.52	1,169.15	1,127.14	42.02	27.826		
4,900.00	4,891.01	4,754.05	4,697.63	21.62	25.69	-157.14	-921.42	-100.75	1,191.32	1,148.43	42.89	27.777		
5,000.00	4,990.80	4,851.56	4,793.82	22.06	26.23	-157.15	-937.26	-102.99	1,213.50	1,169.73	43.76	27.729		
5,100.00	5,090.58	4,949.07	4,890.01	22.50	26.77	-157.16	-953.10	-105.23	1,235.67	1,191.03	44.64	27.682		

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



Anticollision Report



Company:	SRC ENERGY	Local Co-ordinate Reference:	Well HARVESTERS STATE 31C-16-M
Project:	SECTION 15, T6N, R66W	TVD Reference:	KB @ 4821.00ft
Reference Site:	HARVESTERS STATE 7-15 PAD	MD Reference:	KB @ 4821.00ft
Site Error:	3.28 ft	North Reference:	True
Reference Well:	HARVESTERS STATE 31C-16-M	Survey Calculation Method:	Minimum Curvature
Well Error:	3.28 ft	Output errors are at	2.45 sigma
Reference Wellbore	OH	Database:	EDM 5000.14 Single User Db
Reference Design:	PLAN #1	Offset TVD Reference:	Reference Datum

Offset Design HARVESTERS STATE 7-15 PAD - HARVESTERS STATE 32C-16-M - OH - PLAN #1													Offset Site Error:	0.00 ft
Survey Program: 0-MWD													Offset Well Error:	3.28 ft
Reference		Offset		Semi Major Axis			Distance							Warning
Measured Depth (ft)	Vertical Depth (ft)	Measured Depth (ft)	Vertical Depth (ft)	Reference (ft)	Offset (ft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (ft)	+E/-W (ft)	Between Centres (ft)	Between Ellipses (ft)	Minimum Separation (ft)	Separation Factor		
5,200.00	5,190.37	5,046.58	4,986.20	22.93	27.31	-157.16	-968.93	-107.47	1,257.84	1,212.33	45.51	27.637		
5,300.00	5,290.15	5,144.09	5,082.39	23.37	27.86	-157.17	-984.77	-109.70	1,280.01	1,233.63	46.39	27.594		
5,400.00	5,389.94	5,241.60	5,178.58	23.81	28.40	-157.18	-1,000.61	-111.94	1,302.19	1,254.92	47.26	27.552		
5,500.00	5,489.72	5,339.11	5,274.77	24.25	28.94	-157.19	-1,016.44	-114.18	1,324.36	1,276.22	48.14	27.511		
5,600.00	5,589.51	5,436.62	5,370.96	24.69	29.49	-157.20	-1,032.28	-116.42	1,346.53	1,297.52	49.02	27.471		
5,700.00	5,689.29	5,534.13	5,467.15	25.13	30.03	-157.20	-1,048.12	-118.65	1,368.71	1,318.81	49.89	27.433		
5,800.00	5,789.08	5,631.64	5,563.34	25.56	30.57	-157.21	-1,063.95	-120.89	1,390.88	1,340.11	50.77	27.396		
5,900.00	5,888.86	5,729.16	5,659.53	26.00	31.12	-157.22	-1,079.79	-123.13	1,413.05	1,361.40	51.65	27.359		
6,000.00	5,988.65	5,826.67	5,755.72	26.44	31.66	-157.22	-1,095.63	-125.36	1,435.22	1,382.70	52.53	27.324		
6,100.00	6,088.43	5,924.18	5,851.91	26.88	32.20	-157.23	-1,111.46	-127.60	1,457.40	1,403.99	53.40	27.290		
6,200.00	6,188.22	6,021.69	5,948.10	27.32	32.75	-157.24	-1,127.30	-129.84	1,479.57	1,425.29	54.28	27.257		
6,300.00	6,288.00	6,119.20	6,044.29	27.76	33.29	-157.24	-1,143.14	-132.08	1,501.74	1,446.58	55.16	27.225		
6,400.00	6,387.79	6,216.71	6,140.48	28.20	33.84	-157.25	-1,158.98	-134.31	1,523.92	1,467.88	56.04	27.194		
6,500.00	6,487.57	6,314.22	6,236.67	28.64	34.38	-157.25	-1,174.81	-136.55	1,546.09	1,489.17	56.92	27.163		
6,600.00	6,587.35	6,411.73	6,332.86	29.08	34.93	-157.26	-1,190.65	-138.79	1,568.26	1,510.46	57.80	27.133		
6,700.00	6,687.02	6,509.17	6,428.98	29.52	35.47	-118.36	-1,206.48	-141.02	1,590.44	1,531.76	58.68	27.104		
6,800.00	6,784.98	6,605.25	6,523.76	29.96	36.01	-100.90	-1,222.08	-143.23	1,612.53	1,552.96	59.57	27.068		
6,900.00	6,878.81	6,697.64	6,614.89	30.41	36.52	-95.39	-1,237.08	-145.35	1,634.46	1,573.99	60.47	27.028		
7,000.00	6,966.21	6,795.81	6,711.43	30.86	37.08	-92.77	-1,253.01	-152.48	1,656.28	1,594.80	61.48	26.940		
7,100.00	7,045.03	6,904.36	6,815.51	31.35	37.68	-91.27	-1,270.30	-177.41	1,677.36	1,614.71	62.65	26.774		
7,200.00	7,113.32	7,023.79	6,923.32	31.90	38.34	-90.38	-1,288.35	-225.07	1,697.04	1,633.05	63.99	26.520		
7,300.00	7,169.40	7,156.39	7,030.36	32.57	39.07	-89.93	-1,306.47	-300.80	1,714.58	1,649.01	65.57	26.151		
7,400.00	7,211.89	7,303.83	7,128.31	33.38	39.93	-89.78	-1,323.31	-409.26	1,729.09	1,661.59	67.50	25.616		
7,500.00	7,239.75	7,465.87	7,204.42	34.35	41.03	-89.79	-1,336.78	-551.17	1,739.63	1,669.62	70.02	24.845		
7,600.00	7,252.28	7,638.93	7,243.97	35.47	42.62	-89.81	-1,344.41	-718.94	1,745.37	1,672.08	73.29	23.814		
7,700.00	7,252.75	7,767.67	7,246.67	36.73	44.20	-89.80	-1,345.72	-847.57	1,746.88	1,670.25	76.63	22.796		
7,800.00	7,252.38	7,867.67	7,246.14	38.16	45.68	-89.79	-1,346.30	-947.56	1,748.04	1,668.06	79.98	21.856		
7,900.00	7,252.02	7,967.66	7,245.61	39.74	47.40	-89.79	-1,346.89	-1,047.56	1,749.19	1,665.53	83.65	20.910		
8,000.00	7,251.65	8,067.65	7,245.09	41.47	49.31	-89.78	-1,347.47	-1,147.55	1,750.34	1,662.73	87.61	19.978		
8,100.00	7,251.29	8,167.65	7,244.56	43.31	51.40	-89.78	-1,348.05	-1,247.54	1,751.49	1,659.68	91.82	19.076		
8,200.00	7,250.92	8,267.64	7,244.03	45.26	53.64	-89.77	-1,348.64	-1,347.53	1,752.64	1,656.41	96.24	18.212		
8,300.00	7,250.55	8,367.63	7,243.50	47.30	56.00	-89.77	-1,349.22	-1,447.52	1,753.80	1,652.95	100.84	17.392		
8,400.00	7,250.19	8,467.63	7,242.97	49.42	58.47	-89.76	-1,349.81	-1,547.51	1,754.95	1,649.34	105.61	16.617		
8,500.00	7,249.82	8,567.62	7,242.44	51.62	61.03	-89.76	-1,350.39	-1,647.50	1,756.10	1,645.58	110.52	15.889		
8,600.00	7,249.45	8,667.61	7,241.91	53.88	63.67	-89.75	-1,350.98	-1,747.49	1,757.25	1,641.70	115.55	15.207		
8,700.00	7,249.09	8,767.61	7,241.38	56.19	66.38	-89.75	-1,351.56	-1,847.48	1,758.40	1,637.71	120.69	14.569		
8,800.00	7,248.72	8,867.60	7,240.86	58.55	69.15	-89.74	-1,352.14	-1,947.47	1,759.55	1,633.62	125.93	13.972		
8,900.00	7,248.36	8,967.59	7,240.33	60.96	71.97	-89.74	-1,352.73	-2,047.46	1,760.71	1,629.46	131.25	13.415		
9,000.00	7,247.99	9,067.59	7,239.80	63.40	74.84	-89.73	-1,353.31	-2,147.45	1,761.86	1,625.21	136.64	12.894		
9,100.00	7,247.62	9,167.58	7,239.27	65.87	77.74	-89.73	-1,353.90	-2,247.44	1,763.01	1,620.91	142.10	12.407		
9,200.00	7,247.26	9,267.57	7,238.74	68.38	80.68	-89.72	-1,354.48	-2,347.43	1,764.16	1,616.54	147.62	11.951		
9,300.00	7,246.89	9,367.57	7,238.21	70.91	83.66	-89.72	-1,355.07	-2,447.42	1,765.31	1,612.13	153.19	11.524		
9,400.00	7,246.53	9,467.56	7,237.68	73.47	86.66	-89.71	-1,355.65	-2,547.41	1,766.47	1,607.66	158.80	11.124		
9,500.00	7,246.16	9,567.55	7,237.16	76.05	89.68	-89.71	-1,356.23	-2,647.40	1,767.62	1,603.16	164.46	10.748		
9,600.00	7,245.79	9,667.54	7,236.63	78.65	92.72	-89.70	-1,356.82	-2,747.39	1,768.77	1,598.62	170.15	10.395		
9,700.00	7,245.43	9,767.54	7,236.10	81.27	95.79	-89.70	-1,357.40	-2,847.38	1,769.92	1,594.04	175.88	10.063		
9,800.00	7,245.06	9,867.53	7,235.57	83.90	98.87	-89.69	-1,357.99	-2,947.37	1,771.07	1,589.43	181.64	9.750		
9,900.00	7,244.69	9,967.52	7,235.04	86.55	101.97	-89.69	-1,358.57	-3,047.36	1,772.23	1,584.80	187.43	9.456		
10,000.00	7,244.33	10,067.52	7,234.51	89.21	105.09	-89.68	-1,359.16	-3,147.35	1,773.38	1,580.14	193.24	9.177		
10,100.00	7,243.96	10,167.51	7,233.98	91.88	108.22	-89.68	-1,359.74	-3,247.34	1,774.53	1,575.46	199.07	8.914		
10,200.00	7,243.60	10,267.50	7,233.45	94.56	111.36	-89.67	-1,360.32	-3,347.33	1,775.68	1,570.75	204.93	8.665		
10,300.00	7,243.23	10,367.50	7,232.93	97.26	114.51	-89.67	-1,360.91	-3,447.32	1,776.84	1,566.03	210.81	8.429		

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



Anticollision Report



Company:	SRC ENERGY	Local Co-ordinate Reference:	Well HARVESTERS STATE 31C-16-M
Project:	SECTION 15, T6N, R66W	TVD Reference:	KB @ 4821.00ft
Reference Site:	HARVESTERS STATE 7-15 PAD	MD Reference:	KB @ 4821.00ft
Site Error:	3.28 ft	North Reference:	True
Reference Well:	HARVESTERS STATE 31C-16-M	Survey Calculation Method:	Minimum Curvature
Well Error:	3.28 ft	Output errors are at	2.45 sigma
Reference Wellbore	OH	Database:	EDM 5000.14 Single User Db
Reference Design:	PLAN #1	Offset TVD Reference:	Reference Datum

Offset Design HARVESTERS STATE 7-15 PAD - HARVESTERS STATE 32C-16-M - OH - PLAN #1													Offset Site Error:	0.00 ft
Survey Program: 0-MWD													Offset Well Error:	3.28 ft
Reference		Offset		Semi Major Axis			Distance						Warning	
Measured Depth (ft)	Vertical Depth (ft)	Measured Depth (ft)	Vertical Depth (ft)	Reference (ft)	Offset (ft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (ft)	+E/-W (ft)	Between Centres (ft)	Between Ellipses (ft)	Minimum Separation (ft)	Separation Factor		
10,400.00	7,242.86	10,467.49	7,232.40	99.96	117.67	-89.66	-1,361.49	-3,547.31	1,777.99	1,561.29	216.70	8.205		
10,500.00	7,242.50	10,567.48	7,231.87	102.67	120.84	-89.66	-1,362.08	-3,647.30	1,779.14	1,556.53	222.61	7.992		
10,600.00	7,242.13	10,667.48	7,231.34	105.39	124.02	-89.65	-1,362.66	-3,747.29	1,780.29	1,551.76	228.53	7.790		
10,700.00	7,241.76	10,767.47	7,230.81	108.12	127.21	-89.65	-1,363.25	-3,847.28	1,781.44	1,546.97	234.47	7.598		
10,800.00	7,241.40	10,867.46	7,230.28	110.85	130.40	-89.64	-1,363.83	-3,947.27	1,782.60	1,542.17	240.43	7.414		
10,900.00	7,241.03	10,967.46	7,229.75	113.59	133.60	-89.64	-1,364.41	-4,047.26	1,783.75	1,537.36	246.39	7.240		
11,000.00	7,240.67	11,067.45	7,229.23	116.34	136.81	-89.63	-1,365.00	-4,147.25	1,784.90	1,532.54	252.36	7.073		
11,100.00	7,240.30	11,167.44	7,228.70	119.09	140.03	-89.63	-1,365.58	-4,247.24	1,786.05	1,527.70	258.35	6.913		
11,200.00	7,239.93	11,267.44	7,228.17	121.85	143.25	-89.62	-1,366.17	-4,347.23	1,787.20	1,522.86	264.34	6.761		
11,300.00	7,239.57	11,367.43	7,227.64	124.61	146.47	-89.62	-1,366.75	-4,447.22	1,788.36	1,518.01	270.35	6.615		
11,400.00	7,239.20	11,467.42	7,227.11	127.38	149.70	-89.61	-1,367.34	-4,547.21	1,789.51	1,513.15	276.36	6.475		
11,500.00	7,238.84	11,567.42	7,226.58	130.15	152.94	-89.61	-1,367.92	-4,647.20	1,790.66	1,508.28	282.38	6.341		
11,600.00	7,238.47	11,667.41	7,226.05	132.92	156.18	-89.60	-1,368.51	-4,747.19	1,791.81	1,503.40	288.41	6.213		
11,700.00	7,238.10	11,767.40	7,225.52	135.70	159.42	-89.60	-1,369.09	-4,847.18	1,792.97	1,498.52	294.44	6.089		
11,800.00	7,237.74	11,867.40	7,225.00	138.48	162.67	-89.59	-1,369.67	-4,947.17	1,794.12	1,493.63	300.49	5.971		
11,900.00	7,237.37	11,967.39	7,224.47	141.26	165.92	-89.59	-1,370.26	-5,047.16	1,795.27	1,488.74	306.53	5.857		
12,000.00	7,237.00	12,067.38	7,223.94	144.05	169.17	-89.58	-1,370.84	-5,147.15	1,796.42	1,483.84	312.59	5.747		
12,100.00	7,236.64	12,167.38	7,223.41	146.84	172.42	-89.58	-1,371.43	-5,247.14	1,797.58	1,478.93	318.64	5.641		
12,200.00	7,236.27	12,267.37	7,222.88	149.64	175.68	-89.57	-1,372.01	-5,347.13	1,798.73	1,474.02	324.71	5.540		
12,300.00	7,235.91	12,367.36	7,222.35	152.43	178.95	-89.57	-1,372.60	-5,447.12	1,799.88	1,469.10	330.78	5.441		
12,400.00	7,235.54	12,467.36	7,221.82	155.23	182.21	-89.56	-1,373.18	-5,547.11	1,801.03	1,464.18	336.85	5.347		
12,500.00	7,235.17	12,567.35	7,221.29	158.03	185.48	-89.56	-1,373.76	-5,647.10	1,802.19	1,459.26	342.93	5.255		
12,600.00	7,234.81	12,667.34	7,220.77	160.83	188.75	-89.55	-1,374.35	-5,747.09	1,803.34	1,454.33	349.01	5.167		
12,700.00	7,234.44	12,767.34	7,220.24	163.64	192.02	-89.55	-1,374.93	-5,847.08	1,804.49	1,449.40	355.10	5.082		
12,800.00	7,234.07	12,867.33	7,219.71	166.44	195.29	-89.54	-1,375.52	-5,947.07	1,805.64	1,444.46	361.18	4.999		
12,900.00	7,233.71	12,967.32	7,219.18	169.25	198.57	-89.54	-1,376.10	-6,047.06	1,806.80	1,439.52	367.28	4.919		
13,000.00	7,233.34	13,067.32	7,218.65	172.06	201.85	-89.53	-1,376.69	-6,147.05	1,807.95	1,434.57	373.37	4.842		
13,100.00	7,232.98	13,167.31	7,218.12	174.88	205.12	-89.53	-1,377.27	-6,247.04	1,809.10	1,429.63	379.47	4.767		
13,200.00	7,232.61	13,267.30	7,217.59	177.69	208.41	-89.52	-1,377.85	-6,347.03	1,810.25	1,424.68	385.58	4.695		
13,300.00	7,232.24	13,367.29	7,217.07	180.50	211.69	-89.52	-1,378.44	-6,447.02	1,811.41	1,419.72	391.68	4.625		
13,400.00	7,231.88	13,467.29	7,216.54	183.32	214.97	-89.51	-1,379.02	-6,547.01	1,812.56	1,414.77	397.79	4.557		
13,500.00	7,231.51	13,567.28	7,216.01	186.14	218.26	-89.51	-1,379.61	-6,647.00	1,813.71	1,409.81	403.90	4.490		
13,600.00	7,231.15	13,667.27	7,215.48	188.96	221.55	-89.50	-1,380.19	-6,746.99	1,814.86	1,404.85	410.01	4.426		
13,700.00	7,230.78	13,767.27	7,214.95	191.78	224.84	-89.50	-1,380.78	-6,846.98	1,816.02	1,399.89	416.13	4.364		
13,800.00	7,230.41	13,867.26	7,214.42	194.60	228.13	-89.49	-1,381.36	-6,946.97	1,817.17	1,394.92	422.25	4.304		
13,900.00	7,230.05	13,967.25	7,213.89	197.42	231.42	-89.49	-1,381.94	-7,046.96	1,818.32	1,389.95	428.37	4.245		
14,000.00	7,229.68	14,067.25	7,213.36	200.25	234.71	-89.48	-1,382.53	-7,146.95	1,819.47	1,384.98	434.49	4.188		
14,100.00	7,229.31	14,167.24	7,212.84	203.07	238.00	-89.48	-1,383.11	-7,246.94	1,820.63	1,380.01	440.61	4.132		
14,200.00	7,228.95	14,267.23	7,212.31	205.90	241.30	-89.47	-1,383.70	-7,346.93	1,821.78	1,375.04	446.74	4.078		
14,300.00	7,228.58	14,367.23	7,211.78	208.73	244.59	-89.47	-1,384.28	-7,446.92	1,822.93	1,370.06	452.87	4.025		
14,400.00	7,228.22	14,467.22	7,211.25	211.55	247.89	-89.46	-1,384.87	-7,546.91	1,824.08	1,365.09	459.00	3.974		
14,500.00	7,227.85	14,567.21	7,210.72	214.38	251.19	-89.46	-1,385.45	-7,646.90	1,825.24	1,360.11	465.13	3.924		
14,600.00	7,227.48	14,667.21	7,210.19	217.21	254.49	-89.46	-1,386.03	-7,746.89	1,826.39	1,355.13	471.26	3.876		
14,700.00	7,227.12	14,767.20	7,209.66	220.04	257.79	-89.45	-1,386.62	-7,846.88	1,827.54	1,350.15	477.40	3.828		
14,800.00	7,226.75	14,867.19	7,209.14	222.88	261.09	-89.45	-1,387.20	-7,946.87	1,828.69	1,345.16	483.53	3.782		
14,900.00	7,226.38	14,967.19	7,208.61	225.71	264.39	-89.44	-1,387.79	-8,046.86	1,829.85	1,340.18	489.67	3.737		
15,000.00	7,226.02	15,067.18	7,208.08	228.54	267.69	-89.44	-1,388.37	-8,146.85	1,831.00	1,335.19	495.81	3.693		
15,005.81	7,226.00	15,072.99	7,208.05	228.71	267.88	-89.44	-1,388.41	-8,152.66	1,831.07	1,334.90	496.17	3.690 SF		



Anticollision Report



Company:	SRC ENERGY	Local Co-ordinate Reference:	Well HARVESTERS STATE 31C-16-M
Project:	SECTION 15, T6N, R66W	TVD Reference:	KB @ 4821.00ft
Reference Site:	HARVESTERS STATE 7-15 PAD	MD Reference:	KB @ 4821.00ft
Site Error:	3.28 ft	North Reference:	True
Reference Well:	HARVESTERS STATE 31C-16-M	Survey Calculation Method:	Minimum Curvature
Well Error:	3.28 ft	Output errors are at	2.45 sigma
Reference Wellbore	OH	Database:	EDM 5000.14 Single User Db
Reference Design:	PLAN #1	Offset TVD Reference:	Reference Datum

Offset Design HARVESTERS STATE 7-15 PAD - HARVESTERS STATE 32C-16-M2 - OH - PLAN #1													Offset Site Error:	0.00 ft
Survey Program: 0-MWD+IFR1													Offset Well Error:	3.28 ft
Reference		Offset		Semi Major Axis			Distance							Warning
Measured Depth (ft)	Vertical Depth (ft)	Measured Depth (ft)	Vertical Depth (ft)	Reference (ft)	Offset (ft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (ft)	+E/-W (ft)	Between Centres (ft)	Between Ellipses (ft)	Minimum Separation (ft)	Separation Factor		
0.00	0.00	0.00	0.00	3.28	3.28	-179.52	-100.18	-0.83	100.18					
100.00	100.00	100.00	100.00	3.28	3.28	-179.52	-100.18	-0.83	100.18	93.61	6.57	15.249		
200.00	200.00	200.00	200.00	3.34	3.34	-179.52	-100.18	-0.83	100.18	93.51	6.67	15.010		
300.00	300.00	300.00	300.00	3.44	3.44	-179.52	-100.18	-0.83	100.18	93.29	6.89	14.540		
400.00	400.00	400.00	400.00	3.60	3.60	-179.52	-100.18	-0.83	100.18	92.97	7.21	13.901		
500.00	500.00	500.00	500.00	3.81	3.81	-179.52	-100.18	-0.83	100.18	92.57	7.61	13.161	CC, ES	
600.00	600.00	596.74	596.72	4.05	4.03	-179.24	-101.73	-1.34	101.79	93.71	8.08	12.599		
700.00	699.98	693.15	693.01	4.32	4.27	-155.88	-106.36	-2.86	108.22	99.61	8.61	12.574		
800.00	799.84	808.75	790.81	4.62	4.60	-155.74	-113.51	-5.21	120.28	111.04	9.24	13.023		
900.00	899.62	909.66	889.59	4.94	4.90	-155.92	-120.89	-7.63	133.74	123.88	9.86	13.569		
1,000.00	999.41	989.42	988.38	5.27	5.16	-156.06	-128.28	-10.06	147.20	136.76	10.44	14.095		
1,100.00	1,099.19	1,088.51	1,087.16	5.62	5.50	-156.18	-135.67	-12.48	160.66	149.54	11.12	14.442		
1,200.00	1,198.98	1,187.60	1,185.95	5.99	5.86	-156.29	-143.06	-14.90	174.12	162.29	11.83	14.717		
1,300.00	1,298.76	1,286.69	1,284.73	6.36	6.22	-156.37	-150.44	-17.33	187.59	175.03	12.56	14.935		
1,400.00	1,398.55	1,385.78	1,383.51	6.74	6.60	-156.45	-157.83	-19.75	201.05	187.74	13.31	15.108		
1,500.00	1,498.33	1,484.87	1,482.30	7.13	6.99	-156.51	-165.22	-22.17	214.52	200.45	14.07	15.246		
1,600.00	1,598.12	1,583.96	1,581.08	7.52	7.38	-156.57	-172.60	-24.60	227.98	213.13	14.85	15.357		
1,700.00	1,697.90	1,683.05	1,679.86	7.92	7.78	-156.62	-179.99	-27.02	241.44	225.81	15.63	15.445		
1,800.00	1,797.69	1,782.14	1,778.65	8.33	8.18	-156.67	-187.38	-29.44	254.91	238.48	16.43	15.516		
1,900.00	1,897.47	1,881.23	1,877.43	8.74	8.59	-156.71	-194.77	-31.87	268.37	251.14	17.23	15.573		
2,000.00	1,997.26	1,980.32	1,976.21	9.15	9.00	-156.75	-202.15	-34.29	281.84	263.79	18.04	15.619		
2,100.00	2,097.04	2,079.41	2,075.00	9.56	9.41	-156.78	-209.54	-36.72	295.30	276.44	18.86	15.656		
2,200.00	2,196.83	2,178.49	2,173.78	9.98	9.83	-156.81	-216.93	-39.14	308.77	289.08	19.68	15.686		
2,300.00	2,296.61	2,277.58	2,272.57	10.40	10.25	-156.84	-224.32	-41.56	322.23	301.72	20.51	15.709		
2,400.00	2,396.40	2,376.67	2,371.35	10.82	10.67	-156.87	-231.70	-43.99	335.70	314.36	21.34	15.728		
2,500.00	2,496.18	2,475.76	2,470.13	11.24	11.10	-156.89	-239.09	-46.41	349.17	326.99	22.18	15.743		
2,600.00	2,595.96	2,574.85	2,568.92	11.66	11.53	-156.91	-246.48	-48.83	362.63	339.61	23.02	15.754		
2,700.00	2,695.75	2,673.94	2,667.70	12.09	11.95	-156.94	-253.87	-51.26	376.10	352.24	23.86	15.763		
2,800.00	2,795.53	2,773.03	2,766.48	12.51	12.38	-156.95	-261.25	-53.68	389.56	364.86	24.70	15.769		
2,900.00	2,895.32	2,872.12	2,865.27	12.94	12.81	-156.97	-268.64	-56.11	403.03	377.48	25.55	15.773		
3,000.00	2,995.10	2,971.21	2,964.05	13.37	13.24	-156.99	-276.03	-58.53	416.49	390.09	26.40	15.776		
3,100.00	3,094.89	3,070.30	3,062.84	13.80	13.68	-157.01	-283.42	-60.95	429.96	402.71	27.25	15.778		
3,200.00	3,194.67	3,169.39	3,161.62	14.23	14.11	-157.02	-290.80	-63.38	443.42	415.32	28.10	15.778		
3,300.00	3,294.46	3,268.48	3,260.40	14.66	14.55	-157.03	-298.19	-65.80	456.89	427.93	28.96	15.777		
3,400.00	3,394.24	3,367.56	3,359.19	15.09	14.98	-157.05	-305.58	-68.22	470.36	440.54	29.81	15.776		
3,500.00	3,494.03	3,466.65	3,457.97	15.52	15.42	-157.06	-312.96	-70.65	483.82	453.15	30.67	15.774		
3,600.00	3,593.81	3,565.74	3,556.75	15.96	15.85	-157.07	-320.35	-73.07	497.29	465.76	31.53	15.772		
3,700.00	3,693.60	3,664.83	3,655.54	16.39	16.29	-157.08	-327.74	-75.50	510.75	478.36	32.39	15.769		
3,800.00	3,793.38	3,763.92	3,754.32	16.82	16.73	-157.09	-335.13	-77.92	524.22	490.97	33.25	15.766		
3,900.00	3,893.17	3,863.01	3,853.10	17.26	17.17	-157.10	-342.51	-80.34	537.68	503.57	34.11	15.762		
4,000.00	3,992.95	3,962.10	3,951.89	17.69	17.61	-157.11	-349.90	-82.77	551.15	516.18	34.97	15.759		
4,100.00	4,092.74	4,061.19	4,050.67	18.13	18.04	-157.12	-357.29	-85.19	564.62	528.78	35.84	15.755		
4,200.00	4,192.52	4,160.28	4,149.46	18.56	18.48	-157.13	-364.68	-87.61	578.08	541.38	36.70	15.751		
4,300.00	4,292.31	4,259.37	4,248.24	19.00	18.92	-157.14	-372.06	-90.04	591.55	553.98	37.57	15.746		
4,400.00	4,392.09	4,358.46	4,347.02	19.43	19.36	-157.15	-379.45	-92.46	605.01	566.58	38.43	15.742		
4,500.00	4,491.88	4,457.55	4,445.81	19.87	19.81	-157.16	-386.84	-94.88	618.48	579.18	39.30	15.738		
4,600.00	4,591.66	4,556.63	4,544.59	20.31	20.25	-157.16	-394.23	-97.31	631.95	591.78	40.17	15.733		
4,700.00	4,691.44	4,655.72	4,643.37	20.74	20.69	-157.17	-401.61	-99.73	645.41	604.38	41.03	15.729		
4,800.00	4,791.23	4,754.81	4,742.16	21.18	21.13	-157.18	-409.00	-102.16	658.88	616.98	41.90	15.724		
4,900.00	4,891.01	4,853.90	4,840.94	21.62	21.57	-157.18	-416.39	-104.58	672.34	629.57	42.77	15.720		
5,000.00	4,990.80	4,952.99	4,939.73	22.06	22.01	-157.19	-423.77	-107.00	685.81	642.17	43.64	15.716		
5,100.00	5,090.58	5,052.08	5,038.51	22.50	22.46	-157.19	-431.16	-109.43	699.28	654.77	44.51	15.711		

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



Anticollision Report



Company:	SRC ENERGY	Local Co-ordinate Reference:	Well HARVESTERS STATE 31C-16-M
Project:	SECTION 15, T6N, R66W	TVD Reference:	KB @ 4821.00ft
Reference Site:	HARVESTERS STATE 7-15 PAD	MD Reference:	KB @ 4821.00ft
Site Error:	3.28 ft	North Reference:	True
Reference Well:	HARVESTERS STATE 31C-16-M	Survey Calculation Method:	Minimum Curvature
Well Error:	3.28 ft	Output errors are at	2.45 sigma
Reference Wellbore	OH	Database:	EDM 5000.14 Single User Db
Reference Design:	PLAN #1	Offset TVD Reference:	Reference Datum

Offset Design HARVESTERS STATE 7-15 PAD - HARVESTERS STATE 32C-16-M2 - OH - PLAN #1													Offset Site Error:	0.00 ft
Survey Program: 0-MWD+IFR1													Offset Well Error:	3.28 ft
Reference		Offset		Semi Major Axis			Distance							Warning
Measured Depth (ft)	Vertical Depth (ft)	Measured Depth (ft)	Vertical Depth (ft)	Reference (ft)	Offset (ft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (ft)	+E/-W (ft)	Between Centres (ft)	Between Ellipses (ft)	Minimum Separation (ft)	Separation Factor		
5,200.00	5,190.37	5,151.17	5,137.29	22.93	22.90	-157.20	-438.55	-111.85	712.74	667.36	45.38	15.707		
5,300.00	5,290.15	5,250.26	5,236.08	23.37	23.34	-157.21	-445.94	-114.27	726.21	679.96	46.25	15.702		
5,400.00	5,389.94	5,349.35	5,334.86	23.81	23.78	-157.21	-453.32	-116.70	739.67	692.55	47.12	15.698		
5,500.00	5,489.72	5,448.44	5,433.64	24.25	24.23	-157.22	-460.71	-119.12	753.14	705.15	47.99	15.694		
5,600.00	5,589.51	5,547.53	5,532.43	24.69	24.67	-157.22	-468.10	-121.55	766.61	717.74	48.86	15.689		
5,700.00	5,689.29	5,646.62	5,631.21	25.13	25.11	-157.23	-475.49	-123.97	780.07	730.34	49.73	15.685		
5,800.00	5,789.08	5,745.70	5,729.99	25.56	25.56	-157.23	-482.87	-126.39	793.54	742.93	50.60	15.681		
5,900.00	5,888.86	5,844.79	5,828.78	26.00	26.00	-157.23	-490.26	-128.82	807.00	755.53	51.48	15.677		
6,000.00	5,988.65	5,943.88	5,927.56	26.44	26.44	-157.24	-497.65	-131.24	820.47	768.12	52.35	15.673		
6,100.00	6,088.43	6,042.97	6,026.35	26.88	26.89	-157.24	-505.04	-133.66	833.94	780.71	53.22	15.669		
6,200.00	6,188.22	6,142.06	6,125.13	27.32	27.33	-157.25	-512.42	-136.09	847.40	793.31	54.10	15.665		
6,300.00	6,288.00	6,241.15	6,223.91	27.76	27.78	-157.25	-519.81	-138.51	860.87	805.90	54.97	15.661		
6,400.00	6,387.79	6,340.24	6,322.70	28.20	28.22	-157.26	-527.20	-140.93	874.33	818.49	55.84	15.657		
6,500.00	6,487.57	6,439.33	6,421.48	28.64	28.67	-157.26	-534.59	-143.36	887.80	831.08	56.72	15.654		
6,600.00	6,587.35	6,538.42	6,520.26	29.08	29.11	-157.26	-541.97	-145.78	901.27	843.68	57.59	15.650		
6,700.00	6,687.02	6,637.44	6,618.98	29.52	29.55	-118.86	-549.36	-148.20	914.74	856.28	58.46	15.646		
6,800.00	6,784.98	6,736.80	6,717.52	29.96	30.00	-102.21	-556.78	-157.59	928.23	868.89	59.35	15.641		
6,900.00	6,878.81	6,837.69	6,814.84	30.41	30.44	-97.03	-564.24	-182.70	941.47	881.23	60.24	15.629		
7,000.00	6,966.21	6,940.22	6,908.42	30.86	30.86	-94.38	-571.56	-223.67	954.13	892.98	61.15	15.603		
7,100.00	7,045.03	7,044.47	6,995.59	31.35	31.27	-92.70	-578.52	-280.20	965.89	903.78	62.11	15.552		
7,200.00	7,113.32	7,150.41	7,073.55	31.90	31.67	-91.52	-584.91	-351.48	976.42	913.25	63.18	15.455		
7,300.00	7,169.40	7,257.97	7,139.53	32.57	32.17	-90.68	-590.52	-436.08	985.46	921.01	64.46	15.288		
7,400.00	7,211.89	7,366.96	7,190.94	33.38	32.87	-90.08	-595.13	-531.91	992.75	926.71	66.05	15.031		
7,500.00	7,239.75	7,477.10	7,225.58	34.35	33.82	-89.68	-598.56	-636.26	998.08	930.08	68.00	14.678		
7,600.00	7,252.28	7,588.02	7,241.84	35.47	35.00	-89.46	-600.66	-745.82	1,001.30	930.98	70.31	14.240		
7,700.00	7,252.75	7,707.84	7,242.75	36.73	36.50	-89.43	-601.57	-849.93	1,002.78	929.70	73.08	13.721		
7,800.00	7,252.38	7,807.85	7,242.36	38.16	37.94	-89.43	-602.36	-949.92	1,004.13	928.17	75.96	13.219		
7,900.00	7,252.02	7,907.86	7,241.97	39.74	39.54	-89.42	-603.14	-1,049.91	1,005.48	926.33	79.15	12.704		
8,000.00	7,251.65	8,007.87	7,241.57	41.47	41.27	-89.42	-603.92	-1,149.89	1,006.83	924.22	82.61	12.187		
8,100.00	7,251.29	8,107.88	7,241.18	43.31	43.13	-89.42	-604.70	-1,249.88	1,008.18	921.86	86.31	11.680		
8,200.00	7,250.92	8,207.89	7,240.79	45.26	45.09	-89.42	-605.48	-1,349.87	1,009.53	919.30	90.23	11.189		
8,300.00	7,250.55	8,307.90	7,240.39	47.30	47.14	-89.42	-606.27	-1,449.85	1,010.88	916.55	94.33	10.717		
8,400.00	7,250.19	8,407.91	7,240.00	49.42	49.27	-89.42	-607.05	-1,549.84	1,012.23	913.64	98.59	10.267		
8,500.00	7,249.82	8,507.91	7,239.61	51.62	51.47	-89.42	-607.83	-1,649.83	1,013.58	910.59	102.99	9.842		
8,600.00	7,249.45	8,607.92	7,239.21	53.88	53.74	-89.42	-608.61	-1,749.82	1,014.92	907.41	107.51	9.440		
8,700.00	7,249.09	8,707.93	7,238.82	56.19	56.06	-89.42	-609.39	-1,849.80	1,016.27	904.13	112.15	9.062		
8,800.00	7,248.72	8,807.94	7,238.43	58.55	58.43	-89.42	-610.18	-1,949.79	1,017.62	900.74	116.88	8.707		
8,900.00	7,248.36	8,907.95	7,238.03	60.96	60.84	-89.42	-610.96	-2,049.78	1,018.97	897.28	121.70	8.373		
9,000.00	7,247.99	9,007.96	7,237.64	63.40	63.28	-89.42	-611.74	-2,149.76	1,020.32	893.73	126.59	8.060		
9,100.00	7,247.62	9,107.97	7,237.25	65.87	65.76	-89.42	-612.52	-2,249.75	1,021.67	890.13	131.55	7.767		
9,200.00	7,247.26	9,207.98	7,236.85	68.38	68.27	-89.41	-613.31	-2,349.74	1,023.02	886.46	136.56	7.491		
9,300.00	7,246.89	9,307.99	7,236.46	70.91	70.81	-89.41	-614.09	-2,449.73	1,024.37	882.73	141.63	7.232		
9,400.00	7,246.53	9,408.00	7,236.07	73.47	73.37	-89.41	-614.87	-2,549.71	1,025.72	878.96	146.75	6.989		
9,500.00	7,246.16	9,508.01	7,235.67	76.05	75.95	-89.41	-615.65	-2,649.70	1,027.07	875.15	151.92	6.761		
9,600.00	7,245.79	9,608.02	7,235.28	78.65	78.55	-89.41	-616.43	-2,749.69	1,028.42	871.30	157.12	6.546		
9,700.00	7,245.43	9,708.02	7,234.89	81.27	81.17	-89.41	-617.22	-2,849.67	1,029.77	867.41	162.35	6.343		
9,800.00	7,245.06	9,808.03	7,234.49	83.90	83.80	-89.41	-618.00	-2,949.66	1,031.12	863.50	167.62	6.152		
9,900.00	7,244.69	9,908.04	7,234.10	86.55	86.45	-89.41	-618.78	-3,049.65	1,032.46	859.55	172.91	5.971		
10,000.00	7,244.33	10,008.05	7,233.71	89.21	89.11	-89.41	-619.56	-3,149.63	1,033.81	855.58	178.24	5.800		
10,100.00	7,243.96	10,108.06	7,233.31	91.88	91.79	-89.41	-620.34	-3,249.62	1,035.16	851.58	183.58	5.639		
10,200.00	7,243.60	10,208.07	7,232.92	94.56	94.47	-89.41	-621.13	-3,349.61	1,036.51	847.56	188.95	5.486		
10,300.00	7,243.23	10,308.08	7,232.53	97.26	97.16	-89.41	-621.91	-3,449.60	1,037.86	843.52	194.34	5.340		

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

Company:	SRC ENERGY	Local Co-ordinate Reference:	Well HARVESTERS STATE 31C-16-M
Project:	SECTION 15, T6N, R66W	TVD Reference:	KB @ 4821.00ft
Reference Site:	HARVESTERS STATE 7-15 PAD	MD Reference:	KB @ 4821.00ft
Site Error:	3.28 ft	North Reference:	True
Reference Well:	HARVESTERS STATE 31C-16-M	Survey Calculation Method:	Minimum Curvature
Well Error:	3.28 ft	Output errors are at	2.45 sigma
Reference Wellbore	OH	Database:	EDM 5000.14 Single User Db
Reference Design:	PLAN #1	Offset TVD Reference:	Reference Datum

Offset Design HARVESTERS STATE 7-15 PAD - HARVESTERS STATE 32C-16-M2 - OH - PLAN #1													Offset Site Error:	0.00 ft
Survey Program: 0-MWD+IFR1													Offset Well Error:	3.28 ft
Reference		Offset		Semi Major Axis			Distance							Warning
Measured Depth (ft)	Vertical Depth (ft)	Measured Depth (ft)	Vertical Depth (ft)	Reference (ft)	Offset (ft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (ft)	+E/-W (ft)	Between Centres (ft)	Between Ellipses (ft)	Minimum Separation (ft)	Separation Factor		
10,400.00	7,242.86	10,391.91	7,232.13	99.96	99.43	-89.41	-622.69	-3,549.58	1,039.21	839.90	199.31	5.214		
10,500.00	7,242.50	10,508.10	7,231.74	102.67	102.58	-89.40	-623.47	-3,649.57	1,040.56	835.39	205.17	5.072		
10,600.00	7,242.13	10,591.89	7,231.35	105.39	104.86	-89.40	-624.26	-3,749.56	1,041.91	831.74	210.17	4.958		
10,700.00	7,241.76	10,708.12	7,230.95	108.12	108.02	-89.40	-625.04	-3,849.54	1,043.26	827.20	216.06	4.828		
10,800.00	7,241.40	10,808.12	7,230.56	110.85	110.76	-89.40	-625.82	-3,949.53	1,044.61	823.08	221.53	4.715		
10,900.00	7,241.03	10,908.13	7,230.17	113.59	113.50	-89.40	-626.60	-4,049.52	1,045.96	818.95	227.01	4.608		
11,000.00	7,240.67	11,008.14	7,229.77	116.34	116.24	-89.40	-627.38	-4,149.51	1,047.31	814.81	232.50	4.505		
11,100.00	7,240.30	11,108.15	7,229.38	119.09	118.99	-89.40	-628.17	-4,249.49	1,048.66	810.65	238.00	4.406		
11,200.00	7,239.93	11,208.16	7,228.99	121.85	121.75	-89.40	-628.95	-4,349.48	1,050.01	806.49	243.52	4.312		
11,300.00	7,239.57	11,308.17	7,228.59	124.61	124.51	-89.40	-629.73	-4,449.47	1,051.35	802.32	249.04	4.222		
11,400.00	7,239.20	11,408.18	7,228.20	127.38	127.27	-89.40	-630.51	-4,549.45	1,052.70	798.14	254.57	4.135		
11,500.00	7,238.84	11,508.19	7,227.81	130.15	130.04	-89.40	-631.29	-4,649.44	1,054.05	793.95	260.11	4.052		
11,600.00	7,238.47	11,608.20	7,227.41	132.92	132.81	-89.40	-632.08	-4,749.43	1,055.40	789.75	265.65	3.973		
11,700.00	7,238.10	11,708.21	7,227.02	135.70	135.59	-89.40	-632.86	-4,849.41	1,056.75	785.55	271.21	3.896		
11,800.00	7,237.74	11,808.22	7,226.63	138.48	138.37	-89.40	-633.64	-4,949.40	1,058.10	781.33	276.77	3.823		
11,900.00	7,237.37	11,908.22	7,226.23	141.26	141.15	-89.39	-634.42	-5,049.39	1,059.45	777.12	282.33	3.752		
12,000.00	7,237.00	11,991.77	7,225.84	144.05	143.48	-89.39	-635.21	-5,149.38	1,060.80	773.35	287.45	3.690		
12,100.00	7,236.64	12,108.24	7,225.45	146.84	146.72	-89.39	-635.99	-5,249.36	1,062.15	768.66	293.48	3.619		
12,200.00	7,236.27	12,208.25	7,225.05	149.64	149.51	-89.39	-636.77	-5,349.35	1,063.50	764.43	299.07	3.556		
12,300.00	7,235.91	12,308.26	7,224.66	152.43	152.31	-89.39	-637.55	-5,449.34	1,064.85	760.19	304.66	3.495		
12,400.00	7,235.54	12,408.27	7,224.27	155.23	155.10	-89.39	-638.33	-5,549.32	1,066.20	755.95	310.25	3.437		
12,500.00	7,235.17	12,508.28	7,223.87	158.03	157.90	-89.39	-639.12	-5,649.31	1,067.55	751.70	315.85	3.380		
12,600.00	7,234.81	12,608.29	7,223.48	160.83	160.70	-89.39	-639.90	-5,749.30	1,068.89	747.44	321.45	3.325		
12,700.00	7,234.44	12,708.30	7,223.09	163.64	163.50	-89.39	-640.68	-5,849.29	1,070.24	743.19	327.06	3.272		
12,800.00	7,234.07	12,808.31	7,222.70	166.44	166.31	-89.39	-641.46	-5,949.27	1,071.59	738.93	332.67	3.221		
12,900.00	7,233.71	12,908.32	7,222.30	169.25	169.11	-89.39	-642.24	-6,049.26	1,072.94	734.66	338.28	3.172		
13,000.00	7,233.34	13,008.32	7,221.91	172.06	171.92	-89.39	-643.03	-6,149.25	1,074.29	730.39	343.90	3.124		
13,100.00	7,232.98	13,108.33	7,221.52	174.88	174.73	-89.39	-643.81	-6,249.23	1,075.64	726.12	349.52	3.077		
13,200.00	7,232.61	13,208.34	7,221.12	177.69	177.54	-89.39	-644.59	-6,349.22	1,076.99	721.85	355.14	3.033		
13,300.00	7,232.24	13,308.35	7,220.73	180.50	180.35	-89.39	-645.37	-6,449.21	1,078.34	717.57	360.77	2.989		
13,400.00	7,231.88	13,408.36	7,220.34	183.32	183.17	-89.38	-646.16	-6,549.19	1,079.69	713.29	366.40	2.947		
13,500.00	7,231.51	13,508.37	7,219.94	186.14	185.98	-89.38	-646.94	-6,649.18	1,081.04	709.01	372.03	2.906		
13,600.00	7,231.15	13,608.38	7,219.55	188.96	188.80	-89.38	-647.72	-6,749.17	1,082.39	704.72	377.67	2.866		
13,700.00	7,230.78	13,708.39	7,219.16	191.78	191.61	-89.38	-648.50	-6,849.16	1,083.74	700.43	383.31	2.827		
13,800.00	7,230.41	13,808.40	7,218.76	194.60	194.43	-89.38	-649.28	-6,949.14	1,085.09	696.14	388.95	2.790		
13,900.00	7,230.05	13,908.41	7,218.37	197.42	197.25	-89.38	-650.07	-7,049.13	1,086.44	691.85	394.59	2.753		
14,000.00	7,229.68	14,008.42	7,217.98	200.25	200.07	-89.38	-650.85	-7,149.12	1,087.78	687.55	400.23	2.718		
14,100.00	7,229.31	14,108.42	7,217.58	203.07	202.90	-89.38	-651.63	-7,249.10	1,089.13	683.25	405.88	2.683		
14,200.00	7,228.95	14,208.43	7,217.19	205.90	205.72	-89.38	-652.41	-7,349.09	1,090.48	678.95	411.53	2.650		
14,300.00	7,228.58	14,308.44	7,216.80	208.73	208.54	-89.38	-653.19	-7,449.08	1,091.83	674.65	417.18	2.617		
14,400.00	7,228.22	14,408.45	7,216.40	211.55	211.37	-89.38	-653.98	-7,549.07	1,093.18	670.35	422.83	2.585		
14,500.00	7,227.85	14,508.46	7,216.01	214.38	214.19	-89.38	-654.76	-7,649.05	1,094.53	666.04	428.49	2.554		
14,600.00	7,227.48	14,608.47	7,215.62	217.21	217.02	-89.38	-655.54	-7,749.04	1,095.88	661.74	434.14	2.524		
14,700.00	7,227.12	14,708.48	7,215.22	220.04	219.85	-89.38	-656.32	-7,849.03	1,097.23	657.43	439.80	2.495		
14,800.00	7,226.75	14,808.49	7,214.83	222.88	222.68	-89.38	-657.11	-7,949.01	1,098.58	653.12	445.46	2.466		
14,900.00	7,226.38	14,891.50	7,214.44	225.71	225.03	-89.37	-657.89	-8,049.00	1,099.93	649.29	450.64	2.441		
15,000.00	7,226.02	14,991.49	7,214.04	228.54	227.85	-89.37	-658.67	-8,148.99	1,101.28	644.97	456.30	2.413		
15,005.81	7,226.00	14,997.30	7,214.02	228.71	228.02	-89.37	-658.71	-8,154.80	1,101.36	644.72	456.63	2.412 SF		



Anticollision Report



Company:	SRC ENERGY	Local Co-ordinate Reference:	Well HARVESTERS STATE 31C-16-M
Project:	SECTION 15, T6N, R66W	TVD Reference:	KB @ 4821.00ft
Reference Site:	HARVESTERS STATE 7-15 PAD	MD Reference:	KB @ 4821.00ft
Site Error:	3.28 ft	North Reference:	True
Reference Well:	HARVESTERS STATE 31C-16-M	Survey Calculation Method:	Minimum Curvature
Well Error:	3.28 ft	Output errors are at	2.45 sigma
Reference Wellbore	OH	Database:	EDM 5000.14 Single User Db
Reference Design:	PLAN #1	Offset TVD Reference:	Reference Datum

Offset Design HARVESTERS STATE 7-15 PAD - HARVESTERS STATE 32N-16B-M - OH - PLAN #1													Offset Site Error:	0.00 ft
Survey Program: 0-MWD+IFR1													Offset Well Error:	3.28 ft
Reference		Offset		Semi Major Axis			Distance							Warning
Measured Depth (ft)	Vertical Depth (ft)	Measured Depth (ft)	Vertical Depth (ft)	Reference (ft)	Offset (ft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (ft)	+E/-W (ft)	Between Centres (ft)	Between Ellipses (ft)	Minimum Separation (ft)	Separation Factor		
0.00	0.00	1.00	0.00	3.28	3.28	-179.52	-200.00	-1.67	200.00					
100.00	100.00	101.00	100.00	3.28	3.28	-179.52	-200.00	-1.67	200.00	193.43	6.57	30.444		
200.00	200.00	201.00	200.00	3.34	3.34	-179.52	-200.00	-1.67	200.00	193.33	6.67	29.964		
300.00	300.00	299.00	300.00	3.44	3.44	-179.52	-200.00	-1.67	200.00	193.11	6.89	29.034 CC, ES		
400.00	400.00	392.59	393.57	3.60	3.58	-179.45	-201.47	-1.92	201.58	194.39	7.19	28.018		
500.00	500.00	485.91	486.78	3.81	3.76	-179.25	-205.94	-2.70	206.38	198.79	7.59	27.187		
600.00	600.00	578.85	579.41	4.05	3.97	-178.93	-213.36	-3.99	214.38	206.32	8.06	26.583		
700.00	699.98	671.00	670.97	4.32	4.21	-155.69	-223.63	-5.77	227.16	218.56	8.60	26.409		
800.00	799.84	766.44	765.47	4.62	4.48	-155.58	-236.72	-8.04	245.60	236.42	9.18	26.753		
900.00	899.62	864.44	862.49	4.94	4.80	-155.71	-250.38	-10.42	265.49	255.70	9.78	27.140		
1,000.00	999.41	962.44	959.50	5.27	5.14	-155.83	-264.04	-12.79	285.38	274.95	10.42	27.375		
1,100.00	1,099.19	1,060.44	1,056.52	5.62	5.49	-155.93	-277.70	-15.16	305.27	294.16	11.10	27.499		
1,200.00	1,198.98	1,158.44	1,153.53	5.99	5.87	-156.02	-291.36	-17.53	325.16	313.35	11.80	27.546		
1,300.00	1,298.76	1,256.44	1,250.55	6.36	6.25	-156.10	-305.02	-19.90	345.05	332.52	12.53	27.538		
1,400.00	1,398.55	1,354.44	1,347.56	6.74	6.65	-156.17	-318.68	-22.27	364.94	351.66	13.27	27.492		
1,500.00	1,498.33	1,452.44	1,444.58	7.13	7.05	-156.23	-332.35	-24.65	384.83	370.80	14.04	27.419		
1,600.00	1,598.12	1,550.44	1,541.59	7.52	7.46	-156.28	-346.01	-27.02	404.72	389.92	14.81	27.329		
1,700.00	1,697.90	1,648.45	1,638.61	7.92	7.88	-156.34	-359.67	-29.39	424.62	409.02	15.60	27.228		
1,800.00	1,797.69	1,746.45	1,735.62	8.33	8.30	-156.38	-373.33	-31.76	444.51	428.12	16.39	27.120		
1,900.00	1,897.47	1,844.45	1,832.64	8.74	8.73	-156.43	-386.99	-34.13	464.40	447.21	17.19	27.009		
2,000.00	1,997.26	1,942.45	1,929.65	9.15	9.16	-156.46	-400.65	-36.50	484.30	466.29	18.01	26.897		
2,100.00	2,097.04	2,040.45	2,026.67	9.56	9.59	-156.50	-414.31	-38.88	504.19	485.37	18.82	26.786		
2,200.00	2,196.83	2,138.45	2,123.68	9.98	10.03	-156.53	-427.97	-41.25	524.09	504.44	19.65	26.676		
2,300.00	2,296.61	2,236.45	2,220.70	10.40	10.47	-156.56	-441.63	-43.62	543.98	523.51	20.47	26.569		
2,400.00	2,396.40	2,334.45	2,317.71	10.82	10.91	-156.59	-455.29	-45.99	563.88	542.57	21.31	26.464		
2,500.00	2,496.18	2,432.45	2,414.73	11.24	11.35	-156.62	-468.95	-48.36	583.77	561.63	22.14	26.363		
2,600.00	2,595.96	2,530.45	2,511.74	11.66	11.79	-156.64	-482.62	-50.73	603.67	580.68	22.98	26.266		
2,700.00	2,695.75	2,628.45	2,608.76	12.09	12.24	-156.67	-496.28	-53.11	623.56	599.74	23.83	26.172		
2,800.00	2,795.53	2,726.45	2,705.77	12.51	12.69	-156.69	-509.94	-55.48	643.46	618.78	24.67	26.081		
2,900.00	2,895.32	2,824.45	2,802.79	12.94	13.14	-156.71	-523.60	-57.85	663.35	637.83	25.52	25.994		
3,000.00	2,995.10	2,922.45	2,899.80	13.37	13.59	-156.73	-537.26	-60.22	683.25	656.88	26.37	25.911		
3,100.00	3,094.89	3,020.45	2,996.82	13.80	14.04	-156.75	-550.92	-62.59	703.14	675.92	27.22	25.830		
3,200.00	3,194.67	3,118.46	3,093.83	14.23	14.49	-156.77	-564.58	-64.96	723.04	694.96	28.08	25.753		
3,300.00	3,294.46	3,216.46	3,190.85	14.66	14.94	-156.78	-578.24	-67.34	742.93	714.00	28.93	25.679		
3,400.00	3,394.24	3,314.46	3,287.86	15.09	15.40	-156.80	-591.90	-69.71	762.83	733.04	29.79	25.608		
3,500.00	3,494.03	3,412.46	3,384.88	15.52	15.85	-156.81	-605.56	-72.08	782.72	752.08	30.65	25.540		
3,600.00	3,593.81	3,510.46	3,481.89	15.96	16.31	-156.83	-619.23	-74.45	802.62	771.11	31.51	25.474		
3,700.00	3,693.60	3,608.46	3,578.90	16.39	16.76	-156.84	-632.89	-76.82	822.51	790.15	32.37	25.411		
3,800.00	3,793.38	3,706.46	3,675.92	16.82	17.22	-156.85	-646.55	-79.20	842.41	809.18	33.23	25.350		
3,900.00	3,893.17	3,804.46	3,772.93	17.26	17.67	-156.86	-660.21	-81.57	862.31	828.21	34.09	25.292		
4,000.00	3,992.95	3,902.46	3,869.95	17.69	18.13	-156.88	-673.87	-83.94	882.20	847.24	34.96	25.236		
4,100.00	4,092.74	4,000.46	3,966.96	18.13	18.59	-156.89	-687.53	-86.31	902.10	866.27	35.82	25.182		
4,200.00	4,192.52	4,101.54	4,063.98	18.56	19.06	-156.90	-701.19	-88.68	921.99	885.29	36.70	25.120		
4,300.00	4,292.31	4,203.54	4,160.99	19.00	19.54	-156.91	-714.85	-91.05	941.89	904.30	37.59	25.058		
4,400.00	4,392.09	4,305.54	4,258.01	19.43	20.01	-156.92	-728.51	-93.43	961.78	923.31	38.47	24.999		
4,500.00	4,491.88	4,407.54	4,355.02	19.87	20.49	-156.93	-742.17	-95.80	981.68	942.32	39.36	24.941		
4,600.00	4,591.66	4,490.46	4,452.04	20.31	20.88	-156.94	-755.83	-98.17	1,001.58	961.42	40.16	24.939		
4,700.00	4,691.44	4,588.47	4,549.05	20.74	21.34	-156.94	-769.50	-100.54	1,021.47	980.44	41.03	24.896		
4,800.00	4,791.23	4,686.47	4,646.07	21.18	21.80	-156.95	-783.16	-102.91	1,041.37	999.47	41.90	24.854		
4,900.00	4,891.01	4,784.47	4,743.08	21.62	22.26	-156.96	-796.82	-105.28	1,061.26	1,018.49	42.77	24.813		
5,000.00	4,990.80	4,882.47	4,840.10	22.06	22.72	-156.97	-810.48	-107.66	1,081.16	1,037.52	43.64	24.774		
5,100.00	5,090.58	4,980.47	4,937.11	22.50	23.18	-156.98	-824.14	-110.03	1,101.06	1,056.54	44.51	24.736		

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



Anticollision Report



Company:	SRC ENERGY	Local Co-ordinate Reference:	Well HARVESTERS STATE 31C-16-M
Project:	SECTION 15, T6N, R66W	TVD Reference:	KB @ 4821.00ft
Reference Site:	HARVESTERS STATE 7-15 PAD	MD Reference:	KB @ 4821.00ft
Site Error:	3.28 ft	North Reference:	True
Reference Well:	HARVESTERS STATE 31C-16-M	Survey Calculation Method:	Minimum Curvature
Well Error:	3.28 ft	Output errors are at	2.45 sigma
Reference Wellbore	OH	Database:	EDM 5000.14 Single User Db
Reference Design:	PLAN #1	Offset TVD Reference:	Reference Datum

Offset Design HARVESTERS STATE 7-15 PAD - HARVESTERS STATE 32N-16B-M - OH - PLAN #1													Offset Site Error:	0.00 ft
Survey Program: 0-MWD+IFR1													Offset Well Error:	3.28 ft
Reference		Offset		Semi Major Axis			Distance							Warning
Measured Depth (ft)	Vertical Depth (ft)	Measured Depth (ft)	Vertical Depth (ft)	Reference (ft)	Offset (ft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (ft)	+E/-W (ft)	Between Centres (ft)	Between Ellipses (ft)	Minimum Separation (ft)	Separation Factor		
5,200.00	5,190.37	5,078.47	5,034.13	22.93	23.64	-156.98	-837.80	-112.40	1,120.95	1,075.57	45.38	24.699		
5,300.00	5,290.15	5,176.47	5,131.14	23.37	24.10	-156.99	-851.46	-114.77	1,140.85	1,094.59	46.26	24.664		
5,400.00	5,389.94	5,274.47	5,228.16	23.81	24.56	-157.00	-865.12	-117.14	1,160.74	1,113.62	47.13	24.629		
5,500.00	5,489.72	5,372.47	5,325.17	24.25	25.02	-157.00	-878.78	-119.51	1,180.64	1,132.64	48.00	24.596		
5,600.00	5,589.51	5,470.47	5,422.19	24.69	25.48	-157.01	-892.44	-121.89	1,200.54	1,151.66	48.88	24.563		
5,700.00	5,689.29	5,568.47	5,519.20	25.13	25.94	-157.02	-906.11	-124.26	1,220.43	1,170.68	49.75	24.532		
5,800.00	5,789.08	5,666.47	5,616.22	25.56	26.41	-157.02	-919.77	-126.63	1,240.33	1,189.71	50.62	24.501		
5,900.00	5,888.86	5,764.47	5,713.23	26.00	26.87	-157.03	-933.43	-129.00	1,260.22	1,208.73	51.50	24.472		
6,000.00	5,988.65	5,862.47	5,810.25	26.44	27.33	-157.03	-947.09	-131.37	1,280.12	1,227.75	52.37	24.443		
6,100.00	6,088.43	5,960.47	5,907.26	26.88	27.79	-157.04	-960.75	-133.74	1,300.02	1,246.77	53.25	24.415		
6,200.00	6,188.22	6,058.48	6,004.28	27.32	28.25	-157.04	-974.41	-136.12	1,319.91	1,265.79	54.12	24.388		
6,300.00	6,288.00	6,156.48	6,101.29	27.76	28.71	-157.05	-988.07	-138.49	1,339.81	1,284.81	55.00	24.361		
6,400.00	6,387.79	6,254.48	6,198.31	28.20	29.18	-157.05	-1,001.73	-140.86	1,359.71	1,303.83	55.87	24.336		
6,500.00	6,487.57	6,352.48	6,295.32	28.64	29.64	-157.06	-1,015.39	-143.23	1,379.60	1,322.85	56.75	24.311		
6,600.00	6,587.35	6,450.48	6,392.34	29.08	30.10	-157.06	-1,029.05	-145.60	1,399.50	1,341.87	57.62	24.286		
6,700.00	6,687.02	6,548.09	6,488.92	29.52	30.56	-118.24	-1,042.66	-149.08	1,419.40	1,360.90	58.50	24.264		
6,800.00	6,784.98	6,645.40	6,583.94	29.96	31.01	-100.55	-1,056.16	-164.56	1,439.15	1,379.78	59.37	24.241		
6,900.00	6,878.81	6,743.31	6,676.05	30.41	31.44	-94.38	-1,069.37	-194.70	1,458.31	1,398.08	60.24	24.210		
7,000.00	6,966.21	6,842.00	6,763.14	30.86	31.84	-90.82	-1,082.00	-239.14	1,476.41	1,415.29	61.11	24.159		
7,100.00	7,045.03	6,941.62	6,843.08	31.35	32.22	-88.34	-1,093.74	-297.24	1,493.00	1,430.96	62.04	24.065		
7,200.00	7,113.32	7,042.25	6,913.72	31.90	32.57	-86.48	-1,104.29	-367.99	1,507.67	1,444.59	63.08	23.899		
7,300.00	7,169.40	7,143.93	6,972.98	32.57	32.94	-85.08	-1,113.33	-449.98	1,520.07	1,455.73	64.34	23.626		
7,400.00	7,211.89	7,246.60	7,018.93	33.38	33.42	-84.07	-1,120.59	-541.38	1,529.88	1,463.99	65.89	23.219		
7,500.00	7,239.75	7,350.12	7,049.93	34.35	34.16	-83.40	-1,125.80	-639.90	1,536.85	1,469.07	67.78	22.673		
7,600.00	7,252.28	7,454.31	7,064.77	35.47	35.17	-83.07	-1,128.78	-742.86	1,540.81	1,470.79	70.02	22.005		
7,700.00	7,252.75	7,556.13	7,065.76	36.73	36.39	-83.03	-1,129.80	-844.65	1,542.36	1,469.82	72.54	21.261		
7,800.00	7,252.38	7,656.12	7,065.37	38.16	37.76	-83.04	-1,130.61	-944.64	1,543.73	1,468.36	75.37	20.483		
7,900.00	7,252.02	7,756.11	7,064.98	39.74	39.30	-83.04	-1,131.42	-1,044.63	1,545.10	1,466.60	78.50	19.683		
8,000.00	7,251.65	7,856.10	7,064.58	41.47	40.98	-83.05	-1,132.23	-1,144.61	1,546.47	1,464.57	81.91	18.880		
8,100.00	7,251.29	7,956.09	7,064.19	43.31	42.80	-83.05	-1,133.05	-1,244.60	1,547.85	1,462.29	85.56	18.091		
8,200.00	7,250.92	8,056.08	7,063.80	45.26	44.72	-83.06	-1,133.86	-1,344.58	1,549.22	1,459.80	89.42	17.325		
8,300.00	7,250.55	8,156.07	7,063.40	47.30	46.74	-83.06	-1,134.67	-1,444.57	1,550.59	1,457.12	93.47	16.589		
8,400.00	7,250.19	8,256.06	7,063.01	49.42	48.85	-83.07	-1,135.48	-1,544.56	1,551.96	1,454.28	97.68	15.888		
8,500.00	7,249.82	8,356.05	7,062.62	51.62	51.03	-83.07	-1,136.29	-1,644.54	1,553.33	1,451.30	102.04	15.223		
8,600.00	7,249.45	8,456.04	7,062.22	53.88	53.27	-83.08	-1,137.10	-1,744.53	1,554.71	1,448.19	106.52	14.596		
8,700.00	7,249.09	8,556.03	7,061.83	56.19	55.57	-83.08	-1,137.92	-1,844.52	1,556.08	1,444.97	111.11	14.005		
8,800.00	7,248.72	8,656.02	7,061.44	58.55	57.92	-83.09	-1,138.73	-1,944.50	1,557.45	1,441.66	115.79	13.450		
8,900.00	7,248.36	8,756.02	7,061.05	60.96	60.32	-83.09	-1,139.54	-2,044.49	1,558.82	1,438.25	120.57	12.929		
9,000.00	7,247.99	8,856.01	7,060.65	63.40	62.75	-83.10	-1,140.35	-2,144.48	1,560.19	1,434.78	125.41	12.440		
9,100.00	7,247.62	8,956.00	7,060.26	65.87	65.22	-83.11	-1,141.16	-2,244.46	1,561.56	1,431.23	130.33	11.982		
9,200.00	7,247.26	9,055.99	7,059.87	68.38	67.72	-83.11	-1,141.97	-2,344.45	1,562.94	1,427.63	135.31	11.551		
9,300.00	7,246.89	9,155.98	7,059.47	70.91	70.25	-83.12	-1,142.79	-2,444.44	1,564.31	1,423.97	140.34	11.147		
9,400.00	7,246.53	9,255.97	7,059.08	73.47	72.80	-83.12	-1,143.60	-2,544.42	1,565.68	1,420.26	145.42	10.767		
9,500.00	7,246.16	9,355.96	7,058.69	76.05	75.37	-83.13	-1,144.41	-2,644.41	1,567.05	1,416.51	150.54	10.410		
9,600.00	7,245.79	9,455.95	7,058.29	78.65	77.97	-83.13	-1,145.22	-2,744.39	1,568.42	1,412.73	155.70	10.074		
9,700.00	7,245.43	9,555.94	7,057.90	81.27	80.58	-83.14	-1,146.03	-2,844.38	1,569.80	1,408.90	160.89	9.757		
9,800.00	7,245.06	9,655.93	7,057.51	83.90	83.20	-83.14	-1,146.84	-2,944.37	1,571.17	1,405.05	166.12	9.458		
9,900.00	7,244.69	9,755.92	7,057.11	86.55	85.85	-83.15	-1,147.66	-3,044.35	1,572.54	1,401.16	171.38	9.176		
10,000.00	7,244.33	9,855.91	7,056.72	89.21	88.50	-83.15	-1,148.47	-3,144.34	1,573.91	1,397.25	176.66	8.909		
10,100.00	7,243.96	9,955.90	7,056.33	91.88	91.17	-83.16	-1,149.28	-3,244.33	1,575.28	1,393.31	181.97	8.657		
10,200.00	7,243.60	10,055.89	7,055.93	94.56	93.85	-83.16	-1,150.09	-3,344.31	1,576.66	1,389.36	187.30	8.418		
10,300.00	7,243.23	10,155.88	7,055.54	97.26	96.54	-83.17	-1,150.90	-3,444.30	1,578.03	1,385.38	192.65	8.191		

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



Anticollision Report



Company:	SRC ENERGY	Local Co-ordinate Reference:	Well HARVESTERS STATE 31C-16-M
Project:	SECTION 15, T6N, R66W	TVD Reference:	KB @ 4821.00ft
Reference Site:	HARVESTERS STATE 7-15 PAD	MD Reference:	KB @ 4821.00ft
Site Error:	3.28 ft	North Reference:	True
Reference Well:	HARVESTERS STATE 31C-16-M	Survey Calculation Method:	Minimum Curvature
Well Error:	3.28 ft	Output errors are at	2.45 sigma
Reference Wellbore	OH	Database:	EDM 5000.14 Single User Db
Reference Design:	PLAN #1	Offset TVD Reference:	Reference Datum

Offset Design HARVESTERS STATE 7-15 PAD - HARVESTERS STATE 32N-16B-M - OH - PLAN #1													Offset Site Error:	0.00 ft
Survey Program: 0-MWD+IFR1													Offset Well Error:	3.28 ft
Reference		Offset		Semi Major Axis			Distance							Warning
Measured Depth (ft)	Vertical Depth (ft)	Measured Depth (ft)	Vertical Depth (ft)	Reference (ft)	Offset (ft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (ft)	+E/-W (ft)	Between Centres (ft)	Between Ellipses (ft)	Minimum Separation (ft)	Separation Factor		
10,400.00	7,242.86	10,255.87	7,055.15	99.96	99.24	-83.17	-1,151.71	-3,544.29	1,579.40	1,381.38	198.02	7.976		
10,500.00	7,242.50	10,355.86	7,054.76	102.67	101.95	-83.18	-1,152.53	-3,644.27	1,580.77	1,377.37	203.40	7.772		
10,600.00	7,242.13	10,455.85	7,054.36	105.39	104.66	-83.18	-1,153.34	-3,744.26	1,582.14	1,373.34	208.81	7.577		
10,700.00	7,241.76	10,555.84	7,053.97	108.12	107.38	-83.19	-1,154.15	-3,844.25	1,583.52	1,369.29	214.22	7.392		
10,800.00	7,241.40	10,655.83	7,053.58	110.85	110.11	-83.19	-1,154.96	-3,944.23	1,584.89	1,365.23	219.65	7.215		
10,900.00	7,241.03	10,755.83	7,053.18	113.59	112.85	-83.20	-1,155.77	-4,044.22	1,586.26	1,361.16	225.10	7.047		
11,000.00	7,240.67	10,855.82	7,052.79	116.34	115.59	-83.20	-1,156.58	-4,144.20	1,587.63	1,357.08	230.55	6.886		
11,100.00	7,240.30	10,955.81	7,052.40	119.09	118.34	-83.21	-1,157.40	-4,244.19	1,589.00	1,352.99	236.02	6.733		
11,200.00	7,239.93	11,055.80	7,052.00	121.85	121.09	-83.21	-1,158.21	-4,344.18	1,590.38	1,348.88	241.49	6.586		
11,300.00	7,239.57	11,155.79	7,051.61	124.61	123.85	-83.21	-1,159.02	-4,444.16	1,591.75	1,344.77	246.98	6.445		
11,400.00	7,239.20	11,255.78	7,051.22	127.38	126.61	-83.22	-1,159.83	-4,544.15	1,593.12	1,340.65	252.47	6.310		
11,500.00	7,238.84	11,355.77	7,050.82	130.15	129.38	-83.22	-1,160.64	-4,644.14	1,594.49	1,336.52	257.97	6.181		
11,600.00	7,238.47	11,455.76	7,050.43	132.92	132.15	-83.23	-1,161.45	-4,744.12	1,595.86	1,332.38	263.49	6.057		
11,700.00	7,238.10	11,555.75	7,050.04	135.70	134.92	-83.23	-1,162.27	-4,844.11	1,597.24	1,328.23	269.00	5.938		
11,800.00	7,237.74	11,655.74	7,049.64	138.48	137.70	-83.24	-1,163.08	-4,944.10	1,598.61	1,324.08	274.53	5.823		
11,900.00	7,237.37	11,755.73	7,049.25	141.26	140.48	-83.24	-1,163.89	-5,044.08	1,599.98	1,319.92	280.06	5.713		
12,000.00	7,237.00	11,855.72	7,048.86	144.05	143.26	-83.25	-1,164.70	-5,144.07	1,601.35	1,315.76	285.60	5.607		
12,100.00	7,236.64	11,955.71	7,048.47	146.84	146.05	-83.25	-1,165.51	-5,244.06	1,602.72	1,311.58	291.14	5.505		
12,200.00	7,236.27	12,055.70	7,048.07	149.64	148.84	-83.26	-1,166.32	-5,344.04	1,604.10	1,307.41	296.69	5.407		
12,300.00	7,235.91	12,155.69	7,047.68	152.43	151.63	-83.26	-1,167.14	-5,444.03	1,605.47	1,303.23	302.24	5.312		
12,400.00	7,235.54	12,255.68	7,047.29	155.23	154.42	-83.27	-1,167.95	-5,544.01	1,606.84	1,299.04	307.80	5.220		
12,500.00	7,235.17	12,355.67	7,046.89	158.03	157.22	-83.27	-1,168.76	-5,644.00	1,608.21	1,294.85	313.36	5.132		
12,600.00	7,234.81	12,455.66	7,046.50	160.83	160.02	-83.28	-1,169.57	-5,743.99	1,609.59	1,290.65	318.93	5.047		
12,700.00	7,234.44	12,555.65	7,046.11	163.64	162.82	-83.28	-1,170.38	-5,843.97	1,610.96	1,286.45	324.50	4.964		
12,800.00	7,234.07	12,655.64	7,045.71	166.44	165.62	-83.29	-1,171.19	-5,943.96	1,612.33	1,282.25	330.08	4.885		
12,900.00	7,233.71	12,755.64	7,045.32	169.25	168.42	-83.29	-1,172.01	-6,043.95	1,613.70	1,278.04	335.66	4.808		
13,000.00	7,233.34	12,855.63	7,044.93	172.06	171.23	-83.30	-1,172.82	-6,143.93	1,615.07	1,273.83	341.24	4.733		
13,100.00	7,232.98	12,955.62	7,044.53	174.88	174.04	-83.30	-1,173.63	-6,243.92	1,616.45	1,269.62	346.83	4.661		
13,200.00	7,232.61	13,055.61	7,044.14	177.69	176.85	-83.31	-1,174.44	-6,343.91	1,617.82	1,265.40	352.42	4.591		
13,300.00	7,232.24	13,155.60	7,043.75	180.50	179.66	-83.31	-1,175.25	-6,443.89	1,619.19	1,261.18	358.01	4.523		
13,400.00	7,231.88	13,255.59	7,043.35	183.32	182.47	-83.32	-1,176.06	-6,543.88	1,620.56	1,256.95	363.61	4.457		
13,500.00	7,231.51	13,355.58	7,042.96	186.14	185.28	-83.32	-1,176.88	-6,643.87	1,621.94	1,252.73	369.21	4.393		
13,600.00	7,231.15	13,455.57	7,042.57	188.96	188.10	-83.33	-1,177.69	-6,743.85	1,623.31	1,248.50	374.81	4.331		
13,700.00	7,230.78	13,555.56	7,042.18	191.78	190.92	-83.33	-1,178.50	-6,843.84	1,624.68	1,244.27	380.42	4.271		
13,800.00	7,230.41	13,655.55	7,041.78	194.60	193.73	-83.33	-1,179.31	-6,943.82	1,626.05	1,240.03	386.02	4.212		
13,900.00	7,230.05	13,755.54	7,041.39	197.42	196.55	-83.34	-1,180.12	-7,043.81	1,627.43	1,235.79	391.63	4.156		
14,000.00	7,229.68	13,855.53	7,041.00	200.25	199.37	-83.34	-1,180.93	-7,143.80	1,628.80	1,231.56	397.24	4.100		
14,100.00	7,229.31	13,955.52	7,040.60	203.07	202.19	-83.35	-1,181.75	-7,243.78	1,630.17	1,227.31	402.86	4.047		
14,200.00	7,228.95	14,055.51	7,040.21	205.90	205.01	-83.35	-1,182.56	-7,343.77	1,631.54	1,223.07	408.47	3.994		
14,300.00	7,228.58	14,155.50	7,039.82	208.73	207.84	-83.36	-1,183.37	-7,443.76	1,632.92	1,218.82	414.09	3.943		
14,400.00	7,228.22	14,255.49	7,039.42	211.55	210.66	-83.36	-1,184.18	-7,543.74	1,634.29	1,214.58	419.71	3.894		
14,500.00	7,227.85	14,355.48	7,039.03	214.38	213.49	-83.37	-1,184.99	-7,643.73	1,635.66	1,210.33	425.33	3.846		
14,600.00	7,227.48	14,455.47	7,038.64	217.21	216.31	-83.37	-1,185.80	-7,743.72	1,637.03	1,206.08	430.96	3.799		
14,700.00	7,227.12	14,555.46	7,038.24	220.04	219.14	-83.38	-1,186.61	-7,843.70	1,638.41	1,201.82	436.58	3.753		
14,800.00	7,226.75	14,655.45	7,037.85	222.88	221.97	-83.38	-1,187.43	-7,943.69	1,639.78	1,197.57	442.21	3.708		
14,900.00	7,226.38	14,755.45	7,037.46	225.71	224.79	-83.39	-1,188.24	-8,043.68	1,641.15	1,193.31	447.84	3.665		
15,000.00	7,226.02	14,855.44	7,037.06	228.54	227.62	-83.39	-1,189.05	-8,143.66	1,642.52	1,189.06	453.47	3.622		
15,005.81	7,226.00	14,861.24	7,037.04	228.71	227.79	-83.39	-1,189.10	-8,149.47	1,642.60	1,188.81	453.79	3.620 SF		



Anticollision Report



Company:	SRC ENERGY	Local Co-ordinate Reference:	Well HARVESTERS STATE 31C-16-M
Project:	SECTION 15, T6N, R66W	TVD Reference:	KB @ 4821.00ft
Reference Site:	HARVESTERS STATE 7-15 PAD	MD Reference:	KB @ 4821.00ft
Site Error:	3.28 ft	North Reference:	True
Reference Well:	HARVESTERS STATE 31C-16-M	Survey Calculation Method:	Minimum Curvature
Well Error:	3.28 ft	Output errors are at	2.45 sigma
Reference Wellbore	OH	Database:	EDM 5000.14 Single User Db
Reference Design:	PLAN #1	Offset TVD Reference:	Reference Datum

Offset Design HARVESTERS STATE 7-15 PAD - HARVESTERS STATE 32N-16C-M - OH - PLAN #1													Offset Site Error:	0.00 ft
Survey Program: 0-MWD+IFR1													Offset Well Error:	3.28 ft
Reference		Offset		Semi Major Axis			Distance							Warning
Measured Depth (ft)	Vertical Depth (ft)	Measured Depth (ft)	Vertical Depth (ft)	Reference (ft)	Offset (ft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (ft)	+E/-W (ft)	Between Centres (ft)	Between Ellipses (ft)	Minimum Separation (ft)	Separation Factor		
0.00	0.00	0.00	0.00	3.28	3.28	-179.60	-119.84	-0.83	119.85					
100.00	100.00	100.00	100.00	3.28	3.28	-179.60	-119.84	-0.83	119.85	113.28	6.57	18.243		
200.00	200.00	200.00	200.00	3.34	3.34	-179.60	-119.84	-0.83	119.85	113.17	6.67	17.957		
300.00	300.00	300.00	300.00	3.44	3.44	-179.60	-119.84	-0.83	119.85	112.96	6.89	17.395		
400.00	400.00	400.00	400.00	3.60	3.60	-179.60	-119.84	-0.83	119.85	112.64	7.21	16.630		
500.00	500.00	500.00	500.00	3.81	3.81	-179.60	-119.84	-0.83	119.85	112.24	7.61	15.745		
508.33	508.33	508.33	508.33	3.82	3.82	-179.60	-119.84	-0.83	119.85	112.20	7.65	15.668	CC	
600.00	600.00	599.22	599.22	4.05	4.04	-179.59	-119.91	-0.85	119.91	111.82	8.09	14.825	ES	
700.00	699.98	695.16	695.13	4.32	4.28	-156.74	-122.10	-1.36	123.80	115.20	8.60	14.388		
800.00	799.84	790.44	790.25	4.62	4.54	-157.00	-127.37	-2.59	134.12	124.93	9.18	14.606		
900.00	899.62	884.82	884.24	4.94	4.83	-157.19	-135.62	-4.52	148.87	139.07	9.79	15.204		
1,000.00	999.41	982.72	981.54	5.27	5.14	-157.19	-146.16	-6.98	165.61	155.18	10.43	15.879		
1,100.00	1,099.19	1,081.30	1,079.52	5.62	5.48	-157.18	-156.80	-9.47	182.40	171.30	11.10	16.431		
1,200.00	1,198.98	1,179.88	1,177.49	5.99	5.83	-157.17	-167.44	-11.96	199.18	187.38	11.80	16.879		
1,300.00	1,298.76	1,278.47	1,275.47	6.36	6.20	-157.17	-178.09	-14.44	215.96	203.44	12.52	17.245		
1,400.00	1,398.55	1,377.05	1,373.44	6.74	6.57	-157.17	-188.73	-16.93	232.74	219.48	13.26	17.546		
1,500.00	1,498.33	1,475.63	1,471.42	7.13	6.96	-157.16	-199.37	-19.42	249.52	235.50	14.02	17.795		
1,600.00	1,598.12	1,574.21	1,569.39	7.52	7.36	-157.16	-210.01	-21.91	266.30	251.51	14.79	18.002		
1,700.00	1,697.90	1,672.79	1,667.36	7.92	7.76	-157.16	-220.66	-24.39	283.09	267.51	15.58	18.174		
1,800.00	1,797.69	1,771.37	1,765.34	8.33	8.17	-157.16	-231.30	-26.88	299.87	283.50	16.37	18.319		
1,900.00	1,897.47	1,869.96	1,863.31	8.74	8.58	-157.15	-241.94	-29.37	316.65	299.48	17.17	18.441		
2,000.00	1,997.26	1,968.54	1,961.29	9.15	9.00	-157.15	-252.59	-31.85	333.43	315.45	17.98	18.545		
2,100.00	2,097.04	2,067.12	2,059.26	9.56	9.42	-157.15	-263.23	-34.34	350.21	331.42	18.79	18.634		
2,200.00	2,196.83	2,165.70	2,157.23	9.98	9.84	-157.15	-273.87	-36.83	366.99	347.38	19.62	18.709		
2,300.00	2,296.61	2,264.28	2,255.21	10.40	10.27	-157.15	-284.51	-39.31	383.78	363.33	20.44	18.774		
2,400.00	2,396.40	2,362.87	2,353.18	10.82	10.69	-157.15	-295.16	-41.80	400.56	379.29	21.27	18.830		
2,500.00	2,496.18	2,461.45	2,451.16	11.24	11.13	-157.15	-305.80	-44.29	417.34	395.23	22.11	18.879		
2,600.00	2,595.96	2,560.03	2,549.13	11.66	11.56	-157.15	-316.44	-46.77	434.12	411.18	22.94	18.921		
2,700.00	2,695.75	2,658.61	2,647.10	12.09	11.99	-157.14	-327.08	-49.26	450.90	427.12	23.78	18.957		
2,800.00	2,795.53	2,757.19	2,745.08	12.51	12.43	-157.14	-337.73	-51.75	467.68	443.06	24.63	18.989		
2,900.00	2,895.32	2,855.77	2,843.05	12.94	12.87	-157.14	-348.37	-54.23	484.47	458.99	25.47	19.017		
3,000.00	2,995.10	2,954.36	2,941.03	13.37	13.30	-157.14	-359.01	-56.72	501.25	474.92	26.32	19.042		
3,100.00	3,094.89	3,052.94	3,039.00	13.80	13.74	-157.14	-369.65	-59.21	518.03	490.86	27.17	19.064		
3,200.00	3,194.67	3,151.52	3,136.98	14.23	14.18	-157.14	-380.30	-61.70	534.81	506.78	28.03	19.083		
3,300.00	3,294.46	3,250.10	3,234.95	14.66	14.63	-157.14	-390.94	-64.18	551.59	522.71	28.88	19.099		
3,400.00	3,394.24	3,348.68	3,332.92	15.09	15.07	-157.14	-401.58	-66.67	568.37	538.64	29.74	19.114		
3,500.00	3,494.03	3,447.27	3,430.90	15.52	15.51	-157.14	-412.22	-69.16	585.16	554.56	30.59	19.127		
3,600.00	3,593.81	3,545.85	3,528.87	15.96	15.96	-157.14	-422.87	-71.64	601.94	570.49	31.45	19.139		
3,700.00	3,693.60	3,644.43	3,626.85	16.39	16.40	-157.14	-433.51	-74.13	618.72	586.41	32.31	19.149		
3,800.00	3,793.38	3,743.01	3,724.82	16.82	16.85	-157.14	-444.15	-76.62	635.50	602.33	33.17	19.158		
3,900.00	3,893.17	3,841.59	3,822.79	17.26	17.29	-157.14	-454.79	-79.10	652.28	618.25	34.03	19.166		
4,000.00	3,992.95	3,940.17	3,920.77	17.69	17.74	-157.14	-465.44	-81.59	669.06	634.17	34.90	19.173		
4,100.00	4,092.74	4,038.76	4,018.74	18.13	18.19	-157.14	-476.08	-84.08	685.85	650.09	35.76	19.179		
4,200.00	4,192.52	4,137.34	4,116.72	18.56	18.63	-157.14	-486.72	-86.56	702.63	666.00	36.62	19.185		
4,300.00	4,292.31	4,235.92	4,214.69	19.00	19.08	-157.14	-497.37	-89.05	719.41	681.92	37.49	19.190		
4,400.00	4,392.09	4,334.50	4,312.66	19.43	19.53	-157.14	-508.01	-91.54	736.19	697.84	38.35	19.194		
4,500.00	4,491.88	4,433.08	4,410.64	19.87	19.98	-157.13	-518.65	-94.03	752.97	713.75	39.22	19.198		
4,600.00	4,591.66	4,531.67	4,508.61	20.31	20.43	-157.13	-529.29	-96.51	769.75	729.66	40.09	19.201		
4,700.00	4,691.44	4,630.25	4,606.59	20.74	20.87	-157.13	-539.94	-99.00	786.53	745.58	40.96	19.204		
4,800.00	4,791.23	4,728.83	4,704.56	21.18	21.32	-157.13	-550.58	-101.49	803.32	761.49	41.82	19.207		
4,900.00	4,891.01	4,827.41	4,802.54	21.62	21.77	-157.13	-561.22	-103.97	820.10	777.40	42.69	19.209		
5,000.00	4,990.80	4,925.99	4,900.51	22.06	22.22	-157.13	-571.86	-106.46	836.88	793.32	43.56	19.211		

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



Anticollision Report



Company:	SRC ENERGY	Local Co-ordinate Reference:	Well HARVESTERS STATE 31C-16-M
Project:	SECTION 15, T6N, R66W	TVD Reference:	KB @ 4821.00ft
Reference Site:	HARVESTERS STATE 7-15 PAD	MD Reference:	KB @ 4821.00ft
Site Error:	3.28 ft	North Reference:	True
Reference Well:	HARVESTERS STATE 31C-16-M	Survey Calculation Method:	Minimum Curvature
Well Error:	3.28 ft	Output errors are at	2.45 sigma
Reference Wellbore	OH	Database:	EDM 5000.14 Single User Db
Reference Design:	PLAN #1	Offset TVD Reference:	Reference Datum

Offset Design HARVESTERS STATE 7-15 PAD - HARVESTERS STATE 32N-16C-M - OH - PLAN #1												Offset Site Error:	0.00 ft
Survey Program: 0-MWD+IFR1												Offset Well Error:	3.28 ft
Reference		Offset		Semi Major Axis			Distance						Warning
Measured Depth (ft)	Vertical Depth (ft)	Measured Depth (ft)	Vertical Depth (ft)	Reference (ft)	Offset (ft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (ft)	+E/-W (ft)	Between Centres (ft)	Between Ellipses (ft)	Minimum Separation (ft)	Separation Factor	
5,100.00	5,090.58	5,024.57	4,998.48	22.50	22.67	-157.13	-582.51	-108.95	853.66	809.23	44.43	19.213	
5,200.00	5,190.37	5,123.16	5,096.46	22.93	23.12	-157.13	-593.15	-111.43	870.44	825.14	45.30	19.214	
5,300.00	5,290.15	5,221.74	5,194.43	23.37	23.57	-157.13	-603.79	-113.92	887.22	841.05	46.17	19.215	
5,400.00	5,389.94	5,320.32	5,292.41	23.81	24.02	-157.13	-614.43	-116.41	904.01	856.96	47.04	19.216	
5,500.00	5,489.72	5,418.90	5,390.38	24.25	24.48	-157.13	-625.08	-118.89	920.79	872.87	47.92	19.217	
5,600.00	5,589.51	5,517.48	5,488.35	24.69	24.93	-157.13	-635.72	-121.38	937.57	888.78	48.79	19.217	
5,700.00	5,689.29	5,616.07	5,586.33	25.13	25.38	-157.13	-646.36	-123.87	954.35	904.69	49.66	19.218	
5,800.00	5,789.08	5,714.65	5,684.30	25.56	25.83	-157.13	-657.00	-126.36	971.13	920.60	50.53	19.218	
5,900.00	5,888.86	5,813.23	5,782.28	26.00	26.28	-157.13	-667.65	-128.84	987.91	936.51	51.41	19.218	
6,000.00	5,988.65	5,911.81	5,880.25	26.44	26.73	-157.13	-678.29	-131.33	1,004.70	952.42	52.28	19.218	
6,100.00	6,088.43	6,010.39	5,978.22	26.88	27.18	-157.13	-688.93	-133.82	1,021.48	968.33	53.15	19.218	
6,200.00	6,188.22	6,108.97	6,076.20	27.32	27.64	-157.13	-699.57	-136.30	1,038.26	984.23	54.03	19.218	
6,300.00	6,288.00	6,207.56	6,174.17	27.76	28.09	-157.13	-710.22	-138.79	1,055.04	1,000.14	54.90	19.218	
6,400.00	6,387.79	6,306.14	6,272.15	28.20	28.54	-157.13	-720.86	-141.28	1,071.82	1,016.05	55.77	19.218	
6,500.00	6,487.57	6,404.72	6,370.12	28.64	28.99	-157.13	-731.50	-143.76	1,088.60	1,031.96	56.65	19.217	
6,600.00	6,587.35	6,503.30	6,468.10	29.08	29.45	-157.13	-742.14	-146.25	1,105.39	1,047.86	57.52	19.217	
6,700.00	6,687.02	6,601.51	6,565.59	29.52	29.90	-118.42	-752.75	-150.80	1,122.18	1,063.78	58.39	19.217	
6,800.00	6,784.98	6,699.44	6,661.22	29.96	30.34	-100.93	-763.27	-168.59	1,138.88	1,079.62	59.26	19.219	
6,900.00	6,878.81	6,797.59	6,753.19	30.41	30.76	-94.96	-773.51	-201.00	1,155.09	1,094.98	60.12	19.214	
7,000.00	6,966.21	6,896.07	6,839.39	30.86	31.15	-91.57	-783.23	-247.41	1,170.43	1,109.45	60.99	19.192	
7,100.00	7,045.03	6,995.00	6,917.77	31.35	31.52	-89.24	-792.22	-306.94	1,184.52	1,122.61	61.91	19.134	
7,200.00	7,113.32	7,094.46	6,986.37	31.90	31.89	-87.51	-800.25	-378.36	1,197.01	1,134.05	62.95	19.014	
7,300.00	7,169.40	7,194.46	7,043.36	32.57	32.33	-86.21	-807.10	-460.13	1,207.58	1,143.37	64.21	18.806	
7,400.00	7,211.89	7,295.01	7,087.11	33.38	32.94	-85.27	-812.59	-550.37	1,215.99	1,150.23	65.77	18.489	
7,500.00	7,239.75	7,396.03	7,116.31	34.35	33.80	-84.64	-816.55	-646.88	1,222.03	1,154.36	67.66	18.060	
7,600.00	7,252.28	7,497.42	7,129.99	35.47	34.87	-84.33	-818.86	-747.22	1,225.53	1,155.64	69.89	17.535	
7,700.00	7,252.75	7,601.98	7,130.73	36.73	36.16	-84.29	-819.77	-847.79	1,227.02	1,154.57	72.45	16.936	
7,800.00	7,252.38	7,701.99	7,130.29	38.16	37.58	-84.29	-820.55	-947.78	1,228.36	1,153.06	75.30	16.313	
7,900.00	7,252.02	7,802.00	7,129.86	39.74	39.15	-84.30	-821.32	-1,047.77	1,229.71	1,151.24	78.46	15.672	
8,000.00	7,251.65	7,902.00	7,129.43	41.47	40.87	-84.30	-822.10	-1,147.76	1,231.05	1,149.15	81.90	15.031	
8,100.00	7,251.29	8,002.01	7,128.99	43.31	42.71	-84.30	-822.88	-1,247.74	1,232.40	1,146.82	85.58	14.401	
8,200.00	7,250.92	8,102.02	7,128.56	45.26	44.66	-84.30	-823.66	-1,347.73	1,233.74	1,144.27	89.47	13.790	
8,300.00	7,250.55	8,202.03	7,128.12	47.30	46.71	-84.31	-824.43	-1,447.72	1,235.09	1,141.54	93.54	13.203	
8,400.00	7,250.19	8,302.04	7,127.69	49.42	48.83	-84.31	-825.21	-1,547.70	1,236.43	1,138.65	97.78	12.645	
8,500.00	7,249.82	8,402.05	7,127.26	51.62	51.03	-84.31	-825.99	-1,647.69	1,237.77	1,135.62	102.16	12.116	
8,600.00	7,249.45	8,502.06	7,126.82	53.88	53.29	-84.32	-826.77	-1,747.68	1,239.12	1,132.46	106.66	11.617	
8,700.00	7,249.09	8,602.07	7,126.39	56.19	55.61	-84.32	-827.54	-1,847.66	1,240.46	1,129.19	111.27	11.148	
8,800.00	7,248.72	8,702.08	7,125.96	58.55	57.97	-84.32	-828.32	-1,947.65	1,241.81	1,125.83	115.98	10.707	
8,900.00	7,248.36	8,802.09	7,125.52	60.96	60.38	-84.33	-829.10	-2,047.64	1,243.15	1,122.38	120.77	10.293	
9,000.00	7,247.99	8,902.10	7,125.09	63.40	62.82	-84.33	-829.87	-2,147.63	1,244.50	1,118.85	125.64	9.905	
9,100.00	7,247.62	9,002.10	7,124.65	65.87	65.30	-84.33	-830.65	-2,247.61	1,245.84	1,115.26	130.58	9.541	
9,200.00	7,247.26	9,102.11	7,124.22	68.38	67.81	-84.34	-831.43	-2,347.60	1,247.18	1,111.61	135.57	9.199	
9,300.00	7,246.89	9,197.88	7,123.79	70.91	70.24	-84.34	-832.21	-2,447.59	1,248.53	1,108.01	140.51	8.885	
9,400.00	7,246.53	9,302.13	7,123.35	73.47	72.91	-84.34	-832.98	-2,547.57	1,249.87	1,104.16	145.72	8.577	
9,500.00	7,246.16	9,402.14	7,122.92	76.05	75.49	-84.34	-833.76	-2,647.56	1,251.22	1,100.36	150.86	8.294	
9,600.00	7,245.79	9,502.15	7,122.48	78.65	78.09	-84.35	-834.54	-2,747.55	1,252.56	1,096.53	156.03	8.027	
9,700.00	7,245.43	9,602.16	7,122.05	81.27	80.70	-84.35	-835.32	-2,847.53	1,253.91	1,092.66	161.25	7.776	
9,800.00	7,245.06	9,702.17	7,121.62	83.90	83.34	-84.35	-836.09	-2,947.52	1,255.25	1,088.76	166.49	7.539	
9,900.00	7,244.69	9,802.18	7,121.18	86.55	85.99	-84.36	-836.87	-3,047.51	1,256.59	1,084.83	171.76	7.316	
10,000.00	7,244.33	9,902.19	7,120.75	89.21	88.65	-84.36	-837.65	-3,147.49	1,257.94	1,080.88	177.06	7.104	
10,100.00	7,243.96	10,002.19	7,120.32	91.88	91.32	-84.36	-838.42	-3,247.48	1,259.28	1,076.90	182.39	6.904	
10,200.00	7,243.60	10,102.20	7,119.88	94.56	94.00	-84.36	-839.20	-3,347.47	1,260.63	1,072.90	187.73	6.715	

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



Anticollision Report



Company:	SRC ENERGY	Local Co-ordinate Reference:	Well HARVESTERS STATE 31C-16-M
Project:	SECTION 15, T6N, R66W	TVD Reference:	KB @ 4821.00ft
Reference Site:	HARVESTERS STATE 7-15 PAD	MD Reference:	KB @ 4821.00ft
Site Error:	3.28 ft	North Reference:	True
Reference Well:	HARVESTERS STATE 31C-16-M	Survey Calculation Method:	Minimum Curvature
Well Error:	3.28 ft	Output errors are at	2.45 sigma
Reference Wellbore	OH	Database:	EDM 5000.14 Single User Db
Reference Design:	PLAN #1	Offset TVD Reference:	Reference Datum

Offset Design HARVESTERS STATE 7-15 PAD - HARVESTERS STATE 32N-16C-M - OH - PLAN #1													Offset Site Error:	0.00 ft
Survey Program: 0-MWD+IFR1													Offset Well Error:	3.28 ft
Reference		Offset		Semi Major Axis			Distance							Warning
Measured Depth (ft)	Vertical Depth (ft)	Measured Depth (ft)	Vertical Depth (ft)	Reference (ft)	Offset (ft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (ft)	+E/-W (ft)	Between Centres (ft)	Between Ellipses (ft)	Minimum Separation (ft)	Separation Factor		
10,300.00	7,243.23	10,202.21	7,119.45	97.26	96.70	-84.37	-839.98	-3,447.46	1,261.97	1,068.87	193.10	6.535		
10,400.00	7,242.86	10,302.22	7,119.01	99.96	99.40	-84.37	-840.76	-3,547.44	1,263.32	1,064.84	198.48	6.365		
10,500.00	7,242.50	10,397.77	7,118.58	102.67	101.99	-84.37	-841.53	-3,647.43	1,264.66	1,060.90	203.76	6.207		
10,600.00	7,242.13	10,502.24	7,118.15	105.39	104.83	-84.38	-842.31	-3,747.42	1,266.01	1,056.71	209.30	6.049		
10,700.00	7,241.76	10,602.25	7,117.71	108.12	107.56	-84.38	-843.09	-3,847.40	1,267.35	1,052.62	214.73	5.902		
10,800.00	7,241.40	10,702.26	7,117.28	110.85	110.29	-84.38	-843.87	-3,947.39	1,268.69	1,048.52	220.17	5.762		
10,900.00	7,241.03	10,802.27	7,116.84	113.59	113.03	-84.39	-844.64	-4,047.38	1,270.04	1,044.41	225.63	5.629		
11,000.00	7,240.67	10,902.28	7,116.41	116.34	115.78	-84.39	-845.42	-4,147.36	1,271.38	1,040.28	231.10	5.501		
11,100.00	7,240.30	11,002.29	7,115.98	119.09	118.53	-84.39	-846.20	-4,247.35	1,272.73	1,036.15	236.58	5.380		
11,200.00	7,239.93	11,102.29	7,115.54	121.85	121.28	-84.39	-846.97	-4,347.34	1,274.07	1,032.01	242.07	5.263		
11,300.00	7,239.57	11,202.30	7,115.11	124.61	124.04	-84.40	-847.75	-4,447.33	1,275.42	1,027.85	247.56	5.152		
11,400.00	7,239.20	11,302.31	7,114.67	127.38	126.81	-84.40	-848.53	-4,547.31	1,276.76	1,023.69	253.07	5.045		
11,500.00	7,238.84	11,402.32	7,114.24	130.15	129.58	-84.40	-849.31	-4,647.30	1,278.10	1,019.52	258.59	4.943		
11,600.00	7,238.47	11,497.67	7,113.81	132.92	132.22	-84.41	-850.08	-4,747.29	1,279.45	1,015.47	263.98	4.847		
11,700.00	7,238.10	11,602.34	7,113.37	135.70	135.13	-84.41	-850.86	-4,847.27	1,280.79	1,011.15	269.64	4.750		
11,800.00	7,237.74	11,702.35	7,112.94	138.48	137.91	-84.41	-851.64	-4,947.26	1,282.14	1,006.96	275.18	4.659		
11,900.00	7,237.37	11,802.36	7,112.51	141.26	140.69	-84.41	-852.42	-5,047.25	1,283.48	1,002.76	280.72	4.572		
12,000.00	7,237.00	11,902.37	7,112.07	144.05	143.47	-84.42	-853.19	-5,147.23	1,284.83	998.56	286.27	4.488		
12,100.00	7,236.64	12,002.38	7,111.64	146.84	146.26	-84.42	-853.97	-5,247.22	1,286.17	994.34	291.83	4.407		
12,200.00	7,236.27	12,102.39	7,111.20	149.64	149.05	-84.42	-854.75	-5,347.21	1,287.52	990.13	297.39	4.329		
12,300.00	7,235.91	12,202.39	7,110.77	152.43	151.85	-84.42	-855.52	-5,447.20	1,288.86	985.91	302.95	4.254		
12,400.00	7,235.54	12,302.40	7,110.34	155.23	154.64	-84.43	-856.30	-5,547.18	1,290.20	981.68	308.52	4.182		
12,500.00	7,235.17	12,402.41	7,109.90	158.03	157.44	-84.43	-857.08	-5,647.17	1,291.55	977.45	314.10	4.112		
12,600.00	7,234.81	12,502.42	7,109.47	160.83	160.24	-84.43	-857.86	-5,747.16	1,292.89	973.21	319.68	4.044		
12,700.00	7,234.44	12,602.43	7,109.03	163.64	163.04	-84.44	-858.63	-5,847.14	1,294.24	968.98	325.26	3.979		
12,800.00	7,234.07	12,702.44	7,108.60	166.44	165.85	-84.44	-859.41	-5,947.13	1,295.58	964.73	330.85	3.916		
12,900.00	7,233.71	12,802.45	7,108.17	169.25	168.65	-84.44	-860.19	-6,047.12	1,296.93	960.49	336.44	3.855		
13,000.00	7,233.34	12,902.46	7,107.73	172.06	171.46	-84.44	-860.97	-6,147.10	1,298.27	956.24	342.04	3.796		
13,100.00	7,232.98	13,002.47	7,107.30	174.88	174.27	-84.45	-861.74	-6,247.09	1,299.62	951.98	347.63	3.738		
13,200.00	7,232.61	13,102.48	7,106.86	177.69	177.08	-84.45	-862.52	-6,347.08	1,300.96	947.72	353.24	3.683		
13,300.00	7,232.24	13,202.48	7,106.43	180.50	179.90	-84.45	-863.30	-6,447.07	1,302.30	943.46	358.84	3.629		
13,400.00	7,231.88	13,302.49	7,106.00	183.32	182.71	-84.46	-864.08	-6,547.05	1,303.65	939.20	364.45	3.577		
13,500.00	7,231.51	13,402.50	7,105.56	186.14	185.53	-84.46	-864.85	-6,647.04	1,304.99	934.94	370.06	3.526		
13,600.00	7,231.15	13,502.51	7,105.13	188.96	188.34	-84.46	-865.63	-6,747.03	1,306.34	930.67	375.67	3.477		
13,700.00	7,230.78	13,602.52	7,104.70	191.78	191.16	-84.46	-866.41	-6,847.01	1,307.68	926.40	381.29	3.430		
13,800.00	7,230.41	13,702.53	7,104.26	194.60	193.98	-84.47	-867.18	-6,947.00	1,309.03	922.12	386.90	3.383		
13,900.00	7,230.05	13,802.54	7,103.83	197.42	196.80	-84.47	-867.96	-7,046.99	1,310.37	917.85	392.52	3.338		
14,000.00	7,229.68	13,902.55	7,103.39	200.25	199.62	-84.47	-868.74	-7,146.97	1,311.72	913.57	398.15	3.295		
14,100.00	7,229.31	14,002.56	7,102.96	203.07	202.44	-84.47	-869.52	-7,246.96	1,313.06	909.29	403.77	3.252		
14,200.00	7,228.95	14,102.57	7,102.53	205.90	205.27	-84.48	-870.29	-7,346.95	1,314.40	905.01	409.40	3.211		
14,300.00	7,228.58	14,202.58	7,102.09	208.73	208.09	-84.48	-871.07	-7,446.94	1,315.75	900.72	415.02	3.170		
14,400.00	7,228.22	14,302.58	7,101.66	211.55	210.92	-84.48	-871.85	-7,546.92	1,317.09	896.44	420.65	3.131		
14,500.00	7,227.85	14,402.59	7,101.22	214.38	213.74	-84.49	-872.63	-7,646.91	1,318.44	892.15	426.29	3.093		
14,600.00	7,227.48	14,502.60	7,100.79	217.21	216.57	-84.49	-873.40	-7,746.90	1,319.78	887.86	431.92	3.056		
14,700.00	7,227.12	14,602.61	7,100.36	220.04	219.40	-84.49	-874.18	-7,846.88	1,321.13	883.57	437.56	3.019		
14,800.00	7,226.75	14,702.62	7,099.92	222.88	222.23	-84.49	-874.96	-7,946.87	1,322.47	879.28	443.19	2.984		
14,900.00	7,226.38	14,802.63	7,099.49	225.71	225.05	-84.50	-875.73	-8,046.86	1,323.82	874.98	448.83	2.949		
15,000.00	7,226.02	14,897.36	7,099.05	228.54	227.74	-84.50	-876.51	-8,146.84	1,325.16	870.84	454.32	2.917		
15,005.81	7,226.00	14,903.17	7,099.03	228.71	227.90	-84.50	-876.56	-8,152.65	1,325.24	870.59	454.65	2.915 SF		

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



Anticollision Report



Company:	SRC ENERGY	Local Co-ordinate Reference:	Well HARVESTERS STATE 31C-16-M
Project:	SECTION 15, T6N, R66W	TVD Reference:	KB @ 4821.00ft
Reference Site:	HARVESTERS STATE 7-15 PAD	MD Reference:	KB @ 4821.00ft
Site Error:	3.28 ft	North Reference:	True
Reference Well:	HARVESTERS STATE 31C-16-M	Survey Calculation Method:	Minimum Curvature
Well Error:	3.28 ft	Output errors are at	2.45 sigma
Reference Wellbore	OH	Database:	EDM 5000.14 Single User Db
Reference Design:	PLAN #1	Offset TVD Reference:	Reference Datum

Offset Design HARVESTERS STATE 7-15 PAD - HARVESTERS STATE 33N-16B-M - OH - PLAN #1													Offset Site Error:	0.00 ft
Survey Program: 0-MWD+IFR1													Offset Well Error:	3.28 ft
Reference		Offset		Semi Major Axis			Distance							Warning
Measured Depth (ft)	Vertical Depth (ft)	Measured Depth (ft)	Vertical Depth (ft)	Reference (ft)	Offset (ft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (ft)	+E/-W (ft)	Between Centres (ft)	Between Ellipses (ft)	Minimum Separation (ft)	Separation Factor		
0.00	0.00	1.00	0.00	3.28	3.28	-179.55	-319.85	-2.50	319.86					
100.00	100.00	101.00	100.00	3.28	3.28	-179.55	-319.85	-2.50	319.86	313.29	6.57	48.687		
200.00	200.00	199.00	200.00	3.34	3.34	-179.55	-319.85	-2.50	319.86	313.18	6.67	47.931	CC, ES	
300.00	300.00	289.05	290.03	3.44	3.43	-179.53	-321.23	-2.61	321.39	314.51	6.88	46.713		
400.00	400.00	378.82	379.71	3.60	3.56	-179.48	-325.41	-2.93	326.06	318.87	7.19	45.351		
500.00	500.00	468.25	468.85	3.81	3.72	-179.40	-332.36	-3.46	333.83	326.25	7.59	43.995		
600.00	600.00	557.15	557.22	4.05	3.93	-179.30	-342.02	-4.20	344.71	336.65	8.06	42.775		
700.00	699.98	645.13	644.35	4.32	4.16	-156.24	-354.26	-5.14	360.22	351.63	8.59	41.944		
800.00	799.84	731.59	729.55	4.62	4.41	-156.23	-368.88	-6.27	381.83	372.67	9.17	41.655		
900.00	899.62	816.54	812.80	4.94	4.70	-156.40	-385.74	-7.56	407.55	397.80	9.75	41.783		
1,000.00	999.41	900.11	894.16	5.27	5.00	-156.52	-404.72	-9.02	436.10	425.74	10.36	42.101		
1,100.00	1,099.19	982.18	973.50	5.62	5.32	-156.61	-425.65	-10.62	467.40	456.43	10.97	42.588		
1,200.00	1,198.98	1,062.66	1,050.68	5.99	5.66	-156.66	-448.38	-12.37	501.38	489.78	11.60	43.235		
1,300.00	1,298.76	1,150.35	1,134.19	6.36	6.06	-156.70	-475.06	-14.41	537.49	525.23	12.25	43.862		
1,400.00	1,398.55	1,243.53	1,222.87	6.74	6.49	-156.73	-503.58	-16.60	573.79	560.84	12.96	44.280		
1,500.00	1,498.33	1,336.70	1,311.54	7.13	6.94	-156.75	-532.11	-18.79	610.10	596.42	13.68	44.583		
1,600.00	1,598.12	1,429.88	1,400.21	7.52	7.41	-156.78	-560.64	-20.98	646.41	631.98	14.43	44.797		
1,700.00	1,697.90	1,523.05	1,488.89	7.92	7.88	-156.80	-589.16	-23.17	682.72	667.53	15.19	44.941		
1,800.00	1,797.69	1,616.23	1,577.56	8.33	8.36	-156.82	-617.69	-25.36	719.03	703.06	15.97	45.033		
1,900.00	1,897.47	1,709.40	1,666.24	8.74	8.85	-156.84	-646.21	-27.55	755.34	738.59	16.75	45.084		
2,000.00	1,997.26	1,802.58	1,754.91	9.15	9.34	-156.85	-674.74	-29.73	791.65	774.10	17.55	45.104		
2,100.00	2,097.04	1,904.25	1,843.58	9.56	9.88	-156.87	-703.26	-31.92	827.96	809.56	18.40	45.003		
2,200.00	2,196.83	1,988.93	1,932.26	9.98	10.34	-156.88	-731.79	-34.11	864.27	845.09	19.17	45.079		
2,300.00	2,296.61	2,082.10	2,020.93	10.40	10.84	-156.90	-760.31	-36.30	900.58	880.58	19.99	45.043		
2,400.00	2,396.40	2,175.28	2,109.61	10.82	11.35	-156.91	-788.84	-38.49	936.89	916.07	20.82	44.998		
2,500.00	2,496.18	2,268.45	2,198.28	11.24	11.86	-156.92	-817.36	-40.68	973.20	951.54	21.65	44.945		
2,600.00	2,595.96	2,361.63	2,286.96	11.66	12.38	-156.93	-845.89	-42.87	1,009.51	987.01	22.49	44.886		
2,700.00	2,695.75	2,454.80	2,375.63	12.09	12.89	-156.94	-874.41	-45.06	1,045.81	1,022.48	23.33	44.823		
2,800.00	2,795.53	2,547.98	2,464.30	12.51	13.41	-156.94	-902.94	-47.24	1,082.12	1,057.95	24.18	44.758		
2,900.00	2,895.32	2,641.15	2,552.98	12.94	13.93	-156.95	-931.47	-49.43	1,118.43	1,093.41	25.03	44.691		
3,000.00	2,995.10	2,734.33	2,641.65	13.37	14.45	-156.96	-959.99	-51.62	1,154.74	1,128.87	25.88	44.623		
3,100.00	3,094.89	2,827.51	2,730.33	13.80	14.98	-156.97	-988.52	-53.81	1,191.05	1,164.32	26.73	44.555		
3,200.00	3,194.67	2,920.68	2,819.00	14.23	15.50	-156.97	-1,017.04	-56.00	1,227.36	1,199.77	27.59	44.487		
3,300.00	3,294.46	3,013.86	2,907.68	14.66	16.02	-156.98	-1,045.57	-58.19	1,263.67	1,235.22	28.45	44.420		
3,400.00	3,394.24	3,107.03	2,996.35	15.09	16.55	-156.99	-1,074.09	-60.38	1,299.98	1,270.67	29.31	44.353		
3,500.00	3,494.03	3,200.21	3,085.02	15.52	17.08	-156.99	-1,102.62	-62.57	1,336.29	1,306.12	30.17	44.288		
3,600.00	3,593.81	3,306.62	3,173.70	15.96	17.68	-157.00	-1,131.14	-64.75	1,372.60	1,341.50	31.10	44.129		
3,700.00	3,693.60	3,386.56	3,262.37	16.39	18.13	-157.00	-1,159.67	-66.94	1,408.91	1,377.01	31.90	44.160		
3,800.00	3,793.38	3,479.73	3,351.05	16.82	18.66	-157.01	-1,188.19	-69.13	1,445.22	1,412.45	32.77	44.098		
3,900.00	3,893.17	3,572.91	3,439.72	17.26	19.19	-157.01	-1,216.72	-71.32	1,481.53	1,447.89	33.64	44.037		
4,000.00	3,992.95	3,666.08	3,528.39	17.69	19.72	-157.02	-1,245.24	-73.51	1,517.84	1,483.33	34.51	43.978		
4,100.00	4,092.74	3,759.26	3,617.07	18.13	20.25	-157.02	-1,273.77	-75.70	1,554.15	1,518.76	35.39	43.920		
4,200.00	4,192.52	3,852.43	3,705.74	18.56	20.78	-157.02	-1,302.29	-77.89	1,590.46	1,554.20	36.26	43.864		
4,300.00	4,292.31	3,945.61	3,794.42	19.00	21.31	-157.03	-1,330.82	-80.08	1,626.77	1,589.64	37.13	43.809		
4,400.00	4,392.09	4,038.78	3,883.09	19.43	21.84	-157.03	-1,359.35	-82.26	1,663.08	1,625.07	38.01	43.756		
4,500.00	4,491.88	4,131.96	3,971.77	19.87	22.37	-157.03	-1,387.87	-84.45	1,699.39	1,660.50	38.88	43.703		
4,600.00	4,591.66	4,225.13	4,060.44	20.31	22.91	-157.04	-1,416.40	-86.64	1,735.70	1,695.94	39.76	43.653		
4,700.00	4,691.44	4,318.31	4,149.11	20.74	23.44	-157.04	-1,444.92	-88.83	1,772.01	1,731.37	40.64	43.603		
4,800.00	4,791.23	4,411.48	4,237.79	21.18	23.97	-157.04	-1,473.45	-91.02	1,808.32	1,766.80	41.52	43.555		
4,900.00	4,891.01	4,504.66	4,326.46	21.62	24.50	-157.05	-1,501.97	-93.21	1,844.63	1,802.23	42.40	43.508		
5,000.00	4,990.80	4,602.17	4,415.14	22.06	25.06	-157.05	-1,530.50	-95.40	1,880.94	1,837.64	43.30	43.440		
5,100.00	5,090.58	4,708.99	4,503.81	22.50	25.67	-157.05	-1,559.02	-97.59	1,917.25	1,873.00	44.25	43.329		

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



Anticollision Report



Company:	SRC ENERGY	Local Co-ordinate Reference:	Well HARVESTERS STATE 31C-16-M
Project:	SECTION 15, T6N, R66W	TVD Reference:	KB @ 4821.00ft
Reference Site:	HARVESTERS STATE 7-15 PAD	MD Reference:	KB @ 4821.00ft
Site Error:	3.28 ft	North Reference:	True
Reference Well:	HARVESTERS STATE 31C-16-M	Survey Calculation Method:	Minimum Curvature
Well Error:	3.28 ft	Output errors are at	2.45 sigma
Reference Wellbore	OH	Database:	EDM 5000.14 Single User Db
Reference Design:	PLAN #1	Offset TVD Reference:	Reference Datum

Offset Design HARVESTERS STATE 7-15 PAD - HARVESTERS STATE 33N-16B-M - OH - PLAN #1													Offset Site Error:	0.00 ft
Survey Program: 0-MWD+IFR1													Offset Well Error:	3.28 ft
Reference		Offset		Semi Major Axis			Distance							Warning
Measured Depth (ft)	Vertical Depth (ft)	Measured Depth (ft)	Vertical Depth (ft)	Reference (ft)	Offset (ft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (ft)	+E/-W (ft)	Between Centres (ft)	Between Ellipses (ft)	Minimum Separation (ft)	Separation Factor		
5,200.00	5,190.37	4,784.18	4,592.48	22.93	26.11	-157.05	-1,587.55	-99.77	1,953.56	1,908.52	45.04	43.375		
5,300.00	5,290.15	4,877.36	4,681.16	23.37	26.64	-157.06	-1,616.07	-101.96	1,989.87	1,943.94	45.92	43.332		
5,400.00	5,389.94	4,970.53	4,769.83	23.81	27.17	-157.06	-1,644.60	-104.15	2,026.18	1,979.37	46.80	43.291		
5,500.00	5,489.72	5,063.71	4,858.51	24.25	27.71	-157.06	-1,673.12	-106.34	2,062.49	2,014.80	47.69	43.251		
5,600.00	5,589.51	5,156.88	4,947.18	24.69	28.24	-157.06	-1,701.65	-108.53	2,098.80	2,050.23	48.57	43.212		
5,700.00	5,689.29	5,250.06	5,035.86	25.13	28.78	-157.07	-1,730.17	-110.72	2,135.11	2,085.65	49.45	43.174		
5,800.00	5,789.08	5,343.23	5,124.53	25.56	29.31	-157.07	-1,758.70	-112.91	2,171.41	2,121.08	50.34	43.136		
5,900.00	5,888.86	5,436.41	5,213.20	26.00	29.85	-157.07	-1,787.23	-115.10	2,207.72	2,156.50	51.22	43.100		
6,000.00	5,988.65	5,529.58	5,301.88	26.44	30.38	-157.07	-1,815.75	-117.28	2,244.03	2,191.93	52.11	43.064		
6,100.00	6,088.43	5,622.76	5,390.55	26.88	30.92	-157.07	-1,844.28	-119.47	2,280.34	2,227.35	52.99	43.030		
6,200.00	6,188.22	5,715.93	5,479.23	27.32	31.46	-157.08	-1,872.80	-121.66	2,316.65	2,262.77	53.88	42.996		
6,300.00	6,288.00	5,809.11	5,567.90	27.76	31.99	-157.08	-1,901.33	-123.85	2,352.96	2,298.20	54.77	42.963		
6,400.00	6,387.79	5,902.28	5,656.57	28.20	32.53	-157.08	-1,929.85	-126.04	2,389.27	2,333.62	55.65	42.930		
6,500.00	6,487.57	6,004.54	5,745.25	28.64	33.12	-157.08	-1,958.38	-128.23	2,425.58	2,368.99	56.59	42.864		
6,600.00	6,587.35	6,088.63	5,833.92	29.08	33.60	-157.08	-1,986.90	-130.42	2,461.89	2,404.46	57.43	42.868		
6,700.00	6,687.02	6,181.74	5,922.54	29.52	34.14	-117.38	-2,015.41	-132.60	2,498.19	2,439.87	58.32	42.837		
6,800.00	6,784.98	6,273.56	6,009.92	29.96	34.66	-98.30	-2,043.52	-134.76	2,534.13	2,474.92	59.20	42.803		
6,900.00	6,878.81	6,361.86	6,093.95	30.41	35.17	-91.10	-2,070.55	-136.83	2,569.12	2,509.05	60.08	42.764		
7,000.00	6,966.21	6,444.47	6,172.57	30.86	35.65	-86.76	-2,095.84	-138.78	2,602.84	2,541.91	60.93	42.719		
7,100.00	7,045.03	6,519.34	6,243.83	31.35	36.08	-83.64	-2,118.76	-140.53	2,635.13	2,573.36	61.77	42.658		
7,200.00	7,113.32	6,584.65	6,305.98	31.90	36.46	-81.16	-2,138.76	-142.07	2,666.00	2,603.37	62.63	42.566		
7,300.00	7,169.40	6,638.78	6,357.49	32.57	36.77	-79.01	-2,155.33	-143.34	2,695.49	2,631.96	63.53	42.427		
7,400.00	7,211.89	6,680.39	6,397.10	33.38	37.01	-77.01	-2,168.07	-144.32	2,723.64	2,659.14	64.50	42.227		
7,500.00	7,239.75	6,708.47	6,423.82	34.35	37.17	-75.05	-2,176.66	-144.98	2,750.38	2,684.84	65.54	41.966		
7,600.00	7,252.28	6,722.32	6,437.00	35.47	37.25	-73.07	-2,180.90	-145.30	2,775.53	2,708.91	66.63	41.658		
7,700.00	7,252.75	7,814.10	7,075.82	36.73	41.77	-86.37	-2,391.63	-838.60	2,798.43	2,722.41	76.01	36.815		
7,800.00	7,252.38	7,914.10	7,075.49	38.16	42.46	-86.37	-2,392.30	-938.59	2,799.66	2,720.94	78.72	35.565		
7,900.00	7,252.02	8,014.09	7,075.17	39.74	43.43	-86.38	-2,392.97	-1,038.58	2,800.89	2,719.15	81.73	34.268		
8,000.00	7,251.65	8,114.08	7,074.84	41.47	44.67	-86.38	-2,393.64	-1,138.57	2,802.11	2,717.09	85.03	32.956		
8,100.00	7,251.29	8,214.07	7,074.52	43.31	46.13	-86.38	-2,394.30	-1,238.56	2,803.34	2,714.78	88.56	31.654		
8,200.00	7,250.92	8,314.06	7,074.19	45.26	47.78	-86.38	-2,394.97	-1,338.55	2,804.57	2,712.26	92.32	30.380		
8,300.00	7,250.55	8,414.06	7,073.87	47.30	49.57	-86.39	-2,395.64	-1,438.54	2,805.80	2,709.54	96.26	29.147		
8,400.00	7,250.19	8,514.05	7,073.54	49.42	51.48	-86.39	-2,396.31	-1,538.53	2,807.03	2,706.65	100.38	27.964		
8,500.00	7,249.82	8,614.04	7,073.22	51.62	53.48	-86.39	-2,396.97	-1,638.52	2,808.26	2,703.61	104.65	26.836		
8,600.00	7,249.45	8,714.03	7,072.90	53.88	55.57	-86.39	-2,397.64	-1,738.51	2,809.49	2,700.45	109.04	25.765		
8,700.00	7,249.09	8,814.03	7,072.57	56.19	57.74	-86.40	-2,398.31	-1,838.49	2,810.72	2,697.16	113.56	24.751		
8,800.00	7,248.72	8,914.02	7,072.25	58.55	59.96	-86.40	-2,398.98	-1,938.48	2,811.95	2,693.77	118.18	23.794		
8,900.00	7,248.36	9,014.01	7,071.92	60.96	62.24	-86.40	-2,399.64	-2,038.47	2,813.18	2,690.29	122.89	22.892		
9,000.00	7,247.99	9,114.00	7,071.60	63.40	64.57	-86.40	-2,400.31	-2,138.46	2,814.41	2,686.73	127.68	22.043		
9,100.00	7,247.62	9,214.00	7,071.27	65.87	66.94	-86.41	-2,400.98	-2,238.45	2,815.64	2,683.10	132.54	21.243		
9,200.00	7,247.26	9,313.99	7,070.95	68.38	69.35	-86.41	-2,401.65	-2,338.44	2,816.87	2,679.40	137.47	20.491		
9,300.00	7,246.89	9,413.98	7,070.62	70.91	71.80	-86.41	-2,402.31	-2,438.43	2,818.10	2,675.64	142.46	19.782		
9,400.00	7,246.53	9,513.97	7,070.30	73.47	74.27	-86.41	-2,402.98	-2,538.42	2,819.32	2,671.83	147.50	19.114		
9,500.00	7,246.16	9,613.97	7,069.97	76.05	76.77	-86.42	-2,403.65	-2,638.41	2,820.55	2,667.97	152.58	18.485		
9,600.00	7,245.79	9,713.96	7,069.65	78.65	79.30	-86.42	-2,404.32	-2,738.40	2,821.78	2,664.07	157.71	17.892		
9,700.00	7,245.43	9,813.95	7,069.32	81.27	81.85	-86.42	-2,404.98	-2,838.39	2,823.01	2,660.13	162.88	17.332		
9,800.00	7,245.06	9,913.94	7,069.00	83.90	84.42	-86.42	-2,405.65	-2,938.38	2,824.24	2,656.16	168.08	16.803		
9,900.00	7,244.69	10,013.94	7,068.67	86.55	87.01	-86.43	-2,406.32	-3,038.37	2,825.47	2,652.15	173.32	16.302		
10,000.00	7,244.33	10,113.93	7,068.35	89.21	89.61	-86.43	-2,406.99	-3,138.36	2,826.70	2,648.12	178.58	15.829		
10,100.00	7,243.96	10,213.92	7,068.02	91.88	92.23	-86.43	-2,407.65	-3,238.35	2,827.93	2,644.06	183.87	15.380		
10,200.00	7,243.60	10,313.91	7,067.70	94.56	94.87	-86.43	-2,408.32	-3,338.34	2,829.16	2,639.97	189.19	14.954		
10,300.00	7,243.23	10,413.90	7,067.37	97.26	97.51	-86.43	-2,408.99	-3,438.33	2,830.39	2,635.86	194.53	14.550		

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



Anticollision Report



Company:	SRC ENERGY	Local Co-ordinate Reference:	Well HARVESTERS STATE 31C-16-M
Project:	SECTION 15, T6N, R66W	TVD Reference:	KB @ 4821.00ft
Reference Site:	HARVESTERS STATE 7-15 PAD	MD Reference:	KB @ 4821.00ft
Site Error:	3.28 ft	North Reference:	True
Reference Well:	HARVESTERS STATE 31C-16-M	Survey Calculation Method:	Minimum Curvature
Well Error:	3.28 ft	Output errors are at	2.45 sigma
Reference Wellbore	OH	Database:	EDM 5000.14 Single User Db
Reference Design:	PLAN #1	Offset TVD Reference:	Reference Datum

Offset Design HARVESTERS STATE 7-15 PAD - HARVESTERS STATE 33N-16B-M - OH - PLAN #1													Offset Site Error:	0.00 ft
Survey Program: 0-MWD+IFR1													Offset Well Error:	3.28 ft
Reference		Offset		Semi Major Axis			Distance						Warning	
Measured Depth (ft)	Vertical Depth (ft)	Measured Depth (ft)	Vertical Depth (ft)	Reference (ft)	Offset (ft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (ft)	+E/-W (ft)	Between Centres (ft)	Between Ellipses (ft)	Minimum Separation (ft)	Separation Factor		
10,400.00	7,242.86	10,513.90	7,067.05	99.96	100.17	-86.44	-2,409.66	-3,538.32	2,831.62	2,631.73	199.88	14.166		
10,500.00	7,242.50	10,613.89	7,066.72	102.67	102.84	-86.44	-2,410.32	-3,638.31	2,832.85	2,627.59	205.26	13.801		
10,600.00	7,242.13	10,713.88	7,066.40	105.39	105.52	-86.44	-2,410.99	-3,738.30	2,834.08	2,623.42	210.66	13.454		
10,700.00	7,241.76	10,813.87	7,066.07	108.12	108.21	-86.44	-2,411.66	-3,838.29	2,835.31	2,619.24	216.07	13.122		
10,800.00	7,241.40	10,913.87	7,065.75	110.85	110.90	-86.45	-2,412.33	-3,938.28	2,836.54	2,615.04	221.49	12.806		
10,900.00	7,241.03	11,013.86	7,065.42	113.59	113.61	-86.45	-2,412.99	-4,038.27	2,837.76	2,610.83	226.93	12.505		
11,000.00	7,240.67	11,113.85	7,065.10	116.34	116.32	-86.45	-2,413.66	-4,138.26	2,838.99	2,606.61	232.38	12.217		
11,100.00	7,240.30	11,213.84	7,064.77	119.09	119.04	-86.45	-2,414.33	-4,238.25	2,840.22	2,602.37	237.85	11.941		
11,200.00	7,239.93	11,313.84	7,064.45	121.85	121.77	-86.46	-2,414.99	-4,338.24	2,841.45	2,598.13	243.33	11.678		
11,300.00	7,239.57	11,413.83	7,064.12	124.61	124.50	-86.46	-2,415.66	-4,438.22	2,842.68	2,593.87	248.81	11.425		
11,400.00	7,239.20	11,513.82	7,063.80	127.38	127.24	-86.46	-2,416.33	-4,538.21	2,843.91	2,589.60	254.31	11.183		
11,500.00	7,238.84	11,613.81	7,063.47	130.15	129.98	-86.46	-2,417.00	-4,638.20	2,845.14	2,585.33	259.82	10.951		
11,600.00	7,238.47	11,713.81	7,063.15	132.92	132.73	-86.47	-2,417.66	-4,738.19	2,846.37	2,581.04	265.33	10.728		
11,700.00	7,238.10	11,813.80	7,062.82	135.70	135.48	-86.47	-2,418.33	-4,838.18	2,847.60	2,576.75	270.85	10.513		
11,800.00	7,237.74	11,913.79	7,062.50	138.48	138.23	-86.47	-2,419.00	-4,938.17	2,848.83	2,572.45	276.38	10.308		
11,900.00	7,237.37	12,013.78	7,062.17	141.26	140.99	-86.47	-2,419.67	-5,038.16	2,850.06	2,568.14	281.92	10.109		
12,000.00	7,237.00	12,113.77	7,061.85	144.05	143.76	-86.48	-2,420.33	-5,138.15	2,851.29	2,563.82	287.46	9.919		
12,100.00	7,236.64	12,213.77	7,061.52	146.84	146.53	-86.48	-2,421.00	-5,238.14	2,852.52	2,559.50	293.02	9.735		
12,200.00	7,236.27	12,313.76	7,061.20	149.64	149.30	-86.48	-2,421.67	-5,338.13	2,853.75	2,555.18	298.57	9.558		
12,300.00	7,235.91	12,413.75	7,060.87	152.43	152.07	-86.48	-2,422.34	-5,438.12	2,854.98	2,550.84	304.13	9.387		
12,400.00	7,235.54	12,513.74	7,060.55	155.23	154.85	-86.48	-2,423.00	-5,538.11	2,856.21	2,546.50	309.70	9.222		
12,500.00	7,235.17	12,613.74	7,060.22	158.03	157.63	-86.49	-2,423.67	-5,638.10	2,857.44	2,542.16	315.28	9.063		
12,600.00	7,234.81	12,713.73	7,059.90	160.83	160.41	-86.49	-2,424.34	-5,738.09	2,858.67	2,537.81	320.85	8.910		
12,700.00	7,234.44	12,813.72	7,059.57	163.64	163.20	-86.49	-2,425.01	-5,838.08	2,859.89	2,533.46	326.44	8.761		
12,800.00	7,234.07	12,913.71	7,059.25	166.44	165.99	-86.49	-2,425.67	-5,938.07	2,861.12	2,529.10	332.02	8.617		
12,900.00	7,233.71	13,013.71	7,058.93	169.25	168.78	-86.50	-2,426.34	-6,038.06	2,862.35	2,524.74	337.61	8.478		
13,000.00	7,233.34	13,113.70	7,058.60	172.06	171.57	-86.50	-2,427.01	-6,138.05	2,863.58	2,520.37	343.21	8.344		
13,100.00	7,232.98	13,213.69	7,058.28	174.88	174.37	-86.50	-2,427.68	-6,238.04	2,864.81	2,516.01	348.81	8.213		
13,200.00	7,232.61	13,313.68	7,057.95	177.69	177.17	-86.50	-2,428.34	-6,338.03	2,866.04	2,511.63	354.41	8.087		
13,300.00	7,232.24	13,413.68	7,057.63	180.50	179.96	-86.51	-2,429.01	-6,438.02	2,867.27	2,507.26	360.02	7.964		
13,400.00	7,231.88	13,513.67	7,057.30	183.32	182.77	-86.51	-2,429.68	-6,538.01	2,868.50	2,502.88	365.63	7.845		
13,500.00	7,231.51	13,613.66	7,056.98	186.14	185.57	-86.51	-2,430.35	-6,638.00	2,869.73	2,498.49	371.24	7.730		
13,600.00	7,231.15	13,713.65	7,056.65	188.96	188.37	-86.51	-2,431.01	-6,737.99	2,870.96	2,494.11	376.85	7.618		
13,700.00	7,230.78	13,813.65	7,056.33	191.78	191.18	-86.51	-2,431.68	-6,837.98	2,872.19	2,489.72	382.47	7.510		
13,800.00	7,230.41	13,913.64	7,056.00	194.60	193.99	-86.52	-2,432.35	-6,937.97	2,873.42	2,485.33	388.09	7.404		
13,900.00	7,230.05	14,013.63	7,055.68	197.42	196.80	-86.52	-2,433.02	-7,037.96	2,874.65	2,480.93	393.71	7.301		
14,000.00	7,229.68	14,113.62	7,055.35	200.25	199.61	-86.52	-2,433.68	-7,137.94	2,875.88	2,476.54	399.34	7.202		
14,100.00	7,229.31	14,213.61	7,055.03	203.07	202.42	-86.52	-2,434.35	-7,237.93	2,877.11	2,472.14	404.97	7.105		
14,200.00	7,228.95	14,313.61	7,054.70	205.90	205.23	-86.53	-2,435.02	-7,337.92	2,878.34	2,467.74	410.60	7.010		
14,300.00	7,228.58	14,413.60	7,054.38	208.73	208.04	-86.53	-2,435.68	-7,437.91	2,879.57	2,463.33	416.23	6.918		
14,400.00	7,228.22	14,513.59	7,054.05	211.55	210.86	-86.53	-2,436.35	-7,537.90	2,880.80	2,458.93	421.87	6.829		
14,500.00	7,227.85	14,613.58	7,053.73	214.38	213.68	-86.53	-2,437.02	-7,637.89	2,882.03	2,454.52	427.50	6.742		
14,600.00	7,227.48	14,713.58	7,053.40	217.21	216.49	-86.54	-2,437.69	-7,737.88	2,883.26	2,450.11	433.14	6.657		
14,700.00	7,227.12	14,813.57	7,053.08	220.04	219.31	-86.54	-2,438.35	-7,837.87	2,884.49	2,445.70	438.78	6.574		
14,800.00	7,226.75	14,913.56	7,052.75	222.88	222.13	-86.54	-2,439.02	-7,937.86	2,885.72	2,441.29	444.43	6.493		
14,900.00	7,226.38	15,013.55	7,052.43	225.71	224.95	-86.54	-2,439.69	-8,037.85	2,886.94	2,436.87	450.07	6.414		
15,000.00	7,226.02	15,113.55	7,052.10	228.54	227.78	-86.54	-2,440.36	-8,137.84	2,888.17	2,432.46	455.72	6.338		
15,005.81	7,226.00	15,119.35	7,052.08	228.71	227.94	-86.55	-2,440.40	-8,143.65	2,888.25	2,432.20	456.05	6.333 SF		



Anticollision Report



Company:	SRC ENERGY	Local Co-ordinate Reference:	Well HARVESTERS STATE 31C-16-M
Project:	SECTION 15, T6N, R66W	TVD Reference:	KB @ 4821.00ft
Reference Site:	HARVESTERS STATE 7-15 PAD	MD Reference:	KB @ 4821.00ft
Site Error:	3.28 ft	North Reference:	True
Reference Well:	HARVESTERS STATE 31C-16-M	Survey Calculation Method:	Minimum Curvature
Well Error:	3.28 ft	Output errors are at	2.45 sigma
Reference Wellbore	OH	Database:	EDM 5000.14 Single User Db
Reference Design:	PLAN #1	Offset TVD Reference:	Reference Datum

Offset Design HARVESTERS STATE 7-15 PAD - HARVESTERS STATE 33N-16C-M - OH - PLAN #1													Offset Site Error:	0.00 ft
Survey Program: 0-MWD+IFR1													Offset Well Error:	3.28 ft
Reference		Offset		Semi Major Axis			Distance							Warning
Measured Depth (ft)	Vertical Depth (ft)	Measured Depth (ft)	Vertical Depth (ft)	Reference (ft)	Offset (ft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (ft)	+E/-W (ft)	Between Centres (ft)	Between Ellipses (ft)	Minimum Separation (ft)	Separation Factor		
0.00	0.00	2.00	0.00	3.28	3.28	-179.53	-339.90	-2.78	339.91					
100.00	100.00	102.00	100.00	3.28	3.29	-179.53	-339.90	-2.78	339.91	333.34	6.57	51.738		
200.00	200.00	198.00	200.00	3.34	3.34	-179.53	-339.90	-2.78	339.91	333.24	6.67	50.943 CC, ES		
300.00	300.00	287.60	289.58	3.44	3.42	-179.52	-341.24	-2.87	341.41	334.53	6.88	49.637		
400.00	400.00	376.81	378.70	3.60	3.55	-179.48	-345.34	-3.16	346.01	338.83	7.19	48.153		
500.00	500.00	465.68	467.30	3.81	3.72	-179.41	-352.18	-3.63	353.72	346.13	7.58	46.654		
600.00	600.00	554.04	555.14	4.05	3.92	-179.32	-361.70	-4.29	364.49	356.44	8.05	45.280		
700.00	699.98	641.50	641.76	4.32	4.15	-156.28	-373.77	-5.12	379.90	371.32	8.58	44.294		
800.00	799.84	727.46	726.48	4.62	4.40	-156.28	-388.21	-6.12	401.39	392.23	9.15	43.857		
900.00	899.62	811.93	809.29	4.94	4.68	-156.45	-404.85	-7.27	426.97	417.23	9.74	43.849		
1,000.00	999.41	895.04	890.24	5.27	4.98	-156.59	-423.60	-8.57	455.37	445.03	10.34	44.044		
1,100.00	1,099.19	976.68	969.20	5.62	5.30	-156.69	-444.29	-10.00	486.51	475.55	10.95	44.414		
1,200.00	1,198.98	1,056.76	1,046.04	5.99	5.64	-156.76	-466.76	-11.56	520.31	508.74	11.57	44.956		
1,300.00	1,298.76	1,135.19	1,120.67	6.36	5.99	-156.80	-490.83	-13.22	556.70	544.51	12.19	45.657		
1,400.00	1,398.55	1,221.53	1,202.20	6.74	6.39	-156.83	-519.17	-15.18	595.15	582.29	12.86	46.287		
1,500.00	1,498.33	1,313.76	1,289.25	7.13	6.85	-156.85	-549.60	-17.29	633.78	620.21	13.57	46.695		
1,600.00	1,598.12	1,406.00	1,376.29	7.52	7.31	-156.88	-580.03	-19.39	672.42	658.11	14.31	46.994		
1,700.00	1,697.90	1,501.77	1,463.34	7.92	7.81	-156.90	-610.46	-21.50	711.05	695.97	15.08	47.160		
1,800.00	1,797.69	1,590.47	1,550.38	8.33	8.28	-156.92	-640.89	-23.60	749.69	733.86	15.83	47.358		
1,900.00	1,897.47	1,682.70	1,637.43	8.74	8.77	-156.93	-671.32	-25.71	788.32	771.71	16.61	47.457		
2,000.00	1,997.26	1,774.94	1,724.47	9.15	9.28	-156.95	-701.75	-27.81	826.96	809.55	17.40	47.517		
2,100.00	2,097.04	1,867.17	1,811.52	9.56	9.78	-156.96	-732.18	-29.92	865.59	847.39	18.21	47.546		
2,200.00	2,196.83	1,959.41	1,898.56	9.98	10.29	-156.97	-762.62	-32.02	904.23	885.21	19.02	47.552		
2,300.00	2,296.61	2,051.64	1,985.60	10.40	10.81	-156.98	-793.05	-34.13	942.86	923.03	19.83	47.540		
2,400.00	2,396.40	2,143.88	2,072.65	10.82	11.33	-156.99	-823.48	-36.23	981.50	960.84	20.66	47.513		
2,500.00	2,496.18	2,236.11	2,159.69	11.24	11.85	-157.00	-853.91	-38.34	1,020.13	998.65	21.49	47.475		
2,600.00	2,595.96	2,328.35	2,246.74	11.66	12.37	-157.01	-884.34	-40.44	1,058.77	1,036.45	22.32	47.431		
2,700.00	2,695.75	2,420.58	2,333.78	12.09	12.90	-157.02	-914.77	-42.55	1,097.40	1,074.24	23.16	47.380		
2,800.00	2,795.53	2,512.82	2,420.83	12.51	13.43	-157.03	-945.20	-44.65	1,136.04	1,112.04	24.01	47.325		
2,900.00	2,895.32	2,605.05	2,507.87	12.94	13.96	-157.04	-975.63	-46.76	1,174.68	1,149.82	24.85	47.266		
3,000.00	2,995.10	2,702.71	2,594.92	13.37	14.52	-157.04	-1,006.07	-48.86	1,213.31	1,187.58	25.73	47.156		
3,100.00	3,094.89	2,789.52	2,681.96	13.80	15.02	-157.05	-1,036.50	-50.97	1,251.95	1,225.39	26.56	47.143		
3,200.00	3,194.67	2,881.76	2,769.01	14.23	15.56	-157.06	-1,066.93	-53.07	1,290.58	1,263.17	27.41	47.080		
3,300.00	3,294.46	2,973.99	2,856.05	14.66	16.09	-157.06	-1,097.36	-55.18	1,329.22	1,300.95	28.27	47.017		
3,400.00	3,394.24	3,066.23	2,943.10	15.09	16.63	-157.07	-1,127.79	-57.28	1,367.85	1,338.72	29.13	46.954		
3,500.00	3,494.03	3,158.46	3,030.14	15.52	17.17	-157.07	-1,158.22	-59.39	1,406.49	1,376.50	29.99	46.891		
3,600.00	3,593.81	3,250.70	3,117.19	15.96	17.71	-157.08	-1,188.65	-61.49	1,445.13	1,414.27	30.86	46.829		
3,700.00	3,693.60	3,342.93	3,204.23	16.39	18.25	-157.08	-1,219.08	-63.60	1,483.76	1,452.04	31.73	46.768		
3,800.00	3,793.38	3,435.17	3,291.28	16.82	18.79	-157.09	-1,249.52	-65.70	1,522.40	1,489.80	32.59	46.708		
3,900.00	3,893.17	3,527.40	3,378.32	17.26	19.33	-157.09	-1,279.95	-67.81	1,561.03	1,527.57	33.46	46.649		
4,000.00	3,992.95	3,619.64	3,465.37	17.69	19.87	-157.09	-1,310.38	-69.91	1,599.67	1,565.33	34.33	46.591		
4,100.00	4,092.74	3,711.87	3,552.41	18.13	20.41	-157.10	-1,340.81	-72.02	1,638.30	1,603.10	35.21	46.534		
4,200.00	4,192.52	3,804.11	3,639.45	18.56	20.95	-157.10	-1,371.24	-74.12	1,676.94	1,640.86	36.08	46.478		
4,300.00	4,292.31	3,903.66	3,726.50	19.00	21.54	-157.10	-1,401.67	-76.23	1,715.58	1,678.58	36.99	46.376		
4,400.00	4,392.09	3,988.58	3,813.54	19.43	22.04	-157.11	-1,432.10	-78.33	1,754.21	1,716.38	37.83	46.370		
4,500.00	4,491.88	4,080.81	3,900.59	19.87	22.58	-157.11	-1,462.53	-80.44	1,792.85	1,754.14	38.71	46.318		
4,600.00	4,591.66	4,173.05	3,987.63	20.31	23.13	-157.11	-1,492.97	-82.54	1,831.48	1,791.90	39.58	46.268		
4,700.00	4,691.44	4,265.28	4,074.68	20.74	23.67	-157.12	-1,523.40	-84.65	1,870.12	1,829.66	40.46	46.218		
4,800.00	4,791.23	4,357.52	4,161.72	21.18	24.22	-157.12	-1,553.83	-86.75	1,908.75	1,867.41	41.34	46.170		
4,900.00	4,891.01	4,449.75	4,248.77	21.62	24.76	-157.12	-1,584.26	-88.86	1,947.39	1,905.17	42.22	46.123		
5,000.00	4,990.80	4,541.99	4,335.81	22.06	25.31	-157.12	-1,614.69	-90.96	1,986.03	1,942.92	43.10	46.077		
5,100.00	5,090.58	4,634.22	4,422.86	22.50	25.85	-157.13	-1,645.12	-93.07	2,024.66	1,980.68	43.98	46.032		

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



Anticollision Report



Company:	SRC ENERGY	Local Co-ordinate Reference:	Well HARVESTERS STATE 31C-16-M
Project:	SECTION 15, T6N, R66W	TVD Reference:	KB @ 4821.00ft
Reference Site:	HARVESTERS STATE 7-15 PAD	MD Reference:	KB @ 4821.00ft
Site Error:	3.28 ft	North Reference:	True
Reference Well:	HARVESTERS STATE 31C-16-M	Survey Calculation Method:	Minimum Curvature
Well Error:	3.28 ft	Output errors are at	2.45 sigma
Reference Wellbore	OH	Database:	EDM 5000.14 Single User Db
Reference Design:	PLAN #1	Offset TVD Reference:	Reference Datum

