



SRC ENERGY

**SECTION 15, T6N, R66W
HARVESTERS STATE 7-15 PAD
HARVESTERS STATE 4N-16A-M**

**OH
PLAN #1**

Anticollision Report

03 October, 2017





Anticollision Report



Company:	SRC ENERGY	Local Co-ordinate Reference:	Well HARVESTERS STATE 4N-16A-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 4N-16A-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	10/3/2017		
From (ft)	To (ft)	Survey (Wellbore)	Tool Name	Description
0.00	14,731.23	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
HARVESTERS STATE 7-15 PAD						
BERG 33-15 (AB_150CC) - OH - OH	100.00	58.57	1,716.12	1,709.55	261.320	CC
BERG 33-15 (AB_150CC) - OH - OH	600.00	555.88	1,717.08	1,709.10	215.229	ES
BERG 33-15 (AB_150CC) - OH - OH	6,900.00	6,770.51	2,474.10	2,414.56	41.553	SF
BERRY 22-2(PR_75CC) - OH - OH	100.00	29.31	4,452.82	4,446.26	678.236	CC
BERRY 22-2(PR_75CC) - OH - OH	200.00	124.67	4,452.87	4,446.24	671.363	ES
BERRY 22-2(PR_75CC) - OH - OH	10,900.00	6,928.67	7,004.32	6,885.91	59.153	SF
BLACK GOLD PETROLEUM 1(PR_150CC) - OH - OH	0.00	20.19	4,452.82			
BLACK GOLD PETROLEUM 1(PR_150CC) - OH - OH	600.00	618.94	4,453.53	4,445.40	547.763	ES
BLACK GOLD PETROLEUM 1(PR_150CC) - OH - OH	10,900.00	7,211.11	7,019.04	6,899.25	58.598	SF
BLACKGOLD 3(AB_150CC) - OH - OH	7,758.89	6,964.84	1,491.70	1,420.51	20.955	CC
BLACKGOLD 3(AB_150CC) - OH - OH	7,800.00	6,965.29	1,492.27	1,420.27	20.727	ES
BLACKGOLD 3(AB_150CC) - OH - OH	8,300.00	6,970.73	1,586.80	1,505.44	19.503	SF
BURBACH 15-22(SI_150CC) - OH - OH	8,733.45	6,925.90	156.32	-146.85	0.516	Level 1, CC, ES, SF
BURBACH 15-23(SI_150CC) - OH - OH	9,113.32	6,909.76	1,174.24	862.02	3.761	CC, ES
BURBACH 15-23(SI_150CC) - OH - OH	9,200.00	6,909.50	1,177.43	863.37	3.749	SF
BURMAN 16-42(PR_75CC) - OH - OH	11,383.42	6,908.01	2,326.61	1,952.99	6.227	CC
BURMAN 16-42(PR_75CC) - OH - OH	11,400.00	6,908.06	2,326.67	1,952.61	6.220	ES
BURMAN 16-42(PR_75CC) - OH - OH	11,700.00	6,908.96	2,348.05	1,967.23	6.166	SF
BURMAN 16-43(PR_75CC) - OH - OH	11,400.35	6,888.94	3,827.46	3,454.03	10.250	CC
BURMAN 16-43(PR_75CC) - OH - OH	11,500.00	6,888.64	3,828.75	3,452.69	10.181	ES
BURMAN 16-43(PR_75CC) - OH - OH	12,200.00	6,886.55	3,910.10	3,518.24	9.978	SF
DONN 30N 20A-L(SRC PLAN_75CC) - OH - SRC PLAN	9,673.42	7,250.00	4,348.25	4,225.94	35.551	CC
DONN 30N 20A-L(SRC PLAN_75CC) - OH - SRC PLAN	14,732.12	12,349.02	4,483.91	4,074.20	10.944	ES, SF
DONN 30N-20B-L(SRC PLAN_75CC) - OH - PLAN	9,579.65	7,267.61	4,548.06	4,428.78	38.127	CC
DONN 30N-20B-L(SRC PLAN_75CC) - OH - PLAN	14,732.12	12,348.99	4,629.05	4,222.69	11.391	ES, SF
FALKEN 34C-9-L(SRC PLAN_75CC) - OH - Plan 1	7,365.69	16,605.49	1,358.16	1,058.41	4.531	CC
FALKEN 34C-9-L(SRC PLAN_75CC) - OH - Plan 1	9,900.00	19,118.26	1,384.48	958.25	3.248	ES, SF
FALKEN 34N-9C-L(SRC PLAN_75CC) - OH - Plan 1	9,864.57	19,020.17	1,166.50	737.87	2.721	CC
FALKEN 34N-9C-L(SRC PLAN_75CC) - OH - Plan 1	9,900.00	19,018.34	1,167.02	737.55	2.717	ES, SF
FRITZLER 11-21-4(PR_150CC) - OH - OH	13,664.30	6,973.39	4,314.00	4,082.89	18.666	CC
FRITZLER 11-21-4(PR_150CC) - OH - OH	13,800.00	6,976.29	4,316.14	4,081.24	18.375	ES
FRITZLER 11-21-4(PR_150CC) - OH - OH	14,732.12	6,997.31	4,444.13	4,189.01	17.420	SF
FRITZLER 11-21(PR_150CC) - OH - OH	14,268.08	6,862.38	4,978.67	4,525.62	10.989	CC
FRITZLER 11-21(PR_150CC) - OH - OH	14,400.00	6,861.99	4,980.42	4,523.81	10.907	ES
FRITZLER 11-21(PR_150CC) - OH - OH	14,732.12	6,861.00	5,000.25	4,535.37	10.756	SF
FRITZLER 1-17(PR_150CC) - OH - OH	14,732.12	6,876.00	3,744.08	3,282.24	8.107	CC, ES, SF
FRITZLER 17-23-18(PR_150CC) - OH - OH	14,732.12	7,196.00	4,169.79	3,946.95	18.712	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 4N-16A-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 4N-16A-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	14,732.12	7,301.15	2,246.94	2,023.03	10.035	CC, ES, SF
FRITZLER 17-42-11(PR_150CC) - OH - MWD	14,732.12	7,293.95	1,689.14	1,425.92	6.417	CC, ES, SF
FRITZLER 34-17(PR_150CC) - OH - OH	14,732.12	6,949.53	4,263.80	4,025.24	17.873	CC, ES, SF
FRITZLER 43-17(PR_150CC) - OH - OH	14,732.12	7,110.76	2,472.18	2,223.04	9.923	CC, ES, SF
FRITZLER 6-6-17 (PR_150CC) - OH - OH	14,732.12	6,950.76	3,372.20	3,131.03	13.983	CC, ES, SF
FRITZLER 6-8-17(PR_150CC) - OH - OH	14,732.12	7,050.28	4,512.00	4,262.99	18.120	CC, ES, SF
FRITZLER 8-8-17(PR_150CC) - OH - OH	14,732.12	6,862.51	4,307.21	4,046.87	16.545	CC, ES, SF
GREELEY SWD #1(XX) - OH - OH	9,969.35	6,878.21	4,045.92	3,712.16	12.122	CC
GREELEY SWD #1(XX) - OH - OH	10,100.00	6,877.82	4,048.03	3,710.89	12.007	ES
GREELEY SWD #1(XX) - OH - OH	10,900.00	6,875.43	4,151.57	3,796.01	11.676	SF
HARVESTER 31-15(SI_150CC) - OH - OH	6,401.99	6,372.16	670.08	614.21	11.995	CC, ES
HARVESTER 31-15(SI_150CC) - OH - OH	6,500.00	6,468.54	677.19	620.48	11.941	SF
HARVESTER 32-15(SI_150CC) - OH - OH	506.55	485.59	545.88	538.28	71.832	CC
HARVESTER 32-15(SI_150CC) - OH - OH	602.37	581.66	545.89	537.83	67.800	ES
HARVESTER 32-15(SI_150CC) - OH - OH	6,400.00	6,343.28	1,031.26	975.74	18.573	SF
HARVESTER STATE 30C-16-M - OH - PLAN #1	200.00	201.00	79.78	73.11	11.953	CC, ES
HARVESTER STATE 30C-16-M - OH - PLAN #1	14,732.12	15,216.01	928.80	496.68	2.149	SF
HARVESTER STATE 30N-16B-M - OH - PLAN #1	300.00	301.00	60.12	53.23	8.724	CC, ES
HARVESTER STATE 30N-16B-M - OH - PLAN #1	14,732.12	14,942.37	670.05	221.10	1.492	Level 3, SF
HARVESTER STATE 31C-16-M - OH - PLAN #1	600.00	600.00	20.04	11.95	2.476	CC
HARVESTER STATE 31C-16-M - OH - PLAN #1	800.00	801.20	20.43	11.18	2.210	ES
HARVESTER STATE 31C-16-M - OH - PLAN #1	14,732.12	15,008.92	370.70	67.14	1.221	Level 2, SF
HARVESTER STATE 33C-16-M - OH - PLAN #1	200.00	199.00	319.88	313.20	47.934	CC, ES
HARVESTER STATE 33C-16-M - OH - PLAN #1	14,732.12	15,238.78	2,905.03	2,450.71	6.394	SF
HARVESTER STATE 34C-16-M - OH - PLAN #1	200.00	198.00	440.09	433.42	65.957	CC, ES
HARVESTER STATE 34C-16-M - OH - PLAN #1	14,732.12	15,757.22	4,163.64	3,708.28	9.143	SF
HARVESTER STATE 5C-16-M - OH - PLAN #1	600.00	600.00	60.11	52.02	7.428	CC, ES
HARVESTER STATE 5C-16-M - OH - PLAN #1	14,732.12	14,985.04	724.29	300.77	1.710	SF
HARVESTER STATE 12N-16B-M - OH - PLAN #1	200.00	199.00	280.17	273.49	41.983	CC, ES
HARVESTER STATE 12N-16B-M - OH - PLAN #1	14,732.12	14,964.11	2,475.76	2,020.13	5.434	SF
HARVESTER STATE 13C-16-M - OH - PLAN #1	200.00	198.00	379.99	373.32	56.949	CC, ES
HARVESTER STATE 13C-16-M - OH - PLAN #1	14,732.12	15,409.21	3,534.28	3,079.47	7.771	SF
HARVESTER STATE 33N-16C-M - OH - PLAN #1	200.00	198.00	359.95	353.28	53.946	CC, ES
HARVESTER STATE 33N-16C-M - OH - PLAN #1	14,732.12	15,248.61	3,316.41	2,860.85	7.280	SF
HARVESTER STATE 4C-16-M - OH - PLAN #1	500.00	501.00	40.08	34.34	6.981	CC, ES
HARVESTER STATE 4C-16-M - OH - PLAN #1	14,732.12	15,116.21	561.26	171.13	1.439	Level 3, SF
HARVESTERS RESOURCES 15M-303 (PR_150CC) - O	6,984.01	7,807.90	440.49	398.73	10.547	CC
HARVESTERS RESOURCES 15M-303 (PR_150CC) - O	7,000.00	7,807.35	440.98	397.42	10.124	ES
HARVESTERS RESOURCES 15M-303 (PR_150CC) - O	7,100.00	7,804.88	465.47	412.33	8.760	SF
HARVESTERS RESOURCES 15M-423(PR_150CC) - O	6,869.12	7,869.64	696.08	647.97	14.467	CC
HARVESTERS RESOURCES 15M-423(PR_150CC) - O	6,900.00	7,867.13	697.51	647.44	13.931	ES
HARVESTERS RESOURCES 15M-423(PR_150CC) - O	7,100.00	7,855.48	771.03	711.54	12.961	SF
HARVESTERS RESOURCES 15R-243(PR_150CC) - OH	6,690.10	7,799.98	1,004.52	948.38	17.892	CC
HARVESTERS RESOURCES 15R-243(PR_150CC) - OH	6,700.00	7,797.72	1,004.64	948.17	17.791	ES
HARVESTERS RESOURCES 15R-243(PR_150CC) - OH	6,900.00	7,766.21	1,058.59	996.80	17.132	SF
HARVESTERS RESOURCES 15R-403(PR_150CC) - OH	6,673.38	7,815.20	1,334.87	1,275.20	22.368	CC, ES
HARVESTERS RESOURCES 15R-403(PR_150CC) - OH	6,800.00	7,801.28	1,353.24	1,291.11	21.782	SF
HARVESTERS STATE 12N-16A-M - OH - PLAN #1	200.00	199.00	300.20	293.52	44.985	CC, ES
HARVESTERS STATE 12N-16A-M - OH - PLAN #1	14,732.12	14,897.48	2,681.95	2,225.82	5.880	SF
HARVESTERS STATE 12N-16C-M - OH - PLAN #1	200.00	199.00	260.12	253.45	38.979	CC, ES
HARVESTERS STATE 12N-16C-M - OH - PLAN #1	14,732.12	14,966.18	2,270.06	1,815.82	4.997	SF
HARVESTERS STATE 13N-16B-M - OH - PLAN #1	200.00	198.00	400.02	393.34	59.951	CC, ES
HARVESTERS STATE 13N-16B-M - OH - PLAN #1	14,732.12	15,311.86	3,734.83	3,278.90	8.192	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 4N-16A-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 4N-16A-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

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 31N-16B-M - OH - PLAN #1	734.23	735.95	35.81	26.97	4.048	CC
HARVESTERS STATE 31N-16B-M - OH - PLAN #1	14,732.12	14,816.57	440.09	-16.67	0.963	Level 1, ES, SF
HARVESTERS STATE 32C-16-M - OH - PLAN #1	200.00	199.00	240.08	233.41	35.977	CC, ES
HARVESTERS STATE 32C-16-M - OH - PLAN #1	14,732.12	15,074.03	2,071.71	1,579.88	4.212	SF
HARVESTERS STATE 32C-16-M2 - OH - PLAN #1	500.00	500.00	120.22	112.61	15.794	CC, ES
HARVESTERS STATE 32C-16-M2 - OH - PLAN #1	14,732.12	14,997.50	1,353.50	905.79	3.023	SF
HARVESTERS STATE 32N-16B-M - OH - PLAN #1	300.00	299.00	220.04	213.16	31.944	CC, ES
HARVESTERS STATE 32N-16B-M - OH - PLAN #1	14,732.12	14,861.38	1,856.70	1,401.26	4.077	SF
HARVESTERS STATE 32N-16C-M - OH - PLAN #1	508.33	508.33	139.89	132.24	18.288	CC
HARVESTERS STATE 32N-16C-M - OH - PLAN #1	600.00	599.09	139.95	131.87	17.304	ES
HARVESTERS STATE 32N-16C-M - OH - PLAN #1	14,732.12	14,903.50	1,550.35	1,096.42	3.415	SF
HARVESTERS STATE 33N-16B-M - OH - PLAN #1	200.00	199.00	339.90	333.23	50.935	CC, ES
HARVESTERS STATE 33N-16B-M - OH - PLAN #1	14,732.12	15,119.61	3,107.30	2,651.60	6.819	SF
HARVESTERS STATE 34N-16C-M - OH - PLAN #1	200.00	198.00	420.06	413.38	62.954	CC, ES
HARVESTERS STATE 34N-16C-M - OH - PLAN #1	14,732.12	15,458.02	3,947.07	3,491.28	8.660	SF
HARVESTERS STATE 4N-16C-M - OH - PLAN #1	600.00	600.00	20.04	11.95	2.477	CC
HARVESTERS STATE 4N-16C-M - OH - PLAN #1	14,732.12	14,973.45	216.30	-61.57	0.778	Level 1, ES, SF
HARVESTERS STATE 5N-16B-M - OH - PLAN #1	400.00	400.00	100.18	92.97	13.901	CC, ES
HARVESTERS STATE 5N-16B-M - OH - PLAN #1	14,732.12	14,802.91	1,005.91	551.16	2.212	SF
HARVESTERS STATE 5N-16C-M - OH - PLAN #1	500.00	500.00	80.15	72.54	10.529	CC
HARVESTERS STATE 5N-16C-M - OH - PLAN #1	600.00	600.04	80.18	72.09	9.916	ES
HARVESTERS STATE 5N-16C-M - OH - PLAN #1	14,732.12	14,859.15	898.01	449.17	2.001	SF
HOOD 41-20(PR_150CC) - OH - OH	14,732.12	6,868.00	5,068.78	4,605.17	10.933	CC, ES, SF
HOOD 6-2-20(PR_150CC) - OH - OH	14,732.12	7,209.08	5,803.52	5,547.97	22.710	CC, ES, SF
LEFFLER 1 21-2(SI_75CC) - OH - OH	11,607.48	6,874.14	4,953.74	4,783.96	29.177	CC
LEFFLER 1 21-2(SI_75CC) - OH - OH	11,700.00	6,877.58	4,954.61	4,782.31	28.756	ES
LEFFLER 1 21-2(SI_75CC) - OH - OH	13,500.00	6,950.11	5,302.30	5,092.43	25.265	SF
LEFFLER 26C-23-L(SRC PLAN_75CC) - OH - BAKER P	6,700.00	10,465.42	4,640.33	4,498.63	32.748	ES
LEFFLER 26C-23-L(SRC PLAN_75CC) - OH - BAKER P	9,559.52	7,722.92	4,634.91	4,512.60	37.896	CC
LEFFLER 26C-23-L(SRC PLAN_75CC) - OH - BAKER P	12,300.00	7,030.37	5,184.86	5,007.64	29.257	SF
LEFFLER 26N-23B-L(SRC PLAN_75CC) - OH - PLAN	6,600.00	10,339.77	4,358.15	4,216.57	30.782	ES
LEFFLER 26N-23B-L(SRC PLAN_75CC) - OH - PLAN	9,569.81	7,578.09	4,346.32	4,224.03	35.541	CC
LEFFLER 26N-23B-L(SRC PLAN_75CC) - OH - PLAN	12,000.00	6,979.23	4,819.22	4,647.62	28.084	SF
LEFFLER FARM 1-21(PA_75CC) - OH - OH	12,951.44	6,868.31	5,168.36	4,752.25	12.421	CC
LEFFLER FARM 1-21(PA_75CC) - OH - OH	13,100.00	6,867.87	5,170.50	4,750.38	12.307	ES
LEFFLER FARM 1-21(PA_75CC) - OH - OH	14,100.00	6,864.88	5,294.45	4,851.61	11.956	SF
LOVELY 1(AB_150CC) - OH - OH	12,913.71	6,915.42	1,630.57	1,213.87	3.913	CC
LOVELY 1(AB_150CC) - OH - OH	13,000.00	6,915.17	1,632.85	1,213.82	3.897	ES, SF
LOVELY 14-9(AB_150CC) - OH - OH	14,410.42	6,913.96	1,576.47	1,117.59	3.435	CC, ES
LOVELY 14-9(AB_150CC) - OH - OH	14,500.00	6,913.69	1,579.01	1,117.78	3.423	SF
LUCAS SCHOOL 1(TA_150CC) - OH - OH	10,185.12	6,943.56	1,660.89	1,319.01	4.858	CC
LUCAS SCHOOL 1(TA_150CC) - OH - OH	10,200.00	6,943.52	1,660.96	1,318.65	4.852	ES
LUCAS SCHOOL 1(TA_150CC) - OH - OH	10,400.00	6,942.92	1,674.73	1,327.44	4.822	SF
LUCAS SCHOOL 34-9(TA_150CC) - OH - OH	11,400.66	6,900.06	1,640.92	1,267.10	4.390	CC, ES
LUCAS SCHOOL 34-9(TA_150CC) - OH - OH	11,600.00	6,900.66	1,652.99	1,274.20	4.364	SF
MAURICE LEFFLER 1(AB_150CC) - OH - OH	12,963.80	4,452.00	5,525.71	5,226.29	18.455	CC
MAURICE LEFFLER 1(AB_150CC) - OH - OH	13,100.00	4,452.00	5,527.39	5,224.60	18.255	ES
MAURICE LEFFLER 1(AB_150CC) - OH - OH	14,600.00	4,452.00	5,762.86	5,429.19	17.271	SF
MCGLOTHLIN 8-6-17 (PR_150CC) - OH - OH	14,732.12	7,257.74	2,964.68	2,703.67	11.359	CC, ES, SF
MCGLOTHLIN 17-11(PR_75CC) - OH - OH	14,732.12	6,901.00	1,080.58	741.81	3.190	CC, ES, SF
MONTERA 10-34 (PR_75CC) - OH - OH	6,695.63	6,662.47	1,553.40	1,495.10	26.645	CC
MONTERA 10-34 (PR_75CC) - OH - OH	6,700.00	6,666.41	1,553.40	1,495.07	26.628	ES
MONTERA 10-34 (PR_75CC) - OH - OH	7,000.00	6,884.15	1,582.98	1,522.00	25.960	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 4N-16A-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 4N-16A-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						
RUTT-ADAMS HEIRS 2-22 - OH - OH	600.00	540.00	4,406.05	4,384.59	205.278	CC
RUTT-ADAMS HEIRS 2-22 - OH - OH	700.00	639.98	4,407.61	4,382.43	175.087	ES
RUTT-ADAMS HEIRS 2-22 - OH - OH	9,400.00	6,884.91	5,274.88	4,960.84	16.797	SF
SENA 15-21(PR_75CC) - OH - OH	7,727.45	6,944.90	414.78	133.26	1.473	Level 3, CC, ES, SF
SENA 15-24(PR_75CC) - OH - OH	7,678.73	6,931.04	889.83	609.67	3.176	CC
SENA 15-24(PR_75CC) - OH - OH	7,700.00	6,930.98	890.09	609.61	3.173	ES, SF
SENA 15-25(PR_75CC) - OH - OH	8,051.92	6,936.93	205.79	-81.89	0.715	Level 1, CC, ES, SF
STATE 1(AB_150CC) - OH - OH	11,556.07	6,889.47	328.01	-49.76	0.868	Level 1, CC, ES, SF
STATE BEATRICE 16-1(AB_150CC) - OH - OH	11,685.79	6,908.91	349.76	-32.31	0.915	Level 1, CC
STATE BEATRICE 16-1(AB_150CC) - OH - OH	11,700.00	6,908.96	350.05	-32.43	0.915	Level 1, ES, SF
STATE BEATRICE 32-16(PR_75CC) - OH - OH	11,493.92	6,884.66	1,123.53	747.65	2.989	CC
STATE BEATRICE 32-16(PR_75CC) - OH - OH	11,500.00	6,884.64	1,123.54	747.52	2.988	ES
STATE BEATRICE 32-16(PR_75CC) - OH - OH	11,600.00	6,884.34	1,128.53	750.58	2.986	SF
STATE-HOPPE 16-1(SI_75CC) - OH - OH	14,251.59	6,873.43	3,810.80	3,357.83	8.413	CC
STATE-HOPPE 16-1(SI_75CC) - OH - OH	14,400.00	6,872.99	3,813.69	3,356.82	8.347	ES
STATE-HOPPE 16-1(SI_75CC) - OH - OH	14,732.12	6,872.00	3,840.98	3,376.60	8.271	SF
STATE-HOPPE 16-2(PR_75CC) - OH - OH	13,104.99	6,889.85	2,327.35	1,906.17	5.526	CC
STATE-HOPPE 16-2(PR_75CC) - OH - OH	13,200.00	6,889.57	2,329.29	1,905.71	5.499	ES
STATE-HOPPE 16-2(PR_75CC) - OH - OH	13,300.00	6,889.27	2,335.51	1,909.74	5.485	SF
STATE-HOPPE 16-3(PR_150CC) - OH - OH	14,303.00	6,878.93	1,161.12	915.60	4.729	CC, ES
STATE-HOPPE 16-3(PR_150CC) - OH - OH	14,400.00	6,880.18	1,165.16	917.89	4.712	SF
STOCKOVER 16-1(PR_75CC) - OH - OH	10,153.20	6,880.66	2,303.47	1,964.64	6.798	CC
STOCKOVER 16-1(PR_75CC) - OH - OH	10,200.00	6,880.52	2,303.94	1,963.93	6.776	ES
STOCKOVER 16-1(PR_75CC) - OH - OH	10,500.00	6,879.63	2,329.43	1,982.75	6.719	SF
ULRICH PC I 17-07D(PR_75CC) - OH - OH	14,732.12	6,986.77	2,407.18	2,264.93	16.922	CC, ES, SF
ULRICH PC I 17-08(PR_75CC) - OH - OH	14,732.12	6,890.00	1,405.65	1,001.01	3.474	CC, ES, SF
ULRICH PC I17-17D(PR_75CC) - OH - OH	14,732.12	7,103.06	1,718.38	1,638.12	21.410	CC, ES, SF

Offset Design												Offset Site Error:	0.00 ft
Survey Program: 100-GYRO-NS												Offset Well Error:	3.28 ft
HARVESTERS STATE 7-15 PAD - BERG 33-15 (AB_150CC) - OH - OH													
Reference	Offset	Semi Major Axis		Distance		Minimum Separation		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	Warning
0.00	0.00	0.00	38.00	3.28	3.28	168.26	-1,680.18	349.09	1,716.48				
100.00	100.00	58.57	96.57	3.28	3.28	168.26	-1,680.24	349.09	1,716.12	1,709.55	6.57	261.320	CC
200.00	200.00	156.58	194.58	3.34	3.31	168.27	-1,680.54	349.07	1,716.42	1,709.77	6.65	258.155	
300.00	300.00	259.27	297.27	3.44	3.40	168.27	-1,680.86	348.86	1,716.68	1,709.84	6.85	250.780	
400.00	400.00	360.35	398.35	3.60	3.54	168.28	-1,680.97	348.78	1,716.78	1,709.63	7.14	240.355	
500.00	500.00	460.03	498.03	3.81	3.72	168.28	-1,681.08	348.81	1,716.89	1,709.36	7.53	228.099	
600.00	600.00	555.88	593.87	4.05	3.93	168.27	-1,681.24	348.94	1,717.08	1,709.10	7.98	215.229	ES
700.00	699.98	652.20	690.20	4.32	4.17	-178.26	-1,681.72	349.04	1,719.33	1,710.84	8.49	202.467	
800.00	799.84	754.32	792.31	4.62	4.46	-178.25	-1,682.31	348.89	1,725.10	1,716.03	9.08	190.081	
900.00	899.45	857.44	895.44	4.94	4.77	-178.23	-1,682.76	348.34	1,734.13	1,724.42	9.71	178.637	
1,000.00	998.80	958.80	996.79	5.28	5.09	-178.22	-1,683.04	347.81	1,745.71	1,735.34	10.37	168.340	
1,100.00	1,098.12	1,055.97	1,093.96	5.63	5.42	-178.21	-1,683.31	347.14	1,757.45	1,746.40	11.04	159.126	
1,200.00	1,197.44	1,153.30	1,191.29	6.00	5.75	-178.20	-1,683.76	346.57	1,769.38	1,757.64	11.74	150.663	
1,300.00	1,296.77	1,252.62	1,290.60	6.37	6.11	-178.19	-1,684.24	345.90	1,781.32	1,768.85	12.47	142.832	
1,400.00	1,396.09	1,353.72	1,391.70	6.76	6.48	-178.17	-1,684.75	345.09	1,793.26	1,780.03	13.22	135.614	
1,500.00	1,495.41	1,457.49	1,495.47	7.15	6.87	-178.16	-1,685.05	344.28	1,804.99	1,790.99	14.00	128.928	
1,600.00	1,594.74	1,559.68	1,597.66	7.55	7.25	-178.14	-1,685.10	343.51	1,816.49	1,801.71	14.78	122.875	

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 4N-16A-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 4N-16A-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		
1,700.00	1,694.06	1,657.35	1,695.31	7.96	7.63	-178.12	-1,685.17	342.45	1,827.95	1,812.39	15.56	117.483		
1,800.00	1,793.38	1,753.36	1,791.32	8.37	8.00	-178.10	-1,685.38	341.55	1,839.58	1,823.25	16.34	112.598		
1,900.00	1,892.71	1,851.82	1,889.77	8.78	8.39	-178.08	-1,685.74	340.60	1,851.35	1,834.22	17.13	108.054		
2,000.00	1,992.03	1,949.63	1,987.58	9.20	8.78	-178.06	-1,686.10	339.61	1,863.12	1,845.19	17.93	103.890		
2,100.00	2,091.36	2,047.29	2,085.23	9.62	9.17	-178.04	-1,686.65	338.45	1,875.04	1,856.30	18.74	100.062		
2,200.00	2,190.68	2,146.32	2,184.25	10.05	9.56	-178.02	-1,687.18	337.43	1,886.96	1,867.41	19.56	96.495		
2,300.00	2,290.00	2,243.80	2,281.73	10.48	9.96	-178.00	-1,687.70	336.77	1,898.95	1,878.58	20.37	93.228		
2,400.00	2,389.33	2,345.73	2,383.65	10.90	10.37	-177.99	-1,688.33	335.92	1,910.99	1,889.78	21.21	90.114		
2,500.00	2,488.65	2,450.46	2,488.38	11.34	10.80	-177.97	-1,688.65	334.90	1,922.70	1,900.64	22.06	87.157		
2,600.00	2,587.97	2,551.70	2,589.62	11.77	11.21	-177.96	-1,688.76	334.19	1,934.27	1,911.37	22.90	84.462		
2,700.00	2,687.30	2,649.23	2,687.14	12.20	11.61	-177.96	-1,688.78	333.67	1,945.79	1,922.07	23.73	82.005		
2,800.00	2,786.62	2,745.32	2,783.24	12.64	12.01	-177.95	-1,689.00	333.17	1,957.52	1,932.97	24.55	79.734		
2,900.00	2,885.94	2,845.33	2,883.24	13.07	12.42	-177.95	-1,689.28	332.64	1,969.30	1,943.90	25.39	77.550		
3,000.00	2,985.27	2,944.07	2,981.98	13.51	12.83	-177.95	-1,689.48	332.22	1,981.01	1,954.78	26.23	75.515		
3,100.00	3,084.59	3,039.58	3,077.49	13.95	13.23	-177.94	-1,689.83	331.76	1,992.88	1,965.82	27.06	73.648		
3,200.00	3,183.91	3,138.87	3,176.78	14.39	13.64	-177.94	-1,690.34	331.27	2,004.89	1,976.99	27.91	71.846		
3,300.00	3,283.24	3,245.96	3,283.87	14.83	14.09	-177.94	-1,690.59	331.06	2,016.69	1,987.90	28.79	70.047		
3,400.00	3,382.56	3,355.02	3,392.92	15.27	14.54	-177.94	-1,690.41	330.44	2,028.01	1,998.33	29.69	68.318		
3,500.00	3,481.88	3,454.27	3,492.17	15.71	14.96	-177.94	-1,689.93	329.80	2,039.02	2,008.49	30.53	66.779		
3,600.00	3,581.21	3,547.21	3,585.10	16.16	15.34	-177.93	-1,689.75	329.08	2,050.28	2,018.93	31.35	65.391		
3,700.00	3,680.53	3,637.47	3,675.36	16.60	15.72	-177.92	-1,689.87	328.41	2,061.88	2,029.72	32.16	64.108		
3,800.00	3,779.85	3,726.98	3,764.87	17.04	16.10	-177.91	-1,690.52	327.68	2,074.02	2,041.06	32.97	62.912		
3,900.00	3,879.18	3,827.21	3,865.10	17.49	16.52	-177.89	-1,691.44	326.88	2,086.37	2,052.54	33.83	61.679		
4,000.00	3,978.50	3,932.64	3,970.52	17.93	16.96	-177.88	-1,692.11	326.15	2,098.46	2,063.74	34.71	60.452		
4,100.00	4,077.82	4,032.60	4,070.48	18.37	17.38	-177.87	-1,692.63	325.41	2,110.42	2,074.85	35.57	59.328		
4,200.00	4,177.15	4,133.50	4,171.37	18.82	17.81	-177.86	-1,693.14	324.59	2,122.35	2,085.92	36.44	58.247		
4,300.00	4,276.47	4,246.82	4,284.69	19.27	18.29	-177.85	-1,693.36	323.85	2,134.04	2,096.68	37.36	57.114		
4,400.00	4,375.79	4,355.18	4,393.04	19.71	18.74	-177.84	-1,692.68	322.91	2,144.85	2,106.58	38.27	56.050		
4,500.00	4,475.12	4,452.97	4,490.83	20.16	19.16	-177.84	-1,692.13	322.11	2,155.74	2,116.62	39.12	55.109		
4,600.00	4,574.44	4,566.99	4,604.83	20.60	19.64	-177.82	-1,691.26	320.91	2,166.42	2,126.37	40.05	54.095		
4,700.00	4,673.76	4,665.35	4,703.18	21.05	20.05	-177.82	-1,689.88	320.10	2,176.49	2,135.59	40.90	53.211		
4,800.00	4,773.09	4,763.47	4,801.30	21.50	20.46	-177.84	-1,688.63	320.14	2,186.87	2,145.11	41.76	52.371		
4,900.00	4,872.41	4,847.90	4,885.72	21.94	20.82	-177.83	-1,687.84	319.21	2,197.37	2,154.83	42.54	51.649		
5,000.00	4,971.74	4,926.79	4,964.60	22.39	21.15	-177.81	-1,688.02	318.19	2,208.92	2,165.62	43.30	51.014		
5,100.00	5,071.06	5,029.01	5,066.81	22.84	21.58	-177.82	-1,688.52	318.01	2,220.97	2,176.79	44.18	50.274		
5,200.00	5,170.38	5,158.02	5,195.82	23.29	22.12	-177.84	-1,687.63	318.39	2,231.92	2,186.73	45.19	49.388		
5,300.00	5,269.71	5,261.88	5,299.66	23.74	22.56	-177.88	-1,686.09	319.15	2,242.22	2,196.14	46.08	48.663		
5,400.00	5,369.03	5,350.06	5,387.83	24.18	22.93	-177.92	-1,684.84	320.07	2,252.66	2,205.78	46.88	48.048		
5,500.00	5,468.35	5,432.76	5,470.52	24.63	23.28	-177.96	-1,684.22	321.25	2,263.82	2,216.16	47.66	47.499		
5,600.00	5,567.68	5,524.71	5,562.47	25.08	23.66	-177.99	-1,684.26	322.06	2,275.62	2,227.14	48.49	46.935		
5,700.00	5,667.00	5,636.53	5,674.28	25.53	24.13	-178.03	-1,683.87	323.00	2,287.04	2,237.63	49.41	46.282		
5,800.00	5,766.32	5,734.95	5,772.70	25.98	24.55	-178.07	-1,683.36	324.28	2,298.40	2,248.13	50.27	45.717		
5,900.00	5,865.65	5,835.70	5,873.44	26.43	24.97	-178.09	-1,682.94	324.52	2,309.64	2,258.50	51.15	45.158		
6,000.00	5,964.97	5,928.93	5,966.67	26.88	25.36	-178.11	-1,682.64	324.99	2,321.04	2,269.07	51.98	44.654		
6,100.00	6,064.29	6,019.59	6,057.32	27.33	25.75	-178.16	-1,682.39	326.53	2,332.72	2,279.93	52.80	44.184		
6,200.00	6,163.62	6,103.97	6,141.67	27.78	26.10	-178.21	-1,682.59	328.28	2,344.97	2,291.39	53.58	43.767		
6,300.00	6,262.94	6,221.43	6,259.12	28.23	26.60	-178.26	-1,682.81	330.04	2,357.05	2,302.51	54.54	43.213		
6,400.00	6,362.24	6,319.11	6,356.78	28.67	27.01	-159.73	-1,682.57	331.82	2,368.91	2,313.51	55.40	42.759		
6,500.00	6,460.41	6,400.00	6,437.66	29.12	27.35	-126.90	-1,682.67	333.36	2,383.33	2,327.17	56.17	42.433		
6,600.00	6,555.09	6,470.44	6,508.08	29.57	27.65	-115.78	-1,683.38	334.66	2,401.47	2,344.60	56.87	42.228		
6,700.00	6,643.94	6,558.52	6,596.14	30.00	28.02	-110.29	-1,685.01	336.24	2,423.24	2,365.56	57.68	42.012		
6,800.00	6,724.78	6,673.52	6,711.12	30.45	28.51	-107.20	-1,686.49	336.70	2,447.37	2,388.70	58.67	41.714		

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 4N-16A-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 4N-16A-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		
6,900.00	6,795.62	6,770.51	6,767.10	30.97	28.92	-104.13	-1,686.75	336.48	2,474.10	2,414.56	59.54	41.553 SF		
7,000.00	6,854.70	6,788.25	6,825.84	31.60	29.00	-101.42	-1,687.40	336.67	2,504.76	2,444.61	60.15	41.639		
7,100.00	6,900.58	6,833.79	6,871.38	32.39	29.19	-98.52	-1,687.90	336.82	2,538.87	2,477.90	60.97	41.643		
7,200.00	6,932.13	6,864.99	6,902.58	33.34	29.33	-95.25	-1,688.25	336.92	2,576.17	2,514.36	61.81	41.679		
7,300.00	6,948.57	6,881.10	6,918.69	34.46	29.39	-91.54	-1,688.43	336.97	2,616.17	2,553.51	62.66	41.750		
7,400.00	6,950.87	6,883.09	6,920.68	35.70	29.40	-89.20	-1,688.45	336.98	2,658.22	2,594.72	63.50	41.858		
7,500.00	6,950.58	6,882.47	6,920.06	37.12	29.40	-89.18	-1,688.44	336.98	2,703.06	2,638.64	64.42	41.960		
7,600.00	6,950.28	6,881.86	6,919.45	38.70	29.40	-89.17	-1,688.43	336.97	2,750.80	2,685.40	65.40	42.061		
7,700.00	6,949.98	6,881.24	6,918.84	40.41	29.39	-89.15	-1,688.43	336.97	2,801.29	2,734.87	66.43	42.172		
7,800.00	6,949.68	6,880.63	6,918.22	42.25	29.39	-89.14	-1,688.42	336.97	2,854.40	2,786.93	67.48	42.301		
7,900.00	6,949.38	6,880.02	6,917.61	44.20	29.39	-89.12	-1,688.41	336.97	2,909.98	2,841.44	68.54	42.455		
8,000.00	6,949.08	6,879.40	6,916.99	46.24	29.39	-89.11	-1,688.41	336.97	2,967.89	2,898.28	69.61	42.638		
8,100.00	6,948.79	6,878.79	6,916.38	48.36	29.38	-89.09	-1,688.40	336.96	3,027.99	2,957.33	70.66	42.851		
8,200.00	6,948.49	6,878.17	6,915.76	50.56	29.38	-89.08	-1,688.39	336.96	3,090.16	3,018.46	71.70	43.098		
8,300.00	6,948.19	6,877.56	6,915.15	52.82	29.38	-89.06	-1,688.39	336.96	3,154.27	3,081.56	72.72	43.377		
8,400.00	6,947.89	6,876.95	6,914.54	55.14	29.38	-89.05	-1,688.38	336.96	3,220.22	3,146.51	73.71	43.690		
8,500.00	6,947.59	6,876.33	6,913.92	57.50	29.37	-89.03	-1,688.37	336.96	3,287.88	3,213.22	74.66	44.035		
8,600.00	6,947.29	6,875.72	6,913.31	59.91	29.37	-89.02	-1,688.37	336.95	3,357.16	3,281.57	75.59	44.412		
8,700.00	6,947.00	6,875.10	6,912.69	62.36	29.37	-89.00	-1,688.36	336.95	3,427.96	3,351.47	76.49	44.819		
8,800.00	6,946.70	6,874.49	6,912.08	64.84	29.37	-88.99	-1,688.35	336.95	3,500.18	3,422.83	77.35	45.254		
8,900.00	6,946.40	6,873.87	6,911.47	67.35	29.36	-88.98	-1,688.35	336.95	3,573.74	3,495.57	78.17	45.716		
9,000.00	6,946.10	6,873.26	6,910.85	69.88	29.36	-88.96	-1,688.34	336.95	3,648.56	3,569.59	78.96	46.205		
9,100.00	6,945.80	6,872.65	6,910.24	72.44	29.36	-88.95	-1,688.33	336.95	3,724.56	3,644.83	79.73	46.717		
9,200.00	6,945.50	6,872.03	6,909.62	75.02	29.36	-88.93	-1,688.33	336.94	3,801.67	3,721.22	80.45	47.253		
9,300.00	6,945.21	6,871.42	6,909.01	77.63	29.35	-88.92	-1,688.32	336.94	3,879.83	3,798.68	81.15	47.810		
9,400.00	6,944.91	6,870.80	6,908.40	80.24	29.35	-88.90	-1,688.31	336.94	3,958.97	3,877.15	81.82	48.387		
9,500.00	6,944.61	6,870.19	6,907.78	82.88	29.35	-88.89	-1,688.31	336.94	4,039.03	3,956.57	82.46	48.983		
9,600.00	6,944.31	6,869.58	6,907.17	85.53	29.35	-88.87	-1,688.30	336.94	4,119.97	4,036.90	83.07	49.597		
9,700.00	6,944.01	6,868.96	6,906.55	88.19	29.34	-88.86	-1,688.29	336.93	4,201.72	4,118.07	83.65	50.227		
9,800.00	6,943.71	6,868.35	6,905.94	90.86	29.34	-88.84	-1,688.29	336.93	4,284.25	4,200.04	84.21	50.873		
9,900.00	6,943.42	6,867.73	6,905.33	93.55	29.34	-88.83	-1,688.28	336.93	4,367.51	4,282.76	84.75	51.533		
10,000.00	6,943.12	6,867.12	6,904.71	96.24	29.33	-88.81	-1,688.27	336.93	4,451.46	4,366.20	85.26	52.208		
10,100.00	6,942.82	6,866.51	6,904.10	98.95	29.33	-88.80	-1,688.26	336.93	4,536.06	4,450.31	85.76	52.894		
10,200.00	6,942.52	6,865.89	6,903.48	101.66	29.33	-88.78	-1,688.26	336.92	4,621.28	4,535.05	86.23	53.593		
10,300.00	6,942.22	6,865.28	6,902.87	104.38	29.33	-88.77	-1,688.25	336.92	4,707.08	4,620.40	86.68	54.304		
10,400.00	6,941.92	6,864.66	6,902.26	107.11	29.32	-88.75	-1,688.24	336.92	4,793.43	4,706.31	87.11	55.024		
10,500.00	6,941.63	6,864.05	6,901.64	109.84	29.32	-88.74	-1,688.24	336.92	4,880.29	4,792.76	87.53	55.755		
10,600.00	6,941.33	6,863.43	6,901.03	112.58	29.32	-88.73	-1,688.23	336.92	4,967.66	4,879.73	87.93	56.495		
10,700.00	6,941.03	6,862.82	6,900.41	115.33	29.32	-88.71	-1,688.22	336.91	5,055.49	4,967.17	88.32	57.243		
10,800.00	6,940.73	6,862.21	6,899.80	118.08	29.31	-88.70	-1,688.22	336.91	5,143.76	5,055.08	88.69	58.000		
10,900.00	6,940.43	6,861.59	6,899.18	120.84	29.31	-88.68	-1,688.21	336.91	5,232.46	5,143.42	89.04	58.765		
11,000.00	6,940.13	6,860.98	6,898.57	123.60	29.31	-88.67	-1,688.20	336.91	5,321.56	5,232.18	89.38	59.537		
11,100.00	6,939.83	6,860.36	6,897.96	126.36	29.31	-88.65	-1,688.20	336.91	5,411.04	5,321.33	89.71	60.315		
11,200.00	6,939.54	6,859.75	6,897.34	129.13	29.30	-88.64	-1,688.19	336.90	5,500.88	5,410.85	90.03	61.100		
11,300.00	6,939.24	6,859.14	6,896.73	131.91	29.30	-88.62	-1,688.18	336.90	5,591.07	5,500.73	90.34	61.891		
11,400.00	6,938.94	6,858.52	6,896.11	134.68	29.30	-88.61	-1,688.18	336.90	5,681.58	5,590.95	90.63	62.688		
11,500.00	6,938.64	6,857.91	6,895.50	137.46	29.30	-88.59	-1,688.17	336.90	5,772.41	5,681.49	90.92	63.490		
11,600.00	6,938.34	6,857.29	6,894.89	140.25	29.29	-88.58	-1,688.16	336.90	5,863.54	5,772.34	91.19	64.297		
11,700.00	6,938.04	6,856.68	6,894.27	143.03	29.29	-88.56	-1,688.16	336.89	5,954.95	5,863.49	91.46	65.109		
11,800.00	6,937.75	6,856.07	6,893.66	145.82	29.29	-88.55	-1,688.15	336.89	6,046.63	5,954.91	91.72	65.925		
11,900.00	6,937.45	6,855.45	6,893.04	148.61	29.28	-88.53	-1,688.14	336.89	6,138.57	6,046.60	91.97	66.746		
12,000.00	6,937.15	6,854.84	6,892.43	151.41	29.28	-88.52	-1,688.14	336.89	6,230.76	6,138.55	92.21	67.570		

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 4N-16A-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 4N-16A-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		
12,100.00	6,936.85	6,854.22	6,891.82	154.20	29.28	-88.51	-1,688.13	336.89	6,323.19	6,230.74	92.45	68.398		
12,200.00	6,936.55	6,853.61	6,891.20	157.00	29.28	-88.49	-1,688.12	336.88	6,415.85	6,323.17	92.67	69.230		
12,300.00	6,936.25	6,852.99	6,890.59	159.80	29.27	-88.48	-1,688.12	336.88	6,508.72	6,415.82	92.90	70.065		
12,400.00	6,935.96	6,852.38	6,889.97	162.61	29.27	-88.46	-1,688.11	336.88	6,601.80	6,508.69	93.11	70.903		
12,500.00	6,935.66	6,851.77	6,889.36	165.41	29.27	-88.45	-1,688.10	336.88	6,695.08	6,601.76	93.32	71.743		
12,600.00	6,935.36	6,851.15	6,888.75	168.22	29.27	-88.43	-1,688.09	336.88	6,788.55	6,695.03	93.52	72.587		
12,700.00	6,935.06	6,850.54	6,888.13	171.02	29.26	-88.42	-1,688.09	336.87	6,882.20	6,788.48	93.72	73.433		
12,800.00	6,934.76	6,849.92	6,887.52	173.83	29.26	-88.40	-1,688.08	336.87	6,976.04	6,882.12	93.91	74.282		
12,900.00	6,934.46	6,849.31	6,886.90	176.65	29.26	-88.39	-1,688.07	336.87	7,070.04	6,975.93	94.10	75.133		
13,000.00	6,934.17	6,848.70	6,886.29	179.46	29.26	-88.37	-1,688.07	336.87	7,164.20	7,069.91	94.28	75.985		
13,100.00	6,933.87	6,848.08	6,885.68	182.27	29.25	-88.36	-1,688.06	336.87	7,258.52	7,164.05	94.46	76.840		
13,200.00	6,933.57	6,847.47	6,885.06	185.09	29.25	-88.34	-1,688.05	336.86	7,352.99	7,258.35	94.64	77.697		
13,300.00	6,933.27	6,846.85	6,884.45	187.91	29.25	-88.33	-1,688.05	336.86	7,447.60	7,352.79	94.81	78.556		
13,400.00	6,932.97	6,846.24	6,883.83	190.72	29.25	-88.31	-1,688.04	336.86	7,542.35	7,447.38	94.97	79.416		
13,500.00	6,932.67	6,845.63	6,883.22	193.54	29.24	-88.30	-1,688.03	336.86	7,637.24	7,542.10	95.14	80.278		
13,600.00	6,932.38	6,845.01	6,882.60	196.36	29.24	-88.29	-1,688.03	336.86	7,732.25	7,636.96	95.29	81.141		
13,700.00	6,932.08	6,844.40	6,881.99	199.19	29.24	-88.27	-1,688.02	336.85	7,827.39	7,731.94	95.45	82.005		
13,800.00	6,931.78	6,843.78	6,881.38	202.01	29.24	-88.26	-1,688.01	336.85	7,922.65	7,827.04	95.60	82.870		
13,900.00	6,931.48	6,843.17	6,880.76	204.83	29.23	-88.24	-1,688.01	336.85	8,018.02	7,922.27	95.75	83.737		
14,000.00	6,931.18	6,842.55	6,880.15	207.66	29.23	-88.23	-1,688.00	336.85	8,113.51	8,017.61	95.90	84.605		
14,100.00	6,930.88	6,841.94	6,879.53	210.48	29.23	-88.21	-1,687.99	336.85	8,209.10	8,113.06	96.04	85.473		
14,200.00	6,930.59	6,841.33	6,878.92	213.31	29.22	-88.20	-1,687.99	336.84	8,304.80	8,208.61	96.18	86.343		
14,300.00	6,930.29	6,840.71	6,878.31	216.14	29.22	-88.18	-1,687.98	336.84	8,400.59	8,304.27	96.32	87.213		
14,400.00	6,929.99	6,840.10	6,877.69	218.96	29.22	-88.17	-1,687.97	336.84	8,496.49	8,400.03	96.46	88.084		
14,500.00	6,929.69	6,839.48	6,877.08	221.79	29.22	-88.15	-1,687.97	336.84	8,592.47	8,495.88	96.59	88.956		
14,600.00	6,929.39	6,838.87	6,876.46	224.62	29.21	-88.14	-1,687.96	336.84	8,688.55	8,591.83	96.72	89.828		
14,700.00	6,929.09	6,838.26	6,875.85	227.45	29.21	-88.12	-1,687.95	336.83	8,784.71	8,687.86	96.85	90.701		
14,732.12	6,929.00	6,838.06	6,875.65	228.36	29.21	-88.12	-1,687.95	336.83	8,815.62	8,718.73	96.90	90.981		



Anticollision Report



Company:	SRC ENERGY	Local Co-ordinate Reference:	Well HARVESTERS STATE 4N-16A-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 4N-16A-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	172.97	-4,419.38	544.69	4,453.37					
100.00	100.00	29.31	99.31	3.28	3.28	172.97	-4,419.38	544.68	4,452.82	4,446.26	6.57	678.236 CC		
200.00	200.00	124.67	194.67	3.34	3.30	172.98	-4,419.46	544.47	4,452.87	4,446.24	6.63	671.363 ES		
300.00	300.00	214.65	284.65	3.44	3.36	172.98	-4,419.71	544.20	4,453.11	4,446.31	6.80	654.882		
400.00	400.00	309.29	379.29	3.60	3.46	172.98	-4,420.11	544.11	4,453.52	4,446.46	7.07	630.253		
500.00	500.00	412.03	482.03	3.81	3.63	172.98	-4,420.55	544.15	4,453.95	4,446.52	7.43	599.121		
600.00	600.00	510.53	580.53	4.05	3.83	172.98	-4,420.97	544.16	4,454.38	4,446.50	7.87	565.703		
700.00	699.98	613.95	683.95	4.32	4.07	-173.54	-4,421.42	543.91	4,456.51	4,448.12	8.39	531.034		
800.00	799.84	717.77	787.77	4.62	4.35	-173.53	-4,421.79	543.41	4,462.00	4,453.03	8.97	497.425		
900.00	899.45	810.04	880.03	4.94	4.62	-173.51	-4,422.21	542.70	4,471.02	4,461.46	9.56	467.590		
1,000.00	998.80	909.94	979.92	5.28	4.94	-173.50	-4,422.75	541.65	4,482.77	4,472.56	10.21	438.949		
1,100.00	1,098.12	990.12	1,060.09	5.63	5.20	-173.50	-4,423.39	540.53	4,494.94	4,484.11	10.82	415.246		
1,200.00	1,197.44	1,077.86	1,147.81	6.00	5.50	-173.50	-4,424.45	539.06	4,507.45	4,495.97	11.49	392.456		
1,300.00	1,296.77	1,172.48	1,242.41	6.37	5.83	-173.49	-4,425.77	537.38	4,520.15	4,507.96	12.19	370.803		
1,400.00	1,396.09	1,280.35	1,350.25	6.76	6.21	-173.48	-4,427.26	535.33	4,532.82	4,519.86	12.96	349.700		
1,500.00	1,495.41	1,387.08	1,456.95	7.15	6.61	-173.47	-4,428.52	533.08	4,545.27	4,531.53	13.75	330.640		
1,600.00	1,594.74	1,486.01	1,555.85	7.55	6.98	-173.46	-4,429.61	531.04	4,557.65	4,543.13	14.52	313.985		
1,700.00	1,694.06	1,577.56	1,647.38	7.96	7.33	-173.45	-4,430.68	529.25	4,570.11	4,554.84	15.27	299.368		
1,800.00	1,793.38	1,697.05	1,766.84	8.37	7.79	-173.44	-4,432.00	527.01	4,582.52	4,566.38	16.14	283.993		
1,900.00	1,892.71	1,782.84	1,852.61	8.78	8.13	-173.43	-4,432.80	525.47	4,594.76	4,577.88	16.88	272.204		
2,000.00	1,992.03	1,875.28	1,945.03	9.20	8.49	-173.43	-4,433.88	523.98	4,607.26	4,589.60	17.66	260.938		
2,100.00	2,091.36	1,967.18	2,036.91	9.62	8.86	-173.42	-4,435.08	522.40	4,619.88	4,601.44	18.44	250.580		
2,200.00	2,190.68	2,056.27	2,125.98	10.05	9.21	-173.41	-4,436.43	520.74	4,632.69	4,613.48	19.21	241.156		
2,300.00	2,290.00	2,151.09	2,220.77	10.48	9.59	-173.40	-4,438.07	518.93	4,645.69	4,625.68	20.01	232.143		
2,400.00	2,389.33	2,287.57	2,357.21	10.90	10.15	-173.39	-4,440.06	516.35	4,658.49	4,637.50	20.99	221.889		
2,500.00	2,488.65	2,470.24	2,539.85	11.34	10.89	-173.39	-4,440.14	513.53	4,669.94	4,647.76	22.17	210.608		
2,600.00	2,587.97	2,587.10	2,656.69	11.77	11.37	-173.39	-4,438.69	511.80	4,680.05	4,656.97	23.08	202.785		
2,700.00	2,687.30	2,687.67	2,757.24	12.20	11.78	-173.39	-4,437.39	510.20	4,690.12	4,666.20	23.92	196.081		
2,800.00	2,786.62	2,781.52	2,851.07	12.64	12.17	-173.38	-4,436.22	508.57	4,700.22	4,675.49	24.73	190.030		
2,900.00	2,885.94	2,879.07	2,948.59	13.07	12.57	-173.38	-4,435.12	506.80	4,710.42	4,684.86	25.57	184.238		
3,000.00	2,985.27	2,971.77	3,041.27	13.51	12.95	-173.37	-4,434.14	505.07	4,720.70	4,694.31	26.38	178.940		
3,100.00	3,084.59	3,074.64	3,144.12	13.95	13.38	-173.37	-4,433.16	503.04	4,731.06	4,703.81	27.24	173.671		
3,200.00	3,183.91	3,183.72	3,253.17	14.39	13.83	-173.36	-4,431.93	500.85	4,741.24	4,713.11	28.13	168.547		
3,300.00	3,283.24	3,271.13	3,340.56	14.83	14.20	-173.36	-4,430.92	499.16	4,751.42	4,722.49	28.93	164.258		
3,400.00	3,382.56	3,356.13	3,425.54	15.27	14.55	-173.35	-4,430.24	497.42	4,761.91	4,732.20	29.71	160.259		
3,500.00	3,481.88	3,444.74	3,514.12	15.71	14.92	-173.34	-4,429.80	495.32	4,772.68	4,742.16	30.52	156.389		
3,600.00	3,581.21	3,536.07	3,605.42	16.16	15.31	-173.33	-4,429.55	492.89	4,783.62	4,752.29	31.34	152.660		
3,700.00	3,680.53	3,629.80	3,699.11	16.60	15.70	-173.31	-4,429.43	490.53	4,794.74	4,762.57	32.16	149.072		
3,800.00	3,779.85	3,726.90	3,796.20	17.04	16.11	-173.31	-4,429.29	488.55	4,805.88	4,772.88	33.01	145.597		
3,900.00	3,879.18	3,818.85	3,888.13	17.49	16.49	-173.30	-4,429.30	486.63	4,817.18	4,783.35	33.83	142.394		
4,000.00	3,978.50	3,922.94	3,992.20	17.93	16.93	-173.29	-4,429.28	484.68	4,828.48	4,793.77	34.71	139.121		
4,100.00	4,077.82	4,024.66	4,093.90	18.37	17.36	-173.29	-4,429.16	482.97	4,839.70	4,804.13	35.57	136.046		
4,200.00	4,177.15	4,128.70	4,197.94	18.82	17.80	-173.29	-4,428.94	481.73	4,850.89	4,814.43	36.45	133.076		
4,300.00	4,276.47	4,247.96	4,317.20	19.27	18.30	-173.31	-4,428.18	481.96	4,861.82	4,824.42	37.40	129.999		
4,400.00	4,375.79	4,402.61	4,471.82	19.71	18.94	-173.35	-4,425.97	483.10	4,872.08	4,833.57	38.50	126.535		
4,500.00	4,475.12	4,496.45	4,565.64	20.16	19.33	-173.38	-4,424.09	483.84	4,881.72	4,842.38	39.34	124.094		
4,600.00	4,574.44	4,567.73	4,636.91	20.60	19.63	-173.40	-4,422.89	484.41	4,891.69	4,851.62	40.07	122.069		
4,700.00	4,673.76	4,634.70	4,703.87	21.05	19.91	-173.42	-4,422.19	484.75	4,902.27	4,861.49	40.79	120.193		
4,800.00	4,773.09	4,700.01	4,769.18	21.50	20.19	-173.43	-4,421.99	485.06	4,913.56	4,872.07	41.49	118.427		
4,900.00	4,872.41	4,798.70	4,867.87	21.94	20.60	-173.45	-4,422.03	485.58	4,925.20	4,882.85	42.35	116.304		
5,000.00	4,971.74	4,896.66	4,965.83	22.39	21.01	-173.47	-4,422.09	485.94	4,936.84	4,893.64	43.20	114.273		
5,100.00	5,071.06	4,995.24	5,064.41	22.84	21.42	-173.49	-4,422.19	486.22	4,948.51	4,904.45	44.06	112.312		

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 4N-16A-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 4N-16A-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	5,170.38	5,100.74	5,169.91	23.29	21.86	-173.51	-4,422.20	486.79	4,960.12	4,915.17	44.95	110.345	
5,300.00	5,269.71	5,225.97	5,295.13	23.74	22.39	-173.54	-4,421.85	487.64	4,971.49	4,925.55	45.93	108.232	
5,400.00	5,369.03	5,379.13	5,448.27	24.18	23.03	-173.59	-4,419.94	489.25	4,981.89	4,934.85	47.04	105.898	
5,500.00	5,468.35	5,552.84	5,621.82	24.63	23.77	-173.67	-4,414.41	494.09	4,990.28	4,942.04	48.24	103.439	
5,600.00	5,567.68	5,613.63	5,682.55	25.08	24.03	-173.71	-4,412.56	495.76	4,999.16	4,950.22	48.94	102.154	
5,700.00	5,667.00	5,675.33	5,744.22	25.53	24.29	-173.73	-4,411.20	497.07	5,008.79	4,959.16	49.63	100.919	
5,800.00	5,766.32	5,743.18	5,812.06	25.98	24.58	-173.75	-4,410.26	498.04	5,019.14	4,968.79	50.35	99.683	
5,900.00	5,865.65	5,819.09	5,887.97	26.43	24.90	-173.77	-4,409.71	498.54	5,030.04	4,978.94	51.11	98.424	
6,000.00	5,964.97	5,913.88	5,982.76	26.88	25.30	-173.79	-4,409.33	498.84	5,041.23	4,989.28	51.95	97.041	
6,100.00	6,064.29	6,029.11	6,097.98	27.33	25.79	-173.81	-4,408.65	498.87	5,052.19	4,999.30	52.89	95.524	
6,200.00	6,163.62	6,126.22	6,195.09	27.78	26.20	-173.82	-4,408.09	498.72	5,063.14	5,009.40	53.74	94.208	
6,300.00	6,262.94	6,244.89	6,313.76	28.23	26.70	-173.83	-4,407.14	498.46	5,073.87	5,019.17	54.70	92.756	
6,400.00	6,362.24	6,344.80	6,413.66	28.67	27.13	-155.29	-4,406.09	498.18	5,084.41	5,028.84	55.57	91.495	
6,500.00	6,460.41	6,433.07	6,501.94	29.12	27.50	-122.53	-4,405.32	497.99	5,096.43	5,040.04	56.39	90.382	
6,600.00	6,555.09	6,525.12	6,593.98	29.57	27.89	-111.60	-4,404.67	497.47	5,110.18	5,052.96	57.22	89.303	
6,700.00	6,643.94	6,620.32	6,689.17	30.00	28.30	-106.23	-4,403.96	497.09	5,125.44	5,067.36	58.08	88.249	
6,800.00	6,724.78	6,718.87	6,787.71	30.45	28.72	-102.93	-4,402.86	497.28	5,141.95	5,082.98	58.97	87.191	
6,900.00	6,795.62	6,794.79	6,863.63	30.97	29.04	-100.42	-4,401.89	497.28	5,159.85	5,100.04	59.81	86.267	
7,000.00	6,854.70	6,852.49	6,921.32	31.60	29.28	-98.23	-4,401.15	497.09	5,179.25	5,118.59	60.66	85.389	
7,100.00	6,900.58	6,896.86	6,965.69	32.39	29.47	-96.15	-4,400.60	496.97	5,200.13	5,138.57	61.56	84.475	
7,200.00	6,932.13	6,928.59	6,997.42	33.34	29.61	-94.08	-4,400.20	496.96	5,222.30	5,159.75	62.54	83.499	
7,300.00	6,948.57	6,944.62	7,013.44	34.46	29.67	-91.95	-4,399.98	497.02	5,245.46	5,181.87	63.59	82.488	
7,400.00	6,950.87	6,946.40	7,015.23	35.70	29.68	-90.68	-4,399.96	497.03	5,269.33	5,204.65	64.68	81.466	
7,500.00	6,950.58	6,945.63	7,014.46	37.12	29.68	-90.67	-4,399.97	497.02	5,294.74	5,228.84	65.90	80.343	
7,600.00	6,950.28	6,944.89	7,013.72	38.70	29.68	-90.66	-4,399.98	497.02	5,321.91	5,254.66	67.25	79.138	
7,700.00	6,949.98	6,944.17	7,013.00	40.41	29.67	-90.65	-4,399.99	497.02	5,350.81	5,282.10	68.70	77.885	
7,800.00	6,949.68	6,943.47	7,012.29	42.25	29.67	-90.65	-4,400.00	497.01	5,381.41	5,311.17	70.24	76.614	
7,900.00	6,949.38	6,942.79	7,011.61	44.20	29.67	-90.64	-4,400.01	497.01	5,413.68	5,341.83	71.85	75.346	
8,000.00	6,949.08	6,942.12	7,010.95	46.24	29.66	-90.63	-4,400.01	497.01	5,447.61	5,374.09	73.52	74.101	
8,100.00	6,948.79	6,941.48	7,010.31	48.36	29.66	-90.62	-4,400.02	497.00	5,483.14	5,407.92	75.22	72.892	
8,200.00	6,948.49	6,940.85	7,009.68	50.56	29.66	-90.62	-4,400.03	497.00	5,520.26	5,443.30	76.96	71.729	
8,300.00	6,948.19	6,940.24	7,009.07	52.82	29.66	-90.61	-4,400.04	497.00	5,558.93	5,480.21	78.72	70.619	
8,400.00	6,947.89	6,939.65	7,008.48	55.14	29.65	-90.60	-4,400.05	497.00	5,599.12	5,518.63	80.49	69.565	
8,500.00	6,947.59	6,939.07	7,007.90	57.50	29.65	-90.60	-4,400.06	496.99	5,640.79	5,558.53	82.26	68.571	
8,600.00	6,947.29	6,938.51	7,007.34	59.91	29.65	-90.59	-4,400.06	496.99	5,683.92	5,599.89	84.03	67.638	
8,700.00	6,947.00	6,937.96	7,006.79	62.36	29.65	-90.58	-4,400.07	496.99	5,728.47	5,642.67	85.80	66.765	
8,800.00	6,946.70	6,937.43	7,006.26	64.84	29.64	-90.58	-4,400.08	496.99	5,774.41	5,686.85	87.56	65.952	
8,900.00	6,946.40	6,936.91	7,005.73	67.35	29.64	-90.57	-4,400.09	496.99	5,821.70	5,732.41	89.29	65.197	
9,000.00	6,946.10	6,936.40	7,005.23	69.88	29.64	-90.57	-4,400.09	496.98	5,870.32	5,779.30	91.02	64.498	
9,100.00	6,945.80	6,935.90	7,004.73	72.44	29.64	-90.56	-4,400.10	496.98	5,920.23	5,827.51	92.72	63.854	
9,200.00	6,945.50	6,935.42	7,004.25	75.02	29.64	-90.56	-4,400.11	496.98	5,971.39	5,877.00	94.39	63.262	
9,300.00	6,945.21	6,934.95	7,003.77	77.63	29.63	-90.55	-4,400.11	496.98	6,023.78	5,927.74	96.04	62.720	
9,400.00	6,944.91	6,934.48	7,003.31	80.24	29.63	-90.54	-4,400.12	496.98	6,077.36	5,979.70	97.67	62.226	
9,500.00	6,944.61	6,934.03	7,002.86	82.88	29.63	-90.54	-4,400.12	496.98	6,132.11	6,032.85	99.26	61.777	
9,600.00	6,944.31	6,933.59	7,002.42	85.53	29.63	-90.53	-4,400.13	496.98	6,187.98	6,087.16	100.83	61.371	
9,700.00	6,944.01	6,933.16	7,001.99	88.19	29.63	-90.53	-4,400.14	496.97	6,244.96	6,142.60	102.37	61.007	
9,800.00	6,943.71	6,932.74	7,001.57	90.86	29.62	-90.53	-4,400.14	496.97	6,303.01	6,199.14	103.87	60.681	
9,900.00	6,943.42	6,932.33	7,001.16	93.55	29.62	-90.52	-4,400.15	496.97	6,362.11	6,256.76	105.35	60.392	
10,000.00	6,943.12	6,931.93	7,000.76	96.24	29.62	-90.52	-4,400.15	496.97	6,422.21	6,315.42	106.79	60.138	
10,100.00	6,942.82	6,931.54	7,000.36	98.95	29.62	-90.51	-4,400.16	496.97	6,483.30	6,375.10	108.20	59.917	
10,200.00	6,942.52	6,931.15	6,999.98	101.66	29.62	-90.51	-4,400.16	496.97	6,545.35	6,435.77	109.59	59.727	
10,300.00	6,942.22	6,930.77	6,999.60	104.38	29.62	-90.50	-4,400.17	496.97	6,608.33	6,497.39	110.94	59.567	

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 4N-16A-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 4N-16A-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						
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
10,400.00	6,941.92	6,930.40	6,999.23	107.11	29.61	-90.50	-4,400.17	496.97	6,672.22	6,559.96	112.26	59.436	
10,500.00	6,941.63	6,930.04	6,998.87	109.84	29.61	-90.50	-4,400.18	496.97	6,736.98	6,623.43	113.55	59.331	
10,600.00	6,941.33	6,929.69	6,998.52	112.58	29.61	-90.49	-4,400.18	496.97	6,802.60	6,687.79	114.81	59.251	
10,700.00	6,941.03	6,929.34	6,998.17	115.33	29.61	-90.49	-4,400.19	496.96	6,869.04	6,753.00	116.04	59.196	
10,800.00	6,940.73	6,929.00	6,997.83	118.08	29.61	-90.48	-4,400.19	496.96	6,936.29	6,819.05	117.24	59.163	
10,900.00	6,940.43	6,928.67	6,997.50	120.84	29.61	-90.48	-4,400.20	496.96	7,004.32	6,885.91	118.41	59.153 SF	
11,000.00	6,940.13	6,928.34	6,997.17	123.60	29.61	-90.48	-4,400.20	496.96	7,073.11	6,953.56	119.55	59.162	
11,100.00	6,939.83	6,928.02	6,996.85	126.36	29.60	-90.47	-4,400.21	496.96	7,142.64	7,021.97	120.67	59.192	
11,200.00	6,939.54	6,927.71	6,996.54	129.13	29.60	-90.47	-4,400.21	496.96	7,212.89	7,091.13	121.76	59.239	
11,300.00	6,939.24	6,927.40	6,996.23	131.91	29.60	-90.47	-4,400.21	496.96	7,283.83	7,161.01	122.82	59.305	
11,400.00	6,938.94	6,927.10	6,995.93	134.68	29.60	-90.46	-4,400.22	496.96	7,355.45	7,231.59	123.85	59.388	
11,500.00	6,938.64	6,926.81	6,995.64	137.46	29.60	-90.46	-4,400.22	496.96	7,427.72	7,302.85	124.86	59.486	
11,600.00	6,938.34	6,926.52	6,995.34	140.25	29.60	-90.46	-4,400.23	496.96	7,500.63	7,374.78	125.85	59.600	
11,700.00	6,938.04	6,926.23	6,995.06	143.03	29.60	-90.45	-4,400.23	496.96	7,574.15	7,447.35	126.81	59.729	
11,800.00	6,937.75	6,925.95	6,994.78	145.82	29.60	-90.45	-4,400.23	496.96	7,648.28	7,520.54	127.75	59.871	
11,900.00	6,937.45	6,925.68	6,994.50	148.61	29.59	-90.45	-4,400.24	496.96	7,722.99	7,594.33	128.66	60.027	
12,000.00	6,937.15	6,925.41	6,994.23	151.41	29.59	-90.44	-4,400.24	496.96	7,798.27	7,668.72	129.55	60.195	
12,100.00	6,936.85	6,925.14	6,993.97	154.20	29.59	-90.44	-4,400.24	496.96	7,874.10	7,743.68	130.42	60.376	
12,200.00	6,936.55	6,924.88	6,993.71	157.00	29.59	-90.44	-4,400.25	496.96	7,950.46	7,819.20	131.27	60.568	
12,300.00	6,936.25	6,924.62	6,993.45	159.80	29.59	-90.43	-4,400.25	496.96	8,027.35	7,895.25	132.09	60.771	
12,400.00	6,935.96	6,924.37	6,993.20	162.61	29.59	-90.43	-4,400.25	496.96	8,104.73	7,971.83	132.90	60.984	
12,500.00	6,935.66	6,924.13	6,992.96	165.41	29.59	-90.43	-4,400.26	496.95	8,182.61	8,048.92	133.68	61.208	
12,600.00	6,935.36	6,923.88	6,992.71	168.22	29.59	-90.43	-4,400.26	496.95	8,260.96	8,126.51	134.45	61.442	
12,700.00	6,935.06	6,923.64	6,992.47	171.02	29.59	-90.42	-4,400.26	496.95	8,339.78	8,204.58	135.20	61.685	
12,800.00	6,934.76	6,923.41	6,992.24	173.83	29.58	-90.42	-4,400.27	496.95	8,419.04	8,283.11	135.93	61.936	
12,900.00	6,934.46	6,923.18	6,992.01	176.65	29.58	-90.42	-4,400.27	496.95	8,498.75	8,362.10	136.64	62.197	
13,000.00	6,934.17	6,922.95	6,991.78	179.46	29.58	-90.42	-4,400.27	496.95	8,578.88	8,441.54	137.34	62.465	
13,100.00	6,933.87	6,922.73	6,991.56	182.27	29.58	-90.41	-4,400.27	496.95	8,659.42	8,521.40	138.02	62.741	
13,200.00	6,933.57	6,922.51	6,991.34	185.09	29.58	-90.41	-4,400.28	496.95	8,740.36	8,601.68	138.68	63.025	
13,300.00	6,933.27	6,922.29	6,991.12	187.91	29.58	-90.41	-4,400.28	496.95	8,821.70	8,682.37	139.33	63.316	
13,400.00	6,932.97	6,922.08	6,990.91	190.72	29.58	-90.41	-4,400.28	496.95	8,903.41	8,763.45	139.96	63.615	
13,500.00	6,932.67	6,921.87	6,990.70	193.54	29.58	-90.40	-4,400.29	496.95	8,985.50	8,844.92	140.58	63.919	
13,600.00	6,932.38	6,921.66	6,990.49	196.36	29.58	-90.40	-4,400.29	496.95	9,067.94	8,926.76	141.18	64.231	
13,700.00	6,932.08	6,921.46	6,990.29	199.19	29.58	-90.40	-4,400.29	496.95	9,150.74	9,008.97	141.77	64.548	
13,800.00	6,931.78	6,921.26	6,990.09	202.01	29.58	-90.40	-4,400.29	496.95	9,233.87	9,091.53	142.34	64.871	
13,900.00	6,931.48	6,921.06	6,989.90	204.83	29.57	-90.39	-4,400.30	496.95	9,317.34	9,174.43	142.90	65.200	
14,000.00	6,931.18	6,900.01	6,968.85	207.66	29.49	-90.16	-4,400.56	496.97	9,401.17	9,257.82	143.36	65.579	
14,100.00	6,930.88	6,900.01	6,968.85	210.48	29.49	-90.16	-4,400.56	496.97	9,485.28	9,341.38	143.89	65.919	
14,200.00	6,930.59	6,900.01	6,968.85	213.31	29.49	-90.16	-4,400.56	496.97	9,569.68	9,425.27	144.42	66.263	
14,300.00	6,930.29	6,900.01	6,968.85	216.14	29.49	-90.16	-4,400.56	496.97	9,654.39	9,509.46	144.93	66.613	
14,400.00	6,929.99	6,900.01	6,968.85	218.96	29.49	-90.16	-4,400.56	496.97	9,739.39	9,593.95	145.44	66.967	
14,500.00	6,929.69	6,900.01	6,968.85	221.79	29.49	-90.16	-4,400.56	496.97	9,824.67	9,678.74	145.93	67.326	
14,600.00	6,929.39	6,900.01	6,968.85	224.62	29.49	-90.16	-4,400.56	496.97	9,910.22	9,763.81	146.41	67.689	
14,700.00	6,929.09	6,900.01	6,968.85	227.45	29.49	-90.16	-4,400.56	496.97	9,996.04	9,849.16	146.88	68.057	



Anticollision Report



Company:	SRC ENERGY	Local Co-ordinate Reference:	Well HARVESTERS STATE 4N-16A-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 4N-16A-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						
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
0.00	0.00	20.19	-1.81	3.28	3.28	172.97	-4,419.38	544.69	4,452.82				
100.00	100.00	112.74	90.74	3.28	3.29	172.98	-4,419.52	544.59	4,452.96	4,446.38	6.58	677.181	
200.00	200.00	211.54	189.54	3.34	3.35	172.98	-4,419.77	544.47	4,453.19	4,446.50	6.69	665.716	
300.00	300.00	318.10	296.10	3.44	3.48	172.98	-4,419.95	544.26	4,453.34	4,446.42	6.92	643.539	
400.00	400.00	418.30	396.30	3.60	3.64	172.98	-4,420.09	543.92	4,453.43	4,446.19	7.24	614.904	
500.00	500.00	520.78	498.77	3.81	3.85	172.99	-4,420.17	543.61	4,453.47	4,445.81	7.66	581.771	
600.00	600.00	618.94	596.94	4.05	4.09	172.99	-4,420.27	543.24	4,453.53	4,445.40	8.13	547.763 ES	
700.00	699.98	720.78	698.78	4.32	4.36	-173.53	-4,420.34	542.94	4,455.30	4,446.62	8.68	513.549	
800.00	799.84	817.06	795.06	4.62	4.65	-173.52	-4,420.44	542.74	4,460.57	4,451.32	9.26	481.885	
900.00	899.45	917.94	895.94	4.94	4.96	-173.51	-4,420.57	542.42	4,469.32	4,459.42	9.89	451.763	
1,000.00	998.80	1,015.89	993.88	5.28	5.28	-173.52	-4,420.71	542.14	4,480.77	4,470.21	10.55	424.562	
1,100.00	1,098.12	1,117.88	1,095.87	5.63	5.63	-173.53	-4,420.81	541.85	4,492.37	4,481.12	11.25	399.251	
1,200.00	1,197.44	1,211.88	1,189.87	6.00	5.97	-173.54	-4,420.95	541.50	4,504.01	4,492.07	11.95	377.027	
1,300.00	1,296.77	1,302.46	1,280.45	6.37	6.30	-173.55	-4,421.24	541.11	4,515.82	4,503.17	12.65	357.073	
1,400.00	1,396.09	1,404.36	1,382.35	6.76	6.67	-173.56	-4,421.65	540.62	4,527.69	4,514.29	13.41	337.750	
1,500.00	1,495.41	1,512.29	1,490.28	7.15	7.08	-173.57	-4,421.96	539.95	4,539.44	4,525.24	14.20	319.640	
1,600.00	1,594.74	1,608.57	1,586.55	7.55	7.45	-173.58	-4,422.19	539.31	4,551.14	4,536.18	14.97	304.111	
1,700.00	1,694.06	1,707.32	1,685.30	7.96	7.83	-173.58	-4,422.46	538.68	4,562.87	4,547.12	15.75	289.730	
1,800.00	1,793.38	1,801.29	1,779.27	8.37	8.20	-173.59	-4,422.78	538.04	4,574.66	4,558.14	16.52	276.892	
1,900.00	1,892.71	1,894.31	1,872.29	8.78	8.57	-173.60	-4,423.23	537.27	4,586.58	4,569.28	17.30	265.157	
2,000.00	1,992.03	1,992.02	1,969.98	9.20	8.95	-173.60	-4,423.81	536.26	4,598.58	4,580.48	18.10	254.077	
2,100.00	2,091.36	2,102.32	2,080.28	9.62	9.40	-173.60	-4,424.39	534.93	4,610.49	4,591.53	18.96	243.187	
2,200.00	2,190.68	2,207.59	2,185.54	10.05	9.82	-173.60	-4,424.76	533.55	4,622.21	4,602.41	19.80	233.414	
2,300.00	2,290.00	2,322.37	2,300.31	10.48	10.29	-173.60	-4,424.87	532.03	4,633.69	4,613.00	20.69	223.947	
2,400.00	2,389.33	2,428.90	2,406.83	10.90	10.72	-173.60	-4,424.69	530.71	4,644.91	4,623.36	21.55	215.553	
2,500.00	2,488.65	2,528.49	2,506.42	11.34	11.13	-173.60	-4,424.45	529.68	4,656.08	4,633.70	22.38	208.040	
2,600.00	2,587.97	2,630.80	2,608.72	11.77	11.55	-173.61	-4,424.12	528.80	4,667.20	4,643.98	23.23	200.939	
2,700.00	2,687.30	2,727.40	2,705.32	12.20	11.95	-173.61	-4,423.80	527.97	4,678.31	4,654.26	24.05	194.510	
2,800.00	2,786.62	2,821.17	2,799.08	12.64	12.33	-173.62	-4,423.62	527.19	4,689.56	4,664.69	24.87	188.588	
2,900.00	2,885.94	2,921.04	2,898.95	13.07	12.75	-173.63	-4,423.39	526.47	4,700.78	4,675.07	25.71	182.838	
3,000.00	2,985.27	3,003.20	2,981.11	13.51	13.09	-173.64	-4,423.37	526.03	4,712.23	4,685.75	26.48	177.966	
3,100.00	3,084.59	3,093.95	3,071.86	13.95	13.46	-173.64	-4,423.58	525.59	4,723.95	4,696.67	27.29	173.131	
3,200.00	3,183.91	3,197.92	3,175.83	14.39	13.90	-173.65	-4,423.89	525.04	4,735.72	4,707.57	28.15	168.218	
3,300.00	3,283.24	3,284.11	3,262.02	14.83	14.26	-173.66	-4,424.22	524.55	4,747.57	4,718.63	28.94	164.037	
3,400.00	3,382.56	3,372.80	3,350.70	15.27	14.63	-173.67	-4,424.79	524.00	4,759.67	4,729.93	29.74	160.022	
3,500.00	3,481.88	3,525.93	3,503.83	15.71	15.27	-173.68	-4,425.20	523.19	4,771.46	4,740.63	30.83	154.746	
3,600.00	3,581.21	3,652.05	3,629.94	16.16	15.79	-173.70	-4,424.22	523.03	4,782.21	4,750.40	31.80	150.365	
3,700.00	3,680.53	3,765.97	3,743.86	16.60	16.27	-173.72	-4,422.91	522.77	4,792.59	4,759.87	32.72	146.467	
3,800.00	3,779.85	3,859.59	3,837.46	17.04	16.66	-173.73	-4,421.68	522.58	4,802.82	4,769.27	33.55	143.152	
3,900.00	3,879.18	3,946.98	3,924.85	17.49	17.02	-173.74	-4,420.79	522.26	4,813.31	4,778.95	34.35	140.114	
4,000.00	3,978.50	4,037.79	4,015.66	17.93	17.40	-173.75	-4,420.06	521.87	4,824.00	4,788.83	35.17	137.160	
4,100.00	4,077.82	4,125.57	4,103.43	18.37	17.77	-173.76	-4,419.52	521.36	4,834.87	4,798.89	35.98	134.393	
4,200.00	4,177.15	4,205.10	4,182.96	18.82	18.11	-173.76	-4,419.33	520.87	4,846.10	4,809.36	36.74	131.891	
4,300.00	4,276.47	4,308.69	4,286.55	19.27	18.54	-173.77	-4,419.23	520.28	4,857.49	4,819.86	37.62	129.117	
4,400.00	4,375.79	4,400.28	4,378.14	19.71	18.93	-173.78	-4,419.19	519.80	4,868.91	4,830.47	38.44	126.650	
4,500.00	4,475.12	4,501.84	4,479.70	20.16	19.36	-173.79	-4,419.17	519.34	4,880.39	4,841.08	39.31	124.140	
4,600.00	4,574.44	4,604.92	4,582.78	20.60	19.80	-173.80	-4,419.10	518.87	4,891.80	4,851.61	40.19	121.715	
4,700.00	4,673.76	4,693.28	4,671.14	21.05	20.17	-173.81	-4,419.11	518.40	4,903.30	4,862.30	41.00	119.592	
4,800.00	4,773.09	4,780.74	4,758.60	21.50	20.54	-173.82	-4,419.30	518.12	4,915.02	4,873.21	41.81	117.568	
4,900.00	4,872.41	4,878.07	4,855.92	21.94	20.95	-173.83	-4,419.63	518.15	4,926.90	4,884.24	42.66	115.499	
5,000.00	4,971.74	4,977.52	4,955.38	22.39	21.37	-173.85	-4,419.96	518.17	4,938.77	4,895.25	43.52	113.484	
5,100.00	5,071.06	5,073.02	5,050.87	22.84	21.77	-173.86	-4,420.30	518.20	4,950.68	4,906.31	44.36	111.594	

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 4N-16A-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 4N-16A-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	5,170.38	5,169.28	5,147.13	23.29	22.18	-173.87	-4,420.72	518.26	4,962.67	4,917.45	45.21	109.766		
5,300.00	5,269.71	5,272.52	5,250.37	23.74	22.61	-173.89	-4,421.18	518.33	4,974.66	4,928.57	46.09	107.928		
5,400.00	5,369.03	5,374.71	5,352.56	24.18	23.04	-173.90	-4,421.56	518.22	4,986.55	4,939.58	46.97	106.166		
5,500.00	5,468.35	5,469.36	5,447.21	24.63	23.44	-173.91	-4,421.91	518.17	4,998.46	4,950.65	47.81	104.547		
5,600.00	5,567.68	5,625.50	5,603.35	25.08	24.10	-173.94	-4,421.72	518.36	5,009.93	4,960.99	48.94	102.366		
5,700.00	5,667.00	5,720.64	5,698.49	25.53	24.50	-173.96	-4,421.00	518.59	5,020.76	4,970.98	49.79	100.847		
5,800.00	5,766.32	5,800.00	5,777.84	25.98	24.84	-173.97	-4,420.70	518.61	5,031.93	4,981.38	50.56	99.531		
5,900.00	5,865.65	5,883.78	5,861.62	26.43	25.19	-173.98	-4,420.70	518.54	5,043.46	4,992.11	51.35	98.222		
6,000.00	5,964.97	5,986.13	5,963.97	26.88	25.63	-173.99	-4,420.80	518.30	5,055.08	5,002.86	52.23	96.791		
6,100.00	6,064.29	6,080.72	6,058.57	27.33	26.03	-174.00	-4,420.91	517.88	5,066.69	5,013.62	53.07	95.472		
6,200.00	6,163.62	6,179.62	6,157.46	27.78	26.45	-174.01	-4,421.11	517.37	5,078.36	5,024.43	53.93	94.161		
6,300.00	6,262.94	6,306.85	6,284.69	28.23	26.99	-174.01	-4,421.08	516.48	5,089.81	5,034.88	54.93	92.657		
6,400.00	6,362.24	6,416.90	6,394.73	28.67	27.46	-155.45	-4,420.62	515.40	5,100.89	5,045.04	55.85	91.334		
6,500.00	6,460.41	6,515.55	6,493.37	29.12	27.88	-122.67	-4,420.14	514.40	5,113.22	5,056.51	56.71	90.158		
6,600.00	6,555.09	6,623.58	6,601.40	29.57	28.34	-111.78	-4,419.44	513.07	5,127.02	5,069.39	57.62	88.973		
6,700.00	6,643.94	6,710.44	6,688.25	30.00	28.71	-106.35	-4,418.84	511.87	5,142.30	5,083.86	58.44	87.991		
6,800.00	6,724.78	6,789.39	6,767.18	30.45	29.05	-102.88	-4,418.36	510.59	5,159.13	5,099.89	59.24	87.086		
6,900.00	6,795.62	6,876.71	6,854.48	30.97	29.42	-100.41	-4,417.83	508.68	5,177.38	5,117.25	60.13	86.096		
7,000.00	6,854.70	6,949.50	6,927.23	31.60	29.73	-98.32	-4,417.26	506.63	5,196.91	5,135.86	61.05	85.127		
7,100.00	6,900.58	7,005.78	6,983.49	32.39	29.97	-96.35	-4,416.73	504.95	5,217.78	5,155.77	62.01	84.146		
7,200.00	6,932.13	7,046.93	7,024.61	33.34	30.15	-94.38	-4,416.32	503.60	5,239.88	5,176.84	63.04	83.120		
7,300.00	6,948.57	7,070.91	7,048.58	34.46	30.25	-92.34	-4,416.06	502.74	5,262.99	5,198.86	64.13	82.073		
7,400.00	6,950.87	7,078.24	7,055.91	35.70	30.28	-91.13	-4,415.99	502.47	5,286.86	5,221.62	65.24	81.032		
7,500.00	6,950.58	7,082.54	7,060.20	37.12	30.30	-91.18	-4,415.94	502.30	5,312.29	5,245.80	66.49	79.897		
7,600.00	6,950.28	7,086.93	7,064.59	38.70	30.32	-91.23	-4,415.89	502.14	5,339.47	5,271.61	67.86	78.682		
7,700.00	6,949.98	7,091.44	7,069.09	40.41	30.33	-91.28	-4,415.84	501.96	5,368.37	5,299.03	69.34	77.422		
7,800.00	6,949.68	7,096.06	7,073.71	42.25	30.35	-91.33	-4,415.80	501.78	5,398.96	5,328.06	70.91	76.143		
7,900.00	6,949.38	7,100.79	7,078.43	44.20	30.37	-91.38	-4,415.74	501.59	5,431.22	5,358.68	72.54	74.870		
8,000.00	6,949.08	7,105.64	7,083.28	46.24	30.40	-91.44	-4,415.69	501.40	5,465.12	5,390.88	74.23	73.620		
8,100.00	6,948.79	7,110.62	7,088.26	48.36	30.42	-91.49	-4,415.64	501.19	5,500.62	5,424.65	75.97	72.406		
8,200.00	6,948.49	7,115.73	7,093.37	50.56	30.44	-91.55	-4,415.58	500.98	5,537.70	5,459.96	77.73	71.239		
8,300.00	6,948.19	7,115.34	7,092.97	52.82	30.44	-91.55	-4,415.59	501.01	5,576.32	5,496.83	79.49	70.147		
8,400.00	6,947.89	7,119.02	7,096.65	55.14	30.45	-91.59	-4,415.55	500.86	5,616.46	5,535.17	81.29	69.095		
8,500.00	6,947.59	7,122.71	7,100.34	57.50	30.47	-91.63	-4,415.51	500.72	5,658.08	5,575.00	83.08	68.102		
8,600.00	6,947.29	7,126.39	7,104.02	59.91	30.48	-91.67	-4,415.47	500.57	5,701.14	5,616.27	84.88	67.169		
8,700.00	6,947.00	7,130.07	7,107.70	62.36	30.50	-91.71	-4,415.43	500.42	5,745.62	5,658.96	86.67	66.296		
8,800.00	6,946.70	7,133.76	7,111.38	64.84	30.52	-91.75	-4,415.39	500.28	5,791.49	5,703.04	88.44	65.483		
8,900.00	6,946.40	7,137.44	7,115.06	67.35	30.53	-91.79	-4,415.34	500.13	5,838.70	5,748.50	90.20	64.727		
9,000.00	6,946.10	7,141.12	7,118.74	69.88	30.55	-91.83	-4,415.30	499.98	5,887.23	5,795.28	91.95	64.028		
9,100.00	6,945.80	7,144.81	7,122.42	72.44	30.56	-91.87	-4,415.26	499.83	5,937.05	5,843.38	93.67	63.382		
9,200.00	6,945.50	7,148.49	7,126.10	75.02	30.58	-91.92	-4,415.22	499.69	5,988.12	5,892.75	95.37	62.789		
9,300.00	6,945.21	7,152.17	7,129.78	77.63	30.59	-91.96	-4,415.18	499.54	6,040.41	5,943.37	97.04	62.245		
9,400.00	6,944.91	7,155.86	7,133.46	80.24	30.61	-92.00	-4,415.14	499.39	6,093.89	5,995.21	98.69	61.748		
9,500.00	6,944.61	7,159.54	7,137.14	82.88	30.63	-92.04	-4,415.10	499.25	6,148.54	6,048.23	100.31	61.297		
9,600.00	6,944.31	7,163.22	7,140.82	85.53	30.64	-92.08	-4,415.06	499.10	6,204.31	6,102.41	101.90	60.888		
9,700.00	6,944.01	7,166.91	7,144.50	88.19	30.66	-92.12	-4,415.02	498.95	6,261.17	6,157.72	103.46	60.519		
9,800.00	6,943.71	7,170.59	7,148.18	90.86	30.67	-92.16	-4,414.98	498.81	6,319.11	6,214.12	104.99	60.190		
9,900.00	6,943.42	7,174.28	7,151.86	93.55	30.69	-92.20	-4,414.94	498.66	6,378.09	6,271.60	106.49	59.896		
10,000.00	6,943.12	7,177.96	7,155.54	96.24	30.70	-92.24	-4,414.90	498.51	6,438.07	6,330.12	107.95	59.638		
10,100.00	6,942.82	7,181.64	7,159.22	98.95	30.72	-92.29	-4,414.86	498.36	6,499.05	6,389.66	109.39	59.412		
10,200.00	6,942.52	7,185.33	7,162.90	101.66	30.74	-92.33	-4,414.82	498.22	6,560.97	6,450.18	110.80	59.217		
10,300.00	6,942.22	7,189.01	7,166.58	104.38	30.75	-92.37	-4,414.78	498.07	6,623.83	6,511.66	112.17	59.052		

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 4N-16A-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 4N-16A-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						
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
10,400.00	6,941.92	7,192.69	7,170.26	107.11	30.77	-92.41	-4,414.74	497.92	6,687.58	6,574.07	113.51	58.914	
10,500.00	6,941.63	7,196.38	7,173.94	109.84	30.78	-92.45	-4,414.70	497.78	6,752.22	6,637.39	114.83	58.804	
10,600.00	6,941.33	7,200.06	7,177.62	112.58	30.80	-92.49	-4,414.66	497.63	6,817.70	6,701.59	116.11	58.718	
10,700.00	6,941.03	7,203.74	7,181.30	115.33	30.81	-92.53	-4,414.62	497.48	6,884.02	6,766.65	117.36	58.656	
10,800.00	6,940.73	7,207.43	7,184.98	118.08	30.83	-92.57	-4,414.58	497.34	6,951.14	6,832.55	118.59	58.616	
10,900.00	6,940.43	7,211.11	7,188.66	120.84	30.85	-92.61	-4,414.54	497.19	7,019.04	6,899.25	119.78	58.598 SF	
11,000.00	6,940.13	7,214.79	7,192.34	123.60	30.86	-92.66	-4,414.50	497.04	7,087.69	6,966.74	120.95	58.601	
11,100.00	6,939.83	7,218.48	7,196.02	126.36	30.88	-92.70	-4,414.46	496.90	7,157.09	7,035.00	122.09	58.623	
11,200.00	6,939.54	7,222.16	7,199.70	129.13	30.89	-92.74	-4,414.42	496.75	7,227.20	7,104.00	123.20	58.663	
11,300.00	6,939.24	7,225.84	7,203.38	131.91	30.91	-92.78	-4,414.38	496.60	7,298.00	7,173.72	124.28	58.721	
11,400.00	6,938.94	7,229.53	7,207.06	134.68	30.93	-92.82	-4,414.34	496.45	7,369.48	7,244.14	125.34	58.795	
11,500.00	6,938.64	7,233.21	7,210.74	137.46	30.94	-92.86	-4,414.30	496.31	7,441.62	7,315.24	126.37	58.885	
11,600.00	6,938.34	7,236.89	7,214.42	140.25	30.96	-92.90	-4,414.26	496.16	7,514.39	7,387.01	127.38	58.991	
11,700.00	6,938.04	7,240.58	7,218.10	143.03	30.97	-92.94	-4,414.22	496.01	7,587.78	7,459.41	128.37	59.110	
11,800.00	6,937.75	7,244.26	7,221.78	145.82	30.99	-92.98	-4,414.18	495.87	7,661.77	7,532.44	129.33	59.244	
11,900.00	6,937.45	7,247.94	7,225.46	148.61	31.00	-93.03	-4,414.14	495.72	7,736.34	7,606.08	130.26	59.391	
12,000.00	6,937.15	7,251.63	7,229.14	151.41	31.02	-93.07	-4,414.10	495.57	7,811.48	7,680.31	131.18	59.550	
12,100.00	6,936.85	7,255.31	7,232.82	154.20	31.04	-93.11	-4,414.06	495.43	7,887.17	7,755.11	132.07	59.721	
12,200.00	6,936.55	7,258.99	7,236.50	157.00	31.05	-93.15	-4,414.02	495.28	7,963.40	7,830.46	132.94	59.904	
12,300.00	6,936.25	7,262.68	7,240.18	159.80	31.07	-93.19	-4,413.98	495.13	8,040.14	7,906.36	133.79	60.097	
12,400.00	6,935.96	7,266.36	7,243.86	162.61	31.08	-93.23	-4,413.94	494.98	8,117.39	7,982.78	134.61	60.301	
12,500.00	6,935.66	7,270.04	7,247.54	165.41	31.10	-93.27	-4,413.90	494.84	8,195.13	8,059.71	135.42	60.515	
12,600.00	6,935.36	7,273.73	7,251.23	168.22	31.11	-93.31	-4,413.86	494.69	8,273.35	8,137.13	136.21	60.738	
12,700.00	6,935.06	7,277.41	7,254.91	171.02	31.13	-93.35	-4,413.82	494.54	8,352.03	8,215.04	136.98	60.971	
12,800.00	6,934.76	7,281.09	7,258.59	173.83	31.15	-93.40	-4,413.78	494.40	8,431.16	8,293.42	137.74	61.212	
12,900.00	6,934.46	7,284.78	7,262.27	176.65	31.16	-93.44	-4,413.74	494.25	8,510.72	8,372.25	138.47	61.462	
13,000.00	6,934.17	7,288.46	7,265.95	179.46	31.18	-93.48	-4,413.70	494.10	8,590.72	8,451.53	139.19	61.720	
13,100.00	6,933.87	7,292.14	7,269.63	182.27	31.19	-93.52	-4,413.66	493.96	8,671.12	8,531.23	139.89	61.985	
13,200.00	6,933.57	7,295.83	7,273.31	185.09	31.21	-93.56	-4,413.62	493.81	8,751.93	8,611.36	140.58	62.258	
13,300.00	6,933.27	7,299.51	7,276.99	187.91	31.22	-93.60	-4,413.58	493.66	8,833.13	8,691.89	141.24	62.538	
13,400.00	6,932.97	7,303.19	7,280.67	190.72	31.24	-93.64	-4,413.54	493.52	8,914.71	8,772.82	141.90	62.825	
13,500.00	6,932.67	7,306.88	7,284.35	193.54	31.26	-93.68	-4,413.50	493.37	8,996.66	8,854.13	142.54	63.118	
13,600.00	6,932.38	7,310.56	7,288.03	196.36	31.27	-93.72	-4,413.46	493.22	9,078.98	8,935.81	143.16	63.418	
13,700.00	6,932.08	7,314.24	7,291.71	199.19	31.29	-93.76	-4,413.42	493.07	9,161.64	9,017.87	143.77	63.724	
13,800.00	6,931.78	7,317.93	7,295.39	202.01	31.30	-93.81	-4,413.38	492.93	9,244.64	9,100.27	144.37	64.035	
13,900.00	6,931.48	7,321.61	7,299.07	204.83	31.32	-93.85	-4,413.34	492.78	9,327.98	9,183.02	144.95	64.352	
14,000.00	6,931.18	7,325.29	7,302.75	207.66	31.33	-93.89	-4,413.30	492.63	9,411.63	9,266.11	145.52	64.675	
14,100.00	6,930.88	7,328.98	7,306.43	210.48	31.35	-93.93	-4,413.26	492.49	9,495.61	9,349.53	146.08	65.003	
14,200.00	6,930.59	7,332.66	7,310.11	213.31	31.37	-93.97	-4,413.22	492.34	9,579.89	9,433.26	146.63	65.336	
14,300.00	6,930.29	7,336.34	7,313.79	216.14	31.38	-94.01	-4,413.18	492.19	9,664.46	9,517.30	147.16	65.673	
14,400.00	6,929.99	7,340.03	7,317.47	218.96	31.40	-94.05	-4,413.14	492.05	9,749.33	9,601.65	147.68	66.015	
14,500.00	6,929.69	7,343.71	7,321.15	221.79	31.41	-94.09	-4,413.10	491.90	9,834.48	9,686.29	148.19	66.362	
14,600.00	6,929.39	7,347.39	7,324.83	224.62	31.43	-94.13	-4,413.06	491.75	9,919.91	9,771.21	148.70	66.713	



Anticollision Report



Company:	SRC ENERGY	Local Co-ordinate Reference:	Well HARVESTERS STATE 4N-16A-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 4N-16A-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	-27.08	2,262.73	-1,156.67	2,541.22					
100.00	100.00	120.84	97.84	3.28	3.29	-27.08	2,262.65	-1,156.88	2,541.25	2,534.68	6.58	386.285		
200.00	200.00	219.09	196.09	3.34	3.36	-27.08	2,262.82	-1,156.96	2,541.44	2,534.74	6.70	379.557		
300.00	300.00	328.24	305.24	3.44	3.49	-27.07	2,262.81	-1,156.61	2,541.28	2,534.34	6.93	366.497		
342.61	342.61	365.61	342.61	3.51	3.55	-27.07	2,262.82	-1,156.52	2,541.23	2,534.18	7.05	360.295		
400.00	400.00	420.13	397.13	3.60	3.64	-27.07	2,262.90	-1,156.49	2,541.30	2,534.05	7.24	350.769		
500.00	500.00	528.03	505.03	3.81	3.86	-27.07	2,262.84	-1,156.43	2,541.22	2,533.55	7.67	331.311		
600.00	600.00	634.65	611.65	4.05	4.12	-27.07	2,262.68	-1,156.16	2,540.97	2,532.80	8.17	311.031		
700.00	699.98	740.40	717.40	4.32	4.41	-13.61	2,262.12	-1,155.56	2,538.54	2,529.81	8.73	290.773		
800.00	799.84	838.32	815.31	4.62	4.70	-13.66	2,261.82	-1,155.07	2,532.95	2,523.63	9.32	271.770		
900.00	899.45	945.20	922.19	4.94	5.04	-13.74	2,261.17	-1,154.25	2,523.58	2,513.60	9.98	252.862		
1,000.00	998.80	1,037.50	1,014.48	5.28	5.35	-13.81	2,260.68	-1,153.67	2,511.74	2,501.11	10.62	236.402		
1,100.00	1,098.12	1,133.61	1,110.59	5.63	5.68	-13.86	2,260.38	-1,153.17	2,499.94	2,488.64	11.30	221.141		
1,200.00	1,197.44	1,235.49	1,212.47	6.00	6.04	-13.92	2,260.00	-1,152.64	2,488.10	2,476.07	12.03	206.850		
1,300.00	1,296.77	1,333.32	1,310.29	6.37	6.40	-13.98	2,259.57	-1,152.20	2,476.23	2,463.48	12.76	194.098		
1,400.00	1,396.09	1,429.64	1,406.61	6.76	6.76	-14.03	2,259.40	-1,151.57	2,464.50	2,451.00	13.50	182.591		
1,500.00	1,495.41	1,531.70	1,508.67	7.15	7.14	-14.09	2,259.18	-1,150.96	2,452.78	2,438.51	14.27	171.860		
1,600.00	1,594.74	1,633.95	1,610.92	7.55	7.53	-14.16	2,258.62	-1,150.59	2,440.86	2,425.80	15.06	162.083		
1,700.00	1,694.06	1,727.67	1,704.64	7.96	7.90	-14.23	2,257.93	-1,150.78	2,429.04	2,413.21	15.82	153.495		
1,800.00	1,793.38	1,825.60	1,802.57	8.37	8.28	-14.31	2,257.45	-1,151.04	2,417.47	2,400.86	16.61	145.506		
1,900.00	1,892.71	1,933.39	1,910.35	8.78	8.70	-14.40	2,256.52	-1,151.18	2,405.51	2,388.06	17.45	137.866		
2,000.00	1,992.03	2,024.61	2,001.57	9.20	9.07	-14.48	2,255.75	-1,151.65	2,393.75	2,375.52	18.23	131.334		
2,100.00	2,091.36	2,128.26	2,105.22	9.62	9.48	-14.57	2,254.96	-1,152.12	2,382.04	2,362.99	19.06	124.997		
2,200.00	2,190.68	2,231.66	2,208.61	10.05	9.90	-14.66	2,253.96	-1,152.37	2,370.06	2,350.17	19.89	119.151		
2,300.00	2,290.00	2,326.76	2,303.71	10.48	10.28	-14.75	2,253.07	-1,152.75	2,358.19	2,337.49	20.70	113.928		
2,400.00	2,389.33	2,426.17	2,403.10	10.90	10.69	-14.85	2,252.04	-1,153.42	2,346.36	2,324.83	21.53	108.998		
2,500.00	2,488.65	2,522.64	2,499.56	11.34	11.08	-14.95	2,250.99	-1,154.29	2,334.61	2,312.26	22.35	104.473		
2,600.00	2,587.97	2,618.45	2,595.37	11.77	11.47	-15.05	2,250.04	-1,155.22	2,322.98	2,299.82	23.17	100.271		
2,700.00	2,687.30	2,710.78	2,687.69	12.20	11.85	-15.15	2,249.42	-1,156.02	2,311.59	2,287.62	23.98	96.410		
2,800.00	2,786.62	2,800.26	2,777.17	12.64	12.22	-15.24	2,249.16	-1,156.88	2,300.58	2,275.80	24.78	92.849		
2,900.00	2,885.94	2,903.22	2,880.12	13.07	12.64	-15.34	2,248.97	-1,157.94	2,289.70	2,264.07	25.63	89.334		
3,000.00	2,985.27	2,999.60	2,976.49	13.51	13.04	-15.45	2,248.62	-1,159.22	2,278.82	2,252.36	26.46	86.116		
3,100.00	3,084.59	3,099.19	3,076.07	13.95	13.45	-15.57	2,248.18	-1,160.80	2,268.00	2,240.70	27.31	83.055		
3,200.00	3,183.91	3,191.74	3,168.60	14.39	13.84	-15.68	2,247.86	-1,162.39	2,257.34	2,229.21	28.13	80.252		
3,300.00	3,283.24	3,285.32	3,262.16	14.83	14.23	-15.81	2,247.59	-1,164.43	2,246.96	2,218.01	28.95	77.603		
3,400.00	3,382.56	3,382.73	3,359.54	15.27	14.63	-15.94	2,247.36	-1,166.83	2,236.78	2,206.98	29.80	75.068		
3,500.00	3,481.88	3,486.84	3,463.63	15.71	15.07	-16.09	2,247.08	-1,169.33	2,226.55	2,195.89	30.67	72.608		
3,600.00	3,581.21	3,583.51	3,560.27	16.16	15.47	-16.22	2,246.81	-1,171.50	2,216.25	2,184.74	31.51	70.341		
3,700.00	3,680.53	3,709.76	3,686.48	16.60	16.00	-16.41	2,245.83	-1,174.31	2,205.55	2,173.09	32.46	67.952		
3,800.00	3,779.85	3,815.87	3,792.56	17.04	16.45	-16.57	2,244.04	-1,176.56	2,194.00	2,160.67	33.34	65.815		
3,900.00	3,879.18	3,916.21	3,892.85	17.49	16.87	-16.73	2,242.18	-1,178.55	2,182.26	2,148.07	34.19	63.818		
4,000.00	3,978.50	4,014.15	3,990.76	17.93	17.28	-16.89	2,240.32	-1,180.60	2,170.56	2,135.51	35.05	61.933		
4,100.00	4,077.82	4,114.71	4,091.28	18.37	17.71	-17.06	2,238.35	-1,182.79	2,158.85	2,122.94	35.91	60.122		
4,200.00	4,177.15	4,215.31	4,191.83	18.82	18.13	-17.23	2,236.33	-1,184.93	2,147.10	2,110.33	36.77	58.392		
4,300.00	4,276.47	4,315.78	4,292.25	19.27	18.55	-17.40	2,234.26	-1,187.01	2,135.29	2,097.66	37.63	56.740		
4,400.00	4,375.79	4,414.08	4,390.51	19.71	18.97	-17.56	2,232.23	-1,189.03	2,123.50	2,085.01	38.49	55.173		
4,500.00	4,475.12	4,513.57	4,489.96	20.16	19.39	-17.74	2,230.13	-1,191.19	2,111.74	2,072.39	39.35	53.667		
4,600.00	4,574.44	4,613.40	4,589.74	20.60	19.81	-17.92	2,227.95	-1,193.40	2,099.95	2,059.74	40.21	52.224		
4,700.00	4,673.76	4,712.29	4,688.58	21.05	20.23	-18.10	2,225.82	-1,195.60	2,088.22	2,047.15	41.07	50.845		
4,800.00	4,773.09	4,821.91	4,798.15	21.50	20.69	-18.30	2,223.11	-1,197.91	2,076.19	2,034.22	41.96	49.476		
4,900.00	4,872.41	4,921.87	4,898.05	21.94	21.12	-18.49	2,220.40	-1,199.93	2,063.92	2,021.09	42.83	48.191		
5,000.00	4,971.74	5,017.64	4,993.77	22.39	21.52	-18.67	2,217.92	-1,201.82	2,051.76	2,008.08	43.68	46.974		

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 4N-16A-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 4N-16A-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	5,071.06	5,114.52	5,090.60	22.84	21.93	-18.85	2,215.62	-1,203.62	2,039.74	1,995.20	44.53	45.802		
5,200.00	5,170.38	5,208.70	5,184.75	23.29	22.33	-19.02	2,213.62	-1,205.33	2,027.92	1,982.54	45.38	44.687		
5,300.00	5,269.71	5,305.01	5,281.03	23.74	22.74	-19.20	2,211.81	-1,207.04	2,016.31	1,970.07	46.23	43.611		
5,400.00	5,369.03	5,401.57	5,377.56	24.18	23.15	-19.36	2,210.41	-1,208.35	2,004.85	1,957.76	47.09	42.576		
5,500.00	5,468.35	5,500.35	5,476.33	24.63	23.57	-19.51	2,209.23	-1,209.42	1,993.48	1,945.53	47.95	41.575		
5,600.00	5,567.68	5,594.19	5,570.16	25.08	23.97	-19.66	2,208.19	-1,210.57	1,982.27	1,933.47	48.80	40.624		
5,700.00	5,667.00	5,687.20	5,663.16	25.53	24.36	-19.80	2,207.55	-1,211.61	1,971.36	1,921.72	49.64	39.714		
5,800.00	5,766.32	5,809.59	5,785.55	25.98	24.88	-19.96	2,206.90	-1,211.91	1,960.15	1,909.58	50.57	38.760		
5,900.00	5,865.65	5,906.56	5,882.51	26.43	25.29	-20.09	2,206.04	-1,211.72	1,948.38	1,896.95	51.43	37.885		
6,000.00	5,964.97	6,022.29	5,998.24	26.88	25.78	-20.22	2,204.99	-1,210.88	1,936.34	1,884.00	52.34	36.997		
6,100.00	6,064.29	6,151.48	6,127.37	27.33	26.33	-20.36	2,202.38	-1,208.34	1,922.60	1,869.33	53.27	36.092		
6,200.00	6,163.62	6,287.54	6,263.33	27.78	26.91	-20.50	2,198.43	-1,204.59	1,907.91	1,853.71	54.20	35.202		
6,300.00	6,262.94	6,384.09	6,359.73	28.23	27.33	-20.61	2,194.32	-1,201.51	1,891.76	1,836.71	55.06	34.361		
6,400.00	6,362.24	6,454.29	6,429.86	28.67	27.62	-2.07	2,191.46	-1,200.11	1,876.14	1,820.27	55.87	33.581		
6,500.00	6,460.41	6,522.57	6,498.11	29.12	27.92	31.42	2,189.58	-1,199.55	1,856.00	1,799.33	56.66	32.755		
6,600.00	6,555.09	6,595.40	6,570.94	29.57	28.23	44.01	2,188.41	-1,199.41	1,829.22	1,771.78	57.44	31.844		
6,700.00	6,643.94	6,677.79	6,653.31	30.00	28.58	52.18	2,187.66	-1,199.57	1,796.29	1,738.06	58.22	30.852		
6,800.00	6,724.78	6,752.46	6,727.98	30.45	28.89	59.26	2,187.12	-1,199.92	1,758.18	1,699.21	58.97	29.816		
6,900.00	6,795.62	6,815.83	6,791.35	30.97	29.16	66.04	2,186.81	-1,200.44	1,716.75	1,657.05	59.70	28.758		
7,000.00	6,854.70	6,864.74	6,840.26	31.60	29.37	72.46	2,186.82	-1,201.01	1,674.20	1,613.75	60.45	27.696		
7,100.00	6,900.58	6,904.29	6,879.81	32.39	29.54	78.41	2,187.03	-1,201.58	1,632.69	1,571.40	61.30	26.636		
7,200.00	6,932.13	6,938.53	6,914.04	33.34	29.68	83.74	2,187.26	-1,202.10	1,594.25	1,531.95	62.30	25.588		
7,300.00	6,948.57	6,957.01	6,932.52	34.46	29.76	87.79	2,187.38	-1,202.36	1,560.92	1,497.45	63.47	24.592		
7,400.00	6,950.87	6,960.84	6,936.35	35.70	29.78	89.48	2,187.41	-1,202.41	1,534.26	1,469.47	64.80	23.679		
7,500.00	6,950.58	6,961.96	6,937.47	37.12	29.78	89.53	2,187.41	-1,202.43	1,514.00	1,447.65	66.35	22.819		
7,600.00	6,950.28	6,963.08	6,938.58	38.70	29.79	89.57	2,187.42	-1,202.45	1,500.14	1,432.03	68.10	22.027		
7,700.00	6,949.98	6,964.19	6,939.69	40.41	29.79	89.61	2,187.43	-1,202.46	1,492.86	1,422.85	70.01	21.324		
7,758.89	6,949.80	6,964.84	6,940.34	41.49	29.80	89.64	2,187.43	-1,202.47	1,491.70	1,420.51	71.19	20.955 CC		
7,800.00	6,949.68	6,965.29	6,940.80	42.25	29.80	89.65	2,187.43	-1,202.48	1,492.27	1,420.27	72.00	20.727 ES		
7,900.00	6,949.38	6,966.39	6,941.90	44.20	29.80	89.70	2,187.44	-1,202.49	1,498.36	1,424.35	74.01	20.245		
8,000.00	6,949.08	6,967.48	6,942.99	46.24	29.81	89.74	2,187.45	-1,202.51	1,511.06	1,435.06	76.00	19.884		
8,100.00	6,948.79	6,968.57	6,944.08	48.36	29.81	89.78	2,187.45	-1,202.52	1,530.20	1,452.30	77.90	19.642		
8,200.00	6,948.49	6,969.65	6,945.16	50.56	29.82	89.82	2,187.46	-1,202.54	1,555.55	1,475.84	79.70	19.517		
8,300.00	6,948.19	6,970.73	6,946.23	52.82	29.82	89.86	2,187.47	-1,202.55	1,586.80	1,505.44	81.36	19.503 SF		
8,400.00	6,947.89	6,971.80	6,947.30	55.14	29.82	89.90	2,187.47	-1,202.57	1,623.62	1,540.75	82.87	19.592		
8,500.00	6,947.59	6,972.86	6,948.37	57.50	29.83	89.94	2,187.48	-1,202.58	1,665.64	1,581.42	84.22	19.777		
8,600.00	6,947.29	6,973.92	6,949.42	59.91	29.83	89.99	2,187.49	-1,202.59	1,712.47	1,627.05	85.41	20.049		
8,700.00	6,947.00	6,974.97	6,950.48	62.36	29.84	90.03	2,187.49	-1,202.61	1,763.73	1,677.27	86.46	20.400		
8,800.00	6,946.70	6,976.02	6,951.52	64.84	29.84	90.07	2,187.50	-1,202.62	1,819.05	1,731.69	87.36	20.822		
8,900.00	6,946.40	6,977.06	6,952.57	67.35	29.85	90.11	2,187.51	-1,202.64	1,878.07	1,789.93	88.14	21.308		
9,000.00	6,946.10	6,978.10	6,953.60	69.88	29.85	90.15	2,187.51	-1,202.65	1,940.45	1,851.65	88.80	21.852		
9,100.00	6,945.80	6,979.13	6,954.63	72.44	29.86	90.19	2,187.52	-1,202.67	2,005.87	1,916.51	89.36	22.447		
9,200.00	6,945.50	6,980.15	6,955.66	75.02	29.86	90.22	2,187.53	-1,202.68	2,074.06	1,984.23	89.83	23.089		
9,300.00	6,945.21	6,981.18	6,956.68	77.63	29.86	90.26	2,187.53	-1,202.69	2,144.74	2,054.52	90.22	23.772		
9,400.00	6,944.91	6,982.19	6,957.69	80.24	29.87	90.30	2,187.54	-1,202.71	2,217.68	2,127.13	90.55	24.492		
9,500.00	6,944.61	6,983.20	6,958.70	82.88	29.87	90.34	2,187.54	-1,202.72	2,292.66	2,201.85	90.81	25.246		
9,600.00	6,944.31	6,984.21	6,959.71	85.53	29.88	90.38	2,187.55	-1,202.73	2,369.49	2,278.46	91.03	26.030		
9,700.00	6,944.01	6,985.21	6,960.71	88.19	29.88	90.42	2,187.56	-1,202.75	2,447.99	2,356.78	91.20	26.841		
9,800.00	6,943.71	6,986.20	6,961.70	90.86	29.89	90.46	2,187.56	-1,202.76	2,528.01	2,436.67	91.34	27.676		
9,900.00	6,943.42	6,987.19	6,962.69	93.55	29.89	90.50	2,187.57	-1,202.77	2,609.41	2,517.95	91.45	28.533		
10,000.00	6,943.12	6,988.18	6,963.68	96.24	29.89	90.53	2,187.57	-1,202.79	2,692.06	2,600.52	91.53	29.411		
10,100.00	6,942.82	6,989.16	6,964.66	98.95	29.90	90.57	2,187.58	-1,202.80	2,775.85	2,684.25	91.59	30.306		

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 4N-16A-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 4N-16A-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	6,942.52	6,990.13	6,965.63	101.66	29.90	90.61	2,187.59	-1,202.81	2,860.68	2,769.05	91.64	31.217		
10,300.00	6,942.22	6,991.10	6,966.60	104.38	29.91	90.65	2,187.59	-1,202.82	2,946.47	2,854.80	91.67	32.143		
10,400.00	6,941.92	6,992.07	6,967.57	107.11	29.91	90.68	2,187.60	-1,202.84	3,033.12	2,941.44	91.68	33.083		
10,500.00	6,941.63	6,993.03	6,968.53	109.84	29.91	90.72	2,187.60	-1,202.85	3,120.58	3,028.89	91.69	34.035		
10,600.00	6,941.33	6,993.98	6,969.48	112.58	29.92	90.76	2,187.61	-1,202.86	3,208.76	3,117.08	91.68	34.998		
10,700.00	6,941.03	6,994.93	6,970.43	115.33	29.92	90.79	2,187.61	-1,202.87	3,297.63	3,205.95	91.67	35.971		
10,800.00	6,940.73	6,995.88	6,971.38	118.08	29.93	90.83	2,187.62	-1,202.89	3,387.11	3,295.45	91.66	36.954		
10,900.00	6,940.43	6,996.82	6,972.32	120.84	29.93	90.86	2,187.62	-1,202.90	3,477.16	3,385.52	91.64	37.944		
11,000.00	6,940.13	6,997.76	6,973.26	123.60	29.93	90.90	2,187.63	-1,202.91	3,567.74	3,476.13	91.61	38.943		
11,100.00	6,939.83	6,998.69	6,974.19	126.36	29.94	90.94	2,187.63	-1,202.92	3,658.82	3,567.23	91.59	39.949		
11,200.00	6,939.54	6,999.62	6,975.12	129.13	29.94	90.97	2,187.64	-1,202.94	3,750.35	3,658.79	91.56	40.961		
11,300.00	6,939.24	7,000.56	6,976.07	131.91	29.95	91.01	2,187.65	-1,202.95	3,842.30	3,750.77	91.53	41.979		
11,400.00	6,938.94	7,001.53	6,977.03	134.68	29.95	91.05	2,187.65	-1,202.96	3,934.64	3,843.14	91.50	43.002		
11,500.00	6,938.64	7,002.49	6,977.99	137.46	29.95	91.08	2,187.66	-1,202.97	4,027.35	3,935.88	91.47	44.030		
11,600.00	6,938.34	7,003.45	6,978.95	140.25	29.96	91.12	2,187.66	-1,202.99	4,120.40	4,028.96	91.44	45.063		
11,700.00	6,938.04	7,004.41	6,979.91	143.03	29.96	91.16	2,187.67	-1,203.00	4,213.77	4,122.36	91.40	46.100		
11,800.00	6,937.75	7,005.37	6,980.88	145.82	29.97	91.19	2,187.67	-1,203.01	4,307.43	4,216.06	91.37	47.141		
11,900.00	6,937.45	7,006.33	6,981.84	148.61	29.97	91.23	2,187.68	-1,203.02	4,401.38	4,310.03	91.34	48.185		
12,000.00	6,937.15	7,007.29	6,982.80	151.41	29.98	91.27	2,187.68	-1,203.03	4,495.58	4,404.27	91.31	49.232		
12,100.00	6,936.85	7,008.25	6,983.76	154.20	29.98	91.30	2,187.69	-1,203.05	4,590.03	4,498.74	91.29	50.282		
12,200.00	6,936.55	7,009.21	6,984.72	157.00	29.98	91.34	2,187.70	-1,203.06	4,684.71	4,593.45	91.26	51.334		
12,300.00	6,936.25	7,010.17	6,985.67	159.80	29.99	91.38	2,187.70	-1,203.07	4,779.61	4,688.37	91.23	52.389		
12,400.00	6,935.96	7,011.13	6,986.63	162.61	29.99	91.41	2,187.71	-1,203.08	4,874.71	4,783.50	91.21	53.445		
12,500.00	6,935.66	7,012.09	6,987.59	165.41	30.00	91.45	2,187.71	-1,203.10	4,970.00	4,878.81	91.19	54.504		
12,600.00	6,935.36	7,013.05	6,988.55	168.22	30.00	91.49	2,187.72	-1,203.11	5,065.47	4,974.31	91.16	55.564		
12,700.00	6,935.06	7,014.01	6,989.51	171.02	30.00	91.52	2,187.72	-1,203.12	5,161.12	5,069.97	91.14	56.626		
12,800.00	6,934.76	7,014.96	6,990.46	173.83	30.01	91.56	2,187.73	-1,203.13	5,256.92	5,165.80	91.12	57.689		
12,900.00	6,934.46	7,015.92	6,991.42	176.65	30.01	91.60	2,187.74	-1,203.15	5,352.88	5,261.78	91.11	58.753		
13,000.00	6,934.17	7,016.88	6,992.38	179.46	30.02	91.63	2,187.74	-1,203.16	5,448.99	5,357.90	91.09	59.818		
13,100.00	6,933.87	7,017.83	6,993.33	182.27	30.02	91.67	2,187.75	-1,203.17	5,545.23	5,454.15	91.08	60.884		
13,200.00	6,933.57	7,018.79	6,994.29	185.09	30.02	91.71	2,187.75	-1,203.18	5,641.61	5,550.54	91.07	61.951		
13,300.00	6,933.27	7,019.74	6,995.24	187.91	30.03	91.74	2,187.76	-1,203.19	5,738.10	5,647.05	91.05	63.018		
13,400.00	6,932.97	7,020.70	6,996.20	190.72	30.03	91.78	2,187.76	-1,203.21	5,834.72	5,743.67	91.05	64.086		
13,500.00	6,932.67	7,021.65	6,997.15	193.54	30.04	91.82	2,187.77	-1,203.22	5,931.45	5,840.41	91.04	65.154		
13,600.00	6,932.38	7,022.60	6,998.10	196.36	30.04	91.85	2,187.78	-1,203.23	6,028.28	5,937.25	91.03	66.222		
13,700.00	6,932.08	7,023.56	6,999.06	199.19	30.04	91.89	2,187.78	-1,203.24	6,125.21	6,034.19	91.03	67.290		
13,800.00	6,931.78	7,024.51	7,000.01	202.01	30.05	91.93	2,187.79	-1,203.26	6,222.25	6,131.22	91.02	68.359		
13,900.00	6,931.48	7,025.46	7,000.96	204.83	30.05	91.96	2,187.79	-1,203.27	6,319.37	6,228.35	91.02	69.427		
14,000.00	6,931.18	7,026.41	7,001.91	207.66	30.06	92.00	2,187.80	-1,203.28	6,416.58	6,325.56	91.02	70.495		
14,100.00	6,930.88	7,027.36	7,002.86	210.48	30.06	92.04	2,187.80	-1,203.29	6,513.88	6,422.86	91.02	71.563		
14,200.00	6,930.59	7,028.32	7,003.82	213.31	30.06	92.07	2,187.81	-1,203.31	6,611.26	6,520.23	91.03	72.630		
14,300.00	6,930.29	7,029.27	7,004.77	216.14	30.07	92.11	2,187.82	-1,203.32	6,708.71	6,617.68	91.03	73.697		
14,400.00	6,929.99	7,030.22	7,005.72	218.96	30.07	92.15	2,187.82	-1,203.33	6,806.24	6,715.20	91.04	74.764		
14,500.00	6,929.69	7,031.17	7,006.67	221.79	30.08	92.18	2,187.83	-1,203.34	6,903.84	6,812.80	91.04	75.830		
14,600.00	6,929.39	7,032.12	7,007.61	224.62	30.08	92.22	2,187.83	-1,203.35	7,001.51	6,910.45	91.05	76.895		
14,700.00	6,929.09	7,033.07	7,008.56	227.45	30.08	92.26	2,187.84	-1,203.37	7,099.24	7,008.18	91.06	77.960		
14,732.12	6,929.00	7,033.37	7,008.87	228.36	30.09	92.27	2,187.84	-1,203.37	7,130.65	7,039.58	91.07	78.301		



Anticollision Report



Company:	SRC ENERGY	Local Co-ordinate Reference:	Well HARVESTERS STATE 4N-16A-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 4N-16A-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	
0.00	0.00	0.00	21.00	3.28	3.28	-68.70	844.92	-2,167.17	2,326.15				
100.00	100.00	79.00	100.00	3.28	3.56	-68.70	844.92	-2,167.17	2,326.05	2,319.21	6.84	339.928	
200.00	200.00	179.00	200.00	3.34	5.57	-68.70	844.92	-2,167.17	2,326.05	2,317.14	8.91	261.111	
300.00	300.00	279.00	300.00	3.44	8.64	-68.70	844.92	-2,167.17	2,326.05	2,313.97	12.09	192.458	
400.00	400.00	379.00	400.00	3.60	11.94	-68.70	844.92	-2,167.17	2,326.05	2,310.50	15.55	149.606	
500.00	500.00	479.00	500.00	3.81	15.33	-68.70	844.92	-2,167.17	2,326.05	2,306.91	19.14	121.545	
600.00	600.00	579.00	600.00	4.05	18.76	-68.70	844.92	-2,167.17	2,326.05	2,303.25	22.80	102.008	
700.00	699.98	678.98	699.98	4.32	22.20	-55.28	844.92	-2,167.17	2,325.06	2,298.54	26.52	87.676	
800.00	799.84	778.84	799.84	4.62	25.65	-55.44	844.92	-2,167.17	2,322.08	2,291.81	30.27	76.717	
900.00	899.45	878.45	899.45	4.94	29.11	-55.70	844.92	-2,167.17	2,317.14	2,283.10	34.04	68.074	
1,000.00	998.80	977.80	998.80	5.28	32.56	-55.96	844.92	-2,167.17	2,310.70	2,272.88	37.82	61.093	
1,100.00	1,098.12	1,077.12	1,098.12	5.63	36.01	-56.20	844.92	-2,167.17	2,304.19	2,262.56	41.62	55.356	
1,200.00	1,197.44	1,176.44	1,197.44	6.00	39.46	-56.44	844.92	-2,167.17	2,297.72	2,252.27	45.44	50.563	
1,300.00	1,296.77	1,275.77	1,296.77	6.37	42.92	-56.68	844.92	-2,167.17	2,291.29	2,242.01	49.27	46.501	
1,400.00	1,396.09	1,375.09	1,396.09	6.76	46.38	-56.92	844.92	-2,167.17	2,284.90	2,231.78	53.12	43.017	
1,500.00	1,495.41	1,474.41	1,495.41	7.15	49.83	-57.17	844.92	-2,167.17	2,278.55	2,221.58	56.97	39.997	
1,600.00	1,594.74	1,573.74	1,594.74	7.55	53.29	-57.41	844.92	-2,167.17	2,272.25	2,211.42	60.83	37.356	
1,700.00	1,694.06	1,673.06	1,694.06	7.96	56.76	-57.66	844.92	-2,167.17	2,265.98	2,201.29	64.69	35.027	
1,800.00	1,793.38	1,772.38	1,793.38	8.37	60.22	-57.91	844.92	-2,167.17	2,259.76	2,191.20	68.56	32.959	
1,900.00	1,892.71	1,871.71	1,892.71	8.78	63.68	-58.15	844.92	-2,167.17	2,253.58	2,181.15	72.44	31.111	
2,000.00	1,992.03	1,971.03	1,992.03	9.20	67.14	-58.40	844.92	-2,167.17	2,247.45	2,171.13	76.32	29.449	
2,100.00	2,091.36	2,070.36	2,091.36	9.62	70.61	-58.66	844.92	-2,167.17	2,241.36	2,161.16	80.20	27.947	
2,200.00	2,190.68	2,169.68	2,190.68	10.05	74.07	-58.91	844.92	-2,167.17	2,235.31	2,151.22	84.09	26.583	
2,300.00	2,290.00	2,269.00	2,290.00	10.48	77.53	-59.16	844.92	-2,167.17	2,229.30	2,141.33	87.98	25.340	
2,400.00	2,389.33	2,368.33	2,389.33	10.90	81.00	-59.42	844.92	-2,167.17	2,223.34	2,131.48	91.87	24.202	
2,500.00	2,488.65	2,467.65	2,488.65	11.34	84.46	-59.68	844.92	-2,167.17	2,217.43	2,121.67	95.76	23.156	
2,600.00	2,587.97	2,566.97	2,587.97	11.77	87.93	-59.93	844.92	-2,167.17	2,211.56	2,111.90	99.66	22.192	
2,700.00	2,687.30	2,666.30	2,687.30	12.20	91.39	-60.19	844.92	-2,167.17	2,205.73	2,102.18	103.55	21.301	
2,800.00	2,786.62	2,765.62	2,786.62	12.64	94.86	-60.46	844.92	-2,167.17	2,199.95	2,092.50	107.45	20.474	
2,900.00	2,885.94	2,864.94	2,885.94	13.07	98.32	-60.72	844.92	-2,167.17	2,194.22	2,082.87	111.35	19.706	
3,000.00	2,985.27	2,964.27	2,985.27	13.51	101.79	-60.98	844.92	-2,167.17	2,188.54	2,073.28	115.25	18.989	
3,100.00	3,084.59	3,063.59	3,084.59	13.95	105.26	-61.25	844.92	-2,167.17	2,182.90	2,063.74	119.15	18.320	
3,200.00	3,183.91	3,162.91	3,183.91	14.39	108.72	-61.51	844.92	-2,167.17	2,177.31	2,054.25	123.06	17.693	
3,300.00	3,283.24	3,262.24	3,283.24	14.83	112.19	-61.78	844.92	-2,167.17	2,171.76	2,044.80	126.96	17.106	
3,400.00	3,382.56	3,361.56	3,382.56	15.27	115.65	-62.05	844.92	-2,167.17	2,166.27	2,035.40	130.87	16.553	
3,500.00	3,481.88	3,460.88	3,481.88	15.71	119.12	-62.32	844.92	-2,167.17	2,160.82	2,026.05	134.77	16.033	
3,600.00	3,581.21	3,560.21	3,581.21	16.16	122.59	-62.59	844.92	-2,167.17	2,155.42	2,016.74	138.68	15.542	
3,700.00	3,680.53	3,659.53	3,680.53	16.60	126.05	-62.87	844.92	-2,167.17	2,150.07	2,007.48	142.59	15.079	
3,800.00	3,779.85	3,758.85	3,779.85	17.04	129.52	-63.14	844.92	-2,167.17	2,144.77	1,998.28	146.50	14.641	
3,900.00	3,879.18	3,858.18	3,879.18	17.49	132.98	-63.42	844.92	-2,167.17	2,139.52	1,989.12	150.40	14.225	
4,000.00	3,978.50	3,957.50	3,978.50	17.93	136.45	-63.69	844.92	-2,167.17	2,134.32	1,980.01	154.31	13.831	
4,100.00	4,077.82	4,056.82	4,077.82	18.37	139.92	-63.97	844.92	-2,167.17	2,129.17	1,970.95	158.22	13.457	
4,200.00	4,177.15	4,156.15	4,177.15	18.82	143.38	-64.25	844.92	-2,167.17	2,124.07	1,961.94	162.13	13.101	
4,300.00	4,276.47	4,255.47	4,276.47	19.27	146.85	-64.53	844.92	-2,167.17	2,119.03	1,952.98	166.04	12.762	
4,400.00	4,375.79	4,354.79	4,375.79	19.71	150.32	-64.82	844.92	-2,167.17	2,114.03	1,944.08	169.95	12.439	
4,500.00	4,475.12	4,454.12	4,475.12	20.16	153.78	-65.10	844.92	-2,167.17	2,109.09	1,935.22	173.87	12.131	
4,600.00	4,574.44	4,553.44	4,574.44	20.60	157.25	-65.39	844.92	-2,167.17	2,104.20	1,926.42	177.78	11.836	
4,700.00	4,673.76	4,652.76	4,673.76	21.05	160.72	-65.67	844.92	-2,167.17	2,099.36	1,917.67	181.69	11.555	
4,800.00	4,773.09	4,752.09	4,773.09	21.50	164.18	-65.96	844.92	-2,167.17	2,094.58	1,908.97	185.60	11.285	
4,900.00	4,872.41	4,851.41	4,872.41	21.94	167.65	-66.25	844.92	-2,167.17	2,089.85	1,900.33	189.52	11.027	
5,000.00	4,971.74	4,950.74	4,971.74	22.39	171.12	-66.54	844.92	-2,167.17	2,085.17	1,891.74	193.43	10.780	
5,100.00	5,071.06	5,050.06	5,071.06	22.84	174.58	-66.83	844.92	-2,167.17	2,080.55	1,883.20	197.34	10.543	

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 4N-16A-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 4N-16A-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	5,170.38	5,149.38	5,170.38	23.29	178.05	-67.12	844.92	-2,167.17	2,075.98	1,874.72	201.26	10.315		
5,300.00	5,269.71	5,248.71	5,269.71	23.74	181.52	-67.42	844.92	-2,167.17	2,071.47	1,866.30	205.17	10.096		
5,400.00	5,369.03	5,348.03	5,369.03	24.18	184.98	-67.71	844.92	-2,167.17	2,067.01	1,857.92	209.09	9.886		
5,500.00	5,468.35	5,447.35	5,468.35	24.63	188.45	-68.01	844.92	-2,167.17	2,062.61	1,849.61	213.00	9.684		
5,600.00	5,567.68	5,546.68	5,567.68	25.08	191.92	-68.31	844.92	-2,167.17	2,058.26	1,841.35	216.91	9.489		
5,700.00	5,667.00	5,646.00	5,667.00	25.53	195.38	-68.61	844.92	-2,167.17	2,053.97	1,833.14	220.83	9.301		
5,800.00	5,766.32	5,745.32	5,766.32	25.98	198.85	-68.91	844.92	-2,167.17	2,049.74	1,825.00	224.75	9.120		
5,900.00	5,865.65	5,844.65	5,865.65	26.43	202.32	-69.21	844.92	-2,167.17	2,045.57	1,816.91	228.66	8.946		
6,000.00	5,964.97	5,943.97	5,964.97	26.88	205.79	-69.51	844.92	-2,167.17	2,041.45	1,808.87	232.58	8.778		
6,100.00	6,064.29	6,043.29	6,064.29	27.33	209.25	-69.82	844.92	-2,167.17	2,037.39	1,800.90	236.49	8.615		
6,200.00	6,163.62	6,142.62	6,163.62	27.78	212.72	-70.12	844.92	-2,167.17	2,033.39	1,792.98	240.41	8.458		
6,300.00	6,262.94	6,241.94	6,262.94	28.23	216.19	-70.43	844.92	-2,167.17	2,029.44	1,785.12	244.32	8.306		
6,400.00	6,362.24	6,341.24	6,362.24	28.67	219.65	-70.73	844.92	-2,167.17	2,025.49	1,777.24	248.24	8.157		
6,500.00	6,461.56	6,440.56	6,461.56	29.12	223.08	-71.03	844.92	-2,167.17	2,021.54	1,769.36	252.11	8.009		
6,600.00	6,560.88	6,539.88	6,560.88	29.57	226.50	-71.33	844.92	-2,167.17	2,017.59	1,761.48	256.03	7.861		
6,700.00	6,660.20	6,639.20	6,660.20	30.00	229.92	-71.63	844.92	-2,167.17	2,013.64	1,753.60	259.95	7.713		
6,800.00	6,759.52	6,738.52	6,759.52	30.45	233.35	-71.93	844.92	-2,167.17	2,009.69	1,745.72	263.87	7.565		
6,900.00	6,858.84	6,837.84	6,858.84	30.97	236.77	-72.23	844.92	-2,167.17	2,005.74	1,737.84	267.79	7.417		
7,000.00	6,958.16	6,937.16	6,958.16	31.60	240.20	-72.53	844.92	-2,167.17	2,001.79	1,729.96	271.71	7.269		
7,100.00	7,057.48	7,036.48	7,057.48	32.39	243.63	-72.83	844.92	-2,167.17	1,997.84	1,722.08	275.63	7.121		
7,200.00	7,156.80	7,135.80	7,156.80	33.34	247.06	-73.13	844.92	-2,167.17	1,993.89	1,714.20	279.55	6.973		
7,300.00	7,256.12	7,235.12	7,256.12	34.46	250.49	-73.43	844.92	-2,167.17	1,989.94	1,706.32	283.47	6.825		
7,400.00	7,355.44	7,334.44	7,355.44	35.70	253.92	-73.73	844.92	-2,167.17	1,985.99	1,698.44	287.39	6.677		
7,500.00	7,454.76	7,433.76	7,454.76	37.12	257.35	-74.03	844.92	-2,167.17	1,982.04	1,690.56	291.31	6.529		
7,600.00	7,554.08	7,533.08	7,554.08	38.70	260.78	-74.33	844.92	-2,167.17	1,978.09	1,682.68	295.23	6.381		
7,700.00	7,653.40	7,632.40	7,653.40	40.41	264.21	-74.63	844.92	-2,167.17	1,974.14	1,674.80	299.15	6.233		
7,800.00	7,752.72	7,731.72	7,752.72	42.25	267.64	-74.93	844.92	-2,167.17	1,970.19	1,666.92	303.07	6.085		
7,900.00	7,852.04	7,831.04	7,852.04	44.20	271.07	-75.23	844.92	-2,167.17	1,966.24	1,659.04	306.99	5.937		
8,000.00	7,951.36	7,930.36	7,951.36	46.24	274.50	-75.53	844.92	-2,167.17	1,962.29	1,651.16	310.91	5.789		
8,100.00	8,050.68	8,029.68	8,050.68	48.36	277.93	-75.83	844.92	-2,167.17	1,958.34	1,643.28	314.83	5.641		
8,200.00	8,149.99	8,128.99	8,149.99	50.56	281.36	-76.13	844.92	-2,167.17	1,954.39	1,635.40	318.75	5.493		
8,300.00	8,249.31	8,228.31	8,249.31	52.82	284.79	-76.43	844.92	-2,167.17	1,950.44	1,627.52	322.67	5.345		
8,400.00	8,348.63	8,327.63	8,348.63	55.14	288.22	-76.73	844.92	-2,167.17	1,946.49	1,619.64	326.59	5.197		
8,500.00	8,447.95	8,426.95	8,447.95	57.50	291.65	-77.03	844.92	-2,167.17	1,942.54	1,611.76	330.51	5.049		
8,600.00	8,547.27	8,526.27	8,547.27	59.91	295.08	-77.33	844.92	-2,167.17	1,938.59	1,603.88	334.43	4.901		
8,700.00	8,646.59	8,625.59	8,646.59	62.36	298.51	-77.63	844.92	-2,167.17	1,934.64	1,596.00	338.35	4.753		
8,733.45	8,646.90	8,625.90	8,646.90	63.19	240.06	90.00	844.92	-2,167.17	156.32	-146.85	303.17	0.516 Level 1, CC, ES, SF		
8,800.00	8,746.22	8,725.22	8,746.22	64.84	240.05	89.93	844.92	-2,167.17	169.89	-132.04	301.94	0.563 Level 1		
8,900.00	8,845.54	8,824.54	8,845.54	67.35	240.04	89.82	844.92	-2,167.17	228.42	-64.82	293.24	0.779 Level 1		
9,000.00	8,944.86	8,923.86	8,944.86	69.88	240.03	89.71	844.92	-2,167.17	309.01	22.59	286.42	1.079 Level 2		
9,100.00	9,044.18	9,023.18	9,044.18	72.44	240.02	89.60	844.92	-2,167.17	398.49	116.17	282.32	1.411 Level 3		
9,200.00	9,143.50	9,122.50	9,143.50	75.02	240.01	89.49	844.92	-2,167.17	492.04	212.21	279.83	1.758		
9,300.00	9,242.82	9,221.82	9,242.82	77.63	240.00	89.38	844.92	-2,167.17	587.72	309.50	278.22	2.112		
9,400.00	9,342.14	9,321.14	9,342.14	80.24	239.99	89.27	844.92	-2,167.17	684.64	407.50	277.13	2.470		
9,500.00	9,441.46	9,420.46	9,441.46	82.88	239.98	89.16	844.92	-2,167.17	782.33	505.97	276.36	2.831		
9,600.00	9,540.78	9,519.78	9,540.78	85.53	239.97	89.05	844.92	-2,167.17	880.54	604.74	275.79	3.193		
9,700.00	9,640.10	9,619.10	9,640.10	88.19	239.96	88.94	844.92	-2,167.17	979.11	703.75	275.36	3.556		
9,800.00	9,739.42	9,718.42	9,739.42	90.86	239.95	88.83	844.92	-2,167.17	1,077.94	802.91	275.03	3.919		
9,900.00	9,838.74	9,817.74	9,838.74	93.55	239.94	88.72	844.92	-2,167.17	1,176.98	902.21	274.77	4.283		
10,000.00	9,938.06	9,917.06	9,938.06	96.24	239.93	88.62	844.92	-2,167.17	1,276.16	1,001.60	274.56	4.648		
10,100.00	10,037.38	10,016.38	10,037.38	98.95	239.92	88.51	844.92	-2,167.17	1,375.46	1,101.07	274.39	5.013		
10,200.00	10,136.70	10,115.70	10,136.70	101.66	239.91	88.40	844.92	-2,167.17	1,474.86	1,200.60	274.26	5.378		

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 4N-16A-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 4N-16A-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	6,942.22	6,921.22	6,942.22	104.38	239.90	88.29	844.92	-2,167.17	1,574.33	1,300.18	274.14	5.743		
10,400.00	6,941.92	6,920.92	6,941.92	107.11	239.89	88.18	844.92	-2,167.17	1,673.86	1,399.81	274.05	6.108		
10,500.00	6,941.63	6,920.63	6,941.63	109.84	239.88	88.07	844.92	-2,167.17	1,773.45	1,499.47	273.98	6.473		
10,600.00	6,941.33	6,920.33	6,941.33	112.58	239.87	87.96	844.92	-2,167.17	1,873.08	1,599.16	273.92	6.838		
10,700.00	6,941.03	6,920.03	6,941.03	115.33	239.86	87.85	844.92	-2,167.17	1,972.75	1,698.88	273.87	7.203		
10,800.00	6,940.73	6,919.73	6,940.73	118.08	239.85	87.74	844.92	-2,167.17	2,072.45	1,798.62	273.83	7.568		
10,900.00	6,940.43	6,919.43	6,940.43	120.84	239.83	87.63	844.92	-2,167.17	2,172.18	1,898.38	273.80	7.934		
11,000.00	6,940.13	6,919.13	6,940.13	123.60	239.82	87.52	844.92	-2,167.17	2,271.93	1,998.15	273.77	8.299		
11,100.00	6,939.83	6,918.83	6,939.83	126.36	239.81	87.41	844.92	-2,167.17	2,371.70	2,097.94	273.76	8.663		
11,200.00	6,939.54	6,918.54	6,939.54	129.13	239.80	87.30	844.92	-2,167.17	2,471.49	2,197.74	273.75	9.028		
11,300.00	6,939.24	6,918.24	6,939.24	131.91	239.79	87.20	844.92	-2,167.17	2,571.30	2,297.56	273.74	9.393		
11,400.00	6,938.94	6,917.94	6,938.94	134.68	239.78	87.09	844.92	-2,167.17	2,671.12	2,397.38	273.74	9.758		
11,500.00	6,938.64	6,917.64	6,938.64	137.46	239.77	86.98	844.92	-2,167.17	2,770.95	2,497.21	273.75	10.122		
11,600.00	6,938.34	6,917.34	6,938.34	140.25	239.76	86.87	844.92	-2,167.17	2,870.80	2,597.05	273.75	10.487		
11,700.00	6,938.04	6,917.04	6,938.04	143.03	239.75	86.76	844.92	-2,167.17	2,970.66	2,696.89	273.76	10.851		
11,800.00	6,937.75	6,916.75	6,937.75	145.82	239.74	86.65	844.92	-2,167.17	3,070.52	2,796.74	273.78	11.215		
11,900.00	6,937.45	6,916.45	6,937.45	148.61	239.73	86.54	844.92	-2,167.17	3,170.40	2,896.60	273.80	11.579		
12,000.00	6,937.15	6,916.15	6,937.15	151.41	239.72	86.43	844.92	-2,167.17	3,270.28	2,996.46	273.82	11.943		
12,100.00	6,936.85	6,915.85	6,936.85	154.20	239.71	86.32	844.92	-2,167.17	3,370.17	3,096.33	273.84	12.307		
12,200.00	6,936.55	6,915.55	6,936.55	157.00	239.70	86.21	844.92	-2,167.17	3,470.06	3,196.20	273.87	12.671		
12,300.00	6,936.25	6,915.25	6,936.25	159.80	239.69	86.11	844.92	-2,167.17	3,569.96	3,296.07	273.89	13.034		
12,400.00	6,935.96	6,914.96	6,935.96	162.61	239.68	86.00	844.92	-2,167.17	3,669.87	3,395.95	273.92	13.397		
12,500.00	6,935.66	6,914.66	6,935.66	165.41	239.67	85.89	844.92	-2,167.17	3,769.78	3,495.82	273.96	13.761		
12,600.00	6,935.36	6,914.36	6,935.36	168.22	239.66	85.78	844.92	-2,167.17	3,869.70	3,595.71	273.99	14.124		
12,700.00	6,935.06	6,914.06	6,935.06	171.02	239.65	85.67	844.92	-2,167.17	3,969.62	3,695.59	274.03	14.486		
12,800.00	6,934.76	6,913.76	6,934.76	173.83	239.64	85.56	844.92	-2,167.17	4,069.54	3,795.48	274.06	14.849		
12,900.00	6,934.46	6,913.46	6,934.46	176.65	239.63	85.45	844.92	-2,167.17	4,169.47	3,895.36	274.10	15.211		
13,000.00	6,934.17	6,913.17	6,934.17	179.46	239.62	85.34	844.92	-2,167.17	4,269.40	3,995.25	274.14	15.574		
13,100.00	6,933.87	6,912.87	6,933.87	182.27	239.61	85.24	844.92	-2,167.17	4,369.33	4,095.15	274.19	15.936		
13,200.00	6,933.57	6,912.57	6,933.57	185.09	239.60	85.13	844.92	-2,167.17	4,469.27	4,195.04	274.23	16.297		
13,300.00	6,933.27	6,912.27	6,933.27	187.91	239.58	85.02	844.92	-2,167.17	4,569.21	4,294.93	274.28	16.659		
13,400.00	6,932.97	6,911.97	6,932.97	190.72	239.57	84.91	844.92	-2,167.17	4,669.15	4,394.83	274.32	17.021		
13,500.00	6,932.67	6,911.67	6,932.67	193.54	239.56	84.80	844.92	-2,167.17	4,769.10	4,494.72	274.37	17.382		
13,600.00	6,932.38	6,911.38	6,932.38	196.36	239.55	84.69	844.92	-2,167.17	4,869.04	4,594.62	274.42	17.743		
13,700.00	6,932.08	6,911.08	6,932.08	199.19	239.54	84.58	844.92	-2,167.17	4,968.99	4,694.52	274.47	18.104		
13,800.00	6,931.78	6,910.78	6,931.78	202.01	239.53	84.48	844.92	-2,167.17	5,068.94	4,794.42	274.53	18.464		
13,900.00	6,931.48	6,910.48	6,931.48	204.83	239.52	84.37	844.92	-2,167.17	5,168.90	4,894.32	274.58	18.825		
14,000.00	6,931.18	6,910.18	6,931.18	207.66	239.51	84.26	844.92	-2,167.17	5,268.85	4,994.21	274.64	19.185		
14,100.00	6,930.88	6,909.88	6,930.88	210.48	239.50	84.15	844.92	-2,167.17	5,368.81	5,094.11	274.69	19.545		
14,200.00	6,930.59	6,909.59	6,930.59	213.31	239.49	84.04	844.92	-2,167.17	5,468.76	5,194.01	274.75	19.905		
14,300.00	6,930.29	6,909.29	6,930.29	216.14	239.48	83.93	844.92	-2,167.17	5,568.72	5,293.92	274.81	20.264		
14,400.00	6,929.99	6,908.99	6,929.99	218.96	239.47	83.83	844.92	-2,167.17	5,668.69	5,393.82	274.87	20.623		
14,500.00	6,929.69	6,908.69	6,929.69	221.79	239.46	83.72	844.92	-2,167.17	5,768.65	5,493.72	274.93	20.982		
14,600.00	6,929.39	6,908.39	6,929.39	224.62	239.45	83.61	844.92	-2,167.17	5,868.61	5,593.62	274.99	21.341		
14,700.00	6,929.09	6,908.09	6,929.09	227.45	239.44	83.50	844.92	-2,167.17	5,968.58	5,693.52	275.05	21.700		
14,732.12	6,929.00	6,908.00	6,929.00	228.36	239.44	83.47	844.92	-2,167.17	6,000.69	5,725.61	275.08	21.815		



Anticollision Report



Company:	SRC ENERGY	Local Co-ordinate Reference:	Well HARVESTERS STATE 4N-16A-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 4N-16A-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	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	-100.90	-488.40	-2,537.22	2,584.05					
100.00	100.00	64.00	100.00	3.28	3.47	-100.90	-488.40	-2,537.22	2,583.80	2,577.05	6.75	382.799		
200.00	200.00	164.00	200.00	3.34	5.16	-100.90	-488.40	-2,537.22	2,583.80	2,575.30	8.49	304.182		
300.00	300.00	264.00	300.00	3.44	8.16	-100.90	-488.40	-2,537.22	2,583.80	2,572.19	11.60	222.665		
400.00	400.00	364.00	400.00	3.60	11.44	-100.90	-488.40	-2,537.22	2,583.80	2,568.75	15.05	171.735		
500.00	500.00	464.00	500.00	3.81	14.82	-100.90	-488.40	-2,537.22	2,583.80	2,565.17	18.63	138.718		
600.00	600.00	564.00	600.00	4.05	18.24	-100.90	-488.40	-2,537.22	2,583.80	2,561.51	22.29	115.931		
700.00	699.98	663.98	699.98	4.32	21.68	-87.47	-488.40	-2,537.22	2,583.72	2,557.72	26.00	99.371		
800.00	799.84	763.84	799.84	4.62	25.14	-87.59	-488.40	-2,537.22	2,583.49	2,553.74	29.75	86.846		
900.00	899.45	863.45	899.45	4.94	28.59	-87.79	-488.40	-2,537.22	2,583.14	2,549.62	33.52	77.071		
1,000.00	998.80	962.80	998.80	5.28	32.03	-88.04	-488.40	-2,537.22	2,582.72	2,545.42	37.30	69.242		
1,100.00	1,098.12	1,062.12	1,098.12	5.63	35.49	-88.30	-488.40	-2,537.22	2,582.35	2,541.24	41.10	62.826		
1,200.00	1,197.44	1,161.44	1,197.44	6.00	38.94	-88.55	-488.40	-2,537.22	2,582.02	2,537.10	44.92	57.476		
1,300.00	1,296.77	1,260.77	1,296.77	6.37	42.40	-88.81	-488.40	-2,537.22	2,581.75	2,533.00	48.76	52.952		
1,400.00	1,396.09	1,360.09	1,396.09	6.76	45.85	-89.06	-488.40	-2,537.22	2,581.54	2,528.94	52.60	49.078		
1,500.00	1,495.41	1,459.41	1,495.41	7.15	49.31	-89.32	-488.40	-2,537.22	2,581.37	2,524.92	56.45	45.725		
1,600.00	1,594.74	1,558.74	1,594.74	7.55	52.77	-89.57	-488.40	-2,537.22	2,581.26	2,520.94	60.32	42.796		
1,700.00	1,694.06	1,658.06	1,694.06	7.96	56.23	-89.83	-488.40	-2,537.22	2,581.20	2,517.02	64.18	40.216		
1,766.02	1,759.64	1,723.64	1,759.64	8.23	58.52	-90.00	-488.40	-2,537.22	2,581.19	2,514.45	66.74	38.676		
1,800.00	1,793.38	1,757.38	1,793.38	8.37	59.70	-90.09	-488.40	-2,537.22	2,581.19	2,513.13	68.06	37.928		
1,900.00	1,892.71	1,856.71	1,892.71	8.78	63.16	-90.34	-488.40	-2,537.22	2,581.23	2,509.30	71.93	35.884		
2,000.00	1,992.03	1,956.03	1,992.03	9.20	66.62	-90.60	-488.40	-2,537.22	2,581.33	2,505.51	75.82	34.048		
2,100.00	2,091.36	2,055.36	2,091.36	9.62	70.08	-90.86	-488.40	-2,537.22	2,581.48	2,501.78	79.70	32.390		
2,200.00	2,190.68	2,154.68	2,190.68	10.05	73.55	-91.11	-488.40	-2,537.22	2,581.68	2,498.09	83.59	30.885		
2,300.00	2,290.00	2,254.00	2,290.00	10.48	77.01	-91.37	-488.40	-2,537.22	2,581.93	2,494.45	87.48	29.514		
2,400.00	2,389.33	2,353.33	2,389.33	10.90	80.48	-91.62	-488.40	-2,537.22	2,582.24	2,490.86	91.37	28.260		
2,500.00	2,488.65	2,452.65	2,488.65	11.34	83.94	-91.88	-488.40	-2,537.22	2,582.59	2,487.32	95.27	27.108		
2,600.00	2,587.97	2,551.97	2,587.97	11.77	87.41	-92.13	-488.40	-2,537.22	2,583.00	2,483.84	99.17	26.047		
2,700.00	2,687.30	2,651.30	2,687.30	12.20	90.87	-92.39	-488.40	-2,537.22	2,583.46	2,480.40	103.07	25.066		
2,800.00	2,786.62	2,750.62	2,786.62	12.64	94.34	-92.65	-488.40	-2,537.22	2,583.98	2,477.01	106.97	24.157		
2,900.00	2,885.94	2,849.94	2,885.94	13.07	97.80	-92.90	-488.40	-2,537.22	2,584.54	2,473.68	110.87	23.312		
3,000.00	2,985.27	2,949.27	2,985.27	13.51	101.27	-93.16	-488.40	-2,537.22	2,585.16	2,470.39	114.77	22.524		
3,100.00	3,084.59	3,048.59	3,084.59	13.95	104.73	-93.41	-488.40	-2,537.22	2,585.83	2,467.16	118.68	21.789		
3,200.00	3,183.91	3,147.91	3,183.91	14.39	108.20	-93.67	-488.40	-2,537.22	2,586.55	2,463.97	122.58	21.101		
3,300.00	3,283.24	3,247.24	3,283.24	14.83	111.66	-93.92	-488.40	-2,537.22	2,587.33	2,460.84	126.49	20.455		
3,400.00	3,382.56	3,346.56	3,382.56	15.27	115.13	-94.18	-488.40	-2,537.22	2,588.15	2,457.76	130.40	19.849		
3,500.00	3,481.88	3,445.88	3,481.88	15.71	118.60	-94.43	-488.40	-2,537.22	2,589.03	2,454.73	134.30	19.277		
3,600.00	3,581.21	3,545.21	3,581.21	16.16	122.06	-94.69	-488.40	-2,537.22	2,589.96	2,451.75	138.21	18.739		
3,700.00	3,680.53	3,644.53	3,680.53	16.60	125.53	-94.94	-488.40	-2,537.22	2,590.94	2,448.82	142.12	18.231		
3,800.00	3,779.85	3,743.85	3,779.85	17.04	128.99	-95.19	-488.40	-2,537.22	2,591.97	2,445.94	146.03	17.749		
3,900.00	3,879.18	3,843.18	3,879.18	17.49	132.46	-95.45	-488.40	-2,537.22	2,593.06	2,443.11	149.94	17.294		
4,000.00	3,978.50	3,942.50	3,978.50	17.93	135.93	-95.70	-488.40	-2,537.22	2,594.19	2,440.34	153.85	16.862		
4,100.00	4,077.82	4,041.82	4,077.82	18.37	139.39	-95.95	-488.40	-2,537.22	2,595.38	2,437.61	157.76	16.451		
4,200.00	4,177.15	4,141.15	4,177.15	18.82	142.86	-96.21	-488.40	-2,537.22	2,596.62	2,434.94	161.68	16.061		
4,300.00	4,276.47	4,240.47	4,276.47	19.27	146.33	-96.46	-488.40	-2,537.22	2,597.91	2,432.32	165.59	15.689		
4,400.00	4,375.79	4,339.79	4,375.79	19.71	149.79	-96.71	-488.40	-2,537.22	2,599.25	2,429.75	169.50	15.335		
4,500.00	4,475.12	4,439.12	4,475.12	20.16	153.26	-96.97	-488.40	-2,537.22	2,600.64	2,427.23	173.41	14.997		
4,600.00	4,574.44	4,538.44	4,574.44	20.60	156.73	-97.22	-488.40	-2,537.22	2,602.08	2,424.76	177.33	14.674		
4,700.00	4,673.76	4,637.76	4,673.76	21.05	160.19	-97.47	-488.40	-2,537.22	2,603.58	2,422.34	181.24	14.365		
4,800.00	4,773.09	4,737.09	4,773.09	21.50	163.66	-97.72	-488.40	-2,537.22	2,605.12	2,419.97	185.15	14.070		
4,900.00	4,872.41	4,836.41	4,872.41	21.94	167.13	-97.97	-488.40	-2,537.22	2,606.72	2,417.65	189.07	13.787		
5,000.00	4,971.74	4,935.74	4,971.74	22.39	170.59	-98.22	-488.40	-2,537.22	2,608.36	2,415.38	192.98	13.516		

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 4N-16A-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 4N-16A-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: 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	5,071.06	5,035.06	5,071.06	22.84	174.06	-98.47	-488.40	-2,537.22	2,610.06	2,413.16	196.90	13.256	
5,200.00	5,170.38	5,134.38	5,170.38	23.29	177.53	-98.72	-488.40	-2,537.22	2,611.81	2,411.00	200.81	13.006	
5,300.00	5,269.71	5,233.71	5,269.71	23.74	180.99	-98.97	-488.40	-2,537.22	2,613.61	2,408.88	204.73	12.766	
5,400.00	5,369.03	5,333.03	5,369.03	24.18	184.46	-99.22	-488.40	-2,537.22	2,615.46	2,406.81	208.64	12.536	
5,500.00	5,468.35	5,432.35	5,468.35	24.63	187.93	-99.47	-488.40	-2,537.22	2,617.36	2,404.80	212.56	12.314	
5,600.00	5,567.68	5,531.68	5,567.68	25.08	191.39	-99.72	-488.40	-2,537.22	2,619.30	2,402.83	216.47	12.100	
5,700.00	5,667.00	5,631.00	5,667.00	25.53	194.86	-99.97	-488.40	-2,537.22	2,621.30	2,400.91	220.39	11.894	
5,800.00	5,766.32	5,730.32	5,766.32	25.98	198.33	-100.22	-488.40	-2,537.22	2,623.35	2,399.05	224.30	11.695	
5,900.00	5,865.65	5,829.65	5,865.65	26.43	201.79	-100.47	-488.40	-2,537.22	2,625.45	2,397.23	228.22	11.504	
6,000.00	5,964.97	5,928.97	5,964.97	26.88	205.26	-100.71	-488.40	-2,537.22	2,627.60	2,395.46	232.14	11.319	
6,100.00	6,064.29	6,028.29	6,064.29	27.33	208.73	-100.96	-488.40	-2,537.22	2,629.80	2,393.74	236.05	11.141	
6,200.00	6,163.62	6,127.62	6,163.62	27.78	212.20	-101.21	-488.40	-2,537.22	2,632.04	2,392.07	239.97	10.968	
6,300.00	6,262.94	6,226.94	6,262.94	28.23	215.66	-101.45	-488.40	-2,537.22	2,634.34	2,390.45	243.89	10.801	
6,400.00	6,362.24	6,326.24	6,362.24	28.67	219.13	-83.40	-488.40	-2,537.22	2,636.15	2,388.35	247.80	10.638	
6,500.00	6,460.41	6,424.41	6,460.41	29.12	222.56	-52.27	-488.40	-2,537.22	2,627.55	2,375.87	251.68	10.440	
6,600.00	6,555.09	6,519.09	6,555.09	29.57	225.86	-43.71	-488.40	-2,537.22	2,605.11	2,349.69	255.42	10.199	
6,700.00	6,643.94	6,607.94	6,643.94	30.00	228.96	-41.51	-488.40	-2,537.22	2,569.54	2,310.59	258.95	9.923	
6,800.00	6,724.78	6,688.78	6,724.78	30.45	231.78	-42.38	-488.40	-2,537.22	2,521.90	2,259.72	262.18	9.619	
6,900.00	6,795.62	6,759.62	6,795.62	30.97	234.26	-45.57	-488.40	-2,537.22	2,463.59	2,198.54	265.06	9.295	
7,000.00	6,854.70	6,818.70	6,854.70	31.60	236.32	-51.06	-488.40	-2,537.22	2,396.29	2,128.76	267.53	8.957	
7,100.00	6,900.58	6,864.58	6,900.58	32.39	237.92	-59.08	-488.40	-2,537.22	2,321.88	2,052.31	269.57	8.613	
7,200.00	6,932.13	6,903.87	6,932.13	33.34	239.29	-69.75	-488.40	-2,537.22	2,242.43	1,970.99	271.44	8.261	
7,300.00	6,948.57	6,912.57	6,948.57	34.46	239.60	-82.50	-488.40	-2,537.22	2,160.09	1,887.79	272.30	7.933	
7,400.00	6,950.87	6,914.87	6,950.87	35.70	239.68	-90.25	-488.40	-2,537.22	2,077.08	1,804.05	273.03	7.607	
7,500.00	6,950.58	6,914.58	6,950.58	37.12	239.67	-90.23	-488.40	-2,537.22	1,995.40	1,721.58	273.82	7.287	
7,600.00	6,950.28	6,914.28	6,950.28	38.70	239.65	-90.22	-488.40	-2,537.22	1,915.45	1,640.68	274.77	6.971	
7,700.00	6,949.98	6,913.98	6,949.98	40.41	239.64	-90.21	-488.40	-2,537.22	1,837.47	1,561.56	275.92	6.660	
7,800.00	6,949.68	6,913.68	6,949.68	42.25	239.63	-90.19	-488.40	-2,537.22	1,761.71	1,484.44	277.27	6.354	
7,900.00	6,949.38	6,913.38	6,949.38	44.20	239.62	-90.18	-488.40	-2,537.22	1,688.48	1,409.62	278.86	6.055	
8,000.00	6,949.08	6,913.08	6,949.08	46.24	239.61	-90.16	-488.40	-2,537.22	1,618.12	1,337.42	280.70	5.765	
8,100.00	6,948.79	6,912.79	6,948.79	48.36	239.60	-90.15	-488.40	-2,537.22	1,551.02	1,268.23	282.79	5.485	
8,200.00	6,948.49	6,912.49	6,948.49	50.56	239.59	-90.13	-488.40	-2,537.22	1,487.61	1,202.47	285.14	5.217	
8,300.00	6,948.19	6,912.19	6,948.19	52.82	239.58	-90.12	-488.40	-2,537.22	1,428.40	1,140.65	287.75	4.964	
8,400.00	6,947.89	6,911.89	6,947.89	55.14	239.57	-90.10	-488.40	-2,537.22	1,373.92	1,083.33	290.59	4.728	
8,500.00	6,947.59	6,911.59	6,947.59	57.50	239.56	-90.09	-488.40	-2,537.22	1,324.76	1,031.13	293.64	4.512	
8,600.00	6,947.29	6,911.29	6,947.29	59.91	239.55	-90.07	-488.40	-2,537.22	1,281.54	984.71	296.82	4.318	
8,700.00	6,947.00	6,911.00	6,947.00	62.36	239.54	-90.06	-488.40	-2,537.22	1,244.86	944.78	300.08	4.148	
8,800.00	6,946.70	6,910.70	6,946.70	64.84	239.53	-90.05	-488.40	-2,537.22	1,215.32	912.00	303.32	4.007	
8,900.00	6,946.40	6,910.40	6,946.40	67.35	239.52	-90.03	-488.40	-2,537.22	1,193.46	887.02	306.44	3.895	
9,000.00	6,946.10	6,910.10	6,946.10	69.88	239.51	-90.02	-488.40	-2,537.22	1,179.70	870.36	309.33	3.814	
9,100.00	6,945.80	6,909.80	6,945.80	72.44	239.50	-90.00	-488.40	-2,537.22	1,174.32	862.41	311.90	3.765	
9,113.32	6,945.76	6,909.76	6,945.76	72.79	239.50	-90.00	-488.40	-2,537.22	1,174.24	862.02	312.22	3.761 CC, ES	
9,200.00	6,945.50	6,909.50	6,945.50	75.02	239.49	-89.99	-488.40	-2,537.22	1,177.43	863.37	314.07	3.749 SF	
9,300.00	6,945.21	6,909.21	6,945.21	77.63	239.48	-89.97	-488.40	-2,537.22	1,188.99	873.20	315.79	3.765	
9,400.00	6,944.91	6,908.91	6,944.91	80.24	239.47	-89.96	-488.40	-2,537.22	1,208.73	891.69	317.04	3.813	
9,500.00	6,944.61	6,908.61	6,944.61	82.88	239.46	-89.94	-488.40	-2,537.22	1,236.27	918.44	317.83	3.890	
9,600.00	6,944.31	6,908.31	6,944.31	85.53	239.45	-89.93	-488.40	-2,537.22	1,271.10	952.89	318.21	3.994	
9,700.00	6,944.01	6,908.01	6,944.01	88.19	239.44	-89.91	-488.40	-2,537.22	1,312.64	994.41	318.23	4.125	
9,800.00	6,943.71	6,907.71	6,943.71	90.86	239.43	-89.90	-488.40	-2,537.22	1,360.28	1,042.32	317.96	4.278	
9,900.00	6,943.42	6,907.42	6,943.42	93.55	239.42	-89.89	-488.40	-2,537.22	1,413.40	1,095.95	317.45	4.452	
10,000.00	6,943.12	6,907.12	6,943.12	96.24	239.40	-89.87	-488.40	-2,537.22	1,471.41	1,154.64	316.76	4.645	
10,100.00	6,942.82	6,906.82	6,942.82	98.95	239.39	-89.86	-488.40	-2,537.22	1,533.74	1,217.79	315.95	4.854	

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 4N-16A-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 4N-16A-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		
10,200.00	6,942.52	6,906.52	6,942.52	101.66	239.38	-89.84	-488.40	-2,537.22	1,599.91	1,284.85	315.06	5.078		
10,300.00	6,942.22	6,906.22	6,942.22	104.38	239.37	-89.83	-488.40	-2,537.22	1,669.44	1,355.33	314.11	5.315		
10,400.00	6,941.92	6,905.92	6,941.92	107.11	239.36	-89.81	-488.40	-2,537.22	1,741.94	1,428.80	313.15	5.563		
10,500.00	6,941.63	6,905.63	6,941.63	109.84	239.35	-89.80	-488.40	-2,537.22	1,817.06	1,504.88	312.18	5.821		
10,600.00	6,941.33	6,905.33	6,941.33	112.58	239.34	-89.78	-488.40	-2,537.22	1,894.48	1,583.26	311.22	6.087		
10,700.00	6,941.03	6,905.03	6,941.03	115.33	239.33	-89.77	-488.40	-2,537.22	1,973.92	1,663.64	310.28	6.362		
10,800.00	6,940.73	6,904.73	6,940.73	118.08	239.32	-89.75	-488.40	-2,537.22	2,055.16	1,745.80	309.37	6.643		
10,900.00	6,940.43	6,904.43	6,940.43	120.84	239.31	-89.74	-488.40	-2,537.22	2,138.00	1,829.50	308.49	6.930		
11,000.00	6,940.13	6,904.13	6,940.13	123.60	239.30	-89.73	-488.40	-2,537.22	2,222.24	1,914.59	307.65	7.223		
11,100.00	6,939.83	6,903.83	6,939.83	126.36	239.29	-89.71	-488.40	-2,537.22	2,307.75	2,000.90	306.85	7.521		
11,200.00	6,939.54	6,903.54	6,939.54	129.13	239.28	-89.70	-488.40	-2,537.22	2,394.38	2,088.29	306.09	7.823		
11,300.00	6,939.24	6,903.24	6,939.24	131.91	239.27	-89.68	-488.40	-2,537.22	2,482.01	2,176.65	305.36	8.128		
11,400.00	6,938.94	6,902.94	6,938.94	134.68	239.26	-89.67	-488.40	-2,537.22	2,570.54	2,265.87	304.67	8.437		
11,500.00	6,938.64	6,902.64	6,938.64	137.46	239.25	-89.65	-488.40	-2,537.22	2,659.89	2,355.88	304.01	8.749		
11,600.00	6,938.34	6,902.34	6,938.34	140.25	239.24	-89.64	-488.40	-2,537.22	2,749.97	2,446.58	303.39	9.064		
11,700.00	6,938.04	6,902.04	6,938.04	143.03	239.23	-89.62	-488.40	-2,537.22	2,840.72	2,537.92	302.80	9.381		
11,800.00	6,937.75	6,901.75	6,937.75	145.82	239.22	-89.61	-488.40	-2,537.22	2,932.07	2,629.82	302.25	9.701		
11,900.00	6,937.45	6,901.45	6,937.45	148.61	239.21	-89.59	-488.40	-2,537.22	3,023.96	2,722.24	301.72	10.022		
12,000.00	6,937.15	6,901.15	6,937.15	151.41	239.20	-89.58	-488.40	-2,537.22	3,116.36	2,815.14	301.22	10.346		
12,100.00	6,936.85	6,900.85	6,936.85	154.20	239.19	-89.57	-488.40	-2,537.22	3,209.21	2,908.46	300.74	10.671		
12,200.00	6,936.55	6,900.55	6,936.55	157.00	239.18	-89.55	-488.40	-2,537.22	3,302.48	3,002.18	300.29	10.997		
12,300.00	6,936.25	6,900.25	6,936.25	159.80	239.17	-89.54	-488.40	-2,537.22	3,396.13	3,096.26	299.87	11.325		
12,400.00	6,935.96	6,900.04	6,935.96	162.61	239.16	-89.52	-488.40	-2,537.22	3,490.13	3,190.66	299.47	11.654		
12,500.00	6,935.66	6,900.34	6,935.66	165.41	239.17	-89.51	-488.40	-2,537.22	3,584.46	3,285.35	299.10	11.984		
12,600.00	6,935.36	6,900.64	6,935.36	168.22	239.18	-89.49	-488.40	-2,537.22	3,679.08	3,380.32	298.76	12.314		
12,700.00	6,935.06	6,900.94	6,935.06	171.02	239.19	-89.48	-488.40	-2,537.22	3,773.99	3,475.55	298.44	12.646		
12,800.00	6,934.76	6,901.24	6,934.76	173.83	239.20	-89.46	-488.40	-2,537.22	3,869.15	3,571.02	298.13	12.978		
12,900.00	6,934.46	6,901.54	6,934.46	176.65	239.21	-89.45	-488.40	-2,537.22	3,964.55	3,666.71	297.84	13.311		
13,000.00	6,934.17	6,901.83	6,934.17	179.46	239.22	-89.43	-488.40	-2,537.22	4,060.17	3,762.60	297.57	13.645		
13,100.00	6,933.87	6,902.13	6,933.87	182.27	239.23	-89.42	-488.40	-2,537.22	4,156.00	3,858.69	297.31	13.979		
13,200.00	6,933.57	6,902.43	6,933.57	185.09	239.24	-89.41	-488.40	-2,537.22	4,252.02	3,954.96	297.06	14.314		
13,300.00	6,933.27	6,902.73	6,933.27	187.91	239.25	-89.39	-488.40	-2,537.22	4,348.21	4,051.39	296.83	14.649		
13,400.00	6,932.97	6,903.03	6,932.97	190.72	239.26	-89.38	-488.40	-2,537.22	4,444.58	4,147.97	296.61	14.985		
13,500.00	6,932.67	6,903.33	6,932.67	193.54	239.27	-89.36	-488.40	-2,537.22	4,541.10	4,244.70	296.40	15.321		
13,600.00	6,932.38	6,903.62	6,932.38	196.36	239.28	-89.35	-488.40	-2,537.22	4,637.77	4,341.57	296.20	15.657		
13,700.00	6,932.08	6,903.92	6,932.08	199.19	239.29	-89.33	-488.40	-2,537.22	4,734.58	4,438.57	296.02	15.994		
13,800.00	6,931.78	6,904.22	6,931.78	202.01	239.30	-89.32	-488.40	-2,537.22	4,831.52	4,535.68	295.84	16.332		
13,900.00	6,931.48	6,904.52	6,931.48	204.83	239.31	-89.30	-488.40	-2,537.22	4,928.58	4,632.91	295.67	16.669		
14,000.00	6,931.18	6,904.82	6,931.18	207.66	239.32	-89.29	-488.40	-2,537.22	5,025.76	4,730.24	295.52	17.007		
14,100.00	6,930.88	6,905.12	6,930.88	210.48	239.34	-89.27	-488.40	-2,537.22	5,123.05	4,827.68	295.37	17.345		
14,200.00	6,930.59	6,905.41	6,930.59	213.31	239.35	-89.26	-488.40	-2,537.22	5,220.43	4,925.21	295.23	17.683		
14,300.00	6,930.29	6,905.71	6,930.29	216.14	239.36	-89.24	-488.40	-2,537.22	5,317.92	5,022.82	295.09	18.021		
14,400.00	6,929.99	6,906.01	6,929.99	218.96	239.37	-89.23	-488.40	-2,537.22	5,415.49	5,120.53	294.97	18.360		
14,500.00	6,929.69	6,906.31	6,929.69	221.79	239.38	-89.22	-488.40	-2,537.22	5,513.16	5,218.31	294.85	18.698		
14,600.00	6,929.39	6,906.61	6,929.39	224.62	239.39	-89.20	-488.40	-2,537.22	5,610.90	5,316.16	294.74	19.037		
14,700.00	6,929.09	6,906.91	6,929.09	227.45	239.40	-89.19	-488.40	-2,537.22	5,708.73	5,414.09	294.64	19.375		
14,732.12	6,929.00	6,907.00	6,929.00	228.36	239.40	-89.18	-488.40	-2,537.22	5,740.17	5,445.56	294.60	19.484		



Anticollision Report



Company:	SRC ENERGY	Local Co-ordinate Reference:	Well HARVESTERS STATE 4N-16A-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 4N-16A-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	
0.00	0.00	0.00	47.00	3.28	3.28	-109.05	-1,657.48	-4,798.74	5,077.14				
100.00	100.00	53.00	100.00	3.28	3.41	-109.05	-1,657.48	-4,798.74	5,076.93	5,070.23	6.69	758.578	
200.00	200.00	153.00	200.00	3.34	4.87	-109.05	-1,657.48	-4,798.74	5,076.93	5,068.72	8.20	618.833	
300.00	300.00	253.00	300.00	3.44	7.81	-109.05	-1,657.48	-4,798.74	5,076.93	5,065.67	11.25	451.126	
400.00	400.00	353.00	400.00	3.60	11.07	-109.05	-1,657.48	-4,798.74	5,076.93	5,062.25	14.68	345.888	
500.00	500.00	453.00	500.00	3.81	14.45	-109.05	-1,657.48	-4,798.74	5,076.93	5,058.67	18.25	278.157	
600.00	600.00	553.00	600.00	4.05	17.86	-109.05	-1,657.48	-4,798.74	5,076.93	5,055.02	21.91	231.720	
700.00	699.98	652.98	699.98	4.32	21.30	-95.60	-1,657.48	-4,798.74	5,077.10	5,051.47	25.62	198.159	
800.00	799.84	752.84	799.84	4.62	24.75	-95.65	-1,657.48	-4,798.74	5,077.61	5,048.24	29.37	172.899	
900.00	899.45	852.45	899.45	4.94	28.21	-95.73	-1,657.48	-4,798.74	5,078.48	5,045.34	33.14	153.264	
1,000.00	998.80	951.80	998.80	5.28	31.65	-95.85	-1,657.48	-4,798.74	5,079.64	5,042.72	36.92	137.589	
1,100.00	1,098.12	1,051.12	1,098.12	5.63	35.10	-95.98	-1,657.48	-4,798.74	5,080.84	5,040.12	40.72	124.768	
1,200.00	1,197.44	1,150.44	1,197.44	6.00	38.56	-96.11	-1,657.48	-4,798.74	5,082.07	5,037.53	44.54	114.096	
1,300.00	1,296.77	1,249.77	1,296.77	6.37	42.01	-96.24	-1,657.48	-4,798.74	5,083.33	5,034.95	48.38	105.081	
1,400.00	1,396.09	1,349.09	1,396.09	6.76	45.47	-96.37	-1,657.48	-4,798.74	5,084.61	5,032.39	52.22	97.370	
1,500.00	1,495.41	1,448.41	1,495.41	7.15	48.93	-96.50	-1,657.48	-4,798.74	5,085.92	5,029.85	56.07	90.702	
1,600.00	1,594.74	1,547.74	1,594.74	7.55	52.39	-96.62	-1,657.48	-4,798.74	5,087.26	5,027.32	59.93	84.881	
1,700.00	1,694.06	1,647.06	1,694.06	7.96	55.85	-96.75	-1,657.48	-4,798.74	5,088.62	5,024.82	63.80	79.756	
1,800.00	1,793.38	1,746.38	1,793.38	8.37	59.31	-96.88	-1,657.48	-4,798.74	5,090.01	5,022.33	67.68	75.212	
1,900.00	1,892.71	1,845.71	1,892.71	8.78	62.77	-97.01	-1,657.48	-4,798.74	5,091.42	5,019.87	71.55	71.156	
2,000.00	1,992.03	1,945.03	1,992.03	9.20	66.24	-97.14	-1,657.48	-4,798.74	5,092.86	5,017.43	75.43	67.513	
2,100.00	2,091.36	2,044.36	2,091.36	9.62	69.70	-97.27	-1,657.48	-4,798.74	5,094.33	5,015.01	79.32	64.225	
2,200.00	2,190.68	2,143.68	2,190.68	10.05	73.16	-97.40	-1,657.48	-4,798.74	5,095.82	5,012.61	83.21	61.241	
2,300.00	2,290.00	2,243.00	2,290.00	10.48	76.63	-97.53	-1,657.48	-4,798.74	5,097.34	5,010.24	87.10	58.523	
2,400.00	2,389.33	2,342.33	2,389.33	10.90	80.09	-97.65	-1,657.48	-4,798.74	5,098.88	5,007.89	90.99	56.036	
2,500.00	2,488.65	2,441.65	2,488.65	11.34	83.56	-97.78	-1,657.48	-4,798.74	5,100.45	5,005.56	94.89	53.752	
2,600.00	2,587.97	2,540.97	2,587.97	11.77	87.02	-97.91	-1,657.48	-4,798.74	5,102.05	5,003.26	98.79	51.647	
2,700.00	2,687.30	2,640.30	2,687.30	12.20	90.49	-98.04	-1,657.48	-4,798.74	5,103.67	5,000.98	102.69	49.702	
2,800.00	2,786.62	2,739.62	2,786.62	12.64	93.95	-98.17	-1,657.48	-4,798.74	5,105.32	4,998.73	106.59	47.898	
2,900.00	2,885.94	2,838.94	2,885.94	13.07	97.42	-98.30	-1,657.48	-4,798.74	5,106.99	4,996.50	110.49	46.222	
3,000.00	2,985.27	2,938.27	2,985.27	13.51	100.88	-98.42	-1,657.48	-4,798.74	5,108.69	4,994.30	114.39	44.660	
3,100.00	3,084.59	3,037.59	3,084.59	13.95	104.35	-98.55	-1,657.48	-4,798.74	5,110.42	4,992.12	118.30	43.200	
3,200.00	3,183.91	3,136.91	3,183.91	14.39	107.81	-98.68	-1,657.48	-4,798.74	5,112.17	4,989.97	122.20	41.834	
3,300.00	3,283.24	3,236.24	3,283.24	14.83	111.28	-98.81	-1,657.48	-4,798.74	5,113.94	4,987.84	126.11	40.552	
3,400.00	3,382.56	3,335.56	3,382.56	15.27	114.75	-98.94	-1,657.48	-4,798.74	5,115.75	4,985.73	130.01	39.347	
3,500.00	3,481.88	3,434.88	3,481.88	15.71	118.21	-99.06	-1,657.48	-4,798.74	5,117.58	4,983.65	133.92	38.213	
3,600.00	3,581.21	3,534.21	3,581.21	16.16	121.68	-99.19	-1,657.48	-4,798.74	5,119.43	4,981.60	137.83	37.143	
3,700.00	3,680.53	3,633.53	3,680.53	16.60	125.14	-99.32	-1,657.48	-4,798.74	5,121.31	4,979.57	141.74	36.132	
3,800.00	3,779.85	3,732.85	3,779.85	17.04	128.61	-99.45	-1,657.48	-4,798.74	5,123.22	4,977.57	145.65	35.175	
3,900.00	3,879.18	3,832.18	3,879.18	17.49	132.08	-99.57	-1,657.48	-4,798.74	5,125.15	4,975.59	149.56	34.268	
4,000.00	3,978.50	3,931.50	3,978.50	17.93	135.54	-99.70	-1,657.48	-4,798.74	5,127.10	4,973.63	153.47	33.408	
4,100.00	4,077.82	4,030.82	4,077.82	18.37	139.01	-99.83	-1,657.48	-4,798.74	5,129.09	4,971.70	157.38	32.590	
4,200.00	4,177.15	4,130.15	4,177.15	18.82	142.48	-99.95	-1,657.48	-4,798.74	5,131.09	4,969.80	161.29	31.812	
4,300.00	4,276.47	4,229.47	4,276.47	19.27	145.94	-100.08	-1,657.48	-4,798.74	5,133.13	4,967.92	165.21	31.071	
4,400.00	4,375.79	4,328.79	4,375.79	19.71	149.41	-100.21	-1,657.48	-4,798.74	5,135.19	4,966.07	169.12	30.364	
4,500.00	4,475.12	4,428.12	4,475.12	20.16	152.88	-100.33	-1,657.48	-4,798.74	5,137.27	4,964.24	173.03	29.690	
4,600.00	4,574.44	4,527.44	4,574.44	20.60	156.34	-100.46	-1,657.48	-4,798.74	5,139.38	4,962.43	176.94	29.045	
4,700.00	4,673.76	4,626.76	4,673.76	21.05	159.81	-100.59	-1,657.48	-4,798.74	5,141.51	4,960.66	180.86	28.428	
4,800.00	4,773.09	4,726.09	4,773.09	21.50	163.28	-100.71	-1,657.48	-4,798.74	5,143.67	4,958.90	184.77	27.838	
4,900.00	4,872.41	4,825.41	4,872.41	21.94	166.74	-100.84	-1,657.48	-4,798.74	5,145.86	4,957.17	188.69	27.272	
5,000.00	4,971.74	4,924.74	4,971.74	22.39	170.21	-100.97	-1,657.48	-4,798.74	5,148.07	4,955.47	192.60	26.729	
5,100.00	5,071.06	5,024.06	5,071.06	22.84	173.68	-101.09	-1,657.48	-4,798.74	5,150.31	4,953.79	196.51	26.208	

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 4N-16A-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 4N-16A-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	5,170.38	5,123.38	5,170.38	23.29	177.14	-101.22	-1,657.48	-4,798.74	5,152.57	4,952.14	200.43	25.708		
5,300.00	5,269.71	5,222.71	5,269.71	23.74	180.61	-101.34	-1,657.48	-4,798.74	5,154.85	4,950.51	204.34	25.226		
5,400.00	5,369.03	5,322.03	5,369.03	24.18	184.08	-101.47	-1,657.48	-4,798.74	5,157.16	4,948.91	208.26	24.763		
5,500.00	5,468.35	5,421.35	5,468.35	24.63	187.54	-101.59	-1,657.48	-4,798.74	5,159.50	4,947.33	212.17	24.317		
5,600.00	5,567.68	5,520.68	5,567.68	25.08	191.01	-101.72	-1,657.48	-4,798.74	5,161.86	4,945.77	216.09	23.888		
5,700.00	5,667.00	5,620.00	5,667.00	25.53	194.48	-101.84	-1,657.48	-4,798.74	5,164.25	4,944.24	220.01	23.473		
5,800.00	5,766.32	5,719.32	5,766.32	25.98	197.94	-101.97	-1,657.48	-4,798.74	5,166.66	4,942.74	223.92	23.073		
5,900.00	5,865.65	5,818.65	5,865.65	26.43	201.41	-102.10	-1,657.48	-4,798.74	5,169.10	4,941.26	227.84	22.688		
6,000.00	5,964.97	5,917.97	5,964.97	26.88	204.88	-102.22	-1,657.48	-4,798.74	5,171.56	4,939.81	231.75	22.315		
6,100.00	6,064.29	6,017.29	6,064.29	27.33	208.34	-102.35	-1,657.48	-4,798.74	5,174.05	4,938.38	235.67	21.955		
6,200.00	6,163.62	6,116.62	6,163.62	27.78	211.81	-102.47	-1,657.48	-4,798.74	5,176.56	4,936.97	239.59	21.606		
6,300.00	6,262.94	6,215.94	6,262.94	28.23	215.28	-102.59	-1,657.48	-4,798.74	5,179.09	4,935.59	243.50	21.269		
6,400.00	6,362.24	6,315.24	6,362.24	28.67	218.74	-84.42	-1,657.48	-4,798.74	5,181.12	4,933.71	247.42	20.941		
6,500.00	6,460.41	6,413.41	6,460.41	29.12	222.17	-53.12	-1,657.48	-4,798.74	5,172.79	4,921.50	251.30	20.585		
6,600.00	6,559.09	6,508.09	6,559.09	29.57	225.48	-44.32	-1,657.48	-4,798.74	5,150.64	4,895.60	255.04	20.195		
6,700.00	6,643.94	6,603.06	6,643.94	30.00	228.79	-41.81	-1,657.48	-4,798.74	5,115.30	4,856.52	258.78	19.767		
6,800.00	6,724.78	6,677.78	6,724.78	30.45	231.40	-42.29	-1,657.48	-4,798.74	5,067.73	4,805.93	261.80	19.358		
6,900.00	6,795.62	6,748.62	6,795.62	30.97	233.87	-44.97	-1,657.48	-4,798.74	5,009.20	4,744.53	264.67	18.926		
7,000.00	6,854.70	6,807.70	6,854.70	31.60	235.93	-49.87	-1,657.48	-4,798.74	4,941.27	4,674.14	267.13	18.498		
7,100.00	6,900.58	6,853.58	6,900.58	32.39	237.54	-57.37	-1,657.48	-4,798.74	4,865.70	4,596.56	269.14	18.079		
7,200.00	6,932.13	6,885.13	6,932.13	33.34	238.64	-67.92	-1,657.48	-4,798.74	4,784.42	4,513.74	270.68	17.676		
7,300.00	6,948.57	6,901.57	6,948.57	34.46	239.21	-81.50	-1,657.48	-4,798.74	4,699.50	4,427.78	271.72	17.295		
7,400.00	6,950.87	6,903.87	6,950.87	35.70	239.29	-90.29	-1,657.48	-4,798.74	4,613.09	4,340.78	272.31	16.941		
7,500.00	6,950.58	6,903.58	6,950.58	37.12	239.28	-90.29	-1,657.48	-4,798.74	4,527.02	4,254.14	272.88	16.590		
7,600.00	6,950.28	6,903.28	6,950.28	38.70	239.27	-90.28	-1,657.48	-4,798.74	4,441.54	4,167.99	273.55	16.237		
7,700.00	6,949.98	6,902.98	6,949.98	40.41	239.26	-90.27	-1,657.48	-4,798.74	4,356.67	4,082.36	274.31	15.882		
7,800.00	6,949.68	6,902.68	6,949.68	42.25	239.25	-90.26	-1,657.48	-4,798.74	4,272.46	3,997.28	275.18	15.526		
7,900.00	6,949.38	6,902.38	6,949.38	44.20	239.24	-90.26	-1,657.48	-4,798.74	4,188.94	3,912.79	276.14	15.169		
8,000.00	6,949.08	6,902.08	6,949.08	46.24	239.23	-90.25	-1,657.48	-4,798.74	4,106.16	3,828.94	277.22	14.812		
8,100.00	6,948.79	6,901.79	6,948.79	48.36	239.22	-90.24	-1,657.48	-4,798.74	4,024.16	3,745.75	278.41	14.454		
8,200.00	6,948.49	6,901.49	6,948.49	50.56	239.21	-90.23	-1,657.48	-4,798.74	3,942.99	3,663.28	279.71	14.096		
8,300.00	6,948.19	6,901.19	6,948.19	52.82	239.20	-90.23	-1,657.48	-4,798.74	3,862.71	3,581.57	281.14	13.740		
8,400.00	6,947.89	6,900.89	6,947.89	55.14	239.19	-90.22	-1,657.48	-4,798.74	3,783.36	3,500.68	282.68	13.384		
8,500.00	6,947.59	6,900.59	6,947.59	57.50	239.18	-90.21	-1,657.48	-4,798.74	3,705.02	3,420.67	284.35	13.030		
8,600.00	6,947.29	6,900.29	6,947.29	59.91	239.17	-90.20	-1,657.48	-4,798.74	3,627.73	3,341.59	286.14	12.678		
8,700.00	6,947.00	6,900.00	6,947.00	62.36	239.16	-90.20	-1,657.48	-4,798.74	3,551.59	3,263.52	288.06	12.329		
8,800.00	6,946.70	6,900.30	6,946.70	64.84	239.17	-90.19	-1,657.48	-4,798.74	3,476.65	3,186.51	290.14	11.983		
8,900.00	6,946.40	6,900.60	6,946.40	67.35	239.18	-90.18	-1,657.48	-4,798.74	3,403.00	3,110.66	292.34	11.641		
9,000.00	6,946.10	6,900.90	6,946.10	69.88	239.19	-90.18	-1,657.48	-4,798.74	3,330.73	3,036.05	294.67	11.303		
9,100.00	6,945.80	6,901.20	6,945.80	72.44	239.20	-90.17	-1,657.48	-4,798.74	3,259.92	2,962.77	297.14	10.971		
9,200.00	6,945.50	6,901.50	6,945.50	75.02	239.21	-90.16	-1,657.48	-4,798.74	3,190.67	2,890.93	299.74	10.645		
9,300.00	6,945.21	6,901.79	6,945.21	77.63	239.22	-90.15	-1,657.48	-4,798.74	3,123.09	2,820.62	302.47	10.325		
9,400.00	6,944.91	6,902.09	6,944.91	80.24	239.23	-90.15	-1,657.48	-4,798.74	3,057.29	2,751.95	305.34	10.013		
9,500.00	6,944.61	6,902.39	6,944.61	82.88	239.24	-90.14	-1,657.48	-4,798.74	2,993.38	2,685.06	308.33	9.708		
9,600.00	6,944.31	6,902.69	6,944.31	85.53	239.25	-90.13	-1,657.48	-4,798.74	2,931.49	2,620.05	311.44	9.413		
9,700.00	6,944.01	6,902.99	6,944.01	88.19	239.26	-90.12	-1,657.48	-4,798.74	2,871.75	2,557.08	314.67	9.126		
9,800.00	6,943.71	6,903.29	6,943.71	90.86	239.27	-90.12	-1,657.48	-4,798.74	2,814.30	2,496.28	318.02	8.849		
9,900.00	6,943.42	6,903.58	6,943.42	93.55	239.28	-90.11	-1,657.48	-4,798.74	2,759.28	2,437.80	321.47	8.583		
10,000.00	6,943.12	6,903.88	6,943.12	96.24	239.29	-90.10	-1,657.48	-4,798.74	2,706.83	2,381.81	325.02	8.328		
10,100.00	6,942.82	6,904.18	6,942.82	98.95	239.30	-90.09	-1,657.48	-4,798.74	2,657.11	2,328.46	328.65	8.085		
10,200.00	6,942.52	6,904.48	6,942.52	101.66	239.31	-90.09	-1,657.48	-4,798.74	2,610.28	2,277.93	332.35	7.854		
10,300.00	6,942.22	6,904.78	6,942.22	104.38	239.32	-90.08	-1,657.48	-4,798.74	2,566.49	2,230.40	336.10	7.636		

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 4N-16A-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 4N-16A-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		
10,400.00	6,941.92	6,905.08	6,941.92	107.11	239.33	-90.07	-1,657.48	-4,798.74	2,525.91	2,186.03	339.88	7.432		
10,500.00	6,941.63	6,905.38	6,941.63	109.84	239.34	-90.06	-1,657.48	-4,798.74	2,488.68	2,145.01	343.67	7.242		
10,600.00	6,941.33	6,905.67	6,941.33	112.58	239.35	-90.06	-1,657.48	-4,798.74	2,454.96	2,107.51	347.45	7.066		
10,700.00	6,941.03	6,905.97	6,941.03	115.33	239.36	-90.05	-1,657.48	-4,798.74	2,424.90	2,073.71	351.19	6.905		
10,800.00	6,940.73	6,906.27	6,940.73	118.08	239.38	-90.04	-1,657.48	-4,798.74	2,398.64	2,043.78	354.86	6.759		
10,900.00	6,940.43	6,906.57	6,940.43	120.84	239.39	-90.04	-1,657.48	-4,798.74	2,376.30	2,017.85	358.45	6.629		
11,000.00	6,940.13	6,906.87	6,940.13	123.60	239.40	-90.03	-1,657.48	-4,798.74	2,357.99	1,996.08	361.91	6.515		
11,100.00	6,939.83	6,907.17	6,939.83	126.36	239.41	-90.02	-1,657.48	-4,798.74	2,343.81	1,978.58	365.23	6.417		
11,200.00	6,939.54	6,907.46	6,939.54	129.13	239.42	-90.01	-1,657.48	-4,798.74	2,333.83	1,965.45	368.38	6.335		
11,300.00	6,939.24	6,907.76	6,939.24	131.91	239.43	-90.01	-1,657.48	-4,798.74	2,328.10	1,956.78	371.32	6.270		
11,383.42	6,938.99	6,908.01	6,938.99	134.22	239.44	-90.00	-1,657.48	-4,798.74	2,326.61	1,952.99	373.62	6.227 CC		
11,400.00	6,938.94	6,908.06	6,938.94	134.68	239.44	-90.00	-1,657.48	-4,798.74	2,326.67	1,952.61	374.06	6.220 ES		
11,500.00	6,938.64	6,908.36	6,938.64	137.46	239.45	-89.99	-1,657.48	-4,798.74	2,329.53	1,952.97	376.56	6.186		
11,600.00	6,938.34	6,908.66	6,938.34	140.25	239.46	-89.98	-1,657.48	-4,798.74	2,336.67	1,957.85	378.82	6.168		
11,700.00	6,938.04	6,908.96	6,938.04	143.03	239.47	-89.98	-1,657.48	-4,798.74	2,348.05	1,967.23	380.82	6.166 SF		
11,800.00	6,937.75	6,909.25	6,937.75	145.82	239.48	-89.97	-1,657.48	-4,798.74	2,363.61	1,981.05	382.56	6.178		
11,900.00	6,937.45	6,909.55	6,937.45	148.61	239.49	-89.96	-1,657.48	-4,798.74	2,383.26	1,999.22	384.05	6.206		
12,000.00	6,937.15	6,909.85	6,937.15	151.41	239.50	-89.95	-1,657.48	-4,798.74	2,406.92	2,021.64	385.28	6.247		
12,100.00	6,936.85	6,889.85	6,936.85	154.20	238.80	-89.95	-1,657.48	-4,798.74	2,434.46	2,048.90	385.56	6.314		
12,200.00	6,936.55	6,889.55	6,936.55	157.00	238.79	-89.94	-1,657.48	-4,798.74	2,465.74	2,079.46	386.29	6.383		
12,300.00	6,936.25	6,889.25	6,936.25	159.80	238.78	-89.93	-1,657.48	-4,798.74	2,500.64	2,113.85	386.80	6.465		
12,400.00	6,935.96	6,888.96	6,935.96	162.61	238.77	-89.93	-1,657.48	-4,798.74	2,539.00	2,151.90	387.10	6.559		
12,500.00	6,935.66	6,888.66	6,935.66	165.41	238.76	-89.92	-1,657.48	-4,798.74	2,580.67	2,193.45	387.21	6.665		
12,600.00	6,935.36	6,888.36	6,935.36	168.22	238.75	-89.91	-1,657.48	-4,798.74	2,625.48	2,238.33	387.15	6.782		
12,700.00	6,935.06	6,888.06	6,935.06	171.02	238.74	-89.90	-1,657.48	-4,798.74	2,673.29	2,286.35	386.94	6.909		
12,800.00	6,934.76	6,887.76	6,934.76	173.83	238.73	-89.90	-1,657.48	-4,798.74	2,723.93	2,337.34	386.59	7.046		
12,900.00	6,934.46	6,887.46	6,934.46	176.65	238.72	-89.89	-1,657.48	-4,798.74	2,777.25	2,391.13	386.11	7.193		
13,000.00	6,934.17	6,887.17	6,934.17	179.46	238.71	-89.88	-1,657.48	-4,798.74	2,833.09	2,447.56	385.53	7.349		
13,100.00	6,933.87	6,886.87	6,933.87	182.27	238.70	-89.87	-1,657.48	-4,798.74	2,891.32	2,506.46	384.86	7.513		
13,200.00	6,933.57	6,886.57	6,933.57	185.09	238.69	-89.87	-1,657.48	-4,798.74	2,951.78	2,567.67	384.11	7.685		
13,300.00	6,933.27	6,886.27	6,933.27	187.91	238.68	-89.86	-1,657.48	-4,798.74	3,014.36	2,631.06	383.30	7.864		
13,400.00	6,932.97	6,885.97	6,932.97	190.72	238.67	-89.85	-1,657.48	-4,798.74	3,078.91	2,696.48	382.43	8.051		
13,500.00	6,932.67	6,885.67	6,932.67	193.54	238.66	-89.84	-1,657.48	-4,798.74	3,145.31	2,763.79	381.52	8.244		
13,600.00	6,932.38	6,885.38	6,932.38	196.36	238.65	-89.84	-1,657.48	-4,798.74	3,213.45	2,832.88	380.58	8.444		
13,700.00	6,932.08	6,885.08	6,932.08	199.19	238.64	-89.83	-1,657.48	-4,798.74	3,283.23	2,903.62	379.61	8.649		
13,800.00	6,931.78	6,884.78	6,931.78	202.01	238.63	-89.82	-1,657.48	-4,798.74	3,354.53	2,975.92	378.62	8.860		
13,900.00	6,931.48	6,884.48	6,931.48	204.83	238.61	-89.82	-1,657.48	-4,798.74	3,427.28	3,049.66	377.62	9.076		
14,000.00	6,931.18	6,884.18	6,931.18	207.66	238.60	-89.81	-1,657.48	-4,798.74	3,501.36	3,124.75	376.61	9.297		
14,100.00	6,930.88	6,883.88	6,930.88	210.48	238.59	-89.80	-1,657.48	-4,798.74	3,576.71	3,201.11	375.60	9.523		
14,200.00	6,930.59	6,883.59	6,930.59	213.31	238.58	-89.79	-1,657.48	-4,798.74	3,653.24	3,278.65	374.59	9.753		
14,300.00	6,930.29	6,883.29	6,930.29	216.14	238.57	-89.79	-1,657.48	-4,798.74	3,730.88	3,357.29	373.59	9.987		
14,400.00	6,929.99	6,882.99	6,929.99	218.96	238.56	-89.78	-1,657.48	-4,798.74	3,809.56	3,436.97	372.59	10.224		
14,500.00	6,929.69	6,882.69	6,929.69	221.79	238.55	-89.77	-1,657.48	-4,798.74	3,889.23	3,517.62	371.61	10.466		
14,600.00	6,929.39	6,882.39	6,929.39	224.62	238.54	-89.76	-1,657.48	-4,798.74	3,969.81	3,599.17	370.64	10.711		
14,700.00	6,929.09	6,882.09	6,929.09	227.45	238.53	-89.76	-1,657.48	-4,798.74	4,051.26	3,681.58	369.68	10.959		
14,732.12	6,929.00	6,882.00	6,929.00	228.36	238.53	-89.75	-1,657.48	-4,798.74	4,077.60	3,708.22	369.37	11.039		

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 4N-16A-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 4N-16A-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	-123.32	-3,158.42	-4,804.60	5,749.98					
100.00	100.00	50.00	100.00	3.28	3.39	-123.32	-3,158.42	-4,804.60	5,749.76	5,743.08	6.68	860.891		
200.00	200.00	150.00	200.00	3.34	4.79	-123.32	-3,158.42	-4,804.60	5,749.76	5,741.63	8.13	707.474		
300.00	300.00	250.00	300.00	3.44	7.71	-123.32	-3,158.42	-4,804.60	5,749.76	5,738.60	11.16	515.259		
400.00	400.00	350.00	400.00	3.60	10.97	-123.32	-3,158.42	-4,804.60	5,749.76	5,735.18	14.58	394.415		
500.00	500.00	450.00	500.00	3.81	14.34	-123.32	-3,158.42	-4,804.60	5,749.76	5,731.61	18.15	316.790		
600.00	600.00	550.00	600.00	4.05	17.76	-123.32	-3,158.42	-4,804.60	5,749.76	5,727.95	21.81	263.668		
700.00	699.98	649.98	699.98	4.32	21.20	-109.85	-3,158.42	-4,804.60	5,750.35	5,724.84	25.52	225.345		
800.00	799.84	749.84	799.84	4.62	24.65	-109.87	-3,158.42	-4,804.60	5,752.13	5,722.87	29.26	196.557		
900.00	899.45	849.45	899.45	4.94	28.10	-109.90	-3,158.42	-4,804.60	5,755.11	5,722.08	33.03	174.222		
1,000.00	998.80	948.80	998.80	5.28	31.55	-109.98	-3,158.42	-4,804.60	5,759.02	5,722.21	36.82	156.421		
1,100.00	1,098.12	1,048.12	1,098.12	5.63	35.00	-110.09	-3,158.42	-4,804.60	5,763.03	5,722.40	40.62	141.873		
1,200.00	1,197.44	1,147.44	1,197.44	6.00	38.45	-110.19	-3,158.42	-4,804.60	5,767.05	5,722.61	44.44	129.769		
1,300.00	1,296.77	1,246.77	1,296.77	6.37	41.91	-110.30	-3,158.42	-4,804.60	5,771.09	5,722.82	48.27	119.548		
1,400.00	1,396.09	1,346.09	1,396.09	6.76	45.37	-110.41	-3,158.42	-4,804.60	5,775.15	5,723.04	52.12	110.808		
1,500.00	1,495.41	1,445.41	1,495.41	7.15	48.82	-110.52	-3,158.42	-4,804.60	5,779.24	5,723.27	55.97	103.252		
1,600.00	1,594.74	1,544.74	1,594.74	7.55	52.28	-110.62	-3,158.42	-4,804.60	5,783.34	5,723.51	59.83	96.657		
1,700.00	1,694.06	1,644.06	1,694.06	7.96	55.75	-110.73	-3,158.42	-4,804.60	5,787.47	5,723.77	63.70	90.853		
1,800.00	1,793.38	1,743.38	1,793.38	8.37	59.21	-110.84	-3,158.42	-4,804.60	5,791.61	5,724.04	67.57	85.707		
1,900.00	1,892.71	1,842.71	1,892.71	8.78	62.67	-110.94	-3,158.42	-4,804.60	5,795.78	5,724.33	71.45	81.114		
2,000.00	1,992.03	1,942.03	1,992.03	9.20	66.13	-111.05	-3,158.42	-4,804.60	5,799.96	5,724.63	75.33	76.990		
2,100.00	2,091.36	2,041.36	2,091.36	9.62	69.60	-111.16	-3,158.42	-4,804.60	5,804.17	5,724.95	79.22	73.267		
2,200.00	2,190.68	2,140.68	2,190.68	10.05	73.06	-111.26	-3,158.42	-4,804.60	5,808.39	5,725.29	83.11	69.890		
2,300.00	2,290.00	2,240.00	2,290.00	10.48	76.52	-111.37	-3,158.42	-4,804.60	5,812.64	5,725.64	87.00	66.813		
2,400.00	2,389.33	2,339.33	2,389.33	10.90	79.99	-111.47	-3,158.42	-4,804.60	5,816.91	5,726.01	90.89	63.998		
2,500.00	2,488.65	2,438.65	2,488.65	11.34	83.45	-111.58	-3,158.42	-4,804.60	5,821.19	5,726.41	94.79	61.413		
2,600.00	2,587.97	2,537.97	2,587.97	11.77	86.92	-111.69	-3,158.42	-4,804.60	5,825.50	5,726.81	98.69	59.031		
2,700.00	2,687.30	2,637.30	2,687.30	12.20	90.38	-111.79	-3,158.42	-4,804.60	5,829.83	5,727.24	102.58	56.830		
2,800.00	2,786.62	2,736.62	2,786.62	12.64	93.85	-111.90	-3,158.42	-4,804.60	5,834.17	5,727.69	106.48	54.789		
2,900.00	2,885.94	2,835.94	2,885.94	13.07	97.31	-112.00	-3,158.42	-4,804.60	5,838.54	5,728.15	110.39	52.892		
3,000.00	2,985.27	2,935.27	2,985.27	13.51	100.78	-112.11	-3,158.42	-4,804.60	5,842.92	5,728.63	114.29	51.124		
3,100.00	3,084.59	3,034.59	3,084.59	13.95	104.24	-112.21	-3,158.42	-4,804.60	5,847.33	5,729.14	118.19	49.472		
3,200.00	3,183.91	3,133.91	3,183.91	14.39	107.71	-112.32	-3,158.42	-4,804.60	5,851.75	5,729.66	122.10	47.926		
3,300.00	3,283.24	3,233.24	3,283.24	14.83	111.18	-112.42	-3,158.42	-4,804.60	5,856.20	5,730.19	126.00	46.476		
3,400.00	3,382.56	3,332.56	3,382.56	15.27	114.64	-112.52	-3,158.42	-4,804.60	5,860.66	5,730.75	129.91	45.113		
3,500.00	3,481.88	3,431.88	3,481.88	15.71	118.11	-112.63	-3,158.42	-4,804.60	5,865.15	5,731.33	133.82	43.829		
3,600.00	3,581.21	3,531.21	3,581.21	16.16	121.57	-112.73	-3,158.42	-4,804.60	5,869.65	5,731.92	137.73	42.618		
3,700.00	3,680.53	3,630.53	3,680.53	16.60	125.04	-112.84	-3,158.42	-4,804.60	5,874.17	5,732.54	141.64	41.474		
3,800.00	3,779.85	3,729.85	3,779.85	17.04	128.51	-112.94	-3,158.42	-4,804.60	5,878.72	5,733.17	145.55	40.391		
3,900.00	3,879.18	3,829.18	3,879.18	17.49	131.97	-113.04	-3,158.42	-4,804.60	5,883.28	5,733.82	149.46	39.365		
4,000.00	3,978.50	3,928.50	3,978.50	17.93	135.44	-113.15	-3,158.42	-4,804.60	5,887.86	5,734.50	153.37	38.391		
4,100.00	4,077.82	4,027.82	4,077.82	18.37	138.90	-113.25	-3,158.42	-4,804.60	5,892.46	5,735.18	157.28	37.465		
4,200.00	4,177.15	4,127.15	4,177.15	18.82	142.37	-113.35	-3,158.42	-4,804.60	5,897.08	5,735.89	161.19	36.585		
4,300.00	4,276.47	4,226.47	4,276.47	19.27	145.84	-113.46	-3,158.42	-4,804.60	5,901.72	5,736.62	165.10	35.746		
4,400.00	4,375.79	4,325.79	4,375.79	19.71	149.30	-113.56	-3,158.42	-4,804.60	5,906.38	5,737.37	169.01	34.946		
4,500.00	4,475.12	4,425.12	4,475.12	20.16	152.77	-113.66	-3,158.42	-4,804.60	5,911.06	5,738.13	172.92	34.183		
4,600.00	4,574.44	4,524.44	4,574.44	20.60	156.24	-113.76	-3,158.42	-4,804.60	5,915.75	5,738.92	176.84	33.453		
4,700.00	4,673.76	4,623.76	4,673.76	21.05	159.70	-113.87	-3,158.42	-4,804.60	5,920.47	5,739.72	180.75	32.755		
4,800.00	4,773.09	4,723.09	4,773.09	21.50	163.17	-113.97	-3,158.42	-4,804.60	5,925.20	5,740.54	184.66	32.086		
4,900.00	4,872.41	4,822.41	4,872.41	21.94	166.64	-114.07	-3,158.42	-4,804.60	5,929.96	5,741.38	188.58	31.446		
5,000.00	4,971.74	4,921.74	4,971.74	22.39	170.10	-114.17	-3,158.42	-4,804.60	5,934.73	5,742.24	192.49	30.831		
5,100.00	5,071.06	5,021.06	5,071.06	22.84	173.57	-114.27	-3,158.42	-4,804.60	5,939.52	5,743.12	196.41	30.241		

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 4N-16A-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 4N-16A-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	5,170.38	5,120.38	5,170.38	23.29	177.04	-114.38	-3,158.42	-4,804.60	5,944.33	5,744.01	200.32	29.674		
5,300.00	5,269.71	5,219.71	5,269.71	23.74	180.50	-114.48	-3,158.42	-4,804.60	5,949.16	5,744.93	204.23	29.129		
5,400.00	5,369.03	5,319.03	5,369.03	24.18	183.97	-114.58	-3,158.42	-4,804.60	5,954.01	5,745.86	208.15	28.605		
5,500.00	5,468.35	5,418.35	5,468.35	24.63	187.44	-114.68	-3,158.42	-4,804.60	5,958.88	5,746.81	212.06	28.099		
5,600.00	5,567.68	5,517.68	5,567.68	25.08	190.91	-114.78	-3,158.42	-4,804.60	5,963.76	5,747.78	215.98	27.613		
5,700.00	5,667.00	5,617.00	5,667.00	25.53	194.37	-114.88	-3,158.42	-4,804.60	5,968.67	5,748.77	219.89	27.143		
5,800.00	5,766.32	5,716.32	5,766.32	25.98	197.84	-114.98	-3,158.42	-4,804.60	5,973.59	5,749.78	223.81	26.690		
5,900.00	5,865.65	5,815.65	5,865.65	26.43	201.31	-115.08	-3,158.42	-4,804.60	5,978.53	5,750.80	227.73	26.253		
6,000.00	5,964.97	5,914.97	5,964.97	26.88	204.77	-115.18	-3,158.42	-4,804.60	5,983.49	5,751.85	231.64	25.831		
6,100.00	6,064.29	6,014.29	6,064.29	27.33	208.24	-115.28	-3,158.42	-4,804.60	5,988.47	5,752.91	235.56	25.423		
6,200.00	6,163.62	6,113.62	6,163.62	27.78	211.71	-115.38	-3,158.42	-4,804.60	5,993.46	5,753.99	239.47	25.028		
6,300.00	6,262.94	6,212.94	6,262.94	28.23	215.17	-115.48	-3,158.42	-4,804.60	5,998.48	5,755.09	243.39	24.646		
6,400.00	6,362.24	6,312.24	6,362.24	28.67	218.64	-97.23	-3,158.42	-4,804.60	6,003.05	5,755.75	247.30	24.274		
6,500.00	6,460.41	6,410.41	6,460.41	29.12	222.07	-65.84	-3,158.42	-4,804.60	5,998.62	5,747.44	251.18	23.882		
6,600.00	6,559.09	6,509.09	6,559.09	29.57	225.37	-57.08	-3,158.42	-4,804.60	5,982.15	5,727.22	254.93	23.466		
6,700.00	6,643.94	6,606.06	6,643.94	30.00	228.90	-54.69	-3,158.42	-4,804.60	5,954.18	5,695.28	258.90	22.998		
6,800.00	6,724.78	6,674.78	6,724.78	30.45	231.29	-55.28	-3,158.42	-4,804.60	5,915.53	5,653.79	261.74	22.601		
6,900.00	6,795.62	6,745.62	6,795.62	30.97	233.77	-57.91	-3,158.42	-4,804.60	5,867.34	5,602.67	264.67	22.169		
7,000.00	6,854.70	6,804.70	6,854.70	31.60	235.83	-62.31	-3,158.42	-4,804.60	5,810.96	5,543.73	267.23	21.745		
7,100.00	6,900.58	6,850.58	6,900.58	32.39	237.43	-68.38	-3,158.42	-4,804.60	5,747.95	5,478.56	269.39	21.337		
7,200.00	6,932.13	6,882.13	6,932.13	33.34	238.53	-75.98	-3,158.42	-4,804.60	5,679.99	5,408.87	271.12	20.950		
7,300.00	6,948.57	6,901.44	6,948.57	34.46	239.21	-84.77	-3,158.42	-4,804.60	5,608.86	5,336.34	272.52	20.582		
7,400.00	6,950.87	6,900.87	6,950.87	35.70	239.19	-90.18	-3,158.42	-4,804.60	5,536.43	5,263.13	273.30	20.258		
7,500.00	6,950.58	6,900.58	6,950.58	37.12	239.18	-90.17	-3,158.42	-4,804.60	5,464.61	5,190.41	274.21	19.929		
7,600.00	6,950.28	6,900.28	6,950.28	38.70	239.17	-90.17	-3,158.42	-4,804.60	5,393.70	5,118.45	275.24	19.596		
7,700.00	6,949.98	6,900.02	6,949.98	40.41	239.16	-90.17	-3,158.42	-4,804.60	5,323.71	5,047.30	276.41	19.260		
7,800.00	6,949.68	6,900.32	6,949.68	42.25	239.17	-90.16	-3,158.42	-4,804.60	5,254.70	4,976.97	277.72	18.921		
7,900.00	6,949.38	6,900.62	6,949.38	44.20	239.18	-90.16	-3,158.42	-4,804.60	5,186.69	4,907.53	279.16	18.580		
8,000.00	6,949.08	6,900.92	6,949.08	46.24	239.19	-90.15	-3,158.42	-4,804.60	5,119.74	4,839.02	280.72	18.238		
8,100.00	6,948.79	6,901.21	6,948.79	48.36	239.20	-90.15	-3,158.42	-4,804.60	5,053.87	4,771.48	282.39	17.897		
8,200.00	6,948.49	6,901.51	6,948.49	50.56	239.21	-90.14	-3,158.42	-4,804.60	4,989.15	4,704.96	284.18	17.556		
8,300.00	6,948.19	6,901.81	6,948.19	52.82	239.22	-90.14	-3,158.42	-4,804.60	4,925.60	4,639.51	286.08	17.217		
8,400.00	6,947.89	6,902.11	6,947.89	55.14	239.23	-90.13	-3,158.42	-4,804.60	4,863.27	4,575.19	288.09	16.881		
8,500.00	6,947.59	6,902.41	6,947.59	57.50	239.24	-90.13	-3,158.42	-4,804.60	4,802.23	4,512.03	290.20	16.548		
8,600.00	6,947.29	6,902.71	6,947.29	59.91	239.25	-90.13	-3,158.42	-4,804.60	4,742.50	4,450.09	292.41	16.219		
8,700.00	6,947.00	6,903.00	6,947.00	62.36	239.26	-90.12	-3,158.42	-4,804.60	4,684.15	4,389.43	294.71	15.894		
8,800.00	6,946.70	6,903.30	6,946.70	64.84	239.27	-90.12	-3,158.42	-4,804.60	4,627.22	4,330.11	297.11	15.574		
8,900.00	6,946.40	6,903.60	6,946.40	67.35	239.28	-90.11	-3,158.42	-4,804.60	4,571.77	4,272.18	299.59	15.260		
9,000.00	6,946.10	6,903.90	6,946.10	69.88	239.29	-90.11	-3,158.42	-4,804.60	4,517.86	4,215.70	302.16	14.952		
9,100.00	6,945.80	6,904.20	6,945.80	72.44	239.30	-90.10	-3,158.42	-4,804.60	4,465.53	4,160.72	304.81	14.650		
9,200.00	6,945.50	6,904.50	6,945.50	75.02	239.31	-90.10	-3,158.42	-4,804.60	4,414.85	4,107.32	307.53	14.356		
9,300.00	6,945.21	6,904.79	6,945.21	77.63	239.32	-90.09	-3,158.42	-4,804.60	4,365.87	4,055.55	310.32	14.069		
9,400.00	6,944.91	6,905.09	6,944.91	80.24	239.33	-90.09	-3,158.42	-4,804.60	4,318.66	4,005.48	313.18	13.790		
9,500.00	6,944.61	6,905.39	6,944.61	82.88	239.34	-90.08	-3,158.42	-4,804.60	4,273.26	3,957.16	316.10	13.519		
9,600.00	6,944.31	6,905.69	6,944.31	85.53	239.36	-90.08	-3,158.42	-4,804.60	4,229.73	3,910.66	319.07	13.256		
9,700.00	6,944.01	6,905.99	6,944.01	88.19	239.37	-90.08	-3,158.42	-4,804.60	4,188.15	3,866.06	322.09	13.003		
9,800.00	6,943.71	6,906.29	6,943.71	90.86	239.38	-90.07	-3,158.42	-4,804.60	4,148.56	3,823.40	325.16	12.759		
9,900.00	6,943.42	6,906.58	6,943.42	93.55	239.39	-90.07	-3,158.42	-4,804.60	4,111.02	3,782.76	328.26	12.524		
10,000.00	6,943.12	6,906.88	6,943.12	96.24	239.40	-90.06	-3,158.42	-4,804.60	4,075.58	3,744.19	331.39	12.298		
10,100.00	6,942.82	6,907.18	6,942.82	98.95	239.41	-90.06	-3,158.42	-4,804.60	4,042.32	3,707.77	334.55	12.083		
10,200.00	6,942.52	6,907.48	6,942.52	101.66	239.42	-90.05	-3,158.42	-4,804.60	4,011.27	3,673.54	337.72	11.877		
10,300.00	6,942.22	6,907.78	6,942.22	104.38	239.43	-90.05	-3,158.42	-4,804.60	3,982.48	3,641.58	340.90	11.682		

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 4N-16A-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 4N-16A-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	6,941.92	6,908.08	6,941.92	107.11	239.44	-90.04	-3,158.42	-4,804.60	3,956.02	3,611.94	344.09	11.497		
10,500.00	6,941.63	6,908.38	6,941.63	109.84	239.45	-90.04	-3,158.42	-4,804.60	3,931.93	3,584.66	347.26	11.323		
10,600.00	6,941.33	6,908.67	6,941.33	112.58	239.46	-90.04	-3,158.42	-4,804.60	3,910.24	3,559.82	350.42	11.159		
10,700.00	6,941.03	6,908.97	6,941.03	115.33	239.47	-90.03	-3,158.42	-4,804.60	3,891.00	3,537.44	353.56	11.005		
10,800.00	6,940.73	6,909.27	6,940.73	118.08	239.48	-90.03	-3,158.42	-4,804.60	3,874.25	3,517.59	356.67	10.862		
10,900.00	6,940.43	6,909.57	6,940.43	120.84	239.49	-90.02	-3,158.42	-4,804.60	3,860.02	3,500.29	359.73	10.730		
11,000.00	6,940.13	6,909.87	6,940.13	123.60	239.50	-90.02	-3,158.42	-4,804.60	3,848.34	3,485.59	362.75	10.609		
11,100.00	6,939.83	6,889.83	6,939.83	126.36	238.80	-90.01	-3,158.42	-4,804.60	3,839.22	3,474.22	365.00	10.518		
11,200.00	6,939.54	6,889.54	6,939.54	129.13	238.79	-90.01	-3,158.42	-4,804.60	3,832.70	3,464.82	367.88	10.418		
11,300.00	6,939.24	6,889.24	6,939.24	131.91	238.78	-90.00	-3,158.42	-4,804.60	3,828.77	3,458.09	370.69	10.329		
11,400.00	6,938.94	6,888.94	6,938.94	134.68	238.77	-90.00	-3,158.42	-4,804.60	3,827.46	3,454.04	373.42	10.250		
11,400.35	6,938.94	6,888.94	6,938.94	134.69	238.77	-90.00	-3,158.42	-4,804.60	3,827.46	3,454.03	373.43	10.250 CC		
11,500.00	6,938.64	6,888.64	6,938.64	137.46	238.76	-90.00	-3,158.42	-4,804.60	3,828.75	3,452.69	376.06	10.181 ES		
11,600.00	6,938.34	6,888.34	6,938.34	140.25	238.75	-89.99	-3,158.42	-4,804.60	3,832.66	3,454.04	378.62	10.123		
11,700.00	6,938.04	6,888.04	6,938.04	143.03	238.74	-89.99	-3,158.42	-4,804.60	3,839.17	3,458.08	381.08	10.074		
11,800.00	6,937.75	6,887.75	6,937.75	145.82	238.73	-89.98	-3,158.42	-4,804.60	3,848.27	3,464.82	383.45	10.036		
11,900.00	6,937.45	6,887.45	6,937.45	148.61	238.72	-89.98	-3,158.42	-4,804.60	3,859.93	3,474.22	385.71	10.007		
12,000.00	6,937.15	6,887.15	6,937.15	151.41	238.71	-89.97	-3,158.42	-4,804.60	3,874.15	3,486.28	387.87	9.988		
12,100.00	6,936.85	6,886.85	6,936.85	154.20	238.70	-89.97	-3,158.42	-4,804.60	3,890.88	3,500.96	389.92	9.979		
12,200.00	6,936.55	6,886.55	6,936.55	157.00	238.69	-89.96	-3,158.42	-4,804.60	3,910.10	3,518.24	391.86	9.978 SF		
12,300.00	6,936.25	6,886.25	6,936.25	159.80	238.68	-89.96	-3,158.42	-4,804.60	3,931.77	3,538.08	393.69	9.987		
12,400.00	6,935.96	6,885.96	6,935.96	162.61	238.67	-89.96	-3,158.42	-4,804.60	3,955.85	3,560.44	395.41	10.004		
12,500.00	6,935.66	6,885.66	6,935.66	165.41	238.66	-89.95	-3,158.42	-4,804.60	3,982.29	3,585.27	397.02	10.031		
12,600.00	6,935.36	6,885.36	6,935.36	168.22	238.65	-89.95	-3,158.42	-4,804.60	4,011.06	3,612.54	398.52	10.065		
12,700.00	6,935.06	6,885.06	6,935.06	171.02	238.63	-89.94	-3,158.42	-4,804.60	4,042.09	3,642.18	399.91	10.107		
12,800.00	6,934.76	6,884.76	6,934.76	173.83	238.62	-89.94	-3,158.42	-4,804.60	4,075.34	3,674.15	401.20	10.158		
12,900.00	6,934.46	6,884.46	6,934.46	176.65	238.61	-89.93	-3,158.42	-4,804.60	4,110.76	3,708.38	402.38	10.216		
13,000.00	6,934.17	6,884.17	6,934.17	179.46	238.60	-89.93	-3,158.42	-4,804.60	4,148.29	3,744.82	403.47	10.282		
13,100.00	6,933.87	6,883.87	6,933.87	182.27	238.59	-89.92	-3,158.42	-4,804.60	4,187.87	3,783.41	404.45	10.354		
13,200.00	6,933.57	6,883.57	6,933.57	185.09	238.58	-89.92	-3,158.42	-4,804.60	4,229.44	3,824.09	405.35	10.434		
13,300.00	6,933.27	6,883.27	6,933.27	187.91	238.57	-89.92	-3,158.42	-4,804.60	4,272.95	3,866.79	406.15	10.521		
13,400.00	6,932.97	6,882.97	6,932.97	190.72	238.56	-89.91	-3,158.42	-4,804.60	4,318.33	3,911.46	406.87	10.614		
13,500.00	6,932.67	6,882.67	6,932.67	193.54	238.55	-89.91	-3,158.42	-4,804.60	4,365.54	3,958.03	407.50	10.713		
13,600.00	6,932.38	6,882.38	6,932.38	196.36	238.54	-89.90	-3,158.42	-4,804.60	4,414.50	4,006.44	408.06	10.818		
13,700.00	6,932.08	6,882.08	6,932.08	199.19	238.53	-89.90	-3,158.42	-4,804.60	4,465.17	4,056.63	408.54	10.929		
13,800.00	6,931.78	6,881.78	6,931.78	202.01	238.52	-89.89	-3,158.42	-4,804.60	4,517.49	4,108.53	408.96	11.046		
13,900.00	6,931.48	6,881.48	6,931.48	204.83	238.51	-89.89	-3,158.42	-4,804.60	4,571.39	4,162.09	409.30	11.169		
14,000.00	6,931.18	6,881.18	6,931.18	207.66	238.50	-89.88	-3,158.42	-4,804.60	4,626.83	4,217.24	409.59	11.296		
14,100.00	6,930.88	6,880.88	6,930.88	210.48	238.49	-89.88	-3,158.42	-4,804.60	4,683.75	4,273.93	409.81	11.429		
14,200.00	6,930.59	6,880.59	6,930.59	213.31	238.48	-89.87	-3,158.42	-4,804.60	4,742.09	4,332.10	409.98	11.567		
14,300.00	6,930.29	6,880.29	6,930.29	216.14	238.47	-89.87	-3,158.42	-4,804.60	4,801.80	4,391.70	410.10	11.709		
14,400.00	6,929.99	6,879.99	6,929.99	218.96	238.46	-89.87	-3,158.42	-4,804.60	4,862.84	4,452.67	410.18	11.856		
14,500.00	6,929.69	6,879.69	6,929.69	221.79	238.45	-89.86	-3,158.42	-4,804.60	4,925.16	4,514.95	410.20	12.007		
14,600.00	6,929.39	6,879.39	6,929.39	224.62	238.44	-89.86	-3,158.42	-4,804.60	4,988.70	4,578.51	410.19	12.162		
14,700.00	6,929.09	6,879.09	6,929.09	227.45	238.43	-89.85	-3,158.42	-4,804.60	5,053.42	4,643.28	410.14	12.321		
14,732.12	6,929.00	6,879.00	6,929.00	228.36	238.42	-89.85	-3,158.42	-4,804.60	5,074.45	4,664.33	410.12	12.373		



Anticollision Report



Company:	SRC ENERGY	Local Co-ordinate Reference:	Well HARVESTERS STATE 4N-16A-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 4N-16A-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	-142.94	-4,329.54	-3,269.24	5,425.63					
100.00	100.00	927.68	959.83	3.28	5.26	-143.14	-4,279.03	-3,207.61	5,416.47	5,407.91	8.56	633.104		
200.00	200.00	1,029.03	1,057.16	3.34	5.69	-143.19	-4,268.81	-3,195.15	5,400.60	5,391.64	8.96	602.781		
300.00	300.00	1,130.37	1,154.49	3.44	6.15	-143.23	-4,258.60	-3,182.68	5,384.73	5,375.29	9.43	570.880		
400.00	400.00	1,218.29	1,251.82	3.60	6.55	-143.27	-4,248.38	-3,170.22	5,368.86	5,358.94	9.91	541.511		
500.00	500.00	1,316.95	1,349.15	3.81	7.02	-143.31	-4,238.17	-3,157.75	5,352.99	5,342.50	10.49	510.229		
600.00	600.00	1,415.60	1,446.48	4.05	7.50	-143.35	-4,227.95	-3,145.29	5,337.13	5,326.02	11.11	480.203		
700.00	699.98	1,514.37	1,543.92	4.32	7.99	-130.17	-4,217.73	-3,132.81	5,322.38	5,310.61	11.77	452.033		
800.00	799.84	1,613.26	1,641.48	4.62	8.48	-130.45	-4,207.49	-3,120.32	5,309.87	5,297.40	12.47	425.897		
900.00	899.45	1,712.15	1,739.05	4.94	8.98	-130.72	-4,197.25	-3,107.82	5,299.63	5,286.44	13.19	401.738		
1,000.00	998.80	1,810.98	1,836.55	5.28	9.48	-130.90	-4,187.02	-3,095.34	5,291.17	5,277.23	13.94	379.489		
1,100.00	1,098.12	1,909.79	1,934.04	5.63	9.99	-131.04	-4,176.79	-3,082.86	5,282.88	5,268.16	14.72	358.942		
1,200.00	1,197.44	2,008.61	2,031.53	6.00	10.50	-131.18	-4,166.56	-3,070.37	5,274.61	5,259.10	15.51	340.066		
1,300.00	1,296.77	2,107.43	2,129.02	6.37	11.02	-131.32	-4,156.33	-3,057.89	5,266.38	5,250.06	16.32	322.735		
1,400.00	1,396.09	2,206.25	2,226.51	6.76	11.54	-131.46	-4,146.09	-3,045.40	5,258.18	5,241.04	17.14	306.815		
1,500.00	1,495.41	2,305.06	2,324.00	7.15	12.06	-131.60	-4,135.86	-3,032.92	5,250.01	5,232.04	17.97	292.177		
1,600.00	1,594.74	2,403.88	2,421.49	7.55	12.58	-131.74	-4,125.63	-3,020.43	5,241.87	5,223.06	18.81	278.700		
1,700.00	1,694.06	2,502.70	2,518.98	7.96	13.10	-131.88	-4,115.40	-3,007.95	5,233.76	5,214.11	19.66	266.268		
1,800.00	1,793.38	2,601.51	2,616.47	8.37	13.63	-132.02	-4,105.17	-2,995.46	5,225.69	5,205.18	20.51	254.782		
1,900.00	1,892.71	2,700.33	2,713.96	8.78	14.15	-132.17	-4,094.94	-2,982.98	5,217.65	5,196.28	21.37	244.146		
2,000.00	1,992.03	2,799.15	2,811.45	9.20	14.68	-132.31	-4,084.71	-2,970.50	5,209.64	5,187.41	22.24	234.280		
2,100.00	2,091.36	2,902.04	2,908.94	9.62	15.23	-132.45	-4,074.48	-2,958.01	5,201.67	5,178.54	23.13	224.929		
2,200.00	2,190.68	2,996.78	3,006.43	10.05	15.74	-132.60	-4,064.25	-2,945.53	5,193.73	5,169.75	23.98	216.568		
2,300.00	2,290.00	3,095.60	3,103.92	10.48	16.27	-132.74	-4,054.01	-2,933.04	5,185.82	5,160.96	24.86	208.598		
2,400.00	2,389.33	3,194.42	3,201.40	10.90	16.80	-132.89	-4,043.78	-2,920.56	5,177.95	5,152.20	25.74	201.147		
2,500.00	2,488.65	3,293.23	3,298.89	11.34	17.33	-133.03	-4,033.55	-2,908.07	5,170.10	5,143.48	26.63	194.169		
2,600.00	2,587.97	3,392.05	3,396.38	11.77	17.86	-133.18	-4,023.32	-2,895.59	5,162.30	5,134.78	27.51	187.621		
2,700.00	2,687.30	3,490.87	3,493.87	12.20	18.40	-133.32	-4,013.09	-2,883.11	5,154.52	5,126.12	28.40	181.468		
2,800.00	2,786.62	3,589.68	3,591.36	12.64	18.93	-133.47	-4,002.86	-2,870.62	5,146.78	5,117.49	29.30	175.677		
2,900.00	2,885.94	3,688.50	3,688.85	13.07	19.46	-133.62	-3,992.63	-2,858.14	5,139.08	5,108.89	30.19	170.216		
3,000.00	2,985.27	3,787.32	3,786.34	13.51	20.00	-133.76	-3,982.40	-2,845.65	5,131.41	5,100.32	31.09	165.061		
3,100.00	3,084.59	3,886.13	3,883.83	13.95	20.53	-133.91	-3,972.16	-2,833.17	5,123.77	5,091.78	31.99	160.186		
3,200.00	3,183.91	3,984.95	3,981.32	14.39	21.07	-134.06	-3,961.93	-2,820.68	5,116.17	5,083.28	32.89	155.570		
3,300.00	3,283.24	4,083.77	4,078.81	14.83	21.61	-134.21	-3,951.70	-2,808.20	5,108.60	5,074.81	33.79	151.195		
3,400.00	3,382.56	4,182.58	4,176.30	15.27	22.14	-134.36	-3,941.47	-2,795.72	5,101.06	5,066.37	34.69	147.041		
3,500.00	3,481.88	4,281.40	4,273.79	15.71	22.68	-134.51	-3,931.24	-2,783.23	5,093.57	5,057.97	35.60	143.094		
3,600.00	3,581.21	4,380.22	4,371.28	16.16	23.22	-134.66	-3,921.01	-2,770.75	5,086.10	5,049.60	36.50	139.337		
3,700.00	3,680.53	4,479.04	4,468.77	16.60	23.75	-134.81	-3,910.78	-2,758.26	5,078.68	5,041.27	37.41	135.760		
3,800.00	3,779.85	4,577.85	4,566.26	17.04	24.29	-134.96	-3,900.55	-2,745.78	5,071.28	5,032.97	38.32	132.348		
3,900.00	3,879.18	4,676.67	4,663.75	17.49	24.83	-135.11	-3,890.32	-2,733.29	5,063.93	5,024.70	39.23	129.091		
4,000.00	3,978.50	4,775.49	4,761.24	17.93	25.37	-135.26	-3,880.08	-2,720.81	5,056.61	5,016.47	40.14	125.980		
4,100.00	4,077.82	4,874.30	4,858.73	18.37	25.91	-135.41	-3,869.85	-2,708.33	5,049.32	5,008.27	41.05	123.004		
4,200.00	4,177.15	4,973.12	4,956.22	18.82	26.44	-135.56	-3,859.62	-2,695.84	5,042.08	5,000.11	41.96	120.156		
4,300.00	4,276.47	5,071.94	5,053.71	19.27	26.98	-135.72	-3,849.39	-2,683.36	5,034.86	4,991.99	42.88	117.427		
4,400.00	4,375.79	5,170.75	5,151.20	19.71	27.52	-135.87	-3,839.16	-2,670.87	5,027.69	4,983.90	43.79	114.810		
4,500.00	4,475.12	5,269.57	5,248.69	20.16	28.06	-136.02	-3,828.93	-2,658.39	5,020.55	4,975.84	44.71	112.298		
4,600.00	4,574.44	5,368.39	5,346.18	20.60	28.60	-136.18	-3,818.70	-2,645.90	5,013.45	4,967.82	45.62	109.887		
4,700.00	4,673.76	5,467.21	5,443.67	21.05	29.14	-136.33	-3,808.47	-2,633.42	5,006.38	4,959.84	46.54	107.569		
4,800.00	4,773.09	5,566.02	5,541.16	21.50	29.68	-136.49	-3,798.23	-2,620.94	4,999.35	4,951.89	47.46	105.339		
4,900.00	4,872.41	5,664.84	5,638.65	21.94	30.22	-136.64	-3,788.00	-2,608.45	4,992.36	4,943.98	48.38	103.193		
5,000.00	4,971.74	5,763.66	5,736.14	22.39	30.76	-136.80	-3,777.77	-2,595.97	4,985.41	4,936.11	49.30	101.126		
5,100.00	5,071.06	5,862.47	5,833.63	22.84	31.30	-136.96	-3,767.54	-2,583.48	4,978.49	4,928.27	50.22	99.135		

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 4N-16A-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 4N-16A-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	5,170.38	5,961.29	5,931.12	23.29	31.84	-137.11	-3,757.31	-2,571.00	4,971.61	4,920.47	51.14	97.214		
5,300.00	5,269.71	6,060.11	6,028.61	23.74	32.38	-137.27	-3,747.08	-2,558.51	4,964.77	4,912.71	52.06	95.360		
5,400.00	5,369.03	6,158.92	6,126.10	24.18	32.92	-137.43	-3,736.85	-2,546.03	4,957.97	4,904.98	52.99	93.571		
5,500.00	5,468.35	6,257.74	6,223.59	24.63	33.46	-137.59	-3,726.62	-2,533.55	4,951.21	4,897.30	53.91	91.842		
5,600.00	5,567.68	6,279.85	6,245.43	25.08	33.57	-137.62	-3,724.33	-2,531.05	4,945.23	4,890.73	54.50	90.741		
5,700.00	5,667.00	6,300.00	6,265.41	25.53	33.68	-137.64	-3,722.26	-2,529.43	4,940.86	4,885.79	55.07	89.728		
5,800.00	5,766.32	6,325.01	6,290.27	25.98	33.79	-137.66	-3,719.69	-2,528.31	4,938.12	4,882.48	55.63	88.763		
5,900.00	5,865.65	6,350.00	6,315.12	26.43	33.90	-137.67	-3,717.16	-2,528.17	4,937.01	4,880.83	56.18	87.877		
5,925.81	5,891.29	6,350.00	6,315.12	26.54	33.90	-137.67	-3,717.16	-2,528.17	4,936.94	4,880.65	56.29	87.700		
6,000.00	5,964.97	6,350.00	6,315.12	26.88	33.90	-137.67	-3,717.16	-2,528.17	4,937.50	4,880.89	56.61	87.221		
6,100.00	6,064.29	6,400.00	6,364.79	27.33	34.08	-137.66	-3,712.15	-2,530.84	4,939.70	4,882.48	57.22	86.325		
6,200.00	6,163.62	6,400.00	6,364.79	27.78	34.08	-137.66	-3,712.15	-2,530.84	4,943.22	4,885.61	57.62	85.796		
6,300.00	6,262.94	6,425.01	6,389.52	28.23	34.16	-137.64	-3,709.69	-2,533.64	4,948.53	4,890.44	58.09	85.187		
6,400.00	6,362.24	6,450.00	6,414.10	28.67	34.23	-119.18	-3,707.27	-2,537.41	4,955.18	4,896.64	58.55	84.636		
6,500.00	6,460.41	6,450.00	6,414.10	29.12	34.23	-87.17	-3,707.27	-2,537.41	4,957.76	4,898.86	58.89	84.181		
6,600.00	6,555.09	6,500.00	6,462.76	29.57	34.34	-77.53	-3,702.54	-2,547.85	4,954.20	4,894.75	59.45	83.339		
6,700.00	6,643.94	6,500.00	6,462.76	30.00	34.34	-73.86	-3,702.54	-2,547.85	4,944.33	4,884.53	59.80	82.679		
6,800.00	6,724.78	6,525.01	6,486.76	30.45	34.39	-72.78	-3,700.25	-2,554.50	4,928.78	4,868.49	60.29	81.751		
6,900.00	6,795.62	6,539.84	6,500.86	30.97	34.42	-73.12	-3,698.91	-2,558.89	4,907.76	4,846.95	60.80	80.716		
7,000.00	6,854.70	6,550.00	6,510.46	31.60	34.44	-74.45	-3,698.00	-2,562.09	4,881.83	4,820.42	61.41	79.498		
7,100.00	6,900.58	6,573.12	6,532.11	32.39	34.47	-76.68	-3,695.97	-2,569.93	4,851.55	4,789.33	62.22	77.976		
7,200.00	6,932.13	6,600.00	6,556.91	33.34	34.51	-79.64	-3,693.67	-2,580.04	4,817.83	4,754.61	63.22	76.201		
7,300.00	6,948.57	6,600.00	6,556.91	34.46	34.51	-82.87	-3,693.67	-2,580.04	4,781.29	4,716.98	64.31	74.347		
7,400.00	6,950.87	6,609.38	6,565.46	35.70	34.52	-85.04	-3,692.89	-2,583.82	4,743.32	4,677.73	65.60	72.312		
7,500.00	6,950.58	6,625.01	6,579.58	37.12	34.53	-85.22	-3,691.60	-2,590.38	4,706.58	4,639.50	67.08	70.164		
7,600.00	6,950.28	6,625.01	6,579.58	38.70	34.53	-85.22	-3,691.60	-2,590.38	4,671.58	4,602.90	68.68	68.022		
7,700.00	6,949.98	6,650.00	6,601.82	40.41	34.55	-85.51	-3,689.58	-2,601.60	4,638.38	4,567.87	70.51	65.781		
7,800.00	6,949.68	6,650.00	6,601.82	42.25	34.55	-85.51	-3,689.58	-2,601.60	4,606.96	4,534.56	72.41	63.626		
7,900.00	6,949.38	6,667.76	6,617.35	44.20	34.56	-85.71	-3,688.19	-2,610.10	4,577.40	4,502.91	74.48	61.457		
8,000.00	6,949.08	6,682.34	6,629.92	46.24	34.57	-85.87	-3,687.08	-2,617.40	4,549.69	4,473.03	76.66	59.350		
8,100.00	6,948.79	6,700.00	6,644.92	48.36	34.58	-86.07	-3,685.76	-2,626.63	4,523.86	4,444.92	78.94	57.307		
8,200.00	6,948.49	6,715.35	6,657.74	50.56	34.59	-86.23	-3,684.64	-2,634.99	4,499.90	4,418.60	81.30	55.347		
8,300.00	6,948.19	6,734.06	6,673.10	52.82	34.59	-86.43	-3,683.32	-2,645.59	4,477.83	4,394.08	83.75	53.468		
8,400.00	6,947.89	6,750.00	6,685.94	55.14	34.59	-86.60	-3,682.22	-2,654.98	4,457.65	4,371.40	86.25	51.683		
8,500.00	6,947.59	6,776.79	6,706.97	57.50	34.59	-86.88	-3,680.45	-2,671.47	4,439.33	4,350.49	88.83	49.974		
8,600.00	6,947.29	6,800.00	6,724.63	59.91	34.59	-87.11	-3,678.99	-2,686.46	4,422.86	4,331.42	91.45	48.365		
8,700.00	6,947.00	6,825.01	6,743.03	62.36	34.59	-87.35	-3,677.50	-2,703.34	4,408.23	4,314.12	94.11	46.842		
8,800.00	6,946.70	6,850.00	6,760.75	64.84	34.59	-87.58	-3,676.10	-2,720.90	4,395.39	4,298.59	96.80	45.408		
8,900.00	6,946.40	6,900.00	6,794.07	67.35	34.58	-88.02	-3,673.54	-2,758.07	4,384.28	4,284.71	99.58	44.029		
9,000.00	6,946.10	6,925.01	6,809.63	69.88	34.57	-88.22	-3,672.40	-2,777.62	4,374.81	4,272.49	102.32	42.756		
9,100.00	6,945.80	6,963.45	6,832.02	72.44	34.58	-88.52	-3,670.83	-2,808.82	4,366.97	4,261.84	105.13	41.539		
9,200.00	6,945.50	7,005.52	6,854.33	75.02	34.59	-88.81	-3,669.37	-2,844.44	4,360.64	4,252.67	107.97	40.386		
9,300.00	6,945.21	7,050.00	6,875.32	77.63	34.62	-89.09	-3,668.12	-2,883.63	4,355.74	4,244.87	110.86	39.289		
9,400.00	6,944.91	7,100.00	6,895.61	80.24	34.68	-89.36	-3,667.09	-2,929.30	4,352.14	4,238.32	113.83	38.235		
9,500.00	6,944.61	7,150.00	6,912.27	82.88	34.81	-89.58	-3,666.47	-2,976.43	4,349.77	4,232.93	116.84	37.229		
9,600.00	6,944.31	7,207.50	6,926.82	85.53	35.03	-89.77	-3,666.26	-3,032.03	4,348.51	4,228.54	119.97	36.247		
9,673.42	6,944.09	7,250.00	6,934.34	87.48	35.27	-89.87	-3,666.44	-3,073.86	4,348.25	4,225.94	122.31	35.551 CC		
9,700.00	6,944.01	7,264.70	6,936.29	88.19	35.37	-89.90	-3,666.58	-3,088.42	4,348.29	4,225.13	123.16	35.305		
9,800.00	6,943.71	7,325.01	6,940.77	90.86	35.85	-89.96	-3,667.49	-3,148.54	4,349.05	4,222.60	126.44	34.395		
9,900.00	6,943.42	7,407.86	6,940.75	93.55	36.72	-89.96	-3,669.39	-3,231.36	4,350.57	4,220.47	130.10	33.440		
10,000.00	6,943.12	7,507.84	6,940.33	96.24	38.08	-89.96	-3,671.71	-3,331.32	4,352.16	4,217.95	134.21	32.429		
10,100.00	6,942.82	7,607.83	6,939.91	98.95	39.72	-89.96	-3,674.04	-3,431.28	4,353.74	4,215.19	138.55	31.424		

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 4N-16A-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 4N-16A-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	6,942.52	7,707.82	6,939.50	101.66	41.57	-89.96	-3,676.36	-3,531.24	4,355.33	4,212.23	143.11	30.434		
10,300.00	6,942.22	7,807.81	6,939.08	104.38	43.61	-89.96	-3,678.69	-3,631.20	4,356.92	4,209.08	147.85	29.469		
10,400.00	6,941.92	7,907.79	6,938.66	107.11	45.80	-89.95	-3,681.01	-3,731.16	4,358.51	4,205.76	152.75	28.535		
10,500.00	6,941.63	8,007.78	6,938.24	109.84	48.12	-89.95	-3,683.34	-3,831.12	4,360.10	4,202.31	157.78	27.633		
10,600.00	6,941.33	8,107.77	6,937.83	112.58	50.55	-89.95	-3,685.66	-3,931.08	4,361.68	4,198.74	162.94	26.768		
10,700.00	6,941.03	8,207.75	6,937.41	115.33	53.08	-89.95	-3,687.99	-4,031.04	4,363.27	4,195.06	168.21	25.940		
10,800.00	6,940.73	8,307.74	6,936.99	118.08	55.69	-89.95	-3,690.31	-4,130.99	4,364.86	4,191.30	173.56	25.149		
10,900.00	6,940.43	8,407.73	6,936.58	120.84	58.38	-89.95	-3,692.64	-4,230.95	4,366.45	4,187.45	178.99	24.394		
11,000.00	6,940.13	8,507.72	6,936.16	123.60	61.12	-89.95	-3,694.96	-4,330.91	4,368.03	4,183.54	184.49	23.676		
11,100.00	6,939.83	8,607.70	6,935.74	126.36	63.93	-89.94	-3,697.29	-4,430.87	4,369.62	4,179.57	190.06	22.991		
11,200.00	6,939.54	8,707.69	6,935.32	129.13	66.77	-89.94	-3,699.61	-4,530.83	4,371.21	4,175.54	195.67	22.340		
11,300.00	6,939.24	8,807.68	6,934.91	131.91	69.66	-89.94	-3,701.94	-4,630.79	4,372.80	4,171.47	201.33	21.719		
11,400.00	6,938.94	8,907.67	6,934.49	134.68	72.59	-89.94	-3,704.26	-4,730.75	4,374.39	4,167.35	207.03	21.129		
11,500.00	6,938.64	9,007.65	6,934.07	137.46	75.55	-89.94	-3,706.59	-4,830.71	4,375.97	4,163.20	212.77	20.566		
11,600.00	6,938.34	9,107.64	6,933.66	140.25	78.54	-89.94	-3,708.91	-4,930.67	4,377.56	4,159.02	218.54	20.031		
11,700.00	6,938.04	9,207.63	6,933.24	143.03	81.55	-89.93	-3,711.24	-5,030.63	4,379.15	4,154.80	224.35	19.520		
11,800.00	6,937.75	9,307.62	6,932.82	145.82	84.59	-89.93	-3,713.56	-5,130.59	4,380.74	4,150.56	230.17	19.032		
11,900.00	6,937.45	9,407.60	6,932.41	148.61	87.65	-89.93	-3,715.89	-5,230.55	4,382.32	4,146.30	236.02	18.567		
12,000.00	6,937.15	9,507.59	6,931.99	151.41	90.72	-89.93	-3,718.21	-5,330.51	4,383.91	4,142.02	241.90	18.123		
12,100.00	6,936.85	9,607.58	6,931.57	154.20	93.82	-89.93	-3,720.54	-5,430.47	4,385.50	4,137.71	247.79	17.699		
12,200.00	6,936.55	9,707.56	6,931.15	157.00	96.93	-89.93	-3,722.86	-5,530.43	4,387.09	4,133.39	253.70	17.293		
12,300.00	6,936.25	9,807.55	6,930.74	159.80	100.05	-89.93	-3,725.19	-5,630.39	4,388.68	4,129.06	259.62	16.904		
12,400.00	6,935.96	9,907.54	6,930.32	162.61	103.18	-89.92	-3,727.51	-5,730.35	4,390.26	4,124.70	265.56	16.532		
12,500.00	6,935.66	10,007.53	6,929.90	165.41	106.33	-89.92	-3,729.84	-5,830.30	4,391.85	4,120.34	271.51	16.175		
12,600.00	6,935.36	10,107.51	6,929.49	168.22	109.49	-89.92	-3,732.16	-5,930.26	4,393.44	4,115.96	277.48	15.833		
12,700.00	6,935.06	10,207.50	6,929.07	171.02	112.66	-89.92	-3,734.49	-6,030.22	4,395.03	4,111.57	283.46	15.505		
12,800.00	6,934.76	10,307.49	6,928.65	173.83	115.83	-89.92	-3,736.81	-6,130.18	4,396.61	4,107.17	289.44	15.190		
12,900.00	6,934.46	10,407.48	6,928.23	176.65	119.02	-89.92	-3,739.14	-6,230.14	4,398.20	4,102.76	295.44	14.887		
13,000.00	6,934.17	10,481.48	6,927.93	179.46	121.38	-89.91	-3,740.89	-6,304.12	4,399.90	4,099.35	300.55	14.640		
13,100.00	6,933.87	10,511.72	6,927.80	182.27	122.34	-89.91	-3,742.01	-6,334.35	4,402.87	4,098.78	304.09	14.479		
13,200.00	6,933.57	10,579.80	6,927.52	185.09	124.51	-89.91	-3,745.51	-6,402.33	4,407.19	4,098.25	308.94	14.265		
13,300.00	6,933.27	10,679.70	6,927.10	187.91	127.69	-89.91	-3,750.73	-6,502.10	4,411.67	4,096.73	314.95	14.008		
13,400.00	6,932.97	10,725.53	6,926.91	190.72	129.16	-89.91	-3,753.12	-6,547.86	4,416.49	4,097.53	318.96	13.846		
13,500.00	6,932.67	10,771.97	6,926.71	193.54	130.64	-89.91	-3,756.11	-6,594.21	4,422.51	4,099.56	322.95	13.694		
13,600.00	6,932.38	10,800.00	6,926.60	196.36	131.53	-89.91	-3,758.46	-6,622.14	4,430.21	4,104.04	326.17	13.582		
13,700.00	6,932.08	10,825.02	6,926.49	199.19	132.32	-89.91	-3,760.90	-6,647.04	4,439.49	4,110.31	329.18	13.486		
13,800.00	6,931.78	10,861.87	6,926.34	202.01	133.48	-89.91	-3,765.09	-6,683.65	4,450.29	4,117.71	332.58	13.381		
13,900.00	6,931.48	10,900.00	6,926.18	204.83	134.68	-89.91	-3,770.17	-6,721.44	4,462.69	4,126.72	335.97	13.283		
14,000.00	6,931.18	10,925.02	6,926.07	207.66	135.46	-89.91	-3,773.91	-6,746.18	4,476.58	4,137.87	338.72	13.216		
14,100.00	6,930.88	11,716.91	6,922.77	210.48	160.71	-89.90	-3,839.63	-7,532.96	4,488.66	4,117.49	371.17	12.093		
14,200.00	6,930.59	11,816.91	6,922.35	213.31	163.97	-89.90	-3,839.62	-7,632.96	4,487.91	4,110.65	377.26	11.896		
14,300.00	6,930.29	11,916.91	6,921.93	216.14	167.23	-89.89	-3,839.61	-7,732.95	4,487.16	4,103.81	383.35	11.705		
14,400.00	6,929.99	12,016.91	6,921.52	218.96	170.50	-89.89	-3,839.59	-7,832.95	4,486.41	4,096.96	389.44	11.520		
14,500.00	6,929.69	12,116.90	6,921.10	221.79	173.77	-89.89	-3,839.58	-7,932.95	4,485.66	4,090.11	395.54	11.341		
14,600.00	6,929.39	12,216.90	6,920.68	224.62	177.04	-89.89	-3,839.57	-8,032.94	4,484.91	4,083.26	401.64	11.166		
14,700.00	6,929.09	12,316.90	6,920.26	227.45	180.31	-89.89	-3,839.55	-8,132.94	4,484.16	4,076.41	407.75	10.997		
14,732.12	6,929.00	12,349.02	6,920.13	228.36	181.37	-89.89	-3,839.55	-8,165.06	4,483.91	4,074.20	409.71	10.944 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 4N-16A-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 4N-16A-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	-143.07	-4,349.57	-3,269.24	5,441.63					
100.00	100.00	57.00	100.00	3.28	0.07	-143.07	-4,349.57	-3,269.24	5,441.21	5,437.85	3.36	1,621.803		
200.00	200.00	900.67	940.21	3.34	3.84	-143.30	-4,319.99	-3,220.23	5,438.76	5,431.53	7.23	751.891		
300.00	300.00	1,000.42	1,038.05	3.44	4.35	-143.36	-4,312.49	-3,207.80	5,425.16	5,417.37	7.78	697.049		
400.00	400.00	1,101.50	1,135.90	3.60	4.87	-143.42	-4,304.99	-3,195.37	5,411.55	5,403.16	8.39	644.886		
500.00	500.00	1,197.42	1,233.75	3.81	5.36	-143.47	-4,297.49	-3,182.94	5,397.96	5,388.94	9.02	598.281		
600.00	600.00	1,296.33	1,331.59	4.05	5.87	-143.53	-4,289.99	-3,170.52	5,384.37	5,374.66	9.71	554.713		
700.00	699.98	1,395.31	1,429.49	4.32	6.39	-130.33	-4,282.49	-3,158.08	5,371.90	5,361.48	10.42	515.439		
800.00	799.84	1,494.32	1,527.43	4.62	6.91	-130.59	-4,274.98	-3,145.64	5,361.69	5,350.53	11.17	480.216		
900.00	899.45	1,593.24	1,625.28	4.94	7.43	-130.84	-4,267.48	-3,133.21	5,353.76	5,341.83	11.93	448.607		
1,000.00	998.80	1,692.02	1,722.99	5.28	7.94	-131.02	-4,259.99	-3,120.80	5,347.64	5,334.92	12.73	420.233		
1,100.00	1,098.12	1,790.78	1,820.69	5.63	8.46	-131.18	-4,252.50	-3,108.39	5,341.69	5,328.15	13.54	394.617		
1,200.00	1,197.44	1,889.55	1,918.38	6.00	8.98	-131.33	-4,245.01	-3,095.98	5,335.77	5,321.41	14.36	371.520		
1,300.00	1,296.77	1,988.31	2,016.08	6.37	9.50	-131.49	-4,237.52	-3,083.57	5,329.90	5,314.70	15.20	350.655		
1,400.00	1,396.09	2,087.08	2,113.77	6.76	10.02	-131.64	-4,230.03	-3,071.16	5,324.06	5,308.01	16.05	331.761		
1,500.00	1,495.41	2,185.84	2,211.47	7.15	10.54	-131.80	-4,222.54	-3,058.75	5,318.27	5,301.36	16.90	314.605		
1,600.00	1,594.74	2,284.61	2,309.16	7.55	11.06	-131.95	-4,215.05	-3,046.34	5,312.51	5,294.74	17.77	298.982		
1,700.00	1,694.06	2,383.37	2,406.86	7.96	11.59	-132.11	-4,207.56	-3,033.93	5,306.79	5,288.15	18.64	284.713		
1,800.00	1,793.38	2,482.14	2,504.55	8.37	12.11	-132.26	-4,200.07	-3,021.52	5,301.12	5,281.60	19.51	271.644		
1,900.00	1,892.71	2,580.90	2,602.25	8.78	12.63	-132.42	-4,192.59	-3,009.11	5,295.48	5,275.09	20.40	259.639		
2,000.00	1,992.03	2,679.66	2,699.94	9.20	13.15	-132.58	-4,185.10	-2,996.70	5,289.89	5,268.60	21.28	248.581		
2,100.00	2,091.36	2,778.43	2,797.64	9.62	13.67	-132.74	-4,177.61	-2,984.29	5,284.33	5,262.16	22.17	238.368		
2,200.00	2,190.68	2,877.19	2,895.33	10.05	14.20	-132.89	-4,170.12	-2,971.88	5,278.82	5,255.76	23.06	228.912		
2,300.00	2,290.00	2,975.96	2,993.03	10.48	14.72	-133.05	-4,162.63	-2,959.47	5,273.34	5,249.39	23.96	220.134		
2,400.00	2,389.33	3,074.72	3,090.72	10.90	15.24	-133.21	-4,155.14	-2,947.06	5,267.91	5,243.06	24.85	211.968		
2,500.00	2,488.65	3,173.49	3,188.42	11.34	15.76	-133.37	-4,147.65	-2,934.65	5,262.52	5,236.77	25.75	204.354		
2,600.00	2,587.97	3,272.25	3,286.11	11.77	16.29	-133.53	-4,140.16	-2,922.24	5,257.17	5,230.51	26.65	197.239		
2,700.00	2,687.30	3,371.02	3,383.81	12.20	16.81	-133.69	-4,132.67	-2,909.83	5,251.86	5,224.30	27.56	190.578		
2,800.00	2,786.62	3,469.78	3,481.50	12.64	17.33	-133.85	-4,125.18	-2,897.42	5,246.59	5,218.13	28.46	184.329		
2,900.00	2,885.94	3,568.54	3,579.20	13.07	17.85	-134.01	-4,117.70	-2,885.01	5,241.37	5,212.00	29.37	178.458		
3,000.00	2,985.27	3,667.31	3,676.90	13.51	18.38	-134.17	-4,110.21	-2,872.61	5,236.18	5,205.90	30.28	172.930		
3,100.00	3,084.59	3,766.07	3,774.59	13.95	18.90	-134.33	-4,102.72	-2,860.20	5,231.04	5,199.85	31.19	167.719		
3,200.00	3,183.91	3,864.84	3,872.29	14.39	19.42	-134.49	-4,095.23	-2,847.79	5,225.94	5,193.84	32.10	162.797		
3,300.00	3,283.24	3,963.60	3,969.98	14.83	19.95	-134.65	-4,087.74	-2,835.38	5,220.88	5,187.87	33.01	158.142		
3,400.00	3,382.56	4,062.37	4,067.68	15.27	20.47	-134.81	-4,080.25	-2,822.97	5,215.86	5,181.94	33.93	153.734		
3,500.00	3,481.88	4,161.13	4,165.37	15.71	20.99	-134.97	-4,072.76	-2,810.56	5,210.89	5,176.05	34.84	149.553		
3,600.00	3,581.21	4,259.90	4,263.07	16.16	21.51	-135.13	-4,065.27	-2,798.15	5,205.96	5,170.20	35.76	145.583		
3,700.00	3,680.53	4,358.66	4,360.76	16.60	22.04	-135.30	-4,057.78	-2,785.74	5,201.07	5,164.39	36.68	141.809		
3,800.00	3,779.85	4,457.43	4,458.46	17.04	22.56	-135.46	-4,050.29	-2,773.33	5,196.22	5,158.63	37.59	138.217		
3,900.00	3,879.18	4,556.19	4,556.15	17.49	23.08	-135.62	-4,042.80	-2,760.92	5,191.42	5,152.91	38.51	134.793		
4,000.00	3,978.50	4,654.95	4,653.85	17.93	23.61	-135.78	-4,035.32	-2,748.51	5,186.66	5,147.22	39.43	131.527		
4,100.00	4,077.82	4,753.72	4,751.54	18.37	24.13	-135.95	-4,027.83	-2,736.10	5,181.94	5,141.59	40.35	128.409		
4,200.00	4,177.15	4,852.48	4,849.24	18.82	24.65	-136.11	-4,020.34	-2,723.69	5,177.27	5,135.99	41.28	125.428		
4,300.00	4,276.47	4,951.25	4,946.93	19.27	25.18	-136.28	-4,012.85	-2,711.28	5,172.64	5,130.44	42.20	122.576		
4,400.00	4,375.79	5,050.01	5,044.63	19.71	25.70	-136.44	-4,005.36	-2,698.87	5,168.05	5,124.92	43.12	119.845		
4,500.00	4,475.12	5,148.78	5,142.32	20.16	26.22	-136.60	-3,997.87	-2,686.46	5,163.50	5,119.46	44.05	117.228		
4,600.00	4,574.44	5,247.54	5,240.02	20.60	26.75	-136.77	-3,990.38	-2,674.05	5,159.00	5,114.03	44.97	114.717		
4,700.00	4,673.76	5,346.31	5,337.71	21.05	27.27	-136.93	-3,982.89	-2,661.64	5,154.54	5,108.65	45.90	112.306		
4,800.00	4,773.09	5,445.07	5,435.41	21.50	27.79	-137.10	-3,975.40	-2,649.23	5,150.13	5,103.31	46.82	109.990		
4,900.00	4,872.41	5,543.83	5,533.10	21.94	28.32	-137.27	-3,967.91	-2,636.82	5,145.76	5,098.01	47.75	107.763		
5,000.00	4,971.74	5,642.60	5,630.80	22.39	28.84	-137.43	-3,960.43	-2,624.41	5,141.44	5,092.76	48.68	105.621		
5,100.00	5,071.06	5,741.36	5,728.49	22.84	29.37	-137.60	-3,952.94	-2,612.00	5,137.16	5,087.55	49.61	103.558		

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 4N-16A-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 4N-16A-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	5,170.38	5,840.13	5,826.19	23.29	29.89	-137.76	-3,945.45	-2,599.59	5,132.92	5,082.38	50.54	101.570		
5,300.00	5,269.71	5,938.89	5,923.88	23.74	30.41	-137.93	-3,937.96	-2,587.18	5,128.73	5,077.26	51.47	99.654		
5,400.00	5,369.03	6,037.66	6,021.58	24.18	30.94	-138.10	-3,930.47	-2,574.77	5,124.58	5,072.18	52.40	97.806		
5,500.00	5,468.35	6,136.42	6,119.27	24.63	31.46	-138.27	-3,922.98	-2,562.36	5,120.47	5,067.15	53.33	96.021		
5,600.00	5,567.68	6,235.19	6,216.97	25.08	31.98	-138.43	-3,915.49	-2,549.95	5,116.42	5,062.16	54.26	94.298		
5,700.00	5,667.00	6,333.95	6,314.66	25.53	32.51	-138.60	-3,908.00	-2,537.54	5,112.40	5,057.21	55.19	92.633		
5,800.00	5,766.32	6,386.66	6,366.81	25.98	32.78	-138.69	-3,904.01	-2,531.03	5,108.69	5,052.78	55.91	91.369		
5,900.00	5,865.65	6,400.00	6,380.05	26.43	32.85	-138.71	-3,903.00	-2,529.73	5,106.44	5,050.00	56.45	90.466		
5,994.24	5,959.25	6,425.01	6,404.94	26.85	32.97	-138.74	-3,901.13	-2,528.06	5,105.71	5,048.73	56.99	89.596		
6,000.00	5,964.97	6,425.01	6,404.94	26.88	32.97	-138.74	-3,901.13	-2,528.06	5,105.72	5,048.70	57.01	89.555		
6,100.00	6,064.29	6,450.00	6,429.85	27.33	33.08	-138.76	-3,899.28	-2,527.36	5,106.57	5,049.01	57.56	88.719		
6,200.00	6,163.62	6,450.00	6,429.85	27.78	33.08	-138.76	-3,899.28	-2,527.36	5,109.13	5,051.15	57.98	88.118		
6,300.00	6,262.94	6,500.00	6,479.68	28.23	33.26	-138.76	-3,895.64	-2,528.92	5,113.02	5,054.43	58.59	87.264		
6,400.00	6,362.24	6,500.00	6,479.68	28.67	33.26	-120.35	-3,895.64	-2,528.92	5,118.24	5,059.26	58.98	86.777		
6,500.00	6,460.41	6,525.01	6,504.52	29.12	33.34	-88.45	-3,893.86	-2,531.16	5,119.51	5,060.05	59.47	86.092		
6,600.00	6,555.09	6,550.00	6,529.24	29.57	33.41	-78.89	-3,892.11	-2,534.38	5,114.90	5,054.95	59.95	85.324		
6,700.00	6,643.94	6,550.00	6,529.24	30.00	33.41	-75.25	-3,892.11	-2,534.38	5,104.67	5,044.33	60.33	84.607		
6,800.00	6,724.78	6,600.00	6,578.23	30.45	33.53	-74.35	-3,888.72	-2,543.73	5,088.66	5,027.71	60.95	83.486		
6,900.00	6,795.62	6,600.00	6,578.23	30.97	33.53	-74.64	-3,888.72	-2,543.73	5,067.56	5,006.12	61.44	82.485		
7,000.00	6,854.70	6,625.01	6,602.42	31.60	33.58	-76.08	-3,887.07	-2,549.85	5,041.92	4,979.79	62.13	81.155		
7,100.00	6,900.58	6,637.18	6,614.11	32.39	33.60	-78.21	-3,886.29	-2,553.17	5,012.33	4,949.42	62.92	79.667		
7,200.00	6,932.13	6,650.00	6,626.34	33.34	33.63	-80.95	-3,885.47	-2,556.90	4,979.56	4,915.68	63.89	77.944		
7,300.00	6,948.57	6,650.00	6,626.34	34.46	33.63	-84.04	-3,885.47	-2,556.90	4,944.49	4,879.50	64.99	76.083		
7,400.00	6,950.87	6,669.52	6,644.82	35.70	33.66	-86.23	-3,884.25	-2,563.07	4,908.09	4,841.77	66.32	74.010		
7,500.00	6,950.58	6,677.90	6,652.69	37.12	33.67	-86.33	-3,883.74	-2,565.88	4,872.99	4,805.21	67.78	71.894		
7,600.00	6,950.28	6,700.00	6,673.28	38.70	33.70	-86.59	-3,882.40	-2,573.82	4,839.71	4,770.25	69.46	69.680		
7,700.00	6,949.98	6,700.00	6,673.28	40.41	33.70	-86.59	-3,882.40	-2,573.82	4,808.08	4,736.87	71.21	67.520		
7,800.00	6,949.68	6,700.00	6,673.28	42.25	33.70	-86.59	-3,882.40	-2,573.82	4,778.33	4,705.23	73.10	65.365		
7,900.00	6,949.38	6,725.01	6,696.23	44.20	33.73	-86.87	-3,880.94	-2,583.65	4,750.40	4,675.20	75.19	63.176		
8,000.00	6,949.08	6,725.01	6,696.23	46.24	33.73	-86.87	-3,880.94	-2,583.65	4,724.31	4,647.00	77.32	61.102		
8,100.00	6,948.79	6,750.00	6,718.75	48.36	33.75	-87.16	-3,879.53	-2,594.37	4,700.10	4,620.49	79.61	59.040		
8,200.00	6,948.49	6,750.00	6,718.75	50.56	33.75	-87.16	-3,879.53	-2,594.37	4,677.78	4,595.87	81.92	57.104		
8,300.00	6,948.19	6,776.77	6,742.40	52.82	33.77	-87.45	-3,878.07	-2,606.82	4,657.30	4,572.94	84.36	55.207		
8,400.00	6,947.89	6,800.00	6,762.49	55.14	33.79	-87.70	-3,876.86	-2,618.43	4,638.74	4,551.89	86.85	53.408		
8,500.00	6,947.59	6,815.46	6,775.62	57.50	33.80	-87.87	-3,876.08	-2,626.56	4,622.05	4,532.67	89.38	51.712		
8,600.00	6,947.29	6,838.11	6,794.48	59.91	33.81	-88.10	-3,874.98	-2,639.03	4,607.22	4,515.26	91.96	50.098		
8,700.00	6,947.00	6,863.40	6,815.01	62.36	33.82	-88.36	-3,873.81	-2,653.75	4,594.23	4,499.65	94.58	48.573		
8,800.00	6,946.70	6,900.00	6,843.66	64.84	33.84	-88.72	-3,872.22	-2,676.47	4,583.05	4,485.80	97.25	47.126		
8,900.00	6,946.40	6,925.01	6,862.47	67.35	33.84	-88.96	-3,871.21	-2,692.92	4,573.59	4,473.67	99.92	45.774		
9,000.00	6,946.10	6,959.31	6,887.18	69.88	33.86	-89.27	-3,869.94	-2,716.66	4,565.81	4,463.19	102.62	44.492		
9,100.00	6,945.80	7,000.00	6,914.80	72.44	33.88	-89.62	-3,868.59	-2,746.51	4,559.63	4,454.28	105.35	43.279		
9,200.00	6,945.50	7,044.85	6,942.98	75.02	33.91	-89.98	-3,867.32	-2,781.37	4,554.93	4,446.80	108.12	42.128		
9,300.00	6,945.21	7,100.00	6,974.16	77.63	33.98	-90.37	-3,866.08	-2,826.82	4,551.58	4,440.62	110.96	41.022		
9,400.00	6,944.91	7,150.00	6,998.94	80.24	34.08	-90.68	-3,865.25	-2,870.22	4,549.43	4,435.61	113.82	39.972		
9,500.00	6,944.61	7,214.26	7,025.69	82.88	34.29	-91.02	-3,864.63	-2,928.62	4,548.31	4,431.50	116.81	38.937		
9,579.65	6,944.37	7,267.61	7,043.34	84.99	34.54	-91.25	-3,864.50	-2,978.95	4,548.06	4,428.78	119.29	38.127 CC		
9,600.00	6,944.31	7,281.72	7,047.30	85.53	34.62	-91.30	-3,864.52	-2,992.49	4,548.08	4,428.15	119.93	37.923		
9,700.00	6,944.01	7,353.48	7,062.76	88.19	35.10	-91.49	-3,865.00	-3,062.52	4,548.57	4,425.39	123.18	36.926		
9,800.00	6,943.71	7,427.99	7,070.39	90.86	35.77	-91.59	-3,866.15	-3,136.59	4,549.67	4,423.09	126.58	35.943		
9,900.00	6,943.42	7,532.51	7,070.66	93.55	36.95	-91.60	-3,868.20	-3,226.08	4,551.23	4,420.74	130.49	34.877		
10,000.00	6,943.12	7,617.51	7,070.06	96.24	38.14	-91.60	-3,870.56	-3,326.04	4,552.84	4,418.45	134.39	33.878		
10,100.00	6,942.82	7,717.49	7,069.46	98.95	39.76	-91.59	-3,872.91	-3,426.00	4,554.45	4,415.73	138.72	32.832		

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 4N-16A-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 4N-16A-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	6,942.52	7,817.48	7,068.86	101.66	41.60	-91.59	-3,875.27	-3,525.95	4,556.06	4,412.80	143.26	31.803		
10,300.00	6,942.22	7,917.46	7,068.25	104.38	43.62	-91.58	-3,877.62	-3,625.91	4,557.67	4,409.68	147.99	30.798		
10,400.00	6,941.92	8,017.45	7,067.65	107.11	45.79	-91.58	-3,879.98	-3,725.87	4,559.28	4,406.41	152.87	29.824		
10,500.00	6,941.63	8,117.44	7,067.05	109.84	48.10	-91.57	-3,882.34	-3,825.82	4,560.89	4,402.99	157.90	28.884		
10,600.00	6,941.33	8,217.42	7,066.45	112.58	50.51	-91.57	-3,884.69	-3,925.78	4,562.50	4,399.45	163.05	27.982		
10,700.00	6,941.03	8,317.41	7,065.85	115.33	53.03	-91.56	-3,887.05	-4,025.74	4,564.11	4,395.81	168.30	27.118		
10,800.00	6,940.73	8,417.40	7,065.24	118.08	55.63	-91.56	-3,889.41	-4,125.70	4,565.72	4,392.07	173.65	26.293		
10,900.00	6,940.43	8,517.38	7,064.64	120.84	58.30	-91.56	-3,891.76	-4,225.65	4,567.33	4,388.26	179.07	25.506		
11,000.00	6,940.13	8,617.37	7,064.04	123.60	61.04	-91.55	-3,894.12	-4,325.61	4,568.94	4,384.38	184.56	24.755		
11,100.00	6,939.83	8,717.36	7,063.44	126.36	63.83	-91.55	-3,896.47	-4,425.57	4,570.55	4,380.43	190.12	24.041		
11,200.00	6,939.54	8,817.34	7,062.84	129.13	66.68	-91.54	-3,898.83	-4,525.52	4,572.16	4,376.44	195.72	23.360		
11,300.00	6,939.24	8,917.33	7,062.23	131.91	69.56	-91.54	-3,901.19	-4,625.48	4,573.77	4,372.39	201.38	22.712		
11,400.00	6,938.94	9,017.32	7,061.63	134.68	72.48	-91.53	-3,903.54	-4,725.44	4,575.38	4,368.31	207.07	22.095		
11,500.00	6,938.64	9,117.30	7,061.03	137.46	75.44	-91.53	-3,905.90	-4,825.39	4,576.99	4,364.18	212.81	21.508		
11,600.00	6,938.34	9,217.29	7,060.43	140.25	78.42	-91.53	-3,908.26	-4,925.35	4,578.60	4,360.03	218.57	20.948		
11,700.00	6,938.04	9,317.27	7,059.83	143.03	81.43	-91.52	-3,910.61	-5,025.31	4,580.21	4,355.84	224.37	20.414		
11,800.00	6,937.75	9,417.26	7,059.22	145.82	84.47	-91.52	-3,912.97	-5,125.26	4,581.82	4,351.63	230.19	19.904		
11,900.00	6,937.45	9,517.25	7,058.62	148.61	87.52	-91.51	-3,915.33	-5,225.22	4,583.43	4,347.40	236.04	19.418		
12,000.00	6,937.15	9,617.23	7,058.02	151.41	90.60	-91.51	-3,917.68	-5,325.18	4,585.04	4,343.14	241.90	18.954		
12,100.00	6,936.85	9,717.22	7,057.42	154.20	93.69	-91.50	-3,920.04	-5,425.13	4,586.65	4,338.86	247.79	18.510		
12,200.00	6,936.55	9,817.21	7,056.82	157.00	96.80	-91.50	-3,922.39	-5,525.09	4,588.26	4,334.57	253.70	18.086		
12,300.00	6,936.25	9,917.19	7,056.21	159.80	99.92	-91.50	-3,924.75	-5,625.05	4,589.88	4,330.26	259.62	17.679		
12,400.00	6,935.96	10,017.18	7,055.61	162.61	103.05	-91.49	-3,927.11	-5,725.00	4,591.49	4,325.93	265.55	17.290		
12,500.00	6,935.66	10,117.17	7,055.01	165.41	106.20	-91.49	-3,929.46	-5,824.96	4,593.10	4,321.59	271.50	16.917		
12,600.00	6,935.36	10,217.15	7,054.41	168.22	109.36	-91.48	-3,931.82	-5,924.92	4,594.71	4,317.24	277.46	16.560		
12,700.00	6,935.06	10,317.14	7,053.81	171.02	112.52	-91.48	-3,934.18	-6,024.88	4,596.32	4,312.88	283.44	16.216		
12,800.00	6,934.76	10,417.13	7,053.20	173.83	115.70	-91.47	-3,936.53	-6,124.83	4,597.93	4,308.51	289.42	15.887		
12,900.00	6,934.46	10,517.11	7,052.60	176.65	118.88	-91.47	-3,938.89	-6,224.79	4,599.54	4,304.12	295.42	15.570		
13,000.00	6,934.17	10,617.10	7,052.00	179.46	122.07	-91.46	-3,941.24	-6,324.75	4,601.15	4,299.73	301.42	15.265		
13,100.00	6,933.87	10,717.08	7,051.40	182.27	125.27	-91.46	-3,943.60	-6,424.70	4,602.76	4,295.33	307.43	14.972		
13,200.00	6,933.57	10,817.07	7,050.80	185.09	128.47	-91.46	-3,945.96	-6,524.66	4,604.37	4,290.92	313.45	14.689		
13,300.00	6,933.27	10,917.06	7,050.19	187.91	131.68	-91.45	-3,948.31	-6,624.62	4,605.98	4,286.51	319.48	14.417		
13,400.00	6,932.97	11,017.04	7,049.59	190.72	134.90	-91.45	-3,950.67	-6,724.57	4,607.59	4,282.08	325.51	14.155		
13,500.00	6,932.67	11,117.03	7,048.99	193.54	138.12	-91.44	-3,953.03	-6,824.53	4,609.20	4,277.65	331.55	13.902		
13,600.00	6,932.38	11,217.02	7,048.39	196.36	141.35	-91.44	-3,955.38	-6,924.49	4,610.81	4,273.22	337.60	13.658		
13,700.00	6,932.08	11,317.00	7,047.78	199.19	144.58	-91.43	-3,957.74	-7,024.44	4,612.43	4,268.78	343.65	13.422		
13,800.00	6,931.78	11,416.99	7,047.18	202.01	147.81	-91.43	-3,960.10	-7,124.40	4,614.04	4,264.33	349.70	13.194		
13,900.00	6,931.48	11,516.98	7,046.58	204.83	151.05	-91.43	-3,962.45	-7,224.36	4,615.65	4,259.88	355.77	12.974		
14,000.00	6,931.18	11,616.96	7,045.98	207.66	154.30	-91.42	-3,964.81	-7,324.31	4,617.26	4,255.43	361.83	12.761		
14,100.00	6,930.88	11,716.95	7,045.38	210.48	157.54	-91.42	-3,967.16	-7,424.27	4,618.87	4,250.97	367.90	12.555		
14,200.00	6,930.59	11,816.94	7,044.77	213.31	160.79	-91.41	-3,969.52	-7,524.23	4,620.48	4,246.50	373.98	12.355		
14,300.00	6,930.29	11,916.92	7,044.17	216.14	164.04	-91.41	-3,971.88	-7,624.19	4,622.09	4,242.03	380.06	12.162		
14,400.00	6,929.99	12,016.91	7,043.57	218.96	167.30	-91.41	-3,974.23	-7,724.14	4,623.70	4,237.56	386.14	11.974		
14,500.00	6,929.69	12,116.90	7,042.97	221.79	170.56	-91.40	-3,976.59	-7,824.10	4,625.31	4,233.09	392.23	11.792		
14,600.00	6,929.39	12,216.88	7,042.37	224.62	173.82	-91.40	-3,978.95	-7,924.06	4,626.93	4,228.61	398.32	11.616		
14,700.00	6,929.09	12,316.87	7,041.76	227.45	177.08	-91.39	-3,981.30	-8,024.01	4,628.54	4,224.13	404.41	11.445		
14,732.12	6,929.00	12,348.99	7,041.57	228.36	178.13	-91.39	-3,982.06	-8,056.12	4,629.05	4,222.69	406.37	11.391 ES, SF		



Anticollision Report



Company:	SRC ENERGY	Local Co-ordinate Reference:	Well HARVESTERS STATE 4N-16A-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 4N-16A-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	15,789.00	7,243.40	3.28	247.77	0.60	2,023.56	21.33	7,520.78				
100.00	100.00	15,789.24	7,243.40	3.28	247.78	0.60	2,023.56	21.09	7,424.51	7,308.05	116.46	63.749	
200.00	200.00	15,789.49	7,243.40	3.34	247.78	0.59	2,023.56	20.84	7,328.35	7,211.49	116.86	62.711	
300.00	300.00	15,789.73	7,243.40	3.44	247.79	0.58	2,023.56	20.60	7,232.29	7,115.02	117.27	61.671	
400.00	400.00	15,789.97	7,243.40	3.60	247.80	0.58	2,023.56	20.35	7,136.34	7,018.63	117.71	60.627	
500.00	500.00	15,809.85	7,243.40	3.81	248.36	0.57	2,023.56	20.11	7,040.50	6,922.10	118.41	59.460	
600.00	600.00	15,809.60	7,243.40	4.05	248.35	0.56	2,023.56	19.87	6,944.78	6,825.90	118.89	58.415	
700.00	699.98	15,808.95	7,243.40	4.32	248.33	15.80	2,023.57	19.21	6,848.70	6,729.35	119.36	57.380	
800.00	799.84	15,807.47	7,243.41	4.62	248.29	18.01	2,023.57	17.74	6,751.84	6,632.07	119.77	56.371	
900.00	899.45	15,805.19	7,243.41	4.94	248.23	20.88	2,023.57	15.45	6,654.29	6,534.16	120.13	55.393	
1,000.00	998.80	15,802.26	7,243.42	5.28	248.14	21.95	2,023.58	12.53	6,556.26	6,435.82	120.43	54.438	
1,100.00	1,098.12	15,800.77	7,243.43	5.63	248.10	21.82	2,023.58	9.56	6,458.25	6,337.49	120.76	53.478	
1,200.00	1,197.44	15,803.74	7,243.44	6.00	248.18	21.69	2,023.59	6.59	6,360.31	6,239.14	121.17	52.491	
1,300.00	1,296.77	15,806.70	7,243.44	6.37	248.27	21.56	2,023.59	3.62	6,262.43	6,140.83	121.60	51.501	
1,400.00	1,396.09	15,809.67	7,243.45	6.76	248.35	21.43	2,023.60	0.66	6,164.61	6,042.57	122.05	50.511	
1,500.00	1,495.41	15,812.64	7,243.46	7.15	248.44	21.30	2,023.60	-2.31	6,066.87	5,944.35	122.52	49.518	
1,600.00	1,594.74	15,815.61	7,243.46	7.55	248.52	21.17	2,023.61	-5.28	5,969.20	5,846.18	123.02	48.524	
1,700.00	1,694.06	15,818.58	7,243.47	7.96	248.60	21.04	2,023.61	-8.25	5,871.60	5,748.06	123.54	47.528	
1,800.00	1,793.38	15,821.54	7,243.48	8.37	248.69	20.91	2,023.62	-11.22	5,774.09	5,650.00	124.09	46.531	
1,900.00	1,892.71	15,824.51	7,243.49	8.78	248.77	20.78	2,023.63	-14.18	5,676.66	5,551.99	124.67	45.533	
2,000.00	1,992.03	15,827.48	7,243.49	9.20	248.86	20.65	2,023.63	-17.15	5,579.32	5,454.04	125.28	44.533	
2,100.00	2,091.36	15,830.45	7,243.50	9.62	248.94	20.52	2,023.64	-20.12	5,482.08	5,356.15	125.93	43.533	
2,200.00	2,190.68	15,833.42	7,243.51	10.05	249.02	20.39	2,023.64	-23.09	5,384.93	5,258.32	126.61	42.532	
2,300.00	2,290.00	15,836.39	7,243.52	10.48	249.11	20.26	2,023.65	-26.06	5,287.89	5,160.56	127.33	41.530	
2,400.00	2,389.33	15,839.35	7,243.52	10.90	249.19	20.13	2,023.65	-29.02	5,190.96	5,062.87	128.09	40.527	
2,500.00	2,488.65	15,842.32	7,243.53	11.34	249.28	20.00	2,023.66	-31.99	5,094.14	4,965.26	128.88	39.525	
2,600.00	2,587.97	15,845.29	7,243.54	11.77	249.36	19.86	2,023.66	-34.96	4,997.45	4,867.73	129.73	38.523	
2,700.00	2,687.30	15,848.26	7,243.54	12.20	249.44	19.73	2,023.67	-37.93	4,900.90	4,770.28	130.62	37.521	
2,800.00	2,786.62	15,851.23	7,243.55	12.64	249.53	19.60	2,023.67	-40.90	4,804.48	4,672.92	131.56	36.520	
2,900.00	2,885.94	15,854.19	7,243.56	13.07	249.61	19.47	2,023.68	-43.87	4,708.20	4,575.66	132.55	35.521	
3,000.00	2,985.27	15,857.16	7,243.57	13.51	249.70	19.34	2,023.68	-46.83	4,612.09	4,478.49	133.59	34.523	
3,100.00	3,084.59	15,860.13	7,243.57	13.95	249.78	19.21	2,023.69	-49.80	4,516.14	4,381.44	134.70	33.527	
3,200.00	3,183.91	15,863.10	7,243.58	14.39	249.86	19.08	2,023.69	-52.77	4,420.37	4,284.50	135.87	32.535	
3,300.00	3,283.24	15,866.07	7,243.59	14.83	249.95	18.94	2,023.70	-55.74	4,324.78	4,187.69	137.10	31.545	
3,400.00	3,382.56	15,869.03	7,243.59	15.27	250.03	18.81	2,023.71	-58.71	4,229.41	4,091.00	138.40	30.559	
3,500.00	3,481.88	15,872.00	7,243.60	15.71	250.12	18.68	2,023.71	-61.67	4,134.24	3,994.47	139.78	29.578	
3,600.00	3,581.21	15,874.97	7,243.61	16.16	250.20	18.55	2,023.72	-64.64	4,039.31	3,898.08	141.23	28.601	
3,700.00	3,680.53	15,877.94	7,243.62	16.60	250.28	18.42	2,023.72	-67.61	3,944.63	3,801.86	142.76	27.631	
3,800.00	3,779.85	15,880.91	7,243.62	17.04	250.37	18.29	2,023.73	-70.58	3,850.21	3,705.83	144.38	26.667	
3,900.00	3,879.18	15,883.87	7,243.63	17.49	250.45	18.15	2,023.73	-73.55	3,756.08	3,609.98	146.09	25.710	
4,000.00	3,978.50	15,886.84	7,243.64	17.93	250.54	18.02	2,023.74	-76.51	3,662.26	3,514.35	147.91	24.761	
4,100.00	4,077.82	15,889.81	7,243.65	18.37	250.62	17.89	2,023.74	-79.48	3,568.77	3,418.95	149.82	23.820	
4,200.00	4,177.15	15,907.29	7,243.65	18.82	251.11	17.76	2,023.75	-82.45	3,475.64	3,323.56	152.07	22.855	
4,300.00	4,276.47	15,904.32	7,243.66	19.27	251.03	17.62	2,023.75	-85.42	3,382.90	3,228.77	154.13	21.949	
4,400.00	4,375.79	15,901.35	7,243.67	19.71	250.95	17.49	2,023.76	-88.39	3,290.58	3,134.28	156.30	21.053	
4,500.00	4,475.12	15,901.68	7,243.67	20.16	250.96	17.36	2,023.76	-91.35	3,198.72	3,040.06	158.66	20.161	
4,600.00	4,574.44	15,904.65	7,243.68	20.60	251.04	17.23	2,023.77	-94.32	3,107.37	2,946.16	161.21	19.275	
4,700.00	4,673.76	15,907.62	7,243.69	21.05	251.12	17.10	2,023.77	-97.29	3,016.56	2,852.65	163.91	18.404	
4,800.00	4,773.09	15,910.59	7,243.70	21.50	251.21	16.96	2,023.78	-100.26	2,926.34	2,759.57	166.77	17.547	
4,900.00	4,872.41	15,913.55	7,243.70	21.94	251.29	16.83	2,023.79	-103.23	2,836.78	2,666.97	169.81	16.706	
5,000.00	4,971.74	15,916.52	7,243.71	22.39	251.38	16.70	2,023.79	-106.19	2,747.93	2,574.90	173.03	15.881	
5,100.00	5,071.06	15,919.49	7,243.72	22.84	251.46	16.57	2,023.80	-109.16	2,659.87	2,483.42	176.45	15.074	

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 4N-16A-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 4N-16A-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	5,170.38	15,922.46	7,243.73	23.29	251.54	16.43	2,023.80	-112.13	2,572.69	2,392.60	180.08	14.286		
5,300.00	5,269.71	15,925.43	7,243.73	23.74	251.63	16.30	2,023.81	-115.10	2,486.46	2,302.52	183.94	13.518		
5,400.00	5,369.03	15,928.39	7,243.74	24.18	251.71	16.17	2,023.81	-118.07	2,401.30	2,213.27	188.03	12.771		
5,500.00	5,468.35	15,931.36	7,243.75	24.63	251.79	16.04	2,023.82	-121.03	2,317.32	2,124.95	192.37	12.046		
5,600.00	5,567.68	15,934.33	7,243.75	25.08	251.88	15.90	2,023.82	-124.00	2,234.65	2,037.68	196.97	11.345		
5,700.00	5,667.00	15,937.30	7,243.76	25.53	251.96	15.77	2,023.83	-126.97	2,153.46	1,951.61	201.84	10.669		
5,800.00	5,766.32	15,940.27	7,243.77	25.98	252.05	15.64	2,023.83	-129.94	2,073.90	1,866.91	206.99	10.019		
5,900.00	5,865.65	15,943.24	7,243.78	26.43	252.13	15.51	2,023.84	-132.91	1,996.18	1,783.76	212.42	9.397		
6,000.00	5,964.97	15,946.20	7,243.78	26.88	252.21	15.37	2,023.84	-135.87	1,920.51	1,702.39	218.12	8.805		
6,100.00	6,064.29	15,949.17	7,243.79	27.33	252.30	15.24	2,023.85	-138.84	1,847.16	1,623.07	224.08	8.243		
6,200.00	6,163.62	15,952.14	7,243.80	27.78	252.38	15.11	2,023.85	-141.81	1,776.40	1,546.12	230.28	7.714		
6,300.00	6,262.94	15,955.11	7,243.81	28.23	252.47	14.97	2,023.86	-144.78	1,708.57	1,471.88	236.68	7.219		
6,400.00	6,362.24	15,958.66	7,243.81	28.67	252.57	35.12	2,023.87	-148.33	1,644.03	1,400.80	243.23	6.759		
6,500.00	6,460.41	15,973.71	7,243.85	29.12	252.99	73.00	2,023.89	-163.38	1,583.95	1,333.89	250.06	6.334		
6,600.00	6,555.09	16,004.02	7,243.92	29.57	253.85	87.39	2,023.95	-193.69	1,529.95	1,272.93	257.03	5.953		
6,700.00	6,643.94	16,048.85	7,244.03	30.00	255.12	94.77	2,024.03	-238.52	1,483.20	1,219.31	263.90	5.620		
6,800.00	6,724.78	16,107.09	7,244.18	30.45	256.77	98.90	2,024.13	-296.76	1,444.32	1,173.84	270.48	5.340		
6,900.00	6,795.62	16,177.31	7,244.35	30.97	258.75	101.14	2,024.26	-366.98	1,413.37	1,136.73	276.64	5.109		
7,000.00	6,854.70	16,257.78	7,244.54	31.60	261.03	102.22	2,024.40	-447.45	1,390.01	1,107.65	282.36	4.923		
7,100.00	6,900.58	16,346.52	7,244.76	32.39	263.55	102.61	2,024.56	-536.19	1,373.60	1,085.96	287.64	4.775		
7,200.00	6,932.13	16,441.34	7,244.99	33.34	266.23	102.64	2,024.73	-631.01	1,363.41	1,070.89	292.52	4.661		
7,300.00	6,948.57	16,539.91	7,245.23	34.46	269.02	102.56	2,024.91	-729.58	1,358.80	1,061.81	296.99	4.575		
7,365.69	6,952.35	16,605.49	7,245.39	35.28	270.88	102.47	2,025.03	-795.16	1,358.16	1,058.41	299.76	4.531 CC		
7,400.00	6,950.87	16,639.84	7,245.48	35.70	271.85	102.52	2,025.09	-829.51	1,358.96	1,057.90	301.06	4.514		
7,500.00	6,950.58	16,739.84	7,245.72	37.12	274.69	102.53	2,025.27	-929.51	1,359.97	1,054.77	305.21	4.456		
7,600.00	6,950.28	16,839.83	7,245.97	38.70	277.52	102.55	2,025.45	-1,029.50	1,360.99	1,051.48	309.51	4.397		
7,700.00	6,949.98	16,939.83	7,246.21	40.41	280.36	102.56	2,025.63	-1,129.49	1,362.00	1,048.05	313.95	4.338		
7,800.00	6,949.68	17,039.82	7,246.46	42.25	283.19	102.57	2,025.81	-1,229.49	1,363.01	1,044.50	318.52	4.279		
7,900.00	6,949.38	17,139.82	7,246.70	44.20	286.03	102.59	2,025.99	-1,329.48	1,364.03	1,040.84	323.19	4.221		
8,000.00	6,949.08	17,239.81	7,246.94	46.24	288.86	102.60	2,026.17	-1,429.48	1,365.04	1,037.08	327.96	4.162		
8,100.00	6,948.79	17,339.80	7,247.19	48.36	291.70	102.62	2,026.35	-1,529.47	1,366.05	1,033.25	332.81	4.105		
8,200.00	6,948.49	17,439.80	7,247.43	50.56	294.54	102.63	2,026.52	-1,629.46	1,367.07	1,029.34	337.73	4.048		
8,300.00	6,948.19	17,539.79	7,247.68	52.82	297.38	102.64	2,026.70	-1,729.46	1,368.08	1,025.37	342.71	3.992		
8,400.00	6,947.89	17,639.79	7,247.92	55.14	300.21	102.66	2,026.88	-1,829.45	1,369.09	1,021.35	347.74	3.937		
8,500.00	6,947.59	17,739.78	7,248.17	57.50	303.05	102.67	2,027.06	-1,929.44	1,370.11	1,017.28	352.83	3.883		
8,600.00	6,947.29	17,839.78	7,248.41	59.91	305.89	102.69	2,027.24	-2,029.44	1,371.12	1,013.17	357.95	3.830		
8,700.00	6,947.00	17,939.77	7,248.65	62.36	308.73	102.70	2,027.42	-2,129.43	1,372.14	1,009.02	363.11	3.779		
8,800.00	6,946.70	18,039.76	7,248.90	64.84	311.57	102.71	2,027.60	-2,229.43	1,373.15	1,004.84	368.31	3.728		
8,900.00	6,946.40	18,139.76	7,249.14	67.35	314.41	102.73	2,027.78	-2,329.42	1,374.17	1,000.64	373.53	3.679		
9,000.00	6,946.10	18,239.75	7,249.39	69.88	317.25	102.74	2,027.96	-2,429.41	1,375.18	996.40	378.78	3.631		
9,100.00	6,945.80	18,339.75	7,249.63	72.44	320.09	102.75	2,028.14	-2,529.41	1,376.19	992.15	384.05	3.583		
9,200.00	6,945.50	18,439.74	7,249.88	75.02	322.93	102.77	2,028.32	-2,629.40	1,377.21	987.87	389.34	3.537		
9,300.00	6,945.21	18,539.74	7,250.12	77.63	325.77	102.78	2,028.50	-2,729.40	1,378.22	983.57	394.65	3.492		
9,400.00	6,944.91	18,639.73	7,250.37	80.24	328.62	102.79	2,028.68	-2,829.39	1,379.24	979.26	399.98	3.448		
9,500.00	6,944.61	18,739.72	7,250.61	82.88	331.46	102.81	2,028.86	-2,929.38	1,380.25	974.94	405.32	3.405		
9,600.00	6,944.31	18,839.72	7,250.85	85.53	334.30	102.82	2,029.04	-3,029.38	1,381.27	970.60	410.67	3.363		
9,700.00	6,944.01	18,939.71	7,251.10	88.19	337.14	102.83	2,029.22	-3,129.37	1,382.28	966.24	416.04	3.322		
9,800.00	6,943.71	19,039.71	7,251.34	90.86	339.99	102.85	2,029.40	-3,229.36	1,383.30	961.88	421.42	3.282		
9,900.00	6,943.42	19,118.26	7,251.53	93.55	342.22	102.86	2,029.54	-3,307.92	1,384.48	958.25	426.23	3.248 ES, SF		
10,000.00	6,943.12	19,118.26	7,251.53	96.24	342.22	102.86	2,029.54	-3,307.92	1,390.64	962.99	427.65	3.252		
10,100.00	6,942.82	19,118.26	7,251.53	98.95	342.22	102.86	2,029.54	-3,307.92	1,403.91	976.94	426.97	3.288		
10,200.00	6,942.52	19,118.26	7,251.53	101.66	342.22	102.86	2,029.54	-3,307.92	1,424.11	999.79	424.32	3.356		

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 4N-16A-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 4N-16A-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	6,942.22	19,118.26	7,251.53	104.38	342.22	102.86	2,029.54	-3,307.92	1,450.92	1,031.04	419.88	3.456		
10,400.00	6,941.92	19,118.26	7,251.53	107.11	342.22	102.86	2,029.54	-3,307.92	1,484.01	1,070.08	413.93	3.585		
10,500.00	6,941.63	19,118.26	7,251.53	109.84	342.22	102.86	2,029.54	-3,307.92	1,522.95	1,116.23	406.72	3.744		
10,600.00	6,941.33	19,118.26	7,251.53	112.58	342.22	102.86	2,029.54	-3,307.92	1,567.31	1,168.76	398.55	3.932		
10,700.00	6,941.03	19,118.26	7,251.53	115.33	342.22	102.86	2,029.54	-3,307.92	1,616.65	1,226.97	389.69	4.149		
10,800.00	6,940.73	19,118.26	7,251.53	118.08	342.22	102.86	2,029.54	-3,307.92	1,670.53	1,290.17	380.36	4.392		
10,900.00	6,940.43	19,118.26	7,251.53	120.84	342.22	102.86	2,029.54	-3,307.92	1,728.52	1,357.73	370.78	4.662		
11,000.00	6,940.13	19,118.26	7,251.53	123.60	342.22	102.86	2,029.54	-3,307.92	1,790.21	1,429.09	361.12	4.957		
11,100.00	6,939.83	19,118.26	7,251.53	126.36	342.22	102.86	2,029.54	-3,307.92	1,855.25	1,503.75	351.51	5.278		
11,200.00	6,939.54	19,118.26	7,251.53	129.13	342.22	102.86	2,029.54	-3,307.92	1,923.29	1,581.25	342.05	5.623		
11,300.00	6,939.24	19,118.26	7,251.53	131.91	342.22	102.86	2,029.54	-3,307.92	1,994.03	1,661.21	332.82	5.991		
11,400.00	6,938.94	19,118.26	7,251.53	134.68	342.22	102.86	2,029.54	-3,307.92	2,067.19	1,743.31	323.88	6.383		
11,500.00	6,938.64	19,118.26	7,251.53	137.46	342.22	102.86	2,029.54	-3,307.92	2,142.51	1,827.25	315.26	6.796		
11,600.00	6,938.34	19,118.26	7,251.53	140.25	342.22	102.86	2,029.54	-3,307.92	2,219.79	1,912.80	306.99	7.231		
11,700.00	6,938.04	19,118.26	7,251.53	143.03	342.22	102.86	2,029.54	-3,307.92	2,298.82	1,999.75	299.07	7.687		
11,800.00	6,937.75	19,118.26	7,251.53	145.82	342.22	102.86	2,029.54	-3,307.92	2,379.42	2,087.91	291.51	8.162		
11,900.00	6,937.45	19,118.26	7,251.53	148.61	342.22	102.86	2,029.54	-3,307.92	2,461.45	2,177.15	284.31	8.658		
12,000.00	6,937.15	19,118.26	7,251.53	151.41	342.22	102.86	2,029.54	-3,307.92	2,544.77	2,267.32	277.45	9.172		
12,100.00	6,936.85	19,118.26	7,251.53	154.20	342.22	102.86	2,029.54	-3,307.92	2,629.25	2,358.32	270.93	9.704		
12,200.00	6,936.55	19,118.26	7,251.53	157.00	342.22	102.86	2,029.54	-3,307.92	2,714.78	2,450.05	264.74	10.255		
12,300.00	6,936.25	19,118.26	7,251.53	159.80	342.22	102.86	2,029.54	-3,307.92	2,801.28	2,542.43	258.85	10.822		
12,400.00	6,935.96	19,118.26	7,251.53	162.61	342.22	102.86	2,029.54	-3,307.92	2,888.64	2,635.38	253.26	11.406		
12,500.00	6,935.66	19,118.26	7,251.53	165.41	342.22	102.86	2,029.54	-3,307.92	2,976.80	2,728.85	247.95	12.006		
12,600.00	6,935.36	19,118.26	7,251.53	168.22	342.22	102.86	2,029.54	-3,307.92	3,065.69	2,822.78	242.90	12.621		
12,700.00	6,935.06	19,118.26	7,251.53	171.02	342.22	102.86	2,029.54	-3,307.92	3,155.24	2,917.13	238.11	13.251		
12,800.00	6,934.76	19,118.26	7,251.53	173.83	342.22	102.86	2,029.54	-3,307.92	3,245.40	3,011.85	233.55	13.896		
12,900.00	6,934.46	19,118.26	7,251.53	176.65	342.22	102.86	2,029.54	-3,307.92	3,336.13	3,106.91	229.22	14.554		
13,000.00	6,934.17	19,118.26	7,251.53	179.46	342.22	102.86	2,029.54	-3,307.92	3,427.37	3,202.27	225.09	15.226		
13,100.00	6,933.87	19,118.26	7,251.53	182.27	342.22	102.86	2,029.54	-3,307.92	3,519.08	3,297.92	221.17	15.911		
13,200.00	6,933.57	19,118.26	7,251.53	185.09	342.22	102.86	2,029.54	-3,307.92	3,611.24	3,393.81	217.43	16.609		
13,300.00	6,933.27	19,118.26	7,251.53	187.91	342.22	102.86	2,029.54	-3,307.92	3,703.80	3,489.94	213.86	17.319		
13,400.00	6,932.97	19,118.26	7,251.53	190.72	342.22	102.86	2,029.54	-3,307.92	3,796.74	3,586.28	210.46	18.040		
13,500.00	6,932.67	19,118.26	7,251.53	193.54	342.22	102.86	2,029.54	-3,307.92	3,890.03	3,682.81	207.22	18.772		
13,600.00	6,932.38	19,118.26	7,251.53	196.36	342.22	102.86	2,029.54	-3,307.92	3,983.65	3,779.52	204.12	19.516		
13,700.00	6,932.08	19,118.26	7,251.53	199.19	342.22	102.86	2,029.54	-3,307.92	4,077.56	3,876.40	201.17	20.270		
13,800.00	6,931.78	19,118.26	7,251.53	202.01	342.22	102.86	2,029.54	-3,307.92	4,171.77	3,973.43	198.34	21.033		
13,900.00	6,931.48	19,118.26	7,251.53	204.83	342.22	102.86	2,029.54	-3,307.92	4,266.23	4,070.59	195.64	21.807		
14,000.00	6,931.18	19,118.26	7,251.53	207.66	342.22	102.86	2,029.54	-3,307.92	4,360.94	4,167.89	193.05	22.590		
14,100.00	6,930.88	19,118.26	7,251.53	210.48	342.22	102.86	2,029.54	-3,307.92	4,455.89	4,265.31	190.57	23.381		
14,200.00	6,930.59	19,118.26	7,251.53	213.31	342.22	102.86	2,029.54	-3,307.92	4,551.05	4,362.85	188.20	24.182		
14,300.00	6,930.29	19,118.26	7,251.53	216.14	342.22	102.86	2,029.54	-3,307.92	4,646.41	4,460.48	185.93	24.990		
14,400.00	6,929.99	19,118.26	7,251.53	218.96	342.22	102.86	2,029.54	-3,307.92	4,741.96	4,558.22	183.75	25.807		
14,500.00	6,929.69	19,118.26	7,251.53	221.79	342.22	102.86	2,029.54	-3,307.92	4,837.70	4,656.04	181.65	26.631		
14,600.00	6,929.39	19,118.26	7,251.53	224.62	342.22	102.86	2,029.54	-3,307.92	4,933.60	4,753.96	179.65	27.463		
14,700.00	6,929.09	19,118.26	7,251.53	227.45	342.22	102.86	2,029.54	-3,307.92	5,029.66	4,851.95	177.72	28.302		
14,732.12	6,929.00	19,118.26	7,251.53	228.36	342.22	102.86	2,029.54	-3,307.92	5,060.55	4,883.44	177.11	28.572		



Anticollision Report



Company:	SRC ENERGY	Local Co-ordinate Reference:	Well HARVESTERS STATE 4N-16A-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 4N-16A-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	15,713.25	7,135.44	3.28	247.94	-0.05	1,863.32	-1.66	7,374.72					
100.00	100.00	15,713.50	7,135.44	3.28	247.95	-0.06	1,863.32	-1.90	7,278.01	7,163.41	114.60	63.509		
200.00	200.00	15,713.74	7,135.44	3.34	247.96	-0.07	1,863.32	-2.15	7,181.39	7,066.43	114.96	62.471		
300.00	300.00	15,713.99	7,135.44	3.44	247.96	-0.07	1,863.32	-2.39	7,084.86	6,969.53	115.33	61.430		
400.00	400.00	15,714.23	7,135.45	3.60	247.97	-0.08	1,863.31	-2.64	6,988.43	6,872.70	115.73	60.386		
500.00	500.00	15,714.47	7,135.45	3.81	247.98	-0.09	1,863.31	-2.88	6,892.10	6,775.95	116.15	59.338		
600.00	600.00	15,714.72	7,135.45	4.05	247.99	-0.10	1,863.31	-3.13	6,795.88	6,679.29	116.59	58.288		
700.00	699.98	15,715.35	7,135.45	4.32	248.00	15.19	1,863.30	-3.76	6,699.32	6,582.28	117.03	57.242		
800.00	799.84	15,716.76	7,135.45	4.62	248.04	17.51	1,863.29	-5.17	6,602.02	6,484.57	117.44	56.215		
900.00	899.45	15,718.95	7,135.46	4.94	248.10	20.59	1,863.26	-7.36	6,504.07	6,386.26	117.81	55.210		
1,000.00	998.80	15,721.74	7,135.46	5.28	248.18	21.76	1,863.24	-10.14	6,405.68	6,287.55	118.14	54.223		
1,100.00	1,098.12	15,724.57	7,135.47	5.63	248.26	21.62	1,863.21	-12.98	6,307.32	6,188.84	118.47	53.239		
1,200.00	1,197.44	15,727.40	7,135.48	6.00	248.34	21.48	1,863.18	-15.81	6,209.00	6,090.17	118.83	52.253		
1,300.00	1,296.77	15,730.23	7,135.48	6.37	248.42	21.34	1,863.15	-18.64	6,110.74	5,991.54	119.20	51.265		
1,400.00	1,396.09	15,733.07	7,135.49	6.76	248.50	21.20	1,863.12	-21.47	6,012.53	5,892.93	119.59	50.275		
1,500.00	1,495.41	15,735.90	7,135.50	7.15	248.58	21.06	1,863.09	-24.30	5,914.38	5,794.37	120.01	49.283		
1,600.00	1,594.74	15,738.73	7,135.51	7.55	248.66	20.92	1,863.06	-27.14	5,816.29	5,695.84	120.45	48.289		
1,700.00	1,694.06	15,741.56	7,135.51	7.96	248.74	20.78	1,863.03	-29.97	5,718.27	5,597.36	120.91	47.293		
1,800.00	1,793.38	15,744.39	7,135.52	8.37	248.82	20.64	1,863.00	-32.80	5,620.32	5,498.92	121.40	46.296		
1,900.00	1,892.71	15,747.23	7,135.53	8.78	248.90	20.50	1,862.97	-35.63	5,522.43	5,400.52	121.92	45.297		
2,000.00	1,992.03	15,750.06	7,135.53	9.20	248.98	20.36	1,862.95	-38.46	5,424.63	5,302.17	122.46	44.296		
2,100.00	2,091.36	15,752.89	7,135.54	9.62	249.06	20.22	1,862.92	-41.29	5,326.90	5,203.86	123.04	43.294		
2,200.00	2,190.68	15,755.72	7,135.55	10.05	249.14	20.07	1,862.89	-44.13	5,229.26	5,105.61	123.65	42.291		
2,300.00	2,290.00	15,758.55	7,135.55	10.48	249.22	19.93	1,862.86	-46.96	5,131.71	5,007.41	124.29	41.287		
2,400.00	2,389.33	15,761.39	7,135.56	10.90	249.30	19.79	1,862.83	-49.79	5,034.25	4,909.27	124.98	40.282		
2,500.00	2,488.65	15,764.22	7,135.57	11.34	249.38	19.65	1,862.80	-52.62	4,936.89	4,811.19	125.70	39.276		
2,600.00	2,587.97	15,767.05	7,135.57	11.77	249.46	19.51	1,862.77	-55.45	4,839.64	4,713.18	126.46	38.270		
2,700.00	2,687.30	15,769.88	7,135.58	12.20	249.54	19.37	1,862.74	-58.28	4,742.50	4,615.23	127.27	37.263		
2,800.00	2,786.62	15,772.71	7,135.59	12.64	249.62	19.23	1,862.71	-61.12	4,645.48	4,517.35	128.13	36.257		
2,900.00	2,885.94	15,775.55	7,135.60	13.07	249.70	19.08	1,862.68	-63.95	4,548.59	4,419.56	129.03	35.252		
3,000.00	2,985.27	15,778.38	7,135.60	13.51	249.78	18.94	1,862.66	-66.78	4,451.83	4,321.84	129.99	34.247		
3,100.00	3,084.59	15,781.21	7,135.61	13.95	249.86	18.80	1,862.63	-69.61	4,355.22	4,224.21	131.01	33.243		
3,200.00	3,183.91	15,784.04	7,135.62	14.39	249.94	18.66	1,862.60	-72.44	4,258.76	4,126.67	132.09	32.242		
3,300.00	3,283.24	15,786.87	7,135.62	14.83	250.02	18.52	1,862.57	-75.28	4,162.47	4,029.24	133.23	31.242		
3,400.00	3,382.56	15,789.70	7,135.63	15.27	250.10	18.37	1,862.54	-78.11	4,066.35	3,931.91	134.44	30.246		
3,500.00	3,481.88	15,807.53	7,135.64	15.71	250.61	18.23	1,862.51	-80.94	3,970.43	3,834.49	135.94	29.208		
3,600.00	3,581.21	15,795.37	7,135.64	16.16	250.26	18.09	1,862.48	-83.77	3,874.71	3,737.62	137.09	28.264		
3,700.00	3,680.53	15,801.86	7,135.65	16.60	250.45	17.95	1,862.45	-86.60	3,779.21	3,640.62	138.59	27.269		
3,800.00	3,779.85	15,801.03	7,135.66	17.04	250.42	17.80	1,862.42	-89.43	3,683.94	3,543.87	140.07	26.301		
3,900.00	3,879.18	15,803.86	7,135.66	17.49	250.50	17.66	1,862.39	-92.27	3,588.93	3,447.23	141.70	25.328		
4,000.00	3,978.50	15,806.70	7,135.67	17.93	250.58	17.52	1,862.37	-95.10	3,494.20	3,350.77	143.42	24.363		
4,100.00	4,077.82	15,809.53	7,135.68	18.37	250.66	17.38	1,862.34	-97.93	3,399.76	3,254.50	145.26	23.405		
4,200.00	4,177.15	15,812.36	7,135.69	18.82	250.74	17.23	1,862.31	-100.76	3,305.65	3,158.44	147.21	22.455		
4,300.00	4,276.47	15,815.19	7,135.69	19.27	250.82	17.09	1,862.28	-103.59	3,211.90	3,062.61	149.29	21.515		
4,400.00	4,375.79	15,818.02	7,135.70	19.71	250.90	16.95	1,862.25	-106.42	3,118.52	2,967.03	151.49	20.585		
4,500.00	4,475.12	15,820.86	7,135.71	20.16	250.98	16.81	1,862.22	-109.26	3,025.57	2,871.73	153.84	19.667		
4,600.00	4,574.44	15,823.69	7,135.71	20.60	251.06	16.66	1,862.19	-112.09	2,933.09	2,776.74	156.35	18.760		
4,700.00	4,673.76	15,826.52	7,135.72	21.05	251.14	16.52	1,862.16	-114.92	2,841.10	2,682.09	159.02	17.867		
4,800.00	4,773.09	15,829.35	7,135.73	21.50	251.22	16.38	1,862.13	-117.75	2,749.68	2,587.82	161.86	16.988		
4,900.00	4,872.41	15,832.18	7,135.73	21.94	251.30	16.23	1,862.10	-120.58	2,658.87	2,493.96	164.90	16.124		
5,000.00	4,971.74	15,835.02	7,135.74	22.39	251.38	16.09	1,862.08	-123.42	2,568.74	2,400.59	168.15	15.276		
5,100.00	5,071.06	15,837.85	7,135.75	22.84	251.46	15.95	1,862.05	-126.25	2,479.36	2,307.74	171.62	14.447		

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 4N-16A-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 4N-16A-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	5,170.38	15,840.68	7,135.75	23.29	251.54	15.81	1,862.02	-129.08	2,390.82	2,215.49	175.33	13.636		
5,300.00	5,269.71	15,843.51	7,135.76	23.74	251.62	15.66	1,861.99	-131.91	2,303.21	2,123.91	179.30	12.845		
5,400.00	5,369.03	15,846.34	7,135.77	24.18	251.70	15.52	1,861.96	-134.74	2,216.65	2,033.11	183.55	12.077		
5,500.00	5,468.35	15,849.17	7,135.78	24.63	251.78	15.38	1,861.93	-137.57	2,131.27	1,943.18	188.09	11.331		
5,600.00	5,567.68	15,852.01	7,135.78	25.08	251.86	15.23	1,861.90	-140.41	2,047.20	1,854.26	192.95	10.610		
5,700.00	5,667.00	15,854.84	7,135.79	25.53	251.94	15.09	1,861.87	-143.24	1,964.62	1,766.49	198.13	9.916		
5,800.00	5,766.32	15,857.67	7,135.80	25.98	252.02	14.95	1,861.84	-146.07	1,883.73	1,680.07	203.66	9.249		
5,900.00	5,865.65	15,860.50	7,135.80	26.43	252.10	14.80	1,861.81	-148.90	1,804.75	1,595.21	209.54	8.613		
6,000.00	5,964.97	15,863.33	7,135.81	26.88	252.18	14.66	1,861.79	-151.73	1,727.95	1,512.18	215.77	8.008		
6,100.00	6,064.29	15,866.17	7,135.82	27.33	252.26	14.52	1,861.76	-154.56	1,653.62	1,431.27	222.34	7.437		
6,200.00	6,163.62	15,869.00	7,135.82	27.78	252.34	14.37	1,861.73	-157.40	1,582.11	1,352.89	229.23	6.902		
6,300.00	6,262.94	15,871.83	7,135.83	28.23	252.42	14.23	1,861.70	-160.23	1,513.84	1,277.47	236.37	6.405		
6,400.00	6,362.24	15,875.25	7,135.84	28.67	252.52	14.08	1,861.66	-163.06	1,449.26	1,205.56	243.70	5.947		
6,500.00	6,460.41	15,909.90	7,135.88	29.12	253.50	14.00	1,861.51	-178.56	1,389.51	1,137.72	251.80	5.518		
6,600.00	6,555.09	15,920.35	7,135.95	29.57	253.80	13.85	1,861.20	-208.74	1,336.26	1,077.30	258.96	5.160		
6,700.00	6,643.94	15,965.05	7,136.06	30.00	255.06	13.68	1,860.74	-253.45	1,290.65	1,024.26	266.39	4.845		
6,800.00	6,724.78	16,023.19	7,136.20	30.45	256.70	13.50	1,860.15	-311.58	1,253.21	979.86	273.35	4.585		
6,900.00	6,795.62	16,106.75	7,136.37	30.97	259.06	13.32	1,859.43	-381.70	1,223.86	943.78	280.08	4.370		
7,000.00	6,854.70	16,173.70	7,136.57	31.60	260.96	13.13	1,858.60	-462.08	1,201.99	916.54	285.46	4.211		
7,100.00	6,900.58	16,262.38	7,136.78	32.39	263.47	12.93	1,857.70	-550.76	1,186.71	896.05	290.67	4.083		
7,200.00	6,932.13	16,357.16	7,137.02	33.34	266.15	12.70	1,856.72	-645.53	1,177.04	881.59	295.45	3.984		
7,300.00	6,948.57	16,455.71	7,137.26	34.46	268.93	12.45	1,855.71	-744.08	1,172.17	872.30	299.86	3.909		
7,400.00	6,950.87	16,555.65	7,137.50	35.70	271.76	12.18	1,854.69	-844.01	1,171.26	867.31	303.95	3.853		
7,500.00	6,950.58	16,655.64	7,137.75	37.12	274.59	11.88	1,853.67	-944.00	1,171.06	862.94	308.12	3.801		
7,600.00	6,950.28	16,755.64	7,137.99	38.70	277.42	11.53	1,852.64	-1,043.99	1,170.87	858.41	312.46	3.747		
7,700.00	6,949.98	16,855.64	7,138.23	40.41	280.26	11.14	1,851.62	-1,143.98	1,170.67	853.74	316.93	3.694		
7,800.00	6,949.68	16,955.64	7,138.48	42.25	283.09	10.70	1,850.59	-1,243.98	1,170.48	848.94	321.53	3.640		
7,900.00	6,949.38	17,055.64	7,138.72	44.20	285.92	10.22	1,849.57	-1,343.97	1,170.28	844.04	326.24	3.587		
8,000.00	6,949.08	17,155.64	7,138.97	46.24	288.75	9.70	1,848.54	-1,443.96	1,170.09	839.05	331.04	3.535		
8,100.00	6,948.79	17,255.63	7,139.21	48.36	291.59	9.15	1,847.52	-1,543.95	1,169.89	833.97	335.92	3.483		
8,200.00	6,948.49	17,355.63	7,139.46	50.56	294.42	8.57	1,846.49	-1,643.95	1,169.70	828.82	340.88	3.431		
8,300.00	6,948.19	17,455.63	7,139.70	52.82	297.25	7.95	1,845.47	-1,743.94	1,169.50	823.61	345.89	3.381		
8,400.00	6,947.89	17,555.63	7,139.94	55.14	300.09	7.29	1,844.44	-1,843.93	1,169.31	818.35	350.96	3.332		
8,500.00	6,947.59	17,655.63	7,140.19	57.50	302.92	6.60	1,843.42	-1,943.92	1,169.11	813.03	356.08	3.283		
8,600.00	6,947.29	17,755.62	7,140.43	59.91	305.76	5.88	1,842.39	-2,043.92	1,168.92	807.68	361.24	3.236		
8,700.00	6,947.00	17,855.62	7,140.68	62.36	308.60	5.13	1,841.37	-2,143.91	1,168.73	802.29	366.44	3.189		
8,800.00	6,946.70	17,955.62	7,140.92	64.84	311.43	4.36	1,840.34	-2,243.90	1,168.53	796.87	371.67	3.144		
8,900.00	6,946.40	18,055.62	7,141.17	67.35	314.27	3.57	1,839.32	-2,343.89	1,168.34	791.42	376.92	3.100		
9,000.00	6,946.10	18,155.62	7,141.41	69.88	317.11	2.75	1,838.29	-2,443.89	1,168.15	785.94	382.21	3.056		
9,100.00	6,945.80	18,255.61	7,141.66	72.44	319.94	1.90	1,837.27	-2,543.88	1,167.96	780.44	387.51	3.014		
9,200.00	6,945.50	18,355.61	7,141.90	75.02	322.78	1.03	1,836.25	-2,643.87	1,167.76	774.92	392.84	2.973		
9,300.00	6,945.21	18,455.61	7,142.14	77.63	325.62	0.14	1,835.22	-2,743.87	1,167.57	769.39	398.19	2.932		
9,400.00	6,944.91	18,555.61	7,142.39	80.24	328.46	-0.78	1,834.20	-2,843.86	1,167.38	763.83	403.55	2.893		
9,500.00	6,944.61	18,655.61	7,142.63	82.88	331.30	-1.60	1,833.17	-2,943.85	1,167.19	758.27	408.92	2.854		
9,600.00	6,944.31	18,755.61	7,142.88	85.53	334.13	-2.40	1,832.15	-3,043.84	1,167.00	752.69	414.31	2.817		
9,700.00	6,944.01	18,855.60	7,143.12	88.19	336.97	-3.18	1,831.12	-3,143.84	1,166.81	747.10	419.71	2.780		
9,800.00	6,943.71	18,955.60	7,143.37	90.86	339.81	-3.94	1,830.10	-3,243.83	1,166.62	741.49	425.13	2.744		
9,864.57	6,943.52	19,020.17	7,143.52	92.60	341.65	-4.68	1,829.43	-3,308.39	1,166.50	737.87	428.63	2.721 CC		
9,900.00	6,943.42	19,018.34	7,143.52	93.55	341.60	-5.39	1,829.45	-3,306.56	1,167.02	737.55	429.48	2.717 ES, SF		
10,000.00	6,943.12	19,018.34	7,143.52	96.24	341.60	-6.05	1,829.45	-3,306.56	1,174.29	744.33	429.96	2.731		
10,100.00	6,942.82	19,018.34	7,143.52	98.95	341.60	-6.67	1,829.45	-3,306.56	1,189.94	762.43	427.51	2.783		
10,200.00	6,942.52	19,018.34	7,143.52	101.66	341.60	-7.25	1,829.45	-3,306.56	1,213.66	791.25	422.42	2.873		

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 4N-16A-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 4N-16A-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		Highside Toolface (°)	Offset Wellbore Centre +N/-S (ft)	+E/-W (ft)	Distance		Minimum Separation (ft)	Separation Factor	Warning	
Measured Depth (ft)	Vertical Depth (ft)	Measured Depth (ft)	Vertical Depth (ft)	Reference (ft)	Offset (ft)				Between Centres (ft)	Between Ellipses (ft)				
10,300.00	6,942.22	19,018.34	7,143.52	104.38	341.60	99.87	1,829.45	-3,306.56	1,244.98	829.92	415.06	2.999		
10,400.00	6,941.92	19,018.34	7,143.52	107.11	341.60	99.87	1,829.45	-3,306.56	1,283.35	877.43	405.93	3.162		
10,500.00	6,941.63	19,018.34	7,143.52	109.84	341.60	99.87	1,829.45	-3,306.56	1,328.16	932.68	395.48	3.358		
10,600.00	6,941.33	19,018.34	7,143.52	112.58	341.60	99.87	1,829.45	-3,306.56	1,378.77	994.61	384.16	3.589		
10,700.00	6,941.03	19,018.34	7,143.52	115.33	341.60	99.87	1,829.45	-3,306.56	1,434.58	1,062.22	372.36	3.853		
10,800.00	6,940.73	19,018.34	7,143.52	118.08	341.60	99.87	1,829.45	-3,306.56	1,495.00	1,134.60	360.40	4.148		
10,900.00	6,940.43	19,018.34	7,143.52	120.84	341.60	99.87	1,829.45	-3,306.56	1,559.50	1,210.99	348.51	4.475		
11,000.00	6,940.13	19,018.34	7,143.52	123.60	341.60	99.87	1,829.45	-3,306.56	1,627.59	1,290.71	336.88	4.831		
11,100.00	6,939.83	19,018.34	7,143.52	126.36	341.60	99.87	1,829.45	-3,306.56	1,698.84	1,373.22	325.63	5.217		
11,200.00	6,939.54	19,018.34	7,143.52	129.13	341.60	99.87	1,829.45	-3,306.56	1,772.87	1,458.04	314.83	5.631		
11,300.00	6,939.24	19,018.34	7,143.52	131.91	341.60	99.87	1,829.45	-3,306.56	1,849.35	1,544.80	304.54	6.073		
11,400.00	6,938.94	19,018.34	7,143.52	134.68	341.60	99.87	1,829.45	-3,306.56	1,927.98	1,633.19	294.78	6.540		
11,500.00	6,938.64	19,018.34	7,143.52	137.46	341.60	99.87	1,829.45	-3,306.56	2,008.51	1,722.95	285.55	7.034		
11,600.00	6,938.34	19,018.34	7,143.52	140.25	341.60	99.87	1,829.45	-3,306.56	2,090.72	1,813.87	276.85	7.552		
11,700.00	6,938.04	19,018.34	7,143.52	143.03	341.60	99.87	1,829.45	-3,306.56	2,174.42	1,905.77	268.65	8.094		
11,800.00	6,937.75	19,018.34	7,143.52	145.82	341.60	99.87	1,829.45	-3,306.56	2,259.45	1,998.51	260.94	8.659		
11,900.00	6,937.45	19,018.34	7,143.52	148.61	341.60	99.87	1,829.45	-3,306.56	2,345.66	2,091.97	253.69	9.246		
12,000.00	6,937.15	19,018.34	7,143.52	151.41	341.60	99.87	1,829.45	-3,306.56	2,432.93	2,186.05	246.88	9.855		
12,100.00	6,936.85	19,018.34	7,143.52	154.20	341.60	99.87	1,829.45	-3,306.56	2,521.14	2,280.67	240.47	10.484		
12,200.00	6,936.55	19,018.34	7,143.52	157.00	341.60	99.87	1,829.45	-3,306.56	2,610.21	2,375.76	234.45	11.133		
12,300.00	6,936.25	19,018.34	7,143.52	159.80	341.60	99.87	1,829.45	-3,306.56	2,700.03	2,471.25	228.78	11.802		
12,400.00	6,935.96	19,018.34	7,143.52	162.61	341.60	99.87	1,829.45	-3,306.56	2,790.55	2,567.11	223.44	12.489		
12,500.00	6,935.66	19,018.34	7,143.52	165.41	341.60	99.87	1,829.45	-3,306.56	2,881.70	2,663.28	218.42	13.194		
12,600.00	6,935.36	19,018.34	7,143.52	168.22	341.60	99.87	1,829.45	-3,306.56	2,973.42	2,759.74	213.68	13.915		
12,700.00	6,935.06	19,018.34	7,143.52	171.02	341.60	99.87	1,829.45	-3,306.56	3,065.65	2,856.44	209.21	14.654		
12,800.00	6,934.76	19,018.34	7,143.52	173.83	341.60	99.87	1,829.45	-3,306.56	3,158.36	2,953.37	204.99	15.408		
12,900.00	6,934.46	19,018.34	7,143.52	176.65	341.60	99.87	1,829.45	-3,306.56	3,251.50	3,050.50	201.00	16.177		
13,000.00	6,934.17	19,018.34	7,143.52	179.46	341.60	99.87	1,829.45	-3,306.56	3,345.03	3,147.81	197.22	16.961		
13,100.00	6,933.87	19,018.34	7,143.52	182.27	341.60	99.87	1,829.45	-3,306.56	3,438.93	3,245.28	193.65	17.758		
13,200.00	6,933.57	19,018.34	7,143.52	185.09	341.60	99.87	1,829.45	-3,306.56	3,533.17	3,342.90	190.27	18.570		
13,300.00	6,933.27	19,018.34	7,143.52	187.91	341.60	99.87	1,829.45	-3,306.56	3,627.71	3,440.65	187.06	19.394		
13,400.00	6,932.97	19,018.34	7,143.52	190.72	341.60	99.87	1,829.45	-3,306.56	3,722.54	3,538.53	184.01	20.230		
13,500.00	6,932.67	19,018.34	7,143.52	193.54	341.60	99.87	1,829.45	-3,306.56	3,817.63	3,636.51	181.12	21.078		
13,600.00	6,932.38	19,018.34	7,143.52	196.36	341.60	99.87	1,829.45	-3,306.56	3,912.97	3,734.60	178.37	21.937		
13,700.00	6,932.08	19,018.34	7,143.52	199.19	341.60	99.87	1,829.45	-3,306.56	4,008.53	3,832.77	175.76	22.807		
13,800.00	6,931.78	19,018.34	7,143.52	202.01	341.60	99.87	1,829.45	-3,306.56	4,104.31	3,931.04	173.27	23.688		
13,900.00	6,931.48	19,018.34	7,143.52	204.83	341.60	99.87	1,829.45	-3,306.56	4,200.28	4,029.38	170.90	24.578		
14,000.00	6,931.18	19,018.34	7,143.52	207.66	341.60	99.87	1,829.45	-3,306.56	4,296.43	4,127.80	168.64	25.478		
14,100.00	6,930.88	19,018.34	7,143.52	210.48	341.60	99.87	1,829.45	-3,306.56	4,392.76	4,226.28	166.48	26.386		
14,200.00	6,930.59	19,018.34	7,143.52	213.31	341.60	99.87	1,829.45	-3,306.56	4,489.25	4,324.83	164.42	27.304		
14,300.00	6,930.29	19,018.34	7,143.52	216.14	341.60	99.87	1,829.45	-3,306.56	4,585.89	4,423.43	162.45	28.229		
14,400.00	6,929.99	19,018.34	7,143.52	218.96	341.60	99.87	1,829.45	-3,306.56	4,682.67	4,522.09	160.57	29.162		
14,500.00	6,929.69	19,018.34	7,143.52	221.79	341.60	99.87	1,829.45	-3,306.56	4,779.58	4,620.80	158.78	30.102		
14,600.00	6,929.39	19,018.34	7,143.52	224.62	341.60	99.87	1,829.45	-3,306.56	4,876.62	4,719.56	157.06	31.050		
14,700.00	6,929.09	19,018.34	7,143.52	227.45	341.60	99.87	1,829.45	-3,306.56	4,973.77	4,818.36	155.41	32.004		
14,732.12	6,929.00	19,018.34	7,143.52	228.36	341.60	99.87	1,829.45	-3,306.56	5,005.01	4,850.11	154.90	32.312		



Anticollision Report



Company:	SRC ENERGY	Local Co-ordinate Reference:	Well HARVESTERS STATE 4N-16A-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 4N-16A-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	1,506.30	1,554.58	3.28	8.10	-119.04	-4,174.86	-7,519.81	8,740.35					
100.00	100.00	1,584.00	1,631.02	3.28	8.51	-119.01	-4,164.36	-7,510.71	8,723.34	8,712.26	11.08	787.286		
200.00	200.00	1,584.00	1,631.02	3.34	8.51	-119.01	-4,164.36	-7,510.71	8,706.35	8,695.25	11.10	784.418		
300.00	300.00	1,697.52	1,742.76	3.44	9.10	-118.95	-4,148.53	-7,498.46	8,690.16	8,678.47	11.68	743.847		
400.00	400.00	1,733.10	1,777.80	3.60	9.28	-118.94	-4,143.63	-7,494.69	8,674.00	8,662.03	11.97	724.764		
500.00	500.00	1,796.95	1,840.74	3.81	9.61	-118.91	-4,135.21	-7,487.99	8,658.38	8,645.95	12.43	696.763		
600.00	600.00	1,889.82	1,932.33	4.05	10.09	-118.87	-4,123.58	-7,477.95	8,642.84	8,629.79	13.05	662.065		
700.00	699.98	1,945.49	1,987.25	4.32	10.38	-105.67	-4,116.45	-7,472.26	8,628.14	8,614.59	13.55	636.819		
800.00	799.84	800.00	2,264.94	4.62	4.71	-105.95	-4,080.72	-7,440.30	8,613.26	8,603.98	9.28	928.559		
900.00	899.45	2,489.36	2,522.35	4.94	13.33	-106.31	-4,046.21	-7,405.37	8,597.37	8,580.79	16.58	518.610		
1,000.00	998.80	2,545.83	2,577.76	5.28	13.65	-106.44	-4,038.75	-7,397.48	8,581.81	8,564.66	17.15	500.346		
1,100.00	1,098.12	2,880.05	2,904.92	5.63	15.60	-106.57	-3,990.97	-7,348.94	8,565.56	8,546.53	19.02	450.236		
1,200.00	1,197.44	2,926.46	2,950.23	6.00	15.88	-106.59	-3,983.85	-7,341.86	8,547.90	8,528.31	19.59	436.250		
1,300.00	1,296.77	1,300.00	3,040.73	6.37	6.62	-106.62	-3,970.48	-7,328.11	8,531.01	8,518.34	12.67	673.258		
1,400.00	1,396.09	3,137.30	3,156.39	6.76	17.14	-106.68	-3,954.04	-7,309.36	8,513.54	8,492.24	21.31	399.546		
1,500.00	1,495.41	3,169.26	3,187.66	7.15	17.33	-106.69	-3,949.76	-7,304.31	8,496.42	8,474.57	21.84	388.956		
1,600.00	1,594.74	3,218.95	3,236.37	7.55	17.63	-106.72	-3,943.31	-7,296.85	8,480.06	8,457.59	22.47	377.419		
1,700.00	1,694.06	3,345.12	3,359.94	7.96	18.37	-106.78	-3,926.71	-7,277.57	8,463.41	8,439.96	23.44	361.013		
1,800.00	1,793.38	3,391.00	3,404.90	8.37	18.64	-106.80	-3,920.70	-7,270.67	8,447.16	8,423.10	24.06	351.026		
1,900.00	1,892.71	3,391.00	3,404.90	8.78	18.64	-106.80	-3,920.70	-7,270.67	8,431.87	8,407.39	24.48	344.386		
2,000.00	1,992.03	3,448.37	3,461.23	9.20	18.96	-106.83	-3,913.24	-7,262.76	8,416.99	8,391.83	25.16	334.472		
2,100.00	2,091.36	3,486.00	3,498.27	9.62	19.18	-106.85	-3,908.35	-7,258.25	8,403.23	8,377.47	25.76	326.195		
2,200.00	2,190.68	2,200.00	3,593.16	10.05	12.09	-106.88	-3,895.48	-7,247.04	8,389.76	8,369.47	20.29	413.520		
2,300.00	2,290.00	3,619.27	3,629.43	10.48	19.91	-106.89	-3,890.36	-7,242.91	8,376.57	8,349.34	27.23	307.650		
2,400.00	2,389.33	4,055.86	4,057.64	10.90	22.42	-106.97	-3,820.37	-7,195.44	8,364.36	8,334.68	29.67	281.896		
2,500.00	2,488.65	4,102.34	4,103.12	11.34	22.69	-106.99	-3,813.47	-7,188.86	8,347.94	8,317.61	30.33	275.271		
2,600.00	2,587.97	2,600.00	4,236.72	11.77	13.88	-107.06	-3,795.28	-7,168.62	8,331.72	8,307.96	23.77	350.581		
2,700.00	2,687.30	4,293.85	4,290.73	12.20	23.83	-107.08	-3,787.88	-7,160.10	8,315.15	8,283.07	32.07	259.249		
2,800.00	2,786.62	4,343.00	4,338.99	12.64	24.11	-107.11	-3,781.57	-7,153.29	8,299.72	8,266.97	32.74	253.471		
2,900.00	2,885.94	4,343.00	4,338.99	13.07	24.11	-107.11	-3,781.57	-7,153.29	8,284.87	8,251.68	33.20	249.557		
3,000.00	2,985.27	4,439.00	4,433.35	13.51	24.66	-107.15	-3,769.04	-7,140.85	8,270.44	8,236.36	34.08	242.692		
3,100.00	3,084.59	4,502.31	4,495.58	13.95	25.02	-107.18	-3,760.55	-7,132.94	8,256.29	8,221.48	34.81	237.148		
3,200.00	3,183.91	4,554.08	4,546.54	14.39	25.31	-107.20	-3,753.79	-7,126.81	8,242.81	8,207.31	35.50	232.190		
3,300.00	3,283.24	4,618.74	4,610.27	14.83	25.67	-107.23	-3,745.97	-7,119.14	8,229.80	8,193.56	36.24	227.083		
3,400.00	3,382.56	4,629.00	4,620.39	15.27	25.72	-107.23	-3,744.80	-7,117.91	8,217.49	8,180.75	36.74	223.654		
3,500.00	3,481.88	4,682.14	4,672.86	15.71	26.00	-107.26	-3,738.94	-7,111.91	8,205.77	8,168.35	37.43	219.239		
3,600.00	3,581.21	4,724.00	4,714.28	16.16	26.23	-107.28	-3,734.56	-7,107.72	8,195.07	8,157.01	38.07	215.289		
3,700.00	3,680.53	4,819.86	4,809.20	16.60	26.72	-107.33	-3,725.12	-7,098.19	8,184.89	8,145.95	38.94	210.210		
3,800.00	3,779.85	4,855.24	4,844.24	17.04	26.89	-107.35	-3,721.83	-7,094.62	8,174.86	8,135.32	39.54	206.738		
3,900.00	3,879.18	4,915.00	4,903.51	17.49	27.19	-107.39	-3,716.49	-7,089.17	8,165.71	8,125.45	40.25	202.857		
4,000.00	3,978.50	4,915.00	4,903.51	17.93	27.19	-107.39	-3,716.49	-7,089.17	8,157.16	8,116.46	40.70	200.417		
4,100.00	4,077.82	4,980.49	4,968.55	18.37	27.51	-107.42	-3,710.87	-7,083.85	8,149.30	8,107.87	41.43	196.682		
4,200.00	4,177.15	5,029.21	5,016.96	18.82	27.74	-107.45	-3,706.79	-7,080.25	8,142.10	8,100.01	42.09	193.433		
4,300.00	4,276.47	5,104.00	5,091.34	19.27	28.09	-107.49	-3,700.68	-7,075.30	8,135.61	8,092.75	42.87	189.790		
4,400.00	4,375.79	5,104.00	5,091.34	19.71	28.09	-107.49	-3,700.68	-7,075.30	8,129.65	8,086.34	43.31	187.728		
4,500.00	4,475.12	5,159.21	5,146.30	20.16	28.33	-107.52	-3,696.52	-7,072.11	8,124.41	8,080.43	43.98	184.712		
4,600.00	4,574.44	5,196.86	5,183.81	20.60	28.50	-107.54	-3,694.00	-7,070.16	8,119.99	8,075.41	44.58	182.128		
4,700.00	4,673.76	5,234.51	5,221.35	21.05	28.66	-107.56	-3,691.72	-7,068.39	8,116.34	8,071.16	45.18	179.638		
4,800.00	4,773.09	5,294.00	5,280.71	21.50	28.92	-107.60	-3,688.64	-7,065.97	8,113.54	8,067.66	45.88	176.858		
4,900.00	4,872.41	5,294.00	5,280.71	21.94	28.92	-107.60	-3,688.64	-7,065.97	8,111.39	8,065.09	46.30	175.200		
5,000.00	4,971.74	5,377.68	5,364.26	22.39	29.25	-107.65	-3,685.01	-7,063.07	8,109.74	8,062.65	47.09	172.217		
5,100.00	5,071.06	5,436.61	5,423.12	22.84	29.49	-107.69	-3,682.76	-7,061.27	8,108.67	8,060.90	47.77	169.739		

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 4N-16A-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 4N-16A-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	5,170.38	5,495.51	5,481.97	23.29	29.72	-107.73	-3,680.77	-7,059.65	8,108.11	8,059.65	48.45	167.346		
5,260.36	5,230.34	5,531.06	5,517.49	23.56	29.86	-107.76	-3,679.70	-7,058.77	8,108.01	8,059.15	48.86	165.941		
5,300.00	5,269.71	5,579.00	5,565.40	23.74	30.05	-107.79	-3,678.39	-7,057.69	8,108.12	8,058.87	49.24	164.660		
5,308.07	5,277.72	5,579.00	5,565.40	23.77	30.05	-107.79	-3,678.39	-7,057.69	8,108.11	8,058.84	49.27	164.549		
5,400.00	5,369.03	5,579.00	5,565.40	24.18	30.05	-107.79	-3,678.39	-7,057.69	8,108.63	8,058.98	49.65	163.318		
5,500.00	5,468.35	5,673.97	5,660.32	24.63	30.40	-107.86	-3,676.22	-7,055.95	8,109.46	8,058.98	50.48	160.632		
5,600.00	5,567.68	5,733.97	5,720.31	25.08	30.62	-107.90	-3,675.10	-7,055.14	8,110.91	8,059.75	51.16	158.538		
5,700.00	5,667.00	5,793.95	5,780.28	25.53	30.85	-107.94	-3,674.19	-7,054.54	8,112.86	8,061.02	51.84	156.513		
5,800.00	5,766.32	5,864.00	5,850.32	25.98	31.11	-108.00	-3,673.37	-7,054.13	8,115.31	8,062.76	52.55	154.416		
5,900.00	5,865.65	5,925.59	5,911.91	26.43	31.32	-108.04	-3,672.78	-7,053.99	8,118.18	8,064.96	53.23	152.518		
6,000.00	5,964.97	5,999.64	5,985.96	26.88	31.58	-108.09	-3,672.10	-7,054.05	8,121.39	8,067.43	53.96	150.519		
6,100.00	6,064.29	6,073.70	6,060.02	27.33	31.84	-108.15	-3,671.46	-7,054.35	8,124.92	8,070.24	54.68	148.580		
6,200.00	6,163.62	6,151.00	6,137.31	27.78	32.11	-108.20	-3,670.83	-7,054.94	8,128.78	8,073.35	55.43	146.662		
6,300.00	6,262.94	6,260.95	6,247.25	28.23	32.50	-108.28	-3,669.87	-7,055.90	8,132.72	8,076.41	56.32	144.413		
6,400.00	6,362.24	6,375.93	6,362.23	28.67	32.90	-90.04	-3,668.66	-7,056.79	8,135.99	8,078.76	57.23	142.166		
6,500.00	6,460.41	6,489.73	6,476.01	29.12	33.30	-58.67	-3,667.26	-7,057.53	8,129.22	8,071.09	58.13	139.834		
6,600.00	6,555.09	6,562.30	6,548.57	29.57	33.56	-49.80	-3,666.33	-7,058.19	8,109.44	8,050.59	58.86	137.786		
6,700.00	6,643.94	6,642.04	6,628.30	30.00	33.85	-47.26	-3,665.26	-7,059.00	8,077.13	8,017.54	59.59	135.535		
6,800.00	6,724.78	6,714.91	6,701.16	30.45	34.11	-47.68	-3,664.24	-7,059.86	8,033.17	7,972.87	60.30	133.228		
6,900.00	6,795.62	6,764.17	6,750.41	30.97	34.28	-50.15	-3,663.56	-7,060.54	7,978.75	7,917.86	60.89	131.034		
7,000.00	6,854.70	6,803.88	6,790.11	31.60	34.42	-54.61	-3,663.08	-7,061.19	7,915.32	7,853.86	61.46	128.787		
7,100.00	6,900.58	6,835.21	6,821.43	32.39	34.53	-61.24	-3,662.73	-7,061.76	7,844.44	7,782.41	62.03	126.469		
7,200.00	6,932.13	6,857.33	6,843.54	33.34	34.61	-70.28	-3,662.50	-7,062.20	7,767.82	7,705.22	62.60	124.093		
7,300.00	6,948.57	6,869.60	6,855.82	34.46	34.65	-81.65	-3,662.38	-7,062.46	7,687.35	7,624.17	63.17	121.685		
7,400.00	6,950.87	6,872.55	6,858.77	35.70	34.66	-89.03	-3,662.35	-7,062.52	7,605.05	7,541.29	63.76	119.275		
7,500.00	6,950.58	6,873.78	6,859.99	37.12	34.67	-89.04	-3,662.34	-7,062.55	7,522.93	7,458.50	64.42	116.778		
7,600.00	6,950.28	6,875.02	6,861.23	38.70	34.67	-89.06	-3,662.33	-7,062.58	7,441.23	7,376.06	65.17	114.179		
7,700.00	6,949.98	6,876.26	6,862.48	40.41	34.67	-89.07	-3,662.32	-7,062.60	7,359.99	7,293.98	66.01	111.493		
7,800.00	6,949.68	6,877.52	6,863.73	42.25	34.68	-89.09	-3,662.30	-7,062.63	7,279.22	7,212.28	66.95	108.734		
7,900.00	6,949.38	6,878.79	6,865.00	44.20	34.68	-89.11	-3,662.29	-7,062.66	7,198.93	7,130.96	67.97	105.917		
8,000.00	6,949.08	6,880.06	6,866.27	46.24	34.69	-89.12	-3,662.28	-7,062.68	7,119.14	7,050.06	69.08	103.057		
8,100.00	6,948.79	6,881.35	6,867.56	48.36	34.69	-89.14	-3,662.27	-7,062.71	7,039.87	6,969.59	70.28	100.169		
8,200.00	6,948.49	6,882.65	6,868.86	50.56	34.70	-89.16	-3,662.26	-7,062.74	6,961.12	6,889.56	71.57	97.266		
8,300.00	6,948.19	6,883.95	6,870.16	52.82	34.70	-89.18	-3,662.25	-7,062.77	6,882.93	6,809.99	72.94	94.363		
8,400.00	6,947.89	6,885.27	6,871.48	55.14	34.71	-89.19	-3,662.23	-7,062.80	6,805.31	6,730.91	74.40	91.469		
8,500.00	6,947.59	6,886.60	6,872.81	57.50	34.71	-89.21	-3,662.22	-7,062.83	6,728.28	6,652.34	75.94	88.598		
8,600.00	6,947.29	6,887.94	6,874.15	59.91	34.72	-89.23	-3,662.21	-7,062.86	6,651.87	6,574.30	77.57	85.757		
8,700.00	6,947.00	6,889.29	6,875.49	62.36	34.72	-89.25	-3,662.20	-7,062.89	6,576.08	6,496.81	79.27	82.956		
8,800.00	6,946.70	6,890.65	6,876.85	64.84	34.72	-89.27	-3,662.19	-7,062.92	6,500.95	6,419.89	81.06	80.201		
8,900.00	6,946.40	6,892.02	6,878.22	67.35	34.73	-89.28	-3,662.17	-7,062.95	6,426.49	6,343.57	82.92	77.500		
9,000.00	6,946.10	6,893.40	6,879.61	69.88	34.73	-89.30	-3,662.16	-7,062.98	6,352.74	6,267.88	84.86	74.858		
9,100.00	6,945.80	6,894.79	6,881.00	72.44	34.74	-89.32	-3,662.15	-7,063.01	6,279.71	6,192.83	86.88	72.277		
9,200.00	6,945.50	6,896.20	6,882.41	75.02	34.74	-89.34	-3,662.14	-7,063.04	6,207.44	6,118.46	88.98	69.763		
9,300.00	6,945.21	6,897.62	6,883.82	77.63	34.75	-89.36	-3,662.13	-7,063.08	6,135.94	6,044.79	91.15	67.317		
9,400.00	6,944.91	6,899.04	6,885.25	80.24	34.75	-89.38	-3,662.11	-7,063.11	6,065.25	5,971.85	93.39	64.942		
9,500.00	6,944.61	6,900.48	6,886.69	82.88	34.76	-89.40	-3,662.10	-7,063.14	5,995.39	5,899.68	95.71	62.639		
9,600.00	6,944.31	6,901.94	6,888.14	85.53	34.76	-89.42	-3,662.09	-7,063.18	5,926.39	5,828.29	98.10	60.409		
9,700.00	6,944.01	6,903.40	6,889.61	88.19	34.77	-89.43	-3,662.08	-7,063.21	5,858.29	5,757.73	100.57	58.252		
9,800.00	6,943.71	6,904.88	6,891.08	90.86	34.77	-89.45	-3,662.06	-7,063.24	5,791.12	5,688.01	103.10	56.168		
9,900.00	6,943.42	6,906.37	6,892.57	93.55	34.78	-89.47	-3,662.05	-7,063.28	5,724.90	5,619.19	105.71	54.157		
10,000.00	6,943.12	6,907.87	6,894.08	96.24	34.79	-89.49	-3,662.04	-7,063.31	5,659.68	5,551.29	108.39	52.218		
10,100.00	6,942.82	6,909.39	6,895.59	98.95	34.79	-89.51	-3,662.03	-7,063.35	5,595.48	5,484.34	111.13	50.350		

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 4N-16A-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 4N-16A-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		
10,200.00	6,942.52	6,910.92	6,897.12	101.66	34.80	-89.53	-3,662.01	-7,063.38	5,532.34	5,418.39	113.95	48.552		
10,300.00	6,942.22	6,912.46	6,898.66	104.38	34.80	-89.55	-3,662.00	-7,063.42	5,470.30	5,353.47	116.83	46.824		
10,400.00	6,941.92	6,914.01	6,900.21	107.11	34.81	-89.58	-3,661.99	-7,063.46	5,409.40	5,289.63	119.77	45.164		
10,500.00	6,941.63	6,915.58	6,901.78	109.84	34.81	-89.60	-3,661.98	-7,063.50	5,349.67	5,226.89	122.78	43.570		
10,600.00	6,941.33	6,917.16	6,903.36	112.58	34.82	-89.62	-3,661.96	-7,063.53	5,291.16	5,165.30	125.86	42.041		
10,700.00	6,941.03	6,918.76	6,904.96	115.33	34.82	-89.64	-3,661.95	-7,063.57	5,233.91	5,104.91	128.99	40.575		
10,800.00	6,940.73	6,920.37	6,906.57	118.08	34.83	-89.66	-3,661.94	-7,063.61	5,177.95	5,045.76	132.19	39.171		
10,900.00	6,940.43	6,921.99	6,908.19	120.84	34.83	-89.68	-3,661.92	-7,063.65	5,123.33	4,987.89	135.44	37.827		
11,000.00	6,940.13	6,923.63	6,909.83	123.60	34.84	-89.70	-3,661.91	-7,063.69	5,070.10	4,931.35	138.75	36.541		
11,100.00	6,939.83	6,925.29	6,911.48	126.36	34.85	-89.73	-3,661.90	-7,063.73	5,018.29	4,876.18	142.11	35.313		
11,200.00	6,939.54	6,926.95	6,913.15	129.13	34.85	-89.75	-3,661.89	-7,063.77	4,967.96	4,822.44	145.52	34.139		
11,300.00	6,939.24	6,928.64	6,914.83	131.91	34.86	-89.77	-3,661.87	-7,063.81	4,919.14	4,770.17	148.98	33.020		
11,400.00	6,938.94	6,930.34	6,916.53	134.68	34.86	-89.79	-3,661.86	-7,063.85	4,871.89	4,719.42	152.47	31.952		
11,500.00	6,938.64	6,932.05	6,918.25	137.46	34.87	-89.81	-3,661.85	-7,063.90	4,826.25	4,670.24	156.01	30.935		
11,600.00	6,938.34	6,933.78	6,919.98	140.25	34.88	-89.84	-3,661.83	-7,063.94	4,782.26	4,622.67	159.58	29.967		
11,700.00	6,938.04	6,935.53	6,921.72	143.03	34.88	-89.86	-3,661.82	-7,063.98	4,739.97	4,576.78	163.19	29.046		
11,800.00	6,937.75	6,937.29	6,923.48	145.82	34.89	-89.88	-3,661.81	-7,064.03	4,699.43	4,532.61	166.81	28.172		
11,900.00	6,937.45	6,939.07	6,925.26	148.61	34.89	-89.91	-3,661.80	-7,064.07	4,660.68	4,490.22	170.46	27.342		
12,000.00	6,937.15	6,940.86	6,927.05	151.41	34.90	-89.93	-3,661.78	-7,064.12	4,623.77	4,449.64	174.12	26.555		
12,100.00	6,936.85	6,942.67	6,928.87	154.20	34.91	-89.96	-3,661.77	-7,064.16	4,588.74	4,410.94	177.79	25.809		
12,200.00	6,936.55	6,944.50	6,930.69	157.00	34.91	-89.98	-3,661.76	-7,064.21	4,555.63	4,374.17	181.47	25.105		
12,300.00	6,936.25	6,946.35	6,932.54	159.80	34.92	-90.00	-3,661.74	-7,064.26	4,524.49	4,339.36	185.13	24.439		
12,400.00	6,935.96	6,948.21	6,934.40	162.61	34.93	-90.03	-3,661.73	-7,064.30	4,495.37	4,306.57	188.79	23.811		
12,500.00	6,935.66	6,950.09	6,936.28	165.41	34.93	-90.05	-3,661.72	-7,064.35	4,468.28	4,275.85	192.43	23.220		
12,600.00	6,935.36	6,951.99	6,938.18	168.22	34.94	-90.08	-3,661.70	-7,064.40	4,443.29	4,247.24	196.05	22.664		
12,700.00	6,935.06	6,953.91	6,940.10	171.02	34.95	-90.11	-3,661.69	-7,064.45	4,420.41	4,220.78	199.63	22.143		
12,800.00	6,934.76	6,955.85	6,942.03	173.83	34.95	-90.13	-3,661.68	-7,064.50	4,399.69	4,196.51	203.18	21.655		
12,900.00	6,934.46	6,957.80	6,943.99	176.65	34.96	-90.16	-3,661.67	-7,064.55	4,381.15	4,174.48	206.67	21.199		
13,000.00	6,934.17	6,959.78	6,945.96	179.46	34.97	-90.18	-3,661.65	-7,064.60	4,364.83	4,154.71	210.12	20.773		
13,100.00	6,933.87	6,961.77	6,947.95	182.27	34.97	-90.21	-3,661.64	-7,064.66	4,350.74	4,137.24	213.50	20.378		
13,200.00	6,933.57	6,963.78	6,949.97	185.09	34.98	-90.24	-3,661.63	-7,064.71	4,338.90	4,122.09	216.81	20.012		
13,300.00	6,933.27	6,965.81	6,952.00	187.91	34.99	-90.26	-3,661.61	-7,064.77	4,329.35	4,109.30	220.05	19.674		
13,400.00	6,932.97	6,967.87	6,954.05	190.72	34.99	-90.29	-3,661.60	-7,064.82	4,322.09	4,098.88	223.21	19.364		
13,500.00	6,932.67	6,969.94	6,956.12	193.54	35.00	-90.32	-3,661.59	-7,064.88	4,317.13	4,090.85	226.27	19.079		
13,600.00	6,932.38	6,972.04	6,958.22	196.36	35.01	-90.35	-3,661.57	-7,064.93	4,314.48	4,085.23	229.25	18.820		
13,664.30	6,932.18	6,973.39	6,959.58	198.18	35.01	-90.36	-3,661.57	-7,064.97	4,314.00	4,082.89	231.11	18.666 CC		
13,700.00	6,932.08	6,974.15	6,960.33	199.19	35.02	-90.37	-3,661.56	-7,064.99	4,314.15	4,082.03	232.12	18.586		
13,800.00	6,931.78	6,976.29	6,962.47	202.01	35.02	-90.40	-3,661.55	-7,065.05	4,316.14	4,081.24	234.90	18.375 ES		
13,900.00	6,931.48	6,978.45	6,964.63	204.83	35.03	-90.43	-3,661.54	-7,065.11	4,320.43	4,082.88	237.56	18.187		
14,000.00	6,931.18	6,980.63	6,966.81	207.66	35.04	-90.46	-3,661.52	-7,065.17	4,327.04	4,086.93	240.11	18.021		
14,100.00	6,930.88	6,982.84	6,969.01	210.48	35.05	-90.49	-3,661.51	-7,065.23	4,335.94	4,093.40	242.54	17.877		
14,200.00	6,930.59	6,985.06	6,971.24	213.31	35.06	-90.52	-3,661.50	-7,065.29	4,347.12	4,102.27	244.85	17.754		
14,300.00	6,930.29	6,987.31	6,973.49	216.14	35.06	-90.55	-3,661.48	-7,065.35	4,360.57	4,113.52	247.05	17.651		
14,400.00	6,929.99	6,989.59	6,975.76	218.96	35.07	-90.58	-3,661.47	-7,065.42	4,376.25	4,127.13	249.12	17.567		
14,500.00	6,929.69	6,991.88	6,978.06	221.79	35.08	-90.61	-3,661.46	-7,065.48	4,394.16	4,143.09	251.07	17.502		
14,600.00	6,929.39	6,994.21	6,980.38	224.62	35.09	-90.64	-3,661.44	-7,065.55	4,414.26	4,161.36	252.90	17.455		
14,700.00	6,929.09	6,996.55	6,982.72	227.45	35.10	-90.67	-3,661.43	-7,065.61	4,436.52	4,181.92	254.60	17.425		
14,732.12	6,929.00	6,997.31	6,983.48	228.36	35.10	-90.68	-3,661.43	-7,065.64	4,444.13	4,189.01	255.12	17.420 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 4N-16A-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 4N-16A-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	-119.47	-4,330.76	-7,663.74	8,803.01					
100.00	100.00	32.00	100.00	3.28	3.33	-119.47	-4,330.76	-7,663.74	8,802.75	8,796.14	6.61	1,331.341		
200.00	200.00	132.00	200.00	3.34	4.35	-119.47	-4,330.76	-7,663.74	8,802.75	8,795.06	7.69	1,144.622		
300.00	300.00	232.00	300.00	3.44	7.15	-119.47	-4,330.76	-7,663.74	8,802.75	8,792.16	10.60	830.823		
400.00	400.00	332.00	400.00	3.60	10.38	-119.47	-4,330.76	-7,663.74	8,802.75	8,788.77	13.98	629.668		
500.00	500.00	432.00	500.00	3.81	13.73	-119.47	-4,330.76	-7,663.74	8,802.75	8,785.21	17.54	501.893		
600.00	600.00	532.00	600.00	4.05	17.14	-119.47	-4,330.76	-7,663.74	8,802.75	8,781.56	21.19	415.427		
700.00	699.98	631.98	699.98	4.32	20.58	-106.00	-4,330.76	-7,663.74	8,803.23	8,778.33	24.90	353.581		
800.00	799.84	731.84	799.84	4.62	24.03	-106.01	-4,330.76	-7,663.74	8,804.68	8,776.03	28.64	307.409		
900.00	899.45	831.45	899.45	4.94	27.48	-106.01	-4,330.76	-7,663.74	8,807.09	8,774.68	32.41	271.751		
1,000.00	998.80	930.80	998.80	5.28	30.92	-106.07	-4,330.76	-7,663.74	8,810.26	8,774.07	36.19	243.434		
1,100.00	1,098.12	1,030.12	1,098.12	5.63	34.37	-106.14	-4,330.76	-7,663.74	8,813.50	8,773.51	39.99	220.368		
1,200.00	1,197.44	1,129.44	1,197.44	6.00	37.83	-106.21	-4,330.76	-7,663.74	8,816.76	8,772.94	43.81	201.232		
1,300.00	1,296.77	1,228.77	1,296.77	6.37	41.28	-106.28	-4,330.76	-7,663.74	8,820.03	8,772.38	47.65	185.112		
1,400.00	1,396.09	1,328.09	1,396.09	6.76	44.74	-106.35	-4,330.76	-7,663.74	8,823.31	8,771.82	51.49	171.356		
1,500.00	1,495.41	1,427.41	1,495.41	7.15	48.20	-106.43	-4,330.76	-7,663.74	8,826.61	8,771.26	55.34	159.485		
1,600.00	1,594.74	1,526.74	1,594.74	7.55	51.66	-106.50	-4,330.76	-7,663.74	8,829.92	8,770.71	59.21	149.140		
1,700.00	1,694.06	1,626.06	1,694.06	7.96	55.12	-106.57	-4,330.76	-7,663.74	8,833.24	8,770.17	63.07	140.048		
1,800.00	1,793.38	1,725.38	1,793.38	8.37	58.58	-106.64	-4,330.76	-7,663.74	8,836.58	8,769.64	66.95	131.996		
1,900.00	1,892.71	1,824.71	1,892.71	8.78	62.04	-106.71	-4,330.76	-7,663.74	8,839.94	8,769.11	70.82	124.816		
2,000.00	1,992.03	1,924.03	1,992.03	9.20	65.50	-106.78	-4,330.76	-7,663.74	8,843.30	8,768.60	74.71	118.375		
2,100.00	2,091.36	2,023.36	2,091.36	9.62	68.97	-106.86	-4,330.76	-7,663.74	8,846.69	8,768.09	78.59	112.566		
2,200.00	2,190.68	2,122.68	2,190.68	10.05	72.43	-106.93	-4,330.76	-7,663.74	8,850.08	8,767.60	82.48	107.300		
2,300.00	2,290.00	2,222.00	2,290.00	10.48	75.90	-107.00	-4,330.76	-7,663.74	8,853.49	8,767.12	86.37	102.506		
2,400.00	2,389.33	2,321.33	2,389.33	10.90	79.36	-107.07	-4,330.76	-7,663.74	8,856.91	8,766.65	90.26	98.122		
2,500.00	2,488.65	2,420.65	2,488.65	11.34	82.82	-107.14	-4,330.76	-7,663.74	8,860.35	8,766.19	94.16	94.099		
2,600.00	2,587.97	2,519.97	2,587.97	11.77	86.29	-107.21	-4,330.76	-7,663.74	8,863.80	8,765.74	98.06	90.394		
2,700.00	2,687.30	2,619.30	2,687.30	12.20	89.75	-107.28	-4,330.76	-7,663.74	8,867.27	8,765.31	101.96	86.971		
2,800.00	2,786.62	2,718.62	2,786.62	12.64	93.22	-107.36	-4,330.76	-7,663.74	8,870.74	8,764.89	105.86	83.799		
2,900.00	2,885.94	2,817.94	2,885.94	13.07	96.68	-107.43	-4,330.76	-7,663.74	8,874.24	8,764.48	109.76	80.852		
3,000.00	2,985.27	2,917.27	2,985.27	13.51	100.15	-107.50	-4,330.76	-7,663.74	8,877.74	8,764.08	113.66	78.107		
3,100.00	3,084.59	3,016.59	3,084.59	13.95	103.62	-107.57	-4,330.76	-7,663.74	8,881.26	8,763.70	117.57	75.543		
3,200.00	3,183.91	3,115.91	3,183.91	14.39	107.08	-107.64	-4,330.76	-7,663.74	8,884.80	8,763.33	121.47	73.143		
3,300.00	3,283.24	3,215.24	3,283.24	14.83	110.55	-107.71	-4,330.76	-7,663.74	8,888.34	8,762.97	125.38	70.893		
3,400.00	3,382.56	3,314.56	3,382.56	15.27	114.01	-107.78	-4,330.76	-7,663.74	8,891.91	8,762.62	129.28	68.778		
3,500.00	3,481.88	3,413.88	3,481.88	15.71	117.48	-107.85	-4,330.76	-7,663.74	8,895.48	8,762.29	133.19	66.787		
3,600.00	3,581.21	3,513.21	3,581.21	16.16	120.95	-107.92	-4,330.76	-7,663.74	8,899.07	8,761.97	137.10	64.909		
3,700.00	3,680.53	3,612.53	3,680.53	16.60	124.41	-107.99	-4,330.76	-7,663.74	8,902.67	8,761.66	141.01	63.135		
3,800.00	3,779.85	3,711.85	3,779.85	17.04	127.88	-108.06	-4,330.76	-7,663.74	8,906.29	8,761.37	144.92	61.457		
3,900.00	3,879.18	3,811.18	3,879.18	17.49	131.34	-108.13	-4,330.76	-7,663.74	8,909.92	8,761.09	148.83	59.867		
4,000.00	3,978.50	3,910.50	3,978.50	17.93	134.81	-108.21	-4,330.76	-7,663.74	8,913.56	8,760.82	152.74	58.358		
4,100.00	4,077.82	4,009.82	4,077.82	18.37	138.28	-108.28	-4,330.76	-7,663.74	8,917.22	8,760.57	156.65	56.924		
4,200.00	4,177.15	4,109.15	4,177.15	18.82	141.74	-108.35	-4,330.76	-7,663.74	8,920.89	8,760.33	160.56	55.560		
4,300.00	4,276.47	4,208.47	4,276.47	19.27	145.21	-108.42	-4,330.76	-7,663.74	8,924.57	8,760.10	164.47	54.261		
4,400.00	4,375.79	4,307.79	4,375.79	19.71	148.68	-108.49	-4,330.76	-7,663.74	8,928.27	8,759.89	168.39	53.022		
4,500.00	4,475.12	4,407.12	4,475.12	20.16	152.14	-108.56	-4,330.76	-7,663.74	8,931.98	8,759.68	172.30	51.840		
4,600.00	4,574.44	4,506.44	4,574.44	20.60	155.61	-108.63	-4,330.76	-7,663.74	8,935.71	8,759.50	176.21	50.710		
4,700.00	4,673.76	4,605.76	4,673.76	21.05	159.08	-108.70	-4,330.76	-7,663.74	8,939.45	8,759.32	180.13	49.629		
4,800.00	4,773.09	4,705.09	4,773.09	21.50	162.54	-108.77	-4,330.76	-7,663.74	8,943.20	8,759.16	184.04	48.594		
4,900.00	4,872.41	4,804.41	4,872.41	21.94	166.01	-108.84	-4,330.76	-7,663.74	8,946.96	8,759.01	187.95	47.602		
5,000.00	4,971.74	4,903.74	4,971.74	22.39	169.48	-108.91	-4,330.76	-7,663.74	8,950.74	8,758.88	191.87	46.651		
5,100.00	5,071.06	5,003.06	5,071.06	22.84	172.94	-108.98	-4,330.76	-7,663.74	8,954.54	8,758.75	195.78	45.737		

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 4N-16A-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 4N-16A-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	5,170.38	5,102.38	5,170.38	23.29	176.41	-109.05	-4,330.76	-7,663.74	8,958.34	8,758.65	199.70	44.860		
5,300.00	5,269.71	5,201.71	5,269.71	23.74	179.88	-109.12	-4,330.76	-7,663.74	8,962.16	8,758.55	203.61	44.016		
5,400.00	5,369.03	5,301.03	5,369.03	24.18	183.34	-109.19	-4,330.76	-7,663.74	8,965.99	8,758.47	207.53	43.204		
5,500.00	5,468.35	5,400.35	5,468.35	24.63	186.81	-109.26	-4,330.76	-7,663.74	8,969.84	8,758.40	211.44	42.422		
5,600.00	5,567.68	5,500.32	5,567.68	25.08	190.30	-109.33	-4,330.76	-7,663.74	8,973.70	8,758.32	215.38	41.665		
5,700.00	5,667.00	5,601.00	5,667.00	25.53	193.81	-109.39	-4,330.76	-7,663.74	8,977.57	8,758.23	219.34	40.930		
5,800.00	5,766.32	5,701.68	5,766.32	25.98	197.33	-109.46	-4,330.76	-7,663.74	8,981.46	8,758.16	223.30	40.221		
5,900.00	5,865.65	5,802.35	5,865.65	26.43	200.84	-109.53	-4,330.76	-7,663.74	8,985.36	8,758.09	227.27	39.536		
6,000.00	5,964.97	5,903.03	5,964.97	26.88	204.36	-109.60	-4,330.76	-7,663.74	8,989.27	8,758.04	231.23	38.876		
6,100.00	6,064.29	6,003.71	6,064.29	27.33	207.87	-109.67	-4,330.76	-7,663.74	8,993.20	8,758.00	235.19	38.237		
6,200.00	6,163.62	6,104.38	6,163.62	27.78	211.38	-109.74	-4,330.76	-7,663.74	8,997.14	8,757.98	239.16	37.620		
6,300.00	6,262.94	6,205.06	6,262.94	28.23	214.90	-109.81	-4,330.76	-7,663.74	9,001.09	8,757.97	243.12	37.023		
6,400.00	6,362.24	6,305.76	6,362.24	28.67	218.41	-91.55	-4,330.76	-7,663.74	9,004.56	8,757.48	247.09	36.443		
6,500.00	6,460.41	6,407.59	6,460.41	29.12	221.97	-60.16	-4,330.76	-7,663.74	8,998.35	8,747.26	251.09	35.837		
6,600.00	6,555.09	6,487.09	6,555.09	29.57	224.74	-51.32	-4,330.76	-7,663.74	8,979.20	8,724.89	254.31	35.308		
6,700.00	6,643.94	6,575.94	6,643.94	30.00	227.84	-48.82	-4,330.76	-7,663.74	8,947.63	8,689.78	257.84	34.702		
6,800.00	6,724.78	6,656.78	6,724.78	30.45	230.67	-49.28	-4,330.76	-7,663.74	8,904.50	8,643.41	261.09	34.105		
6,900.00	6,795.62	6,727.62	6,795.62	30.97	233.14	-51.88	-4,330.76	-7,663.74	8,850.97	8,586.97	263.99	33.527		
7,000.00	6,854.70	6,786.70	6,854.70	31.60	235.20	-56.46	-4,330.76	-7,663.74	8,788.42	8,521.92	266.50	32.977		
7,100.00	6,900.58	6,832.58	6,900.58	32.39	236.80	-63.17	-4,330.76	-7,663.74	8,718.49	8,449.91	268.58	32.461		
7,200.00	6,932.13	6,864.13	6,932.13	33.34	237.90	-72.15	-4,330.76	-7,663.74	8,642.95	8,372.75	270.20	31.987		
7,300.00	6,948.57	6,880.57	6,948.57	34.46	238.48	-83.19	-4,330.76	-7,663.74	8,563.70	8,292.35	271.35	31.560		
7,400.00	6,950.87	6,882.87	6,950.87	35.70	238.56	-90.24	-4,330.76	-7,663.74	8,482.76	8,210.72	272.04	31.182		
7,500.00	6,950.58	6,882.58	6,950.58	37.12	238.55	-90.23	-4,330.76	-7,663.74	8,402.00	8,129.27	272.73	30.807		
7,600.00	6,950.28	6,882.28	6,950.28	38.70	238.54	-90.23	-4,330.76	-7,663.74	8,321.66	8,048.15	273.51	30.425		
7,700.00	6,949.98	6,881.98	6,949.98	40.41	238.53	-90.23	-4,330.76	-7,663.74	8,241.75	7,967.37	274.38	30.038		
7,800.00	6,949.68	6,881.68	6,949.68	42.25	238.52	-90.22	-4,330.76	-7,663.74	8,162.28	7,886.94	275.34	29.644		
7,900.00	6,949.38	6,881.38	6,949.38	44.20	238.51	-90.22	-4,330.76	-7,663.74	8,083.27	7,806.88	276.39	29.246		
8,000.00	6,949.08	6,881.08	6,949.08	46.24	238.50	-90.22	-4,330.76	-7,663.74	8,004.73	7,727.19	277.53	28.843		
8,100.00	6,948.79	6,880.79	6,948.79	48.36	238.49	-90.21	-4,330.76	-7,663.74	7,926.67	7,647.91	278.75	28.436		
8,200.00	6,948.49	6,880.49	6,948.49	50.56	238.48	-90.21	-4,330.76	-7,663.74	7,849.10	7,569.04	280.06	28.026		
8,300.00	6,948.19	6,880.19	6,948.19	52.82	238.46	-90.20	-4,330.76	-7,663.74	7,772.05	7,490.60	281.45	27.614		
8,400.00	6,947.89	6,879.89	6,947.89	55.14	238.45	-90.20	-4,330.76	-7,663.74	7,695.53	7,412.61	282.92	27.201		
8,500.00	6,947.59	6,879.59	6,947.59	57.50	238.44	-90.20	-4,330.76	-7,663.74	7,619.55	7,335.09	284.47	26.786		
8,600.00	6,947.29	6,879.29	6,947.29	59.91	238.43	-90.19	-4,330.76	-7,663.74	7,544.14	7,258.05	286.09	26.370		
8,700.00	6,947.00	6,879.00	6,947.00	62.36	238.42	-90.19	-4,330.76	-7,663.74	7,469.30	7,181.51	287.78	25.954		
8,800.00	6,946.70	6,878.70	6,946.70	64.84	238.41	-90.19	-4,330.76	-7,663.74	7,395.05	7,105.50	289.55	25.539		
8,900.00	6,946.40	6,878.40	6,946.40	67.35	238.40	-90.18	-4,330.76	-7,663.74	7,321.42	7,030.02	291.40	25.125		
9,000.00	6,946.10	6,878.10	6,946.10	69.88	238.39	-90.18	-4,330.76	-7,663.74	7,248.42	6,955.11	293.31	24.713		
9,100.00	6,945.80	6,877.80	6,945.80	72.44	238.38	-90.18	-4,330.76	-7,663.74	7,176.07	6,880.78	295.29	24.302		
9,200.00	6,945.50	6,877.50	6,945.50	75.02	238.37	-90.17	-4,330.76	-7,663.74	7,104.39	6,807.06	297.33	23.894		
9,300.00	6,945.21	6,877.21	6,945.21	77.63	238.36	-90.17	-4,330.76	-7,663.74	7,033.40	6,733.96	299.45	23.488		
9,400.00	6,944.91	6,876.91	6,944.91	80.24	238.35	-90.17	-4,330.76	-7,663.74	6,963.13	6,661.50	301.63	23.085		
9,500.00	6,944.61	6,876.61	6,944.61	82.88	238.34	-90.16	-4,330.76	-7,663.74	6,893.59	6,589.72	303.87	22.686		
9,600.00	6,944.31	6,876.31	6,944.31	85.53	238.33	-90.16	-4,330.76	-7,663.74	6,824.80	6,518.63	306.18	22.291		
9,700.00	6,944.01	6,876.01	6,944.01	88.19	238.32	-90.16	-4,330.76	-7,663.74	6,756.80	6,448.26	308.54	21.899		
9,800.00	6,943.71	6,875.71	6,943.71	90.86	238.31	-90.15	-4,330.76	-7,663.74	6,689.60	6,378.62	310.97	21.512		
9,900.00	6,943.42	6,875.42	6,943.42	93.55	238.30	-90.15	-4,330.76	-7,663.74	6,623.23	6,309.76	313.46	21.129		
10,000.00	6,943.12	6,875.12	6,943.12	96.24	238.29	-90.15	-4,330.76	-7,663.74	6,557.71	6,241.69	316.01	20.751		
10,100.00	6,942.82	6,874.82	6,942.82	98.95	238.28	-90.14	-4,330.76	-7,663.74	6,493.07	6,174.44	318.62	20.378		
10,200.00	6,942.52	6,874.52	6,942.52	101.66	238.27	-90.14	-4,330.76	-7,663.74	6,429.33	6,108.04	321.29	20.011		
10,300.00	6,942.22	6,874.22	6,942.22	104.38	238.26	-90.14	-4,330.76	-7,663.74	6,366.53	6,042.51	324.02	19.649		

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 4N-16A-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 4N-16A-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	6,941.92	6,873.92	6,941.92	107.11	238.25	-90.13	-4,330.76	-7,663.74	6,304.69	5,977.89	326.80	19.292		
10,500.00	6,941.63	6,873.63	6,941.63	109.84	238.24	-90.13	-4,330.76	-7,663.74	6,243.83	5,914.20	329.63	18.942		
10,600.00	6,941.33	6,873.33	6,941.33	112.58	238.23	-90.13	-4,330.76	-7,663.74	6,184.00	5,851.48	332.52	18.597		
10,700.00	6,941.03	6,873.03	6,941.03	115.33	238.21	-90.12	-4,330.76	-7,663.74	6,125.21	5,789.75	335.47	18.259		
10,800.00	6,940.73	6,872.73	6,940.73	118.08	238.20	-90.12	-4,330.76	-7,663.74	6,067.51	5,729.05	338.46	17.927		
10,900.00	6,940.43	6,872.43	6,940.43	120.84	238.19	-90.12	-4,330.76	-7,663.74	6,010.91	5,669.40	341.50	17.601		
11,000.00	6,940.13	6,872.13	6,940.13	123.60	238.18	-90.11	-4,330.76	-7,663.74	5,955.45	5,610.86	344.60	17.282		
11,100.00	6,939.83	6,871.83	6,939.83	126.36	238.17	-90.11	-4,330.76	-7,663.74	5,901.17	5,553.43	347.74	16.970		
11,200.00	6,939.54	6,871.54	6,939.54	129.13	238.16	-90.11	-4,330.76	-7,663.74	5,848.09	5,497.17	350.92	16.665		
11,300.00	6,939.24	6,871.24	6,939.24	131.91	238.15	-90.10	-4,330.76	-7,663.74	5,796.26	5,442.10	354.15	16.367		
11,400.00	6,938.94	6,870.94	6,938.94	134.68	238.14	-90.10	-4,330.76	-7,663.74	5,745.69	5,388.27	357.42	16.075		
11,500.00	6,938.64	6,870.64	6,938.64	137.46	238.13	-90.10	-4,330.76	-7,663.74	5,696.44	5,335.71	360.73	15.791		
11,600.00	6,938.34	6,870.34	6,938.34	140.25	238.12	-90.09	-4,330.76	-7,663.74	5,648.52	5,284.44	364.07	15.515		
11,700.00	6,938.04	6,870.04	6,938.04	143.03	238.11	-90.09	-4,330.76	-7,663.74	5,601.98	5,234.53	367.45	15.245		
11,800.00	6,937.75	6,869.75	6,937.75	145.82	238.10	-90.08	-4,330.76	-7,663.74	5,556.85	5,185.99	370.86	14.984		
11,900.00	6,937.45	6,869.45	6,937.45	148.61	238.09	-90.08	-4,330.76	-7,663.74	5,513.16	5,138.86	374.29	14.729		
12,000.00	6,937.15	6,869.15	6,937.15	151.41	238.08	-90.08	-4,330.76	-7,663.74	5,470.95	5,093.20	377.75	14.483		
12,100.00	6,936.85	6,868.85	6,936.85	154.20	238.07	-90.07	-4,330.76	-7,663.74	5,430.26	5,049.02	381.23	14.244		
12,200.00	6,936.55	6,868.55	6,936.55	157.00	238.06	-90.07	-4,330.76	-7,663.74	5,391.11	5,006.38	384.73	14.013		
12,300.00	6,936.25	6,868.25	6,936.25	159.80	238.05	-90.07	-4,330.76	-7,663.74	5,353.55	4,965.31	388.24	13.789		
12,400.00	6,935.96	6,867.96	6,935.96	162.61	238.04	-90.06	-4,330.76	-7,663.74	5,317.60	4,925.84	391.76	13.574		
12,500.00	6,935.66	6,867.66	6,935.66	165.41	238.03	-90.06	-4,330.76	-7,663.74	5,283.30	4,888.02	395.28	13.366		
12,600.00	6,935.36	6,867.36	6,935.36	168.22	238.02	-90.06	-4,330.76	-7,663.74	5,250.68	4,851.87	398.81	13.166		
12,700.00	6,935.06	6,867.06	6,935.06	171.02	238.01	-90.05	-4,330.76	-7,663.74	5,219.77	4,817.45	402.33	12.974		
12,800.00	6,934.76	6,866.76	6,934.76	173.83	238.00	-90.05	-4,330.76	-7,663.74	5,190.61	4,784.77	405.84	12.790		
12,900.00	6,934.46	6,866.46	6,934.46	176.65	237.99	-90.05	-4,330.76	-7,663.74	5,163.22	4,753.89	409.33	12.614		
13,000.00	6,934.17	6,866.17	6,934.17	179.46	237.98	-90.04	-4,330.76	-7,663.74	5,137.63	4,724.82	412.81	12.446		
13,100.00	6,933.87	6,865.87	6,933.87	182.27	237.97	-90.04	-4,330.76	-7,663.74	5,113.86	4,697.60	416.26	12.285		
13,200.00	6,933.57	6,865.57	6,933.57	185.09	237.95	-90.04	-4,330.76	-7,663.74	5,091.95	4,672.27	419.68	12.133		
13,300.00	6,933.27	6,865.27	6,933.27	187.91	237.94	-90.03	-4,330.76	-7,663.74	5,071.92	4,648.85	423.07	11.988		
13,400.00	6,932.97	6,864.97	6,932.97	190.72	237.93	-90.03	-4,330.76	-7,663.74	5,053.78	4,627.37	426.42	11.852		
13,500.00	6,932.67	6,864.67	6,932.67	193.54	237.92	-90.03	-4,330.76	-7,663.74	5,037.57	4,607.85	429.72	11.723		
13,600.00	6,932.38	6,864.38	6,932.38	196.36	237.91	-90.02	-4,330.76	-7,663.74	5,023.30	4,590.33	432.97	11.602		
13,700.00	6,932.08	6,864.08	6,932.08	199.19	237.90	-90.02	-4,330.76	-7,663.74	5,010.98	4,574.81	436.17	11.489		
13,800.00	6,931.78	6,863.78	6,931.78	202.01	237.89	-90.02	-4,330.76	-7,663.74	5,000.63	4,561.33	439.30	11.383		
13,900.00	6,931.48	6,863.48	6,931.48	204.83	237.88	-90.01	-4,330.76	-7,663.74	4,992.26	4,549.89	442.37	11.285		
14,000.00	6,931.18	6,863.18	6,931.18	207.66	237.87	-90.01	-4,330.76	-7,663.74	4,985.89	4,540.51	445.38	11.195		
14,100.00	6,930.88	6,862.88	6,930.88	210.48	237.86	-90.01	-4,330.76	-7,663.74	4,981.51	4,533.20	448.31	11.112		
14,200.00	6,930.59	6,862.59	6,930.59	213.31	237.85	-90.00	-4,330.76	-7,663.74	4,979.14	4,527.98	451.16	11.036		
14,268.08	6,930.38	6,862.38	6,930.38	215.23	237.84	-90.00	-4,330.76	-7,663.74	4,978.67	4,525.62	453.05	10.989 CC		
14,300.00	6,930.29	6,862.29	6,930.29	216.14	237.84	-90.00	-4,330.76	-7,663.74	4,978.78	4,524.85	453.93	10.968		
14,400.00	6,929.99	6,861.99	6,929.99	218.96	237.83	-90.00	-4,330.76	-7,663.74	4,980.42	4,523.81	456.61	10.907 ES		
14,500.00	6,929.69	6,861.69	6,929.69	221.79	237.82	-89.99	-4,330.76	-7,663.74	4,984.07	4,524.86	459.21	10.854		
14,600.00	6,929.39	6,861.39	6,929.39	224.62	237.81	-89.99	-4,330.76	-7,663.74	4,989.73	4,528.01	461.72	10.807		
14,700.00	6,929.09	6,861.09	6,929.09	227.45	237.80	-89.99	-4,330.76	-7,663.74	4,997.37	4,533.24	464.13	10.767		
14,732.12	6,929.00	6,861.00	6,929.00	228.36	237.80	-89.98	-4,330.76	-7,663.74	5,000.25	4,535.37	464.88	10.756 SF		



Anticollision Report



Company:	SRC ENERGY	Local Co-ordinate Reference:	Well HARVESTERS STATE 4N-16A-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 4N-16A-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	-108.58	-3,013.36	-8,964.06	9,457.14					
100.00	100.00	47.00	100.00	3.28	3.38	-108.58	-3,013.36	-8,964.06	9,456.99	9,450.33	6.67	1,418.741		
200.00	200.00	147.00	200.00	3.34	4.71	-108.58	-3,013.36	-8,964.06	9,456.99	9,448.94	8.05	1,174.578		
300.00	300.00	247.00	300.00	3.44	7.62	-108.58	-3,013.36	-8,964.06	9,456.99	9,445.93	11.06	854.730		
400.00	400.00	347.00	400.00	3.60	10.87	-108.58	-3,013.36	-8,964.06	9,456.99	9,442.51	14.48	653.195		
500.00	500.00	447.00	500.00	3.81	14.24	-108.58	-3,013.36	-8,964.06	9,456.99	9,438.94	18.05	523.987		
600.00	600.00	547.00	600.00	4.05	17.66	-108.58	-3,013.36	-8,964.06	9,456.99	9,435.29	21.70	435.728		
700.00	699.98	646.98	699.98	4.32	21.10	-95.12	-3,013.36	-8,964.06	9,457.15	9,431.73	25.41	372.119		
800.00	799.84	746.84	799.84	4.62	24.55	-95.14	-3,013.36	-8,964.06	9,457.62	9,428.46	29.16	324.337		
900.00	899.45	846.45	899.45	4.94	28.00	-95.18	-3,013.36	-8,964.06	9,458.40	9,425.48	32.93	287.250		
1,000.00	998.80	945.80	998.80	5.28	31.44	-95.24	-3,013.36	-8,964.06	9,459.45	9,422.73	36.71	257.677		
1,100.00	1,098.12	1,045.12	1,098.12	5.63	34.89	-95.31	-3,013.36	-8,964.06	9,460.52	9,420.01	40.51	233.515		
1,200.00	1,197.44	1,144.44	1,197.44	6.00	38.35	-95.38	-3,013.36	-8,964.06	9,461.61	9,417.28	44.33	213.420		
1,300.00	1,296.77	1,243.77	1,296.77	6.37	41.80	-95.45	-3,013.36	-8,964.06	9,462.71	9,414.54	48.17	196.459		
1,400.00	1,396.09	1,343.09	1,396.09	6.76	45.26	-95.52	-3,013.36	-8,964.06	9,463.83	9,411.82	52.01	181.960		
1,500.00	1,495.41	1,442.41	1,495.41	7.15	48.72	-95.59	-3,013.36	-8,964.06	9,464.96	9,409.09	55.86	169.429		
1,600.00	1,594.74	1,541.74	1,594.74	7.55	52.18	-95.66	-3,013.36	-8,964.06	9,466.10	9,406.38	59.72	158.495		
1,700.00	1,694.06	1,641.06	1,694.06	7.96	55.64	-95.72	-3,013.36	-8,964.06	9,467.26	9,403.67	63.59	148.874		
1,800.00	1,793.38	1,740.38	1,793.38	8.37	59.10	-95.79	-3,013.36	-8,964.06	9,468.44	9,400.97	67.47	140.345		
1,900.00	1,892.71	1,839.71	1,892.71	8.78	62.56	-95.86	-3,013.36	-8,964.06	9,469.62	9,398.28	71.34	132.733		
2,000.00	1,992.03	1,939.03	1,992.03	9.20	66.03	-95.93	-3,013.36	-8,964.06	9,470.82	9,395.60	75.23	125.900		
2,100.00	2,091.36	2,038.36	2,091.36	9.62	69.49	-96.00	-3,013.36	-8,964.06	9,472.04	9,392.93	79.11	119.732		
2,200.00	2,190.68	2,137.68	2,190.68	10.05	72.95	-96.07	-3,013.36	-8,964.06	9,473.27	9,390.27	83.00	114.137		
2,300.00	2,290.00	2,237.00	2,290.00	10.48	76.42	-96.14	-3,013.36	-8,964.06	9,474.51	9,387.62	86.89	109.040		
2,400.00	2,389.33	2,336.33	2,389.33	10.90	79.88	-96.21	-3,013.36	-8,964.06	9,475.77	9,384.99	90.78	104.378		
2,500.00	2,488.65	2,435.65	2,488.65	11.34	83.35	-96.28	-3,013.36	-8,964.06	9,477.04	9,382.36	94.68	100.096		
2,600.00	2,587.97	2,534.97	2,587.97	11.77	86.81	-96.35	-3,013.36	-8,964.06	9,478.33	9,379.75	98.58	96.152		
2,700.00	2,687.30	2,634.30	2,687.30	12.20	90.28	-96.42	-3,013.36	-8,964.06	9,479.63	9,377.15	102.48	92.506		
2,800.00	2,786.62	2,733.62	2,786.62	12.64	93.74	-96.49	-3,013.36	-8,964.06	9,480.94	9,374.57	106.38	89.126		
2,900.00	2,885.94	2,832.94	2,885.94	13.07	97.21	-96.56	-3,013.36	-8,964.06	9,482.27	9,371.99	110.28	85.985		
3,000.00	2,985.27	2,932.27	2,985.27	13.51	100.67	-96.63	-3,013.36	-8,964.06	9,483.61	9,369.43	114.18	83.057		
3,100.00	3,084.59	3,031.59	3,084.59	13.95	104.14	-96.70	-3,013.36	-8,964.06	9,484.97	9,366.88	118.09	80.323		
3,200.00	3,183.91	3,130.91	3,183.91	14.39	107.60	-96.76	-3,013.36	-8,964.06	9,486.34	9,364.35	121.99	77.763		
3,300.00	3,283.24	3,230.24	3,283.24	14.83	111.07	-96.83	-3,013.36	-8,964.06	9,487.72	9,361.83	125.90	75.361		
3,400.00	3,382.56	3,329.56	3,382.56	15.27	114.54	-96.90	-3,013.36	-8,964.06	9,489.12	9,359.32	129.80	73.103		
3,500.00	3,481.88	3,428.88	3,481.88	15.71	118.00	-96.97	-3,013.36	-8,964.06	9,490.53	9,356.82	133.71	70.977		
3,600.00	3,581.21	3,528.21	3,581.21	16.16	121.47	-97.04	-3,013.36	-8,964.06	9,491.96	9,354.34	137.62	68.972		
3,700.00	3,680.53	3,627.53	3,680.53	16.60	124.93	-97.11	-3,013.36	-8,964.06	9,493.40	9,351.87	141.53	67.077		
3,800.00	3,779.85	3,726.85	3,779.85	17.04	128.40	-97.18	-3,013.36	-8,964.06	9,494.85	9,349.41	145.44	65.284		
3,900.00	3,879.18	3,826.18	3,879.18	17.49	131.87	-97.25	-3,013.36	-8,964.06	9,496.32	9,346.97	149.35	63.585		
4,000.00	3,978.50	3,925.50	3,978.50	17.93	135.33	-97.32	-3,013.36	-8,964.06	9,497.80	9,344.54	153.26	61.972		
4,100.00	4,077.82	4,024.82	4,077.82	18.37	138.80	-97.39	-3,013.36	-8,964.06	9,499.30	9,342.13	157.17	60.439		
4,200.00	4,177.15	4,124.15	4,177.15	18.82	142.27	-97.46	-3,013.36	-8,964.06	9,500.81	9,339.73	161.08	58.981		
4,300.00	4,276.47	4,223.47	4,276.47	19.27	145.73	-97.52	-3,013.36	-8,964.06	9,502.33	9,337.34	165.00	57.592		
4,400.00	4,375.79	4,322.79	4,375.79	19.71	149.20	-97.59	-3,013.36	-8,964.06	9,503.87	9,334.96	168.91	56.267		
4,500.00	4,475.12	4,422.12	4,475.12	20.16	152.67	-97.66	-3,013.36	-8,964.06	9,505.42	9,332.60	172.82	55.002		
4,600.00	4,574.44	4,521.44	4,574.44	20.60	156.13	-97.73	-3,013.36	-8,964.06	9,506.99	9,330.25	176.73	53.793		
4,700.00	4,673.76	4,620.76	4,673.76	21.05	159.60	-97.80	-3,013.36	-8,964.06	9,508.57	9,327.92	180.65	52.636		
4,800.00	4,773.09	4,720.09	4,773.09	21.50	163.07	-97.87	-3,013.36	-8,964.06	9,510.16	9,325.60	184.56	51.529		
4,900.00	4,872.41	4,819.41	4,872.41	21.94	166.53	-97.94	-3,013.36	-8,964.06	9,511.77	9,323.29	188.47	50.467		
5,000.00	4,971.74	4,918.74	4,971.74	22.39	170.00	-98.01	-3,013.36	-8,964.06	9,513.39	9,321.00	192.39	49.449		
5,100.00	5,071.06	5,018.06	5,071.06	22.84	173.47	-98.08	-3,013.36	-8,964.06	9,515.03	9,318.72	196.30	48.471		

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 4N-16A-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 4N-16A-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	5,170.38	5,117.38	5,170.38	23.29	176.93	-98.14	-3,013.36	-8,964.06	9,516.67	9,316.46	200.22	47.532		
5,300.00	5,269.71	5,216.71	5,269.71	23.74	180.40	-98.21	-3,013.36	-8,964.06	9,518.34	9,314.20	204.13	46.628		
5,400.00	5,369.03	5,316.03	5,369.03	24.18	183.87	-98.28	-3,013.36	-8,964.06	9,520.01	9,311.97	208.05	45.759		
5,500.00	5,468.35	5,415.35	5,468.35	24.63	187.33	-98.35	-3,013.36	-8,964.06	9,521.71	9,309.74	211.96	44.921		
5,600.00	5,567.68	5,514.68	5,567.68	25.08	190.80	-98.42	-3,013.36	-8,964.06	9,523.41	9,307.53	215.88	44.115		
5,700.00	5,667.00	5,614.00	5,667.00	25.53	194.27	-98.49	-3,013.36	-8,964.06	9,525.13	9,305.33	219.79	43.337		
5,800.00	5,766.32	5,713.32	5,766.32	25.98	197.73	-98.56	-3,013.36	-8,964.06	9,526.86	9,303.15	223.71	42.586		
5,900.00	5,865.65	5,812.65	5,865.65	26.43	201.20	-98.62	-3,013.36	-8,964.06	9,528.61	9,300.98	227.63	41.861		
6,000.00	5,964.97	5,911.97	5,964.97	26.88	204.67	-98.69	-3,013.36	-8,964.06	9,530.37	9,298.82	231.54	41.160		
6,100.00	6,064.29	6,011.29	6,064.29	27.33	208.13	-98.76	-3,013.36	-8,964.06	9,532.14	9,296.68	235.46	40.483		
6,200.00	6,163.62	6,110.62	6,163.62	27.78	211.60	-98.83	-3,013.36	-8,964.06	9,533.93	9,294.55	239.38	39.828		
6,300.00	6,262.94	6,209.94	6,262.94	28.23	215.07	-98.90	-3,013.36	-8,964.06	9,535.73	9,292.44	243.29	39.195		
6,400.00	6,362.24	6,309.24	6,362.24	28.67	218.54	-98.97	-3,013.36	-8,964.06	9,537.00	9,289.79	247.21	38.579		
6,500.00	6,460.41	6,407.41	6,460.41	29.12	221.96	-99.04	-3,013.36	-8,964.06	9,537.59	9,287.51	251.08	37.946		
6,600.00	6,559.09	6,506.09	6,559.09	29.57	225.27	-99.11	-3,013.36	-8,964.06	9,538.92	9,285.10	254.83	37.296		
6,700.00	6,643.94	6,590.94	6,643.94	30.00	229.00	-99.18	-3,013.36	-8,964.06	9,540.00	9,282.64	258.98	36.554		
6,800.00	6,724.78	6,671.78	6,724.78	30.45	231.19	-99.25	-3,013.36	-8,964.06	9,541.62	9,280.06	261.56	36.001		
6,900.00	6,795.62	6,742.62	6,795.62	30.97	233.66	-99.32	-3,013.36	-8,964.06	9,543.22	9,277.44	264.41	35.381		
7,000.00	6,854.70	6,801.70	6,854.70	31.60	235.73	-99.39	-3,013.36	-8,964.06	9,545.96	9,274.79	266.84	34.793		
7,100.00	6,900.58	6,847.58	6,900.58	32.39	237.33	-99.46	-3,013.36	-8,964.06	9,549.61	9,272.09	268.79	34.245		
7,200.00	6,932.13	6,879.13	6,932.13	33.34	238.43	-99.53	-3,013.36	-8,964.06	9,554.19	9,269.34	270.24	33.745		
7,300.00	6,948.57	6,895.57	6,948.57	34.46	239.31	-99.60	-3,013.36	-8,964.06	9,559.75	9,266.54	271.47	33.262		
7,400.00	6,950.87	6,897.87	6,950.87	35.70	239.23	-99.67	-3,013.36	-8,964.06	9,566.36	9,263.69	271.75	32.893		
7,500.00	6,950.58	6,898.58	6,950.58	37.12	239.24	-99.74	-3,013.36	-8,964.06	9,574.03	9,260.79	272.16	32.508		
7,600.00	6,950.28	6,898.28	6,950.28	38.70	239.25	-99.81	-3,013.36	-8,964.06	9,582.75	9,257.84	272.62	32.120		
7,700.00	6,949.98	6,897.98	6,949.98	40.41	239.26	-99.88	-3,013.36	-8,964.06	9,592.51	9,254.84	273.13	31.727		
7,800.00	6,949.68	6,897.68	6,949.68	42.25	239.27	-99.95	-3,013.36	-8,964.06	9,603.41	9,251.79	273.70	31.330		
7,900.00	6,949.38	6,897.38	6,949.38	44.20	239.28	-99.99	-3,013.36	-8,964.06	9,615.54	9,248.69	274.32	30.930		
8,000.00	6,949.08	6,897.08	6,949.08	46.24	239.29	-99.99	-3,013.36	-8,964.06	9,628.90	9,245.54	275.00	30.525		
8,100.00	6,948.79	6,904.21	6,948.79	48.36	239.30	-99.99	-3,013.36	-8,964.06	9,643.57	9,242.34	275.73	30.118		
8,200.00	6,948.49	6,904.51	6,948.49	50.56	239.31	-99.99	-3,013.36	-8,964.06	9,660.58	9,239.17	276.52	29.708		
8,300.00	6,948.19	6,904.81	6,948.19	52.82	239.32	-99.99	-3,013.36	-8,964.06	9,679.03	9,236.00	277.37	29.294		
8,400.00	6,947.89	6,905.11	6,947.89	55.14	239.33	-99.99	-3,013.36	-8,964.06	9,700.00	9,232.84	278.28	28.879		
8,500.00	6,947.59	6,905.41	6,947.59	57.50	239.35	-99.99	-3,013.36	-8,964.06	9,722.57	9,229.69	279.24	28.461		
8,600.00	6,947.29	6,905.71	6,947.29	59.91	239.36	-99.99	-3,013.36	-8,964.06	9,746.84	9,226.54	280.26	28.041		
8,700.00	6,947.00	6,906.00	6,947.00	62.36	239.37	-99.99	-3,013.36	-8,964.06	9,772.81	9,223.40	281.34	27.619		
8,800.00	6,946.70	6,906.30	6,946.70	64.84	239.38	-99.99	-3,013.36	-8,964.06	9,800.58	9,220.26	282.47	27.196		
8,900.00	6,946.40	6,906.60	6,946.40	67.35	239.39	-99.99	-3,013.36	-8,964.06	9,830.14	9,217.12	283.67	26.772		
9,000.00	6,946.10	6,906.90	6,946.10	69.88	239.40	-99.99	-3,013.36	-8,964.06	9,861.49	9,214.00	284.92	26.346		
9,100.00	6,945.80	6,907.20	6,945.80	72.44	239.41	-99.99	-3,013.36	-8,964.06	9,894.64	9,210.89	286.24	25.921		
9,200.00	6,945.50	6,907.50	6,945.50	75.02	239.42	-99.99	-3,013.36	-8,964.06	9,929.68	9,207.80	287.61	25.495		
9,300.00	6,945.21	6,907.79	6,945.21	77.63	239.43	-99.99	-3,013.36	-8,964.06	9,976.71	9,204.73	289.04	25.069		
9,400.00	6,944.91	6,908.09	6,944.91	80.24	239.44	-99.99	-3,013.36	-8,964.06	10,025.83	9,201.69	290.53	24.644		
9,500.00	6,944.61	6,908.39	6,944.61	82.88	239.45	-99.99	-3,013.36	-8,964.06	10,077.03	9,198.67	292.08	24.219		
9,600.00	6,944.31	6,908.69	6,944.31	85.53	239.46	-99.99	-3,013.36	-8,964.06	10,130.41	9,195.67	293.70	23.795		
9,700.00	6,944.01	6,908.99	6,944.01	88.19	239.47	-99.99	-3,013.36	-8,964.06	10,186.06	9,192.69	295.37	23.372		
9,800.00	6,943.71	6,909.29	6,943.71	90.86	239.48	-99.99	-3,013.36	-8,964.06	10,244.06	9,189.73	297.11	22.951		
9,900.00	6,943.42	6,909.58	6,943.42	93.55	239.49	-99.99	-3,013.36	-8,964.06	10,304.41	9,186.79	298.91	22.531		
10,000.00	6,943.12	6,909.88	6,943.12	96.24	239.50	-99.99	-3,013.36	-8,964.06	10,367.21	9,183.87	300.77	22.112		
10,100.00	6,942.82	6,889.82	6,942.82	98.95	238.80	-99.99	-3,013.36	-8,964.06	10,432.46	9,180.97	301.99	21.747		
10,200.00	6,942.52	6,889.52	6,942.52	101.66	238.79	-99.99	-3,013.36	-8,964.06	10,500.06	9,178.09	303.96	21.334		
10,300.00	6,942.22	6,889.22	6,942.22	104.38	238.78	-99.99	-3,013.36	-8,964.06	10,569.99	9,175.23	305.99	20.923		

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 4N-16A-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 4N-16A-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	6,941.92	6,888.92	6,941.92	107.11	238.77	-90.24	-3,013.36	-8,964.06	6,320.32	6,012.22	308.10	20.514		
10,500.00	6,941.63	6,888.63	6,941.63	109.84	238.76	-90.24	-3,013.36	-8,964.06	6,238.97	5,928.70	310.26	20.109		
10,600.00	6,941.33	6,888.33	6,941.33	112.58	238.75	-90.23	-3,013.36	-8,964.06	6,158.16	5,845.66	312.50	19.706		
10,700.00	6,941.03	6,888.03	6,941.03	115.33	238.74	-90.23	-3,013.36	-8,964.06	6,077.93	5,763.12	314.81	19.307		
10,800.00	6,940.73	6,887.73	6,940.73	118.08	238.73	-90.22	-3,013.36	-8,964.06	5,998.29	5,681.11	317.18	18.911		
10,900.00	6,940.43	6,887.43	6,940.43	120.84	238.72	-90.22	-3,013.36	-8,964.06	5,919.27	5,599.65	319.63	18.519		
11,000.00	6,940.13	6,887.13	6,940.13	123.60	238.71	-90.21	-3,013.36	-8,964.06	5,840.90	5,518.75	322.15	18.131		
11,100.00	6,939.83	6,886.83	6,939.83	126.36	238.70	-90.21	-3,013.36	-8,964.06	5,763.19	5,438.45	324.74	17.747		
11,200.00	6,939.54	6,886.54	6,939.54	129.13	238.69	-90.20	-3,013.36	-8,964.06	5,686.18	5,358.78	327.40	17.368		
11,300.00	6,939.24	6,886.24	6,939.24	131.91	238.68	-90.20	-3,013.36	-8,964.06	5,609.89	5,279.75	330.14	16.992		
11,400.00	6,938.94	6,885.94	6,938.94	134.68	238.67	-90.19	-3,013.36	-8,964.06	5,534.37	5,201.41	332.95	16.622		
11,500.00	6,938.64	6,885.64	6,938.64	137.46	238.66	-90.19	-3,013.36	-8,964.06	5,459.62	5,123.78	335.85	16.256		
11,600.00	6,938.34	6,885.34	6,938.34	140.25	238.64	-90.19	-3,013.36	-8,964.06	5,385.70	5,046.89	338.81	15.896		
11,700.00	6,938.04	6,885.04	6,938.04	143.03	238.63	-90.18	-3,013.36	-8,964.06	5,312.63	4,970.77	341.86	15.541		
11,800.00	6,937.75	6,884.75	6,937.75	145.82	238.62	-90.18	-3,013.36	-8,964.06	5,240.45	4,895.47	344.98	15.191		
11,900.00	6,937.45	6,884.45	6,937.45	148.61	238.61	-90.17	-3,013.36	-8,964.06	5,169.20	4,821.02	348.18	14.846		
12,000.00	6,937.15	6,884.15	6,937.15	151.41	238.60	-90.17	-3,013.36	-8,964.06	5,098.91	4,747.45	351.46	14.508		
12,100.00	6,936.85	6,883.85	6,936.85	154.20	238.59	-90.16	-3,013.36	-8,964.06	5,029.63	4,674.81	354.82	14.175		
12,200.00	6,936.55	6,883.55	6,936.55	157.00	238.58	-90.16	-3,013.36	-8,964.06	4,961.39	4,603.14	358.25	13.849		
12,300.00	6,936.25	6,883.25	6,936.25	159.80	238.57	-90.15	-3,013.36	-8,964.06	4,894.25	4,532.49	361.77	13.529		
12,400.00	6,935.96	6,882.96	6,935.96	162.61	238.56	-90.15	-3,013.36	-8,964.06	4,828.25	4,462.89	365.36	13.215		
12,500.00	6,935.66	6,882.66	6,935.66	165.41	238.55	-90.14	-3,013.36	-8,964.06	4,763.43	4,394.41	369.02	12.908		
12,600.00	6,935.36	6,882.36	6,935.36	168.22	238.54	-90.14	-3,013.36	-8,964.06	4,699.84	4,327.08	372.76	12.608		
12,700.00	6,935.06	6,882.06	6,935.06	171.02	238.53	-90.13	-3,013.36	-8,964.06	4,637.54	4,260.97	376.58	12.315		
12,800.00	6,934.76	6,881.76	6,934.76	173.83	238.52	-90.13	-3,013.36	-8,964.06	4,576.58	4,196.12	380.46	12.029		
12,900.00	6,934.46	6,881.46	6,934.46	176.65	238.51	-90.12	-3,013.36	-8,964.06	4,517.01	4,132.59	384.41	11.750		
13,000.00	6,934.17	6,881.17	6,934.17	179.46	238.50	-90.12	-3,013.36	-8,964.06	4,458.88	4,070.45	388.43	11.479		
13,100.00	6,933.87	6,880.87	6,933.87	182.27	238.49	-90.12	-3,013.36	-8,964.06	4,402.26	4,009.75	392.51	11.216		
13,200.00	6,933.57	6,880.57	6,933.57	185.09	238.48	-90.11	-3,013.36	-8,964.06	4,347.20	3,950.56	396.64	10.960		
13,300.00	6,933.27	6,880.27	6,933.27	187.91	238.47	-90.11	-3,013.36	-8,964.06	4,293.77	3,892.94	400.83	10.712		
13,400.00	6,932.97	6,879.97	6,932.97	190.72	238.46	-90.10	-3,013.36	-8,964.06	4,242.02	3,836.96	405.06	10.473		
13,500.00	6,932.67	6,879.67	6,932.67	193.54	238.45	-90.10	-3,013.36	-8,964.06	4,192.02	3,782.68	409.33	10.241		
13,600.00	6,932.38	6,879.38	6,932.38	196.36	238.44	-90.09	-3,013.36	-8,964.06	4,143.82	3,730.18	413.64	10.018		
13,700.00	6,932.08	6,879.08	6,932.08	199.19	238.43	-90.09	-3,013.36	-8,964.06	4,097.50	3,679.53	417.97	9.803		
13,800.00	6,931.78	6,878.78	6,931.78	202.01	238.42	-90.08	-3,013.36	-8,964.06	4,053.12	3,630.81	422.32	9.597		
13,900.00	6,931.48	6,878.48	6,931.48	204.83	238.41	-90.08	-3,013.36	-8,964.06	4,010.75	3,584.07	426.68	9.400		
14,000.00	6,931.18	6,878.18	6,931.18	207.66	238.39	-90.07	-3,013.36	-8,964.06	3,970.44	3,539.40	431.03	9.211		
14,100.00	6,930.88	6,877.88	6,930.88	210.48	238.38	-90.07	-3,013.36	-8,964.06	3,932.26	3,496.88	435.38	9.032		
14,200.00	6,930.59	6,877.59	6,930.59	213.31	238.37	-90.06	-3,013.36	-8,964.06	3,896.27	3,456.57	439.70	8.861		
14,300.00	6,930.29	6,877.29	6,930.29	216.14	238.36	-90.06	-3,013.36	-8,964.06	3,862.54	3,418.55	443.99	8.700		
14,400.00	6,929.99	6,876.99	6,929.99	218.96	238.35	-90.05	-3,013.36	-8,964.06	3,831.12	3,382.88	448.23	8.547		
14,500.00	6,929.69	6,876.69	6,929.69	221.79	238.34	-90.05	-3,013.36	-8,964.06	3,802.07	3,349.65	452.42	8.404		
14,600.00	6,929.39	6,876.39	6,929.39	224.62	238.33	-90.04	-3,013.36	-8,964.06	3,775.45	3,318.92	456.53	8.270		
14,700.00	6,929.09	6,876.09	6,929.09	227.45	238.32	-90.04	-3,013.36	-8,964.06	3,751.30	3,290.74	460.56	8.145		
14,732.12	6,929.00	6,876.00	6,929.00	228.36	238.32	-90.04	-3,013.36	-8,964.06	3,744.08	3,282.24	461.84	8.107	CC, ES, SF	



Anticollision Report



Company:	SRC ENERGY	Local Co-ordinate Reference:	Well HARVESTERS STATE 4N-16A-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 4N-16A-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	-108.33	-2,980.20	-8,996.32	9,477.16					
100.00	100.00	28.49	64.49	3.28	3.28	-108.33	-2,980.26	-8,996.35	9,477.21	9,470.65	6.57	1,443.535		
200.00	200.00	73.00	109.00	3.34	3.28	-108.33	-2,980.59	-8,996.56	9,477.88	9,471.26	6.62	1,431.580		
300.00	300.00	121.00	156.99	3.44	3.29	-108.33	-2,981.28	-8,996.97	9,479.14	9,472.40	6.73	1,407.626		
400.00	400.00	162.84	198.83	3.60	3.31	-108.34	-2,982.01	-8,997.55	9,480.97	9,474.06	6.91	1,371.728		
500.00	500.00	208.00	243.97	3.81	3.34	-108.34	-2,982.74	-8,998.45	9,483.38	9,476.23	7.15	1,327.075		
600.00	600.00	208.00	243.97	4.05	3.34	-108.34	-2,982.74	-8,998.45	9,486.60	9,479.21	7.39	1,283.848		
700.00	699.98	256.32	292.26	4.32	3.39	-94.79	-2,983.34	-9,000.03	9,490.52	9,482.81	7.71	1,231.498		
800.00	799.84	300.00	335.88	4.62	3.44	-94.70	-2,983.63	-9,002.25	9,495.74	9,487.68	8.06	1,178.793		
900.00	899.45	300.00	335.88	4.94	3.44	-94.58	-2,983.63	-9,002.25	9,501.87	9,493.50	8.38	1,134.433		
1,000.00	998.80	300.00	335.88	5.28	3.44	-94.53	-2,983.63	-9,002.25	9,509.28	9,500.56	8.71	1,091.147		
1,100.00	1,098.12	355.12	390.86	5.63	3.52	-94.56	-2,983.55	-9,006.10	9,517.11	9,507.96	9.15	1,040.641		
1,200.00	1,197.44	391.00	426.60	6.00	3.59	-94.58	-2,983.16	-9,009.25	9,525.93	9,516.36	9.57	995.431		
1,300.00	1,296.77	391.00	426.60	6.37	3.59	-94.58	-2,983.16	-9,009.25	9,535.53	9,525.58	9.95	958.620		
1,400.00	1,396.09	432.22	467.59	6.76	3.67	-94.60	-2,982.37	-9,013.48	9,545.83	9,535.42	10.41	917.220		
1,500.00	1,495.41	481.00	516.00	7.15	3.78	-94.61	-2,980.94	-9,019.34	9,557.03	9,546.14	10.90	877.001		
1,600.00	1,594.74	481.00	516.00	7.55	3.78	-94.61	-2,980.94	-9,019.34	9,568.80	9,557.51	11.29	847.189		
1,700.00	1,694.06	512.59	547.28	7.96	3.86	-94.62	-2,979.77	-9,023.58	9,581.41	9,569.65	11.77	814.216		
1,800.00	1,793.38	540.52	574.90	8.37	3.93	-94.62	-2,978.64	-9,027.60	9,594.77	9,582.53	12.24	783.962		
1,900.00	1,892.71	572.00	605.97	8.78	4.02	-94.63	-2,977.24	-9,032.43	9,608.85	9,596.13	12.72	755.154		
2,000.00	1,992.03	572.00	605.97	9.20	4.02	-94.63	-2,977.24	-9,032.43	9,623.78	9,610.65	13.13	732.783		
2,100.00	2,091.36	572.00	605.97	9.62	4.02	-94.63	-2,977.24	-9,032.43	9,639.72	9,626.18	13.54	711.773		
2,200.00	2,190.68	636.65	669.60	10.05	4.24	-94.63	-2,974.13	-9,043.47	9,655.72	9,641.58	14.14	683.061		
2,300.00	2,290.00	693.00	724.80	10.48	4.44	-94.64	-2,971.25	-9,054.40	9,673.16	9,658.44	14.72	657.215		
2,400.00	2,389.33	693.00	724.80	10.90	4.44	-94.64	-2,971.25	-9,054.40	9,690.88	9,675.75	15.13	640.548		
2,500.00	2,488.65	693.00	724.80	11.34	4.44	-94.64	-2,971.25	-9,054.40	9,709.60	9,694.06	15.54	624.848		
2,600.00	2,587.97	729.87	760.81	11.77	4.59	-94.64	-2,969.41	-9,062.13	9,729.04	9,712.97	16.07	605.369		
2,700.00	2,687.30	761.00	791.15	12.20	4.72	-94.64	-2,968.01	-9,068.93	9,749.25	9,732.66	16.59	587.769		
2,800.00	2,786.62	790.76	820.11	12.64	4.86	-94.64	-2,966.62	-9,075.66	9,770.13	9,753.03	17.11	571.065		
2,900.00	2,885.94	830.59	858.76	13.07	5.05	-94.63	-2,964.35	-9,085.02	9,791.61	9,773.95	17.66	554.330		
3,000.00	2,985.27	855.00	882.38	13.51	5.16	-94.63	-2,962.74	-9,090.95	9,813.69	9,795.54	18.16	540.453		
3,100.00	3,084.59	855.00	882.38	13.95	5.16	-94.63	-2,962.74	-9,090.95	9,836.67	9,818.11	18.56	529.995		
3,200.00	3,183.91	911.26	936.63	14.39	5.47	-94.62	-2,958.75	-9,105.31	9,859.94	9,840.75	19.19	513.729		
3,300.00	3,283.24	949.00	972.84	14.83	5.67	-94.61	-2,955.99	-9,115.55	9,884.21	9,864.45	19.76	500.230		
3,400.00	3,382.56	972.54	995.37	15.27	5.82	-94.60	-2,954.17	-9,122.12	9,909.09	9,888.82	20.26	489.017		
3,500.00	3,481.88	1,044.00	1,063.55	15.71	6.25	-94.58	-2,947.79	-9,142.57	9,934.43	9,913.43	21.00	473.063		
3,600.00	3,581.21	1,044.00	1,063.55	16.16	6.25	-94.58	-2,947.79	-9,142.57	9,960.31	9,938.92	21.39	465.633		
3,700.00	3,680.53	1,090.84	1,108.00	16.60	6.57	-94.55	-2,943.07	-9,156.53	9,986.72	9,964.70	22.02	453.496		
8,000.00	6,949.08	3,887.00	3,653.90	46.24	35.07	-44.73	-2,608.80	-10,260.95	9,985.33	9,926.56	58.77	169.899		
8,100.00	6,948.79	3,887.00	3,653.90	48.36	35.07	-44.73	-2,608.80	-10,260.95	9,986.68	9,837.40	59.28	166.949		
8,200.00	6,948.49	3,927.09	3,690.55	50.56	35.49	-45.01	-2,603.94	-10,276.44	9,808.02	9,747.87	60.15	163.070		
8,300.00	6,948.19	3,940.40	3,702.70	52.82	35.63	-45.10	-2,602.34	-10,281.65	9,719.63	9,658.79	60.83	159.775		
8,400.00	6,947.89	3,953.87	3,714.98	55.14	35.78	-45.19	-2,600.74	-10,286.95	9,631.41	9,569.85	61.56	156.458		
8,500.00	6,947.59	3,982.00	3,740.58	57.50	36.07	-45.39	-2,597.43	-10,298.12	9,543.40	9,480.97	62.44	152.847		
8,600.00	6,947.29	3,982.00	3,740.58	59.91	36.07	-45.39	-2,597.43	-10,298.12	9,455.51	9,392.38	63.13	149.777		
8,700.00	6,947.00	4,005.85	3,762.26	62.36	36.33	-45.56	-2,594.63	-10,307.67	9,367.82	9,303.77	64.05	146.253		
8,800.00	6,946.70	4,031.17	3,785.24	64.84	36.60	-45.75	-2,591.62	-10,317.85	9,280.26	9,215.24	65.02	142.726		
8,900.00	6,946.40	4,056.72	3,808.41	67.35	36.88	-45.93	-2,588.56	-10,328.18	9,192.85	9,126.82	66.03	139.224		
9,000.00	6,946.10	4,076.00	3,825.88	69.88	37.09	-46.07	-2,586.23	-10,336.00	9,105.59	9,038.57	67.02	135.855		
9,100.00	6,945.80	4,098.61	3,846.34	72.44	37.34	-46.24	-2,583.49	-10,345.22	9,018.50	8,950.41	68.08	132.459		
9,200.00	6,945.50	7,196.00	6,816.82	75.02	57.37	-88.04	-2,406.32	-11,004.92	8,925.82	8,841.86	83.96	106.306		
9,300.00	6,945.21	7,196.00	6,816.82	77.63	57.37	-88.04	-2,406.32	-11,004.92	8,831.83	8,746.97	84.87	104.068		

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 4N-16A-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 4N-16A-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		
9,400.00	6,944.91	7,196.00	6,816.82	80.24	57.37	-88.04	-2,406.32	-11,004.92	8,737.97	8,652.17	85.81	101.831		
9,500.00	6,944.61	7,196.00	6,816.82	82.88	57.37	-88.04	-2,406.32	-11,004.92	8,644.25	8,557.46	86.79	99.599		
9,600.00	6,944.31	7,196.00	6,816.82	85.53	57.37	-88.04	-2,406.32	-11,004.92	8,550.68	8,462.86	87.81	97.372		
9,700.00	6,944.01	7,196.00	6,816.82	88.19	57.37	-88.04	-2,406.32	-11,004.92	8,457.25	8,368.37	88.88	95.154		
9,800.00	6,943.71	7,196.00	6,816.82	90.86	57.37	-88.04	-2,406.32	-11,004.92	8,363.97	8,273.98	89.99	92.947		
9,900.00	6,943.42	7,196.00	6,816.82	93.55	57.37	-88.04	-2,406.32	-11,004.92	8,270.85	8,179.71	91.14	90.753		
10,000.00	6,943.12	7,196.00	6,816.82	96.24	57.37	-88.04	-2,406.32	-11,004.92	8,177.89	8,085.56	92.33	88.573		
10,100.00	6,942.82	7,196.00	6,816.82	98.95	57.37	-88.04	-2,406.32	-11,004.92	8,085.10	7,991.53	93.57	86.410		
10,200.00	6,942.52	7,196.00	6,816.82	101.66	57.37	-88.04	-2,406.32	-11,004.92	7,992.48	7,897.63	94.85	84.265		
10,300.00	6,942.22	7,196.00	6,816.82	104.38	57.37	-88.04	-2,406.32	-11,004.92	7,900.04	7,803.86	96.18	82.139		
10,400.00	6,941.92	7,196.00	6,816.82	107.11	57.37	-88.04	-2,406.32	-11,004.92	7,807.79	7,710.24	97.55	80.036		
10,500.00	6,941.63	7,196.00	6,816.82	109.84	57.37	-88.04	-2,406.32	-11,004.92	7,715.73	7,616.76	98.98	77.955		
10,600.00	6,941.33	7,196.00	6,816.82	112.58	57.37	-88.04	-2,406.32	-11,004.92	7,623.88	7,523.43	100.45	75.899		
10,700.00	6,941.03	7,196.00	6,816.82	115.33	57.37	-88.04	-2,406.32	-11,004.92	7,532.23	7,430.26	101.97	73.868		
10,800.00	6,940.73	7,196.00	6,816.82	118.08	57.37	-88.04	-2,406.32	-11,004.92	7,440.79	7,337.25	103.54	71.864		
10,900.00	6,940.43	7,196.00	6,816.82	120.84	57.37	-88.04	-2,406.32	-11,004.92	7,349.58	7,244.42	105.16	69.888		
11,000.00	6,940.13	7,196.00	6,816.82	123.60	57.37	-88.04	-2,406.32	-11,004.92	7,258.60	7,151.76	106.84	67.940		
11,100.00	6,939.83	7,196.00	6,816.82	126.36	57.37	-88.04	-2,406.32	-11,004.92	7,167.86	7,059.29	108.57	66.022		
11,200.00	6,939.54	7,196.00	6,816.82	129.13	57.37	-88.04	-2,406.32	-11,004.92	7,077.37	6,967.02	110.35	64.134		
11,300.00	6,939.24	7,196.00	6,816.82	131.91	57.37	-88.04	-2,406.32	-11,004.92	6,987.14	6,874.94	112.19	62.277		
11,400.00	6,938.94	7,196.00	6,816.82	134.68	57.37	-88.04	-2,406.32	-11,004.92	6,897.18	6,783.08	114.09	60.452		
11,500.00	6,938.64	7,196.00	6,816.82	137.46	57.37	-88.04	-2,406.32	-11,004.92	6,807.49	6,691.44	116.05	58.659		
11,600.00	6,938.34	7,196.00	6,816.82	140.25	57.37	-88.04	-2,406.32	-11,004.92	6,718.10	6,600.03	118.07	56.898		
11,700.00	6,938.04	7,196.00	6,816.82	143.03	57.37	-88.04	-2,406.32	-11,004.92	6,629.02	6,508.86	120.15	55.171		
11,800.00	6,937.75	7,196.00	6,816.82	145.82	57.37	-88.04	-2,406.32	-11,004.92	6,540.25	6,417.95	122.30	53.477		
11,900.00	6,937.45	7,196.00	6,816.82	148.61	57.37	-88.04	-2,406.32	-11,004.92	6,451.80	6,327.29	124.51	51.817		
12,000.00	6,937.15	7,196.00	6,816.82	151.41	57.37	-88.04	-2,406.32	-11,004.92	6,363.70	6,236.91	126.79	50.191		
12,100.00	6,936.85	7,196.00	6,816.82	154.20	57.37	-88.04	-2,406.32	-11,004.92	6,275.96	6,146.82	129.14	48.598		
12,200.00	6,936.55	7,196.00	6,816.82	157.00	57.37	-88.04	-2,406.32	-11,004.92	6,188.58	6,057.03	131.56	47.041		
12,300.00	6,936.25	7,196.00	6,816.82	159.80	57.37	-88.04	-2,406.32	-11,004.92	6,101.60	5,967.55	134.05	45.517		
12,400.00	6,935.96	7,196.00	6,816.82	162.61	57.37	-88.04	-2,406.32	-11,004.92	6,015.02	5,878.40	136.62	44.028		
12,500.00	6,935.66	7,196.00	6,816.82	165.41	57.37	-88.04	-2,406.32	-11,004.92	5,928.86	5,789.60	139.26	42.573		
12,600.00	6,935.36	7,196.00	6,816.82	168.22	57.37	-88.04	-2,406.32	-11,004.92	5,843.15	5,701.16	141.99	41.153		
12,700.00	6,935.06	7,196.00	6,816.82	171.02	57.37	-88.04	-2,406.32	-11,004.92	5,757.89	5,613.10	144.79	39.767		
12,800.00	6,934.76	7,196.00	6,816.82	173.83	57.37	-88.04	-2,406.32	-11,004.92	5,673.11	5,525.43	147.68	38.415		
12,900.00	6,934.46	7,196.00	6,816.82	176.65	57.37	-88.04	-2,406.32	-11,004.92	5,588.84	5,438.19	150.66	37.097		
13,000.00	6,934.17	7,196.00	6,816.82	179.46	57.37	-88.04	-2,406.32	-11,004.92	5,505.10	5,351.38	153.72	35.813		
13,100.00	6,933.87	7,196.00	6,816.82	182.27	57.37	-88.04	-2,406.32	-11,004.92	5,421.91	5,265.03	156.87	34.563		
13,200.00	6,933.57	7,196.00	6,816.82	185.09	57.37	-88.04	-2,406.32	-11,004.92	5,339.29	5,179.17	160.12	33.346		
13,300.00	6,933.27	7,196.00	6,816.82	187.91	57.37	-88.04	-2,406.32	-11,004.92	5,257.28	5,093.82	163.46	32.163		
13,400.00	6,932.97	7,196.00	6,816.82	190.72	57.37	-88.04	-2,406.32	-11,004.92	5,175.89	5,009.00	166.90	31.013		
13,500.00	6,932.67	7,196.00	6,816.82	193.54	57.37	-88.04	-2,406.32	-11,004.92	5,095.18	4,924.74	170.43	29.896		
13,600.00	6,932.38	7,196.00	6,816.82	196.36	57.37	-88.04	-2,406.32	-11,004.92	5,015.15	4,841.08	174.07	28.811		
13,700.00	6,932.08	7,196.00	6,816.82	199.19	57.37	-88.04	-2,406.32	-11,004.92	4,935.86	4,758.05	177.81	27.759		
13,800.00	6,931.78	7,196.00	6,816.82	202.01	57.37	-88.04	-2,406.32	-11,004.92	4,857.33	4,675.67	181.66	26.738		
13,900.00	6,931.48	7,196.00	6,816.82	204.83	57.37	-88.04	-2,406.32	-11,004.92	4,779.60	4,593.99	185.62	25.750		
14,000.00	6,931.18	7,196.00	6,816.82	207.66	57.37	-88.04	-2,406.32	-11,004.92	4,702.72	4,513.04	189.68	24.793		
14,100.00	6,930.88	7,196.00	6,816.82	210.48	57.37	-88.04	-2,406.32	-11,004.92	4,626.71	4,432.86	193.86	23.867		
14,200.00	6,930.59	7,196.00	6,816.82	213.31	57.37	-88.04	-2,406.32	-11,004.92	4,551.64	4,353.50	198.14	22.972		
14,300.00	6,930.29	7,196.00	6,816.82	216.14	57.37	-88.04	-2,406.32	-11,004.92	4,477.54	4,275.00	202.54	22.107		
14,400.00	6,929.99	7,196.00	6,816.82	218.96	57.37	-88.04	-2,406.32	-11,004.92	4,404.46	4,197.41	207.05	21.272		
14,500.00	6,929.69	7,196.00	6,816.82	221.79	57.37	-88.04	-2,406.32	-11,004.92	4,332.46	4,120.79	211.68	20.467		

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 4N-16A-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 4N-16A-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	Vertical Depth	Measured Depth	Vertical Depth	Reference	Offset	Highside Toolface	Offset Wellbore Centre		Between Centres	Between Ellipses	Minimum Separation	Separation Factor	Warning
(ft)	(ft)	(ft)	(ft)	(ft)	(ft)	(°)	+N/-S (ft)	+E/-W (ft)	(ft)	(ft)	(ft)		
14,600.00	6,929.39	7,196.00	6,816.82	224.62	57.37	-88.04	-2,406.32	-11,004.92	4,261.60	4,045.18	216.41	19.692	
14,700.00	6,929.09	7,196.00	6,816.82	227.45	57.37	-88.04	-2,406.32	-11,004.92	4,191.91	3,970.65	221.26	18.946	
14,732.12	6,929.00	7,196.00	6,816.82	228.36	57.37	-88.04	-2,406.32	-11,004.92	4,169.79	3,946.95	222.84	18.712	CC, ES, SF



Anticollision Report



Company:	SRC ENERGY	Local Co-ordinate Reference:	Well HARVESTERS STATE 4N-16A-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 4N-16A-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: 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	-108.34	-2,971.10	-8,963.77	9,443.40					
100.00	100.00	0.00	36.00	3.28	3.28	-108.34	-2,971.10	-8,963.77	9,443.55	9,436.99	6.56	1,438.494		
200.00	200.00	56.53	92.53	3.34	3.28	-108.34	-2,971.46	-8,963.99	9,444.27	9,437.65	6.62	1,426.700		
300.00	300.00	577.00	612.23	3.44	3.96	-108.26	-2,956.90	-8,962.86	9,443.18	9,435.76	7.42	1,273.440		
400.00	400.00	606.61	641.62	3.60	4.03	-108.24	-2,953.29	-8,963.16	9,440.26	9,432.62	7.65	1,234.512		
500.00	500.00	667.00	701.45	3.81	4.21	-108.19	-2,945.25	-8,964.59	9,438.16	9,430.14	8.02	1,177.236		
600.00	600.00	699.28	733.38	4.05	4.31	-108.16	-2,940.59	-8,965.65	9,436.51	9,428.16	8.35	1,129.450		
700.00	699.98	902.88	934.00	4.32	5.05	-94.54	-2,906.68	-8,972.62	9,434.72	9,425.35	9.37	1,007.342		
800.00	799.84	1,011.83	1,040.65	4.62	5.52	-94.48	-2,884.81	-8,976.81	9,432.56	9,422.43	10.13	930.811		
900.00	899.45	1,126.45	1,151.93	4.94	6.08	-94.41	-2,857.96	-8,982.40	9,430.64	9,419.63	11.01	856.422		
1,000.00	998.80	1,200.21	1,222.99	5.28	6.49	-94.35	-2,838.67	-8,986.66	9,428.96	9,417.21	11.75	802.555		
1,100.00	1,098.12	1,290.59	1,309.38	5.63	7.02	-94.25	-2,812.85	-8,992.83	9,427.55	9,414.92	12.63	746.205		
1,200.00	1,197.44	1,384.27	1,397.97	6.00	7.63	-94.13	-2,783.29	-9,000.13	9,426.20	9,412.59	13.60	692.861		
1,300.00	1,296.77	1,417.00	1,428.69	6.37	7.85	-94.09	-2,772.34	-9,002.90	9,425.15	9,410.95	14.20	663.722		
1,400.00	1,396.09	1,476.15	1,483.97	6.76	8.27	-94.00	-2,752.04	-9,008.41	9,424.61	9,409.60	15.01	627.894		
1,417.89	1,413.86	1,482.61	1,489.99	6.83	8.32	-93.99	-2,749.79	-9,009.06	9,424.60	9,409.47	15.13	623.060		
1,500.00	1,495.41	1,512.00	1,517.35	7.15	8.53	-93.94	-2,739.51	-9,012.14	9,424.83	9,409.17	15.66	601.757		
1,600.00	1,594.74	1,585.30	1,585.34	7.55	9.08	-93.83	-2,713.35	-9,020.27	9,425.55	9,408.93	16.62	567.101		
1,700.00	1,694.06	1,644.69	1,640.16	7.96	9.55	-93.73	-2,691.59	-9,027.22	9,426.64	9,409.15	17.49	538.819		
1,800.00	1,793.38	1,701.00	1,691.87	8.37	10.01	-93.63	-2,670.42	-9,034.24	9,428.23	9,409.88	18.36	513.528		
1,900.00	1,892.71	1,751.19	1,737.70	8.78	10.43	-93.54	-2,651.08	-9,040.89	9,430.35	9,411.15	19.20	491.175		
2,000.00	1,992.03	1,884.42	1,858.33	9.20	11.60	-93.28	-2,597.69	-9,059.50	9,432.93	9,412.14	20.79	453.679		
2,100.00	2,091.36	1,981.28	1,945.42	9.62	12.49	-93.09	-2,557.48	-9,072.94	9,435.04	9,412.93	22.11	426.799		
2,200.00	2,190.68	2,033.86	1,992.55	10.05	12.99	-92.98	-2,535.41	-9,080.42	9,437.48	9,414.45	23.02	409.903		
2,300.00	2,290.00	2,085.00	2,038.37	10.48	13.47	-92.88	-2,513.98	-9,087.95	9,440.49	9,416.55	23.93	394.479		
2,400.00	2,389.33	2,216.64	2,156.15	10.90	14.74	-92.60	-2,458.43	-9,107.29	9,443.47	9,417.84	25.63	368.417		
2,500.00	2,488.65	2,274.00	2,207.37	11.34	15.30	-92.48	-2,434.06	-9,115.79	9,446.69	9,420.07	26.62	354.878		
2,600.00	2,587.97	2,337.71	2,264.27	11.77	15.93	-92.35	-2,407.08	-9,125.44	9,450.37	9,422.69	27.67	341.484		
2,700.00	2,687.30	2,369.00	2,292.24	12.20	16.24	-92.29	-2,393.91	-9,130.27	9,454.60	9,426.19	28.41	332.813		
2,800.00	2,786.62	2,428.04	2,345.04	12.64	16.82	-92.17	-2,369.23	-9,139.65	9,459.37	9,429.96	29.42	321.539		
2,900.00	2,885.94	2,476.69	2,388.58	13.07	17.31	-92.07	-2,349.05	-9,147.69	9,464.83	9,434.51	30.33	312.094		
3,000.00	2,985.27	2,571.85	2,473.79	13.51	18.25	-91.87	-2,309.76	-9,163.51	9,470.56	9,438.86	31.70	298.734		
3,100.00	3,084.59	2,634.77	2,530.27	13.95	18.87	-91.75	-2,284.08	-9,174.01	9,476.60	9,443.84	32.75	289.341		
3,200.00	3,183.91	2,887.44	2,755.80	14.39	21.43	-91.23	-2,177.78	-9,214.77	9,481.65	9,445.89	35.76	265.132		
3,300.00	3,283.24	2,948.02	2,809.36	14.83	22.07	-91.09	-2,151.20	-9,224.52	9,486.68	9,449.86	36.82	257.630		
3,400.00	3,382.56	3,162.30	3,001.10	15.27	24.25	-90.66	-2,061.42	-9,257.48	9,491.93	9,452.48	39.44	240.650		
3,500.00	3,481.88	3,221.00	3,053.39	15.71	24.85	-90.53	-2,036.20	-9,266.16	9,496.26	9,455.78	40.48	234.620		
3,600.00	3,581.21	3,279.91	3,105.90	16.16	25.45	-90.41	-2,011.02	-9,275.05	9,501.06	9,459.55	41.51	228.896		
3,700.00	3,680.53	3,700.00	3,191.83	16.60	29.70	-90.22	-1,971.36	-9,289.61	9,506.30	9,460.14	46.17	205.917		
3,800.00	3,779.85	3,462.97	3,270.36	17.04	27.30	-90.05	-1,935.52	-9,302.64	9,511.49	9,467.27	44.22	215.111		
3,900.00	3,879.18	3,519.72	3,321.52	17.49	27.87	-89.94	-1,912.52	-9,311.29	9,517.16	9,471.94	45.21	210.502		
4,000.00	3,978.50	3,597.00	3,391.08	17.93	28.64	-89.79	-1,881.06	-9,323.30	9,523.19	9,476.78	46.41	205.175		
4,100.00	4,077.82	3,728.99	3,509.81	18.37	29.97	-89.53	-1,827.09	-9,343.60	9,529.13	9,480.95	48.18	197.799		
4,200.00	4,177.15	3,841.35	3,611.22	18.82	31.10	-89.31	-1,781.80	-9,360.62	9,535.10	9,485.37	49.73	191.733		
4,300.00	4,276.47	3,918.16	3,680.14	19.27	31.88	-89.16	-1,749.96	-9,372.23	9,540.97	9,490.02	50.94	187.289		
4,400.00	4,375.79	3,976.00	3,731.52	19.71	32.49	-89.04	-1,725.05	-9,381.49	9,547.39	9,495.42	51.97	183.715		
4,500.00	4,475.12	4,012.66	3,763.82	20.16	32.89	-88.96	-1,708.84	-9,387.61	9,554.37	9,501.59	52.79	180.995		
4,600.00	4,574.44	4,071.00	3,814.84	20.60	33.53	-88.83	-1,682.43	-9,397.75	9,561.96	9,508.11	53.84	177.584		
4,700.00	4,673.76	4,122.09	3,859.16	21.05	34.11	-88.71	-1,658.71	-9,406.94	9,570.05	9,515.21	54.84	174.504		
4,800.00	4,773.09	4,165.00	3,896.12	21.50	34.60	-88.60	-1,638.40	-9,414.81	9,578.60	9,522.86	55.74	171.842		
4,900.00	4,872.41	4,220.77	3,943.97	21.94	35.25	-88.47	-1,611.75	-9,425.32	9,587.69	9,530.89	56.80	168.794		
5,000.00	4,971.74	4,269.10	3,985.35	22.39	35.81	-88.35	-1,588.62	-9,434.75	9,597.45	9,539.68	57.77	166.136		

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 4N-16A-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 4N-16A-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		
5,100.00	5,071.06	4,617.49	4,293.65	22.84	39.55	-87.62	-1,438.47	-9,495.27	9,605.66	9,543.71	61.96	155.035		
5,200.00	5,170.38	4,742.25	4,407.51	23.29	40.75	-87.40	-1,391.14	-9,514.31	9,613.29	9,549.70	63.59	151.185		
5,300.00	5,269.71	4,808.45	4,468.24	23.74	41.38	-87.29	-1,366.75	-9,524.26	9,620.94	9,556.31	64.62	148.874		
5,400.00	5,369.03	5,493.72	5,118.12	24.18	46.70	-86.48	-1,164.61	-9,597.32	9,624.47	9,554.07	70.40	136.711		
5,500.00	5,468.35	5,612.68	5,234.26	24.63	47.39	-86.41	-1,140.00	-9,604.69	9,626.30	9,554.77	71.54	134.563		
5,600.00	5,567.68	5,932.78	5,550.51	25.08	48.90	-86.34	-1,093.02	-9,616.66	9,626.46	9,552.98	73.47	131.019		
5,700.00	5,667.00	5,999.89	5,617.35	25.53	49.15	-86.36	-1,087.19	-9,617.94	9,626.10	9,551.92	74.17	129.777		
5,800.00	5,766.32	6,097.29	5,714.51	25.98	49.47	-86.38	-1,080.61	-9,619.64	9,625.93	9,550.98	74.95	128.431		
5,900.00	5,865.65	6,202.63	5,819.68	26.43	49.80	-86.42	-1,074.82	-9,621.14	9,625.66	9,549.93	75.73	127.107		
6,000.00	5,964.97	6,345.83	5,962.74	26.88	50.22	-86.48	-1,068.63	-9,622.77	9,625.36	9,548.76	76.60	125.662		
6,100.00	6,064.29	6,428.47	6,045.32	27.33	50.45	-86.52	-1,065.62	-9,623.38	9,624.75	9,547.46	77.29	124.535		
6,200.00	6,163.62	6,501.15	6,117.96	27.78	50.65	-86.56	-1,063.40	-9,624.01	9,624.37	9,546.43	77.94	123.487		
6,300.00	6,262.94	6,571.91	6,188.69	28.23	50.83	-86.59	-1,061.61	-9,624.78	9,624.30	9,545.72	78.58	122.472		
6,323.69	6,286.47	6,588.66	6,205.44	28.33	50.88	-81.84	-1,061.24	-9,624.98	9,624.21	9,545.47	78.74	122.233		
6,400.00	6,362.24	6,646.31	6,263.08	28.67	51.03	-86.34	-1,060.13	-9,625.74	9,623.95	9,544.72	79.24	121.459		
6,500.00	6,460.41	6,740.80	6,357.54	29.12	51.27	-36.78	-1,058.70	-9,627.00	9,612.39	9,532.46	79.93	120.264		
6,600.00	6,555.09	6,832.02	6,448.76	29.57	51.50	-27.33	-1,057.73	-9,628.19	9,585.73	9,505.13	80.60	118.935		
6,700.00	6,643.94	6,917.08	6,533.80	30.00	51.71	-23.74	-1,057.06	-9,629.29	9,544.63	9,463.42	81.22	117.520		
6,800.00	6,724.78	7,026.05	6,610.66	30.45	51.97	-22.65	-1,056.60	-9,630.29	9,490.12	9,408.26	81.86	115.927		
6,900.00	6,795.62	7,065.73	6,682.44	30.97	52.07	-23.24	-1,056.25	-9,631.23	9,423.53	9,341.23	82.30	114.504		
7,000.00	6,854.70	7,125.89	6,742.59	31.60	52.22	-25.56	-1,055.97	-9,632.02	9,346.47	9,263.73	82.74	112.963		
7,100.00	6,900.58	7,172.95	6,789.65	32.39	52.33	-30.47	-1,055.74	-9,632.64	9,260.85	9,177.75	83.10	111.440		
7,200.00	6,932.13	7,205.75	6,822.45	33.34	52.41	-40.64	-1,055.58	-9,633.07	9,168.78	9,085.40	83.38	109.959		
7,300.00	6,948.57	7,223.48	6,840.18	34.46	52.46	-63.61	-1,055.50	-9,633.30	9,072.52	8,988.93	83.59	108.535		
7,400.00	6,950.87	7,227.10	6,843.80	35.70	52.47	-87.26	-1,055.48	-9,633.35	8,974.45	8,890.72	83.73	107.180		
7,500.00	6,950.58	7,228.11	6,844.81	37.12	52.47	-87.30	-1,055.48	-9,633.36	8,876.26	8,792.39	83.87	105.830		
7,600.00	6,950.28	7,229.12	6,845.82	38.70	52.47	-87.33	-1,055.47	-9,633.38	8,778.11	8,694.08	84.03	104.467		
7,700.00	6,949.98	7,230.13	6,846.83	40.41	52.48	-87.36	-1,055.47	-9,633.39	8,680.00	8,595.81	84.20	103.093		
7,800.00	6,949.68	7,231.14	6,847.84	42.25	52.48	-87.40	-1,055.46	-9,633.40	8,581.94	8,497.56	84.38	101.705		
7,900.00	6,949.38	7,232.15	6,848.85	44.20	52.48	-87.43	-1,055.46	-9,633.42	8,483.92	8,399.34	84.58	100.306		
8,000.00	6,949.08	7,233.16	6,849.86	46.24	52.48	-87.47	-1,055.45	-9,633.43	8,385.95	8,301.16	84.80	98.894		
8,100.00	6,948.79	7,234.17	6,850.87	48.36	52.49	-87.50	-1,055.45	-9,633.44	8,288.03	8,203.00	85.03	97.470		
8,200.00	6,948.49	7,235.18	6,851.88	50.56	52.49	-87.54	-1,055.44	-9,633.46	8,190.16	8,104.88	85.28	96.034		
8,300.00	6,948.19	7,236.19	6,852.89	52.82	52.49	-87.57	-1,055.44	-9,633.47	8,092.34	8,006.78	85.56	94.586		
8,400.00	6,947.89	7,237.20	6,853.89	55.14	52.49	-87.60	-1,055.43	-9,633.48	7,994.57	7,908.73	85.85	93.127		
8,500.00	6,947.59	7,238.21	6,854.90	57.50	52.50	-87.64	-1,055.43	-9,633.50	7,896.86	7,810.70	86.16	91.656		
8,600.00	6,947.29	7,239.22	6,855.91	59.91	52.50	-87.67	-1,055.42	-9,633.51	7,799.21	7,712.72	86.49	90.175		
8,700.00	6,947.00	7,240.23	6,856.92	62.36	52.50	-87.71	-1,055.42	-9,633.52	7,701.62	7,614.77	86.84	88.683		
8,800.00	6,946.70	7,241.24	6,857.93	64.84	52.50	-87.74	-1,055.41	-9,633.54	7,604.09	7,516.86	87.22	87.180		
8,900.00	6,946.40	7,242.25	6,858.94	67.35	52.51	-87.77	-1,055.41	-9,633.55	7,506.62	7,419.00	87.62	85.668		
9,000.00	6,946.10	7,243.26	6,859.95	69.88	52.51	-87.81	-1,055.40	-9,633.56	7,409.22	7,321.17	88.05	84.147		
9,100.00	6,945.80	7,244.27	6,860.96	72.44	52.51	-87.84	-1,055.40	-9,633.58	7,311.89	7,223.39	88.50	82.617		
9,200.00	6,945.50	7,245.28	6,861.97	75.02	52.51	-87.88	-1,055.40	-9,633.59	7,214.64	7,125.66	88.98	81.079		
9,300.00	6,945.21	7,246.29	6,862.98	77.63	52.52	-87.91	-1,055.39	-9,633.60	7,117.46	7,027.97	89.49	79.534		
9,400.00	6,944.91	7,247.30	6,863.99	80.24	52.52	-87.95	-1,055.39	-9,633.62	7,020.36	6,930.33	90.03	77.982		
9,500.00	6,944.61	7,248.31	6,865.00	82.88	52.52	-87.98	-1,055.38	-9,633.63	6,923.34	6,832.75	90.59	76.424		
9,600.00	6,944.31	7,249.32	6,866.01	85.53	52.52	-88.01	-1,055.38	-9,633.64	6,826.41	6,735.22	91.19	74.860		
9,700.00	6,944.01	7,250.33	6,867.02	88.19	52.53	-88.05	-1,055.37	-9,633.66	6,729.57	6,637.75	91.82	73.292		
9,800.00	6,943.71	7,251.34	6,868.03	90.86	52.53	-88.08	-1,055.37	-9,633.67	6,632.82	6,540.34	92.48	71.720		
9,900.00	6,943.42	7,252.35	6,869.04	93.55	52.53	-88.12	-1,055.36	-9,633.68	6,536.17	6,442.99	93.18	70.146		
10,000.00	6,943.12	7,253.36	6,870.05	96.24	52.53	-88.15	-1,055.36	-9,633.70	6,439.62	6,345.71	93.91	68.569		
10,100.00	6,942.82	7,254.37	6,871.06	98.95	52.54	-88.19	-1,055.35	-9,633.71	6,343.18	6,248.49	94.69	66.992		

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 4N-16A-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 4N-16A-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		
10,200.00	6,942.52	7,255.38	6,872.07	101.66	52.54	-88.22	-1,055.35	-9,633.72	6,246.85	6,151.35	95.50	65.414		
10,300.00	6,942.22	7,256.39	6,873.08	104.38	52.54	-88.25	-1,055.34	-9,633.73	6,150.63	6,054.29	96.35	63.837		
10,400.00	6,941.92	7,257.40	6,874.09	107.11	52.54	-88.29	-1,055.34	-9,633.75	6,054.54	5,957.30	97.24	62.262		
10,500.00	6,941.63	7,258.41	6,875.10	109.84	52.55	-88.32	-1,055.33	-9,633.76	5,958.58	5,860.40	98.18	60.690		
10,600.00	6,941.33	7,259.42	6,876.11	112.58	52.55	-88.36	-1,055.33	-9,633.77	5,862.75	5,763.59	99.16	59.122		
10,700.00	6,941.03	7,260.43	6,877.12	115.33	52.55	-88.39	-1,055.32	-9,633.79	5,767.07	5,666.87	100.20	57.558		
10,800.00	6,940.73	7,261.44	6,878.13	118.08	52.55	-88.42	-1,055.32	-9,633.80	5,671.53	5,570.26	101.28	56.001		
10,900.00	6,940.43	7,262.45	6,879.14	120.84	52.56	-88.46	-1,055.31	-9,633.81	5,576.15	5,473.74	102.41	54.451		
11,000.00	6,940.13	7,263.46	6,880.15	123.60	52.56	-88.49	-1,055.31	-9,633.83	5,480.93	5,377.34	103.59	52.908		
11,100.00	6,939.83	7,264.47	6,881.16	126.36	52.56	-88.53	-1,055.30	-9,633.84	5,385.89	5,281.06	104.83	51.375		
11,200.00	6,939.54	7,265.48	6,882.17	129.13	52.56	-88.56	-1,055.30	-9,633.85	5,291.03	5,184.90	106.13	49.852		
11,300.00	6,939.24	7,266.49	6,883.18	131.91	52.57	-88.60	-1,055.29	-9,633.87	5,196.36	5,088.87	107.49	48.341		
11,400.00	6,938.94	7,267.50	6,884.19	134.68	52.57	-88.63	-1,055.29	-9,633.88	5,101.90	4,992.98	108.92	46.841		
11,500.00	6,938.64	7,268.51	6,885.20	137.46	52.57	-88.66	-1,055.28	-9,633.89	5,007.65	4,897.24	110.41	45.355		
11,600.00	6,938.34	7,269.52	6,886.21	140.25	52.57	-88.70	-1,055.28	-9,633.91	4,913.62	4,801.65	111.97	43.884		
11,700.00	6,938.04	7,270.53	6,887.22	143.03	52.58	-88.73	-1,055.27	-9,633.92	4,819.84	4,706.24	113.60	42.427		
11,800.00	6,937.75	7,271.54	6,888.23	145.82	52.58	-88.77	-1,055.27	-9,633.93	4,726.31	4,611.00	115.31	40.988		
11,900.00	6,937.45	7,272.55	6,889.24	148.61	52.58	-88.80	-1,055.26	-9,633.95	4,633.05	4,515.96	117.10	39.565		
12,000.00	6,937.15	7,273.56	6,890.25	151.41	52.58	-88.84	-1,055.26	-9,633.96	4,540.08	4,421.11	118.97	38.161		
12,100.00	6,936.85	7,274.57	6,891.26	154.20	52.59	-88.87	-1,055.26	-9,633.97	4,447.42	4,326.49	120.93	36.776		
12,200.00	6,936.55	7,275.58	6,892.27	157.00	52.59	-88.90	-1,055.25	-9,633.99	4,355.08	4,232.09	122.98	35.412		
12,300.00	6,936.25	7,276.59	6,893.28	159.80	52.59	-88.94	-1,055.25	-9,634.00	4,263.08	4,137.95	125.13	34.069		
12,400.00	6,935.96	7,277.60	6,894.29	162.61	52.59	-88.97	-1,055.24	-9,634.01	4,171.45	4,044.07	127.38	32.748		
12,500.00	6,935.66	7,278.61	6,895.30	165.41	52.60	-89.01	-1,055.24	-9,634.03	4,080.21	3,950.48	129.74	31.450		
12,600.00	6,935.36	7,279.62	6,896.31	168.22	52.60	-89.04	-1,055.23	-9,634.04	3,989.40	3,857.19	132.20	30.176		
12,700.00	6,935.06	7,280.63	6,897.32	171.02	52.60	-89.08	-1,055.23	-9,634.05	3,899.03	3,764.24	134.79	28.926		
12,800.00	6,934.76	7,281.64	6,898.33	173.83	52.60	-89.11	-1,055.22	-9,634.07	3,809.15	3,671.64	137.50	27.703		
12,900.00	6,934.46	7,282.65	6,899.34	176.65	52.61	-89.14	-1,055.22	-9,634.08	3,719.78	3,579.44	140.34	26.505		
13,000.00	6,934.17	7,283.66	6,900.35	179.46	52.61	-89.18	-1,055.21	-9,634.09	3,630.96	3,487.64	143.32	25.335		
13,100.00	6,933.87	7,284.67	6,901.36	182.27	52.61	-89.21	-1,055.21	-9,634.11	3,542.74	3,396.30	146.44	24.192		
13,200.00	6,933.57	7,285.68	6,902.37	185.09	52.61	-89.25	-1,055.20	-9,634.12	3,455.16	3,305.45	149.71	23.078		
13,300.00	6,933.27	7,286.69	6,903.38	187.91	52.62	-89.28	-1,055.20	-9,634.13	3,368.28	3,215.13	153.15	21.994		
13,400.00	6,932.97	7,287.70	6,904.39	190.72	52.62	-89.32	-1,055.19	-9,634.15	3,282.14	3,125.39	156.75	20.939		
13,500.00	6,932.67	7,288.71	6,905.40	193.54	52.62	-89.35	-1,055.19	-9,634.16	3,196.81	3,036.29	160.52	19.915		
13,600.00	6,932.38	7,289.72	6,906.41	196.36	52.62	-89.38	-1,055.18	-9,634.17	3,112.35	2,947.87	164.48	18.923		
13,700.00	6,932.08	7,290.73	6,907.42	199.19	52.63	-89.42	-1,055.18	-9,634.19	3,028.83	2,860.21	168.62	17.962		
13,800.00	6,931.78	7,291.74	6,908.43	202.01	52.63	-89.45	-1,055.17	-9,634.20	2,946.35	2,773.37	172.97	17.034		
13,900.00	6,931.48	7,292.75	6,909.44	204.83	52.63	-89.49	-1,055.17	-9,634.21	2,864.97	2,687.45	177.52	16.138		
14,000.00	6,931.18	7,293.76	6,910.45	207.66	52.63	-89.52	-1,055.16	-9,634.23	2,784.82	2,602.52	182.29	15.277		
14,100.00	6,930.88	7,294.77	6,911.46	210.48	52.64	-89.55	-1,055.16	-9,634.24	2,705.98	2,518.70	187.28	14.449		
14,200.00	6,930.59	7,295.78	6,912.47	213.31	52.64	-89.59	-1,055.15	-9,634.25	2,628.58	2,436.10	192.48	13.656		
14,300.00	6,930.29	7,296.79	6,913.47	216.14	52.64	-89.62	-1,055.15	-9,634.26	2,552.75	2,354.84	197.92	12.898		
14,400.00	6,929.99	7,297.80	6,914.48	218.96	52.64	-89.66	-1,055.14	-9,634.28	2,478.64	2,275.07	203.58	12.175		
14,500.00	6,929.69	7,298.81	6,915.49	221.79	52.65	-89.69	-1,055.14	-9,634.29	2,406.40	2,196.95	209.46	11.489		
14,600.00	6,929.39	7,299.82	6,916.50	224.62	52.65	-89.73	-1,055.13	-9,634.30	2,336.21	2,120.66	215.55	10.838		
14,700.00	6,929.09	7,300.83	6,917.51	227.45	52.65	-89.76	-1,055.13	-9,634.32	2,268.26	2,046.41	221.85	10.224		
14,732.12	6,929.00	7,301.15	6,917.84	228.36	52.65	-89.77	-1,055.13	-9,634.32	2,246.94	2,023.03	223.91	10.035 CC, ES, SF		



Anticollision Report



Company:	SRC ENERGY	Local Co-ordinate Reference:	Well HARVESTERS STATE 4N-16A-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 4N-16A-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	2,242.73	2,173.55	3.28	15.71	-105.36	-2,403.46	-8,747.05	9,328.01					
100.00	100.00	2,302.00	2,227.88	3.28	16.24	-105.24	-2,380.79	-8,740.09	9,305.12	9,286.72	18.39	505.920		
200.00	200.00	2,333.70	2,256.98	3.34	16.52	-105.17	-2,368.74	-8,736.51	9,282.70	9,264.03	18.67	497.102		
300.00	300.00	2,532.81	2,439.36	3.44	18.30	-104.74	-2,292.49	-8,712.77	9,259.84	9,239.47	20.37	454.632		
400.00	400.00	2,585.00	2,486.87	3.60	18.78	-104.62	-2,271.74	-8,706.74	9,237.06	9,216.13	20.93	441.325		
500.00	500.00	2,648.15	2,544.31	3.81	19.36	-104.48	-2,246.43	-8,699.76	9,214.74	9,193.11	21.64	425.883		
600.00	600.00	600.00	2,724.23	4.05	3.75	-104.02	-2,166.11	-8,676.98	9,192.08	9,184.54	7.54	1,219.124		
700.00	699.98	2,930.78	2,800.49	4.32	22.01	-90.83	-2,131.72	-8,666.79	9,168.95	9,144.45	24.50	374.229		
800.00	799.84	2,992.25	2,856.43	4.62	22.58	-91.17	-2,107.33	-8,659.37	9,146.34	9,121.05	25.29	361.622		
900.00	899.45	3,071.00	2,928.63	4.94	23.30	-91.50	-2,077.46	-8,649.59	9,124.11	9,097.87	26.24	347.755		
1,000.00	998.80	3,168.64	3,018.18	5.28	24.18	-91.51	-2,040.48	-8,637.52	9,102.06	9,074.71	27.35	332.806		
1,100.00	1,098.12	3,248.00	3,090.85	5.63	24.90	-91.39	-2,010.12	-8,627.75	9,080.02	9,051.68	28.34	320.381		
1,200.00	1,197.44	3,304.92	3,143.17	6.00	25.41	-91.31	-1,988.84	-8,620.75	9,058.35	9,029.20	29.16	310.691		
1,300.00	1,296.77	3,346.00	3,181.19	6.37	25.77	-91.26	-1,974.09	-8,615.76	9,037.28	9,007.42	29.86	302.666		
1,400.00	1,396.09	3,387.44	3,219.69	6.76	26.13	-91.20	-1,959.57	-8,610.87	9,016.82	8,986.26	30.57	295.004		
1,500.00	1,495.41	3,440.00	3,268.68	7.15	26.57	-91.14	-1,941.44	-8,605.00	8,997.06	8,965.70	31.37	286.840		
1,600.00	1,594.74	1,600.00	3,346.82	7.55	11.41	-91.03	-1,913.37	-8,595.61	8,977.59	8,959.49	18.10	495.970		
1,700.00	1,694.06	3,807.10	3,612.40	7.96	29.62	-90.71	-1,820.54	-8,560.53	8,957.69	8,922.82	34.87	256.913		
1,800.00	1,793.38	1,800.00	3,722.94	8.37	12.64	-90.56	-1,780.29	-8,544.50	8,936.07	8,915.90	20.17	443.107		
1,900.00	1,892.71	3,985.07	3,777.68	8.78	31.15	-90.48	-1,758.98	-8,536.86	8,914.55	8,877.48	37.07	240.491		
2,000.00	1,992.03	4,045.99	3,833.89	9.20	31.69	-90.40	-1,736.66	-8,529.53	8,893.62	8,855.63	37.99	234.120		
2,100.00	2,091.36	4,126.86	3,908.38	9.62	32.42	-90.28	-1,706.63	-8,520.06	8,872.93	8,833.86	39.08	227.073		
2,200.00	2,190.68	4,193.98	3,970.24	10.05	33.02	-90.18	-1,681.74	-8,512.37	8,852.55	8,812.49	40.06	220.980		
2,300.00	2,290.00	4,679.00	4,410.34	10.48	37.61	-89.37	-1,488.76	-8,448.99	8,828.59	8,784.06	44.53	198.249		
2,400.00	2,389.33	4,728.59	4,454.52	10.90	38.11	-89.28	-1,467.31	-8,442.12	8,804.47	8,759.03	45.44	193.747		
2,500.00	2,488.65	4,774.00	4,495.17	11.34	38.57	-89.19	-1,447.99	-8,436.11	8,781.06	8,734.74	46.32	189.573		
2,600.00	2,587.97	4,774.00	4,495.17	11.77	38.57	-89.19	-1,447.99	-8,436.11	8,758.44	8,711.64	46.80	187.137		
2,700.00	2,687.30	4,834.84	4,550.07	12.20	39.15	-89.08	-1,422.92	-8,428.44	8,736.32	8,688.53	47.80	182.776		
2,800.00	2,786.62	4,869.00	4,581.16	12.64	39.48	-89.03	-1,409.38	-8,424.30	8,715.03	8,666.46	48.57	179.431		
2,900.00	2,885.94	4,947.07	4,652.68	13.07	40.19	-88.90	-1,379.53	-8,414.88	8,694.22	8,644.54	49.68	174.991		
3,000.00	2,985.27	3,000.00	4,755.48	13.51	22.42	-88.72	-1,337.11	-8,401.18	8,673.40	8,639.46	33.95	255.504		
3,100.00	3,084.59	5,107.90	4,800.16	13.95	41.66	-88.64	-1,318.43	-8,395.33	8,652.83	8,600.88	51.95	166.552		
3,200.00	3,183.91	5,152.00	4,840.75	14.39	42.06	-88.57	-1,301.96	-8,390.25	8,632.93	8,580.13	52.80	163.509		
3,300.00	3,283.24	5,189.62	4,875.53	14.83	42.39	-88.52	-1,288.25	-8,386.08	8,613.68	8,560.10	53.58	160.765		
3,400.00	3,382.56	5,247.00	4,928.86	15.27	42.89	-88.43	-1,267.97	-8,379.98	8,595.15	8,540.63	54.51	157.669		
3,500.00	3,481.88	5,247.00	4,928.86	15.71	42.89	-88.43	-1,267.97	-8,379.98	8,577.28	8,522.28	55.00	155.944		
3,600.00	3,581.21	5,309.95	4,987.77	16.16	43.41	-88.35	-1,246.70	-8,373.66	8,559.99	8,504.03	55.96	152.976		
3,700.00	3,680.53	5,342.00	5,017.93	16.60	43.68	-88.31	-1,236.29	-8,370.61	8,543.46	8,486.79	56.68	150.732		
3,800.00	3,779.85	5,375.14	5,049.27	17.04	43.93	-88.27	-1,225.93	-8,367.60	8,527.71	8,470.32	57.39	148.589		
3,900.00	3,879.18	5,403.00	5,075.75	17.49	44.14	-88.24	-1,217.63	-8,365.23	8,512.79	8,454.72	58.06	146.610		
4,000.00	3,978.50	5,437.00	5,108.25	17.93	44.40	-88.20	-1,207.99	-8,362.54	8,498.70	8,439.92	58.78	144.592		
4,100.00	4,077.82	5,437.00	5,108.25	18.37	44.40	-88.20	-1,207.99	-8,362.54	8,485.53	8,426.28	59.25	143.218		
4,200.00	4,177.15	5,497.74	5,166.68	18.82	44.81	-88.15	-1,192.01	-8,358.18	8,472.90	8,412.79	60.10	140.969		
4,300.00	4,276.47	5,533.46	5,201.25	19.27	45.05	-88.12	-1,183.32	-8,355.84	8,461.14	8,400.35	60.80	139.169		
4,400.00	4,375.79	5,622.13	5,287.47	19.71	45.61	-88.07	-1,163.43	-8,350.06	8,449.83	8,388.04	61.78	136.770		
4,500.00	4,475.12	5,669.39	5,333.63	20.16	45.88	-88.04	-1,153.86	-8,346.92	8,438.87	8,376.37	62.50	135.028		
4,600.00	4,574.44	5,720.00	5,383.30	20.60	46.17	-88.03	-1,144.65	-8,343.69	8,428.55	8,365.32	63.23	133.307		
4,700.00	4,673.76	5,814.00	5,475.81	21.05	46.66	-88.01	-1,129.21	-8,337.50	8,418.42	8,354.28	64.14	131.244		
4,800.00	4,773.09	5,851.27	5,512.57	21.50	46.84	-88.00	-1,123.61	-8,335.06	8,408.73	8,343.96	64.77	129.831		
4,900.00	4,872.41	5,909.00	5,569.71	21.94	47.12	-88.00	-1,115.98	-8,331.88	8,400.06	8,334.58	65.48	128.285		
5,000.00	4,971.74	5,909.00	5,569.71	22.39	47.12	-88.00	-1,115.98	-8,331.88	8,391.88	8,325.96	65.93	127.291		
5,100.00	5,071.06	5,980.05	5,640.20	22.84	47.43	-88.01	-1,107.70	-8,328.48	8,384.47	8,317.80	66.67	125.763		

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 4N-16A-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 4N-16A-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	5,170.38	6,038.86	5,698.61	23.29	47.68	-88.01	-1,101.38	-8,325.79	8,377.45	8,310.10	67.35	124.387		
5,300.00	5,269.71	6,097.00	5,756.41	23.74	47.92	-88.02	-1,095.69	-8,323.36	8,370.98	8,302.96	68.02	123.064		
5,400.00	5,369.03	6,137.87	5,797.09	24.18	48.07	-88.03	-1,091.96	-8,321.84	8,365.10	8,296.49	68.61	121.917		
5,500.00	5,468.35	6,192.00	5,850.98	24.63	48.28	-88.05	-1,087.25	-8,320.17	8,359.88	8,290.63	69.25	120.713		
5,600.00	5,567.68	6,246.69	5,905.45	25.08	48.49	-88.06	-1,082.54	-8,318.78	8,355.21	8,285.32	69.90	119.537		
5,700.00	5,667.00	6,315.37	5,973.85	25.53	48.75	-88.08	-1,076.47	-8,317.30	8,350.94	8,280.34	70.59	118.299		
5,800.00	5,766.32	6,381.00	6,039.25	25.98	49.00	-88.10	-1,071.16	-8,316.02	8,347.03	8,275.76	71.27	117.115		
5,900.00	5,865.65	6,457.79	6,115.83	26.43	49.27	-88.12	-1,065.62	-8,314.66	8,343.46	8,271.48	71.98	115.912		
6,000.00	5,964.97	6,532.60	6,190.48	26.88	49.52	-88.15	-1,060.85	-8,313.45	8,340.22	8,267.54	72.67	114.763		
6,100.00	6,064.29	6,594.58	6,252.34	27.33	49.73	-88.18	-1,057.36	-8,312.55	8,337.31	8,264.00	73.31	113.727		
6,200.00	6,163.62	6,643.38	6,301.08	27.78	49.88	-88.20	-1,054.91	-8,312.08	8,334.97	8,261.08	73.89	112.800		
6,300.00	6,262.94	6,706.44	6,364.09	28.23	50.07	-88.23	-1,052.14	-8,311.77	8,333.20	8,258.69	74.52	111.831		
6,400.00	6,362.24	6,789.18	6,446.77	28.67	50.32	-70.00	-1,049.15	-8,311.48	8,331.18	8,255.98	75.20	110.785		
6,500.00	6,460.41	6,888.75	6,546.30	29.12	50.60	-38.51	-1,046.41	-8,311.00	8,317.94	8,242.01	75.93	109.553		
6,600.00	6,555.09	6,981.19	6,638.71	29.57	50.86	-29.18	-1,044.18	-8,310.50	8,289.71	8,213.11	76.60	108.217		
6,700.00	6,643.94	7,066.99	6,724.49	30.00	51.10	-25.79	-1,042.27	-8,310.03	8,247.22	8,169.99	77.23	106.790		
6,800.00	6,724.78	7,143.04	6,800.52	30.45	51.31	-24.99	-1,040.78	-8,309.61	8,191.53	8,113.75	77.78	105.311		
6,900.00	6,795.62	7,209.53	6,867.00	30.97	51.49	-26.00	-1,039.66	-8,309.24	8,124.04	8,045.77	78.27	103.796		
7,000.00	6,854.70	7,264.60	6,922.07	31.60	51.64	-28.98	-1,038.86	-8,308.93	8,046.39	7,967.71	78.68	102.274		
7,100.00	6,900.58	7,307.10	6,964.56	32.39	51.76	-34.97	-1,038.30	-8,308.69	7,960.49	7,881.49	79.00	100.765		
7,200.00	6,932.13	7,336.15	6,993.60	33.34	51.83	-46.84	-1,037.95	-8,308.54	7,868.44	7,789.20	79.25	99.290		
7,300.00	6,948.57	7,351.04	7,008.49	34.46	51.87	-71.16	-1,037.78	-8,308.46	7,772.51	7,693.09	79.42	97.865		
7,400.00	6,950.87	7,352.69	7,010.15	35.70	51.88	-92.78	-1,037.76	-8,308.45	7,675.03	7,595.49	79.53	96.499		
7,500.00	6,950.58	7,351.90	7,009.36	37.12	51.88	-92.75	-1,037.77	-8,308.45	7,577.49	7,497.84	79.65	95.133		
7,600.00	6,950.28	7,351.12	7,008.57	38.70	51.87	-92.73	-1,037.78	-8,308.46	7,480.02	7,400.24	79.79	93.751		
7,700.00	6,949.98	7,350.33	7,007.79	40.41	51.87	-92.70	-1,037.79	-8,308.46	7,382.62	7,302.68	79.94	92.353		
7,800.00	6,949.68	7,349.54	7,007.00	42.25	51.87	-92.67	-1,037.80	-8,308.46	7,285.29	7,205.18	80.11	90.938		
7,900.00	6,949.38	7,348.75	7,006.21	44.20	51.87	-92.65	-1,037.81	-8,308.47	7,188.03	7,107.73	80.31	89.507		
8,000.00	6,949.08	7,347.96	7,005.42	46.24	51.87	-92.62	-1,037.82	-8,308.47	7,090.85	7,010.33	80.52	88.060		
8,100.00	6,948.79	7,347.18	7,004.63	48.36	51.86	-92.59	-1,037.83	-8,308.48	6,993.75	6,912.99	80.76	86.597		
8,200.00	6,948.49	7,346.39	7,003.84	50.56	51.86	-92.57	-1,037.83	-8,308.48	6,896.73	6,815.70	81.03	85.118		
8,300.00	6,948.19	7,345.60	7,003.05	52.82	51.86	-92.54	-1,037.84	-8,308.49	6,799.79	6,718.48	81.31	83.624		
8,400.00	6,947.89	7,344.81	7,002.26	55.14	51.86	-92.51	-1,037.85	-8,308.49	6,702.95	6,621.32	81.63	82.114		
8,500.00	6,947.59	7,344.01	7,001.47	57.50	51.86	-92.48	-1,037.86	-8,308.49	6,606.20	6,524.23	81.97	80.591		
8,600.00	6,947.29	7,343.22	7,000.68	59.91	51.85	-92.46	-1,037.87	-8,308.50	6,509.55	6,427.20	82.34	79.053		
8,700.00	6,947.00	7,342.43	6,999.89	62.36	51.85	-92.43	-1,037.88	-8,308.50	6,413.00	6,330.25	82.75	77.501		
8,800.00	6,946.70	7,341.64	6,999.10	64.84	51.85	-92.40	-1,037.89	-8,308.51	6,316.56	6,233.37	83.18	75.937		
8,900.00	6,946.40	7,340.85	6,998.31	67.35	51.85	-92.38	-1,037.90	-8,308.51	6,220.23	6,136.58	83.65	74.361		
9,000.00	6,946.10	7,340.05	6,997.51	69.88	51.85	-92.35	-1,037.91	-8,308.52	6,124.01	6,039.86	84.15	72.773		
9,100.00	6,945.80	7,339.26	6,996.72	72.44	51.84	-92.32	-1,037.92	-8,308.52	6,027.92	5,943.23	84.69	71.176		
9,200.00	6,945.50	7,338.47	6,995.93	75.02	51.84	-92.30	-1,037.92	-8,308.52	5,931.97	5,846.70	85.27	69.569		
9,300.00	6,945.21	7,337.67	6,995.13	77.63	51.84	-92.27	-1,037.93	-8,308.53	5,836.14	5,750.26	85.88	67.954		
9,400.00	6,944.91	7,336.88	6,994.34	80.24	51.84	-92.24	-1,037.94	-8,308.53	5,740.46	5,653.92	86.54	66.332		
9,500.00	6,944.61	7,336.09	6,993.54	82.88	51.83	-92.21	-1,037.95	-8,308.54	5,644.93	5,557.68	87.24	64.704		
9,600.00	6,944.31	7,335.29	6,992.75	85.53	51.83	-92.19	-1,037.96	-8,308.54	5,549.55	5,461.56	87.99	63.071		
9,700.00	6,944.01	7,334.49	6,991.95	88.19	51.83	-92.16	-1,037.97	-8,308.55	5,454.34	5,365.56	88.78	61.436		
9,800.00	6,943.71	7,333.70	6,991.16	90.86	51.83	-92.13	-1,037.98	-8,308.55	5,359.31	5,269.68	89.62	59.799		
9,900.00	6,943.42	7,332.90	6,990.36	93.55	51.83	-92.11	-1,037.99	-8,308.55	5,264.46	5,173.94	90.52	58.161		
10,000.00	6,943.12	7,332.11	6,989.57	96.24	51.82	-92.08	-1,038.00	-8,308.56	5,169.80	5,078.34	91.46	56.524		
10,100.00	6,942.82	7,331.31	6,988.77	98.95	51.82	-92.05	-1,038.01	-8,308.56	5,075.34	4,982.88	92.46	54.890		
10,200.00	6,942.52	7,330.51	6,987.97	101.66	51.82	-92.02	-1,038.02	-8,308.57	4,981.11	4,887.58	93.52	53.260		
10,300.00	6,942.22	7,329.71	6,987.17	104.38	51.82	-92.00	-1,038.03	-8,308.57	4,887.10	4,792.46	94.64	51.636		

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 4N-16A-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 4N-16A-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	6,941.92	7,328.92	6,986.37	107.11	51.82	-91.97	-1,038.04	-8,308.58	4,793.34	4,697.51	95.83	50.020		
10,500.00	6,941.63	7,328.12	6,985.58	109.84	51.81	-91.94	-1,038.05	-8,308.58	4,699.83	4,602.75	97.08	48.412		
10,600.00	6,941.33	7,327.32	6,984.78	112.58	51.81	-91.92	-1,038.06	-8,308.58	4,606.59	4,508.19	98.40	46.814		
10,700.00	6,941.03	7,326.52	6,983.98	115.33	51.81	-91.89	-1,038.06	-8,308.59	4,513.65	4,413.85	99.80	45.229		
10,800.00	6,940.73	7,325.72	6,983.18	118.08	51.81	-91.86	-1,038.07	-8,308.59	4,421.01	4,319.74	101.27	43.657		
10,900.00	6,940.43	7,324.92	6,982.38	120.84	51.80	-91.83	-1,038.08	-8,308.60	4,328.70	4,225.88	102.82	42.101		
11,000.00	6,940.13	7,324.12	6,981.58	123.60	51.80	-91.81	-1,038.09	-8,308.60	4,236.74	4,132.28	104.45	40.561		
11,100.00	6,939.83	7,323.32	6,980.78	126.36	51.80	-91.78	-1,038.10	-8,308.61	4,145.15	4,038.97	106.18	39.040		
11,200.00	6,939.54	7,322.52	6,979.98	129.13	51.80	-91.75	-1,038.11	-8,308.61	4,053.95	3,945.96	107.99	37.539		
11,300.00	6,939.24	7,321.71	6,979.17	131.91	51.80	-91.73	-1,038.12	-8,308.61	3,963.19	3,853.28	109.91	36.059		
11,400.00	6,938.94	7,320.91	6,978.37	134.68	51.79	-91.70	-1,038.13	-8,308.62	3,872.87	3,760.95	111.93	34.602		
11,500.00	6,938.64	7,320.11	6,977.57	137.46	51.79	-91.67	-1,038.14	-8,308.62	3,783.05	3,669.00	114.05	33.170		
11,600.00	6,938.34	7,319.31	6,976.77	140.25	51.79	-91.64	-1,038.15	-8,308.63	3,693.74	3,577.45	116.29	31.763		
11,700.00	6,938.04	7,318.50	6,975.96	143.03	51.79	-91.62	-1,038.16	-8,308.63	3,605.00	3,486.35	118.65	30.383		
11,800.00	6,937.75	7,317.70	6,975.16	145.82	51.78	-91.59	-1,038.17	-8,308.64	3,516.86	3,395.73	121.14	29.032		
11,900.00	6,937.45	7,316.89	6,974.36	148.61	51.78	-91.56	-1,038.18	-8,308.64	3,429.38	3,305.62	123.76	27.711		
12,000.00	6,937.15	7,316.09	6,973.55	151.41	51.78	-91.53	-1,038.19	-8,308.65	3,342.59	3,216.08	126.52	26.420		
12,100.00	6,936.85	7,315.29	6,972.75	154.20	51.78	-91.51	-1,038.20	-8,308.65	3,256.56	3,127.14	129.42	25.162		
12,200.00	6,936.55	7,314.48	6,971.94	157.00	51.78	-91.48	-1,038.21	-8,308.65	3,171.36	3,038.87	132.49	23.937		
12,300.00	6,936.25	7,313.67	6,971.13	159.80	51.77	-91.45	-1,038.22	-8,308.66	3,087.04	2,951.32	135.71	22.747		
12,400.00	6,935.96	7,312.87	6,970.33	162.61	51.77	-91.42	-1,038.23	-8,308.66	3,003.68	2,864.57	139.11	21.592		
12,500.00	6,935.66	7,312.06	6,969.52	165.41	51.77	-91.40	-1,038.24	-8,308.67	2,921.36	2,778.68	142.69	20.474		
12,600.00	6,935.36	7,311.25	6,968.72	168.22	51.77	-91.37	-1,038.25	-8,308.67	2,840.18	2,693.73	146.45	19.394		
12,700.00	6,935.06	7,310.45	6,967.91	171.02	51.77	-91.34	-1,038.26	-8,308.68	2,760.24	2,609.83	150.41	18.351		
12,800.00	6,934.76	7,309.64	6,967.10	173.83	51.76	-91.31	-1,038.27	-8,308.68	2,681.64	2,527.07	154.57	17.349		
12,900.00	6,934.46	7,308.83	6,966.29	176.65	51.76	-91.29	-1,038.28	-8,308.68	2,604.51	2,445.57	158.95	16.386		
13,000.00	6,934.17	7,308.02	6,965.48	179.46	51.76	-91.26	-1,038.29	-8,308.69	2,528.99	2,365.45	163.54	15.464		
13,100.00	6,933.87	7,307.21	6,964.67	182.27	51.76	-91.23	-1,038.30	-8,308.69	2,455.21	2,286.86	168.35	14.584		
13,200.00	6,933.57	7,306.40	6,963.87	185.09	51.75	-91.20	-1,038.31	-8,308.70	2,383.34	2,209.96	173.38	13.746		
13,300.00	6,933.27	7,305.59	6,963.06	187.91	51.75	-91.18	-1,038.32	-8,308.70	2,313.57	2,134.93	178.64	12.951		
13,400.00	6,932.97	7,304.78	6,962.25	190.72	51.75	-91.15	-1,038.33	-8,308.71	2,246.08	2,061.97	184.11	12.200		
13,500.00	6,932.67	7,303.97	6,961.43	193.54	51.75	-91.12	-1,038.34	-8,308.71	2,181.09	1,991.29	189.79	11.492		
13,600.00	6,932.38	7,303.16	6,960.62	196.36	51.75	-91.09	-1,038.35	-8,308.72	2,118.82	1,923.15	195.68	10.828		
13,700.00	6,932.08	7,302.35	6,959.81	199.19	51.74	-91.07	-1,038.36	-8,308.72	2,059.54	1,857.79	201.74	10.209		
13,800.00	6,931.78	7,301.54	6,959.00	202.01	51.74	-91.04	-1,038.37	-8,308.72	2,003.49	1,795.53	207.95	9.634		
13,900.00	6,931.48	7,300.73	6,958.19	204.83	51.74	-91.01	-1,038.38	-8,308.73	1,950.95	1,736.67	214.29	9.104		
14,000.00	6,931.18	7,299.91	6,957.38	207.66	51.74	-90.98	-1,038.39	-8,308.73	1,902.23	1,681.54	220.69	8.619		
14,100.00	6,930.88	7,299.10	6,956.56	210.48	51.73	-90.96	-1,038.40	-8,308.74	1,857.62	1,630.50	227.11	8.179		
14,200.00	6,930.59	7,298.29	6,955.75	213.31	51.73	-90.93	-1,038.41	-8,308.74	1,817.42	1,583.93	233.49	7.784		
14,300.00	6,930.29	7,297.47	6,954.94	216.14	51.73	-90.90	-1,038.42	-8,308.75	1,781.93	1,542.18	239.75	7.433		
14,400.00	6,929.99	7,296.66	6,954.12	218.96	51.73	-90.87	-1,038.43	-8,308.75	1,751.44	1,505.64	245.79	7.126		
14,500.00	6,929.69	7,295.84	6,953.31	221.79	51.73	-90.84	-1,038.44	-8,308.76	1,726.21	1,474.66	251.54	6.862		
14,600.00	6,929.39	7,295.03	6,952.49	224.62	51.72	-90.82	-1,038.45	-8,308.76	1,706.47	1,449.57	256.90	6.642		
14,700.00	6,929.09	7,294.21	6,951.68	227.45	51.72	-90.79	-1,038.46	-8,308.76	1,692.43	1,430.65	261.77	6.465		
14,732.12	6,929.00	7,293.95	6,951.41	228.36	51.72	-90.78	-1,038.47	-8,308.77	1,689.14	1,425.92	263.22	6.417 CC, ES, SF		



Anticollision Report



Company:	SRC ENERGY	Local Co-ordinate Reference:	Well HARVESTERS STATE 4N-16A-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 4N-16A-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	-108.64	-3,037.02	-9,004.96	9,503.37					
100.00	100.00	37.25	73.25	3.28	3.28	-108.64	-3,036.94	-9,005.04	9,503.40	9,496.83	6.57	1,447.447		
200.00	200.00	95.44	131.44	3.34	3.29	-108.63	-3,036.50	-9,005.50	9,503.90	9,497.27	6.62	1,434.990		
300.00	300.00	168.00	203.98	3.44	3.30	-108.62	-3,035.39	-9,006.64	9,504.86	9,498.12	6.74	1,409.625		
400.00	400.00	168.00	203.98	3.60	3.30	-108.62	-3,035.39	-9,006.64	9,506.39	9,499.49	6.90	1,377.241		
500.00	500.00	213.16	249.11	3.81	3.33	-108.62	-3,034.51	-9,007.86	9,508.57	9,501.43	7.13	1,333.008		
600.00	600.00	259.00	294.90	4.05	3.37	-108.61	-3,033.64	-9,009.77	9,511.68	9,504.26	7.41	1,283.108		
700.00	699.98	259.00	294.90	4.32	3.37	-95.06	-3,033.64	-9,009.77	9,515.56	9,507.88	7.69	1,237.830		
800.00	799.84	292.97	328.82	4.62	3.40	-94.96	-3,033.10	-9,011.56	9,520.59	9,512.57	8.02	1,186.863		
900.00	899.45	350.00	385.74	4.94	3.48	-94.87	-3,032.63	-9,015.16	9,526.84	9,518.43	8.41	1,132.276		
1,000.00	998.80	350.00	385.74	5.28	3.48	-94.82	-3,032.63	-9,015.16	9,533.76	9,525.01	8.75	1,089.239		
1,100.00	1,098.12	409.00	444.58	5.63	3.58	-94.85	-3,032.46	-9,019.37	9,541.44	9,532.25	9.20	1,037.257		
1,200.00	1,197.44	485.56	520.93	6.00	3.73	-94.90	-3,032.30	-9,025.10	9,549.49	9,539.78	9.71	983.564		
1,300.00	1,296.77	532.00	567.24	6.37	3.84	-94.92	-3,032.15	-9,028.64	9,557.77	9,547.59	10.19	938.366		
1,400.00	1,396.09	586.03	621.09	6.76	3.98	-94.95	-3,032.10	-9,033.00	9,566.56	9,555.86	10.70	894.259		
1,500.00	1,495.41	644.00	678.83	7.15	4.14	-94.98	-3,032.43	-9,038.18	9,576.12	9,564.88	11.24	852.181		
1,600.00	1,594.74	669.90	704.61	7.55	4.21	-95.00	-3,032.68	-9,040.62	9,586.18	9,574.47	11.70	819.031		
1,700.00	1,694.06	753.87	788.19	7.96	4.48	-95.04	-3,033.67	-9,048.67	9,596.69	9,584.35	12.35	777.307		
1,800.00	1,793.38	865.21	899.02	8.37	4.85	-95.11	-3,035.03	-9,059.17	9,607.09	9,593.99	13.10	733.493		
1,900.00	1,892.71	1,900.00	1,093.73	8.78	9.11	-95.21	-3,035.57	-9,077.48	9,617.25	9,599.73	17.51	549.136		
2,000.00	1,992.03	1,096.00	1,128.81	9.20	5.72	-95.23	-3,035.56	-9,080.58	9,626.88	9,612.17	14.72	654.196		
2,100.00	2,091.36	1,154.04	1,186.61	9.62	5.95	-95.26	-3,035.41	-9,085.89	9,636.82	9,621.48	15.34	628.056		
2,200.00	2,190.68	1,190.00	1,222.36	10.05	6.09	-95.28	-3,035.19	-9,089.74	9,647.74	9,631.84	15.89	607.001		
2,300.00	2,290.00	1,190.00	1,222.36	10.48	6.09	-95.28	-3,035.19	-9,089.74	9,659.42	9,643.11	16.31	592.267		
2,400.00	2,389.33	1,242.58	1,274.56	10.90	6.32	-95.30	-3,034.83	-9,095.98	9,671.69	9,654.76	16.93	571.315		
2,500.00	2,488.65	1,285.00	1,316.63	11.34	6.50	-95.31	-3,034.56	-9,101.46	9,684.72	9,667.21	17.51	553.047		
2,600.00	2,587.97	1,285.00	1,316.63	11.77	6.50	-95.31	-3,034.56	-9,101.46	9,698.49	9,680.56	17.93	541.026		
2,700.00	2,687.30	1,340.29	1,371.39	12.20	6.75	-95.34	-3,034.56	-9,109.08	9,712.79	9,694.22	18.56	523.227		
2,800.00	2,786.62	1,379.00	1,409.70	12.64	6.92	-95.36	-3,034.96	-9,114.67	9,727.85	9,708.71	19.13	508.382		
2,900.00	2,885.94	1,410.51	1,440.84	13.07	7.07	-95.37	-3,035.34	-9,119.41	9,743.55	9,723.87	19.68	495.143		
3,000.00	2,985.27	1,449.27	1,479.11	13.51	7.25	-95.39	-3,035.59	-9,125.55	9,759.86	9,739.61	20.25	481.913		
3,100.00	3,084.59	1,475.00	1,504.49	13.95	7.38	-95.40	-3,035.62	-9,129.81	9,776.81	9,756.04	20.77	470.696		
3,200.00	3,183.91	1,524.28	1,553.04	14.39	7.62	-95.41	-3,035.69	-9,138.29	9,794.33	9,772.93	21.39	457.832		
3,300.00	3,283.24	1,570.00	1,598.02	14.83	7.85	-95.43	-3,035.98	-9,146.46	9,812.50	9,790.50	22.00	446.023		
3,400.00	3,382.56	1,605.52	1,632.93	15.27	8.03	-95.44	-3,036.26	-9,153.01	9,831.23	9,808.67	22.56	435.724		
3,500.00	3,481.88	1,665.00	1,691.32	15.71	8.34	-95.46	-3,036.64	-9,164.33	9,850.51	9,827.28	23.23	423.962		
3,600.00	3,581.21	1,665.00	1,691.32	16.16	8.34	-95.46	-3,036.64	-9,164.33	9,870.39	9,846.76	23.63	417.629		
3,700.00	3,680.53	1,718.54	1,743.76	16.60	8.63	-95.48	-3,036.89	-9,175.07	9,890.79	9,866.51	24.28	407.348		
3,800.00	3,779.85	1,759.00	1,783.31	17.04	8.85	-95.49	-3,037.03	-9,183.63	9,911.94	9,887.07	24.87	398.606		
3,900.00	3,879.18	1,759.00	1,783.31	17.49	8.85	-95.49	-3,037.03	-9,183.63	9,933.79	9,908.53	25.26	393.276		
4,000.00	3,978.50	1,810.45	1,833.51	17.93	9.15	-95.51	-3,037.57	-9,194.93	9,956.18	9,930.28	25.90	384.475		
4,100.00	4,077.82	1,853.00	1,874.94	18.37	9.39	-95.52	-3,038.61	-9,204.52	9,979.31	9,952.82	26.49	376.737		
7,600.00	6,950.28	6,879.15	6,763.91	38.70	40.23	-87.54	-3,073.11	-10,247.61	9,958.14	9,892.96	65.18	152.776		
7,700.00	6,949.98	6,880.03	6,764.79	40.41	40.24	-87.56	-3,073.12	-10,247.63	9,865.40	9,799.77	65.62	150.330		
7,800.00	6,949.68	6,880.91	6,765.68	42.25	40.24	-87.57	-3,073.13	-10,247.64	9,772.79	9,706.68	66.11	147.821		
7,900.00	6,949.38	6,881.80	6,766.57	44.20	40.24	-87.59	-3,073.15	-10,247.65	9,680.33	9,613.69	66.64	145.255		
8,000.00	6,949.08	6,882.69	6,767.46	46.24	40.24	-87.60	-3,073.16	-10,247.67	9,588.02	9,520.80	67.22	142.635		
8,100.00	6,948.79	6,883.59	6,768.35	48.36	40.25	-87.61	-3,073.17	-10,247.68	9,495.87	9,428.03	67.84	139.968		
8,200.00	6,948.49	6,884.48	6,769.25	50.56	40.25	-87.63	-3,073.18	-10,247.70	9,403.88	9,335.37	68.51	137.259		
8,300.00	6,948.19	6,885.38	6,770.15	52.82	40.25	-87.64	-3,073.19	-10,247.71	9,312.05	9,242.82	69.23	134.514		
8,400.00	6,947.89	6,886.28	6,771.05	55.14	40.26	-87.65	-3,073.20	-10,247.72	9,220.39	9,150.40	69.99	131.740		
8,500.00	6,947.59	6,887.19	6,771.95	57.50	40.26	-87.67	-3,073.21	-10,247.74	9,128.91	9,058.11	70.80	128.941		

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 4N-16A-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 4N-16A-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		
8,600.00	6,947.29	6,888.09	6,772.86	59.91	40.26	-87.68	-3,073.23	-10,247.75	9,037.61	8,965.95	71.66	126.124		
8,700.00	6,947.00	6,889.00	6,773.77	62.36	40.27	-87.70	-3,073.24	-10,247.76	8,946.49	8,873.93	72.56	123.295		
8,800.00	6,946.70	6,889.92	6,774.68	64.84	40.27	-87.71	-3,073.25	-10,247.78	8,855.57	8,782.05	73.52	120.459		
8,900.00	6,946.40	6,890.83	6,775.60	67.35	40.27	-87.72	-3,073.26	-10,247.79	8,764.84	8,690.32	74.52	117.621		
9,000.00	6,946.10	6,891.75	6,776.52	69.88	40.27	-87.74	-3,073.27	-10,247.81	8,674.32	8,598.75	75.57	114.788		
9,100.00	6,945.80	6,892.67	6,777.44	72.44	40.28	-87.75	-3,073.29	-10,247.82	8,584.00	8,507.34	76.67	111.963		
9,200.00	6,945.50	6,893.60	6,778.36	75.02	40.28	-87.77	-3,073.30	-10,247.84	8,493.91	8,416.09	77.82	109.152		
9,300.00	6,945.21	6,894.52	6,779.29	77.63	40.28	-87.78	-3,073.31	-10,247.85	8,404.04	8,325.02	79.02	106.359		
9,400.00	6,944.91	6,895.45	6,780.22	80.24	40.29	-87.80	-3,073.32	-10,247.86	8,314.40	8,234.13	80.26	103.587		
9,500.00	6,944.61	6,896.39	6,781.15	82.88	40.29	-87.81	-3,073.33	-10,247.88	8,224.99	8,143.43	81.56	100.842		
9,600.00	6,944.31	6,897.32	6,782.08	85.53	40.29	-87.82	-3,073.35	-10,247.89	8,135.84	8,052.92	82.91	98.125		
9,700.00	6,944.01	6,898.26	6,783.02	88.19	40.30	-87.84	-3,073.36	-10,247.91	8,046.94	7,962.62	84.31	95.441		
9,800.00	6,943.71	6,899.20	6,783.96	90.86	40.30	-87.85	-3,073.37	-10,247.92	7,958.30	7,872.53	85.77	92.791		
9,900.00	6,943.42	6,900.14	6,784.91	93.55	40.30	-87.87	-3,073.38	-10,247.94	7,869.93	7,782.66	87.27	90.180		
10,000.00	6,943.12	6,901.09	6,785.85	96.24	40.31	-87.88	-3,073.40	-10,247.95	7,781.85	7,693.02	88.83	87.608		
10,100.00	6,942.82	6,902.04	6,786.80	98.95	40.31	-87.90	-3,073.41	-10,247.97	7,694.06	7,603.62	90.44	85.078		
10,200.00	6,942.52	6,902.99	6,787.76	101.66	40.31	-87.91	-3,073.42	-10,247.98	7,606.57	7,514.47	92.10	82.591		
10,300.00	6,942.22	6,903.95	6,788.71	104.38	40.32	-87.93	-3,073.44	-10,248.00	7,519.39	7,425.57	93.82	80.150		
10,400.00	6,941.92	6,904.91	6,789.67	107.11	40.32	-87.94	-3,073.45	-10,248.01	7,432.53	7,336.94	95.59	77.754		
10,500.00	6,941.63	6,905.87	6,790.63	109.84	40.32	-87.96	-3,073.46	-10,248.03	7,346.01	7,248.59	97.42	75.406		
10,600.00	6,941.33	6,906.84	6,791.60	112.58	40.32	-87.97	-3,073.48	-10,248.04	7,259.83	7,160.52	99.30	73.107		
10,700.00	6,941.03	6,907.80	6,792.56	115.33	40.33	-87.99	-3,073.49	-10,248.06	7,174.01	7,072.76	101.25	70.856		
10,800.00	6,940.73	6,908.77	6,793.53	118.08	40.33	-88.00	-3,073.50	-10,248.07	7,088.56	6,985.31	103.25	68.655		
10,900.00	6,940.43	6,909.75	6,794.51	120.84	40.33	-88.02	-3,073.52	-10,248.09	7,003.50	6,898.19	105.31	66.503		
11,000.00	6,940.13	6,910.73	6,795.49	123.60	40.34	-88.03	-3,073.53	-10,248.10	6,918.84	6,811.41	107.43	64.401		
11,100.00	6,939.83	6,911.71	6,796.47	126.36	40.34	-88.05	-3,073.54	-10,248.12	6,834.59	6,724.97	109.62	62.350		
11,200.00	6,939.54	6,912.69	6,797.45	129.13	40.34	-88.06	-3,073.56	-10,248.13	6,750.77	6,638.91	111.86	60.348		
11,300.00	6,939.24	6,913.68	6,798.43	131.91	40.35	-88.08	-3,073.57	-10,248.15	6,667.40	6,553.23	114.17	58.397		
11,400.00	6,938.94	6,914.67	6,799.42	134.68	40.35	-88.09	-3,073.59	-10,248.16	6,584.49	6,467.94	116.55	56.496		
11,500.00	6,938.64	6,915.66	6,800.42	137.46	40.35	-88.11	-3,073.60	-10,248.18	6,502.06	6,383.07	118.99	54.644		
11,600.00	6,938.34	6,916.65	6,801.41	140.25	40.36	-88.12	-3,073.62	-10,248.20	6,420.13	6,298.63	121.50	52.841		
11,700.00	6,938.04	6,917.65	6,802.41	143.03	40.36	-88.14	-3,073.63	-10,248.21	6,338.72	6,214.65	124.08	51.087		
11,800.00	6,937.75	6,918.65	6,803.41	145.82	40.36	-88.15	-3,073.64	-10,248.23	6,257.85	6,131.13	126.72	49.382		
11,900.00	6,937.45	6,919.66	6,804.42	148.61	40.37	-88.17	-3,073.66	-10,248.24	6,177.54	6,048.10	129.44	47.724		
12,000.00	6,937.15	6,920.67	6,805.43	151.41	40.37	-88.19	-3,073.67	-10,248.26	6,097.81	5,965.57	132.23	46.114		
12,100.00	6,936.85	6,921.68	6,806.44	154.20	40.37	-88.20	-3,073.69	-10,248.28	6,018.68	5,883.58	135.10	44.551		
12,200.00	6,936.55	6,922.70	6,807.45	157.00	40.38	-88.22	-3,073.70	-10,248.29	5,940.19	5,802.15	138.04	43.033		
12,300.00	6,936.25	6,923.71	6,808.47	159.80	40.38	-88.23	-3,073.72	-10,248.31	5,862.34	5,721.29	141.05	41.561		
12,400.00	6,935.96	6,924.74	6,809.49	162.61	40.38	-88.25	-3,073.73	-10,248.33	5,785.18	5,641.04	144.15	40.134		
12,500.00	6,935.66	6,925.76	6,810.52	165.41	40.39	-88.26	-3,073.75	-10,248.34	5,708.73	5,561.41	147.32	38.752		
12,600.00	6,935.36	6,926.79	6,811.55	168.22	40.39	-88.28	-3,073.76	-10,248.36	5,633.02	5,482.45	150.57	37.412		
12,700.00	6,935.06	6,927.82	6,812.58	171.02	40.39	-88.30	-3,073.78	-10,248.38	5,558.07	5,404.17	153.90	36.116		
12,800.00	6,934.76	6,928.86	6,813.61	173.83	40.40	-88.31	-3,073.80	-10,248.39	5,483.92	5,326.61	157.31	34.861		
12,900.00	6,934.46	6,929.89	6,814.65	176.65	40.40	-88.33	-3,073.81	-10,248.41	5,410.60	5,249.80	160.80	33.648		
13,000.00	6,934.17	6,930.94	6,815.69	179.46	40.40	-88.34	-3,073.83	-10,248.43	5,338.15	5,173.78	164.38	32.475		
13,100.00	6,933.87	6,931.98	6,816.74	182.27	40.41	-88.36	-3,073.84	-10,248.44	5,266.61	5,098.57	168.03	31.342		
13,200.00	6,933.57	6,933.03	6,817.78	185.09	40.41	-88.38	-3,073.86	-10,248.46	5,196.00	5,024.22	171.78	30.249		
13,300.00	6,933.27	6,934.08	6,818.84	187.91	40.42	-88.39	-3,073.88	-10,248.48	5,126.37	4,950.77	175.60	29.193		
13,400.00	6,932.97	6,935.14	6,819.89	190.72	40.42	-88.41	-3,073.89	-10,248.49	5,057.75	4,878.25	179.51	28.176		
13,500.00	6,932.67	6,936.20	6,820.95	193.54	40.42	-88.43	-3,073.91	-10,248.51	4,990.20	4,806.71	183.50	27.195		
13,600.00	6,932.38	6,937.26	6,822.01	196.36	40.43	-88.44	-3,073.92	-10,248.53	4,923.75	4,736.19	187.57	26.251		
13,700.00	6,932.08	6,938.32	6,823.08	199.19	40.43	-88.46	-3,073.94	-10,248.55	4,858.45	4,666.74	191.72	25.342		

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 4N-16A-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 4N-16A-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						
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
13,800.00	6,931.78	6,939.39	6,824.15	202.01	40.43	-88.48	-3,073.96	-10,248.56	4,794.35	4,598.41	195.94	24.468	
13,900.00	6,931.48	6,940.47	6,825.22	204.83	40.44	-88.49	-3,073.97	-10,248.58	4,731.49	4,531.24	200.25	23.628	
14,000.00	6,931.18	6,941.54	6,826.29	207.66	40.44	-88.51	-3,073.99	-10,248.60	4,669.93	4,465.30	204.63	22.822	
14,100.00	6,930.88	6,942.62	6,827.37	210.48	40.44	-88.53	-3,074.01	-10,248.62	4,609.72	4,400.64	209.08	22.048	
14,200.00	6,930.59	6,943.71	6,828.46	213.31	40.45	-88.54	-3,074.03	-10,248.63	4,550.90	4,337.31	213.59	21.306	
14,300.00	6,930.29	6,944.79	6,829.54	216.14	40.45	-88.56	-3,074.04	-10,248.65	4,493.54	4,275.37	218.17	20.596	
14,400.00	6,929.99	6,945.88	6,830.63	218.96	40.45	-88.58	-3,074.06	-10,248.67	4,437.69	4,214.88	222.81	19.917	
14,500.00	6,929.69	6,946.98	6,831.73	221.79	40.46	-88.59	-3,074.08	-10,248.69	4,383.42	4,155.91	227.50	19.267	
14,600.00	6,929.39	6,948.08	6,832.83	224.62	40.46	-88.61	-3,074.10	-10,248.71	4,330.77	4,098.52	232.24	18.648	
14,700.00	6,929.09	6,949.18	6,833.93	227.45	40.47	-88.63	-3,074.11	-10,248.72	4,279.81	4,042.79	237.02	18.057	
14,732.12	6,929.00	6,949.53	6,834.28	228.36	40.47	-88.63	-3,074.12	-10,248.73	4,263.80	4,025.24	238.56	17.873 CC, ES, SF	



Anticollision Report



Company:	SRC ENERGY	Local Co-ordinate Reference:	Well HARVESTERS STATE 4N-16A-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 4N-16A-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	-108.36	-2,969.28	-8,949.02	9,428.84					
100.00	100.00	37.24	73.24	3.28	3.28	-108.36	-2,969.21	-8,949.11	9,428.86	9,422.29	6.57	1,436.111		
200.00	200.00	95.43	131.43	3.34	3.29	-108.35	-2,968.77	-8,949.56	9,429.36	9,422.74	6.62	1,423.848		
300.00	300.00	468.42	504.26	3.44	3.73	-108.30	-2,959.14	-8,948.48	9,427.28	9,420.10	7.17	1,313.959		
400.00	400.00	738.30	773.94	3.60	4.41	-108.26	-2,950.51	-8,942.90	9,424.48	9,416.45	8.03	1,174.262		
500.00	500.00	795.93	831.50	3.81	4.59	-108.25	-2,948.08	-8,941.37	9,420.68	9,412.28	8.40	1,121.611		
600.00	600.00	850.00	885.47	4.05	4.76	-108.23	-2,945.08	-8,940.56	9,417.46	9,408.65	8.81	1,069.305		
700.00	699.98	890.35	925.74	4.32	4.90	-94.80	-2,942.39	-8,940.33	9,414.93	9,405.72	9.21	1,022.423		
800.00	799.84	945.00	980.22	4.62	5.08	-94.83	-2,938.17	-8,940.51	9,413.24	9,403.55	9.69	971.671		
900.00	899.45	1,024.54	1,059.36	4.94	5.37	-94.85	-2,930.37	-8,941.61	9,412.20	9,401.91	10.29	914.825		
1,000.00	998.80	1,175.04	1,208.54	5.28	5.95	-94.84	-2,910.76	-8,944.82	9,411.03	9,399.83	11.21	839.668		
1,100.00	1,098.12	1,846.31	1,863.41	5.63	9.32	-94.45	-2,766.13	-8,955.29	9,406.52	9,391.63	14.89	631.590		
1,200.00	1,197.44	2,025.01	2,034.98	6.00	10.42	-94.28	-2,716.17	-8,955.16	9,398.53	9,382.21	16.33	575.635		
1,300.00	1,296.77	2,081.00	2,088.61	6.37	10.77	-94.22	-2,700.12	-8,955.35	9,390.78	9,373.72	17.05	550.757		
1,400.00	1,396.09	2,110.84	2,117.17	6.76	10.97	-94.19	-2,691.49	-8,955.66	9,383.58	9,365.95	17.63	532.281		
1,500.00	1,495.41	2,175.00	2,178.46	7.15	11.38	-94.12	-2,672.52	-8,956.83	9,377.01	9,358.57	18.43	508.663		
1,600.00	1,594.74	2,383.01	2,376.44	7.55	12.80	-93.89	-2,608.83	-8,960.10	9,370.00	9,349.78	20.22	463.462		
1,700.00	1,694.06	2,484.05	2,472.50	7.96	13.50	-93.77	-2,577.49	-8,961.20	9,362.43	9,341.12	21.31	439.318		
1,800.00	1,793.38	2,602.20	2,585.09	8.37	14.33	-93.64	-2,541.70	-8,961.93	9,354.67	9,332.14	22.53	415.244		
1,900.00	1,892.71	2,766.71	2,741.08	8.78	15.51	-93.45	-2,489.48	-8,963.08	9,346.61	9,322.51	24.10	387.884		
2,000.00	1,992.03	2,838.00	2,808.42	9.20	16.04	-93.36	-2,466.08	-8,963.65	9,338.33	9,313.29	25.04	373.006		
2,100.00	2,091.36	2,888.19	2,856.05	9.62	16.39	-93.30	-2,450.27	-8,964.04	9,330.48	9,304.67	25.81	361.458		
2,200.00	2,190.68	2,940.96	2,906.55	10.05	16.77	-93.24	-2,434.96	-8,964.32	9,323.16	9,296.55	26.61	350.349		
2,300.00	2,290.00	3,010.92	2,973.57	10.48	17.26	-93.17	-2,414.91	-8,964.89	9,316.26	9,288.74	27.52	338.534		
2,400.00	2,389.33	3,187.85	3,143.13	10.90	18.48	-93.00	-2,364.40	-8,965.42	9,308.78	9,279.63	29.15	319.382		
2,500.00	2,488.65	2,500.00	3,265.86	11.34	13.78	-92.88	-2,328.92	-8,964.87	9,300.99	9,276.02	24.98	372.356		
2,600.00	2,587.97	3,376.01	3,323.79	11.77	19.78	-92.82	-2,311.81	-8,964.67	9,293.26	9,261.97	31.29	297.035		
2,700.00	2,687.30	3,439.06	3,384.21	12.20	20.23	-92.76	-2,293.78	-8,964.97	9,286.13	9,253.97	32.16	288.761		
2,800.00	2,786.62	3,537.33	3,478.50	12.64	20.91	-92.66	-2,266.12	-8,965.36	9,279.11	9,245.84	33.27	278.895		
2,900.00	2,885.94	3,618.33	3,556.10	13.07	21.48	-92.58	-2,242.90	-8,965.91	9,272.25	9,237.98	34.27	270.547		
3,000.00	2,985.27	3,699.47	3,633.73	13.51	22.06	-92.49	-2,219.29	-8,966.75	9,265.62	9,230.33	35.28	262.600		
3,100.00	3,084.59	3,822.12	3,750.41	13.95	22.97	-92.35	-2,181.54	-8,968.53	9,258.94	9,222.32	36.61	252.878		
3,200.00	3,183.91	3,931.55	3,854.09	14.39	23.79	-92.21	-2,146.60	-8,970.31	9,252.15	9,214.28	37.87	244.311		
3,300.00	3,283.24	4,017.90	3,935.91	14.83	24.44	-92.11	-2,119.02	-8,971.65	9,245.33	9,206.37	38.96	237.308		
3,400.00	3,382.56	4,071.00	3,986.31	15.27	24.84	-92.04	-2,102.33	-8,972.53	9,238.85	9,199.04	39.80	232.110		
3,500.00	3,481.88	4,127.85	4,040.39	15.71	25.26	-91.98	-2,084.84	-8,973.65	9,232.86	9,192.19	40.67	227.025		
3,600.00	3,581.21	3,600.00	4,443.06	16.16	21.13	-91.46	-1,950.35	-8,977.88	9,226.54	9,189.51	37.03	249.151		
3,700.00	3,680.53	4,609.23	4,496.47	16.60	28.93	-91.38	-1,931.12	-8,977.62	9,217.56	9,172.44	45.12	204.268		
3,800.00	3,779.85	4,639.00	4,524.56	17.04	29.16	-91.34	-1,921.27	-8,977.61	9,209.26	9,163.44	45.82	201.001		
3,900.00	3,879.18	4,699.77	4,582.15	17.49	29.62	-91.27	-1,901.89	-8,977.74	9,201.50	9,154.78	46.72	196.934		
4,000.00	3,978.50	4,736.00	4,616.68	17.93	29.89	-91.23	-1,890.90	-8,977.88	9,194.38	9,146.92	47.45	193.761		
4,100.00	4,077.82	4,797.11	4,675.09	18.37	30.34	-91.16	-1,872.96	-8,978.30	9,187.78	9,139.44	48.34	190.052		
4,200.00	4,177.15	4,852.21	4,727.91	18.82	30.73	-91.10	-1,857.27	-8,978.87	9,181.74	9,132.55	49.18	186.681		
4,300.00	4,276.47	4,925.00	4,798.17	19.27	31.23	-91.04	-1,838.30	-8,979.47	9,176.13	9,126.00	50.13	183.048		
4,400.00	4,375.79	4,978.31	4,849.91	19.71	31.57	-91.00	-1,825.43	-8,979.85	9,170.91	9,119.99	50.92	180.089		
4,500.00	4,475.12	5,040.50	4,910.38	20.16	31.97	-90.95	-1,810.94	-8,980.40	9,166.12	9,114.35	51.77	177.055		
4,600.00	4,574.44	5,114.00	4,982.06	20.60	32.42	-90.91	-1,794.68	-8,981.15	9,161.74	9,109.07	52.67	173.930		
4,700.00	4,673.76	5,168.13	5,035.02	21.05	32.74	-90.88	-1,783.55	-8,981.70	9,157.75	9,104.31	53.44	171.358		
4,800.00	4,773.09	5,232.11	5,097.88	21.50	33.11	-90.85	-1,771.61	-8,982.27	9,154.15	9,099.89	54.25	168.725		
4,900.00	4,872.41	5,304.00	5,168.80	21.94	33.49	-90.83	-1,759.86	-8,982.79	9,150.96	9,095.87	55.09	166.111		
5,000.00	4,971.74	5,360.37	5,224.56	22.39	33.78	-90.82	-1,751.60	-8,983.19	9,148.15	9,092.33	55.82	163.884		
5,100.00	5,071.06	5,422.44	5,286.06	22.84	34.08	-90.81	-1,743.20	-8,983.67	9,145.73	9,089.16	56.57	161.672		