Offset Design HARVESTERS STATE 7-15 PAD - HARVESTERS STATE 33N-16C-M - OH - PLAN #1													Offset Site Error:	0.00 ft
Survey Program: 0-MWD+IFR1													Offset Well Error:	3.28 ft
Reference		Offset		Semi Major Axis			Distance						Warning	
Measured Depth (ft)	Vertical Depth (ft)	Measured Depth (ft)	Vertical Depth (ft)	Reference (ft)	Offset (ft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (ft)	+E/-W (ft)	Between Centres (ft)	Between Ellipses (ft)	Minimum Separation (ft)	Separation Factor		
5,200.00	5,190.37	4,726.46	4,509.90	22.93	26.40	-157.13	-1,675.55	-95.17	2,063.30	2,018.43	44.87	45.988		
5,300.00	5,290.15	4,818.69	4,596.95	23.37	26.94	-157.13	-1,705.98	-97.28	2,101.93	2,056.18	45.75	45.945		
5,400.00	5,389.94	4,910.92	4,683.99	23.81	27.49	-157.13	-1,736.42	-99.38	2,140.57	2,093.94	46.63	45.903		
5,500.00	5,489.72	5,003.16	4,771.04	24.25	28.04	-157.14	-1,766.85	-101.49	2,179.20	2,131.69	47.52	45.863		
5,600.00	5,589.51	5,095.39	4,858.08	24.69	28.58	-157.14	-1,797.28	-103.59	2,217.84	2,169.44	48.40	45.823		
5,700.00	5,689.29	5,187.63	4,945.13	25.13	29.13	-157.14	-1,827.71	-105.70	2,256.48	2,207.19	49.29	45.784		
5,800.00	5,789.08	5,279.86	5,032.17	25.56	29.68	-157.14	-1,858.14	-107.80	2,295.11	2,244.94	50.17	45.746		
5,900.00	5,888.86	5,372.10	5,119.21	26.00	30.23	-157.14	-1,888.57	-109.91	2,333.75	2,282.69	51.06	45.709		
6,000.00	5,988.65	5,464.33	5,206.26	26.44	30.77	-157.15	-1,919.00	-112.01	2,372.38	2,320.44	51.94	45.673		
6,100.00	6,088.43	5,556.57	5,293.30	26.88	31.32	-157.15	-1,949.43	-114.12	2,411.02	2,358.19	52.83	45.637		
6,200.00	6,188.22	5,648.80	5,380.35	27.32	31.87	-157.15	-1,979.87	-116.22	2,449.65	2,395.94	53.72	45.603		
6,300.00	6,288.00	5,741.04	5,467.39	27.76	32.42	-157.15	-2,010.30	-118.33	2,488.29	2,433.68	54.61	45.569		
6,400.00	6,387.79	5,833.27	5,554.44	28.20	32.96	-157.15	-2,040.73	-120.43	2,526.93	2,471.43	55.49	45.535		
6,500.00	6,487.57	5,925.51	5,641.48	28.64	33.51	-157.15	-2,071.16	-122.54	2,565.56	2,509.18	56.38	45.503		
6,600.00	6,587.35	6,017.74	5,728.53	29.08	34.06	-157.15	-2,101.59	-124.64	2,604.20	2,546.93	57.27	45.471		
6,700.00	6,687.02	6,109.91	5,815.51	29.52	34.61	-117.30	-2,132.00	-126.75	2,642.82	2,584.66	58.16	45.440		
6,800.00	6,784.98	6,200.80	5,901.28	29.96	35.15	-97.95	-2,161.99	-128.82	2,681.06	2,622.02	59.05	45.405		
6,900.00	6,878.81	6,288.19	5,983.75	30.41	35.67	-90.48	-2,190.82	-130.81	2,718.28	2,658.36	59.92	45.365		
7,000.00	6,966.21	6,369.93	6,060.90	30.86	36.16	-85.88	-2,217.79	-132.68	2,754.04	2,693.27	60.77	45.317		
7,100.00	7,045.03	6,444.02	6,130.81	31.35	36.60	-82.53	-2,242.23	-134.37	2,788.12	2,726.50	61.62	45.250		
7,200.00	7,113.32	6,508.62	6,191.78	31.90	36.98	-79.85	-2,263.55	-135.85	2,820.43	2,757.95	62.47	45.148		
7,300.00	7,169.40	6,562.15	6,242.30	32.57	37.30	-77.56	-2,281.21	-137.07	2,850.93	2,787.56	63.37	44.989		
7,400.00	7,211.89	6,603.30	6,281.13	33.38	37.54	-75.48	-2,294.78	-138.01	2,879.59	2,815.26	64.33	44.761		
7,500.00	7,239.75	6,631.03	6,307.31	34.35	37.71	-73.50	-2,303.93	-138.64	2,906.32	2,840.95	65.37	44.460		
7,600.00	7,252.28	6,644.68	6,320.19	35.47	37.79	-71.58	-2,308.44	-138.95	2,930.91	2,864.45	66.46	44.101		
7,700.00	7,252.75	6,647.20	6,322.57	36.73	37.81	-70.98	-2,309.27	-139.01	2,954.35	2,886.75	67.60	43.706		
7,800.00	7,252.38	6,648.95	6,324.22	38.16	37.82	-71.02	-2,309.85	-139.05	2,980.66	2,911.80	68.86	43.288		
7,900.00	7,252.02	6,642.21	6,324.54	39.74	37.80	-71.02	-2,309.85	-139.05	3,008.02	2,938.57	70.25	42.844		
8,000.00	7,251.65	6,642.20	6,324.54	41.47	37.79	-71.02	-2,309.85	-139.05	3,035.38	2,965.48	71.71	42.377		
8,100.00	7,251.29	6,642.20	6,324.54	43.31	37.78	-71.02	-2,309.85	-139.05	3,062.73	2,992.39	73.22	41.888		
8,200.00	7,250.92	6,642.19	6,324.54	45.26	37.78	-71.02	-2,309.85	-139.05	3,090.18	3,019.30	74.88	41.377		
8,300.00	7,250.55	6,642.18	6,324.54	47.30	37.78	-71.02	-2,309.85	-139.05	3,117.73	3,046.21	76.59	40.840		
8,400.00	7,250.19	6,642.18	6,324.54	49.42	37.78	-71.02	-2,309.85	-139.05	3,145.38	3,073.12	78.35	40.277		
8,500.00	7,249.82	6,642.17	6,324.54	51.62	37.78	-71.02	-2,309.85	-139.05	3,173.14	3,100.03	80.16	39.698		
8,600.00	7,249.45	6,642.16	6,324.54	53.88	37.78	-71.02	-2,309.85	-139.05	3,201.01	3,126.94	82.01	39.103		
8,700.00	7,249.09	6,642.15	6,324.54	56.19	37.78	-71.02	-2,309.85	-139.05	3,228.99	3,153.85	83.90	38.493		
8,800.00	7,248.72	6,642.15	6,324.54	58.55	37.78	-71.02	-2,309.85	-139.05	3,257.07	3,180.76	85.83	37.868		
8,900.00	7,248.36	6,642.14	6,324.54	60.96	37.78	-71.02	-2,309.85	-139.05	3,285.25	3,207.67	87.80	37.228		
9,000.00	7,247.99	6,642.13	6,324.54	63.40	37.78	-71.02	-2,309.85	-139.05	3,313.53	3,234.58	89.80	36.573		
9,100.00	7,247.62	6,642.13	6,324.54	65.87	37.78	-71.02	-2,309.85	-139.05	3,341.91	3,261.49	91.83	35.903		
9,200.00	7,247.26	6,642.12	6,324.54	68.38	37.78	-71.02	-2,309.85	-139.05	3,370.38	3,288.40	93.90	35.218		
9,300.00	7,246.89	6,642.11	6,324.54	70.91	37.78	-71.02	-2,309.85	-139.05	3,398.94	3,315.31	96.01	34.518		
9,400.00	7,246.53	6,642.10	6,324.54	73.47	37.78	-71.02	-2,309.85	-139.05	3,427.59	3,342.22	98.16	33.803		
9,500.00	7,246.16	6,642.10	6,324.54	76.05	37.78	-71.02	-2,309.85	-139.05	3,456.33	3,369.13	100.35	33.073		
9,600.00	7,245.79	6,642.09	6,324.54	78.65	37.78	-71.02	-2,309.85	-139.05	3,485.16	3,396.04	102.58	32.328		
9,700.00	7,245.43	6,642.08	6,324.54	81.27	37.78	-71.02	-2,309.85	-139.05	3,514.07	3,422.95	104.85	31.568		
9,800.00	7,245.06	6,642.08	6,324.54	83.90	37.78	-71.02	-2,309.85	-139.05	3,543.06	3,449.86	107.16	30.793		
9,900.00	7,244.69	6,642.07	6,324.54	86.55	37.78	-71.02	-2,309.85	-139.05	3,572.13	3,476.77	109.50	30.003		
10,000.00	7,244.33	6,642.06	6,324.54	89.21	37.78	-71.02	-2,309.85	-139.05	3,601.28	3,503.68	111.87	29.198		
10,100.00	7,243.96	6,642.05	6,324.54	91.88	37.78	-71.02	-2,309.85	-139.05	3,630.51	3,530.59	114.27	28.378		
10,200.00	7,243.60	6,642.05	6,324.54	94.56	37.78	-71.02	-2,309.85	-139.05	3,659.82	3,557.50	116.70	27.543		
10,300.00	7,243.23	6,642.04	6,324.54	97.26	37.78	-71.02	-2,309.85	-139.05	3,689.31	3,584.41	119.16	26.693		

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



Anticollision Report



Company:	SRC ENERGY	Local Co-ordinate Reference:	Well HARVESTERS STATE 31C-16-M
Project:	SECTION 15, T6N, R66W	TVD Reference:	KB @ 4821.00ft
Reference Site:	HARVESTERS STATE 7-15 PAD	MD Reference:	KB @ 4821.00ft
Site Error:	3.28 ft	North Reference:	True
Reference Well:	HARVESTERS STATE 31C-16-M	Survey Calculation Method:	Minimum Curvature
Well Error:	3.28 ft	Output errors are at	2.45 sigma
Reference Wellbore	OH	Database:	EDM 5000.14 Single User Db
Reference Design:	PLAN #1	Offset TVD Reference:	Reference Datum

Offset Design HARVESTERS STATE 7-15 PAD - HARVESTERS STATE 33N-16C-M - OH - PLAN #1													Offset Site Error:	0.00 ft
Survey Program: 0-MWD+IFR1													Offset Well Error:	3.28 ft
Reference		Offset		Semi Major Axis			Distance						Warning	
Measured Depth (ft)	Vertical Depth (ft)	Measured Depth (ft)	Vertical Depth (ft)	Reference (ft)	Offset (ft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (ft)	+E/-W (ft)	Between Centres (ft)	Between Ellipses (ft)	Minimum Separation (ft)	Separation Factor		
10,400.00	7,242.86	10,642.03	7,130.33	99.96	100.57	-87.87	-2,619.10	-3,538.51	3,037.68	2,837.36	200.32	15.164		
10,500.00	7,242.50	10,742.02	7,129.77	102.67	103.23	-87.87	-2,619.71	-3,638.50	3,038.87	2,833.17	205.69	14.774		
10,600.00	7,242.13	10,842.02	7,129.20	105.39	105.89	-87.87	-2,620.33	-3,738.49	3,040.05	2,828.96	211.09	14.402		
10,700.00	7,241.76	10,942.01	7,128.63	108.12	108.57	-87.87	-2,620.94	-3,838.47	3,041.24	2,824.74	216.50	14.047		
10,800.00	7,241.40	11,042.00	7,128.06	110.85	111.26	-87.86	-2,621.55	-3,938.46	3,042.42	2,820.50	221.92	13.709		
10,900.00	7,241.03	11,142.00	7,127.49	113.59	113.96	-87.86	-2,622.16	-4,038.45	3,043.61	2,816.25	227.36	13.387		
11,000.00	7,240.67	11,241.99	7,126.92	116.34	116.66	-87.86	-2,622.78	-4,138.44	3,044.80	2,811.98	232.82	13.078		
11,100.00	7,240.30	11,341.98	7,126.35	119.09	119.38	-87.85	-2,623.39	-4,238.43	3,045.98	2,807.70	238.28	12.783		
11,200.00	7,239.93	11,441.97	7,125.79	121.85	122.09	-87.85	-2,624.00	-4,338.42	3,047.17	2,803.41	243.76	12.501		
11,300.00	7,239.57	11,541.97	7,125.22	124.61	124.82	-87.85	-2,624.62	-4,438.41	3,048.36	2,799.11	249.25	12.230		
11,400.00	7,239.20	11,641.96	7,124.65	127.38	127.55	-87.84	-2,625.23	-4,538.40	3,049.54	2,794.80	254.74	11.971		
11,500.00	7,238.84	11,741.95	7,124.08	130.15	130.29	-87.84	-2,625.84	-4,638.39	3,050.73	2,790.48	260.25	11.722		
11,600.00	7,238.47	11,841.95	7,123.51	132.92	133.03	-87.84	-2,626.46	-4,738.38	3,051.92	2,786.15	265.77	11.483		
11,700.00	7,238.10	11,941.94	7,122.94	135.70	135.77	-87.84	-2,627.07	-4,838.37	3,053.10	2,781.81	271.29	11.254		
11,800.00	7,237.74	12,041.93	7,122.38	138.48	138.53	-87.83	-2,627.68	-4,938.36	3,054.29	2,777.47	276.82	11.033		
11,900.00	7,237.37	12,141.92	7,121.81	141.26	141.28	-87.83	-2,628.29	-5,038.35	3,055.48	2,773.12	282.36	10.821		
12,000.00	7,237.00	12,241.92	7,121.24	144.05	144.04	-87.83	-2,628.91	-5,138.34	3,056.66	2,768.76	287.91	10.617		
12,100.00	7,236.64	12,341.91	7,120.67	146.84	146.80	-87.82	-2,629.52	-5,238.33	3,057.85	2,764.39	293.46	10.420		
12,200.00	7,236.27	12,441.90	7,120.10	149.64	149.57	-87.82	-2,630.13	-5,338.31	3,059.04	2,760.02	299.02	10.230		
12,300.00	7,235.91	12,541.90	7,119.53	152.43	152.34	-87.82	-2,630.75	-5,438.30	3,060.22	2,755.64	304.58	10.047		
12,400.00	7,235.54	12,641.89	7,118.97	155.23	155.11	-87.82	-2,631.36	-5,538.29	3,061.41	2,751.26	310.15	9.871		
12,500.00	7,235.17	12,741.88	7,118.40	158.03	157.89	-87.81	-2,631.97	-5,638.28	3,062.60	2,746.87	315.73	9.700		
12,600.00	7,234.81	12,841.87	7,117.83	160.83	160.67	-87.81	-2,632.58	-5,738.27	3,063.78	2,742.48	321.31	9.535		
12,700.00	7,234.44	12,941.87	7,117.26	163.64	163.45	-87.81	-2,633.20	-5,838.26	3,064.97	2,738.08	326.89	9.376		
12,800.00	7,234.07	13,041.86	7,116.69	166.44	166.24	-87.80	-2,633.81	-5,938.25	3,066.16	2,733.67	332.48	9.222		
12,900.00	7,233.71	13,141.85	7,116.12	169.25	169.02	-87.80	-2,634.42	-6,038.24	3,067.34	2,729.27	338.08	9.073		
13,000.00	7,233.34	13,241.85	7,115.56	172.06	171.81	-87.80	-2,635.04	-6,138.23	3,068.53	2,724.86	343.67	8.929		
13,100.00	7,232.98	13,341.84	7,114.99	174.88	174.60	-87.79	-2,635.65	-6,238.22	3,069.72	2,720.44	349.28	8.789		
13,200.00	7,232.61	13,441.83	7,114.42	177.69	177.40	-87.79	-2,636.26	-6,338.21	3,070.90	2,716.02	354.88	8.653		
13,300.00	7,232.24	13,541.82	7,113.85	180.50	180.19	-87.79	-2,636.88	-6,438.20	3,072.09	2,711.60	360.49	8.522		
13,400.00	7,231.88	13,641.82	7,113.28	183.32	182.99	-87.79	-2,637.49	-6,538.19	3,073.28	2,707.18	366.10	8.395		
13,500.00	7,231.51	13,741.81	7,112.71	186.14	185.79	-87.78	-2,638.10	-6,638.18	3,074.46	2,702.75	371.72	8.271		
13,600.00	7,231.15	13,841.80	7,112.14	188.96	188.59	-87.78	-2,638.71	-6,738.17	3,075.65	2,698.32	377.33	8.151		
13,700.00	7,230.78	13,941.80	7,111.58	191.78	191.40	-87.78	-2,639.33	-6,838.15	3,076.84	2,693.88	382.95	8.034		
13,800.00	7,230.41	14,041.79	7,111.01	194.60	194.20	-87.77	-2,639.94	-6,938.14	3,078.02	2,689.45	388.58	7.921		
13,900.00	7,230.05	14,141.78	7,110.44	197.42	197.01	-87.77	-2,640.55	-7,038.13	3,079.21	2,685.01	394.20	7.811		
14,000.00	7,229.68	14,241.77	7,109.87	200.25	199.82	-87.77	-2,641.17	-7,138.12	3,080.40	2,680.56	399.83	7.704		
14,100.00	7,229.31	14,341.77	7,109.30	203.07	202.63	-87.77	-2,641.78	-7,238.11	3,081.59	2,676.12	405.46	7.600		
14,200.00	7,228.95	14,441.76	7,108.73	205.90	205.44	-87.76	-2,642.39	-7,338.10	3,082.77	2,671.67	411.10	7.499		
14,300.00	7,228.58	14,541.75	7,108.17	208.73	208.25	-87.76	-2,643.00	-7,438.09	3,083.96	2,667.22	416.73	7.400		
14,400.00	7,228.22	14,641.75	7,107.60	211.55	211.06	-87.76	-2,643.62	-7,538.08	3,085.15	2,662.77	422.37	7.304		
14,500.00	7,227.85	14,741.74	7,107.03	214.38	213.88	-87.75	-2,644.23	-7,638.07	3,086.33	2,658.32	428.01	7.211		
14,600.00	7,227.48	14,841.73	7,106.46	217.21	216.69	-87.75	-2,644.84	-7,738.06	3,087.52	2,653.87	433.65	7.120		
14,700.00	7,227.12	14,941.72	7,105.89	220.04	219.51	-87.75	-2,645.46	-7,838.05	3,088.71	2,649.41	439.30	7.031		
14,800.00	7,226.75	15,041.72	7,105.32	222.88	222.33	-87.75	-2,646.07	-7,938.04	3,089.89	2,644.95	444.94	6.944		
14,900.00	7,226.38	15,141.71	7,104.76	225.71	225.14	-87.74	-2,646.68	-8,038.03	3,091.08	2,640.49	450.59	6.860		
15,000.00	7,226.02	15,241.70	7,104.19	228.54	227.96	-87.74	-2,647.29	-8,138.02	3,092.27	2,636.03	456.24	6.778		
15,005.81	7,226.00	15,247.51	7,104.15	228.71	228.13	-87.74	-2,647.33	-8,143.82	3,092.34	2,635.77	456.57	6.773 SF		



Anticollision Report



Company:	SRC ENERGY	Local Co-ordinate Reference:	Well HARVESTERS STATE 31C-16-M
Project:	SECTION 15, T6N, R66W	TVD Reference:	KB @ 4821.00ft
Reference Site:	HARVESTERS STATE 7-15 PAD	MD Reference:	KB @ 4821.00ft
Site Error:	3.28 ft	North Reference:	True
Reference Well:	HARVESTERS STATE 31C-16-M	Survey Calculation Method:	Minimum Curvature
Well Error:	3.28 ft	Output errors are at	2.45 sigma
Reference Wellbore	OH	Database:	EDM 5000.14 Single User Db
Reference Design:	PLAN #1	Offset TVD Reference:	Reference Datum

Offset Design HARVESTERS STATE 7-15 PAD - HARVESTERS STATE 34N-16C-M - OH - PLAN #1													Offset Site Error:	0.00 ft
Survey Program: 0-MWD+IFR1													Offset Well Error:	3.28 ft
Reference		Offset		Semi Major Axis			Distance							Warning
Measured Depth (ft)	Vertical Depth (ft)	Measured Depth (ft)	Vertical Depth (ft)	Reference (ft)	Offset (ft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (ft)	+E/-W (ft)	Between Centres (ft)	Between Ellipses (ft)	Minimum Separation (ft)	Separation Factor		
0.00	0.00	2.00	0.00	3.28	3.28	-179.52	-400.00	-3.34	400.01					
100.00	100.00	102.00	100.00	3.28	3.29	-179.52	-400.00	-3.34	400.01	393.44	6.57	60.886		
200.00	200.00	198.00	200.00	3.34	3.34	-179.52	-400.00	-3.34	400.01	393.34	6.67	59.950	CC, ES	
300.00	300.00	285.98	287.97	3.44	3.42	-179.51	-401.29	-3.41	401.48	394.61	6.88	58.390		
400.00	400.00	373.55	375.44	3.60	3.55	-179.49	-405.25	-3.63	406.01	398.83	7.18	56.551		
500.00	500.00	460.80	462.44	3.81	3.71	-179.45	-411.84	-3.99	413.57	406.00	7.57	54.634		
600.00	600.00	547.57	548.71	4.05	3.90	-179.39	-421.03	-4.49	424.16	416.13	8.03	52.812		
700.00	699.98	633.47	633.82	4.32	4.12	-156.38	-432.68	-5.13	439.32	430.77	8.55	51.375		
800.00	799.84	717.94	717.12	4.62	4.37	-156.38	-446.62	-5.89	460.53	451.41	9.12	50.499		
900.00	899.62	800.99	798.59	4.94	4.64	-156.56	-462.71	-6.77	485.78	476.09	9.70	50.095		
1,000.00	999.41	882.73	878.29	5.27	4.93	-156.70	-480.85	-7.76	513.81	503.52	10.29	49.922		
1,100.00	1,099.19	963.07	956.08	5.62	5.25	-156.82	-500.87	-8.86	544.55	533.65	10.90	49.945		
1,200.00	1,198.98	1,041.92	1,031.85	5.99	5.57	-156.91	-522.64	-10.05	577.91	566.39	11.52	50.177		
1,300.00	1,298.76	1,119.20	1,105.51	6.36	5.92	-156.98	-545.99	-11.33	613.83	601.70	12.13	50.595		
1,400.00	1,398.55	1,194.85	1,176.97	6.74	6.27	-157.02	-570.75	-12.69	652.22	639.47	12.74	51.180		
1,500.00	1,498.33	1,268.82	1,246.20	7.13	6.64	-157.06	-596.78	-14.11	693.00	679.65	13.35	51.911		
1,600.00	1,598.12	1,341.07	1,313.14	7.52	7.01	-157.08	-623.92	-15.60	736.10	722.15	13.95	52.776		
1,700.00	1,697.90	1,413.16	1,379.23	7.92	7.40	-157.09	-652.67	-17.17	781.42	766.88	14.55	53.722		
1,800.00	1,797.69	1,501.83	1,460.16	8.33	7.90	-157.09	-688.84	-19.15	827.66	812.38	15.28	54.174		
1,900.00	1,897.47	1,609.50	1,541.09	8.74	8.52	-157.10	-725.01	-21.13	873.90	857.78	16.12	54.221		
2,000.00	1,997.26	1,679.17	1,622.02	9.15	8.93	-157.10	-761.19	-23.11	920.13	903.34	16.79	54.796		
2,100.00	2,097.04	1,767.84	1,702.95	9.56	9.46	-157.10	-797.36	-25.09	966.37	948.80	17.57	55.003		
2,200.00	2,196.83	1,856.51	1,783.88	9.98	9.99	-157.11	-833.53	-27.07	1,012.60	994.25	18.36	55.160		
2,300.00	2,296.61	1,945.18	1,864.82	10.40	10.53	-157.11	-869.70	-29.05	1,058.84	1,039.68	19.16	55.275		
2,400.00	2,396.40	2,033.85	1,945.75	10.82	11.08	-157.11	-905.88	-31.04	1,105.08	1,085.11	19.96	55.358		
2,500.00	2,496.18	2,122.51	2,026.68	11.24	11.63	-157.12	-942.05	-33.02	1,151.31	1,130.54	20.78	55.414		
2,600.00	2,595.96	2,211.18	2,107.61	11.66	12.18	-157.12	-978.22	-35.00	1,197.55	1,175.95	21.60	55.448		
2,700.00	2,695.75	2,300.15	2,188.54	12.09	12.74	-157.12	-1,014.40	-36.98	1,243.79	1,221.36	22.43	55.462		
2,800.00	2,795.53	2,388.52	2,269.47	12.51	13.30	-157.12	-1,050.57	-38.96	1,290.02	1,266.77	23.26	55.470		
2,900.00	2,895.32	2,477.19	2,350.40	12.94	13.87	-157.13	-1,086.74	-40.94	1,336.26	1,312.17	24.09	55.462		
3,000.00	2,995.10	2,565.86	2,431.33	13.37	14.43	-157.13	-1,122.91	-42.92	1,382.49	1,357.56	24.93	55.445		
3,100.00	3,094.89	2,654.53	2,512.26	13.80	15.00	-157.13	-1,159.09	-44.90	1,428.73	1,402.95	25.78	55.422		
3,200.00	3,194.67	2,743.20	2,593.19	14.23	15.57	-157.13	-1,195.26	-46.88	1,474.97	1,448.34	26.63	55.393		
3,300.00	3,294.46	2,831.87	2,674.12	14.66	16.14	-157.13	-1,231.43	-48.86	1,521.20	1,493.72	27.48	55.359		
3,400.00	3,394.24	2,920.54	2,755.05	15.09	16.71	-157.13	-1,267.61	-50.84	1,567.44	1,539.11	28.33	55.321		
3,500.00	3,494.03	3,009.21	2,835.99	15.52	17.29	-157.13	-1,303.78	-52.82	1,613.68	1,584.49	29.19	55.281		
3,600.00	3,593.81	3,102.13	2,916.92	15.96	17.89	-157.14	-1,339.95	-54.80	1,659.91	1,629.84	30.07	55.196		
3,700.00	3,693.60	3,186.54	2,997.85	16.39	18.44	-157.14	-1,376.12	-56.78	1,706.15	1,675.24	30.91	55.195		
3,800.00	3,793.38	3,275.21	3,078.78	16.82	19.01	-157.14	-1,412.30	-58.76	1,752.39	1,720.61	31.78	55.150		
3,900.00	3,893.17	3,363.88	3,159.71	17.26	19.59	-157.14	-1,448.47	-60.74	1,798.62	1,765.98	32.64	55.104		
4,000.00	3,992.95	3,452.55	3,240.64	17.69	20.17	-157.14	-1,484.64	-62.72	1,844.86	1,811.35	33.51	55.058		
4,100.00	4,092.74	3,541.22	3,321.57	18.13	20.75	-157.14	-1,520.82	-64.70	1,891.09	1,856.72	34.38	55.011		
4,200.00	4,192.52	3,629.89	3,402.50	18.56	21.33	-157.14	-1,556.99	-66.68	1,937.33	1,902.08	35.25	54.964		
4,300.00	4,292.31	3,718.56	3,483.43	19.00	21.91	-157.14	-1,593.16	-68.67	1,983.57	1,947.45	36.12	54.918		
4,400.00	4,392.09	3,807.23	3,564.36	19.43	22.49	-157.14	-1,629.33	-70.65	2,029.80	1,992.81	36.99	54.872		
4,500.00	4,491.88	3,904.10	3,645.29	19.87	23.12	-157.15	-1,665.51	-72.63	2,076.04	2,038.13	37.91	54.760		
4,600.00	4,591.66	3,984.56	3,726.23	20.31	23.65	-157.15	-1,701.68	-74.61	2,122.28	2,083.53	38.74	54.780		
4,700.00	4,691.44	4,073.23	3,807.16	20.74	24.23	-157.15	-1,737.85	-76.59	2,168.51	2,128.89	39.62	54.735		
4,800.00	4,791.23	4,161.90	3,888.09	21.18	24.82	-157.15	-1,774.03	-78.57	2,214.75	2,174.25	40.50	54.691		
4,900.00	4,891.01	4,250.57	3,969.02	21.62	25.40	-157.15	-1,810.20	-80.55	2,260.99	2,219.61	41.37	54.647		
5,000.00	4,990.80	4,339.24	4,049.95	22.06	25.98	-157.15	-1,846.37	-82.53	2,307.22	2,264.97	42.25	54.603		
5,100.00	5,090.58	4,427.91	4,130.88	22.50	26.57	-157.15	-1,882.54	-84.51	2,353.46	2,310.32	43.13	54.561		

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



Anticollision Report



Company:	SRC ENERGY	Local Co-ordinate Reference:	Well HARVESTERS STATE 31C-16-M
Project:	SECTION 15, T6N, R66W	TVD Reference:	KB @ 4821.00ft
Reference Site:	HARVESTERS STATE 7-15 PAD	MD Reference:	KB @ 4821.00ft
Site Error:	3.28 ft	North Reference:	True
Reference Well:	HARVESTERS STATE 31C-16-M	Survey Calculation Method:	Minimum Curvature
Well Error:	3.28 ft	Output errors are at	2.45 sigma
Reference Wellbore	OH	Database:	EDM 5000.14 Single User Db
Reference Design:	PLAN #1	Offset TVD Reference:	Reference Datum

Offset Design HARVESTERS STATE 7-15 PAD - HARVESTERS STATE 34N-16C-M - OH - PLAN #1													Offset Site Error:	0.00 ft
Survey Program: 0-MWD+IFR1													Offset Well Error:	3.28 ft
Reference		Offset		Semi Major Axis			Distance							Warning
Measured Depth (ft)	Vertical Depth (ft)	Measured Depth (ft)	Vertical Depth (ft)	Reference (ft)	Offset (ft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (ft)	+E/-W (ft)	Between Centres (ft)	Between Ellipses (ft)	Minimum Separation (ft)	Separation Factor		
5,200.00	5,190.37	4,516.58	4,211.81	22.93	27.15	-157.15	-1,918.72	-86.49	2,399.69	2,355.68	44.02	54.519		
5,300.00	5,290.15	4,605.25	4,292.74	23.37	27.74	-157.15	-1,954.89	-88.47	2,445.93	2,401.03	44.90	54.477		
5,400.00	5,389.94	4,706.08	4,373.67	23.81	28.40	-157.15	-1,991.06	-90.45	2,492.17	2,446.32	45.85	54.357		
5,500.00	5,489.72	4,782.59	4,454.60	24.25	28.91	-157.15	-2,027.24	-92.43	2,538.40	2,491.74	46.66	54.397		
5,600.00	5,589.51	4,871.26	4,535.53	24.69	29.49	-157.15	-2,063.41	-94.41	2,584.64	2,537.09	47.55	54.358		
5,700.00	5,689.29	4,959.92	4,616.46	25.13	30.08	-157.15	-2,099.58	-96.39	2,630.88	2,582.44	48.43	54.319		
5,800.00	5,789.08	5,048.59	4,697.40	25.56	30.66	-157.15	-2,135.75	-98.37	2,677.11	2,627.79	49.32	54.281		
5,900.00	5,888.86	5,137.26	4,778.33	26.00	31.25	-157.15	-2,171.93	-100.35	2,723.35	2,673.14	50.21	54.244		
6,000.00	5,988.65	5,225.93	4,859.26	26.44	31.84	-157.15	-2,208.10	-102.33	2,769.59	2,718.49	51.09	54.207		
6,100.00	6,088.43	5,314.60	4,940.19	26.88	32.42	-157.15	-2,244.27	-104.31	2,815.82	2,763.84	51.98	54.171		
6,200.00	6,188.22	5,403.27	5,021.12	27.32	33.01	-157.16	-2,280.45	-106.30	2,862.06	2,809.19	52.87	54.136		
6,300.00	6,288.00	5,508.06	5,102.05	27.76	33.70	-157.16	-2,316.62	-108.28	2,908.29	2,854.45	53.85	54.010		
6,400.00	6,387.79	5,580.61	5,182.98	28.20	34.18	-157.16	-2,352.79	-110.26	2,954.53	2,899.88	54.65	54.067		
6,500.00	6,487.57	5,669.28	5,263.91	28.64	34.77	-157.16	-2,388.96	-112.24	3,000.77	2,945.23	55.54	54.033		
6,600.00	6,587.35	5,757.95	5,344.84	29.08	35.36	-157.16	-2,425.14	-114.22	3,047.00	2,990.58	56.43	54.000		
6,700.00	6,687.02	5,846.55	5,425.72	29.52	35.94	-116.81	-2,461.28	-116.20	3,093.22	3,035.91	57.32	53.967		
6,800.00	6,784.98	5,933.92	5,505.46	29.96	36.52	-96.52	-2,496.93	-118.15	3,138.95	3,080.74	58.20	53.930		
6,900.00	6,878.81	6,017.93	5,582.13	30.41	37.08	-88.14	-2,531.20	-120.02	3,183.30	3,124.23	59.07	53.886		
7,000.00	6,966.21	6,103.50	5,653.85	30.86	37.64	-82.72	-2,563.25	-121.78	3,225.63	3,165.66	59.96	53.794		
7,100.00	7,045.03	6,167.72	5,718.85	31.35	38.07	-78.66	-2,592.31	-123.37	3,265.42	3,204.66	60.76	53.743		
7,200.00	7,113.32	6,229.82	5,775.53	31.90	38.48	-75.41	-2,617.64	-124.76	3,302.35	3,240.75	61.60	53.606		
7,300.00	7,169.40	6,281.27	5,822.49	32.57	38.82	-72.71	-2,638.63	-125.91	3,336.17	3,273.68	62.49	53.388		
7,400.00	7,211.89	6,320.81	5,858.58	33.38	39.08	-70.41	-2,654.76	-126.79	3,366.65	3,303.21	63.44	53.068		
7,500.00	7,239.75	6,347.46	5,882.91	34.35	39.26	-68.40	-2,665.63	-127.38	3,393.57	3,329.11	64.46	52.642		
7,600.00	7,252.28	6,360.57	5,894.87	35.47	39.35	-66.63	-2,670.98	-127.68	3,416.68	3,351.13	65.55	52.126		
7,700.00	7,252.75	6,362.97	5,897.07	36.73	39.36	-66.12	-2,671.96	-127.73	3,437.26	3,370.58	66.69	51.544		
7,800.00	7,252.38	6,364.64	5,898.59	38.16	39.38	-66.15	-2,672.64	-127.77	3,460.24	3,392.28	67.96	50.917		
7,900.00	7,252.02	6,366.31	5,900.11	39.74	39.39	-66.18	-2,673.32	-127.81	3,485.94	3,416.60	69.34	50.271		
8,000.00	7,251.65	6,367.98	5,901.64	41.47	39.40	-66.21	-2,674.00	-127.84	3,514.29	3,443.48	70.81	49.627		
8,100.00	7,251.29	6,369.65	5,903.16	43.31	39.41	-66.24	-2,674.68	-127.88	3,545.24	3,472.89	72.35	49.000		
8,200.00	7,250.92	6,371.31	5,904.68	45.26	39.42	-66.27	-2,675.36	-127.92	3,578.72	3,504.78	73.94	48.402		
8,300.00	7,250.55	6,372.98	5,906.20	47.30	39.43	-66.29	-2,676.04	-127.95	3,614.65	3,539.09	75.55	47.842		
8,400.00	7,250.19	8,851.59	7,141.93	49.42	54.59	-88.30	-3,239.79	-1,535.78	3,646.56	3,544.13	102.43	35.600		
8,500.00	7,249.82	8,951.59	7,141.39	51.62	56.32	-88.29	-3,240.38	-1,635.77	3,647.72	3,541.11	106.62	34.214		
8,600.00	7,249.45	9,051.58	7,140.85	53.88	58.19	-88.29	-3,240.97	-1,735.76	3,648.88	3,537.94	110.94	32.892		
8,700.00	7,249.09	9,151.57	7,140.30	56.19	60.17	-88.29	-3,241.56	-1,835.75	3,650.04	3,534.66	115.38	31.636		
8,800.00	7,248.72	9,251.57	7,139.76	58.55	62.24	-88.29	-3,242.14	-1,935.74	3,651.20	3,531.27	119.93	30.445		
8,900.00	7,248.36	9,351.56	7,139.22	60.96	64.38	-88.29	-3,242.73	-2,035.73	3,652.36	3,527.79	124.57	29.320		
9,000.00	7,247.99	9,451.55	7,138.68	63.40	66.59	-88.28	-3,243.32	-2,135.72	3,653.52	3,524.22	129.30	28.256		
9,100.00	7,247.62	9,551.54	7,138.14	65.87	68.86	-88.28	-3,243.91	-2,235.71	3,654.68	3,520.57	134.11	27.252		
9,200.00	7,247.26	9,651.54	7,137.60	68.38	71.17	-88.28	-3,244.50	-2,335.70	3,655.84	3,516.85	138.98	26.304		
9,300.00	7,246.89	9,751.53	7,137.06	70.91	73.53	-88.28	-3,245.08	-2,435.69	3,657.00	3,513.07	143.92	25.409		
9,400.00	7,246.53	9,851.52	7,136.52	73.47	75.93	-88.27	-3,245.67	-2,535.68	3,658.16	3,509.24	148.92	24.565		
9,500.00	7,246.16	9,951.52	7,135.98	76.05	78.36	-88.27	-3,246.26	-2,635.67	3,659.32	3,505.36	153.96	23.768		
9,600.00	7,245.79	10,051.51	7,135.44	78.65	80.82	-88.27	-3,246.85	-2,735.66	3,660.48	3,501.43	159.05	23.015		
9,700.00	7,245.43	10,151.50	7,134.89	81.27	83.30	-88.27	-3,247.44	-2,835.65	3,661.63	3,497.46	164.18	22.303		
9,800.00	7,245.06	10,251.50	7,134.35	83.90	85.82	-88.27	-3,248.02	-2,935.64	3,662.79	3,493.45	169.35	21.629		
9,900.00	7,244.69	10,351.49	7,133.81	86.55	88.35	-88.26	-3,248.61	-3,035.63	3,663.95	3,489.40	174.55	20.991		
10,000.00	7,244.33	10,451.48	7,133.27	89.21	90.90	-88.26	-3,249.20	-3,135.62	3,665.11	3,485.33	179.78	20.386		
10,100.00	7,243.96	10,551.48	7,132.73	91.88	93.48	-88.26	-3,249.79	-3,235.61	3,666.27	3,481.23	185.05	19.813		
10,200.00	7,243.60	10,651.47	7,132.19	94.56	96.07	-88.26	-3,250.37	-3,335.60	3,667.43	3,477.10	190.33	19.268		
10,300.00	7,243.23	10,751.46	7,131.65	97.26	98.67	-88.25	-3,250.96	-3,435.59	3,668.59	3,472.95	195.65	18.751		

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



Anticollision Report



Company:	SRC ENERGY	Local Co-ordinate Reference:	Well HARVESTERS STATE 31C-16-M
Project:	SECTION 15, T6N, R66W	TVD Reference:	KB @ 4821.00ft
Reference Site:	HARVESTERS STATE 7-15 PAD	MD Reference:	KB @ 4821.00ft
Site Error:	3.28 ft	North Reference:	True
Reference Well:	HARVESTERS STATE 31C-16-M	Survey Calculation Method:	Minimum Curvature
Well Error:	3.28 ft	Output errors are at	2.45 sigma
Reference Wellbore	OH	Database:	EDM 5000.14 Single User Db
Reference Design:	PLAN #1	Offset TVD Reference:	Reference Datum

Offset Design HARVESTERS STATE 7-15 PAD - HARVESTERS STATE 34N-16C-M - OH - PLAN #1													Offset Site Error:	0.00 ft
Survey Program: 0-MWD+IFR1													Offset Well Error:	3.28 ft
Reference		Offset		Semi Major Axis			Distance							Warning
Measured Depth (ft)	Vertical Depth (ft)	Measured Depth (ft)	Vertical Depth (ft)	Reference (ft)	Offset (ft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (ft)	+E/-W (ft)	Between Centres (ft)	Between Ellipses (ft)	Minimum Separation (ft)	Separation Factor		
10,400.00	7,242.86	10,851.46	7,131.11	99.96	101.29	-88.25	-3,251.55	-3,535.58	3,669.75	3,468.77	200.98	18.259		
10,500.00	7,242.50	10,951.45	7,130.57	102.67	103.92	-88.25	-3,252.14	-3,635.57	3,670.91	3,464.58	206.34	17.791		
10,600.00	7,242.13	11,051.44	7,130.02	105.39	106.57	-88.25	-3,252.73	-3,735.56	3,672.07	3,460.36	211.71	17.345		
10,700.00	7,241.76	11,151.44	7,129.48	108.12	109.22	-88.25	-3,253.31	-3,835.55	3,673.23	3,456.13	217.10	16.919		
10,800.00	7,241.40	11,251.43	7,128.94	110.85	111.89	-88.24	-3,253.90	-3,935.54	3,674.39	3,451.88	222.51	16.513		
10,900.00	7,241.03	11,351.42	7,128.40	113.59	114.56	-88.24	-3,254.49	-4,035.53	3,675.55	3,447.62	227.93	16.126		
11,000.00	7,240.67	11,451.42	7,127.86	116.34	117.24	-88.24	-3,255.08	-4,135.52	3,676.71	3,443.34	233.37	15.755		
11,100.00	7,240.30	11,551.41	7,127.32	119.09	119.94	-88.24	-3,255.67	-4,235.51	3,677.87	3,439.05	238.82	15.400		
11,200.00	7,239.93	11,651.40	7,126.78	121.85	122.64	-88.23	-3,256.25	-4,335.50	3,679.03	3,434.75	244.28	15.061		
11,300.00	7,239.57	11,751.39	7,126.24	124.61	125.34	-88.23	-3,256.84	-4,435.49	3,680.19	3,430.43	249.76	14.735		
11,400.00	7,239.20	11,851.39	7,125.70	127.38	128.06	-88.23	-3,257.43	-4,535.48	3,681.35	3,426.11	255.24	14.423		
11,500.00	7,238.84	11,951.38	7,125.16	130.15	130.78	-88.23	-3,258.02	-4,635.47	3,682.51	3,421.77	260.73	14.124		
11,600.00	7,238.47	12,051.37	7,124.61	132.92	133.50	-88.23	-3,258.60	-4,735.46	3,683.67	3,417.43	266.24	13.836		
11,700.00	7,238.10	12,151.37	7,124.07	135.70	136.23	-88.22	-3,259.19	-4,835.45	3,684.83	3,413.08	271.75	13.560		
11,800.00	7,237.74	12,251.36	7,123.53	138.48	138.97	-88.22	-3,259.78	-4,935.44	3,685.99	3,408.71	277.27	13.294		
11,900.00	7,237.37	12,351.35	7,122.99	141.26	141.71	-88.22	-3,260.37	-5,035.43	3,687.15	3,404.34	282.80	13.038		
12,000.00	7,237.00	12,451.35	7,122.45	144.05	144.46	-88.22	-3,260.96	-5,135.42	3,688.31	3,399.97	288.34	12.792		
12,100.00	7,236.64	12,551.34	7,121.91	146.84	147.21	-88.22	-3,261.54	-5,235.41	3,689.47	3,395.58	293.88	12.554		
12,200.00	7,236.27	12,651.33	7,121.37	149.64	149.96	-88.21	-3,262.13	-5,335.40	3,690.62	3,391.19	299.43	12.326		
12,300.00	7,235.91	12,751.33	7,120.83	152.43	152.72	-88.21	-3,262.72	-5,435.39	3,691.78	3,386.80	304.99	12.105		
12,400.00	7,235.54	12,851.32	7,120.29	155.23	155.48	-88.21	-3,263.31	-5,535.38	3,692.94	3,382.40	310.55	11.892		
12,500.00	7,235.17	12,951.31	7,119.75	158.03	158.25	-88.21	-3,263.90	-5,635.37	3,694.10	3,377.99	316.11	11.686		
12,600.00	7,234.81	13,051.31	7,119.20	160.83	161.02	-88.20	-3,264.48	-5,735.36	3,695.26	3,373.58	321.69	11.487		
12,700.00	7,234.44	13,151.30	7,118.66	163.64	163.79	-88.20	-3,265.07	-5,835.35	3,696.42	3,369.16	327.26	11.295		
12,800.00	7,234.07	13,251.29	7,118.12	166.44	166.56	-88.20	-3,265.66	-5,935.34	3,697.58	3,364.74	332.85	11.109		
12,900.00	7,233.71	13,351.29	7,117.58	169.25	169.34	-88.20	-3,266.25	-6,035.33	3,698.74	3,360.31	338.43	10.929		
13,000.00	7,233.34	13,451.28	7,117.04	172.06	172.12	-88.20	-3,266.84	-6,135.32	3,699.90	3,355.88	344.02	10.755		
13,100.00	7,232.98	13,551.27	7,116.50	174.88	174.91	-88.19	-3,267.42	-6,235.31	3,701.06	3,351.44	349.62	10.586		
13,200.00	7,232.61	13,651.27	7,115.96	177.69	177.69	-88.19	-3,268.01	-6,335.30	3,702.22	3,347.00	355.22	10.422		
13,300.00	7,232.24	13,751.26	7,115.42	180.50	180.48	-88.19	-3,268.60	-6,435.29	3,703.38	3,342.56	360.82	10.264		
13,400.00	7,231.88	13,851.25	7,114.88	183.32	183.27	-88.19	-3,269.19	-6,535.28	3,704.54	3,338.11	366.43	10.110		
13,500.00	7,231.51	13,951.24	7,114.33	186.14	186.06	-88.19	-3,269.77	-6,635.27	3,705.70	3,333.66	372.04	9.961		
13,600.00	7,231.15	14,051.24	7,113.79	188.96	188.85	-88.18	-3,270.36	-6,735.26	3,706.86	3,329.21	377.65	9.816		
13,700.00	7,230.78	14,151.23	7,113.25	191.78	191.65	-88.18	-3,270.95	-6,835.25	3,708.02	3,324.75	383.27	9.675		
13,800.00	7,230.41	14,251.22	7,112.71	194.60	194.45	-88.18	-3,271.54	-6,935.24	3,709.18	3,320.29	388.89	9.538		
13,900.00	7,230.05	14,351.22	7,112.17	197.42	197.25	-88.18	-3,272.13	-7,035.23	3,710.34	3,315.83	394.51	9.405		
14,000.00	7,229.68	14,451.21	7,111.63	200.25	200.05	-88.17	-3,272.71	-7,135.22	3,711.50	3,311.37	400.13	9.276		
14,100.00	7,229.31	14,551.20	7,111.09	203.07	202.85	-88.17	-3,273.30	-7,235.21	3,712.66	3,306.90	405.76	9.150		
14,200.00	7,228.95	14,651.20	7,110.55	205.90	205.66	-88.17	-3,273.89	-7,335.20	3,713.82	3,302.43	411.39	9.028		
14,300.00	7,228.58	14,751.19	7,110.01	208.73	208.46	-88.17	-3,274.48	-7,435.19	3,714.98	3,297.96	417.02	8.908		
14,400.00	7,228.22	14,851.18	7,109.47	211.55	211.27	-88.17	-3,275.07	-7,535.18	3,716.14	3,293.48	422.65	8.792		
14,500.00	7,227.85	14,951.18	7,108.92	214.38	214.08	-88.16	-3,275.65	-7,635.17	3,717.30	3,289.01	428.29	8.679		
14,600.00	7,227.48	15,051.17	7,108.38	217.21	216.89	-88.16	-3,276.24	-7,735.16	3,718.46	3,284.53	433.93	8.569		
14,700.00	7,227.12	15,151.16	7,107.84	220.04	219.70	-88.16	-3,276.83	-7,835.15	3,719.62	3,280.05	439.57	8.462		
14,800.00	7,226.75	15,251.16	7,107.30	222.88	222.51	-88.16	-3,277.42	-7,935.14	3,720.78	3,275.57	445.21	8.357		
14,900.00	7,226.38	15,351.15	7,106.76	225.71	225.33	-88.16	-3,278.01	-8,035.13	3,721.94	3,271.08	450.86	8.255		
15,000.00	7,226.02	15,451.14	7,106.22	228.54	228.14	-88.15	-3,278.59	-8,135.12	3,723.10	3,266.59	456.50	8.156		
15,005.81	7,226.00	15,456.95	7,106.19	228.71	228.30	-88.15	-3,278.63	-8,140.93	3,723.16	3,266.33	456.83	8.150 SF		



Anticollision Report



Company:	SRC ENERGY	Local Co-ordinate Reference:	Well HARVESTERS STATE 31C-16-M
Project:	SECTION 15, T6N, R66W	TVD Reference:	KB @ 4821.00ft
Reference Site:	HARVESTERS STATE 7-15 PAD	MD Reference:	KB @ 4821.00ft
Site Error:	3.28 ft	North Reference:	True
Reference Well:	HARVESTERS STATE 31C-16-M	Survey Calculation Method:	Minimum Curvature
Well Error:	3.28 ft	Output errors are at	2.45 sigma
Reference Wellbore	OH	Database:	EDM 5000.14 Single User Db
Reference Design:	PLAN #1	Offset TVD Reference:	Reference Datum

Offset Design HARVESTERS STATE 7-15 PAD - HARVESTERS STATE 4C-16-M - OH - PLAN #1													Offset Site Error:	0.00 ft
Survey Program: 0-MWD+IFR1													Offset Well Error:	0.00 ft
Reference		Offset		Semi Major Axis			Distance							Warning
Measured Depth (ft)	Vertical Depth (ft)	Measured Depth (ft)	Vertical Depth (ft)	Reference (ft)	Offset (ft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (ft)	+E/-W (ft)	Between Centres (ft)	Between Ellipses (ft)	Minimum Separation (ft)	Separation Factor		
0.00	0.00	1.00	0.00	3.28	0.00	0.53	60.11	0.56	60.11					
100.00	100.00	101.00	100.00	3.28	0.18	0.53	60.11	0.56	60.11	56.65	3.46	17.351		
200.00	200.00	201.00	200.00	3.34	0.62	0.53	60.11	0.56	60.11	56.16	3.96	15.197		
300.00	300.00	301.00	300.00	3.44	1.06	0.53	60.11	0.56	60.11	55.61	4.50	13.352		
400.00	400.00	401.00	400.00	3.60	1.50	0.53	60.11	0.56	60.11	55.01	5.10	11.788		
500.00	500.00	501.00	500.00	3.81	1.93	0.53	60.11	0.56	60.11	54.37	5.74	10.471	CC, ES	
600.00	600.00	598.91	597.89	4.05	2.37	0.30	61.80	0.33	61.84	55.42	6.42	9.628		
700.00	699.98	696.70	695.54	4.32	2.80	23.14	66.80	-0.35	65.34	58.20	7.15	9.143		
800.00	799.84	794.36	792.84	4.62	3.23	23.81	75.08	-1.48	69.04	61.15	7.90	8.743		
900.00	899.62	891.77	889.55	4.94	3.67	24.44	86.61	-3.05	74.88	66.21	8.67	8.638		
1,000.00	999.41	988.70	985.34	5.27	4.10	24.59	101.31	-5.05	84.06	74.61	9.45	8.892		
1,100.00	1,099.19	1,086.67	1,081.68	5.62	4.54	24.43	118.93	-7.45	96.05	85.82	10.23	9.387		
1,200.00	1,198.98	1,185.91	1,179.20	5.99	4.98	24.27	137.10	-9.92	108.39	97.37	11.03	9.830		
1,300.00	1,298.76	1,285.14	1,276.73	6.36	5.43	24.14	155.27	-12.39	120.73	108.90	11.83	10.202		
1,400.00	1,398.55	1,384.38	1,374.26	6.74	5.89	24.04	173.44	-14.86	133.07	120.41	12.65	10.516		
1,500.00	1,498.33	1,483.61	1,471.78	7.13	6.35	23.96	191.62	-17.33	145.41	131.92	13.48	10.784		
1,600.00	1,598.12	1,582.85	1,569.31	7.52	6.81	23.89	209.79	-19.81	157.74	143.42	14.32	11.015		
1,700.00	1,697.90	1,682.09	1,666.84	7.92	7.28	23.82	227.96	-22.28	170.08	154.92	15.17	11.215		
1,800.00	1,797.69	1,781.32	1,764.36	8.33	7.74	23.77	246.13	-24.75	182.42	166.40	16.02	11.389		
1,900.00	1,897.47	1,880.56	1,861.89	8.74	8.21	23.73	264.31	-27.22	194.76	177.89	16.87	11.542		
2,000.00	1,897.26	1,879.79	1,859.41	9.15	8.68	23.69	282.48	-29.69	207.10	189.37	17.74	11.677		
2,100.00	2,097.04	2,079.03	2,056.94	9.56	9.15	23.65	300.65	-32.17	219.44	200.84	18.60	11.798		
2,200.00	2,196.83	2,178.26	2,154.47	9.98	9.61	23.62	318.82	-34.64	231.78	212.31	19.47	11.905		
2,300.00	2,296.61	2,277.50	2,251.99	10.40	10.08	23.59	336.99	-37.11	244.12	223.78	20.34	12.002		
2,400.00	2,396.40	2,376.74	2,349.52	10.82	10.55	23.56	355.17	-39.58	256.46	235.24	21.21	12.089		
2,500.00	2,496.18	2,475.97	2,447.05	11.24	11.02	23.54	373.34	-42.06	268.80	246.71	22.09	12.168		
2,600.00	2,595.96	2,575.21	2,544.57	11.66	11.49	23.52	391.51	-44.53	281.14	258.17	22.97	12.240		
2,700.00	2,695.75	2,674.44	2,642.10	12.09	11.97	23.50	409.68	-47.00	293.48	269.63	23.85	12.305		
2,800.00	2,795.53	2,773.68	2,739.63	12.51	12.44	23.48	427.86	-49.47	305.82	281.08	24.73	12.365		
2,900.00	2,895.32	2,872.91	2,837.15	12.94	12.91	23.46	446.03	-51.94	318.16	292.54	25.62	12.420		
3,000.00	2,995.10	2,972.15	2,934.68	13.37	13.38	23.45	464.20	-54.42	330.50	304.00	26.50	12.471		
3,100.00	3,094.89	3,071.39	3,032.20	13.80	13.85	23.43	482.37	-56.89	342.84	315.45	27.39	12.518		
3,200.00	3,194.67	3,170.62	3,129.73	14.23	14.32	23.42	500.55	-59.36	355.18	326.90	28.27	12.562		
3,300.00	3,294.46	3,269.86	3,227.26	14.66	14.79	23.41	518.72	-61.83	367.52	338.35	29.16	12.602		
3,400.00	3,394.24	3,369.09	3,324.78	15.09	15.27	23.39	536.89	-64.31	379.86	349.80	30.05	12.640		
3,500.00	3,494.03	3,468.33	3,422.31	15.52	15.74	23.38	555.06	-66.78	392.19	361.25	30.94	12.675		
3,600.00	3,593.81	3,567.56	3,519.84	15.96	16.21	23.37	573.23	-69.25	404.53	372.70	31.83	12.708		
3,700.00	3,693.60	3,666.80	3,617.36	16.39	16.68	23.36	591.41	-71.72	416.87	384.15	32.72	12.739		
3,800.00	3,793.38	3,766.04	3,714.89	16.82	17.16	23.35	609.58	-74.19	429.21	395.60	33.62	12.768		
3,900.00	3,893.17	3,865.27	3,812.41	17.26	17.63	23.35	627.75	-76.67	441.55	407.04	34.51	12.795		
4,000.00	3,992.95	3,964.51	3,909.94	17.69	18.10	23.34	645.92	-79.14	453.89	418.49	35.40	12.821		
4,100.00	4,092.74	4,063.74	4,007.47	18.13	18.57	23.33	664.10	-81.61	466.23	429.94	36.30	12.845		
4,200.00	4,192.52	4,162.98	4,104.99	18.56	19.05	23.32	682.27	-84.08	478.57	441.38	37.19	12.868		
4,300.00	4,292.31	4,262.21	4,202.52	19.00	19.52	23.32	700.44	-86.55	490.91	452.83	38.09	12.890		
4,400.00	4,392.09	4,361.45	4,300.05	19.43	19.99	23.31	718.61	-89.03	503.25	464.27	38.98	12.910		
4,500.00	4,491.88	4,460.69	4,397.57	19.87	20.47	23.30	736.78	-91.50	515.59	475.72	39.88	12.930		
4,600.00	4,591.66	4,559.92	4,495.10	20.31	20.94	23.30	754.96	-93.97	527.93	487.16	40.77	12.948		
4,700.00	4,691.44	4,659.16	4,592.62	20.74	21.41	23.29	773.13	-96.44	540.27	498.60	41.67	12.966		
4,800.00	4,791.23	4,758.39	4,690.15	21.18	21.88	23.29	791.30	-98.92	552.61	510.05	42.57	12.982		
4,900.00	4,891.01	4,857.63	4,787.68	21.62	22.36	23.28	809.47	-101.39	564.95	521.49	43.46	12.998		
5,000.00	4,990.80	4,956.86	4,885.20	22.06	22.83	23.27	827.65	-103.86	577.29	532.93	44.36	13.013		
5,100.00	5,090.58	5,056.10	4,982.73	22.50	23.30	23.27	845.82	-106.33	589.63	544.37	45.26	13.028		

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



Anticollision Report



Company:	SRC ENERGY	Local Co-ordinate Reference:	Well HARVESTERS STATE 31C-16-M
Project:	SECTION 15, T6N, R66W	TVD Reference:	KB @ 4821.00ft
Reference Site:	HARVESTERS STATE 7-15 PAD	MD Reference:	KB @ 4821.00ft
Site Error:	3.28 ft	North Reference:	True
Reference Well:	HARVESTERS STATE 31C-16-M	Survey Calculation Method:	Minimum Curvature
Well Error:	3.28 ft	Output errors are at	2.45 sigma
Reference Wellbore	OH	Database:	EDM 5000.14 Single User Db
Reference Design:	PLAN #1	Offset TVD Reference:	Reference Datum

Offset Design HARVESTERS STATE 7-15 PAD - HARVESTERS STATE 4C-16-M - OH - PLAN #1													Offset Site Error:	0.00 ft
Survey Program: 0-MWD+IFR1													Offset Well Error:	0.00 ft
Reference		Offset		Semi Major Axis			Distance						Warning	
Measured Depth (ft)	Vertical Depth (ft)	Measured Depth (ft)	Vertical Depth (ft)	Reference (ft)	Offset (ft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (ft)	+E/-W (ft)	Between Centres (ft)	Between Ellipses (ft)	Minimum Separation (ft)	Separation Factor		
5,200.00	5,190.37	5,155.34	5,080.26	22.93	23.78	23.27	863.99	-108.80	601.97	555.82	46.16	13.042		
5,300.00	5,290.15	5,254.57	5,177.78	23.37	24.25	23.26	882.16	-111.28	614.31	567.26	47.05	13.055		
5,400.00	5,389.94	5,353.81	5,275.31	23.81	24.72	23.26	900.34	-113.75	626.65	578.70	47.95	13.068		
5,500.00	5,489.72	5,453.04	5,372.84	24.25	25.20	23.25	918.51	-116.22	638.99	590.14	48.85	13.080		
5,600.00	5,589.51	5,552.28	5,470.36	24.69	25.67	23.25	936.68	-118.69	651.33	601.58	49.75	13.092		
5,700.00	5,689.29	5,651.51	5,567.89	25.13	26.14	23.24	954.85	-121.17	663.67	613.02	50.65	13.103		
5,800.00	5,789.08	5,750.75	5,665.41	25.56	26.62	23.24	973.02	-123.64	676.01	624.46	51.55	13.114		
5,900.00	5,888.86	5,849.99	5,762.94	26.00	27.09	23.24	991.20	-126.11	688.35	635.90	52.45	13.124		
6,000.00	5,988.65	5,949.22	5,860.47	26.44	27.57	23.23	1,009.37	-128.58	700.69	647.34	53.35	13.134		
6,100.00	6,088.43	6,048.46	5,957.99	26.88	28.04	23.23	1,027.54	-131.05	713.03	658.78	54.25	13.144		
6,200.00	6,188.22	6,147.69	6,055.52	27.32	28.51	23.23	1,045.71	-133.53	725.37	670.22	55.15	13.153		
6,300.00	6,288.00	6,246.93	6,153.05	27.76	28.99	23.22	1,063.89	-136.00	737.71	681.66	56.05	13.162		
6,400.00	6,387.79	6,346.16	6,250.57	28.20	29.46	23.22	1,082.06	-138.47	750.05	693.10	56.95	13.171		
6,500.00	6,487.57	6,445.40	6,348.10	28.64	29.93	23.22	1,100.23	-140.94	762.39	704.54	57.85	13.179		
6,600.00	6,587.35	6,544.64	6,445.62	29.08	30.41	23.22	1,118.40	-143.41	774.73	715.98	58.75	13.187		
6,700.00	6,687.02	6,643.81	6,543.09	29.52	30.88	60.68	1,136.56	-145.89	787.07	727.42	59.65	13.195		
6,800.00	6,784.98	6,741.65	6,639.24	29.96	31.35	76.70	1,154.48	-148.32	799.45	738.89	60.56	13.202		
6,900.00	6,878.81	6,845.47	6,740.79	30.41	31.84	81.97	1,173.29	-150.81	811.96	750.41	61.55	13.192		
7,000.00	6,966.21	6,955.01	6,844.85	30.86	32.35	84.77	1,192.28	-153.27	824.02	761.41	62.61	13.161		
7,100.00	7,045.03	7,070.05	6,947.41	31.35	32.86	86.64	1,210.67	-155.74	835.15	771.44	63.71	13.108		
7,200.00	7,113.32	7,190.75	7,044.03	31.90	33.37	88.02	1,227.60	-158.18	844.87	780.00	64.87	13.024		
7,300.00	7,169.40	7,316.84	7,129.27	32.57	33.93	89.07	1,242.07	-160.68	852.66	786.50	66.16	12.887		
7,400.00	7,211.89	7,447.54	7,197.19	33.38	34.70	89.83	1,253.01	-163.14	858.06	790.33	67.72	12.670		
7,500.00	7,239.75	7,581.47	7,242.30	34.35	35.80	90.31	1,259.44	-165.57	860.69	790.98	69.70	12.348		
7,600.00	7,252.28	7,716.77	7,260.68	35.47	37.23	90.51	1,260.76	-168.00	860.33	788.20	72.13	11.927		
7,700.00	7,252.75	7,822.87	7,260.66	36.73	38.54	90.53	1,259.08	-170.42	858.11	783.41	74.70	11.488		
7,800.00	7,252.38	7,922.85	7,260.24	38.16	39.93	90.53	1,257.42	-172.84	855.88	778.34	77.54	11.038		
7,900.00	7,252.02	8,022.82	7,259.81	39.74	41.48	90.53	1,255.76	-175.25	853.66	772.97	80.69	10.580		
8,000.00	7,251.65	8,122.80	7,259.39	41.47	43.16	90.53	1,254.10	-177.66	851.43	767.32	84.11	10.123		
8,100.00	7,251.29	8,222.77	7,258.97	43.31	44.96	90.52	1,252.45	-179.99	849.20	761.44	87.77	9.676		
8,200.00	7,250.92	8,322.75	7,258.55	45.26	46.86	90.52	1,250.79	-182.38	846.98	755.34	91.64	9.243		
8,300.00	7,250.55	8,422.72	7,258.13	47.30	48.86	90.52	1,249.13	-184.74	844.75	749.06	95.69	8.828		
8,400.00	7,250.19	8,522.70	7,257.71	49.42	50.94	90.52	1,247.47	-187.08	842.53	742.62	99.91	8.433		
8,500.00	7,249.82	8,622.67	7,257.29	51.62	53.09	90.51	1,245.81	-189.41	840.30	736.03	104.27	8.059		
8,600.00	7,249.45	8,722.65	7,256.87	53.88	55.30	90.51	1,244.16	-191.73	838.08	729.32	108.75	7.706		
8,700.00	7,249.09	8,822.62	7,256.45	56.19	57.58	90.51	1,242.50	-194.04	835.85	722.50	113.35	7.374		
8,800.00	7,248.72	8,922.60	7,256.03	58.55	59.90	90.51	1,240.84	-196.35	833.62	715.58	118.05	7.062		
8,900.00	7,248.36	9,022.57	7,255.61	60.96	62.26	90.50	1,239.18	-198.66	831.40	708.57	122.83	6.769		
9,000.00	7,247.99	9,122.55	7,255.19	63.40	64.67	90.50	1,237.52	-200.97	829.17	701.49	127.69	6.494		
9,100.00	7,247.62	9,222.52	7,254.77	65.87	67.11	90.50	1,235.86	-203.27	826.95	694.33	132.61	6.236		
9,200.00	7,247.26	9,322.50	7,254.35	68.38	69.58	90.50	1,234.21	-205.57	824.72	687.12	137.60	5.994		
9,300.00	7,246.89	9,422.47	7,253.93	70.91	72.08	90.50	1,232.55	-207.87	822.50	679.85	142.64	5.766		
9,400.00	7,246.53	9,522.45	7,253.51	73.47	74.61	90.49	1,230.89	-210.17	820.27	672.53	147.74	5.552		
9,500.00	7,246.16	9,622.42	7,253.09	76.05	77.16	90.49	1,229.23	-212.47	818.04	665.17	152.87	5.351		
9,600.00	7,245.79	9,722.40	7,252.67	78.65	79.73	90.49	1,227.57	-214.77	815.82	657.77	158.05	5.162		
9,700.00	7,245.43	9,822.37	7,252.25	81.27	82.32	90.49	1,225.92	-217.07	813.59	650.33	163.26	4.983		
9,800.00	7,245.06	9,922.35	7,251.83	83.90	84.92	90.48	1,224.26	-219.37	811.37	642.86	168.50	4.815		
9,900.00	7,244.69	10,022.33	7,251.41	86.55	87.55	90.48	1,222.60	-221.67	809.14	635.36	173.78	4.656		
10,000.00	7,244.33	10,122.30	7,250.99	89.21	90.18	90.48	1,220.94	-223.97	806.91	627.84	179.08	4.506		
10,100.00	7,243.96	10,222.28	7,250.57	91.88	92.83	90.48	1,219.28	-226.27	804.69	620.28	184.40	4.364		
10,200.00	7,243.60	10,322.25	7,250.15	94.56	95.49	90.47	1,217.62	-228.57	802.46	612.71	189.75	4.229		
10,300.00	7,243.23	10,422.23	7,249.73	97.26	98.16	90.47	1,215.97	-230.87	800.24	605.11	195.12	4.101		

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



Anticollision Report



Company:	SRC ENERGY	Local Co-ordinate Reference:	Well HARVESTERS STATE 31C-16-M
Project:	SECTION 15, T6N, R66W	TVD Reference:	KB @ 4821.00ft
Reference Site:	HARVESTERS STATE 7-15 PAD	MD Reference:	KB @ 4821.00ft
Site Error:	3.28 ft	North Reference:	True
Reference Well:	HARVESTERS STATE 31C-16-M	Survey Calculation Method:	Minimum Curvature
Well Error:	3.28 ft	Output errors are at	2.45 sigma
Reference Wellbore	OH	Database:	EDM 5000.14 Single User Db
Reference Design:	PLAN #1	Offset TVD Reference:	Reference Datum

Offset Design HARVESTERS STATE 7-15 PAD - HARVESTERS STATE 4C-16-M - OH - PLAN #1													Offset Site Error:	0.00 ft
Survey Program: 0-MWD+IFR1													Offset Well Error:	0.00 ft
Reference		Offset		Semi Major Axis			Distance						Warning	
Measured Depth (ft)	Vertical Depth (ft)	Measured Depth (ft)	Vertical Depth (ft)	Reference (ft)	Offset (ft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (ft)	+E/-W (ft)	Between Centres (ft)	Between Ellipses (ft)	Minimum Separation (ft)	Separation Factor		
10,400.00	7,242.86	10,522.20	7,249.31	99.96	100.84	90.47	1,214.31	-3,571.02	798.01	597.50	200.51	3.980		
10,500.00	7,242.50	10,622.18	7,248.89	102.67	103.53	90.47	1,212.65	-3,670.98	795.79	589.87	205.92	3.865		
10,600.00	7,242.13	10,722.15	7,248.47	105.39	106.23	90.46	1,210.99	-3,770.94	793.56	582.22	211.34	3.755		
10,700.00	7,241.76	10,822.13	7,248.05	108.12	108.94	90.46	1,209.33	-3,870.90	791.33	574.55	216.78	3.650		
10,800.00	7,241.40	10,922.10	7,247.63	110.85	111.65	90.46	1,207.67	-3,970.86	789.11	566.88	222.23	3.551		
10,900.00	7,241.03	11,022.08	7,247.21	113.59	114.38	90.45	1,206.02	-4,070.82	786.88	559.19	227.70	3.456		
11,000.00	7,240.67	11,122.05	7,246.79	116.34	117.10	90.45	1,204.36	-4,170.78	784.66	551.48	233.17	3.365		
11,100.00	7,240.30	11,222.03	7,246.37	119.09	119.84	90.45	1,202.70	-4,270.74	782.43	543.77	238.66	3.278		
11,200.00	7,239.93	11,322.00	7,245.95	121.85	122.58	90.45	1,201.04	-4,370.70	780.21	536.04	244.16	3.195		
11,300.00	7,239.57	11,421.98	7,245.53	124.61	125.32	90.44	1,199.38	-4,470.66	777.98	528.31	249.67	3.116		
11,400.00	7,239.20	11,521.95	7,245.11	127.38	128.07	90.44	1,197.73	-4,570.62	775.75	520.57	255.19	3.040		
11,500.00	7,238.84	11,621.93	7,244.69	130.15	130.82	90.44	1,196.07	-4,670.58	773.53	512.81	260.71	2.967		
11,600.00	7,238.47	11,721.90	7,244.27	132.92	133.58	90.44	1,194.41	-4,770.54	771.30	505.05	266.25	2.897		
11,700.00	7,238.10	11,821.88	7,243.85	135.70	136.34	90.43	1,192.75	-4,870.50	769.08	497.29	271.79	2.830		
11,800.00	7,237.74	11,921.85	7,243.43	138.48	139.11	90.43	1,191.09	-4,970.46	766.85	489.51	277.34	2.765		
11,900.00	7,237.37	12,021.83	7,243.01	141.26	141.88	90.43	1,189.43	-5,070.43	764.63	481.73	282.89	2.703		
12,000.00	7,237.00	12,121.81	7,242.59	144.05	144.65	90.42	1,187.78	-5,170.39	762.40	473.94	288.46	2.643		
12,100.00	7,236.64	12,221.78	7,242.17	146.84	147.42	90.42	1,186.12	-5,270.35	760.17	466.15	294.02	2.585		
12,200.00	7,236.27	12,321.76	7,241.75	149.64	150.20	90.42	1,184.46	-5,370.31	757.95	458.35	299.60	2.530		
12,300.00	7,235.91	12,421.73	7,241.33	152.43	152.98	90.42	1,182.80	-5,470.27	755.72	450.55	305.18	2.476		
12,400.00	7,235.54	12,521.71	7,240.91	155.23	155.77	90.41	1,181.14	-5,570.23	753.50	442.74	310.76	2.425		
12,500.00	7,235.17	12,621.68	7,240.49	158.03	158.56	90.41	1,179.49	-5,670.19	751.27	434.92	316.35	2.375		
12,600.00	7,234.81	12,721.66	7,240.06	160.83	161.34	90.41	1,177.83	-5,770.15	749.05	427.10	321.94	2.327		
12,700.00	7,234.44	12,821.63	7,239.64	163.64	164.14	90.40	1,176.17	-5,870.11	746.82	419.28	327.54	2.280		
12,800.00	7,234.07	12,921.61	7,239.22	166.44	166.93	90.40	1,174.51	-5,970.07	744.59	411.45	333.14	2.235		
12,900.00	7,233.71	13,021.58	7,238.80	169.25	169.72	90.40	1,172.85	-6,070.03	742.37	403.62	338.75	2.192		
13,000.00	7,233.34	13,121.56	7,238.38	172.06	172.52	90.40	1,171.19	-6,169.99	740.14	395.79	344.35	2.149		
13,100.00	7,232.98	13,221.53	7,237.96	174.88	175.32	90.39	1,169.54	-6,269.95	737.92	387.95	349.97	2.109		
13,200.00	7,232.61	13,321.51	7,237.54	177.69	178.12	90.39	1,167.88	-6,369.91	735.69	380.11	355.58	2.069		
13,300.00	7,232.24	13,421.48	7,237.12	180.50	180.92	90.39	1,166.22	-6,469.87	733.47	372.26	361.20	2.031		
13,400.00	7,231.88	13,521.46	7,236.70	183.32	183.73	90.38	1,164.56	-6,569.83	731.24	364.42	366.82	1.993		
13,500.00	7,231.51	13,621.43	7,236.28	186.14	186.53	90.38	1,162.90	-6,669.79	729.01	356.57	372.45	1.957		
13,600.00	7,231.15	13,721.41	7,235.86	188.96	189.34	90.38	1,161.24	-6,769.76	726.79	348.71	378.07	1.922		
13,700.00	7,230.78	13,821.38	7,235.44	191.78	192.15	90.37	1,159.59	-6,869.72	724.56	340.86	383.71	1.888		
13,800.00	7,230.41	13,921.36	7,235.02	194.60	194.96	90.37	1,157.93	-6,969.68	722.34	333.00	389.34	1.855		
13,900.00	7,230.05	14,021.33	7,234.60	197.42	197.77	90.37	1,156.27	-7,069.64	720.11	325.14	394.97	1.823		
14,000.00	7,229.68	14,121.31	7,234.18	200.25	200.58	90.36	1,154.61	-7,169.60	717.89	317.28	400.61	1.792		
14,100.00	7,229.31	14,221.28	7,233.76	203.07	203.40	90.36	1,152.95	-7,269.56	715.66	309.41	406.25	1.762		
14,200.00	7,228.95	14,321.26	7,233.34	205.90	206.21	90.36	1,151.30	-7,369.52	713.43	301.54	411.89	1.732		
14,300.00	7,228.58	14,421.24	7,232.92	208.73	209.03	90.35	1,149.64	-7,469.48	711.21	293.67	417.54	1.703		
14,400.00	7,228.22	14,521.21	7,232.50	211.55	211.84	90.35	1,147.98	-7,569.44	708.98	285.80	423.18	1.675		
14,500.00	7,227.85	14,621.19	7,232.08	214.38	214.66	90.35	1,146.32	-7,669.40	706.76	277.93	428.83	1.648		
14,600.00	7,227.48	14,721.16	7,231.66	217.21	217.48	90.34	1,144.66	-7,769.36	704.53	270.05	434.48	1.622		
14,700.00	7,227.12	14,821.14	7,231.24	220.04	220.30	90.34	1,143.00	-7,869.32	702.31	262.18	440.13	1.596		
14,800.00	7,226.75	14,921.11	7,230.82	222.88	223.12	90.34	1,141.35	-7,969.28	700.08	254.30	445.78	1.570		
14,900.00	7,226.38	15,021.09	7,230.40	225.71	225.94	90.33	1,139.69	-8,069.24	697.85	246.42	451.44	1.546		
15,000.00	7,226.02	15,116.21	7,230.00	228.54	228.63	90.33	1,138.11	-8,164.35	695.65	238.62	457.03	1.522		
15,005.81	7,226.00	15,116.21	7,230.00	228.71	228.63	90.33	1,138.11	-8,164.35	695.58	238.33	457.25	1.521 SF		



Anticollision Report



Company:	SRC ENERGY	Local Co-ordinate Reference:	Well HARVESTERS STATE 31C-16-M
Project:	SECTION 15, T6N, R66W	TVD Reference:	KB @ 4821.00ft
Reference Site:	HARVESTERS STATE 7-15 PAD	MD Reference:	KB @ 4821.00ft
Site Error:	3.28 ft	North Reference:	True
Reference Well:	HARVESTERS STATE 31C-16-M	Survey Calculation Method:	Minimum Curvature
Well Error:	3.28 ft	Output errors are at	2.45 sigma
Reference Wellbore	OH	Database:	EDM 5000.14 Single User Db
Reference Design:	PLAN #1	Offset TVD Reference:	Reference Datum

Offset Design HARVESTERS STATE 7-15 PAD - HARVESTERS STATE 4N-16A-M - OH - PLAN #1													Offset Site Error:	0.00 ft
Survey Program: 0-MWD+IFR1													Offset Well Error:	3.28 ft
Reference		Offset		Semi Major Axis			Distance						Warning	
Measured Depth (ft)	Vertical Depth (ft)	Measured Depth (ft)	Vertical Depth (ft)	Reference (ft)	Offset (ft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (ft)	+E/-W (ft)	Between Centres (ft)	Between Ellipses (ft)	Minimum Separation (ft)	Separation Factor		
0.00	0.00	0.00	0.00	3.28	3.28	0.80	20.04	0.28	20.04					
100.00	100.00	100.00	100.00	3.28	3.28	0.80	20.04	0.28	20.04	13.47	6.57	3.051		
200.00	200.00	200.00	200.00	3.34	3.34	0.80	20.04	0.28	20.04	13.37	6.67	3.003		
300.00	300.00	300.00	300.00	3.44	3.44	0.80	20.04	0.28	20.04	13.15	6.89	2.909		
400.00	400.00	400.00	400.00	3.60	3.60	0.80	20.04	0.28	20.04	12.84	7.21	2.781		
500.00	500.00	500.00	500.00	3.81	3.81	0.80	20.04	0.28	20.04	12.43	7.61	2.633		
600.00	600.00	600.00	600.00	4.05	4.05	0.80	20.04	0.28	20.04	11.95	8.09	2.477 CC		
700.00	699.98	699.33	699.31	4.32	4.32	24.47	21.72	-0.12	20.13	11.49	8.64	2.330		
800.00	799.84	798.65	798.49	4.62	4.61	26.72	26.74	-1.33	20.42	11.18	9.24	2.210 ES		
900.00	899.62	897.91	897.37	4.94	4.93	27.65	35.09	-3.33	22.84	12.95	9.88	2.311		
1,000.00	999.41	1,002.50	996.32	5.27	5.29	26.57	46.13	-5.97	27.87	17.30	10.57	2.636		
1,100.00	1,099.19	1,102.64	1,095.50	5.62	5.64	25.71	57.40	-8.67	33.12	21.85	11.27	2.938		
1,200.00	1,198.98	1,202.78	1,194.69	5.99	6.01	25.08	68.68	-11.37	38.38	26.38	12.00	3.198		
1,300.00	1,298.76	1,302.92	1,293.87	6.36	6.38	24.61	79.96	-14.07	43.64	30.90	12.75	3.423		
1,400.00	1,398.55	1,403.05	1,393.06	6.74	6.77	24.23	91.24	-16.78	48.91	35.39	13.51	3.619		
1,500.00	1,498.33	1,503.19	1,492.24	7.13	7.16	23.93	102.51	-19.48	54.18	39.88	14.29	3.790		
1,600.00	1,598.12	1,603.33	1,591.43	7.52	7.56	23.69	113.79	-22.18	59.44	44.35	15.09	3.940		
1,700.00	1,697.90	1,703.47	1,690.61	7.92	7.97	23.48	125.07	-24.88	64.71	48.82	15.89	4.072		
1,800.00	1,797.69	1,803.61	1,789.80	8.33	8.38	23.30	136.35	-27.58	69.98	53.27	16.70	4.189		
1,900.00	1,897.47	1,903.75	1,888.98	8.74	8.80	23.15	147.62	-30.28	75.25	57.72	17.53	4.294		
2,000.00	1,997.26	2,003.89	1,988.17	9.15	9.22	23.02	158.90	-32.98	80.52	62.17	18.35	4.387		
2,100.00	2,097.04	2,104.03	2,087.35	9.56	9.64	22.91	170.18	-35.68	85.79	66.60	19.19	4.471		
2,200.00	2,196.83	2,204.17	2,186.54	9.98	10.07	22.80	181.45	-38.39	91.06	71.03	20.02	4.547		
2,300.00	2,296.61	2,304.31	2,285.72	10.40	10.49	22.71	192.73	-41.09	96.33	75.46	20.87	4.616		
2,400.00	2,396.40	2,404.45	2,384.91	10.82	10.92	22.63	204.01	-43.79	101.60	79.89	21.72	4.679		
2,500.00	2,496.18	2,504.58	2,484.10	11.24	11.36	22.56	215.29	-46.49	106.87	84.31	22.57	4.736		
2,600.00	2,595.96	2,604.72	2,583.28	11.66	11.79	22.49	226.56	-49.19	112.14	88.72	23.42	4.788		
2,700.00	2,695.75	2,704.86	2,682.47	12.09	12.22	22.43	237.84	-51.89	117.42	93.14	24.28	4.836		
2,800.00	2,795.53	2,805.00	2,781.65	12.51	12.66	22.38	249.12	-54.59	122.69	97.55	25.14	4.881		
2,900.00	2,895.32	2,905.14	2,880.84	12.94	13.10	22.33	260.40	-57.30	127.96	101.96	26.00	4.922		
3,000.00	2,995.10	3,005.28	2,980.02	13.37	13.53	22.28	271.67	-60.00	133.23	106.37	26.86	4.960		
3,100.00	3,094.89	3,105.42	3,079.21	13.80	13.97	22.24	282.95	-62.70	138.50	110.77	27.73	4.995		
3,200.00	3,194.67	3,205.56	3,178.39	14.23	14.41	22.20	294.23	-65.40	143.77	115.18	28.60	5.028		
3,300.00	3,294.46	3,305.70	3,277.58	14.66	14.86	22.16	305.51	-68.10	149.05	119.58	29.47	5.058		
3,400.00	3,394.24	3,405.84	3,376.76	15.09	15.30	22.13	316.78	-70.80	154.32	123.98	30.34	5.087		
3,500.00	3,494.03	3,494.02	3,475.95	15.52	15.69	22.09	328.06	-73.50	159.59	128.44	31.16	5.122		
3,600.00	3,593.81	3,606.11	3,575.13	15.96	16.18	22.06	339.34	-76.20	164.86	132.78	32.08	5.139		
3,700.00	3,693.60	3,706.25	3,674.32	16.39	16.63	22.03	350.62	-78.91	170.13	137.18	32.96	5.163		
3,800.00	3,793.38	3,806.39	3,773.50	16.82	17.07	22.01	361.89	-81.61	175.41	141.58	33.83	5.185		
3,900.00	3,893.17	3,906.53	3,872.69	17.26	17.51	21.98	373.17	-84.31	180.68	145.97	34.71	5.206		
4,000.00	3,992.95	4,006.67	3,971.87	17.69	17.96	21.96	384.45	-87.01	185.95	150.37	35.58	5.226		
4,100.00	4,092.74	4,106.81	4,071.06	18.13	18.41	21.94	395.73	-89.71	191.22	154.76	36.46	5.245		
4,200.00	4,192.52	4,206.95	4,170.25	18.56	18.85	21.92	407.00	-92.41	196.50	159.16	37.34	5.262		
4,300.00	4,292.31	4,307.09	4,269.43	19.00	19.30	21.90	418.28	-95.11	201.77	163.55	38.22	5.279		
4,400.00	4,392.09	4,407.23	4,368.62	19.43	19.74	21.88	429.56	-97.82	207.04	167.94	39.10	5.295		
4,500.00	4,491.88	4,507.37	4,467.80	19.87	20.19	21.86	440.84	-100.52	212.31	172.33	39.98	5.310		
4,600.00	4,591.66	4,607.51	4,566.99	20.31	20.64	21.84	452.11	-103.22	217.59	176.72	40.86	5.325		
4,700.00	4,691.44	4,707.65	4,666.17	20.74	21.08	21.82	463.39	-105.92	222.86	181.12	41.74	5.339		
4,800.00	4,791.23	4,807.78	4,765.36	21.18	21.53	21.81	474.67	-108.62	228.13	185.51	42.63	5.352		
4,900.00	4,891.01	4,907.92	4,864.54	21.62	21.98	21.79	485.95	-111.32	233.40	189.90	43.51	5.365		
5,000.00	4,990.80	5,008.06	4,963.73	22.06	22.43	21.78	497.22	-114.02	238.68	194.28	44.39	5.377		
5,100.00	5,090.58	5,091.80	5,062.91	22.50	22.80	21.77	508.50	-116.72	243.95	198.75	45.20	5.397		

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



Anticollision Report



Company:	SRC ENERGY	Local Co-ordinate Reference:	Well HARVESTERS STATE 31C-16-M
Project:	SECTION 15, T6N, R66W	TVD Reference:	KB @ 4821.00ft
Reference Site:	HARVESTERS STATE 7-15 PAD	MD Reference:	KB @ 4821.00ft
Site Error:	3.28 ft	North Reference:	True
Reference Well:	HARVESTERS STATE 31C-16-M	Survey Calculation Method:	Minimum Curvature
Well Error:	3.28 ft	Output errors are at	2.45 sigma
Reference Wellbore	OH	Database:	EDM 5000.14 Single User Db
Reference Design:	PLAN #1	Offset TVD Reference:	Reference Datum

Offset Design HARVESTERS STATE 7-15 PAD - HARVESTERS STATE 4N-16A-M - OH - PLAN #1												Offset Site Error:	0.00 ft
Survey Program: 0-MWD+IFR1												Offset Well Error:	3.28 ft
Reference		Offset		Semi Major Axis			Distance						Warning
Measured Depth (ft)	Vertical Depth (ft)	Measured Depth (ft)	Vertical Depth (ft)	Reference (ft)	Offset (ft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (ft)	+E/-W (ft)	Between Centres (ft)	Between Ellipses (ft)	Minimum Separation (ft)	Separation Factor	
5,200.00	5,190.37	5,208.34	5,162.10	22.93	23.33	21.75	519.78	-119.43	249.22	203.06	46.16	5.399	
5,300.00	5,290.15	5,291.52	5,261.28	23.37	23.70	21.74	531.06	-122.13	254.49	207.53	46.97	5.418	
5,400.00	5,389.94	5,408.62	5,360.47	23.81	24.22	21.73	542.33	-124.83	259.77	211.84	47.93	5.420	
5,500.00	5,489.72	5,491.24	5,459.65	24.25	24.59	21.72	553.61	-127.53	265.04	216.30	48.73	5.438	
5,600.00	5,589.51	5,608.90	5,558.84	24.69	25.12	21.71	564.89	-130.23	270.31	220.61	49.70	5.439	
5,700.00	5,689.29	5,709.04	5,658.02	25.13	25.57	21.70	576.17	-132.93	275.58	225.00	50.58	5.448	
5,800.00	5,789.08	5,809.18	5,757.21	25.56	26.02	21.69	587.44	-135.63	280.86	229.39	51.47	5.457	
5,900.00	5,888.86	5,909.31	5,856.39	26.00	26.47	21.68	598.72	-138.34	286.13	233.77	52.36	5.465	
6,000.00	5,988.65	6,009.45	5,955.58	26.44	26.92	21.67	610.00	-141.04	291.40	238.16	53.24	5.473	
6,100.00	6,088.43	6,109.59	6,054.77	26.88	27.37	21.66	621.28	-143.74	296.67	242.55	54.13	5.481	
6,200.00	6,188.22	6,209.73	6,153.95	27.32	27.82	21.65	632.55	-146.44	301.95	246.93	55.02	5.488	
6,300.00	6,288.00	6,290.13	6,253.14	27.76	28.18	21.64	643.83	-149.14	307.22	251.40	55.82	5.504	
6,400.00	6,387.79	6,389.88	6,352.20	28.20	28.63	21.59	655.09	-152.07	312.50	255.80	56.70	5.511	
6,500.00	6,487.57	6,487.81	6,448.59	28.64	29.07	19.75	665.98	-164.86	318.08	260.53	57.55	5.527	
6,600.00	6,587.35	6,580.54	6,537.05	29.08	29.48	15.66	675.88	-190.53	325.48	267.20	58.29	5.584	
6,700.00	6,687.02	6,665.79	6,614.35	29.52	29.85	47.74	684.43	-225.32	337.03	278.32	58.71	5.740	
6,800.00	6,784.98	6,747.10	6,683.14	29.96	30.21	57.94	691.97	-267.88	351.52	292.78	58.74	5.985	
6,900.00	6,878.81	6,825.69	6,744.01	30.41	30.58	57.45	698.56	-317.08	367.38	309.03	58.34	6.297	
7,000.00	6,966.21	6,902.12	6,796.99	30.86	30.98	55.26	704.21	-371.81	383.39	325.78	57.60	6.656	
7,100.00	7,045.03	6,976.84	6,842.14	31.35	31.45	52.89	708.93	-431.10	398.53	341.86	56.67	7.033	
7,200.00	7,113.32	7,050.00	6,879.37	31.90	31.98	50.77	712.73	-493.92	411.99	356.29	55.70	7.396	
7,300.00	7,169.40	7,122.56	6,908.98	32.57	32.59	49.04	715.64	-560.06	423.14	368.18	54.96	7.699	
7,400.00	7,211.89	7,194.15	6,930.69	33.38	33.28	47.76	717.63	-628.21	431.51	376.91	54.60	7.903	
7,500.00	7,239.75	7,265.21	6,944.59	34.35	34.06	46.92	718.72	-697.85	436.76	381.95	54.81	7.968	
7,600.00	7,252.28	7,335.99	6,950.69	35.47	34.89	46.52	718.92	-768.33	438.69	382.99	55.70	7.875	
7,700.00	7,252.75	7,426.92	6,950.79	36.73	36.08	46.41	718.29	-859.25	437.92	380.40	57.52	7.613	
7,800.00	7,252.38	7,526.91	6,950.50	38.16	37.54	46.30	717.55	-959.24	436.93	377.20	59.73	7.315	
7,900.00	7,252.02	7,626.90	6,950.20	39.74	39.16	46.18	716.82	-1,059.23	435.94	373.79	62.15	7.014	
8,000.00	7,251.65	7,726.89	6,949.90	41.47	40.91	46.07	716.08	-1,159.22	434.95	370.19	64.76	6.716	
8,100.00	7,251.29	7,826.89	6,949.60	43.31	42.77	45.96	715.34	-1,259.21	433.97	366.43	67.54	6.426	
8,200.00	7,250.92	7,926.88	6,949.30	45.26	44.75	45.84	714.60	-1,359.20	432.98	362.53	70.45	6.146	
8,300.00	7,250.55	8,026.87	6,949.00	47.30	46.81	45.73	713.87	-1,459.18	432.00	358.52	73.48	5.879	
8,400.00	7,250.19	8,126.86	6,948.71	49.42	48.95	45.62	713.13	-1,559.17	431.02	354.40	76.62	5.625	
8,500.00	7,249.82	8,226.85	6,948.41	51.62	51.17	45.50	712.39	-1,659.16	430.04	350.19	79.85	5.385	
8,600.00	7,249.45	8,326.84	6,948.11	53.88	53.44	45.39	711.65	-1,759.15	429.06	345.90	83.16	5.159	
8,700.00	7,249.09	8,426.83	6,947.81	56.19	55.77	45.27	710.91	-1,859.14	428.09	341.55	86.54	4.947	
8,800.00	7,248.72	8,526.83	6,947.51	58.55	58.15	45.15	710.18	-1,959.13	427.11	337.15	89.97	4.747	
8,900.00	7,248.36	8,626.82	6,947.21	60.96	60.57	45.04	709.44	-2,059.11	426.14	332.70	93.45	4.560	
9,000.00	7,247.99	8,726.81	6,946.92	63.40	63.02	44.92	708.70	-2,159.10	425.17	328.21	96.97	4.385	
9,100.00	7,247.62	8,826.80	6,946.62	65.87	65.51	44.80	707.96	-2,259.09	424.20	323.68	100.52	4.220	
9,200.00	7,247.26	8,926.79	6,946.32	68.38	68.03	44.68	707.23	-2,359.08	423.24	319.13	104.11	4.065	
9,300.00	7,246.89	9,026.78	6,946.02	70.91	70.57	44.56	706.49	-2,459.07	422.27	314.56	107.72	3.920	
9,400.00	7,246.53	9,126.78	6,945.72	73.47	73.13	44.44	705.75	-2,559.06	421.31	309.96	111.35	3.784	
9,500.00	7,246.16	9,226.77	6,945.42	76.05	75.72	44.32	705.01	-2,659.04	420.35	305.36	114.99	3.655	
9,600.00	7,245.79	9,326.76	6,945.13	78.65	78.33	44.20	704.28	-2,759.03	419.39	300.74	118.65	3.535	
9,700.00	7,245.43	9,426.75	6,944.83	81.27	80.95	44.08	703.54	-2,859.02	418.43	296.11	122.33	3.421	
9,800.00	7,245.06	9,526.74	6,944.53	83.90	83.59	43.96	702.80	-2,959.01	417.48	291.47	126.00	3.313	
9,900.00	7,244.69	9,626.73	6,944.23	86.55	86.24	43.83	702.06	-3,059.00	416.52	286.83	129.69	3.212	
10,000.00	7,244.33	9,726.72	6,943.93	89.21	88.90	43.71	701.32	-3,158.98	415.57	282.19	133.38	3.116	
10,100.00	7,243.96	9,826.72	6,943.63	91.88	91.58	43.59	700.59	-3,258.97	414.62	277.55	137.07	3.025	
10,200.00	7,243.60	9,926.71	6,943.34	94.56	94.27	43.46	699.85	-3,358.96	413.67	272.91	140.76	2.939	
10,300.00	7,243.23	10,026.70	6,943.04	97.26	96.97	43.34	699.11	-3,458.95	412.73	268.28	144.45	2.857	

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



Anticollision Report



Company:	SRC ENERGY	Local Co-ordinate Reference:	Well HARVESTERS STATE 31C-16-M
Project:	SECTION 15, T6N, R66W	TVD Reference:	KB @ 4821.00ft
Reference Site:	HARVESTERS STATE 7-15 PAD	MD Reference:	KB @ 4821.00ft
Site Error:	3.28 ft	North Reference:	True
Reference Well:	HARVESTERS STATE 31C-16-M	Survey Calculation Method:	Minimum Curvature
Well Error:	3.28 ft	Output errors are at	2.45 sigma
Reference Wellbore	OH	Database:	EDM 5000.14 Single User Db
Reference Design:	PLAN #1	Offset TVD Reference:	Reference Datum

Offset Design HARVESTERS STATE 7-15 PAD - HARVESTERS STATE 4N-16A-M - OH - PLAN #1													Offset Site Error:	0.00 ft
Survey Program: 0-MWD+IFR1													Offset Well Error:	3.28 ft
Reference		Offset		Semi Major Axis			Distance							Warning
Measured Depth (ft)	Vertical Depth (ft)	Measured Depth (ft)	Vertical Depth (ft)	Reference (ft)	Offset (ft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (ft)	+E/-W (ft)	Between Centres (ft)	Between Ellipses (ft)	Minimum Separation (ft)	Separation Factor		
10,400.00	7,242.86	10,126.69	6,942.74	99.96	99.67	43.21	698.37	-3,558.94	411.79	263.65	148.14	2.780		
10,500.00	7,242.50	10,226.68	6,942.44	102.67	102.39	43.08	697.64	-3,658.93	410.84	259.02	151.82	2.706		
10,600.00	7,242.13	10,326.67	6,942.14	105.39	105.11	42.96	696.90	-3,758.91	409.90	254.41	155.50	2.636		
10,700.00	7,241.76	10,426.66	6,941.84	108.12	107.84	42.83	696.16	-3,858.90	408.97	249.80	159.17	2.569		
10,800.00	7,241.40	10,526.66	6,941.55	110.85	110.57	42.70	695.42	-3,958.89	408.03	245.19	162.84	2.506		
10,900.00	7,241.03	10,626.65	6,941.25	113.59	113.31	42.57	694.69	-4,058.88	407.10	240.60	166.49	2.445		
11,000.00	7,240.67	10,726.64	6,940.95	116.34	116.06	42.45	693.95	-4,158.87	406.17	236.02	170.14	2.387		
11,100.00	7,240.30	10,826.63	6,940.65	119.09	118.81	42.32	693.21	-4,258.86	405.24	231.46	173.78	2.332		
11,200.00	7,239.93	10,926.62	6,940.35	121.85	121.57	42.19	692.47	-4,358.84	404.31	226.90	177.41	2.279		
11,300.00	7,239.57	11,026.61	6,940.05	124.61	124.33	42.05	691.73	-4,458.83	403.38	222.36	181.03	2.228		
11,400.00	7,239.20	11,126.60	6,939.76	127.38	127.10	41.92	691.00	-4,558.82	402.46	217.83	184.63	2.180		
11,500.00	7,238.84	11,226.60	6,939.46	130.15	129.87	41.79	690.26	-4,658.81	401.54	213.31	188.23	2.133		
11,600.00	7,238.47	11,326.59	6,939.16	132.92	132.64	41.66	689.52	-4,758.80	400.62	208.81	191.81	2.089		
11,700.00	7,238.10	11,426.58	6,938.86	135.70	135.42	41.53	688.78	-4,858.79	399.70	204.32	195.38	2.046		
11,800.00	7,237.74	11,526.57	6,938.56	138.48	138.20	41.39	688.05	-4,958.77	398.79	199.86	198.93	2.005		
11,900.00	7,237.37	11,626.56	6,938.26	141.26	140.99	41.26	687.31	-5,058.76	397.88	195.40	202.47	1.965		
12,000.00	7,237.00	11,726.55	6,937.97	144.05	143.77	41.12	686.57	-5,158.75	396.97	190.97	206.00	1.927		
12,100.00	7,236.64	11,826.54	6,937.67	146.84	146.56	40.99	685.83	-5,258.74	396.06	186.55	209.51	1.890		
12,200.00	7,236.27	11,926.54	6,937.37	149.64	149.35	40.85	685.10	-5,358.73	395.15	182.14	213.01	1.855		
12,300.00	7,235.91	12,026.53	6,937.07	152.43	152.15	40.71	684.36	-5,458.72	394.25	177.76	216.49	1.821		
12,400.00	7,235.54	12,126.52	6,936.77	155.23	154.95	40.58	683.62	-5,558.70	393.35	173.40	219.95	1.788		
12,500.00	7,235.17	12,226.51	6,936.47	158.03	157.74	40.44	682.88	-5,658.69	392.45	169.05	223.40	1.757		
12,600.00	7,234.81	12,326.50	6,936.18	160.83	160.55	40.30	682.14	-5,758.68	391.55	164.72	226.83	1.726		
12,700.00	7,234.44	12,426.49	6,935.88	163.64	163.35	40.16	681.41	-5,858.67	390.66	160.41	230.24	1.697		
12,800.00	7,234.07	12,526.48	6,935.58	166.44	166.15	40.02	680.67	-5,958.66	389.77	156.13	233.64	1.668		
12,900.00	7,233.71	12,626.48	6,935.28	169.25	168.96	39.88	679.93	-6,058.65	388.88	151.86	237.02	1.641		
13,000.00	7,233.34	12,726.47	6,934.98	172.06	171.77	39.74	679.19	-6,158.63	387.99	147.61	240.38	1.614		
13,100.00	7,232.98	12,826.46	6,934.68	174.88	174.58	39.59	678.46	-6,258.62	387.10	143.39	243.72	1.588		
13,200.00	7,232.61	12,926.45	6,934.39	177.69	177.39	39.45	677.72	-6,358.61	386.22	139.18	247.04	1.563		
13,300.00	7,232.24	13,026.44	6,934.09	180.50	180.20	39.31	676.98	-6,458.60	385.34	135.00	250.34	1.539		
13,400.00	7,231.88	13,126.43	6,933.79	183.32	183.02	39.16	676.24	-6,558.59	384.46	130.83	253.63	1.516		
13,500.00	7,231.51	13,226.43	6,933.49	186.14	185.83	39.02	675.51	-6,658.58	383.59	126.69	256.89	1.493 Level 3		
13,600.00	7,231.15	13,326.42	6,933.19	188.96	188.65	38.87	674.77	-6,758.56	382.71	122.58	260.14	1.471 Level 3		
13,700.00	7,230.78	13,426.41	6,932.89	191.78	191.47	38.73	674.03	-6,858.55	381.84	118.48	263.36	1.450 Level 3		
13,800.00	7,230.41	13,526.40	6,932.60	194.60	194.29	38.58	673.29	-6,958.54	380.98	114.41	266.57	1.429 Level 3		
13,900.00	7,230.05	13,626.39	6,932.30	197.42	197.11	38.43	672.55	-7,058.53	380.11	110.36	269.75	1.409 Level 3		
14,000.00	7,229.68	13,726.38	6,932.00	200.25	199.93	38.29	671.82	-7,158.52	379.25	106.33	272.91	1.390 Level 3		
14,100.00	7,229.31	13,826.37	6,931.70	203.07	202.75	38.14	671.08	-7,258.51	378.39	102.33	276.06	1.371 Level 3		
14,200.00	7,228.95	13,926.37	6,931.40	205.90	205.58	37.99	670.34	-7,358.49	377.53	98.35	279.18	1.352 Level 3		
14,300.00	7,228.58	14,026.36	6,931.10	208.73	208.40	37.84	669.60	-7,458.48	376.68	94.40	282.27	1.334 Level 3		
14,400.00	7,228.22	14,126.35	6,930.81	211.55	211.23	37.69	668.87	-7,558.47	375.82	90.47	285.35	1.317 Level 3		
14,500.00	7,227.85	14,226.34	6,930.51	214.38	214.05	37.54	668.13	-7,658.46	374.97	86.57	288.41	1.300 Level 3		
14,600.00	7,227.48	14,326.33	6,930.21	217.21	216.88	37.38	667.39	-7,758.45	374.13	82.69	291.44	1.284 Level 3		
14,700.00	7,227.12	14,426.32	6,929.91	220.04	219.71	37.23	666.65	-7,858.44	373.28	78.83	294.45	1.268 Level 3		
14,800.00	7,226.75	14,526.31	6,929.61	222.88	222.54	37.08	665.92	-7,958.42	372.44	75.00	297.44	1.252 Level 3		
14,900.00	7,226.38	14,626.31	6,929.31	225.71	225.37	36.92	665.18	-8,058.41	371.60	71.20	300.40	1.237 Level 2		
15,000.00	7,226.02	14,726.30	6,929.02	228.54	228.20	36.77	664.44	-8,158.40	370.76	67.42	303.34	1.222 Level 2		
15,005.81	7,226.00	14,732.11	6,929.00	228.71	228.36	36.76	664.40	-8,164.21	370.71	67.20	303.51	1.221 Level 2, SF		

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



Anticollision Report



Company:	SRC ENERGY	Local Co-ordinate Reference:	Well HARVESTERS STATE 31C-16-M
Project:	SECTION 15, T6N, R66W	TVD Reference:	KB @ 4821.00ft
Reference Site:	HARVESTERS STATE 7-15 PAD	MD Reference:	KB @ 4821.00ft
Site Error:	3.28 ft	North Reference:	True
Reference Well:	HARVESTERS STATE 31C-16-M	Survey Calculation Method:	Minimum Curvature
Well Error:	3.28 ft	Output errors are at	2.45 sigma
Reference Wellbore	OH	Database:	EDM 5000.14 Single User Db
Reference Design:	PLAN #1	Offset TVD Reference:	Reference Datum

Offset Design HARVESTERS STATE 7-15 PAD - HARVESTERS STATE 4N-16C-M - OH - PLAN #1													Offset Site Error:	0.00 ft
Survey Program: 0-MWD+IFR1													Offset Well Error:	3.28 ft
Reference		Offset		Semi Major Axis			Distance							Warning
Measured Depth (ft)	Vertical Depth (ft)	Measured Depth (ft)	Vertical Depth (ft)	Reference (ft)	Offset (ft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (ft)	+E/-W (ft)	Between Centres (ft)	Between Ellipses (ft)	Minimum Separation (ft)	Separation Factor		
0.00	0.00	0.00	0.00	3.28	3.28	0.40	40.09	0.28	40.09					
100.00	100.00	100.00	100.00	3.28	3.28	0.40	40.09	0.28	40.09	33.52	6.57	6.102		
200.00	200.00	200.00	200.00	3.34	3.34	0.40	40.09	0.28	40.09	33.41	6.67	6.006		
300.00	300.00	300.00	300.00	3.44	3.44	0.40	40.09	0.28	40.09	33.20	6.89	5.818		
400.00	400.00	400.00	400.00	3.60	3.60	0.40	40.09	0.28	40.09	32.88	7.21	5.562		
500.00	500.00	500.00	500.00	3.81	3.81	0.40	40.09	0.28	40.09	32.47	7.61	5.266		
600.00	600.00	600.00	600.00	4.05	4.05	0.40	40.09	0.28	40.09	31.99	8.09	4.954 CC		
700.00	699.98	698.64	698.62	4.32	4.31	23.86	41.76	0.01	40.18	31.55	8.64	4.653		
800.00	799.84	797.27	797.11	4.62	4.61	25.54	46.79	-0.80	40.52	31.28	9.24	4.387		
900.00	899.62	895.83	895.31	4.94	4.93	26.94	55.15	-2.15	43.04	33.16	9.88	4.356		
1,000.00	999.41	994.13	992.89	5.27	5.26	27.19	66.81	-4.03	48.91	38.35	10.55	4.634		
1,100.00	1,099.19	1,107.55	1,090.05	5.62	5.67	26.63	81.65	-6.42	57.98	46.68	11.30	5.129		
1,200.00	1,198.98	1,208.05	1,188.24	5.99	6.03	26.05	97.54	-8.98	67.94	55.91	12.03	5.648		
1,300.00	1,298.76	1,291.45	1,286.43	6.36	6.35	25.61	113.43	-11.54	77.90	65.19	12.71	6.129		
1,400.00	1,398.55	1,409.05	1,384.62	6.74	6.81	25.28	129.32	-14.10	87.87	74.33	13.54	6.488		
1,500.00	1,498.33	1,490.46	1,482.81	7.13	7.13	25.01	145.21	-16.65	97.84	83.59	14.25	6.866		
1,600.00	1,598.12	1,589.96	1,581.00	7.52	7.54	24.79	161.11	-19.21	107.81	92.77	15.04	7.168		
1,700.00	1,697.90	1,689.46	1,679.19	7.92	7.95	24.61	177.00	-21.77	117.79	101.94	15.84	7.435		
1,800.00	1,797.69	1,788.96	1,777.38	8.33	8.37	24.46	192.89	-24.33	127.76	111.10	16.66	7.671		
1,900.00	1,897.47	1,888.46	1,875.57	8.74	8.80	24.33	208.78	-26.89	137.73	120.26	17.48	7.881		
2,000.00	1,997.26	1,987.96	1,973.76	9.15	9.22	24.22	224.68	-29.45	147.71	129.40	18.31	8.069		
2,100.00	2,097.04	2,087.46	2,071.95	9.56	9.65	24.12	240.57	-32.01	157.69	138.55	19.14	8.238		
2,200.00	2,196.83	2,186.96	2,170.14	9.98	10.09	24.03	256.46	-34.57	167.66	147.68	19.98	8.391		
2,300.00	2,296.61	2,286.46	2,268.33	10.40	10.53	23.96	272.35	-37.13	177.64	156.81	20.83	8.529		
2,400.00	2,396.40	2,385.96	2,366.52	10.82	10.97	23.89	288.24	-39.69	187.62	165.94	21.68	8.655		
2,500.00	2,496.18	2,485.46	2,464.71	11.24	11.41	23.83	304.14	-42.25	197.59	175.06	22.53	8.770		
2,600.00	2,595.96	2,584.96	2,562.90	11.66	11.85	23.77	320.03	-44.81	207.57	184.18	23.39	8.875		
2,700.00	2,695.75	2,684.47	2,661.09	12.09	12.29	23.72	335.92	-47.37	217.55	193.30	24.25	8.971		
2,800.00	2,795.53	2,783.97	2,759.28	12.51	12.74	23.67	351.81	-49.93	227.53	202.41	25.11	9.060		
2,900.00	2,895.32	2,883.47	2,857.47	12.94	13.19	23.63	367.70	-52.49	237.50	211.53	25.98	9.142		
3,000.00	2,995.10	2,982.97	2,955.66	13.37	13.64	23.59	383.60	-55.05	247.48	220.64	26.85	9.218		
3,100.00	3,094.89	3,082.47	3,053.85	13.80	14.09	23.55	399.49	-57.61	257.46	229.74	27.72	9.289		
3,200.00	3,194.67	3,181.97	3,152.04	14.23	14.54	23.52	415.38	-60.17	267.44	238.85	28.59	9.355		
3,300.00	3,294.46	3,281.47	3,250.23	14.66	14.99	23.49	431.27	-62.73	277.42	247.95	29.46	9.416		
3,400.00	3,394.24	3,380.97	3,348.43	15.09	15.44	23.46	447.16	-65.29	287.39	257.06	30.34	9.473		
3,500.00	3,494.03	3,480.47	3,446.62	15.52	15.90	23.43	463.06	-67.85	297.37	266.16	31.21	9.527		
3,600.00	3,593.81	3,579.97	3,544.81	15.96	16.35	23.41	478.95	-70.41	307.35	275.26	32.09	9.577		
3,700.00	3,693.60	3,679.47	3,643.00	16.39	16.81	23.39	494.84	-72.97	317.33	284.36	32.97	9.625		
3,800.00	3,793.38	3,778.97	3,741.19	16.82	17.26	23.36	510.73	-75.53	327.31	293.46	33.85	9.669		
3,900.00	3,893.17	3,878.48	3,839.38	17.26	17.72	23.34	526.62	-78.09	337.29	302.55	34.73	9.711		
4,000.00	3,992.95	3,977.98	3,937.57	17.69	18.18	23.32	542.52	-80.65	347.27	311.65	35.61	9.751		
4,100.00	4,092.74	4,077.48	4,035.76	18.13	18.63	23.31	558.41	-83.21	357.24	320.75	36.50	9.788		
4,200.00	4,192.52	4,176.98	4,133.95	18.56	19.09	23.29	574.30	-85.77	367.22	329.84	37.38	9.824		
4,300.00	4,292.31	4,276.48	4,232.14	19.00	19.55	23.27	590.19	-88.33	377.20	338.94	38.27	9.857		
4,400.00	4,392.09	4,375.98	4,330.33	19.43	20.01	23.26	606.08	-90.89	387.18	348.03	39.15	9.889		
4,500.00	4,491.88	4,475.48	4,428.52	19.87	20.46	23.24	621.98	-93.45	397.16	357.12	40.04	9.920		
4,600.00	4,591.66	4,574.98	4,526.71	20.31	20.92	23.23	637.87	-96.01	407.14	366.21	40.92	9.949		
4,700.00	4,691.44	4,674.48	4,624.90	20.74	21.38	23.21	653.76	-98.57	417.12	375.31	41.81	9.976		
4,800.00	4,791.23	4,773.98	4,723.09	21.18	21.84	23.20	669.65	-101.13	427.10	384.40	42.70	10.003		
4,900.00	4,891.01	4,873.48	4,821.28	21.62	22.30	23.19	685.54	-103.69	437.07	393.49	43.59	10.028		
5,000.00	4,990.80	4,972.98	4,919.47	22.06	22.76	23.18	701.44	-106.25	447.05	402.58	44.48	10.052		
5,100.00	5,090.58	5,072.49	5,017.66	22.50	23.22	23.16	717.33	-108.80	457.03	411.67	45.36	10.075		

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



Anticollision Report



Company:	SRC ENERGY	Local Co-ordinate Reference:	Well HARVESTERS STATE 31C-16-M
Project:	SECTION 15, T6N, R66W	TVD Reference:	KB @ 4821.00ft
Reference Site:	HARVESTERS STATE 7-15 PAD	MD Reference:	KB @ 4821.00ft
Site Error:	3.28 ft	North Reference:	True
Reference Well:	HARVESTERS STATE 31C-16-M	Survey Calculation Method:	Minimum Curvature
Well Error:	3.28 ft	Output errors are at	2.45 sigma
Reference Wellbore	OH	Database:	EDM 5000.14 Single User Db
Reference Design:	PLAN #1	Offset TVD Reference:	Reference Datum

Offset Design HARVESTERS STATE 7-15 PAD - HARVESTERS STATE 4N-16C-M - OH - PLAN #1												Offset Site Error:	0.00 ft
Survey Program: 0-MWD+IFR1												Offset Well Error:	3.28 ft
Reference		Offset		Semi Major Axis			Distance						Warning
Measured Depth (ft)	Vertical Depth (ft)	Measured Depth (ft)	Vertical Depth (ft)	Reference (ft)	Offset (ft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (ft)	+E/-W (ft)	Between Centres (ft)	Between Ellipses (ft)	Minimum Separation (ft)	Separation Factor	
5,200.00	5,190.37	5,171.99	5,115.85	22.93	23.68	23.15	733.22	-111.36	467.01	420.76	46.25	10.097	
5,300.00	5,290.15	5,271.49	5,214.04	23.37	24.14	23.14	749.11	-113.92	476.99	429.85	47.14	10.118	
5,400.00	5,389.94	5,370.99	5,312.23	23.81	24.60	23.13	765.00	-116.48	486.97	438.94	48.03	10.138	
5,500.00	5,489.72	5,470.49	5,410.42	24.25	25.06	23.12	780.90	-119.04	496.95	448.02	48.93	10.157	
5,600.00	5,589.51	5,569.99	5,508.61	24.69	25.53	23.12	796.79	-121.60	506.93	457.11	49.82	10.176	
5,700.00	5,689.29	5,669.49	5,606.80	25.13	25.99	23.11	812.68	-124.16	516.91	466.20	50.71	10.194	
5,800.00	5,789.08	5,768.99	5,704.99	25.56	26.45	23.10	828.57	-126.72	526.89	475.29	51.60	10.211	
5,900.00	5,888.86	5,868.49	5,803.18	26.00	26.91	23.09	844.46	-129.28	536.86	484.37	52.49	10.228	
6,000.00	5,988.65	5,967.99	5,901.37	26.44	27.37	23.08	860.36	-131.84	546.84	493.46	53.38	10.244	
6,100.00	6,088.43	6,067.49	5,999.56	26.88	27.83	23.07	876.25	-134.40	556.82	502.55	54.28	10.259	
6,200.00	6,188.22	6,166.99	6,097.75	27.32	28.30	23.07	892.14	-136.96	566.80	511.63	55.17	10.274	
6,300.00	6,288.00	6,266.50	6,195.94	27.76	28.76	23.06	908.03	-139.52	576.78	520.72	56.06	10.288	
6,400.00	6,387.79	6,366.00	6,294.13	28.20	29.22	23.05	923.92	-142.08	586.76	529.80	56.96	10.302	
6,500.00	6,487.57	6,465.50	6,392.32	28.64	29.68	23.05	939.82	-144.64	596.74	538.89	57.85	10.316	
6,600.00	6,587.35	6,565.00	6,490.51	29.08	30.15	23.04	955.71	-147.20	606.72	547.98	58.74	10.328	
6,700.00	6,687.02	6,666.96	6,590.94	29.52	30.62	60.35	971.85	-153.30	616.55	556.89	59.66	10.334	
6,800.00	6,784.98	6,770.10	6,690.48	29.96	31.09	75.32	987.31	-174.90	625.64	565.04	60.60	10.325	
6,900.00	6,878.81	6,872.95	6,785.11	30.41	31.54	78.89	1,001.44	-212.33	633.70	572.17	61.53	10.299	
7,000.00	6,966.21	6,975.45	6,872.35	30.86	31.97	80.07	1,013.87	-264.46	640.56	578.08	62.48	10.252	
7,100.00	7,045.03	7,077.53	6,950.00	31.35	32.40	80.42	1,024.29	-329.73	646.05	582.55	63.50	10.174	
7,200.00	7,113.32	7,179.11	7,016.13	31.90	32.90	80.44	1,032.46	-406.26	650.02	585.37	64.65	10.055	
7,300.00	7,169.40	7,280.14	7,069.22	32.57	33.54	80.34	1,038.19	-491.91	652.40	586.39	66.01	9.883	
7,400.00	7,211.89	7,380.56	7,108.12	33.38	34.35	80.20	1,041.39	-584.31	653.12	585.47	67.65	9.654	
7,500.00	7,239.75	7,480.32	7,132.14	34.35	35.33	80.08	1,042.02	-681.04	652.17	582.58	69.59	9.372	
7,600.00	7,252.28	7,579.41	7,140.96	35.47	36.44	80.02	1,040.11	-779.61	649.58	577.78	71.80	9.047	
7,700.00	7,252.75	7,679.19	7,140.62	36.73	37.71	80.00	1,036.67	-879.33	645.72	571.41	74.31	8.689	
7,800.00	7,252.38	7,779.11	7,140.18	38.16	39.14	79.93	1,033.21	-979.19	641.76	564.62	77.15	8.319	
7,900.00	7,252.02	7,879.03	7,139.75	39.74	40.72	79.86	1,029.75	-1,079.05	637.81	557.53	80.28	7.945	
8,000.00	7,251.65	7,978.95	7,139.32	41.47	42.43	79.79	1,026.30	-1,178.91	633.86	550.19	83.67	7.576	
8,100.00	7,251.29	8,078.87	7,138.88	43.31	44.26	79.72	1,022.84	-1,278.77	629.91	542.62	87.29	7.216	
8,200.00	7,250.92	8,178.79	7,138.45	45.26	46.19	79.65	1,019.38	-1,378.62	625.96	534.85	91.11	6.870	
8,300.00	7,250.55	8,278.71	7,138.02	47.30	48.21	79.58	1,015.92	-1,478.48	622.01	526.90	95.11	6.540	
8,400.00	7,250.19	8,378.63	7,137.58	49.42	50.31	79.50	1,012.47	-1,578.34	618.06	518.80	99.26	6.226	
8,500.00	7,249.82	8,478.55	7,137.15	51.62	52.49	79.43	1,009.01	-1,678.20	614.12	510.56	103.56	5.930	
8,600.00	7,249.45	8,578.46	7,136.72	53.88	54.72	79.35	1,005.55	-1,778.06	610.17	502.21	107.96	5.652	
8,700.00	7,249.09	8,678.38	7,136.28	56.19	57.01	79.28	1,002.09	-1,877.91	606.23	493.75	112.48	5.390	
8,800.00	7,248.72	8,778.30	7,135.85	58.55	59.34	79.20	998.64	-1,977.77	602.28	485.20	117.09	5.144	
8,900.00	7,248.36	8,878.22	7,135.42	60.96	61.72	79.12	995.18	-2,077.63	598.34	476.57	121.77	4.914	
9,000.00	7,247.99	8,978.14	7,134.98	63.40	64.14	79.04	991.72	-2,177.49	594.40	467.87	126.53	4.698	
9,100.00	7,247.62	9,078.06	7,134.55	65.87	66.59	78.96	988.26	-2,277.35	590.46	459.10	131.36	4.495	
9,200.00	7,247.26	9,177.98	7,134.12	68.38	69.07	78.88	984.81	-2,377.21	586.52	450.28	136.24	4.305	
9,300.00	7,246.89	9,277.90	7,133.68	70.91	71.58	78.79	981.35	-2,477.06	582.58	441.42	141.17	4.127	
9,400.00	7,246.53	9,377.82	7,133.25	73.47	74.12	78.71	977.89	-2,576.92	578.65	432.51	146.14	3.960	
9,500.00	7,246.16	9,477.73	7,132.82	76.05	76.67	78.63	974.43	-2,676.78	574.71	423.56	151.15	3.802	
9,600.00	7,245.79	9,577.65	7,132.38	78.65	79.25	78.54	970.98	-2,776.64	570.78	414.57	156.20	3.654	
9,700.00	7,245.43	9,677.57	7,131.95	81.27	81.84	78.45	967.52	-2,876.50	566.85	405.56	161.28	3.515	
9,800.00	7,245.06	9,777.49	7,131.52	83.90	84.45	78.36	964.06	-2,976.35	562.91	396.52	166.39	3.383	
9,900.00	7,244.69	9,877.41	7,131.08	86.55	87.08	78.27	960.60	-3,076.21	558.98	387.46	171.53	3.259	
10,000.00	7,244.33	9,977.33	7,130.65	89.21	89.71	78.18	957.15	-3,176.07	555.06	378.37	176.68	3.142	
10,100.00	7,243.96	10,077.25	7,130.22	91.88	92.36	78.09	953.69	-3,275.93	551.13	369.27	181.86	3.031	
10,200.00	7,243.60	10,177.17	7,129.78	94.56	95.03	77.99	950.23	-3,375.79	547.20	360.15	187.05	2.925	
10,300.00	7,243.23	10,277.08	7,129.35	97.26	97.70	77.90	946.77	-3,475.64	543.28	351.02	192.26	2.826	

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



Anticollision Report



Company:	SRC ENERGY	Local Co-ordinate Reference:	Well HARVESTERS STATE 31C-16-M
Project:	SECTION 15, T6N, R66W	TVD Reference:	KB @ 4821.00ft
Reference Site:	HARVESTERS STATE 7-15 PAD	MD Reference:	KB @ 4821.00ft
Site Error:	3.28 ft	North Reference:	True
Reference Well:	HARVESTERS STATE 31C-16-M	Survey Calculation Method:	Minimum Curvature
Well Error:	3.28 ft	Output errors are at	2.45 sigma
Reference Wellbore	OH	Database:	EDM 5000.14 Single User Db
Reference Design:	PLAN #1	Offset TVD Reference:	Reference Datum

Offset Design HARVESTERS STATE 7-15 PAD - HARVESTERS STATE 4N-16C-M - OH - PLAN #1													Offset Site Error:	0.00 ft
Survey Program: 0-MWD+IFR1													Offset Well Error:	3.28 ft
Reference		Offset		Semi Major Axis			Distance							Warning
Measured Depth (ft)	Vertical Depth (ft)	Measured Depth (ft)	Vertical Depth (ft)	Reference (ft)	Offset (ft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (ft)	+E/-W (ft)	Between Centres (ft)	Between Ellipses (ft)	Minimum Separation (ft)	Separation Factor		
10,400.00	7,242.86	10,377.00	7,128.92	99.96	100.38	77.80	943.32	-3,575.50	539.36	341.87	197.49	2.731		
10,500.00	7,242.50	10,476.92	7,128.48	102.67	103.07	77.70	939.86	-3,675.36	535.44	332.71	202.72	2.641		
10,600.00	7,242.13	10,576.84	7,128.05	105.39	105.77	77.60	936.40	-3,775.22	531.52	323.55	207.97	2.556		
10,700.00	7,241.76	10,676.76	7,127.62	108.12	108.47	77.50	932.94	-3,875.08	527.60	314.37	213.23	2.474		
10,800.00	7,241.40	10,776.68	7,127.18	110.85	111.19	77.40	929.49	-3,974.93	523.68	305.19	218.49	2.397		
10,900.00	7,241.03	10,876.60	7,126.75	113.59	113.91	77.30	926.03	-4,074.79	519.77	296.00	223.77	2.323		
11,000.00	7,240.67	10,976.52	7,126.31	116.34	116.63	77.19	922.57	-4,174.65	515.86	286.81	229.05	2.252		
11,100.00	7,240.30	11,076.44	7,125.88	119.09	119.36	77.08	919.11	-4,274.51	511.94	277.61	234.33	2.185		
11,200.00	7,239.93	11,176.35	7,125.45	121.85	122.10	76.97	915.66	-4,374.37	508.04	268.42	239.62	2.120		
11,300.00	7,239.57	11,276.27	7,125.01	124.61	124.84	76.86	912.20	-4,474.22	504.13	259.22	244.91	2.058		
11,400.00	7,239.20	11,376.19	7,124.58	127.38	127.59	76.75	908.74	-4,574.08	500.22	250.02	250.20	1.999		
11,500.00	7,238.84	11,476.11	7,124.15	130.15	130.34	76.64	905.28	-4,673.94	496.32	240.82	255.50	1.943		
11,600.00	7,238.47	11,576.03	7,123.71	132.92	133.09	76.52	901.83	-4,773.80	492.42	231.62	260.80	1.888		
11,700.00	7,238.10	11,675.95	7,123.28	135.70	135.85	76.40	898.37	-4,873.66	488.52	222.42	266.09	1.836		
11,800.00	7,237.74	11,775.87	7,122.85	138.48	138.61	76.28	894.91	-4,973.52	484.62	213.23	271.39	1.786		
11,900.00	7,237.37	11,875.79	7,122.41	141.26	141.38	76.16	891.45	-5,073.37	480.73	204.04	276.69	1.737		
12,000.00	7,237.00	11,975.71	7,121.98	144.05	144.15	76.04	888.00	-5,173.23	476.83	194.85	281.98	1.691		
12,100.00	7,236.64	12,075.62	7,121.55	146.84	146.92	75.91	884.54	-5,273.09	472.94	185.67	287.27	1.646		
12,200.00	7,236.27	12,175.54	7,121.11	149.64	149.69	75.79	881.08	-5,372.95	469.06	176.50	292.56	1.603		
12,300.00	7,235.91	12,275.46	7,120.68	152.43	152.47	75.66	877.62	-5,472.81	465.17	167.33	297.84	1.562		
12,400.00	7,235.54	12,375.38	7,120.25	155.23	155.25	75.52	874.17	-5,572.66	461.29	158.16	303.12	1.522		
12,500.00	7,235.17	12,475.30	7,119.81	158.03	158.03	75.39	870.71	-5,672.52	457.41	149.01	308.40	1.483 Level 3		
12,600.00	7,234.81	12,575.22	7,119.38	160.83	160.81	75.25	867.25	-5,772.38	453.53	139.86	313.67	1.446 Level 3		
12,700.00	7,234.44	12,675.14	7,118.95	163.64	163.60	75.11	863.79	-5,872.24	449.65	130.72	318.93	1.410 Level 3		
12,800.00	7,234.07	12,775.06	7,118.51	166.44	166.39	74.97	860.34	-5,972.10	445.78	121.59	324.19	1.375 Level 3		
12,900.00	7,233.71	12,874.98	7,118.08	169.25	169.18	74.83	856.88	-6,071.95	441.91	112.47	329.44	1.341 Level 3		
13,000.00	7,233.34	12,974.89	7,117.65	172.06	171.97	74.68	853.42	-6,171.81	438.04	103.36	334.68	1.309 Level 3		
13,100.00	7,232.98	13,074.81	7,117.21	174.88	174.76	74.53	849.96	-6,271.67	434.18	94.27	339.91	1.277 Level 3		
13,200.00	7,232.61	13,174.73	7,116.78	177.69	177.56	74.38	846.50	-6,371.53	430.31	85.18	345.13	1.247 Level 2		
13,300.00	7,232.24	13,274.65	7,116.35	180.50	180.36	74.23	843.05	-6,471.39	426.46	76.11	350.35	1.217 Level 2		
13,400.00	7,231.88	13,374.57	7,115.91	183.32	183.15	74.07	839.59	-6,571.24	422.60	67.05	355.55	1.189 Level 2		
13,500.00	7,231.51	13,474.49	7,115.48	186.14	185.95	73.91	836.13	-6,671.10	418.75	58.01	360.74	1.161 Level 2		
13,600.00	7,231.15	13,574.41	7,115.05	188.96	188.76	73.75	832.67	-6,770.96	414.90	48.98	365.92	1.134 Level 2		
13,700.00	7,230.78	13,674.33	7,114.61	191.78	191.56	73.58	829.22	-6,870.82	411.05	39.97	371.09	1.108 Level 2		
13,800.00	7,230.41	13,774.25	7,114.18	194.60	194.36	73.41	825.76	-6,970.68	407.21	30.97	376.24	1.082 Level 2		
13,900.00	7,230.05	13,874.16	7,113.75	197.42	197.17	73.24	822.30	-7,070.54	403.37	21.99	381.38	1.058 Level 2		
14,000.00	7,229.68	13,974.08	7,113.31	200.25	199.97	73.06	818.84	-7,170.39	399.54	13.03	386.51	1.034 Level 2		
14,100.00	7,229.31	14,074.00	7,112.88	203.07	202.78	72.88	815.39	-7,270.25	395.71	4.09	391.61	1.010 Level 2		
14,200.00	7,228.95	14,173.92	7,112.45	205.90	205.59	72.70	811.93	-7,370.11	391.88	-4.83	396.71	0.988 Level 1		
14,300.00	7,228.58	14,273.84	7,112.01	208.73	208.40	72.51	808.47	-7,469.97	388.06	-13.72	401.78	0.966 Level 1		
14,400.00	7,228.22	14,373.76	7,111.58	211.55	211.21	72.32	805.01	-7,569.83	384.24	-22.60	406.84	0.944 Level 1		
14,500.00	7,227.85	14,473.68	7,111.15	214.38	214.02	72.13	801.56	-7,669.68	380.43	-31.45	411.88	0.924 Level 1		
14,600.00	7,227.48	14,573.60	7,110.71	217.21	216.83	71.93	798.10	-7,769.54	376.62	-40.28	416.89	0.903 Level 1		
14,700.00	7,227.12	14,673.52	7,110.28	220.04	219.65	71.73	794.64	-7,869.40	372.81	-49.08	421.89	0.884 Level 1		
14,800.00	7,226.75	14,773.43	7,109.84	222.88	222.46	71.52	791.18	-7,969.26	369.01	-57.85	426.86	0.864 Level 1		
14,900.00	7,226.38	14,873.35	7,109.41	225.71	225.28	71.31	787.73	-8,069.12	365.21	-66.60	431.81	0.846 Level 1		
15,000.00	7,226.02	14,973.27	7,108.98	228.54	228.09	71.10	784.27	-8,168.97	361.42	-75.31	436.74	0.828 Level 1		
15,005.81	7,226.00	14,969.16	7,109.00	228.71	227.97	71.11	784.41	-8,164.87	361.34	-75.64	436.98	0.827 Level 1, ES, SF		

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



Anticollision Report



Company:	SRC ENERGY	Local Co-ordinate Reference:	Well HARVESTERS STATE 31C-16-M
Project:	SECTION 15, T6N, R66W	TVD Reference:	KB @ 4821.00ft
Reference Site:	HARVESTERS STATE 7-15 PAD	MD Reference:	KB @ 4821.00ft
Site Error:	3.28 ft	North Reference:	True
Reference Well:	HARVESTERS STATE 31C-16-M	Survey Calculation Method:	Minimum Curvature
Well Error:	3.28 ft	Output errors are at	2.45 sigma
Reference Wellbore	OH	Database:	EDM 5000.14 Single User Db
Reference Design:	PLAN #1	Offset TVD Reference:	Reference Datum

Offset Design HARVESTERS STATE 7-15 PAD - HARVESTERS STATE 5N-16B-M - OH - PLAN #1													Offset Site Error:	0.00 ft
Survey Program: 0-MWD+IFR1													Offset Well Error:	3.28 ft
Reference		Offset		Semi Major Axis			Distance							Warning
Measured Depth (ft)	Vertical Depth (ft)	Measured Depth (ft)	Vertical Depth (ft)	Reference (ft)	Offset (ft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (ft)	+E/-W (ft)	Between Centres (ft)	Between Ellipses (ft)	Minimum Separation (ft)	Separation Factor		
0.00	0.00	0.00	0.00	3.28	3.28	-179.60	-80.14	-0.56	80.14					
100.00	100.00	100.00	100.00	3.28	3.28	-179.60	-80.14	-0.56	80.14	73.57	6.57	12.199		
200.00	200.00	200.00	200.00	3.34	3.34	-179.60	-80.14	-0.56	80.14	73.46	6.67	12.007		
300.00	300.00	300.00	300.00	3.44	3.44	-179.60	-80.14	-0.56	80.14	73.25	6.89	11.631		
400.00	400.00	400.00	400.00	3.60	3.60	-179.60	-80.14	-0.56	80.14	72.93	7.21	11.120 CC, ES		
500.00	500.00	497.80	497.78	3.81	3.79	-178.88	-81.45	-1.59	81.49	73.89	7.60	10.718		
600.00	600.00	602.67	597.23	4.05	4.03	-177.27	-84.55	-4.03	84.69	76.61	8.08	10.480		
700.00	699.98	702.81	697.02	4.32	4.29	-153.32	-87.69	-6.51	89.54	80.93	8.61	10.399		
800.00	799.84	803.13	796.61	4.62	4.58	-153.30	-90.84	-8.98	97.50	88.30	9.20	10.599		
900.00	899.62	903.55	896.11	4.94	4.89	-153.67	-93.98	-11.45	106.66	96.84	9.83	10.855		
1,000.00	999.41	1,003.97	995.61	5.27	5.22	-153.97	-97.12	-13.92	115.83	105.34	10.49	11.042		
1,100.00	1,099.19	1,104.40	1,095.10	5.62	5.57	-154.23	-100.26	-16.39	125.00	113.82	11.18	11.176		
1,200.00	1,198.98	1,204.82	1,194.60	5.99	5.93	-154.46	-103.40	-18.86	134.17	122.27	11.90	11.271		
1,300.00	1,298.76	1,305.24	1,294.10	6.36	6.30	-154.65	-106.54	-21.34	143.35	130.70	12.65	11.336		
1,400.00	1,398.55	1,405.66	1,393.60	6.74	6.68	-154.82	-109.68	-23.81	152.52	139.12	13.40	11.380		
1,500.00	1,498.33	1,506.09	1,493.09	7.13	7.07	-154.98	-112.82	-26.28	161.70	147.52	14.18	11.407		
1,600.00	1,598.12	1,606.51	1,592.59	7.52	7.46	-155.11	-115.96	-28.75	170.88	155.92	14.96	11.422		
1,700.00	1,697.90	1,706.93	1,692.09	7.92	7.86	-155.24	-119.10	-31.22	180.06	164.30	15.76	11.428		
1,800.00	1,797.69	1,807.36	1,791.58	8.33	8.26	-155.35	-122.24	-33.69	189.24	172.67	16.56	11.427		
1,900.00	1,897.47	1,907.78	1,891.08	8.74	8.67	-155.45	-125.38	-36.16	198.42	181.04	17.37	11.421		
2,000.00	1,997.26	2,008.20	1,990.58	9.15	9.08	-155.54	-128.52	-38.63	207.60	189.40	18.19	11.412		
2,100.00	2,097.04	2,108.62	2,090.07	9.56	9.50	-155.62	-131.66	-41.11	216.78	197.76	19.02	11.400		
2,200.00	2,196.83	2,209.05	2,189.57	9.98	9.92	-155.70	-134.80	-43.58	225.96	206.11	19.85	11.386		
2,300.00	2,296.61	2,309.47	2,289.07	10.40	10.34	-155.77	-137.95	-46.05	235.14	214.46	20.68	11.371		
2,400.00	2,396.40	2,409.89	2,388.57	10.82	10.76	-155.84	-141.09	-48.52	244.32	222.80	21.52	11.354		
2,500.00	2,496.18	2,489.68	2,488.06	11.24	11.09	-155.90	-144.23	-50.99	253.50	231.23	22.27	11.382		
2,600.00	2,595.96	2,589.26	2,587.56	11.66	11.51	-155.95	-147.37	-53.46	262.69	239.57	23.11	11.365		
2,700.00	2,695.75	2,688.84	2,687.06	12.09	11.94	-156.01	-150.51	-55.93	271.87	247.91	23.96	11.348		
2,800.00	2,795.53	2,788.42	2,786.55	12.51	12.36	-156.05	-153.65	-58.40	281.05	256.25	24.80	11.331		
2,900.00	2,895.32	2,887.99	2,886.05	12.94	12.79	-156.10	-156.79	-60.88	290.24	264.58	25.65	11.314		
3,000.00	2,995.10	2,987.57	2,985.55	13.37	13.21	-156.14	-159.93	-63.35	299.42	272.92	26.50	11.297		
3,100.00	3,094.89	3,087.15	3,085.04	13.80	13.64	-156.19	-163.07	-65.82	308.60	281.25	27.36	11.281		
3,200.00	3,194.67	3,186.72	3,184.54	14.23	14.07	-156.22	-166.21	-68.29	317.79	289.58	28.21	11.265		
3,300.00	3,294.46	3,286.30	3,284.04	14.66	14.50	-156.26	-169.35	-70.76	326.97	297.91	29.07	11.249		
3,400.00	3,394.24	3,385.88	3,383.53	15.09	14.93	-156.29	-172.49	-73.23	336.16	306.23	29.92	11.234		
3,500.00	3,494.03	3,485.46	3,483.03	15.52	15.36	-156.33	-175.63	-75.70	345.34	314.56	30.78	11.219		
3,600.00	3,593.81	3,585.03	3,582.53	15.96	15.79	-156.36	-178.77	-78.18	354.52	322.88	31.64	11.204		
3,700.00	3,693.60	3,684.61	3,682.03	16.39	16.22	-156.39	-181.91	-80.65	363.71	331.21	32.50	11.190		
3,800.00	3,793.38	3,784.19	3,781.52	16.82	16.65	-156.41	-185.05	-83.12	372.89	339.53	33.36	11.176		
3,900.00	3,893.17	3,883.76	3,881.02	17.26	17.08	-156.44	-188.19	-85.59	382.08	347.85	34.23	11.163		
4,000.00	3,992.95	3,983.34	3,980.52	17.69	17.52	-156.47	-191.33	-88.06	391.26	356.17	35.09	11.150		
4,100.00	4,092.74	4,082.92	4,080.01	18.13	17.95	-156.49	-194.47	-90.53	400.45	364.49	35.95	11.137		
4,200.00	4,192.52	4,182.50	4,179.51	18.56	18.38	-156.51	-197.61	-93.00	409.63	372.81	36.82	11.125		
4,300.00	4,292.31	4,282.07	4,279.01	19.00	18.82	-156.53	-200.75	-95.47	418.82	381.13	37.69	11.113		
4,400.00	4,392.09	4,381.65	4,378.50	19.43	19.25	-156.56	-203.89	-97.95	428.00	389.45	38.55	11.102		
4,500.00	4,491.88	4,481.23	4,478.00	19.87	19.68	-156.58	-207.03	-100.42	437.19	397.77	39.42	11.091		
4,600.00	4,591.66	4,580.80	4,577.50	20.31	20.12	-156.60	-210.18	-102.89	446.37	406.08	40.29	11.080		
4,700.00	4,691.44	4,680.38	4,677.00	20.74	20.55	-156.61	-213.32	-105.36	455.56	414.40	41.16	11.069		
4,800.00	4,791.23	4,779.96	4,776.49	21.18	20.99	-156.63	-216.46	-107.83	464.74	422.72	42.02	11.059		
4,900.00	4,891.01	4,879.54	4,875.99	21.62	21.43	-156.65	-219.60	-110.30	473.93	431.03	42.89	11.049		
5,000.00	4,990.80	4,979.11	4,975.49	22.06	21.86	-156.67	-222.74	-112.77	483.11	439.35	43.76	11.039		
5,100.00	5,090.58	5,078.69	5,074.98	22.50	22.30	-156.68	-225.88	-115.24	492.30	447.66	44.63	11.030		

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



Anticollision Report



Company:	SRC ENERGY	Local Co-ordinate Reference:	Well HARVESTERS STATE 31C-16-M
Project:	SECTION 15, T6N, R66W	TVD Reference:	KB @ 4821.00ft
Reference Site:	HARVESTERS STATE 7-15 PAD	MD Reference:	KB @ 4821.00ft
Site Error:	3.28 ft	North Reference:	True
Reference Well:	HARVESTERS STATE 31C-16-M	Survey Calculation Method:	Minimum Curvature
Well Error:	3.28 ft	Output errors are at	2.45 sigma
Reference Wellbore	OH	Database:	EDM 5000.14 Single User Db
Reference Design:	PLAN #1	Offset TVD Reference:	Reference Datum

Offset Design HARVESTERS STATE 7-15 PAD - HARVESTERS STATE 5N-16B-M - OH - PLAN #1													Offset Site Error:	0.00 ft
Survey Program: 0-MWD+IFR1													Offset Well Error:	3.28 ft
Reference		Offset		Semi Major Axis			Distance							Warning
Measured Depth (ft)	Vertical Depth (ft)	Measured Depth (ft)	Vertical Depth (ft)	Reference (ft)	Offset (ft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (ft)	+E/-W (ft)	Between Centres (ft)	Between Ellipses (ft)	Minimum Separation (ft)	Separation Factor		
5,200.00	5,190.37	5,178.27	5,174.48	22.93	22.73	-156.70	-229.02	-117.72	501.48	455.98	45.50	11.021		
5,300.00	5,290.15	5,277.84	5,273.98	23.37	23.17	-156.71	-232.16	-120.19	510.67	464.29	46.37	11.012		
5,400.00	5,389.94	5,377.42	5,373.47	23.81	23.61	-156.73	-235.30	-122.66	519.85	472.61	47.25	11.003		
5,500.00	5,489.72	5,477.00	5,472.97	24.25	24.04	-156.74	-238.44	-125.13	529.04	480.92	48.12	10.995		
5,600.00	5,589.51	5,576.58	5,572.47	24.69	24.48	-156.75	-241.58	-127.60	538.23	489.24	48.99	10.987		
5,700.00	5,689.29	5,676.15	5,671.96	25.13	24.92	-156.76	-244.72	-130.07	547.41	497.55	49.86	10.979		
5,800.00	5,789.08	5,775.73	5,771.46	25.56	25.35	-156.78	-247.86	-132.54	556.60	505.86	50.73	10.971		
5,900.00	5,888.86	5,875.31	5,870.96	26.00	25.79	-156.79	-251.00	-135.01	565.78	514.17	51.61	10.963		
6,000.00	5,988.65	5,974.89	5,970.46	26.44	26.23	-156.80	-254.14	-137.49	574.97	522.49	52.48	10.956		
6,100.00	6,088.43	6,074.46	6,069.95	26.88	26.67	-156.81	-257.28	-139.96	584.15	530.80	53.35	10.949		
6,200.00	6,188.22	6,174.04	6,169.45	27.32	27.10	-156.82	-260.42	-142.43	593.34	539.11	54.23	10.942		
6,300.00	6,288.00	6,273.62	6,268.95	27.76	27.54	-156.83	-263.56	-144.90	602.52	547.42	55.10	10.935		
6,400.00	6,387.79	6,373.19	6,368.44	28.20	27.98	-156.84	-266.70	-147.37	611.71	555.74	55.97	10.928		
6,500.00	6,487.57	6,472.52	6,467.67	28.64	28.42	-156.80	-269.84	-150.41	620.90	564.05	56.85	10.923		
6,600.00	6,587.35	6,569.66	6,563.67	29.08	28.85	-155.76	-272.94	-164.31	630.31	572.62	57.69	10.926		
6,700.00	6,687.02	6,661.96	6,651.92	29.52	29.25	-115.36	-275.87	-190.90	640.64	582.18	58.47	10.957		
6,800.00	6,784.98	6,750.91	6,732.48	29.96	29.62	-96.46	-278.63	-228.34	651.87	592.70	59.17	11.017		
6,900.00	6,878.81	6,837.38	6,805.05	30.41	29.98	-89.25	-281.20	-275.15	663.47	603.67	59.80	11.094		
7,000.00	6,966.21	6,921.80	6,869.16	30.86	30.36	-84.78	-283.55	-329.93	674.95	614.57	60.39	11.177		
7,100.00	7,045.03	7,004.56	6,924.44	31.35	30.78	-81.54	-285.66	-391.41	685.84	624.87	60.97	11.248		
7,200.00	7,113.32	7,086.01	6,970.61	31.90	31.29	-79.08	-287.52	-458.42	695.72	634.07	61.66	11.284		
7,300.00	7,169.40	7,166.46	7,007.46	32.57	31.89	-77.21	-289.12	-529.85	704.22	641.69	62.53	11.262		
7,400.00	7,211.89	7,246.16	7,034.80	33.38	32.59	-75.85	-290.43	-604.65	711.03	647.35	63.69	11.165		
7,500.00	7,239.75	7,325.38	7,052.51	34.35	33.41	-74.98	-291.46	-681.81	715.94	650.75	65.18	10.983		
7,600.00	7,252.28	7,404.34	7,060.51	35.47	34.32	-74.55	-292.20	-760.30	718.77	651.74	67.02	10.724		
7,700.00	7,252.75	7,503.13	7,060.72	36.73	35.60	-74.53	-292.77	-852.83	720.00	650.52	69.47	10.364		
7,800.00	7,252.38	7,603.14	7,060.28	38.16	37.07	-74.55	-293.37	-952.82	721.14	648.85	72.29	9.976		
7,900.00	7,252.02	7,696.86	7,059.85	39.74	38.59	-74.57	-293.97	-1,052.81	722.28	646.97	75.31	9.591		
8,000.00	7,251.65	7,803.15	7,059.41	41.47	40.46	-74.59	-294.56	-1,152.80	723.42	644.63	78.80	9.181		
8,100.00	7,251.29	7,903.16	7,058.98	43.31	42.35	-74.61	-295.16	-1,252.79	724.56	642.15	82.42	8.792		
8,200.00	7,250.92	8,003.16	7,058.55	45.26	44.33	-74.62	-295.76	-1,352.78	725.70	639.46	86.24	8.415		
8,300.00	7,250.55	8,103.17	7,058.11	47.30	46.41	-74.64	-296.36	-1,452.77	726.85	636.60	90.25	8.054		
8,400.00	7,250.19	8,203.18	7,057.68	49.42	48.57	-74.66	-296.96	-1,552.76	727.99	633.58	94.41	7.711		
8,500.00	7,249.82	8,303.18	7,057.24	51.62	50.80	-74.68	-297.56	-1,652.75	729.13	630.43	98.70	7.387		
8,600.00	7,249.45	8,403.19	7,056.81	53.88	53.09	-74.70	-298.16	-1,752.74	730.27	627.15	103.12	7.082		
8,700.00	7,249.09	8,503.20	7,056.38	56.19	55.43	-74.72	-298.76	-1,852.73	731.41	623.77	107.64	6.795		
8,800.00	7,248.72	8,603.21	7,055.94	58.55	57.82	-74.74	-299.35	-1,952.72	732.56	620.30	112.26	6.526		
8,900.00	7,248.36	8,703.21	7,055.51	60.96	60.25	-74.76	-299.95	-2,052.71	733.70	616.75	116.95	6.274		
9,000.00	7,247.99	8,803.22	7,055.07	63.40	62.72	-74.78	-300.55	-2,152.70	734.84	613.12	121.72	6.037		
9,100.00	7,247.62	8,903.23	7,054.64	65.87	65.21	-74.80	-301.15	-2,252.69	735.98	609.43	126.55	5.816		
9,200.00	7,247.26	9,003.23	7,054.21	68.38	67.74	-74.81	-301.75	-2,352.68	737.13	605.68	131.44	5.608		
9,300.00	7,246.89	9,096.76	7,053.77	70.91	70.13	-74.83	-302.35	-2,452.67	738.27	602.05	136.22	5.420		
9,400.00	7,246.53	9,203.25	7,053.34	73.47	72.87	-74.85	-302.95	-2,552.66	739.41	598.04	141.37	5.230		
9,500.00	7,246.16	9,303.25	7,052.90	76.05	75.46	-74.87	-303.55	-2,652.65	740.55	594.16	146.40	5.058		
9,600.00	7,245.79	9,403.26	7,052.47	78.65	78.07	-74.89	-304.14	-2,752.65	741.70	590.23	151.46	4.897		
9,700.00	7,245.43	9,503.27	7,052.04	81.27	80.71	-74.91	-304.74	-2,852.64	742.84	586.28	156.56	4.745		
9,800.00	7,245.06	9,603.27	7,051.60	83.90	83.35	-74.92	-305.34	-2,952.63	743.98	582.29	161.69	4.601		
9,900.00	7,244.69	9,703.28	7,051.17	86.55	86.01	-74.94	-305.94	-3,052.62	745.13	578.28	166.85	4.466		
10,000.00	7,244.33	9,796.71	7,050.73	89.21	88.50	-74.96	-306.54	-3,152.61	746.27	574.41	171.86	4.342		
10,100.00	7,243.96	9,903.29	7,050.30	91.88	91.36	-74.98	-307.14	-3,252.60	747.41	570.17	177.24	4.217		
10,200.00	7,243.60	10,003.30	7,049.87	94.56	94.06	-75.00	-307.74	-3,352.59	748.56	566.09	182.47	4.102		
10,300.00	7,243.23	10,103.31	7,049.43	97.26	96.76	-75.02	-308.34	-3,452.58	749.70	561.98	187.72	3.994		