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 4N-16A-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 4N-16A-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	5,170.38	5,493.00	5,356.18	23.29	34.41	-90.82	-1,735.41	-8,984.14	9,143.79	9,086.44	57.34	159.460		
5,300.00	5,269.71	5,541.20	5,404.18	23.74	34.61	-90.83	-1,730.97	-8,984.46	9,142.25	9,084.26	57.99	157.650		
5,400.00	5,369.03	5,600.43	5,523.02	24.18	35.10	-90.85	-1,721.37	-8,985.19	9,141.06	9,082.13	58.93	155.119		
5,500.00	5,468.35	5,799.36	5,661.67	24.63	35.63	-90.90	-1,712.87	-8,984.35	9,139.07	9,079.16	59.91	152.556		
5,600.00	5,567.68	5,844.78	5,707.04	25.08	35.79	-90.93	-1,710.79	-8,984.03	9,137.42	9,076.91	60.52	150.994		
5,700.00	5,667.00	5,872.00	5,734.24	25.53	35.89	-90.94	-1,709.66	-8,983.94	9,136.41	9,075.36	61.05	149.643		
5,800.00	5,766.32	5,939.14	5,801.34	25.98	36.12	-90.97	-1,707.36	-8,983.99	9,135.90	9,074.17	61.73	148.001		
5,843.81	5,809.84	5,966.00	5,828.19	26.18	36.21	-90.99	-1,706.66	-8,984.11	9,135.87	9,073.86	62.01	147.318		
5,900.00	5,865.65	6,001.36	5,863.54	26.43	36.33	-91.01	-1,705.83	-8,984.32	9,135.96	9,073.58	62.38	146.455		
6,000.00	5,964.97	6,089.68	5,951.84	26.88	36.62	-91.06	-1,703.90	-8,984.93	9,136.29	9,073.17	63.12	144.746		
6,100.00	6,064.29	6,200.37	6,062.51	27.33	36.99	-91.13	-1,701.69	-8,985.59	9,136.59	9,072.66	63.93	142.904		
6,200.00	6,163.62	6,285.40	6,147.51	27.78	37.27	-91.18	-1,700.06	-8,986.08	9,136.90	9,072.24	64.66	141.297		
6,300.00	6,262.94	6,364.23	6,226.32	28.23	37.53	-91.22	-1,698.41	-8,986.74	9,137.44	9,072.06	65.37	139.774		
6,400.00	6,362.24	6,444.13	6,306.20	28.67	37.80	-72.98	-1,696.68	-8,987.62	9,137.63	9,071.54	66.09	138.265		
6,500.00	6,460.41	6,523.49	6,385.54	29.12	38.07	-41.47	-1,695.04	-8,988.64	9,126.88	9,060.08	66.80	136.635		
6,600.00	6,555.09	6,623.38	6,485.40	29.57	38.40	-32.22	-1,693.07	-8,990.01	9,101.32	9,033.76	67.57	134.699		
6,700.00	6,643.94	6,714.42	6,576.42	30.00	38.71	-28.97	-1,691.32	-8,991.16	9,061.44	8,993.16	68.28	132.705		
6,800.00	6,724.78	6,779.39	6,641.37	30.45	38.93	-28.36	-1,690.10	-8,992.06	9,008.41	8,939.54	68.87	130.796		
6,900.00	6,795.62	6,836.68	6,698.65	30.97	39.13	-29.63	-1,689.06	-8,992.94	8,943.58	8,874.18	69.40	128.862		
7,000.00	6,854.70	6,895.26	6,757.21	31.60	39.33	-32.97	-1,687.96	-8,993.92	8,868.48	8,798.57	69.91	126.858		
7,100.00	6,900.58	6,945.06	6,806.99	32.39	39.50	-39.29	-1,686.90	-8,994.77	8,784.89	8,714.54	70.35	124.875		
7,200.00	6,932.13	6,979.98	6,841.89	33.34	39.62	-50.79	-1,686.09	-8,995.39	8,694.87	8,624.17	70.71	122.972		
7,300.00	6,948.57	6,999.11	6,861.01	34.46	39.69	-71.48	-1,685.61	-8,995.73	8,600.66	8,529.68	70.98	121.169		
7,400.00	6,950.87	7,003.41	6,865.31	35.70	39.70	-88.49	-1,685.50	-8,995.80	8,504.60	8,433.41	71.19	119.470		
7,500.00	6,950.58	7,004.96	6,866.86	37.12	39.71	-88.53	-1,685.46	-8,995.83	8,408.45	8,337.05	71.40	117.768		
7,600.00	6,950.28	7,006.51	6,868.41	38.70	39.71	-88.57	-1,685.42	-8,995.86	8,312.40	8,240.76	71.64	116.036		
7,700.00	6,949.98	7,008.07	6,869.97	40.41	39.72	-88.61	-1,685.38	-8,995.89	8,216.43	8,144.53	71.90	114.272		
7,800.00	6,949.68	7,009.63	6,871.53	42.25	39.72	-88.65	-1,685.34	-8,995.92	8,120.57	8,048.37	72.20	112.478		
7,900.00	6,949.38	7,011.29	6,873.18	44.20	39.73	-88.69	-1,685.30	-8,995.95	8,024.80	7,952.28	72.52	110.654		
8,000.00	6,949.08	7,012.96	6,874.86	46.24	39.74	-88.73	-1,685.26	-8,995.98	7,929.14	7,856.26	72.88	108.802		
8,100.00	6,948.79	7,014.64	6,876.53	48.36	39.74	-88.77	-1,685.21	-8,996.01	7,833.58	7,760.32	73.26	106.923		
8,200.00	6,948.49	7,016.30	6,878.19	50.56	39.75	-88.81	-1,685.17	-8,996.03	7,738.14	7,664.46	73.68	105.018		
8,300.00	6,948.19	7,017.96	6,879.85	52.82	39.75	-88.85	-1,685.13	-8,996.06	7,642.82	7,568.68	74.14	103.089		
8,400.00	6,947.89	7,019.60	6,881.50	55.14	39.76	-88.89	-1,685.09	-8,996.09	7,547.61	7,472.98	74.63	101.137		
8,500.00	6,947.59	7,021.25	6,883.14	57.50	39.77	-88.93	-1,685.05	-8,996.12	7,452.53	7,377.38	75.15	99.165		
8,600.00	6,947.29	7,022.88	6,884.77	59.91	39.77	-88.97	-1,685.00	-8,996.15	7,357.58	7,281.87	75.72	97.173		
8,700.00	6,947.00	7,024.51	6,886.40	62.36	39.78	-89.01	-1,684.96	-8,996.18	7,262.77	7,186.45	76.32	95.165		
8,800.00	6,946.70	7,026.13	6,888.01	64.84	39.78	-89.05	-1,684.92	-8,996.21	7,168.10	7,091.14	76.96	93.142		
8,900.00	6,946.40	7,027.74	6,889.63	67.35	39.79	-89.09	-1,684.88	-8,996.24	7,073.57	6,995.93	77.64	91.107		
9,000.00	6,946.10	7,029.34	6,891.23	69.88	39.79	-89.13	-1,684.84	-8,996.27	6,979.19	6,900.83	78.36	89.061		
9,100.00	6,945.80	7,030.94	6,892.83	72.44	39.80	-89.17	-1,684.80	-8,996.29	6,884.98	6,805.85	79.13	87.007		
9,200.00	6,945.50	7,032.53	6,894.42	75.02	39.81	-89.21	-1,684.76	-8,996.32	6,790.93	6,710.98	79.94	84.948		
9,300.00	6,945.21	7,034.11	6,896.00	77.63	39.81	-89.25	-1,684.72	-8,996.35	6,697.05	6,616.25	80.80	82.885		
9,400.00	6,944.91	7,035.69	6,897.58	80.24	39.82	-89.29	-1,684.68	-8,996.38	6,603.35	6,521.64	81.70	80.822		
9,500.00	6,944.61	7,037.26	6,899.15	82.88	39.82	-89.33	-1,684.64	-8,996.40	6,509.83	6,427.18	82.65	78.760		
9,600.00	6,944.31	7,038.82	6,900.71	85.53	39.83	-89.36	-1,684.60	-8,996.43	6,416.52	6,332.86	83.65	76.703		
9,700.00	6,944.01	7,040.38	6,902.26	88.19	39.83	-89.40	-1,684.56	-8,996.46	6,323.40	6,238.70	84.71	74.651		
9,800.00	6,943.71	7,041.93	6,903.81	90.86	39.84	-89.44	-1,684.52	-8,996.49	6,230.50	6,144.69	85.81	72.609		
9,900.00	6,943.42	7,043.47	6,905.35	93.55	39.84	-89.48	-1,684.48	-8,996.51	6,137.82	6,050.86	86.97	70.577		
10,000.00	6,943.12	7,045.01	6,906.89	96.24	39.85	-89.52	-1,684.44	-8,996.54	6,045.38	5,957.20	88.18	68.558		
10,100.00	6,942.82	7,046.54	6,908.42	98.95	39.86	-89.55	-1,684.40	-8,996.57	5,953.18	5,863.73	89.45	66.555		
10,200.00	6,942.52	7,048.06	6,909.94	101.66	39.86	-89.59	-1,684.36	-8,996.59	5,861.23	5,770.46	90.78	64.568		

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 4N-16A-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 4N-16A-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	
10,300.00	6,942.22	7,049.58	6,911.45	104.38	39.87	-89.63	-1,684.32	-8,996.62	5,769.56	5,677.39	92.16	62.601	
10,400.00	6,941.92	7,051.09	6,912.96	107.11	39.87	-89.67	-1,684.29	-8,996.64	5,678.16	5,584.54	93.61	60.655	
10,500.00	6,941.63	7,052.59	6,914.47	109.84	39.88	-89.70	-1,684.25	-8,996.67	5,587.05	5,491.93	95.13	58.733	
10,600.00	6,941.33	7,054.08	6,915.96	112.58	39.88	-89.74	-1,684.21	-8,996.69	5,496.26	5,399.55	96.71	56.834	
10,700.00	6,941.03	7,055.58	6,917.45	115.33	39.89	-89.78	-1,684.17	-8,996.72	5,405.79	5,307.44	98.35	54.962	
10,800.00	6,940.73	7,057.06	6,918.93	118.08	39.89	-89.81	-1,684.14	-8,996.75	5,315.66	5,215.59	100.07	53.118	
10,900.00	6,940.43	7,058.54	6,920.41	120.84	39.90	-89.85	-1,684.10	-8,996.77	5,225.89	5,124.03	101.86	51.302	
11,000.00	6,940.13	7,060.01	6,921.88	123.60	39.90	-89.89	-1,684.06	-8,996.80	5,136.50	5,032.77	103.73	49.518	
11,100.00	6,939.83	7,061.47	6,923.34	126.36	39.91	-89.92	-1,684.03	-8,996.82	5,047.51	4,941.83	105.68	47.764	
11,200.00	6,939.54	7,062.93	6,924.80	129.13	39.91	-89.96	-1,683.99	-8,996.84	4,958.93	4,851.23	107.70	46.044	
11,300.00	6,939.24	7,064.38	6,926.25	131.91	39.92	-89.99	-1,683.95	-8,996.87	4,870.80	4,760.99	109.81	44.357	
11,400.00	6,938.94	7,065.83	6,927.70	134.68	39.92	-90.03	-1,683.92	-8,996.89	4,783.13	4,671.13	112.00	42.706	
11,500.00	6,938.64	7,067.27	6,929.14	137.46	39.93	-90.07	-1,683.88	-8,996.92	4,695.96	4,581.67	114.29	41.089	
11,600.00	6,938.34	7,068.70	6,930.57	140.25	39.93	-90.10	-1,683.84	-8,996.94	4,609.30	4,492.64	116.66	39.510	
11,700.00	6,938.04	7,070.13	6,932.00	143.03	39.94	-90.14	-1,683.81	-8,996.97	4,523.20	4,404.06	119.14	37.967	
11,800.00	6,937.75	7,071.55	6,933.42	145.82	39.94	-90.17	-1,683.77	-8,996.99	4,437.68	4,315.97	121.71	36.462	
11,900.00	6,937.45	7,072.97	6,934.84	148.61	39.95	-90.21	-1,683.74	-8,997.01	4,352.77	4,228.39	124.38	34.995	
12,000.00	6,937.15	7,074.38	6,936.25	151.41	39.95	-90.24	-1,683.70	-8,997.04	4,268.52	4,141.36	127.16	33.567	
12,100.00	6,936.85	7,075.79	6,937.65	154.20	39.96	-90.28	-1,683.67	-8,997.06	4,184.96	4,054.91	130.05	32.179	
12,200.00	6,936.55	7,077.18	6,939.05	157.00	39.96	-90.31	-1,683.63	-8,997.08	4,102.14	3,969.08	133.06	30.830	
12,300.00	6,936.25	7,078.58	6,940.44	159.80	39.97	-90.34	-1,683.60	-8,997.11	4,020.10	3,883.92	136.18	29.520	
12,400.00	6,935.96	7,079.96	6,941.83	162.61	39.97	-90.38	-1,683.56	-8,997.13	3,938.88	3,799.46	139.42	28.251	
12,500.00	6,935.66	7,081.35	6,943.21	165.41	39.98	-90.41	-1,683.53	-8,997.15	3,858.55	3,715.76	142.79	27.022	
12,600.00	6,935.36	7,082.72	6,944.58	168.22	39.98	-90.45	-1,683.50	-8,997.18	3,779.16	3,632.88	146.29	25.834	
12,700.00	6,935.06	7,084.09	6,945.95	171.02	39.99	-90.48	-1,683.46	-8,997.20	3,700.77	3,550.85	149.91	24.686	
12,800.00	6,934.76	7,085.46	6,947.32	173.83	39.99	-90.51	-1,683.43	-8,997.22	3,623.44	3,469.76	153.68	23.579	
12,900.00	6,934.46	7,086.81	6,948.68	176.65	40.00	-90.55	-1,683.39	-8,997.24	3,547.24	3,389.67	157.57	22.512	
13,000.00	6,934.17	7,088.17	6,950.03	179.46	40.00	-90.58	-1,683.36	-8,997.26	3,472.25	3,310.64	161.61	21.485	
13,100.00	6,933.87	7,089.52	6,951.38	182.27	40.01	-90.61	-1,683.33	-8,997.29	3,398.55	3,232.76	165.79	20.499	
13,200.00	6,933.57	7,090.86	6,952.72	185.09	40.01	-90.65	-1,683.29	-8,997.31	3,326.22	3,156.11	170.11	19.554	
13,300.00	6,933.27	7,092.19	6,954.05	187.91	40.02	-90.68	-1,683.26	-8,997.33	3,255.35	3,080.79	174.57	18.648	
13,400.00	6,932.97	7,093.53	6,955.38	190.72	40.02	-90.71	-1,683.23	-8,997.35	3,186.05	3,006.89	179.16	17.783	
13,500.00	6,932.67	7,094.85	6,956.71	193.54	40.03	-90.75	-1,683.20	-8,997.37	3,118.41	2,934.51	183.90	16.957	
13,600.00	6,932.38	7,096.17	6,958.03	196.36	40.03	-90.78	-1,683.16	-8,997.40	3,052.56	2,863.79	188.77	16.171	
13,700.00	6,932.08	7,097.49	6,959.34	199.19	40.04	-90.81	-1,683.13	-8,997.42	2,988.59	2,794.83	193.76	15.424	
13,800.00	6,931.78	7,098.80	6,960.65	202.01	40.04	-90.84	-1,683.10	-8,997.44	2,926.65	2,727.77	198.87	14.716	
13,900.00	6,931.48	7,100.10	6,961.96	204.83	40.04	-90.88	-1,683.07	-8,997.46	2,866.85	2,662.76	204.09	14.047	
14,000.00	6,931.18	7,101.40	6,963.26	207.66	40.05	-90.91	-1,683.03	-8,997.48	2,809.34	2,599.94	209.40	13.416	
14,100.00	6,930.88	7,102.70	6,964.55	210.48	40.05	-90.94	-1,683.00	-8,997.50	2,754.27	2,539.47	214.80	12.823	
14,200.00	6,930.59	7,103.99	6,965.84	213.31	40.06	-90.97	-1,682.97	-8,997.52	2,701.77	2,481.52	220.24	12.267	
14,300.00	6,930.29	7,105.27	6,967.12	216.14	40.06	-91.00	-1,682.94	-8,997.54	2,652.00	2,426.27	225.73	11.749	
14,400.00	6,929.99	7,106.55	6,968.40	218.96	40.07	-91.04	-1,682.91	-8,997.56	2,605.12	2,373.90	231.22	11.267	
14,500.00	6,929.69	7,107.82	6,969.68	221.79	40.07	-91.07	-1,682.88	-8,997.58	2,561.29	2,324.60	236.70	10.821	
14,600.00	6,929.39	7,109.09	6,970.94	224.62	40.08	-91.10	-1,682.85	-8,997.60	2,520.67	2,278.55	242.12	10.411	
14,700.00	6,929.09	7,110.36	6,972.21	227.45	40.08	-91.13	-1,682.81	-8,997.62	2,483.41	2,235.96	247.45	10.036	
14,732.12	6,929.00	7,110.76	6,972.61	228.36	40.08	-91.14	-1,682.80	-8,997.63	2,472.18	2,223.04	249.14	9.923 CC, ES, SF	



Anticollision Report



Company:	SRC ENERGY	Local Co-ordinate Reference:	Well HARVESTERS STATE 4N-16A-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 4N-16A-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-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	-108.33	-2,975.10	-8,979.90	9,459.98				
100.00	100.00	188.80	224.77	3.28	3.34	-108.31	-2,972.08	-8,979.54	9,459.43	9,452.81	6.62	1,428.750	
200.00	200.00	311.42	347.35	3.34	3.48	-108.30	-2,969.19	-8,978.57	9,457.93	9,451.12	6.81	1,388.442	
300.00	300.00	419.73	455.61	3.44	3.66	-108.28	-2,965.85	-8,977.89	9,456.38	9,449.27	7.10	1,330.962	
400.00	400.00	501.26	537.08	3.60	3.83	-108.26	-2,962.81	-8,977.51	9,454.77	9,447.33	7.44	1,271.436	
500.00	500.00	542.00	577.78	3.81	3.93	-108.25	-2,961.05	-8,977.52	9,453.55	9,445.82	7.73	1,222.252	
600.00	600.00	594.12	629.84	4.05	4.06	-108.24	-2,958.70	-8,977.86	9,452.87	9,444.77	8.11	1,166.098	
633.18	633.18	606.57	642.28	4.13	4.09	-94.77	-2,958.14	-8,978.02	9,452.82	9,444.60	8.23	1,149.142	
700.00	699.98	648.00	683.67	4.32	4.21	-94.76	-2,956.31	-8,978.74	9,453.07	9,444.55	8.52	1,109.170	
800.00	799.84	669.72	705.36	4.62	4.27	-94.74	-2,955.38	-8,979.23	9,454.14	9,445.26	8.88	1,064.658	
900.00	899.45	725.14	760.72	4.94	4.43	-94.71	-2,953.24	-8,980.72	9,456.16	9,446.80	9.36	1,010.537	
1,000.00	998.80	790.00	825.51	5.28	4.62	-94.72	-2,950.88	-8,982.54	9,458.68	9,448.78	9.89	956.316	
1,100.00	1,098.12	843.68	879.12	5.63	4.79	-94.75	-2,948.70	-8,984.35	9,461.65	9,451.24	10.41	908.520	
1,200.00	1,197.44	884.00	919.35	6.00	4.93	-94.76	-2,946.71	-8,986.12	9,465.25	9,454.34	10.91	867.377	
1,300.00	1,296.77	884.00	919.35	6.37	4.93	-94.76	-2,946.71	-8,986.12	9,469.71	9,458.42	11.29	838.802	
1,400.00	1,396.09	940.44	975.62	6.76	5.12	-94.78	-2,943.73	-8,989.29	9,474.61	9,462.74	11.87	798.442	
1,500.00	1,495.41	979.00	1,014.03	7.15	5.25	-94.79	-2,941.69	-8,991.99	9,480.45	9,468.06	12.39	764.997	
1,600.00	1,594.74	1,010.38	1,045.26	7.55	5.37	-94.79	-2,939.92	-8,994.46	9,486.97	9,474.06	12.90	735.233	
1,700.00	1,694.06	1,074.00	1,108.50	7.96	5.60	-94.80	-2,935.65	-8,999.97	9,494.03	9,480.49	13.54	701.223	
1,800.00	1,793.38	1,150.71	1,184.58	8.37	5.90	-94.81	-2,929.19	-9,007.31	9,501.42	9,487.18	14.24	667.087	
1,900.00	1,892.71	1,199.29	1,232.66	8.78	6.10	-94.80	-2,924.33	-9,012.31	9,509.07	9,494.22	14.85	640.369	
2,000.00	1,992.03	1,263.00	1,295.53	9.20	6.37	-94.79	-2,917.19	-9,019.72	9,517.45	9,501.92	15.53	612.939	
2,100.00	2,091.36	1,263.00	1,295.53	9.62	6.37	-94.79	-2,917.19	-9,019.72	9,526.31	9,510.37	15.94	597.627	
2,200.00	2,190.68	1,308.49	1,340.26	10.05	6.58	-94.78	-2,911.51	-9,025.68	9,535.90	9,519.35	16.56	575.972	
2,300.00	2,290.00	1,358.00	1,388.78	10.48	6.80	-94.76	-2,904.70	-9,032.86	9,546.23	9,529.03	17.19	555.193	
2,400.00	2,389.33	1,413.93	1,443.48	10.90	7.07	-94.74	-2,896.67	-9,041.36	9,557.05	9,539.18	17.87	534.698	
2,500.00	2,488.65	1,518.83	1,546.15	11.34	7.59	-94.70	-2,882.06	-9,057.14	9,567.96	9,549.16	18.80	509.034	
2,600.00	2,587.97	1,581.03	1,607.14	11.77	7.90	-94.68	-2,874.02	-9,066.32	9,578.96	9,559.44	19.52	490.754	
2,700.00	2,687.30	1,642.00	1,666.84	12.20	8.21	-94.66	-2,866.08	-9,075.77	9,590.52	9,570.28	20.24	473.854	
2,800.00	2,786.62	1,712.02	1,735.41	12.64	8.58	-94.63	-2,857.19	-9,086.80	9,602.44	9,581.43	21.01	457.042	
2,900.00	2,885.94	1,867.28	1,887.59	13.07	9.40	-94.58	-2,837.37	-9,110.38	9,613.72	9,591.49	22.23	432.452	
3,000.00	2,985.27	1,926.00	1,945.04	13.51	9.72	-94.56	-2,829.58	-9,119.64	9,625.44	9,602.48	22.96	419.250	
3,100.00	3,084.59	2,051.49	2,068.03	13.95	10.41	-94.52	-2,813.81	-9,138.92	9,637.09	9,613.05	24.04	400.826	
3,200.00	3,183.91	2,117.00	2,132.24	14.39	10.77	-94.50	-2,805.71	-9,149.10	9,648.91	9,624.10	24.81	388.912	
3,300.00	3,283.24	2,365.18	2,374.93	14.83	12.18	-94.40	-2,769.84	-9,186.43	9,659.19	9,632.58	26.61	363.012	
3,400.00	3,382.56	2,401.00	2,410.05	15.27	12.38	-94.39	-2,765.10	-9,191.67	9,669.90	9,642.67	27.23	355.132	
3,500.00	3,481.88	2,474.52	2,482.14	15.71	12.80	-94.36	-2,755.77	-9,202.64	9,681.09	9,653.04	28.05	345.098	
3,600.00	3,581.21	2,533.02	2,539.43	16.16	13.14	-94.34	-2,748.03	-9,211.61	9,692.55	9,663.75	28.80	336.561	
3,700.00	3,680.53	2,590.00	2,595.13	16.60	13.47	-94.32	-2,740.25	-9,220.74	9,704.50	9,674.97	29.54	328.542	
3,800.00	3,779.85	2,702.51	2,705.06	17.04	14.13	-94.28	-2,724.70	-9,238.95	9,716.58	9,685.98	30.60	317.522	
3,900.00	3,879.18	2,779.00	2,779.81	17.49	14.58	-94.25	-2,714.22	-9,251.36	9,728.73	9,697.27	31.46	309.260	
4,000.00	3,978.50	2,874.00	2,872.84	17.93	15.14	-94.22	-2,702.06	-9,266.29	9,740.70	9,708.28	32.41	300.506	
4,100.00	4,077.82	2,926.65	2,924.49	18.37	15.44	-94.20	-2,695.98	-9,274.49	9,753.03	9,719.91	33.12	294.465	
4,200.00	4,177.15	2,969.00	2,966.02	18.82	15.68	-94.19	-2,691.42	-9,281.44	9,766.15	9,732.38	33.77	289.201	
4,300.00	4,276.47	3,184.63	3,177.42	19.27	16.93	-94.14	-2,667.69	-9,316.55	9,779.52	9,744.12	35.40	276.294	
4,400.00	4,375.79	3,231.47	3,223.52	19.71	17.19	-94.14	-2,663.31	-9,323.64	9,791.94	9,755.87	36.06	271.532	
4,500.00	4,475.12	3,454.36	3,443.16	20.16	18.41	-94.12	-2,644.11	-9,356.30	9,804.30	9,766.64	37.67	260.282	
4,600.00	4,574.44	3,729.00	3,714.36	20.60	19.88	-94.10	-2,618.71	-9,391.25	9,813.81	9,774.27	39.54	248.198	
4,700.00	4,673.76	3,776.09	3,760.79	21.05	20.15	-94.10	-2,613.60	-9,397.29	9,823.66	9,783.44	40.22	244.238	
4,800.00	4,773.09	3,824.00	3,807.87	21.50	20.41	-94.08	-2,607.88	-9,404.01	9,834.19	9,793.28	40.91	240.409	
4,900.00	4,872.41	3,851.60	3,834.94	21.94	20.58	-94.08	-2,604.41	-9,408.12	9,845.30	9,803.82	41.48	237.340	
5,000.00	4,971.74	3,892.73	3,875.24	22.39	20.82	-94.06	-2,599.16	-9,414.48	9,857.03	9,814.90	42.13	233.944	

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 4N-16A-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 4N-16A-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-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		
5,100.00	5,071.06	3,947.87	3,929.18	22.84	21.15	-94.04	-2,592.00	-9,423.38	9,869.32	9,826.45	42.87	230.222		
5,200.00	5,170.38	4,148.70	4,126.02	23.29	22.34	-93.99	-2,567.41	-9,454.72	9,881.41	9,836.96	44.45	222.306		
5,300.00	5,269.71	4,234.91	4,210.57	23.74	22.84	-93.96	-2,556.84	-9,467.79	9,893.00	9,847.63	45.36	218.089		
5,400.00	5,369.03	4,350.00	4,350.52	24.18	22.96	-93.91	-2,536.52	-9,489.87	9,904.25	9,851.72	52.53	188.555		
5,500.00	5,468.35	4,485.00	4,454.69	24.63	24.38	-93.85	-2,519.08	-9,506.72	9,915.23	9,867.52	47.71	207.826		
5,600.00	5,567.68	4,540.71	4,508.78	25.08	24.74	-93.82	-2,509.36	-9,515.85	9,926.51	9,878.04	48.48	204.765		
5,700.00	5,667.00	4,691.15	4,655.16	25.53	25.69	-93.74	-2,484.72	-9,540.21	9,938.00	9,888.17	49.83	199.427		
5,800.00	5,766.32	4,755.03	4,717.57	25.98	26.08	-93.71	-2,475.34	-9,550.08	9,949.19	9,898.55	50.63	196.494		
5,900.00	5,865.65	5,526.00	5,479.25	26.43	30.15	-93.66	-2,398.74	-9,634.58	9,959.37	9,904.26	55.11	180.726		
6,000.00	5,964.97	6,000.00	5,621.02	26.88	32.11	-93.71	-2,393.61	-9,641.86	9,964.03	9,906.52	57.51	173.259		
6,100.00	6,064.29	6,032.26	5,985.03	27.33	32.13	-93.91	-2,388.44	-9,651.50	9,966.86	9,908.87	57.99	171.870		
6,200.00	6,163.62	6,410.27	6,363.00	27.78	33.48	-94.14	-2,384.63	-9,651.26	9,967.97	9,908.18	59.79	166.708		
6,300.00	6,262.94	6,422.16	6,374.90	28.23	33.53	-94.15	-2,384.45	-9,651.30	9,967.42	9,907.10	60.32	165.248		
6,400.00	6,362.24	6,467.30	6,420.03	28.67	33.69	-75.89	-2,383.74	-9,651.12	9,966.85	9,905.89	60.95	163.512		
6,500.00	6,460.41	6,511.98	6,464.70	29.12	33.86	-44.42	-2,382.98	-9,651.22	9,955.81	9,894.23	61.59	161.653		
6,600.00	6,555.09	6,566.00	6,518.71	29.57	34.06	-35.22	-2,382.00	-9,651.69	9,930.63	9,868.39	62.24	159.551		
6,700.00	6,643.94	6,602.46	6,555.16	30.00	34.20	-32.06	-2,381.34	-9,652.19	9,891.81	9,829.00	62.81	157.479		
6,800.00	6,724.78	6,647.82	6,600.51	30.45	34.37	-31.63	-2,380.60	-9,652.95	9,840.23	9,776.84	63.39	155.227		
6,900.00	6,795.62	6,687.95	6,640.63	30.97	34.53	-33.15	-2,380.02	-9,653.74	9,777.07	9,713.15	63.92	152.952		
7,000.00	6,854.70	6,721.87	6,674.53	31.60	34.66	-36.73	-2,379.59	-9,654.50	9,703.82	9,639.41	64.40	150.679		
7,100.00	6,900.58	6,755.00	6,707.65	32.39	34.79	-43.20	-2,379.22	-9,655.32	9,622.18	9,557.33	64.85	148.377		
7,200.00	6,932.13	6,771.85	6,724.50	33.34	34.85	-54.18	-2,379.05	-9,655.76	9,534.09	9,468.87	65.21	146.199		
7,300.00	6,948.57	6,785.97	6,738.62	34.46	34.91	-72.38	-2,378.90	-9,656.13	9,441.65	9,376.11	65.55	144.044		
7,400.00	6,950.87	6,789.69	6,742.33	35.70	34.92	-86.54	-2,378.87	-9,656.24	9,347.17	9,281.35	65.83	141.992		
7,500.00	6,950.58	6,791.48	6,744.12	37.12	34.93	-86.57	-2,378.85	-9,656.28	9,252.59	9,186.46	66.13	139.922		
7,600.00	6,950.28	6,793.28	6,745.91	38.70	34.94	-86.61	-2,378.83	-9,656.33	9,158.11	9,091.65	66.46	137.800		
7,700.00	6,949.98	6,795.08	6,747.72	40.41	34.94	-86.64	-2,378.81	-9,656.38	9,063.75	8,996.93	66.83	135.628		
7,800.00	6,949.68	6,796.90	6,749.54	42.25	34.95	-86.68	-2,378.80	-9,656.43	8,969.52	8,902.29	67.23	133.409		
7,900.00	6,949.38	6,798.73	6,751.36	44.20	34.96	-86.71	-2,378.78	-9,656.48	8,875.41	8,807.73	67.68	131.146		
8,000.00	6,949.08	6,800.56	6,753.20	46.24	34.96	-86.75	-2,378.76	-9,656.53	8,781.43	8,713.27	68.16	128.841		
8,100.00	6,948.79	6,802.41	6,755.04	48.36	34.97	-86.78	-2,378.74	-9,656.58	8,687.57	8,618.91	68.68	126.497		
8,200.00	6,948.49	6,804.26	6,756.90	50.56	34.98	-86.82	-2,378.72	-9,656.63	8,593.88	8,524.64	69.24	124.119		
8,300.00	6,948.19	6,806.13	6,758.76	52.82	34.99	-86.85	-2,378.71	-9,656.68	8,500.31	8,430.47	69.84	121.708		
8,400.00	6,947.89	6,808.00	6,760.63	55.14	34.99	-86.89	-2,378.69	-9,656.74	8,406.90	8,336.41	70.49	119.270		
8,500.00	6,947.59	6,809.88	6,762.52	57.50	35.00	-86.92	-2,378.67	-9,656.79	8,313.63	8,242.46	71.17	116.808		
8,600.00	6,947.29	6,811.78	6,764.41	59.91	35.01	-86.96	-2,378.65	-9,656.84	8,220.53	8,148.62	71.90	114.326		
8,700.00	6,947.00	6,813.68	6,766.31	62.36	35.02	-86.99	-2,378.63	-9,656.89	8,127.58	8,054.90	72.68	111.828		
8,800.00	6,946.70	6,815.59	6,768.22	64.84	35.02	-87.03	-2,378.62	-9,656.95	8,034.81	7,961.31	73.50	109.319		
8,900.00	6,946.40	6,817.52	6,770.14	67.35	35.03	-87.07	-2,378.60	-9,657.00	7,942.21	7,867.84	74.36	106.801		
9,000.00	6,946.10	6,819.45	6,772.08	69.88	35.04	-87.10	-2,378.58	-9,657.06	7,849.79	7,774.51	75.28	104.279		
9,100.00	6,945.80	6,821.39	6,774.02	72.44	35.05	-87.14	-2,378.56	-9,657.11	7,757.56	7,681.32	76.24	101.758		
9,200.00	6,945.50	6,823.35	6,775.97	75.02	35.05	-87.18	-2,378.54	-9,657.17	7,665.52	7,588.28	77.24	99.240		
9,300.00	6,945.21	6,825.31	6,777.94	77.63	35.06	-87.21	-2,378.52	-9,657.22	7,573.69	7,495.39	78.30	96.730		
9,400.00	6,944.91	6,827.28	6,779.91	80.24	35.07	-87.25	-2,378.51	-9,657.28	7,482.06	7,402.66	79.40	94.231		
9,500.00	6,944.61	6,829.27	6,781.89	82.88	35.08	-87.29	-2,378.49	-9,657.33	7,390.65	7,310.09	80.56	91.746		
9,600.00	6,944.31	6,831.26	6,783.89	85.53	35.08	-87.33	-2,378.47	-9,657.39	7,299.46	7,217.70	81.76	89.279		
9,700.00	6,944.01	6,833.27	6,785.89	88.19	35.09	-87.37	-2,378.45	-9,657.45	7,208.51	7,125.49	83.02	86.832		
9,800.00	6,943.71	6,835.29	6,787.91	90.86	35.10	-87.40	-2,378.43	-9,657.50	7,117.80	7,033.47	84.33	84.408		
9,900.00	6,943.42	6,837.32	6,789.94	93.55	35.11	-87.44	-2,378.41	-9,657.56	7,027.34	6,941.65	85.69	82.011		
10,000.00	6,943.12	6,839.35	6,791.97	96.24	35.12	-87.48	-2,378.40	-9,657.62	6,937.14	6,850.03	87.10	79.641		
10,100.00	6,942.82	6,841.40	6,794.02	98.95	35.12	-87.52	-2,378.38	-9,657.68	6,847.21	6,758.64	88.58	77.303		
10,200.00	6,942.52	6,843.47	6,796.08	101.66	35.13	-87.56	-2,378.36	-9,657.74	6,757.57	6,667.46	90.10	74.997		

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 4N-16A-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 4N-16A-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	6,942.22	6,845.54	6,798.15	104.38	35.14	-87.60	-2,378.34	-9,657.80	6,668.22	6,576.53	91.69	72.725		
10,400.00	6,941.92	6,847.62	6,800.24	107.11	35.15	-87.64	-2,378.32	-9,657.86	6,579.17	6,485.84	93.33	70.490		
10,500.00	6,941.63	6,849.72	6,802.33	109.84	35.16	-87.68	-2,378.30	-9,657.92	6,490.44	6,395.41	95.04	68.293		
10,600.00	6,941.33	6,851.82	6,804.43	112.58	35.16	-87.72	-2,378.28	-9,657.98	6,402.05	6,305.24	96.80	66.134		
10,700.00	6,941.03	6,853.94	6,806.55	115.33	35.17	-87.76	-2,378.26	-9,658.04	6,314.00	6,215.37	98.63	64.016		
10,800.00	6,940.73	6,856.07	6,808.68	118.08	35.18	-87.80	-2,378.24	-9,658.11	6,226.31	6,125.78	100.52	61.939		
10,900.00	6,940.43	6,858.21	6,810.82	120.84	35.19	-87.84	-2,378.23	-9,658.17	6,138.99	6,036.51	102.48	59.904		
11,000.00	6,940.13	6,860.36	6,812.97	123.60	35.20	-87.88	-2,378.21	-9,658.23	6,052.07	5,947.57	104.50	57.912		
11,100.00	6,939.83	6,862.53	6,815.14	126.36	35.21	-87.92	-2,378.19	-9,658.30	5,965.56	5,858.96	106.60	55.964		
11,200.00	6,939.54	6,864.71	6,817.31	129.13	35.22	-87.96	-2,378.17	-9,658.36	5,879.47	5,770.71	108.76	54.059		
11,300.00	6,939.24	6,866.89	6,819.50	131.91	35.22	-88.00	-2,378.15	-9,658.43	5,793.83	5,682.83	110.99	52.199		
11,400.00	6,938.94	6,869.10	6,821.70	134.68	35.23	-88.05	-2,378.13	-9,658.49	5,708.65	5,595.35	113.30	50.384		
11,500.00	6,938.64	6,871.31	6,823.91	137.46	35.24	-88.09	-2,378.11	-9,658.56	5,623.96	5,508.28	115.69	48.614		
11,600.00	6,938.34	6,873.54	6,826.14	140.25	35.25	-88.13	-2,378.09	-9,658.62	5,539.78	5,421.64	118.15	46.888		
11,700.00	6,938.04	6,875.78	6,828.38	143.03	35.26	-88.17	-2,378.07	-9,658.69	5,456.14	5,335.45	120.69	45.208		
11,800.00	6,937.75	6,878.03	6,830.63	145.82	35.27	-88.22	-2,378.05	-9,658.76	5,373.05	5,249.74	123.31	43.573		
11,900.00	6,937.45	6,880.29	6,832.89	148.61	35.28	-88.26	-2,378.03	-9,658.83	5,290.55	5,164.53	126.02	41.983		
12,000.00	6,937.15	6,882.57	6,835.17	151.41	35.28	-88.30	-2,378.01	-9,658.90	5,208.65	5,079.85	128.81	40.437		
12,100.00	6,936.85	6,884.86	6,837.46	154.20	35.29	-88.34	-2,378.00	-9,658.96	5,127.40	4,995.72	131.69	38.937		
12,200.00	6,936.55	6,887.16	6,839.76	157.00	35.30	-88.39	-2,377.98	-9,659.03	5,046.82	4,912.17	134.65	37.480		
12,300.00	6,936.25	6,889.48	6,842.07	159.80	35.31	-88.43	-2,377.96	-9,659.11	4,966.95	4,829.24	137.71	36.068		
12,400.00	6,935.96	6,891.81	6,844.40	162.61	35.32	-88.48	-2,377.94	-9,659.18	4,887.81	4,746.95	140.86	34.699		
12,500.00	6,935.66	6,894.15	6,846.75	165.41	35.33	-88.52	-2,377.92	-9,659.25	4,809.46	4,665.34	144.11	33.373		
12,600.00	6,935.36	6,896.51	6,849.10	168.22	35.34	-88.57	-2,377.90	-9,659.32	4,731.91	4,584.46	147.46	32.091		
12,700.00	6,935.06	6,898.88	6,851.47	171.02	35.35	-88.61	-2,377.88	-9,659.39	4,655.22	4,504.33	150.90	30.850		
12,800.00	6,934.76	6,901.27	6,853.86	173.83	35.36	-88.66	-2,377.86	-9,659.47	4,579.43	4,424.99	154.44	29.652		
12,900.00	6,934.46	6,903.67	6,856.25	176.65	35.37	-88.70	-2,377.84	-9,659.54	4,504.58	4,346.50	158.08	28.495		
13,000.00	6,934.17	6,906.08	6,858.66	179.46	35.38	-88.75	-2,377.82	-9,659.62	4,430.73	4,268.90	161.83	27.379		
13,100.00	6,933.87	6,908.51	6,861.09	182.27	35.39	-88.79	-2,377.80	-9,659.69	4,357.91	4,192.24	165.67	26.304		
13,200.00	6,933.57	6,910.95	6,863.53	185.09	35.40	-88.84	-2,377.78	-9,659.77	4,286.19	4,116.57	169.62	25.269		
13,300.00	6,933.27	6,913.40	6,865.98	187.91	35.41	-88.89	-2,377.76	-9,659.84	4,215.62	4,041.94	173.68	24.273		
13,400.00	6,932.97	6,915.87	6,868.45	190.72	35.41	-88.93	-2,377.74	-9,659.92	4,146.26	3,968.43	177.83	23.315		
13,500.00	6,932.67	6,918.36	6,870.94	193.54	35.42	-88.98	-2,377.72	-9,660.00	4,078.17	3,896.08	182.09	22.396		
13,600.00	6,932.38	6,920.86	6,873.44	196.36	35.43	-89.03	-2,377.70	-9,660.08	4,011.42	3,824.97	186.45	21.515		
13,700.00	6,932.08	6,923.37	6,875.95	199.19	35.44	-89.08	-2,377.68	-9,660.16	3,946.07	3,755.16	190.90	20.671		
13,800.00	6,931.78	6,925.90	6,878.48	202.01	35.45	-89.12	-2,377.66	-9,660.24	3,882.19	3,686.74	195.45	19.863		
13,900.00	6,931.48	6,928.45	6,881.02	204.83	35.46	-89.17	-2,377.64	-9,660.32	3,819.86	3,619.77	200.08	19.091		
14,000.00	6,931.18	6,931.01	6,883.58	207.66	35.47	-89.22	-2,377.62	-9,660.40	3,759.16	3,554.35	204.81	18.355		
14,100.00	6,930.88	6,933.58	6,886.16	210.48	35.48	-89.27	-2,377.60	-9,660.48	3,700.16	3,490.55	209.61	17.653		
14,200.00	6,930.59	6,936.18	6,888.75	213.31	35.49	-89.32	-2,377.58	-9,660.56	3,642.95	3,428.47	214.48	16.985		
14,300.00	6,930.29	6,938.78	6,891.35	216.14	35.50	-89.37	-2,377.56	-9,660.65	3,587.61	3,368.20	219.41	16.351		
14,400.00	6,929.99	6,941.41	6,893.98	218.96	35.51	-89.42	-2,377.54	-9,660.73	3,534.23	3,309.84	224.39	15.750		
14,500.00	6,929.69	6,944.05	6,896.62	221.79	35.53	-89.47	-2,377.52	-9,660.82	3,482.91	3,253.49	229.42	15.181		
14,600.00	6,929.39	6,946.90	6,899.47	224.62	35.54	-89.52	-2,377.50	-9,660.91	3,433.73	3,199.26	234.47	14.644		
14,700.00	6,929.09	6,949.81	6,902.37	227.45	35.55	-89.58	-2,377.48	-9,661.00	3,386.79	3,147.25	239.54	14.139		
14,732.12	6,929.00	6,950.76	6,903.32	228.36	35.55	-89.60	-2,377.47	-9,661.04	3,372.20	3,131.03	241.17	13.983 CC, ES, SF		



Anticollision Report



Company:	SRC ENERGY	Local Co-ordinate Reference:	Well HARVESTERS STATE 4N-16A-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 4N-16A-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: 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	0.00	36.00	3.28	3.28	-108.65	-3,033.39	-8,988.27	9,486.40					
100.00	100.00	43.39	79.39	3.28	3.28	-108.65	-3,033.28	-8,988.36	9,486.40	9,479.83	6.57	1,444.848		
200.00	200.00	114.38	150.37	3.34	3.29	-108.64	-3,032.62	-8,988.86	9,486.78	9,480.15	6.63	1,430.831		
300.00	300.00	171.00	206.98	3.44	3.33	-108.64	-3,031.69	-8,989.55	9,487.46	9,480.69	6.77	1,401.467		
400.00	400.00	210.17	246.14	3.60	3.36	-108.63	-3,030.99	-8,990.27	9,488.71	9,481.74	6.96	1,363.026		
500.00	500.00	263.00	298.94	3.81	3.41	-108.62	-3,030.30	-8,991.74	9,490.77	9,483.54	7.22	1,314.160		
600.00	600.00	263.00	298.94	4.05	3.41	-108.62	-3,030.30	-8,991.74	9,493.41	9,485.94	7.47	1,271.617		
700.00	699.98	263.00	298.94	4.32	3.41	-95.08	-3,030.30	-8,991.74	9,497.26	9,489.52	7.74	1,226.872		
800.00	799.84	305.03	340.94	4.62	3.47	-94.99	-3,030.19	-8,993.48	9,501.96	9,493.87	8.09	1,173.975		
900.00	899.45	354.00	389.82	4.94	3.55	-94.89	-3,030.86	-8,996.35	9,508.27	9,499.78	8.49	1,120.313		
1,000.00	998.80	354.00	389.82	5.28	3.55	-94.85	-3,030.86	-8,996.35	9,515.16	9,506.33	8.83	1,077.989		
1,100.00	1,098.12	354.00	389.82	5.63	3.55	-94.85	-3,030.86	-8,996.35	9,523.11	9,513.93	9.18	1,037.088		
1,200.00	1,197.44	354.00	389.82	6.00	3.55	-94.85	-3,030.86	-8,996.35	9,532.10	9,522.55	9.55	997.987		
1,300.00	1,296.77	408.45	444.09	6.37	3.65	-94.89	-3,032.76	-9,000.33	9,541.49	9,531.47	10.02	952.141		
1,400.00	1,396.09	445.00	480.46	6.76	3.73	-94.92	-3,034.77	-9,003.32	9,551.92	9,541.44	10.48	911.742		
1,500.00	1,495.41	527.69	562.67	7.15	3.92	-95.00	-3,040.78	-9,009.94	9,562.89	9,551.84	11.05	865.666		
1,600.00	1,594.74	599.65	634.15	7.55	4.12	-95.08	-3,047.09	-9,015.24	9,573.84	9,562.22	11.62	823.724		
1,700.00	1,694.06	693.40	727.18	7.96	4.40	-95.18	-3,056.43	-9,022.03	9,585.10	9,572.82	12.28	780.299		
1,800.00	1,793.38	789.02	822.04	8.37	4.73	-95.29	-3,066.48	-9,028.64	9,596.28	9,583.30	12.98	739.103		
1,900.00	1,892.71	1,383.00	1,413.90	8.78	7.01	-95.83	-3,100.04	-9,061.93	9,602.77	9,587.23	15.55	617.719		
2,000.00	1,992.03	1,383.00	1,413.90	9.20	7.01	-95.83	-3,100.04	-9,061.93	9,609.50	9,593.54	15.96	602.055		
2,100.00	2,091.36	1,383.00	1,413.90	9.62	7.01	-95.83	-3,100.04	-9,061.93	9,617.25	9,600.88	16.38	587.204		
2,200.00	2,190.68	1,383.00	1,413.90	10.05	7.01	-95.83	-3,100.04	-9,061.93	9,626.05	9,609.25	16.80	573.130		
2,300.00	2,290.00	1,383.00	1,413.90	10.48	7.01	-95.83	-3,100.04	-9,061.93	9,635.87	9,618.65	17.21	559.791		
2,400.00	2,389.33	1,445.00	1,475.62	10.90	7.27	-95.87	-3,101.75	-9,067.45	9,646.41	9,628.54	17.87	539.671		
2,500.00	2,488.65	1,445.00	1,475.62	11.34	7.27	-95.87	-3,101.75	-9,067.45	9,657.65	9,639.36	18.29	527.973		
2,600.00	2,587.97	1,445.00	1,475.62	11.77	7.27	-95.87	-3,101.75	-9,067.45	9,669.91	9,651.20	18.71	516.877		
2,700.00	2,687.30	1,445.00	1,475.62	12.20	7.27	-95.87	-3,101.75	-9,067.45	9,683.18	9,664.06	19.12	506.349		
2,800.00	2,786.62	1,504.96	1,535.09	12.64	7.54	-95.91	-3,104.36	-9,074.61	9,697.17	9,677.39	19.78	490.146		
2,900.00	2,885.94	1,569.00	1,598.58	13.07	7.83	-95.96	-3,107.86	-9,082.27	9,711.56	9,691.09	20.46	474.562		
3,000.00	2,985.27	1,569.00	1,598.58	13.51	7.83	-95.96	-3,107.86	-9,082.27	9,726.61	9,705.73	20.88	465.918		
3,100.00	3,084.59	1,621.02	1,650.07	13.95	8.08	-96.00	-3,111.59	-9,088.66	9,742.15	9,720.64	21.51	452.877		
3,200.00	3,183.91	1,665.00	1,693.49	14.39	8.29	-96.04	-3,115.69	-9,094.31	9,758.61	9,736.49	22.11	441.312		
3,300.00	3,283.24	1,665.00	1,693.49	14.83	8.29	-96.04	-3,115.69	-9,094.31	9,775.69	9,753.17	22.52	434.099		
3,400.00	3,382.56	1,665.00	1,693.49	15.27	8.29	-96.04	-3,115.69	-9,094.31	9,793.77	9,770.85	22.92	427.236		
3,500.00	3,481.88	1,708.40	1,736.21	15.71	8.51	-96.09	-3,120.47	-9,100.31	9,812.33	9,788.81	23.52	417.135		
3,600.00	3,581.21	3,600.00	1,805.43	16.16	18.97	-96.16	-3,129.15	-9,110.85	9,831.92	9,799.51	32.41	303.326		
3,700.00	3,680.53	1,906.28	1,930.48	16.60	9.55	-96.30	-3,144.73	-9,128.97	9,850.93	9,825.69	25.25	390.194		
3,800.00	3,779.85	3,800.00	2,064.42	17.04	20.12	-96.45	-3,162.64	-9,147.71	9,869.92	9,835.58	34.34	287.448		
3,900.00	3,879.18	2,095.69	2,116.50	17.49	10.57	-96.51	-3,169.29	-9,154.77	9,888.62	9,861.67	26.95	366.893		
4,000.00	3,978.50	2,136.00	2,156.05	17.93	10.79	-96.55	-3,174.39	-9,160.73	9,908.27	9,880.73	27.54	359.718		
4,100.00	4,077.82	2,167.45	2,186.86	18.37	10.96	-96.58	-3,178.41	-9,165.57	9,928.53	9,900.43	28.09	353.415		
4,200.00	4,177.15	2,358.84	2,374.43	18.82	12.04	-96.79	-3,203.80	-9,193.91	9,948.76	9,919.32	29.44	337.961		
4,300.00	4,276.47	2,419.00	2,433.42	19.27	12.38	-96.86	-3,212.07	-9,202.36	9,968.47	9,938.34	30.13	330.815		
4,400.00	4,375.79	2,463.94	2,477.42	19.71	12.64	-96.91	-3,218.52	-9,208.77	9,988.66	9,957.90	30.75	324.794		
7,200.00	6,932.13	7,050.96	7,009.72	33.34	35.82	-65.40	-3,625.94	-9,619.23	9,971.54	9,907.99	63.55	156.920		
7,300.00	6,948.57	7,062.55	7,021.31	34.46	35.86	-80.85	-3,625.72	-9,619.24	9,883.24	9,819.28	63.96	154.531		
7,400.00	6,950.87	7,064.23	7,022.99	35.70	35.87	-91.32	-3,625.69	-9,619.24	9,793.27	9,728.93	64.34	152.212		
7,500.00	6,950.58	7,064.07	7,022.83	37.12	35.87	-91.32	-3,625.69	-9,619.24	9,703.33	9,638.57	64.76	149.830		
7,600.00	6,950.28	7,063.91	7,022.66	38.70	35.87	-91.32	-3,625.69	-9,619.24	9,613.58	9,548.34	65.24	147.357		
7,700.00	6,949.98	7,063.75	7,022.50	40.41	35.87	-91.32	-3,625.70	-9,619.24	9,524.04	9,458.27	65.77	144.797		
7,800.00	6,949.68	7,063.58	7,022.34	42.25	35.87	-91.32	-3,625.70	-9,619.24	9,434.71	9,368.34	66.37	142.160		

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 4N-16A-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 4N-16A-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		
7,900.00	6,949.38	7,063.42	7,022.18	44.20	35.87	-91.31	-3,625.70	-9,619.24	9,345.60	9,278.58	67.02	139.454		
8,000.00	6,949.08	7,063.26	7,022.01	46.24	35.87	-91.31	-3,625.71	-9,619.24	9,256.70	9,188.98	67.72	136.686		
8,100.00	6,948.79	7,063.09	7,021.85	48.36	35.87	-91.31	-3,625.71	-9,619.24	9,168.04	9,099.55	68.49	133.865		
8,200.00	6,948.49	7,062.93	7,021.68	50.56	35.87	-91.31	-3,625.71	-9,619.24	9,079.61	9,010.30	69.31	131.001		
8,300.00	6,948.19	7,062.76	7,021.52	52.82	35.86	-91.30	-3,625.72	-9,619.24	8,991.43	8,921.24	70.19	128.102		
8,400.00	6,947.89	7,062.59	7,021.35	55.14	35.86	-91.30	-3,625.72	-9,619.24	8,903.49	8,832.36	71.13	125.177		
8,500.00	6,947.59	7,062.43	7,021.18	57.50	35.86	-91.30	-3,625.72	-9,619.24	8,815.81	8,743.69	72.12	122.235		
8,600.00	6,947.29	7,062.26	7,021.02	59.91	35.86	-91.30	-3,625.72	-9,619.24	8,728.40	8,655.22	73.17	119.282		
8,700.00	6,947.00	7,062.09	7,020.85	62.36	35.86	-91.29	-3,625.73	-9,619.24	8,641.26	8,566.97	74.28	116.329		
8,800.00	6,946.70	7,061.92	7,020.68	64.84	35.86	-91.29	-3,625.73	-9,619.24	8,554.40	8,478.95	75.45	113.380		
8,900.00	6,946.40	7,061.75	7,020.51	67.35	35.86	-91.29	-3,625.73	-9,619.24	8,467.83	8,391.16	76.67	110.444		
9,000.00	6,946.10	7,061.58	7,020.34	69.88	35.86	-91.29	-3,625.74	-9,619.24	8,381.56	8,303.61	77.95	107.526		
9,100.00	6,945.80	7,061.41	7,020.16	72.44	35.86	-91.29	-3,625.74	-9,619.24	8,295.59	8,216.31	79.28	104.632		
9,200.00	6,945.50	7,061.23	7,019.99	75.02	35.86	-91.28	-3,625.74	-9,619.24	8,209.95	8,129.28	80.67	101.767		
9,300.00	6,945.21	7,061.06	7,019.82	77.63	35.86	-91.28	-3,625.75	-9,619.24	8,124.63	8,042.51	82.12	98.935		
9,400.00	6,944.91	7,060.88	7,019.64	80.24	35.86	-91.28	-3,625.75	-9,619.24	8,039.65	7,956.03	83.62	96.142		
9,500.00	6,944.61	7,060.71	7,019.47	82.88	35.86	-91.28	-3,625.75	-9,619.24	7,955.03	7,869.85	85.18	93.390		
9,600.00	6,944.31	7,060.53	7,019.29	85.53	35.86	-91.27	-3,625.76	-9,619.24	7,870.76	7,783.96	86.79	90.683		
9,700.00	6,944.01	7,060.36	7,019.12	88.19	35.86	-91.27	-3,625.76	-9,619.24	7,786.86	7,698.40	88.46	88.023		
9,800.00	6,943.71	7,060.18	7,018.94	90.86	35.86	-91.27	-3,625.76	-9,619.24	7,703.35	7,613.16	90.19	85.413		
9,900.00	6,943.42	7,060.00	7,018.76	93.55	35.86	-91.27	-3,625.77	-9,619.24	7,620.24	7,528.26	91.97	82.854		
10,000.00	6,943.12	7,059.82	7,018.58	96.24	35.85	-91.26	-3,625.77	-9,619.24	7,537.53	7,443.72	93.81	80.348		
10,100.00	6,942.82	7,059.64	7,018.40	98.95	35.85	-91.26	-3,625.77	-9,619.24	7,455.25	7,359.54	95.71	77.896		
10,200.00	6,942.52	7,059.46	7,018.22	101.66	35.85	-91.26	-3,625.78	-9,619.24	7,373.41	7,275.75	97.66	75.500		
10,300.00	6,942.22	7,059.28	7,018.04	104.38	35.85	-91.26	-3,625.78	-9,619.24	7,292.02	7,192.35	99.67	73.161		
10,400.00	6,941.92	7,059.10	7,017.85	107.11	35.85	-91.25	-3,625.78	-9,619.24	7,211.10	7,109.36	101.74	70.877		
10,500.00	6,941.63	7,058.91	7,017.67	109.84	35.85	-91.25	-3,625.79	-9,619.24	7,130.66	7,026.79	103.87	68.651		
10,600.00	6,941.33	7,058.73	7,017.49	112.58	35.85	-91.25	-3,625.79	-9,619.24	7,050.73	6,944.67	106.06	66.481		
10,700.00	6,941.03	7,058.54	7,017.30	115.33	35.85	-91.25	-3,625.79	-9,619.24	6,971.31	6,863.00	108.30	64.369		
10,800.00	6,940.73	7,058.36	7,017.12	118.08	35.85	-91.24	-3,625.80	-9,619.24	6,892.42	6,781.81	110.61	62.313		
10,900.00	6,940.43	7,058.17	7,016.93	120.84	35.85	-91.24	-3,625.80	-9,619.24	6,814.10	6,701.12	112.98	60.313		
11,000.00	6,940.13	7,057.98	7,016.74	123.60	35.85	-91.24	-3,625.80	-9,619.24	6,736.34	6,620.93	115.41	58.369		
11,100.00	6,939.83	7,057.79	7,016.55	126.36	35.85	-91.24	-3,625.81	-9,619.24	6,659.18	6,541.28	117.90	56.481		
11,200.00	6,939.54	7,057.60	7,016.36	129.13	35.85	-91.23	-3,625.81	-9,619.24	6,582.63	6,462.18	120.46	54.648		
11,300.00	6,939.24	7,057.41	7,016.17	131.91	35.85	-91.23	-3,625.81	-9,619.24	6,506.72	6,383.65	123.07	52.868		
11,400.00	6,938.94	7,057.22	7,015.98	134.68	35.85	-91.23	-3,625.82	-9,619.24	6,431.47	6,305.72	125.76	51.142		
11,500.00	6,938.64	7,057.03	7,015.79	137.46	35.85	-91.23	-3,625.82	-9,619.24	6,356.91	6,228.40	128.50	49.469		
11,600.00	6,938.34	7,056.84	7,015.60	140.25	35.84	-91.22	-3,625.82	-9,619.24	6,283.04	6,151.73	131.32	47.847		
11,700.00	6,938.04	7,056.64	7,015.40	143.03	35.84	-91.22	-3,625.83	-9,619.24	6,209.91	6,075.72	134.19	46.276		
11,800.00	6,937.75	7,056.45	7,015.21	145.82	35.84	-91.22	-3,625.83	-9,619.24	6,137.54	6,000.40	137.14	44.755		
11,900.00	6,937.45	7,056.25	7,015.01	148.61	35.84	-91.22	-3,625.84	-9,619.24	6,065.95	5,925.81	140.15	43.283		
12,000.00	6,937.15	7,056.06	7,014.81	151.41	35.84	-91.21	-3,625.84	-9,619.24	5,995.18	5,851.96	143.22	41.859		
12,100.00	6,936.85	7,055.86	7,014.62	154.20	35.84	-91.21	-3,625.84	-9,619.24	5,925.25	5,778.88	146.37	40.482		
12,200.00	6,936.55	7,055.66	7,014.42	157.00	35.84	-91.21	-3,625.85	-9,619.24	5,856.19	5,706.61	149.58	39.151		
12,300.00	6,936.25	7,055.46	7,014.22	159.80	35.84	-91.21	-3,625.85	-9,619.24	5,788.04	5,635.18	152.86	37.866		
12,400.00	6,935.96	7,055.26	7,014.02	162.61	35.84	-91.20	-3,625.85	-9,619.24	5,720.82	5,564.62	156.20	36.625		
12,500.00	6,935.66	7,055.06	7,013.81	165.41	35.84	-91.20	-3,625.86	-9,619.24	5,654.57	5,494.95	159.61	35.427		
12,600.00	6,935.36	7,054.85	7,013.61	168.22	35.84	-91.20	-3,625.86	-9,619.24	5,589.32	5,426.23	163.09	34.272		
12,700.00	6,935.06	7,054.65	7,013.41	171.02	35.84	-91.19	-3,625.87	-9,619.24	5,525.12	5,358.48	166.63	33.158		
12,800.00	6,934.76	7,054.44	7,013.20	173.83	35.84	-91.19	-3,625.87	-9,619.24	5,461.99	5,291.75	170.24	32.084		
12,900.00	6,934.46	7,054.24	7,013.00	176.65	35.84	-91.19	-3,625.87	-9,619.24	5,399.97	5,226.06	173.91	31.051		
13,000.00	6,934.17	7,054.03	7,012.79	179.46	35.83	-91.19	-3,625.88	-9,619.23	5,339.11	5,161.47	177.64	30.056		

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 4N-16A-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 4N-16A-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	
13,100.00	6,933.87	7,053.82	7,012.58	182.27	35.83	-91.18	-3,625.88	-9,619.23	5,279.44	5,098.00	181.43	29.098	
13,200.00	6,933.57	7,053.62	7,012.37	185.09	35.83	-91.18	-3,625.89	-9,619.23	5,221.00	5,035.72	185.28	28.178	
13,300.00	6,933.27	7,053.41	7,012.16	187.91	35.83	-91.18	-3,625.89	-9,619.23	5,163.84	4,974.65	189.19	27.294	
13,400.00	6,932.97	7,053.19	7,011.95	190.72	35.83	-91.18	-3,625.89	-9,619.23	5,108.00	4,914.84	193.15	26.445	
13,500.00	6,932.67	7,052.98	7,011.74	193.54	35.83	-91.17	-3,625.90	-9,619.23	5,053.51	4,856.35	197.16	25.631	
13,600.00	6,932.38	7,052.77	7,011.53	196.36	35.83	-91.17	-3,625.90	-9,619.23	5,000.44	4,799.22	201.22	24.850	
13,700.00	6,932.08	7,052.55	7,011.31	199.19	35.83	-91.17	-3,625.91	-9,619.23	4,948.82	4,743.49	205.33	24.102	
13,800.00	6,931.78	7,052.34	7,011.10	202.01	35.83	-91.16	-3,625.91	-9,619.23	4,898.69	4,689.22	209.47	23.386	
13,900.00	6,931.48	7,052.12	7,010.88	204.83	35.83	-91.16	-3,625.91	-9,619.23	4,850.11	4,636.46	213.65	22.702	
14,000.00	6,931.18	7,051.91	7,010.67	207.66	35.83	-91.16	-3,625.92	-9,619.23	4,803.12	4,585.26	217.85	22.047	
14,100.00	6,930.88	7,051.69	7,010.45	210.48	35.83	-91.16	-3,625.92	-9,619.23	4,757.76	4,535.68	222.09	21.423	
14,200.00	6,930.59	7,051.47	7,010.23	213.31	35.83	-91.15	-3,625.93	-9,619.23	4,714.10	4,487.76	226.34	20.828	
14,300.00	6,930.29	7,051.25	7,010.01	216.14	35.83	-91.15	-3,625.93	-9,619.23	4,672.16	4,441.56	230.60	20.261	
14,400.00	6,929.99	7,051.02	7,009.78	218.96	35.82	-91.15	-3,625.93	-9,619.23	4,632.01	4,397.13	234.87	19.721	
14,500.00	6,929.69	7,050.80	7,009.56	221.79	35.82	-91.14	-3,625.94	-9,619.23	4,593.68	4,354.53	239.14	19.209	
14,600.00	6,929.39	7,050.58	7,009.34	224.62	35.82	-91.14	-3,625.94	-9,619.23	4,557.22	4,313.81	243.41	18.723	
14,700.00	6,929.09	7,050.35	7,009.11	227.45	35.82	-91.14	-3,625.95	-9,619.23	4,522.68	4,275.03	247.65	18.262	
14,732.12	6,929.00	7,050.28	7,009.04	228.36	35.82	-91.14	-3,625.95	-9,619.23	4,512.00	4,262.99	249.01	18.120 CC, ES, SF	



Anticollision Report



Company:	SRC ENERGY	Local Co-ordinate Reference:	Well HARVESTERS STATE 4N-16A-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 4N-16A-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	897.38	924.94	3.28	5.37	-109.34	-3,106.30	-8,850.49	9,425.27					
100.00	100.00	984.53	1,009.91	3.28	5.82	-109.45	-3,120.01	-8,836.80	9,415.49	9,406.42	9.07	1,037.588		
200.00	200.00	1,038.71	1,062.63	3.34	6.11	-109.52	-3,129.11	-8,828.26	9,406.05	9,396.65	9.39	1,001.439		
300.00	300.00	1,098.00	1,120.48	3.44	6.43	-109.59	-3,138.67	-8,819.44	9,397.18	9,387.38	9.80	958.854		
400.00	400.00	1,098.00	1,120.48	3.60	6.43	-109.59	-3,138.67	-8,819.44	9,388.98	9,379.03	9.95	944.024		
500.00	500.00	1,159.18	1,180.38	3.81	6.75	-109.66	-3,147.95	-8,811.12	9,381.28	9,370.83	10.45	897.465		
600.00	600.00	1,193.00	1,213.58	4.05	6.93	-109.70	-3,152.79	-8,806.94	9,374.37	9,363.51	10.86	863.154		
700.00	699.98	1,265.12	1,284.36	4.32	7.32	-96.44	-3,163.61	-8,798.23	9,368.15	9,356.65	11.50	814.367		
800.00	799.84	1,337.83	1,355.55	4.62	7.71	-96.66	-3,175.41	-8,789.36	9,362.66	9,350.48	12.19	768.357		
900.00	899.45	1,412.06	1,428.37	4.94	8.12	-96.87	-3,186.88	-8,780.69	9,357.88	9,344.98	12.90	725.575		
1,000.00	998.80	1,718.53	1,730.09	5.28	9.76	-97.42	-3,225.93	-8,743.99	9,351.96	9,337.12	14.84	630.344		
1,100.00	1,098.12	1,757.00	1,767.95	5.63	9.97	-97.48	-3,230.80	-8,739.19	9,345.98	9,330.59	15.39	607.128		
1,200.00	1,197.44	1,798.91	1,809.20	6.00	10.20	-97.55	-3,236.27	-8,734.17	9,340.66	9,324.68	15.99	584.292		
1,300.00	1,296.77	2,205.02	2,207.75	6.37	12.52	-98.27	-3,291.14	-8,679.44	9,335.10	9,316.49	18.61	501.657		
1,400.00	1,396.09	2,276.85	2,278.21	6.76	12.94	-98.39	-3,300.06	-8,668.66	9,327.09	9,307.70	19.40	480.897		
1,500.00	1,495.41	2,321.00	2,321.65	7.15	13.19	-98.47	-3,304.85	-8,662.41	9,319.50	9,299.46	20.03	465.174		
1,600.00	1,594.74	2,365.76	2,365.74	7.55	13.44	-98.54	-3,309.58	-8,656.39	9,312.51	9,291.83	20.68	450.361		
1,700.00	1,694.06	2,416.00	2,415.25	7.96	13.72	-98.62	-3,315.28	-8,650.00	9,306.32	9,284.96	21.36	435.757		
1,800.00	1,793.38	2,528.13	2,525.42	8.37	14.36	-98.82	-3,329.85	-8,635.12	9,300.42	9,278.03	22.39	415.294		
1,900.00	1,892.71	2,599.24	2,595.31	8.78	14.77	-98.94	-3,338.97	-8,625.62	9,294.46	9,271.24	23.21	400.388		
2,000.00	1,992.03	2,755.52	2,748.46	9.20	15.70	-99.22	-3,360.75	-8,603.58	9,288.23	9,263.69	24.54	378.498		
2,100.00	2,091.36	2,848.08	2,838.80	9.62	16.27	-99.40	-3,375.36	-8,589.66	9,281.96	9,256.44	25.52	363.682		
2,200.00	2,190.68	2,890.00	2,879.83	10.05	16.53	-99.48	-3,381.41	-8,583.58	9,275.97	9,249.76	26.21	353.961		
2,300.00	2,290.00	2,948.74	2,937.48	10.48	16.87	-99.59	-3,389.32	-8,575.60	9,270.48	9,243.50	26.97	343.689		
2,400.00	2,389.33	2,984.00	2,972.18	10.90	17.08	-99.65	-3,393.82	-8,571.20	9,265.73	9,238.12	27.61	335.583		
2,500.00	2,488.65	3,059.05	3,045.96	11.34	17.52	-99.78	-3,403.98	-8,561.95	9,261.48	9,233.00	28.48	325.236		
2,600.00	2,587.97	3,114.99	3,100.88	11.77	17.83	-99.88	-3,412.06	-8,555.05	9,257.63	9,228.41	29.23	316.730		
2,700.00	2,687.30	3,169.00	3,154.18	12.20	18.14	-99.97	-3,418.55	-8,549.22	9,254.33	9,224.36	29.97	308.800		
2,800.00	2,786.62	3,213.70	3,198.42	12.64	18.37	-100.04	-3,423.24	-8,544.93	9,251.59	9,220.96	30.64	301.963		
2,900.00	2,885.94	3,262.00	3,246.28	13.07	18.62	-100.11	-3,428.13	-8,540.65	9,249.44	9,218.12	31.33	295.258		
3,000.00	2,985.27	3,319.05	3,302.81	13.51	18.91	-100.19	-3,434.12	-8,535.80	9,247.82	9,215.76	32.06	288.437		
3,100.00	3,084.59	3,384.32	3,367.41	13.95	19.25	-100.30	-3,441.65	-8,530.26	9,246.66	9,213.82	32.84	281.565		
3,200.00	3,183.91	3,200.00	3,521.75	14.39	18.30	-100.53	-3,458.31	-8,517.24	9,245.37	9,213.02	32.35	285.814		
3,300.00	3,283.24	3,604.83	3,585.82	14.83	20.38	-100.63	-3,465.41	-8,511.40	9,243.78	9,208.91	34.87	265.121		
3,400.00	3,382.56	4,066.77	4,040.22	15.27	23.02	-101.44	-3,527.27	-8,458.16	9,241.27	9,203.36	37.90	243.804		
3,500.00	3,481.88	4,112.00	4,084.51	15.71	23.30	-101.52	-3,533.88	-8,451.79	9,236.71	9,198.08	38.63	239.079		
3,600.00	3,581.21	4,170.41	4,141.89	16.16	23.64	-101.63	-3,541.71	-8,444.19	9,232.70	9,193.28	39.42	234.209		
3,700.00	3,680.53	4,207.00	4,177.91	16.60	23.85	-101.69	-3,546.29	-8,439.72	9,229.23	9,189.14	40.08	230.248		
3,800.00	3,779.85	4,271.51	4,241.36	17.04	24.23	-101.80	-3,554.98	-8,431.91	9,226.26	9,185.35	40.91	225.526		
3,900.00	3,879.18	4,301.00	4,270.26	17.49	24.40	-101.86	-3,559.51	-8,428.24	9,223.94	9,182.41	41.53	222.082		
4,000.00	3,978.50	4,367.11	4,335.12	17.93	24.79	-101.98	-3,569.66	-8,420.42	9,222.15	9,179.78	42.37	217.635		
4,100.00	4,077.82	4,423.67	4,390.77	18.37	25.12	-102.08	-3,577.74	-8,414.38	9,220.96	9,177.80	43.15	213.687		
4,200.00	4,177.15	4,491.00	4,457.11	18.82	25.50	-102.20	-3,586.99	-8,407.60	9,220.17	9,176.19	43.98	209.631		
4,300.00	4,276.47	4,538.71	4,504.21	19.27	25.76	-102.28	-3,593.26	-8,403.15	9,219.87	9,175.18	44.69	206.299		
4,300.12	4,276.59	4,538.77	4,504.26	19.27	25.76	-102.28	-3,593.27	-8,403.15	9,219.87	9,175.18	44.69	206.295		
4,400.00	4,375.79	4,585.00	4,549.97	19.71	26.01	-102.35	-3,599.01	-8,399.27	9,220.17	9,174.78	45.39	203.124		
4,500.00	4,475.12	4,626.06	4,590.64	20.16	26.22	-102.42	-3,603.78	-8,396.25	9,221.09	9,175.04	46.05	200.256		
4,600.00	4,574.44	4,680.00	4,644.17	20.60	26.49	-102.49	-3,609.49	-8,392.98	9,222.69	9,175.93	46.77	197.206		
4,700.00	4,673.76	4,708.05	4,672.05	21.05	26.62	-102.53	-3,612.25	-8,391.57	9,224.90	9,177.56	47.34	194.861		
4,800.00	4,773.09	4,800.00	4,785.36	21.50	27.04	-102.68	-3,622.24	-8,386.96	9,227.73	9,179.51	48.23	191.346		
4,900.00	4,872.41	4,964.00	4,927.00	21.94	27.76	-102.85	-3,631.95	-8,381.11	9,229.52	9,180.11	49.41	186.784		
5,000.00	4,971.74	5,018.71	4,981.59	22.39	27.99	-102.91	-3,635.17	-8,379.30	9,231.78	9,181.69	50.09	184.304		

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 4N-16A-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 4N-16A-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		
5,100.00	5,071.06	5,100.00	5,089.54	22.84	28.31	-103.01	-3,639.12	-8,377.21	9,234.30	9,183.43	50.87	181.533		
5,200.00	5,170.38	5,231.46	5,194.21	23.29	28.78	-103.09	-3,639.76	-8,376.44	9,236.54	9,184.76	51.78	178.366		
5,300.00	5,269.71	5,294.51	5,257.26	23.74	28.98	-103.14	-3,639.75	-8,376.39	9,239.13	9,186.69	52.44	176.190		
5,400.00	5,369.03	5,361.90	5,324.65	24.18	29.20	-103.19	-3,639.98	-8,376.54	9,242.12	9,189.02	53.11	174.028		
5,500.00	5,468.35	5,451.95	5,414.70	24.63	29.50	-103.25	-3,640.42	-8,376.85	9,245.33	9,191.47	53.86	171.661		
5,600.00	5,567.68	5,541.98	5,504.73	25.08	29.80	-103.32	-3,640.95	-8,377.22	9,248.65	9,194.04	54.61	169.359		
5,700.00	5,667.00	5,635.11	5,597.85	25.53	30.10	-103.38	-3,641.59	-8,377.66	9,252.08	9,196.71	55.37	167.091		
5,800.00	5,766.32	5,753.15	5,715.88	25.98	30.49	-103.47	-3,642.20	-8,378.20	9,255.44	9,199.23	56.22	164.641		
5,900.00	5,865.65	5,871.27	5,834.00	26.43	30.87	-103.55	-3,642.44	-8,378.67	9,258.62	9,201.56	57.06	162.257		
6,000.00	5,964.97	5,974.76	5,937.50	26.88	31.23	-103.62	-3,642.51	-8,378.98	9,261.66	9,203.80	57.87	160.047		
6,100.00	6,064.29	6,072.53	6,035.27	27.33	31.56	-103.69	-3,642.98	-8,379.07	9,264.73	9,206.07	58.66	157.937		
6,200.00	6,163.62	6,170.20	6,132.93	27.78	31.90	-103.77	-3,643.86	-8,378.97	9,267.83	9,208.37	59.45	155.884		
6,300.00	6,262.94	6,310.62	6,273.34	28.23	32.43	-103.87	-3,645.56	-8,378.31	9,270.77	9,210.32	60.44	153.376		
6,400.00	6,362.24	6,459.83	6,422.53	28.67	33.00	-85.69	-3,647.42	-8,376.69	9,272.67	9,211.20	61.48	150.833		
6,500.00	6,460.41	6,534.63	6,497.32	29.12	33.29	-54.32	-3,648.50	-8,375.66	9,264.15	9,201.93	62.22	148.888		
6,600.00	6,555.09	6,601.41	6,564.08	29.57	33.55	-45.41	-3,649.75	-8,374.82	9,242.22	9,179.29	62.93	146.868		
6,700.00	6,643.94	6,663.94	6,626.59	30.00	33.80	-42.74	-3,651.17	-8,374.10	9,207.42	9,143.82	63.60	144.760		
6,800.00	6,724.78	6,720.71	6,683.34	30.45	34.03	-42.98	-3,652.66	-8,373.51	9,160.63	9,096.39	64.24	142.591		
6,900.00	6,795.62	6,781.18	6,743.77	30.97	34.27	-45.39	-3,654.42	-8,372.94	9,102.97	9,038.08	64.89	140.279		
7,000.00	6,854.70	6,849.85	6,812.42	31.60	34.54	-50.04	-3,656.27	-8,372.34	9,035.72	8,970.14	65.58	137.790		
7,100.00	6,900.58	6,903.05	6,865.60	32.39	34.75	-57.24	-3,657.54	-8,371.90	8,960.57	8,894.36	66.21	135.340		
7,200.00	6,932.13	6,939.40	6,901.94	33.34	34.89	-67.51	-3,658.32	-8,371.61	8,879.42	8,812.63	66.79	132.946		
7,300.00	6,948.57	6,957.94	6,920.48	34.46	34.97	-81.01	-3,658.70	-8,371.47	8,794.34	8,727.02	67.32	130.631		
7,400.00	6,950.87	6,959.79	6,922.32	35.70	34.97	-89.92	-3,658.73	-8,371.46	8,707.47	8,639.66	67.81	128.406		
7,500.00	6,950.58	6,958.55	6,921.09	37.12	34.97	-89.90	-3,658.71	-8,371.47	8,620.67	8,552.32	68.35	126.125		
7,600.00	6,950.28	6,957.31	6,919.85	38.70	34.96	-89.89	-3,658.69	-8,371.48	8,534.15	8,465.19	68.96	123.758		
7,700.00	6,949.98	6,956.07	6,918.61	40.41	34.96	-89.87	-3,658.66	-8,371.49	8,447.93	8,378.29	69.64	121.313		
7,800.00	6,949.68	6,954.82	6,917.36	42.25	34.95	-89.85	-3,658.64	-8,371.50	8,362.02	8,291.63	70.39	118.798		
7,900.00	6,949.38	6,953.58	6,916.12	44.20	34.95	-89.84	-3,658.61	-8,371.50	8,276.42	8,205.21	71.21	116.224		
8,000.00	6,949.08	6,952.33	6,914.87	46.24	34.94	-89.82	-3,658.59	-8,371.51	8,191.15	8,119.05	72.10	113.601		
8,100.00	6,948.79	6,951.08	6,913.62	48.36	34.94	-89.80	-3,658.56	-8,371.52	8,106.22	8,033.15	73.07	110.939		
8,200.00	6,948.49	6,949.82	6,912.36	50.56	34.93	-89.79	-3,658.54	-8,371.53	8,021.63	7,947.53	74.11	108.247		
8,300.00	6,948.19	6,948.57	6,911.11	52.82	34.93	-89.77	-3,658.51	-8,371.54	7,937.41	7,862.20	75.21	105.535		
8,400.00	6,947.89	6,947.31	6,909.85	55.14	34.92	-89.75	-3,658.49	-8,371.55	7,853.55	7,777.16	76.39	102.813		
8,500.00	6,947.59	6,946.05	6,908.59	57.50	34.92	-89.74	-3,658.46	-8,371.56	7,770.07	7,692.44	77.63	100.090		
8,600.00	6,947.29	6,944.79	6,907.33	59.91	34.91	-89.72	-3,658.43	-8,371.57	7,686.99	7,608.05	78.94	97.373		
8,700.00	6,947.00	6,943.52	6,906.06	62.36	34.91	-89.70	-3,658.41	-8,371.58	7,604.32	7,523.99	80.32	94.670		
8,800.00	6,946.70	6,942.25	6,904.79	64.84	34.90	-89.69	-3,658.38	-8,371.59	7,522.06	7,440.29	81.77	91.987		
8,900.00	6,946.40	6,940.98	6,903.52	67.35	34.90	-89.67	-3,658.36	-8,371.60	7,440.24	7,356.96	83.29	89.332		
9,000.00	6,946.10	6,939.71	6,902.25	69.88	34.89	-89.65	-3,658.33	-8,371.61	7,358.87	7,274.01	84.87	86.709		
9,100.00	6,945.80	6,938.44	6,900.98	72.44	34.89	-89.64	-3,658.30	-8,371.62	7,277.97	7,191.45	86.52	84.123		
9,200.00	6,945.50	6,937.16	6,899.70	75.02	34.88	-89.62	-3,658.28	-8,371.63	7,197.54	7,109.31	88.23	81.579		
9,300.00	6,945.21	6,935.88	6,898.42	77.63	34.88	-89.60	-3,658.25	-8,371.64	7,117.61	7,027.61	90.00	79.081		
9,400.00	6,944.91	6,934.60	6,897.14	80.24	34.87	-89.59	-3,658.22	-8,371.65	7,038.19	6,946.35	91.85	76.630		
9,500.00	6,944.61	6,933.31	6,895.85	82.88	34.87	-89.57	-3,658.20	-8,371.66	6,959.31	6,865.55	93.75	74.231		
9,600.00	6,944.31	6,932.02	6,894.57	85.53	34.86	-89.55	-3,658.17	-8,371.67	6,880.97	6,785.25	95.72	71.885		
9,700.00	6,944.01	6,930.73	6,893.28	88.19	34.86	-89.53	-3,658.14	-8,371.68	6,803.20	6,705.44	97.76	69.593		
9,800.00	6,943.71	6,929.44	6,891.99	90.86	34.85	-89.52	-3,658.11	-8,371.69	6,726.01	6,626.16	99.86	67.358		
9,900.00	6,943.42	6,928.15	6,890.69	93.55	34.85	-89.50	-3,658.09	-8,371.70	6,649.44	6,547.42	102.02	65.179		
10,000.00	6,943.12	6,926.85	6,889.40	96.24	34.84	-89.48	-3,658.06	-8,371.71	6,573.49	6,469.25	104.24	63.059		
10,100.00	6,942.82	6,925.55	6,888.10	98.95	34.84	-89.46	-3,658.03	-8,371.72	6,498.20	6,391.66	106.53	60.996		
10,200.00	6,942.52	6,924.25	6,886.80	101.66	34.83	-89.45	-3,658.00	-8,371.73	6,423.58	6,314.69	108.89	58.992		

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 4N-16A-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 4N-16A-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	
10,300.00	6,942.22	6,922.95	6,885.49	104.38	34.83	-89.43	-3,657.98	-8,371.74	6,349.65	6,238.34	111.31	57.046	
10,400.00	6,941.92	6,921.64	6,884.18	107.11	34.82	-89.41	-3,657.95	-8,371.75	6,276.45	6,162.66	113.79	55.158	
10,500.00	6,941.63	6,920.33	6,882.88	109.84	34.82	-89.40	-3,657.92	-8,371.76	6,204.00	6,087.66	116.34	53.328	
10,600.00	6,941.33	6,919.02	6,881.56	112.58	34.81	-89.38	-3,657.89	-8,371.77	6,132.32	6,013.37	118.95	51.555	
10,700.00	6,941.03	6,917.70	6,880.25	115.33	34.81	-89.36	-3,657.86	-8,371.78	6,061.44	5,939.82	121.62	49.838	
10,800.00	6,940.73	6,916.39	6,878.93	118.08	34.80	-89.34	-3,657.83	-8,371.79	5,991.40	5,867.03	124.36	48.178	
10,900.00	6,940.43	6,915.07	6,877.61	120.84	34.80	-89.32	-3,657.80	-8,371.80	5,922.21	5,795.05	127.16	46.572	
11,000.00	6,940.13	6,913.74	6,876.29	123.60	34.79	-89.31	-3,657.78	-8,371.82	5,853.91	5,723.88	130.03	45.020	
11,100.00	6,939.83	6,912.42	6,874.97	126.36	34.79	-89.29	-3,657.75	-8,371.83	5,786.54	5,653.58	132.96	43.522	
11,200.00	6,939.54	6,911.09	6,873.64	129.13	34.78	-89.27	-3,657.72	-8,371.84	5,720.12	5,584.17	135.95	42.076	
11,300.00	6,939.24	6,909.76	6,872.31	131.91	34.77	-89.25	-3,657.69	-8,371.85	5,654.69	5,515.69	139.00	40.681	
11,400.00	6,938.94	6,908.43	6,870.98	134.68	34.77	-89.24	-3,657.66	-8,371.86	5,590.28	5,448.16	142.11	39.337	
11,500.00	6,938.64	6,907.10	6,869.65	137.46	34.76	-89.22	-3,657.63	-8,371.87	5,526.93	5,381.64	145.29	38.041	
11,600.00	6,938.34	6,905.76	6,868.31	140.25	34.76	-89.20	-3,657.60	-8,371.88	5,464.67	5,316.15	148.52	36.794	
11,700.00	6,938.04	6,904.42	6,866.97	143.03	34.75	-89.18	-3,657.57	-8,371.89	5,403.55	5,251.74	151.81	35.594	
11,800.00	6,937.75	6,903.07	6,865.63	145.82	34.75	-89.17	-3,657.54	-8,371.90	5,343.60	5,188.44	155.16	34.440	
11,900.00	6,937.45	6,901.73	6,864.28	148.61	34.74	-89.15	-3,657.51	-8,371.91	5,284.86	5,126.30	158.56	33.330	
12,000.00	6,937.15	6,900.38	6,862.93	151.41	34.74	-89.13	-3,657.48	-8,371.92	5,227.38	5,065.36	162.01	32.265	
12,100.00	6,936.85	6,899.03	6,861.58	154.20	34.73	-89.11	-3,657.45	-8,371.93	5,171.19	5,005.67	165.52	31.242	
12,200.00	6,936.55	6,897.68	6,860.23	157.00	34.73	-89.09	-3,657.42	-8,371.94	5,116.34	4,947.27	169.07	30.261	
12,300.00	6,936.25	6,896.32	6,858.88	159.80	34.72	-89.08	-3,657.38	-8,371.96	5,062.87	4,890.20	172.67	29.321	
12,400.00	6,935.96	6,894.96	6,857.52	162.61	34.72	-89.06	-3,657.35	-8,371.97	5,010.82	4,834.51	176.31	28.421	
12,500.00	6,935.66	6,893.60	6,856.16	165.41	34.71	-89.04	-3,657.32	-8,371.98	4,960.24	4,780.26	179.99	27.559	
12,600.00	6,935.36	6,892.24	6,854.79	168.22	34.71	-89.02	-3,657.29	-8,371.99	4,911.18	4,727.48	183.70	26.735	
12,700.00	6,935.06	6,890.87	6,853.43	171.02	34.70	-89.00	-3,657.26	-8,372.00	4,863.68	4,676.24	187.44	25.948	
12,800.00	6,934.76	6,889.50	6,852.06	173.83	34.69	-88.98	-3,657.23	-8,372.01	4,817.79	4,626.58	191.21	25.197	
12,900.00	6,934.46	6,888.13	6,850.69	176.65	34.69	-88.97	-3,657.20	-8,372.02	4,773.55	4,578.55	194.99	24.480	
13,000.00	6,934.17	6,886.76	6,849.31	179.46	34.68	-88.95	-3,657.16	-8,372.03	4,731.01	4,532.21	198.80	23.798	
13,100.00	6,933.87	6,885.38	6,847.94	182.27	34.68	-88.93	-3,657.13	-8,372.04	4,690.21	4,487.60	202.61	23.149	
13,200.00	6,933.57	6,884.00	6,846.56	185.09	34.67	-88.91	-3,657.10	-8,372.06	4,651.21	4,444.78	206.43	22.532	
13,300.00	6,933.27	6,882.62	6,845.17	187.91	34.67	-88.89	-3,657.07	-8,372.07	4,614.05	4,403.80	210.24	21.946	
13,400.00	6,932.97	6,881.23	6,843.79	190.72	34.66	-88.87	-3,657.03	-8,372.08	4,578.77	4,364.71	214.05	21.391	
13,500.00	6,932.67	6,879.84	6,842.40	193.54	34.66	-88.86	-3,657.00	-8,372.09	4,545.41	4,327.57	217.84	20.866	
13,600.00	6,932.38	6,878.45	6,841.01	196.36	34.65	-88.84	-3,656.97	-8,372.10	4,514.02	4,292.42	221.61	20.369	
13,700.00	6,932.08	6,877.06	6,839.62	199.19	34.65	-88.82	-3,656.94	-8,372.11	4,484.65	4,259.30	225.35	19.901	
13,800.00	6,931.78	6,875.66	6,838.22	202.01	34.64	-88.80	-3,656.90	-8,372.12	4,457.32	4,228.28	229.05	19.460	
13,900.00	6,931.48	6,874.26	6,836.82	204.83	34.63	-88.78	-3,656.87	-8,372.14	4,432.08	4,199.39	232.70	19.046	
14,000.00	6,931.18	6,872.86	6,835.42	207.66	34.63	-88.76	-3,656.83	-8,372.15	4,408.97	4,172.67	236.30	18.658	
14,100.00	6,930.88	6,871.46	6,834.02	210.48	34.62	-88.74	-3,656.80	-8,372.16	4,388.01	4,148.17	239.84	18.296	
14,200.00	6,930.59	6,870.05	6,832.61	213.31	34.62	-88.73	-3,656.77	-8,372.17	4,369.25	4,125.93	243.31	17.957	
14,300.00	6,930.29	6,868.64	6,831.20	216.14	34.61	-88.71	-3,656.73	-8,372.18	4,352.69	4,105.99	246.71	17.643	
14,400.00	6,929.99	6,867.23	6,829.79	218.96	34.61	-88.69	-3,656.70	-8,372.19	4,338.38	4,088.37	250.02	17.352	
14,500.00	6,929.69	6,865.81	6,828.37	221.79	34.60	-88.67	-3,656.66	-8,372.21	4,326.34	4,073.10	253.24	17.084	
14,600.00	6,929.39	6,864.39	6,826.95	224.62	34.60	-88.65	-3,656.63	-8,372.22	4,316.58	4,060.21	256.36	16.838	
14,700.00	6,929.09	6,862.97	6,825.53	227.45	34.59	-88.63	-3,656.59	-8,372.23	4,309.11	4,049.73	259.39	16.613	
14,732.12	6,929.00	6,862.51	6,825.08	228.36	34.59	-88.62	-3,656.58	-8,372.23	4,307.21	4,046.87	260.33	16.545 CC, ES, SF	



Anticollision Report



Company:	SRC ENERGY	Local Co-ordinate Reference:	Well HARVESTERS STATE 4N-16A-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 4N-16A-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	-134.95	-3,366.32	-3,372.04	4,765.18					
100.00	100.00	35.00	100.00	3.28	3.34	-134.95	-3,366.32	-3,372.04	4,764.74	4,758.12	6.62	719.626		
200.00	200.00	135.00	200.00	3.34	4.42	-134.95	-3,366.32	-3,372.04	4,764.74	4,756.98	7.76	614.004		
300.00	300.00	235.00	300.00	3.44	7.24	-134.95	-3,366.32	-3,372.04	4,764.74	4,754.05	10.69	445.784		
400.00	400.00	335.00	400.00	3.60	10.48	-134.95	-3,366.32	-3,372.04	4,764.74	4,750.66	14.08	338.419		
500.00	500.00	435.00	500.00	3.81	13.83	-134.95	-3,366.32	-3,372.04	4,764.74	4,747.10	17.64	270.097		
600.00	600.00	535.00	600.00	4.05	17.25	-134.95	-3,366.32	-3,372.04	4,764.74	4,743.44	21.29	223.776		
700.00	699.98	634.98	699.98	4.32	20.68	-121.48	-3,366.32	-3,372.04	4,765.65	4,740.65	25.00	190.618		
800.00	799.84	734.84	799.84	4.62	24.13	-121.49	-3,366.32	-3,372.04	4,768.38	4,739.64	28.75	165.877		
900.00	899.45	834.45	899.45	4.94	27.58	-121.50	-3,366.32	-3,372.04	4,772.95	4,740.44	32.52	146.791		
1,000.00	998.80	933.80	998.80	5.28	31.03	-121.58	-3,366.32	-3,372.04	4,778.95	4,742.65	36.30	131.653		
1,100.00	1,098.12	1,033.12	1,098.12	5.63	34.48	-121.70	-3,366.32	-3,372.04	4,785.07	4,744.97	40.10	119.321		
1,200.00	1,197.44	1,132.44	1,197.44	6.00	37.93	-121.82	-3,366.32	-3,372.04	4,791.22	4,747.29	43.92	109.085		
1,300.00	1,296.77	1,231.77	1,296.77	6.37	41.39	-121.94	-3,366.32	-3,372.04	4,797.38	4,749.62	47.75	100.459		
1,400.00	1,396.09	1,331.09	1,396.09	6.76	44.84	-122.05	-3,366.32	-3,372.04	4,803.56	4,751.96	51.60	93.095		
1,500.00	1,495.41	1,430.41	1,495.41	7.15	48.30	-122.17	-3,366.32	-3,372.04	4,809.76	4,754.31	55.45	86.738		
1,600.00	1,594.74	1,529.74	1,594.74	7.55	51.76	-122.29	-3,366.32	-3,372.04	4,815.99	4,756.68	59.31	81.197		
1,700.00	1,694.06	1,629.06	1,694.06	7.96	55.22	-122.40	-3,366.32	-3,372.04	4,822.23	4,759.05	63.18	76.326		
1,800.00	1,793.38	1,728.38	1,793.38	8.37	58.68	-122.52	-3,366.32	-3,372.04	4,828.49	4,761.44	67.05	72.011		
1,900.00	1,892.71	1,827.71	1,892.71	8.78	62.15	-122.63	-3,366.32	-3,372.04	4,834.78	4,763.85	70.93	68.163		
2,000.00	1,992.03	1,927.03	1,992.03	9.20	65.61	-122.75	-3,366.32	-3,372.04	4,841.08	4,766.27	74.81	64.711		
2,100.00	2,091.36	2,026.36	2,091.36	9.62	69.07	-122.86	-3,366.32	-3,372.04	4,847.40	4,768.71	78.70	61.597		
2,200.00	2,190.68	2,125.68	2,190.68	10.05	72.54	-122.98	-3,366.32	-3,372.04	4,853.74	4,771.16	82.58	58.774		
2,300.00	2,290.00	2,225.00	2,290.00	10.48	76.00	-123.09	-3,366.32	-3,372.04	4,860.10	4,773.63	86.47	56.203		
2,400.00	2,389.33	2,324.33	2,389.33	10.90	79.46	-123.21	-3,366.32	-3,372.04	4,866.48	4,776.12	90.37	53.853		
2,500.00	2,488.65	2,423.65	2,488.65	11.34	82.93	-123.32	-3,366.32	-3,372.04	4,872.88	4,778.62	94.26	51.695		
2,600.00	2,587.97	2,522.97	2,587.97	11.77	86.39	-123.43	-3,366.32	-3,372.04	4,879.30	4,781.15	98.16	49.709		
2,700.00	2,687.30	2,622.30	2,687.30	12.20	89.86	-123.55	-3,366.32	-3,372.04	4,885.74	4,783.68	102.06	47.873		
2,800.00	2,786.62	2,721.62	2,786.62	12.64	93.32	-123.66	-3,366.32	-3,372.04	4,892.20	4,786.24	105.96	46.172		
2,900.00	2,885.94	2,820.94	2,885.94	13.07	96.79	-123.77	-3,366.32	-3,372.04	4,898.67	4,788.82	109.86	44.591		
3,000.00	2,985.27	2,920.27	2,985.27	13.51	100.25	-123.89	-3,366.32	-3,372.04	4,905.17	4,791.41	113.76	43.119		
3,100.00	3,084.59	3,019.59	3,084.59	13.95	103.72	-124.00	-3,366.32	-3,372.04	4,911.68	4,794.02	117.66	41.744		
3,200.00	3,183.91	3,118.91	3,183.91	14.39	107.19	-124.11	-3,366.32	-3,372.04	4,918.22	4,796.65	121.57	40.457		
3,300.00	3,283.24	3,218.24	3,283.24	14.83	110.65	-124.22	-3,366.32	-3,372.04	4,924.77	4,799.30	125.47	39.250		
3,400.00	3,382.56	3,317.56	3,382.56	15.27	114.12	-124.33	-3,366.32	-3,372.04	4,931.34	4,801.96	129.38	38.115		
3,500.00	3,481.88	3,416.88	3,481.88	15.71	117.58	-124.44	-3,366.32	-3,372.04	4,937.93	4,804.64	133.29	37.048		
3,600.00	3,581.21	3,516.21	3,581.21	16.16	121.05	-124.55	-3,366.32	-3,372.04	4,944.54	4,807.34	137.19	36.041		
3,700.00	3,680.53	3,615.53	3,680.53	16.60	124.52	-124.66	-3,366.32	-3,372.04	4,951.16	4,810.06	141.10	35.089		
3,800.00	3,779.85	3,714.85	3,779.85	17.04	127.98	-124.77	-3,366.32	-3,372.04	4,957.81	4,812.79	145.01	34.189		
3,900.00	3,879.18	3,814.18	3,879.18	17.49	131.45	-124.88	-3,366.32	-3,372.04	4,964.47	4,815.55	148.92	33.337		
4,000.00	3,978.50	3,913.50	3,978.50	17.93	134.91	-124.99	-3,366.32	-3,372.04	4,971.15	4,818.32	152.83	32.527		
4,100.00	4,077.82	4,012.82	4,077.82	18.37	138.38	-125.10	-3,366.32	-3,372.04	4,977.85	4,821.11	156.74	31.759		
4,200.00	4,177.15	4,112.15	4,177.15	18.82	141.85	-125.21	-3,366.32	-3,372.04	4,984.56	4,823.91	160.65	31.027		
4,300.00	4,276.47	4,211.47	4,276.47	19.27	145.31	-125.32	-3,366.32	-3,372.04	4,991.30	4,826.74	164.56	30.331		
4,400.00	4,375.79	4,310.79	4,375.79	19.71	148.78	-125.43	-3,366.32	-3,372.04	4,998.05	4,829.58	168.47	29.667		
4,500.00	4,475.12	4,410.12	4,475.12	20.16	152.25	-125.53	-3,366.32	-3,372.04	5,004.82	4,832.44	172.38	29.033		
4,600.00	4,574.44	4,509.44	4,574.44	20.60	155.71	-125.64	-3,366.32	-3,372.04	5,011.61	4,835.31	176.30	28.427		
4,700.00	4,673.76	4,608.76	4,673.76	21.05	159.18	-125.75	-3,366.32	-3,372.04	5,018.42	4,838.21	180.21	27.848		
4,800.00	4,773.09	4,708.09	4,773.09	21.50	162.65	-125.86	-3,366.32	-3,372.04	5,025.24	4,841.12	184.12	27.293		
4,900.00	4,872.41	4,807.41	4,872.41	21.94	166.11	-125.96	-3,366.32	-3,372.04	5,032.08	4,844.05	188.03	26.762		
5,000.00	4,971.74	4,906.74	4,971.74	22.39	169.58	-126.07	-3,366.32	-3,372.04	5,038.94	4,846.99	191.95	26.252		
5,100.00	5,071.06	5,006.06	5,071.06	22.84	173.05	-126.17	-3,366.32	-3,372.04	5,045.81	4,849.95	195.86	25.762		

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 4N-16A-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 4N-16A-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	5,170.38	5,105.38	5,170.38	23.29	176.51	-126.28	-3,366.32	-3,372.04	5,052.71	4,852.93	199.77	25.292	
5,300.00	5,269.71	5,204.71	5,269.71	23.74	179.98	-126.39	-3,366.32	-3,372.04	5,059.62	4,855.93	203.69	24.840	
5,400.00	5,369.03	5,304.03	5,369.03	24.18	183.45	-126.49	-3,366.32	-3,372.04	5,066.55	4,858.94	207.60	24.405	
5,500.00	5,468.35	5,403.35	5,468.35	24.63	186.91	-126.60	-3,366.32	-3,372.04	5,073.49	4,861.98	211.52	23.986	
5,600.00	5,567.68	5,502.68	5,567.68	25.08	190.38	-126.70	-3,366.32	-3,372.04	5,080.45	4,865.02	215.43	23.583	
5,700.00	5,667.00	5,602.00	5,667.00	25.53	193.85	-126.81	-3,366.32	-3,372.04	5,087.43	4,868.09	219.34	23.194	
5,800.00	5,766.32	5,701.32	5,766.32	25.98	197.32	-126.91	-3,366.32	-3,372.04	5,094.43	4,871.17	223.26	22.819	
5,900.00	5,865.65	5,800.65	5,865.65	26.43	200.78	-127.01	-3,366.32	-3,372.04	5,101.44	4,874.27	227.17	22.456	
6,000.00	5,964.97	5,900.03	5,964.97	26.88	204.25	-127.12	-3,366.32	-3,372.04	5,108.47	4,877.38	231.09	22.106	
6,100.00	6,064.29	6,000.71	6,064.29	27.33	207.77	-127.22	-3,366.32	-3,372.04	5,115.52	4,880.46	235.05	21.763	
6,200.00	6,163.62	6,101.38	6,163.62	27.78	211.28	-127.32	-3,366.32	-3,372.04	5,122.58	4,883.56	239.01	21.432	
6,300.00	6,262.94	6,202.06	6,262.94	28.23	214.79	-127.43	-3,366.32	-3,372.04	5,129.66	4,886.68	242.98	21.112	
6,400.00	6,362.24	6,302.76	6,362.24	28.67	218.31	-109.13	-3,366.32	-3,372.04	5,136.38	4,889.44	246.94	20.800	
6,500.00	6,460.41	6,404.59	6,460.41	29.12	221.86	-77.56	-3,366.32	-3,372.04	5,135.78	4,884.83	250.95	20.466	
6,600.00	6,555.09	6,509.91	6,555.09	29.57	225.54	-68.64	-3,366.32	-3,372.04	5,125.37	4,870.30	255.07	20.094	
6,700.00	6,643.94	6,578.94	6,643.94	30.00	227.95	-66.06	-3,366.32	-3,372.04	5,105.62	4,847.68	257.93	19.794	
6,800.00	6,724.78	6,659.78	6,724.78	30.45	230.77	-66.32	-3,366.32	-3,372.04	5,077.26	4,816.03	261.22	19.436	
6,900.00	6,795.62	6,730.62	6,795.62	30.97	233.24	-68.35	-3,366.32	-3,372.04	5,041.28	4,777.08	264.21	19.081	
7,000.00	6,854.70	6,789.70	6,854.70	31.60	235.31	-71.70	-3,366.32	-3,372.04	4,998.88	4,732.03	266.85	18.733	
7,100.00	6,900.58	6,835.58	6,900.58	32.39	236.91	-76.07	-3,366.32	-3,372.04	4,951.39	4,682.26	269.14	18.397	
7,200.00	6,932.13	6,867.13	6,932.13	33.34	238.01	-81.19	-3,366.32	-3,372.04	4,900.23	4,629.18	271.05	18.079	
7,300.00	6,948.57	6,883.57	6,948.57	34.46	238.58	-86.78	-3,366.32	-3,372.04	4,846.86	4,574.29	272.57	17.782	
7,400.00	6,950.87	6,885.87	6,950.87	35.70	238.66	-90.11	-3,366.32	-3,372.04	4,792.81	4,519.10	273.71	17.510	
7,500.00	6,950.58	6,885.58	6,950.58	37.12	238.65	-90.10	-3,366.32	-3,372.04	4,739.95	4,465.03	274.92	17.241	
7,600.00	6,950.28	6,885.28	6,950.28	38.70	238.64	-90.10	-3,366.32	-3,372.04	4,688.63	4,412.34	276.29	16.970	
7,700.00	6,949.98	6,884.98	6,949.98	40.41	238.63	-90.10	-3,366.32	-3,372.04	4,638.90	4,361.08	277.82	16.698	
7,800.00	6,949.68	6,884.68	6,949.68	42.25	238.62	-90.09	-3,366.32	-3,372.04	4,590.81	4,311.32	279.49	16.426	
7,900.00	6,949.38	6,884.38	6,949.38	44.20	238.61	-90.09	-3,366.32	-3,372.04	4,544.41	4,263.12	281.29	16.156	
8,000.00	6,949.08	6,884.08	6,949.08	46.24	238.60	-90.08	-3,366.32	-3,372.04	4,499.75	4,216.53	283.22	15.888	
8,100.00	6,948.79	6,883.79	6,948.79	48.36	238.59	-90.08	-3,366.32	-3,372.04	4,456.90	4,171.63	285.27	15.623	
8,200.00	6,948.49	6,883.49	6,948.49	50.56	238.58	-90.07	-3,366.32	-3,372.04	4,415.89	4,128.46	287.43	15.364	
8,300.00	6,948.19	6,883.19	6,948.19	52.82	238.57	-90.07	-3,366.32	-3,372.04	4,376.78	4,087.10	289.68	15.109	
8,400.00	6,947.89	6,882.89	6,947.89	55.14	238.56	-90.07	-3,366.32	-3,372.04	4,339.62	4,047.60	292.02	14.861	
8,500.00	6,947.59	6,882.59	6,947.59	57.50	238.55	-90.06	-3,366.32	-3,372.04	4,304.47	4,010.03	294.44	14.619	
8,600.00	6,947.29	6,882.29	6,947.29	59.91	238.54	-90.06	-3,366.32	-3,372.04	4,271.37	3,974.44	296.93	14.385	
8,700.00	6,947.00	6,882.00	6,947.00	62.36	238.53	-90.05	-3,366.32	-3,372.04	4,240.37	3,940.88	299.48	14.159	
8,800.00	6,946.70	6,881.70	6,946.70	64.84	238.52	-90.05	-3,366.32	-3,372.04	4,211.51	3,909.42	302.09	13.941	
8,900.00	6,946.40	6,881.40	6,946.40	67.35	238.51	-90.05	-3,366.32	-3,372.04	4,184.85	3,880.11	304.74	13.733	
9,000.00	6,946.10	6,881.10	6,946.10	69.88	238.50	-90.04	-3,366.32	-3,372.04	4,160.42	3,852.99	307.43	13.533	
9,100.00	6,945.80	6,880.80	6,945.80	72.44	238.49	-90.04	-3,366.32	-3,372.04	4,138.26	3,828.12	310.14	13.343	
9,200.00	6,945.50	6,880.50	6,945.50	75.02	238.48	-90.03	-3,366.32	-3,372.04	4,118.42	3,805.54	312.88	13.163	
9,300.00	6,945.21	6,880.21	6,945.21	77.63	238.47	-90.03	-3,366.32	-3,372.04	4,100.91	3,785.29	315.63	12.993	
9,400.00	6,944.91	6,879.91	6,944.91	80.24	238.46	-90.02	-3,366.32	-3,372.04	4,085.78	3,767.41	318.38	12.833	
9,500.00	6,944.61	6,879.61	6,944.61	82.88	238.44	-90.02	-3,366.32	-3,372.04	4,073.05	3,751.93	321.13	12.684	
9,600.00	6,944.31	6,879.31	6,944.31	85.53	238.43	-90.02	-3,366.32	-3,372.04	4,062.74	3,738.88	323.86	12.545	
9,700.00	6,944.01	6,879.01	6,944.01	88.19	238.42	-90.01	-3,366.32	-3,372.04	4,054.88	3,728.29	326.58	12.416	
9,800.00	6,943.71	6,878.71	6,943.71	90.86	238.41	-90.01	-3,366.32	-3,372.04	4,049.46	3,720.19	329.28	12.298	
9,900.00	6,943.42	6,878.42	6,943.42	93.55	238.40	-90.00	-3,366.32	-3,372.04	4,046.51	3,714.58	331.94	12.191	
9,969.35	6,943.21	6,878.21	6,943.21	95.42	238.40	-90.00	-3,366.32	-3,372.04	4,045.92	3,712.16	333.76	12.122 CC	
10,000.00	6,943.12	6,878.12	6,943.12	96.24	238.39	-90.00	-3,366.32	-3,372.04	4,046.04	3,711.47	334.56	12.094	
10,100.00	6,942.82	6,877.82	6,942.82	98.95	238.38	-89.99	-3,366.32	-3,372.04	4,048.03	3,710.89	337.14	12.007 ES	
10,200.00	6,942.52	6,877.52	6,942.52	101.66	238.37	-89.99	-3,366.32	-3,372.04	4,052.49	3,712.82	339.67	11.931	

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 4N-16A-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 4N-16A-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	6,942.22	6,877.22	6,942.22	104.38	238.36	-89.99	-3,366.32	-3,372.04	4,059.41	3,717.27	342.14	11.865		
10,400.00	6,941.92	6,876.92	6,941.92	107.11	238.35	-89.98	-3,366.32	-3,372.04	4,068.77	3,724.23	344.55	11.809		
10,500.00	6,941.63	6,876.63	6,941.63	109.84	238.34	-89.98	-3,366.32	-3,372.04	4,080.57	3,733.67	346.89	11.763		
10,600.00	6,941.33	6,876.33	6,941.33	112.58	238.33	-89.97	-3,366.32	-3,372.04	4,094.77	3,745.60	349.17	11.727		
10,700.00	6,941.03	6,876.03	6,941.03	115.33	238.32	-89.97	-3,366.32	-3,372.04	4,111.36	3,759.99	351.38	11.701		
10,800.00	6,940.73	6,875.73	6,940.73	118.08	238.31	-89.96	-3,366.32	-3,372.04	4,130.31	3,776.80	353.51	11.684		
10,900.00	6,940.43	6,875.43	6,940.43	120.84	238.30	-89.96	-3,366.32	-3,372.04	4,151.57	3,796.01	355.56	11.676 SF		
11,000.00	6,940.13	6,875.13	6,940.13	123.60	238.29	-89.96	-3,366.32	-3,372.04	4,175.13	3,817.59	357.54	11.677		
11,100.00	6,939.83	6,874.83	6,939.83	126.36	238.28	-89.95	-3,366.32	-3,372.04	4,200.93	3,841.50	359.43	11.688		
11,200.00	6,939.54	6,874.54	6,939.54	129.13	238.27	-89.95	-3,366.32	-3,372.04	4,228.94	3,867.69	361.25	11.707		
11,300.00	6,939.24	6,874.24	6,939.24	131.91	238.26	-89.94	-3,366.32	-3,372.04	4,259.12	3,896.14	362.98	11.734		
11,400.00	6,938.94	6,873.94	6,938.94	134.68	238.25	-89.94	-3,366.32	-3,372.04	4,291.41	3,926.78	364.63	11.769		
11,500.00	6,938.64	6,873.64	6,938.64	137.46	238.24	-89.94	-3,366.32	-3,372.04	4,325.77	3,959.57	366.20	11.812		
11,600.00	6,938.34	6,873.34	6,938.34	140.25	238.23	-89.93	-3,366.32	-3,372.04	4,362.16	3,994.46	367.70	11.863		
11,700.00	6,938.04	6,873.04	6,938.04	143.03	238.22	-89.93	-3,366.32	-3,372.04	4,400.52	4,031.41	369.11	11.922		
11,800.00	6,937.75	6,872.75	6,937.75	145.82	238.21	-89.92	-3,366.32	-3,372.04	4,440.80	4,070.35	370.45	11.988		
11,900.00	6,937.45	6,872.45	6,937.45	148.61	238.19	-89.92	-3,366.32	-3,372.04	4,482.95	4,111.24	371.71	12.060		
12,000.00	6,937.15	6,872.15	6,937.15	151.41	238.18	-89.91	-3,366.32	-3,372.04	4,526.91	4,154.02	372.89	12.140		
12,100.00	6,936.85	6,871.85	6,936.85	154.20	238.17	-89.91	-3,366.32	-3,372.04	4,572.64	4,198.63	374.01	12.226		
12,200.00	6,936.55	6,871.55	6,936.55	157.00	238.16	-89.91	-3,366.32	-3,372.04	4,620.09	4,245.03	375.06	12.318		
12,300.00	6,936.25	6,871.25	6,936.25	159.80	238.15	-89.90	-3,366.32	-3,372.04	4,669.19	4,293.15	376.04	12.417		
12,400.00	6,935.96	6,870.96	6,935.96	162.61	238.14	-89.90	-3,366.32	-3,372.04	4,719.90	4,342.95	376.95	12.521		
12,500.00	6,935.66	6,870.66	6,935.66	165.41	238.13	-89.89	-3,366.32	-3,372.04	4,772.17	4,394.36	377.81	12.631		
12,600.00	6,935.36	6,870.36	6,935.36	168.22	238.12	-89.89	-3,366.32	-3,372.04	4,825.94	4,447.34	378.60	12.747		
12,700.00	6,935.06	6,870.06	6,935.06	171.02	238.11	-89.88	-3,366.32	-3,372.04	4,881.17	4,501.83	379.34	12.868		
12,800.00	6,934.76	6,869.76	6,934.76	173.83	238.10	-89.88	-3,366.32	-3,372.04	4,937.81	4,557.79	380.02	12.994		
12,900.00	6,934.46	6,869.46	6,934.46	176.65	238.09	-89.88	-3,366.32	-3,372.04	4,995.81	4,615.15	380.65	13.124		
13,000.00	6,934.17	6,869.17	6,934.17	179.46	238.08	-89.87	-3,366.32	-3,372.04	5,055.12	4,673.88	381.23	13.260		
13,100.00	6,933.87	6,868.87	6,933.87	182.27	238.07	-89.87	-3,366.32	-3,372.04	5,115.69	4,733.93	381.77	13.400		
13,200.00	6,933.57	6,868.57	6,933.57	185.09	238.06	-89.86	-3,366.32	-3,372.04	5,177.49	4,795.24	382.26	13.544		
13,300.00	6,933.27	6,868.27	6,933.27	187.91	238.05	-89.86	-3,366.32	-3,372.04	5,240.47	4,857.77	382.71	13.693		
13,400.00	6,932.97	6,867.97	6,932.97	190.72	238.04	-89.86	-3,366.32	-3,372.04	5,304.59	4,921.48	383.12	13.846		
13,500.00	6,932.67	6,867.67	6,932.67	193.54	238.03	-89.85	-3,366.32	-3,372.04	5,369.81	4,986.32	383.49	14.003		
13,600.00	6,932.38	6,867.38	6,932.38	196.36	238.02	-89.85	-3,366.32	-3,372.04	5,436.08	5,052.25	383.82	14.163		
13,700.00	6,932.08	6,867.08	6,932.08	199.19	238.01	-89.84	-3,366.32	-3,372.04	5,503.37	5,119.24	384.13	14.327		
13,800.00	6,931.78	6,866.78	6,931.78	202.01	238.00	-89.84	-3,366.32	-3,372.04	5,571.64	5,187.24	384.40	14.494		
13,900.00	6,931.48	6,866.48	6,931.48	204.83	237.99	-89.83	-3,366.32	-3,372.04	5,640.86	5,256.22	384.64	14.665		
14,000.00	6,931.18	6,866.18	6,931.18	207.66	237.98	-89.83	-3,366.32	-3,372.04	5,710.99	5,326.14	384.85	14.839		
14,100.00	6,930.88	6,865.88	6,930.88	210.48	237.97	-89.83	-3,366.32	-3,372.04	5,782.00	5,396.96	385.04	15.017		
14,200.00	6,930.59	6,865.59	6,930.59	213.31	237.96	-89.82	-3,366.32	-3,372.04	5,853.86	5,468.65	385.20	15.197		
14,300.00	6,930.29	6,865.29	6,930.29	216.14	237.94	-89.82	-3,366.32	-3,372.04	5,926.53	5,541.19	385.35	15.380		
14,400.00	6,929.99	6,864.99	6,929.99	218.96	237.93	-89.81	-3,366.32	-3,372.04	5,999.99	5,614.53	385.47	15.566		
14,500.00	6,929.69	6,864.69	6,929.69	221.79	237.92	-89.81	-3,366.32	-3,372.04	6,074.21	5,688.64	385.57	15.754		
14,600.00	6,929.39	6,864.39	6,929.39	224.62	237.91	-89.80	-3,366.32	-3,372.04	6,149.16	5,763.51	385.65	15.945		
14,700.00	6,929.09	6,864.09	6,929.09	227.45	237.90	-89.80	-3,366.32	-3,372.04	6,224.81	5,839.10	385.71	16.139		
14,732.12	6,929.00	6,864.00	6,929.00	228.36	237.90	-89.80	-3,366.32	-3,372.04	6,249.26	5,863.53	385.73	16.201		

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 4N-16A-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 4N-16A-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	29.12	877.61	488.95	1,004.69					
100.00	100.00	86.74	97.74	3.28	3.29	29.12	877.69	489.01	1,004.73	998.16	6.57	152.926		
200.00	200.00	186.76	197.76	3.34	3.33	29.13	877.85	489.21	1,004.97	998.30	6.67	150.690		
300.00	300.00	289.37	300.37	3.44	3.44	29.14	877.87	489.41	1,005.07	998.19	6.88	146.061		
321.18	321.18	311.18	322.18	3.47	3.47	29.14	877.85	489.42	1,005.06	998.12	6.94	144.829		
400.00	400.00	382.97	393.97	3.60	3.58	29.16	877.87	489.85	1,005.31	998.13	7.18	140.023		
500.00	500.00	485.61	496.60	3.81	3.77	29.21	877.96	490.86	1,005.87	998.29	7.58	132.718		
600.00	600.00	581.26	592.25	4.05	3.99	29.26	877.97	491.79	1,006.36	998.32	8.04	125.197		
700.00	699.98	684.49	695.46	4.32	4.26	42.88	877.94	493.33	1,005.78	997.20	8.58	117.252		
800.00	799.84	786.14	797.11	4.62	4.55	43.21	877.59	494.63	1,002.29	993.12	9.17	109.340		
900.00	899.45	882.52	893.48	4.94	4.85	43.69	877.37	495.80	996.35	986.57	9.78	101.849		
1,000.00	998.80	984.67	995.62	5.28	5.18	44.27	877.11	497.29	988.63	978.18	10.45	94.585		
1,100.00	1,098.12	1,079.28	1,090.22	5.63	5.50	44.78	877.01	498.38	980.82	969.70	11.12	88.169		
1,200.00	1,197.44	1,179.24	1,190.17	6.00	5.85	45.33	877.12	499.82	973.45	961.61	11.84	82.221		
1,300.00	1,296.77	1,285.31	1,296.23	6.37	6.23	45.94	876.75	501.31	965.74	953.15	12.60	76.666		
1,400.00	1,396.09	1,385.57	1,396.48	6.76	6.60	46.51	876.14	502.19	957.64	944.29	13.35	71.732		
1,500.00	1,495.41	1,485.02	1,495.93	7.15	6.97	47.07	875.57	502.97	949.61	935.50	14.12	67.274		
1,600.00	1,594.74	1,583.50	1,594.40	7.55	7.35	47.67	874.79	504.11	941.70	926.81	14.89	63.244		
1,700.00	1,694.06	1,681.73	1,692.62	7.96	7.73	48.26	874.22	505.11	933.99	918.32	15.67	59.589		
1,800.00	1,793.38	1,782.32	1,793.21	8.37	8.12	48.85	873.83	505.87	926.39	909.91	16.48	56.229		
1,900.00	1,892.71	1,888.79	1,899.68	8.78	8.54	49.48	873.06	506.36	918.45	901.14	17.30	53.078		
2,000.00	1,992.03	1,985.65	1,996.53	9.20	8.92	50.04	872.40	506.13	910.23	892.13	18.11	50.275		
2,100.00	2,091.36	2,086.52	2,097.40	9.62	9.32	50.61	871.97	505.79	902.24	883.32	18.93	47.672		
2,200.00	2,190.68	2,181.51	2,192.39	10.05	9.70	51.16	871.58	505.56	894.41	874.68	19.73	45.327		
2,300.00	2,290.00	2,278.17	2,289.05	10.48	10.09	51.71	871.68	505.40	887.12	866.58	20.55	43.170		
2,400.00	2,389.33	2,376.37	2,387.25	10.90	10.49	52.31	871.74	505.62	880.13	858.75	21.38	41.173		
2,500.00	2,488.65	2,479.78	2,490.66	11.34	10.91	52.93	871.85	505.60	873.12	850.90	22.22	39.286		
2,600.00	2,587.97	2,577.23	2,588.10	11.77	11.30	53.50	871.96	505.15	865.93	842.87	23.06	37.558		
2,700.00	2,687.30	2,675.70	2,686.58	12.20	11.70	54.07	872.39	504.74	859.11	835.22	23.89	35.957		
2,800.00	2,786.62	2,777.77	2,788.64	12.64	12.12	54.67	872.83	504.18	852.28	827.53	24.75	34.442		
2,900.00	2,885.94	2,882.39	2,893.25	13.07	12.55	55.29	872.92	503.23	845.05	819.45	25.61	33.001		
3,000.00	2,985.27	2,980.85	2,991.71	13.51	12.95	55.89	872.74	502.14	837.58	811.13	26.45	31.666		
3,100.00	3,084.59	3,084.89	3,095.74	13.95	13.38	56.49	872.85	500.51	830.11	802.79	27.31	30.391		
3,200.00	3,183.91	3,181.19	3,192.02	14.39	13.78	57.05	872.90	498.69	822.46	794.31	28.16	29.211		
3,300.00	3,283.24	3,282.07	3,292.89	14.83	14.20	57.67	872.88	497.23	815.16	786.14	29.01	28.097		
3,400.00	3,382.56	3,382.99	3,393.80	15.27	14.62	58.32	872.42	495.82	807.67	777.80	29.87	27.039		
3,500.00	3,481.88	3,481.25	3,492.05	15.71	15.03	58.97	872.02	494.33	800.23	769.51	30.72	26.047		
3,600.00	3,581.21	3,575.92	3,586.71	16.16	15.43	59.61	871.73	493.26	793.25	761.68	31.57	25.130		
3,700.00	3,680.53	3,668.81	3,679.60	16.60	15.82	60.27	871.74	492.86	787.10	754.69	32.40	24.291		
3,800.00	3,779.85	3,767.27	3,778.06	17.04	16.23	60.96	872.26	492.78	781.67	748.41	33.26	23.503		
3,900.00	3,879.18	3,869.32	3,880.11	17.49	16.65	61.69	872.71	492.46	776.14	742.01	34.13	22.742		
4,000.00	3,978.50	3,969.41	3,980.19	17.93	17.07	62.40	873.10	491.83	770.45	735.46	34.99	22.019		
4,100.00	4,077.82	4,068.52	4,079.30	18.37	17.49	63.11	873.51	491.20	764.90	729.04	35.85	21.335		
4,200.00	4,177.15	4,169.11	4,179.89	18.82	17.91	63.86	873.71	490.71	759.44	722.72	36.72	20.683		
4,300.00	4,276.47	4,267.68	4,278.46	19.27	18.32	64.60	873.90	490.08	753.99	716.41	37.58	20.064		
4,400.00	4,375.79	4,366.55	4,377.33	19.71	18.74	65.36	874.17	489.62	748.85	710.41	38.44	19.481		
4,500.00	4,475.12	4,464.71	4,475.49	20.16	19.15	66.12	874.47	489.19	743.89	704.59	39.30	18.928		
4,600.00	4,574.44	4,561.32	4,572.09	20.60	19.56	66.88	874.87	489.02	739.35	699.19	40.16	18.411		
4,700.00	4,673.76	4,660.58	4,671.35	21.05	19.98	67.68	875.43	489.11	735.25	694.23	41.02	17.923		
4,800.00	4,773.09	4,757.55	4,768.32	21.50	20.39	68.46	875.96	489.17	731.26	689.38	41.88	17.460		
4,900.00	4,872.41	4,851.86	4,862.63	21.94	20.78	69.24	876.80	489.74	728.06	685.33	42.73	17.039		
5,000.00	4,971.74	4,951.22	4,961.97	22.39	21.20	70.04	878.17	490.64	725.51	681.92	43.60	16.642		

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 4N-16A-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 4N-16A-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	5,071.06	5,055.34	5,066.09	22.84	21.64	70.87	879.52	491.00	722.62	678.14	44.48	16.245		
5,200.00	5,170.38	5,160.09	5,170.83	23.29	22.09	71.75	880.12	491.05	719.22	673.85	45.37	15.853		
5,300.00	5,269.71	5,262.66	5,273.40	23.74	22.52	72.62	880.28	490.52	715.28	669.03	46.25	15.467		
5,400.00	5,369.03	5,364.84	5,375.57	24.18	22.95	73.48	880.49	489.58	711.18	664.06	47.12	15.093		
5,500.00	5,468.35	5,468.75	5,479.48	24.63	23.39	74.40	880.12	488.33	706.72	658.72	48.00	14.723		
5,600.00	5,567.68	5,566.62	5,577.33	25.08	23.81	75.25	879.81	486.70	702.04	653.17	48.87	14.366		
5,700.00	5,667.00	5,665.10	5,675.80	25.53	24.22	76.13	879.53	485.47	697.91	648.17	49.73	14.033		
5,800.00	5,766.32	5,767.67	5,778.36	25.98	24.66	77.04	879.29	483.93	693.75	643.14	50.61	13.707		
5,900.00	5,865.65	5,866.60	5,877.27	26.43	25.08	77.91	879.24	481.95	689.38	637.90	51.48	13.391		
6,000.00	5,964.97	5,965.21	5,975.87	26.88	25.49	78.77	879.33	480.17	685.42	633.07	52.35	13.093		
6,100.00	6,064.29	6,066.54	6,077.17	27.33	25.92	79.66	879.53	478.19	681.53	628.30	53.22	12.805		
6,200.00	6,163.62	6,166.88	6,177.49	27.78	26.35	80.54	879.63	475.94	677.49	623.39	54.10	12.524		
6,300.00	6,262.94	6,266.86	6,277.44	28.23	26.77	81.47	879.40	473.78	673.56	618.60	54.97	12.254		
6,400.00	6,362.24	6,370.07	6,380.62	28.67	27.21	100.72	879.51	471.09	670.08	614.23	55.85	11.999		
6,401.99	6,364.22	6,372.16	6,382.70	28.68	27.22	101.88	879.51	471.03	670.08	614.21	55.86	11.995 CC, ES		
6,500.00	6,460.41	6,468.54	6,479.05	29.12	27.63	133.53	879.57	468.06	677.19	620.48	56.71	11.941 SF		
6,600.00	6,555.09	6,567.12	6,577.57	29.57	28.05	144.43	880.15	464.87	699.35	641.79	57.56	12.150		
6,700.00	6,643.94	6,660.82	6,671.19	30.00	28.45	149.61	880.87	461.18	735.71	677.35	58.36	12.606		
6,800.00	6,724.78	6,743.67	6,753.98	30.45	28.80	152.37	881.34	457.79	785.98	726.89	59.09	13.301		
6,900.00	6,795.62	6,816.67	6,826.92	30.97	29.11	153.62	881.58	455.00	849.37	789.64	59.74	14.218		
7,000.00	6,854.70	6,883.91	6,894.10	31.60	29.40	153.64	881.88	452.20	923.96	863.66	60.30	15.323		
7,100.00	6,900.58	6,936.72	6,946.85	32.39	29.63	151.74	882.23	449.73	1,007.81	947.07	60.74	16.592		
7,200.00	6,932.13	6,974.67	6,984.76	33.34	29.79	146.23	882.54	447.86	1,098.96	1,037.89	61.07	17.996		
7,300.00	6,948.57	6,997.25	7,007.30	34.46	29.89	130.73	882.74	446.72	1,195.10	1,133.83	61.27	19.506		
7,400.00	6,950.87	7,005.13	7,015.17	35.70	29.92	109.07	882.81	446.32	1,293.75	1,232.39	61.36	21.084		
7,500.00	6,950.58	7,010.31	7,020.35	37.12	29.94	110.57	882.86	446.05	1,392.79	1,331.35	61.43	22.672		
7,600.00	6,950.28	7,014.92	7,024.95	38.70	29.96	111.87	882.90	445.81	1,491.94	1,430.44	61.50	24.259		
7,700.00	6,949.98	7,019.92	7,029.95	40.41	29.98	113.26	882.94	445.56	1,591.18	1,529.61	61.57	25.845		
7,800.00	6,949.68	7,024.94	7,034.96	42.25	30.00	114.63	882.99	445.30	1,690.49	1,628.86	61.63	27.429		
7,900.00	6,949.38	7,029.98	7,039.99	44.20	30.03	115.97	883.03	445.04	1,789.87	1,728.17	61.70	29.011		
8,000.00	6,949.08	7,035.03	7,045.03	46.24	30.05	117.28	883.07	444.77	1,889.30	1,827.54	61.76	30.591		
8,100.00	6,948.79	7,040.10	7,050.09	48.36	30.07	118.57	883.11	444.51	1,988.78	1,926.95	61.82	32.169		
8,200.00	6,948.49	7,045.18	7,055.17	50.56	30.09	119.82	883.14	444.25	2,088.29	2,026.41	61.88	33.745		
8,300.00	6,948.19	7,050.28	7,060.26	52.82	30.11	121.06	883.18	443.98	2,187.84	2,125.89	61.95	35.318		
8,400.00	6,947.89	7,055.39	7,065.36	55.14	30.13	122.26	883.22	443.72	2,287.41	2,225.40	62.01	36.888		
8,500.00	6,947.59	7,060.52	7,070.49	57.50	30.16	123.44	883.25	443.45	2,387.01	2,324.94	62.07	38.455		
8,600.00	6,947.29	7,065.66	7,075.63	59.91	30.18	124.58	883.29	443.18	2,486.63	2,424.50	62.14	40.020		
8,700.00	6,947.00	7,070.83	7,080.78	62.36	30.20	125.70	883.32	442.91	2,586.28	2,524.08	62.20	41.581		
8,800.00	6,946.70	7,076.00	7,085.95	64.84	30.22	126.80	883.35	442.64	2,685.93	2,623.67	62.26	43.139		
8,900.00	6,946.40	7,081.20	7,091.14	67.35	30.25	127.86	883.39	442.37	2,785.61	2,723.28	62.33	44.694		
9,000.00	6,946.10	7,086.41	7,096.34	69.88	30.27	128.90	883.42	442.09	2,885.30	2,822.90	62.39	46.245		
9,100.00	6,945.80	7,091.64	7,101.56	72.44	30.29	129.91	883.45	441.82	2,985.00	2,922.54	62.46	47.793		
9,200.00	6,945.50	7,096.88	7,106.80	75.02	30.31	130.90	883.47	441.54	3,084.71	3,022.18	62.52	49.337		
9,300.00	6,945.21	7,105.68	7,115.58	77.63	30.35	132.49	883.52	441.07	3,184.43	3,121.82	62.61	50.864		
9,400.00	6,944.91	7,120.91	7,130.80	80.24	30.42	135.06	883.61	440.23	3,284.14	3,221.42	62.72	52.359		
9,500.00	6,944.61	7,138.15	7,148.00	82.88	30.49	137.70	883.73	439.21	3,383.85	3,321.00	62.85	53.839		
9,600.00	6,944.31	7,157.81	7,167.63	85.53	30.57	140.42	883.89	437.98	3,483.54	3,420.55	62.99	55.301		
9,700.00	6,944.01	7,180.45	7,190.21	88.19	30.67	143.19	884.10	436.46	3,583.22	3,520.07	63.15	56.743		
9,800.00	6,943.71	7,206.78	7,216.47	90.86	30.78	146.00	884.39	434.56	3,682.87	3,619.54	63.33	58.158		
9,900.00	6,943.42	9,900.00	7,180.09	93.55	42.38	141.98	884.07	436.94	3,782.40	3,707.55	74.85	50.530		
10,000.00	6,943.12	10,000.00	7,186.08	96.24	42.81	142.70	884.12	436.56	3,882.12	3,806.79	75.33	51.532		
10,100.00	6,942.82	7,218.14	7,227.80	98.95	30.83	147.10	884.50	433.75	3,981.83	3,918.30	63.53	62.678		

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 4N-16A-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 4N-16A-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						
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
10,200.00	6,942.52	7,223.60	7,233.25	101.66	30.86	147.61	884.56	433.35	4,081.50	4,017.89	63.61	64.168	
10,300.00	6,942.22	7,229.01	7,238.64	104.38	30.88	148.09	884.61	432.97	4,181.17	4,117.49	63.68	65.655	
10,400.00	6,941.92	7,234.35	7,243.97	107.11	30.90	148.56	884.65	432.58	4,280.86	4,217.09	63.76	67.138	
10,500.00	6,941.63	7,239.64	7,249.24	109.84	30.93	149.01	884.70	432.21	4,380.55	4,316.70	63.84	68.616	
10,600.00	6,941.33	7,244.87	7,254.46	112.58	30.95	149.45	884.74	431.84	4,480.24	4,416.32	63.92	70.090	
10,700.00	6,941.03	7,272.93	7,256.65	115.33	31.07	149.63	884.76	431.68	4,579.94	4,515.84	64.10	71.455	
10,800.00	6,940.73	7,266.30	7,263.26	118.08	31.04	150.16	884.80	431.22	4,679.65	4,615.52	64.13	72.974	
10,900.00	6,940.43	7,260.32	7,269.87	120.84	31.01	150.68	884.85	430.76	4,779.36	4,715.20	64.16	74.488	
11,000.00	6,940.13	7,266.95	7,276.48	123.60	31.04	151.17	884.89	430.30	4,879.07	4,814.82	64.25	75.935	
11,100.00	6,939.83	7,273.57	7,283.09	126.36	31.07	151.66	884.93	429.84	4,978.79	4,914.45	64.34	77.378	
11,200.00	6,939.54	7,280.20	7,289.70	129.13	31.10	152.13	884.97	429.39	5,078.51	5,014.07	64.44	78.815	
11,300.00	6,939.24	7,286.82	7,296.31	131.91	31.13	152.58	885.02	428.93	5,178.23	5,113.70	64.53	80.246	
11,400.00	6,938.94	7,293.45	7,302.92	134.68	31.16	153.02	885.06	428.47	5,277.96	5,213.33	64.62	81.673	
11,500.00	6,938.64	7,300.08	7,309.53	137.46	31.19	153.45	885.10	428.01	5,377.68	5,312.97	64.72	83.094	
11,600.00	6,938.34	7,306.70	7,316.14	140.25	31.22	153.86	885.15	427.55	5,477.41	5,412.60	64.81	84.510	
11,700.00	6,938.04	7,313.33	7,322.75	143.03	31.24	154.26	885.19	427.09	5,577.14	5,512.23	64.91	85.921	
11,800.00	6,937.75	7,319.95	7,329.36	145.82	31.27	154.66	885.23	426.63	5,676.87	5,611.87	65.01	87.326	
11,900.00	6,937.45	7,326.58	7,335.97	148.61	31.30	155.04	885.27	426.17	5,776.61	5,711.50	65.11	88.725	
12,000.00	6,937.15	7,333.20	7,342.58	151.41	31.33	155.40	885.32	425.71	5,876.34	5,811.14	65.21	90.120	
12,100.00	6,936.85	7,339.83	7,349.19	154.20	31.36	155.76	885.36	425.25	5,976.08	5,910.77	65.31	91.508	
12,200.00	6,936.55	7,346.45	7,355.80	157.00	31.39	156.11	885.40	424.80	6,075.82	6,010.41	65.41	92.891	
12,300.00	6,936.25	7,353.08	7,362.41	159.80	31.42	156.45	885.44	424.34	6,175.56	6,110.05	65.51	94.269	
12,400.00	6,935.96	7,359.71	7,369.02	162.61	31.45	156.78	885.49	423.88	6,275.30	6,209.69	65.61	95.641	
12,500.00	6,935.66	7,366.33	7,375.63	165.41	31.48	157.10	885.53	423.42	6,375.04	6,309.32	65.72	97.007	
12,600.00	6,935.36	7,372.96	7,382.24	168.22	31.50	157.42	885.57	422.96	6,474.78	6,408.96	65.82	98.367	
12,700.00	6,935.06	7,379.58	7,388.85	171.02	31.53	157.72	885.62	422.50	6,574.53	6,508.60	65.93	99.722	
12,800.00	6,934.76	7,386.21	7,395.46	173.83	31.56	158.02	885.66	422.04	6,674.27	6,608.24	66.04	101.071	
12,900.00	6,934.46	7,392.83	7,402.07	176.65	31.59	158.31	885.70	421.58	6,774.02	6,707.88	66.14	102.415	
13,000.00	6,934.17	7,399.46	7,408.67	179.46	31.62	158.59	885.74	421.12	6,873.77	6,807.52	66.25	103.752	
13,100.00	6,933.87	7,406.09	7,415.28	182.27	31.65	158.86	885.79	420.66	6,973.52	6,907.16	66.36	105.084	
13,200.00	6,933.57	7,412.71	7,421.89	185.09	31.68	159.13	885.83	420.20	7,073.27	7,006.79	66.47	106.410	
13,300.00	6,933.27	7,419.34	7,428.50	187.91	31.71	159.39	885.87	419.75	7,173.02	7,106.43	66.58	107.730	
13,400.00	6,932.97	7,425.96	7,435.11	190.72	31.74	159.65	885.91	419.29	7,272.77	7,206.07	66.70	109.045	
13,500.00	6,932.67	7,432.59	7,441.72	193.54	31.76	159.90	885.96	418.83	7,372.52	7,305.71	66.81	110.353	
13,600.00	6,932.38	7,439.21	7,448.33	196.36	31.79	160.14	886.00	418.37	7,472.27	7,405.35	66.92	111.656	
13,700.00	6,932.08	7,445.84	7,454.94	199.19	31.82	160.38	886.04	417.91	7,572.02	7,504.99	67.04	112.953	
13,800.00	6,931.78	7,452.47	7,461.55	202.01	31.85	160.61	886.09	417.45	7,671.78	7,604.63	67.15	114.244	
13,900.00	6,931.48	7,459.09	7,468.16	204.83	31.88	160.84	886.13	416.99	7,771.53	7,704.26	67.27	115.529	
14,000.00	6,931.18	7,465.71	7,475.11	207.66	31.91	161.07	886.17	416.53	7,871.28	7,803.77	67.38	116.814	
14,100.00	6,930.88	7,472.33	7,481.51	210.48	31.94	161.29	886.21	416.07	7,971.03	7,903.27	67.49	118.099	
14,200.00	6,930.59	7,478.95	7,488.91	213.31	31.97	161.51	886.25	415.61	8,070.78	8,002.47	67.60	119.384	
14,300.00	6,930.29	7,485.57	7,496.31	216.14	32.00	161.73	886.29	415.15	8,170.53	8,101.96	67.71	120.669	
14,400.00	6,929.99	7,492.19	7,502.11	218.96	32.03	161.95	886.33	414.69	8,270.28	8,201.45	67.82	121.954	
14,500.00	6,929.69	7,498.81	7,508.11	221.79	32.06	162.17	886.37	414.23	8,370.03	8,300.84	67.93	123.239	
14,600.00	6,929.39	7,505.43	7,513.11	224.62	32.09	162.39	886.41	413.77	8,469.78	8,400.23	68.04	124.524	
14,700.00	6,929.09	7,512.05	7,518.11	227.45	32.12	162.61	886.45	413.31	8,569.53	8,500.06	68.15	125.809	
14,732.12	6,929.00	7,518.67	7,523.11	228.36	32.15	162.83	886.49	412.85	8,669.28	8,599.45	68.26	127.094	



Anticollision Report



Company:	SRC ENERGY	Local Co-ordinate Reference:	Well HARVESTERS STATE 4N-16A-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 4N-16A-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	108.64	-175.23	519.56	548.72					
100.00	100.00	80.88	101.87	3.28	3.29	108.58	-174.66	519.61	548.18	541.61	6.57	83.438		
200.00	200.00	183.33	204.32	3.34	3.33	108.42	-173.06	519.54	547.62	540.95	6.67	82.107		
300.00	300.00	283.70	304.68	3.44	3.43	108.31	-171.76	519.06	546.76	539.89	6.88	79.486		
400.00	400.00	381.34	402.31	3.60	3.58	108.21	-170.62	518.75	546.09	538.91	7.18	76.036		
500.00	500.00	479.17	500.13	3.81	3.77	108.08	-169.45	518.91	545.88	538.31	7.57	72.099		
506.55	506.55	485.59	506.55	3.82	3.78	108.08	-169.38	518.93	545.88	538.28	7.60	71.832 CC		
600.00	600.00	579.27	600.22	4.05	3.99	107.94	-168.12	519.35	545.89	537.85	8.04	67.901		
602.37	602.37	581.66	602.61	4.05	4.00	121.40	-168.08	519.37	545.89	537.83	8.05	67.800 ES		
700.00	699.98	678.20	699.13	4.32	4.25	121.37	-166.56	519.88	546.82	538.25	8.57	63.832		
800.00	799.84	778.06	798.99	4.62	4.53	121.63	-165.15	520.54	549.74	540.60	9.15	60.102		
900.00	899.45	876.58	897.48	4.94	4.83	122.11	-163.49	521.32	554.58	544.82	9.77	56.787		
1,000.00	998.80	976.00	996.89	5.28	5.16	122.89	-162.02	522.24	561.13	550.70	10.42	53.837		
1,100.00	1,098.12	1,076.10	1,096.98	5.63	5.49	123.71	-160.55	523.07	567.81	556.70	11.11	51.106		
1,200.00	1,197.44	1,176.03	1,196.90	6.00	5.84	124.51	-159.04	523.79	574.49	562.67	11.82	48.592		
1,300.00	1,296.77	1,277.50	1,298.35	6.37	6.21	125.32	-157.60	524.30	581.12	568.55	12.56	46.262		
1,400.00	1,396.09	1,376.09	1,396.93	6.76	6.57	126.07	-155.98	524.68	587.65	574.34	13.31	44.160		
1,500.00	1,495.41	1,476.73	1,497.56	7.15	6.95	126.84	-154.58	525.07	594.39	580.31	14.07	42.231		
1,600.00	1,594.74	1,577.94	1,598.76	7.55	7.33	127.64	-153.36	525.04	600.92	586.07	14.86	40.447		
1,700.00	1,694.06	1,678.99	1,699.80	7.96	7.72	128.42	-152.06	524.73	607.30	591.65	15.65	38.806		
1,800.00	1,793.38	1,776.32	1,797.13	8.37	8.10	129.19	-151.21	524.23	613.76	597.33	16.44	37.344		
1,900.00	1,892.71	1,875.64	1,896.44	8.78	8.49	129.96	-150.38	524.04	620.65	603.41	17.24	36.007		
2,000.00	1,992.03	1,976.50	1,997.29	9.20	8.89	130.72	-149.46	523.70	627.48	609.43	18.05	34.759		
2,100.00	2,091.36	2,075.61	2,096.41	9.62	9.29	131.51	-149.03	522.97	634.29	615.43	18.87	33.622		
2,200.00	2,190.68	2,174.10	2,194.89	10.05	9.68	132.31	-149.04	522.15	641.35	621.67	19.68	32.587		
2,300.00	2,290.00	2,272.21	2,293.00	10.48	10.08	133.09	-149.07	521.49	648.69	628.19	20.50	31.644		
2,400.00	2,389.33	2,372.18	2,392.96	10.90	10.48	133.89	-149.47	520.72	656.24	634.91	21.33	30.766		
2,500.00	2,488.65	2,469.49	2,490.27	11.34	10.87	134.68	-150.02	519.86	663.91	641.76	22.15	29.972		
2,600.00	2,587.97	2,567.13	2,587.90	11.77	11.27	135.46	-150.92	519.21	672.08	649.10	22.98	29.252		
2,700.00	2,687.30	2,664.26	2,685.02	12.20	11.67	136.22	-151.92	518.74	680.58	656.78	23.80	28.596		
2,800.00	2,786.62	2,763.15	2,783.91	12.64	12.07	136.96	-152.93	518.58	689.47	664.84	24.63	27.988		
2,900.00	2,885.94	2,864.81	2,885.57	13.07	12.49	137.72	-154.06	518.13	698.30	672.81	25.49	27.398		
3,000.00	2,985.27	2,965.22	2,985.97	13.51	12.90	138.43	-154.75	517.56	706.89	680.55	26.33	26.842		
3,100.00	3,084.59	3,066.84	3,087.59	13.95	13.32	139.12	-155.24	516.96	715.45	688.25	27.19	26.311		
3,200.00	3,183.91	3,167.43	3,188.18	14.39	13.74	139.78	-155.39	516.15	723.74	695.69	28.05	25.806		
3,300.00	3,283.24	3,266.73	3,287.47	14.83	14.15	140.41	-155.58	515.28	732.09	703.19	28.89	25.338		
3,400.00	3,382.56	3,362.88	3,383.62	15.27	14.55	141.01	-155.77	514.62	740.67	710.95	29.72	24.918		
3,500.00	3,481.88	3,460.57	3,481.31	15.71	14.96	141.58	-156.05	514.46	749.80	719.24	30.57	24.531		
3,600.00	3,581.21	3,560.26	3,581.00	16.16	15.37	142.16	-156.43	514.23	759.01	727.59	31.42	24.157		
3,700.00	3,680.53	3,659.94	3,680.67	16.60	15.79	142.74	-156.90	513.84	768.25	735.97	32.28	23.803		
3,800.00	3,779.85	3,759.59	3,780.32	17.04	16.21	143.31	-157.48	513.31	777.51	744.38	33.13	23.467		
3,900.00	3,879.18	3,859.23	3,879.96	17.49	16.63	143.89	-158.16	512.63	786.80	752.81	33.99	23.149		
4,000.00	3,978.50	3,958.85	3,979.57	17.93	17.05	144.46	-158.94	511.80	796.12	761.27	34.85	22.847		
4,100.00	4,077.82	4,058.45	4,079.16	18.37	17.47	145.04	-159.82	510.83	805.47	769.77	35.70	22.559		
4,200.00	4,177.15	4,158.03	4,178.73	18.82	17.88	145.61	-160.79	509.70	814.87	778.30	36.56	22.286		
4,300.00	4,276.47	4,256.62	4,277.31	19.27	18.30	146.17	-161.84	508.51	824.33	786.91	37.42	22.031		
4,400.00	4,375.79	4,354.30	4,374.97	19.71	18.71	146.70	-162.82	507.59	834.02	795.76	38.26	21.797		
4,500.00	4,475.12	4,455.71	4,476.38	20.16	19.14	147.21	-163.59	506.96	843.85	804.72	39.13	21.563		
4,600.00	4,574.44	4,557.55	4,578.21	20.60	19.57	147.69	-163.84	506.19	853.29	813.28	40.01	21.328		
4,700.00	4,673.76	4,656.21	4,676.87	21.05	19.98	148.14	-164.03	505.42	862.73	821.86	40.86	21.112		
4,800.00	4,773.09	4,753.23	4,773.90	21.50	20.39	148.56	-164.19	504.91	872.38	830.67	41.71	20.916		
4,900.00	4,872.41	4,852.36	4,873.03	21.94	20.81	148.98	-164.47	504.63	882.33	839.76	42.57	20.727		

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 4N-16A-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 4N-16A-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		
5,000.00	4,971.74	4,954.58	4,975.24	22.39	21.24	149.38	-164.33	504.44	892.09	848.65	43.45	20.533		
5,100.00	5,071.06	5,054.62	5,075.28	22.84	21.66	149.76	-164.06	504.01	901.63	857.32	44.31	20.347		
5,200.00	5,170.38	5,153.86	5,174.52	23.29	22.08	150.14	-163.90	503.56	911.27	866.10	45.18	20.172		
5,300.00	5,269.71	5,255.03	5,275.69	23.74	22.51	150.53	-163.67	503.02	920.85	874.80	46.05	19.997		
5,400.00	5,369.03	5,354.87	5,375.52	24.18	22.93	150.92	-163.56	502.07	930.28	883.36	46.92	19.829		
5,500.00	5,468.35	5,453.24	5,473.89	24.63	23.35	151.31	-163.65	501.03	939.82	892.05	47.77	19.673		
5,600.00	5,567.68	5,550.93	5,571.57	25.08	23.77	151.67	-163.68	500.24	949.52	900.90	48.63	19.527		
5,700.00	5,667.00	5,647.57	5,668.21	25.53	24.18	152.02	-163.81	499.69	959.51	910.04	49.47	19.395		
5,800.00	5,766.32	5,745.24	5,765.88	25.98	24.59	152.38	-164.29	499.14	969.79	919.47	50.32	19.271		
5,900.00	5,865.65	5,845.43	5,866.07	26.43	25.01	152.74	-164.80	498.58	980.14	928.95	51.19	19.146		
6,000.00	5,964.97	5,947.23	5,967.87	26.88	25.45	153.08	-164.90	498.21	990.34	938.26	52.07	19.018		
6,100.00	6,064.29	6,047.46	6,068.09	27.33	25.87	153.41	-164.91	497.60	1,000.33	947.39	52.94	18.894		
6,200.00	6,163.62	6,145.89	6,166.52	27.78	26.29	153.74	-165.13	496.84	1,010.42	956.62	53.80	18.780		
6,300.00	6,262.94	6,244.54	6,265.17	28.23	26.71	154.06	-165.31	496.23	1,020.61	965.95	54.66	18.671		
6,400.00	6,362.24	6,343.28	6,363.91	28.67	27.13	172.86	-165.35	495.90	1,031.26	975.74	55.52	18.573 SF		
6,500.00	6,460.41	6,441.36	6,461.99	29.12	27.55	-154.29	-165.36	495.64	1,049.03	992.65	56.38	18.606		
6,600.00	6,555.09	6,535.98	6,556.60	29.57	27.95	-143.17	-165.36	495.42	1,076.22	1,019.01	57.21	18.810		
6,700.00	6,643.94	6,624.79	6,645.42	30.00	28.33	-137.30	-165.37	495.22	1,112.67	1,054.67	58.00	19.183		
6,800.00	6,724.78	6,705.62	6,726.25	30.45	28.67	-132.94	-165.38	495.06	1,158.23	1,099.50	58.73	19.721		
6,900.00	6,795.62	6,776.46	6,797.09	30.97	28.97	-128.66	-165.38	494.93	1,212.61	1,153.22	59.39	20.418		
7,000.00	6,854.70	6,835.57	6,856.20	31.60	29.22	-123.60	-165.39	494.83	1,275.23	1,215.26	59.97	21.263		
7,100.00	6,900.58	6,881.50	6,902.13	32.39	29.42	-117.03	-165.39	494.75	1,345.14	1,284.67	60.47	22.243		
7,200.00	6,932.13	6,913.12	6,933.75	33.34	29.55	-108.33	-165.39	494.71	1,421.01	1,360.13	60.88	23.341		
7,300.00	6,948.57	6,929.66	6,950.29	34.46	29.62	-97.21	-165.39	494.68	1,501.14	1,439.95	61.19	24.532		
7,400.00	6,950.87	6,932.11	6,952.73	35.70	29.63	-89.86	-165.39	494.68	1,583.64	1,522.24	61.40	25.790		
7,500.00	6,950.58	6,931.95	6,952.58	37.12	29.63	-89.85	-165.39	494.68	1,667.96	1,606.35	61.61	27.071		
7,600.00	6,950.28	6,931.80	6,952.43	38.70	29.63	-89.84	-165.39	494.68	1,753.93	1,692.11	61.83	28.368		
7,700.00	6,949.98	6,931.64	6,952.27	40.41	29.63	-89.83	-165.39	494.68	1,841.32	1,779.28	62.04	29.679		
7,800.00	6,949.68	6,931.49	6,952.12	42.25	29.63	-89.82	-165.39	494.68	1,929.93	1,867.68	62.25	31.003		
7,900.00	6,949.38	6,931.34	6,951.96	44.20	29.63	-89.81	-165.39	494.68	2,019.61	1,957.15	62.46	32.337		
8,000.00	6,949.08	6,931.18	6,951.81	46.24	29.63	-89.80	-165.39	494.68	2,110.21	2,047.56	62.65	33.681		
8,100.00	6,948.79	6,931.03	6,951.66	48.36	29.63	-89.79	-165.39	494.68	2,201.63	2,138.79	62.84	35.034		
8,200.00	6,948.49	6,930.87	6,951.50	50.56	29.63	-89.78	-165.39	494.68	2,293.76	2,230.74	63.03	36.394		
8,300.00	6,948.19	6,930.72	6,951.35	52.82	29.63	-89.77	-165.39	494.68	2,386.53	2,323.33	63.20	37.761		
8,400.00	6,947.89	6,930.57	6,951.19	55.14	29.63	-89.76	-165.39	494.68	2,479.86	2,416.49	63.37	39.134		
8,500.00	6,947.59	6,930.41	6,951.04	57.50	29.63	-89.75	-165.39	494.68	2,573.69	2,510.16	63.53	40.512		
8,600.00	6,947.29	6,930.26	6,950.89	59.91	29.63	-89.74	-165.39	494.68	2,667.97	2,604.28	63.68	41.895		
8,700.00	6,947.00	6,930.11	6,950.73	62.36	29.63	-89.73	-165.39	494.68	2,762.65	2,698.82	63.83	43.282		
8,800.00	6,946.70	6,929.95	6,950.58	64.84	29.63	-89.72	-165.39	494.68	2,857.69	2,793.72	63.97	44.671		
8,900.00	6,946.40	6,929.80	6,950.43	67.35	29.63	-89.71	-165.39	494.68	2,953.06	2,888.95	64.11	46.064		
9,000.00	6,946.10	6,929.65	6,950.27	69.88	29.62	-89.70	-165.39	494.68	3,048.73	2,984.49	64.24	47.460		
9,100.00	6,945.80	6,929.49	6,950.12	72.44	29.62	-89.69	-165.39	494.68	3,144.67	3,080.30	64.36	48.857		
9,200.00	6,945.50	6,929.34	6,949.97	75.02	29.62	-89.68	-165.39	494.68	3,240.85	3,176.36	64.49	50.256		
9,300.00	6,945.21	6,929.19	6,949.82	77.63	29.62	-89.67	-165.39	494.68	3,337.26	3,272.65	64.60	51.657		
9,400.00	6,944.91	6,929.03	6,949.66	80.24	29.62	-89.66	-165.39	494.68	3,433.87	3,369.15	64.72	53.059		
9,500.00	6,944.61	6,928.88	6,949.51	82.88	29.62	-89.65	-165.39	494.68	3,530.67	3,465.84	64.83	54.461		
9,600.00	6,944.31	6,928.73	6,949.36	85.53	29.62	-89.64	-165.39	494.68	3,627.64	3,562.71	64.94	55.865		
9,700.00	6,944.01	6,928.58	6,949.20	88.19	29.62	-89.63	-165.39	494.68	3,724.78	3,659.74	65.04	57.268		
9,800.00	6,943.71	6,928.42	6,949.05	90.86	29.62	-89.62	-165.39	494.68	3,822.06	3,756.92	65.14	58.672		
9,900.00	6,943.42	6,928.27	6,948.90	93.55	29.62	-89.61	-165.39	494.68	3,919.48	3,854.24	65.24	60.075		
10,000.00	6,943.12	6,928.12	6,948.75	96.24	29.62	-89.60	-165.39	494.69	4,017.03	3,951.69	65.34	61.479		
10,100.00	6,942.82	6,927.97	6,948.59	98.95	29.62	-89.59	-165.39	494.69	4,114.69	4,049.26	65.44	62.882		

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 4N-16A-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 4N-16A-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		
10,200.00	6,942.52	6,927.81	6,948.44	101.66	29.62	-89.58	-165.39	494.69	4,212.46	4,146.94	65.53	64.284		
10,300.00	6,942.22	6,927.66	6,948.29	104.38	29.62	-89.57	-165.39	494.69	4,310.34	4,244.72	65.62	65.686		
10,400.00	6,941.92	6,927.51	6,948.14	107.11	29.62	-89.56	-165.39	494.69	4,408.31	4,342.60	65.71	67.086		
10,500.00	6,941.63	6,927.36	6,947.98	109.84	29.61	-89.55	-165.39	494.69	4,506.37	4,440.57	65.80	68.486		
10,600.00	6,941.33	6,927.20	6,947.83	112.58	29.61	-89.54	-165.39	494.69	4,604.51	4,538.63	65.89	69.885		
10,700.00	6,941.03	6,927.05	6,947.68	115.33	29.61	-89.53	-165.39	494.69	4,702.74	4,636.76	65.97	71.282		
10,800.00	6,940.73	6,926.90	6,947.53	118.08	29.61	-89.52	-165.39	494.69	4,801.03	4,734.97	66.06	72.678		
10,900.00	6,940.43	6,926.75	6,947.38	120.84	29.61	-89.51	-165.39	494.69	4,899.40	4,833.25	66.14	74.072		
11,000.00	6,940.13	6,926.60	6,947.22	123.60	29.61	-89.50	-165.39	494.69	4,997.83	4,931.60	66.23	75.465		
11,100.00	6,939.83	6,926.44	6,947.07	126.36	29.61	-89.49	-165.39	494.69	5,096.32	5,030.01	66.31	76.855		
11,200.00	6,939.54	6,926.29	6,946.92	129.13	29.61	-89.48	-165.39	494.69	5,194.86	5,128.47	66.39	78.245		
11,300.00	6,939.24	6,926.14	6,946.77	131.91	29.61	-89.47	-165.39	494.69	5,293.47	5,226.99	66.47	79.632		
11,400.00	6,938.94	6,925.99	6,946.62	134.68	29.61	-89.46	-165.39	494.69	5,392.12	5,325.56	66.56	81.017		
11,500.00	6,938.64	6,925.84	6,946.46	137.46	29.61	-89.45	-165.39	494.69	5,490.82	5,424.19	66.64	82.400		
11,600.00	6,938.34	6,925.69	6,946.31	140.25	29.61	-89.44	-165.39	494.69	5,589.57	5,522.85	66.72	83.781		
11,700.00	6,938.04	6,925.53	6,946.16	143.03	29.61	-89.43	-165.39	494.69	5,688.36	5,621.57	66.80	85.160		
11,800.00	6,937.75	6,925.38	6,946.01	145.82	29.61	-89.42	-165.39	494.69	5,787.20	5,720.32	66.88	86.536		
11,900.00	6,937.45	6,925.23	6,945.86	148.61	29.61	-89.41	-165.39	494.69	5,886.07	5,819.12	66.96	87.911		
12,000.00	6,937.15	6,925.08	6,945.71	151.41	29.61	-89.40	-165.39	494.69	5,984.98	5,917.95	67.03	89.282		
12,100.00	6,936.85	6,924.93	6,945.56	154.20	29.60	-89.39	-165.39	494.69	6,083.93	6,016.81	67.11	90.651		
12,200.00	6,936.55	6,924.78	6,945.41	157.00	29.60	-89.38	-165.39	494.69	6,182.91	6,115.72	67.19	92.018		
12,300.00	6,936.25	6,924.63	6,945.25	159.80	29.60	-89.37	-165.39	494.69	6,281.92	6,214.65	67.27	93.382		
12,400.00	6,935.96	6,924.48	6,945.10	162.61	29.60	-89.36	-165.39	494.69	6,380.96	6,313.61	67.35	94.743		
12,500.00	6,935.66	6,924.32	6,944.95	165.41	29.60	-89.35	-165.39	494.69	6,480.04	6,412.61	67.43	96.101		
12,600.00	6,935.36	6,924.17	6,944.80	168.22	29.60	-89.34	-165.39	494.69	6,579.14	6,511.63	67.51	97.457		
12,700.00	6,935.06	6,924.02	6,944.65	171.02	29.60	-89.33	-165.39	494.69	6,678.27	6,610.68	67.59	98.809		
12,800.00	6,934.76	6,923.87	6,944.50	173.83	29.60	-89.32	-165.39	494.69	6,777.42	6,709.75	67.67	100.159		
12,900.00	6,934.46	6,923.72	6,944.35	176.65	29.60	-89.31	-165.39	494.69	6,876.60	6,808.85	67.75	101.506		
13,000.00	6,934.17	6,923.57	6,944.20	179.46	29.60	-89.30	-165.39	494.69	6,975.80	6,907.97	67.83	102.849		
13,100.00	6,933.87	6,923.42	6,944.05	182.27	29.60	-89.29	-165.39	494.69	7,075.02	7,007.12	67.90	104.190		
13,200.00	6,933.57	6,923.27	6,943.90	185.09	29.60	-89.28	-165.39	494.69	7,174.27	7,106.28	67.98	105.527		
13,300.00	6,933.27	6,923.12	6,943.75	187.91	29.60	-89.27	-165.39	494.69	7,273.53	7,205.47	68.06	106.862		
13,400.00	6,932.97	6,922.97	6,943.60	190.72	29.60	-89.26	-165.39	494.69	7,372.82	7,304.67	68.15	108.193		
13,500.00	6,932.67	6,922.82	6,943.45	193.54	29.60	-89.25	-165.39	494.69	7,472.12	7,403.90	68.23	109.521		
13,600.00	6,932.38	6,922.67	6,943.30	196.36	29.59	-89.24	-165.39	494.69	7,571.45	7,503.14	68.31	110.845		
13,700.00	6,932.08	6,922.52	6,943.15	199.19	29.59	-89.23	-165.39	494.69	7,670.79	7,602.40	68.39	112.166		
13,800.00	6,931.78	6,922.37	6,943.00	202.01	29.59	-89.22	-165.39	494.69	7,770.14	7,701.68	68.47	113.484		
13,900.00	6,931.48	6,922.22	6,942.85	204.83	29.59	-89.21	-165.39	494.69	7,869.52	7,800.97	68.55	114.799		
14,000.00	6,931.18	6,922.07	6,942.70	207.66	29.59	-89.21	-165.39	494.69	7,968.91	7,900.27	68.63	116.110		
14,100.00	6,930.88	6,921.92	6,942.55	210.48	29.59	-89.20	-165.39	494.69	8,068.31	7,999.60	68.71	117.417		
14,200.00	6,930.59	6,921.77	6,942.40	213.31	29.59	-89.19	-165.39	494.69	8,167.73	8,098.93	68.80	118.721		
14,300.00	6,930.29	6,921.62	6,942.25	216.14	29.59	-89.18	-165.39	494.69	8,267.16	8,198.28	68.88	120.021		
14,400.00	6,929.99	6,921.47	6,942.10	218.96	29.59	-89.17	-165.39	494.69	8,366.61	8,297.65	68.96	121.318		
14,500.00	6,929.69	6,921.32	6,941.95	221.79	29.59	-89.16	-165.39	494.70	8,466.07	8,397.02	69.05	122.611		
14,600.00	6,929.39	6,921.17	6,941.80	224.62	29.59	-89.15	-165.39	494.70	8,565.54	8,496.41	69.13	123.901		
14,700.00	6,929.09	6,921.02	6,941.65	227.45	29.59	-89.14	-165.39	494.70	8,665.03	8,595.81	69.22	125.187		
14,732.12	6,929.00	6,920.97	6,941.60	228.36	29.59	-89.13	-165.39	494.70	8,696.99	8,627.74	69.24	125.599		



Anticollision Report



Company:	SRC ENERGY	Local Co-ordinate Reference:	Well HARVESTERS STATE 4N-16A-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 4N-16A-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 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	0.40	79.78	0.56	79.78					
100.00	100.00	101.00	100.00	3.28	3.28	0.40	79.78	0.56	79.78	73.22	6.57	12.145		
200.00	200.00	201.00	200.00	3.34	3.34	0.40	79.78	0.56	79.78	73.11	6.67	11.953 CC, ES		
300.00	300.00	298.24	297.22	3.44	3.44	0.27	81.46	0.39	81.51	74.61	6.90	11.815		
400.00	400.00	395.28	394.13	3.60	3.60	-0.07	86.40	-0.11	86.60	79.36	7.24	11.966		
500.00	500.00	491.88	490.37	3.81	3.80	-0.56	94.56	-0.93	95.06	87.39	7.67	12.392		
600.00	600.00	587.81	585.63	4.05	4.03	-1.12	105.86	-2.06	106.85	98.67	8.18	13.064		
700.00	699.98	683.13	679.85	4.32	4.30	11.91	120.22	-3.50	120.26	111.52	8.74	13.758		
800.00	799.84	778.05	773.14	4.62	4.59	11.75	137.61	-5.25	133.57	124.23	9.35	14.292		
900.00	899.45	872.56	865.40	4.94	4.91	11.78	157.98	-7.29	146.77	136.78	9.98	14.704		
1,000.00	998.80	966.58	956.46	5.28	5.25	11.95	181.23	-9.63	160.58	149.92	10.65	15.073		
1,100.00	1,098.12	1,060.51	1,046.64	5.63	5.62	12.04	207.38	-12.25	177.38	166.04	11.35	15.633		
1,200.00	1,197.44	1,158.89	1,140.75	6.00	6.03	12.09	235.87	-15.11	195.35	183.29	12.07	16.189		
1,300.00	1,296.77	1,257.26	1,234.87	6.37	6.46	12.13	264.36	-17.97	213.32	200.51	12.82	16.644		
1,400.00	1,396.09	1,355.63	1,328.98	6.76	6.90	12.17	292.85	-20.84	231.29	217.70	13.59	17.018		
1,500.00	1,495.41	1,454.00	1,423.09	7.15	7.36	12.20	321.34	-23.70	249.27	234.88	14.39	17.328		
1,600.00	1,594.74	1,552.37	1,517.20	7.55	7.82	12.23	349.84	-26.56	267.24	252.04	15.20	17.586		
1,700.00	1,694.06	1,650.74	1,611.31	7.96	8.29	12.25	378.33	-29.42	285.21	269.19	16.02	17.801		
1,800.00	1,793.38	1,749.12	1,705.43	8.37	8.77	12.27	406.82	-32.28	303.18	286.32	16.86	17.982		
1,900.00	1,892.71	1,847.49	1,799.54	8.78	9.26	12.29	435.31	-35.14	321.15	303.44	17.71	18.136		
2,000.00	1,992.03	1,945.86	1,893.65	9.20	9.75	12.30	463.80	-38.00	339.12	320.56	18.57	18.266		
2,100.00	2,091.36	2,044.23	1,987.76	9.62	10.24	12.32	492.29	-40.86	357.09	337.66	19.43	18.377		
2,200.00	2,190.68	2,142.60	2,081.87	10.05	10.74	12.33	520.79	-43.72	375.06	354.76	20.30	18.473		
2,300.00	2,290.00	2,240.98	2,175.99	10.48	11.24	12.34	549.28	-46.58	393.03	371.85	21.18	18.555		
2,400.00	2,389.33	2,339.35	2,270.10	10.90	11.74	12.35	577.77	-49.44	411.01	388.94	22.07	18.627		
2,500.00	2,488.65	2,437.72	2,364.21	11.34	12.24	12.36	606.26	-52.30	428.98	406.02	22.95	18.689		
2,600.00	2,587.97	2,536.09	2,458.32	11.77	12.75	12.37	634.75	-55.16	446.95	423.10	23.85	18.743		
2,700.00	2,687.30	2,634.46	2,552.43	12.20	13.26	12.38	663.24	-58.02	464.92	440.18	24.74	18.790		
2,800.00	2,786.62	2,732.84	2,646.55	12.64	13.77	12.39	691.74	-60.88	482.89	457.25	25.64	18.832		
2,900.00	2,885.94	2,831.21	2,740.66	13.07	14.28	12.40	720.23	-63.74	500.86	474.32	26.54	18.869		
3,000.00	2,985.27	2,929.58	2,834.77	13.51	14.79	12.40	748.72	-66.60	518.83	491.38	27.45	18.901		
3,100.00	3,084.59	3,027.95	2,928.88	13.95	15.30	12.41	777.21	-69.46	536.81	508.45	28.36	18.930		
3,200.00	3,183.91	3,126.32	3,022.99	14.39	15.82	12.42	805.70	-72.32	554.78	525.51	29.27	18.955		
3,300.00	3,283.24	3,224.69	3,117.11	14.83	16.33	12.42	834.19	-75.18	572.75	542.57	30.18	18.978		
3,400.00	3,382.56	3,323.07	3,211.22	15.27	16.85	12.43	862.69	-78.04	590.72	559.63	31.09	18.998		
3,500.00	3,481.88	3,421.44	3,305.33	15.71	17.37	12.43	891.18	-80.90	608.69	576.68	32.01	19.016		
3,600.00	3,581.21	3,519.81	3,399.44	16.16	17.89	12.44	919.67	-83.76	626.66	593.74	32.93	19.033		
3,700.00	3,680.53	3,618.18	3,493.55	16.60	18.41	12.44	948.16	-86.63	644.63	610.79	33.84	19.047		
3,800.00	3,779.85	3,716.55	3,587.67	17.04	18.92	12.45	976.65	-89.49	662.60	627.84	34.76	19.060		
3,900.00	3,879.18	3,814.93	3,681.78	17.49	19.44	12.45	1,005.14	-92.35	680.58	644.89	35.68	19.072		
4,000.00	3,978.50	3,913.30	3,775.89	17.93	19.96	12.45	1,033.64	-95.21	698.55	661.94	36.61	19.082		
4,100.00	4,077.82	4,011.67	3,870.00	18.37	20.49	12.46	1,062.13	-98.07	716.52	678.99	37.53	19.092		
4,200.00	4,177.15	4,110.04	3,964.11	18.82	21.01	12.46	1,090.62	-100.93	734.49	696.04	38.45	19.100		
4,300.00	4,276.47	4,208.41	4,058.23	19.27	21.53	12.46	1,119.11	-103.79	752.46	713.08	39.38	19.108		
4,400.00	4,375.79	4,306.79	4,152.34	19.71	22.05	12.47	1,147.60	-106.65	770.43	730.13	40.30	19.115		
4,500.00	4,475.12	4,405.16	4,246.45	20.16	22.57	12.47	1,176.09	-109.51	788.40	747.17	41.23	19.121		
4,600.00	4,574.44	4,503.53	4,340.56	20.60	23.10	12.47	1,204.59	-112.37	806.38	764.22	42.16	19.127		
4,700.00	4,673.76	4,601.90	4,434.67	21.05	23.62	12.48	1,233.08	-115.23	824.35	781.26	43.09	19.132		
4,800.00	4,773.09	4,700.27	4,528.79	21.50	24.14	12.48	1,261.57	-118.09	842.32	798.30	44.02	19.137		
4,900.00	4,872.41	4,801.36	4,622.90	21.94	24.68	12.48	1,290.06	-120.95	860.29	815.33	44.96	19.135		
5,000.00	4,971.74	4,897.02	4,717.01	22.39	25.19	12.48	1,318.55	-123.81	878.26	832.39	45.87	19.145		
5,100.00	5,071.06	5,004.61	4,811.12	22.84	25.76	12.49	1,347.04	-126.67	896.23	849.38	46.85	19.130		

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 4N-16A-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 4N-16A-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 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	5,170.38	5,106.24	4,905.23	23.29	26.30	12.49	1,375.54	-129.53	914.20	866.41	47.80	19.126		
5,300.00	5,269.71	5,192.13	4,999.35	23.74	26.76	12.49	1,404.03	-132.39	932.17	883.51	48.67	19.154		
5,400.00	5,369.03	5,290.50	5,093.46	24.18	27.29	12.49	1,432.52	-135.25	950.15	900.55	49.60	19.157		
5,500.00	5,468.35	5,388.88	5,187.57	24.63	27.81	12.49	1,461.01	-138.11	968.12	917.59	50.53	19.159		
5,600.00	5,567.68	5,537.43	5,330.72	25.08	28.58	12.51	1,500.45	-142.07	983.63	931.71	51.92	18.944		
5,700.00	5,667.00	5,689.04	5,478.73	25.53	29.32	12.58	1,533.03	-145.34	993.95	940.78	53.18	18.692		
5,800.00	5,766.32	5,841.88	5,629.49	25.98	30.01	12.67	1,557.95	-147.85	999.00	944.74	54.26	18.412		
5,900.00	5,865.65	5,995.09	5,781.74	26.43	30.66	12.82	1,574.86	-149.54	998.72	943.56	55.16	18.106		
6,000.00	5,964.97	6,147.80	5,934.17	26.88	31.25	13.00	1,583.64	-150.42	993.13	937.26	55.87	17.776		
6,100.00	6,064.29	6,277.93	6,064.29	27.33	31.72	13.19	1,585.02	-150.56	982.72	926.19	56.54	17.382		
6,200.00	6,163.62	6,377.26	6,163.62	27.78	32.07	13.35	1,585.02	-150.56	971.42	914.05	57.36	16.935		
6,300.00	6,262.94	6,476.58	6,262.94	28.23	32.43	13.51	1,585.02	-150.56	960.12	901.93	58.19	16.500		
6,400.00	6,362.24	6,575.88	6,362.24	28.67	32.78	13.68	1,585.02	-150.56	948.83	889.81	59.02	16.077		
6,500.00	6,460.41	6,674.06	6,460.41	29.12	33.14	13.85	1,585.02	-150.56	937.91	878.05	59.86	15.668		
6,600.00	6,555.09	6,768.73	6,555.09	29.57	33.48	14.02	1,585.02	-150.56	928.39	867.67	60.71	15.291		
6,700.00	6,643.94	6,861.36	6,647.71	30.00	33.82	14.19	1,585.02	-151.03	921.92	860.37	61.55	14.979		
6,800.00	6,724.78	6,969.66	6,755.06	30.45	34.20	14.36	1,584.92	-164.33	919.11	856.91	62.20	14.776		
6,834.31	6,750.31	7,009.52	6,793.78	30.63	34.34	14.44	1,584.84	-173.79	918.92	856.53	62.39	14.728		
6,900.00	6,795.62	7,090.39	6,870.12	30.97	34.62	14.61	1,584.63	-200.32	919.57	856.93	62.65	14.679		
7,000.00	6,854.70	7,226.78	6,989.25	31.60	35.05	14.78	1,584.12	-266.19	922.66	859.88	62.78	14.696		
7,100.00	6,900.58	7,381.66	7,103.97	32.39	35.49	14.96	1,583.31	-369.67	927.18	864.54	62.64	14.803		
7,200.00	6,932.13	7,555.64	7,198.82	33.34	35.99	15.14	1,582.17	-514.87	931.47	868.86	62.60	14.879		
7,300.00	6,948.57	7,744.52	7,253.29	34.46	37.18	15.33	1,580.77	-694.99	933.80	870.18	63.62	14.678		
7,400.00	6,950.87	7,890.54	7,259.80	35.70	38.75	15.53	1,579.63	-840.68	933.79	867.84	65.95	14.158		
7,500.00	6,950.58	8,009.46	7,259.42	37.12	40.32	15.73	1,578.84	-940.67	933.73	864.90	68.83	13.566		
7,600.00	6,950.28	8,109.46	7,259.04	38.70	41.82	15.93	1,578.06	-1,040.67	933.66	861.87	71.78	13.007		
7,700.00	6,949.98	8,209.46	7,258.66	40.41	43.46	16.13	1,577.28	-1,140.67	933.59	858.57	75.02	12.445		
7,800.00	6,949.68	8,290.54	7,258.28	42.25	44.89	16.33	1,576.50	-1,240.66	933.52	855.36	78.16	11.944		
7,900.00	6,949.38	8,409.46	7,257.90	44.20	47.10	16.53	1,575.72	-1,340.66	933.45	851.27	82.18	11.358		
8,000.00	6,949.08	8,509.46	7,257.52	46.24	49.07	16.73	1,574.93	-1,440.65	933.38	847.33	86.05	10.846		
8,100.00	6,948.79	8,609.46	7,257.14	48.36	51.12	16.93	1,574.15	-1,540.65	933.31	843.23	90.09	10.360		
8,200.00	6,948.49	8,690.54	7,256.77	50.56	52.84	17.13	1,573.37	-1,640.65	933.25	839.38	93.87	9.942		
8,300.00	6,948.19	8,809.46	7,256.39	52.82	55.44	17.33	1,572.59	-1,740.64	933.18	834.62	98.56	9.468		
8,400.00	6,947.89	8,909.46	7,256.01	55.14	57.69	17.53	1,571.81	-1,840.64	933.11	830.15	102.96	9.062		
8,500.00	6,947.59	9,009.46	7,255.63	57.50	59.99	17.73	1,571.02	-1,940.63	933.04	825.58	107.46	8.683		
8,600.00	6,947.29	9,109.46	7,255.25	59.91	62.34	17.93	1,570.24	-2,040.63	932.97	820.93	112.04	8.327		
8,700.00	6,947.00	9,209.46	7,254.87	62.36	64.73	18.13	1,569.46	-2,140.63	932.90	816.21	116.70	7.994		
8,800.00	6,946.70	9,309.46	7,254.49	64.84	67.16	18.33	1,568.68	-2,240.62	932.83	811.42	121.42	7.683		
8,900.00	6,946.40	9,409.46	7,254.11	67.35	69.62	18.53	1,567.90	-2,340.62	932.77	806.57	126.19	7.392		
9,000.00	6,946.10	9,509.46	7,253.73	69.88	72.11	18.73	1,567.11	-2,440.62	932.70	801.68	131.02	7.119		
9,100.00	6,945.80	9,609.46	7,253.35	72.44	74.62	18.93	1,566.33	-2,540.61	932.63	796.74	135.89	6.863		
9,200.00	6,945.50	9,709.46	7,252.97	75.02	77.16	19.13	1,565.55	-2,640.61	932.56	791.75	140.81	6.623		
9,300.00	6,945.21	9,809.46	7,252.59	77.63	79.72	19.33	1,564.77	-2,740.60	932.49	786.73	145.76	6.398		
9,400.00	6,944.91	9,909.46	7,252.21	80.24	82.30	19.53	1,563.99	-2,840.60	932.42	781.68	150.74	6.186		
9,500.00	6,944.61	10,009.46	7,251.83	82.88	84.90	19.73	1,563.20	-2,940.60	932.35	776.60	155.76	5.986		
9,600.00	6,944.31	10,109.46	7,251.45	85.53	87.51	19.93	1,562.42	-3,040.59	932.29	771.49	160.80	5.798		
9,700.00	6,944.01	10,190.54	7,251.07	88.19	89.65	20.13	1,561.64	-3,140.59	932.22	766.83	165.39	5.637		
9,800.00	6,943.71	10,309.46	7,250.69	90.86	92.79	20.33	1,560.86	-3,240.59	932.15	761.19	170.96	5.453		
9,900.00	6,943.42	10,409.47	7,250.31	93.55	95.44	20.53	1,560.08	-3,340.58	932.08	756.02	176.07	5.294		
10,000.00	6,943.12	10,509.47	7,249.93	96.24	98.11	20.73	1,559.29	-3,440.58	932.01	750.82	181.19	5.144		
10,100.00	6,942.82	10,609.47	7,249.55	98.95	100.79	20.93	1,558.51	-3,540.57	931.94	745.60	186.34	5.001		
10,200.00	6,942.52	10,709.47	7,249.18	101.66	103.47	21.13	1,557.73	-3,640.57	931.88	740.37	191.50	4.866		

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 4N-16A-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 4N-16A-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 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		
10,300.00	6,942.22	10,809.47	7,248.80	104.38	106.17	109.21	1,556.95	-3,740.57	931.81	735.13	196.68	4.738		
10,400.00	6,941.92	10,909.47	7,248.42	107.11	108.87	109.21	1,556.17	-3,840.56	931.74	729.87	201.87	4.615		
10,500.00	6,941.63	11,009.47	7,248.04	109.84	111.58	109.20	1,555.38	-3,940.56	931.67	724.59	207.08	4.499		
10,600.00	6,941.33	11,109.47	7,247.66	112.58	114.30	109.20	1,554.60	-4,040.55	931.60	719.31	212.29	4.388		
10,700.00	6,941.03	11,190.54	7,247.28	115.33	116.51	109.19	1,553.82	-4,140.55	931.53	714.51	217.03	4.292		
10,800.00	6,940.73	11,309.47	7,246.90	118.08	119.76	109.19	1,553.04	-4,240.55	931.46	708.71	222.76	4.182		
10,900.00	6,940.43	11,409.47	7,246.52	120.84	122.50	109.19	1,552.26	-4,340.54	931.40	703.39	228.00	4.085		
11,000.00	6,940.13	11,509.47	7,246.14	123.60	125.24	109.18	1,551.47	-4,440.54	931.33	698.07	233.26	3.993		
11,100.00	6,939.83	11,590.53	7,245.76	126.36	127.47	109.18	1,550.69	-4,540.54	931.26	693.24	238.02	3.912		
11,200.00	6,939.54	11,709.47	7,245.38	129.13	130.74	109.17	1,549.91	-4,640.53	931.19	687.40	243.79	3.820		
11,300.00	6,939.24	11,809.47	7,245.00	131.91	133.50	109.17	1,549.13	-4,740.53	931.12	682.05	249.07	3.738		
11,400.00	6,938.94	11,909.47	7,244.62	134.68	136.26	109.17	1,548.35	-4,840.52	931.05	676.70	254.36	3.660		
11,500.00	6,938.64	12,009.47	7,244.24	137.46	139.02	109.16	1,547.56	-4,940.52	930.99	671.34	259.65	3.586		
11,600.00	6,938.34	12,090.53	7,243.86	140.25	141.27	109.16	1,546.78	-5,040.52	930.92	666.47	264.45	3.520		
11,700.00	6,938.04	12,209.47	7,243.48	143.03	144.57	109.16	1,546.00	-5,140.51	930.85	660.60	270.25	3.444		
11,800.00	6,937.75	12,309.47	7,243.10	145.82	147.34	109.15	1,545.22	-5,240.51	930.78	655.22	275.56	3.378		
11,900.00	6,937.45	12,390.53	7,242.72	148.61	149.59	109.15	1,544.44	-5,340.50	930.71	650.34	280.37	3.320		
12,000.00	6,937.15	12,509.47	7,242.34	151.41	152.90	109.14	1,543.65	-5,440.50	930.64	644.45	286.19	3.252		
12,100.00	6,936.85	12,609.47	7,241.96	154.20	155.69	109.14	1,542.87	-5,540.50	930.57	639.06	291.52	3.192		
12,200.00	6,936.55	12,709.47	7,241.58	157.00	158.47	109.14	1,542.09	-5,640.49	930.51	633.66	296.84	3.135		
12,300.00	6,936.25	12,809.47	7,241.21	159.80	161.26	109.13	1,541.31	-5,740.49	930.44	628.26	302.18	3.079		
12,400.00	6,935.96	12,890.53	7,240.83	162.61	163.53	109.13	1,540.53	-5,840.49	930.37	623.36	307.01	3.030		
12,500.00	6,935.66	13,009.47	7,240.45	165.41	166.85	109.12	1,539.74	-5,940.48	930.30	617.45	312.85	2.974		
12,600.00	6,935.36	13,090.53	7,240.07	168.22	169.12	109.12	1,538.96	-6,040.48	930.23	612.54	317.69	2.928		
12,700.00	6,935.06	13,209.47	7,239.69	171.02	172.44	109.12	1,538.18	-6,140.47	930.16	606.62	323.54	2.875		
12,800.00	6,934.76	13,309.47	7,239.31	173.83	175.24	109.11	1,537.40	-6,240.47	930.10	601.20	328.89	2.828		
12,900.00	6,934.46	13,409.47	7,238.93	176.65	178.05	109.11	1,536.62	-6,340.47	930.03	595.78	334.25	2.782		
13,000.00	6,934.17	13,490.53	7,238.55	179.46	180.32	109.11	1,535.83	-6,440.46	929.96	590.86	339.10	2.742		
13,100.00	6,933.87	13,609.47	7,238.17	182.27	183.65	109.10	1,535.05	-6,540.46	929.89	584.93	344.96	2.696		
13,200.00	6,933.57	13,709.47	7,237.79	185.09	186.46	109.10	1,534.27	-6,640.46	929.82	579.50	350.32	2.654		
13,300.00	6,933.27	13,809.47	7,237.41	187.91	189.27	109.09	1,533.49	-6,740.45	929.75	574.07	355.69	2.614		
13,400.00	6,932.97	13,909.47	7,237.03	190.72	192.08	109.09	1,532.71	-6,840.45	929.69	568.63	361.06	2.575		
13,500.00	6,932.67	14,009.47	7,236.65	193.54	194.89	109.09	1,531.92	-6,940.44	929.62	563.19	366.42	2.537		
13,600.00	6,932.38	14,090.53	7,236.27	196.36	197.17	109.08	1,531.14	-7,040.44	929.55	558.26	371.29	2.504		
13,700.00	6,932.08	14,190.53	7,235.89	199.19	199.99	109.08	1,530.36	-7,140.44	929.48	552.82	376.66	2.468		
13,800.00	6,931.78	14,309.47	7,235.51	202.01	203.33	109.07	1,529.58	-7,240.43	929.41	546.87	382.55	2.430		
13,900.00	6,931.48	14,409.47	7,235.13	204.83	206.15	109.07	1,528.80	-7,340.43	929.34	541.42	387.92	2.396		
14,000.00	6,931.18	14,509.47	7,234.75	207.66	208.97	109.07	1,528.01	-7,440.42	929.28	535.97	393.30	2.363		
14,100.00	6,930.88	14,590.53	7,234.37	210.48	211.25	109.06	1,527.23	-7,540.42	929.21	531.03	398.18	2.334		
14,200.00	6,930.59	14,709.47	7,233.99	213.31	214.61	109.06	1,526.45	-7,640.42	929.14	525.07	404.07	2.299		
14,300.00	6,930.29	14,809.47	7,233.61	216.14	217.43	109.06	1,525.67	-7,740.41	929.07	519.62	409.46	2.269		
14,400.00	6,929.99	14,909.47	7,233.24	218.96	220.25	109.05	1,524.88	-7,840.41	929.00	514.16	414.84	2.239		
14,500.00	6,929.69	15,009.47	7,232.86	221.79	223.07	109.05	1,524.10	-7,940.41	928.93	508.70	420.23	2.211		
14,600.00	6,929.39	15,109.47	7,232.48	224.62	225.90	109.04	1,523.32	-8,040.40	928.87	503.24	425.62	2.182		
14,700.00	6,929.09	15,190.53	7,232.10	227.45	228.19	109.04	1,522.54	-8,140.40	928.80	498.29	430.50	2.157		
14,727.07	6,929.01	15,217.61	7,231.99	228.22	228.95	109.04	1,522.33	-8,167.47	928.78	496.81	431.96	2.150		
14,732.12	6,929.00	15,216.01	7,232.00	228.36	228.91	109.04	1,522.34	-8,165.88	928.80	496.68	432.12	2.149 SF		



Anticollision Report



Company:	SRC ENERGY	Local Co-ordinate Reference:	Well HARVESTERS STATE 4N-16A-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 4N-16A-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 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	0.53	60.11	0.56	60.12					
100.00	100.00	101.00	100.00	3.28	3.28	0.53	60.11	0.56	60.12	53.55	6.57	9.151		
200.00	200.00	201.00	200.00	3.34	3.34	0.53	60.11	0.56	60.12	53.44	6.67	9.006		
300.00	300.00	301.00	300.00	3.44	3.45	0.53	60.11	0.56	60.12	53.23	6.89	8.724 CC, ES		
400.00	400.00	398.90	397.88	3.60	3.60	0.31	61.81	0.34	61.84	54.63	7.21	8.572		
500.00	500.00	496.60	495.44	3.81	3.80	-0.26	66.80	-0.30	66.96	59.32	7.64	8.766		
600.00	600.00	593.84	592.32	4.05	4.04	-1.04	75.05	-1.36	75.45	67.31	8.14	9.268		
700.00	699.98	690.61	688.40	4.32	4.31	11.79	86.49	-2.82	85.61	76.91	8.70	9.838		
800.00	799.84	787.06	783.71	4.62	4.60	11.50	101.08	-4.69	95.71	86.41	9.31	10.283		
900.00	899.45	883.57	878.55	4.94	4.92	11.46	118.85	-6.97	105.72	95.78	9.95	10.627		
1,000.00	998.80	983.20	976.19	5.28	5.26	11.66	138.47	-9.48	114.40	103.79	10.61	10.785		
1,100.00	1,098.12	1,082.83	1,073.84	5.63	5.63	11.86	158.09	-12.00	122.89	111.58	11.31	10.863		
1,200.00	1,197.44	1,182.47	1,171.50	6.00	6.02	12.03	177.71	-14.51	131.38	119.33	12.04	10.908		
1,300.00	1,296.77	1,282.11	1,269.15	6.37	6.42	12.18	197.34	-17.03	139.87	127.07	12.80	10.927		
1,400.00	1,396.09	1,381.75	1,366.81	6.76	6.83	12.32	216.96	-19.54	148.36	134.78	13.58	10.927		
1,500.00	1,495.41	1,481.39	1,464.46	7.15	7.25	12.44	236.59	-22.06	156.85	142.48	14.37	10.915		
1,600.00	1,594.74	1,581.03	1,562.12	7.55	7.67	12.55	256.21	-24.57	165.35	150.17	15.18	10.894		
1,700.00	1,694.06	1,680.66	1,659.77	7.96	8.11	12.64	275.83	-27.09	173.84	157.84	16.00	10.867		
1,800.00	1,793.38	1,780.30	1,757.42	8.37	8.55	12.73	295.46	-29.60	182.33	165.51	16.83	10.836		
1,900.00	1,892.71	1,879.94	1,855.08	8.78	8.99	12.81	315.08	-32.12	190.83	173.16	17.67	10.802		
2,000.00	1,992.03	1,979.58	1,952.73	9.20	9.44	12.89	334.70	-34.63	199.32	180.81	18.51	10.767		
2,100.00	2,091.36	2,079.22	2,050.39	9.62	9.89	12.95	354.33	-37.15	207.82	188.45	19.37	10.731		
2,200.00	2,190.68	2,178.86	2,148.04	10.05	10.34	13.02	373.95	-39.66	216.31	196.09	20.23	10.695		
2,300.00	2,290.00	2,278.49	2,245.70	10.48	10.80	13.07	393.57	-42.17	224.81	203.72	21.09	10.660		
2,400.00	2,389.33	2,378.13	2,343.35	10.90	11.26	13.13	413.20	-44.69	233.30	211.34	21.96	10.625		
2,500.00	2,488.65	2,477.77	2,441.00	11.34	11.72	13.18	432.82	-47.20	241.80	218.97	22.83	10.591		
2,600.00	2,587.97	2,577.41	2,538.66	11.77	12.18	13.22	452.45	-49.72	250.29	226.59	23.71	10.558		
2,700.00	2,687.30	2,677.05	2,636.31	12.20	12.64	13.27	472.07	-52.23	258.79	234.20	24.59	10.526		
2,800.00	2,786.62	2,776.68	2,733.97	12.64	13.11	13.31	491.69	-54.75	267.29	241.82	25.47	10.495		
2,900.00	2,885.94	2,876.32	2,831.62	13.07	13.57	13.34	511.32	-57.26	275.78	249.43	26.35	10.465		
3,000.00	2,985.27	2,975.96	2,929.28	13.51	14.04	13.38	530.94	-59.78	284.28	257.04	27.24	10.436		
3,100.00	3,084.59	3,075.60	3,026.93	13.95	14.51	13.41	550.56	-62.29	292.77	264.64	28.13	10.408		
3,200.00	3,183.91	3,175.24	3,124.58	14.39	14.98	13.45	570.19	-64.81	301.27	272.25	29.02	10.381		
3,300.00	3,283.24	3,274.88	3,222.24	14.83	15.45	13.48	589.81	-67.32	309.77	279.85	29.91	10.355		
3,400.00	3,382.56	3,374.51	3,319.89	15.27	15.92	13.50	609.43	-69.84	318.26	287.46	30.81	10.330		
3,500.00	3,481.88	3,474.15	3,417.55	15.71	16.39	13.53	629.06	-72.35	326.76	295.06	31.71	10.306		
3,600.00	3,581.21	3,573.79	3,515.20	16.16	16.86	13.56	648.68	-74.86	335.26	302.66	32.60	10.283		
3,700.00	3,680.53	3,673.43	3,612.86	16.60	17.33	13.58	668.30	-77.38	343.76	310.25	33.50	10.261		
3,800.00	3,779.85	3,773.07	3,710.51	17.04	17.80	13.60	687.93	-79.89	352.25	317.85	34.40	10.240		
3,900.00	3,879.18	3,872.71	3,808.17	17.49	18.28	13.63	707.55	-82.41	360.75	325.45	35.30	10.219		
4,000.00	3,978.50	3,972.34	3,905.82	17.93	18.75	13.65	727.18	-84.92	369.25	333.04	36.20	10.199		
4,100.00	4,077.82	4,071.98	4,003.47	18.37	19.23	13.67	746.80	-87.44	377.74	340.64	37.11	10.180		
4,200.00	4,177.15	4,171.62	4,101.13	18.82	19.70	13.69	766.42	-89.95	386.24	348.23	38.01	10.162		
4,300.00	4,276.47	4,271.26	4,198.78	19.27	20.18	13.70	786.05	-92.47	394.74	355.82	38.91	10.144		
4,400.00	4,375.79	4,370.90	4,296.44	19.71	20.65	13.72	805.67	-94.98	403.24	363.42	39.82	10.127		
4,500.00	4,475.12	4,470.54	4,394.09	20.16	21.13	13.74	825.29	-97.50	411.73	371.01	40.72	10.110		
4,600.00	4,574.44	4,570.17	4,491.75	20.60	21.60	13.76	844.92	-100.01	420.23	378.60	41.63	10.094		
4,700.00	4,673.76	4,669.81	4,589.40	21.05	22.08	13.77	864.54	-102.53	428.73	386.19	42.54	10.079		
4,800.00	4,773.09	4,769.45	4,687.05	21.50	22.56	13.79	884.16	-105.04	437.22	393.78	43.44	10.064		
4,900.00	4,872.41	4,869.09	4,784.71	21.94	23.03	13.80	903.79	-107.56	445.72	401.37	44.35	10.050		
5,000.00	4,971.74	4,968.73	4,882.36	22.39	23.51	13.81	923.41	-110.07	454.22	408.96	45.26	10.036		
5,100.00	5,071.06	5,068.36	4,980.02	22.84	23.99	13.83	943.04	-112.58	462.72	416.55	46.17	10.022		

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 4N-16A-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 4N-16A-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 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 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	5,170.38	5,168.00	5,077.67	23.29	24.47	13.84	962.66	-115.10	471.21	424.14	47.08	10.009		
5,300.00	5,269.71	5,267.64	5,175.33	23.74	24.94	13.85	982.28	-117.61	479.71	431.72	47.99	9.996		
5,400.00	5,369.03	5,367.28	5,272.98	24.18	25.42	13.86	1,001.91	-120.13	488.21	439.31	48.90	9.984		
5,500.00	5,468.35	5,466.92	5,370.64	24.63	25.90	13.88	1,021.53	-122.64	496.71	446.90	49.81	9.972		
5,600.00	5,567.68	5,566.56	5,468.29	25.08	26.38	13.89	1,041.15	-125.16	505.20	454.48	50.72	9.961		
5,700.00	5,667.00	5,666.19	5,565.94	25.53	26.86	13.90	1,060.78	-127.67	513.70	462.07	51.63	9.949		
5,800.00	5,766.32	5,765.83	5,663.60	25.98	27.34	13.91	1,080.40	-130.19	522.20	469.66	52.54	9.939		
5,900.00	5,865.65	5,865.47	5,761.25	26.43	27.81	13.92	1,100.02	-132.70	530.70	477.24	53.45	9.928		
6,000.00	5,964.97	5,965.11	5,858.91	26.88	28.29	13.93	1,119.65	-135.22	539.19	484.83	54.37	9.918		
6,100.00	6,064.29	6,064.75	5,956.56	27.33	28.77	13.94	1,139.27	-137.73	547.69	492.41	55.28	9.908		
6,200.00	6,163.62	6,164.39	6,054.22	27.78	29.25	13.95	1,158.89	-140.25	556.19	500.00	56.19	9.898		
6,300.00	6,262.94	6,264.02	6,151.87	28.23	29.73	13.96	1,178.52	-142.76	564.69	507.58	57.10	9.889		
6,400.00	6,362.24	6,363.65	6,249.51	28.67	30.21	32.11	1,198.14	-145.27	573.20	515.18	58.02	9.880		
6,500.00	6,460.41	6,462.43	6,346.32	29.12	30.68	64.32	1,217.59	-147.77	581.97	523.03	58.94	9.874		
6,600.00	6,555.09	6,558.06	6,440.05	29.57	31.14	75.96	1,236.43	-150.18	591.84	531.96	59.87	9.885		
6,700.00	6,643.94	6,659.57	6,539.22	30.00	31.63	82.97	1,256.32	-157.67	603.89	542.98	60.91	9.914		
6,800.00	6,724.78	6,771.09	6,645.38	30.45	32.16	87.99	1,277.49	-183.87	617.38	555.35	62.03	9.953		
6,900.00	6,795.62	6,892.15	6,753.65	30.97	32.71	91.91	1,298.92	-233.17	631.45	568.37	63.08	10.010		
7,000.00	6,854.70	7,024.02	6,858.87	31.60	33.27	95.09	1,319.56	-309.52	645.05	581.08	63.97	10.084		
7,100.00	6,900.58	7,167.23	6,953.07	32.39	33.92	97.59	1,337.77	-415.45	656.93	592.17	64.76	10.144		
7,200.00	6,932.13	7,320.87	7,025.66	33.34	34.88	99.34	1,351.43	-549.73	665.75	599.99	65.77	10.123		
7,300.00	6,948.57	7,481.91	7,065.69	34.46	36.37	100.22	1,358.40	-705.12	670.40	602.94	67.47	9.937		
7,400.00	6,950.87	7,614.94	7,070.87	35.70	37.91	100.30	1,358.52	-837.92	670.91	600.99	69.92	9.595		
7,500.00	6,950.58	7,714.94	7,070.58	37.12	39.25	100.30	1,357.77	-937.92	670.90	598.24	72.66	9.233		
7,600.00	6,950.28	7,814.94	7,070.30	38.70	40.76	100.31	1,357.02	-1,037.92	670.89	595.16	75.72	8.860		
7,700.00	6,949.98	7,914.94	7,070.01	40.41	42.40	100.31	1,356.26	-1,137.91	670.88	591.81	79.07	8.485		
7,800.00	6,949.68	8,014.94	7,069.73	42.25	44.17	100.31	1,355.51	-1,237.91	670.86	588.20	82.66	8.116		
7,900.00	6,949.38	8,114.94	7,069.44	44.20	46.05	100.31	1,354.76	-1,337.91	670.85	584.38	86.47	7.758		
8,000.00	6,949.08	8,214.94	7,069.16	46.24	48.03	100.31	1,354.01	-1,437.90	670.84	580.37	90.47	7.415		
8,100.00	6,948.79	8,314.94	7,068.87	48.36	50.09	100.31	1,353.26	-1,537.90	670.83	576.19	94.64	7.088		
8,200.00	6,948.49	8,414.94	7,068.59	50.56	52.23	100.31	1,352.50	-1,637.90	670.82	571.87	98.95	6.779		
8,300.00	6,948.19	8,514.94	7,068.30	52.82	54.44	100.32	1,351.75	-1,737.89	670.80	567.42	103.39	6.488		
8,400.00	6,947.89	8,614.94	7,068.02	55.14	56.70	100.32	1,351.00	-1,837.89	670.79	562.85	107.94	6.215		
8,500.00	6,947.59	8,714.94	7,067.73	57.50	59.02	100.32	1,350.25	-1,937.89	670.78	558.19	112.58	5.958		
8,600.00	6,947.29	8,814.94	7,067.45	59.91	61.38	100.32	1,349.49	-2,037.88	670.77	553.45	117.32	5.717		
8,700.00	6,947.00	8,914.94	7,067.16	62.36	63.78	100.32	1,348.74	-2,137.88	670.76	548.63	122.13	5.492		
8,800.00	6,946.70	9,014.94	7,066.88	64.84	66.22	100.32	1,347.99	-2,237.88	670.74	543.74	127.01	5.281		
8,900.00	6,946.40	9,114.94	7,066.59	67.35	68.69	100.32	1,347.24	-2,337.87	670.73	538.79	131.94	5.083		
9,000.00	6,946.10	9,214.94	7,066.31	69.88	71.19	100.32	1,346.48	-2,437.87	670.72	533.78	136.93	4.898		
9,100.00	6,945.80	9,314.94	7,066.02	72.44	73.72	100.33	1,345.73	-2,537.87	670.71	528.73	141.97	4.724		
9,200.00	6,945.50	9,414.94	7,065.74	75.02	76.27	100.33	1,344.98	-2,637.86	670.70	523.64	147.06	4.561		
9,300.00	6,945.21	9,514.94	7,065.46	77.63	78.84	100.33	1,344.23	-2,737.86	670.68	518.51	152.18	4.407		
9,400.00	6,944.91	9,614.94	7,065.17	80.24	81.43	100.33	1,343.47	-2,837.86	670.67	513.34	157.33	4.263		
9,500.00	6,944.61	9,714.94	7,064.89	82.88	84.03	100.33	1,342.72	-2,937.85	670.66	508.14	162.52	4.127		
9,600.00	6,944.31	9,814.94	7,064.60	85.53	86.66	100.33	1,341.97	-3,037.85	670.65	502.91	167.73	3.998		
9,700.00	6,944.01	9,914.94	7,064.32	88.19	89.30	100.33	1,341.22	-3,137.85	670.64	497.66	172.98	3.877		
9,800.00	6,943.71	10,014.94	7,064.03	90.86	91.95	100.34	1,340.46	-3,237.84	670.62	492.38	178.24	3.762		
9,900.00	6,943.42	10,114.94	7,063.75	93.55	94.61	100.34	1,339.71	-3,337.84	670.61	487.08	183.53	3.654		
10,000.00	6,943.12	10,214.94	7,063.46	96.24	97.28	100.34	1,338.96	-3,437.84	670.60	481.77	188.83	3.551		
10,100.00	6,942.82	10,314.94	7,063.18	98.95	99.97	100.34	1,338.21	-3,537.83	670.59	476.43	194.16	3.454		
10,200.00	6,942.52	10,414.94	7,062.89	101.66	102.66	100.34	1,337.45	-3,637.83	670.58	471.07	199.50	3.361		
10,300.00	6,942.22	10,514.94	7,062.61	104.38	105.36	100.34	1,336.70	-3,737.83	670.56	465.71	204.86	3.273		

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 4N-16A-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 4N-16A-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 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	6,941.92	10,614.94	7,062.32	107.11	108.08	100.34	1,335.95	-3,837.82	670.55	460.32	210.23	3.190		
10,500.00	6,941.63	10,714.94	7,062.04	109.84	110.79	100.35	1,335.20	-3,937.82	670.54	454.93	215.61	3.110		
10,600.00	6,941.33	10,814.94	7,061.75	112.58	113.52	100.35	1,334.44	-4,037.82	670.53	449.52	221.01	3.034		
10,700.00	6,941.03	10,914.94	7,061.47	115.33	116.25	100.35	1,333.69	-4,137.81	670.52	444.10	226.42	2.961		
10,800.00	6,940.73	11,014.94	7,061.18	118.08	118.99	100.35	1,332.94	-4,237.81	670.50	438.67	231.84	2.892		
10,900.00	6,940.43	11,114.94	7,060.90	120.84	121.73	100.35	1,332.19	-4,337.81	670.49	433.23	237.27	2.826		
11,000.00	6,940.13	11,214.94	7,060.61	123.60	124.48	100.35	1,331.43	-4,437.81	670.48	427.78	242.70	2.763		
11,100.00	6,939.83	11,314.94	7,060.33	126.36	127.23	100.35	1,330.68	-4,537.80	670.47	422.32	248.15	2.702		
11,200.00	6,939.54	11,414.94	7,060.04	129.13	129.99	100.35	1,329.93	-4,637.80	670.46	416.85	253.60	2.644		
11,300.00	6,939.24	11,514.94	7,059.76	131.91	132.75	100.36	1,329.18	-4,737.80	670.44	411.38	259.07	2.588		
11,400.00	6,938.94	11,614.94	7,059.48	134.68	135.52	100.36	1,328.42	-4,837.79	670.43	405.90	264.53	2.534		
11,500.00	6,938.64	11,714.94	7,059.19	137.46	138.29	100.36	1,327.67	-4,937.79	670.42	400.41	270.01	2.483		
11,600.00	6,938.34	11,814.94	7,058.91	140.25	141.06	100.36	1,326.92	-5,037.79	670.41	394.92	275.49	2.434		
11,700.00	6,938.04	11,914.94	7,058.62	143.03	143.83	100.36	1,326.17	-5,137.78	670.40	389.42	280.98	2.386		
11,800.00	6,937.75	12,014.94	7,058.34	145.82	146.61	100.36	1,325.41	-5,237.78	670.38	383.91	286.47	2.340		
11,900.00	6,937.45	12,114.94	7,058.05	148.61	149.40	100.36	1,324.66	-5,337.78	670.37	378.40	291.97	2.296		
12,000.00	6,937.15	12,214.94	7,057.77	151.41	152.18	100.37	1,323.91	-5,437.77	670.36	372.89	297.47	2.254		
12,100.00	6,936.85	12,314.94	7,057.48	154.20	154.97	100.37	1,323.16	-5,537.77	670.35	367.37	302.98	2.213		
12,200.00	6,936.55	12,414.94	7,057.20	157.00	157.76	100.37	1,322.40	-5,637.77	670.34	361.84	308.49	2.173		
12,300.00	6,936.25	12,514.94	7,056.91	159.80	160.55	100.37	1,321.65	-5,737.76	670.32	356.32	314.01	2.135		
12,400.00	6,935.96	12,614.94	7,056.63	162.61	163.35	100.37	1,320.90	-5,837.76	670.31	350.78	319.53	2.098		
12,500.00	6,935.66	12,714.94	7,056.34	165.41	166.15	100.37	1,320.15	-5,937.76	670.30	345.25	325.05	2.062		
12,600.00	6,935.36	12,814.94	7,056.06	168.22	168.95	100.37	1,319.40	-6,037.75	670.29	339.71	330.58	2.028		
12,700.00	6,935.06	12,914.94	7,055.77	171.02	171.75	100.38	1,318.64	-6,137.75	670.28	334.17	336.11	1.994		
12,800.00	6,934.76	13,014.94	7,055.49	173.83	174.55	100.38	1,317.89	-6,237.75	670.26	328.62	341.64	1.962		
12,900.00	6,934.46	13,114.94	7,055.20	176.65	177.35	100.38	1,317.14	-6,337.74	670.25	323.07	347.18	1.931		
13,000.00	6,934.17	13,214.94	7,054.92	179.46	180.16	100.38	1,316.39	-6,437.74	670.24	317.52	352.72	1.900		
13,100.00	6,933.87	13,314.94	7,054.63	182.27	182.97	100.38	1,315.63	-6,537.74	670.23	311.97	358.26	1.871		
13,200.00	6,933.57	13,414.94	7,054.35	185.09	185.78	100.38	1,314.88	-6,637.73	670.22	306.41	363.81	1.842		
13,300.00	6,933.27	13,514.94	7,054.06	187.91	188.59	100.38	1,314.13	-6,737.73	670.20	300.85	369.35	1.815		
13,400.00	6,932.97	13,614.94	7,053.78	190.72	191.40	100.38	1,313.38	-6,837.73	670.19	295.29	374.90	1.788		
13,500.00	6,932.67	13,714.94	7,053.50	193.54	194.22	100.39	1,312.62	-6,937.72	670.18	289.72	380.46	1.762		
13,600.00	6,932.38	13,814.94	7,053.21	196.36	197.03	100.39	1,311.87	-7,037.72	670.17	284.16	386.01	1.736		
13,700.00	6,932.08	13,914.94	7,052.93	199.19	199.85	100.39	1,311.12	-7,137.72	670.16	278.59	391.57	1.711		
13,800.00	6,931.78	14,014.94	7,052.64	202.01	202.67	100.39	1,310.37	-7,237.71	670.14	273.02	397.12	1.687		
13,900.00	6,931.48	14,114.94	7,052.36	204.83	205.48	100.39	1,309.61	-7,337.71	670.13	267.45	402.69	1.664		
14,000.00	6,931.18	14,214.94	7,052.07	207.66	208.30	100.39	1,308.86	-7,437.71	670.12	261.87	408.25	1.641		
14,100.00	6,930.88	14,314.94	7,051.79	210.48	211.13	100.39	1,308.11	-7,537.70	670.11	256.30	413.81	1.619		
14,200.00	6,930.59	14,414.94	7,051.50	213.31	213.95	100.40	1,307.36	-7,637.70	670.10	250.72	419.38	1.598		
14,300.00	6,930.29	14,514.94	7,051.22	216.14	216.77	100.40	1,306.60	-7,737.70	670.08	245.14	424.94	1.577		
14,400.00	6,929.99	14,614.94	7,050.93	218.96	219.59	100.40	1,305.85	-7,837.69	670.07	239.56	430.51	1.556		
14,500.00	6,929.69	14,714.94	7,050.65	221.79	222.42	100.40	1,305.10	-7,937.69	670.06	233.98	436.08	1.537		
14,600.00	6,929.39	14,814.94	7,050.36	224.62	225.24	100.40	1,304.35	-8,037.69	670.05	228.39	441.66	1.517		
14,700.00	6,929.09	14,914.94	7,050.08	227.45	228.07	100.40	1,303.59	-8,137.69	670.04	222.81	447.23	1.498 Level 3		
14,729.73	6,929.00	14,944.67	7,049.99	228.29	228.91	100.40	1,303.37	-8,167.41	670.03	221.15	448.88	1.493 Level 3		
14,732.12	6,929.00	14,942.37	7,050.00	228.36	228.85	100.40	1,303.39	-8,165.12	670.05	221.10	448.94	1.492 Level 3, SF		



Anticollision Report



Company:	SRC ENERGY	Local Co-ordinate Reference:	Well HARVESTERS STATE 4N-16A-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 4N-16A-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 STATE 31C-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	-179.20	-20.04	-0.28	20.04					
100.00	100.00	100.00	100.00	3.28	3.28	-179.20	-20.04	-0.28	20.04	13.47	6.57	3.050		
200.00	200.00	200.00	200.00	3.34	3.34	-179.20	-20.04	-0.28	20.04	13.36	6.67	3.002		
300.00	300.00	300.00	300.00	3.44	3.44	-179.20	-20.04	-0.28	20.04	13.15	6.89	2.908		
400.00	400.00	400.00	400.00	3.60	3.60	-179.20	-20.04	-0.28	20.04	12.83	7.21	2.781		
500.00	500.00	500.00	500.00	3.81	3.81	-179.20	-20.04	-0.28	20.04	12.43	7.61	2.633		
600.00	600.00	600.00	600.00	4.05	4.05	-179.20	-20.04	-0.28	20.04	11.95	8.09	2.476 CC		
700.00	699.98	700.64	700.62	4.32	4.32	-164.94	-18.41	-0.97	20.12	11.48	8.64	2.329		
800.00	799.84	801.20	801.03	4.62	4.62	-162.65	-13.56	-3.01	20.43	11.18	9.24	2.210 ES		
900.00	899.45	901.16	900.78	4.94	4.94	-161.75	-7.52	-5.57	22.90	13.02	9.88	2.317		
1,000.00	998.80	1,001.03	1,000.44	5.28	5.28	-162.84	-1.49	-8.11	27.96	17.40	10.56	2.648		
1,100.00	1,098.12	1,100.89	1,100.08	5.63	5.63	-163.70	4.55	-10.66	33.21	21.95	11.26	2.949		
1,200.00	1,197.44	1,200.75	1,199.73	6.00	5.99	-164.32	10.58	-13.21	38.47	26.48	11.99	3.209		
1,300.00	1,296.77	1,300.61	1,299.38	6.37	6.36	-164.79	16.61	-15.76	43.73	30.99	12.74	3.433		
1,400.00	1,396.09	1,400.47	1,399.02	6.76	6.74	-165.17	22.64	-18.31	49.00	35.49	13.51	3.628		
1,500.00	1,495.41	1,500.34	1,498.67	7.15	7.13	-165.46	28.68	-20.85	54.26	39.98	14.29	3.798		
1,600.00	1,594.74	1,600.20	1,598.31	7.55	7.52	-165.71	34.71	-23.40	59.53	44.45	15.08	3.947		
1,700.00	1,694.06	1,700.06	1,697.96	7.96	7.92	-165.92	40.74	-25.95	64.80	48.91	15.89	4.079		
1,800.00	1,793.38	1,800.08	1,797.61	8.37	8.33	-166.09	46.77	-28.50	70.07	53.37	16.70	4.196		
1,900.00	1,892.71	1,900.22	1,897.25	8.78	8.74	-166.24	52.81	-31.05	75.34	57.81	17.52	4.299		
2,000.00	1,992.03	2,000.36	1,996.90	9.20	9.15	-166.37	58.84	-33.59	80.61	62.26	18.35	4.392		
2,100.00	2,091.36	2,100.50	2,096.54	9.62	9.56	-166.49	64.87	-36.14	85.88	66.69	19.19	4.476		
2,200.00	2,190.68	2,200.64	2,196.19	10.05	9.98	-166.59	70.90	-38.69	91.15	71.12	20.03	4.551		
2,300.00	2,290.00	2,300.78	2,295.83	10.48	10.40	-166.68	76.94	-41.24	96.42	75.55	20.87	4.620		
2,400.00	2,389.33	2,400.92	2,395.48	10.90	10.82	-166.76	82.97	-43.79	101.69	79.97	21.72	4.682		
2,500.00	2,488.65	2,501.06	2,495.13	11.34	11.24	-166.83	89.00	-46.34	106.96	84.39	22.57	4.739		
2,600.00	2,587.97	2,601.19	2,594.77	11.77	11.67	-166.90	95.03	-48.88	112.23	88.81	23.43	4.791		
2,700.00	2,687.30	2,701.33	2,694.42	12.20	12.09	-166.96	101.07	-51.43	117.50	93.22	24.28	4.839		
2,800.00	2,786.62	2,801.47	2,794.06	12.64	12.52	-167.02	107.10	-53.98	122.78	97.63	25.14	4.883		
2,900.00	2,885.94	2,901.61	2,893.71	13.07	12.95	-167.07	113.13	-56.53	128.05	102.04	26.01	4.924		
3,000.00	2,985.27	3,001.75	2,993.36	13.51	13.38	-167.11	119.16	-59.08	133.32	106.45	26.87	4.961		
3,100.00	3,084.59	3,101.89	3,093.00	13.95	13.81	-167.16	125.20	-61.62	138.59	110.85	27.74	4.997		
3,200.00	3,183.91	3,202.03	3,192.65	14.39	14.24	-167.20	131.23	-64.17	143.86	115.26	28.61	5.029		
3,300.00	3,283.24	3,302.17	3,292.29	14.83	14.67	-167.23	137.26	-66.72	149.14	119.66	29.48	5.060		
3,400.00	3,382.56	3,402.31	3,391.94	15.27	15.10	-167.27	143.29	-69.27	154.41	124.06	30.35	5.088		
3,500.00	3,481.88	3,502.45	3,491.59	15.71	15.53	-167.30	149.33	-71.82	159.68	128.46	31.22	5.115		
3,600.00	3,581.21	3,602.59	3,591.23	16.16	15.97	-167.33	155.36	-74.36	164.95	132.86	32.09	5.140		
3,700.00	3,680.53	3,702.73	3,690.88	16.60	16.40	-167.36	161.39	-76.91	170.22	137.26	32.97	5.164		
3,800.00	3,779.85	3,802.86	3,790.52	17.04	16.84	-167.39	167.42	-79.46	175.50	141.65	33.84	5.186		
3,900.00	3,879.18	3,903.00	3,890.17	17.49	17.27	-167.41	173.46	-82.01	180.77	146.05	34.72	5.207		
4,000.00	3,978.50	4,003.14	3,989.82	17.93	17.71	-167.43	179.49	-84.56	186.04	150.44	35.60	5.226		
4,100.00	4,077.82	4,103.28	4,089.46	18.37	18.14	-167.46	185.52	-87.10	191.31	154.84	36.47	5.245		
4,200.00	4,177.15	4,203.42	4,189.11	18.82	18.58	-167.48	191.55	-89.65	196.59	159.23	37.35	5.263		
4,300.00	4,276.47	4,303.56	4,288.75	19.27	19.01	-167.50	197.59	-92.20	201.86	163.62	38.23	5.280		
4,400.00	4,375.79	4,396.30	4,388.40	19.71	19.42	-167.52	203.62	-94.75	207.13	168.05	39.08	5.300		
4,500.00	4,475.12	4,503.84	4,488.05	20.16	19.89	-167.53	209.65	-97.30	212.40	172.41	39.99	5.311		
4,600.00	4,574.44	4,596.02	4,587.69	20.60	20.29	-167.55	215.68	-99.85	217.68	176.83	40.84	5.330		
4,700.00	4,673.76	4,704.12	4,687.34	21.05	20.76	-167.57	221.72	-102.39	222.95	181.19	41.76	5.339		
4,800.00	4,773.09	4,804.26	4,786.98	21.50	21.20	-167.58	227.75	-104.94	228.22	185.58	42.64	5.352		
4,900.00	4,872.41	4,904.39	4,886.63	21.94	21.64	-167.60	233.78	-107.49	233.49	189.97	43.52	5.365		
5,000.00	4,971.74	5,004.53	4,986.28	22.39	22.08	-167.61	239.81	-110.04	238.77	194.36	44.41	5.377		
5,100.00	5,071.06	5,104.67	5,085.92	22.84	22.52	-167.63	245.85	-112.59	244.04	198.75	45.29	5.388		

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 4N-16A-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 4N-16A-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 STATE 31C-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	5,170.38	5,204.81	5,185.57	23.29	22.95	-167.64	251.88	-115.13	249.31	203.14	46.17	5.399		
5,300.00	5,269.71	5,304.95	5,285.21	23.74	23.39	-167.65	257.91	-117.68	254.58	207.52	47.06	5.410		
5,400.00	5,369.03	5,405.09	5,384.86	24.18	23.83	-167.66	263.94	-120.23	259.86	211.91	47.94	5.420		
5,500.00	5,468.35	5,505.23	5,484.50	24.63	24.27	-167.68	269.98	-122.78	265.13	216.30	48.83	5.430		
5,600.00	5,567.68	5,605.37	5,584.15	25.08	24.71	-167.69	276.01	-125.33	270.40	220.69	49.72	5.439		
5,700.00	5,667.00	5,705.51	5,683.80	25.53	25.15	-167.70	282.04	-127.87	275.67	225.07	50.60	5.448		
5,800.00	5,766.32	5,805.65	5,783.44	25.98	25.59	-167.71	288.07	-130.42	280.95	229.46	51.49	5.457		
5,900.00	5,865.65	5,894.21	5,883.09	26.43	25.98	-167.72	294.11	-132.97	286.22	233.90	52.32	5.470		
6,000.00	5,964.97	6,005.92	5,982.73	26.88	26.47	-167.73	300.14	-135.52	291.49	238.23	53.26	5.473		
6,100.00	6,064.29	6,106.06	6,082.38	27.33	26.91	-167.74	306.17	-138.07	296.76	242.62	54.15	5.481		
6,200.00	6,163.62	6,206.20	6,182.03	27.78	27.35	-167.75	312.20	-140.62	302.04	247.00	55.03	5.488		
6,300.00	6,262.94	6,306.34	6,281.67	28.23	27.79	-167.75	318.24	-143.16	307.31	251.39	55.92	5.495		
6,400.00	6,362.24	6,406.49	6,381.31	28.67	28.23	-149.44	324.27	-145.71	312.59	255.78	56.81	5.502		
6,500.00	6,460.41	6,507.48	6,480.10	29.12	28.67	-119.29	330.25	-148.24	318.23	260.54	57.69	5.516		
6,600.00	6,555.09	6,588.40	6,575.78	29.57	29.03	-113.25	336.04	-150.68	325.89	267.41	58.48	5.573		
6,700.00	6,643.94	6,684.12	6,671.25	30.00	29.45	-114.32	341.83	-154.22	338.65	279.32	59.33	5.708		
6,800.00	6,724.78	6,793.37	6,778.58	30.45	29.93	-117.81	348.42	-172.69	356.12	296.02	60.09	5.926		
6,900.00	6,795.62	6,913.64	6,891.16	30.97	30.47	-121.75	355.46	-213.91	376.29	315.96	60.34	6.237		
7,000.00	6,854.70	7,047.17	7,004.58	31.60	31.08	-125.60	362.72	-283.53	397.08	337.42	59.66	6.655		
7,100.00	6,900.58	7,195.64	7,110.58	32.39	31.88	-129.00	369.73	-386.77	416.01	358.01	57.99	7.174		
7,200.00	6,932.13	7,358.93	7,196.16	33.34	33.02	-131.64	375.71	-525.19	430.43	374.44	55.99	7.687		
7,300.00	6,948.57	7,533.70	7,245.71	34.46	34.71	-133.20	379.69	-692.17	437.98	382.69	55.29	7.921		
7,400.00	6,950.87	7,677.43	7,252.83	35.70	36.44	-133.57	380.96	-835.52	438.16	381.17	56.99	7.689		
7,500.00	6,950.58	7,777.42	7,252.47	37.12	37.84	-133.68	381.53	-935.51	437.17	378.02	59.15	7.391		
7,600.00	6,950.28	7,877.41	7,252.10	38.70	39.39	-133.79	382.10	-1,035.50	436.18	374.66	61.52	7.090		
7,700.00	6,949.98	7,977.40	7,251.73	40.41	41.08	-133.90	382.66	-1,135.49	435.19	371.10	64.09	6.790		
7,800.00	6,949.68	8,077.39	7,251.37	42.25	42.89	-134.02	383.23	-1,235.48	434.21	367.38	66.83	6.498		
7,900.00	6,949.38	8,177.38	7,251.00	44.20	44.82	-134.13	383.80	-1,335.46	433.22	363.51	69.71	6.215		
8,000.00	6,949.08	8,277.37	7,250.64	46.24	46.84	-134.24	384.36	-1,435.45	432.24	359.52	72.72	5.944		
8,100.00	6,948.79	8,377.37	7,250.27	48.36	48.94	-134.36	384.93	-1,535.44	431.26	355.43	75.83	5.687		
8,200.00	6,948.49	8,477.36	7,249.90	50.56	51.12	-134.47	385.50	-1,635.43	430.28	351.24	79.04	5.444		
8,300.00	6,948.19	8,577.35	7,249.54	52.82	53.37	-134.59	386.06	-1,735.42	429.30	346.97	82.33	5.214		
8,400.00	6,947.89	8,677.34	7,249.17	55.14	55.67	-134.71	386.63	-1,835.41	428.33	342.63	85.69	4.998		
8,500.00	6,947.59	8,777.33	7,248.81	57.50	58.02	-134.82	387.20	-1,935.40	427.35	338.24	89.11	4.796		
8,600.00	6,947.29	8,877.32	7,248.44	59.91	60.41	-134.94	387.76	-2,035.39	426.38	333.80	92.58	4.606		
8,700.00	6,947.00	8,977.31	7,248.07	62.36	62.84	-135.06	388.33	-2,135.38	425.41	329.32	96.09	4.427		
8,800.00	6,946.70	9,077.31	7,247.71	64.84	65.31	-135.17	388.90	-2,235.37	424.44	324.80	99.64	4.260		
8,900.00	6,946.40	9,177.30	7,247.34	67.35	67.81	-135.29	389.46	-2,335.36	423.47	320.25	103.22	4.103		
9,000.00	6,946.10	9,277.29	7,246.97	69.88	70.34	-135.41	390.03	-2,435.35	422.51	315.68	106.82	3.955		
9,100.00	6,945.80	9,377.28	7,246.61	72.44	72.89	-135.53	390.60	-2,535.33	421.54	311.09	110.45	3.817		
9,200.00	6,945.50	9,477.27	7,246.24	75.02	75.46	-135.65	391.16	-2,635.32	420.58	306.49	114.09	3.686		
9,300.00	6,945.21	9,577.26	7,245.88	77.63	78.06	-135.77	391.73	-2,735.31	419.62	301.87	117.75	3.564		
9,400.00	6,944.91	9,677.25	7,245.51	80.24	80.67	-135.90	392.30	-2,835.30	418.67	297.25	121.42	3.448		
9,500.00	6,944.61	9,777.25	7,245.14	82.88	83.30	-136.02	392.87	-2,935.29	417.71	292.61	125.10	3.339		
9,600.00	6,944.31	9,877.24	7,244.78	85.53	85.94	-136.14	393.43	-3,035.28	416.76	287.97	128.78	3.236		
9,700.00	6,944.01	9,977.23	7,244.41	88.19	88.60	-136.26	394.00	-3,135.27	415.80	283.33	132.47	3.139		
9,800.00	6,943.71	10,077.22	7,244.05	90.86	91.27	-136.39	394.57	-3,235.26	414.85	278.69	136.16	3.047		
9,900.00	6,943.42	10,177.21	7,243.68	93.55	93.95	-136.51	395.13	-3,335.25	413.91	274.05	139.85	2.960		
10,000.00	6,943.12	10,277.20	7,243.31	96.24	96.64	-136.64	395.70	-3,435.24	412.96	269.42	143.54	2.877		
10,100.00	6,942.82	10,377.19	7,242.95	98.95	99.34	-136.76	396.27	-3,535.23	412.02	264.78	147.23	2.798		
10,200.00	6,942.52	10,477.19	7,242.58	101.66	102.05	-136.89	396.83	-3,635.22	411.07	260.16	150.92	2.724		
10,300.00	6,942.22	10,577.18	7,242.21	104.38	104.77	-137.01	397.40	-3,735.21	410.13	255.54	154.60	2.653		

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 4N-16A-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 4N-16A-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 STATE 31C-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	6,941.92	10,677.17	7,241.85	107.11	107.50	-137.14	397.97	-3,835.19	409.20	250.93	158.27	2.585		
10,500.00	6,941.63	10,777.16	7,241.48	109.84	110.23	-137.27	398.53	-3,935.18	408.26	246.32	161.94	2.521		
10,600.00	6,941.33	10,877.15	7,241.12	112.58	112.97	-137.40	399.10	-4,035.17	407.32	241.73	165.60	2.460		
10,700.00	6,941.03	10,977.14	7,240.75	115.33	115.71	-137.53	399.67	-4,135.16	406.39	237.15	169.25	2.401		
10,800.00	6,940.73	11,077.14	7,240.38	118.08	118.46	-137.66	400.23	-4,235.15	405.46	232.57	172.89	2.345		
10,900.00	6,940.43	11,177.13	7,240.02	120.84	121.22	-137.79	400.80	-4,335.14	404.53	228.02	176.52	2.292		
11,000.00	6,940.13	11,277.12	7,239.65	123.60	123.98	-137.92	401.37	-4,435.13	403.61	223.47	180.14	2.241		
11,100.00	6,939.83	11,377.11	7,239.29	126.36	126.74	-138.05	401.93	-4,535.12	402.69	218.94	183.75	2.191		
11,200.00	6,939.54	11,477.10	7,238.92	129.13	129.51	-138.18	402.50	-4,635.11	401.76	214.42	187.35	2.144		
11,300.00	6,939.24	11,577.09	7,238.55	131.91	132.29	-138.31	403.07	-4,735.10	400.84	209.91	190.93	2.099		
11,400.00	6,938.94	11,677.08	7,238.19	134.68	135.06	-138.44	403.64	-4,835.09	399.93	205.42	194.50	2.056		
11,500.00	6,938.64	11,777.08	7,237.82	137.46	137.84	-138.58	404.20	-4,935.08	399.01	200.95	198.06	2.015		
11,600.00	6,938.34	11,877.07	7,237.45	140.25	140.63	-138.71	404.77	-5,035.06	398.10	196.49	201.61	1.975		
11,700.00	6,938.04	11,977.06	7,237.09	143.03	143.41	-138.85	405.34	-5,135.05	397.19	192.05	205.14	1.936		
11,800.00	6,937.75	12,077.05	7,236.72	145.82	146.20	-138.98	405.90	-5,235.04	396.28	187.63	208.65	1.899		
11,900.00	6,937.45	12,177.04	7,236.36	148.61	148.99	-139.12	406.47	-5,335.03	395.37	183.22	212.15	1.864		
12,000.00	6,937.15	12,277.03	7,235.99	151.41	151.79	-139.26	407.04	-5,435.02	394.47	178.83	215.63	1.829		
12,100.00	6,936.85	12,377.02	7,235.62	154.20	154.59	-139.39	407.60	-5,535.01	393.57	174.46	219.10	1.796		
12,200.00	6,936.55	12,477.02	7,235.26	157.00	157.39	-139.53	408.17	-5,635.00	392.67	170.11	222.55	1.764		
12,300.00	6,936.25	12,577.01	7,234.89	159.80	160.19	-139.67	408.74	-5,734.99	391.77	165.78	225.99	1.734		
12,400.00	6,935.96	12,677.00	7,234.53	162.61	162.99	-139.81	409.30	-5,834.98	390.88	161.47	229.41	1.704		
12,500.00	6,935.66	12,776.99	7,234.16	165.41	165.80	-139.95	409.87	-5,934.97	389.98	157.18	232.81	1.675		
12,600.00	6,935.36	12,876.98	7,233.79	168.22	168.61	-140.09	410.44	-6,034.96	389.09	152.90	236.19	1.647		
12,700.00	6,935.06	12,976.97	7,233.43	171.02	171.42	-140.23	411.00	-6,134.95	388.21	148.65	239.55	1.621		
12,800.00	6,934.76	13,076.96	7,233.06	173.83	174.23	-140.37	411.57	-6,234.93	387.32	144.42	242.90	1.595		
12,900.00	6,934.46	13,176.96	7,232.69	176.65	177.04	-140.52	412.14	-6,334.92	386.44	140.21	246.23	1.569		
13,000.00	6,934.17	13,276.95	7,232.33	179.46	179.86	-140.66	412.70	-6,434.91	385.56	136.02	249.53	1.545		
13,100.00	6,933.87	13,376.94	7,231.96	182.27	182.67	-140.80	413.27	-6,534.90	384.68	131.85	252.82	1.522		
13,200.00	6,933.57	13,476.93	7,231.60	185.09	185.49	-140.95	413.84	-6,634.89	383.80	127.71	256.09	1.499 Level 3		
13,300.00	6,933.27	13,576.92	7,231.23	187.91	188.31	-141.09	414.40	-6,734.88	382.93	123.58	259.34	1.477 Level 3		
13,400.00	6,932.97	13,676.91	7,230.86	190.72	191.13	-141.24	414.97	-6,834.87	382.06	119.48	262.57	1.455 Level 3		
13,500.00	6,932.67	13,776.90	7,230.50	193.54	193.95	-141.39	415.54	-6,934.86	381.19	115.41	265.78	1.434 Level 3		
13,600.00	6,932.38	13,876.90	7,230.13	196.36	196.77	-141.53	416.11	-7,034.85	380.32	111.35	268.97	1.414 Level 3		
13,700.00	6,932.08	13,976.89	7,229.76	199.19	199.60	-141.68	416.67	-7,134.84	379.46	107.32	272.14	1.394 Level 3		
13,800.00	6,931.78	14,076.88	7,229.40	202.01	202.42	-141.83	417.24	-7,234.83	378.60	103.31	275.29	1.375 Level 3		
13,900.00	6,931.48	14,176.87	7,229.03	204.83	205.25	-141.98	417.81	-7,334.82	377.74	99.33	278.41	1.357 Level 3		
14,000.00	6,931.18	14,276.86	7,228.67	207.66	208.07	-142.13	418.37	-7,434.81	376.88	95.37	281.51	1.339 Level 3		
14,100.00	6,930.88	14,376.85	7,228.30	210.48	210.90	-142.28	418.94	-7,534.79	376.03	91.43	284.60	1.321 Level 3		
14,200.00	6,930.59	14,476.85	7,227.93	213.31	213.73	-142.43	419.51	-7,634.78	375.18	87.52	287.66	1.304 Level 3		
14,300.00	6,930.29	14,576.84	7,227.57	216.14	216.56	-142.58	420.07	-7,734.77	374.33	83.64	290.69	1.288 Level 3		
14,400.00	6,929.99	14,676.83	7,227.20	218.96	219.39	-142.73	420.64	-7,834.76	373.49	79.78	293.71	1.272 Level 3		
14,500.00	6,929.69	14,776.82	7,226.84	221.79	222.22	-142.89	421.21	-7,934.75	372.64	75.94	296.70	1.256 Level 3		
14,600.00	6,929.39	14,876.81	7,226.47	224.62	225.05	-143.04	421.77	-8,034.74	371.80	72.13	299.67	1.241 Level 2		
14,700.00	6,929.09	14,976.80	7,226.10	227.45	227.89	-143.20	422.34	-8,134.73	370.97	68.35	302.62	1.226 Level 2		
14,732.12	6,929.00	15,008.92	7,225.99	228.36	228.80	-143.25	422.52	-8,166.85	370.70	67.14	303.56	1.221 Level 2, SF		



Anticollision Report



Company:	SRC ENERGY	Local Co-ordinate Reference:	Well HARVESTERS STATE 4N-16A-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 4N-16A-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 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	-179.50	-319.86	-2.78	319.88					
100.00	100.00	101.00	100.00	3.28	3.28	-179.50	-319.86	-2.78	319.88	313.31	6.57	48.690		
200.00	200.00	199.00	200.00	3.34	3.34	-179.50	-319.86	-2.78	319.88	313.20	6.67	47.934 CC, ES		
300.00	300.00	289.05	290.04	3.44	3.43	-179.48	-321.24	-2.90	321.41	314.53	6.88	46.716		
400.00	400.00	378.83	379.71	3.60	3.56	-179.43	-325.42	-3.24	326.07	318.88	7.19	45.353		
500.00	500.00	468.26	468.86	3.81	3.72	-179.34	-332.37	-3.82	333.85	326.26	7.59	43.997		
600.00	600.00	557.16	557.24	4.05	3.93	-179.23	-342.02	-4.62	344.72	336.66	8.06	42.776		
700.00	699.98	645.13	644.35	4.32	4.16	-165.60	-354.26	-5.64	360.32	351.73	8.59	41.953		
800.00	799.84	731.53	729.49	4.62	4.41	-165.51	-368.86	-6.86	382.22	373.05	9.16	41.713		
900.00	899.45	815.88	812.14	4.94	4.69	-165.47	-385.58	-8.25	410.27	400.51	9.76	42.033		
1,000.00	998.80	897.96	892.07	5.28	4.99	-165.56	-404.18	-9.79	443.59	433.22	10.37	42.789		
1,100.00	1,098.12	978.29	969.75	5.63	5.31	-165.67	-424.57	-11.49	479.73	468.76	10.97	43.731		
1,200.00	1,197.44	1,068.58	1,056.63	6.00	5.69	-165.77	-449.10	-13.53	517.58	505.96	11.61	44.567		
1,300.00	1,296.77	1,161.13	1,145.66	6.37	6.09	-165.85	-474.26	-15.62	555.46	543.17	12.29	45.188		
1,400.00	1,396.09	1,253.67	1,234.69	6.76	6.51	-165.92	-499.43	-17.71	593.34	580.35	13.00	45.657		
1,500.00	1,495.41	1,346.22	1,323.72	7.15	6.95	-165.99	-524.59	-19.81	631.22	617.51	13.72	46.010		
1,600.00	1,594.74	1,438.76	1,412.76	7.55	7.39	-166.04	-549.76	-21.90	669.11	654.65	14.46	46.270		
1,700.00	1,694.06	1,531.30	1,501.79	7.96	7.84	-166.09	-574.92	-23.99	706.99	691.77	15.22	46.459		
1,800.00	1,793.38	1,623.85	1,590.82	8.37	8.30	-166.14	-600.09	-26.09	744.88	728.89	15.99	46.593		
1,900.00	1,892.71	1,716.39	1,679.85	8.78	8.76	-166.18	-625.26	-28.18	782.76	765.99	16.77	46.683		
2,000.00	1,992.03	1,808.94	1,768.89	9.20	9.23	-166.22	-650.42	-30.27	820.65	803.09	17.56	46.740		
2,100.00	2,091.36	1,901.48	1,857.92	9.62	9.71	-166.25	-675.59	-32.36	858.53	840.18	18.36	46.770		
2,200.00	2,190.68	2,005.97	1,946.95	10.05	10.25	-166.28	-700.75	-34.46	896.42	877.20	19.22	46.647		
2,300.00	2,290.00	2,086.57	2,035.98	10.48	10.66	-166.31	-725.92	-36.55	934.30	914.33	19.97	46.775		
2,400.00	2,389.33	2,179.12	2,125.02	10.90	11.15	-166.34	-751.08	-38.64	972.19	951.40	20.79	46.757		
2,500.00	2,488.65	2,271.66	2,214.05	11.34	11.63	-166.36	-776.25	-40.74	1,010.08	988.46	21.62	46.729		
2,600.00	2,587.97	2,364.21	2,303.08	11.77	12.12	-166.38	-801.41	-42.83	1,047.96	1,025.52	22.44	46.694		
2,700.00	2,687.30	2,456.75	2,392.11	12.20	12.61	-166.40	-826.58	-44.92	1,085.85	1,062.57	23.27	46.654		
2,800.00	2,786.62	2,549.29	2,481.15	12.64	13.10	-166.42	-851.75	-47.01	1,123.73	1,099.62	24.11	46.609		
2,900.00	2,885.94	2,641.84	2,570.18	13.07	13.60	-166.44	-876.91	-49.11	1,161.62	1,136.67	24.95	46.562		
3,000.00	2,985.27	2,734.38	2,659.21	13.51	14.09	-166.46	-902.08	-51.20	1,199.51	1,173.72	25.79	46.512		
3,100.00	3,084.59	2,826.93	2,748.25	13.95	14.59	-166.47	-927.24	-53.29	1,237.39	1,210.76	26.63	46.461		
3,200.00	3,183.91	2,919.47	2,837.28	14.39	15.08	-166.49	-952.41	-55.39	1,275.28	1,247.80	27.48	46.409		
3,300.00	3,283.24	3,012.02	2,926.31	14.83	15.58	-166.50	-977.57	-57.48	1,313.17	1,284.84	28.33	46.356		
3,400.00	3,382.56	3,104.56	3,015.34	15.27	16.08	-166.52	-1,002.74	-59.57	1,351.06	1,321.88	29.18	46.303		
3,500.00	3,481.88	3,197.11	3,104.38	15.71	16.58	-166.53	-1,027.90	-61.66	1,388.94	1,358.91	30.03	46.251		
3,600.00	3,581.21	3,289.65	3,193.41	16.16	17.08	-166.54	-1,053.07	-63.76	1,426.83	1,395.95	30.88	46.199		
3,700.00	3,680.53	3,382.20	3,282.44	16.60	17.58	-166.55	-1,078.23	-65.85	1,464.72	1,432.98	31.74	46.147		
3,800.00	3,779.85	3,474.74	3,371.47	17.04	18.08	-166.56	-1,103.40	-67.94	1,502.60	1,470.01	32.60	46.096		
3,900.00	3,879.18	3,567.28	3,460.51	17.49	18.58	-166.57	-1,128.57	-70.03	1,540.49	1,507.04	33.46	46.046		
4,000.00	3,978.50	3,659.83	3,549.54	17.93	19.09	-166.58	-1,153.73	-72.13	1,578.38	1,544.06	34.32	45.997		
4,100.00	4,077.82	3,752.37	3,638.57	18.37	19.59	-166.59	-1,178.90	-74.22	1,616.27	1,581.09	35.18	45.948		
4,200.00	4,177.15	3,844.92	3,727.60	18.82	20.09	-166.60	-1,204.06	-76.31	1,654.15	1,618.12	36.04	45.901		
4,300.00	4,276.47	3,937.46	3,816.64	19.27	20.60	-166.61	-1,229.23	-78.41	1,692.04	1,655.14	36.90	45.854		
4,400.00	4,375.79	4,030.01	3,905.67	19.71	21.10	-166.62	-1,254.39	-80.50	1,729.93	1,692.16	37.76	45.809		
4,500.00	4,475.12	4,122.55	3,994.70	20.16	21.61	-166.63	-1,279.56	-82.59	1,767.82	1,729.19	38.63	45.764		
4,600.00	4,574.44	4,215.10	4,083.73	20.60	22.11	-166.63	-1,304.72	-84.68	1,805.70	1,766.21	39.49	45.721		
4,700.00	4,673.76	4,307.64	4,172.77	21.05	22.62	-166.64	-1,329.89	-86.78	1,843.59	1,803.23	40.36	45.678		
4,800.00	4,773.09	4,400.19	4,261.80	21.50	23.12	-166.65	-1,355.06	-88.87	1,881.48	1,840.25	41.23	45.637		
4,900.00	4,872.41	4,507.27	4,350.83	21.94	23.71	-166.66	-1,380.22	-90.96	1,919.37	1,877.20	42.17	45.519		
5,000.00	4,971.74	4,585.27	4,439.87	22.39	24.13	-166.66	-1,405.39	-93.06	1,957.25	1,914.29	42.96	45.556		
5,100.00	5,071.06	4,677.82	4,528.90	22.84	24.64	-166.67	-1,430.55	-95.15	1,995.14	1,951.31	43.83	45.518		

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 4N-16A-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 4N-16A-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 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	5,170.38	4,770.36	4,617.93	23.29	25.15	-166.67	-1,455.72	-97.24	2,033.03	1,988.33	44.70	45.480		
5,300.00	5,269.71	4,862.91	4,706.96	23.74	25.65	-166.68	-1,480.88	-99.33	2,070.92	2,025.34	45.57	45.443		
5,400.00	5,369.03	4,955.45	4,796.00	24.18	26.16	-166.68	-1,506.05	-101.43	2,108.80	2,062.36	46.44	45.406		
5,500.00	5,468.35	5,048.00	4,885.03	24.63	26.67	-166.69	-1,531.21	-103.52	2,146.69	2,099.38	47.31	45.371		
5,600.00	5,567.68	5,140.54	4,974.06	25.08	27.17	-166.70	-1,556.38	-105.61	2,184.58	2,136.39	48.19	45.337		
5,700.00	5,667.00	5,233.09	5,063.09	25.53	27.68	-166.70	-1,581.54	-107.71	2,222.47	2,173.41	49.06	45.303		
5,800.00	5,766.32	5,325.63	5,152.13	25.98	28.19	-166.70	-1,606.71	-109.80	2,260.36	2,210.42	49.93	45.270		
5,900.00	5,865.65	5,418.17	5,241.16	26.43	28.70	-166.71	-1,631.88	-111.89	2,298.24	2,247.44	50.80	45.237		
6,000.00	5,964.97	5,510.72	5,330.19	26.88	29.21	-166.71	-1,657.04	-113.98	2,336.13	2,284.45	51.68	45.206		
6,100.00	6,064.29	5,603.26	5,419.22	27.33	29.71	-166.72	-1,682.21	-116.08	2,374.02	2,321.47	52.55	45.175		
6,200.00	6,163.62	5,704.19	5,508.26	27.78	30.27	-166.72	-1,707.37	-118.17	2,411.91	2,358.44	53.47	45.110		
6,300.00	6,262.94	5,788.35	5,597.29	28.23	30.73	-166.73	-1,732.54	-120.26	2,449.79	2,395.49	54.30	45.115		
6,400.00	6,362.24	5,880.89	5,686.31	28.67	31.24	-147.44	-1,757.70	-122.36	2,487.68	2,432.50	55.18	45.086		
6,500.00	6,460.41	5,972.66	5,774.60	29.12	31.74	-112.28	-1,782.66	-124.43	2,525.22	2,469.17	56.05	45.052		
6,600.00	6,555.09	6,061.55	5,860.12	29.57	32.23	-99.42	-1,806.83	-126.44	2,561.77	2,504.86	56.91	45.012		
6,700.00	6,643.94	6,145.37	5,940.76	30.00	32.69	-92.51	-1,829.62	-128.34	2,596.89	2,539.13	57.75	44.965		
6,800.00	6,724.78	6,222.06	6,014.54	30.45	33.11	-87.98	-1,850.48	-130.07	2,630.36	2,571.78	58.58	44.902		
6,900.00	6,795.62	6,289.73	6,079.64	30.97	33.49	-84.65	-1,868.88	-131.60	2,662.13	2,602.72	59.41	44.808		
7,000.00	6,854.70	6,346.72	6,134.46	31.60	33.80	-81.99	-1,884.37	-132.89	2,692.24	2,631.96	60.28	44.663		
7,100.00	6,900.58	6,408.39	6,177.65	32.39	34.14	-79.71	-1,896.58	-133.90	2,720.71	2,659.41	61.29	44.389		
7,200.00	6,932.13	6,423.30	6,208.15	33.34	34.22	-77.62	-1,905.20	-134.62	2,747.51	2,685.30	62.21	44.164		
7,300.00	6,948.57	6,441.03	6,225.19	34.46	34.32	-75.63	-1,910.02	-135.02	2,772.52	2,709.25	63.27	43.817		
7,400.00	6,950.87	6,445.63	6,229.62	35.70	34.34	-74.54	-1,911.27	-135.13	2,795.95	2,731.58	64.37	43.435		
7,500.00	6,950.58	6,447.80	6,231.71	37.12	34.36	-74.58	-1,911.86	-135.18	2,821.80	2,756.22	65.58	43.029		
7,600.00	6,950.28	6,449.98	6,233.81	38.70	34.37	-74.63	-1,912.45	-135.22	2,850.92	2,784.03	66.89	42.621		
7,700.00	6,949.98	6,452.15	6,235.90	40.41	34.38	-74.68	-1,913.04	-135.27	2,883.21	2,814.94	68.28	42.228		
7,800.00	6,949.68	6,306.70	7,247.42	42.25	45.57	-95.86	-2,206.91	-1,217.43	2,917.68	2,832.04	85.64	34.070		
7,900.00	6,949.38	6,406.70	7,246.82	44.20	47.25	-95.85	-2,207.50	-1,317.43	2,917.50	2,828.12	89.38	32.642		
8,000.00	6,949.08	6,506.70	7,246.23	46.24	49.05	-95.85	-2,208.08	-1,417.42	2,917.32	2,824.00	93.32	31.263		
8,100.00	6,948.79	6,606.70	7,245.63	48.36	50.97	-95.84	-2,208.67	-1,517.42	2,917.13	2,819.71	97.43	29.942		
8,200.00	6,948.49	6,706.69	7,245.03	50.56	52.99	-95.84	-2,209.25	-1,617.41	2,916.95	2,815.26	101.69	28.685		
8,300.00	6,948.19	6,806.69	7,244.44	52.82	55.08	-95.83	-2,209.83	-1,717.41	2,916.77	2,810.68	106.09	27.494		
8,400.00	6,947.89	6,906.69	7,243.84	55.14	57.25	-95.82	-2,210.42	-1,817.41	2,916.58	2,805.98	110.60	26.370		
8,500.00	6,947.59	7,006.69	7,243.25	57.50	59.47	-95.82	-2,211.00	-1,917.40	2,916.40	2,801.17	115.22	25.311		
8,600.00	6,947.29	7,106.69	7,242.65	59.91	61.75	-95.81	-2,211.58	-2,017.40	2,916.22	2,796.28	119.94	24.315		
8,700.00	6,947.00	7,206.69	7,242.05	62.36	64.08	-95.81	-2,212.17	-2,117.39	2,916.03	2,791.30	124.73	23.378		
8,800.00	6,946.70	7,306.69	7,241.46	64.84	66.45	-95.80	-2,212.75	-2,217.39	2,915.85	2,786.25	129.60	22.499		
8,900.00	6,946.40	7,406.69	7,240.86	67.35	68.86	-95.80	-2,213.34	-2,317.39	2,915.67	2,781.13	134.53	21.673		
9,000.00	6,946.10	7,506.69	7,240.27	69.88	71.31	-95.79	-2,213.92	-2,417.38	2,915.48	2,775.96	139.52	20.896		
9,100.00	6,945.80	7,606.69	7,239.67	72.44	73.78	-95.79	-2,214.50	-2,517.38	2,915.30	2,770.73	144.56	20.166		
9,200.00	6,945.50	7,706.69	7,239.07	75.02	76.28	-95.78	-2,215.09	-2,617.37	2,915.12	2,765.46	149.65	19.479		
9,300.00	6,945.21	7,806.69	7,238.48	77.63	78.81	-95.77	-2,215.67	-2,717.37	2,914.93	2,760.15	154.79	18.832		
9,400.00	6,944.91	7,906.69	7,237.88	80.24	81.36	-95.77	-2,216.25	-2,817.37	2,914.75	2,754.79	159.96	18.222		
9,500.00	6,944.61	8,006.69	7,237.29	82.88	83.93	-95.76	-2,216.84	-2,917.36	2,914.57	2,749.41	165.16	17.647		
9,600.00	6,944.31	8,106.69	7,236.69	85.53	86.51	-95.76	-2,217.42	-3,017.36	2,914.38	2,743.99	170.40	17.104		
9,700.00	6,944.01	8,206.69	7,236.10	88.19	89.12	-95.75	-2,218.01	-3,117.35	2,914.20	2,738.54	175.66	16.590		
9,800.00	6,943.71	8,306.69	7,235.50	90.86	91.74	-95.75	-2,218.59	-3,217.35	2,914.02	2,733.07	180.95	16.104		
9,900.00	6,943.42	8,406.69	7,234.90	93.55	94.37	-95.74	-2,219.17	-3,317.35	2,913.83	2,727.57	186.27	15.643		
10,000.00	6,943.12	8,506.68	7,234.31	96.24	97.02	-95.74	-2,219.76	-3,417.34	2,913.65	2,722.05	191.60	15.207		
10,100.00	6,942.82	8,606.68	7,233.71	98.95	99.68	-95.73	-2,220.34	-3,517.34	2,913.47	2,716.51	196.96	14.792		
10,200.00	6,942.52	8,706.68	7,233.12	101.66	102.35	-95.73	-2,220.92	-3,617.33	2,913.29	2,710.95	202.34	14.398		
10,300.00	6,942.22	8,806.68	7,232.52	104.38	105.02	-95.72	-2,221.51	-3,717.33	2,913.10	2,705.38	207.73	14.024		

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 4N-16A-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 4N-16A-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 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	6,941.92	10,906.68	7,231.92	107.11	107.71	-95.71	-2,222.09	-3,817.33	2,912.92	2,699.78	213.14	13.667		
10,500.00	6,941.63	11,006.68	7,231.33	109.84	110.41	-95.71	-2,222.68	-3,917.32	2,912.74	2,694.18	218.56	13.327		
10,600.00	6,941.33	11,106.68	7,230.73	112.58	113.12	-95.70	-2,223.26	-4,017.32	2,912.55	2,688.56	224.00	13.003		
10,700.00	6,941.03	11,206.68	7,230.14	115.33	115.83	-95.70	-2,223.84	-4,117.31	2,912.37	2,682.93	229.45	12.693		
10,800.00	6,940.73	11,306.68	7,229.54	118.08	118.55	-95.69	-2,224.43	-4,217.31	2,912.19	2,677.28	234.91	12.397		
10,900.00	6,940.43	11,406.68	7,228.95	120.84	121.27	-95.69	-2,225.01	-4,317.31	2,912.01	2,671.63	240.38	12.114		
11,000.00	6,940.13	11,506.68	7,228.35	123.60	124.01	-95.68	-2,225.59	-4,417.30	2,911.82	2,665.96	245.86	11.843		
11,100.00	6,939.83	11,606.68	7,227.75	126.36	126.74	-95.68	-2,226.18	-4,517.30	2,911.64	2,660.29	251.35	11.584		
11,200.00	6,939.54	11,706.68	7,227.16	129.13	129.49	-95.67	-2,226.76	-4,617.29	2,911.46	2,654.60	256.85	11.335		
11,300.00	6,939.24	11,806.68	7,226.56	131.91	132.23	-95.66	-2,227.35	-4,717.29	2,911.28	2,648.91	262.36	11.096		
11,400.00	6,938.94	11,906.68	7,225.97	134.68	134.99	-95.66	-2,227.93	-4,817.29	2,911.09	2,643.21	267.88	10.867		
11,500.00	6,938.64	12,006.68	7,225.37	137.46	137.74	-95.65	-2,228.51	-4,917.28	2,910.91	2,637.51	273.41	10.647		
11,600.00	6,938.34	12,106.68	7,224.77	140.25	140.50	-95.65	-2,229.10	-5,017.28	2,910.73	2,631.79	278.94	10.435		
11,700.00	6,938.04	12,206.68	7,224.18	143.03	143.27	-95.64	-2,229.68	-5,117.27	2,910.55	2,626.07	284.48	10.231		
11,800.00	6,937.75	12,306.67	7,223.58	145.82	146.04	-95.64	-2,230.26	-5,217.27	2,910.36	2,620.34	290.02	10.035		
11,900.00	6,937.45	12,406.67	7,222.99	148.61	148.81	-95.63	-2,230.85	-5,317.26	2,910.18	2,614.61	295.57	9.846		
12,000.00	6,937.15	12,506.67	7,222.39	151.41	151.58	-95.63	-2,231.43	-5,417.26	2,910.00	2,608.87	301.13	9.664		
12,100.00	6,936.85	12,606.67	7,221.80	154.20	154.36	-95.62	-2,232.02	-5,517.26	2,909.82	2,603.13	306.69	9.488		
12,200.00	6,936.55	12,706.67	7,221.20	157.00	157.14	-95.61	-2,232.60	-5,617.25	2,909.63	2,597.38	312.25	9.318		
12,300.00	6,936.25	12,806.67	7,220.60	159.80	159.93	-95.61	-2,233.18	-5,717.25	2,909.45	2,591.63	317.82	9.154		
12,400.00	6,935.96	12,906.67	7,220.01	162.61	162.71	-95.60	-2,233.77	-5,817.24	2,909.27	2,585.87	323.40	8.996		
12,500.00	6,935.66	13,006.67	7,219.41	165.41	165.50	-95.60	-2,234.35	-5,917.24	2,909.09	2,580.11	328.98	8.843		
12,600.00	6,935.36	13,106.67	7,218.82	168.22	168.29	-95.59	-2,234.93	-6,017.24	2,908.90	2,574.34	334.56	8.695		
12,700.00	6,935.06	13,206.67	7,218.22	171.02	171.09	-95.59	-2,235.52	-6,117.23	2,908.72	2,568.57	340.15	8.551		
12,800.00	6,934.76	13,306.67	7,217.62	173.83	173.88	-95.58	-2,236.10	-6,217.23	2,908.54	2,562.80	345.74	8.412		
12,900.00	6,934.46	13,406.67	7,217.03	176.65	176.68	-95.58	-2,236.69	-6,317.22	2,908.36	2,557.02	351.34	8.278		
13,000.00	6,934.17	13,506.67	7,216.43	179.46	179.48	-95.57	-2,237.27	-6,417.22	2,908.18	2,551.24	356.94	8.148		
13,100.00	6,933.87	13,606.67	7,215.84	182.27	182.28	-95.56	-2,237.85	-6,517.22	2,907.99	2,545.46	362.54	8.021		
13,200.00	6,933.57	13,706.67	7,215.24	185.09	185.08	-95.56	-2,238.44	-6,617.21	2,907.81	2,539.67	368.14	7.899		
13,300.00	6,933.27	13,806.67	7,214.64	187.91	187.89	-95.55	-2,239.02	-6,717.21	2,907.63	2,533.88	373.75	7.780		
13,400.00	6,932.97	13,906.67	7,214.05	190.72	190.70	-95.55	-2,239.60	-6,817.20	2,907.45	2,528.09	379.36	7.664		
13,500.00	6,932.67	14,006.66	7,213.45	193.54	193.50	-95.54	-2,240.19	-6,917.20	2,907.27	2,522.29	384.97	7.552		
13,600.00	6,932.38	14,106.66	7,212.86	196.36	196.31	-95.54	-2,240.77	-7,017.20	2,907.08	2,516.50	390.59	7.443		
13,700.00	6,932.08	14,206.66	7,212.26	199.19	199.12	-95.53	-2,241.36	-7,117.19	2,906.90	2,510.70	396.21	7.337		
13,800.00	6,931.78	14,306.66	7,211.67	202.01	201.94	-95.53	-2,241.94	-7,217.19	2,906.72	2,504.89	401.83	7.234		
13,900.00	6,931.48	14,406.66	7,211.07	204.83	204.75	-95.52	-2,242.52	-7,317.18	2,906.54	2,499.09	407.45	7.134		
14,000.00	6,931.18	14,506.66	7,210.47	207.66	207.56	-95.51	-2,243.11	-7,417.18	2,906.36	2,493.28	413.07	7.036		
14,100.00	6,930.88	14,606.66	7,209.88	210.48	210.38	-95.51	-2,243.69	-7,517.17	2,906.17	2,487.47	418.70	6.941		
14,200.00	6,930.59	14,706.66	7,209.28	213.31	213.20	-95.50	-2,244.28	-7,617.17	2,905.99	2,481.66	424.33	6.848		
14,300.00	6,930.29	14,806.66	7,208.69	216.14	216.02	-95.50	-2,244.86	-7,717.17	2,905.81	2,475.85	429.96	6.758		
14,400.00	6,929.99	14,906.66	7,208.09	218.96	218.83	-95.49	-2,245.44	-7,817.16	2,905.63	2,470.04	435.59	6.671		
14,500.00	6,929.69	15,006.66	7,207.49	221.79	221.65	-95.49	-2,246.03	-7,917.16	2,905.45	2,464.22	441.23	6.585		
14,600.00	6,929.39	15,106.66	7,206.90	224.62	224.48	-95.48	-2,246.61	-8,017.16	2,905.27	2,458.40	446.86	6.501		
14,700.00	6,929.09	15,206.66	7,206.30	227.45	227.30	-95.48	-2,247.19	-8,117.15	2,905.08	2,452.58	452.50	6.420		
14,732.12	6,929.00	15,238.78	7,206.11	228.36	228.20	-95.47	-2,247.38	-8,149.27	2,905.03	2,450.71	454.31	6.394 SF		