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



Anticollision Report



Company:	SRC ENERGY	Local Co-ordinate Reference:	Well HARVESTERS STATE 31C-16-M
Project:	SECTION 15, T6N, R66W	TVD Reference:	KB @ 4821.00ft
Reference Site:	HARVESTERS STATE 7-15 PAD	MD Reference:	KB @ 4821.00ft
Site Error:	3.28 ft	North Reference:	True
Reference Well:	HARVESTERS STATE 31C-16-M	Survey Calculation Method:	Minimum Curvature
Well Error:	3.28 ft	Output errors are at	2.45 sigma
Reference Wellbore	OH	Database:	EDM 5000.14 Single User Db
Reference Design:	PLAN #1	Offset TVD Reference:	Reference Datum

Offset Design HARVESTERS STATE 7-15 PAD - HARVESTERS STATE 5N-16B-M - OH - PLAN #1													Offset Site Error:	0.00 ft
Survey Program: 0-MWD+IFR1													Offset Well Error:	3.28 ft
Reference		Offset		Semi Major Axis			Distance							Warning
Measured Depth (ft)	Vertical Depth (ft)	Measured Depth (ft)	Vertical Depth (ft)	Reference (ft)	Offset (ft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (ft)	+E/-W (ft)	Between Centres (ft)	Between Ellipses (ft)	Minimum Separation (ft)	Separation Factor		
10,400.00	7,242.86	10,203.31	7,049.00	99.96	99.47	-75.03	-308.93	-3,552.57	750.84	557.86	192.98	3.891		
10,500.00	7,242.50	10,303.32	7,048.56	102.67	102.19	-75.05	-309.53	-3,652.56	751.99	553.72	198.27	3.793		
10,600.00	7,242.13	10,403.33	7,048.13	105.39	104.92	-75.07	-310.13	-3,752.55	753.13	549.57	203.56	3.700		
10,700.00	7,241.76	10,503.33	7,047.70	108.12	107.65	-75.09	-310.73	-3,852.54	754.28	545.40	208.88	3.611		
10,800.00	7,241.40	10,603.34	7,047.26	110.85	110.39	-75.10	-311.33	-3,952.53	755.42	541.22	214.20	3.527		
10,900.00	7,241.03	10,703.35	7,046.83	113.59	113.14	-75.12	-311.93	-4,052.52	756.56	537.02	219.54	3.446		
11,000.00	7,240.67	10,796.65	7,046.39	116.34	115.70	-75.14	-312.53	-4,152.51	757.71	533.00	224.71	3.372		
11,100.00	7,240.30	10,903.36	7,045.96	119.09	118.65	-75.16	-313.13	-4,252.50	758.85	528.60	230.25	3.296		
11,200.00	7,239.93	11,003.37	7,045.53	121.85	121.41	-75.18	-313.72	-4,352.49	760.00	524.37	235.62	3.226		
11,300.00	7,239.57	11,103.38	7,045.09	124.61	124.17	-75.19	-314.32	-4,452.48	761.14	520.14	241.00	3.158		
11,400.00	7,239.20	11,203.38	7,044.66	127.38	126.94	-75.21	-314.92	-4,552.47	762.28	515.89	246.39	3.094		
11,500.00	7,238.84	11,303.39	7,044.22	130.15	129.72	-75.23	-315.52	-4,652.46	763.43	511.64	251.79	3.032		
11,600.00	7,238.47	11,396.60	7,043.79	132.92	132.31	-75.25	-316.12	-4,752.45	764.57	507.56	257.01	2.975		
11,700.00	7,238.10	11,503.40	7,043.36	135.70	135.27	-75.26	-316.72	-4,852.44	765.72	503.11	262.61	2.916		
11,800.00	7,237.74	11,603.41	7,042.92	138.48	138.06	-75.28	-317.32	-4,952.44	766.86	498.84	268.03	2.861		
11,900.00	7,237.37	11,703.42	7,042.49	141.26	140.85	-75.30	-317.91	-5,052.43	768.01	494.55	273.45	2.809		
12,000.00	7,237.00	11,803.42	7,042.05	144.05	143.64	-75.31	-318.51	-5,152.42	769.15	490.26	278.89	2.758		
12,100.00	7,236.64	11,903.43	7,041.62	146.84	146.43	-75.33	-319.11	-5,252.41	770.30	485.97	284.33	2.709		
12,200.00	7,236.27	12,003.44	7,041.19	149.64	149.22	-75.35	-319.71	-5,352.40	771.44	481.67	289.77	2.662		
12,300.00	7,235.91	12,103.44	7,040.75	152.43	152.02	-75.37	-320.31	-5,452.39	772.59	477.37	295.22	2.617		
12,400.00	7,235.54	12,203.45	7,040.32	155.23	154.82	-75.38	-320.91	-5,552.38	773.73	473.06	300.68	2.573		
12,500.00	7,235.17	12,303.46	7,039.89	158.03	157.62	-75.40	-321.51	-5,652.37	774.88	468.74	306.14	2.531		
12,600.00	7,234.81	12,403.46	7,039.45	160.83	160.43	-75.42	-322.11	-5,752.36	776.02	464.42	311.60	2.490		
12,700.00	7,234.44	12,503.47	7,039.02	163.64	163.23	-75.43	-322.70	-5,852.35	777.17	460.10	317.07	2.451		
12,800.00	7,234.07	12,603.48	7,038.58	166.44	166.04	-75.45	-323.30	-5,952.34	778.31	455.77	322.54	2.413		
12,900.00	7,233.71	12,703.48	7,038.15	169.25	168.85	-75.47	-323.90	-6,052.33	779.46	451.43	328.02	2.376		
13,000.00	7,233.34	12,803.49	7,037.72	172.06	171.66	-75.48	-324.50	-6,152.32	780.60	447.10	333.50	2.341		
13,100.00	7,232.98	12,903.50	7,037.28	174.88	174.47	-75.50	-325.10	-6,252.31	781.75	442.76	338.99	2.306		
13,200.00	7,232.61	13,003.51	7,036.85	177.69	177.29	-75.52	-325.70	-6,352.30	782.89	438.41	344.48	2.273		
13,300.00	7,232.24	13,096.49	7,036.41	180.50	179.90	-75.53	-326.30	-6,452.29	784.04	434.26	349.78	2.242		
13,400.00	7,231.88	13,203.52	7,035.98	183.32	182.92	-75.55	-326.90	-6,552.28	785.18	429.72	355.47	2.209		
13,500.00	7,231.51	13,303.53	7,035.55	186.14	185.74	-75.57	-327.49	-6,652.27	786.33	425.36	360.97	2.178		
13,600.00	7,231.15	13,403.53	7,035.11	188.96	188.55	-75.58	-328.09	-6,752.26	787.48	421.01	366.47	2.149		
13,700.00	7,230.78	13,503.54	7,034.68	191.78	191.38	-75.60	-328.69	-6,852.25	788.62	416.65	371.97	2.120		
13,800.00	7,230.41	13,603.55	7,034.24	194.60	194.20	-75.61	-329.29	-6,952.24	789.77	412.29	377.48	2.092		
13,900.00	7,230.05	13,703.55	7,033.81	197.42	197.02	-75.63	-329.89	-7,052.23	790.91	407.92	382.99	2.065		
14,000.00	7,229.68	13,803.56	7,033.38	200.25	199.84	-75.65	-330.49	-7,152.23	792.06	403.55	388.50	2.039		
14,100.00	7,229.31	13,903.57	7,032.94	203.07	202.67	-75.66	-331.09	-7,252.22	793.20	399.18	394.02	2.013		
14,200.00	7,228.95	14,003.57	7,032.51	205.90	205.49	-75.68	-331.69	-7,352.21	794.35	394.81	399.54	1.988		
14,300.00	7,228.58	14,103.58	7,032.07	208.73	208.32	-75.69	-332.28	-7,452.20	795.50	390.44	405.06	1.964		
14,400.00	7,228.22	14,203.59	7,031.64	211.55	211.15	-75.71	-332.88	-7,552.19	796.64	386.06	410.58	1.940		
14,500.00	7,227.85	14,303.59	7,031.21	214.38	213.98	-75.73	-333.48	-7,652.18	797.79	381.68	416.11	1.917		
14,600.00	7,227.48	14,403.60	7,030.77	217.21	216.80	-75.74	-334.08	-7,752.17	798.94	377.30	421.64	1.895		
14,700.00	7,227.12	14,503.61	7,030.34	220.04	219.63	-75.76	-334.68	-7,852.16	800.08	372.92	427.17	1.873		
14,800.00	7,226.75	14,603.61	7,029.90	222.88	222.46	-75.77	-335.28	-7,952.15	801.23	368.53	432.70	1.852		
14,900.00	7,226.38	14,703.62	7,029.47	225.71	225.30	-75.79	-335.88	-8,052.14	802.38	364.14	438.23	1.831		
15,000.00	7,226.02	14,796.37	7,029.04	228.54	227.92	-75.81	-336.48	-8,152.13	803.52	359.95	443.57	1.811		
15,005.81	7,226.00	14,802.18	7,029.01	228.71	228.09	-75.81	-336.51	-8,157.94	803.59	359.70	443.89	1.810 SF		



Anticollision Report



Company:	SRC ENERGY	Local Co-ordinate Reference:	Well HARVESTERS STATE 31C-16-M
Project:	SECTION 15, T6N, R66W	TVD Reference:	KB @ 4821.00ft
Reference Site:	HARVESTERS STATE 7-15 PAD	MD Reference:	KB @ 4821.00ft
Site Error:	3.28 ft	North Reference:	True
Reference Well:	HARVESTERS STATE 31C-16-M	Survey Calculation Method:	Minimum Curvature
Well Error:	3.28 ft	Output errors are at	2.45 sigma
Reference Wellbore	OH	Database:	EDM 5000.14 Single User Db
Reference Design:	PLAN #1	Offset TVD Reference:	Reference Datum

Offset Design HARVESTERS STATE 7-15 PAD - HARVESTERS STATE 5N-16C-M - OH - PLAN #1													Offset Site Error:	0.00 ft
Survey Program: 0-MWD+IFR1													Offset Well Error:	3.28 ft
Reference		Offset		Semi Major Axis			Distance							Warning
Measured Depth (ft)	Vertical Depth (ft)	Measured Depth (ft)	Vertical Depth (ft)	Reference (ft)	Offset (ft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (ft)	+E/-W (ft)	Between Centres (ft)	Between Ellipses (ft)	Minimum Separation (ft)	Separation Factor		
0.00	0.00	0.00	0.00	3.28	3.28	-179.47	-60.10	-0.56	60.10					
100.00	100.00	100.00	100.00	3.28	3.28	-179.47	-60.10	-0.56	60.10	53.54	6.57	9.149		
200.00	200.00	200.00	200.00	3.34	3.34	-179.47	-60.10	-0.56	60.10	53.43	6.67	9.006		
300.00	300.00	300.00	300.00	3.44	3.44	-179.47	-60.10	-0.56	60.10	53.22	6.89	8.724		
400.00	400.00	400.00	400.00	3.60	3.60	-179.47	-60.10	-0.56	60.10	52.90	7.21	8.340		
500.00	500.00	500.00	500.00	3.81	3.81	-179.47	-60.10	-0.56	60.10	52.49	7.61	7.896 CC		
600.00	600.00	600.04	599.95	4.05	4.04	-177.94	-60.10	-2.16	60.14	52.06	8.09	7.438 ES		
700.00	699.98	700.07	699.88	4.32	4.30	-153.40	-60.10	-4.66	61.84	53.22	8.62	7.175		
800.00	799.84	800.19	799.73	4.62	4.59	-153.22	-60.10	-7.15	66.66	57.45	9.21	7.238		
900.00	899.62	900.38	899.51	4.94	4.90	-153.59	-60.10	-9.65	72.68	62.84	9.84	7.387		
1,000.00	999.41	1,000.56	999.30	5.27	5.23	-153.89	-60.10	-12.14	78.71	68.20	10.51	7.492		
1,100.00	1,099.19	1,100.74	1,099.09	5.62	5.58	-154.16	-60.10	-14.64	84.74	73.54	11.20	7.564		
1,200.00	1,198.98	1,200.92	1,198.87	5.99	5.94	-154.39	-60.10	-17.13	90.77	78.85	11.92	7.613		
1,300.00	1,298.76	1,301.11	1,298.66	6.36	6.31	-154.59	-60.10	-19.62	96.80	84.14	12.67	7.643		
1,400.00	1,398.55	1,401.29	1,398.45	6.74	6.69	-154.77	-60.10	-22.12	102.84	89.41	13.42	7.660		
1,500.00	1,498.33	1,501.47	1,498.23	7.13	7.07	-154.92	-60.10	-24.61	108.87	94.67	14.20	7.668		
1,600.00	1,598.12	1,601.65	1,598.02	7.52	7.46	-155.06	-60.10	-27.11	114.90	99.92	14.98	7.669		
1,700.00	1,697.90	1,701.84	1,697.80	7.92	7.86	-155.19	-60.10	-29.60	120.94	105.16	15.78	7.665		
1,800.00	1,797.69	1,802.02	1,797.59	8.33	8.26	-155.31	-60.10	-32.09	126.98	110.39	16.58	7.657		
1,900.00	1,897.47	1,902.20	1,897.38	8.74	8.67	-155.41	-60.10	-34.59	133.01	115.62	17.40	7.646		
2,000.00	1,997.26	2,002.39	1,997.16	9.15	9.07	-155.51	-60.10	-37.08	139.05	120.84	18.21	7.634		
2,100.00	2,097.04	2,102.57	2,096.95	9.56	9.49	-155.59	-60.10	-39.58	145.09	126.05	19.04	7.621		
2,200.00	2,196.83	2,202.75	2,196.73	9.98	9.90	-155.67	-60.10	-42.07	151.12	131.26	19.87	7.606		
2,300.00	2,296.61	2,302.93	2,296.52	10.40	10.32	-155.75	-60.10	-44.57	157.16	136.46	20.70	7.592		
2,400.00	2,396.40	2,403.12	2,396.31	10.82	10.73	-155.82	-60.10	-47.06	163.20	141.66	21.54	7.577		
2,500.00	2,496.18	2,503.30	2,496.09	11.24	11.15	-155.88	-60.10	-49.55	169.24	146.86	22.38	7.562		
2,600.00	2,595.96	2,603.48	2,595.88	11.66	11.58	-155.94	-60.10	-52.05	175.28	152.05	23.23	7.547		
2,700.00	2,695.75	2,703.66	2,695.67	12.09	12.00	-155.99	-60.10	-54.54	181.32	157.24	24.07	7.532		
2,800.00	2,795.53	2,803.85	2,795.45	12.51	12.42	-156.05	-60.10	-57.04	187.36	162.43	24.92	7.517		
2,900.00	2,895.32	2,904.03	2,895.24	12.94	12.85	-156.09	-60.10	-59.53	193.39	167.62	25.77	7.503		
3,000.00	2,995.10	3,004.21	2,995.02	13.37	13.27	-156.14	-60.10	-62.02	199.43	172.80	26.63	7.489		
3,100.00	3,094.89	3,104.39	3,094.81	13.80	13.70	-156.18	-60.10	-64.52	205.47	177.99	27.48	7.476		
3,200.00	3,194.67	3,204.58	3,194.60	14.23	14.13	-156.22	-60.10	-67.01	211.51	183.17	28.34	7.463		
3,300.00	3,294.46	3,304.76	3,294.38	14.66	14.56	-156.26	-60.10	-69.51	217.55	188.35	29.20	7.450		
3,400.00	3,394.24	3,404.94	3,394.17	15.09	14.99	-156.30	-60.10	-72.00	223.59	193.53	30.06	7.438		
3,500.00	3,494.03	3,505.12	3,493.96	15.52	15.42	-156.33	-60.10	-74.49	229.63	198.71	30.92	7.426		
3,600.00	3,593.81	3,605.31	3,593.73	15.96	15.85	-156.37	-60.10	-76.99	235.67	203.88	31.79	7.414		
3,700.00	3,693.60	3,705.49	3,693.53	16.39	16.28	-156.40	-60.10	-79.48	241.71	209.06	32.65	7.403		
3,800.00	3,793.38	3,805.67	3,793.31	16.82	16.71	-156.43	-60.10	-81.98	247.75	214.24	33.51	7.392		
3,900.00	3,893.17	3,905.86	3,893.10	17.26	17.14	-156.45	-60.10	-84.47	253.79	219.41	34.38	7.382		
4,000.00	3,992.95	4,006.04	3,992.89	17.69	17.58	-156.48	-60.10	-86.97	259.83	224.58	35.25	7.372		
4,100.00	4,092.74	4,106.22	4,092.67	18.13	18.01	-156.51	-60.10	-89.46	265.87	229.76	36.11	7.362		
4,200.00	4,192.52	4,206.40	4,192.46	18.56	18.44	-156.53	-60.10	-91.95	271.91	234.93	36.98	7.352		
4,300.00	4,292.31	4,306.59	4,292.24	19.00	18.88	-156.55	-60.10	-94.45	277.95	240.10	37.85	7.343		
4,400.00	4,392.09	4,406.77	4,392.03	19.43	19.31	-156.58	-60.10	-96.94	283.99	245.27	38.72	7.334		
4,500.00	4,491.88	4,506.95	4,491.82	19.87	19.75	-156.60	-60.10	-99.44	290.03	250.44	39.59	7.326		
4,600.00	4,591.66	4,607.13	4,591.60	20.31	20.18	-156.62	-60.10	-101.93	296.07	255.61	40.46	7.317		
4,700.00	4,691.44	4,707.32	4,691.39	20.74	20.62	-156.64	-60.10	-104.42	302.11	260.78	41.33	7.309		
4,800.00	4,791.23	4,807.50	4,791.18	21.18	21.05	-156.66	-60.10	-106.92	308.15	265.95	42.21	7.301		
4,900.00	4,891.01	4,907.68	4,890.96	21.62	21.49	-156.67	-60.10	-109.41	314.19	271.12	43.08	7.294		
5,000.00	4,990.80	5,007.86	4,990.75	22.06	21.92	-156.69	-60.10	-111.91	320.23	276.28	43.95	7.286		
5,100.00	5,090.58	5,108.05	5,090.53	22.50	22.36	-156.71	-60.10	-114.40	326.27	281.45	44.82	7.279		

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



Anticollision Report



Company:	SRC ENERGY	Local Co-ordinate Reference:	Well HARVESTERS STATE 31C-16-M
Project:	SECTION 15, T6N, R66W	TVD Reference:	KB @ 4821.00ft
Reference Site:	HARVESTERS STATE 7-15 PAD	MD Reference:	KB @ 4821.00ft
Site Error:	3.28 ft	North Reference:	True
Reference Well:	HARVESTERS STATE 31C-16-M	Survey Calculation Method:	Minimum Curvature
Well Error:	3.28 ft	Output errors are at	2.45 sigma
Reference Wellbore	OH	Database:	EDM 5000.14 Single User Db
Reference Design:	PLAN #1	Offset TVD Reference:	Reference Datum

Offset Design HARVESTERS STATE 7-15 PAD - HARVESTERS STATE 5N-16C-M - OH - PLAN #1													Offset Site Error:	0.00 ft
Survey Program: 0-MWD+IFR1													Offset Well Error:	3.28 ft
Reference		Offset		Semi Major Axis			Distance							Warning
Measured Depth (ft)	Vertical Depth (ft)	Measured Depth (ft)	Vertical Depth (ft)	Reference (ft)	Offset (ft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (ft)	+E/-W (ft)	Between Centres (ft)	Between Ellipses (ft)	Minimum Separation (ft)	Separation Factor		
5,200.00	5,190.37	5,208.23	5,190.32	22.93	22.80	-156.73	-60.10	-116.90	332.31	286.62	45.70	7.272		
5,300.00	5,290.15	5,308.41	5,290.11	23.37	23.23	-156.74	-60.10	-119.39	338.35	291.78	46.57	7.266		
5,400.00	5,389.94	5,408.60	5,389.89	23.81	23.67	-156.76	-60.10	-121.88	344.40	296.95	47.44	7.259		
5,500.00	5,489.72	5,508.78	5,489.68	24.25	24.11	-156.77	-60.10	-124.38	350.44	302.12	48.32	7.253		
5,600.00	5,589.51	5,608.96	5,589.47	24.69	24.54	-156.79	-60.10	-126.87	356.48	307.28	49.19	7.246		
5,700.00	5,689.29	5,709.14	5,689.25	25.13	24.98	-156.80	-60.10	-129.37	362.52	312.45	50.07	7.240		
5,800.00	5,789.08	5,809.33	5,789.04	25.56	25.42	-156.81	-60.10	-131.86	368.56	317.61	50.94	7.235		
5,900.00	5,888.86	5,909.51	5,888.82	26.00	25.85	-156.82	-60.10	-134.35	374.60	322.78	51.82	7.229		
6,000.00	5,988.65	6,009.69	5,988.61	26.44	26.29	-156.84	-60.10	-136.85	380.64	327.94	52.70	7.223		
6,100.00	6,088.43	6,109.87	6,088.40	26.88	26.73	-156.85	-60.10	-139.34	386.68	333.11	53.57	7.218		
6,200.00	6,188.22	6,189.94	6,188.18	27.32	27.08	-156.86	-60.10	-141.84	392.72	338.36	54.36	7.224		
6,300.00	6,288.00	6,289.76	6,287.97	27.76	27.51	-156.87	-60.10	-144.33	398.76	343.53	55.23	7.219		
6,400.00	6,387.79	6,389.58	6,387.75	28.20	27.95	-156.88	-60.10	-146.82	404.80	348.69	56.11	7.214		
6,500.00	6,487.57	6,489.40	6,487.54	28.64	28.39	-156.89	-60.10	-149.32	410.84	353.86	56.98	7.210		
6,600.00	6,587.35	6,587.75	6,585.58	29.08	28.82	-156.29	-60.19	-156.25	417.01	359.16	57.85	7.208		
6,700.00	6,687.02	6,682.81	6,678.29	29.52	29.25	-115.86	-60.55	-176.83	424.00	365.32	58.68	7.226		
6,800.00	6,784.98	6,775.22	6,764.52	29.96	29.66	-97.01	-61.15	-209.83	431.97	372.52	59.44	7.267		
6,900.00	6,878.81	6,865.56	6,843.33	30.41	30.07	-89.85	-61.97	-253.82	440.53	380.40	60.13	7.327		
7,000.00	6,966.21	6,954.15	6,913.82	30.86	30.50	-85.44	-62.98	-307.36	449.30	388.56	60.74	7.397		
7,100.00	7,045.03	7,041.30	6,975.25	31.35	30.97	-82.27	-64.16	-369.07	457.90	396.56	61.34	7.465		
7,200.00	7,113.32	7,127.28	7,027.04	31.90	31.50	-79.87	-65.48	-437.60	465.98	403.96	62.02	7.513		
7,300.00	7,169.40	7,212.37	7,068.75	32.57	32.13	-78.06	-66.91	-511.68	473.22	410.34	62.88	7.526		
7,400.00	7,211.89	7,296.81	7,100.02	33.38	32.86	-76.77	-68.42	-590.04	479.37	415.35	64.03	7.487		
7,500.00	7,239.75	7,380.84	7,120.57	34.35	33.72	-75.94	-70.00	-671.44	484.24	418.70	65.54	7.388		
7,600.00	7,252.28	7,464.70	7,130.22	35.47	34.68	-75.56	-71.63	-754.66	487.67	420.24	67.43	7.232		
7,700.00	7,252.75	7,558.15	7,130.78	36.73	35.88	-75.58	-73.45	-848.09	490.10	420.28	69.82	7.019		
7,800.00	7,252.38	7,658.12	7,130.42	38.16	37.31	-75.65	-75.41	-948.03	492.54	419.92	72.63	6.782		
7,900.00	7,252.02	7,758.09	7,130.05	39.74	38.90	-75.73	-77.36	-1,047.98	494.99	419.25	75.74	6.536		
8,000.00	7,251.65	7,858.06	7,129.69	41.47	40.63	-75.80	-79.32	-1,147.93	497.43	418.31	79.12	6.287		
8,100.00	7,251.29	7,958.02	7,129.32	43.31	42.48	-75.87	-81.27	-1,247.88	499.88	417.14	82.74	6.042		
8,200.00	7,250.92	8,057.99	7,128.95	45.26	44.43	-75.94	-83.23	-1,347.83	502.32	415.75	86.57	5.802		
8,300.00	7,250.55	8,157.96	7,128.59	47.30	46.48	-76.01	-85.18	-1,447.78	504.77	414.19	90.59	5.572		
8,400.00	7,250.19	8,257.93	7,128.22	49.42	48.61	-76.08	-87.14	-1,547.72	507.22	412.46	94.76	5.353		
8,500.00	7,249.82	8,357.90	7,127.85	51.62	50.81	-76.14	-89.09	-1,647.67	509.67	410.59	99.08	5.144		
8,600.00	7,249.45	8,457.87	7,127.49	53.88	53.08	-76.21	-91.05	-1,747.62	512.12	408.60	103.51	4.947		
8,700.00	7,249.09	8,557.83	7,127.12	56.19	55.39	-76.28	-93.00	-1,847.57	514.57	406.50	108.06	4.762		
8,800.00	7,248.72	8,657.80	7,126.76	58.55	57.76	-76.35	-94.96	-1,947.52	517.02	404.31	112.71	4.587		
8,900.00	7,248.36	8,757.77	7,126.39	60.96	60.17	-76.41	-96.91	-2,047.47	519.47	402.04	117.43	4.424		
9,000.00	7,247.99	8,857.74	7,126.02	63.40	62.61	-76.48	-98.87	-2,147.41	521.92	399.69	122.24	4.270		
9,100.00	7,247.62	8,957.71	7,125.66	65.87	65.09	-76.54	-100.82	-2,247.36	524.37	397.27	127.11	4.125		
9,200.00	7,247.26	9,057.67	7,125.29	68.38	67.60	-76.60	-102.78	-2,347.31	526.83	394.79	132.04	3.990		
9,300.00	7,246.89	9,157.64	7,124.93	70.91	70.14	-76.67	-104.73	-2,447.26	529.28	392.26	137.02	3.863		
9,400.00	7,246.53	9,257.61	7,124.56	73.47	72.69	-76.73	-106.69	-2,547.21	531.74	389.69	142.05	3.743		
9,500.00	7,246.16	9,357.58	7,124.19	76.05	75.27	-76.79	-108.64	-2,647.16	534.19	387.07	147.13	3.631		
9,600.00	7,245.79	9,457.55	7,123.83	78.65	77.87	-76.85	-110.60	-2,747.11	536.65	384.41	152.24	3.525		
9,700.00	7,245.43	9,557.52	7,123.46	81.27	80.49	-76.92	-112.55	-2,847.05	539.10	381.71	157.39	3.425		
9,800.00	7,245.06	9,657.48	7,123.10	83.90	83.12	-76.98	-114.51	-2,947.00	541.56	378.99	162.57	3.331		
9,900.00	7,244.69	9,757.45	7,122.73	86.55	85.77	-77.04	-116.46	-3,046.95	544.02	376.24	167.78	3.242		
10,000.00	7,244.33	9,857.42	7,122.36	89.21	88.43	-77.09	-118.42	-3,146.90	546.48	373.46	173.02	3.158		
10,100.00	7,243.96	9,957.39	7,122.00	91.88	91.10	-77.15	-120.37	-3,246.85	548.94	370.65	178.28	3.079		
10,200.00	7,243.60	10,057.36	7,121.63	94.56	93.78	-77.21	-122.33	-3,346.80	551.40	367.82	183.57	3.004		
10,300.00	7,243.23	10,157.32	7,121.27	97.26	96.47	-77.27	-124.28	-3,446.74	553.86	364.98	188.88	2.932		

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



Anticollision Report



Company:	SRC ENERGY	Local Co-ordinate Reference:	Well HARVESTERS STATE 31C-16-M
Project:	SECTION 15, T6N, R66W	TVD Reference:	KB @ 4821.00ft
Reference Site:	HARVESTERS STATE 7-15 PAD	MD Reference:	KB @ 4821.00ft
Site Error:	3.28 ft	North Reference:	True
Reference Well:	HARVESTERS STATE 31C-16-M	Survey Calculation Method:	Minimum Curvature
Well Error:	3.28 ft	Output errors are at	2.45 sigma
Reference Wellbore	OH	Database:	EDM 5000.14 Single User Db
Reference Design:	PLAN #1	Offset TVD Reference:	Reference Datum

Offset Design HARVESTERS STATE 7-15 PAD - HARVESTERS STATE 5N-16C-M - OH - PLAN #1													Offset Site Error:	0.00 ft
Survey Program: 0-MWD+IFR1													Offset Well Error:	3.28 ft
Reference		Offset		Semi Major Axis			Distance						Warning	
Measured Depth (ft)	Vertical Depth (ft)	Measured Depth (ft)	Vertical Depth (ft)	Reference (ft)	Offset (ft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (ft)	+E/-W (ft)	Between Centres (ft)	Between Ellipses (ft)	Minimum Separation (ft)	Separation Factor		
10,400.00	7,242.86	10,257.29	7,120.90	99.96	99.17	-77.33	-126.24	-3,546.69	556.32	362.11	194.21	2.865		
10,500.00	7,242.50	10,357.26	7,120.53	102.67	101.88	-77.38	-128.19	-3,646.64	558.78	359.23	199.55	2.800		
10,600.00	7,242.13	10,457.23	7,120.17	105.39	104.59	-77.44	-130.15	-3,746.59	561.24	356.33	204.91	2.739		
10,700.00	7,241.76	10,557.20	7,119.80	108.12	107.32	-77.50	-132.10	-3,846.54	563.70	353.41	210.29	2.681		
10,800.00	7,241.40	10,657.17	7,119.44	110.85	110.05	-77.55	-134.06	-3,946.49	566.16	350.48	215.68	2.625		
10,900.00	7,241.03	10,757.13	7,119.07	113.59	112.78	-77.61	-136.01	-4,046.43	568.63	347.54	221.08	2.572		
11,000.00	7,240.67	10,857.10	7,118.70	116.34	115.53	-77.66	-137.97	-4,146.38	571.09	344.59	226.50	2.521		
11,100.00	7,240.30	10,957.07	7,118.34	119.09	118.27	-77.71	-139.92	-4,246.33	573.56	341.62	231.93	2.473		
11,200.00	7,239.93	11,057.04	7,117.97	121.85	121.02	-77.77	-141.88	-4,346.28	576.02	338.65	237.37	2.427		
11,300.00	7,239.57	11,157.01	7,117.61	124.61	123.78	-77.82	-143.83	-4,446.23	578.49	335.66	242.82	2.382		
11,400.00	7,239.20	11,256.97	7,117.24	127.38	126.54	-77.87	-145.79	-4,546.18	580.95	332.67	248.28	2.340		
11,500.00	7,238.84	11,356.94	7,116.87	130.15	129.31	-77.92	-147.74	-4,646.12	583.42	329.66	253.75	2.299		
11,600.00	7,238.47	11,456.91	7,116.51	132.92	132.08	-77.98	-149.70	-4,746.07	585.88	326.65	259.23	2.260		
11,700.00	7,238.10	11,556.88	7,116.14	135.70	134.85	-78.03	-151.65	-4,846.02	588.35	323.63	264.72	2.223		
11,800.00	7,237.74	11,656.85	7,115.77	138.48	137.62	-78.08	-153.61	-4,945.97	590.82	320.61	270.21	2.186		
11,900.00	7,237.37	11,756.82	7,115.41	141.26	140.40	-78.13	-155.56	-5,045.92	593.29	317.57	275.72	2.152		
12,000.00	7,237.00	11,856.78	7,115.04	144.05	143.18	-78.18	-157.52	-5,145.87	595.76	314.53	281.23	2.118		
12,100.00	7,236.64	11,956.75	7,114.68	146.84	145.97	-78.23	-159.47	-5,245.82	598.23	311.48	286.74	2.086		
12,200.00	7,236.27	12,056.72	7,114.31	149.64	148.75	-78.28	-161.43	-5,345.76	600.69	308.43	292.26	2.055		
12,300.00	7,235.91	12,156.69	7,113.94	152.43	151.54	-78.33	-163.38	-5,445.71	603.16	305.37	297.79	2.025		
12,400.00	7,235.54	12,256.66	7,113.58	155.23	154.34	-78.37	-165.34	-5,545.66	605.64	302.31	303.32	1.997		
12,500.00	7,235.17	12,356.62	7,113.21	158.03	157.13	-78.42	-167.29	-5,645.61	608.11	299.24	308.86	1.969		
12,600.00	7,234.81	12,456.59	7,112.85	160.83	159.93	-78.47	-169.25	-5,745.56	610.58	296.17	314.41	1.942		
12,700.00	7,234.44	12,556.56	7,112.48	163.64	162.72	-78.52	-171.20	-5,845.51	613.05	293.09	319.96	1.916		
12,800.00	7,234.07	12,656.53	7,112.11	166.44	165.52	-78.56	-173.16	-5,945.45	615.52	290.01	325.51	1.891		
12,900.00	7,233.71	12,756.50	7,111.75	169.25	168.33	-78.61	-175.11	-6,045.40	617.99	286.92	331.07	1.867		
13,000.00	7,233.34	12,856.47	7,111.38	172.06	171.13	-78.66	-177.07	-6,145.35	620.47	283.83	336.63	1.843		
13,100.00	7,232.98	12,956.43	7,111.02	174.88	173.93	-78.70	-179.02	-6,245.30	622.94	280.74	342.20	1.820		
13,200.00	7,232.61	13,056.40	7,110.65	177.69	176.74	-78.75	-180.98	-6,345.25	625.41	277.64	347.77	1.798		
13,300.00	7,232.24	13,156.37	7,110.28	180.50	179.55	-78.79	-182.93	-6,445.20	627.89	274.54	353.35	1.777		
13,400.00	7,231.88	13,256.34	7,109.92	183.32	182.36	-78.84	-184.89	-6,545.14	630.36	271.43	358.93	1.756		
13,500.00	7,231.51	13,356.31	7,109.55	186.14	185.17	-78.88	-186.84	-6,645.09	632.84	268.32	364.51	1.736		
13,600.00	7,231.15	13,456.27	7,109.19	188.96	187.98	-78.92	-188.79	-6,745.04	635.31	265.21	370.10	1.717		
13,700.00	7,230.78	13,556.24	7,108.82	191.78	190.79	-78.97	-190.75	-6,844.99	637.79	262.10	375.69	1.698		
13,800.00	7,230.41	13,656.21	7,108.45	194.60	193.61	-79.01	-192.70	-6,944.94	640.26	258.98	381.28	1.679		
13,900.00	7,230.05	13,756.18	7,108.09	197.42	196.42	-79.05	-194.66	-7,044.89	642.74	255.86	386.88	1.661		
14,000.00	7,229.68	13,856.15	7,107.72	200.25	199.24	-79.10	-196.61	-7,144.83	645.22	252.74	392.47	1.644		
14,100.00	7,229.31	13,956.12	7,107.36	203.07	202.06	-79.14	-198.57	-7,244.78	647.69	249.62	398.08	1.627		
14,200.00	7,228.95	14,056.08	7,106.99	205.90	204.88	-79.18	-200.52	-7,344.73	650.17	246.49	403.68	1.611		
14,300.00	7,228.58	14,156.05	7,106.62	208.73	207.70	-79.22	-202.48	-7,444.68	652.65	243.36	409.29	1.595		
14,400.00	7,228.22	14,256.02	7,106.26	211.55	210.52	-79.26	-204.43	-7,544.63	655.13	240.23	414.90	1.579		
14,500.00	7,227.85	14,355.99	7,105.89	214.38	213.34	-79.30	-206.39	-7,644.58	657.60	237.09	420.51	1.564		
14,600.00	7,227.48	14,455.96	7,105.53	217.21	216.16	-79.34	-208.34	-7,744.53	660.08	233.96	426.12	1.549		
14,700.00	7,227.12	14,555.92	7,105.16	220.04	218.98	-79.38	-210.30	-7,844.47	662.56	230.82	431.74	1.535		
14,800.00	7,226.75	14,655.89	7,104.79	222.88	221.81	-79.42	-212.25	-7,944.42	665.04	227.68	437.36	1.521		
14,900.00	7,226.38	14,755.86	7,104.43	225.71	224.63	-79.46	-214.21	-8,044.37	667.52	224.54	442.98	1.507		
15,000.00	7,226.02	14,855.83	7,104.06	228.54	227.46	-79.50	-216.16	-8,144.32	670.00	221.40	448.60	1.494 Level 3		
15,005.81	7,226.00	14,861.64	7,104.04	228.71	227.62	-79.51	-216.28	-8,150.12	670.14	221.21	448.93	1.493 Level 3, SF		

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



Anticollision Report



Company:	SRC ENERGY	Local Co-ordinate Reference:	Well HARVESTERS STATE 31C-16-M
Project:	SECTION 15, T6N, R66W	TVD Reference:	KB @ 4821.00ft
Reference Site:	HARVESTERS STATE 7-15 PAD	MD Reference:	KB @ 4821.00ft
Site Error:	3.28 ft	North Reference:	True
Reference Well:	HARVESTERS STATE 31C-16-M	Survey Calculation Method:	Minimum Curvature
Well Error:	3.28 ft	Output errors are at	2.45 sigma
Reference Wellbore	OH	Database:	EDM 5000.14 Single User Db
Reference Design:	PLAN #1	Offset TVD Reference:	Reference Datum

Offset Design HARVESTERS STATE 7-15 PAD - HOOD 41-20(PR_150CC) - OH - OH													Offset Site Error:	0.00 ft
Survey Program: 100-2" Cone@2.448 Sigma													Offset Well Error:	3.28 ft
Reference		Offset		Semi Major Axis			Distance							Warning
Measured Depth (ft)	Vertical Depth (ft)	Measured Depth (ft)	Vertical Depth (ft)	Reference (ft)	Offset (ft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (ft)	+E/-W (ft)	Between Centres (ft)	Between Ellipses (ft)	Minimum Separation (ft)	Separation Factor		
0.00	0.00	0.00	61.00	3.28	3.28	-115.73	-4,335.77	-8,995.43	9,986.01					
100.00	100.00	39.00	100.00	3.28	3.35	-115.73	-4,335.77	-8,995.43	9,985.82	9,979.19	6.63	1,505.108		
200.00	200.00	139.00	200.00	3.34	4.52	-115.73	-4,335.77	-8,995.43	9,985.82	9,977.97	7.85	1,271.274		
300.00	300.00	239.00	300.00	3.44	7.37	-115.73	-4,335.77	-8,995.43	9,985.82	9,975.01	10.81	923.483		
400.00	400.00	339.00	400.00	3.60	10.61	-115.73	-4,335.77	-8,995.43	9,985.82	9,971.61	14.21	702.627		
500.00	500.00	439.00	500.00	3.81	13.97	-115.73	-4,335.77	-8,995.43	9,985.82	9,968.04	17.78	561.743		
600.00	600.00	539.00	600.00	4.05	17.38	-115.73	-4,335.77	-8,995.43	9,985.82	9,964.39	21.43	465.984		
700.00	699.98	638.98	699.98	4.32	20.82	-92.84	-4,335.77	-8,995.43	9,985.91	9,960.77	25.14	397.239		
800.00	799.84	738.84	799.84	4.62	24.27	-92.87	-4,335.77	-8,995.43	9,986.17	9,957.28	28.88	345.750		
900.00	899.62	838.62	899.62	4.94	27.73	-92.91	-4,335.77	-8,995.43	9,986.50	9,953.84	32.66	305.813		
1,000.00	999.41	938.41	999.41	5.27	31.19	-92.94	-4,335.77	-8,995.43	9,986.83	9,950.38	36.45	273.967		
1,100.00	1,099.19	1,038.19	1,099.19	5.62	34.65	-92.98	-4,335.77	-8,995.43	9,987.17	9,946.90	40.27	248.011		
1,200.00	1,198.98	1,137.98	1,198.98	5.99	38.12	-93.02	-4,335.77	-8,995.43	9,987.52	9,943.42	44.10	226.471		
1,300.00	1,298.76	1,237.76	1,298.76	6.36	41.59	-93.06	-4,335.77	-8,995.43	9,987.86	9,939.92	47.94	208.320		
1,400.00	1,398.55	1,337.55	1,398.55	6.74	45.07	-93.09	-4,335.77	-8,995.43	9,988.22	9,936.42	51.80	192.825		
1,500.00	1,498.33	1,437.33	1,498.33	7.13	48.54	-93.13	-4,335.77	-8,995.43	9,988.57	9,932.91	55.66	179.450		
1,600.00	1,598.12	1,537.12	1,598.12	7.52	52.02	-93.17	-4,335.77	-8,995.43	9,988.94	9,929.40	59.53	167.790		
1,700.00	1,697.90	1,636.90	1,697.90	7.92	55.50	-93.21	-4,335.77	-8,995.43	9,989.30	9,925.89	63.41	157.539		
1,800.00	1,797.69	1,736.69	1,797.69	8.33	58.97	-93.24	-4,335.77	-8,995.43	9,989.67	9,922.38	67.29	148.458		
1,900.00	1,897.47	1,836.47	1,897.47	8.74	62.45	-93.28	-4,335.77	-8,995.43	9,990.04	9,918.87	71.18	140.358		
2,000.00	1,997.26	1,936.26	1,997.26	9.15	65.93	-93.32	-4,335.77	-8,995.43	9,990.42	9,915.36	75.06	133.091		
2,100.00	2,097.04	2,036.04	2,097.04	9.56	69.41	-93.36	-4,335.77	-8,995.43	9,990.80	9,911.85	78.96	126.534		
2,200.00	2,196.83	2,135.83	2,196.83	9.98	72.89	-93.39	-4,335.77	-8,995.43	9,991.19	9,908.34	82.85	120.589		
2,300.00	2,296.61	2,235.61	2,296.61	10.40	76.37	-93.43	-4,335.77	-8,995.43	9,991.58	9,904.83	86.75	115.175		
2,400.00	2,396.40	2,335.40	2,396.40	10.82	79.85	-93.47	-4,335.77	-8,995.43	9,991.98	9,901.33	90.65	110.224		
2,500.00	2,496.18	2,435.18	2,496.18	11.24	83.33	-93.51	-4,335.77	-8,995.43	9,992.38	9,897.82	94.55	105.679		
2,600.00	2,595.96	2,534.96	2,595.96	11.66	86.81	-93.54	-4,335.77	-8,995.43	9,992.78	9,894.32	98.46	101.493		
2,700.00	2,695.75	2,634.75	2,695.75	12.09	90.29	-93.58	-4,335.77	-8,995.43	9,993.19	9,890.83	102.36	97.624		
2,800.00	2,795.53	2,734.53	2,795.53	12.51	93.77	-93.62	-4,335.77	-8,995.43	9,993.60	9,887.33	106.27	94.039		
2,900.00	2,895.32	2,834.32	2,895.32	12.94	97.26	-93.66	-4,335.77	-8,995.43	9,994.02	9,883.84	110.18	90.707		
3,000.00	2,995.10	2,934.10	2,995.10	13.37	100.74	-93.69	-4,335.77	-8,995.43	9,994.44	9,880.35	114.09	87.602		
3,100.00	3,094.89	3,033.89	3,094.89	13.80	104.22	-93.73	-4,335.77	-8,995.43	9,994.87	9,876.87	118.00	84.703		
3,200.00	3,194.67	3,133.67	3,194.67	14.23	107.70	-93.77	-4,335.77	-8,995.43	9,995.30	9,873.39	121.91	81.989		
3,300.00	3,294.46	3,233.46	3,294.46	14.66	111.18	-93.81	-4,335.77	-8,995.43	9,995.73	9,869.91	125.82	79.443		
3,400.00	3,394.24	3,333.24	3,394.24	15.09	114.67	-93.84	-4,335.77	-8,995.43	9,996.17	9,866.43	129.74	77.050		
3,500.00	3,494.03	3,433.03	3,494.03	15.52	118.15	-93.88	-4,335.77	-8,995.43	9,996.61	9,862.96	133.65	74.797		
3,600.00	3,593.81	3,532.81	3,593.81	15.96	121.63	-93.92	-4,335.77	-8,995.43	9,997.06	9,859.49	137.56	72.672		
3,700.00	3,693.60	3,632.60	3,693.60	16.39	125.11	-93.95	-4,335.77	-8,995.43	9,997.51	9,856.03	141.48	70.664		
3,800.00	3,793.38	3,732.38	3,793.38	16.82	128.59	-93.99	-4,335.77	-8,995.43	9,997.96	9,852.57	145.39	68.764		
3,900.00	3,893.17	3,832.17	3,893.17	17.26	132.08	-94.03	-4,335.77	-8,995.43	9,998.42	9,849.11	149.31	66.964		
4,000.00	3,992.95	3,931.95	3,992.95	17.69	135.56	-94.07	-4,335.77	-8,995.43	9,998.89	9,845.66	153.23	65.255		
4,100.00	4,092.74	4,031.74	4,092.74	18.13	139.04	-94.10	-4,335.77	-8,995.43	9,999.36	9,842.21	157.14	63.632		
4,200.00	4,192.52	4,131.52	4,192.52	18.56	142.52	-94.14	-4,335.77	-8,995.43	9,999.83	9,838.77	161.06	62.087		
4,300.00	4,292.30	4,231.30	4,292.30	18.99	146.00	-94.17	-4,335.77	-8,995.43	9,999.94	9,834.31	164.97	60.623		
4,400.00	4,392.08	4,331.08	4,392.08	19.42	149.48	-94.20	-4,335.77	-8,995.43	9,999.99	9,829.85	168.88	59.259		
4,500.00	4,491.86	4,430.86	4,491.86	19.85	152.96	-94.23	-4,335.77	-8,995.43	9,999.99	9,825.39	172.79	57.995		
4,600.00	4,591.64	4,530.64	4,591.64	20.28	156.44	-94.26	-4,335.77	-8,995.43	9,999.99	9,820.93	176.70	56.731		
4,700.00	4,691.42	4,630.42	4,691.42	20.71	159.92	-94.29	-4,335.77	-8,995.43	9,999.99	9,816.47	180.61	55.467		
4,800.00	4,791.20	4,730.20	4,791.20	21.14	163.40	-94.32	-4,335.77	-8,995.43	9,999.99	9,812.01	184.52	54.203		
4,900.00	4,890.98	4,829.98	4,890.98	21.57	166.88	-94.35	-4,335.77	-8,995.43	9,999.99	9,807.55	188.43	52.939		
5,000.00	4,990.76	4,929.76	4,990.76	22.00	170.36	-94.38	-4,335.77	-8,995.43	9,999.99	9,803.09	192.34	51.675		
5,100.00	5,090.54	5,029.54	5,090.54	22.43	173.84	-94.41	-4,335.77	-8,995.43	9,999.99	9,798.63	196.25	50.411		
5,200.00	5,190.32	5,129.32	5,190.32	22.86	177.32	-94.44	-4,335.77	-8,995.43	9,999.99	9,794.17	200.16	49.147		
5,300.00	5,290.10	5,229.10	5,290.10	23.29	180.80	-94.47	-4,335.77	-8,995.43	9,999.99	9,789.71	204.07	47.883		
5,400.00	5,389.88	5,328.88	5,389.88	23.72	184.28	-94.50	-4,335.77	-8,995.43	9,999.99	9,785.25	207.98	46.619		
5,500.00	5,489.66	5,428.66	5,489.66	24.15	187.76	-94.53	-4,335.77	-8,995.43	9,999.99	9,780.79	211.89	45.355		
5,600.00	5,589.44	5,528.44	5,589.44	24.58	191.24	-94.56	-4,335.77	-8,995.43	9,999.99	9,776.33	215.80	44.091		
5,700.00	5,689.22	5,628.22	5,689.22	25.01	194.72	-94.59	-4,335.77	-8,995.43	9,999.99	9,771.87	219.71	42.827		
5,800.00	5,789.00	5,728.00	5,789.00	25.44	198.20	-94.62	-4,335.77	-8,995.43	9,999.99	9,767.41	223.62	41.563		
5,900.00	5,888.78	5,827.78	5,888.78	25.87	201.68	-94.65	-4,335.77	-8,995.43	9,999.99	9,762.95	227.53	40.299		
6,000.00	5,988.56	5,927.56	5,988.56	26.30	205.16	-94.68	-4,335.77	-8,995.43	9,999.99	9,758.49	231.44	39.035		
6,100.00	6,088.34	6,027.34	6,088.34	26.73	208.64	-94.71	-4,335.77	-8,995.43	9,999.99	9,754.03	235.35	37.771		
6,20														



Anticollision Report



Company:	SRC ENERGY	Local Co-ordinate Reference:	Well HARVESTERS STATE 31C-16-M
Project:	SECTION 15, T6N, R66W	TVD Reference:	KB @ 4821.00ft
Reference Site:	HARVESTERS STATE 7-15 PAD	MD Reference:	KB @ 4821.00ft
Site Error:	3.28 ft	North Reference:	True
Reference Well:	HARVESTERS STATE 31C-16-M	Survey Calculation Method:	Minimum Curvature
Well Error:	3.28 ft	Output errors are at	2.45 sigma
Reference Wellbore	OH	Database:	EDM 5000.14 Single User Db
Reference Design:	PLAN #1	Offset TVD Reference:	Reference Datum

Offset Design HARVESTERS STATE 7-15 PAD - HOOD 41-20(PR_150CC) - OH - OH													Offset Site Error:	0.00 ft
Survey Program: 100-2" Cone@2.448 Sigma													Offset Well Error:	3.28 ft
Reference		Offset		Semi Major Axis			Distance						Warning	
Measured Depth (ft)	Vertical Depth (ft)	Measured Depth (ft)	Vertical Depth (ft)	Reference (ft)	Offset (ft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (ft)	+E/-W (ft)	Between Centres (ft)	Between Ellipses (ft)	Minimum Separation (ft)	Separation Factor		
7,700.00	7,252.75	7,208.25	7,252.75	36.73	249.92	-90.36	-4,335.77	-8,995.43	9,415.89	9,132.51	283.38	33.227		
7,800.00	7,252.38	7,208.62	7,252.38	38.16	249.93	-90.35	-4,335.77	-8,995.43	9,329.89	9,045.98	283.90	32.863		
7,900.00	7,252.02	7,208.98	7,252.02	39.74	249.94	-90.35	-4,335.77	-8,995.43	9,244.17	8,959.67	284.50	32.492		
8,000.00	7,251.65	7,209.35	7,251.65	41.47	249.95	-90.34	-4,335.77	-8,995.43	9,158.74	8,873.57	285.18	32.116		
8,100.00	7,251.29	7,209.71	7,251.29	43.31	249.97	-90.34	-4,335.77	-8,995.43	9,073.61	8,787.69	285.92	31.735		
8,200.00	7,250.92	7,189.92	7,250.92	45.26	249.28	-90.33	-4,335.77	-8,995.43	8,988.79	8,702.75	286.04	31.425		
8,300.00	7,250.55	7,189.55	7,250.55	47.30	249.26	-90.33	-4,335.77	-8,995.43	8,904.28	8,617.38	286.90	31.036		
8,400.00	7,250.19	7,189.19	7,250.19	49.42	249.25	-90.33	-4,335.77	-8,995.43	8,820.10	8,532.26	287.84	30.642		
8,500.00	7,249.82	7,188.82	7,249.82	51.62	249.24	-90.32	-4,335.77	-8,995.43	8,736.25	8,447.39	288.85	30.245		
8,600.00	7,249.45	7,188.45	7,249.45	53.88	249.23	-90.32	-4,335.77	-8,995.43	8,652.74	8,362.80	289.93	29.844		
8,700.00	7,249.09	7,188.09	7,249.09	56.19	249.21	-90.31	-4,335.77	-8,995.43	8,569.58	8,278.50	291.09	29.440		
8,800.00	7,248.72	7,187.72	7,248.72	58.55	249.20	-90.31	-4,335.77	-8,995.43	8,486.79	8,194.48	292.31	29.034		
8,900.00	7,248.36	7,187.36	7,248.36	60.96	249.19	-90.30	-4,335.77	-8,995.43	8,404.37	8,110.78	293.60	28.626		
9,000.00	7,247.99	7,186.99	7,247.99	63.40	249.17	-90.30	-4,335.77	-8,995.43	8,322.34	8,027.39	294.95	28.216		
9,100.00	7,247.62	7,186.62	7,247.62	65.87	249.16	-90.29	-4,335.77	-8,995.43	8,240.71	7,944.33	296.38	27.805		
9,200.00	7,247.26	7,186.26	7,247.26	68.38	249.15	-90.29	-4,335.77	-8,995.43	8,159.48	7,861.62	297.86	27.393		
9,300.00	7,246.89	7,185.89	7,246.89	70.91	249.14	-90.29	-4,335.77	-8,995.43	8,078.68	7,779.26	299.42	26.981		
9,400.00	7,246.53	7,185.53	7,246.53	73.47	249.12	-90.28	-4,335.77	-8,995.43	7,998.31	7,697.27	301.03	26.569		
9,500.00	7,246.16	7,185.16	7,246.16	76.05	249.11	-90.28	-4,335.77	-8,995.43	7,918.38	7,615.67	302.71	26.158		
9,600.00	7,245.79	7,184.79	7,245.79	78.65	249.10	-90.27	-4,335.77	-8,995.43	7,838.92	7,534.46	304.46	25.747		
9,700.00	7,245.43	7,184.43	7,245.43	81.27	249.08	-90.27	-4,335.77	-8,995.43	7,759.93	7,453.67	306.26	25.338		
9,800.00	7,245.06	7,184.06	7,245.06	83.90	249.07	-90.26	-4,335.77	-8,995.43	7,681.43	7,373.31	308.13	24.929		
9,900.00	7,244.69	7,183.69	7,244.69	86.55	249.06	-90.26	-4,335.77	-8,995.43	7,603.44	7,293.39	310.06	24.523		
10,000.00	7,244.33	7,183.33	7,244.33	89.21	249.05	-90.25	-4,335.77	-8,995.43	7,525.97	7,213.92	312.04	24.118		
10,100.00	7,243.96	7,182.96	7,243.96	91.88	249.03	-90.25	-4,335.77	-8,995.43	7,449.03	7,134.94	314.09	23.716		
10,200.00	7,243.60	7,182.60	7,243.60	94.56	249.02	-90.25	-4,335.77	-8,995.43	7,372.65	7,056.45	316.20	23.316		
10,300.00	7,243.23	7,182.23	7,243.23	97.26	249.01	-90.24	-4,335.77	-8,995.43	7,296.84	6,978.47	318.37	22.919		
10,400.00	7,242.86	7,181.86	7,242.86	99.96	249.00	-90.24	-4,335.77	-8,995.43	7,221.61	6,901.01	320.60	22.525		
10,500.00	7,242.50	7,181.50	7,242.50	102.67	248.98	-90.23	-4,335.77	-8,995.43	7,147.00	6,824.11	322.89	22.134		
10,600.00	7,242.13	7,181.13	7,242.13	105.39	248.97	-90.23	-4,335.77	-8,995.43	7,073.01	6,747.77	325.24	21.747		
10,700.00	7,241.76	7,180.76	7,241.76	108.12	248.96	-90.22	-4,335.77	-8,995.43	6,999.67	6,672.02	327.65	21.363		
10,800.00	7,241.40	7,180.40	7,241.40	110.85	248.94	-90.22	-4,335.77	-8,995.43	6,926.99	6,596.88	330.11	20.984		
10,900.00	7,241.03	7,180.03	7,241.03	113.59	248.93	-90.22	-4,335.77	-8,995.43	6,855.01	6,522.36	332.64	20.608		
11,000.00	7,240.67	7,179.67	7,240.67	116.34	248.92	-90.21	-4,335.77	-8,995.43	6,783.73	6,448.50	335.23	20.236		
11,100.00	7,240.30	7,179.30	7,240.30	119.09	248.91	-90.21	-4,335.77	-8,995.43	6,713.18	6,375.31	337.87	19.869		
11,200.00	7,239.93	7,178.93	7,239.93	121.85	248.89	-90.20	-4,335.77	-8,995.43	6,643.40	6,302.82	340.58	19.506		
11,300.00	7,239.57	7,178.57	7,239.57	124.61	248.88	-90.20	-4,335.77	-8,995.43	6,574.39	6,231.05	343.34	19.148		
11,400.00	7,239.20	7,178.20	7,239.20	127.38	248.87	-90.19	-4,335.77	-8,995.43	6,506.19	6,160.02	346.17	18.795		
11,500.00	7,238.84	7,177.84	7,238.84	130.15	248.85	-90.19	-4,335.77	-8,995.43	6,438.82	6,089.77	349.05	18.447		
11,600.00	7,238.47	7,177.47	7,238.47	132.92	248.84	-90.18	-4,335.77	-8,995.43	6,372.30	6,020.31	351.99	18.104		
11,700.00	7,238.10	7,177.10	7,238.10	135.70	248.83	-90.18	-4,335.77	-8,995.43	6,306.67	5,951.69	354.99	17.766		
11,800.00	7,237.74	7,176.74	7,237.74	138.48	248.82	-90.18	-4,335.77	-8,995.43	6,241.95	5,883.91	358.04	17.434		
11,900.00	7,237.37	7,176.37	7,237.37	141.26	248.80	-90.17	-4,335.77	-8,995.43	6,178.18	5,817.02	361.15	17.107		
12,000.00	7,237.00	7,176.00	7,237.00	144.05	248.79	-90.17	-4,335.77	-8,995.43	6,115.37	5,751.05	364.32	16.786		
12,100.00	7,236.64	7,175.64	7,236.64	146.84	248.78	-90.16	-4,335.77	-8,995.43	6,053.56	5,686.02	367.54	16.470		
12,200.00	7,236.27	7,175.27	7,236.27	149.64	248.77	-90.16	-4,335.77	-8,995.43	5,992.78	5,621.97	370.82	16.161		
12,300.00	7,235.91	7,174.91	7,235.91	152.43	248.75	-90.15	-4,335.77	-8,995.43	5,933.07	5,558.92	374.15	15.858		
12,400.00	7,235.54	7,174.54	7,235.54	155.23	248.74	-90.15	-4,335.77	-8,995.43	5,874.45	5,496.92	377.53	15.560		
12,500.00	7,235.17	7,174.17	7,235.17	158.03	248.73	-90.15	-4,335.77	-8,995.43	5,816.97	5,436.00	380.96	15.269		
12,600.00	7,234.81	7,173.81	7,234.81	160.83	248.71	-90.14	-4,335.77	-8,995.43	5,760.64	5,376.20	384.44	14.984		
12,700.00	7,234.44	7,173.44	7,234.44	163.64	248.70	-90.14	-4,335.77	-8,995.43	5,705.51	5,317.54	387.97	14.706		
12,800.00	7,234.07	7,173.07	7,234.07	166.44	248.69	-90.13	-4,335.77	-8,995.43	5,651.61	5,260.07	391.54	14.434		

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



Anticollision Report



Company:	SRC ENERGY	Local Co-ordinate Reference:	Well HARVESTERS STATE 31C-16-M
Project:	SECTION 15, T6N, R66W	TVD Reference:	KB @ 4821.00ft
Reference Site:	HARVESTERS STATE 7-15 PAD	MD Reference:	KB @ 4821.00ft
Site Error:	3.28 ft	North Reference:	True
Reference Well:	HARVESTERS STATE 31C-16-M	Survey Calculation Method:	Minimum Curvature
Well Error:	3.28 ft	Output errors are at	2.45 sigma
Reference Wellbore	OH	Database:	EDM 5000.14 Single User Db
Reference Design:	PLAN #1	Offset TVD Reference:	Reference Datum

Offset Design HARVESTERS STATE 7-15 PAD - HOOD 41-20(PR_150CC) - OH - OH													Offset Site Error:	0.00 ft
Survey Program: 100-2" Cone@2.448 Sigma													Offset Well Error:	3.28 ft
Reference		Offset		Semi Major Axis			Distance						Warning	
Measured Depth (ft)	Vertical Depth (ft)	Measured Depth (ft)	Vertical Depth (ft)	Reference (ft)	Offset (ft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (ft)	+E/-W (ft)	Between Centres (ft)	Between Ellipses (ft)	Minimum Separation (ft)	Separation Factor		
12,900.00	7,233.71	7,172.71	7,233.71	169.25	248.68	-90.13	-4,335.77	-8,995.43	5,598.98	5,203.83	395.15	14.169		
13,000.00	7,233.34	7,172.34	7,233.34	172.06	248.66	-90.12	-4,335.77	-8,995.43	5,547.65	5,148.85	398.81	13.911		
13,100.00	7,232.98	7,171.98	7,232.98	174.88	248.65	-90.12	-4,335.77	-8,995.43	5,497.66	5,095.17	402.50	13.659		
13,200.00	7,232.61	7,171.61	7,232.61	177.69	248.64	-90.11	-4,335.77	-8,995.43	5,449.05	5,042.83	406.22	13.414		
13,300.00	7,232.24	7,171.24	7,232.24	180.50	248.62	-90.11	-4,335.77	-8,995.43	5,401.86	4,991.88	409.98	13.176		
13,400.00	7,231.88	7,170.88	7,231.88	183.32	248.61	-90.11	-4,335.77	-8,995.43	5,356.11	4,942.35	413.76	12.945		
13,500.00	7,231.51	7,170.51	7,231.51	186.14	248.60	-90.10	-4,335.77	-8,995.43	5,311.85	4,894.29	417.56	12.721		
13,600.00	7,231.15	7,170.15	7,231.15	188.96	248.59	-90.10	-4,335.77	-8,995.43	5,269.12	4,847.74	421.39	12.504		
13,700.00	7,230.78	7,169.78	7,230.78	191.78	248.57	-90.09	-4,335.77	-8,995.43	5,227.96	4,802.73	425.23	12.295		
13,800.00	7,230.41	7,169.41	7,230.41	194.60	248.56	-90.09	-4,335.77	-8,995.43	5,188.39	4,759.32	429.07	12.092		
13,900.00	7,230.05	7,169.05	7,230.05	197.42	248.55	-90.08	-4,335.77	-8,995.43	5,150.46	4,717.53	432.93	11.897		
14,000.00	7,229.68	7,168.68	7,229.68	200.25	248.54	-90.08	-4,335.77	-8,995.43	5,114.21	4,677.43	436.78	11.709		
14,100.00	7,229.31	7,168.31	7,229.31	203.07	248.52	-90.08	-4,335.77	-8,995.43	5,079.67	4,639.03	440.63	11.528		
14,200.00	7,228.95	7,167.95	7,228.95	205.90	248.51	-90.07	-4,335.77	-8,995.43	5,046.87	4,602.40	444.47	11.355		
14,300.00	7,228.58	7,167.58	7,228.58	208.73	248.50	-90.07	-4,335.77	-8,995.43	5,015.85	4,567.55	448.29	11.189		
14,400.00	7,228.22	7,167.22	7,228.22	211.55	248.48	-90.06	-4,335.77	-8,995.43	4,986.64	4,534.55	452.09	11.030		
14,500.00	7,227.85	7,166.85	7,227.85	214.38	248.47	-90.06	-4,335.77	-8,995.43	4,959.28	4,503.42	455.87	10.879		
14,600.00	7,227.48	7,166.48	7,227.48	217.21	248.46	-90.05	-4,335.77	-8,995.43	4,933.80	4,474.19	459.60	10.735		
14,700.00	7,227.12	7,166.12	7,227.12	220.04	248.45	-90.05	-4,335.77	-8,995.43	4,910.21	4,446.92	463.30	10.598		
14,800.00	7,226.75	7,165.75	7,226.75	222.88	248.43	-90.04	-4,335.77	-8,995.43	4,888.57	4,421.62	466.95	10.469		
14,900.00	7,226.38	7,165.38	7,226.38	225.71	248.42	-90.04	-4,335.77	-8,995.43	4,868.87	4,398.33	470.55	10.347		
15,000.00	7,226.02	7,165.02	7,226.02	228.54	248.41	-90.04	-4,335.77	-8,995.43	4,851.17	4,377.08	474.08	10.233		
15,005.81	7,226.00	7,165.00	7,226.00	228.71	248.41	-90.04	-4,335.77	-8,995.43	4,850.20	4,375.91	474.29	10.226	CC, ES, SF	



Anticollision Report



Company:	SRC ENERGY	Local Co-ordinate Reference:	Well HARVESTERS STATE 31C-16-M
Project:	SECTION 15, T6N, R66W	TVD Reference:	KB @ 4821.00ft
Reference Site:	HARVESTERS STATE 7-15 PAD	MD Reference:	KB @ 4821.00ft
Site Error:	3.28 ft	North Reference:	True
Reference Well:	HARVESTERS STATE 31C-16-M	Survey Calculation Method:	Minimum Curvature
Well Error:	3.28 ft	Output errors are at	2.45 sigma
Reference Wellbore	OH	Database:	EDM 5000.14 Single User Db
Reference Design:	PLAN #1	Offset TVD Reference:	Reference Datum

Offset Design HARVESTERS STATE 7-15 PAD - HOOD 6-2-20(PR_150CC) - OH - OH													Offset Site Error:	0.00 ft
Survey Program: 82-MWD													Offset Well Error:	3.28 ft
Reference		Offset		Semi Major Axis			Distance							Warning
Measured Depth (ft)	Vertical Depth (ft)	Measured Depth (ft)	Vertical Depth (ft)	Reference (ft)	Offset (ft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (ft)	+E/-W (ft)	Between Centres (ft)	Between Ellipses (ft)	Minimum Separation (ft)	Separation Factor		
0.00	0.00	669.74	703.62	3.28	4.32	-108.61	-3,008.71	-8,937.60	9,456.64					
100.00	100.00	724.00	757.32	3.28	4.49	-108.65	-3,013.97	-8,931.84	9,449.54	9,441.79	7.75	1,219.536		
200.00	200.00	724.00	757.32	3.34	4.49	-108.65	-3,013.97	-8,931.84	9,443.11	9,435.32	7.79	1,212.298		
300.00	300.00	724.00	757.32	3.44	4.49	-108.65	-3,013.97	-8,931.84	9,437.74	9,429.85	7.89	1,196.417		
400.00	400.00	724.00	757.32	3.60	4.49	-108.65	-3,013.97	-8,931.84	9,433.42	9,425.38	8.04	1,173.263		
500.00	500.00	776.67	809.36	3.81	4.67	-108.69	-3,020.44	-8,926.93	9,429.15	9,420.74	8.41	1,121.072		
600.00	600.00	818.00	850.05	4.05	4.81	-108.74	-3,026.97	-8,923.87	9,426.59	9,417.80	8.79	1,072.358		
700.00	699.98	818.00	850.05	4.32	4.81	-85.88	-3,026.97	-8,923.87	9,424.34	9,415.28	9.06	1,040.346		
800.00	799.84	818.00	850.05	4.62	4.81	-85.91	-3,026.97	-8,923.87	9,422.90	9,413.55	9.35	1,007.439		
894.50	894.13	818.00	850.05	4.92	4.81	-85.91	-3,026.97	-8,923.87	9,422.43	9,412.78	9.65	976.173		
900.00	899.62	818.00	850.05	4.94	4.81	-85.91	-3,026.97	-8,923.87	9,422.43	9,412.76	9.67	974.362		
1,000.00	999.41	818.00	850.05	5.27	4.81	-85.91	-3,026.97	-8,923.87	9,423.02	9,413.01	10.01	941.735		
1,100.00	1,099.19	862.53	893.80	5.62	4.97	-85.98	-3,034.96	-8,921.50	9,423.96	9,413.45	10.52	895.976		
1,200.00	1,198.98	912.00	942.33	5.99	5.15	-86.05	-3,044.41	-8,920.16	9,426.58	9,415.52	11.07	851.848		
1,300.00	1,298.76	912.00	942.33	6.36	5.15	-86.05	-3,044.41	-8,920.16	9,429.39	9,417.95	11.44	824.438		
1,400.00	1,398.55	912.00	942.33	6.74	5.15	-86.05	-3,044.41	-8,920.16	9,433.25	9,421.44	11.82	798.307		
1,500.00	1,498.33	912.00	942.33	7.13	5.15	-86.05	-3,044.41	-8,920.16	9,438.18	9,425.97	12.20	773.487		
1,600.00	1,598.12	912.00	942.33	7.52	5.15	-86.05	-3,044.41	-8,920.16	9,444.16	9,431.56	12.59	749.971		
1,700.00	1,697.90	912.00	942.33	7.92	5.15	-86.05	-3,044.41	-8,920.16	9,451.19	9,438.20	12.99	727.731		
1,800.00	1,797.69	961.82	991.19	8.33	5.33	-86.13	-3,054.16	-8,920.35	9,458.37	9,444.79	13.58	696.638		
1,900.00	1,897.47	1,006.00	1,034.51	8.74	5.50	-86.19	-3,062.66	-8,921.94	9,467.26	9,453.11	14.15	668.990		
2,000.00	1,997.26	1,006.00	1,034.51	9.15	5.50	-86.19	-3,062.66	-8,921.94	9,476.48	9,461.93	14.55	651.201		
2,100.00	2,097.04	1,006.00	1,034.51	9.56	5.50	-86.19	-3,062.66	-8,921.94	9,486.75	9,471.80	14.95	634.391		
2,200.00	2,196.83	1,006.00	1,034.51	9.98	5.50	-86.19	-3,062.66	-8,921.94	9,498.06	9,482.71	15.36	618.508		
2,300.00	2,296.61	1,006.00	1,034.51	10.40	5.50	-86.19	-3,062.66	-8,921.94	9,510.41	9,494.65	15.76	603.499		
2,400.00	2,396.40	1,060.18	1,087.64	10.82	5.70	-86.26	-3,072.62	-8,925.53	9,523.01	9,506.63	16.37	581.599		
2,500.00	2,496.18	1,101.00	1,127.68	11.24	5.85	-86.31	-3,079.62	-8,929.31	9,536.90	9,519.96	16.94	563.006		
2,600.00	2,595.96	1,101.00	1,127.68	11.66	5.85	-86.31	-3,079.62	-8,929.31	9,551.38	9,534.04	17.34	550.836		
2,700.00	2,695.75	1,101.00	1,127.68	12.09	5.85	-86.31	-3,079.62	-8,929.31	9,566.87	9,549.14	17.74	539.311		
2,800.00	2,795.53	1,101.00	1,127.68	12.51	5.85	-86.31	-3,079.62	-8,929.31	9,583.39	9,565.25	18.14	528.392		
2,900.00	2,895.32	1,149.07	1,174.69	12.94	6.03	-86.37	-3,088.03	-8,934.75	9,600.23	9,581.50	18.73	512.557		
3,000.00	2,995.10	1,197.00	1,221.30	13.37	6.23	-86.42	-3,097.24	-8,941.06	9,618.49	9,599.17	19.33	497.716		
3,100.00	3,094.89	1,197.00	1,221.30	13.80	6.23	-86.42	-3,097.24	-8,941.06	9,637.07	9,617.35	19.72	488.749		
3,200.00	3,194.67	1,197.00	1,221.30	14.23	6.23	-86.42	-3,097.24	-8,941.06	9,656.65	9,636.54	20.11	480.236		
3,300.00	3,294.46	1,197.00	1,221.30	14.66	6.23	-86.42	-3,097.24	-8,941.06	9,677.23	9,656.73	20.50	472.153		
3,400.00	3,394.24	1,235.73	1,258.76	15.09	6.39	-86.47	-3,105.25	-8,946.76	9,698.38	9,677.33	21.05	460.649		
3,500.00	3,494.03	1,253.92	1,276.29	15.52	6.47	-86.50	-3,109.17	-8,949.62	9,720.46	9,698.94	21.52	451.716		
3,600.00	3,593.81	1,292.00	1,312.86	15.96	6.64	-86.55	-3,117.70	-8,955.95	9,743.43	9,721.36	22.07	441.395		
3,700.00	3,693.60	1,292.00	1,312.86	16.39	6.64	-86.55	-3,117.70	-8,955.95	9,767.00	9,744.54	22.45	435.026		
3,800.00	3,793.38	1,292.00	1,312.86	16.82	6.64	-86.55	-3,117.70	-8,955.95	9,791.52	9,768.69	22.83	428.967		
3,900.00	3,893.17	1,292.00	1,312.86	17.26	6.64	-86.55	-3,117.70	-8,955.95	9,817.00	9,793.81	23.20	423.205		
4,000.00	3,992.95	1,343.71	1,362.21	17.69	6.90	-86.62	-3,129.98	-8,965.31	9,842.72	9,818.90	23.81	413.361		
4,100.00	4,092.74	1,387.00	1,403.23	18.13	7.12	-86.68	-3,140.87	-8,973.84	9,869.69	9,845.29	24.40	404.530		
4,200.00	4,192.52	1,387.00	1,403.23	18.56	7.12	-86.68	-3,140.87	-8,973.84	9,897.10	9,872.34	24.76	399.724		
4,300.00	4,292.31	1,424.15	1,438.29	19.00	7.33	-86.73	-3,150.56	-8,981.39	9,925.35	9,900.03	25.32	391.994		
4,400.00	4,392.09	1,481.00	1,491.84	19.43	7.66	-86.82	-3,165.81	-8,992.87	9,953.96	9,927.99	25.97	383.237		
4,500.00	4,491.88	1,517.88	1,526.47	19.87	7.89	-86.87	-3,176.05	-9,000.34	9,983.07	9,956.53	26.54	376.137		
8,000.00	7,251.65	7,419.76	7,008.59	41.47	53.68	-87.76	-4,972.37	-9,555.89	9,973.94	9,894.91	79.03	126.197		
8,100.00	7,251.29	7,421.60	7,010.43	43.31	53.68	-87.78	-4,972.39	-9,555.93	9,890.19	9,810.48	79.71	124.079		
8,200.00	7,250.92	7,423.45	7,012.28	45.26	53.69	-87.80	-4,972.41	-9,555.97	9,806.74	9,726.29	80.46	121.888		
8,300.00	7,250.55	7,425.31	7,014.13	47.30	53.69	-87.82	-4,972.43	-9,556.01	9,723.61	9,642.33	81.28	119.636		
8,400.00	7,250.19	7,427.17	7,016.00	49.42	53.70	-87.83	-4,972.45	-9,556.05	9,640.79	9,558.62	82.17	117.331		

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



Anticollision Report



Company:	SRC ENERGY	Local Co-ordinate Reference:	Well HARVESTERS STATE 31C-16-M
Project:	SECTION 15, T6N, R66W	TVD Reference:	KB @ 4821.00ft
Reference Site:	HARVESTERS STATE 7-15 PAD	MD Reference:	KB @ 4821.00ft
Site Error:	3.28 ft	North Reference:	True
Reference Well:	HARVESTERS STATE 31C-16-M	Survey Calculation Method:	Minimum Curvature
Well Error:	3.28 ft	Output errors are at	2.45 sigma
Reference Wellbore	OH	Database:	EDM 5000.14 Single User Db
Reference Design:	PLAN #1	Offset TVD Reference:	Reference Datum

Offset Design HARVESTERS STATE 7-15 PAD - HOOD 6-2-20(PR_150CC) - OH - OH													Offset Site Error:	0.00 ft
Survey Program: 82-MWDD													Offset Well Error:	3.28 ft
Reference		Offset		Semi Major Axis			Distance							Warning
Measured Depth (ft)	Vertical Depth (ft)	Measured Depth (ft)	Vertical Depth (ft)	Reference (ft)	Offset (ft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (ft)	+E/-W (ft)	Between Centres (ft)	Between Ellipses (ft)	Minimum Separation (ft)	Separation Factor		
8,500.00	7,249.82	7,429.05	7,017.87	51.62	53.70	-87.85	-4,972.47	-9,556.09	9,558.30	9,475.17	83.13	114.982		
8,600.00	7,249.45	7,430.93	7,019.75	53.88	53.71	-87.87	-4,972.49	-9,556.13	9,476.15	9,391.99	84.16	112.600		
8,700.00	7,249.09	7,432.82	7,021.64	56.19	53.71	-87.89	-4,972.51	-9,556.18	9,394.35	9,309.09	85.25	110.192		
8,800.00	7,248.72	7,434.71	7,023.54	58.55	53.72	-87.91	-4,972.53	-9,556.22	9,312.90	9,226.48	86.42	107.768		
8,900.00	7,248.36	7,436.62	7,025.44	60.96	53.72	-87.93	-4,972.55	-9,556.26	9,231.81	9,144.17	87.64	105.336		
9,000.00	7,247.99	7,438.53	7,027.35	63.40	53.73	-87.95	-4,972.56	-9,556.30	9,151.10	9,062.17	88.93	102.901		
9,100.00	7,247.62	7,440.45	7,029.27	65.87	53.73	-87.98	-4,972.58	-9,556.35	9,070.77	8,980.49	90.28	100.472		
9,200.00	7,247.26	7,442.38	7,031.20	68.38	53.74	-88.00	-4,972.60	-9,556.39	8,990.83	8,899.14	91.69	98.055		
9,300.00	7,246.89	7,444.32	7,033.14	70.91	53.74	-88.02	-4,972.62	-9,556.43	8,911.30	8,818.14	93.16	95.655		
9,400.00	7,246.53	7,446.26	7,035.08	73.47	53.75	-88.04	-4,972.64	-9,556.48	8,832.19	8,737.50	94.69	93.276		
9,500.00	7,246.16	7,448.22	7,037.04	76.05	53.75	-88.06	-4,972.66	-9,556.52	8,753.50	8,657.23	96.27	90.923		
9,600.00	7,245.79	7,450.18	7,039.00	78.65	53.76	-88.08	-4,972.68	-9,556.57	8,675.26	8,577.34	97.91	88.600		
9,700.00	7,245.43	7,452.15	7,040.97	81.27	53.76	-88.10	-4,972.70	-9,556.61	8,597.46	8,497.85	99.61	86.311		
9,800.00	7,245.06	7,454.13	7,042.95	83.90	53.77	-88.12	-4,972.72	-9,556.66	8,520.12	8,418.76	101.36	84.057		
9,900.00	7,244.69	7,456.11	7,044.93	86.55	53.78	-88.14	-4,972.74	-9,556.70	8,443.26	8,340.10	103.17	81.841		
10,000.00	7,244.33	7,458.11	7,046.93	89.21	53.78	-88.16	-4,972.76	-9,556.75	8,366.89	8,261.87	105.02	79.666		
10,100.00	7,243.96	7,460.11	7,048.93	91.88	53.79	-88.18	-4,972.78	-9,556.79	8,291.02	8,184.09	106.93	77.533		
10,200.00	7,243.60	7,462.13	7,050.94	94.56	53.79	-88.20	-4,972.80	-9,556.84	8,215.67	8,106.77	108.90	75.444		
10,300.00	7,243.23	7,464.15	7,052.96	97.26	53.80	-88.23	-4,972.81	-9,556.89	8,140.85	8,029.94	110.91	73.398		
10,400.00	7,242.86	7,466.18	7,054.99	99.96	53.80	-88.25	-4,972.83	-9,556.93	8,066.57	7,953.59	112.98	71.398		
10,500.00	7,242.50	7,468.22	7,057.03	102.67	53.81	-88.27	-4,972.85	-9,556.98	7,992.86	7,877.76	115.10	69.443		
10,600.00	7,242.13	7,470.26	7,059.08	105.39	53.81	-88.29	-4,972.87	-9,557.03	7,919.72	7,802.45	117.27	67.535		
10,700.00	7,241.76	7,472.32	7,061.13	108.12	53.82	-88.31	-4,972.89	-9,557.07	7,847.17	7,727.68	119.49	65.672		
10,800.00	7,241.40	7,474.39	7,063.20	110.85	53.83	-88.33	-4,972.91	-9,557.12	7,775.23	7,653.47	121.76	63.856		
10,900.00	7,241.03	7,476.46	7,065.27	113.59	53.83	-88.36	-4,972.93	-9,557.17	7,703.92	7,579.83	124.08	62.086		
11,000.00	7,240.67	7,478.54	7,067.36	116.34	53.84	-88.38	-4,972.95	-9,557.22	7,633.25	7,506.79	126.46	60.362		
11,100.00	7,240.30	7,480.64	7,069.45	119.09	53.84	-88.40	-4,972.96	-9,557.27	7,563.24	7,434.36	128.88	58.684		
11,200.00	7,239.93	7,482.74	7,071.55	121.85	53.85	-88.42	-4,972.98	-9,557.32	7,493.91	7,362.55	131.35	57.051		
11,300.00	7,239.57	7,484.85	7,073.66	124.61	53.85	-88.44	-4,973.00	-9,557.36	7,425.28	7,291.40	133.88	55.463		
11,400.00	7,239.20	7,486.97	7,075.78	127.38	53.86	-88.47	-4,973.02	-9,557.41	7,357.37	7,220.91	136.45	53.918		
11,500.00	7,238.84	7,489.10	7,077.91	130.15	53.87	-88.49	-4,973.04	-9,557.46	7,290.19	7,151.12	139.08	52.418		
11,600.00	7,238.47	7,491.24	7,080.05	132.92	53.87	-88.51	-4,973.06	-9,557.51	7,223.78	7,082.03	141.75	50.960		
11,700.00	7,238.10	7,493.39	7,082.20	135.70	53.88	-88.53	-4,973.07	-9,557.56	7,158.15	7,013.67	144.48	49.545		
11,800.00	7,237.74	7,495.55	7,084.36	138.48	53.88	-88.56	-4,973.09	-9,557.62	7,093.32	6,946.06	147.25	48.172		
11,900.00	7,237.37	7,497.72	7,086.52	141.26	53.89	-88.58	-4,973.11	-9,557.67	7,029.31	6,879.23	150.07	46.839		
12,000.00	7,237.00	7,499.90	7,088.70	144.05	53.89	-88.60	-4,973.13	-9,557.72	6,966.15	6,813.20	152.95	45.546		
12,100.00	7,236.64	7,502.08	7,090.89	146.84	53.90	-88.63	-4,973.15	-9,557.77	6,903.86	6,747.99	155.87	44.293		
12,200.00	7,236.27	7,504.28	7,093.09	149.64	53.91	-88.65	-4,973.16	-9,557.82	6,842.46	6,683.62	158.84	43.078		
12,300.00	7,235.91	7,506.49	7,095.29	152.43	53.91	-88.67	-4,973.18	-9,557.87	6,781.98	6,620.13	161.85	41.902		
12,400.00	7,235.54	7,508.71	7,097.51	155.23	53.92	-88.70	-4,973.20	-9,557.93	6,722.44	6,557.53	164.92	40.762		
12,500.00	7,235.17	7,510.93	7,099.74	158.03	53.93	-88.72	-4,973.22	-9,557.98	6,663.88	6,495.85	168.03	39.659		
12,600.00	7,234.81	7,513.17	7,101.97	160.83	53.93	-88.74	-4,973.23	-9,558.03	6,606.30	6,435.12	171.19	38.591		
12,700.00	7,234.44	7,515.42	7,104.22	163.64	53.94	-88.77	-4,973.25	-9,558.09	6,549.75	6,375.36	174.39	37.558		
12,800.00	7,234.07	7,517.68	7,106.48	166.44	53.94	-88.79	-4,973.27	-9,558.14	6,494.24	6,316.61	177.64	36.559		
12,900.00	7,233.71	7,519.95	7,108.75	169.25	53.95	-88.81	-4,973.28	-9,558.20	6,439.81	6,258.88	180.93	35.594		
13,000.00	7,233.34	7,522.23	7,111.02	172.06	53.96	-88.84	-4,973.30	-9,558.25	6,386.48	6,202.22	184.26	34.661		
13,100.00	7,232.98	7,524.52	7,113.31	174.88	53.96	-88.86	-4,973.32	-9,558.31	6,334.27	6,146.64	187.63	33.759		
13,200.00	7,232.61	7,526.82	7,115.61	177.69	53.97	-88.89	-4,973.34	-9,558.36	6,283.23	6,092.18	191.04	32.889		
13,300.00	7,232.24	7,529.13	7,117.92	180.50	53.98	-88.91	-4,973.35	-9,558.42	6,233.37	6,038.87	194.49	32.049		
13,400.00	7,231.88	7,531.45	7,120.24	183.32	53.98	-88.94	-4,973.37	-9,558.47	6,184.72	5,986.74	197.98	31.239		
13,500.00	7,231.51	7,533.78	7,122.57	186.14	53.99	-88.96	-4,973.39	-9,558.53	6,137.32	5,935.82	201.50	30.458		
13,600.00	7,231.15	7,536.12	7,124.92	188.96	53.99	-88.99	-4,973.40	-9,558.59	6,091.19	5,886.13	205.05	29.705		

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



Anticollision Report



Company:	SRC ENERGY	Local Co-ordinate Reference:	Well HARVESTERS STATE 31C-16-M
Project:	SECTION 15, T6N, R66W	TVD Reference:	KB @ 4821.00ft
Reference Site:	HARVESTERS STATE 7-15 PAD	MD Reference:	KB @ 4821.00ft
Site Error:	3.28 ft	North Reference:	True
Reference Well:	HARVESTERS STATE 31C-16-M	Survey Calculation Method:	Minimum Curvature
Well Error:	3.28 ft	Output errors are at	2.45 sigma
Reference Wellbore	OH	Database:	EDM 5000.14 Single User Db
Reference Design:	PLAN #1	Offset TVD Reference:	Reference Datum

Offset Design HARVESTERS STATE 7-15 PAD - HOOD 6-2-20(PR_150CC) - OH - OH												Offset Site Error:	0.00 ft
Survey Program: 82-MWD												Offset Well Error:	3.28 ft
Reference		Offset		Semi Major Axis			Distance						Warning
Measured Depth (ft)	Vertical Depth (ft)	Measured Depth (ft)	Vertical Depth (ft)	Reference (ft)	Offset (ft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (ft)	+E/-W (ft)	Between Centres (ft)	Between Ellipses (ft)	Minimum Separation (ft)	Separation Factor	
13,700.00	7,230.78	7,538.48	7,127.27	191.78	54.00	-89.01	-4,973.42	-9,558.65	6,046.36	5,837.72	208.64	28.980	
13,800.00	7,230.41	7,540.84	7,129.63	194.60	54.01	-89.03	-4,973.43	-9,558.70	6,002.86	5,790.61	212.25	28.282	
13,900.00	7,230.05	7,543.22	7,132.01	197.42	54.01	-89.06	-4,973.45	-9,558.76	5,960.72	5,744.83	215.89	27.610	
14,000.00	7,229.68	7,545.60	7,134.39	200.25	54.02	-89.09	-4,973.47	-9,558.82	5,919.97	5,700.42	219.55	26.964	
14,100.00	7,229.31	7,548.00	7,136.79	203.07	54.03	-89.11	-4,973.48	-9,558.88	5,880.63	5,657.40	223.23	26.343	
14,200.00	7,228.95	7,550.41	7,139.20	205.90	54.03	-89.14	-4,973.50	-9,558.94	5,842.75	5,615.81	226.93	25.747	
14,300.00	7,228.58	7,552.83	7,141.62	208.73	54.04	-89.16	-4,973.51	-9,559.00	5,806.33	5,575.69	230.65	25.174	
14,400.00	7,228.22	7,555.26	7,144.05	211.55	54.05	-89.19	-4,973.53	-9,559.06	5,771.42	5,537.05	234.37	24.625	
14,500.00	7,227.85	7,557.71	7,146.49	214.38	54.05	-89.21	-4,973.55	-9,559.12	5,738.04	5,499.94	238.10	24.099	
14,600.00	7,227.48	7,560.16	7,148.95	217.21	54.06	-89.24	-4,973.56	-9,559.18	5,706.22	5,464.38	241.84	23.595	
14,700.00	7,227.12	7,562.63	7,151.41	220.04	54.07	-89.26	-4,973.58	-9,559.24	5,675.97	5,430.40	245.58	23.113	
14,800.00	7,226.75	7,565.11	7,153.89	222.88	54.07	-89.29	-4,973.59	-9,559.30	5,647.34	5,398.03	249.31	22.652	
14,900.00	7,226.38	7,567.60	7,156.38	225.71	54.08	-89.32	-4,973.61	-9,559.37	5,620.34	5,367.31	253.03	22.212	
15,000.00	7,226.02	7,570.10	7,158.88	228.54	54.09	-89.34	-4,973.62	-9,559.43	5,594.99	5,338.25	256.75	21.792	
15,005.81	7,226.00	7,570.25	7,159.03	228.71	54.09	-89.35	-4,973.62	-9,559.43	5,593.57	5,336.61	256.96	21.768	CC, ES, SF



Anticollision Report



Company:	SRC ENERGY	Local Co-ordinate Reference:	Well HARVESTERS STATE 31C-16-M
Project:	SECTION 15, T6N, R66W	TVD Reference:	KB @ 4821.00ft
Reference Site:	HARVESTERS STATE 7-15 PAD	MD Reference:	KB @ 4821.00ft
Site Error:	3.28 ft	North Reference:	True
Reference Well:	HARVESTERS STATE 31C-16-M	Survey Calculation Method:	Minimum Curvature
Well Error:	3.28 ft	Output errors are at	2.45 sigma
Reference Wellbore	OH	Database:	EDM 5000.14 Single User Db
Reference Design:	PLAN #1	Offset TVD Reference:	Reference Datum

Offset Design HARVESTERS STATE 7-15 PAD - LEFFLER 1 21-2(SI_75CC) - OH - OH													Offset Site Error:	0.00 ft
Survey Program: 100-GYRO-NS													Offset Well Error:	3.28 ft
Reference		Offset		Semi Major Axis			Distance							Warning
Measured Depth (ft)	Vertical Depth (ft)	Measured Depth (ft)	Vertical Depth (ft)	Reference (ft)	Offset (ft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (ft)	+E/-W (ft)	Between Centres (ft)	Between Ellipses (ft)	Minimum Separation (ft)	Separation Factor		
0.00	0.00	0.00	64.00	3.28	3.28	-130.92	-4,262.97	-4,917.20	6,508.14					
100.00	100.00	48.74	112.74	3.28	3.28	-130.92	-4,262.81	-4,917.28	6,507.79	6,501.22	6.57	991.056		
200.00	200.00	183.35	247.33	3.34	3.33	-130.90	-4,260.92	-4,918.09	6,507.32	6,500.65	6.67	975.586		
300.00	300.00	278.20	342.16	3.44	3.43	-130.89	-4,259.09	-4,918.76	6,506.60	6,499.72	6.87	946.455		
400.00	400.00	375.93	439.88	3.60	3.57	-130.88	-4,257.53	-4,919.32	6,505.98	6,498.81	7.18	906.445		
500.00	500.00	479.38	543.32	3.81	3.77	-130.86	-4,256.09	-4,919.70	6,505.35	6,497.77	7.58	858.599		
600.00	600.00	598.34	662.27	4.05	4.05	-130.85	-4,254.47	-4,919.85	6,504.56	6,496.47	8.09	803.920		
676.03	676.02	665.32	729.24	4.25	4.22	-107.96	-4,253.61	-4,919.81	6,504.19	6,495.73	8.47	768.130		
700.00	699.98	686.29	750.21	4.32	4.28	-107.96	-4,253.37	-4,919.79	6,504.23	6,495.64	8.59	757.038		
800.00	799.84	788.21	852.13	4.62	4.57	-107.99	-4,252.29	-4,919.68	6,505.07	6,495.89	9.18	708.711		
900.00	899.62	877.06	940.97	4.94	4.84	-108.03	-4,251.37	-4,919.62	6,506.37	6,496.60	9.77	666.097		
1,000.00	999.41	970.80	1,034.71	5.27	5.14	-108.08	-4,250.48	-4,919.68	6,507.83	6,497.42	10.40	625.452		
1,100.00	1,099.19	1,078.99	1,142.89	5.62	5.50	-108.13	-4,249.42	-4,919.77	6,509.29	6,498.17	11.12	585.405		
1,200.00	1,198.98	1,171.82	1,235.72	5.99	5.83	-108.17	-4,248.47	-4,919.80	6,510.69	6,498.88	11.81	551.500		
1,300.00	1,298.76	1,257.61	1,321.50	6.36	6.13	-108.22	-4,247.65	-4,919.99	6,512.28	6,499.79	12.48	521.618		
1,400.00	1,398.55	1,344.33	1,408.22	6.74	6.45	-108.26	-4,247.09	-4,920.20	6,514.09	6,500.91	13.18	494.178		
1,500.00	1,498.33	1,442.52	1,506.40	7.13	6.82	-108.31	-4,246.70	-4,920.43	6,516.06	6,502.13	13.93	467.638		
1,600.00	1,598.12	1,546.59	1,610.47	7.52	7.21	-108.36	-4,246.22	-4,920.58	6,517.93	6,503.21	14.72	442.764		
1,700.00	1,697.90	1,646.58	1,710.47	7.92	7.60	-108.41	-4,245.95	-4,920.59	6,519.84	6,504.34	15.50	420.539		
1,800.00	1,797.69	1,746.86	1,810.74	8.33	7.99	-108.47	-4,245.58	-4,920.62	6,521.69	6,505.40	16.30	400.199		
1,900.00	1,897.47	1,832.16	1,896.05	8.74	8.32	-108.51	-4,245.38	-4,920.65	6,523.65	6,506.62	17.04	382.914		
2,000.00	1,997.26	1,908.86	1,972.74	9.15	8.62	-108.55	-4,245.38	-4,920.86	6,525.95	6,508.20	17.75	367.696		
2,100.00	2,097.04	1,997.34	2,061.22	9.56	8.97	-108.60	-4,245.50	-4,921.31	6,528.51	6,510.00	18.51	352.696		
2,200.00	2,196.83	2,092.05	2,155.93	9.98	9.35	-108.65	-4,245.72	-4,921.85	6,531.19	6,511.89	19.30	338.366		
2,300.00	2,296.61	2,191.94	2,255.82	10.40	9.75	-108.70	-4,245.98	-4,922.46	6,533.93	6,513.81	20.12	324.755		
2,400.00	2,396.40	2,283.31	2,347.19	10.82	10.12	-108.75	-4,246.15	-4,923.15	6,536.72	6,515.81	20.91	312.662		
2,500.00	2,496.18	2,384.15	2,448.02	11.24	10.53	-108.80	-4,246.33	-4,924.01	6,539.59	6,517.86	21.74	300.864		
2,600.00	2,595.96	2,478.51	2,542.38	11.66	10.91	-108.85	-4,246.49	-4,924.84	6,542.48	6,519.94	22.54	290.234		
2,700.00	2,695.75	2,572.03	2,635.89	12.09	11.29	-108.89	-4,246.67	-4,925.77	6,545.48	6,522.13	23.35	280.348		
2,800.00	2,795.53	2,658.33	2,722.19	12.51	11.65	-108.93	-4,246.73	-4,926.87	6,548.61	6,524.48	24.13	271.437		
2,900.00	2,895.32	2,745.01	2,808.85	12.94	12.00	-108.97	-4,246.93	-4,928.13	6,551.98	6,527.07	24.91	263.054		
3,000.00	2,995.10	2,835.35	2,899.18	13.37	12.37	-109.02	-4,247.28	-4,929.51	6,555.51	6,529.81	25.71	255.017		
3,100.00	3,094.89	2,926.38	2,990.20	13.80	12.75	-109.06	-4,247.85	-4,930.87	6,559.19	6,532.68	26.51	247.428		
3,200.00	3,194.67	3,023.05	3,086.86	14.23	13.15	-109.11	-4,248.51	-4,932.42	6,562.99	6,535.65	27.34	240.065		
3,300.00	3,294.46	3,211.24	3,275.03	14.66	13.93	-109.21	-4,249.43	-4,934.57	6,566.50	6,537.94	28.56	229.955		
3,400.00	3,394.24	3,288.60	3,352.39	15.09	14.25	-109.25	-4,249.58	-4,935.01	6,569.20	6,539.89	29.31	224.149		
3,500.00	3,494.03	3,408.97	3,472.76	15.52	14.76	-109.31	-4,249.68	-4,935.75	6,571.88	6,541.64	30.24	217.313		
3,600.00	3,593.81	3,496.40	3,560.19	15.96	15.12	-109.35	-4,249.78	-4,936.17	6,574.50	6,543.46	31.04	211.820		
3,700.00	3,693.60	3,575.02	3,638.81	16.39	15.45	-109.39	-4,249.98	-4,936.71	6,577.34	6,545.55	31.80	206.847		
3,800.00	3,793.38	3,654.18	3,717.96	16.82	15.78	-109.43	-4,250.15	-4,937.62	6,580.52	6,547.96	32.56	202.099		
3,900.00	3,893.17	3,737.35	3,801.12	17.26	16.13	-109.47	-4,250.34	-4,938.90	6,584.00	6,550.66	33.34	197.473		
4,000.00	3,992.95	3,825.41	3,889.16	17.69	16.50	-109.51	-4,250.66	-4,940.38	6,587.68	6,553.54	34.14	192.941		
4,100.00	4,092.74	3,910.38	3,974.12	18.13	16.86	-109.55	-4,251.20	-4,941.80	6,591.55	6,556.61	34.93	188.693		
4,200.00	4,192.52	3,977.15	4,040.88	18.56	17.14	-109.58	-4,251.88	-4,943.04	6,595.80	6,560.16	35.64	185.051		
4,300.00	4,292.31	4,046.70	4,110.41	19.00	17.43	-109.62	-4,252.86	-4,944.53	6,600.54	6,564.18	36.37	181.507		
4,400.00	4,392.09	4,117.18	4,180.85	19.43	17.73	-109.66	-4,254.19	-4,946.15	6,605.73	6,568.64	37.09	178.096		
4,500.00	4,491.88	4,186.15	4,249.78	19.87	18.02	-109.69	-4,255.77	-4,947.91	6,611.37	6,573.56	37.81	174.860		
4,600.00	4,591.66	4,323.89	4,387.44	20.31	18.60	-109.77	-4,258.88	-4,951.47	6,617.04	6,578.21	38.83	170.391		
4,700.00	4,691.44	4,445.11	4,508.61	20.74	19.11	-109.82	-4,260.84	-4,954.45	6,622.17	6,582.39	39.79	166.442		
4,800.00	4,791.23	4,589.98	4,653.43	21.18	19.72	-109.89	-4,262.47	-4,957.88	6,626.94	6,586.10	40.84	162.252		
4,900.00	4,891.01	4,737.16	4,800.59	21.62	20.34	-109.96	-4,263.55	-4,960.27	6,630.86	6,588.95	41.91	158.218		
5,000.00	4,990.80	4,850.13	4,913.55	22.06	20.82	-110.02	-4,264.28	-4,961.46	6,634.31	6,591.48	42.83	154.913		

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



Anticollision Report



Company:	SRC ENERGY	Local Co-ordinate Reference:	Well HARVESTERS STATE 31C-16-M
Project:	SECTION 15, T6N, R66W	TVD Reference:	KB @ 4821.00ft
Reference Site:	HARVESTERS STATE 7-15 PAD	MD Reference:	KB @ 4821.00ft
Site Error:	3.28 ft	North Reference:	True
Reference Well:	HARVESTERS STATE 31C-16-M	Survey Calculation Method:	Minimum Curvature
Well Error:	3.28 ft	Output errors are at	2.45 sigma
Reference Wellbore	OH	Database:	EDM 5000.14 Single User Db
Reference Design:	PLAN #1	Offset TVD Reference:	Reference Datum

Offset Design HARVESTERS STATE 7-15 PAD - LEFFLER 1 21-2(SI_75CC) - OH - OH													Offset Site Error:	0.00 ft
Survey Program: 100-GYRO-NS													Offset Well Error:	3.28 ft
Reference		Offset		Semi Major Axis			Distance							Warning
Measured Depth (ft)	Vertical Depth (ft)	Measured Depth (ft)	Vertical Depth (ft)	Reference (ft)	Offset (ft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (ft)	+E/-W (ft)	Between Centres (ft)	Between Ellipses (ft)	Minimum Separation (ft)	Separation Factor		
5,100.00	5,090.58	4,955.17	5,018.58	22.50	21.27	-110.07	-4,264.87	-4,962.57	6,637.72	6,594.01	43.71	151.863		
5,200.00	5,190.37	5,073.70	5,137.10	22.93	21.77	-110.13	-4,265.16	-4,963.85	6,640.94	6,596.29	44.65	148.733		
5,300.00	5,290.15	5,182.45	5,245.85	23.37	22.23	-110.18	-4,265.00	-4,965.06	6,643.92	6,598.37	45.55	145.862		
5,400.00	5,389.94	5,293.37	5,356.75	23.81	22.70	-110.23	-4,264.42	-4,966.50	6,646.78	6,600.32	46.46	143.071		
5,500.00	5,489.72	5,369.72	5,433.10	24.25	23.02	-110.26	-4,264.10	-4,967.49	6,649.71	6,602.49	47.22	140.832		
5,600.00	5,589.51	5,505.83	5,569.19	24.69	23.60	-110.32	-4,263.69	-4,969.21	6,652.76	6,604.52	48.24	137.923		
5,700.00	5,689.29	5,569.94	5,633.30	25.13	23.87	-110.35	-4,263.54	-4,969.91	6,655.64	6,606.70	48.94	135.989		
5,800.00	5,789.08	5,646.75	5,710.11	25.56	24.20	-110.39	-4,263.73	-4,970.83	6,658.98	6,609.27	49.70	133.972		
5,900.00	5,888.86	5,735.19	5,798.54	26.00	24.57	-110.43	-4,263.99	-4,972.16	6,662.56	6,612.04	50.52	131.888		
6,000.00	5,988.65	5,826.55	5,889.88	26.44	24.96	-110.47	-4,264.41	-4,973.51	6,666.25	6,614.91	51.34	129.839		
6,100.00	6,088.43	5,910.50	5,973.81	26.88	25.32	-110.51	-4,264.66	-4,975.15	6,670.17	6,618.03	52.14	127.940		
6,200.00	6,188.22	6,012.74	6,076.03	27.32	25.75	-110.55	-4,264.74	-4,977.48	6,674.18	6,621.17	53.01	125.906		
6,300.00	6,288.00	6,118.82	6,182.09	27.76	26.21	-110.59	-4,264.94	-4,979.64	6,678.09	6,624.19	53.90	123.897		
6,400.00	6,387.79	6,200.01	6,263.26	28.20	26.55	-110.62	-4,264.90	-4,981.57	6,682.10	6,627.42	54.68	122.201		
6,500.00	6,487.57	6,276.80	6,340.02	28.64	26.88	-110.65	-4,264.95	-4,983.64	6,686.43	6,630.98	55.44	120.601		
6,600.00	6,587.35	6,385.69	6,448.87	29.08	27.34	-110.69	-4,265.38	-4,986.56	6,690.97	6,634.62	56.35	118.745		
6,700.00	6,687.02	6,483.69	6,546.83	29.52	27.76	-72.80	-4,265.40	-4,989.34	6,693.75	6,636.55	57.20	117.017		
6,800.00	6,784.98	6,568.74	6,631.85	29.96	28.12	-57.36	-4,265.64	-4,991.68	6,686.61	6,628.61	58.00	115.285		
6,900.00	6,878.81	6,648.15	6,711.23	30.41	28.46	-54.16	-4,266.18	-4,993.80	6,688.65	6,609.88	58.77	113.471		
7,000.00	6,966.21	6,721.67	6,784.70	30.86	28.77	-54.26	-4,266.39	-4,996.28	6,640.42	6,580.92	59.51	111.589		
7,100.00	7,045.03	6,787.21	6,850.19	31.35	29.05	-56.19	-4,266.32	-4,998.97	6,602.74	6,542.53	60.22	109.652		
7,200.00	7,113.32	6,835.61	6,898.54	31.90	29.26	-59.50	-4,266.18	-5,001.23	6,556.69	6,495.82	60.87	107.718		
7,300.00	7,169.40	6,874.05	6,936.93	32.57	29.42	-64.10	-4,266.16	-5,003.12	6,503.56	6,442.04	61.53	105.703		
7,400.00	7,211.89	6,900.01	6,962.86	33.38	29.53	-69.88	-4,266.20	-5,004.46	6,444.75	6,382.55	62.20	103.609		
7,500.00	7,239.75	6,921.27	6,984.08	34.35	29.63	-76.78	-4,266.26	-5,005.59	6,381.76	6,318.81	62.95	101.377		
7,600.00	7,252.28	6,930.98	6,993.78	35.47	29.67	-84.44	-4,266.30	-5,006.13	6,316.17	6,252.43	63.74	99.086		
7,700.00	7,252.75	6,934.26	6,997.06	36.73	29.68	-87.06	-4,266.32	-5,006.31	6,249.84	6,185.23	64.61	96.731		
7,800.00	7,252.38	6,937.13	6,999.92	38.16	29.69	-87.10	-4,266.33	-5,006.47	6,184.32	6,118.71	65.61	94.253		
7,900.00	7,252.02	6,940.03	7,002.81	39.74	29.71	-87.13	-4,266.35	-5,006.64	6,119.74	6,052.99	66.76	91.673		
8,000.00	7,251.65	6,942.96	7,005.74	41.47	29.72	-87.17	-4,266.36	-5,006.80	6,056.12	5,988.09	68.03	89.016		
8,100.00	7,251.29	6,945.94	7,008.71	43.31	29.73	-87.21	-4,266.38	-5,006.97	5,993.49	5,924.05	69.44	86.308		
8,200.00	7,250.92	6,948.94	7,011.71	45.26	29.74	-87.24	-4,266.40	-5,007.15	5,931.88	5,860.90	70.98	83.573		
8,300.00	7,250.55	6,951.99	7,014.75	47.30	29.76	-87.28	-4,266.42	-5,007.32	5,871.32	5,798.69	72.63	80.835		
8,400.00	7,250.19	6,955.07	7,017.82	49.42	29.77	-87.32	-4,266.44	-5,007.50	5,811.86	5,737.45	74.40	78.112		
8,500.00	7,249.82	6,958.18	7,020.94	51.62	29.78	-87.35	-4,266.46	-5,007.68	5,753.51	5,677.22	76.29	75.421		
8,600.00	7,249.45	6,961.34	7,024.09	53.88	29.80	-87.39	-4,266.48	-5,007.87	5,696.31	5,618.04	78.27	72.777		
8,700.00	7,249.09	6,964.54	7,027.28	56.19	29.81	-87.43	-4,266.51	-5,008.06	5,640.31	5,559.96	80.35	70.193		
8,800.00	7,248.72	6,967.78	7,030.51	58.55	29.82	-87.47	-4,266.53	-5,008.25	5,585.53	5,503.00	82.53	67.676		
8,900.00	7,248.36	6,971.05	7,033.78	60.96	29.84	-87.51	-4,266.56	-5,008.44	5,532.02	5,447.22	84.80	65.235		
9,000.00	7,247.99	6,974.37	7,037.10	63.40	29.85	-87.55	-4,266.58	-5,008.64	5,479.80	5,392.65	87.15	62.876		
9,100.00	7,247.62	6,977.74	7,040.46	65.87	29.87	-87.59	-4,266.61	-5,008.85	5,428.92	5,339.34	89.58	60.601		
9,200.00	7,247.26	6,981.14	7,043.85	68.38	29.88	-87.63	-4,266.64	-5,009.05	5,379.42	5,287.33	92.09	58.414		
9,300.00	7,246.89	6,984.59	7,047.30	70.91	29.90	-87.68	-4,266.67	-5,009.27	5,331.32	5,236.66	94.67	56.315		
9,400.00	7,246.53	7,000.01	7,062.69	73.47	29.96	-87.86	-4,266.82	-5,010.23	5,284.71	5,187.33	97.37	54.274		
9,500.00	7,246.16	7,000.01	7,062.69	76.05	29.96	-87.86	-4,266.82	-5,010.23	5,239.54	5,139.48	100.06	52.364		
9,600.00	7,245.79	7,000.01	7,062.69	78.65	29.96	-87.86	-4,266.82	-5,010.23	5,195.91	5,093.10	102.81	50.540		
9,700.00	7,245.43	7,000.01	7,062.69	81.27	29.96	-87.86	-4,266.82	-5,010.23	5,153.85	5,048.24	105.61	48.802		
9,800.00	7,245.06	7,003.23	7,065.90	83.90	29.98	-87.90	-4,266.86	-5,010.43	5,113.40	5,004.93	108.47	47.140		
9,900.00	7,244.69	7,007.93	7,070.59	86.55	30.00	-87.96	-4,266.91	-5,010.73	5,074.59	4,963.20	111.39	45.558		
10,000.00	7,244.33	7,012.64	7,075.28	89.21	30.02	-88.02	-4,266.96	-5,011.02	5,037.46	4,923.12	114.35	44.055		
10,100.00	7,243.96	7,017.35	7,079.98	91.88	30.04	-88.08	-4,267.01	-5,011.32	5,002.06	4,884.72	117.34	42.630		
10,200.00	7,243.60	7,022.06	7,084.69	94.56	30.06	-88.13	-4,267.06	-5,011.62	4,968.40	4,848.04	120.36	41.280		

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



Anticollision Report



Company:	SRC ENERGY	Local Co-ordinate Reference:	Well HARVESTERS STATE 31C-16-M
Project:	SECTION 15, T6N, R66W	TVD Reference:	KB @ 4821.00ft
Reference Site:	HARVESTERS STATE 7-15 PAD	MD Reference:	KB @ 4821.00ft
Site Error:	3.28 ft	North Reference:	True
Reference Well:	HARVESTERS STATE 31C-16-M	Survey Calculation Method:	Minimum Curvature
Well Error:	3.28 ft	Output errors are at	2.45 sigma
Reference Wellbore	OH	Database:	EDM 5000.14 Single User Db
Reference Design:	PLAN #1	Offset TVD Reference:	Reference Datum

Offset Design HARVESTERS STATE 7-15 PAD - LEFFLER 1 21-2(SI_75CC) - OH - OH													Offset Site Error:	0.00 ft
Survey Program: 100-GYRO-NS													Offset Well Error:	3.28 ft
Reference		Offset		Semi Major Axis			Distance							Warning
Measured Depth (ft)	Vertical Depth (ft)	Measured Depth (ft)	Vertical Depth (ft)	Reference (ft)	Offset (ft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (ft)	+E/-W (ft)	Between Centres (ft)	Between Ellipses (ft)	Minimum Separation (ft)	Separation Factor		
10,300.00	7,243.23	7,026.77	7,089.39	97.26	30.08	-88.19	-4,267.12	-5,011.92	4,936.54	4,813.13	123.41	40.002		
10,400.00	7,242.86	7,031.49	7,094.10	99.96	30.10	-88.25	-4,267.17	-5,012.21	4,906.50	4,780.03	126.48	38.794		
10,500.00	7,242.50	7,036.21	7,098.81	102.67	30.12	-88.31	-4,267.23	-5,012.51	4,878.32	4,748.76	129.56	37.652		
10,600.00	7,242.13	7,040.94	7,103.53	105.39	30.14	-88.36	-4,267.29	-5,012.81	4,852.04	4,719.38	132.66	36.576		
10,700.00	7,241.76	7,045.67	7,108.25	108.12	30.16	-88.42	-4,267.35	-5,013.11	4,827.68	4,691.92	135.76	35.560		
10,800.00	7,241.40	7,050.40	7,112.97	110.85	30.18	-88.48	-4,267.41	-5,013.41	4,805.27	4,666.40	138.86	34.605		
10,900.00	7,241.03	7,055.14	7,117.70	113.59	30.20	-88.54	-4,267.48	-5,013.71	4,784.83	4,642.87	141.96	33.706		
11,000.00	7,240.67	7,059.87	7,122.42	116.34	30.22	-88.59	-4,267.54	-5,014.01	4,766.41	4,621.36	145.05	32.861		
11,100.00	7,240.30	7,064.62	7,127.16	119.09	30.24	-88.65	-4,267.60	-5,014.31	4,750.01	4,601.89	148.12	32.069		
11,200.00	7,239.93	7,069.36	7,131.89	121.85	30.26	-88.71	-4,267.67	-5,014.61	4,735.66	4,584.49	151.17	31.327		
11,300.00	7,239.57	7,074.11	7,136.63	124.61	30.28	-88.77	-4,267.74	-5,014.91	4,723.38	4,569.19	154.19	30.633		
11,400.00	7,239.20	7,078.86	7,141.37	127.38	30.30	-88.82	-4,267.81	-5,015.21	4,713.18	4,556.00	157.19	29.985		
11,500.00	7,238.84	7,083.62	7,146.12	130.15	30.32	-88.88	-4,267.88	-5,015.52	4,705.08	4,544.94	160.14	29.380		
11,600.00	7,238.47	7,088.38	7,150.87	132.92	30.34	-88.94	-4,267.95	-5,015.82	4,699.09	4,536.03	163.06	28.818		
11,700.00	7,238.10	7,093.14	7,155.62	135.70	30.36	-89.00	-4,268.02	-5,016.12	4,695.22	4,529.29	165.93	28.296		
11,800.00	7,237.74	7,100.01	7,162.48	138.48	30.39	-89.08	-4,268.13	-5,016.56	4,693.47	4,524.71	168.76	27.812		
11,832.51	7,237.62	7,100.01	7,162.48	139.39	30.39	-89.08	-4,268.13	-5,016.56	4,693.36	4,523.70	169.66	27.664 CC		
11,900.00	7,237.37	7,103.35	7,165.80	141.26	30.40	-89.12	-4,268.18	-5,016.77	4,693.84	4,522.32	171.52	27.367		
12,000.00	7,237.00	7,109.33	7,171.77	144.05	30.43	-89.20	-4,268.28	-5,017.15	4,696.34	4,522.11	174.23	26.955 ES		
12,100.00	7,236.64	7,115.31	7,177.74	146.84	30.45	-89.27	-4,268.37	-5,017.53	4,700.95	4,524.07	176.88	26.577		
12,200.00	7,236.27	7,121.29	7,183.71	149.64	30.48	-89.34	-4,268.46	-5,017.91	4,707.67	4,528.21	179.46	26.232		
12,300.00	7,235.91	7,127.27	7,189.68	152.43	30.51	-89.41	-4,268.56	-5,018.29	4,716.50	4,534.52	181.98	25.918		
12,400.00	7,235.54	7,133.25	7,195.64	155.23	30.53	-89.49	-4,268.65	-5,018.67	4,727.42	4,543.00	184.42	25.634		
12,500.00	7,235.17	7,139.23	7,201.61	158.03	30.56	-89.56	-4,268.75	-5,019.05	4,740.42	4,553.63	186.79	25.378		
12,600.00	7,234.81	7,145.21	7,207.58	160.83	30.58	-89.63	-4,268.84	-5,019.43	4,755.48	4,566.40	189.08	25.150		
12,700.00	7,234.44	7,151.19	7,213.55	163.64	30.61	-89.71	-4,268.94	-5,019.81	4,772.58	4,581.29	191.29	24.949		
12,800.00	7,234.07	7,157.17	7,219.51	166.44	30.63	-89.78	-4,269.03	-5,020.19	4,791.70	4,598.27	193.43	24.773		
12,900.00	7,233.71	7,163.15	7,225.48	169.25	30.66	-89.85	-4,269.12	-5,020.57	4,812.81	4,617.33	195.48	24.620		
13,000.00	7,233.34	7,169.13	7,231.44	172.06	30.69	-89.92	-4,269.22	-5,020.95	4,835.89	4,638.44	197.45	24.491		
13,100.00	7,232.98	7,175.10	7,237.41	174.88	30.71	-90.00	-4,269.31	-5,021.33	4,860.91	4,661.57	199.34	24.385		
13,200.00	7,232.61	7,181.08	7,243.37	177.69	30.74	-90.07	-4,269.41	-5,021.71	4,887.85	4,686.70	201.15	24.300		
13,300.00	7,232.24	7,187.06	7,249.34	180.50	30.76	-90.14	-4,269.50	-5,022.09	4,916.66	4,713.79	202.87	24.235		
13,400.00	7,231.88	7,193.04	7,255.30	183.32	30.79	-90.22	-4,269.60	-5,022.47	4,947.32	4,742.80	204.52	24.190		
13,500.00	7,231.51	7,199.01	7,261.26	186.14	30.81	-90.29	-4,269.69	-5,022.85	4,979.79	4,773.71	206.08	24.164		
13,600.00	7,231.15	7,204.99	7,267.23	188.96	30.84	-90.36	-4,269.78	-5,023.23	5,014.04	4,806.47	207.57	24.156 SF		
13,700.00	7,230.78	7,210.96	7,273.19	191.78	30.87	-90.43	-4,269.88	-5,023.61	5,050.03	4,841.06	208.98	24.166		
13,800.00	7,230.41	7,216.94	7,279.15	194.60	30.89	-90.51	-4,269.97	-5,023.99	5,087.72	4,877.42	210.31	24.192		
13,900.00	7,230.05	7,222.92	7,285.12	197.42	30.92	-90.58	-4,270.07	-5,024.36	5,127.09	4,915.53	211.56	24.235		
14,000.00	7,229.68	7,228.89	7,291.08	200.25	30.94	-90.65	-4,270.16	-5,024.74	5,168.08	4,955.33	212.74	24.293		
14,100.00	7,229.31	7,234.86	7,297.04	203.07	30.97	-90.73	-4,270.25	-5,025.12	5,210.65	4,996.80	213.85	24.366		
14,200.00	7,228.95	7,240.84	7,303.00	205.90	30.99	-90.80	-4,270.35	-5,025.50	5,254.79	5,039.89	214.89	24.453		
14,300.00	7,228.58	7,246.81	7,308.96	208.73	31.02	-90.87	-4,270.44	-5,025.88	5,300.43	5,084.56	215.87	24.554		
14,400.00	7,228.22	7,252.79	7,314.92	211.55	31.05	-90.94	-4,270.54	-5,026.26	5,347.55	5,130.77	216.78	24.668		
14,500.00	7,227.85	7,258.76	7,320.88	214.38	31.07	-91.02	-4,270.63	-5,026.64	5,396.10	5,178.48	217.62	24.795		
14,600.00	7,227.48	7,264.73	7,326.84	217.21	31.10	-91.09	-4,270.73	-5,027.02	5,446.05	5,227.64	218.41	24.935		
14,700.00	7,227.12	7,270.70	7,332.80	220.04	31.12	-91.16	-4,270.82	-5,027.40	5,497.36	5,278.22	219.14	25.086		
14,800.00	7,226.75	7,276.68	7,338.76	222.88	31.15	-91.23	-4,270.91	-5,027.78	5,549.99	5,330.18	219.81	25.249		
14,900.00	7,226.38	7,282.65	7,344.72	225.71	31.17	-91.31	-4,271.01	-5,028.16	5,603.90	5,383.47	220.43	25.423		
15,000.00	7,226.02	7,288.62	7,350.68	228.54	31.20	-91.38	-4,271.10	-5,028.54	5,659.06	5,438.06	221.00	25.607		
15,005.81	7,226.00	7,288.97	7,351.03	228.71	31.20	-91.38	-4,271.11	-5,028.56	5,662.31	5,441.28	221.03	25.618		

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



Anticollision Report



Company:	SRC ENERGY	Local Co-ordinate Reference:	Well HARVESTERS STATE 31C-16-M
Project:	SECTION 15, T6N, R66W	TVD Reference:	KB @ 4821.00ft
Reference Site:	HARVESTERS STATE 7-15 PAD	MD Reference:	KB @ 4821.00ft
Site Error:	3.28 ft	North Reference:	True
Reference Well:	HARVESTERS STATE 31C-16-M	Survey Calculation Method:	Minimum Curvature
Well Error:	3.28 ft	Output errors are at	2.45 sigma
Reference Wellbore	OH	Database:	EDM 5000.14 Single User Db
Reference Design:	PLAN #1	Offset TVD Reference:	Reference Datum

Offset Design HARVESTERS STATE 7-15 PAD - LEFFLER 26C-23-L(SRC PLAN_75CC) - OH - BAKER PLAN												Offset Site Error:	0.00 ft
Survey Program: 25-MWD												Offset Well Error:	3.28 ft
Reference		Offset		Semi Major Axis			Distance						Warning
Measured Depth (ft)	Vertical Depth (ft)	Measured Depth (ft)	Vertical Depth (ft)	Reference (ft)	Offset (ft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (ft)	+E/-W (ft)	Between Centres (ft)	Between Ellipses (ft)	Minimum Separation (ft)	Separation Factor	
0.00	0.00	25.00	73.00	3.28	3.28	-148.58	-5,393.26	-3,294.14	6,320.12				
100.00	100.00	90.82	138.82	3.28	3.28	-148.58	-5,393.10	-3,294.01	6,319.62	6,313.05	6.57	962.172	
200.00	200.00	193.44	241.43	3.34	3.33	-148.58	-5,392.33	-3,293.83	6,318.88	6,312.22	6.67	947.832	
300.00	300.00	263.28	311.27	3.44	3.39	-148.58	-5,391.84	-3,294.04	6,318.45	6,311.61	6.84	924.010	
400.00	400.00	1,478.89	1,513.63	3.60	7.54	-147.66	-5,251.96	-3,324.91	6,314.93	6,303.88	11.05	571.526	
500.00	500.00	1,537.23	1,570.42	3.81	7.85	-147.58	-5,238.77	-3,327.06	6,297.61	6,286.11	11.50	547.582	
600.00	600.00	1,618.13	1,649.23	4.05	8.29	-147.47	-5,220.79	-3,330.30	6,280.80	6,268.70	12.11	518.732	
700.00	699.98	1,686.18	1,715.49	4.32	8.66	-124.73	-5,205.60	-3,333.47	6,265.28	6,252.59	12.69	493.699	
800.00	799.84	1,806.91	1,833.11	4.62	9.34	-124.80	-5,179.01	-3,339.32	6,252.13	6,238.56	13.57	460.763	
900.00	899.62	1,905.50	1,929.04	4.94	9.91	-124.70	-5,156.79	-3,344.14	6,239.30	6,224.92	14.38	433.980	
1,000.00	999.41	2,004.08	2,024.96	5.27	10.48	-124.60	-5,134.58	-3,348.96	6,226.49	6,211.28	15.21	409.358	
1,100.00	1,099.19	2,102.66	2,120.89	5.62	11.06	-124.50	-5,112.36	-3,353.78	6,213.69	6,197.62	16.07	386.777	
1,200.00	1,198.98	2,201.24	2,216.81	5.99	11.64	-124.40	-5,090.15	-3,358.59	6,200.91	6,183.98	16.94	366.089	
1,300.00	1,298.76	2,300.18	2,312.74	6.36	12.24	-124.30	-5,067.93	-3,363.41	6,188.16	6,170.33	17.83	347.096	
1,400.00	1,398.55	2,398.41	2,408.66	6.74	12.83	-124.20	-5,045.72	-3,368.23	6,175.42	6,156.69	18.73	329.746	
1,500.00	1,498.33	2,503.01	2,504.59	7.13	13.46	-124.10	-5,023.51	-3,373.05	6,162.70	6,143.03	19.67	313.263	
1,600.00	1,598.12	2,604.43	2,600.51	7.52	14.08	-123.99	-5,001.29	-3,377.86	6,150.00	6,129.39	20.61	298.396	
1,700.00	1,697.90	2,694.15	2,696.44	7.92	14.63	-123.89	-4,979.08	-3,382.68	6,137.32	6,115.83	21.49	285.552	
1,800.00	1,797.69	2,792.73	2,792.37	8.33	15.23	-123.79	-4,956.86	-3,387.50	6,124.66	6,102.23	22.43	273.048	
1,900.00	1,897.47	2,891.31	2,888.29	8.74	15.84	-123.68	-4,934.65	-3,392.31	6,112.02	6,088.64	23.38	261.477	
2,000.00	1,997.26	2,989.90	2,984.22	9.15	16.45	-123.58	-4,912.43	-3,397.13	6,099.40	6,075.07	24.33	250.745	
2,100.00	2,097.04	3,088.48	3,080.14	9.56	17.06	-123.48	-4,890.22	-3,401.95	6,086.80	6,061.52	25.28	240.772	
2,200.00	2,196.83	3,187.06	3,176.07	9.98	17.67	-123.37	-4,868.01	-3,406.77	6,074.22	6,047.98	26.24	231.486	
2,300.00	2,296.61	3,285.64	3,271.99	10.40	18.28	-123.27	-4,845.79	-3,411.58	6,061.66	6,034.46	27.20	222.821	
2,400.00	2,396.40	3,384.22	3,367.92	10.82	18.90	-123.16	-4,823.58	-3,416.40	6,049.12	6,020.95	28.17	214.721	
2,500.00	2,496.18	3,482.81	3,463.84	11.24	19.51	-123.05	-4,801.36	-3,421.22	6,036.60	6,007.46	29.14	207.136	
2,600.00	2,595.96	3,581.39	3,559.77	11.66	20.13	-122.95	-4,779.15	-3,426.04	6,024.10	5,993.99	30.12	200.019	
2,700.00	2,695.75	3,679.97	3,655.70	12.09	20.74	-122.84	-4,756.93	-3,430.85	6,011.63	5,980.53	31.09	193.331	
2,800.00	2,795.53	3,778.55	3,751.62	12.51	21.36	-122.73	-4,734.72	-3,435.67	5,999.17	5,967.10	32.07	187.036	
2,900.00	2,895.32	10,715.34	7,245.35	12.94	120.69	-159.74	-3,912.02	33.76	5,940.98	5,841.10	99.88	59.480	
3,000.00	2,995.10	10,711.05	7,245.43	13.37	120.55	-159.68	-3,912.03	29.47	5,872.51	5,771.47	101.05	58.118	
3,100.00	3,094.89	10,706.76	7,245.51	13.80	120.41	-159.62	-3,912.05	25.19	5,804.96	5,702.73	102.23	56.783	
3,200.00	3,194.67	10,702.48	7,245.58	14.23	120.28	-159.56	-3,912.06	20.90	5,738.35	5,634.91	103.44	55.476	
3,300.00	3,294.46	10,701.81	7,245.66	14.66	120.26	-159.51	-3,912.08	16.61	5,672.72	5,567.97	104.75	54.154	
3,400.00	3,394.24	10,693.90	7,245.73	15.09	120.01	-159.45	-3,912.09	12.33	5,608.10	5,502.19	105.91	52.951	
3,500.00	3,494.03	10,689.62	7,245.81	15.52	119.87	-159.39	-3,912.10	8.04	5,544.53	5,437.35	107.17	51.734	
3,600.00	3,593.81	10,685.33	7,245.88	15.96	119.73	-159.34	-3,912.12	3.76	5,482.04	5,373.58	108.45	50.547	
3,700.00	3,693.60	10,681.05	7,245.96	16.39	119.60	-159.28	-3,912.13	-0.53	5,420.67	5,310.92	109.75	49.391	
3,800.00	3,793.38	10,676.76	7,246.03	16.82	119.46	-159.22	-3,912.15	-4.81	5,360.46	5,249.40	111.06	48.267	
3,900.00	3,893.17	10,672.47	7,246.11	17.26	119.33	-159.17	-3,912.16	-9.10	5,301.45	5,189.07	112.38	47.175	
4,000.00	3,992.95	10,668.19	7,246.18	17.69	119.19	-159.11	-3,912.18	-13.39	5,243.68	5,129.98	113.71	46.115	
4,100.00	4,092.74	10,663.90	7,246.26	18.13	119.06	-159.05	-3,912.19	-17.67	5,187.19	5,072.15	115.05	45.088	
4,200.00	4,192.52	10,659.61	7,246.33	18.56	118.92	-158.99	-3,912.20	-21.96	5,132.03	5,015.64	116.39	44.093	
4,300.00	4,292.31	10,655.33	7,246.41	19.00	118.78	-158.94	-3,912.22	-26.24	5,078.23	4,960.49	117.74	43.131	
4,400.00	4,392.09	10,653.00	7,246.49	19.43	118.71	-158.88	-3,912.23	-30.53	5,025.84	4,906.70	119.14	42.183	
4,500.00	4,491.88	10,646.75	7,246.56	19.87	118.51	-158.82	-3,912.25	-34.82	4,974.91	4,854.47	120.44	41.305	
4,600.00	4,591.66	10,642.47	7,246.64	20.31	118.38	-158.77	-3,912.26	-39.10	4,925.48	4,803.68	121.79	40.441	
4,700.00	4,691.44	10,638.18	7,246.71	20.74	118.24	-158.71	-3,912.28	-43.39	4,877.59	4,754.45	123.14	39.611	
4,800.00	4,791.23	10,633.89	7,246.79	21.18	118.11	-158.65	-3,912.29	-47.67	4,831.29	4,706.82	124.47	38.815	
4,900.00	4,891.01	10,629.61	7,246.86	21.62	117.97	-158.60	-3,912.31	-51.96	4,786.64	4,660.84	125.80	38.051	
5,000.00	4,990.80	10,625.32	7,246.94	22.06	117.84	-158.54	-3,912.32	-56.24	4,743.66	4,616.56	127.10	37.321	
5,100.00	5,090.58	10,621.03	7,247.01	22.50	117.70	-158.48	-3,912.33	-60.53	4,702.42	4,574.02	128.40	36.624	

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



Anticollision Report



Company:	SRC ENERGY	Local Co-ordinate Reference:	Well HARVESTERS STATE 31C-16-M
Project:	SECTION 15, T6N, R66W	TVD Reference:	KB @ 4821.00ft
Reference Site:	HARVESTERS STATE 7-15 PAD	MD Reference:	KB @ 4821.00ft
Site Error:	3.28 ft	North Reference:	True
Reference Well:	HARVESTERS STATE 31C-16-M	Survey Calculation Method:	Minimum Curvature
Well Error:	3.28 ft	Output errors are at	2.45 sigma
Reference Wellbore	OH	Database:	EDM 5000.14 Single User Db
Reference Design:	PLAN #1	Offset TVD Reference:	Reference Datum

Offset Design HARVESTERS STATE 7-15 PAD - LEFFLER 26C-23-L(SRC PLAN_75CC) - OH - BAKER PLAN													Offset Site Error:	0.00 ft
Survey Program: 25-MWD													Offset Well Error:	3.28 ft
Reference		Offset		Semi Major Axis			Distance							Warning
Measured Depth (ft)	Vertical Depth (ft)	Measured Depth (ft)	Vertical Depth (ft)	Reference (ft)	Offset (ft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (ft)	+E/-W (ft)	Between Centres (ft)	Between Ellipses (ft)	Minimum Separation (ft)	Separation Factor		
5,200.00	5,190.37	10,616.75	7,247.09	22.93	117.56	-158.42	-3,912.35	-64.82	4,662.95	4,533.28	129.67	35.960		
5,300.00	5,290.15	10,612.46	7,247.16	23.37	117.43	-158.37	-3,912.36	-69.10	4,625.31	4,494.39	130.92	35.330		
5,400.00	5,389.94	10,608.17	7,247.24	23.81	117.29	-158.31	-3,912.38	-73.39	4,589.53	4,457.39	132.14	34.733		
5,500.00	5,489.72	10,603.89	7,247.32	24.25	117.16	-158.25	-3,912.39	-77.67	4,555.66	4,422.33	133.33	34.169		
5,600.00	5,589.51	10,600.40	7,247.39	24.69	117.05	-158.20	-3,912.41	-81.96	4,523.74	4,389.24	134.51	33.632		
5,700.00	5,689.29	10,604.69	7,247.47	25.13	117.18	-158.14	-3,912.42	-86.25	4,493.82	4,357.94	135.88	33.072		
5,800.00	5,789.08	10,591.03	7,247.54	25.56	116.75	-158.08	-3,912.43	-90.53	4,465.94	4,329.26	136.67	32.676		
5,900.00	5,888.86	10,586.74	7,247.62	26.00	116.62	-158.03	-3,912.45	-94.82	4,440.12	4,302.42	137.70	32.244		
6,000.00	5,988.65	10,582.46	7,247.69	26.44	116.48	-157.97	-3,912.46	-99.10	4,416.42	4,277.73	138.69	31.845		
6,100.00	6,088.43	10,578.17	7,247.77	26.88	116.35	-157.91	-3,912.48	-103.39	4,394.86	4,255.25	139.62	31.478		
6,200.00	6,188.22	10,573.88	7,247.84	27.32	116.21	-157.85	-3,912.49	-107.67	4,375.48	4,234.99	140.49	31.144		
6,300.00	6,288.00	10,569.60	7,247.92	27.76	116.07	-157.80	-3,912.51	-111.96	4,358.30	4,216.99	141.31	30.842		
6,400.00	6,387.79	10,565.31	7,247.99	28.20	115.94	-157.74	-3,912.52	-116.25	4,343.35	4,201.29	142.07	30.573		
6,500.00	6,487.57	10,561.02	7,248.07	28.64	115.80	-157.68	-3,912.53	-120.53	4,330.66	4,187.90	142.76	30.336		
6,600.00	6,587.35	10,556.74	7,248.14	29.08	115.67	-157.63	-3,912.55	-124.82	4,320.24	4,176.85	143.39	30.130		
6,700.00	6,687.02	10,550.23	7,248.26	29.52	115.46	-120.01	-3,912.57	-131.33	4,312.14	4,168.27	143.88	29.971		
6,800.00	6,784.98	10,529.88	7,248.62	29.96	114.82	-104.24	-3,912.64	-151.67	4,306.58	4,162.72	143.86	29.936		
6,900.00	6,878.81	10,494.49	7,249.24	30.41	113.71	-99.52	-3,912.76	-187.06	4,303.50	4,160.20	143.30	30.032		
6,994.92	6,961.96	10,456.28	7,250.06	30.84	112.50	-97.07	-3,912.91	-233.77	4,302.62	4,160.05	142.57	30.180 CC, ES		
7,000.00	6,966.21	10,444.92	7,250.11	30.86	112.15	-96.96	-3,912.92	-236.62	4,302.62	4,160.39	142.23	30.251		
7,100.00	7,045.03	10,382.25	7,251.21	31.35	110.18	-95.08	-3,913.13	-299.28	4,303.51	4,162.78	140.73	30.580		
7,200.00	7,113.32	10,306.01	7,251.62	31.90	107.79	-93.50	-3,913.39	-375.52	4,305.58	4,166.76	138.83	31.014		
7,300.00	7,169.40	10,223.44	7,251.62	32.57	105.21	-92.19	-3,913.66	-458.08	4,308.29	4,171.47	136.83	31.487		
7,400.00	7,211.89	10,133.10	7,251.62	33.38	102.40	-91.14	-3,913.96	-548.43	4,311.09	4,176.36	134.73	31.997		
7,500.00	7,239.75	10,037.20	7,251.62	34.35	99.43	-90.41	-3,914.28	-644.32	4,313.49	4,180.84	132.65	32.517		
7,600.00	7,252.28	9,938.10	7,251.62	35.47	96.38	-90.02	-3,914.61	-743.42	4,315.15	4,184.49	130.66	33.026		
7,700.00	7,252.75	9,838.12	7,251.62	36.73	93.31	-89.98	-3,914.95	-843.40	4,316.10	4,187.29	128.81	33.506		
7,800.00	7,252.38	9,738.12	7,251.62	38.16	90.27	-89.99	-3,915.28	-943.40	4,317.00	4,189.84	127.16	33.950		
7,900.00	7,252.02	9,638.13	7,251.62	39.74	87.24	-89.99	-3,915.62	-1,043.39	4,317.90	4,192.22	125.68	34.357		
8,000.00	7,251.65	9,538.13	7,251.62	41.47	84.24	-90.00	-3,915.95	-1,143.38	4,318.80	4,194.45	124.36	34.730		
8,100.00	7,251.29	9,438.14	7,251.62	43.31	81.27	-90.00	-3,916.28	-1,243.38	4,319.70	4,196.53	123.18	35.069		
8,200.00	7,250.92	9,338.14	7,251.62	45.26	78.33	-90.01	-3,916.62	-1,343.37	4,320.60	4,198.48	122.13	35.378		
8,300.00	7,250.55	9,238.15	7,251.62	47.30	75.42	-90.01	-3,916.95	-1,443.37	4,321.50	4,200.30	121.20	35.655		
8,400.00	7,250.19	9,138.15	7,251.62	49.42	72.54	-90.02	-3,917.29	-1,543.36	4,322.41	4,202.02	120.39	35.903		
8,500.00	7,249.82	9,038.16	7,251.62	51.62	69.71	-90.02	-3,917.62	-1,643.36	4,323.31	4,203.62	119.69	36.122		
8,600.00	7,249.45	8,938.16	7,251.62	53.88	66.93	-90.03	-3,917.95	-1,743.35	4,324.21	4,205.12	119.09	36.312		
8,700.00	7,249.09	8,838.17	7,251.62	56.19	64.20	-90.03	-3,918.29	-1,843.35	4,325.11	4,206.52	118.59	36.472		
8,800.00	7,248.72	8,738.17	7,251.62	58.55	61.54	-90.04	-3,918.62	-1,943.34	4,326.01	4,207.82	118.19	36.601		
8,900.00	7,248.36	8,638.18	7,251.62	60.96	58.96	-90.04	-3,918.96	-2,043.34	4,326.91	4,209.01	117.90	36.699		
9,000.00	7,247.99	8,538.18	7,251.62	63.40	56.46	-90.05	-3,919.29	-2,143.33	4,327.81	4,210.09	117.72	36.764		
9,100.00	7,247.62	8,438.19	7,251.62	65.87	54.08	-90.05	-3,919.62	-2,243.33	4,328.71	4,211.06	117.65	36.793		
9,200.00	7,247.26	8,338.19	7,251.62	68.38	51.82	-90.06	-3,919.96	-2,343.32	4,329.61	4,211.91	117.71	36.783		
9,300.00	7,246.89	8,238.20	7,251.62	70.91	49.73	-90.06	-3,920.29	-2,443.32	4,330.52	4,212.61	117.90	36.730		
9,400.00	7,246.53	8,138.20	7,251.62	73.47	47.86	-90.07	-3,920.63	-2,543.31	4,331.42	4,213.17	118.24	36.631		
9,500.00	7,246.16	8,038.21	7,251.62	76.05	46.25	-90.07	-3,920.96	-2,643.31	4,332.32	4,213.56	118.75	36.482		
9,600.00	7,245.79	7,938.21	7,251.62	78.65	44.99	-90.08	-3,921.29	-2,743.30	4,333.22	4,213.77	119.45	36.277		
9,700.00	7,245.43	7,838.21	7,251.62	81.27	44.08	-90.08	-3,921.63	-2,843.29	4,334.12	4,213.77	120.36	36.011		
9,800.00	7,245.06	7,738.22	7,251.62	83.90	43.50	-90.08	-3,921.96	-2,943.29	4,335.02	4,213.53	121.49	35.682		
9,900.00	7,244.69	7,700.00	7,250.51	86.55	43.34	-90.07	-3,922.35	-2,981.49	4,336.62	4,212.99	123.63	35.076		
10,000.00	7,244.33	7,652.02	7,245.96	89.21	43.18	-90.01	-3,923.56	-3,029.23	4,339.63	4,213.97	125.66	34.534		
10,100.00	7,243.96	7,620.76	7,241.12	91.88	43.08	-89.95	-3,924.79	-3,060.08	4,344.02	4,216.10	127.92	33.959		
10,200.00	7,243.60	7,586.07	7,234.02	94.56	43.00	-89.86	-3,926.54	-3,093.99	4,349.86	4,219.74	130.12	33.430		

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



Anticollision Report



Company:	SRC ENERGY	Local Co-ordinate Reference:	Well HARVESTERS STATE 31C-16-M
Project:	SECTION 15, T6N, R66W	TVD Reference:	KB @ 4821.00ft
Reference Site:	HARVESTERS STATE 7-15 PAD	MD Reference:	KB @ 4821.00ft
Site Error:	3.28 ft	North Reference:	True
Reference Well:	HARVESTERS STATE 31C-16-M	Survey Calculation Method:	Minimum Curvature
Well Error:	3.28 ft	Output errors are at	2.45 sigma
Reference Wellbore	OH	Database:	EDM 5000.14 Single User Db
Reference Design:	PLAN #1	Offset TVD Reference:	Reference Datum

Offset Design HARVESTERS STATE 7-15 PAD - LEFFLER 26C-23-L(SRC PLAN_75CC) - OH - BAKER PLAN													Offset Site Error:	0.00 ft
Survey Program: 25-MWD													Offset Well Error:	3.28 ft
Reference		Offset		Semi Major Axis			Distance							Warning
Measured Depth (ft)	Vertical Depth (ft)	Measured Depth (ft)	Vertical Depth (ft)	Reference (ft)	Offset (ft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (ft)	+E/-W (ft)	Between Centres (ft)	Between Ellipses (ft)	Minimum Separation (ft)	Separation Factor		
10,300.00	7,243.23	7,552.02	7,225.32	97.26	42.92	-89.75	-3,928.67	-3,126.83	4,357.16	4,224.83	132.33	32.926		
10,400.00	7,242.86	7,509.37	7,212.02	99.96	42.83	-89.57	-3,931.89	-3,167.22	4,365.93	4,231.47	134.46	32.470		
10,500.00	7,242.50	7,476.74	7,200.09	102.67	42.76	-89.42	-3,934.75	-3,197.45	4,376.23	4,239.55	136.68	32.017		
10,600.00	7,242.13	7,452.02	7,190.05	105.39	42.71	-89.29	-3,937.15	-3,219.91	4,388.12	4,249.17	138.95	31.580		
10,700.00	7,241.76	7,400.00	7,166.20	108.12	42.61	-88.98	-3,942.83	-3,265.77	4,401.61	4,260.61	141.01	31.216		
10,800.00	7,241.40	7,383.84	7,158.05	110.85	42.57	-88.87	-3,944.77	-3,279.59	4,416.64	4,273.34	143.29	30.822		
10,900.00	7,241.03	7,352.01	7,141.03	113.59	42.51	-88.65	-3,948.80	-3,306.17	4,433.38	4,287.95	145.43	30.484		
11,000.00	7,240.67	7,329.82	7,128.40	116.34	42.46	-88.49	-3,951.79	-3,324.18	4,451.80	4,304.20	147.61	30.160		
11,100.00	7,240.30	7,300.00	7,110.48	119.09	42.39	-88.25	-3,956.02	-3,347.63	4,471.94	4,322.24	149.69	29.874		
11,200.00	7,239.93	7,281.84	7,099.05	121.85	42.34	-88.11	-3,958.72	-3,361.48	4,493.77	4,341.97	151.80	29.603		
11,300.00	7,239.57	7,252.01	7,079.46	124.61	42.27	-87.85	-3,963.33	-3,383.49	4,517.37	4,363.58	153.80	29.372		
11,400.00	7,239.20	7,252.01	7,079.46	127.38	42.27	-87.85	-3,963.33	-3,383.49	4,542.73	4,386.86	155.87	29.145		
11,500.00	7,238.84	7,208.36	7,049.03	130.15	42.16	-87.46	-3,970.48	-3,413.94	4,569.77	4,412.05	157.72	28.973		
11,600.00	7,238.47	7,200.00	7,042.96	132.92	42.13	-87.38	-3,971.91	-3,419.52	4,598.51	4,438.86	159.65	28.804		
11,700.00	7,238.10	7,200.00	7,042.96	135.70	42.13	-87.38	-3,971.91	-3,419.52	4,629.12	4,467.58	161.54	28.656		
11,800.00	7,237.74	7,152.01	7,006.86	138.48	41.99	-86.92	-3,980.38	-3,449.96	4,661.38	4,498.15	163.23	28.558		
11,900.00	7,237.37	7,152.01	7,006.86	141.26	41.99	-86.92	-3,980.38	-3,449.96	4,695.19	4,530.19	165.00	28.456		
12,000.00	7,237.00	7,152.01	7,006.86	144.05	41.99	-86.92	-3,980.38	-3,449.96	4,730.88	4,564.17	166.70	28.379		
12,100.00	7,236.64	7,126.06	6,986.43	146.84	41.90	-86.66	-3,985.16	-3,465.22	4,768.08	4,599.79	168.29	28.333		
12,200.00	7,236.27	7,100.00	6,965.32	149.64	41.82	-86.39	-3,990.10	-3,479.68	4,807.08	4,637.27	169.80	28.310		
12,300.00	7,235.91	7,100.00	6,965.32	152.43	41.82	-86.39	-3,990.10	-3,479.68	4,847.51	4,676.19	171.33	28.294 SF		
12,400.00	7,235.54	7,100.00	6,965.32	155.23	41.82	-86.39	-3,990.10	-3,479.68	4,889.66	4,716.88	172.79	28.299		
12,500.00	7,235.17	7,079.51	6,948.33	158.03	41.74	-86.17	-3,994.08	-3,490.42	4,933.27	4,759.12	174.15	28.328		
12,600.00	7,234.81	7,052.01	6,925.01	160.83	41.65	-85.88	-3,999.52	-3,503.94	4,978.60	4,803.17	175.43	28.380		
12,700.00	7,234.44	7,052.01	6,925.01	163.64	41.65	-85.88	-3,999.52	-3,503.94	5,025.13	4,848.42	176.71	28.437		
12,800.00	7,234.07	7,050.75	6,923.92	166.44	41.64	-85.87	-3,999.78	-3,504.54	5,073.21	4,895.28	177.94	28.512		
12,900.00	7,233.71	7,049.69	6,923.02	169.25	41.64	-85.85	-3,999.99	-3,505.03	5,122.77	4,943.67	179.10	28.603		
13,000.00	7,233.34	7,033.92	6,909.37	172.06	41.57	-85.68	-4,003.18	-3,512.26	5,173.66	4,993.46	180.19	28.712		
13,100.00	7,232.98	7,010.76	6,889.02	174.88	41.48	-85.42	-4,007.93	-3,522.25	5,226.05	5,044.84	181.21	28.840		
13,200.00	7,232.61	7,010.76	6,889.02	177.69	41.48	-85.42	-4,007.93	-3,522.25	5,279.53	5,097.31	182.22	28.973		
13,300.00	7,232.24	7,010.76	6,889.02	180.50	41.48	-85.42	-4,007.93	-3,522.25	5,334.35	5,151.17	183.18	29.120		
13,400.00	7,231.88	7,004.86	6,883.78	183.32	41.46	-85.36	-4,009.15	-3,524.67	5,390.45	5,206.36	184.09	29.282		
13,500.00	7,231.51	7,000.00	6,879.45	186.14	41.44	-85.30	-4,010.16	-3,526.63	5,447.76	5,262.82	184.94	29.456		
13,600.00	7,231.15	7,000.00	6,879.45	188.96	41.44	-85.30	-4,010.16	-3,526.63	5,506.27	5,320.51	185.76	29.642		
13,700.00	7,230.78	7,000.00	6,879.45	191.78	41.44	-85.30	-4,010.16	-3,526.63	5,565.97	5,379.44	186.53	29.839		
13,800.00	7,230.41	7,000.00	6,879.45	194.60	41.44	-85.30	-4,010.16	-3,526.63	5,626.81	5,439.55	187.26	30.048		
13,900.00	7,230.05	6,975.33	6,857.24	197.42	41.33	-85.02	-4,015.34	-3,536.03	5,688.39	5,500.46	187.93	30.269		
14,000.00	7,229.68	6,952.01	6,835.94	200.25	41.23	-84.76	-4,020.30	-3,544.11	5,751.43	5,562.88	188.55	30.503		
14,100.00	7,229.31	6,952.01	6,835.94	203.07	41.23	-84.76	-4,020.30	-3,544.11	5,815.19	5,626.02	189.17	30.740		
14,200.00	7,228.95	6,952.01	6,835.94	205.90	41.23	-84.76	-4,020.30	-3,544.11	5,879.96	5,690.21	189.75	30.987		
14,300.00	7,228.58	6,952.01	6,835.94	208.73	41.23	-84.76	-4,020.30	-3,544.11	5,945.70	5,755.40	190.30	31.244		
14,400.00	7,228.22	6,952.01	6,835.94	211.55	41.23	-84.76	-4,020.30	-3,544.11	6,012.39	5,821.58	190.81	31.510		
14,500.00	7,227.85	6,952.01	6,835.94	214.38	41.23	-84.76	-4,020.30	-3,544.11	6,079.99	5,888.70	191.29	31.784		
14,600.00	7,227.48	6,952.01	6,835.94	217.21	41.23	-84.76	-4,020.30	-3,544.11	6,148.48	5,956.74	191.74	32.066		
14,700.00	7,227.12	6,952.01	6,835.94	220.04	41.23	-84.76	-4,020.30	-3,544.11	6,217.82	6,025.65	192.16	32.357		
14,800.00	7,226.75	6,952.01	6,835.94	222.88	41.23	-84.76	-4,020.30	-3,544.11	6,287.98	6,095.42	192.56	32.655		
14,900.00	7,226.38	6,952.01	6,835.94	225.71	41.23	-84.76	-4,020.30	-3,544.11	6,358.94	6,166.02	192.92	32.961		
15,000.00	7,226.02	6,928.24	6,813.94	228.54	41.12	-84.48	-4,025.43	-3,551.51	6,430.30	6,237.04	193.26	33.272		
15,005.81	7,226.00	6,928.04	6,813.75	228.71	41.12	-84.48	-4,025.47	-3,551.57	6,434.49	6,241.20	193.28	33.291		



Anticollision Report



Company:	SRC ENERGY	Local Co-ordinate Reference:	Well HARVESTERS STATE 31C-16-M
Project:	SECTION 15, T6N, R66W	TVD Reference:	KB @ 4821.00ft
Reference Site:	HARVESTERS STATE 7-15 PAD	MD Reference:	KB @ 4821.00ft
Site Error:	3.28 ft	North Reference:	True
Reference Well:	HARVESTERS STATE 31C-16-M	Survey Calculation Method:	Minimum Curvature
Well Error:	3.28 ft	Output errors are at	2.45 sigma
Reference Wellbore	OH	Database:	EDM 5000.14 Single User Db
Reference Design:	PLAN #1	Offset TVD Reference:	Reference Datum

Offset Design HARVESTERS STATE 7-15 PAD - LEFFLER 26N-23B-L(SRC PLAN_75CC) - OH - PLAN													Offset Site Error:	0.00 ft
Survey Program: 25-MWD													Offset Well Error:	3.28 ft
Reference		Offset		Semi Major Axis			Distance							Warning
Measured Depth (ft)	Vertical Depth (ft)	Measured Depth (ft)	Vertical Depth (ft)	Reference (ft)	Offset (ft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (ft)	+E/-W (ft)	Between Centres (ft)	Between Ellipses (ft)	Minimum Separation (ft)	Separation Factor		
0.00	0.00	25.00	73.00	3.28	3.28	-148.49	-5,373.22	-3,294.14	6,303.03					
100.00	100.00	1,261.00	1,290.70	3.28	7.10	-147.38	-5,201.57	-3,328.53	6,289.14	6,278.89	10.25	613.553		
200.00	200.00	1,396.13	1,420.94	3.34	7.91	-147.15	-5,166.35	-3,336.04	6,269.85	6,258.86	10.99	570.527		
300.00	300.00	1,475.94	1,498.00	3.44	8.39	-147.02	-5,145.93	-3,339.75	6,250.58	6,239.10	11.49	544.162		
400.00	400.00	1,579.72	1,598.29	3.60	9.03	-146.85	-5,119.58	-3,343.93	6,231.20	6,219.04	12.17	512.172		
500.00	500.00	1,642.00	1,658.61	3.81	9.41	-146.75	-5,104.21	-3,346.27	6,212.31	6,199.65	12.67	490.467		
600.00	600.00	1,802.06	1,813.47	4.05	10.41	-146.49	-5,064.27	-3,352.75	6,193.57	6,179.82	13.75	450.509		
700.00	699.98	1,901.10	1,906.82	4.32	11.05	-123.76	-5,038.93	-3,357.25	6,174.95	6,160.41	14.54	424.609		
800.00	799.84	2,003.49	2,000.92	4.62	11.72	-123.88	-5,013.38	-3,361.78	6,158.26	6,142.88	15.39	400.268		
900.00	899.62	2,094.41	2,095.29	4.94	12.32	-123.76	-4,987.76	-3,366.33	6,142.35	6,126.15	16.20	379.155		
1,000.00	999.41	2,192.30	2,189.67	5.27	12.96	-123.64	-4,962.13	-3,370.87	6,126.46	6,109.38	17.08	358.747		
1,100.00	1,099.19	2,290.20	2,284.04	5.62	13.61	-123.52	-4,936.51	-3,375.42	6,110.60	6,092.62	17.97	339.958		
1,200.00	1,198.98	2,388.09	2,378.41	5.99	14.27	-123.39	-4,910.89	-3,379.96	6,094.76	6,075.87	18.89	322.670		
1,300.00	1,298.76	2,485.99	2,472.78	6.36	14.92	-123.27	-4,885.27	-3,384.51	6,078.95	6,059.14	19.82	306.758		
1,400.00	1,398.55	2,583.88	2,567.15	6.74	15.58	-123.15	-4,859.64	-3,389.06	6,063.17	6,042.41	20.76	292.099		
1,500.00	1,498.33	2,681.77	2,661.53	7.13	16.24	-123.03	-4,834.02	-3,393.60	6,047.42	6,025.71	21.71	278.576		
1,600.00	1,598.12	2,779.67	2,755.90	7.52	16.90	-122.90	-4,808.40	-3,398.15	6,031.69	6,009.03	22.67	266.083		
1,700.00	1,697.90	2,877.56	2,850.27	7.92	17.56	-122.78	-4,782.78	-3,402.70	6,016.00	5,992.36	23.64	254.519		
1,800.00	1,797.69	2,975.46	2,944.64	8.33	18.23	-122.65	-4,757.15	-3,407.24	6,000.33	5,975.72	24.61	243.797		
1,900.00	1,897.47	3,073.35	3,039.01	8.74	18.89	-122.53	-4,731.53	-3,411.79	5,984.69	5,959.10	25.59	233.836		
2,000.00	1,997.26	3,171.25	3,133.39	9.15	19.56	-122.40	-4,705.91	-3,416.33	5,969.08	5,942.50	26.58	224.564		
2,100.00	2,097.04	3,269.14	3,227.76	9.56	20.22	-122.27	-4,680.29	-3,420.88	5,953.50	5,925.92	27.57	215.918		
2,200.00	2,196.83	3,367.03	3,322.13	9.98	20.89	-122.14	-4,654.66	-3,425.43	5,937.94	5,909.37	28.57	207.840		
2,300.00	2,296.61	3,464.93	3,416.50	10.40	21.56	-122.02	-4,629.04	-3,429.97	5,922.42	5,892.85	29.57	200.279		
2,400.00	2,396.40	3,562.82	3,510.88	10.82	22.23	-121.89	-4,603.42	-3,434.52	5,906.93	5,876.35	30.58	193.191		
2,500.00	2,496.18	3,660.72	3,605.25	11.24	22.90	-121.76	-4,577.80	-3,439.07	5,891.46	5,859.88	31.58	186.533		
2,600.00	2,595.96	10,486.13	7,077.96	11.66	117.93	-158.49	-3,649.15	-62.40	5,853.06	5,759.32	93.74	62.439		
2,700.00	2,695.75	10,483.67	7,077.96	12.09	117.85	-158.46	-3,649.15	-64.87	5,780.94	5,686.07	94.87	60.935		
2,800.00	2,795.53	10,481.20	7,077.95	12.51	117.77	-158.42	-3,649.14	-67.34	5,709.66	5,613.63	96.03	59.457		
2,900.00	2,895.32	10,478.73	7,077.95	12.94	117.69	-158.39	-3,649.13	-69.80	5,639.25	5,542.03	97.22	58.007		
3,000.00	2,995.10	10,476.26	7,077.95	13.37	117.62	-158.35	-3,649.13	-72.27	5,569.74	5,471.31	98.43	56.586		
3,100.00	3,094.89	10,473.80	7,077.95	13.80	117.54	-158.32	-3,649.12	-74.74	5,501.17	5,401.51	99.67	55.196		
3,200.00	3,194.67	10,471.33	7,077.94	14.23	117.46	-158.28	-3,649.12	-77.20	5,433.58	5,332.65	100.93	53.836		
3,300.00	3,294.46	10,468.86	7,077.94	14.66	117.38	-158.24	-3,649.11	-79.67	5,367.00	5,264.78	102.21	52.508		
3,400.00	3,394.24	10,466.40	7,077.94	15.09	117.30	-158.21	-3,649.10	-82.14	5,301.46	5,197.94	103.52	51.213		
3,500.00	3,494.03	10,463.93	7,077.94	15.52	117.23	-158.17	-3,649.10	-84.61	5,237.02	5,132.17	104.85	49.950		
3,600.00	3,593.81	10,461.46	7,077.93	15.96	117.15	-158.14	-3,649.09	-87.07	5,173.70	5,067.51	106.19	48.721		
3,700.00	3,693.60	10,458.99	7,077.93	16.39	117.07	-158.10	-3,649.09	-89.54	5,111.55	5,004.00	107.55	47.525		
3,800.00	3,793.38	10,456.53	7,077.93	16.82	116.99	-158.07	-3,649.08	-92.01	5,050.62	4,941.69	108.93	46.364		
3,900.00	3,893.17	10,454.06	7,077.93	17.26	116.92	-158.03	-3,649.07	-94.48	4,990.95	4,880.62	110.33	45.237		
4,000.00	3,992.95	10,451.59	7,077.92	17.69	116.84	-158.00	-3,649.07	-96.94	4,932.58	4,820.84	111.73	44.146		
4,100.00	4,092.74	10,449.12	7,077.92	18.13	116.76	-157.96	-3,649.06	-99.41	4,875.56	4,762.41	113.15	43.089		
4,200.00	4,192.52	10,446.66	7,077.92	18.56	116.68	-157.93	-3,649.05	-101.88	4,819.94	4,705.37	114.58	42.068		
4,300.00	4,292.31	10,444.19	7,077.92	19.00	116.61	-157.89	-3,649.05	-104.35	4,765.77	4,649.77	116.01	41.082		
4,400.00	4,392.09	10,441.72	7,077.91	19.43	116.53	-157.86	-3,649.04	-106.81	4,713.10	4,595.66	117.44	40.132		
4,500.00	4,491.88	10,439.26	7,077.91	19.87	116.45	-157.82	-3,649.04	-109.28	4,661.98	4,543.10	118.87	39.218		
4,600.00	4,591.66	10,436.79	7,077.91	20.31	116.37	-157.79	-3,649.03	-111.75	4,612.45	4,492.15	120.30	38.340		
4,700.00	4,691.44	10,434.32	7,077.91	20.74	116.34	-157.75	-3,649.02	-114.21	4,564.58	4,442.82	121.77	37.486		
4,800.00	4,791.23	10,431.85	7,077.90	21.18	116.42	-157.72	-3,649.02	-116.68	4,518.42	4,395.10	123.32	36.640		
4,900.00	4,891.01	10,440.66	7,077.90	21.62	116.49	-157.68	-3,649.01	-119.15	4,474.01	4,349.15	124.86	35.831		
5,000.00	4,990.80	10,426.92	7,077.90	22.06	116.06	-157.65	-3,649.01	-121.62	4,431.41	4,305.48	125.94	35.188		
5,100.00	5,090.58	10,424.45	7,077.90	22.50	115.98	-157.61	-3,649.00	-124.08	4,390.68	4,263.38	127.30	34.490		

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



Anticollision Report



Company:	SRC ENERGY	Local Co-ordinate Reference:	Well HARVESTERS STATE 31C-16-M
Project:	SECTION 15, T6N, R66W	TVD Reference:	KB @ 4821.00ft
Reference Site:	HARVESTERS STATE 7-15 PAD	MD Reference:	KB @ 4821.00ft
Site Error:	3.28 ft	North Reference:	True
Reference Well:	HARVESTERS STATE 31C-16-M	Survey Calculation Method:	Minimum Curvature
Well Error:	3.28 ft	Output errors are at	2.45 sigma
Reference Wellbore	OH	Database:	EDM 5000.14 Single User Db
Reference Design:	PLAN #1	Offset TVD Reference:	Reference Datum

Offset Design HARVESTERS STATE 7-15 PAD - LEFFLER 26N-23B-L(SRC PLAN_75CC) - OH - PLAN													Offset Site Error:	0.00 ft
Survey Program: 25-MWD													Offset Well Error:	3.28 ft
Reference		Offset		Semi Major Axis			Distance							Warning
Measured Depth (ft)	Vertical Depth (ft)	Measured Depth (ft)	Vertical Depth (ft)	Reference (ft)	Offset (ft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (ft)	+E/-W (ft)	Between Centres (ft)	Between Ellipses (ft)	Minimum Separation (ft)	Separation Factor		
5,200.00	5,190.37	10,421.98	7,077.89	22.93	115.91	-157.58	-3,648.99	-126.55	4,351.86	4,223.22	128.65	33.828		
5,300.00	5,290.15	10,419.52	7,077.89	23.37	115.83	-157.54	-3,648.99	-129.02	4,315.01	4,185.05	129.96	33.203		
5,400.00	5,389.94	10,417.05	7,077.89	23.81	115.75	-157.51	-3,648.98	-131.49	4,280.18	4,148.93	131.24	32.613		
5,500.00	5,489.72	10,414.58	7,077.89	24.25	115.67	-157.47	-3,648.98	-133.95	4,247.41	4,114.92	132.49	32.059		
5,600.00	5,589.51	10,412.11	7,077.88	24.69	115.60	-157.44	-3,648.97	-136.42	4,216.76	4,083.07	133.69	31.541		
5,700.00	5,689.29	10,409.65	7,077.88	25.13	115.52	-157.40	-3,648.96	-138.89	4,188.28	4,053.42	134.85	31.058		
5,800.00	5,789.08	10,407.18	7,077.88	25.56	115.44	-157.37	-3,648.96	-141.35	4,162.00	4,026.03	135.96	30.611		
5,900.00	5,888.86	10,404.71	7,077.88	26.00	115.36	-157.33	-3,648.95	-143.82	4,137.97	4,000.95	137.02	30.200		
6,000.00	5,988.65	10,402.25	7,077.87	26.44	115.29	-157.30	-3,648.94	-146.29	4,116.22	3,978.20	138.02	29.823		
6,100.00	6,088.43	10,400.22	7,077.87	26.88	115.22	-157.26	-3,648.94	-148.76	4,096.81	3,957.83	138.97	29.479		
6,200.00	6,188.22	10,402.69	7,077.87	27.32	115.30	-157.23	-3,648.93	-151.22	4,079.75	3,939.75	140.00	29.142		
6,300.00	6,288.00	10,394.84	7,077.87	27.76	115.05	-157.19	-3,648.93	-153.69	4,065.07	3,924.44	140.64	28.905		
6,400.00	6,387.79	10,392.38	7,077.86	28.20	114.98	-157.16	-3,648.92	-156.16	4,052.81	3,911.44	141.37	28.668		
6,500.00	6,487.57	10,389.91	7,077.86	28.64	114.90	-157.12	-3,648.91	-158.63	4,042.99	3,900.96	142.03	28.466		
6,600.00	6,587.35	10,387.44	7,077.86	29.08	114.82	-157.09	-3,648.91	-161.09	4,035.62	3,893.01	142.61	28.298		
6,700.00	6,687.02	10,382.75	7,077.85	29.52	114.67	-119.33	-3,648.90	-165.79	4,030.73	3,887.68	143.05	28.178		
6,800.00	6,784.98	10,364.19	7,077.84	29.96	114.09	-103.28	-3,648.85	-184.35	4,028.37	3,885.41	142.97	28.177		
6,847.53	6,830.23	10,350.02	7,077.82	30.17	113.65	-100.43	-3,648.82	-198.52	4,028.11	3,885.38	142.73	28.222 CC, ES		
6,900.00	6,878.81	10,339.54	7,077.80	30.41	113.32	-98.27	-3,648.77	-218.04	4,028.41	3,885.80	142.62	28.246		
7,000.00	6,966.21	10,282.51	7,077.76	30.86	111.53	-95.42	-3,648.65	-266.02	4,030.48	3,889.29	141.19	28.547		
7,100.00	7,045.03	10,221.41	7,077.69	31.35	109.62	-93.26	-3,648.50	-327.12	4,034.04	3,894.42	139.62	28.894		
7,200.00	7,113.32	10,148.70	7,077.62	31.90	107.36	-91.46	-3,648.32	-399.84	4,038.44	3,900.72	137.72	29.323		
7,300.00	7,169.40	10,066.17	7,077.54	32.57	104.79	-89.94	-3,648.11	-482.37	4,042.99	3,907.36	135.63	29.809		
7,400.00	7,211.89	9,975.84	7,077.45	33.38	102.00	-88.75	-3,647.89	-572.69	4,047.06	3,913.59	133.47	30.322		
7,500.00	7,239.75	9,879.96	7,077.35	34.35	99.05	-87.93	-3,647.65	-668.57	4,050.09	3,918.75	131.34	30.836		
7,600.00	7,252.28	9,780.87	7,077.26	35.47	96.02	-87.54	-3,647.41	-767.66	4,051.71	3,922.38	129.33	31.328		
7,700.00	7,252.75	9,680.88	7,077.16	36.73	92.98	-87.52	-3,647.16	-867.65	4,052.11	3,924.62	127.49	31.785		
7,800.00	7,252.38	9,580.88	7,077.06	38.16	89.96	-87.52	-3,646.91	-967.65	4,052.41	3,926.58	125.84	32.204		
7,900.00	7,252.02	9,480.89	7,076.96	39.74	86.96	-87.52	-3,646.67	-1,067.65	4,052.72	3,928.36	124.36	32.589		
8,000.00	7,251.65	9,380.89	7,076.86	41.47	84.00	-87.53	-3,646.42	-1,167.65	4,053.03	3,929.99	123.04	32.941		
8,100.00	7,251.29	9,280.89	7,076.76	43.31	81.06	-87.53	-3,646.17	-1,267.64	4,053.34	3,931.47	121.87	33.260		
8,200.00	7,250.92	9,182.16	7,076.40	45.26	78.19	-87.53	-3,645.93	-1,366.37	4,053.66	3,932.79	120.87	33.538		
8,300.00	7,250.55	9,082.16	7,075.57	47.30	75.32	-87.53	-3,645.68	-1,466.37	4,054.00	3,934.05	119.94	33.799		
8,400.00	7,250.19	8,982.16	7,074.74	49.42	72.50	-87.52	-3,645.43	-1,566.36	4,054.34	3,935.20	119.14	34.031		
8,500.00	7,249.82	8,882.16	7,073.92	51.62	69.73	-87.51	-3,645.19	-1,666.36	4,054.68	3,936.24	118.44	34.235		
8,600.00	7,249.45	8,782.16	7,073.09	53.88	67.02	-87.51	-3,644.94	-1,766.35	4,055.01	3,937.17	117.84	34.410		
8,700.00	7,249.09	8,682.17	7,072.26	56.19	64.38	-87.50	-3,644.69	-1,866.35	4,055.35	3,938.00	117.35	34.557		
8,800.00	7,248.72	8,582.17	7,071.43	58.55	61.82	-87.49	-3,644.45	-1,966.34	4,055.69	3,938.73	116.97	34.674		
8,900.00	7,248.36	8,482.17	7,070.61	60.96	59.36	-87.49	-3,644.20	-2,066.34	4,056.03	3,939.35	116.69	34.760		
9,000.00	7,247.99	8,382.17	7,069.78	63.40	57.02	-87.48	-3,643.95	-2,166.33	4,056.37	3,939.85	116.52	34.813		
9,100.00	7,247.62	8,282.17	7,068.95	65.87	54.84	-87.47	-3,643.70	-2,266.32	4,056.71	3,940.24	116.47	34.831		
9,200.00	7,247.26	8,182.17	7,068.12	68.38	52.84	-87.47	-3,643.46	-2,366.32	4,057.05	3,940.50	116.55	34.811		
9,300.00	7,246.89	8,082.17	7,067.30	70.91	51.09	-87.46	-3,643.21	-2,466.31	4,057.39	3,940.63	116.77	34.748		
9,400.00	7,246.53	7,982.18	7,066.47	73.47	49.63	-87.46	-3,642.96	-2,566.31	4,057.73	3,940.59	117.14	34.640		
9,500.00	7,246.16	7,882.18	7,065.64	76.05	48.49	-87.45	-3,642.71	-2,666.30	4,058.07	3,940.38	117.69	34.482		
9,600.00	7,245.79	7,782.18	7,064.82	78.65	47.66	-87.44	-3,642.47	-2,766.30	4,058.41	3,939.98	118.43	34.268		
9,700.00	7,245.43	7,682.18	7,063.99	81.27	47.10	-87.44	-3,642.22	-2,866.29	4,058.75	3,939.36	119.39	33.996		
9,800.00	7,245.06	7,600.00	7,063.29	83.90	46.79	-87.43	-3,642.02	-2,948.47	4,059.14	3,938.30	120.83	33.593		
9,900.00	7,244.69	7,550.00	7,060.60	86.55	46.64	-87.40	-3,642.52	-2,998.38	4,060.72	3,937.90	122.83	33.060		
10,000.00	7,244.33	7,535.02	7,059.05	89.21	46.60	-87.38	-3,642.86	-3,013.28	4,063.83	3,938.53	125.29	32.434		
10,100.00	7,243.96	7,500.00	7,054.13	91.88	46.52	-87.31	-3,644.04	-3,047.93	4,068.62	3,941.14	127.48	31.915		
10,200.00	7,243.60	7,463.92	7,047.15	94.56	46.43	-87.21	-3,645.76	-3,083.27	4,075.07	3,945.41	129.66	31.430		

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



Anticollision Report



Company:	SRC ENERGY	Local Co-ordinate Reference:	Well HARVESTERS STATE 31C-16-M
Project:	SECTION 15, T6N, R66W	TVD Reference:	KB @ 4821.00ft
Reference Site:	HARVESTERS STATE 7-15 PAD	MD Reference:	KB @ 4821.00ft
Site Error:	3.28 ft	North Reference:	True
Reference Well:	HARVESTERS STATE 31C-16-M	Survey Calculation Method:	Minimum Curvature
Well Error:	3.28 ft	Output errors are at	2.45 sigma
Reference Wellbore	OH	Database:	EDM 5000.14 Single User Db
Reference Design:	PLAN #1	Offset TVD Reference:	Reference Datum

Offset Design HARVESTERS STATE 7-15 PAD - LEFFLER 26N-23B-L(SRC PLAN_75CC) - OH - PLAN													Offset Site Error:	0.00 ft
Survey Program: 25-MWD													Offset Well Error:	3.28 ft
Reference		Offset		Semi Major Axis			Distance							Warning
Measured Depth (ft)	Vertical Depth (ft)	Measured Depth (ft)	Vertical Depth (ft)	Reference (ft)	Offset (ft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (ft)	+E/-W (ft)	Between Centres (ft)	Between Ellipses (ft)	Minimum Separation (ft)	Separation Factor		
10,300.00	7,243.23	7,435.02	7,040.17	97.26	46.37	-87.12	-3,647.53	-3,111.27	4,083.19	3,951.29	131.90	30.957		
10,400.00	7,242.86	7,400.00	7,030.08	99.96	46.29	-86.98	-3,650.10	-3,144.69	4,093.00	3,958.93	134.06	30.530		
10,500.00	7,242.50	7,371.10	7,020.43	102.67	46.23	-86.85	-3,652.59	-3,171.82	4,104.51	3,968.24	136.28	30.119		
10,600.00	7,242.13	7,342.18	7,009.59	105.39	46.18	-86.70	-3,655.41	-3,198.48	4,117.76	3,979.30	138.46	29.740		
10,700.00	7,241.76	7,314.38	6,998.08	108.12	46.11	-86.54	-3,658.41	-3,223.61	4,132.76	3,992.15	140.61	29.391		
10,800.00	7,241.40	7,300.00	6,991.71	110.85	46.08	-86.46	-3,660.08	-3,236.39	4,149.59	4,006.72	142.87	29.044		
10,900.00	7,241.03	7,250.00	6,967.45	113.59	45.97	-86.12	-3,666.46	-3,279.62	4,168.15	4,023.34	144.81	28.784		
11,000.00	7,240.67	7,235.01	6,959.54	116.34	45.94	-86.02	-3,668.54	-3,292.18	4,188.44	4,041.48	146.96	28.500		
11,100.00	7,240.30	7,221.20	6,952.01	119.09	45.91	-85.91	-3,670.53	-3,303.59	4,210.61	4,061.54	149.07	28.245		
11,200.00	7,239.93	7,192.83	6,935.79	121.85	45.83	-85.69	-3,674.82	-3,326.47	4,234.56	4,083.52	151.04	28.036		
11,300.00	7,239.57	7,183.10	6,930.01	124.61	45.81	-85.61	-3,676.36	-3,334.13	4,260.40	4,107.33	153.07	27.833		
11,400.00	7,239.20	7,150.00	6,909.49	127.38	45.72	-85.34	-3,681.80	-3,359.53	4,287.94	4,133.02	154.91	27.680		
11,500.00	7,238.84	7,135.01	6,899.79	130.15	45.68	-85.21	-3,684.38	-3,370.66	4,317.33	4,160.53	156.80	27.534		
11,600.00	7,238.47	7,121.76	6,891.01	132.92	45.64	-85.09	-3,686.72	-3,380.30	4,348.53	4,189.90	158.63	27.412		
11,700.00	7,238.10	7,100.00	6,876.16	135.70	45.57	-84.89	-3,690.67	-3,395.72	4,381.48	4,221.11	160.37	27.321		
11,800.00	7,237.74	7,100.00	6,876.16	138.48	45.57	-84.89	-3,690.67	-3,395.72	4,416.35	4,254.21	162.14	27.238		
11,900.00	7,237.37	7,050.00	6,840.20	141.26	45.42	-84.40	-3,700.27	-3,429.08	4,452.81	4,289.17	163.64	27.211		
12,000.00	7,237.00	7,050.00	6,840.20	144.05	45.42	-84.40	-3,700.27	-3,429.08	4,490.84	4,325.55	165.29	27.170		
12,100.00	7,236.64	7,035.01	6,828.94	146.84	45.36	-84.25	-3,703.28	-3,438.50	4,530.71	4,363.90	166.81	27.161 SF		
12,200.00	7,236.27	7,035.01	6,828.94	149.64	45.36	-84.25	-3,703.28	-3,438.50	4,572.25	4,403.93	168.32	27.163		
12,300.00	7,235.91	7,013.93	6,812.74	152.43	45.29	-84.04	-3,707.61	-3,451.29	4,615.36	4,445.65	169.71	27.196		
12,400.00	7,235.54	7,000.00	6,801.83	155.23	45.24	-83.89	-3,710.54	-3,459.42	4,660.10	4,489.05	171.05	27.245		
12,500.00	7,235.17	7,000.00	6,801.83	158.03	45.24	-83.89	-3,710.54	-3,459.42	4,706.43	4,534.06	172.37	27.304		
12,600.00	7,234.81	6,980.47	6,786.23	160.83	45.16	-83.69	-3,714.72	-3,470.41	4,754.21	4,580.63	173.58	27.389		
12,700.00	7,234.44	6,970.37	6,778.04	163.64	45.12	-83.58	-3,716.91	-3,475.90	4,803.52	4,628.75	174.76	27.486		
12,800.00	7,234.07	6,950.00	6,761.27	166.44	45.05	-83.36	-3,721.41	-3,486.55	4,854.34	4,678.49	175.85	27.605		
12,900.00	7,233.71	6,950.00	6,761.27	169.25	45.05	-83.36	-3,721.41	-3,486.55	4,906.44	4,729.50	176.95	27.728		
13,000.00	7,233.34	6,942.85	6,755.31	172.06	45.02	-83.28	-3,723.01	-3,490.16	4,959.99	4,782.02	177.97	27.870		
13,100.00	7,232.98	6,935.01	6,748.73	174.88	44.98	-83.19	-3,724.78	-3,494.03	5,014.87	4,835.94	178.93	28.027		
13,200.00	7,232.61	6,935.01	6,748.73	177.69	44.98	-83.19	-3,724.78	-3,494.03	5,071.09	4,891.23	179.86	28.194		
13,300.00	7,232.24	6,918.89	6,735.06	180.50	44.91	-83.01	-3,728.45	-3,501.74	5,128.49	4,947.78	180.71	28.379		
13,400.00	7,231.88	6,900.00	6,718.80	183.32	44.83	-82.80	-3,732.82	-3,510.31	5,187.24	5,005.73	181.51	28.579		
13,500.00	7,231.51	6,900.00	6,718.80	186.14	44.83	-82.80	-3,732.82	-3,510.31	5,247.03	5,064.73	182.30	28.783		
13,600.00	7,231.15	6,900.00	6,718.80	188.96	44.83	-82.80	-3,732.82	-3,510.31	5,308.02	5,124.98	183.04	28.999		
13,700.00	7,230.78	6,900.00	6,718.80	191.78	44.83	-82.80	-3,732.82	-3,510.31	5,370.19	5,186.45	183.74	29.227		
13,800.00	7,230.41	6,900.00	6,718.80	194.60	44.83	-82.80	-3,732.82	-3,510.31	5,433.48	5,249.09	184.39	29.467		
13,900.00	7,230.05	6,900.00	6,718.80	197.42	44.83	-82.80	-3,732.82	-3,510.31	5,497.87	5,312.86	185.01	29.717		
14,000.00	7,229.68	6,873.75	6,695.81	200.25	44.71	-82.50	-3,739.00	-3,521.38	5,562.85	5,377.29	185.56	29.979		
14,100.00	7,229.31	6,850.00	6,674.66	203.07	44.60	-82.22	-3,744.70	-3,530.54	5,629.31	5,443.24	186.07	30.254		
14,200.00	7,228.95	6,850.00	6,674.66	205.90	44.60	-82.22	-3,744.70	-3,530.54	5,696.40	5,509.81	186.58	30.530		
14,300.00	7,228.58	6,850.00	6,674.66	208.73	44.60	-82.22	-3,744.70	-3,530.54	5,764.43	5,577.37	187.06	30.815		
14,400.00	7,228.22	6,850.00	6,674.66	211.55	44.60	-82.22	-3,744.70	-3,530.54	5,833.39	5,645.88	187.51	31.110		
14,500.00	7,227.85	6,850.00	6,674.66	214.38	44.60	-82.22	-3,744.70	-3,530.54	5,903.23	5,715.31	187.93	31.412		
14,600.00	7,227.48	6,850.00	6,674.66	217.21	44.60	-82.22	-3,744.70	-3,530.54	5,973.94	5,785.62	188.31	31.723		
14,700.00	7,227.12	6,835.01	6,661.14	220.04	44.53	-82.05	-3,748.34	-3,535.89	6,045.40	5,856.74	188.66	32.043		
14,800.00	7,226.75	6,835.01	6,661.14	222.88	44.53	-82.05	-3,748.34	-3,535.89	6,117.65	5,928.65	189.00	32.369		
14,900.00	7,226.38	6,835.01	6,661.14	225.71	44.53	-82.05	-3,748.34	-3,535.89	6,190.66	6,001.35	189.31	32.701		
15,000.00	7,226.02	6,835.01	6,661.14	228.54	44.53	-82.05	-3,748.34	-3,535.89	6,264.42	6,074.82	189.60	33.041		
15,005.81	7,226.00	6,835.01	6,661.14	228.71	44.53	-82.05	-3,748.34	-3,535.89	6,268.72	6,079.11	189.61	33.061		

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



Anticollision Report



Company:	SRC ENERGY	Local Co-ordinate Reference:	Well HARVESTERS STATE 31C-16-M
Project:	SECTION 15, T6N, R66W	TVD Reference:	KB @ 4821.00ft
Reference Site:	HARVESTERS STATE 7-15 PAD	MD Reference:	KB @ 4821.00ft
Site Error:	3.28 ft	North Reference:	True
Reference Well:	HARVESTERS STATE 31C-16-M	Survey Calculation Method:	Minimum Curvature
Well Error:	3.28 ft	Output errors are at	2.45 sigma
Reference Wellbore	OH	Database:	EDM 5000.14 Single User Db
Reference Design:	PLAN #1	Offset TVD Reference:	Reference Datum

Offset Design HARVESTERS STATE 7-15 PAD - LEFFLER FARM 1-21(PA_75CC) - OH - OH													Offset Site Error:	0.00 ft
Survey Program: 100-2" Cone@2.448 Sigma													Offset Well Error:	3.28 ft
Reference		Offset		Semi Major Axis			Distance							Warning
Measured Depth (ft)	Vertical Depth (ft)	Measured Depth (ft)	Vertical Depth (ft)	Reference (ft)	Offset (ft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (ft)	+E/-W (ft)	Between Centres (ft)	Between Ellipses (ft)	Minimum Separation (ft)	Separation Factor		
0.00	0.00	0.00	66.00	3.28	3.28	-125.29	-4,490.69	-6,345.47	7,774.03					
100.00	100.00	34.00	100.00	3.28	3.33	-125.29	-4,490.69	-6,345.47	7,773.75	7,767.13	6.62	1,174.641		
200.00	200.00	134.00	200.00	3.34	4.40	-125.29	-4,490.69	-6,345.47	7,773.75	7,766.02	7.74	1,004.782		
300.00	300.00	234.00	300.00	3.44	7.21	-125.29	-4,490.69	-6,345.47	7,773.75	7,763.10	10.66	729.428		
400.00	400.00	334.00	400.00	3.60	10.44	-125.29	-4,490.69	-6,345.47	7,773.75	7,759.71	14.05	553.439		
500.00	500.00	434.00	500.00	3.81	13.80	-125.29	-4,490.69	-6,345.47	7,773.75	7,756.15	17.61	441.518		
600.00	600.00	534.00	600.00	4.05	17.21	-125.29	-4,490.69	-6,345.47	7,773.75	7,752.49	21.26	365.683		
700.00	699.98	633.98	699.98	4.32	20.65	-102.39	-4,490.69	-6,345.47	7,774.13	7,749.16	24.97	311.388		
800.00	799.84	733.84	799.84	4.62	24.10	-102.41	-4,490.69	-6,345.47	7,775.25	7,746.54	28.71	270.817		
900.00	899.62	833.62	899.62	4.94	27.55	-102.46	-4,490.69	-6,345.47	7,776.66	7,744.18	32.48	239.406		
1,000.00	999.41	933.41	999.41	5.27	31.01	-102.51	-4,490.69	-6,345.47	7,778.08	7,741.80	36.28	214.389		
1,100.00	1,099.19	1,033.19	1,099.19	5.62	34.48	-102.55	-4,490.69	-6,345.47	7,779.51	7,739.41	40.10	194.019		
1,200.00	1,198.98	1,132.98	1,198.98	5.99	37.95	-102.60	-4,490.69	-6,345.47	7,780.94	7,737.01	43.93	177.127		
1,300.00	1,298.76	1,232.76	1,298.76	6.36	41.42	-102.65	-4,490.69	-6,345.47	7,782.38	7,734.60	47.77	162.903		
1,400.00	1,398.55	1,332.55	1,398.55	6.74	44.89	-102.69	-4,490.69	-6,345.47	7,783.82	7,732.19	51.63	150.768		
1,500.00	1,498.33	1,432.33	1,498.33	7.13	48.37	-102.74	-4,490.69	-6,345.47	7,785.26	7,729.77	55.49	140.298		
1,600.00	1,598.12	1,532.12	1,598.12	7.52	51.84	-102.79	-4,490.69	-6,345.47	7,786.72	7,727.35	59.36	131.175		
1,700.00	1,697.90	1,631.90	1,697.90	7.92	55.32	-102.84	-4,490.69	-6,345.47	7,788.17	7,724.93	63.24	123.157		
1,800.00	1,797.69	1,731.69	1,797.69	8.33	58.80	-102.88	-4,490.69	-6,345.47	7,789.63	7,722.52	67.12	116.057		
1,900.00	1,897.47	1,831.47	1,897.47	8.74	62.28	-102.93	-4,490.69	-6,345.47	7,791.10	7,720.10	71.01	109.726		
2,000.00	1,997.26	1,931.26	1,997.26	9.15	65.76	-102.98	-4,490.69	-6,345.47	7,792.58	7,717.68	74.89	104.047		
2,100.00	2,097.04	2,031.04	2,097.04	9.56	69.24	-103.02	-4,490.69	-6,345.47	7,794.05	7,715.27	78.79	98.925		
2,200.00	2,196.83	2,130.83	2,196.83	9.98	72.72	-103.07	-4,490.69	-6,345.47	7,795.54	7,712.85	82.68	94.281		
2,300.00	2,296.61	2,230.61	2,296.61	10.40	76.20	-103.12	-4,490.69	-6,345.47	7,797.03	7,710.44	86.58	90.054		
2,400.00	2,396.40	2,330.40	2,396.40	10.82	79.68	-103.16	-4,490.69	-6,345.47	7,798.52	7,708.04	90.48	86.188		
2,500.00	2,496.18	2,430.18	2,496.18	11.24	83.16	-103.21	-4,490.69	-6,345.47	7,800.02	7,705.63	94.39	82.640		
2,600.00	2,595.96	2,529.96	2,595.96	11.66	86.64	-103.26	-4,490.69	-6,345.47	7,801.52	7,703.23	98.29	79.373		
2,700.00	2,695.75	2,629.75	2,695.75	12.09	90.12	-103.30	-4,490.69	-6,345.47	7,803.03	7,700.84	102.20	76.354		
2,800.00	2,795.53	2,729.53	2,795.53	12.51	93.60	-103.35	-4,490.69	-6,345.47	7,804.55	7,698.44	106.10	73.556		
2,900.00	2,895.32	2,829.32	2,895.32	12.94	97.08	-103.40	-4,490.69	-6,345.47	7,806.07	7,696.06	110.01	70.957		
3,000.00	2,995.10	2,929.10	2,995.10	13.37	100.56	-103.44	-4,490.69	-6,345.47	7,807.59	7,693.67	113.92	68.535		
3,100.00	3,094.89	3,028.89	3,094.89	13.80	104.04	-103.49	-4,490.69	-6,345.47	7,809.12	7,691.29	117.83	66.273		
3,200.00	3,194.67	3,128.67	3,194.67	14.23	107.53	-103.54	-4,490.69	-6,345.47	7,810.66	7,688.91	121.74	64.157		
3,300.00	3,294.46	3,228.46	3,294.46	14.66	111.01	-103.58	-4,490.69	-6,345.47	7,812.20	7,686.54	125.66	62.171		
3,400.00	3,394.24	3,328.24	3,394.24	15.09	114.49	-103.63	-4,490.69	-6,345.47	7,813.74	7,684.18	129.57	60.305		
3,500.00	3,494.03	3,428.03	3,494.03	15.52	117.97	-103.68	-4,490.69	-6,345.47	7,815.30	7,681.81	133.48	58.549		
3,600.00	3,593.81	3,527.81	3,593.81	15.96	121.45	-103.72	-4,490.69	-6,345.47	7,816.85	7,679.45	137.40	56.892		
3,700.00	3,693.60	3,627.60	3,693.60	16.39	124.94	-103.77	-4,490.69	-6,345.47	7,818.41	7,677.10	141.31	55.327		
3,800.00	3,793.38	3,727.38	3,793.38	16.82	128.42	-103.82	-4,490.69	-6,345.47	7,819.98	7,674.75	145.23	53.846		
3,900.00	3,893.17	3,827.17	3,893.17	17.26	131.90	-103.86	-4,490.69	-6,345.47	7,821.55	7,672.41	149.15	52.442		
4,000.00	3,992.95	3,926.95	3,992.95	17.69	135.38	-103.91	-4,490.69	-6,345.47	7,823.13	7,670.07	153.06	51.110		
4,100.00	4,092.74	4,026.74	4,092.74	18.13	138.87	-103.96	-4,490.69	-6,345.47	7,824.71	7,667.73	156.98	49.845		
4,200.00	4,192.52	4,126.52	4,192.52	18.56	142.35	-104.00	-4,490.69	-6,345.47	7,826.30	7,665.40	160.90	48.641		
4,300.00	4,292.31	4,226.31	4,292.31	19.00	145.83	-104.05	-4,490.69	-6,345.47	7,827.89	7,663.08	164.82	47.495		
4,400.00	4,392.09	4,326.09	4,392.09	19.43	149.31	-104.10	-4,490.69	-6,345.47	7,829.49	7,660.75	168.73	46.401		
4,500.00	4,491.88	4,425.88	4,491.88	19.87	152.80	-104.14	-4,490.69	-6,345.47	7,831.09	7,658.44	172.65	45.357		
4,600.00	4,591.66	4,525.66	4,591.66	20.31	156.28	-104.19	-4,490.69	-6,345.47	7,832.70	7,656.13	176.57	44.360		
4,700.00	4,691.44	4,625.44	4,691.44	20.74	159.76	-104.24	-4,490.69	-6,345.47	7,834.31	7,653.82	180.49	43.405		
4,800.00	4,791.23	4,725.23	4,791.23	21.18	163.25	-104.28	-4,490.69	-6,345.47	7,835.93	7,651.52	184.41	42.491		
4,900.00	4,891.01	4,825.01	4,891.01	21.62	166.73	-104.33	-4,490.69	-6,345.47	7,837.56	7,649.22	188.33	41.616		
5,000.00	4,990.80	4,924.80	4,990.80	22.06	170.21	-104.37	-4,490.69	-6,345.47	7,839.18	7,646.93	192.25	40.776		
5,100.00	5,090.58	5,024.58	5,090.58	22.50	173.69	-104.42	-4,490.69	-6,345.47	7,840.82	7,644.65	196.17	39.969		

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



Anticollision Report



Company:	SRC ENERGY	Local Co-ordinate Reference:	Well HARVESTERS STATE 31C-16-M
Project:	SECTION 15, T6N, R66W	TVD Reference:	KB @ 4821.00ft
Reference Site:	HARVESTERS STATE 7-15 PAD	MD Reference:	KB @ 4821.00ft
Site Error:	3.28 ft	North Reference:	True
Reference Well:	HARVESTERS STATE 31C-16-M	Survey Calculation Method:	Minimum Curvature
Well Error:	3.28 ft	Output errors are at	2.45 sigma
Reference Wellbore	OH	Database:	EDM 5000.14 Single User Db
Reference Design:	PLAN #1	Offset TVD Reference:	Reference Datum

Offset Design HARVESTERS STATE 7-15 PAD - LEFFLER FARM 1-21(PA_75CC) - OH - OH													Offset Site Error:	0.00 ft
Survey Program: 100-2" Cone@2.448 Sigma													Offset Well Error:	3.28 ft
Reference		Offset		Semi Major Axis			Distance						Warning	
Measured Depth (ft)	Vertical Depth (ft)	Measured Depth (ft)	Vertical Depth (ft)	Reference (ft)	Offset (ft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (ft)	+E/-W (ft)	Between Centres (ft)	Between Ellipses (ft)	Minimum Separation (ft)	Separation Factor		
5,200.00	5,190.37	5,124.37	5,190.37	22.93	177.18	-104.47	-4,490.69	-6,345.47	7,842.46	7,642.36	200.09	39.194		
5,300.00	5,290.15	5,224.15	5,290.15	23.37	180.66	-104.51	-4,490.69	-6,345.47	7,844.10	7,640.09	204.01	38.449		
5,400.00	5,389.94	5,323.94	5,389.94	23.81	184.14	-104.56	-4,490.69	-6,345.47	7,845.75	7,637.82	207.94	37.732		
5,500.00	5,489.72	5,423.72	5,489.72	24.25	187.63	-104.61	-4,490.69	-6,345.47	7,847.41	7,635.55	211.86	37.041		
5,600.00	5,589.51	5,523.51	5,589.51	24.69	191.11	-104.65	-4,490.69	-6,345.47	7,849.07	7,633.29	215.78	36.376		
5,700.00	5,689.29	5,623.29	5,689.29	25.13	194.59	-104.70	-4,490.69	-6,345.47	7,850.73	7,631.03	219.70	35.734		
5,800.00	5,789.08	5,723.08	5,789.08	25.56	198.07	-104.74	-4,490.69	-6,345.47	7,852.40	7,628.78	223.62	35.115		
5,900.00	5,888.86	5,822.86	5,888.86	26.00	201.56	-104.79	-4,490.69	-6,345.47	7,854.07	7,626.53	227.54	34.517		
6,000.00	5,988.65	5,922.65	5,988.65	26.44	205.04	-104.84	-4,490.69	-6,345.47	7,855.75	7,624.29	231.47	33.939		
6,100.00	6,088.43	6,022.43	6,088.43	26.88	208.52	-104.88	-4,490.69	-6,345.47	7,857.44	7,622.05	235.39	33.381		
6,200.00	6,188.22	6,122.22	6,188.22	27.32	212.01	-104.93	-4,490.69	-6,345.47	7,859.13	7,619.82	239.31	32.841		
6,300.00	6,288.00	6,222.00	6,288.00	27.76	215.49	-104.98	-4,490.69	-6,345.47	7,860.83	7,617.59	243.23	32.318		
6,400.00	6,387.79	6,321.79	6,387.79	28.20	218.97	-105.02	-4,490.69	-6,345.47	7,862.53	7,615.37	247.15	31.812		
6,500.00	6,487.57	6,421.57	6,487.57	28.64	222.46	-105.07	-4,490.69	-6,345.47	7,864.23	7,613.15	251.08	31.322		
6,600.00	6,587.35	6,521.35	6,587.35	29.08	225.94	-105.11	-4,490.69	-6,345.47	7,865.94	7,610.94	255.00	30.847		
6,700.00	6,687.02	6,621.02	6,687.02	29.52	229.42	-67.32	-4,490.69	-6,345.47	7,865.91	7,606.99	258.92	30.380		
6,800.00	6,784.98	6,718.98	6,784.98	29.96	232.84	-52.06	-4,490.69	-6,345.47	7,854.97	7,592.20	262.78	29.892		
6,900.00	6,878.81	6,812.81	6,878.81	30.41	236.11	-49.05	-4,490.69	-6,345.47	7,832.11	7,565.63	266.48	29.391		
7,000.00	6,966.21	6,900.21	6,966.21	30.86	239.16	-49.41	-4,490.69	-6,345.47	7,797.98	7,528.03	269.95	28.887		
7,100.00	7,045.03	6,979.03	7,045.03	31.35	241.92	-51.72	-4,490.69	-6,345.47	7,753.53	7,480.41	273.12	28.389		
7,200.00	7,113.32	7,047.32	7,113.32	31.90	244.30	-55.67	-4,490.69	-6,345.47	7,699.97	7,424.05	275.92	27.906		
7,300.00	7,169.40	7,103.40	7,169.40	32.57	246.26	-61.25	-4,490.69	-6,345.47	7,638.76	7,360.43	278.33	27.445		
7,400.00	7,211.89	7,145.89	7,211.89	33.38	247.74	-68.48	-4,490.69	-6,345.47	7,571.51	7,291.20	280.31	27.011		
7,500.00	7,239.75	7,173.75	7,239.75	34.35	248.71	-77.20	-4,490.69	-6,345.47	7,499.98	7,218.14	281.84	26.611		
7,600.00	7,252.28	7,186.28	7,252.28	35.47	249.15	-86.95	-4,490.69	-6,345.47	7,426.00	7,143.10	282.91	26.249		
7,700.00	7,252.75	7,186.75	7,252.75	36.73	249.17	-90.23	-4,490.69	-6,345.47	7,351.47	7,067.85	283.63	25.919		
7,800.00	7,252.38	7,186.38	7,252.38	38.16	249.15	-90.23	-4,490.69	-6,345.47	7,277.51	6,993.08	284.44	25.586		
7,900.00	7,252.02	7,186.02	7,252.02	39.74	249.14	-90.22	-4,490.69	-6,345.47	7,204.18	6,918.82	285.36	25.246		
8,000.00	7,251.65	7,185.65	7,251.65	41.47	249.13	-90.22	-4,490.69	-6,345.47	7,131.50	6,845.10	286.40	24.901		
8,100.00	7,251.29	7,185.29	7,251.29	43.31	249.11	-90.22	-4,490.69	-6,345.47	7,059.49	6,771.94	287.55	24.551		
8,200.00	7,250.92	7,184.92	7,250.92	45.26	249.10	-90.21	-4,490.69	-6,345.47	6,988.16	6,699.35	288.81	24.196		
8,300.00	7,250.55	7,184.55	7,250.55	47.30	249.09	-90.21	-4,490.69	-6,345.47	6,917.54	6,627.37	290.18	23.839		
8,400.00	7,250.19	7,184.19	7,250.19	49.42	249.08	-90.20	-4,490.69	-6,345.47	6,847.66	6,556.01	291.65	23.479		
8,500.00	7,249.82	7,183.82	7,249.82	51.62	249.06	-90.20	-4,490.69	-6,345.47	6,778.53	6,485.31	293.22	23.118		
8,600.00	7,249.45	7,183.45	7,249.45	53.88	249.05	-90.19	-4,490.69	-6,345.47	6,710.18	6,415.30	294.89	22.755		
8,700.00	7,249.09	7,183.09	7,249.09	56.19	249.04	-90.19	-4,490.69	-6,345.47	6,642.63	6,345.99	296.65	22.392		
8,800.00	7,248.72	7,182.72	7,248.72	58.55	249.03	-90.19	-4,490.69	-6,345.47	6,575.91	6,277.41	298.50	22.030		
8,900.00	7,248.36	7,182.36	7,248.36	60.96	249.01	-90.18	-4,490.69	-6,345.47	6,510.04	6,209.61	300.44	21.669		
9,000.00	7,247.99	7,181.99	7,247.99	63.40	249.00	-90.18	-4,490.69	-6,345.47	6,445.05	6,142.59	302.46	21.309		
9,100.00	7,247.62	7,181.62	7,247.62	65.87	248.99	-90.17	-4,490.69	-6,345.47	6,380.97	6,076.40	304.56	20.951		
9,200.00	7,247.26	7,181.26	7,247.26	68.38	248.97	-90.17	-4,490.69	-6,345.47	6,317.81	6,011.07	306.74	20.596		
9,300.00	7,246.89	7,180.89	7,246.89	70.91	248.96	-90.16	-4,490.69	-6,345.47	6,255.62	5,946.62	309.00	20.245		
9,400.00	7,246.53	7,180.53	7,246.53	73.47	248.95	-90.16	-4,490.69	-6,345.47	6,194.42	5,883.09	311.33	19.896		
9,500.00	7,246.16	7,180.16	7,246.16	76.05	248.94	-90.16	-4,490.69	-6,345.47	6,134.24	5,820.50	313.74	19.552		
9,600.00	7,245.79	7,179.79	7,245.79	78.65	248.92	-90.15	-4,490.69	-6,345.47	6,075.11	5,758.90	316.21	19.212		
9,700.00	7,245.43	7,179.43	7,245.43	81.27	248.91	-90.15	-4,490.69	-6,345.47	6,017.05	5,698.31	318.75	18.877		
9,800.00	7,245.06	7,179.06	7,245.06	83.90	248.90	-90.14	-4,490.69	-6,345.47	5,960.12	5,638.77	321.35	18.547		
9,900.00	7,244.69	7,178.69	7,244.69	86.55	248.88	-90.14	-4,490.69	-6,345.47	5,904.32	5,580.31	324.01	18.223		
10,000.00	7,244.33	7,178.33	7,244.33	89.21	248.87	-90.13	-4,490.69	-6,345.47	5,849.70	5,522.97	326.74	17.903		
10,100.00	7,243.96	7,177.96	7,243.96	91.88	248.86	-90.13	-4,490.69	-6,345.47	5,796.30	5,466.78	329.52	17.590		
10,200.00	7,243.60	7,177.60	7,243.60	94.56	248.85	-90.13	-4,490.69	-6,345.47	5,744.14	5,411.78	332.35	17.283		
10,300.00	7,243.23	7,177.23	7,243.23	97.26	248.83	-90.12	-4,490.69	-6,345.47	5,693.25	5,358.01	335.24	16.982		

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



Anticollision Report



Company:	SRC ENERGY	Local Co-ordinate Reference:	Well HARVESTERS STATE 31C-16-M
Project:	SECTION 15, T6N, R66W	TVD Reference:	KB @ 4821.00ft
Reference Site:	HARVESTERS STATE 7-15 PAD	MD Reference:	KB @ 4821.00ft
Site Error:	3.28 ft	North Reference:	True
Reference Well:	HARVESTERS STATE 31C-16-M	Survey Calculation Method:	Minimum Curvature
Well Error:	3.28 ft	Output errors are at	2.45 sigma
Reference Wellbore	OH	Database:	EDM 5000.14 Single User Db
Reference Design:	PLAN #1	Offset TVD Reference:	Reference Datum

Offset Design HARVESTERS STATE 7-15 PAD - LEFFLER FARM 1-21(PA_75CC) - OH - OH													Offset Site Error:	0.00 ft
Survey Program: 100-2" Cone@2.448 Sigma													Offset Well Error:	3.28 ft
Reference		Offset		Semi Major Axis			Distance							Warning
Measured Depth (ft)	Vertical Depth (ft)	Measured Depth (ft)	Vertical Depth (ft)	Reference (ft)	Offset (ft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (ft)	+E/-W (ft)	Between Centres (ft)	Between Ellipses (ft)	Minimum Separation (ft)	Separation Factor		
10,400.00	7,242.86	7,176.86	7,242.86	99.96	248.82	-90.12	-4,490.69	-6,345.47	5,643.69	5,305.50	338.18	16.688		
10,500.00	7,242.50	7,176.50	7,242.50	102.67	248.81	-90.11	-4,490.69	-6,345.47	5,595.46	5,254.30	341.17	16.401		
10,600.00	7,242.13	7,176.13	7,242.13	105.39	248.80	-90.11	-4,490.69	-6,345.47	5,548.63	5,204.43	344.20	16.120		
10,700.00	7,241.76	7,175.76	7,241.76	108.12	248.78	-90.10	-4,490.69	-6,345.47	5,503.21	5,155.93	347.27	15.847		
10,800.00	7,241.40	7,175.40	7,241.40	110.85	248.77	-90.10	-4,490.69	-6,345.47	5,459.24	5,108.86	350.38	15.581		
10,900.00	7,241.03	7,175.03	7,241.03	113.59	248.76	-90.10	-4,490.69	-6,345.47	5,416.77	5,063.23	353.53	15.322		
11,000.00	7,240.67	7,174.67	7,240.67	116.34	248.74	-90.09	-4,490.69	-6,345.47	5,375.81	5,019.10	356.71	15.071		
11,100.00	7,240.30	7,174.30	7,240.30	119.09	248.73	-90.09	-4,490.69	-6,345.47	5,336.42	4,976.51	359.92	14.827		
11,200.00	7,239.93	7,173.93	7,239.93	121.85	248.72	-90.08	-4,490.69	-6,345.47	5,298.63	4,935.48	363.15	14.591		
11,300.00	7,239.57	7,173.57	7,239.57	124.61	248.71	-90.08	-4,490.69	-6,345.47	5,262.46	4,896.06	366.40	14.363		
11,400.00	7,239.20	7,173.20	7,239.20	127.38	248.69	-90.08	-4,490.69	-6,345.47	5,227.95	4,858.28	369.67	14.142		
11,500.00	7,238.84	7,172.84	7,238.84	130.15	248.68	-90.07	-4,490.69	-6,345.47	5,195.15	4,822.19	372.95	13.930		
11,600.00	7,238.47	7,172.47	7,238.47	132.92	248.67	-90.07	-4,490.69	-6,345.47	5,164.07	4,787.82	376.24	13.725		
11,700.00	7,238.10	7,172.10	7,238.10	135.70	248.65	-90.06	-4,490.69	-6,345.47	5,134.74	4,755.21	379.54	13.529		
11,800.00	7,237.74	7,171.74	7,237.74	138.48	248.64	-90.06	-4,490.69	-6,345.47	5,107.21	4,724.38	382.83	13.341		
11,900.00	7,237.37	7,171.37	7,237.37	141.26	248.63	-90.05	-4,490.69	-6,345.47	5,081.50	4,695.38	386.12	13.160		
12,000.00	7,237.00	7,171.00	7,237.00	144.05	248.62	-90.05	-4,490.69	-6,345.47	5,057.64	4,668.24	389.40	12.988		
12,100.00	7,236.64	7,170.64	7,236.64	146.84	248.60	-90.05	-4,490.69	-6,345.47	5,035.64	4,642.99	392.66	12.825		
12,200.00	7,236.27	7,170.27	7,236.27	149.64	248.59	-90.04	-4,490.69	-6,345.47	5,015.55	4,619.65	395.90	12.669		
12,300.00	7,235.91	7,169.91	7,235.91	152.43	248.58	-90.04	-4,490.69	-6,345.47	4,997.38	4,598.26	399.12	12.521		
12,400.00	7,235.54	7,169.54	7,235.54	155.23	248.57	-90.03	-4,490.69	-6,345.47	4,981.14	4,578.84	402.30	12.382		
12,500.00	7,235.17	7,169.17	7,235.17	158.03	248.55	-90.03	-4,490.69	-6,345.47	4,966.87	4,561.42	405.45	12.250		
12,600.00	7,234.81	7,168.81	7,234.81	160.83	248.54	-90.02	-4,490.69	-6,345.47	4,954.58	4,546.02	408.56	12.127		
12,700.00	7,234.44	7,168.44	7,234.44	163.64	248.53	-90.02	-4,490.69	-6,345.47	4,944.28	4,532.65	411.63	12.012		
12,800.00	7,234.07	7,168.07	7,234.07	166.44	248.51	-90.02	-4,490.69	-6,345.47	4,935.98	4,521.34	414.64	11.904		
12,900.00	7,233.71	7,167.71	7,233.71	169.25	248.50	-90.01	-4,490.69	-6,345.47	4,929.70	4,512.09	417.61	11.805		
13,000.00	7,233.34	7,167.34	7,233.34	172.06	248.49	-90.01	-4,490.69	-6,345.47	4,925.44	4,504.93	420.51	11.713		
13,100.00	7,232.98	7,166.98	7,232.98	174.88	248.48	-90.00	-4,490.69	-6,345.47	4,923.21	4,499.86	423.35	11.629		
13,159.87	7,232.76	7,166.76	7,232.76	176.56	248.47	-90.00	-4,490.69	-6,345.47	4,922.85	4,497.83	425.02	11.583 CC		
13,200.00	7,232.61	7,166.61	7,232.61	177.69	248.46	-90.00	-4,490.69	-6,345.47	4,923.01	4,496.88	426.13	11.553		
13,300.00	7,232.24	7,166.24	7,232.24	180.50	248.45	-89.99	-4,490.69	-6,345.47	4,924.84	4,496.01	428.83	11.484 ES		
13,400.00	7,231.88	7,165.88	7,231.88	183.32	248.44	-89.99	-4,490.69	-6,345.47	4,928.70	4,497.24	431.46	11.423		
13,500.00	7,231.51	7,165.51	7,231.51	186.14	248.42	-89.99	-4,490.69	-6,345.47	4,934.58	4,500.57	434.02	11.370		
13,600.00	7,231.15	7,165.15	7,231.15	188.96	248.41	-89.98	-4,490.69	-6,345.47	4,942.48	4,505.99	436.49	11.323		
13,700.00	7,230.78	7,164.78	7,230.78	191.78	248.40	-89.98	-4,490.69	-6,345.47	4,952.39	4,513.50	438.88	11.284		
13,800.00	7,230.41	7,164.41	7,230.41	194.60	248.39	-89.97	-4,490.69	-6,345.47	4,964.29	4,523.10	441.19	11.252		
13,900.00	7,230.05	7,164.05	7,230.05	197.42	248.37	-89.97	-4,490.69	-6,345.47	4,978.17	4,534.75	443.42	11.227		
14,000.00	7,229.68	7,163.68	7,229.68	200.25	248.36	-89.96	-4,490.69	-6,345.47	4,994.02	4,548.46	445.56	11.208		
14,100.00	7,229.31	7,163.31	7,229.31	203.07	248.35	-89.96	-4,490.69	-6,345.47	5,011.81	4,564.20	447.61	11.197		
14,200.00	7,228.95	7,162.95	7,228.95	205.90	248.34	-89.96	-4,490.69	-6,345.47	5,031.53	4,581.96	449.57	11.192 SF		
14,300.00	7,228.58	7,162.58	7,228.58	208.73	248.32	-89.95	-4,490.69	-6,345.47	5,053.15	4,601.71	451.44	11.193		
14,400.00	7,228.22	7,162.22	7,228.22	211.55	248.31	-89.95	-4,490.69	-6,345.47	5,076.64	4,623.42	453.22	11.201		
14,500.00	7,227.85	7,161.85	7,227.85	214.38	248.30	-89.94	-4,490.69	-6,345.47	5,101.99	4,647.08	454.92	11.215		
14,600.00	7,227.48	7,161.48	7,227.48	217.21	248.28	-89.94	-4,490.69	-6,345.47	5,129.17	4,672.64	456.52	11.235		
14,700.00	7,227.12	7,161.12	7,227.12	220.04	248.27	-89.93	-4,490.69	-6,345.47	5,158.14	4,700.10	458.04	11.261		
14,800.00	7,226.75	7,160.75	7,226.75	222.88	248.26	-89.93	-4,490.69	-6,345.47	5,188.87	4,729.40	459.47	11.293		
14,900.00	7,226.38	7,160.38	7,226.38	225.71	248.25	-89.93	-4,490.69	-6,345.47	5,221.34	4,760.52	460.82	11.331		
15,000.00	7,226.02	7,160.02	7,226.02	228.54	248.23	-89.92	-4,490.69	-6,345.47	5,255.52	4,793.43	462.08	11.374		
15,005.81	7,226.00	7,160.00	7,226.00	228.71	248.23	-89.92	-4,490.69	-6,345.47	5,257.55	4,795.40	462.15	11.376		

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



Anticollision Report



Company:	SRC ENERGY	Local Co-ordinate Reference:	Well HARVESTERS STATE 31C-16-M
Project:	SECTION 15, T6N, R66W	TVD Reference:	KB @ 4821.00ft
Reference Site:	HARVESTERS STATE 7-15 PAD	MD Reference:	KB @ 4821.00ft
Site Error:	3.28 ft	North Reference:	True
Reference Well:	HARVESTERS STATE 31C-16-M	Survey Calculation Method:	Minimum Curvature
Well Error:	3.28 ft	Output errors are at	2.45 sigma
Reference Wellbore	OH	Database:	EDM 5000.14 Single User Db
Reference Design:	PLAN #1	Offset TVD Reference:	Reference Datum

Offset Design HARVESTERS STATE 7-15 PAD - LOVELY 1(AB_150CC) - OH - OH													Offset Site Error:	0.00 ft
Survey Program: 100-2" Cone@2.448 Sigma													Offset Well Error:	3.28 ft
Reference		Offset		Semi Major Axis			Distance							Warning
Measured Depth (ft)	Vertical Depth (ft)	Measured Depth (ft)	Vertical Depth (ft)	Reference (ft)	Offset (ft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (ft)	+E/-W (ft)	Between Centres (ft)	Between Ellipses (ft)	Minimum Separation (ft)	Separation Factor		
0.00	0.00	0.00	19.00	3.28	3.28	-70.05	2,308.34	-6,357.90	6,764.00					
100.00	100.00	81.00	100.00	3.28	3.57	-70.05	2,308.34	-6,357.90	6,763.97	6,757.12	6.86	986.511		
200.00	200.00	181.00	200.00	3.34	5.63	-70.05	2,308.34	-6,357.90	6,763.97	6,755.01	8.96	754.497		
300.00	300.00	281.00	300.00	3.44	8.71	-70.05	2,308.34	-6,357.90	6,763.97	6,751.82	12.15	556.676		
400.00	400.00	381.00	400.00	3.60	12.01	-70.05	2,308.34	-6,357.90	6,763.97	6,748.36	15.62	433.170		
500.00	500.00	481.00	500.00	3.81	15.40	-70.05	2,308.34	-6,357.90	6,763.97	6,744.77	19.21	352.188		
600.00	600.00	581.00	600.00	4.05	18.83	-70.05	2,308.34	-6,357.90	6,763.97	6,741.10	22.87	295.739		
700.00	699.98	680.98	699.98	4.32	22.27	-47.17	2,308.34	-6,357.90	6,762.79	6,736.20	26.59	254.360		
800.00	799.84	780.84	799.84	4.62	25.72	-47.25	2,308.34	-6,357.90	6,759.25	6,728.91	30.34	222.800		
900.00	899.62	880.62	899.62	4.94	29.18	-47.29	2,308.34	-6,357.90	6,754.79	6,720.68	34.11	198.015		
1,000.00	999.41	980.41	999.41	5.27	32.65	-47.33	2,308.34	-6,357.90	6,750.34	6,712.43	37.91	178.060		
1,100.00	1,099.19	1,080.19	1,099.19	5.62	36.11	-47.37	2,308.34	-6,357.90	6,745.89	6,704.16	41.73	161.667		
1,200.00	1,198.98	1,179.98	1,198.98	5.99	39.58	-47.42	2,308.34	-6,357.90	6,741.45	6,695.89	45.56	147.973		
1,300.00	1,298.76	1,279.76	1,298.76	6.36	43.06	-47.46	2,308.34	-6,357.90	6,737.01	6,687.60	49.40	136.370		
1,400.00	1,398.55	1,379.55	1,398.55	6.74	46.53	-47.50	2,308.34	-6,357.90	6,732.57	6,679.31	53.26	126.419		
1,500.00	1,498.33	1,479.33	1,498.33	7.13	50.01	-47.54	2,308.34	-6,357.90	6,728.14	6,671.02	57.12	117.793		
1,600.00	1,598.12	1,579.12	1,598.12	7.52	53.48	-47.58	2,308.34	-6,357.90	6,723.70	6,662.72	60.99	110.247		
1,700.00	1,697.90	1,678.90	1,697.90	7.92	56.96	-47.62	2,308.34	-6,357.90	6,719.28	6,654.41	64.86	103.592		
1,800.00	1,797.69	1,778.69	1,797.69	8.33	60.44	-47.66	2,308.34	-6,357.90	6,714.85	6,646.11	68.74	97.681		
1,900.00	1,897.47	1,878.47	1,897.47	8.74	63.92	-47.70	2,308.34	-6,357.90	6,710.43	6,637.81	72.63	92.395		
2,000.00	1,997.26	1,978.26	1,997.26	9.15	67.40	-47.74	2,308.34	-6,357.90	6,706.02	6,629.50	76.52	87.642		
2,100.00	2,097.04	2,078.04	2,097.04	9.56	70.87	-47.79	2,308.34	-6,357.90	6,701.60	6,621.20	80.41	83.346		
2,200.00	2,196.83	2,177.83	2,196.83	9.98	74.35	-47.83	2,308.34	-6,357.90	6,697.19	6,612.89	84.30	79.443		
2,300.00	2,296.61	2,277.61	2,296.61	10.40	77.84	-47.87	2,308.34	-6,357.90	6,692.79	6,604.59	88.20	75.883		
2,400.00	2,396.40	2,377.40	2,396.40	10.82	81.32	-47.91	2,308.34	-6,357.90	6,688.39	6,596.29	92.10	72.623		
2,500.00	2,496.18	2,477.18	2,496.18	11.24	84.80	-47.95	2,308.34	-6,357.90	6,683.99	6,587.99	96.00	69.626		
2,600.00	2,595.96	2,576.96	2,595.96	11.66	88.28	-47.99	2,308.34	-6,357.90	6,679.59	6,579.69	99.90	66.862		
2,700.00	2,695.75	2,676.75	2,695.75	12.09	91.76	-48.04	2,308.34	-6,357.90	6,675.20	6,571.39	103.81	64.304		
2,800.00	2,795.53	2,776.53	2,795.53	12.51	95.24	-48.08	2,308.34	-6,357.90	6,670.81	6,563.10	107.71	61.932		
2,900.00	2,895.32	2,876.32	2,895.32	12.94	98.72	-48.12	2,308.34	-6,357.90	6,666.43	6,554.81	111.62	59.725		
3,000.00	2,995.10	2,976.10	2,995.10	13.37	102.20	-48.16	2,308.34	-6,357.90	6,662.04	6,546.52	115.53	57.666		
3,100.00	3,094.89	3,075.89	3,094.89	13.80	105.68	-48.20	2,308.34	-6,357.90	6,657.67	6,538.23	119.44	55.742		
3,200.00	3,194.67	3,175.67	3,194.67	14.23	109.17	-48.25	2,308.34	-6,357.90	6,653.29	6,529.95	123.35	53.940		
3,300.00	3,294.46	3,275.46	3,294.46	14.66	112.65	-48.29	2,308.34	-6,357.90	6,648.92	6,521.66	127.26	52.248		
3,400.00	3,394.24	3,375.24	3,394.24	15.09	116.13	-48.33	2,308.34	-6,357.90	6,644.56	6,513.39	131.17	50.656		
3,500.00	3,494.03	3,475.03	3,494.03	15.52	119.61	-48.37	2,308.34	-6,357.90	6,640.19	6,505.11	135.08	49.157		
3,600.00	3,593.81	3,574.81	3,593.81	15.96	123.10	-48.41	2,308.34	-6,357.90	6,635.83	6,496.84	139.00	47.741		
3,700.00	3,693.60	3,674.60	3,693.60	16.39	126.58	-48.46	2,308.34	-6,357.90	6,631.48	6,488.57	142.91	46.403		
3,800.00	3,793.38	3,774.38	3,793.38	16.82	130.06	-48.50	2,308.34	-6,357.90	6,627.12	6,480.30	146.82	45.137		
3,900.00	3,893.17	3,874.17	3,893.17	17.26	133.54	-48.54	2,308.34	-6,357.90	6,622.78	6,472.04	150.74	43.936		
4,000.00	3,992.95	3,973.95	3,992.95	17.69	137.02	-48.58	2,308.34	-6,357.90	6,618.43	6,463.78	154.65	42.795		
4,100.00	4,092.74	4,073.74	4,092.74	18.13	140.51	-48.63	2,308.34	-6,357.90	6,614.09	6,455.52	158.57	41.711		
4,200.00	4,192.52	4,173.52	4,192.52	18.56	143.99	-48.67	2,308.34	-6,357.90	6,609.75	6,447.27	162.49	40.679		
4,300.00	4,292.31	4,273.31	4,292.31	19.00	147.47	-48.71	2,308.34	-6,357.90	6,605.42	6,439.01	166.40	39.695		
4,400.00	4,392.09	4,373.09	4,392.09	19.43	150.96	-48.75	2,308.34	-6,357.90	6,601.09	6,430.77	170.32	38.757		
4,500.00	4,491.88	4,472.88	4,491.88	19.87	154.44	-48.80	2,308.34	-6,357.90	6,596.76	6,422.52	174.24	37.861		
4,600.00	4,591.66	4,572.66	4,591.66	20.31	157.92	-48.84	2,308.34	-6,357.90	6,592.44	6,414.28	178.15	37.004		
4,700.00	4,691.44	4,672.44	4,691.44	20.74	161.40	-48.88	2,308.34	-6,357.90	6,588.12	6,406.04	182.07	36.184		
4,800.00	4,791.23	4,772.23	4,791.23	21.18	164.89	-48.93	2,308.34	-6,357.90	6,583.80	6,397.81	185.99	35.399		
4,900.00	4,891.01	4,872.01	4,891.01	21.62	168.37	-48.97	2,308.34	-6,357.90	6,579.49	6,389.58	189.91	34.646		
5,000.00	4,990.80	4,971.80	4,990.80	22.06	171.85	-49.01	2,308.34	-6,357.90	6,575.18	6,381.35	193.83	33.923		
5,100.00	5,090.58	5,071.58	5,090.58	22.50	175.33	-49.06	2,308.34	-6,357.90	6,570.88	6,373.13	197.75	33.229		

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



Anticollision Report



Company:	SRC ENERGY	Local Co-ordinate Reference:	Well HARVESTERS STATE 31C-16-M
Project:	SECTION 15, T6N, R66W	TVD Reference:	KB @ 4821.00ft
Reference Site:	HARVESTERS STATE 7-15 PAD	MD Reference:	KB @ 4821.00ft
Site Error:	3.28 ft	North Reference:	True
Reference Well:	HARVESTERS STATE 31C-16-M	Survey Calculation Method:	Minimum Curvature
Well Error:	3.28 ft	Output errors are at	2.45 sigma
Reference Wellbore	OH	Database:	EDM 5000.14 Single User Db
Reference Design:	PLAN #1	Offset TVD Reference:	Reference Datum

Offset Design HARVESTERS STATE 7-15 PAD - LOVELY 1(AB_150CC) - OH - OH													Offset Site Error:	0.00 ft
Survey Program: 100-2" Cone@2.448 Sigma													Offset Well Error:	3.28 ft
Reference		Offset		Semi Major Axis			Distance						Warning	
Measured Depth (ft)	Vertical Depth (ft)	Measured Depth (ft)	Vertical Depth (ft)	Reference (ft)	Offset (ft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (ft)	+E/-W (ft)	Between Centres (ft)	Between Ellipses (ft)	Minimum Separation (ft)	Separation Factor		
5,200.00	5,190.37	5,171.37	5,190.37	22.93	178.82	-49.10	2,308.34	-6,357.90	6,566.58	6,364.91	201.67	32.562		
5,300.00	5,290.15	5,271.15	5,290.15	23.37	182.30	-49.14	2,308.34	-6,357.90	6,562.28	6,356.69	205.58	31.920		
5,400.00	5,389.94	5,370.94	5,389.94	23.81	185.78	-49.18	2,308.34	-6,357.90	6,557.98	6,348.48	209.50	31.302		
5,500.00	5,489.72	5,470.72	5,489.72	24.25	189.27	-49.23	2,308.34	-6,357.90	6,553.69	6,340.27	213.42	30.707		
5,600.00	5,589.51	5,570.51	5,589.51	24.69	192.75	-49.27	2,308.34	-6,357.90	6,549.41	6,332.07	217.34	30.134		
5,700.00	5,689.29	5,670.29	5,689.29	25.13	196.23	-49.32	2,308.34	-6,357.90	6,545.13	6,323.86	221.26	29.581		
5,800.00	5,789.08	5,770.08	5,789.08	25.56	199.72	-49.36	2,308.34	-6,357.90	6,540.85	6,315.66	225.18	29.047		
5,900.00	5,888.86	5,869.86	5,888.86	26.00	203.20	-49.40	2,308.34	-6,357.90	6,536.57	6,307.47	229.10	28.531		
6,000.00	5,988.65	5,969.65	5,988.65	26.44	206.68	-49.45	2,308.34	-6,357.90	6,532.30	6,299.28	233.03	28.033		
6,100.00	6,088.43	6,069.43	6,088.43	26.88	210.16	-49.49	2,308.34	-6,357.90	6,528.04	6,291.09	236.95	27.551		
6,200.00	6,188.22	6,169.22	6,188.22	27.32	213.65	-49.53	2,308.34	-6,357.90	6,523.77	6,282.91	240.87	27.085		
6,300.00	6,288.00	6,269.00	6,288.00	27.76	217.13	-49.58	2,308.34	-6,357.90	6,519.51	6,274.73	244.79	26.633		
6,400.00	6,387.79	6,368.79	6,387.79	28.20	220.61	-49.62	2,308.34	-6,357.90	6,515.26	6,266.55	248.71	26.196		
6,500.00	6,487.57	6,468.57	6,487.57	28.64	224.10	-49.66	2,308.34	-6,357.90	6,511.01	6,258.38	252.63	25.773		
6,600.00	6,587.35	6,568.35	6,587.35	29.08	227.58	-49.71	2,308.34	-6,357.90	6,506.76	6,250.21	256.55	25.362		
6,700.00	6,687.02	6,668.02	6,687.02	29.52	231.06	-11.73	2,308.34	-6,357.90	6,500.39	6,239.92	260.47	24.957		
6,800.00	6,784.98	6,765.98	6,784.98	29.96	234.48	4.81	2,308.34	-6,357.90	6,480.80	6,216.48	264.32	24.519		
6,900.00	6,878.81	6,859.81	6,878.81	30.41	237.75	10.43	2,308.34	-6,357.90	6,446.82	6,178.82	268.00	24.055		
7,000.00	6,966.21	6,947.21	6,966.21	30.86	240.80	14.23	2,308.34	-6,357.90	6,399.31	6,127.88	271.43	23.576		
7,100.00	7,045.03	7,026.03	7,045.03	31.35	243.56	18.04	2,308.34	-6,357.90	6,339.46	6,064.95	274.51	23.093		
7,200.00	7,113.32	7,105.69	7,113.32	31.90	246.34	22.81	2,308.34	-6,357.90	6,268.76	5,991.19	277.57	22.584		
7,300.00	7,169.40	7,150.40	7,169.40	32.57	247.90	29.61	2,308.34	-6,357.90	6,189.00	5,909.64	279.36	22.154		
7,400.00	7,211.89	7,207.11	7,211.89	33.38	249.88	40.18	2,308.34	-6,357.90	6,102.17	5,820.64	281.53	21.675		
7,500.00	7,239.75	7,220.75	7,239.75	34.35	250.35	57.20	2,308.34	-6,357.90	6,010.45	5,728.30	282.15	21.303		
7,600.00	7,252.28	7,233.28	7,252.28	35.47	250.79	81.85	2,308.34	-6,357.90	5,916.13	5,633.43	282.70	20.927		
7,700.00	7,252.75	7,233.75	7,252.75	36.73	250.81	90.62	2,308.34	-6,357.90	5,821.37	5,538.53	282.84	20.582		
7,800.00	7,252.38	7,233.38	7,252.38	38.16	250.79	90.61	2,308.34	-6,357.90	5,726.80	5,443.82	282.98	20.237		
7,900.00	7,252.02	7,233.02	7,252.02	39.74	250.78	90.59	2,308.34	-6,357.90	5,632.41	5,349.25	283.17	19.891		
8,000.00	7,251.65	7,232.65	7,251.65	41.47	250.77	90.58	2,308.34	-6,357.90	5,538.23	5,254.83	283.39	19.543		
8,100.00	7,251.29	7,232.29	7,251.29	43.31	250.76	90.57	2,308.34	-6,357.90	5,444.24	5,160.58	283.66	19.193		
8,200.00	7,250.92	7,231.92	7,250.92	45.26	250.74	90.56	2,308.34	-6,357.90	5,350.48	5,066.49	283.99	18.841		
8,300.00	7,250.55	7,231.55	7,250.55	47.30	250.73	90.55	2,308.34	-6,357.90	5,256.95	4,972.59	284.36	18.487		
8,400.00	7,250.19	7,231.19	7,250.19	49.42	250.72	90.54	2,308.34	-6,357.90	5,163.65	4,878.87	284.79	18.132		
8,500.00	7,249.82	7,230.82	7,249.82	51.62	250.70	90.53	2,308.34	-6,357.90	5,070.62	4,785.34	285.28	17.774		
8,600.00	7,249.45	7,230.45	7,249.45	53.88	250.69	90.52	2,308.34	-6,357.90	4,977.85	4,692.02	285.83	17.416		
8,700.00	7,249.09	7,230.09	7,249.09	56.19	250.68	90.50	2,308.34	-6,357.90	4,885.37	4,598.93	286.45	17.055		
8,800.00	7,248.72	7,229.72	7,248.72	58.55	250.67	90.49	2,308.34	-6,357.90	4,793.19	4,506.06	287.13	16.693		
8,900.00	7,248.36	7,229.36	7,248.36	60.96	250.65	90.48	2,308.34	-6,357.90	4,701.33	4,413.44	287.90	16.330		
9,000.00	7,247.99	7,228.99	7,247.99	63.40	250.64	90.47	2,308.34	-6,357.90	4,609.81	4,321.08	288.74	15.966		
9,100.00	7,247.62	7,228.62	7,247.62	65.87	250.63	90.46	2,308.34	-6,357.90	4,518.65	4,229.00	289.66	15.600		
9,200.00	7,247.26	7,228.26	7,247.26	68.38	250.61	90.45	2,308.34	-6,357.90	4,427.87	4,137.21	290.66	15.234		
9,300.00	7,246.89	7,227.89	7,246.89	70.91	250.60	90.44	2,308.34	-6,357.90	4,337.50	4,045.74	291.76	14.867		
9,400.00	7,246.53	7,227.53	7,246.53	73.47	250.59	90.43	2,308.34	-6,357.90	4,247.56	3,954.61	292.95	14.499		
9,500.00	7,246.16	7,227.16	7,246.16	76.05	250.58	90.42	2,308.34	-6,357.90	4,158.07	3,863.84	294.24	14.132		
9,600.00	7,245.79	7,226.79	7,245.79	78.65	250.56	90.40	2,308.34	-6,357.90	4,069.08	3,773.46	295.63	13.764		
9,700.00	7,245.43	7,226.43	7,245.43	81.27	250.55	90.39	2,308.34	-6,357.90	3,980.61	3,683.49	297.12	13.397		
9,800.00	7,245.06	7,226.06	7,245.06	83.90	250.54	90.38	2,308.34	-6,357.90	3,892.70	3,593.97	298.73	13.031		
9,900.00	7,244.69	7,225.69	7,244.69	86.55	250.53	90.37	2,308.34	-6,357.90	3,805.38	3,504.93	300.45	12.666		
10,000.00	7,244.33	7,225.33	7,244.33	89.21	250.51	90.36	2,308.34	-6,357.90	3,718.71	3,416.42	302.29	12.302		
10,100.00	7,243.96	7,224.96	7,243.96	91.88	250.50	90.35	2,308.34	-6,357.90	3,632.72	3,328.46	304.26	11.940		
10,200.00	7,243.60	7,224.60	7,243.60	94.56	250.49	90.34	2,308.34	-6,357.90	3,547.46	3,241.10	306.36	11.579		
10,300.00	7,243.23	7,224.23	7,243.23	97.26	250.47	90.33	2,308.34	-6,357.90	3,462.99	3,154.40	308.59	11.222		

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



Anticollision Report



Company:	SRC ENERGY	Local Co-ordinate Reference:	Well HARVESTERS STATE 31C-16-M
Project:	SECTION 15, T6N, R66W	TVD Reference:	KB @ 4821.00ft
Reference Site:	HARVESTERS STATE 7-15 PAD	MD Reference:	KB @ 4821.00ft
Site Error:	3.28 ft	North Reference:	True
Reference Well:	HARVESTERS STATE 31C-16-M	Survey Calculation Method:	Minimum Curvature
Well Error:	3.28 ft	Output errors are at	2.45 sigma
Reference Wellbore	OH	Database:	EDM 5000.14 Single User Db
Reference Design:	PLAN #1	Offset TVD Reference:	Reference Datum

Offset Design HARVESTERS STATE 7-15 PAD - LOVELY 1(AB_150CC) - OH - OH													Offset Site Error:	0.00 ft
Survey Program: 100-2" Cone@2.448 Sigma													Offset Well Error:	3.28 ft
Reference		Offset		Semi Major Axis			Distance							Warning
Measured Depth (ft)	Vertical Depth (ft)	Measured Depth (ft)	Vertical Depth (ft)	Reference (ft)	Offset (ft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (ft)	+E/-W (ft)	Between Centres (ft)	Between Ellipses (ft)	Minimum Separation (ft)	Separation Factor		
10,400.00	7,242.86	7,223.86	7,242.86	99.96	250.46	90.31	2,308.34	-6,357.90	3,379.37	3,068.40	310.97	10.867		
10,500.00	7,242.50	7,223.50	7,242.50	102.67	250.45	90.30	2,308.34	-6,357.90	3,296.66	2,983.17	313.49	10.516		
10,600.00	7,242.13	7,223.13	7,242.13	105.39	250.44	90.29	2,308.34	-6,357.90	3,214.94	2,898.77	316.17	10.169		
10,700.00	7,241.76	7,222.76	7,241.76	108.12	250.42	90.28	2,308.34	-6,357.90	3,134.27	2,815.27	319.00	9.825		
10,800.00	7,241.40	7,222.40	7,241.40	110.85	250.41	90.27	2,308.34	-6,357.90	3,054.75	2,732.75	322.00	9.487		
10,900.00	7,241.03	7,222.03	7,241.03	113.59	250.40	90.26	2,308.34	-6,357.90	2,976.46	2,651.30	325.16	9.154		
11,000.00	7,240.67	7,221.67	7,240.67	116.34	250.38	90.25	2,308.34	-6,357.90	2,899.51	2,571.00	328.51	8.826		
11,100.00	7,240.30	7,221.30	7,240.30	119.09	250.37	90.24	2,308.34	-6,357.90	2,824.00	2,491.98	332.03	8.505		
11,200.00	7,239.93	7,220.93	7,239.93	121.85	250.36	90.22	2,308.34	-6,357.90	2,750.06	2,414.33	335.73	8.191		
11,300.00	7,239.57	7,220.57	7,239.57	124.61	250.35	90.21	2,308.34	-6,357.90	2,677.81	2,338.20	339.61	7.885		
11,400.00	7,239.20	7,220.20	7,239.20	127.38	250.33	90.20	2,308.34	-6,357.90	2,607.39	2,263.71	343.69	7.587		
11,500.00	7,238.84	7,219.84	7,238.84	130.15	250.32	90.19	2,308.34	-6,357.90	2,538.96	2,191.02	347.94	7.297		
11,600.00	7,238.47	7,219.47	7,238.47	132.92	250.31	90.18	2,308.34	-6,357.90	2,472.69	2,120.31	352.38	7.017		
11,700.00	7,238.10	7,219.10	7,238.10	135.70	250.30	90.17	2,308.34	-6,357.90	2,408.74	2,051.75	356.99	6.747		
11,800.00	7,237.74	7,218.74	7,237.74	138.48	250.28	90.16	2,308.34	-6,357.90	2,347.31	1,985.54	361.76	6.489		
11,900.00	7,237.37	7,218.37	7,237.37	141.26	250.27	90.15	2,308.34	-6,357.90	2,288.60	1,921.91	366.69	6.241		
12,000.00	7,237.00	7,218.00	7,237.00	144.05	250.26	90.14	2,308.34	-6,357.90	2,232.83	1,861.09	371.74	6.006		
12,100.00	7,236.64	7,217.64	7,236.64	146.84	250.24	90.12	2,308.34	-6,357.90	2,180.22	1,803.32	376.90	5.785		
12,200.00	7,236.27	7,217.27	7,236.27	149.64	250.23	90.11	2,308.34	-6,357.90	2,131.01	1,748.87	382.13	5.577		
12,300.00	7,235.91	7,216.91	7,235.91	152.43	250.22	90.10	2,308.34	-6,357.90	2,085.43	1,698.03	387.40	5.383		
12,400.00	7,235.54	7,216.54	7,235.54	155.23	250.21	90.09	2,308.34	-6,357.90	2,043.73	1,651.07	392.66	5.205		
12,500.00	7,235.17	7,216.17	7,235.17	158.03	250.19	90.08	2,308.34	-6,357.90	2,006.16	1,608.30	397.86	5.042		
12,600.00	7,234.81	7,215.81	7,234.81	160.83	250.18	90.07	2,308.34	-6,357.90	1,972.95	1,569.99	402.95	4.896		
12,700.00	7,234.44	7,215.44	7,234.44	163.64	250.17	90.06	2,308.34	-6,357.90	1,944.31	1,536.44	407.87	4.767		
12,800.00	7,234.07	7,215.07	7,234.07	166.44	250.15	90.05	2,308.34	-6,357.90	1,920.46	1,507.92	412.55	4.655		
12,900.00	7,233.71	7,214.71	7,233.71	169.25	250.14	90.03	2,308.34	-6,357.90	1,901.58	1,484.65	416.93	4.561		
13,000.00	7,233.34	7,214.34	7,233.34	172.06	250.13	90.02	2,308.34	-6,357.90	1,887.81	1,466.85	420.97	4.484		
13,100.00	7,232.98	7,213.98	7,232.98	174.88	250.12	90.01	2,308.34	-6,357.90	1,879.28	1,454.68	424.59	4.426		
13,200.00	7,232.61	7,213.61	7,232.61	177.69	250.10	90.00	2,308.34	-6,357.90	1,876.03	1,448.26	427.77	4.386		
13,210.85	7,232.57	7,213.57	7,232.57	177.99	250.10	90.00	2,308.34	-6,357.90	1,876.00	1,447.91	428.09	4.382 CC		
13,300.00	7,232.24	7,213.24	7,232.24	180.50	250.09	89.99	2,308.34	-6,357.90	1,878.12	1,447.65	430.47	4.363 ES		
13,400.00	7,231.88	7,212.88	7,231.88	183.32	250.08	89.98	2,308.34	-6,357.90	1,885.52	1,452.85	432.66	4.358 SF		
13,500.00	7,231.51	7,212.51	7,231.51	186.14	250.07	89.97	2,308.34	-6,357.90	1,898.16	1,463.81	434.35	4.370		
13,600.00	7,231.15	7,212.15	7,231.15	188.96	250.05	89.96	2,308.34	-6,357.90	1,915.94	1,480.41	435.53	4.399		
13,700.00	7,230.78	7,211.78	7,230.78	191.78	250.04	89.95	2,308.34	-6,357.90	1,938.73	1,502.50	436.22	4.444		
13,800.00	7,230.41	7,211.41	7,230.41	194.60	250.03	89.93	2,308.34	-6,357.90	1,966.34	1,529.88	436.46	4.505		
13,900.00	7,230.05	7,211.05	7,230.05	197.42	250.01	89.92	2,308.34	-6,357.90	1,998.58	1,562.31	436.27	4.581		
14,000.00	7,229.68	7,210.68	7,229.68	200.25	250.00	89.91	2,308.34	-6,357.90	2,035.23	1,599.53	435.70	4.671		
14,100.00	7,229.31	7,210.31	7,229.31	203.07	249.99	89.90	2,308.34	-6,357.90	2,076.05	1,641.26	434.78	4.775		
14,200.00	7,228.95	7,209.95	7,228.95	205.90	249.98	89.89	2,308.34	-6,357.90	2,120.80	1,687.22	433.58	4.891		
14,300.00	7,228.58	7,209.58	7,228.58	208.73	249.96	89.88	2,308.34	-6,357.90	2,169.25	1,737.12	432.13	5.020		
14,400.00	7,228.22	7,209.22	7,228.22	211.55	249.95	89.87	2,308.34	-6,357.90	2,221.14	1,790.67	430.47	5.160		
14,500.00	7,227.85	7,208.85	7,227.85	214.38	249.94	89.86	2,308.34	-6,357.90	2,276.24	1,847.60	428.65	5.310		
14,600.00	7,227.48	7,208.48	7,227.48	217.21	249.92	89.84	2,308.34	-6,357.90	2,334.33	1,907.64	426.69	5.471		
14,700.00	7,227.12	7,208.12	7,227.12	220.04	249.91	89.83	2,308.34	-6,357.90	2,395.19	1,970.55	424.64	5.641		
14,800.00	7,226.75	7,207.75	7,226.75	222.88	249.90	89.82	2,308.34	-6,357.90	2,458.61	2,036.09	422.52	5.819		
14,900.00	7,226.38	7,207.38	7,226.38	225.71	249.89	89.81	2,308.34	-6,357.90	2,524.40	2,104.05	420.35	6.005		
15,000.00	7,226.02	7,207.02	7,226.02	228.54	249.87	89.80	2,308.34	-6,357.90	2,592.38	2,174.21	418.16	6.199		
15,005.81	7,226.00	7,207.00	7,226.00	228.71	249.87	89.80	2,308.34	-6,357.90	2,596.39	2,178.35	418.04	6.211		

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



Anticollision Report



Company:	SRC ENERGY	Local Co-ordinate Reference:	Well HARVESTERS STATE 31C-16-M
Project:	SECTION 15, T6N, R66W	TVD Reference:	KB @ 4821.00ft
Reference Site:	HARVESTERS STATE 7-15 PAD	MD Reference:	KB @ 4821.00ft
Site Error:	3.28 ft	North Reference:	True
Reference Well:	HARVESTERS STATE 31C-16-M	Survey Calculation Method:	Minimum Curvature
Well Error:	3.28 ft	Output errors are at	2.45 sigma
Reference Wellbore	OH	Database:	EDM 5000.14 Single User Db
Reference Design:	PLAN #1	Offset TVD Reference:	Reference Datum

Offset Design HARVESTERS STATE 7-15 PAD - LOVELY 14-9(AB_150CC) - OH - OH													Offset Site Error:	0.00 ft
Survey Program: 100-2" Cone@2.448 Sigma													Offset Well Error:	3.28 ft
Reference		Offset		Semi Major Axis			Distance							Warning
Measured Depth (ft)	Vertical Depth (ft)	Measured Depth (ft)	Vertical Depth (ft)	Reference (ft)	Offset (ft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (ft)	+E/-W (ft)	Between Centres (ft)	Between Ellipses (ft)	Minimum Separation (ft)	Separation Factor		
0.00	0.00	0.00	16.00	3.28	3.28	-74.06	2,243.20	-7,854.16	8,168.23					
100.00	100.00	84.00	100.00	3.28	3.59	-74.06	2,243.20	-7,854.16	8,168.22	8,161.34	6.88	1,187.671		
200.00	200.00	184.00	200.00	3.34	5.71	-74.06	2,243.20	-7,854.16	8,168.22	8,159.17	9.05	902.534		
300.00	300.00	284.00	300.00	3.44	8.80	-74.06	2,243.20	-7,854.16	8,168.22	8,155.97	12.25	666.916		
400.00	400.00	384.00	400.00	3.60	12.11	-74.06	2,243.20	-7,854.16	8,168.22	8,152.50	15.72	519.744		
500.00	500.00	484.00	500.00	3.81	15.50	-74.06	2,243.20	-7,854.16	8,168.22	8,148.91	19.31	423.050		
600.00	600.00	584.00	600.00	4.05	18.93	-74.06	2,243.20	-7,854.16	8,168.22	8,145.24	22.97	355.533		
700.00	699.98	683.98	699.98	4.32	22.37	-51.19	2,243.20	-7,854.16	8,167.12	8,140.43	26.69	305.987		
800.00	799.84	783.84	799.84	4.62	25.83	-51.26	2,243.20	-7,854.16	8,163.86	8,133.42	30.44	268.184		
900.00	899.62	883.62	899.62	4.94	29.29	-51.30	2,243.20	-7,854.16	8,159.75	8,125.53	34.22	238.476		
1,000.00	999.41	983.41	999.41	5.27	32.75	-51.33	2,243.20	-7,854.16	8,155.65	8,117.63	38.01	214.541		
1,100.00	1,099.19	1,083.19	1,099.19	5.62	36.22	-51.37	2,243.20	-7,854.16	8,151.54	8,109.71	41.83	194.868		
1,200.00	1,198.98	1,182.98	1,198.98	5.99	39.69	-51.40	2,243.20	-7,854.16	8,147.45	8,101.78	45.66	178.427		
1,300.00	1,298.76	1,282.76	1,298.76	6.36	43.16	-51.44	2,243.20	-7,854.16	8,143.35	8,093.84	49.51	164.491		
1,400.00	1,398.55	1,382.55	1,398.55	6.74	46.63	-51.48	2,243.20	-7,854.16	8,139.26	8,085.90	53.36	152.534		
1,500.00	1,498.33	1,482.33	1,498.33	7.13	50.11	-51.51	2,243.20	-7,854.16	8,135.17	8,077.95	57.22	142.167		
1,600.00	1,598.12	1,582.12	1,598.12	7.52	53.59	-51.55	2,243.20	-7,854.16	8,131.09	8,069.99	61.09	133.096		
1,700.00	1,697.90	1,681.90	1,697.90	7.92	57.06	-51.58	2,243.20	-7,854.16	8,127.00	8,062.04	64.97	125.094		
1,800.00	1,797.69	1,781.69	1,797.69	8.33	60.54	-51.62	2,243.20	-7,854.16	8,122.93	8,054.08	68.85	117.984		
1,900.00	1,897.47	1,881.47	1,897.47	8.74	64.02	-51.66	2,243.20	-7,854.16	8,118.85	8,046.12	72.73	111.627		
2,000.00	1,997.26	1,981.26	1,997.26	9.15	67.50	-51.69	2,243.20	-7,854.16	8,114.78	8,038.16	76.62	105.909		
2,100.00	2,097.04	2,081.04	2,097.04	9.56	70.98	-51.73	2,243.20	-7,854.16	8,110.71	8,030.20	80.51	100.739		
2,200.00	2,196.83	2,180.83	2,196.83	9.98	74.46	-51.77	2,243.20	-7,854.16	8,106.64	8,022.24	84.41	96.043		
2,300.00	2,296.61	2,280.61	2,296.61	10.40	77.94	-51.80	2,243.20	-7,854.16	8,102.58	8,014.28	88.30	91.758		
2,400.00	2,396.40	2,380.40	2,396.40	10.82	81.42	-51.84	2,243.20	-7,854.16	8,098.52	8,006.32	92.20	87.834		
2,500.00	2,496.18	2,480.18	2,496.18	11.24	84.90	-51.87	2,243.20	-7,854.16	8,094.47	7,998.36	96.10	84.226		
2,600.00	2,595.96	2,579.96	2,595.96	11.66	88.38	-51.91	2,243.20	-7,854.16	8,090.42	7,990.41	100.01	80.898		
2,700.00	2,695.75	2,679.75	2,695.75	12.09	91.86	-51.95	2,243.20	-7,854.16	8,086.37	7,982.45	103.91	77.820		
2,800.00	2,795.53	2,779.53	2,795.53	12.51	95.34	-51.98	2,243.20	-7,854.16	8,082.32	7,974.50	107.82	74.963		
2,900.00	2,895.32	2,879.32	2,895.32	12.94	98.83	-52.02	2,243.20	-7,854.16	8,078.28	7,966.55	111.72	72.305		
3,000.00	2,995.10	2,979.10	2,995.10	13.37	102.31	-52.06	2,243.20	-7,854.16	8,074.24	7,958.61	115.63	69.827		
3,100.00	3,094.89	3,078.89	3,094.89	13.80	105.79	-52.09	2,243.20	-7,854.16	8,070.20	7,950.66	119.54	67.509		
3,200.00	3,194.67	3,178.67	3,194.67	14.23	109.27	-52.13	2,243.20	-7,854.16	8,066.17	7,942.72	123.45	65.338		
3,300.00	3,294.46	3,278.46	3,294.46	14.66	112.75	-52.17	2,243.20	-7,854.16	8,062.14	7,934.78	127.36	63.300		
3,400.00	3,394.24	3,378.24	3,394.24	15.09	116.24	-52.20	2,243.20	-7,854.16	8,058.11	7,926.84	131.28	61.383		
3,500.00	3,494.03	3,478.03	3,494.03	15.52	119.72	-52.24	2,243.20	-7,854.16	8,054.09	7,918.90	135.19	59.577		
3,600.00	3,593.81	3,577.81	3,593.81	15.96	123.20	-52.28	2,243.20	-7,854.16	8,050.07	7,910.97	139.10	57.872		
3,700.00	3,693.60	3,677.60	3,693.60	16.39	126.68	-52.31	2,243.20	-7,854.16	8,046.06	7,903.04	143.02	56.260		
3,800.00	3,793.38	3,777.38	3,793.38	16.82	130.16	-52.35	2,243.20	-7,854.16	8,042.04	7,895.11	146.93	54.734		
3,900.00	3,893.17	3,877.17	3,893.17	17.26	133.65	-52.39	2,243.20	-7,854.16	8,038.03	7,887.19	150.84	53.287		
4,000.00	3,992.95	3,976.95	3,992.95	17.69	137.13	-52.43	2,243.20	-7,854.16	8,034.03	7,879.27	154.76	51.913		
4,100.00	4,092.74	4,076.74	4,092.74	18.13	140.61	-52.46	2,243.20	-7,854.16	8,030.03	7,871.35	158.68	50.607		
4,200.00	4,192.52	4,176.52	4,192.52	18.56	144.09	-52.50	2,243.20	-7,854.16	8,026.03	7,863.44	162.59	49.363		
4,300.00	4,292.31	4,276.31	4,292.31	19.00	147.58	-52.54	2,243.20	-7,854.16	8,022.03	7,855.52	166.51	48.178		
4,400.00	4,392.09	4,376.09	4,392.09	19.43	151.06	-52.57	2,243.20	-7,854.16	8,018.04	7,847.61	170.43	47.047		
4,500.00	4,491.88	4,475.88	4,491.88	19.87	154.54	-52.61	2,243.20	-7,854.16	8,014.05	7,839.71	174.34	45.967		
4,600.00	4,591.66	4,575.66	4,591.66	20.31	158.03	-52.65	2,243.20	-7,854.16	8,010.06	7,831.80	178.26	44.935		
4,700.00	4,691.44	4,675.44	4,691.44	20.74	161.51	-52.69	2,243.20	-7,854.16	8,006.08	7,823.90	182.18	43.946		
4,800.00	4,791.23	4,775.23	4,791.23	21.18	164.99	-52.72	2,243.20	-7,854.16	8,002.10	7,816.01	186.10	43.000		
4,900.00	4,891.01	4,875.01	4,891.01	21.62	168.47	-52.76	2,243.20	-7,854.16	7,998.13	7,808.11	190.02	42.092		
5,000.00	4,990.80	4,974.80	4,990.80	22.06	171.96	-52.80	2,243.20	-7,854.16	7,994.15	7,800.22	193.93	41.221		
5,100.00	5,090.58	5,074.58	5,090.58	22.50	175.44	-52.83	2,243.20	-7,854.16	7,990.19	7,792.33	197.85	40.384		

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



Anticollision Report



Company:	SRC ENERGY	Local Co-ordinate Reference:	Well HARVESTERS STATE 31C-16-M
Project:	SECTION 15, T6N, R66W	TVD Reference:	KB @ 4821.00ft
Reference Site:	HARVESTERS STATE 7-15 PAD	MD Reference:	KB @ 4821.00ft
Site Error:	3.28 ft	North Reference:	True
Reference Well:	HARVESTERS STATE 31C-16-M	Survey Calculation Method:	Minimum Curvature
Well Error:	3.28 ft	Output errors are at	2.45 sigma
Reference Wellbore	OH	Database:	EDM 5000.14 Single User Db
Reference Design:	PLAN #1	Offset TVD Reference:	Reference Datum

Offset Design HARVESTERS STATE 7-15 PAD - LOVELY 14-9(AB_150CC) - OH - OH													Offset Site Error:	0.00 ft
Survey Program: 100-2" Cone@2.448 Sigma													Offset Well Error:	3.28 ft
Reference		Offset		Semi Major Axis			Distance						Warning	
Measured Depth (ft)	Vertical Depth (ft)	Measured Depth (ft)	Vertical Depth (ft)	Reference (ft)	Offset (ft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (ft)	+E/-W (ft)	Between Centres (ft)	Between Ellipses (ft)	Minimum Separation (ft)	Separation Factor		
5,200.00	5,190.37	5,174.37	5,190.37	22.93	178.92	-52.87	2,243.20	-7,854.16	7,986.22	7,784.45	201.77	39.580		
5,300.00	5,290.15	5,274.15	5,290.15	23.37	182.41	-52.91	2,243.20	-7,854.16	7,982.26	7,776.57	205.69	38.807		
5,400.00	5,389.94	5,373.94	5,389.94	23.81	185.89	-52.95	2,243.20	-7,854.16	7,978.30	7,768.69	209.61	38.062		
5,500.00	5,489.72	5,473.72	5,489.72	24.25	189.37	-52.98	2,243.20	-7,854.16	7,974.35	7,760.81	213.53	37.345		
5,600.00	5,589.51	5,573.51	5,589.51	24.69	192.85	-53.02	2,243.20	-7,854.16	7,970.39	7,752.94	217.45	36.654		
5,700.00	5,689.29	5,673.29	5,689.29	25.13	196.34	-53.06	2,243.20	-7,854.16	7,966.45	7,745.07	221.37	35.987		
5,800.00	5,789.08	5,773.08	5,789.08	25.56	199.82	-53.10	2,243.20	-7,854.16	7,962.50	7,737.21	225.29	35.343		
5,900.00	5,888.86	5,872.86	5,888.86	26.00	203.30	-53.14	2,243.20	-7,854.16	7,958.56	7,729.35	229.21	34.721		
6,000.00	5,988.65	5,972.65	5,988.65	26.44	206.79	-53.17	2,243.20	-7,854.16	7,954.62	7,721.49	233.13	34.121		
6,100.00	6,088.43	6,072.43	6,088.43	26.88	210.27	-53.21	2,243.20	-7,854.16	7,950.69	7,713.63	237.05	33.540		
6,200.00	6,188.22	6,172.22	6,188.22	27.32	213.75	-53.25	2,243.20	-7,854.16	7,946.76	7,705.78	240.97	32.978		
6,300.00	6,288.00	6,272.00	6,288.00	27.76	217.24	-53.29	2,243.20	-7,854.16	7,942.83	7,697.93	244.89	32.434		
6,400.00	6,387.79	6,371.79	6,387.79	28.20	220.72	-53.32	2,243.20	-7,854.16	7,938.90	7,690.09	248.82	31.907		
6,500.00	6,487.57	6,471.57	6,487.57	28.64	224.20	-53.36	2,243.20	-7,854.16	7,934.98	7,682.25	252.74	31.396		
6,600.00	6,587.35	6,571.35	6,587.35	29.08	227.68	-53.40	2,243.20	-7,854.16	7,931.07	7,674.41	256.66	30.901		
6,700.00	6,687.02	6,671.02	6,687.02	29.52	231.16	-15.45	2,243.20	-7,854.16	7,924.99	7,664.42	260.57	30.413		
6,800.00	6,784.98	6,768.98	6,784.98	29.96	234.58	0.97	2,243.20	-7,854.16	7,905.45	7,641.02	264.43	29.897		
6,900.00	6,878.81	6,862.81	6,878.81	30.41	237.86	6.35	2,243.20	-7,854.16	7,871.25	7,603.14	268.11	29.358		
7,000.00	6,966.21	6,950.21	6,966.21	30.86	240.91	9.79	2,243.20	-7,854.16	7,823.25	7,551.71	271.54	28.811		
7,100.00	7,045.03	7,029.03	7,045.03	31.35	243.66	13.05	2,243.20	-7,854.16	7,762.63	7,488.01	274.62	28.267		
7,200.00	7,113.32	7,102.69	7,113.32	31.90	246.23	17.05	2,243.20	-7,854.16	7,690.90	7,413.44	277.46	27.719		
7,300.00	7,169.40	7,153.40	7,169.40	32.57	248.00	22.81	2,243.20	-7,854.16	7,609.83	7,330.39	279.45	27.232		
7,400.00	7,211.89	7,204.11	7,211.89	33.38	249.77	32.25	2,243.20	-7,854.16	7,521.46	7,240.08	281.38	26.731		
7,500.00	7,239.75	7,223.75	7,239.75	34.35	250.46	49.42	2,243.20	-7,854.16	7,427.96	7,145.78	282.18	26.323		
7,600.00	7,252.28	7,236.28	7,252.28	35.47	250.90	79.27	2,243.20	-7,854.16	7,331.67	7,048.97	282.70	25.935		
7,700.00	7,252.75	7,236.75	7,252.75	36.73	250.91	90.82	2,243.20	-7,854.16	7,234.78	6,952.00	282.78	25.585		
7,800.00	7,252.38	7,236.38	7,252.38	38.16	250.90	90.80	2,243.20	-7,854.16	7,137.98	6,855.13	282.85	25.236		
7,900.00	7,252.02	7,236.02	7,252.02	39.74	250.89	90.79	2,243.20	-7,854.16	7,041.26	6,758.32	282.95	24.885		
8,000.00	7,251.65	7,235.65	7,251.65	41.47	250.87	90.78	2,243.20	-7,854.16	6,944.64	6,661.57	283.07	24.533		
8,100.00	7,251.29	7,235.29	7,251.29	43.31	250.86	90.77	2,243.20	-7,854.16	6,848.12	6,564.90	283.22	24.180		
8,200.00	7,250.92	7,234.92	7,250.92	45.26	250.85	90.76	2,243.20	-7,854.16	6,751.70	6,468.31	283.39	23.825		
8,300.00	7,250.55	7,234.55	7,250.55	47.30	250.83	90.75	2,243.20	-7,854.16	6,655.38	6,371.79	283.59	23.468		
8,400.00	7,250.19	7,234.19	7,250.19	49.42	250.82	90.73	2,243.20	-7,854.16	6,559.17	6,275.35	283.83	23.110		
8,500.00	7,249.82	7,233.82	7,249.82	51.62	250.81	90.72	2,243.20	-7,854.16	6,463.08	6,178.99	284.09	22.750		
8,600.00	7,249.45	7,233.45	7,249.45	53.88	250.80	90.71	2,243.20	-7,854.16	6,367.11	6,082.72	284.40	22.388		
8,700.00	7,249.09	7,233.09	7,249.09	56.19	250.78	90.70	2,243.20	-7,854.16	6,271.27	5,986.53	284.73	22.025		
8,800.00	7,248.72	7,232.72	7,248.72	58.55	250.77	90.69	2,243.20	-7,854.16	6,175.55	5,890.44	285.11	21.660		
8,900.00	7,248.36	7,232.36	7,248.36	60.96	250.76	90.68	2,243.20	-7,854.16	6,079.98	5,794.45	285.53	21.294		
9,000.00	7,247.99	7,231.99	7,247.99	63.40	250.75	90.66	2,243.20	-7,854.16	5,984.55	5,698.56	285.99	20.926		
9,100.00	7,247.62	7,231.62	7,247.62	65.87	250.73	90.65	2,243.20	-7,854.16	5,889.27	5,602.77	286.49	20.556		
9,200.00	7,247.26	7,231.26	7,247.26	68.38	250.72	90.64	2,243.20	-7,854.16	5,794.15	5,507.10	287.04	20.186		
9,300.00	7,246.89	7,230.89	7,246.89	70.91	250.71	90.63	2,243.20	-7,854.16	5,699.19	5,411.55	287.65	19.813		
9,400.00	7,246.53	7,230.53	7,246.53	73.47	250.69	90.62	2,243.20	-7,854.16	5,604.42	5,316.12	288.30	19.440		
9,500.00	7,246.16	7,230.16	7,246.16	76.05	250.68	90.61	2,243.20	-7,854.16	5,509.82	5,220.82	289.01	19.065		
9,600.00	7,245.79	7,229.79	7,245.79	78.65	250.67	90.59	2,243.20	-7,854.16	5,415.42	5,125.66	289.77	18.689		
9,700.00	7,245.43	7,229.43	7,245.43	81.27	250.66	90.58	2,243.20	-7,854.16	5,321.23	5,030.64	290.59	18.312		
9,800.00	7,245.06	7,229.06	7,245.06	83.90	250.64	90.57	2,243.20	-7,854.16	5,227.25	4,935.78	291.48	17.934		
9,900.00	7,244.69	7,228.69	7,244.69	86.55	250.63	90.56	2,243.20	-7,854.16	5,133.50	4,841.08	292.42	17.555		
10,000.00	7,244.33	7,228.33	7,244.33	89.21	250.62	90.55	2,243.20	-7,854.16	5,039.99	4,746.55	293.44	17.176		
10,100.00	7,243.96	7,227.96	7,243.96	91.88	250.60	90.54	2,243.20	-7,854.16	4,946.73	4,652.21	294.52	16.796		
10,200.00	7,243.60	7,227.60	7,243.60	94.56	250.59	90.52	2,243.20	-7,854.16	4,853.74	4,558.06	295.68	16.415		
10,300.00	7,243.23	7,227.23	7,243.23	97.26	250.58	90.51	2,243.20	-7,854.16	4,761.04	4,464.13	296.92	16.035		

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



Anticollision Report



Company:	SRC ENERGY	Local Co-ordinate Reference:	Well HARVESTERS STATE 31C-16-M
Project:	SECTION 15, T6N, R66W	TVD Reference:	KB @ 4821.00ft
Reference Site:	HARVESTERS STATE 7-15 PAD	MD Reference:	KB @ 4821.00ft
Site Error:	3.28 ft	North Reference:	True
Reference Well:	HARVESTERS STATE 31C-16-M	Survey Calculation Method:	Minimum Curvature
Well Error:	3.28 ft	Output errors are at	2.45 sigma
Reference Wellbore	OH	Database:	EDM 5000.14 Single User Db
Reference Design:	PLAN #1	Offset TVD Reference:	Reference Datum

Offset Design HARVESTERS STATE 7-15 PAD - LOVELY 14-9(AB_150CC) - OH - OH													Offset Site Error:	0.00 ft
Survey Program: 100-2" Cone@2.448 Sigma													Offset Well Error:	3.28 ft
Reference		Offset		Semi Major Axis			Distance							Warning
Measured Depth (ft)	Vertical Depth (ft)	Measured Depth (ft)	Vertical Depth (ft)	Reference (ft)	Offset (ft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (ft)	+E/-W (ft)	Between Centres (ft)	Between Ellipses (ft)	Minimum Separation (ft)	Separation Factor		
10,400.00	7,242.86	7,226.86	7,242.86	99.96	250.57	90.50	2,243.20	-7,854.16	4,668.64	4,370.41	298.23	15.655		
10,500.00	7,242.50	7,226.50	7,242.50	102.67	250.55	90.49	2,243.20	-7,854.16	4,576.55	4,276.93	299.62	15.274		
10,600.00	7,242.13	7,226.13	7,242.13	105.39	250.54	90.48	2,243.20	-7,854.16	4,484.81	4,183.70	301.11	14.894		
10,700.00	7,241.76	7,225.76	7,241.76	108.12	250.53	90.47	2,243.20	-7,854.16	4,393.42	4,090.74	302.68	14.515		
10,800.00	7,241.40	7,225.40	7,241.40	110.85	250.52	90.45	2,243.20	-7,854.16	4,302.42	3,998.07	304.35	14.136		
10,900.00	7,241.03	7,225.03	7,241.03	113.59	250.50	90.44	2,243.20	-7,854.16	4,211.83	3,905.71	306.12	13.759		
11,000.00	7,240.67	7,224.67	7,240.67	116.34	250.49	90.43	2,243.20	-7,854.16	4,121.67	3,813.69	307.98	13.383		
11,100.00	7,240.30	7,224.30	7,240.30	119.09	250.48	90.42	2,243.20	-7,854.16	4,031.98	3,722.01	309.96	13.008		
11,200.00	7,239.93	7,223.93	7,239.93	121.85	250.46	90.41	2,243.20	-7,854.16	3,942.78	3,630.72	312.05	12.635		
11,300.00	7,239.57	7,223.57	7,239.57	124.61	250.45	90.40	2,243.20	-7,854.16	3,854.11	3,539.85	314.26	12.264		
11,400.00	7,239.20	7,223.20	7,239.20	127.38	250.44	90.38	2,243.20	-7,854.16	3,766.01	3,449.41	316.60	11.895		
11,500.00	7,238.84	7,222.84	7,238.84	130.15	250.43	90.37	2,243.20	-7,854.16	3,678.52	3,359.46	319.06	11.529		
11,600.00	7,238.47	7,222.47	7,238.47	132.92	250.41	90.36	2,243.20	-7,854.16	3,591.68	3,270.02	321.66	11.166		
11,700.00	7,238.10	7,222.10	7,238.10	135.70	250.40	90.35	2,243.20	-7,854.16	3,505.54	3,181.14	324.41	10.806		
11,800.00	7,237.74	7,221.74	7,237.74	138.48	250.39	90.34	2,243.20	-7,854.16	3,420.16	3,092.86	327.30	10.450		
11,900.00	7,237.37	7,221.37	7,237.37	141.26	250.37	90.33	2,243.20	-7,854.16	3,335.59	3,005.24	330.35	10.097		
12,000.00	7,237.00	7,221.00	7,237.00	144.05	250.36	90.32	2,243.20	-7,854.16	3,251.89	2,918.33	333.56	9.749		
12,100.00	7,236.64	7,220.64	7,236.64	146.84	250.35	90.30	2,243.20	-7,854.16	3,169.14	2,832.20	336.95	9.405		
12,200.00	7,236.27	7,220.27	7,236.27	149.64	250.34	90.29	2,243.20	-7,854.16	3,087.42	2,746.91	340.51	9.067		
12,300.00	7,235.91	7,219.91	7,235.91	152.43	250.32	90.28	2,243.20	-7,854.16	3,006.79	2,662.53	344.26	8.734		
12,400.00	7,235.54	7,219.54	7,235.54	155.23	250.31	90.27	2,243.20	-7,854.16	2,927.36	2,579.16	348.20	8.407		
12,500.00	7,235.17	7,219.17	7,235.17	158.03	250.30	90.26	2,243.20	-7,854.16	2,849.23	2,496.89	352.34	8.087		
12,600.00	7,234.81	7,218.81	7,234.81	160.83	250.29	90.25	2,243.20	-7,854.16	2,772.51	2,415.81	356.69	7.773		
12,700.00	7,234.44	7,218.44	7,234.44	163.64	250.27	90.23	2,243.20	-7,854.16	2,697.30	2,336.06	361.25	7.467		
12,800.00	7,234.07	7,218.07	7,234.07	166.44	250.26	90.22	2,243.20	-7,854.16	2,623.76	2,257.74	366.02	7.168		
12,900.00	7,233.71	7,217.71	7,233.71	169.25	250.25	90.21	2,243.20	-7,854.16	2,552.01	2,181.01	371.00	6.879		
13,000.00	7,233.34	7,217.34	7,233.34	172.06	250.23	90.20	2,243.20	-7,854.16	2,482.22	2,106.02	376.20	6.598		
13,100.00	7,232.98	7,216.98	7,232.98	174.88	250.22	90.19	2,243.20	-7,854.16	2,414.56	2,032.95	381.61	6.327		
13,200.00	7,232.61	7,216.61	7,232.61	177.69	250.21	90.18	2,243.20	-7,854.16	2,349.20	1,961.98	387.22	6.067		
13,300.00	7,232.24	7,216.24	7,232.24	180.50	250.20	90.16	2,243.20	-7,854.16	2,286.35	1,893.34	393.02	5.817		
13,400.00	7,231.88	7,215.88	7,231.88	183.32	250.18	90.15	2,243.20	-7,854.16	2,226.22	1,827.24	398.98	5.580		
13,500.00	7,231.51	7,215.51	7,231.51	186.14	250.17	90.14	2,243.20	-7,854.16	2,169.04	1,763.94	405.09	5.354		
13,600.00	7,231.15	7,215.15	7,231.15	188.96	250.16	90.13	2,243.20	-7,854.16	2,115.04	1,703.72	411.32	5.142		
13,700.00	7,230.78	7,214.78	7,230.78	191.78	250.14	90.12	2,243.20	-7,854.16	2,064.47	1,646.87	417.61	4.944		
13,800.00	7,230.41	7,214.41	7,230.41	194.60	250.13	90.11	2,243.20	-7,854.16	2,017.60	1,593.68	423.92	4.759		
13,900.00	7,230.05	7,214.05	7,230.05	197.42	250.12	90.09	2,243.20	-7,854.16	1,974.68	1,544.49	430.19	4.590		
14,000.00	7,229.68	7,213.68	7,229.68	200.25	250.11	90.08	2,243.20	-7,854.16	1,935.98	1,499.62	436.36	4.437		
14,100.00	7,229.31	7,213.31	7,229.31	203.07	250.09	90.07	2,243.20	-7,854.16	1,901.76	1,459.41	442.34	4.299		
14,200.00	7,228.95	7,212.95	7,228.95	205.90	250.08	90.06	2,243.20	-7,854.16	1,872.25	1,424.19	448.07	4.179		
14,300.00	7,228.58	7,212.58	7,228.58	208.73	250.07	90.05	2,243.20	-7,854.16	1,847.70	1,394.25	453.45	4.075		
14,400.00	7,228.22	7,212.22	7,228.22	211.55	250.05	90.04	2,243.20	-7,854.16	1,828.29	1,369.88	458.41	3.988		
14,500.00	7,227.85	7,211.85	7,227.85	214.38	250.04	90.02	2,243.20	-7,854.16	1,814.19	1,351.32	462.87	3.919		
14,600.00	7,227.48	7,211.48	7,227.48	217.21	250.03	90.01	2,243.20	-7,854.16	1,805.54	1,338.77	466.77	3.868		
14,700.00	7,227.12	7,211.12	7,227.12	220.04	250.02	90.00	2,243.20	-7,854.16	1,802.39	1,332.34	470.05	3.834		
14,706.72	7,227.09	7,211.09	7,227.09	220.24	250.02	90.00	2,243.20	-7,854.16	1,802.38	1,332.13	470.24	3.833 CC		
14,800.00	7,226.75	7,210.75	7,226.75	222.88	250.00	89.99	2,243.20	-7,854.16	1,804.79	1,332.12	472.67	3.818 ES, SF		
14,900.00	7,226.38	7,210.38	7,226.38	225.71	249.99	89.98	2,243.20	-7,854.16	1,812.71	1,338.10	474.61	3.819		
15,000.00	7,226.02	7,210.02	7,226.02	228.54	249.98	89.97	2,243.20	-7,854.16	1,826.08	1,350.20	475.88	3.837		
15,005.81	7,226.00	7,210.00	7,226.00	228.71	249.98	89.97	2,243.20	-7,854.16	1,827.02	1,351.09	475.94	3.839		

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



Anticollision Report



Company:	SRC ENERGY	Local Co-ordinate Reference:	Well HARVESTERS STATE 31C-16-M
Project:	SECTION 15, T6N, R66W	TVD Reference:	KB @ 4821.00ft
Reference Site:	HARVESTERS STATE 7-15 PAD	MD Reference:	KB @ 4821.00ft
Site Error:	3.28 ft	North Reference:	True
Reference Well:	HARVESTERS STATE 31C-16-M	Survey Calculation Method:	Minimum Curvature
Well Error:	3.28 ft	Output errors are at	2.45 sigma
Reference Wellbore	OH	Database:	EDM 5000.14 Single User Db
Reference Design:	PLAN #1	Offset TVD Reference:	Reference Datum

Offset Design HARVESTERS STATE 7-15 PAD - LUCAS SCHOOL 1(TA_150CC) - OH - OH													Offset Site Error:	0.00 ft
Survey Program: 100-2" Cone@2.448 Sigma													Offset Well Error:	3.28 ft
Reference		Offset		Semi Major Axis			Distance							Warning
Measured Depth (ft)	Vertical Depth (ft)	Measured Depth (ft)	Vertical Depth (ft)	Reference (ft)	Offset (ft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (ft)	+E/-W (ft)	Between Centres (ft)	Between Ellipses (ft)	Minimum Separation (ft)	Separation Factor		
0.00	0.00	1.00	0.00	3.28	3.28	-56.98	2,358.79	-3,629.62	4,328.75					
100.00	100.00	101.00	100.00	3.28	3.73	-56.98	2,358.79	-3,629.62	4,328.75	4,321.73	7.02	616.916		
200.00	200.00	201.00	200.00	3.34	6.21	-56.98	2,358.79	-3,629.62	4,328.75	4,319.20	9.55	453.481		
300.00	300.00	301.00	300.00	3.44	9.36	-56.98	2,358.79	-3,629.62	4,328.75	4,315.95	12.80	338.154		
400.00	400.00	401.00	400.00	3.60	12.68	-56.98	2,358.79	-3,629.62	4,328.75	4,312.46	16.29	265.760		
500.00	500.00	501.00	500.00	3.81	16.08	-56.98	2,358.79	-3,629.62	4,328.75	4,308.86	19.89	217.651		
600.00	600.00	601.00	600.00	4.05	19.51	-56.98	2,358.79	-3,629.62	4,328.75	4,305.19	23.56	183.738		
700.00	699.98	700.98	699.98	4.32	22.96	-34.11	2,358.79	-3,629.62	4,327.30	4,300.02	27.28	158.634		
800.00	799.84	800.84	799.84	4.62	26.42	-34.19	2,358.79	-3,629.62	4,322.99	4,291.96	31.03	139.308		
900.00	899.62	900.62	899.62	4.94	29.88	-34.24	2,358.79	-3,629.62	4,317.56	4,282.75	34.81	124.040		
1,000.00	999.41	1,000.41	999.41	5.27	33.34	-34.29	2,358.79	-3,629.62	4,312.14	4,273.53	38.61	111.694		
1,100.00	1,099.19	1,100.19	1,099.19	5.62	36.81	-34.34	2,358.79	-3,629.62	4,306.72	4,264.30	42.42	101.517		
1,200.00	1,198.98	1,200.02	1,198.98	5.99	40.28	-34.39	2,358.79	-3,629.62	4,301.30	4,255.04	46.26	92.986		
1,300.00	1,298.76	1,300.24	1,298.76	6.36	43.77	-34.44	2,358.79	-3,629.62	4,295.89	4,245.77	50.12	85.718		
1,400.00	1,398.55	1,400.45	1,398.55	6.74	47.26	-34.49	2,358.79	-3,629.62	4,290.48	4,236.49	53.99	79.475		
1,500.00	1,498.33	1,500.67	1,498.33	7.13	50.75	-34.54	2,358.79	-3,629.62	4,285.07	4,227.21	57.86	74.056		
1,600.00	1,598.12	1,600.88	1,598.12	7.52	54.24	-34.59	2,358.79	-3,629.62	4,279.67	4,217.92	61.75	69.309		
1,700.00	1,697.90	1,701.10	1,697.90	7.92	57.73	-34.64	2,358.79	-3,629.62	4,274.27	4,208.63	65.64	65.119		
1,800.00	1,797.69	1,801.31	1,797.69	8.33	61.23	-34.69	2,358.79	-3,629.62	4,268.87	4,199.33	69.53	61.394		
1,900.00	1,897.47	1,901.53	1,897.47	8.74	64.72	-34.74	2,358.79	-3,629.62	4,263.47	4,190.04	73.43	58.060		
2,000.00	1,997.26	2,001.74	1,997.26	9.15	68.21	-34.79	2,358.79	-3,629.62	4,258.08	4,180.75	77.34	55.060		
2,100.00	2,097.04	2,101.96	2,097.04	9.56	71.71	-34.84	2,358.79	-3,629.62	4,252.69	4,171.45	81.24	52.346		
2,200.00	2,196.83	2,202.17	2,196.83	9.98	75.20	-34.89	2,358.79	-3,629.62	4,247.31	4,162.16	85.15	49.879		
2,300.00	2,296.61	2,302.39	2,296.61	10.40	78.70	-34.94	2,358.79	-3,629.62	4,241.93	4,152.86	89.06	47.628		
2,400.00	2,396.40	2,402.60	2,396.40	10.82	82.20	-34.99	2,358.79	-3,629.62	4,236.55	4,143.57	92.98	45.565		
2,500.00	2,496.18	2,502.82	2,496.18	11.24	85.69	-35.04	2,358.79	-3,629.62	4,231.18	4,134.28	96.89	43.668		
2,600.00	2,595.96	2,603.04	2,595.96	11.66	89.19	-35.09	2,358.79	-3,629.62	4,225.80	4,124.99	100.81	41.918		
2,700.00	2,695.75	2,703.25	2,695.75	12.09	92.68	-35.14	2,358.79	-3,629.62	4,220.44	4,115.70	104.73	40.298		
2,800.00	2,795.53	2,803.47	2,795.53	12.51	96.18	-35.19	2,358.79	-3,629.62	4,215.07	4,106.42	108.65	38.794		
2,900.00	2,895.32	2,903.68	2,895.32	12.94	99.68	-35.24	2,358.79	-3,629.62	4,209.71	4,097.14	112.57	37.395		
3,000.00	2,995.10	3,003.90	2,995.10	13.37	103.17	-35.30	2,358.79	-3,629.62	4,204.35	4,087.85	116.50	36.090		
3,100.00	3,094.89	3,104.11	3,094.89	13.80	106.67	-35.35	2,358.79	-3,629.62	4,199.00	4,078.58	120.42	34.869		
3,200.00	3,194.67	3,204.33	3,194.67	14.23	110.17	-35.40	2,358.79	-3,629.62	4,193.65	4,069.30	124.35	33.725		
3,300.00	3,294.46	3,304.54	3,294.46	14.66	113.66	-35.45	2,358.79	-3,629.62	4,188.30	4,060.03	128.27	32.651		
3,400.00	3,394.24	3,404.76	3,394.24	15.09	117.16	-35.50	2,358.79	-3,629.62	4,182.95	4,050.76	132.20	31.641		
3,500.00	3,494.03	3,504.97	3,494.03	15.52	120.66	-35.56	2,358.79	-3,629.62	4,177.61	4,041.49	136.13	30.689		
3,600.00	3,593.81	3,605.19	3,593.81	15.96	124.16	-35.61	2,358.79	-3,629.62	4,172.28	4,032.22	140.06	29.790		
3,700.00	3,693.60	3,705.40	3,693.60	16.39	127.65	-35.66	2,358.79	-3,629.62	4,166.94	4,022.96	143.98	28.940		
3,800.00	3,793.38	3,805.62	3,793.38	16.82	131.15	-35.71	2,358.79	-3,629.62	4,161.61	4,013.70	147.91	28.135		
3,900.00	3,893.17	3,905.83	3,893.17	17.26	134.65	-35.77	2,358.79	-3,629.62	4,156.29	4,004.44	151.84	27.372		
4,000.00	3,992.95	4,006.05	3,992.95	17.69	138.14	-35.82	2,358.79	-3,629.62	4,150.96	3,995.19	155.77	26.647		
4,100.00	4,092.74	4,106.26	4,092.74	18.13	141.64	-35.87	2,358.79	-3,629.62	4,145.64	3,985.94	159.70	25.958		
4,200.00	4,192.52	4,206.48	4,192.52	18.56	145.14	-35.92	2,358.79	-3,629.62	4,140.33	3,976.69	163.64	25.302		
4,300.00	4,292.31	4,306.69	4,292.31	19.00	148.64	-35.98	2,358.79	-3,629.62	4,135.01	3,967.45	167.57	24.677		
4,400.00	4,392.09	4,406.91	4,392.09	19.43	152.14	-36.03	2,358.79	-3,629.62	4,129.71	3,958.21	171.50	24.080		
4,500.00	4,491.88	4,507.13	4,491.88	19.87	155.63	-36.08	2,358.79	-3,629.62	4,124.40	3,948.97	175.43	23.510		
4,600.00	4,591.66	4,607.34	4,591.66	20.31	159.13	-36.14	2,358.79	-3,629.62	4,119.10	3,939.73	179.36	22.965		
4,700.00	4,691.44	4,707.56	4,691.44	20.74	162.63	-36.19	2,358.79	-3,629.62	4,113.80	3,930.50	183.30	22.443		
4,800.00	4,791.23	4,807.77	4,791.23	21.18	166.13	-36.25	2,358.79	-3,629.62	4,108.51	3,921.28	187.23	21.944		
4,900.00	4,891.01	4,907.99	4,891.01	21.62	169.62	-36.30	2,358.79	-3,629.62	4,103.22	3,912.05	191.16	21.464		
5,000.00	4,990.80	5,008.20	4,990.80	22.06	173.12	-36.35	2,358.79	-3,629.62	4,097.93	3,902.83	195.10	21.005		
5,100.00	5,090.58	5,108.42	5,090.58	22.50	176.62	-36.41	2,358.79	-3,629.62	4,092.64	3,893.61	199.03	20.563		

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



Anticollision Report



Company:	SRC ENERGY	Local Co-ordinate Reference:	Well HARVESTERS STATE 31C-16-M
Project:	SECTION 15, T6N, R66W	TVD Reference:	KB @ 4821.00ft
Reference Site:	HARVESTERS STATE 7-15 PAD	MD Reference:	KB @ 4821.00ft
Site Error:	3.28 ft	North Reference:	True
Reference Well:	HARVESTERS STATE 31C-16-M	Survey Calculation Method:	Minimum Curvature
Well Error:	3.28 ft	Output errors are at	2.45 sigma
Reference Wellbore	OH	Database:	EDM 5000.14 Single User Db
Reference Design:	PLAN #1	Offset TVD Reference:	Reference Datum

Offset Design HARVESTERS STATE 7-15 PAD - LUCAS SCHOOL 1(TA_150CC) - OH - OH													Offset Site Error:	0.00 ft
Survey Program: 100-2" Cone@2.448 Sigma													Offset Well Error:	3.28 ft
Reference		Offset		Semi Major Axis			Distance						Warning	
Measured Depth (ft)	Vertical Depth (ft)	Measured Depth (ft)	Vertical Depth (ft)	Reference (ft)	Offset (ft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (ft)	+E/-W (ft)	Between Centres (ft)	Between Ellipses (ft)	Minimum Separation (ft)	Separation Factor		
5,200.00	5,190.37	5,208.63	5,190.37	22.93	180.12	-36.46	2,358.79	-3,629.62	4,087.36	3,884.40	202.96	20.138		
5,300.00	5,290.15	5,308.85	5,290.15	23.37	183.62	-36.52	2,358.79	-3,629.62	4,082.09	3,875.19	206.90	19.730		
5,400.00	5,389.94	5,409.06	5,389.94	23.81	187.11	-36.57	2,358.79	-3,629.62	4,076.82	3,865.98	210.83	19.337		
5,500.00	5,489.72	5,509.28	5,489.72	24.25	190.61	-36.63	2,358.79	-3,629.62	4,071.55	3,856.78	214.77	18.958		
5,600.00	5,589.51	5,609.49	5,589.51	24.69	194.11	-36.68	2,358.79	-3,629.62	4,066.28	3,847.58	218.70	18.593		
5,700.00	5,689.29	5,709.71	5,689.29	25.13	197.61	-36.74	2,358.79	-3,629.62	4,061.02	3,838.38	222.64	18.240		
5,800.00	5,789.08	5,809.92	5,789.08	25.56	201.11	-36.79	2,358.79	-3,629.62	4,055.76	3,829.19	226.57	17.900		
5,900.00	5,888.86	5,889.86	5,888.86	26.00	203.90	-36.85	2,358.79	-3,629.62	4,050.51	3,820.71	229.80	17.626		
6,000.00	5,988.65	5,989.65	5,988.65	26.44	207.38	-36.90	2,358.79	-3,629.62	4,045.26	3,811.54	233.72	17.308		
6,100.00	6,088.43	6,089.43	6,088.43	26.88	210.86	-36.96	2,358.79	-3,629.62	4,040.01	3,802.37	237.64	17.000		
6,200.00	6,188.22	6,189.22	6,188.22	27.32	214.35	-37.02	2,358.79	-3,629.62	4,034.77	3,793.21	241.56	16.703		
6,300.00	6,288.00	6,289.00	6,288.00	27.76	217.83	-37.07	2,358.79	-3,629.62	4,029.53	3,784.05	245.48	16.415		
6,400.00	6,387.79	6,388.79	6,387.79	28.20	221.31	-37.13	2,358.79	-3,629.62	4,024.30	3,774.90	249.40	16.136		
6,500.00	6,487.57	6,488.57	6,487.57	28.64	224.79	-37.18	2,358.79	-3,629.62	4,019.07	3,765.74	253.32	15.865		
6,600.00	6,587.35	6,588.35	6,587.35	29.08	228.28	-37.24	2,358.79	-3,629.62	4,013.84	3,756.60	257.25	15.603		
6,700.00	6,687.02	6,688.02	6,687.02	29.52	231.76	0.82	2,358.79	-3,629.62	4,008.69	3,747.52	261.16	15.342		
6,800.00	6,784.98	6,785.98	6,784.98	29.96	235.18	17.77	2,358.79	-3,629.62	3,987.52	3,722.51	265.01	15.046		
6,900.00	6,878.81	6,879.81	6,878.81	30.41	238.45	24.11	2,358.79	-3,629.62	3,955.35	3,686.65	268.70	14.720		
7,000.00	6,966.21	6,967.21	6,966.21	30.86	241.50	28.98	2,358.79	-3,629.62	3,911.03	3,638.89	272.14	14.371		
7,100.00	7,045.03	7,046.03	7,045.03	31.35	244.25	34.20	2,358.79	-3,629.62	3,855.77	3,580.52	275.25	14.008		
7,200.00	7,113.32	7,114.32	7,113.32	31.90	246.64	40.63	2,358.79	-3,629.62	3,791.07	3,513.12	277.95	13.639		
7,300.00	7,169.40	7,170.40	7,169.40	32.57	248.60	48.93	2,358.79	-3,629.62	3,718.70	3,438.49	280.21	13.271		
7,400.00	7,211.89	7,212.89	7,211.89	33.38	250.08	59.52	2,358.79	-3,629.62	3,640.63	3,358.63	282.00	12.910		
7,500.00	7,239.75	7,240.75	7,239.75	34.35	251.05	72.25	2,358.79	-3,629.62	3,558.98	3,275.68	283.29	12.563		
7,600.00	7,252.28	7,253.28	7,252.28	35.47	251.49	85.95	2,358.79	-3,629.62	3,475.93	3,191.82	284.10	12.235		
7,700.00	7,252.75	7,253.75	7,252.75	36.73	251.50	90.30	2,358.79	-3,629.62	3,393.43	3,108.87	284.56	11.925		
7,800.00	7,252.38	7,253.38	7,252.38	38.16	251.49	90.29	2,358.79	-3,629.62	3,311.92	3,026.80	285.12	11.616		
7,900.00	7,252.02	7,253.02	7,252.02	39.74	251.48	90.28	2,358.79	-3,629.62	3,231.44	2,945.63	285.81	11.306		
8,000.00	7,251.65	7,252.65	7,251.65	41.47	251.47	90.27	2,358.79	-3,629.62	3,152.09	2,865.44	286.64	10.996		
8,100.00	7,251.29	7,252.29	7,251.29	43.31	251.45	90.26	2,358.79	-3,629.62	3,073.94	2,786.30	287.64	10.687		
8,200.00	7,250.92	7,251.92	7,250.92	45.26	251.44	90.25	2,358.79	-3,629.62	2,997.08	2,708.29	288.79	10.378		
8,300.00	7,250.55	7,251.55	7,250.55	47.30	251.43	90.24	2,358.79	-3,629.62	2,921.63	2,631.52	290.11	10.071		
8,400.00	7,250.19	7,251.19	7,250.19	49.42	251.42	90.23	2,358.79	-3,629.62	2,847.70	2,556.08	291.62	9.765		
8,500.00	7,249.82	7,250.82	7,249.82	51.62	251.40	90.21	2,358.79	-3,629.62	2,775.39	2,482.09	293.30	9.463		
8,600.00	7,249.45	7,250.45	7,249.45	53.88	251.39	90.20	2,358.79	-3,629.62	2,704.85	2,409.68	295.17	9.164		
8,700.00	7,249.09	7,250.09	7,249.09	56.19	251.38	90.19	2,358.79	-3,629.62	2,636.22	2,339.00	297.22	8.869		
8,800.00	7,248.72	7,249.72	7,248.72	58.55	251.36	90.18	2,358.79	-3,629.62	2,569.65	2,270.18	299.47	8.581		
8,900.00	7,248.36	7,249.36	7,248.36	60.96	251.35	90.17	2,358.79	-3,629.62	2,505.30	2,203.40	301.90	8.299		
9,000.00	7,247.99	7,248.99	7,247.99	63.40	251.34	90.16	2,358.79	-3,629.62	2,443.35	2,138.84	304.51	8.024		
9,100.00	7,247.62	7,248.62	7,247.62	65.87	251.33	90.15	2,358.79	-3,629.62	2,383.98	2,076.69	307.29	7.758		
9,200.00	7,247.26	7,248.26	7,247.26	68.38	251.31	90.14	2,358.79	-3,629.62	2,327.40	2,017.15	310.25	7.502		
9,300.00	7,246.89	7,247.89	7,246.89	70.91	251.30	90.13	2,358.79	-3,629.62	2,273.81	1,960.46	313.36	7.256		
9,400.00	7,246.53	7,247.53	7,246.53	73.47	251.29	90.12	2,358.79	-3,629.62	2,223.43	1,906.82	316.61	7.023		
9,500.00	7,246.16	7,247.16	7,246.16	76.05	251.27	90.11	2,358.79	-3,629.62	2,176.48	1,856.50	319.98	6.802		
9,600.00	7,245.79	7,246.79	7,245.79	78.65	251.26	90.10	2,358.79	-3,629.62	2,133.19	1,809.74	323.45	6.595		
9,700.00	7,245.43	7,246.43	7,245.43	81.27	251.25	90.08	2,358.79	-3,629.62	2,093.79	1,766.79	327.00	6.403		
9,800.00	7,245.06	7,246.06	7,245.06	83.90	251.24	90.07	2,358.79	-3,629.62	2,058.49	1,727.90	330.58	6.227		
9,900.00	7,244.69	7,245.69	7,244.69	86.55	251.22	90.06	2,358.79	-3,629.62	2,027.51	1,693.33	334.18	6.067		
10,000.00	7,244.33	7,245.33	7,244.33	89.21	251.21	90.05	2,358.79	-3,629.62	2,001.05	1,663.31	337.74	5.925		
10,100.00	7,243.96	7,244.96	7,243.96	91.88	251.20	90.04	2,358.79	-3,629.62	1,979.30	1,638.06	341.24	5.800		
10,200.00	7,243.60	7,244.60	7,243.60	94.56	251.19	90.03	2,358.79	-3,629.62	1,962.41	1,617.78	344.64	5.694		
10,300.00	7,243.23	7,244.23	7,243.23	97.26	251.17	90.02	2,358.79	-3,629.62	1,950.51	1,602.62	347.89	5.607		

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



Anticollision Report



Company:	SRC ENERGY	Local Co-ordinate Reference:	Well HARVESTERS STATE 31C-16-M
Project:	SECTION 15, T6N, R66W	TVD Reference:	KB @ 4821.00ft
Reference Site:	HARVESTERS STATE 7-15 PAD	MD Reference:	KB @ 4821.00ft
Site Error:	3.28 ft	North Reference:	True
Reference Well:	HARVESTERS STATE 31C-16-M	Survey Calculation Method:	Minimum Curvature
Well Error:	3.28 ft	Output errors are at	2.45 sigma
Reference Wellbore	OH	Database:	EDM 5000.14 Single User Db
Reference Design:	PLAN #1	Offset TVD Reference:	Reference Datum