Anticollision Report



Company:	SRC ENERGY	Local Co-ordinate Reference:	Well HARVESTERS STATE 4N-16A-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 4N-16A-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 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	-179.53	-440.08	-3.62	440.09					
100.00	100.00	102.00	100.00	3.28	3.29	-179.53	-440.08	-3.62	440.09	433.52	6.57	66.986		
200.00	200.00	198.00	200.00	3.34	3.34	-179.53	-440.08	-3.62	440.09	433.42	6.67	65.957 CC, ES		
300.00	300.00	284.93	286.92	3.44	3.42	-179.52	-441.33	-3.67	441.54	434.67	6.87	64.230		
400.00	400.00	371.45	373.34	3.60	3.54	-179.50	-445.20	-3.85	446.01	438.84	7.18	62.158		
500.00	500.00	457.65	459.30	3.81	3.70	-179.47	-451.64	-4.15	453.49	445.93	7.56	59.968		
600.00	600.00	543.38	544.56	4.05	3.89	-179.43	-460.61	-4.57	463.96	455.94	8.02	57.851		
700.00	699.98	628.27	628.68	4.32	4.11	-165.88	-472.00	-5.09	479.05	470.52	8.54	56.125		
800.00	799.84	711.71	711.00	4.62	4.35	-165.84	-485.61	-5.72	500.36	491.27	9.10	55.015		
900.00	899.45	793.26	791.03	4.94	4.62	-165.84	-501.22	-6.44	527.75	518.07	9.68	54.524		
1,000.00	998.80	872.71	868.55	5.28	4.90	-165.95	-518.61	-7.25	560.33	550.06	10.27	54.551		
1,100.00	1,098.12	950.56	944.00	5.63	5.20	-166.10	-537.73	-8.13	595.68	584.81	10.87	54.819		
1,200.00	1,197.44	1,026.78	1,017.35	6.00	5.51	-166.22	-558.43	-9.09	633.52	622.06	11.46	55.266		
1,300.00	1,296.77	1,100.00	1,087.27	6.37	5.83	-166.31	-580.14	-10.09	673.80	661.74	12.05	55.899		
1,400.00	1,396.09	1,174.14	1,157.47	6.76	6.17	-166.39	-603.93	-11.19	716.41	703.75	12.65	56.622		
1,500.00	1,495.41	1,245.21	1,224.17	7.15	6.52	-166.45	-628.44	-12.33	761.27	748.03	13.24	57.503		
1,600.00	1,594.74	1,314.50	1,288.60	7.55	6.87	-166.50	-653.92	-13.51	808.31	794.50	13.82	58.506		
1,700.00	1,694.06	1,382.00	1,350.75	7.96	7.23	-166.53	-680.22	-14.72	857.44	843.06	14.38	59.615		
1,800.00	1,793.38	1,447.71	1,410.64	8.37	7.60	-166.56	-707.23	-15.97	908.58	893.65	14.94	60.820		
1,900.00	1,892.71	1,511.64	1,468.29	8.78	7.96	-166.57	-734.82	-17.25	961.65	946.17	15.48	62.118		
2,000.00	1,992.03	1,573.79	1,523.74	9.20	8.34	-166.58	-762.86	-18.54	1,016.57	1,000.56	16.01	63.492		
2,100.00	2,091.36	1,634.18	1,577.02	9.62	8.71	-166.59	-791.26	-19.86	1,073.26	1,056.73	16.53	64.941		
2,200.00	2,190.68	1,692.83	1,628.18	10.05	9.08	-166.58	-819.90	-21.18	1,131.64	1,114.62	17.03	66.461		
2,300.00	2,290.00	1,749.77	1,677.28	10.48	9.46	-166.58	-848.71	-22.52	1,191.65	1,174.14	17.52	68.034		
2,400.00	2,389.33	1,805.04	1,724.38	10.90	9.83	-166.57	-877.59	-23.85	1,253.22	1,235.23	17.99	69.675		
2,500.00	2,488.65	1,871.77	1,780.65	11.34	10.29	-166.56	-913.42	-25.51	1,316.05	1,297.47	18.59	70.803		
2,600.00	2,587.97	1,949.43	1,846.08	11.77	10.84	-166.55	-955.22	-27.44	1,379.05	1,359.73	19.32	71.390		
2,700.00	2,687.30	2,027.10	1,911.51	12.20	11.40	-166.53	-997.02	-29.37	1,442.04	1,421.99	20.06	71.898		
2,800.00	2,786.62	2,104.76	1,976.93	12.64	11.96	-166.52	-1,038.82	-31.31	1,505.04	1,484.23	20.81	72.339		
2,900.00	2,885.94	2,182.42	2,042.36	13.07	12.53	-166.51	-1,080.61	-33.24	1,568.03	1,546.47	21.56	72.720		
3,000.00	2,985.27	2,260.09	2,107.79	13.51	13.10	-166.50	-1,122.41	-35.17	1,631.03	1,608.70	22.33	73.051		
3,100.00	3,084.59	2,337.75	2,173.21	13.95	13.68	-166.49	-1,164.21	-37.11	1,694.02	1,670.93	23.10	73.339		
3,200.00	3,183.91	2,415.41	2,238.64	14.39	14.26	-166.48	-1,206.01	-39.04	1,757.02	1,733.14	23.88	73.592		
3,300.00	3,283.24	2,506.92	2,304.07	14.83	14.94	-166.48	-1,247.81	-40.97	1,820.01	1,795.27	24.74	73.568		
3,400.00	3,382.56	2,570.74	2,369.49	15.27	15.43	-166.47	-1,289.61	-42.91	1,883.01	1,857.56	25.45	74.003		
3,500.00	3,481.88	2,648.40	2,434.92	15.71	16.01	-166.46	-1,331.41	-44.84	1,946.00	1,919.77	26.24	74.170		
3,600.00	3,581.21	2,726.07	2,500.35	16.16	16.60	-166.46	-1,373.21	-46.77	2,009.00	1,981.97	27.03	74.318		
3,700.00	3,680.53	2,803.73	2,565.77	16.60	17.20	-166.45	-1,415.01	-48.71	2,071.99	2,044.16	27.83	74.446		
3,800.00	3,779.85	2,881.39	2,631.20	17.04	17.79	-166.45	-1,456.81	-50.64	2,134.99	2,106.35	28.64	74.559		
3,900.00	3,879.18	2,959.06	2,696.63	17.49	18.39	-166.44	-1,498.61	-52.57	2,197.98	2,168.54	29.44	74.657		
4,000.00	3,978.50	3,036.72	2,762.05	17.93	18.99	-166.44	-1,540.41	-54.51	2,260.98	2,230.73	30.25	74.743		
4,100.00	4,077.82	3,114.38	2,827.48	18.37	19.58	-166.43	-1,582.21	-56.44	2,323.97	2,292.91	31.06	74.818		
4,200.00	4,177.15	3,207.95	2,892.91	18.82	20.31	-166.43	-1,624.01	-58.37	2,386.97	2,355.00	31.97	74.655		
4,300.00	4,276.47	3,269.71	2,958.33	19.27	20.79	-166.42	-1,665.81	-60.31	2,449.97	2,417.27	32.69	74.940		
4,400.00	4,375.79	3,347.37	3,023.76	19.71	21.39	-166.42	-1,707.61	-62.24	2,512.96	2,479.45	33.51	74.989		
4,500.00	4,475.12	3,425.04	3,089.19	20.16	21.99	-166.41	-1,749.41	-64.17	2,575.96	2,541.62	34.33	75.031		
4,600.00	4,574.44	3,502.70	3,154.61	20.60	22.60	-166.41	-1,791.21	-66.11	2,638.95	2,603.80	35.15	75.067		
4,700.00	4,673.76	3,580.36	3,220.04	21.05	23.20	-166.41	-1,833.00	-68.04	2,701.95	2,665.97	35.98	75.098		
4,800.00	4,773.09	3,658.03	3,285.47	21.50	23.81	-166.40	-1,874.80	-69.97	2,764.94	2,728.14	36.81	75.123		
4,900.00	4,872.41	3,735.69	3,350.89	21.94	24.41	-166.40	-1,916.60	-71.91	2,827.94	2,790.30	37.63	75.145		
5,000.00	4,971.74	3,813.35	3,416.32	22.39	25.02	-166.40	-1,958.40	-73.84	2,890.93	2,852.47	38.46	75.163		
5,100.00	5,071.06	3,908.98	3,481.75	22.84	25.77	-166.40	-2,000.20	-75.77	2,953.93	2,914.52	39.41	74.963		

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 4N-16A-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 4N-16A-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 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	5,170.38	3,968.68	3,547.17	23.29	26.24	-166.39	-2,042.00	-77.71	3,016.92	2,976.80	40.13	75.187		
5,300.00	5,269.71	4,046.34	3,612.60	23.74	26.84	-166.39	-2,083.80	-79.64	3,079.92	3,038.96	40.96	75.195		
5,400.00	5,369.03	4,124.01	3,678.03	24.18	27.45	-166.39	-2,125.60	-81.57	3,142.91	3,101.12	41.79	75.200		
5,500.00	5,468.35	4,201.67	3,743.45	24.63	28.06	-166.39	-2,167.40	-83.51	3,205.91	3,163.28	42.63	75.203		
5,600.00	5,567.68	4,279.33	3,808.88	25.08	28.67	-166.38	-2,209.20	-85.44	3,268.90	3,225.44	43.47	75.204		
5,700.00	5,667.00	4,357.00	3,874.31	25.53	29.28	-166.38	-2,251.00	-87.37	3,331.90	3,287.59	44.31	75.203		
5,800.00	5,766.32	4,434.66	3,939.73	25.98	29.90	-166.38	-2,292.80	-89.31	3,394.89	3,349.75	45.15	75.200		
5,900.00	5,865.65	4,512.32	4,005.16	26.43	30.51	-166.38	-2,334.60	-91.24	3,457.89	3,411.90	45.99	75.195		
6,000.00	5,964.97	4,589.99	4,070.59	26.88	31.12	-166.37	-2,376.40	-93.17	3,520.88	3,474.06	46.83	75.189		
6,100.00	6,064.29	4,667.65	4,136.01	27.33	31.73	-166.37	-2,418.20	-95.10	3,583.88	3,536.21	47.67	75.181		
6,200.00	6,163.62	4,745.31	4,201.44	27.78	32.34	-166.37	-2,460.00	-97.04	3,646.87	3,598.36	48.51	75.172		
6,300.00	6,262.94	4,822.98	4,266.87	28.23	32.95	-166.37	-2,501.80	-98.97	3,709.87	3,660.51	49.36	75.162		
6,400.00	6,362.24	4,900.64	4,332.29	28.67	33.57	-146.08	-2,543.59	-100.90	3,772.85	3,722.65	50.20	75.150		
6,500.00	6,460.41	4,977.75	4,397.26	29.12	34.17	-107.36	-2,585.10	-102.82	3,835.23	3,784.19	51.05	75.130		
6,600.00	6,555.09	5,052.57	4,460.29	29.57	34.77	-91.19	-2,625.37	-104.69	3,895.68	3,843.81	51.87	75.100		
6,700.00	6,643.94	5,123.25	4,519.83	30.00	35.32	-81.40	-2,663.41	-106.45	3,953.01	3,900.34	52.67	75.050		
6,800.00	6,724.78	5,188.06	4,574.43	30.45	35.84	-74.48	-2,698.29	-108.06	4,006.23	3,952.78	53.45	74.957		
6,900.00	6,795.62	5,245.40	4,622.74	30.97	36.29	-69.31	-2,729.15	-109.49	4,054.54	4,000.31	54.22	74.779		
7,000.00	6,854.70	5,306.14	4,663.56	31.60	36.77	-65.35	-2,755.23	-110.69	4,097.27	4,042.17	55.10	74.361		
7,100.00	6,900.58	5,332.24	4,695.89	32.39	36.97	-62.32	-2,775.89	-111.65	4,133.91	4,078.03	55.88	73.974		
7,200.00	6,932.13	5,359.60	4,718.94	33.34	37.19	-60.03	-2,790.62	-112.33	4,164.00	4,107.18	56.82	73.280		
7,300.00	6,948.57	8,263.76	7,228.17	34.46	50.59	-93.94	-3,463.69	-647.93	4,172.82	4,099.64	73.18	57.019		
7,400.00	6,950.87	8,425.10	7,241.90	35.70	50.66	-94.00	-3,464.67	-808.30	4,173.35	4,097.46	75.89	54.993		
7,500.00	6,950.58	8,525.10	7,241.49	37.12	50.70	-94.00	-3,465.28	-908.29	4,173.22	4,094.76	78.46	53.192		
7,600.00	6,950.28	8,625.10	7,241.09	38.70	50.77	-94.00	-3,465.89	-1,008.29	4,173.08	4,091.74	81.34	51.303		
7,700.00	6,949.98	8,725.10	7,240.68	40.41	50.88	-93.99	-3,466.51	-1,108.29	4,172.95	4,088.44	84.51	49.376		
7,800.00	6,949.68	8,825.10	7,240.28	42.25	51.07	-93.99	-3,467.12	-1,208.28	4,172.82	4,084.88	87.94	47.450		
7,900.00	6,949.38	8,925.10	7,239.87	44.20	51.44	-93.99	-3,467.73	-1,308.28	4,172.69	4,081.09	91.60	45.555		
8,000.00	6,949.08	9,025.10	7,239.47	46.24	52.19	-93.99	-3,468.34	-1,408.28	4,172.55	4,077.10	95.45	43.715		
8,100.00	6,948.79	9,125.10	7,239.06	48.36	53.47	-93.99	-3,468.96	-1,508.28	4,172.42	4,072.94	99.48	41.942		
8,200.00	6,948.49	9,225.10	7,238.65	50.56	55.14	-93.99	-3,469.57	-1,608.27	4,172.29	4,068.62	103.67	40.246		
8,300.00	6,948.19	9,325.10	7,238.25	52.82	57.03	-93.99	-3,470.18	-1,708.27	4,172.16	4,064.16	108.00	38.632		
8,400.00	6,947.89	9,425.10	7,237.84	55.14	59.05	-93.99	-3,470.79	-1,808.27	4,172.02	4,059.58	112.45	37.102		
8,500.00	6,947.59	9,525.10	7,237.44	57.50	61.17	-93.98	-3,471.41	-1,908.26	4,171.89	4,054.89	117.00	35.656		
8,600.00	6,947.29	9,625.10	7,237.03	59.91	63.36	-93.98	-3,472.02	-2,008.26	4,171.76	4,050.10	121.66	34.291		
8,700.00	6,947.00	9,725.10	7,236.63	62.36	65.61	-93.98	-3,472.63	-2,108.26	4,171.63	4,045.23	126.40	33.003		
8,800.00	6,946.70	9,825.10	7,236.22	64.84	67.91	-93.98	-3,473.24	-2,208.26	4,171.50	4,040.28	131.22	31.791		
8,900.00	6,946.40	9,925.10	7,235.81	67.35	70.25	-93.98	-3,473.86	-2,308.25	4,171.36	4,035.26	136.10	30.648		
9,000.00	6,946.10	10,025.10	7,235.41	69.88	72.64	-93.98	-3,474.47	-2,408.25	4,171.23	4,030.18	141.05	29.573		
9,100.00	6,945.80	10,125.10	7,235.00	72.44	75.06	-93.98	-3,475.08	-2,508.25	4,171.10	4,025.04	146.05	28.559		
9,200.00	6,945.50	10,225.10	7,234.60	75.02	77.51	-93.97	-3,475.69	-2,608.24	4,170.97	4,019.86	151.11	27.603		
9,300.00	6,945.21	10,325.10	7,234.19	77.63	79.99	-93.97	-3,476.31	-2,708.24	4,170.83	4,014.63	156.20	26.701		
9,400.00	6,944.91	10,425.10	7,233.79	80.24	82.49	-93.97	-3,476.92	-2,808.24	4,170.70	4,009.36	161.34	25.850		
9,500.00	6,944.61	10,525.10	7,233.38	82.88	85.02	-93.97	-3,477.53	-2,908.24	4,170.57	4,004.05	166.52	25.046		
9,600.00	6,944.31	10,625.10	7,232.97	85.53	87.57	-93.97	-3,478.14	-3,008.23	4,170.44	3,998.71	171.73	24.286		
9,700.00	6,944.01	10,725.10	7,232.57	88.19	90.14	-93.97	-3,478.76	-3,108.23	4,170.30	3,993.34	176.96	23.566		
9,800.00	6,943.71	10,825.10	7,232.16	90.86	92.72	-93.97	-3,479.37	-3,208.23	4,170.17	3,987.94	182.23	22.884		
9,900.00	6,943.42	10,925.10	7,231.76	93.55	95.32	-93.97	-3,479.98	-3,308.22	4,170.04	3,982.51	187.52	22.237		
10,000.00	6,943.12	11,025.10	7,231.35	96.24	97.94	-93.96	-3,480.59	-3,408.22	4,169.91	3,977.06	192.84	21.623		
10,100.00	6,942.82	11,125.10	7,230.95	98.95	100.57	-93.96	-3,481.21	-3,508.22	4,169.77	3,971.59	198.18	21.040		
10,200.00	6,942.52	11,225.10	7,230.54	101.66	103.21	-93.96	-3,481.82	-3,608.22	4,169.64	3,966.10	203.54	20.486		
10,300.00	6,942.22	11,325.10	7,230.13	104.38	105.86	-93.96	-3,482.43	-3,708.21	4,169.51	3,960.59	208.91	19.958		

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 4N-16A-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 4N-16A-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 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	6,941.92	11,425.10	7,229.73	107.11	108.52	-93.96	-3,483.04	-3,808.21	4,169.38	3,955.07	214.31	19.455		
10,500.00	6,941.63	11,525.10	7,229.32	109.84	111.20	-93.96	-3,483.66	-3,908.21	4,169.24	3,949.53	219.72	18.975		
10,600.00	6,941.33	11,625.10	7,228.92	112.58	113.88	-93.96	-3,484.27	-4,008.20	4,169.11	3,943.97	225.14	18.518		
10,700.00	6,941.03	11,725.10	7,228.51	115.33	116.57	-93.95	-3,484.88	-4,108.20	4,168.98	3,938.40	230.58	18.080		
10,800.00	6,940.73	11,825.10	7,228.10	118.08	119.27	-93.95	-3,485.49	-4,208.20	4,168.85	3,932.82	236.03	17.662		
10,900.00	6,940.43	11,925.10	7,227.70	120.84	121.97	-93.95	-3,486.11	-4,308.20	4,168.71	3,927.22	241.49	17.262		
11,000.00	6,940.13	12,025.10	7,227.29	123.60	124.68	-93.95	-3,486.72	-4,408.19	4,168.58	3,921.61	246.97	16.879		
11,100.00	6,939.83	12,125.10	7,226.89	126.36	127.40	-93.95	-3,487.33	-4,508.19	4,168.45	3,916.00	252.45	16.512		
11,200.00	6,939.54	12,225.10	7,226.48	129.13	130.13	-93.95	-3,487.94	-4,608.19	4,168.32	3,910.37	257.94	16.160		
11,300.00	6,939.24	12,325.10	7,226.08	131.91	132.86	-93.95	-3,488.56	-4,708.19	4,168.18	3,904.74	263.45	15.822		
11,400.00	6,938.94	12,425.10	7,225.67	134.68	135.59	-93.94	-3,489.17	-4,808.18	4,168.05	3,899.09	268.96	15.497		
11,500.00	6,938.64	12,525.10	7,225.26	137.46	138.34	-93.94	-3,489.78	-4,908.18	4,167.92	3,893.44	274.48	15.185		
11,600.00	6,938.34	12,625.10	7,224.86	140.25	141.08	-93.94	-3,490.39	-5,008.18	4,167.79	3,887.78	280.00	14.885		
11,700.00	6,938.04	12,725.10	7,224.45	143.03	143.83	-93.94	-3,491.01	-5,108.17	4,167.66	3,882.12	285.54	14.596		
11,800.00	6,937.75	12,825.10	7,224.05	145.82	146.59	-93.94	-3,491.62	-5,208.17	4,167.52	3,876.44	291.08	14.318		
11,900.00	6,937.45	12,925.10	7,223.64	148.61	149.34	-93.94	-3,492.23	-5,308.17	4,167.39	3,870.77	296.62	14.049		
12,000.00	6,937.15	13,025.10	7,223.24	151.41	152.11	-93.94	-3,492.84	-5,408.17	4,167.26	3,865.08	302.18	13.791		
12,100.00	6,936.85	13,125.10	7,222.83	154.20	154.87	-93.94	-3,493.46	-5,508.16	4,167.13	3,859.39	307.74	13.541		
12,200.00	6,936.55	13,225.10	7,222.42	157.00	157.64	-93.93	-3,494.07	-5,608.16	4,166.99	3,853.69	313.30	13.300		
12,300.00	6,936.25	13,325.10	7,222.02	159.80	160.41	-93.93	-3,494.68	-5,708.16	4,166.86	3,847.99	318.87	13.068		
12,400.00	6,935.96	13,425.10	7,221.61	162.61	163.19	-93.93	-3,495.29	-5,808.15	4,166.73	3,842.29	324.44	12.843		
12,500.00	6,935.66	13,525.10	7,221.21	165.41	165.96	-93.93	-3,495.91	-5,908.15	4,166.60	3,836.58	330.02	12.625		
12,600.00	6,935.36	13,625.10	7,220.80	168.22	168.74	-93.93	-3,496.52	-6,008.15	4,166.46	3,830.86	335.60	12.415		
12,700.00	6,935.06	13,725.09	7,220.40	171.02	171.53	-93.93	-3,497.13	-6,108.15	4,166.33	3,825.14	341.19	12.211		
12,800.00	6,934.76	13,825.09	7,219.99	173.83	174.31	-93.93	-3,497.74	-6,208.14	4,166.20	3,819.42	346.78	12.014		
12,900.00	6,934.46	13,925.09	7,219.58	176.65	177.10	-93.92	-3,498.36	-6,308.14	4,166.07	3,813.69	352.37	11.823		
13,000.00	6,934.17	14,025.09	7,219.18	179.46	179.89	-93.92	-3,498.97	-6,408.14	4,165.93	3,807.96	357.97	11.638		
13,100.00	6,933.87	14,125.09	7,218.77	182.27	182.68	-93.92	-3,499.58	-6,508.13	4,165.80	3,802.23	363.57	11.458		
13,200.00	6,933.57	14,225.09	7,218.37	185.09	185.48	-93.92	-3,500.19	-6,608.13	4,165.67	3,796.49	369.18	11.284		
13,300.00	6,933.27	14,325.09	7,217.96	187.91	188.27	-93.92	-3,500.80	-6,708.13	4,165.54	3,790.75	374.79	11.114		
13,400.00	6,932.97	14,425.09	7,217.56	190.72	191.07	-93.92	-3,501.42	-6,808.13	4,165.41	3,785.01	380.40	10.950		
13,500.00	6,932.67	14,525.09	7,217.15	193.54	193.87	-93.92	-3,502.03	-6,908.12	4,165.27	3,779.26	386.01	10.791		
13,600.00	6,932.38	14,625.09	7,216.74	196.36	196.67	-93.92	-3,502.64	-7,008.12	4,165.14	3,773.51	391.63	10.636		
13,700.00	6,932.08	14,725.09	7,216.34	199.19	199.48	-93.91	-3,503.25	-7,108.12	4,165.01	3,767.76	397.24	10.485		
13,800.00	6,931.78	14,825.09	7,215.93	202.01	202.28	-93.91	-3,503.87	-7,208.11	4,164.88	3,762.01	402.87	10.338		
13,900.00	6,931.48	14,925.09	7,215.53	204.83	205.09	-93.91	-3,504.48	-7,308.11	4,164.74	3,756.25	408.49	10.195		
14,000.00	6,931.18	15,025.09	7,215.12	207.66	207.89	-93.91	-3,505.09	-7,408.11	4,164.61	3,750.50	414.12	10.057		
14,100.00	6,930.88	15,125.09	7,214.72	210.48	210.70	-93.91	-3,505.70	-7,508.11	4,164.48	3,744.73	419.74	9.921		
14,200.00	6,930.59	15,225.09	7,214.31	213.31	213.51	-93.91	-3,506.32	-7,608.10	4,164.35	3,738.97	425.37	9.790		
14,300.00	6,930.29	15,325.09	7,213.90	216.14	216.33	-93.91	-3,506.93	-7,708.10	4,164.21	3,733.21	431.01	9.662		
14,400.00	6,929.99	15,425.09	7,213.50	218.96	219.14	-93.90	-3,507.54	-7,808.10	4,164.08	3,727.44	436.64	9.537		
14,500.00	6,929.69	15,525.09	7,213.09	221.79	221.95	-93.90	-3,508.15	-7,908.09	4,163.95	3,721.67	442.28	9.415		
14,600.00	6,929.39	15,625.09	7,212.69	224.62	224.77	-93.90	-3,508.77	-8,008.09	4,163.82	3,715.90	447.92	9.296		
14,700.00	6,929.09	15,725.09	7,212.28	227.45	227.58	-93.90	-3,509.38	-8,108.09	4,163.69	3,710.13	453.55	9.180		
14,732.12	6,929.00	15,757.22	7,212.15	228.36	228.49	-93.90	-3,509.58	-8,140.21	4,163.64	3,708.28	455.37	9.143 SF		



Anticollision Report



Company:	SRC ENERGY	Local Co-ordinate Reference:	Well HARVESTERS STATE 4N-16A-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 4N-16A-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 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	-179.47	-60.11	-0.56	60.11					
100.00	100.00	100.00	100.00	3.28	3.28	-179.47	-60.11	-0.56	60.11	53.54	6.57	9.150		
200.00	200.00	200.00	200.00	3.34	3.34	-179.47	-60.11	-0.56	60.11	53.44	6.67	9.007		
300.00	300.00	300.00	300.00	3.44	3.44	-179.47	-60.11	-0.56	60.11	53.22	6.89	8.725		
400.00	400.00	400.00	400.00	3.60	3.60	-179.47	-60.11	-0.56	60.11	52.91	7.21	8.341		
500.00	500.00	500.00	500.00	3.81	3.81	-179.47	-60.11	-0.56	60.11	52.50	7.61	7.897		
600.00	600.00	600.00	600.00	4.05	4.05	-179.47	-60.11	-0.56	60.11	52.02	8.09	7.428 CC, ES		
700.00	699.98	700.92	700.90	4.32	4.32	-165.00	-59.19	-2.03	60.92	52.28	8.64	7.054		
800.00	799.84	800.84	800.78	4.62	4.61	-163.92	-57.62	-4.54	64.48	55.25	9.23	6.988		
900.00	899.45	900.60	900.49	4.94	4.92	-163.74	-56.05	-7.05	71.40	61.54	9.86	7.239		
1,000.00	998.80	1,000.14	999.99	5.28	5.26	-164.16	-54.49	-9.55	80.93	70.39	10.53	7.682		
1,100.00	1,098.12	1,100.34	1,099.47	5.63	5.60	-164.54	-52.92	-12.06	90.64	79.41	11.23	8.068		
1,200.00	1,197.44	1,200.81	1,198.95	6.00	5.96	-164.84	-51.36	-14.56	100.36	88.40	11.96	8.391		
1,300.00	1,296.77	1,301.29	1,298.43	6.37	6.34	-165.09	-49.79	-17.07	110.08	97.38	12.71	8.663		
1,400.00	1,396.09	1,401.76	1,397.91	6.76	6.72	-165.30	-48.23	-19.57	119.81	106.33	13.47	8.893		
1,500.00	1,495.41	1,502.23	1,497.40	7.15	7.10	-165.47	-46.66	-22.08	129.53	115.28	14.25	9.089		
1,600.00	1,594.74	1,602.71	1,596.88	7.55	7.50	-165.62	-45.10	-24.58	139.26	124.21	15.04	9.257		
1,700.00	1,694.06	1,703.18	1,696.36	7.96	7.90	-165.76	-43.53	-27.08	148.98	133.14	15.85	9.402		
1,800.00	1,793.38	1,803.66	1,795.84	8.37	8.30	-165.87	-41.97	-29.59	158.71	142.05	16.66	9.528		
1,900.00	1,892.71	1,904.13	1,895.32	8.78	8.71	-165.98	-40.40	-32.09	168.44	150.96	17.48	9.638		
2,000.00	1,992.03	2,004.61	1,994.80	9.20	9.12	-166.07	-38.84	-34.60	178.16	159.86	18.30	9.734		
2,100.00	2,091.36	2,105.08	2,094.28	9.62	9.53	-166.15	-37.27	-37.10	187.89	168.76	19.13	9.820		
2,200.00	2,190.68	2,205.56	2,193.77	10.05	9.94	-166.22	-35.71	-39.61	197.62	177.65	19.97	9.895		
2,300.00	2,290.00	2,306.03	2,293.25	10.48	10.36	-166.29	-34.15	-42.11	207.35	186.54	20.81	9.963		
2,400.00	2,389.33	2,406.51	2,392.73	10.90	10.78	-166.35	-32.58	-44.61	217.08	195.42	21.66	10.023		
2,500.00	2,488.65	2,506.98	2,492.21	11.34	11.20	-166.41	-31.02	-47.12	226.81	204.30	22.51	10.077		
2,600.00	2,587.97	2,607.46	2,591.69	11.77	11.63	-166.46	-29.45	-49.62	236.54	213.18	23.36	10.126		
2,700.00	2,687.30	2,707.93	2,691.17	12.20	12.05	-166.51	-27.89	-52.13	246.27	222.05	24.21	10.171		
2,800.00	2,786.62	2,808.41	2,790.66	12.64	12.48	-166.55	-26.32	-54.63	256.00	230.93	25.07	10.211		
2,900.00	2,885.94	2,908.88	2,890.14	13.07	12.90	-166.59	-24.76	-57.13	265.73	239.80	25.93	10.248		
3,000.00	2,985.27	3,009.35	2,989.62	13.51	13.33	-166.63	-23.19	-59.64	275.46	248.66	26.79	10.281		
3,100.00	3,084.59	3,109.83	3,089.10	13.95	13.76	-166.66	-21.63	-62.14	285.19	257.53	27.66	10.312		
3,200.00	3,183.91	3,189.70	3,188.58	14.39	14.10	-166.70	-20.06	-64.65	294.92	266.48	28.43	10.372		
3,300.00	3,283.24	3,289.22	3,288.06	14.83	14.53	-166.73	-18.50	-67.15	304.65	275.35	29.30	10.399		
3,400.00	3,382.56	3,388.75	3,387.54	15.27	14.95	-166.76	-16.93	-69.66	314.38	284.22	30.16	10.424		
3,500.00	3,481.88	3,488.27	3,487.03	15.71	15.38	-166.78	-15.37	-72.16	324.11	293.08	31.02	10.447		
3,600.00	3,581.21	3,587.80	3,586.51	16.16	15.81	-166.81	-13.80	-74.66	333.84	301.95	31.89	10.468		
3,700.00	3,680.53	3,687.32	3,685.99	16.60	16.24	-166.83	-12.24	-77.17	343.57	310.81	32.76	10.488		
3,800.00	3,779.85	3,786.85	3,785.47	17.04	16.67	-166.85	-10.67	-79.67	353.30	319.67	33.63	10.506		
3,900.00	3,879.18	3,886.37	3,884.95	17.49	17.10	-166.88	-9.11	-82.18	363.03	328.54	34.50	10.524		
4,000.00	3,978.50	3,985.90	3,984.43	17.93	17.53	-166.90	-7.54	-84.68	372.76	337.40	35.37	10.540		
4,100.00	4,077.82	4,085.42	4,083.91	18.37	17.96	-166.92	-5.98	-87.18	382.49	346.26	36.24	10.555		
4,200.00	4,177.15	4,184.95	4,183.40	18.82	18.39	-166.93	-4.41	-89.69	392.23	355.11	37.11	10.569		
4,300.00	4,276.47	4,284.48	4,282.88	19.27	18.82	-166.95	-2.85	-92.19	401.96	363.97	37.98	10.583		
4,400.00	4,375.79	4,384.00	4,382.36	19.71	19.25	-166.97	-1.28	-94.70	411.69	372.83	38.86	10.595		
4,500.00	4,475.12	4,483.53	4,481.84	20.16	19.68	-166.98	0.28	-97.20	421.42	381.69	39.73	10.607		
4,600.00	4,574.44	4,583.05	4,581.32	20.60	20.11	-167.00	1.85	-99.71	431.15	390.54	40.60	10.618		
4,700.00	4,673.76	4,682.58	4,680.80	21.05	20.54	-167.01	3.41	-102.21	440.88	399.40	41.48	10.629		
4,800.00	4,773.09	4,782.10	4,780.29	21.50	20.98	-167.03	4.97	-104.71	450.61	408.26	42.35	10.639		
4,900.00	4,872.41	4,881.63	4,879.77	21.94	21.41	-167.04	6.54	-107.22	460.34	417.11	43.23	10.648		
5,000.00	4,971.74	4,981.15	4,979.25	22.39	21.84	-167.05	8.10	-109.72	470.07	425.97	44.11	10.658		
5,100.00	5,071.06	5,080.68	5,078.73	22.84	22.27	-167.07	9.67	-112.23	479.81	434.82	44.98	10.666		

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 4N-16A-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 4N-16A-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 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	5,170.38	5,180.20	5,178.21	23.29	22.71	-167.08	11.23	-114.73	489.54	443.68	45.86	10.674		
5,300.00	5,269.71	5,279.73	5,277.69	23.74	23.14	-167.09	12.80	-117.24	499.27	452.53	46.74	10.682		
5,400.00	5,369.03	5,379.25	5,377.17	24.18	23.57	-167.10	14.36	-119.74	509.00	461.38	47.62	10.690		
5,500.00	5,468.35	5,478.78	5,476.66	24.63	24.01	-167.11	15.93	-122.24	518.73	470.24	48.49	10.697		
5,600.00	5,567.68	5,578.30	5,576.14	25.08	24.44	-167.12	17.49	-124.75	528.46	479.09	49.37	10.703		
5,700.00	5,667.00	5,677.83	5,675.62	25.53	24.88	-167.13	19.06	-127.25	538.19	487.94	50.25	10.710		
5,800.00	5,766.32	5,777.36	5,775.10	25.98	25.31	-167.14	20.62	-129.76	547.92	496.79	51.13	10.716		
5,900.00	5,865.65	5,876.88	5,874.58	26.43	25.74	-167.15	22.19	-132.26	557.66	505.64	52.01	10.722		
6,000.00	5,964.97	5,976.41	5,974.06	26.88	26.18	-167.16	23.75	-134.76	567.39	514.50	52.89	10.728		
6,100.00	6,064.29	6,075.93	6,073.55	27.33	26.61	-167.17	25.32	-137.27	577.12	523.35	53.77	10.733		
6,200.00	6,163.62	6,175.46	6,173.03	27.78	27.05	-167.17	26.88	-139.77	586.85	532.20	54.65	10.738		
6,300.00	6,262.94	6,274.98	6,272.51	28.23	27.48	-167.18	28.45	-142.28	596.58	541.05	55.53	10.743		
6,400.00	6,362.24	6,374.50	6,371.98	28.67	27.92	-148.70	30.01	-144.78	606.31	549.90	56.41	10.748		
6,500.00	6,460.41	6,473.17	6,470.61	29.12	28.35	-117.13	31.56	-147.26	616.13	558.84	57.29	10.755		
6,600.00	6,559.09	6,568.73	6,566.13	29.57	28.77	-108.61	33.07	-149.67	626.73	568.57	58.15	10.778		
6,700.00	6,643.94	6,663.58	6,660.89	30.00	29.18	-106.52	34.55	-153.05	639.60	580.58	59.02	10.836		
6,800.00	6,724.78	6,771.14	6,766.85	30.45	29.66	-106.82	36.10	-170.74	654.70	594.71	59.99	10.913		
6,900.00	6,795.62	6,889.49	6,878.14	30.97	30.19	-108.03	37.57	-210.48	671.05	610.12	60.93	11.013		
7,000.00	6,854.70	7,020.97	6,990.76	31.60	30.80	-109.67	38.85	-277.86	687.50	625.79	61.71	11.140		
7,100.00	6,900.58	7,167.52	7,097.00	32.39	31.58	-111.41	39.77	-378.33	702.55	640.20	62.35	11.268		
7,200.00	6,932.13	7,329.46	7,184.30	33.34	32.69	-112.93	40.13	-514.21	714.42	651.26	63.16	11.311		
7,300.00	6,948.57	7,503.95	7,236.84	34.46	34.33	-113.89	39.70	-680.02	721.39	656.59	64.81	11.132		
7,400.00	6,950.87	7,652.92	7,245.88	35.70	36.11	-114.09	38.71	-828.47	722.70	655.27	67.43	10.718		
7,500.00	6,950.58	7,752.92	7,245.56	37.12	37.49	-114.09	37.94	-928.47	722.72	652.67	70.06	10.316		
7,600.00	6,950.28	7,852.92	7,245.25	38.70	39.04	-114.09	37.18	-1,028.46	722.74	649.78	72.97	9.905		
7,700.00	6,949.98	7,952.92	7,244.94	40.41	40.72	-114.09	36.41	-1,128.46	722.77	646.63	76.14	9.493		
7,800.00	6,949.68	8,052.92	7,244.63	42.25	42.53	-114.08	35.64	-1,228.46	722.79	643.26	79.53	9.088		
7,900.00	6,949.38	8,152.92	7,244.32	44.20	44.45	-114.08	34.87	-1,328.45	722.81	639.69	83.12	8.696		
8,000.00	6,949.08	8,252.92	7,244.00	46.24	46.47	-114.08	34.11	-1,428.45	722.83	635.95	86.88	8.319		
8,100.00	6,948.79	8,352.92	7,243.69	48.36	48.57	-114.08	33.34	-1,528.44	722.85	632.05	90.80	7.961		
8,200.00	6,948.49	8,452.92	7,243.38	50.56	50.74	-114.08	32.57	-1,628.44	722.88	628.02	94.85	7.621		
8,300.00	6,948.19	8,552.92	7,243.07	52.82	52.98	-114.07	31.80	-1,728.44	722.90	623.88	99.02	7.301		
8,400.00	6,947.89	8,652.92	7,242.76	55.14	55.28	-114.07	31.04	-1,828.43	722.92	619.63	103.29	6.999		
8,500.00	6,947.59	8,752.92	7,242.44	57.50	57.63	-114.07	30.27	-1,928.43	722.94	615.30	107.64	6.716		
8,600.00	6,947.29	8,852.92	7,242.13	59.91	60.02	-114.07	29.50	-2,028.43	722.96	610.88	112.08	6.450		
8,700.00	6,947.00	8,952.92	7,241.82	62.36	62.45	-114.07	28.73	-2,128.42	722.98	606.39	116.59	6.201		
8,800.00	6,946.70	9,052.92	7,241.51	64.84	64.92	-114.06	27.96	-2,228.42	723.01	601.84	121.17	5.967		
8,900.00	6,946.40	9,152.92	7,241.20	67.35	67.42	-114.06	27.20	-2,328.42	723.03	597.23	125.79	5.748		
9,000.00	6,946.10	9,252.92	7,240.88	69.88	69.94	-114.06	26.43	-2,428.41	723.05	592.57	130.47	5.542		
9,100.00	6,945.80	9,352.92	7,240.57	72.44	72.49	-114.06	25.66	-2,528.41	723.07	587.87	135.20	5.348		
9,200.00	6,945.50	9,452.92	7,240.26	75.02	75.06	-114.06	24.89	-2,628.41	723.09	583.13	139.96	5.166		
9,300.00	6,945.21	9,552.92	7,239.95	77.63	77.65	-114.05	24.13	-2,728.40	723.11	578.35	144.76	4.995		
9,400.00	6,944.91	9,652.92	7,239.64	80.24	80.26	-114.05	23.36	-2,828.40	723.14	573.54	149.60	4.834		
9,500.00	6,944.61	9,752.92	7,239.33	82.88	82.89	-114.05	22.59	-2,928.40	723.16	568.70	154.46	4.682		
9,600.00	6,944.31	9,852.92	7,239.01	85.53	85.53	-114.05	21.82	-3,028.39	723.18	563.83	159.35	4.538		
9,700.00	6,944.01	9,952.92	7,238.70	88.19	88.19	-114.05	21.06	-3,128.39	723.20	558.94	164.27	4.403		
9,800.00	6,943.71	10,052.92	7,238.39	90.86	90.85	-114.04	20.29	-3,228.39	723.22	554.02	169.20	4.274		
9,900.00	6,943.42	10,152.92	7,238.08	93.55	93.53	-114.04	19.52	-3,328.38	723.24	549.08	174.16	4.153		
10,000.00	6,943.12	10,252.92	7,237.77	96.24	96.22	-114.04	18.75	-3,428.38	723.27	544.13	179.14	4.037		
10,100.00	6,942.82	10,352.92	7,237.45	98.95	98.92	-114.04	17.99	-3,528.38	723.29	539.15	184.13	3.928		
10,200.00	6,942.52	10,452.92	7,237.14	101.66	101.63	-114.04	17.22	-3,628.37	723.31	534.16	189.15	3.824		
10,300.00	6,942.22	10,552.92	7,236.83	104.38	104.34	-114.03	16.45	-3,728.37	723.33	529.16	194.17	3.725		

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 4N-16A-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 4N-16A-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 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	6,941.92	10,652.92	7,236.52	107.11	107.06	-114.03	15.68	-3,828.37	723.35	524.14	199.21	3.631	
10,500.00	6,941.63	10,752.92	7,236.21	109.84	109.79	-114.03	14.92	-3,928.36	723.37	519.11	204.26	3.541	
10,600.00	6,941.33	10,852.92	7,235.89	112.58	112.53	-114.03	14.15	-4,028.36	723.40	514.07	209.33	3.456	
10,700.00	6,941.03	10,952.92	7,235.58	115.33	115.27	-114.03	13.38	-4,128.36	723.42	509.02	214.40	3.374	
10,800.00	6,940.73	11,052.92	7,235.27	118.08	118.02	-114.03	12.61	-4,228.35	723.44	503.95	219.49	3.296	
10,900.00	6,940.43	11,152.92	7,234.96	120.84	120.77	-114.02	11.85	-4,328.35	723.46	498.88	224.58	3.221	
11,000.00	6,940.13	11,252.92	7,234.65	123.60	123.53	-114.02	11.08	-4,428.35	723.48	493.80	229.68	3.150	
11,100.00	6,939.83	11,352.92	7,234.33	126.36	126.29	-114.02	10.31	-4,528.34	723.50	488.71	234.80	3.081	
11,200.00	6,939.54	11,452.92	7,234.02	129.13	129.06	-114.02	9.54	-4,628.34	723.53	483.61	239.92	3.016	
11,300.00	6,939.24	11,552.92	7,233.71	131.91	131.83	-114.02	8.78	-4,728.34	723.55	478.50	245.04	2.953	
11,400.00	6,938.94	11,652.92	7,233.40	134.68	134.60	-114.01	8.01	-4,828.33	723.57	473.39	250.18	2.892	
11,500.00	6,938.64	11,752.92	7,233.09	137.46	137.38	-114.01	7.24	-4,928.33	723.59	468.27	255.32	2.834	
11,600.00	6,938.34	11,852.92	7,232.77	140.25	140.16	-114.01	6.47	-5,028.32	723.61	463.15	260.46	2.778	
11,700.00	6,938.04	11,952.92	7,232.46	143.03	142.94	-114.01	5.70	-5,128.32	723.64	458.02	265.62	2.724	
11,800.00	6,937.75	12,052.92	7,232.15	145.82	145.73	-114.01	4.94	-5,228.32	723.66	452.88	270.77	2.673	
11,900.00	6,937.45	12,152.92	7,231.84	148.61	148.52	-114.00	4.17	-5,328.31	723.68	447.74	275.94	2.623	
12,000.00	6,937.15	12,252.92	7,231.53	151.41	151.31	-114.00	3.40	-5,428.31	723.70	442.59	281.11	2.574	
12,100.00	6,936.85	12,352.92	7,231.22	154.20	154.10	-114.00	2.63	-5,528.31	723.72	437.44	286.28	2.528	
12,200.00	6,936.55	12,452.92	7,230.90	157.00	156.90	-114.00	1.87	-5,628.30	723.74	432.29	291.45	2.483	
12,300.00	6,936.25	12,552.92	7,230.59	159.80	159.70	-114.00	1.10	-5,728.30	723.77	427.13	296.64	2.440	
12,400.00	6,935.96	12,652.92	7,230.28	162.61	162.50	-113.99	0.33	-5,828.30	723.79	421.97	301.82	2.398	
12,500.00	6,935.66	12,752.92	7,229.97	165.41	165.30	-113.99	-0.44	-5,928.29	723.81	416.80	307.01	2.358	
12,600.00	6,935.36	12,852.92	7,229.66	168.22	168.10	-113.99	-1.20	-6,028.29	723.83	411.63	312.20	2.318	
12,700.00	6,935.06	12,952.92	7,229.34	171.02	170.91	-113.99	-1.97	-6,128.29	723.85	406.46	317.40	2.281	
12,800.00	6,934.76	13,052.92	7,229.03	173.83	173.72	-113.99	-2.74	-6,228.28	723.87	401.28	322.60	2.244	
12,900.00	6,934.46	13,152.92	7,228.72	176.65	176.53	-113.98	-3.51	-6,328.28	723.90	396.10	327.80	2.208	
13,000.00	6,934.17	13,252.92	7,228.41	179.46	179.34	-113.98	-4.27	-6,428.28	723.92	390.91	333.00	2.174	
13,100.00	6,933.87	13,352.92	7,228.10	182.27	182.15	-113.98	-5.04	-6,528.27	723.94	385.73	338.21	2.140	
13,200.00	6,933.57	13,452.92	7,227.78	185.09	184.97	-113.98	-5.81	-6,628.27	723.96	380.54	343.42	2.108	
13,300.00	6,933.27	13,552.92	7,227.47	187.91	187.78	-113.98	-6.58	-6,728.27	723.98	375.35	348.63	2.077	
13,400.00	6,932.97	13,652.92	7,227.16	190.72	190.60	-113.97	-7.34	-6,828.26	724.00	370.15	353.85	2.046	
13,500.00	6,932.67	13,752.92	7,226.85	193.54	193.42	-113.97	-8.11	-6,928.26	724.03	364.96	359.07	2.016	
13,600.00	6,932.38	13,852.92	7,226.54	196.36	196.24	-113.97	-8.88	-7,028.26	724.05	359.76	364.29	1.988	
13,700.00	6,932.08	13,952.92	7,226.22	199.19	199.06	-113.97	-9.65	-7,128.25	724.07	354.56	369.51	1.960	
13,800.00	6,931.78	14,052.92	7,225.91	202.01	201.88	-113.97	-10.41	-7,228.25	724.09	349.36	374.73	1.932	
13,900.00	6,931.48	14,152.92	7,225.60	204.83	204.70	-113.97	-11.18	-7,328.25	724.11	344.15	379.96	1.906	
14,000.00	6,931.18	14,252.92	7,225.29	207.66	207.52	-113.96	-11.95	-7,428.24	724.14	338.95	385.19	1.880	
14,100.00	6,930.88	14,352.92	7,224.98	210.48	210.35	-113.96	-12.72	-7,528.24	724.16	333.74	390.42	1.855	
14,200.00	6,930.59	14,452.92	7,224.66	213.31	213.17	-113.96	-13.48	-7,628.24	724.18	328.53	395.65	1.830	
14,300.00	6,930.29	14,552.92	7,224.35	216.14	216.00	-113.96	-14.25	-7,728.23	724.20	323.31	400.89	1.806	
14,400.00	6,929.99	14,652.92	7,224.04	218.96	218.82	-113.96	-15.02	-7,828.23	724.22	318.10	406.12	1.783	
14,500.00	6,929.69	14,752.92	7,223.73	221.79	221.65	-113.95	-15.79	-7,928.23	724.24	312.88	411.36	1.761	
14,600.00	6,929.39	14,852.92	7,223.42	224.62	224.48	-113.95	-16.55	-8,028.22	724.27	307.67	416.60	1.739	
14,700.00	6,929.09	14,952.92	7,223.11	227.45	227.31	-113.95	-17.32	-8,128.22	724.29	302.45	421.84	1.717	
14,732.12	6,929.00	14,985.04	7,223.01	228.36	228.22	-113.95	-17.57	-8,160.34	724.29	300.77	423.52	1.710 SF	



Anticollision Report



Company:	SRC ENERGY	Local Co-ordinate Reference:	Well HARVESTERS STATE 4N-16A-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 4N-16A-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 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	-179.49	-280.15	-2.50	280.17					
100.00	100.00	101.00	100.00	3.28	3.28	-179.49	-280.15	-2.50	280.17	273.60	6.57	42.646		
200.00	200.00	199.00	200.00	3.34	3.34	-179.49	-280.15	-2.50	280.17	273.49	6.67	41.983 CC, ES		
300.00	300.00	290.19	291.17	3.44	3.43	-179.46	-281.57	-2.65	281.72	274.84	6.88	40.937		
400.00	400.00	381.11	381.99	3.60	3.56	-179.38	-285.85	-3.11	286.43	279.24	7.19	39.815		
500.00	500.00	471.66	472.25	3.81	3.73	-179.24	-292.95	-3.87	294.29	286.69	7.60	38.742		
600.00	600.00	561.67	561.71	4.05	3.94	-179.07	-302.83	-4.92	305.28	297.21	8.07	37.822		
700.00	699.98	650.73	649.87	4.32	4.17	-165.38	-315.34	-6.26	321.03	312.42	8.61	37.302		
800.00	799.84	738.16	736.00	4.62	4.43	-165.24	-330.27	-7.85	343.10	333.92	9.19	37.353		
900.00	899.45	823.48	819.57	4.94	4.72	-165.16	-347.35	-9.67	371.36	361.57	9.79	37.943		
1,000.00	998.80	914.50	908.28	5.28	5.05	-165.24	-367.58	-11.83	404.25	393.85	10.40	38.853		
1,100.00	1,098.12	1,008.82	1,000.19	5.63	5.42	-165.37	-388.67	-14.08	437.46	426.41	11.05	39.601		
1,200.00	1,197.44	1,103.14	1,092.10	6.00	5.81	-165.48	-409.75	-16.32	470.67	458.95	11.72	40.161		
1,300.00	1,296.77	1,197.46	1,184.00	6.37	6.21	-165.57	-430.84	-18.57	503.88	491.46	12.42	40.575		
1,400.00	1,396.09	1,291.78	1,275.91	6.76	6.62	-165.65	-451.92	-20.82	537.10	523.96	13.14	40.877		
1,500.00	1,495.41	1,386.10	1,367.81	7.15	7.04	-165.73	-473.01	-23.07	570.31	556.43	13.88	41.092		
1,600.00	1,594.74	1,480.42	1,459.72	7.55	7.47	-165.79	-494.09	-25.32	603.52	588.89	14.63	41.241		
1,700.00	1,694.06	1,574.74	1,551.63	7.96	7.91	-165.85	-515.18	-27.57	636.74	621.34	15.40	41.340		
1,800.00	1,793.38	1,669.06	1,643.53	8.37	8.36	-165.90	-536.26	-29.81	669.95	653.77	16.18	41.400		
1,900.00	1,892.71	1,763.38	1,735.44	8.78	8.80	-165.95	-557.35	-32.06	703.17	686.20	16.97	41.430		
2,000.00	1,992.03	1,857.70	1,827.35	9.20	9.26	-165.99	-578.44	-34.31	736.39	718.61	17.77	41.438		
2,100.00	2,091.36	1,952.03	1,919.25	9.62	9.71	-166.03	-599.52	-36.56	769.60	751.03	18.58	41.428		
2,200.00	2,190.68	2,046.35	2,011.16	10.05	10.17	-166.07	-620.61	-38.81	802.82	783.43	19.39	41.406		
2,300.00	2,290.00	2,140.67	2,103.07	10.48	10.64	-166.10	-641.69	-41.06	836.04	815.83	20.21	41.373		
2,400.00	2,389.33	2,234.99	2,194.97	10.90	11.10	-166.13	-662.78	-43.31	869.25	848.22	21.03	41.333		
2,500.00	2,488.65	2,329.31	2,286.88	11.34	11.57	-166.16	-683.86	-45.55	902.47	880.61	21.86	41.288		
2,600.00	2,587.97	2,423.63	2,378.78	11.77	12.04	-166.19	-704.95	-47.80	935.69	913.00	22.69	41.238		
2,700.00	2,687.30	2,517.95	2,470.69	12.20	12.51	-166.21	-726.03	-50.05	968.91	945.38	23.53	41.186		
2,800.00	2,786.62	2,612.27	2,562.60	12.64	12.98	-166.24	-747.12	-52.30	1,002.12	977.76	24.36	41.132		
2,900.00	2,885.94	2,706.59	2,654.50	13.07	13.46	-166.26	-768.20	-54.55	1,035.34	1,010.14	25.21	41.077		
3,000.00	2,985.27	2,800.91	2,746.41	13.51	13.93	-166.28	-789.29	-56.80	1,068.56	1,042.51	26.05	41.021		
3,100.00	3,084.59	2,904.77	2,838.32	13.95	14.45	-166.30	-810.37	-59.05	1,101.78	1,074.84	26.94	40.898		
3,200.00	3,183.91	2,989.55	2,930.22	14.39	14.88	-166.31	-831.46	-61.29	1,135.00	1,107.25	27.74	40.910		
3,300.00	3,283.24	3,083.88	3,022.13	14.83	15.36	-166.33	-852.54	-63.54	1,168.22	1,139.62	28.59	40.855		
3,400.00	3,382.56	3,178.20	3,114.04	15.27	15.84	-166.35	-873.63	-65.79	1,201.44	1,171.99	29.45	40.800		
3,500.00	3,481.88	3,272.52	3,205.94	15.71	16.32	-166.36	-894.71	-68.04	1,234.65	1,204.35	30.30	40.747		
3,600.00	3,581.21	3,366.84	3,297.85	16.16	16.80	-166.38	-915.80	-70.29	1,267.87	1,236.72	31.16	40.694		
3,700.00	3,680.53	3,461.16	3,389.75	16.60	17.28	-166.39	-936.88	-72.54	1,301.09	1,269.08	32.01	40.643		
3,800.00	3,779.85	3,555.48	3,481.66	17.04	17.76	-166.40	-957.97	-74.79	1,334.31	1,301.44	32.87	40.592		
3,900.00	3,879.18	3,649.80	3,573.57	17.49	18.24	-166.41	-979.05	-77.03	1,367.53	1,333.80	33.73	40.543		
4,000.00	3,978.50	3,744.12	3,665.47	17.93	18.72	-166.43	-1,000.14	-79.28	1,400.75	1,366.16	34.59	40.495		
4,100.00	4,077.82	3,838.44	3,757.38	18.37	19.21	-166.44	-1,021.22	-81.53	1,433.97	1,398.52	35.45	40.448		
4,200.00	4,177.15	3,932.76	3,849.29	18.82	19.69	-166.45	-1,042.31	-83.78	1,467.19	1,430.87	36.31	40.402		
4,300.00	4,276.47	4,027.08	3,941.19	19.27	20.17	-166.46	-1,063.39	-86.03	1,500.41	1,463.23	37.18	40.357		
4,400.00	4,375.79	4,121.40	4,033.10	19.71	20.66	-166.47	-1,084.48	-88.28	1,533.63	1,495.58	38.04	40.314		
4,500.00	4,475.12	4,215.73	4,125.01	20.16	21.14	-166.48	-1,105.56	-90.52	1,566.85	1,527.94	38.91	40.271		
4,600.00	4,574.44	4,310.05	4,216.91	20.60	21.62	-166.49	-1,126.65	-92.77	1,600.07	1,560.29	39.77	40.230		
4,700.00	4,673.76	4,404.37	4,308.82	21.05	22.11	-166.49	-1,147.74	-95.02	1,633.28	1,592.64	40.64	40.189		
4,800.00	4,773.09	4,498.69	4,400.72	21.50	22.59	-166.50	-1,168.82	-97.27	1,666.50	1,625.00	41.51	40.150		
4,900.00	4,872.41	4,606.99	4,492.63	21.94	23.15	-166.51	-1,189.91	-99.52	1,699.72	1,657.28	42.44	40.049		
5,000.00	4,971.74	4,687.33	4,584.54	22.39	23.56	-166.52	-1,210.99	-101.77	1,732.94	1,689.70	43.24	40.075		
5,100.00	5,071.06	4,781.65	4,676.44	22.84	24.05	-166.53	-1,232.08	-104.02	1,766.16	1,722.05	44.11	40.038		

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 4N-16A-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 4N-16A-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 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	5,170.38	4,875.97	4,768.35	23.29	24.53	-166.53	-1,253.16	-106.26	1,799.38	1,754.40	44.98	40.003		
5,300.00	5,269.71	4,970.29	4,860.26	23.74	25.02	-166.54	-1,274.25	-108.51	1,832.60	1,786.75	45.85	39.968		
5,400.00	5,369.03	5,064.61	4,952.16	24.18	25.51	-166.55	-1,295.33	-110.76	1,865.82	1,819.10	46.72	39.935		
5,500.00	5,468.35	5,158.93	5,044.07	24.63	25.99	-166.55	-1,316.42	-113.01	1,899.04	1,851.45	47.59	39.902		
5,600.00	5,567.68	5,253.25	5,135.98	25.08	26.48	-166.56	-1,337.50	-115.26	1,932.26	1,883.80	48.46	39.870		
5,700.00	5,667.00	5,347.58	5,227.88	25.53	26.97	-166.56	-1,358.59	-117.51	1,965.48	1,916.14	49.34	39.839		
5,800.00	5,766.32	5,441.90	5,319.79	25.98	27.45	-166.57	-1,379.67	-119.76	1,998.70	1,948.49	50.21	39.808		
5,900.00	5,865.65	5,536.22	5,411.69	26.43	27.94	-166.58	-1,400.76	-122.00	2,031.92	1,980.84	51.08	39.779		
6,000.00	5,964.97	5,630.54	5,503.60	26.88	28.43	-166.58	-1,421.84	-124.25	2,065.14	2,013.19	51.95	39.750		
6,100.00	6,064.29	5,724.86	5,595.51	27.33	28.91	-166.59	-1,442.93	-126.50	2,098.36	2,045.53	52.83	39.721		
6,200.00	6,163.62	5,819.18	5,687.41	27.78	29.40	-166.59	-1,464.01	-128.75	2,131.58	2,077.88	53.70	39.694		
6,300.00	6,262.94	5,913.50	5,779.32	28.23	29.89	-166.60	-1,485.10	-131.00	2,164.80	2,110.22	54.57	39.667		
6,400.00	6,362.24	6,007.81	5,871.22	28.67	30.38	-147.45	-1,506.18	-133.25	2,198.01	2,142.56	55.45	39.640		
6,500.00	6,460.41	6,101.35	5,962.36	29.12	30.86	-112.84	-1,527.09	-135.48	2,230.91	2,174.58	56.32	39.608		
6,600.00	6,555.09	6,208.04	6,050.65	29.57	31.41	-100.53	-1,547.35	-137.64	2,262.95	2,205.69	57.26	39.519		
6,700.00	6,643.94	6,277.41	6,133.91	30.00	31.77	-94.16	-1,566.45	-139.67	2,293.88	2,235.85	58.03	39.530		
6,800.00	6,724.78	6,355.59	6,210.09	30.45	32.17	-90.12	-1,583.93	-141.54	2,323.67	2,264.81	58.86	39.480		
6,900.00	6,795.62	6,424.59	6,277.33	30.97	32.53	-87.21	-1,599.35	-143.18	2,352.46	2,292.77	59.69	39.409		
7,000.00	6,854.70	6,482.70	6,333.95	31.60	32.83	-84.87	-1,612.34	-144.57	2,380.46	2,319.89	60.56	39.305		
7,100.00	6,900.58	6,528.49	6,378.56	32.39	33.07	-82.79	-1,622.58	-145.66	2,407.84	2,346.35	61.50	39.155		
7,200.00	6,932.13	6,560.83	6,410.08	33.34	33.24	-80.75	-1,629.81	-146.43	2,434.70	2,372.20	62.49	38.959		
7,300.00	6,948.57	6,578.93	6,427.72	34.46	33.33	-78.67	-1,633.85	-146.86	2,460.93	2,397.38	63.54	38.728		
7,400.00	6,950.87	6,632.00	7,065.93	35.70	38.13	-92.65	-1,784.54	-818.01	2,485.70	2,413.43	72.27	34.395		
7,500.00	6,950.58	7,732.00	7,065.70	37.12	39.20	-92.65	-1,785.14	-918.01	2,485.56	2,410.57	74.99	33.145		
7,600.00	6,950.28	7,832.00	7,065.47	38.70	40.52	-92.66	-1,785.74	-1,018.00	2,485.43	2,407.39	78.04	31.850		
7,700.00	6,949.98	7,932.00	7,065.24	40.41	42.03	-92.66	-1,786.34	-1,118.00	2,485.29	2,403.93	81.37	30.544		
7,800.00	6,949.68	8,032.00	7,065.01	42.25	43.70	-92.66	-1,786.94	-1,218.00	2,485.16	2,400.20	84.95	29.253		
7,900.00	6,949.38	8,132.00	7,064.78	44.20	45.50	-92.66	-1,787.54	-1,318.00	2,485.02	2,396.26	88.76	27.997		
8,000.00	6,949.08	8,232.00	7,064.54	46.24	47.41	-92.66	-1,788.14	-1,418.00	2,484.89	2,392.12	92.77	26.787		
8,100.00	6,948.79	8,332.00	7,064.31	48.36	49.42	-92.67	-1,788.74	-1,517.99	2,484.75	2,387.81	96.94	25.632		
8,200.00	6,948.49	8,432.00	7,064.08	50.56	51.51	-92.67	-1,789.33	-1,617.99	2,484.62	2,383.35	101.27	24.535		
8,300.00	6,948.19	8,532.00	7,063.85	52.82	53.68	-92.67	-1,789.93	-1,717.99	2,484.48	2,378.76	105.72	23.500		
8,400.00	6,947.89	8,632.00	7,063.62	55.14	55.91	-92.67	-1,790.53	-1,817.99	2,484.34	2,374.05	110.30	22.524		
8,500.00	6,947.59	8,732.00	7,063.39	57.50	58.20	-92.67	-1,791.13	-1,917.98	2,484.21	2,369.24	114.97	21.607		
8,600.00	6,947.29	8,832.00	7,063.16	59.91	60.53	-92.67	-1,791.73	-2,017.98	2,484.07	2,364.34	119.74	20.746		
8,700.00	6,947.00	8,932.00	7,062.93	62.36	62.91	-92.68	-1,792.33	-2,117.98	2,483.94	2,359.36	124.58	19.938		
8,800.00	6,946.70	9,032.00	7,062.70	64.84	65.33	-92.68	-1,792.93	-2,217.98	2,483.80	2,354.30	129.50	19.180		
8,900.00	6,946.40	9,132.00	7,062.47	67.35	67.79	-92.68	-1,793.53	-2,317.98	2,483.67	2,349.19	134.48	18.469		
9,000.00	6,946.10	9,232.00	7,062.24	69.88	70.27	-92.68	-1,794.13	-2,417.97	2,483.53	2,344.02	139.51	17.802		
9,100.00	6,945.80	9,332.00	7,062.01	72.44	72.79	-92.68	-1,794.72	-2,517.97	2,483.39	2,338.80	144.60	17.175		
9,200.00	6,945.50	9,432.00	7,061.78	75.02	75.32	-92.68	-1,795.32	-2,617.97	2,483.26	2,333.53	149.73	16.585		
9,300.00	6,945.21	9,532.00	7,061.55	77.63	77.88	-92.69	-1,795.92	-2,717.97	2,483.12	2,328.23	154.90	16.031		
9,400.00	6,944.91	9,632.00	7,061.32	80.24	80.47	-92.69	-1,796.52	-2,817.97	2,482.99	2,322.88	160.10	15.509		
9,500.00	6,944.61	9,732.00	7,061.09	82.88	83.06	-92.69	-1,797.12	-2,917.96	2,482.85	2,317.51	165.35	15.016		
9,600.00	6,944.31	9,832.00	7,060.86	85.53	85.68	-92.69	-1,797.72	-3,017.96	2,482.72	2,312.10	170.62	14.551		
9,700.00	6,944.01	9,932.00	7,060.63	88.19	88.31	-92.69	-1,798.32	-3,117.96	2,482.58	2,306.66	175.92	14.112		
9,800.00	6,943.71	10,032.00	7,060.40	90.86	90.96	-92.69	-1,798.92	-3,217.96	2,482.45	2,301.21	181.24	13.697		
9,900.00	6,943.42	10,132.00	7,060.17	93.55	93.61	-92.70	-1,799.51	-3,317.95	2,482.31	2,295.72	186.59	13.304		
10,000.00	6,943.12	10,232.00	7,059.94	96.24	96.28	-92.70	-1,800.11	-3,417.95	2,482.17	2,290.22	191.96	12.931		
10,100.00	6,942.82	10,332.00	7,059.71	98.95	98.96	-92.70	-1,800.71	-3,517.95	2,482.04	2,284.70	197.34	12.577		
10,200.00	6,942.52	10,432.00	7,059.48	101.66	101.65	-92.70	-1,801.31	-3,617.95	2,481.90	2,279.16	202.75	12.241		
10,300.00	6,942.22	10,532.00	7,059.25	104.38	104.35	-92.70	-1,801.91	-3,717.95	2,481.77	2,273.60	208.17	11.922		

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 4N-16A-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 4N-16A-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 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	6,941.92	10,632.00	7,059.02	107.11	107.06	-92.70	-1,802.51	-3,817.94	2,481.63	2,268.03	213.61	11.618		
10,500.00	6,941.63	10,732.00	7,058.79	109.84	109.77	-92.71	-1,803.11	-3,917.94	2,481.50	2,262.44	219.06	11.328		
10,600.00	6,941.33	10,832.00	7,058.55	112.58	112.49	-92.71	-1,803.71	-4,017.94	2,481.36	2,256.84	224.52	11.052		
10,700.00	6,941.03	10,932.00	7,058.32	115.33	115.22	-92.71	-1,804.31	-4,117.94	2,481.23	2,251.23	230.00	10.788		
10,800.00	6,940.73	11,032.00	7,058.09	118.08	117.95	-92.71	-1,804.90	-4,217.93	2,481.09	2,245.61	235.48	10.536		
10,900.00	6,940.43	11,132.00	7,057.86	120.84	120.69	-92.71	-1,805.50	-4,317.93	2,480.95	2,239.98	240.98	10.295		
11,000.00	6,940.13	11,232.00	7,057.63	123.60	123.44	-92.71	-1,806.10	-4,417.93	2,480.82	2,234.33	246.49	10.065		
11,100.00	6,939.83	11,332.00	7,057.40	126.36	126.19	-92.72	-1,806.70	-4,517.93	2,480.68	2,228.68	252.00	9.844		
11,200.00	6,939.54	11,432.00	7,057.17	129.13	128.95	-92.72	-1,807.30	-4,617.93	2,480.55	2,223.02	257.53	9.632		
11,300.00	6,939.24	11,531.99	7,056.94	131.91	131.71	-92.72	-1,807.90	-4,717.92	2,480.41	2,217.35	263.06	9.429		
11,400.00	6,938.94	11,631.99	7,056.71	134.68	134.47	-92.72	-1,808.50	-4,817.92	2,480.28	2,211.68	268.60	9.234		
11,500.00	6,938.64	11,731.99	7,056.48	137.46	137.24	-92.72	-1,809.10	-4,917.92	2,480.14	2,205.99	274.15	9.047		
11,600.00	6,938.34	11,831.99	7,056.25	140.25	140.01	-92.73	-1,809.69	-5,017.92	2,480.01	2,200.30	279.70	8.867		
11,700.00	6,938.04	11,931.99	7,056.02	143.03	142.79	-92.73	-1,810.29	-5,117.92	2,479.87	2,194.61	285.26	8.693		
11,800.00	6,937.75	12,031.99	7,055.79	145.82	145.56	-92.73	-1,810.89	-5,217.91	2,479.73	2,188.91	290.83	8.526		
11,900.00	6,937.45	12,131.99	7,055.56	148.61	148.34	-92.73	-1,811.49	-5,317.91	2,479.60	2,183.20	296.40	8.366		
12,000.00	6,937.15	12,231.99	7,055.33	151.41	151.13	-92.73	-1,812.09	-5,417.91	2,479.46	2,177.49	301.97	8.211		
12,100.00	6,936.85	12,331.99	7,055.10	154.20	153.92	-92.73	-1,812.69	-5,517.91	2,479.33	2,171.77	307.56	8.061		
12,200.00	6,936.55	12,431.99	7,054.87	157.00	156.71	-92.74	-1,813.29	-5,617.90	2,479.19	2,166.05	313.14	7.917		
12,300.00	6,936.25	12,531.99	7,054.64	159.80	159.50	-92.74	-1,813.89	-5,717.90	2,479.06	2,160.32	318.73	7.778		
12,400.00	6,935.96	12,631.99	7,054.41	162.61	162.29	-92.74	-1,814.49	-5,817.90	2,478.92	2,154.59	324.33	7.643		
12,500.00	6,935.66	12,731.99	7,054.18	165.41	165.09	-92.74	-1,815.08	-5,917.90	2,478.79	2,148.86	329.93	7.513		
12,600.00	6,935.36	12,831.99	7,053.95	168.22	167.89	-92.74	-1,815.68	-6,017.90	2,478.65	2,143.12	335.53	7.387		
12,700.00	6,935.06	12,931.99	7,053.72	171.02	170.69	-92.74	-1,816.28	-6,117.89	2,478.51	2,137.38	341.14	7.265		
12,800.00	6,934.76	13,031.99	7,053.49	173.83	173.49	-92.75	-1,816.88	-6,217.89	2,478.38	2,131.63	346.75	7.148		
12,900.00	6,934.46	13,131.99	7,053.26	176.65	176.29	-92.75	-1,817.48	-6,317.89	2,478.24	2,125.88	352.36	7.033		
13,000.00	6,934.17	13,231.99	7,053.03	179.46	179.10	-92.75	-1,818.08	-6,417.89	2,478.11	2,120.13	357.98	6.923		
13,100.00	6,933.87	13,331.99	7,052.80	182.27	181.91	-92.75	-1,818.68	-6,517.88	2,477.97	2,114.38	363.59	6.815		
13,200.00	6,933.57	13,431.99	7,052.56	185.09	184.72	-92.75	-1,819.28	-6,617.88	2,477.84	2,108.62	369.22	6.711		
13,300.00	6,933.27	13,531.99	7,052.33	187.91	187.53	-92.75	-1,819.87	-6,717.88	2,477.70	2,102.86	374.84	6.610		
13,400.00	6,932.97	13,631.99	7,052.10	190.72	190.34	-92.76	-1,820.47	-6,817.88	2,477.57	2,097.10	380.47	6.512		
13,500.00	6,932.67	13,731.99	7,051.87	193.54	193.15	-92.76	-1,821.07	-6,917.88	2,477.43	2,091.33	386.10	6.417		
13,600.00	6,932.38	13,831.99	7,051.64	196.36	195.97	-92.76	-1,821.67	-7,017.87	2,477.30	2,085.57	391.73	6.324		
13,700.00	6,932.08	13,931.99	7,051.41	199.19	198.79	-92.76	-1,822.27	-7,117.87	2,477.16	2,079.80	397.36	6.234		
13,800.00	6,931.78	14,031.99	7,051.18	202.01	201.60	-92.76	-1,822.87	-7,217.87	2,477.02	2,074.02	403.00	6.146		
13,900.00	6,931.48	14,131.99	7,050.95	204.83	204.42	-92.76	-1,823.47	-7,317.87	2,476.89	2,068.25	408.64	6.061		
14,000.00	6,931.18	14,231.99	7,050.72	207.66	207.24	-92.77	-1,824.07	-7,417.87	2,476.75	2,062.47	414.28	5.978		
14,100.00	6,930.88	14,331.99	7,050.49	210.48	210.06	-92.77	-1,824.67	-7,517.86	2,476.62	2,056.70	419.92	5.898		
14,200.00	6,930.59	14,431.99	7,050.26	213.31	212.88	-92.77	-1,825.26	-7,617.86	2,476.48	2,050.92	425.57	5.819		
14,300.00	6,930.29	14,531.99	7,050.03	216.14	215.71	-92.77	-1,825.86	-7,717.86	2,476.35	2,045.14	431.21	5.743		
14,400.00	6,929.99	14,631.99	7,049.80	218.96	218.53	-92.77	-1,826.46	-7,817.86	2,476.21	2,039.35	436.86	5.668		
14,500.00	6,929.69	14,731.99	7,049.57	221.79	221.35	-92.78	-1,827.06	-7,917.85	2,476.08	2,033.57	442.51	5.596		
14,600.00	6,929.39	14,831.99	7,049.34	224.62	224.18	-92.78	-1,827.66	-8,017.85	2,475.94	2,027.78	448.16	5.525		
14,700.00	6,929.09	14,931.99	7,049.11	227.45	227.01	-92.78	-1,828.26	-8,117.85	2,475.80	2,021.99	453.81	5.456		
14,732.12	6,929.00	14,964.11	7,049.03	228.36	227.91	-92.78	-1,828.45	-8,149.97	2,475.76	2,020.13	455.63	5.434 SF		



Anticollision Report



Company:	SRC ENERGY	Local Co-ordinate Reference:	Well HARVESTERS STATE 4N-16A-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 4N-16A-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 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	-179.50	-379.97	-3.34	379.99					
100.00	100.00	102.00	100.00	3.28	3.29	-179.50	-379.97	-3.34	379.99	373.42	6.57	57.838		
200.00	200.00	198.00	200.00	3.34	3.34	-179.50	-379.97	-3.34	379.99	373.32	6.67	56.949	CC, ES	
300.00	300.00	286.51	288.50	3.44	3.42	-179.49	-381.28	-3.42	381.47	374.59	6.88	55.473		
400.00	400.00	374.63	376.52	3.60	3.55	-179.45	-385.28	-3.68	386.02	378.84	7.18	53.751		
500.00	500.00	462.41	464.04	3.81	3.71	-179.40	-391.96	-4.10	393.63	386.05	7.57	51.973		
600.00	600.00	549.71	550.84	4.05	3.91	-179.33	-401.25	-4.69	404.28	396.24	8.04	50.299		
700.00	699.98	636.11	636.43	4.32	4.13	-165.75	-413.04	-5.44	419.61	411.05	8.56	49.019		
800.00	799.84	721.01	720.15	4.62	4.38	-165.69	-427.13	-6.33	441.20	432.07	9.13	48.341		
900.00	899.45	803.94	801.48	4.94	4.65	-165.67	-443.27	-7.36	468.90	459.18	9.72	48.255		
1,000.00	998.80	884.69	880.19	5.28	4.94	-165.78	-461.24	-8.50	501.83	491.52	10.32	48.646		
1,100.00	1,098.12	963.77	956.75	5.63	5.25	-165.92	-480.98	-9.76	537.56	526.65	10.92	49.248		
1,200.00	1,197.44	1,041.14	1,031.11	6.00	5.57	-166.02	-502.33	-11.11	575.83	564.31	11.52	49.996		
1,300.00	1,296.77	1,116.77	1,103.20	6.37	5.90	-166.09	-525.12	-12.56	616.55	604.43	12.12	50.878		
1,400.00	1,396.09	1,190.61	1,172.98	6.76	6.25	-166.15	-549.20	-14.09	659.63	646.91	12.71	51.881		
1,500.00	1,495.41	1,270.30	1,247.67	7.15	6.64	-166.19	-576.95	-15.86	704.77	691.43	13.35	52.799		
1,600.00	1,594.74	1,359.35	1,331.01	7.55	7.09	-166.23	-608.26	-17.85	750.28	736.22	14.05	53.387		
1,700.00	1,694.06	1,448.40	1,414.35	7.96	7.56	-166.26	-639.56	-19.84	795.78	781.00	14.78	53.847		
1,800.00	1,793.38	1,537.44	1,497.69	8.37	8.04	-166.29	-670.87	-21.83	841.28	825.76	15.52	54.207		
1,900.00	1,892.71	1,626.49	1,581.03	8.78	8.52	-166.32	-702.17	-23.82	886.78	870.51	16.28	54.486		
2,000.00	1,992.03	1,715.54	1,664.37	9.20	9.01	-166.35	-733.48	-25.81	932.29	915.24	17.04	54.702		
2,100.00	2,091.36	1,804.58	1,747.70	9.62	9.51	-166.37	-764.78	-27.80	977.79	959.97	17.82	54.865		
2,200.00	2,190.68	1,893.63	1,831.04	10.05	10.02	-166.39	-796.09	-29.78	1,023.29	1,004.68	18.61	54.988		
2,300.00	2,290.00	1,982.68	1,914.38	10.48	10.53	-166.41	-827.39	-31.77	1,068.80	1,049.39	19.41	55.077		
2,400.00	2,389.33	2,071.72	1,997.72	10.90	11.04	-166.43	-858.70	-33.76	1,114.30	1,094.09	20.21	55.140		
2,500.00	2,488.65	2,160.77	2,081.06	11.34	11.55	-166.44	-890.00	-35.75	1,159.80	1,138.78	21.02	55.181		
2,600.00	2,587.97	2,249.82	2,164.40	11.77	12.07	-166.46	-921.31	-37.74	1,205.31	1,183.47	21.83	55.205		
2,700.00	2,687.30	2,338.87	2,247.74	12.20	12.59	-166.47	-952.61	-39.73	1,250.81	1,228.16	22.65	55.215		
2,800.00	2,786.62	2,427.91	2,331.08	12.64	13.12	-166.48	-983.92	-41.72	1,296.31	1,272.83	23.48	55.214		
2,900.00	2,885.94	2,516.96	2,414.42	13.07	13.64	-166.50	-1,015.22	-43.71	1,341.82	1,317.51	24.31	55.204		
3,000.00	2,985.27	2,606.01	2,497.76	13.51	14.17	-166.51	-1,046.53	-45.70	1,387.32	1,362.18	25.14	55.186		
3,100.00	3,084.59	2,704.95	2,581.09	13.95	14.76	-166.52	-1,077.83	-47.69	1,432.82	1,406.80	26.03	55.055		
3,200.00	3,183.91	2,784.10	2,664.43	14.39	15.23	-166.53	-1,109.14	-49.68	1,478.33	1,451.51	26.81	55.134		
3,300.00	3,283.24	2,873.15	2,747.77	14.83	15.76	-166.54	-1,140.44	-51.67	1,523.83	1,496.18	27.65	55.102		
3,400.00	3,382.56	2,962.19	2,831.11	15.27	16.29	-166.55	-1,171.75	-53.66	1,569.33	1,540.84	28.50	55.067		
3,500.00	3,481.88	3,051.24	2,914.45	15.71	16.83	-166.55	-1,203.05	-55.65	1,614.84	1,585.49	29.34	55.030		
3,600.00	3,581.21	3,140.29	2,997.79	16.16	17.36	-166.56	-1,234.36	-57.64	1,660.34	1,630.15	30.19	54.991		
3,700.00	3,680.53	3,229.34	3,081.13	16.60	17.90	-166.57	-1,265.66	-59.63	1,705.85	1,674.80	31.04	54.951		
3,800.00	3,779.85	3,318.38	3,164.47	17.04	18.43	-166.58	-1,296.97	-61.62	1,751.35	1,719.46	31.90	54.910		
3,900.00	3,879.18	3,407.43	3,247.81	17.49	18.97	-166.58	-1,328.28	-63.61	1,796.85	1,764.11	32.75	54.868		
4,000.00	3,978.50	3,496.48	3,331.15	17.93	19.51	-166.59	-1,359.58	-65.60	1,842.36	1,808.75	33.60	54.826		
4,100.00	4,077.82	3,585.52	3,414.48	18.37	20.05	-166.60	-1,390.89	-67.59	1,887.86	1,853.40	34.46	54.784		
4,200.00	4,177.15	3,674.57	3,497.82	18.82	20.58	-166.60	-1,422.19	-69.58	1,933.37	1,898.05	35.32	54.741		
4,300.00	4,276.47	3,763.62	3,581.16	19.27	21.12	-166.61	-1,453.50	-71.57	1,978.87	1,942.69	36.18	54.699		
4,400.00	4,375.79	3,852.66	3,664.50	19.71	21.66	-166.61	-1,484.80	-73.56	2,024.37	1,987.34	37.04	54.657		
4,500.00	4,475.12	3,941.71	3,747.84	20.16	22.20	-166.62	-1,516.11	-75.55	2,069.88	2,031.98	37.90	54.616		
4,600.00	4,574.44	4,030.76	3,831.18	20.60	22.74	-166.62	-1,547.41	-77.54	2,115.38	2,076.62	38.76	54.574		
4,700.00	4,673.76	4,119.80	3,914.52	21.05	23.29	-166.63	-1,578.72	-79.53	2,160.89	2,121.26	39.62	54.534		
4,800.00	4,773.09	4,208.85	3,997.86	21.50	23.83	-166.63	-1,610.02	-81.52	2,206.39	2,165.90	40.49	54.493		
4,900.00	4,872.41	4,302.10	4,081.20	21.94	24.39	-166.63	-1,641.33	-83.51	2,251.89	2,210.52	41.38	54.425		
5,000.00	4,971.74	4,386.95	4,164.53	22.39	24.91	-166.64	-1,672.63	-85.50	2,297.40	2,255.18	42.22	54.414		
5,100.00	5,071.06	4,475.99	4,247.87	22.84	25.45	-166.64	-1,703.94	-87.49	2,342.90	2,299.82	43.09	54.376		

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 4N-16A-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 4N-16A-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 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	5,170.38	4,565.04	4,331.21	23.29	26.00	-166.65	-1,735.24	-89.48	2,388.41	2,344.45	43.95	54.338		
5,300.00	5,269.71	4,654.09	4,414.55	23.74	26.54	-166.65	-1,766.55	-91.47	2,433.91	2,389.09	44.82	54.300		
5,400.00	5,369.03	4,743.13	4,497.89	24.18	27.08	-166.65	-1,797.85	-93.46	2,479.41	2,433.72	45.69	54.264		
5,500.00	5,468.35	4,832.18	4,581.23	24.63	27.62	-166.66	-1,829.16	-95.44	2,524.92	2,478.36	46.56	54.227		
5,600.00	5,567.68	4,921.23	4,664.57	25.08	28.17	-166.66	-1,860.46	-97.43	2,570.42	2,522.99	47.43	54.192		
5,700.00	5,667.00	5,010.27	4,747.91	25.53	28.71	-166.66	-1,891.77	-99.42	2,615.93	2,567.62	48.30	54.157		
5,800.00	5,766.32	5,100.68	4,831.25	25.98	29.26	-166.67	-1,923.07	-101.41	2,661.43	2,612.25	49.18	54.114		
5,900.00	5,865.65	5,188.37	4,914.59	26.43	29.80	-166.67	-1,954.38	-103.40	2,706.94	2,656.89	50.05	54.088		
6,000.00	5,964.97	5,277.42	4,997.92	26.88	30.34	-166.67	-1,985.69	-105.39	2,752.44	2,701.52	50.92	54.055		
6,100.00	6,064.29	5,366.46	5,081.26	27.33	30.89	-166.67	-2,016.99	-107.38	2,797.94	2,746.15	51.79	54.022		
6,200.00	6,163.62	5,455.51	5,164.60	27.78	31.43	-166.68	-2,048.30	-109.37	2,843.45	2,790.78	52.67	53.990		
6,300.00	6,262.94	5,544.56	5,247.94	28.23	31.98	-166.68	-2,079.60	-111.36	2,888.95	2,835.41	53.54	53.958		
6,400.00	6,362.24	5,633.60	5,331.27	28.67	32.52	-147.14	-2,110.90	-113.35	2,934.45	2,880.03	54.42	53.927		
6,500.00	6,460.41	5,721.91	5,413.93	29.12	33.06	-111.05	-2,141.95	-115.33	2,979.54	2,924.25	55.29	53.890		
6,600.00	6,555.09	5,807.48	5,494.01	29.57	33.59	-97.28	-2,172.03	-117.24	3,023.34	2,967.19	56.15	53.845		
6,700.00	6,643.94	5,888.18	5,569.54	30.00	34.08	-89.52	-2,200.41	-119.04	3,065.17	3,008.19	56.98	53.790		
6,800.00	6,724.78	5,962.04	5,638.67	30.45	34.53	-84.25	-2,226.37	-120.69	3,104.56	3,046.76	57.80	53.709		
6,900.00	6,795.62	6,027.24	5,699.68	30.97	34.93	-80.30	-2,249.29	-122.15	3,141.19	3,082.56	58.63	53.580		
7,000.00	6,854.70	6,082.16	5,751.09	31.60	35.27	-77.19	-2,268.60	-123.37	3,174.83	3,115.35	59.48	53.374		
7,100.00	6,900.58	6,125.47	5,791.61	32.39	35.53	-74.64	-2,283.82	-124.34	3,205.34	3,144.94	60.40	53.065		
7,200.00	6,932.13	6,156.08	5,820.26	33.34	35.72	-72.48	-2,294.59	-125.03	3,232.54	3,171.13	61.40	52.644		
7,300.00	6,948.57	6,173.25	5,836.33	34.46	35.83	-70.62	-2,300.62	-125.41	3,256.21	3,193.74	62.47	52.124		
7,400.00	6,950.87	6,177.80	5,840.59	35.70	35.85	-69.69	-2,302.22	-125.51	3,276.70	3,213.12	63.58	51.535		
7,500.00	6,950.58	6,180.01	5,842.66	37.12	35.87	-69.73	-2,303.00	-125.56	3,298.95	3,234.13	64.82	50.894		
7,600.00	6,950.28	6,182.23	5,844.74	38.70	35.88	-69.77	-2,303.78	-125.61	3,324.06	3,257.88	66.18	50.230		
7,700.00	6,949.98	6,184.44	5,846.81	40.41	35.90	-69.81	-2,304.56	-125.66	3,351.97	3,284.34	67.62	49.567		
7,800.00	6,949.68	6,186.66	5,848.88	42.25	35.91	-69.85	-2,305.34	-125.71	3,382.60	3,313.46	69.14	48.923		
7,900.00	6,949.38	6,188.87	5,850.95	44.20	35.92	-69.89	-2,306.12	-125.76	3,415.88	3,345.18	70.71	48.311		
8,000.00	6,949.08	6,208.92	5,853.03	46.24	36.05	-69.93	-2,306.89	-125.81	3,451.74	3,379.34	72.40	47.675		
8,100.00	6,948.79	6,206.70	5,855.10	48.36	36.03	-69.97	-2,307.67	-125.86	3,490.10	3,416.11	73.99	47.170		
8,200.00	6,948.49	6,204.49	5,857.17	50.56	36.02	-70.01	-2,308.45	-125.91	3,530.87	3,455.29	75.58	46.716		
8,300.00	6,948.19	8,977.10	7,242.34	52.82	56.66	-94.76	-2,840.84	-1,713.28	3,544.92	3,437.71	107.21	33.065		
8,400.00	6,947.89	9,077.10	7,241.84	55.14	58.71	-94.76	-2,841.42	-1,813.28	3,544.76	3,433.08	111.68	31.741		
8,500.00	6,947.59	9,177.10	7,241.34	57.50	60.84	-94.75	-2,842.01	-1,913.27	3,544.59	3,428.34	116.25	30.490		
8,600.00	6,947.29	9,277.10	7,240.84	59.91	63.04	-94.75	-2,842.60	-2,013.27	3,544.43	3,423.50	120.92	29.311		
8,700.00	6,947.00	9,377.10	7,240.34	62.36	65.29	-94.75	-2,843.19	-2,113.27	3,544.26	3,418.58	125.68	28.201		
8,800.00	6,946.70	9,477.10	7,239.84	64.84	67.60	-94.74	-2,843.78	-2,213.26	3,544.09	3,413.58	130.51	27.156		
8,900.00	6,946.40	9,577.10	7,239.34	67.35	69.94	-94.74	-2,844.37	-2,313.26	3,543.93	3,408.52	135.41	26.172		
9,000.00	6,946.10	9,677.10	7,238.84	69.88	72.33	-94.74	-2,844.95	-2,413.26	3,543.76	3,403.39	140.37	25.246		
9,100.00	6,945.80	9,777.10	7,238.34	72.44	74.75	-94.74	-2,845.54	-2,513.25	3,543.60	3,398.21	145.38	24.374		
9,200.00	6,945.50	9,877.10	7,237.84	75.02	77.21	-94.73	-2,846.13	-2,613.25	3,543.43	3,392.99	150.45	23.553		
9,300.00	6,945.21	9,977.10	7,237.33	77.63	79.69	-94.73	-2,846.72	-2,713.25	3,543.27	3,387.71	155.55	22.778		
9,400.00	6,944.91	10,077.10	7,236.83	80.24	82.20	-94.73	-2,847.31	-2,813.24	3,543.10	3,382.40	160.70	22.048		
9,500.00	6,944.61	10,177.10	7,236.33	82.88	84.73	-94.72	-2,847.89	-2,913.24	3,542.93	3,377.05	165.88	21.358		
9,600.00	6,944.31	10,277.10	7,235.83	85.53	87.28	-94.72	-2,848.48	-3,013.24	3,542.77	3,371.67	171.10	20.706		
9,700.00	6,944.01	10,377.10	7,235.33	88.19	89.85	-94.72	-2,849.07	-3,113.23	3,542.60	3,366.26	176.35	20.089		
9,800.00	6,943.71	10,477.10	7,234.83	90.86	92.44	-94.71	-2,849.66	-3,213.23	3,542.44	3,360.82	181.62	19.505		
9,900.00	6,943.42	10,577.10	7,234.33	93.55	95.04	-94.71	-2,850.25	-3,313.23	3,542.27	3,355.35	186.92	18.951		
10,000.00	6,943.12	10,677.10	7,233.83	96.24	97.66	-94.71	-2,850.83	-3,413.22	3,542.11	3,349.86	192.24	18.425		
10,100.00	6,942.82	10,777.10	7,233.33	98.95	100.29	-94.71	-2,851.42	-3,513.22	3,541.94	3,344.35	197.59	17.926		
10,200.00	6,942.52	10,877.10	7,232.83	101.66	102.93	-94.70	-2,852.01	-3,613.22	3,541.77	3,338.82	202.95	17.451		
10,300.00	6,942.22	10,977.10	7,232.33	104.38	105.59	-94.70	-2,852.60	-3,713.21	3,541.61	3,333.28	208.33	17.000		

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 4N-16A-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 4N-16A-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 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	6,941.92	11,077.10	7,231.83	107.11	108.25	-94.70	-2,853.19	-3,813.21	3,541.44	3,327.71	213.73	16.570		
10,500.00	6,941.63	11,177.10	7,231.33	109.84	110.93	-94.69	-2,853.78	-3,913.21	3,541.28	3,322.14	219.14	16.160		
10,600.00	6,941.33	11,277.10	7,230.83	112.58	113.61	-94.69	-2,854.36	-4,013.20	3,541.11	3,316.54	224.57	15.768		
10,700.00	6,941.03	11,377.10	7,230.33	115.33	116.31	-94.69	-2,854.95	-4,113.20	3,540.95	3,310.94	230.01	15.395		
10,800.00	6,940.73	11,477.10	7,229.82	118.08	119.01	-94.68	-2,855.54	-4,213.20	3,540.78	3,305.32	235.46	15.037		
10,900.00	6,940.43	11,577.10	7,229.32	120.84	121.72	-94.68	-2,856.13	-4,313.19	3,540.61	3,299.69	240.93	14.696		
11,000.00	6,940.13	11,677.10	7,228.82	123.60	124.43	-94.68	-2,856.72	-4,413.19	3,540.45	3,294.04	246.41	14.368		
11,100.00	6,939.83	11,777.10	7,228.32	126.36	127.15	-94.67	-2,857.30	-4,513.19	3,540.28	3,288.39	251.89	14.055		
11,200.00	6,939.54	11,877.10	7,227.82	129.13	129.88	-94.67	-2,857.89	-4,613.18	3,540.12	3,282.73	257.39	13.754		
11,300.00	6,939.24	11,977.10	7,227.32	131.91	132.61	-94.67	-2,858.48	-4,713.18	3,539.95	3,277.06	262.89	13.465		
11,400.00	6,938.94	12,077.10	7,226.82	134.68	135.35	-94.67	-2,859.07	-4,813.18	3,539.79	3,271.38	268.40	13.188		
11,500.00	6,938.64	12,177.09	7,226.32	137.46	138.10	-94.66	-2,859.66	-4,913.17	3,539.62	3,265.70	273.92	12.922		
11,600.00	6,938.34	12,277.09	7,225.82	140.25	140.84	-94.66	-2,860.25	-5,013.17	3,539.46	3,260.00	279.45	12.666		
11,700.00	6,938.04	12,377.09	7,225.32	143.03	143.60	-94.66	-2,860.83	-5,113.17	3,539.29	3,254.30	284.99	12.419		
11,800.00	6,937.75	12,477.09	7,224.82	145.82	146.35	-94.65	-2,861.42	-5,213.16	3,539.12	3,248.60	290.53	12.182		
11,900.00	6,937.45	12,577.09	7,224.32	148.61	149.11	-94.65	-2,862.01	-5,313.16	3,538.96	3,242.88	296.08	11.953		
12,000.00	6,937.15	12,677.09	7,223.82	151.41	151.88	-94.65	-2,862.60	-5,413.16	3,538.79	3,237.16	301.63	11.732		
12,100.00	6,936.85	12,777.09	7,223.32	154.20	154.64	-94.64	-2,863.19	-5,513.15	3,538.63	3,231.44	307.19	11.519		
12,200.00	6,936.55	12,877.09	7,222.82	157.00	157.41	-94.64	-2,863.77	-5,613.15	3,538.46	3,225.71	312.75	11.314		
12,300.00	6,936.25	12,977.09	7,222.31	159.80	160.19	-94.64	-2,864.36	-5,713.15	3,538.30	3,219.98	318.32	11.115		
12,400.00	6,935.96	13,077.09	7,221.81	162.61	162.96	-94.63	-2,864.95	-5,813.14	3,538.13	3,214.24	323.89	10.924		
12,500.00	6,935.66	13,177.09	7,221.31	165.41	165.74	-94.63	-2,865.54	-5,913.14	3,537.97	3,208.49	329.47	10.738		
12,600.00	6,935.36	13,277.09	7,220.81	168.22	168.53	-94.63	-2,866.13	-6,013.14	3,537.80	3,202.75	335.06	10.559		
12,700.00	6,935.06	13,377.09	7,220.31	171.02	171.31	-94.63	-2,866.72	-6,113.13	3,537.64	3,196.99	340.64	10.385		
12,800.00	6,934.76	13,477.09	7,219.81	173.83	174.10	-94.62	-2,867.30	-6,213.13	3,537.47	3,191.24	346.23	10.217		
12,900.00	6,934.46	13,577.09	7,219.31	176.65	176.89	-94.62	-2,867.89	-6,313.13	3,537.30	3,185.48	351.83	10.054		
13,000.00	6,934.17	13,677.09	7,218.81	179.46	179.68	-94.62	-2,868.48	-6,413.12	3,537.14	3,179.72	357.42	9.896		
13,100.00	6,933.87	13,777.09	7,218.31	182.27	182.47	-94.61	-2,869.07	-6,513.12	3,536.97	3,173.95	363.03	9.743		
13,200.00	6,933.57	13,877.09	7,217.81	185.09	185.27	-94.61	-2,869.66	-6,613.12	3,536.81	3,168.18	368.63	9.594		
13,300.00	6,933.27	13,977.09	7,217.31	187.91	188.07	-94.61	-2,870.24	-6,713.11	3,536.64	3,162.41	374.24	9.450		
13,400.00	6,932.97	14,077.09	7,216.81	190.72	190.87	-94.60	-2,870.83	-6,813.11	3,536.48	3,156.63	379.85	9.310		
13,500.00	6,932.67	14,177.09	7,216.31	193.54	193.67	-94.60	-2,871.42	-6,913.11	3,536.31	3,150.85	385.46	9.174		
13,600.00	6,932.38	14,277.09	7,215.81	196.36	196.47	-94.60	-2,872.01	-7,013.10	3,536.15	3,145.07	391.08	9.042		
13,700.00	6,932.08	14,377.09	7,215.31	199.19	199.28	-94.59	-2,872.60	-7,113.10	3,535.98	3,139.29	396.69	8.914		
13,800.00	6,931.78	14,477.09	7,214.80	202.01	202.08	-94.59	-2,873.19	-7,213.10	3,535.82	3,133.50	402.31	8.789		
13,900.00	6,931.48	14,577.09	7,214.30	204.83	204.89	-94.59	-2,873.77	-7,313.09	3,535.65	3,127.71	407.94	8.667		
14,000.00	6,931.18	14,677.09	7,213.80	207.66	207.70	-94.59	-2,874.36	-7,413.09	3,535.49	3,121.92	413.56	8.549		
14,100.00	6,930.88	14,777.09	7,213.30	210.48	210.51	-94.58	-2,874.95	-7,513.09	3,535.32	3,116.13	419.19	8.434		
14,200.00	6,930.59	14,877.09	7,212.80	213.31	213.32	-94.58	-2,875.54	-7,613.08	3,535.16	3,110.34	424.82	8.322		
14,300.00	6,930.29	14,977.09	7,212.30	216.14	216.13	-94.58	-2,876.13	-7,713.08	3,534.99	3,104.54	430.45	8.212		
14,400.00	6,929.99	15,077.09	7,211.80	218.96	218.95	-94.57	-2,876.71	-7,813.08	3,534.83	3,098.74	436.08	8.106		
14,500.00	6,929.69	15,177.09	7,211.30	221.79	221.76	-94.57	-2,877.30	-7,913.07	3,534.66	3,092.94	441.72	8.002		
14,600.00	6,929.39	15,277.09	7,210.80	224.62	224.58	-94.57	-2,877.89	-8,013.07	3,534.49	3,087.14	447.36	7.901		
14,700.00	6,929.09	15,377.08	7,210.30	227.45	227.40	-94.56	-2,878.48	-8,113.07	3,534.33	3,081.33	452.99	7.802		
14,732.12	6,929.00	15,409.21	7,210.14	228.36	228.30	-94.56	-2,878.67	-8,145.19	3,534.28	3,079.47	454.81	7.771 SF		



Anticollision Report



Company:	SRC ENERGY	Local Co-ordinate Reference:	Well HARVESTERS STATE 4N-16A-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 4N-16A-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 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	-179.51	-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	-3.15	361.44	354.56	6.88	52.555		
400.00	400.00	375.71	377.60	3.60	3.55	-179.46	-365.31	-3.43	366.01	358.83	7.18	50.951		
500.00	500.00	464.04	465.67	3.81	3.72	-179.40	-372.07	-3.90	373.67	366.09	7.58	49.312		
600.00	600.00	551.87	552.98	4.05	3.91	-179.32	-381.47	-4.55	384.38	376.34	8.04	47.787		
700.00	699.98	638.79	639.08	4.32	4.14	-165.72	-393.40	-5.37	399.79	391.22	8.57	46.658		
800.00	799.84	724.19	723.27	4.62	4.39	-165.66	-407.65	-6.36	421.47	412.34	9.14	46.125		
900.00	899.45	807.59	805.04	4.94	4.66	-165.63	-423.97	-7.49	449.28	439.55	9.73	46.173		
1,000.00	998.80	888.78	884.16	5.28	4.96	-165.74	-442.14	-8.75	482.34	472.01	10.33	46.686		
1,100.00	1,098.12	968.27	961.10	5.63	5.27	-165.87	-462.09	-10.13	518.20	507.27	10.93	47.401		
1,200.00	1,197.44	1,046.04	1,035.80	6.00	5.59	-165.96	-483.67	-11.62	556.61	545.07	11.54	48.250		
1,300.00	1,296.77	1,122.04	1,108.20	6.37	5.93	-166.03	-506.69	-13.21	597.47	585.34	12.14	49.223		
1,400.00	1,396.09	1,203.04	1,184.76	6.76	6.31	-166.08	-533.10	-15.04	640.52	627.75	12.77	50.158		
1,500.00	1,495.41	1,306.89	1,269.76	7.15	6.81	-166.13	-562.82	-17.09	683.96	670.43	13.52	50.572		
1,600.00	1,594.74	1,383.18	1,354.76	7.55	7.20	-166.17	-592.54	-19.15	727.40	713.21	14.18	51.283		
1,700.00	1,694.06	1,473.25	1,439.76	7.96	7.66	-166.20	-622.25	-21.20	770.84	755.92	14.92	51.666		
1,800.00	1,793.38	1,563.32	1,524.76	8.37	8.14	-166.24	-651.97	-23.26	814.28	798.61	15.67	51.963		
1,900.00	1,892.71	1,653.39	1,609.76	8.78	8.62	-166.27	-681.69	-25.32	857.72	841.29	16.43	52.191		
2,000.00	1,992.03	1,743.46	1,694.77	9.20	9.10	-166.29	-711.41	-27.37	901.17	883.96	17.21	52.363		
2,100.00	2,091.36	1,833.53	1,779.77	9.62	9.60	-166.32	-741.12	-29.43	944.61	926.61	18.00	52.492		
2,200.00	2,190.68	1,923.60	1,864.77	10.05	10.09	-166.34	-770.84	-31.48	988.05	969.26	18.79	52.586		
2,300.00	2,290.00	2,013.67	1,949.77	10.48	10.60	-166.36	-800.56	-33.54	1,031.49	1,011.90	19.59	52.652		
2,400.00	2,389.33	2,103.74	2,034.77	10.90	11.10	-166.38	-830.27	-35.59	1,074.94	1,054.54	20.40	52.696		
2,500.00	2,488.65	2,206.19	2,119.78	11.34	11.68	-166.40	-859.99	-37.65	1,118.38	1,097.11	21.27	52.572		
2,600.00	2,587.97	2,283.88	2,204.78	11.77	12.12	-166.41	-889.71	-39.71	1,161.82	1,139.79	22.03	52.732		
2,700.00	2,687.30	2,373.95	2,289.78	12.20	12.63	-166.43	-919.42	-41.76	1,205.27	1,182.41	22.86	52.731		
2,800.00	2,786.62	2,464.02	2,374.78	12.64	13.15	-166.44	-949.14	-43.82	1,248.71	1,225.02	23.69	52.721		
2,900.00	2,885.94	2,554.09	2,459.78	13.07	13.67	-166.45	-978.86	-45.87	1,292.15	1,267.63	24.52	52.704		
3,000.00	2,985.27	2,644.17	2,544.78	13.51	14.18	-166.46	-1,008.58	-47.93	1,335.59	1,310.24	25.35	52.680		
3,100.00	3,084.59	2,734.24	2,629.79	13.95	14.70	-166.48	-1,038.29	-49.98	1,379.04	1,352.85	26.19	52.652		
3,200.00	3,183.91	2,824.31	2,714.79	14.39	15.23	-166.49	-1,068.01	-52.04	1,422.48	1,395.45	27.03	52.620		
3,300.00	3,283.24	2,914.38	2,799.79	14.83	15.75	-166.50	-1,097.73	-54.09	1,465.92	1,438.05	27.88	52.586		
3,400.00	3,382.56	3,004.45	2,884.79	15.27	16.27	-166.51	-1,127.44	-56.15	1,509.37	1,480.64	28.72	52.549		
3,500.00	3,481.88	3,105.48	2,969.79	15.71	16.86	-166.51	-1,157.16	-58.21	1,552.81	1,523.18	29.63	52.412		
3,600.00	3,581.21	3,184.59	3,054.80	16.16	17.32	-166.52	-1,186.88	-60.26	1,596.25	1,565.83	30.42	52.470		
3,700.00	3,680.53	3,274.66	3,139.80	16.60	17.85	-166.53	-1,216.60	-62.32	1,639.70	1,608.42	31.27	52.430		
3,800.00	3,779.85	3,364.73	3,224.80	17.04	18.37	-166.54	-1,246.31	-64.37	1,683.14	1,651.01	32.13	52.388		
3,900.00	3,879.18	3,454.80	3,309.80	17.49	18.90	-166.55	-1,276.03	-66.43	1,726.58	1,693.60	32.98	52.347		
4,000.00	3,978.50	3,544.87	3,394.80	17.93	19.43	-166.55	-1,305.75	-68.48	1,770.03	1,736.19	33.84	52.305		
4,100.00	4,077.82	3,634.94	3,479.80	18.37	19.96	-166.56	-1,335.46	-70.54	1,813.47	1,778.77	34.70	52.263		
4,200.00	4,177.15	3,725.01	3,564.81	18.82	20.49	-166.56	-1,365.18	-72.60	1,856.91	1,821.36	35.56	52.222		
4,300.00	4,276.47	3,815.08	3,649.81	19.27	21.02	-166.57	-1,394.90	-74.65	1,900.36	1,863.94	36.42	52.181		
4,400.00	4,375.79	3,905.15	3,734.81	19.71	21.55	-166.58	-1,424.61	-76.71	1,943.80	1,906.52	37.28	52.140		
4,500.00	4,475.12	3,995.22	3,819.81	20.16	22.08	-166.58	-1,454.33	-78.76	1,987.25	1,949.10	38.14	52.099		
4,600.00	4,574.44	4,085.29	3,904.81	20.60	22.61	-166.59	-1,484.05	-80.82	2,030.69	1,991.68	39.01	52.059		
4,700.00	4,673.76	4,175.36	3,989.82	21.05	23.14	-166.59	-1,513.77	-82.87	2,074.13	2,034.26	39.87	52.020		
4,800.00	4,773.09	4,265.43	4,074.82	21.50	23.67	-166.60	-1,543.48	-84.93	2,117.58	2,076.84	40.74	51.981		
4,900.00	4,872.41	4,355.50	4,159.82	21.94	24.20	-166.60	-1,573.20	-86.98	2,161.02	2,119.42	41.60	51.943		
5,000.00	4,971.74	4,445.57	4,244.82	22.39	24.74	-166.61	-1,602.92	-89.04	2,204.46	2,161.99	42.47	51.905		
5,100.00	5,071.06	4,535.64	4,329.82	22.84	25.27	-166.61	-1,632.63	-91.10	2,247.91	2,204.57	43.34	51.868		

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 4N-16A-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 4N-16A-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 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	5,170.38	4,625.71	4,414.82	23.29	25.80	-166.61	-1,662.35	-93.15	2,291.35	2,247.14	44.21	51.832		
5,300.00	5,269.71	4,715.78	4,499.83	23.74	26.34	-166.62	-1,692.07	-95.21	2,334.79	2,289.72	45.08	51.796		
5,400.00	5,369.03	4,805.85	4,584.83	24.18	26.87	-166.62	-1,721.78	-97.26	2,378.24	2,332.29	45.95	51.761		
5,500.00	5,468.35	4,904.08	4,669.83	24.63	27.45	-166.62	-1,751.50	-99.32	2,421.68	2,374.82	46.86	51.680		
5,600.00	5,567.68	4,985.99	4,754.83	25.08	27.94	-166.63	-1,781.22	-101.37	2,465.12	2,417.44	47.69	51.693		
5,700.00	5,667.00	5,076.06	4,839.83	25.53	28.47	-166.63	-1,810.94	-103.43	2,508.57	2,460.01	48.56	51.659		
5,800.00	5,766.32	5,166.13	4,924.84	25.98	29.00	-166.63	-1,840.65	-105.48	2,552.01	2,502.58	49.43	51.626		
5,900.00	5,865.65	5,256.20	5,009.84	26.43	29.54	-166.64	-1,870.37	-107.54	2,595.46	2,545.15	50.31	51.594		
6,000.00	5,964.97	5,346.27	5,094.84	26.88	30.07	-166.64	-1,900.09	-109.60	2,638.90	2,587.72	51.18	51.563		
6,100.00	6,064.29	5,436.34	5,179.84	27.33	30.61	-166.64	-1,929.80	-111.65	2,682.34	2,630.29	52.05	51.532		
6,200.00	6,163.62	5,526.41	5,264.84	27.78	31.14	-166.65	-1,959.52	-113.71	2,725.79	2,672.86	52.93	51.501		
6,300.00	6,262.94	5,616.48	5,349.84	28.23	31.68	-166.65	-1,989.24	-115.76	2,769.23	2,715.43	53.80	51.471		
6,400.00	6,362.24	5,706.54	5,434.84	28.67	32.21	-147.18	-2,018.95	-117.82	2,812.67	2,757.99	54.68	51.441		
6,500.00	6,460.41	5,795.88	5,519.14	29.12	32.74	-111.35	-2,048.43	-119.86	2,855.70	2,800.15	55.55	51.406		
6,600.00	6,555.09	5,882.42	5,600.82	29.57	33.26	-97.84	-2,076.98	-121.83	2,897.52	2,841.11	56.41	51.364		
6,700.00	6,643.94	5,964.06	5,677.86	30.00	33.74	-90.31	-2,103.92	-123.70	2,937.51	2,880.26	57.25	51.310		
6,800.00	6,724.78	6,038.77	5,748.37	30.45	34.19	-85.24	-2,128.56	-125.40	2,975.25	2,917.18	58.07	51.234		
6,900.00	6,795.62	6,104.72	5,810.61	30.97	34.58	-81.47	-2,150.32	-126.91	3,010.49	2,951.59	58.90	51.114		
7,000.00	6,854.70	6,160.28	5,863.04	31.60	34.91	-78.48	-2,168.65	-128.17	3,043.09	2,983.33	59.76	50.923		
7,100.00	6,900.58	6,204.08	5,904.38	32.39	35.17	-76.00	-2,183.11	-129.17	3,072.94	3,012.26	60.68	50.638		
7,200.00	6,932.13	6,235.05	5,933.60	33.34	35.35	-73.87	-2,193.32	-129.88	3,099.91	3,038.22	61.69	50.252		
7,300.00	6,948.57	6,252.42	5,950.00	34.46	35.46	-71.99	-2,199.05	-130.28	3,123.80	3,061.04	62.76	49.777		
7,400.00	6,950.87	6,257.03	5,954.35	35.70	35.48	-71.02	-2,200.57	-130.38	3,144.92	3,081.06	63.87	49.242		
7,500.00	6,950.58	6,259.27	5,956.46	37.12	35.50	-71.07	-2,201.31	-130.43	3,167.98	3,102.88	65.10	48.662		
7,600.00	6,950.28	6,261.51	5,958.58	38.70	35.51	-71.11	-2,202.05	-130.48	3,194.00	3,127.55	66.45	48.066		
7,700.00	6,949.98	6,263.76	5,960.70	40.41	35.52	-71.15	-2,202.79	-130.54	3,222.92	3,155.03	67.89	47.474		
7,800.00	6,949.68	6,266.00	5,962.82	42.25	35.54	-71.19	-2,203.54	-130.59	3,254.65	3,185.26	69.39	46.903		
7,900.00	6,949.38	6,268.25	5,964.93	44.20	35.55	-71.23	-2,204.28	-130.64	3,289.11	3,218.17	70.94	46.366		
8,000.00	6,949.08	6,268.51	5,965.04	46.24	35.56	-71.27	-2,205.02	-130.69	3,324.67	3,253.18	72.54	45.832		
8,100.00	6,948.79	6,268.76	5,965.15	48.36	35.57	-71.31	-2,205.76	-130.74	3,360.23	3,288.74	74.19	45.299		
8,200.00	6,948.49	6,269.01	5,965.26	50.56	35.58	-71.35	-2,206.50	-130.79	3,395.84	3,324.35	75.89	44.766		
8,300.00	6,948.19	6,269.26	5,965.37	52.82	35.59	-71.39	-2,207.24	-130.84	3,431.45	3,360.00	77.59	44.233		
8,400.00	6,947.89	6,269.51	5,965.48	55.14	35.60	-71.43	-2,207.98	-130.89	3,467.06	3,395.66	79.29	43.700		
8,500.00	6,947.59	6,269.76	5,965.59	57.50	35.61	-71.47	-2,208.72	-130.94	3,502.67	3,431.32	80.99	43.167		
8,600.00	6,947.29	6,270.01	5,965.70	59.91	35.62	-71.51	-2,209.46	-130.99	3,538.28	3,466.98	82.69	42.634		
8,700.00	6,947.00	6,270.26	5,965.81	62.36	35.63	-71.55	-2,210.20	-131.04	3,573.89	3,502.64	84.39	42.101		
8,800.00	6,946.70	6,270.51	5,965.92	64.84	35.64	-71.59	-2,210.94	-131.09	3,609.50	3,538.30	86.09	41.568		
8,900.00	6,946.40	6,270.76	5,966.03	67.35	35.65	-71.63	-2,211.68	-131.14	3,645.11	3,573.96	87.79	41.035		
9,000.00	6,946.10	6,271.01	5,966.14	69.88	35.66	-71.67	-2,212.42	-131.19	3,680.72	3,609.62	89.49	40.502		
9,100.00	6,945.80	6,271.26	5,966.25	72.44	35.67	-71.71	-2,213.16	-131.24	3,716.33	3,645.28	91.19	39.969		
9,200.00	6,945.50	6,271.51	5,966.36	75.02	35.68	-71.75	-2,213.90	-131.29	3,751.94	3,680.94	92.89	39.436		
9,300.00	6,945.21	6,271.76	5,966.47	77.63	35.69	-71.79	-2,214.64	-131.34	3,787.55	3,716.60	94.59	38.903		
9,400.00	6,944.91	6,272.01	5,966.58	80.24	35.70	-71.83	-2,215.38	-131.39	3,823.16	3,752.26	96.29	38.370		
9,500.00	6,944.61	6,272.26	5,966.69	82.88	35.71	-71.87	-2,216.12	-131.44	3,858.77	3,787.92	97.99	37.837		
9,600.00	6,944.31	6,272.51	5,966.80	85.53	35.72	-71.91	-2,216.86	-131.49	3,894.38	3,823.58	99.69	37.304		
9,700.00	6,944.01	6,272.76	5,966.91	88.19	35.73	-71.95	-2,217.60	-131.54	3,929.99	3,859.24	101.39	36.771		
9,800.00	6,943.71	6,273.01	5,967.02	90.86	35.74	-71.99	-2,218.34	-131.59	3,965.60	3,894.90	103.09	36.238		
9,900.00	6,943.42	6,273.26	5,967.13	93.55	35.75	-72.03	-2,219.08	-131.64	4,001.21	3,930.56	104.79	35.705		
10,000.00	6,943.12	6,273.51	5,967.24	96.24	35.76	-72.07	-2,219.82	-131.69	4,036.82	3,966.22	106.49	35.172		
10,100.00	6,942.82	6,273.76	5,967.35	98.95	35.77	-72.11	-2,220.56	-131.74	4,072.43	4,001.88	108.19	34.639		
10,200.00	6,942.52	6,274.01	5,967.46	101.66	35.78	-72.15	-2,221.30	-131.79	4,108.04	4,037.54	109.89	34.106		
10,300.00	6,942.22	6,274.26	5,967.57	104.38	35.79	-72.19	-2,222.04	-131.84	4,143.65	4,073.20	111.59	33.573		

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 4N-16A-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 4N-16A-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 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	6,941.92	10,916.50	7,128.77	107.11	107.89	-93.22	-2,640.82	-3,813.25	3,322.45	3,108.47	213.98	15.527		
10,500.00	6,941.63	11,016.50	7,128.21	109.84	110.58	-93.22	-2,641.43	-3,913.24	3,322.31	3,102.91	219.41	15.142		
10,600.00	6,941.33	11,116.50	7,127.64	112.58	113.27	-93.22	-2,642.05	-4,013.24	3,322.17	3,097.32	224.85	14.775		
10,700.00	6,941.03	11,216.50	7,127.07	115.33	115.97	-93.21	-2,642.66	-4,113.23	3,322.03	3,091.73	230.30	14.425		
10,800.00	6,940.73	11,316.50	7,126.50	118.08	118.68	-93.21	-2,643.27	-4,213.23	3,321.89	3,086.12	235.77	14.089		
10,900.00	6,940.43	11,416.50	7,125.93	120.84	121.40	-93.20	-2,643.88	-4,313.23	3,321.75	3,080.50	241.25	13.769		
11,000.00	6,940.13	11,516.50	7,125.36	123.60	124.12	-93.20	-2,644.50	-4,413.22	3,321.61	3,074.87	246.74	13.462		
11,100.00	6,939.83	11,616.50	7,124.79	126.36	126.85	-93.19	-2,645.11	-4,513.22	3,321.47	3,069.23	252.24	13.168		
11,200.00	6,939.54	11,716.50	7,124.23	129.13	129.59	-93.19	-2,645.72	-4,613.22	3,321.33	3,063.58	257.75	12.886		
11,300.00	6,939.24	11,816.50	7,123.66	131.91	132.33	-93.18	-2,646.34	-4,713.21	3,321.19	3,057.93	263.27	12.615		
11,400.00	6,938.94	11,916.50	7,123.09	134.68	135.07	-93.18	-2,646.95	-4,813.21	3,321.05	3,052.26	268.79	12.355		
11,500.00	6,938.64	12,016.50	7,122.52	137.46	137.82	-93.17	-2,647.56	-4,913.20	3,320.91	3,046.59	274.33	12.106		
11,600.00	6,938.34	12,116.50	7,121.95	140.25	140.58	-93.17	-2,648.18	-5,013.20	3,320.77	3,040.91	279.87	11.866		
11,700.00	6,938.04	12,216.50	7,121.38	143.03	143.34	-93.17	-2,648.79	-5,113.20	3,320.64	3,035.22	285.41	11.634		
11,800.00	6,937.75	12,316.50	7,120.82	145.82	146.10	-93.16	-2,649.40	-5,213.19	3,320.50	3,029.53	290.97	11.412		
11,900.00	6,937.45	12,416.50	7,120.25	148.61	148.87	-93.16	-2,650.01	-5,313.19	3,320.36	3,023.83	296.53	11.197		
12,000.00	6,937.15	12,516.50	7,119.68	151.41	151.64	-93.15	-2,650.63	-5,413.18	3,320.22	3,018.12	302.09	10.991		
12,100.00	6,936.85	12,616.50	7,119.11	154.20	154.41	-93.15	-2,651.24	-5,513.18	3,320.08	3,012.41	307.66	10.791		
12,200.00	6,936.55	12,716.50	7,118.54	157.00	157.18	-93.14	-2,651.85	-5,613.18	3,319.94	3,006.70	313.24	10.599		
12,300.00	6,936.25	12,816.50	7,117.97	159.80	159.96	-93.14	-2,652.47	-5,713.17	3,319.80	3,000.98	318.82	10.413		
12,400.00	6,935.96	12,916.50	7,117.40	162.61	162.74	-93.13	-2,653.08	-5,813.17	3,319.66	2,995.25	324.41	10.233		
12,500.00	6,935.66	13,016.49	7,116.84	165.41	165.53	-93.13	-2,653.69	-5,913.16	3,319.52	2,989.52	330.00	10.059		
12,600.00	6,935.36	13,116.49	7,116.27	168.22	168.32	-93.12	-2,654.30	-6,013.16	3,319.38	2,983.79	335.59	9.891		
12,700.00	6,935.06	13,216.49	7,115.70	171.02	171.11	-93.12	-2,654.92	-6,113.16	3,319.24	2,978.05	341.19	9.728		
12,800.00	6,934.76	13,316.49	7,115.13	173.83	173.90	-93.12	-2,655.53	-6,213.15	3,319.10	2,972.31	346.79	9.571		
12,900.00	6,934.46	13,416.49	7,114.56	176.65	176.69	-93.11	-2,656.14	-6,313.15	3,318.96	2,966.57	352.40	9.418		
13,000.00	6,934.17	13,516.49	7,113.99	179.46	179.49	-93.11	-2,656.76	-6,413.14	3,318.82	2,960.82	358.00	9.270		
13,100.00	6,933.87	13,616.49	7,113.43	182.27	182.28	-93.10	-2,657.37	-6,513.14	3,318.68	2,955.07	363.62	9.127		
13,200.00	6,933.57	13,716.49	7,112.86	185.09	185.08	-93.10	-2,657.98	-6,613.14	3,318.54	2,949.31	369.23	8.988		
13,300.00	6,933.27	13,816.49	7,112.29	187.91	187.88	-93.09	-2,658.60	-6,713.13	3,318.41	2,943.56	374.85	8.853		
13,400.00	6,932.97	13,916.49	7,111.72	190.72	190.69	-93.09	-2,659.21	-6,813.13	3,318.27	2,937.80	380.47	8.721		
13,500.00	6,932.67	14,016.49	7,111.15	193.54	193.49	-93.08	-2,659.82	-6,913.12	3,318.13	2,932.03	386.09	8.594		
13,600.00	6,932.38	14,116.49	7,110.58	196.36	196.30	-93.08	-2,660.43	-7,013.12	3,317.99	2,926.27	391.72	8.470		
13,700.00	6,932.08	14,216.49	7,110.01	199.19	199.11	-93.07	-2,661.05	-7,113.12	3,317.85	2,920.50	397.35	8.350		
13,800.00	6,931.78	14,316.49	7,109.45	202.01	201.92	-93.07	-2,661.66	-7,213.11	3,317.71	2,914.73	402.98	8.233		
13,900.00	6,931.48	14,416.49	7,108.88	204.83	204.73	-93.07	-2,662.27	-7,313.11	3,317.57	2,908.96	408.61	8.119		
14,000.00	6,931.18	14,516.49	7,108.31	207.66	207.54	-93.06	-2,662.89	-7,413.11	3,317.43	2,903.18	414.25	8.008		
14,100.00	6,930.88	14,616.49	7,107.74	210.48	210.35	-93.06	-2,663.50	-7,513.10	3,317.29	2,897.41	419.89	7.900		
14,200.00	6,930.59	14,716.49	7,107.17	213.31	213.17	-93.05	-2,664.11	-7,613.10	3,317.15	2,891.63	425.53	7.795		
14,300.00	6,930.29	14,816.49	7,106.60	216.14	215.98	-93.05	-2,664.73	-7,713.09	3,317.01	2,885.85	431.17	7.693		
14,400.00	6,929.99	14,916.49	7,106.04	218.96	218.80	-93.04	-2,665.34	-7,813.09	3,316.88	2,880.06	436.81	7.593		
14,500.00	6,929.69	15,016.49	7,105.47	221.79	221.61	-93.04	-2,665.95	-7,913.09	3,316.74	2,874.28	442.46	7.496		
14,600.00	6,929.39	15,116.49	7,104.90	224.62	224.43	-93.03	-2,666.56	-8,013.08	3,316.60	2,868.49	448.10	7.401		
14,700.00	6,929.09	15,216.48	7,104.33	227.45	227.25	-93.03	-2,667.18	-8,113.08	3,316.46	2,862.71	453.75	7.309		
14,732.12	6,929.00	15,248.61	7,104.15	228.36	228.16	-93.03	-2,667.37	-8,145.20	3,316.41	2,860.85	455.57	7.280 SF		



Anticollision Report



Company:	SRC ENERGY	Local Co-ordinate Reference:	Well HARVESTERS STATE 4N-16A-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 4N-16A-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 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	0.40	40.08	0.28	40.08					
100.00	100.00	101.00	100.00	3.28	0.18	0.40	40.08	0.28	40.08	36.61	3.46	11.568		
200.00	200.00	201.00	200.00	3.34	0.62	0.40	40.08	0.28	40.08	36.12	3.96	10.132		
300.00	300.00	301.00	300.00	3.44	1.06	0.40	40.08	0.28	40.08	35.58	4.50	8.902		
400.00	400.00	401.00	400.00	3.60	1.50	0.40	40.08	0.28	40.08	34.98	5.10	7.859		
500.00	500.00	501.00	500.00	3.81	1.93	0.40	40.08	0.28	40.08	34.34	5.74	6.981	CC, ES	
600.00	600.00	599.58	598.56	4.05	2.37	0.06	41.79	0.04	41.82	35.39	6.43	6.508		
700.00	699.98	698.04	696.88	4.32	2.80	13.15	46.86	-0.64	45.27	38.11	7.15	6.328		
800.00	799.84	796.38	794.85	4.62	3.24	13.22	55.26	-1.79	48.72	40.82	7.91	6.161		
900.00	899.45	894.60	892.36	4.94	3.68	13.65	66.96	-3.38	52.19	43.50	8.68	6.010		
1,000.00	998.80	992.68	989.25	5.28	4.12	14.21	81.95	-5.42	56.41	46.93	9.47	5.954		
1,100.00	1,098.12	1,108.35	1,086.57	5.63	4.64	14.34	99.81	-7.85	63.22	52.89	10.34	6.116		
1,200.00	1,197.44	1,191.40	1,184.60	6.00	5.01	14.41	118.07	-10.33	70.32	59.25	11.06	6.355		
1,300.00	1,296.77	1,308.85	1,282.63	6.37	5.54	14.47	136.34	-12.82	77.41	65.45	11.96	6.472		
1,400.00	1,396.09	1,409.11	1,380.66	6.76	6.00	14.52	154.60	-15.30	84.51	71.71	12.79	6.606		
1,500.00	1,495.41	1,490.64	1,478.69	7.15	6.38	14.56	172.87	-17.79	91.60	78.05	13.55	6.760		
1,600.00	1,594.74	1,609.61	1,576.72	7.55	6.94	14.60	191.14	-20.27	98.70	84.21	14.49	6.813		
1,700.00	1,694.06	1,690.14	1,674.75	7.96	7.32	14.63	209.40	-22.76	105.79	90.54	15.26	6.935		
1,800.00	1,793.38	1,789.89	1,772.78	8.37	7.78	14.65	227.67	-25.24	112.89	96.77	16.12	7.004		
1,900.00	1,892.71	1,889.63	1,870.81	8.78	8.25	14.68	245.94	-27.73	119.98	103.00	16.99	7.064		
2,000.00	1,992.03	1,989.38	1,968.84	9.20	8.72	14.70	264.20	-30.21	127.08	109.22	17.86	7.116		
2,100.00	2,091.36	2,089.13	2,066.87	9.62	9.19	14.72	282.47	-32.70	134.17	115.44	18.74	7.161		
2,200.00	2,190.68	2,188.88	2,164.90	10.05	9.67	14.73	300.73	-35.18	141.27	121.65	19.62	7.202		
2,300.00	2,290.00	2,288.63	2,262.93	10.48	10.14	14.75	319.00	-37.67	148.36	127.86	20.50	7.237		
2,400.00	2,389.33	2,388.37	2,360.96	10.90	10.61	14.76	337.27	-40.15	155.46	134.07	21.39	7.269		
2,500.00	2,488.65	2,488.12	2,458.99	11.34	11.08	14.78	355.53	-42.64	162.55	140.28	22.27	7.298		
2,600.00	2,587.97	2,587.87	2,557.02	11.77	11.55	14.79	373.80	-45.12	169.65	146.48	23.16	7.323		
2,700.00	2,687.30	2,687.62	2,655.05	12.20	12.03	14.80	392.06	-47.61	176.74	152.69	24.06	7.347		
2,800.00	2,786.62	2,787.37	2,753.08	12.64	12.50	14.81	410.33	-50.09	183.84	158.89	24.95	7.368		
2,900.00	2,885.94	2,887.11	2,851.11	13.07	12.97	14.82	428.60	-52.58	190.93	165.09	25.85	7.387		
3,000.00	2,985.27	2,986.86	2,949.14	13.51	13.45	14.83	446.86	-55.06	198.03	171.28	26.75	7.404		
3,100.00	3,084.59	3,086.61	3,047.17	13.95	13.92	14.83	465.13	-57.55	205.12	177.48	27.64	7.420		
3,200.00	3,183.91	3,186.36	3,145.20	14.39	14.40	14.84	483.39	-60.03	212.22	183.68	28.54	7.435		
3,300.00	3,283.24	3,286.11	3,243.23	14.83	14.87	14.85	501.66	-62.52	219.32	189.87	29.44	7.449		
3,400.00	3,382.56	3,385.85	3,341.25	15.27	15.35	14.86	519.93	-65.00	226.41	196.06	30.35	7.461		
3,500.00	3,481.88	3,485.60	3,439.28	15.71	15.82	14.86	538.19	-67.49	233.51	202.26	31.25	7.473		
3,600.00	3,581.21	3,585.35	3,537.31	16.16	16.30	14.87	556.46	-69.97	240.60	208.45	32.15	7.483		
3,700.00	3,680.53	3,685.10	3,635.34	16.60	16.77	14.87	574.72	-72.46	247.70	214.64	33.06	7.493		
3,800.00	3,779.85	3,784.85	3,733.37	17.04	17.25	14.88	592.99	-74.94	254.79	220.83	33.96	7.503		
3,900.00	3,879.18	3,884.59	3,831.40	17.49	17.72	14.88	611.26	-77.43	261.89	227.02	34.87	7.511		
4,000.00	3,978.50	3,984.34	3,929.43	17.93	18.20	14.89	629.52	-79.91	268.98	233.21	35.77	7.520		
4,100.00	4,077.82	4,084.09	4,027.46	18.37	18.67	14.89	647.79	-82.40	276.08	239.40	36.68	7.527		
4,200.00	4,177.15	4,183.84	4,125.49	18.82	19.15	14.90	666.05	-84.88	283.17	245.59	37.58	7.534		
4,300.00	4,276.47	4,283.59	4,223.52	19.27	19.62	14.90	684.32	-87.37	290.27	251.78	38.49	7.541		
4,400.00	4,375.79	4,383.33	4,321.55	19.71	20.10	14.90	702.59	-89.85	297.36	257.96	39.40	7.547		
4,500.00	4,475.12	4,483.08	4,419.58	20.16	20.57	14.91	720.85	-92.34	304.46	264.15	40.31	7.553		
4,600.00	4,574.44	4,582.83	4,517.61	20.60	21.05	14.91	739.12	-94.82	311.55	270.34	41.22	7.559		
4,700.00	4,673.76	4,682.58	4,615.64	21.05	21.52	14.91	757.39	-97.30	318.65	276.52	42.13	7.564		
4,800.00	4,773.09	4,782.33	4,713.67	21.50	22.00	14.92	775.65	-99.79	325.74	282.71	43.03	7.569		
4,900.00	4,872.41	4,882.07	4,811.70	21.94	22.47	14.92	793.92	-102.27	332.84	288.90	43.94	7.574		
5,000.00	4,971.74	4,981.82	4,909.73	22.39	22.95	14.92	812.18	-104.76	339.94	295.08	44.85	7.579		
5,100.00	5,071.06	5,081.57	5,007.76	22.84	23.43	14.93	830.45	-107.24	347.03	301.27	45.76	7.583		

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 4N-16A-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 4N-16A-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 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	5,170.38	5,181.32	5,105.79	23.29	23.90	14.93	848.72	-109.73	354.13	307.45	46.67	7.587		
5,300.00	5,269.71	5,281.07	5,203.82	23.74	24.38	14.93	866.98	-112.21	361.22	313.64	47.59	7.591		
5,400.00	5,369.03	5,380.81	5,301.85	24.18	24.85	14.93	885.25	-114.70	368.32	319.82	48.50	7.595		
5,500.00	5,468.35	5,480.56	5,399.88	24.63	25.33	14.93	903.51	-117.18	375.41	326.00	49.41	7.598		
5,600.00	5,567.68	5,580.31	5,497.91	25.08	25.80	14.94	921.78	-119.67	382.51	332.19	50.32	7.602		
5,700.00	5,667.00	5,680.06	5,595.94	25.53	26.28	14.94	940.05	-122.15	389.60	338.37	51.23	7.605		
5,800.00	5,766.32	5,779.81	5,693.97	25.98	26.76	14.94	958.31	-124.64	396.70	344.56	52.14	7.608		
5,900.00	5,865.65	5,879.55	5,792.00	26.43	27.23	14.94	976.58	-127.12	403.79	350.74	53.05	7.611		
6,000.00	5,964.97	5,979.30	5,890.03	26.88	27.71	14.95	994.84	-129.61	410.89	356.92	53.97	7.614		
6,100.00	6,064.29	6,079.05	5,988.06	27.33	28.18	14.95	1,013.11	-132.09	417.98	363.11	54.88	7.617		
6,200.00	6,163.62	6,178.80	6,086.09	27.78	28.66	14.95	1,031.38	-134.58	425.08	369.29	55.79	7.619		
6,300.00	6,262.94	6,278.54	6,184.12	28.23	29.14	14.95	1,049.64	-137.06	432.17	375.47	56.70	7.622		
6,400.00	6,362.24	6,378.28	6,282.14	28.67	29.61	33.15	1,067.91	-139.55	439.29	381.67	57.62	7.624		
6,500.00	6,460.41	6,477.16	6,379.31	29.12	30.08	65.81	1,086.01	-142.01	446.92	388.38	58.54	7.634		
6,600.00	6,555.09	6,572.89	6,473.40	29.57	30.54	78.25	1,103.54	-144.40	456.27	396.79	59.48	7.671		
6,700.00	6,643.94	6,663.12	6,562.07	30.00	30.97	86.12	1,120.07	-146.64	469.64	409.21	60.43	7.772		
6,800.00	6,724.78	6,745.63	6,643.15	30.45	31.37	92.10	1,135.18	-148.70	490.03	428.65	61.38	7.983		
6,900.00	6,795.62	6,854.57	6,749.60	30.97	31.89	98.63	1,154.88	-159.72	517.93	455.36	62.57	8.277		
7,000.00	6,854.70	6,986.87	6,874.08	31.60	32.50	104.86	1,177.53	-197.56	549.55	486.27	63.29	8.684		
7,100.00	6,900.58	7,150.99	7,013.66	32.39	33.20	110.84	1,202.30	-279.36	581.36	518.71	62.66	9.278		
7,200.00	6,932.13	7,358.89	7,153.54	33.34	34.15	116.14	1,226.03	-430.05	608.12	547.97	60.15	10.111		
7,300.00	6,948.57	7,300.00	7,243.67	34.46	33.94	119.17	1,239.55	-639.67	622.94	567.42	55.52	11.221		
7,400.00	6,950.87	7,793.40	7,260.78	35.70	38.15	119.80	1,239.54	-842.89	623.64	564.55	59.09	10.554		
7,500.00	6,950.58	7,906.61	7,260.36	37.12	39.69	119.83	1,237.88	-942.87	622.78	561.09	61.69	10.095		
7,600.00	6,950.28	8,006.61	7,259.94	38.70	41.21	119.87	1,236.22	-1,042.85	621.92	557.48	64.44	9.651		
7,700.00	6,949.98	8,093.39	7,259.52	40.41	42.64	119.90	1,234.56	-1,142.83	621.06	553.81	67.24	9.236		
7,800.00	6,949.68	8,206.62	7,259.10	42.25	44.65	119.93	1,232.90	-1,242.82	620.20	549.51	70.68	8.774		
7,900.00	6,949.38	8,306.62	7,258.68	44.20	46.54	119.96	1,231.24	-1,342.80	619.34	545.22	74.12	8.356		
8,000.00	6,949.08	8,406.63	7,258.26	46.24	48.53	120.00	1,229.58	-1,442.78	618.48	540.76	77.72	7.958		
8,100.00	6,948.79	8,506.63	7,257.84	48.36	50.59	120.03	1,227.93	-1,542.76	617.62	536.15	81.47	7.581		
8,200.00	6,948.49	8,606.64	7,257.42	50.56	52.74	120.06	1,226.27	-1,642.74	616.76	531.41	85.35	7.226		
8,300.00	6,948.19	8,706.64	7,257.00	52.82	54.94	120.09	1,224.61	-1,742.72	615.91	526.57	89.34	6.894		
8,400.00	6,947.89	8,806.64	7,256.58	55.14	57.21	120.13	1,222.95	-1,842.70	615.05	521.63	93.42	6.584		
8,500.00	6,947.59	8,906.65	7,256.16	57.50	59.52	120.16	1,221.29	-1,942.68	614.19	516.60	97.59	6.294		
8,600.00	6,947.29	8,993.35	7,255.74	59.91	61.57	120.19	1,219.63	-2,042.66	613.33	511.79	101.54	6.040		
8,700.00	6,947.00	9,106.66	7,255.32	62.36	64.28	120.23	1,217.97	-2,142.65	612.48	506.34	106.13	5.771		
8,800.00	6,946.70	9,193.34	7,254.89	64.84	66.39	120.26	1,216.32	-2,242.63	611.62	501.42	110.20	5.550		
8,900.00	6,946.40	9,306.67	7,254.47	67.35	69.19	120.30	1,214.66	-2,342.61	610.76	495.87	114.90	5.316		
9,000.00	6,946.10	9,406.67	7,254.05	69.88	71.69	120.33	1,213.00	-2,442.59	609.90	490.56	119.35	5.110		
9,100.00	6,945.80	9,506.67	7,253.63	72.44	74.21	120.36	1,211.34	-2,542.57	609.05	485.22	123.83	4.918		
9,200.00	6,945.50	9,606.68	7,253.21	75.02	76.76	120.40	1,209.68	-2,642.55	608.19	479.84	128.35	4.738		
9,300.00	6,945.21	9,706.68	7,252.79	77.63	79.32	120.43	1,208.02	-2,742.53	607.34	474.43	132.90	4.570		
9,400.00	6,944.91	9,806.69	7,252.37	80.24	81.91	120.47	1,206.36	-2,842.51	606.48	469.00	137.48	4.411		
9,500.00	6,944.61	9,906.69	7,251.95	82.88	84.51	120.50	1,204.71	-2,942.49	605.63	463.54	142.08	4.262		
9,600.00	6,944.31	10,006.70	7,251.53	85.53	87.13	120.53	1,203.05	-3,042.47	604.77	458.06	146.71	4.122		
9,700.00	6,944.01	10,106.70	7,251.11	88.19	89.77	120.57	1,201.39	-3,142.46	603.91	452.57	151.35	3.990		
9,800.00	6,943.71	10,206.70	7,250.69	90.86	92.42	120.60	1,199.73	-3,242.44	603.06	447.06	156.00	3.866		
9,900.00	6,943.42	10,293.29	7,250.27	93.55	94.72	120.64	1,198.07	-3,342.42	602.21	441.85	160.36	3.755		
10,000.00	6,943.12	10,406.71	7,249.85	96.24	97.75	120.67	1,196.41	-3,442.40	601.35	435.99	165.36	3.637		
10,100.00	6,942.82	10,493.28	7,249.43	98.95	100.07	120.71	1,194.75	-3,542.38	600.50	430.76	169.74	3.538		
10,200.00	6,942.52	10,593.28	7,249.01	101.66	102.75	120.74	1,193.10	-3,642.36	599.64	425.20	174.45	3.437		
10,300.00	6,942.22	10,706.73	7,248.59	104.38	105.82	120.78	1,191.44	-3,742.34	598.79	419.30	179.49	3.336		

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 4N-16A-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 4N-16A-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 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	6,941.92	10,806.73	7,248.17	107.11	108.52	120.81	1,189.78	-3,842.32	597.94	413.72	184.21	3.246		
10,500.00	6,941.63	10,906.73	7,247.75	109.84	111.24	120.85	1,188.12	-3,942.30	597.08	408.14	188.95	3.160		
10,600.00	6,941.33	11,006.74	7,247.33	112.58	113.96	120.88	1,186.46	-4,042.29	596.23	402.54	193.69	3.078		
10,700.00	6,941.03	11,106.74	7,246.91	115.33	116.68	120.92	1,184.80	-4,142.27	595.38	396.94	198.44	3.000		
10,800.00	6,940.73	11,193.25	7,246.49	118.08	119.05	120.95	1,183.14	-4,242.25	594.52	391.66	202.86	2.931		
10,900.00	6,940.43	11,306.75	7,246.07	120.84	122.16	120.99	1,181.49	-4,342.23	593.67	385.73	207.94	2.855		
11,000.00	6,940.13	11,406.76	7,245.65	123.60	124.90	121.02	1,179.83	-4,442.21	592.82	380.11	212.71	2.787		
11,100.00	6,939.83	11,506.76	7,245.23	126.36	127.65	121.06	1,178.17	-4,542.19	591.97	374.50	217.47	2.722		
11,200.00	6,939.54	11,606.77	7,244.81	129.13	130.40	121.10	1,176.51	-4,642.17	591.12	368.88	222.24	2.660		
11,300.00	6,939.24	11,693.23	7,244.39	131.91	132.79	121.13	1,174.85	-4,742.15	590.26	363.58	226.68	2.604		
11,400.00	6,938.94	11,806.77	7,243.97	134.68	135.92	121.17	1,173.19	-4,842.13	589.41	357.63	231.78	2.543		
11,500.00	6,938.64	11,893.22	7,243.55	137.46	138.32	121.20	1,171.53	-4,942.11	588.56	352.33	236.23	2.491		
11,600.00	6,938.34	12,006.78	7,243.13	140.25	141.46	121.24	1,169.88	-5,042.10	587.71	346.38	241.34	2.435		
11,700.00	6,938.04	12,106.79	7,242.71	143.03	144.23	121.28	1,168.22	-5,142.08	586.86	340.75	246.11	2.385		
11,800.00	6,937.75	12,206.79	7,242.29	145.82	147.01	121.31	1,166.56	-5,242.06	586.01	335.12	250.89	2.336		
11,900.00	6,937.45	12,293.21	7,241.87	148.61	149.41	121.35	1,164.90	-5,342.04	585.16	329.82	255.34	2.292		
12,000.00	6,937.15	12,406.80	7,241.45	151.41	152.57	121.39	1,163.24	-5,442.02	584.31	323.86	260.45	2.243		
12,100.00	6,936.85	12,506.80	7,241.03	154.20	155.35	121.42	1,161.58	-5,542.00	583.46	318.23	265.23	2.200		
12,200.00	6,936.55	12,606.81	7,240.60	157.00	158.14	121.46	1,159.93	-5,641.98	582.61	312.60	270.01	2.158		
12,300.00	6,936.25	12,706.81	7,240.18	159.80	160.93	121.50	1,158.27	-5,741.96	581.76	306.97	274.79	2.117		
12,400.00	6,935.96	12,793.18	7,239.76	162.61	163.34	121.54	1,156.61	-5,841.94	580.91	301.68	279.24	2.080		
12,500.00	6,935.66	12,906.82	7,239.34	165.41	166.51	121.57	1,154.95	-5,941.93	580.06	295.72	284.35	2.040		
12,600.00	6,935.36	13,006.83	7,238.92	168.22	169.31	121.61	1,153.29	-6,041.91	579.22	290.09	289.13	2.003		
12,700.00	6,935.06	13,106.83	7,238.50	171.02	172.11	121.65	1,151.63	-6,141.89	578.37	284.47	293.90	1.968		
12,800.00	6,934.76	13,193.17	7,238.08	173.83	174.53	121.69	1,149.97	-6,241.87	577.52	279.18	298.34	1.936		
12,900.00	6,934.46	13,306.84	7,237.66	176.65	177.71	121.72	1,148.32	-6,341.85	576.67	273.22	303.45	1.900		
13,000.00	6,934.17	13,406.84	7,237.24	179.46	180.51	121.76	1,146.66	-6,441.83	575.83	267.60	308.22	1.868		
13,100.00	6,933.87	13,506.85	7,236.82	182.27	183.32	121.80	1,145.00	-6,541.81	574.98	261.98	313.00	1.837		
13,200.00	6,933.57	13,606.85	7,236.40	185.09	186.12	121.84	1,143.34	-6,641.79	574.13	256.37	317.76	1.807		
13,300.00	6,933.27	13,706.86	7,235.98	187.91	188.93	121.88	1,141.68	-6,741.77	573.29	250.75	322.53	1.777		
13,400.00	6,932.97	13,806.86	7,235.56	190.72	191.74	121.91	1,140.02	-6,841.75	572.44	245.14	327.30	1.749		
13,500.00	6,932.67	13,906.86	7,235.14	193.54	194.55	121.95	1,138.36	-6,941.74	571.59	239.53	332.06	1.721		
13,600.00	6,932.38	14,006.87	7,234.72	196.36	197.36	121.99	1,136.71	-7,041.72	570.75	233.93	336.82	1.695		
13,700.00	6,932.08	14,106.87	7,234.30	199.19	200.18	122.03	1,135.05	-7,141.70	569.90	228.32	341.58	1.668		
13,800.00	6,931.78	14,206.88	7,233.88	202.01	202.99	122.07	1,133.39	-7,241.68	569.06	222.72	346.34	1.643		
13,900.00	6,931.48	14,306.88	7,233.46	204.83	205.81	122.11	1,131.73	-7,341.66	568.21	217.12	351.09	1.618		
14,000.00	6,931.18	14,406.89	7,233.04	207.66	208.62	122.15	1,130.07	-7,441.64	567.37	211.52	355.84	1.594		
14,100.00	6,930.88	14,506.89	7,232.62	210.48	211.44	122.19	1,128.41	-7,541.62	566.52	205.93	360.59	1.571		
14,200.00	6,930.59	14,606.89	7,232.20	213.31	214.26	122.22	1,126.75	-7,641.60	565.68	200.34	365.34	1.548		
14,300.00	6,930.29	14,706.90	7,231.78	216.14	217.08	122.26	1,125.10	-7,741.58	564.83	194.75	370.08	1.526		
14,400.00	6,929.99	14,806.90	7,231.36	218.96	219.90	122.30	1,123.44	-7,841.57	563.99	189.17	374.82	1.505		
14,500.00	6,929.69	14,906.91	7,230.94	221.79	222.72	122.34	1,121.78	-7,941.55	563.15	183.59	379.56	1.484 Level 3		
14,600.00	6,929.39	15,006.91	7,230.52	224.62	225.54	122.38	1,120.12	-8,041.53	562.30	178.01	384.29	1.463 Level 3		
14,700.00	6,929.09	15,093.08	7,230.10	227.45	227.97	122.42	1,118.46	-8,141.51	561.46	172.78	388.68	1.445 Level 3		
14,727.86	6,929.01	15,116.21	7,230.00	228.24	228.63	122.43	1,118.08	-8,164.63	561.25	171.27	389.98	1.439 Level 3		
14,732.12	6,929.00	15,116.21	7,230.00	228.36	228.63	122.43	1,118.08	-8,164.63	561.26	171.13	390.13	1.439 Level 3, SF		



Anticollision Report



Company:	SRC ENERGY	Local Co-ordinate Reference:	Well HARVESTERS STATE 4N-16A-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 4N-16A-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	10.24	1,350.48	243.91	1,372.33					
100.00	100.00	107.24	108.24	3.28	3.29	10.24	1,350.14	243.97	1,372.03	1,365.46	6.57	208.728		
200.00	200.00	212.48	213.47	3.34	3.34	10.25	1,349.24	244.06	1,371.20	1,364.53	6.67	205.447		
300.00	300.00	315.19	316.18	3.44	3.45	10.26	1,348.12	243.97	1,370.11	1,363.22	6.89	198.754		
400.00	400.00	408.61	409.59	3.60	3.60	10.26	1,347.21	243.80	1,369.13	1,361.93	7.20	190.207		
500.00	500.00	504.59	505.58	3.81	3.79	10.24	1,346.76	243.40	1,368.59	1,361.00	7.59	180.309		
600.00	600.00	611.28	612.26	4.05	4.04	10.23	1,346.16	243.03	1,367.97	1,359.89	8.08	169.239		
700.00	699.98	708.11	709.09	4.32	4.30	23.73	1,345.53	242.40	1,365.62	1,357.00	8.61	158.528		
800.00	799.84	807.65	808.62	4.62	4.59	23.82	1,345.11	241.33	1,360.22	1,351.02	9.20	147.784		
900.00	899.45	910.80	911.76	4.94	4.91	24.00	1,344.40	240.16	1,351.37	1,341.52	9.85	137.189		
1,000.00	998.80	999.69	1,000.64	5.28	5.21	24.16	1,344.03	238.92	1,340.30	1,329.81	10.48	127.858		
1,100.00	1,098.12	1,081.03	1,081.94	5.63	5.48	24.22	1,344.94	236.60	1,330.26	1,319.15	11.11	119.749		
1,200.00	1,197.44	1,164.72	1,165.51	6.00	5.77	24.21	1,347.20	232.66	1,321.44	1,309.67	11.76	112.333		
1,300.00	1,296.77	1,243.90	1,244.43	6.37	6.05	24.12	1,350.75	227.45	1,314.02	1,301.60	12.42	105.773		
1,400.00	1,396.09	1,335.05	1,335.04	6.76	6.39	23.92	1,356.27	219.33	1,307.74	1,294.59	13.15	99.467		
1,500.00	1,495.41	1,419.83	1,419.07	7.15	6.72	23.63	1,362.47	209.87	1,302.33	1,288.46	13.87	93.896		
1,600.00	1,594.74	1,511.35	1,509.56	7.55	7.09	23.27	1,370.24	198.60	1,297.93	1,283.29	14.64	88.663		
1,700.00	1,694.06	1,609.71	1,606.73	7.96	7.51	22.86	1,378.97	186.16	1,293.93	1,278.47	15.46	83.712		
1,800.00	1,793.38	1,724.78	1,720.46	8.37	8.01	22.38	1,388.60	171.51	1,289.50	1,273.13	16.37	78.790		
1,900.00	1,892.71	1,825.01	1,819.62	8.78	8.46	21.97	1,396.26	159.07	1,284.45	1,267.23	17.22	74.571		
2,000.00	1,992.03	1,940.52	1,933.99	9.20	8.89	21.52	1,404.13	144.94	1,278.66	1,260.50	18.16	70.404		
2,100.00	2,091.36	2,040.09	2,032.68	9.62	9.45	21.14	1,410.17	133.15	1,272.25	1,253.21	19.04	66.835		
2,200.00	2,190.68	2,128.80	2,120.56	10.05	9.86	20.80	1,416.06	122.61	1,266.46	1,246.59	19.87	63.745		
2,300.00	2,290.00	2,220.88	2,211.68	10.48	10.30	20.43	1,422.98	111.37	1,261.55	1,240.82	20.72	60.880		
2,400.00	2,389.33	2,320.98	2,310.79	10.90	10.78	20.03	1,430.49	99.39	1,256.72	1,235.10	21.62	58.130		
2,500.00	2,488.65	2,413.86	2,402.73	11.34	11.22	19.66	1,437.90	88.55	1,252.45	1,229.97	22.48	55.703		
2,600.00	2,587.97	2,513.53	2,501.45	11.77	11.71	19.29	1,445.82	77.34	1,248.25	1,224.87	23.38	53.379		
2,700.00	2,687.30	2,610.63	2,597.61	12.20	12.18	18.93	1,453.92	66.49	1,244.51	1,220.23	24.28	51.266		
2,800.00	2,786.62	2,717.86	2,703.82	12.64	12.70	18.52	1,462.36	54.47	1,240.33	1,215.11	25.22	49.181		
2,900.00	2,885.94	2,816.58	2,801.58	13.07	13.19	18.13	1,469.92	42.94	1,235.98	1,209.85	26.13	47.306		
3,000.00	2,985.27	2,912.36	2,896.34	13.51	13.67	17.71	1,477.53	31.23	1,231.93	1,204.91	27.03	45.583		
3,100.00	3,084.59	3,017.10	2,999.93	13.95	14.20	17.26	1,485.96	18.31	1,228.07	1,200.10	27.97	43.903		
3,200.00	3,183.91	3,117.24	3,099.08	14.39	14.70	16.84	1,493.43	6.43	1,223.70	1,194.81	28.89	42.350		
3,300.00	3,283.24	3,214.55	3,195.39	14.83	15.19	16.42	1,500.95	-5.28	1,219.66	1,189.85	29.81	40.920		
3,400.00	3,382.56	3,335.33	3,314.94	15.27	15.80	15.89	1,509.56	-20.09	1,215.12	1,184.28	30.83	39.411		
3,500.00	3,481.88	3,437.77	3,416.52	15.71	16.31	15.47	1,515.59	-31.92	1,209.39	1,177.63	31.76	38.073		
3,600.00	3,581.21	3,534.51	3,512.56	16.16	16.79	15.12	1,521.22	-42.04	1,203.69	1,171.02	32.67	36.849		
3,700.00	3,680.53	3,619.01	3,596.47	16.60	17.20	14.84	1,526.79	-50.38	1,198.81	1,165.30	33.51	35.779		
3,800.00	3,779.85	3,709.99	3,686.74	17.04	17.65	14.52	1,533.69	-59.42	1,194.97	1,160.59	34.38	34.763		
3,900.00	3,879.18	3,814.61	3,790.53	17.49	18.16	14.17	1,541.83	-69.71	1,191.36	1,156.05	35.31	33.739		
4,000.00	3,978.50	3,897.95	3,873.20	17.93	18.57	13.89	1,548.70	-77.63	1,188.25	1,152.11	36.14	32.881		
4,100.00	4,077.82	3,997.11	3,971.50	18.37	19.07	13.56	1,557.62	-87.17	1,185.94	1,148.89	37.05	32.012		
4,200.00	4,177.15	4,090.45	4,063.91	18.82	19.54	13.21	1,566.19	-97.07	1,183.88	1,145.95	37.93	31.212		
4,300.00	4,276.47	4,185.77	4,158.23	19.27	20.03	12.83	1,575.40	-107.41	1,182.35	1,143.52	38.83	30.453		
4,400.00	4,375.79	4,307.63	4,278.93	19.71	20.65	12.37	1,586.23	-120.17	1,180.08	1,140.22	39.86	29.604		
4,500.00	4,475.12	4,418.16	4,388.57	20.16	21.20	11.96	1,594.54	-131.45	1,176.50	1,135.67	40.83	28.815		
4,600.00	4,574.44	4,538.36	4,507.94	20.60	21.79	11.53	1,602.21	-143.23	1,171.84	1,130.01	41.83	28.015		
4,700.00	4,673.76	4,659.49	4,628.50	21.05	22.37	11.17	1,607.49	-153.62	1,165.11	1,122.30	42.81	27.215		
4,800.00	4,773.09	4,771.27	4,739.82	21.50	22.89	10.82	1,610.82	-163.27	1,157.06	1,113.31	43.75	26.448		
4,900.00	4,872.41	4,879.90	4,848.13	21.94	23.38	10.54	1,613.04	-171.34	1,148.04	1,103.38	44.66	25.705		
5,000.00	4,971.74	4,982.15	4,950.20	22.39	23.83	10.38	1,614.86	-176.90	1,138.68	1,093.13	45.55	25.000		
5,100.00	5,071.06	5,089.64	5,057.63	22.84	24.28	10.33	1,616.34	-180.11	1,128.79	1,082.36	46.43	24.313		

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 4N-16A-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 4N-16A-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		
5,200.00	5,170.38	5,191.70	5,159.66	23.29	24.70	10.31	1,617.18	-182.61	1,118.31	1,071.02	47.29	23.647		
5,300.00	5,269.71	5,293.49	5,261.43	23.74	25.12	10.32	1,618.03	-184.76	1,107.83	1,059.67	48.15	23.006		
5,400.00	5,369.03	5,393.99	5,361.90	24.18	25.53	10.32	1,618.53	-186.81	1,097.01	1,048.00	49.02	22.381		
5,500.00	5,468.35	5,500.15	5,468.04	24.63	25.96	10.33	1,618.91	-188.81	1,086.05	1,036.17	49.88	21.773		
5,600.00	5,567.68	5,602.45	5,570.33	25.08	26.37	10.36	1,618.64	-190.46	1,074.45	1,023.71	50.74	21.177		
5,700.00	5,667.00	5,695.64	5,663.50	25.53	26.75	10.37	1,618.54	-192.11	1,063.02	1,011.43	51.59	20.606		
5,800.00	5,766.32	5,796.93	5,764.78	25.98	27.16	10.39	1,618.75	-193.97	1,051.90	999.45	52.45	20.055		
5,900.00	5,865.65	5,893.62	5,861.45	26.43	27.56	10.41	1,618.90	-195.64	1,040.72	987.41	53.31	19.523		
6,000.00	5,964.97	5,997.09	5,964.90	26.88	27.98	10.42	1,619.04	-197.51	1,029.53	975.36	54.17	19.005		
6,100.00	6,064.29	6,099.53	6,067.33	27.33	28.40	10.44	1,618.79	-199.36	1,017.97	962.93	55.03	18.498		
6,200.00	6,163.62	6,200.58	6,168.37	27.78	28.81	10.50	1,618.33	-200.48	1,006.15	950.27	55.88	18.004		
6,300.00	6,262.94	7,861.51	7,214.54	28.23	36.43	-154.82	629.58	-196.77	952.78	938.54	14.24	66.926		
6,400.00	6,362.24	7,851.55	7,214.50	28.67	36.32	-157.94	639.53	-196.66	853.39	839.08	14.31	59.646		
6,500.00	6,460.41	7,841.75	7,214.48	29.12	36.22	-176.26	649.33	-196.52	754.61	740.24	14.38	52.491		
6,600.00	6,555.09	7,832.53	7,214.46	29.57	36.12	-179.76	658.55	-196.38	659.37	644.59	14.78	44.609		
6,700.00	6,643.94	7,824.23	7,214.46	30.00	36.03	-178.73	666.85	-196.23	572.38	555.56	16.82	34.021		
6,800.00	6,724.78	7,817.12	7,214.46	30.45	35.96	-178.44	673.96	-196.09	500.68	478.24	22.44	22.313		
6,900.00	6,795.62	7,811.44	7,214.46	30.97	35.90	-178.47	679.64	-195.97	453.77	421.66	32.11	14.130		
6,984.01	6,846.10	7,807.90	7,214.47	31.50	35.86	-178.67	683.17	-195.89	440.49	398.73	41.76	10.547 CC		
7,000.00	6,854.70	7,807.35	7,214.47	31.60	35.86	-178.73	683.73	-195.87	440.98	397.42	43.56	10.124 ES		
7,100.00	6,900.58	7,804.88	7,214.48	32.39	35.83	-179.25	686.20	-195.82	465.47	412.33	53.14	8.760 SF		
7,200.00	6,932.13	7,804.16	7,214.48	33.34	35.82	-179.78	686.92	-195.80	521.53	462.36	59.17	8.813		
7,300.00	6,948.57	7,805.14	7,214.47	34.46	35.83	-177.91	685.94	-195.82	599.25	536.90	62.35	9.611		
7,400.00	6,950.87	7,807.58	7,214.47	35.70	35.86	-175.71	683.49	-195.88	689.30	625.40	63.90	10.788		
7,500.00	6,950.58	7,810.11	7,214.47	37.12	35.89	-175.16	680.97	-195.94	782.69	717.86	64.84	12.072		
7,600.00	6,950.28	7,812.52	7,214.46	38.70	35.91	-174.63	678.56	-195.99	877.53	812.05	65.48	13.401		
7,700.00	6,949.98	7,814.85	7,214.46	40.41	35.94	-174.13	676.23	-196.04	973.40	907.46	65.94	14.762		
7,800.00	6,949.68	7,817.08	7,214.46	42.25	35.96	-173.64	674.00	-196.09	1,070.02	1,003.74	66.28	16.145		
7,900.00	6,949.38	7,819.24	7,214.46	44.20	35.98	-173.18	671.84	-196.13	1,167.20	1,100.66	66.53	17.543		
8,000.00	6,949.08	7,821.32	7,214.46	46.24	36.00	-172.73	669.76	-196.17	1,264.81	1,198.08	66.74	18.953		
8,100.00	6,948.79	7,823.33	7,214.46	48.36	36.02	-172.30	667.75	-196.21	1,362.77	1,295.87	66.90	20.371		
8,200.00	6,948.49	7,825.27	7,214.46	50.56	36.05	-171.88	665.81	-196.25	1,461.00	1,393.97	67.03	21.796		
8,300.00	6,948.19	7,827.14	7,214.46	52.82	36.06	-171.48	663.94	-196.28	1,559.46	1,492.31	67.14	23.226		
8,400.00	6,947.89	7,828.96	7,214.46	55.14	36.08	-171.09	662.12	-196.31	1,658.09	1,590.85	67.24	24.659		
8,500.00	6,947.59	7,830.71	7,214.46	57.50	36.10	-170.72	660.37	-196.34	1,756.88	1,689.55	67.33	26.095		
8,600.00	6,947.29	7,832.41	7,214.46	59.91	36.12	-170.36	658.67	-196.37	1,855.79	1,788.39	67.40	27.534		
8,700.00	6,947.00	7,834.05	7,214.46	62.36	36.14	-170.01	657.03	-196.40	1,954.82	1,887.35	67.47	28.973		
8,800.00	6,946.70	7,838.00	7,214.47	64.84	36.18	-169.17	653.08	-196.46	2,053.94	1,986.38	67.56	30.403		
8,900.00	6,946.40	7,838.00	7,214.47	67.35	36.18	-169.17	653.08	-196.46	2,153.13	2,085.53	67.60	31.850		
9,000.00	6,946.10	7,838.00	7,214.47	69.88	36.18	-169.17	653.08	-196.46	2,252.39	2,184.75	67.64	33.298		
9,100.00	6,945.80	7,838.00	7,214.47	72.44	36.18	-169.17	653.08	-196.46	2,351.72	2,284.04	67.68	34.746		
9,200.00	6,945.50	7,838.00	7,214.47	75.02	36.18	-169.17	653.08	-196.46	2,451.10	2,383.38	67.72	36.194		
9,300.00	6,945.21	7,842.99	7,214.48	77.63	36.23	-168.12	648.09	-196.54	2,550.53	2,482.72	67.81	37.613		
9,400.00	6,944.91	7,844.34	7,214.48	80.24	36.25	-167.84	646.74	-196.56	2,650.00	2,582.14	67.86	39.050		
9,500.00	6,944.61	7,845.66	7,214.49	82.88	36.26	-167.56	645.43	-196.58	2,749.50	2,681.59	67.91	40.487		
9,600.00	6,944.31	7,846.94	7,214.49	85.53	36.28	-167.30	644.15	-196.60	2,849.04	2,781.08	67.96	41.922		
9,700.00	6,944.01	7,848.18	7,214.49	88.19	36.29	-167.04	642.90	-196.61	2,948.61	2,880.60	68.01	43.355		
9,800.00	6,943.71	7,849.39	7,214.50	90.86	36.30	-166.79	641.69	-196.63	3,048.21	2,980.15	68.06	44.787		
9,900.00	6,943.42	7,850.57	7,214.50	93.55	36.31	-166.54	640.51	-196.64	3,147.83	3,079.72	68.11	46.217		
10,000.00	6,943.12	7,851.72	7,214.50	96.24	36.33	-166.31	639.36	-196.66	3,247.48	3,179.32	68.16	47.645		
10,100.00	6,942.82	7,852.84	7,214.51	98.95	36.34	-166.07	638.24	-196.67	3,347.14	3,278.93	68.21	49.072		
10,200.00	6,942.52	7,853.94	7,214.51	101.66	36.35	-165.85	637.15	-196.69	3,446.83	3,378.57	68.26	50.496		

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 4N-16A-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 4N-16A-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		
10,300.00	6,942.22	7,855.00	7,214.52	104.38	36.36	-165.63	636.08	-196.70	3,546.53	3,478.22	68.31	51.917		
10,400.00	6,941.92	7,856.04	7,214.52	107.11	36.37	-165.42	635.04	-196.71	3,646.25	3,577.88	68.36	53.337		
10,500.00	6,941.63	7,857.06	7,214.52	109.84	36.38	-165.21	634.03	-196.72	3,745.98	3,677.56	68.41	54.754		
10,600.00	6,941.33	7,858.05	7,214.53	112.58	36.39	-165.01	633.04	-196.73	3,845.72	3,777.26	68.47	56.169		
10,700.00	6,941.03	7,859.02	7,214.53	115.33	36.41	-164.81	632.07	-196.74	3,945.48	3,876.96	68.52	57.581		
10,800.00	6,940.73	7,859.96	7,214.54	118.08	36.42	-164.62	631.12	-196.75	4,045.25	3,976.67	68.57	58.991		
10,900.00	6,940.43	7,860.88	7,214.54	120.84	36.43	-164.43	630.20	-196.76	4,145.03	4,076.40	68.63	60.398		
11,000.00	6,940.13	7,861.79	7,214.54	123.60	36.44	-164.25	629.30	-196.77	4,244.82	4,176.13	68.68	61.802		
11,100.00	6,939.83	7,862.67	7,214.55	126.36	36.44	-164.07	628.42	-196.78	4,344.62	4,275.88	68.74	63.203		
11,200.00	6,939.54	7,869.00	7,214.58	129.13	36.51	-162.80	622.09	-196.84	4,444.43	4,375.58	68.85	64.548		
11,300.00	6,939.24	7,869.00	7,214.58	131.91	36.51	-162.80	622.09	-196.84	4,544.25	4,475.34	68.90	65.951		
11,400.00	6,938.94	7,869.00	7,214.58	134.68	36.51	-162.80	622.09	-196.84	4,644.07	4,575.11	68.95	67.351		
11,500.00	6,938.64	7,869.00	7,214.58	137.46	36.51	-162.80	622.09	-196.84	4,743.90	4,674.89	69.00	68.749		
11,600.00	6,938.34	7,869.00	7,214.58	140.25	36.51	-162.80	622.09	-196.84	4,843.73	4,774.68	69.06	70.143		
11,700.00	6,938.04	7,869.00	7,214.58	143.03	36.51	-162.80	622.09	-196.84	4,943.58	4,874.47	69.11	71.534		
11,800.00	6,937.75	7,869.00	7,214.58	145.82	36.51	-162.80	622.09	-196.84	5,043.43	4,974.26	69.16	72.922		
11,900.00	6,937.45	7,869.00	7,214.58	148.61	36.51	-162.80	622.09	-196.84	5,143.28	5,074.06	69.22	74.307		
12,000.00	6,937.15	7,869.00	7,214.58	151.41	36.51	-162.80	622.09	-196.84	5,243.14	5,173.87	69.27	75.689		
12,100.00	6,936.85	7,869.00	7,214.58	154.20	36.51	-162.80	622.09	-196.84	5,343.01	5,273.68	69.33	77.068		
12,200.00	6,936.55	7,869.00	7,214.58	157.00	36.51	-162.80	622.09	-196.84	5,442.88	5,373.49	69.39	78.443		
12,300.00	6,936.25	7,873.17	7,214.60	159.80	36.56	-161.97	617.92	-196.88	5,542.75	5,473.26	69.49	79.763		
12,400.00	6,935.96	7,874.15	7,214.60	162.61	36.57	-161.78	616.94	-196.89	5,642.63	5,573.07	69.56	81.119		
12,500.00	6,935.66	7,875.11	7,214.61	165.41	36.58	-161.59	615.97	-196.89	5,742.51	5,672.88	69.63	82.471		
12,600.00	6,935.36	7,876.07	7,214.61	168.22	36.59	-161.40	615.02	-196.90	5,842.40	5,772.70	69.70	83.819		
12,700.00	6,935.06	7,877.01	7,214.61	171.02	36.60	-161.22	614.08	-196.91	5,942.29	5,872.51	69.78	85.163		
12,800.00	6,934.76	7,877.93	7,214.62	173.83	36.61	-161.03	613.15	-196.92	6,042.18	5,972.33	69.85	86.504		
12,900.00	6,934.46	7,878.84	7,214.62	176.65	36.62	-160.86	612.24	-196.92	6,142.08	6,072.15	69.92	87.840		
13,000.00	6,934.17	7,879.74	7,214.62	179.46	36.63	-160.68	611.34	-196.93	6,241.98	6,171.98	70.00	89.173		
13,100.00	6,933.87	7,880.63	7,214.62	182.27	36.64	-160.51	610.46	-196.94	6,341.88	6,271.81	70.07	90.502		
13,200.00	6,933.57	7,881.51	7,214.63	185.09	36.65	-160.34	609.58	-196.94	6,441.79	6,371.63	70.15	91.828		
13,300.00	6,933.27	7,882.37	7,214.63	187.91	36.66	-160.17	608.72	-196.95	6,541.69	6,471.47	70.23	93.149		
13,400.00	6,932.97	7,883.22	7,214.63	190.72	36.67	-160.01	607.87	-196.96	6,641.60	6,571.30	70.31	94.466		
13,500.00	6,932.67	7,884.06	7,214.63	193.54	36.68	-159.85	607.03	-196.96	6,741.52	6,671.13	70.39	95.780		
13,600.00	6,932.38	7,884.89	7,214.63	196.36	36.69	-159.69	606.20	-196.97	6,841.43	6,770.97	70.47	97.089		
13,700.00	6,932.08	7,885.71	7,214.63	199.19	36.70	-159.53	605.38	-196.97	6,941.35	6,870.80	70.55	98.394		
13,800.00	6,931.78	7,886.51	7,214.63	202.01	36.71	-159.37	604.57	-196.98	7,041.27	6,970.64	70.63	99.695		
13,900.00	6,931.48	7,887.31	7,214.63	204.83	36.72	-159.22	603.78	-196.98	7,141.19	7,070.48	70.71	100.993		
14,000.00	6,931.18	7,888.10	7,214.64	207.66	36.72	-159.07	602.99	-196.99	7,241.12	7,170.32	70.79	102.286		
14,100.00	6,930.88	7,888.87	7,214.64	210.48	36.73	-158.92	602.21	-196.99	7,341.04	7,270.17	70.88	103.575		
14,200.00	6,930.59	7,889.64	7,214.64	213.31	36.74	-158.78	601.45	-197.00	7,440.97	7,370.01	70.96	104.859		
14,300.00	6,930.29	7,890.39	7,214.64	216.14	36.75	-158.63	600.69	-197.00	7,540.90	7,469.85	71.05	106.140		
14,400.00	6,929.99	7,891.14	7,214.64	218.96	36.76	-158.49	599.94	-197.01	7,640.83	7,569.70	71.13	107.416		
14,500.00	6,929.69	7,891.88	7,214.64	221.79	36.77	-158.35	599.21	-197.01	7,740.76	7,669.54	71.22	108.688		
14,600.00	6,929.39	7,892.61	7,214.64	224.62	36.77	-158.22	598.48	-197.02	7,840.70	7,769.39	71.31	109.956		
14,700.00	6,929.09	7,893.33	7,214.64	227.45	36.78	-158.08	597.76	-197.02	7,940.64	7,869.24	71.40	111.220		
14,732.12	6,929.00	7,893.55	7,214.64	228.36	36.78	-158.04	597.53	-197.02	7,972.74	7,901.31	71.42	111.625		



Anticollision Report



Company:	SRC ENERGY	Local Co-ordinate Reference:	Well HARVESTERS STATE 4N-16A-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 4N-16A-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	11.50	1,351.94	275.06	1,379.64					
100.00	100.00	102.04	103.04	3.28	3.29	11.51	1,351.78	275.26	1,379.53	1,372.96	6.57	209.898		
200.00	200.00	208.80	209.79	3.34	3.33	11.53	1,351.23	275.76	1,379.12	1,372.45	6.67	206.733		
300.00	300.00	312.70	313.69	3.44	3.44	11.54	1,350.30	275.62	1,378.21	1,371.33	6.89	200.110		
400.00	400.00	415.59	416.57	3.60	3.60	11.50	1,349.36	274.64	1,377.12	1,369.92	7.20	191.148		
500.00	500.00	519.29	520.26	3.81	3.81	11.52	1,347.95	274.61	1,375.78	1,368.17	7.62	180.626		
600.00	600.00	612.34	613.31	4.05	4.03	11.53	1,346.79	274.84	1,374.61	1,366.53	8.08	170.148		
700.00	699.98	714.91	715.87	4.32	4.31	25.09	1,345.60	275.35	1,371.99	1,363.36	8.63	159.019		
800.00	799.84	817.91	818.85	4.62	4.62	25.28	1,344.04	275.98	1,365.90	1,356.66	9.23	147.931		
900.00	899.45	913.76	914.69	4.94	4.92	25.55	1,342.67	276.71	1,356.78	1,346.92	9.86	137.615		
1,000.00	998.80	1,007.39	1,008.30	5.28	5.24	25.84	1,341.48	277.86	1,345.50	1,334.99	10.51	128.024		
1,100.00	1,098.12	1,099.99	1,100.90	5.63	5.56	26.08	1,340.92	278.78	1,334.66	1,323.48	11.18	119.383		
1,200.00	1,197.44	1,198.42	1,199.33	6.00	5.91	26.33	1,340.61	279.47	1,324.07	1,312.18	11.89	111.324		
1,300.00	1,296.77	1,299.26	1,300.16	6.37	6.28	26.60	1,340.25	280.22	1,313.49	1,300.85	12.64	103.927		
1,400.00	1,396.09	1,396.19	1,397.09	6.76	6.64	26.85	1,339.86	280.77	1,302.84	1,289.45	13.39	97.328		
1,500.00	1,495.41	1,492.11	1,493.01	7.15	7.00	27.10	1,339.83	281.41	1,292.60	1,278.46	14.14	91.405		
1,600.00	1,594.74	1,590.92	1,591.82	7.55	7.38	27.37	1,339.86	282.13	1,282.45	1,267.53	14.92	85.963		
1,700.00	1,694.06	1,691.31	1,692.21	7.96	7.77	27.64	1,339.89	282.92	1,272.36	1,256.65	15.71	80.973		
1,800.00	1,793.38	1,795.67	1,796.56	8.37	8.18	27.93	1,339.71	283.57	1,262.05	1,245.52	16.53	76.328		
1,900.00	1,892.71	1,889.67	1,890.56	8.78	8.55	28.19	1,339.44	284.00	1,251.63	1,234.32	17.32	72.281		
2,000.00	1,992.03	1,978.81	1,979.69	9.20	8.89	28.37	1,340.16	283.23	1,241.96	1,223.89	18.07	68.716		
2,100.00	2,091.36	2,064.07	2,064.92	9.62	9.21	28.50	1,341.92	281.60	1,233.24	1,214.42	18.82	65.530		
2,200.00	2,190.68	2,145.63	2,146.39	10.05	9.52	28.58	1,344.89	279.46	1,225.86	1,206.30	19.56	62.683		
2,300.00	2,290.00	2,228.14	2,228.75	10.48	9.84	28.63	1,349.30	277.07	1,220.03	1,199.73	20.30	60.098		
2,400.00	2,389.33	2,317.19	2,317.58	10.90	10.19	28.68	1,355.00	274.62	1,215.29	1,194.21	21.08	57.664		
2,500.00	2,488.65	2,407.33	2,407.45	11.34	10.55	28.73	1,361.56	272.24	1,211.42	1,189.56	21.86	55.419		
2,600.00	2,587.97	2,501.04	2,500.81	11.77	10.93	28.74	1,369.12	269.19	1,208.14	1,185.48	22.66	53.309		
2,700.00	2,687.30	2,590.18	2,589.53	12.20	11.30	28.73	1,377.07	266.02	1,205.62	1,182.17	23.45	51.411		
2,800.00	2,786.62	2,681.24	2,680.10	12.64	11.67	28.71	1,385.97	262.72	1,203.90	1,179.65	24.25	49.645		
2,900.00	2,885.94	2,768.66	2,766.92	13.07	12.04	28.66	1,395.43	259.14	1,203.09	1,178.05	25.04	48.055		
3,000.00	2,985.27	2,871.39	2,868.87	13.51	12.48	28.57	1,407.18	254.33	1,202.72	1,176.81	25.90	46.432		
3,100.00	3,084.59	2,982.00	2,978.70	13.95	12.96	28.46	1,419.13	248.96	1,201.68	1,174.87	26.81	44.815		
3,200.00	3,183.91	3,084.10	3,080.08	14.39	13.41	28.34	1,429.85	243.35	1,200.20	1,172.51	27.69	43.348		
3,300.00	3,283.24	3,188.96	3,184.21	14.83	13.87	28.21	1,440.66	237.30	1,198.47	1,169.89	28.58	41.936		
3,400.00	3,382.56	3,290.81	3,285.44	15.27	14.32	28.11	1,450.51	232.00	1,196.26	1,166.80	29.46	40.610		
3,500.00	3,481.88	3,385.22	3,379.30	15.71	14.74	28.04	1,459.79	227.67	1,194.37	1,164.07	30.30	39.416		
3,600.00	3,581.21	3,481.04	3,474.51	16.16	15.17	27.97	1,469.62	223.27	1,192.89	1,161.74	31.15	38.289		
3,700.00	3,680.53	3,580.44	3,573.27	16.60	15.62	27.91	1,480.01	218.93	1,191.66	1,159.63	32.03	37.206		
3,800.00	3,779.85	3,683.86	3,676.02	17.04	16.09	27.82	1,490.71	214.13	1,190.26	1,157.34	32.93	36.150		
3,900.00	3,879.18	3,787.91	3,779.39	17.49	16.56	27.72	1,501.27	208.71	1,188.53	1,154.71	33.83	35.134		
4,000.00	3,978.50	3,880.92	3,871.78	17.93	16.99	27.61	1,510.74	203.65	1,186.80	1,152.12	34.68	34.223		
4,100.00	4,077.82	3,975.26	3,965.33	18.37	17.43	27.45	1,521.30	197.68	1,185.82	1,150.29	35.54	33.368		
4,200.00	4,177.15	4,068.81	4,058.05	18.82	17.87	27.28	1,532.16	191.51	1,185.22	1,148.82	36.39	32.566		
4,300.00	4,276.47	4,166.19	4,154.51	19.27	18.33	27.10	1,543.95	185.30	1,185.15	1,147.88	37.27	31.796		
4,400.00	4,375.79	4,272.59	4,260.02	19.71	18.84	26.95	1,556.41	179.42	1,184.91	1,146.70	38.20	31.016		
4,500.00	4,475.12	4,379.76	4,366.37	20.16	19.35	26.82	1,568.21	173.58	1,184.01	1,144.87	39.14	30.254		
4,600.00	4,574.44	4,476.15	4,462.11	20.60	19.80	26.74	1,578.47	169.14	1,182.94	1,142.93	40.01	29.566		
4,700.00	4,673.76	4,576.44	4,561.76	21.05	20.27	26.69	1,589.16	165.30	1,182.06	1,141.16	40.90	28.899		
4,800.00	4,773.09	4,682.51	4,667.19	21.50	20.77	26.66	1,600.15	161.59	1,180.97	1,139.15	41.83	28.234		
4,900.00	4,872.41	4,807.39	4,791.52	21.94	21.34	26.67	1,611.10	157.65	1,178.38	1,135.54	42.84	27.508		
5,000.00	4,971.74	4,926.53	4,910.33	22.39	21.88	26.73	1,619.33	154.33	1,174.09	1,130.28	43.80	26.804		
5,100.00	5,071.06	5,048.46	5,032.07	22.84	22.42	26.83	1,625.42	151.31	1,167.98	1,123.22	44.76	26.094		

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 4N-16A-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 4N-16A-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		
5,200.00	5,170.38	5,167.31	5,150.87	23.29	22.92	27.05	1,628.64	150.30	1,160.04	1,114.35	45.69	25.391		
5,300.00	5,269.71	5,275.64	5,259.18	23.74	23.38	27.29	1,630.19	149.81	1,150.98	1,104.40	46.58	24.712		
5,400.00	5,369.03	5,383.36	5,366.90	24.18	23.82	27.52	1,631.06	148.78	1,141.21	1,093.75	47.46	24.046		
5,500.00	5,468.35	5,490.09	5,473.61	24.63	24.26	27.72	1,631.36	146.89	1,130.74	1,082.41	48.34	23.393		
5,600.00	5,567.68	5,606.20	5,589.68	25.08	24.73	27.93	1,630.67	144.52	1,119.41	1,070.20	49.21	22.748		
5,700.00	5,667.00	5,708.34	5,691.80	25.53	25.14	28.22	1,628.47	143.93	1,106.93	1,056.87	50.06	22.112		
5,800.00	5,766.32	5,802.36	5,785.80	25.98	25.51	28.51	1,626.54	143.76	1,094.67	1,043.77	50.91	21.503		
5,900.00	5,865.65	5,896.17	5,879.60	26.43	25.88	28.79	1,625.11	143.55	1,082.94	1,031.18	51.76	20.923		
6,000.00	5,964.97	5,992.47	5,975.89	26.88	26.27	29.08	1,624.08	143.16	1,071.63	1,019.02	52.61	20.369		
6,100.00	6,064.29	6,091.07	6,074.49	27.33	26.67	29.36	1,623.24	142.55	1,060.50	1,007.03	53.47	19.834		
6,200.00	6,163.62	6,192.07	6,175.48	27.78	27.08	29.65	1,622.35	141.84	1,049.34	995.01	54.33	19.315		
6,300.00	6,262.94	6,290.15	6,273.56	28.23	27.48	29.93	1,621.49	141.02	1,038.17	982.99	55.19	18.811		
6,400.00	6,362.24	7,929.57	7,277.24	28.67	36.11	139.05	629.26	135.86	959.53	934.44	25.10	38.230		
6,500.00	6,460.41	7,913.33	7,277.71	29.12	35.94	164.52	645.45	134.71	871.47	843.92	27.55	31.627		
6,600.00	6,555.09	7,900.35	7,278.03	29.57	35.80	171.32	658.40	133.94	795.43	763.90	31.53	25.226		
6,700.00	6,643.94	7,888.61	7,278.29	30.00	35.67	173.87	670.13	133.38	737.31	700.29	37.03	19.913		
6,800.00	6,724.78	7,876.24	7,278.50	30.45	35.54	174.92	682.49	132.94	703.18	659.65	43.53	16.155		
6,869.12	6,774.92	7,869.64	7,278.56	30.81	35.47	175.41	689.09	132.77	696.08	647.97	48.11	14.467	CC	
6,900.00	6,795.62	7,867.13	7,278.58	30.97	35.45	175.60	691.59	132.71	697.51	647.44	50.07	13.931	ES	
7,000.00	6,854.70	7,862.09	7,278.60	31.60	35.39	176.26	696.64	132.61	721.18	665.60	55.58	12.975		
7,100.00	6,900.58	7,855.48	7,278.61	32.39	35.33	176.62	703.24	132.53	771.03	711.54	59.49	12.961	SF	
7,200.00	6,932.13	7,851.41	7,278.59	33.34	35.29	177.16	707.32	132.49	841.35	779.40	61.95	13.581		
7,300.00	6,948.57	7,849.37	7,278.58	34.46	35.27	178.16	709.35	132.47	926.02	862.66	63.36	14.615		
7,400.00	6,950.87	7,848.93	7,278.57	35.70	35.26	179.26	709.79	132.47	1,019.26	955.15	64.11	15.898		
7,500.00	6,950.58	7,848.78	7,278.57	37.12	35.26	179.23	709.95	132.46	1,114.50	1,049.87	64.63	17.245		
7,600.00	6,950.28	7,848.63	7,278.57	38.70	35.26	179.20	710.10	132.46	1,210.51	1,145.48	65.03	18.616		
7,700.00	6,949.98	7,848.49	7,278.57	40.41	35.26	179.18	710.23	132.46	1,307.12	1,241.78	65.34	20.005		
7,800.00	6,949.68	7,848.36	7,278.57	42.25	35.26	179.15	710.37	132.46	1,404.20	1,338.61	65.59	21.408		
7,900.00	6,949.38	7,848.23	7,278.57	44.20	35.25	179.13	710.49	132.46	1,501.67	1,435.87	65.80	22.822		
8,000.00	6,949.08	7,848.12	7,278.57	46.24	35.25	179.11	710.61	132.46	1,599.44	1,533.47	65.97	24.245		
8,100.00	6,948.79	7,848.01	7,278.56	48.36	35.25	179.09	710.72	132.46	1,697.48	1,631.36	66.12	25.674		
8,200.00	6,948.49	7,847.90	7,278.56	50.56	35.25	179.07	710.82	132.46	1,795.74	1,729.49	66.24	27.109		
8,300.00	6,948.19	7,847.80	7,278.56	52.82	35.25	179.06	710.92	132.46	1,894.17	1,827.82	66.35	28.548		
8,400.00	6,947.89	7,847.71	7,278.56	55.14	35.25	179.04	711.01	132.45	1,992.76	1,926.32	66.45	29.990		
8,500.00	6,947.59	7,847.62	7,278.56	57.50	35.25	179.02	711.10	132.45	2,091.49	2,024.96	66.53	31.436		
8,600.00	6,947.29	7,847.53	7,278.56	59.91	35.25	179.01	711.19	132.45	2,190.33	2,123.72	66.61	32.883		
8,700.00	6,947.00	7,847.45	7,278.56	62.36	35.25	178.99	711.27	132.45	2,289.27	2,222.59	66.68	34.331		
8,800.00	6,946.70	7,847.37	7,278.56	64.84	35.25	178.98	711.35	132.45	2,388.30	2,321.56	66.75	35.781		
8,900.00	6,946.40	7,847.30	7,278.56	67.35	35.25	178.97	711.42	132.45	2,487.41	2,420.60	66.81	37.231		
9,000.00	6,946.10	7,847.23	7,278.56	69.88	35.24	178.95	711.49	132.45	2,586.59	2,519.72	66.87	38.682		
9,100.00	6,945.80	7,847.16	7,278.56	72.44	35.24	178.94	711.56	132.45	2,685.83	2,618.90	66.92	40.133		
9,200.00	6,945.50	7,847.09	7,278.56	75.02	35.24	178.93	711.63	132.45	2,785.12	2,718.14	66.98	41.583		
9,300.00	6,945.21	7,847.03	7,278.56	77.63	35.24	178.92	711.69	132.45	2,884.46	2,817.43	67.03	43.033		
9,400.00	6,944.91	7,846.97	7,278.56	80.24	35.24	178.91	711.75	132.45	2,983.84	2,916.76	67.08	44.483		
9,500.00	6,944.61	7,846.91	7,278.55	82.88	35.24	178.90	711.81	132.45	3,083.27	3,016.14	67.13	45.931		
9,600.00	6,944.31	7,846.86	7,278.55	85.53	35.24	178.89	711.87	132.45	3,182.73	3,115.55	67.18	47.378		
9,700.00	6,944.01	7,846.80	7,278.55	88.19	35.24	178.88	711.92	132.45	3,282.22	3,215.00	67.22	48.825		
9,800.00	6,943.71	7,846.75	7,278.55	90.86	35.24	178.87	711.97	132.45	3,381.75	3,314.47	67.27	50.269		
9,900.00	6,943.42	7,846.70	7,278.55	93.55	35.24	178.86	712.02	132.45	3,481.30	3,413.98	67.32	51.713		
10,000.00	6,943.12	7,846.65	7,278.55	96.24	35.24	178.85	712.07	132.45	3,580.87	3,513.51	67.37	53.154		
10,100.00	6,942.82	7,846.61	7,278.55	98.95	35.24	178.85	712.11	132.45	3,680.47	3,613.06	67.42	54.594		
10,200.00	6,942.52	7,846.56	7,278.55	101.66	35.24	178.84	712.16	132.44	3,780.09	3,712.63	67.46	56.032		

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 4N-16A-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 4N-16A-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		
10,300.00	6,942.22	7,846.52	7,278.55	104.38	35.24	178.83	712.20	132.44	3,879.73	3,812.22	67.51	57.468		
10,400.00	6,941.92	7,846.48	7,278.55	107.11	35.24	178.82	712.24	132.44	3,979.39	3,911.83	67.56	58.902		
10,500.00	6,941.63	7,846.44	7,278.55	109.84	35.24	178.82	712.28	132.44	4,079.06	4,011.46	67.61	60.334		
10,600.00	6,941.33	7,846.40	7,278.55	112.58	35.24	178.81	712.32	132.44	4,178.75	4,111.10	67.66	61.764		
10,700.00	6,941.03	7,846.36	7,278.55	115.33	35.24	178.80	712.36	132.44	4,278.46	4,210.75	67.71	63.191		
10,800.00	6,940.73	7,846.32	7,278.55	118.08	35.24	178.80	712.40	132.44	4,378.18	4,310.42	67.76	64.616		
10,900.00	6,940.43	7,846.29	7,278.55	120.84	35.24	178.79	712.43	132.44	4,477.91	4,410.10	67.81	66.038		
11,000.00	6,940.13	7,846.25	7,278.55	123.60	35.23	178.78	712.47	132.44	4,577.65	4,509.79	67.86	67.458		
11,100.00	6,939.83	7,846.22	7,278.55	126.36	35.23	178.78	712.50	132.44	4,677.40	4,609.49	67.91	68.875		
11,200.00	6,939.54	7,846.19	7,278.55	129.13	35.23	178.77	712.53	132.44	4,777.16	4,709.20	67.96	70.289		
11,300.00	6,939.24	7,846.16	7,278.55	131.91	35.23	178.77	712.57	132.44	4,876.94	4,808.92	68.02	71.700		
11,400.00	6,938.94	7,846.13	7,278.55	134.68	35.23	178.76	712.60	132.44	4,976.72	4,908.65	68.07	73.109		
11,500.00	6,938.64	7,846.10	7,278.55	137.46	35.23	178.76	712.63	132.44	5,076.51	5,008.38	68.13	74.514		
11,600.00	6,938.34	7,846.07	7,278.55	140.25	35.23	178.75	712.66	132.44	5,176.31	5,108.13	68.18	75.917		
11,700.00	6,938.04	7,846.04	7,278.55	143.03	35.23	178.75	712.68	132.44	5,276.12	5,207.88	68.24	77.316		
11,800.00	6,937.75	7,846.01	7,278.55	145.82	35.23	178.74	712.71	132.44	5,375.93	5,307.63	68.30	78.712		
11,900.00	6,937.45	7,845.98	7,278.55	148.61	35.23	178.74	712.74	132.44	5,475.75	5,407.39	68.36	80.106		
12,000.00	6,937.15	7,845.96	7,278.54	151.41	35.23	178.73	712.76	132.44	5,575.58	5,507.16	68.42	81.495		
12,100.00	6,936.85	7,845.93	7,278.54	154.20	35.23	178.73	712.79	132.44	5,675.41	5,606.94	68.48	82.882		
12,200.00	6,936.55	7,845.91	7,278.54	157.00	35.23	178.72	712.81	132.44	5,775.25	5,706.71	68.54	84.265		
12,300.00	6,936.25	7,845.88	7,278.54	159.80	35.23	178.72	712.84	132.44	5,875.09	5,806.50	68.60	85.645		
12,400.00	6,935.96	7,845.86	7,278.54	162.61	35.23	178.71	712.86	132.44	5,974.94	5,906.28	68.66	87.021		
12,500.00	6,935.66	7,845.84	7,278.54	165.41	35.23	178.71	712.89	132.44	6,074.80	6,006.07	68.72	88.394		
12,600.00	6,935.36	7,845.82	7,278.54	168.22	35.23	178.71	712.91	132.44	6,174.66	6,105.87	68.79	89.764		
12,700.00	6,935.06	7,845.79	7,278.54	171.02	35.23	178.70	712.93	132.44	6,274.52	6,205.67	68.85	91.129		
12,800.00	6,934.76	7,845.77	7,278.54	173.83	35.23	178.70	712.95	132.44	6,374.39	6,305.47	68.92	92.491		
12,900.00	6,934.46	7,845.75	7,278.54	176.65	35.23	178.69	712.97	132.44	6,474.26	6,405.28	68.99	93.850		
13,000.00	6,934.17	7,845.73	7,278.54	179.46	35.23	178.69	712.99	132.44	6,574.14	6,505.08	69.05	95.204		
13,100.00	6,933.87	7,845.71	7,278.54	182.27	35.23	178.69	713.01	132.44	6,674.02	6,604.90	69.12	96.555		
13,200.00	6,933.57	7,845.69	7,278.54	185.09	35.23	178.68	713.03	132.44	6,773.90	6,704.71	69.19	97.902		
13,300.00	6,933.27	7,845.67	7,278.54	187.91	35.23	178.68	713.05	132.44	6,873.79	6,804.53	69.26	99.245		
13,400.00	6,932.97	7,845.65	7,278.54	190.72	35.23	178.68	713.07	132.44	6,973.68	6,904.35	69.33	100.585		
13,500.00	6,932.67	7,845.64	7,278.54	193.54	35.23	178.67	713.09	132.44	7,073.57	7,004.17	69.40	101.920		
13,600.00	6,932.38	7,845.62	7,278.54	196.36	35.23	178.67	713.10	132.44	7,173.47	7,103.99	69.48	103.252		
13,700.00	6,932.08	7,845.60	7,278.54	199.19	35.23	178.67	713.12	132.44	7,273.36	7,203.82	69.55	104.579		
13,800.00	6,931.78	7,845.58	7,278.54	202.01	35.23	178.66	713.14	132.44	7,373.27	7,303.64	69.62	105.902		
13,900.00	6,931.48	7,845.57	7,278.54	204.83	35.23	178.66	713.16	132.44	7,473.17	7,403.47	69.70	107.222		
14,000.00	6,931.18	7,845.55	7,278.54	207.66	35.23	178.66	713.17	132.44	7,573.08	7,503.30	69.77	108.537		
14,100.00	6,930.88	7,845.54	7,278.54	210.48	35.23	178.66	713.19	132.44	7,672.99	7,603.14	69.85	109.848		
14,200.00	6,930.59	7,845.52	7,278.54	213.31	35.23	178.65	713.20	132.44	7,772.90	7,702.97	69.93	111.155		
14,300.00	6,930.29	7,845.50	7,278.54	216.14	35.23	178.65	713.22	132.44	7,872.81	7,802.81	70.01	112.458		
14,400.00	6,929.99	7,845.49	7,278.54	218.96	35.23	178.65	713.23	132.44	7,972.73	7,902.64	70.09	113.757		
14,500.00	6,929.69	7,845.47	7,278.54	221.79	35.23	178.65	713.25	132.44	8,072.65	8,002.48	70.17	115.052		
14,600.00	6,929.39	7,845.46	7,278.54	224.62	35.23	178.64	713.26	132.44	8,172.57	8,102.32	70.25	116.342		
14,700.00	6,929.09	7,845.45	7,278.54	227.45	35.23	178.64	713.28	132.44	8,272.49	8,202.16	70.33	117.628		
14,732.12	6,929.00	7,845.44	7,278.54	228.36	35.23	178.64	713.28	132.44	8,304.59	8,234.23	70.35	118.040		



Anticollision Report



Company:	SRC ENERGY	Local Co-ordinate Reference:	Well HARVESTERS STATE 4N-16A-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 4N-16A-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	12.66	1,347.57	302.60	1,381.12				
100.00	100.00	79.97	80.97	3.28	3.29	12.68	1,347.99	303.23	1,381.81	1,375.24	6.57	210.311	
200.00	200.00	165.79	166.75	3.34	3.31	12.75	1,349.34	305.30	1,383.85	1,377.20	6.65	208.226	
300.00	300.00	281.76	282.65	3.44	3.41	12.88	1,350.89	308.81	1,385.85	1,379.00	6.85	202.221	
400.00	400.00	375.64	376.49	3.60	3.54	12.99	1,351.18	311.58	1,386.83	1,379.69	7.15	194.082	
500.00	500.00	473.93	474.75	3.81	3.72	13.00	1,353.36	312.45	1,389.19	1,381.66	7.53	184.516	
600.00	600.00	593.28	594.10	4.05	3.99	12.99	1,354.50	312.38	1,390.07	1,382.03	8.04	172.961	
700.00	699.98	683.58	684.39	4.32	4.23	26.50	1,355.05	312.74	1,389.20	1,380.66	8.55	162.571	
800.00	799.84	776.02	776.82	4.62	4.50	26.64	1,356.23	313.46	1,385.93	1,376.82	9.11	152.128	
900.00	899.45	884.62	885.40	4.94	4.83	26.90	1,357.56	314.29	1,379.51	1,369.74	9.77	141.203	
1,000.00	998.80	982.27	983.05	5.28	5.15	27.15	1,358.47	314.83	1,370.36	1,359.93	10.43	131.367	
1,100.00	1,098.12	1,071.51	1,072.28	5.63	5.46	27.36	1,359.78	315.35	1,361.58	1,350.49	11.09	122.767	
1,200.00	1,197.44	1,172.54	1,173.30	6.00	5.82	27.58	1,361.64	315.80	1,353.15	1,341.33	11.82	114.527	
1,300.00	1,296.77	1,278.51	1,279.25	6.37	6.20	27.80	1,363.32	315.42	1,344.29	1,331.72	12.57	106.903	
1,400.00	1,396.09	1,376.75	1,377.48	6.76	6.57	27.97	1,364.94	314.64	1,335.40	1,322.08	13.32	100.233	
1,500.00	1,495.41	1,470.76	1,471.47	7.15	6.92	28.15	1,366.45	313.97	1,326.53	1,312.46	14.07	94.270	
1,600.00	1,594.74	1,549.68	1,550.35	7.55	7.23	28.37	1,368.25	315.10	1,318.86	1,304.08	14.78	89.245	
1,700.00	1,694.06	1,627.09	1,627.67	7.96	7.53	28.65	1,370.86	317.95	1,312.84	1,297.35	15.49	84.761	
1,800.00	1,793.38	1,713.51	1,713.86	8.37	7.88	29.03	1,374.48	322.98	1,308.23	1,291.99	16.24	80.541	
1,900.00	1,892.71	1,793.27	1,793.29	8.78	8.21	29.44	1,378.35	329.19	1,304.89	1,287.91	16.98	76.862	
2,000.00	1,992.03	1,871.83	1,871.38	9.20	8.54	29.88	1,383.18	336.22	1,303.23	1,285.52	17.71	73.586	
2,048.64	2,040.34	1,910.12	1,909.41	9.41	8.70	30.09	1,386.00	339.68	1,303.03	1,284.96	18.07	72.118	
2,100.00	2,091.36	1,956.66	1,955.60	9.62	8.90	30.34	1,389.68	343.96	1,303.15	1,284.68	18.48	70.533	
2,200.00	2,190.68	2,050.77	2,048.98	10.05	9.31	30.85	1,397.42	352.82	1,303.83	1,284.54	19.29	67.592	
2,300.00	2,290.00	2,147.60	2,145.10	10.48	9.74	31.32	1,406.11	360.56	1,304.90	1,284.77	20.12	64.850	
2,400.00	2,389.33	2,246.80	2,243.53	10.90	10.18	31.82	1,414.87	369.29	1,306.17	1,285.20	20.97	62.285	
2,500.00	2,488.65	2,360.05	2,355.86	11.34	10.70	32.46	1,424.04	380.42	1,307.24	1,285.35	21.90	59.702	
2,600.00	2,587.97	2,464.30	2,459.39	11.77	11.17	33.04	1,431.41	390.13	1,307.26	1,284.48	22.78	57.385	
2,700.00	2,687.30	2,556.51	2,550.97	12.20	11.59	33.54	1,438.26	398.44	1,307.65	1,284.04	23.61	55.389	
2,800.00	2,786.62	2,644.00	2,637.79	12.64	12.00	34.02	1,445.30	406.68	1,308.87	1,284.45	24.41	53.611	
2,900.00	2,885.94	2,742.26	2,735.19	13.07	12.46	34.57	1,453.74	416.48	1,310.90	1,285.62	25.28	51.858	
3,000.00	2,985.27	2,863.06	2,854.94	13.51	13.03	35.31	1,462.57	429.62	1,312.27	1,286.00	26.27	49.962	
3,100.00	3,084.59	2,968.51	2,959.57	13.95	13.53	35.99	1,468.82	441.25	1,312.54	1,285.37	27.17	48.302	
3,200.00	3,183.91	3,075.09	3,065.51	14.39	14.03	36.58	1,475.33	450.82	1,312.32	1,284.23	28.09	46.726	
3,229.17	3,212.89	3,100.45	3,090.73	14.52	14.15	36.72	1,476.92	452.99	1,312.27	1,283.95	28.32	46.333	
3,300.00	3,283.24	3,162.07	3,151.95	14.83	14.44	37.06	1,480.90	458.71	1,312.54	1,283.64	28.90	45.417	
3,400.00	3,382.56	3,251.96	3,241.18	15.27	14.87	37.59	1,487.18	467.66	1,313.77	1,284.04	29.73	44.190	
3,500.00	3,481.88	3,373.40	3,361.88	15.71	15.44	38.24	1,495.19	478.30	1,314.20	1,283.48	30.72	42.777	
3,600.00	3,581.21	3,467.88	3,455.83	16.16	15.88	38.74	1,501.20	486.24	1,314.46	1,282.89	31.58	41.628	
3,700.00	3,680.53	3,562.83	3,550.20	16.60	16.33	39.26	1,507.33	494.72	1,315.16	1,282.72	32.43	40.548	
3,800.00	3,779.85	3,658.24	3,645.01	17.04	16.79	39.77	1,513.94	503.08	1,316.31	1,283.02	33.30	39.534	
3,900.00	3,879.18	3,756.93	3,743.03	17.49	17.26	40.33	1,520.54	512.55	1,317.74	1,283.57	34.18	38.558	
4,000.00	3,978.50	3,847.24	3,832.68	17.93	17.70	40.86	1,526.33	521.83	1,319.41	1,284.39	35.01	37.683	
4,100.00	4,077.82	3,924.84	3,909.52	18.37	18.08	41.36	1,531.96	531.01	1,322.65	1,286.87	35.78	36.971	
4,200.00	4,177.15	4,016.91	4,000.56	18.82	18.55	41.96	1,539.21	542.69	1,327.02	1,290.40	36.62	36.236	
4,300.00	4,276.47	4,110.94	4,093.52	19.27	19.02	42.54	1,547.41	554.16	1,332.06	1,294.58	37.48	35.542	
4,400.00	4,375.79	4,233.57	4,214.99	19.71	19.63	43.20	1,558.47	566.90	1,336.61	1,298.11	38.51	34.711	
4,500.00	4,475.12	4,349.03	4,329.68	20.16	20.19	43.73	1,568.03	576.04	1,339.32	1,299.84	39.48	33.924	
4,600.00	4,574.44	4,449.99	4,430.04	20.60	20.67	44.14	1,576.59	583.03	1,341.80	1,301.43	40.37	33.239	
4,700.00	4,673.76	4,543.51	4,522.99	21.05	21.12	44.53	1,584.55	589.53	1,344.41	1,303.19	41.22	32.619	
4,800.00	4,773.09	4,646.83	4,625.64	21.50	21.62	44.97	1,593.50	597.19	1,347.45	1,305.33	42.12	31.992	
4,900.00	4,872.41	4,751.27	4,729.46	21.94	22.12	45.41	1,602.15	604.45	1,349.99	1,306.97	43.03	31.375	

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 4N-16A-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 4N-16A-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		
5,000.00	4,971.74	4,869.30	4,846.88	22.39	22.68	45.91	1,610.97	612.55	1,351.90	1,307.89	44.01	30.720		
5,100.00	5,071.06	4,990.04	4,967.14	22.84	23.24	46.44	1,618.48	620.30	1,352.62	1,307.64	44.99	30.066		
5,200.00	5,170.38	5,139.12	5,115.91	23.29	23.91	47.14	1,623.57	628.20	1,350.39	1,304.33	46.06	29.318		
5,300.00	5,269.71	5,250.37	5,227.08	23.74	24.38	47.54	1,627.08	630.41	1,346.24	1,299.27	46.97	28.665		
5,400.00	5,369.03	5,411.62	5,388.31	24.18	24.99	48.11	1,626.99	629.59	1,337.34	1,289.44	47.91	27.916		
5,500.00	5,468.35	5,506.35	5,483.03	24.63	25.34	48.45	1,626.12	628.71	1,328.31	1,279.58	48.73	27.260		
5,600.00	5,567.68	5,606.31	5,582.99	25.08	25.71	48.82	1,625.35	627.91	1,319.52	1,269.96	49.55	26.628		
5,700.00	5,667.00	5,712.14	5,688.81	25.53	26.10	49.21	1,624.36	626.77	1,310.49	1,260.10	50.39	26.009		
5,800.00	5,766.32	5,809.75	5,786.40	25.98	26.46	49.56	1,623.50	625.26	1,301.28	1,250.06	51.22	25.408		
5,900.00	5,865.65	5,913.66	5,890.28	26.43	26.85	49.92	1,622.68	623.35	1,292.02	1,239.97	52.05	24.822		
6,000.00	5,964.97	6,010.95	5,987.56	26.88	27.22	50.26	1,621.88	621.48	1,282.74	1,229.85	52.88	24.255		
6,100.00	6,064.29	6,111.79	6,088.37	27.33	27.60	50.61	1,621.18	619.28	1,273.45	1,219.72	53.72	23.704		
6,200.00	6,163.62	7,900.09	7,138.99	27.78	36.57	115.82	546.72	628.07	1,247.61	1,206.86	40.76	30.612		
6,300.00	6,262.94	7,871.36	7,140.58	28.23	36.23	113.87	575.40	628.32	1,173.88	1,130.67	43.20	27.172		
6,400.00	6,362.24	7,852.77	7,141.43	28.67	36.02	130.53	593.97	628.49	1,104.36	1,058.34	46.02	23.995		
6,500.00	6,460.41	7,836.38	7,142.11	29.12	35.84	160.43	610.35	628.68	1,049.00	999.66	49.35	21.258		
6,600.00	6,555.09	7,817.30	7,142.82	29.57	35.63	168.90	629.41	628.89	1,014.74	961.78	52.96	19.160		
6,690.10	6,635.47	7,799.98	7,143.37	29.96	35.44	171.96	646.73	629.04	1,004.52	948.38	56.14	17.892 CC		
6,700.00	6,643.94	7,797.72	7,143.43	30.00	35.42	172.15	648.98	629.05	1,004.64	948.17	56.47	17.791 ES		
6,800.00	6,724.78	7,777.57	7,143.87	30.45	35.20	173.52	669.13	629.12	1,019.70	960.24	59.46	17.149		
6,900.00	6,795.62	7,766.21	7,144.04	30.97	35.09	174.53	680.49	629.11	1,058.59	996.80	61.79	17.132 SF		
7,000.00	6,854.70	7,757.47	7,144.14	31.60	35.00	175.24	689.23	629.10	1,118.02	1,054.63	63.38	17.639		
7,100.00	6,900.58	7,750.89	7,144.21	32.39	34.93	175.87	695.81	629.08	1,193.63	1,129.26	64.37	18.544		
7,200.00	6,932.13	7,746.51	7,144.25	33.34	34.88	176.71	700.18	629.07	1,280.92	1,215.99	64.93	19.728		
7,300.00	6,948.57	7,744.80	7,144.27	34.46	34.87	178.72	701.90	629.06	1,375.74	1,310.52	65.22	21.094		
7,400.00	6,950.87	7,744.88	7,144.27	35.70	34.87	-177.75	701.82	629.06	1,474.42	1,409.07	65.35	22.563		
7,500.00	6,950.58	7,745.25	7,144.27	37.12	34.87	-177.64	701.44	629.06	1,573.64	1,508.21	65.43	24.049		
7,600.00	6,950.28	7,745.62	7,144.26	38.70	34.87	-177.53	701.07	629.07	1,672.96	1,607.45	65.51	25.538		
7,700.00	6,949.98	7,745.99	7,144.26	40.41	34.88	-177.42	700.71	629.07	1,772.36	1,706.78	65.58	27.027		
7,800.00	6,949.68	7,746.51	7,144.25	42.25	34.88	-177.26	700.19	629.07	1,871.82	1,806.18	65.64	28.517		
7,900.00	6,949.38	7,747.05	7,144.25	44.20	34.89	-177.10	699.64	629.07	1,971.33	1,905.63	65.70	30.007		
8,000.00	6,949.08	7,747.62	7,144.24	46.24	34.89	-176.93	699.08	629.07	2,070.89	2,005.14	65.75	31.497		
8,100.00	6,948.79	7,748.20	7,144.24	48.36	34.90	-176.75	698.50	629.07	2,170.49	2,104.69	65.80	32.986		
8,200.00	6,948.49	7,748.80	7,144.23	50.56	34.91	-176.57	697.90	629.08	2,270.13	2,204.28	65.85	34.475		
8,300.00	6,948.19	7,749.42	7,144.23	52.82	34.91	-176.38	697.28	629.08	2,369.79	2,303.90	65.89	35.963		
8,400.00	6,947.89	7,750.06	7,144.22	55.14	34.92	-176.19	696.63	629.08	2,469.49	2,403.55	65.94	37.450		
8,500.00	6,947.59	7,750.73	7,144.22	57.50	34.93	-175.98	695.97	629.08	2,569.20	2,503.22	65.98	38.936		
8,600.00	6,947.29	7,751.42	7,144.21	59.91	34.93	-175.78	695.27	629.08	2,668.94	2,602.91	66.03	40.421		
8,700.00	6,947.00	7,752.14	7,144.20	62.36	34.94	-175.56	694.56	629.09	2,768.70	2,702.62	66.07	41.904		
8,800.00	6,946.70	7,752.88	7,144.19	64.84	34.95	-175.33	693.81	629.09	2,868.47	2,802.35	66.12	43.386		
8,900.00	6,946.40	7,753.65	7,144.19	67.35	34.96	-175.10	693.04	629.09	2,968.26	2,902.10	66.16	44.865		
9,000.00	6,946.10	7,754.46	7,144.18	69.88	34.96	-174.86	692.24	629.09	3,068.06	3,001.86	66.20	46.343		
9,100.00	6,945.80	7,755.29	7,144.17	72.44	34.97	-174.61	691.40	629.10	3,167.88	3,101.63	66.25	47.819		
9,200.00	6,945.50	7,756.16	7,144.16	75.02	34.98	-174.35	690.54	629.10	3,267.70	3,201.41	66.29	49.292		
9,300.00	6,945.21	7,757.07	7,144.15	77.63	34.99	-174.08	689.63	629.10	3,367.54	3,301.20	66.34	50.763		
9,400.00	6,944.91	7,758.01	7,144.14	80.24	35.00	-173.79	688.69	629.10	3,467.38	3,401.00	66.38	52.232		
9,500.00	6,944.61	7,758.99	7,144.13	82.88	35.01	-173.50	687.70	629.10	3,567.24	3,500.81	66.43	53.698		
9,600.00	6,944.31	7,760.02	7,144.11	85.53	35.02	-173.19	686.68	629.11	3,667.10	3,600.62	66.48	55.161		
9,700.00	6,944.01	7,761.09	7,144.10	88.19	35.03	-172.87	685.60	629.11	3,766.97	3,700.44	66.53	56.622		
9,800.00	6,943.71	7,762.22	7,144.09	90.86	35.04	-172.53	684.48	629.11	3,866.84	3,800.26	66.58	58.079		
9,900.00	6,943.42	9,900.00	7,143.59	93.55	58.31	-164.80	658.05	629.07	3,966.71	3,877.67	89.04	44.550		
10,000.00	6,943.12	10,000.00	7,143.57	96.24	59.41	-164.46	656.87	629.06	4,066.60	3,976.46	90.13	45.117		

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 4N-16A-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 4N-16A-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		
10,100.00	6,942.82	10,100.00	7,143.54	98.95	60.51	-164.13	655.70	629.06	4,166.48	4,075.25	91.23	45.671		
10,200.00	6,942.52	10,200.00	7,143.51	101.66	61.62	-163.80	654.52	629.05	4,266.37	4,174.05	92.33	46.210		
10,300.00	6,942.22	7,823.05	7,142.62	104.38	35.69	-155.46	623.67	628.83	4,366.28	4,298.95	67.33	64.846		
10,400.00	6,941.92	7,827.32	7,142.46	107.11	35.74	-154.37	619.40	628.78	4,466.17	4,398.75	67.42	66.244		
10,500.00	6,941.63	7,831.83	7,142.29	109.84	35.79	-153.24	614.89	628.73	4,566.06	4,498.55	67.51	67.635		
10,600.00	6,941.33	7,836.61	7,142.10	112.58	35.84	-152.06	610.12	628.68	4,665.96	4,598.35	67.61	69.018		
10,700.00	6,941.03	7,841.68	7,141.90	115.33	35.90	-150.84	605.06	628.61	4,765.86	4,698.15	67.70	70.393		
10,800.00	6,940.73	10,800.00	7,142.29	118.08	69.04	-153.34	615.30	628.73	4,865.76	4,765.94	99.82	48.746		
10,900.00	6,940.43	7,840.80	7,141.93	120.84	35.89	-151.05	605.93	628.63	4,965.67	4,897.87	67.80	73.244		
11,000.00	6,940.13	7,842.07	7,141.88	123.60	35.90	-150.74	604.67	628.61	5,065.58	4,997.72	67.86	74.647		
11,100.00	6,939.83	7,843.31	7,141.83	126.36	35.92	-150.45	603.42	628.60	5,165.49	5,097.56	67.93	76.046		
11,200.00	6,939.54	7,844.54	7,141.78	129.13	35.93	-150.16	602.20	628.58	5,265.40	5,197.41	67.99	77.442		
11,300.00	6,939.24	7,845.75	7,141.73	131.91	35.95	-149.87	600.99	628.57	5,365.32	5,297.26	68.06	78.835		
11,400.00	6,938.94	7,846.94	7,141.68	134.68	35.96	-149.59	599.80	628.56	5,465.24	5,397.12	68.13	80.224		
11,500.00	6,938.64	7,848.12	7,141.63	137.46	35.97	-149.32	598.62	628.54	5,565.17	5,496.97	68.19	81.609		
11,600.00	6,938.34	7,849.27	7,141.58	140.25	35.98	-149.05	597.47	628.53	5,665.09	5,596.83	68.26	82.991		
11,700.00	6,938.04	7,850.42	7,141.53	143.03	36.00	-148.78	596.32	628.52	5,765.02	5,696.69	68.33	84.369		
11,800.00	6,937.75	7,851.54	7,141.48	145.82	36.01	-148.52	595.20	628.51	5,864.95	5,796.55	68.40	85.743		
11,900.00	6,937.45	7,852.66	7,141.43	148.61	36.02	-148.27	594.09	628.49	5,964.88	5,896.41	68.47	87.113		
12,000.00	6,937.15	7,853.75	7,141.39	151.41	36.04	-148.02	592.99	628.48	6,064.81	5,996.27	68.54	88.480		
12,100.00	6,936.85	7,854.83	7,141.34	154.20	36.05	-147.77	591.91	628.47	6,164.75	6,096.13	68.62	89.843		
12,200.00	6,936.55	7,855.90	7,141.29	157.00	36.06	-147.53	590.85	628.46	6,264.69	6,195.99	68.69	91.202		
12,300.00	6,936.25	7,856.95	7,141.24	159.80	36.07	-147.30	589.80	628.45	6,364.62	6,295.86	68.76	92.557		
12,400.00	6,935.96	7,857.99	7,141.20	162.61	36.08	-147.06	588.76	628.44	6,464.56	6,395.73	68.84	93.908		
12,500.00	6,935.66	7,859.02	7,141.15	165.41	36.09	-146.84	587.73	628.43	6,564.51	6,495.59	68.91	95.255		
12,600.00	6,935.36	7,860.03	7,141.11	168.22	36.11	-146.61	586.72	628.42	6,664.45	6,595.46	68.99	96.598		
12,700.00	6,935.06	7,861.02	7,141.06	171.02	36.12	-146.39	585.73	628.41	6,764.39	6,695.33	69.07	97.938		
12,800.00	6,934.76	7,862.01	7,141.01	173.83	36.13	-146.18	584.74	628.40	6,864.34	6,795.19	69.15	99.273		
12,900.00	6,934.46	7,862.98	7,140.97	176.65	36.14	-145.96	583.77	628.39	6,964.29	6,895.06	69.23	100.604		
13,000.00	6,934.17	7,868.00	7,140.74	179.46	36.20	-144.88	578.76	628.35	7,064.24	6,994.89	69.35	101.865		
13,100.00	6,933.87	7,868.00	7,140.74	182.27	36.20	-144.88	578.76	628.35	7,164.19	7,094.77	69.42	103.202		
13,200.00	6,933.57	7,868.00	7,140.74	185.09	36.20	-144.88	578.76	628.35	7,264.14	7,194.65	69.49	104.536		
13,300.00	6,933.27	7,868.00	7,140.74	187.91	36.20	-144.88	578.76	628.35	7,364.09	7,294.53	69.56	105.865		
13,400.00	6,932.97	7,868.00	7,140.74	190.72	36.20	-144.88	578.76	628.35	7,464.04	7,394.41	69.63	107.190		
13,500.00	6,932.67	7,869.12	7,140.68	193.54	36.21	-144.64	577.64	628.34	7,564.00	7,494.28	69.72	108.492		
13,600.00	6,932.38	7,870.91	7,140.60	196.36	36.23	-144.27	575.85	628.32	7,663.95	7,594.14	69.81	109.776		
13,700.00	6,932.08	7,872.70	7,140.51	199.19	36.25	-143.89	574.07	628.31	7,763.91	7,694.00	69.91	111.056		
13,800.00	6,931.78	7,874.49	7,140.42	202.01	36.27	-143.52	572.28	628.29	7,863.87	7,793.86	70.01	112.331		
13,900.00	6,931.48	7,876.28	7,140.33	204.83	36.29	-143.15	570.49	628.28	7,963.82	7,893.72	70.10	113.601		
14,000.00	6,931.18	7,878.07	7,140.24	207.66	36.31	-142.78	568.70	628.26	8,063.78	7,993.58	70.20	114.866		
14,100.00	6,930.88	7,879.86	7,140.15	210.48	36.33	-142.42	566.91	628.24	8,163.74	8,093.44	70.30	116.126		
14,200.00	6,930.59	7,881.65	7,140.05	213.31	36.35	-142.06	565.12	628.23	8,263.70	8,193.30	70.40	117.381		
14,300.00	6,930.29	7,883.45	7,139.96	216.14	36.37	-141.70	563.33	628.21	8,363.66	8,293.16	70.50	118.631		
14,400.00	6,929.99	7,885.24	7,139.86	218.96	36.40	-141.34	561.54	628.20	8,463.62	8,393.02	70.60	119.875		
14,500.00	6,929.69	7,887.03	7,139.76	221.79	36.42	-140.99	559.75	628.18	8,563.58	8,492.88	70.71	121.115		
14,600.00	6,929.39	7,888.82	7,139.66	224.62	36.44	-140.64	557.96	628.17	8,663.54	8,592.73	70.81	122.350		
14,700.00	6,929.09	7,890.62	7,139.56	227.45	36.46	-140.30	556.17	628.15	8,763.51	8,692.59	70.91	123.579		
14,732.12	6,929.00	7,891.19	7,139.52	228.36	36.46	-140.19	555.60	628.15	8,795.62	8,724.67	70.95	123.973		

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 4N-16A-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 4N-16A-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	11.77	2.77	3.28	3.28	51.56	1,343.97	1,693.20	2,161.76					
100.00	100.00	142.57	133.56	3.28	3.29	51.54	1,343.87	1,691.87	2,160.91	2,154.34	6.58	328.519		
200.00	200.00	257.57	248.52	3.34	3.37	51.48	1,344.12	1,688.87	2,159.00	2,152.29	6.71	321.736		
300.00	300.00	361.15	352.01	3.44	3.51	51.40	1,345.12	1,684.79	2,156.52	2,149.56	6.95	310.176		
400.00	400.00	451.70	442.46	3.60	3.67	51.29	1,346.96	1,680.87	2,154.40	2,147.13	7.27	296.297		
500.00	500.00	551.08	541.70	3.81	3.89	51.16	1,349.50	1,676.32	2,152.43	2,144.73	7.69	279.847		
600.00	600.00	648.79	639.23	4.05	4.15	51.02	1,352.71	1,671.38	2,150.55	2,142.37	8.18	262.802		
700.00	699.98	743.62	733.86	4.32	4.42	64.41	1,356.41	1,666.26	2,148.06	2,139.33	8.73	246.094		
800.00	799.84	846.12	836.09	4.62	4.75	64.41	1,361.06	1,660.47	2,144.28	2,134.93	9.35	229.326		
900.00	899.45	940.16	929.88	4.94	5.07	64.53	1,365.19	1,655.03	2,138.80	2,128.81	9.99	214.157		
1,000.00	998.80	1,033.06	1,022.48	5.28	5.40	64.63	1,370.18	1,649.56	2,132.68	2,122.02	10.66	200.101		
1,100.00	1,098.12	1,308.11	1,293.92	5.63	6.58	64.31	1,391.66	1,612.00	2,121.17	2,109.02	12.16	174.498		
1,200.00	1,197.44	1,419.01	1,402.70	6.00	7.11	64.11	1,399.38	1,591.89	2,106.51	2,093.48	13.03	161.672		
1,300.00	1,296.77	1,507.41	1,489.35	6.37	7.56	63.94	1,405.79	1,575.58	2,091.82	2,077.99	13.83	151.272		
1,400.00	1,396.09	1,687.00	1,665.24	6.76	8.50	63.62	1,415.79	1,540.84	2,075.27	2,060.20	15.07	137.726		
1,500.00	1,495.41	1,797.20	1,773.17	7.15	9.09	63.47	1,419.21	1,518.90	2,056.88	2,040.89	15.99	128.616		
1,600.00	1,594.74	1,873.53	1,848.01	7.55	9.50	63.37	1,421.17	1,503.98	2,038.50	2,021.72	16.77	121.532		
1,700.00	1,694.06	1,942.65	1,915.97	7.96	9.87	63.30	1,423.32	1,491.55	2,021.58	2,004.05	17.53	115.326		
1,800.00	1,793.38	2,011.00	1,983.31	8.37	10.23	63.24	1,425.72	1,480.14	2,005.97	1,987.69	18.29	109.697		
1,900.00	1,892.71	2,080.01	2,051.43	8.78	10.59	63.18	1,428.71	1,469.49	1,991.86	1,972.81	19.05	104.558		
2,000.00	1,992.03	2,163.61	2,134.02	9.20	11.02	63.10	1,433.36	1,457.41	1,979.18	1,959.30	19.89	99.522		
2,100.00	2,091.36	2,254.14	2,223.38	9.62	11.49	62.99	1,439.10	1,444.10	1,966.88	1,946.11	20.77	94.714		
2,200.00	2,190.68	2,341.51	2,309.56	10.05	11.95	62.86	1,445.52	1,431.18	1,955.16	1,933.51	21.64	90.337		
2,300.00	2,290.00	2,435.50	2,402.22	10.48	12.45	62.71	1,453.10	1,417.36	1,943.96	1,921.41	22.56	86.179		
2,400.00	2,389.33	2,529.75	2,495.30	10.90	12.95	62.59	1,459.88	1,404.28	1,932.86	1,909.39	23.47	82.353		
2,500.00	2,488.65	2,621.39	2,585.91	11.34	13.42	62.49	1,466.42	1,392.23	1,922.27	1,897.90	24.37	78.886		
2,600.00	2,587.97	2,724.04	2,687.49	11.77	13.95	62.39	1,473.39	1,379.18	1,911.78	1,886.46	25.31	75.520		
2,700.00	2,687.30	2,864.66	2,826.45	12.20	14.69	62.23	1,482.66	1,359.73	1,900.44	1,874.00	26.44	71.871		
2,800.00	2,786.62	2,986.27	2,946.08	12.64	15.36	62.01	1,490.69	1,339.44	1,886.84	1,859.33	27.51	68.594		
2,900.00	2,885.94	3,079.14	3,037.50	13.07	15.88	61.85	1,496.39	1,324.12	1,873.12	1,844.68	28.44	65.852		
3,000.00	2,985.27	3,180.04	3,136.91	13.51	16.44	61.70	1,502.14	1,307.87	1,859.44	1,830.02	29.41	63.220		
3,100.00	3,084.59	3,272.71	3,228.21	13.95	16.95	61.56	1,507.54	1,292.93	1,845.83	1,815.49	30.34	60.831		
3,200.00	3,183.91	3,365.86	3,320.33	14.39	17.44	61.48	1,511.77	1,279.79	1,832.85	1,801.59	31.26	58.631		
3,300.00	3,283.24	3,473.64	3,427.06	14.83	17.99	61.44	1,514.99	1,265.13	1,819.20	1,786.98	32.22	56.467		
3,400.00	3,382.56	3,553.49	3,506.24	15.27	18.40	61.43	1,517.29	1,255.09	1,806.26	1,773.20	33.06	54.631		
3,500.00	3,481.88	3,638.57	3,590.59	15.71	18.83	61.40	1,520.77	1,244.50	1,794.22	1,760.29	33.93	52.876		
3,600.00	3,581.21	3,728.10	3,679.23	16.16	19.29	61.32	1,525.76	1,232.99	1,782.88	1,748.04	34.84	51.181		
3,700.00	3,680.53	3,840.88	3,790.56	16.60	19.90	61.15	1,533.70	1,216.76	1,771.39	1,735.53	35.86	49.392		
3,800.00	3,779.85	3,955.60	3,903.41	17.04	20.55	60.90	1,542.67	1,198.22	1,759.15	1,722.23	36.92	47.644		
3,900.00	3,879.18	4,076.44	4,022.14	17.49	21.24	60.62	1,551.44	1,177.54	1,745.86	1,707.85	38.01	45.930		
4,000.00	3,978.50	4,198.38	4,141.86	17.93	21.95	60.35	1,559.06	1,155.63	1,731.29	1,692.19	39.10	44.280		
4,100.00	4,077.82	4,281.34	4,223.38	18.37	22.42	60.17	1,563.68	1,141.04	1,716.56	1,676.54	40.02	42.892		
4,200.00	4,177.15	4,365.67	4,306.50	18.82	22.89	60.03	1,568.11	1,127.46	1,702.70	1,661.75	40.95	41.583		
4,300.00	4,276.47	4,455.56	4,395.26	19.27	23.38	59.91	1,572.65	1,114.04	1,689.58	1,647.69	41.88	40.343		
4,400.00	4,375.79	4,547.25	4,485.86	19.71	23.88	59.79	1,577.45	1,100.77	1,676.91	1,634.09	42.82	39.165		
4,500.00	4,475.12	4,635.05	4,572.68	20.16	24.34	59.69	1,582.21	1,088.54	1,664.77	1,621.04	43.73	38.068		
4,600.00	4,574.44	4,721.22	4,657.98	20.60	24.79	59.60	1,586.97	1,077.37	1,653.40	1,608.77	44.64	37.042		
4,700.00	4,673.76	4,804.03	4,740.07	21.05	25.22	59.53	1,591.68	1,067.47	1,642.88	1,597.36	45.52	36.092		
4,800.00	4,773.09	4,885.09	4,820.52	21.50	25.62	59.48	1,596.56	1,058.85	1,633.52	1,587.14	46.38	35.220		
4,900.00	4,872.41	4,973.08	4,907.96	21.94	26.05	59.45	1,601.89	1,050.60	1,625.08	1,577.82	47.26	34.386		
5,000.00	4,971.74	5,070.76	5,005.08	22.39	26.52	59.43	1,607.73	1,042.04	1,617.04	1,568.87	48.18	33.565		
5,100.00	5,071.06	5,170.37	5,104.01	22.84	27.00	59.38	1,614.50	1,032.51	1,608.99	1,559.88	49.11	32.762		

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 4N-16A-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 4N-16A-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	5,170.38	5,267.53	5,200.56	23.29	27.47	59.34	1,620.90	1,023.71	1,601.16	1,551.13	50.03	32.003		
5,300.00	5,269.71	5,371.29	5,303.81	23.74	27.96	59.35	1,626.54	1,015.14	1,593.10	1,542.13	50.96	31.260		
5,400.00	5,369.03	5,464.70	5,396.90	24.18	28.38	59.43	1,630.52	1,008.66	1,585.16	1,533.33	51.83	30.582		
5,500.00	5,468.35	5,566.49	5,488.50	24.63	28.77	59.55	1,633.68	1,003.69	1,577.75	1,525.07	52.68	29.952		
5,600.00	5,567.68	5,652.08	5,583.97	25.08	29.18	59.73	1,636.28	999.63	1,570.68	1,517.16	53.52	29.348		
5,700.00	5,667.00	5,749.06	5,680.84	25.53	29.58	59.92	1,638.98	995.80	1,563.90	1,509.53	54.37	28.766		
5,800.00	5,766.32	5,850.55	5,782.23	25.98	30.00	60.13	1,641.59	991.98	1,557.11	1,501.89	55.23	28.195		
5,900.00	5,865.65	5,950.48	5,882.07	26.43	30.41	60.36	1,643.61	988.58	1,550.24	1,494.17	56.07	27.647		
6,000.00	5,964.97	6,050.87	5,982.42	26.88	30.81	60.64	1,644.88	985.95	1,543.44	1,486.53	56.91	27.119		
6,100.00	6,064.29	6,153.35	6,084.86	27.33	31.22	60.93	1,645.83	983.32	1,536.50	1,478.74	57.76	26.603		
6,200.00	6,163.62	6,258.51	6,189.99	27.78	31.62	61.27	1,646.10	980.94	1,529.35	1,470.76	58.59	26.100		
6,300.00	6,262.94	7,853.72	7,253.19	28.23	36.95	102.91	746.76	944.01	1,480.40	1,429.30	51.11	28.967		
6,400.00	6,362.24	7,843.29	7,252.51	28.67	36.86	120.70	757.15	943.43	1,417.51	1,364.24	53.27	26.612		
6,500.00	6,460.41	7,833.21	7,251.82	29.12	36.78	152.10	767.19	942.86	1,369.02	1,313.41	55.60	24.621		
6,600.00	6,555.09	7,823.06	7,251.09	29.57	36.70	161.68	777.30	942.27	1,341.08	1,283.08	58.01	23.119		
6,673.38	6,620.98	7,815.20	7,250.51	29.88	36.64	164.90	785.12	941.79	1,334.87	1,275.20	59.68	22.368 CC, ES		
6,700.00	6,643.94	7,812.31	7,250.29	30.00	36.62	165.68	787.99	941.62	1,335.69	1,275.45	60.25	22.171		
6,800.00	6,724.78	7,801.28	7,249.42	30.45	36.53	167.57	798.97	940.92	1,353.24	1,291.11	62.13	21.782 SF		
6,900.00	6,795.62	7,792.10	7,248.68	30.97	36.46	168.44	808.10	940.32	1,392.43	1,328.85	63.58	21.901		
7,000.00	6,854.70	7,786.56	7,248.23	31.60	36.42	168.73	813.61	939.95	1,450.62	1,386.00	64.62	22.448		
7,100.00	6,900.58	7,780.88	7,247.78	32.39	36.38	168.29	819.26	939.58	1,524.30	1,459.01	65.29	23.347		
7,200.00	6,932.13	7,775.27	7,247.35	33.34	36.34	166.80	824.84	939.21	1,609.67	1,543.99	65.67	24.510		
7,300.00	6,948.57	7,769.93	7,246.95	34.46	36.30	162.91	830.15	938.87	1,703.04	1,637.17	65.87	25.855		
7,400.00	6,950.87	7,765.00	7,246.58	35.70	36.27	156.96	835.06	938.55	1,800.87	1,734.92	65.95	27.309		
7,500.00	6,950.58	7,760.81	7,246.27	37.12	36.24	156.24	839.23	938.28	1,899.39	1,833.40	66.00	28.780		
7,600.00	6,950.28	7,756.89	7,245.99	38.70	36.21	155.58	843.13	938.03	1,998.06	1,932.01	66.05	30.253		
7,700.00	6,949.98	7,753.09	7,245.71	40.41	36.19	154.94	846.92	937.80	2,096.83	2,030.75	66.09	31.728		
7,800.00	6,949.68	7,749.40	7,245.44	42.25	36.16	154.32	850.58	937.57	2,195.71	2,129.59	66.13	33.205		
7,900.00	6,949.38	7,745.83	7,245.18	44.20	36.14	153.73	854.14	937.35	2,294.68	2,228.52	66.16	34.683		
8,000.00	6,949.08	7,742.36	7,244.92	46.24	36.11	153.16	857.60	937.14	2,393.73	2,327.53	66.19	36.163		
8,100.00	6,948.79	7,738.99	7,244.68	48.36	36.09	152.62	860.95	936.94	2,492.84	2,426.62	66.23	37.642		
8,200.00	6,948.49	7,733.00	7,244.24	50.56	36.05	151.65	866.91	936.60	2,592.02	2,525.78	66.24	39.132		
8,300.00	6,948.19	7,733.00	7,244.24	52.82	36.05	151.65	866.91	936.60	2,691.25	2,624.96	66.29	40.599		
8,400.00	6,947.89	7,733.00	7,244.24	55.14	36.05	151.65	866.91	936.60	2,790.53	2,724.20	66.34	42.066		
8,500.00	6,947.59	7,725.54	7,243.67	57.50	36.00	150.47	874.34	936.17	2,889.85	2,823.51	66.34	43.560		
8,600.00	6,947.29	7,722.24	7,243.41	59.91	35.98	149.96	877.63	935.99	2,989.22	2,922.85	66.37	45.038		
8,700.00	6,947.00	7,719.03	7,243.15	62.36	35.96	149.46	880.82	935.81	3,088.62	3,022.22	66.40	46.516		
8,800.00	6,946.70	7,715.92	7,242.89	64.84	35.94	148.98	883.91	935.65	3,188.05	3,121.62	66.43	47.992		
8,900.00	6,946.40	7,712.91	7,242.63	67.35	35.92	148.52	886.91	935.49	3,287.51	3,221.05	66.46	49.467		
9,000.00	6,946.10	7,709.97	7,242.38	69.88	35.91	148.07	889.83	935.33	3,387.00	3,320.51	66.49	50.940		
9,100.00	6,945.80	7,707.12	7,242.13	72.44	35.89	147.64	892.67	935.18	3,486.52	3,419.99	66.52	52.412		
9,200.00	6,945.50	7,704.35	7,241.87	75.02	35.87	147.23	895.42	935.04	3,586.06	3,519.50	66.55	53.882		
9,300.00	6,945.21	7,701.66	7,241.62	77.63	35.86	146.83	898.10	934.91	3,685.62	3,619.03	66.59	55.350		
9,400.00	6,944.91	7,699.04	7,241.38	80.24	35.84	146.44	900.70	934.77	3,785.20	3,718.58	66.62	56.816		
9,500.00	6,944.61	7,696.49	7,241.13	82.88	35.82	146.07	903.24	934.65	3,884.80	3,818.14	66.66	58.281		
9,600.00	6,944.31	7,694.01	7,240.89	85.53	35.81	145.70	905.71	934.53	3,984.41	3,917.72	66.69	59.743		
9,700.00	6,944.01	7,691.59	7,240.65	88.19	35.80	145.35	908.11	934.41	4,084.05	4,017.32	66.73	61.203		
9,800.00	6,943.71	7,689.24	7,240.41	90.86	35.78	145.01	910.45	934.30	4,183.69	4,116.93	66.77	62.661		
9,900.00	6,943.42	7,686.94	7,240.18	93.55	35.77	144.68	912.73	934.19	4,283.36	4,216.55	66.81	64.116		
10,000.00	6,943.12	7,684.70	7,239.95	96.24	35.76	144.36	914.95	934.08	4,383.03	4,316.19	66.85	65.569		
10,100.00	6,942.82	7,682.52	7,239.72	98.95	35.74	144.05	917.12	933.98	4,482.72	4,415.83	66.89	67.020		
10,200.00	6,942.52	7,671.00	7,238.46	101.66	35.68	142.44	928.56	933.47	4,582.44	4,515.54	66.89	68.502		

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 4N-16A-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 4N-16A-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	6,942.22	7,671.00	7,238.46	104.38	35.68	142.44	928.56	933.47	4,682.14	4,615.20	66.95	69.940	
10,400.00	6,941.92	7,671.00	7,238.46	107.11	35.68	142.44	928.56	933.47	4,781.86	4,714.86	67.00	71.375	
10,500.00	6,941.63	7,671.00	7,238.46	109.84	35.68	142.44	928.56	933.47	4,881.59	4,814.54	67.05	72.808	
10,600.00	6,941.33	7,671.00	7,238.46	112.58	35.68	142.44	928.56	933.47	4,981.33	4,914.23	67.10	74.238	
10,700.00	6,941.03	7,650.48	7,235.72	115.33	35.57	139.66	948.87	932.56	5,081.07	5,013.98	67.10	75.726	
10,800.00	6,940.73	7,647.00	7,235.18	118.08	35.55	139.20	952.31	932.41	5,180.82	5,113.67	67.14	77.160	
10,900.00	6,940.43	7,647.00	7,235.18	120.84	35.55	139.20	952.31	932.41	5,280.57	5,213.37	67.20	78.582	
11,000.00	6,940.13	7,647.00	7,235.18	123.60	35.55	139.20	952.31	932.41	5,380.33	5,313.07	67.25	80.001	
11,100.00	6,939.83	7,647.00	7,235.18	126.36	35.55	139.20	952.31	932.41	5,480.10	5,412.79	67.31	81.416	
11,200.00	6,939.54	7,647.00	7,235.18	129.13	35.55	139.20	952.31	932.41	5,579.87	5,512.51	67.37	82.829	
11,300.00	6,939.24	7,638.17	7,233.70	131.91	35.51	138.04	961.01	932.03	5,679.64	5,612.24	67.41	84.260	
11,400.00	6,938.94	7,636.83	7,233.46	134.68	35.50	137.87	962.32	931.97	5,779.43	5,711.97	67.46	85.670	
11,500.00	6,938.64	7,635.54	7,233.23	137.46	35.49	137.70	963.59	931.92	5,879.22	5,811.70	67.52	87.076	
11,600.00	6,938.34	7,634.28	7,233.00	140.25	35.49	137.54	964.83	931.87	5,979.02	5,911.45	67.58	88.479	
11,700.00	6,938.04	7,633.06	7,232.77	143.03	35.48	137.38	966.03	931.82	6,078.83	6,011.19	67.63	89.879	
11,800.00	6,937.75	7,631.87	7,232.55	145.82	35.47	137.23	967.20	931.77	6,178.64	6,110.95	67.69	91.275	
11,900.00	6,937.45	7,630.71	7,232.33	148.61	35.47	137.08	968.33	931.73	6,278.46	6,210.70	67.75	92.668	
12,000.00	6,937.15	7,629.59	7,232.12	151.41	35.46	136.93	969.43	931.69	6,378.28	6,310.47	67.81	94.057	
12,100.00	6,936.85	7,628.49	7,231.91	154.20	35.46	136.79	970.51	931.64	6,478.11	6,410.23	67.87	95.443	
12,200.00	6,936.55	7,627.43	7,231.70	157.00	35.45	136.65	971.55	931.60	6,577.94	6,510.00	67.94	96.825	
12,300.00	6,936.25	7,626.39	7,231.49	159.80	35.45	136.52	972.57	931.57	6,677.77	6,609.77	68.00	98.203	
12,400.00	6,935.96	7,625.37	7,231.29	162.61	35.44	136.39	973.56	931.53	6,777.61	6,709.55	68.06	99.578	
12,500.00	6,935.66	7,615.00	7,229.13	165.41	35.39	135.08	983.70	931.17	6,877.48	6,809.36	68.12	100.968	
12,600.00	6,935.36	7,615.00	7,229.13	168.22	35.39	135.08	983.70	931.17	6,977.32	6,909.14	68.18	102.333	
12,700.00	6,935.06	7,615.00	7,229.13	171.02	35.39	135.08	983.70	931.17	7,077.17	7,008.92	68.25	103.695	
12,800.00	6,934.76	7,615.00	7,229.13	173.83	35.39	135.08	983.70	931.17	7,177.03	7,108.71	68.32	105.052	
12,900.00	6,934.46	7,615.00	7,229.13	176.65	35.39	135.08	983.70	931.17	7,276.88	7,208.50	68.39	106.406	
13,000.00	6,934.17	7,615.00	7,229.13	179.46	35.39	135.08	983.70	931.17	7,376.74	7,308.29	68.46	107.756	
13,100.00	6,933.87	7,615.00	7,229.13	182.27	35.39	135.08	983.70	931.17	7,476.61	7,408.08	68.53	109.103	
13,200.00	6,933.57	7,615.00	7,229.13	185.09	35.39	135.08	983.70	931.17	7,576.48	7,507.88	68.60	110.445	
13,300.00	6,933.27	7,615.00	7,229.13	187.91	35.39	135.08	983.70	931.17	7,676.35	7,607.68	68.67	111.784	
13,400.00	6,932.97	7,615.00	7,229.13	190.72	35.39	135.08	983.70	931.17	7,776.23	7,707.48	68.74	113.118	
13,500.00	6,932.67	7,615.00	7,229.13	193.54	35.39	135.08	983.70	931.17	7,876.10	7,807.29	68.82	114.449	
13,600.00	6,932.38	7,615.00	7,229.13	196.36	35.39	135.08	983.70	931.17	7,975.99	7,907.09	68.89	115.775	
13,700.00	6,932.08	7,615.00	7,229.13	199.19	35.39	135.08	983.70	931.17	8,075.87	8,006.90	68.97	117.098	
13,800.00	6,931.78	7,615.00	7,229.13	202.01	35.39	135.08	983.70	931.17	8,175.76	8,106.72	69.04	118.416	
13,900.00	6,931.48	7,615.00	7,229.13	204.83	35.39	135.08	983.70	931.17	8,275.65	8,206.53	69.12	119.731	
14,000.00	6,931.18	7,615.00	7,229.13	207.66	35.39	135.08	983.70	931.17	8,375.54	8,306.35	69.20	121.041	
14,100.00	6,930.88	7,615.00	7,229.13	210.48	35.39	135.08	983.70	931.17	8,475.44	8,406.16	69.27	122.347	
14,200.00	6,930.59	7,615.00	7,229.13	213.31	35.39	135.08	983.70	931.17	8,575.33	8,505.98	69.35	123.649	
14,300.00	6,930.29	7,615.00	7,229.13	216.14	35.39	135.08	983.70	931.17	8,675.23	8,605.80	69.43	124.947	
14,400.00	6,929.99	7,615.00	7,229.13	218.96	35.39	135.08	983.70	931.17	8,775.14	8,705.63	69.51	126.240	
14,500.00	6,929.69	7,615.00	7,229.13	221.79	35.39	135.08	983.70	931.17	8,875.04	8,805.45	69.59	127.529	
14,600.00	6,929.39	7,615.00	7,229.13	224.62	35.39	135.08	983.70	931.17	8,974.95	8,905.27	69.67	128.814	
14,700.00	6,929.09	7,615.00	7,229.13	227.45	35.39	135.08	983.70	931.17	9,074.86	9,005.10	69.76	130.095	
14,732.12	6,929.00	7,615.00	7,229.13	228.36	35.39	135.08	983.70	931.17	9,106.95	9,037.17	69.78	130.506	



Anticollision Report



Company:	SRC ENERGY	Local Co-ordinate Reference:	Well HARVESTERS STATE 4N-16A-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 4N-16A-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	-179.52	-300.19	-2.50	300.20					
100.00	100.00	101.00	100.00	3.28	3.28	-179.52	-300.19	-2.50	300.20	293.63	6.57	45.695		
200.00	200.00	199.00	200.00	3.34	3.34	-179.52	-300.19	-2.50	300.20	293.52	6.67	44.985 CC, ES		
300.00	300.00	289.61	290.60	3.44	3.43	-179.50	-301.58	-2.63	301.74	294.86	6.88	43.852		
400.00	400.00	379.95	380.83	3.60	3.56	-179.43	-305.81	-3.03	306.43	299.24	7.19	42.608		
500.00	500.00	469.93	470.53	3.81	3.73	-179.32	-312.84	-3.70	314.25	306.65	7.59	41.392		
600.00	600.00	559.38	559.44	4.05	3.93	-179.18	-322.60	-4.61	325.17	317.11	8.06	40.319		
700.00	699.98	647.89	647.07	4.32	4.16	-165.53	-334.97	-5.78	340.85	332.25	8.60	39.646		
800.00	799.84	734.80	732.70	4.62	4.42	-165.41	-349.74	-7.17	362.84	353.66	9.17	39.550		
900.00	899.45	819.62	815.80	4.94	4.71	-165.35	-366.64	-8.76	390.99	381.22	9.77	40.003		
1,000.00	998.80	902.16	896.15	5.28	5.01	-165.43	-385.43	-10.53	424.42	414.04	10.38	40.878		
1,100.00	1,098.12	988.99	980.14	5.63	5.35	-165.53	-407.35	-12.60	460.40	449.40	11.00	41.853		
1,200.00	1,197.44	1,082.15	1,070.17	6.00	5.74	-165.63	-431.20	-14.84	496.74	485.09	11.66	42.608		
1,300.00	1,296.77	1,175.31	1,160.19	6.37	6.14	-165.71	-455.05	-17.09	533.09	520.75	12.34	43.184		
1,400.00	1,396.09	1,268.46	1,250.22	6.76	6.56	-165.77	-478.90	-19.34	569.44	556.39	13.05	43.619		
1,500.00	1,495.41	1,361.62	1,340.24	7.15	6.99	-165.84	-502.75	-21.58	605.79	592.01	13.78	43.947		
1,600.00	1,594.74	1,454.78	1,430.27	7.55	7.43	-165.89	-526.59	-23.83	642.14	627.61	14.53	44.190		
1,700.00	1,694.06	1,547.94	1,520.29	7.96	7.88	-165.94	-550.44	-26.08	678.49	663.20	15.29	44.368		
1,800.00	1,793.38	1,641.10	1,610.32	8.37	8.33	-165.98	-574.29	-28.32	714.84	698.78	16.07	44.494		
1,900.00	1,892.71	1,734.25	1,700.35	8.78	8.79	-166.02	-598.14	-30.57	751.19	734.34	16.85	44.581		
2,000.00	1,992.03	1,827.41	1,790.37	9.20	9.26	-166.06	-621.99	-32.82	787.54	769.90	17.64	44.636		
2,100.00	2,091.36	1,920.57	1,880.40	9.62	9.73	-166.09	-645.84	-35.06	823.90	805.45	18.45	44.668		
2,200.00	2,190.68	2,013.73	1,970.42	10.05	10.20	-166.12	-669.69	-37.31	860.25	841.00	19.25	44.680		
2,300.00	2,290.00	2,106.88	2,060.45	10.48	10.67	-166.14	-693.54	-39.56	896.60	876.53	20.07	44.678		
2,400.00	2,389.33	2,200.04	2,150.47	10.90	11.15	-166.17	-717.38	-41.80	932.95	912.06	20.89	44.664		
2,500.00	2,488.65	2,306.80	2,240.50	11.34	11.70	-166.19	-741.23	-44.05	969.31	947.53	21.78	44.512		
2,600.00	2,587.97	2,386.36	2,330.52	11.77	12.11	-166.21	-765.08	-46.30	1,005.66	983.12	22.54	44.612		
2,700.00	2,687.30	2,479.52	2,420.55	12.20	12.60	-166.23	-788.93	-48.54	1,042.01	1,018.64	23.38	44.578		
2,800.00	2,786.62	2,572.67	2,510.57	12.64	13.08	-166.25	-812.78	-50.79	1,078.36	1,054.15	24.21	44.539		
2,900.00	2,885.94	2,665.83	2,600.60	13.07	13.57	-166.27	-836.63	-53.04	1,114.72	1,089.66	25.05	44.497		
3,000.00	2,985.27	2,758.99	2,690.62	13.51	14.06	-166.29	-860.48	-55.28	1,151.07	1,125.18	25.89	44.454		
3,100.00	3,084.59	2,852.15	2,780.65	13.95	14.54	-166.30	-884.33	-57.53	1,187.42	1,160.68	26.74	44.409		
3,200.00	3,183.91	2,945.30	2,870.68	14.39	15.03	-166.32	-908.18	-59.77	1,223.77	1,196.19	27.59	44.362		
3,300.00	3,283.24	3,038.46	2,960.70	14.83	15.53	-166.33	-932.02	-62.02	1,260.13	1,231.69	28.44	44.316		
3,400.00	3,382.56	3,131.62	3,050.73	15.27	16.02	-166.34	-955.87	-64.27	1,296.48	1,267.19	29.29	44.269		
3,500.00	3,481.88	3,224.78	3,140.75	15.71	16.51	-166.36	-979.72	-66.51	1,332.83	1,302.69	30.14	44.222		
3,600.00	3,581.21	3,317.94	3,230.78	16.16	17.00	-166.37	-1,003.57	-68.76	1,369.19	1,338.19	30.99	44.176		
3,700.00	3,680.53	3,411.09	3,320.80	16.60	17.50	-166.38	-1,027.42	-71.01	1,405.54	1,373.69	31.85	44.130		
3,800.00	3,779.85	3,504.25	3,410.83	17.04	17.99	-166.39	-1,051.27	-73.25	1,441.89	1,409.19	32.71	44.084		
3,900.00	3,879.18	3,602.59	3,500.85	17.49	18.52	-166.40	-1,075.12	-75.50	1,478.25	1,444.66	33.59	44.007		
4,000.00	3,978.50	3,709.43	3,590.88	17.93	19.08	-166.41	-1,098.97	-77.75	1,514.60	1,480.08	34.52	43.879		
4,100.00	4,077.82	3,783.72	3,680.90	18.37	19.48	-166.42	-1,122.81	-79.99	1,550.95	1,515.67	35.29	43.952		
4,200.00	4,177.15	3,876.88	3,770.93	18.82	19.98	-166.42	-1,146.66	-82.24	1,587.31	1,551.16	36.15	43.909		
4,300.00	4,276.47	3,970.04	3,860.95	19.27	20.47	-166.43	-1,170.51	-84.49	1,623.66	1,586.65	37.01	43.867		
4,400.00	4,375.79	4,063.20	3,950.98	19.71	20.97	-166.44	-1,194.36	-86.73	1,660.02	1,622.14	37.88	43.826		
4,500.00	4,475.12	4,156.36	4,041.00	20.16	21.47	-166.45	-1,218.21	-88.98	1,696.37	1,657.63	38.74	43.786		
4,600.00	4,574.44	4,249.51	4,131.03	20.60	21.97	-166.46	-1,242.06	-91.23	1,732.72	1,693.12	39.61	43.747		
4,700.00	4,673.76	4,342.67	4,221.06	21.05	22.46	-166.46	-1,265.91	-93.47	1,769.08	1,728.60	40.47	43.709		
4,800.00	4,773.09	4,435.83	4,311.08	21.50	22.96	-166.47	-1,289.76	-95.72	1,805.43	1,764.09	41.34	43.671		
4,900.00	4,872.41	4,528.99	4,401.11	21.94	23.46	-166.47	-1,313.61	-97.97	1,841.78	1,799.57	42.21	43.635		
5,000.00	4,971.74	4,622.15	4,491.13	22.39	23.96	-166.48	-1,337.45	-100.21	1,878.14	1,835.06	43.08	43.599		
5,100.00	5,071.06	4,715.30	4,581.16	22.84	24.46	-166.49	-1,361.30	-102.46	1,914.49	1,870.54	43.95	43.564		