Offset Design HARVESTERS STATE 7-15 PAD - LUCAS SCHOOL 1(TA_150CC) - OH - OH													Offset Site Error:	0.00 ft
Survey Program: 100-2" Cone@2.448 Sigma													Offset Well Error:	3.28 ft
Reference		Offset		Semi Major Axis			Distance							Warning
Measured Depth (ft)	Vertical Depth (ft)	Measured Depth (ft)	Vertical Depth (ft)	Reference (ft)	Offset (ft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (ft)	+E/-W (ft)	Between Centres (ft)	Between Ellipses (ft)	Minimum Separation (ft)	Separation Factor		
10,400.00	7,242.86	7,243.86	7,242.86	99.96	251.16	90.01	2,358.79	-3,629.62	1,943.69	1,592.73	350.96	5.538		
10,482.88	7,242.56	7,243.56	7,242.56	102.21	251.15	90.00	2,358.79	-3,629.62	1,941.92	1,588.58	353.34	5.496 CC		
10,500.00	7,242.50	7,243.50	7,242.50	102.67	251.15	90.00	2,358.79	-3,629.62	1,941.99	1,588.18	353.82	5.489 ES		
10,600.00	7,242.13	7,243.13	7,242.13	105.39	251.13	89.99	2,358.79	-3,629.62	1,945.45	1,589.01	356.43	5.458		
10,700.00	7,241.76	7,242.76	7,241.76	108.12	251.12	89.98	2,358.79	-3,629.62	1,954.02	1,595.22	358.79	5.446 SF		
10,800.00	7,241.40	7,242.40	7,241.40	110.85	251.11	89.97	2,358.79	-3,629.62	1,967.64	1,606.76	360.88	5.452		
10,900.00	7,241.03	7,242.03	7,241.03	113.59	251.10	89.95	2,358.79	-3,629.62	1,986.21	1,623.52	362.69	5.476		
11,000.00	7,240.67	7,241.67	7,240.67	116.34	251.08	89.94	2,358.79	-3,629.62	2,009.59	1,645.38	364.22	5.518		
11,100.00	7,240.30	7,241.30	7,240.30	119.09	251.07	89.93	2,358.79	-3,629.62	2,037.62	1,672.15	365.47	5.575		
11,200.00	7,239.93	7,240.93	7,239.93	121.85	251.06	89.92	2,358.79	-3,629.62	2,070.10	1,703.63	366.46	5.649		
11,300.00	7,239.57	7,240.57	7,239.57	124.61	251.04	89.91	2,358.79	-3,629.62	2,106.83	1,739.62	367.21	5.737		
11,400.00	7,239.20	7,240.20	7,239.20	127.38	251.03	89.90	2,358.79	-3,629.62	2,147.59	1,779.86	367.73	5.840		
11,500.00	7,238.84	7,239.84	7,238.84	130.15	251.02	89.89	2,358.79	-3,629.62	2,192.16	1,824.12	368.04	5.956		
11,600.00	7,238.47	7,239.47	7,238.47	132.92	251.01	89.88	2,358.79	-3,629.62	2,240.31	1,872.14	368.17	6.085		
11,700.00	7,238.10	7,239.10	7,238.10	135.70	250.99	89.87	2,358.79	-3,629.62	2,291.81	1,923.67	368.14	6.225		
11,800.00	7,237.74	7,238.74	7,237.74	138.48	250.98	89.86	2,358.79	-3,629.62	2,346.45	1,978.49	367.96	6.377		
11,900.00	7,237.37	7,238.37	7,237.37	141.26	250.97	89.85	2,358.79	-3,629.62	2,404.01	2,036.34	367.67	6.539		
12,000.00	7,237.00	7,238.00	7,237.00	144.05	250.96	89.84	2,358.79	-3,629.62	2,464.28	2,097.01	367.27	6.710		
12,100.00	7,236.64	7,237.64	7,236.64	146.84	250.94	89.83	2,358.79	-3,629.62	2,527.07	2,160.29	366.78	6.890		
12,200.00	7,236.27	7,237.27	7,236.27	149.64	250.93	89.81	2,358.79	-3,629.62	2,592.20	2,225.98	366.22	7.078		
12,300.00	7,235.91	7,236.91	7,235.91	152.43	250.92	89.80	2,358.79	-3,629.62	2,659.50	2,293.89	365.61	7.274		
12,400.00	7,235.54	7,236.54	7,235.54	155.23	250.90	89.79	2,358.79	-3,629.62	2,728.80	2,363.86	364.95	7.477		
12,500.00	7,235.17	7,236.17	7,235.17	158.03	250.89	89.78	2,358.79	-3,629.62	2,799.96	2,435.71	364.25	7.687		
12,600.00	7,234.81	7,235.81	7,234.81	160.83	250.88	89.77	2,358.79	-3,629.62	2,872.84	2,509.31	363.53	7.903		
12,700.00	7,234.44	7,235.44	7,234.44	163.64	250.87	89.76	2,358.79	-3,629.62	2,947.31	2,584.52	362.79	8.124		
12,800.00	7,234.07	7,235.07	7,234.07	166.44	250.85	89.75	2,358.79	-3,629.62	3,023.25	2,661.21	362.04	8.351		
12,900.00	7,233.71	7,234.71	7,233.71	169.25	250.84	89.74	2,358.79	-3,629.62	3,100.56	2,739.27	361.28	8.582		
13,000.00	7,233.34	7,234.34	7,233.34	172.06	250.83	89.73	2,358.79	-3,629.62	3,179.13	2,818.60	360.53	8.818		
13,100.00	7,232.98	7,233.98	7,232.98	174.88	250.81	89.72	2,358.79	-3,629.62	3,258.88	2,899.11	359.77	9.058		
13,200.00	7,232.61	7,233.61	7,232.61	177.69	250.80	89.71	2,358.79	-3,629.62	3,339.72	2,980.69	359.02	9.302		
13,300.00	7,232.24	7,233.24	7,232.24	180.50	250.79	89.70	2,358.79	-3,629.62	3,421.57	3,063.29	358.28	9.550		
13,400.00	7,231.88	7,232.88	7,231.88	183.32	250.78	89.68	2,358.79	-3,629.62	3,504.36	3,146.81	357.55	9.801		
13,500.00	7,231.51	7,232.51	7,231.51	186.14	250.76	89.67	2,358.79	-3,629.62	3,588.03	3,231.20	356.83	10.055		
13,600.00	7,231.15	7,232.15	7,231.15	188.96	250.75	89.66	2,358.79	-3,629.62	3,672.51	3,316.39	356.13	10.312		
13,700.00	7,230.78	7,231.78	7,230.78	191.78	250.74	89.65	2,358.79	-3,629.62	3,757.76	3,402.33	355.44	10.572		
13,800.00	7,230.41	7,231.41	7,230.41	194.60	250.73	89.64	2,358.79	-3,629.62	3,843.72	3,488.96	354.76	10.835		
13,900.00	7,230.05	7,231.05	7,230.05	197.42	250.71	89.63	2,358.79	-3,629.62	3,930.34	3,576.24	354.10	11.099		
14,000.00	7,229.68	7,230.68	7,229.68	200.25	250.70	89.62	2,358.79	-3,629.62	4,017.59	3,664.13	353.46	11.367		
14,100.00	7,229.31	7,230.31	7,229.31	203.07	250.69	89.61	2,358.79	-3,629.62	4,105.42	3,752.59	352.83	11.636		
14,200.00	7,228.95	7,229.95	7,228.95	205.90	250.67	89.60	2,358.79	-3,629.62	4,193.79	3,841.57	352.22	11.907		
14,300.00	7,228.58	7,229.58	7,228.58	208.73	250.66	89.59	2,358.79	-3,629.62	4,282.67	3,931.05	351.63	12.180		
14,400.00	7,228.22	7,229.22	7,228.22	211.55	250.65	89.58	2,358.79	-3,629.62	4,372.03	4,020.99	351.05	12.454		
14,500.00	7,227.85	7,228.85	7,227.85	214.38	250.64	89.57	2,358.79	-3,629.62	4,461.85	4,111.36	350.48	12.731		
14,600.00	7,227.48	7,228.48	7,227.48	217.21	250.62	89.56	2,358.79	-3,629.62	4,552.09	4,202.15	349.94	13.008		
14,700.00	7,227.12	7,228.12	7,227.12	220.04	250.61	89.54	2,358.79	-3,629.62	4,642.73	4,293.32	349.41	13.287		
14,800.00	7,226.75	7,227.75	7,226.75	222.88	250.60	89.53	2,358.79	-3,629.62	4,733.74	4,384.85	348.89	13.568		
14,900.00	7,226.38	7,227.38	7,226.38	225.71	250.58	89.52	2,358.79	-3,629.62	4,825.12	4,476.73	348.39	13.850		
15,000.00	7,226.02	7,227.02	7,226.02	228.54	250.57	89.51	2,358.79	-3,629.62	4,916.82	4,568.92	347.90	14.133		
15,005.81	7,226.00	7,227.00	7,226.00	228.71	250.57	89.51	2,358.79	-3,629.62	4,922.16	4,574.29	347.88	14.149		



Anticollision Report



Company:	SRC ENERGY	Local Co-ordinate Reference:	Well HARVESTERS STATE 31C-16-M
Project:	SECTION 15, T6N, R66W	TVD Reference:	KB @ 4821.00ft
Reference Site:	HARVESTERS STATE 7-15 PAD	MD Reference:	KB @ 4821.00ft
Site Error:	3.28 ft	North Reference:	True
Reference Well:	HARVESTERS STATE 31C-16-M	Survey Calculation Method:	Minimum Curvature
Well Error:	3.28 ft	Output errors are at	2.45 sigma
Reference Wellbore	OH	Database:	EDM 5000.14 Single User Db
Reference Design:	PLAN #1	Offset TVD Reference:	Reference Datum

Offset Design HARVESTERS STATE 7-15 PAD - LUCAS SCHOOL 34-9(TA_150CC) - OH - OH												Offset Site Error:	0.00 ft
Survey Program: 100-2" Cone@2.448 Sigma												Offset Well Error:	3.28 ft
Reference		Offset		Semi Major Axis			Distance						Warning
Measured Depth (ft)	Vertical Depth (ft)	Measured Depth (ft)	Vertical Depth (ft)	Reference (ft)	Offset (ft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (ft)	+E/-W (ft)	Between Centres (ft)	Between Ellipses (ft)	Minimum Separation (ft)	Separation Factor	
0.00	0.00	0.00	39.00	3.28	3.28	-64.32	2,329.85	-4,844.97	5,376.20				
100.00	100.00	61.00	100.00	3.28	3.45	-64.32	2,329.85	-4,844.97	5,376.06	5,369.32	6.73	798.438	
200.00	200.00	161.00	200.00	3.34	5.08	-64.32	2,329.85	-4,844.97	5,376.06	5,367.64	8.41	638.953	
300.00	300.00	261.00	300.00	3.44	8.06	-64.32	2,329.85	-4,844.97	5,376.06	5,364.55	11.51	467.150	
400.00	400.00	361.00	400.00	3.60	11.34	-64.32	2,329.85	-4,844.97	5,376.06	5,361.11	14.94	359.723	
500.00	500.00	461.00	500.00	3.81	14.72	-64.32	2,329.85	-4,844.97	5,376.06	5,357.53	18.52	290.219	
600.00	600.00	561.00	600.00	4.05	18.14	-64.32	2,329.85	-4,844.97	5,376.06	5,353.87	22.18	242.336	
700.00	699.98	660.98	699.98	4.32	21.58	-41.45	2,329.85	-4,844.97	5,374.75	5,348.85	25.90	207.541	
800.00	799.84	760.84	799.84	4.62	25.03	-41.53	2,329.85	-4,844.97	5,370.84	5,341.20	29.65	181.166	
900.00	899.62	860.62	899.62	4.94	28.49	-41.58	2,329.85	-4,844.97	5,365.93	5,332.51	33.42	160.563	
1,000.00	999.41	960.41	999.41	5.27	31.95	-41.62	2,329.85	-4,844.97	5,361.02	5,323.81	37.22	144.050	
1,100.00	1,099.19	1,060.19	1,099.19	5.62	35.42	-41.67	2,329.85	-4,844.97	5,356.12	5,315.08	41.03	130.534	
1,200.00	1,198.98	1,159.98	1,198.98	5.99	38.89	-41.72	2,329.85	-4,844.97	5,351.22	5,306.35	44.86	119.278	
1,300.00	1,298.76	1,259.76	1,298.76	6.36	42.36	-41.76	2,329.85	-4,844.97	5,346.32	5,297.61	48.71	109.766	
1,400.00	1,398.55	1,359.55	1,398.55	6.74	45.83	-41.81	2,329.85	-4,844.97	5,341.42	5,288.86	52.56	101.625	
1,500.00	1,498.33	1,459.33	1,498.33	7.13	49.31	-41.86	2,329.85	-4,844.97	5,336.53	5,280.11	56.42	94.582	
1,600.00	1,598.12	1,559.12	1,598.12	7.52	52.79	-41.90	2,329.85	-4,844.97	5,331.64	5,271.35	60.29	88.432	
1,700.00	1,697.90	1,658.90	1,697.90	7.92	56.26	-41.95	2,329.85	-4,844.97	5,326.76	5,262.60	64.17	83.015	
1,800.00	1,797.69	1,758.69	1,797.69	8.33	59.74	-42.00	2,329.85	-4,844.97	5,321.88	5,253.84	68.05	78.210	
1,900.00	1,897.47	1,858.47	1,897.47	8.74	63.22	-42.04	2,329.85	-4,844.97	5,317.00	5,245.07	71.93	73.919	
2,000.00	1,997.26	1,958.26	1,997.26	9.15	66.70	-42.09	2,329.85	-4,844.97	5,312.13	5,236.31	75.82	70.064	
2,100.00	2,097.04	2,058.04	2,097.04	9.56	70.18	-42.14	2,329.85	-4,844.97	5,307.26	5,227.55	79.71	66.582	
2,200.00	2,196.83	2,157.83	2,196.83	9.98	73.66	-42.19	2,329.85	-4,844.97	5,302.40	5,218.79	83.60	63.422	
2,300.00	2,296.61	2,257.61	2,296.61	10.40	77.14	-42.23	2,329.85	-4,844.97	5,297.54	5,210.03	87.50	60.542	
2,400.00	2,396.40	2,357.40	2,396.40	10.82	80.62	-42.28	2,329.85	-4,844.97	5,292.68	5,201.28	91.40	57.907	
2,500.00	2,496.18	2,457.18	2,496.18	11.24	84.10	-42.33	2,329.85	-4,844.97	5,287.82	5,192.52	95.30	55.485	
2,600.00	2,595.96	2,556.96	2,595.96	11.66	87.58	-42.38	2,329.85	-4,844.97	5,282.97	5,183.77	99.20	53.254	
2,700.00	2,695.75	2,656.75	2,695.75	12.09	91.06	-42.43	2,329.85	-4,844.97	5,278.12	5,175.02	103.11	51.190	
2,800.00	2,795.53	2,756.53	2,795.53	12.51	94.54	-42.47	2,329.85	-4,844.97	5,273.28	5,166.27	107.01	49.277	
2,900.00	2,895.32	2,856.32	2,895.32	12.94	98.02	-42.52	2,329.85	-4,844.97	5,268.44	5,157.52	110.92	47.497	
3,000.00	2,995.10	2,956.10	2,995.10	13.37	101.51	-42.57	2,329.85	-4,844.97	5,263.60	5,148.78	114.83	45.839	
3,100.00	3,094.89	3,055.89	3,094.89	13.80	104.99	-42.62	2,329.85	-4,844.97	5,258.77	5,140.03	118.74	44.289	
3,200.00	3,194.67	3,155.67	3,194.67	14.23	108.47	-42.67	2,329.85	-4,844.97	5,253.94	5,131.30	122.65	42.837	
3,300.00	3,294.46	3,255.46	3,294.46	14.66	111.95	-42.71	2,329.85	-4,844.97	5,249.12	5,122.56	126.56	41.476	
3,400.00	3,394.24	3,355.24	3,394.24	15.09	115.43	-42.76	2,329.85	-4,844.97	5,244.30	5,113.83	130.47	40.195	
3,500.00	3,494.03	3,455.03	3,494.03	15.52	118.91	-42.81	2,329.85	-4,844.97	5,239.48	5,105.10	134.38	38.989	
3,600.00	3,593.81	3,554.81	3,593.81	15.96	122.40	-42.86	2,329.85	-4,844.97	5,234.67	5,096.37	138.30	37.851	
3,700.00	3,693.60	3,654.60	3,693.60	16.39	125.88	-42.91	2,329.85	-4,844.97	5,229.86	5,087.65	142.21	36.775	
3,800.00	3,793.38	3,754.38	3,793.38	16.82	129.36	-42.96	2,329.85	-4,844.97	5,225.05	5,078.93	146.12	35.757	
3,900.00	3,893.17	3,854.17	3,893.17	17.26	132.84	-43.01	2,329.85	-4,844.97	5,220.25	5,070.21	150.04	34.792	
4,000.00	3,992.95	3,953.95	3,992.95	17.69	136.33	-43.06	2,329.85	-4,844.97	5,215.45	5,061.50	153.95	33.876	
4,100.00	4,092.74	4,053.74	4,092.74	18.13	139.81	-43.11	2,329.85	-4,844.97	5,210.66	5,052.79	157.87	33.006	
4,200.00	4,192.52	4,153.52	4,192.52	18.56	143.29	-43.15	2,329.85	-4,844.97	5,205.87	5,044.08	161.79	32.177	
4,300.00	4,292.31	4,253.31	4,292.31	19.00	146.77	-43.20	2,329.85	-4,844.97	5,201.08	5,035.38	165.70	31.388	
4,400.00	4,392.09	4,353.09	4,392.09	19.43	150.26	-43.25	2,329.85	-4,844.97	5,196.30	5,026.68	169.62	30.635	
4,500.00	4,491.88	4,452.88	4,491.88	19.87	153.74	-43.30	2,329.85	-4,844.97	5,191.52	5,017.98	173.54	29.916	
4,600.00	4,591.66	4,552.66	4,591.66	20.31	157.22	-43.35	2,329.85	-4,844.97	5,186.74	5,009.29	177.45	29.229	
4,700.00	4,691.44	4,652.44	4,691.44	20.74	160.71	-43.40	2,329.85	-4,844.97	5,181.97	5,000.60	181.37	28.571	
4,800.00	4,791.23	4,752.23	4,791.23	21.18	164.19	-43.45	2,329.85	-4,844.97	5,177.20	4,991.91	185.29	27.941	
4,900.00	4,891.01	4,852.01	4,891.01	21.62	167.67	-43.50	2,329.85	-4,844.97	5,172.44	4,983.23	189.21	27.337	
5,000.00	4,990.80	4,951.80	4,990.80	22.06	171.15	-43.55	2,329.85	-4,844.97	5,167.68	4,974.55	193.13	26.758	
5,100.00	5,090.58	5,051.58	5,090.58	22.50	174.64	-43.60	2,329.85	-4,844.97	5,162.92	4,965.88	197.05	26.202	

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



Anticollision Report



Company:	SRC ENERGY	Local Co-ordinate Reference:	Well HARVESTERS STATE 31C-16-M
Project:	SECTION 15, T6N, R66W	TVD Reference:	KB @ 4821.00ft
Reference Site:	HARVESTERS STATE 7-15 PAD	MD Reference:	KB @ 4821.00ft
Site Error:	3.28 ft	North Reference:	True
Reference Well:	HARVESTERS STATE 31C-16-M	Survey Calculation Method:	Minimum Curvature
Well Error:	3.28 ft	Output errors are at	2.45 sigma
Reference Wellbore	OH	Database:	EDM 5000.14 Single User Db
Reference Design:	PLAN #1	Offset TVD Reference:	Reference Datum

Offset Design HARVESTERS STATE 7-15 PAD - LUCAS SCHOOL 34-9(TA_150CC) - OH - OH													Offset Site Error:	0.00 ft
Survey Program: 100-2" Cone@2.448 Sigma													Offset Well Error:	3.28 ft
Reference		Offset		Semi Major Axis			Distance							Warning
Measured Depth (ft)	Vertical Depth (ft)	Measured Depth (ft)	Vertical Depth (ft)	Reference (ft)	Offset (ft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (ft)	+E/-W (ft)	Between Centres (ft)	Between Ellipses (ft)	Minimum Separation (ft)	Separation Factor		
5,200.00	5,190.37	5,151.37	5,190.37	22.93	178.12	-43.65	2,329.85	-4,844.97	5,158.17	4,957.21	200.97	25.667		
5,300.00	5,290.15	5,251.15	5,290.15	23.37	181.60	-43.70	2,329.85	-4,844.97	5,153.42	4,948.54	204.88	25.153		
5,400.00	5,389.94	5,350.94	5,389.94	23.81	185.09	-43.75	2,329.85	-4,844.97	5,148.68	4,939.88	208.80	24.658		
5,500.00	5,489.72	5,450.72	5,489.72	24.25	188.57	-43.80	2,329.85	-4,844.97	5,143.94	4,931.22	212.72	24.181		
5,600.00	5,589.51	5,550.51	5,589.51	24.69	192.05	-43.85	2,329.85	-4,844.97	5,139.21	4,922.56	216.64	23.722		
5,700.00	5,689.29	5,650.29	5,689.29	25.13	195.53	-43.90	2,329.85	-4,844.97	5,134.47	4,913.91	220.56	23.279		
5,800.00	5,789.08	5,750.08	5,789.08	25.56	199.02	-43.96	2,329.85	-4,844.97	5,129.75	4,905.26	224.48	22.851		
5,900.00	5,888.86	5,849.86	5,888.86	26.00	202.50	-44.01	2,329.85	-4,844.97	5,125.02	4,896.62	228.40	22.438		
6,000.00	5,988.65	5,949.65	5,988.65	26.44	205.98	-44.06	2,329.85	-4,844.97	5,120.30	4,887.98	232.32	22.039		
6,100.00	6,088.43	6,049.43	6,088.43	26.88	209.47	-44.11	2,329.85	-4,844.97	5,115.59	4,879.34	236.25	21.654		
6,200.00	6,188.22	6,149.22	6,188.22	27.32	212.95	-44.16	2,329.85	-4,844.97	5,110.88	4,870.71	240.17	21.281		
6,300.00	6,288.00	6,249.00	6,288.00	27.76	216.43	-44.21	2,329.85	-4,844.97	5,106.17	4,862.08	244.09	20.919		
6,400.00	6,387.79	6,348.79	6,387.79	28.20	219.92	-44.26	2,329.85	-4,844.97	5,101.47	4,853.46	248.01	20.570		
6,500.00	6,487.57	6,448.57	6,487.57	28.64	223.40	-44.31	2,329.85	-4,844.97	5,096.77	4,844.84	251.93	20.231		
6,600.00	6,587.35	6,548.35	6,587.35	29.08	226.88	-44.36	2,329.85	-4,844.97	5,092.07	4,836.22	255.85	19.903		
6,700.00	6,687.02	6,648.02	6,687.02	29.52	230.36	-6.35	2,329.85	-4,844.97	5,085.33	4,825.56	259.77	19.577		
6,800.00	6,784.98	6,745.98	6,784.98	29.96	233.78	10.37	2,329.85	-4,844.97	5,065.80	4,802.18	263.62	19.216		
6,900.00	6,878.81	6,839.81	6,878.81	30.41	237.06	16.31	2,329.85	-4,844.97	5,032.40	4,765.10	267.30	18.826		
7,000.00	6,966.21	6,927.21	6,966.21	30.86	240.11	20.62	2,329.85	-4,844.97	4,985.98	4,715.24	270.74	18.416		
7,100.00	7,045.03	7,006.03	7,045.03	31.35	242.86	25.13	2,329.85	-4,844.97	4,927.71	4,653.89	273.82	17.996		
7,200.00	7,113.32	7,074.32	7,113.32	31.90	245.24	30.81	2,329.85	-4,844.97	4,859.12	4,582.61	276.50	17.573		
7,300.00	7,169.40	7,130.40	7,169.40	32.57	247.20	38.62	2,329.85	-4,844.97	4,781.95	4,503.23	278.72	17.157		
7,400.00	7,211.89	7,172.89	7,211.89	33.38	248.68	49.75	2,329.85	-4,844.97	4,698.19	4,417.77	280.42	16.754		
7,500.00	7,239.75	7,200.75	7,239.75	34.35	249.65	65.21	2,329.85	-4,844.97	4,610.01	4,328.41	281.60	16.371		
7,600.00	7,252.28	7,213.28	7,252.28	35.47	250.09	84.13	2,329.85	-4,844.97	4,519.64	4,237.39	282.25	16.013		
7,700.00	7,252.75	7,213.75	7,252.75	36.73	250.11	90.44	2,329.85	-4,844.97	4,429.15	4,146.66	282.50	15.679		
7,800.00	7,252.38	7,213.38	7,252.38	38.16	250.10	90.43	2,329.85	-4,844.97	4,339.10	4,056.31	282.79	15.344		
7,900.00	7,252.02	7,213.02	7,252.02	39.74	250.08	90.42	2,329.85	-4,844.97	4,249.49	3,966.34	283.15	15.008		
8,000.00	7,251.65	7,212.65	7,251.65	41.47	250.07	90.41	2,329.85	-4,844.97	4,160.36	3,876.76	283.60	14.670		
8,100.00	7,251.29	7,212.29	7,251.29	43.31	250.06	90.40	2,329.85	-4,844.97	4,071.73	3,787.60	284.13	14.330		
8,200.00	7,250.92	7,211.92	7,250.92	45.26	250.04	90.39	2,329.85	-4,844.97	3,983.64	3,698.88	284.76	13.989		
8,300.00	7,250.55	7,211.55	7,250.55	47.30	250.03	90.37	2,329.85	-4,844.97	3,896.13	3,610.64	285.49	13.647		
8,400.00	7,250.19	7,211.19	7,250.19	49.42	250.02	90.36	2,329.85	-4,844.97	3,809.23	3,522.90	286.32	13.304		
8,500.00	7,249.82	7,210.82	7,249.82	51.62	250.01	90.35	2,329.85	-4,844.97	3,722.98	3,435.71	287.27	12.960		
8,600.00	7,249.45	7,210.45	7,249.45	53.88	249.99	90.34	2,329.85	-4,844.97	3,637.44	3,349.10	288.34	12.615		
8,700.00	7,249.09	7,210.09	7,249.09	56.19	249.98	90.33	2,329.85	-4,844.97	3,552.66	3,263.13	289.53	12.270		
8,800.00	7,248.72	7,209.72	7,248.72	58.55	249.97	90.32	2,329.85	-4,844.97	3,468.69	3,177.83	290.86	11.926		
8,900.00	7,248.36	7,209.36	7,248.36	60.96	249.96	90.31	2,329.85	-4,844.97	3,385.59	3,093.27	292.32	11.582		
9,000.00	7,247.99	7,208.99	7,247.99	63.40	249.94	90.30	2,329.85	-4,844.97	3,303.42	3,009.50	293.92	11.239		
9,100.00	7,247.62	7,208.62	7,247.62	65.87	249.93	90.29	2,329.85	-4,844.97	3,222.26	2,926.59	295.68	10.898		
9,200.00	7,247.26	7,208.26	7,247.26	68.38	249.92	90.27	2,329.85	-4,844.97	3,142.19	2,844.61	297.58	10.559		
9,300.00	7,246.89	7,207.89	7,246.89	70.91	249.90	90.26	2,329.85	-4,844.97	3,063.29	2,763.65	299.64	10.223		
9,400.00	7,246.53	7,207.53	7,246.53	73.47	249.89	90.25	2,329.85	-4,844.97	2,985.66	2,683.79	301.87	9.891		
9,500.00	7,246.16	7,207.16	7,246.16	76.05	249.88	90.24	2,329.85	-4,844.97	2,909.39	2,605.13	304.26	9.562		
9,600.00	7,245.79	7,206.79	7,245.79	78.65	249.87	90.23	2,329.85	-4,844.97	2,834.60	2,527.78	306.82	9.239		
9,700.00	7,245.43	7,206.43	7,245.43	81.27	249.85	90.22	2,329.85	-4,844.97	2,761.40	2,451.85	309.55	8.921		
9,800.00	7,245.06	7,206.06	7,245.06	83.90	249.84	90.21	2,329.85	-4,844.97	2,689.93	2,377.47	312.46	8.609		
9,900.00	7,244.69	7,205.69	7,244.69	86.55	249.83	90.20	2,329.85	-4,844.97	2,620.33	2,304.79	315.54	8.304		
10,000.00	7,244.33	7,205.33	7,244.33	89.21	249.81	90.19	2,329.85	-4,844.97	2,552.75	2,233.95	318.80	8.007		
10,100.00	7,243.96	7,204.96	7,243.96	91.88	249.80	90.18	2,329.85	-4,844.97	2,487.35	2,165.12	322.23	7.719		
10,200.00	7,243.60	7,204.60	7,243.60	94.56	249.79	90.16	2,329.85	-4,844.97	2,424.32	2,098.49	325.83	7.440		
10,300.00	7,243.23	7,204.23	7,243.23	97.26	249.78	90.15	2,329.85	-4,844.97	2,363.84	2,034.24	329.59	7.172		

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



Anticollision Report



Company:	SRC ENERGY	Local Co-ordinate Reference:	Well HARVESTERS STATE 31C-16-M
Project:	SECTION 15, T6N, R66W	TVD Reference:	KB @ 4821.00ft
Reference Site:	HARVESTERS STATE 7-15 PAD	MD Reference:	KB @ 4821.00ft
Site Error:	3.28 ft	North Reference:	True
Reference Well:	HARVESTERS STATE 31C-16-M	Survey Calculation Method:	Minimum Curvature
Well Error:	3.28 ft	Output errors are at	2.45 sigma
Reference Wellbore	OH	Database:	EDM 5000.14 Single User Db
Reference Design:	PLAN #1	Offset TVD Reference:	Reference Datum

Offset Design HARVESTERS STATE 7-15 PAD - LUCAS SCHOOL 34-9(TA_150CC) - OH - OH													Offset Site Error:	0.00 ft
Survey Program: 100-2" Cone@2.448 Sigma													Offset Well Error:	3.28 ft
Reference		Offset		Semi Major Axis			Distance							Warning
Measured Depth (ft)	Vertical Depth (ft)	Measured Depth (ft)	Vertical Depth (ft)	Reference (ft)	Offset (ft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (ft)	+E/-W (ft)	Between Centres (ft)	Between Ellipses (ft)	Minimum Separation (ft)	Separation Factor		
10,400.00	7,242.86	7,203.86	7,242.86	99.96	249.76	90.14	2,329.85	-4,844.97	2,306.10	1,972.60	333.50	6.915		
10,500.00	7,242.50	7,203.50	7,242.50	102.67	249.75	90.13	2,329.85	-4,844.97	2,251.33	1,913.79	337.54	6.670		
10,600.00	7,242.13	7,203.13	7,242.13	105.39	249.74	90.12	2,329.85	-4,844.97	2,199.75	1,858.05	341.70	6.438		
10,700.00	7,241.76	7,202.76	7,241.76	108.12	249.73	90.11	2,329.85	-4,844.97	2,151.58	1,805.63	345.95	6.219		
10,800.00	7,241.40	7,202.40	7,241.40	110.85	249.71	90.10	2,329.85	-4,844.97	2,107.06	1,756.79	350.27	6.016		
10,900.00	7,241.03	7,202.03	7,241.03	113.59	249.70	90.09	2,329.85	-4,844.97	2,066.42	1,711.80	354.61	5.827		
11,000.00	7,240.67	7,201.67	7,240.67	116.34	249.69	90.08	2,329.85	-4,844.97	2,029.89	1,670.94	358.95	5.655		
11,100.00	7,240.30	7,201.30	7,240.30	119.09	249.67	90.07	2,329.85	-4,844.97	1,997.71	1,634.48	363.24	5.500		
11,200.00	7,239.93	7,200.93	7,239.93	121.85	249.66	90.05	2,329.85	-4,844.97	1,970.09	1,602.66	367.43	5.362		
11,300.00	7,239.57	7,200.57	7,239.57	124.61	249.65	90.04	2,329.85	-4,844.97	1,947.21	1,575.74	371.47	5.242		
11,400.00	7,239.20	7,200.20	7,239.20	127.38	249.64	90.03	2,329.85	-4,844.97	1,929.26	1,553.93	375.33	5.140		
11,500.00	7,238.84	7,200.17	7,238.84	130.15	249.63	90.02	2,329.85	-4,844.97	1,916.36	1,537.40	378.95	5.057		
11,600.00	7,238.47	7,200.53	7,238.47	132.92	249.65	90.01	2,329.85	-4,844.97	1,908.61	1,526.30	382.31	4.992		
11,698.05	7,238.11	7,200.89	7,238.11	135.64	249.66	90.00	2,329.85	-4,844.97	1,906.09	1,520.80	385.29	4.947 CC		
11,700.00	7,238.10	7,200.90	7,238.10	135.70	249.66	90.00	2,329.85	-4,844.97	1,906.10	1,520.75	385.35	4.946 ES		
11,800.00	7,237.74	7,201.26	7,237.74	138.48	249.67	89.99	2,329.85	-4,844.97	1,908.82	1,520.78	388.04	4.919		
11,900.00	7,237.37	7,201.63	7,237.37	141.26	249.69	89.98	2,329.85	-4,844.97	1,916.76	1,526.39	390.37	4.910 SF		
12,000.00	7,237.00	7,202.00	7,237.00	144.05	249.70	89.97	2,329.85	-4,844.97	1,929.86	1,537.55	392.31	4.919		
12,100.00	7,236.64	7,202.36	7,236.64	146.84	249.71	89.96	2,329.85	-4,844.97	1,948.01	1,554.13	393.88	4.946		
12,200.00	7,236.27	7,202.73	7,236.27	149.64	249.72	89.94	2,329.85	-4,844.97	1,971.08	1,576.00	395.08	4.989		
12,300.00	7,235.91	7,203.09	7,235.91	152.43	249.74	89.93	2,329.85	-4,844.97	1,998.88	1,602.97	395.92	5.049		
12,400.00	7,235.54	7,203.46	7,235.54	155.23	249.75	89.92	2,329.85	-4,844.97	2,031.24	1,634.81	396.42	5.124		
12,500.00	7,235.17	7,203.83	7,235.17	158.03	249.76	89.91	2,329.85	-4,844.97	2,067.92	1,671.30	396.62	5.214		
12,600.00	7,234.81	7,204.19	7,234.81	160.83	249.77	89.90	2,329.85	-4,844.97	2,108.72	1,712.18	396.54	5.318		
12,700.00	7,234.44	7,204.56	7,234.44	163.64	249.79	89.89	2,329.85	-4,844.97	2,153.39	1,757.17	396.22	5.435		
12,800.00	7,234.07	7,204.93	7,234.07	166.44	249.80	89.88	2,329.85	-4,844.97	2,201.70	1,806.02	395.68	5.564		
12,900.00	7,233.71	7,205.29	7,233.71	169.25	249.81	89.87	2,329.85	-4,844.97	2,253.41	1,858.45	394.96	5.705		
13,000.00	7,233.34	7,205.66	7,233.34	172.06	249.83	89.86	2,329.85	-4,844.97	2,308.30	1,914.21	394.09	5.857		
13,100.00	7,232.98	7,206.02	7,232.98	174.88	249.84	89.85	2,329.85	-4,844.97	2,366.14	1,973.06	393.08	6.019		
13,200.00	7,232.61	7,206.39	7,232.61	177.69	249.85	89.83	2,329.85	-4,844.97	2,426.73	2,034.75	391.98	6.191		
13,300.00	7,232.24	7,206.76	7,232.24	180.50	249.86	89.82	2,329.85	-4,844.97	2,489.86	2,099.06	390.80	6.371		
13,400.00	7,231.88	7,207.12	7,231.88	183.32	249.88	89.81	2,329.85	-4,844.97	2,555.34	2,165.79	389.56	6.560		
13,500.00	7,231.51	7,207.49	7,231.51	186.14	249.89	89.80	2,329.85	-4,844.97	2,623.01	2,234.73	388.27	6.756		
13,600.00	7,231.15	7,207.86	7,231.15	188.96	249.90	89.79	2,329.85	-4,844.97	2,692.68	2,305.73	386.96	6.959		
13,700.00	7,230.78	7,208.22	7,230.78	191.78	249.92	89.78	2,329.85	-4,844.97	2,764.22	2,378.60	385.63	7.168		
13,800.00	7,230.41	7,208.59	7,230.41	194.60	249.93	89.77	2,329.85	-4,844.97	2,837.48	2,453.19	384.29	7.384		
13,900.00	7,230.05	7,208.95	7,230.05	197.42	249.94	89.76	2,329.85	-4,844.97	2,912.34	2,529.38	382.96	7.605		
14,000.00	7,229.68	7,209.32	7,229.68	200.25	249.95	89.75	2,329.85	-4,844.97	2,988.66	2,607.03	381.63	7.831		
14,100.00	7,229.31	7,209.69	7,229.31	203.07	249.97	89.74	2,329.85	-4,844.97	3,066.34	2,686.02	380.32	8.062		
14,200.00	7,228.95	7,189.95	7,228.95	205.90	249.28	89.72	2,329.85	-4,844.97	3,145.29	2,766.96	378.33	8.314		
14,300.00	7,228.58	7,189.58	7,228.58	208.73	249.26	89.71	2,329.85	-4,844.97	3,225.40	2,848.36	377.04	8.554		
14,400.00	7,228.22	7,189.22	7,228.22	211.55	249.25	89.70	2,329.85	-4,844.97	3,306.60	2,930.82	375.78	8.799		
14,500.00	7,227.85	7,188.85	7,227.85	214.38	249.24	89.69	2,329.85	-4,844.97	3,388.81	3,014.26	374.54	9.048		
14,600.00	7,227.48	7,188.48	7,227.48	217.21	249.23	89.68	2,329.85	-4,844.97	3,471.94	3,098.61	373.34	9.300		
14,700.00	7,227.12	7,188.12	7,227.12	220.04	249.21	89.67	2,329.85	-4,844.97	3,555.95	3,183.79	372.16	9.555		
14,800.00	7,226.75	7,187.75	7,226.75	222.88	249.20	89.66	2,329.85	-4,844.97	3,640.76	3,269.74	371.02	9.813		
14,900.00	7,226.38	7,187.38	7,226.38	225.71	249.19	89.65	2,329.85	-4,844.97	3,726.33	3,356.42	369.91	10.074		
15,000.00	7,226.02	7,187.02	7,226.02	228.54	249.18	89.64	2,329.85	-4,844.97	3,812.60	3,443.77	368.83	10.337		
15,005.81	7,226.00	7,187.00	7,226.00	228.71	249.17	89.64	2,329.85	-4,844.97	3,817.63	3,448.87	368.76	10.352		



Anticollision Report



Company:	SRC ENERGY	Local Co-ordinate Reference:	Well HARVESTERS STATE 31C-16-M
Project:	SECTION 15, T6N, R66W	TVD Reference:	KB @ 4821.00ft
Reference Site:	HARVESTERS STATE 7-15 PAD	MD Reference:	KB @ 4821.00ft
Site Error:	3.28 ft	North Reference:	True
Reference Well:	HARVESTERS STATE 31C-16-M	Survey Calculation Method:	Minimum Curvature
Well Error:	3.28 ft	Output errors are at	2.45 sigma
Reference Wellbore	OH	Database:	EDM 5000.14 Single User Db
Reference Design:	PLAN #1	Offset TVD Reference:	Reference Datum

Offset Design HARVESTERS STATE 7-15 PAD - MAURICE LEFFLER 1(AB_150CC) - OH - OH													Offset Site Error:	0.00 ft
Survey Program: 100-2" Cone@2.448 Sigma													Offset Well Error:	3.28 ft
Reference		Offset		Semi Major Axis			Distance							Warning
Measured Depth (ft)	Vertical Depth (ft)	Measured Depth (ft)	Vertical Depth (ft)	Reference (ft)	Offset (ft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (ft)	+E/-W (ft)	Between Centres (ft)	Between Ellipses (ft)	Minimum Separation (ft)	Separation Factor		
0.00	0.00	0.00	66.00	3.28	3.28	-124.04	-4,291.78	-6,352.09	7,666.34					
100.00	100.00	34.00	100.00	3.28	3.33	-124.04	-4,291.78	-6,352.09	7,666.06	7,659.44	6.62	1,158.368		
200.00	200.00	134.00	200.00	3.34	4.40	-124.04	-4,291.78	-6,352.09	7,666.06	7,658.32	7.74	990.862		
300.00	300.00	234.00	300.00	3.44	7.21	-124.04	-4,291.78	-6,352.09	7,666.06	7,655.40	10.66	719.323		
400.00	400.00	334.00	400.00	3.60	10.44	-124.04	-4,291.78	-6,352.09	7,666.06	7,652.01	14.05	545.772		
500.00	500.00	434.00	500.00	3.81	13.80	-124.04	-4,291.78	-6,352.09	7,666.06	7,648.45	17.61	435.401		
600.00	600.00	534.00	600.00	4.05	17.21	-124.04	-4,291.78	-6,352.09	7,666.06	7,644.80	21.26	360.617		
700.00	699.98	633.98	699.98	4.32	20.65	-101.15	-4,291.78	-6,352.09	7,666.39	7,641.43	24.97	307.073		
800.00	799.84	733.84	799.84	4.62	24.10	-101.17	-4,291.78	-6,352.09	7,667.40	7,638.69	28.71	267.062		
900.00	899.62	833.62	899.62	4.94	27.55	-101.22	-4,291.78	-6,352.09	7,668.68	7,636.20	32.48	236.083		
1,000.00	999.41	933.41	999.41	5.27	31.01	-101.27	-4,291.78	-6,352.09	7,669.96	7,633.68	36.28	211.409		
1,100.00	1,099.19	1,033.19	1,099.19	5.62	34.48	-101.32	-4,291.78	-6,352.09	7,671.25	7,631.15	40.10	191.320		
1,200.00	1,198.98	1,132.98	1,198.98	5.99	37.95	-101.37	-4,291.78	-6,352.09	7,672.54	7,628.61	43.93	174.660		
1,300.00	1,298.76	1,232.76	1,298.76	6.36	41.42	-101.41	-4,291.78	-6,352.09	7,673.84	7,626.06	47.77	160.632		
1,400.00	1,398.55	1,332.55	1,398.55	6.74	44.89	-101.46	-4,291.78	-6,352.09	7,675.14	7,623.51	51.63	148.664		
1,500.00	1,498.33	1,432.33	1,498.33	7.13	48.37	-101.51	-4,291.78	-6,352.09	7,676.45	7,620.96	55.49	138.338		
1,600.00	1,598.12	1,532.12	1,598.12	7.52	51.84	-101.56	-4,291.78	-6,352.09	7,677.76	7,618.40	59.36	129.341		
1,700.00	1,697.90	1,631.90	1,697.90	7.92	55.32	-101.60	-4,291.78	-6,352.09	7,679.08	7,615.84	63.24	121.433		
1,800.00	1,797.69	1,731.69	1,797.69	8.33	58.80	-101.65	-4,291.78	-6,352.09	7,680.41	7,613.29	67.12	114.430		
1,900.00	1,897.47	1,831.47	1,897.47	8.74	62.28	-101.70	-4,291.78	-6,352.09	7,681.74	7,610.73	71.00	108.187		
2,000.00	1,997.26	1,931.26	1,997.26	9.15	65.76	-101.75	-4,291.78	-6,352.09	7,683.07	7,608.18	74.89	102.586		
2,100.00	2,097.04	2,031.04	2,097.04	9.56	69.24	-101.80	-4,291.78	-6,352.09	7,684.41	7,605.63	78.79	97.534		
2,200.00	2,196.83	2,130.83	2,196.83	9.98	72.72	-101.84	-4,291.78	-6,352.09	7,685.76	7,603.08	82.68	92.954		
2,300.00	2,296.61	2,230.61	2,296.61	10.40	76.20	-101.89	-4,291.78	-6,352.09	7,687.11	7,600.53	86.58	88.785		
2,400.00	2,396.40	2,330.40	2,396.40	10.82	79.68	-101.94	-4,291.78	-6,352.09	7,688.47	7,597.98	90.48	84.972		
2,500.00	2,496.18	2,430.18	2,496.18	11.24	83.16	-101.99	-4,291.78	-6,352.09	7,689.83	7,595.44	94.38	81.473		
2,600.00	2,595.96	2,529.96	2,595.96	11.66	86.64	-102.03	-4,291.78	-6,352.09	7,691.20	7,592.91	98.29	78.251		
2,700.00	2,695.75	2,629.75	2,695.75	12.09	90.12	-102.08	-4,291.78	-6,352.09	7,692.57	7,590.37	102.19	75.274		
2,800.00	2,795.53	2,729.53	2,795.53	12.51	93.60	-102.13	-4,291.78	-6,352.09	7,693.95	7,587.84	106.10	72.515		
2,900.00	2,895.32	2,829.32	2,895.32	12.94	97.08	-102.18	-4,291.78	-6,352.09	7,695.33	7,585.32	110.01	69.951		
3,000.00	2,995.10	2,929.10	2,995.10	13.37	100.56	-102.22	-4,291.78	-6,352.09	7,696.72	7,582.80	113.92	67.562		
3,100.00	3,094.89	3,028.89	3,094.89	13.80	104.04	-102.27	-4,291.78	-6,352.09	7,698.11	7,580.28	117.83	65.332		
3,200.00	3,194.67	3,128.67	3,194.67	14.23	107.53	-102.32	-4,291.78	-6,352.09	7,699.51	7,577.77	121.74	63.244		
3,300.00	3,294.46	3,228.46	3,294.46	14.66	111.01	-102.37	-4,291.78	-6,352.09	7,700.92	7,575.26	125.66	61.286		
3,400.00	3,394.24	3,328.24	3,394.24	15.09	114.49	-102.42	-4,291.78	-6,352.09	7,702.33	7,572.76	129.57	59.446		
3,500.00	3,494.03	3,428.03	3,494.03	15.52	117.97	-102.46	-4,291.78	-6,352.09	7,703.74	7,570.26	133.48	57.713		
3,600.00	3,593.81	3,527.81	3,593.81	15.96	121.45	-102.51	-4,291.78	-6,352.09	7,705.16	7,567.77	137.40	56.079		
3,700.00	3,693.60	3,627.60	3,693.60	16.39	124.94	-102.56	-4,291.78	-6,352.09	7,706.59	7,565.28	141.31	54.536		
3,800.00	3,793.38	3,727.38	3,793.38	16.82	128.42	-102.61	-4,291.78	-6,352.09	7,708.02	7,562.79	145.23	53.075		
3,900.00	3,893.17	3,827.17	3,893.17	17.26	131.90	-102.65	-4,291.78	-6,352.09	7,709.46	7,560.31	149.15	51.691		
4,000.00	3,992.95	3,926.95	3,992.95	17.69	135.38	-102.70	-4,291.78	-6,352.09	7,710.90	7,557.84	153.06	50.378		
4,100.00	4,092.74	4,026.74	4,092.74	18.13	138.87	-102.75	-4,291.78	-6,352.09	7,712.35	7,555.37	156.98	49.130		
4,200.00	4,192.52	4,126.52	4,192.52	18.56	142.35	-102.79	-4,291.78	-6,352.09	7,713.80	7,552.90	160.90	47.942		
4,300.00	4,292.31	4,226.31	4,292.31	19.00	145.83	-102.84	-4,291.78	-6,352.09	7,715.26	7,550.44	164.82	46.812		
4,400.00	4,392.09	4,326.09	4,392.09	19.43	149.31	-102.89	-4,291.78	-6,352.09	7,716.72	7,547.99	168.73	45.733		
4,500.00	4,491.88	4,425.88	4,491.88	19.87	152.80	-102.94	-4,291.78	-6,352.09	7,718.19	7,545.54	172.65	44.704		
4,600.00	4,591.66	4,452.00	4,518.00	20.31	153.71	-102.95	-4,291.78	-6,352.09	7,720.01	7,546.02	173.99	44.370		
4,700.00	4,691.44	4,452.00	4,518.00	20.74	153.71	-102.95	-4,291.78	-6,352.09	7,723.09	7,548.70	174.39	44.287		
4,800.00	4,791.23	4,452.00	4,518.00	21.18	153.71	-102.95	-4,291.78	-6,352.09	7,727.46	7,552.70	174.76	44.219		
4,900.00	4,891.01	4,452.00	4,518.00	21.62	153.71	-102.95	-4,291.78	-6,352.09	7,733.12	7,558.02	175.09	44.165		
5,000.00	4,990.80	4,452.00	4,518.00	22.06	153.71	-102.95	-4,291.78	-6,352.09	7,740.07	7,564.66	175.40	44.127		
5,100.00	5,090.58	4,452.00	4,518.00	22.50	153.71	-102.95	-4,291.78	-6,352.09	7,748.30	7,572.61	175.68	44.103		

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



Anticollision Report



Company:	SRC ENERGY	Local Co-ordinate Reference:	Well HARVESTERS STATE 31C-16-M
Project:	SECTION 15, T6N, R66W	TVD Reference:	KB @ 4821.00ft
Reference Site:	HARVESTERS STATE 7-15 PAD	MD Reference:	KB @ 4821.00ft
Site Error:	3.28 ft	North Reference:	True
Reference Well:	HARVESTERS STATE 31C-16-M	Survey Calculation Method:	Minimum Curvature
Well Error:	3.28 ft	Output errors are at	2.45 sigma
Reference Wellbore	OH	Database:	EDM 5000.14 Single User Db
Reference Design:	PLAN #1	Offset TVD Reference:	Reference Datum

Offset Design HARVESTERS STATE 7-15 PAD - MAURICE LEFFLER 1(AB_150CC) - OH - OH													Offset Site Error:	0.00 ft
Survey Program: 100-2" Cone@2.448 Sigma													Offset Well Error:	3.28 ft
Reference		Offset		Semi Major Axis			Distance							Warning
Measured Depth (ft)	Vertical Depth (ft)	Measured Depth (ft)	Vertical Depth (ft)	Reference (ft)	Offset (ft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (ft)	+E/-W (ft)	Between Centres (ft)	Between Ellipses (ft)	Minimum Separation (ft)	Separation Factor		
5,200.00	5,190.37	4,452.00	4,518.00	22.93	153.71	-102.95	-4,291.78	-6,352.09	7,757.81	7,581.87	175.94	44.095		
5,300.00	5,290.15	4,452.00	4,518.00	23.37	153.71	-102.95	-4,291.78	-6,352.09	7,768.60	7,592.44	176.16	44.100		
5,400.00	5,389.94	4,452.00	4,518.00	23.81	153.71	-102.95	-4,291.78	-6,352.09	7,780.65	7,604.30	176.35	44.120		
5,500.00	5,489.72	4,452.00	4,518.00	24.25	153.71	-102.95	-4,291.78	-6,352.09	7,793.98	7,617.46	176.51	44.155		
5,600.00	5,589.51	4,452.00	4,518.00	24.69	153.71	-102.95	-4,291.78	-6,352.09	7,808.56	7,631.91	176.65	44.204		
5,700.00	5,689.29	4,452.00	4,518.00	25.13	153.71	-102.95	-4,291.78	-6,352.09	7,824.39	7,647.63	176.76	44.266		
5,800.00	5,789.08	4,452.00	4,518.00	25.56	153.71	-102.95	-4,291.78	-6,352.09	7,841.46	7,664.63	176.84	44.343		
5,900.00	5,888.86	4,452.00	4,518.00	26.00	153.71	-102.95	-4,291.78	-6,352.09	7,859.78	7,682.89	176.89	44.434		
6,000.00	5,988.65	4,452.00	4,518.00	26.44	153.71	-102.95	-4,291.78	-6,352.09	7,879.31	7,702.40	176.91	44.538		
6,100.00	6,088.43	4,452.00	4,518.00	26.88	153.71	-102.95	-4,291.78	-6,352.09	7,900.07	7,723.16	176.91	44.656		
6,200.00	6,188.22	4,452.00	4,518.00	27.32	153.71	-102.95	-4,291.78	-6,352.09	7,922.03	7,745.15	176.88	44.788		
6,300.00	6,288.00	4,452.00	4,518.00	27.76	153.71	-102.95	-4,291.78	-6,352.09	7,945.19	7,768.37	176.82	44.933		
6,400.00	6,387.79	4,452.00	4,518.00	28.20	153.71	-102.95	-4,291.78	-6,352.09	7,969.54	7,792.80	176.74	45.091		
6,500.00	6,487.57	4,452.00	4,518.00	28.64	153.71	-102.95	-4,291.78	-6,352.09	7,995.06	7,818.43	176.64	45.263		
6,600.00	6,587.35	4,452.00	4,518.00	29.08	153.71	-102.95	-4,291.78	-6,352.09	8,021.75	7,845.25	176.51	45.447		
6,700.00	6,687.02	4,452.00	4,518.00	29.52	153.71	-64.33	-4,291.78	-6,352.09	8,047.86	7,871.51	176.35	45.636		
6,800.00	6,784.98	4,452.00	4,518.00	29.96	153.71	-47.49	-4,291.78	-6,352.09	8,063.99	7,887.83	176.16	45.776		
6,900.00	6,878.81	4,452.00	4,518.00	30.41	153.71	-42.70	-4,291.78	-6,352.09	8,068.51	7,892.55	175.95	45.856		
7,000.00	6,966.21	4,452.00	4,518.00	30.86	153.71	-41.00	-4,291.78	-6,352.09	8,061.31	7,885.57	175.74	45.870		
7,100.00	7,045.03	4,452.00	4,518.00	31.35	153.71	-40.84	-4,291.78	-6,352.09	8,042.56	7,867.02	175.54	45.816		
7,200.00	7,113.32	4,452.00	4,518.00	31.90	153.71	-41.82	-4,291.78	-6,352.09	8,012.62	7,837.25	175.37	45.689		
7,300.00	7,169.40	4,452.00	4,518.00	32.57	153.71	-43.86	-4,291.78	-6,352.09	7,972.12	7,796.84	175.28	45.482		
7,400.00	7,211.89	4,452.00	4,518.00	33.38	153.71	-47.05	-4,291.78	-6,352.09	7,921.90	7,746.62	175.29	45.193		
7,500.00	7,239.75	4,452.00	4,518.00	34.35	153.71	-51.59	-4,291.78	-6,352.09	7,863.03	7,687.60	175.43	44.822		
7,600.00	7,252.28	4,452.00	4,518.00	35.47	153.71	-57.72	-4,291.78	-6,352.09	7,796.77	7,621.06	175.71	44.372		
7,700.00	7,252.75	4,452.00	4,518.00	36.73	153.71	-60.12	-4,291.78	-6,352.09	7,725.88	7,549.75	176.13	43.864		
7,800.00	7,252.38	4,452.00	4,518.00	38.16	153.71	-60.12	-4,291.78	-6,352.09	7,655.31	7,478.66	176.65	43.335		
7,900.00	7,252.02	4,452.00	4,518.00	39.74	153.71	-60.12	-4,291.78	-6,352.09	7,585.40	7,408.12	177.27	42.789		
8,000.00	7,251.65	4,452.00	4,518.00	41.47	153.71	-60.12	-4,291.78	-6,352.09	7,516.17	7,338.17	177.99	42.227		
8,100.00	7,251.29	4,452.00	4,518.00	43.31	153.71	-60.12	-4,291.78	-6,352.09	7,447.63	7,268.82	178.81	41.651		
8,200.00	7,250.92	4,452.00	4,518.00	45.26	153.71	-60.12	-4,291.78	-6,352.09	7,379.82	7,200.10	179.72	41.063		
8,300.00	7,250.55	4,452.00	4,518.00	47.30	153.71	-60.12	-4,291.78	-6,352.09	7,312.74	7,132.02	180.72	40.464		
8,400.00	7,250.19	4,452.00	4,518.00	49.42	153.71	-60.12	-4,291.78	-6,352.09	7,246.43	7,064.61	181.81	39.856		
8,500.00	7,249.82	4,452.00	4,518.00	51.62	153.71	-60.12	-4,291.78	-6,352.09	7,180.89	6,997.90	182.99	39.242		
8,600.00	7,249.45	4,452.00	4,518.00	53.88	153.71	-60.12	-4,291.78	-6,352.09	7,116.16	6,931.91	184.25	38.623		
8,700.00	7,249.09	4,452.00	4,518.00	56.19	153.71	-60.12	-4,291.78	-6,352.09	7,052.24	6,866.66	185.58	38.001		
8,800.00	7,248.72	4,452.00	4,518.00	58.55	153.71	-60.12	-4,291.78	-6,352.09	6,989.18	6,802.19	186.99	37.377		
8,900.00	7,248.36	4,452.00	4,518.00	60.96	153.71	-60.12	-4,291.78	-6,352.09	6,926.99	6,738.51	188.48	36.753		
9,000.00	7,247.99	4,452.00	4,518.00	63.40	153.71	-60.12	-4,291.78	-6,352.09	6,865.68	6,675.65	190.03	36.130		
9,100.00	7,247.62	4,452.00	4,518.00	65.87	153.71	-60.12	-4,291.78	-6,352.09	6,805.30	6,613.65	191.65	35.509		
9,200.00	7,247.26	4,452.00	4,518.00	68.38	153.71	-60.12	-4,291.78	-6,352.09	6,745.86	6,552.52	193.33	34.892		
9,300.00	7,246.89	4,452.00	4,518.00	70.91	153.71	-60.12	-4,291.78	-6,352.09	6,687.38	6,492.30	195.08	34.280		
9,400.00	7,246.53	4,452.00	4,518.00	73.47	153.71	-60.12	-4,291.78	-6,352.09	6,629.90	6,433.01	196.89	33.674		
9,500.00	7,246.16	4,452.00	4,518.00	76.05	153.71	-60.12	-4,291.78	-6,352.09	6,573.44	6,374.69	198.75	33.074		
9,600.00	7,245.79	4,452.00	4,518.00	78.65	153.71	-60.12	-4,291.78	-6,352.09	6,518.02	6,317.35	200.67	32.482		
9,700.00	7,245.43	4,452.00	4,518.00	81.27	153.71	-60.12	-4,291.78	-6,352.09	6,463.67	6,261.03	202.64	31.898		
9,800.00	7,245.06	4,452.00	4,518.00	83.90	153.71	-60.12	-4,291.78	-6,352.09	6,410.42	6,205.76	204.66	31.322		
9,900.00	7,244.69	4,452.00	4,518.00	86.55	153.71	-60.12	-4,291.78	-6,352.09	6,358.30	6,151.57	206.73	30.756		
10,000.00	7,244.33	4,452.00	4,518.00	89.21	153.71	-60.12	-4,291.78	-6,352.09	6,307.34	6,098.48	208.85	30.200		
10,100.00	7,243.96	4,452.00	4,518.00	91.88	153.71	-60.12	-4,291.78	-6,352.09	6,257.55	6,046.54	211.02	29.654		
10,200.00	7,243.60	4,452.00	4,518.00	94.56	153.71	-60.12	-4,291.78	-6,352.09	6,208.98	5,995.76	213.23	29.119		
10,300.00	7,243.23	4,452.00	4,518.00	97.26	153.71	-60.12	-4,291.78	-6,352.09	6,161.65	5,946.18	215.48	28.596		

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



Anticollision Report



Company:	SRC ENERGY	Local Co-ordinate Reference:	Well HARVESTERS STATE 31C-16-M
Project:	SECTION 15, T6N, R66W	TVD Reference:	KB @ 4821.00ft
Reference Site:	HARVESTERS STATE 7-15 PAD	MD Reference:	KB @ 4821.00ft
Site Error:	3.28 ft	North Reference:	True
Reference Well:	HARVESTERS STATE 31C-16-M	Survey Calculation Method:	Minimum Curvature
Well Error:	3.28 ft	Output errors are at	2.45 sigma
Reference Wellbore	OH	Database:	EDM 5000.14 Single User Db
Reference Design:	PLAN #1	Offset TVD Reference:	Reference Datum

Offset Design HARVESTERS STATE 7-15 PAD - MAURICE LEFFLER 1(AB_150CC) - OH - OH													Offset Site Error:	0.00 ft
Survey Program: 100-2" Cone@2.448 Sigma													Offset Well Error:	3.28 ft
Reference		Offset		Semi Major Axis			Distance							Warning
Measured Depth (ft)	Vertical Depth (ft)	Measured Depth (ft)	Vertical Depth (ft)	Reference (ft)	Offset (ft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (ft)	+E/-W (ft)	Between Centres (ft)	Between Ellipses (ft)	Minimum Separation (ft)	Separation Factor		
10,400.00	7,242.86	4,452.00	4,518.00	99.96	153.71	-60.12	-4,291.78	-6,352.09	6,115.59	5,897.82	217.77	28.083		
10,500.00	7,242.50	4,452.00	4,518.00	102.67	153.71	-60.12	-4,291.78	-6,352.09	6,070.83	5,850.73	220.09	27.583		
10,600.00	7,242.13	4,452.00	4,518.00	105.39	153.71	-60.12	-4,291.78	-6,352.09	6,027.39	5,804.93	222.46	27.094		
10,700.00	7,241.76	4,452.00	4,518.00	108.12	153.71	-60.12	-4,291.78	-6,352.09	5,985.31	5,760.45	224.86	26.618		
10,800.00	7,241.40	4,452.00	4,518.00	110.85	153.71	-60.12	-4,291.78	-6,352.09	5,944.61	5,717.32	227.29	26.154		
10,900.00	7,241.03	4,452.00	4,518.00	113.59	153.71	-60.12	-4,291.78	-6,352.09	5,905.33	5,675.57	229.75	25.703		
11,000.00	7,240.67	4,452.00	4,518.00	116.34	153.71	-60.12	-4,291.78	-6,352.09	5,867.48	5,635.24	232.24	25.264		
11,100.00	7,240.30	4,452.00	4,518.00	119.09	153.71	-60.12	-4,291.78	-6,352.09	5,831.11	5,596.35	234.76	24.838		
11,200.00	7,239.93	4,452.00	4,518.00	121.85	153.71	-60.12	-4,291.78	-6,352.09	5,796.24	5,558.93	237.30	24.426		
11,300.00	7,239.57	4,452.00	4,518.00	124.61	153.71	-60.12	-4,291.78	-6,352.09	5,762.88	5,523.02	239.86	24.026		
11,400.00	7,239.20	4,452.00	4,518.00	127.38	153.71	-60.12	-4,291.78	-6,352.09	5,731.08	5,488.64	242.45	23.639		
11,500.00	7,238.84	4,452.00	4,518.00	130.15	153.71	-60.12	-4,291.78	-6,352.09	5,700.86	5,455.82	245.04	23.265		
11,600.00	7,238.47	4,452.00	4,518.00	132.92	153.71	-60.12	-4,291.78	-6,352.09	5,672.24	5,424.58	247.66	22.904		
11,700.00	7,238.10	4,452.00	4,518.00	135.70	153.71	-60.12	-4,291.78	-6,352.09	5,645.24	5,394.96	250.28	22.556		
11,800.00	7,237.74	4,452.00	4,518.00	138.48	153.71	-60.12	-4,291.78	-6,352.09	5,619.90	5,366.99	252.91	22.221		
11,900.00	7,237.37	4,452.00	4,518.00	141.26	153.71	-60.12	-4,291.78	-6,352.09	5,596.23	5,340.68	255.55	21.899		
12,000.00	7,237.00	4,452.00	4,518.00	144.05	153.71	-60.12	-4,291.78	-6,352.09	5,574.25	5,316.05	258.19	21.589		
12,100.00	7,236.64	4,452.00	4,518.00	146.84	153.71	-60.12	-4,291.78	-6,352.09	5,553.98	5,293.15	260.84	21.293		
12,200.00	7,236.27	4,452.00	4,518.00	149.64	153.71	-60.12	-4,291.78	-6,352.09	5,535.45	5,271.97	263.48	21.009		
12,300.00	7,235.91	4,452.00	4,518.00	152.43	153.71	-60.12	-4,291.78	-6,352.09	5,518.67	5,252.56	266.11	20.738		
12,400.00	7,235.54	4,452.00	4,518.00	155.23	153.71	-60.12	-4,291.78	-6,352.09	5,503.65	5,234.91	268.74	20.480		
12,500.00	7,235.17	4,452.00	4,518.00	158.03	153.71	-60.12	-4,291.78	-6,352.09	5,490.42	5,219.06	271.35	20.233		
12,600.00	7,234.81	4,452.00	4,518.00	160.83	153.71	-60.12	-4,291.78	-6,352.09	5,478.98	5,205.02	273.95	20.000		
12,700.00	7,234.44	4,452.00	4,518.00	163.64	153.71	-60.12	-4,291.78	-6,352.09	5,469.34	5,192.80	276.54	19.778		
12,800.00	7,234.07	4,452.00	4,518.00	166.44	153.71	-60.12	-4,291.78	-6,352.09	5,461.51	5,182.41	279.10	19.568		
12,900.00	7,233.71	4,452.00	4,518.00	169.25	153.71	-60.12	-4,291.78	-6,352.09	5,455.51	5,173.87	281.64	19.370		
13,000.00	7,233.34	4,452.00	4,518.00	172.06	153.71	-60.12	-4,291.78	-6,352.09	5,451.34	5,167.19	284.16	19.184		
13,100.00	7,232.98	4,452.00	4,518.00	174.88	153.71	-60.12	-4,291.78	-6,352.09	5,449.00	5,162.36	286.64	19.010		
13,177.56	7,232.69	4,452.00	4,518.00	177.06	153.71	-60.12	-4,291.78	-6,352.09	5,448.45	5,159.90	288.55	18.882 CC		
13,200.00	7,232.61	4,452.00	4,518.00	177.69	153.71	-60.12	-4,291.78	-6,352.09	5,448.49	5,159.40	289.09	18.847		
13,300.00	7,232.24	4,452.00	4,518.00	180.50	153.71	-60.12	-4,291.78	-6,352.09	5,449.82	5,158.31	291.51	18.695 ES		
13,400.00	7,231.88	4,452.00	4,518.00	183.32	153.71	-60.12	-4,291.78	-6,352.09	5,452.99	5,159.09	293.90	18.554		
13,500.00	7,231.51	4,452.00	4,518.00	186.14	153.71	-60.12	-4,291.78	-6,352.09	5,457.98	5,161.74	296.24	18.424		
13,600.00	7,231.15	4,452.00	4,518.00	188.96	153.71	-60.12	-4,291.78	-6,352.09	5,464.80	5,166.26	298.54	18.305		
13,700.00	7,230.78	4,452.00	4,518.00	191.78	153.71	-60.12	-4,291.78	-6,352.09	5,473.44	5,172.64	300.80	18.196		
13,800.00	7,230.41	4,452.00	4,518.00	194.60	153.71	-60.12	-4,291.78	-6,352.09	5,483.89	5,180.87	303.01	18.098		
13,900.00	7,230.05	4,452.00	4,518.00	197.42	153.71	-60.12	-4,291.78	-6,352.09	5,496.14	5,190.96	305.18	18.010		
14,000.00	7,229.68	4,452.00	4,518.00	200.25	153.71	-60.12	-4,291.78	-6,352.09	5,510.17	5,202.88	307.29	17.931		
14,100.00	7,229.31	4,452.00	4,518.00	203.07	153.71	-60.12	-4,291.78	-6,352.09	5,525.98	5,216.63	309.36	17.863		
14,200.00	7,228.95	4,452.00	4,518.00	205.90	153.71	-60.12	-4,291.78	-6,352.09	5,543.55	5,232.18	311.37	17.804		
14,300.00	7,228.58	4,452.00	4,518.00	208.73	153.71	-60.12	-4,291.78	-6,352.09	5,562.86	5,249.54	313.33	17.754		
14,400.00	7,228.22	4,452.00	4,518.00	211.55	153.71	-60.12	-4,291.78	-6,352.09	5,583.90	5,268.67	315.23	17.714		
14,500.00	7,227.85	4,452.00	4,518.00	214.38	153.71	-60.12	-4,291.78	-6,352.09	5,606.64	5,289.56	317.08	17.682		
14,600.00	7,227.48	4,452.00	4,518.00	217.21	153.71	-60.12	-4,291.78	-6,352.09	5,631.07	5,312.20	318.87	17.659		
14,700.00	7,227.12	4,452.00	4,518.00	220.04	153.71	-60.12	-4,291.78	-6,352.09	5,657.16	5,336.55	320.60	17.645		
14,800.00	7,226.75	4,452.00	4,518.00	222.88	153.71	-60.12	-4,291.78	-6,352.09	5,684.88	5,362.60	322.28	17.640 SF		
14,900.00	7,226.38	4,452.00	4,518.00	225.71	153.71	-60.12	-4,291.78	-6,352.09	5,714.23	5,390.33	323.90	17.642		
15,000.00	7,226.02	4,452.00	4,518.00	228.54	153.71	-60.12	-4,291.78	-6,352.09	5,745.16	5,419.70	325.46	17.652		
15,005.81	7,226.00	4,452.00	4,518.00	228.71	153.71	-60.12	-4,291.78	-6,352.09	5,747.01	5,421.45	325.55	17.653		

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



Anticollision Report



Company:	SRC ENERGY	Local Co-ordinate Reference:	Well HARVESTERS STATE 31C-16-M
Project:	SECTION 15, T6N, R66W	TVD Reference:	KB @ 4821.00ft
Reference Site:	HARVESTERS STATE 7-15 PAD	MD Reference:	KB @ 4821.00ft
Site Error:	3.28 ft	North Reference:	True
Reference Well:	HARVESTERS STATE 31C-16-M	Survey Calculation Method:	Minimum Curvature
Well Error:	3.28 ft	Output errors are at	2.45 sigma
Reference Wellbore	OH	Database:	EDM 5000.14 Single User Db
Reference Design:	PLAN #1	Offset TVD Reference:	Reference Datum

Offset Design HARVESTERS STATE 7-15 PAD - MCGLOTHLIN 8-6-17 (PR_150CC) - OH - OH													Offset Site Error:	0.00 ft
Survey Program: 82-MWVD													Offset Well Error:	3.28 ft
Reference		Offset		Semi Major Axis			Distance							Warning
Measured Depth (ft)	Vertical Depth (ft)	Measured Depth (ft)	Vertical Depth (ft)	Reference (ft)	Offset (ft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (ft)	+E/-W (ft)	Between Centres (ft)	Between Ellipses (ft)	Minimum Separation (ft)	Separation Factor		
0.00	0.00	1,377.00	1,307.28	3.28	7.39	-108.03	-2,869.13	-8,815.72	9,362.58					
100.00	100.00	1,412.43	1,342.28	3.28	7.56	-108.01	-2,865.04	-8,812.01	9,348.97	9,338.69	10.28	909.794		
200.00	200.00	1,471.00	1,400.14	3.34	7.85	-107.98	-2,857.85	-8,806.48	9,336.05	9,325.49	10.56	883.865		
300.00	300.00	1,543.73	1,473.73	3.44	8.39	-107.90	-2,840.34	-8,792.87	9,323.57	9,316.61	6.96	1,338.924		
400.00	400.00	1,660.00	1,586.91	3.60	8.77	-107.88	-2,835.31	-8,788.39	9,310.40	9,298.77	11.63	800.847		
500.00	500.00	1,707.07	1,633.45	3.81	9.00	-107.86	-2,830.24	-8,783.46	9,297.53	9,285.52	12.01	773.878		
600.00	600.00	1,755.00	1,680.96	4.05	9.23	-107.84	-2,825.39	-8,779.47	9,286.03	9,273.58	12.45	746.053		
700.00	699.98	1,935.95	1,859.98	4.32	10.12	-85.11	-2,804.56	-8,763.52	9,274.02	9,260.51	13.52	686.087		
800.00	799.84	2,275.54	2,194.79	4.62	11.90	-85.27	-2,759.09	-8,729.68	9,260.35	9,244.96	15.39	601.778		
900.00	899.62	2,363.99	2,281.83	4.94	12.39	-85.25	-2,746.79	-8,719.88	9,244.92	9,228.81	16.11	573.917		
1,000.00	999.41	2,510.00	2,425.38	5.27	13.19	-85.22	-2,726.64	-8,702.37	9,228.46	9,211.34	17.12	538.966		
1,100.00	1,099.19	2,567.43	2,481.86	5.62	13.50	-85.21	-2,719.15	-8,695.24	9,212.31	9,194.58	17.73	519.629		
1,200.00	1,198.98	2,754.12	2,665.68	5.99	14.53	-85.19	-2,695.56	-8,672.71	9,196.47	9,177.52	18.95	485.218		
1,300.00	1,298.76	2,792.00	2,702.94	6.36	14.74	-85.19	-2,690.61	-8,668.02	9,180.20	9,160.71	19.50	470.872		
1,400.00	1,398.55	2,792.00	2,702.94	6.74	14.74	-85.19	-2,690.61	-8,668.02	9,164.86	9,144.99	19.87	461.205		
1,500.00	1,498.33	2,831.95	2,742.32	7.13	14.95	-85.18	-2,685.68	-8,663.47	9,150.09	9,129.65	20.44	447.693		
1,600.00	1,598.12	2,849.12	2,759.29	7.52	15.04	-85.18	-2,683.73	-8,661.73	9,136.36	9,115.45	20.91	436.980		
1,700.00	1,697.90	1,700.00	2,790.24	7.92	9.28	-85.18	-2,680.52	-8,658.93	9,123.65	9,107.52	16.13	565.611		
1,800.00	1,797.69	3,049.73	2,957.73	8.33	16.07	-85.16	-2,660.95	-8,643.22	9,110.69	9,088.06	22.63	402.609		
1,900.00	1,897.47	3,195.92	3,102.06	8.74	16.85	-85.14	-2,642.43	-8,629.21	9,097.08	9,073.36	23.72	383.541		
2,000.00	1,997.26	3,262.00	3,167.33	9.15	17.20	-85.13	-2,634.37	-8,622.78	9,083.48	9,059.04	24.44	371.686		
2,100.00	2,097.04	3,389.55	3,293.31	9.56	17.87	-85.11	-2,618.98	-8,610.09	9,069.70	9,044.25	25.44	356.454		
2,200.00	2,196.83	3,449.00	3,352.04	9.98	18.19	-85.11	-2,611.79	-8,604.32	9,056.15	9,030.01	26.14	346.455		
2,300.00	2,296.61	3,543.00	3,444.90	10.40	18.69	-85.09	-2,600.37	-8,595.18	9,042.61	9,015.61	27.00	334.944		
2,400.00	2,396.40	4,488.00	4,368.51	10.82	24.30	-84.82	-2,451.99	-8,468.67	9,022.23	8,990.30	31.93	282.587		
2,500.00	2,496.18	4,538.91	4,417.89	11.24	24.62	-84.81	-2,443.67	-8,459.51	8,999.75	8,967.13	32.61	275.965		
2,600.00	2,595.96	4,583.00	4,460.81	11.66	24.90	-84.80	-2,436.77	-8,452.11	8,978.21	8,944.94	33.27	269.883		
2,700.00	2,695.75	4,583.00	4,460.81	12.09	24.90	-84.80	-2,436.77	-8,452.11	8,957.35	8,923.63	33.72	265.654		
2,800.00	2,795.53	4,583.00	4,460.81	12.51	24.90	-84.80	-2,436.77	-8,452.11	8,937.55	8,903.38	34.17	261.566		
2,900.00	2,895.32	4,621.88	4,498.80	12.94	25.13	-84.79	-2,431.08	-8,446.14	8,918.33	8,883.54	34.80	256.292		
3,000.00	2,995.10	4,638.48	4,515.08	13.37	25.23	-84.79	-2,428.81	-8,443.81	8,900.18	8,864.85	35.32	251.951		
3,100.00	3,094.89	4,678.00	4,553.95	13.80	25.46	-84.79	-2,423.82	-8,438.75	8,883.10	8,847.15	35.96	247.045		
3,200.00	3,194.67	4,678.00	4,553.95	14.23	25.46	-84.79	-2,423.82	-8,438.75	8,866.60	8,830.19	36.41	243.532		
3,300.00	3,294.46	4,678.00	4,553.95	14.66	25.46	-84.79	-2,423.82	-8,438.75	8,851.20	8,814.34	36.86	240.145		
3,400.00	3,394.24	4,740.29	4,615.42	15.09	25.79	-84.78	-2,416.74	-8,431.59	8,836.33	8,798.75	37.58	235.107		
3,500.00	3,494.03	4,772.00	4,646.77	15.52	25.96	-84.78	-2,413.41	-8,428.13	8,822.24	8,784.07	38.17	231.105		
3,600.00	3,593.81	4,831.77	4,705.92	15.96	26.27	-84.78	-2,407.49	-8,421.88	8,808.72	8,769.83	38.88	226.538		
3,700.00	3,693.60	4,867.00	4,740.81	16.39	26.45	-84.78	-2,404.17	-8,418.33	8,795.77	8,756.28	39.49	222.757		
3,800.00	3,793.38	4,913.47	4,786.88	16.82	26.68	-84.79	-2,400.00	-8,413.90	8,783.46	8,743.33	40.13	218.856		
3,900.00	3,893.17	4,961.00	4,834.06	17.26	26.92	-84.79	-2,395.96	-8,409.78	8,771.92	8,731.13	40.79	215.073		
4,000.00	3,992.95	5,000.49	4,873.28	17.69	27.11	-84.79	-2,392.76	-8,406.56	8,760.99	8,719.59	41.40	211.621		
4,100.00	4,092.74	5,056.00	4,928.46	18.13	27.37	-84.80	-2,388.45	-8,402.19	8,750.56	8,708.47	42.08	207.938		
4,200.00	4,192.52	5,056.00	4,928.46	18.56	27.37	-84.80	-2,388.45	-8,402.19	8,740.96	8,698.44	42.52	205.568		
4,300.00	4,292.31	5,110.99	4,983.17	19.00	27.62	-84.81	-2,384.51	-8,398.38	8,731.85	8,688.65	43.20	202.145		
4,400.00	4,392.09	5,150.00	5,022.04	19.43	27.80	-84.81	-2,381.97	-8,396.19	8,723.77	8,679.97	43.80	199.171		
4,500.00	4,491.88	5,184.96	5,056.89	19.87	27.95	-84.82	-2,379.88	-8,394.44	8,716.41	8,672.03	44.38	196.394		
4,600.00	4,591.66	5,243.00	5,114.77	20.31	28.20	-84.83	-2,376.74	-8,391.59	8,709.52	8,664.46	45.06	193.275		
4,700.00	4,691.44	5,277.93	5,149.63	20.74	28.35	-84.83	-2,375.07	-8,390.03	8,703.26	8,657.62	45.64	190.700		
4,800.00	4,791.23	5,336.00	5,207.61	21.18	28.59	-84.85	-2,372.65	-8,388.03	8,697.92	8,651.60	46.31	187.810		
4,900.00	4,891.01	5,336.00	5,207.61	21.62	28.59	-84.85	-2,372.65	-8,388.03	8,693.10	8,646.37	46.73	186.017		
5,000.00	4,990.80	5,393.94	5,265.51	22.06	28.81	-84.86	-2,370.80	-8,386.50	8,689.05	8,641.66	47.40	183.326		
5,100.00	5,090.58	5,430.00	5,301.54	22.50	28.95	-84.88	-2,369.98	-8,385.64	8,685.61	8,637.64	47.97	181.081		

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



Anticollision Report



Company:	SRC ENERGY	Local Co-ordinate Reference:	Well HARVESTERS STATE 31C-16-M
Project:	SECTION 15, T6N, R66W	TVD Reference:	KB @ 4821.00ft
Reference Site:	HARVESTERS STATE 7-15 PAD	MD Reference:	KB @ 4821.00ft
Site Error:	3.28 ft	North Reference:	True
Reference Well:	HARVESTERS STATE 31C-16-M	Survey Calculation Method:	Minimum Curvature
Well Error:	3.28 ft	Output errors are at	2.45 sigma
Reference Wellbore	OH	Database:	EDM 5000.14 Single User Db
Reference Design:	PLAN #1	Offset TVD Reference:	Reference Datum

Offset Design HARVESTERS STATE 7-15 PAD - MCGLOTHLIN 8-6-17 (PR_150CC) - OH - OH													Offset Site Error: 0.00 ft	
Survey Program: 82-MWD													Offset Well Error: 3.28 ft	
Reference		Offset		Semi Major Axis			Distance							Warning
Measured Depth	Vertical Depth	Measured Depth	Vertical Depth	Reference	Offset	Highside Toolface	Offset Wellbore Centre	Between Centres	Between Ellipses	Minimum Separation	Separation Factor			
(ft)	(ft)	(ft)	(ft)	(ft)	(ft)	(°)	+N/-S (ft)	+E/-W (ft)	(ft)	(ft)	(ft)			
5,200.00	5,190.37	5,517.73	5,389.23	22.93	29.28	-84.91	-2,368.11	-8,383.91	8,682.52	8,633.76	48.75	178.087		
5,300.00	5,290.15	5,586.22	5,457.70	23.37	29.54	-84.93	-2,366.34	-8,382.96	8,679.82	8,630.36	49.46	175.490		
5,400.00	5,389.94	5,654.76	5,526.20	23.81	29.80	-84.94	-2,364.30	-8,382.35	8,677.48	8,627.32	50.17	172.973		
5,500.00	5,489.72	5,711.00	5,582.41	24.25	30.01	-84.96	-2,362.43	-8,382.11	8,675.53	8,624.71	50.82	170.716		
5,600.00	5,589.51	5,793.30	5,664.67	24.69	30.32	-84.98	-2,359.63	-8,382.09	8,673.89	8,622.31	51.59	168.148		
5,700.00	5,689.29	5,863.07	5,734.39	25.13	30.58	-84.99	-2,357.36	-8,382.31	8,672.63	8,620.33	52.30	165.837		
5,800.00	5,789.08	5,932.84	5,804.13	25.56	30.84	-85.01	-2,355.17	-8,382.76	8,671.71	8,618.70	53.01	163.597		
5,900.00	5,888.86	6,006.95	5,878.20	26.00	31.11	-85.02	-2,352.96	-8,383.48	8,671.13	8,617.40	53.74	161.367		
6,000.00	5,988.65	6,116.53	5,987.74	26.44	31.51	-85.05	-2,349.83	-8,384.57	8,670.63	8,616.01	54.62	158.745		
6,100.00	6,088.43	6,226.09	6,097.26	26.88	31.92	-85.08	-2,346.89	-8,385.47	8,670.02	8,614.51	55.50	156.206		
6,200.00	6,188.22	6,333.01	6,204.13	27.32	32.32	-85.10	-2,344.04	-8,386.23	8,669.30	8,612.92	56.38	153.761		
6,300.00	6,288.00	6,437.59	6,308.65	27.76	32.71	-85.12	-2,340.46	-8,387.16	8,668.53	8,611.28	57.25	151.403		
6,400.00	6,387.79	6,542.22	6,413.17	28.20	33.11	-85.14	-2,335.97	-8,388.33	8,667.71	8,609.58	58.13	149.114		
6,500.00	6,487.57	6,719.88	6,590.54	28.64	33.83	-85.15	-2,326.08	-8,390.25	8,666.50	8,607.13	59.36	145.998		
6,600.00	6,587.35	6,600.00	6,682.76	29.08	33.34	-85.14	-2,319.32	-8,390.79	8,664.27	8,605.00	59.28	146.169		
6,700.00	6,687.02	6,945.83	6,815.87	29.52	34.76	-47.34	-2,309.41	-8,391.84	8,659.97	8,598.73	61.24	141.409		
6,800.00	6,784.98	7,018.36	6,888.16	29.96	35.06	-31.86	-2,303.57	-8,392.72	8,642.79	8,580.80	61.99	139.423		
6,900.00	6,878.81	7,088.14	6,957.69	30.41	35.35	-28.34	-2,297.81	-8,393.83	8,611.51	8,548.80	62.71	137.328		
7,000.00	6,966.21	7,154.32	7,023.62	30.86	35.63	-27.93	-2,292.25	-8,395.10	8,566.88	8,503.50	63.38	135.168		
7,100.00	7,045.03	7,215.48	7,084.59	31.35	35.87	-29.32	-2,287.50	-8,396.30	8,509.94	8,445.95	63.99	132.985		
7,200.00	7,113.32	7,268.77	7,137.74	31.90	36.09	-32.44	-2,283.75	-8,397.34	8,442.07	8,377.53	64.53	130.817		
7,300.00	7,169.40	7,312.85	7,181.72	32.57	36.27	-37.81	-2,280.92	-8,398.18	8,364.89	8,299.89	65.00	128.690		
7,400.00	7,211.89	7,346.65	7,215.45	33.38	36.41	-46.66	-2,278.92	-8,398.83	8,280.29	8,214.89	65.39	126.623		
7,500.00	7,239.75	7,369.33	7,238.09	34.35	36.50	-61.02	-2,277.66	-8,399.26	8,190.31	8,124.59	65.72	124.631		
7,600.00	7,252.28	7,384.17	7,248.58	35.47	36.56	-82.43	-2,277.09	-8,399.46	8,097.17	8,031.17	65.99	122.698		
7,700.00	7,252.75	7,382.22	7,250.96	36.73	36.55	-90.54	-2,276.97	-8,399.50	8,003.08	7,936.88	66.20	120.893		
7,800.00	7,252.38	7,383.77	7,252.51	38.16	36.56	-90.58	-2,276.89	-8,399.53	7,909.11	7,842.65	66.46	119.012		
7,900.00	7,252.02	7,385.33	7,254.06	39.74	36.57	-90.61	-2,276.81	-8,399.56	7,815.29	7,748.54	66.75	117.078		
8,000.00	7,251.65	7,386.88	7,255.61	41.47	36.57	-90.64	-2,276.72	-8,399.59	7,721.62	7,654.53	67.09	115.095		
8,100.00	7,251.29	7,388.43	7,257.16	43.31	36.58	-90.67	-2,276.64	-8,399.62	7,628.12	7,560.65	67.47	113.062		
8,200.00	7,250.92	7,389.99	7,258.72	45.26	36.58	-90.71	-2,276.56	-8,399.65	7,534.78	7,466.89	67.89	110.984		
8,300.00	7,250.55	7,391.54	7,260.27	47.30	36.59	-90.74	-2,276.48	-8,399.68	7,441.61	7,373.25	68.36	108.861		
8,400.00	7,250.19	7,393.09	7,261.82	49.42	36.60	-90.77	-2,276.40	-8,399.71	7,348.62	7,279.75	68.87	106.698		
8,500.00	7,249.82	7,394.65	7,263.37	51.62	36.60	-90.80	-2,276.32	-8,399.74	7,255.82	7,186.39	69.44	104.497		
8,600.00	7,249.45	7,396.20	7,264.92	53.88	36.61	-90.84	-2,276.24	-8,399.77	7,163.22	7,093.17	70.05	102.261		
8,700.00	7,249.09	7,397.75	7,266.47	56.19	36.61	-90.87	-2,276.15	-8,399.80	7,070.81	7,000.10	70.71	99.996		
8,800.00	7,248.72	7,399.30	7,268.02	58.55	36.62	-90.90	-2,276.07	-8,399.83	6,978.61	6,907.19	71.43	97.704		
8,900.00	7,248.36	7,400.86	7,269.57	60.96	36.63	-90.93	-2,275.99	-8,399.86	6,886.63	6,814.44	72.19	95.390		
9,000.00	7,247.99	7,402.41	7,271.12	63.40	36.63	-90.97	-2,275.91	-8,399.89	6,794.88	6,721.86	73.02	93.058		
9,100.00	7,247.62	7,403.96	7,272.67	65.87	36.64	-91.00	-2,275.83	-8,399.91	6,703.36	6,629.46	73.90	90.713		
9,200.00	7,247.26	7,405.52	7,274.22	68.38	36.65	-91.03	-2,275.75	-8,399.94	6,612.09	6,537.26	74.83	88.359		
9,300.00	7,246.89	7,407.07	7,275.77	70.91	36.65	-91.07	-2,275.66	-8,399.97	6,521.07	6,445.24	75.83	86.001		
9,400.00	7,246.53	7,408.62	7,277.32	73.47	36.66	-91.10	-2,275.58	-8,400.00	6,430.32	6,353.44	76.88	83.642		
9,500.00	7,246.16	7,410.18	7,278.87	76.05	36.66	-91.13	-2,275.50	-8,400.03	6,339.85	6,261.85	77.99	81.287		
9,600.00	7,245.79	7,411.73	7,280.43	78.65	36.67	-91.16	-2,275.42	-8,400.06	6,249.66	6,170.49	79.17	78.940		
9,700.00	7,245.43	7,413.28	7,281.98	81.27	36.68	-91.20	-2,275.34	-8,400.09	6,159.78	6,079.37	80.41	76.606		
9,800.00	7,245.06	7,414.84	7,283.53	83.90	36.68	-91.23	-2,275.26	-8,400.12	6,070.22	5,988.51	81.71	74.287		
9,900.00	7,244.69	7,416.39	7,285.08	86.55	36.69	-91.26	-2,275.17	-8,400.15	5,980.99	5,897.90	83.08	71.988		
10,000.00	7,244.33	7,417.94	7,286.63	89.21	36.69	-91.29	-2,275.09	-8,400.18	5,892.10	5,807.58	84.52	69.713		
10,100.00	7,243.96	7,419.49	7,288.18	91.88	36.70	-91.33	-2,275.01	-8,400.21	5,803.57	5,717.55	86.03	67.463		
10,200.00	7,243.60	7,421.05	7,289.73	94.56	36.71	-91.36	-2,274.93	-8,400.24	5,715.42	5,627.82	87.60	65.243		
10,300.00	7,243.23	7,422.60	7,291.28	97.26	36.71	-91.39	-2,274.85	-8,400.27	5,627.67	5,538.42	89.25	63.054		

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



Anticollision Report



Company:	SRC ENERGY	Local Co-ordinate Reference:	Well HARVESTERS STATE 31C-16-M
Project:	SECTION 15, T6N, R66W	TVD Reference:	KB @ 4821.00ft
Reference Site:	HARVESTERS STATE 7-15 PAD	MD Reference:	KB @ 4821.00ft
Site Error:	3.28 ft	North Reference:	True
Reference Well:	HARVESTERS STATE 31C-16-M	Survey Calculation Method:	Minimum Curvature
Well Error:	3.28 ft	Output errors are at	2.45 sigma
Reference Wellbore	OH	Database:	EDM 5000.14 Single User Db
Reference Design:	PLAN #1	Offset TVD Reference:	Reference Datum

Offset Design HARVESTERS STATE 7-15 PAD - MCGLOTHLIN 8-6-17 (PR_150CC) - OH - OH												Offset Site Error:	0.00 ft
Survey Program: 82-MWDD												Offset Well Error:	3.28 ft
Reference		Offset		Semi Major Axis			Distance						Warning
Measured Depth (ft)	Vertical Depth (ft)	Measured Depth (ft)	Vertical Depth (ft)	Reference (ft)	Offset (ft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (ft)	+E/-W (ft)	Between Centres (ft)	Between Ellipses (ft)	Minimum Separation (ft)	Separation Factor	
10,400.00	7,242.86	7,424.15	7,292.83	99.96	36.72	-91.43	-2,274.77	-8,400.30	5,540.33	5,449.36	90.97	60.900	
10,500.00	7,242.50	7,425.71	7,294.38	102.67	36.73	-91.46	-2,274.69	-8,400.33	5,453.43	5,360.65	92.77	58.783	
10,600.00	7,242.13	7,427.26	7,295.93	105.39	36.73	-91.49	-2,274.60	-8,400.35	5,366.98	5,272.33	94.65	56.705	
10,700.00	7,241.76	7,428.81	7,297.48	108.12	36.74	-91.52	-2,274.52	-8,400.38	5,281.01	5,184.41	96.60	54.667	
10,800.00	7,241.40	7,430.37	7,299.03	110.85	36.74	-91.56	-2,274.44	-8,400.41	5,195.54	5,096.90	98.64	52.672	
10,900.00	7,241.03	7,431.92	7,300.58	113.59	36.75	-91.59	-2,274.36	-8,400.44	5,110.60	5,009.84	100.76	50.720	
11,000.00	7,240.67	7,433.47	7,302.13	116.34	36.76	-91.62	-2,274.28	-8,400.47	5,026.21	4,923.24	102.97	48.814	
11,100.00	7,240.30	7,435.03	7,303.69	119.09	36.76	-91.65	-2,274.20	-8,400.50	4,942.40	4,837.14	105.26	46.954	
11,200.00	7,239.93	7,436.58	7,305.24	121.85	36.77	-91.69	-2,274.11	-8,400.53	4,859.21	4,751.56	107.65	45.141	
11,300.00	7,239.57	7,438.13	7,306.79	124.61	36.77	-91.72	-2,274.03	-8,400.56	4,776.66	4,666.54	110.12	43.375	
11,400.00	7,239.20	7,439.68	7,308.34	127.38	36.78	-91.75	-2,273.95	-8,400.59	4,694.79	4,582.12	112.68	41.666	
11,500.00	7,238.84	7,441.23	7,309.89	130.15	36.78	-91.78	-2,273.87	-8,400.62	4,613.64	4,498.30	115.34	40.000	
11,600.00	7,238.47	7,442.78	7,311.44	132.92	36.79	-91.81	-2,273.79	-8,400.65	4,533.23	4,415.13	118.11	38.382	
11,700.00	7,238.10	7,444.33	7,312.99	135.70	36.79	-91.84	-2,273.71	-8,400.68	4,453.63	4,332.65	120.98	36.814	
11,800.00	7,237.74	7,445.88	7,314.54	138.48	36.79	-91.87	-2,273.63	-8,400.71	4,374.85	4,250.90	123.95	35.295	
11,900.00	7,237.37	7,447.43	7,316.09	141.26	36.80	-91.90	-2,273.55	-8,400.74	4,296.97	4,169.93	127.03	33.826	
12,000.00	7,237.00	7,448.98	7,317.64	144.05	36.80	-91.93	-2,273.47	-8,400.77	4,220.01	4,089.79	130.22	32.406	
12,100.00	7,236.64	7,450.53	7,319.19	146.84	36.81	-91.96	-2,273.39	-8,400.80	4,144.04	4,010.51	133.53	31.035	
12,200.00	7,236.27	7,452.08	7,320.74	149.64	36.81	-91.99	-2,273.31	-8,400.83	4,069.11	3,932.16	136.95	29.713	
12,300.00	7,235.91	7,453.63	7,322.29	152.43	36.82	-92.02	-2,273.23	-8,400.86	3,995.27	3,854.79	140.48	28.440	
12,400.00	7,235.54	7,455.18	7,323.84	155.23	36.82	-92.05	-2,273.15	-8,400.89	3,922.60	3,778.47	144.13	27.215	
12,500.00	7,235.17	7,456.73	7,325.39	158.03	36.83	-92.08	-2,273.07	-8,400.92	3,851.15	3,703.25	147.90	26.038	
12,600.00	7,234.81	7,458.28	7,326.94	160.83	36.83	-92.11	-2,272.99	-8,400.95	3,780.99	3,629.20	151.79	24.909	
12,700.00	7,234.44	7,459.83	7,328.49	163.64	36.84	-92.14	-2,272.91	-8,400.98	3,712.21	3,556.41	155.80	23.827	
12,800.00	7,234.07	7,461.38	7,330.04	166.44	36.84	-92.17	-2,272.83	-8,401.01	3,644.87	3,484.95	159.92	22.792	
12,900.00	7,233.71	7,462.93	7,331.59	169.25	36.85	-92.20	-2,272.75	-8,401.04	3,579.05	3,414.90	164.16	21.803	
13,000.00	7,233.34	7,464.48	7,333.14	172.06	36.85	-92.23	-2,272.67	-8,401.07	3,514.85	3,346.35	168.51	20.859	
13,100.00	7,232.98	7,466.03	7,334.69	174.88	36.86	-92.26	-2,272.59	-8,401.10	3,452.36	3,279.39	172.97	19.959	
13,200.00	7,232.61	7,467.58	7,336.24	177.69	36.86	-92.29	-2,272.51	-8,401.13	3,391.66	3,214.12	177.53	19.104	
13,300.00	7,232.24	7,469.13	7,337.79	180.50	36.87	-92.32	-2,272.43	-8,401.16	3,332.85	3,150.66	182.20	18.293	
13,400.00	7,231.88	7,470.68	7,339.34	183.32	36.87	-92.35	-2,272.35	-8,401.19	3,276.05	3,089.10	186.95	17.524	
13,500.00	7,231.51	7,472.23	7,340.89	186.14	36.88	-92.38	-2,272.27	-8,401.22	3,221.34	3,029.56	191.78	16.797	
13,600.00	7,231.15	7,473.78	7,342.44	188.96	36.88	-92.41	-2,272.19	-8,401.25	3,168.85	2,972.16	196.69	16.111	
13,700.00	7,230.78	7,475.33	7,343.99	191.78	36.89	-92.44	-2,272.11	-8,401.28	3,118.69	2,917.04	201.65	15.466	
13,800.00	7,230.41	7,476.88	7,345.54	194.60	36.89	-92.47	-2,272.03	-8,401.31	3,070.96	2,864.31	206.65	14.861	
13,900.00	7,230.05	7,478.43	7,347.09	197.42	36.90	-92.50	-2,271.95	-8,401.34	3,025.78	2,814.11	211.67	14.295	
14,000.00	7,229.68	7,479.98	7,348.64	200.25	36.90	-92.53	-2,271.87	-8,401.37	2,983.27	2,766.57	216.70	13.767	
14,100.00	7,229.31	7,481.53	7,350.19	203.07	36.91	-92.56	-2,271.79	-8,401.40	2,943.55	2,721.83	221.72	13.276	
14,200.00	7,228.95	7,483.08	7,351.74	205.90	36.91	-92.59	-2,271.71	-8,401.43	2,906.73	2,680.04	226.69	12.823	
14,300.00	7,228.58	7,484.63	7,353.29	208.73	36.92	-92.62	-2,271.63	-8,401.46	2,872.91	2,641.31	231.60	12.405	
14,400.00	7,228.22	7,486.18	7,354.84	211.55	36.92	-92.65	-2,271.55	-8,401.49	2,842.22	2,605.80	236.42	12.022	
14,500.00	7,227.85	7,487.73	7,356.39	214.38	36.93	-92.68	-2,271.47	-8,401.52	2,814.74	2,573.62	241.12	11.673	
14,600.00	7,227.48	7,489.28	7,357.94	217.21	36.93	-92.71	-2,271.39	-8,401.55	2,790.58	2,544.90	245.68	11.359	
14,700.00	7,227.12	7,490.83	7,359.49	220.04	36.94	-92.74	-2,271.31	-8,401.58	2,769.82	2,519.75	250.07	11.076	
14,800.00	7,226.75	7,492.38	7,361.04	222.88	36.94	-92.77	-2,271.23	-8,401.61	2,752.54	2,498.28	254.26	10.826	
14,900.00	7,226.38	7,493.93	7,362.59	225.71	36.95	-92.80	-2,271.15	-8,401.64	2,738.80	2,480.58	258.22	10.606	
15,000.00	7,226.02	7,495.48	7,364.14	228.54	36.95	-92.83	-2,271.07	-8,401.67	2,728.67	2,466.73	261.94	10.417	
15,005.81	7,226.00	7,495.48	7,364.14	228.71	36.95	-92.83	-2,271.07	-8,401.67	2,728.19	2,466.04	262.15	10.407	CC, ES, SF



Anticollision Report



Company:	SRC ENERGY	Local Co-ordinate Reference:	Well HARVESTERS STATE 31C-16-M
Project:	SECTION 15, T6N, R66W	TVD Reference:	KB @ 4821.00ft
Reference Site:	HARVESTERS STATE 7-15 PAD	MD Reference:	KB @ 4821.00ft
Site Error:	3.28 ft	North Reference:	True
Reference Well:	HARVESTERS STATE 31C-16-M	Survey Calculation Method:	Minimum Curvature
Well Error:	3.28 ft	Output errors are at	2.45 sigma
Reference Wellbore	OH	Database:	EDM 5000.14 Single User Db
Reference Design:	PLAN #1	Offset TVD Reference:	Reference Datum

Offset Design HARVESTERS STATE 7-15 PAD - MCGLOTHLIN 17-11(PR_75CC) - OH - OH													Offset Site Error:	0.00 ft
Survey Program: 100-2" Cone@2.448 Sigma													Offset Well Error:	3.28 ft
Reference		Offset		Semi Major Axis			Distance							Warning
Measured Depth (ft)	Vertical Depth (ft)	Measured Depth (ft)	Vertical Depth (ft)	Reference (ft)	Offset (ft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (ft)	+E/-W (ft)	Between Centres (ft)	Between Ellipses (ft)	Minimum Separation (ft)	Separation Factor		
0.00	0.00	0.00	30.00	3.28	3.28	-83.03	1,117.94	-9,145.02	9,213.14					
100.00	100.00	70.00	100.00	3.28	3.50	-83.03	1,117.94	-9,145.02	9,213.09	9,206.31	6.78	1,357.881		
200.00	200.00	170.00	200.00	3.34	5.32	-83.03	1,117.94	-9,145.02	9,213.09	9,204.44	8.66	1,064.170		
300.00	300.00	270.00	300.00	3.44	8.35	-83.03	1,117.94	-9,145.02	9,213.09	9,201.30	11.80	781.023		
400.00	400.00	370.00	400.00	3.60	11.64	-83.03	1,117.94	-9,145.02	9,213.09	9,197.85	15.25	604.291		
500.00	500.00	470.00	500.00	3.81	15.02	-83.03	1,117.94	-9,145.02	9,213.09	9,194.26	18.83	489.261		
600.00	600.00	570.00	600.00	4.05	18.45	-83.03	1,117.94	-9,145.02	9,213.09	9,190.60	22.49	409.590		
700.00	699.98	669.98	699.98	4.32	21.89	-60.16	1,117.94	-9,145.02	9,212.23	9,186.02	26.21	351.510		
800.00	799.84	769.84	799.84	4.62	25.34	-60.22	1,117.94	-9,145.02	9,209.63	9,179.68	29.96	307.440		
900.00	899.62	869.62	899.62	4.94	28.80	-60.26	1,117.94	-9,145.02	9,206.37	9,172.64	33.73	272.943		
1,000.00	999.41	969.41	999.41	5.27	32.26	-60.29	1,117.94	-9,145.02	9,203.12	9,165.59	37.53	245.236		
1,100.00	1,099.19	1,069.19	1,099.19	5.62	35.73	-60.33	1,117.94	-9,145.02	9,199.86	9,158.52	41.34	222.520		
1,200.00	1,198.98	1,168.98	1,198.98	5.99	39.20	-60.36	1,117.94	-9,145.02	9,196.61	9,151.44	45.18	203.575		
1,300.00	1,298.76	1,268.76	1,298.76	6.36	42.67	-60.40	1,117.94	-9,145.02	9,193.37	9,144.35	49.02	187.546		
1,400.00	1,398.55	1,368.55	1,398.55	6.74	46.15	-60.43	1,117.94	-9,145.02	9,190.12	9,137.25	52.87	173.815		
1,500.00	1,498.33	1,468.33	1,498.33	7.13	49.62	-60.47	1,117.94	-9,145.02	9,186.89	9,130.15	56.74	161.925		
1,600.00	1,598.12	1,568.12	1,598.12	7.52	53.10	-60.51	1,117.94	-9,145.02	9,183.65	9,123.04	60.60	151.534		
1,700.00	1,697.90	1,667.90	1,697.90	7.92	56.58	-60.54	1,117.94	-9,145.02	9,180.42	9,115.94	64.48	142.376		
1,800.00	1,797.69	1,767.69	1,797.69	8.33	60.05	-60.58	1,117.94	-9,145.02	9,177.19	9,108.83	68.36	134.247		
1,900.00	1,897.47	1,867.47	1,897.47	8.74	63.53	-60.61	1,117.94	-9,145.02	9,173.96	9,101.72	72.25	126.984		
2,000.00	1,997.26	1,967.26	1,997.26	9.15	67.01	-60.65	1,117.94	-9,145.02	9,170.74	9,094.61	76.13	120.456		
2,100.00	2,097.04	2,067.04	2,097.04	9.56	70.49	-60.68	1,117.94	-9,145.02	9,167.52	9,087.50	80.03	114.558		
2,200.00	2,196.83	2,166.83	2,196.83	9.98	73.97	-60.72	1,117.94	-9,145.02	9,164.31	9,080.39	83.92	109.203		
2,300.00	2,296.61	2,266.61	2,296.61	10.40	77.45	-60.76	1,117.94	-9,145.02	9,161.10	9,073.28	87.82	104.320		
2,400.00	2,396.40	2,366.40	2,396.40	10.82	80.93	-60.79	1,117.94	-9,145.02	9,157.89	9,066.18	91.72	99.850		
2,500.00	2,496.18	2,466.18	2,496.18	11.24	84.41	-60.83	1,117.94	-9,145.02	9,154.69	9,059.07	95.62	95.742		
2,600.00	2,595.96	2,565.96	2,595.96	11.66	87.89	-60.86	1,117.94	-9,145.02	9,151.49	9,051.97	99.52	91.955		
2,700.00	2,695.75	2,665.75	2,695.75	12.09	91.37	-60.90	1,117.94	-9,145.02	9,148.29	9,044.87	103.43	88.453		
2,800.00	2,795.53	2,765.53	2,795.53	12.51	94.86	-60.93	1,117.94	-9,145.02	9,145.10	9,037.77	107.33	85.204		
2,900.00	2,895.32	2,865.32	2,895.32	12.94	98.34	-60.97	1,117.94	-9,145.02	9,141.91	9,030.67	111.24	82.183		
3,000.00	2,995.10	2,965.10	2,995.10	13.37	101.82	-61.01	1,117.94	-9,145.02	9,138.72	9,023.58	115.15	79.365		
3,100.00	3,094.89	3,064.89	3,094.89	13.80	105.30	-61.04	1,117.94	-9,145.02	9,135.54	9,016.49	119.06	76.733		
3,200.00	3,194.67	3,164.67	3,194.67	14.23	108.78	-61.08	1,117.94	-9,145.02	9,132.36	9,009.40	122.97	74.267		
3,300.00	3,294.46	3,264.46	3,294.46	14.66	112.26	-61.11	1,117.94	-9,145.02	9,129.19	9,002.31	126.88	71.952		
3,400.00	3,394.24	3,364.24	3,394.24	15.09	115.75	-61.15	1,117.94	-9,145.02	9,126.02	8,995.23	130.79	69.776		
3,500.00	3,494.03	3,464.03	3,494.03	15.52	119.23	-61.19	1,117.94	-9,145.02	9,122.85	8,988.15	134.70	67.725		
3,600.00	3,593.81	3,563.81	3,593.81	15.96	122.71	-61.22	1,117.94	-9,145.02	9,119.69	8,981.07	138.62	65.791		
3,700.00	3,693.60	3,663.60	3,693.60	16.39	126.19	-61.26	1,117.94	-9,145.02	9,116.53	8,973.99	142.53	63.962		
3,800.00	3,793.38	3,763.38	3,793.38	16.82	129.68	-61.29	1,117.94	-9,145.02	9,113.37	8,966.92	146.45	62.230		
3,900.00	3,893.17	3,863.17	3,893.17	17.26	133.16	-61.33	1,117.94	-9,145.02	9,110.22	8,959.85	150.36	60.589		
4,000.00	3,992.95	3,962.95	3,992.95	17.69	136.64	-61.37	1,117.94	-9,145.02	9,107.07	8,952.79	154.28	59.031		
4,100.00	4,092.74	4,062.74	4,092.74	18.13	140.12	-61.40	1,117.94	-9,145.02	9,103.92	8,945.73	158.19	57.550		
4,200.00	4,192.52	4,162.52	4,192.52	18.56	143.61	-61.44	1,117.94	-9,145.02	9,100.78	8,938.67	162.11	56.140		
4,300.00	4,292.31	4,262.31	4,292.31	19.00	147.09	-61.47	1,117.94	-9,145.02	9,097.64	8,931.61	166.03	54.797		
4,400.00	4,392.09	4,362.09	4,392.09	19.43	150.57	-61.51	1,117.94	-9,145.02	9,094.50	8,924.56	169.94	53.515		
4,500.00	4,491.88	4,461.88	4,491.88	19.87	154.05	-61.55	1,117.94	-9,145.02	9,091.37	8,917.51	173.86	52.291		
4,600.00	4,591.66	4,561.66	4,591.66	20.31	157.54	-61.58	1,117.94	-9,145.02	9,088.24	8,910.47	177.78	51.121		
4,700.00	4,691.44	4,661.44	4,691.44	20.74	161.02	-61.62	1,117.94	-9,145.02	9,085.12	8,903.42	181.70	50.002		
4,800.00	4,791.23	4,761.23	4,791.23	21.18	164.50	-61.66	1,117.94	-9,145.02	9,082.00	8,896.39	185.61	48.929		
4,900.00	4,891.01	4,861.01	4,891.01	21.62	167.98	-61.69	1,117.94	-9,145.02	9,078.88	8,889.35	189.53	47.901		
5,000.00	4,990.80	4,960.80	4,990.80	22.06	171.47	-61.73	1,117.94	-9,145.02	9,075.77	8,882.32	193.45	46.915		
5,100.00	5,090.58	5,060.58	5,090.58	22.50	174.95	-61.77	1,117.94	-9,145.02	9,072.66	8,875.29	197.37	45.967		

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



Anticollision Report



Company:	SRC ENERGY	Local Co-ordinate Reference:	Well HARVESTERS STATE 31C-16-M
Project:	SECTION 15, T6N, R66W	TVD Reference:	KB @ 4821.00ft
Reference Site:	HARVESTERS STATE 7-15 PAD	MD Reference:	KB @ 4821.00ft
Site Error:	3.28 ft	North Reference:	True
Reference Well:	HARVESTERS STATE 31C-16-M	Survey Calculation Method:	Minimum Curvature
Well Error:	3.28 ft	Output errors are at	2.45 sigma
Reference Wellbore	OH	Database:	EDM 5000.14 Single User Db
Reference Design:	PLAN #1	Offset TVD Reference:	Reference Datum

Offset Design HARVESTERS STATE 7-15 PAD - MCGLOTHLIN 17-11(PR_75CC) - OH - OH													Offset Site Error:	0.00 ft
Survey Program: 100-2" Cone@2.448 Sigma													Offset Well Error:	3.28 ft
Reference		Offset		Semi Major Axis			Distance							Warning
Measured Depth (ft)	Vertical Depth (ft)	Measured Depth (ft)	Vertical Depth (ft)	Reference (ft)	Offset (ft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (ft)	+E/-W (ft)	Between Centres (ft)	Between Ellipses (ft)	Minimum Separation (ft)	Separation Factor		
5,200.00	5,190.37	5,160.37	5,190.37	22.93	178.43	-61.80	1,117.94	-9,145.02	9,069.56	8,868.26	201.29	45.057		
5,300.00	5,290.15	5,260.15	5,290.15	23.37	181.92	-61.84	1,117.94	-9,145.02	9,066.45	8,861.24	205.21	44.181		
5,400.00	5,389.94	5,359.94	5,389.94	23.81	185.40	-61.87	1,117.94	-9,145.02	9,063.36	8,854.22	209.13	43.338		
5,500.00	5,489.72	5,459.72	5,489.72	24.25	188.88	-61.91	1,117.94	-9,145.02	9,060.26	8,847.21	213.05	42.526		
5,600.00	5,589.51	5,559.51	5,589.51	24.69	192.37	-61.95	1,117.94	-9,145.02	9,057.17	8,840.20	216.97	41.744		
5,700.00	5,689.29	5,659.29	5,689.29	25.13	195.85	-61.98	1,117.94	-9,145.02	9,054.08	8,833.19	220.89	40.989		
5,800.00	5,789.08	5,759.08	5,789.08	25.56	199.33	-62.02	1,117.94	-9,145.02	9,051.00	8,826.19	224.81	40.260		
5,900.00	5,888.86	5,858.86	5,888.86	26.00	202.81	-62.06	1,117.94	-9,145.02	9,047.92	8,819.19	228.73	39.557		
6,000.00	5,988.65	5,958.65	5,988.65	26.44	206.30	-62.09	1,117.94	-9,145.02	9,044.84	8,812.19	232.65	38.877		
6,100.00	6,088.43	6,058.43	6,088.43	26.88	209.78	-62.13	1,117.94	-9,145.02	9,041.77	8,805.20	236.57	38.220		
6,200.00	6,188.22	6,158.22	6,188.22	27.32	213.26	-62.17	1,117.94	-9,145.02	9,038.70	8,798.21	240.49	37.584		
6,300.00	6,288.00	6,258.00	6,288.00	27.76	216.75	-62.20	1,117.94	-9,145.02	9,035.64	8,791.22	244.42	36.968		
6,400.00	6,387.79	6,357.79	6,387.79	28.20	220.23	-62.24	1,117.94	-9,145.02	9,032.58	8,784.24	248.34	36.372		
6,500.00	6,487.57	6,457.57	6,487.57	28.64	223.71	-62.28	1,117.94	-9,145.02	9,029.52	8,777.26	252.26	35.795		
6,600.00	6,587.35	6,557.35	6,587.35	29.08	227.20	-62.31	1,117.94	-9,145.02	9,026.46	8,770.28	256.18	35.235		
6,700.00	6,687.02	6,657.02	6,687.02	29.52	230.67	-24.43	1,117.94	-9,145.02	9,021.20	8,761.10	260.10	34.684		
6,800.00	6,784.98	6,754.98	6,784.98	29.96	234.09	-8.31	1,117.94	-9,145.02	9,002.11	8,738.17	263.95	34.106		
6,900.00	6,878.81	6,848.81	6,878.81	30.41	237.37	-3.51	1,117.94	-9,145.02	8,967.98	8,700.34	267.63	33.509		
7,000.00	6,966.21	6,936.21	6,966.21	30.86	240.42	-1.01	1,117.94	-9,145.02	8,919.62	8,648.56	271.06	32.907		
7,100.00	7,045.03	7,015.03	7,045.03	31.35	243.17	0.83	1,117.94	-9,145.02	8,858.24	8,584.10	274.14	32.313		
7,200.00	7,113.32	7,083.32	7,113.32	31.90	245.56	2.64	1,117.94	-9,145.02	8,785.34	8,508.55	276.79	31.740		
7,300.00	7,169.40	7,139.40	7,169.40	32.57	247.51	4.97	1,117.94	-9,145.02	8,702.73	8,423.77	278.95	31.198		
7,400.00	7,211.89	7,181.89	7,211.89	33.38	249.00	8.88	1,117.94	-9,145.02	8,612.43	8,331.85	280.58	30.695		
7,500.00	7,239.75	7,209.75	7,239.75	34.35	249.97	18.08	1,117.94	-9,145.02	8,516.67	8,235.03	281.64	30.240		
7,600.00	7,252.28	7,222.28	7,252.28	35.47	250.41	58.28	1,117.94	-9,145.02	8,417.82	8,135.70	282.11	29.839		
7,700.00	7,252.75	7,222.75	7,252.75	36.73	250.42	92.60	1,117.94	-9,145.02	8,318.14	8,036.01	282.14	29.483		
7,800.00	7,252.38	7,222.38	7,252.38	38.16	250.41	92.56	1,117.94	-9,145.02	8,218.47	7,936.34	282.13	29.130		
7,900.00	7,252.02	7,222.02	7,252.02	39.74	250.40	92.53	1,117.94	-9,145.02	8,118.81	7,836.68	282.13	28.777		
8,000.00	7,251.65	7,221.65	7,251.65	41.47	250.38	92.50	1,117.94	-9,145.02	8,019.16	7,737.02	282.13	28.423		
8,100.00	7,251.29	7,221.29	7,251.29	43.31	250.37	92.47	1,117.94	-9,145.02	7,919.51	7,637.37	282.14	28.069		
8,200.00	7,250.92	7,220.92	7,250.92	45.26	250.36	92.44	1,117.94	-9,145.02	7,819.88	7,537.72	282.15	27.715		
8,300.00	7,250.55	7,220.55	7,250.55	47.30	250.35	92.41	1,117.94	-9,145.02	7,720.25	7,438.08	282.16	27.361		
8,400.00	7,250.19	7,220.19	7,250.19	49.42	250.33	92.38	1,117.94	-9,145.02	7,620.63	7,338.45	282.18	27.006		
8,500.00	7,249.82	7,219.82	7,249.82	51.62	250.32	92.35	1,117.94	-9,145.02	7,521.02	7,238.82	282.20	26.651		
8,600.00	7,249.45	7,219.45	7,249.45	53.88	250.31	92.31	1,117.94	-9,145.02	7,421.43	7,139.20	282.23	26.296		
8,700.00	7,249.09	7,219.09	7,249.09	56.19	250.29	92.28	1,117.94	-9,145.02	7,321.84	7,039.58	282.26	25.940		
8,800.00	7,248.72	7,218.72	7,248.72	58.55	250.28	92.25	1,117.94	-9,145.02	7,222.27	6,939.97	282.30	25.584		
8,900.00	7,248.36	7,218.36	7,248.36	60.96	250.27	92.22	1,117.94	-9,145.02	7,122.70	6,840.37	282.34	25.228		
9,000.00	7,247.99	7,217.99	7,247.99	63.40	250.26	92.19	1,117.94	-9,145.02	7,023.15	6,740.77	282.38	24.871		
9,100.00	7,247.62	7,217.62	7,247.62	65.87	250.24	92.16	1,117.94	-9,145.02	6,923.62	6,641.18	282.44	24.514		
9,200.00	7,247.26	7,217.26	7,247.26	68.38	250.23	92.13	1,117.94	-9,145.02	6,824.09	6,541.60	282.50	24.156		
9,300.00	7,246.89	7,216.89	7,246.89	70.91	250.22	92.09	1,117.94	-9,145.02	6,724.59	6,442.02	282.56	23.799		
9,400.00	7,246.53	7,216.53	7,246.53	73.47	250.21	92.06	1,117.94	-9,145.02	6,625.09	6,342.46	282.63	23.441		
9,500.00	7,246.16	7,216.16	7,246.16	76.05	250.19	92.03	1,117.94	-9,145.02	6,525.61	6,242.90	282.71	23.082		
9,600.00	7,245.79	7,215.79	7,245.79	78.65	250.18	92.00	1,117.94	-9,145.02	6,426.15	6,143.35	282.80	22.723		
9,700.00	7,245.43	7,215.43	7,245.43	81.27	250.17	91.97	1,117.94	-9,145.02	6,326.70	6,043.81	282.90	22.364		
9,800.00	7,245.06	7,215.06	7,245.06	83.90	250.15	91.94	1,117.94	-9,145.02	6,227.27	5,944.27	283.00	22.004		
9,900.00	7,244.69	7,214.69	7,244.69	86.55	250.14	91.91	1,117.94	-9,145.02	6,127.86	5,844.75	283.11	21.644		
10,000.00	7,244.33	7,214.33	7,244.33	89.21	250.13	91.88	1,117.94	-9,145.02	6,028.47	5,745.24	283.24	21.284		
10,100.00	7,243.96	7,213.96	7,243.96	91.88	250.12	91.84	1,117.94	-9,145.02	5,929.10	5,645.73	283.37	20.923		
10,200.00	7,243.60	7,213.60	7,243.60	94.56	250.10	91.81	1,117.94	-9,145.02	5,829.76	5,546.24	283.52	20.562		
10,300.00	7,243.23	7,213.23	7,243.23	97.26	250.09	91.78	1,117.94	-9,145.02	5,730.43	5,446.75	283.68	20.200		

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



Anticollision Report



Company:	SRC ENERGY	Local Co-ordinate Reference:	Well HARVESTERS STATE 31C-16-M
Project:	SECTION 15, T6N, R66W	TVD Reference:	KB @ 4821.00ft
Reference Site:	HARVESTERS STATE 7-15 PAD	MD Reference:	KB @ 4821.00ft
Site Error:	3.28 ft	North Reference:	True
Reference Well:	HARVESTERS STATE 31C-16-M	Survey Calculation Method:	Minimum Curvature
Well Error:	3.28 ft	Output errors are at	2.45 sigma
Reference Wellbore	OH	Database:	EDM 5000.14 Single User Db
Reference Design:	PLAN #1	Offset TVD Reference:	Reference Datum

Offset Design HARVESTERS STATE 7-15 PAD - MCGLOTHLIN 17-11(PR_75CC) - OH - OH													Offset Site Error:	0.00 ft
Survey Program: 100-2" Cone@2.448 Sigma													Offset Well Error:	3.28 ft
Reference		Offset		Semi Major Axis			Distance						Warning	
Measured Depth (ft)	Vertical Depth (ft)	Measured Depth (ft)	Vertical Depth (ft)	Reference (ft)	Offset (ft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (ft)	+E/-W (ft)	Between Centres (ft)	Between Ellipses (ft)	Minimum Separation (ft)	Separation Factor		
10,400.00	7,242.86	7,212.86	7,242.86	99.96	250.08	91.75	1,117.94	-9,145.02	5,631.13	5,347.28	283.85	19.838		
10,500.00	7,242.50	7,212.50	7,242.50	102.67	250.06	91.72	1,117.94	-9,145.02	5,531.85	5,247.82	284.04	19.476		
10,600.00	7,242.13	7,212.13	7,242.13	105.39	250.05	91.69	1,117.94	-9,145.02	5,432.60	5,148.37	284.24	19.113		
10,700.00	7,241.76	7,211.76	7,241.76	108.12	250.04	91.66	1,117.94	-9,145.02	5,333.38	5,048.93	284.45	18.750		
10,800.00	7,241.40	7,211.40	7,241.40	110.85	250.03	91.63	1,117.94	-9,145.02	5,234.19	4,949.50	284.69	18.386		
10,900.00	7,241.03	7,211.03	7,241.03	113.59	250.01	91.59	1,117.94	-9,145.02	5,135.03	4,850.09	284.94	18.022		
11,000.00	7,240.67	7,210.67	7,240.67	116.34	250.00	91.56	1,117.94	-9,145.02	5,035.90	4,750.69	285.21	17.657		
11,100.00	7,240.30	7,210.30	7,240.30	119.09	249.99	91.53	1,117.94	-9,145.02	4,936.81	4,651.30	285.50	17.292		
11,200.00	7,239.93	7,209.93	7,239.93	121.85	249.98	91.50	1,117.94	-9,145.02	4,837.75	4,551.93	285.82	16.926		
11,300.00	7,239.57	7,209.57	7,239.57	124.61	249.96	91.47	1,117.94	-9,145.02	4,738.73	4,452.58	286.16	16.560		
11,400.00	7,239.20	7,209.20	7,239.20	127.38	249.95	91.44	1,117.94	-9,145.02	4,639.76	4,353.23	286.53	16.193		
11,500.00	7,238.84	7,208.84	7,238.84	130.15	249.94	91.41	1,117.94	-9,145.02	4,540.83	4,253.91	286.92	15.826		
11,600.00	7,238.47	7,208.47	7,238.47	132.92	249.92	91.38	1,117.94	-9,145.02	4,441.95	4,154.60	287.35	15.458		
11,700.00	7,238.10	7,208.10	7,238.10	135.70	249.91	91.34	1,117.94	-9,145.02	4,343.12	4,055.31	287.81	15.090		
11,800.00	7,237.74	7,207.74	7,237.74	138.48	249.90	91.31	1,117.94	-9,145.02	4,244.35	3,956.04	288.31	14.722		
11,900.00	7,237.37	7,207.37	7,237.37	141.26	249.89	91.28	1,117.94	-9,145.02	4,145.63	3,856.79	288.84	14.353		
12,000.00	7,237.00	7,207.00	7,237.00	144.05	249.87	91.25	1,117.94	-9,145.02	4,046.98	3,757.56	289.42	13.983		
12,100.00	7,236.64	7,206.64	7,236.64	146.84	249.86	91.22	1,117.94	-9,145.02	3,948.39	3,658.35	290.05	13.613		
12,200.00	7,236.27	7,206.27	7,236.27	149.64	249.85	91.19	1,117.94	-9,145.02	3,849.88	3,559.16	290.72	13.243		
12,300.00	7,235.91	7,205.91	7,235.91	152.43	249.83	91.16	1,117.94	-9,145.02	3,751.45	3,460.00	291.45	12.872		
12,400.00	7,235.54	7,205.54	7,235.54	155.23	249.82	91.12	1,117.94	-9,145.02	3,653.10	3,360.86	292.24	12.500		
12,500.00	7,235.17	7,205.17	7,235.17	158.03	249.81	91.09	1,117.94	-9,145.02	3,554.84	3,261.75	293.09	12.129		
12,600.00	7,234.81	7,204.81	7,234.81	160.83	249.80	91.06	1,117.94	-9,145.02	3,456.68	3,162.67	294.01	11.757		
12,700.00	7,234.44	7,204.44	7,234.44	163.64	249.78	91.03	1,117.94	-9,145.02	3,358.63	3,063.62	295.02	11.385		
12,800.00	7,234.07	7,204.07	7,234.07	166.44	249.77	91.00	1,117.94	-9,145.02	3,260.71	2,964.61	296.10	11.012		
12,900.00	7,233.71	7,203.71	7,233.71	169.25	249.76	90.97	1,117.94	-9,145.02	3,162.91	2,865.63	297.28	10.640		
13,000.00	7,233.34	7,203.34	7,233.34	172.06	249.75	90.94	1,117.94	-9,145.02	3,065.25	2,766.69	298.56	10.267		
13,100.00	7,232.98	7,202.98	7,232.98	174.88	249.73	90.91	1,117.94	-9,145.02	2,967.75	2,667.80	299.95	9.894		
13,200.00	7,232.61	7,202.61	7,232.61	177.69	249.72	90.87	1,117.94	-9,145.02	2,870.41	2,568.96	301.46	9.522		
13,300.00	7,232.24	7,202.24	7,232.24	180.50	249.71	90.84	1,117.94	-9,145.02	2,773.27	2,470.17	303.11	9.149		
13,400.00	7,231.88	7,201.88	7,231.88	183.32	249.69	90.81	1,117.94	-9,145.02	2,676.34	2,371.44	304.91	8.778		
13,500.00	7,231.51	7,201.51	7,231.51	186.14	249.68	90.78	1,117.94	-9,145.02	2,579.65	2,272.77	306.87	8.406		
13,600.00	7,231.15	7,201.15	7,231.15	188.96	249.67	90.75	1,117.94	-9,145.02	2,483.22	2,174.19	309.03	8.036		
13,700.00	7,230.78	7,200.78	7,230.78	191.78	249.66	90.72	1,117.94	-9,145.02	2,387.08	2,075.69	311.38	7.666		
13,800.00	7,230.41	7,200.41	7,230.41	194.60	249.64	90.69	1,117.94	-9,145.02	2,291.27	1,977.29	313.97	7.298		
13,900.00	7,230.05	7,200.05	7,230.05	197.42	249.63	90.66	1,117.94	-9,145.02	2,195.83	1,879.01	316.82	6.931		
14,000.00	7,229.68	7,200.32	7,229.68	200.25	249.64	90.62	1,117.94	-9,145.02	2,100.82	1,780.83	319.98	6.565		
14,100.00	7,229.31	7,200.69	7,229.31	203.07	249.65	90.59	1,117.94	-9,145.02	2,006.29	1,682.81	323.48	6.202		
14,200.00	7,228.95	7,201.05	7,228.95	205.90	249.67	90.56	1,117.94	-9,145.02	1,912.32	1,584.98	327.34	5.842		
14,300.00	7,228.58	7,201.42	7,228.58	208.73	249.68	90.53	1,117.94	-9,145.02	1,818.99	1,487.36	331.63	5.485		
14,400.00	7,228.22	7,201.78	7,228.22	211.55	249.69	90.50	1,117.94	-9,145.02	1,726.41	1,390.01	336.40	5.132		
14,500.00	7,227.85	7,202.15	7,227.85	214.38	249.70	90.47	1,117.94	-9,145.02	1,634.71	1,292.99	341.72	4.784		
14,600.00	7,227.48	7,202.52	7,227.48	217.21	249.72	90.44	1,117.94	-9,145.02	1,544.03	1,196.37	347.66	4.441		
14,700.00	7,227.12	7,202.88	7,227.12	220.04	249.73	90.40	1,117.94	-9,145.02	1,454.58	1,100.25	354.33	4.105		
14,800.00	7,226.75	7,203.25	7,226.75	222.88	249.74	90.37	1,117.94	-9,145.02	1,366.59	1,004.78	361.81	3.777		
14,900.00	7,226.38	7,203.62	7,226.38	225.71	249.75	90.34	1,117.94	-9,145.02	1,280.36	910.14	370.22	3.458		
15,000.00	7,226.02	7,203.98	7,226.02	228.54	249.77	90.31	1,117.94	-9,145.02	1,196.28	816.59	379.70	3.151		
15,005.81	7,226.00	7,204.00	7,226.00	228.71	249.77	90.31	1,117.94	-9,145.02	1,191.48	811.19	380.28	3.133 CC, ES, SF		



Anticollision Report



Company:	SRC ENERGY	Local Co-ordinate Reference:	Well HARVESTERS STATE 31C-16-M
Project:	SECTION 15, T6N, R66W	TVD Reference:	KB @ 4821.00ft
Reference Site:	HARVESTERS STATE 7-15 PAD	MD Reference:	KB @ 4821.00ft
Site Error:	3.28 ft	North Reference:	True
Reference Well:	HARVESTERS STATE 31C-16-M	Survey Calculation Method:	Minimum Curvature
Well Error:	3.28 ft	Output errors are at	2.45 sigma
Reference Wellbore	OH	Database:	EDM 5000.14 Single User Db
Reference Design:	PLAN #1	Offset TVD Reference:	Reference Datum

Offset Design HARVESTERS STATE 7-15 PAD - MONTERA 10-34 (PR_75CC) - OH - OH													Offset Site Error:	0.00 ft
Survey Program: 100-GYRO-NS													Offset Well Error:	3.28 ft
Reference		Offset		Semi Major Axis			Distance							Warning
Measured Depth (ft)	Vertical Depth (ft)	Measured Depth (ft)	Vertical Depth (ft)	Reference (ft)	Offset (ft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (ft)	+E/-W (ft)	Between Centres (ft)	Between Ellipses (ft)	Minimum Separation (ft)	Separation Factor		
0.00	0.00	14.15	1.15	3.28	3.28	3.10	2,164.34	117.08	2,167.50					
100.00	100.00	123.72	110.72	3.28	3.30	3.09	2,164.07	116.71	2,167.24	2,160.66	6.58	329.361		
200.00	200.00	232.14	219.13	3.34	3.37	3.08	2,163.27	116.57	2,166.49	2,159.78	6.71	322.906		
300.00	300.00	329.78	316.77	3.44	3.49	3.09	2,162.42	116.55	2,165.62	2,158.68	6.94	312.145		
400.00	400.00	420.99	407.98	3.60	3.65	3.07	2,161.92	116.01	2,165.04	2,157.79	7.25	298.678		
479.14	479.14	492.16	479.14	3.76	3.79	3.06	2,161.82	115.39	2,164.89	2,157.35	7.55	286.791		
500.00	500.00	511.21	498.19	3.81	3.83	3.05	2,161.83	115.22	2,164.90	2,157.27	7.64	283.524		
600.00	600.00	603.58	590.56	4.05	4.05	3.03	2,162.12	114.33	2,165.16	2,157.07	8.09	267.503		
700.00	699.98	694.42	681.39	4.32	4.29	25.94	2,162.74	113.90	2,164.24	2,155.64	8.60	251.554		
800.00	799.84	813.91	800.89	4.62	4.63	26.04	2,163.26	113.95	2,160.01	2,150.76	9.25	233.583		
900.00	899.62	896.93	883.90	4.94	4.89	26.11	2,163.63	114.12	2,154.55	2,144.73	9.82	219.371		
1,000.00	999.41	1,016.52	1,003.49	5.27	5.28	26.21	2,163.96	114.45	2,148.96	2,138.41	10.55	203.748		
1,100.00	1,099.19	1,111.81	1,098.78	5.62	5.60	26.30	2,163.92	114.92	2,143.06	2,131.84	11.22	190.962		
1,200.00	1,198.98	1,207.17	1,194.14	5.99	5.94	26.39	2,164.02	115.68	2,137.33	2,125.41	11.92	179.295		
1,300.00	1,298.76	1,317.12	1,304.09	6.36	6.33	26.50	2,163.90	116.33	2,131.37	2,118.68	12.69	167.955		
1,400.00	1,398.55	1,412.02	1,398.99	6.74	6.68	26.58	2,163.80	116.41	2,125.41	2,111.99	13.42	158.355		
1,500.00	1,498.33	1,522.82	1,509.78	7.13	7.10	26.67	2,163.46	116.65	2,119.25	2,105.02	14.23	148.977		
1,600.00	1,598.12	1,627.75	1,614.71	7.52	7.50	26.76	2,162.72	116.79	2,112.69	2,097.67	15.02	140.663		
1,700.00	1,697.90	1,728.60	1,715.56	7.92	7.89	26.83	2,161.95	116.39	2,106.05	2,090.24	15.81	133.221		
1,800.00	1,797.69	1,828.36	1,815.31	8.33	8.28	26.89	2,161.08	115.59	2,099.27	2,082.67	16.60	126.445		
1,900.00	1,897.47	1,921.52	1,908.46	8.74	8.65	26.95	2,160.59	114.80	2,092.83	2,075.45	17.38	120.430		
2,000.00	1,997.26	2,027.68	2,014.62	9.15	9.07	27.01	2,159.80	113.99	2,086.18	2,067.98	18.21	114.566		
2,100.00	2,097.04	2,118.10	2,105.04	9.56	9.43	27.06	2,159.34	112.91	2,079.75	2,060.76	18.99	109.539		
2,200.00	2,196.83	2,210.48	2,197.40	9.98	9.80	27.11	2,159.20	111.85	2,073.67	2,053.90	19.78	104.862		
2,300.00	2,296.61	2,293.86	2,280.78	10.40	10.14	27.15	2,159.56	111.16	2,068.20	2,047.67	20.53	100.730		
2,400.00	2,396.40	2,384.28	2,371.19	10.82	10.50	27.20	2,160.54	110.25	2,063.37	2,042.05	21.32	96.782		
2,500.00	2,496.18	2,471.92	2,458.81	11.24	10.86	27.24	2,161.96	108.94	2,059.04	2,036.94	22.10	93.172		
2,600.00	2,595.96	2,560.81	2,547.66	11.66	11.23	27.27	2,163.93	107.61	2,055.30	2,032.42	22.89	89.805		
2,700.00	2,695.75	2,668.27	2,655.08	12.09	11.67	27.31	2,166.58	105.92	2,051.83	2,028.07	23.75	86.386		
2,800.00	2,795.53	2,768.79	2,755.57	12.51	12.08	27.34	2,168.55	104.33	2,047.83	2,023.24	24.59	83.274		
2,900.00	2,895.32	2,874.78	2,861.52	12.94	12.52	27.37	2,170.74	102.21	2,043.91	2,018.45	25.46	80.291		
3,000.00	2,995.10	2,979.94	2,966.63	13.37	12.96	27.39	2,172.50	99.80	2,039.57	2,013.25	26.32	77.492		
3,100.00	3,094.89	3,071.12	3,057.78	13.80	13.34	27.41	2,174.05	97.97	2,035.30	2,008.17	27.13	75.025		
3,200.00	3,194.67	3,173.92	3,160.54	14.23	13.77	27.44	2,176.13	96.08	2,031.34	2,003.35	27.99	72.586		
3,300.00	3,294.46	3,262.96	3,249.55	14.66	14.14	27.47	2,177.85	94.66	2,027.34	1,998.55	28.79	70.424		
3,400.00	3,394.24	3,346.56	3,333.11	15.09	14.49	27.50	2,180.16	93.39	2,024.15	1,994.58	29.57	68.458		
3,500.00	3,494.03	3,448.24	3,434.74	15.52	14.91	27.55	2,183.56	92.34	2,021.58	1,991.15	30.42	66.447		
3,600.00	3,593.81	3,554.73	3,541.19	15.96	15.36	27.63	2,186.29	92.05	2,018.29	1,986.99	31.30	64.479		
3,700.00	3,693.60	3,676.27	3,662.68	16.39	15.86	27.71	2,189.27	91.27	2,014.93	1,982.69	32.24	62.496		
3,800.00	3,793.38	3,778.95	3,765.36	16.82	16.29	27.76	2,190.67	90.29	2,010.40	1,977.29	33.10	60.729		
3,900.00	3,893.17	3,887.29	3,873.67	17.26	16.75	27.81	2,192.17	88.80	2,005.86	1,971.87	33.99	59.012		
4,000.00	3,992.95	4,006.92	3,993.26	17.69	17.25	27.83	2,193.01	85.93	2,000.55	1,965.63	34.92	57.288		
4,100.00	4,092.74	4,107.87	4,094.17	18.13	17.67	27.84	2,193.23	83.13	1,994.74	1,958.96	35.78	55.750		
4,200.00	4,192.52	4,195.38	4,181.66	18.56	18.04	27.86	2,193.65	81.01	1,989.20	1,952.61	36.59	54.366		
4,300.00	4,292.31	4,292.48	4,278.74	19.00	18.45	27.89	2,194.42	79.20	1,984.03	1,946.59	37.43	53.000		
4,400.00	4,392.09	4,379.78	4,366.02	19.43	18.82	27.93	2,195.38	78.00	1,979.21	1,940.97	38.24	51.754		
4,500.00	4,491.88	4,474.01	4,460.23	19.87	19.22	27.99	2,196.88	77.16	1,974.92	1,935.84	39.08	50.539		
4,600.00	4,591.66	4,563.02	4,549.23	20.31	19.59	28.03	2,198.61	75.99	1,970.95	1,931.06	39.89	49.408		
4,700.00	4,691.44	4,668.84	4,655.00	20.74	20.04	28.06	2,201.11	74.19	1,967.37	1,926.60	40.77	48.250		
4,800.00	4,791.23	4,780.91	4,767.03	21.18	20.51	28.10	2,202.99	72.02	1,963.07	1,921.39	41.68	47.096		
4,900.00	4,891.01	4,897.83	4,883.91	21.62	21.01	28.12	2,204.21	69.22	1,958.12	1,915.51	42.61	45.958		
5,000.00	4,990.80	4,986.80	4,972.84	22.06	21.38	28.12	2,204.99	66.76	1,952.96	1,909.53	43.43	44.972		

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



Anticollision Report



Company:	SRC ENERGY	Local Co-ordinate Reference:	Well HARVESTERS STATE 31C-16-M
Project:	SECTION 15, T6N, R66W	TVD Reference:	KB @ 4821.00ft
Reference Site:	HARVESTERS STATE 7-15 PAD	MD Reference:	KB @ 4821.00ft
Site Error:	3.28 ft	North Reference:	True
Reference Well:	HARVESTERS STATE 31C-16-M	Survey Calculation Method:	Minimum Curvature
Well Error:	3.28 ft	Output errors are at	2.45 sigma
Reference Wellbore	OH	Database:	EDM 5000.14 Single User Db
Reference Design:	PLAN #1	Offset TVD Reference:	Reference Datum

Offset Design HARVESTERS STATE 7-15 PAD - MONTERA 10-34 (PR_75CC) - OH - OH													Offset Site Error:	0.00 ft
Survey Program: 100-GYRO-NS													Offset Well Error:	3.28 ft
Reference		Offset		Semi Major Axis			Distance							Warning
Measured Depth (ft)	Vertical Depth (ft)	Measured Depth (ft)	Vertical Depth (ft)	Reference (ft)	Offset (ft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (ft)	+E/-W (ft)	Between Centres (ft)	Between Ellipses (ft)	Minimum Separation (ft)	Separation Factor		
5,100.00	5,090.58	5,094.24	5,080.24	22.50	21.84	28.13	2,206.11	63.86	1,947.97	1,903.65	44.32	43.957		
5,200.00	5,190.37	5,185.87	5,171.85	22.93	22.23	28.17	2,206.92	62.25	1,942.90	1,897.75	45.14	43.037		
5,300.00	5,290.15	5,280.64	5,266.61	23.37	22.63	28.22	2,208.07	61.09	1,938.21	1,892.23	45.99	42.148		
5,400.00	5,389.94	5,379.46	5,365.41	23.81	23.05	28.27	2,209.42	60.02	1,933.69	1,886.85	46.84	41.280		
5,500.00	5,489.72	5,477.76	5,463.70	24.25	23.46	28.35	2,210.74	59.68	1,929.22	1,881.52	47.70	40.446		
5,600.00	5,589.51	5,567.86	5,553.79	24.69	23.85	28.43	2,212.15	59.58	1,925.00	1,876.48	48.52	39.673		
5,700.00	5,689.29	5,670.77	5,656.68	25.13	24.28	28.53	2,214.08	60.11	1,921.15	1,871.76	49.40	38.893		
5,800.00	5,789.08	5,788.39	5,774.28	25.56	24.78	28.67	2,215.48	61.08	1,916.67	1,866.34	50.33	38.085		
5,900.00	5,888.86	5,898.39	5,884.28	26.00	25.24	28.77	2,216.00	61.24	1,911.39	1,860.17	51.23	37.313		
6,000.00	5,988.65	6,019.48	6,005.37	26.44	25.76	28.88	2,215.65	60.89	1,905.33	1,853.17	52.16	36.530		
6,100.00	6,088.43	6,122.23	6,108.12	26.88	26.19	28.97	2,214.77	60.37	1,898.69	1,845.66	53.03	35.805		
6,200.00	6,188.22	6,222.49	6,208.37	27.32	26.62	29.05	2,213.74	59.86	1,891.87	1,837.98	53.89	35.106		
6,300.00	6,288.00	6,318.15	6,304.02	27.76	27.02	29.12	2,212.89	59.14	1,885.18	1,830.44	54.74	34.440		
6,400.00	6,387.79	6,411.63	6,397.49	28.20	27.42	29.18	2,212.34	58.01	1,878.73	1,823.15	55.58	33.803		
6,500.00	6,487.57	6,496.01	6,481.86	28.64	27.78	29.23	2,212.38	56.82	1,872.90	1,816.51	56.39	33.214		
6,600.00	6,587.35	6,607.18	6,593.03	29.08	28.25	29.30	2,212.57	55.44	1,867.21	1,809.92	57.29	32.592		
6,700.00	6,687.02	6,710.95	6,696.78	29.52	28.69	29.37	2,212.32	53.92	1,861.34	1,803.17	58.17	32.000		
6,800.00	6,784.98	6,811.99	6,797.81	29.96	29.12	29.44	2,211.89	52.28	1,856.93	1,797.90	59.04	31.455		
6,900.00	6,878.81	6,905.91	6,891.72	30.41	29.52	29.51	2,211.43	50.79	1,854.88	1,795.00	59.88	30.976		
6,916.83	6,894.04	6,920.63	6,906.43	30.48	29.59	29.57	2,211.36	50.57	1,854.83	1,794.81	60.02	30.903 CC, ES		
7,000.00	6,966.21	6,990.93	6,976.73	30.86	29.89	29.63	2,211.04	49.79	1,856.14	1,795.44	60.70	30.577		
7,100.00	7,045.03	7,072.79	7,058.59	31.35	30.23	29.70	2,210.59	49.35	1,861.67	1,800.13	61.54	30.253		
7,200.00	7,113.32	7,153.13	7,138.92	31.90	30.57	29.77	2,209.81	49.25	1,872.27	1,809.85	62.42	29.996		
7,300.00	7,169.40	7,218.79	7,204.58	32.57	30.85	29.83	2,208.68	49.20	1,888.67	1,825.34	63.33	29.822		
7,400.00	7,211.89	7,261.28	7,247.05	33.38	31.03	29.89	2,207.86	49.17	1,911.88	1,847.61	64.27	29.746 SF		
7,500.00	7,239.75	7,289.15	7,274.92	34.35	31.15	29.95	2,207.33	49.16	1,942.11	1,876.85	65.26	29.759		
7,600.00	7,252.28	7,301.72	7,287.49	35.47	31.20	29.99	2,207.09	49.15	1,978.93	1,912.68	66.26	29.868		
7,700.00	7,252.75	7,302.24	7,288.01	36.73	31.21	30.01	2,207.08	49.15	2,021.21	1,953.97	67.24	30.061		
7,800.00	7,252.38	7,301.93	7,287.70	38.16	31.20	30.00	2,207.08	49.15	2,067.52	1,999.25	68.27	30.283		
7,900.00	7,252.02	7,301.61	7,287.38	39.74	31.20	30.00	2,207.09	49.15	2,117.55	2,048.21	69.34	30.539		
8,000.00	7,251.65	7,301.30	7,287.07	41.47	31.20	30.00	2,207.09	49.15	2,171.03	2,100.62	70.41	30.833		
8,100.00	7,251.29	7,300.99	7,286.76	43.31	31.20	30.00	2,207.10	49.15	2,227.72	2,156.24	71.48	31.167		
8,200.00	7,250.92	7,300.68	7,286.45	45.26	31.20	30.00	2,207.11	49.15	2,287.38	2,214.86	72.52	31.543		
8,300.00	7,250.55	7,300.36	7,286.13	47.30	31.20	30.00	2,207.11	49.15	2,349.78	2,276.26	73.52	31.959		
8,400.00	7,250.19	7,300.05	7,285.82	49.42	31.20	30.00	2,207.12	49.15	2,414.71	2,340.22	74.49	32.416		
8,500.00	7,249.82	7,299.74	7,285.51	51.62	31.20	30.00	2,207.12	49.15	2,481.98	2,406.56	75.42	32.910		
8,600.00	7,249.45	7,299.43	7,285.20	53.88	31.19	30.00	2,207.13	49.15	2,551.39	2,475.09	76.30	33.441		
8,700.00	7,249.09	7,299.12	7,284.88	56.19	31.19	30.00	2,207.14	49.15	2,622.77	2,545.64	77.13	34.005		
8,800.00	7,248.72	7,298.80	7,284.57	58.55	31.19	30.00	2,207.14	49.15	2,695.98	2,618.06	77.92	34.601		
8,900.00	7,248.36	7,298.49	7,284.26	60.96	31.19	30.00	2,207.15	49.15	2,770.86	2,692.20	78.66	35.226		
9,000.00	7,247.99	7,298.18	7,283.95	63.40	31.19	30.00	2,207.15	49.15	2,847.28	2,767.93	79.36	35.878		
9,100.00	7,247.62	7,297.87	7,283.64	65.87	31.19	30.00	2,207.16	49.15	2,925.13	2,845.11	80.02	36.556		
9,200.00	7,247.26	7,297.55	7,283.32	68.38	31.19	30.00	2,207.17	49.15	3,004.29	2,923.65	80.64	37.257		
9,300.00	7,246.89	7,297.24	7,283.01	70.91	31.19	30.00	2,207.17	49.15	3,084.66	3,003.44	81.22	37.979		
9,400.00	7,246.53	7,296.93	7,282.70	73.47	31.18	30.00	2,207.18	49.15	3,166.15	3,084.38	81.77	38.720		
9,500.00	7,246.16	7,296.62	7,282.39	76.05	31.18	30.00	2,207.18	49.15	3,248.67	3,166.38	82.29	39.480		
9,600.00	7,245.79	7,296.30	7,282.07	78.65	31.18	30.00	2,207.19	49.15	3,332.15	3,249.38	82.77	40.257		
9,700.00	7,245.43	7,295.99	7,281.76	81.27	31.18	30.00	2,207.20	49.15	3,416.52	3,333.28	83.23	41.048		
9,800.00	7,245.06	7,295.68	7,281.45	83.90	31.18	30.00	2,207.20	49.15	3,501.71	3,418.04	83.66	41.855		
9,900.00	7,244.69	7,295.37	7,281.14	86.55	31.18	30.00	2,207.21	49.15	3,587.66	3,503.59	84.07	42.674		
10,000.00	7,244.33	7,295.05	7,280.82	89.21	31.18	30.00	2,207.21	49.15	3,674.33	3,589.87	84.46	43.505		
10,100.00	7,243.96	7,294.74	7,280.51	91.88	31.17	30.00	2,207.22	49.15	3,761.65	3,676.83	84.82	44.348		

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



Anticollision Report



Company:	SRC ENERGY	Local Co-ordinate Reference:	Well HARVESTERS STATE 31C-16-M
Project:	SECTION 15, T6N, R66W	TVD Reference:	KB @ 4821.00ft
Reference Site:	HARVESTERS STATE 7-15 PAD	MD Reference:	KB @ 4821.00ft
Site Error:	3.28 ft	North Reference:	True
Reference Well:	HARVESTERS STATE 31C-16-M	Survey Calculation Method:	Minimum Curvature
Well Error:	3.28 ft	Output errors are at	2.45 sigma
Reference Wellbore	OH	Database:	EDM 5000.14 Single User Db
Reference Design:	PLAN #1	Offset TVD Reference:	Reference Datum

Offset Design HARVESTERS STATE 7-15 PAD - MONTERA 10-34 (PR_75CC) - OH - OH													Offset Site Error:	0.00 ft
Survey Program: 100-GYRO-NS													Offset Well Error:	3.28 ft
Reference		Offset		Semi Major Axis			Distance							Warning
Measured Depth (ft)	Vertical Depth (ft)	Measured Depth (ft)	Vertical Depth (ft)	Reference (ft)	Offset (ft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (ft)	+E/-W (ft)	Between Centres (ft)	Between Ellipses (ft)	Minimum Separation (ft)	Separation Factor		
10,200.00	7,243.60	7,294.43	7,280.20	94.56	31.17	90.76	2,207.23	49.15	3,849.60	3,764.43	85.17	45.200		
10,300.00	7,243.23	7,294.12	7,279.89	97.26	31.17	90.75	2,207.23	49.15	3,938.12	3,852.62	85.49	46.063		
10,400.00	7,242.86	7,293.80	7,279.57	99.96	31.17	90.74	2,207.24	49.15	4,027.17	3,941.37	85.81	46.934		
10,500.00	7,242.50	7,293.49	7,279.26	102.67	31.17	90.73	2,207.24	49.15	4,116.73	4,030.63	86.10	47.813		
10,600.00	7,242.13	7,293.18	7,278.95	105.39	31.17	90.72	2,207.25	49.15	4,206.76	4,120.38	86.38	48.700		
10,700.00	7,241.76	7,292.87	7,278.64	108.12	31.17	90.71	2,207.26	49.15	4,297.23	4,210.58	86.65	49.594		
10,800.00	7,241.40	7,292.55	7,278.33	110.85	31.17	90.71	2,207.26	49.15	4,388.12	4,301.21	86.90	50.494		
10,900.00	7,241.03	7,292.24	7,278.01	113.59	31.16	90.70	2,207.27	49.15	4,479.39	4,392.24	87.15	51.401		
11,000.00	7,240.67	7,291.93	7,277.70	116.34	31.16	90.69	2,207.27	49.15	4,571.03	4,483.65	87.38	52.313		
11,100.00	7,240.30	7,291.62	7,277.39	119.09	31.16	90.68	2,207.28	49.16	4,663.01	4,575.41	87.60	53.230		
11,200.00	7,239.93	7,291.30	7,277.08	121.85	31.16	90.67	2,207.29	49.16	4,755.31	4,667.50	87.81	54.152		
11,300.00	7,239.57	7,290.99	7,276.76	124.61	31.16	90.66	2,207.29	49.16	4,847.92	4,759.90	88.02	55.078		
11,400.00	7,239.20	7,290.68	7,276.45	127.38	31.16	90.65	2,207.30	49.16	4,940.82	4,852.61	88.22	56.009		
11,500.00	7,238.84	7,290.37	7,276.14	130.15	31.16	90.64	2,207.30	49.16	5,033.99	4,945.59	88.40	56.943		
11,600.00	7,238.47	7,290.06	7,275.83	132.92	31.15	90.63	2,207.31	49.16	5,127.42	5,038.83	88.59	57.881		
11,700.00	7,238.10	7,289.74	7,275.51	135.70	31.15	90.62	2,207.32	49.16	5,221.09	5,132.33	88.76	58.822		
11,800.00	7,237.74	7,289.43	7,275.20	138.48	31.15	90.61	2,207.32	49.16	5,314.99	5,226.06	88.93	59.766		
11,900.00	7,237.37	7,289.12	7,274.89	141.26	31.15	90.60	2,207.33	49.16	5,409.11	5,320.02	89.09	60.713		
12,000.00	7,237.00	7,288.81	7,274.58	144.05	31.15	90.59	2,207.33	49.16	5,503.44	5,414.19	89.25	61.662		
12,100.00	7,236.64	7,288.49	7,274.26	146.84	31.15	90.58	2,207.34	49.16	5,597.97	5,508.56	89.40	62.614		
12,200.00	7,236.27	7,288.18	7,273.95	149.64	31.15	90.57	2,207.35	49.16	5,692.68	5,603.13	89.55	63.568		
12,300.00	7,235.91	7,287.87	7,273.64	152.43	31.15	90.56	2,207.35	49.16	5,787.57	5,697.87	89.70	64.524		
12,400.00	7,235.54	7,287.56	7,273.33	155.23	31.14	90.55	2,207.36	49.16	5,882.63	5,792.79	89.84	65.482		
12,500.00	7,235.17	7,287.24	7,273.02	158.03	31.14	90.54	2,207.36	49.16	5,977.85	5,887.88	89.97	66.442		
12,600.00	7,234.81	7,286.93	7,272.70	160.83	31.14	90.53	2,207.37	49.16	6,073.22	5,983.12	90.10	67.403		
12,700.00	7,234.44	7,286.62	7,272.39	163.64	31.14	90.52	2,207.38	49.16	6,168.74	6,078.51	90.23	68.365		
12,800.00	7,234.07	7,286.31	7,272.08	166.44	31.14	90.51	2,207.38	49.16	6,264.40	6,174.04	90.36	69.329		
12,900.00	7,233.71	7,285.99	7,271.77	169.25	31.14	90.50	2,207.39	49.16	6,360.20	6,269.72	90.48	70.294		
13,000.00	7,233.34	7,285.68	7,271.45	172.06	31.14	90.49	2,207.39	49.16	6,456.12	6,365.52	90.60	71.259		
13,100.00	7,232.98	7,285.37	7,271.14	174.88	31.13	90.48	2,207.40	49.16	6,552.16	6,461.44	90.72	72.226		
13,200.00	7,232.61	7,285.06	7,270.83	177.69	31.13	90.47	2,207.41	49.16	6,648.32	6,557.49	90.83	73.194		
13,300.00	7,232.24	7,284.74	7,270.52	180.50	31.13	90.46	2,207.41	49.16	6,744.59	6,653.65	90.94	74.162		
13,400.00	7,231.88	7,284.43	7,270.20	183.32	31.13	90.45	2,207.42	49.16	6,840.97	6,749.92	91.05	75.130		
13,500.00	7,231.51	7,284.12	7,269.89	186.14	31.13	90.44	2,207.42	49.16	6,937.45	6,846.29	91.16	76.100		
13,600.00	7,231.15	7,283.81	7,269.58	188.96	31.13	90.43	2,207.43	49.16	7,034.03	6,942.76	91.27	77.069		
13,700.00	7,230.78	7,283.49	7,269.27	191.78	31.13	90.42	2,207.44	49.16	7,130.70	7,039.33	91.37	78.039		
13,800.00	7,230.41	7,283.18	7,268.95	194.60	31.13	90.41	2,207.44	49.16	7,227.47	7,135.99	91.48	79.010		
13,900.00	7,230.05	7,282.87	7,268.64	197.42	31.12	90.40	2,207.45	49.16	7,324.32	7,232.74	91.58	79.980		
14,000.00	7,229.68	7,282.56	7,268.33	200.25	31.12	90.39	2,207.45	49.16	7,421.25	7,329.58	91.68	80.950		
14,100.00	7,229.31	7,282.24	7,268.02	203.07	31.12	90.38	2,207.46	49.16	7,518.27	7,426.49	91.77	81.921		
14,200.00	7,228.95	7,281.93	7,267.71	205.90	31.12	90.37	2,207.47	49.16	7,615.36	7,523.49	91.87	82.891		
14,300.00	7,228.58	7,281.62	7,267.39	208.73	31.12	90.36	2,207.47	49.16	7,712.53	7,620.56	91.97	83.862		
14,400.00	7,228.22	7,281.31	7,267.08	211.55	31.12	90.35	2,207.48	49.16	7,809.76	7,717.70	92.06	84.832		
14,500.00	7,227.85	7,281.00	7,266.77	214.38	31.12	90.34	2,207.48	49.16	7,907.07	7,814.92	92.16	85.802		
14,600.00	7,227.48	7,280.68	7,266.46	217.21	31.11	90.33	2,207.49	49.16	8,004.44	7,912.20	92.25	86.771		
14,700.00	7,227.12	7,280.37	7,266.14	220.04	31.11	90.32	2,207.50	49.16	8,101.88	8,009.54	92.34	87.741		
14,800.00	7,226.75	7,280.06	7,265.83	222.88	31.11	90.31	2,207.50	49.16	8,199.38	8,106.95	92.43	88.709		
14,900.00	7,226.38	7,279.75	7,265.52	225.71	31.11	90.30	2,207.51	49.16	8,296.94	8,204.42	92.52	89.678		
15,000.00	7,226.02	7,279.43	7,265.21	228.54	31.11	90.29	2,207.51	49.16	8,394.55	8,301.95	92.61	90.646		
15,005.81	7,226.00	7,279.41	7,265.19	228.71	31.11	90.29	2,207.51	49.16	8,400.23	8,307.61	92.61	90.702		



Anticollision Report



Company:	SRC ENERGY	Local Co-ordinate Reference:	Well HARVESTERS STATE 31C-16-M
Project:	SECTION 15, T6N, R66W	TVD Reference:	KB @ 4821.00ft
Reference Site:	HARVESTERS STATE 7-15 PAD	MD Reference:	KB @ 4821.00ft
Site Error:	3.28 ft	North Reference:	True
Reference Well:	HARVESTERS STATE 31C-16-M	Survey Calculation Method:	Minimum Curvature
Well Error:	3.28 ft	Output errors are at	2.45 sigma
Reference Wellbore	OH	Database:	EDM 5000.14 Single User Db
Reference Design:	PLAN #1	Offset TVD Reference:	Reference Datum

Offset Design HARVESTERS STATE 7-15 PAD - RUTT-ADAMS HEIRS 2-22 - OH - OH													Offset Site Error:	0.00 ft
Survey Program: 100-2" Cone@2.448 Sigma													Offset Well Error:	3.28 ft
Reference		Offset		Semi Major Axis			Distance							Warning
Measured Depth (ft)	Vertical Depth (ft)	Measured Depth (ft)	Vertical Depth (ft)	Reference (ft)	Offset (ft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (ft)	+E/-W (ft)	Between Centres (ft)	Between Ellipses (ft)	Minimum Separation (ft)	Separation Factor		
0.00	0.00	0.00	60.00	3.28	3.28	-166.19	-4,259.79	-1,046.81	4,386.93					
100.00	100.00	40.00	100.00	3.28	3.35	-166.19	-4,259.79	-1,046.81	4,386.52	4,379.89	6.64	660.799		
200.00	200.00	140.00	200.00	3.34	4.54	-166.19	-4,259.79	-1,046.81	4,386.52	4,378.64	7.88	556.733		
300.00	300.00	240.00	300.00	3.44	7.40	-166.19	-4,259.79	-1,046.81	4,386.52	4,375.68	10.84	404.493		
400.00	400.00	340.00	400.00	3.60	10.64	-166.19	-4,259.79	-1,046.81	4,386.52	4,372.28	14.25	307.927		
500.00	500.00	440.00	500.00	3.81	14.00	-166.19	-4,259.79	-1,046.81	4,386.52	4,368.71	17.81	246.289		
600.00	600.00	540.00	600.00	4.05	17.42	-166.19	-4,259.79	-1,046.81	4,386.52	4,365.06	21.46	204.368 CC		
700.00	699.98	639.98	699.98	4.32	20.86	-143.29	-4,259.79	-1,046.81	4,387.92	4,362.75	25.17	174.308 ES		
800.00	799.84	739.84	799.84	4.62	24.30	-143.29	-4,259.79	-1,046.81	4,392.10	4,363.18	28.92	151.861		
900.00	899.62	839.62	899.62	4.94	27.76	-143.34	-4,259.79	-1,046.81	4,397.36	4,364.67	32.70	134.494		
1,000.00	999.41	939.41	999.41	5.27	31.22	-143.39	-4,259.79	-1,046.81	4,402.63	4,366.14	36.49	120.642		
1,100.00	1,099.19	1,039.19	1,099.19	5.62	34.69	-143.44	-4,259.79	-1,046.81	4,407.90	4,367.59	40.31	109.349		
1,200.00	1,198.98	1,138.98	1,198.98	5.99	38.16	-143.49	-4,259.79	-1,046.81	4,413.17	4,369.03	44.14	99.975		
1,300.00	1,298.76	1,238.76	1,298.76	6.36	41.63	-143.54	-4,259.79	-1,046.81	4,418.45	4,370.46	47.99	92.075		
1,400.00	1,398.55	1,338.55	1,398.55	6.74	45.10	-143.59	-4,259.79	-1,046.81	4,423.73	4,371.89	51.84	85.330		
1,500.00	1,498.33	1,438.33	1,498.33	7.13	48.58	-143.64	-4,259.79	-1,046.81	4,429.01	4,373.31	55.71	79.506		
1,600.00	1,598.12	1,538.12	1,598.12	7.52	52.05	-143.69	-4,259.79	-1,046.81	4,434.30	4,374.72	59.58	74.430		
1,700.00	1,697.90	1,637.90	1,697.90	7.92	55.53	-143.74	-4,259.79	-1,046.81	4,439.59	4,376.14	63.45	69.966		
1,800.00	1,797.69	1,737.69	1,797.69	8.33	59.01	-143.79	-4,259.79	-1,046.81	4,444.88	4,377.55	67.34	66.011		
1,900.00	1,897.47	1,837.47	1,897.47	8.74	62.49	-143.84	-4,259.79	-1,046.81	4,450.18	4,378.96	71.22	62.483		
2,000.00	1,997.26	1,937.26	1,997.26	9.15	65.97	-143.89	-4,259.79	-1,046.81	4,455.48	4,380.37	75.11	59.318		
2,100.00	2,097.04	2,037.04	2,097.04	9.56	69.45	-143.94	-4,259.79	-1,046.81	4,460.79	4,381.78	79.00	56.462		
2,200.00	2,196.83	2,136.83	2,196.83	9.98	72.93	-143.99	-4,259.79	-1,046.81	4,466.09	4,383.19	82.90	53.873		
2,300.00	2,296.61	2,236.61	2,296.61	10.40	76.41	-144.04	-4,259.79	-1,046.81	4,471.40	4,384.60	86.80	51.514		
2,400.00	2,396.40	2,336.40	2,396.40	10.82	79.89	-144.09	-4,259.79	-1,046.81	4,476.72	4,386.02	90.70	49.357		
2,500.00	2,496.18	2,436.18	2,496.18	11.24	83.37	-144.14	-4,259.79	-1,046.81	4,482.03	4,387.43	94.60	47.377		
2,600.00	2,595.96	2,535.96	2,595.96	11.66	86.85	-144.19	-4,259.79	-1,046.81	4,487.35	4,388.85	98.51	45.553		
2,700.00	2,695.75	2,635.75	2,695.75	12.09	90.33	-144.24	-4,259.79	-1,046.81	4,492.68	4,390.26	102.41	43.868		
2,800.00	2,795.53	2,735.53	2,795.53	12.51	93.81	-144.29	-4,259.79	-1,046.81	4,498.00	4,391.68	106.32	42.306		
2,900.00	2,895.32	2,835.32	2,895.32	12.94	97.29	-144.34	-4,259.79	-1,046.81	4,503.34	4,393.11	110.23	40.854		
3,000.00	2,995.10	2,935.10	2,995.10	13.37	100.77	-144.38	-4,259.79	-1,046.81	4,508.67	4,394.53	114.14	39.501		
3,100.00	3,094.89	3,034.89	3,094.89	13.80	104.25	-144.43	-4,259.79	-1,046.81	4,514.00	4,395.95	118.05	38.238		
3,200.00	3,194.67	3,134.67	3,194.67	14.23	107.74	-144.48	-4,259.79	-1,046.81	4,519.34	4,397.38	121.96	37.055		
3,300.00	3,294.46	3,234.46	3,294.46	14.66	111.22	-144.53	-4,259.79	-1,046.81	4,524.69	4,398.81	125.88	35.946		
3,400.00	3,394.24	3,334.24	3,394.24	15.09	114.70	-144.58	-4,259.79	-1,046.81	4,530.03	4,400.25	129.79	34.903		
3,500.00	3,494.03	3,434.03	3,494.03	15.52	118.18	-144.63	-4,259.79	-1,046.81	4,535.38	4,401.68	133.70	33.921		
3,600.00	3,593.81	3,533.81	3,593.81	15.96	121.66	-144.67	-4,259.79	-1,046.81	4,540.74	4,403.12	137.62	32.995		
3,700.00	3,693.60	3,633.60	3,693.60	16.39	125.15	-144.72	-4,259.79	-1,046.81	4,546.09	4,404.56	141.53	32.120		
3,800.00	3,793.38	3,733.38	3,793.38	16.82	128.63	-144.77	-4,259.79	-1,046.81	4,551.45	4,406.00	145.45	31.292		
3,900.00	3,893.17	3,833.17	3,893.17	17.26	132.11	-144.82	-4,259.79	-1,046.81	4,556.81	4,407.45	149.37	30.508		
4,000.00	3,992.95	3,932.95	3,992.95	17.69	135.59	-144.86	-4,259.79	-1,046.81	4,562.18	4,408.89	153.28	29.763		
4,100.00	4,092.74	4,032.74	4,092.74	18.13	139.08	-144.91	-4,259.79	-1,046.81	4,567.55	4,410.35	157.20	29.056		
4,200.00	4,192.52	4,132.52	4,192.52	18.56	142.56	-144.96	-4,259.79	-1,046.81	4,572.92	4,411.80	161.12	28.382		
4,300.00	4,292.31	4,232.31	4,292.31	19.00	146.04	-145.01	-4,259.79	-1,046.81	4,578.29	4,413.26	165.04	27.741		
4,400.00	4,392.09	4,332.09	4,392.09	19.43	149.52	-145.05	-4,259.79	-1,046.81	4,583.67	4,414.71	168.95	27.130		
4,500.00	4,491.88	4,431.88	4,491.88	19.87	153.01	-145.10	-4,259.79	-1,046.81	4,589.05	4,416.18	172.87	26.546		
4,600.00	4,591.66	4,531.66	4,591.66	20.31	156.49	-145.15	-4,259.79	-1,046.81	4,594.43	4,417.64	176.79	25.988		
4,700.00	4,691.44	4,631.44	4,691.44	20.74	159.97	-145.19	-4,259.79	-1,046.81	4,599.82	4,419.11	180.71	25.454		
4,800.00	4,791.23	4,731.23	4,791.23	21.18	163.45	-145.24	-4,259.79	-1,046.81	4,605.21	4,420.58	184.63	24.943		
4,900.00	4,891.01	4,831.01	4,891.01	21.62	166.94	-145.29	-4,259.79	-1,046.81	4,610.60	4,422.05	188.55	24.453		
5,000.00	4,990.80	4,930.80	4,990.80	22.06	170.42	-145.33	-4,259.79	-1,046.81	4,616.00	4,423.53	192.47	23.983		
5,100.00	5,090.58	5,030.58	5,090.58	22.50	173.90	-145.38	-4,259.79	-1,046.81	4,621.40	4,425.00	196.39	23.531		

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



Anticollision Report



Company:	SRC ENERGY	Local Co-ordinate Reference:	Well HARVESTERS STATE 31C-16-M
Project:	SECTION 15, T6N, R66W	TVD Reference:	KB @ 4821.00ft
Reference Site:	HARVESTERS STATE 7-15 PAD	MD Reference:	KB @ 4821.00ft
Site Error:	3.28 ft	North Reference:	True
Reference Well:	HARVESTERS STATE 31C-16-M	Survey Calculation Method:	Minimum Curvature
Well Error:	3.28 ft	Output errors are at	2.45 sigma
Reference Wellbore	OH	Database:	EDM 5000.14 Single User Db
Reference Design:	PLAN #1	Offset TVD Reference:	Reference Datum

Offset Design HARVESTERS STATE 7-15 PAD - RUTT-ADAMS HEIRS 2-22 - OH - OH													Offset Site Error:	0.00 ft
Survey Program: 100-2" Cone@2.448 Sigma													Offset Well Error:	3.28 ft
Reference		Offset		Semi Major Axis			Distance							Warning
Measured Depth (ft)	Vertical Depth (ft)	Measured Depth (ft)	Vertical Depth (ft)	Reference (ft)	Offset (ft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (ft)	+E/-W (ft)	Between Centres (ft)	Between Ellipses (ft)	Minimum Separation (ft)	Separation Factor		
5,200.00	5,190.37	5,130.37	5,190.37	22.93	177.39	-145.42	-4,259.79	-1,046.81	4,626.80	4,426.48	200.31	23.098		
5,300.00	5,290.15	5,230.15	5,290.15	23.37	180.87	-145.47	-4,259.79	-1,046.81	4,632.20	4,427.97	204.23	22.681		
5,400.00	5,389.94	5,329.94	5,389.94	23.81	184.35	-145.52	-4,259.79	-1,046.81	4,637.61	4,429.46	208.16	22.280		
5,500.00	5,489.72	5,429.72	5,489.72	24.25	187.84	-145.56	-4,259.79	-1,046.81	4,643.02	4,430.94	212.08	21.893		
5,600.00	5,589.51	5,529.51	5,589.51	24.69	191.32	-145.61	-4,259.79	-1,046.81	4,648.44	4,432.44	216.00	21.521		
5,700.00	5,689.29	5,629.29	5,689.29	25.13	194.80	-145.65	-4,259.79	-1,046.81	4,653.85	4,433.93	219.92	21.162		
5,800.00	5,789.08	5,729.08	5,789.08	25.56	198.28	-145.70	-4,259.79	-1,046.81	4,659.27	4,435.43	223.84	20.815		
5,900.00	5,888.86	5,828.86	5,888.86	26.00	201.77	-145.74	-4,259.79	-1,046.81	4,664.69	4,436.93	227.76	20.480		
6,000.00	5,988.65	5,928.65	5,988.65	26.44	205.25	-145.79	-4,259.79	-1,046.81	4,670.12	4,438.43	231.69	20.157		
6,100.00	6,088.43	6,028.43	6,088.43	26.88	208.73	-145.83	-4,259.79	-1,046.81	4,675.55	4,439.94	235.61	19.845		
6,200.00	6,188.22	6,128.22	6,188.22	27.32	212.22	-145.88	-4,259.79	-1,046.81	4,680.98	4,441.45	239.53	19.542		
6,300.00	6,288.00	6,228.00	6,288.00	27.76	215.70	-145.92	-4,259.79	-1,046.81	4,686.41	4,442.96	243.45	19.250		
6,400.00	6,387.79	6,327.79	6,387.79	28.20	219.18	-145.97	-4,259.79	-1,046.81	4,691.85	4,444.47	247.38	18.967		
6,500.00	6,487.57	6,427.57	6,487.57	28.64	222.67	-146.01	-4,259.79	-1,046.81	4,697.29	4,445.99	251.30	18.692		
6,600.00	6,587.35	6,527.35	6,587.35	29.08	226.15	-146.06	-4,259.79	-1,046.81	4,702.73	4,447.51	255.22	18.426		
6,700.00	6,687.02	6,627.02	6,687.02	29.52	229.63	-108.01	-4,259.79	-1,046.81	4,707.76	4,448.62	259.14	18.167		
6,800.00	6,784.98	6,724.98	6,784.98	29.96	233.05	-92.03	-4,259.79	-1,046.81	4,710.19	4,447.19	263.00	17.909		
6,900.00	6,878.81	6,818.81	6,878.81	30.41	236.32	-87.90	-4,259.79	-1,046.81	4,709.82	4,443.10	266.72	17.658		
7,000.00	6,966.21	6,906.21	6,966.21	30.86	239.37	-86.59	-4,259.79	-1,046.81	4,706.98	4,436.75	270.23	17.418		
7,100.00	7,045.03	6,985.03	7,045.03	31.35	242.12	-86.45	-4,259.79	-1,046.81	4,702.15	4,428.68	273.47	17.194		
7,200.00	7,113.32	7,053.32	7,113.32	31.90	244.51	-86.91	-4,259.79	-1,046.81	4,695.91	4,419.50	276.41	16.989		
7,300.00	7,169.40	7,109.40	7,169.40	32.57	246.47	-87.66	-4,259.79	-1,046.81	4,688.92	4,409.89	279.03	16.804		
7,400.00	7,211.89	7,151.89	7,211.89	33.38	247.95	-88.48	-4,259.79	-1,046.81	4,681.79	4,400.47	281.32	16.642		
7,500.00	7,239.75	7,179.75	7,239.75	34.35	248.92	-89.25	-4,259.79	-1,046.81	4,675.09	4,391.82	283.27	16.504		
7,600.00	7,252.28	7,207.72	7,252.28	35.47	249.90	-89.86	-4,259.79	-1,046.81	4,669.25	4,383.88	285.36	16.362		
7,700.00	7,252.75	7,207.25	7,252.75	36.73	249.88	-90.01	-4,259.79	-1,046.81	4,664.74	4,378.14	286.60	16.276		
7,800.00	7,252.38	7,207.62	7,252.38	38.16	249.89	-90.00	-4,259.79	-1,046.81	4,662.33	4,374.30	288.03	16.187		
7,862.57	7,252.16	7,207.85	7,252.16	39.15	249.90	-90.00	-4,259.79	-1,046.81	4,661.91	4,372.89	289.02	16.130		
7,900.00	7,252.02	7,207.98	7,252.02	39.74	249.91	-90.00	-4,259.79	-1,046.81	4,662.06	4,372.45	289.61	16.098		
8,000.00	7,251.65	7,208.35	7,251.65	41.47	249.92	-89.99	-4,259.79	-1,046.81	4,663.93	4,372.61	291.32	16.010		
8,100.00	7,251.29	7,208.71	7,251.29	43.31	249.93	-89.99	-4,259.79	-1,046.81	4,667.95	4,374.82	293.13	15.924		
8,200.00	7,250.92	7,209.08	7,250.92	45.26	249.95	-89.98	-4,259.79	-1,046.81	4,674.10	4,379.07	295.03	15.843		
8,300.00	7,250.55	7,209.45	7,250.55	47.30	249.96	-89.98	-4,259.79	-1,046.81	4,682.39	4,385.38	297.01	15.765		
8,400.00	7,250.19	7,209.81	7,250.19	49.42	249.97	-89.98	-4,259.79	-1,046.81	4,692.78	4,393.75	299.04	15.693		
8,500.00	7,249.82	7,189.82	7,249.82	51.62	249.27	-89.97	-4,259.79	-1,046.81	4,705.28	4,404.88	300.40	15.663		
8,600.00	7,249.45	7,189.45	7,249.45	53.88	249.26	-89.97	-4,259.79	-1,046.81	4,719.87	4,417.39	302.48	15.604		
8,700.00	7,249.09	7,189.09	7,249.09	56.19	249.25	-89.96	-4,259.79	-1,046.81	4,736.53	4,431.95	304.58	15.551		
8,800.00	7,248.72	7,188.72	7,248.72	58.55	249.23	-89.96	-4,259.79	-1,046.81	4,755.22	4,448.53	306.69	15.505		
8,900.00	7,248.36	7,188.36	7,248.36	60.96	249.22	-89.95	-4,259.79	-1,046.81	4,775.94	4,467.14	308.80	15.466		
9,000.00	7,247.99	7,187.99	7,247.99	63.40	249.21	-89.95	-4,259.79	-1,046.81	4,798.66	4,487.75	310.91	15.434		
9,100.00	7,247.62	7,187.62	7,247.62	65.87	249.20	-89.94	-4,259.79	-1,046.81	4,823.34	4,510.33	313.01	15.410		
9,200.00	7,247.26	7,187.26	7,247.26	68.38	249.18	-89.94	-4,259.79	-1,046.81	4,849.96	4,534.87	315.09	15.392		
9,300.00	7,246.89	7,186.89	7,246.89	70.91	249.17	-89.94	-4,259.79	-1,046.81	4,878.48	4,561.34	317.14	15.383		
9,400.00	7,246.53	7,186.53	7,246.53	73.47	249.16	-89.93	-4,259.79	-1,046.81	4,908.87	4,589.70	319.17	15.380 SF		
9,500.00	7,246.16	7,186.16	7,246.16	76.05	249.15	-89.93	-4,259.79	-1,046.81	4,941.11	4,619.93	321.17	15.384		
9,600.00	7,245.79	7,185.79	7,245.79	78.65	249.13	-89.92	-4,259.79	-1,046.81	4,975.14	4,652.00	323.14	15.396		
9,700.00	7,245.43	7,185.43	7,245.43	81.27	249.12	-89.92	-4,259.79	-1,046.81	5,010.94	4,685.86	325.07	15.415		
9,800.00	7,245.06	7,185.06	7,245.06	83.90	249.11	-89.91	-4,259.79	-1,046.81	5,048.46	4,721.50	326.97	15.440		
9,900.00	7,244.69	7,184.69	7,244.69	86.55	249.09	-89.91	-4,259.79	-1,046.81	5,087.68	4,758.86	328.82	15.473		
10,000.00	7,244.33	7,184.33	7,244.33	89.21	249.08	-89.90	-4,259.79	-1,046.81	5,128.54	4,797.91	330.63	15.511		
10,100.00	7,243.96	7,183.96	7,243.96	91.88	249.07	-89.90	-4,259.79	-1,046.81	5,171.02	4,838.62	332.40	15.557		
10,200.00	7,243.60	7,183.60	7,243.60	94.56	249.06	-89.89	-4,259.79	-1,046.81	5,215.06	4,880.94	334.12	15.608		

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



Anticollision Report



Company:	SRC ENERGY	Local Co-ordinate Reference:	Well HARVESTERS STATE 31C-16-M
Project:	SECTION 15, T6N, R66W	TVD Reference:	KB @ 4821.00ft
Reference Site:	HARVESTERS STATE 7-15 PAD	MD Reference:	KB @ 4821.00ft
Site Error:	3.28 ft	North Reference:	True
Reference Well:	HARVESTERS STATE 31C-16-M	Survey Calculation Method:	Minimum Curvature
Well Error:	3.28 ft	Output errors are at	2.45 sigma
Reference Wellbore	OH	Database:	EDM 5000.14 Single User Db
Reference Design:	PLAN #1	Offset TVD Reference:	Reference Datum

Offset Design HARVESTERS STATE 7-15 PAD - RUTT-ADAMS HEIRS 2-22 - OH - OH													Offset Site Error:	0.00 ft
Survey Program: 100-2" Cone@2.448 Sigma													Offset Well Error:	3.28 ft
Reference		Offset		Semi Major Axis			Distance							Warning
Measured Depth (ft)	Vertical Depth (ft)	Measured Depth (ft)	Vertical Depth (ft)	Reference (ft)	Offset (ft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (ft)	+E/-W (ft)	Between Centres (ft)	Between Ellipses (ft)	Minimum Separation (ft)	Separation Factor		
10,300.00	7,243.23	7,183.23	7,243.23	97.26	249.04	-89.89	-4,259.79	-1,046.81	5,260.64	4,924.84	335.80	15.666		
10,400.00	7,242.86	7,182.86	7,242.86	99.96	249.03	-89.89	-4,259.79	-1,046.81	5,307.72	4,970.28	337.43	15.730		
10,500.00	7,242.50	7,182.50	7,242.50	102.67	249.02	-89.88	-4,259.79	-1,046.81	5,356.24	5,017.22	339.02	15.799		
10,600.00	7,242.13	7,182.13	7,242.13	105.39	249.00	-89.88	-4,259.79	-1,046.81	5,406.18	5,065.62	340.57	15.874		
10,700.00	7,241.76	7,181.76	7,241.76	108.12	248.99	-89.87	-4,259.79	-1,046.81	5,457.50	5,115.43	342.06	15.955		
10,800.00	7,241.40	7,181.40	7,241.40	110.85	248.98	-89.87	-4,259.79	-1,046.81	5,510.15	5,166.63	343.52	16.040		
10,900.00	7,241.03	7,181.03	7,241.03	113.59	248.97	-89.86	-4,259.79	-1,046.81	5,564.10	5,219.17	344.93	16.131		
11,000.00	7,240.67	7,180.67	7,240.67	116.34	248.95	-89.86	-4,259.79	-1,046.81	5,619.32	5,273.02	346.29	16.227		
11,100.00	7,240.30	7,180.30	7,240.30	119.09	248.94	-89.85	-4,259.79	-1,046.81	5,675.75	5,328.14	347.62	16.328		
11,200.00	7,239.93	7,179.93	7,239.93	121.85	248.93	-89.85	-4,259.79	-1,046.81	5,733.38	5,384.48	348.90	16.433		
11,300.00	7,239.57	7,179.57	7,239.57	124.61	248.92	-89.85	-4,259.79	-1,046.81	5,792.16	5,442.02	350.14	16.543		
11,400.00	7,239.20	7,179.20	7,239.20	127.38	248.90	-89.84	-4,259.79	-1,046.81	5,852.06	5,500.72	351.34	16.657		
11,500.00	7,238.84	7,178.84	7,238.84	130.15	248.89	-89.84	-4,259.79	-1,046.81	5,913.04	5,560.55	352.50	16.775		
11,600.00	7,238.47	7,178.47	7,238.47	132.92	248.88	-89.83	-4,259.79	-1,046.81	5,975.08	5,621.46	353.62	16.897		
11,700.00	7,238.10	7,178.10	7,238.10	135.70	248.86	-89.83	-4,259.79	-1,046.81	6,038.13	5,683.43	354.70	17.023		
11,800.00	7,237.74	7,177.74	7,237.74	138.48	248.85	-89.82	-4,259.79	-1,046.81	6,102.17	5,746.43	355.75	17.153		
11,900.00	7,237.37	7,177.37	7,237.37	141.26	248.84	-89.82	-4,259.79	-1,046.81	6,167.17	5,810.41	356.76	17.287		
12,000.00	7,237.00	7,177.00	7,237.00	144.05	248.83	-89.81	-4,259.79	-1,046.81	6,233.09	5,875.36	357.73	17.424		
12,100.00	7,236.64	7,176.64	7,236.64	146.84	248.81	-89.81	-4,259.79	-1,046.81	6,299.92	5,941.24	358.67	17.564		
12,200.00	7,236.27	7,176.27	7,236.27	149.64	248.80	-89.80	-4,259.79	-1,046.81	6,367.61	6,008.02	359.58	17.708		
12,300.00	7,235.91	7,175.91	7,235.91	152.43	248.79	-89.80	-4,259.79	-1,046.81	6,436.14	6,075.68	360.46	17.855		
12,400.00	7,235.54	7,175.54	7,235.54	155.23	248.77	-89.80	-4,259.79	-1,046.81	6,505.49	6,144.18	361.31	18.005		
12,500.00	7,235.17	7,175.17	7,235.17	158.03	248.76	-89.79	-4,259.79	-1,046.81	6,575.62	6,213.50	362.13	18.158		
12,600.00	7,234.81	7,174.81	7,234.81	160.83	248.75	-89.79	-4,259.79	-1,046.81	6,646.53	6,283.61	362.92	18.314		
12,700.00	7,234.44	7,174.44	7,234.44	163.64	248.74	-89.78	-4,259.79	-1,046.81	6,718.17	6,354.49	363.68	18.473		
12,800.00	7,234.07	7,174.07	7,234.07	166.44	248.72	-89.78	-4,259.79	-1,046.81	6,790.53	6,426.11	364.42	18.634		
12,900.00	7,233.71	7,173.71	7,233.71	169.25	248.71	-89.77	-4,259.79	-1,046.81	6,863.58	6,498.45	365.13	18.798		
13,000.00	7,233.34	7,173.34	7,233.34	172.06	248.70	-89.77	-4,259.79	-1,046.81	6,937.31	6,571.49	365.81	18.964		
13,100.00	7,232.98	7,172.98	7,232.98	174.88	248.69	-89.76	-4,259.79	-1,046.81	7,011.68	6,645.21	366.47	19.133		
13,200.00	7,232.61	7,172.61	7,232.61	177.69	248.67	-89.76	-4,259.79	-1,046.81	7,086.69	6,719.57	367.11	19.304		
13,300.00	7,232.24	7,172.24	7,232.24	180.50	248.66	-89.76	-4,259.79	-1,046.81	7,162.31	6,794.58	367.73	19.477		
13,400.00	7,231.88	7,171.88	7,231.88	183.32	248.65	-89.75	-4,259.79	-1,046.81	7,238.51	6,870.19	368.33	19.653		
13,500.00	7,231.51	7,171.51	7,231.51	186.14	248.63	-89.75	-4,259.79	-1,046.81	7,315.30	6,946.40	368.90	19.830		
13,600.00	7,231.15	7,171.15	7,231.15	188.96	248.62	-89.74	-4,259.79	-1,046.81	7,392.63	7,023.18	369.45	20.010		
13,700.00	7,230.78	7,170.78	7,230.78	191.78	248.61	-89.74	-4,259.79	-1,046.81	7,470.51	7,100.52	369.99	20.191		
13,800.00	7,230.41	7,170.41	7,230.41	194.60	248.60	-89.73	-4,259.79	-1,046.81	7,548.91	7,178.40	370.51	20.374		
13,900.00	7,230.05	7,170.05	7,230.05	197.42	248.58	-89.73	-4,259.79	-1,046.81	7,627.81	7,256.80	371.01	20.560		
14,000.00	7,229.68	7,169.68	7,229.68	200.25	248.57	-89.72	-4,259.79	-1,046.81	7,707.20	7,335.71	371.49	20.747		
14,100.00	7,229.31	7,169.31	7,229.31	203.07	248.56	-89.72	-4,259.79	-1,046.81	7,787.06	7,415.11	371.96	20.935		
14,200.00	7,228.95	7,168.95	7,228.95	205.90	248.54	-89.71	-4,259.79	-1,046.81	7,867.39	7,494.98	372.41	21.126		
14,300.00	7,228.58	7,168.58	7,228.58	208.73	248.53	-89.71	-4,259.79	-1,046.81	7,948.16	7,575.32	372.85	21.318		
14,400.00	7,228.22	7,168.22	7,228.22	211.55	248.52	-89.71	-4,259.79	-1,046.81	8,029.37	7,656.10	373.27	21.511		
14,500.00	7,227.85	7,167.85	7,227.85	214.38	248.51	-89.70	-4,259.79	-1,046.81	8,111.00	7,737.32	373.67	21.706		
14,600.00	7,227.48	7,167.48	7,227.48	217.21	248.49	-89.70	-4,259.79	-1,046.81	8,193.03	7,818.96	374.07	21.902		
14,700.00	7,227.12	7,167.12	7,227.12	220.04	248.48	-89.69	-4,259.79	-1,046.81	8,275.46	7,901.01	374.45	22.100		
14,800.00	7,226.75	7,166.75	7,226.75	222.88	248.47	-89.69	-4,259.79	-1,046.81	8,358.27	7,983.45	374.82	22.300		
14,900.00	7,226.38	7,166.38	7,226.38	225.71	248.46	-89.68	-4,259.79	-1,046.81	8,441.45	8,066.28	375.18	22.500		
15,000.00	7,226.02	7,166.02	7,226.02	228.54	248.44	-89.68	-4,259.79	-1,046.81	8,525.00	8,149.48	375.52	22.702		
15,005.81	7,226.00	7,166.00	7,226.00	228.71	248.44	-89.68	-4,259.79	-1,046.81	8,529.86	8,154.32	375.54	22.714		

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



Anticollision Report



Company:	SRC ENERGY	Local Co-ordinate Reference:	Well HARVESTERS STATE 31C-16-M
Project:	SECTION 15, T6N, R66W	TVD Reference:	KB @ 4821.00ft
Reference Site:	HARVESTERS STATE 7-15 PAD	MD Reference:	KB @ 4821.00ft
Site Error:	3.28 ft	North Reference:	True
Reference Well:	HARVESTERS STATE 31C-16-M	Survey Calculation Method:	Minimum Curvature
Well Error:	3.28 ft	Output errors are at	2.45 sigma
Reference Wellbore	OH	Database:	EDM 5000.14 Single User Db
Reference Design:	PLAN #1	Offset TVD Reference:	Reference Datum

Offset Design HARVESTERS STATE 7-15 PAD - SENA 15-21(PR_75CC) - OH - OH													Offset Site Error:	0.00 ft
Survey Program: 100-2" Cone@2.448 Sigma													Offset Well Error:	3.28 ft
Reference		Offset		Semi Major Axis			Distance							Warning
Measured Depth (ft)	Vertical Depth (ft)	Measured Depth (ft)	Vertical Depth (ft)	Reference (ft)	Offset (ft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (ft)	+E/-W (ft)	Between Centres (ft)	Between Ellipses (ft)	Minimum Separation (ft)	Separation Factor		
0.00	0.00	5.00	0.00	3.28	3.28	-45.80	1,130.84	-1,162.84	1,622.03					
100.00	100.00	105.00	100.00	3.28	3.80	-45.80	1,130.84	-1,162.84	1,622.03	1,614.95	7.09	228.928		
200.00	200.00	205.00	200.00	3.34	6.33	-45.80	1,130.84	-1,162.84	1,622.03	1,612.37	9.66	167.833		
300.00	300.00	305.00	300.00	3.44	9.49	-45.80	1,130.84	-1,162.84	1,622.03	1,609.10	12.93	125.428		
400.00	400.00	405.00	400.00	3.60	12.82	-45.80	1,130.84	-1,162.84	1,622.03	1,605.61	16.42	98.765		
500.00	500.00	505.00	500.00	3.81	16.22	-45.80	1,130.84	-1,162.84	1,622.03	1,602.01	20.03	81.000		
600.00	600.00	605.00	600.00	4.05	19.65	-45.80	1,130.84	-1,162.84	1,622.03	1,598.34	23.70	68.449		
700.00	699.98	705.02	699.98	4.32	23.10	-22.94	1,130.84	-1,162.84	1,620.43	1,593.01	27.42	59.100		
800.00	799.84	805.16	799.84	4.62	26.57	-23.04	1,130.84	-1,162.84	1,615.63	1,584.45	31.18	51.812		
900.00	899.62	905.38	899.62	4.94	30.04	-23.13	1,130.84	-1,162.84	1,609.60	1,574.62	34.97	46.023		
1,000.00	999.41	1,005.59	999.41	5.27	33.52	-23.22	1,130.84	-1,162.84	1,603.57	1,564.78	38.79	41.342		
1,100.00	1,099.19	1,105.81	1,099.19	5.62	37.00	-23.32	1,130.84	-1,162.84	1,597.54	1,554.92	42.62	37.483		
1,200.00	1,198.98	1,206.02	1,198.98	5.99	40.49	-23.41	1,130.84	-1,162.84	1,591.52	1,545.05	46.47	34.250		
1,300.00	1,298.76	1,306.24	1,298.76	6.36	43.98	-23.50	1,130.84	-1,162.84	1,585.50	1,535.17	50.33	31.504		
1,400.00	1,398.55	1,406.45	1,398.55	6.74	47.47	-23.60	1,130.84	-1,162.84	1,579.49	1,525.29	54.20	29.144		
1,500.00	1,498.33	1,506.67	1,498.33	7.13	50.96	-23.69	1,130.84	-1,162.84	1,573.48	1,515.40	58.07	27.094		
1,600.00	1,598.12	1,606.88	1,598.12	7.52	54.45	-23.79	1,130.84	-1,162.84	1,567.47	1,505.51	61.96	25.299		
1,700.00	1,697.90	1,707.10	1,697.90	7.92	57.94	-23.89	1,130.84	-1,162.84	1,561.47	1,495.62	65.85	23.713		
1,800.00	1,797.69	1,807.31	1,797.69	8.33	61.44	-23.99	1,130.84	-1,162.84	1,555.48	1,485.73	69.74	22.302		
1,900.00	1,897.47	1,907.53	1,897.47	8.74	64.93	-24.08	1,130.84	-1,162.84	1,549.48	1,475.84	73.64	21.040		
2,000.00	1,997.26	2,007.74	1,997.26	9.15	68.42	-24.18	1,130.84	-1,162.84	1,543.50	1,465.95	77.55	19.904		
2,100.00	2,097.04	2,107.96	2,097.04	9.56	71.92	-24.28	1,130.84	-1,162.84	1,537.52	1,456.06	81.45	18.876		
2,200.00	2,196.83	2,208.17	2,196.83	9.98	75.41	-24.38	1,130.84	-1,162.84	1,531.54	1,446.17	85.36	17.941		
2,300.00	2,296.61	2,308.39	2,296.61	10.40	78.91	-24.49	1,130.84	-1,162.84	1,525.57	1,436.29	89.28	17.088		
2,400.00	2,396.40	2,408.60	2,396.40	10.82	82.40	-24.59	1,130.84	-1,162.84	1,519.60	1,426.41	93.19	16.306		
2,500.00	2,496.18	2,508.82	2,496.18	11.24	85.90	-24.69	1,130.84	-1,162.84	1,513.63	1,416.53	97.11	15.587		
2,600.00	2,595.96	2,609.04	2,595.96	11.66	89.40	-24.80	1,130.84	-1,162.84	1,507.68	1,406.65	101.02	14.924		
2,700.00	2,695.75	2,709.25	2,695.75	12.09	92.89	-24.90	1,130.84	-1,162.84	1,501.72	1,396.78	104.94	14.310		
2,800.00	2,795.53	2,809.47	2,795.53	12.51	96.39	-25.01	1,130.84	-1,162.84	1,495.78	1,386.91	108.87	13.740		
2,900.00	2,895.32	2,909.68	2,895.32	12.94	99.89	-25.11	1,130.84	-1,162.84	1,489.83	1,377.05	112.79	13.209		
3,000.00	2,995.10	3,009.90	2,995.10	13.37	103.38	-25.22	1,130.84	-1,162.84	1,483.90	1,367.19	116.71	12.714		
3,100.00	3,094.89	3,089.89	3,094.89	13.80	106.17	-25.33	1,130.84	-1,162.84	1,477.96	1,358.03	119.93	12.324		
3,200.00	3,194.67	3,189.67	3,194.67	14.23	109.66	-25.44	1,130.84	-1,162.84	1,472.04	1,348.20	123.84	11.887		
3,300.00	3,294.46	3,289.46	3,294.46	14.66	113.14	-25.55	1,130.84	-1,162.84	1,466.12	1,338.36	127.75	11.476		
3,400.00	3,394.24	3,389.24	3,394.24	15.09	116.62	-25.66	1,130.84	-1,162.84	1,460.20	1,328.54	131.66	11.091		
3,500.00	3,494.03	3,489.03	3,494.03	15.52	120.10	-25.77	1,130.84	-1,162.84	1,454.29	1,318.71	135.57	10.727		
3,600.00	3,593.81	3,588.81	3,593.81	15.96	123.58	-25.88	1,130.84	-1,162.84	1,448.38	1,308.90	139.49	10.384		
3,700.00	3,693.60	3,688.60	3,693.60	16.39	127.07	-26.00	1,130.84	-1,162.84	1,442.48	1,299.08	143.40	10.059		
3,800.00	3,793.38	3,788.38	3,793.38	16.82	130.55	-26.11	1,130.84	-1,162.84	1,436.59	1,289.27	147.32	9.752		
3,900.00	3,893.17	3,888.17	3,893.17	17.26	134.03	-26.23	1,130.84	-1,162.84	1,430.70	1,279.47	151.23	9.460		
4,000.00	3,992.95	3,987.95	3,992.95	17.69	137.51	-26.34	1,130.84	-1,162.84	1,424.82	1,269.67	155.15	9.184		
4,100.00	4,092.74	4,087.74	4,092.74	18.13	141.00	-26.46	1,130.84	-1,162.84	1,418.94	1,259.88	159.06	8.921		
4,200.00	4,192.52	4,187.52	4,192.52	18.56	144.48	-26.58	1,130.84	-1,162.84	1,413.07	1,250.10	162.98	8.670		
4,300.00	4,292.31	4,287.31	4,292.31	19.00	147.96	-26.70	1,130.84	-1,162.84	1,407.21	1,240.31	166.89	8.432		
4,400.00	4,392.09	4,387.09	4,392.09	19.43	151.44	-26.82	1,130.84	-1,162.84	1,401.35	1,230.54	170.81	8.204		
4,500.00	4,491.88	4,486.88	4,491.88	19.87	154.93	-26.94	1,130.84	-1,162.84	1,395.50	1,220.77	174.73	7.987		
4,600.00	4,591.66	4,586.66	4,591.66	20.31	158.41	-27.06	1,130.84	-1,162.84	1,389.65	1,211.01	178.65	7.779		
4,700.00	4,691.44	4,686.44	4,691.44	20.74	161.89	-27.19	1,130.84	-1,162.84	1,383.81	1,201.25	182.56	7.580		
4,800.00	4,791.23	4,786.23	4,791.23	21.18	165.37	-27.31	1,130.84	-1,162.84	1,377.98	1,191.50	186.48	7.389		
4,900.00	4,891.01	4,886.01	4,891.01	21.62	168.86	-27.44	1,130.84	-1,162.84	1,372.16	1,181.76	190.40	7.207		
5,000.00	4,990.80	4,985.80	4,990.80	22.06	172.34	-27.56	1,130.84	-1,162.84	1,366.34	1,172.02	194.32	7.031		
5,100.00	5,090.58	5,085.58	5,090.58	22.50	175.82	-27.69	1,130.84	-1,162.84	1,360.52	1,162.29	198.24	6.863		

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



Anticollision Report



Company:	SRC ENERGY	Local Co-ordinate Reference:	Well HARVESTERS STATE 31C-16-M
Project:	SECTION 15, T6N, R66W	TVD Reference:	KB @ 4821.00ft
Reference Site:	HARVESTERS STATE 7-15 PAD	MD Reference:	KB @ 4821.00ft
Site Error:	3.28 ft	North Reference:	True
Reference Well:	HARVESTERS STATE 31C-16-M	Survey Calculation Method:	Minimum Curvature
Well Error:	3.28 ft	Output errors are at	2.45 sigma
Reference Wellbore	OH	Database:	EDM 5000.14 Single User Db
Reference Design:	PLAN #1	Offset TVD Reference:	Reference Datum

Offset Design HARVESTERS STATE 7-15 PAD - SENA 15-21(PR_75CC) - OH - OH												Offset Site Error:	0.00 ft
Survey Program: 100-2" Cone@2.448 Sigma												Offset Well Error:	3.28 ft
Reference		Offset		Semi Major Axis			Distance						Warning
Measured Depth (ft)	Vertical Depth (ft)	Measured Depth (ft)	Vertical Depth (ft)	Reference (ft)	Offset (ft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (ft)	+E/-W (ft)	Between Centres (ft)	Between Ellipses (ft)	Minimum Separation (ft)	Separation Factor	
5,200.00	5,190.37	5,185.37	5,190.37	22.93	179.31	-27.82	1,130.84	-1,162.84	1,354.72	1,152.56	202.16	6.701	
5,300.00	5,290.15	5,285.15	5,290.15	23.37	182.79	-27.95	1,130.84	-1,162.84	1,348.92	1,142.84	206.08	6.546	
5,400.00	5,389.94	5,384.94	5,389.94	23.81	186.27	-28.08	1,130.84	-1,162.84	1,343.13	1,133.13	209.99	6.396	
5,500.00	5,489.72	5,484.72	5,489.72	24.25	189.75	-28.21	1,130.84	-1,162.84	1,337.34	1,123.43	213.91	6.252	
5,600.00	5,589.51	5,584.51	5,589.51	24.69	193.24	-28.35	1,130.84	-1,162.84	1,331.56	1,113.73	217.83	6.113	
5,700.00	5,689.29	5,684.29	5,689.29	25.13	196.72	-28.48	1,130.84	-1,162.84	1,325.79	1,104.04	221.75	5.979	
5,800.00	5,789.08	5,784.08	5,789.08	25.56	200.20	-28.62	1,130.84	-1,162.84	1,320.03	1,094.36	225.67	5.849	
5,900.00	5,888.86	5,883.86	5,888.86	26.00	203.69	-28.75	1,130.84	-1,162.84	1,314.27	1,084.68	229.59	5.724	
6,000.00	5,988.65	5,983.65	5,988.65	26.44	207.17	-28.89	1,130.84	-1,162.84	1,308.53	1,075.01	233.51	5.604	
6,100.00	6,088.43	6,083.43	6,088.43	26.88	210.65	-29.03	1,130.84	-1,162.84	1,302.79	1,065.35	237.44	5.487	
6,200.00	6,188.22	6,183.22	6,188.22	27.32	214.14	-29.17	1,130.84	-1,162.84	1,297.05	1,055.70	241.36	5.374	
6,300.00	6,288.00	6,283.00	6,288.00	27.76	217.62	-29.31	1,130.84	-1,162.84	1,291.33	1,046.05	245.28	5.265	
6,400.00	6,387.79	6,382.79	6,387.79	28.20	221.10	-29.46	1,130.84	-1,162.84	1,285.61	1,036.41	249.20	5.159	
6,500.00	6,487.57	6,482.57	6,487.57	28.64	224.59	-29.60	1,130.84	-1,162.84	1,279.90	1,026.78	253.12	5.057	
6,600.00	6,587.35	6,582.35	6,587.35	29.08	228.07	-29.75	1,130.84	-1,162.84	1,274.20	1,017.16	257.04	4.957	
6,700.00	6,687.02	6,682.02	6,687.02	29.52	231.55	8.33	1,130.84	-1,162.84	1,268.74	1,007.78	260.96	4.854	
6,800.00	6,784.98	6,779.98	6,784.98	29.96	234.97	25.67	1,130.84	-1,162.84	1,248.27	983.46	264.81	4.714	
6,900.00	6,878.81	6,873.81	6,878.81	30.41	238.24	32.84	1,130.84	-1,162.84	1,218.05	949.55	268.50	4.536	
7,000.00	6,966.21	6,961.21	6,966.21	30.86	241.29	38.98	1,130.84	-1,162.84	1,177.20	905.24	271.95	4.329	
7,100.00	7,045.03	7,040.03	7,045.03	31.35	244.04	45.85	1,130.84	-1,162.84	1,127.35	852.27	275.09	4.098	
7,200.00	7,113.32	7,108.32	7,113.32	31.90	246.43	54.01	1,130.84	-1,162.84	1,070.69	792.83	277.86	3.853	
7,300.00	7,169.40	7,164.40	7,169.40	32.57	248.39	63.32	1,130.84	-1,162.84	1,009.85	729.59	280.26	3.603	
7,400.00	7,211.89	7,206.89	7,211.89	33.38	249.87	72.98	1,130.84	-1,162.84	947.97	665.66	282.31	3.358	
7,500.00	7,239.75	7,234.75	7,239.75	34.35	250.84	81.73	1,130.84	-1,162.84	888.52	604.45	284.07	3.128	
7,600.00	7,252.28	7,247.28	7,252.28	35.47	251.28	88.46	1,130.84	-1,162.84	835.11	549.53	285.58	2.924	
7,700.00	7,252.75	7,247.75	7,252.75	36.73	251.30	90.09	1,130.84	-1,162.84	790.90	503.90	287.00	2.756	
7,800.00	7,252.38	7,247.38	7,252.38	38.16	251.28	90.06	1,130.84	-1,162.84	757.42	468.69	288.73	2.623	
7,900.00	7,252.02	7,247.02	7,252.02	39.74	251.27	90.03	1,130.84	-1,162.84	736.11	445.42	290.69	2.532	
8,000.00	7,251.65	7,246.65	7,251.65	41.47	251.26	90.00	1,130.84	-1,162.84	728.03	435.35	292.68	2.487	
8,009.16	7,251.62	7,246.62	7,251.62	41.64	251.26	90.00	1,130.84	-1,162.84	727.97	435.11	292.86	2.486	CC, ES, SF
8,100.00	7,251.29	7,246.29	7,251.29	43.31	251.24	89.97	1,130.84	-1,162.84	733.62	439.11	294.51	2.491	
8,200.00	7,250.92	7,245.92	7,250.92	45.26	251.23	89.94	1,130.84	-1,162.84	752.57	456.57	296.01	2.542	
8,300.00	7,250.55	7,245.55	7,250.55	47.30	251.22	89.92	1,130.84	-1,162.84	783.92	486.82	297.10	2.639	
8,400.00	7,250.19	7,245.19	7,250.19	49.42	251.21	89.89	1,130.84	-1,162.84	826.26	528.44	297.81	2.774	
8,500.00	7,249.82	7,244.82	7,249.82	51.62	251.19	89.86	1,130.84	-1,162.84	877.99	579.80	298.19	2.944	
8,600.00	7,249.45	7,244.45	7,249.45	53.88	251.18	89.83	1,130.84	-1,162.84	937.57	639.26	298.31	3.143	
8,700.00	7,249.09	7,244.09	7,249.09	56.19	251.17	89.80	1,130.84	-1,162.84	1,003.59	705.34	298.26	3.365	
8,800.00	7,248.72	7,243.72	7,248.72	58.55	251.15	89.77	1,130.84	-1,162.84	1,074.88	776.79	298.09	3.606	
8,900.00	7,248.36	7,243.36	7,248.36	60.96	251.14	89.74	1,130.84	-1,162.84	1,150.45	852.60	297.85	3.862	
9,000.00	7,247.99	7,242.99	7,247.99	63.40	251.13	89.71	1,130.84	-1,162.84	1,229.51	931.93	297.58	4.132	
9,100.00	7,247.62	7,242.62	7,247.62	65.87	251.12	89.69	1,130.84	-1,162.84	1,311.44	1,014.15	297.29	4.411	
9,200.00	7,247.26	7,242.26	7,247.26	68.38	251.10	89.66	1,130.84	-1,162.84	1,395.72	1,098.72	297.00	4.699	
9,300.00	7,246.89	7,241.89	7,246.89	70.91	251.09	89.63	1,130.84	-1,162.84	1,481.96	1,185.25	296.71	4.995	
9,400.00	7,246.53	7,241.53	7,246.53	73.47	251.08	89.60	1,130.84	-1,162.84	1,569.83	1,273.39	296.44	5.296	
9,500.00	7,246.16	7,241.16	7,246.16	76.05	251.07	89.57	1,130.84	-1,162.84	1,659.07	1,362.90	296.18	5.602	
9,600.00	7,245.79	7,240.79	7,245.79	78.65	251.05	89.54	1,130.84	-1,162.84	1,749.48	1,453.55	295.93	5.912	
9,700.00	7,245.43	7,240.43	7,245.43	81.27	251.04	89.51	1,130.84	-1,162.84	1,840.88	1,545.18	295.70	6.225	
9,800.00	7,245.06	7,240.06	7,245.06	83.90	251.03	89.48	1,130.84	-1,162.84	1,933.14	1,637.65	295.49	6.542	
9,900.00	7,244.69	7,239.69	7,244.69	86.55	251.01	89.46	1,130.84	-1,162.84	2,026.12	1,730.83	295.29	6.861	
10,000.00	7,244.33	7,239.33	7,244.33	89.21	251.00	89.43	1,130.84	-1,162.84	2,119.75	1,824.64	295.11	7.183	
10,100.00	7,243.96	7,238.96	7,243.96	91.88	250.99	89.40	1,130.84	-1,162.84	2,213.93	1,919.00	294.94	7.506	
10,200.00	7,243.60	7,238.60	7,243.60	94.56	250.98	89.37	1,130.84	-1,162.84	2,308.61	2,013.83	294.78	7.832	

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



Anticollision Report



Company:	SRC ENERGY	Local Co-ordinate Reference:	Well HARVESTERS STATE 31C-16-M
Project:	SECTION 15, T6N, R66W	TVD Reference:	KB @ 4821.00ft
Reference Site:	HARVESTERS STATE 7-15 PAD	MD Reference:	KB @ 4821.00ft
Site Error:	3.28 ft	North Reference:	True
Reference Well:	HARVESTERS STATE 31C-16-M	Survey Calculation Method:	Minimum Curvature
Well Error:	3.28 ft	Output errors are at	2.45 sigma
Reference Wellbore	OH	Database:	EDM 5000.14 Single User Db
Reference Design:	PLAN #1	Offset TVD Reference:	Reference Datum

Offset Design HARVESTERS STATE 7-15 PAD - SENA 15-21(PR_75CC) - OH - OH													Offset Site Error:	0.00 ft
Survey Program: 100-2" Cone@2.448 Sigma													Offset Well Error:	3.28 ft
Reference		Offset		Semi Major Axis			Distance							Warning
Measured Depth (ft)	Vertical Depth (ft)	Measured Depth (ft)	Vertical Depth (ft)	Reference (ft)	Offset (ft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (ft)	+E/-W (ft)	Between Centres (ft)	Between Ellipses (ft)	Minimum Separation (ft)	Separation Factor		
10,300.00	7,243.23	7,238.23	7,243.23	97.26	250.96	89.34	1,130.84	-1,162.84	2,403.71	2,109.08	294.64	8.158		
10,400.00	7,242.86	7,237.86	7,242.86	99.96	250.95	89.31	1,130.84	-1,162.84	2,499.20	2,204.70	294.50	8.486		
10,500.00	7,242.50	7,237.50	7,242.50	102.67	250.94	89.28	1,130.84	-1,162.84	2,595.03	2,300.65	294.38	8.815		
10,600.00	7,242.13	7,237.13	7,242.13	105.39	250.92	89.25	1,130.84	-1,162.84	2,691.16	2,396.89	294.26	9.145		
10,700.00	7,241.76	7,236.76	7,241.76	108.12	250.91	89.22	1,130.84	-1,162.84	2,787.56	2,493.40	294.16	9.476		
10,800.00	7,241.40	7,236.40	7,241.40	110.85	250.90	89.20	1,130.84	-1,162.84	2,884.21	2,590.15	294.06	9.808		
10,900.00	7,241.03	7,236.03	7,241.03	113.59	250.89	89.17	1,130.84	-1,162.84	2,981.07	2,687.10	293.97	10.141		
11,000.00	7,240.67	7,235.67	7,240.67	116.34	250.87	89.14	1,130.84	-1,162.84	3,078.14	2,784.25	293.89	10.474		
11,100.00	7,240.30	7,235.30	7,240.30	119.09	250.86	89.11	1,130.84	-1,162.84	3,175.39	2,881.58	293.81	10.808		
11,200.00	7,239.93	7,234.93	7,239.93	121.85	250.85	89.08	1,130.84	-1,162.84	3,272.81	2,979.07	293.74	11.142		
11,300.00	7,239.57	7,234.57	7,239.57	124.61	250.84	89.05	1,130.84	-1,162.84	3,370.38	3,076.70	293.68	11.476		
11,400.00	7,239.20	7,234.20	7,239.20	127.38	250.82	89.02	1,130.84	-1,162.84	3,468.08	3,174.46	293.62	11.811		
11,500.00	7,238.84	7,233.84	7,238.84	130.15	250.81	88.99	1,130.84	-1,162.84	3,565.92	3,272.35	293.57	12.147		
11,600.00	7,238.47	7,233.47	7,238.47	132.92	250.80	88.97	1,130.84	-1,162.84	3,663.87	3,370.35	293.52	12.483		
11,700.00	7,238.10	7,233.10	7,238.10	135.70	250.78	88.94	1,130.84	-1,162.84	3,761.93	3,468.45	293.48	12.819		
11,800.00	7,237.74	7,232.74	7,237.74	138.48	250.77	88.91	1,130.84	-1,162.84	3,860.08	3,566.65	293.44	13.155		
11,900.00	7,237.37	7,232.37	7,237.37	141.26	250.76	88.88	1,130.84	-1,162.84	3,958.33	3,664.93	293.40	13.491		
12,000.00	7,237.00	7,232.00	7,237.00	144.05	250.75	88.85	1,130.84	-1,162.84	4,056.67	3,763.30	293.37	13.828		
12,100.00	7,236.64	7,231.64	7,236.64	146.84	250.73	88.82	1,130.84	-1,162.84	4,155.08	3,861.74	293.34	14.165		
12,200.00	7,236.27	7,231.27	7,236.27	149.64	250.72	88.79	1,130.84	-1,162.84	4,253.57	3,960.25	293.32	14.502		
12,300.00	7,235.91	7,230.91	7,235.91	152.43	250.71	88.76	1,130.84	-1,162.84	4,352.13	4,058.83	293.30	14.839		
12,400.00	7,235.54	7,230.54	7,235.54	155.23	250.69	88.73	1,130.84	-1,162.84	4,450.75	4,157.47	293.28	15.176		
12,500.00	7,235.17	7,230.17	7,235.17	158.03	250.68	88.71	1,130.84	-1,162.84	4,549.43	4,256.17	293.27	15.513		
12,600.00	7,234.81	7,229.81	7,234.81	160.83	250.67	88.68	1,130.84	-1,162.84	4,648.17	4,354.92	293.26	15.850		
12,700.00	7,234.44	7,229.44	7,234.44	163.64	250.66	88.65	1,130.84	-1,162.84	4,746.96	4,453.72	293.25	16.188		
12,800.00	7,234.07	7,229.07	7,234.07	166.44	250.64	88.62	1,130.84	-1,162.84	4,845.80	4,552.56	293.24	16.525		
12,900.00	7,233.71	7,228.71	7,233.71	169.25	250.63	88.59	1,130.84	-1,162.84	4,944.69	4,651.45	293.24	16.862		
13,000.00	7,233.34	7,228.34	7,233.34	172.06	250.62	88.56	1,130.84	-1,162.84	5,043.62	4,750.39	293.24	17.200		
13,100.00	7,232.98	7,227.98	7,232.98	174.88	250.61	88.53	1,130.84	-1,162.84	5,142.59	4,849.36	293.24	17.537		
13,200.00	7,232.61	7,227.61	7,232.61	177.69	250.59	88.50	1,130.84	-1,162.84	5,241.61	4,948.36	293.24	17.875		
13,300.00	7,232.24	7,227.24	7,232.24	180.50	250.58	88.48	1,130.84	-1,162.84	5,340.65	5,047.41	293.25	18.212		
13,400.00	7,231.88	7,226.88	7,231.88	183.32	250.57	88.45	1,130.84	-1,162.84	5,439.74	5,146.48	293.26	18.549		
13,500.00	7,231.51	7,226.51	7,231.51	186.14	250.55	88.42	1,130.84	-1,162.84	5,538.85	5,245.59	293.27	18.887		
13,600.00	7,231.15	7,226.15	7,231.15	188.96	250.54	88.39	1,130.84	-1,162.84	5,638.00	5,344.72	293.28	19.224		
13,700.00	7,230.78	7,225.78	7,230.78	191.78	250.53	88.36	1,130.84	-1,162.84	5,737.18	5,443.88	293.29	19.561		
13,800.00	7,230.41	7,225.41	7,230.41	194.60	250.52	88.33	1,130.84	-1,162.84	5,836.38	5,543.07	293.31	19.898		
13,900.00	7,230.05	7,225.05	7,230.05	197.42	250.50	88.30	1,130.84	-1,162.84	5,935.61	5,642.29	293.33	20.235		
14,000.00	7,229.68	7,224.68	7,229.68	200.25	250.49	88.27	1,130.84	-1,162.84	6,034.87	5,741.52	293.35	20.572		
14,100.00	7,229.31	7,224.31	7,229.31	203.07	250.48	88.25	1,130.84	-1,162.84	6,134.15	5,840.78	293.37	20.909		
14,200.00	7,228.95	7,223.95	7,228.95	205.90	250.46	88.22	1,130.84	-1,162.84	6,233.46	5,940.06	293.39	21.246		
14,300.00	7,228.58	7,223.58	7,228.58	208.73	250.45	88.19	1,130.84	-1,162.84	6,332.78	6,039.36	293.42	21.583		
14,400.00	7,228.22	7,223.22	7,228.22	211.55	250.44	88.16	1,130.84	-1,162.84	6,432.13	6,138.68	293.44	21.920		
14,500.00	7,227.85	7,222.85	7,227.85	214.38	250.43	88.13	1,130.84	-1,162.84	6,531.49	6,238.02	293.47	22.256		
14,600.00	7,227.48	7,222.48	7,227.48	217.21	250.41	88.10	1,130.84	-1,162.84	6,630.88	6,337.38	293.50	22.592		
14,700.00	7,227.12	7,222.12	7,227.12	220.04	250.40	88.07	1,130.84	-1,162.84	6,730.28	6,436.75	293.53	22.929		
14,800.00	7,226.75	7,221.75	7,226.75	222.88	250.39	88.04	1,130.84	-1,162.84	6,829.71	6,536.14	293.56	23.265		
14,900.00	7,226.38	7,221.38	7,226.38	225.71	250.38	88.01	1,130.84	-1,162.84	6,929.14	6,635.55	293.60	23.601		
15,000.00	7,226.02	7,221.02	7,226.02	228.54	250.36	87.99	1,130.84	-1,162.84	7,028.60	6,734.96	293.63	23.937		
15,005.81	7,226.00	7,221.00	7,226.00	228.71	250.36	87.98	1,130.84	-1,162.84	7,034.37	6,740.74	293.63	23.956		



Anticollision Report



Company:	SRC ENERGY	Local Co-ordinate Reference:	Well HARVESTERS STATE 31C-16-M
Project:	SECTION 15, T6N, R66W	TVD Reference:	KB @ 4821.00ft
Reference Site:	HARVESTERS STATE 7-15 PAD	MD Reference:	KB @ 4821.00ft
Site Error:	3.28 ft	North Reference:	True
Reference Well:	HARVESTERS STATE 31C-16-M	Survey Calculation Method:	Minimum Curvature
Well Error:	3.28 ft	Output errors are at	2.45 sigma
Reference Wellbore	OH	Database:	EDM 5000.14 Single User Db
Reference Design:	PLAN #1	Offset TVD Reference:	Reference Datum

Offset Design HARVESTERS STATE 7-15 PAD - SENA 15-24(PR_75CC) - OH - OH													Offset Site Error:	0.00 ft
Survey Program: 100-2" Cone@2.448 Sigma													Offset Well Error:	3.28 ft
Reference		Offset		Semi Major Axis			Distance							Warning
Measured Depth (ft)	Vertical Depth (ft)	Measured Depth (ft)	Vertical Depth (ft)	Reference (ft)	Offset (ft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (ft)	+E/-W (ft)	Between Centres (ft)	Between Ellipses (ft)	Minimum Separation (ft)	Separation Factor		
0.00	0.00	0.00	19.00	3.28	3.28	-98.92	-173.38	-1,104.49	1,118.18					
100.00	100.00	81.00	100.00	3.28	3.57	-98.92	-173.38	-1,104.49	1,118.02	1,111.16	6.86	163.060		
200.00	200.00	181.00	200.00	3.34	5.63	-98.92	-173.38	-1,104.49	1,118.02	1,109.05	8.96	124.711		
300.00	300.00	281.00	300.00	3.44	8.71	-98.92	-173.38	-1,104.49	1,118.02	1,105.87	12.15	92.013		
400.00	400.00	381.00	400.00	3.60	12.01	-98.92	-173.38	-1,104.49	1,118.02	1,102.40	15.62	71.599		
500.00	500.00	481.00	500.00	3.81	15.40	-98.92	-173.38	-1,104.49	1,118.02	1,098.81	19.21	58.213		
600.00	600.00	581.00	600.00	4.05	18.83	-98.92	-173.38	-1,104.49	1,118.02	1,095.14	22.87	48.883		
700.00	699.98	680.98	699.98	4.32	22.27	-76.12	-173.38	-1,104.49	1,117.60	1,091.01	26.59	42.035		
800.00	799.84	780.84	799.84	4.62	25.72	-76.40	-173.38	-1,104.49	1,116.36	1,086.02	30.34	36.800		
900.00	899.62	880.62	899.62	4.94	29.18	-76.72	-173.38	-1,104.49	1,114.83	1,080.72	34.11	32.682		
1,000.00	999.41	980.41	999.41	5.27	32.65	-77.05	-173.38	-1,104.49	1,113.34	1,075.43	37.91	29.368		
1,100.00	1,099.19	1,080.19	1,099.19	5.62	36.11	-77.38	-173.38	-1,104.49	1,111.88	1,070.16	41.73	26.647		
1,200.00	1,198.98	1,179.98	1,198.98	5.99	39.58	-77.71	-173.38	-1,104.49	1,110.47	1,064.91	45.56	24.374		
1,300.00	1,298.76	1,279.76	1,298.76	6.36	43.06	-78.04	-173.38	-1,104.49	1,109.09	1,059.68	49.40	22.449		
1,400.00	1,398.55	1,379.55	1,398.55	6.74	46.53	-78.37	-173.38	-1,104.49	1,107.74	1,054.49	53.26	20.799		
1,500.00	1,498.33	1,479.33	1,498.33	7.13	50.01	-78.70	-173.38	-1,104.49	1,106.44	1,049.32	57.12	19.370		
1,600.00	1,598.12	1,579.12	1,598.12	7.52	53.48	-79.04	-173.38	-1,104.49	1,105.17	1,044.18	60.99	18.120		
1,700.00	1,697.90	1,678.90	1,697.90	7.92	56.96	-79.37	-173.38	-1,104.49	1,103.94	1,039.07	64.87	17.018		
1,800.00	1,797.69	1,778.69	1,797.69	8.33	60.44	-79.70	-173.38	-1,104.49	1,102.74	1,034.00	68.75	16.040		
1,900.00	1,897.47	1,878.47	1,897.47	8.74	63.92	-80.04	-173.38	-1,104.49	1,101.59	1,028.95	72.63	15.166		
2,000.00	1,997.26	1,978.26	1,997.26	9.15	67.40	-80.37	-173.38	-1,104.49	1,100.47	1,023.95	76.52	14.381		
2,100.00	2,097.04	2,078.04	2,097.04	9.56	70.87	-80.71	-173.38	-1,104.49	1,099.39	1,018.97	80.42	13.671		
2,200.00	2,196.83	2,177.83	2,196.83	9.98	74.35	-81.05	-173.38	-1,104.49	1,098.35	1,014.04	84.31	13.027		
2,300.00	2,296.61	2,277.61	2,296.61	10.40	77.84	-81.38	-173.38	-1,104.49	1,097.35	1,009.14	88.21	12.440		
2,400.00	2,396.40	2,377.40	2,396.40	10.82	81.32	-81.72	-173.38	-1,104.49	1,096.38	1,004.27	92.11	11.903		
2,500.00	2,496.18	2,477.18	2,496.18	11.24	84.80	-82.06	-173.38	-1,104.49	1,095.45	999.44	96.01	11.410		
2,600.00	2,595.96	2,576.96	2,595.96	11.66	88.28	-82.40	-173.38	-1,104.49	1,094.57	994.65	99.92	10.955		
2,700.00	2,695.75	2,676.75	2,695.75	12.09	91.76	-82.74	-173.38	-1,104.49	1,093.72	989.89	103.82	10.535		
2,800.00	2,795.53	2,776.53	2,795.53	12.51	95.24	-83.08	-173.38	-1,104.49	1,092.90	985.18	107.73	10.145		
2,900.00	2,895.32	2,876.32	2,895.32	12.94	98.72	-83.42	-173.38	-1,104.49	1,092.13	980.50	111.64	9.783		
3,000.00	2,995.10	2,976.10	2,995.10	13.37	102.20	-83.76	-173.38	-1,104.49	1,091.40	975.85	115.55	9.446		
3,100.00	3,094.89	3,075.89	3,094.89	13.80	105.68	-84.10	-173.38	-1,104.49	1,090.70	971.25	119.46	9.131		
3,200.00	3,194.67	3,175.67	3,194.67	14.23	109.17	-84.45	-173.38	-1,104.49	1,090.05	966.68	123.37	8.836		
3,300.00	3,294.46	3,275.46	3,294.46	14.66	112.65	-84.79	-173.38	-1,104.49	1,089.43	962.15	127.28	8.559		
3,400.00	3,394.24	3,375.24	3,394.24	15.09	116.13	-85.13	-173.38	-1,104.49	1,088.85	957.66	131.19	8.300		
3,500.00	3,494.03	3,475.03	3,494.03	15.52	119.61	-85.48	-173.38	-1,104.49	1,088.32	953.21	135.11	8.055		
3,600.00	3,593.81	3,574.81	3,593.81	15.96	123.10	-85.82	-173.38	-1,104.49	1,087.82	948.80	139.02	7.825		
3,700.00	3,693.60	3,674.60	3,693.60	16.39	126.58	-86.16	-173.38	-1,104.49	1,087.36	944.42	142.94	7.607		
3,800.00	3,793.38	3,774.38	3,793.38	16.82	130.06	-86.51	-173.38	-1,104.49	1,086.94	940.09	146.85	7.402		
3,900.00	3,893.17	3,874.17	3,893.17	17.26	133.54	-86.85	-173.38	-1,104.49	1,086.56	935.79	150.77	7.207		
4,000.00	3,992.95	3,973.95	3,992.95	17.69	137.02	-87.20	-173.38	-1,104.49	1,086.22	931.53	154.69	7.022		
4,100.00	4,092.74	4,073.74	4,092.74	18.13	140.51	-87.54	-173.38	-1,104.49	1,085.91	927.31	158.60	6.847		
4,200.00	4,192.52	4,173.52	4,192.52	18.56	143.99	-87.89	-173.38	-1,104.49	1,085.65	923.13	162.52	6.680		
4,300.00	4,292.31	4,273.31	4,292.31	19.00	147.47	-88.23	-173.38	-1,104.49	1,085.43	918.99	166.44	6.521		
4,400.00	4,392.09	4,373.09	4,392.09	19.43	150.96	-88.58	-173.38	-1,104.49	1,085.25	914.89	170.36	6.370		
4,500.00	4,491.88	4,472.88	4,491.88	19.87	154.44	-88.92	-173.38	-1,104.49	1,085.10	910.83	174.28	6.226		
4,600.00	4,591.66	4,572.66	4,591.66	20.31	157.92	-89.27	-173.38	-1,104.49	1,085.00	906.80	178.20	6.089		
4,700.00	4,691.44	4,672.44	4,691.44	20.74	161.40	-89.61	-173.38	-1,104.49	1,084.94	902.82	182.11	5.957		
4,800.00	4,791.23	4,772.23	4,791.23	21.18	164.89	-89.96	-173.38	-1,104.49	1,084.91	898.88	186.03	5.832		
4,812.05	4,803.26	4,784.26	4,803.26	21.23	165.31	-90.00	-173.38	-1,104.49	1,084.91	898.40	186.51	5.817		
4,900.00	4,891.01	4,872.01	4,891.01	21.62	168.37	-90.30	-173.38	-1,104.49	1,084.93	894.97	189.95	5.712		
5,000.00	4,990.80	4,971.80	4,990.80	22.06	171.85	-90.65	-173.38	-1,104.49	1,084.98	891.11	193.87	5.596		

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



Anticollision Report



Company:	SRC ENERGY	Local Co-ordinate Reference:	Well HARVESTERS STATE 31C-16-M
Project:	SECTION 15, T6N, R66W	TVD Reference:	KB @ 4821.00ft
Reference Site:	HARVESTERS STATE 7-15 PAD	MD Reference:	KB @ 4821.00ft
Site Error:	3.28 ft	North Reference:	True
Reference Well:	HARVESTERS STATE 31C-16-M	Survey Calculation Method:	Minimum Curvature
Well Error:	3.28 ft	Output errors are at	2.45 sigma
Reference Wellbore	OH	Database:	EDM 5000.14 Single User Db
Reference Design:	PLAN #1	Offset TVD Reference:	Reference Datum

Offset Design HARVESTERS STATE 7-15 PAD - SENA 15-24(PR_75CC) - OH - OH													Offset Site Error:	0.00 ft
Survey Program: 100-2" Cone@2.448 Sigma													Offset Well Error:	3.28 ft
Reference		Offset		Semi Major Axis			Distance							Warning
Measured Depth (ft)	Vertical Depth (ft)	Measured Depth (ft)	Vertical Depth (ft)	Reference (ft)	Offset (ft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (ft)	+E/-W (ft)	Between Centres (ft)	Between Ellipses (ft)	Minimum Separation (ft)	Separation Factor		
5,100.00	5,090.58	5,071.58	5,090.58	22.50	175.33	-90.99	-173.38	-1,104.49	1,085.07	887.28	197.80	5.486		
5,200.00	5,190.37	5,171.37	5,190.37	22.93	178.82	-91.34	-173.38	-1,104.49	1,085.21	883.49	201.72	5.380		
5,300.00	5,290.15	5,271.15	5,290.15	23.37	182.30	-91.69	-173.38	-1,104.49	1,085.38	879.75	205.64	5.278		
5,400.00	5,389.94	5,370.94	5,389.94	23.81	185.78	-92.03	-173.38	-1,104.49	1,085.60	876.04	209.56	5.180		
5,500.00	5,489.72	5,470.72	5,489.72	24.25	189.27	-92.38	-173.38	-1,104.49	1,085.85	872.37	213.48	5.086		
5,600.00	5,589.51	5,570.51	5,589.51	24.69	192.75	-92.72	-173.38	-1,104.49	1,086.14	868.74	217.40	4.996		
5,700.00	5,689.29	5,670.29	5,689.29	25.13	196.23	-93.07	-173.38	-1,104.49	1,086.47	865.15	221.32	4.909		
5,800.00	5,789.08	5,770.08	5,789.08	25.56	199.72	-93.41	-173.38	-1,104.49	1,086.84	861.60	225.24	4.825		
5,900.00	5,888.86	5,869.86	5,888.86	26.00	203.20	-93.75	-173.38	-1,104.49	1,087.25	858.09	229.17	4.744		
6,000.00	5,988.65	5,969.65	5,988.65	26.44	206.68	-94.10	-173.38	-1,104.49	1,087.70	854.61	233.09	4.666		
6,100.00	6,088.43	6,069.43	6,088.43	26.88	210.16	-94.44	-173.38	-1,104.49	1,088.19	851.18	237.01	4.591		
6,200.00	6,188.22	6,169.22	6,188.22	27.32	213.65	-94.79	-173.38	-1,104.49	1,088.72	847.79	240.93	4.519		
6,300.00	6,288.00	6,269.00	6,288.00	27.76	217.13	-95.13	-173.38	-1,104.49	1,089.29	844.43	244.86	4.449		
6,400.00	6,387.79	6,368.79	6,387.79	28.20	220.61	-95.47	-173.38	-1,104.49	1,089.90	841.12	248.78	4.381		
6,500.00	6,487.57	6,468.57	6,487.57	28.64	224.10	-95.81	-173.38	-1,104.49	1,090.54	837.84	252.70	4.316		
6,600.00	6,587.35	6,568.35	6,587.35	29.08	227.58	-96.15	-173.38	-1,104.49	1,091.23	834.60	256.63	4.252		
6,700.00	6,687.02	6,668.02	6,687.02	29.52	231.06	-58.73	-173.38	-1,104.49	1,090.02	829.47	260.54	4.184		
6,800.00	6,784.98	6,765.98	6,784.98	29.96	234.48	-44.10	-173.38	-1,104.49	1,076.84	812.44	264.40	4.073		
6,900.00	6,878.81	6,859.81	6,878.81	30.41	237.75	-42.06	-173.38	-1,104.49	1,050.86	782.75	268.10	3.920		
7,000.00	6,966.21	6,947.21	6,966.21	30.86	240.80	-43.84	-173.38	-1,104.49	1,013.19	741.62	271.57	3.731		
7,100.00	7,045.03	7,026.03	7,045.03	31.35	243.56	-48.13	-173.38	-1,104.49	965.50	690.76	274.73	3.514		
7,200.00	7,113.32	7,105.69	7,113.32	31.90	246.34	-54.65	-173.38	-1,104.49	909.94	632.00	277.95	3.274		
7,300.00	7,169.40	7,150.40	7,169.40	32.57	247.90	-63.04	-173.38	-1,104.49	849.22	569.21	280.01	3.033		
7,400.00	7,211.89	7,207.11	7,211.89	33.38	249.88	-72.43	-173.38	-1,104.49	786.54	503.90	282.63	2.783		
7,500.00	7,239.75	7,220.75	7,239.75	34.35	250.35	-81.36	-173.38	-1,104.49	725.61	441.63	283.98	2.555		
7,600.00	7,252.28	7,233.28	7,252.28	35.47	250.79	-88.39	-173.38	-1,104.49	670.46	384.87	285.59	2.348		
7,700.00	7,252.75	7,233.75	7,252.75	36.73	250.81	-90.09	-173.38	-1,104.49	625.22	338.15	287.07	2.178		
7,800.00	7,252.38	7,233.38	7,252.38	38.16	250.79	-90.05	-173.38	-1,104.49	593.48	304.70	288.78	2.055		
7,900.00	7,252.02	7,233.02	7,252.02	39.74	250.78	-90.02	-173.38	-1,104.49	577.53	287.00	290.52	1.988		
7,943.42	7,251.86	7,232.86	7,251.86	40.49	250.78	-90.00	-173.38	-1,104.49	575.89	284.66	291.24	1.977	CC, ES, SF	
8,000.00	7,251.65	7,232.65	7,251.65	41.47	250.77	-89.98	-173.38	-1,104.49	578.67	286.64	292.02	1.982		
8,100.00	7,251.29	7,232.29	7,251.29	43.31	250.76	-89.94	-173.38	-1,104.49	596.80	303.73	293.07	2.036		
8,200.00	7,250.92	7,231.92	7,250.92	45.26	250.74	-89.91	-173.38	-1,104.49	630.46	336.87	293.59	2.147		
8,300.00	7,250.55	7,231.55	7,250.55	47.30	250.73	-89.87	-173.38	-1,104.49	677.35	383.66	293.69	2.306		
8,400.00	7,250.19	7,231.19	7,250.19	49.42	250.72	-89.83	-173.38	-1,104.49	734.93	441.43	293.50	2.504		
8,500.00	7,249.82	7,230.82	7,249.82	51.62	250.70	-89.80	-173.38	-1,104.49	800.89	507.76	293.14	2.732		
8,600.00	7,249.45	7,230.45	7,249.45	53.88	250.69	-89.76	-173.38	-1,104.49	873.35	580.65	292.71	2.984		
8,700.00	7,249.09	7,230.09	7,249.09	56.19	250.68	-89.72	-173.38	-1,104.49	950.82	658.56	292.26	3.253		
8,800.00	7,248.72	7,229.72	7,248.72	58.55	250.67	-89.69	-173.38	-1,104.49	1,032.17	740.35	291.82	3.537		
8,900.00	7,248.36	7,229.36	7,248.36	60.96	250.65	-89.65	-173.38	-1,104.49	1,116.55	825.14	291.42	3.831		
9,000.00	7,247.99	7,228.99	7,247.99	63.40	250.64	-89.62	-173.38	-1,104.49	1,203.33	912.29	291.04	4.135		
9,100.00	7,247.62	7,228.62	7,247.62	65.87	250.63	-89.58	-173.38	-1,104.49	1,292.02	1,001.31	290.71	4.444		
9,200.00	7,247.26	7,228.26	7,247.26	68.38	250.61	-89.54	-173.38	-1,104.49	1,382.26	1,091.85	290.40	4.760		
9,300.00	7,246.89	7,227.89	7,246.89	70.91	250.60	-89.51	-173.38	-1,104.49	1,473.75	1,183.62	290.13	5.080		
9,400.00	7,246.53	7,227.53	7,246.53	73.47	250.59	-89.47	-173.38	-1,104.49	1,566.29	1,276.40	289.89	5.403		
9,500.00	7,246.16	7,227.16	7,246.16	76.05	250.58	-89.43	-173.38	-1,104.49	1,659.69	1,370.01	289.68	5.729		
9,600.00	7,245.79	7,226.79	7,245.79	78.65	250.56	-89.40	-173.38	-1,104.49	1,753.82	1,464.34	289.48	6.058		
9,700.00	7,245.43	7,226.43	7,245.43	81.27	250.55	-89.36	-173.38	-1,104.49	1,848.57	1,559.26	289.31	6.390		
9,800.00	7,245.06	7,226.06	7,245.06	83.90	250.54	-89.32	-173.38	-1,104.49	1,943.84	1,654.69	289.15	6.723		
9,900.00	7,244.69	7,225.69	7,244.69	86.55	250.53	-89.29	-173.38	-1,104.49	2,039.56	1,750.55	289.01	7.057		
10,000.00	7,244.33	7,225.33	7,244.33	89.21	250.51	-89.25	-173.38	-1,104.49	2,135.68	1,846.79	288.89	7.393		
10,100.00	7,243.96	7,224.96	7,243.96	91.88	250.50	-89.21	-173.38	-1,104.49	2,232.14	1,943.36	288.77	7.730		

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



Anticollision Report



Company:	SRC ENERGY	Local Co-ordinate Reference:	Well HARVESTERS STATE 31C-16-M
Project:	SECTION 15, T6N, R66W	TVD Reference:	KB @ 4821.00ft
Reference Site:	HARVESTERS STATE 7-15 PAD	MD Reference:	KB @ 4821.00ft
Site Error:	3.28 ft	North Reference:	True
Reference Well:	HARVESTERS STATE 31C-16-M	Survey Calculation Method:	Minimum Curvature
Well Error:	3.28 ft	Output errors are at	2.45 sigma
Reference Wellbore	OH	Database:	EDM 5000.14 Single User Db
Reference Design:	PLAN #1	Offset TVD Reference:	Reference Datum

Offset Design HARVESTERS STATE 7-15 PAD - SENA 15-24(PR_75CC) - OH - OH												Offset Site Error:	0.00 ft
Survey Program: 100-2" Cone@2.448 Sigma												Offset Well Error:	3.28 ft
Reference		Offset		Semi Major Axis			Distance						Warning
Measured Depth (ft)	Vertical Depth (ft)	Measured Depth (ft)	Vertical Depth (ft)	Reference (ft)	Offset (ft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (ft)	+E/-W (ft)	Between Centres (ft)	Between Ellipses (ft)	Minimum Separation (ft)	Separation Factor	
10,200.00	7,243.60	7,224.60	7,243.60	94.56	250.49	-89.18	-173.38	-1,104.49	2,328.89	2,040.22	288.67	8.068	
10,300.00	7,243.23	7,224.23	7,243.23	97.26	250.47	-89.14	-173.38	-1,104.49	2,425.91	2,137.33	288.58	8.406	
10,400.00	7,242.86	7,223.86	7,242.86	99.96	250.46	-89.11	-173.38	-1,104.49	2,523.17	2,234.66	288.50	8.746	
10,500.00	7,242.50	7,223.50	7,242.50	102.67	250.45	-89.07	-173.38	-1,104.49	2,620.63	2,332.20	288.43	9.086	
10,600.00	7,242.13	7,223.13	7,242.13	105.39	250.44	-89.03	-173.38	-1,104.49	2,718.27	2,429.91	288.37	9.426	
10,700.00	7,241.76	7,222.76	7,241.76	108.12	250.42	-89.00	-173.38	-1,104.49	2,816.08	2,527.77	288.31	9.768	
10,800.00	7,241.40	7,222.40	7,241.40	110.85	250.41	-88.96	-173.38	-1,104.49	2,914.04	2,625.78	288.26	10.109	
10,900.00	7,241.03	7,222.03	7,241.03	113.59	250.40	-88.92	-173.38	-1,104.49	3,012.13	2,723.92	288.21	10.451	
11,000.00	7,240.67	7,221.67	7,240.67	116.34	250.38	-88.89	-173.38	-1,104.49	3,110.34	2,822.17	288.17	10.793	
11,100.00	7,240.30	7,221.30	7,240.30	119.09	250.37	-88.85	-173.38	-1,104.49	3,208.67	2,920.53	288.14	11.136	
11,200.00	7,239.93	7,220.93	7,239.93	121.85	250.36	-88.81	-173.38	-1,104.49	3,307.09	3,018.98	288.11	11.479	
11,300.00	7,239.57	7,220.57	7,239.57	124.61	250.35	-88.78	-173.38	-1,104.49	3,405.61	3,117.52	288.08	11.822	
11,400.00	7,239.20	7,220.20	7,239.20	127.38	250.33	-88.74	-173.38	-1,104.49	3,504.21	3,216.14	288.06	12.165	
11,500.00	7,238.84	7,219.84	7,238.84	130.15	250.32	-88.70	-173.38	-1,104.49	3,602.88	3,314.84	288.04	12.508	
11,600.00	7,238.47	7,219.47	7,238.47	132.92	250.31	-88.67	-173.38	-1,104.49	3,701.63	3,413.60	288.03	12.852	
11,700.00	7,238.10	7,219.10	7,238.10	135.70	250.30	-88.63	-173.38	-1,104.49	3,800.44	3,512.42	288.02	13.195	
11,800.00	7,237.74	7,218.74	7,237.74	138.48	250.28	-88.60	-173.38	-1,104.49	3,899.32	3,611.31	288.01	13.539	
11,900.00	7,237.37	7,218.37	7,237.37	141.26	250.27	-88.56	-173.38	-1,104.49	3,998.25	3,710.24	288.01	13.882	
12,000.00	7,237.00	7,218.00	7,237.00	144.05	250.26	-88.52	-173.38	-1,104.49	4,097.23	3,809.22	288.01	14.226	
12,100.00	7,236.64	7,217.64	7,236.64	146.84	250.24	-88.49	-173.38	-1,104.49	4,196.26	3,908.25	288.01	14.570	
12,200.00	7,236.27	7,217.27	7,236.27	149.64	250.23	-88.45	-173.38	-1,104.49	4,295.34	4,007.32	288.02	14.914	
12,300.00	7,235.91	7,216.91	7,235.91	152.43	250.22	-88.41	-173.38	-1,104.49	4,394.45	4,106.43	288.02	15.257	
12,400.00	7,235.54	7,216.54	7,235.54	155.23	250.21	-88.38	-173.38	-1,104.49	4,493.61	4,205.58	288.03	15.601	
12,500.00	7,235.17	7,216.17	7,235.17	158.03	250.19	-88.34	-173.38	-1,104.49	4,592.80	4,304.76	288.04	15.945	
12,600.00	7,234.81	7,215.81	7,234.81	160.83	250.18	-88.30	-173.38	-1,104.49	4,692.03	4,403.97	288.06	16.288	
12,700.00	7,234.44	7,215.44	7,234.44	163.64	250.17	-88.27	-173.38	-1,104.49	4,791.29	4,503.21	288.08	16.632	
12,800.00	7,234.07	7,215.07	7,234.07	166.44	250.15	-88.23	-173.38	-1,104.49	4,890.58	4,602.48	288.09	16.976	
12,900.00	7,233.71	7,214.71	7,233.71	169.25	250.14	-88.19	-173.38	-1,104.49	4,989.89	4,701.78	288.11	17.319	
13,000.00	7,233.34	7,214.34	7,233.34	172.06	250.13	-88.16	-173.38	-1,104.49	5,089.24	4,801.10	288.14	17.663	
13,100.00	7,232.98	7,213.98	7,232.98	174.88	250.12	-88.12	-173.38	-1,104.49	5,188.61	4,900.45	288.16	18.006	
13,200.00	7,232.61	7,213.61	7,232.61	177.69	250.10	-88.09	-173.38	-1,104.49	5,288.00	4,999.81	288.19	18.349	
13,300.00	7,232.24	7,213.24	7,232.24	180.50	250.09	-88.05	-173.38	-1,104.49	5,387.42	5,099.20	288.21	18.692	
13,400.00	7,231.88	7,212.88	7,231.88	183.32	250.08	-88.01	-173.38	-1,104.49	5,486.85	5,198.61	288.24	19.035	
13,500.00	7,231.51	7,212.51	7,231.51	186.14	250.07	-87.98	-173.38	-1,104.49	5,586.31	5,298.03	288.28	19.378	
13,600.00	7,231.15	7,212.15	7,231.15	188.96	250.05	-87.94	-173.38	-1,104.49	5,685.79	5,397.48	288.31	19.721	
13,700.00	7,230.78	7,211.78	7,230.78	191.78	250.04	-87.90	-173.38	-1,104.49	5,785.28	5,496.94	288.34	20.064	
13,800.00	7,230.41	7,211.41	7,230.41	194.60	250.03	-87.87	-173.38	-1,104.49	5,884.79	5,596.41	288.38	20.407	
13,900.00	7,230.05	7,211.05	7,230.05	197.42	250.01	-87.83	-173.38	-1,104.49	5,984.32	5,695.90	288.42	20.749	
14,000.00	7,229.68	7,210.68	7,229.68	200.25	250.00	-87.79	-173.38	-1,104.49	6,083.86	5,795.41	288.45	21.091	
14,100.00	7,229.31	7,210.31	7,229.31	203.07	249.99	-87.76	-173.38	-1,104.49	6,183.42	5,894.92	288.49	21.433	
14,200.00	7,228.95	7,209.95	7,228.95	205.90	249.98	-87.72	-173.38	-1,104.49	6,282.99	5,994.45	288.54	21.775	
14,300.00	7,228.58	7,209.58	7,228.58	208.73	249.96	-87.69	-173.38	-1,104.49	6,382.57	6,094.00	288.58	22.117	
14,400.00	7,228.22	7,209.22	7,228.22	211.55	249.95	-87.65	-173.38	-1,104.49	6,482.17	6,193.55	288.62	22.459	
14,500.00	7,227.85	7,208.85	7,227.85	214.38	249.94	-87.61	-173.38	-1,104.49	6,581.78	6,293.11	288.67	22.801	
14,600.00	7,227.48	7,208.48	7,227.48	217.21	249.92	-87.58	-173.38	-1,104.49	6,681.40	6,392.69	288.72	23.142	
14,700.00	7,227.12	7,208.12	7,227.12	220.04	249.91	-87.54	-173.38	-1,104.49	6,781.04	6,492.27	288.76	23.483	
14,800.00	7,226.75	7,207.75	7,226.75	222.88	249.90	-87.50	-173.38	-1,104.49	6,880.68	6,591.87	288.81	23.824	
14,900.00	7,226.38	7,207.38	7,226.38	225.71	249.89	-87.47	-173.38	-1,104.49	6,980.33	6,691.47	288.86	24.165	
15,000.00	7,226.02	7,207.02	7,226.02	228.54	249.87	-87.43	-173.38	-1,104.49	7,080.00	6,791.08	288.91	24.506	
15,005.81	7,226.00	7,207.00	7,226.00	228.71	249.87	-87.43	-173.38	-1,104.49	7,085.79	6,796.87	288.92	24.525	



Anticollision Report



Company:	SRC ENERGY	Local Co-ordinate Reference:	Well HARVESTERS STATE 31C-16-M
Project:	SECTION 15, T6N, R66W	TVD Reference:	KB @ 4821.00ft
Reference Site:	HARVESTERS STATE 7-15 PAD	MD Reference:	KB @ 4821.00ft
Site Error:	3.28 ft	North Reference:	True
Reference Well:	HARVESTERS STATE 31C-16-M	Survey Calculation Method:	Minimum Curvature
Well Error:	3.28 ft	Output errors are at	2.45 sigma
Reference Wellbore	OH	Database:	EDM 5000.14 Single User Db
Reference Design:	PLAN #1	Offset TVD Reference:	Reference Datum

Offset Design HARVESTERS STATE 7-15 PAD - SENA 15-25(PR_75CC) - OH - OH													Offset Site Error:	0.00 ft
Survey Program: 100-2" Cone@2.448 Sigma													Offset Well Error:	3.28 ft
Reference		Offset		Semi Major Axis			Distance							Warning
Measured Depth (ft)	Vertical Depth (ft)	Measured Depth (ft)	Vertical Depth (ft)	Reference (ft)	Offset (ft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (ft)	+E/-W (ft)	Between Centres (ft)	Between Ellipses (ft)	Minimum Separation (ft)	Separation Factor		
0.00	0.00	0.00	12.00	3.28	3.28	-71.09	507.89	-1,482.72	1,567.34					
100.00	100.00	88.00	100.00	3.28	3.62	-71.09	507.89	-1,482.72	1,567.29	1,560.39	6.91	226.928		
200.00	200.00	188.00	200.00	3.34	5.83	-71.09	507.89	-1,482.72	1,567.29	1,558.13	9.17	171.005		
300.00	300.00	288.00	300.00	3.44	8.93	-71.09	507.89	-1,482.72	1,567.29	1,554.92	12.38	126.625		
400.00	400.00	388.00	400.00	3.60	12.25	-71.09	507.89	-1,482.72	1,567.29	1,551.44	15.85	98.881		
500.00	500.00	488.00	500.00	3.81	15.64	-71.09	507.89	-1,482.72	1,567.29	1,547.85	19.44	80.604		
600.00	600.00	588.00	600.00	4.05	19.07	-71.09	507.89	-1,482.72	1,567.29	1,544.18	23.11	67.813		
700.00	699.98	687.98	699.98	4.32	22.51	-48.26	507.89	-1,482.72	1,566.13	1,539.30	26.83	58.374		
800.00	799.84	787.84	799.84	4.62	25.97	-48.44	507.89	-1,482.72	1,562.67	1,532.09	30.58	51.101		
900.00	899.62	887.62	899.62	4.94	29.42	-48.62	507.89	-1,482.72	1,558.32	1,523.97	34.36	45.359		
1,000.00	999.41	987.41	999.41	5.27	32.89	-48.81	507.89	-1,482.72	1,553.99	1,515.83	38.15	40.730		
1,100.00	1,099.19	1,087.19	1,099.19	5.62	36.36	-48.99	507.89	-1,482.72	1,549.67	1,507.70	41.97	36.923		
1,200.00	1,198.98	1,186.98	1,198.98	5.99	39.83	-49.17	507.89	-1,482.72	1,545.37	1,499.57	45.80	33.740		
1,300.00	1,298.76	1,286.76	1,298.76	6.36	43.30	-49.35	507.89	-1,482.72	1,541.09	1,491.44	49.65	31.042		
1,400.00	1,398.55	1,386.55	1,398.55	6.74	46.77	-49.54	507.89	-1,482.72	1,536.82	1,483.32	53.50	28.726		
1,500.00	1,498.33	1,486.33	1,498.33	7.13	50.25	-49.73	507.89	-1,482.72	1,532.56	1,475.20	57.36	26.717		
1,600.00	1,598.12	1,586.12	1,598.12	7.52	53.73	-49.91	507.89	-1,482.72	1,528.33	1,467.10	61.23	24.960		
1,700.00	1,697.90	1,685.90	1,697.90	7.92	57.20	-50.10	507.89	-1,482.72	1,524.11	1,459.00	65.11	23.409		
1,800.00	1,797.69	1,785.69	1,797.69	8.33	60.68	-50.29	507.89	-1,482.72	1,519.91	1,450.92	68.99	22.032		
1,900.00	1,897.47	1,885.47	1,897.47	8.74	64.16	-50.48	507.89	-1,482.72	1,515.72	1,442.85	72.87	20.800		
2,000.00	1,997.26	1,985.26	1,997.26	9.15	67.64	-50.67	507.89	-1,482.72	1,511.55	1,434.79	76.76	19.692		
2,100.00	2,097.04	2,085.04	2,097.04	9.56	71.12	-50.87	507.89	-1,482.72	1,507.40	1,426.74	80.65	18.690		
2,200.00	2,196.83	2,184.83	2,196.83	9.98	74.60	-51.06	507.89	-1,482.72	1,503.26	1,418.71	84.55	17.780		
2,300.00	2,296.61	2,284.61	2,296.61	10.40	78.08	-51.25	507.89	-1,482.72	1,499.14	1,410.70	88.44	16.950		
2,400.00	2,396.40	2,384.40	2,396.40	10.82	81.56	-51.45	507.89	-1,482.72	1,495.04	1,402.70	92.34	16.190		
2,500.00	2,496.18	2,484.18	2,496.18	11.24	85.04	-51.65	507.89	-1,482.72	1,490.96	1,394.71	96.24	15.492		
2,600.00	2,595.96	2,583.96	2,595.96	11.66	88.52	-51.84	507.89	-1,482.72	1,486.89	1,386.75	100.15	14.847		
2,700.00	2,695.75	2,683.75	2,695.75	12.09	92.00	-52.04	507.89	-1,482.72	1,482.84	1,378.79	104.05	14.251		
2,800.00	2,795.53	2,783.53	2,795.53	12.51	95.48	-52.24	507.89	-1,482.72	1,478.82	1,370.86	107.96	13.698		
2,900.00	2,895.32	2,883.32	2,895.32	12.94	98.97	-52.45	507.89	-1,482.72	1,474.80	1,362.94	111.86	13.184		
3,000.00	2,995.10	2,983.10	2,995.10	13.37	102.45	-52.65	507.89	-1,482.72	1,470.81	1,355.04	115.77	12.704		
3,100.00	3,094.89	3,082.89	3,094.89	13.80	105.93	-52.85	507.89	-1,482.72	1,466.84	1,347.15	119.68	12.256		
3,200.00	3,194.67	3,182.67	3,194.67	14.23	109.41	-53.06	507.89	-1,482.72	1,462.88	1,339.29	123.59	11.836		
3,300.00	3,294.46	3,282.46	3,294.46	14.66	112.89	-53.26	507.89	-1,482.72	1,458.94	1,331.44	127.50	11.442		
3,400.00	3,394.24	3,382.24	3,394.24	15.09	116.38	-53.47	507.89	-1,482.72	1,455.02	1,323.61	131.42	11.072		
3,500.00	3,494.03	3,482.03	3,494.03	15.52	119.86	-53.68	507.89	-1,482.72	1,451.12	1,315.80	135.33	10.723		
3,600.00	3,593.81	3,581.81	3,593.81	15.96	123.34	-53.88	507.89	-1,482.72	1,447.24	1,308.00	139.24	10.394		
3,700.00	3,693.60	3,681.60	3,693.60	16.39	126.82	-54.09	507.89	-1,482.72	1,443.38	1,300.23	143.16	10.083		
3,800.00	3,793.38	3,781.38	3,793.38	16.82	130.30	-54.31	507.89	-1,482.72	1,439.54	1,292.47	147.07	9.788		
3,900.00	3,893.17	3,881.17	3,893.17	17.26	133.79	-54.52	507.89	-1,482.72	1,435.72	1,284.73	150.98	9.509		
4,000.00	3,992.95	3,980.95	3,992.95	17.69	137.27	-54.73	507.89	-1,482.72	1,431.92	1,277.02	154.90	9.244		
4,100.00	4,092.74	4,080.74	4,092.74	18.13	140.75	-54.95	507.89	-1,482.72	1,428.13	1,269.32	158.82	8.992		
4,200.00	4,192.52	4,180.52	4,192.52	18.56	144.23	-55.16	507.89	-1,482.72	1,424.37	1,261.64	162.73	8.753		
4,300.00	4,292.31	4,280.31	4,292.31	19.00	147.72	-55.38	507.89	-1,482.72	1,420.63	1,253.98	166.65	8.525		
4,400.00	4,392.09	4,380.09	4,392.09	19.43	151.20	-55.60	507.89	-1,482.72	1,416.91	1,246.34	170.57	8.307		
4,500.00	4,491.88	4,479.88	4,491.88	19.87	154.68	-55.81	507.89	-1,482.72	1,413.21	1,238.73	174.48	8.099		
4,600.00	4,591.66	4,579.66	4,591.66	20.31	158.16	-56.03	507.89	-1,482.72	1,409.53	1,231.13	178.40	7.901		
4,700.00	4,691.44	4,679.44	4,691.44	20.74	161.65	-56.26	507.89	-1,482.72	1,405.87	1,223.55	182.32	7.711		
4,800.00	4,791.23	4,779.23	4,791.23	21.18	165.13	-56.48	507.89	-1,482.72	1,402.23	1,216.00	186.24	7.529		
4,900.00	4,891.01	4,879.01	4,891.01	21.62	168.61	-56.70	507.89	-1,482.72	1,398.62	1,208.46	190.16	7.355		
5,000.00	4,990.80	4,978.80	4,990.80	22.06	172.10	-56.93	507.89	-1,482.72	1,395.02	1,200.95	194.08	7.188		
5,100.00	5,090.58	5,078.58	5,090.58	22.50	175.58	-57.15	507.89	-1,482.72	1,391.45	1,193.45	198.00	7.028		

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



Anticollision Report



Company:	SRC ENERGY	Local Co-ordinate Reference:	Well HARVESTERS STATE 31C-16-M
Project:	SECTION 15, T6N, R66W	TVD Reference:	KB @ 4821.00ft
Reference Site:	HARVESTERS STATE 7-15 PAD	MD Reference:	KB @ 4821.00ft
Site Error:	3.28 ft	North Reference:	True
Reference Well:	HARVESTERS STATE 31C-16-M	Survey Calculation Method:	Minimum Curvature
Well Error:	3.28 ft	Output errors are at	2.45 sigma
Reference Wellbore	OH	Database:	EDM 5000.14 Single User Db
Reference Design:	PLAN #1	Offset TVD Reference:	Reference Datum

Offset Design HARVESTERS STATE 7-15 PAD - SENA 15-25(PR_75CC) - OH - OH													Offset Site Error:	0.00 ft
Survey Program: 100-2" Cone@2.448 Sigma													Offset Well Error:	3.28 ft
Reference		Offset		Semi Major Axis			Distance						Warning	
Measured Depth (ft)	Vertical Depth (ft)	Measured Depth (ft)	Vertical Depth (ft)	Reference (ft)	Offset (ft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (ft)	+E/-W (ft)	Between Centres (ft)	Between Ellipses (ft)	Minimum Separation (ft)	Separation Factor		
5,200.00	5,190.37	5,178.37	5,190.37	22.93	179.06	-57.38	507.89	-1,482.72	1,387.90	1,185.98	201.92	6.874		
5,300.00	5,290.15	5,278.15	5,290.15	23.37	182.54	-57.61	507.89	-1,482.72	1,384.37	1,178.53	205.83	6.726		
5,400.00	5,389.94	5,377.94	5,389.94	23.81	186.03	-57.84	507.89	-1,482.72	1,380.86	1,171.11	209.75	6.583		
5,500.00	5,489.72	5,477.72	5,489.72	24.25	189.51	-58.07	507.89	-1,482.72	1,377.38	1,163.70	213.67	6.446		
5,600.00	5,589.51	5,577.51	5,589.51	24.69	192.99	-58.30	507.89	-1,482.72	1,373.91	1,156.32	217.60	6.314		
5,700.00	5,689.29	5,677.29	5,689.29	25.13	196.48	-58.53	507.89	-1,482.72	1,370.47	1,148.96	221.52	6.187		
5,800.00	5,789.08	5,777.08	5,789.08	25.56	199.96	-58.77	507.89	-1,482.72	1,367.06	1,141.62	225.44	6.064		
5,900.00	5,888.86	5,876.86	5,888.86	26.00	203.44	-59.00	507.89	-1,482.72	1,363.66	1,134.31	229.36	5.946		
6,000.00	5,988.65	5,976.65	5,988.65	26.44	206.93	-59.24	507.89	-1,482.72	1,360.29	1,127.01	233.28	5.831		
6,100.00	6,088.43	6,076.43	6,088.43	26.88	210.41	-59.48	507.89	-1,482.72	1,356.94	1,119.75	237.20	5.721		
6,200.00	6,188.22	6,176.22	6,188.22	27.32	213.89	-59.71	507.89	-1,482.72	1,353.62	1,112.50	241.12	5.614		
6,300.00	6,288.00	6,276.00	6,288.00	27.76	217.37	-59.95	507.89	-1,482.72	1,350.32	1,105.28	245.04	5.511		
6,400.00	6,387.79	6,375.79	6,387.79	28.20	220.86	-60.20	507.89	-1,482.72	1,347.04	1,098.08	248.96	5.411		
6,500.00	6,487.57	6,475.57	6,487.57	28.64	224.34	-60.44	507.89	-1,482.72	1,343.79	1,090.91	252.88	5.314		
6,600.00	6,587.35	6,575.35	6,587.35	29.08	227.82	-60.68	507.89	-1,482.72	1,340.56	1,083.76	256.81	5.220		
6,700.00	6,687.02	6,675.02	6,687.02	29.52	231.30	-22.98	507.89	-1,482.72	1,335.14	1,074.42	260.72	5.121		
6,800.00	6,784.98	6,772.98	6,784.98	29.96	234.72	-6.97	507.89	-1,482.72	1,315.96	1,051.39	264.57	4.974		
6,900.00	6,878.81	6,866.81	6,878.81	30.41	238.00	-2.18	507.89	-1,482.72	1,281.77	1,013.51	268.26	4.778		
7,000.00	6,966.21	6,954.21	6,966.21	30.86	241.05	0.42	507.89	-1,482.72	1,233.39	961.70	271.68	4.540		
7,100.00	7,045.03	7,033.03	7,045.03	31.35	243.80	2.53	507.89	-1,482.72	1,172.02	897.26	274.76	4.266		
7,200.00	7,113.32	7,101.32	7,113.32	31.90	246.18	4.89	507.89	-1,482.72	1,099.18	821.76	277.41	3.962		
7,300.00	7,169.40	7,157.40	7,169.40	32.57	248.14	8.31	507.89	-1,482.72	1,016.67	737.09	279.58	3.636		
7,400.00	7,211.89	7,200.11	7,211.89	33.38	249.63	14.54	507.89	-1,482.72	926.57	645.35	281.21	3.295		
7,500.00	7,239.75	7,227.75	7,239.75	34.35	250.60	29.19	507.89	-1,482.72	831.13	548.87	282.27	2.944		
7,600.00	7,252.28	7,240.28	7,252.28	35.47	251.03	71.19	507.89	-1,482.72	732.80	450.05	282.75	2.592		
7,700.00	7,252.75	7,240.75	7,252.75	36.73	251.05	91.27	507.89	-1,482.72	633.96	351.16	282.80	2.242		
7,800.00	7,252.38	7,240.38	7,252.38	38.16	251.04	91.07	507.89	-1,482.72	535.54	252.68	282.86	1.893		
7,900.00	7,252.02	7,240.02	7,252.02	39.74	251.03	90.86	507.89	-1,482.72	437.84	154.82	283.02	1.547		
8,000.00	7,251.65	7,239.65	7,251.65	41.47	251.01	90.66	507.89	-1,482.72	341.48	58.05	283.42	1.205 Level 2		
8,100.00	7,251.29	7,239.29	7,251.29	43.31	251.00	90.46	507.89	-1,482.72	248.00	-36.53	284.54	0.872 Level 1		
8,200.00	7,250.92	7,238.92	7,250.92	45.26	250.99	90.26	507.89	-1,482.72	162.50	-125.61	288.11	0.564 Level 1		
8,300.00	7,250.55	7,238.55	7,250.55	47.30	250.97	90.05	507.89	-1,482.72	106.33	-190.89	297.22	0.358 Level 1		
8,325.50	7,250.46	7,238.46	7,250.46	47.84	250.97	90.00	507.89	-1,482.72	103.22	-195.56	298.79	0.345 Level 1, CC, ES, SF		
8,400.00	7,250.19	7,238.19	7,250.19	49.42	250.96	89.85	507.89	-1,482.72	127.30	-168.50	295.79	0.430 Level 1		
8,500.00	7,249.82	7,237.82	7,249.82	51.62	250.95	89.65	507.89	-1,482.72	202.74	-86.94	289.68	0.700 Level 1		
8,600.00	7,249.45	7,237.45	7,249.45	53.88	250.94	89.44	507.89	-1,482.72	293.26	6.32	286.94	1.022 Level 2		
8,700.00	7,249.09	7,237.09	7,249.09	56.19	250.92	89.24	507.89	-1,482.72	388.46	102.79	285.67	1.360 Level 3		
8,800.00	7,248.72	7,236.72	7,248.72	58.55	250.91	89.04	507.89	-1,482.72	485.59	200.60	284.99	1.704		
8,900.00	7,248.36	7,236.36	7,248.36	60.96	250.90	88.83	507.89	-1,482.72	583.69	299.11	284.58	2.051		
9,000.00	7,247.99	7,235.99	7,247.99	63.40	250.88	88.63	507.89	-1,482.72	682.34	398.03	284.31	2.400		
9,100.00	7,247.62	7,235.62	7,247.62	65.87	250.87	88.43	507.89	-1,482.72	781.34	497.21	284.13	2.750		
9,200.00	7,247.26	7,235.26	7,247.26	68.38	250.86	88.22	507.89	-1,482.72	880.56	596.56	284.00	3.101		
9,300.00	7,246.89	7,234.89	7,246.89	70.91	250.85	88.02	507.89	-1,482.72	979.94	696.03	283.91	3.452		
9,400.00	7,246.53	7,234.53	7,246.53	73.47	250.83	87.82	507.89	-1,482.72	1,079.44	795.59	283.84	3.803		
9,500.00	7,246.16	7,234.16	7,246.16	76.05	250.82	87.61	507.89	-1,482.72	1,179.02	895.23	283.79	4.155		
9,600.00	7,245.79	7,233.79	7,245.79	78.65	250.81	87.41	507.89	-1,482.72	1,278.66	994.91	283.75	4.506		
9,700.00	7,245.43	7,233.43	7,245.43	81.27	250.80	87.21	507.89	-1,482.72	1,378.36	1,094.63	283.73	4.858		
9,800.00	7,245.06	7,233.06	7,245.06	83.90	250.78	87.01	507.89	-1,482.72	1,478.10	1,194.39	283.71	5.210		
9,900.00	7,244.69	7,232.69	7,244.69	86.55	250.77	86.80	507.89	-1,482.72	1,577.87	1,294.17	283.69	5.562		
10,000.00	7,244.33	7,232.33	7,244.33	89.21	250.76	86.60	507.89	-1,482.72	1,677.66	1,393.98	283.69	5.914		
10,100.00	7,243.96	7,231.96	7,243.96	91.88	250.74	86.40	507.89	-1,482.72	1,777.48	1,493.80	283.69	6.266		
10,200.00	7,243.60	7,231.60	7,243.60	94.56	250.73	86.20	507.89	-1,482.72	1,877.32	1,593.64	283.69	6.618		

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



Anticollision Report



Company:	SRC ENERGY	Local Co-ordinate Reference:	Well HARVESTERS STATE 31C-16-M
Project:	SECTION 15, T6N, R66W	TVD Reference:	KB @ 4821.00ft
Reference Site:	HARVESTERS STATE 7-15 PAD	MD Reference:	KB @ 4821.00ft
Site Error:	3.28 ft	North Reference:	True
Reference Well:	HARVESTERS STATE 31C-16-M	Survey Calculation Method:	Minimum Curvature
Well Error:	3.28 ft	Output errors are at	2.45 sigma
Reference Wellbore	OH	Database:	EDM 5000.14 Single User Db
Reference Design:	PLAN #1	Offset TVD Reference:	Reference Datum

Offset Design HARVESTERS STATE 7-15 PAD - SENA 15-25(PR_75CC) - OH - OH													Offset Site Error:	0.00 ft
Survey Program: 100-2" Cone@2.448 Sigma													Offset Well Error:	3.28 ft
Reference		Offset		Semi Major Axis			Distance							Warning
Measured Depth (ft)	Vertical Depth (ft)	Measured Depth (ft)	Vertical Depth (ft)	Reference (ft)	Offset (ft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (ft)	+E/-W (ft)	Between Centres (ft)	Between Ellipses (ft)	Minimum Separation (ft)	Separation Factor		
10,300.00	7,243.23	7,231.23	7,243.23	97.26	250.72	85.99	507.89	-1,482.72	1,977.18	1,693.49	283.69	6.969		
10,400.00	7,242.86	7,230.86	7,242.86	99.96	250.71	85.79	507.89	-1,482.72	2,077.05	1,793.35	283.70	7.321		
10,500.00	7,242.50	7,230.50	7,242.50	102.67	250.69	85.59	507.89	-1,482.72	2,176.93	1,893.22	283.71	7.673		
10,600.00	7,242.13	7,230.13	7,242.13	105.39	250.68	85.39	507.89	-1,482.72	2,276.82	1,993.09	283.73	8.025		
10,700.00	7,241.76	7,229.76	7,241.76	108.12	250.67	85.18	507.89	-1,482.72	2,376.72	2,092.98	283.74	8.376		
10,800.00	7,241.40	7,229.40	7,241.40	110.85	250.65	84.98	507.89	-1,482.72	2,476.63	2,192.87	283.76	8.728		
10,900.00	7,241.03	7,229.03	7,241.03	113.59	250.64	84.78	507.89	-1,482.72	2,576.55	2,292.76	283.78	9.079		
11,000.00	7,240.67	7,228.67	7,240.67	116.34	250.63	84.58	507.89	-1,482.72	2,676.47	2,392.66	283.81	9.431		
11,100.00	7,240.30	7,228.30	7,240.30	119.09	250.62	84.38	507.89	-1,482.72	2,776.40	2,492.57	283.83	9.782		
11,200.00	7,239.93	7,227.93	7,239.93	121.85	250.60	84.18	507.89	-1,482.72	2,876.33	2,592.47	283.86	10.133		
11,300.00	7,239.57	7,227.57	7,239.57	124.61	250.59	83.98	507.89	-1,482.72	2,976.27	2,692.38	283.89	10.484		
11,400.00	7,239.20	7,227.20	7,239.20	127.38	250.58	83.78	507.89	-1,482.72	3,076.21	2,792.29	283.92	10.835		
11,500.00	7,238.84	7,226.84	7,238.84	130.15	250.57	83.57	507.89	-1,482.72	3,176.15	2,892.21	283.95	11.186		
11,600.00	7,238.47	7,226.47	7,238.47	132.92	250.55	83.37	507.89	-1,482.72	3,276.10	2,992.12	283.98	11.536		
11,700.00	7,238.10	7,226.10	7,238.10	135.70	250.54	83.17	507.89	-1,482.72	3,376.05	3,092.04	284.01	11.887		
11,800.00	7,237.74	7,225.74	7,237.74	138.48	250.53	82.97	507.89	-1,482.72	3,476.01	3,191.96	284.05	12.237		
11,900.00	7,237.37	7,225.37	7,237.37	141.26	250.51	82.77	507.89	-1,482.72	3,575.96	3,291.88	284.09	12.588		
12,000.00	7,237.00	7,225.00	7,237.00	144.05	250.50	82.57	507.89	-1,482.72	3,675.92	3,391.80	284.12	12.938		
12,100.00	7,236.64	7,224.64	7,236.64	146.84	250.49	82.37	507.89	-1,482.72	3,775.88	3,491.72	284.16	13.288		
12,200.00	7,236.27	7,224.27	7,236.27	149.64	250.48	82.17	507.89	-1,482.72	3,875.85	3,591.64	284.20	13.638		
12,300.00	7,235.91	7,223.91	7,235.91	152.43	250.46	81.97	507.89	-1,482.72	3,975.81	3,691.56	284.25	13.987		
12,400.00	7,235.54	7,223.54	7,235.54	155.23	250.45	81.78	507.89	-1,482.72	4,075.78	3,791.49	284.29	14.337		
12,500.00	7,235.17	7,223.17	7,235.17	158.03	250.44	81.58	507.89	-1,482.72	4,175.74	3,891.41	284.33	14.686		
12,600.00	7,234.81	7,222.81	7,234.81	160.83	250.42	81.38	507.89	-1,482.72	4,275.71	3,991.33	284.38	15.035		
12,700.00	7,234.44	7,222.44	7,234.44	163.64	250.41	81.18	507.89	-1,482.72	4,375.68	4,091.26	284.43	15.384		
12,800.00	7,234.07	7,222.07	7,234.07	166.44	250.40	80.98	507.89	-1,482.72	4,475.66	4,191.18	284.47	15.733		
12,900.00	7,233.71	7,221.71	7,233.71	169.25	250.39	80.78	507.89	-1,482.72	4,575.63	4,291.11	284.52	16.082		
13,000.00	7,233.34	7,221.34	7,233.34	172.06	250.37	80.58	507.89	-1,482.72	4,675.60	4,391.03	284.57	16.430		
13,100.00	7,232.98	7,220.98	7,232.98	174.88	250.36	80.39	507.89	-1,482.72	4,775.58	4,490.96	284.62	16.779		
13,200.00	7,232.61	7,220.61	7,232.61	177.69	250.35	80.19	507.89	-1,482.72	4,875.56	4,590.88	284.68	17.127		
13,300.00	7,232.24	7,220.24	7,232.24	180.50	250.34	79.99	507.89	-1,482.72	4,975.53	4,690.81	284.73	17.475		
13,400.00	7,231.88	7,219.88	7,231.88	183.32	250.32	79.79	507.89	-1,482.72	5,075.51	4,790.73	284.78	17.822		
13,500.00	7,231.51	7,219.51	7,231.51	186.14	250.31	79.60	507.89	-1,482.72	5,175.49	4,890.65	284.84	18.170		
13,600.00	7,231.15	7,219.15	7,231.15	188.96	250.30	79.40	507.89	-1,482.72	5,275.47	4,990.58	284.89	18.517		
13,700.00	7,230.78	7,218.78	7,230.78	191.78	250.28	79.21	507.89	-1,482.72	5,375.45	5,090.50	284.95	18.865		
13,800.00	7,230.41	7,218.41	7,230.41	194.60	250.27	79.01	507.89	-1,482.72	5,475.43	5,190.42	285.01	19.211		
13,900.00	7,230.05	7,218.05	7,230.05	197.42	250.26	78.81	507.89	-1,482.72	5,575.41	5,290.35	285.07	19.558		
14,000.00	7,229.68	7,217.68	7,229.68	200.25	250.25	78.62	507.89	-1,482.72	5,675.40	5,390.27	285.13	19.905		
14,100.00	7,229.31	7,217.31	7,229.31	203.07	250.23	78.42	507.89	-1,482.72	5,775.38	5,490.19	285.19	20.251		
14,200.00	7,228.95	7,216.95	7,228.95	205.90	250.22	78.23	507.89	-1,482.72	5,875.36	5,590.11	285.25	20.597		
14,300.00	7,228.58	7,216.58	7,228.58	208.73	250.21	78.03	507.89	-1,482.72	5,975.35	5,690.03	285.31	20.943		
14,400.00	7,228.22	7,216.22	7,228.22	211.55	250.19	77.84	507.89	-1,482.72	6,075.33	5,789.96	285.38	21.289		
14,500.00	7,227.85	7,215.85	7,227.85	214.38	250.18	77.64	507.89	-1,482.72	6,175.32	5,889.88	285.44	21.634		
14,600.00	7,227.48	7,215.48	7,227.48	217.21	250.17	77.45	507.89	-1,482.72	6,275.30	5,989.80	285.51	21.979		
14,700.00	7,227.12	7,215.12	7,227.12	220.04	250.16	77.26	507.89	-1,482.72	6,375.29	6,089.72	285.57	22.324		
14,800.00	7,226.75	7,214.75	7,226.75	222.88	250.14	77.06	507.89	-1,482.72	6,475.28	6,189.63	285.64	22.669		
14,900.00	7,226.38	7,214.38	7,226.38	225.71	250.13	76.87	507.89	-1,482.72	6,575.26	6,289.55	285.71	23.014		
15,000.00	7,226.02	7,214.02	7,226.02	228.54	250.12	76.68	507.89	-1,482.72	6,675.25	6,389.47	285.78	23.358		
15,005.81	7,226.00	7,214.00	7,226.00	228.71	250.12	76.67	507.89	-1,482.72	6,681.06	6,395.27	285.78	23.378		



Anticollision Report



Company:	SRC ENERGY	Local Co-ordinate Reference:	Well HARVESTERS STATE 31C-16-M
Project:	SECTION 15, T6N, R66W	TVD Reference:	KB @ 4821.00ft
Reference Site:	HARVESTERS STATE 7-15 PAD	MD Reference:	KB @ 4821.00ft
Site Error:	3.28 ft	North Reference:	True
Reference Well:	HARVESTERS STATE 31C-16-M	Survey Calculation Method:	Minimum Curvature
Well Error:	3.28 ft	Output errors are at	2.45 sigma
Reference Wellbore	OH	Database:	EDM 5000.14 Single User Db
Reference Design:	PLAN #1	Offset TVD Reference:	Reference Datum

Offset Design HARVESTERS STATE 7-15 PAD - STATE 1(AB_150CC) - OH - OH													Offset Site Error:	0.00 ft
Survey Program: 100-2" Cone@2.448 Sigma													Offset Well Error:	3.28 ft
Reference		Offset		Semi Major Axis			Distance							Warning
Measured Depth (ft)	Vertical Depth (ft)	Measured Depth (ft)	Vertical Depth (ft)	Reference (ft)	Offset (ft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (ft)	+E/-W (ft)	Between Centres (ft)	Between Ellipses (ft)	Minimum Separation (ft)	Separation Factor		
0.00	0.00	0.00	49.00	3.28	3.28	-78.49	1,015.83	-4,990.69	5,093.26					
100.00	100.00	51.00	100.00	3.28	3.40	-78.49	1,015.83	-4,990.69	5,093.02	5,086.34	6.68	762.043		
200.00	200.00	151.00	200.00	3.34	4.82	-78.49	1,015.83	-4,990.69	5,093.02	5,084.87	8.15	624.706		
300.00	300.00	251.00	300.00	3.44	7.75	-78.49	1,015.83	-4,990.69	5,093.02	5,081.83	11.19	455.117		
400.00	400.00	351.00	400.00	3.60	11.01	-78.49	1,015.83	-4,990.69	5,093.02	5,078.41	14.61	348.568		
500.00	500.00	451.00	500.00	3.81	14.38	-78.49	1,015.83	-4,990.69	5,093.02	5,074.84	18.18	280.082		
600.00	600.00	551.00	600.00	4.05	17.79	-78.49	1,015.83	-4,990.69	5,093.02	5,071.18	21.84	233.185		
700.00	699.98	650.98	699.98	4.32	21.24	-55.63	1,015.83	-4,990.69	5,092.04	5,066.49	25.55	199.281		
800.00	799.84	750.84	799.84	4.62	24.69	-55.72	1,015.83	-4,990.69	5,089.10	5,059.80	29.30	173.698		
900.00	899.62	850.62	899.62	4.94	28.14	-55.78	1,015.83	-4,990.69	5,085.40	5,052.33	33.07	153.771		
1,000.00	999.41	950.41	999.41	5.27	31.60	-55.84	1,015.83	-4,990.69	5,081.71	5,044.84	36.87	137.835		
1,100.00	1,099.19	1,050.19	1,099.19	5.62	35.07	-55.90	1,015.83	-4,990.69	5,078.03	5,037.34	40.68	124.817		
1,200.00	1,198.98	1,149.98	1,198.98	5.99	38.54	-55.96	1,015.83	-4,990.69	5,074.35	5,029.83	44.51	113.993		
1,300.00	1,298.76	1,249.76	1,298.76	6.36	42.01	-56.02	1,015.83	-4,990.69	5,070.67	5,022.32	48.36	104.857		
1,400.00	1,398.55	1,349.55	1,398.55	6.74	45.49	-56.09	1,015.83	-4,990.69	5,067.01	5,014.80	52.21	97.048		
1,500.00	1,498.33	1,449.33	1,498.33	7.13	48.96	-56.15	1,015.83	-4,990.69	5,063.35	5,007.27	56.07	90.299		
1,600.00	1,598.12	1,549.12	1,598.12	7.52	52.44	-56.21	1,015.83	-4,990.69	5,059.69	4,999.75	59.94	84.409		
1,700.00	1,697.90	1,648.90	1,697.90	7.92	55.91	-56.27	1,015.83	-4,990.69	5,056.04	4,992.22	63.82	79.227		
1,800.00	1,797.69	1,748.69	1,797.69	8.33	59.39	-56.33	1,015.83	-4,990.69	5,052.40	4,984.70	67.70	74.632		
1,900.00	1,897.47	1,848.47	1,897.47	8.74	62.87	-56.39	1,015.83	-4,990.69	5,048.76	4,977.18	71.58	70.531		
2,000.00	1,997.26	1,948.26	1,997.26	9.15	66.35	-56.46	1,015.83	-4,990.69	5,045.13	4,969.66	75.47	66.849		
2,100.00	2,097.04	2,048.04	2,097.04	9.56	69.83	-56.52	1,015.83	-4,990.69	5,041.50	4,962.14	79.36	63.525		
2,200.00	2,196.83	2,147.83	2,196.83	9.98	73.31	-56.58	1,015.83	-4,990.69	5,037.88	4,954.62	83.26	60.510		
2,300.00	2,296.61	2,247.61	2,296.61	10.40	76.79	-56.64	1,015.83	-4,990.69	5,034.27	4,947.11	87.15	57.763		
2,400.00	2,396.40	2,347.40	2,396.40	10.82	80.27	-56.70	1,015.83	-4,990.69	5,030.66	4,939.60	91.05	55.250		
2,500.00	2,496.18	2,447.18	2,496.18	11.24	83.75	-56.77	1,015.83	-4,990.69	5,027.06	4,932.10	94.95	52.942		
2,600.00	2,595.96	2,546.96	2,595.96	11.66	87.23	-56.83	1,015.83	-4,990.69	5,023.46	4,924.60	98.86	50.815		
2,700.00	2,695.75	2,646.75	2,695.75	12.09	90.71	-56.89	1,015.83	-4,990.69	5,019.87	4,917.11	102.76	48.850		
2,800.00	2,795.53	2,746.53	2,795.53	12.51	94.19	-56.95	1,015.83	-4,990.69	5,016.28	4,909.62	106.67	47.027		
2,900.00	2,895.32	2,846.32	2,895.32	12.94	97.67	-57.02	1,015.83	-4,990.69	5,012.71	4,902.13	110.57	45.333		
3,000.00	2,995.10	2,946.10	2,995.10	13.37	101.16	-57.08	1,015.83	-4,990.69	5,009.13	4,894.65	114.48	43.754		
3,100.00	3,094.89	3,045.89	3,094.89	13.80	104.64	-57.14	1,015.83	-4,990.69	5,005.57	4,887.17	118.39	42.279		
3,200.00	3,194.67	3,145.67	3,194.67	14.23	108.12	-57.21	1,015.83	-4,990.69	5,002.01	4,879.70	122.30	40.899		
3,300.00	3,294.46	3,245.46	3,294.46	14.66	111.60	-57.27	1,015.83	-4,990.69	4,998.45	4,872.24	126.21	39.603		
3,400.00	3,394.24	3,345.24	3,394.24	15.09	115.08	-57.33	1,015.83	-4,990.69	4,994.90	4,864.78	130.13	38.385		
3,500.00	3,494.03	3,445.03	3,494.03	15.52	118.57	-57.39	1,015.83	-4,990.69	4,991.36	4,857.32	134.04	37.238		
3,600.00	3,593.81	3,544.81	3,593.81	15.96	122.05	-57.46	1,015.83	-4,990.69	4,987.83	4,849.87	137.95	36.156		
3,700.00	3,693.60	3,644.60	3,693.60	16.39	125.53	-57.52	1,015.83	-4,990.69	4,984.30	4,842.43	141.87	35.134		
3,800.00	3,793.38	3,744.38	3,793.38	16.82	129.01	-57.59	1,015.83	-4,990.69	4,980.77	4,834.99	145.78	34.166		
3,900.00	3,893.17	3,844.17	3,893.17	17.26	132.50	-57.65	1,015.83	-4,990.69	4,977.25	4,827.56	149.70	33.249		
4,000.00	3,992.95	3,943.95	3,992.95	17.69	135.98	-57.71	1,015.83	-4,990.69	4,973.74	4,820.13	153.61	32.379		
4,100.00	4,092.74	4,043.74	4,092.74	18.13	139.46	-57.78	1,015.83	-4,990.69	4,970.24	4,812.71	157.53	31.552		
4,200.00	4,192.52	4,143.52	4,192.52	18.56	142.94	-57.84	1,015.83	-4,990.69	4,966.74	4,805.30	161.44	30.765		
4,300.00	4,292.31	4,243.31	4,292.31	19.00	146.43	-57.90	1,015.83	-4,990.69	4,963.25	4,797.89	165.36	30.015		
4,400.00	4,392.09	4,343.09	4,392.09	19.43	149.91	-57.97	1,015.83	-4,990.69	4,959.76	4,790.48	169.28	29.300		
4,500.00	4,491.88	4,442.88	4,491.88	19.87	153.39	-58.03	1,015.83	-4,990.69	4,956.28	4,783.08	173.19	28.617		
4,600.00	4,591.66	4,542.66	4,591.66	20.31	156.87	-58.10	1,015.83	-4,990.69	4,952.81	4,775.69	177.11	27.964		
4,700.00	4,691.44	4,642.44	4,691.44	20.74	160.36	-58.16	1,015.83	-4,990.69	4,949.34	4,768.31	181.03	27.340		
4,800.00	4,791.23	4,742.23	4,791.23	21.18	163.84	-58.23	1,015.83	-4,990.69	4,945.88	4,760.93	184.95	26.742		
4,900.00	4,891.01	4,842.01	4,891.01	21.62	167.32	-58.29	1,015.83	-4,990.69	4,942.42	4,753.55	188.87	26.169		
5,000.00	4,990.80	4,941.80	4,990.80	22.06	170.80	-58.35	1,015.83	-4,990.69	4,938.97	4,746.18	192.79	25.619		
5,100.00	5,090.58	5,041.58	5,090.58	22.50	174.29	-58.42	1,015.83	-4,990.69	4,935.53	4,738.82	196.71	25.091		

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



Anticollision Report



Company:	SRC ENERGY	Local Co-ordinate Reference:	Well HARVESTERS STATE 31C-16-M
Project:	SECTION 15, T6N, R66W	TVD Reference:	KB @ 4821.00ft
Reference Site:	HARVESTERS STATE 7-15 PAD	MD Reference:	KB @ 4821.00ft
Site Error:	3.28 ft	North Reference:	True
Reference Well:	HARVESTERS STATE 31C-16-M	Survey Calculation Method:	Minimum Curvature
Well Error:	3.28 ft	Output errors are at	2.45 sigma
Reference Wellbore	OH	Database:	EDM 5000.14 Single User Db
Reference Design:	PLAN #1	Offset TVD Reference:	Reference Datum

Offset Design HARVESTERS STATE 7-15 PAD - STATE 1(AB_150CC) - OH - OH													Offset Site Error:	0.00 ft
Survey Program: 100-2" Cone@2.448 Sigma													Offset Well Error:	3.28 ft
Reference		Offset		Semi Major Axis			Distance						Warning	
Measured Depth (ft)	Vertical Depth (ft)	Measured Depth (ft)	Vertical Depth (ft)	Reference (ft)	Offset (ft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (ft)	+E/-W (ft)	Between Centres (ft)	Between Ellipses (ft)	Minimum Separation (ft)	Separation Factor		
5,200.00	5,190.37	5,141.37	5,190.37	22.93	177.77	-58.48	1,015.83	-4,990.69	4,932.09	4,731.47	200.62	24.584		
5,300.00	5,290.15	5,241.15	5,290.15	23.37	181.25	-58.55	1,015.83	-4,990.69	4,928.66	4,724.12	204.54	24.096		
5,400.00	5,389.94	5,340.94	5,389.94	23.81	184.74	-58.61	1,015.83	-4,990.69	4,925.24	4,716.77	208.46	23.626		
5,500.00	5,489.72	5,440.72	5,489.72	24.25	188.22	-58.68	1,015.83	-4,990.69	4,921.82	4,709.44	212.38	23.174		
5,600.00	5,589.51	5,540.51	5,589.51	24.69	191.70	-58.74	1,015.83	-4,990.69	4,918.41	4,702.11	216.30	22.738		
5,700.00	5,689.29	5,640.29	5,689.29	25.13	195.19	-58.81	1,015.83	-4,990.69	4,915.00	4,694.78	220.22	22.318		
5,800.00	5,789.08	5,740.08	5,789.08	25.56	198.67	-58.87	1,015.83	-4,990.69	4,911.61	4,687.46	224.14	21.913		
5,900.00	5,888.86	5,839.86	5,888.86	26.00	202.15	-58.94	1,015.83	-4,990.69	4,908.21	4,680.15	228.07	21.521		
6,000.00	5,988.65	5,939.65	5,988.65	26.44	205.63	-59.01	1,015.83	-4,990.69	4,904.83	4,672.84	231.99	21.143		
6,100.00	6,088.43	6,039.43	6,088.43	26.88	209.12	-59.07	1,015.83	-4,990.69	4,901.45	4,665.54	235.91	20.777		
6,200.00	6,188.22	6,139.22	6,188.22	27.32	212.60	-59.14	1,015.83	-4,990.69	4,898.08	4,658.25	239.83	20.423		
6,300.00	6,288.00	6,239.00	6,288.00	27.76	216.08	-59.20	1,015.83	-4,990.69	4,894.71	4,650.96	243.75	20.081		
6,400.00	6,387.79	6,338.79	6,387.79	28.20	219.57	-59.27	1,015.83	-4,990.69	4,891.35	4,643.68	247.67	19.749		
6,500.00	6,487.57	6,438.57	6,487.57	28.64	223.05	-59.33	1,015.83	-4,990.69	4,888.00	4,636.41	251.59	19.428		
6,600.00	6,587.35	6,538.35	6,587.35	29.08	226.53	-59.40	1,015.83	-4,990.69	4,884.65	4,629.14	255.51	19.117		
6,700.00	6,687.02	6,638.02	6,687.02	29.52	230.01	-21.52	1,015.83	-4,990.69	4,879.11	4,619.68	259.43	18.807		
6,800.00	6,784.98	6,735.98	6,784.98	29.96	233.43	-5.33	1,015.83	-4,990.69	4,859.82	4,596.54	263.28	18.459		
6,900.00	6,878.81	6,829.81	6,878.81	30.41	236.71	-0.35	1,015.83	-4,990.69	4,825.58	4,558.61	266.97	18.076		
7,000.00	6,966.21	6,917.21	6,966.21	30.86	239.76	2.47	1,015.83	-4,990.69	4,777.20	4,506.81	270.39	17.668		
7,100.00	7,045.03	7,003.97	7,045.03	31.35	242.79	4.80	1,015.83	-4,990.69	4,715.90	4,442.16	273.75	17.227		
7,200.00	7,113.32	7,064.32	7,113.32	31.90	244.89	7.41	1,015.83	-4,990.69	4,643.18	4,367.06	276.12	16.816		
7,300.00	7,169.40	7,120.40	7,169.40	32.57	246.85	11.07	1,015.83	-4,990.69	4,560.84	4,282.55	278.29	16.389		
7,400.00	7,211.89	7,162.89	7,211.89	33.38	248.33	17.39	1,015.83	-4,990.69	4,470.91	4,191.00	279.91	15.972		
7,500.00	7,239.75	7,209.25	7,239.75	34.35	249.95	31.37	1,015.83	-4,990.69	4,375.63	4,094.01	281.62	15.537		
7,600.00	7,252.28	7,203.28	7,252.28	35.47	249.74	70.84	1,015.83	-4,990.69	4,277.35	3,995.89	281.46	15.197		
7,700.00	7,252.75	7,203.75	7,252.75	36.73	249.76	91.47	1,015.83	-4,990.69	4,178.34	3,896.85	281.49	14.844		
7,800.00	7,252.38	7,203.38	7,252.38	38.16	249.75	91.43	1,015.83	-4,990.69	4,079.37	3,797.86	281.51	14.491		
7,900.00	7,252.02	7,203.02	7,252.02	39.74	249.73	91.40	1,015.83	-4,990.69	3,980.45	3,698.92	281.53	14.139		
8,000.00	7,251.65	7,202.65	7,251.65	41.47	249.72	91.36	1,015.83	-4,990.69	3,881.59	3,600.03	281.56	13.786		
8,100.00	7,251.29	7,202.29	7,251.29	43.31	249.71	91.33	1,015.83	-4,990.69	3,782.79	3,501.18	281.61	13.433		
8,200.00	7,250.92	7,201.92	7,250.92	45.26	249.70	91.29	1,015.83	-4,990.69	3,684.05	3,402.39	281.67	13.079		
8,300.00	7,250.55	7,201.55	7,250.55	47.30	249.68	91.25	1,015.83	-4,990.69	3,585.39	3,303.64	281.74	12.726		
8,400.00	7,250.19	7,201.19	7,250.19	49.42	249.67	91.22	1,015.83	-4,990.69	3,486.79	3,204.96	281.83	12.372		
8,500.00	7,249.82	7,200.82	7,249.82	51.62	249.66	91.18	1,015.83	-4,990.69	3,388.29	3,106.34	281.95	12.017		
8,600.00	7,249.45	7,200.45	7,249.45	53.88	249.64	91.15	1,015.83	-4,990.69	3,289.87	3,007.78	282.08	11.663		
8,700.00	7,249.09	7,200.09	7,249.09	56.19	249.63	91.11	1,015.83	-4,990.69	3,191.55	2,909.30	282.24	11.308		
8,800.00	7,248.72	7,200.28	7,248.72	58.55	249.64	91.08	1,015.83	-4,990.69	3,093.33	2,810.88	282.45	10.952		
8,900.00	7,248.36	7,200.64	7,248.36	60.96	249.65	91.04	1,015.83	-4,990.69	2,995.24	2,712.54	282.70	10.595		
9,000.00	7,247.99	7,201.01	7,247.99	63.40	249.66	91.01	1,015.83	-4,990.69	2,897.27	2,614.28	282.99	10.238		
9,100.00	7,247.62	7,201.38	7,247.62	65.87	249.68	90.97	1,015.83	-4,990.69	2,799.45	2,516.13	283.33	9.881		
9,200.00	7,247.26	7,201.74	7,247.26	68.38	249.69	90.94	1,015.83	-4,990.69	2,701.79	2,418.08	283.71	9.523		
9,300.00	7,246.89	7,202.11	7,246.89	70.91	249.70	90.90	1,015.83	-4,990.69	2,604.31	2,320.15	284.16	9.165		
9,400.00	7,246.53	7,202.48	7,246.53	73.47	249.71	90.86	1,015.83	-4,990.69	2,507.02	2,222.36	284.67	8.807		
9,500.00	7,246.16	7,202.84	7,246.16	76.05	249.73	90.83	1,015.83	-4,990.69	2,409.96	2,124.70	285.26	8.448		
9,600.00	7,245.79	7,203.21	7,245.79	78.65	249.74	90.79	1,015.83	-4,990.69	2,313.15	2,027.21	285.94	8.090		
9,700.00	7,245.43	7,203.57	7,245.43	81.27	249.75	90.76	1,015.83	-4,990.69	2,216.62	1,929.89	286.73	7.731		
9,800.00	7,245.06	7,203.94	7,245.06	83.90	249.77	90.72	1,015.83	-4,990.69	2,120.41	1,832.77	287.64	7.372		
9,900.00	7,244.69	7,204.31	7,244.69	86.55	249.78	90.69	1,015.83	-4,990.69	2,024.57	1,735.87	288.70	7.013		
10,000.00	7,244.33	7,204.67	7,244.33	89.21	249.79	90.65	1,015.83	-4,990.69	1,929.15	1,639.23	289.92	6.654		
10,100.00	7,243.96	7,205.04	7,243.96	91.88	249.80	90.62	1,015.83	-4,990.69	1,834.22	1,542.88	291.34	6.296		
10,200.00	7,243.60	7,205.40	7,243.60	94.56	249.82	90.58	1,015.83	-4,990.69	1,739.86	1,446.87	292.99	5.938		
10,300.00	7,243.23	7,205.77	7,243.23	97.26	249.83	90.55	1,015.83	-4,990.69	1,646.16	1,351.26	294.90	5.582		