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 4N-16A-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 4N-16A-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	5,170.38	4,808.46	4,671.18	23.29	24.96	-166.49	-1,385.15	-104.71	1,950.84	1,906.03	44.82	43.530		
5,300.00	5,269.71	4,901.62	4,761.21	23.74	25.46	-166.50	-1,409.00	-106.95	1,987.20	1,941.51	45.69	43.496		
5,400.00	5,369.03	5,005.22	4,851.23	24.18	26.02	-166.50	-1,432.85	-109.20	2,023.55	1,976.94	46.61	43.416		
5,500.00	5,468.35	5,087.93	4,941.26	24.63	26.46	-166.51	-1,456.70	-111.45	2,059.91	2,012.48	47.43	43.432		
5,600.00	5,567.68	5,181.09	5,031.28	25.08	26.96	-166.51	-1,480.55	-113.69	2,096.26	2,047.96	48.30	43.401		
5,700.00	5,667.00	5,274.25	5,121.31	25.53	27.46	-166.52	-1,504.40	-115.94	2,132.61	2,083.44	49.17	43.370		
5,800.00	5,766.32	5,367.41	5,211.33	25.98	27.96	-166.52	-1,528.24	-118.18	2,168.97	2,118.92	50.05	43.340		
5,900.00	5,865.65	5,460.57	5,301.36	26.43	28.46	-166.53	-1,552.09	-120.43	2,205.32	2,154.40	50.92	43.311		
6,000.00	5,964.97	5,553.72	5,391.38	26.88	28.96	-166.53	-1,575.94	-122.68	2,241.68	2,189.88	51.79	43.282		
6,100.00	6,064.29	5,646.88	5,481.41	27.33	29.46	-166.53	-1,599.79	-124.92	2,278.03	2,225.36	52.67	43.254		
6,200.00	6,163.62	5,740.04	5,571.44	27.78	29.97	-166.54	-1,623.64	-127.17	2,314.38	2,260.84	53.54	43.227		
6,300.00	6,262.94	5,833.20	5,661.46	28.23	30.47	-166.54	-1,647.49	-129.42	2,350.74	2,296.32	54.41	43.200		
6,400.00	6,362.24	5,926.35	5,751.48	28.67	30.97	-147.30	-1,671.34	-131.66	2,387.08	2,331.79	55.29	43.174		
6,500.00	6,460.41	6,018.74	5,840.77	29.12	31.47	-112.33	-1,694.99	-133.89	2,423.07	2,366.91	56.17	43.142		
6,600.00	6,555.09	6,108.25	5,927.27	29.57	31.95	-99.66	-1,717.90	-136.05	2,458.08	2,401.05	57.03	43.103		
6,700.00	6,643.94	6,207.32	6,008.86	30.00	32.48	-92.94	-1,739.52	-138.09	2,491.72	2,433.78	57.94	43.004		
6,800.00	6,724.78	6,269.95	6,083.53	30.45	32.82	-88.58	-1,759.30	-139.95	2,523.85	2,465.15	58.70	42.998		
6,900.00	6,795.62	6,338.15	6,149.44	30.97	33.19	-85.41	-1,776.76	-141.59	2,554.48	2,494.95	59.53	42.909		
7,000.00	6,854.70	6,395.61	6,204.96	31.60	33.50	-82.88	-1,791.47	-142.98	2,583.70	2,523.30	60.40	42.775		
7,100.00	6,900.58	6,440.91	6,248.74	32.39	33.74	-80.67	-1,803.07	-144.07	2,611.60	2,550.26	61.34	42.579		
7,200.00	6,932.13	6,472.93	6,279.68	33.34	33.91	-78.63	-1,811.26	-144.84	2,638.19	2,575.85	62.34	42.319		
7,300.00	6,948.57	6,490.89	6,297.04	34.46	34.01	-76.63	-1,815.86	-145.28	2,663.36	2,599.96	63.40	42.007		
7,400.00	6,950.87	6,504.36	6,301.63	35.70	34.08	-75.51	-1,817.08	-145.39	2,687.32	2,622.78	64.54	41.639		
7,500.00	6,950.58	6,505.36	6,301.63	37.12	39.67	-90.00	-1,994.25	-916.49	2,692.01	2,616.67	75.34	35.732		
7,600.00	6,950.28	7,765.36	6,950.12	38.70	40.89	-90.00	-1,994.85	-1,016.49	2,691.87	2,613.49	78.38	34.344		
7,700.00	6,949.98	7,865.36	6,949.74	40.41	42.33	-90.00	-1,995.45	-1,116.49	2,691.73	2,610.02	81.71	32.944		
7,800.00	6,949.68	7,965.36	6,949.36	42.25	43.95	-89.99	-1,996.05	-1,216.49	2,691.59	2,606.30	85.29	31.559		
7,900.00	6,949.38	8,065.36	6,948.98	44.20	45.71	-89.99	-1,996.64	-1,316.48	2,691.45	2,602.36	89.09	30.210		
8,000.00	6,949.08	8,165.36	6,948.61	46.24	47.59	-89.99	-1,997.24	-1,416.48	2,691.31	2,598.22	93.09	28.910		
8,100.00	6,948.79	8,265.36	6,948.23	48.36	49.58	-89.99	-1,997.84	-1,516.48	2,691.17	2,593.91	97.26	27.669		
8,200.00	6,948.49	8,365.36	6,947.85	50.56	51.66	-89.99	-1,998.44	-1,616.48	2,691.04	2,589.45	101.58	26.490		
8,300.00	6,948.19	8,465.36	6,947.47	52.82	53.81	-89.98	-1,999.04	-1,716.47	2,690.90	2,584.86	106.04	25.376		
8,400.00	6,947.89	8,565.36	6,947.09	55.14	56.03	-89.98	-1,999.64	-1,816.47	2,690.76	2,580.15	110.61	24.327		
8,500.00	6,947.59	8,665.36	6,946.71	57.50	58.30	-89.98	-2,000.24	-1,916.47	2,690.62	2,575.34	115.28	23.339		
8,600.00	6,947.29	8,765.36	6,946.33	59.91	60.63	-89.98	-2,000.83	-2,016.47	2,690.48	2,570.43	120.05	22.412		
8,700.00	6,947.00	8,865.36	6,945.95	62.36	63.00	-89.98	-2,001.43	-2,116.46	2,690.34	2,565.45	124.89	21.542		
8,800.00	6,946.70	8,965.36	6,945.57	64.84	65.41	-89.98	-2,002.03	-2,216.46	2,690.20	2,560.40	129.80	20.725		
8,900.00	6,946.40	9,065.36	6,945.19	67.35	67.86	-89.97	-2,002.63	-2,316.46	2,690.06	2,555.28	134.78	19.959		
9,000.00	6,946.10	9,165.36	6,944.81	69.88	70.34	-89.97	-2,003.23	-2,416.45	2,689.92	2,550.11	139.82	19.239		
9,100.00	6,945.80	9,265.36	6,944.43	72.44	72.84	-89.97	-2,003.83	-2,516.45	2,689.78	2,544.88	144.90	18.563		
9,200.00	6,945.50	9,365.36	6,944.05	75.02	75.38	-89.97	-2,004.43	-2,616.45	2,689.64	2,539.61	150.03	17.927		
9,300.00	6,945.21	9,465.36	6,943.67	77.63	77.93	-89.97	-2,005.02	-2,716.45	2,689.51	2,534.30	155.20	17.329		
9,400.00	6,944.91	9,565.36	6,943.29	80.24	80.51	-89.97	-2,005.62	-2,816.44	2,689.37	2,528.96	160.41	16.765		
9,500.00	6,944.61	9,665.36	6,942.92	82.88	83.10	-89.96	-2,006.22	-2,916.44	2,689.23	2,523.57	165.65	16.234		
9,600.00	6,944.31	9,765.36	6,942.54	85.53	85.71	-89.96	-2,006.82	-3,016.44	2,689.09	2,518.16	170.93	15.733		
9,700.00	6,944.01	9,865.36	6,942.16	88.19	88.34	-89.96	-2,007.42	-3,116.44	2,688.95	2,512.72	176.23	15.259		
9,800.00	6,943.71	9,965.36	6,941.78	90.86	90.98	-89.96	-2,008.02	-3,216.43	2,688.81	2,507.26	181.55	14.810		
9,900.00	6,943.42	10,065.36	6,941.40	93.55	93.64	-89.96	-2,008.62	-3,316.43	2,688.67	2,501.77	186.90	14.386		
10,000.00	6,943.12	10,165.36	6,941.02	96.24	96.30	-89.96	-2,009.22	-3,416.43	2,688.53	2,496.26	192.27	13.983		
10,100.00	6,942.82	10,265.36	6,940.64	98.95	98.98	-89.95	-2,009.81	-3,516.43	2,688.39	2,490.73	197.66	13.601		
10,200.00	6,942.52	10,365.36	6,940.26	101.66	101.67	-89.95	-2,010.41	-3,616.42	2,688.25	2,485.19	203.07	13.238		
10,300.00	6,942.22	10,465.36	6,939.88	104.38	104.36	-89.95	-2,011.01	-3,716.42	2,688.11	2,479.62	208.49	12.893		

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 4N-16A-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 4N-16A-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	6,941.92	10,565.36	6,939.50	107.11	107.07	-89.95	-2,011.61	-3,816.42	2,687.98	2,474.05	213.93	12.565		
10,500.00	6,941.63	10,665.36	6,939.12	109.84	109.78	-89.95	-2,012.21	-3,916.41	2,687.84	2,468.45	219.38	12.252		
10,600.00	6,941.33	10,765.36	6,938.74	112.58	112.50	-89.95	-2,012.81	-4,016.41	2,687.70	2,462.85	224.85	11.953		
10,700.00	6,941.03	10,865.36	6,938.36	115.33	115.22	-89.94	-2,013.41	-4,116.41	2,687.56	2,457.23	230.33	11.668		
10,800.00	6,940.73	10,965.36	6,937.98	118.08	117.96	-89.94	-2,014.00	-4,216.41	2,687.42	2,451.60	235.82	11.396		
10,900.00	6,940.43	11,065.36	6,937.61	120.84	120.70	-89.94	-2,014.60	-4,316.40	2,687.28	2,445.96	241.32	11.136		
11,000.00	6,940.13	11,165.36	6,937.23	123.60	123.44	-89.94	-2,015.20	-4,416.40	2,687.14	2,440.31	246.83	10.887		
11,100.00	6,939.83	11,265.36	6,936.85	126.36	126.19	-89.94	-2,015.80	-4,516.40	2,687.00	2,434.65	252.35	10.648		
11,200.00	6,939.54	11,365.36	6,936.47	129.13	128.94	-89.93	-2,016.40	-4,616.40	2,686.86	2,428.99	257.88	10.419		
11,300.00	6,939.24	11,465.36	6,936.09	131.91	131.70	-89.93	-2,017.00	-4,716.39	2,686.72	2,423.31	263.41	10.200		
11,400.00	6,938.94	11,565.36	6,935.71	134.68	134.46	-89.93	-2,017.60	-4,816.39	2,686.59	2,417.63	268.96	9.989		
11,500.00	6,938.64	11,665.36	6,935.33	137.46	137.23	-89.93	-2,018.19	-4,916.39	2,686.45	2,411.94	274.51	9.786		
11,600.00	6,938.34	11,765.36	6,934.95	140.25	140.00	-89.93	-2,018.79	-5,016.39	2,686.31	2,406.24	280.07	9.592		
11,700.00	6,938.04	11,865.36	6,934.57	143.03	142.77	-89.93	-2,019.39	-5,116.38	2,686.17	2,400.54	285.63	9.404		
11,800.00	6,937.75	11,965.36	6,934.19	145.82	145.55	-89.92	-2,019.99	-5,216.38	2,686.03	2,394.83	291.20	9.224		
11,900.00	6,937.45	12,065.36	6,933.81	148.61	148.33	-89.92	-2,020.59	-5,316.38	2,685.89	2,389.11	296.78	9.050		
12,000.00	6,937.15	12,165.36	6,933.43	151.41	151.11	-89.92	-2,021.19	-5,416.38	2,685.75	2,383.40	302.36	8.883		
12,100.00	6,936.85	12,265.36	6,933.05	154.20	153.90	-89.92	-2,021.79	-5,516.37	2,685.61	2,377.67	307.94	8.721		
12,200.00	6,936.55	12,365.36	6,932.67	157.00	156.69	-89.92	-2,022.39	-5,616.37	2,685.47	2,371.94	313.53	8.565		
12,300.00	6,936.25	12,465.36	6,932.29	159.80	159.48	-89.92	-2,022.98	-5,716.37	2,685.33	2,366.21	319.13	8.415		
12,400.00	6,935.96	12,565.36	6,931.92	162.61	162.27	-89.91	-2,023.58	-5,816.36	2,685.20	2,360.47	324.73	8.269		
12,500.00	6,935.66	12,665.36	6,931.54	165.41	165.07	-89.91	-2,024.18	-5,916.36	2,685.06	2,354.73	330.33	8.128		
12,600.00	6,935.36	12,765.36	6,931.16	168.22	167.87	-89.91	-2,024.78	-6,016.36	2,684.92	2,348.98	335.94	7.992		
12,700.00	6,935.06	12,865.36	6,930.78	171.02	170.67	-89.91	-2,025.38	-6,116.36	2,684.78	2,343.23	341.55	7.861		
12,800.00	6,934.76	12,965.36	6,930.40	173.83	173.47	-89.91	-2,025.98	-6,216.35	2,684.64	2,337.48	347.16	7.733		
12,900.00	6,934.46	13,065.36	6,930.02	176.65	176.27	-89.91	-2,026.58	-6,316.35	2,684.50	2,331.72	352.78	7.610		
13,000.00	6,934.17	13,165.36	6,929.64	179.46	179.08	-89.90	-2,027.17	-6,416.35	2,684.36	2,325.96	358.40	7.490		
13,100.00	6,933.87	13,265.36	6,929.26	182.27	181.88	-89.90	-2,027.77	-6,516.35	2,684.22	2,320.20	364.02	7.374		
13,200.00	6,933.57	13,365.36	6,928.88	185.09	184.69	-89.90	-2,028.37	-6,616.34	2,684.08	2,314.43	369.65	7.261		
13,300.00	6,933.27	13,465.36	6,928.50	187.91	187.50	-89.90	-2,028.97	-6,716.34	2,683.94	2,308.66	375.28	7.152		
13,400.00	6,932.97	13,565.36	6,928.12	190.72	190.32	-89.90	-2,029.57	-6,816.34	2,683.81	2,302.89	380.91	7.046		
13,500.00	6,932.67	13,665.36	6,927.74	193.54	193.13	-89.89	-2,030.17	-6,916.34	2,683.67	2,297.12	386.55	6.943		
13,600.00	6,932.38	13,765.36	6,927.36	196.36	195.94	-89.89	-2,030.77	-7,016.33	2,683.53	2,291.34	392.18	6.843		
13,700.00	6,932.08	13,865.35	6,926.98	199.19	198.76	-89.89	-2,031.36	-7,116.33	2,683.39	2,285.57	397.82	6.745		
13,800.00	6,931.78	13,965.35	6,926.60	202.01	201.57	-89.89	-2,031.96	-7,216.33	2,683.25	2,279.79	403.46	6.651		
13,900.00	6,931.48	14,065.35	6,926.23	204.83	204.39	-89.89	-2,032.56	-7,316.33	2,683.11	2,274.00	409.11	6.558		
14,000.00	6,931.18	14,165.35	6,925.85	207.66	207.21	-89.89	-2,033.16	-7,416.32	2,682.97	2,268.22	414.75	6.469		
14,100.00	6,930.88	14,265.35	6,925.47	210.48	210.03	-89.88	-2,033.76	-7,516.32	2,682.83	2,262.43	420.40	6.382		
14,200.00	6,930.59	14,365.35	6,925.09	213.31	212.85	-89.88	-2,034.36	-7,616.32	2,682.69	2,256.64	426.05	6.297		
14,300.00	6,930.29	14,465.35	6,924.71	216.14	215.68	-89.88	-2,034.96	-7,716.31	2,682.55	2,250.85	431.70	6.214		
14,400.00	6,929.99	14,565.35	6,924.33	218.96	218.50	-89.88	-2,035.56	-7,816.31	2,682.42	2,245.06	437.35	6.133		
14,500.00	6,929.69	14,665.35	6,923.95	221.79	221.32	-89.88	-2,036.15	-7,916.31	2,682.28	2,239.27	443.01	6.055		
14,600.00	6,929.39	14,765.35	6,923.57	224.62	224.15	-89.88	-2,036.75	-8,016.31	2,682.14	2,233.47	448.66	5.978		
14,700.00	6,929.09	14,865.35	6,923.19	227.45	226.97	-89.87	-2,037.35	-8,116.30	2,682.00	2,227.68	454.32	5.903		
14,732.12	6,929.00	14,897.48	6,923.07	228.36	227.88	-89.87	-2,037.54	-8,148.43	2,681.95	2,225.82	456.14	5.880 SF		



Anticollision Report



Company:	SRC ENERGY	Local Co-ordinate Reference:	Well HARVESTERS STATE 4N-16A-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 4N-16A-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	-179.51	-260.11	-2.23	260.12					
100.00	100.00	101.00	100.00	3.28	3.28	-179.51	-260.11	-2.23	260.12	253.55	6.57	39.594		
200.00	200.00	199.00	200.00	3.34	3.34	-179.51	-260.11	-2.23	260.12	253.45	6.67	38.979	CC, ES	
300.00	300.00	290.78	291.77	3.44	3.43	-179.47	-261.54	-2.41	261.68	254.79	6.88	38.021		
400.00	400.00	382.30	383.17	3.60	3.56	-179.36	-265.86	-2.97	266.41	259.21	7.20	37.021		
500.00	500.00	473.44	474.03	3.81	3.74	-179.18	-273.04	-3.89	274.30	266.70	7.60	36.091		
600.00	600.00	564.03	564.05	4.05	3.94	-178.95	-283.02	-5.18	285.34	277.26	8.08	35.324		
700.00	699.98	653.65	652.75	4.32	4.18	-165.21	-295.66	-6.81	301.15	292.54	8.62	34.956		
800.00	799.84	743.21	740.97	4.62	4.45	-165.01	-310.99	-8.79	323.27	314.07	9.19	35.161		
900.00	899.45	839.65	835.78	4.94	4.77	-164.93	-328.50	-11.05	349.69	339.90	9.79	35.715		
1,000.00	998.80	935.36	929.87	5.28	5.12	-165.04	-345.89	-13.29	378.64	368.21	10.43	36.302		
1,100.00	1,098.12	1,031.02	1,023.91	5.63	5.48	-165.19	-363.26	-15.53	407.78	396.69	11.09	36.774		
1,200.00	1,197.44	1,126.68	1,117.95	6.00	5.86	-165.32	-380.63	-17.77	436.91	425.14	11.78	37.102		
1,300.00	1,296.77	1,222.33	1,211.99	6.37	6.25	-165.43	-398.00	-20.01	466.05	453.56	12.49	37.321		
1,400.00	1,396.09	1,317.99	1,306.03	6.76	6.66	-165.53	-415.37	-22.25	495.19	481.97	13.22	37.459		
1,500.00	1,495.41	1,413.65	1,400.07	7.15	7.07	-165.61	-432.74	-24.49	524.33	510.36	13.97	37.537		
1,600.00	1,594.74	1,509.30	1,494.11	7.55	7.49	-165.69	-450.11	-26.73	553.47	538.74	14.73	37.570		
1,700.00	1,694.06	1,604.96	1,588.15	7.96	7.91	-165.76	-467.48	-28.97	582.62	567.11	15.51	37.570		
1,800.00	1,793.38	1,700.62	1,682.19	8.37	8.34	-165.83	-484.85	-31.21	611.76	595.46	16.29	37.545		
1,900.00	1,892.71	1,803.72	1,776.23	8.78	8.81	-165.88	-502.22	-33.45	640.90	623.78	17.12	37.433		
2,000.00	1,992.03	1,908.07	1,870.27	9.20	9.29	-165.94	-519.59	-35.70	670.05	652.08	17.96	37.303		
2,100.00	2,091.36	1,987.59	1,964.31	9.62	9.66	-165.99	-536.96	-37.94	699.19	680.49	18.70	37.384		
2,200.00	2,190.68	2,083.25	2,058.35	10.05	10.11	-166.03	-554.33	-40.18	728.34	708.82	19.52	37.314		
2,300.00	2,290.00	2,178.90	2,152.39	10.48	10.55	-166.07	-571.70	-42.42	757.48	737.14	20.34	37.239		
2,400.00	2,389.33	2,274.56	2,246.43	10.90	11.00	-166.11	-589.07	-44.66	786.63	765.46	21.17	37.162		
2,500.00	2,488.65	2,370.22	2,340.47	11.34	11.46	-166.14	-606.44	-46.90	815.77	793.78	22.00	37.084		
2,600.00	2,587.97	2,465.87	2,434.51	11.77	11.91	-166.18	-623.81	-49.14	844.92	822.09	22.83	37.006		
2,700.00	2,687.30	2,561.53	2,528.55	12.20	12.36	-166.21	-641.18	-51.38	874.07	850.40	23.67	36.928		
2,800.00	2,786.62	2,657.19	2,622.59	12.64	12.82	-166.24	-658.55	-53.62	903.21	878.70	24.51	36.851		
2,900.00	2,885.94	2,752.85	2,716.63	13.07	13.28	-166.26	-675.92	-55.86	932.36	907.01	25.35	36.775		
3,000.00	2,985.27	2,848.50	2,810.67	13.51	13.74	-166.29	-693.29	-58.10	961.51	935.31	26.20	36.701		
3,100.00	3,084.59	2,944.16	2,904.71	13.95	14.20	-166.31	-710.66	-60.34	990.66	963.61	27.05	36.628		
3,200.00	3,183.91	3,039.82	2,998.75	14.39	14.66	-166.34	-728.03	-62.58	1,019.80	991.91	27.90	36.558		
3,300.00	3,283.24	3,135.47	3,092.79	14.83	15.12	-166.36	-745.40	-64.82	1,048.95	1,020.20	28.75	36.489		
3,400.00	3,382.56	3,231.13	3,186.83	15.27	15.58	-166.38	-762.77	-67.06	1,078.10	1,048.50	29.60	36.422		
3,500.00	3,481.88	3,326.79	3,280.87	15.71	16.05	-166.40	-780.14	-69.30	1,107.25	1,076.79	30.46	36.356		
3,600.00	3,581.21	3,422.45	3,374.91	16.16	16.51	-166.41	-797.51	-71.54	1,136.39	1,105.08	31.31	36.293		
3,700.00	3,680.53	3,518.10	3,468.95	16.60	16.97	-166.43	-814.88	-73.79	1,165.54	1,133.37	32.17	36.232		
3,800.00	3,779.85	3,613.76	3,562.99	17.04	17.44	-166.45	-832.25	-76.03	1,194.69	1,161.66	33.03	36.173		
3,900.00	3,879.18	3,709.42	3,657.03	17.49	17.90	-166.46	-849.62	-78.27	1,223.84	1,189.95	33.89	36.115		
4,000.00	3,978.50	3,805.07	3,751.07	17.93	18.37	-166.48	-866.99	-80.51	1,252.99	1,218.24	34.75	36.059		
4,100.00	4,077.82	3,900.73	3,845.11	18.37	18.84	-166.49	-884.36	-82.75	1,282.14	1,246.53	35.61	36.005		
4,200.00	4,177.15	4,003.61	3,939.15	18.82	19.34	-166.51	-901.73	-84.99	1,311.29	1,274.78	36.51	35.920		
4,300.00	4,276.47	4,107.96	4,033.19	19.27	19.85	-166.52	-919.10	-87.23	1,340.43	1,303.02	37.41	35.832		
4,400.00	4,375.79	4,187.70	4,127.23	19.71	20.24	-166.53	-936.47	-89.47	1,369.58	1,331.38	38.20	35.853		
4,500.00	4,475.12	4,283.36	4,221.27	20.16	20.70	-166.54	-953.84	-91.71	1,398.73	1,359.67	39.07	35.805		
4,600.00	4,574.44	4,379.02	4,315.31	20.60	21.17	-166.55	-971.22	-93.95	1,427.88	1,387.95	39.93	35.759		
4,700.00	4,673.76	4,474.67	4,409.35	21.05	21.64	-166.56	-988.59	-96.19	1,457.03	1,416.23	40.80	35.714		
4,800.00	4,773.09	4,570.33	4,503.39	21.50	22.11	-166.58	-1,005.96	-98.43	1,486.18	1,444.51	41.66	35.671		
4,900.00	4,872.41	4,665.99	4,597.43	21.94	22.58	-166.59	-1,023.33	-100.67	1,515.33	1,472.80	42.53	35.628		
5,000.00	4,971.74	4,761.64	4,691.47	22.39	23.04	-166.60	-1,040.70	-102.91	1,544.48	1,501.08	43.40	35.587		
5,100.00	5,071.06	4,857.30	4,785.51	22.84	23.51	-166.60	-1,058.07	-105.15	1,573.62	1,529.36	44.27	35.548		

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 4N-16A-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 4N-16A-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	5,170.38	4,952.96	4,879.55	23.29	23.98	-166.61	-1,075.44	-107.39	1,602.77	1,557.64	45.14	35.509		
5,300.00	5,269.71	5,048.62	4,973.59	23.74	24.45	-166.62	-1,092.81	-109.63	1,631.92	1,585.92	46.01	35.471		
5,400.00	5,369.03	5,144.27	5,067.63	24.18	24.92	-166.63	-1,110.18	-111.88	1,661.07	1,614.20	46.88	35.435		
5,500.00	5,468.35	5,239.93	5,161.67	24.63	25.39	-166.64	-1,127.55	-114.12	1,690.22	1,642.47	47.75	35.399		
5,600.00	5,567.68	5,335.59	5,255.71	25.08	25.86	-166.65	-1,144.92	-116.36	1,719.37	1,670.75	48.62	35.365		
5,700.00	5,667.00	5,431.24	5,349.75	25.53	26.33	-166.65	-1,162.29	-118.60	1,748.52	1,699.03	49.49	35.331		
5,800.00	5,766.32	5,526.90	5,443.79	25.98	26.80	-166.66	-1,179.66	-120.84	1,777.67	1,727.31	50.36	35.299		
5,900.00	5,865.65	5,622.56	5,537.83	26.43	27.27	-166.67	-1,197.03	-123.08	1,806.82	1,755.59	51.23	35.267		
6,000.00	5,964.97	5,718.22	5,631.87	26.88	27.74	-166.68	-1,214.40	-125.32	1,835.97	1,783.86	52.10	35.236		
6,100.00	6,064.29	5,813.87	5,725.91	27.33	28.21	-166.68	-1,231.77	-127.56	1,865.12	1,812.14	52.98	35.206		
6,200.00	6,163.62	5,909.53	5,819.95	27.78	28.68	-166.69	-1,249.14	-129.80	1,894.27	1,840.42	53.85	35.176		
6,300.00	6,262.94	6,005.19	5,913.99	28.23	29.15	-166.69	-1,266.51	-132.04	1,923.42	1,868.69	54.72	35.148		
6,400.00	6,362.24	6,100.84	6,008.03	28.67	29.63	-147.67	-1,283.88	-134.28	1,952.56	1,896.96	55.60	35.119		
6,500.00	6,460.41	6,195.68	6,101.27	29.12	30.09	-113.51	-1,301.10	-136.50	1,981.44	1,924.97	56.47	35.087		
6,600.00	6,555.09	6,287.55	6,191.58	29.57	30.55	-101.68	-1,317.78	-138.65	2,009.66	1,952.33	57.33	35.052		
6,700.00	6,643.94	6,374.16	6,276.73	30.00	30.97	-95.77	-1,333.51	-140.68	2,037.11	1,978.94	58.18	35.017		
6,800.00	6,724.78	6,453.39	6,354.62	30.45	31.36	-92.16	-1,347.90	-142.54	2,063.96	2,004.95	59.00	34.979		
6,900.00	6,795.62	6,523.29	6,423.34	30.97	31.71	-89.61	-1,360.59	-144.18	2,090.51	2,030.67	59.84	34.935		
7,000.00	6,854.70	6,582.14	6,481.20	31.60	32.00	-87.53	-1,371.28	-145.55	2,117.15	2,056.44	60.71	34.873		
7,100.00	6,900.58	6,628.49	6,526.76	32.39	32.22	-85.59	-1,379.69	-146.64	2,144.17	2,082.54	61.63	34.789		
7,200.00	6,932.13	6,728.77	6,624.81	33.34	32.71	-85.27	-1,397.93	-156.12	2,171.32	2,108.11	63.21	34.349		
7,300.00	6,948.57	6,945.20	6,824.05	34.46	33.68	-87.86	-1,435.86	-228.63	2,196.98	2,131.34	65.64	33.468		
7,400.00	6,950.87	7,634.34	7,140.92	35.70	37.12	-94.93	-1,503.79	-799.06	2,210.68	2,139.20	71.48	30.929		
7,500.00	6,950.58	7,734.33	7,140.38	37.12	38.30	-94.92	-1,505.36	-899.04	2,211.49	2,137.30	74.19	29.809		
7,600.00	6,950.28	7,834.33	7,139.83	38.70	39.68	-94.91	-1,506.93	-999.03	2,212.29	2,135.08	77.22	28.651		
7,700.00	6,949.98	7,934.33	7,139.29	40.41	41.23	-94.91	-1,508.50	-1,099.01	2,213.10	2,132.57	80.53	27.480		
7,800.00	6,949.68	8,034.32	7,138.75	42.25	42.92	-94.90	-1,510.07	-1,198.99	2,213.91	2,129.80	84.11	26.322		
7,900.00	6,949.38	8,134.32	7,138.21	44.20	44.74	-94.89	-1,511.64	-1,298.97	2,214.72	2,126.82	87.90	25.194		
8,000.00	6,949.08	8,234.32	7,137.67	46.24	46.67	-94.88	-1,513.21	-1,398.96	2,215.53	2,123.63	91.90	24.108		
8,100.00	6,948.79	8,334.31	7,137.13	48.36	48.69	-94.87	-1,514.78	-1,498.94	2,216.34	2,120.27	96.07	23.071		
8,200.00	6,948.49	8,434.31	7,136.58	50.56	50.80	-94.87	-1,516.35	-1,598.92	2,217.15	2,116.76	100.38	22.087		
8,300.00	6,948.19	8,534.30	7,136.04	52.82	52.97	-94.86	-1,517.92	-1,698.90	2,217.95	2,113.12	104.83	21.157		
8,400.00	6,947.89	8,634.30	7,135.50	55.14	55.21	-94.85	-1,519.49	-1,798.89	2,218.76	2,109.37	109.40	20.282		
8,500.00	6,947.59	8,734.30	7,134.96	57.50	57.50	-94.84	-1,521.06	-1,898.87	2,219.57	2,105.51	114.06	19.459		
8,600.00	6,947.29	8,834.29	7,134.42	59.91	59.85	-94.83	-1,522.63	-1,998.85	2,220.38	2,101.56	118.82	18.687		
8,700.00	6,947.00	8,934.29	7,133.87	62.36	62.23	-94.83	-1,524.20	-2,098.83	2,221.19	2,097.53	123.66	17.962		
8,800.00	6,946.70	9,034.29	7,133.33	64.84	64.66	-94.82	-1,525.77	-2,198.82	2,222.00	2,093.43	128.57	17.283		
8,900.00	6,946.40	9,134.28	7,132.79	67.35	67.12	-94.81	-1,527.34	-2,298.80	2,222.81	2,089.27	133.54	16.645		
9,000.00	6,946.10	9,234.28	7,132.25	69.88	69.61	-94.80	-1,528.91	-2,398.78	2,223.62	2,085.05	138.57	16.047		
9,100.00	6,945.80	9,334.27	7,131.71	72.44	72.12	-94.79	-1,530.48	-2,498.76	2,224.43	2,080.78	143.64	15.486		
9,200.00	6,945.50	9,434.27	7,131.16	75.02	74.66	-94.78	-1,532.05	-2,598.75	2,225.23	2,076.47	148.77	14.958		
9,300.00	6,945.21	9,534.27	7,130.62	77.63	77.23	-94.78	-1,533.62	-2,698.73	2,226.04	2,072.12	153.93	14.462		
9,400.00	6,944.91	9,634.26	7,130.08	80.24	79.81	-94.77	-1,535.19	-2,798.71	2,226.85	2,067.73	159.13	13.994		
9,500.00	6,944.61	9,734.26	7,129.54	82.88	82.41	-94.76	-1,536.76	-2,898.69	2,227.66	2,063.30	164.36	13.553		
9,600.00	6,944.31	9,834.25	7,129.00	85.53	85.03	-94.75	-1,538.33	-2,998.68	2,228.47	2,058.85	169.62	13.138		
9,700.00	6,944.01	9,934.25	7,128.45	88.19	87.66	-94.74	-1,539.90	-3,098.66	2,229.28	2,054.37	174.92	12.745		
9,800.00	6,943.71	10,034.25	7,127.91	90.86	90.31	-94.74	-1,541.47	-3,198.64	2,230.09	2,049.86	180.23	12.374		
9,900.00	6,943.42	10,134.24	7,127.37	93.55	92.96	-94.73	-1,543.04	-3,298.62	2,230.90	2,045.33	185.57	12.022		
10,000.00	6,943.12	10,234.24	7,126.83	96.24	95.63	-94.72	-1,544.61	-3,398.61	2,231.71	2,040.78	190.93	11.689		
10,100.00	6,942.82	10,334.24	7,126.29	98.95	98.32	-94.71	-1,546.18	-3,498.59	2,232.52	2,036.21	196.31	11.373		
10,200.00	6,942.52	10,434.23	7,125.74	101.66	101.01	-94.70	-1,547.75	-3,598.57	2,233.33	2,031.62	201.70	11.072		
10,300.00	6,942.22	10,534.23	7,125.20	104.38	103.70	-94.70	-1,549.32	-3,698.55	2,234.14	2,027.02	207.12	10.787		

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 4N-16A-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 4N-16A-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	6,941.92	10,634.22	7,124.66	107.11	106.41	-94.69	-1,550.89	-3,798.54	2,234.95	2,022.40	212.55	10.515		
10,500.00	6,941.63	10,734.22	7,124.12	109.84	109.13	-94.68	-1,552.46	-3,898.52	2,235.76	2,017.77	217.99	10.256		
10,600.00	6,941.33	10,834.22	7,123.58	112.58	111.85	-94.67	-1,554.03	-3,998.50	2,236.57	2,013.12	223.44	10.010		
10,700.00	6,941.03	10,934.21	7,123.03	115.33	114.58	-94.66	-1,555.60	-4,098.48	2,237.38	2,008.47	228.91	9.774		
10,800.00	6,940.73	11,034.21	7,122.49	118.08	117.31	-94.66	-1,557.17	-4,198.47	2,238.19	2,003.80	234.39	9.549		
10,900.00	6,940.43	11,134.21	7,121.95	120.84	120.05	-94.65	-1,558.74	-4,298.45	2,239.00	1,999.12	239.88	9.334		
11,000.00	6,940.13	11,234.20	7,121.41	123.60	122.79	-94.64	-1,560.31	-4,398.43	2,239.81	1,994.43	245.38	9.128		
11,100.00	6,939.83	11,334.20	7,120.87	126.36	125.55	-94.63	-1,561.88	-4,498.41	2,240.62	1,989.73	250.88	8.931		
11,200.00	6,939.54	11,434.19	7,120.32	129.13	128.30	-94.63	-1,563.45	-4,598.40	2,241.43	1,985.03	256.40	8.742		
11,300.00	6,939.24	11,534.19	7,119.78	131.91	131.06	-94.62	-1,565.02	-4,698.38	2,242.24	1,980.31	261.92	8.561		
11,400.00	6,938.94	11,634.19	7,119.24	134.68	133.82	-94.61	-1,566.59	-4,798.36	2,243.05	1,975.59	267.46	8.387		
11,500.00	6,938.64	11,734.18	7,118.70	137.46	136.59	-94.60	-1,568.16	-4,898.34	2,243.86	1,970.86	272.99	8.219		
11,600.00	6,938.34	11,834.18	7,118.16	140.25	139.36	-94.59	-1,569.73	-4,998.33	2,244.67	1,966.13	278.54	8.059		
11,700.00	6,938.04	11,934.18	7,117.62	143.03	142.13	-94.59	-1,571.30	-5,098.31	2,245.48	1,961.38	284.09	7.904		
11,800.00	6,937.75	12,034.17	7,117.07	145.82	144.91	-94.58	-1,572.87	-5,198.29	2,246.29	1,956.64	289.65	7.755		
11,900.00	6,937.45	12,134.17	7,116.53	148.61	147.69	-94.57	-1,574.44	-5,298.27	2,247.10	1,951.88	295.21	7.612		
12,000.00	6,937.15	12,234.16	7,115.99	151.41	150.47	-94.56	-1,576.01	-5,398.26	2,247.91	1,947.13	300.78	7.474		
12,100.00	6,936.85	12,334.16	7,115.45	154.20	153.26	-94.55	-1,577.58	-5,498.24	2,248.72	1,942.36	306.36	7.340		
12,200.00	6,936.55	12,434.16	7,114.91	157.00	156.05	-94.55	-1,579.15	-5,598.22	2,249.53	1,937.59	311.93	7.212		
12,300.00	6,936.25	12,534.15	7,114.36	159.80	158.84	-94.54	-1,580.72	-5,698.20	2,250.34	1,932.82	317.52	7.087		
12,400.00	6,935.96	12,634.15	7,113.82	162.61	161.63	-94.53	-1,582.29	-5,798.18	2,251.15	1,928.04	323.10	6.967		
12,500.00	6,935.66	12,734.15	7,113.28	165.41	164.42	-94.52	-1,583.86	-5,898.17	2,251.96	1,923.26	328.70	6.851		
12,600.00	6,935.36	12,834.14	7,112.74	168.22	167.22	-94.51	-1,585.43	-5,998.15	2,252.77	1,918.48	334.29	6.739		
12,700.00	6,935.06	12,934.14	7,112.20	171.02	170.02	-94.51	-1,587.00	-6,098.13	2,253.58	1,913.69	339.89	6.630		
12,800.00	6,934.76	13,034.13	7,111.65	173.83	172.82	-94.50	-1,588.57	-6,198.11	2,254.39	1,908.90	345.49	6.525		
12,900.00	6,934.46	13,134.13	7,111.11	176.65	175.62	-94.49	-1,590.14	-6,298.10	2,255.20	1,904.11	351.10	6.423		
13,000.00	6,934.17	13,234.13	7,110.57	179.46	178.43	-94.48	-1,591.71	-6,398.08	2,256.01	1,899.31	356.70	6.325		
13,100.00	6,933.87	13,334.12	7,110.03	182.27	181.23	-94.48	-1,593.28	-6,498.06	2,256.82	1,894.51	362.32	6.229		
13,200.00	6,933.57	13,434.12	7,109.49	185.09	184.04	-94.47	-1,594.85	-6,598.04	2,257.63	1,889.70	367.93	6.136		
13,300.00	6,933.27	13,534.12	7,108.94	187.91	186.85	-94.46	-1,596.42	-6,698.03	2,258.44	1,884.90	373.55	6.046		
13,400.00	6,932.97	13,634.11	7,108.40	190.72	189.66	-94.45	-1,597.99	-6,798.01	2,259.26	1,880.09	379.17	5.958		
13,500.00	6,932.67	13,734.11	7,107.86	193.54	192.47	-94.44	-1,599.56	-6,897.99	2,260.07	1,875.28	384.79	5.873		
13,600.00	6,932.38	13,834.10	7,107.32	196.36	195.28	-94.44	-1,601.13	-6,997.97	2,260.88	1,870.46	390.42	5.791		
13,700.00	6,932.08	13,934.10	7,106.78	199.19	198.10	-94.43	-1,602.70	-7,097.96	2,261.69	1,865.65	396.04	5.711		
13,800.00	6,931.78	14,034.10	7,106.23	202.01	200.91	-94.42	-1,604.27	-7,197.94	2,262.50	1,860.83	401.67	5.633		
13,900.00	6,931.48	14,134.09	7,105.69	204.83	203.73	-94.41	-1,605.84	-7,297.92	2,263.31	1,856.01	407.30	5.557		
14,000.00	6,931.18	14,234.09	7,105.15	207.66	206.55	-94.41	-1,607.41	-7,397.90	2,264.12	1,851.18	412.94	5.483		
14,100.00	6,930.88	14,334.09	7,104.61	210.48	209.37	-94.40	-1,608.98	-7,497.89	2,264.93	1,846.36	418.57	5.411		
14,200.00	6,930.59	14,434.08	7,104.07	213.31	212.19	-94.39	-1,610.55	-7,597.87	2,265.74	1,841.53	424.21	5.341		
14,300.00	6,930.29	14,534.08	7,103.52	216.14	215.01	-94.38	-1,612.12	-7,697.85	2,266.56	1,836.70	429.85	5.273		
14,400.00	6,929.99	14,634.07	7,102.98	218.96	217.83	-94.37	-1,613.69	-7,797.83	2,267.37	1,831.87	435.49	5.206		
14,500.00	6,929.69	14,734.07	7,102.44	221.79	220.65	-94.37	-1,615.26	-7,897.82	2,268.18	1,827.04	441.14	5.142		
14,600.00	6,929.39	14,834.07	7,101.90	224.62	223.47	-94.36	-1,616.83	-7,997.80	2,268.99	1,822.21	446.78	5.079		
14,700.00	6,929.09	14,934.06	7,101.36	227.45	226.30	-94.35	-1,618.40	-8,097.78	2,269.80	1,817.37	452.43	5.017		
14,732.12	6,929.00	14,966.18	7,101.18	228.36	227.20	-94.35	-1,618.90	-8,129.90	2,270.06	1,815.82	454.24	4.997 SF		



Anticollision Report



Company:	SRC ENERGY	Local Co-ordinate Reference:	Well HARVESTERS STATE 4N-16A-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 4N-16A-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	-179.52	-400.00	-3.34	400.02					
100.00	100.00	102.00	100.00	3.28	3.29	-179.52	-400.00	-3.34	400.02	393.45	6.57	60.887		
200.00	200.00	198.00	200.00	3.34	3.34	-179.52	-400.00	-3.34	400.02	393.34	6.67	59.951	CC, ES	
300.00	300.00	285.98	287.97	3.44	3.42	-179.51	-401.29	-3.41	401.49	394.61	6.88	58.391		
400.00	400.00	373.56	375.45	3.60	3.55	-179.48	-405.25	-3.65	406.01	398.83	7.18	56.551		
500.00	500.00	460.81	462.45	3.81	3.71	-179.44	-411.85	-4.04	413.57	406.00	7.57	54.634		
600.00	600.00	547.58	548.72	4.05	3.90	-179.38	-421.03	-4.59	424.16	416.13	8.03	52.812		
700.00	699.98	633.47	633.82	4.32	4.12	-165.80	-432.68	-5.28	439.41	430.86	8.55	51.383		
800.00	799.84	717.88	717.07	4.62	4.37	-165.75	-446.60	-6.11	460.91	451.79	9.12	50.559		
900.00	899.45	800.35	797.96	4.94	4.64	-165.73	-462.57	-7.07	488.50	478.80	9.70	50.341		
1,000.00	998.80	880.66	876.28	5.28	4.93	-165.84	-480.34	-8.12	521.31	511.01	10.30	50.608		
1,100.00	1,098.12	959.33	952.47	5.63	5.23	-165.97	-499.87	-9.29	556.91	546.02	10.90	51.098		
1,200.00	1,197.44	1,036.32	1,026.49	6.00	5.55	-166.08	-521.00	-10.55	595.04	583.54	11.50	51.746		
1,300.00	1,296.77	1,111.58	1,098.28	6.37	5.88	-166.16	-543.56	-11.89	635.60	623.50	12.10	52.536		
1,400.00	1,396.09	1,185.08	1,167.78	6.76	6.22	-166.22	-567.41	-13.31	678.52	665.83	12.69	53.454		
1,500.00	1,495.41	1,256.78	1,234.97	7.15	6.58	-166.26	-592.38	-14.80	723.71	710.43	13.28	54.487		
1,600.00	1,594.74	1,326.65	1,299.83	7.55	6.93	-166.29	-618.32	-16.35	771.09	757.23	13.86	55.631		
1,700.00	1,694.06	1,410.32	1,376.97	7.96	7.38	-166.31	-650.65	-18.27	819.90	805.36	14.54	56.387		
1,800.00	1,793.38	1,502.43	1,457.41	8.37	7.88	-166.33	-684.41	-20.28	868.75	853.47	15.29	56.834		
1,900.00	1,892.71	1,584.83	1,537.85	8.78	8.35	-166.35	-718.16	-22.29	917.60	901.60	16.00	57.341		
2,000.00	1,992.03	1,672.09	1,618.29	9.20	8.85	-166.37	-751.91	-24.31	966.45	949.69	16.76	57.680		
2,100.00	2,091.36	1,759.34	1,698.73	9.62	9.35	-166.38	-785.67	-26.32	1,015.30	997.78	17.52	57.949		
2,200.00	2,190.68	1,846.60	1,779.17	10.05	9.87	-166.39	-819.42	-28.33	1,064.15	1,045.85	18.30	58.163		
2,300.00	2,290.00	1,933.86	1,859.60	10.48	10.39	-166.41	-853.17	-30.34	1,113.00	1,093.92	19.08	58.331		
2,400.00	2,389.33	2,021.11	1,940.04	10.90	10.91	-166.42	-886.93	-32.35	1,161.85	1,141.97	19.87	58.462		
2,500.00	2,488.65	2,108.37	2,020.48	11.34	11.44	-166.43	-920.68	-34.36	1,210.70	1,190.02	20.67	58.563		
2,600.00	2,587.97	2,204.38	2,100.92	11.77	12.02	-166.44	-954.43	-36.37	1,259.55	1,238.02	21.52	58.517		
2,700.00	2,687.30	2,282.88	2,181.36	12.20	12.50	-166.45	-988.19	-38.38	1,308.40	1,286.11	22.29	58.694		
2,800.00	2,786.62	2,370.14	2,261.80	12.64	13.04	-166.46	-1,021.94	-40.39	1,357.25	1,334.14	23.11	58.732		
2,900.00	2,885.94	2,457.39	2,342.23	13.07	13.58	-166.46	-1,055.70	-42.41	1,406.10	1,382.17	23.93	58.757		
3,000.00	2,985.27	2,544.65	2,422.67	13.51	14.12	-166.47	-1,089.45	-44.42	1,454.95	1,430.19	24.76	58.770		
3,100.00	3,084.59	2,631.91	2,503.11	13.95	14.66	-166.48	-1,123.20	-46.43	1,503.80	1,478.21	25.59	58.774		
3,200.00	3,183.91	2,719.16	2,583.55	14.39	15.20	-166.49	-1,156.96	-48.44	1,552.65	1,526.23	26.42	58.771		
3,300.00	3,283.24	2,806.42	2,663.99	14.83	15.75	-166.49	-1,190.71	-50.45	1,601.50	1,574.24	27.25	58.761		
3,400.00	3,382.56	2,906.32	2,744.43	15.27	16.37	-166.50	-1,224.46	-52.46	1,650.35	1,622.19	28.16	58.606		
3,500.00	3,481.88	2,980.93	2,824.86	15.71	16.84	-166.50	-1,258.22	-54.47	1,699.20	1,670.26	28.93	58.726		
3,600.00	3,581.21	3,068.19	2,905.30	16.16	17.39	-166.51	-1,291.97	-56.48	1,748.05	1,718.27	29.78	58.703		
3,700.00	3,680.53	3,155.44	2,985.74	16.60	17.94	-166.51	-1,325.72	-58.49	1,796.90	1,766.27	30.62	58.677		
3,800.00	3,779.85	3,242.70	3,066.18	17.04	18.49	-166.52	-1,359.48	-60.51	1,845.75	1,814.27	31.47	58.649		
3,900.00	3,879.18	3,329.96	3,146.62	17.49	19.04	-166.52	-1,393.23	-62.52	1,894.60	1,862.28	32.32	58.619		
4,000.00	3,978.50	3,417.21	3,227.06	17.93	19.60	-166.52	-1,426.98	-64.53	1,943.45	1,910.27	33.17	58.587		
4,100.00	4,077.82	3,504.47	3,307.49	18.37	20.15	-166.53	-1,460.74	-66.54	1,992.30	1,958.27	34.02	58.555		
4,200.00	4,177.15	3,608.27	3,387.93	18.82	20.81	-166.53	-1,494.49	-68.55	2,041.15	2,006.18	34.97	58.372		
4,300.00	4,276.47	3,678.98	3,468.37	19.27	21.26	-166.54	-1,528.24	-70.56	2,090.00	2,054.26	35.73	58.487		
4,400.00	4,375.79	3,766.24	3,548.81	19.71	21.81	-166.54	-1,562.00	-72.57	2,138.85	2,102.25	36.59	58.452		
4,500.00	4,475.12	3,853.50	3,629.25	20.16	22.37	-166.54	-1,595.75	-74.58	2,187.70	2,150.25	37.45	58.417		
4,600.00	4,574.44	3,940.75	3,709.69	20.60	22.93	-166.55	-1,629.50	-76.59	2,236.55	2,198.24	38.31	58.382		
4,700.00	4,673.76	4,028.01	3,790.12	21.05	23.48	-166.55	-1,663.26	-78.61	2,285.40	2,246.23	39.17	58.347		
4,800.00	4,773.09	4,115.26	3,870.56	21.50	24.04	-166.55	-1,697.01	-80.62	2,334.25	2,294.21	40.03	58.312		
4,900.00	4,872.41	4,202.52	3,951.00	21.94	24.60	-166.55	-1,730.76	-82.63	2,383.10	2,342.20	40.89	58.277		
5,000.00	4,971.74	4,289.78	4,031.44	22.39	25.15	-166.56	-1,764.52	-84.64	2,431.95	2,390.19	41.76	58.242		
5,100.00	5,071.06	4,377.03	4,111.88	22.84	25.71	-166.56	-1,798.27	-86.65	2,480.80	2,438.17	42.62	58.207		

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 4N-16A-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 4N-16A-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	5,170.38	4,464.29	4,192.32	23.29	26.27	-166.56	-1,832.03	-88.66	2,529.65	2,486.16	43.49	58.172		
5,300.00	5,269.71	4,551.55	4,272.75	23.74	26.83	-166.56	-1,865.78	-90.67	2,578.50	2,534.14	44.35	58.138		
5,400.00	5,369.03	4,638.80	4,353.19	24.18	27.39	-166.57	-1,899.53	-92.68	2,627.35	2,582.13	45.22	58.104		
5,500.00	5,468.35	4,726.06	4,433.63	24.63	27.94	-166.57	-1,933.29	-94.69	2,676.20	2,630.11	46.09	58.071		
5,600.00	5,567.68	4,813.32	4,514.07	25.08	28.50	-166.57	-1,967.04	-96.71	2,725.05	2,678.09	46.95	58.038		
5,700.00	5,667.00	4,900.57	4,594.51	25.53	29.06	-166.57	-2,000.79	-98.72	2,773.90	2,726.07	47.82	58.005		
5,800.00	5,766.32	4,987.83	4,674.95	25.98	29.62	-166.57	-2,034.55	-100.73	2,822.75	2,774.05	48.69	57.972		
5,900.00	5,865.65	5,075.08	4,755.38	26.43	30.18	-166.58	-2,068.30	-102.74	2,871.60	2,822.03	49.56	57.940		
6,000.00	5,964.97	5,162.34	4,835.82	26.88	30.74	-166.58	-2,102.05	-104.75	2,920.45	2,870.01	50.43	57.909		
6,100.00	6,064.29	5,249.60	4,916.26	27.33	31.30	-166.58	-2,135.81	-106.76	2,969.30	2,917.99	51.30	57.877		
6,200.00	6,163.62	5,336.85	4,996.70	27.78	31.86	-166.58	-2,169.56	-108.77	3,018.15	2,965.97	52.18	57.846		
6,300.00	6,262.94	5,424.11	5,077.14	28.23	32.42	-166.58	-2,203.31	-110.78	3,067.00	3,013.95	53.05	57.816		
6,400.00	6,362.24	5,511.36	5,157.57	28.67	32.98	-146.92	-2,237.06	-112.79	3,115.84	3,061.92	53.92	57.785		
6,500.00	6,460.41	5,602.08	5,237.37	29.12	33.57	-110.40	-2,270.55	-114.79	3,164.22	3,109.41	54.82	57.725		
6,600.00	6,555.09	5,681.80	5,314.70	29.57	34.08	-96.21	-2,303.00	-116.72	3,211.19	3,155.54	55.65	57.704		
6,700.00	6,643.94	5,760.95	5,387.66	30.00	34.59	-88.09	-2,333.61	-118.55	3,255.94	3,199.46	56.48	57.645		
6,800.00	6,724.78	5,833.40	5,454.45	30.45	35.05	-82.50	-2,361.64	-120.22	3,297.91	3,240.61	57.30	57.558		
6,900.00	6,795.62	5,902.61	5,513.43	30.97	35.50	-78.31	-2,386.39	-121.69	3,336.66	3,278.52	58.14	57.387		
7,000.00	6,854.70	5,951.32	5,563.15	31.60	35.81	-75.02	-2,407.25	-122.94	3,371.90	3,312.93	58.97	57.184		
7,100.00	6,900.58	6,006.12	5,602.39	32.39	36.16	-72.37	-2,423.72	-123.92	3,403.38	3,343.43	59.95	56.773		
7,200.00	6,932.13	6,024.01	5,630.17	33.34	36.28	-70.18	-2,435.37	-124.61	3,430.88	3,370.01	60.87	56.360		
7,300.00	6,948.57	6,040.98	5,645.81	34.46	36.39	-68.38	-2,441.94	-125.00	3,454.17	3,392.23	61.94	55.769		
7,400.00	6,950.87	6,045.58	5,650.05	35.70	36.42	-67.51	-2,443.72	-125.11	3,473.60	3,410.55	63.05	55.093		
7,500.00	6,950.58	6,047.90	5,652.18	37.12	36.43	-67.55	-2,444.61	-125.16	3,494.57	3,430.28	64.29	54.354		
7,600.00	6,950.28	6,050.21	5,654.32	38.70	36.45	-67.59	-2,445.51	-125.21	3,518.25	3,452.59	65.66	53.585		
7,700.00	6,949.98	6,052.53	5,656.45	40.41	36.46	-67.63	-2,446.40	-125.27	3,544.59	3,477.47	67.12	52.811		
7,800.00	6,949.68	6,054.84	5,658.59	42.25	36.48	-67.67	-2,447.30	-125.32	3,573.54	3,504.88	68.65	52.051		
7,900.00	6,949.38	6,057.16	5,660.72	44.20	36.49	-67.71	-2,448.20	-125.37	3,605.03	3,534.78	70.25	51.321		
8,000.00	6,949.08	6,059.47	5,662.86	46.24	36.51	-67.75	-2,449.09	-125.43	3,638.99	3,567.12	71.87	50.631		
8,100.00	6,948.79	6,061.79	5,664.99	48.36	36.52	-67.78	-2,449.99	-125.48	3,675.36	3,601.84	73.52	49.990		
8,200.00	6,948.49	6,064.10	5,667.12	50.56	36.54	-67.82	-2,450.88	-125.53	3,714.06	3,638.88	75.18	49.403		
8,300.00	6,948.19	8,879.74	7,068.24	52.82	56.78	-91.84	-3,050.02	-1,710.57	3,743.82	3,635.98	107.84	34.717		
8,400.00	6,947.89	8,979.74	7,067.94	55.14	58.80	-91.84	-3,050.62	-1,810.57	3,743.68	3,631.37	112.31	33.335		
8,500.00	6,947.59	9,079.74	7,067.64	57.50	60.90	-91.84	-3,051.22	-1,910.56	3,743.54	3,626.66	116.88	32.029		
8,600.00	6,947.29	9,179.74	7,067.34	59.91	63.07	-91.84	-3,051.81	-2,010.56	3,743.40	3,621.85	121.55	30.797		
8,700.00	6,947.00	9,279.74	7,067.05	62.36	65.30	-91.84	-3,052.41	-2,110.56	3,743.26	3,616.95	126.31	29.636		
8,800.00	6,946.70	9,379.74	7,066.75	64.84	67.59	-91.84	-3,053.01	-2,210.56	3,743.12	3,611.98	131.14	28.542		
8,900.00	6,946.40	9,479.74	7,066.45	67.35	69.92	-91.84	-3,053.61	-2,310.55	3,742.98	3,606.94	136.04	27.513		
9,000.00	6,946.10	9,579.74	7,066.15	69.88	72.30	-91.84	-3,054.20	-2,410.55	3,742.84	3,601.83	141.01	26.544		
9,100.00	6,945.80	9,679.74	7,065.86	72.44	74.71	-91.84	-3,054.80	-2,510.55	3,742.70	3,596.68	146.02	25.631		
9,200.00	6,945.50	9,779.74	7,065.56	75.02	77.16	-91.84	-3,055.40	-2,610.55	3,742.56	3,591.47	151.09	24.770		
9,300.00	6,945.21	9,879.74	7,065.26	77.63	79.63	-91.84	-3,056.00	-2,710.55	3,742.42	3,586.22	156.20	23.959		
9,400.00	6,944.91	9,979.74	7,064.96	80.24	82.13	-91.84	-3,056.60	-2,810.54	3,742.28	3,580.93	161.35	23.193		
9,500.00	6,944.61	10,079.74	7,064.67	82.88	84.65	-91.84	-3,057.19	-2,910.54	3,742.14	3,575.60	166.54	22.469		
9,600.00	6,944.31	10,179.74	7,064.37	85.53	87.20	-91.84	-3,057.79	-3,010.54	3,742.00	3,570.24	171.77	21.785		
9,700.00	6,944.01	10,279.74	7,064.07	88.19	89.76	-91.84	-3,058.39	-3,110.54	3,741.86	3,564.84	177.02	21.138		
9,800.00	6,943.71	10,379.74	7,063.77	90.86	92.35	-91.84	-3,058.99	-3,210.53	3,741.72	3,559.42	182.30	20.525		
9,900.00	6,943.42	10,479.74	7,063.48	93.55	94.95	-91.84	-3,059.59	-3,310.53	3,741.58	3,553.98	187.60	19.944		
10,000.00	6,943.12	10,579.74	7,063.18	96.24	97.56	-91.84	-3,060.18	-3,410.53	3,741.44	3,548.51	192.93	19.392		
10,100.00	6,942.82	10,679.74	7,062.88	98.95	100.19	-91.84	-3,060.78	-3,510.53	3,741.30	3,543.02	198.28	18.868		
10,200.00	6,942.52	10,779.74	7,062.58	101.66	102.83	-91.84	-3,061.38	-3,610.52	3,741.16	3,537.51	203.65	18.370		
10,300.00	6,942.22	10,879.74	7,062.28	104.38	105.48	-91.84	-3,061.98	-3,710.52	3,741.02	3,531.98	209.04	17.896		

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 4N-16A-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 4N-16A-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	6,941.92	10,979.74	7,061.99	107.11	108.15	-91.84	-3,062.58	-3,810.52	3,740.88	3,526.44	214.45	17.444		
10,500.00	6,941.63	11,079.74	7,061.69	109.84	110.82	-91.84	-3,063.17	-3,910.52	3,740.74	3,520.87	219.87	17.013		
10,600.00	6,941.33	11,179.74	7,061.39	112.58	113.50	-91.84	-3,063.77	-4,010.51	3,740.60	3,515.30	225.31	16.602		
10,700.00	6,941.03	11,279.74	7,061.09	115.33	116.19	-91.84	-3,064.37	-4,110.51	3,740.46	3,509.71	230.75	16.210		
10,800.00	6,940.73	11,379.74	7,060.80	118.08	118.89	-91.84	-3,064.97	-4,210.51	3,740.33	3,504.11	236.22	15.834		
10,900.00	6,940.43	11,479.74	7,060.50	120.84	121.60	-91.84	-3,065.57	-4,310.51	3,740.19	3,498.50	241.69	15.475		
11,000.00	6,940.13	11,579.74	7,060.20	123.60	124.31	-91.84	-3,066.16	-4,410.51	3,740.05	3,492.87	247.17	15.131		
11,100.00	6,939.83	11,679.74	7,059.90	126.36	127.03	-91.84	-3,066.76	-4,510.50	3,739.91	3,487.24	252.67	14.802		
11,200.00	6,939.54	11,779.74	7,059.61	129.13	129.76	-91.84	-3,067.36	-4,610.50	3,739.77	3,481.59	258.17	14.485		
11,300.00	6,939.24	11,879.74	7,059.31	131.91	132.49	-91.84	-3,067.96	-4,710.50	3,739.63	3,475.94	263.69	14.182		
11,400.00	6,938.94	11,979.74	7,059.01	134.68	135.22	-91.84	-3,068.55	-4,810.50	3,739.49	3,470.28	269.21	13.891		
11,500.00	6,938.64	12,079.74	7,058.71	137.46	137.97	-91.84	-3,069.15	-4,910.49	3,739.35	3,464.61	274.74	13.611		
11,600.00	6,938.34	12,179.74	7,058.42	140.25	140.71	-91.84	-3,069.75	-5,010.49	3,739.21	3,458.93	280.27	13.341		
11,700.00	6,938.04	12,279.74	7,058.12	143.03	143.46	-91.84	-3,070.35	-5,110.49	3,739.07	3,453.25	285.82	13.082		
11,800.00	6,937.75	12,379.74	7,057.82	145.82	146.22	-91.84	-3,070.95	-5,210.49	3,738.93	3,447.56	291.37	12.832		
11,900.00	6,937.45	12,479.74	7,057.52	148.61	148.98	-91.84	-3,071.54	-5,310.48	3,738.79	3,441.86	296.93	12.592		
12,000.00	6,937.15	12,579.74	7,057.23	151.41	151.74	-91.84	-3,072.14	-5,410.48	3,738.65	3,436.16	302.49	12.360		
12,100.00	6,936.85	12,679.74	7,056.93	154.20	154.51	-91.84	-3,072.74	-5,510.48	3,738.51	3,430.45	308.06	12.136		
12,200.00	6,936.55	12,779.74	7,056.63	157.00	157.28	-91.84	-3,073.34	-5,610.48	3,738.37	3,424.74	313.63	11.920		
12,300.00	6,936.25	12,879.74	7,056.33	159.80	160.05	-91.84	-3,073.94	-5,710.48	3,738.23	3,419.02	319.21	11.711		
12,400.00	6,935.96	12,979.74	7,056.04	162.61	162.83	-91.84	-3,074.53	-5,810.47	3,738.09	3,413.30	324.79	11.509		
12,500.00	6,935.66	13,079.74	7,055.74	165.41	165.61	-91.84	-3,075.13	-5,910.47	3,737.95	3,407.57	330.38	11.314		
12,600.00	6,935.36	13,179.74	7,055.44	168.22	168.39	-91.84	-3,075.73	-6,010.47	3,737.81	3,401.84	335.97	11.125		
12,700.00	6,935.06	13,279.74	7,055.14	171.02	171.17	-91.84	-3,076.33	-6,110.47	3,737.67	3,396.10	341.57	10.943		
12,800.00	6,934.76	13,379.74	7,054.84	173.83	173.96	-91.84	-3,076.93	-6,210.46	3,737.53	3,390.36	347.17	10.766		
12,900.00	6,934.46	13,479.74	7,054.55	176.65	176.75	-91.84	-3,077.52	-6,310.46	3,737.39	3,384.62	352.77	10.594		
13,000.00	6,934.17	13,579.74	7,054.25	179.46	179.54	-91.84	-3,078.12	-6,410.46	3,737.25	3,378.87	358.38	10.428		
13,100.00	6,933.87	13,679.74	7,053.95	182.27	182.33	-91.84	-3,078.72	-6,510.46	3,737.11	3,373.12	363.99	10.267		
13,200.00	6,933.57	13,779.74	7,053.65	185.09	185.13	-91.84	-3,079.32	-6,610.45	3,736.97	3,367.37	369.60	10.111		
13,300.00	6,933.27	13,879.74	7,053.36	187.91	187.92	-91.84	-3,079.91	-6,710.45	3,736.83	3,361.61	375.22	9.959		
13,400.00	6,932.97	13,979.74	7,053.06	190.72	190.72	-91.84	-3,080.51	-6,810.45	3,736.69	3,355.85	380.84	9.812		
13,500.00	6,932.67	14,079.74	7,052.76	193.54	193.52	-91.84	-3,081.11	-6,910.45	3,736.55	3,350.09	386.46	9.669		
13,600.00	6,932.38	14,179.74	7,052.46	196.36	196.32	-91.84	-3,081.71	-7,010.45	3,736.41	3,344.32	392.09	9.530		
13,700.00	6,932.08	14,279.74	7,052.17	199.19	199.13	-91.84	-3,082.31	-7,110.44	3,736.27	3,338.56	397.72	9.394		
13,800.00	6,931.78	14,379.73	7,051.87	202.01	201.93	-91.84	-3,082.90	-7,210.44	3,736.13	3,332.79	403.35	9.263		
13,900.00	6,931.48	14,479.73	7,051.57	204.83	204.74	-91.84	-3,083.50	-7,310.44	3,735.99	3,327.01	408.98	9.135		
14,000.00	6,931.18	14,579.73	7,051.27	207.66	207.55	-91.84	-3,084.10	-7,410.44	3,735.85	3,321.24	414.61	9.010		
14,100.00	6,930.88	14,679.73	7,050.98	210.48	210.36	-91.84	-3,084.70	-7,510.43	3,735.71	3,315.46	420.25	8.889		
14,200.00	6,930.59	14,779.73	7,050.68	213.31	213.17	-91.84	-3,085.30	-7,610.43	3,735.57	3,309.68	425.89	8.771		
14,300.00	6,930.29	14,879.73	7,050.38	216.14	215.98	-91.84	-3,085.89	-7,710.43	3,735.43	3,303.90	431.53	8.656		
14,400.00	6,929.99	14,979.73	7,050.08	218.96	218.80	-91.84	-3,086.49	-7,810.43	3,735.29	3,298.12	437.17	8.544		
14,500.00	6,929.69	15,079.73	7,049.79	221.79	221.61	-91.84	-3,087.09	-7,910.42	3,735.15	3,292.34	442.82	8.435		
14,600.00	6,929.39	15,179.73	7,049.49	224.62	224.43	-91.84	-3,087.69	-8,010.42	3,735.01	3,286.55	448.46	8.328		
14,700.00	6,929.09	15,279.73	7,049.19	227.45	227.24	-91.84	-3,088.29	-8,110.42	3,734.87	3,280.76	454.11	8.225		
14,732.12	6,929.00	15,311.86	7,049.09	228.36	228.15	-91.84	-3,088.48	-8,142.54	3,734.83	3,278.90	455.93	8.192 SF		



Anticollision Report



Company:	SRC ENERGY	Local Co-ordinate Reference:	Well HARVESTERS STATE 4N-16A-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 4N-16A-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	-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	33.50	6.57	6.099		
200.00	200.00	200.00	200.00	3.34	3.34	-179.60	-40.07	-0.28	40.07	33.39	6.67	6.003		
300.00	300.00	300.00	300.00	3.44	3.44	-179.60	-40.07	-0.28	40.07	33.18	6.89	5.815		
400.00	400.00	400.00	400.00	3.60	3.60	-179.60	-40.07	-0.28	40.07	32.86	7.21	5.560		
500.00	500.00	500.00	500.00	3.81	3.81	-179.60	-40.07	-0.28	40.07	32.45	7.61	5.264		
600.00	600.00	601.21	601.19	4.05	4.05	-178.36	-38.48	-1.10	38.51	30.41	8.10	4.754		
700.00	699.98	701.73	701.59	4.32	4.32	-161.87	-34.16	-3.34	36.01	27.36	8.65	4.164		
734.23	734.18	735.95	735.76	4.42	4.42	-161.04	-32.55	-4.17	35.81	26.97	8.85	4.048 CC		
800.00	799.84	801.72	801.44	4.62	4.62	-160.04	-29.48	-5.76	36.53	27.29	9.24	3.953		
900.00	899.45	901.64	901.22	4.94	4.94	-160.07	-24.80	-8.19	40.35	30.47	9.88	4.084		
1,000.00	998.80	1,001.43	1,000.87	5.28	5.28	-161.24	-20.12	-10.61	46.73	36.18	10.56	4.427		
1,100.00	1,098.12	1,101.21	1,100.51	5.63	5.63	-162.20	-15.45	-13.02	53.32	42.06	11.26	4.735		
1,200.00	1,197.44	1,200.99	1,200.15	6.00	5.99	-162.95	-10.78	-15.44	59.91	47.92	11.99	4.997		
1,300.00	1,296.77	1,300.77	1,299.80	6.37	6.36	-163.55	-6.11	-17.86	66.51	53.78	12.74	5.222		
1,400.00	1,396.09	1,400.55	1,399.44	6.76	6.74	-164.04	-1.44	-20.28	73.12	59.62	13.50	5.415		
1,500.00	1,495.41	1,500.33	1,499.08	7.15	7.13	-164.45	3.23	-22.70	79.73	65.45	14.28	5.582		
1,600.00	1,594.74	1,600.11	1,598.72	7.55	7.52	-164.80	7.91	-25.12	86.35	71.27	15.08	5.727		
1,700.00	1,694.06	1,700.11	1,698.36	7.96	7.92	-165.10	12.58	-27.54	92.97	77.09	15.88	5.854		
1,800.00	1,793.38	1,800.33	1,798.00	8.37	8.32	-165.36	17.25	-29.96	99.59	82.89	16.69	5.965		
1,900.00	1,892.71	1,900.55	1,897.64	8.78	8.73	-165.58	21.92	-32.38	106.21	88.70	17.52	6.064		
2,000.00	1,992.03	2,000.77	1,997.28	9.20	9.14	-165.78	26.59	-34.80	112.84	94.49	18.34	6.151		
2,100.00	2,091.36	2,100.99	2,096.92	9.62	9.56	-165.96	31.27	-37.22	119.46	100.28	19.18	6.229		
2,200.00	2,190.68	2,201.21	2,196.56	10.05	9.97	-166.12	35.94	-39.64	126.09	106.07	20.02	6.299		
2,300.00	2,290.00	2,301.43	2,296.20	10.48	10.39	-166.26	40.61	-42.06	132.71	111.85	20.86	6.362		
2,400.00	2,389.33	2,401.65	2,395.84	10.90	10.81	-166.39	45.28	-44.48	139.34	117.63	21.71	6.419		
2,500.00	2,488.65	2,501.88	2,495.49	11.34	11.23	-166.51	49.95	-46.90	145.97	123.41	22.56	6.471		
2,600.00	2,587.97	2,602.10	2,595.13	11.77	11.66	-166.62	54.62	-49.32	152.60	129.19	23.41	6.518		
2,700.00	2,687.30	2,702.32	2,694.77	12.20	12.08	-166.72	59.30	-51.74	159.23	134.96	24.27	6.561		
2,800.00	2,786.62	2,802.54	2,794.41	12.64	12.51	-166.81	63.97	-54.16	165.86	140.73	25.13	6.601		
2,900.00	2,885.94	2,902.76	2,894.05	13.07	12.94	-166.89	68.64	-56.58	172.49	146.50	25.99	6.637		
3,000.00	2,985.27	3,002.98	2,993.69	13.51	13.36	-166.97	73.31	-58.99	179.12	152.27	26.85	6.670		
3,100.00	3,084.59	3,103.20	3,093.33	13.95	13.79	-167.04	77.98	-61.41	185.75	158.03	27.72	6.701		
3,200.00	3,183.91	3,203.42	3,192.97	14.39	14.22	-167.11	82.66	-63.83	192.38	163.80	28.59	6.730		
3,300.00	3,283.24	3,303.64	3,292.61	14.83	14.65	-167.17	87.33	-66.25	199.02	169.56	29.45	6.757		
3,400.00	3,382.56	3,403.86	3,392.25	15.27	15.09	-167.23	92.00	-68.67	205.65	175.32	30.32	6.782		
3,500.00	3,481.88	3,504.08	3,491.89	15.71	15.52	-167.29	96.67	-71.09	212.28	181.08	31.19	6.805		
3,600.00	3,581.21	3,604.30	3,591.53	16.16	15.95	-167.34	101.34	-73.51	218.91	186.84	32.07	6.827		
3,700.00	3,680.53	3,704.52	3,691.18	16.60	16.38	-167.39	106.02	-75.93	225.54	192.60	32.94	6.847		
3,800.00	3,779.85	3,804.74	3,790.82	17.04	16.82	-167.43	110.69	-78.35	232.18	198.36	33.81	6.866		
3,900.00	3,879.18	3,895.04	3,890.46	17.49	17.21	-167.47	115.36	-80.77	238.81	204.16	34.65	6.893		
4,000.00	3,978.50	4,005.18	3,990.10	17.93	17.68	-167.52	120.03	-83.19	245.44	209.88	35.57	6.901		
4,100.00	4,077.82	4,105.40	4,089.74	18.37	18.12	-167.55	124.70	-85.61	252.08	215.63	36.44	6.917		
4,200.00	4,177.15	4,205.62	4,189.38	18.82	18.55	-167.59	129.37	-88.03	258.71	221.39	37.32	6.932		
4,300.00	4,276.47	4,305.84	4,289.02	19.27	18.99	-167.63	134.05	-90.45	265.34	227.14	38.20	6.946		
4,400.00	4,375.79	4,406.06	4,388.66	19.71	19.43	-167.66	138.72	-92.87	271.98	232.90	39.08	6.960		
4,500.00	4,475.12	4,506.28	4,488.30	20.16	19.86	-167.69	143.39	-95.29	278.61	238.65	39.96	6.972		
4,600.00	4,574.44	4,606.50	4,587.94	20.60	20.30	-167.72	148.06	-97.71	285.24	244.40	40.84	6.985		
4,700.00	4,673.76	4,706.72	4,687.58	21.05	20.74	-167.75	152.73	-100.13	291.88	250.16	41.72	6.996		
4,800.00	4,773.09	4,806.94	4,787.22	21.50	21.17	-167.78	157.41	-102.55	298.51	255.91	42.60	7.007		
4,900.00	4,872.41	4,907.16	4,886.87	21.94	21.61	-167.80	162.08	-104.97	305.14	261.66	43.48	7.018		
5,000.00	4,971.74	5,007.38	4,986.51	22.39	22.05	-167.83	166.75	-107.38	311.78	267.41	44.36	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 4N-16A-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 4N-16A-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	5,071.06	5,107.60	5,086.15	22.84	22.48	-167.85	171.42	-109.80	318.41	273.16	45.25	7.037	
5,200.00	5,170.38	5,207.83	5,185.79	23.29	22.92	-167.88	176.09	-112.22	325.04	278.91	46.13	7.046	
5,300.00	5,269.71	5,308.05	5,285.43	23.74	23.36	-167.90	180.76	-114.64	331.68	284.66	47.01	7.055	
5,400.00	5,369.03	5,408.27	5,385.07	24.18	23.80	-167.92	185.44	-117.06	338.31	290.42	47.90	7.063	
5,500.00	5,468.35	5,508.49	5,484.71	24.63	24.24	-167.94	190.11	-119.48	344.95	296.17	48.78	7.071	
5,600.00	5,567.68	5,608.71	5,584.35	25.08	24.67	-167.96	194.78	-121.90	351.58	301.91	49.66	7.079	
5,700.00	5,667.00	5,708.93	5,683.99	25.53	25.11	-167.98	199.45	-124.32	358.21	307.66	50.55	7.086	
5,800.00	5,766.32	5,809.15	5,783.63	25.98	25.55	-168.00	204.12	-126.74	364.85	313.41	51.43	7.093	
5,900.00	5,865.65	5,909.37	5,883.27	26.43	25.99	-168.02	208.80	-129.16	371.48	319.16	52.32	7.100	
6,000.00	5,964.97	6,009.59	5,982.91	26.88	26.43	-168.03	213.47	-131.58	378.12	324.91	53.20	7.107	
6,100.00	6,064.29	6,109.81	6,082.56	27.33	26.87	-168.05	218.14	-134.00	384.75	330.66	54.09	7.113	
6,200.00	6,163.62	6,189.97	6,182.20	27.78	27.22	-168.06	222.81	-136.42	391.38	336.50	54.89	7.131	
6,300.00	6,262.94	6,289.75	6,281.84	28.23	27.66	-168.08	227.48	-138.84	398.02	342.25	55.77	7.137	
6,400.00	6,362.24	6,389.52	6,381.47	28.67	28.09	-149.71	232.15	-141.26	404.66	348.01	56.66	7.142	
6,500.00	6,460.41	6,489.76	6,481.51	29.12	28.53	-118.81	236.84	-145.02	411.60	354.06	57.54	7.153	
6,600.00	6,555.09	6,593.00	6,583.04	29.57	28.99	-110.06	241.50	-162.48	418.78	360.32	58.46	7.164	
6,700.00	6,643.94	6,698.66	6,682.64	30.00	29.46	-106.74	245.95	-197.09	425.89	366.52	59.37	7.173	
6,800.00	6,724.78	6,806.73	6,777.17	30.45	29.95	-105.31	250.05	-249.03	432.67	372.38	60.29	7.177	
6,900.00	6,795.62	6,917.11	6,863.26	30.97	30.49	-104.68	253.64	-317.80	438.84	377.58	61.25	7.164	
7,000.00	6,854.70	7,029.59	6,937.46	31.60	31.14	-104.42	256.57	-402.09	444.12	381.76	62.36	7.122	
7,100.00	6,900.58	7,143.82	6,996.48	32.39	31.96	-104.31	258.69	-499.69	448.28	384.53	63.76	7.031	
7,200.00	6,932.13	7,259.33	7,037.50	33.34	33.00	-104.24	259.90	-607.49	451.11	385.55	65.56	6.881	
7,300.00	6,948.57	7,375.54	7,058.48	34.46	34.27	-104.15	260.12	-721.63	452.47	384.63	67.84	6.670	
7,400.00	6,950.87	7,485.22	7,060.29	35.70	35.64	-104.00	259.47	-831.22	452.41	381.97	70.44	6.423	
7,500.00	6,950.58	7,585.21	7,058.54	37.12	37.07	-103.82	258.71	-931.19	452.08	378.81	73.27	6.170	
7,600.00	6,950.28	7,685.20	7,056.79	38.70	38.65	-103.64	257.96	-1,031.17	451.75	375.34	76.41	5.913	
7,700.00	6,949.98	7,785.19	7,055.04	40.41	40.37	-103.46	257.21	-1,131.14	451.42	371.61	79.81	5.656	
7,800.00	6,949.68	7,885.18	7,053.29	42.25	42.22	-103.28	256.46	-1,231.11	451.10	367.64	83.46	5.405	
7,900.00	6,949.38	7,985.17	7,051.54	44.20	44.17	-103.10	255.70	-1,331.08	450.79	363.46	87.32	5.162	
8,000.00	6,949.08	8,085.16	7,049.79	46.24	46.22	-102.92	254.95	-1,431.05	450.47	359.10	91.37	4.930	
8,100.00	6,948.79	8,185.15	7,048.04	48.36	48.35	-102.74	254.20	-1,531.02	450.17	354.59	95.58	4.710	
8,200.00	6,948.49	8,285.14	7,046.29	50.56	50.56	-102.56	253.45	-1,630.99	449.86	349.93	99.94	4.502	
8,300.00	6,948.19	8,385.13	7,044.54	52.82	52.82	-102.38	252.69	-1,730.97	449.56	345.15	104.42	4.305	
8,400.00	6,947.89	8,485.12	7,042.79	55.14	55.14	-102.20	251.94	-1,830.94	449.27	340.26	109.01	4.121	
8,500.00	6,947.59	8,585.11	7,041.04	57.50	57.51	-102.01	251.19	-1,930.91	448.98	335.28	113.71	3.949	
8,600.00	6,947.29	8,685.09	7,039.29	59.91	59.92	-101.83	250.44	-2,030.88	448.70	330.21	118.49	3.787	
8,700.00	6,947.00	8,785.08	7,037.54	62.36	62.37	-101.65	249.68	-2,130.85	448.42	325.07	123.35	3.635	
8,800.00	6,946.70	8,885.07	7,035.79	64.84	64.85	-101.47	248.93	-2,230.82	448.14	319.86	128.28	3.493	
8,900.00	6,946.40	8,985.06	7,034.05	67.35	67.37	-101.29	248.18	-2,330.79	447.87	314.60	133.27	3.361	
9,000.00	6,946.10	9,085.05	7,032.30	69.88	69.91	-101.10	247.43	-2,430.76	447.60	309.28	138.32	3.236	
9,100.00	6,945.80	9,185.04	7,030.55	72.44	72.47	-100.92	246.67	-2,530.74	447.34	303.91	143.42	3.119	
9,200.00	6,945.50	9,285.03	7,028.80	75.02	75.05	-100.74	245.92	-2,630.71	447.08	298.51	148.57	3.009	
9,300.00	6,945.21	9,385.02	7,027.05	77.63	77.66	-100.55	245.17	-2,730.68	446.83	293.06	153.76	2.906	
9,400.00	6,944.91	9,485.01	7,025.30	80.24	80.28	-100.37	244.42	-2,830.65	446.58	287.58	158.99	2.809	
9,500.00	6,944.61	9,585.00	7,023.55	82.88	82.91	-100.19	243.66	-2,930.62	446.33	282.08	164.26	2.717	
9,600.00	6,944.31	9,684.99	7,021.80	85.53	85.56	-100.00	242.91	-3,030.59	446.09	276.54	169.55	2.631	
9,700.00	6,944.01	9,784.98	7,020.05	88.19	88.23	-99.82	242.16	-3,130.56	445.86	270.98	174.88	2.550	
9,800.00	6,943.71	9,884.97	7,018.30	90.86	90.90	-99.64	241.41	-3,230.54	445.63	265.40	180.23	2.473	
9,900.00	6,943.42	9,984.96	7,016.55	93.55	93.59	-99.45	240.65	-3,330.51	445.40	259.79	185.61	2.400	
10,000.00	6,943.12	10,084.95	7,014.80	96.24	96.28	-99.27	239.90	-3,430.48	445.18	254.17	191.01	2.331	
10,100.00	6,942.82	10,184.94	7,013.05	98.95	98.99	-99.08	239.15	-3,530.45	444.96	248.53	196.43	2.265	
10,200.00	6,942.52	10,284.93	7,011.30	101.66	101.70	-98.90	238.40	-3,630.42	444.75	242.88	201.88	2.203	

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 4N-16A-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 4N-16A-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	6,942.22	10,384.92	7,009.55	104.38	104.42	-98.71	237.64	-3,730.39	444.54	237.21	207.34	2.144	
10,400.00	6,941.92	10,484.91	7,007.80	107.11	107.15	-98.53	236.89	-3,830.36	444.34	231.53	212.81	2.088	
10,500.00	6,941.63	10,584.89	7,006.06	109.84	109.89	-98.34	236.14	-3,930.33	444.14	225.84	218.31	2.034	
10,600.00	6,941.33	10,684.88	7,004.31	112.58	112.63	-98.16	235.39	-4,030.31	443.95	220.13	223.82	1.984	
10,700.00	6,941.03	10,784.87	7,002.56	115.33	115.37	-97.97	234.63	-4,130.28	443.76	214.42	229.34	1.935	
10,800.00	6,940.73	10,884.86	7,000.81	118.08	118.13	-97.78	233.88	-4,230.25	443.58	208.70	234.87	1.889	
10,900.00	6,940.43	10,984.85	6,999.06	120.84	120.88	-97.60	233.13	-4,330.22	443.40	202.98	240.42	1.844	
11,000.00	6,940.13	11,084.84	6,997.31	123.60	123.64	-97.41	232.38	-4,430.19	443.22	197.25	245.98	1.802	
11,100.00	6,939.83	11,184.83	6,995.56	126.36	126.41	-97.23	231.62	-4,530.16	443.05	191.51	251.55	1.761	
11,200.00	6,939.54	11,284.82	6,993.81	129.13	129.18	-97.04	230.87	-4,630.13	442.89	185.76	257.13	1.722	
11,300.00	6,939.24	11,384.81	6,992.06	131.91	131.95	-96.85	230.12	-4,730.11	442.73	180.01	262.71	1.685	
11,400.00	6,938.94	11,484.80	6,990.31	134.68	134.73	-96.67	229.37	-4,830.08	442.57	174.26	268.31	1.649	
11,500.00	6,938.64	11,584.79	6,988.56	137.46	137.51	-96.48	228.61	-4,930.05	442.42	168.51	273.91	1.615	
11,600.00	6,938.34	11,684.78	6,986.81	140.25	140.29	-96.29	227.86	-5,030.02	442.27	162.75	279.52	1.582	
11,700.00	6,938.04	11,784.77	6,985.06	143.03	143.08	-96.10	227.11	-5,129.99	442.13	156.99	285.14	1.551	
11,800.00	6,937.75	11,884.76	6,983.31	145.82	145.87	-95.92	226.36	-5,229.96	442.00	151.23	290.77	1.520	
11,900.00	6,937.45	11,984.75	6,981.56	148.61	148.66	-95.73	225.60	-5,329.93	441.86	145.47	296.40	1.491 Level 3	
12,000.00	6,937.15	12,084.74	6,979.82	151.41	151.45	-95.54	224.85	-5,429.90	441.74	139.70	302.03	1.463 Level 3	
12,100.00	6,936.85	12,184.73	6,978.07	154.20	154.25	-95.36	224.10	-5,529.88	441.61	133.94	307.67	1.435 Level 3	
12,200.00	6,936.55	12,284.72	6,976.32	157.00	157.05	-95.17	223.35	-5,629.85	441.49	128.18	313.32	1.409 Level 3	
12,300.00	6,936.25	12,384.71	6,974.57	159.80	159.85	-94.98	222.59	-5,729.82	441.38	122.42	318.96	1.384 Level 3	
12,400.00	6,935.96	12,484.69	6,972.82	162.61	162.65	-94.79	221.84	-5,829.79	441.27	116.65	324.62	1.359 Level 3	
12,500.00	6,935.66	12,584.68	6,971.07	165.41	165.46	-94.60	221.09	-5,929.76	441.17	110.89	330.27	1.336 Level 3	
12,600.00	6,935.36	12,684.67	6,969.32	168.22	168.26	-94.42	220.33	-6,029.73	441.07	105.14	335.93	1.313 Level 3	
12,700.00	6,935.06	12,784.66	6,967.57	171.02	171.07	-94.23	219.58	-6,129.70	440.97	99.38	341.59	1.291 Level 3	
12,800.00	6,934.76	12,884.65	6,965.82	173.83	173.88	-94.04	218.83	-6,229.68	440.88	93.63	347.26	1.270 Level 3	
12,900.00	6,934.46	12,984.64	6,964.07	176.65	176.69	-93.85	218.08	-6,329.65	440.80	87.87	352.92	1.249 Level 2	
13,000.00	6,934.17	13,084.63	6,962.32	179.46	179.50	-93.66	217.32	-6,429.62	440.72	82.13	358.59	1.229 Level 2	
13,100.00	6,933.87	13,184.62	6,960.57	182.27	182.32	-93.47	216.57	-6,529.59	440.64	76.38	364.26	1.210 Level 2	
13,200.00	6,933.57	13,284.61	6,958.82	185.09	185.13	-93.29	215.82	-6,629.56	440.57	70.64	369.93	1.191 Level 2	
13,300.00	6,933.27	13,384.60	6,957.07	187.91	187.95	-93.10	215.07	-6,729.53	440.51	64.90	375.60	1.173 Level 2	
13,400.00	6,932.97	13,484.59	6,955.32	190.72	190.77	-92.91	214.31	-6,829.50	440.45	59.17	381.28	1.155 Level 2	
13,500.00	6,932.67	13,584.58	6,953.57	193.54	193.59	-92.72	213.56	-6,929.47	440.39	53.44	386.95	1.138 Level 2	
13,600.00	6,932.38	13,684.57	6,951.83	196.36	196.41	-92.53	212.81	-7,029.45	440.34	47.72	392.62	1.122 Level 2	
13,700.00	6,932.08	13,784.56	6,950.08	199.19	199.23	-92.34	212.06	-7,129.42	440.29	42.00	398.29	1.105 Level 2	
13,800.00	6,931.78	13,884.55	6,948.33	202.01	202.05	-92.15	211.30	-7,229.39	440.25	36.29	403.96	1.090 Level 2	
13,900.00	6,931.48	13,984.54	6,946.58	204.83	204.87	-91.97	210.55	-7,329.36	440.21	30.58	409.63	1.075 Level 2	
14,000.00	6,931.18	14,084.53	6,944.83	207.66	207.70	-91.78	209.80	-7,429.33	440.18	24.88	415.30	1.060 Level 2	
14,100.00	6,930.88	14,184.52	6,943.08	210.48	210.52	-91.59	209.05	-7,529.30	440.15	19.18	420.97	1.046 Level 2	
14,200.00	6,930.59	14,284.50	6,941.33	213.31	213.35	-91.40	208.29	-7,629.27	440.13	13.49	426.64	1.032 Level 2	
14,300.00	6,930.29	14,384.49	6,939.58	216.14	216.18	-91.21	207.54	-7,729.25	440.11	7.81	432.31	1.018 Level 2	
14,400.00	6,929.99	14,484.48	6,937.83	218.96	219.00	-91.02	206.79	-7,829.22	440.10	2.13	437.97	1.005 Level 2	
14,500.00	6,929.69	14,584.47	6,936.08	221.79	221.83	-90.83	206.04	-7,929.19	440.09	-3.54	443.63	0.992 Level 1	
14,600.00	6,929.39	14,684.46	6,934.33	224.62	224.66	-90.64	205.28	-8,029.16	440.09	-9.20	449.29	0.980 Level 1	
14,627.46	6,929.31	14,711.92	6,933.85	225.40	225.44	-90.59	205.08	-8,056.61	440.09	-10.76	450.84	0.976 Level 1	
14,700.00	6,929.09	14,784.45	6,932.58	227.45	227.49	-90.45	204.53	-8,129.13	440.09	-14.86	454.95	0.967 Level 1	
14,732.12	6,929.00	14,816.57	6,932.02	228.36	228.40	-90.39	204.29	-8,161.24	440.09	-16.67	456.76	0.963 Level 1, ES, SF	



Anticollision Report



Company:	SRC ENERGY	Local Co-ordinate Reference:	Well HARVESTERS STATE 4N-16A-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 4N-16A-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	-179.54	-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	36.544		
200.00	200.00	199.00	200.00	3.34	3.34	-179.54	-240.07	-1.95	240.08	233.41	6.67	35.977	CC, ES	
300.00	300.00	291.38	292.36	3.44	3.43	-179.49	-241.52	-2.15	241.65	234.76	6.88	35.106		
400.00	400.00	383.49	384.36	3.60	3.56	-179.35	-245.89	-2.77	246.40	239.20	7.20	34.230		
500.00	500.00	475.22	475.79	3.81	3.74	-179.14	-253.15	-3.79	254.34	246.73	7.60	33.445		
600.00	600.00	566.39	566.39	4.05	3.96	-178.86	-263.24	-5.22	265.43	257.34	8.08	32.831		
700.00	699.98	656.56	656.63	4.32	4.23	-165.07	-276.02	-7.03	281.31	272.69	8.62	32.619		
800.00	799.84	752.76	750.53	4.62	4.57	-164.86	-291.60	-9.23	302.53	293.33	9.20	32.884		
900.00	899.45	849.69	846.16	4.94	4.94	-164.81	-307.35	-11.45	327.07	317.27	9.80	33.367		
1,000.00	998.80	945.95	941.11	5.28	5.34	-164.94	-322.98	-13.66	354.15	343.71	10.45	33.897		
1,100.00	1,098.12	1,042.16	1,036.01	5.63	5.76	-165.11	-338.61	-15.87	381.42	370.30	11.11	34.319		
1,200.00	1,197.44	1,138.36	1,130.92	6.00	6.21	-165.25	-354.23	-18.07	408.68	396.88	11.81	34.611		
1,300.00	1,296.77	1,234.57	1,225.82	6.37	6.66	-165.38	-369.86	-20.28	435.95	423.43	12.53	34.805		
1,400.00	1,396.09	1,330.78	1,320.72	6.76	7.13	-165.49	-385.48	-22.49	463.22	449.96	13.26	34.926		
1,500.00	1,495.41	1,426.98	1,415.63	7.15	7.61	-165.59	-401.11	-24.70	490.50	476.48	14.02	34.993		
1,600.00	1,594.74	1,523.19	1,510.53	7.55	8.09	-165.68	-416.73	-26.90	517.77	502.98	14.79	35.020		
1,700.00	1,694.06	1,619.40	1,605.43	7.96	8.58	-165.76	-432.36	-29.11	545.04	529.48	15.57	35.017		
1,800.00	1,793.38	1,715.60	1,700.33	8.37	9.08	-165.83	-447.98	-31.32	572.32	555.96	16.36	34.992		
1,900.00	1,892.71	1,811.81	1,795.24	8.78	9.58	-165.89	-463.61	-33.53	599.59	582.44	17.16	34.951		
2,000.00	1,992.03	1,908.01	1,890.14	9.20	10.09	-165.95	-479.23	-35.73	626.87	608.91	17.96	34.900		
2,100.00	2,091.36	2,004.22	1,985.04	9.62	10.60	-166.01	-494.86	-37.94	654.15	635.37	18.78	34.840		
2,200.00	2,190.68	2,100.43	2,079.95	10.05	11.11	-166.06	-510.48	-40.15	681.42	661.83	19.60	34.775		
2,300.00	2,290.00	2,196.63	2,174.85	10.48	11.62	-166.10	-526.11	-42.36	708.70	688.28	20.42	34.706		
2,400.00	2,389.33	2,307.16	2,269.75	10.90	12.22	-166.15	-541.73	-44.56	735.98	714.67	21.31	34.533		
2,500.00	2,488.65	2,389.04	2,364.66	11.34	12.66	-166.19	-557.36	-46.77	763.26	741.18	22.08	34.563		
2,600.00	2,587.97	2,485.25	2,459.56	11.77	13.18	-166.22	-572.98	-48.98	790.54	767.62	22.92	34.492		
2,700.00	2,687.30	2,581.46	2,554.46	12.20	13.70	-166.26	-588.61	-51.18	817.82	794.06	23.76	34.420		
2,800.00	2,786.62	2,677.66	2,649.37	12.64	14.23	-166.29	-604.23	-53.39	845.10	820.49	24.60	34.349		
2,900.00	2,885.94	2,773.87	2,744.27	13.07	14.75	-166.32	-619.86	-55.60	872.38	846.93	25.45	34.280		
3,000.00	2,985.27	2,870.08	2,839.17	13.51	15.27	-166.35	-635.48	-57.81	899.66	873.36	26.30	34.212		
3,100.00	3,084.59	2,966.28	2,934.08	13.95	15.80	-166.38	-651.11	-60.01	926.94	899.79	27.15	34.145		
3,200.00	3,183.91	3,062.49	3,028.98	14.39	16.33	-166.40	-666.73	-62.22	954.22	926.22	28.00	34.081		
3,300.00	3,283.24	3,158.69	3,123.88	14.83	16.86	-166.43	-682.36	-64.43	981.50	952.65	28.85	34.017		
3,400.00	3,382.56	3,254.90	3,218.78	15.27	17.39	-166.45	-697.98	-66.64	1,008.78	979.07	29.71	33.956		
3,500.00	3,481.88	3,351.11	3,313.69	15.71	17.92	-166.47	-713.61	-68.84	1,036.06	1,005.49	30.57	33.897		
3,600.00	3,581.21	3,447.31	3,408.59	16.16	18.45	-166.49	-729.23	-71.05	1,063.34	1,031.92	31.42	33.839		
3,700.00	3,680.53	3,543.52	3,503.49	16.60	18.98	-166.51	-744.86	-73.26	1,090.62	1,058.34	32.28	33.783		
3,800.00	3,779.85	3,639.72	3,598.40	17.04	19.51	-166.53	-760.48	-75.47	1,117.90	1,084.76	33.14	33.729		
3,900.00	3,879.18	3,735.93	3,693.30	17.49	20.04	-166.55	-776.11	-77.67	1,145.18	1,111.18	34.01	33.676		
4,000.00	3,978.50	3,832.14	3,788.20	17.93	20.57	-166.56	-791.73	-79.88	1,172.47	1,137.60	34.87	33.625		
4,100.00	4,077.82	3,928.34	3,883.11	18.37	21.10	-166.58	-807.36	-82.09	1,199.75	1,164.01	35.73	33.576		
4,200.00	4,177.15	4,024.55	3,978.01	18.82	21.64	-166.59	-822.98	-84.29	1,227.03	1,190.43	36.60	33.528		
4,300.00	4,276.47	4,120.75	4,072.91	19.27	22.17	-166.61	-838.61	-86.50	1,254.31	1,216.85	37.46	33.482		
4,400.00	4,375.79	4,216.96	4,167.82	19.71	22.70	-166.62	-854.23	-88.71	1,281.59	1,243.26	38.33	33.437		
4,500.00	4,475.12	4,313.17	4,262.72	20.16	23.24	-166.64	-869.86	-90.92	1,308.87	1,269.68	39.20	33.393		
4,600.00	4,574.44	4,409.37	4,357.62	20.60	23.77	-166.65	-885.48	-93.12	1,336.16	1,296.09	40.06	33.351		
4,700.00	4,673.76	4,505.58	4,452.53	21.05	24.30	-166.66	-901.11	-95.33	1,363.44	1,322.51	40.93	33.310		
4,800.00	4,773.09	4,601.79	4,547.43	21.50	24.84	-166.67	-916.73	-97.54	1,390.72	1,348.92	41.80	33.270		
4,900.00	4,872.41	4,702.01	4,642.33	21.94	25.40	-166.68	-932.36	-99.75	1,418.00	1,375.31	42.69	33.218		
5,000.00	4,971.74	4,805.80	4,737.24	22.39	25.97	-166.70	-947.98	-101.95	1,445.28	1,401.69	43.59	33.154		
5,100.00	5,071.06	4,890.40	4,832.14	22.84	26.44	-166.71	-963.61	-104.16	1,472.56	1,428.15	44.41	33.158		

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 4N-16A-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 4N-16A-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	5,170.38	4,986.61	4,927.04	23.29	26.98	-166.72	-979.23	-106.37	1,499.85	1,454.57	45.28	33.123		
5,300.00	5,269.71	5,082.82	5,021.94	23.74	27.52	-166.73	-994.86	-108.58	1,527.13	1,480.98	46.15	33.089		
5,400.00	5,369.03	5,179.02	5,116.85	24.18	28.05	-166.74	-1,010.48	-110.78	1,554.41	1,507.39	47.02	33.055		
5,500.00	5,468.35	5,275.23	5,211.75	24.63	28.59	-166.74	-1,026.11	-112.99	1,581.69	1,533.80	47.90	33.023		
5,600.00	5,567.68	5,371.43	5,306.65	25.08	29.12	-166.75	-1,041.73	-115.20	1,608.98	1,560.21	48.77	32.992		
5,700.00	5,667.00	5,467.64	5,401.56	25.53	29.66	-166.76	-1,057.36	-117.41	1,636.26	1,586.62	49.64	32.961		
5,800.00	5,766.32	5,563.85	5,496.46	25.98	30.20	-166.77	-1,072.98	-119.61	1,663.54	1,613.03	50.52	32.931		
5,900.00	5,865.65	5,660.05	5,591.36	26.43	30.73	-166.78	-1,088.61	-121.82	1,690.82	1,639.43	51.39	32.902		
6,000.00	5,964.97	5,756.26	5,686.27	26.88	31.27	-166.79	-1,104.23	-124.03	1,718.11	1,665.84	52.26	32.874		
6,100.00	6,064.29	5,852.47	5,781.17	27.33	31.80	-166.79	-1,119.86	-126.23	1,745.39	1,692.25	53.14	32.847		
6,200.00	6,163.62	5,948.67	5,876.07	27.78	32.34	-166.80	-1,135.48	-128.44	1,772.67	1,718.66	54.01	32.820		
6,300.00	6,262.94	6,044.88	5,970.98	28.23	32.88	-166.81	-1,151.11	-130.65	1,799.95	1,745.07	54.89	32.794		
6,400.00	6,362.24	6,141.08	6,065.87	28.67	33.42	-147.84	-1,166.73	-132.86	1,827.23	1,771.47	55.76	32.768		
6,500.00	6,460.41	6,236.46	6,159.96	29.12	33.95	-113.89	-1,182.22	-135.05	1,854.29	1,797.64	56.65	32.734		
6,600.00	6,555.09	6,328.83	6,251.08	29.57	34.46	-102.28	-1,197.23	-137.16	1,880.79	1,823.26	57.53	32.691		
6,700.00	6,643.94	6,415.91	6,336.98	30.00	34.95	-96.59	-1,211.37	-139.16	1,906.72	1,848.31	58.41	32.641		
6,800.00	6,724.78	6,504.45	6,415.55	30.45	35.44	-93.18	-1,224.30	-140.99	1,932.33	1,872.99	59.34	32.562		
6,900.00	6,795.62	6,565.80	6,484.85	30.97	35.79	-90.80	-1,235.71	-142.60	1,958.03	1,897.81	60.22	32.517		
7,000.00	6,854.70	6,624.93	6,543.17	31.60	36.12	-88.85	-1,245.32	-143.96	1,984.28	1,923.09	61.19	32.431		
7,100.00	6,900.58	6,671.48	6,589.09	32.39	36.38	-86.95	-1,252.88	-145.03	2,011.46	1,949.23	62.23	32.323		
7,200.00	6,932.13	6,704.29	6,621.46	33.34	36.56	-84.89	-1,258.21	-145.78	2,039.76	1,976.42	63.35	32.199		
7,300.00	6,948.57	7,300.00	6,654.17	34.46	39.91	-82.97	-1,263.59	-147.07	2,069.05	2,001.64	67.41	30.695		
7,400.00	6,950.87	7,741.94	7,246.81	35.70	43.85	-98.16	-1,365.61	-822.12	2,085.19	2,011.12	74.07	28.153		
7,500.00	6,950.58	7,841.94	7,246.28	37.12	45.28	-98.15	-1,366.19	-922.11	2,085.01	2,007.67	77.34	26.960		
7,600.00	6,950.28	7,941.93	7,245.75	38.70	46.94	-98.15	-1,366.78	-1,022.11	2,084.82	2,003.88	80.94	25.757		
7,700.00	6,949.98	8,041.93	7,245.22	40.41	48.80	-98.14	-1,367.36	-1,122.11	2,084.64	1,999.80	84.84	24.572		
7,800.00	6,949.68	8,141.93	7,244.69	42.25	50.85	-98.14	-1,367.94	-1,222.10	2,084.45	1,995.47	88.99	23.425		
7,900.00	6,949.38	8,241.93	7,244.16	44.20	53.05	-98.13	-1,368.53	-1,322.10	2,084.27	1,990.91	93.35	22.327		
8,000.00	6,949.08	8,341.93	7,243.64	46.24	55.38	-98.13	-1,369.11	-1,422.10	2,084.08	1,986.17	97.91	21.286		
8,100.00	6,948.79	8,441.93	7,243.11	48.36	57.83	-98.12	-1,369.70	-1,522.09	2,083.90	1,981.27	102.63	20.305		
8,200.00	6,948.49	8,541.93	7,242.58	50.56	60.37	-98.11	-1,370.28	-1,622.09	2,083.71	1,976.22	107.50	19.384		
8,300.00	6,948.19	8,641.93	7,242.05	52.82	62.99	-98.11	-1,370.87	-1,722.08	2,083.53	1,971.04	112.49	18.522		
8,400.00	6,947.89	8,741.93	7,241.52	55.14	65.68	-98.10	-1,371.45	-1,822.08	2,083.35	1,965.76	117.59	17.718		
8,500.00	6,947.59	8,841.93	7,240.99	57.50	68.44	-98.10	-1,372.04	-1,922.08	2,083.16	1,960.38	122.78	16.967		
8,600.00	6,947.29	8,941.93	7,240.46	59.91	71.25	-98.09	-1,372.62	-2,022.07	2,082.98	1,954.92	128.06	16.266		
8,700.00	6,947.00	9,041.93	7,239.93	62.36	74.10	-98.09	-1,373.20	-2,122.07	2,082.79	1,949.38	133.41	15.612		
8,800.00	6,946.70	9,141.93	7,239.41	64.84	77.00	-98.08	-1,373.79	-2,222.07	2,082.61	1,943.78	138.82	15.002		
8,900.00	6,946.40	9,241.93	7,238.88	67.35	79.93	-98.07	-1,374.37	-2,322.06	2,082.42	1,938.12	144.30	14.431		
9,000.00	6,946.10	9,341.93	7,238.35	69.88	82.89	-98.07	-1,374.96	-2,422.06	2,082.24	1,932.41	149.83	13.898		
9,100.00	6,945.80	9,441.93	7,237.82	72.44	85.88	-98.06	-1,375.54	-2,522.06	2,082.06	1,926.66	155.40	13.398		
9,200.00	6,945.50	9,541.93	7,237.29	75.02	88.90	-98.06	-1,376.13	-2,622.05	2,081.87	1,920.86	161.01	12.930		
9,300.00	6,945.21	9,641.93	7,236.76	77.63	91.94	-98.05	-1,376.71	-2,722.05	2,081.69	1,915.02	166.66	12.490		
9,400.00	6,944.91	9,741.93	7,236.23	80.24	95.00	-98.05	-1,377.29	-2,822.05	2,081.50	1,909.15	172.35	12.077		
9,500.00	6,944.61	9,841.93	7,235.70	82.88	98.08	-98.04	-1,377.88	-2,922.04	2,081.32	1,903.25	178.06	11.689		
9,600.00	6,944.31	9,941.93	7,235.18	85.53	101.18	-98.03	-1,378.46	-3,022.04	2,081.13	1,897.33	183.81	11.322		
9,700.00	6,944.01	10,041.93	7,234.65	88.19	104.29	-98.03	-1,379.05	-3,122.04	2,080.95	1,891.38	189.57	10.977		
9,800.00	6,943.71	10,141.93	7,234.12	90.86	107.41	-98.02	-1,379.63	-3,222.03	2,080.77	1,885.40	195.37	10.651		
9,900.00	6,943.42	10,241.93	7,233.59	93.55	110.55	-98.02	-1,380.22	-3,322.03	2,080.58	1,879.41	201.18	10.342		
10,000.00	6,943.12	10,341.93	7,233.06	96.24	113.70	-98.01	-1,380.80	-3,422.03	2,080.40	1,873.39	207.01	10.050		
10,100.00	6,942.82	10,441.93	7,232.53	98.95	116.86	-98.01	-1,381.38	-3,522.02	2,080.21	1,867.36	212.86	9.773		
10,200.00	6,942.52	10,541.92	7,232.00	101.66	120.03	-98.00	-1,381.97	-3,622.02	2,080.03	1,861.31	218.72	9.510		
10,300.00	6,942.22	10,641.92	7,231.47	104.38	123.21	-97.99	-1,382.55	-3,722.01	2,079.85	1,855.25	224.60	9.260		

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 4N-16A-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 4N-16A-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	6,941.92	10,741.92	7,230.95	107.11	126.39	-97.99	-1,383.14	-3,822.01	2,079.66	1,849.17	230.50	9.023		
10,500.00	6,941.63	10,841.92	7,230.42	109.84	129.59	-97.98	-1,383.72	-3,922.01	2,079.48	1,843.08	236.40	8.796		
10,600.00	6,941.33	10,941.92	7,229.89	112.58	132.79	-97.98	-1,384.31	-4,022.00	2,079.29	1,836.98	242.32	8.581		
10,700.00	6,941.03	11,041.92	7,229.36	115.33	135.99	-97.97	-1,384.89	-4,122.00	2,079.11	1,830.86	248.25	8.375		
10,800.00	6,940.73	11,141.92	7,228.83	118.08	139.21	-97.97	-1,385.48	-4,222.00	2,078.93	1,824.74	254.19	8.179		
10,900.00	6,940.43	11,241.92	7,228.30	120.84	142.43	-97.96	-1,386.06	-4,321.99	2,078.74	1,818.61	260.14	7.991		
11,000.00	6,940.13	11,341.92	7,227.77	123.60	145.65	-97.95	-1,386.64	-4,421.99	2,078.56	1,812.46	266.10	7.811		
11,100.00	6,939.83	11,441.92	7,227.25	126.36	148.88	-97.95	-1,387.23	-4,521.99	2,078.38	1,806.31	272.06	7.639		
11,200.00	6,939.54	11,541.92	7,226.72	129.13	152.11	-97.94	-1,387.81	-4,621.98	2,078.19	1,800.15	278.04	7.475		
11,300.00	6,939.24	11,641.92	7,226.19	131.91	155.35	-97.94	-1,388.40	-4,721.98	2,078.01	1,793.99	284.02	7.316		
11,400.00	6,938.94	11,741.92	7,225.66	134.68	158.59	-97.93	-1,388.98	-4,821.98	2,077.82	1,787.82	290.01	7.165		
11,500.00	6,938.64	11,841.92	7,225.13	137.46	161.84	-97.93	-1,389.57	-4,921.97	2,077.64	1,781.64	296.00	7.019		
11,600.00	6,938.34	11,941.92	7,224.60	140.25	165.09	-97.92	-1,390.15	-5,021.97	2,077.46	1,775.45	302.00	6.879		
11,700.00	6,938.04	12,041.92	7,224.07	143.03	168.34	-97.91	-1,390.73	-5,121.97	2,077.27	1,769.26	308.01	6.744		
11,800.00	6,937.75	12,141.92	7,223.54	145.82	171.60	-97.91	-1,391.32	-5,221.96	2,077.09	1,763.07	314.02	6.614		
11,900.00	6,937.45	12,241.92	7,223.02	148.61	174.85	-97.90	-1,391.90	-5,321.96	2,076.91	1,756.86	320.04	6.489		
12,000.00	6,937.15	12,341.92	7,222.49	151.41	178.12	-97.90	-1,392.49	-5,421.96	2,076.72	1,750.66	326.06	6.369		
12,100.00	6,936.85	12,441.92	7,221.96	154.20	181.38	-97.89	-1,393.07	-5,521.95	2,076.54	1,744.45	332.09	6.253		
12,200.00	6,936.55	12,541.92	7,221.43	157.00	184.65	-97.89	-1,393.66	-5,621.95	2,076.36	1,738.23	338.12	6.141		
12,300.00	6,936.25	12,641.92	7,220.90	159.80	187.92	-97.88	-1,394.24	-5,721.95	2,076.17	1,732.01	344.16	6.033		
12,400.00	6,935.96	12,741.92	7,220.37	162.61	191.19	-97.87	-1,394.82	-5,821.94	2,075.99	1,725.79	350.20	5.928		
12,500.00	6,935.66	12,841.92	7,219.84	165.41	194.46	-97.87	-1,395.41	-5,921.94	2,075.80	1,719.56	356.24	5.827		
12,600.00	6,935.36	12,941.92	7,219.31	168.22	197.74	-97.86	-1,395.99	-6,021.93	2,075.62	1,713.33	362.29	5.729		
12,700.00	6,935.06	13,041.92	7,218.79	171.02	201.01	-97.86	-1,396.58	-6,121.93	2,075.44	1,707.10	368.34	5.635		
12,800.00	6,934.76	13,141.91	7,218.26	173.83	204.29	-97.85	-1,397.16	-6,221.93	2,075.25	1,700.86	374.39	5.543		
12,900.00	6,934.46	13,241.91	7,217.73	176.65	207.57	-97.85	-1,397.75	-6,321.92	2,075.07	1,694.62	380.45	5.454		
13,000.00	6,934.17	13,341.91	7,217.20	179.46	210.86	-97.84	-1,398.33	-6,421.92	2,074.89	1,688.38	386.51	5.368		
13,100.00	6,933.87	13,441.91	7,216.67	182.27	214.14	-97.83	-1,398.92	-6,521.92	2,074.70	1,682.13	392.57	5.285		
13,200.00	6,933.57	13,541.91	7,216.14	185.09	217.43	-97.83	-1,399.50	-6,621.91	2,074.52	1,675.88	398.64	5.204		
13,300.00	6,933.27	13,641.91	7,215.61	187.91	220.71	-97.82	-1,400.08	-6,721.91	2,074.34	1,669.63	404.71	5.126		
13,400.00	6,932.97	13,741.91	7,215.08	190.72	224.00	-97.82	-1,400.67	-6,821.91	2,074.15	1,663.38	410.78	5.049		
13,500.00	6,932.67	13,841.91	7,214.56	193.54	227.29	-97.81	-1,401.25	-6,921.90	2,073.97	1,657.12	416.85	4.975		
13,600.00	6,932.38	13,941.91	7,214.03	196.36	230.58	-97.81	-1,401.84	-7,021.90	2,073.79	1,650.86	422.92	4.903		
13,700.00	6,932.08	14,041.91	7,213.50	199.19	233.87	-97.80	-1,402.42	-7,121.90	2,073.60	1,644.60	429.00	4.834		
13,800.00	6,931.78	14,141.91	7,212.97	202.01	237.17	-97.79	-1,403.01	-7,221.89	2,073.42	1,638.34	435.08	4.766		
13,900.00	6,931.48	14,241.91	7,212.44	204.83	240.46	-97.79	-1,403.59	-7,321.89	2,073.24	1,632.08	441.16	4.699		
14,000.00	6,931.18	14,341.91	7,211.91	207.66	243.76	-97.78	-1,404.17	-7,421.89	2,073.05	1,625.81	447.24	4.635		
14,100.00	6,930.88	14,441.91	7,211.38	210.48	247.05	-97.78	-1,404.76	-7,521.88	2,072.87	1,619.54	453.33	4.573		
14,200.00	6,930.59	14,541.91	7,210.86	213.31	250.35	-97.77	-1,405.34	-7,621.88	2,072.69	1,613.27	459.42	4.512		
14,300.00	6,930.29	14,641.91	7,210.33	216.14	253.65	-97.77	-1,405.93	-7,721.88	2,072.51	1,607.00	465.51	4.452		
14,400.00	6,929.99	14,741.91	7,209.80	218.96	256.95	-97.76	-1,406.51	-7,821.87	2,072.32	1,600.73	471.60	4.394		
14,500.00	6,929.69	14,841.91	7,209.27	221.79	260.25	-97.75	-1,407.10	-7,921.87	2,072.14	1,594.45	477.69	4.338		
14,600.00	6,929.39	14,941.91	7,208.74	224.62	263.55	-97.75	-1,407.68	-8,021.86	2,071.96	1,588.17	483.78	4.283		
14,700.00	6,929.09	15,041.91	7,208.21	227.45	266.85	-97.74	-1,408.26	-8,121.86	2,071.77	1,581.90	489.88	4.229		
14,732.12	6,929.00	15,074.03	7,208.04	228.36	267.91	-97.74	-1,408.45	-8,153.98	2,071.71	1,579.88	491.84	4.212 SF		



Anticollision Report



Company:	SRC ENERGY	Local Co-ordinate Reference:	Well HARVESTERS STATE 4N-16A-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 4N-16A-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	-179.47	-120.22	-1.11	120.22					
100.00	100.00	100.00	100.00	3.28	3.28	-179.47	-120.22	-1.11	120.22	113.65	6.57	18.300		
200.00	200.00	200.00	200.00	3.34	3.34	-179.47	-120.22	-1.11	120.22	113.55	6.67	18.013		
300.00	300.00	300.00	300.00	3.44	3.44	-179.47	-120.22	-1.11	120.22	113.33	6.89	17.449		
400.00	400.00	400.00	400.00	3.60	3.60	-179.47	-120.22	-1.11	120.22	113.02	7.21	16.682		
500.00	500.00	500.00	500.00	3.81	3.81	-179.47	-120.22	-1.11	120.22	112.61	7.61	15.794	CC, ES	
600.00	600.00	596.12	596.10	4.05	4.03	-179.24	-121.75	-1.62	121.82	113.74	8.08	15.082		
700.00	699.98	691.91	691.76	4.32	4.27	-165.28	-126.32	-3.12	128.31	119.71	8.60	14.914		
800.00	799.84	789.69	789.26	4.62	4.54	-164.85	-133.43	-5.45	140.67	131.49	9.18	15.326		
900.00	899.45	888.41	887.68	4.94	4.84	-164.79	-140.79	-7.86	156.55	146.76	9.80	15.983		
1,000.00	998.80	986.69	985.65	5.28	5.15	-165.01	-148.12	-10.27	175.02	164.58	10.45	16.756		
1,100.00	1,098.12	1,084.93	1,083.59	5.63	5.49	-165.22	-155.44	-12.67	193.68	182.56	11.12	17.416		
1,200.00	1,197.44	1,183.17	1,181.53	6.00	5.84	-165.40	-162.77	-15.07	212.34	200.52	11.82	17.960		
1,300.00	1,296.77	1,281.41	1,279.47	6.37	6.21	-165.55	-170.09	-17.48	231.00	218.46	12.55	18.409		
1,400.00	1,396.09	1,379.66	1,377.41	6.76	6.58	-165.68	-177.41	-19.88	249.67	236.38	13.29	18.784		
1,500.00	1,495.41	1,477.90	1,475.34	7.15	6.96	-165.79	-184.74	-22.28	268.33	254.28	14.05	19.097		
1,600.00	1,594.74	1,576.14	1,573.28	7.55	7.35	-165.89	-192.06	-24.68	287.00	272.17	14.82	19.360		
1,700.00	1,694.06	1,674.38	1,671.22	7.96	7.74	-165.97	-199.39	-27.09	305.67	290.06	15.61	19.583		
1,800.00	1,793.38	1,772.62	1,769.16	8.37	8.14	-166.05	-206.71	-29.49	324.33	307.93	16.40	19.773		
1,900.00	1,892.71	1,870.86	1,867.10	8.78	8.55	-166.11	-214.03	-31.89	343.00	325.79	17.20	19.936		
2,000.00	1,992.03	1,969.10	1,965.04	9.20	8.95	-166.17	-221.36	-34.30	361.67	343.65	18.01	20.076		
2,100.00	2,091.36	2,067.35	2,062.98	9.62	9.36	-166.23	-228.68	-36.70	380.34	361.50	18.83	20.198		
2,200.00	2,190.68	2,165.59	2,160.92	10.05	9.78	-166.28	-236.01	-39.10	399.00	379.35	19.65	20.303		
2,300.00	2,290.00	2,263.83	2,258.85	10.48	10.19	-166.32	-243.33	-41.50	417.67	397.19	20.48	20.395		
2,400.00	2,389.33	2,362.07	2,356.79	10.90	10.61	-166.36	-250.66	-43.91	436.34	415.03	21.31	20.476		
2,500.00	2,488.65	2,460.31	2,454.73	11.34	11.03	-166.40	-257.98	-46.31	455.01	432.87	22.14	20.547		
2,600.00	2,587.97	2,558.55	2,552.67	11.77	11.46	-166.43	-265.30	-48.71	473.68	450.70	22.98	20.610		
2,700.00	2,687.30	2,656.79	2,650.61	12.20	11.88	-166.46	-272.63	-51.12	492.35	468.53	23.82	20.666		
2,800.00	2,786.62	2,755.04	2,748.55	12.64	12.30	-166.49	-279.95	-53.52	511.02	486.35	24.67	20.716		
2,900.00	2,885.94	2,853.28	2,846.49	13.07	12.73	-166.52	-287.28	-55.92	529.69	504.17	25.51	20.761		
3,000.00	2,985.27	2,951.52	2,944.42	13.51	13.16	-166.55	-294.60	-58.33	548.36	522.00	26.36	20.801		
3,100.00	3,084.59	3,049.76	3,042.36	13.95	13.59	-166.57	-301.92	-60.73	567.03	539.81	27.21	20.837		
3,200.00	3,183.91	3,148.00	3,140.30	14.39	14.02	-166.59	-309.25	-63.13	585.70	557.63	28.07	20.869		
3,300.00	3,283.24	3,246.24	3,238.24	14.83	14.45	-166.61	-316.57	-65.53	604.37	575.45	28.92	20.898		
3,400.00	3,382.56	3,344.49	3,336.18	15.27	14.88	-166.63	-323.90	-67.94	623.04	593.26	29.78	20.925		
3,500.00	3,481.88	3,442.73	3,434.12	15.71	15.31	-166.65	-331.22	-70.34	641.71	611.08	30.63	20.949		
3,600.00	3,581.21	3,540.97	3,532.06	16.16	15.74	-166.67	-338.55	-72.74	660.38	628.89	31.49	20.971		
3,700.00	3,680.53	3,639.21	3,629.99	16.60	16.18	-166.68	-345.87	-75.15	679.05	646.70	32.35	20.991		
3,800.00	3,779.85	3,737.45	3,727.93	17.04	16.61	-166.70	-353.19	-77.55	697.72	664.51	33.21	21.009		
3,900.00	3,879.18	3,835.69	3,825.87	17.49	17.05	-166.71	-360.52	-79.95	716.39	682.32	34.07	21.025		
4,000.00	3,978.50	3,933.93	3,923.81	17.93	17.48	-166.73	-367.84	-82.36	735.06	700.12	34.94	21.041		
4,100.00	4,077.82	4,032.18	4,021.75	18.37	17.92	-166.74	-375.17	-84.76	753.73	717.93	35.80	21.055		
4,200.00	4,177.15	4,130.42	4,119.69	18.82	18.35	-166.75	-382.49	-87.16	772.40	735.74	36.66	21.068		
4,300.00	4,276.47	4,228.66	4,217.63	19.27	18.79	-166.77	-389.81	-89.56	791.07	753.54	37.53	21.079		
4,400.00	4,375.79	4,326.90	4,315.56	19.71	19.22	-166.78	-397.14	-91.97	809.74	771.35	38.39	21.090		
4,500.00	4,475.12	4,425.14	4,413.50	20.16	19.66	-166.79	-404.46	-94.37	828.41	789.15	39.26	21.101		
4,600.00	4,574.44	4,523.38	4,511.44	20.60	20.10	-166.80	-411.79	-96.77	847.08	806.96	40.13	21.110		
4,700.00	4,673.76	4,621.62	4,609.38	21.05	20.54	-166.81	-419.11	-99.18	865.75	824.76	40.99	21.119		
4,800.00	4,773.09	4,719.87	4,707.32	21.50	20.97	-166.82	-426.44	-101.58	884.42	842.56	41.86	21.127		
4,900.00	4,872.41	4,818.11	4,805.26	21.94	21.41	-166.83	-433.76	-103.98	903.09	860.36	42.73	21.134		
5,000.00	4,971.74	4,916.35	4,903.20	22.39	21.85	-166.84	-441.08	-106.38	921.77	878.16	43.60	21.141		
5,100.00	5,071.06	5,014.59	5,001.13	22.84	22.29	-166.85	-448.41	-108.79	940.44	895.97	44.47	21.147		

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 4N-16A-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 4N-16A-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	5,170.38	5,112.83	5,099.07	23.29	22.73	-166.85	-455.73	-111.19	959.11	913.77	45.34	21.153		
5,300.00	5,269.71	5,211.07	5,197.01	23.74	23.17	-166.86	-463.06	-113.59	977.78	931.57	46.21	21.159		
5,400.00	5,369.03	5,309.31	5,294.95	24.18	23.60	-166.87	-470.38	-116.00	996.45	949.37	47.08	21.164		
5,500.00	5,468.35	5,407.56	5,392.89	24.63	24.04	-166.88	-477.70	-118.40	1,015.12	967.17	47.95	21.169		
5,600.00	5,567.68	5,505.80	5,490.83	25.08	24.48	-166.88	-485.03	-120.80	1,033.79	984.96	48.83	21.173		
5,700.00	5,667.00	5,604.04	5,588.77	25.53	24.92	-166.89	-492.35	-123.21	1,052.46	1,002.76	49.70	21.178		
5,800.00	5,766.32	5,702.28	5,686.70	25.98	25.36	-166.90	-499.68	-125.61	1,071.13	1,020.56	50.57	21.181		
5,900.00	5,865.65	5,800.52	5,784.64	26.43	25.80	-166.90	-507.00	-128.01	1,089.80	1,038.36	51.44	21.185		
6,000.00	5,964.97	5,901.24	5,882.58	26.88	26.25	-166.91	-514.33	-130.41	1,108.47	1,056.15	52.33	21.184		
6,100.00	6,064.29	6,003.00	5,980.52	27.33	26.71	-166.92	-521.65	-132.82	1,127.14	1,073.93	53.21	21.181		
6,200.00	6,163.62	6,104.75	6,078.46	27.78	27.17	-166.92	-528.97	-135.22	1,145.82	1,091.71	54.10	21.178		
6,300.00	6,262.94	6,206.51	6,176.40	28.23	27.62	-166.93	-536.30	-137.62	1,164.49	1,109.49	54.99	21.175		
6,400.00	6,362.24	6,291.72	6,274.33	28.67	28.00	-148.19	-543.62	-140.03	1,183.15	1,127.35	55.81	21.200		
6,500.00	6,460.41	6,389.13	6,371.43	29.12	28.44	-115.27	-550.88	-142.41	1,201.72	1,145.04	56.68	21.201		
6,600.00	6,555.09	6,483.46	6,465.48	29.57	28.86	-104.86	-557.92	-144.72	1,220.21	1,162.67	57.54	21.205		
6,700.00	6,643.94	6,572.40	6,554.14	30.00	29.26	-100.44	-564.55	-146.89	1,239.15	1,180.76	58.39	21.223		
6,800.00	6,724.78	6,656.95	6,638.43	30.45	29.64	-98.35	-570.85	-149.12	1,259.41	1,200.16	59.24	21.259		
6,900.00	6,795.62	6,764.74	6,744.85	30.97	30.12	-97.86	-578.90	-163.27	1,280.82	1,220.46	60.35	21.222		
7,000.00	6,854.70	6,891.24	6,864.54	31.60	30.66	-98.21	-588.15	-202.49	1,302.26	1,240.65	61.61	21.137		
7,100.00	6,900.58	7,044.93	6,995.96	32.39	31.27	-99.26	-598.59	-280.76	1,322.42	1,259.46	62.96	21.004		
7,200.00	6,932.13	7,235.64	7,127.02	33.34	32.05	-100.78	-609.47	-417.89	1,339.21	1,274.73	64.48	20.768		
7,300.00	6,948.57	7,467.09	7,223.19	34.46	33.72	-102.13	-618.34	-626.83	1,349.71	1,282.91	66.80	20.204		
7,400.00	6,950.87	7,665.38	7,242.86	35.70	35.94	-102.47	-621.40	-823.44	1,351.80	1,281.75	70.05	19.298		
7,500.00	6,950.58	7,765.38	7,242.46	37.12	37.32	-102.47	-622.19	-923.43	1,351.82	1,279.01	72.81	18.567		
7,600.00	6,950.28	7,865.38	7,242.07	38.70	38.85	-102.47	-622.97	-1,023.43	1,351.84	1,275.97	75.87	17.818		
7,700.00	6,949.98	7,965.38	7,241.68	40.41	40.53	-102.46	-623.75	-1,123.43	1,351.86	1,272.66	79.21	17.067		
7,800.00	6,949.68	8,065.38	7,241.28	42.25	42.33	-102.46	-624.53	-1,223.42	1,351.89	1,269.09	82.79	16.328		
7,900.00	6,949.38	8,165.38	7,240.89	44.20	44.25	-102.45	-625.32	-1,323.42	1,351.91	1,265.32	86.59	15.612		
8,000.00	6,949.08	8,265.38	7,240.50	46.24	46.26	-102.45	-626.10	-1,423.41	1,351.93	1,261.35	90.58	14.925		
8,100.00	6,948.79	8,365.38	7,240.10	48.36	48.36	-102.44	-626.88	-1,523.41	1,351.96	1,257.22	94.73	14.271		
8,200.00	6,948.49	8,465.38	7,239.71	50.56	50.53	-102.44	-627.66	-1,623.41	1,351.98	1,252.95	99.03	13.653		
8,300.00	6,948.19	8,565.38	7,239.32	52.82	52.77	-102.43	-628.44	-1,723.40	1,352.00	1,248.56	103.45	13.069		
8,400.00	6,947.89	8,665.38	7,238.92	55.14	55.07	-102.43	-629.23	-1,823.40	1,352.03	1,244.05	107.98	12.521		
8,500.00	6,947.59	8,765.38	7,238.53	57.50	57.42	-102.43	-630.01	-1,923.39	1,352.05	1,239.44	112.60	12.007		
8,600.00	6,947.29	8,865.38	7,238.14	59.91	59.81	-102.42	-630.79	-2,023.39	1,352.07	1,234.76	117.32	11.525		
8,700.00	6,947.00	8,965.38	7,237.74	62.36	62.24	-102.42	-631.57	-2,123.39	1,352.09	1,229.99	122.10	11.073		
8,800.00	6,946.70	9,065.38	7,237.35	64.84	64.71	-102.41	-632.36	-2,223.38	1,352.12	1,225.16	126.96	10.650		
8,900.00	6,946.40	9,165.38	7,236.96	67.35	67.20	-102.41	-633.14	-2,323.38	1,352.14	1,220.27	131.87	10.253		
9,000.00	6,946.10	9,265.38	7,236.56	69.88	69.73	-102.40	-633.92	-2,423.37	1,352.16	1,215.33	136.84	9.881		
9,100.00	6,945.80	9,365.38	7,236.17	72.44	72.28	-102.40	-634.70	-2,523.37	1,352.19	1,210.33	141.85	9.532		
9,200.00	6,945.50	9,465.38	7,235.78	75.02	74.85	-102.40	-635.48	-2,623.37	1,352.21	1,205.30	146.91	9.204		
9,300.00	6,945.21	9,565.38	7,235.38	77.63	77.44	-102.39	-636.27	-2,723.36	1,352.23	1,200.23	152.01	8.896		
9,400.00	6,944.91	9,665.38	7,234.99	80.24	80.05	-102.39	-637.05	-2,823.36	1,352.26	1,195.12	157.14	8.606		
9,500.00	6,944.61	9,765.38	7,234.60	82.88	82.68	-102.38	-637.83	-2,923.36	1,352.28	1,189.98	162.30	8.332		
9,600.00	6,944.31	9,865.38	7,234.20	85.53	85.32	-102.38	-638.61	-3,023.35	1,352.30	1,184.81	167.49	8.074		
9,700.00	6,944.01	9,965.38	7,233.81	88.19	87.98	-102.37	-639.40	-3,123.35	1,352.32	1,179.62	172.71	7.830		
9,800.00	6,943.71	10,065.38	7,233.42	90.86	90.65	-102.37	-640.18	-3,223.34	1,352.35	1,174.40	177.95	7.600		
9,900.00	6,943.42	10,165.38	7,233.02	93.55	93.32	-102.37	-640.96	-3,323.34	1,352.37	1,169.16	183.21	7.382		
10,000.00	6,943.12	10,265.38	7,232.63	96.24	96.01	-102.36	-641.74	-3,423.34	1,352.39	1,163.90	188.49	7.175		
10,100.00	6,942.82	10,365.38	7,232.24	98.95	98.71	-102.36	-642.52	-3,523.33	1,352.42	1,158.63	193.79	6.979		
10,200.00	6,942.52	10,465.38	7,231.84	101.66	101.42	-102.35	-643.31	-3,623.33	1,352.44	1,153.33	199.11	6.792		
10,300.00	6,942.22	10,565.38	7,231.45	104.38	104.14	-102.35	-644.09	-3,723.32	1,352.46	1,148.02	204.44	6.615		

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 4N-16A-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 4N-16A-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	6,941.92	10,665.38	7,231.06	107.11	106.86	-102.34	-644.87	-3,823.32	1,352.49	1,142.70	209.79	6.447		
10,500.00	6,941.63	10,765.38	7,230.66	109.84	109.59	-102.34	-645.65	-3,923.32	1,352.51	1,137.36	215.15	6.286		
10,600.00	6,941.33	10,865.38	7,230.27	112.58	112.32	-102.34	-646.44	-4,023.31	1,352.53	1,132.01	220.52	6.133		
10,700.00	6,941.03	10,965.38	7,229.88	115.33	115.07	-102.33	-647.22	-4,123.31	1,352.56	1,126.65	225.91	5.987		
10,800.00	6,940.73	11,065.38	7,229.48	118.08	117.81	-102.33	-648.00	-4,223.30	1,352.58	1,121.28	231.30	5.848		
10,900.00	6,940.43	11,165.38	7,229.09	120.84	120.57	-102.32	-648.78	-4,323.30	1,352.60	1,115.90	236.71	5.714		
11,000.00	6,940.13	11,265.38	7,228.70	123.60	123.33	-102.32	-649.56	-4,423.30	1,352.63	1,110.50	242.12	5.587		
11,100.00	6,939.83	11,365.38	7,228.30	126.36	126.09	-102.31	-650.35	-4,523.29	1,352.65	1,105.10	247.54	5.464		
11,200.00	6,939.54	11,465.38	7,227.91	129.13	128.85	-102.31	-651.13	-4,623.29	1,352.67	1,099.70	252.98	5.347		
11,300.00	6,939.24	11,565.38	7,227.52	131.91	131.62	-102.30	-651.91	-4,723.29	1,352.70	1,094.28	258.42	5.235		
11,400.00	6,938.94	11,665.38	7,227.12	134.68	134.40	-102.30	-652.69	-4,823.28	1,352.72	1,088.86	263.86	5.127		
11,500.00	6,938.64	11,765.38	7,226.73	137.46	137.18	-102.30	-653.48	-4,923.28	1,352.74	1,083.43	269.31	5.023		
11,600.00	6,938.34	11,865.38	7,226.34	140.25	139.96	-102.29	-654.26	-5,023.27	1,352.76	1,077.99	274.77	4.923		
11,700.00	6,938.04	11,965.38	7,225.94	143.03	142.74	-102.29	-655.04	-5,123.27	1,352.79	1,072.55	280.24	4.827		
11,800.00	6,937.75	12,065.38	7,225.55	145.82	145.53	-102.28	-655.82	-5,223.27	1,352.81	1,067.10	285.71	4.735		
11,900.00	6,937.45	12,165.38	7,225.16	148.61	148.32	-102.28	-656.60	-5,323.26	1,352.83	1,061.65	291.19	4.646		
12,000.00	6,937.15	12,265.38	7,224.77	151.41	151.11	-102.27	-657.39	-5,423.26	1,352.86	1,056.19	296.67	4.560		
12,100.00	6,936.85	12,365.38	7,224.37	154.20	153.90	-102.27	-658.17	-5,523.25	1,352.88	1,050.73	302.15	4.477		
12,200.00	6,936.55	12,465.38	7,223.98	157.00	156.70	-102.27	-658.95	-5,623.25	1,352.90	1,045.26	307.64	4.398		
12,300.00	6,936.25	12,565.38	7,223.59	159.80	159.50	-102.26	-659.73	-5,723.25	1,352.93	1,039.79	313.14	4.321		
12,400.00	6,935.96	12,665.38	7,223.19	162.61	162.30	-102.26	-660.52	-5,823.24	1,352.95	1,034.31	318.64	4.246		
12,500.00	6,935.66	12,765.38	7,222.80	165.41	165.10	-102.25	-661.30	-5,923.24	1,352.97	1,028.83	324.14	4.174		
12,600.00	6,935.36	12,865.38	7,222.41	168.22	167.91	-102.25	-662.08	-6,023.23	1,353.00	1,023.35	329.65	4.104		
12,700.00	6,935.06	12,965.38	7,222.01	171.02	170.71	-102.24	-662.86	-6,123.23	1,353.02	1,017.86	335.16	4.037		
12,800.00	6,934.76	13,065.38	7,221.62	173.83	173.52	-102.24	-663.64	-6,223.23	1,353.04	1,012.37	340.67	3.972		
12,900.00	6,934.46	13,165.38	7,221.23	176.65	176.33	-102.24	-664.43	-6,323.22	1,353.07	1,006.88	346.19	3.908		
13,000.00	6,934.17	13,265.38	7,220.83	179.46	179.14	-102.23	-665.21	-6,423.22	1,353.09	1,001.38	351.71	3.847		
13,100.00	6,933.87	13,365.38	7,220.44	182.27	181.96	-102.23	-665.99	-6,523.22	1,353.11	995.88	357.23	3.788		
13,200.00	6,933.57	13,465.38	7,220.05	185.09	184.77	-102.22	-666.77	-6,623.21	1,353.14	990.38	362.76	3.730		
13,300.00	6,933.27	13,565.38	7,219.65	187.91	187.59	-102.22	-667.56	-6,723.21	1,353.16	984.87	368.29	3.674		
13,400.00	6,932.97	13,665.38	7,219.26	190.72	190.40	-102.21	-668.34	-6,823.20	1,353.18	979.37	373.82	3.620		
13,500.00	6,932.67	13,765.38	7,218.87	193.54	193.22	-102.21	-669.12	-6,923.20	1,353.21	973.86	379.35	3.567		
13,600.00	6,932.38	13,865.38	7,218.47	196.36	196.04	-102.21	-669.90	-7,023.20	1,353.23	968.34	384.89	3.516		
13,700.00	6,932.08	13,965.38	7,218.08	199.19	198.86	-102.20	-670.68	-7,123.19	1,353.25	962.83	390.43	3.466		
13,800.00	6,931.78	14,065.38	7,217.69	202.01	201.68	-102.20	-671.47	-7,223.19	1,353.28	957.31	395.97	3.418		
13,900.00	6,931.48	14,165.38	7,217.29	204.83	204.50	-102.19	-672.25	-7,323.18	1,353.30	951.79	401.51	3.371		
14,000.00	6,931.18	14,265.38	7,216.90	207.66	207.33	-102.19	-673.03	-7,423.18	1,353.32	946.27	407.05	3.325		
14,100.00	6,930.88	14,365.38	7,216.51	210.48	210.15	-102.18	-673.81	-7,523.18	1,353.35	940.75	412.60	3.280		
14,200.00	6,930.59	14,465.38	7,216.11	213.31	212.98	-102.18	-674.59	-7,623.17	1,353.37	935.22	418.15	3.237		
14,300.00	6,930.29	14,565.38	7,215.72	216.14	215.80	-102.18	-675.38	-7,723.17	1,353.39	929.69	423.70	3.194		
14,400.00	6,929.99	14,665.38	7,215.33	218.96	218.63	-102.17	-676.16	-7,823.17	1,353.42	924.17	429.25	3.153		
14,500.00	6,929.69	14,765.38	7,214.93	221.79	221.46	-102.17	-676.94	-7,923.16	1,353.44	918.64	434.81	3.113		
14,600.00	6,929.39	14,865.38	7,214.54	224.62	224.29	-102.16	-677.72	-8,023.16	1,353.47	913.10	440.36	3.074		
14,700.00	6,929.09	14,965.38	7,214.15	227.45	227.12	-102.16	-678.51	-8,123.15	1,353.49	907.57	445.92	3.035		
14,732.12	6,929.00	14,997.50	7,214.02	228.36	228.02	-102.16	-678.76	-8,155.28	1,353.50	905.79	447.70	3.023 SF		



Anticollision Report



Company:	SRC ENERGY	Local Co-ordinate Reference:	Well HARVESTERS STATE 4N-16A-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 4N-16A-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	-179.49	-220.04	-1.95	220.04					
100.00	100.00	101.00	100.00	3.28	3.28	-179.49	-220.04	-1.95	220.04	213.48	6.57	33.494		
200.00	200.00	201.00	200.00	3.34	3.34	-179.49	-220.04	-1.95	220.04	213.37	6.67	32.966		
300.00	300.00	299.00	300.00	3.44	3.44	-179.49	-220.04	-1.95	220.04	213.16	6.89	31.944 CC, ES		
400.00	400.00	391.99	392.98	3.60	3.58	-179.43	-221.49	-2.20	221.61	214.42	7.19	30.807		
500.00	500.00	484.72	485.60	3.81	3.76	-179.25	-225.90	-2.97	226.38	218.79	7.59	29.833		
600.00	600.00	577.07	577.64	4.05	3.96	-178.96	-233.23	-4.24	234.33	226.28	8.06	29.074		
700.00	699.98	668.63	668.61	4.32	4.20	-165.15	-243.37	-6.00	247.13	238.54	8.59	28.754		
800.00	799.84	763.56	762.62	4.62	4.47	-164.90	-256.36	-8.25	265.85	256.68	9.17	28.993		
900.00	899.45	861.04	859.12	4.94	4.79	-164.83	-269.95	-10.61	288.13	278.35	9.78	29.464		
1,000.00	998.80	957.90	955.01	5.28	5.12	-164.96	-283.45	-12.96	312.96	302.54	10.42	30.027		
1,100.00	1,098.12	1,054.72	1,050.85	5.63	5.47	-165.12	-296.94	-15.30	337.98	326.89	11.09	30.476		
1,200.00	1,197.44	1,151.53	1,146.69	6.00	5.84	-165.25	-310.44	-17.64	363.01	351.22	11.78	30.803		
1,300.00	1,296.77	1,248.35	1,242.53	6.37	6.22	-165.37	-323.94	-19.99	388.03	375.53	12.50	31.035		
1,400.00	1,396.09	1,345.16	1,338.38	6.76	6.61	-165.47	-337.43	-22.33	413.06	399.81	13.24	31.196		
1,500.00	1,495.41	1,441.98	1,434.22	7.15	7.01	-165.56	-350.93	-24.67	438.08	424.09	13.99	31.303		
1,600.00	1,594.74	1,538.79	1,530.06	7.55	7.41	-165.65	-364.42	-27.01	463.11	448.35	14.76	31.370		
1,700.00	1,694.06	1,635.61	1,625.90	7.96	7.82	-165.72	-377.92	-29.36	488.14	472.59	15.54	31.407		
1,800.00	1,793.38	1,732.43	1,721.74	8.37	8.24	-165.78	-391.41	-31.70	513.17	496.83	16.33	31.420		
1,900.00	1,892.71	1,829.24	1,817.58	8.78	8.66	-165.84	-404.91	-34.04	538.19	521.06	17.13	31.416		
2,000.00	1,992.03	1,926.06	1,913.43	9.20	9.08	-165.90	-418.41	-36.39	563.22	545.29	17.94	31.400		
2,100.00	2,091.36	2,022.87	2,009.27	9.62	9.51	-165.95	-431.90	-38.73	588.25	569.50	18.75	31.374		
2,200.00	2,190.68	2,119.69	2,105.11	10.05	9.94	-165.99	-445.40	-41.07	613.29	593.72	19.57	31.340		
2,300.00	2,290.00	2,216.50	2,200.95	10.48	10.38	-166.04	-458.89	-43.42	638.32	617.92	20.39	31.302		
2,400.00	2,389.33	2,313.32	2,296.79	10.90	10.81	-166.08	-472.39	-45.76	663.35	642.13	21.22	31.260		
2,500.00	2,488.65	2,410.13	2,392.63	11.34	11.25	-166.11	-485.88	-48.10	688.38	666.33	22.05	31.216		
2,600.00	2,587.97	2,506.95	2,488.48	11.77	11.69	-166.15	-499.38	-50.44	713.41	690.52	22.89	31.170		
2,700.00	2,687.30	2,603.77	2,584.32	12.20	12.13	-166.18	-512.88	-52.79	738.44	714.72	23.73	31.123		
2,800.00	2,786.62	2,700.58	2,680.16	12.64	12.57	-166.21	-526.37	-55.13	763.47	738.91	24.57	31.076		
2,900.00	2,885.94	2,802.60	2,776.00	13.07	13.04	-166.23	-539.87	-57.47	788.51	763.07	25.44	31.000		
3,000.00	2,985.27	2,905.79	2,871.84	13.51	13.51	-166.26	-553.36	-59.82	813.54	787.23	26.31	30.921		
3,100.00	3,084.59	3,008.97	2,967.68	13.95	13.99	-166.28	-566.86	-62.16	838.57	811.39	27.19	30.845		
3,200.00	3,183.91	3,087.84	3,063.53	14.39	14.35	-166.31	-580.36	-64.50	863.60	835.65	27.96	30.889		
3,300.00	3,283.24	3,184.66	3,159.37	14.83	14.80	-166.33	-593.85	-66.85	888.64	859.83	28.81	30.844		
3,400.00	3,382.56	3,281.47	3,255.21	15.27	15.24	-166.35	-607.35	-69.19	913.67	884.01	29.66	30.801		
3,500.00	3,481.88	3,378.29	3,351.05	15.71	15.69	-166.37	-620.84	-71.53	938.70	908.18	30.52	30.758		
3,600.00	3,581.21	3,475.11	3,446.89	16.16	16.14	-166.39	-634.34	-73.87	963.74	932.36	31.38	30.716		
3,700.00	3,680.53	3,571.92	3,542.73	16.60	16.59	-166.40	-647.83	-76.22	988.77	956.54	32.23	30.675		
3,800.00	3,779.85	3,668.74	3,638.58	17.04	17.04	-166.42	-661.33	-78.56	1,013.80	980.71	33.09	30.635		
3,900.00	3,879.18	3,765.55	3,734.42	17.49	17.49	-166.44	-674.83	-80.90	1,038.84	1,004.88	33.95	30.596		
4,000.00	3,978.50	3,862.37	3,830.26	17.93	17.94	-166.45	-688.32	-83.25	1,063.87	1,029.06	34.81	30.559		
4,100.00	4,077.82	3,959.18	3,926.10	18.37	18.39	-166.47	-701.82	-85.59	1,088.90	1,053.23	35.68	30.522		
4,200.00	4,177.15	4,056.00	4,021.94	18.82	18.85	-166.48	-715.31	-87.93	1,113.94	1,077.40	36.54	30.486		
4,300.00	4,276.47	4,152.81	4,117.78	19.27	19.30	-166.49	-728.81	-90.28	1,138.97	1,101.57	37.40	30.452		
4,400.00	4,375.79	4,249.63	4,213.63	19.71	19.75	-166.50	-742.30	-92.62	1,164.00	1,125.74	38.27	30.418		
4,500.00	4,475.12	4,346.45	4,309.47	20.16	20.21	-166.52	-755.80	-94.96	1,189.04	1,149.91	39.13	30.385		
4,600.00	4,574.44	4,443.26	4,405.31	20.60	20.66	-166.53	-769.30	-97.30	1,214.07	1,174.07	40.00	30.354		
4,700.00	4,673.76	4,540.08	4,501.15	21.05	21.11	-166.54	-782.79	-99.65	1,239.11	1,198.24	40.86	30.323		
4,800.00	4,773.09	4,636.89	4,596.99	21.50	21.57	-166.55	-796.29	-101.99	1,264.14	1,222.41	41.73	30.293		
4,900.00	4,872.41	4,733.71	4,692.83	21.94	22.02	-166.56	-809.78	-104.33	1,289.17	1,246.58	42.60	30.263		
5,000.00	4,971.74	4,830.52	4,788.68	22.39	22.47	-166.57	-823.28	-106.68	1,314.21	1,270.74	43.47	30.235		
5,100.00	5,071.06	4,927.34	4,884.52	22.84	22.93	-166.58	-836.77	-109.02	1,339.24	1,294.91	44.33	30.207		

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 4N-16A-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 4N-16A-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	5,170.38	5,024.15	4,980.36	23.29	23.38	-166.59	-850.27	-111.36	1,364.28	1,319.07	45.20	30.181		
5,300.00	5,269.71	5,120.97	5,076.20	23.74	23.84	-166.60	-863.77	-113.71	1,389.31	1,343.24	46.07	30.155		
5,400.00	5,369.03	5,217.79	5,172.04	24.18	24.29	-166.61	-877.26	-116.05	1,414.34	1,367.40	46.94	30.129		
5,500.00	5,468.35	5,314.60	5,267.89	24.63	24.75	-166.61	-890.76	-118.39	1,439.38	1,391.57	47.81	30.104		
5,600.00	5,567.68	5,411.42	5,363.73	25.08	25.20	-166.62	-904.25	-120.73	1,464.41	1,415.73	48.68	30.080		
5,700.00	5,667.00	5,508.23	5,459.57	25.53	25.66	-166.63	-917.75	-123.08	1,489.45	1,439.89	49.55	30.057		
5,800.00	5,766.32	5,605.05	5,555.41	25.98	26.12	-166.64	-931.24	-125.42	1,514.48	1,464.05	50.43	30.034		
5,900.00	5,865.65	5,701.86	5,651.25	26.43	26.57	-166.64	-944.74	-127.76	1,539.51	1,488.22	51.30	30.012		
6,000.00	5,964.97	5,801.32	5,747.09	26.88	27.04	-166.65	-958.24	-130.11	1,564.55	1,512.37	52.18	29.983		
6,100.00	6,064.29	5,904.51	5,842.94	27.33	27.53	-166.66	-971.73	-132.45	1,589.58	1,536.50	53.08	29.946		
6,200.00	6,163.62	6,007.69	5,938.78	27.78	28.01	-166.66	-985.23	-134.79	1,614.62	1,560.63	53.98	29.909		
6,300.00	6,262.94	6,089.13	6,034.62	28.23	28.40	-166.67	-998.72	-137.14	1,639.65	1,584.87	54.79	29.928		
6,400.00	6,362.24	6,185.93	6,130.45	28.67	28.85	-147.76	-1,012.22	-139.48	1,664.68	1,609.02	55.66	29.908		
6,500.00	6,460.41	6,281.93	6,225.49	29.12	29.31	-114.07	-1,025.60	-141.80	1,689.48	1,632.95	56.53	29.884		
6,600.00	6,555.09	6,374.91	6,317.53	29.57	29.75	-102.75	-1,038.56	-144.05	1,713.80	1,656.40	57.40	29.860		
6,700.00	6,643.94	6,462.58	6,404.32	30.00	30.16	-97.37	-1,050.78	-146.17	1,737.72	1,679.48	58.24	29.838		
6,800.00	6,724.78	6,551.65	6,492.43	30.45	30.58	-94.40	-1,063.20	-149.67	1,761.56	1,702.41	59.15	29.784		
6,900.00	6,795.62	6,659.92	6,597.87	30.97	31.08	-92.83	-1,078.19	-168.40	1,784.75	1,724.46	60.28	29.606		
7,000.00	6,854.70	6,785.85	6,714.42	31.60	31.62	-92.14	-1,094.96	-212.46	1,806.44	1,744.83	61.61	29.320		
7,100.00	6,900.58	6,836.58	6,839.26	32.39	32.20	-92.15	-1,113.22	-294.28	1,825.58	1,762.43	63.15	28.908		
7,200.00	6,932.13	7,119.65	6,960.02	33.34	32.85	-92.69	-1,131.37	-429.83	1,840.67	1,775.63	65.04	28.299		
7,300.00	6,948.57	7,336.98	7,046.88	34.46	34.05	-93.34	-1,145.30	-627.41	1,849.81	1,782.08	67.73	27.311		
7,400.00	6,950.87	7,529.26	7,065.87	35.70	36.05	-93.56	-1,149.62	-818.06	1,851.70	1,780.63	71.07	26.053		
7,500.00	6,950.58	7,629.26	7,065.48	37.12	37.37	-93.56	-1,150.43	-918.06	1,851.77	1,777.92	73.85	25.074		
7,600.00	6,950.28	7,729.26	7,065.08	38.70	38.86	-93.55	-1,151.25	-1,018.06	1,851.84	1,774.88	76.95	24.064		
7,700.00	6,949.98	7,829.26	7,064.69	40.41	40.51	-93.55	-1,152.06	-1,118.05	1,851.91	1,771.56	80.34	23.050		
7,800.00	6,949.68	7,929.26	7,064.30	42.25	42.30	-93.55	-1,152.87	-1,218.05	1,851.98	1,767.99	83.98	22.052		
7,900.00	6,949.38	8,029.26	7,063.90	44.20	44.19	-93.55	-1,153.68	-1,318.04	1,852.04	1,764.20	87.84	21.083		
8,000.00	6,949.08	8,129.26	7,063.51	46.24	46.19	-93.54	-1,154.49	-1,418.04	1,852.11	1,760.21	91.90	20.154		
8,100.00	6,948.79	8,229.26	7,063.12	48.36	48.27	-93.54	-1,155.30	-1,518.03	1,852.18	1,756.06	96.12	19.270		
8,200.00	6,948.49	8,329.26	7,062.72	50.56	50.44	-93.54	-1,156.12	-1,618.03	1,852.25	1,751.76	100.49	18.433		
8,300.00	6,948.19	8,429.26	7,062.33	52.82	52.66	-93.53	-1,156.93	-1,718.03	1,852.31	1,747.33	104.98	17.644		
8,400.00	6,947.89	8,529.26	7,061.94	55.14	54.95	-93.53	-1,157.74	-1,818.02	1,852.38	1,742.79	109.59	16.902		
8,500.00	6,947.59	8,629.26	7,061.54	57.50	57.29	-93.53	-1,158.55	-1,918.02	1,852.45	1,738.15	114.30	16.206		
8,600.00	6,947.29	8,729.26	7,061.15	59.91	59.67	-93.52	-1,159.36	-2,018.01	1,852.52	1,733.42	119.10	15.554		
8,700.00	6,947.00	8,829.26	7,060.76	62.36	62.10	-93.52	-1,160.17	-2,118.01	1,852.59	1,728.61	123.98	14.943		
8,800.00	6,946.70	8,929.26	7,060.36	64.84	64.56	-93.52	-1,160.99	-2,218.01	1,852.65	1,723.74	128.92	14.371		
8,900.00	6,946.40	9,029.26	7,059.97	67.35	67.05	-93.51	-1,161.80	-2,318.00	1,852.72	1,718.80	133.92	13.834		
9,000.00	6,946.10	9,129.26	7,059.58	69.88	69.57	-93.51	-1,162.61	-2,418.00	1,852.79	1,713.81	138.98	13.331		
9,100.00	6,945.80	9,229.26	7,059.18	72.44	72.12	-93.51	-1,163.42	-2,517.99	1,852.86	1,708.77	144.09	12.859		
9,200.00	6,945.50	9,329.26	7,058.79	75.02	74.68	-93.51	-1,164.23	-2,617.99	1,852.93	1,703.69	149.24	12.416		
9,300.00	6,945.21	9,429.26	7,058.40	77.63	77.27	-93.50	-1,165.05	-2,717.98	1,853.00	1,698.57	154.43	11.999		
9,400.00	6,944.91	9,529.26	7,058.01	80.24	79.88	-93.50	-1,165.86	-2,817.98	1,853.06	1,693.41	159.65	11.607		
9,500.00	6,944.61	9,629.26	7,057.61	82.88	82.50	-93.50	-1,166.67	-2,917.98	1,853.13	1,688.22	164.91	11.237		
9,600.00	6,944.31	9,729.26	7,057.22	85.53	85.14	-93.49	-1,167.48	-3,017.97	1,853.20	1,683.00	170.20	10.889		
9,700.00	6,944.01	9,829.26	7,056.83	88.19	87.79	-93.49	-1,168.29	-3,117.97	1,853.27	1,677.76	175.51	10.559		
9,800.00	6,943.71	9,929.26	7,056.43	90.86	90.46	-93.49	-1,169.10	-3,217.96	1,853.34	1,672.49	180.85	10.248		
9,900.00	6,943.42	10,029.26	7,056.04	93.55	93.13	-93.48	-1,169.92	-3,317.96	1,853.40	1,667.20	186.20	9.954		
10,000.00	6,943.12	10,129.26	7,055.65	96.24	95.82	-93.48	-1,170.73	-3,417.96	1,853.47	1,661.89	191.58	9.674		
10,100.00	6,942.82	10,229.26	7,055.25	98.95	98.52	-93.48	-1,171.54	-3,517.95	1,853.54	1,656.56	196.98	9.410		
10,200.00	6,942.52	10,329.26	7,054.86	101.66	101.22	-93.47	-1,172.35	-3,617.95	1,853.61	1,651.21	202.40	9.158		
10,300.00	6,942.22	10,429.26	7,054.47	104.38	103.94	-93.47	-1,173.16	-3,717.94	1,853.68	1,645.85	207.83	8.919		

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 4N-16A-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 4N-16A-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	6,941.92	10,529.26	7,054.07	107.11	106.66	-93.47	-1,173.97	-3,817.94	1,853.74	1,640.47	213.27	8.692		
10,500.00	6,941.63	10,629.26	7,053.68	109.84	109.39	-93.47	-1,174.79	-3,917.94	1,853.81	1,635.08	218.73	8.475		
10,600.00	6,941.33	10,729.26	7,053.29	112.58	112.12	-93.46	-1,175.60	-4,017.93	1,853.88	1,629.68	224.20	8.269		
10,700.00	6,941.03	10,829.26	7,052.89	115.33	114.86	-93.46	-1,176.41	-4,117.93	1,853.95	1,624.26	229.69	8.072		
10,800.00	6,940.73	10,929.26	7,052.50	118.08	117.61	-93.46	-1,177.22	-4,217.92	1,854.02	1,618.84	235.18	7.883		
10,900.00	6,940.43	11,029.26	7,052.11	120.84	120.36	-93.45	-1,178.03	-4,317.92	1,854.08	1,613.40	240.68	7.703		
11,000.00	6,940.13	11,129.26	7,051.71	123.60	123.12	-93.45	-1,178.84	-4,417.91	1,854.15	1,607.96	246.20	7.531		
11,100.00	6,939.83	11,229.26	7,051.32	126.36	125.88	-93.45	-1,179.66	-4,517.91	1,854.22	1,602.50	251.72	7.366		
11,200.00	6,939.54	11,329.26	7,050.93	129.13	128.64	-93.44	-1,180.47	-4,617.91	1,854.29	1,597.04	257.25	7.208		
11,300.00	6,939.24	11,429.26	7,050.54	131.91	131.41	-93.44	-1,181.28	-4,717.90	1,854.36	1,591.57	262.79	7.057		
11,400.00	6,938.94	11,529.26	7,050.14	134.68	134.19	-93.44	-1,182.09	-4,817.90	1,854.43	1,586.09	268.33	6.911		
11,500.00	6,938.64	11,629.26	7,049.75	137.46	136.96	-93.43	-1,182.90	-4,917.89	1,854.49	1,580.61	273.88	6.771		
11,600.00	6,938.34	11,729.26	7,049.36	140.25	139.74	-93.43	-1,183.71	-5,017.89	1,854.56	1,575.12	279.44	6.637		
11,700.00	6,938.04	11,829.26	7,048.96	143.03	142.52	-93.43	-1,184.53	-5,117.89	1,854.63	1,569.63	285.00	6.507		
11,800.00	6,937.75	11,929.26	7,048.57	145.82	145.31	-93.43	-1,185.34	-5,217.88	1,854.70	1,564.12	290.57	6.383		
11,900.00	6,937.45	12,029.26	7,048.18	148.61	148.10	-93.42	-1,186.15	-5,317.88	1,854.77	1,558.62	296.15	6.263		
12,000.00	6,937.15	12,129.26	7,047.78	151.41	150.89	-93.42	-1,186.96	-5,417.87	1,854.83	1,553.11	301.73	6.147		
12,100.00	6,936.85	12,229.26	7,047.39	154.20	153.68	-93.42	-1,187.77	-5,517.87	1,854.90	1,547.59	307.31	6.036		
12,200.00	6,936.55	12,329.26	7,047.00	157.00	156.48	-93.41	-1,188.59	-5,617.86	1,854.97	1,542.07	312.90	5.928		
12,300.00	6,936.25	12,429.26	7,046.60	159.80	159.28	-93.41	-1,189.40	-5,717.86	1,855.04	1,536.54	318.50	5.824		
12,400.00	6,935.96	12,529.26	7,046.21	162.61	162.08	-93.41	-1,190.21	-5,817.86	1,855.11	1,531.01	324.09	5.724		
12,500.00	6,935.66	12,629.26	7,045.82	165.41	164.88	-93.40	-1,191.02	-5,917.85	1,855.18	1,525.48	329.70	5.627		
12,600.00	6,935.36	12,729.26	7,045.42	168.22	167.68	-93.40	-1,191.83	-6,017.85	1,855.24	1,519.94	335.30	5.533		
12,700.00	6,935.06	12,829.26	7,045.03	171.02	170.49	-93.40	-1,192.64	-6,117.84	1,855.31	1,514.40	340.91	5.442		
12,800.00	6,934.76	12,929.26	7,044.64	173.83	173.30	-93.39	-1,193.46	-6,217.84	1,855.38	1,508.86	346.52	5.354		
12,900.00	6,934.46	13,029.26	7,044.24	176.65	176.11	-93.39	-1,194.27	-6,317.84	1,855.45	1,503.31	352.14	5.269		
13,000.00	6,934.17	13,129.26	7,043.85	179.46	178.92	-93.39	-1,195.08	-6,417.83	1,855.52	1,497.76	357.76	5.187		
13,100.00	6,933.87	13,229.26	7,043.46	182.27	181.73	-93.39	-1,195.89	-6,517.83	1,855.58	1,492.21	363.38	5.107		
13,200.00	6,933.57	13,329.26	7,043.07	185.09	184.54	-93.38	-1,196.70	-6,617.82	1,855.65	1,486.65	369.00	5.029		
13,300.00	6,933.27	13,429.26	7,042.67	187.91	187.36	-93.38	-1,197.51	-6,717.82	1,855.72	1,481.09	374.63	4.954		
13,400.00	6,932.97	13,529.26	7,042.28	190.72	190.17	-93.38	-1,198.33	-6,817.82	1,855.79	1,475.53	380.26	4.880		
13,500.00	6,932.67	13,629.26	7,041.89	193.54	192.99	-93.37	-1,199.14	-6,917.81	1,855.86	1,469.97	385.89	4.809		
13,600.00	6,932.38	13,729.26	7,041.49	196.36	195.81	-93.37	-1,199.95	-7,017.81	1,855.93	1,464.40	391.52	4.740		
13,700.00	6,932.08	13,829.26	7,041.10	199.19	198.63	-93.37	-1,200.76	-7,117.80	1,855.99	1,458.84	397.16	4.673		
13,800.00	6,931.78	13,929.26	7,040.71	202.01	201.45	-93.36	-1,201.57	-7,217.80	1,856.06	1,453.27	402.79	4.608		
13,900.00	6,931.48	14,029.26	7,040.31	204.83	204.27	-93.36	-1,202.38	-7,317.79	1,856.13	1,447.70	408.43	4.544		
14,000.00	6,931.18	14,129.26	7,039.92	207.66	207.10	-93.36	-1,203.20	-7,417.79	1,856.20	1,442.12	414.08	4.483		
14,100.00	6,930.88	14,229.26	7,039.53	210.48	209.92	-93.36	-1,204.01	-7,517.79	1,856.27	1,436.55	419.72	4.423		
14,200.00	6,930.59	14,329.26	7,039.13	213.31	212.74	-93.35	-1,204.82	-7,617.78	1,856.34	1,430.97	425.37	4.364		
14,300.00	6,930.29	14,429.26	7,038.74	216.14	215.57	-93.35	-1,205.63	-7,717.78	1,856.40	1,425.39	431.01	4.307		
14,400.00	6,929.99	14,529.26	7,038.35	218.96	218.40	-93.35	-1,206.44	-7,817.77	1,856.47	1,419.81	436.66	4.252		
14,500.00	6,929.69	14,629.26	7,037.95	221.79	221.22	-93.34	-1,207.25	-7,917.77	1,856.54	1,414.23	442.31	4.197		
14,600.00	6,929.39	14,729.26	7,037.56	224.62	224.05	-93.34	-1,208.07	-8,017.77	1,856.61	1,408.64	447.97	4.145		
14,700.00	6,929.09	14,829.26	7,037.17	227.45	226.88	-93.34	-1,208.88	-8,117.76	1,856.68	1,403.06	453.62	4.093		
14,732.12	6,929.00	14,861.38	7,037.04	228.36	227.79	-93.34	-1,209.14	-8,149.88	1,856.70	1,401.26	455.43	4.077 SF		



Anticollision Report



Company:	SRC ENERGY	Local Co-ordinate Reference:	Well HARVESTERS STATE 4N-16A-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 4N-16A-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	-179.54	-139.89	-1.11	139.89					
100.00	100.00	100.00	100.00	3.28	3.28	-179.54	-139.89	-1.11	139.89	133.32	6.57	21.294		
200.00	200.00	200.00	200.00	3.34	3.34	-179.54	-139.89	-1.11	139.89	133.22	6.67	20.960		
300.00	300.00	300.00	300.00	3.44	3.44	-179.54	-139.89	-1.11	139.89	133.00	6.89	20.304		
400.00	400.00	400.00	400.00	3.60	3.60	-179.54	-139.89	-1.11	139.89	132.68	7.21	19.411		
500.00	500.00	500.00	500.00	3.81	3.81	-179.54	-139.89	-1.11	139.89	132.28	7.61	18.378		
508.33	508.33	508.33	508.33	3.82	3.82	-179.54	-139.89	-1.11	139.89	132.24	7.65	18.288 CC		
600.00	600.00	599.09	599.09	4.05	4.04	-179.54	-139.95	-1.13	139.95	131.87	8.09	17.304 ES		
700.00	699.98	694.40	694.37	4.32	4.28	-166.01	-142.11	-1.63	143.92	135.32	8.60	16.729		
800.00	799.84	789.03	788.85	4.62	4.54	-165.97	-147.31	-2.85	154.49	145.31	9.18	16.835		
900.00	899.45	882.38	881.82	4.94	4.82	-165.94	-155.41	-4.74	171.58	161.79	9.79	17.527		
1,000.00	998.80	979.05	977.90	5.28	5.13	-166.01	-165.80	-7.17	193.31	182.88	10.43	18.533		
1,100.00	1,098.12	1,076.61	1,074.86	5.63	5.46	-166.10	-176.34	-9.63	215.26	204.16	11.09	19.403		
1,200.00	1,197.44	1,174.17	1,171.82	6.00	5.81	-166.18	-186.87	-12.09	237.21	225.42	11.79	20.125		
1,300.00	1,296.77	1,271.73	1,268.78	6.37	6.17	-166.24	-197.40	-14.55	259.16	246.66	12.50	20.727		
1,400.00	1,396.09	1,369.29	1,365.74	6.76	6.54	-166.29	-207.93	-17.01	281.12	267.88	13.24	21.233		
1,500.00	1,495.41	1,466.85	1,462.69	7.15	6.93	-166.34	-218.47	-19.47	303.07	289.08	13.99	21.660		
1,600.00	1,594.74	1,564.41	1,559.65	7.55	7.32	-166.38	-229.00	-21.94	325.02	310.26	14.76	22.022		
1,700.00	1,694.06	1,661.97	1,656.61	7.96	7.71	-166.41	-239.53	-24.40	346.98	331.44	15.54	22.331		
1,800.00	1,793.38	1,759.53	1,753.57	8.37	8.12	-166.44	-250.06	-26.86	368.93	352.60	16.33	22.596		
1,900.00	1,892.71	1,857.10	1,850.53	8.78	8.53	-166.47	-260.60	-29.32	390.88	373.76	17.12	22.826		
2,000.00	1,992.03	1,954.66	1,947.49	9.20	8.94	-166.49	-271.13	-31.78	412.84	394.91	17.93	23.025		
2,100.00	2,091.36	2,052.22	2,044.45	9.62	9.35	-166.52	-281.66	-34.24	434.79	416.05	18.74	23.198		
2,200.00	2,190.68	2,149.78	2,141.41	10.05	9.77	-166.54	-292.19	-36.70	456.75	437.19	19.56	23.351		
2,300.00	2,290.00	2,247.34	2,238.37	10.48	10.19	-166.55	-302.72	-39.16	478.70	458.32	20.38	23.485		
2,400.00	2,389.33	2,344.90	2,335.32	10.90	10.62	-166.57	-313.26	-41.63	500.66	479.44	21.21	23.603		
2,500.00	2,488.65	2,442.46	2,432.28	11.34	11.04	-166.58	-323.79	-44.09	522.61	500.57	22.04	23.709		
2,600.00	2,587.97	2,540.02	2,529.24	11.77	11.47	-166.60	-334.32	-46.55	544.56	521.69	22.88	23.803		
2,700.00	2,687.30	2,637.58	2,626.20	12.20	11.90	-166.61	-344.85	-49.01	566.52	542.80	23.72	23.887		
2,800.00	2,786.62	2,735.14	2,723.16	12.64	12.33	-166.62	-355.39	-51.47	588.47	563.91	24.56	23.962		
2,900.00	2,885.94	2,832.70	2,820.12	13.07	12.76	-166.63	-365.92	-53.93	610.43	585.02	25.40	24.031		
3,000.00	2,985.27	2,930.26	2,917.08	13.51	13.20	-166.64	-376.45	-56.39	632.38	606.13	26.25	24.092		
3,100.00	3,084.59	3,027.82	3,014.04	13.95	13.63	-166.65	-386.98	-58.85	654.34	627.24	27.10	24.148		
3,200.00	3,183.91	3,125.38	3,110.99	14.39	14.07	-166.66	-397.52	-61.31	676.29	648.34	27.95	24.199		
3,300.00	3,283.24	3,222.94	3,207.95	14.83	14.50	-166.67	-408.05	-63.78	698.24	669.44	28.80	24.245		
3,400.00	3,382.56	3,320.50	3,304.91	15.27	14.94	-166.68	-418.58	-66.24	720.20	690.54	29.65	24.287		
3,500.00	3,481.88	3,418.06	3,401.87	15.71	15.38	-166.68	-429.11	-68.70	742.15	711.64	30.51	24.326		
3,600.00	3,581.21	3,515.62	3,498.83	16.16	15.82	-166.69	-439.64	-71.16	764.11	732.74	31.36	24.362		
3,700.00	3,680.53	3,613.18	3,595.79	16.60	16.26	-166.70	-450.18	-73.62	786.06	753.84	32.22	24.395		
3,800.00	3,779.85	3,710.74	3,692.75	17.04	16.70	-166.70	-460.71	-76.08	808.02	774.93	33.08	24.425		
3,900.00	3,879.18	3,808.30	3,789.71	17.49	17.14	-166.71	-471.24	-78.54	829.97	796.03	33.94	24.453		
4,000.00	3,978.50	3,905.86	3,886.67	17.93	17.58	-166.71	-481.77	-81.00	851.92	817.12	34.80	24.479		
4,100.00	4,077.82	4,003.42	3,983.62	18.37	18.02	-166.72	-492.31	-83.46	873.88	838.21	35.66	24.503		
4,200.00	4,177.15	4,100.98	4,080.58	18.82	18.47	-166.72	-502.84	-85.93	895.83	859.31	36.53	24.525		
4,300.00	4,276.47	4,198.54	4,177.54	19.27	18.91	-166.73	-513.37	-88.39	917.79	880.40	37.39	24.545		
4,400.00	4,375.79	4,303.90	4,274.50	19.71	19.39	-166.73	-523.90	-90.85	939.74	901.45	38.29	24.543		
4,500.00	4,475.12	4,406.34	4,371.46	20.16	19.85	-166.74	-534.44	-93.31	961.70	922.52	39.18	24.548		
4,600.00	4,574.44	4,491.22	4,468.42	20.60	20.24	-166.74	-544.97	-95.77	983.65	943.66	39.99	24.600		
4,700.00	4,673.76	4,588.78	4,565.38	21.05	20.69	-166.75	-555.50	-98.23	1,005.61	964.75	40.85	24.615		
4,800.00	4,773.09	4,686.34	4,662.34	21.50	21.13	-166.75	-566.03	-100.69	1,027.56	985.84	41.72	24.630		
4,900.00	4,872.41	4,783.90	4,759.29	21.94	21.57	-166.75	-576.56	-103.15	1,049.51	1,006.93	42.59	24.644		
5,000.00	4,971.74	4,881.46	4,856.25	22.39	22.02	-166.76	-587.10	-105.61	1,071.47	1,028.01	43.46	24.657		

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 4N-16A-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 4N-16A-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	5,071.06	4,979.02	4,953.21	22.84	22.46	-166.76	-597.63	-108.08	1,093.42	1,049.10	44.32	24.669		
5,200.00	5,170.38	5,076.58	5,050.17	23.29	22.91	-166.76	-608.16	-110.54	1,115.38	1,070.19	45.19	24.681		
5,300.00	5,269.71	5,174.14	5,147.13	23.74	23.36	-166.77	-618.69	-113.00	1,137.33	1,091.27	46.06	24.691		
5,400.00	5,369.03	5,271.70	5,244.09	24.18	23.80	-166.77	-629.23	-115.46	1,159.29	1,112.36	46.93	24.702		
5,500.00	5,468.35	5,369.26	5,341.05	24.63	24.25	-166.77	-639.76	-117.92	1,181.24	1,133.44	47.80	24.711		
5,600.00	5,567.68	5,466.82	5,438.01	25.08	24.69	-166.77	-650.29	-120.38	1,203.20	1,154.52	48.67	24.720		
5,700.00	5,667.00	5,564.38	5,534.96	25.53	25.14	-166.78	-660.82	-122.84	1,225.15	1,175.61	49.54	24.729		
5,800.00	5,766.32	5,661.94	5,631.92	25.98	25.59	-166.78	-671.36	-125.30	1,247.11	1,196.69	50.41	24.737		
5,900.00	5,865.65	5,759.50	5,728.88	26.43	26.03	-166.78	-681.89	-127.77	1,269.06	1,217.77	51.29	24.745		
6,000.00	5,964.97	5,857.06	5,825.84	26.88	26.48	-166.78	-692.42	-130.23	1,291.01	1,238.86	52.16	24.752		
6,100.00	6,064.29	5,954.62	5,922.80	27.33	26.93	-166.79	-702.95	-132.69	1,312.97	1,259.94	53.03	24.759		
6,200.00	6,163.62	6,052.18	6,019.76	27.78	27.38	-166.79	-713.48	-135.15	1,334.92	1,281.02	53.90	24.765		
6,300.00	6,262.94	6,149.74	6,116.72	28.23	27.82	-166.79	-724.02	-137.61	1,356.88	1,302.10	54.78	24.771		
6,400.00	6,362.24	6,247.30	6,213.67	28.67	28.27	-147.97	-734.55	-140.07	1,378.83	1,323.18	55.65	24.777		
6,500.00	6,460.41	6,344.04	6,309.82	29.12	28.71	-114.65	-744.99	-142.51	1,400.61	1,344.09	56.52	24.780		
6,600.00	6,555.09	6,437.75	6,402.95	29.57	29.14	-103.78	-755.11	-144.88	1,422.10	1,364.72	57.38	24.782		
6,700.00	6,643.94	6,526.13	6,490.78	30.00	29.55	-98.87	-764.65	-147.10	1,443.61	1,385.39	58.23	24.793		
6,800.00	6,724.78	6,622.61	6,586.40	30.45	29.99	-96.48	-775.07	-153.66	1,465.47	1,406.28	59.19	24.758		
6,900.00	6,795.62	6,734.96	6,695.06	30.97	30.49	-95.35	-787.06	-178.94	1,486.90	1,426.56	60.34	24.643		
7,000.00	6,854.70	6,864.04	6,812.15	31.60	31.03	-95.02	-800.18	-231.13	1,507.07	1,445.43	61.64	24.451		
7,100.00	6,900.58	7,015.20	6,932.59	32.39	31.60	-95.28	-813.98	-320.83	1,524.85	1,461.74	63.11	24.162		
7,200.00	6,932.13	7,192.84	7,042.54	33.34	32.32	-95.90	-827.04	-459.01	1,538.75	1,473.82	64.92	23.701		
7,300.00	6,948.57	7,395.96	7,116.29	34.46	33.80	-96.50	-836.59	-647.10	1,546.98	1,479.46	67.52	22.911		
7,400.00	6,950.87	7,571.39	7,130.84	35.70	35.77	-96.67	-839.60	-821.44	1,548.59	1,477.89	70.70	21.903		
7,500.00	6,950.58	7,671.39	7,130.41	37.12	37.14	-96.67	-840.38	-921.43	1,548.61	1,475.11	73.50	21.071		
7,600.00	6,950.28	7,771.39	7,129.98	38.70	38.67	-96.66	-841.16	-1,021.43	1,548.63	1,472.03	76.60	20.217		
7,700.00	6,949.98	7,871.39	7,129.54	40.41	40.34	-96.66	-841.94	-1,121.43	1,548.66	1,468.66	79.99	19.360		
7,800.00	6,949.68	7,971.39	7,129.11	42.25	42.15	-96.65	-842.71	-1,221.42	1,548.68	1,465.05	83.63	18.518		
7,900.00	6,949.38	8,071.39	7,128.67	44.20	44.06	-96.65	-843.49	-1,321.42	1,548.70	1,461.21	87.49	17.701		
8,000.00	6,949.08	8,171.39	7,128.24	46.24	46.08	-96.64	-844.27	-1,421.41	1,548.73	1,457.19	91.54	16.918		
8,100.00	6,948.79	8,271.39	7,127.81	48.36	48.18	-96.64	-845.04	-1,521.41	1,548.75	1,453.00	95.76	16.174		
8,200.00	6,948.49	8,371.39	7,127.37	50.56	50.35	-96.63	-845.82	-1,621.40	1,548.78	1,448.66	100.12	15.469		
8,300.00	6,948.19	8,471.39	7,126.94	52.82	52.60	-96.63	-846.60	-1,721.40	1,548.80	1,444.19	104.61	14.806		
8,400.00	6,947.89	8,571.39	7,126.50	55.14	54.89	-96.62	-847.38	-1,821.40	1,548.82	1,439.62	109.21	14.182		
8,500.00	6,947.59	8,671.39	7,126.07	57.50	57.24	-96.62	-848.15	-1,921.39	1,548.85	1,434.94	113.91	13.598		
8,600.00	6,947.29	8,771.39	7,125.64	59.91	59.64	-96.61	-848.93	-2,021.39	1,548.87	1,430.18	118.69	13.050		
8,700.00	6,947.00	8,871.39	7,125.20	62.36	62.07	-96.61	-849.71	-2,121.38	1,548.89	1,425.34	123.55	12.536		
8,800.00	6,946.70	8,971.39	7,124.77	64.84	64.54	-96.60	-850.49	-2,221.38	1,548.92	1,420.44	128.48	12.055		
8,900.00	6,946.40	9,071.39	7,124.33	67.35	67.04	-96.60	-851.26	-2,321.38	1,548.94	1,415.47	133.47	11.605		
9,000.00	6,946.10	9,171.39	7,123.90	69.88	69.57	-96.59	-852.04	-2,421.37	1,548.97	1,410.45	138.52	11.183		
9,100.00	6,945.80	9,271.38	7,123.47	72.44	72.12	-96.59	-852.82	-2,521.37	1,548.99	1,405.38	143.61	10.786		
9,200.00	6,945.50	9,371.38	7,123.03	75.02	74.69	-96.58	-853.60	-2,621.36	1,549.01	1,400.27	148.74	10.414		
9,300.00	6,945.21	9,471.38	7,122.60	77.63	77.29	-96.58	-854.37	-2,721.36	1,549.04	1,395.12	153.92	10.064		
9,400.00	6,944.91	9,571.38	7,122.17	80.24	79.90	-96.57	-855.15	-2,821.36	1,549.06	1,389.94	159.12	9.735		
9,500.00	6,944.61	9,671.38	7,121.73	82.88	82.53	-96.57	-855.93	-2,921.35	1,549.08	1,384.72	164.37	9.425		
9,600.00	6,944.31	9,771.38	7,121.30	85.53	85.17	-96.56	-856.71	-3,021.35	1,549.11	1,379.47	169.63	9.132		
9,700.00	6,944.01	9,871.38	7,120.86	88.19	87.83	-96.56	-857.48	-3,121.34	1,549.13	1,374.20	174.93	8.856		
9,800.00	6,943.71	9,971.38	7,120.43	90.86	90.50	-96.55	-858.26	-3,221.34	1,549.16	1,368.91	180.25	8.594		
9,900.00	6,943.42	10,071.38	7,120.00	93.55	93.18	-96.54	-859.04	-3,321.34	1,549.18	1,363.59	185.59	8.347		
10,000.00	6,943.12	10,171.38	7,119.56	96.24	95.87	-96.54	-859.81	-3,421.33	1,549.20	1,358.25	190.95	8.113		
10,100.00	6,942.82	10,271.38	7,119.13	98.95	98.57	-96.53	-860.59	-3,521.33	1,549.23	1,352.90	196.33	7.891		
10,200.00	6,942.52	10,371.38	7,118.69	101.66	101.28	-96.53	-861.37	-3,621.32	1,549.25	1,347.52	201.73	7.680		

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 4N-16A-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 4N-16A-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	6,942.22	10,471.38	7,118.26	104.38	103.99	-96.52	-862.15	-3,721.32	1,549.28	1,342.13	207.14	7.479		
10,400.00	6,941.92	10,571.38	7,117.83	107.11	106.72	-96.52	-862.92	-3,821.32	1,549.30	1,336.73	212.57	7.288		
10,500.00	6,941.63	10,671.38	7,117.39	109.84	109.45	-96.51	-863.70	-3,921.31	1,549.32	1,331.31	218.01	7.107		
10,600.00	6,941.33	10,771.38	7,116.96	112.58	112.19	-96.51	-864.48	-4,021.31	1,549.35	1,325.89	223.46	6.933		
10,700.00	6,941.03	10,871.38	7,116.52	115.33	114.93	-96.50	-865.26	-4,121.30	1,549.37	1,320.45	228.93	6.768		
10,800.00	6,940.73	10,971.38	7,116.09	118.08	117.68	-96.50	-866.03	-4,221.30	1,549.40	1,314.99	234.40	6.610		
10,900.00	6,940.43	11,071.38	7,115.66	120.84	120.43	-96.49	-866.81	-4,321.30	1,549.42	1,309.53	239.89	6.459		
11,000.00	6,940.13	11,171.38	7,115.22	123.60	123.19	-96.49	-867.59	-4,421.29	1,549.44	1,304.06	245.38	6.314		
11,100.00	6,939.83	11,271.38	7,114.79	126.36	125.95	-96.48	-868.37	-4,521.29	1,549.47	1,298.58	250.88	6.176		
11,200.00	6,939.54	11,371.38	7,114.35	129.13	128.72	-96.48	-869.14	-4,621.28	1,549.49	1,293.10	256.39	6.043		
11,300.00	6,939.24	11,471.38	7,113.92	131.91	131.49	-96.47	-869.92	-4,721.28	1,549.52	1,287.60	261.91	5.916		
11,400.00	6,938.94	11,571.38	7,113.49	134.68	134.27	-96.47	-870.70	-4,821.27	1,549.54	1,282.10	267.44	5.794		
11,500.00	6,938.64	11,671.38	7,113.05	137.46	137.05	-96.46	-871.48	-4,921.27	1,549.56	1,276.59	272.97	5.677		
11,600.00	6,938.34	11,771.38	7,112.62	140.25	139.83	-96.46	-872.25	-5,021.27	1,549.59	1,271.08	278.51	5.564		
11,700.00	6,938.04	11,871.38	7,112.19	143.03	142.61	-96.45	-873.03	-5,121.26	1,549.61	1,265.56	284.06	5.455		
11,800.00	6,937.75	11,971.38	7,111.75	145.82	145.40	-96.45	-873.81	-5,221.26	1,549.64	1,260.03	289.61	5.351		
11,900.00	6,937.45	12,071.38	7,111.32	148.61	148.19	-96.44	-874.58	-5,321.25	1,549.66	1,254.50	295.16	5.250		
12,000.00	6,937.15	12,171.38	7,110.88	151.41	150.98	-96.44	-875.36	-5,421.25	1,549.68	1,248.96	300.72	5.153		
12,100.00	6,936.85	12,271.38	7,110.45	154.20	153.78	-96.43	-876.14	-5,521.25	1,549.71	1,243.42	306.29	5.060		
12,200.00	6,936.55	12,371.38	7,110.02	157.00	156.57	-96.43	-876.92	-5,621.24	1,549.73	1,237.87	311.86	4.969		
12,300.00	6,936.25	12,471.38	7,109.58	159.80	159.37	-96.42	-877.69	-5,721.24	1,549.76	1,232.32	317.44	4.882		
12,400.00	6,935.96	12,571.38	7,109.15	162.61	162.17	-96.42	-878.47	-5,821.23	1,549.78	1,226.77	323.02	4.798		
12,500.00	6,935.66	12,671.38	7,108.71	165.41	164.98	-96.41	-879.25	-5,921.23	1,549.81	1,221.21	328.60	4.716		
12,600.00	6,935.36	12,771.38	7,108.28	168.22	167.78	-96.41	-880.03	-6,021.23	1,549.83	1,215.65	334.18	4.638		
12,700.00	6,935.06	12,871.38	7,107.85	171.02	170.59	-96.40	-880.80	-6,121.22	1,549.85	1,210.08	339.77	4.561		
12,800.00	6,934.76	12,971.38	7,107.41	173.83	173.40	-96.40	-881.58	-6,221.22	1,549.88	1,204.51	345.37	4.488		
12,900.00	6,934.46	13,071.38	7,106.98	176.65	176.21	-96.39	-882.36	-6,321.21	1,549.90	1,198.94	350.96	4.416		
13,000.00	6,934.17	13,171.38	7,106.54	179.46	179.02	-96.39	-883.14	-6,421.21	1,549.93	1,193.36	356.56	4.347		
13,100.00	6,933.87	13,271.38	7,106.11	182.27	181.83	-96.38	-883.91	-6,521.21	1,549.95	1,187.78	362.17	4.280		
13,200.00	6,933.57	13,371.38	7,105.68	185.09	184.65	-96.38	-884.69	-6,621.20	1,549.98	1,182.20	367.77	4.214		
13,300.00	6,933.27	13,471.38	7,105.24	187.91	187.47	-96.37	-885.47	-6,721.20	1,550.00	1,176.62	373.38	4.151		
13,400.00	6,932.97	13,571.38	7,104.81	190.72	190.28	-96.36	-886.24	-6,821.19	1,550.02	1,171.03	378.99	4.090		
13,500.00	6,932.67	13,671.38	7,104.37	193.54	193.10	-96.36	-887.02	-6,921.19	1,550.05	1,165.44	384.60	4.030		
13,600.00	6,932.38	13,771.38	7,103.94	196.36	195.92	-96.35	-887.80	-7,021.19	1,550.07	1,159.85	390.22	3.972		
13,700.00	6,932.08	13,871.38	7,103.51	199.19	198.74	-96.35	-888.58	-7,121.18	1,550.10	1,154.26	395.84	3.916		
13,800.00	6,931.78	13,971.38	7,103.07	202.01	201.56	-96.34	-889.35	-7,221.18	1,550.12	1,148.67	401.46	3.861		
13,900.00	6,931.48	14,071.38	7,102.64	204.83	204.39	-96.34	-890.13	-7,321.17	1,550.15	1,143.07	407.08	3.808		
14,000.00	6,931.18	14,171.38	7,102.21	207.66	207.21	-96.33	-890.91	-7,421.17	1,550.17	1,137.47	412.70	3.756		
14,100.00	6,930.88	14,271.38	7,101.77	210.48	210.03	-96.33	-891.69	-7,521.17	1,550.19	1,131.87	418.33	3.706		
14,200.00	6,930.59	14,371.38	7,101.34	213.31	212.86	-96.32	-892.46	-7,621.16	1,550.22	1,126.26	423.96	3.657		
14,300.00	6,930.29	14,471.38	7,100.90	216.14	215.69	-96.32	-893.24	-7,721.16	1,550.24	1,120.66	429.58	3.609		
14,400.00	6,929.99	14,571.38	7,100.47	218.96	218.51	-96.31	-894.02	-7,821.15	1,550.27	1,115.05	435.22	3.562		
14,500.00	6,929.69	14,671.38	7,100.04	221.79	221.34	-96.31	-894.80	-7,921.15	1,550.29	1,109.44	440.85	3.517		
14,600.00	6,929.39	14,771.38	7,099.60	224.62	224.17	-96.30	-895.57	-8,021.14	1,550.32	1,103.84	446.48	3.472		
14,700.00	6,929.09	14,871.38	7,099.17	227.45	227.00	-96.30	-896.35	-8,121.14	1,550.34	1,098.22	452.12	3.429		
14,732.12	6,929.00	14,903.50	7,099.03	228.36	227.91	-96.30	-896.60	-8,153.26	1,550.35	1,096.42	453.93	3.415 SF		



Anticollision Report



Company:	SRC ENERGY	Local Co-ordinate Reference:	Well HARVESTERS STATE 4N-16A-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 4N-16A-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	-179.53	-339.89	-2.78	339.90					
100.00	100.00	101.00	100.00	3.28	3.28	-179.53	-339.89	-2.78	339.90	333.33	6.57	51.738		
200.00	200.00	199.00	200.00	3.34	3.34	-179.53	-339.89	-2.78	339.90	333.23	6.67	50.935 CC, ES		
300.00	300.00	288.49	289.48	3.44	3.43	-179.52	-341.25	-2.89	341.43	334.55	6.88	49.630		
400.00	400.00	377.71	378.60	3.60	3.55	-179.47	-345.38	-3.20	346.06	338.87	7.19	48.148		
500.00	500.00	466.58	467.20	3.81	3.72	-179.39	-352.25	-3.73	353.79	346.21	7.58	46.651		
600.00	600.00	554.94	555.03	4.05	3.92	-179.29	-361.78	-4.46	364.60	356.54	8.05	45.278		
700.00	699.98	642.39	641.63	4.32	4.15	-165.68	-373.88	-5.39	380.11	371.53	8.58	44.303		
800.00	799.84	728.28	726.29	4.62	4.40	-165.60	-388.32	-6.50	401.92	392.77	9.15	43.917		
900.00	899.45	812.14	808.49	4.94	4.68	-165.57	-404.85	-7.77	429.87	420.12	9.75	44.102		
1,000.00	998.80	893.77	888.01	5.28	4.98	-165.67	-423.24	-9.18	463.06	452.71	10.35	44.738		
1,100.00	1,098.12	973.67	965.30	5.63	5.29	-165.78	-443.42	-10.73	499.08	488.13	10.95	45.567		
1,200.00	1,197.44	1,051.83	1,040.33	6.00	5.62	-165.87	-465.23	-12.40	537.65	526.10	11.56	46.518		
1,300.00	1,296.77	1,135.05	1,119.63	6.37	5.99	-165.93	-490.42	-14.33	578.45	566.26	12.19	47.454		
1,400.00	1,396.09	1,226.18	1,206.36	6.76	6.41	-165.98	-518.32	-16.47	619.62	606.74	12.88	48.120		
1,500.00	1,495.41	1,317.32	1,293.09	7.15	6.85	-166.03	-546.22	-18.61	660.79	647.20	13.59	48.637		
1,600.00	1,594.74	1,408.45	1,379.82	7.55	7.30	-166.08	-574.12	-20.75	701.95	687.64	14.31	49.036		
1,700.00	1,694.06	1,499.58	1,466.55	7.96	7.76	-166.12	-602.01	-22.89	743.12	728.06	15.06	49.343		
1,800.00	1,793.38	1,609.29	1,553.28	8.37	8.32	-166.15	-629.91	-25.04	784.29	768.39	15.90	49.317		
1,900.00	1,892.71	1,681.84	1,640.01	8.78	8.70	-166.18	-657.81	-27.18	825.46	808.87	16.59	49.751		
2,000.00	1,992.03	1,772.97	1,726.74	9.20	9.18	-166.21	-685.71	-29.32	866.63	849.25	17.37	49.880		
2,100.00	2,091.36	1,864.11	1,813.47	9.62	9.67	-166.24	-713.61	-31.46	907.80	889.63	18.17	49.973		
2,200.00	2,190.68	1,955.24	1,900.19	10.05	10.16	-166.26	-741.51	-33.60	948.97	930.00	18.97	50.036		
2,300.00	2,290.00	2,046.37	1,986.92	10.48	10.65	-166.28	-769.41	-35.74	990.14	970.36	19.77	50.077		
2,400.00	2,389.33	2,137.50	2,073.65	10.90	11.15	-166.30	-797.31	-37.88	1,031.30	1,010.72	20.59	50.099		
2,500.00	2,488.65	2,228.63	2,160.38	11.34	11.65	-166.32	-825.21	-40.02	1,072.47	1,051.07	21.40	50.107		
2,600.00	2,587.97	2,319.76	2,247.11	11.77	12.15	-166.34	-853.11	-42.16	1,113.64	1,091.42	22.23	50.103		
2,700.00	2,687.30	2,410.90	2,333.84	12.20	12.65	-166.35	-881.01	-44.30	1,154.81	1,131.76	23.05	50.090		
2,800.00	2,786.62	2,502.03	2,420.57	12.64	13.16	-166.37	-908.91	-46.44	1,195.98	1,172.10	23.89	50.070		
2,900.00	2,885.94	2,606.84	2,507.30	13.07	13.74	-166.38	-936.81	-48.58	1,237.15	1,212.36	24.79	49.908		
3,000.00	2,985.27	2,684.29	2,594.03	13.51	14.17	-166.39	-964.71	-50.72	1,278.32	1,252.76	25.56	50.013		
3,100.00	3,084.59	2,775.42	2,680.76	13.95	14.68	-166.41	-992.61	-52.86	1,319.49	1,293.09	26.40	49.979		
3,200.00	3,183.91	2,866.55	2,767.49	14.39	15.19	-166.42	-1,020.51	-55.01	1,360.66	1,333.42	27.24	49.942		
3,300.00	3,283.24	2,957.69	2,854.22	14.83	15.71	-166.43	-1,048.41	-57.15	1,401.83	1,373.74	28.09	49.903		
3,400.00	3,382.56	3,048.82	2,940.95	15.27	16.22	-166.44	-1,076.31	-59.29	1,443.00	1,414.06	28.94	49.862		
3,500.00	3,481.88	3,139.95	3,027.68	15.71	16.73	-166.45	-1,104.21	-61.43	1,484.17	1,454.38	29.79	49.821		
3,600.00	3,581.21	3,231.08	3,114.41	16.16	17.25	-166.46	-1,132.11	-63.57	1,525.34	1,494.70	30.64	49.779		
3,700.00	3,680.53	3,322.21	3,201.14	16.60	17.77	-166.46	-1,160.01	-65.71	1,566.51	1,535.01	31.50	49.736		
3,800.00	3,779.85	3,413.34	3,287.87	17.04	18.28	-166.47	-1,187.91	-67.85	1,607.68	1,575.33	32.35	49.694		
3,900.00	3,879.18	3,504.48	3,374.60	17.49	18.80	-166.48	-1,215.81	-69.99	1,648.85	1,615.64	33.21	49.651		
4,000.00	3,978.50	3,604.39	3,461.33	17.93	19.37	-166.49	-1,243.71	-72.13	1,690.02	1,655.91	34.11	49.544		
4,100.00	4,077.82	3,686.74	3,548.06	18.37	19.84	-166.49	-1,271.61	-74.27	1,731.19	1,696.26	34.93	49.566		
4,200.00	4,177.15	3,777.87	3,634.78	18.82	20.35	-166.50	-1,299.51	-76.41	1,772.36	1,736.57	35.79	49.525		
4,300.00	4,276.47	3,869.00	3,721.51	19.27	20.87	-166.51	-1,327.41	-78.55	1,813.53	1,776.88	36.65	49.483		
4,400.00	4,375.79	3,960.13	3,808.24	19.71	21.39	-166.51	-1,355.31	-80.69	1,854.70	1,817.19	37.51	49.443		
4,500.00	4,475.12	4,051.27	3,894.97	20.16	21.91	-166.52	-1,383.21	-82.84	1,895.87	1,857.50	38.38	49.402		
4,600.00	4,574.44	4,142.40	3,981.70	20.60	22.43	-166.52	-1,411.11	-84.98	1,937.04	1,897.80	39.24	49.363		
4,700.00	4,673.76	4,233.53	4,068.43	21.05	22.95	-166.53	-1,439.01	-87.12	1,978.21	1,938.11	40.11	49.324		
4,800.00	4,773.09	4,324.66	4,155.16	21.50	23.47	-166.54	-1,466.91	-89.26	2,019.38	1,978.41	40.97	49.286		
4,900.00	4,872.41	4,415.79	4,241.89	21.94	24.00	-166.54	-1,494.81	-91.40	2,060.55	2,018.71	41.84	49.248		
5,000.00	4,971.74	4,506.93	4,328.62	22.39	24.52	-166.54	-1,522.71	-93.54	2,101.72	2,059.02	42.71	49.211		
5,100.00	5,071.06	4,598.06	4,415.35	22.84	25.04	-166.55	-1,550.61	-95.68	2,142.89	2,099.32	43.58	49.175		

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 4N-16A-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 4N-16A-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	5,170.38	4,689.19	4,502.08	23.29	25.56	-166.55	-1,578.51	-97.82	2,184.06	2,139.62	44.45	49.140		
5,300.00	5,269.71	4,780.32	4,588.81	23.74	26.08	-166.56	-1,606.41	-99.96	2,225.23	2,179.92	45.32	49.105		
5,400.00	5,369.03	4,871.45	4,675.54	24.18	26.61	-166.56	-1,634.31	-102.10	2,266.40	2,220.22	46.19	49.071		
5,500.00	5,468.35	4,962.58	4,762.27	24.63	27.13	-166.57	-1,662.21	-104.24	2,307.57	2,260.52	47.06	49.037		
5,600.00	5,567.68	5,053.72	4,849.00	25.08	27.65	-166.57	-1,690.11	-106.38	2,348.74	2,300.82	47.93	49.004		
5,700.00	5,667.00	5,144.85	4,935.73	25.53	28.17	-166.57	-1,718.01	-108.52	2,389.92	2,341.11	48.80	48.972		
5,800.00	5,766.32	5,235.98	5,022.46	25.98	28.70	-166.58	-1,745.91	-110.67	2,431.09	2,381.41	49.67	48.941		
5,900.00	5,865.65	5,327.11	5,109.19	26.43	29.22	-166.58	-1,773.81	-112.81	2,472.26	2,421.71	50.55	48.910		
6,000.00	5,964.97	5,418.24	5,195.92	26.88	29.74	-166.58	-1,801.71	-114.95	2,513.43	2,462.01	51.42	48.879		
6,100.00	6,064.29	5,509.37	5,282.65	27.33	30.27	-166.59	-1,829.60	-117.09	2,554.60	2,502.30	52.30	48.849		
6,200.00	6,163.62	5,600.51	5,369.38	27.78	30.79	-166.59	-1,857.50	-119.23	2,595.77	2,542.60	53.17	48.820		
6,300.00	6,262.94	5,708.36	5,456.10	28.23	31.41	-166.59	-1,885.40	-121.37	2,636.94	2,582.81	54.13	48.715		
6,400.00	6,362.24	5,782.76	5,542.83	28.67	31.84	-147.20	-1,913.30	-123.51	2,678.10	2,623.18	54.92	48.763		
6,500.00	6,460.41	5,873.15	5,628.85	29.12	32.36	-111.66	-1,940.97	-125.63	2,718.87	2,663.08	55.80	48.729		
6,600.00	6,555.09	5,960.72	5,712.19	29.57	32.86	-98.41	-1,967.78	-127.69	2,758.50	2,701.84	56.66	48.687		
6,700.00	6,643.94	6,043.33	5,790.81	30.00	33.34	-91.15	-1,993.07	-129.63	2,796.43	2,738.93	57.50	48.636		
6,800.00	6,724.78	6,118.93	5,862.76	30.45	33.77	-86.31	-2,016.22	-131.41	2,832.33	2,774.01	58.32	48.564		
6,900.00	6,795.62	6,185.67	5,926.27	30.97	34.16	-82.72	-2,036.65	-132.97	2,866.05	2,806.89	59.15	48.453		
7,000.00	6,854.70	6,241.90	5,979.79	31.60	34.48	-79.88	-2,053.87	-134.29	2,897.49	2,837.47	60.02	48.278		
7,100.00	6,900.58	6,286.24	6,021.98	32.39	34.74	-77.49	-2,067.44	-135.34	2,926.62	2,865.67	60.95	48.020		
7,200.00	6,932.13	6,317.59	6,051.82	33.34	34.92	-75.39	-2,077.04	-136.07	2,953.35	2,891.40	61.95	47.672		
7,300.00	6,948.57	6,335.19	6,068.57	34.46	35.02	-73.49	-2,082.43	-136.49	2,977.51	2,914.49	63.02	47.247		
7,400.00	6,950.87	6,339.87	6,073.02	35.70	35.05	-72.48	-2,083.86	-136.60	2,999.38	2,935.25	64.13	46.771		
7,500.00	6,950.58	6,342.16	6,075.20	37.12	35.06	-72.53	-2,084.56	-136.65	3,023.39	2,958.03	65.36	46.259		
7,600.00	6,950.28	6,344.45	6,077.38	38.70	35.07	-72.57	-2,085.26	-136.70	3,050.48	2,983.78	66.70	45.737		
7,700.00	6,949.98	6,346.74	6,079.56	40.41	35.09	-72.62	-2,085.96	-136.76	3,080.58	3,012.46	68.12	45.224		
7,800.00	6,949.68	6,348.99	6,081.74	42.25	35.10	-72.66	-2,086.66	-136.81	3,111.96	3,043.54	69.62	44.711		
7,900.00	6,949.38	6,351.24	6,083.92	44.13	35.11	-72.69	-2,087.36	-136.86	3,143.46	3,074.66	71.19	44.198		
8,000.00	6,949.08	6,353.49	6,086.10	46.05	35.12	-72.72	-2,088.06	-136.91	3,175.61	3,105.81	72.82	43.685		
8,100.00	6,948.79	6,355.74	6,088.28	48.01	35.13	-72.75	-2,088.76	-136.96	3,207.81	3,136.91	74.50	43.172		
8,200.00	6,948.49	6,357.99	6,090.46	50.01	35.14	-72.78	-2,089.46	-137.01	3,239.96	3,167.96	76.23	42.659		
8,300.00	6,948.19	6,360.24	6,092.64	52.05	35.15	-72.81	-2,090.16	-137.06	3,272.06	3,198.96	78.01	42.146		
8,400.00	6,947.89	6,362.49	6,094.82	54.13	35.16	-72.84	-2,090.86	-137.11	3,304.11	3,229.91	79.84	41.633		
8,500.00	6,947.59	6,364.74	6,096.99	56.25	35.17	-72.87	-2,091.56	-137.16	3,336.11	3,260.91	81.71	41.120		
8,600.00	6,947.29	6,366.99	6,099.17	58.41	35.18	-72.90	-2,092.26	-137.21	3,368.06	3,291.91	83.62	40.607		
8,700.00	6,947.00	6,369.24	6,101.35	60.61	35.19	-72.93	-2,092.96	-137.26	3,400.06	3,322.91	85.57	40.094		
8,800.00	6,946.70	6,371.49	6,103.53	62.85	35.20	-72.96	-2,093.66	-137.31	3,432.01	3,353.91	87.56	39.581		
8,900.00	6,946.40	6,373.74	6,105.71	65.13	35.21	-72.99	-2,094.36	-137.36	3,464.01	3,384.91	89.59	39.068		
9,000.00	6,946.10	6,375.99	6,107.89	67.45	35.22	-73.02	-2,095.06	-137.41	3,496.06	3,415.91	91.66	38.555		
9,100.00	6,945.80	6,378.24	6,110.07	69.81	35.23	-73.05	-2,095.76	-137.46	3,528.06	3,446.91	93.77	38.042		
9,200.00	6,945.50	6,380.49	6,112.25	72.21	35.24	-73.08	-2,096.46	-137.51	3,560.06	3,477.91	95.91	37.529		
9,300.00	6,945.21	6,382.74	6,114.43	74.65	35.25	-73.11	-2,097.16	-137.56	3,592.06	3,508.91	98.09	37.016		
9,400.00	6,944.91	6,384.99	6,116.61	77.13	35.26	-73.14	-2,097.86	-137.61	3,624.06	3,539.91	100.30	36.503		
9,500.00	6,944.61	6,387.24	6,118.79	79.65	35.27	-73.17	-2,098.56	-137.66	3,656.06	3,570.91	102.54	35.990		
9,600.00	6,944.31	6,389.49	6,120.97	82.21	35.28	-73.20	-2,099.26	-137.71	3,688.06	3,601.91	104.81	35.477		
9,700.00	6,944.01	6,391.74	6,123.15	84.81	35.29	-73.23	-2,100.00	-137.76	3,720.06	3,632.91	107.11	34.964		
9,800.00	6,943.71	6,393.99	6,125.33	87.45	35.30	-73.26	-2,100.70	-137.81	3,752.06	3,663.91	109.44	34.451		
9,900.00	6,943.42	6,396.24	6,127.51	90.13	35.31	-73.29	-2,101.40	-137.86	3,784.06	3,694.91	111.80	33.938		
10,000.00	6,943.12	6,398.49	6,129.69	92.85	35.32	-73.32	-2,102.10	-137.91	3,816.06	3,725.91	114.19	33.425		
10,100.00	6,942.82	6,400.74	6,131.87	95.61	35.33	-73.35	-2,102.80	-137.96	3,848.06	3,756.91	116.61	32.912		
10,200.00	6,942.52	6,402.99	6,134.05	98.41	35.34	-73.38	-2,103.50	-138.01	3,880.06	3,787.91	119.06	32.399		
10,300.00	6,942.22	6,405.24	6,136.23	101.25	35.35	-73.41	-2,104.20	-138.06	3,912.06	3,818.91	121.54	31.886		

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 4N-16A-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 4N-16A-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	6,941.92	10,787.49	7,066.16	107.11	107.50	-92.29	-2,431.52	-3,812.18	3,110.39	2,896.48	213.91	14.541		
10,500.00	6,941.63	10,887.49	7,065.83	109.84	110.19	-92.29	-2,432.19	-3,912.17	3,110.32	2,890.97	219.35	14.180		
10,600.00	6,941.33	10,987.49	7,065.51	112.58	112.89	-92.29	-2,432.86	-4,012.17	3,110.25	2,885.45	224.80	13.836		
10,700.00	6,941.03	11,087.49	7,065.18	115.33	115.61	-92.29	-2,433.52	-4,112.17	3,110.17	2,879.91	230.26	13.507		
10,800.00	6,940.73	11,187.49	7,064.86	118.08	118.32	-92.29	-2,434.19	-4,212.17	3,110.10	2,874.36	235.74	13.193		
10,900.00	6,940.43	11,287.49	7,064.53	120.84	121.05	-92.29	-2,434.86	-4,312.16	3,110.03	2,868.81	241.22	12.893		
11,000.00	6,940.13	11,387.49	7,064.21	123.60	123.78	-92.29	-2,435.53	-4,412.16	3,109.96	2,863.24	246.72	12.605		
11,100.00	6,939.83	11,487.48	7,063.88	126.36	126.51	-92.29	-2,436.19	-4,512.16	3,109.89	2,857.66	252.23	12.330		
11,200.00	6,939.54	11,587.48	7,063.56	129.13	129.26	-92.29	-2,436.86	-4,612.15	3,109.82	2,852.07	257.74	12.066		
11,300.00	6,939.24	11,687.48	7,063.23	131.91	132.00	-92.29	-2,437.53	-4,712.15	3,109.75	2,846.48	263.27	11.812		
11,400.00	6,938.94	11,787.48	7,062.91	134.68	134.75	-92.28	-2,438.20	-4,812.15	3,109.67	2,840.88	268.80	11.569		
11,500.00	6,938.64	11,887.48	7,062.58	137.46	137.51	-92.28	-2,438.86	-4,912.15	3,109.60	2,835.27	274.34	11.335		
11,600.00	6,938.34	11,987.48	7,062.26	140.25	140.27	-92.28	-2,439.53	-5,012.14	3,109.53	2,829.65	279.88	11.110		
11,700.00	6,938.04	12,087.48	7,061.93	143.03	143.03	-92.28	-2,440.20	-5,112.14	3,109.46	2,824.02	285.44	10.894		
11,800.00	6,937.75	12,187.48	7,061.61	145.82	145.80	-92.28	-2,440.87	-5,212.14	3,109.39	2,818.39	291.00	10.685		
11,900.00	6,937.45	12,287.48	7,061.28	148.61	148.57	-92.28	-2,441.53	-5,312.14	3,109.32	2,812.76	296.56	10.485		
12,000.00	6,937.15	12,387.48	7,060.96	151.41	151.34	-92.28	-2,442.20	-5,412.13	3,109.25	2,807.11	302.13	10.291		
12,100.00	6,936.85	12,487.48	7,060.63	154.20	154.12	-92.28	-2,442.87	-5,512.13	3,109.18	2,801.47	307.71	10.104		
12,200.00	6,936.55	12,587.48	7,060.31	157.00	156.90	-92.28	-2,443.54	-5,612.13	3,109.10	2,795.82	313.29	9.924		
12,300.00	6,936.25	12,687.48	7,059.99	159.80	159.68	-92.28	-2,444.20	-5,712.12	3,109.03	2,790.16	318.87	9.750		
12,400.00	6,935.96	12,787.48	7,059.66	162.61	162.47	-92.28	-2,444.87	-5,812.12	3,108.96	2,784.50	324.46	9.582		
12,500.00	6,935.66	12,887.48	7,059.34	165.41	165.26	-92.28	-2,445.54	-5,912.12	3,108.89	2,778.83	330.06	9.419		
12,600.00	6,935.36	12,987.48	7,059.01	168.22	168.05	-92.28	-2,446.21	-6,012.12	3,108.82	2,773.16	335.66	9.262		
12,700.00	6,935.06	13,087.48	7,058.69	171.02	170.84	-92.28	-2,446.87	-6,112.11	3,108.75	2,767.49	341.26	9.110		
12,800.00	6,934.76	13,187.48	7,058.36	173.83	173.64	-92.28	-2,447.54	-6,212.11	3,108.68	2,761.81	346.86	8.962		
12,900.00	6,934.46	13,287.48	7,058.04	176.65	176.43	-92.28	-2,448.21	-6,312.11	3,108.61	2,756.13	352.47	8.819		
13,000.00	6,934.17	13,387.48	7,057.71	179.46	179.23	-92.28	-2,448.88	-6,412.10	3,108.53	2,750.45	358.09	8.681		
13,100.00	6,933.87	13,487.48	7,057.39	182.27	182.03	-92.28	-2,449.54	-6,512.10	3,108.46	2,744.76	363.70	8.547		
13,200.00	6,933.57	13,587.48	7,057.06	185.09	184.83	-92.28	-2,450.21	-6,612.10	3,108.39	2,739.07	369.32	8.417		
13,300.00	6,933.27	13,687.48	7,056.74	187.91	187.64	-92.28	-2,450.88	-6,712.10	3,108.32	2,733.38	374.94	8.290		
13,400.00	6,932.97	13,787.48	7,056.41	190.72	190.44	-92.28	-2,451.55	-6,812.09	3,108.25	2,727.68	380.57	8.167		
13,500.00	6,932.67	13,887.48	7,056.09	193.54	193.25	-92.28	-2,452.21	-6,912.09	3,108.18	2,721.98	386.19	8.048		
13,600.00	6,932.38	13,987.48	7,055.76	196.36	196.06	-92.28	-2,452.88	-7,012.09	3,108.11	2,716.28	391.82	7.932		
13,700.00	6,932.08	14,087.48	7,055.44	199.19	198.87	-92.27	-2,453.55	-7,112.09	3,108.04	2,710.58	397.45	7.820		
13,800.00	6,931.78	14,187.48	7,055.11	202.01	201.68	-92.27	-2,454.22	-7,212.08	3,107.96	2,704.88	403.09	7.710		
13,900.00	6,931.48	14,287.48	7,054.79	204.83	204.50	-92.27	-2,454.88	-7,312.08	3,107.89	2,699.17	408.73	7.604		
14,000.00	6,931.18	14,387.48	7,054.46	207.66	207.31	-92.27	-2,455.55	-7,412.08	3,107.82	2,693.46	414.36	7.500		
14,100.00	6,930.88	14,487.48	7,054.14	210.48	210.12	-92.27	-2,456.22	-7,512.07	3,107.75	2,687.75	420.00	7.399		
14,200.00	6,930.59	14,587.48	7,053.81	213.31	212.94	-92.27	-2,456.89	-7,612.07	3,107.68	2,682.03	425.65	7.301		
14,300.00	6,930.29	14,687.48	7,053.49	216.14	215.76	-92.27	-2,457.55	-7,712.07	3,107.61	2,676.32	431.29	7.205		
14,400.00	6,929.99	14,787.48	7,053.16	218.96	218.58	-92.27	-2,458.22	-7,812.07	3,107.54	2,670.60	436.94	7.112		
14,500.00	6,929.69	14,887.48	7,052.84	221.79	221.40	-92.27	-2,458.89	-7,912.06	3,107.46	2,664.88	442.59	7.021		
14,600.00	6,929.39	14,987.48	7,052.51	224.62	224.22	-92.27	-2,459.56	-8,012.06	3,107.39	2,659.16	448.23	6.933		
14,700.00	6,929.09	15,087.48	7,052.19	227.45	227.04	-92.27	-2,460.22	-8,112.06	3,107.32	2,653.44	453.89	6.846		
14,732.12	6,929.00	15,119.61	7,052.08	228.36	227.95	-92.27	-2,460.44	-8,144.18	3,107.30	2,651.60	455.70	6.819 SF		



Anticollision Report



Company:	SRC ENERGY	Local Co-ordinate Reference:	Well HARVESTERS STATE 4N-16A-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 4N-16A-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						
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
0.00	0.00	2.00	0.00	3.28	3.28	-179.51	-420.04	-3.62	420.06				
100.00	100.00	102.00	100.00	3.28	3.29	-179.51	-420.04	-3.62	420.06	413.49	6.57	63.937	
200.00	200.00	198.00	200.00	3.34	3.34	-179.51	-420.04	-3.62	420.06	413.38	6.67	62.954 CC, ES	
300.00	300.00	285.45	287.44	3.44	3.42	-179.50	-421.31	-3.69	421.52	414.64	6.88	61.310	
400.00	400.00	372.50	374.39	3.60	3.55	-179.47	-425.22	-3.90	426.01	418.83	7.18	59.354	
500.00	500.00	459.22	460.86	3.81	3.71	-179.44	-431.74	-4.26	433.53	425.97	7.57	57.300	
600.00	600.00	545.47	546.63	4.05	3.90	-179.38	-440.81	-4.75	444.06	436.03	8.03	55.330	
700.00	699.98	630.86	631.24	4.32	4.12	-165.82	-452.33	-5.38	459.23	450.69	8.54	53.752	
800.00	799.84	714.79	714.02	4.62	4.36	-165.77	-466.10	-6.14	480.63	471.52	9.11	52.784	
900.00	899.45	796.79	794.48	4.94	4.63	-165.76	-481.88	-7.00	508.12	498.43	9.69	52.430	
1,000.00	998.80	876.67	872.40	5.28	4.91	-165.87	-499.47	-7.96	540.81	530.53	10.29	52.577	
1,100.00	1,098.12	954.93	948.22	5.63	5.21	-166.00	-518.79	-9.02	576.28	565.40	10.88	52.955	
1,200.00	1,197.44	1,031.53	1,021.91	6.00	5.53	-166.11	-539.70	-10.17	614.27	602.79	11.48	53.502	
1,300.00	1,296.77	1,106.44	1,093.39	6.37	5.86	-166.20	-562.04	-11.39	654.68	642.60	12.08	54.201	
1,400.00	1,396.09	1,179.60	1,162.62	6.76	6.20	-166.27	-585.65	-12.68	697.44	684.77	12.67	55.034	
1,500.00	1,495.41	1,250.98	1,229.56	7.15	6.55	-166.32	-610.38	-14.04	742.47	729.21	13.26	55.991	
1,600.00	1,594.74	1,320.56	1,294.21	7.55	6.90	-166.35	-636.09	-15.44	789.67	775.84	13.84	57.063	
1,700.00	1,694.06	1,388.34	1,356.55	7.96	7.27	-166.37	-662.63	-16.90	838.98	824.57	14.41	58.236	
1,800.00	1,793.38	1,469.36	1,430.52	8.37	7.71	-166.39	-685.63	-18.71	889.75	874.67	15.08	59.011	
1,900.00	1,892.71	1,555.47	1,509.12	8.78	8.21	-166.41	-730.76	-20.63	940.60	924.79	15.80	59.516	
2,000.00	1,992.03	1,641.58	1,587.71	9.20	8.71	-166.43	-765.89	-22.55	991.44	974.90	16.55	59.921	
2,100.00	2,091.36	1,727.69	1,666.31	9.62	9.22	-166.44	-801.02	-24.48	1,042.29	1,024.99	17.30	60.246	
2,200.00	2,190.68	1,813.80	1,744.90	10.05	9.73	-166.46	-836.15	-26.40	1,093.13	1,075.07	18.07	60.506	
2,300.00	2,290.00	1,900.10	1,823.49	10.48	10.26	-166.47	-871.28	-28.32	1,143.98	1,125.13	18.84	60.709	
2,400.00	2,389.33	1,986.01	1,902.09	10.90	10.78	-166.48	-906.40	-30.25	1,194.82	1,175.20	19.63	60.874	
2,500.00	2,488.65	2,072.12	1,980.68	11.34	11.32	-166.49	-941.53	-32.17	1,245.67	1,225.25	20.42	61.001	
2,600.00	2,587.97	2,158.23	2,059.28	11.77	11.85	-166.50	-976.66	-34.09	1,296.51	1,275.29	21.22	61.098	
2,700.00	2,687.30	2,244.34	2,137.87	12.20	12.39	-166.51	-1,011.79	-36.02	1,347.36	1,325.33	22.03	61.171	
2,800.00	2,786.62	2,330.45	2,216.46	12.64	12.94	-166.51	-1,046.92	-37.94	1,398.21	1,375.37	22.84	61.225	
2,900.00	2,885.94	2,416.56	2,295.06	13.07	13.48	-166.52	-1,082.05	-39.86	1,449.05	1,425.40	23.65	61.262	
3,000.00	2,985.27	2,502.67	2,373.65	13.51	14.03	-166.53	-1,117.17	-41.79	1,499.90	1,475.42	24.47	61.286	
3,100.00	3,084.59	2,588.77	2,452.25	13.95	14.58	-166.54	-1,152.30	-43.71	1,550.74	1,525.44	25.30	61.298	
3,200.00	3,183.91	2,674.88	2,530.84	14.39	15.13	-166.54	-1,187.43	-45.63	1,601.59	1,575.46	26.13	61.301	
3,300.00	3,283.24	2,760.99	2,609.43	14.83	15.68	-166.55	-1,222.56	-47.56	1,652.43	1,625.47	26.96	61.296	
3,400.00	3,382.56	2,847.10	2,688.03	15.27	16.24	-166.55	-1,257.69	-49.48	1,703.28	1,675.49	27.79	61.285	
3,500.00	3,481.88	2,933.21	2,766.62	15.71	16.79	-166.56	-1,292.82	-51.40	1,754.12	1,725.49	28.63	61.269	
3,600.00	3,581.21	3,019.32	2,845.22	16.16	17.35	-166.56	-1,327.95	-53.33	1,804.97	1,775.50	29.47	61.249	
3,700.00	3,680.53	3,105.43	2,923.81	16.60	17.91	-166.57	-1,363.07	-55.25	1,855.81	1,825.50	30.31	61.225	
3,800.00	3,779.85	3,208.46	3,002.40	17.04	18.58	-166.57	-1,398.20	-57.17	1,906.66	1,875.41	31.25	61.018	
3,900.00	3,879.18	3,277.64	3,081.00	17.49	19.03	-166.57	-1,433.33	-59.10	1,957.51	1,925.50	32.00	61.169	
4,000.00	3,978.50	3,363.75	3,159.59	17.93	19.59	-166.58	-1,468.46	-61.02	2,008.35	1,975.50	32.85	61.138	
4,100.00	4,077.82	3,449.86	3,238.19	18.37	20.15	-166.58	-1,503.59	-62.94	2,059.20	2,025.50	33.70	61.106	
4,200.00	4,177.15	3,535.97	3,316.78	18.82	20.71	-166.59	-1,538.72	-64.87	2,110.04	2,075.49	34.55	61.072	
4,300.00	4,276.47	3,622.08	3,395.37	19.27	21.28	-166.59	-1,573.84	-66.79	2,160.89	2,125.49	35.40	61.037	
4,400.00	4,375.79	3,708.19	3,473.97	19.71	21.84	-166.59	-1,608.97	-68.71	2,211.73	2,175.48	36.26	61.002	
4,500.00	4,475.12	3,805.70	3,552.56	20.16	22.48	-166.59	-1,644.10	-70.64	2,262.58	2,225.40	37.17	60.863	
4,600.00	4,574.44	3,880.41	3,631.16	20.60	22.97	-166.60	-1,679.23	-72.56	2,313.42	2,275.46	37.97	60.930	
4,700.00	4,673.76	3,966.51	3,709.75	21.05	23.53	-166.60	-1,714.36	-74.48	2,364.27	2,325.44	38.83	60.893	
4,800.00	4,773.09	4,052.62	3,788.34	21.50	24.10	-166.60	-1,749.49	-76.41	2,415.12	2,375.43	39.69	60.857	
4,900.00	4,872.41	4,138.73	3,866.94	21.94	24.67	-166.61	-1,784.61	-78.33	2,465.96	2,425.42	40.55	60.820	
5,000.00	4,971.74	4,224.84	3,945.53	22.39	25.23	-166.61	-1,819.74	-80.25	2,516.81	2,475.40	41.41	60.784	
5,100.00	5,071.06	4,310.95	4,024.13	22.84	25.80	-166.61	-1,854.87	-82.18	2,567.65	2,525.38	42.27	60.747	

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 4N-16A-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 4N-16A-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	5,170.38	4,402.94	4,102.72	23.29	26.40	-166.61	-1,890.00	-84.10	2,618.50	2,575.34	43.16	60.665		
5,300.00	5,269.71	4,483.17	4,181.31	23.74	26.93	-166.61	-1,925.13	-86.02	2,669.34	2,625.35	43.99	60.675		
5,400.00	5,369.03	4,569.28	4,259.91	24.18	27.50	-166.62	-1,960.26	-87.95	2,720.19	2,675.33	44.86	60.639		
5,500.00	5,468.35	4,655.39	4,338.50	24.63	28.07	-166.62	-1,995.38	-89.87	2,771.04	2,725.31	45.72	60.604		
5,600.00	5,567.68	4,741.49	4,417.10	25.08	28.64	-166.62	-2,030.51	-91.79	2,821.88	2,775.29	46.59	60.569		
5,700.00	5,667.00	4,827.60	4,495.69	25.53	29.20	-166.62	-2,065.64	-93.72	2,872.73	2,825.27	47.46	60.534		
5,800.00	5,766.32	4,913.71	4,574.28	25.98	29.77	-166.62	-2,100.77	-95.64	2,923.57	2,875.25	48.32	60.500		
5,900.00	5,865.65	4,999.82	4,652.88	26.43	30.34	-166.63	-2,135.90	-97.56	2,974.42	2,925.23	49.19	60.466		
6,000.00	5,964.97	5,085.93	4,731.47	26.88	30.91	-166.63	-2,171.03	-99.49	3,025.26	2,975.20	50.06	60.432		
6,100.00	6,064.29	5,172.04	4,810.07	27.33	31.48	-166.63	-2,206.15	-101.41	3,076.11	3,025.18	50.93	60.399		
6,200.00	6,163.62	5,258.15	4,888.66	27.78	32.05	-166.63	-2,241.28	-103.33	3,126.95	3,075.15	51.80	60.366		
6,300.00	6,262.94	5,344.26	4,967.25	28.23	32.62	-166.63	-2,276.41	-105.26	3,177.80	3,125.13	52.67	60.333		
6,400.00	6,362.24	5,430.36	5,045.84	28.67	33.19	-146.89	-2,311.54	-107.18	3,228.64	3,175.10	53.54	60.301		
6,500.00	6,460.41	5,515.78	5,123.81	29.12	33.75	-110.10	-2,346.38	-109.09	3,279.01	3,224.60	54.41	60.262		
6,600.00	6,555.09	5,598.55	5,199.36	29.57	34.30	-95.65	-2,380.15	-110.94	3,327.91	3,272.64	55.27	60.216		
6,700.00	6,643.94	5,676.64	5,270.64	30.00	34.82	-87.29	-2,412.01	-112.68	3,374.48	3,318.38	56.10	60.155		
6,800.00	6,724.78	5,748.13	5,335.89	30.45	35.29	-81.50	-2,441.18	-114.28	3,418.08	3,361.17	56.91	60.065		
6,900.00	6,795.62	5,811.26	5,393.50	30.97	35.71	-77.15	-2,466.93	-115.69	3,458.22	3,400.50	57.72	59.915		
7,000.00	6,854.70	5,864.47	5,442.07	31.60	36.06	-73.75	-2,488.63	-116.87	3,494.55	3,435.99	58.56	59.671		
7,100.00	6,900.58	5,906.45	5,480.38	32.39	36.34	-71.02	-2,505.76	-117.81	3,526.78	3,467.31	59.47	59.301		
7,200.00	6,932.13	5,936.16	5,507.51	33.34	36.54	-68.81	-2,517.88	-118.48	3,554.65	3,494.19	60.46	58.794		
7,300.00	6,948.57	5,952.89	5,522.77	34.46	36.65	-67.02	-2,524.70	-118.85	3,577.88	3,516.37	61.52	58.161		
7,400.00	6,950.87	5,957.40	5,526.89	35.70	36.68	-66.18	-2,526.55	-118.95	3,596.89	3,534.27	62.63	57.435		
7,500.00	6,950.58	5,959.67	5,528.96	37.12	36.69	-66.22	-2,527.47	-119.00	3,617.29	3,553.42	63.87	56.638		
7,600.00	6,950.28	5,961.93	5,531.02	38.70	36.71	-66.25	-2,528.39	-119.05	3,640.31	3,575.08	65.23	55.807		
7,700.00	6,949.98	5,964.19	5,533.09	40.41	36.72	-66.29	-2,529.32	-119.10	3,665.92	3,599.22	66.69	54.966		
7,800.00	6,949.68	5,966.45	5,535.15	42.25	36.74	-66.33	-2,530.24	-119.15	3,694.05	3,625.82	68.23	54.137		
7,900.00	6,949.38	5,968.72	5,537.22	44.20	36.75	-66.36	-2,531.16	-119.20	3,724.66	3,654.83	69.83	53.337		
8,000.00	6,949.08	5,970.98	5,539.28	46.24	36.77	-66.40	-2,532.09	-119.25	3,757.68	3,686.21	71.47	52.577		
8,100.00	6,948.79	5,973.24	5,541.35	48.36	36.78	-66.44	-2,533.01	-119.30	3,793.05	3,719.92	73.13	51.865		
8,200.00	6,948.49	5,975.50	5,543.41	50.56	36.80	-66.47	-2,533.93	-119.35	3,830.70	3,755.89	74.81	51.208		
8,300.00	6,948.19	5,977.76	5,545.48	52.82	36.81	-66.51	-2,534.85	-119.41	3,870.57	3,794.09	76.48	50.607		
8,400.00	6,947.89	5,980.03	5,547.54	55.14	36.83	-66.55	-2,535.78	-119.46	3,912.59	3,834.44	78.15	50.066		
8,500.00	6,947.59	5,982.29	5,549.61	57.50	36.84	-66.58	-2,536.70	-119.51	3,956.68	3,876.88	79.80	49.582		
8,600.00	6,947.29	5,984.55	5,551.67	59.91	36.85	-66.61	-2,537.62	-119.56	3,999.94	3,919.92	81.44	49.153		
8,700.00	6,947.00	5,986.81	5,553.72	62.36	36.86	-66.64	-2,538.54	-119.61	4,043.25	3,963.44	83.07	48.777		
8,800.00	6,946.70	5,989.07	5,555.77	64.84	36.87	-66.67	-2,539.46	-119.66	4,086.61	3,999.92	84.69	48.451		
8,900.00	6,946.40	5,991.33	5,557.82	67.35	36.88	-66.70	-2,540.38	-119.71	4,129.92	4,036.44	86.30	48.174		
9,000.00	6,946.10	5,993.59	5,559.87	69.88	36.89	-66.73	-2,541.30	-119.76	4,173.28	4,072.92	87.91	47.946		
9,100.00	6,945.80	5,995.85	5,561.92	72.44	36.90	-66.76	-2,542.22	-119.81	4,216.59	4,109.44	89.52	47.767		
9,200.00	6,945.50	5,998.11	5,563.97	75.02	36.91	-66.79	-2,543.14	-119.86	4,259.85	4,145.92	91.13	47.637		
9,300.00	6,945.21	6,000.37	5,566.02	77.63	36.92	-66.82	-2,544.06	-119.91	4,303.16	4,182.44	92.74	47.557		
9,400.00	6,944.91	6,002.63	5,568.07	80.24	36.93	-66.85	-2,544.98	-119.96	4,346.42	4,218.92	94.35	47.517		
9,500.00	6,944.61	6,004.89	5,570.12	82.88	36.94	-66.88	-2,545.90	-120.01	4,389.68	4,255.44	95.96	47.517		
9,600.00	6,944.31	6,007.15	5,572.17	85.53	36.95	-66.91	-2,546.82	-120.06	4,432.94	4,291.92	97.57	47.557		
9,700.00	6,944.01	6,009.41	5,574.22	88.19	36.96	-66.94	-2,547.74	-120.11	4,476.25	4,328.44	99.18	47.637		
9,800.00	6,943.71	6,011.67	5,576.27	90.86	36.97	-66.97	-2,548.66	-120.16	4,519.51	4,364.92	100.79	47.767		
9,900.00	6,943.42	6,013.93	5,578.32	93.55	36.98	-66.99	-2,549.58	-120.21	4,562.82	4,401.44	102.40	47.946		
10,000.00	6,943.12	6,016.19	5,580.37	96.24	36.99	-67.02	-2,550.50	-120.26	4,606.08	4,437.92	104.01	48.174		
10,100.00	6,942.82	6,018.45	5,582.42	98.95	37.00	-67.05	-2,551.42	-120.31	4,649.39	4,474.44	105.62	48.451		
10,200.00	6,942.52	6,020.71	5,584.47	101.66	37.01	-67.08	-2,552.34	-120.36	4,692.65	4,510.92	107.23	48.777		
10,300.00	6,942.22	6,022.97	5,586.52	104.38	37.02	-67.11	-2,553.26	-120.41	4,735.96	4,547.44	108.84	49.153		

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 4N-16A-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 4N-16A-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	6,941.92	11,125.92	7,129.62	107.11	108.54	-92.72	-3,273.20	-3,810.31	3,954.04	3,739.52	214.52	18.432		
10,500.00	6,941.63	11,225.92	7,129.08	109.84	111.20	-92.72	-3,273.79	-3,910.31	3,953.88	3,733.95	219.93	17.978		
10,600.00	6,941.33	11,325.92	7,128.54	112.58	113.88	-92.71	-3,274.38	-4,010.31	3,953.72	3,728.36	225.36	17.544		
10,700.00	6,941.03	11,425.92	7,128.00	115.33	116.56	-92.71	-3,274.97	-4,110.30	3,953.56	3,722.76	230.80	17.130		
10,800.00	6,940.73	11,525.91	7,127.46	118.08	119.25	-92.71	-3,275.56	-4,210.30	3,953.40	3,717.14	236.25	16.734		
10,900.00	6,940.43	11,625.91	7,126.92	120.84	121.95	-92.70	-3,276.14	-4,310.29	3,953.24	3,711.52	241.72	16.355		
11,000.00	6,940.13	11,725.91	7,126.38	123.60	124.65	-92.70	-3,276.73	-4,410.29	3,953.07	3,705.88	247.20	15.992		
11,100.00	6,939.83	11,825.91	7,125.83	126.36	127.36	-92.70	-3,277.32	-4,510.29	3,952.91	3,700.23	252.68	15.644		
11,200.00	6,939.54	11,925.91	7,125.29	129.13	130.08	-92.69	-3,277.91	-4,610.28	3,952.75	3,694.57	258.18	15.310		
11,300.00	6,939.24	12,025.91	7,124.75	131.91	132.81	-92.69	-3,278.50	-4,710.28	3,952.59	3,688.90	263.69	14.990		
11,400.00	6,938.94	12,125.91	7,124.21	134.68	135.54	-92.69	-3,279.08	-4,810.28	3,952.43	3,683.23	269.20	14.682		
11,500.00	6,938.64	12,225.91	7,123.67	137.46	138.27	-92.68	-3,279.67	-4,910.27	3,952.27	3,677.54	274.73	14.386		
11,600.00	6,938.34	12,325.91	7,123.13	140.25	141.01	-92.68	-3,280.26	-5,010.27	3,952.11	3,671.85	280.26	14.102		
11,700.00	6,938.04	12,425.91	7,122.59	143.03	143.76	-92.68	-3,280.85	-5,110.27	3,951.95	3,666.15	285.80	13.828		
11,800.00	6,937.75	12,525.91	7,122.05	145.82	146.51	-92.67	-3,281.44	-5,210.26	3,951.79	3,660.44	291.34	13.564		
11,900.00	6,937.45	12,625.91	7,121.51	148.61	149.26	-92.67	-3,282.02	-5,310.26	3,951.63	3,654.73	296.89	13.310		
12,000.00	6,937.15	12,725.91	7,120.96	151.41	152.02	-92.67	-3,282.61	-5,410.26	3,951.46	3,649.01	302.45	13.065		
12,100.00	6,936.85	12,825.91	7,120.42	154.20	154.78	-92.66	-3,283.20	-5,510.25	3,951.30	3,643.29	308.01	12.828		
12,200.00	6,936.55	12,925.91	7,119.88	157.00	157.55	-92.66	-3,283.79	-5,610.25	3,951.14	3,637.56	313.58	12.600		
12,300.00	6,936.25	13,025.91	7,119.34	159.80	160.31	-92.66	-3,284.38	-5,710.24	3,950.98	3,631.82	319.16	12.379		
12,400.00	6,935.96	13,125.91	7,118.80	162.61	163.09	-92.65	-3,284.96	-5,810.24	3,950.82	3,626.08	324.74	12.166		
12,500.00	6,935.66	13,225.91	7,118.26	165.41	165.86	-92.65	-3,285.55	-5,910.24	3,950.66	3,620.34	330.32	11.960		
12,600.00	6,935.36	13,325.91	7,117.72	168.22	168.64	-92.65	-3,286.14	-6,010.23	3,950.50	3,614.59	335.91	11.761		
12,700.00	6,935.06	13,425.91	7,117.18	171.02	171.42	-92.64	-3,286.73	-6,110.23	3,950.34	3,608.84	341.50	11.568		
12,800.00	6,934.76	13,525.91	7,116.64	173.83	174.20	-92.64	-3,287.31	-6,210.23	3,950.18	3,603.08	347.10	11.381		
12,900.00	6,934.46	13,625.91	7,116.09	176.65	176.98	-92.64	-3,287.90	-6,310.22	3,950.02	3,597.32	352.69	11.200		
13,000.00	6,934.17	13,725.91	7,115.55	179.46	179.77	-92.63	-3,288.49	-6,410.22	3,949.86	3,591.56	358.30	11.024		
13,100.00	6,933.87	13,825.91	7,115.01	182.27	182.56	-92.63	-3,289.08	-6,510.22	3,949.69	3,585.79	363.91	10.854		
13,200.00	6,933.57	13,925.91	7,114.47	185.09	185.35	-92.63	-3,289.67	-6,610.21	3,949.53	3,580.02	369.52	10.688		
13,300.00	6,933.27	14,025.90	7,113.93	187.91	188.15	-92.62	-3,290.25	-6,710.21	3,949.37	3,574.24	375.13	10.528		
13,400.00	6,932.97	14,125.90	7,113.39	190.72	190.94	-92.62	-3,290.84	-6,810.20	3,949.21	3,568.47	380.74	10.372		
13,500.00	6,932.67	14,225.90	7,112.85	193.54	193.74	-92.62	-3,291.43	-6,910.20	3,949.05	3,562.69	386.36	10.221		
13,600.00	6,932.38	14,325.90	7,112.31	196.36	196.54	-92.61	-3,292.02	-7,010.20	3,948.89	3,556.90	391.99	10.074		
13,700.00	6,932.08	14,425.90	7,111.77	199.19	199.34	-92.61	-3,292.61	-7,110.19	3,948.73	3,551.12	397.61	9.931		
13,800.00	6,931.78	14,525.90	7,111.23	202.01	202.14	-92.61	-3,293.19	-7,210.19	3,948.57	3,545.33	403.24	9.792		
13,900.00	6,931.48	14,625.90	7,110.68	204.83	204.95	-92.60	-3,293.78	-7,310.19	3,948.41	3,539.54	408.87	9.657		
14,000.00	6,931.18	14,725.90	7,110.14	207.66	207.75	-92.60	-3,294.37	-7,410.18	3,948.25	3,533.75	414.50	9.525		
14,100.00	6,930.88	14,825.90	7,109.60	210.48	210.56	-92.59	-3,294.96	-7,510.18	3,948.09	3,527.95	420.13	9.397		
14,200.00	6,930.59	14,925.90	7,109.06	213.31	213.37	-92.59	-3,295.55	-7,610.18	3,947.93	3,522.16	425.77	9.272		
14,300.00	6,930.29	15,025.90	7,108.52	216.14	216.18	-92.59	-3,296.13	-7,710.17	3,947.77	3,516.36	431.41	9.151		
14,400.00	6,929.99	15,125.90	7,107.98	218.96	218.99	-92.58	-3,296.72	-7,810.17	3,947.61	3,510.56	437.05	9.032		
14,500.00	6,929.69	15,225.90	7,107.44	221.79	221.80	-92.58	-3,297.31	-7,910.17	3,947.44	3,504.75	442.69	8.917		
14,600.00	6,929.39	15,325.90	7,106.90	224.62	224.61	-92.58	-3,297.90	-8,010.16	3,947.28	3,498.95	448.33	8.804		
14,700.00	6,929.09	15,425.90	7,106.36	227.45	227.43	-92.57	-3,298.49	-8,110.16	3,947.12	3,493.14	453.98	8.694		
14,732.12	6,929.00	15,458.02	7,106.18	228.36	228.33	-92.57	-3,298.67	-8,142.28	3,947.07	3,491.28	455.79	8.660 SF		



Anticollision Report



Company:	SRC ENERGY	Local Co-ordinate Reference:	Well HARVESTERS STATE 4N-16A-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 4N-16A-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	0.00	20.04	0.00	20.04					
100.00	100.00	100.00	100.00	3.28	3.28	0.00	20.04	0.00	20.04	13.48	6.57	3.051		
200.00	200.00	200.00	200.00	3.34	3.34	0.00	20.04	0.00	20.04	13.37	6.67	3.003		
300.00	300.00	300.00	300.00	3.44	3.44	0.00	20.04	0.00	20.04	13.16	6.89	2.909		
400.00	400.00	400.00	400.00	3.60	3.60	0.00	20.04	0.00	20.04	12.84	7.21	2.781		
500.00	500.00	500.00	500.00	3.81	3.81	0.00	20.04	0.00	20.04	12.43	7.61	2.633		
600.00	600.00	600.00	600.00	4.05	4.05	0.00	20.04	0.00	20.04	11.95	8.09	2.477 CC		
700.00	699.98	699.31	699.29	4.32	4.32	13.84	21.74	-0.27	20.06	11.42	8.64	2.322		
800.00	799.84	798.63	798.47	4.62	4.61	14.95	26.84	-1.09	20.11	10.87	9.24	2.176		
900.00	899.45	897.94	897.40	4.94	4.93	16.79	35.33	-2.46	20.20	10.32	9.89	2.043		
1,000.00	998.80	997.24	995.97	5.28	5.27	18.63	47.19	-4.37	21.11	10.54	10.57	1.997		
1,100.00	1,098.12	1,103.35	1,094.19	5.63	5.65	18.40	62.28	-6.80	25.03	13.73	11.29	2.216		
1,200.00	1,197.44	1,203.46	1,192.77	6.00	6.02	17.86	78.23	-9.37	29.74	17.72	12.02	2.474		
1,300.00	1,296.77	1,296.43	1,291.34	6.37	6.37	17.46	94.18	-11.94	34.46	21.71	12.75	2.703		
1,400.00	1,396.09	1,403.68	1,389.91	6.76	6.79	17.16	110.14	-14.51	39.18	25.63	13.55	2.892		
1,500.00	1,495.41	1,496.20	1,488.48	7.15	7.16	16.92	126.09	-17.08	43.90	29.59	14.31	3.069		
1,600.00	1,594.74	1,603.91	1,587.06	7.55	7.60	16.73	142.05	-19.65	48.62	33.48	15.14	3.212		
1,700.00	1,694.06	1,704.02	1,685.63	7.96	8.01	16.57	158.00	-22.22	53.34	37.39	15.95	3.344		
1,800.00	1,793.38	1,804.13	1,784.20	8.37	8.44	16.44	173.95	-24.79	58.06	41.28	16.78	3.461		
1,900.00	1,892.71	1,904.24	1,882.78	8.78	8.86	16.33	189.91	-27.36	62.78	45.17	17.61	3.565		
2,000.00	1,992.03	1,995.65	1,981.35	9.20	9.26	16.23	205.86	-29.93	67.50	49.09	18.41	3.666		
2,100.00	2,091.36	2,104.47	2,079.92	9.62	9.73	16.15	221.82	-32.50	72.22	52.93	19.30	3.743		
2,200.00	2,190.68	2,204.58	2,178.49	10.05	10.17	16.08	237.77	-35.07	76.95	56.80	20.15	3.819		
2,300.00	2,290.00	2,304.69	2,277.07	10.48	10.61	16.01	253.72	-37.64	81.67	60.66	21.01	3.887		
2,400.00	2,389.33	2,404.80	2,375.64	10.90	11.05	15.95	269.68	-40.21	86.39	64.52	21.87	3.950		
2,500.00	2,488.65	2,504.91	2,474.21	11.34	11.49	15.90	285.63	-42.78	91.11	68.38	22.74	4.007		
2,600.00	2,587.97	2,605.02	2,572.78	11.77	11.94	15.85	301.59	-45.35	95.83	72.23	23.61	4.060		
2,700.00	2,687.30	2,705.13	2,671.36	12.20	12.39	15.81	317.54	-47.92	100.56	76.08	24.48	4.108		
2,800.00	2,786.62	2,794.75	2,769.93	12.64	12.79	15.77	333.49	-50.49	105.28	79.97	25.31	4.160		
2,900.00	2,885.94	2,905.36	2,868.50	13.07	13.29	15.74	349.45	-53.06	110.00	83.77	26.23	4.193		
3,000.00	2,985.27	3,005.47	2,967.07	13.51	13.74	15.71	365.40	-55.63	114.72	87.61	27.11	4.231		
3,100.00	3,084.59	3,094.42	3,065.65	13.95	14.14	15.68	381.36	-58.20	119.45	91.50	27.95	4.274		
3,200.00	3,183.91	3,205.69	3,164.22	14.39	14.65	15.65	397.31	-60.77	124.17	95.29	28.88	4.299		
3,300.00	3,283.24	3,305.80	3,262.79	14.83	15.10	15.62	413.26	-63.34	128.89	99.13	29.77	4.330		
3,400.00	3,382.56	3,405.92	3,361.37	15.27	15.56	15.60	429.22	-65.91	133.61	102.96	30.65	4.359		
3,500.00	3,481.88	3,506.03	3,459.94	15.71	16.01	15.58	445.17	-68.47	138.34	106.79	31.54	4.386		
3,600.00	3,581.21	3,606.14	3,558.51	16.16	16.47	15.56	461.12	-71.04	143.06	110.63	32.43	4.411		
3,700.00	3,680.53	3,693.75	3,657.08	16.60	16.87	15.54	477.08	-73.61	147.78	114.51	33.27	4.442		
3,800.00	3,779.85	3,806.36	3,755.66	17.04	17.39	15.52	493.03	-76.18	152.50	118.29	34.22	4.457		
3,900.00	3,879.18	3,906.47	3,854.23	17.49	17.85	15.50	508.99	-78.75	157.23	122.12	35.11	4.478		
4,000.00	3,978.50	4,006.59	3,952.80	17.93	18.31	15.49	524.94	-81.32	161.95	125.94	36.01	4.498		
4,100.00	4,077.82	4,106.70	4,051.37	18.37	18.77	15.47	540.89	-83.89	166.67	129.77	36.90	4.517		
4,200.00	4,177.15	4,193.19	4,149.95	18.82	19.16	15.46	556.85	-86.46	171.39	133.66	37.73	4.542		
4,300.00	4,276.47	4,293.08	4,248.52	19.27	19.62	15.44	572.80	-89.03	176.12	137.49	38.63	4.559		
4,400.00	4,375.79	4,392.97	4,347.09	19.71	20.08	15.43	588.76	-91.60	180.84	141.31	39.53	4.575		
4,500.00	4,475.12	4,492.86	4,445.66	20.16	20.54	15.42	604.71	-94.17	185.56	145.14	40.42	4.590		
4,600.00	4,574.44	4,592.75	4,544.24	20.60	21.01	15.41	620.66	-96.74	190.28	148.96	41.32	4.605		
4,700.00	4,673.76	4,707.37	4,642.81	21.05	21.53	15.40	636.62	-99.31	195.01	152.72	42.29	4.611		
4,800.00	4,773.09	4,807.48	4,741.38	21.50	22.00	15.39	652.57	-101.88	199.73	156.54	43.19	4.625		
4,900.00	4,872.41	4,907.59	4,839.95	21.94	22.46	15.38	668.53	-104.45	204.45	160.36	44.09	4.637		
5,000.00	4,971.74	5,007.70	4,938.53	22.39	22.92	15.37	684.48	-107.02	209.18	164.18	44.99	4.649		
5,100.00	5,071.06	5,107.81	5,037.10	22.84	23.39	15.36	700.43	-109.59	213.90	168.01	45.89	4.661		

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 4N-16A-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 4N-16A-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	5,170.38	5,192.08	5,135.67	23.29	23.78	15.35	716.39	-112.16	218.62	171.90	46.72	4.679		
5,300.00	5,269.71	5,308.04	5,234.25	23.74	24.31	15.34	732.34	-114.73	223.34	175.65	47.70	4.683		
5,400.00	5,369.03	5,408.15	5,332.82	24.18	24.78	15.33	748.30	-117.30	228.07	179.47	48.60	4.693		
5,500.00	5,468.35	5,491.74	5,431.39	24.63	25.16	15.33	764.25	-119.87	232.79	183.36	49.43	4.710		
5,600.00	5,567.68	5,591.63	5,529.96	25.08	25.63	15.32	780.20	-122.44	237.51	187.18	50.33	4.719		
5,700.00	5,667.00	5,691.52	5,628.54	25.53	26.09	15.31	796.16	-125.01	242.23	191.00	51.23	4.728		
5,800.00	5,766.32	5,808.59	5,727.11	25.98	26.63	15.30	812.11	-127.58	246.96	194.74	52.21	4.730		
5,900.00	5,865.65	5,908.71	5,825.68	26.43	27.10	15.30	828.07	-130.15	251.68	198.56	53.12	4.738		
6,000.00	5,964.97	6,008.82	5,924.25	26.88	27.56	15.29	844.02	-132.72	256.40	202.38	54.02	4.746		
6,100.00	6,064.29	6,108.93	6,022.83	27.33	28.03	15.29	859.97	-135.29	261.12	206.20	54.93	4.754		
6,200.00	6,163.62	6,190.96	6,121.40	27.78	28.41	15.28	875.93	-137.86	265.85	210.10	55.75	4.769		
6,300.00	6,262.94	6,309.15	6,219.97	28.23	28.96	15.27	891.88	-140.43	270.57	213.83	56.74	4.769		
6,400.00	6,362.24	6,409.27	6,318.53	28.67	29.42	33.57	907.83	-143.00	275.32	217.67	57.64	4.776		
6,500.00	6,460.41	6,489.76	6,416.26	29.12	29.80	67.33	923.65	-145.54	280.77	222.28	58.49	4.801		
6,600.00	6,555.09	6,585.65	6,510.89	29.57	30.24	81.77	938.97	-148.01	288.91	229.48	59.43	4.861		
6,700.00	6,643.94	6,689.85	6,613.30	30.00	30.73	92.28	955.33	-156.96	301.67	241.18	60.49	4.987		
6,800.00	6,724.78	6,803.69	6,722.01	30.45	31.24	100.37	972.04	-185.70	317.10	255.81	61.30	5.173		
6,900.00	6,795.62	6,926.93	6,832.09	30.97	31.77	106.86	988.17	-238.30	333.64	272.24	61.40	5.434		
7,000.00	6,854.70	7,060.52	6,937.80	31.60	32.33	112.07	1,002.66	-318.28	349.44	288.93	60.51	5.775		
7,100.00	6,900.58	7,204.53	7,030.74	32.39	33.04	116.08	1,014.09	-427.27	362.59	303.80	58.79	6.168		
7,200.00	6,932.13	7,357.53	7,100.48	33.34	34.14	118.86	1,020.84	-562.88	371.26	314.23	57.03	6.510		
7,300.00	6,948.57	7,516.30	7,137.09	34.46	35.72	120.37	1,021.57	-716.94	374.05	317.50	56.55	6.614		
7,400.00	6,950.87	7,644.06	7,140.77	35.70	37.26	120.73	1,017.84	-844.50	371.77	313.57	58.20	6.388		
7,500.00	6,950.58	7,744.02	7,140.34	37.12	38.63	120.93	1,014.39	-944.40	369.37	308.87	60.50	6.106		
7,600.00	6,950.28	7,843.98	7,139.90	38.70	40.16	121.13	1,010.93	-1,044.30	366.96	303.88	63.08	5.818		
7,700.00	6,949.98	7,943.95	7,139.47	40.41	41.82	121.33	1,007.47	-1,144.20	364.56	298.65	65.91	5.531		
7,800.00	6,949.68	8,043.91	7,139.04	42.25	43.61	121.54	1,004.01	-1,244.10	362.17	293.21	68.96	5.252		
7,900.00	6,949.38	8,143.87	7,138.60	44.20	45.51	121.75	1,000.55	-1,344.01	359.78	287.59	72.19	4.984		
8,000.00	6,949.08	8,243.83	7,138.17	46.24	47.50	121.96	997.09	-1,443.91	357.39	281.82	75.57	4.729		
8,100.00	6,948.79	8,343.80	7,137.74	48.36	49.57	122.17	993.63	-1,543.81	355.01	275.93	79.09	4.489		
8,200.00	6,948.49	8,443.76	7,137.30	50.56	51.72	122.39	990.17	-1,643.71	352.64	269.93	82.71	4.263		
8,300.00	6,948.19	8,543.72	7,136.87	52.82	53.94	122.61	986.71	-1,743.61	350.27	263.84	86.43	4.053		
8,400.00	6,947.89	8,643.69	7,136.43	55.14	56.21	122.83	983.25	-1,843.52	347.91	257.68	90.22	3.856		
8,500.00	6,947.59	8,743.65	7,136.00	57.50	58.53	123.06	979.80	-1,943.42	345.55	251.47	94.08	3.673		
8,600.00	6,947.29	8,843.61	7,135.57	59.91	60.90	123.29	976.34	-2,043.32	343.19	245.21	97.99	3.502		
8,700.00	6,947.00	8,943.57	7,135.13	62.36	63.30	123.52	972.88	-2,143.22	340.85	238.91	101.94	3.344		
8,800.00	6,946.70	9,043.54	7,134.70	64.84	65.74	123.75	969.42	-2,243.12	338.50	232.58	105.92	3.196		
8,900.00	6,946.40	9,143.50	7,134.27	67.35	68.22	123.99	965.96	-2,343.03	336.17	226.24	109.93	3.058		
9,000.00	6,946.10	9,243.46	7,133.83	69.88	70.72	124.23	962.50	-2,442.93	333.84	219.89	113.95	2.930		
9,100.00	6,945.80	9,343.43	7,133.40	72.44	73.24	124.48	959.04	-2,542.83	331.51	213.52	117.99	2.810		
9,200.00	6,945.50	9,443.39	7,132.97	75.02	75.79	124.73	955.58	-2,642.73	329.19	207.16	122.03	2.698		
9,300.00	6,945.21	9,543.35	7,132.53	77.63	78.36	124.98	952.12	-2,742.63	326.88	200.80	126.08	2.593		
9,400.00	6,944.91	9,643.31	7,132.10	80.24	80.95	125.24	948.66	-2,842.54	324.57	194.45	130.13	2.494		
9,500.00	6,944.61	9,743.28	7,131.66	82.88	83.56	125.50	945.20	-2,942.44	322.28	188.11	134.17	2.402		
9,600.00	6,944.31	9,843.24	7,131.23	85.53	86.18	125.76	941.75	-3,042.34	319.98	181.79	138.20	2.315		
9,700.00	6,944.01	9,943.20	7,130.80	88.19	88.81	126.03	938.29	-3,142.24	317.70	175.48	142.22	2.234		
9,800.00	6,943.71	10,043.17	7,130.36	90.86	91.46	126.30	934.83	-3,242.14	315.42	169.20	146.22	2.157		
9,900.00	6,943.42	10,143.13	7,129.93	93.55	94.12	126.57	931.37	-3,342.05	313.15	162.94	150.20	2.085		
10,000.00	6,943.12	10,243.09	7,129.50	96.24	96.79	126.85	927.91	-3,441.95	310.88	156.71	154.17	2.017		
10,100.00	6,942.82	10,343.05	7,129.06	98.95	99.47	127.13	924.45	-3,541.85	308.63	150.52	158.11	1.952		
10,200.00	6,942.52	10,443.02	7,128.63	101.66	102.16	127.42	920.99	-3,641.75	306.38	144.35	162.03	1.891		
10,300.00	6,942.22	10,542.98	7,128.20	104.38	104.85	127.71	917.53	-3,741.65	304.14	138.22	165.91	1.833		