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



Anticollision Report



Company:	SRC ENERGY	Local Co-ordinate Reference:	Well HARVESTERS STATE 31C-16-M
Project:	SECTION 15, T6N, R66W	TVD Reference:	KB @ 4821.00ft
Reference Site:	HARVESTERS STATE 7-15 PAD	MD Reference:	KB @ 4821.00ft
Site Error:	3.28 ft	North Reference:	True
Reference Well:	HARVESTERS STATE 31C-16-M	Survey Calculation Method:	Minimum Curvature
Well Error:	3.28 ft	Output errors are at	2.45 sigma
Reference Wellbore	OH	Database:	EDM 5000.14 Single User Db
Reference Design:	PLAN #1	Offset TVD Reference:	Reference Datum

Offset Design HARVESTERS STATE 7-15 PAD - STATE 1(AB_150CC) - OH - OH													Offset Site Error:	0.00 ft
Survey Program: 100-2" Cone@2.448 Sigma													Offset Well Error:	3.28 ft
Reference		Offset		Semi Major Axis			Distance						Warning	
Measured Depth (ft)	Vertical Depth (ft)	Measured Depth (ft)	Vertical Depth (ft)	Reference (ft)	Offset (ft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (ft)	+E/-W (ft)	Between Centres (ft)	Between Ellipses (ft)	Minimum Separation (ft)	Separation Factor		
10,400.00	7,242.86	7,206.14	7,242.86	99.96	249.84	90.51	1,015.83	-4,990.69	1,553.25	1,256.12	297.13	5.228		
10,500.00	7,242.50	7,206.50	7,242.50	102.67	249.86	90.47	1,015.83	-4,990.69	1,461.28	1,161.55	299.73	4.875		
10,600.00	7,242.13	7,206.87	7,242.13	105.39	249.87	90.44	1,015.83	-4,990.69	1,370.42	1,067.67	302.76	4.526		
10,700.00	7,241.76	7,207.24	7,241.76	108.12	249.88	90.40	1,015.83	-4,990.69	1,280.94	974.63	306.30	4.182		
10,800.00	7,241.40	7,207.60	7,241.40	110.85	249.89	90.37	1,015.83	-4,990.69	1,193.12	882.67	310.45	3.843		
10,900.00	7,241.03	7,207.97	7,241.03	113.59	249.91	90.33	1,015.83	-4,990.69	1,107.38	792.08	315.30	3.512		
11,000.00	7,240.67	7,208.33	7,240.67	116.34	249.92	90.30	1,015.83	-4,990.69	1,024.22	703.25	320.96	3.191		
11,100.00	7,240.30	7,208.70	7,240.30	119.09	249.93	90.26	1,015.83	-4,990.69	944.33	616.78	327.55	2.883		
11,200.00	7,239.93	7,209.07	7,239.93	121.85	249.95	90.23	1,015.83	-4,990.69	868.62	533.46	335.15	2.592		
11,300.00	7,239.57	7,209.43	7,239.57	124.61	249.96	90.19	1,015.83	-4,990.69	798.27	454.48	343.79	2.322		
11,400.00	7,239.20	7,209.80	7,239.20	127.38	249.97	90.15	1,015.83	-4,990.69	734.83	381.47	353.36	2.080		
11,500.00	7,238.84	7,189.84	7,238.84	130.15	249.27	90.12	1,015.83	-4,990.69	680.23	317.46	362.77	1.875		
11,600.00	7,238.47	7,189.47	7,238.47	132.92	249.26	90.08	1,015.83	-4,990.69	636.74	264.06	372.69	1.709		
11,700.00	7,238.10	7,189.10	7,238.10	135.70	249.25	90.05	1,015.83	-4,990.69	606.78	225.46	381.31	1.591		
11,800.00	7,237.74	7,188.74	7,237.74	138.48	249.24	90.01	1,015.83	-4,990.69	592.38	205.02	387.36	1.529		
11,836.32	7,237.60	7,188.60	7,237.60	139.49	249.23	90.00	1,015.83	-4,990.69	591.27	202.56	388.71	1.521	CC, ES, SF	
11,900.00	7,237.37	7,188.37	7,237.37	141.26	249.22	89.98	1,015.83	-4,990.69	594.69	204.80	389.88	1.525		
12,000.00	7,237.00	7,188.00	7,237.00	144.05	249.21	89.94	1,015.83	-4,990.69	613.50	224.76	388.74	1.578		
12,100.00	7,236.64	7,187.64	7,236.64	146.84	249.20	89.91	1,015.83	-4,990.69	647.40	262.76	384.64	1.683		
12,200.00	7,236.27	7,187.27	7,236.27	149.64	249.18	89.87	1,015.83	-4,990.69	694.16	315.50	378.66	1.833		
12,300.00	7,235.91	7,186.91	7,235.91	152.43	249.17	89.84	1,015.83	-4,990.69	751.39	379.54	371.85	2.021		
12,400.00	7,235.54	7,186.54	7,235.54	155.23	249.16	89.80	1,015.83	-4,990.69	816.90	451.96	364.94	2.238		
12,500.00	7,235.17	7,186.17	7,235.17	158.03	249.15	89.76	1,015.83	-4,990.69	888.85	530.48	358.37	2.480		
12,600.00	7,234.81	7,185.81	7,234.81	160.83	249.13	89.73	1,015.83	-4,990.69	965.81	613.48	352.34	2.741		
12,700.00	7,234.44	7,185.44	7,234.44	163.64	249.12	89.69	1,015.83	-4,990.69	1,046.68	699.77	346.91	3.017		
12,800.00	7,234.07	7,185.07	7,234.07	166.44	249.11	89.66	1,015.83	-4,990.69	1,130.60	788.53	342.07	3.305		
12,900.00	7,233.71	7,184.71	7,233.71	169.25	249.09	89.62	1,015.83	-4,990.69	1,216.96	879.18	337.78	3.603		
13,000.00	7,233.34	7,184.34	7,233.34	172.06	249.08	89.59	1,015.83	-4,990.69	1,305.27	971.28	333.99	3.908		
13,100.00	7,232.98	7,183.98	7,232.98	174.88	249.07	89.55	1,015.83	-4,990.69	1,395.16	1,064.52	330.64	4.220		
13,200.00	7,232.61	7,183.61	7,232.61	177.69	249.06	89.52	1,015.83	-4,990.69	1,486.34	1,158.68	327.66	4.536		
13,300.00	7,232.24	7,183.24	7,232.24	180.50	249.04	89.48	1,015.83	-4,990.69	1,578.58	1,253.58	325.01	4.857		
13,400.00	7,231.88	7,182.88	7,231.88	183.32	249.03	89.45	1,015.83	-4,990.69	1,671.72	1,349.08	322.64	5.181		
13,500.00	7,231.51	7,182.51	7,231.51	186.14	249.02	89.41	1,015.83	-4,990.69	1,765.61	1,445.09	320.53	5.508		
13,600.00	7,231.15	7,182.15	7,231.15	188.96	249.01	89.37	1,015.83	-4,990.69	1,860.14	1,541.51	318.63	5.838		
13,700.00	7,230.78	7,181.78	7,230.78	191.78	248.99	89.34	1,015.83	-4,990.69	1,955.21	1,638.30	316.91	6.170		
13,800.00	7,230.41	7,181.41	7,230.41	194.60	248.98	89.30	1,015.83	-4,990.69	2,050.75	1,735.39	315.37	6.503		
13,900.00	7,230.05	7,181.05	7,230.05	197.42	248.97	89.27	1,015.83	-4,990.69	2,146.70	1,832.73	313.97	6.837		
14,000.00	7,229.68	7,180.68	7,229.68	200.25	248.95	89.23	1,015.83	-4,990.69	2,243.00	1,930.31	312.69	7.173		
14,100.00	7,229.31	7,180.31	7,229.31	203.07	248.94	89.20	1,015.83	-4,990.69	2,339.61	2,028.08	311.53	7.510		
14,200.00	7,228.95	7,179.95	7,228.95	205.90	248.93	89.16	1,015.83	-4,990.69	2,436.49	2,126.02	310.47	7.848		
14,300.00	7,228.58	7,179.58	7,228.58	208.73	248.92	89.13	1,015.83	-4,990.69	2,533.62	2,224.12	309.50	8.186		
14,400.00	7,228.22	7,179.22	7,228.22	211.55	248.90	89.09	1,015.83	-4,990.69	2,630.96	2,322.35	308.61	8.525		
14,500.00	7,227.85	7,178.85	7,227.85	214.38	248.89	89.05	1,015.83	-4,990.69	2,728.50	2,420.71	307.79	8.865		
14,600.00	7,227.48	7,178.48	7,227.48	217.21	248.88	89.02	1,015.83	-4,990.69	2,826.20	2,519.17	307.03	9.205		
14,700.00	7,227.12	7,178.12	7,227.12	220.04	248.86	88.98	1,015.83	-4,990.69	2,924.06	2,617.73	306.34	9.545		
14,800.00	7,226.75	7,177.75	7,226.75	222.88	248.85	88.95	1,015.83	-4,990.69	3,022.07	2,716.37	305.69	9.886		
14,900.00	7,226.38	7,177.38	7,226.38	225.71	248.84	88.91	1,015.83	-4,990.69	3,120.19	2,815.10	305.10	10.227		
15,000.00	7,226.02	7,177.02	7,226.02	228.54	248.83	88.88	1,015.83	-4,990.69	3,218.44	2,913.89	304.54	10.568		
15,005.81	7,226.00	7,177.00	7,226.00	228.71	248.83	88.88	1,015.83	-4,990.69	3,224.15	2,919.63	304.51	10.588		



Anticollision Report



Company:	SRC ENERGY	Local Co-ordinate Reference:	Well HARVESTERS STATE 31C-16-M
Project:	SECTION 15, T6N, R66W	TVD Reference:	KB @ 4821.00ft
Reference Site:	HARVESTERS STATE 7-15 PAD	MD Reference:	KB @ 4821.00ft
Site Error:	3.28 ft	North Reference:	True
Reference Well:	HARVESTERS STATE 31C-16-M	Survey Calculation Method:	Minimum Curvature
Well Error:	3.28 ft	Output errors are at	2.45 sigma
Reference Wellbore	OH	Database:	EDM 5000.14 Single User Db
Reference Design:	PLAN #1	Offset TVD Reference:	Reference Datum

Offset Design HARVESTERS STATE 7-15 PAD - STATE BEATRICE 16-1(AB_150CC) - OH - OH												Offset Site Error:	0.00 ft
Survey Program: 100-2" Cone@2.448 Sigma												Offset Well Error:	3.28 ft
Reference		Offset		Semi Major Axis			Distance						Warning
Measured Depth (ft)	Vertical Depth (ft)	Measured Depth (ft)	Vertical Depth (ft)	Reference (ft)	Offset (ft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (ft)	+E/-W (ft)	Between Centres (ft)	Between Ellipses (ft)	Minimum Separation (ft)	Separation Factor	
0.00	0.00	0.00	47.00	3.28	3.28	-78.56	1,036.62	-5,120.57	5,224.66				
100.00	100.00	53.00	100.00	3.28	3.41	-78.56	1,036.62	-5,120.57	5,224.44	5,217.75	6.69	780.619	
200.00	200.00	153.00	200.00	3.34	4.87	-78.56	1,036.62	-5,120.57	5,224.44	5,216.24	8.20	636.814	
300.00	300.00	253.00	300.00	3.44	7.81	-78.56	1,036.62	-5,120.57	5,224.44	5,213.19	11.25	464.235	
400.00	400.00	353.00	400.00	3.60	11.07	-78.56	1,036.62	-5,120.57	5,224.44	5,209.77	14.68	355.938	
500.00	500.00	453.00	500.00	3.81	14.45	-78.56	1,036.62	-5,120.57	5,224.44	5,206.19	18.25	286.239	
600.00	600.00	553.00	600.00	4.05	17.86	-78.56	1,036.62	-5,120.57	5,224.44	5,202.53	21.91	238.453	
700.00	699.98	652.98	699.98	4.32	21.30	-55.69	1,036.62	-5,120.57	5,223.46	5,197.84	25.62	203.874	
800.00	799.84	752.84	799.84	4.62	24.75	-55.78	1,036.62	-5,120.57	5,220.52	5,191.16	29.37	177.763	
900.00	899.62	852.62	899.62	4.94	28.21	-55.84	1,036.62	-5,120.57	5,216.83	5,183.69	33.14	157.415	
1,000.00	999.41	952.41	999.41	5.27	31.67	-55.90	1,036.62	-5,120.57	5,213.15	5,176.21	36.94	141.134	
1,100.00	1,099.19	1,052.19	1,099.19	5.62	35.14	-55.96	1,036.62	-5,120.57	5,209.47	5,168.72	40.75	127.830	
1,200.00	1,198.98	1,151.98	1,198.98	5.99	38.61	-56.02	1,036.62	-5,120.57	5,205.80	5,161.21	44.58	116.763	
1,300.00	1,298.76	1,251.76	1,298.76	6.36	42.08	-56.08	1,036.62	-5,120.57	5,202.13	5,153.70	48.43	107.421	
1,400.00	1,398.55	1,351.55	1,398.55	6.74	45.56	-56.14	1,036.62	-5,120.57	5,198.46	5,146.18	52.28	99.433	
1,500.00	1,498.33	1,451.33	1,498.33	7.13	49.03	-56.20	1,036.62	-5,120.57	5,194.81	5,138.66	56.14	92.528	
1,600.00	1,598.12	1,551.12	1,598.12	7.52	52.51	-56.26	1,036.62	-5,120.57	5,191.16	5,131.14	60.01	86.502	
1,700.00	1,697.90	1,650.90	1,697.90	7.92	55.98	-56.32	1,036.62	-5,120.57	5,187.51	5,123.62	63.89	81.198	
1,800.00	1,797.69	1,750.69	1,797.69	8.33	59.46	-56.38	1,036.62	-5,120.57	5,183.87	5,116.10	67.77	76.495	
1,900.00	1,897.47	1,850.47	1,897.47	8.74	62.94	-56.44	1,036.62	-5,120.57	5,180.24	5,108.59	71.65	72.297	
2,000.00	1,997.26	1,950.26	1,997.26	9.15	66.42	-56.50	1,036.62	-5,120.57	5,176.61	5,101.07	75.54	68.528	
2,100.00	2,097.04	2,050.04	2,097.04	9.56	69.90	-56.56	1,036.62	-5,120.57	5,172.99	5,093.56	79.43	65.125	
2,200.00	2,196.83	2,149.83	2,196.83	9.98	73.38	-56.62	1,036.62	-5,120.57	5,169.37	5,086.04	83.33	62.038	
2,300.00	2,296.61	2,249.61	2,296.61	10.40	76.86	-56.68	1,036.62	-5,120.57	5,165.76	5,078.54	87.22	59.225	
2,400.00	2,396.40	2,349.40	2,396.40	10.82	80.34	-56.74	1,036.62	-5,120.57	5,162.15	5,071.03	91.12	56.651	
2,500.00	2,496.18	2,449.18	2,496.18	11.24	83.82	-56.80	1,036.62	-5,120.57	5,158.56	5,063.53	95.02	54.287	
2,600.00	2,595.96	2,548.96	2,595.96	11.66	87.30	-56.86	1,036.62	-5,120.57	5,154.96	5,056.04	98.93	52.109	
2,700.00	2,695.75	2,648.75	2,695.75	12.09	90.78	-56.92	1,036.62	-5,120.57	5,151.37	5,048.54	102.83	50.095	
2,800.00	2,795.53	2,748.53	2,795.53	12.51	94.26	-56.98	1,036.62	-5,120.57	5,147.79	5,041.06	106.74	48.229	
2,900.00	2,895.32	2,848.32	2,895.32	12.94	97.74	-57.04	1,036.62	-5,120.57	5,144.22	5,033.57	110.64	46.493	
3,000.00	2,995.10	2,948.10	2,995.10	13.37	101.23	-57.10	1,036.62	-5,120.57	5,140.65	5,026.09	114.55	44.876	
3,100.00	3,094.89	3,047.89	3,094.89	13.80	104.71	-57.17	1,036.62	-5,120.57	5,137.08	5,018.62	118.46	43.365	
3,200.00	3,194.67	3,147.67	3,194.67	14.23	108.19	-57.23	1,036.62	-5,120.57	5,133.53	5,011.15	122.37	41.950	
3,300.00	3,294.46	3,247.46	3,294.46	14.66	111.67	-57.29	1,036.62	-5,120.57	5,129.97	5,003.69	126.28	40.623	
3,400.00	3,394.24	3,347.24	3,394.24	15.09	115.15	-57.35	1,036.62	-5,120.57	5,126.43	4,996.23	130.20	39.375	
3,500.00	3,494.03	3,447.03	3,494.03	15.52	118.64	-57.41	1,036.62	-5,120.57	5,122.89	4,988.78	134.11	38.200	
3,600.00	3,593.81	3,546.81	3,593.81	15.96	122.12	-57.47	1,036.62	-5,120.57	5,119.35	4,981.33	138.02	37.091	
3,700.00	3,693.60	3,646.60	3,693.60	16.39	125.60	-57.54	1,036.62	-5,120.57	5,115.82	4,973.89	141.94	36.043	
3,800.00	3,793.38	3,746.38	3,793.38	16.82	129.08	-57.60	1,036.62	-5,120.57	5,112.30	4,966.45	145.85	35.052	
3,900.00	3,893.17	3,846.17	3,893.17	17.26	132.57	-57.66	1,036.62	-5,120.57	5,108.79	4,959.02	149.77	34.112	
4,000.00	3,992.95	3,945.95	3,992.95	17.69	136.05	-57.72	1,036.62	-5,120.57	5,105.27	4,951.59	153.68	33.220	
4,100.00	4,092.74	4,045.74	4,092.74	18.13	139.53	-57.78	1,036.62	-5,120.57	5,101.77	4,944.17	157.60	32.372	
4,200.00	4,192.52	4,145.52	4,192.52	18.56	143.01	-57.85	1,036.62	-5,120.57	5,098.27	4,936.76	161.51	31.566	
4,300.00	4,292.31	4,245.31	4,292.31	19.00	146.50	-57.91	1,036.62	-5,120.57	5,094.78	4,929.35	165.43	30.797	
4,400.00	4,392.09	4,345.09	4,392.09	19.43	149.98	-57.97	1,036.62	-5,120.57	5,091.29	4,921.95	169.35	30.064	
4,500.00	4,491.88	4,444.88	4,491.88	19.87	153.46	-58.03	1,036.62	-5,120.57	5,087.81	4,914.55	173.26	29.364	
4,600.00	4,591.66	4,544.66	4,591.66	20.31	156.94	-58.10	1,036.62	-5,120.57	5,084.34	4,907.16	177.18	28.696	
4,700.00	4,691.44	4,644.44	4,691.44	20.74	160.43	-58.16	1,036.62	-5,120.57	5,080.87	4,899.77	181.10	28.056	
4,800.00	4,791.23	4,744.23	4,791.23	21.18	163.91	-58.22	1,036.62	-5,120.57	5,077.41	4,892.39	185.02	27.443	
4,900.00	4,891.01	4,844.01	4,891.01	21.62	167.39	-58.28	1,036.62	-5,120.57	5,073.95	4,885.02	188.94	26.855	
5,000.00	4,990.80	4,943.80	4,990.80	22.06	170.87	-58.35	1,036.62	-5,120.57	5,070.50	4,877.65	192.86	26.292	
5,100.00	5,090.58	5,043.58	5,090.58	22.50	174.36	-58.41	1,036.62	-5,120.57	5,067.06	4,870.28	196.78	25.750	

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



Anticollision Report



Company:	SRC ENERGY	Local Co-ordinate Reference:	Well HARVESTERS STATE 31C-16-M
Project:	SECTION 15, T6N, R66W	TVD Reference:	KB @ 4821.00ft
Reference Site:	HARVESTERS STATE 7-15 PAD	MD Reference:	KB @ 4821.00ft
Site Error:	3.28 ft	North Reference:	True
Reference Well:	HARVESTERS STATE 31C-16-M	Survey Calculation Method:	Minimum Curvature
Well Error:	3.28 ft	Output errors are at	2.45 sigma
Reference Wellbore	OH	Database:	EDM 5000.14 Single User Db
Reference Design:	PLAN #1	Offset TVD Reference:	Reference Datum

Offset Design HARVESTERS STATE 7-15 PAD - STATE BEATRICE 16-1(AB_150CC) - OH - OH													Offset Site Error:	0.00 ft
Survey Program: 100-2" Cone@2.448 Sigma													Offset Well Error:	3.28 ft
Reference		Offset		Semi Major Axis			Distance						Warning	
Measured Depth (ft)	Vertical Depth (ft)	Measured Depth (ft)	Vertical Depth (ft)	Reference (ft)	Offset (ft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (ft)	+E/-W (ft)	Between Centres (ft)	Between Ellipses (ft)	Minimum Separation (ft)	Separation Factor		
5,200.00	5,190.37	5,143.37	5,190.37	22.93	177.84	-58.47	1,036.62	-5,120.57	5,063.62	4,862.93	200.69	25.230		
5,300.00	5,290.15	5,243.15	5,290.15	23.37	181.32	-58.54	1,036.62	-5,120.57	5,060.19	4,855.58	204.61	24.730		
5,400.00	5,389.94	5,342.94	5,389.94	23.81	184.81	-58.60	1,036.62	-5,120.57	5,056.77	4,848.23	208.53	24.249		
5,500.00	5,489.72	5,442.72	5,489.72	24.25	188.29	-58.66	1,036.62	-5,120.57	5,053.35	4,840.89	212.45	23.786		
5,600.00	5,589.51	5,542.51	5,589.51	24.69	191.77	-58.73	1,036.62	-5,120.57	5,049.93	4,833.56	216.37	23.339		
5,700.00	5,689.29	5,642.29	5,689.29	25.13	195.25	-58.79	1,036.62	-5,120.57	5,046.53	4,826.23	220.29	22.908		
5,800.00	5,789.08	5,742.08	5,789.08	25.56	198.74	-58.85	1,036.62	-5,120.57	5,043.13	4,818.91	224.21	22.492		
5,900.00	5,888.86	5,841.86	5,888.86	26.00	202.22	-58.92	1,036.62	-5,120.57	5,039.73	4,811.60	228.13	22.091		
6,000.00	5,988.65	5,941.65	5,988.65	26.44	205.70	-58.98	1,036.62	-5,120.57	5,036.35	4,804.29	232.06	21.703		
6,100.00	6,088.43	6,041.43	6,088.43	26.88	209.19	-59.05	1,036.62	-5,120.57	5,032.96	4,796.99	235.98	21.328		
6,200.00	6,188.22	6,141.22	6,188.22	27.32	212.67	-59.11	1,036.62	-5,120.57	5,029.59	4,789.69	239.90	20.966		
6,300.00	6,288.00	6,241.00	6,288.00	27.76	216.15	-59.17	1,036.62	-5,120.57	5,026.22	4,782.40	243.82	20.615		
6,400.00	6,387.79	6,340.79	6,387.79	28.20	219.64	-59.24	1,036.62	-5,120.57	5,022.86	4,775.12	247.74	20.275		
6,500.00	6,487.57	6,440.57	6,487.57	28.64	223.12	-59.30	1,036.62	-5,120.57	5,019.50	4,767.84	251.66	19.945		
6,600.00	6,587.35	6,540.35	6,587.35	29.08	226.60	-59.37	1,036.62	-5,120.57	5,016.15	4,760.57	255.58	19.626		
6,700.00	6,687.02	6,640.02	6,687.02	29.52	230.08	-21.48	1,036.62	-5,120.57	5,010.60	4,751.10	259.50	19.309		
6,800.00	6,784.98	6,737.98	6,784.98	29.96	233.50	-5.29	1,036.62	-5,120.57	4,991.32	4,727.97	263.35	18.953		
6,900.00	6,878.81	6,831.81	6,878.81	30.41	236.78	-0.30	1,036.62	-5,120.57	4,957.07	4,690.03	267.04	18.563		
7,000.00	6,966.21	6,919.21	6,966.21	30.86	239.83	2.51	1,036.62	-5,120.57	4,908.70	4,638.24	270.46	18.149		
7,100.00	7,045.03	7,001.97	7,045.03	31.35	242.72	4.86	1,036.62	-5,120.57	4,847.40	4,573.72	273.68	17.712		
7,200.00	7,113.32	7,066.32	7,113.32	31.90	244.96	7.47	1,036.62	-5,120.57	4,774.68	4,498.49	276.19	17.288		
7,300.00	7,169.40	7,122.40	7,169.40	32.57	246.92	11.14	1,036.62	-5,120.57	4,692.34	4,413.98	278.36	16.857		
7,400.00	7,211.89	7,164.89	7,211.89	33.38	248.40	17.48	1,036.62	-5,120.57	4,602.42	4,322.44	279.98	16.438		
7,500.00	7,239.75	7,207.25	7,239.75	34.35	249.88	31.47	1,036.62	-5,120.57	4,507.14	4,225.59	281.55	16.008		
7,600.00	7,252.28	7,205.28	7,252.28	35.47	249.81	70.89	1,036.62	-5,120.57	4,408.87	4,127.34	281.53	15.661		
7,700.00	7,252.75	7,205.75	7,252.75	36.73	249.83	91.46	1,036.62	-5,120.57	4,309.86	4,028.30	281.56	15.307		
7,800.00	7,252.38	7,205.38	7,252.38	38.16	249.82	91.43	1,036.62	-5,120.57	4,210.90	3,929.32	281.58	14.955		
7,900.00	7,252.02	7,205.02	7,252.02	39.74	249.80	91.40	1,036.62	-5,120.57	4,111.99	3,830.39	281.60	14.602		
8,000.00	7,251.65	7,204.65	7,251.65	41.47	249.79	91.36	1,036.62	-5,120.57	4,013.13	3,731.49	281.63	14.250		
8,100.00	7,251.29	7,204.29	7,251.29	43.31	249.78	91.33	1,036.62	-5,120.57	3,914.32	3,632.65	281.68	13.896		
8,200.00	7,250.92	7,203.92	7,250.92	45.26	249.77	91.29	1,036.62	-5,120.57	3,815.58	3,533.85	281.74	13.543		
8,300.00	7,250.55	7,203.55	7,250.55	47.30	249.75	91.26	1,036.62	-5,120.57	3,716.91	3,435.10	281.81	13.189		
8,400.00	7,250.19	7,203.19	7,250.19	49.42	249.74	91.22	1,036.62	-5,120.57	3,618.31	3,336.41	281.90	12.835		
8,500.00	7,249.82	7,202.82	7,249.82	51.62	249.73	91.19	1,036.62	-5,120.57	3,519.79	3,237.78	282.01	12.481		
8,600.00	7,249.45	7,202.45	7,249.45	53.88	249.71	91.16	1,036.62	-5,120.57	3,421.35	3,139.21	282.14	12.126		
8,700.00	7,249.09	7,202.09	7,249.09	56.19	249.70	91.12	1,036.62	-5,120.57	3,323.01	3,040.71	282.30	11.771		
8,800.00	7,248.72	7,201.72	7,248.72	58.55	249.69	91.09	1,036.62	-5,120.57	3,224.77	2,942.28	282.49	11.416		
8,900.00	7,248.36	7,201.36	7,248.36	60.96	249.68	91.05	1,036.62	-5,120.57	3,126.64	2,843.94	282.70	11.060		
9,000.00	7,247.99	7,200.99	7,247.99	63.40	249.66	91.02	1,036.62	-5,120.57	3,028.64	2,745.68	282.96	10.703		
9,100.00	7,247.62	7,200.62	7,247.62	65.87	249.65	90.98	1,036.62	-5,120.57	2,930.76	2,647.51	283.25	10.347		
9,200.00	7,247.26	7,200.26	7,247.26	68.38	249.64	90.95	1,036.62	-5,120.57	2,833.04	2,549.44	283.60	9.990		
9,300.00	7,246.89	7,200.11	7,246.89	70.91	249.63	90.92	1,036.62	-5,120.57	2,735.48	2,451.48	284.00	9.632		
9,400.00	7,246.53	7,200.48	7,246.53	73.47	249.65	90.88	1,036.62	-5,120.57	2,638.11	2,353.62	284.49	9.273		
9,500.00	7,246.16	7,200.84	7,246.16	76.05	249.66	90.85	1,036.62	-5,120.57	2,540.93	2,255.88	285.05	8.914		
9,600.00	7,245.79	7,201.21	7,245.79	78.65	249.67	90.81	1,036.62	-5,120.57	2,443.99	2,158.30	285.69	8.555		
9,700.00	7,245.43	7,201.57	7,245.43	81.27	249.68	90.78	1,036.62	-5,120.57	2,347.30	2,060.87	286.43	8.195		
9,800.00	7,245.06	7,201.94	7,245.06	83.90	249.70	90.74	1,036.62	-5,120.57	2,250.91	1,963.63	287.28	7.835		
9,900.00	7,244.69	7,202.31	7,244.69	86.55	249.71	90.71	1,036.62	-5,120.57	2,154.84	1,866.58	288.26	7.475		
10,000.00	7,244.33	7,202.67	7,244.33	89.21	249.72	90.67	1,036.62	-5,120.57	2,059.14	1,769.76	289.38	7.116		
10,100.00	7,243.96	7,203.04	7,243.96	91.88	249.73	90.64	1,036.62	-5,120.57	1,963.87	1,673.20	290.67	6.756		
10,200.00	7,243.60	7,203.40	7,243.60	94.56	249.75	90.61	1,036.62	-5,120.57	1,869.10	1,576.94	292.17	6.397		
10,300.00	7,243.23	7,203.77	7,243.23	97.26	249.76	90.57	1,036.62	-5,120.57	1,774.90	1,481.01	293.89	6.039		

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



Anticollision Report



Company:	SRC ENERGY	Local Co-ordinate Reference:	Well HARVESTERS STATE 31C-16-M
Project:	SECTION 15, T6N, R66W	TVD Reference:	KB @ 4821.00ft
Reference Site:	HARVESTERS STATE 7-15 PAD	MD Reference:	KB @ 4821.00ft
Site Error:	3.28 ft	North Reference:	True
Reference Well:	HARVESTERS STATE 31C-16-M	Survey Calculation Method:	Minimum Curvature
Well Error:	3.28 ft	Output errors are at	2.45 sigma
Reference Wellbore	OH	Database:	EDM 5000.14 Single User Db
Reference Design:	PLAN #1	Offset TVD Reference:	Reference Datum

Offset Design HARVESTERS STATE 7-15 PAD - STATE BEATRICE 16-1(AB_150CC) - OH - OH													Offset Site Error:	0.00 ft
Survey Program: 100-2" Cone@2.448 Sigma													Offset Well Error:	3.28 ft
Reference		Offset		Semi Major Axis			Distance						Warning	
Measured Depth (ft)	Vertical Depth (ft)	Measured Depth (ft)	Vertical Depth (ft)	Reference (ft)	Offset (ft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (ft)	+E/-W (ft)	Between Centres (ft)	Between Ellipses (ft)	Minimum Separation (ft)	Separation Factor		
10,400.00	7,242.86	7,204.14	7,242.86	99.96	249.77	90.54	1,036.62	-5,120.57	1,681.38	1,385.49	295.89	5.682		
10,500.00	7,242.50	7,204.50	7,242.50	102.67	249.79	90.50	1,036.62	-5,120.57	1,588.64	1,290.44	298.20	5.327		
10,600.00	7,242.13	7,204.87	7,242.13	105.39	249.80	90.47	1,036.62	-5,120.57	1,496.83	1,195.96	300.87	4.975		
10,700.00	7,241.76	7,205.24	7,241.76	108.12	249.81	90.43	1,036.62	-5,120.57	1,406.15	1,102.17	303.98	4.626		
10,800.00	7,241.40	7,205.60	7,241.40	110.85	249.82	90.40	1,036.62	-5,120.57	1,316.81	1,009.22	307.59	4.281		
10,900.00	7,241.03	7,205.97	7,241.03	113.59	249.84	90.37	1,036.62	-5,120.57	1,229.12	917.34	311.78	3.942		
11,000.00	7,240.67	7,206.33	7,240.67	116.34	249.85	90.33	1,036.62	-5,120.57	1,143.45	826.79	316.66	3.611		
11,100.00	7,240.30	7,206.70	7,240.30	119.09	249.86	90.30	1,036.62	-5,120.57	1,060.29	737.97	322.32	3.290		
11,200.00	7,239.93	7,207.07	7,239.93	121.85	249.88	90.26	1,036.62	-5,120.57	980.28	651.41	328.87	2.981		
11,300.00	7,239.57	7,207.43	7,239.57	124.61	249.89	90.23	1,036.62	-5,120.57	904.26	567.87	336.38	2.688		
11,400.00	7,239.20	7,207.80	7,239.20	127.38	249.90	90.19	1,036.62	-5,120.57	833.32	488.42	344.90	2.416		
11,500.00	7,238.84	7,208.17	7,238.84	130.15	249.91	90.16	1,036.62	-5,120.57	768.87	414.54	354.33	2.170		
11,600.00	7,238.47	7,208.53	7,238.47	132.92	249.93	90.13	1,036.62	-5,120.57	712.67	348.30	364.37	1.956		
11,700.00	7,238.10	7,208.90	7,238.10	135.70	249.94	90.09	1,036.62	-5,120.57	666.81	292.42	374.39	1.781		
11,800.00	7,237.74	7,209.26	7,237.74	138.48	249.95	90.06	1,036.62	-5,120.57	633.54	250.12	383.42	1.652		
11,900.00	7,237.37	7,209.63	7,237.37	141.26	249.96	90.02	1,036.62	-5,120.57	614.91	224.64	390.27	1.576		
11,966.32	7,237.13	7,209.87	7,237.13	143.11	249.97	90.00	1,036.62	-5,120.57	611.32	218.24	393.08	1.555 CC, ES		
12,000.00	7,237.00	7,210.00	7,237.00	144.05	249.98	89.99	1,036.62	-5,120.57	612.25	218.34	393.90	1.554 SF		
12,100.00	7,236.64	7,189.64	7,236.64	146.84	249.27	89.95	1,036.62	-5,120.57	625.76	232.53	393.23	1.591		
12,200.00	7,236.27	7,189.27	7,236.27	149.64	249.25	89.92	1,036.62	-5,120.57	654.46	264.36	390.10	1.678		
12,300.00	7,235.91	7,188.91	7,235.91	152.43	249.24	89.89	1,036.62	-5,120.57	696.46	311.71	384.75	1.810		
12,400.00	7,235.54	7,188.54	7,235.54	155.23	249.23	89.85	1,036.62	-5,120.57	749.53	371.30	378.22	1.982		
12,500.00	7,235.17	7,188.17	7,235.17	158.03	249.22	89.82	1,036.62	-5,120.57	811.50	440.17	371.32	2.185		
12,600.00	7,234.81	7,187.81	7,234.81	160.83	249.20	89.78	1,036.62	-5,120.57	880.49	515.91	364.58	2.415		
12,700.00	7,234.44	7,187.44	7,234.44	163.64	249.19	89.75	1,036.62	-5,120.57	954.98	596.70	358.28	2.665		
12,800.00	7,234.07	7,187.07	7,234.07	166.44	249.18	89.71	1,036.62	-5,120.57	1,033.79	681.26	352.54	2.932		
12,900.00	7,233.71	7,186.71	7,233.71	169.25	249.16	89.68	1,036.62	-5,120.57	1,116.00	768.63	347.37	3.213		
13,000.00	7,233.34	7,186.34	7,233.34	172.06	249.15	89.65	1,036.62	-5,120.57	1,200.91	858.15	342.77	3.504		
13,100.00	7,232.98	7,185.98	7,232.98	174.88	249.14	89.61	1,036.62	-5,120.57	1,287.99	949.32	338.67	3.803		
13,200.00	7,232.61	7,185.61	7,232.61	177.69	249.13	89.58	1,036.62	-5,120.57	1,376.83	1,041.80	335.03	4.110		
13,300.00	7,232.24	7,185.24	7,232.24	180.50	249.11	89.54	1,036.62	-5,120.57	1,467.10	1,135.31	331.80	4.422		
13,400.00	7,231.88	7,184.88	7,231.88	183.32	249.10	89.51	1,036.62	-5,120.57	1,558.57	1,229.66	328.91	4.739		
13,500.00	7,231.51	7,184.51	7,231.51	186.14	249.09	89.47	1,036.62	-5,120.57	1,651.02	1,324.69	326.33	5.059		
13,600.00	7,231.15	7,184.15	7,231.15	188.96	249.08	89.44	1,036.62	-5,120.57	1,744.30	1,420.29	324.02	5.383		
13,700.00	7,230.78	7,183.78	7,230.78	191.78	249.06	89.41	1,036.62	-5,120.57	1,838.29	1,516.36	321.94	5.710		
13,800.00	7,230.41	7,183.41	7,230.41	194.60	249.05	89.37	1,036.62	-5,120.57	1,932.89	1,612.83	320.06	6.039		
13,900.00	7,230.05	7,183.05	7,230.05	197.42	249.04	89.34	1,036.62	-5,120.57	2,028.00	1,709.64	318.36	6.370		
14,000.00	7,229.68	7,182.68	7,229.68	200.25	249.02	89.30	1,036.62	-5,120.57	2,123.56	1,806.74	316.83	6.703		
14,100.00	7,229.31	7,182.31	7,229.31	203.07	249.01	89.27	1,036.62	-5,120.57	2,219.52	1,904.09	315.43	7.037		
14,200.00	7,228.95	7,181.95	7,228.95	205.90	249.00	89.23	1,036.62	-5,120.57	2,315.81	2,001.66	314.15	7.372		
14,300.00	7,228.58	7,181.58	7,228.58	208.73	248.99	89.20	1,036.62	-5,120.57	2,412.41	2,099.42	312.99	7.708		
14,400.00	7,228.22	7,181.22	7,228.22	211.55	248.97	89.16	1,036.62	-5,120.57	2,509.27	2,197.35	311.92	8.045		
14,500.00	7,227.85	7,180.85	7,227.85	214.38	248.96	89.13	1,036.62	-5,120.57	2,606.37	2,295.44	310.94	8.382		
14,600.00	7,227.48	7,180.48	7,227.48	217.21	248.95	89.10	1,036.62	-5,120.57	2,703.68	2,393.65	310.03	8.721		
14,700.00	7,227.12	7,180.12	7,227.12	220.04	248.93	89.06	1,036.62	-5,120.57	2,801.18	2,491.98	309.20	9.059		
14,800.00	7,226.75	7,179.75	7,226.75	222.88	248.92	89.03	1,036.62	-5,120.57	2,898.86	2,590.42	308.43	9.399		
14,900.00	7,226.38	7,179.38	7,226.38	225.71	248.91	88.99	1,036.62	-5,120.57	2,996.68	2,688.96	307.72	9.738		
15,000.00	7,226.02	7,179.02	7,226.02	228.54	248.90	88.96	1,036.62	-5,120.57	3,094.64	2,787.58	307.06	10.078		
15,005.81	7,226.00	7,179.00	7,226.00	228.71	248.90	88.96	1,036.62	-5,120.57	3,100.34	2,793.31	307.02	10.098		



Anticollision Report



Company:	SRC ENERGY	Local Co-ordinate Reference:	Well HARVESTERS STATE 31C-16-M
Project:	SECTION 15, T6N, R66W	TVD Reference:	KB @ 4821.00ft
Reference Site:	HARVESTERS STATE 7-15 PAD	MD Reference:	KB @ 4821.00ft
Site Error:	3.28 ft	North Reference:	True
Reference Well:	HARVESTERS STATE 31C-16-M	Survey Calculation Method:	Minimum Curvature
Well Error:	3.28 ft	Output errors are at	2.45 sigma
Reference Wellbore	OH	Database:	EDM 5000.14 Single User Db
Reference Design:	PLAN #1	Offset TVD Reference:	Reference Datum

Offset Design HARVESTERS STATE 7-15 PAD - STATE BEATRICE 32-16(PR_75CC) - OH - OH												Offset Site Error:	0.00 ft
Survey Program: 100-2" Cone@2.448 Sigma												Offset Well Error:	3.28 ft
Reference		Offset		Semi Major Axis			Distance						Warning
Measured Depth (ft)	Vertical Depth (ft)	Measured Depth (ft)	Vertical Depth (ft)	Reference (ft)	Offset (ft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (ft)	+E/-W (ft)	Between Centres (ft)	Between Ellipses (ft)	Minimum Separation (ft)	Separation Factor	
0.00	0.00	0.00	54.00	3.28	3.28	-95.06	-435.21	-4,917.83	4,937.35				
100.00	100.00	46.00	100.00	3.28	3.38	-95.06	-435.21	-4,917.83	4,937.05	4,930.39	6.66	741.124	
200.00	200.00	146.00	200.00	3.34	4.69	-95.06	-435.21	-4,917.83	4,937.05	4,929.02	8.03	615.103	
300.00	300.00	246.00	300.00	3.44	7.59	-95.06	-435.21	-4,917.83	4,937.05	4,926.02	11.03	447.488	
400.00	400.00	346.00	400.00	3.60	10.84	-95.06	-435.21	-4,917.83	4,937.05	4,922.61	14.44	341.788	
500.00	500.00	446.00	500.00	3.81	14.21	-95.06	-435.21	-4,917.83	4,937.05	4,919.04	18.01	274.065	
600.00	600.00	546.00	600.00	4.05	17.62	-95.06	-435.21	-4,917.83	4,937.05	4,915.38	21.67	227.833	
700.00	699.98	645.98	699.98	4.32	21.06	-72.19	-435.21	-4,917.83	4,936.52	4,911.14	25.38	194.508	
800.00	799.84	745.84	799.84	4.62	24.51	-72.27	-435.21	-4,917.83	4,934.93	4,905.80	29.12	169.441	
900.00	899.62	845.62	899.62	4.94	27.97	-72.34	-435.21	-4,917.83	4,932.93	4,900.03	32.90	149.949	
1,000.00	999.41	945.41	999.41	5.27	31.43	-72.42	-435.21	-4,917.83	4,930.94	4,894.25	36.69	134.379	
1,100.00	1,099.19	1,045.19	1,099.19	5.62	34.90	-72.49	-435.21	-4,917.83	4,928.96	4,888.45	40.51	121.672	
1,200.00	1,198.98	1,144.98	1,198.98	5.99	38.37	-72.56	-435.21	-4,917.83	4,926.99	4,882.64	44.34	111.115	
1,300.00	1,298.76	1,244.76	1,298.76	6.36	41.84	-72.63	-435.21	-4,917.83	4,925.02	4,876.84	48.18	102.211	
1,400.00	1,398.55	1,344.55	1,398.55	6.74	45.31	-72.71	-435.21	-4,917.83	4,923.06	4,871.02	52.04	94.604	
1,500.00	1,498.33	1,444.33	1,498.33	7.13	48.79	-72.78	-435.21	-4,917.83	4,921.11	4,865.21	55.90	88.033	
1,600.00	1,598.12	1,544.12	1,598.12	7.52	52.26	-72.85	-435.21	-4,917.83	4,919.17	4,859.40	59.77	82.301	
1,700.00	1,697.90	1,643.90	1,697.90	7.92	55.74	-72.92	-435.21	-4,917.83	4,917.24	4,853.59	63.65	77.259	
1,800.00	1,797.69	1,743.69	1,797.69	8.33	59.22	-73.00	-435.21	-4,917.83	4,915.31	4,847.79	67.53	72.791	
1,900.00	1,897.47	1,843.47	1,897.47	8.74	62.70	-73.07	-435.21	-4,917.83	4,913.40	4,841.98	71.41	68.804	
2,000.00	1,997.26	1,943.26	1,997.26	9.15	66.18	-73.14	-435.21	-4,917.83	4,911.49	4,836.19	75.30	65.225	
2,100.00	2,097.04	2,043.04	2,097.04	9.56	69.65	-73.22	-435.21	-4,917.83	4,909.59	4,830.39	79.19	61.996	
2,200.00	2,196.83	2,142.83	2,196.83	9.98	73.13	-73.29	-435.21	-4,917.83	4,907.69	4,824.60	83.09	59.067	
2,300.00	2,296.61	2,242.61	2,296.61	10.40	76.61	-73.36	-435.21	-4,917.83	4,905.81	4,818.82	86.98	56.398	
2,400.00	2,396.40	2,342.40	2,396.40	10.82	80.09	-73.44	-435.21	-4,917.83	4,903.93	4,813.05	90.88	53.958	
2,500.00	2,496.18	2,442.18	2,496.18	11.24	83.58	-73.51	-435.21	-4,917.83	4,902.06	4,807.27	94.79	51.717	
2,600.00	2,595.96	2,541.96	2,595.96	11.66	87.06	-73.58	-435.21	-4,917.83	4,900.20	4,801.51	98.69	49.653	
2,700.00	2,695.75	2,641.75	2,695.75	12.09	90.54	-73.66	-435.21	-4,917.83	4,898.35	4,795.75	102.59	47.745	
2,800.00	2,795.53	2,741.53	2,795.53	12.51	94.02	-73.73	-435.21	-4,917.83	4,896.50	4,790.00	106.50	45.976	
2,900.00	2,895.32	2,841.32	2,895.32	12.94	97.50	-73.80	-435.21	-4,917.83	4,894.66	4,784.26	110.41	44.332	
3,000.00	2,995.10	2,941.10	2,995.10	13.37	100.98	-73.88	-435.21	-4,917.83	4,892.84	4,778.52	114.32	42.800	
3,100.00	3,094.89	3,040.89	3,094.89	13.80	104.46	-73.95	-435.21	-4,917.83	4,891.02	4,772.79	118.23	41.370	
3,200.00	3,194.67	3,140.67	3,194.67	14.23	107.95	-74.02	-435.21	-4,917.83	4,889.20	4,767.06	122.14	40.030	
3,300.00	3,294.46	3,240.46	3,294.46	14.66	111.43	-74.10	-435.21	-4,917.83	4,887.40	4,761.35	126.05	38.773	
3,400.00	3,394.24	3,340.24	3,394.24	15.09	114.91	-74.17	-435.21	-4,917.83	4,885.60	4,755.64	129.96	37.592	
3,500.00	3,494.03	3,440.03	3,494.03	15.52	118.39	-74.25	-435.21	-4,917.83	4,883.81	4,749.94	133.88	36.480	
3,600.00	3,593.81	3,539.81	3,593.81	15.96	121.87	-74.32	-435.21	-4,917.83	4,882.03	4,744.24	137.79	35.431	
3,700.00	3,693.60	3,639.60	3,693.60	16.39	125.36	-74.39	-435.21	-4,917.83	4,880.26	4,738.56	141.70	34.440	
3,800.00	3,793.38	3,739.38	3,793.38	16.82	128.84	-74.47	-435.21	-4,917.83	4,878.50	4,732.88	145.62	33.502	
3,900.00	3,893.17	3,839.17	3,893.17	17.26	132.32	-74.54	-435.21	-4,917.83	4,876.74	4,727.21	149.53	32.613	
4,000.00	3,992.95	3,938.95	3,992.95	17.69	135.80	-74.62	-435.21	-4,917.83	4,875.00	4,721.55	153.45	31.769	
4,100.00	4,092.74	4,038.74	4,092.74	18.13	139.29	-74.69	-435.21	-4,917.83	4,873.26	4,715.89	157.37	30.967	
4,200.00	4,192.52	4,138.52	4,192.52	18.56	142.77	-74.76	-435.21	-4,917.83	4,871.53	4,710.24	161.28	30.205	
4,300.00	4,292.31	4,238.31	4,292.31	19.00	146.25	-74.84	-435.21	-4,917.83	4,869.80	4,704.60	165.20	29.478	
4,400.00	4,392.09	4,338.09	4,392.09	19.43	149.73	-74.91	-435.21	-4,917.83	4,868.09	4,698.97	169.12	28.785	
4,500.00	4,491.88	4,437.88	4,491.88	19.87	153.22	-74.99	-435.21	-4,917.83	4,866.38	4,693.35	173.04	28.123	
4,600.00	4,591.66	4,537.66	4,591.66	20.31	156.70	-75.06	-435.21	-4,917.83	4,864.69	4,687.73	176.96	27.491	
4,700.00	4,691.44	4,637.44	4,691.44	20.74	160.18	-75.14	-435.21	-4,917.83	4,863.00	4,682.12	180.87	26.886	
4,800.00	4,791.23	4,737.23	4,791.23	21.18	163.66	-75.21	-435.21	-4,917.83	4,861.31	4,676.52	184.79	26.307	
4,900.00	4,891.01	4,837.01	4,891.01	21.62	167.15	-75.29	-435.21	-4,917.83	4,859.64	4,670.93	188.71	25.752	
5,000.00	4,990.80	4,936.80	4,990.80	22.06	170.63	-75.36	-435.21	-4,917.83	4,857.98	4,665.34	192.63	25.219	
5,100.00	5,090.58	5,036.58	5,090.58	22.50	174.11	-75.44	-435.21	-4,917.83	4,856.32	4,659.77	196.55	24.708	

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



Anticollision Report



Company:	SRC ENERGY	Local Co-ordinate Reference:	Well HARVESTERS STATE 31C-16-M
Project:	SECTION 15, T6N, R66W	TVD Reference:	KB @ 4821.00ft
Reference Site:	HARVESTERS STATE 7-15 PAD	MD Reference:	KB @ 4821.00ft
Site Error:	3.28 ft	North Reference:	True
Reference Well:	HARVESTERS STATE 31C-16-M	Survey Calculation Method:	Minimum Curvature
Well Error:	3.28 ft	Output errors are at	2.45 sigma
Reference Wellbore	OH	Database:	EDM 5000.14 Single User Db
Reference Design:	PLAN #1	Offset TVD Reference:	Reference Datum

Offset Design HARVESTERS STATE 7-15 PAD - STATE BEATRICE 32-16(PR_75CC) - OH - OH													Offset Site Error:	0.00 ft
Survey Program: 100-2" Cone@2.448 Sigma													Offset Well Error:	3.28 ft
Reference		Offset		Semi Major Axis			Distance						Warning	
Measured Depth (ft)	Vertical Depth (ft)	Measured Depth (ft)	Vertical Depth (ft)	Reference (ft)	Offset (ft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (ft)	+E/-W (ft)	Between Centres (ft)	Between Ellipses (ft)	Minimum Separation (ft)	Separation Factor		
5,200.00	5,190.37	5,136.37	5,190.37	22.93	177.60	-75.51	-435.21	-4,917.83	4,854.67	4,654.20	200.47	24.216		
5,300.00	5,290.15	5,236.15	5,290.15	23.37	181.08	-75.58	-435.21	-4,917.83	4,853.03	4,648.64	204.39	23.744		
5,400.00	5,389.94	5,335.94	5,389.94	23.81	184.56	-75.66	-435.21	-4,917.83	4,851.40	4,643.09	208.31	23.289		
5,500.00	5,489.72	5,435.72	5,489.72	24.25	188.04	-75.73	-435.21	-4,917.83	4,849.78	4,637.54	212.23	22.851		
5,600.00	5,589.51	5,535.51	5,589.51	24.69	191.53	-75.81	-435.21	-4,917.83	4,848.16	4,632.01	216.15	22.429		
5,700.00	5,689.29	5,635.29	5,689.29	25.13	195.01	-75.88	-435.21	-4,917.83	4,846.55	4,626.48	220.07	22.023		
5,800.00	5,789.08	5,735.08	5,789.08	25.56	198.49	-75.96	-435.21	-4,917.83	4,844.96	4,620.96	223.99	21.630		
5,900.00	5,888.86	5,834.86	5,888.86	26.00	201.98	-76.03	-435.21	-4,917.83	4,843.37	4,615.45	227.91	21.251		
6,000.00	5,988.65	5,934.65	5,988.65	26.44	205.46	-76.11	-435.21	-4,917.83	4,841.78	4,609.95	231.84	20.885		
6,100.00	6,088.43	6,034.43	6,088.43	26.88	208.94	-76.18	-435.21	-4,917.83	4,840.21	4,604.45	235.76	20.530		
6,200.00	6,188.22	6,134.22	6,188.22	27.32	212.43	-76.26	-435.21	-4,917.83	4,838.65	4,598.97	239.68	20.188		
6,300.00	6,288.00	6,234.00	6,288.00	27.76	215.91	-76.34	-435.21	-4,917.83	4,837.09	4,593.49	243.60	19.857		
6,400.00	6,387.79	6,333.79	6,387.79	28.20	219.39	-76.41	-435.21	-4,917.83	4,835.54	4,588.02	247.52	19.536		
6,500.00	6,487.57	6,433.57	6,487.57	28.64	222.88	-76.49	-435.21	-4,917.83	4,834.00	4,582.56	251.44	19.225		
6,600.00	6,587.35	6,533.35	6,587.35	29.08	226.36	-76.56	-435.21	-4,917.83	4,832.47	4,577.10	255.37	18.924		
6,700.00	6,687.02	6,633.02	6,687.02	29.52	229.84	-38.79	-435.21	-4,917.83	4,828.75	4,569.47	259.28	18.623		
6,800.00	6,784.98	6,730.98	6,784.98	29.96	233.26	-23.18	-435.21	-4,917.83	4,811.37	4,548.23	263.14	18.285		
6,900.00	6,878.81	6,824.81	6,878.81	30.41	236.53	-19.34	-435.21	-4,917.83	4,779.07	4,512.25	266.82	17.911		
7,000.00	6,966.21	6,912.21	6,966.21	30.86	239.58	-18.39	-435.21	-4,917.83	4,732.67	4,462.41	270.26	17.512		
7,100.00	7,045.03	7,008.97	7,045.03	31.35	242.96	-18.97	-435.21	-4,917.83	4,673.32	4,399.35	273.98	17.057		
7,200.00	7,113.32	7,059.32	7,113.32	31.90	244.72	-20.93	-435.21	-4,917.83	4,602.52	4,326.49	276.03	16.674		
7,300.00	7,169.40	7,115.40	7,169.40	32.57	246.68	-24.79	-435.21	-4,917.83	4,522.01	4,243.78	278.23	16.253		
7,400.00	7,211.89	7,157.89	7,211.89	33.38	248.16	-32.03	-435.21	-4,917.83	4,433.80	4,153.88	279.92	15.840		
7,500.00	7,239.75	7,185.75	7,239.75	34.35	249.13	-46.68	-435.21	-4,917.83	4,340.06	4,059.01	281.05	15.442		
7,600.00	7,252.28	7,201.72	7,252.28	35.47	249.69	-77.28	-435.21	-4,917.83	4,243.12	3,961.39	281.73	15.061		
7,700.00	7,252.75	7,201.25	7,252.75	36.73	249.67	-90.99	-435.21	-4,917.83	4,145.26	3,863.44	281.83	14.709		
7,800.00	7,252.38	7,201.62	7,252.38	38.16	249.68	-90.97	-435.21	-4,917.83	4,047.49	3,765.52	281.97	14.354		
7,900.00	7,252.02	7,201.98	7,252.02	39.74	249.70	-90.94	-435.21	-4,917.83	3,949.83	3,667.69	282.13	14.000		
8,000.00	7,251.65	7,202.35	7,251.65	41.47	249.71	-90.92	-435.21	-4,917.83	3,852.28	3,569.96	282.32	13.645		
8,100.00	7,251.29	7,202.71	7,251.29	43.31	249.72	-90.89	-435.21	-4,917.83	3,754.87	3,472.33	282.54	13.290		
8,200.00	7,250.92	7,203.08	7,250.92	45.26	249.74	-90.87	-435.21	-4,917.83	3,657.60	3,374.81	282.79	12.934		
8,300.00	7,250.55	7,203.45	7,250.55	47.30	249.75	-90.84	-435.21	-4,917.83	3,560.47	3,277.40	283.07	12.578		
8,400.00	7,250.19	7,203.81	7,250.19	49.42	249.76	-90.82	-435.21	-4,917.83	3,463.51	3,180.12	283.40	12.221		
8,500.00	7,249.82	7,204.18	7,249.82	51.62	249.77	-90.79	-435.21	-4,917.83	3,366.73	3,082.97	283.76	11.865		
8,600.00	7,249.45	7,204.55	7,249.45	53.88	249.79	-90.77	-435.21	-4,917.83	3,270.15	2,985.97	284.17	11.508		
8,700.00	7,249.09	7,204.91	7,249.09	56.19	249.80	-90.75	-435.21	-4,917.83	3,173.77	2,889.13	284.64	11.150		
8,800.00	7,248.72	7,205.28	7,248.72	58.55	249.81	-90.72	-435.21	-4,917.83	3,077.62	2,792.46	285.16	10.792		
8,900.00	7,248.36	7,205.64	7,248.36	60.96	249.83	-90.70	-435.21	-4,917.83	2,981.73	2,695.98	285.76	10.434		
9,000.00	7,247.99	7,206.01	7,247.99	63.40	249.84	-90.67	-435.21	-4,917.83	2,886.12	2,599.70	286.43	10.076		
9,100.00	7,247.62	7,206.38	7,247.62	65.87	249.85	-90.65	-435.21	-4,917.83	2,790.82	2,503.64	287.18	9.718		
9,200.00	7,247.26	7,206.74	7,247.26	68.38	249.86	-90.62	-435.21	-4,917.83	2,695.85	2,407.83	288.02	9.360		
9,300.00	7,246.89	7,207.11	7,246.89	70.91	249.88	-90.60	-435.21	-4,917.83	2,601.26	2,312.29	288.97	9.002		
9,400.00	7,246.53	7,207.48	7,246.53	73.47	249.89	-90.58	-435.21	-4,917.83	2,507.10	2,217.06	290.04	8.644		
9,500.00	7,246.16	7,207.84	7,246.16	76.05	249.90	-90.55	-435.21	-4,917.83	2,413.40	2,122.16	291.24	8.287		
9,600.00	7,245.79	7,208.21	7,245.79	78.65	249.92	-90.53	-435.21	-4,917.83	2,320.23	2,027.64	292.59	7.930		
9,700.00	7,245.43	7,208.57	7,245.43	81.27	249.93	-90.50	-435.21	-4,917.83	2,227.65	1,933.55	294.10	7.575		
9,800.00	7,245.06	7,208.94	7,245.06	83.90	249.94	-90.48	-435.21	-4,917.83	2,135.74	1,839.94	295.79	7.220		
9,900.00	7,244.69	7,209.31	7,244.69	86.55	249.95	-90.45	-435.21	-4,917.83	2,044.58	1,746.89	297.70	6.868		
10,000.00	7,244.33	7,209.67	7,244.33	89.21	249.97	-90.43	-435.21	-4,917.83	1,954.30	1,654.46	299.83	6.518		
10,100.00	7,243.96	7,189.96	7,243.96	91.88	249.28	-90.40	-435.21	-4,917.83	1,865.00	1,563.47	301.53	6.185		
10,200.00	7,243.60	7,189.60	7,243.60	94.56	249.27	-90.38	-435.21	-4,917.83	1,776.85	1,472.66	304.19	5.841		
10,300.00	7,243.23	7,189.23	7,243.23	97.26	249.25	-90.36	-435.21	-4,917.83	1,690.02	1,382.84	307.18	5.502		

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



Anticollision Report



Company:	SRC ENERGY	Local Co-ordinate Reference:	Well HARVESTERS STATE 31C-16-M
Project:	SECTION 15, T6N, R66W	TVD Reference:	KB @ 4821.00ft
Reference Site:	HARVESTERS STATE 7-15 PAD	MD Reference:	KB @ 4821.00ft
Site Error:	3.28 ft	North Reference:	True
Reference Well:	HARVESTERS STATE 31C-16-M	Survey Calculation Method:	Minimum Curvature
Well Error:	3.28 ft	Output errors are at	2.45 sigma
Reference Wellbore	OH	Database:	EDM 5000.14 Single User Db
Reference Design:	PLAN #1	Offset TVD Reference:	Reference Datum

Offset Design HARVESTERS STATE 7-15 PAD - STATE BEATRICE 32-16(PR_75CC) - OH - OH													Offset Site Error:	0.00 ft
Survey Program: 100-2" Cone@2.448 Sigma													Offset Well Error:	3.28 ft
Reference		Offset		Semi Major Axis			Distance							Warning
Measured Depth (ft)	Vertical Depth (ft)	Measured Depth (ft)	Vertical Depth (ft)	Reference (ft)	Offset (ft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (ft)	+E/-W (ft)	Between Centres (ft)	Between Ellipses (ft)	Minimum Separation (ft)	Separation Factor		
10,400.00	7,242.86	7,188.86	7,242.86	99.96	249.24	-90.33	-435.21	-4,917.83	1,604.71	1,294.19	310.53	5.168		
10,500.00	7,242.50	7,188.50	7,242.50	102.67	249.23	-90.31	-435.21	-4,917.83	1,521.20	1,206.93	314.27	4.840		
10,600.00	7,242.13	7,188.13	7,242.13	105.39	249.21	-90.28	-435.21	-4,917.83	1,439.80	1,121.34	318.46	4.521		
10,700.00	7,241.76	7,187.76	7,241.76	108.12	249.20	-90.26	-435.21	-4,917.83	1,360.87	1,037.75	323.12	4.212		
10,800.00	7,241.40	7,187.40	7,241.40	110.85	249.19	-90.23	-435.21	-4,917.83	1,284.89	956.59	328.29	3.914		
10,900.00	7,241.03	7,187.03	7,241.03	113.59	249.18	-90.21	-435.21	-4,917.83	1,212.39	878.41	333.98	3.630		
11,000.00	7,240.67	7,186.67	7,240.67	116.34	249.16	-90.18	-435.21	-4,917.83	1,144.05	803.86	340.18	3.363		
11,100.00	7,240.30	7,186.30	7,240.30	119.09	249.15	-90.16	-435.21	-4,917.83	1,080.65	733.80	346.84	3.116		
11,200.00	7,239.93	7,185.93	7,239.93	121.85	249.14	-90.14	-435.21	-4,917.83	1,023.11	669.25	353.86	2.891		
11,300.00	7,239.57	7,185.57	7,239.57	124.61	249.12	-90.11	-435.21	-4,917.83	972.47	611.44	361.04	2.694		
11,400.00	7,239.20	7,185.20	7,239.20	127.38	249.11	-90.09	-435.21	-4,917.83	929.87	561.78	368.09	2.526		
11,500.00	7,238.84	7,184.84	7,238.84	130.15	249.10	-90.06	-435.21	-4,917.83	896.44	521.79	374.66	2.393		
11,600.00	7,238.47	7,184.47	7,238.47	132.92	249.09	-90.04	-435.21	-4,917.83	873.25	492.95	380.30	2.296		
11,700.00	7,238.10	7,184.10	7,238.10	135.70	249.07	-90.01	-435.21	-4,917.83	861.11	476.51	384.60	2.239		
11,755.24	7,237.90	7,183.90	7,237.90	137.23	249.07	-90.00	-435.21	-4,917.83	859.34	473.05	386.29	2.225 CC, ES		
11,800.00	7,237.74	7,183.74	7,237.74	138.48	249.06	-89.99	-435.21	-4,917.83	860.50	473.23	387.27	2.222 SF		
11,900.00	7,237.37	7,183.37	7,237.37	141.26	249.05	-89.96	-435.21	-4,917.83	871.45	483.27	388.18	2.245		
12,000.00	7,237.00	7,183.00	7,237.00	144.05	249.04	-89.94	-435.21	-4,917.83	893.52	506.09	387.42	2.306		
12,100.00	7,236.64	7,182.64	7,236.64	146.84	249.02	-89.92	-435.21	-4,917.83	925.92	540.66	385.26	2.403		
12,200.00	7,236.27	7,182.27	7,236.27	149.64	249.01	-89.89	-435.21	-4,917.83	967.61	585.58	382.03	2.533		
12,300.00	7,235.91	7,181.91	7,235.91	152.43	249.00	-89.87	-435.21	-4,917.83	1,017.46	639.36	378.10	2.691		
12,400.00	7,235.54	7,181.54	7,235.54	155.23	248.98	-89.84	-435.21	-4,917.83	1,074.33	700.54	373.79	2.874		
12,500.00	7,235.17	7,181.17	7,235.17	158.03	248.97	-89.82	-435.21	-4,917.83	1,137.16	767.83	369.33	3.079		
12,600.00	7,234.81	7,180.81	7,234.81	160.83	248.96	-89.79	-435.21	-4,917.83	1,205.02	840.11	364.91	3.302		
12,700.00	7,234.44	7,180.44	7,234.44	163.64	248.95	-89.77	-435.21	-4,917.83	1,277.12	916.48	360.64	3.541		
12,800.00	7,234.07	7,180.07	7,234.07	166.44	248.93	-89.74	-435.21	-4,917.83	1,352.77	996.18	356.58	3.794		
12,900.00	7,233.71	7,179.71	7,233.71	169.25	248.92	-89.72	-435.21	-4,917.83	1,431.41	1,078.63	352.78	4.058		
13,000.00	7,233.34	7,179.34	7,233.34	172.06	248.91	-89.70	-435.21	-4,917.83	1,512.57	1,163.33	349.24	4.331		
13,100.00	7,232.98	7,178.98	7,232.98	174.88	248.89	-89.67	-435.21	-4,917.83	1,595.88	1,249.92	345.96	4.613		
13,200.00	7,232.61	7,178.61	7,232.61	177.69	248.88	-89.65	-435.21	-4,917.83	1,681.00	1,338.07	342.94	4.902		
13,300.00	7,232.24	7,178.24	7,232.24	180.50	248.87	-89.62	-435.21	-4,917.83	1,767.69	1,427.54	340.15	5.197		
13,400.00	7,231.88	7,177.88	7,231.88	183.32	248.86	-89.60	-435.21	-4,917.83	1,855.71	1,518.13	337.58	5.497		
13,500.00	7,231.51	7,177.51	7,231.51	186.14	248.84	-89.57	-435.21	-4,917.83	1,944.90	1,609.68	335.22	5.802		
13,600.00	7,231.15	7,177.15	7,231.15	188.96	248.83	-89.55	-435.21	-4,917.83	2,035.08	1,702.04	333.04	6.111		
13,700.00	7,230.78	7,176.78	7,230.78	191.78	248.82	-89.53	-435.21	-4,917.83	2,126.15	1,795.11	331.04	6.423		
13,800.00	7,230.41	7,176.41	7,230.41	194.60	248.81	-89.50	-435.21	-4,917.83	2,217.99	1,888.80	329.18	6.738		
13,900.00	7,230.05	7,176.05	7,230.05	197.42	248.79	-89.48	-435.21	-4,917.83	2,310.50	1,983.03	327.47	7.056		
14,000.00	7,229.68	7,175.68	7,229.68	200.25	248.78	-89.45	-435.21	-4,917.83	2,403.61	2,077.73	325.89	7.376		
14,100.00	7,229.31	7,175.31	7,229.31	203.07	248.77	-89.43	-435.21	-4,917.83	2,497.26	2,172.84	324.42	7.698		
14,200.00	7,228.95	7,174.95	7,228.95	205.90	248.75	-89.40	-435.21	-4,917.83	2,591.38	2,268.33	323.05	8.022		
14,300.00	7,228.58	7,174.58	7,228.58	208.73	248.74	-89.38	-435.21	-4,917.83	2,685.93	2,364.14	321.79	8.347		
14,400.00	7,228.22	7,174.22	7,228.22	211.55	248.73	-89.35	-435.21	-4,917.83	2,780.85	2,460.24	320.61	8.674		
14,500.00	7,227.85	7,173.85	7,227.85	214.38	248.72	-89.33	-435.21	-4,917.83	2,876.12	2,556.61	319.51	9.002		
14,600.00	7,227.48	7,173.48	7,227.48	217.21	248.70	-89.31	-435.21	-4,917.83	2,971.70	2,653.22	318.49	9.331		
14,700.00	7,227.12	7,173.12	7,227.12	220.04	248.69	-89.28	-435.21	-4,917.83	3,067.57	2,750.04	317.53	9.661		
14,800.00	7,226.75	7,172.75	7,226.75	222.88	248.68	-89.26	-435.21	-4,917.83	3,163.69	2,847.05	316.63	9.992		
14,900.00	7,226.38	7,172.38	7,226.38	225.71	248.66	-89.23	-435.21	-4,917.83	3,260.04	2,944.25	315.79	10.323		
15,000.00	7,226.02	7,172.02	7,226.02	228.54	248.65	-89.21	-435.21	-4,917.83	3,356.61	3,041.60	315.01	10.656		
15,005.81	7,226.00	7,172.00	7,226.00	228.71	248.65	-89.21	-435.21	-4,917.83	3,362.22	3,047.26	314.96	10.675		

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



Anticollision Report



Company:	SRC ENERGY	Local Co-ordinate Reference:	Well HARVESTERS STATE 31C-16-M
Project:	SECTION 15, T6N, R66W	TVD Reference:	KB @ 4821.00ft
Reference Site:	HARVESTERS STATE 7-15 PAD	MD Reference:	KB @ 4821.00ft
Site Error:	3.28 ft	North Reference:	True
Reference Well:	HARVESTERS STATE 31C-16-M	Survey Calculation Method:	Minimum Curvature
Well Error:	3.28 ft	Output errors are at	2.45 sigma
Reference Wellbore	OH	Database:	EDM 5000.14 Single User Db
Reference Design:	PLAN #1	Offset TVD Reference:	Reference Datum

Offset Design HARVESTERS STATE 7-15 PAD - STATE-HOPPE 16-1(SI_75CC) - OH - OH													Offset Site Error:	0.00 ft
Survey Program: 100-2" Cone@2.448 Sigma													Offset Well Error:	3.28 ft
Reference		Offset		Semi Major Axis			Distance							Warning
Measured Depth (ft)	Vertical Depth (ft)	Measured Depth (ft)	Vertical Depth (ft)	Reference (ft)	Offset (ft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (ft)	+E/-W (ft)	Between Centres (ft)	Between Ellipses (ft)	Minimum Separation (ft)	Separation Factor		
0.00	0.00	0.00	57.00	3.28	3.28	-112.32	-3,142.76	-7,655.59	8,275.76					
100.00	100.00	43.00	100.00	3.28	3.36	-112.32	-3,142.76	-7,655.59	8,275.57	8,268.92	6.65	1,244.539		
200.00	200.00	143.00	200.00	3.34	4.62	-112.32	-3,142.76	-7,655.59	8,275.57	8,267.61	7.95	1,040.675		
300.00	300.00	243.00	300.00	3.44	7.49	-112.32	-3,142.76	-7,655.59	8,275.57	8,264.63	10.94	756.553		
400.00	400.00	343.00	400.00	3.60	10.74	-112.32	-3,142.76	-7,655.59	8,275.57	8,261.22	14.34	576.895		
500.00	500.00	443.00	500.00	3.81	14.11	-112.32	-3,142.76	-7,655.59	8,275.57	8,257.65	17.91	462.005		
600.00	600.00	543.00	600.00	4.05	17.52	-112.32	-3,142.76	-7,655.59	8,275.57	8,254.00	21.57	383.720		
700.00	699.98	642.98	699.98	4.32	20.96	-89.43	-3,142.76	-7,655.59	8,275.55	8,250.27	25.28	327.405		
800.00	799.84	742.84	799.84	4.62	24.41	-89.47	-3,142.76	-7,655.59	8,275.50	8,246.48	29.02	285.157		
900.00	899.62	842.62	899.62	4.94	27.86	-89.51	-3,142.76	-7,655.59	8,275.44	8,242.65	32.79	252.346		
1,000.00	999.41	942.41	999.41	5.27	31.33	-89.56	-3,142.76	-7,655.59	8,275.39	8,238.80	36.59	226.158		
1,100.00	1,099.19	1,042.19	1,099.19	5.62	34.79	-89.61	-3,142.76	-7,655.59	8,275.34	8,234.93	40.41	204.797		
1,200.00	1,198.98	1,141.98	1,198.98	5.99	38.26	-89.65	-3,142.76	-7,655.59	8,275.30	8,231.06	44.24	187.058		
1,300.00	1,298.76	1,241.76	1,298.76	6.36	41.73	-89.70	-3,142.76	-7,655.59	8,275.26	8,227.18	48.08	172.102		
1,400.00	1,398.55	1,341.55	1,398.55	6.74	45.21	-89.74	-3,142.76	-7,655.59	8,275.23	8,223.29	51.94	159.330		
1,500.00	1,498.33	1,441.33	1,498.33	7.13	48.68	-89.79	-3,142.76	-7,655.59	8,275.20	8,219.40	55.80	148.299		
1,600.00	1,598.12	1,541.12	1,598.12	7.52	52.16	-89.83	-3,142.76	-7,655.59	8,275.18	8,215.51	59.67	138.681		
1,700.00	1,697.90	1,640.90	1,697.90	7.92	55.64	-89.88	-3,142.76	-7,655.59	8,275.16	8,211.61	63.55	130.222		
1,800.00	1,797.69	1,740.69	1,797.69	8.33	59.11	-89.92	-3,142.76	-7,655.59	8,275.15	8,207.72	67.43	122.726		
1,900.00	1,897.47	1,840.47	1,897.47	8.74	62.59	-89.97	-3,142.76	-7,655.59	8,275.14	8,203.83	71.31	116.039		
1,971.37	1,968.69	1,911.69	1,968.69	9.03	65.07	-90.00	-3,142.76	-7,655.59	8,275.14	8,201.05	74.09	111.692		
2,000.00	1,997.26	1,940.26	1,997.26	9.15	66.07	-90.01	-3,142.76	-7,655.59	8,275.14	8,199.94	75.20	110.038		
2,100.00	2,097.04	2,040.04	2,097.04	9.56	69.55	-90.06	-3,142.76	-7,655.59	8,275.15	8,196.05	79.10	104.622		
2,200.00	2,196.83	2,139.83	2,196.83	9.98	73.03	-90.10	-3,142.76	-7,655.59	8,275.16	8,192.16	82.99	99.711		
2,300.00	2,296.61	2,239.61	2,296.61	10.40	76.51	-90.15	-3,142.76	-7,655.59	8,275.17	8,188.28	86.89	95.238		
2,400.00	2,396.40	2,339.40	2,396.40	10.82	79.99	-90.19	-3,142.76	-7,655.59	8,275.19	8,184.40	90.79	91.147		
2,500.00	2,496.18	2,439.18	2,496.18	11.24	83.47	-90.24	-3,142.76	-7,655.59	8,275.21	8,180.52	94.69	87.391		
2,600.00	2,595.96	2,538.96	2,595.96	11.66	86.95	-90.28	-3,142.76	-7,655.59	8,275.24	8,176.65	98.60	83.931		
2,700.00	2,695.75	2,638.75	2,695.75	12.09	90.43	-90.33	-3,142.76	-7,655.59	8,275.28	8,172.78	102.50	80.734		
2,800.00	2,795.53	2,738.53	2,795.53	12.51	93.91	-90.38	-3,142.76	-7,655.59	8,275.32	8,168.91	106.41	77.770		
2,900.00	2,895.32	2,838.32	2,895.32	12.94	97.40	-90.42	-3,142.76	-7,655.59	8,275.37	8,165.05	110.32	75.015		
3,000.00	2,995.10	2,938.10	2,995.10	13.37	100.88	-90.47	-3,142.76	-7,655.59	8,275.42	8,161.19	114.23	72.448		
3,100.00	3,094.89	3,037.89	3,094.89	13.80	104.36	-90.51	-3,142.76	-7,655.59	8,275.47	8,157.34	118.14	70.050		
3,200.00	3,194.67	3,137.67	3,194.67	14.23	107.84	-90.56	-3,142.76	-7,655.59	8,275.53	8,153.49	122.05	67.806		
3,300.00	3,294.46	3,237.46	3,294.46	14.66	111.32	-90.60	-3,142.76	-7,655.59	8,275.60	8,149.64	125.96	65.700		
3,400.00	3,394.24	3,337.24	3,394.24	15.09	114.80	-90.65	-3,142.76	-7,655.59	8,275.67	8,145.80	129.87	63.721		
3,500.00	3,494.03	3,437.03	3,494.03	15.52	118.29	-90.69	-3,142.76	-7,655.59	8,275.75	8,141.96	133.79	61.858		
3,600.00	3,593.81	3,536.81	3,593.81	15.96	121.77	-90.74	-3,142.76	-7,655.59	8,275.83	8,138.13	137.70	60.100		
3,700.00	3,693.60	3,636.60	3,693.60	16.39	125.25	-90.78	-3,142.76	-7,655.59	8,275.92	8,134.30	141.62	58.439		
3,800.00	3,793.38	3,736.38	3,793.38	16.82	128.73	-90.83	-3,142.76	-7,655.59	8,276.01	8,130.48	145.53	56.868		
3,900.00	3,893.17	3,836.17	3,893.17	17.26	132.22	-90.87	-3,142.76	-7,655.59	8,276.11	8,126.66	149.45	55.378		
4,000.00	3,992.95	3,935.95	3,992.95	17.69	135.70	-90.92	-3,142.76	-7,655.59	8,276.21	8,122.85	153.36	53.965		
4,100.00	4,092.74	4,035.74	4,092.74	18.13	139.18	-90.96	-3,142.76	-7,655.59	8,276.32	8,119.04	157.28	52.621		
4,200.00	4,192.52	4,135.52	4,192.52	18.56	142.66	-91.01	-3,142.76	-7,655.59	8,276.43	8,115.23	161.20	51.343		
4,300.00	4,292.31	4,235.31	4,292.31	19.00	146.15	-91.05	-3,142.76	-7,655.59	8,276.55	8,111.43	165.12	50.126		
4,400.00	4,392.09	4,335.09	4,392.09	19.43	149.63	-91.10	-3,142.76	-7,655.59	8,276.67	8,107.64	169.03	48.965		
4,500.00	4,491.88	4,434.88	4,491.88	19.87	153.11	-91.15	-3,142.76	-7,655.59	8,276.80	8,103.85	172.95	47.856		
4,600.00	4,591.66	4,534.66	4,591.66	20.31	156.59	-91.19	-3,142.76	-7,655.59	8,276.94	8,100.07	176.87	46.796		
4,700.00	4,691.44	4,634.44	4,691.44	20.74	160.08	-91.24	-3,142.76	-7,655.59	8,277.08	8,096.29	180.79	45.783		
4,800.00	4,791.23	4,734.23	4,791.23	21.18	163.56	-91.28	-3,142.76	-7,655.59	8,277.22	8,092.51	184.71	44.812		
4,900.00	4,891.01	4,834.01	4,891.01	21.62	167.04	-91.33	-3,142.76	-7,655.59	8,277.37	8,088.74	188.63	43.882		
5,000.00	4,990.80	4,933.80	4,990.80	22.06	170.53	-91.37	-3,142.76	-7,655.59	8,277.52	8,084.98	192.55	42.989		

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



Anticollision Report



Company:	SRC ENERGY	Local Co-ordinate Reference:	Well HARVESTERS STATE 31C-16-M
Project:	SECTION 15, T6N, R66W	TVD Reference:	KB @ 4821.00ft
Reference Site:	HARVESTERS STATE 7-15 PAD	MD Reference:	KB @ 4821.00ft
Site Error:	3.28 ft	North Reference:	True
Reference Well:	HARVESTERS STATE 31C-16-M	Survey Calculation Method:	Minimum Curvature
Well Error:	3.28 ft	Output errors are at	2.45 sigma
Reference Wellbore	OH	Database:	EDM 5000.14 Single User Db
Reference Design:	PLAN #1	Offset TVD Reference:	Reference Datum

Offset Design HARVESTERS STATE 7-15 PAD - STATE-HOPPE 16-1(SI_75CC) - OH - OH													Offset Site Error:	0.00 ft
Survey Program: 100-2" Cone@2.448 Sigma													Offset Well Error:	3.28 ft
Reference		Offset		Semi Major Axis			Distance							Warning
Measured Depth (ft)	Vertical Depth (ft)	Measured Depth (ft)	Vertical Depth (ft)	Reference (ft)	Offset (ft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (ft)	+E/-W (ft)	Between Centres (ft)	Between Ellipses (ft)	Minimum Separation (ft)	Separation Factor		
5,100.00	5,090.58	5,033.58	5,090.58	22.50	174.01	-91.42	-3,142.76	-7,655.59	8,277.68	8,081.21	196.47	42.132		
5,200.00	5,190.37	5,133.37	5,190.37	22.93	177.49	-91.46	-3,142.76	-7,655.59	8,277.85	8,077.46	200.39	41.309		
5,300.00	5,290.15	5,233.15	5,290.15	23.37	180.97	-91.51	-3,142.76	-7,655.59	8,278.02	8,073.71	204.31	40.517		
5,400.00	5,389.94	5,332.94	5,389.94	23.81	184.46	-91.55	-3,142.76	-7,655.59	8,278.20	8,069.96	208.23	39.755		
5,500.00	5,489.72	5,432.72	5,489.72	24.25	187.94	-91.60	-3,142.76	-7,655.59	8,278.38	8,066.22	212.15	39.021		
5,600.00	5,589.51	5,532.51	5,589.51	24.69	191.42	-91.64	-3,142.76	-7,655.59	8,278.56	8,062.49	216.07	38.314		
5,700.00	5,689.29	5,632.29	5,689.29	25.13	194.91	-91.69	-3,142.76	-7,655.59	8,278.75	8,058.76	219.99	37.632		
5,800.00	5,789.08	5,732.08	5,789.08	25.56	198.39	-91.73	-3,142.76	-7,655.59	8,278.95	8,055.03	223.92	36.974		
5,900.00	5,888.86	5,831.86	5,888.86	26.00	201.87	-91.78	-3,142.76	-7,655.59	8,279.15	8,051.31	227.84	36.338		
6,000.00	5,988.65	5,931.65	5,988.65	26.44	205.35	-91.82	-3,142.76	-7,655.59	8,279.36	8,047.60	231.76	35.724		
6,100.00	6,088.43	6,031.43	6,088.43	26.88	208.84	-91.87	-3,142.76	-7,655.59	8,279.57	8,043.89	235.68	35.130		
6,200.00	6,188.22	6,131.22	6,188.22	27.32	212.32	-91.92	-3,142.76	-7,655.59	8,279.79	8,040.18	239.60	34.556		
6,300.00	6,288.00	6,231.00	6,288.00	27.76	215.80	-91.96	-3,142.76	-7,655.59	8,280.01	8,036.48	243.52	34.001		
6,400.00	6,387.79	6,330.79	6,387.79	28.20	219.29	-92.01	-3,142.76	-7,655.59	8,280.24	8,032.79	247.45	33.463		
6,500.00	6,487.57	6,430.57	6,487.57	28.64	222.77	-92.05	-3,142.76	-7,655.59	8,280.47	8,029.10	251.37	32.941		
6,600.00	6,587.35	6,530.35	6,587.35	29.08	226.25	-92.10	-3,142.76	-7,655.59	8,280.71	8,025.41	255.29	32.436		
6,700.00	6,687.02	6,630.02	6,687.02	29.52	229.73	-54.32	-3,142.76	-7,655.59	8,278.94	8,019.73	259.21	31.939		
6,800.00	6,784.98	6,727.98	6,784.98	29.96	233.15	-38.98	-3,142.76	-7,655.59	8,264.61	8,001.54	263.06	31.417		
6,900.00	6,878.81	6,821.81	6,878.81	30.41	236.43	-35.75	-3,142.76	-7,655.59	8,236.55	7,969.79	266.76	30.876		
7,000.00	6,966.21	6,909.21	6,966.21	30.86	239.48	-35.80	-3,142.76	-7,655.59	8,195.51	7,925.30	270.21	30.330		
7,100.00	7,045.03	6,988.03	7,045.03	31.35	242.23	-37.80	-3,142.76	-7,655.59	8,142.55	7,869.21	273.34	29.789		
7,200.00	7,113.32	7,056.32	7,113.32	31.90	244.61	-41.64	-3,142.76	-7,655.59	8,079.01	7,802.93	276.08	29.263		
7,300.00	7,169.40	7,112.40	7,169.40	32.57	246.57	-47.68	-3,142.76	-7,655.59	8,006.54	7,728.16	278.38	28.761		
7,400.00	7,211.89	7,154.89	7,211.89	33.38	248.05	-56.59	-3,142.76	-7,655.59	7,926.96	7,646.76	280.20	28.290		
7,500.00	7,239.75	7,182.75	7,239.75	34.35	249.03	-69.04	-3,142.76	-7,655.59	7,842.28	7,560.76	281.52	27.857		
7,600.00	7,252.28	7,204.72	7,252.28	35.47	249.79	-84.84	-3,142.76	-7,655.59	7,754.60	7,471.96	282.65	27.436		
7,700.00	7,252.75	7,204.25	7,252.75	36.73	249.78	-90.40	-3,142.76	-7,655.59	7,666.08	7,383.07	283.02	27.087		
7,800.00	7,252.38	7,204.62	7,252.38	38.16	249.79	-90.39	-3,142.76	-7,655.59	7,577.82	7,294.34	283.48	26.731		
7,900.00	7,252.02	7,204.98	7,252.02	39.74	249.80	-90.39	-3,142.76	-7,655.59	7,489.85	7,205.83	284.02	26.371		
8,000.00	7,251.65	7,205.35	7,251.65	41.47	249.82	-90.38	-3,142.76	-7,655.59	7,402.18	7,117.56	284.62	26.007		
8,100.00	7,251.29	7,205.71	7,251.29	43.31	249.83	-90.37	-3,142.76	-7,655.59	7,314.84	7,029.54	285.29	25.640		
8,200.00	7,250.92	7,206.08	7,250.92	45.26	249.84	-90.37	-3,142.76	-7,655.59	7,227.82	6,941.78	286.04	25.268		
8,300.00	7,250.55	7,206.45	7,250.55	47.30	249.85	-90.36	-3,142.76	-7,655.59	7,141.14	6,854.28	286.86	24.894		
8,400.00	7,250.19	7,206.81	7,250.19	49.42	249.87	-90.36	-3,142.76	-7,655.59	7,054.81	6,767.06	287.75	24.517		
8,500.00	7,249.82	7,207.18	7,249.82	51.62	249.88	-90.35	-3,142.76	-7,655.59	6,968.84	6,680.13	288.72	24.137		
8,600.00	7,249.45	7,207.55	7,249.45	53.88	249.89	-90.34	-3,142.76	-7,655.59	6,883.26	6,593.50	289.76	23.755		
8,700.00	7,249.09	7,207.91	7,249.09	56.19	249.90	-90.34	-3,142.76	-7,655.59	6,798.07	6,507.19	290.88	23.371		
8,800.00	7,248.72	7,191.72	7,248.72	58.55	249.94	-90.33	-3,142.76	-7,655.59	6,713.29	6,421.80	291.49	23.031		
8,900.00	7,248.36	7,191.36	7,248.36	60.96	249.93	-90.33	-3,142.76	-7,655.59	6,628.93	6,336.20	292.73	22.645		
9,000.00	7,247.99	7,190.99	7,247.99	63.40	249.91	-90.32	-3,142.76	-7,655.59	6,545.02	6,250.97	294.05	22.258		
9,100.00	7,247.62	7,190.62	7,247.62	65.87	249.90	-90.31	-3,142.76	-7,655.59	6,461.56	6,166.11	295.45	21.871		
9,200.00	7,247.26	7,190.26	7,247.26	68.38	249.29	-90.31	-3,142.76	-7,655.59	6,378.58	6,081.66	296.92	21.483		
9,300.00	7,246.89	7,189.89	7,246.89	70.91	249.28	-90.30	-3,142.76	-7,655.59	6,296.09	5,997.63	298.46	21.095		
9,400.00	7,246.53	7,189.53	7,246.53	73.47	249.26	-90.30	-3,142.76	-7,655.59	6,214.11	5,914.03	300.08	20.708		
9,500.00	7,246.16	7,189.16	7,246.16	76.05	249.25	-90.29	-3,142.76	-7,655.59	6,132.67	5,830.89	301.78	20.322		
9,600.00	7,245.79	7,188.79	7,245.79	78.65	249.24	-90.29	-3,142.76	-7,655.59	6,051.79	5,748.24	303.56	19.936		
9,700.00	7,245.43	7,188.43	7,245.43	81.27	249.22	-90.28	-3,142.76	-7,655.59	5,971.49	5,666.08	305.41	19.553		
9,800.00	7,245.06	7,188.06	7,245.06	83.90	249.21	-90.27	-3,142.76	-7,655.59	5,891.79	5,584.45	307.34	19.171		
9,900.00	7,244.69	7,187.69	7,244.69	86.55	249.20	-90.27	-3,142.76	-7,655.59	5,812.71	5,503.37	309.34	18.791		
10,000.00	7,244.33	7,187.33	7,244.33	89.21	249.19	-90.26	-3,142.76	-7,655.59	5,734.30	5,422.87	311.43	18.413		
10,100.00	7,243.96	7,186.96	7,243.96	91.88	249.17	-90.26	-3,142.76	-7,655.59	5,656.56	5,342.97	313.59	18.038		
10,200.00	7,243.60	7,186.60	7,243.60	94.56	249.16	-90.25	-3,142.76	-7,655.59	5,579.53	5,263.70	315.83	17.666		

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



Anticollision Report



Company:	SRC ENERGY	Local Co-ordinate Reference:	Well HARVESTERS STATE 31C-16-M
Project:	SECTION 15, T6N, R66W	TVD Reference:	KB @ 4821.00ft
Reference Site:	HARVESTERS STATE 7-15 PAD	MD Reference:	KB @ 4821.00ft
Site Error:	3.28 ft	North Reference:	True
Reference Well:	HARVESTERS STATE 31C-16-M	Survey Calculation Method:	Minimum Curvature
Well Error:	3.28 ft	Output errors are at	2.45 sigma
Reference Wellbore	OH	Database:	EDM 5000.14 Single User Db
Reference Design:	PLAN #1	Offset TVD Reference:	Reference Datum

Offset Design HARVESTERS STATE 7-15 PAD - STATE-HOPPE 16-1(SI_75CC) - OH - OH													Offset Site Error:	0.00 ft
Survey Program: 100-2" Cone@2.448 Sigma													Offset Well Error:	3.28 ft
Reference		Offset		Semi Major Axis			Distance							Warning
Measured Depth (ft)	Vertical Depth (ft)	Measured Depth (ft)	Vertical Depth (ft)	Reference (ft)	Offset (ft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (ft)	+E/-W (ft)	Between Centres (ft)	Between Ellipses (ft)	Minimum Separation (ft)	Separation Factor		
10,300.00	7,243.23	7,186.23	7,243.23	97.26	249.15	-90.24	-3,142.76	-7,655.59	5,503.24	5,185.09	318.15	17.298		
10,400.00	7,242.86	7,185.86	7,242.86	99.96	249.14	-90.24	-3,142.76	-7,655.59	5,427.71	5,107.17	320.55	16.933		
10,500.00	7,242.50	7,185.50	7,242.50	102.67	249.12	-90.23	-3,142.76	-7,655.59	5,353.00	5,029.97	323.03	16.571		
10,600.00	7,242.13	7,185.13	7,242.13	105.39	249.11	-90.23	-3,142.76	-7,655.59	5,279.12	4,953.53	325.59	16.214		
10,700.00	7,241.76	7,184.76	7,241.76	108.12	249.10	-90.22	-3,142.76	-7,655.59	5,206.11	4,877.88	328.23	15.861		
10,800.00	7,241.40	7,184.40	7,241.40	110.85	249.08	-90.22	-3,142.76	-7,655.59	5,134.01	4,803.06	330.95	15.513		
10,900.00	7,241.03	7,184.03	7,241.03	113.59	249.07	-90.21	-3,142.76	-7,655.59	5,062.86	4,729.10	333.75	15.169		
11,000.00	7,240.67	7,183.67	7,240.67	116.34	249.06	-90.20	-3,142.76	-7,655.59	4,992.69	4,656.06	336.64	14.831		
11,100.00	7,240.30	7,183.30	7,240.30	119.09	249.05	-90.20	-3,142.76	-7,655.59	4,923.56	4,583.96	339.60	14.498		
11,200.00	7,239.93	7,182.93	7,239.93	121.85	249.03	-90.19	-3,142.76	-7,655.59	4,855.51	4,512.86	342.65	14.171		
11,300.00	7,239.57	7,182.57	7,239.57	124.61	249.02	-90.19	-3,142.76	-7,655.59	4,788.58	4,442.80	345.77	13.849		
11,400.00	7,239.20	7,182.20	7,239.20	127.38	249.01	-90.18	-3,142.76	-7,655.59	4,722.81	4,373.83	348.98	13.533		
11,500.00	7,238.84	7,181.84	7,238.84	130.15	248.99	-90.17	-3,142.76	-7,655.59	4,658.26	4,306.00	352.26	13.224		
11,600.00	7,238.47	7,181.47	7,238.47	132.92	248.98	-90.17	-3,142.76	-7,655.59	4,594.99	4,239.36	355.62	12.921		
11,700.00	7,238.10	7,181.10	7,238.10	135.70	248.97	-90.16	-3,142.76	-7,655.59	4,533.03	4,173.97	359.06	12.625		
11,800.00	7,237.74	7,180.74	7,237.74	138.48	248.96	-90.16	-3,142.76	-7,655.59	4,472.46	4,109.89	362.57	12.335		
11,900.00	7,237.37	7,180.37	7,237.37	141.26	248.94	-90.15	-3,142.76	-7,655.59	4,413.32	4,047.16	366.15	12.053		
12,000.00	7,237.00	7,180.00	7,237.00	144.05	248.93	-90.15	-3,142.76	-7,655.59	4,355.67	3,985.87	369.80	11.778		
12,100.00	7,236.64	7,179.64	7,236.64	146.84	248.92	-90.14	-3,142.76	-7,655.59	4,299.57	3,926.06	373.51	11.511		
12,200.00	7,236.27	7,179.27	7,236.27	149.64	248.90	-90.13	-3,142.76	-7,655.59	4,245.09	3,867.80	377.29	11.252		
12,300.00	7,235.91	7,178.91	7,235.91	152.43	248.89	-90.13	-3,142.76	-7,655.59	4,192.29	3,811.17	381.12	11.000		
12,400.00	7,235.54	7,178.54	7,235.54	155.23	248.88	-90.12	-3,142.76	-7,655.59	4,141.23	3,756.22	385.00	10.756		
12,500.00	7,235.17	7,178.17	7,235.17	158.03	248.87	-90.12	-3,142.76	-7,655.59	4,091.97	3,703.04	388.93	10.521		
12,600.00	7,234.81	7,177.81	7,234.81	160.83	248.85	-90.11	-3,142.76	-7,655.59	4,044.59	3,651.70	392.90	10.294		
12,700.00	7,234.44	7,177.44	7,234.44	163.64	248.84	-90.10	-3,142.76	-7,655.59	3,999.15	3,602.26	396.89	10.076		
12,800.00	7,234.07	7,177.07	7,234.07	166.44	248.83	-90.10	-3,142.76	-7,655.59	3,955.72	3,554.80	400.92	9.867		
12,900.00	7,233.71	7,176.71	7,233.71	169.25	248.82	-90.09	-3,142.76	-7,655.59	3,914.35	3,509.40	404.96	9.666		
13,000.00	7,233.34	7,176.34	7,233.34	172.06	248.80	-90.09	-3,142.76	-7,655.59	3,875.13	3,466.13	409.00	9.475		
13,100.00	7,232.98	7,175.98	7,232.98	174.88	248.79	-90.08	-3,142.76	-7,655.59	3,838.11	3,425.07	413.04	9.292		
13,200.00	7,232.61	7,175.61	7,232.61	177.69	248.78	-90.07	-3,142.76	-7,655.59	3,803.37	3,386.30	417.07	9.119		
13,300.00	7,232.24	7,175.24	7,232.24	180.50	248.76	-90.07	-3,142.76	-7,655.59	3,770.95	3,349.88	421.07	8.956		
13,400.00	7,231.88	7,174.88	7,231.88	183.32	248.75	-90.06	-3,142.76	-7,655.59	3,740.93	3,315.89	425.04	8.801		
13,500.00	7,231.51	7,174.51	7,231.51	186.14	248.74	-90.06	-3,142.76	-7,655.59	3,713.36	3,284.40	428.96	8.657		
13,600.00	7,231.15	7,174.15	7,231.15	188.96	248.73	-90.05	-3,142.76	-7,655.59	3,688.29	3,255.48	432.82	8.522		
13,700.00	7,230.78	7,173.78	7,230.78	191.78	248.71	-90.05	-3,142.76	-7,655.59	3,665.79	3,229.18	436.61	8.396		
13,800.00	7,230.41	7,173.41	7,230.41	194.60	248.70	-90.04	-3,142.76	-7,655.59	3,645.88	3,205.57	440.31	8.280		
13,900.00	7,230.05	7,173.05	7,230.05	197.42	248.69	-90.03	-3,142.76	-7,655.59	3,628.63	3,184.70	443.93	8.174		
14,000.00	7,229.68	7,172.68	7,229.68	200.25	248.67	-90.03	-3,142.76	-7,655.59	3,614.06	3,166.63	447.43	8.077		
14,100.00	7,229.31	7,172.31	7,229.31	203.07	248.66	-90.02	-3,142.76	-7,655.59	3,602.21	3,151.39	450.81	7.990		
14,200.00	7,228.95	7,171.95	7,228.95	205.90	248.65	-90.02	-3,142.76	-7,655.59	3,593.10	3,139.03	454.07	7.913		
14,300.00	7,228.58	7,171.58	7,228.58	208.73	248.64	-90.01	-3,142.76	-7,655.59	3,586.76	3,129.57	457.19	7.845		
14,400.00	7,228.22	7,171.22	7,228.22	211.55	248.62	-90.00	-3,142.76	-7,655.59	3,583.20	3,123.04	460.16	7.787		
14,477.62	7,227.93	7,170.93	7,227.93	213.75	248.61	-90.00	-3,142.76	-7,655.59	3,582.36	3,120.00	462.36	7.748 CC		
14,500.00	7,227.85	7,170.85	7,227.85	214.38	248.61	-90.00	-3,142.76	-7,655.59	3,582.43	3,119.46	462.97	7.738		
14,600.00	7,227.48	7,170.48	7,227.48	217.21	248.60	-89.99	-3,142.76	-7,655.59	3,584.45	3,118.82	465.63	7.698 ES		
14,700.00	7,227.12	7,170.12	7,227.12	220.04	248.59	-89.99	-3,142.76	-7,655.59	3,589.26	3,121.15	468.11	7.668		
14,800.00	7,226.75	7,169.75	7,226.75	222.88	248.57	-89.98	-3,142.76	-7,655.59	3,596.84	3,126.42	470.42	7.646		
14,900.00	7,226.38	7,169.38	7,226.38	225.71	248.56	-89.98	-3,142.76	-7,655.59	3,607.17	3,134.62	472.56	7.633		
15,000.00	7,226.02	7,169.02	7,226.02	228.54	248.55	-89.97	-3,142.76	-7,655.59	3,620.25	3,145.73	474.51	7.629 SF		
15,005.81	7,226.00	7,169.00	7,226.00	228.71	248.55	-89.97	-3,142.76	-7,655.59	3,621.09	3,146.47	474.62	7.629		

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



Anticollision Report



Company:	SRC ENERGY	Local Co-ordinate Reference:	Well HARVESTERS STATE 31C-16-M
Project:	SECTION 15, T6N, R66W	TVD Reference:	KB @ 4821.00ft
Reference Site:	HARVESTERS STATE 7-15 PAD	MD Reference:	KB @ 4821.00ft
Site Error:	3.28 ft	North Reference:	True
Reference Well:	HARVESTERS STATE 31C-16-M	Survey Calculation Method:	Minimum Curvature
Well Error:	3.28 ft	Output errors are at	2.45 sigma
Reference Wellbore	OH	Database:	EDM 5000.14 Single User Db
Reference Design:	PLAN #1	Offset TVD Reference:	Reference Datum

Offset Design HARVESTERS STATE 7-15 PAD - STATE-HOPPE 16-2(PR_75CC) - OH - OH													Offset Site Error: 0.00 ft	
Survey Program: 100-2" Cone@2.448 Sigma													Offset Well Error: 3.28 ft	
Reference		Offset		Semi Major Axis			Distance							Warning
Measured Depth	Vertical Depth	Measured Depth	Vertical Depth	Reference	Offset	Highside Toolface	Offset Wellbore Centre	Between Centres	Between Ellipses	Minimum Separation	Separation Factor			
(ft)	(ft)	(ft)	(ft)	(ft)	(ft)	(°)	+N/-S (ft)	+E/-W (ft)	(ft)	(ft)	(ft)			
0.00	0.00	0.00	44.00	3.28	3.28	-104.21	-1,650.89	-6,519.97	6,725.88					
100.00	100.00	56.00	100.00	3.28	3.42	-104.21	-1,650.89	-6,519.97	6,725.73	6,719.03	6.71	1,002.752		
200.00	200.00	156.00	200.00	3.34	4.94	-104.21	-1,650.89	-6,519.97	6,725.73	6,717.45	8.28	812.100		
300.00	300.00	256.00	300.00	3.44	7.90	-104.21	-1,650.89	-6,519.97	6,725.73	6,714.38	11.35	592.625		
400.00	400.00	356.00	400.00	3.60	11.17	-104.21	-1,650.89	-6,519.97	6,725.73	6,710.96	14.78	455.118		
500.00	500.00	456.00	500.00	3.81	14.55	-104.21	-1,650.89	-6,519.97	6,725.73	6,707.38	18.35	366.444		
600.00	600.00	556.00	600.00	4.05	17.97	-104.21	-1,650.89	-6,519.97	6,725.73	6,703.72	22.01	305.539		
700.00	699.98	655.98	699.98	4.32	21.41	-81.33	-1,650.89	-6,519.97	6,725.47	6,699.75	25.72	261.443		
800.00	799.84	755.84	799.84	4.62	24.86	-81.39	-1,650.89	-6,519.97	6,724.69	6,695.22	29.47	228.183		
900.00	899.62	855.62	899.62	4.94	28.32	-81.44	-1,650.89	-6,519.97	6,723.71	6,690.46	33.24	202.252		
1,000.00	999.41	955.41	999.41	5.27	31.78	-81.50	-1,650.89	-6,519.97	6,722.73	6,685.69	37.04	181.490		
1,100.00	1,099.19	1,055.19	1,099.19	5.62	35.24	-81.55	-1,650.89	-6,519.97	6,721.76	6,680.90	40.86	164.514		
1,200.00	1,198.98	1,154.98	1,198.98	5.99	38.71	-81.61	-1,650.89	-6,519.97	6,720.80	6,676.11	44.69	150.387		
1,300.00	1,298.76	1,254.76	1,298.76	6.36	42.19	-81.66	-1,650.89	-6,519.97	6,719.84	6,671.31	48.53	138.456		
1,400.00	1,398.55	1,354.55	1,398.55	6.74	45.66	-81.72	-1,650.89	-6,519.97	6,718.89	6,666.51	52.39	128.251		
1,500.00	1,498.33	1,454.33	1,498.33	7.13	49.13	-81.77	-1,650.89	-6,519.97	6,717.95	6,661.70	56.25	119.427		
1,600.00	1,598.12	1,554.12	1,598.12	7.52	52.61	-81.83	-1,650.89	-6,519.97	6,717.01	6,656.89	60.12	111.724		
1,700.00	1,697.90	1,653.90	1,697.90	7.92	56.09	-81.88	-1,650.89	-6,519.97	6,716.08	6,652.09	64.00	104.944		
1,800.00	1,797.69	1,753.69	1,797.69	8.33	59.57	-81.94	-1,650.89	-6,519.97	6,715.16	6,647.28	67.88	98.930		
1,900.00	1,897.47	1,853.47	1,897.47	8.74	63.04	-81.99	-1,650.89	-6,519.97	6,714.24	6,642.48	71.76	93.561		
2,000.00	1,997.26	1,953.26	1,997.26	9.15	66.52	-82.05	-1,650.89	-6,519.97	6,713.33	6,637.67	75.65	88.739		
2,100.00	2,097.04	2,053.04	2,097.04	9.56	70.00	-82.10	-1,650.89	-6,519.97	6,712.42	6,632.88	79.55	84.385		
2,200.00	2,196.83	2,152.83	2,196.83	9.98	73.48	-82.16	-1,650.89	-6,519.97	6,711.52	6,628.08	83.44	80.435		
2,300.00	2,296.61	2,252.61	2,296.61	10.40	76.96	-82.22	-1,650.89	-6,519.97	6,710.63	6,623.29	87.34	76.835		
2,400.00	2,396.40	2,352.40	2,396.40	10.82	80.44	-82.27	-1,650.89	-6,519.97	6,709.74	6,618.50	91.24	73.541		
2,500.00	2,496.18	2,452.18	2,496.18	11.24	83.92	-82.33	-1,650.89	-6,519.97	6,708.86	6,613.72	95.14	70.516		
2,600.00	2,595.96	2,551.96	2,595.96	11.66	87.41	-82.38	-1,650.89	-6,519.97	6,707.99	6,608.94	99.04	67.727		
2,700.00	2,695.75	2,651.75	2,695.75	12.09	90.89	-82.44	-1,650.89	-6,519.97	6,707.12	6,604.17	102.95	65.150		
2,800.00	2,795.53	2,751.53	2,795.53	12.51	94.37	-82.49	-1,650.89	-6,519.97	6,706.26	6,599.40	106.86	62.760		
2,900.00	2,895.32	2,851.32	2,895.32	12.94	97.85	-82.55	-1,650.89	-6,519.97	6,705.40	6,594.64	110.76	60.538		
3,000.00	2,995.10	2,951.10	2,995.10	13.37	101.33	-82.60	-1,650.89	-6,519.97	6,704.55	6,589.88	114.67	58.467		
3,100.00	3,094.89	3,050.89	3,094.89	13.80	104.81	-82.66	-1,650.89	-6,519.97	6,703.71	6,585.13	118.58	56.532		
3,200.00	3,194.67	3,150.67	3,194.67	14.23	108.29	-82.71	-1,650.89	-6,519.97	6,702.87	6,580.38	122.49	54.720		
3,300.00	3,294.46	3,250.46	3,294.46	14.66	111.78	-82.77	-1,650.89	-6,519.97	6,702.04	6,575.64	126.41	53.020		
3,400.00	3,394.24	3,350.24	3,394.24	15.09	115.26	-82.83	-1,650.89	-6,519.97	6,701.22	6,570.90	130.32	51.422		
3,500.00	3,494.03	3,450.03	3,494.03	15.52	118.74	-82.88	-1,650.89	-6,519.97	6,700.40	6,566.17	134.23	49.916		
3,600.00	3,593.81	3,549.81	3,593.81	15.96	122.22	-82.94	-1,650.89	-6,519.97	6,699.59	6,561.44	138.15	48.496		
3,700.00	3,693.60	3,649.60	3,693.60	16.39	125.70	-82.99	-1,650.89	-6,519.97	6,698.78	6,556.72	142.06	47.154		
3,800.00	3,793.38	3,749.38	3,793.38	16.82	129.19	-83.05	-1,650.89	-6,519.97	6,697.99	6,552.01	145.98	45.884		
3,900.00	3,893.17	3,849.17	3,893.17	17.26	132.67	-83.10	-1,650.89	-6,519.97	6,697.19	6,547.30	149.89	44.680		
4,000.00	3,992.95	3,948.95	3,992.95	17.69	136.15	-83.16	-1,650.89	-6,519.97	6,696.41	6,542.60	153.81	43.537		
4,100.00	4,092.74	4,048.74	4,092.74	18.13	139.63	-83.21	-1,650.89	-6,519.97	6,695.63	6,537.90	157.73	42.451		
4,200.00	4,192.52	4,148.52	4,192.52	18.56	143.12	-83.27	-1,650.89	-6,519.97	6,694.85	6,533.21	161.64	41.418		
4,300.00	4,292.31	4,248.31	4,292.31	19.00	146.60	-83.33	-1,650.89	-6,519.97	6,694.09	6,528.53	165.56	40.433		
4,400.00	4,392.09	4,348.09	4,392.09	19.43	150.08	-83.38	-1,650.89	-6,519.97	6,693.33	6,523.85	169.48	39.494		
4,500.00	4,491.88	4,447.88	4,491.88	19.87	153.57	-83.44	-1,650.89	-6,519.97	6,692.57	6,519.18	173.40	38.597		
4,600.00	4,591.66	4,547.66	4,591.66	20.31	157.05	-83.49	-1,650.89	-6,519.97	6,691.82	6,514.51	177.31	37.740		
4,700.00	4,691.44	4,647.44	4,691.44	20.74	160.53	-83.55	-1,650.89	-6,519.97	6,691.08	6,509.85	181.23	36.920		
4,800.00	4,791.23	4,747.23	4,791.23	21.18	164.01	-83.60	-1,650.89	-6,519.97	6,690.35	6,505.19	185.15	36.134		
4,900.00	4,891.01	4,847.01	4,891.01	21.62	167.50	-83.66	-1,650.89	-6,519.97	6,689.62	6,500.55	189.07	35.381		
5,000.00	4,990.80	4,946.80	4,990.80	22.06	170.98	-83.72	-1,650.89	-6,519.97	6,688.90	6,495.90	192.99	34.659		
5,100.00	5,090.58	5,046.58	5,090.58	22.50	174.46	-83.77	-1,650.89	-6,519.97	6,688.18	6,491.27	196.91	33.965		

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



Anticollision Report



Company:	SRC ENERGY	Local Co-ordinate Reference:	Well HARVESTERS STATE 31C-16-M
Project:	SECTION 15, T6N, R66W	TVD Reference:	KB @ 4821.00ft
Reference Site:	HARVESTERS STATE 7-15 PAD	MD Reference:	KB @ 4821.00ft
Site Error:	3.28 ft	North Reference:	True
Reference Well:	HARVESTERS STATE 31C-16-M	Survey Calculation Method:	Minimum Curvature
Well Error:	3.28 ft	Output errors are at	2.45 sigma
Reference Wellbore	OH	Database:	EDM 5000.14 Single User Db
Reference Design:	PLAN #1	Offset TVD Reference:	Reference Datum

Offset Design HARVESTERS STATE 7-15 PAD - STATE-HOPPE 16-2(PR_75CC) - OH - OH													Offset Site Error:	0.00 ft
Survey Program: 100-2" Cone@2.448 Sigma													Offset Well Error:	3.28 ft
Reference		Offset		Semi Major Axis			Distance							Warning
Measured Depth (ft)	Vertical Depth (ft)	Measured Depth (ft)	Vertical Depth (ft)	Reference (ft)	Offset (ft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (ft)	+E/-W (ft)	Between Centres (ft)	Between Ellipses (ft)	Minimum Separation (ft)	Separation Factor		
5,200.00	5,190.37	5,146.37	5,190.37	22.93	177.94	-83.83	-1,650.89	-6,519.97	6,687.47	6,486.64	200.83	33.299		
5,300.00	5,290.15	5,246.15	5,290.15	23.37	181.43	-83.88	-1,650.89	-6,519.97	6,686.77	6,482.01	204.75	32.658		
5,400.00	5,389.94	5,345.94	5,389.94	23.81	184.91	-83.94	-1,650.89	-6,519.97	6,686.07	6,477.40	208.67	32.041		
5,500.00	5,489.72	5,445.72	5,489.72	24.25	188.39	-83.99	-1,650.89	-6,519.97	6,685.38	6,472.79	212.59	31.447		
5,600.00	5,589.51	5,545.51	5,589.51	24.69	191.88	-84.05	-1,650.89	-6,519.97	6,684.69	6,468.18	216.51	30.874		
5,700.00	5,689.29	5,645.29	5,689.29	25.13	195.36	-84.11	-1,650.89	-6,519.97	6,684.02	6,463.58	220.44	30.322		
5,800.00	5,789.08	5,745.08	5,789.08	25.56	198.84	-84.16	-1,650.89	-6,519.97	6,683.34	6,458.99	224.36	29.789		
5,900.00	5,888.86	5,844.86	5,888.86	26.00	202.33	-84.22	-1,650.89	-6,519.97	6,682.68	6,454.40	228.28	29.274		
6,000.00	5,988.65	5,944.65	5,988.65	26.44	205.81	-84.27	-1,650.89	-6,519.97	6,682.02	6,449.82	232.20	28.777		
6,100.00	6,088.43	6,044.43	6,088.43	26.88	209.29	-84.33	-1,650.89	-6,519.97	6,681.37	6,445.25	236.12	28.296		
6,200.00	6,188.22	6,144.22	6,188.22	27.32	212.77	-84.38	-1,650.89	-6,519.97	6,680.72	6,440.68	240.04	27.831		
6,300.00	6,288.00	6,244.00	6,288.00	27.76	216.26	-84.44	-1,650.89	-6,519.97	6,680.08	6,436.12	243.96	27.381		
6,400.00	6,387.79	6,343.79	6,387.79	28.20	219.74	-84.50	-1,650.89	-6,519.97	6,679.45	6,431.56	247.89	26.946		
6,500.00	6,487.57	6,443.57	6,487.57	28.64	223.22	-84.55	-1,650.89	-6,519.97	6,678.82	6,427.01	251.81	26.523		
6,600.00	6,587.35	6,543.35	6,587.35	29.08	226.71	-84.61	-1,650.89	-6,519.97	6,678.20	6,422.47	255.73	26.114		
6,700.00	6,687.02	6,643.02	6,687.02	29.52	230.19	-46.84	-1,650.89	-6,519.97	6,675.47	6,415.82	259.65	25.710		
6,800.00	6,784.98	6,740.98	6,784.98	29.96	233.61	-31.39	-1,650.89	-6,519.97	6,659.52	6,396.02	263.50	25.273		
6,900.00	6,878.81	6,834.81	6,878.81	30.41	236.88	-27.92	-1,650.89	-6,519.97	6,629.14	6,361.94	267.19	24.810		
7,000.00	6,966.21	6,922.21	6,966.21	30.86	239.93	-27.58	-1,650.89	-6,519.97	6,585.11	6,314.47	270.64	24.332		
7,100.00	7,045.03	7,001.03	7,045.03	31.35	242.68	-29.05	-1,650.89	-6,519.97	6,528.54	6,254.80	273.75	23.849		
7,200.00	7,113.32	7,069.32	7,113.32	31.90	245.07	-32.27	-1,650.89	-6,519.97	6,460.88	6,184.43	276.45	23.371		
7,300.00	7,169.40	7,125.40	7,169.40	32.57	247.02	-37.78	-1,650.89	-6,519.97	6,383.82	6,105.12	278.70	22.906		
7,400.00	7,211.89	7,167.89	7,211.89	33.38	248.51	-46.80	-1,650.89	-6,519.97	6,299.30	6,018.85	280.45	22.462		
7,500.00	7,239.75	7,204.25	7,239.75	34.35	249.78	-61.31	-1,650.89	-6,519.97	6,209.42	5,927.46	281.96	22.022		
7,600.00	7,252.28	7,208.28	7,252.28	35.47	249.92	-82.62	-1,650.89	-6,519.97	6,116.42	5,834.08	282.34	21.664		
7,700.00	7,252.75	7,208.75	7,252.75	36.73	249.93	-90.57	-1,650.89	-6,519.97	6,022.53	5,739.93	282.59	21.312		
7,800.00	7,252.38	7,208.38	7,252.38	38.16	249.92	-90.56	-1,650.89	-6,519.97	5,928.81	5,645.94	282.86	20.960		
7,900.00	7,252.02	7,208.02	7,252.02	39.74	249.91	-90.55	-1,650.89	-6,519.97	5,835.29	5,552.12	283.18	20.607		
8,000.00	7,251.65	7,207.65	7,251.65	41.47	249.90	-90.54	-1,650.89	-6,519.97	5,742.00	5,458.46	283.54	20.251		
8,100.00	7,251.29	7,207.29	7,251.29	43.31	249.88	-90.53	-1,650.89	-6,519.97	5,648.94	5,364.99	283.95	19.894		
8,200.00	7,250.92	7,206.92	7,250.92	45.26	249.87	-90.52	-1,650.89	-6,519.97	5,556.11	5,271.70	284.42	19.535		
8,300.00	7,250.55	7,206.55	7,250.55	47.30	249.86	-90.51	-1,650.89	-6,519.97	5,463.55	5,178.61	284.94	19.175		
8,400.00	7,250.19	7,206.19	7,250.19	49.42	249.84	-90.50	-1,650.89	-6,519.97	5,371.24	5,085.73	285.52	18.812		
8,500.00	7,249.82	7,205.82	7,249.82	51.62	249.83	-90.49	-1,650.89	-6,519.97	5,279.22	4,993.06	286.16	18.449		
8,600.00	7,249.45	7,205.45	7,249.45	53.88	249.82	-90.48	-1,650.89	-6,519.97	5,187.49	4,900.63	286.87	18.083		
8,700.00	7,249.09	7,205.09	7,249.09	56.19	249.81	-90.47	-1,650.89	-6,519.97	5,096.08	4,808.44	287.64	17.717		
8,800.00	7,248.72	7,204.72	7,248.72	58.55	249.79	-90.46	-1,650.89	-6,519.97	5,004.99	4,716.50	288.49	17.349		
8,900.00	7,248.36	7,204.36	7,248.36	60.96	249.78	-90.45	-1,650.89	-6,519.97	4,914.25	4,624.84	289.41	16.981		
9,000.00	7,247.99	7,203.99	7,247.99	63.40	249.77	-90.44	-1,650.89	-6,519.97	4,823.87	4,533.47	290.40	16.611		
9,100.00	7,247.62	7,203.62	7,247.62	65.87	249.76	-90.43	-1,650.89	-6,519.97	4,733.89	4,442.41	291.48	16.241		
9,200.00	7,247.26	7,203.26	7,247.26	68.38	249.74	-90.42	-1,650.89	-6,519.97	4,644.31	4,351.67	292.63	15.871		
9,300.00	7,246.89	7,202.89	7,246.89	70.91	249.73	-90.41	-1,650.89	-6,519.97	4,555.16	4,261.29	293.88	15.500		
9,400.00	7,246.53	7,202.53	7,246.53	73.47	249.72	-90.40	-1,650.89	-6,519.97	4,466.48	4,171.27	295.21	15.130		
9,500.00	7,246.16	7,202.16	7,246.16	76.05	249.70	-90.39	-1,650.89	-6,519.97	4,378.28	4,081.65	296.63	14.760		
9,600.00	7,245.79	7,201.79	7,245.79	78.65	249.69	-90.38	-1,650.89	-6,519.97	4,290.60	3,992.45	298.15	14.391		
9,700.00	7,245.43	7,201.43	7,245.43	81.27	249.68	-90.37	-1,650.89	-6,519.97	4,203.47	3,903.70	299.77	14.022		
9,800.00	7,245.06	7,201.06	7,245.06	83.90	249.67	-90.36	-1,650.89	-6,519.97	4,116.93	3,815.43	301.49	13.655		
9,900.00	7,244.69	7,200.69	7,244.69	86.55	249.65	-90.35	-1,650.89	-6,519.97	4,031.00	3,727.68	303.32	13.290		
10,000.00	7,244.33	7,200.33	7,244.33	89.21	249.64	-90.34	-1,650.89	-6,519.97	3,945.75	3,640.49	305.26	12.926		
10,100.00	7,243.96	7,200.04	7,243.96	91.88	249.63	-90.33	-1,650.89	-6,519.97	3,861.20	3,553.88	307.31	12.564		
10,200.00	7,243.60	7,200.40	7,243.60	94.56	249.64	-90.32	-1,650.89	-6,519.97	3,777.40	3,467.89	309.51	12.204		
10,300.00	7,243.23	7,200.77	7,243.23	97.26	249.66	-90.31	-1,650.89	-6,519.97	3,694.41	3,382.58	311.83	11.848		

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



Anticollision Report



Company:	SRC ENERGY	Local Co-ordinate Reference:	Well HARVESTERS STATE 31C-16-M
Project:	SECTION 15, T6N, R66W	TVD Reference:	KB @ 4821.00ft
Reference Site:	HARVESTERS STATE 7-15 PAD	MD Reference:	KB @ 4821.00ft
Site Error:	3.28 ft	North Reference:	True
Reference Well:	HARVESTERS STATE 31C-16-M	Survey Calculation Method:	Minimum Curvature
Well Error:	3.28 ft	Output errors are at	2.45 sigma
Reference Wellbore	OH	Database:	EDM 5000.14 Single User Db
Reference Design:	PLAN #1	Offset TVD Reference:	Reference Datum

Offset Design HARVESTERS STATE 7-15 PAD - STATE-HOPPE 16-2(PR_75CC) - OH - OH													Offset Site Error:	0.00 ft
Survey Program: 100-2" Cone@2.448 Sigma													Offset Well Error:	3.28 ft
Reference		Offset		Semi Major Axis			Distance							Warning
Measured Depth (ft)	Vertical Depth (ft)	Measured Depth (ft)	Vertical Depth (ft)	Reference (ft)	Offset (ft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (ft)	+E/-W (ft)	Between Centres (ft)	Between Ellipses (ft)	Minimum Separation (ft)	Separation Factor		
10,400.00	7,242.86	7,201.14	7,242.86	99.96	249.67	-90.30	-1,650.89	-6,519.97	3,612.28	3,298.01	314.27	11.494		
10,500.00	7,242.50	7,201.50	7,242.50	102.67	249.68	-90.29	-1,650.89	-6,519.97	3,531.07	3,214.22	316.85	11.144		
10,600.00	7,242.13	7,201.87	7,242.13	105.39	249.69	-90.28	-1,650.89	-6,519.97	3,450.85	3,131.29	319.56	10.799		
10,700.00	7,241.76	7,202.24	7,241.76	108.12	249.71	-90.27	-1,650.89	-6,519.97	3,371.69	3,049.28	322.41	10.458		
10,800.00	7,241.40	7,202.60	7,241.40	110.85	249.72	-90.26	-1,650.89	-6,519.97	3,293.66	2,968.26	325.40	10.122		
10,900.00	7,241.03	7,202.97	7,241.03	113.59	249.73	-90.25	-1,650.89	-6,519.97	3,216.85	2,888.31	328.54	9.791		
11,000.00	7,240.67	7,203.33	7,240.67	116.34	249.74	-90.24	-1,650.89	-6,519.97	3,141.34	2,809.51	331.83	9.467		
11,100.00	7,240.30	7,203.70	7,240.30	119.09	249.76	-90.23	-1,650.89	-6,519.97	3,067.24	2,731.97	335.27	9.149		
11,200.00	7,239.93	7,204.07	7,239.93	121.85	249.77	-90.22	-1,650.89	-6,519.97	2,994.64	2,655.77	338.87	8.837		
11,300.00	7,239.57	7,204.43	7,239.57	124.61	249.78	-90.21	-1,650.89	-6,519.97	2,923.66	2,581.04	342.62	8.533		
11,400.00	7,239.20	7,204.80	7,239.20	127.38	249.80	-90.20	-1,650.89	-6,519.97	2,854.42	2,507.89	346.52	8.237		
11,500.00	7,238.84	7,205.17	7,238.84	130.15	249.81	-90.19	-1,650.89	-6,519.97	2,787.04	2,436.46	350.58	7.950		
11,600.00	7,238.47	7,205.53	7,238.47	132.92	249.82	-90.18	-1,650.89	-6,519.97	2,721.67	2,366.88	354.79	7.671		
11,700.00	7,238.10	7,205.90	7,238.10	135.70	249.83	-90.17	-1,650.89	-6,519.97	2,658.46	2,299.32	359.14	7.402		
11,800.00	7,237.74	7,206.26	7,237.74	138.48	249.85	-90.16	-1,650.89	-6,519.97	2,597.56	2,233.93	363.63	7.143		
11,900.00	7,237.37	7,206.63	7,237.37	141.26	249.86	-90.15	-1,650.89	-6,519.97	2,539.14	2,170.90	368.24	6.895		
12,000.00	7,237.00	7,207.00	7,237.00	144.05	249.87	-90.14	-1,650.89	-6,519.97	2,483.37	2,110.41	372.96	6.659		
12,100.00	7,236.64	7,207.36	7,236.64	146.84	249.89	-90.13	-1,650.89	-6,519.97	2,430.44	2,052.67	377.77	6.434		
12,200.00	7,236.27	7,207.73	7,236.27	149.64	249.90	-90.12	-1,650.89	-6,519.97	2,380.54	1,997.89	382.65	6.221		
12,300.00	7,235.91	7,208.09	7,235.91	152.43	249.91	-90.11	-1,650.89	-6,519.97	2,333.85	1,946.28	387.57	6.022		
12,400.00	7,235.54	7,208.46	7,235.54	155.23	249.92	-90.10	-1,650.89	-6,519.97	2,290.59	1,898.09	392.50	5.836		
12,500.00	7,235.17	7,208.83	7,235.17	158.03	249.94	-90.09	-1,650.89	-6,519.97	2,250.93	1,853.53	397.40	5.664		
12,600.00	7,234.81	7,209.19	7,234.81	160.83	249.95	-90.08	-1,650.89	-6,519.97	2,215.08	1,812.85	402.24	5.507		
12,700.00	7,234.44	7,209.56	7,234.44	163.64	249.96	-90.07	-1,650.89	-6,519.97	2,183.23	1,776.27	406.96	5.365		
12,800.00	7,234.07	7,209.93	7,234.07	166.44	249.98	-90.06	-1,650.89	-6,519.97	2,155.55	1,744.02	411.54	5.238		
12,900.00	7,233.71	7,210.30	7,233.71	169.25	249.99	-90.05	-1,650.89	-6,519.97	2,132.21	1,717.02	415.19	5.135		
13,000.00	7,233.34	7,210.67	7,233.34	172.06	249.99	-90.04	-1,650.89	-6,519.97	2,113.34	1,694.05	419.29	5.040		
13,100.00	7,232.98	7,211.04	7,232.98	174.88	249.99	-90.03	-1,650.89	-6,519.97	2,099.08	1,675.97	423.10	4.961		
13,200.00	7,232.61	7,211.41	7,232.61	177.69	249.99	-90.02	-1,650.89	-6,519.97	2,089.51	1,662.92	426.59	4.898		
13,300.00	7,232.24	7,211.78	7,232.24	180.50	249.99	-90.01	-1,650.89	-6,519.97	2,084.69	1,654.99	429.70	4.851		
13,350.47	7,232.06	7,211.96	7,232.06	181.93	249.99	-90.00	-1,650.89	-6,519.97	2,084.08	1,652.95	431.13	4.834 CC		
13,400.00	7,231.88	7,212.14	7,231.88	183.32	249.99	-90.00	-1,650.89	-6,519.97	2,084.67	1,652.24	432.43	4.821 ES		
13,500.00	7,231.51	7,212.51	7,231.51	186.14	249.99	-89.98	-1,650.89	-6,519.97	2,089.44	1,654.69	434.75	4.806 SF		
13,600.00	7,231.15	7,212.88	7,231.15	188.96	249.98	-89.97	-1,650.89	-6,519.97	2,098.97	1,662.33	436.64	4.807		
13,700.00	7,230.78	7,213.25	7,230.78	191.78	249.97	-89.96	-1,650.89	-6,519.97	2,113.19	1,675.08	438.11	4.823		
13,800.00	7,230.41	7,213.62	7,230.41	194.60	249.95	-89.95	-1,650.89	-6,519.97	2,132.01	1,692.84	439.17	4.855		
13,900.00	7,230.05	7,214.00	7,230.05	197.42	249.94	-89.94	-1,650.89	-6,519.97	2,155.31	1,715.49	439.82	4.900		
14,000.00	7,229.68	7,214.37	7,229.68	200.25	249.93	-89.93	-1,650.89	-6,519.97	2,182.95	1,742.86	440.09	4.960		
14,100.00	7,229.31	7,214.74	7,229.31	203.07	249.92	-89.92	-1,650.89	-6,519.97	2,214.76	1,774.76	440.00	5.034		
14,200.00	7,228.95	7,215.11	7,228.95	205.90	249.91	-89.91	-1,650.89	-6,519.97	2,250.57	1,810.98	439.59	5.120		
14,300.00	7,228.58	7,215.48	7,228.58	208.73	249.90	-89.90	-1,650.89	-6,519.97	2,290.19	1,851.30	438.89	5.218		
14,400.00	7,228.22	7,215.85	7,228.22	211.55	249.88	-89.89	-1,650.89	-6,519.97	2,333.43	1,895.50	437.93	5.328		
14,500.00	7,227.85	7,216.22	7,227.85	214.38	249.86	-89.88	-1,650.89	-6,519.97	2,380.08	1,943.34	436.74	5.450		
14,600.00	7,227.48	7,216.59	7,227.48	217.21	249.85	-89.87	-1,650.89	-6,519.97	2,429.96	1,994.59	435.37	5.581		
14,700.00	7,227.12	7,216.96	7,227.12	220.04	249.84	-89.86	-1,650.89	-6,519.97	2,482.86	2,049.03	433.83	5.723		
14,800.00	7,226.75	7,217.33	7,226.75	222.88	249.83	-89.85	-1,650.89	-6,519.97	2,538.60	2,106.45	432.15	5.874		
14,900.00	7,226.38	7,217.70	7,226.38	225.71	249.81	-89.84	-1,650.89	-6,519.97	2,597.00	2,166.62	430.38	6.034		
15,000.00	7,226.02	7,218.07	7,226.02	228.54	249.80	-89.83	-1,650.89	-6,519.97	2,657.87	2,229.36	428.52	6.202		
15,005.81	7,226.00	7,218.00	7,226.00	228.71	249.80	-89.83	-1,650.89	-6,519.97	2,661.48	2,233.07	428.41	6.212		

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



Anticollision Report



Company:	SRC ENERGY	Local Co-ordinate Reference:	Well HARVESTERS STATE 31C-16-M
Project:	SECTION 15, T6N, R66W	TVD Reference:	KB @ 4821.00ft
Reference Site:	HARVESTERS STATE 7-15 PAD	MD Reference:	KB @ 4821.00ft
Site Error:	3.28 ft	North Reference:	True
Reference Well:	HARVESTERS STATE 31C-16-M	Survey Calculation Method:	Minimum Curvature
Well Error:	3.28 ft	Output errors are at	2.45 sigma
Reference Wellbore	OH	Database:	EDM 5000.14 Single User Db
Reference Design:	PLAN #1	Offset TVD Reference:	Reference Datum

Offset Design HARVESTERS STATE 7-15 PAD - STATE-HOPPE 16-3(PR_150CC) - OH - OH													Offset Site Error:	0.00 ft
Survey Program: 100-GYRO-NS													Offset Well Error:	3.28 ft
Reference		Offset		Semi Major Axis			Distance							Warning
Measured Depth (ft)	Vertical Depth (ft)	Measured Depth (ft)	Vertical Depth (ft)	Reference (ft)	Offset (ft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (ft)	+E/-W (ft)	Between Centres (ft)	Between Ellipses (ft)	Minimum Separation (ft)	Separation Factor		
0.00	0.00	0.00	39.00	3.28	3.28	-93.84	-514.30	-7,658.67	7,676.02					
100.00	100.00	100.00	126.65	3.28	3.29	-93.84	-514.01	-7,658.38	7,675.66	7,669.09	6.57	1,167.960		
200.00	200.00	182.13	221.13	3.34	3.33	-93.84	-513.41	-7,657.98	7,675.20	7,668.54	6.67	1,151.395		
278.24	278.24	239.24	278.24	3.42	3.38	-93.83	-513.03	-7,657.93	7,675.10	7,668.30	6.80	1,129.329		
300.00	300.00	255.24	294.24	3.44	3.40	-93.83	-512.95	-7,657.94	7,675.10	7,668.26	6.84	1,121.892		
400.00	400.00	330.19	369.19	3.60	3.49	-93.83	-512.76	-7,658.14	7,675.35	7,668.25	7.10	1,081.591		
500.00	500.00	410.88	449.87	3.81	3.63	-93.83	-512.82	-7,658.58	7,675.90	7,668.46	7.43	1,032.833		
600.00	600.00	519.64	558.63	4.05	3.85	-93.83	-513.09	-7,659.19	7,676.46	7,668.57	7.89	972.551		
700.00	699.98	609.29	648.28	4.32	4.06	-70.95	-513.74	-7,659.69	7,676.50	7,668.12	8.38	916.318		
800.00	799.84	697.66	736.64	4.62	4.30	-71.00	-514.62	-7,660.29	7,675.55	7,666.64	8.91	861.706		
900.00	899.62	799.29	838.26	4.94	4.59	-71.06	-515.66	-7,661.05	7,674.23	7,664.71	9.52	806.337		
1,000.00	999.41	904.04	943.01	5.27	4.91	-71.11	-516.69	-7,661.78	7,672.87	7,662.69	10.18	753.986		
1,100.00	1,099.19	1,009.23	1,048.19	5.62	5.26	-71.17	-517.57	-7,662.46	7,671.44	7,660.57	10.87	705.758		
1,200.00	1,198.98	1,111.06	1,150.01	5.99	5.60	-71.22	-518.12	-7,663.09	7,669.98	7,658.40	11.58	662.421		
1,300.00	1,298.76	1,208.48	1,247.44	6.36	5.95	-71.27	-518.48	-7,663.71	7,668.54	7,656.24	12.29	623.770		
1,400.00	1,398.55	1,318.55	1,357.50	6.74	6.35	-71.32	-518.74	-7,664.33	7,667.01	7,653.93	13.07	586.490		
1,500.00	1,498.33	1,410.45	1,449.40	7.13	6.69	-71.36	-519.03	-7,664.86	7,665.50	7,651.70	13.80	555.461		
1,600.00	1,598.12	1,510.17	1,549.11	7.52	7.06	-71.41	-519.42	-7,665.46	7,664.04	7,649.47	14.57	526.052		
1,700.00	1,697.90	1,603.30	1,642.24	7.92	7.42	-71.46	-519.75	-7,666.08	7,662.63	7,647.31	15.32	500.066		
1,800.00	1,797.69	1,712.17	1,751.11	8.33	7.84	-71.51	-519.92	-7,666.79	7,661.21	7,645.07	16.15	474.459		
1,900.00	1,897.47	1,808.21	1,847.15	8.74	8.21	-71.55	-520.04	-7,667.41	7,659.78	7,642.85	16.93	452.446		
2,000.00	1,997.26	1,911.81	1,950.74	9.15	8.62	-71.60	-520.26	-7,668.04	7,658.34	7,640.59	17.75	431.491		
2,100.00	2,097.04	2,001.99	2,040.92	9.56	8.98	-71.65	-520.47	-7,668.65	7,656.95	7,638.43	18.52	413.439		
2,200.00	2,196.83	2,140.72	2,179.65	9.98	9.54	-71.71	-520.53	-7,669.21	7,655.27	7,635.78	19.49	392.767		
2,300.00	2,296.61	2,250.74	2,289.67	10.40	9.98	-71.77	-521.02	-7,669.38	7,653.40	7,633.05	20.35	376.078		
2,400.00	2,396.40	2,356.52	2,395.45	10.82	10.41	-71.82	-521.68	-7,669.34	7,651.35	7,630.16	21.20	360.966		
2,500.00	2,496.18	2,455.30	2,494.22	11.24	10.81	-71.87	-522.15	-7,669.33	7,649.34	7,627.32	22.02	347.405		
2,600.00	2,595.96	2,579.06	2,617.99	11.66	11.32	-71.93	-522.59	-7,669.19	7,647.23	7,624.28	22.94	333.306		
2,700.00	2,695.75	2,704.77	2,743.70	12.09	11.83	-71.99	-522.71	-7,668.59	7,644.72	7,620.84	23.88	320.155		
2,800.00	2,795.53	2,799.17	2,838.09	12.51	12.21	-72.03	-522.47	-7,668.06	7,642.11	7,617.42	24.69	309.532		
2,900.00	2,895.32	2,854.41	2,893.33	12.94	12.44	-72.06	-522.15	-7,667.94	7,639.81	7,614.47	25.34	301.443		
3,000.00	2,995.10	2,900.01	2,938.93	13.37	12.63	-72.08	-521.75	-7,668.09	7,638.12	7,612.16	25.96	294.225		
3,100.00	3,094.89	2,970.61	3,009.52	13.80	12.92	-72.10	-520.99	-7,668.74	7,636.95	7,610.27	26.68	286.237		
3,200.00	3,194.67	3,046.52	3,085.42	14.23	13.23	-72.13	-520.05	-7,669.84	7,636.26	7,608.83	27.42	278.449		
3,300.00	3,294.46	3,123.15	3,162.03	14.66	13.55	-72.16	-518.96	-7,671.10	7,635.77	7,607.60	28.17	271.041		
3,348.21	3,342.57	3,150.35	3,189.22	14.87	13.67	-72.17	-518.53	-7,671.65	7,635.71	7,607.22	28.49	267.993		
3,400.00	3,394.24	3,179.57	3,218.43	15.09	13.79	-72.18	-518.05	-7,672.33	7,635.78	7,606.95	28.84	264.800		
3,500.00	3,494.03	3,247.85	3,286.67	15.52	14.07	-72.20	-516.85	-7,674.18	7,636.32	7,606.77	29.55	258.418		
3,600.00	3,593.81	3,332.21	3,370.98	15.96	14.43	-72.22	-515.19	-7,676.76	7,637.17	7,606.84	30.33	251.773		
3,700.00	3,693.60	3,449.10	3,487.78	16.39	14.92	-72.25	-512.31	-7,680.36	7,638.03	7,606.77	31.26	244.363		
3,800.00	3,793.38	3,578.62	3,617.20	16.82	15.46	-72.29	-508.76	-7,683.92	7,638.52	7,606.28	32.24	236.962		
3,900.00	3,893.17	3,682.00	3,720.52	17.26	15.90	-72.31	-506.26	-7,686.49	7,638.78	7,605.68	33.10	230.759		
4,000.00	3,992.95	3,784.98	3,823.44	17.69	16.33	-72.34	-504.10	-7,689.01	7,639.04	7,605.07	33.97	224.880		
4,100.00	4,092.74	3,886.24	3,924.66	18.13	16.75	-72.38	-502.21	-7,691.43	7,639.26	7,604.43	34.83	219.335		
4,200.00	4,192.52	3,989.38	4,027.75	18.56	17.19	-72.41	-500.61	-7,693.84	7,639.45	7,603.76	35.70	214.004		
4,300.00	4,292.31	4,113.11	4,151.44	19.00	17.71	-72.45	-498.83	-7,696.51	7,639.49	7,602.83	36.65	208.421		
4,375.39	4,367.53	4,178.38	4,216.69	19.33	17.98	-72.48	-497.91	-7,697.87	7,639.46	7,602.20	37.26	205.049		
4,400.00	4,392.09	4,201.01	4,239.32	19.43	18.08	-72.49	-497.63	-7,698.34	7,639.46	7,602.00	37.46	203.941		
4,500.00	4,491.88	4,308.37	4,346.65	19.87	18.53	-72.53	-496.46	-7,700.56	7,639.44	7,601.09	38.35	199.216		
4,600.00	4,591.66	4,412.60	4,450.86	20.31	18.97	-72.57	-495.70	-7,702.60	7,639.36	7,600.13	39.22	194.767		
4,700.00	4,691.44	4,542.05	4,580.29	20.74	19.52	-72.62	-495.07	-7,704.87	7,639.11	7,598.90	40.21	189.999		
4,800.00	4,791.23	4,664.63	4,702.86	21.18	20.03	-72.68	-494.70	-7,706.41	7,638.35	7,597.19	41.16	185.576		

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



Anticollision Report



Company:	SRC ENERGY	Local Co-ordinate Reference:	Well HARVESTERS STATE 31C-16-M
Project:	SECTION 15, T6N, R66W	TVD Reference:	KB @ 4821.00ft
Reference Site:	HARVESTERS STATE 7-15 PAD	MD Reference:	KB @ 4821.00ft
Site Error:	3.28 ft	North Reference:	True
Reference Well:	HARVESTERS STATE 31C-16-M	Survey Calculation Method:	Minimum Curvature
Well Error:	3.28 ft	Output errors are at	2.45 sigma
Reference Wellbore	OH	Database:	EDM 5000.14 Single User Db
Reference Design:	PLAN #1	Offset TVD Reference:	Reference Datum

Offset Design HARVESTERS STATE 7-15 PAD - STATE-HOPPE 16-3(PR_150CC) - OH - OH													Offset Site Error:	0.00 ft
Survey Program: 100-GYRO-NS													Offset Well Error:	3.28 ft
Reference		Offset		Semi Major Axis			Distance							Warning
Measured Depth (ft)	Vertical Depth (ft)	Measured Depth (ft)	Vertical Depth (ft)	Reference (ft)	Offset (ft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (ft)	+E/-W (ft)	Between Centres (ft)	Between Ellipses (ft)	Minimum Separation (ft)	Separation Factor		
4,900.00	4,891.01	4,760.35	4,798.57	21.62	20.44	-72.72	-494.40	-7,707.57	7,637.58	7,595.58	42.00	181.842		
5,000.00	4,990.80	4,866.46	4,904.67	22.06	20.89	-72.76	-494.08	-7,708.89	7,636.83	7,593.94	42.89	178.070		
5,100.00	5,090.58	4,970.59	5,008.79	22.50	21.33	-72.81	-493.69	-7,710.05	7,635.97	7,592.20	43.76	174.480		
5,200.00	5,190.37	5,079.91	5,118.10	22.93	21.79	-72.86	-493.20	-7,711.23	7,635.06	7,590.39	44.66	170.945		
5,300.00	5,290.15	5,178.04	5,216.22	23.37	22.21	-72.90	-492.80	-7,712.20	7,634.07	7,588.55	45.52	167.720		
5,400.00	5,389.94	5,281.76	5,319.94	23.81	22.65	-72.94	-492.49	-7,713.23	7,633.09	7,586.70	46.39	164.529		
5,500.00	5,489.72	5,453.05	5,491.23	24.25	23.37	-73.02	-491.59	-7,714.01	7,631.54	7,583.98	47.55	160.490		
5,600.00	5,589.51	5,542.90	5,581.07	24.69	23.75	-73.05	-490.95	-7,714.04	7,629.59	7,581.22	48.37	157.736		
5,700.00	5,689.29	5,619.92	5,658.10	25.13	24.07	-73.09	-490.67	-7,714.30	7,627.97	7,578.83	49.13	155.247		
5,800.00	5,789.08	5,720.93	5,759.10	25.56	24.50	-73.13	-490.36	-7,714.72	7,626.44	7,576.44	50.00	152.527		
5,900.00	5,888.86	5,811.46	5,849.63	26.00	24.89	-73.17	-490.01	-7,715.18	7,625.00	7,574.18	50.82	150.030		
6,000.00	5,988.65	5,907.54	5,945.71	26.44	25.29	-73.22	-489.60	-7,715.73	7,623.63	7,571.96	51.67	147.547		
6,100.00	6,088.43	5,982.97	6,021.13	26.88	25.62	-73.25	-489.34	-7,716.31	7,622.46	7,570.03	52.43	145.387		
6,200.00	6,188.22	6,091.79	6,129.95	27.32	26.08	-73.30	-489.14	-7,717.28	7,621.44	7,568.11	53.33	142.912		
6,300.00	6,288.00	6,164.76	6,202.91	27.76	26.39	-73.33	-489.06	-7,717.96	7,620.47	7,566.40	54.08	140.914		
6,400.00	6,387.79	6,247.84	6,285.99	28.20	26.74	-73.37	-489.04	-7,719.03	7,619.87	7,564.99	54.87	138.869		
6,500.00	6,487.57	6,345.72	6,383.86	28.64	27.16	-73.42	-489.23	-7,720.34	7,619.34	7,563.62	55.73	136.728		
6,600.00	6,587.35	6,459.60	6,497.73	29.08	27.64	-73.47	-489.53	-7,721.81	7,618.79	7,562.14	56.65	134.489		
6,700.00	6,687.02	6,576.28	6,614.40	29.52	28.14	-73.56	-490.10	-7,722.97	7,615.75	7,558.17	57.58	132.254		
6,800.00	6,784.98	6,664.87	6,702.99	29.96	28.52	-73.66	-490.69	-7,723.78	7,598.87	7,540.48	58.39	130.131		
6,900.00	6,878.81	6,740.34	6,778.45	30.41	28.84	-73.76	-491.60	-7,724.58	7,567.11	7,507.98	59.13	127.975		
7,000.00	6,966.21	6,809.43	6,847.53	30.86	29.13	-73.86	-492.56	-7,725.49	7,521.30	7,461.49	59.81	125.762		
7,100.00	7,045.03	6,883.33	6,921.42	31.35	29.45	-73.96	-493.50	-7,726.58	7,462.43	7,401.97	60.46	123.427		
7,200.00	7,113.32	6,934.97	6,973.04	31.90	29.67	-74.06	-494.04	-7,727.42	7,391.92	7,330.95	60.97	121.237		
7,300.00	7,169.40	6,974.23	7,012.30	32.57	29.83	-74.16	-494.40	-7,728.18	7,311.57	7,250.19	61.38	119.129		
7,400.00	7,211.89	7,006.68	7,044.74	33.38	29.97	-74.26	-494.65	-7,728.88	7,223.25	7,161.55	61.70	117.079		
7,500.00	7,239.75	7,036.45	7,074.50	34.35	30.10	-74.36	-494.85	-7,729.55	7,129.03	7,067.08	61.95	115.072		
7,600.00	7,252.28	7,051.12	7,089.16	35.47	30.16	-74.46	-494.94	-7,729.89	7,031.22	6,969.11	62.10	113.219		
7,700.00	7,252.75	7,053.84	7,091.88	36.73	30.17	-74.56	-494.95	-7,729.95	6,932.17	6,870.00	62.18	111.490		
7,800.00	7,252.38	7,055.73	7,093.77	38.16	30.18	-74.66	-494.96	-7,729.99	6,833.12	6,770.87	62.25	109.763		
7,900.00	7,252.02	7,057.63	7,095.67	39.74	30.19	-74.76	-494.97	-7,730.03	6,734.09	6,671.76	62.34	108.026		
8,000.00	7,251.65	7,059.53	7,097.57	41.47	30.20	-74.86	-494.98	-7,730.08	6,635.10	6,572.67	62.43	106.279		
8,100.00	7,251.29	7,061.43	7,099.47	43.31	30.21	-74.96	-494.99	-7,730.12	6,536.13	6,473.60	62.53	104.522		
8,200.00	7,250.92	7,063.33	7,101.37	45.26	30.21	-75.06	-495.00	-7,730.16	6,437.19	6,374.55	62.65	102.754		
8,300.00	7,250.55	7,065.23	7,103.27	47.30	30.22	-75.16	-495.01	-7,730.21	6,338.29	6,275.52	62.77	100.975		
8,400.00	7,250.19	7,067.14	7,105.18	49.42	30.23	-75.26	-495.02	-7,730.25	6,239.42	6,176.52	62.91	99.186		
8,500.00	7,249.82	7,069.05	7,107.09	51.62	30.24	-75.36	-495.03	-7,730.29	6,140.59	6,077.53	63.05	97.386		
8,600.00	7,249.45	7,070.97	7,109.00	53.88	30.25	-75.46	-495.04	-7,730.34	6,041.79	5,978.58	63.22	95.575		
8,700.00	7,249.09	7,072.88	7,110.92	56.19	30.26	-75.56	-495.04	-7,730.38	5,943.04	5,879.65	63.39	93.753		
8,800.00	7,248.72	7,074.80	7,112.84	58.55	30.26	-75.66	-495.05	-7,730.42	5,844.32	5,780.74	63.58	91.920		
8,900.00	7,248.36	7,076.72	7,114.76	60.96	30.27	-75.76	-495.06	-7,730.47	5,745.65	5,681.87	63.79	90.076		
9,000.00	7,247.99	7,078.65	7,116.68	63.40	30.28	-75.86	-495.07	-7,730.51	5,647.03	5,583.02	64.01	88.221		
9,100.00	7,247.62	7,080.58	7,118.61	65.87	30.29	-75.96	-495.08	-7,730.56	5,548.46	5,484.20	64.25	86.355		
9,200.00	7,247.26	7,082.50	7,120.54	68.38	30.30	-76.06	-495.08	-7,730.60	5,449.93	5,385.42	64.51	84.478		
9,300.00	7,246.89	7,084.44	7,122.47	70.91	30.30	-76.16	-495.09	-7,730.65	5,351.46	5,286.67	64.79	82.591		
9,400.00	7,246.53	7,086.37	7,124.40	73.47	30.31	-76.26	-495.10	-7,730.69	5,253.05	5,187.95	65.10	80.693		
9,500.00	7,246.16	7,088.31	7,126.34	76.05	30.32	-76.36	-495.11	-7,730.73	5,154.70	5,089.27	65.43	78.785		
9,600.00	7,245.79	7,090.25	7,128.28	78.65	30.33	-76.46	-495.11	-7,730.78	5,056.41	4,990.63	65.78	76.867		
9,700.00	7,245.43	7,092.19	7,130.22	81.27	30.34	-76.56	-495.12	-7,730.82	4,958.19	4,892.03	66.16	74.940		
9,800.00	7,245.06	7,094.14	7,132.17	83.90	30.35	-76.66	-495.13	-7,730.87	4,860.04	4,793.47	66.57	73.003		
9,900.00	7,244.69	7,096.08	7,134.11	86.55	30.35	-76.76	-495.13	-7,730.91	4,761.97	4,694.95	67.02	71.058		
10,000.00	7,244.33	7,098.04	7,136.06	89.21	30.36	-76.86	-495.14	-7,730.96	4,663.98	4,596.48	67.49	69.105		

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



Anticollision Report



Company:	SRC ENERGY	Local Co-ordinate Reference:	Well HARVESTERS STATE 31C-16-M
Project:	SECTION 15, T6N, R66W	TVD Reference:	KB @ 4821.00ft
Reference Site:	HARVESTERS STATE 7-15 PAD	MD Reference:	KB @ 4821.00ft
Site Error:	3.28 ft	North Reference:	True
Reference Well:	HARVESTERS STATE 31C-16-M	Survey Calculation Method:	Minimum Curvature
Well Error:	3.28 ft	Output errors are at	2.45 sigma
Reference Wellbore	OH	Database:	EDM 5000.14 Single User Db
Reference Design:	PLAN #1	Offset TVD Reference:	Reference Datum

Offset Design HARVESTERS STATE 7-15 PAD - STATE-HOPPE 16-3(PR_150CC) - OH - OH													Offset Site Error:	0.00 ft
Survey Program: 100-GYRO-NS													Offset Well Error:	3.28 ft
Reference		Offset		Semi Major Axis			Distance							Warning
Measured Depth (ft)	Vertical Depth (ft)	Measured Depth (ft)	Vertical Depth (ft)	Reference (ft)	Offset (ft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (ft)	+E/-W (ft)	Between Centres (ft)	Between Ellipses (ft)	Minimum Separation (ft)	Separation Factor		
10,100.00	7,243.96	7,099.99	7,138.02	91.88	30.37	-84.53	-495.15	-7,731.00	4,566.07	4,498.07	68.00	67.144		
10,200.00	7,243.60	7,102.15	7,140.18	94.56	30.38	-84.66	-495.15	-7,731.05	4,468.26	4,399.70	68.56	65.177		
10,300.00	7,243.23	7,104.30	7,142.33	97.26	30.39	-84.79	-495.16	-7,731.10	4,370.54	4,301.39	69.15	63.203		
10,400.00	7,242.86	7,106.44	7,144.47	99.96	30.40	-84.92	-495.17	-7,731.15	4,272.93	4,203.14	69.79	61.226		
10,500.00	7,242.50	7,108.56	7,146.58	102.67	30.41	-85.05	-495.18	-7,731.20	4,175.43	4,104.96	70.48	59.245		
10,600.00	7,242.13	7,110.66	7,148.68	105.39	30.42	-85.18	-495.18	-7,731.25	4,078.05	4,006.84	71.22	57.263		
10,700.00	7,241.76	7,112.74	7,150.77	108.12	30.43	-85.30	-495.19	-7,731.29	3,980.80	3,908.79	72.01	55.279		
10,800.00	7,241.40	7,114.81	7,152.84	110.85	30.43	-85.43	-495.20	-7,731.34	3,883.69	3,810.83	72.87	53.297		
10,900.00	7,241.03	7,116.87	7,154.89	113.59	30.44	-85.55	-495.21	-7,731.39	3,786.73	3,712.94	73.79	51.318		
11,000.00	7,240.67	7,118.91	7,156.93	116.34	30.45	-85.68	-495.22	-7,731.43	3,689.93	3,615.15	74.78	49.342		
11,100.00	7,240.30	7,120.93	7,158.95	119.09	30.46	-85.80	-495.23	-7,731.48	3,593.31	3,517.46	75.85	47.373		
11,200.00	7,239.93	7,122.94	7,160.96	121.85	30.47	-85.92	-495.23	-7,731.52	3,496.87	3,419.87	77.00	45.413		
11,300.00	7,239.57	7,124.93	7,162.96	124.61	30.48	-86.05	-495.24	-7,731.57	3,400.64	3,322.40	78.24	43.463		
11,400.00	7,239.20	7,126.91	7,164.93	127.38	30.49	-86.17	-495.25	-7,731.61	3,304.63	3,225.05	79.58	41.527		
11,500.00	7,238.84	7,128.88	7,166.90	130.15	30.49	-86.29	-495.26	-7,731.65	3,208.86	3,127.84	81.02	39.606		
11,600.00	7,238.47	7,130.83	7,168.85	132.92	30.50	-86.41	-495.27	-7,731.70	3,113.36	3,030.78	82.58	37.703		
11,700.00	7,238.10	7,132.76	7,170.78	135.70	30.51	-86.52	-495.28	-7,731.74	3,018.15	2,933.89	84.26	35.821		
11,800.00	7,237.74	7,134.68	7,172.70	138.48	30.52	-86.64	-495.29	-7,731.78	2,923.25	2,837.18	86.07	33.963		
11,900.00	7,237.37	7,136.59	7,174.61	141.26	30.53	-86.76	-495.30	-7,731.82	2,828.71	2,740.67	88.04	32.131		
12,000.00	7,237.00	7,138.48	7,176.50	144.05	30.53	-86.87	-495.31	-7,731.86	2,734.55	2,644.39	90.16	30.330		
12,100.00	7,236.64	7,140.36	7,178.38	146.84	30.54	-86.99	-495.32	-7,731.90	2,640.82	2,548.36	92.46	28.561		
12,200.00	7,236.27	7,142.23	7,180.25	149.64	30.55	-87.10	-495.33	-7,731.94	2,547.57	2,452.61	94.96	26.828		
12,300.00	7,235.91	7,144.08	7,182.10	152.43	30.56	-87.22	-495.34	-7,731.98	2,454.85	2,357.18	97.67	25.135		
12,400.00	7,235.54	7,145.92	7,183.94	155.23	30.57	-87.33	-495.35	-7,732.02	2,362.72	2,262.11	100.61	23.484		
12,500.00	7,235.17	7,147.75	7,185.77	158.03	30.57	-87.44	-495.36	-7,732.06	2,271.26	2,167.45	103.81	21.879		
12,600.00	7,234.81	7,149.57	7,187.58	160.83	30.58	-87.55	-495.37	-7,732.10	2,180.54	2,073.25	107.29	20.324		
12,700.00	7,234.44	7,151.37	7,189.38	163.64	30.59	-87.66	-495.38	-7,732.14	2,090.67	1,979.58	111.09	18.820		
12,800.00	7,234.07	7,153.16	7,191.17	166.44	30.60	-87.77	-495.39	-7,732.18	2,001.76	1,886.53	115.23	17.372		
12,900.00	7,233.71	7,154.93	7,192.95	169.25	30.61	-87.88	-495.40	-7,732.22	1,913.94	1,794.19	119.74	15.983		
13,000.00	7,233.34	7,156.70	7,194.71	172.06	30.61	-87.99	-495.41	-7,732.25	1,827.37	1,702.69	124.68	14.656		
13,100.00	7,232.98	7,158.45	7,196.46	174.88	30.62	-88.09	-495.42	-7,732.29	1,742.24	1,612.16	130.07	13.394		
13,200.00	7,232.61	7,160.19	7,198.20	177.69	30.63	-88.20	-495.43	-7,732.33	1,658.76	1,522.80	135.96	12.200		
13,300.00	7,232.24	7,161.91	7,199.93	180.50	30.63	-88.31	-495.44	-7,732.36	1,577.21	1,434.82	142.40	11.076		
13,400.00	7,231.88	7,163.63	7,201.64	183.32	30.64	-88.41	-495.45	-7,732.40	1,497.90	1,348.49	149.40	10.026		
13,500.00	7,231.51	7,165.33	7,203.34	186.14	30.65	-88.52	-495.46	-7,732.43	1,421.19	1,264.17	157.02	9.051		
13,600.00	7,231.15	7,167.02	7,205.04	188.96	30.66	-88.62	-495.47	-7,732.47	1,347.54	1,182.29	165.25	8.154		
13,700.00	7,230.78	7,168.70	7,206.72	191.78	30.66	-88.72	-495.48	-7,732.50	1,277.48	1,103.38	174.09	7.338		
13,800.00	7,230.41	7,170.37	7,208.38	194.60	30.67	-88.82	-495.49	-7,732.54	1,211.62	1,028.13	183.49	6.603		
13,900.00	7,230.05	7,172.03	7,210.04	197.42	30.68	-88.93	-495.50	-7,732.57	1,150.69	957.36	193.33	5.952		
14,000.00	7,229.68	7,173.68	7,211.69	200.25	30.68	-89.03	-495.51	-7,732.61	1,095.51	892.09	203.42	5.385		
14,100.00	7,229.31	7,175.31	7,213.32	203.07	30.69	-89.13	-495.52	-7,732.64	1,047.00	833.52	213.49	4.904		
14,200.00	7,228.95	7,176.94	7,214.95	205.90	30.70	-89.23	-495.53	-7,732.67	1,006.11	782.99	223.12	4.509		
14,300.00	7,228.58	7,178.55	7,216.56	208.73	30.71	-89.32	-495.55	-7,732.71	973.81	741.96	231.86	4.200		
14,400.00	7,228.22	7,180.15	7,218.16	211.55	30.71	-89.42	-495.56	-7,732.74	950.97	711.81	239.16	3.976		
14,500.00	7,227.85	7,181.74	7,219.75	214.38	30.72	-89.52	-495.57	-7,732.77	938.29	693.73	244.56	3.837		
14,569.85	7,227.59	7,182.85	7,220.86	216.36	30.72	-89.59	-495.58	-7,732.79	935.68	688.68	247.00	3.788 CC		
14,600.00	7,227.48	7,183.33	7,221.33	217.21	30.73	-89.62	-495.58	-7,732.80	936.17	688.48	247.69	3.780 ES, SF		
14,700.00	7,227.12	7,184.90	7,222.90	220.04	30.73	-89.71	-495.59	-7,732.83	944.69	696.26	248.43	3.803		
14,800.00	7,226.75	7,186.46	7,224.46	222.88	30.74	-89.81	-495.60	-7,732.86	963.57	716.70	246.87	3.903		
14,900.00	7,226.38	7,212.67	7,225.36	225.71	30.85	-89.86	-495.60	-7,732.89	992.20	748.78	243.42	4.076		
15,000.00	7,226.02	7,211.08	7,226.95	228.54	30.84	-89.96	-495.62	-7,732.92	1,029.79	791.51	238.29	4.322		
15,005.81	7,226.00	7,210.99	7,227.04	228.71	30.84	-89.97	-495.62	-7,732.92	1,032.23	794.28	237.95	4.338		

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



Company:	SRC ENERGY	Local Co-ordinate Reference:	Well HARVESTERS STATE 31C-16-M
Project:	SECTION 15, T6N, R66W	TVD Reference:	KB @ 4821.00ft
Reference Site:	HARVESTERS STATE 7-15 PAD	MD Reference:	KB @ 4821.00ft
Site Error:	3.28 ft	North Reference:	True
Reference Well:	HARVESTERS STATE 31C-16-M	Survey Calculation Method:	Minimum Curvature
Well Error:	3.28 ft	Output errors are at	2.45 sigma
Reference Wellbore	OH	Database:	EDM 5000.14 Single User Db
Reference Design:	PLAN #1	Offset TVD Reference:	Reference Datum



Anticollision Report



Company:	SRC ENERGY	Local Co-ordinate Reference:	Well HARVESTERS STATE 31C-16-M
Project:	SECTION 15, T6N, R66W	TVD Reference:	KB @ 4821.00ft
Reference Site:	HARVESTERS STATE 7-15 PAD	MD Reference:	KB @ 4821.00ft
Site Error:	3.28 ft	North Reference:	True
Reference Well:	HARVESTERS STATE 31C-16-M	Survey Calculation Method:	Minimum Curvature
Well Error:	3.28 ft	Output errors are at	2.45 sigma
Reference Wellbore	OH	Database:	EDM 5000.14 Single User Db
Reference Design:	PLAN #1	Offset TVD Reference:	Reference Datum

Offset Design HARVESTERS STATE 7-15 PAD - STOCKOVER 16-1(PR_75CC) - OH - OH													Offset Site Error:	0.00 ft
Survey Program: 100-2" Cone@2.448 Sigma													Offset Well Error:	3.28 ft
Reference		Offset		Semi Major Axis			Distance							Warning
Measured Depth (ft)	Vertical Depth (ft)	Measured Depth (ft)	Vertical Depth (ft)	Reference (ft)	Offset (ft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (ft)	+E/-W (ft)	Between Centres (ft)	Between Ellipses (ft)	Minimum Separation (ft)	Separation Factor		
0.00	0.00	0.00	62.00	3.28	3.28	-114.22	-1,605.23	-3,568.45	3,913.37					
100.00	100.00	38.00	100.00	3.28	3.35	-114.22	-1,605.23	-3,568.45	3,912.88	3,906.25	6.63	590.078		
200.00	200.00	138.00	200.00	3.34	4.49	-114.22	-1,605.23	-3,568.45	3,912.88	3,905.05	7.83	499.663		
300.00	300.00	238.00	300.00	3.44	7.34	-114.22	-1,605.23	-3,568.45	3,912.88	3,902.10	10.78	362.910		
400.00	400.00	338.00	400.00	3.60	10.58	-114.22	-1,605.23	-3,568.45	3,912.88	3,898.70	14.18	275.965		
500.00	500.00	438.00	500.00	3.81	13.94	-114.22	-1,605.23	-3,568.45	3,912.88	3,895.14	17.74	220.536		
600.00	600.00	538.00	600.00	4.05	17.35	-114.22	-1,605.23	-3,568.45	3,912.88	3,891.48	21.40	182.885		
700.00	699.98	637.98	699.98	4.32	20.79	-91.35	-1,605.23	-3,568.45	3,912.92	3,887.82	25.10	155.870		
800.00	799.84	737.84	799.84	4.62	24.24	-91.42	-1,605.23	-3,568.45	3,913.05	3,884.20	28.85	135.644		
900.00	899.62	837.62	899.62	4.94	27.69	-91.52	-1,605.23	-3,568.45	3,913.21	3,880.59	32.62	119.961		
1,000.00	999.41	937.41	999.41	5.27	31.15	-91.61	-1,605.23	-3,568.45	3,913.39	3,876.98	36.42	107.458		
1,100.00	1,099.19	1,037.19	1,099.19	5.62	34.62	-91.71	-1,605.23	-3,568.45	3,913.58	3,873.35	40.23	97.270		
1,200.00	1,198.98	1,136.98	1,198.98	5.99	38.09	-91.80	-1,605.23	-3,568.45	3,913.78	3,869.72	44.07	88.817		
1,300.00	1,298.76	1,236.76	1,298.76	6.36	41.56	-91.90	-1,605.23	-3,568.45	3,914.00	3,866.09	47.91	81.695		
1,400.00	1,398.55	1,336.55	1,398.55	6.74	45.03	-91.99	-1,605.23	-3,568.45	3,914.22	3,862.46	51.76	75.616		
1,500.00	1,498.33	1,436.33	1,498.33	7.13	48.51	-92.09	-1,605.23	-3,568.45	3,914.45	3,858.83	55.63	70.369		
1,600.00	1,598.12	1,536.12	1,598.12	7.52	51.98	-92.19	-1,605.23	-3,568.45	3,914.70	3,855.20	59.50	65.796		
1,700.00	1,697.90	1,635.90	1,697.90	7.92	55.46	-92.28	-1,605.23	-3,568.45	3,914.96	3,851.58	63.37	61.776		
1,800.00	1,797.69	1,735.69	1,797.69	8.33	58.94	-92.38	-1,605.23	-3,568.45	3,915.22	3,847.97	67.25	58.215		
1,900.00	1,897.47	1,835.47	1,897.47	8.74	62.42	-92.47	-1,605.23	-3,568.45	3,915.50	3,844.36	71.14	55.039		
2,000.00	1,997.26	1,935.26	1,997.26	9.15	65.90	-92.57	-1,605.23	-3,568.45	3,915.79	3,840.76	75.03	52.190		
2,100.00	2,097.04	2,035.04	2,097.04	9.56	69.38	-92.66	-1,605.23	-3,568.45	3,916.09	3,837.17	78.92	49.620		
2,200.00	2,196.83	2,134.83	2,196.83	9.98	72.86	-92.76	-1,605.23	-3,568.45	3,916.40	3,833.58	82.82	47.289		
2,300.00	2,296.61	2,234.61	2,296.61	10.40	76.34	-92.86	-1,605.23	-3,568.45	3,916.72	3,830.01	86.72	45.167		
2,400.00	2,396.40	2,334.40	2,396.40	10.82	79.82	-92.95	-1,605.23	-3,568.45	3,917.06	3,826.44	90.62	43.227		
2,500.00	2,496.18	2,434.18	2,496.18	11.24	83.30	-93.05	-1,605.23	-3,568.45	3,917.40	3,822.88	94.52	41.446		
2,600.00	2,595.96	2,533.96	2,595.96	11.66	86.78	-93.14	-1,605.23	-3,568.45	3,917.75	3,819.33	98.42	39.805		
2,700.00	2,695.75	2,633.75	2,695.75	12.09	90.26	-93.24	-1,605.23	-3,568.45	3,918.12	3,815.79	102.33	38.290		
2,800.00	2,795.53	2,733.53	2,795.53	12.51	93.74	-93.33	-1,605.23	-3,568.45	3,918.50	3,812.26	106.24	36.885		
2,900.00	2,895.32	2,833.32	2,895.32	12.94	97.22	-93.43	-1,605.23	-3,568.45	3,918.88	3,808.74	110.14	35.580		
3,000.00	2,995.10	2,933.10	2,995.10	13.37	100.70	-93.52	-1,605.23	-3,568.45	3,919.28	3,805.23	114.05	34.364		
3,100.00	3,094.89	3,032.89	3,094.89	13.80	104.18	-93.62	-1,605.23	-3,568.45	3,919.69	3,801.73	117.96	33.228		
3,200.00	3,194.67	3,132.67	3,194.67	14.23	107.67	-93.72	-1,605.23	-3,568.45	3,920.11	3,798.24	121.88	32.165		
3,300.00	3,294.46	3,232.46	3,294.46	14.66	111.15	-93.81	-1,605.23	-3,568.45	3,920.54	3,794.76	125.79	31.168		
3,400.00	3,394.24	3,332.24	3,394.24	15.09	114.63	-93.91	-1,605.23	-3,568.45	3,920.99	3,791.28	129.70	30.231		
3,500.00	3,494.03	3,432.03	3,494.03	15.52	118.11	-94.00	-1,605.23	-3,568.45	3,921.44	3,787.82	133.61	29.349		
3,600.00	3,593.81	3,531.81	3,593.81	15.96	121.59	-94.10	-1,605.23	-3,568.45	3,921.90	3,784.37	137.53	28.517		
3,700.00	3,693.60	3,631.60	3,693.60	16.39	125.08	-94.19	-1,605.23	-3,568.45	3,922.38	3,780.93	141.44	27.731		
3,800.00	3,793.38	3,731.38	3,793.38	16.82	128.56	-94.29	-1,605.23	-3,568.45	3,922.86	3,777.50	145.36	26.987		
3,900.00	3,893.17	3,831.17	3,893.17	17.26	132.04	-94.38	-1,605.23	-3,568.45	3,923.36	3,774.08	149.28	26.283		
4,000.00	3,992.95	3,930.95	3,992.95	17.69	135.52	-94.48	-1,605.23	-3,568.45	3,923.87	3,770.67	153.19	25.614		
4,100.00	4,092.74	4,030.74	4,092.74	18.13	139.01	-94.57	-1,605.23	-3,568.45	3,924.39	3,767.28	157.11	24.979		
4,200.00	4,192.52	4,130.52	4,192.52	18.56	142.49	-94.67	-1,605.23	-3,568.45	3,924.92	3,763.89	161.03	24.374		
4,300.00	4,292.31	4,230.31	4,292.31	19.00	145.97	-94.76	-1,605.23	-3,568.45	3,925.46	3,760.51	164.95	23.798		
4,400.00	4,392.09	4,330.09	4,392.09	19.43	149.45	-94.86	-1,605.23	-3,568.45	3,926.01	3,757.14	168.86	23.249		
4,500.00	4,491.88	4,429.88	4,491.88	19.87	152.94	-94.95	-1,605.23	-3,568.45	3,926.57	3,753.79	172.78	22.725		
4,600.00	4,591.66	4,529.66	4,591.66	20.31	156.42	-95.05	-1,605.23	-3,568.45	3,927.14	3,750.44	176.70	22.225		
4,700.00	4,691.44	4,629.44	4,691.44	20.74	159.90	-95.14	-1,605.23	-3,568.45	3,927.73	3,747.11	180.62	21.746		
4,800.00	4,791.23	4,729.23	4,791.23	21.18	163.39	-95.24	-1,605.23	-3,568.45	3,928.32	3,743.78	184.54	21.287		
4,900.00	4,891.01	4,829.01	4,891.01	21.62	166.87	-95.33	-1,605.23	-3,568.45	3,928.93	3,740.47	188.46	20.847		
5,000.00	4,990.80	4,928.80	4,990.80	22.06	170.35	-95.43	-1,605.23	-3,568.45	3,929.54	3,737.16	192.38	20.426		
5,100.00	5,090.58	5,028.58	5,090.58	22.50	173.83	-95.52	-1,605.23	-3,568.45	3,930.17	3,733.87	196.30	20.021		

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



Anticollision Report



Company:	SRC ENERGY	Local Co-ordinate Reference:	Well HARVESTERS STATE 31C-16-M
Project:	SECTION 15, T6N, R66W	TVD Reference:	KB @ 4821.00ft
Reference Site:	HARVESTERS STATE 7-15 PAD	MD Reference:	KB @ 4821.00ft
Site Error:	3.28 ft	North Reference:	True
Reference Well:	HARVESTERS STATE 31C-16-M	Survey Calculation Method:	Minimum Curvature
Well Error:	3.28 ft	Output errors are at	2.45 sigma
Reference Wellbore	OH	Database:	EDM 5000.14 Single User Db
Reference Design:	PLAN #1	Offset TVD Reference:	Reference Datum

Offset Design HARVESTERS STATE 7-15 PAD - STOCKOVER 16-1(PR_75CC) - OH - OH													Offset Site Error: 0.00 ft
Survey Program: 100-2" Cone@2.448 Sigma													Offset Well Error: 3.28 ft
Reference		Offset		Semi Major Axis			Distance						Warning
Measured Depth (ft)	Vertical Depth (ft)	Measured Depth (ft)	Vertical Depth (ft)	Reference (ft)	Offset (ft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (ft)	+E/-W (ft)	Between Centres (ft)	Between Ellipses (ft)	Minimum Separation (ft)	Separation Factor	
5,200.00	5,190.37	5,128.37	5,190.37	22.93	177.32	-95.62	-1,605.23	-3,568.45	3,930.81	3,730.59	200.22	19.632	
5,300.00	5,290.15	5,228.15	5,290.15	23.37	180.80	-95.71	-1,605.23	-3,568.45	3,931.46	3,727.31	204.14	19.258	
5,400.00	5,389.94	5,327.94	5,389.94	23.81	184.28	-95.81	-1,605.23	-3,568.45	3,932.12	3,724.05	208.06	18.899	
5,500.00	5,489.72	5,427.72	5,489.72	24.25	187.77	-95.90	-1,605.23	-3,568.45	3,932.79	3,720.80	211.98	18.552	
5,600.00	5,589.51	5,527.51	5,589.51	24.69	191.25	-96.00	-1,605.23	-3,568.45	3,933.47	3,717.56	215.91	18.218	
5,700.00	5,689.29	5,627.29	5,689.29	25.13	194.73	-96.09	-1,605.23	-3,568.45	3,934.16	3,714.33	219.83	17.897	
5,800.00	5,789.08	5,727.08	5,789.08	25.56	198.21	-96.19	-1,605.23	-3,568.45	3,934.86	3,711.12	223.75	17.586	
5,900.00	5,888.86	5,826.86	5,888.86	26.00	201.70	-96.28	-1,605.23	-3,568.45	3,935.58	3,707.91	227.67	17.286	
6,000.00	5,988.65	5,926.65	5,988.65	26.44	205.18	-96.38	-1,605.23	-3,568.45	3,936.30	3,704.71	231.59	16.997	
6,100.00	6,088.43	6,026.43	6,088.43	26.88	208.66	-96.47	-1,605.23	-3,568.45	3,937.04	3,701.52	235.51	16.717	
6,200.00	6,188.22	6,126.22	6,188.22	27.32	212.15	-96.57	-1,605.23	-3,568.45	3,937.78	3,698.35	239.44	16.446	
6,300.00	6,288.00	6,226.00	6,288.00	27.76	215.63	-96.66	-1,605.23	-3,568.45	3,938.54	3,695.18	243.36	16.184	
6,400.00	6,387.79	6,325.79	6,387.79	28.20	219.11	-96.76	-1,605.23	-3,568.45	3,939.31	3,692.03	247.28	15.930	
6,500.00	6,487.57	6,425.57	6,487.57	28.64	222.60	-96.85	-1,605.23	-3,568.45	3,940.09	3,688.88	251.20	15.685	
6,600.00	6,587.35	6,525.35	6,587.35	29.08	226.08	-96.94	-1,605.23	-3,568.45	3,940.88	3,685.75	255.13	15.447	
6,700.00	6,687.02	6,625.02	6,687.02	29.52	229.56	-59.23	-1,605.23	-3,568.45	3,939.75	3,680.71	259.04	15.209	
6,800.00	6,784.98	6,722.98	6,784.98	29.96	232.98	-44.05	-1,605.23	-3,568.45	3,926.64	3,663.74	262.90	14.936	
6,900.00	6,878.81	6,816.81	6,878.81	30.41	236.25	-41.11	-1,605.23	-3,568.45	3,900.46	3,633.86	266.60	14.630	
7,000.00	6,966.21	6,904.21	6,966.21	30.86	239.30	-41.59	-1,605.23	-3,568.45	3,861.98	3,591.92	270.06	14.300	
7,100.00	7,045.03	6,983.03	7,045.03	31.35	242.05	-44.12	-1,605.23	-3,568.45	3,812.32	3,539.11	273.21	13.954	
7,200.00	7,113.32	7,051.32	7,113.32	31.90	244.44	-48.51	-1,605.23	-3,568.45	3,752.87	3,476.89	275.98	13.599	
7,300.00	7,169.40	7,107.40	7,169.40	32.57	246.40	-54.91	-1,605.23	-3,568.45	3,685.29	3,406.96	278.33	13.241	
7,400.00	7,211.89	7,149.89	7,211.89	33.38	247.88	-63.50	-1,605.23	-3,568.45	3,611.43	3,331.19	280.24	12.887	
7,500.00	7,239.75	7,177.75	7,239.75	34.35	248.85	-74.19	-1,605.23	-3,568.45	3,533.28	3,251.59	281.69	12.543	
7,600.00	7,252.28	7,209.72	7,252.28	35.47	249.97	-86.27	-1,605.23	-3,568.45	3,452.91	3,169.56	283.35	12.186	
7,700.00	7,252.75	7,209.25	7,252.75	36.73	249.95	-90.28	-1,605.23	-3,568.45	3,372.39	3,088.43	283.96	11.876	
7,800.00	7,252.38	7,209.62	7,252.38	38.16	249.96	-90.27	-1,605.23	-3,568.45	3,292.90	3,008.18	284.72	11.565	
7,900.00	7,252.02	7,209.98	7,252.02	39.74	249.98	-90.26	-1,605.23	-3,568.45	3,214.55	2,928.93	285.62	11.255	
8,000.00	7,251.65	7,189.65	7,251.65	41.47	249.27	-90.25	-1,605.23	-3,568.45	3,137.44	2,851.49	285.94	10.972	
8,100.00	7,251.29	7,189.29	7,251.29	43.31	249.25	-90.24	-1,605.23	-3,568.45	3,061.64	2,774.53	287.12	10.663	
8,200.00	7,250.92	7,188.92	7,250.92	45.26	249.24	-90.23	-1,605.23	-3,568.45	2,987.28	2,698.83	288.45	10.356	
8,300.00	7,250.55	7,188.55	7,250.55	47.30	249.23	-90.22	-1,605.23	-3,568.45	2,914.44	2,624.50	289.94	10.052	
8,400.00	7,250.19	7,188.19	7,250.19	49.42	249.22	-90.21	-1,605.23	-3,568.45	2,843.26	2,551.66	291.60	9.751	
8,500.00	7,249.82	7,187.82	7,249.82	51.62	249.20	-90.20	-1,605.23	-3,568.45	2,773.86	2,480.43	293.43	9.453	
8,600.00	7,249.45	7,187.45	7,249.45	53.88	249.19	-90.19	-1,605.23	-3,568.45	2,706.37	2,410.94	295.43	9.161	
8,700.00	7,249.09	7,187.09	7,249.09	56.19	249.18	-90.18	-1,605.23	-3,568.45	2,640.95	2,343.35	297.60	8.874	
8,800.00	7,248.72	7,186.72	7,248.72	58.55	249.17	-90.17	-1,605.23	-3,568.45	2,577.74	2,277.81	299.93	8.594	
8,900.00	7,248.36	7,186.36	7,248.36	60.96	249.15	-90.16	-1,605.23	-3,568.45	2,516.93	2,214.49	302.44	8.322	
9,000.00	7,247.99	7,185.99	7,247.99	63.40	249.14	-90.15	-1,605.23	-3,568.45	2,458.67	2,153.58	305.09	8.059	
9,100.00	7,247.62	7,185.62	7,247.62	65.87	249.13	-90.13	-1,605.23	-3,568.45	2,403.17	2,095.27	307.90	7.805	
9,200.00	7,247.26	7,185.26	7,247.26	68.38	249.11	-90.12	-1,605.23	-3,568.45	2,350.61	2,039.77	310.85	7.562	
9,300.00	7,246.89	7,184.89	7,246.89	70.91	249.10	-90.11	-1,605.23	-3,568.45	2,301.20	1,987.29	313.92	7.331	
9,400.00	7,246.53	7,184.53	7,246.53	73.47	249.09	-90.10	-1,605.23	-3,568.45	2,255.15	1,938.05	317.09	7.112	
9,500.00	7,246.16	7,184.16	7,246.16	76.05	249.08	-90.09	-1,605.23	-3,568.45	2,212.65	1,892.30	320.36	6.907	
9,600.00	7,245.79	7,183.79	7,245.79	78.65	249.06	-90.08	-1,605.23	-3,568.45	2,173.94	1,850.25	323.68	6.716	
9,700.00	7,245.43	7,183.43	7,245.43	81.27	249.05	-90.07	-1,605.23	-3,568.45	2,139.19	1,812.15	327.04	6.541	
9,800.00	7,245.06	7,183.06	7,245.06	83.90	249.04	-90.06	-1,605.23	-3,568.45	2,108.63	1,778.22	330.41	6.382	
9,900.00	7,244.69	7,182.69	7,244.69	86.55	249.02	-90.05	-1,605.23	-3,568.45	2,082.42	1,748.66	333.75	6.239	
10,000.00	7,244.33	7,182.33	7,244.33	89.21	249.01	-90.04	-1,605.23	-3,568.45	2,060.73	1,723.70	337.03	6.114	
10,100.00	7,243.96	7,181.96	7,243.96	91.88	249.00	-90.03	-1,605.23	-3,568.45	2,043.71	1,703.49	340.22	6.007	
10,200.00	7,243.60	7,181.60	7,243.60	94.56	248.99	-90.02	-1,605.23	-3,568.45	2,031.48	1,688.20	343.28	5.918	
10,300.00	7,243.23	7,181.23	7,243.23	97.26	248.97	-90.01	-1,605.23	-3,568.45	2,024.12	1,677.93	346.19	5.847	

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



Anticollision Report



Company:	SRC ENERGY	Local Co-ordinate Reference:	Well HARVESTERS STATE 31C-16-M
Project:	SECTION 15, T6N, R66W	TVD Reference:	KB @ 4821.00ft
Reference Site:	HARVESTERS STATE 7-15 PAD	MD Reference:	KB @ 4821.00ft
Site Error:	3.28 ft	North Reference:	True
Reference Well:	HARVESTERS STATE 31C-16-M	Survey Calculation Method:	Minimum Curvature
Well Error:	3.28 ft	Output errors are at	2.45 sigma
Reference Wellbore	OH	Database:	EDM 5000.14 Single User Db
Reference Design:	PLAN #1	Offset TVD Reference:	Reference Datum

Offset Design HARVESTERS STATE 7-15 PAD - STOCKOVER 16-1(PR_75CC) - OH - OH													Offset Site Error:	0.00 ft
Survey Program: 100-2" Cone@2.448 Sigma													Offset Well Error:	3.28 ft
Reference		Offset		Semi Major Axis			Distance							Warning
Measured Depth (ft)	Vertical Depth (ft)	Measured Depth (ft)	Vertical Depth (ft)	Reference (ft)	Offset (ft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (ft)	+E/-W (ft)	Between Centres (ft)	Between Ellipses (ft)	Minimum Separation (ft)	Separation Factor		
10,399.24	7,242.87	7,180.87	7,242.87	99.94	248.96	-90.00	-1,605.23	-3,568.45	2,021.69	1,672.80	348.89	5.795 CC		
10,400.00	7,242.86	7,180.86	7,242.86	99.96	248.96	-90.00	-1,605.23	-3,568.45	2,021.69	1,672.78	348.91	5.794 ES		
10,500.00	7,242.50	7,180.50	7,242.50	102.67	248.95	-89.99	-1,605.23	-3,568.45	2,024.20	1,672.78	351.41	5.760		
10,600.00	7,242.13	7,180.13	7,242.13	105.39	248.93	-89.98	-1,605.23	-3,568.45	2,031.63	1,677.94	353.69	5.744 SF		
10,700.00	7,241.76	7,179.76	7,241.76	108.12	248.92	-89.97	-1,605.23	-3,568.45	2,043.94	1,688.21	355.73	5.746		
10,800.00	7,241.40	7,179.40	7,241.40	110.85	248.91	-89.96	-1,605.23	-3,568.45	2,061.03	1,703.51	357.51	5.765		
10,900.00	7,241.03	7,179.03	7,241.03	113.59	248.90	-89.95	-1,605.23	-3,568.45	2,082.78	1,723.74	359.04	5.801		
11,000.00	7,240.67	7,178.67	7,240.67	116.34	248.88	-89.94	-1,605.23	-3,568.45	2,109.06	1,748.73	360.33	5.853		
11,100.00	7,240.30	7,178.30	7,240.30	119.09	248.87	-89.93	-1,605.23	-3,568.45	2,139.69	1,778.32	361.37	5.921		
11,200.00	7,239.93	7,177.93	7,239.93	121.85	248.86	-89.92	-1,605.23	-3,568.45	2,174.49	1,812.31	362.19	6.004		
11,300.00	7,239.57	7,177.57	7,239.57	124.61	248.85	-89.91	-1,605.23	-3,568.45	2,213.27	1,850.48	362.79	6.101		
11,400.00	7,239.20	7,177.20	7,239.20	127.38	248.83	-89.90	-1,605.23	-3,568.45	2,255.82	1,892.62	363.20	6.211		
11,500.00	7,238.84	7,176.84	7,238.84	130.15	248.82	-89.89	-1,605.23	-3,568.45	2,301.93	1,938.50	363.43	6.334		
11,600.00	7,238.47	7,176.47	7,238.47	132.92	248.81	-89.88	-1,605.23	-3,568.45	2,351.39	1,987.89	363.50	6.469		
11,700.00	7,238.10	7,176.10	7,238.10	135.70	248.79	-89.87	-1,605.23	-3,568.45	2,403.99	2,040.56	363.43	6.615		
11,800.00	7,237.74	7,175.74	7,237.74	138.48	248.78	-89.85	-1,605.23	-3,568.45	2,459.54	2,096.30	363.24	6.771		
11,900.00	7,237.37	7,175.37	7,237.37	141.26	248.77	-89.84	-1,605.23	-3,568.45	2,517.83	2,154.89	362.94	6.937		
12,000.00	7,237.00	7,175.00	7,237.00	144.05	248.76	-89.83	-1,605.23	-3,568.45	2,578.68	2,216.13	362.56	7.112		
12,100.00	7,236.64	7,174.64	7,236.64	146.84	248.74	-89.82	-1,605.23	-3,568.45	2,641.92	2,279.83	362.10	7.296		
12,200.00	7,236.27	7,174.27	7,236.27	149.64	248.73	-89.81	-1,605.23	-3,568.45	2,707.38	2,345.81	361.57	7.488		
12,300.00	7,235.91	7,173.91	7,235.91	152.43	248.72	-89.80	-1,605.23	-3,568.45	2,774.90	2,413.90	361.00	7.687		
12,400.00	7,235.54	7,173.54	7,235.54	155.23	248.70	-89.79	-1,605.23	-3,568.45	2,844.33	2,483.94	360.39	7.892		
12,500.00	7,235.17	7,173.17	7,235.17	158.03	248.69	-89.78	-1,605.23	-3,568.45	2,915.54	2,555.79	359.74	8.104		
12,600.00	7,234.81	7,172.81	7,234.81	160.83	248.68	-89.77	-1,605.23	-3,568.45	2,988.39	2,629.32	359.07	8.322		
12,700.00	7,234.44	7,172.44	7,234.44	163.64	248.67	-89.76	-1,605.23	-3,568.45	3,062.78	2,704.39	358.39	8.546		
12,800.00	7,234.07	7,172.07	7,234.07	166.44	248.65	-89.75	-1,605.23	-3,568.45	3,138.60	2,780.90	357.69	8.775		
12,900.00	7,233.71	7,171.71	7,233.71	169.25	248.64	-89.74	-1,605.23	-3,568.45	3,215.73	2,858.74	356.99	9.008		
13,000.00	7,233.34	7,171.34	7,233.34	172.06	248.63	-89.73	-1,605.23	-3,568.45	3,294.10	2,937.81	356.29	9.246		
13,100.00	7,232.98	7,170.98	7,232.98	174.88	248.62	-89.72	-1,605.23	-3,568.45	3,373.61	3,018.02	355.59	9.487		
13,200.00	7,232.61	7,170.61	7,232.61	177.69	248.60	-89.71	-1,605.23	-3,568.45	3,454.18	3,099.29	354.89	9.733		
13,300.00	7,232.24	7,170.24	7,232.24	180.50	248.59	-89.70	-1,605.23	-3,568.45	3,535.75	3,181.55	354.20	9.982		
13,400.00	7,231.88	7,169.88	7,231.88	183.32	248.58	-89.69	-1,605.23	-3,568.45	3,618.24	3,264.72	353.52	10.235		
13,500.00	7,231.51	7,169.51	7,231.51	186.14	248.56	-89.68	-1,605.23	-3,568.45	3,701.59	3,348.75	352.84	10.491		
13,600.00	7,231.15	7,169.15	7,231.15	188.96	248.55	-89.67	-1,605.23	-3,568.45	3,785.75	3,433.57	352.18	10.749		
13,700.00	7,230.78	7,168.78	7,230.78	191.78	248.54	-89.66	-1,605.23	-3,568.45	3,870.67	3,519.13	351.54	11.011		
13,800.00	7,230.41	7,168.41	7,230.41	194.60	248.53	-89.65	-1,605.23	-3,568.45	3,956.29	3,605.39	350.90	11.275		
13,900.00	7,230.05	7,168.05	7,230.05	197.42	248.51	-89.64	-1,605.23	-3,568.45	4,042.57	3,692.29	350.28	11.541		
14,000.00	7,229.68	7,167.68	7,229.68	200.25	248.50	-89.63	-1,605.23	-3,568.45	4,129.47	3,779.79	349.67	11.809		
14,100.00	7,229.31	7,167.31	7,229.31	203.07	248.49	-89.62	-1,605.23	-3,568.45	4,216.95	3,867.87	349.08	12.080		
14,200.00	7,228.95	7,166.95	7,228.95	205.90	248.47	-89.61	-1,605.23	-3,568.45	4,304.97	3,956.47	348.50	12.353		
14,300.00	7,228.58	7,166.58	7,228.58	208.73	248.46	-89.60	-1,605.23	-3,568.45	4,393.51	4,045.57	347.94	12.627		
14,400.00	7,228.22	7,166.22	7,228.22	211.55	248.45	-89.58	-1,605.23	-3,568.45	4,482.53	4,135.14	347.39	12.903		
14,500.00	7,227.85	7,165.85	7,227.85	214.38	248.44	-89.57	-1,605.23	-3,568.45	4,572.00	4,225.14	346.86	13.181		
14,600.00	7,227.48	7,165.48	7,227.48	217.21	248.42	-89.56	-1,605.23	-3,568.45	4,661.91	4,315.56	346.34	13.460		
14,700.00	7,227.12	7,165.12	7,227.12	220.04	248.41	-89.55	-1,605.23	-3,568.45	4,752.21	4,406.37	345.84	13.741		
14,800.00	7,226.75	7,164.75	7,226.75	222.88	248.40	-89.54	-1,605.23	-3,568.45	4,842.90	4,497.55	345.34	14.023		
14,900.00	7,226.38	7,164.38	7,226.38	225.71	248.39	-89.53	-1,605.23	-3,568.45	4,933.94	4,589.08	344.87	14.307		
15,000.00	7,226.02	7,164.02	7,226.02	228.54	248.37	-89.52	-1,605.23	-3,568.45	5,025.33	4,680.93	344.40	14.591		
15,005.81	7,226.00	7,164.00	7,226.00	228.71	248.37	-89.52	-1,605.23	-3,568.45	5,030.65	4,686.27	344.38	14.608		

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



Anticollision Report



Company:	SRC ENERGY	Local Co-ordinate Reference:	Well HARVESTERS STATE 31C-16-M
Project:	SECTION 15, T6N, R66W	TVD Reference:	KB @ 4821.00ft
Reference Site:	HARVESTERS STATE 7-15 PAD	MD Reference:	KB @ 4821.00ft
Site Error:	3.28 ft	North Reference:	True
Reference Well:	HARVESTERS STATE 31C-16-M	Survey Calculation Method:	Minimum Curvature
Well Error:	3.28 ft	Output errors are at	2.45 sigma
Reference Wellbore	OH	Database:	EDM 5000.14 Single User Db
Reference Design:	PLAN #1	Offset TVD Reference:	Reference Datum

Offset Design HARVESTERS STATE 7-15 PAD - ULRICH PC I 17-07D(PR_75CC) - OH - OH													Offset Site Error:	0.00 ft
Survey Program: 78-MWVD													Offset Well Error:	3.28 ft
Reference		Offset		Semi Major Axis			Distance							Warning
Measured Depth (ft)	Vertical Depth (ft)	Measured Depth (ft)	Vertical Depth (ft)	Reference (ft)	Offset (ft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (ft)	+E/-W (ft)	Between Centres (ft)	Between Ellipses (ft)	Minimum Separation (ft)	Separation Factor		
0.00	0.00	0.00	60.36	3.28	3.28	-92.46	-393.69	-9,145.36	9,154.03					
100.00	100.00	186.02	212.00	3.28	3.34	-92.46	-392.24	-9,143.79	9,152.88	9,146.26	6.62	1,382.019		
200.00	200.00	289.43	315.40	3.34	3.45	-92.45	-391.73	-9,142.47	9,151.59	9,144.80	6.79	1,348.299		
300.00	300.00	369.22	395.18	3.44	3.58	-92.45	-391.56	-9,141.57	9,150.44	9,143.42	7.02	1,303.722		
400.00	400.00	465.22	491.18	3.60	3.76	-92.45	-391.32	-9,140.60	9,149.42	9,142.06	7.36	1,242.480		
500.00	500.00	547.75	573.71	3.81	3.95	-92.45	-391.10	-9,139.84	9,148.50	9,140.75	7.75	1,179.725		
600.00	600.00	623.95	649.91	4.05	4.15	-92.45	-391.23	-9,139.31	9,147.82	9,139.63	8.19	1,117.147		
700.00	699.98	738.93	764.89	4.32	4.47	-69.59	-391.38	-9,138.74	9,146.74	9,137.95	8.78	1,041.524		
800.00	799.84	849.91	875.86	4.62	4.81	-69.66	-391.22	-9,137.89	9,144.15	9,134.73	9.42	970.597		
900.00	899.62	930.85	956.80	4.94	5.08	-69.69	-391.10	-9,137.30	9,141.13	9,131.13	10.00	913.927		
1,000.00	999.41	984.00	1,009.95	5.27	5.26	-69.71	-391.16	-9,137.00	9,138.38	9,127.87	10.52	868.995		
1,100.00	1,099.19	984.00	1,009.95	5.62	5.26	-69.71	-391.16	-9,137.00	9,136.54	9,125.67	10.87	840.817		
1,200.00	1,198.98	1,049.93	1,075.87	5.99	5.47	-69.74	-391.16	-9,137.29	9,134.95	9,123.50	11.45	798.093		
1,300.00	1,298.76	1,112.00	1,137.93	6.36	5.68	-69.76	-390.93	-9,138.67	9,134.63	9,122.61	12.03	759.476		
1,346.48	1,345.14	1,112.00	1,137.93	6.53	5.68	-69.76	-390.93	-9,138.67	9,134.52	9,122.31	12.20	748.514		
1,400.00	1,398.55	1,112.00	1,137.93	6.74	5.68	-69.76	-390.93	-9,138.67	9,134.67	9,122.26	12.41	736.186		
1,500.00	1,498.33	1,112.00	1,137.93	7.13	5.68	-69.76	-390.93	-9,138.67	9,135.81	9,123.01	12.80	713.997		
1,600.00	1,598.12	1,112.00	1,137.93	7.52	5.68	-69.76	-390.93	-9,138.67	9,138.03	9,124.85	13.19	692.919		
1,700.00	1,697.90	1,182.00	1,207.86	7.92	5.92	-69.79	-390.60	-9,141.64	9,140.28	9,126.46	13.82	661.464		
1,800.00	1,797.69	1,241.00	1,266.74	8.33	6.12	-69.81	-390.41	-9,145.39	9,144.05	9,129.63	14.42	634.135		
1,900.00	1,897.47	1,241.00	1,266.74	8.74	6.12	-69.81	-390.41	-9,145.39	9,148.15	9,133.32	14.82	617.194		
2,000.00	1,997.26	1,241.00	1,266.74	9.15	6.12	-69.81	-390.41	-9,145.39	9,153.33	9,138.11	15.23	601.151		
2,100.00	2,097.04	1,241.00	1,266.74	9.56	6.12	-69.81	-390.41	-9,145.39	9,159.61	9,143.98	15.63	585.965		
2,200.00	2,196.83	1,302.75	1,328.27	9.98	6.34	-69.83	-390.26	-9,150.58	9,166.09	9,149.84	16.26	563.819		
2,300.00	2,296.61	1,369.00	1,394.14	10.40	6.58	-69.85	-390.09	-9,157.65	9,174.17	9,157.26	16.90	542.749		
2,400.00	2,396.40	1,369.00	1,394.14	10.82	6.58	-69.85	-390.09	-9,157.65	9,182.31	9,165.00	17.31	530.463		
2,500.00	2,496.18	1,369.00	1,394.14	11.24	6.58	-69.85	-390.09	-9,157.65	9,191.53	9,173.82	17.72	518.820		
2,600.00	2,595.96	1,369.00	1,394.14	11.66	6.58	-69.85	-390.09	-9,157.65	9,201.83	9,183.71	18.12	507.785		
2,700.00	2,695.75	1,424.46	1,449.15	12.09	6.79	-69.87	-390.12	-9,164.68	9,212.56	9,193.83	18.73	491.774		
2,800.00	2,795.53	1,449.92	1,474.37	12.51	6.88	-69.88	-390.24	-9,168.23	9,224.27	9,205.04	19.23	479.592		
2,900.00	2,895.32	1,498.00	1,521.90	12.94	7.07	-69.90	-390.65	-9,175.46	9,236.89	9,217.06	19.82	465.989		
3,000.00	2,995.10	1,498.00	1,521.90	13.37	7.07	-69.90	-390.65	-9,175.46	9,250.08	9,229.86	20.22	457.412		
3,100.00	3,094.89	1,498.00	1,521.90	13.80	7.07	-69.90	-390.65	-9,175.46	9,264.33	9,243.71	20.62	449.268		
3,200.00	3,194.67	1,548.03	1,571.22	14.23	7.28	-69.92	-391.25	-9,183.77	9,279.08	9,257.86	21.22	437.352		
3,300.00	3,294.46	1,571.69	1,594.50	14.66	7.37	-69.93	-391.56	-9,188.00	9,294.78	9,273.08	21.71	428.206		
3,400.00	3,394.24	1,626.00	1,647.80	15.09	7.60	-69.95	-392.33	-9,198.40	9,311.49	9,289.17	22.32	417.169		
3,500.00	3,494.03	1,626.00	1,647.80	15.52	7.60	-69.95	-392.33	-9,198.40	9,328.59	9,305.88	22.71	410.758		
3,600.00	3,593.81	1,626.00	1,647.80	15.96	7.60	-69.95	-392.33	-9,198.40	9,346.72	9,323.63	23.10	404.661		
3,700.00	3,693.60	1,626.00	1,647.80	16.39	7.60	-69.95	-392.33	-9,198.40	9,365.89	9,342.41	23.48	398.864		
3,800.00	3,793.38	1,685.46	1,705.91	16.82	7.88	-69.97	-393.33	-9,210.95	9,385.25	9,361.13	24.12	389.179		
3,900.00	3,893.17	1,754.00	1,772.54	17.26	8.19	-70.00	-394.75	-9,226.97	9,406.24	9,381.45	24.79	379.409		
4,000.00	3,992.95	1,754.00	1,772.54	17.69	8.19	-70.00	-394.75	-9,226.97	9,427.14	9,401.98	25.17	374.566		
4,100.00	4,092.74	1,754.00	1,772.54	18.13	8.19	-70.00	-394.75	-9,226.97	9,449.06	9,423.52	25.54	369.959		
4,200.00	4,192.52	1,754.00	1,772.54	18.56	8.19	-70.00	-394.75	-9,226.97	9,471.98	9,446.07	25.91	365.576		
4,300.00	4,292.31	1,806.56	1,823.38	19.00	8.46	-70.03	-395.86	-9,240.25	9,495.39	9,468.88	26.51	358.130		
4,400.00	4,392.09	1,834.64	1,850.47	19.43	8.61	-70.04	-396.37	-9,247.63	9,519.62	9,492.62	27.01	352.507		
4,500.00	4,491.88	1,883.00	1,896.99	19.87	8.86	-70.06	-397.15	-9,260.81	9,544.63	9,517.04	27.59	345.949		
4,600.00	4,591.66	1,883.00	1,896.99	20.31	8.86	-70.06	-397.15	-9,260.81	9,570.19	9,542.25	27.95	342.450		
4,700.00	4,691.44	1,922.59	1,934.96	20.74	9.09	-70.07	-397.74	-9,272.01	9,596.48	9,567.99	28.49	336.855		
4,800.00	4,791.23	1,953.63	1,964.66	21.18	9.26	-70.08	-398.22	-9,281.01	9,623.44	9,594.45	28.99	331.976		
4,900.00	4,891.01	2,011.00	2,019.39	21.62	9.60	-70.10	-399.16	-9,298.18	9,651.15	9,621.54	29.62	325.878		
5,000.00	4,990.80	2,011.00	2,019.39	22.06	9.60	-70.10	-399.16	-9,298.18	9,679.30	9,649.34	29.96	323.081		

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



Anticollision Report



Company:	SRC ENERGY	Local Co-ordinate Reference:	Well HARVESTERS STATE 31C-16-M
Project:	SECTION 15, T6N, R66W	TVD Reference:	KB @ 4821.00ft
Reference Site:	HARVESTERS STATE 7-15 PAD	MD Reference:	KB @ 4821.00ft
Site Error:	3.28 ft	North Reference:	True
Reference Well:	HARVESTERS STATE 31C-16-M	Survey Calculation Method:	Minimum Curvature
Well Error:	3.28 ft	Output errors are at	2.45 sigma
Reference Wellbore	OH	Database:	EDM 5000.14 Single User Db
Reference Design:	PLAN #1	Offset TVD Reference:	Reference Datum

Offset Design HARVESTERS STATE 7-15 PAD - ULRICH PC I 17-07D(PR_75CC) - OH - OH													Offset Site Error:	0.00 ft
Survey Program: 78-MWD													Offset Well Error:	3.28 ft
Reference		Offset		Semi Major Axis			Distance							Warning
Measured Depth (ft)	Vertical Depth (ft)	Measured Depth (ft)	Vertical Depth (ft)	Reference (ft)	Offset (ft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (ft)	+E/-W (ft)	Between Centres (ft)	Between Ellipses (ft)	Minimum Separation (ft)	Separation Factor		
5,100.00	5,090.58	2,061.07	2,067.02	22.50	9.91	-70.12	-400.01	-9,313.61	9,708.11	9,677.56	30.55	317.763		
5,200.00	5,190.37	2,104.80	2,108.54	22.93	10.19	-70.14	-400.74	-9,327.32	9,737.44	9,706.33	31.11	312.988		
5,300.00	5,290.15	2,300.00	2,370.84	23.37	32.19	-70.23	-404.63	-9,412.06	9,766.11	9,719.49	46.63	209.450		
5,400.00	5,389.94	2,459.78	2,446.54	23.81	12.56	-70.26	-405.88	-9,435.63	9,793.84	9,760.19	33.65	291.053		
5,500.00	5,489.72	2,525.00	2,508.67	24.25	13.01	-70.28	-406.76	-9,455.43	9,822.11	9,787.77	34.34	286.039		
5,600.00	5,589.51	2,560.47	2,542.41	24.69	13.27	-70.29	-407.13	-9,466.37	9,850.76	9,815.89	34.87	282.519		
5,700.00	5,689.29	2,619.24	2,598.25	25.13	13.69	-70.31	-407.52	-9,484.67	9,879.82	9,844.29	35.52	278.122		
5,800.00	5,789.08	2,653.00	2,630.30	25.56	13.94	-70.32	-407.60	-9,495.29	9,909.28	9,873.24	36.04	274.951		
5,900.00	5,888.86	2,698.31	2,673.23	26.00	14.28	-70.33	-407.63	-9,509.79	9,939.26	9,902.64	36.62	271.401		
6,000.00	5,988.65	2,729.96	2,703.13	26.44	14.52	-70.34	-407.64	-9,520.15	9,969.88	9,932.76	37.13	268.548		
6,100.00	6,088.43	3,001.13	2,960.08	26.88	16.58	-70.42	-410.30	-9,606.71	9,999.36	9,960.36	39.00	256.424		
7,200.00	7,113.32	6,955.92	6,807.89	31.90	39.45	-11.99	-431.78	-10,304.16	9,952.96	9,890.88	62.08	160.327		
7,300.00	7,169.40	7,000.88	6,852.83	32.57	39.61	-13.42	-432.85	-10,305.49	9,872.79	9,810.28	62.50	157.956		
7,400.00	7,211.89	7,047.36	6,899.27	33.38	39.77	-16.60	-434.01	-10,306.90	9,784.44	9,721.57	62.87	155.631		
7,500.00	7,239.75	7,087.50	6,939.39	34.35	39.92	-24.23	-434.86	-10,308.09	9,689.99	9,626.85	63.15	153.445		
7,600.00	7,252.28	7,107.65	6,959.53	35.47	39.99	-50.98	-435.23	-10,308.68	9,591.82	9,528.52	63.30	151.524		
7,700.00	7,252.75	7,112.05	6,963.92	36.73	40.01	-74.06	-435.30	-10,308.81	9,492.33	9,428.97	63.36	149.808		
7,800.00	7,252.38	7,115.34	6,967.21	38.16	40.02	-74.25	-435.36	-10,308.91	9,392.81	9,329.39	63.42	148.102		
7,900.00	7,252.02	7,118.62	6,970.49	39.74	40.03	-74.45	-435.41	-10,309.00	9,293.30	9,229.82	63.48	146.390		
8,000.00	7,251.65	7,121.89	6,973.76	41.47	40.04	-74.65	-435.46	-10,309.10	9,193.80	9,130.25	63.55	144.671		
8,100.00	7,251.29	7,125.15	6,977.01	43.31	40.06	-74.84	-435.51	-10,309.19	9,094.31	9,030.69	63.62	142.945		
8,200.00	7,250.92	7,128.39	6,980.25	45.26	40.07	-75.04	-435.56	-10,309.28	8,994.83	8,931.14	63.70	141.212		
8,300.00	7,250.55	7,131.62	6,983.48	47.30	40.08	-75.23	-435.61	-10,309.38	8,895.37	8,831.59	63.78	139.471		
8,400.00	7,250.19	7,134.84	6,986.69	49.42	40.09	-75.43	-435.66	-10,309.47	8,795.91	8,732.04	63.87	137.724		
8,500.00	7,249.82	7,138.04	6,989.90	51.62	40.10	-75.62	-435.70	-10,309.56	8,696.46	8,632.50	63.96	135.970		
8,600.00	7,249.45	7,141.24	6,993.09	53.88	40.11	-75.82	-435.75	-10,309.65	8,597.03	8,532.97	64.06	134.209		
8,700.00	7,249.09	7,144.42	6,996.27	56.19	40.13	-76.01	-435.79	-10,309.74	8,497.61	8,433.45	64.16	132.441		
8,800.00	7,248.72	7,147.94	6,999.79	58.55	40.14	-76.22	-435.84	-10,309.84	8,398.20	8,333.93	64.27	130.664		
8,900.00	7,248.36	7,152.99	7,004.83	60.96	40.16	-76.53	-435.90	-10,309.99	8,298.80	8,234.41	64.40	128.869		
9,000.00	7,247.99	7,157.91	7,009.76	63.40	40.17	-76.83	-435.96	-10,310.12	8,199.42	8,134.89	64.53	127.069		
9,100.00	7,247.62	7,162.72	7,014.57	65.87	40.19	-77.13	-436.03	-10,310.26	8,100.05	8,035.39	64.66	125.263		
9,200.00	7,247.26	7,167.42	7,019.27	68.38	40.21	-77.41	-436.08	-10,310.39	8,000.70	7,935.89	64.81	123.450		
9,300.00	7,246.89	7,172.02	7,023.86	70.91	40.22	-77.70	-436.14	-10,310.51	7,901.36	7,836.40	64.96	121.632		
9,400.00	7,246.53	7,176.51	7,028.35	73.47	40.24	-77.97	-436.20	-10,310.63	7,802.03	7,736.91	65.12	119.808		
9,500.00	7,246.16	7,180.91	7,032.74	76.05	40.26	-78.24	-436.25	-10,310.75	7,702.73	7,637.44	65.29	117.978		
9,600.00	7,245.79	7,185.21	7,037.04	78.65	40.27	-78.51	-436.30	-10,310.86	7,603.43	7,537.97	65.47	116.143		
9,700.00	7,245.43	7,189.41	7,041.25	81.27	40.29	-78.77	-436.35	-10,310.97	7,504.16	7,438.51	65.65	114.301		
9,800.00	7,245.06	7,193.53	7,045.36	83.90	40.30	-79.03	-436.40	-10,311.08	7,404.91	7,339.06	65.85	112.453		
9,900.00	7,244.69	7,197.56	7,049.39	86.55	40.32	-79.28	-436.44	-10,311.18	7,305.67	7,239.61	66.06	110.599		
10,000.00	7,244.33	7,201.51	7,053.33	89.21	40.33	-79.52	-436.49	-10,311.28	7,206.45	7,140.18	66.27	108.739		
10,100.00	7,243.96	7,205.37	7,057.20	91.88	40.34	-79.76	-436.53	-10,311.38	7,107.26	7,040.76	66.50	106.873		
10,200.00	7,243.60	7,209.16	7,060.98	94.56	40.36	-80.00	-436.57	-10,311.48	7,008.08	6,941.34	66.74	105.002		
10,300.00	7,243.23	7,212.87	7,064.69	97.26	40.37	-80.23	-436.61	-10,311.57	6,908.93	6,841.94	67.00	103.125		
10,400.00	7,242.86	7,216.50	7,068.32	99.96	40.38	-80.46	-436.65	-10,311.66	6,809.81	6,742.54	67.26	101.242		
10,500.00	7,242.50	7,220.06	7,071.88	102.67	40.40	-80.68	-436.69	-10,311.75	6,710.70	6,643.16	67.54	99.354		
10,600.00	7,242.13	7,223.56	7,075.38	105.39	40.41	-80.90	-436.72	-10,311.83	6,611.63	6,543.79	67.84	97.461		
10,700.00	7,241.76	7,226.98	7,078.80	108.12	40.42	-81.12	-436.76	-10,311.91	6,512.58	6,444.43	68.15	95.563		
10,800.00	7,241.40	7,230.34	7,082.16	110.85	40.43	-81.33	-436.79	-10,311.99	6,413.56	6,345.08	68.48	93.659		
10,900.00	7,241.03	7,233.64	7,085.45	113.59	40.45	-81.53	-436.83	-10,312.07	6,314.56	6,245.74	68.82	91.752		
11,000.00	7,240.67	7,236.87	7,088.68	116.34	40.46	-81.74	-436.86	-10,312.15	6,215.60	6,146.42	69.19	89.840		
11,100.00	7,240.30	7,240.04	7,091.85	119.09	40.47	-81.94	-436.89	-10,312.22	6,116.68	6,047.11	69.57	87.923		
11,200.00	7,239.93	7,243.15	7,094.97	121.85	40.48	-82.13	-436.92	-10,312.29	6,017.78	5,947.81	69.97	86.004		

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



Anticollision Report



Company:	SRC ENERGY	Local Co-ordinate Reference:	Well HARVESTERS STATE 31C-16-M
Project:	SECTION 15, T6N, R66W	TVD Reference:	KB @ 4821.00ft
Reference Site:	HARVESTERS STATE 7-15 PAD	MD Reference:	KB @ 4821.00ft
Site Error:	3.28 ft	North Reference:	True
Reference Well:	HARVESTERS STATE 31C-16-M	Survey Calculation Method:	Minimum Curvature
Well Error:	3.28 ft	Output errors are at	2.45 sigma
Reference Wellbore	OH	Database:	EDM 5000.14 Single User Db
Reference Design:	PLAN #1	Offset TVD Reference:	Reference Datum

Offset Design HARVESTERS STATE 7-15 PAD - ULRICH PC I 17-07D(PR_75CC) - OH - OH													Offset Site Error:	0.00 ft
Survey Program: 78-MWD													Offset Well Error:	3.28 ft
Reference		Offset		Semi Major Axis			Distance							Warning
Measured Depth (ft)	Vertical Depth (ft)	Measured Depth (ft)	Vertical Depth (ft)	Reference (ft)	Offset (ft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (ft)	+E/-W (ft)	Between Centres (ft)	Between Ellipses (ft)	Minimum Separation (ft)	Separation Factor		
11,300.00	7,239.57	7,246.21	7,098.02	124.61	40.49	-82.33	-436.95	-10,312.36	5,918.93	5,848.53	70.40	84.080		
11,400.00	7,239.20	7,249.21	7,101.02	127.38	40.50	-82.52	-436.98	-10,312.43	5,820.11	5,749.26	70.84	82.154		
11,500.00	7,238.84	7,252.16	7,103.97	130.15	40.51	-82.70	-437.01	-10,312.49	5,721.33	5,650.01	71.32	80.226		
11,600.00	7,238.47	7,255.05	7,106.86	132.92	40.52	-82.89	-437.03	-10,312.56	5,622.59	5,550.78	71.81	78.295		
11,700.00	7,238.10	7,257.89	7,109.70	135.70	40.53	-83.07	-437.06	-10,312.62	5,523.90	5,451.56	72.34	76.363		
11,800.00	7,237.74	7,260.69	7,112.49	138.48	40.54	-83.24	-437.09	-10,312.68	5,425.26	5,352.37	72.89	74.430		
11,900.00	7,237.37	7,263.43	7,115.24	141.26	40.55	-83.42	-437.11	-10,312.74	5,326.66	5,253.19	73.47	72.497		
12,000.00	7,237.00	7,266.13	7,117.93	144.05	40.56	-83.59	-437.13	-10,312.80	5,228.12	5,154.03	74.09	70.564		
12,100.00	7,236.64	7,268.78	7,120.58	146.84	40.57	-83.76	-437.16	-10,312.86	5,129.63	5,054.89	74.74	68.632		
12,200.00	7,236.27	7,271.38	7,123.19	149.64	40.58	-83.92	-437.18	-10,312.92	5,031.20	4,955.77	75.43	66.702		
12,300.00	7,235.91	7,273.94	7,125.75	152.43	40.59	-84.09	-437.20	-10,312.97	4,932.84	4,856.68	76.15	64.775		
12,400.00	7,235.54	7,276.46	7,128.26	155.23	40.60	-84.25	-437.22	-10,313.02	4,834.54	4,757.62	76.92	62.851		
12,500.00	7,235.17	7,278.94	7,130.74	158.03	40.61	-84.40	-437.24	-10,313.07	4,736.31	4,658.57	77.73	60.932		
12,600.00	7,234.81	7,281.38	7,133.18	160.83	40.62	-84.56	-437.26	-10,313.13	4,638.15	4,559.56	78.59	59.018		
12,700.00	7,234.44	7,283.77	7,135.57	163.64	40.63	-84.71	-437.28	-10,313.17	4,540.08	4,460.58	79.50	57.110		
12,800.00	7,234.07	7,286.13	7,137.93	166.44	40.63	-84.86	-437.30	-10,313.22	4,442.08	4,361.63	80.46	55.210		
12,900.00	7,233.71	7,288.45	7,140.25	169.25	40.64	-85.01	-437.32	-10,313.27	4,344.18	4,262.71	81.48	53.319		
13,000.00	7,233.34	7,290.73	7,142.53	172.06	40.65	-85.16	-437.34	-10,313.32	4,246.38	4,163.83	82.56	51.437		
13,100.00	7,232.98	7,292.98	7,144.78	174.88	40.66	-85.30	-437.36	-10,313.36	4,148.68	4,064.98	83.70	49.566		
13,200.00	7,232.61	7,295.19	7,146.99	177.69	40.67	-85.44	-437.38	-10,313.41	4,051.09	3,966.18	84.91	47.708		
13,300.00	7,232.24	7,297.37	7,149.17	180.50	40.67	-85.58	-437.39	-10,313.45	3,953.63	3,867.42	86.20	45.864		
13,400.00	7,231.88	7,299.52	7,151.31	183.32	40.68	-85.72	-437.41	-10,313.49	3,856.29	3,768.71	87.57	44.035		
13,500.00	7,231.51	7,301.63	7,153.42	186.14	40.69	-85.85	-437.43	-10,313.53	3,759.09	3,670.06	89.03	42.223		
13,600.00	7,231.15	7,302.80	7,154.59	188.96	40.69	-85.93	-437.45	-10,313.56	3,662.04	3,571.46	90.58	40.429		
13,700.00	7,230.78	7,304.78	7,156.58	191.78	40.70	-86.05	-437.46	-10,313.59	3,565.15	3,472.92	92.23	38.655		
13,800.00	7,230.41	7,306.74	7,158.53	194.60	40.71	-86.18	-437.48	-10,313.63	3,468.44	3,374.45	93.99	36.902		
13,900.00	7,230.05	7,308.67	7,160.46	197.42	40.71	-86.30	-437.49	-10,313.67	3,371.92	3,276.05	95.87	35.172		
14,000.00	7,229.68	7,310.57	7,162.36	200.25	40.72	-86.42	-437.51	-10,313.71	3,275.60	3,177.73	97.87	33.467		
14,100.00	7,229.31	7,312.44	7,164.23	203.07	40.73	-86.54	-437.53	-10,313.74	3,179.51	3,079.49	100.02	31.789		
14,200.00	7,228.95	7,314.28	7,166.08	205.90	40.73	-86.66	-437.54	-10,313.78	3,083.68	2,981.36	102.32	30.139		
14,300.00	7,228.58	7,316.10	7,167.90	208.73	40.74	-86.78	-437.56	-10,313.81	2,988.11	2,883.33	104.78	28.519		
14,400.00	7,228.22	7,317.90	7,169.69	211.55	40.74	-86.89	-437.57	-10,313.84	2,892.84	2,785.42	107.42	26.931		
14,500.00	7,227.85	7,319.67	7,171.46	214.38	40.75	-87.01	-437.59	-10,313.88	2,797.90	2,687.65	110.25	25.377		
14,600.00	7,227.48	7,321.41	7,173.20	217.21	40.76	-87.12	-437.60	-10,313.91	2,703.33	2,590.02	113.31	23.859		
14,700.00	7,227.12	7,323.13	7,174.93	220.04	40.76	-87.23	-437.62	-10,313.94	2,609.15	2,492.56	116.59	22.378		
14,800.00	7,226.75	7,324.83	7,176.62	222.88	40.77	-87.34	-437.63	-10,313.97	2,515.43	2,395.29	120.14	20.937		
14,900.00	7,226.38	7,326.51	7,178.30	225.71	40.78	-87.44	-437.64	-10,314.00	2,422.21	2,298.23	123.98	19.538		
15,000.00	7,226.02	7,328.16	7,179.95	228.54	40.78	-87.55	-437.66	-10,314.03	2,329.55	2,201.42	128.13	18.182		
15,005.81	7,226.00	7,328.25	7,180.04	228.71	40.78	-87.56	-437.66	-10,314.03	2,324.18	2,195.81	128.38	18.104	CC, ES, SF	



Anticollision Report



Company:	SRC ENERGY	Local Co-ordinate Reference:	Well HARVESTERS STATE 31C-16-M
Project:	SECTION 15, T6N, R66W	TVD Reference:	KB @ 4821.00ft
Reference Site:	HARVESTERS STATE 7-15 PAD	MD Reference:	KB @ 4821.00ft
Site Error:	3.28 ft	North Reference:	True
Reference Well:	HARVESTERS STATE 31C-16-M	Survey Calculation Method:	Minimum Curvature
Well Error:	3.28 ft	Output errors are at	2.45 sigma
Reference Wellbore	OH	Database:	EDM 5000.14 Single User Db
Reference Design:	PLAN #1	Offset TVD Reference:	Reference Datum

Offset Design HARVESTERS STATE 7-15 PAD - ULRICH PC I 17-08(PR_75CC) - OH - OH												Offset Site Error:	0.00 ft
Survey Program: 100-2" Cone@2.448 Sigma												Offset Well Error:	3.28 ft
Reference		Offset		Semi Major Axis			Distance						Warning
Measured Depth (ft)	Vertical Depth (ft)	Measured Depth (ft)	Vertical Depth (ft)	Reference (ft)	Offset (ft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (ft)	+E/-W (ft)	Between Centres (ft)	Between Ellipses (ft)	Minimum Separation (ft)	Separation Factor	
0.00	0.00	0.00	39.00	3.28	3.28	-92.12	-339.29	-9,148.34	9,154.71				
100.00	100.00	61.00	100.00	3.28	3.45	-92.12	-339.29	-9,148.34	9,154.63	9,147.89	6.73	1,359.622	
200.00	200.00	161.00	200.00	3.34	5.08	-92.12	-339.29	-9,148.34	9,154.63	9,146.21	8.41	1,088.042	
300.00	300.00	261.00	300.00	3.44	8.06	-92.12	-339.29	-9,148.34	9,154.63	9,143.12	11.51	795.488	
400.00	400.00	361.00	400.00	3.60	11.34	-92.12	-339.29	-9,148.34	9,154.63	9,139.68	14.94	612.555	
500.00	500.00	461.00	500.00	3.81	14.72	-92.12	-339.29	-9,148.34	9,154.63	9,136.10	18.52	494.199	
600.00	600.00	561.00	600.00	4.05	18.14	-92.12	-339.29	-9,148.34	9,154.63	9,132.44	22.18	412.662	
700.00	699.98	660.98	699.98	4.32	21.58	-69.25	-339.29	-9,148.34	9,154.01	9,128.11	25.90	353.478	
800.00	799.84	760.84	799.84	4.62	25.03	-69.31	-339.29	-9,148.34	9,152.16	9,122.52	29.64	308.738	
900.00	899.62	860.62	899.62	4.94	28.49	-69.34	-339.29	-9,148.34	9,149.84	9,116.43	33.42	273.804	
1,000.00	999.41	960.41	999.41	5.27	31.95	-69.38	-339.29	-9,148.34	9,147.53	9,110.31	37.21	245.802	
1,100.00	1,099.19	1,060.19	1,099.19	5.62	35.42	-69.42	-339.29	-9,148.34	9,145.22	9,104.19	41.03	222.884	
1,200.00	1,198.98	1,159.98	1,198.98	5.99	38.89	-69.46	-339.29	-9,148.34	9,142.91	9,098.05	44.86	203.797	
1,300.00	1,298.76	1,259.76	1,298.76	6.36	42.36	-69.50	-339.29	-9,148.34	9,140.61	9,091.90	48.71	187.667	
1,400.00	1,398.55	1,359.55	1,398.55	6.74	45.83	-69.54	-339.29	-9,148.34	9,138.31	9,085.75	52.56	173.863	
1,500.00	1,498.33	1,459.33	1,498.33	7.13	49.31	-69.58	-339.29	-9,148.34	9,136.01	9,079.59	56.42	161.920	
1,600.00	1,598.12	1,559.12	1,598.12	7.52	52.79	-69.61	-339.29	-9,148.34	9,133.72	9,073.43	60.29	151.490	
1,700.00	1,697.90	1,658.90	1,697.90	7.92	56.26	-69.65	-339.29	-9,148.34	9,131.44	9,067.27	64.17	142.305	
1,800.00	1,797.69	1,758.69	1,797.69	8.33	59.74	-69.69	-339.29	-9,148.34	9,129.15	9,061.10	68.05	134.156	
1,900.00	1,897.47	1,858.47	1,897.47	8.74	63.22	-69.73	-339.29	-9,148.34	9,126.87	9,054.94	71.93	126.879	
2,000.00	1,997.26	1,958.26	1,997.26	9.15	66.70	-69.77	-339.29	-9,148.34	9,124.60	9,048.78	75.82	120.342	
2,100.00	2,097.04	2,058.04	2,097.04	9.56	70.18	-69.81	-339.29	-9,148.34	9,122.33	9,042.62	79.71	114.438	
2,200.00	2,196.83	2,157.83	2,196.83	9.98	73.66	-69.85	-339.29	-9,148.34	9,120.06	9,036.46	83.61	109.080	
2,300.00	2,296.61	2,257.61	2,296.61	10.40	77.14	-69.88	-339.29	-9,148.34	9,117.80	9,030.30	87.51	104.196	
2,400.00	2,396.40	2,357.40	2,396.40	10.82	80.62	-69.92	-339.29	-9,148.34	9,115.55	9,024.14	91.41	99.726	
2,500.00	2,496.18	2,457.18	2,496.18	11.24	84.10	-69.96	-339.29	-9,148.34	9,113.29	9,017.98	95.31	95.620	
2,600.00	2,595.96	2,556.96	2,595.96	11.66	87.58	-70.00	-339.29	-9,148.34	9,111.04	9,011.83	99.21	91.835	
2,700.00	2,695.75	2,656.75	2,695.75	12.09	91.06	-70.04	-339.29	-9,148.34	9,108.80	9,005.68	103.12	88.335	
2,800.00	2,795.53	2,756.53	2,795.53	12.51	94.54	-70.08	-339.29	-9,148.34	9,106.56	8,999.53	107.02	85.090	
2,900.00	2,895.32	2,856.32	2,895.32	12.94	98.02	-70.12	-339.29	-9,148.34	9,104.32	8,993.39	110.93	82.073	
3,000.00	2,995.10	2,956.10	2,995.10	13.37	101.51	-70.15	-339.29	-9,148.34	9,102.09	8,987.25	114.84	79.260	
3,100.00	3,094.89	3,055.89	3,094.89	13.80	104.99	-70.19	-339.29	-9,148.34	9,099.86	8,981.11	118.75	76.631	
3,200.00	3,194.67	3,155.67	3,194.67	14.23	108.47	-70.23	-339.29	-9,148.34	9,097.63	8,974.98	122.66	74.170	
3,300.00	3,294.46	3,255.46	3,294.46	14.66	111.95	-70.27	-339.29	-9,148.34	9,095.41	8,968.84	126.57	71.860	
3,400.00	3,394.24	3,355.24	3,394.24	15.09	115.43	-70.31	-339.29	-9,148.34	9,093.20	8,962.72	130.48	69.689	
3,500.00	3,494.03	3,455.03	3,494.03	15.52	118.91	-70.35	-339.29	-9,148.34	9,090.99	8,956.59	134.40	67.643	
3,600.00	3,593.81	3,554.81	3,593.81	15.96	122.40	-70.39	-339.29	-9,148.34	9,088.78	8,950.47	138.31	65.713	
3,700.00	3,693.60	3,654.60	3,693.60	16.39	125.88	-70.43	-339.29	-9,148.34	9,086.58	8,944.35	142.22	63.889	
3,800.00	3,793.38	3,754.38	3,793.38	16.82	129.36	-70.47	-339.29	-9,148.34	9,084.38	8,938.24	146.14	62.163	
3,900.00	3,893.17	3,854.17	3,893.17	17.26	132.84	-70.50	-339.29	-9,148.34	9,082.18	8,932.13	150.05	60.526	
4,000.00	3,992.95	3,953.95	3,992.95	17.69	136.33	-70.54	-339.29	-9,148.34	9,079.99	8,926.02	153.97	58.972	
4,100.00	4,092.74	4,053.74	4,092.74	18.13	139.81	-70.58	-339.29	-9,148.34	9,077.81	8,919.92	157.89	57.496	
4,200.00	4,192.52	4,153.52	4,192.52	18.56	143.29	-70.62	-339.29	-9,148.34	9,075.62	8,913.82	161.80	56.091	
4,300.00	4,292.31	4,253.31	4,292.31	19.00	146.77	-70.66	-339.29	-9,148.34	9,073.44	8,907.72	165.72	54.752	
4,400.00	4,392.09	4,353.09	4,392.09	19.43	150.26	-70.70	-339.29	-9,148.34	9,071.27	8,901.63	169.64	53.474	
4,500.00	4,491.88	4,452.88	4,491.88	19.87	153.74	-70.74	-339.29	-9,148.34	9,069.10	8,895.55	173.56	52.255	
4,600.00	4,591.66	4,552.66	4,591.66	20.31	157.22	-70.78	-339.29	-9,148.34	9,066.94	8,889.46	177.47	51.089	
4,700.00	4,691.44	4,652.44	4,691.44	20.74	160.71	-70.82	-339.29	-9,148.34	9,064.77	8,883.38	181.39	49.973	
4,800.00	4,791.23	4,752.23	4,791.23	21.18	164.19	-70.86	-339.29	-9,148.34	9,062.62	8,877.31	185.31	48.905	
4,900.00	4,891.01	4,852.01	4,891.01	21.62	167.67	-70.89	-339.29	-9,148.34	9,060.47	8,871.24	189.23	47.881	
5,000.00	4,990.80	4,951.80	4,990.80	22.06	171.15	-70.93	-339.29	-9,148.34	9,058.32	8,865.17	193.15	46.898	
5,100.00	5,090.58	5,051.58	5,090.58	22.50	174.64	-70.97	-339.29	-9,148.34	9,056.17	8,859.10	197.07	45.954	

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



Anticollision Report



Company:	SRC ENERGY	Local Co-ordinate Reference:	Well HARVESTERS STATE 31C-16-M
Project:	SECTION 15, T6N, R66W	TVD Reference:	KB @ 4821.00ft
Reference Site:	HARVESTERS STATE 7-15 PAD	MD Reference:	KB @ 4821.00ft
Site Error:	3.28 ft	North Reference:	True
Reference Well:	HARVESTERS STATE 31C-16-M	Survey Calculation Method:	Minimum Curvature
Well Error:	3.28 ft	Output errors are at	2.45 sigma
Reference Wellbore	OH	Database:	EDM 5000.14 Single User Db
Reference Design:	PLAN #1	Offset TVD Reference:	Reference Datum

Offset Design HARVESTERS STATE 7-15 PAD - ULRICH PC I 17-08(PR_75CC) - OH - OH													Offset Site Error:	0.00 ft
Survey Program: 100-2" Cone@2.448 Sigma													Offset Well Error:	3.28 ft
Reference		Offset		Semi Major Axis			Distance						Warning	
Measured Depth (ft)	Vertical Depth (ft)	Measured Depth (ft)	Vertical Depth (ft)	Reference (ft)	Offset (ft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (ft)	+E/-W (ft)	Between Centres (ft)	Between Ellipses (ft)	Minimum Separation (ft)	Separation Factor		
5,200.00	5,190.37	5,151.37	5,190.37	22.93	178.12	-71.01	-339.29	-9,148.34	9,054.03	8,853.04	200.99	45.048		
5,300.00	5,290.15	5,251.15	5,290.15	23.37	181.60	-71.05	-339.29	-9,148.34	9,051.90	8,846.99	204.91	44.175		
5,400.00	5,389.94	5,350.94	5,389.94	23.81	185.09	-71.09	-339.29	-9,148.34	9,049.77	8,840.94	208.83	43.336		
5,500.00	5,489.72	5,450.72	5,489.72	24.25	188.57	-71.13	-339.29	-9,148.34	9,047.64	8,834.89	212.75	42.527		
5,600.00	5,589.51	5,550.51	5,589.51	24.69	192.05	-71.17	-339.29	-9,148.34	9,045.52	8,828.85	216.67	41.748		
5,700.00	5,689.29	5,650.29	5,689.29	25.13	195.53	-71.21	-339.29	-9,148.34	9,043.40	8,822.81	220.59	40.997		
5,800.00	5,789.08	5,750.08	5,789.08	25.56	199.02	-71.25	-339.29	-9,148.34	9,041.28	8,816.77	224.51	40.271		
5,900.00	5,888.86	5,849.86	5,888.86	26.00	202.50	-71.29	-339.29	-9,148.34	9,039.17	8,810.74	228.43	39.571		
6,000.00	5,988.65	5,949.65	5,988.65	26.44	205.98	-71.33	-339.29	-9,148.34	9,037.07	8,804.71	232.35	38.894		
6,100.00	6,088.43	6,049.43	6,088.43	26.88	209.47	-71.36	-339.29	-9,148.34	9,034.96	8,798.69	236.27	38.240		
6,200.00	6,188.22	6,149.22	6,188.22	27.32	212.95	-71.40	-339.29	-9,148.34	9,032.87	8,792.67	240.19	37.607		
6,300.00	6,288.00	6,249.00	6,288.00	27.76	216.43	-71.44	-339.29	-9,148.34	9,030.77	8,786.66	244.12	36.994		
6,400.00	6,387.79	6,348.79	6,387.79	28.20	219.92	-71.48	-339.29	-9,148.34	9,028.68	8,780.65	248.04	36.401		
6,500.00	6,487.57	6,448.57	6,487.57	28.64	223.40	-71.52	-339.29	-9,148.34	9,026.60	8,774.64	251.96	35.826		
6,600.00	6,587.35	6,548.35	6,587.35	29.08	226.88	-71.56	-339.29	-9,148.34	9,024.52	8,768.64	255.88	35.268		
6,700.00	6,687.02	6,648.02	6,687.02	29.52	230.36	-33.73	-339.29	-9,148.34	9,020.23	8,760.43	259.80	34.720		
6,800.00	6,784.98	6,745.98	6,784.98	29.96	233.78	-17.92	-339.29	-9,148.34	9,002.11	8,738.46	263.65	34.144		
6,900.00	6,878.81	6,839.81	6,878.81	30.41	237.06	-13.71	-339.29	-9,148.34	8,968.91	8,701.58	267.34	33.549		
7,000.00	6,966.21	6,927.21	6,966.21	30.86	240.11	-12.18	-339.29	-9,148.34	8,921.45	8,650.69	270.77	32.949		
7,100.00	7,045.03	7,006.03	7,045.03	31.35	242.86	-11.87	-339.29	-9,148.34	8,860.90	8,587.05	273.85	32.357		
7,200.00	7,113.32	7,074.32	7,113.32	31.90	245.24	-12.47	-339.29	-9,148.34	8,788.76	8,512.24	276.52	31.784		
7,300.00	7,169.40	7,130.40	7,169.40	32.57	247.20	-14.20	-339.29	-9,148.34	8,706.79	8,428.09	278.70	31.241		
7,400.00	7,211.89	7,172.89	7,211.89	33.38	248.68	-18.00	-339.29	-9,148.34	8,617.02	8,336.68	280.35	30.737		
7,500.00	7,239.75	7,200.75	7,239.75	34.35	249.65	-27.49	-339.29	-9,148.34	8,521.66	8,240.24	281.43	30.280		
7,600.00	7,252.28	7,213.28	7,252.28	35.47	250.09	-63.95	-339.29	-9,148.34	8,423.06	8,141.13	281.93	29.876		
7,700.00	7,252.75	7,213.75	7,252.75	36.73	250.11	-92.21	-339.29	-9,148.34	8,323.52	8,041.53	281.99	29.517		
7,800.00	7,252.38	7,213.38	7,252.38	38.16	250.10	-92.18	-339.29	-9,148.34	8,223.97	7,941.96	282.02	29.161		
7,900.00	7,252.02	7,213.02	7,252.02	39.74	250.08	-92.15	-339.29	-9,148.34	8,124.44	7,842.39	282.05	28.805		
8,000.00	7,251.65	7,212.65	7,251.65	41.47	250.07	-92.13	-339.29	-9,148.34	8,024.92	7,742.83	282.09	28.448		
8,100.00	7,251.29	7,212.29	7,251.29	43.31	250.06	-92.10	-339.29	-9,148.34	7,925.41	7,643.27	282.13	28.091		
8,200.00	7,250.92	7,211.92	7,250.92	45.26	250.04	-92.07	-339.29	-9,148.34	7,825.91	7,543.73	282.18	27.734		
8,300.00	7,250.55	7,211.55	7,250.55	47.30	250.03	-92.05	-339.29	-9,148.34	7,726.42	7,444.19	282.24	27.376		
8,400.00	7,250.19	7,211.19	7,250.19	49.42	250.02	-92.02	-339.29	-9,148.34	7,626.95	7,344.66	282.30	27.018		
8,500.00	7,249.82	7,210.82	7,249.82	51.62	250.01	-91.99	-339.29	-9,148.34	7,527.49	7,245.13	282.36	26.659		
8,600.00	7,249.45	7,210.45	7,249.45	53.88	249.99	-91.97	-339.29	-9,148.34	7,428.05	7,145.61	282.44	26.300		
8,700.00	7,249.09	7,210.09	7,249.09	56.19	249.98	-91.94	-339.29	-9,148.34	7,328.62	7,046.11	282.52	25.941		
8,800.00	7,248.72	7,209.72	7,248.72	58.55	249.97	-91.91	-339.29	-9,148.34	7,229.21	6,946.61	282.60	25.581		
8,900.00	7,248.36	7,209.36	7,248.36	60.96	249.96	-91.89	-339.29	-9,148.34	7,129.81	6,847.12	282.70	25.221		
9,000.00	7,247.99	7,208.99	7,247.99	63.40	249.94	-91.86	-339.29	-9,148.34	7,030.43	6,747.63	282.80	24.860		
9,100.00	7,247.62	7,208.62	7,247.62	65.87	249.93	-91.83	-339.29	-9,148.34	6,931.07	6,648.16	282.91	24.499		
9,200.00	7,247.26	7,208.26	7,247.26	68.38	249.92	-91.81	-339.29	-9,148.34	6,831.73	6,548.70	283.03	24.138		
9,300.00	7,246.89	7,207.89	7,246.89	70.91	249.90	-91.78	-339.29	-9,148.34	6,732.41	6,449.25	283.16	23.776		
9,400.00	7,246.53	7,207.53	7,246.53	73.47	249.89	-91.75	-339.29	-9,148.34	6,633.11	6,349.81	283.30	23.414		
9,500.00	7,246.16	7,207.16	7,246.16	76.05	249.88	-91.73	-339.29	-9,148.34	6,533.82	6,250.37	283.45	23.051		
9,600.00	7,245.79	7,206.79	7,245.79	78.65	249.87	-91.70	-339.29	-9,148.34	6,434.56	6,150.96	283.61	22.688		
9,700.00	7,245.43	7,206.43	7,245.43	81.27	249.85	-91.67	-339.29	-9,148.34	6,335.33	6,051.55	283.78	22.325		
9,800.00	7,245.06	7,206.06	7,245.06	83.90	249.84	-91.65	-339.29	-9,148.34	6,236.12	5,952.15	283.97	21.961		
9,900.00	7,244.69	7,205.69	7,244.69	86.55	249.83	-91.62	-339.29	-9,148.34	6,136.93	5,852.77	284.16	21.596		
10,000.00	7,244.33	7,205.33	7,244.33	89.21	249.81	-91.59	-339.29	-9,148.34	6,037.77	5,753.40	284.38	21.232		
10,100.00	7,243.96	7,204.96	7,243.96	91.88	249.80	-91.57	-339.29	-9,148.34	5,938.64	5,654.04	284.60	20.866		
10,200.00	7,243.60	7,204.60	7,243.60	94.56	249.79	-91.54	-339.29	-9,148.34	5,839.54	5,554.69	284.84	20.501		
10,300.00	7,243.23	7,204.23	7,243.23	97.26	249.78	-91.51	-339.29	-9,148.34	5,740.47	5,455.37	285.10	20.135		

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



Anticollision Report



Company:	SRC ENERGY	Local Co-ordinate Reference:	Well HARVESTERS STATE 31C-16-M
Project:	SECTION 15, T6N, R66W	TVD Reference:	KB @ 4821.00ft
Reference Site:	HARVESTERS STATE 7-15 PAD	MD Reference:	KB @ 4821.00ft
Site Error:	3.28 ft	North Reference:	True
Reference Well:	HARVESTERS STATE 31C-16-M	Survey Calculation Method:	Minimum Curvature
Well Error:	3.28 ft	Output errors are at	2.45 sigma
Reference Wellbore	OH	Database:	EDM 5000.14 Single User Db
Reference Design:	PLAN #1	Offset TVD Reference:	Reference Datum

Offset Design HARVESTERS STATE 7-15 PAD - ULRICH PC I 17-08(PR_75CC) - OH - OH													Offset Site Error:	0.00 ft
Survey Program: 100-2" Cone@2.448 Sigma													Offset Well Error:	3.28 ft
Reference		Offset		Semi Major Axis			Distance							Warning
Measured Depth (ft)	Vertical Depth (ft)	Measured Depth (ft)	Vertical Depth (ft)	Reference (ft)	Offset (ft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (ft)	+E/-W (ft)	Between Centres (ft)	Between Ellipses (ft)	Minimum Separation (ft)	Separation Factor		
10,400.00	7,242.86	7,203.86	7,242.86	99.96	249.76	-91.49	-339.29	-9,148.34	5,641.43	5,356.05	285.38	19.768		
10,500.00	7,242.50	7,203.50	7,242.50	102.67	249.75	-91.46	-339.29	-9,148.34	5,542.43	5,256.75	285.67	19.401		
10,600.00	7,242.13	7,203.13	7,242.13	105.39	249.74	-91.43	-339.29	-9,148.34	5,443.46	5,157.47	285.99	19.034		
10,700.00	7,241.76	7,202.76	7,241.76	108.12	249.73	-91.41	-339.29	-9,148.34	5,344.53	5,058.21	286.33	18.666		
10,800.00	7,241.40	7,202.40	7,241.40	110.85	249.71	-91.38	-339.29	-9,148.34	5,245.65	4,958.96	286.69	18.298		
10,900.00	7,241.03	7,202.03	7,241.03	113.59	249.70	-91.36	-339.29	-9,148.34	5,146.80	4,859.73	287.07	17.929		
11,000.00	7,240.67	7,201.67	7,240.67	116.34	249.69	-91.33	-339.29	-9,148.34	5,048.00	4,760.52	287.48	17.560		
11,100.00	7,240.30	7,201.30	7,240.30	119.09	249.67	-91.30	-339.29	-9,148.34	4,949.25	4,661.34	287.92	17.190		
11,200.00	7,239.93	7,200.93	7,239.93	121.85	249.66	-91.28	-339.29	-9,148.34	4,850.55	4,562.17	288.38	16.820		
11,300.00	7,239.57	7,200.57	7,239.57	124.61	249.65	-91.25	-339.29	-9,148.34	4,751.91	4,463.03	288.88	16.449		
11,400.00	7,239.20	7,200.20	7,239.20	127.38	249.64	-91.22	-339.29	-9,148.34	4,653.32	4,363.91	289.41	16.078		
11,500.00	7,238.84	7,200.17	7,238.84	130.15	249.63	-91.20	-339.29	-9,148.34	4,554.79	4,264.80	289.99	15.706		
11,600.00	7,238.47	7,200.53	7,238.47	132.92	249.65	-91.17	-339.29	-9,148.34	4,456.33	4,165.71	290.63	15.333		
11,700.00	7,238.10	7,200.90	7,238.10	135.70	249.66	-91.14	-339.29	-9,148.34	4,357.94	4,066.64	291.30	14.960		
11,800.00	7,237.74	7,201.26	7,237.74	138.48	249.67	-91.12	-339.29	-9,148.34	4,259.63	3,967.61	292.02	14.587		
11,900.00	7,237.37	7,201.63	7,237.37	141.26	249.69	-91.09	-339.29	-9,148.34	4,161.39	3,868.60	292.79	14.213		
12,000.00	7,237.00	7,202.00	7,237.00	144.05	249.70	-91.06	-339.29	-9,148.34	4,063.24	3,769.63	293.61	13.839		
12,100.00	7,236.64	7,202.36	7,236.64	146.84	249.71	-91.04	-339.29	-9,148.34	3,965.19	3,670.70	294.49	13.465		
12,200.00	7,236.27	7,202.73	7,236.27	149.64	249.72	-91.01	-339.29	-9,148.34	3,867.23	3,571.81	295.42	13.090		
12,300.00	7,235.91	7,203.09	7,235.91	152.43	249.74	-90.98	-339.29	-9,148.34	3,769.38	3,472.96	296.43	12.716		
12,400.00	7,235.54	7,203.46	7,235.54	155.23	249.75	-90.96	-339.29	-9,148.34	3,671.65	3,374.15	297.50	12.342		
12,500.00	7,235.17	7,203.83	7,235.17	158.03	249.76	-90.93	-339.29	-9,148.34	3,574.04	3,275.39	298.65	11.967		
12,600.00	7,234.81	7,204.19	7,234.81	160.83	249.77	-90.90	-339.29	-9,148.34	3,476.57	3,176.69	299.88	11.593		
12,700.00	7,234.44	7,204.56	7,234.44	163.64	249.79	-90.88	-339.29	-9,148.34	3,379.24	3,078.04	301.20	11.219		
12,800.00	7,234.07	7,204.93	7,234.07	166.44	249.80	-90.85	-339.29	-9,148.34	3,282.08	2,979.46	302.62	10.846		
12,900.00	7,233.71	7,205.29	7,233.71	169.25	249.81	-90.82	-339.29	-9,148.34	3,185.09	2,880.94	304.15	10.472		
13,000.00	7,233.34	7,205.66	7,233.34	172.06	249.83	-90.80	-339.29	-9,148.34	3,088.29	2,782.50	305.79	10.099		
13,100.00	7,232.98	7,206.02	7,232.98	174.88	249.84	-90.77	-339.29	-9,148.34	2,991.71	2,684.15	307.56	9.727		
13,200.00	7,232.61	7,206.39	7,232.61	177.69	249.85	-90.74	-339.29	-9,148.34	2,895.35	2,585.89	309.47	9.356		
13,300.00	7,232.24	7,206.76	7,232.24	180.50	249.86	-90.72	-339.29	-9,148.34	2,799.25	2,487.73	311.53	8.986		
13,400.00	7,231.88	7,207.12	7,231.88	183.32	249.88	-90.69	-339.29	-9,148.34	2,703.44	2,389.68	313.76	8.616		
13,500.00	7,231.51	7,207.49	7,231.51	186.14	249.89	-90.66	-339.29	-9,148.34	2,607.94	2,291.76	316.18	8.248		
13,600.00	7,231.15	7,207.86	7,231.15	188.96	249.90	-90.64	-339.29	-9,148.34	2,512.79	2,193.99	318.80	7.882		
13,700.00	7,230.78	7,208.22	7,230.78	191.78	249.92	-90.61	-339.29	-9,148.34	2,418.03	2,096.38	321.64	7.518		
13,800.00	7,230.41	7,208.59	7,230.41	194.60	249.93	-90.58	-339.29	-9,148.34	2,323.71	1,998.96	324.74	7.156		
13,900.00	7,230.05	7,208.95	7,230.05	197.42	249.94	-90.56	-339.29	-9,148.34	2,229.88	1,901.76	328.12	6.796		
14,000.00	7,229.68	7,209.32	7,229.68	200.25	249.95	-90.53	-339.29	-9,148.34	2,136.62	1,804.80	331.81	6.439		
14,100.00	7,229.31	7,209.69	7,229.31	203.07	249.97	-90.50	-339.29	-9,148.34	2,043.99	1,708.14	335.85	6.086		
14,200.00	7,228.95	7,189.95	7,228.95	205.90	249.28	-90.48	-339.29	-9,148.34	1,952.08	1,612.51	339.58	5.749		
14,300.00	7,228.58	7,189.58	7,228.58	208.73	249.26	-90.45	-339.29	-9,148.34	1,861.02	1,516.61	344.41	5.403		
14,400.00	7,228.22	7,189.22	7,228.22	211.55	249.25	-90.42	-339.29	-9,148.34	1,770.92	1,421.18	349.74	5.064		
14,500.00	7,227.85	7,188.85	7,227.85	214.38	249.24	-90.40	-339.29	-9,148.34	1,681.93	1,326.32	355.61	4.730		
14,600.00	7,227.48	7,188.48	7,227.48	217.21	249.23	-90.37	-339.29	-9,148.34	1,594.26	1,232.15	362.10	4.403		
14,700.00	7,227.12	7,188.12	7,227.12	220.04	249.21	-90.34	-339.29	-9,148.34	1,508.11	1,138.83	369.28	4.084		
14,800.00	7,226.75	7,187.75	7,226.75	222.88	249.20	-90.32	-339.29	-9,148.34	1,423.78	1,046.57	377.22	3.774		
14,900.00	7,226.38	7,187.38	7,226.38	225.71	249.19	-90.29	-339.29	-9,148.34	1,341.61	955.62	385.99	3.476		
15,000.00	7,226.02	7,187.02	7,226.02	228.54	249.18	-90.26	-339.29	-9,148.34	1,262.01	866.34	395.67	3.190		
15,005.81	7,226.00	7,187.00	7,226.00	228.71	249.17	-90.26	-339.29	-9,148.34	1,257.47	861.21	396.26	3.173	CC, ES, SF	



Anticollision Report



Company:	SRC ENERGY	Local Co-ordinate Reference:	Well HARVESTERS STATE 31C-16-M
Project:	SECTION 15, T6N, R66W	TVD Reference:	KB @ 4821.00ft
Reference Site:	HARVESTERS STATE 7-15 PAD	MD Reference:	KB @ 4821.00ft
Site Error:	3.28 ft	North Reference:	True
Reference Well:	HARVESTERS STATE 31C-16-M	Survey Calculation Method:	Minimum Curvature
Well Error:	3.28 ft	Output errors are at	2.45 sigma
Reference Wellbore	OH	Database:	EDM 5000.14 Single User Db
Reference Design:	PLAN #1	Offset TVD Reference:	Reference Datum

Offset Design HARVESTERS STATE 7-15 PAD - ULRICH PC I17-17D(PR_75CC) - OH - OH													Offset Site Error:	0.00 ft
Survey Program: 78-MWD													Offset Well Error:	3.28 ft
Reference		Offset		Semi Major Axis			Distance							Warning
Measured Depth (ft)	Vertical Depth (ft)	Measured Depth (ft)	Vertical Depth (ft)	Reference (ft)	Offset (ft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (ft)	+E/-W (ft)	Between Centres (ft)	Between Ellipses (ft)	Minimum Separation (ft)	Separation Factor		
0.00	0.00	0.00	26.00	3.28	3.28	-92.31	-368.43	-9,145.57	9,153.02					
100.00	100.00	110.36	136.36	3.28	3.29	-92.31	-368.71	-9,145.21	9,152.71	9,146.13	6.58	1,391.630		
200.00	200.00	185.42	211.41	3.34	3.34	-92.31	-368.63	-9,145.01	9,152.45	9,145.78	6.67	1,371.723		
243.47	243.47	217.47	243.47	3.38	3.36	-92.31	-368.58	-9,145.00	9,152.42	9,145.68	6.74	1,357.973		
300.00	300.00	259.36	285.36	3.44	3.41	-92.31	-368.58	-9,145.03	9,152.47	9,145.62	6.85	1,335.983		
400.00	400.00	346.31	372.31	3.60	3.52	-92.31	-368.67	-9,145.23	9,152.70	9,145.57	7.13	1,284.235		
500.00	500.00	434.70	460.70	3.81	3.68	-92.31	-368.79	-9,145.55	9,153.07	9,145.58	7.49	1,222.675		
600.00	600.00	608.11	634.10	4.05	4.07	-92.31	-369.27	-9,145.86	9,153.38	9,145.26	8.12	1,127.422		
700.00	699.98	678.57	704.56	4.32	4.26	-69.44	-369.63	-9,145.66	9,152.52	9,143.94	8.58	1,067.171		
800.00	799.84	727.00	752.99	4.62	4.40	-69.48	-369.86	-9,145.70	9,150.85	9,141.85	9.01	1,015.823		
900.00	899.62	767.55	793.54	4.94	4.51	-69.50	-369.91	-9,145.99	9,149.34	9,139.89	9.44	968.834		
1,000.00	999.41	800.40	826.39	5.27	4.61	-69.51	-369.73	-9,146.50	9,148.57	9,138.69	9.88	926.205		
1,050.03	1,049.33	816.85	842.83	5.45	4.66	-69.51	-369.58	-9,146.84	9,148.45	9,138.35	10.10	905.691		
1,100.00	1,099.19	856.00	881.96	5.62	4.78	-69.52	-369.02	-9,147.92	9,148.61	9,138.21	10.40	879.786		
1,200.00	1,198.98	856.00	881.96	5.99	4.78	-69.52	-369.02	-9,147.92	9,149.24	9,138.48	10.76	850.172		
1,300.00	1,298.76	856.00	881.96	6.36	4.78	-69.52	-369.02	-9,147.92	9,150.96	9,139.83	11.13	821.849		
1,400.00	1,398.55	913.52	939.42	6.74	4.97	-69.54	-367.75	-9,150.32	9,153.05	9,141.35	11.70	782.537		
1,500.00	1,498.33	938.43	964.28	7.13	5.05	-69.54	-367.04	-9,151.71	9,156.19	9,144.02	12.16	752.715		
1,600.00	1,598.12	984.00	1,009.72	7.52	5.20	-69.55	-365.51	-9,154.78	9,160.24	9,147.53	12.71	720.917		
1,700.00	1,697.90	984.00	1,009.72	7.92	5.20	-69.55	-365.51	-9,154.78	9,164.93	9,151.82	13.10	699.472		
1,800.00	1,797.69	984.00	1,009.72	8.33	5.20	-69.55	-365.51	-9,154.78	9,170.70	9,157.20	13.50	679.207		
1,900.00	1,897.47	1,045.92	1,071.36	8.74	5.42	-69.55	-362.65	-9,159.97	9,176.83	9,162.72	14.12	650.095		
2,000.00	1,997.26	1,112.00	1,136.95	9.15	5.65	-69.55	-358.36	-9,166.70	9,184.22	9,169.47	14.75	622.560		
2,100.00	2,097.04	1,112.00	1,136.95	9.56	5.65	-69.55	-358.36	-9,166.70	9,191.86	9,176.70	15.16	606.434		
2,200.00	2,196.83	1,112.00	1,136.95	9.98	5.65	-69.55	-358.36	-9,166.70	9,200.58	9,185.02	15.56	591.194		
2,300.00	2,296.61	1,182.53	1,206.75	10.40	5.92	-69.54	-352.46	-9,174.95	9,209.73	9,193.50	16.23	567.445		
2,400.00	2,396.40	1,241.00	1,264.44	10.82	6.15	-69.52	-346.59	-9,182.38	9,219.65	9,202.79	16.86	546.840		
2,500.00	2,496.18	1,289.11	1,311.79	11.24	6.35	-69.50	-340.94	-9,188.76	9,230.05	9,212.59	17.46	528.651		
2,600.00	2,595.96	1,369.00	1,390.11	11.66	6.70	-69.46	-329.51	-9,199.55	9,240.73	9,222.54	18.19	507.887		
2,700.00	2,695.75	1,413.64	1,433.70	12.09	6.90	-69.43	-322.17	-9,205.79	9,251.81	9,233.02	18.80	492.181		
2,800.00	2,795.53	1,458.36	1,477.24	12.51	7.12	-69.40	-314.31	-9,212.30	9,263.48	9,244.08	19.40	477.426		
2,900.00	2,895.32	1,498.00	1,515.73	12.94	7.31	-69.36	-306.94	-9,218.30	9,275.75	9,255.76	19.99	464.095		
3,000.00	2,995.10	1,543.29	1,559.57	13.37	7.54	-69.32	-298.12	-9,225.43	9,288.62	9,268.01	20.61	450.689		
3,100.00	3,094.89	1,583.93	1,598.82	13.80	7.75	-69.29	-289.92	-9,232.09	9,302.12	9,280.91	21.21	438.550		
3,200.00	3,194.67	1,626.00	1,639.33	14.23	7.98	-69.24	-281.14	-9,239.26	9,316.25	9,294.43	21.82	426.962		
3,300.00	3,294.46	1,671.61	1,683.11	14.66	8.24	-69.20	-271.16	-9,247.29	9,330.97	9,308.51	22.46	415.403		
3,400.00	3,394.24	1,718.77	1,728.17	15.09	8.51	-69.15	-260.21	-9,255.83	9,346.25	9,323.13	23.11	404.353		
3,500.00	3,494.03	1,754.00	1,761.70	15.52	8.72	-69.10	-251.59	-9,262.38	9,362.09	9,338.39	23.70	395.014		
3,600.00	3,593.81	1,754.00	1,761.70	15.96	8.72	-69.10	-251.59	-9,262.38	9,378.84	9,354.75	24.09	389.297		
3,700.00	3,693.60	1,818.74	1,823.00	16.39	9.14	-69.02	-235.06	-9,275.06	9,395.88	9,371.01	24.87	377.853		
3,800.00	3,793.38	1,883.00	1,883.40	16.82	9.56	-68.94	-217.89	-9,288.65	9,414.11	9,388.47	25.64	367.159		
3,900.00	3,893.17	1,883.00	1,883.40	17.26	9.56	-68.94	-217.89	-9,288.65	9,432.63	9,406.61	26.02	362.457		
4,000.00	3,992.95	2,059.85	2,049.16	17.69	10.82	-68.69	-169.04	-9,326.24	9,451.27	9,423.72	27.56	342.978		
4,100.00	4,092.74	2,156.16	2,139.74	18.13	11.52	-68.56	-143.15	-9,346.29	9,469.53	9,440.95	28.58	331.314		
4,200.00	4,192.52	2,225.59	2,205.17	18.56	12.03	-68.47	-125.08	-9,360.87	9,487.99	9,458.56	29.43	322.394		
4,300.00	4,292.31	2,323.89	2,297.97	19.00	12.76	-68.35	-100.31	-9,381.74	9,506.71	9,476.24	30.47	311.971		
4,400.00	4,392.09	2,427.25	2,395.83	19.43	13.53	-68.23	-75.10	-9,403.47	9,525.24	9,493.68	31.56	301.855		
4,500.00	4,491.88	2,489.70	2,454.82	19.87	14.01	-68.16	-59.45	-9,416.73	9,544.03	9,511.67	32.36	294.892		
4,600.00	4,591.66	2,579.57	2,539.41	20.31	14.70	-68.05	-36.05	-9,436.06	9,563.16	9,529.78	33.37	286.548		
4,700.00	4,691.44	2,653.00	2,608.50	20.74	15.28	-67.95	-16.75	-9,451.74	9,582.23	9,547.96	34.27	279.591		
4,800.00	4,791.23	2,714.04	2,665.80	21.18	15.77	-67.87	-0.37	-9,464.94	9,601.66	9,566.57	35.09	273.603		
4,900.00	4,891.01	2,782.00	2,729.29	21.62	16.32	-67.78	18.50	-9,480.16	9,621.78	9,585.82	35.96	267.535		

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



Anticollision Report



Company:	SRC ENERGY	Local Co-ordinate Reference:	Well HARVESTERS STATE 31C-16-M
Project:	SECTION 15, T6N, R66W	TVD Reference:	KB @ 4821.00ft
Reference Site:	HARVESTERS STATE 7-15 PAD	MD Reference:	KB @ 4821.00ft
Site Error:	3.28 ft	North Reference:	True
Reference Well:	HARVESTERS STATE 31C-16-M	Survey Calculation Method:	Minimum Curvature
Well Error:	3.28 ft	Output errors are at	2.45 sigma
Reference Wellbore	OH	Database:	EDM 5000.14 Single User Db
Reference Design:	PLAN #1	Offset TVD Reference:	Reference Datum

Offset Design HARVESTERS STATE 7-15 PAD - ULRICH PC I17-17D(PR_75CC) - OH - OH													Offset Site Error:	0.00 ft
Survey Program: 78-MWD													Offset Well Error:	3.28 ft
Reference		Offset		Semi Major Axis			Distance						Warning	
Measured Depth (ft)	Vertical Depth (ft)	Measured Depth (ft)	Vertical Depth (ft)	Reference (ft)	Offset (ft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (ft)	+E/-W (ft)	Between Centres (ft)	Between Ellipses (ft)	Minimum Separation (ft)	Separation Factor		
5,000.00	4,990.80	2,866.61	2,808.28	22.06	17.02	-67.67	42.05	-9,499.28	9,642.19	9,605.22	36.97	260.831		
5,100.00	5,090.58	3,067.30	2,996.82	22.50	18.66	-67.41	95.26	-9,542.80	9,661.53	9,622.70	38.83	248.824		
5,200.00	5,190.37	3,111.98	3,038.81	22.93	19.03	-67.36	107.09	-9,552.46	9,681.04	9,641.51	39.53	244.908		
5,300.00	5,290.15	3,167.00	3,090.36	23.37	19.48	-67.28	121.94	-9,564.66	9,701.12	9,660.82	40.31	240.691		
5,400.00	5,389.94	3,400.00	3,296.07	23.81	37.54	-67.02	177.96	-9,612.13	9,720.83	9,664.73	56.10	173.287		
5,500.00	5,489.72	3,518.75	3,422.17	24.25	22.32	-66.87	211.23	-9,639.78	9,739.46	9,695.83	43.63	223.217		
5,600.00	5,589.51	5,716.15	5,562.24	24.69	34.22	-66.06	480.15	-9,878.91	9,755.50	9,700.29	55.21	176.707		
5,700.00	5,689.29	5,836.62	5,682.71	25.13	34.56	-66.11	478.86	-9,879.13	9,752.99	9,696.97	56.02	174.090		
5,800.00	5,789.08	5,950.75	5,796.82	25.56	34.88	-66.16	476.76	-9,879.16	9,750.33	9,693.51	56.82	171.606		
5,900.00	5,888.86	6,103.86	5,949.90	26.00	35.31	-66.23	473.87	-9,878.74	9,747.39	9,689.67	57.72	168.870		
6,000.00	5,988.65	6,223.78	6,069.80	26.44	35.65	-66.29	471.46	-9,877.88	9,743.99	9,685.46	58.54	166.463		
6,100.00	6,088.43	6,320.16	6,166.16	26.88	35.92	-66.33	469.81	-9,877.10	9,740.52	9,681.23	59.29	164.289		
6,200.00	6,188.22	6,442.46	6,288.44	27.32	36.28	-66.39	467.92	-9,876.11	9,737.07	9,676.95	60.12	161.964		
6,300.00	6,288.00	6,560.30	6,406.26	27.76	36.63	-66.44	466.54	-9,874.70	9,733.21	9,672.27	60.94	159.716		
6,400.00	6,387.79	6,645.54	6,491.49	28.20	36.88	-66.47	465.94	-9,873.73	9,729.44	9,667.77	61.67	157.759		
6,500.00	6,487.57	6,722.14	6,568.09	28.64	37.12	-66.50	465.45	-9,873.01	9,725.87	9,663.49	62.38	155.905		
6,600.00	6,587.35	6,806.89	6,652.83	29.08	37.38	-66.53	464.84	-9,872.40	9,722.52	9,659.40	63.12	154.033		
6,700.00	6,687.02	6,898.29	6,744.24	29.52	37.67	-28.67	464.42	-9,871.82	9,717.04	9,653.16	63.88	152.120		
6,800.00	6,784.98	6,971.62	6,817.56	29.96	37.90	-12.69	464.26	-9,871.48	9,697.88	9,633.31	64.58	150.177		
6,900.00	6,878.81	7,195.04	7,040.96	30.41	38.61	-8.21	463.83	-9,869.33	9,663.21	9,597.51	65.70	147.073		
7,000.00	6,966.21	7,273.87	7,119.78	30.86	38.86	-6.16	462.89	-9,868.05	9,613.68	9,547.33	66.36	144.881		
7,100.00	7,045.03	7,329.69	7,175.59	31.35	39.03	-5.03	461.99	-9,867.23	9,551.31	9,484.42	66.89	142.794		
7,200.00	7,113.32	7,377.66	7,223.55	31.90	39.18	-4.34	461.21	-9,866.63	9,477.65	9,410.31	67.34	140.750		
7,300.00	7,169.40	7,432.54	7,278.42	32.57	39.36	-3.92	460.33	-9,866.03	9,394.43	9,326.69	67.74	138.690		
7,400.00	7,211.89	7,496.96	7,342.82	33.38	39.56	-3.70	459.35	-9,865.21	9,303.52	9,235.42	68.09	136.629		
7,500.00	7,239.75	7,537.92	7,383.78	34.35	39.69	-3.64	458.76	-9,864.60	9,207.19	9,138.88	68.31	134.779		
7,600.00	7,252.28	7,554.80	7,400.65	35.47	39.75	-4.38	458.52	-9,864.33	9,107.90	9,039.49	68.41	133.146		
7,700.00	7,252.75	7,553.02	7,398.88	36.73	39.74	177.97	458.54	-9,864.36	9,007.92	8,939.51	68.41	131.678		
7,800.00	7,252.38	7,550.00	7,395.86	38.16	39.73	177.92	458.59	-9,864.41	8,907.94	8,839.53	68.41	130.220		
7,900.00	7,252.02	7,547.02	7,392.87	39.74	39.72	177.87	458.63	-9,864.46	8,807.96	8,739.55	68.41	128.759		
8,000.00	7,251.65	7,544.07	7,389.92	41.47	39.71	177.82	458.67	-9,864.51	8,707.97	8,639.57	68.41	127.295		
8,100.00	7,251.29	7,541.15	7,387.00	43.31	39.70	177.77	458.71	-9,864.55	8,607.99	8,539.58	68.41	125.829		
8,200.00	7,250.92	7,538.27	7,384.12	45.26	39.69	177.71	458.75	-9,864.60	8,508.01	8,439.60	68.41	124.361		
8,300.00	7,250.55	7,535.41	7,381.27	47.30	39.68	177.66	458.79	-9,864.64	8,408.03	8,339.61	68.42	122.891		
8,400.00	7,250.19	7,532.60	7,378.45	49.42	39.67	177.60	458.83	-9,864.68	8,308.05	8,239.62	68.42	121.419		
8,500.00	7,249.82	7,529.81	7,375.66	51.62	39.67	177.54	458.87	-9,864.73	8,208.07	8,139.64	68.43	119.945		
8,600.00	7,249.45	7,527.05	7,372.91	53.88	39.66	177.49	458.91	-9,864.77	8,108.09	8,039.64	68.44	118.468		
8,700.00	7,249.09	7,524.33	7,370.18	56.19	39.65	177.43	458.95	-9,864.81	8,008.10	7,939.65	68.45	116.991		
8,800.00	7,248.72	7,521.63	7,367.49	58.55	39.64	177.36	458.99	-9,864.85	7,908.12	7,839.66	68.46	115.511		
8,900.00	7,248.36	7,518.96	7,364.82	60.96	39.63	177.30	459.03	-9,864.89	7,808.14	7,739.66	68.47	114.030		
9,000.00	7,247.99	7,516.33	7,362.19	63.40	39.62	177.23	459.07	-9,864.93	7,708.16	7,639.67	68.49	112.547		
9,100.00	7,247.62	7,513.72	7,359.58	65.87	39.62	177.17	459.10	-9,864.97	7,608.17	7,539.67	68.50	111.063		
9,200.00	7,247.26	7,511.14	7,357.00	68.38	39.61	177.10	459.14	-9,865.00	7,508.19	7,439.67	68.52	109.577		
9,300.00	7,246.89	7,508.59	7,354.45	70.91	39.60	177.03	459.18	-9,865.04	7,408.21	7,339.67	68.54	108.090		
9,400.00	7,246.53	7,506.06	7,351.92	73.47	39.59	176.96	459.22	-9,865.08	7,308.22	7,239.67	68.56	106.602		
9,500.00	7,246.16	7,503.56	7,349.42	76.05	39.58	176.88	459.25	-9,865.11	7,208.24	7,139.66	68.58	105.113		
9,600.00	7,245.79	7,501.09	7,346.95	78.65	39.57	176.80	459.29	-9,865.15	7,108.25	7,039.66	68.60	103.623		
9,700.00	7,245.43	7,498.64	7,344.51	81.27	39.57	176.73	459.32	-9,865.18	7,008.27	6,939.65	68.62	102.133		
9,800.00	7,245.06	7,496.22	7,342.09	83.90	39.56	176.64	459.36	-9,865.22	6,908.29	6,839.64	68.64	100.641		
9,900.00	7,244.69	7,493.83	7,339.69	86.55	39.55	176.56	459.40	-9,865.25	6,808.30	6,739.63	68.67	99.149		
10,000.00	7,244.33	7,491.46	7,337.32	89.21	39.54	176.48	459.43	-9,865.28	6,708.32	6,639.62	68.69	97.655		
10,100.00	7,243.96	7,489.11	7,334.98	91.88	39.54	176.39	459.47	-9,865.32	6,608.33	6,539.61	68.72	96.162		

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



Anticollision Report



Company:	SRC ENERGY	Local Co-ordinate Reference:	Well HARVESTERS STATE 31C-16-M
Project:	SECTION 15, T6N, R66W	TVD Reference:	KB @ 4821.00ft
Reference Site:	HARVESTERS STATE 7-15 PAD	MD Reference:	KB @ 4821.00ft
Site Error:	3.28 ft	North Reference:	True
Reference Well:	HARVESTERS STATE 31C-16-M	Survey Calculation Method:	Minimum Curvature
Well Error:	3.28 ft	Output errors are at	2.45 sigma
Reference Wellbore	OH	Database:	EDM 5000.14 Single User Db
Reference Design:	PLAN #1	Offset TVD Reference:	Reference Datum

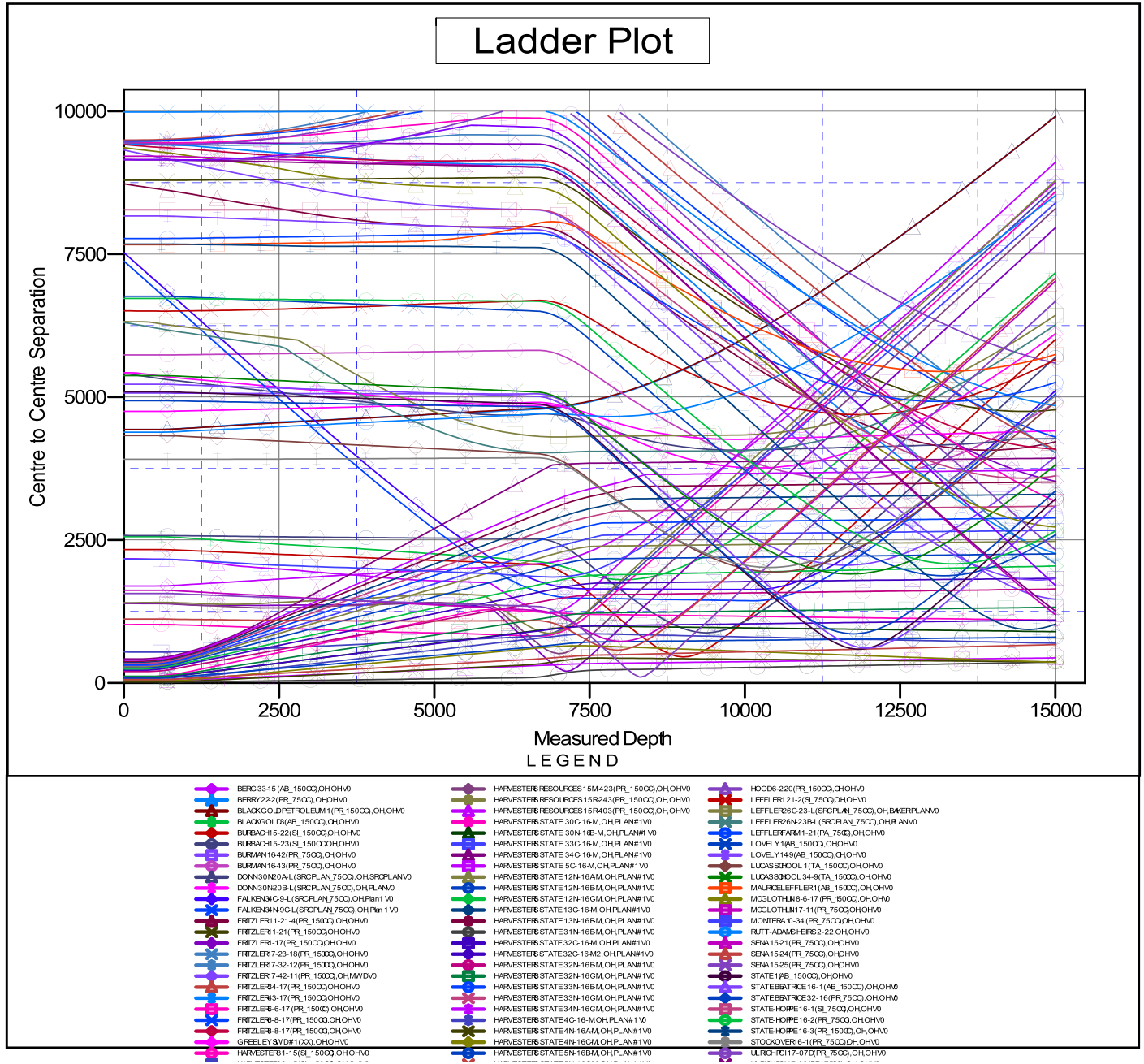
Offset Design													Offset Site Error:	0.00 ft
Survey Program: 78-MWD													Offset Well Error:	3.28 ft
Reference		Offset		Semi Major Axis			Distance							Warning
Measured Depth (ft)	Vertical Depth (ft)	Measured Depth (ft)	Vertical Depth (ft)	Reference (ft)	Offset (ft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (ft)	+E/-W (ft)	Between Centres (ft)	Between Ellipses (ft)	Minimum Separation (ft)	Separation Factor		
10,200.00	7,243.60	7,486.79	7,332.66	94.56	39.53	176.29	459.50	-9,865.35	6,508.35	6,439.60	68.75	94.668		
10,300.00	7,243.23	7,484.49	7,330.36	97.26	39.52	176.20	459.53	-9,865.38	6,408.36	6,339.58	68.78	93.173		
10,400.00	7,242.86	7,482.22	7,328.08	99.96	39.52	176.10	459.57	-9,865.41	6,308.38	6,239.57	68.81	91.679		
10,500.00	7,242.50	7,479.96	7,325.83	102.67	39.51	176.00	459.60	-9,865.44	6,208.39	6,139.55	68.84	90.184		
10,600.00	7,242.13	7,477.73	7,323.60	105.39	39.50	175.90	459.64	-9,865.47	6,108.41	6,039.53	68.87	88.689		
10,700.00	7,241.76	7,475.53	7,321.40	108.12	39.49	175.79	459.67	-9,865.50	6,008.42	5,939.51	68.91	87.194		
10,800.00	7,241.40	7,473.34	7,319.21	110.85	39.49	175.68	459.70	-9,865.53	5,908.44	5,839.49	68.94	85.699		
10,900.00	7,241.03	7,471.18	7,317.05	113.59	39.48	175.57	459.73	-9,865.55	5,808.45	5,739.47	68.98	84.204		
11,000.00	7,240.67	7,469.04	7,314.91	116.34	39.47	175.45	459.77	-9,865.58	5,708.46	5,639.45	69.02	82.709		
11,100.00	7,240.30	7,466.91	7,312.78	119.09	39.47	175.32	459.80	-9,865.61	5,608.48	5,539.42	69.06	81.215		
11,200.00	7,239.93	7,464.81	7,310.68	121.85	39.46	175.20	459.83	-9,865.64	5,508.49	5,439.40	69.10	79.721		
11,300.00	7,239.57	7,462.73	7,308.60	124.61	39.45	175.06	459.86	-9,865.66	5,408.51	5,339.37	69.14	78.228		
11,400.00	7,239.20	7,460.67	7,306.54	127.38	39.45	174.93	459.89	-9,865.69	5,308.52	5,239.34	69.18	76.735		
11,500.00	7,238.84	7,458.63	7,304.50	130.15	39.44	174.79	459.93	-9,865.71	5,208.53	5,139.31	69.22	75.242		
11,600.00	7,238.47	7,456.61	7,302.48	132.92	39.43	174.64	459.96	-9,865.74	5,108.55	5,039.28	69.27	73.751		
11,700.00	7,238.10	7,454.61	7,300.48	135.70	39.43	174.48	459.99	-9,865.76	5,008.56	4,939.25	69.31	72.260		
11,800.00	7,237.74	7,452.63	7,298.50	138.48	39.42	174.32	460.02	-9,865.79	4,908.57	4,839.21	69.36	70.770		
11,900.00	7,237.37	7,450.66	7,296.54	141.26	39.41	174.16	460.05	-9,865.81	4,808.59	4,739.18	69.41	69.281		
12,000.00	7,237.00	7,448.72	7,294.59	144.05	39.41	173.98	460.08	-9,865.84	4,708.60	4,639.14	69.46	67.793		
12,100.00	7,236.64	7,446.79	7,292.66	146.84	39.40	173.80	460.11	-9,865.86	4,608.61	4,539.11	69.51	66.306		
12,200.00	7,236.27	7,444.88	7,290.75	149.64	39.40	173.61	460.14	-9,865.88	4,508.62	4,439.07	69.56	64.820		
12,300.00	7,235.91	7,442.99	7,288.86	152.43	39.39	173.42	460.17	-9,865.90	4,408.64	4,339.03	69.61	63.335		
12,400.00	7,235.54	7,441.11	7,286.99	155.23	39.38	173.21	460.20	-9,865.93	4,308.65	4,238.99	69.66	61.852		
12,500.00	7,235.17	7,439.26	7,285.13	158.03	39.38	172.99	460.23	-9,865.95	4,208.66	4,138.95	69.71	60.370		
12,600.00	7,234.81	7,437.42	7,283.29	160.83	39.37	172.77	460.25	-9,865.97	4,108.67	4,038.90	69.77	58.889		
12,700.00	7,234.44	7,435.59	7,281.47	163.64	39.37	172.53	460.28	-9,865.99	4,008.68	3,938.86	69.83	57.410		
12,800.00	7,234.07	7,433.79	7,279.66	166.44	39.36	172.28	460.31	-9,866.01	3,908.70	3,838.81	69.88	55.933		
12,900.00	7,233.71	7,431.99	7,277.87	169.25	39.36	172.02	460.34	-9,866.03	3,808.71	3,738.77	69.94	54.457		
13,000.00	7,233.34	7,430.22	7,276.10	172.06	39.35	171.74	460.37	-9,866.05	3,708.72	3,638.72	70.00	52.983		
13,100.00	7,232.98	7,428.46	7,274.34	174.88	39.34	171.45	460.40	-9,866.07	3,608.73	3,538.67	70.06	51.510		
13,200.00	7,232.61	7,426.72	7,272.60	177.69	39.34	171.15	460.42	-9,866.09	3,508.74	3,438.62	70.12	50.040		
13,300.00	7,232.24	7,424.99	7,270.87	180.50	39.33	170.82	460.45	-9,866.11	3,408.76	3,338.57	70.18	48.571		
13,400.00	7,231.88	7,423.28	7,269.16	183.32	39.33	170.48	460.48	-9,866.13	3,308.77	3,238.52	70.24	47.104		
13,500.00	7,231.51	7,421.58	7,267.46	186.14	39.32	170.12	460.50	-9,866.15	3,208.78	3,138.47	70.31	45.640		
13,600.00	7,231.15	7,419.90	7,265.78	188.96	39.32	169.73	460.53	-9,866.17	3,108.79	3,038.42	70.37	44.177		
13,700.00	7,230.78	7,418.23	7,264.11	191.78	39.31	169.32	460.56	-9,866.19	3,008.80	2,938.36	70.44	42.717		
13,800.00	7,230.41	7,416.57	7,262.45	194.60	39.31	168.88	460.58	-9,866.21	2,908.81	2,838.31	70.50	41.258		
13,900.00	7,230.05	7,414.93	7,260.81	197.42	39.30	168.42	460.61	-9,866.22	2,808.82	2,738.25	70.57	39.802		
14,000.00	7,229.68	7,413.31	7,259.19	200.25	39.30	167.92	460.64	-9,866.24	2,708.83	2,638.20	70.64	38.348		
14,100.00	7,229.31	7,411.70	7,257.58	203.07	39.29	167.38	460.66	-9,866.26	2,608.85	2,538.14	70.71	36.897		
14,200.00	7,228.95	7,410.10	7,255.98	205.90	39.29	166.80	460.69	-9,866.28	2,508.86	2,438.08	70.78	35.448		
14,300.00	7,228.58	7,408.51	7,254.40	208.73	39.28	166.18	460.71	-9,866.29	2,408.87	2,338.02	70.85	34.001		
14,400.00	7,228.22	7,406.94	7,252.82	211.55	39.28	165.51	460.74	-9,866.31	2,308.88	2,237.96	70.92	32.557		
14,500.00	7,227.85	7,405.39	7,251.27	214.38	39.27	164.79	460.76	-9,866.32	2,208.89	2,137.90	70.99	31.116		
14,600.00	7,227.48	7,403.87	7,249.75	217.21	39.27	164.01	460.79	-9,866.34	2,108.90	2,037.84	71.06	29.677		
14,700.00	7,227.12	7,402.36	7,248.24	220.04	39.26	163.28	460.81	-9,866.35	2,008.91	1,937.78	71.14	28.241		
14,800.00	7,226.75	7,401.25	7,247.13	222.88	39.26	162.49	460.83	-9,866.37	1,908.92	1,837.71	71.21	26.807		
14,900.00	7,226.38	7,399.92	7,245.80	225.71	39.25	161.61	460.85	-9,866.38	1,808.93	1,737.65	71.28	25.377		
15,000.00	7,226.02	7,398.59	7,244.47	228.54	39.25	160.65	460.87	-9,866.40	1,708.95	1,637.59	71.36	23.949		
15,005.81	7,226.00	7,398.51	7,244.39	228.71	39.25	160.59	460.87	-9,866.40	1,703.14	1,631.77	71.36	23.866 CC, ES, SF		

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

Company:	SRC ENERGY	Local Co-ordinate Reference:	Well HARVESTERS STATE 31C-16-M
Project:	SECTION 15, T6N, R66W	TVD Reference:	KB @ 4821.00ft
Reference Site:	HARVESTERS STATE 7-15 PAD	MD Reference:	KB @ 4821.00ft
Site Error:	3.28 ft	North Reference:	True
Reference Well:	HARVESTERS STATE 31C-16-M	Survey Calculation Method:	Minimum Curvature
Well Error:	3.28 ft	Output errors are at	2.45 sigma
Reference Wellbore	OH	Database:	EDM 5000.14 Single User Db
Reference Design:	PLAN #1	Offset TVD Reference:	Reference Datum

Reference Depths are relative to KB @ 4821.00ft
Offset Depths are relative to Offset Datum
Central Meridian is -105.5000000

Coordinates are relative to: HARVESTERS STATE 31C-16-M
Coordinate System is US State Plane 1983, Colorado Northern Zone
Grid Convergence at Surface is: 0.48°

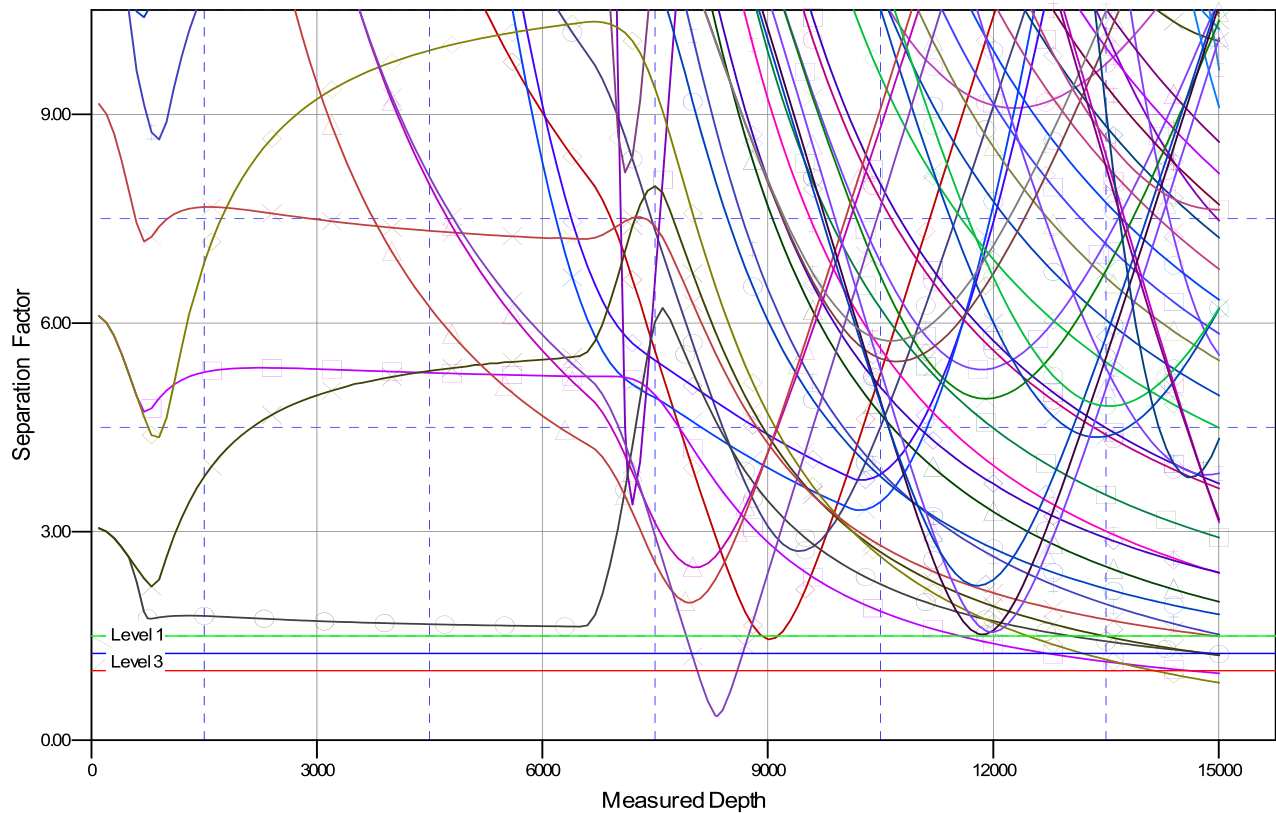


Company:	SRC ENERGY	Local Co-ordinate Reference:	Well HARVESTERS STATE 31C-16-M
Project:	SECTION 15, T6N, R66W	TVD Reference:	KB @ 4821.00ft
Reference Site:	HARVESTERS STATE 7-15 PAD	MD Reference:	KB @ 4821.00ft
Site Error:	3.28 ft	North Reference:	True
Reference Well:	HARVESTERS STATE 31C-16-M	Survey Calculation Method:	Minimum Curvature
Well Error:	3.28 ft	Output errors are at	2.45 sigma
Reference Wellbore	OH	Database:	EDM 5000.14 Single User Db
Reference Design:	PLAN #1	Offset TVD Reference:	Reference Datum

Reference Depths are relative to KB @ 4821.00ft
 Offset Depths are relative to Offset Datum
 Central Meridian is -105.5000000

Coordinates are relative to: HARVESTERS STATE 31C-16-M
 Coordinate System is US State Plane 1983, Colorado Northern Zone
 Grid Convergence at Surface is: 0.48°

Separation Factor Plot



LEGEND

BERG 33-45 (AB_1500Q) OH OHV0	HARVESTERS RESOURCES 15M423 (PR_1500Q) OH OHV0	H006-220 (PR_1500Q) OH OHV0
BERR 22-21 (PR_750Q) OH OHV0	HARVESTERS RESOURCES 15M433 (PR_1500Q) OH OHV0	LEFFLER 21-21 (SL_750Q) OH OHV0
BLACK GOLD ESTROLEUM 1 (PR_1500Q) OH OHV0	HARVESTERS RESOURCES 15M403 (PR_1500Q) OH OHV0	LEFFLER 26-23-L (SRC PLAN_750Q) OH PLANV0
BLACK GOLD (AB_1500Q) OH OHV0	HARVESTERS STATE 30C-16M OH PLAN#1 V0	LEFFLER 26-23B-L (SRC PLAN_750Q) OH PLANV0
BURBACH 15-22 (SL_1500Q) OH OHV0	HARVESTERS STATE 30N-16M OH PLAN#1 V0	LOVELY 149 (AB_1500Q) OH OHV0
BURBACH 15-23 (SL_1500Q) OH OHV0	HARVESTERS STATE 33C-16M OH PLAN#1 V0	LOVELY 149 (AB_1500Q) OH OHV0
BURMAN 16-42 (PR_750Q) OH OHV0	HARVESTERS STATE 34C-16M OH PLAN#1 V0	LUCAS SCHOOL 1 (TA_1500Q) OH OHV0
BURMAN 16-43 (PR_750Q) OH OHV0	HARVESTERS STATE 5C-16M OH PLAN#1 V0	LUCAS SCHOOL 34-9 (TA_1500Q) OH OHV0
DOHN 0200-01 (SRC PLAN_750Q) OH SRC PLANV0	HARVESTERS STATE 12N-16BM OH PLAN#1 V0	MAURICE LEFFLER 1 (AB_1500Q) OH OHV0
DOHN 0200-01-L (SRC PLAN_750Q) OH PLAN#1 V0	HARVESTERS STATE 12N-16BM OH PLAN#1 V0	MOGLOTHUN 6-17 (PR_600Q) OH OHV0
FALKEN 31N-9C-L (SRC PLAN_750Q) OH PLAN#1 V0	HARVESTERS STATE 12N-16BM OH PLAN#1 V0	MOGLOTHUN 17-11 (PR_750Q) OH OHV0
FALKEN 31N-9C-L (SRC PLAN_750Q) OH PLAN#1 V0	HARVESTERS STATE 13C-16M OH PLAN#1 V0	MONTEWA 10-34 (PR_750Q) OH OHV0
FITZLER 11-21-4 (PR_1500Q) OH OHV0	HARVESTERS STATE 13N-16BM OH PLAN#1 V0	RUTT-ADAMS HERS 2-22 OH OHV0
FITZLER 11-21 (PR_1500Q) OH OHV0	HARVESTERS STATE 31N-16BM OH PLAN#1 V0	SENA 15-21 (PR_750Q) OH OHV0
FITZLER 16-17 (PR_1500Q) OH OHV0	HARVESTERS STATE 32C-16M OH PLAN#1 V0	SENA 15-24 (PR_750Q) OH OHV0
FITZLER 17-23-16 (PR_1500Q) OH OHV0	HARVESTERS STATE 32C-16M OH PLAN#1 V0	SENA 15-25 (PR_750Q) OH OHV0
FITZLER 17-32-12 (PR_1500Q) OH OHV0	HARVESTERS STATE 32N-16BM OH PLAN#1 V0	STATE 1 (AB_1500Q) OH OHV0
FITZLER 17-42-11 (PR_1500Q) OH OHV0	HARVESTERS STATE 32N-16BM OH PLAN#1 V0	STATEBATRICE 16-11 (AB_1500Q) OH OHV0
FITZLER 18-17 (PR_1500Q) OH OHV0	HARVESTERS STATE 33N-16BM OH PLAN#1 V0	STATEBATRICE 32-16 (PR_750Q) OH OHV0
FITZLER 18-17 (PR_1500Q) OH OHV0	HARVESTERS STATE 33N-16BM OH PLAN#1 V0	STATE HOPE 16-11 (SL_750Q) OH OHV0
FITZLER 18-17 (PR_1500Q) OH OHV0	HARVESTERS STATE 34N-16BM OH PLAN#1 V0	STATE HOPE 16-21 (PR_750Q) OH OHV0
FITZLER 18-17 (PR_1500Q) OH OHV0	HARVESTERS STATE 41N-16M OH PLAN#1 V0	STATE HOPE 16-31 (PR_1500Q) OH OHV0
FITZLER 18-17 (PR_1500Q) OH OHV0	HARVESTERS STATE 41N-16M OH PLAN#1 V0	STOCKOVER 6-11 (PR_750Q) OH OHV0
GRIFFIN 30-01 (XX) OH OHV0	HARVESTERS STATE 41N-16M OH PLAN#1 V0	ULRICH 11-07 (PR_750Q) OH OHV0
HARVESTERS 11-15 (SL_1500Q) OH OHV0	HARVESTERS STATE 5N-16BM OH PLAN#1 V0	