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 4N-16A-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 4N-16A-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	6,941.92	10,642.94	7,127.76	107.11	107.56	128.01	914.07	-3,841.56	301.90	132.13	169.77	1.778		
10,500.00	6,941.63	10,742.91	7,127.33	109.84	110.27	128.31	910.61	-3,941.46	299.68	126.08	173.60	1.726		
10,600.00	6,941.33	10,842.87	7,126.89	112.58	112.99	128.61	907.15	-4,041.36	297.46	120.07	177.39	1.677		
10,700.00	6,941.03	10,942.83	7,126.46	115.33	115.71	128.92	903.70	-4,141.26	295.25	114.11	181.14	1.630		
10,800.00	6,940.73	11,042.79	7,126.03	118.08	118.44	129.24	900.24	-4,241.16	293.05	108.19	184.86	1.585		
10,900.00	6,940.43	11,142.76	7,125.59	120.84	121.18	129.55	896.78	-4,341.07	290.86	102.33	188.54	1.543		
11,000.00	6,940.13	11,242.72	7,125.16	123.60	123.92	129.88	893.32	-4,440.97	288.68	96.51	192.17	1.502		
11,100.00	6,939.83	11,342.68	7,124.73	126.36	126.67	130.21	889.86	-4,540.87	286.51	90.75	195.76	1.464	Level 3	
11,200.00	6,939.54	11,442.64	7,124.29	129.13	129.42	130.54	886.40	-4,640.77	284.35	85.04	199.30	1.427	Level 3	
11,300.00	6,939.24	11,542.61	7,123.86	131.91	132.17	130.88	882.94	-4,740.68	282.19	79.40	202.80	1.392	Level 3	
11,400.00	6,938.94	11,642.57	7,123.43	134.68	134.93	131.22	879.48	-4,840.58	280.05	73.81	206.24	1.358	Level 3	
11,500.00	6,938.64	11,742.53	7,122.99	137.46	137.69	131.57	876.02	-4,940.48	277.92	68.28	209.64	1.326	Level 3	
11,600.00	6,938.34	11,842.50	7,122.56	140.25	140.46	131.92	872.56	-5,040.38	275.80	62.82	212.97	1.295	Level 3	
11,700.00	6,938.04	11,942.46	7,122.12	143.03	143.23	132.28	869.11	-5,140.28	273.69	57.43	216.26	1.266	Level 3	
11,800.00	6,937.75	12,042.42	7,121.69	145.82	146.00	132.65	865.65	-5,240.19	271.59	52.10	219.48	1.237	Level 2	
11,900.00	6,937.45	12,142.38	7,121.26	148.61	148.77	133.02	862.19	-5,340.09	269.50	46.85	222.64	1.210	Level 2	
12,000.00	6,937.15	12,242.35	7,120.82	151.41	151.55	133.40	858.73	-5,439.99	267.42	41.67	225.75	1.185	Level 2	
12,100.00	6,936.85	12,342.31	7,120.39	154.20	154.33	133.78	855.27	-5,539.89	265.35	36.57	228.78	1.160	Level 2	
12,200.00	6,936.55	12,442.27	7,119.96	157.00	157.11	134.17	851.81	-5,639.79	263.30	31.54	231.75	1.136	Level 2	
12,300.00	6,936.25	12,542.24	7,119.52	159.80	159.90	134.56	848.35	-5,739.70	261.26	26.60	234.66	1.113	Level 2	
12,400.00	6,935.96	12,642.20	7,119.09	162.61	162.68	134.96	844.89	-5,839.60	259.23	21.74	237.49	1.092	Level 2	
12,500.00	6,935.66	12,742.16	7,118.66	165.41	165.47	135.37	841.43	-5,939.50	257.21	16.97	240.24	1.071	Level 2	
12,600.00	6,935.36	12,842.12	7,118.22	168.22	168.26	135.79	837.97	-6,039.40	255.21	12.28	242.93	1.051	Level 2	
12,700.00	6,935.06	12,942.09	7,117.79	171.02	171.05	136.21	834.51	-6,139.30	253.22	7.69	245.53	1.031	Level 2	
12,800.00	6,934.76	13,042.05	7,117.36	173.83	173.85	136.63	831.06	-6,239.21	251.24	3.19	248.06	1.013	Level 2	
12,900.00	6,934.46	13,142.01	7,116.92	176.65	176.64	137.07	827.60	-6,339.11	249.28	-1.22	250.50	0.995	Level 1	
13,000.00	6,934.17	13,241.98	7,116.49	179.46	179.44	137.51	824.14	-6,439.01	247.33	-5.52	252.86	0.978	Level 1	
13,100.00	6,933.87	13,341.94	7,116.05	182.27	182.24	137.95	820.68	-6,538.91	245.40	-9.73	255.13	0.962	Level 1	
13,200.00	6,933.57	13,441.90	7,115.62	185.09	185.04	138.41	817.22	-6,638.81	243.49	-13.83	257.31	0.946	Level 1	
13,300.00	6,933.27	13,541.86	7,115.19	187.91	187.84	138.87	813.76	-6,738.72	241.58	-17.82	259.40	0.931	Level 1	
13,400.00	6,932.97	13,641.83	7,114.75	190.72	190.65	139.34	810.30	-6,838.62	239.70	-21.70	261.40	0.917	Level 1	
13,500.00	6,932.67	13,741.79	7,114.32	193.54	193.45	139.81	806.84	-6,938.52	237.83	-25.47	263.30	0.903	Level 1	
13,600.00	6,932.38	13,841.75	7,113.89	196.36	196.26	140.30	803.38	-7,038.42	235.98	-29.12	265.10	0.890	Level 1	
13,700.00	6,932.08	13,941.72	7,113.45	199.19	199.06	140.79	799.92	-7,138.32	234.14	-32.66	266.80	0.878	Level 1	
13,800.00	6,931.78	14,041.68	7,113.02	202.01	201.87	141.29	796.46	-7,238.23	232.32	-36.07	268.40	0.866	Level 1	
13,900.00	6,931.48	14,141.64	7,112.59	204.83	204.68	141.80	793.01	-7,338.13	230.52	-39.36	269.89	0.854	Level 1	
14,000.00	6,931.18	14,241.60	7,112.15	207.66	207.49	142.31	789.55	-7,438.03	228.74	-42.53	271.27	0.843	Level 1	
14,100.00	6,930.88	14,341.57	7,111.72	210.48	210.30	142.83	786.09	-7,537.93	226.98	-45.56	272.54	0.833	Level 1	
14,200.00	6,930.59	14,441.53	7,111.28	213.31	213.12	143.36	782.63	-7,637.83	225.23	-48.46	273.70	0.823	Level 1	
14,300.00	6,930.29	14,541.49	7,110.85	216.14	215.93	143.90	779.17	-7,737.74	223.51	-51.23	274.74	0.814	Level 1	
14,400.00	6,929.99	14,641.46	7,110.42	218.96	218.74	144.45	775.71	-7,837.64	221.81	-53.86	275.66	0.805	Level 1	
14,500.00	6,929.69	14,741.42	7,109.98	221.79	221.56	145.01	772.25	-7,937.54	220.12	-56.35	276.47	0.796	Level 1	
14,600.00	6,929.39	14,841.38	7,109.55	224.62	224.37	145.57	768.79	-8,037.44	218.46	-58.70	277.16	0.788	Level 1	
14,700.00	6,929.09	14,941.34	7,109.12	227.45	227.19	146.14	765.33	-8,137.34	216.82	-60.90	277.72	0.781	Level 1	
14,732.12	6,929.00	14,973.45	7,108.98	228.36	228.10	146.33	764.22	-8,169.44	216.30	-61.57	277.87	0.778	Level 1, ES, SF	



Anticollision Report



Company:	SRC ENERGY	Local Co-ordinate Reference:	Well HARVESTERS STATE 4N-16A-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 4N-16A-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	-179.52	-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 CC, ES		
500.00	500.00	497.27	497.25	3.81	3.79	-178.95	-101.47	-1.86	101.53	93.93	7.60	13.355		
600.00	600.00	603.31	596.59	4.05	4.03	-177.65	-104.57	-4.29	104.71	96.63	8.08	12.956		
700.00	699.98	703.45	696.37	4.32	4.29	-163.17	-107.72	-6.77	109.66	101.04	8.61	12.731		
800.00	799.84	803.81	795.94	4.62	4.58	-162.75	-110.86	-9.24	117.95	108.75	9.20	12.820		
900.00	899.45	904.49	895.17	4.94	4.89	-162.82	-113.99	-11.71	129.57	119.74	9.83	13.176		
1,000.00	998.80	1,005.51	994.07	5.28	5.22	-163.23	-117.11	-14.16	143.77	133.27	10.50	13.686		
1,100.00	1,098.12	1,106.55	1,092.95	5.63	5.57	-163.61	-120.23	-16.62	158.16	146.96	11.20	14.120		
1,200.00	1,197.44	1,207.60	1,191.82	6.00	5.94	-163.92	-123.35	-19.07	172.55	160.63	11.92	14.472		
1,300.00	1,296.77	1,308.65	1,290.70	6.37	6.31	-164.19	-126.47	-21.53	186.95	174.29	12.67	14.759		
1,400.00	1,396.09	1,409.69	1,389.57	6.76	6.69	-164.42	-129.59	-23.98	201.36	187.93	13.43	14.994		
1,500.00	1,495.41	1,489.26	1,488.45	7.15	7.00	-164.62	-132.72	-26.44	215.76	201.64	14.12	15.277		
1,600.00	1,594.74	1,588.22	1,587.32	7.55	7.39	-164.79	-135.84	-28.90	230.17	215.27	14.90	15.444		
1,700.00	1,694.06	1,687.17	1,686.20	7.96	7.78	-164.95	-138.96	-31.35	244.58	228.88	15.70	15.583		
1,800.00	1,793.38	1,786.13	1,785.07	8.37	8.18	-165.08	-142.08	-33.81	258.99	242.49	16.50	15.700		
1,900.00	1,892.71	1,885.08	1,883.95	8.78	8.58	-165.20	-145.20	-36.26	273.40	256.10	17.30	15.800		
2,000.00	1,992.03	1,984.04	1,982.82	9.20	8.98	-165.31	-148.32	-38.72	287.82	269.70	18.12	15.884		
2,100.00	2,091.36	2,082.99	2,081.70	9.62	9.39	-165.41	-151.44	-41.18	302.23	283.29	18.94	15.956		
2,200.00	2,190.68	2,181.94	2,180.57	10.05	9.80	-165.50	-154.56	-43.63	316.64	296.88	19.77	16.018		
2,300.00	2,290.00	2,280.90	2,279.44	10.48	10.22	-165.59	-157.68	-46.09	331.06	310.46	20.60	16.071		
2,400.00	2,389.33	2,379.85	2,378.32	10.90	10.63	-165.66	-160.80	-48.54	345.48	324.04	21.44	16.117		
2,500.00	2,488.65	2,478.81	2,477.19	11.34	11.05	-165.73	-163.92	-51.00	359.89	337.62	22.27	16.157		
2,600.00	2,587.97	2,577.76	2,576.07	11.77	11.47	-165.79	-167.04	-53.45	374.31	351.19	23.12	16.192		
2,700.00	2,687.30	2,676.72	2,674.94	12.20	11.89	-165.85	-170.17	-55.91	388.73	364.77	23.96	16.223		
2,800.00	2,786.62	2,775.67	2,773.82	12.64	12.31	-165.91	-173.29	-58.37	403.15	378.34	24.81	16.249		
2,900.00	2,885.94	2,874.62	2,872.69	13.07	12.73	-165.96	-176.41	-60.82	417.57	391.91	25.66	16.273		
3,000.00	2,985.27	2,973.58	2,971.57	13.51	13.15	-166.01	-179.53	-63.28	431.98	405.47	26.51	16.294		
3,100.00	3,084.59	3,072.53	3,070.44	13.95	13.58	-166.05	-182.65	-65.73	446.40	419.04	27.37	16.312		
3,200.00	3,183.91	3,171.49	3,169.32	14.39	14.00	-166.09	-185.77	-68.19	460.82	432.60	28.22	16.328		
3,300.00	3,283.24	3,270.44	3,268.19	14.83	14.43	-166.13	-188.89	-70.65	475.24	446.16	29.08	16.342		
3,400.00	3,382.56	3,369.40	3,367.07	15.27	14.85	-166.17	-192.01	-73.10	489.66	459.72	29.94	16.355		
3,500.00	3,481.88	3,468.35	3,465.94	15.71	15.28	-166.21	-195.13	-75.56	504.08	473.28	30.80	16.366		
3,600.00	3,581.21	3,567.31	3,564.82	16.16	15.71	-166.24	-198.25	-78.01	518.50	486.84	31.66	16.376		
3,700.00	3,680.53	3,666.26	3,663.69	16.60	16.14	-166.27	-201.37	-80.47	532.92	500.40	32.52	16.385		
3,800.00	3,779.85	3,765.21	3,762.57	17.04	16.57	-166.30	-204.49	-82.92	547.34	513.96	33.39	16.393		
3,900.00	3,879.18	3,864.17	3,861.44	17.49	17.00	-166.33	-207.62	-85.38	561.76	527.51	34.25	16.400		
4,000.00	3,978.50	3,963.12	3,960.31	17.93	17.43	-166.35	-210.74	-87.84	576.19	541.07	35.12	16.407		
4,100.00	4,077.82	4,062.08	4,059.19	18.37	17.86	-166.38	-213.86	-90.29	590.61	554.62	35.99	16.412		
4,200.00	4,177.15	4,161.03	4,158.06	18.82	18.29	-166.40	-216.98	-92.75	605.03	568.17	36.85	16.417		
4,300.00	4,276.47	4,259.99	4,256.94	19.27	18.72	-166.43	-220.10	-95.20	619.45	581.73	37.72	16.422		
4,400.00	4,375.79	4,358.94	4,355.81	19.71	19.15	-166.45	-223.22	-97.66	633.87	595.28	38.59	16.426		
4,500.00	4,475.12	4,457.90	4,454.69	20.16	19.58	-166.47	-226.34	-100.12	648.29	608.83	39.46	16.430		
4,600.00	4,574.44	4,556.85	4,553.56	20.60	20.01	-166.49	-229.46	-102.57	662.71	622.38	40.33	16.433		
4,700.00	4,673.76	4,655.80	4,652.44	21.05	20.45	-166.51	-232.58	-105.03	677.13	635.93	41.20	16.436		
4,800.00	4,773.09	4,754.76	4,751.31	21.50	20.88	-166.53	-235.70	-107.48	691.55	649.48	42.07	16.438		
4,900.00	4,872.41	4,853.71	4,850.19	21.94	21.31	-166.55	-238.82	-109.94	705.98	663.03	42.94	16.440		
5,000.00	4,971.74	4,952.67	4,949.06	22.39	21.75	-166.56	-241.94	-112.39	720.40	676.58	43.81	16.442		
5,100.00	5,071.06	5,051.62	5,047.94	22.84	22.18	-166.58	-245.06	-114.85	734.82	690.13	44.69	16.444		

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 4N-16A-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 4N-16A-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	5,170.38	5,150.58	5,146.81	23.29	22.61	-166.59	-248.19	-117.31	749.24	703.68	45.56	16.446		
5,300.00	5,269.71	5,249.53	5,245.69	23.74	23.05	-166.61	-251.31	-119.76	763.66	717.23	46.43	16.447		
5,400.00	5,369.03	5,348.48	5,344.56	24.18	23.48	-166.62	-254.43	-122.22	778.08	730.78	47.31	16.448		
5,500.00	5,468.35	5,447.44	5,443.43	24.63	23.91	-166.64	-257.55	-124.67	792.51	744.33	48.18	16.449		
5,600.00	5,567.68	5,546.39	5,542.31	25.08	24.35	-166.65	-260.67	-127.13	806.93	757.88	49.05	16.450		
5,700.00	5,667.00	5,645.35	5,641.18	25.53	24.78	-166.66	-263.79	-129.59	821.35	771.42	49.93	16.451		
5,800.00	5,766.32	5,744.30	5,740.06	25.98	25.22	-166.68	-266.91	-132.04	835.77	784.97	50.80	16.451		
5,900.00	5,865.65	5,843.26	5,838.93	26.43	25.65	-166.69	-270.03	-134.50	850.19	798.52	51.68	16.452		
6,000.00	5,964.97	5,942.21	5,937.81	26.88	26.09	-166.70	-273.15	-136.95	864.62	812.06	52.55	16.452		
6,100.00	6,064.29	6,041.17	6,036.68	27.33	26.52	-166.71	-276.27	-139.41	879.04	825.61	53.43	16.453		
6,200.00	6,163.62	6,140.12	6,135.56	27.78	26.96	-166.72	-279.39	-141.86	893.46	839.16	54.30	16.453		
6,300.00	6,262.94	6,239.07	6,234.43	28.23	27.39	-166.73	-282.51	-144.32	907.88	852.70	55.18	16.453		
6,400.00	6,362.24	6,338.02	6,333.30	28.67	27.83	-148.12	-285.64	-146.78	922.30	866.24	56.06	16.453		
6,500.00	6,460.41	6,436.13	6,431.33	29.12	28.26	-115.76	-288.73	-149.21	936.63	879.70	56.93	16.452		
6,600.00	6,559.09	6,536.34	6,530.99	29.57	28.70	-105.80	-291.91	-158.17	950.89	893.05	57.84	16.441		
6,700.00	6,643.94	6,640.57	6,631.82	30.00	29.15	-101.41	-295.24	-183.88	964.74	905.96	58.78	16.413		
6,800.00	6,724.78	6,749.00	6,730.81	30.45	29.61	-99.08	-298.62	-227.69	977.79	918.02	59.77	16.360		
6,900.00	6,795.62	6,861.88	6,824.40	30.97	30.09	-97.73	-301.94	-290.45	989.62	928.79	60.83	16.267		
7,000.00	6,854.70	6,979.24	6,908.38	31.60	30.65	-96.94	-305.08	-372.12	999.81	937.74	62.07	16.109		
7,100.00	6,900.58	7,100.77	6,978.04	32.39	31.39	-96.50	-307.88	-471.44	1,007.94	944.36	63.58	15.854		
7,200.00	6,932.13	7,225.81	7,028.71	33.34	32.40	-96.27	-310.17	-585.51	1,013.66	948.15	65.51	15.473		
7,300.00	6,948.57	7,353.29	7,056.45	34.46	33.72	-96.20	-311.80	-709.71	1,016.69	948.78	67.91	14.972		
7,400.00	6,950.87	7,470.80	7,060.83	35.70	35.17	-96.21	-312.65	-827.04	1,017.08	946.48	70.60	14.406		
7,500.00	6,950.58	7,570.80	7,060.39	37.12	36.59	-96.20	-313.25	-927.03	1,016.93	943.49	73.44	13.848		
7,600.00	6,950.28	7,670.80	7,059.96	38.70	38.17	-96.19	-313.85	-1,027.03	1,016.77	940.19	76.58	13.277		
7,700.00	6,949.98	7,770.80	7,059.53	40.41	39.89	-96.19	-314.45	-1,127.03	1,016.62	936.61	80.01	12.706		
7,800.00	6,949.68	7,870.80	7,059.09	42.25	41.73	-96.18	-315.05	-1,227.02	1,016.47	932.78	83.69	12.146		
7,900.00	6,949.38	7,970.80	7,058.66	44.20	43.69	-96.17	-315.65	-1,327.02	1,016.32	928.74	87.58	11.605		
8,000.00	6,949.08	8,070.80	7,058.22	46.24	45.74	-96.17	-316.25	-1,427.02	1,016.16	924.51	91.66	11.087		
8,100.00	6,948.79	8,170.80	7,057.79	48.36	47.87	-96.16	-316.84	-1,527.02	1,016.01	920.11	95.90	10.595		
8,200.00	6,948.49	8,270.80	7,057.36	50.56	50.08	-96.15	-317.44	-1,627.01	1,015.86	915.57	100.29	10.130		
8,300.00	6,948.19	8,370.80	7,056.92	52.82	52.35	-96.15	-318.04	-1,727.01	1,015.70	910.91	104.80	9.692		
8,400.00	6,947.89	8,470.80	7,056.49	55.14	54.67	-96.14	-318.64	-1,827.01	1,015.55	906.13	109.42	9.281		
8,500.00	6,947.59	8,570.80	7,056.05	57.50	57.05	-96.13	-319.24	-1,927.00	1,015.40	901.26	114.14	8.896		
8,600.00	6,947.29	8,670.80	7,055.62	59.91	59.46	-96.13	-319.84	-2,027.00	1,015.25	896.30	118.95	8.535		
8,700.00	6,947.00	8,770.80	7,055.19	62.36	61.92	-96.12	-320.44	-2,127.00	1,015.09	891.27	123.83	8.198		
8,800.00	6,946.70	8,870.80	7,054.75	64.84	64.40	-96.11	-321.04	-2,227.00	1,014.94	886.17	128.77	7.882		
8,900.00	6,946.40	8,970.80	7,054.32	67.35	66.92	-96.11	-321.63	-2,326.99	1,014.79	881.01	133.78	7.586		
9,000.00	6,946.10	9,070.80	7,053.88	69.88	69.46	-96.10	-322.23	-2,426.99	1,014.64	875.80	138.84	7.308		
9,100.00	6,945.80	9,170.80	7,053.45	72.44	72.03	-96.09	-322.83	-2,526.99	1,014.48	870.54	143.94	7.048		
9,200.00	6,945.50	9,270.80	7,053.02	75.02	74.62	-96.08	-323.43	-2,626.98	1,014.33	865.24	149.09	6.803		
9,300.00	6,945.21	9,370.80	7,052.58	77.63	77.23	-96.08	-324.03	-2,726.98	1,014.18	859.90	154.28	6.574		
9,400.00	6,944.91	9,470.80	7,052.15	80.24	79.85	-96.07	-324.63	-2,826.98	1,014.03	854.52	159.50	6.357		
9,500.00	6,944.61	9,570.80	7,051.71	82.88	82.49	-96.06	-325.23	-2,926.97	1,013.87	849.12	164.75	6.154		
9,600.00	6,944.31	9,670.80	7,051.28	85.53	85.15	-96.06	-325.83	-3,026.97	1,013.72	843.68	170.04	5.962		
9,700.00	6,944.01	9,770.80	7,050.85	88.19	87.81	-96.05	-326.42	-3,126.97	1,013.57	838.23	175.34	5.781		
9,800.00	6,943.71	9,870.80	7,050.41	90.86	90.49	-96.04	-327.02	-3,226.97	1,013.41	832.74	180.67	5.609		
9,900.00	6,943.42	9,970.80	7,049.98	93.55	93.18	-96.04	-327.62	-3,326.96	1,013.26	827.24	186.02	5.447		
10,000.00	6,943.12	10,070.80	7,049.54	96.24	95.88	-96.03	-328.22	-3,426.96	1,013.11	821.71	191.40	5.293		
10,100.00	6,942.82	10,170.80	7,049.11	98.95	98.59	-96.02	-328.82	-3,526.96	1,012.96	816.17	196.79	5.147		
10,200.00	6,942.52	10,270.80	7,048.68	101.66	101.31	-96.02	-329.42	-3,626.95	1,012.81	810.61	202.19	5.009		
10,300.00	6,942.22	10,370.80	7,048.24	104.38	104.03	-96.01	-330.02	-3,726.95	1,012.65	805.04	207.62	4.878		

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 4N-16A-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 4N-16A-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	6,941.92	10,470.80	7,047.81	107.11	106.76	-96.00	-330.62	-3,826.95	1,012.50	799.45	213.05	4.752		
10,500.00	6,941.63	10,570.79	7,047.37	109.84	109.50	-96.00	-331.22	-3,926.95	1,012.35	793.85	218.50	4.633		
10,600.00	6,941.33	10,670.79	7,046.94	112.58	112.24	-95.99	-331.81	-4,026.94	1,012.20	788.23	223.96	4.519		
10,700.00	6,941.03	10,770.79	7,046.51	115.33	114.99	-95.98	-332.41	-4,126.94	1,012.04	782.61	229.44	4.411		
10,800.00	6,940.73	10,870.79	7,046.07	118.08	117.75	-95.98	-333.01	-4,226.94	1,011.89	776.97	234.92	4.307		
10,900.00	6,940.43	10,970.79	7,045.64	120.84	120.51	-95.97	-333.61	-4,326.93	1,011.74	771.32	240.41	4.208		
11,000.00	6,940.13	11,070.79	7,045.20	123.60	123.27	-95.96	-334.21	-4,426.93	1,011.59	765.67	245.92	4.114		
11,100.00	6,939.83	11,170.79	7,044.77	126.36	126.04	-95.96	-334.81	-4,526.93	1,011.43	760.00	251.43	4.023		
11,200.00	6,939.54	11,270.79	7,044.34	129.13	128.81	-95.95	-335.41	-4,626.93	1,011.28	754.33	256.95	3.936		
11,300.00	6,939.24	11,370.79	7,043.90	131.91	131.59	-95.94	-336.01	-4,726.92	1,011.13	748.65	262.48	3.852		
11,400.00	6,938.94	11,470.79	7,043.47	134.68	134.37	-95.93	-336.60	-4,826.92	1,010.98	742.97	268.01	3.772		
11,500.00	6,938.64	11,570.79	7,043.03	137.46	137.15	-95.93	-337.20	-4,926.92	1,010.82	737.27	273.55	3.695		
11,600.00	6,938.34	11,670.79	7,042.60	140.25	139.94	-95.92	-337.80	-5,026.91	1,010.67	731.57	279.10	3.621		
11,700.00	6,938.04	11,770.79	7,042.17	143.03	142.73	-95.91	-338.40	-5,126.91	1,010.52	725.87	284.65	3.550		
11,800.00	6,937.75	11,870.79	7,041.73	145.82	145.52	-95.91	-339.00	-5,226.91	1,010.37	720.16	290.21	3.482		
11,900.00	6,937.45	11,970.79	7,041.30	148.61	148.31	-95.90	-339.60	-5,326.90	1,010.22	714.44	295.77	3.415		
12,000.00	6,937.15	12,070.79	7,040.86	151.41	151.11	-95.89	-340.20	-5,426.90	1,010.06	708.72	301.34	3.352		
12,100.00	6,936.85	12,170.79	7,040.43	154.20	153.91	-95.89	-340.80	-5,526.90	1,009.91	702.99	306.92	3.291		
12,200.00	6,936.55	12,270.79	7,040.00	157.00	156.71	-95.88	-341.39	-5,626.90	1,009.76	697.26	312.49	3.231		
12,300.00	6,936.25	12,370.79	7,039.56	159.80	159.51	-95.87	-341.99	-5,726.89	1,009.61	691.53	318.08	3.174		
12,400.00	6,935.96	12,470.79	7,039.13	162.61	162.31	-95.87	-342.59	-5,826.89	1,009.45	685.79	323.66	3.119		
12,500.00	6,935.66	12,570.79	7,038.69	165.41	165.12	-95.86	-343.19	-5,926.89	1,009.30	680.05	329.25	3.065		
12,600.00	6,935.36	12,670.79	7,038.26	168.22	167.93	-95.85	-343.79	-6,026.88	1,009.15	674.30	334.85	3.014		
12,700.00	6,935.06	12,770.79	7,037.83	171.02	170.74	-95.85	-344.39	-6,126.88	1,009.00	668.55	340.45	2.964		
12,800.00	6,934.76	12,870.79	7,037.39	173.83	173.55	-95.84	-344.99	-6,226.88	1,008.85	662.80	346.05	2.915		
12,900.00	6,934.46	12,970.79	7,036.96	176.65	176.36	-95.83	-345.59	-6,326.88	1,008.69	657.04	351.65	2.868		
13,000.00	6,934.17	13,070.79	7,036.52	179.46	179.18	-95.83	-346.18	-6,426.87	1,008.54	651.28	357.26	2.823		
13,100.00	6,933.87	13,170.79	7,036.09	182.27	182.00	-95.82	-346.78	-6,526.87	1,008.39	645.52	362.87	2.779		
13,200.00	6,933.57	13,270.79	7,035.66	185.09	184.81	-95.81	-347.38	-6,626.87	1,008.24	639.76	368.48	2.736		
13,300.00	6,933.27	13,370.79	7,035.22	187.91	187.63	-95.80	-347.98	-6,726.86	1,008.09	633.99	374.10	2.695		
13,400.00	6,932.97	13,470.79	7,034.79	190.72	190.45	-95.80	-348.58	-6,826.86	1,007.93	628.22	379.71	2.654		
13,500.00	6,932.67	13,570.79	7,034.36	193.54	193.27	-95.79	-349.18	-6,926.86	1,007.78	622.45	385.33	2.615		
13,600.00	6,932.38	13,670.79	7,033.92	196.36	196.09	-95.78	-349.78	-7,026.85	1,007.63	616.67	390.96	2.577		
13,700.00	6,932.08	13,770.79	7,033.49	199.19	198.92	-95.78	-350.38	-7,126.85	1,007.48	610.90	396.58	2.540		
13,800.00	6,931.78	13,870.79	7,033.05	202.01	201.74	-95.77	-350.97	-7,226.85	1,007.33	605.12	402.21	2.504		
13,900.00	6,931.48	13,970.79	7,032.62	204.83	204.57	-95.76	-351.57	-7,326.85	1,007.17	599.34	407.84	2.470		
14,000.00	6,931.18	14,070.79	7,032.19	207.66	207.39	-95.76	-352.17	-7,426.84	1,007.02	593.55	413.47	2.436		
14,100.00	6,930.88	14,170.79	7,031.75	210.48	210.22	-95.75	-352.77	-7,526.84	1,006.87	587.77	419.10	2.402		
14,200.00	6,930.59	14,270.79	7,031.32	213.31	213.05	-95.74	-353.37	-7,626.84	1,006.72	581.98	424.74	2.370		
14,300.00	6,930.29	14,370.79	7,030.88	216.14	215.88	-95.74	-353.97	-7,726.83	1,006.57	576.19	430.37	2.339		
14,400.00	6,929.99	14,470.79	7,030.45	218.96	218.71	-95.73	-354.57	-7,826.83	1,006.41	570.40	436.01	2.308		
14,500.00	6,929.69	14,570.79	7,030.02	221.79	221.54	-95.72	-355.17	-7,926.83	1,006.26	564.61	441.65	2.278		
14,600.00	6,929.39	14,670.79	7,029.58	224.62	224.37	-95.72	-355.76	-8,026.83	1,006.11	558.82	447.29	2.249		
14,700.00	6,929.09	14,770.79	7,029.15	227.45	227.20	-95.71	-356.36	-8,126.82	1,005.96	553.02	452.94	2.221		
14,732.12	6,929.00	14,802.91	7,029.01	228.36	228.11	-95.71	-356.56	-8,158.94	1,005.91	551.16	454.75	2.212 SF		



Anticollision Report



Company:	SRC ENERGY	Local Co-ordinate Reference:	Well HARVESTERS STATE 4N-16A-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 4N-16A-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	-179.40	-80.14	-0.83	80.15					
100.00	100.00	100.00	100.00	3.28	3.28	-179.40	-80.14	-0.83	80.15	73.58	6.57	12.200		
200.00	200.00	200.00	200.00	3.34	3.34	-179.40	-80.14	-0.83	80.15	73.47	6.67	12.009		
300.00	300.00	300.00	300.00	3.44	3.44	-179.40	-80.14	-0.83	80.15	73.26	6.89	11.633		
400.00	400.00	400.00	400.00	3.60	3.60	-179.40	-80.14	-0.83	80.15	72.94	7.21	11.121		
500.00	500.00	500.00	500.00	3.81	3.81	-179.40	-80.14	-0.83	80.15	72.54	7.61	10.529 CC		
600.00	600.00	600.04	599.94	4.05	4.04	-178.26	-80.14	-2.44	80.18	72.09	8.09	9.916 ES		
700.00	699.98	700.09	699.87	4.32	4.30	-163.35	-80.14	-4.94	81.97	73.35	8.62	9.509		
800.00	799.84	800.23	799.69	4.62	4.59	-162.67	-80.14	-7.43	87.12	77.91	9.21	9.461		
900.00	899.45	900.59	899.30	4.94	4.90	-162.68	-80.14	-9.92	95.61	85.77	9.84	9.713		
1,000.00	998.80	1,001.21	998.65	5.28	5.24	-163.15	-80.14	-12.40	106.68	96.17	10.52	10.145		
1,100.00	1,098.12	1,101.85	1,097.97	5.63	5.58	-163.57	-80.14	-14.89	117.95	106.73	11.21	10.518		
1,200.00	1,197.44	1,202.49	1,197.30	6.00	5.94	-163.92	-80.14	-17.37	129.22	117.28	11.94	10.824		
1,300.00	1,296.77	1,303.13	1,296.63	6.37	6.32	-164.22	-80.14	-19.85	140.49	127.81	12.68	11.076		
1,400.00	1,396.09	1,403.77	1,395.96	6.76	6.70	-164.47	-80.14	-22.33	151.77	138.32	13.45	11.286		
1,500.00	1,495.41	1,504.41	1,495.29	7.15	7.08	-164.68	-80.14	-24.82	163.05	148.83	14.23	11.462		
1,600.00	1,594.74	1,605.05	1,594.62	7.55	7.48	-164.87	-80.14	-27.30	174.33	159.32	15.02	11.610		
1,700.00	1,694.06	1,705.69	1,693.95	7.96	7.87	-165.03	-80.14	-29.78	185.62	169.80	15.82	11.735		
1,800.00	1,793.38	1,806.33	1,793.28	8.37	8.28	-165.18	-80.14	-32.26	196.90	180.27	16.63	11.842		
1,900.00	1,892.71	1,906.97	1,892.61	8.78	8.69	-165.31	-80.14	-34.75	208.19	190.74	17.45	11.933		
2,000.00	1,992.03	2,007.61	1,991.94	9.20	9.10	-165.43	-80.14	-37.23	219.48	201.20	18.27	12.012		
2,100.00	2,091.36	2,108.25	2,091.26	9.62	9.51	-165.53	-80.14	-39.71	230.76	211.66	19.10	12.081		
2,200.00	2,190.68	2,208.89	2,190.59	10.05	9.92	-165.63	-80.14	-42.20	242.05	222.11	19.94	12.140		
2,300.00	2,290.00	2,309.53	2,289.92	10.48	10.34	-165.71	-80.14	-44.68	253.34	232.56	20.78	12.192		
2,400.00	2,389.33	2,389.83	2,389.25	10.90	10.68	-165.79	-80.14	-47.16	264.63	243.09	21.54	12.287		
2,500.00	2,488.65	2,489.19	2,488.58	11.34	11.09	-165.87	-80.14	-49.64	275.92	253.54	22.38	12.328		
2,600.00	2,587.97	2,588.55	2,587.91	11.77	11.51	-165.93	-80.14	-52.13	287.21	263.99	23.23	12.366		
2,700.00	2,687.30	2,687.91	2,687.24	12.20	11.93	-166.00	-80.14	-54.61	298.50	274.43	24.08	12.399		
2,800.00	2,786.62	2,787.27	2,786.57	12.64	12.35	-166.05	-80.14	-57.09	309.79	284.87	24.93	12.428		
2,900.00	2,885.94	2,886.63	2,885.90	13.07	12.77	-166.11	-80.14	-59.57	321.09	295.31	25.78	12.455		
3,000.00	2,985.27	2,985.99	2,985.23	13.51	13.20	-166.16	-80.14	-62.06	332.38	305.74	26.64	12.479		
3,100.00	3,084.59	3,085.35	3,084.55	13.95	13.62	-166.20	-80.14	-64.54	343.67	316.18	27.49	12.500		
3,200.00	3,183.91	3,184.71	3,183.88	14.39	14.04	-166.25	-80.14	-67.02	354.96	326.61	28.35	12.520		
3,300.00	3,283.24	3,284.07	3,283.21	14.83	14.47	-166.29	-80.14	-69.51	366.25	337.04	29.21	12.538		
3,400.00	3,382.56	3,383.43	3,382.54	15.27	14.90	-166.33	-80.14	-71.99	377.55	347.47	30.07	12.554		
3,500.00	3,481.88	3,482.79	3,481.87	15.71	15.32	-166.36	-80.14	-74.47	388.84	357.90	30.94	12.568		
3,600.00	3,581.21	3,582.15	3,581.20	16.16	15.75	-166.40	-80.14	-76.95	400.13	368.33	31.80	12.582		
3,700.00	3,680.53	3,681.51	3,680.53	16.60	16.18	-166.43	-80.14	-79.44	411.43	378.76	32.67	12.594		
3,800.00	3,779.85	3,780.87	3,779.86	17.04	16.61	-166.46	-80.14	-81.92	422.72	389.18	33.54	12.605		
3,900.00	3,879.18	3,880.23	3,879.19	17.49	17.03	-166.49	-80.14	-84.40	434.01	399.61	34.40	12.616		
4,000.00	3,978.50	3,979.59	3,978.52	17.93	17.46	-166.52	-80.14	-86.88	445.31	410.03	35.27	12.625		
4,100.00	4,077.82	4,078.95	4,077.84	18.37	17.89	-166.54	-80.14	-89.37	456.60	420.46	36.14	12.634		
4,200.00	4,177.15	4,178.31	4,177.17	18.82	18.32	-166.57	-80.14	-91.85	467.89	430.88	37.01	12.642		
4,300.00	4,276.47	4,277.67	4,276.50	19.27	18.75	-166.59	-80.14	-94.33	479.19	441.30	37.88	12.649		
4,400.00	4,375.79	4,377.03	4,375.83	19.71	19.18	-166.61	-80.14	-96.82	490.48	451.73	38.75	12.656		
4,500.00	4,475.12	4,476.39	4,475.16	20.16	19.61	-166.64	-80.14	-99.30	501.77	462.15	39.63	12.663		
4,600.00	4,574.44	4,575.75	4,574.49	20.60	20.05	-166.66	-80.14	-101.78	513.07	472.57	40.50	12.669		
4,700.00	4,673.76	4,675.11	4,673.82	21.05	20.48	-166.68	-80.14	-104.26	524.36	482.99	41.37	12.674		
4,800.00	4,773.09	4,774.47	4,773.15	21.50	20.91	-166.70	-80.14	-106.75	535.66	493.41	42.25	12.680		
4,900.00	4,872.41	4,873.83	4,872.48	21.94	21.34	-166.71	-80.14	-109.23	546.95	503.83	43.12	12.684		
5,000.00	4,971.74	4,973.19	4,971.81	22.39	21.77	-166.73	-80.14	-111.71	558.24	514.25	43.99	12.689		
5,100.00	5,071.06	5,072.55	5,071.13	22.84	22.20	-166.75	-80.14	-114.19	569.54	524.67	44.87	12.693		

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 4N-16A-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 4N-16A-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	5,170.38	5,171.91	5,170.46	23.29	22.64	-166.76	-80.14	-116.68	580.83	535.09	45.74	12.697	
5,300.00	5,269.71	5,271.27	5,269.79	23.74	23.07	-166.78	-80.14	-119.16	592.13	545.51	46.62	12.701	
5,400.00	5,369.03	5,370.63	5,369.12	24.18	23.50	-166.79	-80.14	-121.64	603.42	555.92	47.50	12.704	
5,500.00	5,468.35	5,469.99	5,468.45	24.63	23.94	-166.81	-80.14	-124.13	614.72	566.34	48.37	12.708	
5,600.00	5,567.68	5,569.35	5,567.78	25.08	24.37	-166.82	-80.14	-126.61	626.01	576.76	49.25	12.711	
5,700.00	5,667.00	5,668.71	5,667.11	25.53	24.80	-166.84	-80.14	-129.09	637.30	587.18	50.13	12.714	
5,800.00	5,766.32	5,768.07	5,766.44	25.98	25.24	-166.85	-80.14	-131.57	648.60	597.59	51.01	12.716	
5,900.00	5,865.65	5,867.43	5,865.77	26.43	25.67	-166.86	-80.14	-134.06	659.89	608.01	51.88	12.719	
6,000.00	5,964.97	5,966.79	5,965.10	26.88	26.10	-166.87	-80.14	-136.54	671.19	618.43	52.76	12.721	
6,100.00	6,064.29	6,066.15	6,064.42	27.33	26.54	-166.89	-80.14	-139.02	682.48	628.84	53.64	12.724	
6,200.00	6,163.62	6,165.51	6,163.75	27.78	26.97	-166.90	-80.14	-141.50	693.78	639.26	54.52	12.726	
6,300.00	6,262.94	6,264.87	6,263.08	28.23	27.41	-166.91	-80.14	-143.99	705.07	649.67	55.40	12.728	
6,400.00	6,362.24	6,364.22	6,362.40	28.67	27.84	-148.39	-80.14	-146.47	716.36	660.09	56.28	12.730	
6,500.00	6,460.41	6,462.73	6,460.88	29.12	28.27	-116.51	-80.14	-148.93	727.66	670.50	57.15	12.732	
6,600.00	6,555.09	6,560.48	6,558.51	29.57	28.70	-107.45	-80.18	-153.20	739.37	681.34	58.04	12.740	
6,700.00	6,643.94	6,663.12	6,659.35	30.00	29.16	-104.05	-80.49	-171.71	751.63	692.65	58.98	12.745	
6,800.00	6,724.78	6,771.06	6,760.74	30.45	29.64	-102.65	-81.16	-208.36	764.03	704.06	59.97	12.741	
6,900.00	6,795.62	6,884.89	6,859.34	30.97	30.16	-102.16	-82.22	-264.94	776.09	715.09	61.00	12.722	
7,000.00	6,854.70	7,005.00	6,950.69	31.60	30.76	-102.12	-83.69	-342.63	787.27	725.14	62.13	12.671	
7,100.00	6,900.58	7,131.39	7,029.28	32.39	31.53	-102.30	-85.58	-441.32	796.97	733.49	63.48	12.556	
7,200.00	6,932.13	7,263.48	7,088.93	33.34	32.56	-102.54	-87.85	-558.90	804.59	739.39	65.20	12.341	
7,300.00	6,948.57	7,400.01	7,123.75	34.46	33.93	-102.74	-90.41	-690.62	809.60	742.15	67.45	12.003	
7,400.00	6,950.87	7,527.58	7,130.90	35.70	35.47	-102.81	-92.90	-817.79	811.70	741.54	70.16	11.570	
7,500.00	6,950.58	7,627.57	7,130.53	37.12	36.85	-102.79	-94.85	-917.77	812.87	739.96	72.91	11.149	
7,600.00	6,950.28	7,727.56	7,130.16	38.70	38.39	-102.77	-96.81	-1,017.74	814.04	738.06	75.98	10.714	
7,700.00	6,949.98	7,827.55	7,129.80	40.41	40.08	-102.74	-98.76	-1,117.71	815.22	735.89	79.33	10.277	
7,800.00	6,949.68	7,927.55	7,129.43	42.25	41.90	-102.72	-100.72	-1,217.69	816.39	733.48	82.91	9.846	
7,900.00	6,949.38	8,027.54	7,129.06	44.20	43.82	-102.69	-102.67	-1,317.66	817.56	730.85	86.72	9.428	
8,000.00	6,949.08	8,127.53	7,128.70	46.24	45.85	-102.67	-104.63	-1,417.63	818.74	728.03	90.71	9.026	
8,100.00	6,948.79	8,227.52	7,128.33	48.36	47.95	-102.65	-106.58	-1,517.60	819.91	725.05	94.86	8.644	
8,200.00	6,948.49	8,327.52	7,127.97	50.56	50.13	-102.62	-108.54	-1,617.58	821.08	721.93	99.15	8.281	
8,300.00	6,948.19	8,427.51	7,127.60	52.82	52.38	-102.60	-110.50	-1,717.55	822.26	718.68	103.57	7.939	
8,400.00	6,947.89	8,527.50	7,127.23	55.14	54.68	-102.58	-112.45	-1,817.52	823.43	715.33	108.10	7.617	
8,500.00	6,947.59	8,627.49	7,126.87	57.50	57.04	-102.56	-114.41	-1,917.49	824.61	711.87	112.73	7.315	
8,600.00	6,947.29	8,727.49	7,126.50	59.91	59.43	-102.53	-116.36	-2,017.47	825.78	708.34	117.44	7.031	
8,700.00	6,947.00	8,827.48	7,126.14	62.36	61.87	-102.51	-118.32	-2,117.44	826.95	704.72	122.23	6.765	
8,800.00	6,946.70	8,927.47	7,125.77	64.84	64.34	-102.49	-120.27	-2,217.41	828.13	701.04	127.09	6.516	
8,900.00	6,946.40	9,027.46	7,125.40	67.35	66.84	-102.46	-122.23	-2,317.39	829.30	697.30	132.00	6.282	
9,000.00	6,946.10	9,127.46	7,125.04	69.88	69.37	-102.44	-124.18	-2,417.36	830.48	693.50	136.97	6.063	
9,100.00	6,945.80	9,227.45	7,124.67	72.44	71.92	-102.42	-126.14	-2,517.33	831.65	689.66	141.99	5.857	
9,200.00	6,945.50	9,327.44	7,124.30	75.02	74.49	-102.40	-128.09	-2,617.30	832.83	685.77	147.05	5.663	
9,300.00	6,945.21	9,427.43	7,123.94	77.63	77.09	-102.37	-130.05	-2,717.28	834.00	681.85	152.15	5.481	
9,400.00	6,944.91	9,527.43	7,123.57	80.24	79.70	-102.35	-132.01	-2,817.25	835.18	677.89	157.29	5.310	
9,500.00	6,944.61	9,627.42	7,123.21	82.88	82.33	-102.33	-133.96	-2,917.22	836.35	673.90	162.45	5.148	
9,600.00	6,944.31	9,727.41	7,122.84	85.53	84.97	-102.31	-135.92	-3,017.20	837.53	669.88	167.65	4.996	
9,700.00	6,944.01	9,827.40	7,122.47	88.19	87.63	-102.28	-137.87	-3,117.17	838.70	665.83	172.87	4.852	
9,800.00	6,943.71	9,927.40	7,122.11	90.86	90.29	-102.26	-139.83	-3,217.14	839.88	661.76	178.12	4.715	
9,900.00	6,943.42	10,027.39	7,121.74	93.55	92.97	-102.24	-141.78	-3,317.11	841.05	657.67	183.39	4.586	
10,000.00	6,943.12	10,127.38	7,121.38	96.24	95.66	-102.22	-143.74	-3,417.09	842.23	653.55	188.68	4.464	
10,100.00	6,942.82	10,227.37	7,121.01	98.95	98.36	-102.20	-145.69	-3,517.06	843.41	649.42	193.99	4.348	
10,200.00	6,942.52	10,327.37	7,120.64	101.66	101.07	-102.17	-147.65	-3,617.03	844.58	645.27	199.31	4.237	
10,300.00	6,942.22	10,427.36	7,120.28	104.38	103.78	-102.15	-149.60	-3,717.00	845.76	641.10	204.66	4.133	

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 4N-16A-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 4N-16A-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	6,941.92	10,527.35	7,119.91	107.11	106.50	-102.13	-151.56	-3,816.98	846.94	636.92	210.01	4.033	
10,500.00	6,941.63	10,627.35	7,119.54	109.84	109.23	-102.11	-153.51	-3,916.95	848.11	632.73	215.38	3.938	
10,600.00	6,941.33	10,727.34	7,119.18	112.58	111.97	-102.09	-155.47	-4,016.92	849.29	628.52	220.77	3.847	
10,700.00	6,941.03	10,827.33	7,118.81	115.33	114.71	-102.07	-157.43	-4,116.90	850.47	624.30	226.16	3.760	
10,800.00	6,940.73	10,927.32	7,118.45	118.08	117.45	-102.04	-159.38	-4,216.87	851.64	620.07	231.57	3.678	
10,900.00	6,940.43	11,027.32	7,118.08	120.84	120.21	-102.02	-161.34	-4,316.84	852.82	615.83	236.99	3.599	
11,000.00	6,940.13	11,127.31	7,117.71	123.60	122.96	-102.00	-163.29	-4,416.81	854.00	611.58	242.42	3.523	
11,100.00	6,939.83	11,227.30	7,117.35	126.36	125.72	-101.98	-165.25	-4,516.79	855.17	607.32	247.85	3.450	
11,200.00	6,939.54	11,327.29	7,116.98	129.13	128.49	-101.96	-167.20	-4,616.76	856.35	603.05	253.30	3.381	
11,300.00	6,939.24	11,427.29	7,116.62	131.91	131.25	-101.94	-169.16	-4,716.73	857.53	598.78	258.75	3.314	
11,400.00	6,938.94	11,527.28	7,116.25	134.68	134.03	-101.92	-171.11	-4,816.70	858.71	594.49	264.21	3.250	
11,500.00	6,938.64	11,627.27	7,115.88	137.46	136.80	-101.89	-173.07	-4,916.68	859.88	590.20	269.68	3.189	
11,600.00	6,938.34	11,727.26	7,115.52	140.25	139.58	-101.87	-175.02	-5,016.65	861.06	585.90	275.16	3.129	
11,700.00	6,938.04	11,827.26	7,115.15	143.03	142.36	-101.85	-176.98	-5,116.62	862.24	581.60	280.64	3.072	
11,800.00	6,937.75	11,927.25	7,114.78	145.82	145.15	-101.83	-178.93	-5,216.60	863.42	577.29	286.13	3.018	
11,900.00	6,937.45	12,027.24	7,114.42	148.61	147.93	-101.81	-180.89	-5,316.57	864.60	572.97	291.62	2.965	
12,000.00	6,937.15	12,127.23	7,114.05	151.41	150.72	-101.79	-182.85	-5,416.54	865.77	568.65	297.12	2.914	
12,100.00	6,936.85	12,227.23	7,113.69	154.20	153.51	-101.77	-184.80	-5,516.51	866.95	564.33	302.63	2.865	
12,200.00	6,936.55	12,327.22	7,113.32	157.00	156.31	-101.75	-186.76	-5,616.49	868.13	559.99	308.14	2.817	
12,300.00	6,936.25	12,427.21	7,112.95	159.80	159.10	-101.73	-188.71	-5,716.46	869.31	555.66	313.65	2.772	
12,400.00	6,935.96	12,527.20	7,112.59	162.61	161.90	-101.71	-190.67	-5,816.43	870.49	551.32	319.17	2.727	
12,500.00	6,935.66	12,627.20	7,112.22	165.41	164.70	-101.69	-192.62	-5,916.41	871.67	546.97	324.69	2.685	
12,600.00	6,935.36	12,727.19	7,111.86	168.22	167.50	-101.66	-194.58	-6,016.38	872.85	542.62	330.22	2.643	
12,700.00	6,935.06	12,827.18	7,111.49	171.02	170.31	-101.64	-196.53	-6,116.35	874.02	538.27	335.75	2.603	
12,800.00	6,934.76	12,927.17	7,111.12	173.83	173.11	-101.62	-198.49	-6,216.32	875.20	533.91	341.29	2.564	
12,900.00	6,934.46	13,027.17	7,110.76	176.65	175.92	-101.60	-200.44	-6,316.30	876.38	529.55	346.83	2.527	
13,000.00	6,934.17	13,127.16	7,110.39	179.46	178.73	-101.58	-202.40	-6,416.27	877.56	525.19	352.37	2.490	
13,100.00	6,933.87	13,227.15	7,110.02	182.27	181.54	-101.56	-204.36	-6,516.24	878.74	520.82	357.92	2.455	
13,200.00	6,933.57	13,327.14	7,109.66	185.09	184.35	-101.54	-206.31	-6,616.21	879.92	516.45	363.47	2.421	
13,300.00	6,933.27	13,427.14	7,109.29	187.91	187.16	-101.52	-208.27	-6,716.19	881.10	512.08	369.02	2.388	
13,400.00	6,932.97	13,527.13	7,108.93	190.72	189.97	-101.50	-210.22	-6,816.16	882.28	507.70	374.58	2.355	
13,500.00	6,932.67	13,627.12	7,108.56	193.54	192.79	-101.48	-212.18	-6,916.13	883.46	503.32	380.14	2.324	
13,600.00	6,932.38	13,727.11	7,108.19	196.36	195.61	-101.46	-214.13	-7,016.11	884.64	498.94	385.70	2.294	
13,700.00	6,932.08	13,827.11	7,107.83	199.19	198.42	-101.44	-216.09	-7,116.08	885.82	494.56	391.26	2.264	
13,800.00	6,931.78	13,927.10	7,107.46	202.01	201.24	-101.42	-218.04	-7,216.05	887.00	490.17	396.83	2.235	
13,900.00	6,931.48	14,027.09	7,107.10	204.83	204.06	-101.40	-220.00	-7,316.02	888.18	485.78	402.40	2.207	
14,000.00	6,931.18	14,127.08	7,106.73	207.66	206.88	-101.38	-221.95	-7,416.00	889.36	481.39	407.97	2.180	
14,100.00	6,930.88	14,227.07	7,106.36	210.48	209.70	-101.36	-223.91	-7,515.97	890.54	477.00	413.55	2.153	
14,200.00	6,930.59	14,327.07	7,106.00	213.31	212.52	-101.34	-225.86	-7,615.94	891.72	472.60	419.12	2.128	
14,300.00	6,930.29	14,427.06	7,105.63	216.14	215.34	-101.32	-227.82	-7,715.92	892.91	468.20	424.70	2.102	
14,400.00	6,929.99	14,527.06	7,105.26	218.96	218.17	-101.30	-229.78	-7,815.89	894.09	463.80	430.29	2.078	
14,500.00	6,929.69	14,627.05	7,104.90	221.79	220.99	-101.28	-231.73	-7,915.86	895.27	459.40	435.87	2.054	
14,600.00	6,929.39	14,727.04	7,104.53	224.62	223.82	-101.27	-233.69	-8,015.83	896.45	454.99	441.45	2.031	
14,700.00	6,929.09	14,827.03	7,104.17	227.45	226.64	-101.25	-235.64	-8,115.81	897.63	450.59	447.04	2.008	
14,732.12	6,929.00	14,859.15	7,104.05	228.36	227.55	-101.24	-236.27	-8,147.92	898.01	449.17	448.84	2.001 SF	



Anticollision Report



Company:	SRC ENERGY	Local Co-ordinate Reference:	Well HARVESTERS STATE 4N-16A-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 4N-16A-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	-115.84	-4,355.81	-8,995.71	9,994.97					
100.00	100.00	39.00	100.00	3.28	3.35	-115.84	-4,355.81	-8,995.71	9,994.79	9,988.15	6.63	1,506.460		
200.00	200.00	139.00	200.00	3.34	4.52	-115.84	-4,355.81	-8,995.71	9,994.79	9,986.93	7.85	1,272.416		
300.00	300.00	239.00	300.00	3.44	7.37	-115.84	-4,355.81	-8,995.71	9,994.79	9,983.98	10.81	924.313		
400.00	400.00	339.00	400.00	3.60	10.61	-115.84	-4,355.81	-8,995.71	9,994.79	9,980.58	14.21	703.258		
500.00	500.00	439.00	500.00	3.81	13.97	-115.84	-4,355.81	-8,995.71	9,994.79	9,977.01	17.78	562.247		
600.00	600.00	539.00	600.00	4.05	17.38	-115.84	-4,355.81	-8,995.71	9,994.79	9,973.36	21.43	466.402		
700.00	699.98	638.98	699.98	4.32	20.82	-102.37	-4,355.81	-8,995.71	9,995.16	9,970.02	25.14	397.603		
800.00	799.84	738.84	799.84	4.62	24.27	-102.38	-4,355.81	-8,995.71	9,996.29	9,967.40	28.88	346.090		
900.00	899.45	838.45	899.45	4.94	27.72	-102.39	-4,355.81	-8,995.71	9,998.16	9,965.51	32.65	306.214		
6,900.00	6,795.62	6,734.62	6,795.62	30.97	233.38	-47.58	-4,355.81	-8,995.71	9,989.71	9,725.51	264.20	37.811		
7,000.00	6,854.70	6,806.30	6,854.70	31.60	235.89	-52.22	-4,355.81	-8,995.71	9,923.58	9,656.47	267.12	37.151		
7,100.00	6,900.58	6,839.58	6,900.58	32.39	237.05	-59.29	-4,355.81	-8,995.71	9,849.74	9,581.03	268.71	36.656		
7,200.00	6,932.13	6,871.13	6,932.13	33.34	238.15	-69.19	-4,355.81	-8,995.71	9,770.03	9,499.77	270.26	36.150		
7,300.00	6,948.57	6,887.57	6,948.57	34.46	238.72	-81.94	-4,355.81	-8,995.71	9,686.46	9,415.14	271.32	35.702		
7,400.00	6,950.87	6,889.87	6,950.87	35.70	238.80	-90.28	-4,355.81	-8,995.71	9,601.13	9,329.22	271.91	35.310		
7,500.00	6,950.58	6,889.58	6,950.58	37.12	238.79	-90.28	-4,355.81	-8,995.71	9,515.86	9,243.39	272.47	34.924		
7,600.00	6,950.28	6,889.28	6,950.28	38.70	238.78	-90.27	-4,355.81	-8,995.71	9,430.88	9,157.77	273.11	34.531		
7,700.00	6,949.98	6,888.98	6,949.98	40.41	238.77	-90.27	-4,355.81	-8,995.71	9,346.20	9,072.38	273.83	34.132		
7,800.00	6,949.68	6,888.68	6,949.68	42.25	238.76	-90.27	-4,355.81	-8,995.71	9,261.83	8,987.22	274.62	33.727		
7,900.00	6,949.38	6,888.38	6,949.38	44.20	238.75	-90.26	-4,355.81	-8,995.71	9,177.77	8,902.29	275.48	33.316		
8,000.00	6,949.08	6,888.08	6,949.08	46.24	238.74	-90.26	-4,355.81	-8,995.71	9,094.03	8,817.62	276.41	32.900		
8,100.00	6,948.79	6,887.79	6,948.79	48.36	238.73	-90.26	-4,355.81	-8,995.71	9,010.63	8,733.21	277.42	32.480		
8,200.00	6,948.49	6,887.49	6,948.49	50.56	238.72	-90.25	-4,355.81	-8,995.71	8,927.56	8,649.07	278.50	32.056		
8,300.00	6,948.19	6,887.19	6,948.19	52.82	238.71	-90.25	-4,355.81	-8,995.71	8,844.85	8,565.21	279.64	31.629		
8,400.00	6,947.89	6,886.89	6,947.89	55.14	238.70	-90.25	-4,355.81	-8,995.71	8,762.50	8,481.64	280.86	31.199		
8,500.00	6,947.59	6,886.59	6,947.59	57.50	238.69	-90.24	-4,355.81	-8,995.71	8,680.51	8,398.37	282.14	30.767		
8,600.00	6,947.29	6,886.29	6,947.29	59.91	238.68	-90.24	-4,355.81	-8,995.71	8,598.91	8,315.42	283.49	30.332		
8,700.00	6,947.00	6,886.00	6,947.00	62.36	238.67	-90.24	-4,355.81	-8,995.71	8,517.70	8,232.80	284.90	29.897		
8,800.00	6,946.70	6,885.70	6,946.70	64.84	238.66	-90.23	-4,355.81	-8,995.71	8,436.90	8,150.52	286.38	29.460		
8,900.00	6,946.40	6,885.40	6,946.40	67.35	238.65	-90.23	-4,355.81	-8,995.71	8,356.51	8,068.58	287.92	29.023		
9,000.00	6,946.10	6,885.10	6,946.10	69.88	238.64	-90.23	-4,355.81	-8,995.71	8,276.55	7,987.02	289.53	28.586		
9,100.00	6,945.80	6,884.80	6,945.80	72.44	238.63	-90.22	-4,355.81	-8,995.71	8,197.02	7,905.83	291.19	28.150		
9,200.00	6,945.50	6,884.50	6,945.50	75.02	238.62	-90.22	-4,355.81	-8,995.71	8,117.95	7,825.03	292.92	27.714		
9,300.00	6,945.21	6,884.21	6,945.21	77.63	238.61	-90.22	-4,355.81	-8,995.71	8,039.35	7,744.65	294.70	27.280		
9,400.00	6,944.91	6,883.91	6,944.91	80.24	238.59	-90.21	-4,355.81	-8,995.71	7,961.22	7,664.68	296.55	26.846		
9,500.00	6,944.61	6,883.61	6,944.61	82.88	238.58	-90.21	-4,355.81	-8,995.71	7,883.59	7,585.14	298.45	26.415		
9,600.00	6,944.31	6,883.31	6,944.31	85.53	238.57	-90.21	-4,355.81	-8,995.71	7,806.47	7,506.06	300.41	25.986		
9,700.00	6,944.01	6,883.01	6,944.01	88.19	238.56	-90.20	-4,355.81	-8,995.71	7,729.88	7,427.45	302.43	25.559		
9,800.00	6,943.71	6,882.71	6,943.71	90.86	238.55	-90.20	-4,355.81	-8,995.71	7,653.82	7,349.31	304.51	25.135		
9,900.00	6,943.42	6,882.42	6,943.42	93.55	238.54	-90.20	-4,355.81	-8,995.71	7,578.32	7,271.68	306.64	24.714		
10,000.00	6,943.12	6,882.12	6,943.12	96.24	238.53	-90.19	-4,355.81	-8,995.71	7,503.39	7,194.56	308.84	24.296		
10,100.00	6,942.82	6,881.82	6,942.82	98.95	238.52	-90.19	-4,355.81	-8,995.71	7,429.06	7,117.97	311.08	23.881		
10,200.00	6,942.52	6,881.52	6,942.52	101.66	238.51	-90.18	-4,355.81	-8,995.71	7,355.33	7,041.94	313.39	23.470		
10,300.00	6,942.22	6,881.22	6,942.22	104.38	238.50	-90.18	-4,355.81	-8,995.71	7,282.23	6,966.48	315.75	23.063		
10,400.00	6,941.92	6,880.92	6,941.92	107.11	238.49	-90.18	-4,355.81	-8,995.71	7,209.77	6,891.60	318.17	22.660		
10,500.00	6,941.63	6,880.63	6,941.63	109.84	238.48	-90.17	-4,355.81	-8,995.71	7,137.98	6,817.34	320.64	22.261		
10,600.00	6,941.33	6,880.33	6,941.33	112.58	238.47	-90.17	-4,355.81	-8,995.71	7,066.88	6,743.70	323.17	21.867		
10,700.00	6,941.03	6,880.03	6,941.03	115.33	238.46	-90.17	-4,355.81	-8,995.71	6,996.48	6,670.72	325.76	21.477		
10,800.00	6,940.73	6,879.73	6,940.73	118.08	238.45	-90.16	-4,355.81	-8,995.71	6,926.81	6,598.41	328.40	21.092		
10,900.00	6,940.43	6,879.43	6,940.43	120.84	238.44	-90.16	-4,355.81	-8,995.71	6,857.89	6,526.79	331.10	20.712		
11,000.00	6,940.13	6,879.13	6,940.13	123.60	238.43	-90.16	-4,355.81	-8,995.71	6,789.74	6,455.89	333.85	20.337		

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 4N-16A-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 4N-16A-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: 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	
11,100.00	6,939.83	6,878.83	6,939.83	126.36	238.42	-90.15	-4,355.81	-8,995.71	6,722.39	6,385.73	336.66	19.968	
11,200.00	6,939.54	6,878.54	6,939.54	129.13	238.41	-90.15	-4,355.81	-8,995.71	6,655.87	6,316.34	339.53	19.603	
11,300.00	6,939.24	6,878.24	6,939.24	131.91	238.40	-90.15	-4,355.81	-8,995.71	6,590.18	6,247.74	342.45	19.244	
11,400.00	6,938.94	6,877.94	6,938.94	134.68	238.39	-90.14	-4,355.81	-8,995.71	6,525.37	6,179.96	345.42	18.891	
11,500.00	6,938.64	6,877.64	6,938.64	137.46	238.38	-90.14	-4,355.81	-8,995.71	6,461.46	6,113.02	348.44	18.544	
11,600.00	6,938.34	6,877.34	6,938.34	140.25	238.37	-90.14	-4,355.81	-8,995.71	6,398.47	6,046.95	351.52	18.202	
11,700.00	6,938.04	6,877.04	6,938.04	143.03	238.36	-90.13	-4,355.81	-8,995.71	6,336.43	5,981.78	354.65	17.867	
11,800.00	6,937.75	6,876.75	6,937.75	145.82	238.34	-90.13	-4,355.81	-8,995.71	6,275.38	5,917.54	357.84	17.537	
11,900.00	6,937.45	6,876.45	6,937.45	148.61	238.33	-90.13	-4,355.81	-8,995.71	6,215.33	5,854.26	361.07	17.214	
12,000.00	6,937.15	6,876.15	6,937.15	151.41	238.32	-90.12	-4,355.81	-8,995.71	6,156.32	5,791.97	364.35	16.897	
12,100.00	6,936.85	6,875.85	6,936.85	154.20	238.31	-90.12	-4,355.81	-8,995.71	6,098.38	5,730.70	367.68	16.586	
12,200.00	6,936.55	6,875.55	6,936.55	157.00	238.30	-90.12	-4,355.81	-8,995.71	6,041.54	5,670.49	371.06	16.282	
12,300.00	6,936.25	6,875.25	6,936.25	159.80	238.29	-90.11	-4,355.81	-8,995.71	5,985.83	5,611.35	374.48	15.984	
12,400.00	6,935.96	6,874.96	6,935.96	162.61	238.28	-90.11	-4,355.81	-8,995.71	5,931.29	5,553.34	377.94	15.694	
12,500.00	6,935.66	6,874.66	6,935.66	165.41	238.27	-90.11	-4,355.81	-8,995.71	5,877.94	5,496.49	381.45	15.409	
12,600.00	6,935.36	6,874.36	6,935.36	168.22	238.26	-90.10	-4,355.81	-8,995.71	5,825.81	5,440.82	385.00	15.132	
12,700.00	6,935.06	6,874.06	6,935.06	171.02	238.25	-90.10	-4,355.81	-8,995.71	5,774.95	5,386.37	388.58	14.862	
12,800.00	6,934.76	6,873.76	6,934.76	173.83	238.24	-90.10	-4,355.81	-8,995.71	5,725.39	5,333.19	392.20	14.598	
12,900.00	6,934.46	6,873.46	6,934.46	176.65	238.23	-90.09	-4,355.81	-8,995.71	5,677.15	5,281.30	395.84	14.342	
13,000.00	6,934.17	6,873.17	6,934.17	179.46	238.22	-90.09	-4,355.81	-8,995.71	5,630.27	5,230.75	399.52	14.093	
13,100.00	6,933.87	6,872.87	6,933.87	182.27	238.21	-90.09	-4,355.81	-8,995.71	5,584.79	5,181.57	403.22	13.850	
13,200.00	6,933.57	6,872.57	6,933.57	185.09	238.20	-90.08	-4,355.81	-8,995.71	5,540.75	5,133.80	406.95	13.615	
13,300.00	6,933.27	6,872.27	6,933.27	187.91	238.19	-90.08	-4,355.81	-8,995.71	5,498.17	5,087.48	410.69	13.388	
13,400.00	6,932.97	6,871.97	6,932.97	190.72	238.18	-90.08	-4,355.81	-8,995.71	5,457.09	5,042.64	414.45	13.167	
13,500.00	6,932.67	6,871.67	6,932.67	193.54	238.17	-90.07	-4,355.81	-8,995.71	5,417.54	4,999.33	418.22	12.954	
13,600.00	6,932.38	6,871.38	6,932.38	196.36	238.16	-90.07	-4,355.81	-8,995.71	5,379.57	4,957.58	421.99	12.748	
13,700.00	6,932.08	6,871.08	6,932.08	199.19	238.15	-90.07	-4,355.81	-8,995.71	5,343.19	4,917.43	425.77	12.550	
13,800.00	6,931.78	6,870.78	6,931.78	202.01	238.14	-90.06	-4,355.81	-8,995.71	5,308.45	4,878.91	429.54	12.358	
13,900.00	6,931.48	6,870.48	6,931.48	204.83	238.13	-90.06	-4,355.81	-8,995.71	5,275.38	4,842.08	433.31	12.175	
14,000.00	6,931.18	6,870.18	6,931.18	207.66	238.12	-90.05	-4,355.81	-8,995.71	5,244.01	4,806.95	437.06	11.998	
14,100.00	6,930.88	6,869.88	6,930.88	210.48	238.11	-90.05	-4,355.81	-8,995.71	5,214.36	4,773.57	440.79	11.830	
14,200.00	6,930.59	6,869.59	6,930.59	213.31	238.09	-90.05	-4,355.81	-8,995.71	5,186.48	4,741.98	444.50	11.668	
14,300.00	6,930.29	6,869.29	6,930.29	216.14	238.08	-90.04	-4,355.81	-8,995.71	5,160.38	4,712.20	448.18	11.514	
14,400.00	6,929.99	6,868.99	6,929.99	218.96	238.07	-90.04	-4,355.81	-8,995.71	5,136.09	4,684.27	451.83	11.367	
14,500.00	6,929.69	6,868.69	6,929.69	221.79	238.06	-90.04	-4,355.81	-8,995.71	5,113.65	4,658.22	455.43	11.228	
14,600.00	6,929.39	6,868.39	6,929.39	224.62	238.05	-90.03	-4,355.81	-8,995.71	5,093.07	4,634.08	459.99	11.096	
14,700.00	6,929.09	6,868.09	6,929.09	227.45	238.04	-90.03	-4,355.81	-8,995.71	5,074.38	4,611.88	462.50	10.972	
14,732.12	6,929.00	6,868.00	6,929.00	228.36	238.04	-90.03	-4,355.81	-8,995.71	5,068.78	4,605.17	463.61	10.933 CC, ES, SF	



Anticollision Report



Company:	SRC ENERGY	Local Co-ordinate Reference:	Well HARVESTERS STATE 4N-16A-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 4N-16A-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	669.00	702.89	3.28	4.32	-108.72	-3,028.68	-8,937.96	9,463.30					
100.00	100.00	724.00	757.32	3.28	4.49	-108.76	-3,034.01	-8,932.11	9,456.21	9,448.46	7.75	1,220.393		
200.00	200.00	724.00	757.32	3.34	4.49	-108.76	-3,034.01	-8,932.11	9,449.79	9,442.00	7.79	1,213.148		
300.00	300.00	724.00	757.32	3.44	4.49	-108.76	-3,034.01	-8,932.11	9,444.42	9,436.53	7.89	1,197.254		
400.00	400.00	724.00	757.32	3.60	4.49	-108.76	-3,034.01	-8,932.11	9,440.10	9,432.06	8.04	1,174.083		
500.00	500.00	776.26	808.95	3.81	4.67	-108.81	-3,040.42	-8,927.24	9,435.85	9,427.44	8.41	1,122.035		
600.00	600.00	818.00	850.05	4.05	4.81	-108.85	-3,047.01	-8,924.15	9,433.31	9,424.52	8.79	1,073.098		
700.00	699.98	818.00	850.05	4.32	4.81	-95.42	-3,047.01	-8,924.15	9,431.35	9,422.29	9.06	1,041.070		
790.78	790.64	818.00	850.05	4.59	4.81	-95.43	-3,047.01	-8,924.15	9,430.78	9,421.45	9.33	1,011.226		
800.00	799.84	818.00	850.05	4.62	4.81	-95.43	-3,047.01	-8,924.15	9,430.78	9,421.43	9.35	1,008.182		
900.00	899.45	818.00	850.05	4.94	4.81	-95.42	-3,047.01	-8,924.15	9,431.61	9,421.93	9.67	975.180		
1,000.00	998.80	818.00	850.05	5.28	4.81	-95.40	-3,047.01	-8,924.15	9,433.75	9,423.74	10.01	942.587		
1,100.00	1,098.12	861.48	892.76	5.63	4.97	-95.48	-3,054.80	-8,921.82	9,436.29	9,425.77	10.52	897.047		
1,200.00	1,197.44	912.00	942.33	6.00	5.15	-95.57	-3,064.45	-8,920.44	9,440.53	9,429.45	11.08	852.408		
1,300.00	1,296.77	912.00	942.33	6.37	5.15	-95.57	-3,064.45	-8,920.44	9,444.91	9,433.46	11.45	824.799		
1,400.00	1,396.09	912.00	942.33	6.76	5.15	-95.57	-3,064.45	-8,920.44	9,450.35	9,438.52	11.84	798.458		
1,500.00	1,495.41	912.00	942.33	7.15	5.15	-95.57	-3,064.45	-8,920.44	9,456.85	9,444.62	12.23	773.428		
1,600.00	1,594.74	912.00	942.33	7.55	5.15	-95.57	-3,064.45	-8,920.44	9,464.39	9,451.77	12.62	749.712		
1,700.00	1,694.06	912.00	942.33	7.96	5.15	-95.57	-3,064.45	-8,920.44	9,472.99	9,459.96	13.03	727.286		
1,800.00	1,793.38	959.24	988.66	8.37	5.32	-95.66	-3,073.70	-8,920.57	9,481.82	9,468.21	13.61	696.569		
1,900.00	1,892.71	1,006.00	1,034.51	8.78	5.50	-95.74	-3,082.70	-8,922.22	9,492.36	9,478.16	14.20	668.281		
2,000.00	1,992.03	1,006.00	1,034.51	9.20	5.50	-95.74	-3,082.70	-8,922.22	9,503.15	9,488.53	14.61	650.362		
2,100.00	2,091.36	1,006.00	1,034.51	9.62	5.50	-95.74	-3,082.70	-8,922.22	9,514.97	9,499.95	15.02	633.440		
2,200.00	2,190.68	1,006.00	1,034.51	10.05	5.50	-95.74	-3,082.70	-8,922.22	9,527.83	9,512.40	15.43	617.458		
2,300.00	2,290.00	1,006.00	1,034.51	10.48	5.50	-95.74	-3,082.70	-8,922.22	9,541.72	9,525.88	15.84	602.364		
2,400.00	2,389.33	1,055.28	1,082.83	10.90	5.68	-95.82	-3,091.79	-8,925.42	9,556.00	9,539.55	16.44	581.132		
2,500.00	2,488.65	1,101.00	1,127.68	11.34	5.85	-95.89	-3,099.66	-8,929.59	9,571.54	9,554.50	17.04	561.828		
2,600.00	2,587.97	1,101.00	1,127.68	11.77	5.85	-95.89	-3,099.66	-8,929.59	9,587.55	9,570.11	17.44	549.608		
2,700.00	2,687.30	1,101.00	1,127.68	12.20	5.85	-95.89	-3,099.66	-8,929.59	9,604.57	9,586.72	17.85	538.043		
2,800.00	2,786.62	1,101.00	1,127.68	12.64	5.85	-95.89	-3,099.66	-8,929.59	9,622.61	9,604.35	18.26	527.092		
2,900.00	2,885.94	1,143.50	1,169.26	13.07	6.01	-95.95	-3,107.05	-8,934.35	9,641.10	9,622.26	18.83	511.908		
3,000.00	2,985.27	1,197.00	1,221.30	13.51	6.23	-96.03	-3,117.28	-8,941.34	9,661.05	9,641.59	19.46	496.472		
3,100.00	3,084.59	1,197.00	1,221.30	13.95	6.23	-96.03	-3,117.28	-8,941.34	9,681.13	9,661.28	19.86	487.490		
3,200.00	3,183.91	1,197.00	1,221.30	14.39	6.23	-96.03	-3,117.28	-8,941.34	9,702.21	9,681.95	20.26	478.968		
3,300.00	3,283.24	1,197.00	1,221.30	14.83	6.23	-96.03	-3,117.28	-8,941.34	9,724.26	9,703.61	20.65	470.879		
3,400.00	3,382.56	1,197.00	1,221.30	15.27	6.23	-96.03	-3,117.28	-8,941.34	9,747.30	9,726.25	21.04	463.200		
3,500.00	3,481.88	1,245.20	1,267.90	15.71	6.43	-96.10	-3,127.32	-8,948.51	9,770.67	9,749.02	21.65	451.332		
3,600.00	3,581.21	1,292.00	1,312.86	16.16	6.64	-96.18	-3,137.74	-8,956.22	9,795.31	9,773.06	22.25	440.234		
3,700.00	3,680.53	1,292.00	1,312.86	16.60	6.64	-96.18	-3,137.74	-8,956.22	9,820.33	9,797.69	22.63	433.869		
3,800.00	3,779.85	1,292.00	1,312.86	17.04	6.64	-96.18	-3,137.74	-8,956.22	9,846.29	9,823.28	23.02	427.817		
3,900.00	3,879.18	1,292.00	1,312.86	17.49	6.64	-96.18	-3,137.74	-8,956.22	9,873.20	9,849.81	23.39	422.062		
4,000.00	3,978.50	1,332.73	1,351.76	17.93	6.84	-96.24	-3,147.35	-8,963.53	9,900.60	9,876.65	23.96	413.269		
4,100.00	4,077.82	1,349.96	1,368.15	18.37	6.93	-96.27	-3,151.56	-8,966.79	9,928.92	9,904.50	24.42	406.626		
4,200.00	4,177.15	1,387.00	1,403.23	18.82	7.12	-96.34	-3,160.91	-8,974.11	9,958.11	9,933.14	24.97	398.730		
4,300.00	4,276.47	1,387.00	1,403.23	19.27	7.12	-96.34	-3,160.91	-8,974.11	9,987.85	9,962.51	25.34	394.166		
7,900.00	6,949.38	3,852.63	3,827.04	44.20	29.90	-55.45	-4,155.01	-9,323.31	9,920.17	9,861.93	58.24	170.340		
8,000.00	6,949.08	3,859.01	3,632.81	46.24	29.97	-55.51	-4,157.62	-9,324.13	9,839.33	9,780.30	59.03	166.690		
8,100.00	6,948.79	3,865.43	3,638.61	48.36	30.03	-55.58	-4,160.24	-9,324.96	9,758.84	9,698.96	59.88	162.973		
8,200.00	6,948.49	3,871.88	3,644.44	50.56	30.09	-55.64	-4,162.89	-9,325.79	9,678.71	9,617.91	60.79	159.207		
8,300.00	6,948.19	3,878.37	3,650.29	52.82	30.16	-55.70	-4,165.55	-9,326.63	9,598.93	9,537.17	61.77	155.407		
8,400.00	6,947.89	3,884.90	3,656.18	55.14	30.22	-55.76	-4,168.23	-9,327.47	9,519.54	9,456.74	62.80	151.588		
8,500.00	6,947.59	3,891.46	3,662.10	57.50	30.29	-55.83	-4,170.93	-9,328.32	9,440.52	9,376.63	63.89	147.765		

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 4N-16A-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 4N-16A-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-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		
8,600.00	6,947.29	3,898.05	3,668.05	59.91	30.35	-55.89	-4,173.65	-9,329.18	9,361.90	9,296.86	65.04	143.950		
8,700.00	6,947.00	3,904.68	3,674.03	62.36	30.42	-55.95	-4,176.39	-9,330.05	9,283.67	9,217.43	66.24	140.155		
8,800.00	6,946.70	3,925.00	3,692.33	64.84	30.62	-56.15	-4,184.80	-9,332.71	9,205.88	9,138.25	67.63	136.122		
8,900.00	6,946.40	3,925.00	3,692.33	67.35	30.62	-56.15	-4,184.80	-9,332.71	9,128.48	9,059.61	68.88	132.535		
9,000.00	6,946.10	3,925.00	3,692.33	69.88	30.62	-56.15	-4,184.80	-9,332.71	9,051.52	8,981.35	70.17	128.987		
9,100.00	6,945.80	3,925.00	3,692.33	72.44	30.62	-56.15	-4,184.80	-9,332.71	8,975.02	8,903.50	71.52	125.486		
9,200.00	6,945.50	3,925.00	3,692.33	75.02	30.62	-56.15	-4,184.80	-9,332.71	8,898.98	8,826.06	72.92	122.039		
9,300.00	6,945.21	3,925.00	3,692.33	77.63	30.62	-56.15	-4,184.80	-9,332.71	8,823.42	8,749.05	74.36	118.650		
9,400.00	6,944.91	3,925.00	3,692.33	80.24	30.62	-56.15	-4,184.80	-9,332.71	8,748.35	8,672.49	75.86	115.325		
9,500.00	6,944.61	3,925.00	3,692.33	82.88	30.62	-56.15	-4,184.80	-9,332.71	8,673.78	8,596.38	77.40	112.067		
9,600.00	6,944.31	3,925.00	3,692.33	85.53	30.62	-56.15	-4,184.80	-9,332.71	8,599.73	8,520.75	78.98	108.879		
9,700.00	6,944.01	3,925.00	3,692.33	88.19	30.62	-56.15	-4,184.80	-9,332.71	8,526.21	8,445.59	80.62	105.762		
9,800.00	6,943.71	3,925.00	3,692.33	90.86	30.62	-56.15	-4,184.80	-9,332.71	8,453.23	8,370.94	82.29	102.720		
9,900.00	6,943.42	3,925.00	3,692.33	93.55	30.62	-56.15	-4,184.80	-9,332.71	8,380.81	8,296.80	84.02	99.753		
10,000.00	6,943.12	3,925.00	3,692.33	96.24	30.62	-56.15	-4,184.80	-9,332.71	8,308.97	8,223.18	85.78	96.863		
10,100.00	6,942.82	3,925.00	3,692.33	98.95	30.62	-56.15	-4,184.80	-9,332.71	8,237.71	8,150.11	87.59	94.048		
10,200.00	6,942.52	3,925.00	3,692.33	101.66	30.62	-56.15	-4,184.80	-9,332.71	8,167.05	8,077.61	89.44	91.310		
10,300.00	6,942.22	3,925.00	3,692.33	104.38	30.62	-56.15	-4,184.80	-9,332.71	8,097.01	8,005.67	91.34	88.649		
10,400.00	6,941.92	3,925.00	3,692.33	107.11	30.62	-56.15	-4,184.80	-9,332.71	8,027.60	7,934.33	93.28	86.063		
10,500.00	6,941.63	3,925.00	3,692.33	109.84	30.62	-56.15	-4,184.80	-9,332.71	7,958.85	7,863.60	95.26	83.552		
10,600.00	6,941.33	3,963.90	3,727.14	112.58	31.03	-56.53	-4,201.34	-9,337.97	7,890.25	7,792.49	97.76	80.709		
10,700.00	6,941.03	3,966.48	3,729.43	115.33	31.06	-56.55	-4,202.46	-9,338.33	7,822.77	7,722.91	99.86	78.334		
10,800.00	6,940.73	3,969.07	3,731.74	118.08	31.09	-56.58	-4,203.60	-9,338.69	7,756.00	7,653.99	102.01	76.032		
10,900.00	6,940.43	3,971.68	3,734.05	120.84	31.11	-56.60	-4,204.74	-9,339.06	7,689.94	7,585.74	104.20	73.803		
11,000.00	6,940.13	3,974.31	3,736.38	123.60	31.14	-56.63	-4,205.90	-9,339.42	7,624.61	7,518.19	106.42	71.643		
11,100.00	6,939.83	3,976.96	3,738.73	126.36	31.17	-56.65	-4,207.07	-9,339.80	7,560.04	7,451.35	108.70	69.552		
11,200.00	6,939.54	3,979.62	3,741.09	129.13	31.20	-56.68	-4,208.25	-9,340.17	7,496.24	7,385.24	111.01	67.529		
11,300.00	6,939.24	3,982.30	3,743.46	131.91	31.22	-56.71	-4,209.44	-9,340.55	7,433.24	7,319.88	113.36	65.572		
11,400.00	6,938.94	7,139.90	6,728.82	134.68	52.88	-88.00	-4,988.00	-9,550.55	7,369.21	7,225.56	143.65	51.302		
11,500.00	6,938.64	7,141.93	6,730.85	137.46	52.89	-88.02	-4,988.04	-9,550.59	7,305.01	7,158.61	146.40	49.898		
11,600.00	6,938.34	7,143.97	6,732.89	140.25	52.90	-88.05	-4,988.08	-9,550.63	7,241.62	7,092.42	149.20	48.536		
11,700.00	6,938.04	7,146.00	6,734.92	143.03	52.90	-88.07	-4,988.13	-9,550.67	7,179.07	7,027.02	152.05	47.215		
11,800.00	6,937.75	7,148.04	6,736.96	145.82	52.91	-88.09	-4,988.17	-9,550.71	7,117.37	6,962.43	154.94	45.935		
11,900.00	6,937.45	7,150.09	6,739.01	148.61	52.91	-88.11	-4,988.21	-9,550.75	7,055.55	6,898.66	157.89	44.694		
12,000.00	6,937.15	7,152.13	6,741.05	151.41	52.92	-88.13	-4,988.25	-9,550.79	6,996.63	6,835.75	160.87	43.492		
12,100.00	6,936.85	7,154.18	6,743.10	154.20	52.92	-88.15	-4,988.30	-9,550.83	6,937.63	6,773.73	163.90	42.328		
12,200.00	6,936.55	7,156.24	6,745.15	157.00	52.93	-88.17	-4,988.34	-9,550.86	6,879.58	6,712.60	166.98	41.201		
12,300.00	6,936.25	7,158.29	6,747.20	159.80	52.94	-88.19	-4,988.38	-9,550.90	6,822.50	6,652.40	170.10	40.110		
12,400.00	6,935.96	7,160.35	6,749.26	162.61	52.94	-88.21	-4,988.42	-9,550.94	6,766.41	6,593.16	173.26	39.054		
12,500.00	6,935.66	7,162.41	6,751.32	165.41	52.95	-88.23	-4,988.47	-9,550.98	6,711.35	6,534.89	176.46	38.033		
12,600.00	6,935.36	7,164.47	6,753.38	168.22	52.95	-88.25	-4,988.51	-9,551.02	6,657.33	6,477.63	179.71	37.046		
12,700.00	6,935.06	7,166.53	6,755.44	171.02	52.96	-88.28	-4,988.55	-9,551.06	6,604.39	6,421.40	182.99	36.091		
12,800.00	6,934.76	7,168.60	6,757.51	173.83	52.97	-88.30	-4,988.59	-9,551.10	6,552.54	6,366.23	186.31	35.169		
12,900.00	6,934.46	7,170.67	6,759.58	176.65	52.97	-88.32	-4,988.63	-9,551.14	6,501.82	6,312.14	189.68	34.278		
13,000.00	6,934.17	7,172.74	6,761.65	179.46	52.98	-88.34	-4,988.67	-9,551.18	6,452.25	6,259.17	193.07	33.419		
13,100.00	6,933.87	7,174.82	6,763.73	182.27	52.98	-88.36	-4,988.72	-9,551.22	6,403.85	6,207.35	196.51	32.588		
13,200.00	6,933.57	7,176.90	6,765.80	185.09	52.99	-88.38	-4,988.76	-9,551.26	6,356.66	6,156.69	199.97	31.788		
13,300.00	6,933.27	7,178.98	6,767.88	187.91	53.00	-88.40	-4,988.80	-9,551.30	6,310.70	6,107.23	203.47	31.016		
13,400.00	6,932.97	7,181.06	6,769.97	190.72	53.00	-88.42	-4,988.84	-9,551.34	6,266.00	6,059.01	207.00	30.271		
13,500.00	6,932.67	7,183.15	6,772.05	193.54	53.01	-88.44	-4,988.88	-9,551.38	6,222.59	6,012.04	210.55	29.554		
13,600.00	6,932.38	7,185.24	6,774.14	196.36	53.01	-88.47	-4,988.92	-9,551.42	6,180.48	5,966.36	214.13	28.863		
13,700.00	6,932.08	7,187.33	6,776.23	199.19	53.02	-88.49	-4,988.96	-9,551.46	6,139.72	5,921.99	217.73	28.199		

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 4N-16A-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 4N-16A-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						
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
13,800.00	6,931.78	7,189.42	6,778.33	202.01	53.03	-88.51	-4,989.00	-9,551.50	6,100.33	5,878.97	221.35	27.559	
13,900.00	6,931.48	7,191.52	6,780.42	204.83	53.03	-88.53	-4,989.04	-9,551.54	6,062.32	5,837.33	224.99	26.945	
14,000.00	6,931.18	7,193.62	6,782.52	207.66	53.04	-88.55	-4,989.08	-9,551.58	6,025.74	5,797.09	228.65	26.354	
14,100.00	6,930.88	7,195.72	6,784.62	210.48	53.04	-88.57	-4,989.12	-9,551.62	5,990.60	5,758.29	232.31	25.787	
14,200.00	6,930.59	7,197.83	6,786.73	213.31	53.05	-88.59	-4,989.16	-9,551.66	5,956.93	5,720.94	235.99	25.242	
14,300.00	6,930.29	7,199.93	6,788.83	216.14	53.06	-88.62	-4,989.20	-9,551.71	5,924.76	5,685.09	239.67	24.721	
14,400.00	6,929.99	7,202.05	6,790.94	218.96	53.06	-88.64	-4,989.24	-9,551.75	5,894.11	5,650.76	243.35	24.220	
14,500.00	6,929.69	7,204.16	6,793.06	221.79	53.07	-88.66	-4,989.28	-9,551.79	5,865.00	5,617.97	247.03	23.742	
14,600.00	6,929.39	7,206.28	6,795.17	224.62	53.07	-88.68	-4,989.32	-9,551.83	5,837.47	5,586.76	250.71	23.284	
14,700.00	6,929.09	7,208.39	6,797.29	227.45	53.08	-88.70	-4,989.36	-9,551.87	5,811.52	5,557.14	254.38	22.846	
14,732.12	6,929.00	7,209.08	6,797.97	228.36	53.08	-88.71	-4,989.37	-9,551.88	5,803.52	5,547.97	255.55	22.710 CC, ES, SF	



Anticollision Report



Company:	SRC ENERGY	Local Co-ordinate Reference:	Well HARVESTERS STATE 4N-16A-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 4N-16A-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	-131.06	-4,283.01	-4,917.48	6,521.49					
100.00	100.00	48.92	112.92	3.28	3.28	-131.05	-4,282.84	-4,917.56	6,521.14	6,514.58	6.57	993.087		
200.00	200.00	183.87	247.85	3.34	3.33	-131.04	-4,280.95	-4,918.37	6,520.67	6,514.00	6.67	977.527		
300.00	300.00	278.51	342.47	3.44	3.43	-131.02	-4,279.13	-4,919.04	6,519.94	6,513.07	6.88	948.344		
400.00	400.00	376.23	440.18	3.60	3.58	-131.01	-4,277.57	-4,919.60	6,519.33	6,512.15	7.18	908.242		
500.00	500.00	479.66	543.60	3.81	3.77	-131.00	-4,276.12	-4,919.98	6,518.69	6,511.11	7.58	860.295		
600.00	600.00	598.69	662.62	4.05	4.05	-130.98	-4,274.51	-4,920.12	6,517.90	6,509.81	8.09	805.483		
653.53	653.52	645.86	709.78	4.19	4.17	-117.52	-4,273.88	-4,920.10	6,517.64	6,509.28	8.35	780.162		
700.00	699.98	686.48	750.40	4.32	4.28	-117.52	-4,273.41	-4,920.07	6,517.83	6,509.24	8.59	758.548		
800.00	799.84	788.44	852.36	4.62	4.57	-117.53	-4,272.33	-4,919.96	6,519.48	6,510.30	9.18	710.155		
900.00	899.45	877.11	941.02	4.94	4.84	-117.52	-4,271.41	-4,919.90	6,522.79	6,513.02	9.77	667.632		
1,000.00	998.80	970.47	1,034.37	5.28	5.14	-117.57	-4,270.52	-4,919.96	6,527.51	6,517.10	10.41	627.181		
1,100.00	1,098.12	1,078.15	1,142.05	5.63	5.50	-117.66	-4,269.47	-4,920.04	6,532.34	6,521.22	11.12	587.297		
1,200.00	1,197.44	1,170.82	1,234.71	6.00	5.82	-117.74	-4,268.52	-4,920.08	6,537.11	6,525.30	11.81	553.438		
1,300.00	1,296.77	1,256.21	1,320.10	6.37	6.13	-117.81	-4,267.70	-4,920.26	6,542.08	6,529.59	12.49	523.608		
1,400.00	1,396.09	1,342.36	1,406.25	6.76	6.44	-117.88	-4,267.14	-4,920.47	6,547.29	6,534.09	13.19	496.224		
1,500.00	1,495.41	1,439.44	1,503.32	7.15	6.81	-117.96	-4,266.75	-4,920.70	6,552.66	6,538.71	13.95	469.787		
1,600.00	1,594.74	1,543.62	1,607.50	7.55	7.20	-118.05	-4,266.27	-4,920.85	6,557.94	6,543.20	14.74	444.849		
1,700.00	1,694.06	1,642.63	1,706.52	7.96	7.58	-118.14	-4,266.00	-4,920.87	6,563.28	6,547.75	15.53	422.688		
1,800.00	1,793.38	1,743.08	1,806.97	8.37	7.97	-118.23	-4,265.63	-4,920.90	6,568.56	6,552.23	16.33	402.291		
1,900.00	1,892.71	1,828.63	1,892.52	8.78	8.31	-118.30	-4,265.43	-4,920.92	6,573.96	6,556.88	17.08	384.964		
2,000.00	1,992.03	1,904.15	1,968.04	9.20	8.61	-118.37	-4,265.42	-4,921.12	6,579.69	6,561.89	17.79	369.839		
2,100.00	2,091.36	1,992.18	2,056.06	9.62	8.95	-118.45	-4,265.53	-4,921.55	6,585.69	6,567.13	18.56	354.862		
2,200.00	2,190.68	2,085.93	2,149.81	10.05	9.32	-118.53	-4,265.74	-4,922.10	6,591.84	6,572.49	19.35	340.590		
2,300.00	2,290.00	2,185.12	2,249.00	10.48	9.72	-118.61	-4,266.01	-4,922.69	6,598.05	6,577.88	20.18	327.012		
2,400.00	2,389.33	2,276.72	2,340.60	10.90	10.09	-118.69	-4,266.17	-4,923.38	6,604.32	6,583.35	20.97	314.900		
2,500.00	2,488.65	2,376.20	2,440.07	11.34	10.49	-118.78	-4,266.36	-4,924.23	6,610.69	6,588.89	21.80	303.175		
2,600.00	2,587.97	2,470.86	2,534.73	11.77	10.88	-118.86	-4,266.52	-4,925.05	6,617.08	6,594.46	22.62	292.527		
2,700.00	2,687.30	2,563.98	2,627.84	12.20	11.26	-118.93	-4,266.70	-4,925.96	6,623.57	6,600.14	23.43	282.666		
2,800.00	2,786.62	2,650.78	2,714.64	12.64	11.61	-119.00	-4,266.76	-4,927.04	6,630.20	6,605.98	24.22	273.741		
2,900.00	2,885.94	2,736.21	2,800.06	13.07	11.97	-119.07	-4,266.95	-4,928.28	6,637.08	6,612.07	25.01	265.429		
3,000.00	2,985.27	2,825.88	2,889.72	13.51	12.34	-119.15	-4,267.27	-4,929.65	6,644.13	6,618.32	25.81	257.433		
3,100.00	3,084.59	2,915.96	2,979.78	13.95	12.71	-119.22	-4,267.82	-4,930.99	6,651.33	6,624.71	26.62	249.893		
3,200.00	3,183.91	3,009.79	3,073.60	14.39	13.10	-119.30	-4,268.46	-4,932.48	6,658.67	6,631.23	27.44	242.646		
3,300.00	3,283.24	3,170.58	3,234.37	14.83	13.76	-119.43	-4,269.38	-4,934.65	6,665.88	6,637.32	28.56	233.432		
3,400.00	3,382.56	3,278.31	3,342.10	15.27	14.21	-119.52	-4,269.60	-4,935.22	6,672.14	6,642.70	29.44	226.598		
3,500.00	3,481.88	3,393.74	3,457.52	15.71	14.69	-119.62	-4,269.72	-4,935.95	6,678.45	6,648.08	30.37	219.916		
3,600.00	3,581.21	3,484.72	3,548.51	16.16	15.07	-119.70	-4,269.80	-4,936.40	6,684.64	6,653.45	31.19	214.332		
3,700.00	3,680.53	3,564.50	3,628.28	16.60	15.40	-119.76	-4,270.00	-4,936.89	6,691.05	6,659.09	31.96	209.352		
3,800.00	3,779.85	3,643.12	3,706.90	17.04	15.73	-119.83	-4,270.17	-4,937.75	6,697.79	6,665.06	32.73	204.645		
3,900.00	3,879.18	3,724.65	3,788.43	17.49	16.08	-119.89	-4,270.34	-4,938.97	6,704.84	6,671.33	33.51	200.085		
4,000.00	3,978.50	3,811.95	3,875.71	17.93	16.44	-119.96	-4,270.63	-4,940.43	6,712.11	6,677.79	34.32	195.592		
4,100.00	4,077.82	3,899.27	3,963.02	18.37	16.81	-120.03	-4,271.16	-4,941.89	6,719.57	6,684.45	35.12	191.308		
4,200.00	4,177.15	3,965.43	4,029.16	18.82	17.09	-120.08	-4,271.78	-4,943.08	6,727.38	6,691.54	35.84	187.713		
4,300.00	4,276.47	4,033.26	4,096.97	19.27	17.37	-120.14	-4,272.68	-4,944.51	6,735.68	6,699.12	36.56	184.238		
4,400.00	4,375.79	4,100.01	4,163.69	19.71	17.65	-120.20	-4,273.88	-4,946.03	6,744.43	6,707.16	37.28	180.936		
4,500.00	4,475.12	4,171.12	4,234.76	20.16	17.95	-120.26	-4,275.45	-4,947.79	6,753.64	6,715.63	38.01	177.682		
4,600.00	4,574.44	4,245.64	4,359.21	20.60	18.48	-120.36	-4,278.36	-4,951.06	6,763.09	6,724.10	38.99	173.471		
4,700.00	4,673.76	4,421.31	4,484.82	21.05	19.01	-120.46	-4,280.55	-4,954.14	6,771.97	6,732.00	39.97	169.427		
4,800.00	4,773.09	4,554.49	4,617.95	21.50	19.57	-120.57	-4,282.14	-4,957.43	6,780.53	6,739.55	40.99	165.431		
4,900.00	4,872.41	4,713.47	4,776.90	21.94	20.24	-120.69	-4,283.45	-4,960.23	6,788.30	6,746.19	42.12	161.167		
5,000.00	4,971.74	4,830.13	4,893.55	22.39	20.74	-120.79	-4,284.19	-4,961.54	6,795.52	6,752.46	43.06	157.804		

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 4N-16A-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 4N-16A-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	5,071.06	4,931.62	4,995.03	22.84	21.17	-120.87	-4,284.80	-4,962.59	6,802.66	6,758.72	43.94	154.820		
5,200.00	5,170.38	5,048.95	5,112.36	23.29	21.66	-120.96	-4,285.17	-4,963.87	6,809.66	6,764.77	44.89	151.709		
5,300.00	5,269.71	5,161.77	5,225.17	23.74	22.14	-121.05	-4,285.11	-4,965.08	6,816.40	6,770.59	45.81	148.785		
5,400.00	5,369.03	5,271.61	5,334.99	24.18	22.61	-121.13	-4,284.59	-4,966.51	6,823.01	6,776.29	46.73	146.016		
5,500.00	5,468.35	5,354.50	5,417.88	24.63	22.96	-121.19	-4,284.18	-4,967.56	6,829.62	6,782.10	47.52	143.712		
5,600.00	5,567.68	5,468.86	5,532.23	25.08	23.44	-121.28	-4,283.93	-4,969.09	6,836.49	6,788.03	48.46	141.081		
5,700.00	5,667.00	5,555.03	5,618.39	25.53	23.81	-121.34	-4,283.58	-4,970.02	6,843.05	6,793.78	49.27	138.894		
5,800.00	5,766.32	5,626.91	5,690.27	25.98	24.12	-121.40	-4,283.72	-4,970.85	6,850.07	6,800.05	50.01	136.962		
5,900.00	5,865.65	5,712.16	5,775.51	26.43	24.48	-121.46	-4,283.96	-4,972.08	6,857.37	6,806.55	50.82	134.934		
6,000.00	5,964.97	5,806.83	5,870.16	26.88	24.88	-121.53	-4,284.36	-4,973.49	6,864.82	6,813.15	51.67	132.862		
6,100.00	6,064.29	5,888.27	5,951.59	27.33	25.23	-121.59	-4,284.66	-4,974.94	6,872.45	6,820.00	52.46	131.010		
6,200.00	6,163.62	5,986.67	6,049.97	27.78	25.64	-121.66	-4,284.77	-4,977.16	6,880.24	6,826.92	53.32	129.029		
6,300.00	6,262.94	6,095.65	6,158.92	28.23	26.11	-121.74	-4,284.92	-4,979.48	6,887.96	6,833.73	54.24	126.996		
6,400.00	6,362.24	6,183.15	6,246.40	28.67	26.48	-103.40	-4,284.98	-4,981.39	6,895.28	6,840.23	55.05	125.245		
6,500.00	6,460.41	6,256.76	6,319.99	29.12	26.79	-71.72	-4,284.93	-4,983.38	6,894.66	6,838.85	55.81	123.539		
6,600.00	6,555.09	6,345.31	6,408.51	29.57	27.17	-62.69	-4,285.34	-4,985.73	6,883.35	6,826.72	56.63	121.543		
6,700.00	6,643.94	6,445.18	6,508.33	30.00	27.60	-60.04	-4,285.42	-4,988.52	6,861.25	6,803.74	57.51	119.307		
6,800.00	6,724.78	6,520.16	6,583.28	30.45	27.92	-60.23	-4,285.48	-4,990.64	6,829.25	6,770.97	58.28	117.175		
6,900.00	6,795.62	6,580.12	6,643.22	30.97	28.17	-62.27	-4,285.75	-4,992.25	6,788.41	6,729.39	59.02	115.022		
7,000.00	6,854.70	6,632.04	6,695.12	31.60	28.39	-65.83	-4,286.13	-4,993.61	6,739.90	6,680.13	59.78	112.753		
7,100.00	6,900.58	6,674.34	6,737.40	32.39	28.57	-70.75	-4,286.33	-4,994.90	6,685.02	6,624.45	60.57	110.360		
7,200.00	6,932.13	6,704.68	6,767.72	33.34	28.70	-76.86	-4,286.41	-4,995.94	6,625.23	6,563.81	61.42	107.866		
7,300.00	6,948.57	6,721.68	6,784.72	34.46	28.77	-83.91	-4,286.43	-4,996.56	6,562.08	6,499.77	62.31	105.309		
7,400.00	6,950.87	6,726.90	6,789.93	35.70	28.80	-88.28	-4,286.44	-4,996.76	6,497.31	6,434.07	63.25	102.729		
7,500.00	6,950.58	6,729.95	6,792.98	37.12	28.81	-88.32	-4,286.44	-4,996.88	6,433.10	6,368.80	64.30	100.043		
7,600.00	6,950.28	6,733.06	6,796.08	38.70	28.82	-88.36	-4,286.44	-4,997.00	6,369.81	6,304.32	65.50	97.253		
7,700.00	6,949.98	6,736.22	6,799.24	40.41	28.84	-88.39	-4,286.44	-4,997.12	6,307.47	6,240.65	66.82	94.389		
7,800.00	6,949.68	6,739.45	6,802.47	42.25	28.85	-88.43	-4,286.44	-4,997.25	6,246.11	6,177.83	68.28	91.479		
7,900.00	6,949.38	6,742.74	6,805.75	44.20	28.86	-88.47	-4,286.44	-4,997.38	6,185.75	6,115.90	69.86	88.549		
8,000.00	6,949.08	6,746.09	6,809.10	46.24	28.88	-88.51	-4,286.43	-4,997.51	6,126.43	6,054.88	71.55	85.624		
8,100.00	6,948.79	6,749.50	6,812.51	48.36	28.89	-88.55	-4,286.43	-4,997.65	6,068.18	5,994.82	73.35	82.724		
8,200.00	6,948.49	6,752.99	6,816.00	50.56	28.91	-88.59	-4,286.43	-4,997.79	6,011.02	5,935.75	75.26	79.867		
8,300.00	6,948.19	6,756.54	6,819.55	52.82	28.92	-88.63	-4,286.42	-4,997.94	5,954.99	5,877.72	77.27	77.066		
8,400.00	6,947.89	6,760.16	6,823.17	55.14	28.94	-88.67	-4,286.42	-4,998.09	5,900.12	5,820.74	79.37	74.334		
8,500.00	6,947.59	6,763.86	6,826.86	57.50	28.95	-88.71	-4,286.41	-4,998.24	5,846.44	5,764.88	81.56	71.679		
8,600.00	6,947.29	6,767.64	6,830.63	59.91	28.97	-88.75	-4,286.41	-4,998.40	5,793.99	5,710.15	83.84	69.108		
8,700.00	6,947.00	6,771.49	6,834.48	62.36	28.99	-88.80	-4,286.40	-4,998.56	5,742.80	5,656.61	86.19	66.627		
8,800.00	6,946.70	6,775.42	6,838.41	64.84	29.00	-88.84	-4,286.39	-4,998.73	5,692.90	5,604.28	88.62	64.239		
8,900.00	6,946.40	6,779.44	6,842.43	67.35	29.02	-88.89	-4,286.38	-4,998.91	5,644.33	5,553.21	91.12	61.944		
9,000.00	6,946.10	6,783.54	6,846.52	69.88	29.04	-88.94	-4,286.37	-4,999.09	5,597.13	5,503.44	93.68	59.744		
9,100.00	6,945.80	6,787.73	6,850.71	72.44	29.06	-88.99	-4,286.36	-4,999.27	5,551.32	5,455.01	96.31	57.639		
9,200.00	6,945.50	6,792.02	6,854.99	75.02	29.07	-89.04	-4,286.34	-4,999.47	5,506.94	5,407.94	99.00	55.628		
9,300.00	6,945.21	6,796.40	6,859.36	77.63	29.09	-89.09	-4,286.33	-4,999.67	5,464.03	5,362.30	101.73	53.709		
9,400.00	6,944.91	6,800.87	6,863.83	80.24	29.11	-89.14	-4,286.31	-4,999.87	5,422.62	5,318.10	104.52	51.880		
9,500.00	6,944.61	6,805.45	6,868.41	82.88	29.13	-89.19	-4,286.29	-5,000.08	5,382.75	5,275.39	107.36	50.138		
9,600.00	6,944.31	6,810.13	6,873.08	85.53	29.15	-89.25	-4,286.27	-5,000.30	5,344.44	5,234.21	110.23	48.483		
9,700.00	6,944.01	6,814.92	6,877.77	88.19	29.17	-89.30	-4,286.25	-5,000.53	5,307.74	5,194.59	113.15	46.910		
9,800.00	6,943.71	6,819.82	6,882.57	90.86	29.16	-89.28	-4,286.27	-5,000.42	5,272.69	5,156.63	116.06	45.430		
9,900.00	6,943.42	6,815.95	6,878.89	93.55	29.18	-89.31	-4,286.26	-5,000.57	5,239.31	5,120.28	119.03	44.017		
10,000.00	6,943.12	6,819.10	6,882.05	96.24	29.19	-89.35	-4,286.25	-5,000.72	5,207.62	5,085.60	122.02	42.677		
10,100.00	6,942.82	6,822.29	6,885.23	98.95	29.20	-89.39	-4,286.25	-5,000.87	5,177.68	5,052.64	125.04	41.409		
10,200.00	6,942.52	6,825.51	6,888.44	101.66	29.22	-89.42	-4,286.24	-5,001.02	5,149.50	5,021.43	128.07	40.210		

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 4N-16A-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 4N-16A-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	6,942.22	6,828.75	6,891.68	104.38	29.23	-89.46	-4,286.23	-5,001.18	5,123.11	4,992.00	131.11	39.076		
10,400.00	6,941.92	6,832.03	6,894.96	107.11	29.24	-89.50	-4,286.23	-5,001.33	5,098.55	4,964.39	134.15	38.005		
10,500.00	6,941.63	6,835.33	6,898.26	109.84	29.26	-89.54	-4,286.22	-5,001.49	5,075.83	4,938.63	137.20	36.995		
10,600.00	6,941.33	6,838.67	6,901.59	112.58	29.27	-89.58	-4,286.22	-5,001.65	5,054.99	4,914.74	140.25	36.042		
10,700.00	6,941.03	6,842.04	6,904.96	115.33	29.29	-89.61	-4,286.21	-5,001.82	5,036.04	4,892.75	143.29	35.145		
10,800.00	6,940.73	6,845.44	6,908.36	118.08	29.30	-89.65	-4,286.21	-5,001.98	5,019.01	4,872.69	146.32	34.301		
10,900.00	6,940.43	6,848.88	6,911.79	120.84	29.32	-89.69	-4,286.20	-5,002.15	5,003.92	4,854.59	149.33	33.509		
11,000.00	6,940.13	6,852.34	6,915.25	123.60	29.33	-89.73	-4,286.20	-5,002.32	4,990.79	4,838.47	152.32	32.764		
11,100.00	6,939.83	6,855.84	6,918.74	126.36	29.35	-89.77	-4,286.20	-5,002.49	4,979.63	4,824.34	155.29	32.067		
11,200.00	6,939.54	6,859.38	6,922.27	129.13	29.36	-89.81	-4,286.20	-5,002.67	4,970.45	4,812.22	158.22	31.414		
11,300.00	6,939.24	6,862.95	6,925.84	131.91	29.38	-89.86	-4,286.20	-5,002.85	4,963.26	4,802.14	161.12	30.804		
11,400.00	6,938.94	6,866.55	6,929.44	134.68	29.39	-89.90	-4,286.20	-5,003.03	4,958.08	4,794.09	163.99	30.235		
11,500.00	6,938.64	6,870.19	6,933.07	137.46	29.41	-89.94	-4,286.20	-5,003.21	4,954.91	4,788.10	166.81	29.705		
11,600.00	6,938.34	6,873.86	6,936.74	140.25	29.42	-89.98	-4,286.20	-5,003.39	4,953.75	4,784.17	169.58	29.212		
11,607.48	6,938.32	6,874.14	6,937.02	140.45	29.42	-89.98	-4,286.20	-5,003.41	4,953.74	4,783.96	169.78	29.177 CC		
11,700.00	6,938.04	6,877.58	6,940.45	143.03	29.44	-90.02	-4,286.20	-5,003.58	4,954.61	4,782.31	172.30	28.756 ES		
11,800.00	6,937.75	6,881.32	6,944.19	145.82	29.45	-90.07	-4,286.21	-5,003.77	4,957.48	4,782.51	174.96	28.334		
11,900.00	6,937.45	6,885.11	6,947.97	148.61	29.47	-90.11	-4,286.21	-5,003.97	4,962.36	4,784.78	177.57	27.945		
12,000.00	6,937.15	6,888.94	6,951.79	151.41	29.49	-90.16	-4,286.22	-5,004.16	4,969.24	4,789.12	180.12	27.588		
12,100.00	6,936.85	6,892.80	6,955.65	154.20	29.50	-90.20	-4,286.22	-5,004.36	4,978.12	4,795.52	182.61	27.261		
12,200.00	6,936.55	6,896.70	6,959.55	157.00	29.52	-90.25	-4,286.23	-5,004.57	4,988.99	4,803.96	185.03	26.964		
12,300.00	6,936.25	6,900.01	6,962.86	159.80	29.53	-90.28	-4,286.24	-5,004.74	5,001.83	4,814.45	187.38	26.694		
12,400.00	6,935.96	6,900.01	6,962.86	162.61	29.53	-90.28	-4,286.24	-5,004.74	5,016.63	4,826.99	189.64	26.454		
12,500.00	6,935.66	6,908.17	6,971.00	165.41	29.57	-90.38	-4,286.26	-5,005.17	5,033.36	4,841.49	191.87	26.234		
12,600.00	6,935.36	6,912.04	6,974.87	168.22	29.59	-90.42	-4,286.27	-5,005.37	5,052.02	4,858.01	194.00	26.041		
12,700.00	6,935.06	6,915.98	6,978.80	171.02	29.60	-90.47	-4,286.28	-5,005.59	5,072.57	4,876.51	196.07	25.872		
12,800.00	6,934.76	6,919.99	6,982.81	173.83	29.62	-90.51	-4,286.30	-5,005.80	5,095.00	4,896.95	198.05	25.725		
12,900.00	6,934.46	6,924.07	6,986.88	176.65	29.64	-90.56	-4,286.31	-5,006.03	5,119.29	4,919.32	199.96	25.601		
13,000.00	6,934.17	6,928.22	6,991.02	179.46	29.65	-90.61	-4,286.33	-5,006.25	5,145.39	4,943.59	201.80	25.497		
13,100.00	6,933.87	6,932.44	6,995.24	182.27	29.67	-90.66	-4,286.35	-5,006.49	5,173.30	4,969.74	203.56	25.414		
13,200.00	6,933.57	6,936.74	6,999.53	185.09	29.69	-90.71	-4,286.37	-5,006.73	5,202.97	4,997.72	205.25	25.349		
13,300.00	6,933.27	6,941.12	7,003.90	187.91	29.71	-90.76	-4,286.39	-5,006.98	5,234.38	5,027.52	206.86	25.304		
13,400.00	6,932.97	6,945.57	7,008.35	190.72	29.73	-90.81	-4,286.42	-5,007.23	5,267.50	5,059.10	208.40	25.276		
13,500.00	6,932.67	6,950.11	7,012.87	193.54	29.75	-90.86	-4,286.45	-5,007.49	5,302.30	5,092.43	209.87	25.265 SF		
13,600.00	6,932.38	6,954.72	7,017.48	196.36	29.77	-90.92	-4,286.48	-5,007.76	5,338.73	5,127.47	211.26	25.271		
13,700.00	6,932.08	6,959.43	7,022.18	199.19	29.79	-90.97	-4,286.51	-5,008.03	5,376.77	5,164.19	212.59	25.292		
13,800.00	6,931.78	6,964.22	7,026.96	202.01	29.81	-91.03	-4,286.54	-5,008.32	5,416.39	5,202.55	213.84	25.329		
13,900.00	6,931.48	6,969.10	7,031.84	204.83	29.83	-91.08	-4,286.58	-5,008.61	5,457.55	5,242.52	215.03	25.381		
14,000.00	6,931.18	6,974.08	7,036.81	207.66	29.85	-91.14	-4,286.62	-5,008.90	5,500.21	5,284.06	216.15	25.446		
14,100.00	6,930.88	6,979.15	7,041.87	210.48	29.87	-91.20	-4,286.66	-5,009.21	5,544.35	5,327.14	217.21	25.525		
14,200.00	6,930.59	6,984.32	7,047.03	213.31	29.89	-91.26	-4,286.71	-5,009.53	5,589.92	5,371.71	218.21	25.618		
14,300.00	6,930.29	6,989.60	7,052.29	216.14	29.92	-91.32	-4,286.76	-5,009.85	5,636.88	5,417.74	219.14	25.723		
14,400.00	6,929.99	6,994.97	7,057.66	218.96	29.94	-91.38	-4,286.81	-5,010.19	5,685.22	5,465.20	220.02	25.840		
14,500.00	6,929.69	7,000.46	7,063.13	221.79	29.96	-91.44	-4,286.87	-5,010.53	5,734.89	5,514.04	220.84	25.968		
14,600.00	6,929.39	7,005.20	7,067.87	224.62	29.98	-91.50	-4,286.92	-5,010.83	5,785.85	5,564.24	221.61	26.109		
14,700.00	6,929.09	7,010.01	7,072.66	227.45	30.00	-91.55	-4,286.97	-5,011.13	5,838.07	5,615.76	222.32	26.260		
14,732.12	6,929.00	7,011.56	7,074.21	228.36	30.01	-91.57	-4,286.99	-5,011.23	5,855.11	5,632.58	222.53	26.311		

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 4N-16A-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 4N-16A-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	-148.68	-5,413.30	-3,294.42	6,337.38				
100.00	100.00	91.05	139.05	3.28	3.28	-148.68	-5,413.14	-3,294.29	6,336.87	6,330.30	6.57	964.795	
200.00	200.00	193.61	241.60	3.34	3.33	-148.67	-5,412.37	-3,294.11	6,336.14	6,329.47	6.67	950.402	
300.00	300.00	263.32	311.32	3.44	3.39	-148.67	-5,411.88	-3,294.32	6,335.70	6,328.87	6.84	926.527	
400.00	400.00	1,481.64	1,516.30	3.60	7.55	-147.76	-5,271.37	-3,325.29	6,331.75	6,320.69	11.06	572.422	
500.00	500.00	1,539.89	1,573.02	3.81	7.86	-147.67	-5,258.22	-3,327.44	6,314.44	6,302.93	11.51	548.484	
600.00	600.00	1,622.20	1,653.19	4.05	8.31	-147.56	-5,239.92	-3,330.76	6,297.62	6,285.49	12.13	519.309	
700.00	699.98	1,688.91	1,718.14	4.32	8.68	-134.22	-5,225.04	-3,333.88	6,282.31	6,269.61	12.70	494.567	
800.00	799.84	1,811.45	1,837.52	4.62	9.36	-134.27	-5,198.03	-3,339.82	6,269.80	6,256.21	13.59	461.272	
900.00	899.45	1,910.39	1,933.80	4.94	9.93	-134.33	-5,175.73	-3,344.66	6,259.28	6,244.88	14.40	434.681	
1,000.00	998.80	2,009.69	2,030.42	5.28	10.51	-134.29	-5,153.35	-3,349.51	6,250.66	6,235.42	15.24	410.208	
1,100.00	1,098.12	2,109.01	2,127.07	5.63	11.10	-134.22	-5,130.97	-3,354.37	6,242.18	6,226.08	16.10	387.674	
1,200.00	1,197.44	2,208.34	2,223.72	6.00	11.69	-134.15	-5,108.59	-3,359.22	6,233.72	6,216.73	16.98	367.026	
1,300.00	1,296.77	2,307.66	2,320.36	6.37	12.28	-134.08	-5,086.21	-3,364.07	6,225.26	6,207.38	17.88	348.108	
1,400.00	1,396.09	2,406.98	2,417.01	6.76	12.88	-134.00	-5,063.83	-3,368.93	6,216.81	6,198.02	18.80	330.763	
1,500.00	1,495.41	2,506.31	2,513.66	7.15	13.48	-133.93	-5,041.45	-3,373.78	6,208.38	6,188.66	19.72	314.840	
1,600.00	1,594.74	2,605.63	2,610.31	7.55	14.09	-133.86	-5,019.07	-3,378.63	6,199.95	6,179.30	20.65	300.199	
1,700.00	1,694.06	2,704.96	2,706.95	7.96	14.69	-133.78	-4,996.68	-3,383.49	6,191.54	6,169.94	21.60	286.710	
1,800.00	1,793.38	2,804.28	2,803.60	8.37	15.30	-133.71	-4,974.30	-3,388.34	6,183.13	6,160.59	22.54	274.260	
1,900.00	1,892.71	2,903.60	2,900.25	8.78	15.91	-133.63	-4,951.92	-3,393.19	6,174.74	6,151.24	23.50	262.742	
2,000.00	1,992.03	3,002.93	2,996.90	9.20	16.53	-133.56	-4,929.54	-3,398.05	6,166.36	6,141.89	24.46	252.067	
2,100.00	2,091.36	3,102.25	3,093.55	9.62	17.14	-133.48	-4,907.16	-3,402.90	6,157.98	6,132.55	25.43	242.151	
2,200.00	2,190.68	3,201.58	3,190.19	10.05	17.76	-133.41	-4,884.78	-3,407.75	6,149.62	6,123.22	26.40	232.921	
2,300.00	2,290.00	3,300.90	3,286.84	10.48	18.38	-133.33	-4,862.39	-3,412.61	6,141.27	6,113.89	27.38	224.314	
2,400.00	2,389.33	3,400.22	3,383.49	10.90	19.00	-133.26	-4,840.01	-3,417.46	6,132.93	6,104.57	28.36	216.271	
2,500.00	2,488.65	3,500.45	3,480.14	11.34	19.62	-133.18	-4,817.63	-3,422.31	6,124.59	6,095.25	29.35	208.706	
2,600.00	2,587.97	3,598.87	3,576.78	11.77	20.24	-133.11	-4,795.25	-3,427.17	6,116.27	6,085.95	30.33	201.680	
2,700.00	2,687.30	3,701.80	3,673.43	12.20	20.88	-133.03	-4,772.87	-3,432.02	6,107.96	6,076.63	31.34	194.922	
2,800.00	2,786.62	3,802.48	3,770.08	12.64	21.51	-132.95	-4,750.49	-3,436.88	6,099.67	6,067.33	32.33	188.643	
2,900.00	2,885.94	10,714.78	7,245.36	13.07	120.67	-169.02	-3,932.06	32.93	6,035.45	5,934.06	101.40	59.524	
3,000.00	2,985.27	10,710.37	7,245.44	13.51	120.53	-168.97	-3,932.08	28.51	5,972.05	5,869.44	102.61	58.202	
3,100.00	3,084.59	10,705.96	7,245.52	13.95	120.39	-168.92	-3,932.09	24.10	5,909.66	5,805.82	103.84	56.910	
3,200.00	3,183.91	10,701.54	7,245.60	14.39	120.25	-168.86	-3,932.11	19.69	5,848.31	5,743.22	105.09	55.650	
3,300.00	3,283.24	10,697.13	7,245.67	14.83	120.11	-168.81	-3,932.12	15.27	5,788.04	5,681.68	106.36	54.421	
3,400.00	3,382.56	10,692.71	7,245.75	15.27	119.97	-168.75	-3,932.14	10.86	5,728.87	5,621.24	107.64	53.224	
3,500.00	3,481.88	10,688.30	7,245.83	15.71	119.83	-168.70	-3,932.15	6.45	5,670.85	5,561.92	108.93	52.059	
3,600.00	3,581.21	10,683.88	7,245.91	16.16	119.69	-168.64	-3,932.16	2.03	5,614.00	5,503.77	110.24	50.927	
3,700.00	3,680.53	10,679.47	7,245.99	16.60	119.55	-168.59	-3,932.18	-2.38	5,558.37	5,446.82	111.55	49.828	
3,800.00	3,779.85	10,675.06	7,246.06	17.04	119.41	-168.54	-3,932.19	-6.79	5,503.99	5,391.12	112.87	48.762	
3,900.00	3,879.18	10,670.64	7,246.14	17.49	119.27	-168.48	-3,932.21	-11.21	5,450.90	5,336.70	114.20	47.730	
4,000.00	3,978.50	10,666.23	7,246.22	17.93	119.13	-168.43	-3,932.22	-15.62	5,399.14	5,283.60	115.54	46.731	
4,100.00	4,077.82	10,661.81	7,246.30	18.37	118.99	-168.37	-3,932.24	-20.04	5,348.74	5,231.86	116.87	45.765	
4,200.00	4,177.15	10,657.40	7,246.37	18.82	118.85	-168.32	-3,932.25	-24.45	5,299.74	5,181.53	118.21	44.832	
4,300.00	4,276.47	10,652.99	7,246.45	19.27	118.71	-168.26	-3,932.27	-28.86	5,252.19	5,132.64	119.55	43.934	
4,400.00	4,375.79	10,655.47	7,246.53	19.71	118.79	-168.21	-3,932.28	-33.28	5,206.12	5,085.05	121.07	43.002	
4,500.00	4,475.12	10,644.16	7,246.61	20.16	118.43	-168.15	-3,932.30	-37.69	5,161.57	5,039.37	122.21	42.237	
4,600.00	4,574.44	10,639.74	7,246.68	20.60	118.29	-168.10	-3,932.31	-42.10	5,118.59	4,995.06	123.52	41.438	
4,700.00	4,673.76	10,635.33	7,246.76	21.05	118.15	-168.05	-3,932.33	-46.52	5,077.21	4,952.38	124.83	40.673	
4,800.00	4,773.09	10,630.91	7,246.84	21.50	118.01	-167.99	-3,932.34	-50.93	5,037.46	4,911.34	126.12	39.942	
4,900.00	4,872.41	10,626.50	7,246.92	21.94	117.87	-167.94	-3,932.36	-55.34	4,999.40	4,872.01	127.39	39.243	
5,000.00	4,971.74	10,622.09	7,247.00	22.39	117.73	-167.88	-3,932.37	-59.76	4,963.06	4,834.41	128.65	38.578	
5,100.00	5,071.06	10,617.67	7,247.07	22.84	117.59	-167.83	-3,932.39	-64.17	4,928.48	4,798.60	129.88	37.946	

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 4N-16A-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 4N-16A-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	5,170.38	10,613.26	7,247.15	23.29	117.45	-167.77	-3,932.40	-68.58	4,895.69	4,764.60	131.09	37.346		
5,300.00	5,269.71	10,608.84	7,247.23	23.74	117.31	-167.72	-3,932.42	-73.00	4,864.74	4,732.47	132.27	36.779		
5,400.00	5,369.03	10,604.43	7,247.31	24.18	117.17	-167.66	-3,932.43	-77.41	4,835.64	4,702.23	133.42	36.245		
5,500.00	5,468.35	10,600.01	7,247.38	24.63	117.04	-167.61	-3,932.44	-81.83	4,808.45	4,673.92	134.53	35.742		
5,600.00	5,567.68	10,604.40	7,247.46	25.08	117.17	-167.56	-3,932.46	-86.24	4,783.19	4,647.32	135.87	35.204		
5,700.00	5,667.00	10,591.19	7,247.54	25.53	116.76	-167.50	-3,932.47	-90.65	4,759.90	4,623.25	136.64	34.834		
5,800.00	5,766.32	10,586.77	7,247.62	25.98	116.62	-167.45	-3,932.49	-95.07	4,738.59	4,600.96	137.64	34.428		
5,900.00	5,865.65	10,582.36	7,247.69	26.43	116.48	-167.39	-3,932.50	-99.48	4,719.31	4,580.72	138.59	34.053		
6,000.00	5,964.97	10,577.94	7,247.77	26.88	116.34	-167.34	-3,932.52	-103.89	4,702.07	4,562.58	139.49	33.710		
6,100.00	6,064.29	10,573.53	7,247.85	27.33	116.20	-167.28	-3,932.53	-108.31	4,686.89	4,546.56	140.34	33.397		
6,200.00	6,163.62	10,569.11	7,247.93	27.78	116.06	-167.23	-3,932.55	-112.72	4,673.81	4,532.67	141.13	33.116		
6,300.00	6,262.94	10,564.70	7,248.00	28.23	115.92	-167.17	-3,932.56	-117.13	4,662.82	4,520.95	141.88	32.865		
6,400.00	6,362.24	10,559.70	7,248.09	28.67	115.76	-149.01	-3,932.58	-122.13	4,653.96	4,511.42	142.55	32.649		
6,500.00	6,460.41	10,543.22	7,248.38	29.12	115.24	-117.61	-3,932.63	-138.61	4,647.28	4,504.49	142.80	32.545		
6,600.00	6,555.09	10,511.54	7,248.94	29.57	114.24	-107.66	-3,932.74	-170.29	4,642.80	4,500.30	142.50	32.580		
6,700.00	6,643.94	10,465.42	7,249.75	30.00	112.79	-102.93	-3,932.89	-216.40	4,640.33	4,498.63	141.70	32.748 ES		
6,800.00	6,724.78	10,406.01	7,250.80	30.45	110.92	-99.99	-3,933.09	-275.80	4,639.52	4,499.08	140.44	33.037		
6,810.54	6,732.75	10,400.97	7,250.92	30.51	110.77	-99.73	-3,933.12	-282.78	4,639.51	4,499.17	140.34	33.058		
6,900.00	6,795.62	10,326.74	7,251.62	30.97	108.44	-97.80	-3,933.36	-355.06	4,639.86	4,501.33	138.54	33.492		
7,000.00	6,854.70	10,246.44	7,251.62	31.60	105.93	-96.19	-3,933.63	-435.36	4,640.84	4,504.14	136.70	33.949		
7,100.00	6,900.58	10,157.84	7,251.62	32.39	103.17	-94.98	-3,933.92	-523.96	4,642.02	4,507.30	134.73	34.455		
7,200.00	6,932.13	10,063.11	7,251.62	33.34	100.23	-94.17	-3,934.24	-618.69	4,642.98	4,510.26	132.72	34.983		
7,300.00	6,948.57	9,964.59	7,251.62	34.46	97.19	-93.76	-3,934.57	-717.21	4,643.38	4,512.61	130.77	35.509		
7,400.00	6,950.87	9,864.66	7,251.62	35.70	94.13	-93.71	-3,934.90	-817.14	4,643.13	4,514.20	128.92	36.015		
7,500.00	6,950.58	9,764.66	7,251.62	37.12	91.07	-93.72	-3,935.23	-917.14	4,642.74	4,515.48	127.26	36.482		
7,600.00	6,950.28	9,664.66	7,251.62	38.70	88.04	-93.72	-3,935.57	-1,017.14	4,642.36	4,516.58	125.78	36.909		
7,700.00	6,949.98	9,564.66	7,251.62	40.41	85.04	-93.73	-3,935.90	-1,117.13	4,641.98	4,517.52	124.45	37.299		
7,800.00	6,949.68	9,464.67	7,251.62	42.25	82.06	-93.73	-3,936.24	-1,217.13	4,641.59	4,518.32	123.28	37.652		
7,900.00	6,949.38	9,364.67	7,251.62	44.20	79.10	-93.73	-3,936.57	-1,317.13	4,641.21	4,518.98	122.23	37.971		
8,000.00	6,949.08	9,264.67	7,251.62	46.24	76.18	-93.74	-3,936.90	-1,417.13	4,640.82	4,519.52	121.31	38.257		
8,100.00	6,948.79	9,164.67	7,251.62	48.36	73.30	-93.74	-3,937.24	-1,517.13	4,640.44	4,519.95	120.50	38.511		
8,200.00	6,948.49	9,064.67	7,251.62	50.56	70.46	-93.75	-3,937.57	-1,617.12	4,640.06	4,520.27	119.79	38.734		
8,300.00	6,948.19	8,964.67	7,251.62	52.82	67.66	-93.75	-3,937.91	-1,717.12	4,639.67	4,520.48	119.19	38.926		
8,400.00	6,947.89	8,864.67	7,251.62	55.14	64.92	-93.75	-3,938.24	-1,817.12	4,639.29	4,520.60	118.69	39.086		
8,500.00	6,947.59	8,764.67	7,251.62	57.50	62.24	-93.76	-3,938.57	-1,917.12	4,638.91	4,520.61	118.29	39.215		
8,600.00	6,947.29	8,664.68	7,251.62	59.91	59.63	-93.76	-3,938.91	-2,017.12	4,638.52	4,520.53	118.00	39.311		
8,700.00	6,947.00	8,564.68	7,251.62	62.36	57.11	-93.77	-3,939.24	-2,117.12	4,638.14	4,520.34	117.81	39.371		
8,800.00	6,946.70	8,464.68	7,251.62	64.84	54.70	-93.77	-3,939.58	-2,217.11	4,637.76	4,520.03	117.73	39.394		
8,900.00	6,946.40	8,364.68	7,251.62	67.35	52.40	-93.77	-3,939.91	-2,317.11	4,637.37	4,519.61	117.77	39.378		
9,000.00	6,946.10	8,264.68	7,251.62	69.88	50.27	-93.78	-3,940.24	-2,417.11	4,636.99	4,519.05	117.94	39.317		
9,100.00	6,945.80	8,164.68	7,251.62	72.44	48.33	-93.78	-3,940.58	-2,517.11	4,636.61	4,518.36	118.25	39.209		
9,200.00	6,945.50	8,064.68	7,251.62	75.02	46.65	-93.79	-3,940.91	-2,617.11	4,636.22	4,517.50	118.73	39.049		
9,300.00	6,945.21	7,964.68	7,251.62	77.63	45.29	-93.79	-3,941.25	-2,717.10	4,635.84	4,516.46	119.38	38.832		
9,400.00	6,944.91	7,864.69	7,251.62	80.24	44.29	-93.79	-3,941.58	-2,817.10	4,635.46	4,515.22	120.23	38.554		
9,500.00	6,944.61	7,764.69	7,251.62	82.88	43.63	-93.80	-3,941.91	-2,917.10	4,635.08	4,513.76	121.31	38.208		
9,559.52	6,944.43	7,722.92	7,251.45	84.46	43.43	-93.80	-3,942.09	-2,958.87	4,634.91	4,512.60	122.31	37.896 CC		
9,600.00	6,944.31	7,700.00	7,250.51	85.53	43.34	-93.79	-3,942.39	-2,981.76	4,635.01	4,511.94	123.07	37.662		
9,700.00	6,944.01	7,652.02	7,245.96	88.19	43.18	-93.73	-3,943.60	-3,029.50	4,636.07	4,510.97	125.11	37.057		
9,800.00	6,943.71	7,613.62	7,239.81	90.86	43.07	-93.66	-3,945.15	-3,067.36	4,638.31	4,511.02	127.29	36.439		
9,900.00	6,943.42	7,569.88	7,230.10	93.55	42.96	-93.54	-3,947.55	-3,109.94	4,641.76	4,512.34	129.42	35.865		
10,000.00	6,943.12	7,527.68	7,218.05	96.24	42.86	-93.39	-3,950.47	-3,150.27	4,646.48	4,514.87	131.60	35.307		
10,100.00	6,942.82	7,487.29	7,204.11	98.95	42.78	-93.22	-3,953.83	-3,188.02	4,652.49	4,518.68	133.81	34.769		

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 4N-16A-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 4N-16A-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		
10,200.00	6,942.52	7,452.02	7,190.05	101.66	42.71	-93.04	-3,957.19	-3,220.19	4,659.87	4,523.80	136.07	34.246		
10,300.00	6,942.22	7,400.00	7,166.20	104.38	42.61	-92.75	-3,962.88	-3,266.05	4,668.69	4,530.47	138.22	33.777		
10,400.00	6,941.92	7,378.50	7,155.29	107.11	42.56	-92.61	-3,965.46	-3,284.39	4,678.90	4,538.33	140.57	33.284		
10,500.00	6,941.63	7,352.01	7,141.03	109.84	42.51	-92.43	-3,968.84	-3,306.45	4,690.67	4,547.81	142.86	32.835		
10,600.00	6,941.33	7,317.32	7,121.02	112.58	42.43	-92.19	-3,973.57	-3,334.39	4,703.98	4,558.90	145.08	32.422		
10,700.00	6,941.03	7,300.00	7,110.48	115.33	42.39	-92.06	-3,976.06	-3,347.91	4,718.93	4,571.57	147.36	32.023		
10,800.00	6,940.73	7,252.01	7,079.46	118.08	42.27	-91.67	-3,983.37	-3,383.77	4,735.48	4,586.00	149.49	31.678		
10,900.00	6,940.43	7,252.01	7,079.46	120.84	42.27	-91.67	-3,983.37	-3,383.77	4,753.71	4,601.96	151.75	31.326		
11,000.00	6,940.13	7,208.36	7,049.03	123.60	42.16	-91.30	-3,990.52	-3,414.22	4,773.56	4,619.73	153.82	31.032		
11,100.00	6,939.83	7,200.00	7,042.96	126.36	42.13	-91.23	-3,991.95	-3,419.80	4,795.13	4,639.16	155.97	30.744		
11,200.00	6,939.54	7,176.02	7,025.20	129.13	42.06	-91.01	-3,996.12	-3,435.36	4,818.40	4,660.38	158.02	30.493		
11,300.00	6,939.24	7,152.01	7,006.86	131.91	41.99	-90.78	-4,000.42	-3,450.23	4,843.40	4,683.39	160.01	30.269		
11,400.00	6,938.94	7,152.01	7,006.86	134.68	41.99	-90.78	-4,000.42	-3,450.23	4,870.13	4,708.11	162.02	30.059		
11,500.00	6,938.64	7,125.30	6,985.82	137.46	41.90	-90.52	-4,005.35	-3,465.94	4,898.47	4,734.57	163.91	29.886		
11,600.00	6,938.34	7,100.00	6,965.32	140.25	41.82	-90.27	-4,010.14	-3,479.96	4,928.60	4,762.86	165.74	29.737		
11,700.00	6,938.04	7,100.00	6,965.32	143.03	41.82	-90.27	-4,010.14	-3,479.96	4,960.31	4,792.74	167.57	29.601		
11,800.00	6,937.75	7,100.00	6,965.32	145.82	41.82	-90.27	-4,010.14	-3,479.96	4,993.82	4,824.48	169.35	29.489		
11,900.00	6,937.45	7,071.87	6,941.91	148.61	41.72	-89.99	-4,015.62	-3,494.56	5,028.76	4,857.75	171.01	29.406		
12,000.00	6,937.15	7,052.01	6,925.01	151.41	41.65	-89.78	-4,019.57	-3,504.22	5,065.46	4,892.83	172.63	29.343		
12,100.00	6,936.85	7,049.69	6,923.02	154.20	41.64	-89.76	-4,020.03	-3,505.31	5,103.68	4,929.46	174.22	29.294		
12,200.00	6,936.55	7,049.69	6,923.02	157.00	41.64	-89.76	-4,020.03	-3,505.31	5,143.55	4,967.78	175.76	29.264		
12,300.00	6,936.25	7,030.37	6,906.27	159.80	41.56	-89.56	-4,023.94	-3,514.12	5,184.86	5,007.64	177.22	29.257 SF		
12,400.00	6,935.96	7,010.76	6,889.02	162.61	41.48	-89.35	-4,027.97	-3,522.52	5,227.78	5,049.17	178.61	29.270		
12,500.00	6,935.66	7,010.76	6,889.02	165.41	41.48	-89.35	-4,027.97	-3,522.52	5,272.07	5,092.09	179.98	29.293		
12,600.00	6,935.36	7,005.02	6,883.92	168.22	41.46	-89.28	-4,029.16	-3,524.88	5,317.85	5,136.57	181.28	29.335		
12,700.00	6,935.06	7,000.00	6,879.45	171.02	41.44	-89.23	-4,030.20	-3,526.90	5,365.05	5,182.52	182.53	29.393		
12,800.00	6,934.76	7,000.00	6,879.45	173.83	41.44	-89.23	-4,030.20	-3,526.90	5,413.68	5,229.95	183.74	29.465		
12,900.00	6,934.46	7,000.00	6,879.45	176.65	41.44	-89.23	-4,030.20	-3,526.90	5,463.71	5,278.82	184.88	29.552		
13,000.00	6,934.17	6,977.00	6,858.75	179.46	41.34	-88.98	-4,035.03	-3,535.70	5,514.81	5,328.85	185.96	29.656		
13,100.00	6,933.87	6,952.01	6,835.94	182.27	41.23	-88.70	-4,040.34	-3,544.38	5,567.53	5,380.56	186.97	29.777		
13,200.00	6,933.57	6,952.01	6,835.94	185.09	41.23	-88.70	-4,040.34	-3,544.38	5,621.21	5,433.23	187.98	29.904		
13,300.00	6,933.27	6,952.01	6,835.94	187.91	41.23	-88.70	-4,040.34	-3,544.38	5,676.14	5,487.21	188.93	30.043		
13,400.00	6,932.97	6,952.01	6,835.94	190.72	41.23	-88.70	-4,040.34	-3,544.38	5,732.29	5,542.45	189.84	30.195		
13,500.00	6,932.67	6,952.01	6,835.94	193.54	41.23	-88.70	-4,040.34	-3,544.38	5,789.63	5,598.92	190.71	30.359		
13,600.00	6,932.38	6,952.01	6,835.94	196.36	41.23	-88.70	-4,040.34	-3,544.38	5,848.11	5,656.58	191.53	30.534		
13,700.00	6,932.08	6,952.01	6,835.94	199.19	41.23	-88.70	-4,040.34	-3,544.38	5,907.71	5,715.40	192.31	30.720		
13,800.00	6,931.78	6,952.01	6,835.94	202.01	41.23	-88.70	-4,040.34	-3,544.38	5,968.38	5,775.34	193.04	30.917		
13,900.00	6,931.48	6,952.01	6,835.94	204.83	41.23	-88.70	-4,040.34	-3,544.38	6,030.11	5,836.36	193.74	31.124		
14,000.00	6,931.18	6,926.57	6,812.38	207.66	41.11	-88.42	-4,045.83	-3,552.27	6,092.46	5,898.07	194.39	31.341		
14,100.00	6,930.88	6,922.63	6,808.71	210.48	41.09	-88.38	-4,046.68	-3,553.41	6,156.05	5,961.03	195.02	31.567		
14,200.00	6,930.59	6,900.00	6,787.47	213.31	40.98	-88.12	-4,051.62	-3,559.47	6,220.80	6,025.21	195.59	31.805		
14,300.00	6,930.29	6,900.00	6,787.47	216.14	40.98	-88.12	-4,051.62	-3,559.47	6,286.16	6,090.01	196.15	32.047		
14,400.00	6,929.99	6,900.00	6,787.47	218.96	40.98	-88.12	-4,051.62	-3,559.47	6,352.43	6,155.75	196.69	32.297		
14,500.00	6,929.69	6,900.00	6,787.47	221.79	40.98	-88.12	-4,051.62	-3,559.47	6,419.57	6,222.39	197.19	32.556		
14,600.00	6,929.39	6,900.00	6,787.47	224.62	40.98	-88.12	-4,051.62	-3,559.47	6,487.56	6,289.90	197.66	32.822		
14,700.00	6,929.09	6,900.00	6,787.47	227.45	40.98	-88.12	-4,051.62	-3,559.47	6,556.37	6,358.27	198.10	33.096		
14,732.12	6,929.00	6,900.00	6,787.47	228.36	40.98	-88.12	-4,051.62	-3,559.47	6,578.64	6,380.40	198.24	33.185		



Anticollision Report



Company:	SRC ENERGY	Local Co-ordinate Reference:	Well HARVESTERS STATE 4N-16A-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 4N-16A-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	-148.58	-5,393.26	-3,294.42	6,320.27					
100.00	100.00	1,266.21	1,295.72	3.28	7.13	-147.47	-5,220.26	-3,329.13	6,305.87	6,295.59	10.28	613.646		
200.00	200.00	1,400.00	1,424.67	3.34	7.93	-147.24	-5,185.39	-3,336.50	6,286.52	6,275.51	11.01	571.079		
300.00	300.00	1,483.78	1,505.59	3.44	8.44	-147.10	-5,163.98	-3,340.37	6,267.24	6,255.71	11.53	543.718		
400.00	400.00	1,582.65	1,601.13	3.60	9.05	-146.94	-5,138.89	-3,344.32	6,247.83	6,235.65	12.18	512.984		
500.00	500.00	1,642.00	1,658.61	3.81	9.41	-146.85	-5,124.25	-3,346.54	6,228.94	6,216.28	12.66	491.890		
600.00	600.00	1,807.30	1,818.51	4.05	10.44	-146.59	-5,082.95	-3,353.27	6,210.11	6,196.34	13.77	450.850		
700.00	699.98	1,904.14	1,911.87	4.32	11.07	-133.23	-5,057.60	-3,357.77	6,191.69	6,177.13	14.56	425.354		
800.00	799.84	2,001.80	2,006.01	4.62	11.71	-133.34	-5,032.04	-3,362.30	6,175.66	6,160.28	15.37	401.677		
900.00	899.45	2,100.14	2,100.82	4.94	12.35	-133.43	-5,006.30	-3,366.87	6,162.02	6,145.80	16.23	379.731		
1,000.00	998.80	2,198.94	2,196.06	5.28	13.01	-133.39	-4,980.44	-3,371.46	6,150.26	6,133.15	17.11	359.462		
1,100.00	1,098.12	2,302.23	2,291.34	5.63	13.69	-133.30	-4,954.57	-3,376.05	6,138.65	6,120.61	18.04	340.235		
1,200.00	1,197.44	2,403.40	2,386.61	6.00	14.37	-133.21	-4,928.70	-3,380.64	6,127.05	6,108.07	18.98	322.802		
1,300.00	1,296.77	2,495.43	2,481.89	6.37	14.99	-133.12	-4,902.83	-3,385.23	6,115.47	6,095.59	19.88	307.591		
1,400.00	1,396.09	2,594.27	2,577.16	6.76	15.65	-133.02	-4,876.97	-3,389.82	6,103.90	6,083.07	20.83	292.974		
1,500.00	1,495.41	2,693.10	2,672.44	7.15	16.32	-132.93	-4,851.10	-3,394.41	6,092.35	6,070.56	21.80	279.496		
1,600.00	1,594.74	2,791.93	2,767.72	7.55	16.98	-132.83	-4,825.23	-3,399.00	6,080.82	6,058.05	22.77	267.050		
1,700.00	1,694.06	2,890.76	2,862.99	7.96	17.65	-132.74	-4,799.36	-3,403.59	6,069.30	6,045.55	23.75	255.537		
1,800.00	1,793.38	2,989.59	2,958.27	8.37	18.32	-132.65	-4,773.50	-3,408.18	6,057.80	6,033.06	24.74	244.867		
1,900.00	1,892.71	3,088.42	3,053.54	8.78	18.99	-132.55	-4,747.63	-3,412.77	6,046.32	6,020.58	25.73	234.960		
2,000.00	1,992.03	3,187.25	3,148.82	9.20	19.67	-132.45	-4,721.76	-3,417.36	6,034.85	6,008.12	26.73	225.744		
2,100.00	2,091.36	3,286.08	3,244.09	9.62	20.34	-132.36	-4,695.89	-3,421.95	6,023.40	5,995.66	27.74	217.154		
2,200.00	2,190.68	3,384.92	3,339.37	10.05	21.01	-132.26	-4,670.02	-3,426.54	6,011.97	5,983.22	28.75	209.132		
2,300.00	2,290.00	3,483.75	3,434.64	10.48	21.69	-132.17	-4,644.16	-3,431.13	6,000.55	5,970.79	29.76	201.628		
2,400.00	2,389.33	3,582.58	3,529.92	10.90	22.36	-132.07	-4,618.29	-3,435.72	5,989.15	5,958.37	30.78	194.595		
2,500.00	2,488.65	3,681.41	3,625.20	11.34	23.04	-131.97	-4,592.42	-3,440.30	5,977.77	5,945.97	31.80	187.993		
2,600.00	2,587.97	10,485.17	7,077.96	11.77	117.90	-167.86	-3,669.19	-63.65	5,931.73	5,836.63	95.11	62.370		
2,700.00	2,687.30	10,482.53	7,077.95	12.20	117.81	-167.83	-3,669.18	-66.28	5,864.38	5,768.09	96.30	60.898		
2,800.00	2,786.62	10,479.90	7,077.95	12.64	117.73	-167.79	-3,669.18	-68.92	5,797.98	5,700.46	97.52	59.457		
2,900.00	2,885.94	10,477.26	7,077.95	13.07	117.65	-167.76	-3,669.17	-71.55	5,732.54	5,633.79	98.76	58.047		
3,000.00	2,985.27	10,474.63	7,077.95	13.51	117.56	-167.72	-3,669.16	-74.18	5,668.12	5,568.10	100.02	56.669		
3,100.00	3,084.59	10,471.99	7,077.94	13.95	117.48	-167.69	-3,669.16	-76.82	5,604.73	5,503.43	101.31	55.324		
3,200.00	3,183.91	10,469.36	7,077.94	14.39	117.40	-167.66	-3,669.15	-79.45	5,542.43	5,439.82	102.61	54.014		
3,300.00	3,283.24	10,466.73	7,077.94	14.83	117.31	-167.62	-3,669.15	-82.09	5,481.24	5,377.30	103.94	52.737		
3,400.00	3,382.56	10,464.09	7,077.94	15.27	117.23	-167.59	-3,669.14	-84.72	5,421.20	5,315.93	105.28	51.495		
3,500.00	3,481.88	10,461.46	7,077.93	15.71	117.15	-167.55	-3,669.13	-87.36	5,362.36	5,255.72	106.63	50.288		
3,600.00	3,581.21	10,458.82	7,077.93	16.16	117.07	-167.52	-3,669.13	-89.99	5,304.74	5,196.74	108.00	49.116		
3,700.00	3,680.53	10,456.19	7,077.93	16.60	116.98	-167.48	-3,669.12	-92.62	5,248.40	5,139.01	109.39	47.980		
3,800.00	3,779.85	10,453.56	7,077.93	17.04	116.90	-167.45	-3,669.11	-95.26	5,193.37	5,082.59	110.78	46.881		
3,900.00	3,879.18	10,450.92	7,077.92	17.49	116.82	-167.41	-3,669.11	-97.89	5,139.70	5,027.52	112.18	45.817		
4,000.00	3,978.50	10,448.29	7,077.92	17.93	116.73	-167.38	-3,669.10	-100.53	5,087.42	4,973.83	113.59	44.789		
4,100.00	4,077.82	10,445.65	7,077.92	18.37	116.65	-167.34	-3,669.09	-103.16	5,036.58	4,921.59	115.00	43.797		
4,200.00	4,177.15	10,443.02	7,077.91	18.82	116.57	-167.31	-3,669.09	-105.79	4,987.24	4,870.83	116.41	42.842		
4,300.00	4,276.47	10,440.38	7,077.91	19.27	116.49	-167.27	-3,669.08	-108.43	4,939.42	4,821.60	117.82	41.923		
4,400.00	4,375.79	10,437.75	7,077.91	19.71	116.40	-167.24	-3,669.07	-111.06	4,893.17	4,773.95	119.23	41.040		
4,500.00	4,475.12	10,435.12	7,077.91	20.16	116.32	-167.21	-3,669.07	-113.70	4,848.55	4,727.92	120.63	40.193		
4,600.00	4,574.44	10,432.50	7,077.90	20.60	116.24	-167.17	-3,669.06	-116.33	4,805.59	4,683.43	122.16	39.338		
4,700.00	4,673.76	10,430.00	7,077.90	21.05	116.16	-167.14	-3,669.05	-118.97	4,764.35	4,640.66	123.69	38.519		
4,800.00	4,773.09	10,427.21	7,077.90	21.50	116.07	-167.10	-3,669.05	-121.60	4,724.86	4,600.09	124.76	37.870		
4,900.00	4,872.41	10,424.58	7,077.90	21.94	115.99	-167.07	-3,669.04	-124.23	4,687.16	4,561.05	126.11	37.168		
5,000.00	4,971.74	10,421.94	7,077.89	22.39	115.91	-167.03	-3,669.03	-126.87	4,651.31	4,523.88	127.43	36.501		
5,100.00	5,071.06	10,419.31	7,077.89	22.84	115.82	-167.00	-3,669.03	-129.50	4,617.35	4,488.62	128.73	35.869		

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 4N-16A-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 4N-16A-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	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	5,170.38	10,416.68	7,077.89	23.29	115.74	-166.96	-3,669.02	-132.14	4,585.32	4,455.32	129.99	35.273		
5,300.00	5,269.71	10,414.04	7,077.89	23.74	115.66	-166.93	-3,669.01	-134.77	4,555.25	4,424.02	131.23	34.712		
5,400.00	5,369.03	10,411.41	7,077.88	24.18	115.57	-166.89	-3,669.01	-137.40	4,527.20	4,394.77	132.43	34.186		
5,500.00	5,468.35	10,408.77	7,077.88	24.63	115.49	-166.86	-3,669.00	-140.04	4,501.18	4,367.60	133.59	33.695		
5,600.00	5,567.68	10,406.14	7,077.88	25.08	115.41	-166.82	-3,669.00	-142.67	4,477.25	4,342.55	134.70	33.238		
5,700.00	5,667.00	10,403.51	7,077.88	25.53	115.33	-166.79	-3,668.99	-145.31	4,455.44	4,319.67	135.77	32.816		
5,800.00	5,766.32	10,400.87	7,077.87	25.98	115.24	-166.76	-3,668.98	-147.94	4,435.77	4,298.98	136.79	32.427		
5,900.00	5,865.65	10,401.76	7,077.87	26.43	115.27	-166.72	-3,668.98	-150.58	4,418.27	4,280.41	137.87	32.048		
6,000.00	5,964.97	10,395.60	7,077.87	26.88	115.08	-166.69	-3,668.97	-153.21	4,402.98	4,264.31	138.67	31.752		
6,100.00	6,064.29	10,392.97	7,077.87	27.33	114.99	-166.65	-3,668.96	-155.84	4,389.91	4,250.39	139.52	31.464		
6,200.00	6,163.62	10,390.33	7,077.86	27.78	114.91	-166.62	-3,668.96	-158.48	4,379.08	4,238.77	140.32	31.209		
6,300.00	6,262.94	10,387.70	7,077.86	28.23	114.83	-166.58	-3,668.95	-161.11	4,370.52	4,229.47	141.04	30.987		
6,400.00	6,362.24	10,384.48	7,077.86	28.67	114.73	-148.38	-3,668.94	-164.33	4,364.22	4,222.53	141.69	30.801		
6,500.00	6,460.41	10,369.76	7,077.84	29.12	114.27	-116.74	-3,668.91	-179.05	4,360.13	4,218.22	141.91	30.724		
6,600.00	6,555.09	10,339.77	7,077.81	29.57	113.33	-106.57	-3,668.83	-209.05	4,358.15	4,216.57	141.58	30.782 ES		
6,656.10	6,605.80	10,316.52	7,077.79	29.81	112.60	-103.46	-3,668.77	-232.30	4,357.87	4,216.71	141.16	30.871		
6,700.00	6,643.94	10,295.24	7,077.77	30.00	111.93	-101.61	-3,668.72	-253.57	4,358.03	4,217.30	140.73	30.968		
6,800.00	6,724.78	10,237.27	7,077.71	30.45	110.12	-98.44	-3,668.58	-311.54	4,359.35	4,219.92	139.42	31.267		
6,900.00	6,795.62	10,167.29	7,077.64	30.97	107.94	-96.12	-3,668.40	-381.52	4,361.57	4,223.81	137.75	31.662		
7,000.00	6,854.70	10,087.02	7,077.56	31.60	105.44	-94.33	-3,668.21	-461.80	4,364.10	4,228.26	135.84	32.127		
7,100.00	6,900.58	10,001.57	7,077.47	32.39	102.80	-93.00	-3,667.99	-550.38	4,366.37	4,232.47	133.90	32.609		
7,200.00	6,932.13	9,903.72	7,077.38	33.34	99.78	-92.11	-3,667.75	-645.09	4,367.89	4,236.14	131.75	33.152		
7,300.00	6,948.57	9,805.20	7,077.28	34.46	96.76	-91.68	-3,667.51	-743.61	4,368.31	4,238.53	129.78	33.660		
7,400.00	6,950.87	9,705.28	7,077.18	35.70	93.72	-91.66	-3,667.26	-843.53	4,367.55	4,239.62	127.93	34.141		
7,500.00	6,950.58	9,605.28	7,077.08	37.12	90.69	-91.66	-3,667.02	-943.53	4,366.57	4,240.30	126.27	34.582		
7,600.00	6,950.28	9,505.29	7,076.98	38.70	87.69	-91.66	-3,666.77	-1,043.52	4,365.59	4,240.81	124.79	34.984		
7,700.00	6,949.98	9,405.29	7,076.88	40.41	84.72	-91.67	-3,666.52	-1,143.52	4,364.62	4,241.15	123.47	35.350		
7,800.00	6,949.68	9,305.30	7,076.78	42.25	81.77	-91.67	-3,666.27	-1,243.51	4,363.64	4,241.34	122.30	35.681		
7,900.00	6,949.38	9,204.38	7,076.58	44.20	78.83	-91.67	-3,666.02	-1,344.43	4,362.66	4,241.43	121.23	35.988		
8,000.00	6,949.08	9,104.38	7,075.75	46.24	75.96	-91.67	-3,665.78	-1,444.42	4,361.66	4,241.35	120.31	36.254		
8,100.00	6,948.79	9,004.39	7,074.93	48.36	73.12	-91.66	-3,665.53	-1,544.41	4,360.66	4,241.15	119.50	36.490		
8,200.00	6,948.49	8,904.40	7,074.10	50.56	70.34	-91.65	-3,665.28	-1,644.40	4,359.66	4,240.85	118.81	36.695		
8,300.00	6,948.19	8,804.40	7,073.27	52.82	67.61	-91.65	-3,665.04	-1,744.39	4,358.66	4,240.44	118.22	36.869		
8,400.00	6,947.89	8,704.41	7,072.44	55.14	64.96	-91.64	-3,664.79	-1,844.38	4,357.66	4,239.92	117.73	37.013		
8,500.00	6,947.59	8,604.42	7,071.62	57.50	62.38	-91.63	-3,664.54	-1,944.37	4,356.66	4,239.31	117.35	37.126		
8,600.00	6,947.29	8,504.42	7,070.79	59.91	59.89	-91.63	-3,664.29	-2,044.36	4,355.66	4,238.59	117.07	37.206		
8,700.00	6,947.00	8,404.43	7,069.96	62.36	57.53	-91.62	-3,664.05	-2,144.35	4,354.66	4,237.76	116.90	37.252		
8,800.00	6,946.70	8,304.43	7,069.14	64.84	55.30	-91.61	-3,663.80	-2,244.34	4,353.66	4,236.82	116.84	37.261		
8,900.00	6,946.40	8,204.44	7,068.31	67.35	53.27	-91.61	-3,663.55	-2,344.33	4,352.66	4,235.75	116.91	37.230		
9,000.00	6,946.10	8,104.45	7,067.48	69.88	51.46	-91.60	-3,663.30	-2,444.32	4,351.66	4,234.54	117.12	37.157		
9,100.00	6,945.80	8,004.45	7,066.65	72.44	49.93	-91.59	-3,663.06	-2,544.31	4,350.66	4,233.19	117.47	37.037		
9,200.00	6,945.50	7,904.46	7,065.83	75.02	48.72	-91.59	-3,662.81	-2,644.30	4,349.66	4,231.67	117.99	36.863		
9,300.00	6,945.21	7,804.47	7,065.00	77.63	47.82	-91.58	-3,662.56	-2,744.29	4,348.66	4,229.96	118.70	36.635		
9,400.00	6,944.91	7,704.47	7,064.17	80.24	47.21	-91.57	-3,662.32	-2,844.28	4,347.66	4,228.04	119.62	36.345		
9,500.00	6,944.61	7,605.69	7,063.35	82.88	46.81	-91.57	-3,662.07	-2,944.27	4,346.66	4,225.87	120.79	35.985		
9,569.81	6,944.40	7,578.09	7,062.57	84.73	46.72	-91.56	-3,662.15	-2,970.65	4,346.32	4,224.03	122.29	35.541 CC		
9,600.00	6,944.31	7,566.53	7,061.91	85.53	46.69	-91.55	-3,662.28	-2,982.18	4,346.38	4,223.44	122.94	35.354		
9,700.00	6,944.01	7,535.02	7,059.05	88.19	46.60	-91.51	-3,662.91	-3,013.56	4,347.54	4,222.35	125.19	34.728		
9,800.00	6,943.71	7,491.05	7,052.58	90.86	46.49	-91.43	-3,664.46	-3,057.01	4,350.11	4,222.82	127.29	34.175		
9,900.00	6,943.42	7,450.00	7,043.94	93.55	46.40	-91.32	-3,666.61	-3,097.08	4,354.15	4,224.71	129.44	33.639		
10,000.00	6,943.12	7,418.71	7,035.69	96.24	46.33	-91.21	-3,668.71	-3,127.18	4,359.67	4,227.96	131.70	33.102		
10,100.00	6,942.82	7,384.22	7,024.95	98.95	46.26	-91.07	-3,671.47	-3,159.84	4,366.70	4,232.77	133.93	32.605		

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 4N-16A-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 4N-16A-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		
10,200.00	6,942.52	7,350.00	7,012.63	101.66	46.19	-90.91	-3,674.66	-3,191.60	4,375.29	4,239.14	136.15	32.136		
10,300.00	6,942.22	7,319.25	7,000.17	104.38	46.12	-90.74	-3,677.91	-3,219.52	4,385.45	4,247.08	138.37	31.693		
10,400.00	6,941.92	7,300.00	6,991.71	107.11	46.08	-90.63	-3,680.12	-3,236.67	4,397.28	4,256.58	140.70	31.253		
10,500.00	6,941.63	7,250.00	6,967.45	109.84	45.97	-90.31	-3,686.50	-3,279.90	4,410.70	4,267.93	142.77	30.894		
10,600.00	6,941.33	7,235.01	6,959.54	112.58	45.94	-90.21	-3,688.58	-3,292.46	4,425.77	4,280.73	145.05	30.512		
10,700.00	6,941.03	7,206.94	6,943.98	115.33	45.87	-90.01	-3,692.70	-3,315.46	4,442.58	4,295.37	147.21	30.178		
10,800.00	6,940.73	7,183.10	6,930.01	118.08	45.81	-89.83	-3,696.40	-3,334.41	4,461.11	4,311.75	149.36	29.867		
10,900.00	6,940.43	7,150.00	6,909.49	120.84	45.72	-89.56	-3,701.84	-3,359.81	4,481.41	4,329.99	151.43	29.594		
11,000.00	6,940.13	7,135.01	6,899.79	123.60	45.68	-89.43	-3,704.42	-3,370.94	4,503.40	4,349.86	153.54	29.331		
11,100.00	6,939.83	7,121.76	6,891.01	126.36	45.64	-89.32	-3,706.76	-3,380.58	4,527.19	4,371.58	155.61	29.094		
11,200.00	6,939.54	7,100.00	6,876.16	129.13	45.57	-89.13	-3,710.71	-3,395.99	4,552.72	4,395.13	157.58	28.891		
11,300.00	6,939.24	7,080.05	6,862.12	131.91	45.51	-88.94	-3,714.46	-3,409.66	4,580.01	4,420.49	159.52	28.711		
11,400.00	6,938.94	7,050.00	6,840.20	134.68	45.42	-88.66	-3,720.31	-3,429.36	4,609.13	4,447.77	161.36	28.564		
11,500.00	6,938.64	7,050.00	6,840.20	137.46	45.42	-88.66	-3,720.31	-3,429.36	4,639.84	4,476.58	163.26	28.421		
11,600.00	6,938.34	7,035.01	6,828.94	140.25	45.36	-88.52	-3,723.32	-3,438.78	4,672.35	4,507.31	165.04	28.310		
11,700.00	6,938.04	7,017.48	6,815.50	143.03	45.30	-88.34	-3,726.92	-3,449.45	4,706.56	4,539.80	166.76	28.224		
11,800.00	6,937.75	7,000.00	6,801.83	145.82	45.24	-88.17	-3,730.58	-3,459.70	4,742.47	4,574.05	168.42	28.159		
11,900.00	6,937.45	7,000.00	6,801.83	148.61	45.24	-88.17	-3,730.58	-3,459.70	4,780.06	4,609.99	170.07	28.107		
12,000.00	6,937.15	6,979.23	6,785.23	151.41	45.16	-87.95	-3,735.02	-3,471.37	4,819.22	4,647.62	171.60	28.084 SF		
12,100.00	6,936.85	6,950.00	6,761.27	154.20	45.05	-87.65	-3,741.45	-3,486.83	4,860.19	4,687.14	173.05	28.086		
12,200.00	6,936.55	6,950.00	6,761.27	157.00	45.05	-87.65	-3,741.45	-3,486.83	4,902.45	4,727.93	174.52	28.091		
12,300.00	6,936.25	6,950.00	6,761.27	159.80	45.05	-87.65	-3,741.45	-3,486.83	4,946.36	4,770.43	175.93	28.115		
12,400.00	6,935.96	6,935.01	6,748.73	162.61	44.98	-87.49	-3,744.82	-3,494.31	4,991.81	4,814.56	177.24	28.163		
12,500.00	6,935.66	6,935.01	6,748.73	165.41	44.98	-87.49	-3,744.82	-3,494.31	5,038.76	4,860.23	178.54	28.222		
12,600.00	6,935.36	6,919.21	6,735.33	168.22	44.92	-87.32	-3,748.42	-3,501.87	5,087.12	4,907.38	179.74	28.303		
12,700.00	6,935.06	6,900.00	6,718.80	171.02	44.83	-87.11	-3,752.86	-3,510.58	5,136.98	4,956.10	180.88	28.400		
12,800.00	6,934.76	6,900.00	6,718.80	173.83	44.83	-87.11	-3,752.86	-3,510.58	5,188.09	5,006.08	182.01	28.505		
12,900.00	6,934.46	6,900.00	6,718.80	176.65	44.83	-87.11	-3,752.86	-3,510.58	5,240.61	5,057.53	183.08	28.625		
13,000.00	6,934.17	6,900.00	6,718.80	179.46	44.83	-87.11	-3,752.86	-3,510.58	5,294.49	5,110.40	184.10	28.759		
13,100.00	6,933.87	6,900.00	6,718.80	182.27	44.83	-87.11	-3,752.86	-3,510.58	5,349.71	5,164.64	185.07	28.907		
13,200.00	6,933.57	6,874.82	6,696.76	185.09	44.72	-86.83	-3,758.79	-3,521.22	5,405.84	5,219.88	185.95	29.071		
13,300.00	6,933.27	6,850.00	6,674.66	187.91	44.60	-86.55	-3,764.74	-3,530.81	5,463.57	5,276.79	186.78	29.251		
13,400.00	6,932.97	6,850.00	6,674.66	190.72	44.60	-86.55	-3,764.74	-3,530.81	5,522.16	5,334.54	187.62	29.433		
13,500.00	6,932.67	6,850.00	6,674.66	193.54	44.60	-86.55	-3,764.74	-3,530.81	5,581.92	5,393.52	188.40	29.627		
13,600.00	6,932.38	6,850.00	6,674.66	196.36	44.60	-86.55	-3,764.74	-3,530.81	5,642.83	5,453.68	189.15	29.833		
13,700.00	6,932.08	6,850.00	6,674.66	199.19	44.60	-86.55	-3,764.74	-3,530.81	5,704.83	5,514.98	189.85	30.049		
13,800.00	6,931.78	6,835.01	6,661.14	202.01	44.53	-86.38	-3,768.38	-3,536.17	5,767.88	5,577.38	190.50	30.278		
13,900.00	6,931.48	6,835.01	6,661.14	204.83	44.53	-86.38	-3,768.38	-3,536.17	5,831.89	5,640.77	191.13	30.513		
14,000.00	6,931.18	6,835.01	6,661.14	207.66	44.53	-86.38	-3,768.38	-3,536.17	5,896.91	5,705.19	191.72	30.759		
14,100.00	6,930.88	6,835.01	6,661.14	210.48	44.53	-86.38	-3,768.38	-3,536.17	5,962.89	5,770.62	192.27	31.013		
14,200.00	6,930.59	6,835.01	6,661.14	213.31	44.53	-86.38	-3,768.38	-3,536.17	6,029.81	5,837.02	192.79	31.276		
14,300.00	6,930.29	6,818.43	6,646.05	216.14	44.44	-86.19	-3,772.45	-3,541.72	6,097.45	5,904.18	193.27	31.549		
14,400.00	6,929.99	6,800.00	6,629.13	218.96	44.35	-85.97	-3,777.01	-3,547.40	6,166.19	5,972.47	193.72	31.831		
14,500.00	6,929.69	6,800.00	6,629.13	221.79	44.35	-85.97	-3,777.01	-3,547.40	6,235.56	6,041.41	194.15	32.117		
14,600.00	6,929.39	6,800.00	6,629.13	224.62	44.35	-85.97	-3,777.01	-3,547.40	6,305.75	6,111.19	194.56	32.411		
14,700.00	6,929.09	6,800.00	6,629.13	227.45	44.35	-85.97	-3,777.01	-3,547.40	6,376.73	6,181.79	194.94	32.712		
14,732.12	6,929.00	6,800.00	6,629.13	228.36	44.35	-85.97	-3,777.01	-3,547.40	6,399.70	6,204.64	195.05	32.810		



Anticollision Report



Company:	SRC ENERGY	Local Co-ordinate Reference:	Well HARVESTERS STATE 4N-16A-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 4N-16A-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	-125.41	-4,510.73	-6,345.74	7,785.85				
100.00	100.00	34.00	100.00	3.28	3.33	-125.41	-4,510.73	-6,345.74	7,785.57	7,778.96	6.62	1,176.428	
200.00	200.00	134.00	200.00	3.34	4.40	-125.41	-4,510.73	-6,345.74	7,785.57	7,777.84	7.74	1,006.310	
300.00	300.00	234.00	300.00	3.44	7.21	-125.41	-4,510.73	-6,345.74	7,785.57	7,774.92	10.66	730.537	
400.00	400.00	334.00	400.00	3.60	10.44	-125.41	-4,510.73	-6,345.74	7,785.57	7,771.53	14.05	554.281	
500.00	500.00	434.00	500.00	3.81	13.80	-125.41	-4,510.73	-6,345.74	7,785.57	7,767.97	17.61	442.189	
600.00	600.00	534.00	600.00	4.05	17.21	-125.41	-4,510.73	-6,345.74	7,785.57	7,764.32	21.26	366.239	
700.00	699.98	633.98	699.98	4.32	20.65	-111.94	-4,510.73	-6,345.74	7,786.23	7,761.26	24.97	311.869	
800.00	799.84	733.84	799.84	4.62	24.10	-111.93	-4,510.73	-6,345.74	7,788.18	7,759.47	28.71	271.259	
900.00	899.45	833.45	899.45	4.94	27.55	-111.93	-4,510.73	-6,345.74	7,791.45	7,758.97	32.48	239.893	
1,000.00	998.80	932.80	998.80	5.28	30.99	-111.99	-4,510.73	-6,345.74	7,795.74	7,759.48	36.26	214.982	
1,100.00	1,098.12	1,032.12	1,098.12	5.63	34.44	-112.06	-4,510.73	-6,345.74	7,800.12	7,760.06	40.07	194.685	
1,200.00	1,197.44	1,131.44	1,197.44	6.00	37.90	-112.14	-4,510.73	-6,345.74	7,804.52	7,760.63	43.88	177.841	
1,300.00	1,296.77	1,230.77	1,296.77	6.37	41.35	-112.22	-4,510.73	-6,345.74	7,808.93	7,761.21	47.72	163.648	
1,400.00	1,396.09	1,330.09	1,396.09	6.76	44.81	-112.30	-4,510.73	-6,345.74	7,813.35	7,761.79	51.56	151.533	
1,500.00	1,495.41	1,429.41	1,495.41	7.15	48.27	-112.38	-4,510.73	-6,345.74	7,817.79	7,762.38	55.42	141.076	
1,600.00	1,594.74	1,528.74	1,594.74	7.55	51.73	-112.46	-4,510.73	-6,345.74	7,822.25	7,762.97	59.28	131.962	
1,700.00	1,694.06	1,628.06	1,694.06	7.96	55.19	-112.53	-4,510.73	-6,345.74	7,826.71	7,763.57	63.14	123.951	
1,800.00	1,793.38	1,727.38	1,793.38	8.37	58.65	-112.61	-4,510.73	-6,345.74	7,831.20	7,764.18	67.02	116.854	
1,900.00	1,892.71	1,826.71	1,892.71	8.78	62.11	-112.69	-4,510.73	-6,345.74	7,835.70	7,764.80	70.89	110.526	
2,000.00	1,992.03	1,926.03	1,992.03	9.20	65.57	-112.77	-4,510.73	-6,345.74	7,840.21	7,765.43	74.78	104.849	
2,100.00	2,091.36	2,025.36	2,091.36	9.62	69.04	-112.85	-4,510.73	-6,345.74	7,844.74	7,766.07	78.66	99.728	
2,200.00	2,190.68	2,124.68	2,190.68	10.05	72.50	-112.92	-4,510.73	-6,345.74	7,849.28	7,766.73	82.55	95.085	
2,300.00	2,290.00	2,224.00	2,290.00	10.48	75.97	-113.00	-4,510.73	-6,345.74	7,853.83	7,767.39	86.44	90.858	
2,400.00	2,389.33	2,323.33	2,389.33	10.90	79.43	-113.08	-4,510.73	-6,345.74	7,858.41	7,768.07	90.33	86.993	
2,500.00	2,488.65	2,422.65	2,488.65	11.34	82.89	-113.16	-4,510.73	-6,345.74	7,862.99	7,768.76	94.23	83.445	
2,600.00	2,587.97	2,521.97	2,587.97	11.77	86.36	-113.23	-4,510.73	-6,345.74	7,867.59	7,769.46	98.13	80.178	
2,700.00	2,687.30	2,621.30	2,687.30	12.20	89.82	-113.31	-4,510.73	-6,345.74	7,872.21	7,770.18	102.03	77.159	
2,800.00	2,786.62	2,720.62	2,786.62	12.64	93.29	-113.39	-4,510.73	-6,345.74	7,876.83	7,770.91	105.93	74.362	
2,900.00	2,885.94	2,819.94	2,885.94	13.07	96.75	-113.46	-4,510.73	-6,345.74	7,881.48	7,771.65	109.83	71.762	
3,000.00	2,985.27	2,919.27	2,985.27	13.51	100.22	-113.54	-4,510.73	-6,345.74	7,886.13	7,772.40	113.73	69.340	
3,100.00	3,084.59	3,018.59	3,084.59	13.95	103.69	-113.62	-4,510.73	-6,345.74	7,890.81	7,773.17	117.63	67.079	
3,200.00	3,183.91	3,117.91	3,183.91	14.39	107.15	-113.69	-4,510.73	-6,345.74	7,895.49	7,773.95	121.54	64.962	
3,300.00	3,283.24	3,217.24	3,283.24	14.83	110.62	-113.77	-4,510.73	-6,345.74	7,900.19	7,774.75	125.45	62.977	
3,400.00	3,382.56	3,316.56	3,382.56	15.27	114.08	-113.85	-4,510.73	-6,345.74	7,904.91	7,775.56	129.35	61.111	
3,500.00	3,481.88	3,415.88	3,481.88	15.71	117.55	-113.92	-4,510.73	-6,345.74	7,909.64	7,776.38	133.26	59.355	
3,600.00	3,581.21	3,515.21	3,581.21	16.16	121.02	-114.00	-4,510.73	-6,345.74	7,914.38	7,777.21	137.17	57.698	
3,700.00	3,680.53	3,614.53	3,680.53	16.60	124.48	-114.08	-4,510.73	-6,345.74	7,919.14	7,778.06	141.08	56.133	
3,800.00	3,779.85	3,713.85	3,779.85	17.04	127.95	-114.15	-4,510.73	-6,345.74	7,923.91	7,778.92	144.99	54.653	
3,900.00	3,879.18	3,813.18	3,879.18	17.49	131.41	-114.23	-4,510.73	-6,345.74	7,928.69	7,779.80	148.90	53.250	
4,000.00	3,978.50	3,912.50	3,978.50	17.93	134.88	-114.31	-4,510.73	-6,345.74	7,933.49	7,780.69	152.81	51.918	
4,100.00	4,077.82	4,011.82	4,077.82	18.37	138.35	-114.38	-4,510.73	-6,345.74	7,938.31	7,781.59	156.72	50.654	
4,200.00	4,177.15	4,111.15	4,177.15	18.82	141.81	-114.46	-4,510.73	-6,345.74	7,943.14	7,782.51	160.63	49.450	
4,300.00	4,276.47	4,210.47	4,276.47	19.27	145.28	-114.53	-4,510.73	-6,345.74	7,947.98	7,783.44	164.54	48.304	
4,400.00	4,375.79	4,309.79	4,375.79	19.71	148.75	-114.61	-4,510.73	-6,345.74	7,952.83	7,784.38	168.45	47.211	
4,500.00	4,475.12	4,409.12	4,475.12	20.16	152.21	-114.68	-4,510.73	-6,345.74	7,957.70	7,785.34	172.37	46.168	
4,600.00	4,574.44	4,508.44	4,574.44	20.60	155.68	-114.76	-4,510.73	-6,345.74	7,962.59	7,786.31	176.28	45.171	
4,700.00	4,673.76	4,607.76	4,673.76	21.05	159.15	-114.84	-4,510.73	-6,345.74	7,967.49	7,787.29	180.19	44.217	
4,800.00	4,773.09	4,707.09	4,773.09	21.50	162.61	-114.91	-4,510.73	-6,345.74	7,972.40	7,788.29	184.10	43.304	
4,900.00	4,872.41	4,806.41	4,872.41	21.94	166.08	-114.99	-4,510.73	-6,345.74	7,977.32	7,789.31	188.02	42.428	
5,000.00	4,971.74	4,905.74	4,971.74	22.39	169.55	-115.06	-4,510.73	-6,345.74	7,982.26	7,790.33	191.93	41.589	
5,100.00	5,071.06	5,005.06	5,071.06	22.84	173.01	-115.14	-4,510.73	-6,345.74	7,987.22	7,791.37	195.85	40.783	

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 4N-16A-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 4N-16A-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	5,170.38	5,104.38	5,170.38	23.29	176.48	-115.21	-4,510.73	-6,345.74	7,992.18	7,792.42	199.76	40.009		
5,300.00	5,269.71	5,203.71	5,269.71	23.74	179.95	-115.29	-4,510.73	-6,345.74	7,997.16	7,793.49	203.67	39.264		
5,400.00	5,369.03	5,303.03	5,369.03	24.18	183.41	-115.36	-4,510.73	-6,345.74	8,002.16	7,794.57	207.59	38.548		
5,500.00	5,468.35	5,402.35	5,468.35	24.63	186.88	-115.44	-4,510.73	-6,345.74	8,007.17	7,795.66	211.50	37.858		
5,600.00	5,567.68	5,501.68	5,567.68	25.08	190.35	-115.51	-4,510.73	-6,345.74	8,012.19	7,796.77	215.42	37.193		
5,700.00	5,667.00	5,601.00	5,667.00	25.53	193.81	-115.58	-4,510.73	-6,345.74	8,017.23	7,797.89	219.33	36.552		
5,800.00	5,766.32	5,700.32	5,766.32	25.98	197.28	-115.66	-4,510.73	-6,345.74	8,022.27	7,799.02	223.25	35.934		
5,900.00	5,865.65	5,800.35	5,865.65	26.43	200.77	-115.73	-4,510.73	-6,345.74	8,027.34	7,800.15	227.19	35.333		
6,000.00	5,964.97	5,901.03	5,964.97	26.88	204.29	-115.81	-4,510.73	-6,345.74	8,032.41	7,801.26	231.15	34.749		
6,100.00	6,064.29	6,001.71	6,064.29	27.33	207.80	-115.88	-4,510.73	-6,345.74	8,037.50	7,802.39	235.12	34.185		
6,200.00	6,163.62	6,102.38	6,163.62	27.78	211.31	-115.96	-4,510.73	-6,345.74	8,042.61	7,803.53	239.08	33.640		
6,300.00	6,262.94	6,203.06	6,262.94	28.23	214.83	-116.03	-4,510.73	-6,345.74	8,047.73	7,804.68	243.04	33.112		
6,400.00	6,362.24	6,303.76	6,362.24	28.67	218.34	-97.75	-4,510.73	-6,345.74	8,052.40	7,805.39	247.01	32.600		
6,500.00	6,460.41	6,405.59	6,460.41	29.12	221.90	-66.31	-4,510.73	-6,345.74	8,048.13	7,797.11	251.01	32.063		
6,600.00	6,555.09	6,489.09	6,555.09	29.57	224.81	-57.48	-4,510.73	-6,345.74	8,031.87	7,777.50	254.37	31.575		
6,700.00	6,643.94	6,577.94	6,643.94	30.00	227.91	-55.00	-4,510.73	-6,345.74	8,004.13	7,746.22	257.92	31.034		
6,800.00	6,724.78	6,658.78	6,724.78	30.45	230.74	-55.49	-4,510.73	-6,345.74	7,965.70	7,704.52	261.18	30.499		
6,900.00	6,795.62	6,729.62	6,795.62	30.97	233.21	-58.00	-4,510.73	-6,345.74	7,917.65	7,653.54	264.11	29.979		
7,000.00	6,854.70	6,788.70	6,854.70	31.60	235.27	-62.27	-4,510.73	-6,345.74	7,861.29	7,594.62	266.67	29.480		
7,100.00	6,900.58	6,834.58	6,900.58	32.39	236.87	-68.23	-4,510.73	-6,345.74	7,798.13	7,529.31	268.82	29.008		
7,200.00	6,932.13	6,866.13	6,932.13	33.34	237.97	-75.79	-4,510.73	-6,345.74	7,729.82	7,459.27	270.55	28.571		
7,300.00	6,948.57	6,882.57	6,948.57	34.46	238.55	-84.67	-4,510.73	-6,345.74	7,658.10	7,386.28	271.83	28.173		
7,400.00	6,950.87	6,884.87	6,950.87	35.70	238.63	-90.18	-4,510.73	-6,345.74	7,584.86	7,312.19	272.68	27.816		
7,500.00	6,950.58	6,884.58	6,950.58	37.12	238.62	-90.18	-4,510.73	-6,345.74	7,511.98	7,238.44	273.55	27.461		
7,600.00	6,950.28	6,884.28	6,950.28	38.70	238.61	-90.18	-4,510.73	-6,345.74	7,439.73	7,165.20	274.53	27.100		
7,700.00	6,949.98	6,883.98	6,949.98	40.41	238.60	-90.17	-4,510.73	-6,345.74	7,368.13	7,092.50	275.63	26.732		
7,800.00	6,949.68	6,883.68	6,949.68	42.25	238.59	-90.17	-4,510.73	-6,345.74	7,297.20	7,020.35	276.84	26.359		
7,900.00	6,949.38	6,883.38	6,949.38	44.20	238.58	-90.17	-4,510.73	-6,345.74	7,226.95	6,948.79	278.16	25.981		
8,000.00	6,949.08	6,883.08	6,949.08	46.24	238.57	-90.16	-4,510.73	-6,345.74	7,157.41	6,877.83	279.58	25.601		
8,100.00	6,948.79	6,882.79	6,948.79	48.36	238.56	-90.16	-4,510.73	-6,345.74	7,088.60	6,807.50	281.10	25.218		
8,200.00	6,948.49	6,882.49	6,948.49	50.56	238.55	-90.16	-4,510.73	-6,345.74	7,020.54	6,737.82	282.71	24.833		
8,300.00	6,948.19	6,882.19	6,948.19	52.82	238.53	-90.15	-4,510.73	-6,345.74	6,953.25	6,668.83	284.42	24.447		
8,400.00	6,947.89	6,881.89	6,947.89	55.14	238.52	-90.15	-4,510.73	-6,345.74	6,886.75	6,600.53	286.22	24.061		
8,500.00	6,947.59	6,881.59	6,947.59	57.50	238.51	-90.15	-4,510.73	-6,345.74	6,821.08	6,532.97	288.10	23.676		
8,600.00	6,947.29	6,881.29	6,947.29	59.91	238.50	-90.14	-4,510.73	-6,345.74	6,756.24	6,466.17	290.07	23.292		
8,700.00	6,947.00	6,881.00	6,947.00	62.36	238.49	-90.14	-4,510.73	-6,345.74	6,692.27	6,400.16	292.11	22.910		
8,800.00	6,946.70	6,880.70	6,946.70	64.84	238.48	-90.14	-4,510.73	-6,345.74	6,629.20	6,334.96	294.24	22.530		
8,900.00	6,946.40	6,880.40	6,946.40	67.35	238.47	-90.13	-4,510.73	-6,345.74	6,567.04	6,270.61	296.43	22.154		
9,000.00	6,946.10	6,880.10	6,946.10	69.88	238.46	-90.13	-4,510.73	-6,345.74	6,505.82	6,207.12	298.70	21.780		
9,100.00	6,945.80	6,879.80	6,945.80	72.44	238.45	-90.13	-4,510.73	-6,345.74	6,445.57	6,144.54	301.04	21.411		
9,200.00	6,945.50	6,879.50	6,945.50	75.02	238.44	-90.12	-4,510.73	-6,345.74	6,386.32	6,082.89	303.44	21.047		
9,300.00	6,945.21	6,879.21	6,945.21	77.63	238.43	-90.12	-4,510.73	-6,345.74	6,328.10	6,022.20	305.91	20.686		
9,400.00	6,944.91	6,878.91	6,944.91	80.24	238.42	-90.12	-4,510.73	-6,345.74	6,270.93	5,962.50	308.43	20.331		
9,500.00	6,944.61	6,878.61	6,944.61	82.88	238.41	-90.11	-4,510.73	-6,345.74	6,214.85	5,903.82	311.02	19.982		
9,600.00	6,944.31	6,878.31	6,944.31	85.53	238.40	-90.11	-4,510.73	-6,345.74	6,159.87	5,846.20	313.67	19.638		
9,700.00	6,944.01	6,878.01	6,944.01	88.19	238.39	-90.11	-4,510.73	-6,345.74	6,106.04	5,789.67	316.37	19.300		
9,800.00	6,943.71	6,877.71	6,943.71	90.86	238.38	-90.10	-4,510.73	-6,345.74	6,053.38	5,734.26	319.13	18.969		
9,900.00	6,943.42	6,877.42	6,943.42	93.55	238.37	-90.10	-4,510.73	-6,345.74	6,001.93	5,680.00	321.93	18.643		
10,000.00	6,943.12	6,877.12	6,943.12	96.24	238.36	-90.10	-4,510.73	-6,345.74	5,951.71	5,626.92	324.79	18.325		
10,100.00	6,942.82	6,876.82	6,942.82	98.95	238.35	-90.09	-4,510.73	-6,345.74	5,902.76	5,575.07	327.69	18.013		
10,200.00	6,942.52	6,876.52	6,942.52	101.66	238.34	-90.09	-4,510.73	-6,345.74	5,855.11	5,524.47	330.64	17.708		
10,300.00	6,942.22	6,876.22	6,942.22	104.38	238.33	-90.09	-4,510.73	-6,345.74	5,808.79	5,475.16	333.63	17.411		

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 4N-16A-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 4N-16A-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	6,941.92	6,875.92	6,941.92	107.11	238.32	-90.08	-4,510.73	-6,345.74	5,763.83	5,427.18	336.65	17.121		
10,500.00	6,941.63	6,875.63	6,941.63	109.84	238.31	-90.08	-4,510.73	-6,345.74	5,720.27	5,380.55	339.72	16.838		
10,600.00	6,941.33	6,875.33	6,941.33	112.58	238.30	-90.08	-4,510.73	-6,345.74	5,678.13	5,335.32	342.81	16.563		
10,700.00	6,941.03	6,875.03	6,941.03	115.33	238.28	-90.07	-4,510.73	-6,345.74	5,637.46	5,291.52	345.94	16.296		
10,800.00	6,940.73	6,874.73	6,940.73	118.08	238.27	-90.07	-4,510.73	-6,345.74	5,598.27	5,249.18	349.09	16.037		
10,900.00	6,940.43	6,874.43	6,940.43	120.84	238.26	-90.07	-4,510.73	-6,345.74	5,560.61	5,208.34	352.27	15.785		
11,000.00	6,940.13	6,874.13	6,940.13	123.60	238.25	-90.06	-4,510.73	-6,345.74	5,524.50	5,169.03	355.46	15.542		
11,100.00	6,939.83	6,873.83	6,939.83	126.36	238.24	-90.06	-4,510.73	-6,345.74	5,489.97	5,131.29	358.68	15.306		
11,200.00	6,939.54	6,873.54	6,939.54	129.13	238.23	-90.06	-4,510.73	-6,345.74	5,457.06	5,095.16	361.90	15.079		
11,300.00	6,939.24	6,873.24	6,939.24	131.91	238.22	-90.05	-4,510.73	-6,345.74	5,425.79	5,060.65	365.14	14.860		
11,400.00	6,938.94	6,872.94	6,938.94	134.68	238.21	-90.05	-4,510.73	-6,345.74	5,396.20	5,027.82	368.38	14.649		
11,500.00	6,938.64	6,872.64	6,938.64	137.46	238.20	-90.05	-4,510.73	-6,345.74	5,368.30	4,996.68	371.62	14.446		
11,600.00	6,938.34	6,872.34	6,938.34	140.25	238.19	-90.04	-4,510.73	-6,345.74	5,342.13	4,967.27	374.86	14.251		
11,700.00	6,938.04	6,872.04	6,938.04	143.03	238.18	-90.04	-4,510.73	-6,345.74	5,317.71	4,939.62	378.09	14.065		
11,800.00	6,937.75	6,871.75	6,937.75	145.82	238.17	-90.04	-4,510.73	-6,345.74	5,295.07	4,913.76	381.31	13.887		
11,900.00	6,937.45	6,871.45	6,937.45	148.61	238.16	-90.03	-4,510.73	-6,345.74	5,274.23	4,889.72	384.51	13.717		
12,000.00	6,937.15	6,871.15	6,937.15	151.41	238.15	-90.03	-4,510.73	-6,345.74	5,255.21	4,867.52	387.69	13.555		
12,100.00	6,936.85	6,870.85	6,936.85	154.20	238.14	-90.03	-4,510.73	-6,345.74	5,238.03	4,847.18	390.85	13.402		
12,200.00	6,936.55	6,870.55	6,936.55	157.00	238.13	-90.02	-4,510.73	-6,345.74	5,222.70	4,828.73	393.98	13.256		
12,300.00	6,936.25	6,870.25	6,936.25	159.80	238.12	-90.02	-4,510.73	-6,345.74	5,209.26	4,812.18	397.07	13.119		
12,400.00	6,935.96	6,869.96	6,935.96	162.61	238.11	-90.02	-4,510.73	-6,345.74	5,197.70	4,797.57	400.13	12.990		
12,500.00	6,935.66	6,869.66	6,935.66	165.41	238.10	-90.01	-4,510.73	-6,345.74	5,188.04	4,784.90	403.14	12.869		
12,600.00	6,935.36	6,869.36	6,935.36	168.22	238.09	-90.01	-4,510.73	-6,345.74	5,180.30	4,774.19	406.11	12.756		
12,700.00	6,935.06	6,869.06	6,935.06	171.02	238.08	-90.01	-4,510.73	-6,345.74	5,174.48	4,765.45	409.03	12.651		
12,800.00	6,934.76	6,868.76	6,934.76	173.83	238.07	-90.01	-4,510.73	-6,345.74	5,170.58	4,758.69	411.89	12.553		
12,900.00	6,934.46	6,868.46	6,934.46	176.65	238.06	-90.00	-4,510.73	-6,345.74	5,168.62	4,753.92	414.70	12.464		
12,951.44	6,934.31	6,868.31	6,934.31	178.09	238.05	-90.00	-4,510.73	-6,345.74	5,168.36	4,752.25	416.12	12.421 CC		
13,000.00	6,934.17	6,868.17	6,934.17	179.46	238.05	-90.00	-4,510.73	-6,345.74	5,168.59	4,751.15	417.44	12.382		
13,100.00	6,933.87	6,867.87	6,933.87	182.27	238.03	-90.00	-4,510.73	-6,345.74	5,170.50	4,750.38	420.12	12.307 ES		
13,200.00	6,933.57	6,867.57	6,933.57	185.09	238.02	-89.99	-4,510.73	-6,345.74	5,174.34	4,751.61	422.73	12.240		
13,300.00	6,933.27	6,867.27	6,933.27	187.91	238.01	-89.99	-4,510.73	-6,345.74	5,180.10	4,754.83	425.27	12.181		
13,400.00	6,932.97	6,866.97	6,932.97	190.72	238.00	-89.99	-4,510.73	-6,345.74	5,187.79	4,760.05	427.74	12.128		
13,500.00	6,932.67	6,866.67	6,932.67	193.54	237.99	-89.98	-4,510.73	-6,345.74	5,197.39	4,767.26	430.14	12.083		
13,600.00	6,932.38	6,866.38	6,932.38	196.36	237.98	-89.98	-4,510.73	-6,345.74	5,208.90	4,776.44	432.45	12.045		
13,700.00	6,932.08	6,866.08	6,932.08	199.19	237.97	-89.98	-4,510.73	-6,345.74	5,222.29	4,787.60	434.69	12.014		
13,800.00	6,931.78	6,865.78	6,931.78	202.01	237.96	-89.97	-4,510.73	-6,345.74	5,237.56	4,800.71	436.85	11.989		
13,900.00	6,931.48	6,865.48	6,931.48	204.83	237.95	-89.97	-4,510.73	-6,345.74	5,254.69	4,815.76	438.93	11.972		
14,000.00	6,931.18	6,865.18	6,931.18	207.66	237.94	-89.97	-4,510.73	-6,345.74	5,273.66	4,832.73	440.93	11.960		
14,100.00	6,930.88	6,864.88	6,930.88	210.48	237.93	-89.96	-4,510.73	-6,345.74	5,294.45	4,851.61	442.84	11.956 SF		
14,200.00	6,930.59	6,864.59	6,930.59	213.31	237.92	-89.96	-4,510.73	-6,345.74	5,317.04	4,872.37	444.67	11.957		
14,300.00	6,930.29	6,864.29	6,930.29	216.14	237.91	-89.96	-4,510.73	-6,345.74	5,341.40	4,894.99	446.42	11.965		
14,400.00	6,929.99	6,863.99	6,929.99	218.96	237.90	-89.95	-4,510.73	-6,345.74	5,367.52	4,919.44	448.08	11.979		
14,500.00	6,929.69	6,863.69	6,929.69	221.79	237.89	-89.95	-4,510.73	-6,345.74	5,395.37	4,945.70	449.67	11.999		
14,600.00	6,929.39	6,863.39	6,929.39	224.62	237.88	-89.95	-4,510.73	-6,345.74	5,424.92	4,973.74	451.17	12.024		
14,700.00	6,929.09	6,863.09	6,929.09	227.45	237.87	-89.94	-4,510.73	-6,345.74	5,456.14	5,003.54	452.60	12.055		
14,732.12	6,929.00	6,863.00	6,929.00	228.36	237.86	-89.94	-4,510.73	-6,345.74	5,466.52	5,013.48	453.04	12.066		

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 4N-16A-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 4N-16A-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	-70.21	2,288.30	-6,358.18	6,757.45					
100.00	100.00	81.00	100.00	3.28	3.57	-70.21	2,288.30	-6,358.18	6,757.42	6,750.57	6.86	985.555		
200.00	200.00	181.00	200.00	3.34	5.63	-70.21	2,288.30	-6,358.18	6,757.42	6,748.46	8.96	753.766		
300.00	300.00	281.00	300.00	3.44	8.71	-70.21	2,288.30	-6,358.18	6,757.42	6,745.27	12.15	556.137		
400.00	400.00	381.00	400.00	3.60	12.01	-70.21	2,288.30	-6,358.18	6,757.42	6,741.81	15.62	432.750		
500.00	500.00	481.00	500.00	3.81	15.40	-70.21	2,288.30	-6,358.18	6,757.42	6,738.22	19.21	351.847		
600.00	600.00	581.00	600.00	4.05	18.83	-70.21	2,288.30	-6,358.18	6,757.42	6,734.55	22.87	295.452		
700.00	699.98	680.98	699.98	4.32	22.27	-56.76	2,288.30	-6,358.18	6,756.46	6,729.88	26.59	254.120		
800.00	799.84	780.84	799.84	4.62	25.72	-56.85	2,288.30	-6,358.18	6,753.60	6,723.26	30.34	222.617		
900.00	899.45	880.45	899.45	4.94	29.18	-56.99	2,288.30	-6,358.18	6,748.83	6,714.72	34.11	197.868		
1,000.00	998.80	979.80	998.80	5.28	32.62	-57.11	2,288.30	-6,358.18	6,742.59	6,704.70	37.89	177.942		
1,100.00	1,098.12	1,079.12	1,098.12	5.63	36.08	-57.19	2,288.30	-6,358.18	6,736.26	6,694.56	41.69	161.564		
1,200.00	1,197.44	1,178.44	1,197.44	6.00	39.53	-57.27	2,288.30	-6,358.18	6,729.94	6,684.43	45.51	147.871		
1,300.00	1,296.77	1,277.77	1,296.77	6.37	42.99	-57.35	2,288.30	-6,358.18	6,723.64	6,674.30	49.34	136.261		
1,400.00	1,396.09	1,377.09	1,396.09	6.76	46.44	-57.44	2,288.30	-6,358.18	6,717.35	6,664.17	53.19	126.299		
1,500.00	1,495.41	1,476.41	1,495.41	7.15	49.90	-57.52	2,288.30	-6,358.18	6,711.08	6,654.04	57.04	117.661		
1,600.00	1,594.74	1,575.74	1,594.74	7.55	53.36	-57.60	2,288.30	-6,358.18	6,704.82	6,643.93	60.90	110.103		
1,700.00	1,694.06	1,675.06	1,694.06	7.96	56.83	-57.69	2,288.30	-6,358.18	6,698.58	6,633.82	64.76	103.435		
1,800.00	1,793.38	1,774.38	1,793.38	8.37	60.29	-57.77	2,288.30	-6,358.18	6,692.35	6,623.71	68.63	97.511		
1,900.00	1,892.71	1,873.71	1,892.71	8.78	63.75	-57.85	2,288.30	-6,358.18	6,686.13	6,613.62	72.51	92.213		
2,000.00	1,992.03	1,973.03	1,992.03	9.20	67.21	-57.94	2,288.30	-6,358.18	6,679.93	6,603.54	76.39	87.449		
2,100.00	2,091.36	2,072.36	2,091.36	9.62	70.68	-58.02	2,288.30	-6,358.18	6,673.74	6,593.47	80.27	83.142		
2,200.00	2,190.68	2,171.68	2,190.68	10.05	74.14	-58.11	2,288.30	-6,358.18	6,667.57	6,583.41	84.16	79.229		
2,300.00	2,290.00	2,271.00	2,290.00	10.48	77.60	-58.19	2,288.30	-6,358.18	6,661.41	6,573.37	88.04	75.660		
2,400.00	2,389.33	2,370.33	2,389.33	10.90	81.07	-58.28	2,288.30	-6,358.18	6,655.27	6,563.33	91.94	72.391		
2,500.00	2,488.65	2,469.65	2,488.65	11.34	84.53	-58.36	2,288.30	-6,358.18	6,649.14	6,553.31	95.83	69.386		
2,600.00	2,587.97	2,568.97	2,587.97	11.77	88.00	-58.45	2,288.30	-6,358.18	6,643.02	6,543.30	99.72	66.615		
2,700.00	2,687.30	2,668.30	2,687.30	12.20	91.46	-58.53	2,288.30	-6,358.18	6,636.92	6,533.30	103.62	64.051		
2,800.00	2,786.62	2,767.62	2,786.62	12.64	94.93	-58.62	2,288.30	-6,358.18	6,630.84	6,523.32	107.52	61.672		
2,900.00	2,885.94	2,866.94	2,885.94	13.07	98.39	-58.70	2,288.30	-6,358.18	6,624.77	6,513.35	111.42	59.459		
3,000.00	2,985.27	2,966.27	2,985.27	13.51	101.86	-58.79	2,288.30	-6,358.18	6,618.71	6,503.40	115.32	57.395		
3,100.00	3,084.59	3,065.59	3,084.59	13.95	105.33	-58.87	2,288.30	-6,358.18	6,612.67	6,493.45	119.22	55.466		
3,200.00	3,183.91	3,164.91	3,183.91	14.39	108.79	-58.96	2,288.30	-6,358.18	6,606.65	6,483.52	123.12	53.659		
3,300.00	3,283.24	3,264.24	3,283.24	14.83	112.26	-59.04	2,288.30	-6,358.18	6,600.64	6,473.61	127.03	51.963		
3,400.00	3,382.56	3,363.56	3,382.56	15.27	115.72	-59.13	2,288.30	-6,358.18	6,594.64	6,463.71	130.93	50.367		
3,500.00	3,481.88	3,462.88	3,481.88	15.71	119.19	-59.22	2,288.30	-6,358.18	6,588.66	6,453.82	134.84	48.864		
3,600.00	3,581.21	3,562.21	3,581.21	16.16	122.66	-59.30	2,288.30	-6,358.18	6,582.69	6,443.95	138.74	47.446		
3,700.00	3,680.53	3,661.53	3,680.53	16.60	126.12	-59.39	2,288.30	-6,358.18	6,576.74	6,434.09	142.65	46.104		
3,800.00	3,779.85	3,760.85	3,779.85	17.04	129.59	-59.48	2,288.30	-6,358.18	6,570.81	6,424.25	146.56	44.835		
3,900.00	3,879.18	3,860.18	3,879.18	17.49	133.05	-59.56	2,288.30	-6,358.18	6,564.89	6,414.42	150.46	43.631		
4,000.00	3,978.50	3,959.50	3,978.50	17.93	136.52	-59.65	2,288.30	-6,358.18	6,558.98	6,404.61	154.37	42.488		
4,100.00	4,077.82	4,058.82	4,077.82	18.37	139.99	-59.74	2,288.30	-6,358.18	6,553.09	6,394.81	158.28	41.402		
4,200.00	4,177.15	4,158.15	4,177.15	18.82	143.45	-59.82	2,288.30	-6,358.18	6,547.22	6,385.03	162.19	40.367		
4,300.00	4,276.47	4,257.47	4,276.47	19.27	146.92	-59.91	2,288.30	-6,358.18	6,541.36	6,375.26	166.10	39.382		
4,400.00	4,375.79	4,356.79	4,375.79	19.71	150.39	-60.00	2,288.30	-6,358.18	6,535.52	6,365.51	170.01	38.442		
4,500.00	4,475.12	4,456.12	4,475.12	20.16	153.85	-60.09	2,288.30	-6,358.18	6,529.69	6,355.77	173.92	37.544		
4,600.00	4,574.44	4,555.44	4,574.44	20.60	157.32	-60.17	2,288.30	-6,358.18	6,523.87	6,346.04	177.83	36.686		
4,700.00	4,673.76	4,654.76	4,673.76	21.05	160.79	-60.26	2,288.30	-6,358.18	6,518.08	6,336.33	181.74	35.864		
4,800.00	4,773.09	4,754.09	4,773.09	21.50	164.25	-60.35	2,288.30	-6,358.18	6,512.30	6,326.64	185.65	35.078		
4,900.00	4,872.41	4,853.41	4,872.41	21.94	167.72	-60.44	2,288.30	-6,358.18	6,506.53	6,316.96	189.57	34.323		
5,000.00	4,971.74	4,952.74	4,971.74	22.39	171.19	-60.53	2,288.30	-6,358.18	6,500.78	6,307.30	193.48	33.600		
5,100.00	5,071.06	5,052.06	5,071.06	22.84	174.65	-60.62	2,288.30	-6,358.18	6,495.04	6,297.65	197.39	32.905		

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 4N-16A-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 4N-16A-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	5,170.38	5,151.38	5,170.38	23.29	178.12	-60.71	2,288.30	-6,358.18	6,489.32	6,288.02	201.30	32.237		
5,300.00	5,269.71	5,250.71	5,269.71	23.74	181.59	-60.79	2,288.30	-6,358.18	6,483.62	6,278.40	205.22	31.594		
5,400.00	5,369.03	5,350.03	5,369.03	24.18	185.05	-60.88	2,288.30	-6,358.18	6,477.93	6,268.80	209.13	30.976		
5,500.00	5,468.35	5,449.35	5,468.35	24.63	188.52	-60.97	2,288.30	-6,358.18	6,472.26	6,259.22	213.04	30.380		
5,600.00	5,567.68	5,548.68	5,567.68	25.08	191.99	-61.06	2,288.30	-6,358.18	6,466.61	6,249.65	216.96	29.806		
5,700.00	5,667.00	5,648.00	5,667.00	25.53	195.45	-61.15	2,288.30	-6,358.18	6,460.96	6,240.10	220.87	29.252		
5,800.00	5,766.32	5,747.32	5,766.32	25.98	198.92	-61.24	2,288.30	-6,358.18	6,455.34	6,230.56	224.78	28.718		
5,900.00	5,865.65	5,846.65	5,865.65	26.43	202.39	-61.33	2,288.30	-6,358.18	6,449.73	6,221.04	228.70	28.202		
6,000.00	5,964.97	5,945.97	5,964.97	26.88	205.85	-61.42	2,288.30	-6,358.18	6,444.14	6,211.53	232.61	27.704		
6,100.00	6,064.29	6,045.29	6,064.29	27.33	209.32	-61.51	2,288.30	-6,358.18	6,438.56	6,202.04	236.52	27.222		
6,200.00	6,163.62	6,144.62	6,163.62	27.78	212.79	-61.60	2,288.30	-6,358.18	6,433.00	6,192.57	240.44	26.755		
6,300.00	6,262.94	6,243.94	6,262.94	28.23	216.26	-61.69	2,288.30	-6,358.18	6,427.46	6,183.11	244.35	26.304		
6,400.00	6,362.24	6,343.24	6,362.24	28.67	219.72	-43.43	2,288.30	-6,358.18	6,421.37	6,173.10	248.27	25.865		
6,500.00	6,460.41	6,441.41	6,460.41	29.12	223.15	-11.27	2,288.30	-6,358.18	6,404.23	6,152.09	252.14	25.400		
6,600.00	6,559.09	6,539.09	6,559.09	29.57	226.45	-0.48	2,288.30	-6,358.18	6,372.47	6,116.60	255.86	24.906		
6,700.00	6,643.94	6,624.94	6,643.94	30.00	229.56	5.36	2,288.30	-6,358.18	6,326.85	6,067.50	259.35	24.395		
6,800.00	6,724.78	6,705.78	6,724.78	30.45	232.38	9.96	2,288.30	-6,358.18	6,268.50	6,005.99	262.51	23.879		
6,900.00	6,795.62	6,776.62	6,795.62	30.97	234.85	14.80	2,288.30	-6,358.18	6,198.89	5,933.62	265.27	23.369		
7,000.00	6,854.70	6,835.70	6,854.70	31.60	236.91	21.09	2,288.30	-6,358.18	6,119.73	5,852.18	267.55	22.873		
7,100.00	6,900.58	6,881.58	6,900.58	32.39	238.51	30.63	2,288.30	-6,358.18	6,033.02	5,763.70	269.31	22.401		
7,200.00	6,932.13	6,913.13	6,932.13	33.34	239.61	46.64	2,288.30	-6,358.18	5,940.91	5,670.38	270.52	21.961		
7,300.00	6,948.57	6,929.57	6,948.57	34.46	240.19	72.67	2,288.30	-6,358.18	5,845.72	5,574.55	271.17	21.558		
7,400.00	6,950.87	6,931.87	6,950.87	35.70	240.27	90.58	2,288.30	-6,358.18	5,749.74	5,478.44	271.30	21.193		
7,500.00	6,950.58	6,931.58	6,950.58	37.12	240.26	90.57	2,288.30	-6,358.18	5,653.92	5,382.55	271.36	20.835		
7,600.00	6,950.28	6,931.28	6,950.28	38.70	240.25	90.56	2,288.30	-6,358.18	5,558.24	5,286.78	271.46	20.476		
7,700.00	6,949.98	6,930.98	6,949.98	40.41	240.24	90.55	2,288.30	-6,358.18	5,462.72	5,191.14	271.58	20.114		
7,800.00	6,949.68	6,930.68	6,949.68	42.25	240.23	90.54	2,288.30	-6,358.18	5,367.36	5,095.61	271.75	19.751		
7,900.00	6,949.38	6,930.38	6,949.38	44.20	240.22	90.53	2,288.30	-6,358.18	5,272.18	5,000.22	271.95	19.387		
8,000.00	6,949.08	6,930.08	6,949.08	46.24	240.21	90.52	2,288.30	-6,358.18	5,177.17	4,904.97	272.20	19.020		
8,100.00	6,948.79	6,929.79	6,948.79	48.36	240.20	90.50	2,288.30	-6,358.18	5,082.36	4,809.87	272.49	18.652		
8,200.00	6,948.49	6,929.49	6,948.49	50.56	240.19	90.49	2,288.30	-6,358.18	4,987.75	4,714.92	272.83	18.281		
8,300.00	6,948.19	6,929.19	6,948.19	52.82	240.18	90.48	2,288.30	-6,358.18	4,893.35	4,620.13	273.23	17.910		
8,400.00	6,947.89	6,928.89	6,947.89	55.14	240.16	90.47	2,288.30	-6,358.18	4,799.18	4,525.51	273.68	17.536		
8,500.00	6,947.59	6,928.59	6,947.59	57.50	240.15	90.46	2,288.30	-6,358.18	4,705.26	4,431.07	274.19	17.161		
8,600.00	6,947.29	6,928.29	6,947.29	59.91	240.14	90.45	2,288.30	-6,358.18	4,611.58	4,336.82	274.77	16.784		
8,700.00	6,947.00	6,928.00	6,947.00	62.36	240.13	90.44	2,288.30	-6,358.18	4,518.18	4,242.77	275.41	16.405		
8,800.00	6,946.70	6,927.70	6,946.70	64.84	240.12	90.43	2,288.30	-6,358.18	4,425.07	4,148.93	276.13	16.025		
8,900.00	6,946.40	6,927.40	6,946.40	67.35	240.11	90.42	2,288.30	-6,358.18	4,332.26	4,055.33	276.93	15.644		
9,000.00	6,946.10	6,927.10	6,946.10	69.88	240.10	90.41	2,288.30	-6,358.18	4,239.78	3,961.97	277.81	15.261		
9,100.00	6,945.80	6,926.80	6,945.80	72.44	240.09	90.40	2,288.30	-6,358.18	4,147.65	3,868.88	278.78	14.878		
9,200.00	6,945.50	6,926.50	6,945.50	75.02	240.08	90.39	2,288.30	-6,358.18	4,055.90	3,776.06	279.84	14.494		
9,300.00	6,945.21	6,926.21	6,945.21	77.63	240.07	90.38	2,288.30	-6,358.18	3,964.54	3,683.55	280.99	14.109		
9,400.00	6,944.91	6,925.91	6,944.91	80.24	240.06	90.37	2,288.30	-6,358.18	3,873.60	3,591.36	282.25	13.724		
9,500.00	6,944.61	6,925.61	6,944.61	82.88	240.05	90.36	2,288.30	-6,358.18	3,783.13	3,499.52	283.61	13.339		
9,600.00	6,944.31	6,925.31	6,944.31	85.53	240.04	90.35	2,288.30	-6,358.18	3,693.15	3,408.06	285.09	12.954		
9,700.00	6,944.01	6,925.01	6,944.01	88.19	240.03	90.34	2,288.30	-6,358.18	3,603.69	3,317.01	286.68	12.570		
9,800.00	6,943.71	6,924.71	6,943.71	90.86	240.02	90.33	2,288.30	-6,358.18	3,514.81	3,226.40	288.41	12.187		
9,900.00	6,943.42	6,924.42	6,943.42	93.55	240.01	90.32	2,288.30	-6,358.18	3,426.53	3,136.28	290.26	11.805		
10,000.00	6,943.12	6,924.12	6,943.12	96.24	240.00	90.31	2,288.30	-6,358.18	3,338.92	3,046.67	292.25	11.425		
10,100.00	6,942.82	6,923.82	6,942.82	98.95	239.99	90.29	2,288.30	-6,358.18	3,252.02	2,957.64	294.39	11.047		
10,200.00	6,942.52	6,923.52	6,942.52	101.66	239.98	90.28	2,288.30	-6,358.18	3,165.90	2,869.23	296.67	10.671		
10,300.00	6,942.22	6,923.22	6,942.22	104.38	239.97	90.27	2,288.30	-6,358.18	3,080.61	2,781.49	299.12	10.299		

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 4N-16A-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 4N-16A-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	6,941.92	6,922.92	6,941.92	107.11	239.96	90.26	2,288.30	-6,358.18	2,996.24	2,694.50	301.74	9.930		
10,500.00	6,941.63	6,922.63	6,941.63	109.84	239.95	90.25	2,288.30	-6,358.18	2,912.85	2,608.32	304.54	9.565		
10,600.00	6,941.33	6,922.33	6,941.33	112.58	239.94	90.24	2,288.30	-6,358.18	2,830.54	2,523.03	307.52	9.205		
10,700.00	6,941.03	6,922.03	6,941.03	115.33	239.93	90.23	2,288.30	-6,358.18	2,749.41	2,438.72	310.69	8.849		
10,800.00	6,940.73	6,921.73	6,940.73	118.08	239.91	90.22	2,288.30	-6,358.18	2,669.55	2,355.49	314.06	8.500		
10,900.00	6,940.43	6,921.43	6,940.43	120.84	239.90	90.21	2,288.30	-6,358.18	2,591.09	2,273.44	317.65	8.157		
11,000.00	6,940.13	6,921.13	6,940.13	123.60	239.89	90.20	2,288.30	-6,358.18	2,514.16	2,192.72	321.45	7.821		
11,100.00	6,939.83	6,920.83	6,939.83	126.36	239.88	90.19	2,288.30	-6,358.18	2,438.91	2,113.44	325.47	7.493		
11,200.00	6,939.54	6,920.54	6,939.54	129.13	239.87	90.18	2,288.30	-6,358.18	2,365.49	2,035.77	329.72	7.174		
11,300.00	6,939.24	6,920.24	6,939.24	131.91	239.86	90.17	2,288.30	-6,358.18	2,294.08	1,959.87	334.21	6.864		
11,400.00	6,938.94	6,919.94	6,938.94	134.68	239.85	90.16	2,288.30	-6,358.18	2,224.87	1,885.96	338.92	6.565		
11,500.00	6,938.64	6,919.64	6,938.64	137.46	239.84	90.15	2,288.30	-6,358.18	2,158.08	1,814.23	343.85	6.276		
11,600.00	6,938.34	6,919.34	6,938.34	140.25	239.83	90.14	2,288.30	-6,358.18	2,093.94	1,744.94	349.00	6.000		
11,700.00	6,938.04	6,919.04	6,938.04	143.03	239.82	90.13	2,288.30	-6,358.18	2,032.69	1,678.34	354.35	5.736		
11,800.00	6,937.75	6,918.75	6,937.75	145.82	239.81	90.12	2,288.30	-6,358.18	1,974.61	1,614.74	359.87	5.487		
11,900.00	6,937.45	6,918.45	6,937.45	148.61	239.80	90.11	2,288.30	-6,358.18	1,919.99	1,554.45	365.54	5.252		
12,000.00	6,937.15	6,918.15	6,937.15	151.41	239.79	90.10	2,288.30	-6,358.18	1,869.12	1,497.81	371.31	5.034		
12,100.00	6,936.85	6,917.85	6,936.85	154.20	239.78	90.09	2,288.30	-6,358.18	1,822.33	1,445.20	377.13	4.832		
12,200.00	6,936.55	6,917.55	6,936.55	157.00	239.77	90.07	2,288.30	-6,358.18	1,779.93	1,396.99	382.94	4.648		
12,300.00	6,936.25	6,917.25	6,936.25	159.80	239.76	90.06	2,288.30	-6,358.18	1,742.24	1,353.58	388.66	4.483		
12,400.00	6,935.96	6,916.96	6,935.96	162.61	239.75	90.05	2,288.30	-6,358.18	1,709.58	1,315.38	394.20	4.337		
12,500.00	6,935.66	6,916.66	6,935.66	165.41	239.74	90.04	2,288.30	-6,358.18	1,682.24	1,282.75	399.49	4.211		
12,600.00	6,935.36	6,916.36	6,935.36	168.22	239.73	90.03	2,288.30	-6,358.18	1,660.47	1,256.05	404.42	4.106		
12,700.00	6,935.06	6,916.06	6,935.06	171.02	239.72	90.02	2,288.30	-6,358.18	1,644.52	1,235.60	408.92	4.022		
12,800.00	6,934.76	6,915.76	6,934.76	173.83	239.71	90.01	2,288.30	-6,358.18	1,634.53	1,221.64	412.89	3.959		
12,900.00	6,934.46	6,915.46	6,934.46	176.65	239.70	90.00	2,288.30	-6,358.18	1,630.63	1,214.35	416.28	3.917		
12,913.71	6,934.42	6,915.42	6,934.42	177.03	239.69	90.00	2,288.30	-6,358.18	1,630.57	1,213.87	416.70	3.913 CC		
13,000.00	6,934.17	6,915.17	6,934.17	179.46	239.69	89.99	2,288.30	-6,358.18	1,632.85	1,213.82	419.04	3.897 ES, SF		
13,100.00	6,933.87	6,914.87	6,933.87	182.27	239.68	89.98	2,288.30	-6,358.18	1,641.18	1,220.05	421.13	3.897		
13,200.00	6,933.57	6,914.57	6,933.57	185.09	239.67	89.97	2,288.30	-6,358.18	1,655.51	1,232.95	422.56	3.918		
13,300.00	6,933.27	6,914.27	6,933.27	187.91	239.65	89.96	2,288.30	-6,358.18	1,675.70	1,252.36	423.35	3.958		
13,400.00	6,932.97	6,913.97	6,932.97	190.72	239.64	89.95	2,288.30	-6,358.18	1,701.54	1,278.02	423.52	4.018		
13,500.00	6,932.67	6,913.67	6,932.67	193.54	239.63	89.94	2,288.30	-6,358.18	1,732.77	1,309.64	423.13	4.095		
13,600.00	6,932.38	6,913.38	6,932.38	196.36	239.62	89.93	2,288.30	-6,358.18	1,769.11	1,346.86	422.25	4.190		
13,700.00	6,932.08	6,913.08	6,932.08	199.19	239.61	89.92	2,288.30	-6,358.18	1,810.25	1,389.31	420.94	4.301		
13,800.00	6,931.78	6,912.78	6,931.78	202.01	239.60	89.91	2,288.30	-6,358.18	1,855.87	1,436.61	419.26	4.426		
13,900.00	6,931.48	6,912.48	6,931.48	204.83	239.59	89.90	2,288.30	-6,358.18	1,905.66	1,488.36	417.30	4.567		
14,000.00	6,931.18	6,912.18	6,931.18	207.66	239.58	89.89	2,288.30	-6,358.18	1,959.28	1,544.18	415.10	4.720		
14,100.00	6,930.88	6,911.88	6,930.88	210.48	239.57	89.88	2,288.30	-6,358.18	2,016.44	1,603.71	412.73	4.886		
14,200.00	6,930.59	6,911.59	6,930.59	213.31	239.56	89.87	2,288.30	-6,358.18	2,076.85	1,666.61	410.24	5.063		
14,300.00	6,930.29	6,911.29	6,930.29	216.14	239.55	89.85	2,288.30	-6,358.18	2,140.22	1,732.56	407.66	5.250		
14,400.00	6,929.99	6,910.99	6,929.99	218.96	239.54	89.84	2,288.30	-6,358.18	2,206.31	1,801.26	405.04	5.447		
14,500.00	6,929.69	6,910.69	6,929.69	221.79	239.53	89.83	2,288.30	-6,358.18	2,274.87	1,872.46	402.41	5.653		
14,600.00	6,929.39	6,910.39	6,929.39	224.62	239.52	89.82	2,288.30	-6,358.18	2,345.70	1,945.91	399.79	5.867		
14,700.00	6,929.09	6,910.09	6,929.09	227.45	239.51	89.81	2,288.30	-6,358.18	2,418.59	2,021.40	397.19	6.089		
14,732.12	6,929.00	6,910.00	6,929.00	228.36	239.51	89.81	2,288.30	-6,358.18	2,442.41	2,046.04	396.37	6.162		

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 4N-16A-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 4N-16A-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	-74.20	2,223.15	-7,854.44	8,163.02					
100.00	100.00	84.00	100.00	3.28	3.59	-74.20	2,223.15	-7,854.44	8,163.00	8,156.13	6.88	1,186.913		
200.00	200.00	184.00	200.00	3.34	5.71	-74.20	2,223.15	-7,854.44	8,163.00	8,153.95	9.05	901.958		
300.00	300.00	284.00	300.00	3.44	8.80	-74.20	2,223.15	-7,854.44	8,163.00	8,150.75	12.25	666.490		
400.00	400.00	384.00	400.00	3.60	12.11	-74.20	2,223.15	-7,854.44	8,163.00	8,147.29	15.72	519.412		
500.00	500.00	484.00	500.00	3.81	15.50	-74.20	2,223.15	-7,854.44	8,163.00	8,143.69	19.31	422.780		
600.00	600.00	584.00	600.00	4.05	18.93	-74.20	2,223.15	-7,854.44	8,163.00	8,140.03	22.97	355.306		
700.00	699.98	683.98	699.98	4.32	22.37	-60.75	2,223.15	-7,854.44	8,162.15	8,135.46	26.69	305.799		
800.00	799.84	783.84	799.84	4.62	25.83	-60.83	2,223.15	-7,854.44	8,159.59	8,129.15	30.44	268.047		
900.00	899.45	883.45	899.45	4.94	29.28	-60.96	2,223.15	-7,854.44	8,155.34	8,121.13	34.21	238.382		
1,000.00	998.80	982.80	998.80	5.28	32.73	-61.06	2,223.15	-7,854.44	8,149.78	8,111.78	38.00	214.493		
1,100.00	1,098.12	1,082.12	1,098.12	5.63	36.18	-61.13	2,223.15	-7,854.44	8,144.14	8,102.34	41.80	194.845		
1,200.00	1,197.44	1,181.44	1,197.44	6.00	39.63	-61.20	2,223.15	-7,854.44	8,138.51	8,092.89	45.62	178.411		
1,300.00	1,296.77	1,280.77	1,296.77	6.37	43.09	-61.27	2,223.15	-7,854.44	8,132.89	8,083.44	49.45	164.472		
1,400.00	1,396.09	1,380.09	1,396.09	6.76	46.55	-61.34	2,223.15	-7,854.44	8,127.28	8,073.99	53.29	152.508		
1,500.00	1,495.41	1,479.41	1,495.41	7.15	50.01	-61.41	2,223.15	-7,854.44	8,121.69	8,064.55	57.14	142.130		
1,600.00	1,594.74	1,578.74	1,594.74	7.55	53.47	-61.49	2,223.15	-7,854.44	8,116.11	8,055.11	61.00	133.047		
1,700.00	1,694.06	1,678.06	1,694.06	7.96	56.93	-61.56	2,223.15	-7,854.44	8,110.55	8,045.68	64.87	125.033		
1,800.00	1,793.38	1,777.38	1,793.38	8.37	60.39	-61.63	2,223.15	-7,854.44	8,104.99	8,036.25	68.74	117.911		
1,900.00	1,892.71	1,876.71	1,892.71	8.78	63.85	-61.70	2,223.15	-7,854.44	8,099.45	8,026.84	72.61	111.541		
2,000.00	1,992.03	1,976.03	1,992.03	9.20	67.32	-61.77	2,223.15	-7,854.44	8,093.92	8,017.43	76.49	105.812		
2,100.00	2,091.36	2,075.36	2,091.36	9.62	70.78	-61.84	2,223.15	-7,854.44	8,088.41	8,008.03	80.38	100.631		
2,200.00	2,190.68	2,174.68	2,190.68	10.05	74.25	-61.92	2,223.15	-7,854.44	8,082.91	7,998.64	84.26	95.924		
2,300.00	2,290.00	2,274.00	2,290.00	10.48	77.71	-61.99	2,223.15	-7,854.44	8,077.42	7,989.27	88.15	91.630		
2,400.00	2,389.33	2,373.33	2,389.33	10.90	81.17	-62.06	2,223.15	-7,854.44	8,071.94	7,979.90	92.04	87.697		
2,500.00	2,488.65	2,472.65	2,488.65	11.34	84.64	-62.13	2,223.15	-7,854.44	8,066.48	7,970.54	95.94	84.081		
2,600.00	2,587.97	2,571.97	2,587.97	11.77	88.10	-62.21	2,223.15	-7,854.44	8,061.03	7,961.20	99.83	80.746		
2,700.00	2,687.30	2,671.30	2,687.30	12.20	91.57	-62.28	2,223.15	-7,854.44	8,055.59	7,951.86	103.73	77.660		
2,800.00	2,786.62	2,770.62	2,786.62	12.64	95.03	-62.35	2,223.15	-7,854.44	8,050.17	7,942.54	107.63	74.796		
2,900.00	2,885.94	2,869.94	2,885.94	13.07	98.50	-62.42	2,223.15	-7,854.44	8,044.76	7,933.23	111.53	72.132		
3,000.00	2,985.27	2,969.27	2,985.27	13.51	101.96	-62.50	2,223.15	-7,854.44	8,039.36	7,923.93	115.43	69.648		
3,100.00	3,084.59	3,068.59	3,084.59	13.95	105.43	-62.57	2,223.15	-7,854.44	8,033.97	7,914.64	119.33	67.325		
3,200.00	3,183.91	3,167.91	3,183.91	14.39	108.90	-62.64	2,223.15	-7,854.44	8,028.60	7,905.37	123.23	65.149		
3,300.00	3,283.24	3,267.24	3,283.24	14.83	112.36	-62.72	2,223.15	-7,854.44	8,023.24	7,896.11	127.14	63.107		
3,400.00	3,382.56	3,366.56	3,382.56	15.27	115.83	-62.79	2,223.15	-7,854.44	8,017.90	7,886.86	131.04	61.185		
3,500.00	3,481.88	3,465.88	3,481.88	15.71	119.29	-62.86	2,223.15	-7,854.44	8,012.57	7,877.62	134.95	59.375		
3,600.00	3,581.21	3,565.21	3,581.21	16.16	122.76	-62.94	2,223.15	-7,854.44	8,007.25	7,868.39	138.85	57.666		
3,700.00	3,680.53	3,664.53	3,680.53	16.60	126.23	-63.01	2,223.15	-7,854.44	8,001.94	7,859.18	142.76	56.051		
3,800.00	3,779.85	3,763.85	3,779.85	17.04	129.69	-63.09	2,223.15	-7,854.44	7,996.65	7,849.98	146.67	54.522		
3,900.00	3,879.18	3,863.18	3,879.18	17.49	133.16	-63.16	2,223.15	-7,854.44	7,991.37	7,840.80	150.58	53.071		
4,000.00	3,978.50	3,962.50	3,978.50	17.93	136.63	-63.23	2,223.15	-7,854.44	7,986.11	7,831.62	154.49	51.695		
4,100.00	4,077.82	4,061.82	4,077.82	18.37	140.09	-63.31	2,223.15	-7,854.44	7,980.86	7,822.46	158.40	50.386		
4,200.00	4,177.15	4,161.15	4,177.15	18.82	143.56	-63.38	2,223.15	-7,854.44	7,975.62	7,813.31	162.31	49.140		
4,300.00	4,276.47	4,260.47	4,276.47	19.27	147.02	-63.46	2,223.15	-7,854.44	7,970.40	7,804.18	166.22	47.952		
4,400.00	4,375.79	4,359.79	4,375.79	19.71	150.49	-63.53	2,223.15	-7,854.44	7,965.18	7,795.06	170.13	46.819		
4,500.00	4,475.12	4,459.12	4,475.12	20.16	153.96	-63.60	2,223.15	-7,854.44	7,959.99	7,785.95	174.04	45.737		
4,600.00	4,574.44	4,558.44	4,574.44	20.60	157.42	-63.68	2,223.15	-7,854.44	7,954.80	7,776.86	177.95	44.703		
4,700.00	4,673.76	4,657.76	4,673.76	21.05	160.89	-63.75	2,223.15	-7,854.44	7,949.63	7,767.77	181.86	43.713		
4,800.00	4,773.09	4,757.09	4,773.09	21.50	164.36	-63.83	2,223.15	-7,854.44	7,944.48	7,758.70	185.77	42.765		
4,900.00	4,872.41	4,856.41	4,872.41	21.94	167.82	-63.90	2,223.15	-7,854.44	7,939.33	7,749.65	189.68	41.856		
5,000.00	4,971.74	4,955.74	4,971.74	22.39	171.29	-63.98	2,223.15	-7,854.44	7,934.20	7,740.61	193.60	40.983		
5,100.00	5,071.06	5,055.06	5,071.06	22.84	174.76	-64.05	2,223.15	-7,854.44	7,929.09	7,731.58	197.51	40.146		

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 4N-16A-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 4N-16A-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	5,170.38	5,154.38	5,170.38	23.29	178.22	-64.13	2,223.15	-7,854.44	7,923.98	7,722.56	201.42	39.341		
5,300.00	5,269.71	5,253.71	5,269.71	23.74	181.69	-64.20	2,223.15	-7,854.44	7,918.90	7,713.56	205.33	38.566		
5,400.00	5,369.03	5,353.03	5,369.03	24.18	185.16	-64.28	2,223.15	-7,854.44	7,913.82	7,704.57	209.25	37.821		
5,500.00	5,468.35	5,452.35	5,468.35	24.63	188.63	-64.35	2,223.15	-7,854.44	7,908.76	7,695.60	213.16	37.102		
5,600.00	5,567.68	5,551.68	5,567.68	25.08	192.09	-64.43	2,223.15	-7,854.44	7,903.71	7,686.64	217.07	36.410		
5,700.00	5,667.00	5,651.00	5,667.00	25.53	195.56	-64.50	2,223.15	-7,854.44	7,898.68	7,677.69	220.99	35.743		
5,800.00	5,766.32	5,750.32	5,766.32	25.98	199.03	-64.58	2,223.15	-7,854.44	7,893.66	7,668.76	224.90	35.098		
5,900.00	5,865.65	5,849.65	5,865.65	26.43	202.49	-64.66	2,223.15	-7,854.44	7,888.66	7,659.84	228.82	34.476		
6,000.00	5,964.97	5,948.97	5,964.97	26.88	205.96	-64.73	2,223.15	-7,854.44	7,883.66	7,650.93	232.73	33.875		
6,100.00	6,064.29	6,048.29	6,064.29	27.33	209.43	-64.81	2,223.15	-7,854.44	7,878.69	7,642.04	236.64	33.293		
6,200.00	6,163.62	6,147.62	6,163.62	27.78	212.89	-64.88	2,223.15	-7,854.44	7,873.72	7,633.16	240.56	32.731		
6,300.00	6,262.94	6,246.94	6,262.94	28.23	216.36	-64.96	2,223.15	-7,854.44	7,868.77	7,624.30	244.47	32.187		
6,400.00	6,362.24	6,346.24	6,362.24	28.67	219.83	-65.03	2,223.15	-7,854.44	7,863.76	7,614.88	248.39	31.657		
6,500.00	6,460.41	6,444.41	6,460.41	29.12	223.25	-14.63	2,223.15	-7,854.44	7,846.55	7,594.29	252.26	31.105		
6,600.00	6,559.09	6,543.09	6,559.09	29.57	226.56	-4.03	2,223.15	-7,854.44	7,814.98	7,558.99	255.98	30.529		
6,700.00	6,643.94	6,627.94	6,643.94	30.00	229.66	1.50	2,223.15	-7,854.44	7,769.32	7,509.85	259.47	29.943		
6,800.00	6,724.78	6,708.78	6,724.78	30.45	232.48	5.62	2,223.15	-7,854.44	7,710.71	7,448.08	262.63	29.359		
6,900.00	6,795.62	6,779.62	6,795.62	30.97	234.95	9.76	2,223.15	-7,854.44	7,640.58	7,375.19	265.39	28.790		
7,000.00	6,854.70	6,838.70	6,854.70	31.60	237.02	15.03	2,223.15	-7,854.44	7,560.68	7,293.01	267.67	28.246		
7,100.00	6,900.58	6,884.58	6,900.58	32.39	238.62	23.18	2,223.15	-7,854.44	7,472.98	7,203.55	269.43	27.737		
7,200.00	6,932.13	6,916.13	6,932.13	33.34	239.72	38.14	2,223.15	-7,854.44	7,379.66	7,109.04	270.62	27.269		
7,300.00	6,948.57	6,932.57	6,948.57	34.46	240.29	67.55	2,223.15	-7,854.44	7,283.04	7,011.80	271.25	26.850		
7,400.00	6,950.87	6,934.87	6,950.87	35.70	240.37	90.76	2,223.15	-7,854.44	7,185.45	6,914.11	271.35	26.480		
7,500.00	6,950.58	6,934.58	6,950.58	37.12	240.36	90.75	2,223.15	-7,854.44	7,087.93	6,816.56	271.37	26.119		
7,600.00	6,950.28	6,934.28	6,950.28	38.70	240.35	90.74	2,223.15	-7,854.44	6,990.47	6,719.06	271.41	25.756		
7,700.00	6,949.98	6,933.98	6,949.98	40.41	240.34	90.73	2,223.15	-7,854.44	6,893.08	6,621.62	271.46	25.392		
7,800.00	6,949.68	6,933.68	6,949.68	42.25	240.33	90.72	2,223.15	-7,854.44	6,795.77	6,524.23	271.54	25.027		
7,900.00	6,949.38	6,933.38	6,949.38	44.20	240.32	90.71	2,223.15	-7,854.44	6,698.54	6,426.90	271.64	24.660		
8,000.00	6,949.08	6,933.08	6,949.08	46.24	240.31	90.70	2,223.15	-7,854.44	6,601.39	6,329.63	271.76	24.291		
8,100.00	6,948.79	6,932.79	6,948.79	48.36	240.30	90.68	2,223.15	-7,854.44	6,504.33	6,232.42	271.91	23.921		
8,200.00	6,948.49	6,932.49	6,948.49	50.56	240.29	90.67	2,223.15	-7,854.44	6,407.35	6,135.28	272.08	23.550		
8,300.00	6,948.19	6,932.19	6,948.19	52.82	240.28	90.66	2,223.15	-7,854.44	6,310.48	6,038.20	272.28	23.177		
8,400.00	6,947.89	6,931.89	6,947.89	55.14	240.27	90.65	2,223.15	-7,854.44	6,213.70	5,941.19	272.51	22.802		
8,500.00	6,947.59	6,931.59	6,947.59	57.50	240.26	90.64	2,223.15	-7,854.44	6,117.02	5,844.25	272.77	22.426		
8,600.00	6,947.29	6,931.29	6,947.29	59.91	240.25	90.63	2,223.15	-7,854.44	6,020.46	5,747.39	273.07	22.048		
8,700.00	6,947.00	6,931.00	6,947.00	62.36	240.24	90.62	2,223.15	-7,854.44	5,924.00	5,650.61	273.40	21.668		
8,800.00	6,946.70	6,930.70	6,946.70	64.84	240.23	90.61	2,223.15	-7,854.44	5,827.67	5,553.90	273.77	21.287		
8,900.00	6,946.40	6,930.40	6,946.40	67.35	240.22	90.60	2,223.15	-7,854.44	5,731.46	5,457.29	274.18	20.904		
9,000.00	6,946.10	6,930.10	6,946.10	69.88	240.21	90.59	2,223.15	-7,854.44	5,635.39	5,360.76	274.63	20.520		
9,100.00	6,945.80	6,929.80	6,945.80	72.44	240.20	90.58	2,223.15	-7,854.44	5,539.45	5,264.32	275.13	20.134		
9,200.00	6,945.50	6,929.50	6,945.50	75.02	240.19	90.57	2,223.15	-7,854.44	5,443.66	5,167.99	275.67	19.747		
9,300.00	6,945.21	6,929.21	6,945.21	77.63	240.18	90.55	2,223.15	-7,854.44	5,348.03	5,071.76	276.27	19.358		
9,400.00	6,944.91	6,928.91	6,944.91	80.24	240.17	90.54	2,223.15	-7,854.44	5,252.55	4,975.64	276.91	18.968		
9,500.00	6,944.61	6,928.61	6,944.61	82.88	240.16	90.53	2,223.15	-7,854.44	5,157.25	4,879.64	277.61	18.577		
9,600.00	6,944.31	6,928.31	6,944.31	85.53	240.14	90.52	2,223.15	-7,854.44	5,062.13	4,783.75	278.37	18.185		
9,700.00	6,944.01	6,928.01	6,944.01	88.19	240.13	90.51	2,223.15	-7,854.44	4,967.20	4,688.00	279.20	17.791		
9,800.00	6,943.71	6,927.71	6,943.71	90.86	240.12	90.50	2,223.15	-7,854.44	4,872.47	4,592.39	280.08	17.397		
9,900.00	6,943.42	6,927.42	6,943.42	93.55	240.11	90.49	2,223.15	-7,854.44	4,777.96	4,496.93	281.03	17.001		
10,000.00	6,943.12	6,927.12	6,943.12	96.24	240.10	90.48	2,223.15	-7,854.44	4,683.68	4,401.62	282.06	16.606		
10,100.00	6,942.82	6,926.82	6,942.82	98.95	240.09	90.47	2,223.15	-7,854.44	4,589.64	4,306.49	283.15	16.209		
10,200.00	6,942.52	6,926.52	6,942.52	101.66	240.08	90.46	2,223.15	-7,854.44	4,495.85	4,211.53	284.33	15.812		
10,300.00	6,942.22	6,926.22	6,942.22	104.38	240.07	90.45	2,223.15	-7,854.44	4,402.34	4,116.76	285.58	15.415		

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 4N-16A-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 4N-16A-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	6,941.92	6,925.92	6,941.92	107.11	240.06	90.43	2,223.15	-7,854.44	4,309.12	4,022.20	286.93	15.018		
10,500.00	6,941.63	6,925.63	6,941.63	109.84	240.05	90.42	2,223.15	-7,854.44	4,216.22	3,927.86	288.36	14.621		
10,600.00	6,941.33	6,925.33	6,941.33	112.58	240.04	90.41	2,223.15	-7,854.44	4,123.64	3,833.75	289.89	14.225		
10,700.00	6,941.03	6,925.03	6,941.03	115.33	240.03	90.40	2,223.15	-7,854.44	4,031.42	3,739.90	291.51	13.829		
10,800.00	6,940.73	6,924.73	6,940.73	118.08	240.02	90.39	2,223.15	-7,854.44	3,939.57	3,646.33	293.25	13.434		
10,900.00	6,940.43	6,924.43	6,940.43	120.84	240.01	90.38	2,223.15	-7,854.44	3,848.14	3,553.05	295.09	13.041		
11,000.00	6,940.13	6,924.13	6,940.13	123.60	240.00	90.37	2,223.15	-7,854.44	3,757.14	3,460.09	297.05	12.648		
11,100.00	6,939.83	6,923.83	6,939.83	126.36	239.99	90.36	2,223.15	-7,854.44	3,666.61	3,367.48	299.13	12.258		
11,200.00	6,939.54	6,923.54	6,939.54	129.13	239.98	90.35	2,223.15	-7,854.44	3,576.58	3,275.24	301.34	11.869		
11,300.00	6,939.24	6,923.24	6,939.24	131.91	239.97	90.34	2,223.15	-7,854.44	3,487.10	3,183.41	303.69	11.482		
11,400.00	6,938.94	6,922.94	6,938.94	134.68	239.96	90.33	2,223.15	-7,854.44	3,398.20	3,092.01	306.19	11.098		
11,500.00	6,938.64	6,922.64	6,938.64	137.46	239.95	90.32	2,223.15	-7,854.44	3,309.94	3,001.10	308.83	10.718		
11,600.00	6,938.34	6,922.34	6,938.34	140.25	239.94	90.30	2,223.15	-7,854.44	3,222.36	2,910.72	311.64	10.340		
11,700.00	6,938.04	6,922.04	6,938.04	143.03	239.93	90.29	2,223.15	-7,854.44	3,135.53	2,820.91	314.62	9.966		
11,800.00	6,937.75	6,921.75	6,937.75	145.82	239.92	90.28	2,223.15	-7,854.44	3,049.50	2,731.72	317.78	9.596		
11,900.00	6,937.45	6,921.45	6,937.45	148.61	239.91	90.27	2,223.15	-7,854.44	2,964.35	2,643.22	321.13	9.231		
12,000.00	6,937.15	6,921.15	6,937.15	151.41	239.89	90.26	2,223.15	-7,854.44	2,880.16	2,555.48	324.68	8.871		
12,100.00	6,936.85	6,920.85	6,936.85	154.20	239.88	90.25	2,223.15	-7,854.44	2,797.00	2,468.56	328.44	8.516		
12,200.00	6,936.55	6,920.55	6,936.55	157.00	239.87	90.24	2,223.15	-7,854.44	2,714.99	2,382.56	332.43	8.167		
12,300.00	6,936.25	6,920.25	6,936.25	159.80	239.86	90.23	2,223.15	-7,854.44	2,634.21	2,297.57	336.64	7.825		
12,400.00	6,935.96	6,919.96	6,935.96	162.61	239.85	90.22	2,223.15	-7,854.44	2,554.80	2,213.70	341.10	7.490		
12,500.00	6,935.66	6,919.66	6,935.66	165.41	239.84	90.21	2,223.15	-7,854.44	2,476.87	2,131.07	345.81	7.163		
12,600.00	6,935.36	6,919.36	6,935.36	168.22	239.83	90.20	2,223.15	-7,854.44	2,400.59	2,049.81	350.78	6.844		
12,700.00	6,935.06	6,919.06	6,935.06	171.02	239.82	90.19	2,223.15	-7,854.44	2,326.10	1,970.09	356.01	6.534		
12,800.00	6,934.76	6,918.76	6,934.76	173.83	239.81	90.17	2,223.15	-7,854.44	2,253.59	1,892.08	361.51	6.234		
12,900.00	6,934.46	6,918.46	6,934.46	176.65	239.80	90.16	2,223.15	-7,854.44	2,183.25	1,815.97	367.28	5.944		
13,000.00	6,934.17	6,918.17	6,934.17	179.46	239.79	90.15	2,223.15	-7,854.44	2,115.30	1,742.00	373.31	5.666		
13,100.00	6,933.87	6,917.87	6,933.87	182.27	239.78	90.14	2,223.15	-7,854.44	2,049.98	1,670.40	379.59	5.401		
13,200.00	6,933.57	6,917.57	6,933.57	185.09	239.77	90.13	2,223.15	-7,854.44	1,987.55	1,601.46	386.09	5.148		
13,300.00	6,933.27	6,917.27	6,933.27	187.91	239.76	90.12	2,223.15	-7,854.44	1,928.28	1,535.48	392.80	4.909		
13,400.00	6,932.97	6,916.97	6,932.97	190.72	239.75	90.11	2,223.15	-7,854.44	1,872.48	1,472.82	399.66	4.685		
13,500.00	6,932.67	6,916.67	6,932.67	193.54	239.74	90.10	2,223.15	-7,854.44	1,820.47	1,413.85	406.62	4.477		
13,600.00	6,932.38	6,916.38	6,932.38	196.36	239.73	90.09	2,223.15	-7,854.44	1,772.57	1,358.96	413.61	4.286		
13,700.00	6,932.08	6,916.08	6,932.08	199.19	239.72	90.08	2,223.15	-7,854.44	1,729.14	1,308.59	420.56	4.112		
13,800.00	6,931.78	6,915.78	6,931.78	202.01	239.71	90.07	2,223.15	-7,854.44	1,690.52	1,263.17	427.35	3.956		
13,900.00	6,931.48	6,915.48	6,931.48	204.83	239.70	90.06	2,223.15	-7,854.44	1,657.04	1,223.16	433.87	3.819		
14,000.00	6,931.18	6,915.18	6,931.18	207.66	239.69	90.04	2,223.15	-7,854.44	1,629.02	1,188.99	440.02	3.702		
14,100.00	6,930.88	6,914.88	6,930.88	210.48	239.68	90.03	2,223.15	-7,854.44	1,606.74	1,161.06	445.68	3.605		
14,200.00	6,930.59	6,914.59	6,930.59	213.31	239.67	90.02	2,223.15	-7,854.44	1,590.45	1,139.73	450.71	3.529		
14,300.00	6,930.29	6,914.29	6,930.29	216.14	239.66	90.01	2,223.15	-7,854.44	1,580.33	1,125.29	455.04	3.473		
14,400.00	6,929.99	6,913.99	6,929.99	218.96	239.64	90.00	2,223.15	-7,854.44	1,576.50	1,117.94	458.56	3.438		
14,410.42	6,929.96	6,913.96	6,929.96	219.26	239.64	90.00	2,223.15	-7,854.44	1,576.47	1,117.59	458.88	3.435 CC, ES		
14,500.00	6,929.69	6,913.69	6,929.69	221.79	239.63	89.99	2,223.15	-7,854.44	1,579.01	1,117.78	461.23	3.423 SF		
14,600.00	6,929.39	6,913.39	6,929.39	224.62	239.62	89.98	2,223.15	-7,854.44	1,587.83	1,124.80	463.02	3.429		
14,700.00	6,929.09	6,913.09	6,929.09	227.45	239.61	89.97	2,223.15	-7,854.44	1,602.84	1,138.90	463.95	3.455		
14,732.12	6,929.00	6,913.00	6,929.00	228.36	239.61	89.97	2,223.15	-7,854.44	1,608.96	1,144.89	464.06	3.467		



Anticollision Report



Company:	SRC ENERGY	Local Co-ordinate Reference:	Well HARVESTERS STATE 4N-16A-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 4N-16A-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: 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	-57.21	2,338.75	-3,629.90	4,318.09				
100.00	100.00	101.00	100.00	3.28	3.73	-57.21	2,338.75	-3,629.90	4,318.09	4,311.08	7.02	615.398	
200.00	200.00	201.00	200.00	3.34	6.21	-57.21	2,338.75	-3,629.90	4,318.09	4,308.55	9.55	452.365	
300.00	300.00	301.00	300.00	3.44	9.36	-57.21	2,338.75	-3,629.90	4,318.09	4,305.29	12.80	337.322	
400.00	400.00	401.00	400.00	3.60	12.68	-57.21	2,338.75	-3,629.90	4,318.09	4,301.80	16.29	265.106	
500.00	500.00	501.00	500.00	3.81	16.08	-57.21	2,338.75	-3,629.90	4,318.09	4,298.20	19.89	217.115	
600.00	600.00	601.00	600.00	4.05	19.51	-57.21	2,338.75	-3,629.90	4,318.09	4,294.53	23.56	183.286	
700.00	699.98	700.98	699.98	4.32	22.96	-43.77	2,338.75	-3,629.90	4,316.83	4,289.55	27.28	158.249	
800.00	799.84	800.84	799.84	4.62	26.42	-43.87	2,338.75	-3,629.90	4,313.05	4,282.02	31.03	138.992	
900.00	899.45	900.45	899.45	4.94	29.87	-44.04	2,338.75	-3,629.90	4,306.77	4,271.96	34.80	123.745	
1,000.00	998.80	1,000.20	998.80	5.28	33.33	-44.18	2,338.75	-3,629.90	4,298.54	4,259.94	38.60	111.351	
1,100.00	1,098.12	1,100.88	1,098.12	5.63	36.83	-44.29	2,338.75	-3,629.90	4,290.20	4,247.74	42.45	101.058	
1,200.00	1,197.44	1,201.56	1,197.44	6.00	40.33	-44.40	2,338.75	-3,629.90	4,281.86	4,235.55	46.32	92.445	
1,300.00	1,296.77	1,302.23	1,296.77	6.37	43.84	-44.50	2,338.75	-3,629.90	4,273.55	4,223.35	50.20	85.137	
1,400.00	1,396.09	1,402.91	1,396.09	6.76	47.34	-44.61	2,338.75	-3,629.90	4,265.24	4,211.16	54.08	78.862	
1,500.00	1,495.41	1,503.59	1,495.41	7.15	50.85	-44.72	2,338.75	-3,629.90	4,256.96	4,198.97	57.98	73.418	
1,600.00	1,594.74	1,604.26	1,594.74	7.55	54.36	-44.83	2,338.75	-3,629.90	4,248.69	4,186.80	61.89	68.652	
1,700.00	1,694.06	1,704.94	1,694.06	7.96	57.87	-44.94	2,338.75	-3,629.90	4,240.43	4,174.63	65.80	64.445	
1,800.00	1,793.38	1,805.62	1,793.38	8.37	61.38	-45.05	2,338.75	-3,629.90	4,232.19	4,162.48	69.72	60.706	
1,900.00	1,892.71	1,906.29	1,892.71	8.78	64.89	-45.16	2,338.75	-3,629.90	4,223.97	4,150.33	73.64	57.362	
2,000.00	1,992.03	2,006.97	1,992.03	9.20	68.40	-45.28	2,338.75	-3,629.90	4,215.76	4,138.20	77.56	54.353	
2,100.00	2,091.36	2,107.64	2,091.36	9.62	71.91	-45.39	2,338.75	-3,629.90	4,207.57	4,126.08	81.49	51.632	
2,200.00	2,190.68	2,208.32	2,190.68	10.05	75.42	-45.50	2,338.75	-3,629.90	4,199.39	4,113.97	85.42	49.159	
2,300.00	2,290.00	2,309.00	2,290.00	10.48	78.93	-45.61	2,338.75	-3,629.90	4,191.23	4,101.87	89.36	46.903	
2,400.00	2,389.33	2,409.67	2,389.33	10.90	82.44	-45.73	2,338.75	-3,629.90	4,183.09	4,089.79	93.30	44.837	
2,500.00	2,488.65	2,489.65	2,488.65	11.34	85.23	-45.84	2,338.75	-3,629.90	4,174.96	4,078.45	96.51	43.258	
2,600.00	2,587.97	2,588.97	2,587.97	11.77	88.70	-45.95	2,338.75	-3,629.90	4,166.85	4,066.45	100.41	41.500	
2,700.00	2,687.30	2,688.30	2,687.30	12.20	92.16	-46.07	2,338.75	-3,629.90	4,158.76	4,054.46	104.30	39.872	
2,800.00	2,786.62	2,787.62	2,786.62	12.64	95.63	-46.18	2,338.75	-3,629.90	4,150.68	4,042.48	108.20	38.361	
2,900.00	2,885.94	2,886.94	2,885.94	13.07	99.09	-46.30	2,338.75	-3,629.90	4,142.62	4,030.53	112.10	36.955	
3,000.00	2,985.27	2,986.27	2,985.27	13.51	102.56	-46.42	2,338.75	-3,629.90	4,134.58	4,018.58	116.00	35.644	
3,100.00	3,084.59	3,085.59	3,084.59	13.95	106.02	-46.53	2,338.75	-3,629.90	4,126.56	4,006.66	119.90	34.417	
3,200.00	3,183.91	3,184.91	3,183.91	14.39	109.49	-46.65	2,338.75	-3,629.90	4,118.55	3,994.75	123.80	33.268	
3,300.00	3,283.24	3,284.24	3,283.24	14.83	112.96	-46.77	2,338.75	-3,629.90	4,110.56	3,982.85	127.70	32.189	
3,400.00	3,382.56	3,383.56	3,382.56	15.27	116.42	-46.88	2,338.75	-3,629.90	4,102.58	3,970.98	131.61	31.173	
3,500.00	3,481.88	3,482.88	3,481.88	15.71	119.89	-47.00	2,338.75	-3,629.90	4,094.62	3,959.11	135.51	30.216	
3,600.00	3,581.21	3,582.21	3,581.21	16.16	123.35	-47.12	2,338.75	-3,629.90	4,086.68	3,947.27	139.41	29.313	
3,700.00	3,680.53	3,681.53	3,680.53	16.60	126.82	-47.24	2,338.75	-3,629.90	4,078.76	3,935.44	143.32	28.459	
3,800.00	3,779.85	3,780.85	3,779.85	17.04	130.29	-47.36	2,338.75	-3,629.90	4,070.86	3,923.63	147.23	27.650	
3,900.00	3,879.18	3,880.18	3,879.18	17.49	133.75	-47.48	2,338.75	-3,629.90	4,062.97	3,911.84	151.13	26.883	
4,000.00	3,978.50	3,979.50	3,978.50	17.93	137.22	-47.60	2,338.75	-3,629.90	4,055.10	3,900.06	155.04	26.155	
4,100.00	4,077.82	4,078.82	4,077.82	18.37	140.68	-47.72	2,338.75	-3,629.90	4,047.25	3,888.30	158.95	25.463	
4,200.00	4,177.15	4,178.15	4,177.15	18.82	144.15	-47.84	2,338.75	-3,629.90	4,039.42	3,876.56	162.86	24.804	
4,300.00	4,276.47	4,277.47	4,276.47	19.27	147.62	-47.96	2,338.75	-3,629.90	4,031.61	3,864.84	166.77	24.175	
4,400.00	4,375.79	4,376.79	4,375.79	19.71	151.08	-48.09	2,338.75	-3,629.90	4,023.81	3,853.14	170.67	23.576	
4,500.00	4,475.12	4,476.12	4,475.12	20.16	154.55	-48.21	2,338.75	-3,629.90	4,016.03	3,841.45	174.58	23.003	
4,600.00	4,574.44	4,575.44	4,574.44	20.60	158.02	-48.33	2,338.75	-3,629.90	4,008.28	3,829.78	178.49	22.456	
4,700.00	4,673.76	4,674.76	4,673.76	21.05	161.48	-48.46	2,338.75	-3,629.90	4,000.54	3,818.13	182.40	21.932	
4,800.00	4,773.09	4,774.09	4,773.09	21.50	164.95	-48.58	2,338.75	-3,629.90	3,992.81	3,806.50	186.31	21.431	
4,900.00	4,872.41	4,873.41	4,872.41	21.94	168.42	-48.71	2,338.75	-3,629.90	3,985.11	3,794.89	190.22	20.949	
5,000.00	4,971.74	4,972.74	4,971.74	22.39	171.88	-48.83	2,338.75	-3,629.90	3,977.43	3,783.29	194.14	20.488	
5,100.00	5,071.06	5,072.06	5,071.06	22.84	175.35	-48.96	2,338.75	-3,629.90	3,969.76	3,771.72	198.05	20.045	

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 4N-16A-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 4N-16A-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	5,170.38	5,171.38	5,170.38	23.29	178.82	-49.08	2,338.75	-3,629.90	3,962.12	3,760.16	201.96	19.618		
5,300.00	5,269.71	5,270.71	5,269.71	23.74	182.28	-49.21	2,338.75	-3,629.90	3,954.49	3,748.62	205.87	19.209		
5,400.00	5,369.03	5,370.03	5,369.03	24.18	185.75	-49.34	2,338.75	-3,629.90	3,946.89	3,737.10	209.78	18.814		
5,500.00	5,468.35	5,469.35	5,468.35	24.63	189.22	-49.46	2,338.75	-3,629.90	3,939.30	3,725.61	213.69	18.434		
5,600.00	5,567.68	5,568.68	5,567.68	25.08	192.69	-49.59	2,338.75	-3,629.90	3,931.73	3,714.13	217.61	18.068		
5,700.00	5,667.00	5,668.00	5,667.00	25.53	196.15	-49.72	2,338.75	-3,629.90	3,924.19	3,702.67	221.52	17.715		
5,800.00	5,766.32	5,767.32	5,766.32	25.98	199.62	-49.85	2,338.75	-3,629.90	3,916.66	3,691.23	225.43	17.374		
5,900.00	5,865.65	5,866.65	5,865.65	26.43	203.09	-49.98	2,338.75	-3,629.90	3,909.15	3,679.81	229.35	17.045		
6,000.00	5,964.97	5,965.97	5,964.97	26.88	206.55	-50.11	2,338.75	-3,629.90	3,901.66	3,668.41	233.26	16.727		
6,100.00	6,064.29	6,065.29	6,064.29	27.33	210.02	-50.24	2,338.75	-3,629.90	3,894.20	3,657.02	237.17	16.419		
6,200.00	6,163.62	6,164.62	6,163.62	27.78	213.49	-50.37	2,338.75	-3,629.90	3,886.75	3,645.66	241.09	16.122		
6,300.00	6,262.94	6,263.94	6,262.94	28.23	216.95	-50.50	2,338.75	-3,629.90	3,879.32	3,634.32	245.00	15.834		
6,400.00	6,362.24	6,363.24	6,362.24	28.67	220.42	-32.23	2,338.75	-3,629.90	3,871.39	3,622.48	248.91	15.553		
6,500.00	6,460.41	6,461.41	6,460.41	29.12	223.85	0.28	2,338.75	-3,629.90	3,853.24	3,600.46	252.78	15.243		
6,600.00	6,555.09	6,556.09	6,555.09	29.57	227.15	11.73	2,338.75	-3,629.90	3,821.59	3,565.09	256.50	14.899		
6,700.00	6,643.94	6,644.94	6,643.94	30.00	230.25	18.58	2,338.75	-3,629.90	3,777.25	3,517.25	259.99	14.528		
6,800.00	6,724.78	6,725.78	6,724.78	30.45	233.08	24.63	2,338.75	-3,629.90	3,721.36	3,458.20	263.16	14.141		
6,900.00	6,795.62	6,803.38	6,795.62	30.97	235.78	31.38	2,338.75	-3,629.90	3,655.40	3,389.23	266.17	13.733		
7,000.00	6,854.70	6,855.70	6,854.70	31.60	237.61	39.88	2,338.75	-3,629.90	3,581.13	3,312.87	268.25	13.350		
7,100.00	6,900.58	6,901.58	6,900.58	32.39	239.21	51.02	2,338.75	-3,629.90	3,500.53	3,230.45	270.08	12.961		
7,200.00	6,932.13	6,933.13	6,932.13	33.34	240.31	65.16	2,338.75	-3,629.90	3,415.77	3,144.37	271.40	12.586		
7,300.00	6,948.57	6,949.57	6,948.57	34.46	240.89	81.19	2,338.75	-3,629.90	3,329.11	3,056.90	272.21	12.230		
7,400.00	6,950.87	6,951.87	6,950.87	35.70	240.97	90.29	2,338.75	-3,629.90	3,242.75	2,970.17	272.58	11.897		
7,500.00	6,950.58	6,951.58	6,950.58	37.12	240.96	90.28	2,338.75	-3,629.90	3,157.27	2,884.32	272.95	11.567		
7,600.00	6,950.28	6,951.28	6,950.28	38.70	240.95	90.27	2,338.75	-3,629.90	3,072.68	2,799.24	273.44	11.237		
7,700.00	6,949.98	6,950.98	6,949.98	40.41	240.94	90.26	2,338.75	-3,629.90	2,989.04	2,714.97	274.07	10.906		
7,800.00	6,949.68	6,950.68	6,949.68	42.25	240.93	90.25	2,338.75	-3,629.90	2,906.43	2,631.59	274.84	10.575		
7,900.00	6,949.38	6,950.38	6,949.38	44.20	240.92	90.24	2,338.75	-3,629.90	2,824.94	2,549.18	275.77	10.244		
8,000.00	6,949.08	6,950.08	6,949.08	46.24	240.90	90.22	2,338.75	-3,629.90	2,744.68	2,467.82	276.86	9.914		
8,100.00	6,948.79	6,949.79	6,948.79	48.36	240.89	90.21	2,338.75	-3,629.90	2,665.76	2,387.62	278.14	9.584		
8,200.00	6,948.49	6,949.49	6,948.49	50.56	240.88	90.20	2,338.75	-3,629.90	2,588.29	2,308.68	279.61	9.257		
8,300.00	6,948.19	6,949.19	6,948.19	52.82	240.87	90.19	2,338.75	-3,629.90	2,512.41	2,231.14	281.27	8.932		
8,400.00	6,947.89	6,948.89	6,947.89	55.14	240.86	90.18	2,338.75	-3,629.90	2,438.28	2,155.13	283.14	8.611		
8,500.00	6,947.59	6,948.59	6,947.59	57.50	240.85	90.17	2,338.75	-3,629.90	2,366.05	2,080.81	285.23	8.295		
8,600.00	6,947.29	6,948.29	6,947.29	59.91	240.84	90.16	2,338.75	-3,629.90	2,295.90	2,008.36	287.53	7.985		
8,700.00	6,947.00	6,948.00	6,947.00	62.36	240.83	90.15	2,338.75	-3,629.90	2,228.03	1,937.98	290.06	7.681		
8,800.00	6,946.70	6,947.70	6,946.70	64.84	240.82	90.14	2,338.75	-3,629.90	2,162.66	1,869.87	292.80	7.386		
8,900.00	6,946.40	6,947.40	6,946.40	67.35	240.81	90.13	2,338.75	-3,629.90	2,100.02	1,804.27	295.75	7.101		
9,000.00	6,946.10	6,947.10	6,946.10	69.88	240.80	90.12	2,338.75	-3,629.90	2,040.36	1,741.45	298.91	6.826		
9,100.00	6,945.80	6,946.80	6,945.80	72.44	240.79	90.11	2,338.75	-3,629.90	1,983.95	1,681.68	302.26	6.564		
9,200.00	6,945.50	6,946.50	6,945.50	75.02	240.78	90.10	2,338.75	-3,629.90	1,931.07	1,625.28	305.79	6.315		
9,300.00	6,945.21	6,946.21	6,945.21	77.63	240.77	90.09	2,338.75	-3,629.90	1,882.02	1,572.55	309.47	6.081		
9,400.00	6,944.91	6,945.91	6,944.91	80.24	240.76	90.08	2,338.75	-3,629.90	1,837.11	1,523.84	313.27	5.864		
9,500.00	6,944.61	6,945.61	6,944.61	82.88	240.75	90.07	2,338.75	-3,629.90	1,796.65	1,479.50	317.15	5.665		
9,600.00	6,944.31	6,945.31	6,944.31	85.53	240.74	90.06	2,338.75	-3,629.90	1,760.95	1,439.88	321.07	5.485		
9,700.00	6,944.01	6,945.01	6,944.01	88.19	240.73	90.05	2,338.75	-3,629.90	1,730.29	1,405.32	324.97	5.324		
9,800.00	6,943.71	6,944.71	6,943.71	90.86	240.72	90.04	2,338.75	-3,629.90	1,704.96	1,376.15	328.80	5.185		
9,900.00	6,943.42	6,944.42	6,943.42	93.55	240.71	90.03	2,338.75	-3,629.90	1,685.19	1,352.68	332.51	5.068		
10,000.00	6,943.12	6,944.12	6,943.12	96.24	240.70	90.02	2,338.75	-3,629.90	1,671.18	1,335.14	336.03	4.973		
10,100.00	6,942.82	6,943.82	6,942.82	98.95	240.69	90.01	2,338.75	-3,629.90	1,663.07	1,323.76	339.32	4.901		
10,185.12	6,942.56	6,943.56	6,942.56	101.26	240.68	90.00	2,338.75	-3,629.90	1,660.89	1,319.01	341.89	4.858 CC		
10,200.00	6,942.52	6,943.52	6,942.52	101.66	240.68	90.00	2,338.75	-3,629.90	1,660.96	1,318.65	342.31	4.852 ES		

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 4N-16A-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 4N-16A-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		
10,300.00	6,942.22	6,943.22	6,942.22	104.38	240.67	89.99	2,338.75	-3,629.90	1,664.86	1,319.88	344.98	4.826		
10,400.00	6,941.92	6,942.92	6,941.92	107.11	240.65	89.98	2,338.75	-3,629.90	1,674.73	1,327.44	347.29	4.822 SF		
10,500.00	6,941.63	6,942.63	6,941.63	109.84	240.64	89.97	2,338.75	-3,629.90	1,690.48	1,341.24	349.24	4.840		
10,600.00	6,941.33	6,942.33	6,941.33	112.58	240.63	89.96	2,338.75	-3,629.90	1,711.92	1,361.11	350.82	4.880		
10,700.00	6,941.03	6,942.03	6,941.03	115.33	240.62	89.95	2,338.75	-3,629.90	1,738.87	1,386.83	352.03	4.940		
10,800.00	6,940.73	6,941.73	6,940.73	118.08	240.61	89.94	2,338.75	-3,629.90	1,771.05	1,418.15	352.91	5.018		
10,900.00	6,940.43	6,941.43	6,940.43	120.84	240.60	89.93	2,338.75	-3,629.90	1,808.21	1,454.74	353.46	5.116		
11,000.00	6,940.13	6,941.13	6,940.13	123.60	240.59	89.92	2,338.75	-3,629.90	1,850.02	1,496.29	353.73	5.230		
11,100.00	6,939.83	6,940.83	6,939.83	126.36	240.58	89.91	2,338.75	-3,629.90	1,896.20	1,542.44	353.76	5.360		
11,200.00	6,939.54	6,940.54	6,939.54	129.13	240.57	89.90	2,338.75	-3,629.90	1,946.42	1,592.86	353.56	5.505		
11,300.00	6,939.24	6,940.24	6,939.24	131.91	240.56	89.89	2,338.75	-3,629.90	2,000.38	1,647.20	353.18	5.664		
11,400.00	6,938.94	6,939.94	6,938.94	134.68	240.55	89.87	2,338.75	-3,629.90	2,057.78	1,705.14	352.65	5.835		
11,500.00	6,938.64	6,939.64	6,938.64	137.46	240.54	89.86	2,338.75	-3,629.90	2,118.36	1,766.37	351.99	6.018		
11,600.00	6,938.34	6,939.34	6,938.34	140.25	240.53	89.85	2,338.75	-3,629.90	2,181.84	1,830.60	351.24	6.212		
11,700.00	6,938.04	6,939.04	6,938.04	143.03	240.52	89.84	2,338.75	-3,629.90	2,247.98	1,897.56	350.42	6.415		
11,800.00	6,937.75	6,938.75	6,937.75	145.82	240.51	89.83	2,338.75	-3,629.90	2,316.54	1,967.01	349.53	6.628		
11,900.00	6,937.45	6,938.45	6,937.45	148.61	240.50	89.82	2,338.75	-3,629.90	2,387.33	2,038.72	348.61	6.848		
12,000.00	6,937.15	6,938.15	6,937.15	151.41	240.49	89.81	2,338.75	-3,629.90	2,460.15	2,112.48	347.66	7.076		
12,100.00	6,936.85	6,937.85	6,936.85	154.20	240.48	89.80	2,338.75	-3,629.90	2,534.82	2,188.11	346.70	7.311		
12,200.00	6,936.55	6,937.55	6,936.55	157.00	240.47	89.79	2,338.75	-3,629.90	2,611.18	2,265.44	345.74	7.552		
12,300.00	6,936.25	6,937.25	6,936.25	159.80	240.46	89.78	2,338.75	-3,629.90	2,689.10	2,344.32	344.77	7.800		
12,400.00	6,935.96	6,936.96	6,935.96	162.61	240.45	89.77	2,338.75	-3,629.90	2,768.43	2,424.61	343.82	8.052		
12,500.00	6,935.66	6,936.66	6,935.66	165.41	240.44	89.76	2,338.75	-3,629.90	2,849.07	2,506.19	342.88	8.309		
12,600.00	6,935.36	6,936.36	6,935.36	168.22	240.43	89.75	2,338.75	-3,629.90	2,930.90	2,588.94	341.95	8.571		
12,700.00	6,935.06	6,936.06	6,935.06	171.02	240.42	89.74	2,338.75	-3,629.90	3,013.82	2,672.77	341.05	8.837		
12,800.00	6,934.76	6,935.76	6,934.76	173.83	240.40	89.73	2,338.75	-3,629.90	3,097.76	2,757.59	340.17	9.107		
12,900.00	6,934.46	6,935.46	6,934.46	176.65	240.39	89.72	2,338.75	-3,629.90	3,182.62	2,843.31	339.31	9.380		
13,000.00	6,934.17	6,935.17	6,934.17	179.46	240.38	89.71	2,338.75	-3,629.90	3,268.34	2,929.87	338.47	9.656		
13,100.00	6,933.87	6,934.87	6,933.87	182.27	240.37	89.70	2,338.75	-3,629.90	3,354.85	3,017.19	337.66	9.936		
13,200.00	6,933.57	6,934.57	6,933.57	185.09	240.36	89.69	2,338.75	-3,629.90	3,442.09	3,105.21	336.88	10.218		
13,300.00	6,933.27	6,934.27	6,933.27	187.91	240.35	89.68	2,338.75	-3,629.90	3,530.01	3,193.89	336.11	10.502		
13,400.00	6,932.97	6,933.97	6,932.97	190.72	240.34	89.67	2,338.75	-3,629.90	3,618.55	3,283.17	335.38	10.789		
13,500.00	6,932.67	6,933.67	6,932.67	193.54	240.33	89.66	2,338.75	-3,629.90	3,707.68	3,373.01	334.67	11.079		
13,600.00	6,932.38	6,933.38	6,932.38	196.36	240.32	89.65	2,338.75	-3,629.90	3,797.35	3,463.37	333.98	11.370		
13,700.00	6,932.08	6,933.08	6,932.08	199.19	240.31	89.64	2,338.75	-3,629.90	3,887.52	3,554.21	333.32	11.663		
13,800.00	6,931.78	6,932.78	6,931.78	202.01	240.30	89.63	2,338.75	-3,629.90	3,978.16	3,645.49	332.67	11.958		
13,900.00	6,931.48	6,932.48	6,931.48	204.83	240.29	89.62	2,338.75	-3,629.90	4,069.25	3,737.19	332.06	12.255		
14,000.00	6,931.18	6,932.18	6,931.18	207.66	240.28	89.61	2,338.75	-3,629.90	4,160.74	3,829.28	331.46	12.553		
14,100.00	6,930.88	6,931.88	6,930.88	210.48	240.27	89.60	2,338.75	-3,629.90	4,252.61	3,921.73	330.88	12.852		
14,200.00	6,930.59	6,931.59	6,930.59	213.31	240.26	89.59	2,338.75	-3,629.90	4,344.84	4,014.52	330.32	13.153		
14,300.00	6,930.29	6,931.29	6,930.29	216.14	240.25	89.58	2,338.75	-3,629.90	4,437.41	4,107.63	329.79	13.455		
14,400.00	6,929.99	6,930.99	6,929.99	218.96	240.24	89.57	2,338.75	-3,629.90	4,530.30	4,201.03	329.27	13.759		
14,500.00	6,929.69	6,930.69	6,929.69	221.79	240.23	89.56	2,338.75	-3,629.90	4,623.48	4,294.71	328.77	14.063		
14,600.00	6,929.39	6,930.39	6,929.39	224.62	240.22	89.55	2,338.75	-3,629.90	4,716.94	4,388.66	328.29	14.368		
14,700.00	6,929.09	6,930.09	6,929.09	227.45	240.21	89.54	2,338.75	-3,629.90	4,810.67	4,482.85	327.82	14.675		
14,732.12	6,929.00	6,930.00	6,929.00	228.36	240.20	89.53	2,338.75	-3,629.90	4,840.83	4,513.15	327.67	14.773		

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 4N-16A-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 4N-16A-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	-64.51	2,309.81	-4,845.25	5,367.79				
100.00	100.00	61.00	100.00	3.28	3.45	-64.51	2,309.81	-4,845.25	5,367.65	5,360.92	6.73	797.190	
200.00	200.00	161.00	200.00	3.34	5.08	-64.51	2,309.81	-4,845.25	5,367.65	5,359.24	8.41	637.954	
300.00	300.00	261.00	300.00	3.44	8.06	-64.51	2,309.81	-4,845.25	5,367.65	5,356.14	11.51	466.420	
400.00	400.00	361.00	400.00	3.60	11.34	-64.51	2,309.81	-4,845.25	5,367.65	5,352.71	14.94	359.161	
500.00	500.00	461.00	500.00	3.81	14.72	-64.51	2,309.81	-4,845.25	5,367.65	5,349.13	18.52	289.765	
600.00	600.00	561.00	600.00	4.05	18.14	-64.51	2,309.81	-4,845.25	5,367.65	5,345.47	22.18	241.957	
700.00	699.98	660.98	699.98	4.32	21.58	-51.07	2,309.81	-4,845.25	5,366.55	5,340.66	25.90	207.223	
800.00	799.84	760.84	799.84	4.62	25.03	-51.17	2,309.81	-4,845.25	5,363.27	5,333.62	29.65	180.914	
900.00	899.45	860.45	899.45	4.94	28.48	-51.33	2,309.81	-4,845.25	5,357.80	5,324.38	33.41	160.342	
1,000.00	998.80	959.80	998.80	5.28	31.93	-51.46	2,309.81	-4,845.25	5,350.65	5,313.45	37.20	143.840	
1,100.00	1,098.12	1,059.12	1,098.12	5.63	35.38	-51.55	2,309.81	-4,845.25	5,343.39	5,302.39	41.00	130.328	
1,200.00	1,197.44	1,158.44	1,197.44	6.00	38.83	-51.65	2,309.81	-4,845.25	5,336.14	5,291.33	44.82	119.065	
1,300.00	1,296.77	1,257.77	1,296.77	6.37	42.29	-51.75	2,309.81	-4,845.25	5,328.92	5,280.27	48.65	109.541	
1,400.00	1,396.09	1,357.09	1,396.09	6.76	45.75	-51.85	2,309.81	-4,845.25	5,321.71	5,269.22	52.49	101.387	
1,500.00	1,495.41	1,456.41	1,495.41	7.15	49.21	-51.94	2,309.81	-4,845.25	5,314.51	5,258.17	56.34	94.330	
1,600.00	1,594.74	1,555.74	1,594.74	7.55	52.67	-52.04	2,309.81	-4,845.25	5,307.33	5,247.13	60.20	88.165	
1,700.00	1,694.06	1,655.06	1,694.06	7.96	56.13	-52.14	2,309.81	-4,845.25	5,300.16	5,236.10	64.06	82.734	
1,800.00	1,793.38	1,754.38	1,793.38	8.37	59.59	-52.24	2,309.81	-4,845.25	5,293.01	5,225.08	67.93	77.916	
1,900.00	1,892.71	1,853.71	1,892.71	8.78	63.05	-52.34	2,309.81	-4,845.25	5,285.88	5,214.07	71.81	73.612	
2,000.00	1,992.03	1,953.03	1,992.03	9.20	66.52	-52.44	2,309.81	-4,845.25	5,278.76	5,203.08	75.69	69.745	
2,100.00	2,091.36	2,052.36	2,091.36	9.62	69.98	-52.54	2,309.81	-4,845.25	5,271.66	5,192.09	79.57	66.253	
2,200.00	2,190.68	2,151.68	2,190.68	10.05	73.44	-52.64	2,309.81	-4,845.25	5,264.58	5,181.12	83.45	63.084	
2,300.00	2,290.00	2,251.00	2,290.00	10.48	76.91	-52.74	2,309.81	-4,845.25	5,257.51	5,170.17	87.34	60.195	
2,400.00	2,389.33	2,350.33	2,389.33	10.90	80.37	-52.84	2,309.81	-4,845.25	5,250.46	5,159.22	91.23	57.550	
2,500.00	2,488.65	2,449.65	2,488.65	11.34	83.84	-52.94	2,309.81	-4,845.25	5,243.42	5,148.29	95.12	55.122	
2,600.00	2,587.97	2,548.97	2,587.97	11.77	87.30	-53.04	2,309.81	-4,845.25	5,236.40	5,137.38	99.02	52.883	
2,700.00	2,687.30	2,648.30	2,687.30	12.20	90.77	-53.14	2,309.81	-4,845.25	5,229.39	5,126.48	102.92	50.813	
2,800.00	2,786.62	2,747.62	2,786.62	12.64	94.23	-53.24	2,309.81	-4,845.25	5,222.41	5,115.59	106.81	48.893	
2,900.00	2,885.94	2,846.94	2,885.94	13.07	97.70	-53.34	2,309.81	-4,845.25	5,215.43	5,104.72	110.71	47.108	
3,000.00	2,985.27	2,946.27	2,985.27	13.51	101.16	-53.45	2,309.81	-4,845.25	5,208.48	5,093.87	114.61	45.445	
3,100.00	3,084.59	3,045.59	3,084.59	13.95	104.63	-53.55	2,309.81	-4,845.25	5,201.54	5,083.03	118.51	43.890	
3,200.00	3,183.91	3,144.91	3,183.91	14.39	108.09	-53.65	2,309.81	-4,845.25	5,194.62	5,072.21	122.42	42.434	
3,300.00	3,283.24	3,244.24	3,283.24	14.83	111.56	-53.75	2,309.81	-4,845.25	5,187.72	5,061.40	126.32	41.069	
3,400.00	3,382.56	3,343.56	3,382.56	15.27	115.03	-53.86	2,309.81	-4,845.25	5,180.83	5,050.61	130.22	39.784	
3,500.00	3,481.88	3,442.88	3,481.88	15.71	118.49	-53.96	2,309.81	-4,845.25	5,173.96	5,039.83	134.13	38.575	
3,600.00	3,581.21	3,542.21	3,581.21	16.16	121.96	-54.06	2,309.81	-4,845.25	5,167.10	5,029.07	138.03	37.434	
3,700.00	3,680.53	3,641.53	3,680.53	16.60	125.42	-54.17	2,309.81	-4,845.25	5,160.27	5,018.33	141.94	36.355	
3,800.00	3,779.85	3,740.85	3,779.85	17.04	128.89	-54.27	2,309.81	-4,845.25	5,153.45	5,007.60	145.85	35.335	
3,900.00	3,879.18	3,840.18	3,879.18	17.49	132.36	-54.38	2,309.81	-4,845.25	5,146.64	4,996.89	149.75	34.367	
4,000.00	3,978.50	3,939.50	3,978.50	17.93	135.82	-54.48	2,309.81	-4,845.25	5,139.86	4,986.20	153.66	33.449	
4,100.00	4,077.82	4,038.82	4,077.82	18.37	139.29	-54.59	2,309.81	-4,845.25	5,133.09	4,975.52	157.57	32.577	
4,200.00	4,177.15	4,138.15	4,177.15	18.82	142.76	-54.69	2,309.81	-4,845.25	5,126.34	4,964.86	161.48	31.746	
4,300.00	4,276.47	4,237.47	4,276.47	19.27	146.22	-54.80	2,309.81	-4,845.25	5,119.61	4,954.22	165.39	30.955	
4,400.00	4,375.79	4,336.79	4,375.79	19.71	149.69	-54.90	2,309.81	-4,845.25	5,112.89	4,943.59	169.30	30.201	
4,500.00	4,475.12	4,436.12	4,475.12	20.16	153.15	-55.01	2,309.81	-4,845.25	5,106.19	4,932.99	173.21	29.480	
4,600.00	4,574.44	4,535.44	4,574.44	20.60	156.62	-55.12	2,309.81	-4,845.25	5,099.51	4,922.39	177.12	28.792	
4,700.00	4,673.76	4,634.76	4,673.76	21.05	160.09	-55.22	2,309.81	-4,845.25	5,092.85	4,911.82	181.03	28.133	
4,800.00	4,773.09	4,734.09	4,773.09	21.50	163.55	-55.33	2,309.81	-4,845.25	5,086.20	4,901.26	184.94	27.502	
4,900.00	4,872.41	4,833.41	4,872.41	21.94	167.02	-55.44	2,309.81	-4,845.25	5,079.58	4,890.73	188.85	26.897	
5,000.00	4,971.74	4,932.74	4,971.74	22.39	170.49	-55.54	2,309.81	-4,845.25	5,072.97	4,880.21	192.76	26.317	
5,100.00	5,071.06	5,032.06	5,071.06	22.84	173.95	-55.65	2,309.81	-4,845.25	5,066.38	4,869.70	196.67	25.760	

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 4N-16A-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 4N-16A-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	5,170.38	5,131.38	5,170.38	23.29	177.42	-55.76	2,309.81	-4,845.25	5,059.80	4,859.22	200.59	25.225		
5,300.00	5,269.71	5,230.71	5,269.71	23.74	180.89	-55.87	2,309.81	-4,845.25	5,053.25	4,848.75	204.50	24.710		
5,400.00	5,369.03	5,330.03	5,369.03	24.18	184.36	-55.98	2,309.81	-4,845.25	5,046.71	4,838.30	208.41	24.215		
5,500.00	5,468.35	5,429.35	5,468.35	24.63	187.82	-56.09	2,309.81	-4,845.25	5,040.19	4,827.87	212.32	23.738		
5,600.00	5,567.68	5,528.68	5,567.68	25.08	191.29	-56.20	2,309.81	-4,845.25	5,033.69	4,817.46	216.24	23.279		
5,700.00	5,667.00	5,628.00	5,667.00	25.53	194.76	-56.31	2,309.81	-4,845.25	5,027.21	4,807.06	220.15	22.835		
5,800.00	5,766.32	5,727.32	5,766.32	25.98	198.22	-56.42	2,309.81	-4,845.25	5,020.75	4,796.68	224.06	22.408		
5,900.00	5,865.65	5,826.65	5,865.65	26.43	201.69	-56.53	2,309.81	-4,845.25	5,014.30	4,786.33	227.98	21.995		
6,000.00	5,964.97	5,925.97	5,964.97	26.88	205.16	-56.64	2,309.81	-4,845.25	5,007.88	4,775.99	231.89	21.596		
6,100.00	6,064.29	6,025.29	6,064.29	27.33	208.62	-56.75	2,309.81	-4,845.25	5,001.47	4,765.66	235.80	21.210		
6,200.00	6,163.62	6,124.62	6,163.62	27.78	212.09	-56.86	2,309.81	-4,845.25	4,995.08	4,755.36	239.72	20.837		
6,300.00	6,262.94	6,223.94	6,262.94	28.23	215.56	-56.97	2,309.81	-4,845.25	4,988.71	4,745.08	243.63	20.476		
6,400.00	6,362.24	6,323.24	6,362.24	28.67	219.02	-57.11	2,309.81	-4,845.25	4,981.81	4,734.26	247.55	20.125		
6,500.00	6,460.41	6,421.41	6,460.41	29.12	222.45	-57.22	2,309.81	-4,845.25	4,964.16	4,712.75	251.41	19.745		
6,600.00	6,559.09	6,519.09	6,559.09	29.57	225.76	-57.33	2,309.81	-4,845.25	4,932.30	4,677.16	255.14	19.332		
6,700.00	6,643.94	6,604.94	6,643.94	30.00	228.86	-57.44	2,309.81	-4,845.25	4,887.00	4,628.37	258.63	18.896		
6,800.00	6,724.78	6,685.78	6,724.78	30.45	231.68	-57.55	2,309.81	-4,845.25	4,829.40	4,567.61	261.79	18.448		
6,900.00	6,795.62	6,756.62	6,795.62	30.97	234.15	-57.66	2,309.81	-4,845.25	4,760.96	4,496.41	264.55	17.997		
7,000.00	6,854.70	6,815.70	6,854.70	31.60	236.21	-57.77	2,309.81	-4,845.25	4,683.42	4,416.58	266.84	17.551		
7,100.00	6,900.58	6,861.58	6,900.58	32.39	237.82	-57.88	2,309.81	-4,845.25	4,598.75	4,330.13	268.62	17.120		
7,200.00	6,932.13	6,896.87	6,932.13	33.34	239.40	-57.99	2,309.81	-4,845.25	4,509.12	4,238.77	270.35	16.679		
7,300.00	6,948.57	6,909.57	6,948.57	34.46	239.49	-58.10	2,309.81	-4,845.25	4,416.82	4,146.25	270.56	16.324		
7,400.00	6,950.87	6,911.87	6,950.87	35.70	239.57	-58.21	2,309.81	-4,845.25	4,324.09	4,053.32	270.77	15.970		
7,500.00	6,950.58	6,911.58	6,950.58	37.12	239.56	-58.32	2,309.81	-4,845.25	4,231.74	3,960.81	270.93	15.619		
7,600.00	6,950.28	6,911.28	6,950.28	38.70	239.55	-58.43	2,309.81	-4,845.25	4,139.75	3,868.59	271.16	15.267		
7,700.00	6,949.98	6,910.98	6,949.98	40.41	239.54	-58.54	2,309.81	-4,845.25	4,048.13	3,776.69	271.45	14.913		
7,800.00	6,949.68	6,910.68	6,949.68	42.25	239.53	-58.65	2,309.81	-4,845.25	3,956.92	3,685.11	271.81	14.558		
7,900.00	6,949.38	6,910.38	6,949.38	44.20	239.52	-58.76	2,309.81	-4,845.25	3,866.15	3,593.90	272.25	14.201		
8,000.00	6,949.08	6,910.08	6,949.08	46.24	239.51	-58.87	2,309.81	-4,845.25	3,775.84	3,503.06	272.78	13.842		
8,100.00	6,948.79	6,909.79	6,948.79	48.36	239.50	-58.98	2,309.81	-4,845.25	3,686.04	3,412.63	273.41	13.482		
8,200.00	6,948.49	6,909.49	6,948.49	50.56	239.49	-59.09	2,309.81	-4,845.25	3,596.77	3,322.63	274.14	13.120		
8,300.00	6,948.19	6,909.19	6,948.19	52.82	239.48	-59.20	2,309.81	-4,845.25	3,508.08	3,233.10	274.98	12.758		
8,400.00	6,947.89	6,908.89	6,947.89	55.14	239.47	-59.31	2,309.81	-4,845.25	3,420.01	3,144.08	275.93	12.394		
8,500.00	6,947.59	6,908.59	6,947.59	57.50	239.46	-59.42	2,309.81	-4,845.25	3,332.62	3,055.61	277.02	12.030		
8,600.00	6,947.29	6,908.29	6,947.29	59.91	239.45	-59.53	2,309.81	-4,845.25	3,245.96	2,967.73	278.23	11.666		
8,700.00	6,947.00	6,908.00	6,947.00	62.36	239.44	-59.64	2,309.81	-4,845.25	3,160.08	2,880.49	279.59	11.303		
8,800.00	6,946.70	6,907.70	6,946.70	64.84	239.43	-59.75	2,309.81	-4,845.25	3,075.06	2,793.96	281.09	10.940		
8,900.00	6,946.40	6,907.40	6,946.40	67.35	239.41	-59.86	2,309.81	-4,845.25	2,990.96	2,708.20	282.76	10.578		
9,000.00	6,946.10	6,907.10	6,946.10	69.88	239.40	-59.97	2,309.81	-4,845.25	2,907.87	2,623.29	284.59	10.218		
9,100.00	6,945.80	6,906.80	6,945.80	72.44	239.39	-60.08	2,309.81	-4,845.25	2,825.88	2,539.29	286.59	9.860		
9,200.00	6,945.50	6,906.50	6,945.50	75.02	239.38	-60.19	2,309.81	-4,845.25	2,745.08	2,456.31	288.77	9.506		
9,300.00	6,945.21	6,906.21	6,945.21	77.63	239.37	-60.30	2,309.81	-4,845.25	2,665.59	2,374.45	291.14	9.156		
9,400.00	6,944.91	6,905.91	6,944.91	80.24	239.36	-60.41	2,309.81	-4,845.25	2,587.51	2,293.81	293.70	8.810		
9,500.00	6,944.61	6,905.61	6,944.61	82.88	239.35	-60.52	2,309.81	-4,845.25	2,510.99	2,214.53	296.46	8.470		
9,600.00	6,944.31	6,905.31	6,944.31	85.53	239.34	-60.63	2,309.81	-4,845.25	2,436.18	2,136.75	299.43	8.136		
9,700.00	6,944.01	6,905.01	6,944.01	88.19	239.33	-60.74	2,309.81	-4,845.25	2,363.23	2,060.61	302.61	7.809		
9,800.00	6,943.71	6,904.71	6,943.71	90.86	239.32	-60.85	2,309.81	-4,845.25	2,292.32	1,986.31	306.01	7.491		
9,900.00	6,943.42	6,904.42	6,943.42	93.55	239.31	-60.96	2,309.81	-4,845.25	2,223.64	1,914.03	309.61	7.182		
10,000.00	6,943.12	6,904.12	6,943.12	96.24	239.30	-61.07	2,309.81	-4,845.25	2,157.42	1,843.99	313.43	6.883		
10,100.00	6,942.82	6,903.82	6,942.82	98.95	239.29	-61.18	2,309.81	-4,845.25	2,093.88	1,776.42	317.46	6.596		
10,200.00	6,942.52	6,903.52	6,942.52	101.66	239.28	-61.29	2,309.81	-4,845.25	2,033.27	1,711.60	321.67	6.321		
10,300.00	6,942.22	6,903.22	6,942.22	104.38	239.27	-61.40	2,309.81	-4,845.25	1,975.87	1,649.80	326.07	6.060		

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 4N-16A-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 4N-16A-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	6,941.92	6,902.92	6,941.92	107.11	239.26	90.10	2,309.81	-4,845.25	1,921.96	1,591.35	330.61	5.813		
10,500.00	6,941.63	6,902.63	6,941.63	109.84	239.25	90.09	2,309.81	-4,845.25	1,871.85	1,536.56	335.28	5.583		
10,600.00	6,941.33	6,902.33	6,941.33	112.58	239.24	90.08	2,309.81	-4,845.25	1,825.84	1,485.80	340.03	5.370		
10,700.00	6,941.03	6,902.03	6,941.03	115.33	239.23	90.07	2,309.81	-4,845.25	1,784.25	1,439.44	344.81	5.175		
10,800.00	6,940.73	6,901.73	6,940.73	118.08	239.22	90.06	2,309.81	-4,845.25	1,747.40	1,397.83	349.57	4.999		
10,900.00	6,940.43	6,901.43	6,940.43	120.84	239.21	90.05	2,309.81	-4,845.25	1,715.60	1,361.36	354.24	4.843		
11,000.00	6,940.13	6,901.13	6,940.13	123.60	239.20	90.04	2,309.81	-4,845.25	1,689.13	1,330.38	358.75	4.708		
11,100.00	6,939.83	6,900.83	6,939.83	126.36	239.19	90.03	2,309.81	-4,845.25	1,668.24	1,305.21	363.03	4.595		
11,200.00	6,939.54	6,900.54	6,939.54	129.13	239.18	90.02	2,309.81	-4,845.25	1,653.15	1,286.14	367.01	4.504		
11,300.00	6,939.24	6,900.24	6,939.24	131.91	239.16	90.01	2,309.81	-4,845.25	1,644.01	1,273.39	370.61	4.436		
11,400.00	6,938.94	6,900.06	6,938.94	134.68	239.16	90.00	2,309.81	-4,845.25	1,640.92	1,267.12	373.80	4.390		
11,400.66	6,938.94	6,900.06	6,938.94	134.70	239.16	90.00	2,309.81	-4,845.25	1,640.92	1,267.10	373.82	4.390 CC, ES		
11,500.00	6,938.64	6,900.36	6,938.64	137.46	239.17	89.99	2,309.81	-4,845.25	1,643.93	1,267.39	376.54	4.366		
11,600.00	6,938.34	6,900.66	6,938.34	140.25	239.18	89.98	2,309.81	-4,845.25	1,652.99	1,274.20	378.79	4.364 SF		
11,700.00	6,938.04	6,900.96	6,938.04	143.03	239.19	89.97	2,309.81	-4,845.25	1,668.00	1,287.47	380.53	4.383		
11,800.00	6,937.75	6,901.25	6,937.75	145.82	239.20	89.96	2,309.81	-4,845.25	1,688.82	1,307.04	381.78	4.424		
11,900.00	6,937.45	6,901.55	6,937.45	148.61	239.21	89.95	2,309.81	-4,845.25	1,715.22	1,332.66	382.56	4.484		
12,000.00	6,937.15	6,901.85	6,937.15	151.41	239.22	89.94	2,309.81	-4,845.25	1,746.95	1,364.06	382.89	4.563		
12,100.00	6,936.85	6,902.15	6,936.85	154.20	239.23	89.93	2,309.81	-4,845.25	1,783.73	1,400.90	382.83	4.659		
12,200.00	6,936.55	6,902.45	6,936.55	157.00	239.24	89.92	2,309.81	-4,845.25	1,825.26	1,442.84	382.42	4.773		
12,300.00	6,936.25	6,902.75	6,936.25	159.80	239.25	89.91	2,309.81	-4,845.25	1,871.21	1,489.51	381.71	4.902		
12,400.00	6,935.96	6,903.04	6,935.96	162.61	239.26	89.90	2,309.81	-4,845.25	1,921.28	1,540.54	380.74	5.046		
12,500.00	6,935.66	6,903.34	6,935.66	165.41	239.27	89.89	2,309.81	-4,845.25	1,975.14	1,595.56	379.57	5.204		
12,600.00	6,935.36	6,903.64	6,935.36	168.22	239.28	89.88	2,309.81	-4,845.25	2,032.50	1,654.25	378.25	5.373		
12,700.00	6,935.06	6,903.94	6,935.06	171.02	239.29	89.86	2,309.81	-4,845.25	2,093.06	1,716.27	376.79	5.555		
12,800.00	6,934.76	6,904.24	6,934.76	173.83	239.30	89.85	2,309.81	-4,845.25	2,156.57	1,781.32	375.25	5.747		
12,900.00	6,934.46	6,904.54	6,934.46	176.65	239.31	89.84	2,309.81	-4,845.25	2,222.76	1,849.11	373.65	5.949		
13,000.00	6,934.17	6,904.83	6,934.17	179.46	239.33	89.83	2,309.81	-4,845.25	2,291.40	1,919.39	372.01	6.160		
13,100.00	6,933.87	6,905.13	6,933.87	182.27	239.34	89.82	2,309.81	-4,845.25	2,362.28	1,991.93	370.35	6.379		
13,200.00	6,933.57	6,905.43	6,933.57	185.09	239.35	89.81	2,309.81	-4,845.25	2,435.21	2,066.52	368.69	6.605		
13,300.00	6,933.27	6,905.73	6,933.27	187.91	239.36	89.80	2,309.81	-4,845.25	2,510.00	2,142.96	367.04	6.838		
13,400.00	6,932.97	6,906.03	6,932.97	190.72	239.37	89.79	2,309.81	-4,845.25	2,586.50	2,221.08	365.41	7.078		
13,500.00	6,932.67	6,906.33	6,932.67	193.54	239.38	89.78	2,309.81	-4,845.25	2,664.55	2,300.73	363.82	7.324		
13,600.00	6,932.38	6,906.62	6,932.38	196.36	239.39	89.77	2,309.81	-4,845.25	2,744.03	2,381.77	362.26	7.575		
13,700.00	6,932.08	6,906.92	6,932.08	199.19	239.40	89.76	2,309.81	-4,845.25	2,824.81	2,464.07	360.74	7.831		
13,800.00	6,931.78	6,907.22	6,931.78	202.01	239.41	89.75	2,309.81	-4,845.25	2,906.79	2,547.53	359.26	8.091		
13,900.00	6,931.48	6,907.52	6,931.48	204.83	239.42	89.74	2,309.81	-4,845.25	2,989.86	2,632.03	357.83	8.356		
14,000.00	6,931.18	6,907.82	6,931.18	207.66	239.43	89.73	2,309.81	-4,845.25	3,073.95	2,717.50	356.45	8.624		
14,100.00	6,930.88	6,908.12	6,930.88	210.48	239.44	89.72	2,309.81	-4,845.25	3,158.96	2,803.85	355.11	8.896		
14,200.00	6,930.59	6,908.41	6,930.59	213.31	239.45	89.71	2,309.81	-4,845.25	3,244.82	2,891.01	353.81	9.171		
14,300.00	6,930.29	6,908.71	6,930.29	216.14	239.46	89.70	2,309.81	-4,845.25	3,331.48	2,978.91	352.57	9.449		
14,400.00	6,929.99	6,909.01	6,929.99	218.96	239.47	89.69	2,309.81	-4,845.25	3,418.86	3,067.49	351.37	9.730		
14,500.00	6,929.69	6,909.31	6,929.69	221.79	239.48	89.68	2,309.81	-4,845.25	3,506.92	3,156.70	350.21	10.014		
14,600.00	6,929.39	6,909.61	6,929.39	224.62	239.49	89.67	2,309.81	-4,845.25	3,595.60	3,246.50	349.10	10.300		
14,700.00	6,929.09	6,909.91	6,929.09	227.45	239.50	89.66	2,309.81	-4,845.25	3,684.86	3,336.83	348.03	10.588		
14,732.12	6,929.00	6,890.00	6,929.00	228.36	238.81	89.65	2,309.81	-4,845.25	3,713.65	3,366.65	347.00	10.702		

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 4N-16A-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 4N-16A-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	-124.17	-4,311.82	-6,352.37	7,677.81					
100.00	100.00	34.00	100.00	3.28	3.33	-124.17	-4,311.82	-6,352.37	7,677.52	7,670.91	6.62	1,160.101		
200.00	200.00	134.00	200.00	3.34	4.40	-124.17	-4,311.82	-6,352.37	7,677.52	7,669.79	7.74	992.344		
300.00	300.00	234.00	300.00	3.44	7.21	-124.17	-4,311.82	-6,352.37	7,677.52	7,666.87	10.66	720.399		
400.00	400.00	334.00	400.00	3.60	10.44	-124.17	-4,311.82	-6,352.37	7,677.52	7,663.48	14.05	546.589		
500.00	500.00	434.00	500.00	3.81	13.80	-124.17	-4,311.82	-6,352.37	7,677.52	7,659.92	17.61	436.052		
600.00	600.00	534.00	600.00	4.05	17.21	-124.17	-4,311.82	-6,352.37	7,677.52	7,656.27	21.26	361.157		
700.00	699.98	633.98	699.98	4.32	20.65	-110.70	-4,311.82	-6,352.37	7,678.14	7,653.17	24.97	307.540		
800.00	799.84	733.84	799.84	4.62	24.10	-110.70	-4,311.82	-6,352.37	7,679.99	7,651.28	28.71	267.492		
900.00	899.45	833.45	899.45	4.94	27.55	-110.70	-4,311.82	-6,352.37	7,683.08	7,650.61	32.48	236.557		
1,000.00	998.80	932.80	998.80	5.28	30.99	-110.76	-4,311.82	-6,352.37	7,687.15	7,650.89	36.26	211.989		
1,100.00	1,098.12	1,032.12	1,098.12	5.63	34.44	-110.84	-4,311.82	-6,352.37	7,691.30	7,651.23	40.07	191.970		
1,200.00	1,197.44	1,131.44	1,197.44	6.00	37.90	-110.92	-4,311.82	-6,352.37	7,695.46	7,651.57	43.88	175.357		
1,300.00	1,296.77	1,230.77	1,296.77	6.37	41.35	-111.00	-4,311.82	-6,352.37	7,699.64	7,651.92	47.72	161.358		
1,400.00	1,396.09	1,330.09	1,396.09	6.76	44.81	-111.08	-4,311.82	-6,352.37	7,703.83	7,652.27	51.56	149.410		
1,500.00	1,495.41	1,429.41	1,495.41	7.15	48.27	-111.16	-4,311.82	-6,352.37	7,708.04	7,652.62	55.42	139.096		
1,600.00	1,594.74	1,528.74	1,594.74	7.55	51.73	-111.24	-4,311.82	-6,352.37	7,712.26	7,652.99	59.28	130.107		
1,700.00	1,694.06	1,628.06	1,694.06	7.96	55.19	-111.32	-4,311.82	-6,352.37	7,716.50	7,653.36	63.14	122.206		
1,800.00	1,793.38	1,727.38	1,793.38	8.37	58.65	-111.40	-4,311.82	-6,352.37	7,720.76	7,653.74	67.02	115.207		
1,900.00	1,892.71	1,826.71	1,892.71	8.78	62.11	-111.48	-4,311.82	-6,352.37	7,725.03	7,654.13	70.89	108.965		
2,000.00	1,992.03	1,926.03	1,992.03	9.20	65.57	-111.56	-4,311.82	-6,352.37	7,729.31	7,654.53	74.78	103.366		
2,100.00	2,091.36	2,025.36	2,091.36	9.62	69.04	-111.64	-4,311.82	-6,352.37	7,733.61	7,654.95	78.66	98.315		
2,200.00	2,190.68	2,124.68	2,190.68	10.05	72.50	-111.72	-4,311.82	-6,352.37	7,737.92	7,655.37	82.55	93.737		
2,300.00	2,290.00	2,224.00	2,290.00	10.48	75.97	-111.80	-4,311.82	-6,352.37	7,742.25	7,655.81	86.44	89.567		
2,400.00	2,389.33	2,323.33	2,389.33	10.90	79.43	-111.87	-4,311.82	-6,352.37	7,746.60	7,656.26	90.33	85.755		
2,500.00	2,488.65	2,422.65	2,488.65	11.34	82.89	-111.95	-4,311.82	-6,352.37	7,750.96	7,656.73	94.23	82.256		
2,600.00	2,587.97	2,521.97	2,587.97	11.77	86.36	-112.03	-4,311.82	-6,352.37	7,755.33	7,657.20	98.13	79.034		
2,700.00	2,687.30	2,621.30	2,687.30	12.20	89.82	-112.11	-4,311.82	-6,352.37	7,759.72	7,657.70	102.03	76.056		
2,800.00	2,786.62	2,720.62	2,786.62	12.64	93.29	-112.19	-4,311.82	-6,352.37	7,764.13	7,658.20	105.93	73.297		
2,900.00	2,885.94	2,819.94	2,885.94	13.07	96.75	-112.27	-4,311.82	-6,352.37	7,768.54	7,658.72	109.83	70.734		
3,000.00	2,985.27	2,919.27	2,985.27	13.51	100.22	-112.35	-4,311.82	-6,352.37	7,772.98	7,659.25	113.73	68.345		
3,100.00	3,084.59	3,018.59	3,084.59	13.95	103.69	-112.43	-4,311.82	-6,352.37	7,777.43	7,659.79	117.64	66.115		
3,200.00	3,183.91	3,117.91	3,183.91	14.39	107.15	-112.51	-4,311.82	-6,352.37	7,781.89	7,660.35	121.54	64.027		
3,300.00	3,283.24	3,217.24	3,283.24	14.83	110.62	-112.58	-4,311.82	-6,352.37	7,786.37	7,660.92	125.45	62.069		
3,400.00	3,382.56	3,316.56	3,382.56	15.27	114.08	-112.66	-4,311.82	-6,352.37	7,790.86	7,661.51	129.35	60.229		
3,500.00	3,481.88	3,415.88	3,481.88	15.71	117.55	-112.74	-4,311.82	-6,352.37	7,795.37	7,662.11	133.26	58.497		
3,600.00	3,581.21	3,515.21	3,581.21	16.16	121.02	-112.82	-4,311.82	-6,352.37	7,799.89	7,662.72	137.17	56.863		
3,700.00	3,680.53	3,614.53	3,680.53	16.60	124.48	-112.90	-4,311.82	-6,352.37	7,804.43	7,663.35	141.08	55.320		
3,800.00	3,779.85	3,713.85	3,779.85	17.04	127.95	-112.98	-4,311.82	-6,352.37	7,808.98	7,663.99	144.99	53.860		
3,900.00	3,879.18	3,813.18	3,879.18	17.49	131.41	-113.05	-4,311.82	-6,352.37	7,813.55	7,664.65	148.90	52.476		
4,000.00	3,978.50	3,912.50	3,978.50	17.93	134.88	-113.13	-4,311.82	-6,352.37	7,818.13	7,665.32	152.81	51.163		
4,100.00	4,077.82	4,011.82	4,077.82	18.37	138.35	-113.21	-4,311.82	-6,352.37	7,822.72	7,666.00	156.72	49.916		
4,200.00	4,177.15	4,111.15	4,177.15	18.82	141.81	-113.29	-4,311.82	-6,352.37	7,827.33	7,666.70	160.63	48.729		
4,300.00	4,276.47	4,210.47	4,276.47	19.27	145.28	-113.36	-4,311.82	-6,352.37	7,831.96	7,667.42	164.54	47.599		
4,400.00	4,375.79	4,309.79	4,375.79	19.71	148.75	-113.44	-4,311.82	-6,352.37	7,836.60	7,668.14	168.45	46.521		
4,500.00	4,475.12	4,409.12	4,475.12	20.16	152.21	-113.52	-4,311.82	-6,352.37	7,841.25	7,668.88	172.37	45.492		
4,600.00	4,574.44	4,452.00	4,518.00	20.60	153.71	-113.55	-4,311.82	-6,352.37	7,846.12	7,671.82	174.30	45.015		
4,700.00	4,673.76	4,452.00	4,518.00	21.05	153.71	-113.55	-4,311.82	-6,352.37	7,852.15	7,677.44	174.71	44.945		
4,800.00	4,773.09	4,452.00	4,518.00	21.50	153.71	-113.55	-4,311.82	-6,352.37	7,859.44	7,684.35	175.08	44.890		
4,900.00	4,872.41	4,452.00	4,518.00	21.94	153.71	-113.55	-4,311.82	-6,352.37	7,867.99	7,692.56	175.43	44.849		
5,000.00	4,971.74	4,452.00	4,518.00	22.39	153.71	-113.55	-4,311.82	-6,352.37	7,877.81	7,702.06	175.75	44.823		
5,100.00	5,071.06	4,452.00	4,518.00	22.84	153.71	-113.55	-4,311.82	-6,352.37	7,888.88	7,712.83	176.05	44.811		

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 4N-16A-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 4N-16A-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	5,170.38	4,452.00	4,518.00	23.29	153.71	-113.55	-4,311.82	-6,352.37	7,901.21	7,724.89	176.31	44.813	
5,300.00	5,269.71	4,452.00	4,518.00	23.74	153.71	-113.55	-4,311.82	-6,352.37	7,914.77	7,738.22	176.55	44.830	
5,400.00	5,369.03	4,452.00	4,518.00	24.18	153.71	-113.55	-4,311.82	-6,352.37	7,929.58	7,752.82	176.76	44.861	
5,500.00	5,468.35	4,452.00	4,518.00	24.63	153.71	-113.55	-4,311.82	-6,352.37	7,945.61	7,768.67	176.94	44.905	
5,600.00	5,567.68	4,452.00	4,518.00	25.08	153.71	-113.55	-4,311.82	-6,352.37	7,962.87	7,785.78	177.10	44.964	
5,700.00	5,667.00	4,452.00	4,518.00	25.53	153.71	-113.55	-4,311.82	-6,352.37	7,981.35	7,804.12	177.22	45.036	
5,800.00	5,766.32	4,452.00	4,518.00	25.98	153.71	-113.55	-4,311.82	-6,352.37	8,001.03	7,823.71	177.32	45.121	
5,900.00	5,865.65	4,452.00	4,518.00	26.43	153.71	-113.55	-4,311.82	-6,352.37	8,021.91	7,844.51	177.40	45.220	
6,000.00	5,964.97	4,452.00	4,518.00	26.88	153.71	-113.55	-4,311.82	-6,352.37	8,043.98	7,866.53	177.45	45.332	
6,100.00	6,064.29	4,452.00	4,518.00	27.33	153.71	-113.55	-4,311.82	-6,352.37	8,067.23	7,889.76	177.47	45.457	
6,200.00	6,163.62	4,452.00	4,518.00	27.78	153.71	-113.55	-4,311.82	-6,352.37	8,091.65	7,914.18	177.47	45.595	
6,300.00	6,262.94	4,452.00	4,518.00	28.23	153.71	-113.55	-4,311.82	-6,352.37	8,117.22	7,939.79	177.44	45.746	
6,400.00	6,362.24	4,452.00	4,518.00	28.67	153.71	-94.87	-4,311.82	-6,352.37	8,143.49	7,966.10	177.39	45.908	
6,500.00	6,460.41	4,452.00	4,518.00	29.12	153.71	-62.08	-4,311.82	-6,352.37	8,161.79	7,984.48	177.31	46.032	
6,600.00	6,555.09	4,452.00	4,518.00	29.57	153.71	-51.75	-4,311.82	-6,352.37	8,168.58	7,991.36	177.21	46.095	
6,700.00	6,643.94	4,452.00	4,518.00	30.00	153.71	-47.55	-4,311.82	-6,352.37	8,163.71	7,986.60	177.11	46.095	
6,800.00	6,724.78	4,452.00	4,518.00	30.45	153.71	-46.00	-4,311.82	-6,352.37	8,147.29	7,970.28	177.01	46.027	
6,900.00	6,795.62	4,452.00	4,518.00	30.97	153.71	-46.08	-4,311.82	-6,352.37	8,119.66	7,942.70	176.96	45.885	
7,000.00	6,854.70	4,452.00	4,518.00	31.60	153.71	-47.48	-4,311.82	-6,352.37	8,081.38	7,904.41	176.97	45.665	
7,100.00	6,900.58	4,452.00	4,518.00	32.39	153.71	-50.16	-4,311.82	-6,352.37	8,033.25	7,856.16	177.09	45.362	
7,200.00	6,932.13	4,452.00	4,518.00	33.34	153.71	-54.24	-4,311.82	-6,352.37	7,976.30	7,798.96	177.34	44.978	
7,300.00	6,948.57	4,452.00	4,518.00	34.46	153.71	-59.94	-4,311.82	-6,352.37	7,911.74	7,734.02	177.73	44.516	
7,400.00	6,950.87	4,452.00	4,518.00	35.70	153.71	-64.07	-4,311.82	-6,352.37	7,841.52	7,663.26	178.25	43.991	
7,500.00	6,950.58	4,452.00	4,518.00	37.12	153.71	-64.07	-4,311.82	-6,352.37	7,770.88	7,592.00	178.89	43.441	
7,600.00	6,950.28	4,452.00	4,518.00	38.70	153.71	-64.07	-4,311.82	-6,352.37	7,700.90	7,521.28	179.62	42.873	
7,700.00	6,949.98	4,452.00	4,518.00	40.41	153.71	-64.07	-4,311.82	-6,352.37	7,631.59	7,451.12	180.46	42.289	
7,800.00	6,949.68	4,452.00	4,518.00	42.25	153.71	-64.07	-4,311.82	-6,352.37	7,562.96	7,381.56	181.40	41.692	
7,900.00	6,949.38	4,452.00	4,518.00	44.20	153.71	-64.07	-4,311.82	-6,352.37	7,495.04	7,312.60	182.43	41.083	
8,000.00	6,949.08	4,452.00	4,518.00	46.24	153.71	-64.07	-4,311.82	-6,352.37	7,427.84	7,244.28	183.56	40.465	
8,100.00	6,948.79	4,452.00	4,518.00	48.36	153.71	-64.07	-4,311.82	-6,352.37	7,361.39	7,176.61	184.78	39.839	
8,200.00	6,948.49	4,452.00	4,518.00	50.56	153.71	-64.07	-4,311.82	-6,352.37	7,295.70	7,109.62	186.08	39.207	
8,300.00	6,948.19	4,452.00	4,518.00	52.82	153.71	-64.07	-4,311.82	-6,352.37	7,230.80	7,043.33	187.47	38.570	
8,400.00	6,947.89	4,452.00	4,518.00	55.14	153.71	-64.07	-4,311.82	-6,352.37	7,166.71	6,977.78	188.94	37.932	
8,500.00	6,947.59	4,452.00	4,518.00	57.50	153.71	-64.07	-4,311.82	-6,352.37	7,103.45	6,912.97	190.48	37.293	
8,600.00	6,947.29	4,452.00	4,518.00	59.91	153.71	-64.07	-4,311.82	-6,352.37	7,041.04	6,848.95	192.09	36.655	
8,700.00	6,947.00	4,452.00	4,518.00	62.36	153.71	-64.07	-4,311.82	-6,352.37	6,979.50	6,785.73	193.77	36.019	
8,800.00	6,946.70	4,452.00	4,518.00	64.84	153.71	-64.07	-4,311.82	-6,352.37	6,918.87	6,723.34	195.52	35.387	
8,900.00	6,946.40	4,452.00	4,518.00	67.35	153.71	-64.07	-4,311.82	-6,352.37	6,859.15	6,661.81	197.34	34.759	
9,000.00	6,946.10	4,452.00	4,518.00	69.88	153.71	-64.07	-4,311.82	-6,352.37	6,800.38	6,601.17	199.21	34.136	
9,100.00	6,945.80	4,452.00	4,518.00	72.44	153.71	-64.07	-4,311.82	-6,352.37	6,742.58	6,541.44	201.15	33.521	
9,200.00	6,945.50	4,452.00	4,518.00	75.02	153.71	-64.07	-4,311.82	-6,352.37	6,685.78	6,482.64	203.14	32.912	
9,300.00	6,945.21	4,452.00	4,518.00	77.63	153.71	-64.07	-4,311.82	-6,352.37	6,630.00	6,424.81	205.19	32.312	
9,400.00	6,944.91	4,452.00	4,518.00	80.24	153.71	-64.07	-4,311.82	-6,352.37	6,575.27	6,367.98	207.29	31.720	
9,500.00	6,944.61	4,452.00	4,518.00	82.88	153.71	-64.07	-4,311.82	-6,352.37	6,521.61	6,312.17	209.44	31.138	
9,600.00	6,944.31	4,452.00	4,518.00	85.53	153.71	-64.07	-4,311.82	-6,352.37	6,469.05	6,257.41	211.64	30.566	
9,700.00	6,944.01	4,452.00	4,518.00	88.19	153.71	-64.07	-4,311.82	-6,352.37	6,417.62	6,203.73	213.89	30.005	
9,800.00	6,943.71	4,452.00	4,518.00	90.86	153.71	-64.07	-4,311.82	-6,352.37	6,367.35	6,151.17	216.18	29.454	
9,900.00	6,943.42	4,452.00	4,518.00	93.55	153.71	-64.07	-4,311.82	-6,352.37	6,318.26	6,099.74	218.52	28.914	
10,000.00	6,943.12	4,452.00	4,518.00	96.24	153.71	-64.07	-4,311.82	-6,352.37	6,270.37	6,049.48	220.90	28.386	
10,100.00	6,942.82	4,452.00	4,518.00	98.95	153.71	-64.07	-4,311.82	-6,352.37	6,223.73	6,000.42	223.31	27.870	
10,200.00	6,942.52	4,452.00	4,518.00	101.66	153.71	-64.07	-4,311.82	-6,352.37	6,178.35	5,952.58	225.77	27.366	
10,300.00	6,942.22	4,452.00	4,518.00	104.38	153.71	-64.07	-4,311.82	-6,352.37	6,134.27	5,906.01	228.26	26.874	

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 4N-16A-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 4N-16A-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	6,941.92	4,452.00	4,518.00	107.11	153.71	-64.07	-4,311.82	-6,352.37	6,091.51	5,860.73	230.79	26.394		
10,500.00	6,941.63	4,452.00	4,518.00	109.84	153.71	-64.07	-4,311.82	-6,352.37	6,050.11	5,816.76	233.35	25.927		
10,600.00	6,941.33	4,452.00	4,518.00	112.58	153.71	-64.07	-4,311.82	-6,352.37	6,010.08	5,774.14	235.94	25.473		
10,700.00	6,941.03	4,452.00	4,518.00	115.33	153.71	-64.07	-4,311.82	-6,352.37	5,971.45	5,732.90	238.55	25.032		
10,800.00	6,940.73	4,452.00	4,518.00	118.08	153.71	-64.07	-4,311.82	-6,352.37	5,934.27	5,693.07	241.19	24.604		
10,900.00	6,940.43	4,452.00	4,518.00	120.84	153.71	-64.07	-4,311.82	-6,352.37	5,898.54	5,654.68	243.86	24.189		
11,000.00	6,940.13	4,452.00	4,518.00	123.60	153.71	-64.07	-4,311.82	-6,352.37	5,864.30	5,617.76	246.54	23.786		
11,100.00	6,939.83	4,452.00	4,518.00	126.36	153.71	-64.07	-4,311.82	-6,352.37	5,831.57	5,582.33	249.25	23.397		
11,200.00	6,939.54	4,452.00	4,518.00	129.13	153.71	-64.07	-4,311.82	-6,352.37	5,800.38	5,548.42	251.96	23.021		
11,300.00	6,939.24	4,452.00	4,518.00	131.91	153.71	-64.07	-4,311.82	-6,352.37	5,770.76	5,516.07	254.70	22.657		
11,400.00	6,938.94	4,452.00	4,518.00	134.68	153.71	-64.07	-4,311.82	-6,352.37	5,742.73	5,485.29	257.44	22.307		
11,500.00	6,938.64	4,452.00	4,518.00	137.46	153.71	-64.07	-4,311.82	-6,352.37	5,716.31	5,456.12	260.19	21.970		
11,600.00	6,938.34	4,452.00	4,518.00	140.25	153.71	-64.07	-4,311.82	-6,352.37	5,691.52	5,428.58	262.94	21.645		
11,700.00	6,938.04	4,452.00	4,518.00	143.03	153.71	-64.07	-4,311.82	-6,352.37	5,668.39	5,402.69	265.70	21.334		
11,800.00	6,937.75	4,452.00	4,518.00	145.82	153.71	-64.07	-4,311.82	-6,352.37	5,646.94	5,378.48	268.46	21.035		
11,900.00	6,937.45	4,452.00	4,518.00	148.61	153.71	-64.07	-4,311.82	-6,352.37	5,627.18	5,355.97	271.21	20.749		
12,000.00	6,937.15	4,452.00	4,518.00	151.41	153.71	-64.07	-4,311.82	-6,352.37	5,609.13	5,335.18	273.95	20.475		
12,100.00	6,936.85	4,452.00	4,518.00	154.20	153.71	-64.07	-4,311.82	-6,352.37	5,592.82	5,316.13	276.68	20.214		
12,200.00	6,936.55	4,452.00	4,518.00	157.00	153.71	-64.07	-4,311.82	-6,352.37	5,578.25	5,298.84	279.40	19.965		
12,300.00	6,936.25	4,452.00	4,518.00	159.80	153.71	-64.07	-4,311.82	-6,352.37	5,565.44	5,283.33	282.11	19.728		
12,400.00	6,935.96	4,452.00	4,518.00	162.61	153.71	-64.07	-4,311.82	-6,352.37	5,554.40	5,269.61	284.79	19.503		
12,500.00	6,935.66	4,452.00	4,518.00	165.41	153.71	-64.07	-4,311.82	-6,352.37	5,545.14	5,257.69	287.45	19.291		
12,600.00	6,935.36	4,452.00	4,518.00	168.22	153.71	-64.07	-4,311.82	-6,352.37	5,537.67	5,247.58	290.09	19.090		
12,700.00	6,935.06	4,452.00	4,518.00	171.02	153.71	-64.07	-4,311.82	-6,352.37	5,532.00	5,239.31	292.70	18.900		
12,800.00	6,934.76	4,452.00	4,518.00	173.83	153.71	-64.07	-4,311.82	-6,352.37	5,528.14	5,232.86	295.27	18.722		
12,900.00	6,934.46	4,452.00	4,518.00	176.65	153.71	-64.07	-4,311.82	-6,352.37	5,526.08	5,228.26	297.81	18.555		
12,963.80	6,934.27	4,452.00	4,518.00	178.44	153.71	-64.07	-4,311.82	-6,352.37	5,525.71	5,226.29	299.42	18.455 CC		
13,000.00	6,934.17	4,452.00	4,518.00	179.46	153.71	-64.07	-4,311.82	-6,352.37	5,525.83	5,225.51	300.32	18.400		
13,100.00	6,933.87	4,452.00	4,518.00	182.27	153.71	-64.07	-4,311.82	-6,352.37	5,527.39	5,224.60	302.78	18.255 ES		
13,200.00	6,933.57	4,452.00	4,518.00	185.09	153.71	-64.07	-4,311.82	-6,352.37	5,530.75	5,225.55	305.21	18.121		
13,300.00	6,933.27	4,452.00	4,518.00	187.91	153.71	-64.07	-4,311.82	-6,352.37	5,535.93	5,228.34	307.59	17.998		
13,400.00	6,932.97	4,452.00	4,518.00	190.72	153.71	-64.07	-4,311.82	-6,352.37	5,542.90	5,232.98	309.92	17.885		
13,500.00	6,932.67	4,452.00	4,518.00	193.54	153.71	-64.07	-4,311.82	-6,352.37	5,551.66	5,239.46	312.20	17.782		
13,600.00	6,932.38	4,452.00	4,518.00	196.36	153.71	-64.07	-4,311.82	-6,352.37	5,562.21	5,247.78	314.43	17.690		
13,700.00	6,932.08	4,452.00	4,518.00	199.19	153.71	-64.07	-4,311.82	-6,352.37	5,574.53	5,257.92	316.62	17.607		
13,800.00	6,931.78	4,452.00	4,518.00	202.01	153.71	-64.07	-4,311.82	-6,352.37	5,588.62	5,269.88	318.74	17.533		
13,900.00	6,931.48	4,452.00	4,518.00	204.83	153.71	-64.07	-4,311.82	-6,352.37	5,604.46	5,283.64	320.81	17.470		
14,000.00	6,931.18	4,452.00	4,518.00	207.66	153.71	-64.07	-4,311.82	-6,352.37	5,622.02	5,299.20	322.83	17.415		
14,100.00	6,930.88	4,452.00	4,518.00	210.48	153.71	-64.07	-4,311.82	-6,352.37	5,641.31	5,316.53	324.78	17.369		
14,200.00	6,930.59	4,452.00	4,518.00	213.31	153.71	-64.07	-4,311.82	-6,352.37	5,662.30	5,335.62	326.68	17.333		
14,300.00	6,930.29	4,452.00	4,518.00	216.14	153.71	-64.07	-4,311.82	-6,352.37	5,684.97	5,356.45	328.52	17.305		
14,400.00	6,929.99	4,452.00	4,518.00	218.96	153.71	-64.07	-4,311.82	-6,352.37	5,709.30	5,379.00	330.30	17.285		
14,500.00	6,929.69	4,452.00	4,518.00	221.79	153.71	-64.07	-4,311.82	-6,352.37	5,735.27	5,403.25	332.02	17.274		
14,600.00	6,929.39	4,452.00	4,518.00	224.62	153.71	-64.07	-4,311.82	-6,352.37	5,762.86	5,429.19	333.68	17.271 SF		
14,700.00	6,929.09	4,452.00	4,518.00	227.45	153.71	-64.07	-4,311.82	-6,352.37	5,792.05	5,456.77	335.28	17.276		
14,732.12	6,929.00	4,452.00	4,518.00	228.36	153.71	-64.07	-4,311.82	-6,352.37	5,801.76	5,465.98	335.78	17.279		

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 4N-16A-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 4N-16A-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	-108.14	-2,889.17	-8,816.00	9,369.00					
100.00	100.00	1,413.39	1,343.23	3.28	7.57	-108.13	-2,884.97	-8,812.19	9,355.39	9,345.11	10.28	910.193		
200.00	200.00	1,471.00	1,400.14	3.34	7.85	-108.10	-2,877.90	-8,806.76	9,342.46	9,331.90	10.56	884.617		
300.00	300.00	1,546.04	1,466.04	3.44	8.39	-108.02	-2,860.11	-8,792.91	9,329.96	9,322.99	6.96	1,339.792		
400.00	400.00	1,660.00	1,586.91	3.60	8.77	-108.00	-2,855.35	-8,788.66	9,316.78	9,305.16	11.62	801.534		
500.00	500.00	1,707.46	1,633.84	3.81	9.00	-107.98	-2,850.24	-8,783.70	9,303.92	9,291.90	12.01	774.429		
600.00	600.00	1,755.00	1,680.96	4.05	9.23	-107.96	-2,845.43	-8,779.74	9,292.41	9,279.96	12.44	746.691		
700.00	699.98	1,938.18	1,862.19	4.32	10.13	-94.65	-2,824.29	-8,763.60	9,280.65	9,267.13	13.53	686.183		
800.00	799.84	2,277.18	2,196.40	4.62	11.91	-94.83	-2,778.91	-8,729.77	9,267.74	9,252.35	15.39	602.106		
900.00	899.45	2,792.00	2,378.79	4.94	14.85	-95.12	-2,753.20	-8,708.49	9,253.48	9,243.74	9.74	950.115		
1,000.00	998.80	2,541.31	2,456.15	5.28	13.36	-95.23	-2,742.51	-8,698.67	9,238.37	9,221.11	17.27	535.081		
1,100.00	1,098.12	2,568.32	2,482.74	5.63	13.51	-95.23	-2,739.08	-8,695.41	9,223.93	9,206.19	17.73	520.173		
1,200.00	1,197.44	2,756.28	2,667.80	6.00	14.54	-95.27	-2,715.32	-8,672.72	9,209.56	9,190.59	18.97	485.558		
1,300.00	1,296.77	2,792.00	2,702.94	6.37	14.74	-95.28	-2,710.65	-8,668.30	9,194.81	9,175.31	19.50	471.413		
1,400.00	1,396.09	2,792.00	2,702.94	6.76	14.74	-95.28	-2,710.65	-8,668.30	9,181.01	9,161.13	19.89	461.683		
1,500.00	1,495.41	2,832.56	2,742.92	7.15	14.95	-95.29	-2,705.65	-8,663.69	9,167.77	9,147.30	20.46	448.042		
1,600.00	1,594.74	2,887.00	2,796.81	7.55	15.23	-95.30	-2,699.83	-8,658.61	9,156.02	9,134.91	21.11	433.751		
1,700.00	1,694.06	1,700.00	2,793.62	7.96	9.28	-95.30	-2,700.18	-8,658.90	9,144.41	9,128.24	16.17	565.509		
1,800.00	1,793.38	3,052.42	2,960.39	8.37	16.09	-95.34	-2,680.66	-8,643.25	9,132.93	9,110.25	22.68	402.620		
1,900.00	1,892.71	3,198.83	3,104.93	8.78	16.86	-95.37	-2,662.10	-8,629.20	9,120.80	9,097.02	23.78	383.518		
2,000.00	1,992.03	3,262.00	3,167.33	9.20	17.20	-95.38	-2,654.41	-8,623.06	9,108.73	9,084.23	24.50	371.844		
2,100.00	2,091.36	3,392.36	3,296.09	9.62	17.89	-95.40	-2,638.68	-8,610.09	9,096.44	9,070.92	25.52	356.404		
2,200.00	2,190.68	3,452.00	3,355.01	10.05	18.20	-95.42	-2,631.47	-8,604.31	9,084.43	9,058.20	26.23	346.377		
2,300.00	2,290.00	3,543.00	3,444.90	10.48	18.69	-95.43	-2,620.41	-8,595.46	9,072.40	9,045.32	27.08	335.033		
2,400.00	2,389.33	4,488.00	4,368.51	10.90	24.30	-95.49	-2,472.03	-8,468.95	9,052.67	9,020.66	32.02	282.758		
2,500.00	2,488.65	4,541.54	4,420.45	11.34	24.64	-95.49	-2,463.29	-8,459.34	9,031.70	8,998.98	32.72	276.029		
2,600.00	2,587.97	4,583.00	4,460.81	11.77	24.90	-95.50	-2,456.81	-8,452.39	9,011.69	8,978.32	33.37	270.048		
2,700.00	2,687.30	4,583.00	4,460.81	12.20	24.90	-95.50	-2,456.81	-8,452.39	8,992.40	8,958.57	33.83	265.815		
2,800.00	2,786.62	4,583.00	4,460.81	12.64	24.90	-95.50	-2,456.81	-8,452.39	8,974.18	8,939.89	34.29	261.727		
2,900.00	2,885.94	4,623.30	4,500.19	13.07	25.14	-95.51	-2,450.92	-8,446.22	8,956.50	8,921.57	34.93	256.408		
3,000.00	2,985.27	4,639.81	4,516.39	13.51	25.24	-95.51	-2,448.67	-8,443.90	8,939.91	8,904.45	35.47	252.076		
3,100.00	3,084.59	4,678.00	4,553.95	13.95	25.46	-95.52	-2,443.86	-8,439.03	8,924.39	8,888.29	36.10	247.220		
3,200.00	3,183.91	4,678.00	4,553.95	14.39	25.46	-95.52	-2,443.86	-8,439.03	8,909.47	8,872.91	36.56	243.713		
3,300.00	3,283.24	4,704.34	4,579.93	14.83	25.60	-95.53	-2,440.78	-8,435.94	8,895.55	8,858.42	37.13	239.571		
3,400.00	3,382.56	4,742.14	4,617.25	15.27	25.80	-95.54	-2,436.58	-8,431.66	8,882.33	8,844.57	37.76	235.256		
3,500.00	3,481.88	4,772.00	4,646.77	15.71	25.96	-95.55	-2,433.45	-8,428.41	8,869.81	8,831.46	38.34	231.316		
3,600.00	3,581.21	4,833.35	4,707.48	16.16	26.28	-95.57	-2,427.38	-8,422.00	8,857.85	8,818.78	39.07	226.721		
3,700.00	3,680.53	4,867.00	4,740.81	16.60	26.45	-95.58	-2,424.22	-8,418.61	8,846.48	8,806.80	39.67	222.994		
3,800.00	3,779.85	4,914.06	4,787.46	17.04	26.69	-95.60	-2,419.99	-8,414.13	8,835.75	8,795.42	40.33	219.091		
3,900.00	3,879.18	4,961.00	4,834.06	17.49	26.92	-95.62	-2,416.00	-8,410.06	8,825.78	8,784.80	40.99	215.337		
4,000.00	3,978.50	5,000.59	4,873.39	17.93	27.11	-95.64	-2,412.79	-8,406.83	8,816.44	8,774.83	41.61	211.896		
4,100.00	4,077.82	5,056.00	4,928.46	18.37	27.37	-95.66	-2,408.49	-8,402.47	8,807.60	8,765.30	42.30	208.230		
4,200.00	4,177.15	5,056.00	4,928.46	18.82	27.37	-95.66	-2,408.49	-8,402.47	8,799.59	8,756.84	42.74	205.876		
4,300.00	4,276.47	5,110.37	4,982.55	19.27	27.62	-95.69	-2,404.59	-8,398.69	8,792.07	8,748.65	43.42	202.480		
4,400.00	4,375.79	5,150.00	5,022.04	19.71	27.80	-95.70	-2,402.01	-8,396.47	8,785.60	8,741.56	44.04	199.509		
4,500.00	4,475.12	5,181.96	5,053.90	20.16	27.94	-95.72	-2,400.09	-8,394.86	8,779.83	8,735.21	44.61	196.805		
4,600.00	4,574.44	5,243.00	5,114.77	20.60	28.20	-95.75	-2,396.78	-8,391.86	8,774.56	8,729.25	45.31	193.643		
4,700.00	4,673.76	5,275.53	5,147.24	21.05	28.34	-95.77	-2,395.22	-8,390.40	8,769.90	8,724.02	45.89	191.126		
4,800.00	4,773.09	5,306.61	5,178.26	21.50	28.47	-95.79	-2,393.86	-8,389.23	8,766.04	8,719.59	46.45	188.722		
4,900.00	4,872.41	5,336.00	5,207.61	21.94	28.59	-95.81	-2,392.69	-8,388.31	8,762.95	8,715.95	47.00	186.431		
5,000.00	4,971.74	5,387.59	5,259.16	22.39	28.79	-95.84	-2,391.01	-8,386.93	8,760.55	8,712.90	47.65	183.859		
5,100.00	5,071.06	5,430.00	5,301.54	22.84	28.95	-95.86	-2,390.02	-8,385.91	8,758.73	8,710.48	48.25	181.523		

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 4N-16A-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 4N-16A-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	
5,200.00	5,170.38	5,507.95	5,379.46	23.29	29.25	-95.92	-2,388.38	-8,384.36	8,757.35	8,708.34	49.01	178.696	
5,300.00	5,269.71	5,576.90	5,448.38	23.74	29.51	-95.96	-2,386.64	-8,383.35	8,756.33	8,706.60	49.72	176.101	
5,400.00	5,369.03	5,645.93	5,517.38	24.18	29.77	-96.00	-2,384.62	-8,382.69	8,755.66	8,705.22	50.44	173.586	
5,500.00	5,468.35	5,711.00	5,582.41	24.63	30.01	-96.04	-2,382.47	-8,382.39	8,755.36	8,704.22	51.14	171.209	
5,536.15	5,504.25	5,740.10	5,611.49	24.79	30.12	-96.05	-2,381.47	-8,382.35	8,755.34	8,703.92	51.42	170.285	
5,600.00	5,567.68	5,784.36	5,655.73	25.08	30.28	-96.08	-2,379.97	-8,382.36	8,755.41	8,703.53	51.87	168.782	
5,700.00	5,667.00	5,853.69	5,725.02	25.53	30.54	-96.12	-2,377.70	-8,382.55	8,755.81	8,703.22	52.59	166.488	
5,800.00	5,766.32	5,923.01	5,794.31	25.98	30.80	-96.15	-2,375.52	-8,382.97	8,756.57	8,703.26	53.31	164.264	
5,900.00	5,865.65	5,995.00	5,866.26	26.43	31.07	-96.19	-2,373.35	-8,383.63	8,757.67	8,703.64	54.04	162.071	
6,000.00	5,964.97	6,099.54	5,970.75	26.88	31.45	-96.25	-2,370.35	-8,384.69	8,758.93	8,704.02	54.91	159.519	
6,100.00	6,064.29	6,208.24	6,079.40	27.33	31.85	-96.31	-2,367.40	-8,385.62	8,760.09	8,704.29	55.80	156.994	
6,200.00	6,163.62	6,316.90	6,188.03	27.78	32.25	-96.38	-2,364.62	-8,386.36	8,761.15	8,704.46	56.69	154.548	
6,300.00	6,262.94	6,423.44	6,294.50	28.23	32.66	-96.43	-2,361.03	-8,387.30	8,762.14	8,704.55	57.59	152.160	
6,400.00	6,362.24	6,530.70	6,401.66	28.67	33.07	-78.20	-2,356.55	-8,388.47	8,762.49	8,704.01	58.48	149.836	
6,500.00	6,460.41	6,606.16	6,578.85	29.12	33.77	-46.84	-2,347.00	-8,390.41	8,751.63	8,691.92	59.71	146.569	
6,600.00	6,555.09	6,600.00	6,671.16	29.57	33.34	-37.80	-2,340.09	-8,390.97	8,725.17	8,665.49	59.68	146.205	
6,700.00	6,643.94	6,933.74	6,803.82	30.00	34.70	-34.99	-2,330.41	-8,392.00	8,685.02	8,623.46	61.56	141.083	
6,800.00	6,724.78	6,994.85	6,864.73	30.45	34.96	-34.94	-2,325.52	-8,392.68	8,632.24	8,570.04	62.21	138.770	
6,900.00	6,795.62	7,048.85	6,918.54	30.97	35.19	-37.00	-2,321.11	-8,393.45	8,568.19	8,505.40	62.79	136.452	
7,000.00	6,854.70	7,094.41	6,963.94	31.60	35.38	-41.35	-2,317.32	-8,394.22	8,494.41	8,431.09	63.32	134.153	
7,100.00	6,900.58	7,129.00	6,998.40	32.39	35.52	-48.81	-2,314.40	-8,394.87	8,412.67	8,348.89	63.78	131.907	
7,200.00	6,932.13	7,155.10	7,024.40	33.34	35.63	-60.93	-2,312.23	-8,395.39	8,324.96	8,260.78	64.18	129.705	
7,300.00	6,948.57	7,168.69	7,037.94	34.46	35.68	-79.21	-2,311.14	-8,395.66	8,233.43	8,168.90	64.53	127.595	
7,400.00	6,950.87	7,171.81	7,041.06	35.70	35.70	-92.19	-2,310.89	-8,395.72	8,140.32	8,075.50	64.83	125.570	
7,500.00	6,950.58	7,173.00	7,042.24	37.12	35.70	-92.21	-2,310.79	-8,395.74	8,047.23	7,982.08	65.15	123.516	
7,600.00	6,950.28	7,174.19	7,043.43	38.70	35.71	-92.23	-2,310.70	-8,395.77	7,954.30	7,888.78	65.52	121.404	
7,700.00	6,949.98	7,175.38	7,044.62	40.41	35.71	-92.26	-2,310.60	-8,395.79	7,861.55	7,795.62	65.93	119.237	
7,800.00	6,949.68	7,176.57	7,045.80	42.25	35.72	-92.28	-2,310.51	-8,395.81	7,768.97	7,702.58	66.39	117.017	
7,900.00	6,949.38	7,177.76	7,046.99	44.20	35.72	-92.30	-2,310.42	-8,395.84	7,676.59	7,609.69	66.90	114.749	
8,000.00	6,949.08	7,178.95	7,048.17	46.24	35.73	-92.33	-2,310.32	-8,395.86	7,584.39	7,516.94	67.45	112.436	
8,100.00	6,948.79	7,180.13	7,049.35	48.36	35.73	-92.35	-2,310.23	-8,395.89	7,492.40	7,424.34	68.06	110.083	
8,200.00	6,948.49	7,181.32	7,050.54	50.56	35.74	-92.37	-2,310.14	-8,395.91	7,400.61	7,331.89	68.72	107.694	
8,300.00	6,948.19	7,182.51	7,051.72	52.82	35.74	-92.39	-2,310.05	-8,395.93	7,309.04	7,239.61	69.43	105.274	
8,400.00	6,947.89	7,183.69	7,052.90	55.14	35.75	-92.42	-2,309.95	-8,395.96	7,217.69	7,147.50	70.19	102.827	
8,500.00	6,947.59	7,184.88	7,054.08	57.50	35.75	-92.44	-2,309.86	-8,395.98	7,126.57	7,055.56	71.01	100.360	
8,600.00	6,947.29	7,186.06	7,055.26	59.91	35.76	-92.46	-2,309.77	-8,396.00	7,035.70	6,963.81	71.88	97.876	
8,700.00	6,947.00	7,187.25	7,056.44	62.36	35.76	-92.49	-2,309.68	-8,396.02	6,945.07	6,872.26	72.81	95.382	
8,800.00	6,946.70	7,188.43	7,057.62	64.84	35.76	-92.51	-2,309.59	-8,396.05	6,854.71	6,780.91	73.80	92.882	
8,900.00	6,946.40	7,189.61	7,058.80	67.35	35.77	-92.53	-2,309.49	-8,396.07	6,764.61	6,689.77	74.84	90.382	
9,000.00	6,946.10	7,190.80	7,059.98	69.88	35.77	-92.56	-2,309.40	-8,396.09	6,674.80	6,598.85	75.95	87.886	
9,100.00	6,945.80	7,191.98	7,061.16	72.44	35.78	-92.58	-2,309.31	-8,396.12	6,585.28	6,508.17	77.11	85.398	
9,200.00	6,945.50	7,193.16	7,062.34	75.02	35.78	-92.60	-2,309.22	-8,396.14	6,496.07	6,417.73	78.34	82.924	
9,300.00	6,945.21	7,194.34	7,063.51	77.63	35.79	-92.62	-2,309.13	-8,396.16	6,407.18	6,327.55	79.62	80.467	
9,400.00	6,944.91	7,195.52	7,064.69	80.24	35.79	-92.65	-2,309.04	-8,396.19	6,318.61	6,237.64	80.97	78.032	
9,500.00	6,944.61	7,196.70	7,065.87	82.88	35.80	-92.67	-2,308.95	-8,396.21	6,230.40	6,148.01	82.39	75.622	
9,600.00	6,944.31	7,197.88	7,067.04	85.53	35.80	-92.69	-2,308.86	-8,396.23	6,142.54	6,058.67	83.87	73.240	
9,700.00	6,944.01	7,199.06	7,068.22	88.19	35.81	-92.72	-2,308.77	-8,396.26	6,055.06	5,969.65	85.41	70.891	
9,800.00	6,943.71	7,200.24	7,069.39	90.86	35.81	-92.74	-2,308.68	-8,396.28	5,967.97	5,880.95	87.03	68.576	
9,900.00	6,943.42	7,201.42	7,070.57	93.55	35.82	-92.76	-2,308.59	-8,396.30	5,881.30	5,792.59	88.71	66.298	
10,000.00	6,943.12	7,202.60	7,071.74	96.24	35.82	-92.78	-2,308.50	-8,396.33	5,795.05	5,704.59	90.46	64.060	
10,100.00	6,942.82	7,203.77	7,072.92	98.95	35.83	-92.81	-2,308.41	-8,396.35	5,709.25	5,616.96	92.29	61.864	
10,200.00	6,942.52	7,204.95	7,074.09	101.66	35.83	-92.83	-2,308.33	-8,396.37	5,623.92	5,529.73	94.18	59.712	

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 4N-16A-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 4N-16A-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		
10,300.00	6,942.22	7,206.13	7,075.26	104.38	35.84	-92.85	-2,308.24	-8,396.40	5,539.08	5,442.92	96.16	57.604		
10,400.00	6,941.92	7,207.30	7,076.43	107.11	35.84	-92.88	-2,308.15	-8,396.42	5,454.75	5,356.55	98.21	55.544		
10,500.00	6,941.63	7,208.48	7,077.61	109.84	35.85	-92.90	-2,308.06	-8,396.44	5,370.96	5,270.63	100.33	53.531		
10,600.00	6,941.33	7,209.65	7,078.78	112.58	35.85	-92.92	-2,307.97	-8,396.46	5,287.74	5,185.20	102.54	51.567		
10,700.00	6,941.03	7,210.83	7,079.95	115.33	35.86	-92.94	-2,307.89	-8,396.49	5,205.10	5,100.27	104.83	49.652		
10,800.00	6,940.73	7,212.00	7,081.12	118.08	35.86	-92.97	-2,307.80	-8,396.51	5,123.08	5,015.88	107.20	47.788		
10,900.00	6,940.43	7,213.17	7,082.29	120.84	35.87	-92.99	-2,307.71	-8,396.53	5,041.72	4,932.05	109.66	45.975		
11,000.00	6,940.13	7,214.34	7,083.46	123.60	35.87	-93.01	-2,307.63	-8,396.56	4,961.03	4,848.82	112.21	44.212		
11,100.00	6,939.83	7,215.52	7,084.63	126.36	35.87	-93.03	-2,307.54	-8,396.58	4,881.06	4,766.21	114.85	42.501		
11,200.00	6,939.54	7,216.69	7,085.79	129.13	35.88	-93.06	-2,307.45	-8,396.60	4,801.83	4,684.26	117.57	40.841		
11,300.00	6,939.24	7,217.86	7,086.96	131.91	35.88	-93.08	-2,307.37	-8,396.62	4,723.40	4,603.00	120.39	39.233		
11,400.00	6,938.94	7,219.03	7,088.13	134.68	35.89	-93.10	-2,307.28	-8,396.65	4,645.79	4,522.48	123.31	37.676		
11,500.00	6,938.64	7,220.20	7,089.29	137.46	35.89	-93.13	-2,307.19	-8,396.67	4,569.06	4,442.73	126.32	36.170		
11,600.00	6,938.34	7,221.37	7,090.46	140.25	35.90	-93.15	-2,307.11	-8,396.69	4,493.23	4,363.80	129.43	34.714		
11,700.00	6,938.04	7,222.54	7,091.63	143.03	35.90	-93.17	-2,307.02	-8,396.72	4,418.37	4,285.73	132.65	33.309		
11,800.00	6,937.75	7,223.71	7,092.79	145.82	35.91	-93.19	-2,306.94	-8,396.74	4,344.53	4,208.57	135.96	31.954		
11,900.00	6,937.45	7,224.87	7,093.96	148.61	35.91	-93.22	-2,306.85	-8,396.76	4,271.74	4,132.37	139.38	30.649		
12,000.00	6,937.15	7,226.04	7,095.12	151.41	35.92	-93.24	-2,306.77	-8,396.78	4,200.08	4,057.18	142.90	29.393		
12,100.00	6,936.85	7,227.21	7,096.28	154.20	35.92	-93.26	-2,306.68	-8,396.81	4,129.59	3,983.07	146.52	28.185		
12,200.00	6,936.55	7,228.38	7,097.45	157.00	35.93	-93.28	-2,306.60	-8,396.83	4,060.34	3,910.09	150.25	27.024		
12,300.00	6,936.25	7,229.54	7,098.61	159.80	35.93	-93.31	-2,306.52	-8,396.85	3,992.40	3,838.32	154.08	25.911		
12,400.00	6,935.96	7,230.71	7,099.77	162.61	35.94	-93.33	-2,306.43	-8,396.88	3,925.82	3,767.81	158.01	24.845		
12,500.00	6,935.66	7,231.87	7,100.93	165.41	35.94	-93.35	-2,306.35	-8,396.90	3,860.69	3,698.64	162.05	23.824		
12,600.00	6,935.36	7,233.04	7,102.10	168.22	35.95	-93.37	-2,306.27	-8,396.92	3,797.07	3,630.89	166.18	22.849		
12,700.00	6,935.06	7,234.20	7,103.26	171.02	35.95	-93.40	-2,306.18	-8,396.94	3,735.05	3,564.64	170.41	21.918		
12,800.00	6,934.76	7,235.36	7,104.42	173.83	35.96	-93.42	-2,306.10	-8,396.97	3,674.70	3,499.97	174.73	21.031		
12,900.00	6,934.46	7,236.53	7,105.58	176.65	35.96	-93.44	-2,306.02	-8,396.99	3,616.11	3,436.97	179.14	20.186		
13,000.00	6,934.17	7,237.69	7,106.74	179.46	35.97	-93.46	-2,305.93	-8,397.01	3,559.37	3,375.74	183.63	19.384		
13,100.00	6,933.87	7,238.85	7,107.89	182.27	35.97	-93.49	-2,305.85	-8,397.03	3,504.56	3,316.37	188.19	18.622		
13,200.00	6,933.57	7,240.01	7,109.05	185.09	35.97	-93.51	-2,305.77	-8,397.06	3,451.78	3,258.96	192.82	17.902		
13,300.00	6,933.27	7,241.17	7,110.21	187.91	35.98	-93.53	-2,305.69	-8,397.08	3,401.11	3,203.62	197.50	17.221		
13,400.00	6,932.97	7,242.33	7,111.37	190.72	35.98	-93.55	-2,305.61	-8,397.10	3,352.67	3,150.45	202.22	16.579		
13,500.00	6,932.67	7,243.49	7,112.52	193.54	35.99	-93.58	-2,305.52	-8,397.12	3,306.54	3,099.57	206.97	15.976		
13,600.00	6,932.38	7,244.65	7,113.68	196.36	35.99	-93.60	-2,305.44	-8,397.15	3,262.82	3,051.08	211.74	15.410		
13,700.00	6,932.08	7,245.81	7,114.84	199.19	36.00	-93.62	-2,305.36	-8,397.17	3,221.62	3,005.11	216.51	14.880		
13,800.00	6,931.78	7,246.97	7,115.99	202.01	36.00	-93.64	-2,305.28	-8,397.19	3,183.02	2,961.76	221.26	14.386		
13,900.00	6,931.48	7,248.13	7,117.15	204.83	36.01	-93.67	-2,305.20	-8,397.21	3,147.13	2,921.16	225.97	13.927		
14,000.00	6,931.18	7,249.29	7,118.30	207.66	36.01	-93.69	-2,305.12	-8,397.24	3,114.03	2,883.40	230.63	13.502		
14,100.00	6,930.88	7,250.44	7,119.46	210.48	36.02	-93.71	-2,305.04	-8,397.26	3,083.83	2,848.62	235.21	13.111		
14,200.00	6,930.59	7,251.60	7,120.61	213.31	36.02	-93.73	-2,304.96	-8,397.28	3,056.60	2,816.90	239.69	12.752		
14,300.00	6,930.29	7,252.76	7,121.76	216.14	36.03	-93.76	-2,304.88	-8,397.30	3,032.42	2,788.36	244.06	12.425		
14,400.00	6,929.99	7,253.91	7,122.91	218.96	36.03	-93.78	-2,304.80	-8,397.33	3,011.37	2,763.09	248.28	12.129		
14,500.00	6,929.69	7,255.07	7,124.07	221.79	36.04	-93.80	-2,304.72	-8,397.35	2,993.51	2,741.18	252.33	11.863		
14,600.00	6,929.39	7,256.22	7,125.22	224.62	36.04	-93.82	-2,304.64	-8,397.37	2,978.91	2,722.70	256.20	11.627		
14,700.00	6,929.09	7,257.37	7,126.37	227.45	36.05	-93.85	-2,304.56	-8,397.39	2,967.60	2,707.73	259.87	11.419		
14,732.12	6,929.00	7,257.74	7,126.74	228.36	36.05	-93.85	-2,304.54	-8,397.40	2,964.68	2,703.67	261.00	11.359 CC, ES, SF		



Anticollision Report



Company:	SRC ENERGY	Local Co-ordinate Reference:	Well HARVESTERS STATE 4N-16A-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 4N-16A-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	-83.15	1,097.89	-9,145.29	9,211.01					
100.00	100.00	70.00	100.00	3.28	3.50	-83.15	1,097.89	-9,145.29	9,210.96	9,204.18	6.78	1,357.566		
200.00	200.00	170.00	200.00	3.34	5.32	-83.15	1,097.89	-9,145.29	9,210.96	9,202.30	8.66	1,063.924		
300.00	300.00	270.00	300.00	3.44	8.35	-83.15	1,097.89	-9,145.29	9,210.96	9,199.16	11.80	780.842		
400.00	400.00	370.00	400.00	3.60	11.64	-83.15	1,097.89	-9,145.29	9,210.96	9,195.71	15.25	604.151		
500.00	500.00	470.00	500.00	3.81	15.02	-83.15	1,097.89	-9,145.29	9,210.96	9,192.13	18.83	489.148		
600.00	600.00	570.00	600.00	4.05	18.45	-83.15	1,097.89	-9,145.29	9,210.96	9,188.47	22.49	409.495		
700.00	699.98	669.98	699.98	4.32	21.89	-69.71	1,097.89	-9,145.29	9,210.35	9,184.15	26.21	351.435		
800.00	799.84	769.84	799.84	4.62	25.34	-69.77	1,097.89	-9,145.29	9,208.54	9,178.58	29.96	307.404		
900.00	899.45	869.45	899.45	4.94	28.79	-69.88	1,097.89	-9,145.29	9,205.52	9,171.80	33.72	272.960		
1,000.00	998.80	968.80	998.80	5.28	32.24	-69.97	1,097.89	-9,145.29	9,201.58	9,164.07	37.51	245.321		
1,100.00	1,098.12	1,068.12	1,098.12	5.63	35.69	-70.04	1,097.89	-9,145.29	9,197.59	9,156.28	41.31	222.644		
1,200.00	1,197.44	1,167.44	1,197.44	6.00	39.15	-70.10	1,097.89	-9,145.29	9,193.60	9,148.47	45.13	203.715		
1,300.00	1,296.77	1,266.77	1,296.77	6.37	42.60	-70.17	1,097.89	-9,145.29	9,189.63	9,140.67	48.96	187.690		
1,400.00	1,396.09	1,366.09	1,396.09	6.76	46.06	-70.24	1,097.89	-9,145.29	9,185.68	9,132.87	52.80	173.955		
1,500.00	1,495.41	1,465.41	1,495.41	7.15	49.52	-70.31	1,097.89	-9,145.29	9,181.73	9,125.08	56.66	162.058		
1,600.00	1,594.74	1,564.74	1,594.74	7.55	52.98	-70.37	1,097.89	-9,145.29	9,177.80	9,117.29	60.52	151.657		
1,700.00	1,694.06	1,664.06	1,694.06	7.96	56.44	-70.44	1,097.89	-9,145.29	9,173.89	9,109.50	64.38	142.489		
1,800.00	1,793.38	1,763.38	1,793.38	8.37	59.90	-70.51	1,097.89	-9,145.29	9,169.98	9,101.73	68.25	134.349		
1,900.00	1,892.71	1,862.71	1,892.71	8.78	63.37	-70.58	1,097.89	-9,145.29	9,166.09	9,093.96	72.13	127.075		
2,000.00	1,992.03	1,962.03	1,992.03	9.20	66.83	-70.65	1,097.89	-9,145.29	9,162.21	9,086.20	76.01	120.537		
2,100.00	2,091.36	2,061.36	2,091.36	9.62	70.29	-70.71	1,097.89	-9,145.29	9,158.35	9,078.45	79.90	114.629		
2,200.00	2,190.68	2,160.68	2,190.68	10.05	73.76	-70.78	1,097.89	-9,145.29	9,154.50	9,070.71	83.78	109.265		
2,300.00	2,290.00	2,260.00	2,290.00	10.48	77.22	-70.85	1,097.89	-9,145.29	9,150.66	9,062.98	87.67	104.373		
2,400.00	2,389.33	2,359.33	2,389.33	10.90	80.69	-70.92	1,097.89	-9,145.29	9,146.83	9,055.27	91.56	99.895		
2,500.00	2,488.65	2,458.65	2,488.65	11.34	84.15	-70.99	1,097.89	-9,145.29	9,143.02	9,047.56	95.46	95.780		
2,600.00	2,587.97	2,557.97	2,587.97	11.77	87.61	-71.06	1,097.89	-9,145.29	9,139.22	9,039.86	99.35	91.986		
2,700.00	2,687.30	2,657.30	2,687.30	12.20	91.08	-71.12	1,097.89	-9,145.29	9,135.43	9,032.18	103.25	88.477		
2,800.00	2,786.62	2,756.62	2,786.62	12.64	94.55	-71.19	1,097.89	-9,145.29	9,131.66	9,024.51	107.15	85.222		
2,900.00	2,885.94	2,855.94	2,885.94	13.07	98.01	-71.26	1,097.89	-9,145.29	9,127.90	9,016.85	111.05	82.195		
3,000.00	2,985.27	2,955.27	2,985.27	13.51	101.48	-71.33	1,097.89	-9,145.29	9,124.15	9,009.20	114.95	79.372		
3,100.00	3,084.59	3,054.59	3,084.59	13.95	104.94	-71.40	1,097.89	-9,145.29	9,120.42	9,001.56	118.86	76.734		
3,200.00	3,183.91	3,153.91	3,183.91	14.39	108.41	-71.47	1,097.89	-9,145.29	9,116.70	8,993.94	122.76	74.264		
3,300.00	3,283.24	3,253.24	3,283.24	14.83	111.87	-71.54	1,097.89	-9,145.29	9,112.99	8,986.32	126.67	71.945		
3,400.00	3,382.56	3,352.56	3,382.56	15.27	115.34	-71.60	1,097.89	-9,145.29	9,109.30	8,978.73	130.57	69.765		
3,500.00	3,481.88	3,451.88	3,481.88	15.71	118.81	-71.67	1,097.89	-9,145.29	9,105.62	8,971.14	134.48	67.711		
3,600.00	3,581.21	3,551.21	3,581.21	16.16	122.27	-71.74	1,097.89	-9,145.29	9,101.95	8,963.56	138.39	65.773		
3,700.00	3,680.53	3,650.53	3,680.53	16.60	125.74	-71.81	1,097.89	-9,145.29	9,098.30	8,956.00	142.29	63.941		
3,800.00	3,779.85	3,749.85	3,779.85	17.04	129.20	-71.88	1,097.89	-9,145.29	9,094.66	8,948.45	146.20	62.206		
3,900.00	3,879.18	3,849.18	3,879.18	17.49	132.67	-71.95	1,097.89	-9,145.29	9,091.03	8,940.92	150.11	60.562		
4,000.00	3,978.50	3,948.50	3,978.50	17.93	136.14	-72.02	1,097.89	-9,145.29	9,087.41	8,933.40	154.02	59.002		
4,100.00	4,077.82	4,047.82	4,077.82	18.37	139.60	-72.09	1,097.89	-9,145.29	9,083.81	8,925.89	157.93	57.518		
4,200.00	4,177.15	4,147.15	4,177.15	18.82	143.07	-72.16	1,097.89	-9,145.29	9,080.23	8,918.39	161.84	56.106		
4,300.00	4,276.47	4,246.47	4,276.47	19.27	146.54	-72.23	1,097.89	-9,145.29	9,076.65	8,910.90	165.75	54.761		
4,400.00	4,375.79	4,345.79	4,375.79	19.71	150.00	-72.30	1,097.89	-9,145.29	9,073.09	8,903.43	169.66	53.477		
4,500.00	4,475.12	4,445.12	4,475.12	20.16	153.47	-72.37	1,097.89	-9,145.29	9,069.55	8,895.97	173.57	52.252		
4,600.00	4,574.44	4,544.44	4,574.44	20.60	156.94	-72.44	1,097.89	-9,145.29	9,066.02	8,888.53	177.49	51.080		
4,700.00	4,673.76	4,643.76	4,673.76	21.05	160.40	-72.50	1,097.89	-9,145.29	9,062.50	8,881.10	181.40	49.959		
4,800.00	4,773.09	4,743.09	4,773.09	21.50	163.87	-72.57	1,097.89	-9,145.29	9,058.99	8,873.68	185.31	48.886		
4,900.00	4,872.41	4,842.41	4,872.41	21.94	167.34	-72.64	1,097.89	-9,145.29	9,055.50	8,866.27	189.22	47.856		
5,000.00	4,971.74	4,941.74	4,971.74	22.39	170.80	-72.71	1,097.89	-9,145.29	9,052.02	8,858.88	193.14	46.869		
5,100.00	5,071.06	5,041.06	5,071.06	22.84	174.27	-72.78	1,097.89	-9,145.29	9,048.55	8,851.50	197.05	45.920		

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 4N-16A-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 4N-16A-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	5,170.38	5,140.38	5,170.38	23.29	177.74	-72.85	1,097.89	-9,145.29	9,045.10	8,844.14	200.96	45.009		
5,300.00	5,269.71	5,239.71	5,269.71	23.74	181.20	-72.92	1,097.89	-9,145.29	9,041.66	8,836.79	204.88	44.132		
5,400.00	5,369.03	5,339.03	5,369.03	24.18	184.67	-72.99	1,097.89	-9,145.29	9,038.24	8,829.45	208.79	43.289		
5,500.00	5,468.35	5,438.35	5,468.35	24.63	188.14	-73.06	1,097.89	-9,145.29	9,034.83	8,822.12	212.70	42.476		
5,600.00	5,567.68	5,537.68	5,567.68	25.08	191.60	-73.13	1,097.89	-9,145.29	9,031.43	8,814.81	216.62	41.693		
5,700.00	5,667.00	5,637.00	5,667.00	25.53	195.07	-73.20	1,097.89	-9,145.29	9,028.05	8,807.51	220.53	40.937		
5,800.00	5,766.32	5,736.32	5,766.32	25.98	198.54	-73.27	1,097.89	-9,145.29	9,024.68	8,800.23	224.45	40.208		
5,900.00	5,865.65	5,835.65	5,865.65	26.43	202.00	-73.34	1,097.89	-9,145.29	9,021.32	8,792.96	228.36	39.504		
6,000.00	5,964.97	5,934.97	5,964.97	26.88	205.47	-73.41	1,097.89	-9,145.29	9,017.98	8,785.70	232.28	38.824		
6,100.00	6,064.29	6,034.29	6,064.29	27.33	208.94	-73.48	1,097.89	-9,145.29	9,014.65	8,778.46	236.19	38.166		
6,200.00	6,163.62	6,133.62	6,163.62	27.78	212.40	-73.55	1,097.89	-9,145.29	9,011.34	8,771.23	240.11	37.530		
6,300.00	6,262.94	6,232.94	6,262.94	28.23	215.87	-73.63	1,097.89	-9,145.29	9,008.03	8,764.01	244.02	36.914		
6,400.00	6,362.24	6,332.24	6,362.24	28.67	219.34	-55.39	1,097.89	-9,145.29	9,004.16	8,756.22	247.94	36.316		
6,500.00	6,460.41	6,430.41	6,460.41	29.12	222.76	-23.56	1,097.89	-9,145.29	8,988.83	8,737.02	251.81	35.697		
6,600.00	6,559.09	6,529.09	6,559.09	29.57	226.07	-13.48	1,097.89	-9,145.29	8,958.28	8,702.74	255.54	35.056		
6,700.00	6,643.94	6,613.94	6,643.94	30.00	229.17	-8.79	1,097.89	-9,145.29	8,913.26	8,654.23	259.03	34.410		
6,800.00	6,724.78	6,705.22	6,724.78	30.45	232.36	-5.98	1,097.89	-9,145.29	8,854.88	8,592.32	262.56	33.725		
6,900.00	6,795.62	6,765.62	6,795.62	30.97	234.47	-3.86	1,097.89	-9,145.29	8,784.57	8,519.60	264.96	33.154		
7,000.00	6,854.70	6,824.70	6,854.70	31.60	236.53	-1.82	1,097.89	-9,145.29	8,704.05	8,436.80	267.25	32.569		
7,100.00	6,900.58	6,870.58	6,900.58	32.39	238.13	0.85	1,097.89	-9,145.29	8,615.31	8,346.30	269.02	32.025		
7,200.00	6,932.13	6,902.13	6,932.13	33.34	239.23	6.10	1,097.89	-9,145.29	8,520.54	8,250.32	270.22	31.532		
7,300.00	6,948.57	6,918.57	6,948.57	34.46	239.80	27.05	1,097.89	-9,145.29	8,422.07	8,151.23	270.83	31.097		
7,400.00	6,950.87	6,920.87	6,950.87	35.70	239.89	93.08	1,097.89	-9,145.29	8,322.27	8,051.36	270.92	30.719		
7,500.00	6,950.58	6,920.58	6,950.58	37.12	239.87	93.04	1,097.89	-9,145.29	8,222.43	7,951.52	270.90	30.352		
7,600.00	6,950.28	6,920.28	6,950.28	38.70	239.86	93.01	1,097.89	-9,145.29	8,122.59	7,851.69	270.89	29.984		
7,700.00	6,949.98	6,919.98	6,949.98	40.41	239.85	92.97	1,097.89	-9,145.29	8,022.75	7,751.87	270.89	29.617		
7,800.00	6,949.68	6,919.68	6,949.68	42.25	239.84	92.93	1,097.89	-9,145.29	7,922.92	7,652.04	270.88	29.249		
7,900.00	6,949.38	6,919.38	6,949.38	44.20	239.83	92.90	1,097.89	-9,145.29	7,823.09	7,552.22	270.87	28.881		
8,000.00	6,949.08	6,919.08	6,949.08	46.24	239.82	92.86	1,097.89	-9,145.29	7,723.27	7,452.40	270.87	28.513		
8,100.00	6,948.79	6,918.79	6,948.79	48.36	239.81	92.82	1,097.89	-9,145.29	7,623.45	7,352.58	270.87	28.144		
8,200.00	6,948.49	6,918.49	6,948.49	50.56	239.80	92.78	1,097.89	-9,145.29	7,523.63	7,252.76	270.87	27.776		
8,300.00	6,948.19	6,918.19	6,948.19	52.82	239.79	92.75	1,097.89	-9,145.29	7,423.83	7,152.95	270.88	27.407		
8,400.00	6,947.89	6,917.89	6,947.89	55.14	239.78	92.71	1,097.89	-9,145.29	7,324.02	7,053.14	270.88	27.038		
8,500.00	6,947.59	6,917.59	6,947.59	57.50	239.77	92.67	1,097.89	-9,145.29	7,224.22	6,953.33	270.89	26.668		
8,600.00	6,947.29	6,917.29	6,947.29	59.91	239.76	92.64	1,097.89	-9,145.29	7,124.43	6,853.53	270.90	26.299		
8,700.00	6,947.00	6,917.00	6,947.00	62.36	239.75	92.60	1,097.89	-9,145.29	7,024.64	6,753.72	270.92	25.929		
8,800.00	6,946.70	6,916.70	6,946.70	64.84	239.74	92.56	1,097.89	-9,145.29	6,924.86	6,653.92	270.94	25.559		
8,900.00	6,946.40	6,916.40	6,946.40	67.35	239.73	92.52	1,097.89	-9,145.29	6,825.09	6,554.13	270.96	25.189		
9,000.00	6,946.10	6,916.10	6,946.10	69.88	239.72	92.49	1,097.89	-9,145.29	6,725.32	6,454.34	270.98	24.818		
9,100.00	6,945.80	6,915.80	6,945.80	72.44	239.71	92.45	1,097.89	-9,145.29	6,625.56	6,354.55	271.01	24.448		
9,200.00	6,945.50	6,915.50	6,945.50	75.02	239.70	92.41	1,097.89	-9,145.29	6,525.80	6,254.76	271.04	24.077		
9,300.00	6,945.21	6,915.21	6,945.21	77.63	239.69	92.38	1,097.89	-9,145.29	6,426.06	6,154.98	271.08	23.706		
9,400.00	6,944.91	6,914.91	6,944.91	80.24	239.68	92.34	1,097.89	-9,145.29	6,326.32	6,055.20	271.12	23.334		
9,500.00	6,944.61	6,914.61	6,944.61	82.88	239.67	92.30	1,097.89	-9,145.29	6,226.59	5,955.43	271.16	22.963		
9,600.00	6,944.31	6,914.31	6,944.31	85.53	239.66	92.27	1,097.89	-9,145.29	6,126.87	5,855.66	271.21	22.591		
9,700.00	6,944.01	6,914.01	6,944.01	88.19	239.65	92.23	1,097.89	-9,145.29	6,027.16	5,755.89	271.26	22.219		
9,800.00	6,943.71	6,913.71	6,943.71	90.86	239.64	92.19	1,097.89	-9,145.29	5,927.45	5,656.13	271.32	21.847		
9,900.00	6,943.42	6,913.42	6,943.42	93.55	239.62	92.15	1,097.89	-9,145.29	5,827.76	5,556.38	271.39	21.474		
10,000.00	6,943.12	6,913.12	6,943.12	96.24	239.61	92.12	1,097.89	-9,145.29	5,728.08	5,456.62	271.46	21.101		
10,100.00	6,942.82	6,912.82	6,942.82	98.95	239.60	92.08	1,097.89	-9,145.29	5,628.41	5,356.88	271.54	20.728		
10,200.00	6,942.52	6,912.52	6,942.52	101.66	239.59	92.04	1,097.89	-9,145.29	5,528.75	5,257.13	271.62	20.355		
10,300.00	6,942.22	6,912.22	6,942.22	104.38	239.58	92.01	1,097.89	-9,145.29	5,429.11	5,157.40	271.71	19.981		

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 4N-16A-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 4N-16A-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	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)			
10,400.00	6,941.92	6,911.92	6,941.92	107.11	239.57	91.97	1,097.89	-9,145.29	5,329.48	5,057.67	271.81	19.607		
10,500.00	6,941.63	6,911.63	6,941.63	109.84	239.56	91.93	1,097.89	-9,145.29	5,229.86	4,957.94	271.92	19.233		
10,600.00	6,941.33	6,911.33	6,941.33	112.58	239.55	91.90	1,097.89	-9,145.29	5,130.26	4,858.22	272.04	18.859		
10,700.00	6,941.03	6,911.03	6,941.03	115.33	239.54	91.86	1,097.89	-9,145.29	5,030.67	4,758.50	272.17	18.484		
10,800.00	6,940.73	6,910.73	6,940.73	118.08	239.53	91.82	1,097.89	-9,145.29	4,931.10	4,658.79	272.31	18.109		
10,900.00	6,940.43	6,910.43	6,940.43	120.84	239.52	91.78	1,097.89	-9,145.29	4,831.54	4,559.09	272.46	17.733		
11,000.00	6,940.13	6,910.13	6,940.13	123.60	239.51	91.75	1,097.89	-9,145.29	4,732.01	4,459.39	272.62	17.357		
11,100.00	6,939.83	6,909.83	6,939.83	126.36	239.50	91.71	1,097.89	-9,145.29	4,632.50	4,359.70	272.80	16.981		
11,200.00	6,939.54	6,909.54	6,939.54	129.13	239.49	91.67	1,097.89	-9,145.29	4,533.00	4,260.01	272.99	16.605		
11,300.00	6,939.24	6,909.24	6,939.24	131.91	239.48	91.64	1,097.89	-9,145.29	4,433.53	4,160.33	273.20	16.228		
11,400.00	6,938.94	6,908.94	6,938.94	134.68	239.47	91.60	1,097.89	-9,145.29	4,334.09	4,060.66	273.43	15.851		
11,500.00	6,938.64	6,908.64	6,938.64	137.46	239.46	91.56	1,097.89	-9,145.29	4,234.67	3,960.99	273.68	15.473		
11,600.00	6,938.34	6,908.34	6,938.34	140.25	239.45	91.52	1,097.89	-9,145.29	4,135.28	3,861.33	273.94	15.095		
11,700.00	6,938.04	6,908.04	6,938.04	143.03	239.44	91.49	1,097.89	-9,145.29	4,035.92	3,761.68	274.24	14.717		
11,800.00	6,937.75	6,907.75	6,937.75	145.82	239.43	91.45	1,097.89	-9,145.29	3,936.59	3,662.03	274.56	14.338		
11,900.00	6,937.45	6,907.45	6,937.45	148.61	239.42	91.41	1,097.89	-9,145.29	3,837.29	3,562.39	274.90	13.959		
12,000.00	6,937.15	6,907.15	6,937.15	151.41	239.41	91.38	1,097.89	-9,145.29	3,738.04	3,462.75	275.28	13.579		
12,100.00	6,936.85	6,906.85	6,936.85	154.20	239.40	91.34	1,097.89	-9,145.29	3,638.82	3,363.13	275.69	13.199		
12,200.00	6,936.55	6,906.55	6,936.55	157.00	239.39	91.30	1,097.89	-9,145.29	3,539.65	3,263.50	276.15	12.818		
12,300.00	6,936.25	6,906.25	6,936.25	159.80	239.37	91.26	1,097.89	-9,145.29	3,440.52	3,163.88	276.64	12.437		
12,400.00	6,935.96	6,905.96	6,935.96	162.61	239.36	91.23	1,097.89	-9,145.29	3,341.45	3,064.27	277.18	12.055		
12,500.00	6,935.66	6,905.66	6,935.66	165.41	239.35	91.19	1,097.89	-9,145.29	3,242.44	2,964.67	277.77	11.673		
12,600.00	6,935.36	6,905.36	6,935.36	168.22	239.34	91.15	1,097.89	-9,145.29	3,143.48	2,865.06	278.42	11.290		
12,700.00	6,935.06	6,905.06	6,935.06	171.02	239.33	91.12	1,097.89	-9,145.29	3,044.60	2,765.47	279.13	10.907		
12,800.00	6,934.76	6,904.76	6,934.76	173.83	239.32	91.08	1,097.89	-9,145.29	2,945.79	2,665.87	279.92	10.524		
12,900.00	6,934.46	6,904.46	6,934.46	176.65	239.31	91.04	1,097.89	-9,145.29	2,847.06	2,566.28	280.79	10.140		
13,000.00	6,934.17	6,904.17	6,934.17	179.46	239.30	91.01	1,097.89	-9,145.29	2,748.43	2,466.69	281.74	9.755		
13,100.00	6,933.87	6,903.87	6,933.87	182.27	239.29	90.97	1,097.89	-9,145.29	2,649.90	2,367.10	282.80	9.370		
13,200.00	6,933.57	6,903.57	6,933.57	185.09	239.28	90.93	1,097.89	-9,145.29	2,551.48	2,267.51	283.97	8.985		
13,300.00	6,933.27	6,903.27	6,933.27	187.91	239.27	90.89	1,097.89	-9,145.29	2,453.19	2,167.93	285.27	8.600		
13,400.00	6,932.97	6,902.97	6,932.97	190.72	239.26	90.86	1,097.89	-9,145.29	2,355.05	2,068.34	286.71	8.214		
13,500.00	6,932.67	6,902.67	6,932.67	193.54	239.25	90.82	1,097.89	-9,145.29	2,257.07	1,968.74	288.32	7.828		
13,600.00	6,932.38	6,902.38	6,932.38	196.36	239.24	90.78	1,097.89	-9,145.29	2,159.27	1,869.15	290.12	7.443		
13,700.00	6,932.08	6,902.08	6,932.08	199.19	239.23	90.75	1,097.89	-9,145.29	2,061.68	1,769.54	292.14	7.057		
13,800.00	6,931.78	6,901.78	6,931.78	202.01	239.22	90.71	1,097.89	-9,145.29	1,964.34	1,669.94	294.40	6.672		
13,900.00	6,931.48	6,901.48	6,931.48	204.83	239.21	90.67	1,097.89	-9,145.29	1,867.28	1,570.32	296.96	6.288		
14,000.00	6,931.18	6,901.18	6,931.18	207.66	239.20	90.63	1,097.89	-9,145.29	1,770.54	1,470.70	299.84	5.905		
14,100.00	6,930.88	6,900.88	6,930.88	210.48	239.19	90.60	1,097.89	-9,145.29	1,674.19	1,371.08	303.11	5.523		
14,200.00	6,930.59	6,900.59	6,930.59	213.31	239.18	90.56	1,097.89	-9,145.29	1,578.29	1,271.45	306.84	5.144		
14,300.00	6,930.29	6,900.29	6,930.29	216.14	239.17	90.52	1,097.89	-9,145.29	1,482.94	1,171.83	311.11	4.767		
14,400.00	6,929.99	6,900.01	6,929.99	218.96	239.16	90.49	1,097.89	-9,145.29	1,388.23	1,072.22	316.01	4.393		
14,500.00	6,929.69	6,900.31	6,929.69	221.79	239.17	90.45	1,097.89	-9,145.29	1,294.33	972.63	321.70	4.023		
14,600.00	6,929.39	6,900.61	6,929.39	224.62	239.18	90.41	1,097.89	-9,145.29	1,201.41	873.10	328.30	3.659		
14,700.00	6,929.09	6,900.91	6,929.09	227.45	239.19	90.37	1,097.89	-9,145.29	1,109.72	773.70	336.02	3.303		
14,732.12	6,929.00	6,901.00	6,929.00	228.36	239.19	90.36	1,097.89	-9,145.29	1,080.58	741.81	338.77	3.190	CC, ES, SF	



Anticollision Report



Company:	SRC ENERGY	Local Co-ordinate Reference:	Well HARVESTERS STATE 4N-16A-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 4N-16A-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	14.14	1.14	3.28	3.28	3.12	2,144.30	116.80	2,147.47					
100.00	100.00	123.61	110.61	3.28	3.30	3.11	2,144.03	116.43	2,147.21	2,140.63	6.58	326.320		
200.00	200.00	231.96	218.96	3.34	3.37	3.11	2,143.23	116.29	2,146.47	2,139.76	6.71	319.929		
300.00	300.00	329.64	316.63	3.44	3.49	3.11	2,142.38	116.27	2,145.59	2,138.66	6.94	309.268		
400.00	400.00	420.93	407.92	3.60	3.65	3.09	2,141.87	115.73	2,145.01	2,137.76	7.25	295.920		
479.21	479.21	492.22	479.21	3.76	3.79	3.08	2,141.78	115.11	2,144.87	2,137.32	7.55	284.128		
500.00	500.00	511.23	498.22	3.81	3.83	3.07	2,141.79	114.94	2,144.88	2,137.24	7.64	280.899		
600.00	600.00	603.67	590.65	4.05	4.05	3.05	2,142.08	114.05	2,145.14	2,137.04	8.09	265.022		
700.00	699.98	694.57	681.55	4.32	4.29	16.52	2,142.70	113.62	2,144.11	2,135.51	8.60	249.193		
800.00	799.84	813.90	800.87	4.62	4.63	16.60	2,143.22	113.67	2,139.54	2,130.29	9.25	231.375		
900.00	899.45	896.93	883.90	4.94	4.89	16.70	2,143.59	113.84	2,131.63	2,121.80	9.83	216.950		
1,000.00	998.80	1,015.72	1,002.69	5.28	5.27	16.84	2,143.93	114.17	2,120.99	2,110.43	10.55	200.992		
1,100.00	1,098.12	1,110.80	1,097.77	5.63	5.60	16.94	2,143.88	114.63	2,109.85	2,098.62	11.23	187.922		
1,200.00	1,197.44	1,205.52	1,192.49	6.00	5.93	17.05	2,143.98	115.39	2,098.88	2,086.96	11.92	176.017		
1,300.00	1,296.77	1,315.16	1,302.12	6.37	6.32	17.17	2,143.86	116.05	2,087.70	2,075.01	12.69	164.462		
1,400.00	1,396.09	1,409.27	1,396.23	6.76	6.67	17.26	2,143.76	116.14	2,076.51	2,063.08	13.43	154.671		
1,500.00	1,495.41	1,519.36	1,506.33	7.15	7.09	17.37	2,143.44	116.37	2,065.13	2,050.90	14.23	145.141		
1,600.00	1,594.74	1,623.92	1,610.88	7.55	7.48	17.48	2,142.71	116.52	2,053.36	2,038.33	15.02	136.673		
1,700.00	1,694.06	1,724.01	1,710.97	7.96	7.87	17.57	2,141.95	116.14	2,041.50	2,025.69	15.81	129.100		
1,800.00	1,793.38	1,824.05	1,811.00	8.37	8.26	17.65	2,141.07	115.35	2,029.50	2,012.89	16.61	122.176		
1,900.00	1,892.71	1,915.72	1,902.66	8.78	8.62	17.72	2,140.57	114.56	2,017.83	2,000.44	17.39	116.059		
2,000.00	1,992.03	2,022.40	2,009.34	9.20	9.05	17.81	2,139.80	113.76	2,005.98	1,987.76	18.22	110.081		
2,100.00	2,091.36	2,112.52	2,099.45	9.62	9.41	17.87	2,139.32	112.71	1,994.30	1,975.30	19.00	104.940		
2,200.00	2,190.68	2,205.97	2,192.90	10.05	9.78	17.94	2,139.16	111.62	1,982.98	1,963.18	19.80	100.138		
2,300.00	2,290.00	2,288.96	2,275.89	10.48	10.12	18.00	2,139.48	110.92	1,972.25	1,951.68	20.57	95.900		
2,400.00	2,389.33	2,379.05	2,365.96	10.90	10.48	18.07	2,140.43	110.04	1,962.17	1,940.81	21.36	91.868		
2,500.00	2,488.65	2,467.14	2,454.03	11.34	10.84	18.12	2,141.82	108.74	1,952.58	1,930.43	22.15	88.162		
2,600.00	2,587.97	2,556.10	2,542.96	11.77	11.21	18.17	2,143.77	107.41	1,943.59	1,920.65	22.94	84.715		
2,700.00	2,687.30	2,661.12	2,647.94	12.20	11.64	18.23	2,146.39	105.75	1,934.90	1,911.10	23.80	81.288		
2,800.00	2,786.62	2,762.85	2,749.64	12.64	12.06	18.29	2,148.39	104.16	1,925.69	1,901.04	24.65	78.112		
2,900.00	2,885.94	2,866.96	2,853.70	13.07	12.49	18.34	2,150.55	102.11	1,916.56	1,891.05	25.51	75.116		
3,000.00	2,985.27	2,971.99	2,958.68	13.51	12.93	18.37	2,152.33	99.69	1,907.02	1,880.64	26.38	72.284		
3,100.00	3,084.59	3,064.41	3,051.08	13.95	13.31	18.42	2,153.88	97.82	1,897.49	1,870.29	27.20	69.751		
3,200.00	3,183.91	3,165.06	3,151.69	14.39	13.73	18.47	2,155.92	95.95	1,888.32	1,860.27	28.06	67.301		
3,300.00	3,283.24	3,256.51	3,243.11	14.83	14.11	18.52	2,157.66	94.49	1,879.07	1,850.19	28.88	65.068		
3,400.00	3,382.56	3,340.74	3,327.29	15.27	14.46	18.57	2,159.94	93.19	1,870.60	1,840.93	29.67	63.042		
3,500.00	3,481.88	3,438.81	3,425.31	15.71	14.87	18.64	2,163.23	92.12	1,862.81	1,832.29	30.52	61.035		
3,600.00	3,581.21	3,547.22	3,533.68	16.16	15.32	18.75	2,166.06	91.80	1,854.35	1,822.94	31.41	59.037		
3,700.00	3,680.53	3,661.17	3,647.59	16.60	15.80	18.85	2,168.97	91.12	1,845.87	1,813.55	32.32	57.113		
3,800.00	3,779.85	3,768.68	3,755.08	17.04	16.25	18.94	2,170.48	90.11	1,836.16	1,802.96	33.21	55.297		
3,900.00	3,879.18	3,874.04	3,860.42	17.49	16.69	19.02	2,171.97	88.79	1,826.46	1,792.38	34.08	53.587		
4,000.00	3,978.50	3,990.34	3,976.69	17.93	17.18	19.07	2,172.92	86.07	1,816.07	1,781.07	35.00	51.887		
4,100.00	4,077.82	4,093.10	4,079.41	18.37	17.61	19.11	2,173.16	83.28	1,805.06	1,769.19	35.87	50.322		
4,200.00	4,177.15	4,182.94	4,169.22	18.82	17.99	19.14	2,173.52	80.98	1,794.24	1,757.54	36.70	48.891		
4,300.00	4,276.47	4,278.69	4,264.95	19.27	18.39	19.20	2,174.26	79.16	1,783.84	1,746.29	37.55	47.510		
4,400.00	4,375.79	4,368.07	4,354.31	19.71	18.77	19.26	2,175.18	77.84	1,773.74	1,735.36	38.37	46.223		
4,500.00	4,475.12	4,461.27	4,447.50	20.16	19.16	19.35	2,176.62	77.01	1,764.21	1,725.00	39.21	44.989		
4,600.00	4,574.44	4,552.35	4,538.56	20.60	19.55	19.42	2,178.33	75.88	1,754.99	1,714.94	40.05	43.822		
4,700.00	4,673.76	4,653.38	4,639.54	21.05	19.97	19.49	2,180.75	74.18	1,746.23	1,705.32	40.92	42.677		
4,800.00	4,773.09	4,764.91	4,751.04	21.50	20.45	19.55	2,182.71	72.09	1,736.82	1,695.00	41.82	41.528		
4,900.00	4,872.41	4,877.96	4,864.04	21.94	20.92	19.61	2,184.04	69.45	1,726.80	1,684.06	42.73	40.411		
5,000.00	4,971.74	4,972.34	4,958.39	22.39	21.32	19.64	2,184.79	66.91	1,716.36	1,672.78	43.58	39.384		

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 4N-16A-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 4N-16A-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	5,071.06	5,075.01	5,061.01	22.84	21.76	19.68	2,185.92	64.04	1,706.22	1,661.76	44.46	38.381		
5,200.00	5,170.38	5,170.07	5,156.05	23.29	22.16	19.74	2,186.71	62.18	1,695.90	1,650.59	45.31	37.432		
5,300.00	5,269.71	5,264.31	5,250.28	23.74	22.56	19.82	2,187.81	61.03	1,685.99	1,639.83	46.16	36.528		
5,400.00	5,369.03	5,362.11	5,348.06	24.18	22.97	19.91	2,189.15	59.86	1,676.27	1,629.26	47.02	35.653		
5,500.00	5,468.35	5,460.36	5,446.30	24.63	23.39	20.03	2,190.46	59.45	1,666.62	1,618.74	47.88	34.809		
5,600.00	5,567.68	5,552.81	5,538.74	25.08	23.78	20.14	2,191.84	59.29	1,657.17	1,608.45	48.72	34.012		
5,700.00	5,667.00	5,651.16	5,637.07	25.53	24.20	20.29	2,193.71	59.67	1,648.19	1,598.60	49.59	33.238		
5,800.00	5,766.32	5,764.16	5,750.05	25.98	24.68	20.47	2,195.24	60.67	1,638.75	1,588.25	50.50	32.452		
5,900.00	5,865.65	5,874.13	5,860.03	26.43	25.14	20.64	2,195.89	60.98	1,628.47	1,577.08	51.40	31.685		
6,000.00	5,964.97	5,988.77	5,974.66	26.88	25.63	20.80	2,195.83	60.74	1,617.53	1,565.23	52.30	30.927		
6,100.00	6,064.29	6,094.59	6,080.48	27.33	26.08	20.94	2,195.00	60.25	1,605.84	1,552.66	53.18	30.196		
6,200.00	6,163.62	6,195.55	6,181.43	27.78	26.50	21.08	2,193.98	59.72	1,593.93	1,539.88	54.05	29.490		
6,300.00	6,262.94	6,291.86	6,277.73	28.23	26.91	21.21	2,193.06	59.10	1,582.06	1,527.15	54.91	28.813		
6,400.00	6,362.24	6,387.32	6,373.18	28.67	27.32	39.92	2,192.41	58.07	1,570.50	1,514.74	55.77	28.162		
6,500.00	6,460.41	6,473.94	6,459.80	29.12	27.68	73.02	2,192.26	56.86	1,561.23	1,504.63	56.61	27.580		
6,600.00	6,555.09	6,571.59	6,557.44	29.57	28.10	84.60	2,192.55	55.55	1,555.49	1,498.02	57.47	27.064		
6,695.63	6,640.21	6,662.47	6,648.32	29.98	28.49	90.58	2,192.42	54.44	1,553.40	1,495.10	58.30	26.645 CC		
6,700.00	6,643.94	6,666.41	6,652.26	30.00	28.50	90.79	2,192.41	54.38	1,553.40	1,495.07	58.34	26.628 ES		
6,800.00	6,724.78	6,750.96	6,736.79	30.45	28.86	94.74	2,192.13	52.98	1,556.39	1,497.20	59.19	26.295		
6,900.00	6,795.62	6,823.96	6,809.78	30.97	29.17	97.24	2,191.79	51.82	1,565.85	1,505.79	60.06	26.070		
7,000.00	6,854.70	6,884.15	6,869.97	31.60	29.43	98.42	2,191.49	50.86	1,582.98	1,522.00	60.98	25.960 SF		
7,100.00	6,900.58	6,929.68	6,915.48	32.39	29.62	98.20	2,191.27	50.17	1,608.51	1,546.57	61.95	25.967		
7,200.00	6,932.13	6,960.44	6,946.24	33.34	29.76	96.46	2,191.13	49.80	1,642.65	1,579.70	62.95	26.094		
7,300.00	6,948.57	6,976.71	6,962.51	34.46	29.82	93.13	2,191.06	49.63	1,684.87	1,620.91	63.96	26.344		
7,400.00	6,950.87	6,979.70	6,965.50	35.70	29.84	90.46	2,191.05	49.61	1,733.89	1,668.98	64.91	26.710		
7,500.00	6,950.58	6,980.26	6,966.06	37.12	29.84	90.48	2,191.04	49.60	1,787.46	1,721.58	65.88	27.130		
7,600.00	6,950.28	6,980.81	6,966.61	38.70	29.84	90.50	2,191.04	49.60	1,844.90	1,778.04	66.86	27.593		
7,700.00	6,949.98	6,981.35	6,967.15	40.41	29.84	90.52	2,191.04	49.59	1,905.86	1,838.04	67.82	28.101		
7,800.00	6,949.68	6,981.89	6,967.69	42.25	29.85	90.55	2,191.04	49.59	1,970.02	1,901.26	68.75	28.654		
7,900.00	6,949.38	6,982.41	6,968.21	44.20	29.85	90.57	2,191.03	49.58	2,037.06	1,967.42	69.64	29.250		
8,000.00	6,949.08	6,982.93	6,968.73	46.24	29.85	90.59	2,191.03	49.58	2,106.72	2,036.23	70.49	29.887		
8,100.00	6,948.79	6,983.44	6,969.24	48.36	29.85	90.61	2,191.03	49.57	2,178.74	2,107.45	71.29	30.562		
8,200.00	6,948.49	6,983.94	6,969.74	50.56	29.86	90.62	2,191.03	49.57	2,252.90	2,180.86	72.04	31.273		
8,300.00	6,948.19	6,984.43	6,970.23	52.82	29.86	90.64	2,191.03	49.57	2,328.99	2,256.25	72.74	32.017		
8,400.00	6,947.89	6,984.92	6,970.72	55.14	29.86	90.66	2,191.02	49.56	2,406.83	2,333.43	73.40	32.791		
8,500.00	6,947.59	6,985.40	6,971.20	57.50	29.86	90.68	2,191.02	49.56	2,486.26	2,412.25	74.01	33.592		
8,600.00	6,947.29	6,985.87	6,971.67	59.91	29.86	90.70	2,191.02	49.55	2,567.12	2,492.54	74.58	34.419		
8,700.00	6,947.00	6,986.33	6,972.14	62.36	29.87	90.72	2,191.02	49.55	2,649.29	2,574.18	75.12	35.268		
8,800.00	6,946.70	6,986.79	6,972.59	64.84	29.87	90.73	2,191.02	49.55	2,732.66	2,657.04	75.62	36.139		
8,900.00	6,946.40	6,987.24	6,973.05	67.35	29.87	90.75	2,191.01	49.54	2,817.10	2,741.02	76.08	37.028		
9,000.00	6,946.10	6,987.69	6,973.49	69.88	29.87	90.77	2,191.01	49.54	2,902.53	2,826.02	76.51	37.934		
9,100.00	6,945.80	6,988.13	6,973.93	72.44	29.87	90.79	2,191.01	49.53	2,988.87	2,911.95	76.92	38.857		
9,200.00	6,945.50	6,988.56	6,974.36	75.02	29.87	90.80	2,191.01	49.53	3,076.03	2,998.73	77.30	39.793		
9,300.00	6,945.21	6,988.99	6,974.79	77.63	29.88	90.82	2,191.01	49.53	3,163.95	3,086.30	77.66	40.743		
9,400.00	6,944.91	6,989.41	6,975.21	80.24	29.88	90.84	2,191.00	49.52	3,252.58	3,174.58	77.99	41.704		
9,500.00	6,944.61	6,989.82	6,975.62	82.88	29.88	90.85	2,191.00	49.52	3,341.84	3,263.53	78.31	42.676		
9,600.00	6,944.31	6,990.23	6,976.03	85.53	29.88	90.87	2,191.00	49.52	3,431.69	3,353.09	78.60	43.658		
9,700.00	6,944.01	6,990.63	6,976.43	88.19	29.88	90.88	2,191.00	49.51	3,522.10	3,443.21	78.88	44.649		
9,800.00	6,943.71	6,991.03	6,976.83	90.86	29.89	90.90	2,191.00	49.51	3,613.00	3,533.86	79.15	45.649		
9,900.00	6,943.42	6,991.42	6,977.22	93.55	29.89	90.91	2,190.99	49.51	3,704.38	3,624.98	79.40	46.656		
10,000.00	6,943.12	6,991.81	6,977.61	96.24	29.89	90.93	2,190.99	49.50	3,796.19	3,716.56	79.64	47.670		
10,100.00	6,942.82	6,992.19	6,977.99	98.95	29.89	90.94	2,190.99	49.50	3,888.41	3,808.55	79.86	48.690		

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 4N-16A-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 4N-16A-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	6,942.52	6,992.57	6,978.37	101.66	29.89	90.96	2,190.99	49.50	3,981.00	3,900.92	80.07	49.716	
10,300.00	6,942.22	6,992.94	6,978.74	104.38	29.89	90.97	2,190.99	49.49	4,073.94	3,993.66	80.28	50.747	
10,400.00	6,941.92	6,993.31	6,979.11	107.11	29.90	90.99	2,190.99	49.49	4,167.21	4,086.73	80.47	51.783	
10,500.00	6,941.63	6,993.67	6,979.47	109.84	29.90	91.00	2,190.98	49.49	4,260.78	4,180.12	80.66	52.824	
10,600.00	6,941.33	7,000.01	6,985.81	112.58	29.92	91.24	2,190.96	49.44	4,354.64	4,273.78	80.86	53.851	
10,700.00	6,941.03	7,000.01	6,985.81	115.33	29.92	91.24	2,190.96	49.44	4,448.77	4,367.74	81.03	54.900	
10,800.00	6,940.73	7,000.01	6,985.81	118.08	29.92	91.24	2,190.96	49.44	4,543.15	4,461.95	81.20	55.952	
10,900.00	6,940.43	7,000.01	6,985.81	120.84	29.92	91.24	2,190.96	49.44	4,637.76	4,556.41	81.35	57.008	
11,000.00	6,940.13	7,000.01	6,985.81	123.60	29.92	91.24	2,190.96	49.44	4,732.59	4,651.09	81.50	58.066	
11,100.00	6,939.83	7,000.01	6,985.81	126.36	29.92	91.24	2,190.96	49.44	4,827.64	4,745.99	81.65	59.127	
11,200.00	6,939.54	7,000.01	6,985.81	129.13	29.92	91.24	2,190.96	49.44	4,922.87	4,841.09	81.79	60.190	
11,300.00	6,939.24	7,000.01	6,985.81	131.91	29.92	91.24	2,190.96	49.44	5,018.30	4,936.37	81.92	61.255	
11,400.00	6,938.94	7,000.01	6,985.81	134.68	29.92	91.24	2,190.96	49.44	5,113.90	5,031.84	82.06	62.322	
11,500.00	6,938.64	7,000.01	6,985.81	137.46	29.92	91.24	2,190.96	49.44	5,209.66	5,127.48	82.18	63.391	
11,600.00	6,938.34	7,000.01	6,985.81	140.25	29.92	91.24	2,190.96	49.44	5,305.58	5,223.28	82.31	64.462	
11,700.00	6,938.04	7,000.01	6,985.81	143.03	29.92	91.24	2,190.96	49.44	5,401.65	5,319.23	82.43	65.533	
11,800.00	6,937.75	7,000.01	6,985.81	145.82	29.92	91.24	2,190.96	49.44	5,497.86	5,415.32	82.54	66.606	
11,900.00	6,937.45	7,000.01	6,985.81	148.61	29.92	91.24	2,190.96	49.44	5,594.20	5,511.54	82.66	67.680	
12,000.00	6,937.15	7,000.01	6,985.81	151.41	29.92	91.24	2,190.96	49.44	5,690.67	5,607.90	82.77	68.754	
12,100.00	6,936.85	7,000.01	6,985.81	154.20	29.92	91.24	2,190.96	49.44	5,787.26	5,704.38	82.88	69.830	
12,200.00	6,936.55	7,000.01	6,985.81	157.00	29.92	91.24	2,190.96	49.44	5,883.96	5,800.98	82.98	70.906	
12,300.00	6,936.25	7,000.01	6,985.81	159.80	29.92	91.24	2,190.96	49.44	5,980.77	5,897.68	83.09	71.982	
12,400.00	6,935.96	7,000.01	6,985.81	162.61	29.92	91.24	2,190.96	49.44	6,077.68	5,994.49	83.19	73.059	
12,500.00	6,935.66	7,000.01	6,985.81	165.41	29.92	91.24	2,190.96	49.44	6,174.70	6,091.41	83.29	74.136	
12,600.00	6,935.36	7,000.01	6,985.81	168.22	29.92	91.24	2,190.96	49.44	6,271.80	6,188.41	83.39	75.213	
12,700.00	6,935.06	7,000.01	6,985.81	171.02	29.92	91.24	2,190.96	49.44	6,369.00	6,285.51	83.48	76.290	
12,800.00	6,934.76	7,000.01	6,985.81	173.83	29.92	91.24	2,190.96	49.44	6,466.28	6,382.70	83.58	77.368	
12,900.00	6,934.46	7,000.01	6,985.81	176.65	29.92	91.24	2,190.96	49.44	6,563.64	6,479.97	83.67	78.445	
13,000.00	6,934.17	7,000.01	6,985.81	179.46	29.92	91.24	2,190.96	49.44	6,661.08	6,577.32	83.76	79.522	
13,100.00	6,933.87	7,000.01	6,985.81	182.27	29.92	91.24	2,190.96	49.44	6,758.60	6,674.74	83.86	80.598	
13,200.00	6,933.57	7,000.01	6,985.81	185.09	29.92	91.24	2,190.96	49.44	6,856.18	6,772.24	83.94	81.675	
13,300.00	6,933.27	7,000.01	6,985.81	187.91	29.92	91.24	2,190.96	49.44	6,953.84	6,869.81	84.03	82.751	
13,400.00	6,932.97	7,000.01	6,985.81	190.72	29.92	91.24	2,190.96	49.44	7,051.56	6,967.44	84.12	83.826	
13,500.00	6,932.67	7,000.01	6,985.81	193.54	29.92	91.24	2,190.96	49.44	7,149.35	7,065.14	84.21	84.901	
13,600.00	6,932.38	7,000.01	6,985.81	196.36	29.92	91.24	2,190.96	49.44	7,247.19	7,162.90	84.29	85.975	
13,700.00	6,932.08	7,000.01	6,985.81	199.19	29.92	91.24	2,190.96	49.44	7,345.09	7,260.71	84.38	87.049	
13,800.00	6,931.78	7,000.01	6,985.81	202.01	29.92	91.24	2,190.96	49.44	7,443.05	7,358.59	84.46	88.121	
13,900.00	6,931.48	7,000.01	6,985.81	204.83	29.92	91.24	2,190.96	49.44	7,541.07	7,456.52	84.55	89.193	
14,000.00	6,931.18	7,000.01	6,985.81	207.66	29.92	91.24	2,190.96	49.44	7,639.13	7,554.50	84.63	90.264	
14,100.00	6,930.88	7,000.01	6,985.81	210.48	29.92	91.24	2,190.96	49.44	7,737.24	7,652.53	84.71	91.334	
14,200.00	6,930.59	7,000.01	6,985.81	213.31	29.92	91.24	2,190.96	49.44	7,835.40	7,750.61	84.80	92.404	
14,300.00	6,930.29	7,000.01	6,985.81	216.14	29.92	91.24	2,190.96	49.44	7,933.61	7,848.73	84.88	93.472	
14,400.00	6,929.99	7,000.01	6,985.81	218.96	29.92	91.24	2,190.96	49.44	8,031.86	7,946.90	84.96	94.539	
14,500.00	6,929.69	7,000.01	6,985.81	221.79	29.92	91.24	2,190.96	49.44	8,130.16	8,045.12	85.04	95.605	
14,600.00	6,929.39	7,000.01	6,985.81	224.62	29.92	91.24	2,190.96	49.44	8,228.49	8,143.37	85.12	96.670	
14,700.00	6,929.09	7,000.01	6,985.81	227.45	29.92	91.24	2,190.96	49.44	8,326.87	8,241.67	85.20	97.734	
14,732.12	6,929.00	7,000.01	6,985.81	228.36	29.92	91.24	2,190.96	49.44	8,358.47	8,273.25	85.23	98.075	



Anticollision Report



Company:	SRC ENERGY	Local Co-ordinate Reference:	Well HARVESTERS STATE 4N-16A-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 4N-16A-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	-166.25	-4,279.83	-1,047.09	4,406.46					
100.00	100.00	40.00	100.00	3.28	3.35	-166.25	-4,279.83	-1,047.09	4,406.05	4,399.42	6.64	663.741		
200.00	200.00	140.00	200.00	3.34	4.54	-166.25	-4,279.83	-1,047.09	4,406.05	4,398.18	7.88	559.211		
300.00	300.00	240.00	300.00	3.44	7.40	-166.25	-4,279.83	-1,047.09	4,406.05	4,395.21	10.84	406.294		
400.00	400.00	340.00	400.00	3.60	10.64	-166.25	-4,279.83	-1,047.09	4,406.05	4,391.81	14.25	309.298		
500.00	500.00	440.00	500.00	3.81	14.00	-166.25	-4,279.83	-1,047.09	4,406.05	4,388.24	17.81	247.386		
600.00	600.00	540.00	600.00	4.05	17.42	-166.25	-4,279.83	-1,047.09	4,406.05	4,384.59	21.46	205.278 CC		
700.00	699.98	639.98	699.98	4.32	20.86	-152.78	-4,279.83	-1,047.09	4,407.61	4,382.43	25.17	175.087 ES		
800.00	799.84	739.84	799.84	4.62	24.30	-152.77	-4,279.83	-1,047.09	4,412.26	4,383.34	28.92	152.558		
900.00	899.45	839.45	899.45	4.94	27.75	-152.75	-4,279.83	-1,047.09	4,420.02	4,387.32	32.69	135.196		
1,000.00	998.80	938.80	998.80	5.28	31.20	-152.78	-4,279.83	-1,047.09	4,430.18	4,393.70	36.48	121.442		
1,100.00	1,098.12	1,038.12	1,098.12	5.63	34.65	-152.85	-4,279.83	-1,047.09	4,440.53	4,400.25	40.28	110.237		
1,200.00	1,197.44	1,137.44	1,197.44	6.00	38.10	-152.92	-4,279.83	-1,047.09	4,450.88	4,406.78	44.10	100.928		
1,300.00	1,296.77	1,236.77	1,296.77	6.37	41.56	-152.99	-4,279.83	-1,047.09	4,461.23	4,413.30	47.93	93.077		
1,400.00	1,396.09	1,336.09	1,396.09	6.76	45.02	-153.06	-4,279.83	-1,047.09	4,471.60	4,419.83	51.77	86.370		
1,500.00	1,495.41	1,435.41	1,495.41	7.15	48.48	-153.12	-4,279.83	-1,047.09	4,481.97	4,426.34	55.62	80.577		
1,600.00	1,594.74	1,534.74	1,594.74	7.55	51.94	-153.19	-4,279.83	-1,047.09	4,492.34	4,432.86	59.48	75.525		
1,700.00	1,694.06	1,634.06	1,694.06	7.96	55.40	-153.26	-4,279.83	-1,047.09	4,502.72	4,439.38	63.35	71.081		
1,800.00	1,793.38	1,733.38	1,793.38	8.37	58.86	-153.32	-4,279.83	-1,047.09	4,513.11	4,445.90	67.22	67.143		
1,900.00	1,892.71	1,832.71	1,892.71	8.78	62.32	-153.39	-4,279.83	-1,047.09	4,523.51	4,452.41	71.09	63.629		
2,000.00	1,992.03	1,932.03	1,992.03	9.20	65.78	-153.45	-4,279.83	-1,047.09	4,533.91	4,458.94	74.97	60.476		
2,100.00	2,091.36	2,031.36	2,091.36	9.62	69.25	-153.52	-4,279.83	-1,047.09	4,544.31	4,465.46	78.85	57.630		
2,200.00	2,190.68	2,130.68	2,190.68	10.05	72.71	-153.58	-4,279.83	-1,047.09	4,554.72	4,471.98	82.74	55.050		
2,300.00	2,290.00	2,230.00	2,290.00	10.48	76.17	-153.65	-4,279.83	-1,047.09	4,565.14	4,478.51	86.63	52.699		
2,400.00	2,389.33	2,329.33	2,389.33	10.90	79.64	-153.71	-4,279.83	-1,047.09	4,575.56	4,485.05	90.52	50.550		
2,500.00	2,488.65	2,428.65	2,488.65	11.34	83.10	-153.78	-4,279.83	-1,047.09	4,585.99	4,491.58	94.41	48.576		
2,600.00	2,587.97	2,527.97	2,587.97	11.77	86.57	-153.84	-4,279.83	-1,047.09	4,596.42	4,498.12	98.30	46.758		
2,700.00	2,687.30	2,627.30	2,687.30	12.20	90.03	-153.91	-4,279.83	-1,047.09	4,606.86	4,504.67	102.20	45.078		
2,800.00	2,786.62	2,726.62	2,786.62	12.64	93.50	-153.97	-4,279.83	-1,047.09	4,617.31	4,511.21	106.10	43.520		
2,900.00	2,885.94	2,825.94	2,885.94	13.07	96.96	-154.03	-4,279.83	-1,047.09	4,627.76	4,517.77	109.99	42.073		
3,000.00	2,985.27	2,925.27	2,985.27	13.51	100.43	-154.09	-4,279.83	-1,047.09	4,638.22	4,524.32	113.89	40.724		
3,100.00	3,084.59	3,024.59	3,084.59	13.95	103.89	-154.16	-4,279.83	-1,047.09	4,648.68	4,530.88	117.79	39.464		
3,200.00	3,183.91	3,123.91	3,183.91	14.39	107.36	-154.22	-4,279.83	-1,047.09	4,659.15	4,537.45	121.70	38.285		
3,300.00	3,283.24	3,223.24	3,283.24	14.83	110.83	-154.28	-4,279.83	-1,047.09	4,669.62	4,544.02	125.60	37.179		
3,400.00	3,382.56	3,322.56	3,382.56	15.27	114.29	-154.34	-4,279.83	-1,047.09	4,680.10	4,550.60	129.50	36.139		
3,500.00	3,481.88	3,421.88	3,481.88	15.71	117.76	-154.40	-4,279.83	-1,047.09	4,690.58	4,557.17	133.41	35.160		
3,600.00	3,581.21	3,521.21	3,581.21	16.16	121.22	-154.47	-4,279.83	-1,047.09	4,701.07	4,563.76	137.31	34.237		
3,700.00	3,680.53	3,620.53	3,680.53	16.60	124.69	-154.53	-4,279.83	-1,047.09	4,711.56	4,570.35	141.22	33.364		
3,800.00	3,779.85	3,719.85	3,779.85	17.04	128.16	-154.59	-4,279.83	-1,047.09	4,722.06	4,576.94	145.12	32.538		
3,900.00	3,879.18	3,819.18	3,879.18	17.49	131.62	-154.65	-4,279.83	-1,047.09	4,732.57	4,583.54	149.03	31.756		
4,000.00	3,978.50	3,918.50	3,978.50	17.93	135.09	-154.71	-4,279.83	-1,047.09	4,743.08	4,590.14	152.94	31.013		
4,100.00	4,077.82	4,017.82	4,077.82	18.37	138.56	-154.77	-4,279.83	-1,047.09	4,753.59	4,596.75	156.84	30.308		
4,200.00	4,177.15	4,117.15	4,177.15	18.82	142.02	-154.83	-4,279.83	-1,047.09	4,764.11	4,603.36	160.75	29.636		
4,300.00	4,276.47	4,216.47	4,276.47	19.27	145.49	-154.89	-4,279.83	-1,047.09	4,774.64	4,609.98	164.66	28.997		
4,400.00	4,375.79	4,315.79	4,375.79	19.71	148.96	-154.94	-4,279.83	-1,047.09	4,785.17	4,616.60	168.57	28.387		
4,500.00	4,475.12	4,415.12	4,475.12	20.16	152.42	-155.00	-4,279.83	-1,047.09	4,795.70	4,623.23	172.48	27.805		
4,600.00	4,574.44	4,514.44	4,574.44	20.60	155.89	-155.06	-4,279.83	-1,047.09	4,806.24	4,629.86	176.39	27.248		
4,700.00	4,673.76	4,613.76	4,673.76	21.05	159.36	-155.12	-4,279.83	-1,047.09	4,816.79	4,636.49	180.30	26.716		
4,800.00	4,773.09	4,713.09	4,773.09	21.50	162.82	-155.18	-4,279.83	-1,047.09	4,827.34	4,643.13	184.21	26.206		
4,900.00	4,872.41	4,812.41	4,872.41	21.94	166.29	-155.24	-4,279.83	-1,047.09	4,837.89	4,649.78	188.12	25.717		
5,000.00	4,971.74	4,911.74	4,971.74	22.39	169.76	-155.29	-4,279.83	-1,047.09	4,848.45	4,656.43	192.03	25.249		
5,100.00	5,071.06	5,011.06	5,071.06	22.84	173.22	-155.35	-4,279.83	-1,047.09	4,859.02	4,663.08	195.94	24.799		

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 4N-16A-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 4N-16A-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	5,170.38	5,110.38	5,170.38	23.29	176.69	-155.41	-4,279.83	-1,047.09	4,869.59	4,669.74	199.85	24.366		
5,300.00	5,269.71	5,209.71	5,269.71	23.74	180.16	-155.46	-4,279.83	-1,047.09	4,880.16	4,676.40	203.76	23.951		
5,400.00	5,369.03	5,309.03	5,369.03	24.18	183.62	-155.52	-4,279.83	-1,047.09	4,890.74	4,683.07	207.67	23.550		
5,500.00	5,468.35	5,408.35	5,468.35	24.63	187.09	-155.58	-4,279.83	-1,047.09	4,901.32	4,689.74	211.58	23.165		
5,600.00	5,567.68	5,507.68	5,567.68	25.08	190.56	-155.63	-4,279.83	-1,047.09	4,911.91	4,696.42	215.49	22.794		
5,700.00	5,667.00	5,607.00	5,667.00	25.53	194.02	-155.69	-4,279.83	-1,047.09	4,922.50	4,703.10	219.41	22.436		
5,800.00	5,766.32	5,706.32	5,766.32	25.98	197.49	-155.74	-4,279.83	-1,047.09	4,933.10	4,709.78	223.32	22.090		
5,900.00	5,865.65	5,805.65	5,865.65	26.43	200.96	-155.80	-4,279.83	-1,047.09	4,943.70	4,716.47	227.23	21.756		
6,000.00	5,964.97	5,904.97	5,964.97	26.88	204.42	-155.85	-4,279.83	-1,047.09	4,954.31	4,723.16	231.14	21.434		
6,100.00	6,064.29	6,004.29	6,064.29	27.33	207.89	-155.91	-4,279.83	-1,047.09	4,964.92	4,729.86	235.06	21.122		
6,200.00	6,163.62	6,103.62	6,163.62	27.78	211.36	-155.96	-4,279.83	-1,047.09	4,975.53	4,736.57	238.97	20.821		
6,300.00	6,262.94	6,202.94	6,262.94	28.23	214.82	-156.02	-4,279.83	-1,047.09	4,986.15	4,743.27	242.88	20.529		
6,400.00	6,362.24	6,302.24	6,362.24	28.67	218.29	-137.53	-4,279.83	-1,047.09	4,996.67	4,749.87	246.79	20.246		
6,500.00	6,460.41	6,400.41	6,460.41	29.12	221.72	-105.17	-4,279.83	-1,047.09	5,004.95	4,754.28	250.67	19.966		
6,600.00	6,559.09	6,504.91	6,559.09	29.57	225.37	-95.08	-4,279.83	-1,047.09	5,010.17	4,755.40	254.77	19.666		
6,700.00	6,643.94	6,583.94	6,643.94	30.00	228.12	-90.88	-4,279.83	-1,047.09	5,012.48	4,754.50	257.99	19.429		
6,800.00	6,724.78	6,664.78	6,724.78	30.45	230.95	-89.02	-4,279.83	-1,047.09	5,012.19	4,750.90	261.30	19.182		
6,900.00	6,795.62	6,735.62	6,795.62	30.97	233.42	-88.34	-4,279.83	-1,047.09	5,009.75	4,745.43	264.32	18.954		
7,000.00	6,854.70	6,805.30	6,854.70	31.60	235.85	-88.31	-4,279.83	-1,047.09	5,005.65	4,738.25	267.40	18.720		
7,100.00	6,900.58	6,840.58	6,900.58	32.39	237.08	-88.65	-4,279.83	-1,047.09	5,000.45	4,731.03	269.42	18.560		
7,200.00	6,932.13	6,872.13	6,932.13	33.34	238.18	-89.15	-4,279.83	-1,047.09	4,994.64	4,723.16	271.48	18.398		
7,300.00	6,948.57	6,888.57	6,948.57	34.46	238.76	-89.70	-4,279.83	-1,047.09	4,988.63	4,715.47	273.16	18.263		
7,400.00	6,950.87	6,909.13	6,950.87	35.70	239.48	-90.01	-4,279.83	-1,047.09	4,982.89	4,707.78	275.11	18.112		
7,500.00	6,950.58	6,909.42	6,950.58	37.12	239.49	-90.01	-4,279.83	-1,047.09	4,978.85	4,702.33	276.52	18.005		
7,600.00	6,950.28	6,909.72	6,950.28	38.70	239.50	-90.00	-4,279.83	-1,047.09	4,976.82	4,698.74	278.09	17.897		
7,651.20	6,950.13	6,909.88	6,950.13	39.57	239.50	-90.00	-4,279.83	-1,047.09	4,976.56	4,697.61	278.95	17.840		
7,700.00	6,949.98	6,889.98	6,949.98	40.41	238.81	-90.00	-4,279.83	-1,047.09	4,976.80	4,697.72	279.08	17.833		
7,800.00	6,949.68	6,889.68	6,949.68	42.25	238.80	-89.99	-4,279.83	-1,047.09	4,978.78	4,697.92	280.86	17.727		
7,900.00	6,949.38	6,889.38	6,949.38	44.20	238.79	-89.99	-4,279.83	-1,047.09	4,982.77	4,700.04	282.73	17.623		
8,000.00	6,949.08	6,889.08	6,949.08	46.24	238.78	-89.99	-4,279.83	-1,047.09	4,988.77	4,704.08	284.69	17.524		
8,100.00	6,948.79	6,888.79	6,948.79	48.36	238.77	-89.98	-4,279.83	-1,047.09	4,996.75	4,710.05	286.70	17.429		
8,200.00	6,948.49	6,888.49	6,948.49	50.56	238.75	-89.98	-4,279.83	-1,047.09	5,006.73	4,717.97	288.76	17.339		
8,300.00	6,948.19	6,888.19	6,948.19	52.82	238.74	-89.98	-4,279.83	-1,047.09	5,018.67	4,727.81	290.86	17.255		
8,400.00	6,947.89	6,887.89	6,947.89	55.14	238.73	-89.97	-4,279.83	-1,047.09	5,032.58	4,739.59	292.98	17.177		
8,500.00	6,947.59	6,887.59	6,947.59	57.50	238.72	-89.97	-4,279.83	-1,047.09	5,048.42	4,753.30	295.12	17.106		
8,600.00	6,947.29	6,887.29	6,947.29	59.91	238.71	-89.97	-4,279.83	-1,047.09	5,066.20	4,768.92	297.27	17.042		
8,700.00	6,947.00	6,887.00	6,947.00	62.36	238.70	-89.96	-4,279.83	-1,047.09	5,085.87	4,786.45	299.42	16.986		
8,800.00	6,946.70	6,886.70	6,946.70	64.84	238.69	-89.96	-4,279.83	-1,047.09	5,107.43	4,805.86	301.57	16.936		
8,900.00	6,946.40	6,886.40	6,946.40	67.35	238.68	-89.96	-4,279.83	-1,047.09	5,130.85	4,827.15	303.70	16.894		
9,000.00	6,946.10	6,886.10	6,946.10	69.88	238.67	-89.95	-4,279.83	-1,047.09	5,156.10	4,850.28	305.82	16.860		
9,100.00	6,945.80	6,885.80	6,945.80	72.44	238.66	-89.95	-4,279.83	-1,047.09	5,183.16	4,875.24	307.91	16.833		
9,200.00	6,945.50	6,885.50	6,945.50	75.02	238.65	-89.95	-4,279.83	-1,047.09	5,212.00	4,902.01	309.99	16.814		
9,300.00	6,945.21	6,885.21	6,945.21	77.63	238.64	-89.94	-4,279.83	-1,047.09	5,242.58	4,930.55	312.03	16.802		
9,400.00	6,944.91	6,884.91	6,944.91	80.24	238.63	-89.94	-4,279.83	-1,047.09	5,274.88	4,960.84	314.04	16.797 SF		
9,500.00	6,944.61	6,884.61	6,944.61	82.88	238.62	-89.94	-4,279.83	-1,047.09	5,308.88	4,992.86	316.02	16.799		
9,600.00	6,944.31	6,884.31	6,944.31	85.53	238.61	-89.93	-4,279.83	-1,047.09	5,344.52	5,026.56	317.96	16.809		
9,700.00	6,944.01	6,884.01	6,944.01	88.19	238.60	-89.93	-4,279.83	-1,047.09	5,381.79	5,061.92	319.87	16.825		
9,800.00	6,943.71	6,883.71	6,943.71	90.86	238.59	-89.93	-4,279.83	-1,047.09	5,420.65	5,098.91	321.74	16.848		
9,900.00	6,943.42	6,883.42	6,943.42	93.55	238.58	-89.92	-4,279.83	-1,047.09	5,461.06	5,137.50	323.56	16.878		
10,000.00	6,943.12	6,883.12	6,943.12	96.24	238.57	-89.92	-4,279.83	-1,047.09	5,502.99	5,177.65	325.35	16.914		
10,100.00	6,942.82	6,882.82	6,942.82	98.95	238.56	-89.92	-4,279.83	-1,047.09	5,546.41	5,219.32	327.09	16.957		
10,200.00	6,942.52	6,882.52	6,942.52	101.66	238.55	-89.91	-4,279.83	-1,047.09	5,591.28	5,262.49	328.79	17.006		

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 4N-16A-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 4N-16A-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	6,942.22	6,882.22	6,942.22	104.38	238.54	-89.91	-4,279.83	-1,047.09	5,637.57	5,307.12	330.45	17.060		
10,400.00	6,941.92	6,881.92	6,941.92	107.11	238.53	-89.91	-4,279.83	-1,047.09	5,685.24	5,353.18	332.06	17.121		
10,500.00	6,941.63	6,881.63	6,941.63	109.84	238.52	-89.90	-4,279.83	-1,047.09	5,734.26	5,400.63	333.63	17.187		
10,600.00	6,941.33	6,881.33	6,941.33	112.58	238.50	-89.90	-4,279.83	-1,047.09	5,784.59	5,449.43	335.16	17.259		
10,700.00	6,941.03	6,881.03	6,941.03	115.33	238.49	-89.90	-4,279.83	-1,047.09	5,836.20	5,499.55	336.65	17.336		
10,800.00	6,940.73	6,880.73	6,940.73	118.08	238.48	-89.89	-4,279.83	-1,047.09	5,889.06	5,550.97	338.09	17.419		
10,900.00	6,940.43	6,880.43	6,940.43	120.84	238.47	-89.89	-4,279.83	-1,047.09	5,943.13	5,603.63	339.49	17.506		
11,000.00	6,940.13	6,880.13	6,940.13	123.60	238.46	-89.88	-4,279.83	-1,047.09	5,998.37	5,657.52	340.85	17.598		
11,100.00	6,939.83	6,879.83	6,939.83	126.36	238.45	-89.88	-4,279.83	-1,047.09	6,054.77	5,712.60	342.17	17.695		
11,200.00	6,939.54	6,879.54	6,939.54	129.13	238.44	-89.88	-4,279.83	-1,047.09	6,112.28	5,768.83	343.45	17.796		
11,300.00	6,939.24	6,879.24	6,939.24	131.91	238.43	-89.87	-4,279.83	-1,047.09	6,170.88	5,826.18	344.70	17.902		
11,400.00	6,938.94	6,878.94	6,938.94	134.68	238.42	-89.87	-4,279.83	-1,047.09	6,230.53	5,884.63	345.90	18.013		
11,500.00	6,938.64	6,878.64	6,938.64	137.46	238.41	-89.87	-4,279.83	-1,047.09	6,291.21	5,944.14	347.06	18.127		
11,600.00	6,938.34	6,878.34	6,938.34	140.25	238.40	-89.86	-4,279.83	-1,047.09	6,352.87	6,004.68	348.19	18.245		
11,700.00	6,938.04	6,878.04	6,938.04	143.03	238.39	-89.86	-4,279.83	-1,047.09	6,415.51	6,066.22	349.29	18.368		
11,800.00	6,937.75	6,877.75	6,937.75	145.82	238.38	-89.86	-4,279.83	-1,047.09	6,479.08	6,128.74	350.34	18.493		
11,900.00	6,937.45	6,877.45	6,937.45	148.61	238.37	-89.85	-4,279.83	-1,047.09	6,543.57	6,192.20	351.37	18.623		
12,000.00	6,937.15	6,877.15	6,937.15	151.41	238.36	-89.85	-4,279.83	-1,047.09	6,608.94	6,256.58	352.36	18.756		
12,100.00	6,936.85	6,876.85	6,936.85	154.20	238.35	-89.85	-4,279.83	-1,047.09	6,675.16	6,321.84	353.32	18.893		
12,200.00	6,936.55	6,876.55	6,936.55	157.00	238.34	-89.84	-4,279.83	-1,047.09	6,742.22	6,387.97	354.25	19.033		
12,300.00	6,936.25	6,876.25	6,936.25	159.80	238.33	-89.84	-4,279.83	-1,047.09	6,810.09	6,454.94	355.14	19.176		
12,400.00	6,935.96	6,875.96	6,935.96	162.61	238.32	-89.84	-4,279.83	-1,047.09	6,878.74	6,522.73	356.01	19.322		
12,500.00	6,935.66	6,875.66	6,935.66	165.41	238.31	-89.83	-4,279.83	-1,047.09	6,948.15	6,591.30	356.85	19.471		
12,600.00	6,935.36	6,875.36	6,935.36	168.22	238.30	-89.83	-4,279.83	-1,047.09	7,018.30	6,660.63	357.67	19.623		
12,700.00	6,935.06	6,875.06	6,935.06	171.02	238.29	-89.83	-4,279.83	-1,047.09	7,089.17	6,730.72	358.45	19.777		
12,800.00	6,934.76	6,874.76	6,934.76	173.83	238.28	-89.82	-4,279.83	-1,047.09	7,160.73	6,801.52	359.21	19.935		
12,900.00	6,934.46	6,874.46	6,934.46	176.65	238.27	-89.82	-4,279.83	-1,047.09	7,232.97	6,873.02	359.95	20.095		
13,000.00	6,934.17	6,874.17	6,934.17	179.46	238.25	-89.82	-4,279.83	-1,047.09	7,305.86	6,945.20	360.66	20.257		
13,100.00	6,933.87	6,873.87	6,933.87	182.27	238.24	-89.81	-4,279.83	-1,047.09	7,379.38	7,018.04	361.35	20.422		
13,200.00	6,933.57	6,873.57	6,933.57	185.09	238.23	-89.81	-4,279.83	-1,047.09	7,453.53	7,091.51	362.01	20.589		
13,300.00	6,933.27	6,873.27	6,933.27	187.91	238.22	-89.81	-4,279.83	-1,047.09	7,528.27	7,165.61	362.66	20.759		
13,400.00	6,932.97	6,872.97	6,932.97	190.72	238.21	-89.80	-4,279.83	-1,047.09	7,603.59	7,240.31	363.28	20.930		
13,500.00	6,932.67	6,872.67	6,932.67	193.54	238.20	-89.80	-4,279.83	-1,047.09	7,679.47	7,315.59	363.88	21.104		
13,600.00	6,932.38	6,872.38	6,932.38	196.36	238.19	-89.80	-4,279.83	-1,047.09	7,755.90	7,391.44	364.46	21.280		
13,700.00	6,932.08	6,872.08	6,932.08	199.19	238.18	-89.79	-4,279.83	-1,047.09	7,832.87	7,467.84	365.03	21.458		
13,800.00	6,931.78	6,871.78	6,931.78	202.01	238.17	-89.79	-4,279.83	-1,047.09	7,910.34	7,544.77	365.57	21.638		
13,900.00	6,931.48	6,871.48	6,931.48	204.83	238.16	-89.79	-4,279.83	-1,047.09	7,988.32	7,622.22	366.10	21.820		
14,000.00	6,931.18	6,871.18	6,931.18	207.66	238.15	-89.78	-4,279.83	-1,047.09	8,066.79	7,700.17	366.61	22.004		
14,100.00	6,930.88	6,870.88	6,930.88	210.48	238.14	-89.78	-4,279.83	-1,047.09	8,145.72	7,778.62	367.11	22.189		
14,200.00	6,930.59	6,870.59	6,930.59	213.31	238.13	-89.78	-4,279.83	-1,047.09	8,225.12	7,857.53	367.59	22.376		
14,300.00	6,930.29	6,870.29	6,930.29	216.14	238.12	-89.77	-4,279.83	-1,047.09	8,304.96	7,936.91	368.05	22.565		
14,400.00	6,929.99	6,869.99	6,929.99	218.96	238.11	-89.77	-4,279.83	-1,047.09	8,385.23	8,016.73	368.50	22.755		
14,500.00	6,929.69	6,869.69	6,929.69	221.79	238.10	-89.76	-4,279.83	-1,047.09	8,465.92	8,096.98	368.93	22.947		
14,600.00	6,929.39	6,869.39	6,929.39	224.62	238.09	-89.76	-4,279.83	-1,047.09	8,547.02	8,177.66	369.36	23.140		
14,700.00	6,929.09	6,869.09	6,929.09	227.45	238.08	-89.76	-4,279.83	-1,047.09	8,628.52	8,258.75	369.76	23.335		
14,732.12	6,929.00	6,869.00	6,929.00	228.36	238.07	-89.76	-4,279.83	-1,047.09	8,654.78	8,284.88	369.89	23.398		



Anticollision Report



Company:	SRC ENERGY	Local Co-ordinate Reference:	Well HARVESTERS STATE 4N-16A-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 4N-16A-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	-46.32	1,110.80	-1,163.12	1,608.33					
100.00	100.00	105.00	100.00	3.28	3.80	-46.32	1,110.80	-1,163.12	1,608.33	1,601.24	7.09	226.993		
200.00	200.00	205.00	200.00	3.34	6.33	-46.32	1,110.80	-1,163.12	1,608.33	1,598.66	9.66	166.414		
300.00	300.00	305.00	300.00	3.44	9.49	-46.32	1,110.80	-1,163.12	1,608.33	1,595.39	12.93	124.368		
400.00	400.00	405.00	400.00	3.60	12.82	-46.32	1,110.80	-1,163.12	1,608.33	1,591.90	16.42	97.931		
500.00	500.00	505.00	500.00	3.81	16.22	-46.32	1,110.80	-1,163.12	1,608.33	1,588.30	20.03	80.315		
600.00	600.00	605.00	600.00	4.05	19.65	-46.32	1,110.80	-1,163.12	1,608.33	1,584.63	23.70	67.870		
700.00	699.98	705.02	699.98	4.32	23.10	-32.90	1,110.80	-1,163.12	1,606.86	1,579.44	27.42	58.605		
800.00	799.84	805.16	799.84	4.62	26.57	-33.05	1,110.80	-1,163.12	1,602.47	1,571.29	31.18	51.391		
900.00	899.45	900.55	899.45	4.94	30.05	-33.30	1,110.80	-1,163.12	1,595.16	1,560.18	34.98	45.599		
1,000.00	998.80	1,006.20	998.80	5.28	33.54	-33.56	1,110.80	-1,163.12	1,585.62	1,546.80	38.81	40.851		
1,100.00	1,098.12	1,106.88	1,098.12	5.63	37.04	-33.79	1,110.80	-1,163.12	1,575.93	1,533.27	42.66	36.939		
1,200.00	1,197.44	1,207.56	1,197.44	6.00	40.54	-34.03	1,110.80	-1,163.12	1,566.28	1,519.75	46.53	33.663		
1,300.00	1,296.77	1,308.23	1,296.77	6.37	44.05	-34.27	1,110.80	-1,163.12	1,556.64	1,506.24	50.41	30.882		
1,400.00	1,396.09	1,408.91	1,396.09	6.76	47.55	-34.51	1,110.80	-1,163.12	1,547.04	1,492.75	54.29	28.494		
1,500.00	1,495.41	1,509.59	1,495.41	7.15	51.06	-34.75	1,110.80	-1,163.12	1,537.46	1,479.27	58.19	26.421		
1,600.00	1,594.74	1,589.74	1,594.74	7.55	53.85	-35.00	1,110.80	-1,163.12	1,527.92	1,466.53	61.38	24.892		
1,700.00	1,694.06	1,689.06	1,694.06	7.96	57.31	-35.25	1,110.80	-1,163.12	1,518.40	1,453.15	65.24	23.272		
1,800.00	1,793.38	1,788.38	1,793.38	8.37	60.78	-35.50	1,110.80	-1,163.12	1,508.91	1,439.79	69.11	21.832		
1,900.00	1,892.71	1,887.71	1,892.71	8.78	64.24	-35.76	1,110.80	-1,163.12	1,499.45	1,426.46	72.99	20.544		
2,000.00	1,992.03	1,987.03	1,992.03	9.20	67.70	-36.02	1,110.80	-1,163.12	1,490.02	1,413.15	76.86	19.385		
2,100.00	2,091.36	2,086.36	2,091.36	9.62	71.16	-36.28	1,110.80	-1,163.12	1,480.62	1,399.87	80.75	18.337		
2,200.00	2,190.68	2,185.68	2,190.68	10.05	74.63	-36.55	1,110.80	-1,163.12	1,471.25	1,386.62	84.63	17.384		
2,300.00	2,290.00	2,285.00	2,290.00	10.48	78.09	-36.82	1,110.80	-1,163.12	1,461.92	1,373.40	88.52	16.516		
2,400.00	2,389.33	2,384.33	2,389.33	10.90	81.56	-37.10	1,110.80	-1,163.12	1,452.61	1,360.21	92.41	15.720		
2,500.00	2,488.65	2,483.65	2,488.65	11.34	85.02	-37.37	1,110.80	-1,163.12	1,443.35	1,347.05	96.30	14.988		
2,600.00	2,587.97	2,582.97	2,587.97	11.77	88.49	-37.65	1,110.80	-1,163.12	1,434.11	1,333.92	100.19	14.314		
2,700.00	2,687.30	2,682.30	2,687.30	12.20	91.95	-37.94	1,110.80	-1,163.12	1,424.91	1,320.83	104.09	13.690		
2,800.00	2,786.62	2,781.62	2,786.62	12.64	95.42	-38.23	1,110.80	-1,163.12	1,415.75	1,307.76	107.98	13.111		
2,900.00	2,885.94	2,880.94	2,885.94	13.07	98.88	-38.52	1,110.80	-1,163.12	1,406.62	1,294.74	111.88	12.573		
3,000.00	2,985.27	2,980.27	2,985.27	13.51	102.35	-38.81	1,110.80	-1,163.12	1,397.53	1,281.75	115.78	12.071		
3,100.00	3,084.59	3,079.59	3,084.59	13.95	105.81	-39.11	1,110.80	-1,163.12	1,388.47	1,268.80	119.68	11.602		
3,200.00	3,183.91	3,178.91	3,183.91	14.39	109.28	-39.42	1,110.80	-1,163.12	1,379.46	1,255.88	123.58	11.162		
3,300.00	3,283.24	3,278.24	3,283.24	14.83	112.75	-39.73	1,110.80	-1,163.12	1,370.48	1,243.00	127.48	10.750		
3,400.00	3,382.56	3,377.56	3,382.56	15.27	116.21	-40.04	1,110.80	-1,163.12	1,361.55	1,230.16	131.39	10.363		
3,500.00	3,481.88	3,476.88	3,481.88	15.71	119.68	-40.35	1,110.80	-1,163.12	1,352.65	1,217.36	135.29	9.998		
3,600.00	3,581.21	3,576.21	3,581.21	16.16	123.14	-40.67	1,110.80	-1,163.12	1,343.80	1,204.60	139.19	9.654		
3,700.00	3,680.53	3,675.53	3,680.53	16.60	126.61	-41.00	1,110.80	-1,163.12	1,334.99	1,191.89	143.10	9.329		
3,800.00	3,779.85	3,774.85	3,779.85	17.04	130.08	-41.32	1,110.80	-1,163.12	1,326.22	1,179.21	147.01	9.022		
3,900.00	3,879.18	3,874.18	3,879.18	17.49	133.54	-41.66	1,110.80	-1,163.12	1,317.49	1,166.58	150.91	8.730		
4,000.00	3,978.50	3,973.50	3,978.50	17.93	137.01	-41.99	1,110.80	-1,163.12	1,308.81	1,153.99	154.82	8.454		
4,100.00	4,077.82	4,072.82	4,077.82	18.37	140.48	-42.33	1,110.80	-1,163.12	1,300.18	1,141.45	158.73	8.191		
4,200.00	4,177.15	4,172.15	4,177.15	18.82	143.94	-42.68	1,110.80	-1,163.12	1,291.59	1,128.96	162.64	7.942		
4,300.00	4,276.47	4,271.47	4,276.47	19.27	147.41	-43.03	1,110.80	-1,163.12	1,283.05	1,116.51	166.54	7.704		
4,400.00	4,375.79	4,370.79	4,375.79	19.71	150.87	-43.39	1,110.80	-1,163.12	1,274.56	1,104.11	170.45	7.478		
4,500.00	4,475.12	4,470.12	4,475.12	20.16	154.34	-43.75	1,110.80	-1,163.12	1,266.12	1,091.76	174.36	7.261		
4,600.00	4,574.44	4,569.44	4,574.44	20.60	157.81	-44.11	1,110.80	-1,163.12	1,257.73	1,079.46	178.27	7.055		
4,700.00	4,673.76	4,668.76	4,673.76	21.05	161.27	-44.48	1,110.80	-1,163.12	1,249.39	1,067.21	182.18	6.858		
4,800.00	4,773.09	4,768.09	4,773.09	21.50	164.74	-44.85	1,110.80	-1,163.12	1,241.10	1,055.01	186.09	6.669		
4,900.00	4,872.41	4,867.41	4,872.41	21.94	168.21	-45.23	1,110.80	-1,163.12	1,232.87	1,042.87	190.00	6.489		
5,000.00	4,971.74	4,966.74	4,971.74	22.39	171.67	-45.62	1,110.80	-1,163.12	1,224.69	1,030.78	193.92	6.316		
5,100.00	5,071.06	5,066.06	5,071.06	22.84	175.14	-46.01	1,110.80	-1,163.12	1,216.57	1,018.74	197.83	6.150		

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 4N-16A-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 4N-16A-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	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	5,170.38	5,165.38	5,170.38	23.29	178.61	-46.40	1,110.80	-1,163.12	1,208.50	1,006.76	201.74	5.990		
5,300.00	5,269.71	5,264.71	5,269.71	23.74	182.08	-46.80	1,110.80	-1,163.12	1,200.50	994.84	205.65	5.838		
5,400.00	5,369.03	5,364.03	5,369.03	24.18	185.54	-47.21	1,110.80	-1,163.12	1,192.55	982.98	209.57	5.691		
5,500.00	5,468.35	5,463.35	5,468.35	24.63	189.01	-47.62	1,110.80	-1,163.12	1,184.66	971.18	213.48	5.549		
5,600.00	5,567.68	5,562.68	5,567.68	25.08	192.48	-48.03	1,110.80	-1,163.12	1,176.84	959.44	217.39	5.413		
5,700.00	5,667.00	5,662.00	5,667.00	25.53	195.94	-48.46	1,110.80	-1,163.12	1,169.07	947.77	221.31	5.283		
5,800.00	5,766.32	5,761.32	5,766.32	25.98	199.41	-48.88	1,110.80	-1,163.12	1,161.38	936.16	225.22	5.157		
5,900.00	5,865.65	5,860.65	5,865.65	26.43	202.88	-49.32	1,110.80	-1,163.12	1,153.74	924.61	229.13	5.035		
6,000.00	5,964.97	5,959.97	5,964.97	26.88	206.34	-49.75	1,110.80	-1,163.12	1,146.18	913.13	233.05	4.918		
6,100.00	6,064.29	6,059.29	6,064.29	27.33	209.81	-50.20	1,110.80	-1,163.12	1,138.68	901.72	236.96	4.805		
6,200.00	6,163.62	6,158.62	6,163.62	27.78	213.28	-50.65	1,110.80	-1,163.12	1,131.25	890.37	240.88	4.696		
6,300.00	6,262.94	6,257.94	6,262.94	28.23	216.74	-51.10	1,110.80	-1,163.12	1,123.89	879.10	244.79	4.591		
6,400.00	6,362.24	6,357.24	6,362.24	28.67	220.21	-33.16	1,110.80	-1,163.12	1,116.08	867.37	248.71	4.488		
6,500.00	6,460.41	6,455.41	6,460.41	29.12	223.64	-0.82	1,110.80	-1,163.12	1,097.99	845.41	252.58	4.347		
6,600.00	6,555.09	6,550.09	6,555.09	29.57	226.94	10.69	1,110.80	-1,163.12	1,066.28	809.98	256.30	4.160		
6,700.00	6,643.94	6,638.94	6,643.94	30.00	230.04	17.95	1,110.80	-1,163.12	1,021.79	762.01	259.79	3.933		
6,800.00	6,724.78	6,719.78	6,724.78	30.45	232.87	24.87	1,110.80	-1,163.12	965.85	702.90	262.95	3.673		
6,900.00	6,795.62	6,809.38	6,795.62	30.97	235.99	33.15	1,110.80	-1,163.12	900.23	633.85	266.38	3.380		
7,000.00	6,854.70	6,849.70	6,854.70	31.60	237.40	43.93	1,110.80	-1,163.12	827.23	559.18	268.06	3.086		
7,100.00	6,900.58	6,904.42	6,900.58	32.39	239.31	57.46	1,110.80	-1,163.12	749.71	479.45	270.26	2.774		
7,200.00	6,932.13	6,927.13	6,932.13	33.34	240.10	72.13	1,110.80	-1,163.12	671.15	399.69	271.46	2.472		
7,300.00	6,948.57	6,943.57	6,948.57	34.46	240.68	84.77	1,110.80	-1,163.12	595.77	323.07	272.70	2.185		
7,400.00	6,950.87	6,945.87	6,950.87	35.70	240.76	90.13	1,110.80	-1,163.12	528.46	254.54	273.91	1.929		
7,500.00	6,950.58	6,945.58	6,950.58	37.12	240.75	90.09	1,110.80	-1,163.12	473.05	197.32	275.73	1.716		
7,600.00	6,950.28	6,945.28	6,950.28	38.70	240.74	90.05	1,110.80	-1,163.12	433.92	155.72	278.19	1.560		
7,700.00	6,949.98	6,944.98	6,949.98	40.41	240.73	90.01	1,110.80	-1,163.12	415.68	134.83	280.85	1.480	Level 3	
7,727.45	6,949.90	6,944.90	6,949.90	40.92	240.72	90.00	1,110.80	-1,163.12	414.78	133.26	281.52	1.473	Level 3, CC, ES, SF	
7,800.00	6,949.68	6,944.68	6,949.68	42.25	240.72	89.97	1,110.80	-1,163.12	421.07	138.15	282.93	1.488	Level 3	
7,900.00	6,949.38	6,944.38	6,949.38	44.20	240.71	89.93	1,110.80	-1,163.12	449.23	165.29	283.95	1.582		
8,000.00	6,949.08	6,944.08	6,949.08	46.24	240.70	89.89	1,110.80	-1,163.12	496.31	212.28	284.03	1.747		
8,100.00	6,948.79	6,943.79	6,948.79	48.36	240.68	89.85	1,110.80	-1,163.12	557.52	273.95	283.57	1.966		
8,200.00	6,948.49	6,943.49	6,948.49	50.56	240.67	89.81	1,110.80	-1,163.12	628.76	345.87	282.89	2.223		
8,300.00	6,948.19	6,943.19	6,948.19	52.82	240.66	89.76	1,110.80	-1,163.12	707.00	424.81	282.18	2.505		
8,400.00	6,947.89	6,942.89	6,947.89	55.14	240.65	89.72	1,110.80	-1,163.12	790.16	508.64	281.52	2.807		
8,500.00	6,947.59	6,942.59	6,947.59	57.50	240.64	89.68	1,110.80	-1,163.12	876.85	595.91	280.93	3.121		
8,600.00	6,947.29	6,942.29	6,947.29	59.91	240.63	89.64	1,110.80	-1,163.12	966.11	685.69	280.42	3.445		
8,700.00	6,947.00	6,942.00	6,947.00	62.36	240.62	89.60	1,110.80	-1,163.12	1,057.30	777.31	279.98	3.776		
8,800.00	6,946.70	6,941.70	6,946.70	64.84	240.61	89.56	1,110.80	-1,163.12	1,149.95	870.35	279.60	4.113		
8,900.00	6,946.40	6,941.40	6,946.40	67.35	240.60	89.52	1,110.80	-1,163.12	1,243.74	964.46	279.28	4.453		
9,000.00	6,946.10	6,941.10	6,946.10	69.88	240.59	89.48	1,110.80	-1,163.12	1,338.43	1,059.44	278.99	4.797		
9,100.00	6,945.80	6,940.80	6,945.80	72.44	240.58	89.43	1,110.80	-1,163.12	1,433.84	1,155.09	278.75	5.144		
9,200.00	6,945.50	6,940.50	6,945.50	75.02	240.57	89.39	1,110.80	-1,163.12	1,529.84	1,251.31	278.54	5.492		
9,300.00	6,945.21	6,940.21	6,945.21	77.63	240.56	89.35	1,110.80	-1,163.12	1,626.32	1,347.97	278.35	5.843		
9,400.00	6,944.91	6,939.91	6,944.91	80.24	240.55	89.31	1,110.80	-1,163.12	1,723.20	1,445.02	278.18	6.194		
9,500.00	6,944.61	6,939.61	6,944.61	82.88	240.54	89.27	1,110.80	-1,163.12	1,820.42	1,542.38	278.04	6.547		
9,600.00	6,944.31	6,939.31	6,944.31	85.53	240.53	89.23	1,110.80	-1,163.12	1,917.93	1,640.01	277.91	6.901		
9,700.00	6,944.01	6,939.01	6,944.01	88.19	240.52	89.19	1,110.80	-1,163.12	2,015.67	1,737.87	277.80	7.256		
9,800.00	6,943.71	6,938.71	6,943.71	90.86	240.51	89.15	1,110.80	-1,163.12	2,113.63	1,835.93	277.70	7.611		
9,900.00	6,943.42	6,938.42	6,943.42	93.55	240.50	89.10	1,110.80	-1,163.12	2,211.78	1,934.16	277.62	7.967		
10,000.00	6,943.12	6,938.12	6,943.12	96.24	240.49	89.06	1,110.80	-1,163.12	2,310.08	2,032.54	277.54	8.323		
10,100.00	6,942.82	6,937.82	6,942.82	98.95	240.48	89.02	1,110.80	-1,163.12	2,408.52	2,131.05	277.47	8.680		
10,200.00	6,942.52	6,937.52	6,942.52	101.66	240.47	88.98	1,110.80	-1,163.12	2,507.08	2,229.67	277.41	9.037		

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 4N-16A-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 4N-16A-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	Vertical Depth	Measured Depth	Vertical Depth	Reference	Offset	Highside Toolface	Offset Wellbore Centre	Between Centres	Between Ellipses	Minimum Separation	Separation Factor			
Depth (ft)	Depth (ft)	Depth (ft)	Depth (ft)	(ft)	(ft)	(°)	+N/-S (ft)	+E/-W (ft)	(ft)	(ft)	(ft)			
10,300.00	6,942.22	6,937.22	6,942.22	104.38	240.46	88.94	1,110.80	-1,163.12	2,605.76	2,328.40	277.36	9.395		
10,400.00	6,941.92	6,936.92	6,941.92	107.11	240.45	88.90	1,110.80	-1,163.12	2,704.53	2,427.21	277.32	9.753		
10,500.00	6,941.63	6,936.63	6,941.63	109.84	240.43	88.86	1,110.80	-1,163.12	2,803.39	2,526.11	277.28	10.110		
10,600.00	6,941.33	6,936.33	6,941.33	112.58	240.42	88.82	1,110.80	-1,163.12	2,902.32	2,625.08	277.24	10.469		
10,700.00	6,941.03	6,936.03	6,941.03	115.33	240.41	88.78	1,110.80	-1,163.12	3,001.33	2,724.12	277.21	10.827		
10,800.00	6,940.73	6,935.73	6,940.73	118.08	240.40	88.73	1,110.80	-1,163.12	3,100.40	2,823.21	277.19	11.185		
10,900.00	6,940.43	6,935.43	6,940.43	120.84	240.39	88.69	1,110.80	-1,163.12	3,199.53	2,922.36	277.17	11.544		
11,000.00	6,940.13	6,935.13	6,940.13	123.60	240.38	88.65	1,110.80	-1,163.12	3,298.71	3,021.56	277.16	11.902		
11,100.00	6,939.83	6,934.83	6,939.83	126.36	240.37	88.61	1,110.80	-1,163.12	3,397.94	3,120.80	277.14	12.261		
11,200.00	6,939.54	6,934.54	6,939.54	129.13	240.36	88.57	1,110.80	-1,163.12	3,497.21	3,220.08	277.14	12.619		
11,300.00	6,939.24	6,934.24	6,939.24	131.91	240.35	88.53	1,110.80	-1,163.12	3,596.53	3,319.40	277.13	12.978		
11,400.00	6,938.94	6,933.94	6,938.94	134.68	240.34	88.49	1,110.80	-1,163.12	3,695.88	3,418.75	277.13	13.336		
11,500.00	6,938.64	6,933.64	6,938.64	137.46	240.33	88.45	1,110.80	-1,163.12	3,795.26	3,518.13	277.13	13.695		
11,600.00	6,938.34	6,933.34	6,938.34	140.25	240.32	88.40	1,110.80	-1,163.12	3,894.68	3,617.54	277.14	14.053		
11,700.00	6,938.04	6,933.04	6,938.04	143.03	240.31	88.36	1,110.80	-1,163.12	3,994.12	3,716.98	277.14	14.412		
11,800.00	6,937.75	6,932.75	6,937.75	145.82	240.30	88.32	1,110.80	-1,163.12	4,093.60	3,816.44	277.15	14.770		
11,900.00	6,937.45	6,932.45	6,937.45	148.61	240.29	88.28	1,110.80	-1,163.12	4,193.09	3,915.93	277.16	15.129		
12,000.00	6,937.15	6,932.15	6,937.15	151.41	240.28	88.24	1,110.80	-1,163.12	4,292.61	4,015.44	277.18	15.487		
12,100.00	6,936.85	6,931.85	6,936.85	154.20	240.27	88.20	1,110.80	-1,163.12	4,392.16	4,114.96	277.19	15.845		
12,200.00	6,936.55	6,931.55	6,936.55	157.00	240.26	88.16	1,110.80	-1,163.12	4,491.72	4,214.51	277.21	16.203		
12,300.00	6,936.25	6,931.25	6,936.25	159.80	240.25	88.12	1,110.80	-1,163.12	4,591.30	4,314.07	277.23	16.561		
12,400.00	6,935.96	6,930.96	6,935.96	162.61	240.24	88.07	1,110.80	-1,163.12	4,690.90	4,413.64	277.25	16.919		
12,500.00	6,935.66	6,930.66	6,935.66	165.41	240.23	88.03	1,110.80	-1,163.12	4,790.51	4,513.24	277.28	17.277		
12,600.00	6,935.36	6,930.36	6,935.36	168.22	240.22	87.99	1,110.80	-1,163.12	4,890.15	4,612.84	277.30	17.635		
12,700.00	6,935.06	6,930.06	6,935.06	171.02	240.21	87.95	1,110.80	-1,163.12	4,989.79	4,712.46	277.33	17.992		
12,800.00	6,934.76	6,929.76	6,934.76	173.83	240.20	87.91	1,110.80	-1,163.12	5,089.45	4,812.09	277.36	18.350		
12,900.00	6,934.46	6,929.46	6,934.46	176.65	240.18	87.87	1,110.80	-1,163.12	5,189.13	4,911.73	277.39	18.707		
13,000.00	6,934.17	6,929.17	6,934.17	179.46	240.17	87.83	1,110.80	-1,163.12	5,288.81	5,011.39	277.43	19.064		
13,100.00	6,933.87	6,928.87	6,933.87	182.27	240.16	87.79	1,110.80	-1,163.12	5,388.51	5,111.05	277.46	19.421		
13,200.00	6,933.57	6,928.57	6,933.57	185.09	240.15	87.75	1,110.80	-1,163.12	5,488.22	5,210.72	277.50	19.778		
13,300.00	6,933.27	6,928.27	6,933.27	187.91	240.14	87.70	1,110.80	-1,163.12	5,587.94	5,310.40	277.53	20.134		
13,400.00	6,932.97	6,927.97	6,932.97	190.72	240.13	87.66	1,110.80	-1,163.12	5,687.67	5,410.09	277.57	20.491		
13,500.00	6,932.67	6,927.67	6,932.67	193.54	240.12	87.62	1,110.80	-1,163.12	5,787.40	5,509.79	277.61	20.847		
13,600.00	6,932.38	6,927.38	6,932.38	196.36	240.11	87.58	1,110.80	-1,163.12	5,887.15	5,609.50	277.65	21.203		
13,700.00	6,932.08	6,927.08	6,932.08	199.19	240.10	87.54	1,110.80	-1,163.12	5,986.90	5,709.21	277.70	21.559		
13,800.00	6,931.78	6,926.78	6,931.78	202.01	240.09	87.50	1,110.80	-1,163.12	6,086.67	5,808.93	277.74	21.915		
13,900.00	6,931.48	6,926.48	6,931.48	204.83	240.08	87.46	1,110.80	-1,163.12	6,186.44	5,908.65	277.78	22.271		
14,000.00	6,931.18	6,926.18	6,931.18	207.66	240.07	87.42	1,110.80	-1,163.12	6,286.22	6,008.39	277.83	22.626		
14,100.00	6,930.88	6,925.88	6,930.88	210.48	240.06	87.38	1,110.80	-1,163.12	6,386.00	6,108.12	277.88	22.981		
14,200.00	6,930.59	6,925.59	6,930.59	213.31	240.05	87.33	1,110.80	-1,163.12	6,485.79	6,207.87	277.93	23.336		
14,300.00	6,930.29	6,925.29	6,930.29	216.14	240.04	87.29	1,110.80	-1,163.12	6,585.59	6,307.61	277.98	23.691		
14,400.00	6,929.99	6,924.99	6,929.99	218.96	240.03	87.25	1,110.80	-1,163.12	6,685.40	6,407.37	278.03	24.046		
14,500.00	6,929.69	6,924.69	6,929.69	221.79	240.02	87.21	1,110.80	-1,163.12	6,785.21	6,507.12	278.08	24.400		
14,600.00	6,929.39	6,924.39	6,929.39	224.62	240.01	87.17	1,110.80	-1,163.12	6,885.02	6,606.89	278.13	24.754		
14,700.00	6,929.09	6,924.09	6,929.09	227.45	240.00	87.13	1,110.80	-1,163.12	6,984.84	6,706.65	278.19	25.108		
14,732.12	6,929.00	6,924.00	6,929.00	228.36	239.99	87.12	1,110.80	-1,163.12	7,016.91	6,738.70	278.21	25.222		



Anticollision Report



Company:	SRC ENERGY	Local Co-ordinate Reference:	Well HARVESTERS STATE 4N-16A-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 4N-16A-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	-99.93	-193.42	-1,104.77	1,121.73					
100.00	100.00	81.00	100.00	3.28	3.57	-99.93	-193.42	-1,104.77	1,121.57	1,114.72	6.86	163.579		
200.00	200.00	181.00	200.00	3.34	5.63	-99.93	-193.42	-1,104.77	1,121.57	1,112.61	8.96	125.107		
300.00	300.00	281.00	300.00	3.44	8.71	-99.93	-193.42	-1,104.77	1,121.57	1,109.42	12.15	92.306		
400.00	400.00	381.00	400.00	3.60	12.01	-99.93	-193.42	-1,104.77	1,121.57	1,105.96	15.62	71.826		
500.00	500.00	481.00	500.00	3.81	15.40	-99.93	-193.42	-1,104.77	1,121.57	1,102.37	19.21	58.398		
600.00	600.00	581.00	600.00	4.05	18.83	-99.93	-193.42	-1,104.77	1,121.57	1,098.70	22.87	49.038		
700.00	699.98	680.98	699.98	4.32	22.27	-86.55	-193.42	-1,104.77	1,121.47	1,094.88	26.59	42.180		
800.00	799.84	780.84	799.84	4.62	25.72	-86.82	-193.42	-1,104.77	1,121.16	1,090.83	30.34	36.958		
900.00	899.45	880.45	899.45	4.94	29.18	-87.28	-193.42	-1,104.77	1,120.71	1,086.61	34.11	32.860		
1,000.00	998.80	979.80	998.80	5.28	32.62	-87.86	-193.42	-1,104.77	1,120.23	1,082.33	37.89	29.565		
1,100.00	1,098.12	1,079.12	1,098.12	5.63	36.08	-88.45	-193.42	-1,104.77	1,119.85	1,078.15	41.69	26.859		
1,200.00	1,197.44	1,178.44	1,197.44	6.00	39.53	-89.04	-193.42	-1,104.77	1,119.59	1,074.08	45.51	24.598		
1,300.00	1,296.77	1,277.77	1,296.77	6.37	42.99	-89.63	-193.42	-1,104.77	1,119.46	1,070.11	49.35	22.685		
1,362.89	1,359.23	1,340.23	1,359.23	6.61	45.16	-90.00	-193.42	-1,104.77	1,119.43	1,067.67	51.77	21.625		
1,400.00	1,396.09	1,377.09	1,396.09	6.76	46.44	-90.22	-193.42	-1,104.77	1,119.44	1,066.25	53.19	21.045		
1,500.00	1,495.41	1,476.41	1,495.41	7.15	49.90	-90.81	-193.42	-1,104.77	1,119.55	1,062.50	57.05	19.625		
1,600.00	1,594.74	1,575.74	1,594.74	7.55	53.36	-91.40	-193.42	-1,104.77	1,119.77	1,058.86	60.91	18.385		
1,700.00	1,694.06	1,675.06	1,694.06	7.96	56.83	-91.99	-193.42	-1,104.77	1,120.12	1,055.34	64.78	17.292		
1,800.00	1,793.38	1,774.38	1,793.38	8.37	60.29	-92.58	-193.42	-1,104.77	1,120.58	1,051.93	68.65	16.323		
1,900.00	1,892.71	1,873.71	1,892.71	8.78	63.75	-93.17	-193.42	-1,104.77	1,121.17	1,048.64	72.53	15.459		
2,000.00	1,992.03	1,973.03	1,992.03	9.20	67.21	-93.76	-193.42	-1,104.77	1,121.87	1,045.46	76.41	14.682		
2,100.00	2,091.36	2,072.36	2,091.36	9.62	70.68	-94.34	-193.42	-1,104.77	1,122.70	1,042.40	80.30	13.982		
2,200.00	2,190.68	2,171.68	2,190.68	10.05	74.14	-94.93	-193.42	-1,104.77	1,123.65	1,039.46	84.18	13.347		
2,300.00	2,290.00	2,271.00	2,290.00	10.48	77.60	-95.52	-193.42	-1,104.77	1,124.71	1,036.63	88.08	12.770		
2,400.00	2,389.33	2,370.33	2,389.33	10.90	81.07	-96.10	-193.42	-1,104.77	1,125.89	1,033.92	91.97	12.242		
2,500.00	2,488.65	2,469.65	2,488.65	11.34	84.53	-96.68	-193.42	-1,104.77	1,127.19	1,031.33	95.87	11.758		
2,600.00	2,587.97	2,568.97	2,587.97	11.77	88.00	-97.26	-193.42	-1,104.77	1,128.61	1,028.85	99.76	11.313		
2,700.00	2,687.30	2,668.30	2,687.30	12.20	91.46	-97.84	-193.42	-1,104.77	1,130.15	1,026.49	103.66	10.902		
2,800.00	2,786.62	2,767.62	2,786.62	12.64	94.93	-98.42	-193.42	-1,104.77	1,131.80	1,024.24	107.56	10.522		
2,900.00	2,885.94	2,866.94	2,885.94	13.07	98.39	-99.00	-193.42	-1,104.77	1,133.57	1,022.11	111.47	10.170		
3,000.00	2,985.27	2,966.27	2,985.27	13.51	101.86	-99.57	-193.42	-1,104.77	1,135.46	1,020.09	115.37	9.842		
3,100.00	3,084.59	3,065.59	3,084.59	13.95	105.33	-100.15	-193.42	-1,104.77	1,137.46	1,018.19	119.27	9.537		
3,200.00	3,183.91	3,164.91	3,183.91	14.39	108.79	-100.72	-193.42	-1,104.77	1,139.58	1,016.40	123.18	9.251		
3,300.00	3,283.24	3,264.24	3,283.24	14.83	112.26	-101.29	-193.42	-1,104.77	1,141.81	1,014.72	127.09	8.985		
3,400.00	3,382.56	3,363.56	3,382.56	15.27	115.72	-101.85	-193.42	-1,104.77	1,144.15	1,013.16	130.99	8.734		
3,500.00	3,481.88	3,462.88	3,481.88	15.71	119.19	-102.42	-193.42	-1,104.77	1,146.61	1,011.71	134.90	8.500		
3,600.00	3,581.21	3,562.21	3,581.21	16.16	122.66	-102.98	-193.42	-1,104.77	1,149.18	1,010.37	138.81	8.279		
3,700.00	3,680.53	3,661.53	3,680.53	16.60	126.12	-103.54	-193.42	-1,104.77	1,151.86	1,009.14	142.72	8.071		
3,800.00	3,779.85	3,760.85	3,779.85	17.04	129.59	-104.10	-193.42	-1,104.77	1,154.65	1,008.02	146.63	7.875		
3,900.00	3,879.18	3,860.18	3,879.18	17.49	133.05	-104.65	-193.42	-1,104.77	1,157.55	1,007.02	150.54	7.689		
4,000.00	3,978.50	3,959.50	3,978.50	17.93	136.52	-105.20	-193.42	-1,104.77	1,160.56	1,006.11	154.45	7.514		
4,100.00	4,077.82	4,058.82	4,077.82	18.37	139.99	-105.75	-193.42	-1,104.77	1,163.68	1,005.32	158.36	7.348		
4,200.00	4,177.15	4,158.15	4,177.15	18.82	143.45	-106.29	-193.42	-1,104.77	1,166.91	1,004.64	162.27	7.191		
4,300.00	4,276.47	4,257.47	4,276.47	19.27	146.92	-106.84	-193.42	-1,104.77	1,170.24	1,004.05	166.19	7.042		
4,400.00	4,375.79	4,356.79	4,375.79	19.71	150.39	-107.38	-193.42	-1,104.77	1,173.68	1,003.58	170.10	6.900		
4,500.00	4,475.12	4,456.12	4,475.12	20.16	153.85	-107.91	-193.42	-1,104.77	1,177.22	1,003.21	174.01	6.765		
4,600.00	4,574.44	4,555.44	4,574.44	20.60	157.32	-108.45	-193.42	-1,104.77	1,180.86	1,002.94	177.92	6.637		
4,700.00	4,673.76	4,654.76	4,673.76	21.05	160.79	-108.97	-193.42	-1,104.77	1,184.61	1,002.78	181.84	6.515		
4,800.00	4,773.09	4,754.09	4,773.09	21.50	164.25	-109.50	-193.42	-1,104.77	1,188.46	1,002.71	185.75	6.398		
4,900.00	4,872.41	4,853.41	4,872.41	21.94	167.72	-110.02	-193.42	-1,104.77	1,192.41	1,002.75	189.66	6.287		
5,000.00	4,971.74	4,952.74	4,971.74	22.39	171.19	-110.54	-193.42	-1,104.77	1,196.46	1,002.88	193.58	6.181		

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 4N-16A-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 4N-16A-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	5,071.06	5,052.06	5,071.06	22.84	174.65	-111.06	-193.42	-1,104.77	1,200.61	1,003.12	197.49	6.079	
5,200.00	5,170.38	5,151.38	5,170.38	23.29	178.12	-111.57	-193.42	-1,104.77	1,204.86	1,003.45	201.40	5.982	
5,300.00	5,269.71	5,250.71	5,269.71	23.74	181.59	-112.08	-193.42	-1,104.77	1,209.20	1,003.88	205.32	5.889	
5,400.00	5,369.03	5,350.03	5,369.03	24.18	185.05	-112.59	-193.42	-1,104.77	1,213.64	1,004.40	209.23	5.800	
5,500.00	5,468.35	5,449.35	5,468.35	24.63	188.52	-113.09	-193.42	-1,104.77	1,218.17	1,005.02	213.15	5.715	
5,600.00	5,567.68	5,548.68	5,567.68	25.08	191.99	-113.58	-193.42	-1,104.77	1,222.80	1,005.73	217.06	5.633	
5,700.00	5,667.00	5,648.00	5,667.00	25.53	195.45	-114.08	-193.42	-1,104.77	1,227.52	1,006.54	220.98	5.555	
5,800.00	5,766.32	5,747.32	5,766.32	25.98	198.92	-114.57	-193.42	-1,104.77	1,232.33	1,007.43	224.89	5.480	
5,900.00	5,865.65	5,846.65	5,865.65	26.43	202.39	-115.06	-193.42	-1,104.77	1,237.23	1,008.42	228.81	5.407	
6,000.00	5,964.97	5,945.97	5,964.97	26.88	205.85	-115.54	-193.42	-1,104.77	1,242.22	1,009.49	232.72	5.338	
6,100.00	6,064.29	6,045.29	6,064.29	27.33	209.32	-116.02	-193.42	-1,104.77	1,247.29	1,010.66	236.64	5.271	
6,200.00	6,163.62	6,144.62	6,163.62	27.78	212.79	-116.49	-193.42	-1,104.77	1,252.46	1,011.91	240.55	5.207	
6,300.00	6,262.94	6,243.94	6,262.94	28.23	216.26	-116.96	-193.42	-1,104.77	1,257.71	1,013.24	244.47	5.145	
6,400.00	6,362.24	6,343.24	6,362.24	28.67	219.72	-99.09	-193.42	-1,104.77	1,262.60	1,014.22	248.38	5.083	
6,500.00	6,460.41	6,441.41	6,460.41	29.12	223.15	-68.31	-193.42	-1,104.77	1,258.86	1,006.60	252.26	4.990	
6,600.00	6,555.09	6,536.09	6,555.09	29.57	226.45	-60.50	-193.42	-1,104.77	1,243.86	987.85	256.01	4.859	
6,700.00	6,643.94	6,624.94	6,643.94	30.00	229.56	-59.40	-193.42	-1,104.77	1,218.64	959.08	259.55	4.695	
6,800.00	6,724.78	6,705.78	6,724.78	30.45	232.38	-61.52	-193.42	-1,104.77	1,184.73	921.90	262.83	4.508	
6,900.00	6,795.62	6,776.62	6,795.62	30.97	234.85	-65.69	-193.42	-1,104.77	1,144.15	878.35	265.80	4.305	
7,000.00	6,854.70	6,835.70	6,854.70	31.60	236.91	-71.20	-193.42	-1,104.77	1,099.28	830.84	268.45	4.095	
7,100.00	6,900.58	6,881.58	6,900.58	32.39	238.51	-77.29	-193.42	-1,104.77	1,052.87	782.09	270.78	3.888	
7,200.00	6,932.13	6,913.13	6,932.13	33.34	239.61	-83.11	-193.42	-1,104.77	1,007.76	734.96	272.80	3.694	
7,300.00	6,948.57	6,929.57	6,948.57	34.46	240.19	-87.94	-193.42	-1,104.77	966.78	692.27	274.51	3.522	
7,400.00	6,950.87	6,931.87	6,950.87	35.70	240.27	-90.05	-193.42	-1,104.77	932.47	656.57	275.90	3.380	
7,500.00	6,950.58	6,931.58	6,950.58	37.12	240.26	-90.03	-193.42	-1,104.77	907.61	630.24	277.37	3.272	
7,600.00	6,950.28	6,931.28	6,950.28	38.70	240.25	-90.02	-193.42	-1,104.77	893.31	614.38	278.93	3.203	
7,678.73	6,950.04	6,931.04	6,950.04	40.05	240.24	-90.00	-193.42	-1,104.77	889.83	609.67	280.17	3.176 CC	
7,700.00	6,949.98	6,930.98	6,949.98	40.41	240.24	-90.00	-193.42	-1,104.77	890.09	609.61	280.48	3.173 ES, SF	
7,800.00	6,949.68	6,930.68	6,949.68	42.25	240.23	-89.98	-193.42	-1,104.77	898.06	616.16	281.90	3.186	
7,900.00	6,949.38	6,930.38	6,949.38	44.20	240.22	-89.96	-193.42	-1,104.77	916.93	633.81	283.13	3.239	
8,000.00	6,949.08	6,930.08	6,949.08	46.24	240.21	-89.94	-193.42	-1,104.77	946.05	661.95	284.10	3.330	
8,100.00	6,948.79	6,929.79	6,948.79	48.36	240.20	-89.92	-193.42	-1,104.77	984.52	699.69	284.82	3.457	
8,200.00	6,948.49	6,929.49	6,948.49	50.56	240.19	-89.90	-193.42	-1,104.77	1,031.27	745.96	285.31	3.615	
8,300.00	6,948.19	6,929.19	6,948.19	52.82	240.18	-89.88	-193.42	-1,104.77	1,085.26	799.65	285.60	3.800	
8,400.00	6,947.89	6,928.89	6,947.89	55.14	240.16	-89.86	-193.42	-1,104.77	1,145.44	859.70	285.74	4.009	
8,500.00	6,947.59	6,928.59	6,947.59	57.50	240.15	-89.84	-193.42	-1,104.77	1,210.90	925.15	285.76	4.238	
8,600.00	6,947.29	6,928.29	6,947.29	59.91	240.14	-89.82	-193.42	-1,104.77	1,280.83	995.15	285.69	4.483	
8,700.00	6,947.00	6,928.00	6,947.00	62.36	240.13	-89.80	-193.42	-1,104.77	1,354.54	1,068.98	285.56	4.743	
8,800.00	6,946.70	6,927.70	6,946.70	64.84	240.12	-89.78	-193.42	-1,104.77	1,431.45	1,146.05	285.40	5.016	
8,900.00	6,946.40	6,927.40	6,946.40	67.35	240.11	-89.77	-193.42	-1,104.77	1,511.06	1,225.84	285.22	5.298	
9,000.00	6,946.10	6,927.10	6,946.10	69.88	240.10	-89.75	-193.42	-1,104.77	1,592.97	1,307.95	285.02	5.589	
9,100.00	6,945.80	6,926.80	6,945.80	72.44	240.09	-89.73	-193.42	-1,104.77	1,676.84	1,392.02	284.82	5.887	
9,200.00	6,945.50	6,926.50	6,945.50	75.02	240.08	-89.71	-193.42	-1,104.77	1,762.40	1,477.78	284.62	6.192	
9,300.00	6,945.21	6,926.21	6,945.21	77.63	240.07	-89.69	-193.42	-1,104.77	1,849.41	1,564.99	284.42	6.502	
9,400.00	6,944.91	6,925.91	6,944.91	80.24	240.06	-89.67	-193.42	-1,104.77	1,937.67	1,653.44	284.23	6.817	
9,500.00	6,944.61	6,925.61	6,944.61	82.88	240.05	-89.65	-193.42	-1,104.77	2,027.02	1,742.97	284.05	7.136	
9,600.00	6,944.31	6,925.31	6,944.31	85.53	240.04	-89.63	-193.42	-1,104.77	2,117.32	1,833.45	283.87	7.459	
9,700.00	6,944.01	6,925.01	6,944.01	88.19	240.03	-89.61	-193.42	-1,104.77	2,208.46	1,924.75	283.71	7.784	
9,800.00	6,943.71	6,924.71	6,943.71	90.86	240.02	-89.59	-193.42	-1,104.77	2,300.34	2,016.79	283.55	8.113	
9,900.00	6,943.42	6,924.42	6,943.42	93.55	240.01	-89.57	-193.42	-1,104.77	2,392.87	2,109.46	283.41	8.443	
10,000.00	6,943.12	6,924.12	6,943.12	96.24	240.00	-89.55	-193.42	-1,104.77	2,485.97	2,202.70	283.27	8.776	
10,100.00	6,942.82	6,923.82	6,942.82	98.95	239.99	-89.53	-193.42	-1,104.77	2,579.59	2,296.45	283.14	9.111	

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 4N-16A-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 4N-16A-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	6,942.52	6,923.52	6,942.52	101.66	239.98	-89.52	-193.42	-1,104.77	2,673.68	2,390.66	283.02	9.447		
10,300.00	6,942.22	6,923.22	6,942.22	104.38	239.97	-89.50	-193.42	-1,104.77	2,768.18	2,485.27	282.91	9.785		
10,400.00	6,941.92	6,922.92	6,941.92	107.11	239.96	-89.48	-193.42	-1,104.77	2,863.05	2,580.24	282.81	10.124		
10,500.00	6,941.63	6,922.63	6,941.63	109.84	239.95	-89.46	-193.42	-1,104.77	2,958.26	2,675.55	282.71	10.464		
10,600.00	6,941.33	6,922.33	6,941.33	112.58	239.94	-89.44	-193.42	-1,104.77	3,053.78	2,771.16	282.62	10.805		
10,700.00	6,941.03	6,922.03	6,941.03	115.33	239.93	-89.42	-193.42	-1,104.77	3,149.57	2,867.04	282.54	11.148		
10,800.00	6,940.73	6,921.73	6,940.73	118.08	239.91	-89.40	-193.42	-1,104.77	3,245.62	2,963.16	282.46	11.491		
10,900.00	6,940.43	6,921.43	6,940.43	120.84	239.90	-89.38	-193.42	-1,104.77	3,341.90	3,059.51	282.39	11.834		
11,000.00	6,940.13	6,921.13	6,940.13	123.60	239.89	-89.36	-193.42	-1,104.77	3,438.39	3,156.07	282.32	12.179		
11,100.00	6,939.83	6,920.83	6,939.83	126.36	239.88	-89.34	-193.42	-1,104.77	3,535.08	3,252.82	282.26	12.524		
11,200.00	6,939.54	6,920.54	6,939.54	129.13	239.87	-89.32	-193.42	-1,104.77	3,631.95	3,349.74	282.20	12.870		
11,300.00	6,939.24	6,920.24	6,939.24	131.91	239.86	-89.30	-193.42	-1,104.77	3,728.98	3,446.83	282.15	13.216		
11,400.00	6,938.94	6,919.94	6,938.94	134.68	239.85	-89.29	-193.42	-1,104.77	3,826.16	3,544.06	282.11	13.563		
11,500.00	6,938.64	6,919.64	6,938.64	137.46	239.84	-89.27	-193.42	-1,104.77	3,923.49	3,641.43	282.06	13.910		
11,600.00	6,938.34	6,919.34	6,938.34	140.25	239.83	-89.25	-193.42	-1,104.77	4,020.95	3,738.92	282.03	14.257		
11,700.00	6,938.04	6,919.04	6,938.04	143.03	239.82	-89.23	-193.42	-1,104.77	4,118.53	3,836.54	281.99	14.605		
11,800.00	6,937.75	6,918.75	6,937.75	145.82	239.81	-89.21	-193.42	-1,104.77	4,216.22	3,934.26	281.96	14.953		
11,900.00	6,937.45	6,918.45	6,937.45	148.61	239.80	-89.19	-193.42	-1,104.77	4,314.02	4,032.09	281.93	15.302		
12,000.00	6,937.15	6,918.15	6,937.15	151.41	239.79	-89.17	-193.42	-1,104.77	4,411.92	4,130.01	281.91	15.650		
12,100.00	6,936.85	6,917.85	6,936.85	154.20	239.78	-89.15	-193.42	-1,104.77	4,509.91	4,228.02	281.89	15.999		
12,200.00	6,936.55	6,917.55	6,936.55	157.00	239.77	-89.13	-193.42	-1,104.77	4,607.98	4,326.11	281.87	16.348		
12,300.00	6,936.25	6,917.25	6,936.25	159.80	239.76	-89.11	-193.42	-1,104.77	4,706.14	4,424.28	281.86	16.697		
12,400.00	6,935.96	6,916.96	6,935.96	162.61	239.75	-89.09	-193.42	-1,104.77	4,804.37	4,522.53	281.84	17.046		
12,500.00	6,935.66	6,916.66	6,935.66	165.41	239.74	-89.07	-193.42	-1,104.77	4,902.68	4,620.84	281.84	17.396		
12,600.00	6,935.36	6,916.36	6,935.36	168.22	239.73	-89.05	-193.42	-1,104.77	5,001.05	4,719.22	281.83	17.745		
12,700.00	6,935.06	6,916.06	6,935.06	171.02	239.72	-89.04	-193.42	-1,104.77	5,099.48	4,817.66	281.83	18.094		
12,800.00	6,934.76	6,915.76	6,934.76	173.83	239.71	-89.02	-193.42	-1,104.77	5,197.98	4,916.16	281.82	18.444		
12,900.00	6,934.46	6,915.46	6,934.46	176.65	239.70	-89.00	-193.42	-1,104.77	5,296.53	5,014.71	281.82	18.794		
13,000.00	6,934.17	6,915.17	6,934.17	179.46	239.69	-88.98	-193.42	-1,104.77	5,395.13	5,113.31	281.83	19.143		
13,100.00	6,933.87	6,914.87	6,933.87	182.27	239.68	-88.96	-193.42	-1,104.77	5,493.79	5,211.96	281.83	19.493		
13,200.00	6,933.57	6,914.57	6,933.57	185.09	239.67	-88.94	-193.42	-1,104.77	5,592.49	5,310.65	281.84	19.843		
13,300.00	6,933.27	6,914.27	6,933.27	187.91	239.65	-88.92	-193.42	-1,104.77	5,691.24	5,409.39	281.85	20.192		
13,400.00	6,932.97	6,913.97	6,932.97	190.72	239.64	-88.90	-193.42	-1,104.77	5,790.03	5,508.17	281.86	20.542		
13,500.00	6,932.67	6,913.67	6,932.67	193.54	239.63	-88.88	-193.42	-1,104.77	5,888.86	5,606.99	281.88	20.892		
13,600.00	6,932.38	6,913.38	6,932.38	196.36	239.62	-88.86	-193.42	-1,104.77	5,987.73	5,705.84	281.89	21.241		
13,700.00	6,932.08	6,913.08	6,932.08	199.19	239.61	-88.84	-193.42	-1,104.77	6,086.64	5,804.73	281.91	21.591		
13,800.00	6,931.78	6,912.78	6,931.78	202.01	239.60	-88.82	-193.42	-1,104.77	6,185.58	5,903.66	281.93	21.940		
13,900.00	6,931.48	6,912.48	6,931.48	204.83	239.59	-88.80	-193.42	-1,104.77	6,284.56	6,002.61	281.95	22.290		
14,000.00	6,931.18	6,912.18	6,931.18	207.66	239.58	-88.79	-193.42	-1,104.77	6,383.57	6,101.60	281.97	22.639		
14,100.00	6,930.88	6,911.88	6,930.88	210.48	239.57	-88.77	-193.42	-1,104.77	6,482.60	6,200.61	281.99	22.988		
14,200.00	6,930.59	6,911.59	6,930.59	213.31	239.56	-88.75	-193.42	-1,104.77	6,581.67	6,299.65	282.02	23.338		
14,300.00	6,930.29	6,911.29	6,930.29	216.14	239.55	-88.73	-193.42	-1,104.77	6,680.77	6,398.72	282.05	23.687		
14,400.00	6,929.99	6,910.99	6,929.99	218.96	239.54	-88.71	-193.42	-1,104.77	6,779.89	6,497.81	282.08	24.036		
14,500.00	6,929.69	6,910.69	6,929.69	221.79	239.53	-88.69	-193.42	-1,104.77	6,879.04	6,596.93	282.11	24.385		
14,600.00	6,929.39	6,910.39	6,929.39	224.62	239.52	-88.67	-193.42	-1,104.77	6,978.21	6,696.07	282.14	24.733		
14,700.00	6,929.09	6,910.09	6,929.09	227.45	239.51	-88.65	-193.42	-1,104.77	7,077.40	6,795.23	282.17	25.082		
14,732.12	6,929.00	6,910.00	6,929.00	228.36	239.51	-88.65	-193.42	-1,104.77	7,109.27	6,827.09	282.18	25.194		



Anticollision Report



Company:	SRC ENERGY	Local Co-ordinate Reference:	Well HARVESTERS STATE 4N-16A-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 4N-16A-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	-71.79	487.85	-1,483.00	1,561.23				
100.00	100.00	88.00	100.00	3.28	3.62	-71.79	487.85	-1,483.00	1,561.18	1,554.27	6.91	226.043	
200.00	200.00	188.00	200.00	3.34	5.83	-71.79	487.85	-1,483.00	1,561.18	1,552.01	9.17	170.338	
300.00	300.00	288.00	300.00	3.44	8.93	-71.79	487.85	-1,483.00	1,561.18	1,548.80	12.38	126.131	
400.00	400.00	388.00	400.00	3.60	12.25	-71.79	487.85	-1,483.00	1,561.18	1,545.33	15.85	98.495	
500.00	500.00	488.00	500.00	3.81	15.64	-71.79	487.85	-1,483.00	1,561.18	1,541.74	19.44	80.289	
600.00	600.00	588.00	600.00	4.05	19.07	-71.79	487.85	-1,483.00	1,561.18	1,538.07	23.11	67.548	
700.00	699.98	687.98	699.98	4.32	22.51	-58.39	487.85	-1,483.00	1,560.26	1,533.43	26.83	58.155	
800.00	799.84	787.84	799.84	4.62	25.97	-58.60	487.85	-1,483.00	1,557.53	1,526.95	30.58	50.933	
900.00	899.45	887.45	899.45	4.94	29.42	-58.95	487.85	-1,483.00	1,553.00	1,518.65	34.35	45.211	
1,000.00	998.80	986.80	998.80	5.28	32.87	-59.35	487.85	-1,483.00	1,547.11	1,508.98	38.13	40.570	
1,100.00	1,098.12	1,086.12	1,098.12	5.63	36.32	-59.72	487.85	-1,483.00	1,541.19	1,499.26	41.94	36.750	
1,200.00	1,197.44	1,185.44	1,197.44	6.00	39.77	-60.09	487.85	-1,483.00	1,535.34	1,489.59	45.76	33.555	
1,300.00	1,296.77	1,284.77	1,296.77	6.37	43.23	-60.46	487.85	-1,483.00	1,529.55	1,479.97	49.59	30.846	
1,400.00	1,396.09	1,384.09	1,396.09	6.76	46.69	-60.84	487.85	-1,483.00	1,523.83	1,470.40	53.43	28.520	
1,500.00	1,495.41	1,483.41	1,495.41	7.15	50.15	-61.22	487.85	-1,483.00	1,518.18	1,460.90	57.28	26.504	
1,600.00	1,594.74	1,582.74	1,594.74	7.55	53.61	-61.60	487.85	-1,483.00	1,512.59	1,451.45	61.14	24.739	
1,700.00	1,694.06	1,682.06	1,694.06	7.96	57.07	-61.99	487.85	-1,483.00	1,507.08	1,442.07	65.01	23.183	
1,800.00	1,793.38	1,781.38	1,793.38	8.37	60.53	-62.38	487.85	-1,483.00	1,501.63	1,432.75	68.88	21.801	
1,900.00	1,892.71	1,880.71	1,892.71	8.78	63.99	-62.77	487.85	-1,483.00	1,496.25	1,423.50	72.75	20.566	
2,000.00	1,992.03	1,980.03	1,992.03	9.20	67.46	-63.17	487.85	-1,483.00	1,490.95	1,414.31	76.63	19.455	
2,100.00	2,091.36	2,079.36	2,091.36	9.62	70.92	-63.56	487.85	-1,483.00	1,485.71	1,405.19	80.52	18.452	
2,200.00	2,190.68	2,178.68	2,190.68	10.05	74.38	-63.96	487.85	-1,483.00	1,480.55	1,396.15	84.40	17.541	
2,300.00	2,290.00	2,278.00	2,290.00	10.48	77.85	-64.37	487.85	-1,483.00	1,475.46	1,387.17	88.29	16.711	
2,400.00	2,389.33	2,377.33	2,389.33	10.90	81.31	-64.77	487.85	-1,483.00	1,470.45	1,378.26	92.19	15.951	
2,500.00	2,488.65	2,476.65	2,488.65	11.34	84.78	-65.18	487.85	-1,483.00	1,465.51	1,369.43	96.08	15.253	
2,600.00	2,587.97	2,575.97	2,587.97	11.77	88.24	-65.59	487.85	-1,483.00	1,460.64	1,360.67	99.98	14.610	
2,700.00	2,687.30	2,675.30	2,687.30	12.20	91.71	-66.01	487.85	-1,483.00	1,455.86	1,351.98	103.87	14.016	
2,800.00	2,786.62	2,774.62	2,786.62	12.64	95.17	-66.42	487.85	-1,483.00	1,451.15	1,343.37	107.77	13.465	
2,900.00	2,885.94	2,873.94	2,885.94	13.07	98.64	-66.84	487.85	-1,483.00	1,446.51	1,334.84	111.67	12.953	
3,000.00	2,985.27	2,973.27	2,985.27	13.51	102.10	-67.26	487.85	-1,483.00	1,441.96	1,326.38	115.58	12.476	
3,100.00	3,084.59	3,072.59	3,084.59	13.95	105.57	-67.69	487.85	-1,483.00	1,437.49	1,318.01	119.48	12.031	
3,200.00	3,183.91	3,171.91	3,183.91	14.39	109.04	-68.12	487.85	-1,483.00	1,433.09	1,309.71	123.38	11.615	
3,300.00	3,283.24	3,271.24	3,283.24	14.83	112.50	-68.54	487.85	-1,483.00	1,428.78	1,301.49	127.29	11.225	
3,400.00	3,382.56	3,370.56	3,382.56	15.27	115.97	-68.98	487.85	-1,483.00	1,424.55	1,293.35	131.19	10.858	
3,500.00	3,481.88	3,469.88	3,481.88	15.71	119.43	-69.41	487.85	-1,483.00	1,420.40	1,285.30	135.10	10.514	
3,600.00	3,581.21	3,569.21	3,581.21	16.16	122.90	-69.85	487.85	-1,483.00	1,416.33	1,277.32	139.01	10.189	
3,700.00	3,680.53	3,668.53	3,680.53	16.60	126.37	-70.29	487.85	-1,483.00	1,412.35	1,269.43	142.92	9.882	
3,800.00	3,779.85	3,767.85	3,779.85	17.04	129.83	-70.73	487.85	-1,483.00	1,408.45	1,261.62	146.83	9.593	
3,900.00	3,879.18	3,867.18	3,879.18	17.49	133.30	-71.17	487.85	-1,483.00	1,404.64	1,253.90	150.74	9.318	
4,000.00	3,978.50	3,966.50	3,978.50	17.93	136.76	-71.62	487.85	-1,483.00	1,400.91	1,246.26	154.65	9.059	
4,100.00	4,077.82	4,065.82	4,077.82	18.37	140.23	-72.07	487.85	-1,483.00	1,397.27	1,238.71	158.56	8.812	
4,200.00	4,177.15	4,165.15	4,177.15	18.82	143.70	-72.52	487.85	-1,483.00	1,393.72	1,231.25	162.47	8.578	
4,300.00	4,276.47	4,264.47	4,276.47	19.27	147.16	-72.98	487.85	-1,483.00	1,390.25	1,223.87	166.38	8.356	
4,400.00	4,375.79	4,363.79	4,375.79	19.71	150.63	-73.43	487.85	-1,483.00	1,386.88	1,216.58	170.29	8.144	
4,500.00	4,475.12	4,463.12	4,475.12	20.16	154.10	-73.89	487.85	-1,483.00	1,383.59	1,209.38	174.21	7.942	
4,600.00	4,574.44	4,562.44	4,574.44	20.60	157.56	-74.35	487.85	-1,483.00	1,380.39	1,202.27	178.12	7.750	
4,700.00	4,673.76	4,661.76	4,673.76	21.05	161.03	-74.81	487.85	-1,483.00	1,377.28	1,195.25	182.03	7.566	
4,800.00	4,773.09	4,761.09	4,773.09	21.50	164.50	-75.28	487.85	-1,483.00	1,374.27	1,188.32	185.95	7.391	
4,900.00	4,872.41	4,860.41	4,872.41	21.94	167.96	-75.74	487.85	-1,483.00	1,371.34	1,181.48	189.86	7.223	
5,000.00	4,971.74	4,959.74	4,971.74	22.39	171.43	-76.21	487.85	-1,483.00	1,368.51	1,174.74	193.78	7.062	
5,100.00	5,071.06	5,059.06	5,071.06	22.84	174.90	-76.68	487.85	-1,483.00	1,365.77	1,168.08	197.69	6.909	

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 4N-16A-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 4N-16A-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	5,170.38	5,158.38	5,170.38	23.29	178.36	-77.15	487.85	-1,483.00	1,363.13	1,161.52	201.61	6.761		
5,300.00	5,269.71	5,257.71	5,269.71	23.74	181.83	-77.63	487.85	-1,483.00	1,360.58	1,155.06	205.52	6.620		
5,400.00	5,369.03	5,357.03	5,369.03	24.18	185.30	-78.10	487.85	-1,483.00	1,358.12	1,148.68	209.44	6.485		
5,500.00	5,468.35	5,456.35	5,468.35	24.63	188.76	-78.58	487.85	-1,483.00	1,355.76	1,142.40	213.35	6.355		
5,600.00	5,567.68	5,555.68	5,567.68	25.08	192.23	-79.06	487.85	-1,483.00	1,353.49	1,136.22	217.27	6.230		
5,700.00	5,667.00	5,655.00	5,667.00	25.53	195.70	-79.54	487.85	-1,483.00	1,351.32	1,130.13	221.18	6.109		
5,800.00	5,766.32	5,754.32	5,766.32	25.98	199.17	-80.02	487.85	-1,483.00	1,349.25	1,124.14	225.10	5.994		
5,900.00	5,865.65	5,853.65	5,865.65	26.43	202.63	-80.50	487.85	-1,483.00	1,347.27	1,118.25	229.02	5.883		
6,000.00	5,964.97	5,952.97	5,964.97	26.88	206.10	-80.99	487.85	-1,483.00	1,345.39	1,112.45	232.93	5.776		
6,100.00	6,064.29	6,052.29	6,064.29	27.33	209.57	-81.47	487.85	-1,483.00	1,343.61	1,106.75	236.85	5.673		
6,200.00	6,163.62	6,151.62	6,163.62	27.78	213.03	-81.96	487.85	-1,483.00	1,341.92	1,101.15	240.77	5.573		
6,300.00	6,262.94	6,250.94	6,262.94	28.23	216.50	-82.45	487.85	-1,483.00	1,340.34	1,095.65	244.69	5.478		
6,400.00	6,362.24	6,350.24	6,362.24	28.67	219.97	-82.93	487.85	-1,483.00	1,338.26	1,089.66	248.60	5.383		
6,500.00	6,460.41	6,448.41	6,460.41	29.12	223.39	-83.42	487.85	-1,483.00	1,324.86	1,072.38	252.48	5.247		
6,600.00	6,555.09	6,543.09	6,555.09	29.57	226.70	-83.91	487.85	-1,483.00	1,296.36	1,040.15	256.21	5.060		
6,700.00	6,643.94	6,631.94	6,643.94	30.00	229.80	-84.40	487.85	-1,483.00	1,253.54	993.82	259.72	4.827		
6,800.00	6,724.78	6,712.78	6,724.78	30.45	232.62	-84.89	487.85	-1,483.00	1,197.49	934.58	262.91	4.555		
6,900.00	6,795.62	6,783.62	6,795.62	30.97	235.09	-85.38	487.85	-1,483.00	1,129.68	863.97	265.71	4.252		
7,000.00	6,854.70	6,842.70	6,854.70	31.60	237.16	-85.87	487.85	-1,483.00	1,051.84	783.78	268.06	3.924		
7,100.00	6,900.58	6,888.58	6,900.58	32.39	238.76	-86.36	487.85	-1,483.00	966.00	696.08	269.93	3.579		
7,200.00	6,932.13	6,920.13	6,932.13	33.34	239.86	-86.85	487.85	-1,483.00	874.40	603.12	271.28	3.223		
7,300.00	6,948.57	6,936.57	6,948.57	34.46	240.43	-87.34	487.85	-1,483.00	779.43	507.30	272.12	2.864		
7,400.00	6,950.87	6,938.87	6,950.87	35.70	240.51	-87.83	487.85	-1,483.00	683.63	411.09	272.54	2.508		
7,500.00	6,950.58	6,938.58	6,950.58	37.12	240.50	-88.32	487.85	-1,483.00	589.04	316.01	273.03	2.157		
7,600.00	6,950.28	6,938.28	6,950.28	38.70	240.49	-88.81	487.85	-1,483.00	496.57	222.73	273.84	1.813		
7,700.00	6,949.98	6,937.98	6,949.98	40.41	240.48	-89.30	487.85	-1,483.00	407.68	132.46	275.21	1.481 Level 3		
7,800.00	6,949.68	6,937.68	6,949.68	42.25	240.47	-89.79	487.85	-1,483.00	325.29	47.67	277.62	1.172 Level 2		
7,900.00	6,949.38	6,937.38	6,949.38	44.20	240.46	-90.28	487.85	-1,483.00	255.79	-25.83	281.62	0.908 Level 1		
8,000.00	6,949.08	6,937.08	6,949.08	46.24	240.45	-90.77	487.85	-1,483.00	212.24	-74.14	286.38	0.741 Level 1		
8,051.92	6,948.93	6,936.93	6,948.93	47.34	240.45	-91.26	487.85	-1,483.00	205.79	-81.89	287.69	0.715 Level 1, CC, ES, SF		
8,100.00	6,948.79	6,936.79	6,948.79	48.36	240.44	-91.75	487.85	-1,483.00	211.33	-76.10	287.43	0.735 Level 1		
8,200.00	6,948.49	6,936.49	6,948.49	50.56	240.43	-92.24	487.85	-1,483.00	253.53	-30.40	283.93	0.893 Level 1		
8,300.00	6,948.19	6,936.19	6,948.19	52.82	240.42	-92.73	487.85	-1,483.00	322.32	42.15	280.17	1.150 Level 2		
8,400.00	6,947.89	6,935.89	6,947.89	55.14	240.41	-93.22	487.85	-1,483.00	404.36	126.75	277.61	1.457 Level 3		
8,500.00	6,947.59	6,935.59	6,947.59	57.50	240.40	-93.71	487.85	-1,483.00	493.07	217.07	276.00	1.786		
8,600.00	6,947.29	6,935.29	6,947.29	59.91	240.39	-94.20	487.85	-1,483.00	585.44	310.47	274.96	2.129		
8,700.00	6,947.00	6,935.00	6,947.00	62.36	240.38	-94.69	487.85	-1,483.00	679.96	405.69	274.27	2.479		
8,800.00	6,946.70	6,934.70	6,946.70	64.84	240.37	-95.18	487.85	-1,483.00	775.86	502.07	273.80	2.834		
8,900.00	6,946.40	6,934.40	6,946.40	67.35	240.36	-95.67	487.85	-1,483.00	872.68	599.23	273.46	3.191		
9,000.00	6,946.10	6,934.10	6,946.10	69.88	240.35	-96.16	487.85	-1,483.00	970.15	696.95	273.20	3.551		
9,100.00	6,945.80	6,933.80	6,945.80	72.44	240.34	-96.65	487.85	-1,483.00	1,068.09	795.07	273.02	3.912		
9,200.00	6,945.50	6,933.50	6,945.50	75.02	240.33	-97.14	487.85	-1,483.00	1,166.37	893.50	272.87	4.274		
9,300.00	6,945.21	6,933.21	6,945.21	77.63	240.32	-97.63	487.85	-1,483.00	1,264.92	992.16	272.76	4.637		
9,400.00	6,944.91	6,932.91	6,944.91	80.24	240.31	-98.12	487.85	-1,483.00	1,363.69	1,091.01	272.68	5.001		
9,500.00	6,944.61	6,932.61	6,944.61	82.88	240.29	-98.61	487.85	-1,483.00	1,462.62	1,190.01	272.61	5.365		
9,600.00	6,944.31	6,932.31	6,944.31	85.53	240.28	-99.10	487.85	-1,483.00	1,561.69	1,289.13	272.56	5.730		
9,700.00	6,944.01	6,932.01	6,944.01	88.19	240.27	-99.59	487.85	-1,483.00	1,660.87	1,388.35	272.52	6.094		
9,800.00	6,943.71	6,931.71	6,943.71	90.86	240.26	-100.08	487.85	-1,483.00	1,760.14	1,487.65	272.49	6.459		
9,900.00	6,943.42	6,931.42	6,943.42	93.55	240.25	-100.57	487.85	-1,483.00	1,859.49	1,587.02	272.47	6.825		
10,000.00	6,943.12	6,931.12	6,943.12	96.24	240.24	-101.06	487.85	-1,483.00	1,958.91	1,686.45	272.46	7.190		
10,100.00	6,942.82	6,930.82	6,942.82	98.95	240.23	-101.55	487.85	-1,483.00	2,058.38	1,785.93	272.45	7.555		
10,200.00	6,942.52	6,930.52	6,942.52	101.66	240.22	-102.04	487.85	-1,483.00	2,157.90	1,885.45	272.45	7.920		

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 4N-16A-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 4N-16A-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	Vertical Depth	Measured Depth	Vertical Depth	Reference	Offset	Highside Toolface	Offset Wellbore Centre	Between Centres	Between Ellipses	Minimum Separation	Separation Factor			
Depth (ft)	Depth (ft)	Depth (ft)	Depth (ft)	(ft)	(ft)	(°)	+N/-S (ft)	+E/-W (ft)	(ft)	(ft)	(ft)			
10,300.00	6,942.22	6,930.22	6,942.22	104.38	240.21	-88.13	487.85	-1,483.00	2,257.47	1,985.02	272.45	8.286		
10,400.00	6,941.92	6,929.92	6,941.92	107.11	240.20	-88.05	487.85	-1,483.00	2,357.07	2,084.61	272.46	8.651		
10,500.00	6,941.63	6,929.63	6,941.63	109.84	240.19	-87.97	487.85	-1,483.00	2,456.70	2,184.24	272.47	9.017		
10,600.00	6,941.33	6,929.33	6,941.33	112.58	240.18	-87.88	487.85	-1,483.00	2,556.36	2,283.88	272.48	9.382		
10,700.00	6,941.03	6,929.03	6,941.03	115.33	240.17	-87.80	487.85	-1,483.00	2,656.05	2,383.56	272.49	9.747		
10,800.00	6,940.73	6,928.73	6,940.73	118.08	240.16	-87.72	487.85	-1,483.00	2,755.76	2,483.25	272.51	10.112		
10,900.00	6,940.43	6,928.43	6,940.43	120.84	240.15	-87.64	487.85	-1,483.00	2,855.49	2,582.96	272.53	10.478		
11,000.00	6,940.13	6,928.13	6,940.13	123.60	240.14	-87.55	487.85	-1,483.00	2,955.24	2,682.68	272.56	10.843		
11,100.00	6,939.83	6,927.83	6,939.83	126.36	240.13	-87.47	487.85	-1,483.00	3,055.00	2,782.42	272.58	11.208		
11,200.00	6,939.54	6,927.54	6,939.54	129.13	240.12	-87.39	487.85	-1,483.00	3,154.78	2,882.17	272.61	11.573		
11,300.00	6,939.24	6,927.24	6,939.24	131.91	240.11	-87.30	487.85	-1,483.00	3,254.58	2,981.94	272.64	11.937		
11,400.00	6,938.94	6,926.94	6,938.94	134.68	240.10	-87.22	487.85	-1,483.00	3,354.38	3,081.71	272.67	12.302		
11,500.00	6,938.64	6,926.64	6,938.64	137.46	240.09	-87.14	487.85	-1,483.00	3,454.20	3,181.50	272.70	12.667		
11,600.00	6,938.34	6,926.34	6,938.34	140.25	240.08	-87.06	487.85	-1,483.00	3,554.02	3,281.29	272.74	13.031		
11,700.00	6,938.04	6,926.04	6,938.04	143.03	240.07	-86.97	487.85	-1,483.00	3,653.86	3,381.09	272.77	13.395		
11,800.00	6,937.75	6,925.75	6,937.75	145.82	240.06	-86.89	487.85	-1,483.00	3,753.71	3,480.90	272.81	13.759		
11,900.00	6,937.45	6,925.45	6,937.45	148.61	240.04	-86.81	487.85	-1,483.00	3,853.56	3,580.71	272.85	14.123		
12,000.00	6,937.15	6,925.15	6,937.15	151.41	240.03	-86.72	487.85	-1,483.00	3,953.42	3,680.53	272.89	14.487		
12,100.00	6,936.85	6,924.85	6,936.85	154.20	240.02	-86.64	487.85	-1,483.00	4,053.29	3,780.36	272.93	14.851		
12,200.00	6,936.55	6,924.55	6,936.55	157.00	240.01	-86.56	487.85	-1,483.00	4,153.16	3,880.19	272.97	15.214		
12,300.00	6,936.25	6,924.25	6,936.25	159.80	240.00	-86.48	487.85	-1,483.00	4,253.04	3,980.02	273.02	15.578		
12,400.00	6,935.96	6,923.96	6,935.96	162.61	239.99	-86.39	487.85	-1,483.00	4,352.92	4,079.86	273.06	15.941		
12,500.00	6,935.66	6,923.66	6,935.66	165.41	239.98	-86.31	487.85	-1,483.00	4,452.82	4,179.70	273.11	16.304		
12,600.00	6,935.36	6,923.36	6,935.36	168.22	239.97	-86.23	487.85	-1,483.00	4,552.71	4,279.55	273.16	16.667		
12,700.00	6,935.06	6,923.06	6,935.06	171.02	239.96	-86.14	487.85	-1,483.00	4,652.61	4,379.40	273.21	17.029		
12,800.00	6,934.76	6,922.76	6,934.76	173.83	239.95	-86.06	487.85	-1,483.00	4,752.51	4,479.25	273.26	17.392		
12,900.00	6,934.46	6,922.46	6,934.46	176.65	239.94	-85.98	487.85	-1,483.00	4,852.42	4,579.11	273.31	17.754		
13,000.00	6,934.17	6,922.17	6,934.17	179.46	239.93	-85.90	487.85	-1,483.00	4,952.33	4,678.97	273.36	18.116		
13,100.00	6,933.87	6,921.87	6,933.87	182.27	239.92	-85.81	487.85	-1,483.00	5,052.25	4,778.83	273.42	18.478		
13,200.00	6,933.57	6,921.57	6,933.57	185.09	239.91	-85.73	487.85	-1,483.00	5,152.17	4,878.69	273.47	18.840		
13,300.00	6,933.27	6,921.27	6,933.27	187.91	239.90	-85.65	487.85	-1,483.00	5,252.09	4,978.56	273.53	19.201		
13,400.00	6,932.97	6,920.97	6,932.97	190.72	239.89	-85.57	487.85	-1,483.00	5,352.01	5,078.42	273.59	19.562		
13,500.00	6,932.67	6,920.67	6,932.67	193.54	239.88	-85.48	487.85	-1,483.00	5,451.94	5,178.29	273.65	19.923		
13,600.00	6,932.38	6,920.38	6,932.38	196.36	239.87	-85.40	487.85	-1,483.00	5,551.87	5,278.16	273.70	20.284		
13,700.00	6,932.08	6,920.08	6,932.08	199.19	239.86	-85.32	487.85	-1,483.00	5,651.80	5,378.03	273.76	20.645		
13,800.00	6,931.78	6,919.78	6,931.78	202.01	239.85	-85.24	487.85	-1,483.00	5,751.73	5,477.91	273.83	21.005		
13,900.00	6,931.48	6,919.48	6,931.48	204.83	239.84	-85.15	487.85	-1,483.00	5,851.67	5,577.78	273.89	21.365		
14,000.00	6,931.18	6,919.18	6,931.18	207.66	239.83	-85.07	487.85	-1,483.00	5,951.61	5,677.66	273.95	21.725		
14,100.00	6,930.88	6,918.88	6,930.88	210.48	239.82	-84.99	487.85	-1,483.00	6,051.55	5,777.53	274.02	22.085		
14,200.00	6,930.59	6,918.59	6,930.59	213.31	239.81	-84.91	487.85	-1,483.00	6,151.49	5,877.41	274.08	22.444		
14,300.00	6,930.29	6,918.29	6,930.29	216.14	239.79	-84.82	487.85	-1,483.00	6,251.44	5,977.29	274.15	22.803		
14,400.00	6,929.99	6,917.99	6,929.99	218.96	239.78	-84.74	487.85	-1,483.00	6,351.38	6,077.17	274.21	23.162		
14,500.00	6,929.69	6,917.69	6,929.69	221.79	239.77	-84.66	487.85	-1,483.00	6,451.33	6,177.05	274.28	23.521		
14,600.00	6,929.39	6,917.39	6,929.39	224.62	239.76	-84.58	487.85	-1,483.00	6,551.28	6,276.93	274.35	23.879		
14,700.00	6,929.09	6,917.09	6,929.09	227.45	239.75	-84.49	487.85	-1,483.00	6,651.23	6,376.81	274.42	24.237		
14,732.12	6,929.00	6,917.00	6,929.00	228.36	239.75	-84.47	487.85	-1,483.00	6,683.34	6,408.90	274.44	24.352		



Anticollision Report



Company:	SRC ENERGY	Local Co-ordinate Reference:	Well HARVESTERS STATE 4N-16A-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 4N-16A-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	-78.72	995.79	-4,990.97	5,089.57					
100.00	100.00	51.00	100.00	3.28	3.40	-78.72	995.79	-4,990.97	5,089.34	5,082.65	6.68	761.491		
200.00	200.00	151.00	200.00	3.34	4.82	-78.72	995.79	-4,990.97	5,089.34	5,081.18	8.15	624.254		
300.00	300.00	251.00	300.00	3.44	7.75	-78.72	995.79	-4,990.97	5,089.34	5,078.15	11.19	454.788		
400.00	400.00	351.00	400.00	3.60	11.01	-78.72	995.79	-4,990.97	5,089.34	5,074.73	14.61	348.316		
500.00	500.00	451.00	500.00	3.81	14.38	-78.72	995.79	-4,990.97	5,089.34	5,071.15	18.18	279.879		
600.00	600.00	551.00	600.00	4.05	17.79	-78.72	995.79	-4,990.97	5,089.34	5,067.50	21.84	233.016		
700.00	699.98	650.98	699.98	4.32	21.24	-65.28	995.79	-4,990.97	5,088.61	5,063.05	25.55	199.145		
800.00	799.84	750.84	799.84	4.62	24.69	-65.37	995.79	-4,990.97	5,086.42	5,057.12	29.30	173.607		
900.00	899.45	850.45	899.45	4.94	28.14	-65.53	995.79	-4,990.97	5,082.79	5,049.72	33.07	153.715		
1,000.00	998.80	949.80	998.80	5.28	31.58	-65.67	995.79	-4,990.97	5,078.04	5,041.20	36.85	137.807		
1,100.00	1,098.12	1,049.12	1,098.12	5.63	35.03	-65.79	995.79	-4,990.97	5,073.24	5,032.59	40.65	124.801		
1,200.00	1,197.44	1,148.44	1,197.44	6.00	38.49	-65.91	995.79	-4,990.97	5,068.47	5,024.00	44.47	113.979		
1,300.00	1,296.77	1,247.77	1,296.77	6.37	41.94	-66.03	995.79	-4,990.97	5,063.71	5,015.41	48.30	104.839		
1,400.00	1,396.09	1,347.09	1,396.09	6.76	45.40	-66.15	995.79	-4,990.97	5,058.98	5,006.83	52.14	97.022		
1,500.00	1,495.41	1,446.41	1,495.41	7.15	48.86	-66.27	995.79	-4,990.97	5,054.26	4,998.27	55.99	90.264		
1,600.00	1,594.74	1,545.74	1,594.74	7.55	52.32	-66.39	995.79	-4,990.97	5,049.58	4,989.72	59.85	84.366		
1,700.00	1,694.06	1,645.06	1,694.06	7.96	55.78	-66.51	995.79	-4,990.97	5,044.91	4,981.19	63.72	79.174		
1,800.00	1,793.38	1,744.38	1,793.38	8.37	59.24	-66.63	995.79	-4,990.97	5,040.26	4,972.67	67.59	74.571		
1,900.00	1,892.71	1,843.71	1,892.71	8.78	62.70	-66.75	995.79	-4,990.97	5,035.64	4,964.18	71.47	70.462		
2,000.00	1,992.03	1,943.03	1,992.03	9.20	66.17	-66.87	995.79	-4,990.97	5,031.04	4,955.70	75.35	66.772		
2,100.00	2,091.36	2,042.36	2,091.36	9.62	69.63	-66.99	995.79	-4,990.97	5,026.47	4,947.24	79.23	63.441		
2,200.00	2,190.68	2,141.68	2,190.68	10.05	73.09	-67.11	995.79	-4,990.97	5,021.91	4,938.79	83.12	60.420		
2,300.00	2,290.00	2,241.00	2,290.00	10.48	76.56	-67.23	995.79	-4,990.97	5,017.38	4,930.37	87.01	57.667		
2,400.00	2,389.33	2,340.33	2,389.33	10.90	80.02	-67.35	995.79	-4,990.97	5,012.87	4,921.97	90.90	55.148		
2,500.00	2,488.65	2,439.65	2,488.65	11.34	83.49	-67.48	995.79	-4,990.97	5,008.39	4,913.59	94.79	52.836		
2,600.00	2,587.97	2,538.97	2,587.97	11.77	86.95	-67.60	995.79	-4,990.97	5,003.92	4,905.23	98.69	50.705		
2,700.00	2,687.30	2,638.30	2,687.30	12.20	90.42	-67.72	995.79	-4,990.97	4,999.48	4,896.90	102.59	48.735		
2,800.00	2,786.62	2,737.62	2,786.62	12.64	93.88	-67.84	995.79	-4,990.97	4,995.07	4,888.58	106.48	46.909		
2,900.00	2,885.94	2,836.94	2,885.94	13.07	97.35	-67.97	995.79	-4,990.97	4,990.67	4,880.29	110.38	45.212		
3,000.00	2,985.27	2,936.27	2,985.27	13.51	100.81	-68.09	995.79	-4,990.97	4,986.30	4,872.02	114.29	43.630		
3,100.00	3,084.59	3,035.59	3,084.59	13.95	104.28	-68.21	995.79	-4,990.97	4,981.95	4,863.77	118.19	42.152		
3,200.00	3,183.91	3,134.91	3,183.91	14.39	107.74	-68.34	995.79	-4,990.97	4,977.63	4,855.54	122.09	40.769		
3,300.00	3,283.24	3,234.24	3,283.24	14.83	111.21	-68.46	995.79	-4,990.97	4,973.33	4,847.33	126.00	39.472		
3,400.00	3,382.56	3,333.56	3,382.56	15.27	114.68	-68.58	995.79	-4,990.97	4,969.05	4,839.15	129.90	38.252		
3,500.00	3,481.88	3,432.88	3,481.88	15.71	118.14	-68.71	995.79	-4,990.97	4,964.80	4,830.99	133.81	37.104		
3,600.00	3,581.21	3,532.21	3,581.21	16.16	121.61	-68.83	995.79	-4,990.97	4,960.57	4,822.85	137.72	36.020		
3,700.00	3,680.53	3,631.53	3,680.53	16.60	125.07	-68.96	995.79	-4,990.97	4,956.36	4,814.74	141.62	34.997		
3,800.00	3,779.85	3,730.85	3,779.85	17.04	128.54	-69.08	995.79	-4,990.97	4,952.18	4,806.65	145.53	34.028		
3,900.00	3,879.18	3,830.18	3,879.18	17.49	132.01	-69.20	995.79	-4,990.97	4,948.02	4,798.58	149.44	33.110		
4,000.00	3,978.50	3,929.50	3,978.50	17.93	135.47	-69.33	995.79	-4,990.97	4,943.88	4,790.53	153.35	32.239		
4,100.00	4,077.82	4,028.82	4,077.82	18.37	138.94	-69.46	995.79	-4,990.97	4,939.77	4,782.51	157.26	31.412		
4,200.00	4,177.15	4,128.15	4,177.15	18.82	142.41	-69.58	995.79	-4,990.97	4,935.68	4,774.51	161.17	30.624		
4,300.00	4,276.47	4,227.47	4,276.47	19.27	145.87	-69.71	995.79	-4,990.97	4,931.62	4,766.54	165.08	29.874		
4,400.00	4,375.79	4,326.79	4,375.79	19.71	149.34	-69.83	995.79	-4,990.97	4,927.58	4,758.59	168.99	29.159		
4,500.00	4,475.12	4,426.12	4,475.12	20.16	152.81	-69.96	995.79	-4,990.97	4,923.57	4,750.66	172.90	28.476		
4,600.00	4,574.44	4,525.44	4,574.44	20.60	156.27	-70.08	995.79	-4,990.97	4,919.57	4,742.76	176.82	27.823		
4,700.00	4,673.76	4,624.76	4,673.76	21.05	159.74	-70.21	995.79	-4,990.97	4,915.61	4,734.88	180.73	27.199		
4,800.00	4,773.09	4,724.09	4,773.09	21.50	163.21	-70.34	995.79	-4,990.97	4,911.66	4,727.02	184.64	26.601		
4,900.00	4,872.41	4,823.41	4,872.41	21.94	166.67	-70.46	995.79	-4,990.97	4,907.75	4,719.19	188.55	26.028		
5,000.00	4,971.74	4,922.74	4,971.74	22.39	170.14	-70.59	995.79	-4,990.97	4,903.85	4,711.38	192.47	25.479		
5,100.00	5,071.06	5,022.06	5,071.06	22.84	173.61	-70.72	995.79	-4,990.97	4,899.98	4,703.60	196.38	24.952		

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 4N-16A-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 4N-16A-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	5,170.38	5,121.38	5,170.38	23.29	177.07	-70.85	995.79	-4,990.97	4,896.14	4,695.84	200.29	24.445		
5,300.00	5,269.71	5,220.71	5,269.71	23.74	180.54	-70.97	995.79	-4,990.97	4,892.31	4,688.11	204.21	23.958		
5,400.00	5,369.03	5,320.03	5,369.03	24.18	184.01	-71.10	995.79	-4,990.97	4,888.52	4,680.40	208.12	23.489		
5,500.00	5,468.35	5,419.35	5,468.35	24.63	187.47	-71.23	995.79	-4,990.97	4,884.75	4,672.71	212.04	23.037		
5,600.00	5,567.68	5,518.68	5,567.68	25.08	190.94	-71.36	995.79	-4,990.97	4,881.00	4,665.05	215.95	22.603		
5,700.00	5,667.00	5,618.00	5,667.00	25.53	194.41	-71.49	995.79	-4,990.97	4,877.28	4,657.41	219.86	22.183		
5,800.00	5,766.32	5,717.32	5,766.32	25.98	197.87	-71.62	995.79	-4,990.97	4,873.58	4,649.80	223.78	21.779		
5,900.00	5,865.65	5,816.65	5,865.65	26.43	201.34	-71.74	995.79	-4,990.97	4,869.91	4,642.21	227.69	21.388		
6,000.00	5,964.97	5,915.97	5,964.97	26.88	204.81	-71.87	995.79	-4,990.97	4,866.26	4,634.65	231.61	21.011		
6,100.00	6,064.29	6,015.29	6,064.29	27.33	208.27	-72.00	995.79	-4,990.97	4,862.64	4,627.11	235.52	20.646		
6,200.00	6,163.62	6,114.62	6,163.62	27.78	211.74	-72.13	995.79	-4,990.97	4,859.04	4,619.60	239.44	20.293		
6,300.00	6,262.94	6,213.94	6,262.94	28.23	215.21	-72.26	995.79	-4,990.97	4,855.47	4,612.11	243.36	19.952		
6,400.00	6,362.24	6,313.24	6,362.24	28.67	218.67	-72.39	995.79	-4,990.97	4,851.83	4,604.06	247.27	19.620		
6,500.00	6,461.41	6,412.41	6,461.41	29.12	222.10	-72.52	995.79	-4,990.97	4,848.18	4,596.03	251.14	19.255		
6,600.00	6,560.69	6,511.69	6,560.69	29.57	225.41	-72.65	995.79	-4,990.97	4,844.54	4,587.97	255.05	18.853		
6,700.00	6,659.94	6,610.94	6,659.94	30.00	228.86	-72.78	995.79	-4,990.97	4,840.89	4,579.87	258.96	18.451		
6,800.00	6,759.22	6,710.22	6,759.22	30.45	232.31	-72.91	995.79	-4,990.97	4,837.24	4,571.77	262.87	18.050		
6,900.00	6,858.50	6,809.50	6,858.50	30.90	235.76	-73.04	995.79	-4,990.97	4,833.59	4,563.67	266.78	17.648		
7,000.00	6,957.78	6,908.78	6,957.78	31.35	239.21	-73.17	995.79	-4,990.97	4,829.94	4,555.57	270.69	17.246		
7,100.00	7,057.06	7,008.06	7,057.06	31.80	242.66	-73.30	995.79	-4,990.97	4,826.29	4,547.47	274.60	16.844		
7,200.00	7,156.34	7,107.34	7,156.34	32.25	246.11	-73.43	995.79	-4,990.97	4,822.64	4,539.37	278.51	16.442		
7,300.00	7,255.62	7,206.62	7,255.62	32.70	249.56	-73.56	995.79	-4,990.97	4,818.99	4,531.27	282.42	16.040		
7,400.00	7,354.90	7,305.90	7,354.90	33.15	253.01	-73.69	995.79	-4,990.97	4,815.34	4,523.17	286.33	15.638		
7,500.00	7,454.18	7,405.18	7,454.18	33.60	256.46	-73.82	995.79	-4,990.97	4,811.69	4,515.07	290.24	15.236		
7,600.00	7,553.46	7,504.46	7,553.46	34.05	259.91	-73.95	995.79	-4,990.97	4,808.04	4,506.97	294.15	14.834		
7,700.00	7,652.74	7,603.74	7,652.74	34.50	263.36	-74.08	995.79	-4,990.97	4,804.39	4,498.87	298.06	14.432		
7,800.00	7,752.02	7,703.02	7,752.02	34.95	266.81	-74.21	995.79	-4,990.97	4,800.74	4,490.77	301.97	14.030		
7,900.00	7,851.30	7,802.30	7,851.30	35.40	270.26	-74.34	995.79	-4,990.97	4,797.09	4,482.67	305.88	13.628		
8,000.00	7,950.58	7,901.58	7,950.58	35.85	273.71	-74.47	995.79	-4,990.97	4,793.44	4,474.57	309.79	13.226		
8,100.00	8,049.86	8,000.86	8,049.86	36.30	277.16	-74.60	995.79	-4,990.97	4,789.79	4,466.47	313.70	12.824		
8,200.00	8,149.14	8,100.14	8,149.14	36.75	280.61	-74.73	995.79	-4,990.97	4,786.14	4,458.37	317.61	12.422		
8,300.00	8,248.42	8,199.42	8,248.42	37.20	284.06	-74.86	995.79	-4,990.97	4,782.49	4,450.27	321.52	12.020		
8,400.00	8,347.70	8,298.70	8,347.70	37.65	287.51	-74.99	995.79	-4,990.97	4,778.84	4,442.17	325.43	11.618		
8,500.00	8,446.98	8,397.98	8,446.98	38.10	290.96	-75.12	995.79	-4,990.97	4,775.19	4,434.07	329.34	11.216		
8,600.00	8,546.26	8,497.26	8,546.26	38.55	294.41	-75.25	995.79	-4,990.97	4,771.54	4,425.97	333.25	10.814		
8,700.00	8,645.54	8,596.54	8,645.54	39.00	297.86	-75.38	995.79	-4,990.97	4,767.89	4,417.87	337.16	10.412		
8,800.00	8,744.82	8,695.82	8,744.82	39.45	301.31	-75.51	995.79	-4,990.97	4,764.24	4,409.77	341.07	10.010		
8,900.00	8,844.10	8,795.10	8,844.10	39.90	304.76	-75.64	995.79	-4,990.97	4,760.59	4,401.67	344.98	9.608		
9,000.00	8,943.38	8,894.38	8,943.38	40.35	308.21	-75.77	995.79	-4,990.97	4,756.94	4,393.57	348.89	9.206		
9,100.00	9,042.66	8,993.66	9,042.66	40.80	311.66	-75.90	995.79	-4,990.97	4,753.29	4,385.47	352.80	8.804		
9,200.00	9,141.94	9,092.94	9,141.94	41.25	315.11	-76.03	995.79	-4,990.97	4,749.64	4,377.37	356.71	8.402		
9,300.00	9,241.22	9,192.22	9,241.22	41.70	318.56	-76.16	995.79	-4,990.97	4,745.99	4,369.27	360.62	8.000		
9,400.00	9,340.50	9,291.50	9,340.50	42.15	322.01	-76.29	995.79	-4,990.97	4,742.34	4,361.17	364.53	7.598		
9,500.00	9,439.78	9,390.78	9,439.78	42.60	325.46	-76.42	995.79	-4,990.97	4,738.69	4,353.07	368.44	7.196		
9,600.00	9,539.06	9,489.06	9,539.06	43.05	328.91	-76.55	995.79	-4,990.97	4,735.04	4,344.97	372.35	6.794		
9,700.00	9,638.34	9,589.34	9,638.34	43.50	332.36	-76.68	995.79	-4,990.97	4,731.39	4,336.87	376.26	6.392		
9,800.00	9,737.62	9,688.62	9,737.62	43.95	335.81	-76.81	995.79	-4,990.97	4,727.74	4,328.77	380.17	5.990		
9,900.00	9,836.90	9,787.90	9,836.90	44.40	339.26	-76.94	995.79	-4,990.97	4,724.09	4,320.67	384.08	5.588		
10,000.00	9,936.18	9,887.18	9,936.18	44.85	342.71	-77.07	995.79	-4,990.97	4,720.44	4,312.57	387.99	5.186		
10,100.00	10,035.46	9,986.46	10,035.46	45.30	346.16	-77.20	995.79	-4,990.97	4,716.79	4,304.47	391.90	4.784		
10,200.00	10,134.74	10,085.74	10,134.74	45.75	349.61	-77.33	995.79	-4,990.97	4,713.14	4,296.37	395.81	4.382		
10,300.00	10,234.02	10,185.02	10,234.02	46.20	353.06	-77.46	995.79	-4,990.97	4,709.49	4,288.27	399.72	3.980		

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 4N-16A-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 4N-16A-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	6,941.92	6,907.08	6,941.92	107.11	239.40	90.60	995.79	-4,990.97	1,201.69	921.96	279.73	4.296		
10,500.00	6,941.63	6,907.38	6,941.63	109.84	239.41	90.55	995.79	-4,990.97	1,105.83	823.95	281.88	3.923		
10,600.00	6,941.33	6,907.67	6,941.33	112.58	239.42	90.50	995.79	-4,990.97	1,010.77	726.17	284.59	3.552		
10,700.00	6,941.03	6,907.97	6,941.03	115.33	239.43	90.45	995.79	-4,990.97	916.75	628.71	288.05	3.183		
10,800.00	6,940.73	6,908.27	6,940.73	118.08	239.45	90.39	995.79	-4,990.97	824.15	531.68	292.47	2.818		
10,900.00	6,940.43	6,908.57	6,940.43	120.84	239.46	90.34	995.79	-4,990.97	733.49	435.30	298.20	2.460		
11,000.00	6,940.13	6,908.87	6,940.13	123.60	239.47	90.29	995.79	-4,990.97	645.60	339.95	305.65	2.112		
11,100.00	6,939.83	6,909.17	6,939.83	126.36	239.48	90.24	995.79	-4,990.97	561.77	246.39	315.38	1.781		
11,200.00	6,939.54	6,909.46	6,939.54	129.13	239.49	90.19	995.79	-4,990.97	484.12	156.19	327.93	1.476	Level 3	
11,300.00	6,939.24	6,909.76	6,939.24	131.91	239.50	90.13	995.79	-4,990.97	416.13	72.65	343.47	1.212	Level 2	
11,400.00	6,938.94	6,889.94	6,938.94	134.68	238.81	90.08	995.79	-4,990.97	363.25	3.37	359.88	1.009	Level 2	
11,500.00	6,938.64	6,889.64	6,938.64	137.46	238.79	90.03	995.79	-4,990.97	332.77	-41.08	373.85	0.890	Level 1	
11,556.07	6,938.47	6,889.47	6,938.47	139.02	238.79	90.00	995.79	-4,990.97	328.01	-49.76	377.78	0.868	Level 1, CC, ES, SF	
11,600.00	6,938.34	6,889.34	6,938.34	140.25	238.78	89.98	995.79	-4,990.97	330.94	-47.28	378.22	0.875	Level 1	
11,700.00	6,938.04	6,889.04	6,938.04	143.03	238.77	89.92	995.79	-4,990.97	358.20	-13.38	371.58	0.964	Level 1	
11,800.00	6,937.75	6,888.75	6,937.75	145.82	238.76	89.87	995.79	-4,990.97	408.77	49.64	359.14	1.138	Level 2	
11,900.00	6,937.45	6,888.45	6,937.45	148.61	238.75	89.82	995.79	-4,990.97	475.27	129.16	346.12	1.373	Level 3	
12,000.00	6,937.15	6,888.15	6,937.15	151.41	238.74	89.77	995.79	-4,990.97	551.97	217.17	334.79	1.649		
12,100.00	6,936.85	6,887.85	6,936.85	154.20	238.73	89.72	995.79	-4,990.97	635.18	309.60	325.58	1.951		
12,200.00	6,936.55	6,887.55	6,936.55	157.00	238.72	89.66	995.79	-4,990.97	722.66	404.44	318.22	2.271		
12,300.00	6,936.25	6,887.25	6,936.25	159.80	238.71	89.61	995.79	-4,990.97	813.03	500.70	312.34	2.603		
12,400.00	6,935.96	6,886.96	6,935.96	162.61	238.70	89.56	995.79	-4,990.97	905.43	597.83	307.60	2.944		
12,500.00	6,935.66	6,886.66	6,935.66	165.41	238.69	89.51	995.79	-4,990.97	999.30	695.55	303.75	3.290		
12,600.00	6,935.36	6,886.36	6,935.36	168.22	238.68	89.46	995.79	-4,990.97	1,094.25	793.67	300.58	3.640		
12,700.00	6,935.06	6,886.06	6,935.06	171.02	238.67	89.40	995.79	-4,990.97	1,190.03	892.08	297.94	3.994		
12,800.00	6,934.76	6,885.76	6,934.76	173.83	238.66	89.35	995.79	-4,990.97	1,286.45	990.72	295.73	4.350		
12,900.00	6,934.46	6,885.46	6,934.46	176.65	238.65	89.30	995.79	-4,990.97	1,383.38	1,089.52	293.85	4.708		
13,000.00	6,934.17	6,885.17	6,934.17	179.46	238.64	89.25	995.79	-4,990.97	1,480.72	1,188.47	292.25	5.067		
13,100.00	6,933.87	6,884.87	6,933.87	182.27	238.63	89.20	995.79	-4,990.97	1,578.39	1,287.52	290.87	5.426		
13,200.00	6,933.57	6,884.57	6,933.57	185.09	238.62	89.14	995.79	-4,990.97	1,676.33	1,386.66	289.67	5.787		
13,300.00	6,933.27	6,884.27	6,933.27	187.91	238.61	89.09	995.79	-4,990.97	1,774.51	1,485.88	288.63	6.148		
13,400.00	6,932.97	6,883.97	6,932.97	190.72	238.60	89.04	995.79	-4,990.97	1,872.87	1,585.16	287.71	6.510		
13,500.00	6,932.67	6,883.67	6,932.67	193.54	238.59	88.99	995.79	-4,990.97	1,971.41	1,684.50	286.91	6.871		
13,600.00	6,932.38	6,883.38	6,932.38	196.36	238.58	88.93	995.79	-4,990.97	2,070.08	1,783.89	286.19	7.233		
13,700.00	6,932.08	6,883.08	6,932.08	199.19	238.57	88.88	995.79	-4,990.97	2,168.87	1,883.31	285.56	7.595		
13,800.00	6,931.78	6,882.78	6,931.78	202.01	238.56	88.83	995.79	-4,990.97	2,267.77	1,982.78	284.99	7.957		
13,900.00	6,931.48	6,882.48	6,931.48	204.83	238.54	88.78	995.79	-4,990.97	2,366.76	2,082.28	284.49	8.319		
14,000.00	6,931.18	6,882.18	6,931.18	207.66	238.53	88.73	995.79	-4,990.97	2,465.84	2,181.80	284.03	8.681		
14,100.00	6,930.88	6,881.88	6,930.88	210.48	238.52	88.67	995.79	-4,990.97	2,564.98	2,281.36	283.63	9.043		
14,200.00	6,930.59	6,881.59	6,930.59	213.31	238.51	88.62	995.79	-4,990.97	2,664.19	2,380.93	283.26	9.405		
14,300.00	6,930.29	6,881.29	6,930.29	216.14	238.50	88.57	995.79	-4,990.97	2,763.46	2,480.53	282.93	9.767		
14,400.00	6,929.99	6,880.99	6,929.99	218.96	238.49	88.52	995.79	-4,990.97	2,862.78	2,580.14	282.63	10.129		
14,500.00	6,929.69	6,880.69	6,929.69	221.79	238.48	88.47	995.79	-4,990.97	2,962.14	2,679.78	282.36	10.491		
14,600.00	6,929.39	6,880.39	6,929.39	224.62	238.47	88.41	995.79	-4,990.97	3,061.54	2,779.43	282.12	10.852		
14,700.00	6,929.09	6,880.09	6,929.09	227.45	238.46	88.36	995.79	-4,990.97	3,160.99	2,879.09	281.89	11.213		
14,732.12	6,929.00	6,880.00	6,929.00	228.36	238.46	88.35	995.79	-4,990.97	3,192.94	2,911.11	281.83	11.329		



Anticollision Report



Company:	SRC ENERGY	Local Co-ordinate Reference:	Well HARVESTERS STATE 4N-16A-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 4N-16A-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	-78.77	1,016.58	-5,120.85	5,220.99				
100.00	100.00	53.00	100.00	3.28	3.41	-78.77	1,016.58	-5,120.85	5,220.78	5,214.08	6.69	780.071	
200.00	200.00	153.00	200.00	3.34	4.87	-78.77	1,016.58	-5,120.85	5,220.78	5,212.57	8.20	636.367	
300.00	300.00	253.00	300.00	3.44	7.81	-78.77	1,016.58	-5,120.85	5,220.78	5,209.52	11.25	463.909	
400.00	400.00	353.00	400.00	3.60	11.07	-78.77	1,016.58	-5,120.85	5,220.78	5,206.10	14.68	355.689	
500.00	500.00	453.00	500.00	3.81	14.45	-78.77	1,016.58	-5,120.85	5,220.78	5,202.53	18.25	286.038	
600.00	600.00	553.00	600.00	4.05	17.86	-78.77	1,016.58	-5,120.85	5,220.78	5,198.87	21.91	238.286	
700.00	699.98	652.98	699.98	4.32	21.30	-65.33	1,016.58	-5,120.85	5,220.05	5,194.43	25.62	203.739	
800.00	799.84	752.84	799.84	4.62	24.75	-65.42	1,016.58	-5,120.85	5,217.87	5,188.50	29.37	177.674	
900.00	899.45	852.45	899.45	4.94	28.21	-65.58	1,016.58	-5,120.85	5,214.24	5,181.10	33.14	157.361	
1,000.00	998.80	951.80	998.80	5.28	31.65	-65.72	1,016.58	-5,120.85	5,209.51	5,172.59	36.92	141.109	
1,100.00	1,098.12	1,051.12	1,098.12	5.63	35.10	-65.83	1,016.58	-5,120.85	5,204.72	5,164.00	40.72	127.817	
1,200.00	1,197.44	1,150.44	1,197.44	6.00	38.56	-65.95	1,016.58	-5,120.85	5,199.94	5,155.41	44.54	116.753	
1,300.00	1,296.77	1,249.77	1,296.77	6.37	42.01	-66.07	1,016.58	-5,120.85	5,195.20	5,146.83	48.37	107.406	
1,400.00	1,396.09	1,349.09	1,396.09	6.76	45.47	-66.18	1,016.58	-5,120.85	5,190.47	5,138.26	52.21	99.411	
1,500.00	1,495.41	1,448.41	1,495.41	7.15	48.93	-66.30	1,016.58	-5,120.85	5,185.76	5,129.70	56.06	92.497	
1,600.00	1,594.74	1,547.74	1,594.74	7.55	52.39	-66.42	1,016.58	-5,120.85	5,181.08	5,121.16	59.92	86.462	
1,700.00	1,694.06	1,647.06	1,694.06	7.96	55.85	-66.53	1,016.58	-5,120.85	5,176.42	5,112.63	63.79	81.149	
1,800.00	1,793.38	1,746.38	1,793.38	8.37	59.31	-66.65	1,016.58	-5,120.85	5,171.78	5,104.12	67.66	76.437	
1,900.00	1,892.71	1,845.71	1,892.71	8.78	62.77	-66.77	1,016.58	-5,120.85	5,167.16	5,095.63	71.54	72.231	
2,000.00	1,992.03	1,945.03	1,992.03	9.20	66.24	-66.89	1,016.58	-5,120.85	5,162.57	5,087.15	75.42	68.454	
2,100.00	2,091.36	2,044.36	2,091.36	9.62	69.70	-67.00	1,016.58	-5,120.85	5,157.99	5,078.69	79.30	65.044	
2,200.00	2,190.68	2,143.68	2,190.68	10.05	73.16	-67.12	1,016.58	-5,120.85	5,153.44	5,070.25	83.19	61.950	
2,300.00	2,290.00	2,243.00	2,290.00	10.48	76.63	-67.24	1,016.58	-5,120.85	5,148.91	5,061.83	87.08	59.131	
2,400.00	2,389.33	2,342.33	2,389.33	10.90	80.09	-67.36	1,016.58	-5,120.85	5,144.40	5,053.44	90.97	56.552	
2,500.00	2,488.65	2,441.65	2,488.65	11.34	83.56	-67.48	1,016.58	-5,120.85	5,139.92	5,045.06	94.86	54.183	
2,600.00	2,587.97	2,540.97	2,587.97	11.77	87.02	-67.60	1,016.58	-5,120.85	5,135.46	5,036.70	98.76	52.001	
2,700.00	2,687.30	2,640.30	2,687.30	12.20	90.49	-67.72	1,016.58	-5,120.85	5,131.02	5,028.36	102.65	49.983	
2,800.00	2,786.62	2,739.62	2,786.62	12.64	93.95	-67.84	1,016.58	-5,120.85	5,126.60	5,020.04	106.55	48.113	
2,900.00	2,885.94	2,838.94	2,885.94	13.07	97.42	-67.96	1,016.58	-5,120.85	5,122.20	5,011.75	110.45	46.374	
3,000.00	2,985.27	2,938.27	2,985.27	13.51	100.88	-68.08	1,016.58	-5,120.85	5,117.83	5,003.47	114.36	44.754	
3,100.00	3,084.59	3,037.59	3,084.59	13.95	104.35	-68.20	1,016.58	-5,120.85	5,113.48	4,995.22	118.26	43.240	
3,200.00	3,183.91	3,136.91	3,183.91	14.39	107.81	-68.32	1,016.58	-5,120.85	5,109.15	4,986.99	122.16	41.823	
3,300.00	3,283.24	3,236.24	3,283.24	14.83	111.28	-68.44	1,016.58	-5,120.85	5,104.85	4,978.78	126.07	40.493	
3,400.00	3,382.56	3,335.56	3,382.56	15.27	114.75	-68.56	1,016.58	-5,120.85	5,100.57	4,970.59	129.97	39.243	
3,500.00	3,481.88	3,434.88	3,481.88	15.71	118.21	-68.68	1,016.58	-5,120.85	5,096.31	4,962.43	133.88	38.067	
3,600.00	3,581.21	3,534.21	3,581.21	16.16	121.68	-68.80	1,016.58	-5,120.85	5,092.07	4,954.29	137.79	36.956	
3,700.00	3,680.53	3,633.53	3,680.53	16.60	125.14	-68.92	1,016.58	-5,120.85	5,087.86	4,946.16	141.69	35.908	
3,800.00	3,779.85	3,732.85	3,779.85	17.04	128.61	-69.04	1,016.58	-5,120.85	5,083.67	4,938.07	145.60	34.915	
3,900.00	3,879.18	3,832.18	3,879.18	17.49	132.08	-69.16	1,016.58	-5,120.85	5,079.50	4,929.99	149.51	33.974	
4,000.00	3,978.50	3,931.50	3,978.50	17.93	135.54	-69.28	1,016.58	-5,120.85	5,075.36	4,921.94	153.42	33.082	
4,100.00	4,077.82	4,030.82	4,077.82	18.37	139.01	-69.41	1,016.58	-5,120.85	5,071.24	4,913.91	157.33	32.233	
4,200.00	4,177.15	4,130.15	4,177.15	18.82	142.48	-69.53	1,016.58	-5,120.85	5,067.14	4,905.90	161.24	31.426	
4,300.00	4,276.47	4,229.47	4,276.47	19.27	145.94	-69.65	1,016.58	-5,120.85	5,063.07	4,897.91	165.15	30.657	
4,400.00	4,375.79	4,328.79	4,375.79	19.71	149.41	-69.77	1,016.58	-5,120.85	5,059.01	4,889.95	169.06	29.924	
4,500.00	4,475.12	4,428.12	4,475.12	20.16	152.88	-69.90	1,016.58	-5,120.85	5,054.99	4,882.01	172.97	29.224	
4,600.00	4,574.44	4,527.44	4,574.44	20.60	156.34	-70.02	1,016.58	-5,120.85	5,050.98	4,874.10	176.89	28.555	
4,700.00	4,673.76	4,626.76	4,673.76	21.05	159.81	-70.14	1,016.58	-5,120.85	5,047.00	4,866.21	180.80	27.915	
4,800.00	4,773.09	4,726.09	4,773.09	21.50	163.28	-70.27	1,016.58	-5,120.85	5,043.05	4,858.34	184.71	27.303	
4,900.00	4,872.41	4,825.41	4,872.41	21.94	166.74	-70.39	1,016.58	-5,120.85	5,039.11	4,850.49	188.62	26.715	
5,000.00	4,971.74	4,924.74	4,971.74	22.39	170.21	-70.51	1,016.58	-5,120.85	5,035.20	4,842.67	192.54	26.152	
5,100.00	5,071.06	5,024.06	5,071.06	22.84	173.68	-70.64	1,016.58	-5,120.85	5,031.32	4,834.87	196.45	25.611	

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 4N-16A-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 4N-16A-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	5,170.38	5,123.38	5,170.38	23.29	177.14	-70.76	1,016.58	-5,120.85	5,027.46	4,827.10	200.36	25.092		
5,300.00	5,269.71	5,222.71	5,269.71	23.74	180.61	-70.89	1,016.58	-5,120.85	5,023.62	4,819.34	204.28	24.592		
5,400.00	5,369.03	5,322.03	5,369.03	24.18	184.08	-71.01	1,016.58	-5,120.85	5,019.81	4,811.62	208.19	24.112		
5,500.00	5,468.35	5,421.35	5,468.35	24.63	187.54	-71.13	1,016.58	-5,120.85	5,016.02	4,803.91	212.10	23.649		
5,600.00	5,567.68	5,520.68	5,567.68	25.08	191.01	-71.26	1,016.58	-5,120.85	5,012.25	4,796.23	216.02	23.203		
5,700.00	5,667.00	5,620.00	5,667.00	25.53	194.48	-71.38	1,016.58	-5,120.85	5,008.51	4,788.58	219.93	22.773		
5,800.00	5,766.32	5,719.32	5,766.32	25.98	197.94	-71.51	1,016.58	-5,120.85	5,004.79	4,780.94	223.85	22.358		
5,900.00	5,865.65	5,818.65	5,865.65	26.43	201.41	-71.63	1,016.58	-5,120.85	5,001.10	4,773.33	227.76	21.957		
6,000.00	5,964.97	5,917.97	5,964.97	26.88	204.88	-71.76	1,016.58	-5,120.85	4,997.43	4,765.75	231.68	21.571		
6,100.00	6,064.29	6,017.29	6,064.29	27.33	208.34	-71.89	1,016.58	-5,120.85	4,993.78	4,758.19	235.59	21.197		
6,200.00	6,163.62	6,116.62	6,163.62	27.78	211.81	-72.01	1,016.58	-5,120.85	4,990.16	4,750.65	239.51	20.835		
6,300.00	6,262.94	6,215.94	6,262.94	28.23	215.28	-72.14	1,016.58	-5,120.85	4,986.57	4,743.14	243.42	20.485		
6,400.00	6,362.24	6,315.24	6,362.24	28.67	218.74	-53.95	1,016.58	-5,120.85	4,982.41	4,735.07	247.34	20.144		
6,500.00	6,460.41	6,413.41	6,460.41	29.12	222.17	-22.14	1,016.58	-5,120.85	4,966.83	4,715.62	251.21	19.772		
6,600.00	6,555.09	6,508.09	6,555.09	29.57	225.48	-12.02	1,016.58	-5,120.85	4,936.07	4,681.13	254.94	19.362		
6,700.00	6,643.94	6,603.06	6,643.94	30.00	228.79	-7.25	1,016.58	-5,120.85	4,890.89	4,632.24	258.64	18.910		
6,800.00	6,724.78	6,677.78	6,724.78	30.45	231.40	-4.26	1,016.58	-5,120.85	4,832.38	4,570.79	261.60	18.473		
6,900.00	6,795.62	6,748.62	6,795.62	30.97	233.87	-1.86	1,016.58	-5,120.85	4,761.99	4,497.63	264.36	18.013		
7,000.00	6,854.70	6,807.70	6,854.70	31.60	235.93	0.67	1,016.58	-5,120.85	4,681.44	4,414.79	266.65	17.557		
7,100.00	6,900.58	6,853.58	6,900.58	32.39	237.54	4.28	1,016.58	-5,120.85	4,592.72	4,324.31	268.41	17.111		
7,200.00	6,932.13	6,885.13	6,932.13	33.34	238.64	11.67	1,016.58	-5,120.85	4,498.01	4,228.40	269.60	16.684		
7,300.00	6,948.57	6,901.57	6,948.57	34.46	239.21	38.55	1,016.58	-5,120.85	4,399.65	4,129.43	270.22	16.282		
7,400.00	6,950.87	6,903.87	6,950.87	35.70	239.29	92.09	1,016.58	-5,120.85	4,300.02	4,029.72	270.30	15.909		
7,500.00	6,950.58	6,903.58	6,950.58	37.12	239.28	92.05	1,016.58	-5,120.85	4,200.36	3,930.08	270.28	15.541		
7,600.00	6,950.28	6,903.28	6,950.28	38.70	239.27	92.00	1,016.58	-5,120.85	4,100.71	3,830.45	270.27	15.173		
7,700.00	6,949.98	6,902.98	6,949.98	40.41	239.26	91.95	1,016.58	-5,120.85	4,001.09	3,730.83	270.26	14.805		
7,800.00	6,949.68	6,902.68	6,949.68	42.25	239.25	91.90	1,016.58	-5,120.85	3,901.48	3,631.23	270.26	14.436		
7,900.00	6,949.38	6,902.38	6,949.38	44.20	239.24	91.85	1,016.58	-5,120.85	3,801.90	3,531.64	270.25	14.068		
8,000.00	6,949.08	6,902.08	6,949.08	46.24	239.23	91.80	1,016.58	-5,120.85	3,702.33	3,432.07	270.26	13.699		
8,100.00	6,948.79	6,901.79	6,948.79	48.36	239.22	91.75	1,016.58	-5,120.85	3,602.79	3,332.52	270.27	13.330		
8,200.00	6,948.49	6,901.49	6,948.49	50.56	239.21	91.70	1,016.58	-5,120.85	3,503.28	3,233.00	270.28	12.962		
8,300.00	6,948.19	6,901.19	6,948.19	52.82	239.20	91.65	1,016.58	-5,120.85	3,403.79	3,133.49	270.30	12.592		
8,400.00	6,947.89	6,900.89	6,947.89	55.14	239.19	91.61	1,016.58	-5,120.85	3,304.34	3,034.00	270.33	12.223		
8,500.00	6,947.59	6,900.59	6,947.59	57.50	239.18	91.56	1,016.58	-5,120.85	3,204.92	2,934.55	270.37	11.854		
8,600.00	6,947.29	6,900.29	6,947.29	59.91	239.17	91.51	1,016.58	-5,120.85	3,105.53	2,835.11	270.42	11.484		
8,700.00	6,947.00	6,900.00	6,947.00	62.36	239.16	91.46	1,016.58	-5,120.85	3,006.19	2,735.71	270.48	11.114		
8,800.00	6,946.70	6,900.30	6,946.70	64.84	239.17	91.41	1,016.58	-5,120.85	2,906.90	2,636.32	270.58	10.743		
8,900.00	6,946.40	6,900.60	6,946.40	67.35	239.18	91.36	1,016.58	-5,120.85	2,807.65	2,536.96	270.69	10.372		
9,000.00	6,946.10	6,900.90	6,946.10	69.88	239.19	91.31	1,016.58	-5,120.85	2,708.46	2,437.64	270.82	10.001		
9,100.00	6,945.80	6,901.20	6,945.80	72.44	239.20	91.26	1,016.58	-5,120.85	2,609.33	2,338.35	270.97	9.629		
9,200.00	6,945.50	6,901.50	6,945.50	75.02	239.21	91.21	1,016.58	-5,120.85	2,510.26	2,239.11	271.15	9.258		
9,300.00	6,945.21	6,901.79	6,945.21	77.63	239.22	91.17	1,016.58	-5,120.85	2,411.28	2,139.92	271.36	8.886		
9,400.00	6,944.91	6,902.09	6,944.91	80.24	239.23	91.12	1,016.58	-5,120.85	2,312.38	2,040.78	271.61	8.514		
9,500.00	6,944.61	6,902.39	6,944.61	82.88	239.24	91.07	1,016.58	-5,120.85	2,213.59	1,941.69	271.90	8.141		
9,600.00	6,944.31	6,902.69	6,944.31	85.53	239.25	91.02	1,016.58	-5,120.85	2,114.90	1,842.66	272.24	7.768		
9,700.00	6,944.01	6,902.99	6,944.01	88.19	239.26	90.97	1,016.58	-5,120.85	2,016.35	1,743.70	272.65	7.395		
9,800.00	6,943.71	6,903.29	6,943.71	90.86	239.27	90.92	1,016.58	-5,120.85	1,917.94	1,644.81	273.14	7.022		
9,900.00	6,943.42	6,903.58	6,943.42	93.55	239.28	90.87	1,016.58	-5,120.85	1,819.71	1,546.00	273.72	6.648		
10,000.00	6,943.12	6,903.88	6,943.12	96.24	239.29	90.82	1,016.58	-5,120.85	1,721.68	1,447.27	274.41	6.274		
10,100.00	6,942.82	6,904.18	6,942.82	98.95	239.30	90.78	1,016.58	-5,120.85	1,623.90	1,348.65	275.25	5.900		
10,200.00	6,942.52	6,904.48	6,942.52	101.66	239.31	90.73	1,016.58	-5,120.85	1,526.40	1,250.13	276.26	5.525		
10,300.00	6,942.22	6,904.78	6,942.22	104.38	239.32	90.68	1,016.58	-5,120.85	1,429.24	1,151.74	277.50	5.150		

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 4N-16A-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 4N-16A-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	6,941.92	6,905.08	6,941.92	107.11	239.33	90.63	1,016.58	-5,120.85	1,332.51	1,053.50	279.00	4.776		
10,500.00	6,941.63	6,905.38	6,941.63	109.84	239.34	90.58	1,016.58	-5,120.85	1,236.29	955.43	280.86	4.402		
10,600.00	6,941.33	6,905.67	6,941.33	112.58	239.35	90.53	1,016.58	-5,120.85	1,140.73	857.57	283.16	4.029		
10,700.00	6,941.03	6,905.97	6,941.03	115.33	239.36	90.48	1,016.58	-5,120.85	1,045.99	759.97	286.03	3.657		
10,800.00	6,940.73	6,906.27	6,940.73	118.08	239.38	90.43	1,016.58	-5,120.85	952.34	662.71	289.63	3.288		
10,900.00	6,940.43	6,906.57	6,940.43	120.84	239.39	90.38	1,016.58	-5,120.85	860.11	565.94	294.17	2.924		
11,000.00	6,940.13	6,906.87	6,940.13	123.60	239.40	90.34	1,016.58	-5,120.85	769.83	469.86	299.97	2.566		
11,100.00	6,939.83	6,907.17	6,939.83	126.36	239.41	90.29	1,016.58	-5,120.85	682.26	374.87	307.39	2.220		
11,200.00	6,939.54	6,907.46	6,939.54	129.13	239.42	90.24	1,016.58	-5,120.85	598.60	281.70	316.90	1.889		
11,300.00	6,939.24	6,907.76	6,939.24	131.91	239.43	90.19	1,016.58	-5,120.85	520.73	191.76	328.97	1.583		
11,400.00	6,938.94	6,908.06	6,938.94	134.68	239.44	90.14	1,016.58	-5,120.85	451.67	107.88	343.79	1.314	Level 3	
11,500.00	6,938.64	6,908.36	6,938.64	137.46	239.45	90.09	1,016.58	-5,120.85	396.04	35.70	360.34	1.099	Level 2	
11,600.00	6,938.34	6,908.66	6,938.34	140.25	239.46	90.04	1,016.58	-5,120.85	360.13	-15.00	375.12	0.960	Level 1	
11,685.79	6,938.09	6,908.91	6,938.09	142.64	239.47	90.00	1,016.58	-5,120.85	349.76	-32.31	382.07	0.915	Level 1, CC	
11,700.00	6,938.04	6,908.96	6,938.04	143.03	239.47	89.99	1,016.58	-5,120.85	350.05	-32.43	382.48	0.915	Level 1, ES, SF	
11,800.00	6,937.75	6,909.25	6,937.75	145.82	239.48	89.94	1,016.58	-5,120.85	367.93	-11.44	379.38	0.970	Level 1	
11,900.00	6,937.45	6,909.55	6,937.45	148.61	239.49	89.90	1,016.58	-5,120.85	410.14	41.23	368.91	1.112	Level 2	
12,000.00	6,937.15	6,909.85	6,937.15	151.41	239.50	89.85	1,016.58	-5,120.85	470.17	113.97	356.20	1.320	Level 3	
12,100.00	6,936.85	6,889.85	6,936.85	154.20	238.80	89.80	1,016.58	-5,120.85	542.12	198.51	343.61	1.578		
12,200.00	6,936.55	6,889.55	6,936.55	157.00	238.79	89.75	1,016.58	-5,120.85	621.88	288.35	333.54	1.865		
12,300.00	6,936.25	6,889.25	6,936.25	159.80	238.78	89.70	1,016.58	-5,120.85	706.81	381.50	325.31	2.173		
12,400.00	6,935.96	6,888.96	6,935.96	162.61	238.77	89.65	1,016.58	-5,120.85	795.25	476.60	318.65	2.496		
12,500.00	6,935.66	6,888.66	6,935.66	165.41	238.76	89.60	1,016.58	-5,120.85	886.15	572.91	313.25	2.829		
12,600.00	6,935.36	6,888.36	6,935.36	168.22	238.75	89.55	1,016.58	-5,120.85	978.83	670.01	308.82	3.170		
12,700.00	6,935.06	6,888.06	6,935.06	171.02	238.74	89.50	1,016.58	-5,120.85	1,072.82	767.66	305.16	3.516		
12,800.00	6,934.76	6,887.76	6,934.76	173.83	238.73	89.46	1,016.58	-5,120.85	1,167.81	865.70	302.11	3.865		
12,900.00	6,934.46	6,887.46	6,934.46	176.65	238.72	89.41	1,016.58	-5,120.85	1,263.58	964.03	299.55	4.218		
13,000.00	6,934.17	6,887.17	6,934.17	179.46	238.71	89.36	1,016.58	-5,120.85	1,359.95	1,062.58	297.37	4.573		
13,100.00	6,933.87	6,886.87	6,933.87	182.27	238.70	89.31	1,016.58	-5,120.85	1,456.81	1,161.31	295.50	4.930		
13,200.00	6,933.57	6,886.57	6,933.57	185.09	238.69	89.26	1,016.58	-5,120.85	1,554.07	1,260.18	293.89	5.288		
13,300.00	6,933.27	6,886.27	6,933.27	187.91	238.68	89.21	1,016.58	-5,120.85	1,651.66	1,359.17	292.49	5.647		
13,400.00	6,932.97	6,885.97	6,932.97	190.72	238.67	89.16	1,016.58	-5,120.85	1,749.52	1,458.25	291.27	6.006		
13,500.00	6,932.67	6,885.67	6,932.67	193.54	238.66	89.11	1,016.58	-5,120.85	1,847.61	1,557.41	290.20	6.367		
13,600.00	6,932.38	6,885.38	6,932.38	196.36	238.65	89.06	1,016.58	-5,120.85	1,945.89	1,656.64	289.26	6.727		
13,700.00	6,932.08	6,885.08	6,932.08	199.19	238.64	89.02	1,016.58	-5,120.85	2,044.34	1,755.93	288.42	7.088		
13,800.00	6,931.78	6,884.78	6,931.78	202.01	238.63	88.97	1,016.58	-5,120.85	2,142.94	1,855.26	287.67	7.449		
13,900.00	6,931.48	6,884.48	6,931.48	204.83	238.61	88.92	1,016.58	-5,120.85	2,241.65	1,954.65	287.01	7.811		
14,000.00	6,931.18	6,884.18	6,931.18	207.66	238.60	88.87	1,016.58	-5,120.85	2,340.48	2,054.07	286.41	8.172		
14,100.00	6,930.88	6,883.88	6,930.88	210.48	238.59	88.82	1,016.58	-5,120.85	2,439.40	2,153.53	285.87	8.533		
14,200.00	6,930.59	6,883.59	6,930.59	213.31	238.58	88.77	1,016.58	-5,120.85	2,538.41	2,253.02	285.39	8.895		
14,300.00	6,930.29	6,883.29	6,930.29	216.14	238.57	88.72	1,016.58	-5,120.85	2,637.49	2,352.54	284.95	9.256		
14,400.00	6,929.99	6,882.99	6,929.99	218.96	238.56	88.67	1,016.58	-5,120.85	2,736.64	2,452.08	284.56	9.617		
14,500.00	6,929.69	6,882.69	6,929.69	221.79	238.55	88.62	1,016.58	-5,120.85	2,835.85	2,551.65	284.20	9.978		
14,600.00	6,929.39	6,882.39	6,929.39	224.62	238.54	88.58	1,016.58	-5,120.85	2,935.11	2,651.23	283.88	10.339		
14,700.00	6,929.09	6,882.09	6,929.09	227.45	238.53	88.53	1,016.58	-5,120.85	3,034.42	2,750.84	283.58	10.700		
14,732.12	6,929.00	6,882.00	6,929.00	228.36	238.53	88.51	1,016.58	-5,120.85	3,066.33	2,782.84	283.49	10.816		



Anticollision Report



Company:	SRC ENERGY	Local Co-ordinate Reference:	Well HARVESTERS STATE 4N-16A-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 4N-16A-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	-95.29	-455.25	-4,918.11	4,939.43				
100.00	100.00	46.00	100.00	3.28	3.38	-95.29	-455.25	-4,918.11	4,939.14	4,932.47	6.66	741.437	
200.00	200.00	146.00	200.00	3.34	4.69	-95.29	-455.25	-4,918.11	4,939.14	4,931.11	8.03	615.363	
300.00	300.00	246.00	300.00	3.44	7.59	-95.29	-455.25	-4,918.11	4,939.14	4,928.10	11.03	447.677	
400.00	400.00	346.00	400.00	3.60	10.84	-95.29	-455.25	-4,918.11	4,939.14	4,924.69	14.44	341.932	
500.00	500.00	446.00	500.00	3.81	14.21	-95.29	-455.25	-4,918.11	4,939.14	4,921.12	18.01	274.181	
600.00	600.00	546.00	600.00	4.05	17.62	-95.29	-455.25	-4,918.11	4,939.14	4,917.47	21.67	227.929	
700.00	699.98	645.98	699.98	4.32	21.06	-81.84	-455.25	-4,918.11	4,938.89	4,913.51	25.38	194.599	
800.00	799.84	745.84	799.84	4.62	24.51	-81.92	-455.25	-4,918.11	4,938.15	4,909.02	29.13	169.550	
900.00	899.45	845.45	899.45	4.94	27.96	-82.04	-455.25	-4,918.11	4,936.93	4,904.03	32.89	150.094	
1,000.00	998.80	944.80	998.80	5.28	31.41	-82.18	-455.25	-4,918.11	4,935.35	4,898.68	36.67	134.571	
1,100.00	1,098.12	1,044.12	1,098.12	5.63	34.86	-82.31	-455.25	-4,918.11	4,933.77	4,893.30	40.48	121.891	
1,200.00	1,197.44	1,143.44	1,197.44	6.00	38.31	-82.45	-455.25	-4,918.11	4,932.22	4,887.93	44.30	111.347	
1,300.00	1,296.77	1,242.77	1,296.77	6.37	41.77	-82.58	-455.25	-4,918.11	4,930.70	4,882.57	48.13	102.448	
1,400.00	1,396.09	1,342.09	1,396.09	6.76	45.23	-82.71	-455.25	-4,918.11	4,929.20	4,877.23	51.97	94.843	
1,500.00	1,495.41	1,441.41	1,495.41	7.15	48.68	-82.85	-455.25	-4,918.11	4,927.73	4,871.91	55.82	88.271	
1,600.00	1,594.74	1,540.74	1,594.74	7.55	52.15	-82.98	-455.25	-4,918.11	4,926.29	4,866.61	59.69	82.538	
1,700.00	1,694.06	1,640.06	1,694.06	7.96	55.61	-83.11	-455.25	-4,918.11	4,924.88	4,861.32	63.55	77.493	
1,800.00	1,793.38	1,739.38	1,793.38	8.37	59.07	-83.25	-455.25	-4,918.11	4,923.49	4,856.06	67.42	73.022	
1,900.00	1,892.71	1,838.71	1,892.71	8.78	62.53	-83.38	-455.25	-4,918.11	4,922.13	4,850.83	71.30	69.032	
2,000.00	1,992.03	1,938.03	1,992.03	9.20	65.99	-83.51	-455.25	-4,918.11	4,920.79	4,845.61	75.18	65.450	
2,100.00	2,091.36	2,037.36	2,091.36	9.62	69.46	-83.65	-455.25	-4,918.11	4,919.49	4,840.42	79.07	62.218	
2,200.00	2,190.68	2,136.68	2,190.68	10.05	72.92	-83.78	-455.25	-4,918.11	4,918.21	4,835.25	82.96	59.287	
2,300.00	2,290.00	2,236.00	2,290.00	10.48	76.38	-83.91	-455.25	-4,918.11	4,916.95	4,830.11	86.85	56.616	
2,400.00	2,389.33	2,335.33	2,389.33	10.90	79.85	-84.05	-455.25	-4,918.11	4,915.73	4,824.99	90.74	54.174	
2,500.00	2,488.65	2,434.65	2,488.65	11.34	83.31	-84.18	-455.25	-4,918.11	4,914.53	4,819.89	94.64	51.931	
2,600.00	2,587.97	2,533.97	2,587.97	11.77	86.78	-84.31	-455.25	-4,918.11	4,913.36	4,814.82	98.53	49.865	
2,700.00	2,687.30	2,633.30	2,687.30	12.20	90.24	-84.45	-455.25	-4,918.11	4,912.21	4,809.78	102.43	47.956	
2,800.00	2,786.62	2,732.62	2,786.62	12.64	93.71	-84.58	-455.25	-4,918.11	4,911.09	4,804.76	106.33	46.187	
2,900.00	2,885.94	2,831.94	2,885.94	13.07	97.17	-84.72	-455.25	-4,918.11	4,910.00	4,799.77	110.23	44.542	
3,000.00	2,985.27	2,931.27	2,985.27	13.51	100.64	-84.85	-455.25	-4,918.11	4,908.94	4,794.81	114.14	43.010	
3,100.00	3,084.59	3,030.59	3,084.59	13.95	104.10	-84.98	-455.25	-4,918.11	4,907.91	4,789.87	118.04	41.578	
3,200.00	3,183.91	3,129.91	3,183.91	14.39	107.57	-85.12	-455.25	-4,918.11	4,906.90	4,784.95	121.94	40.239	
3,300.00	3,283.24	3,229.24	3,283.24	14.83	111.04	-85.25	-455.25	-4,918.11	4,905.92	4,780.07	125.85	38.982	
3,400.00	3,382.56	3,328.56	3,382.56	15.27	114.50	-85.39	-455.25	-4,918.11	4,904.96	4,775.20	129.76	37.801	
3,500.00	3,481.88	3,427.88	3,481.88	15.71	117.97	-85.52	-455.25	-4,918.11	4,904.04	4,770.37	133.66	36.689	
3,600.00	3,581.21	3,527.21	3,581.21	16.16	121.43	-85.66	-455.25	-4,918.11	4,903.14	4,765.56	137.57	35.640	
3,700.00	3,680.53	3,626.53	3,680.53	16.60	124.90	-85.79	-455.25	-4,918.11	4,902.26	4,760.78	141.48	34.649	
3,800.00	3,779.85	3,725.85	3,779.85	17.04	128.37	-85.93	-455.25	-4,918.11	4,901.42	4,756.03	145.39	33.712	
3,900.00	3,879.18	3,825.18	3,879.18	17.49	131.83	-86.06	-455.25	-4,918.11	4,900.60	4,751.30	149.30	32.824	
4,000.00	3,978.50	3,924.50	3,978.50	17.93	135.30	-86.19	-455.25	-4,918.11	4,899.81	4,746.60	153.21	31.981	
4,100.00	4,077.82	4,023.82	4,077.82	18.37	138.77	-86.33	-455.25	-4,918.11	4,899.05	4,741.93	157.12	31.180	
4,200.00	4,177.15	4,123.15	4,177.15	18.82	142.23	-86.46	-455.25	-4,918.11	4,898.32	4,737.28	161.03	30.418	
4,300.00	4,276.47	4,222.47	4,276.47	19.27	145.70	-86.60	-455.25	-4,918.11	4,897.61	4,732.66	164.95	29.692	
4,400.00	4,375.79	4,321.79	4,375.79	19.71	149.16	-86.73	-455.25	-4,918.11	4,896.93	4,728.07	168.86	29.000	
4,500.00	4,475.12	4,421.12	4,475.12	20.16	152.63	-86.87	-455.25	-4,918.11	4,896.28	4,723.51	172.77	28.340	
4,600.00	4,574.44	4,520.44	4,574.44	20.60	156.10	-87.00	-455.25	-4,918.11	4,895.65	4,718.97	176.68	27.709	
4,700.00	4,673.76	4,619.76	4,673.76	21.05	159.56	-87.14	-455.25	-4,918.11	4,895.05	4,714.46	180.60	27.105	
4,800.00	4,773.09	4,719.09	4,773.09	21.50	163.03	-87.27	-455.25	-4,918.11	4,894.48	4,709.97	184.51	26.527	
4,900.00	4,872.41	4,818.41	4,872.41	21.94	166.50	-87.41	-455.25	-4,918.11	4,893.94	4,705.52	188.42	25.973	
5,000.00	4,971.74	4,917.74	4,971.74	22.39	169.96	-87.54	-455.25	-4,918.11	4,893.43	4,701.09	192.34	25.442	
5,100.00	5,071.06	5,017.06	5,071.06	22.84	173.43	-87.68	-455.25	-4,918.11	4,892.94	4,696.68	196.25	24.932	

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



Anticollision Report



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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 4N-16A-M	Survey Calculation Method:	Minimum Curvature
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Reference Design:	PLAN #1	Offset TVD Reference:	Reference Datum

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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	5,170.38	5,116.38	5,170.38	23.29	176.90	-87.81	-455.25	-4,918.11	4,892.48	4,692.31	200.17	24.442		
5,300.00	5,269.71	5,215.71	5,269.71	23.74	180.36	-87.95	-455.25	-4,918.11	4,892.04	4,687.96	204.08	23.971		
5,400.00	5,369.03	5,315.03	5,369.03	24.18	183.83	-88.08	-455.25	-4,918.11	4,891.64	4,683.64	208.00	23.518		
5,500.00	5,468.35	5,414.35	5,468.35	24.63	187.30	-88.22	-455.25	-4,918.11	4,891.26	4,679.35	211.91	23.082		
5,600.00	5,567.68	5,513.68	5,567.68	25.08	190.77	-88.35	-455.25	-4,918.11	4,890.91	4,675.08	215.83	22.661		
5,700.00	5,667.00	5,613.00	5,667.00	25.53	194.23	-88.49	-455.25	-4,918.11	4,890.59	4,670.85	219.74	22.256		
5,800.00	5,766.32	5,712.32	5,766.32	25.98	197.70	-88.62	-455.25	-4,918.11	4,890.29	4,666.63	223.66	21.865		
5,900.00	5,865.65	5,811.65	5,865.65	26.43	201.17	-88.76	-455.25	-4,918.11	4,890.03	4,662.45	227.58	21.488		
6,000.00	5,964.97	5,910.97	5,964.97	26.88	204.63	-88.89	-455.25	-4,918.11	4,889.79	4,658.30	231.49	21.123		
6,100.00	6,064.29	6,010.29	6,064.29	27.33	208.10	-89.03	-455.25	-4,918.11	4,889.57	4,654.17	235.41	20.771		
6,200.00	6,163.62	6,109.62	6,163.62	27.78	211.57	-89.16	-455.25	-4,918.11	4,889.39	4,650.07	239.32	20.430		
6,300.00	6,262.94	6,208.94	6,262.94	28.23	215.03	-89.30	-455.25	-4,918.11	4,889.23	4,645.99	243.24	20.100		
6,400.00	6,362.24	6,308.24	6,362.24	28.67	218.50	-71.15	-455.25	-4,918.11	4,888.53	4,641.37	247.16	19.779		
6,500.00	6,460.41	6,406.41	6,460.41	29.12	221.93	-39.74	-455.25	-4,918.11	4,876.61	4,625.58	251.03	19.426		
6,600.00	6,555.09	6,501.09	6,555.09	29.57	225.23	-30.55	-455.25	-4,918.11	4,849.75	4,594.98	254.77	19.036		
6,700.00	6,643.94	6,589.94	6,643.94	30.00	228.33	-27.35	-455.25	-4,918.11	4,808.63	4,550.36	258.28	18.618		
6,800.00	6,724.78	6,670.78	6,724.78	30.45	231.16	-26.82	-455.25	-4,918.11	4,754.32	4,492.84	261.47	18.183		
6,900.00	6,795.62	6,741.62	6,795.62	30.97	233.63	-28.21	-455.25	-4,918.11	4,688.16	4,423.88	264.28	17.739		
7,000.00	6,854.70	6,800.70	6,854.70	31.60	235.69	-31.70	-455.25	-4,918.11	4,611.82	4,345.17	266.65	17.296		
7,100.00	6,900.58	6,846.58	6,900.58	32.39	237.29	-38.30	-455.25	-4,918.11	4,527.20	4,258.68	268.52	16.860		
7,200.00	6,932.13	6,878.13	6,932.13	33.34	238.39	-50.48	-455.25	-4,918.11	4,436.39	4,166.54	269.85	16.440		
7,300.00	6,948.57	6,905.44	6,948.57	34.46	239.35	-72.65	-455.25	-4,918.11	4,341.64	4,070.62	271.02	16.020		
7,400.00	6,950.87	6,903.13	6,950.87	35.70	239.27	-90.62	-455.25	-4,918.11	4,245.27	3,974.13	271.14	15.657		
7,500.00	6,950.58	6,903.42	6,950.58	37.12	239.28	-90.61	-455.25	-4,918.11	4,148.92	3,877.54	271.38	15.288		
7,600.00	6,950.28	6,903.72	6,950.28	38.70	239.29	-90.59	-455.25	-4,918.11	4,052.75	3,781.10	271.64	14.919		
7,700.00	6,949.98	6,904.02	6,949.98	40.41	239.30	-90.58	-455.25	-4,918.11	3,956.76	3,684.81	271.95	14.550		
7,800.00	6,949.68	6,904.32	6,949.68	42.25	239.31	-90.56	-455.25	-4,918.11	3,860.98	3,588.69	272.30	14.179		
7,900.00	6,949.38	6,904.62	6,949.38	44.20	239.32	-90.55	-455.25	-4,918.11	3,765.43	3,492.73	272.69	13.808		
8,000.00	6,949.08	6,904.92	6,949.08	46.24	239.33	-90.53	-455.25	-4,918.11	3,670.10	3,396.96	273.14	13.437		
8,100.00	6,948.79	6,905.21	6,948.79	48.36	239.34	-90.52	-455.25	-4,918.11	3,575.03	3,301.40	273.64	13.065		
8,200.00	6,948.49	6,905.51	6,948.49	50.56	239.35	-90.50	-455.25	-4,918.11	3,480.24	3,206.04	274.20	12.692		
8,300.00	6,948.19	6,905.81	6,948.19	52.82	239.36	-90.49	-455.25	-4,918.11	3,385.75	3,110.92	274.83	12.319		
8,400.00	6,947.89	6,906.11	6,947.89	55.14	239.37	-90.47	-455.25	-4,918.11	3,291.59	3,016.05	275.53	11.946		
8,500.00	6,947.59	6,906.41	6,947.59	57.50	239.38	-90.46	-455.25	-4,918.11	3,197.77	2,921.46	276.31	11.573		
8,600.00	6,947.29	6,906.71	6,947.29	59.91	239.39	-90.44	-455.25	-4,918.11	3,104.35	2,827.16	277.19	11.200		
8,700.00	6,947.00	6,907.00	6,947.00	62.36	239.40	-90.43	-455.25	-4,918.11	3,011.35	2,733.19	278.15	10.826		
8,800.00	6,946.70	6,907.30	6,946.70	64.84	239.41	-90.41	-455.25	-4,918.11	2,918.81	2,639.58	279.22	10.453		
8,900.00	6,946.40	6,907.60	6,946.40	67.35	239.42	-90.39	-455.25	-4,918.11	2,826.77	2,546.36	280.41	10.081		
9,000.00	6,946.10	6,907.90	6,946.10	69.88	239.43	-90.38	-455.25	-4,918.11	2,735.30	2,453.58	281.72	9.709		
9,100.00	6,945.80	6,908.20	6,945.80	72.44	239.44	-90.36	-455.25	-4,918.11	2,644.45	2,361.27	283.17	9.339		
9,200.00	6,945.50	6,908.50	6,945.50	75.02	239.45	-90.35	-455.25	-4,918.11	2,554.27	2,269.50	284.77	8.969		
9,300.00	6,945.21	6,908.79	6,945.21	77.63	239.46	-90.33	-455.25	-4,918.11	2,464.86	2,178.32	286.54	8.602		
9,400.00	6,944.91	6,909.09	6,944.91	80.24	239.47	-90.32	-455.25	-4,918.11	2,376.29	2,087.81	288.48	8.237		
9,500.00	6,944.61	6,909.39	6,944.61	82.88	239.48	-90.30	-455.25	-4,918.11	2,288.66	1,998.05	290.61	7.875		
9,600.00	6,944.31	6,909.69	6,944.31	85.53	239.49	-90.29	-455.25	-4,918.11	2,202.09	1,909.13	292.96	7.517		
9,700.00	6,944.01	6,909.99	6,944.01	88.19	239.51	-90.27	-455.25	-4,918.11	2,116.70	1,821.17	295.53	7.162		
9,800.00	6,943.71	6,889.71	6,943.71	90.86	238.80	-90.26	-455.25	-4,918.11	2,032.64	1,735.01	297.63	6.829		
9,900.00	6,943.42	6,889.42	6,943.42	93.55	238.79	-90.24	-455.25	-4,918.11	1,950.09	1,649.40	300.69	6.485		
10,000.00	6,943.12	6,889.12	6,943.12	96.24	238.78	-90.23	-455.25	-4,918.11	1,869.25	1,565.20	304.04	6.148		
10,100.00	6,942.82	6,888.82	6,942.82	98.95	238.77	-90.21	-455.25	-4,918.11	1,790.33	1,482.64	307.69	5.819		
10,200.00	6,942.52	6,888.52	6,942.52	101.66	238.76	-90.20	-455.25	-4,918.11	1,713.63	1,401.97	311.66	5.498		
10,300.00	6,942.22	6,888.22	6,942.22	104.38	238.75	-90.18	-455.25	-4,918.11	1,639.43	1,323.48	315.96	5.189		

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 4N-16A-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 4N-16A-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	6,941.92	6,887.92	6,941.92	107.11	238.73	-90.17	-455.25	-4,918.11	1,568.11	1,247.52	320.59	4.891		
10,500.00	6,941.63	6,887.63	6,941.63	109.84	238.72	-90.15	-455.25	-4,918.11	1,500.06	1,174.51	325.54	4.608		
10,600.00	6,941.33	6,887.33	6,941.33	112.58	238.71	-90.14	-455.25	-4,918.11	1,435.76	1,104.95	330.81	4.340		
10,700.00	6,941.03	6,887.03	6,941.03	115.33	238.70	-90.12	-455.25	-4,918.11	1,375.72	1,039.38	336.34	4.090		
10,800.00	6,940.73	6,886.73	6,940.73	118.08	238.69	-90.11	-455.25	-4,918.11	1,320.54	978.46	342.08	3.860		
10,900.00	6,940.43	6,886.43	6,940.43	120.84	238.68	-90.09	-455.25	-4,918.11	1,270.85	922.93	347.92	3.653		
11,000.00	6,940.13	6,886.13	6,940.13	123.60	238.67	-90.08	-455.25	-4,918.11	1,227.30	873.58	353.73	3.470		
11,100.00	6,939.83	6,885.83	6,939.83	126.36	238.66	-90.06	-455.25	-4,918.11	1,190.58	831.24	359.34	3.313		
11,200.00	6,939.54	6,885.54	6,939.54	129.13	238.65	-90.04	-455.25	-4,918.11	1,161.34	796.76	364.57	3.185		
11,300.00	6,939.24	6,885.24	6,939.24	131.91	238.64	-90.03	-455.25	-4,918.11	1,140.14	770.92	369.22	3.088		
11,400.00	6,938.94	6,884.94	6,938.94	134.68	238.63	-90.01	-455.25	-4,918.11	1,127.45	754.36	373.09	3.022		
11,493.92	6,938.66	6,884.66	6,938.66	137.29	238.62	-90.00	-455.25	-4,918.11	1,123.53	747.65	375.88	2.989 CC		
11,500.00	6,938.64	6,884.64	6,938.64	137.46	238.62	-90.00	-455.25	-4,918.11	1,123.54	747.52	376.03	2.988 ES		
11,600.00	6,938.34	6,884.34	6,938.34	140.25	238.61	-89.98	-455.25	-4,918.11	1,128.53	750.58	377.95	2.986 SF		
11,700.00	6,938.04	6,884.04	6,938.04	143.03	238.60	-89.97	-455.25	-4,918.11	1,142.27	763.45	378.82	3.015		
11,800.00	6,937.75	6,883.75	6,937.75	145.82	238.59	-89.95	-455.25	-4,918.11	1,164.48	785.77	378.71	3.075		
11,900.00	6,937.45	6,883.45	6,937.45	148.61	238.58	-89.94	-455.25	-4,918.11	1,194.66	816.95	377.71	3.163		
12,000.00	6,937.15	6,883.15	6,937.15	151.41	238.57	-89.92	-455.25	-4,918.11	1,232.25	856.27	375.98	3.277		
12,100.00	6,936.85	6,882.85	6,936.85	154.20	238.56	-89.91	-455.25	-4,918.11	1,276.58	902.90	373.68	3.416		
12,200.00	6,936.55	6,882.55	6,936.55	157.00	238.55	-89.89	-455.25	-4,918.11	1,326.98	956.01	370.97	3.577		
12,300.00	6,936.25	6,882.25	6,936.25	159.80	238.54	-89.88	-455.25	-4,918.11	1,382.78	1,014.80	367.98	3.758		
12,400.00	6,935.96	6,881.96	6,935.96	162.61	238.53	-89.86	-455.25	-4,918.11	1,443.36	1,078.53	364.84	3.956		
12,500.00	6,935.66	6,881.66	6,935.66	165.41	238.52	-89.85	-455.25	-4,918.11	1,508.15	1,146.51	361.64	4.170		
12,600.00	6,935.36	6,881.36	6,935.36	168.22	238.51	-89.83	-455.25	-4,918.11	1,576.62	1,218.17	358.45	4.398		
12,700.00	6,935.06	6,881.06	6,935.06	171.02	238.50	-89.82	-455.25	-4,918.11	1,648.32	1,293.00	355.32	4.639		
12,800.00	6,934.76	6,880.76	6,934.76	173.83	238.48	-89.80	-455.25	-4,918.11	1,722.83	1,370.54	352.29	4.890		
12,900.00	6,934.46	6,880.46	6,934.46	176.65	238.47	-89.79	-455.25	-4,918.11	1,799.83	1,450.44	349.38	5.151		
13,000.00	6,934.17	6,880.17	6,934.17	179.46	238.46	-89.77	-455.25	-4,918.11	1,878.99	1,532.38	346.61	5.421		
13,100.00	6,933.87	6,879.87	6,933.87	182.27	238.45	-89.76	-455.25	-4,918.11	1,960.05	1,616.08	343.97	5.698		
13,200.00	6,933.57	6,879.57	6,933.57	185.09	238.44	-89.74	-455.25	-4,918.11	2,042.80	1,701.32	341.48	5.982		
13,300.00	6,933.27	6,879.27	6,933.27	187.91	238.43	-89.73	-455.25	-4,918.11	2,127.02	1,787.90	339.13	6.272		
13,400.00	6,932.97	6,878.97	6,932.97	190.72	238.42	-89.71	-455.25	-4,918.11	2,212.56	1,875.65	336.91	6.567		
13,500.00	6,932.67	6,878.67	6,932.67	193.54	238.41	-89.69	-455.25	-4,918.11	2,299.27	1,964.45	334.83	6.867		
13,600.00	6,932.38	6,878.38	6,932.38	196.36	238.40	-89.68	-455.25	-4,918.11	2,387.02	2,054.16	332.86	7.171		
13,700.00	6,932.08	6,878.08	6,932.08	199.19	238.39	-89.66	-455.25	-4,918.11	2,475.70	2,144.68	331.02	7.479		
13,800.00	6,931.78	6,877.78	6,931.78	202.01	238.38	-89.65	-455.25	-4,918.11	2,565.21	2,235.93	329.28	7.790		
13,900.00	6,931.48	6,877.48	6,931.48	204.83	238.37	-89.63	-455.25	-4,918.11	2,655.47	2,327.82	327.65	8.105		
14,000.00	6,931.18	6,877.18	6,931.18	207.66	238.36	-89.62	-455.25	-4,918.11	2,746.40	2,420.29	326.11	8.422		
14,100.00	6,930.88	6,876.88	6,930.88	210.48	238.35	-89.60	-455.25	-4,918.11	2,837.95	2,513.28	324.67	8.741		
14,200.00	6,930.59	6,876.59	6,930.59	213.31	238.34	-89.59	-455.25	-4,918.11	2,930.04	2,606.74	323.30	9.063		
14,300.00	6,930.29	6,876.29	6,930.29	216.14	238.33	-89.57	-455.25	-4,918.11	3,022.64	2,700.62	322.02	9.387		
14,400.00	6,929.99	6,875.99	6,929.99	218.96	238.32	-89.56	-455.25	-4,918.11	3,115.70	2,794.89	320.81	9.712		
14,500.00	6,929.69	6,875.69	6,929.69	221.79	238.31	-89.54	-455.25	-4,918.11	3,209.17	2,889.51	319.66	10.039		
14,600.00	6,929.39	6,875.39	6,929.39	224.62	238.30	-89.53	-455.25	-4,918.11	3,303.03	2,984.45	318.58	10.368		
14,700.00	6,929.09	6,875.09	6,929.09	227.45	238.29	-89.51	-455.25	-4,918.11	3,397.23	3,079.68	317.56	10.698		
14,732.12	6,929.00	6,875.00	6,929.00	228.36	238.28	-89.51	-455.25	-4,918.11	3,427.57	3,110.32	317.24	10.804		



Anticollision Report



Company:	SRC ENERGY	Local Co-ordinate Reference:	Well HARVESTERS STATE 4N-16A-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 4N-16A-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	-112.45	-3,162.80	-7,655.87	8,283.65					
100.00	100.00	43.00	100.00	3.28	3.36	-112.45	-3,162.80	-7,655.87	8,283.45	8,276.80	6.65	1,245.725		
200.00	200.00	143.00	200.00	3.34	4.62	-112.45	-3,162.80	-7,655.87	8,283.45	8,275.50	7.95	1,041.667		
300.00	300.00	243.00	300.00	3.44	7.49	-112.45	-3,162.80	-7,655.87	8,283.45	8,272.52	10.94	757.274		
400.00	400.00	343.00	400.00	3.60	10.74	-112.45	-3,162.80	-7,655.87	8,283.45	8,269.11	14.34	577.445		
500.00	500.00	443.00	500.00	3.81	14.11	-112.45	-3,162.80	-7,655.87	8,283.45	8,265.54	17.91	462.446		
600.00	600.00	543.00	600.00	4.05	17.52	-112.45	-3,162.80	-7,655.87	8,283.45	8,261.89	21.57	384.086		
700.00	699.98	642.98	699.98	4.32	20.96	-98.98	-3,162.80	-7,655.87	8,283.73	8,258.45	25.28	327.725		
800.00	799.84	742.84	799.84	4.62	24.41	-99.00	-3,162.80	-7,655.87	8,284.55	8,255.52	29.02	285.461		
900.00	899.45	842.45	899.45	4.94	27.86	-99.03	-3,162.80	-7,655.87	8,285.92	8,253.13	32.79	252.703		
1,000.00	998.80	941.80	998.80	5.28	31.31	-99.10	-3,162.80	-7,655.87	8,287.73	8,251.16	36.57	226.613		
1,100.00	1,098.12	1,041.12	1,098.12	5.63	34.76	-99.18	-3,162.80	-7,655.87	8,289.58	8,249.21	40.38	205.314		
1,200.00	1,197.44	1,140.44	1,197.44	6.00	38.21	-99.26	-3,162.80	-7,655.87	8,291.46	8,247.26	44.19	187.611		
1,300.00	1,296.77	1,239.77	1,296.77	6.37	41.66	-99.34	-3,162.80	-7,655.87	8,293.35	8,245.32	48.03	172.677		
1,400.00	1,396.09	1,339.09	1,396.09	6.76	45.12	-99.41	-3,162.80	-7,655.87	8,295.25	8,243.38	51.87	159.917		
1,500.00	1,495.41	1,438.41	1,495.41	7.15	48.58	-99.49	-3,162.80	-7,655.87	8,297.17	8,241.44	55.73	148.893		
1,600.00	1,594.74	1,537.74	1,594.74	7.55	52.04	-99.57	-3,162.80	-7,655.87	8,299.11	8,239.52	59.59	139.278		
1,700.00	1,694.06	1,637.06	1,694.06	7.96	55.50	-99.65	-3,162.80	-7,655.87	8,301.06	8,237.60	63.45	130.819		
1,800.00	1,793.38	1,736.38	1,793.38	8.37	58.96	-99.73	-3,162.80	-7,655.87	8,303.02	8,235.70	67.33	123.323		
1,900.00	1,892.71	1,835.71	1,892.71	8.78	62.43	-99.81	-3,162.80	-7,655.87	8,305.01	8,233.80	71.21	116.635		
2,000.00	1,992.03	1,935.03	1,992.03	9.20	65.89	-99.89	-3,162.80	-7,655.87	8,307.01	8,231.92	75.09	110.631		
2,100.00	2,091.36	2,034.36	2,091.36	9.62	69.35	-99.96	-3,162.80	-7,655.87	8,309.02	8,230.05	78.97	105.214		
2,200.00	2,190.68	2,133.68	2,190.68	10.05	72.82	-100.04	-3,162.80	-7,655.87	8,311.05	8,228.19	82.86	100.301		
2,300.00	2,290.00	2,233.00	2,290.00	10.48	76.28	-100.12	-3,162.80	-7,655.87	8,313.10	8,226.35	86.75	95.826		
2,400.00	2,389.33	2,332.33	2,389.33	10.90	79.74	-100.20	-3,162.80	-7,655.87	8,315.16	8,224.51	90.65	91.732		
2,500.00	2,488.65	2,431.65	2,488.65	11.34	83.21	-100.28	-3,162.80	-7,655.87	8,317.24	8,222.70	94.54	87.974		
2,600.00	2,587.97	2,530.97	2,587.97	11.77	86.67	-100.36	-3,162.80	-7,655.87	8,319.33	8,220.89	98.44	84.513		
2,700.00	2,687.30	2,630.30	2,687.30	12.20	90.14	-100.43	-3,162.80	-7,655.87	8,321.44	8,219.10	102.34	81.313		
2,800.00	2,786.62	2,729.62	2,786.62	12.64	93.60	-100.51	-3,162.80	-7,655.87	8,323.57	8,217.33	106.24	78.348		
2,900.00	2,885.94	2,828.94	2,885.94	13.07	97.07	-100.59	-3,162.80	-7,655.87	8,325.71	8,215.57	110.14	75.591		
3,000.00	2,985.27	2,928.27	2,985.27	13.51	100.53	-100.67	-3,162.80	-7,655.87	8,327.86	8,213.82	114.04	73.023		
3,100.00	3,084.59	3,027.59	3,084.59	13.95	104.00	-100.75	-3,162.80	-7,655.87	8,330.03	8,212.09	117.95	70.624		
3,200.00	3,183.91	3,126.91	3,183.91	14.39	107.47	-100.82	-3,162.80	-7,655.87	8,332.22	8,210.37	121.85	68.379		
3,300.00	3,283.24	3,226.24	3,283.24	14.83	110.93	-100.90	-3,162.80	-7,655.87	8,334.42	8,208.66	125.76	66.272		
3,400.00	3,382.56	3,325.56	3,382.56	15.27	114.40	-100.98	-3,162.80	-7,655.87	8,336.64	8,206.98	129.67	64.293		
3,500.00	3,481.88	3,424.88	3,481.88	15.71	117.86	-101.06	-3,162.80	-7,655.87	8,338.88	8,205.30	133.57	62.429		
3,600.00	3,581.21	3,524.21	3,581.21	16.16	121.33	-101.14	-3,162.80	-7,655.87	8,341.13	8,203.64	137.48	60.670		
3,700.00	3,680.53	3,623.53	3,680.53	16.60	124.80	-101.21	-3,162.80	-7,655.87	8,343.39	8,202.00	141.39	59.009		
3,800.00	3,779.85	3,722.85	3,779.85	17.04	128.26	-101.29	-3,162.80	-7,655.87	8,345.67	8,200.37	145.30	57.437		
3,900.00	3,879.18	3,822.18	3,879.18	17.49	131.73	-101.37	-3,162.80	-7,655.87	8,347.97	8,198.76	149.21	55.947		
4,000.00	3,978.50	3,921.50	3,978.50	17.93	135.19	-101.45	-3,162.80	-7,655.87	8,350.28	8,197.16	153.12	54.533		
4,100.00	4,077.82	4,020.82	4,077.82	18.37	138.66	-101.52	-3,162.80	-7,655.87	8,352.61	8,195.57	157.03	53.190		
4,200.00	4,177.15	4,120.15	4,177.15	18.82	142.13	-101.60	-3,162.80	-7,655.87	8,354.95	8,194.00	160.95	51.912		
4,300.00	4,276.47	4,219.47	4,276.47	19.27	145.59	-101.68	-3,162.80	-7,655.87	8,357.31	8,192.45	164.86	50.694		
4,400.00	4,375.79	4,318.79	4,375.79	19.71	149.06	-101.76	-3,162.80	-7,655.87	8,359.68	8,190.91	168.77	49.533		
4,500.00	4,475.12	4,418.12	4,475.12	20.16	152.53	-101.83	-3,162.80	-7,655.87	8,362.07	8,189.39	172.68	48.424		
4,600.00	4,574.44	4,517.44	4,574.44	20.60	155.99	-101.91	-3,162.80	-7,655.87	8,364.48	8,187.88	176.60	47.365		
4,700.00	4,673.76	4,616.76	4,673.76	21.05	159.46	-101.99	-3,162.80	-7,655.87	8,366.90	8,186.39	180.51	46.351		
4,800.00	4,773.09	4,716.09	4,773.09	21.50	162.93	-102.07	-3,162.80	-7,655.87	8,369.33	8,184.91	184.42	45.381		
4,900.00	4,872.41	4,815.41	4,872.41	21.94	166.39	-102.14	-3,162.80	-7,655.87	8,371.78	8,183.44	188.34	44.451		
5,000.00	4,971.74	4,914.74	4,971.74	22.39	169.86	-102.22	-3,162.80	-7,655.87	8,374.25	8,182.00	192.25	43.559		
5,100.00	5,071.06	5,014.06	5,071.06	22.84	173.33	-102.30	-3,162.80	-7,655.87	8,376.73	8,180.56	196.17	42.702		

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 4N-16A-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 4N-16A-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		
5,200.00	5,170.38	5,113.38	5,170.38	23.29	176.79	-102.37	-3,162.80	-7,655.87	8,379.23	8,179.15	200.08	41.879		
5,300.00	5,269.71	5,212.71	5,269.71	23.74	180.26	-102.45	-3,162.80	-7,655.87	8,381.74	8,177.74	204.00	41.088		
5,400.00	5,369.03	5,312.03	5,369.03	24.18	183.73	-102.53	-3,162.80	-7,655.87	8,384.27	8,176.36	207.91	40.326		
5,500.00	5,468.35	5,411.35	5,468.35	24.63	187.19	-102.60	-3,162.80	-7,655.87	8,386.81	8,174.98	211.83	39.593		
5,600.00	5,567.68	5,510.68	5,567.68	25.08	190.66	-102.68	-3,162.80	-7,655.87	8,389.37	8,173.63	215.74	38.886		
5,700.00	5,667.00	5,610.00	5,667.00	25.53	194.13	-102.76	-3,162.80	-7,655.87	8,391.94	8,172.28	219.66	38.205		
5,800.00	5,766.32	5,709.32	5,766.32	25.98	197.59	-102.84	-3,162.80	-7,655.87	8,394.53	8,170.96	223.57	37.547		
5,900.00	5,865.65	5,808.65	5,865.65	26.43	201.06	-102.91	-3,162.80	-7,655.87	8,397.13	8,169.64	227.49	36.912		
6,000.00	5,964.97	5,907.97	5,964.97	26.88	204.53	-102.99	-3,162.80	-7,655.87	8,399.75	8,168.35	231.41	36.299		
6,100.00	6,064.29	6,007.29	6,064.29	27.33	208.00	-103.07	-3,162.80	-7,655.87	8,402.39	8,167.07	235.32	35.706		
6,200.00	6,163.62	6,106.62	6,163.62	27.78	211.46	-103.14	-3,162.80	-7,655.87	8,405.04	8,165.80	239.24	35.133		
6,300.00	6,262.94	6,205.94	6,262.94	28.23	214.93	-103.22	-3,162.80	-7,655.87	8,407.70	8,164.55	243.15	34.578		
6,400.00	6,362.24	6,305.24	6,362.24	28.67	218.40	-84.99	-3,162.80	-7,655.87	8,409.86	8,162.79	247.07	34.038		
6,500.00	6,460.41	6,403.41	6,460.41	29.12	221.82	-53.62	-3,162.80	-7,655.87	8,401.68	8,150.74	250.95	33.480		
6,600.00	6,555.09	6,501.91	6,555.09	29.57	225.26	-44.73	-3,162.80	-7,655.87	8,379.72	8,124.89	254.82	32.884		
6,700.00	6,643.94	6,586.94	6,643.94	30.00	228.23	-42.11	-3,162.80	-7,655.87	8,344.55	8,086.33	258.22	32.316		
6,800.00	6,724.78	6,667.78	6,724.78	30.45	231.05	-42.44	-3,162.80	-7,655.87	8,297.11	8,035.66	261.45	31.735		
6,900.00	6,795.62	6,738.62	6,795.62	30.97	233.52	-44.94	-3,162.80	-7,655.87	8,238.62	7,974.30	264.32	31.169		
7,000.00	6,854.70	6,802.30	6,854.70	31.60	235.75	-49.62	-3,162.80	-7,655.87	8,170.59	7,903.65	266.94	30.609		
7,100.00	6,900.58	6,843.58	6,900.58	32.39	237.19	-56.90	-3,162.80	-7,655.87	8,094.74	7,825.96	268.78	30.117		
7,200.00	6,932.13	6,875.13	6,932.13	33.34	238.29	-67.37	-3,162.80	-7,655.87	8,012.99	7,742.69	270.30	29.645		
7,300.00	6,948.57	6,908.44	6,948.57	34.46	239.45	-81.18	-3,162.80	-7,655.87	7,927.36	7,655.46	271.90	29.155		
7,400.00	6,950.87	6,906.13	6,950.87	35.70	239.37	-90.31	-3,162.80	-7,655.87	7,840.03	7,567.74	272.29	28.793		
7,500.00	6,950.58	6,906.42	6,950.58	37.12	239.38	-90.30	-3,162.80	-7,655.87	7,752.79	7,479.96	272.82	28.417		
7,600.00	6,950.28	6,906.72	6,950.28	38.70	239.39	-90.30	-3,162.80	-7,655.87	7,665.86	7,392.43	273.43	28.036		
7,700.00	6,949.98	6,907.02	6,949.98	40.41	239.40	-90.29	-3,162.80	-7,655.87	7,579.26	7,305.14	274.11	27.650		
7,800.00	6,949.68	6,907.32	6,949.68	42.25	239.41	-90.29	-3,162.80	-7,655.87	7,492.98	7,218.12	274.86	27.261		
7,900.00	6,949.38	6,907.62	6,949.38	44.20	239.42	-90.28	-3,162.80	-7,655.87	7,407.06	7,131.37	275.69	26.867		
8,000.00	6,949.08	6,907.92	6,949.08	46.24	239.43	-90.28	-3,162.80	-7,655.87	7,321.49	7,044.90	276.59	26.471		
8,100.00	6,948.79	6,908.21	6,948.79	48.36	239.44	-90.28	-3,162.80	-7,655.87	7,236.29	6,958.73	277.56	26.071		
8,200.00	6,948.49	6,908.51	6,948.49	50.56	239.45	-90.27	-3,162.80	-7,655.87	7,151.47	6,872.86	278.61	25.668		
8,300.00	6,948.19	6,908.81	6,948.19	52.82	239.46	-90.27	-3,162.80	-7,655.87	7,067.06	6,787.32	279.74	25.263		
8,400.00	6,947.89	6,909.11	6,947.89	55.14	239.47	-90.26	-3,162.80	-7,655.87	6,983.05	6,702.12	280.93	24.857		
8,500.00	6,947.59	6,909.41	6,947.59	57.50	239.48	-90.26	-3,162.80	-7,655.87	6,899.47	6,617.26	282.21	24.448		
8,600.00	6,947.29	6,909.71	6,947.29	59.91	239.50	-90.25	-3,162.80	-7,655.87	6,816.33	6,532.78	283.55	24.039		
8,700.00	6,947.00	6,890.00	6,947.00	62.36	238.81	-90.25	-3,162.80	-7,655.87	6,733.65	6,449.38	284.27	23.687		
8,800.00	6,946.70	6,889.70	6,946.70	64.84	238.80	-90.24	-3,162.80	-7,655.87	6,651.45	6,365.70	285.74	23.278		
8,900.00	6,946.40	6,889.40	6,946.40	67.35	238.79	-90.24	-3,162.80	-7,655.87	6,569.74	6,282.45	287.29	22.868		
9,000.00	6,946.10	6,889.10	6,946.10	69.88	238.78	-90.24	-3,162.80	-7,655.87	6,488.54	6,199.63	288.91	22.459		
9,100.00	6,945.80	6,888.80	6,945.80	72.44	238.77	-90.23	-3,162.80	-7,655.87	6,407.87	6,117.27	290.60	22.050		
9,200.00	6,945.50	6,888.50	6,945.50	75.02	238.76	-90.23	-3,162.80	-7,655.87	6,327.76	6,035.39	292.36	21.643		
9,300.00	6,945.21	6,888.21	6,945.21	77.63	238.74	-90.22	-3,162.80	-7,655.87	6,248.22	5,954.01	294.20	21.238		
9,400.00	6,944.91	6,887.91	6,944.91	80.24	238.73	-90.22	-3,162.80	-7,655.87	6,169.27	5,873.16	296.11	20.834		
9,500.00	6,944.61	6,887.61	6,944.61	82.88	238.72	-90.21	-3,162.80	-7,655.87	6,090.94	5,792.84	298.10	20.433		
9,600.00	6,944.31	6,887.31	6,944.31	85.53	238.71	-90.21	-3,162.80	-7,655.87	6,013.26	5,713.10	300.16	20.034		
9,700.00	6,944.01	6,887.01	6,944.01	88.19	238.70	-90.20	-3,162.80	-7,655.87	5,936.24	5,633.95	302.29	19.638		
9,800.00	6,943.71	6,886.71	6,943.71	90.86	238.69	-90.20	-3,162.80	-7,655.87	5,859.92	5,555.43	304.49	19.245		
9,900.00	6,943.42	6,886.42	6,943.42	93.55	238.68	-90.20	-3,162.80	-7,655.87	5,784.32	5,477.55	306.77	18.855		
10,000.00	6,943.12	6,886.12	6,943.12	96.24	238.67	-90.19	-3,162.80	-7,655.87	5,709.47	5,400.35	309.12	18.470		
10,100.00	6,942.82	6,885.82	6,942.82	98.95	238.66	-90.19	-3,162.80	-7,655.87	5,635.40	5,323.85	311.55	18.088		
10,200.00	6,942.52	6,885.52	6,942.52	101.66	238.65	-90.18	-3,162.80	-7,655.87	5,562.14	5,248.09	314.05	17.711		
10,300.00	6,942.22	6,885.22	6,942.22	104.38	238.64	-90.18	-3,162.80	-7,655.87	5,489.73	5,173.10	316.63	17.338		

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 4N-16A-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 4N-16A-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		
10,400.00	6,941.92	6,884.92	6,941.92	107.11	238.63	-90.17	-3,162.80	-7,655.87	5,418.19	5,098.91	319.28	16.970		
10,500.00	6,941.63	6,884.63	6,941.63	109.84	238.62	-90.17	-3,162.80	-7,655.87	5,347.57	5,025.56	322.01	16.607		
10,600.00	6,941.33	6,884.33	6,941.33	112.58	238.61	-90.16	-3,162.80	-7,655.87	5,277.90	4,953.09	324.81	16.249		
10,700.00	6,941.03	6,884.03	6,941.03	115.33	238.60	-90.16	-3,162.80	-7,655.87	5,209.21	4,881.53	327.68	15.897		
10,800.00	6,940.73	6,883.73	6,940.73	118.08	238.59	-90.15	-3,162.80	-7,655.87	5,141.55	4,810.92	330.63	15.551		
10,900.00	6,940.43	6,883.43	6,940.43	120.84	238.58	-90.15	-3,162.80	-7,655.87	5,074.96	4,741.31	333.65	15.210		
11,000.00	6,940.13	6,883.13	6,940.13	123.60	238.57	-90.15	-3,162.80	-7,655.87	5,009.48	4,672.73	336.75	14.876		
11,100.00	6,939.83	6,882.83	6,939.83	126.36	238.56	-90.14	-3,162.80	-7,655.87	4,945.16	4,605.24	339.92	14.548		
11,200.00	6,939.54	6,882.54	6,939.54	129.13	238.55	-90.14	-3,162.80	-7,655.87	4,882.04	4,538.88	343.16	14.227		
11,300.00	6,939.24	6,882.24	6,939.24	131.91	238.54	-90.13	-3,162.80	-7,655.87	4,820.17	4,473.70	346.46	13.912		
11,400.00	6,938.94	6,881.94	6,938.94	134.68	238.53	-90.13	-3,162.80	-7,655.87	4,759.59	4,409.75	349.84	13.605		
11,500.00	6,938.64	6,881.64	6,938.64	137.46	238.52	-90.12	-3,162.80	-7,655.87	4,700.36	4,347.08	353.28	13.305		
11,600.00	6,938.34	6,881.34	6,938.34	140.25	238.51	-90.12	-3,162.80	-7,655.87	4,642.53	4,285.74	356.79	13.012		
11,700.00	6,938.04	6,881.04	6,938.04	143.03	238.49	-90.11	-3,162.80	-7,655.87	4,586.15	4,225.79	360.35	12.727		
11,800.00	6,937.75	6,880.75	6,937.75	145.82	238.48	-90.11	-3,162.80	-7,655.87	4,531.27	4,167.30	363.98	12.449		
11,900.00	6,937.45	6,880.45	6,937.45	148.61	238.47	-90.11	-3,162.80	-7,655.87	4,477.96	4,110.31	367.65	12.180		
12,000.00	6,937.15	6,880.15	6,937.15	151.41	238.46	-90.10	-3,162.80	-7,655.87	4,426.26	4,054.88	371.38	11.918		
12,100.00	6,936.85	6,879.85	6,936.85	154.20	238.45	-90.10	-3,162.80	-7,655.87	4,376.24	4,001.09	375.15	11.665		
12,200.00	6,936.55	6,879.55	6,936.55	157.00	238.44	-90.09	-3,162.80	-7,655.87	4,327.95	3,948.99	378.96	11.420		
12,300.00	6,936.25	6,879.25	6,936.25	159.80	238.43	-90.09	-3,162.80	-7,655.87	4,281.46	3,898.65	382.81	11.184		
12,400.00	6,935.96	6,878.96	6,935.96	162.61	238.42	-90.08	-3,162.80	-7,655.87	4,236.81	3,850.12	386.69	10.957		
12,500.00	6,935.66	6,878.66	6,935.66	165.41	238.41	-90.08	-3,162.80	-7,655.87	4,194.07	3,803.49	390.58	10.738		
12,600.00	6,935.36	6,878.36	6,935.36	168.22	238.40	-90.07	-3,162.80	-7,655.87	4,153.30	3,758.81	394.49	10.528		
12,700.00	6,935.06	6,878.06	6,935.06	171.02	238.39	-90.07	-3,162.80	-7,655.87	4,114.56	3,716.15	398.41	10.328		
12,800.00	6,934.76	6,877.76	6,934.76	173.83	238.38	-90.07	-3,162.80	-7,655.87	4,077.90	3,675.58	402.32	10.136		
12,900.00	6,934.46	6,877.46	6,934.46	176.65	238.37	-90.06	-3,162.80	-7,655.87	4,043.39	3,637.16	406.22	9.954		
13,000.00	6,934.17	6,877.17	6,934.17	179.46	238.36	-90.06	-3,162.80	-7,655.87	4,011.07	3,600.96	410.11	9.781		
13,100.00	6,933.87	6,876.87	6,933.87	182.27	238.35	-90.05	-3,162.80	-7,655.87	3,981.00	3,567.04	413.96	9.617		
13,200.00	6,933.57	6,876.57	6,933.57	185.09	238.34	-90.05	-3,162.80	-7,655.87	3,953.23	3,535.46	417.77	9.463		
13,300.00	6,933.27	6,876.27	6,933.27	187.91	238.33	-90.04	-3,162.80	-7,655.87	3,927.81	3,506.28	421.54	9.318		
13,400.00	6,932.97	6,875.97	6,932.97	190.72	238.32	-90.04	-3,162.80	-7,655.87	3,904.79	3,479.55	425.24	9.183		
13,500.00	6,932.67	6,875.67	6,932.67	193.54	238.31	-90.03	-3,162.80	-7,655.87	3,884.21	3,455.33	428.88	9.057		
13,600.00	6,932.38	6,875.38	6,932.38	196.36	238.30	-90.03	-3,162.80	-7,655.87	3,866.11	3,433.68	432.43	8.940		
13,700.00	6,932.08	6,875.08	6,932.08	199.19	238.29	-90.02	-3,162.80	-7,655.87	3,850.51	3,414.62	435.89	8.834		
13,800.00	6,931.78	6,874.78	6,931.78	202.01	238.28	-90.02	-3,162.80	-7,655.87	3,837.46	3,398.21	439.26	8.736		
13,900.00	6,931.48	6,874.48	6,931.48	204.83	238.27	-90.02	-3,162.80	-7,655.87	3,826.99	3,384.47	442.51	8.648		
14,000.00	6,931.18	6,874.18	6,931.18	207.66	238.26	-90.01	-3,162.80	-7,655.87	3,819.10	3,373.44	445.65	8.570		
14,100.00	6,930.88	6,873.88	6,930.88	210.48	238.24	-90.01	-3,162.80	-7,655.87	3,813.82	3,365.15	448.66	8.500		
14,200.00	6,930.59	6,873.59	6,930.59	213.31	238.23	-90.00	-3,162.80	-7,655.87	3,811.15	3,359.61	451.54	8.440		
14,251.59	6,930.43	6,873.43	6,930.43	214.77	238.23	-90.00	-3,162.80	-7,655.87	3,810.80	3,357.83	452.97	8.413 CC		
14,300.00	6,930.29	6,873.29	6,930.29	216.14	238.22	-90.00	-3,162.80	-7,655.87	3,811.11	3,356.83	454.28	8.389		
14,400.00	6,929.99	6,872.99	6,929.99	218.96	238.21	-89.99	-3,162.80	-7,655.87	3,813.69	3,356.82	456.87	8.347 ES		
14,500.00	6,929.69	6,872.69	6,929.69	221.79	238.20	-89.99	-3,162.80	-7,655.87	3,818.89	3,359.58	459.31	8.314		
14,600.00	6,929.39	6,872.39	6,929.39	224.62	238.19	-89.98	-3,162.80	-7,655.87	3,826.70	3,365.10	461.60	8.290		
14,700.00	6,929.09	6,872.09	6,929.09	227.45	238.18	-89.98	-3,162.80	-7,655.87	3,837.09	3,373.36	463.73	8.274		
14,732.12	6,929.00	6,872.00	6,929.00	228.36	238.18	-89.98	-3,162.80	-7,655.87	3,840.98	3,376.60	464.38	8.271 SF		



Anticollision Report



Company:	SRC ENERGY	Local Co-ordinate Reference:	Well HARVESTERS STATE 4N-16A-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 4N-16A-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		
0.00	0.00	0.00	44.00	3.28	3.28	-104.37	-1,670.93	-6,520.25	6,731.09					
100.00	100.00	56.00	100.00	3.28	3.42	-104.37	-1,670.93	-6,520.25	6,730.95	6,724.24	6.71	1,003.530		
200.00	200.00	156.00	200.00	3.34	4.94	-104.37	-1,670.93	-6,520.25	6,730.95	6,722.67	8.28	812.729		
300.00	300.00	256.00	300.00	3.44	7.90	-104.37	-1,670.93	-6,520.25	6,730.95	6,719.60	11.35	593.085		
400.00	400.00	356.00	400.00	3.60	11.17	-104.37	-1,670.93	-6,520.25	6,730.95	6,716.17	14.78	455.471		
500.00	500.00	456.00	500.00	3.81	14.55	-104.37	-1,670.93	-6,520.25	6,730.95	6,712.60	18.35	366.728		
600.00	600.00	556.00	600.00	4.05	17.97	-104.37	-1,670.93	-6,520.25	6,730.95	6,708.94	22.01	305.776		
700.00	699.98	655.98	699.98	4.32	21.41	-90.92	-1,670.93	-6,520.25	6,730.98	6,705.25	25.72	261.654		
800.00	799.84	755.84	799.84	4.62	24.86	-90.96	-1,670.93	-6,520.25	6,731.06	6,701.59	29.47	228.395		
900.00	899.45	855.45	899.45	4.94	28.31	-91.03	-1,670.93	-6,520.25	6,731.22	6,697.98	33.24	202.508		
1,000.00	998.80	954.80	998.80	5.28	31.76	-91.13	-1,670.93	-6,520.25	6,731.43	6,694.41	37.02	181.820		
1,100.00	1,098.12	1,054.12	1,098.12	5.63	35.21	-91.22	-1,670.93	-6,520.25	6,731.67	6,690.85	40.83	164.888		
1,200.00	1,197.44	1,153.44	1,197.44	6.00	38.66	-91.32	-1,670.93	-6,520.25	6,731.93	6,687.29	44.65	150.787		
1,300.00	1,296.77	1,252.77	1,296.77	6.37	42.12	-91.42	-1,670.93	-6,520.25	6,732.21	6,683.73	48.48	138.870		
1,400.00	1,396.09	1,352.09	1,396.09	6.76	45.57	-91.52	-1,670.93	-6,520.25	6,732.51	6,680.19	52.32	128.673		
1,500.00	1,495.41	1,451.41	1,495.41	7.15	49.03	-91.62	-1,670.93	-6,520.25	6,732.83	6,676.66	56.18	119.852		
1,600.00	1,594.74	1,550.74	1,594.74	7.55	52.49	-91.72	-1,670.93	-6,520.25	6,733.17	6,673.13	60.04	112.150		
1,700.00	1,694.06	1,650.06	1,694.06	7.96	55.95	-91.81	-1,670.93	-6,520.25	6,733.53	6,669.63	63.90	105.368		
1,800.00	1,793.38	1,749.38	1,793.38	8.37	59.42	-91.91	-1,670.93	-6,520.25	6,733.91	6,666.13	67.78	99.353		
1,900.00	1,892.71	1,848.71	1,892.71	8.78	62.88	-92.01	-1,670.93	-6,520.25	6,734.31	6,662.66	71.66	93.982		
2,000.00	1,992.03	1,948.03	1,992.03	9.20	66.34	-92.11	-1,670.93	-6,520.25	6,734.73	6,659.19	75.54	89.158		
2,100.00	2,091.36	2,047.36	2,091.36	9.62	69.80	-92.21	-1,670.93	-6,520.25	6,735.17	6,655.75	79.42	84.802		
2,200.00	2,190.68	2,146.68	2,190.68	10.05	73.27	-92.30	-1,670.93	-6,520.25	6,735.63	6,652.32	83.31	80.849		
2,300.00	2,290.00	2,246.00	2,290.00	10.48	76.73	-92.40	-1,670.93	-6,520.25	6,736.11	6,648.91	87.20	77.247		
2,400.00	2,389.33	2,345.33	2,389.33	10.90	80.20	-92.50	-1,670.93	-6,520.25	6,736.61	6,645.52	91.10	73.951		
2,500.00	2,488.65	2,444.65	2,488.65	11.34	83.66	-92.60	-1,670.93	-6,520.25	6,737.13	6,642.14	94.99	70.924		
2,600.00	2,587.97	2,543.97	2,587.97	11.77	87.13	-92.70	-1,670.93	-6,520.25	6,737.67	6,638.78	98.89	68.134		
2,700.00	2,687.30	2,643.30	2,687.30	12.20	90.59	-92.79	-1,670.93	-6,520.25	6,738.23	6,635.44	102.79	65.555		
2,800.00	2,786.62	2,742.62	2,786.62	12.64	94.06	-92.89	-1,670.93	-6,520.25	6,738.81	6,632.12	106.69	63.164		
2,900.00	2,885.94	2,841.94	2,885.94	13.07	97.52	-92.99	-1,670.93	-6,520.25	6,739.41	6,628.82	110.59	60.941		
3,000.00	2,985.27	2,941.27	2,985.27	13.51	100.99	-93.09	-1,670.93	-6,520.25	6,740.03	6,625.54	114.49	58.869		
3,100.00	3,084.59	3,040.59	3,084.59	13.95	104.45	-93.19	-1,670.93	-6,520.25	6,740.67	6,622.27	118.40	56.933		
3,200.00	3,183.91	3,139.91	3,183.91	14.39	107.92	-93.28	-1,670.93	-6,520.25	6,741.33	6,619.03	122.30	55.120		
3,300.00	3,283.24	3,239.24	3,283.24	14.83	111.38	-93.38	-1,670.93	-6,520.25	6,742.01	6,615.80	126.21	53.420		
3,400.00	3,382.56	3,338.56	3,382.56	15.27	114.85	-93.48	-1,670.93	-6,520.25	6,742.71	6,612.59	130.12	51.821		
3,500.00	3,481.88	3,437.88	3,481.88	15.71	118.32	-93.58	-1,670.93	-6,520.25	6,743.43	6,609.40	134.02	50.315		
3,600.00	3,581.21	3,537.21	3,581.21	16.16	121.78	-93.67	-1,670.93	-6,520.25	6,744.17	6,606.24	137.93	48.895		
3,700.00	3,680.53	3,636.53	3,680.53	16.60	125.25	-93.77	-1,670.93	-6,520.25	6,744.93	6,603.09	141.84	47.553		
3,800.00	3,779.85	3,735.85	3,779.85	17.04	128.72	-93.87	-1,670.93	-6,520.25	6,745.71	6,599.95	145.75	46.283		
3,900.00	3,879.18	3,835.18	3,879.18	17.49	132.18	-93.97	-1,670.93	-6,520.25	6,746.50	6,596.84	149.66	45.079		
4,000.00	3,978.50	3,934.50	3,978.50	17.93	135.65	-94.07	-1,670.93	-6,520.25	6,747.32	6,593.75	153.57	43.936		
4,100.00	4,077.82	4,033.82	4,077.82	18.37	139.11	-94.16	-1,670.93	-6,520.25	6,748.16	6,590.68	157.48	42.850		
4,200.00	4,177.15	4,133.15	4,177.15	18.82	142.58	-94.26	-1,670.93	-6,520.25	6,749.02	6,587.63	161.39	41.817		
4,300.00	4,276.47	4,232.47	4,276.47	19.27	146.05	-94.36	-1,670.93	-6,520.25	6,749.90	6,584.59	165.31	40.833		
4,400.00	4,375.79	4,331.79	4,375.79	19.71	149.51	-94.46	-1,670.93	-6,520.25	6,750.80	6,581.58	169.22	39.894		
4,500.00	4,475.12	4,431.12	4,475.12	20.16	152.98	-94.55	-1,670.93	-6,520.25	6,751.72	6,578.58	173.13	38.998		
4,600.00	4,574.44	4,530.44	4,574.44	20.60	156.45	-94.65	-1,670.93	-6,520.25	6,752.65	6,575.61	177.04	38.141		
4,700.00	4,673.76	4,629.76	4,673.76	21.05	159.91	-94.75	-1,670.93	-6,520.25	6,753.61	6,572.65	180.96	37.321		
4,800.00	4,773.09	4,729.09	4,773.09	21.50	163.38	-94.85	-1,670.93	-6,520.25	6,754.59	6,569.72	184.87	36.537		
4,900.00	4,872.41	4,828.41	4,872.41	21.94	166.85	-94.94	-1,670.93	-6,520.25	6,755.59	6,566.80	188.79	35.784		
5,000.00	4,971.74	4,927.74	4,971.74	22.39	170.31	-95.04	-1,670.93	-6,520.25	6,756.60	6,563.90	192.70	35.063		
5,100.00	5,071.06	5,027.06	5,071.06	22.84	173.78	-95.14	-1,670.93	-6,520.25	6,757.64	6,561.03	196.61	34.370		

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 4N-16A-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 4N-16A-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	5,170.38	5,126.38	5,170.38	23.29	177.25	-95.24	-1,670.93	-6,520.25	6,758.70	6,558.17	200.53	33.704		
5,300.00	5,269.71	5,225.71	5,269.71	23.74	180.71	-95.33	-1,670.93	-6,520.25	6,759.78	6,555.33	204.44	33.064		
5,400.00	5,369.03	5,325.03	5,369.03	24.18	184.18	-95.43	-1,670.93	-6,520.25	6,760.87	6,552.51	208.36	32.448		
5,500.00	5,468.35	5,424.35	5,468.35	24.63	187.65	-95.53	-1,670.93	-6,520.25	6,761.99	6,549.71	212.27	31.855		
5,600.00	5,567.68	5,523.68	5,567.68	25.08	191.11	-95.63	-1,670.93	-6,520.25	6,763.12	6,546.93	216.19	31.283		
5,700.00	5,667.00	5,623.00	5,667.00	25.53	194.58	-95.72	-1,670.93	-6,520.25	6,764.28	6,544.17	220.11	30.732		
5,800.00	5,766.32	5,722.32	5,766.32	25.98	198.05	-95.82	-1,670.93	-6,520.25	6,765.46	6,541.43	224.02	30.200		
5,900.00	5,865.65	5,821.65	5,865.65	26.43	201.52	-95.92	-1,670.93	-6,520.25	6,766.65	6,538.71	227.94	29.686		
6,000.00	5,964.97	5,920.97	5,964.97	26.88	204.98	-96.01	-1,670.93	-6,520.25	6,767.87	6,536.01	231.85	29.190		
6,100.00	6,064.29	6,020.29	6,064.29	27.33	208.45	-96.11	-1,670.93	-6,520.25	6,769.10	6,533.33	235.77	28.711		
6,200.00	6,163.62	6,119.62	6,163.62	27.78	211.92	-96.21	-1,670.93	-6,520.25	6,770.36	6,530.67	239.69	28.247		
6,300.00	6,262.94	6,218.94	6,262.94	28.23	215.38	-96.31	-1,670.93	-6,520.25	6,771.63	6,528.03	243.60	27.798		
6,400.00	6,362.24	6,318.24	6,362.24	28.67	218.85	-78.11	-1,670.93	-6,520.25	6,772.37	6,524.85	247.52	27.361		
6,500.00	6,460.41	6,416.41	6,460.41	29.12	222.28	-46.74	-1,670.93	-6,520.25	6,762.26	6,510.86	251.39	26.899		
6,600.00	6,555.09	6,511.09	6,555.09	29.57	225.58	-37.73	-1,670.93	-6,520.25	6,737.67	6,482.54	255.13	26.408		
6,700.00	6,643.94	6,600.06	6,643.94	30.00	228.69	-34.88	-1,670.93	-6,520.25	6,699.26	6,440.60	258.66	25.900		
6,800.00	6,724.78	6,680.78	6,724.78	30.45	231.50	-34.88	-1,670.93	-6,520.25	6,648.01	6,386.15	261.86	25.387		
6,900.00	6,795.62	6,751.62	6,795.62	30.97	233.98	-37.00	-1,670.93	-6,520.25	6,585.24	6,320.54	264.70	24.878		
7,000.00	6,854.70	6,810.70	6,854.70	31.60	236.04	-41.38	-1,670.93	-6,520.25	6,512.54	6,245.42	267.11	24.381		
7,100.00	6,900.58	6,856.58	6,900.58	32.39	237.64	-48.78	-1,670.93	-6,520.25	6,431.72	6,162.67	269.04	23.906		
7,200.00	6,932.13	6,888.13	6,932.13	33.34	238.74	-60.59	-1,670.93	-6,520.25	6,344.81	6,074.34	270.47	23.459		
7,300.00	6,948.57	6,904.57	6,948.57	34.46	239.32	-78.08	-1,670.93	-6,520.25	6,253.96	5,982.60	271.36	23.047		
7,400.00	6,950.87	6,906.87	6,950.87	35.70	239.40	-90.42	-1,670.93	-6,520.25	6,161.43	5,889.66	271.77	22.672		
7,500.00	6,950.58	6,906.58	6,950.58	37.12	239.39	-90.41	-1,670.93	-6,520.25	6,068.95	5,796.83	272.12	22.303		
7,600.00	6,950.28	6,906.28	6,950.28	38.70	239.38	-90.40	-1,670.93	-6,520.25	5,976.72	5,704.20	272.53	21.931		
7,700.00	6,949.98	6,905.98	6,949.98	40.41	239.37	-90.40	-1,670.93	-6,520.25	5,884.75	5,611.76	272.99	21.557		
7,800.00	6,949.68	6,905.68	6,949.68	42.25	239.35	-90.39	-1,670.93	-6,520.25	5,793.03	5,519.53	273.50	21.181		
7,900.00	6,949.38	6,905.38	6,949.38	44.20	239.34	-90.38	-1,670.93	-6,520.25	5,701.60	5,427.52	274.08	20.803		
8,000.00	6,949.08	6,905.08	6,949.08	46.24	239.33	-90.37	-1,670.93	-6,520.25	5,610.46	5,335.74	274.72	20.423		
8,100.00	6,948.79	6,904.79	6,948.79	48.36	239.32	-90.37	-1,670.93	-6,520.25	5,519.63	5,244.20	275.42	20.041		
8,200.00	6,948.49	6,904.49	6,948.49	50.56	239.31	-90.36	-1,670.93	-6,520.25	5,429.11	5,152.92	276.19	19.657		
8,300.00	6,948.19	6,904.19	6,948.19	52.82	239.30	-90.35	-1,670.93	-6,520.25	5,338.94	5,061.91	277.03	19.272		
8,400.00	6,947.89	6,903.89	6,947.89	55.14	239.29	-90.35	-1,670.93	-6,520.25	5,249.12	4,971.18	277.94	18.886		
8,500.00	6,947.59	6,903.59	6,947.59	57.50	239.28	-90.34	-1,670.93	-6,520.25	5,159.68	4,880.75	278.93	18.498		
8,600.00	6,947.29	6,903.29	6,947.29	59.91	239.27	-90.33	-1,670.93	-6,520.25	5,070.63	4,790.64	279.99	18.110		
8,700.00	6,947.00	6,903.00	6,947.00	62.36	239.26	-90.32	-1,670.93	-6,520.25	4,982.00	4,700.87	281.13	17.721		
8,800.00	6,946.70	6,902.70	6,946.70	64.84	239.25	-90.32	-1,670.93	-6,520.25	4,893.81	4,611.45	282.35	17.332		
8,900.00	6,946.40	6,902.40	6,946.40	67.35	239.24	-90.31	-1,670.93	-6,520.25	4,806.08	4,522.41	283.66	16.943		
9,000.00	6,946.10	6,902.10	6,946.10	69.88	239.23	-90.30	-1,670.93	-6,520.25	4,718.83	4,433.78	285.05	16.554		
9,100.00	6,945.80	6,901.80	6,945.80	72.44	239.22	-90.29	-1,670.93	-6,520.25	4,632.10	4,345.57	286.53	16.166		
9,200.00	6,945.50	6,901.50	6,945.50	75.02	239.21	-90.29	-1,670.93	-6,520.25	4,545.92	4,257.81	288.11	15.779		
9,300.00	6,945.21	6,901.21	6,945.21	77.63	239.20	-90.28	-1,670.93	-6,520.25	4,460.31	4,170.54	289.77	15.393		
9,400.00	6,944.91	6,900.91	6,944.91	80.24	239.19	-90.27	-1,670.93	-6,520.25	4,375.32	4,083.78	291.53	15.008		
9,500.00	6,944.61	6,900.61	6,944.61	82.88	239.18	-90.26	-1,670.93	-6,520.25	4,290.97	3,997.57	293.39	14.625		
9,600.00	6,944.31	6,900.31	6,944.31	85.53	239.17	-90.26	-1,670.93	-6,520.25	4,207.31	3,911.95	295.36	14.245		
9,700.00	6,944.01	6,900.01	6,944.01	88.19	239.16	-90.25	-1,670.93	-6,520.25	4,124.37	3,826.94	297.43	13.867		
9,800.00	6,943.71	6,900.29	6,943.71	90.86	239.17	-90.24	-1,670.93	-6,520.25	4,042.21	3,742.58	299.62	13.491		
9,900.00	6,943.42	6,900.58	6,943.42	93.55	239.18	-90.24	-1,670.93	-6,520.25	3,960.86	3,658.93	301.93	13.118		
10,000.00	6,943.12	6,900.88	6,943.12	96.24	239.19	-90.23	-1,670.93	-6,520.25	3,880.39	3,576.04	304.35	12.750		
10,100.00	6,942.82	6,901.18	6,942.82	98.95	239.20	-90.22	-1,670.93	-6,520.25	3,800.85	3,493.96	306.89	12.385		
10,200.00	6,942.52	6,901.48	6,942.52	101.66	239.21	-90.21	-1,670.93	-6,520.25	3,722.29	3,412.74	309.55	12.025		
10,300.00	6,942.22	6,901.78	6,942.22	104.38	239.22	-90.21	-1,670.93	-6,520.25	3,644.79	3,332.46	312.33	11.670		

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 4N-16A-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 4N-16A-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	6,941.92	6,902.08	6,941.92	107.11	239.23	-90.20	-1,670.93	-6,520.25	3,568.40	3,253.16	315.24	11.320		
10,500.00	6,941.63	6,902.38	6,941.63	109.84	239.24	-90.19	-1,670.93	-6,520.25	3,493.21	3,174.94	318.27	10.976		
10,600.00	6,941.33	6,902.67	6,941.33	112.58	239.25	-90.18	-1,670.93	-6,520.25	3,419.28	3,097.85	321.43	10.638		
10,700.00	6,941.03	6,902.97	6,941.03	115.33	239.26	-90.18	-1,670.93	-6,520.25	3,346.71	3,021.99	324.72	10.306		
10,800.00	6,940.73	6,903.27	6,940.73	118.08	239.27	-90.17	-1,670.93	-6,520.25	3,275.59	2,947.45	328.15	9.982		
10,900.00	6,940.43	6,903.57	6,940.43	120.84	239.28	-90.16	-1,670.93	-6,520.25	3,206.01	2,874.31	331.70	9.665		
11,000.00	6,940.13	6,903.87	6,940.13	123.60	239.29	-90.15	-1,670.93	-6,520.25	3,138.08	2,802.69	335.39	9.357		
11,100.00	6,939.83	6,904.17	6,939.83	126.36	239.30	-90.15	-1,670.93	-6,520.25	3,071.89	2,732.69	339.20	9.056		
11,200.00	6,939.54	6,904.46	6,939.54	129.13	239.31	-90.14	-1,670.93	-6,520.25	3,007.58	2,664.44	343.14	8.765		
11,300.00	6,939.24	6,904.76	6,939.24	131.91	239.32	-90.13	-1,670.93	-6,520.25	2,945.26	2,598.05	347.20	8.483		
11,400.00	6,938.94	6,905.06	6,938.94	134.68	239.33	-90.13	-1,670.93	-6,520.25	2,885.05	2,533.68	351.38	8.211		
11,500.00	6,938.64	6,905.36	6,938.64	137.46	239.34	-90.12	-1,670.93	-6,520.25	2,827.11	2,471.45	355.66	7.949		
11,600.00	6,938.34	6,905.66	6,938.34	140.25	239.35	-90.11	-1,670.93	-6,520.25	2,771.56	2,411.53	360.03	7.698		
11,700.00	6,938.04	6,905.96	6,938.04	143.03	239.36	-90.10	-1,670.93	-6,520.25	2,718.56	2,354.07	364.49	7.459		
11,800.00	6,937.75	6,906.25	6,937.75	145.82	239.37	-90.10	-1,670.93	-6,520.25	2,668.25	2,299.25	369.00	7.231		
11,900.00	6,937.45	6,906.55	6,937.45	148.61	239.39	-90.09	-1,670.93	-6,520.25	2,620.79	2,247.23	373.57	7.016		
12,000.00	6,937.15	6,906.85	6,937.15	151.41	239.40	-90.08	-1,670.93	-6,520.25	2,576.35	2,198.19	378.16	6.813		
12,100.00	6,936.85	6,907.15	6,936.85	154.20	239.41	-90.07	-1,670.93	-6,520.25	2,535.07	2,152.33	382.74	6.623		
12,200.00	6,936.55	6,907.45	6,936.55	157.00	239.42	-90.07	-1,670.93	-6,520.25	2,497.11	2,109.81	387.30	6.447		
12,300.00	6,936.25	6,907.75	6,936.25	159.80	239.43	-90.06	-1,670.93	-6,520.25	2,462.64	2,070.84	391.80	6.285		
12,400.00	6,935.96	6,908.04	6,935.96	162.61	239.44	-90.05	-1,670.93	-6,520.25	2,431.79	2,035.58	396.21	6.138		
12,500.00	6,935.66	6,908.34	6,935.66	165.41	239.45	-90.04	-1,670.93	-6,520.25	2,404.70	2,004.21	400.49	6.004		
12,600.00	6,935.36	6,908.64	6,935.36	168.22	239.46	-90.04	-1,670.93	-6,520.25	2,381.51	1,976.89	404.62	5.886		
12,700.00	6,935.06	6,908.94	6,935.06	171.02	239.47	-90.03	-1,670.93	-6,520.25	2,362.33	1,953.77	408.55	5.782		
12,800.00	6,934.76	6,909.24	6,934.76	173.83	239.48	-90.02	-1,670.93	-6,520.25	2,347.25	1,934.99	412.26	5.694		
12,900.00	6,934.46	6,909.54	6,934.46	176.65	239.49	-90.02	-1,670.93	-6,520.25	2,336.36	1,920.64	415.72	5.620		
13,000.00	6,934.17	6,909.83	6,934.17	179.46	239.50	-90.01	-1,670.93	-6,520.25	2,329.72	1,910.83	418.89	5.562		
13,100.00	6,933.87	6,889.87	6,933.87	182.27	238.80	-90.00	-1,670.93	-6,520.25	2,327.36	1,906.30	421.06	5.527		
13,104.99	6,933.85	6,889.85	6,933.85	182.41	238.80	-90.00	-1,670.93	-6,520.25	2,327.35	1,906.17	421.19	5.526 CC		
13,200.00	6,933.57	6,889.57	6,933.57	185.09	238.79	-89.99	-1,670.93	-6,520.25	2,329.29	1,905.71	423.58	5.499 ES		
13,300.00	6,933.27	6,889.27	6,933.27	187.91	238.78	-89.99	-1,670.93	-6,520.25	2,335.51	1,909.74	425.77	5.485 SF		
13,400.00	6,932.97	6,888.97	6,932.97	190.72	238.77	-89.98	-1,670.93	-6,520.25	2,345.98	1,918.36	427.61	5.486		
13,500.00	6,932.67	6,888.67	6,932.67	193.54	238.76	-89.97	-1,670.93	-6,520.25	2,360.64	1,931.52	429.12	5.501		
13,600.00	6,932.38	6,888.38	6,932.38	196.36	238.75	-89.96	-1,670.93	-6,520.25	2,379.41	1,949.13	430.28	5.530		
13,700.00	6,932.08	6,888.08	6,932.08	199.19	238.74	-89.96	-1,670.93	-6,520.25	2,402.21	1,971.10	431.11	5.572		
13,800.00	6,931.78	6,887.78	6,931.78	202.01	238.73	-89.95	-1,670.93	-6,520.25	2,428.91	1,997.29	431.63	5.627		
13,900.00	6,931.48	6,887.48	6,931.48	204.83	238.72	-89.94	-1,670.93	-6,520.25	2,459.39	2,027.55	431.84	5.695		
14,000.00	6,931.18	6,887.18	6,931.18	207.66	238.71	-89.93	-1,670.93	-6,520.25	2,493.51	2,061.73	431.78	5.775		
14,100.00	6,930.88	6,886.88	6,930.88	210.48	238.70	-89.93	-1,670.93	-6,520.25	2,531.13	2,099.67	431.46	5.866		
14,200.00	6,930.59	6,886.59	6,930.59	213.31	238.69	-89.92	-1,670.93	-6,520.25	2,572.08	2,141.17	430.91	5.969		
14,300.00	6,930.29	6,886.29	6,930.29	216.14	238.68	-89.91	-1,670.93	-6,520.25	2,616.22	2,186.07	430.15	6.082		
14,400.00	6,929.99	6,885.99	6,929.99	218.96	238.67	-89.90	-1,670.93	-6,520.25	2,663.38	2,234.18	429.21	6.205		
14,500.00	6,929.69	6,885.69	6,929.69	221.79	238.66	-89.90	-1,670.93	-6,520.25	2,713.41	2,285.31	428.11	6.338		
14,600.00	6,929.39	6,885.39	6,929.39	224.62	238.65	-89.89	-1,670.93	-6,520.25	2,766.16	2,339.29	426.86	6.480		
14,700.00	6,929.09	6,885.09	6,929.09	227.45	238.64	-89.88	-1,670.93	-6,520.25	2,821.46	2,395.95	425.51	6.631		
14,732.12	6,929.00	6,885.00	6,929.00	228.36	238.63	-89.88	-1,670.93	-6,520.25	2,839.74	2,414.69	425.05	6.681		

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 4N-16A-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 4N-16A-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	-93.99	-534.34	-7,658.95	7,677.66					
100.00	100.00	100.00	126.71	3.28	3.29	-93.99	-534.05	-7,658.66	7,677.31	7,670.73	6.57	1,168.211		
200.00	200.00	182.24	221.23	3.34	3.33	-93.98	-533.45	-7,658.26	7,676.85	7,670.18	6.67	1,151.629		
278.53	278.53	239.54	278.53	3.42	3.38	-93.98	-533.07	-7,658.21	7,676.74	7,669.94	6.80	1,129.460		
300.00	300.00	255.31	294.30	3.44	3.40	-93.98	-533.00	-7,658.22	7,676.75	7,669.91	6.84	1,122.120		
400.00	400.00	330.21	369.20	3.60	3.49	-93.98	-532.80	-7,658.42	7,676.99	7,669.89	7.10	1,081.820		
500.00	500.00	410.83	449.82	3.81	3.63	-93.98	-532.86	-7,658.86	7,677.54	7,670.11	7.43	1,033.067		
600.00	600.00	519.57	558.56	4.05	3.85	-93.98	-533.13	-7,659.46	7,678.11	7,670.21	7.89	972.780		
700.00	699.98	609.11	648.10	4.32	4.06	-80.52	-533.78	-7,659.96	7,678.43	7,670.05	8.38	916.568		
800.00	799.84	697.47	736.45	4.62	4.30	-80.56	-534.66	-7,660.57	7,678.32	7,669.41	8.91	862.019		
900.00	899.45	798.86	837.83	4.94	4.59	-80.65	-535.69	-7,661.32	7,677.71	7,668.19	9.52	806.751		
1,000.00	998.80	903.11	942.07	5.28	4.91	-80.75	-536.72	-7,662.05	7,676.63	7,666.45	10.17	754.462		
1,100.00	1,098.12	1,007.83	1,046.79	5.63	5.25	-80.84	-537.60	-7,662.73	7,675.47	7,664.60	10.87	706.163		
1,200.00	1,197.44	1,109.34	1,148.30	6.00	5.60	-80.94	-538.15	-7,663.35	7,674.28	7,662.70	11.58	662.673		
1,300.00	1,296.77	1,206.00	1,244.96	6.37	5.94	-81.02	-538.51	-7,663.97	7,673.11	7,660.82	12.30	623.934		
1,400.00	1,396.09	1,316.22	1,355.17	6.76	6.34	-81.12	-538.78	-7,664.60	7,671.89	7,658.80	13.08	586.407		
1,500.00	1,495.41	1,407.29	1,446.24	7.15	6.67	-81.20	-539.06	-7,665.12	7,670.68	7,656.87	13.81	555.297		
1,600.00	1,594.74	1,507.39	1,546.33	7.55	7.05	-81.28	-539.45	-7,665.72	7,669.54	7,654.95	14.59	525.646		
1,700.00	1,694.06	1,599.06	1,638.00	7.96	7.40	-81.37	-539.77	-7,666.33	7,668.47	7,653.12	15.35	499.682		
1,800.00	1,793.38	1,707.44	1,746.38	8.37	7.82	-81.46	-539.96	-7,667.04	7,667.40	7,651.23	16.18	473.980		
1,900.00	1,892.71	1,803.13	1,842.07	8.78	8.19	-81.54	-540.07	-7,667.65	7,666.32	7,649.36	16.97	451.870		
2,000.00	1,992.03	1,906.17	1,945.10	9.20	8.60	-81.63	-540.29	-7,668.29	7,665.25	7,647.46	17.79	430.855		
2,100.00	2,091.36	1,995.77	2,034.70	9.62	8.96	-81.71	-540.49	-7,668.88	7,664.24	7,645.68	18.57	412.751		
2,200.00	2,190.68	2,134.38	2,173.32	10.05	9.51	-81.83	-540.56	-7,669.48	7,662.98	7,643.44	19.55	392.015		
2,300.00	2,290.00	2,241.91	2,280.84	10.48	9.95	-81.92	-541.01	-7,669.66	7,661.54	7,641.13	20.41	375.440		
2,400.00	2,389.33	2,349.28	2,388.21	10.90	10.38	-82.02	-541.68	-7,669.62	7,659.93	7,638.66	21.27	360.148		
2,500.00	2,488.65	2,447.08	2,486.01	11.34	10.78	-82.11	-542.16	-7,669.61	7,658.35	7,636.26	22.10	346.597		
2,600.00	2,587.97	2,567.38	2,606.31	11.77	11.27	-82.22	-542.60	-7,669.51	7,656.72	7,633.70	23.02	332.660		
2,700.00	2,687.30	2,694.42	2,733.35	12.20	11.79	-82.33	-542.76	-7,668.93	7,654.70	7,630.74	23.97	319.392		
2,800.00	2,786.62	2,791.08	2,830.01	12.64	12.18	-82.41	-542.54	-7,668.38	7,652.55	7,627.76	24.80	308.617		
2,900.00	2,885.94	2,849.75	2,888.68	13.07	12.42	-82.46	-542.23	-7,668.21	7,650.69	7,625.21	25.47	300.325		
3,000.00	2,985.27	2,900.01	2,938.93	13.51	12.63	-82.50	-541.80	-7,668.37	7,649.42	7,623.30	26.12	292.863		
3,100.00	3,084.59	2,965.35	3,004.26	13.95	12.90	-82.55	-541.09	-7,668.95	7,648.69	7,621.87	26.83	285.101		
3,200.00	3,183.91	3,038.49	3,077.39	14.39	13.20	-82.60	-540.20	-7,670.00	7,648.46	7,620.89	27.57	277.420		
3,273.01	3,256.43	3,104.67	3,143.56	14.71	13.48	-82.65	-539.28	-7,671.05	7,648.42	7,620.25	28.17	271.548		
3,300.00	3,283.24	3,118.11	3,156.99	14.83	13.53	-82.66	-539.07	-7,671.29	7,648.45	7,620.11	28.34	269.879		
3,400.00	3,382.56	3,174.44	3,213.31	15.27	13.77	-82.70	-538.18	-7,672.48	7,648.90	7,619.89	29.01	263.630		
3,500.00	3,481.88	3,240.96	3,279.79	15.71	14.04	-82.75	-537.02	-7,674.26	7,649.90	7,620.17	29.73	257.307		
3,600.00	3,581.21	3,322.61	3,361.39	16.16	14.39	-82.81	-535.44	-7,676.74	7,651.24	7,620.72	30.51	250.758		
3,700.00	3,680.53	3,437.49	3,476.17	16.60	14.87	-82.88	-532.66	-7,680.30	7,652.61	7,621.17	31.44	243.423		
3,800.00	3,779.85	3,567.55	3,606.14	17.04	15.42	-82.97	-529.09	-7,683.91	7,653.64	7,621.21	32.43	236.014		
3,900.00	3,879.18	3,672.27	3,710.80	17.49	15.86	-83.04	-526.52	-7,686.53	7,654.43	7,621.12	33.31	229.776		
4,000.00	3,978.50	3,773.89	3,812.36	17.93	16.28	-83.11	-524.37	-7,689.02	7,655.23	7,621.04	34.18	223.944		
4,100.00	4,077.82	3,874.71	3,913.13	18.37	16.71	-83.18	-522.46	-7,691.44	7,656.00	7,620.95	35.05	218.418		
4,200.00	4,177.15	3,976.30	4,014.69	18.82	17.13	-83.25	-520.83	-7,693.82	7,656.77	7,620.85	35.92	213.136		
4,300.00	4,276.47	4,097.28	4,135.62	19.27	17.64	-83.34	-519.13	-7,696.46	7,657.43	7,620.55	36.88	207.631		
4,400.00	4,375.79	4,188.37	4,226.68	19.71	18.03	-83.41	-517.83	-7,698.35	7,657.98	7,620.27	37.71	203.082		
4,500.00	4,475.12	4,292.76	4,331.04	20.16	18.47	-83.49	-516.66	-7,700.52	7,658.59	7,619.99	38.60	198.434		
4,600.00	4,574.44	4,394.76	4,433.02	20.60	18.90	-83.57	-515.83	-7,702.54	7,659.14	7,619.67	39.47	194.042		
4,700.00	4,673.76	4,513.86	4,552.10	21.05	19.40	-83.66	-515.23	-7,704.71	7,659.60	7,619.18	40.42	189.493		
4,800.00	4,773.09	4,647.48	4,685.70	21.50	19.96	-83.77	-514.79	-7,706.49	7,659.59	7,618.15	41.43	184.864		
4,900.00	4,872.41	4,743.51	4,781.73	21.94	20.37	-83.85	-514.49	-7,707.64	7,659.49	7,617.20	42.29	181.134		

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 4N-16A-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 4N-16A-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		
5,000.00	4,971.74	4,845.49	4,883.70	22.39	20.80	-83.94	-514.19	-7,708.92	7,659.45	7,616.29	43.16	177.446		
5,100.00	5,071.06	4,952.11	4,990.31	22.84	21.25	-84.03	-513.81	-7,710.13	7,659.31	7,615.25	44.06	173.824		
5,200.00	5,170.38	5,058.57	5,096.77	23.29	21.70	-84.11	-513.34	-7,711.29	7,659.14	7,614.18	44.96	170.347		
5,300.00	5,269.71	5,159.54	5,197.73	23.74	22.13	-84.20	-512.90	-7,712.29	7,658.88	7,613.04	45.84	167.088		
5,400.00	5,369.03	5,260.33	5,298.51	24.18	22.55	-84.28	-512.59	-7,713.30	7,658.66	7,611.95	46.71	163.953		
5,500.00	5,468.35	5,429.65	5,467.82	24.63	23.27	-84.42	-511.79	-7,714.27	7,658.04	7,610.17	47.88	159.959		
5,600.00	5,567.68	5,528.65	5,566.83	25.08	23.69	-84.50	-511.08	-7,714.30	7,656.84	7,608.10	48.74	157.091		
5,700.00	5,667.00	5,600.01	5,638.18	25.53	23.99	-84.56	-510.76	-7,714.49	7,655.94	7,606.44	49.49	154.688		
5,800.00	5,766.32	5,701.59	5,739.76	25.98	24.42	-84.64	-510.46	-7,714.92	7,655.22	7,604.85	50.37	151.973		
5,900.00	5,865.65	5,790.67	5,828.84	26.43	24.80	-84.72	-510.14	-7,715.34	7,654.55	7,603.35	51.20	149.506		
6,000.00	5,964.97	5,887.80	5,925.97	26.88	25.21	-84.80	-509.73	-7,715.89	7,653.99	7,601.93	52.06	147.022		
6,100.00	6,064.29	5,965.43	6,003.60	27.33	25.54	-84.86	-509.43	-7,716.43	7,653.57	7,600.74	52.84	144.847		
6,200.00	6,163.62	6,063.19	6,101.35	27.78	25.96	-84.95	-509.22	-7,717.33	7,653.41	7,599.71	53.70	142.512		
6,300.00	6,262.94	6,147.54	6,185.70	28.23	26.32	-85.02	-509.12	-7,718.05	7,653.24	7,598.73	54.51	140.397		
6,350.29	6,312.88	6,182.34	6,220.49	28.45	26.46	-75.24	-509.09	-7,718.44	7,652.75	7,597.87	54.89	139.432		
6,400.00	6,362.24	6,223.11	6,261.26	28.67	26.64	-66.79	-509.07	-7,718.98	7,652.85	7,597.57	55.28	138.434		
6,500.00	6,460.41	6,318.30	6,356.44	29.12	27.04	-35.23	-509.21	-7,720.25	7,641.22	7,585.09	56.13	136.127		
6,600.00	6,555.09	6,416.63	6,454.76	29.57	27.46	-25.74	-509.43	-7,721.57	7,614.41	7,557.43	56.98	133.628		
6,700.00	6,643.94	6,527.84	6,565.97	30.00	27.93	-22.12	-509.90	-7,722.80	7,572.89	7,515.03	57.86	130.886		
6,800.00	6,724.78	6,613.22	6,651.34	30.45	28.30	-20.93	-510.33	-7,723.58	7,517.75	7,459.17	58.59	128.315		
6,900.00	6,795.62	6,672.58	6,710.69	30.97	28.55	-21.29	-510.81	-7,724.14	7,450.57	7,391.41	59.16	125.929		
7,000.00	6,854.70	6,720.62	6,758.73	31.60	28.75	-23.26	-511.38	-7,724.63	7,373.03	7,313.39	59.65	123.614		
7,100.00	6,900.58	6,756.66	6,794.76	32.39	28.91	-27.61	-511.86	-7,725.06	7,287.02	7,226.99	60.03	121.396		
7,200.00	6,932.13	6,781.90	6,820.00	33.34	29.02	-36.92	-512.21	-7,725.38	7,194.58	7,134.26	60.31	119.284		
7,300.00	6,948.57	6,795.64	6,833.73	34.46	29.07	-59.57	-512.40	-7,725.57	7,097.95	7,037.43	60.51	117.299		
7,400.00	6,950.87	6,800.01	6,838.11	35.70	29.09	-85.46	-512.46	-7,725.63	6,999.48	6,938.84	60.64	115.431		
7,500.00	6,950.58	6,800.01	6,838.11	37.12	29.09	-85.46	-512.46	-7,725.63	6,900.89	6,840.14	60.75	113.598		
7,600.00	6,950.28	6,800.31	6,838.41	38.70	29.09	-85.47	-512.47	-7,725.64	6,802.35	6,741.47	60.87	111.747		
7,700.00	6,949.98	6,801.38	6,839.48	40.41	29.10	-85.52	-512.48	-7,725.65	6,703.84	6,642.83	61.01	109.875		
7,800.00	6,949.68	6,802.45	6,840.55	42.25	29.10	-85.58	-512.50	-7,725.67	6,605.38	6,544.21	61.17	107.988		
7,900.00	6,949.38	6,803.52	6,841.62	44.20	29.11	-85.63	-512.52	-7,725.68	6,506.97	6,445.63	61.34	106.085		
8,000.00	6,949.08	6,804.60	6,842.69	46.24	29.11	-85.68	-512.53	-7,725.70	6,408.61	6,347.08	61.52	104.167		
8,100.00	6,948.79	6,805.67	6,843.77	48.36	29.12	-85.74	-512.55	-7,725.71	6,310.29	6,248.57	61.72	102.234		
8,200.00	6,948.49	6,806.76	6,844.85	50.56	29.12	-85.79	-512.56	-7,725.73	6,212.03	6,150.09	61.94	100.286		
8,300.00	6,948.19	6,807.84	6,845.94	52.82	29.13	-85.84	-512.58	-7,725.74	6,113.83	6,051.65	62.18	98.322		
8,400.00	6,947.89	6,808.93	6,847.02	55.14	29.13	-85.90	-512.59	-7,725.76	6,015.69	5,953.25	62.44	96.344		
8,500.00	6,947.59	6,810.02	6,848.11	57.50	29.13	-85.95	-512.61	-7,725.77	5,917.61	5,854.89	62.72	94.351		
8,600.00	6,947.29	6,811.11	6,849.21	59.91	29.14	-86.00	-512.62	-7,725.79	5,819.59	5,756.57	63.02	92.344		
8,700.00	6,947.00	6,812.21	6,850.30	62.36	29.14	-86.06	-512.64	-7,725.80	5,721.64	5,658.30	63.35	90.322		
8,800.00	6,946.70	6,813.31	6,851.40	64.84	29.15	-86.11	-512.65	-7,725.82	5,623.77	5,560.07	63.70	88.288		
8,900.00	6,946.40	6,814.41	6,852.50	67.35	29.15	-86.16	-512.67	-7,725.84	5,525.97	5,461.89	64.08	86.241		
9,000.00	6,946.10	6,815.51	6,853.61	69.88	29.16	-86.22	-512.68	-7,725.85	5,428.25	5,363.76	64.48	84.182		
9,100.00	6,945.80	6,816.62	6,854.72	72.44	29.16	-86.27	-512.70	-7,725.87	5,330.61	5,265.69	64.92	82.111		
9,200.00	6,945.50	6,817.73	6,855.83	75.02	29.17	-86.33	-512.71	-7,725.88	5,233.06	5,167.67	65.39	80.030		
9,300.00	6,945.21	6,818.85	6,856.94	77.63	29.17	-86.38	-512.73	-7,725.90	5,135.61	5,069.72	65.89	77.940		
9,400.00	6,944.91	6,819.97	6,858.06	80.24	29.18	-86.44	-512.75	-7,725.92	5,038.26	4,971.83	66.43	75.841		
9,500.00	6,944.61	6,821.09	6,859.18	82.88	29.18	-86.49	-512.76	-7,725.93	4,941.01	4,874.00	67.01	73.735		
9,600.00	6,944.31	6,822.21	6,860.30	85.53	29.19	-86.55	-512.78	-7,725.95	4,843.87	4,776.24	67.63	71.623		
9,700.00	6,944.01	6,823.34	6,861.43	88.19	29.19	-86.60	-512.79	-7,725.96	4,746.86	4,678.56	68.29	69.507		
9,800.00	6,943.71	6,824.47	6,862.56	90.86	29.20	-86.66	-512.81	-7,725.98	4,649.97	4,580.96	69.00	67.388		
9,900.00	6,943.42	6,825.60	6,863.70	93.55	29.20	-86.72	-512.82	-7,726.00	4,553.21	4,483.45	69.76	65.268		
10,000.00	6,943.12	6,826.74	6,864.83	96.24	29.21	-86.77	-512.84	-7,726.01	4,456.59	4,386.02	70.57	63.148		

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 4N-16A-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 4N-16A-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	6,942.82	6,827.88	6,865.97	98.95	29.21	-86.83	-512.85	-7,726.03	4,360.13	4,288.69	71.44	61.030		
10,200.00	6,942.52	6,829.02	6,867.12	101.66	29.22	-86.88	-512.87	-7,726.05	4,263.83	4,191.46	72.37	58.917		
10,300.00	6,942.22	6,830.17	6,868.26	104.38	29.22	-86.94	-512.88	-7,726.06	4,167.71	4,094.35	73.36	56.811		
10,400.00	6,941.92	6,831.32	6,869.41	107.11	29.23	-87.00	-512.90	-7,726.08	4,071.77	3,997.35	74.42	54.713		
10,500.00	6,941.63	6,832.47	6,870.57	109.84	29.23	-87.05	-512.91	-7,726.10	3,976.03	3,900.48	75.55	52.626		
10,600.00	6,941.33	6,833.63	6,871.72	112.58	29.24	-87.11	-512.93	-7,726.11	3,880.51	3,803.75	76.76	50.553		
10,700.00	6,941.03	6,834.79	6,872.88	115.33	29.24	-87.17	-512.94	-7,726.13	3,785.21	3,707.16	78.05	48.495		
10,800.00	6,940.73	6,835.95	6,874.05	118.08	29.25	-87.23	-512.96	-7,726.15	3,690.17	3,610.74	79.43	46.456		
10,900.00	6,940.43	6,837.12	6,875.21	120.84	29.25	-87.28	-512.98	-7,726.16	3,595.39	3,514.48	80.91	44.437		
11,000.00	6,940.13	6,838.29	6,876.38	123.60	29.26	-87.34	-512.99	-7,726.18	3,500.91	3,418.42	82.49	42.442		
11,100.00	6,939.83	6,839.46	6,877.55	126.36	29.26	-87.40	-513.01	-7,726.20	3,406.74	3,322.56	84.17	40.472		
11,200.00	6,939.54	6,840.64	6,878.73	129.13	29.27	-87.46	-513.02	-7,726.22	3,312.91	3,226.93	85.98	38.532		
11,300.00	6,939.24	6,841.82	6,879.91	131.91	29.27	-87.51	-513.04	-7,726.23	3,219.45	3,131.54	87.91	36.622		
11,400.00	6,938.94	6,843.01	6,881.09	134.68	29.28	-87.57	-513.05	-7,726.25	3,126.39	3,036.42	89.98	34.747		
11,500.00	6,938.64	6,844.19	6,882.28	137.46	29.28	-87.63	-513.07	-7,726.27	3,033.78	2,941.59	92.19	32.909		
11,600.00	6,938.34	6,845.38	6,883.47	140.25	29.29	-87.69	-513.08	-7,726.29	2,941.65	2,847.09	94.56	31.110		
11,700.00	6,938.04	6,846.58	6,884.67	143.03	29.29	-87.75	-513.10	-7,726.30	2,850.05	2,752.95	97.10	29.352		
11,800.00	6,937.75	6,847.77	6,885.86	145.82	29.30	-87.81	-513.11	-7,726.32	2,759.03	2,659.21	99.82	27.639		
11,900.00	6,937.45	6,848.98	6,887.06	148.61	29.30	-87.87	-513.13	-7,726.34	2,668.66	2,565.91	102.75	25.973		
12,000.00	6,937.15	6,850.18	6,888.27	151.41	29.31	-87.93	-513.14	-7,726.36	2,578.99	2,473.11	105.88	24.357		
12,100.00	6,936.85	6,851.39	6,889.48	154.20	29.31	-87.99	-513.16	-7,726.38	2,490.11	2,380.86	109.26	22.792		
12,200.00	6,936.55	6,852.60	6,890.69	157.00	29.32	-88.05	-513.17	-7,726.39	2,402.11	2,289.23	112.88	21.281		
12,300.00	6,936.25	6,853.81	6,891.90	159.80	29.32	-88.11	-513.19	-7,726.41	2,315.08	2,198.31	116.77	19.826		
12,400.00	6,935.96	6,855.03	6,893.12	162.61	29.33	-88.17	-513.20	-7,726.43	2,229.14	2,108.18	120.96	18.429		
12,500.00	6,935.66	6,856.26	6,894.34	165.41	29.33	-88.23	-513.22	-7,726.45	2,144.41	2,018.95	125.46	17.093		
12,600.00	6,935.36	6,857.48	6,895.57	168.22	29.34	-88.29	-513.23	-7,726.47	2,061.06	1,930.76	130.30	15.818		
12,700.00	6,935.06	6,858.71	6,896.80	171.02	29.34	-88.35	-513.25	-7,726.48	1,979.24	1,843.75	135.50	14.607		
12,800.00	6,934.76	6,859.94	6,898.03	173.83	29.35	-88.41	-513.26	-7,726.50	1,899.17	1,758.09	141.08	13.462		
12,900.00	6,934.46	6,861.18	6,899.27	176.65	29.35	-88.47	-513.28	-7,726.52	1,821.07	1,674.01	147.06	12.383		
13,000.00	6,934.17	6,862.42	6,900.51	179.46	29.36	-88.53	-513.29	-7,726.54	1,745.21	1,591.75	153.46	11.373		
13,100.00	6,933.87	6,863.66	6,901.75	182.27	29.36	-88.59	-513.31	-7,726.56	1,671.88	1,511.61	160.27	10.432		
13,200.00	6,933.57	6,864.91	6,903.00	185.09	29.37	-88.65	-513.32	-7,726.58	1,601.44	1,433.94	167.50	9.561		
13,300.00	6,933.27	6,866.16	6,904.25	187.91	29.37	-88.72	-513.34	-7,726.60	1,534.29	1,359.17	175.12	8.761		
13,400.00	6,932.97	6,867.42	6,905.50	190.72	29.38	-88.78	-513.35	-7,726.62	1,470.88	1,287.78	183.09	8.033		
13,500.00	6,932.67	6,868.68	6,906.76	193.54	29.38	-88.84	-513.37	-7,726.63	1,411.70	1,220.37	191.33	7.378		
13,600.00	6,932.38	6,869.94	6,908.03	196.36	29.39	-88.90	-513.38	-7,726.65	1,357.32	1,157.59	199.73	6.796		
13,700.00	6,932.08	6,871.21	6,909.29	199.19	29.40	-88.96	-513.40	-7,726.67	1,308.34	1,100.20	208.14	6.286		
13,800.00	6,931.78	6,872.48	6,910.56	202.01	29.40	-89.03	-513.41	-7,726.69	1,265.37	1,049.03	216.34	5.849		
13,900.00	6,931.48	6,873.75	6,911.84	204.83	29.41	-89.09	-513.43	-7,726.71	1,229.06	1,004.95	224.11	5.484		
14,000.00	6,931.18	6,875.03	6,913.11	207.66	29.41	-89.15	-513.44	-7,726.73	1,200.00	968.83	231.17	5.191		
14,100.00	6,930.88	6,876.31	6,914.40	210.48	29.42	-89.22	-513.46	-7,726.75	1,178.73	941.49	237.23	4.969		
14,200.00	6,930.59	6,877.60	6,915.68	213.31	29.42	-89.28	-513.47	-7,726.77	1,165.68	923.62	242.06	4.816		
14,300.00	6,930.29	6,878.89	6,916.97	216.14	29.43	-89.34	-513.49	-7,726.79	1,161.12	915.68	245.44	4.731		
14,303.00	6,930.28	6,878.93	6,917.01	216.22	29.43	-89.35	-513.49	-7,726.79	1,161.12	915.60	245.52	4.729 CC, ES		
14,400.00	6,929.99	6,880.18	6,918.26	218.96	29.43	-89.41	-513.50	-7,726.81	1,165.16	917.89	247.28	4.712 SF		
14,500.00	6,929.69	6,881.48	6,919.56	221.79	29.44	-89.47	-513.52	-7,726.83	1,177.71	930.16	247.55	4.757		
14,600.00	6,929.39	6,882.78	6,920.86	224.62	29.44	-89.54	-513.53	-7,726.85	1,198.50	952.14	246.36	4.865		
14,700.00	6,929.09	6,884.09	6,922.17	227.45	29.45	-89.60	-513.55	-7,726.87	1,227.10	983.24	243.87	5.032		
14,732.12	6,929.00	6,884.51	6,922.59	228.36	29.45	-89.62	-513.55	-7,726.88	1,237.87	995.04	242.83	5.098		

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 4N-16A-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 4N-16A-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 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	-114.49	-1,625.27	-3,568.73	3,921.89					
100.00	100.00	38.00	100.00	3.28	3.35	-114.49	-1,625.27	-3,568.73	3,921.40	3,914.77	6.63	591.363		
200.00	200.00	138.00	200.00	3.34	4.49	-114.49	-1,625.27	-3,568.73	3,921.40	3,913.57	7.83	500.751		
300.00	300.00	238.00	300.00	3.44	7.34	-114.49	-1,625.27	-3,568.73	3,921.40	3,910.61	10.78	363.700		
400.00	400.00	338.00	400.00	3.60	10.58	-114.49	-1,625.27	-3,568.73	3,921.40	3,907.22	14.18	276.565		
500.00	500.00	438.00	500.00	3.81	13.94	-114.49	-1,625.27	-3,568.73	3,921.40	3,903.65	17.74	221.016		
600.00	600.00	538.00	600.00	4.05	17.35	-114.49	-1,625.27	-3,568.73	3,921.40	3,900.00	21.40	183.283		
700.00	699.98	637.98	699.98	4.32	20.79	-101.03	-1,625.27	-3,568.73	3,921.73	3,896.63	25.10	156.219		
800.00	799.84	737.84	799.84	4.62	24.24	-101.09	-1,625.27	-3,568.73	3,922.74	3,893.89	28.85	135.976		
900.00	899.45	837.45	899.45	4.94	27.68	-101.18	-1,625.27	-3,568.73	3,924.43	3,891.81	32.62	120.322		
1,000.00	998.80	936.80	998.80	5.28	31.13	-101.33	-1,625.27	-3,568.73	3,926.67	3,890.27	36.40	107.879		
1,100.00	1,098.12	1,036.12	1,098.12	5.63	34.58	-101.49	-1,625.27	-3,568.73	3,928.98	3,888.78	40.20	97.731		
1,200.00	1,197.44	1,135.44	1,197.44	6.00	38.03	-101.66	-1,625.27	-3,568.73	3,931.32	3,887.30	44.02	89.305		
1,300.00	1,296.77	1,234.77	1,296.77	6.37	41.49	-101.82	-1,625.27	-3,568.73	3,933.70	3,885.85	47.85	82.201		
1,400.00	1,396.09	1,334.09	1,396.09	6.76	44.95	-101.99	-1,625.27	-3,568.73	3,936.11	3,884.42	51.70	76.135		
1,500.00	1,495.41	1,433.41	1,495.41	7.15	48.41	-102.15	-1,625.27	-3,568.73	3,938.56	3,883.01	55.55	70.898		
1,600.00	1,594.74	1,532.74	1,594.74	7.55	51.87	-102.31	-1,625.27	-3,568.73	3,941.03	3,881.62	59.41	66.332		
1,700.00	1,694.06	1,632.06	1,694.06	7.96	55.33	-102.48	-1,625.27	-3,568.73	3,943.54	3,880.26	63.28	62.318		
1,800.00	1,793.38	1,731.38	1,793.38	8.37	58.79	-102.64	-1,625.27	-3,568.73	3,946.09	3,878.93	67.15	58.762		
1,900.00	1,892.71	1,830.71	1,892.71	8.78	62.25	-102.81	-1,625.27	-3,568.73	3,948.66	3,877.63	71.03	55.590		
2,000.00	1,992.03	1,930.03	1,992.03	9.20	65.71	-102.97	-1,625.27	-3,568.73	3,951.27	3,876.35	74.91	52.744		
2,100.00	2,091.36	2,029.36	2,091.36	9.62	69.18	-103.13	-1,625.27	-3,568.73	3,953.91	3,875.11	78.80	50.177		
2,200.00	2,190.68	2,128.68	2,190.68	10.05	72.64	-103.29	-1,625.27	-3,568.73	3,956.58	3,873.89	82.69	47.850		
2,300.00	2,290.00	2,228.00	2,290.00	10.48	76.10	-103.46	-1,625.27	-3,568.73	3,959.28	3,872.70	86.58	45.730		
2,400.00	2,389.33	2,327.33	2,389.33	10.90	79.57	-103.62	-1,625.27	-3,568.73	3,962.02	3,871.54	90.47	43.792		
2,500.00	2,488.65	2,426.65	2,488.65	11.34	83.03	-103.78	-1,625.27	-3,568.73	3,964.78	3,870.42	94.37	42.014		
2,600.00	2,587.97	2,525.97	2,587.97	11.77	86.50	-103.94	-1,625.27	-3,568.73	3,967.58	3,869.32	98.27	40.376		
2,700.00	2,687.30	2,625.30	2,687.30	12.20	89.96	-104.10	-1,625.27	-3,568.73	3,970.42	3,868.25	102.16	38.863		
2,800.00	2,786.62	2,724.62	2,786.62	12.64	93.43	-104.27	-1,625.27	-3,568.73	3,973.28	3,867.22	106.07	37.461		
2,900.00	2,885.94	2,823.94	2,885.94	13.07	96.89	-104.43	-1,625.27	-3,568.73	3,976.18	3,866.21	109.97	36.158		
3,000.00	2,985.27	2,923.27	2,985.27	13.51	100.36	-104.59	-1,625.27	-3,568.73	3,979.10	3,865.23	113.87	34.944		
3,100.00	3,084.59	3,022.59	3,084.59	13.95	103.83	-104.75	-1,625.27	-3,568.73	3,982.06	3,864.29	117.78	33.811		
3,200.00	3,183.91	3,121.91	3,183.91	14.39	107.29	-104.91	-1,625.27	-3,568.73	3,985.05	3,863.37	121.68	32.750		
3,300.00	3,283.24	3,221.24	3,283.24	14.83	110.76	-105.07	-1,625.27	-3,568.73	3,988.08	3,862.49	125.59	31.756		
3,400.00	3,382.56	3,320.56	3,382.56	15.27	114.22	-105.23	-1,625.27	-3,568.73	3,991.13	3,861.64	129.49	30.821		
3,500.00	3,481.88	3,419.88	3,481.88	15.71	117.69	-105.39	-1,625.27	-3,568.73	3,994.22	3,860.82	133.40	29.941		
3,600.00	3,581.21	3,519.21	3,581.21	16.16	121.15	-105.55	-1,625.27	-3,568.73	3,997.33	3,860.02	137.31	29.112		
3,700.00	3,680.53	3,618.53	3,680.53	16.60	124.62	-105.71	-1,625.27	-3,568.73	4,000.48	3,859.26	141.22	28.328		
3,800.00	3,779.85	3,717.85	3,779.85	17.04	128.09	-105.87	-1,625.27	-3,568.73	4,003.66	3,858.53	145.13	27.587		
3,900.00	3,879.18	3,817.18	3,879.18	17.49	131.55	-106.03	-1,625.27	-3,568.73	4,006.87	3,857.83	149.04	26.885		
4,000.00	3,978.50	3,916.50	3,978.50	17.93	135.02	-106.18	-1,625.27	-3,568.73	4,010.11	3,857.16	152.95	26.219		
4,100.00	4,077.82	4,015.82	4,077.82	18.37	138.49	-106.34	-1,625.27	-3,568.73	4,013.39	3,856.53	156.86	25.586		
4,200.00	4,177.15	4,115.15	4,177.15	18.82	141.95	-106.50	-1,625.27	-3,568.73	4,016.69	3,855.92	160.77	24.984		
4,300.00	4,276.47	4,214.47	4,276.47	19.27	145.42	-106.66	-1,625.27	-3,568.73	4,020.02	3,855.34	164.68	24.410		
4,400.00	4,375.79	4,313.79	4,375.79	19.71	148.89	-106.82	-1,625.27	-3,568.73	4,023.39	3,854.79	168.60	23.864		
4,500.00	4,475.12	4,413.12	4,475.12	20.16	152.35	-106.97	-1,625.27	-3,568.73	4,026.78	3,854.27	172.51	23.342		
4,600.00	4,574.44	4,512.44	4,574.44	20.60	155.82	-107.13	-1,625.27	-3,568.73	4,030.21	3,853.79	176.42	22.844		
4,700.00	4,673.76	4,611.76	4,673.76	21.05	159.29	-107.29	-1,625.27	-3,568.73	4,033.67	3,853.33	180.34	22.368		
4,800.00	4,773.09	4,711.09	4,773.09	21.50	162.75	-107.44	-1,625.27	-3,568.73	4,037.15	3,852.91	184.25	21.911		
4,900.00	4,872.41	4,810.41	4,872.41	21.94	166.22	-107.60	-1,625.27	-3,568.73	4,040.67	3,852.51	188.16	21.474		
5,000.00	4,971.74	4,909.74	4,971.74	22.39	169.69	-107.75	-1,625.27	-3,568.73	4,044.22	3,852.14	192.08	21.055		
5,100.00	5,071.06	5,009.06	5,071.06	22.84	173.15	-107.91	-1,625.27	-3,568.73	4,047.80	3,851.81	195.99	20.653		

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 4N-16A-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 4N-16A-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	5,170.38	5,108.38	5,170.38	23.29	176.62	-108.07	-1,625.27	-3,568.73	4,051.41	3,851.50	199.91	20.267	
5,300.00	5,269.71	5,207.71	5,269.71	23.74	180.09	-108.22	-1,625.27	-3,568.73	4,055.04	3,851.22	203.82	19.895	
5,400.00	5,369.03	5,307.03	5,369.03	24.18	183.55	-108.38	-1,625.27	-3,568.73	4,058.71	3,850.98	207.74	19.538	
5,500.00	5,468.35	5,406.35	5,468.35	24.63	187.02	-108.53	-1,625.27	-3,568.73	4,062.41	3,850.76	211.65	19.194	
5,600.00	5,567.68	5,505.68	5,567.68	25.08	190.49	-108.68	-1,625.27	-3,568.73	4,066.14	3,850.57	215.57	18.863	
5,700.00	5,667.00	5,605.00	5,667.00	25.53	193.95	-108.84	-1,625.27	-3,568.73	4,069.90	3,850.42	219.48	18.543	
5,800.00	5,766.32	5,704.32	5,766.32	25.98	197.42	-108.99	-1,625.27	-3,568.73	4,073.68	3,850.29	223.40	18.235	
5,900.00	5,865.65	5,803.65	5,865.65	26.43	200.89	-109.14	-1,625.27	-3,568.73	4,077.50	3,850.19	227.31	17.938	
6,000.00	5,964.97	5,902.97	5,964.97	26.88	204.35	-109.30	-1,625.27	-3,568.73	4,081.35	3,850.12	231.23	17.651	
6,100.00	6,064.29	6,002.29	6,064.29	27.33	207.82	-109.45	-1,625.27	-3,568.73	4,085.22	3,850.08	235.15	17.373	
6,200.00	6,163.62	6,101.62	6,163.62	27.78	211.29	-109.60	-1,625.27	-3,568.73	4,089.13	3,850.07	239.06	17.105	
6,300.00	6,262.94	6,200.94	6,262.94	28.23	214.75	-109.76	-1,625.27	-3,568.73	4,093.06	3,850.08	242.98	16.845	
6,400.00	6,362.24	6,300.24	6,362.24	28.67	218.22	-91.58	-1,625.27	-3,568.73	4,096.53	3,849.64	246.89	16.592	
6,500.00	6,460.41	6,401.59	6,460.41	29.12	221.76	-60.32	-1,625.27	-3,568.73	4,090.35	3,839.47	250.88	16.304	
6,600.00	6,555.09	6,506.91	6,555.09	29.57	225.43	-51.68	-1,625.27	-3,568.73	4,071.31	3,816.31	255.00	15.966	
6,700.00	6,643.94	6,581.94	6,643.94	30.00	228.05	-49.43	-1,625.27	-3,568.73	4,040.02	3,781.97	258.05	15.656	
6,800.00	6,724.78	6,662.78	6,724.78	30.45	230.88	-50.21	-1,625.27	-3,568.73	3,997.44	3,736.14	261.30	15.298	
6,900.00	6,795.62	6,733.62	6,795.62	30.97	233.35	-53.17	-1,625.27	-3,568.73	3,944.82	3,680.61	264.21	14.930	
7,000.00	6,854.70	6,807.30	6,854.70	31.60	235.92	-58.09	-1,625.27	-3,568.73	3,883.66	3,616.41	267.25	14.532	
7,100.00	6,900.58	6,838.58	6,900.58	32.39	237.01	-64.99	-1,625.27	-3,568.73	3,815.68	3,546.83	268.85	14.193	
7,200.00	6,932.13	6,870.13	6,932.13	33.34	238.11	-73.75	-1,625.27	-3,568.73	3,742.72	3,472.19	270.53	13.835	
7,300.00	6,948.57	6,886.57	6,948.57	34.46	238.69	-83.97	-1,625.27	-3,568.73	3,666.72	3,394.97	271.76	13.493	
7,400.00	6,950.87	6,888.87	6,950.87	35.70	238.77	-90.20	-1,625.27	-3,568.73	3,589.71	3,317.13	272.58	13.170	
7,500.00	6,950.58	6,888.58	6,950.58	37.12	238.76	-90.20	-1,625.27	-3,568.73	3,513.60	3,240.17	273.43	12.850	
7,600.00	6,950.28	6,888.28	6,950.28	38.70	238.75	-90.19	-1,625.27	-3,568.73	3,438.71	3,164.29	274.42	12.531	
7,700.00	6,949.98	6,887.98	6,949.98	40.41	238.74	-90.18	-1,625.27	-3,568.73	3,365.13	3,089.57	275.56	12.212	
7,800.00	6,949.68	6,887.68	6,949.68	42.25	238.73	-90.17	-1,625.27	-3,568.73	3,292.94	3,016.09	276.85	11.894	
7,900.00	6,949.38	6,887.38	6,949.38	44.20	238.72	-90.17	-1,625.27	-3,568.73	3,222.24	2,943.95	278.29	11.579	
8,000.00	6,949.08	6,887.08	6,949.08	46.24	238.71	-90.16	-1,625.27	-3,568.73	3,153.13	2,873.24	279.89	11.266	
8,100.00	6,948.79	6,886.79	6,948.79	48.36	238.70	-90.15	-1,625.27	-3,568.73	3,085.70	2,804.06	281.64	10.956	
8,200.00	6,948.49	6,886.49	6,948.49	50.56	238.68	-90.14	-1,625.27	-3,568.73	3,020.09	2,736.55	283.54	10.651	
8,300.00	6,948.19	6,886.19	6,948.19	52.82	238.67	-90.14	-1,625.27	-3,568.73	2,956.40	2,670.80	285.60	10.352	
8,400.00	6,947.89	6,885.89	6,947.89	55.14	238.66	-90.13	-1,625.27	-3,568.73	2,894.76	2,606.96	287.80	10.058	
8,500.00	6,947.59	6,885.59	6,947.59	57.50	238.65	-90.12	-1,625.27	-3,568.73	2,835.32	2,545.16	290.15	9.772	
8,600.00	6,947.29	6,885.29	6,947.29	59.91	238.64	-90.12	-1,625.27	-3,568.73	2,778.20	2,485.56	292.64	9.494	
8,700.00	6,947.00	6,885.00	6,947.00	62.36	238.63	-90.11	-1,625.27	-3,568.73	2,723.55	2,428.29	295.26	9.224	
8,800.00	6,946.70	6,884.70	6,946.70	64.84	238.62	-90.10	-1,625.27	-3,568.73	2,671.54	2,373.54	298.00	8.965	
8,900.00	6,946.40	6,884.40	6,946.40	67.35	238.61	-90.09	-1,625.27	-3,568.73	2,622.30	2,321.45	300.85	8.716	
9,000.00	6,946.10	6,884.10	6,946.10	69.88	238.60	-90.09	-1,625.27	-3,568.73	2,576.01	2,272.20	303.80	8.479	
9,100.00	6,945.80	6,883.80	6,945.80	72.44	238.59	-90.08	-1,625.27	-3,568.73	2,532.82	2,225.98	306.84	8.255	
9,200.00	6,945.50	6,883.50	6,945.50	75.02	238.58	-90.07	-1,625.27	-3,568.73	2,492.90	2,182.95	309.95	8.043	
9,300.00	6,945.21	6,883.21	6,945.21	77.63	238.57	-90.06	-1,625.27	-3,568.73	2,456.40	2,143.30	313.10	7.845	
9,400.00	6,944.91	6,882.91	6,944.91	80.24	238.56	-90.06	-1,625.27	-3,568.73	2,423.48	2,107.20	316.28	7.662	
9,500.00	6,944.61	6,882.61	6,944.61	82.88	238.55	-90.05	-1,625.27	-3,568.73	2,394.29	2,074.82	319.47	7.494	
9,600.00	6,944.31	6,882.31	6,944.31	85.53	238.54	-90.04	-1,625.27	-3,568.73	2,368.96	2,046.32	322.65	7.342	
9,700.00	6,944.01	6,882.01	6,944.01	88.19	238.53	-90.03	-1,625.27	-3,568.73	2,347.63	2,021.84	325.78	7.206	
9,800.00	6,943.71	6,881.71	6,943.71	90.86	238.52	-90.03	-1,625.27	-3,568.73	2,330.39	2,001.54	328.85	7.086	
9,900.00	6,943.42	6,881.42	6,943.42	93.55	238.51	-90.02	-1,625.27	-3,568.73	2,317.34	1,985.51	331.83	6.984	
10,000.00	6,943.12	6,881.12	6,943.12	96.24	238.50	-90.01	-1,625.27	-3,568.73	2,308.56	1,973.86	334.70	6.897	
10,100.00	6,942.82	6,880.82	6,942.82	98.95	238.49	-90.00	-1,625.27	-3,568.73	2,304.08	1,966.65	337.43	6.828	
10,153.20	6,942.66	6,880.66	6,942.66	100.39	238.48	-90.00	-1,625.27	-3,568.73	2,303.47	1,964.64	338.82	6.798 CC	
10,200.00	6,942.52	6,880.52	6,942.52	101.66	238.48	-90.00	-1,625.27	-3,568.73	2,303.94	1,963.93	340.01	6.776 ES	

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 4N-16A-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 4N-16A-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		
10,300.00	6,942.22	6,880.22	6,942.22	104.38	238.47	-89.99	-1,625.27	-3,568.73	2,308.14	1,965.72	342.42	6.741		
10,400.00	6,941.92	6,879.92	6,941.92	107.11	238.46	-89.98	-1,625.27	-3,568.73	2,316.65	1,972.01	344.64	6.722		
10,500.00	6,941.63	6,879.63	6,941.63	109.84	238.45	-89.97	-1,625.27	-3,568.73	2,329.43	1,982.75	346.68	6.719 SF		
10,600.00	6,941.33	6,879.33	6,941.33	112.58	238.43	-89.97	-1,625.27	-3,568.73	2,346.40	1,997.89	348.51	6.733		
10,700.00	6,941.03	6,879.03	6,941.03	115.33	238.42	-89.96	-1,625.27	-3,568.73	2,367.48	2,017.34	350.14	6.762		
10,800.00	6,940.73	6,878.73	6,940.73	118.08	238.41	-89.95	-1,625.27	-3,568.73	2,392.55	2,040.98	351.57	6.805		
10,900.00	6,940.43	6,878.43	6,940.43	120.84	238.40	-89.94	-1,625.27	-3,568.73	2,421.50	2,068.70	352.80	6.864		
11,000.00	6,940.13	6,878.13	6,940.13	123.60	238.39	-89.94	-1,625.27	-3,568.73	2,454.18	2,100.34	353.85	6.936		
11,100.00	6,939.83	6,877.83	6,939.83	126.36	238.38	-89.93	-1,625.27	-3,568.73	2,490.46	2,135.75	354.71	7.021		
11,200.00	6,939.54	6,877.54	6,939.54	129.13	238.37	-89.92	-1,625.27	-3,568.73	2,530.17	2,174.77	355.40	7.119		
11,300.00	6,939.24	6,877.24	6,939.24	131.91	238.36	-89.91	-1,625.27	-3,568.73	2,573.15	2,217.22	355.93	7.229		
11,400.00	6,938.94	6,876.94	6,938.94	134.68	238.35	-89.91	-1,625.27	-3,568.73	2,619.25	2,262.93	356.32	7.351		
11,500.00	6,938.64	6,876.64	6,938.64	137.46	238.34	-89.90	-1,625.27	-3,568.73	2,668.30	2,311.73	356.57	7.483		
11,600.00	6,938.34	6,876.34	6,938.34	140.25	238.33	-89.89	-1,625.27	-3,568.73	2,720.14	2,363.45	356.70	7.626		
11,700.00	6,938.04	6,876.04	6,938.04	143.03	238.32	-89.89	-1,625.27	-3,568.73	2,774.62	2,417.90	356.72	7.778		
11,800.00	6,937.75	6,875.75	6,937.75	145.82	238.31	-89.88	-1,625.27	-3,568.73	2,831.59	2,474.95	356.64	7.940		
11,900.00	6,937.45	6,875.45	6,937.45	148.61	238.30	-89.87	-1,625.27	-3,568.73	2,890.89	2,534.41	356.48	8.110		
12,000.00	6,937.15	6,875.15	6,937.15	151.41	238.29	-89.86	-1,625.27	-3,568.73	2,952.39	2,596.14	356.25	8.287		
12,100.00	6,936.85	6,874.85	6,936.85	154.20	238.28	-89.86	-1,625.27	-3,568.73	3,015.95	2,660.00	355.95	8.473		
12,200.00	6,936.55	6,874.55	6,936.55	157.00	238.27	-89.85	-1,625.27	-3,568.73	3,081.45	2,725.85	355.60	8.666		
12,300.00	6,936.25	6,874.25	6,936.25	159.80	238.26	-89.84	-1,625.27	-3,568.73	3,148.76	2,793.56	355.20	8.865		
12,400.00	6,935.96	6,873.96	6,935.96	162.61	238.25	-89.83	-1,625.27	-3,568.73	3,217.77	2,863.01	354.76	9.070		
12,500.00	6,935.66	6,873.66	6,935.66	165.41	238.24	-89.83	-1,625.27	-3,568.73	3,288.37	2,934.09	354.28	9.282		
12,600.00	6,935.36	6,873.36	6,935.36	168.22	238.23	-89.82	-1,625.27	-3,568.73	3,360.47	3,006.68	353.79	9.499		
12,700.00	6,935.06	6,873.06	6,935.06	171.02	238.22	-89.81	-1,625.27	-3,568.73	3,433.96	3,080.69	353.27	9.721		
12,800.00	6,934.76	6,872.76	6,934.76	173.83	238.21	-89.80	-1,625.27	-3,568.73	3,508.77	3,156.03	352.73	9.947		
12,900.00	6,934.46	6,872.46	6,934.46	176.65	238.20	-89.80	-1,625.27	-3,568.73	3,584.80	3,232.62	352.18	10.179		
13,000.00	6,934.17	6,872.17	6,934.17	179.46	238.18	-89.79	-1,625.27	-3,568.73	3,661.99	3,310.36	351.63	10.414		
13,100.00	6,933.87	6,871.87	6,933.87	182.27	238.17	-89.78	-1,625.27	-3,568.73	3,740.26	3,389.19	351.07	10.654		
13,200.00	6,933.57	6,871.57	6,933.57	185.09	238.16	-89.77	-1,625.27	-3,568.73	3,819.54	3,469.04	350.50	10.897		
13,300.00	6,933.27	6,871.27	6,933.27	187.91	238.15	-89.77	-1,625.27	-3,568.73	3,899.77	3,549.84	349.93	11.144		
13,400.00	6,932.97	6,870.97	6,932.97	190.72	238.14	-89.76	-1,625.27	-3,568.73	3,980.90	3,631.53	349.37	11.395		
13,500.00	6,932.67	6,870.67	6,932.67	193.54	238.13	-89.75	-1,625.27	-3,568.73	4,062.87	3,714.06	348.81	11.648		
13,600.00	6,932.38	6,870.38	6,932.38	196.36	238.12	-89.74	-1,625.27	-3,568.73	4,145.63	3,797.38	348.25	11.904		
13,700.00	6,932.08	6,870.08	6,932.08	199.19	238.11	-89.74	-1,625.27	-3,568.73	4,229.14	3,881.44	347.70	12.163		
13,800.00	6,931.78	6,869.78	6,931.78	202.01	238.10	-89.73	-1,625.27	-3,568.73	4,313.35	3,966.19	347.16	12.425		
13,900.00	6,931.48	6,869.48	6,931.48	204.83	238.09	-89.72	-1,625.27	-3,568.73	4,398.22	4,051.60	346.62	12.689		
14,000.00	6,931.18	6,869.18	6,931.18	207.66	238.08	-89.71	-1,625.27	-3,568.73	4,483.71	4,137.63	346.09	12.955		
14,100.00	6,930.88	6,868.88	6,930.88	210.48	238.07	-89.71	-1,625.27	-3,568.73	4,569.80	4,224.23	345.57	13.224		
14,200.00	6,930.59	6,868.59	6,930.59	213.31	238.06	-89.70	-1,625.27	-3,568.73	4,656.44	4,311.38	345.06	13.495		
14,300.00	6,930.29	6,868.29	6,930.29	216.14	238.05	-89.69	-1,625.27	-3,568.73	4,743.60	4,399.05	344.55	13.767		
14,400.00	6,929.99	6,867.99	6,929.99	218.96	238.04	-89.68	-1,625.27	-3,568.73	4,831.26	4,487.20	344.06	14.042		
14,500.00	6,929.69	6,867.69	6,929.69	221.79	238.03	-89.68	-1,625.27	-3,568.73	4,919.40	4,575.82	343.58	14.318		
14,600.00	6,929.39	6,867.39	6,929.39	224.62	238.02	-89.67	-1,625.27	-3,568.73	5,007.97	4,664.87	343.11	14.596		
14,700.00	6,929.09	6,867.09	6,929.09	227.45	238.01	-89.66	-1,625.27	-3,568.73	5,096.98	4,754.33	342.65	14.875		
14,732.12	6,929.00	6,867.00	6,929.00	228.36	238.00	-89.66	-1,625.27	-3,568.73	5,125.65	4,783.15	342.50	14.965		



Anticollision Report



Company:	SRC ENERGY	Local Co-ordinate Reference:	Well HARVESTERS STATE 4N-16A-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 4N-16A-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	60.51	3.28	3.28	-92.59	-413.73	-9,145.64	9,155.19					
100.00	100.00	186.20	212.18	3.28	3.34	-92.58	-412.28	-9,144.07	9,154.04	9,147.42	6.62	1,382.165		
200.00	200.00	289.48	315.45	3.34	3.45	-92.58	-411.77	-9,142.75	9,152.74	9,145.96	6.79	1,348.456		
300.00	300.00	369.25	395.21	3.44	3.58	-92.58	-411.60	-9,141.84	9,151.60	9,144.58	7.02	1,303.876		
400.00	400.00	465.29	491.25	3.60	3.76	-92.58	-411.37	-9,140.87	9,150.58	9,143.22	7.36	1,242.612		
500.00	500.00	547.76	573.72	3.81	3.95	-92.58	-411.14	-9,140.12	9,149.66	9,141.91	7.75	1,179.870		
600.00	600.00	623.91	649.87	4.05	4.15	-92.58	-411.27	-9,139.59	9,148.98	9,140.79	8.19	1,117.302		
700.00	699.98	738.94	764.89	4.32	4.47	-79.14	-411.42	-9,139.02	9,148.17	9,139.39	8.78	1,041.659		
800.00	799.84	849.98	875.93	4.62	4.81	-79.21	-411.26	-9,138.17	9,146.42	9,137.00	9.42	970.794		
900.00	899.45	930.72	956.67	4.94	5.08	-79.30	-411.14	-9,137.57	9,144.05	9,134.04	10.00	914.195		
1,000.00	998.80	984.00	1,009.95	5.28	5.26	-79.35	-411.20	-9,137.28	9,141.45	9,130.93	10.52	869.152		
1,100.00	1,098.12	984.00	1,009.95	5.63	5.26	-79.35	-411.20	-9,137.28	9,139.71	9,128.84	10.87	840.792		
1,200.00	1,197.44	1,049.51	1,075.45	6.00	5.47	-79.40	-411.20	-9,137.56	9,138.24	9,126.79	11.45	797.927		
1,300.00	1,296.77	1,112.00	1,137.93	6.37	5.68	-79.44	-410.97	-9,138.95	9,138.06	9,126.02	12.04	758.956		
1,335.85	1,332.37	1,112.00	1,137.93	6.51	5.68	-79.44	-410.97	-9,138.95	9,137.99	9,125.81	12.18	750.376		
1,400.00	1,396.09	1,112.00	1,137.93	6.76	5.68	-79.44	-410.97	-9,138.95	9,138.21	9,125.79	12.43	735.383		
1,500.00	1,495.41	1,112.00	1,137.93	7.15	5.68	-79.44	-410.97	-9,138.95	9,139.46	9,126.64	12.82	712.911		
1,600.00	1,594.74	1,112.00	1,137.93	7.55	5.68	-79.44	-410.97	-9,138.95	9,141.80	9,128.58	13.22	691.555		
1,700.00	1,694.06	1,181.10	1,206.96	7.96	5.91	-79.49	-410.64	-9,141.87	9,144.19	9,130.34	13.85	660.037		
1,800.00	1,793.38	1,241.00	1,266.74	8.37	6.12	-79.53	-410.45	-9,145.66	9,148.11	9,133.64	14.47	632.370		
1,900.00	1,892.71	1,241.00	1,266.74	8.78	6.12	-79.53	-410.45	-9,145.66	9,152.32	9,137.45	14.88	615.207		
2,000.00	1,992.03	1,241.00	1,266.74	9.20	6.12	-79.53	-410.45	-9,145.66	9,157.63	9,142.34	15.29	598.959		
2,100.00	2,091.36	1,241.00	1,266.74	9.62	6.12	-79.53	-410.45	-9,145.66	9,164.03	9,148.33	15.70	583.583		
2,200.00	2,190.68	1,301.36	1,326.89	10.05	6.33	-79.57	-410.30	-9,150.73	9,170.67	9,154.34	16.33	561.503		
2,300.00	2,290.00	1,369.00	1,394.14	10.48	6.58	-79.61	-410.13	-9,157.93	9,178.91	9,161.92	16.99	540.180		
2,400.00	2,389.33	1,369.00	1,394.14	10.90	6.58	-79.61	-410.13	-9,157.93	9,187.18	9,169.77	17.41	527.753		
2,500.00	2,488.65	1,369.00	1,394.14	11.34	6.58	-79.61	-410.13	-9,157.93	9,196.52	9,178.70	17.82	515.981		
2,600.00	2,587.97	1,369.00	1,394.14	11.77	6.58	-79.61	-410.13	-9,157.93	9,206.94	9,188.71	18.24	504.828		
2,700.00	2,687.30	1,422.24	1,446.95	12.20	6.78	-79.65	-410.15	-9,164.66	9,217.84	9,198.99	18.85	488.994		
2,800.00	2,786.62	1,447.51	1,471.98	12.64	6.87	-79.67	-410.26	-9,168.16	9,229.70	9,210.34	19.36	476.756		
2,900.00	2,885.94	1,498.00	1,521.90	13.07	7.07	-79.70	-410.69	-9,175.74	9,242.49	9,222.53	19.97	462.896		
3,000.00	2,985.27	1,498.00	1,521.90	13.51	7.07	-79.70	-410.69	-9,175.74	9,255.81	9,235.43	20.38	454.239		
3,100.00	3,084.59	1,498.00	1,521.90	13.95	7.07	-79.70	-410.69	-9,175.74	9,270.19	9,249.40	20.78	446.021		
3,200.00	3,183.91	1,545.11	1,568.35	14.39	7.26	-79.74	-411.26	-9,183.54	9,285.12	9,263.74	21.38	434.337		
3,300.00	3,283.24	1,568.64	1,591.51	14.83	7.36	-79.75	-411.56	-9,187.72	9,300.98	9,279.11	21.88	425.161		
3,400.00	3,382.56	1,626.00	1,647.80	15.27	7.60	-79.79	-412.37	-9,198.67	9,317.90	9,295.39	22.51	413.894		
3,500.00	3,481.88	1,626.00	1,647.80	15.71	7.60	-79.79	-412.37	-9,198.67	9,335.12	9,312.21	22.91	407.430		
3,600.00	3,581.21	1,626.00	1,647.80	16.16	7.60	-79.79	-412.37	-9,198.67	9,353.38	9,330.07	23.31	401.286		
3,700.00	3,680.53	1,626.00	1,647.80	16.60	7.60	-79.79	-412.37	-9,198.67	9,372.67	9,348.97	23.70	395.444		
3,800.00	3,779.85	1,681.90	1,702.44	17.04	7.86	-79.84	-413.31	-9,210.44	9,392.25	9,367.92	24.33	386.034		
3,900.00	3,879.18	1,703.68	1,723.66	17.49	7.96	-79.85	-413.72	-9,215.32	9,412.89	9,388.08	24.81	379.368		
4,000.00	3,978.50	1,754.00	1,772.54	17.93	8.19	-79.89	-414.79	-9,227.25	9,434.52	9,409.11	25.42	371.184		
4,100.00	4,077.82	1,754.00	1,772.54	18.37	8.19	-79.89	-414.79	-9,227.25	9,456.57	9,430.77	25.80	366.544		
4,200.00	4,177.15	1,754.00	1,772.54	18.82	8.19	-79.89	-414.79	-9,227.25	9,479.61	9,453.43	26.18	362.129		
4,300.00	4,276.47	1,801.21	1,818.21	19.27	8.44	-79.92	-415.79	-9,239.15	9,503.25	9,476.48	26.77	355.039		
4,400.00	4,375.79	1,829.28	1,845.30	19.71	8.58	-79.94	-416.32	-9,246.49	9,527.66	9,500.39	27.27	349.413		
4,500.00	4,475.12	1,883.00	1,896.99	20.16	8.86	-79.98	-417.19	-9,261.09	9,552.89	9,525.00	27.89	342.567		
4,600.00	4,574.44	1,883.00	1,896.99	20.60	8.86	-79.98	-417.19	-9,261.09	9,578.58	9,550.33	28.25	339.044		
4,700.00	4,673.76	1,883.00	1,896.99	21.05	8.86	-79.98	-417.19	-9,261.09	9,605.25	9,576.63	28.61	335.694		
4,800.00	4,773.09	1,947.26	1,958.57	21.50	9.23	-80.02	-418.16	-9,279.42	9,632.21	9,602.93	29.28	328.949		
4,900.00	4,872.41	2,011.00	2,019.39	21.94	9.60	-80.06	-419.20	-9,298.46	9,660.18	9,630.23	29.95	322.544		
5,000.00	4,971.74	2,011.00	2,019.39	22.39	9.60	-80.06	-419.20	-9,298.46	9,688.46	9,658.15	30.30	319.726		

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 4N-16A-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 4N-16A-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	5,071.06	2,051.32	2,057.75	22.84	9.85	-80.09	-419.89	-9,310.86	9,717.50	9,686.64	30.85	314.946		
5,200.00	5,170.38	2,094.88	2,099.13	23.29	10.12	-80.12	-420.62	-9,324.47	9,747.05	9,715.63	31.42	310.194		
5,300.00	5,269.71	2,094.88	2,099.13	23.74	10.12	-80.29	-424.37	-9,405.88	9,776.44	9,729.46	46.98	208.088		
5,400.00	5,369.03	2,448.85	2,436.11	24.18	12.48	-80.35	-425.75	-9,432.63	9,804.50	9,770.53	33.98	288.572		
5,500.00	5,468.35	2,495.60	2,480.68	24.63	12.81	-80.38	-426.42	-9,446.73	9,832.98	9,798.41	34.57	284.402		
5,600.00	5,567.68	2,547.00	2,529.60	25.08	13.17	-80.41	-427.04	-9,462.48	9,861.93	9,826.73	35.20	280.185		
5,700.00	5,667.00	2,606.41	2,586.07	25.53	13.60	-80.44	-427.50	-9,480.94	9,891.26	9,855.39	35.87	275.778		
5,800.00	5,766.32	2,653.00	2,630.30	25.98	13.94	-80.47	-427.64	-9,495.57	9,920.95	9,884.49	36.46	272.075		
5,900.00	5,865.65	2,653.00	2,630.30	26.43	13.94	-80.47	-427.64	-9,495.57	9,951.39	9,914.59	36.80	270.426		
6,000.00	5,964.97	2,723.17	2,696.72	26.88	14.47	-80.50	-427.68	-9,518.19	9,981.99	9,944.46	37.53	265.976		
6,900.00	6,795.62	6,679.07	6,531.19	30.97	38.47	-17.14	-446.73	-10,297.09	9,994.30	9,934.06	60.25	165.887		
7,000.00	6,854.70	6,732.32	6,584.42	31.60	38.66	-18.16	-447.58	-10,298.44	9,916.83	9,856.09	60.74	163.274		
7,100.00	6,900.58	6,774.59	6,626.67	32.39	38.80	-20.97	-448.32	-10,299.52	9,830.63	9,769.51	61.13	160.825		
7,200.00	6,932.13	6,804.97	6,657.03	33.34	38.91	-27.56	-448.87	-10,300.32	9,737.81	9,676.40	61.41	158.565		
7,300.00	6,948.57	6,821.99	6,674.04	34.46	38.97	-46.73	-449.18	-10,300.76	9,640.62	9,579.03	61.59	156.521		
7,400.00	6,950.87	6,826.44	6,678.49	35.70	38.99	-77.24	-449.27	-10,300.88	9,541.47	9,479.78	61.69	154.680		
7,500.00	6,950.58	6,828.56	6,680.61	37.12	38.99	-77.35	-449.31	-10,300.94	9,442.15	9,380.38	61.76	152.874		
7,600.00	6,950.28	6,830.69	6,682.74	38.70	39.00	-77.45	-449.35	-10,300.99	9,342.84	9,280.99	61.85	151.058		
7,700.00	6,949.98	6,832.82	6,684.87	40.41	39.01	-77.56	-449.38	-10,301.05	9,243.55	9,181.61	61.94	149.231		
7,800.00	6,949.68	6,834.96	6,687.01	42.25	39.02	-77.67	-449.42	-10,301.11	9,144.27	9,082.23	62.04	147.395		
7,900.00	6,949.38	6,837.10	6,689.15	44.20	39.02	-77.78	-449.46	-10,301.17	9,045.01	8,982.86	62.14	145.548		
8,000.00	6,949.08	6,839.25	6,691.30	46.24	39.03	-77.89	-449.50	-10,301.22	8,945.76	8,883.51	62.26	143.691		
8,100.00	6,948.79	6,841.40	6,693.45	48.36	39.04	-78.00	-449.54	-10,301.28	8,846.53	8,784.16	62.38	141.824		
8,200.00	6,948.49	6,843.56	6,695.60	50.56	39.05	-78.11	-449.58	-10,301.34	8,747.32	8,684.82	62.50	139.946		
8,300.00	6,948.19	6,845.72	6,697.76	52.82	39.05	-78.22	-449.62	-10,301.40	8,648.13	8,585.49	62.64	138.059		
8,400.00	6,947.89	6,847.88	6,699.92	55.14	39.06	-78.33	-449.66	-10,301.45	8,548.95	8,486.17	62.79	136.161		
8,500.00	6,947.59	6,850.05	6,702.09	57.50	39.07	-78.44	-449.70	-10,301.51	8,449.79	8,386.85	62.94	134.254		
8,600.00	6,947.29	6,852.23	6,704.26	59.91	39.08	-78.55	-449.74	-10,301.57	8,350.65	8,287.55	63.10	132.337		
8,700.00	6,947.00	6,854.40	6,706.44	62.36	39.09	-78.67	-449.79	-10,301.63	8,251.54	8,188.26	63.27	130.410		
8,800.00	6,946.70	6,856.59	6,708.62	64.84	39.09	-78.78	-449.83	-10,301.69	8,152.44	8,088.98	63.46	128.473		
8,900.00	6,946.40	6,858.77	6,710.81	67.35	39.10	-78.89	-449.87	-10,301.75	8,053.36	7,989.71	63.65	126.527		
9,000.00	6,946.10	6,860.96	6,713.00	69.88	39.11	-79.00	-449.91	-10,301.80	7,954.31	7,890.46	63.85	124.572		
9,100.00	6,945.80	6,863.16	6,715.19	72.44	39.12	-79.11	-449.95	-10,301.86	7,855.28	7,791.21	64.07	122.607		
9,200.00	6,945.50	6,865.36	6,717.39	75.02	39.12	-79.23	-449.99	-10,301.92	7,756.28	7,691.98	64.30	120.633		
9,300.00	6,945.21	6,867.56	6,719.59	77.63	39.13	-79.34	-450.03	-10,301.98	7,657.29	7,592.76	64.54	118.651		
9,400.00	6,944.91	6,869.77	6,721.80	80.24	39.14	-79.45	-450.07	-10,302.04	7,558.34	7,493.55	64.79	116.660		
9,500.00	6,944.61	6,871.99	6,724.01	82.88	39.15	-79.57	-450.11	-10,302.10	7,459.41	7,394.36	65.06	114.661		
9,600.00	6,944.31	6,874.20	6,726.23	85.53	39.16	-79.68	-450.16	-10,302.16	7,360.51	7,295.18	65.34	112.654		
9,700.00	6,944.01	6,876.43	6,728.45	88.19	39.16	-79.80	-450.20	-10,302.22	7,261.65	7,196.01	65.63	110.639		
9,800.00	6,943.71	6,878.66	6,730.68	90.86	39.17	-79.91	-450.24	-10,302.28	7,162.81	7,096.86	65.95	108.617		
9,900.00	6,943.42	6,880.89	6,732.91	93.55	39.18	-80.03	-450.28	-10,302.34	7,064.00	6,997.73	66.27	106.588		
10,000.00	6,943.12	6,883.12	6,735.15	96.24	39.19	-80.14	-450.32	-10,302.40	6,965.23	6,898.61	66.62	104.553		
10,100.00	6,942.82	6,885.37	6,737.39	98.95	39.19	-80.26	-450.37	-10,302.46	6,866.49	6,799.50	66.98	102.511		
10,200.00	6,942.52	6,887.61	6,739.63	101.66	39.20	-80.38	-450.41	-10,302.53	6,767.78	6,700.42	67.37	100.464		
10,300.00	6,942.22	6,889.86	6,741.88	104.38	39.21	-80.49	-450.45	-10,302.59	6,669.12	6,601.35	67.77	98.412		
10,400.00	6,941.92	6,892.12	6,744.14	107.11	39.22	-80.61	-450.49	-10,302.65	6,570.49	6,502.30	68.19	96.355		
10,500.00	6,941.63	6,894.38	6,746.39	109.84	39.23	-80.73	-450.54	-10,302.71	6,471.91	6,403.28	68.63	94.295		
10,600.00	6,941.33	6,896.64	6,748.66	112.58	39.23	-80.84	-450.58	-10,302.77	6,373.37	6,304.27	69.10	92.231		
10,700.00	6,941.03	6,897.87	6,749.89	115.33	39.24	-80.91	-450.60	-10,302.81	6,274.88	6,205.29	69.59	90.169		
10,800.00	6,940.73	6,899.89	6,751.91	118.08	39.25	-81.01	-450.64	-10,302.86	6,176.43	6,106.32	70.11	88.101		
10,900.00	6,940.43	6,901.92	6,753.93	120.84	39.25	-81.12	-450.68	-10,302.92	6,078.03	6,007.38	70.65	86.032		
11,000.00	6,940.13	6,903.96	6,755.97	123.60	39.26	-81.22	-450.72	-10,302.97	5,979.69	5,908.47	71.22	83.963		

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 4N-16A-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 4N-16A-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		
11,100.00	6,939.83	6,906.00	6,758.01	126.36	39.27	-81.33	-450.76	-10,303.03	5,881.40	5,809.58	71.82	81.894		
11,200.00	6,939.54	6,908.06	6,760.07	129.13	39.28	-81.44	-450.80	-10,303.09	5,783.16	5,710.72	72.45	79.826		
11,300.00	6,939.24	6,910.12	6,762.13	131.91	39.28	-81.54	-450.85	-10,303.14	5,684.99	5,611.88	73.11	77.760		
11,400.00	6,938.94	6,912.20	6,764.20	134.68	39.29	-81.65	-450.89	-10,303.20	5,586.88	5,513.08	73.81	75.697		
11,500.00	6,938.64	6,914.28	6,766.28	137.46	39.30	-81.76	-450.93	-10,303.26	5,488.84	5,414.30	74.54	73.638		
11,600.00	6,938.34	6,916.37	6,768.37	140.25	39.31	-81.87	-450.97	-10,303.32	5,390.87	5,315.57	75.31	71.585		
11,700.00	6,938.04	6,918.47	6,770.47	143.03	39.31	-81.98	-451.01	-10,303.38	5,292.98	5,216.86	76.12	69.537		
11,800.00	6,937.75	6,920.58	6,772.58	145.82	39.32	-82.09	-451.06	-10,303.43	5,195.16	5,118.19	76.97	67.496		
11,900.00	6,937.45	6,922.69	6,774.69	148.61	39.33	-82.20	-451.10	-10,303.49	5,097.43	5,019.57	77.87	65.464		
12,000.00	6,937.15	6,924.82	6,776.82	151.41	39.34	-82.31	-451.15	-10,303.55	4,999.79	4,920.98	78.81	63.441		
12,100.00	6,936.85	6,926.96	6,778.95	154.20	39.34	-82.42	-451.19	-10,303.61	4,902.24	4,822.44	79.80	61.429		
12,200.00	6,936.55	6,929.10	6,781.10	157.00	39.35	-82.53	-451.24	-10,303.67	4,804.79	4,723.94	80.85	59.429		
12,300.00	6,936.25	6,931.26	6,783.25	159.80	39.36	-82.65	-451.28	-10,303.74	4,707.45	4,625.50	81.95	57.442		
12,400.00	6,935.96	6,933.42	6,785.42	162.61	39.37	-82.76	-451.33	-10,303.80	4,610.22	4,527.10	83.11	55.470		
12,500.00	6,935.66	6,935.60	6,787.59	165.41	39.37	-82.87	-451.37	-10,303.86	4,513.10	4,428.77	84.34	53.513		
12,600.00	6,935.36	6,937.78	6,789.77	168.22	39.38	-82.99	-451.42	-10,303.92	4,416.12	4,330.49	85.63	51.574		
12,700.00	6,935.06	6,939.98	6,791.96	171.02	39.39	-83.10	-451.47	-10,303.98	4,319.27	4,232.28	86.99	49.653		
12,800.00	6,934.76	6,942.18	6,794.17	173.83	39.40	-83.22	-451.52	-10,304.05	4,222.57	4,134.14	88.43	47.751		
12,900.00	6,934.46	6,944.39	6,796.38	176.65	39.41	-83.34	-451.56	-10,304.11	4,126.03	4,036.08	89.95	45.872		
13,000.00	6,934.17	6,946.62	6,798.60	179.46	39.41	-83.45	-451.61	-10,304.17	4,029.65	3,938.09	91.55	44.015		
13,100.00	6,933.87	6,948.85	6,800.83	182.27	39.42	-83.57	-451.66	-10,304.24	3,933.45	3,840.20	93.25	42.182		
13,200.00	6,933.57	6,951.09	6,803.07	185.09	39.43	-83.69	-451.71	-10,304.30	3,837.44	3,742.39	95.05	40.374		
13,300.00	6,933.27	6,953.34	6,805.32	187.91	39.44	-83.80	-451.76	-10,304.37	3,741.64	3,644.69	96.95	38.594		
13,400.00	6,932.97	6,955.61	6,807.59	190.72	39.45	-83.92	-451.81	-10,304.43	3,646.07	3,547.10	98.96	36.842		
13,500.00	6,932.67	6,957.88	6,809.86	193.54	39.45	-84.04	-451.86	-10,304.50	3,550.73	3,449.63	101.10	35.121		
13,600.00	6,932.38	6,960.17	6,812.14	196.36	39.46	-84.16	-451.92	-10,304.56	3,455.66	3,352.29	103.37	33.430		
13,700.00	6,932.08	6,962.46	6,814.43	199.19	39.47	-84.28	-451.97	-10,304.63	3,360.88	3,255.10	105.78	31.773		
13,800.00	6,931.78	6,964.77	6,816.74	202.01	39.48	-84.41	-452.02	-10,304.70	3,266.40	3,158.06	108.34	30.149		
13,900.00	6,931.48	6,967.08	6,819.05	204.83	39.49	-84.53	-452.08	-10,304.77	3,172.26	3,061.19	111.07	28.562		
14,000.00	6,931.18	6,969.41	6,821.38	207.66	39.49	-84.65	-452.13	-10,304.83	3,078.48	2,964.52	113.97	27.012		
14,100.00	6,930.88	6,971.74	6,823.71	210.48	39.50	-84.77	-452.18	-10,304.90	2,985.11	2,868.05	117.06	25.500		
14,200.00	6,930.59	6,974.09	6,826.06	213.31	39.51	-84.90	-452.24	-10,304.97	2,892.18	2,771.82	120.37	24.028		
14,300.00	6,930.29	6,976.45	6,828.41	216.14	39.52	-85.02	-452.30	-10,305.04	2,799.74	2,675.84	123.90	22.598		
14,400.00	6,929.99	6,978.82	6,830.78	218.96	39.53	-85.15	-452.35	-10,305.11	2,707.83	2,580.16	127.67	21.210		
14,500.00	6,929.69	6,981.20	6,833.16	221.79	39.54	-85.27	-452.41	-10,305.18	2,616.51	2,484.80	131.71	19.865		
14,600.00	6,929.39	6,983.59	6,835.55	224.62	39.55	-85.40	-452.47	-10,305.25	2,525.84	2,389.80	136.04	18.567		
14,700.00	6,929.09	6,985.99	6,837.95	227.45	39.55	-85.52	-452.52	-10,305.32	2,435.91	2,295.22	140.69	17.314		
14,732.12	6,929.00	6,986.77	6,838.72	228.36	39.56	-85.56	-452.54	-10,305.34	2,407.18	2,264.93	142.25	16.922 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 4N-16A-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 4N-16A-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	-92.25	-359.33	-9,148.62	9,155.75				
100.00	100.00	61.00	100.00	3.28	3.45	-92.25	-359.33	-9,148.62	9,155.67	9,148.94	6.73	1,359.777	
200.00	200.00	161.00	200.00	3.34	5.08	-92.25	-359.33	-9,148.62	9,155.67	9,147.26	8.41	1,088.166	
300.00	300.00	261.00	300.00	3.44	8.06	-92.25	-359.33	-9,148.62	9,155.67	9,144.16	11.51	795.579	
400.00	400.00	361.00	400.00	3.60	11.34	-92.25	-359.33	-9,148.62	9,155.67	9,140.73	14.94	612.625	
500.00	500.00	461.00	500.00	3.81	14.72	-92.25	-359.33	-9,148.62	9,155.67	9,137.15	18.52	494.256	
600.00	600.00	561.00	600.00	4.05	18.14	-92.25	-359.33	-9,148.62	9,155.67	9,133.49	22.18	412.709	
700.00	699.98	660.98	699.98	4.32	21.58	-78.80	-359.33	-9,148.62	9,155.33	9,129.43	25.90	353.526	
800.00	799.84	760.84	799.84	4.62	25.03	-78.85	-359.33	-9,148.62	9,154.31	9,124.67	29.64	308.807	
900.00	899.45	860.45	899.45	4.94	28.48	-78.93	-359.33	-9,148.62	9,152.63	9,119.22	33.41	273.930	
1,000.00	998.80	959.80	998.80	5.28	31.93	-79.02	-359.33	-9,148.62	9,150.43	9,113.24	37.20	246.010	
1,100.00	1,098.12	1,059.12	1,098.12	5.63	35.38	-79.09	-359.33	-9,148.62	9,148.21	9,107.22	41.00	223.137	
1,200.00	1,197.44	1,158.44	1,197.44	6.00	38.83	-79.16	-359.33	-9,148.62	9,146.01	9,101.19	44.82	204.073	
1,300.00	1,296.77	1,257.77	1,296.77	6.37	42.29	-79.23	-359.33	-9,148.62	9,143.82	9,095.17	48.65	187.951	
1,400.00	1,396.09	1,357.09	1,396.09	6.76	45.75	-79.30	-359.33	-9,148.62	9,141.64	9,089.15	52.49	174.148	
1,500.00	1,495.41	1,456.41	1,495.41	7.15	49.21	-79.37	-359.33	-9,148.62	9,139.48	9,083.13	56.35	162.202	
1,600.00	1,594.74	1,555.74	1,594.74	7.55	52.67	-79.44	-359.33	-9,148.62	9,137.33	9,077.12	60.21	151.766	
1,700.00	1,694.06	1,655.06	1,694.06	7.96	56.13	-79.52	-359.33	-9,148.62	9,135.19	9,071.12	64.07	142.574	
1,800.00	1,793.38	1,754.38	1,793.38	8.37	59.59	-79.59	-359.33	-9,148.62	9,133.07	9,065.13	67.95	134.417	
1,900.00	1,892.71	1,853.71	1,892.71	8.78	63.05	-79.66	-359.33	-9,148.62	9,130.97	9,059.15	71.82	127.132	
2,000.00	1,992.03	1,953.03	1,992.03	9.20	66.52	-79.73	-359.33	-9,148.62	9,128.88	9,053.17	75.70	120.586	
2,100.00	2,091.36	2,052.36	2,091.36	9.62	69.98	-79.80	-359.33	-9,148.62	9,126.80	9,047.21	79.59	114.675	
2,200.00	2,190.68	2,151.68	2,190.68	10.05	73.44	-79.87	-359.33	-9,148.62	9,124.74	9,041.26	83.48	109.309	
2,300.00	2,290.00	2,251.00	2,290.00	10.48	76.91	-79.94	-359.33	-9,148.62	9,122.69	9,035.32	87.37	104.418	
2,400.00	2,389.33	2,350.33	2,389.33	10.90	80.37	-80.01	-359.33	-9,148.62	9,120.66	9,029.40	91.26	99.942	
2,500.00	2,488.65	2,449.65	2,488.65	11.34	83.84	-80.09	-359.33	-9,148.62	9,118.64	9,023.48	95.15	95.830	
2,600.00	2,587.97	2,548.97	2,587.97	11.77	87.30	-80.16	-359.33	-9,148.62	9,116.63	9,017.58	99.05	92.039	
2,700.00	2,687.30	2,648.30	2,687.30	12.20	90.77	-80.23	-359.33	-9,148.62	9,114.64	9,011.69	102.95	88.535	
2,800.00	2,786.62	2,747.62	2,786.62	12.64	94.23	-80.30	-359.33	-9,148.62	9,112.66	9,005.81	106.85	85.285	
2,900.00	2,885.94	2,846.94	2,885.94	13.07	97.70	-80.37	-359.33	-9,148.62	9,110.70	8,999.95	110.75	82.263	
3,000.00	2,985.27	2,946.27	2,985.27	13.51	101.16	-80.44	-359.33	-9,148.62	9,108.75	8,994.10	114.65	79.446	
3,100.00	3,084.59	3,045.59	3,084.59	13.95	104.63	-80.51	-359.33	-9,148.62	9,106.82	8,988.26	118.56	76.814	
3,200.00	3,183.91	3,144.91	3,183.91	14.39	108.09	-80.59	-359.33	-9,148.62	9,104.90	8,982.44	122.46	74.349	
3,300.00	3,283.24	3,244.24	3,283.24	14.83	111.56	-80.66	-359.33	-9,148.62	9,102.99	8,976.63	126.37	72.036	
3,400.00	3,382.56	3,343.56	3,382.56	15.27	115.03	-80.73	-359.33	-9,148.62	9,101.10	8,970.83	130.27	69.861	
3,500.00	3,481.88	3,442.88	3,481.88	15.71	118.49	-80.80	-359.33	-9,148.62	9,099.23	8,965.05	134.18	67.813	
3,600.00	3,581.21	3,542.21	3,581.21	16.16	121.96	-80.87	-359.33	-9,148.62	9,097.37	8,959.28	138.09	65.881	
3,700.00	3,680.53	3,641.53	3,680.53	16.60	125.42	-80.94	-359.33	-9,148.62	9,095.52	8,953.52	142.00	64.054	
3,800.00	3,779.85	3,740.85	3,779.85	17.04	128.89	-81.02	-359.33	-9,148.62	9,093.69	8,947.78	145.91	62.326	
3,900.00	3,879.18	3,840.18	3,879.18	17.49	132.36	-81.09	-359.33	-9,148.62	9,091.87	8,942.05	149.82	60.687	
4,000.00	3,978.50	3,939.50	3,978.50	17.93	135.82	-81.16	-359.33	-9,148.62	9,090.06	8,936.34	153.73	59.132	
4,100.00	4,077.82	4,038.82	4,077.82	18.37	139.29	-81.23	-359.33	-9,148.62	9,088.28	8,930.64	157.64	57.653	
4,200.00	4,177.15	4,138.15	4,177.15	18.82	142.76	-81.30	-359.33	-9,148.62	9,086.50	8,924.95	161.55	56.247	
4,300.00	4,276.47	4,237.47	4,276.47	19.27	146.22	-81.38	-359.33	-9,148.62	9,084.74	8,919.28	165.46	54.906	
4,400.00	4,375.79	4,336.79	4,375.79	19.71	149.69	-81.45	-359.33	-9,148.62	9,083.00	8,913.62	169.37	53.628	
4,500.00	4,475.12	4,436.12	4,475.12	20.16	153.15	-81.52	-359.33	-9,148.62	9,081.26	8,907.98	173.28	52.407	
4,600.00	4,574.44	4,535.44	4,574.44	20.60	156.62	-81.59	-359.33	-9,148.62	9,079.55	8,902.35	177.20	51.240	
4,700.00	4,673.76	4,634.76	4,673.76	21.05	160.09	-81.66	-359.33	-9,148.62	9,077.85	8,896.74	181.11	50.124	
4,800.00	4,773.09	4,734.09	4,773.09	21.50	163.55	-81.74	-359.33	-9,148.62	9,076.16	8,891.14	185.02	49.055	
4,900.00	4,872.41	4,833.41	4,872.41	21.94	167.02	-81.81	-359.33	-9,148.62	9,074.48	8,885.55	188.94	48.030	
5,000.00	4,971.74	4,932.74	4,971.74	22.39	170.49	-81.88	-359.33	-9,148.62	9,072.83	8,879.98	192.85	47.046	
5,100.00	5,071.06	5,032.06	5,071.06	22.84	173.95	-81.95	-359.33	-9,148.62	9,071.18	8,874.42	196.76	46.102	

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 4N-16A-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 4N-16A-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	5,170.38	5,131.38	5,170.38	23.29	177.42	-82.02	-359.33	-9,148.62	9,069.55	8,868.88	200.68	45.195		
5,300.00	5,269.71	5,230.71	5,269.71	23.74	180.89	-82.10	-359.33	-9,148.62	9,067.94	8,863.35	204.59	44.322		
5,400.00	5,369.03	5,330.03	5,369.03	24.18	184.36	-82.17	-359.33	-9,148.62	9,066.34	8,857.83	208.51	43.482		
5,500.00	5,468.35	5,429.35	5,468.35	24.63	187.82	-82.24	-359.33	-9,148.62	9,064.75	8,852.33	212.42	42.674		
5,600.00	5,567.68	5,528.68	5,567.68	25.08	191.29	-82.31	-359.33	-9,148.62	9,063.18	8,846.85	216.34	41.894		
5,700.00	5,667.00	5,628.00	5,667.00	25.53	194.76	-82.39	-359.33	-9,148.62	9,061.63	8,841.37	220.25	41.142		
5,800.00	5,766.32	5,727.32	5,766.32	25.98	198.22	-82.46	-359.33	-9,148.62	9,060.08	8,835.92	224.17	40.417		
5,900.00	5,865.65	5,826.65	5,865.65	26.43	201.69	-82.53	-359.33	-9,148.62	9,058.56	8,830.47	228.08	39.716		
6,000.00	5,964.97	5,925.97	5,964.97	26.88	205.16	-82.60	-359.33	-9,148.62	9,057.04	8,825.05	232.00	39.039		
6,100.00	6,064.29	6,025.29	6,064.29	27.33	208.62	-82.67	-359.33	-9,148.62	9,055.55	8,819.63	235.91	38.385		
6,200.00	6,163.62	6,124.62	6,163.62	27.78	212.09	-82.75	-359.33	-9,148.62	9,054.06	8,814.23	239.83	37.752		
6,300.00	6,262.94	6,223.94	6,262.94	28.23	215.56	-82.82	-359.33	-9,148.62	9,052.59	8,808.85	243.75	37.140		
6,400.00	6,362.24	6,323.24	6,362.24	28.67	219.02	-82.89	-359.33	-9,148.62	9,050.56	8,802.89	247.66	36.544		
6,500.00	6,460.41	6,421.41	6,460.41	29.12	222.45	-82.96	-359.33	-9,148.62	9,037.08	8,785.55	251.53	35.928		
6,600.00	6,559.09	6,519.09	6,559.09	29.57	225.76	-83.03	-359.33	-9,148.62	9,008.40	8,753.13	255.27	35.290		
6,700.00	6,643.94	6,604.94	6,643.94	30.00	228.86	-83.10	-359.33	-9,148.62	8,965.21	8,706.44	258.77	34.646		
6,800.00	6,724.78	6,685.78	6,724.78	30.45	231.68	-83.17	-359.33	-9,148.62	8,908.58	8,646.64	261.95	34.009		
6,900.00	6,795.62	6,756.62	6,795.62	30.97	234.15	-83.24	-359.33	-9,148.62	8,839.92	8,575.19	264.73	33.392		
7,000.00	6,854.70	6,815.70	6,854.70	31.60	236.21	-83.31	-359.33	-9,148.62	8,760.91	8,493.85	267.06	32.805		
7,100.00	6,900.58	6,861.58	6,900.58	32.39	237.82	-83.38	-359.33	-9,148.62	8,673.49	8,404.63	268.87	32.260		
7,200.00	6,932.13	6,906.87	6,932.13	33.34	239.40	-83.45	-359.33	-9,148.62	8,579.82	8,309.22	270.60	31.707		
7,300.00	6,948.57	6,909.57	6,948.57	34.46	239.49	-83.52	-359.33	-9,148.62	8,482.20	8,211.40	270.80	31.323		
7,400.00	6,950.87	6,911.87	6,950.87	35.70	239.57	-83.59	-359.33	-9,148.62	8,383.01	8,112.05	270.95	30.939		
7,500.00	6,950.58	6,911.58	6,950.58	37.12	239.56	-83.66	-359.33	-9,148.62	8,283.72	8,012.71	271.01	30.566		
7,600.00	6,950.28	6,911.28	6,950.28	38.70	239.55	-83.73	-359.33	-9,148.62	8,184.46	7,913.38	271.08	30.192		
7,700.00	6,949.98	6,910.98	6,949.98	40.41	239.54	-83.80	-359.33	-9,148.62	8,085.21	7,814.06	271.15	29.818		
7,800.00	6,949.68	6,910.68	6,949.68	42.25	239.53	-83.87	-359.33	-9,148.62	7,985.99	7,714.75	271.24	29.443		
7,900.00	6,949.38	6,910.38	6,949.38	44.20	239.52	-83.94	-359.33	-9,148.62	7,886.78	7,615.45	271.33	29.068		
8,000.00	6,949.08	6,910.08	6,949.08	46.24	239.51	-84.01	-359.33	-9,148.62	7,787.59	7,516.16	271.42	28.692		
8,100.00	6,948.79	6,909.79	6,948.79	48.36	239.50	-84.08	-359.33	-9,148.62	7,688.42	7,416.89	271.53	28.315		
8,200.00	6,948.49	6,909.49	6,948.49	50.56	239.49	-84.15	-359.33	-9,148.62	7,589.28	7,317.63	271.65	27.938		
8,300.00	6,948.19	6,909.19	6,948.19	52.82	239.48	-84.22	-359.33	-9,148.62	7,490.15	7,218.38	271.77	27.560		
8,400.00	6,947.89	6,908.89	6,947.89	55.14	239.47	-84.29	-359.33	-9,148.62	7,391.06	7,119.15	271.91	27.182		
8,500.00	6,947.59	6,908.59	6,947.59	57.50	239.46	-84.36	-359.33	-9,148.62	7,291.98	7,019.93	272.05	26.803		
8,600.00	6,947.29	6,908.29	6,947.29	59.91	239.45	-84.43	-359.33	-9,148.62	7,192.93	6,920.72	272.21	26.424		
8,700.00	6,947.00	6,908.00	6,947.00	62.36	239.44	-84.50	-359.33	-9,148.62	7,093.91	6,821.53	272.38	26.044		
8,800.00	6,946.70	6,907.70	6,946.70	64.84	239.43	-84.57	-359.33	-9,148.62	6,994.92	6,722.35	272.56	25.664		
8,900.00	6,946.40	6,907.40	6,946.40	67.35	239.41	-84.64	-359.33	-9,148.62	6,895.95	6,623.19	272.76	25.282		
9,000.00	6,946.10	6,907.10	6,946.10	69.88	239.40	-84.71	-359.33	-9,148.62	6,797.02	6,524.05	272.96	24.901		
9,100.00	6,945.80	6,906.80	6,945.80	72.44	239.39	-84.78	-359.33	-9,148.62	6,698.11	6,424.93	273.19	24.518		
9,200.00	6,945.50	6,906.50	6,945.50	75.02	239.38	-84.85	-359.33	-9,148.62	6,599.24	6,325.82	273.42	24.136		
9,300.00	6,945.21	6,906.21	6,945.21	77.63	239.37	-84.92	-359.33	-9,148.62	6,500.41	6,226.73	273.68	23.752		
9,400.00	6,944.91	6,905.91	6,944.91	80.24	239.36	-84.99	-359.33	-9,148.62	6,401.61	6,127.66	273.95	23.368		
9,500.00	6,944.61	6,905.61	6,944.61	82.88	239.35	-85.06	-359.33	-9,148.62	6,302.85	6,028.61	274.24	22.983		
9,600.00	6,944.31	6,905.31	6,944.31	85.53	239.34	-85.13	-359.33	-9,148.62	6,204.12	5,929.58	274.54	22.598		
9,700.00	6,944.01	6,905.01	6,944.01	88.19	239.33	-85.20	-359.33	-9,148.62	6,105.44	5,830.58	274.87	22.212		
9,800.00	6,943.71	6,904.71	6,943.71	90.86	239.32	-85.27	-359.33	-9,148.62	6,006.81	5,731.59	275.22	21.826		
9,900.00	6,943.42	6,904.42	6,943.42	93.55	239.31	-85.34	-359.33	-9,148.62	5,908.22	5,632.63	275.59	21.439		
10,000.00	6,943.12	6,904.12	6,943.12	96.24	239.30	-85.41	-359.33	-9,148.62	5,809.67	5,533.70	275.98	21.051		
10,100.00	6,942.82	6,903.82	6,942.82	98.95	239.29	-85.48	-359.33	-9,148.62	5,711.18	5,434.79	276.39	20.663		
10,200.00	6,942.52	6,903.52	6,942.52	101.66	239.28	-85.55	-359.33	-9,148.62	5,612.74	5,335.91	276.84	20.274		
10,300.00	6,942.22	6,903.22	6,942.22	104.38	239.27	-85.62	-359.33	-9,148.62	5,514.36	5,237.05	277.31	19.885		

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 4N-16A-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 4N-16A-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	6,941.92	6,902.92	6,941.92	107.11	239.26	-90.91	-359.33	-9,148.62	5,416.04	5,138.23	277.81	19.496		
10,500.00	6,941.63	6,902.63	6,941.63	109.84	239.25	-90.90	-359.33	-9,148.62	5,317.78	5,039.44	278.34	19.105		
10,600.00	6,941.33	6,902.33	6,941.33	112.58	239.24	-90.88	-359.33	-9,148.62	5,219.58	4,940.68	278.90	18.715		
10,700.00	6,941.03	6,902.03	6,941.03	115.33	239.23	-90.86	-359.33	-9,148.62	5,121.46	4,841.96	279.50	18.324		
10,800.00	6,940.73	6,901.73	6,940.73	118.08	239.22	-90.84	-359.33	-9,148.62	5,023.41	4,743.27	280.13	17.932		
10,900.00	6,940.43	6,901.43	6,940.43	120.84	239.21	-90.83	-359.33	-9,148.62	4,925.43	4,644.63	280.81	17.540		
11,000.00	6,940.13	6,901.13	6,940.13	123.60	239.20	-90.81	-359.33	-9,148.62	4,827.54	4,546.02	281.52	17.148		
11,100.00	6,939.83	6,900.83	6,939.83	126.36	239.19	-90.79	-359.33	-9,148.62	4,729.74	4,447.46	282.28	16.756		
11,200.00	6,939.54	6,900.54	6,939.54	129.13	239.18	-90.78	-359.33	-9,148.62	4,632.03	4,348.95	283.08	16.363		
11,300.00	6,939.24	6,900.24	6,939.24	131.91	239.16	-90.76	-359.33	-9,148.62	4,534.43	4,250.49	283.94	15.970		
11,400.00	6,938.94	6,900.06	6,938.94	134.68	239.16	-90.74	-359.33	-9,148.62	4,436.93	4,152.08	284.85	15.576		
11,500.00	6,938.64	6,900.36	6,938.64	137.46	239.17	-90.72	-359.33	-9,148.62	4,339.54	4,053.70	285.84	15.182		
11,600.00	6,938.34	6,900.66	6,938.34	140.25	239.18	-90.71	-359.33	-9,148.62	4,242.27	3,955.39	286.88	14.788		
11,700.00	6,938.04	6,900.96	6,938.04	143.03	239.19	-90.69	-359.33	-9,148.62	4,145.14	3,857.15	287.99	14.393		
11,800.00	6,937.75	6,901.25	6,937.75	145.82	239.20	-90.67	-359.33	-9,148.62	4,048.14	3,758.97	289.17	13.999		
11,900.00	6,937.45	6,901.55	6,937.45	148.61	239.21	-90.66	-359.33	-9,148.62	3,951.29	3,660.87	290.42	13.605		
12,000.00	6,937.15	6,901.85	6,937.15	151.41	239.22	-90.64	-359.33	-9,148.62	3,854.61	3,562.86	291.75	13.212		
12,100.00	6,936.85	6,902.15	6,936.85	154.20	239.23	-90.62	-359.33	-9,148.62	3,758.10	3,464.93	293.17	12.819		
12,200.00	6,936.55	6,902.45	6,936.55	157.00	239.24	-90.60	-359.33	-9,148.62	3,661.77	3,367.10	294.68	12.426		
12,300.00	6,936.25	6,902.75	6,936.25	159.80	239.25	-90.59	-359.33	-9,148.62	3,565.65	3,269.37	296.28	12.035		
12,400.00	6,935.96	6,903.04	6,935.96	162.61	239.26	-90.57	-359.33	-9,148.62	3,469.75	3,171.76	297.99	11.644		
12,500.00	6,935.66	6,903.34	6,935.66	165.41	239.27	-90.55	-359.33	-9,148.62	3,374.08	3,074.27	299.81	11.254		
12,600.00	6,935.36	6,903.64	6,935.36	168.22	239.28	-90.54	-359.33	-9,148.62	3,278.67	2,976.91	301.76	10.865		
12,700.00	6,935.06	6,903.94	6,935.06	171.02	239.29	-90.52	-359.33	-9,148.62	3,183.55	2,879.71	303.84	10.478		
12,800.00	6,934.76	6,904.24	6,934.76	173.83	239.30	-90.50	-359.33	-9,148.62	3,088.73	2,782.67	306.06	10.092		
12,900.00	6,934.46	6,904.54	6,934.46	176.65	239.31	-90.48	-359.33	-9,148.62	2,994.25	2,685.81	308.44	9.708		
13,000.00	6,934.17	6,904.83	6,934.17	179.46	239.33	-90.47	-359.33	-9,148.62	2,900.14	2,589.15	310.99	9.326		
13,100.00	6,933.87	6,905.13	6,933.87	182.27	239.34	-90.45	-359.33	-9,148.62	2,806.44	2,492.72	313.72	8.946		
13,200.00	6,933.57	6,905.43	6,933.57	185.09	239.35	-90.43	-359.33	-9,148.62	2,713.19	2,396.53	316.66	8.568		
13,300.00	6,933.27	6,905.73	6,933.27	187.91	239.36	-90.42	-359.33	-9,148.62	2,620.43	2,300.63	319.81	8.194		
13,400.00	6,932.97	6,906.03	6,932.97	190.72	239.37	-90.40	-359.33	-9,148.62	2,528.23	2,205.03	323.20	7.823		
13,500.00	6,932.67	6,906.33	6,932.67	193.54	239.38	-90.38	-359.33	-9,148.62	2,436.64	2,109.79	326.85	7.455		
13,600.00	6,932.38	6,906.62	6,932.38	196.36	239.39	-90.36	-359.33	-9,148.62	2,345.74	2,014.95	330.79	7.091		
13,700.00	6,932.08	6,906.92	6,932.08	199.19	239.40	-90.35	-359.33	-9,148.62	2,255.61	1,920.57	335.04	6.732		
13,800.00	6,931.78	6,907.22	6,931.78	202.01	239.41	-90.33	-359.33	-9,148.62	2,166.35	1,826.71	339.64	6.378		
13,900.00	6,931.48	6,907.52	6,931.48	204.83	239.42	-90.31	-359.33	-9,148.62	2,078.07	1,733.46	344.61	6.030		
14,000.00	6,931.18	6,907.82	6,931.18	207.66	239.43	-90.30	-359.33	-9,148.62	1,990.89	1,640.90	349.99	5.688		
14,100.00	6,930.88	6,908.12	6,930.88	210.48	239.44	-90.28	-359.33	-9,148.62	1,904.97	1,549.16	355.81	5.354		
14,200.00	6,930.59	6,908.41	6,930.59	213.31	239.45	-90.26	-359.33	-9,148.62	1,820.49	1,458.36	362.13	5.027		
14,300.00	6,930.29	6,908.71	6,930.29	216.14	239.46	-90.24	-359.33	-9,148.62	1,737.66	1,368.69	368.97	4.709		
14,400.00	6,929.99	6,909.01	6,929.99	218.96	239.47	-90.23	-359.33	-9,148.62	1,656.73	1,280.35	376.37	4.402		
14,500.00	6,929.69	6,909.31	6,929.69	221.79	239.48	-90.21	-359.33	-9,148.62	1,577.98	1,193.61	384.38	4.105		
14,600.00	6,929.39	6,909.61	6,929.39	224.62	239.49	-90.19	-359.33	-9,148.62	1,501.77	1,108.77	393.00	3.821		
14,700.00	6,929.09	6,909.91	6,929.09	227.45	239.50	-90.18	-359.33	-9,148.62	1,428.49	1,026.25	402.24	3.551		
14,732.12	6,929.00	6,890.00	6,929.00	228.36	238.81	-90.17	-359.33	-9,148.62	1,405.65	1,001.01	404.64	3.474	CC, ES, SF	



Anticollision Report



Company:	SRC ENERGY	Local Co-ordinate Reference:	Well HARVESTERS STATE 4N-16A-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 4N-16A-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	-92.43	-388.47	-9,145.85	9,154.13					
100.00	100.00	110.33	136.33	3.28	3.29	-92.43	-388.75	-9,145.49	9,153.82	9,147.24	6.58	1,391.801		
200.00	200.00	185.45	211.45	3.34	3.34	-92.43	-388.67	-9,145.29	9,153.56	9,146.88	6.67	1,371.883		
243.51	243.51	217.52	243.51	3.38	3.36	-92.43	-388.62	-9,145.28	9,153.53	9,146.79	6.74	1,358.118		
300.00	300.00	259.35	285.35	3.44	3.41	-92.43	-388.62	-9,145.31	9,153.57	9,146.72	6.85	1,336.148		
400.00	400.00	346.29	372.29	3.60	3.52	-92.43	-388.71	-9,145.51	9,153.81	9,146.68	7.13	1,284.397		
500.00	500.00	434.67	460.67	3.81	3.68	-92.43	-388.83	-9,145.83	9,154.17	9,146.69	7.49	1,222.832		
600.00	600.00	607.80	633.80	4.05	4.07	-92.44	-389.31	-9,146.14	9,154.49	9,146.37	8.12	1,127.666		
700.00	699.98	678.51	704.50	4.32	4.26	-78.99	-389.67	-9,145.94	9,153.90	9,145.33	8.58	1,067.325		
800.00	799.84	727.00	752.99	4.62	4.40	-79.02	-389.90	-9,145.98	9,153.07	9,144.07	9.01	1,016.022		
900.00	899.45	767.50	793.49	4.94	4.51	-79.06	-389.95	-9,146.26	9,152.20	9,142.75	9.44	969.077		
1,000.00	998.80	800.26	826.25	5.28	4.61	-79.08	-389.78	-9,146.77	9,151.55	9,141.67	9.88	926.410		
1,042.86	1,041.37	814.32	840.30	5.43	4.65	-79.09	-389.65	-9,147.06	9,151.48	9,141.41	10.07	908.706		
1,100.00	1,098.12	856.00	881.96	5.63	4.78	-79.12	-389.06	-9,148.20	9,151.69	9,141.29	10.40	879.746		
1,200.00	1,197.44	856.00	881.96	6.00	4.78	-79.12	-389.06	-9,148.20	9,152.41	9,141.64	10.77	849.860		
1,300.00	1,296.77	856.00	881.96	6.37	4.78	-79.12	-389.06	-9,148.20	9,154.22	9,143.07	11.15	821.226		
1,400.00	1,396.09	913.22	939.12	6.76	4.97	-79.15	-387.80	-9,150.59	9,156.40	9,144.69	11.71	781.684		
1,500.00	1,495.41	938.09	963.94	7.15	5.05	-79.16	-387.09	-9,151.97	9,159.64	9,147.45	12.19	751.564		
1,600.00	1,594.74	984.00	1,009.72	7.55	5.20	-79.19	-385.55	-9,155.06	9,163.79	9,151.05	12.74	719.431		
1,700.00	1,694.06	984.00	1,009.72	7.96	5.20	-79.19	-385.55	-9,155.06	9,168.57	9,155.43	13.14	697.704		
1,800.00	1,793.38	984.00	1,009.72	8.37	5.20	-79.19	-385.55	-9,155.06	9,174.44	9,160.89	13.55	677.174		
1,900.00	1,892.71	1,045.74	1,071.18	8.78	5.41	-79.21	-382.70	-9,160.23	9,180.67	9,166.50	14.17	647.910		
2,000.00	1,992.03	1,112.00	1,136.95	9.20	5.65	-79.23	-378.40	-9,166.98	9,188.15	9,173.34	14.81	620.198		
2,100.00	2,091.36	1,112.00	1,136.95	9.62	5.65	-79.23	-378.40	-9,166.98	9,195.88	9,180.65	15.23	603.873		
2,200.00	2,190.68	1,112.00	1,136.95	10.05	5.65	-79.23	-378.40	-9,166.98	9,204.69	9,189.05	15.64	588.451		
2,300.00	2,290.00	1,183.56	1,207.77	10.48	5.93	-79.24	-372.40	-9,175.35	9,213.93	9,197.61	16.32	564.485		
2,400.00	2,389.33	1,241.00	1,264.44	10.90	6.15	-79.24	-366.63	-9,182.66	9,223.92	9,206.96	16.96	543.935		
2,500.00	2,488.65	1,294.29	1,316.88	11.34	6.37	-79.24	-360.31	-9,189.73	9,234.38	9,216.79	17.59	525.038		
2,600.00	2,587.97	1,369.00	1,390.11	11.77	6.70	-79.22	-349.55	-9,199.83	9,245.08	9,226.77	18.31	504.874		
2,700.00	2,687.30	1,419.08	1,439.00	12.20	6.93	-79.20	-341.28	-9,206.84	9,256.19	9,237.24	18.95	488.482		
2,800.00	2,786.62	1,464.64	1,483.35	12.64	7.15	-79.18	-333.21	-9,213.52	9,267.88	9,248.31	19.57	473.615		
2,900.00	2,885.94	1,498.00	1,515.73	13.07	7.31	-79.17	-326.98	-9,218.58	9,280.17	9,260.03	20.13	460.926		
3,000.00	2,985.27	1,550.45	1,566.49	13.51	7.58	-79.14	-316.73	-9,226.86	9,293.03	9,272.23	20.80	446.728		
3,100.00	3,084.59	1,591.75	1,606.35	13.95	7.79	-79.11	-308.35	-9,233.68	9,306.52	9,285.11	21.42	434.525		
3,200.00	3,183.91	1,626.00	1,639.33	14.39	7.98	-79.09	-301.18	-9,239.53	9,320.64	9,298.65	22.00	423.701		
3,300.00	3,283.24	1,683.08	1,694.09	14.83	8.31	-79.05	-288.60	-9,249.62	9,335.31	9,312.60	22.71	410.993		
3,400.00	3,382.56	1,754.00	1,761.70	15.27	8.72	-78.99	-271.64	-9,262.66	9,350.58	9,327.07	23.51	397.761		
3,500.00	3,481.88	1,754.00	1,761.70	15.71	8.72	-78.99	-271.64	-9,262.66	9,366.34	9,342.43	23.91	391.701		
3,600.00	3,581.21	1,799.26	1,804.59	16.16	9.01	-78.95	-260.15	-9,271.42	9,382.79	9,358.20	24.58	381.665		
3,700.00	3,680.53	1,828.52	1,832.21	16.60	9.20	-78.92	-252.53	-9,277.34	9,400.01	9,374.85	25.16	373.623		
3,800.00	3,779.85	1,883.00	1,883.40	17.04	9.56	-78.86	-237.93	-9,288.93	9,418.07	9,392.18	25.89	363.819		
3,900.00	3,879.18	1,944.55	1,941.06	17.49	9.99	-78.79	-221.03	-9,302.27	9,436.59	9,409.91	26.68	353.706		
4,000.00	3,978.50	2,100.11	2,086.99	17.93	11.11	-78.63	-178.13	-9,334.90	9,454.52	9,426.42	28.10	336.430		
4,100.00	4,077.82	2,182.42	2,164.47	18.37	11.71	-78.54	-156.30	-9,352.05	9,472.44	9,443.39	29.05	326.061		
4,200.00	4,177.15	2,251.58	2,229.69	18.82	12.22	-78.48	-138.48	-9,366.66	9,490.65	9,460.74	29.91	317.275		
4,300.00	4,276.47	2,375.30	2,346.63	19.27	13.14	-78.37	-107.75	-9,392.85	9,508.96	9,477.81	31.15	305.296		
4,400.00	4,375.79	2,451.18	2,418.46	19.71	13.71	-78.30	-89.22	-9,408.81	9,527.14	9,495.08	32.06	297.144		
4,500.00	4,475.12	2,525.00	2,488.06	20.16	14.28	-78.23	-70.37	-9,424.60	9,545.68	9,512.72	32.97	289.559		
4,600.00	4,574.44	2,634.44	2,591.04	20.60	15.13	-78.13	-41.68	-9,448.07	9,564.33	9,530.19	34.14	280.138		
4,700.00	4,673.76	2,690.88	2,644.08	21.05	15.58	-78.07	-26.69	-9,460.16	9,583.01	9,548.07	34.94	274.253		
4,800.00	4,773.09	2,734.97	2,685.39	21.50	15.94	-78.02	-14.67	-9,469.85	9,602.24	9,566.59	35.65	269.322		
4,900.00	4,872.41	2,782.00	2,729.29	21.94	16.32	-77.97	-1.54	-9,480.44	9,622.03	9,585.65	36.38	264.453		

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 4N-16A-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 4N-16A-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	4,971.74	5,000.00	2,927.15	22.39	34.54	-77.76	55.77	-9,527.20	9,641.43	9,588.95	52.48	183.705		
5,100.00	5,071.06	3,089.21	3,017.42	22.84	18.84	-77.67	81.00	-9,547.79	9,660.22	9,620.76	39.46	244.803		
5,200.00	5,170.38	3,134.90	3,060.30	23.29	19.21	-77.62	93.19	-9,557.78	9,679.44	9,639.25	40.19	240.871		
5,300.00	5,269.71	3,226.93	3,146.54	23.74	19.97	-77.53	117.90	-9,578.32	9,699.13	9,657.87	41.26	235.087		
5,400.00	5,369.03	3,481.32	3,386.73	24.18	22.02	-77.31	181.98	-9,632.30	9,717.43	9,673.90	43.53	223.235		
5,500.00	5,468.35	3,552.00	3,453.68	24.63	22.58	-77.25	199.26	-9,646.99	9,735.58	9,691.15	44.43	219.116		
5,600.00	5,567.68	5,683.87	5,529.97	25.08	34.13	-77.09	460.30	-9,879.08	9,748.78	9,693.02	55.76	174.837		
5,700.00	5,667.00	5,805.95	5,652.04	25.53	34.47	-77.18	459.28	-9,879.37	9,746.42	9,689.83	56.59	172.218		
5,800.00	5,766.32	5,919.06	5,765.14	25.98	34.79	-77.27	457.29	-9,879.45	9,743.92	9,686.52	57.40	169.757		
5,900.00	5,865.65	6,053.02	5,899.07	26.43	35.17	-77.37	454.86	-9,879.26	9,741.26	9,682.99	58.26	167.199		
6,000.00	5,964.97	6,190.15	6,036.17	26.88	35.55	-77.48	452.04	-9,878.42	9,738.10	9,678.97	59.13	164.678		
6,100.00	6,064.29	6,293.38	6,139.38	27.33	35.85	-77.56	450.21	-9,877.59	9,734.79	9,674.87	59.92	162.470		
6,200.00	6,163.62	6,391.75	6,237.74	27.78	36.13	-77.63	448.62	-9,876.84	9,731.54	9,670.85	60.69	160.347		
6,300.00	6,262.94	6,535.68	6,381.64	28.23	36.55	-77.74	446.74	-9,875.28	9,727.95	9,666.35	61.60	157.928		
6,400.00	6,362.24	6,623.16	6,469.11	28.67	36.82	-59.51	446.03	-9,874.25	9,723.72	9,661.37	62.35	155.959		
6,500.00	6,460.41	6,699.53	6,545.48	29.12	37.05	-27.77	445.57	-9,873.48	9,708.18	9,645.12	63.06	153.940		
6,600.00	6,555.09	6,774.07	6,620.02	29.57	37.28	-17.90	445.02	-9,872.90	9,677.63	9,613.88	63.76	151.790		
6,700.00	6,643.94	6,858.08	6,704.02	30.00	37.54	-13.60	444.53	-9,872.35	9,632.70	9,568.25	64.44	149.473		
6,800.00	6,724.78	6,925.46	6,771.40	30.45	37.75	-11.38	444.30	-9,871.95	9,574.43	9,509.39	65.04	147.214		
6,900.00	6,795.62	6,978.92	6,824.86	30.97	37.92	-10.20	444.21	-9,871.74	9,504.32	9,438.79	65.53	145.030		
7,000.00	6,854.70	7,000.00	6,843.76	31.60	37.99	-9.84	444.10	-9,870.89	9,423.73	9,357.91	65.82	143.174		
7,100.00	6,900.58	7,207.07	7,052.99	32.39	38.65	-10.32	443.69	-9,869.41	9,334.62	9,267.94	66.67	140.006		
7,200.00	6,932.13	7,233.59	7,079.51	33.34	38.73	-12.22	443.41	-9,868.97	9,239.49	9,172.61	66.88	138.146		
7,300.00	6,948.57	7,246.72	7,092.64	34.46	38.77	-23.40	443.25	-9,868.76	9,140.79	9,073.80	66.99	136.451		
7,400.00	6,950.87	7,247.35	7,093.26	35.70	38.78	-131.93	443.24	-9,868.75	9,040.86	8,973.85	67.01	134.910		
7,500.00	6,950.58	7,245.66	7,091.58	37.12	38.77	-131.65	443.26	-9,868.78	8,940.90	8,873.88	67.03	133.397		
7,600.00	6,950.28	7,243.97	7,089.88	38.70	38.77	-131.37	443.29	-9,868.81	8,840.94	8,773.91	67.04	131.881		
7,700.00	6,949.98	7,242.27	7,088.19	40.41	38.76	-131.08	443.31	-9,868.83	8,740.98	8,673.93	67.05	130.363		
7,800.00	6,949.68	7,240.57	7,086.49	42.25	38.75	-130.79	443.33	-9,868.86	8,641.03	8,573.96	67.07	128.843		
7,900.00	6,949.38	7,238.87	7,084.79	44.20	38.75	-130.49	443.35	-9,868.89	8,541.07	8,473.98	67.08	127.321		
8,000.00	6,949.08	7,237.16	7,083.08	46.24	38.74	-130.19	443.37	-9,868.92	8,441.11	8,374.01	67.10	125.796		
8,100.00	6,948.79	7,235.45	7,081.37	48.36	38.74	-129.89	443.39	-9,868.94	8,341.15	8,274.03	67.12	124.270		
8,200.00	6,948.49	7,233.74	7,079.65	50.56	38.73	-129.59	443.41	-9,868.97	8,241.20	8,174.05	67.14	122.742		
8,300.00	6,948.19	7,232.02	7,077.94	52.82	38.73	-129.28	443.43	-9,869.00	8,141.24	8,074.07	67.17	121.211		
8,400.00	6,947.89	7,230.30	7,076.22	55.14	38.72	-128.96	443.45	-9,869.03	8,041.29	7,974.09	67.19	119.679		
8,500.00	6,947.59	7,228.57	7,074.49	57.50	38.72	-128.65	443.47	-9,869.06	7,941.33	7,874.11	67.22	118.146		
8,600.00	6,947.29	7,226.84	7,072.76	59.91	38.71	-128.33	443.49	-9,869.09	7,841.38	7,774.13	67.24	116.610		
8,700.00	6,947.00	7,225.11	7,071.03	62.36	38.71	-128.01	443.51	-9,869.11	7,741.42	7,674.15	67.27	115.074		
8,800.00	6,946.70	7,223.37	7,069.29	64.84	38.70	-127.68	443.53	-9,869.14	7,641.47	7,574.17	67.30	113.535		
8,900.00	6,946.40	7,221.63	7,067.55	67.35	38.70	-127.35	443.55	-9,869.17	7,541.52	7,474.18	67.34	111.995		
9,000.00	6,946.10	7,219.89	7,065.81	69.88	38.69	-127.02	443.57	-9,869.20	7,441.57	7,374.20	67.37	110.454		
9,100.00	6,945.80	7,218.14	7,064.06	72.44	38.68	-126.68	443.58	-9,869.23	7,341.62	7,274.21	67.41	108.912		
9,200.00	6,945.50	7,216.39	7,062.31	75.02	38.68	-126.34	443.60	-9,869.26	7,241.67	7,174.23	67.45	107.368		
9,300.00	6,945.21	7,214.64	7,060.56	77.63	38.67	-125.99	443.62	-9,869.29	7,141.73	7,074.24	67.49	105.823		
9,400.00	6,944.91	7,212.88	7,058.80	80.24	38.67	-125.64	443.64	-9,869.31	7,041.78	6,974.25	67.53	104.277		
9,500.00	6,944.61	7,211.11	7,057.04	82.88	38.66	-125.29	443.65	-9,869.34	6,941.83	6,874.26	67.57	102.730		
9,600.00	6,944.31	7,209.35	7,055.27	85.53	38.66	-124.93	443.67	-9,869.37	6,841.89	6,774.27	67.62	101.183		
9,700.00	6,944.01	7,207.58	7,053.50	88.19	38.65	-124.57	443.69	-9,869.40	6,741.95	6,674.28	67.67	99.634		
9,800.00	6,943.71	7,205.80	7,051.73	90.86	38.65	-124.20	443.70	-9,869.43	6,642.00	6,574.29	67.72	98.084		
9,900.00	6,943.42	7,204.03	7,049.95	93.55	38.64	-123.83	443.72	-9,869.46	6,542.06	6,474.29	67.77	96.534		
10,000.00	6,943.12	7,202.24	7,048.17	96.24	38.63	-123.46	443.73	-9,869.49	6,442.12	6,374.30	67.82	94.983		
10,100.00	6,942.82	7,200.46	7,046.38	98.95	38.63	-123.08	443.75	-9,869.52	6,342.19	6,274.31	67.88	93.432		

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



Anticollision Report



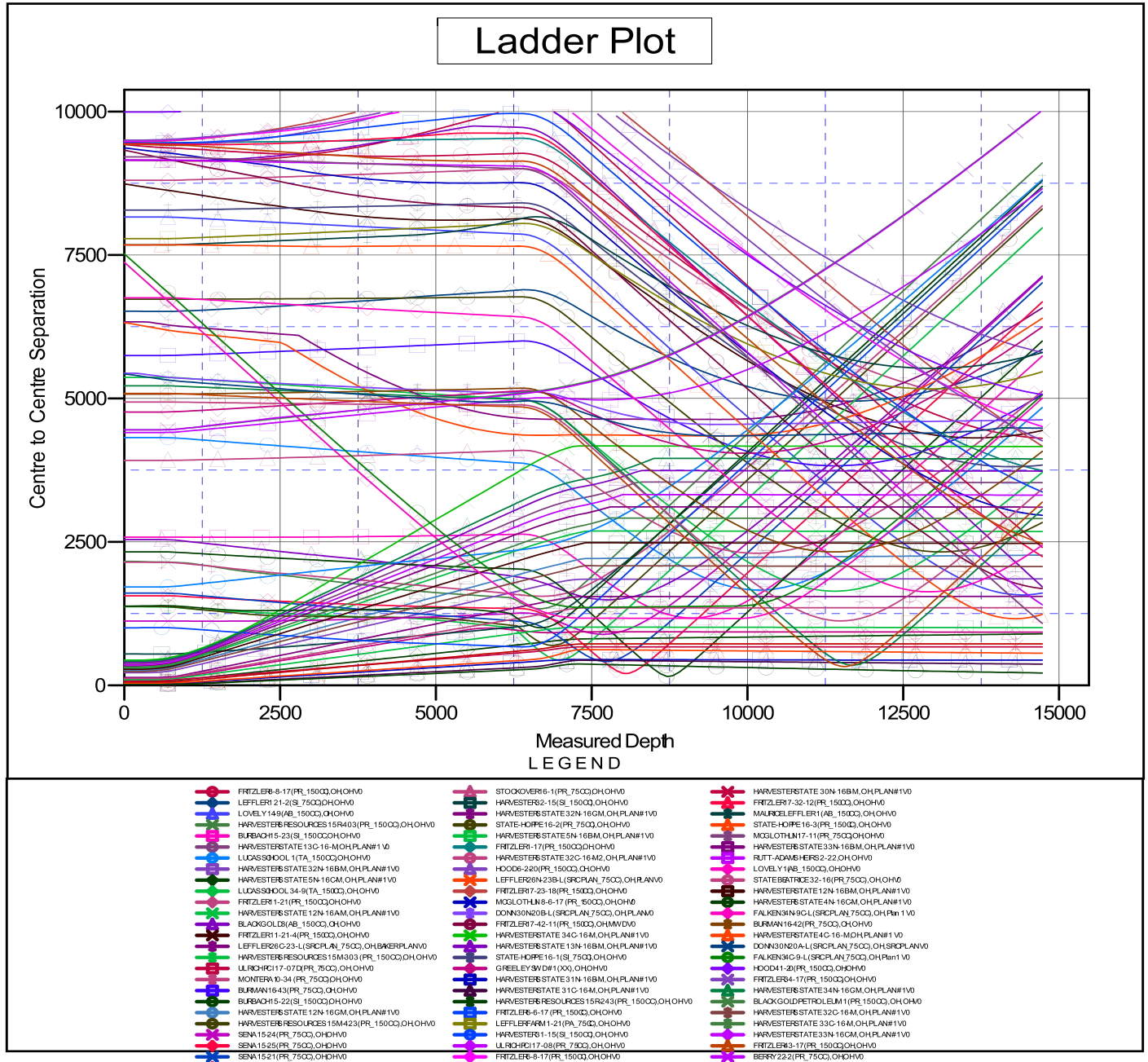
Company:	SRC ENERGY	Local Co-ordinate Reference:	Well HARVESTERS STATE 4N-16A-M
Project:	SECTION 15, T6N, R66W	TVD Reference:	KB @ 4821.00ft
Reference Site:	HARVESTERS STATE 7-15 PAD	MD Reference:	KB @ 4821.00ft
Site Error:	3.28 ft	North Reference:	True
Reference Well:	HARVESTERS STATE 4N-16A-M	Survey 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		
10,200.00	6,942.52	7,198.67	7,044.60	101.66	38.62	-122.70	443.76	-9,869.55	6,242.25	6,174.31	67.94	91.879		
10,300.00	6,942.22	7,196.88	7,042.80	104.38	38.62	-122.31	443.78	-9,869.58	6,142.31	6,074.31	68.00	90.327		
10,400.00	6,941.92	7,195.08	7,041.01	107.11	38.61	-121.92	443.79	-9,869.61	6,042.38	5,974.32	68.06	88.774		
10,500.00	6,941.63	7,193.28	7,039.21	109.84	38.61	-121.53	443.81	-9,869.64	5,942.45	5,874.32	68.13	87.220		
10,600.00	6,941.33	7,191.47	7,037.40	112.58	38.60	-121.13	443.82	-9,869.67	5,842.52	5,774.32	68.20	85.666		
10,700.00	6,941.03	7,189.66	7,035.59	115.33	38.60	-120.72	443.83	-9,869.70	5,742.59	5,674.32	68.27	84.112		
10,800.00	6,940.73	7,187.85	7,033.78	118.08	38.59	-120.31	443.84	-9,869.73	5,642.66	5,574.32	68.35	82.558		
10,900.00	6,940.43	7,186.03	7,031.96	120.84	38.58	-119.90	443.86	-9,869.76	5,542.74	5,474.31	68.43	81.003		
11,000.00	6,940.13	7,184.21	7,030.14	123.60	38.58	-119.48	443.87	-9,869.79	5,442.82	5,374.31	68.51	79.449		
11,100.00	6,939.83	7,182.39	7,028.32	126.36	38.57	-119.06	443.88	-9,869.82	5,342.90	5,274.30	68.59	77.894		
11,200.00	6,939.54	7,180.56	7,026.49	129.13	38.57	-118.64	443.89	-9,869.85	5,242.98	5,174.30	68.68	76.339		
11,300.00	6,939.24	7,178.73	7,024.66	131.91	38.56	-118.20	443.90	-9,869.88	5,143.06	5,074.29	68.77	74.784		
11,400.00	6,938.94	7,176.89	7,022.82	134.68	38.56	-117.77	443.92	-9,869.92	5,043.15	4,974.28	68.87	73.229		
11,500.00	6,938.64	7,175.05	7,020.98	137.46	38.55	-117.33	443.93	-9,869.95	4,943.24	4,874.27	68.97	71.674		
11,600.00	6,938.34	7,173.20	7,019.14	140.25	38.54	-116.88	443.94	-9,869.98	4,843.33	4,774.26	69.07	70.120		
11,700.00	6,938.04	7,171.36	7,017.29	143.03	38.54	-116.44	443.95	-9,870.01	4,743.43	4,674.25	69.18	68.565		
11,800.00	6,937.75	7,169.50	7,015.43	145.82	38.53	-115.98	443.96	-9,870.04	4,643.53	4,574.23	69.30	67.010		
11,900.00	6,937.45	7,167.65	7,013.58	148.61	38.53	-115.52	443.96	-9,870.07	4,543.63	4,474.22	69.42	65.456		
12,000.00	6,937.15	7,165.78	7,011.72	151.41	38.52	-115.06	443.97	-9,870.10	4,443.74	4,374.20	69.54	63.902		
12,100.00	6,936.85	7,163.92	7,009.85	154.20	38.51	-114.59	443.98	-9,870.14	4,343.85	4,274.18	69.67	62.348		
12,200.00	6,936.55	7,162.00	7,007.98	157.00	38.51	-114.12	444.00	-9,870.17	4,243.96	4,174.26	69.80	60.794		
12,300.00	6,936.25	7,160.00	7,006.00	159.80	38.50	-113.65	444.01	-9,870.20	4,144.07	4,074.35	69.93	59.240		
12,400.00	6,935.96	7,158.00	7,004.00	162.61	38.50	-113.18	444.02	-9,870.23	4,044.19	3,974.44	70.06	57.686		
12,500.00	6,935.66	7,156.00	7,002.00	165.41	38.50	-112.71	444.03	-9,870.26	3,944.30	3,874.53	70.19	56.132		
12,600.00	6,935.36	7,154.00	7,000.00	168.22	38.50	-112.24	444.04	-9,870.29	3,844.41	3,774.62	70.32	54.578		
12,700.00	6,935.06	7,152.00	6,998.00	171.02	38.50	-111.77	444.05	-9,870.32	3,744.52	3,674.71	70.45	53.024		
12,800.00	6,934.76	7,150.00	6,996.00	173.83	38.48	-111.30	444.06	-9,870.35	3,644.63	3,574.80	70.58	51.470		
12,900.00	6,934.46	7,148.00	6,994.00	176.65	38.47	-110.83	444.07	-9,870.38	3,544.74	3,474.91	70.71	49.916		
13,000.00	6,934.17	7,146.00	6,992.00	179.46	38.46	-110.36	444.08	-9,870.41	3,444.85	3,375.02	70.84	48.362		
13,100.00	6,933.87	7,144.00	6,990.00	182.27	38.45	-109.89	444.09	-9,870.44	3,344.96	3,275.13	70.97	46.808		
13,200.00	6,933.57	7,142.00	6,988.00	185.09	38.44	-109.42	444.10	-9,870.47	3,245.07	3,175.24	71.10	45.254		
13,300.00	6,933.27	7,140.00	6,986.00	187.91	38.43	-108.95	444.11	-9,870.50	3,145.18	3,075.35	71.23	43.700		
13,400.00	6,932.97	7,138.00	6,984.00	190.72	38.42	-108.48	444.12	-9,870.53	3,045.29	2,975.46	71.36	42.146		
13,500.00	6,932.67	7,136.00	6,982.00	193.54	38.41	-108.01	444.13	-9,870.56	2,945.40	2,875.57	71.49	40.592		
13,600.00	6,932.38	7,134.00	6,980.00	196.36	38.40	-107.54	444.14	-9,870.59	2,845.51	2,775.68	71.62	39.038		
13,700.00	6,932.08	7,132.00	6,978.00	199.19	38.39	-107.07	444.15	-9,870.62	2,745.62	2,675.79	71.75	37.484		
13,800.00	6,931.78	7,130.00	6,976.00	202.01	38.38	-106.60	444.16	-9,870.65	2,645.73	2,575.90	71.88	35.930		
13,900.00	6,931.48	7,128.00	6,974.00	204.83	38.37	-106.13	444.17	-9,870.68	2,545.84	2,476.01	72.01	34.376		
14,000.00	6,931.18	7,126.00	6,972.00	207.66	38.36	-105.66	444.18	-9,870.71	2,445.95	2,376.12	72.14	32.822		
14,100.00	6,930.88	7,124.00	6,970.00	210.48	38.35	-105.19	444.19	-9,870.74	2,346.06	2,276.23	72.27	31.268		
14,200.00	6,930.59	7,122.00	6,968.00	213.31	38.34	-104.72	444.20	-9,870.77	2,246.17	2,176.34	72.40	29.714		
14,300.00	6,930.29	7,120.00	6,966.00	216.14	38.33	-104.25	444.21	-9,870.80	2,146.28	2,076.45	72.53	28.160		
14,400.00	6,929.99	7,118.00	6,964.00	218.96	38.32	-103.78	444.22	-9,870.83	2,046.39	1,976.56	72.66	26.606		
14,500.00	6,929.69	7,116.00	6,962.00	221.79	38.31	-103.31	444.23	-9,870.86	1,946.50	1,876.67	72.79	25.052		
14,600.00	6,929.39	7,114.00	6,960.00	224.62	38.30	-102.84	444.24	-9,870.89	1,846.61	1,776.78	72.92	23.498		
14,700.00	6,929.09	7,112.00	6,958.00	227.45	38.29	-102.37	444.25	-9,870.92	1,746.72	1,676.89	73.05	21.944		
14,732.12	6,929.00	7,103.06	6,949.00	228.36	38.32	-97.62	444.14	-9,871.07	1,718.38	1,638.12	80.26	21.410 CC, ES, SF		

Company:	SRC ENERGY	Local Co-ordinate Reference:	Well HARVESTERS STATE 4N-16A-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 4N-16A-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 4N-16A-M
 Coordinate System is US State Plane 1983, Colorado Northern Zone
 Grid Convergence at Surface is: 0.48°

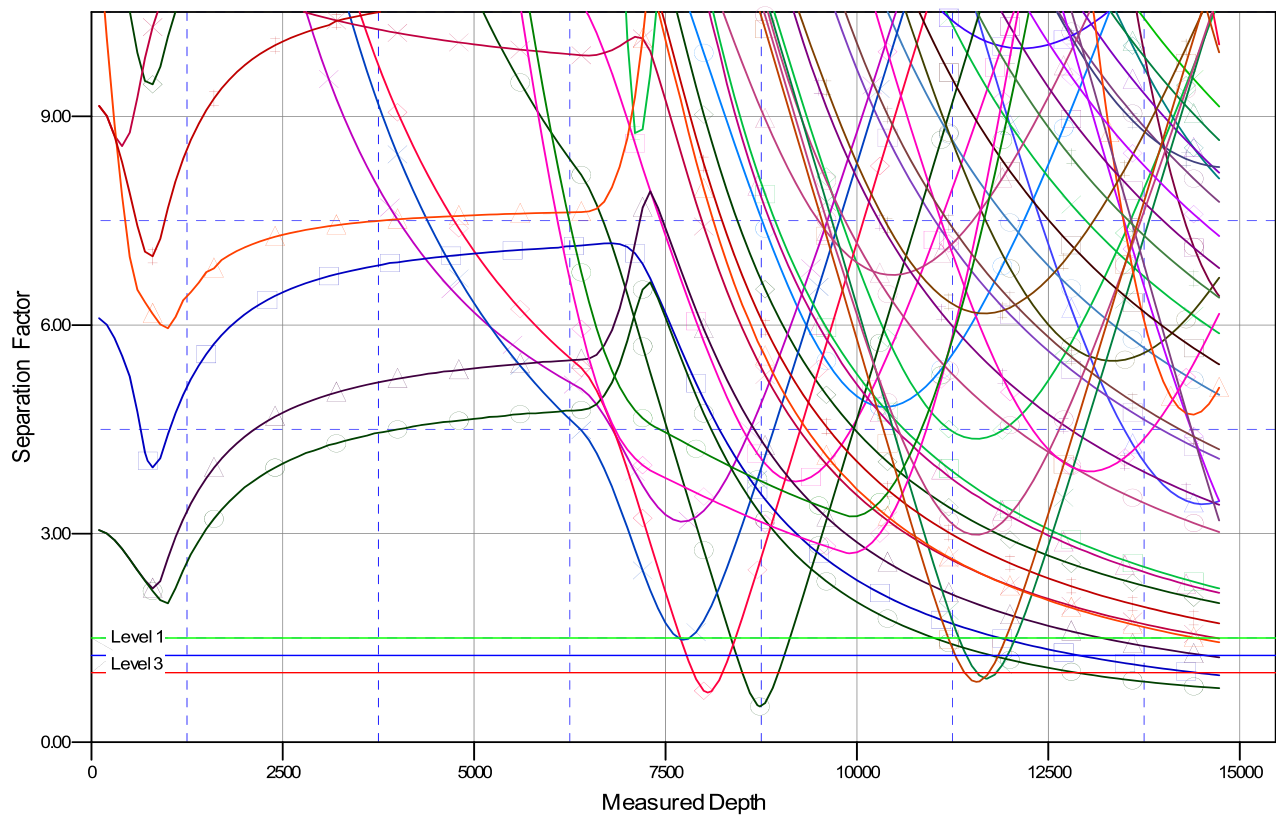


Company:	SRC ENERGY	Local Co-ordinate Reference:	Well HARVESTERS STATE 4N-16A-M
Project:	SECTION 15, T6N, R66W	TVD Reference:	KB @ 4821.00ft
Reference Site:	HARVESTERS STATE 7-15 PAD	MD Reference:	KB @ 4821.00ft
Site Error:	3.28 ft	North Reference:	True
Reference Well:	HARVESTERS STATE 4N-16A-M	Survey 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 4N-16A-M
Coordinate System is US State Plane 1983, Colorado Northern Zone
Grid Convergence at Surface is: 0.48°

Separation Factor Plot



LEGEND

FRITZLER-8-17(PR_150Q,OH,OHV)	STOCKOVER-6-1(PR_75Q,OH,OHV)	HARVESTERS STATE 30N-16BM,OH,PLAN#1V0
LEIFLER-21-2(SL_75Q,OH,OHV)	HARVESTERS-2-5(SL_150Q,OH,OHV)	FRITZLER-7-32-12(PR_150Q,OH,OHV)
LOVELY-149(AE_150Q,OH,OHV)	HARVESTERS STATE 32N-16BM,OH,PLAN#1V0	MAURZEL-LEIFLER-1(AE_150Q,OH,OHV)
HARVESTERS-RESOURCES 15R403(PR_150Q,OH,OHV)	STATE-HOPE-16-2(PR_75Q,OH,OHV)	STATE-HOPE-16-3(PR_150Q,OH,OHV)
BURBACH-15-23(SL_150Q,OH,OHV)	HARVESTERS STATE 5N-16BM,OH,PLAN#1V0	MOGLOTH-17-11(PR_75Q,OH,OHV)
HARVESTERS STATE 13C-16-M,OH,PLAN#1V0	FRITZLER-17(PR_150Q,OH,OHV)	HARVESTERS STATE 33N-16BM,OH,PLAN#1V0
LUCAS SCHOOL 1(TA_150Q,OH,OHV)	HARVESTERS STATE 32C-16M2,OH,PLAN#1V0	RUTT-ADAMS-HERS-2-22,OH,OHV)
HARVESTERS STATE 32N-16BM,OH,PLAN#1V0	HOOD-220(PR_150Q,OH,OHV)	LOVELY-1(AE_150Q,OH,OHV)
HARVESTERS STATE 5N-16BM,OH,PLAN#1V0	LEFTER-20N-23B-L(SRCP,PLAN_75Q,OH,PLAN#1V0)	STATE-BENTLEY-32-16(PR_75Q,OH,OHV)
LUCAS SCHOOL 34-9(TA_150Q,OH,OHV)	FRITZLER-7-23-18(PR_150Q,OH,OHV)	HARVESTERS STATE 12N-16BM,OH,PLAN#1V0
FRITZLER-1-21(PR_150Q,OH,OHV)	MOGLOTH-16-6-17(PR_150Q,OH,OHV)	HARVESTERS STATE 4N-16BM,OH,PLAN#1V0
HARVESTERS STATE 12N-16BM,OH,PLAN#1V0	DONN-ON-20B-L(SRCP,PLAN_75Q,OH,PLAN#1V0)	FALKEN-9C-L(SRCP,PLAN_75Q,OH,PLAN#1V0)
BLACKGOLD-AB_150Q,OH,OHV)	FRITZLER-7-42-11(PR_150Q,OH,OHV)	BURMAN-16-42(PR_75Q,OH,OHV)
FRITZLER-1-21-4(PR_150Q,OH,OHV)	HARVESTERS STATE 34C-16M,OH,PLAN#1V0	HARVESTERS STATE 4C-16-M,OH,PLAN#1V0
LEFTER-20C-23-L(SRCP,PLAN_75Q,OH,PLAN#1V0)	HARVESTERS STATE 13N-16BM,OH,PLAN#1V0	DONN-ON-20A-L(SRCP,PLAN_75Q,OH,PLAN#1V0)
HARVESTERS-RESOURCES 15M423(PR_150Q,OH,OHV)	STATE-HOPE-16-1(CS_75Q,OH,OHV)	FALKEN-9C-9-L(SRCP,PLAN_75Q,OH,PLAN#1V0)
ULRICH-17-07(PR_75Q,OH,OHV)	GRIELEY-SW-10(X,OH,OHV)	HOOD-41-2(PR_150Q,OH,OHV)
MONTERA-10-34(PR_75Q,OH,OHV)	HARVESTERS STATE 31N-16BM,OH,PLAN#1V0	FRITZLER-8-17(PR_150Q,OH,OHV)
BURMAN-16-43(PR_75Q,OH,OHV)	HARVESTERS STATE 31C-16M,OH,PLAN#1V0	HARVESTERS STATE 34N-16BM,OH,PLAN#1V0
BURBACH-15-22(SL_150Q,OH,OHV)	HARVESTERS-RESOURCES 15R43(PR_150Q,OH,OHV)	BLACKGOLD-PETROLEUM 1(PR_150Q,OH,OHV)
HARVESTERS STATE 12N-16BM,OH,PLAN#1V0	FRITZLER-6-17(PR_150Q,OH,OHV)	HARVESTERS STATE 32C-16M,OH,PLAN#1V0
HARVESTERS STATE 15M423(PR_150Q,OH,OHV)	LEFTER-17-11-2(PA_75Q,OH,OHV)	HARVESTERS STATE 33C-16M,OH,PLAN#1V0
SENA-15-24(PR_75Q,OH,OHV)	HARVESTERS-1-15(SL_150Q,OH,OHV)	HARVESTERS STATE 33N-16BM,OH,PLAN#1V0
SENA-15-25(PR_75Q,OH,OHV)	ULRICH-17-08(PR_75Q,OH,OHV)	FRITZLER-8-17(PR_150Q,OH,OHV)
SENA-15-21(PR_75Q,OH,OHV)	FRITZLER-8-17(PR_150Q,OH,OHV)	BERRY-23-2(PR_75Q,OH,OHV)